07-15-2022 SPECIAL LETTING ITEM 012

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	1
	ILLINOIS	CONTRACT NO. 68G71		

INDEX OF SHEETS

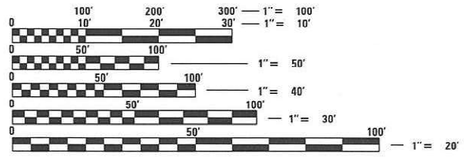
1. COVER SHEET
2. GENERAL NOTES, MIXTURE REQUIREMENTS, AND STATUS OF UTILITIES
3. PROJECT SPECIFIC NOTES & TIE POINTS
4.–7. SUMMARY OF QUANTITIES
8. SCHEDULE OF QUANTITIES
9. PROPOSED PLAN
10. SHOULDER WIDENING DETAIL
11. ELECTRICAL CONDUIT REPAIR
12.–13. TRAFFIC CONTROL STAGING DETAILS
14.–27. STRUCTURE NO. 094–0028 REPAIR PLANS
28.–29. DISTRICT STANDARDS

LIST OF STANDARDS

000001-08	701106-02
001001-02	701201-05
001006	701301-04
606301-04	701321-18
630001-12	701400-11
635001-02	701401-13
701001-02	701456-05
701006-05	701901-08
701011-04	704001-08
701101-05	725001-01
	782006-01

DESIGN DESIGNATION

CAMERON RD	US 34
MAJOR COLLECTOR	EXPRESSWAY
AADT = 775	AADT = 9700
POSTED SPEED = 55 MPH	S.U. = 2.11%
	M.U. = 14.43%
	POSTED SPEED = 65 MPH



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

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

PROJECT ENGINEER: NICOLE FAYANT (309) 671–3454
PROJECT MANAGER: TRAVIS WALLENFANG (309) 671–3474

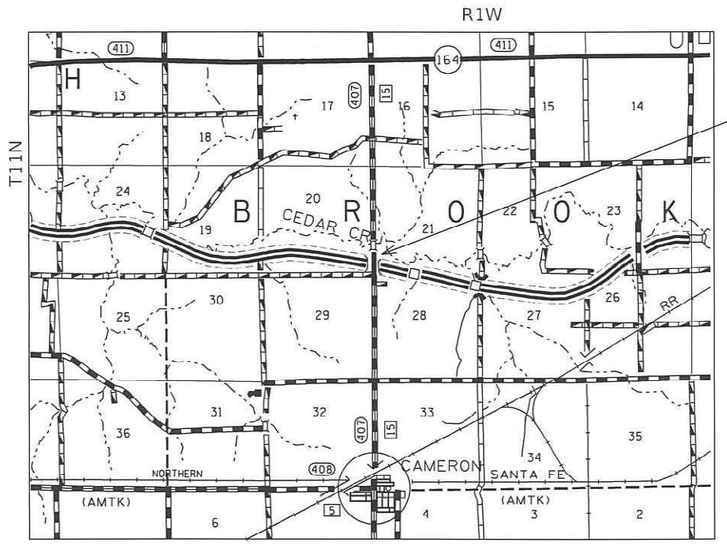
CATALOG NO. 036258–00D
CONTRACT NO. 68G71

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAP ROUTE 313 (IL 110 /US 34)
SECTION (94–16HB–1)BDR,BJR,BRR
PROJECT NHPP–NA2W(012)
BRIDGE PRESERVATION
WARREN COUNTY

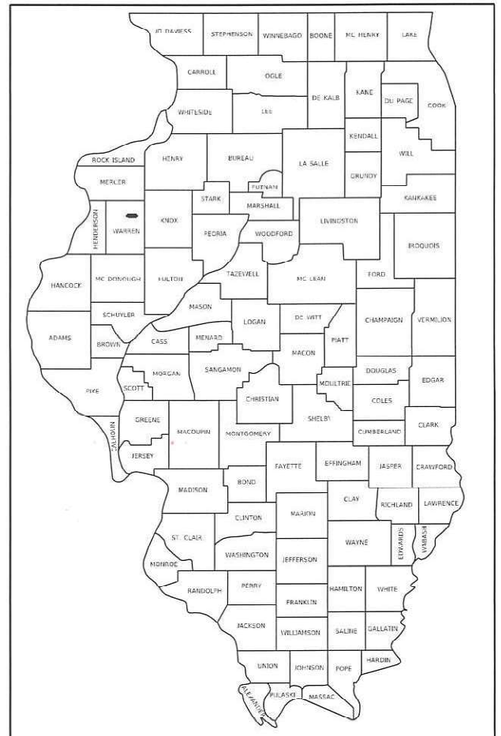
C–94–095–21



PROJECT LOCATION:
SN 094–0028
CAMERON RD OVER US 34

GROSS LENGTH = 800 FT. = 0.15 MILE
NET LENGTH = 800 FT. = 0.15 MILE

D-94-073-21



LOCATION OF SECTION INDICATED THUS: –

Bridge rehabilitation to SN 094-0028 carrying Cameron Rd over US 34. Work includes bridge deck waterproofing, deck overlay, joint replacement, miscellaneous repairs, and other collateral work as necessary.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED April 21 20 22
Kensil A Garnett PSD
REGIONAL ENGINEER

June 10, 2022
ENGINEER OF DESIGN AND ENVIRONMENT

June 10, 2022
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

COMMITMENTS

No commitments have been made for this project

AVAILABILITY OF ELECTRONIC FILES

MicroStation and GEOPAK files of this project will be made available to the Contractor after contract award. If there is a conflict between the electronic files and the printed contract plans and documents, the printed contract plans and documents shall take precedence over the electronic files. The Contractor shall accept all risk associated with using the electronic files and shall hold the Department harmless for any errors or omissions in the electronic files and the data contained therein. Errors or delays resulting from the use of the electronic files by the Contractor shall not result in an extension of time for any interim or final completion date or shall not be considered cause for additional compensation. The Contractor shall not use, share, or distribute these electronic files except for the purpose of constructing this contract. Any claims by third parties due to use or errors shall be the responsibility of the Contractor. The Contractor shall include this disclaimer with the transfer of these electronic files to any other parties and shall include appropriate language binding them to similar responsibilities.

ENVIRONMENTAL REVIEWS

Prior to the use of any proposed borrow areas, use areas (temporary access roads, detours, run–arounds, etc.) and/or waste areas, the Contractor shall file the required environmental resource request surveys according to Section 107.22 of the Standard Specifications. These surveys are required in order for the Department to conduct cultural and biological resource surveys for the proposed site.

The required environmental resource documentation shall include the following:

* BDE Form 2289 (Borrow Site Review)
* BDE Form 2290 (Waste/Use Area Review)
* A location map showing the size limits and location of the use area
* Color photographs depicting the use area
* Borrow Area Entry Agreement form – D4 PI0101

Prior to any waste materials being removed from the construction site the required environmental resource surveys shall be obtained and filed by the Contractor. Excess waste products removed from the construction site shall be disposed of as required in Section 202.03 of the Standard Specifications.

Any protruding metal bars shall be removed prior to the disposal of broken concrete at approved disposal sites.

Please note that a minimum of four weeks shall be allowed for the District to obtain the required waste site environmental clearances and six weeks for the required borrow site environmental clearances.

BRIDGE OVERLAY NOTIFICATION

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

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) RATES

Surface Type	Residual Rate
Milled (HMA or PCC)	0.08 lb /sq ft
Existing Pavement	0.08 lb /sq ft
Fog Coat (between lifts)	0.08 lb /sq ft

HOT–MIX ASPHALT MIXTURE REQUIREMENTS

Mixture Use(s):	Bridge Deck Overlay (1.5")	HMA SHOULDER / BASE COURSE, 8" Surface Lift (1 3/4")	HMA SHOULDER / BASE COURSE, 8" Lower Binder Lifts (4", 2 1/4")
AC/PG:	58–28	58–28	58–28
Design Air Voids:	4.0% N=50	4.0% N=50	4.0% N=50
Mixture Composition: (Mixture Gradation):	IL 9.5	IL 9.5	IL 19.0
Friction Aggregate:	Mix D	Mix C	N.A.
Quality Management Program:	QCQA	QCQA	QCQA
MTD (YES OR NO):	No	No	No

Notes:
1) Individual lift thickness of each mix type will be no less than 3 times nominal maximum aggregate size and no more than 6 times nominal maximum aggregate size, unless otherwise approved by the Engineer.
2) For design purposes, mixture weight for all mixes is determined to be 112.0 lb/s.y./in., unless otherwise noted.
3) Sublot size for PFP and QCP mixes will be 600 tons, unless otherwise agreed to by the Engineer and the paving contractor.

STATUS OF UTILITIES

Company	Route	Offset	Location	Depth	Type of Utility	Type of Conflict	Disposition
Lumen	Cameron Rd	Lt 30'-130'	Sta. 16+00 to 17+00 Sta. 23+00 to 24+00	Unknown	Buried Asset	Shoulder Widening	Caution
Nova	Cameron Rd	Rt 110'-120'	Sta. 15+00 to 25+00	25' at Ramps	Buried Asset	n/a	n/a
IDOT	Cameron Rd	Lt 30'-130' Rt 30'-130'	Lt Sta. 16+00 to 17+00 Rt Sta. 23+00 to 24+00	Unknown	Buried - Electric	Shoulder Widening	Caution

USER NAME = $USER$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN -	REVISED -	
PLOT SCALE = 1:100	CHECKED -	REVISED -	
PLOT DATE = 4/22/2022	DATE -	REVISED -	

GENERAL NOTES, MIXTURE REQUIREMENTS, AND STATUS OF UTILITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	2
		CONTRACT NO. 68G71		
		ILLINOIS FED. AID PROJECT		

PROJECT SPECIFIC NOTES

STONE RIPRAP, CLASS B4

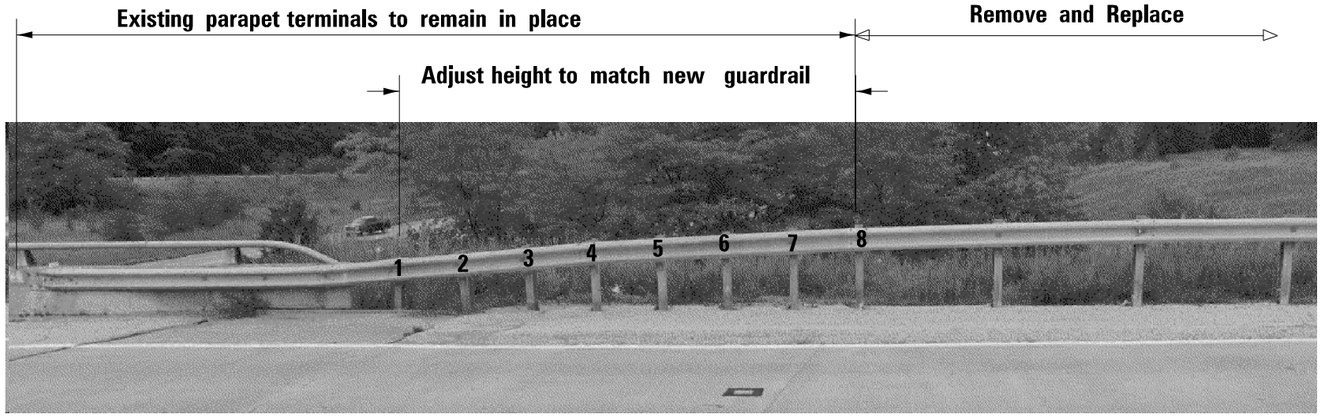
No additional payment will be made for removal and disposal of existing riprap, excavation, or grading & shaping necessary to place proposed riprap to the limits shown; but shall be considered included in the cost of this pay item.

TEMPORARY BRIDGE TRAFFIC SIGNALS

A total of eight (8) signal heads shall be required for the proposed temporary traffic signal installation for TC&P 701321 (Special) as follows:

- Two (2) controlling northbound Cameron Rd
- Two (2) controlling southbound Cameron Rd
- Two (2) controlling Ramp C to NB Cameron Rd
- Two (2) controlling Ramp A to SB Cameron Rd

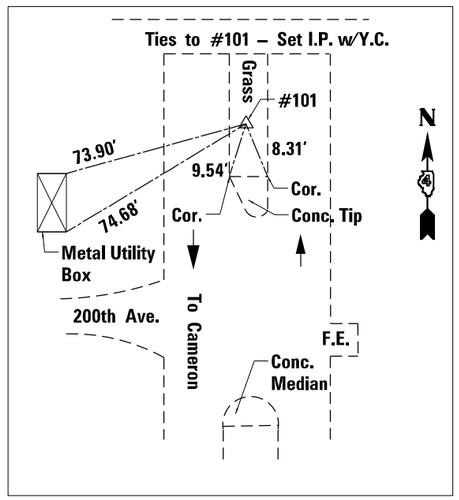
Typical Guardrail Treatment at Structure



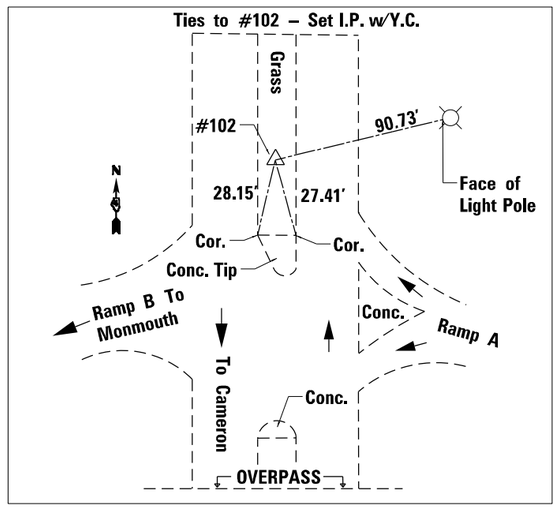
Adjustment of barrier & posts to remain in place will not be paid for separately but are considered included in the cost of STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

TIE POINTS

Survey FB 3011



POINT 101
N = 1548556.531
E = 2199607.368
EL = 754.069



POINT 102
N = 1549663.042
E = 2199616.429
EL = 734.573

MODEL: Default
FILE NAME: pw:\\dot-pw.bentley.com:PWDOT Documents\DOT Offices\District 4\Project\D4_68G71\CADData\CADSheets\D468G71-sht-gennote.dgn

USER NAME = $USER$	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 1:100	CHECKED -	REVISED -	
PLOT DATE = 4/21/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT SPECIFIC NOTES & TIE POINTS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	3
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 80% FED 20% STATE BRIDGE 0047 SN 094-0028
28100127	STONE RIPRAP, CLASS B4	SQ YD	225.6	225.6
28200200	FILTER FABRIC	SQ YD	225.6	225.6
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	1403	1403
40604060	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	144	144
44003100	MEDIAN REMOVAL	SQ FT	1527	1527
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	300.6	300.6
50102400	CONCRETE REMOVAL	CU YD	10.3	10.3
50300225	CONCRETE STRUCTURES	CU YD	16.3	16.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	11	11
50300300	PROTECTIVE COAT	SQ YD	86	86
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3830	3830
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5620	5620
52000110	PREFORMED JOINT STRIP SEAL	FOOT	131	131
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18	18

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1:100	CHECKED -	REVISED -
PLOT DATE = 4/21/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	4
		CONTRACT NO. 68G71		
	ILLINOIS FED. AID PROJECT			

REV. 6/8/22

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 80% FED 20% STATE BRIDGE 0047 SN 094-0028
	52100520	ANCHOR BOLTS, 1"	EACH	36	36
	58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	1706	1706
	60622800	CONCRETE MEDIAN, TYPE SM-6.12	SQ FT	1527	1527
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	250	250
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2
	63200310	GUARDRAIL REMOVAL	FOOT	355	355
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4
	67100100	MOBILIZATION	L SUM	1	1
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
	70100800	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	L SUM	1	1
	70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1	1
	70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10
	70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
	70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6

*= SPECIALTY ITEM

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1:100	CHECKED -	REVISED -
PLOT DATE = 4/21/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	5
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

REV. 5/23/22

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 80% FED 20% STATE BRIDGE 0047 SN 094-0028
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	28	28
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1273	1273
	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	2500	2500
	70307210	TEMPORARY PAVEMENT MARKING - LINE 24"- TYPE IV TAPE	FOOT	220	220
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	500	500
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500	500
	70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
	70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
*	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2
*	78001100	PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	62.4	62.4
*	78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	3147	3147
*	78001140	PAINT PAVEMENT MARKING - LINE 8"	FOOT	400	400
*	78001180	PAINT PAVEMENT MARKING - LINE 24"	FOOT	44	44
*	78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	6	6

*= SPECIALTY ITEM

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1:100	CHECKED -	REVISED -
PLOT DATE = 4/21/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	6
		CONTRACT NO. 68G71		
	ILLINOIS FED. AID PROJECT			

REV. 5/23/22

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE 80% FED 20% STATE BRIDGE 0047 SN 094-0028
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1466.1	1466.1
*	X0327739	MISCELLANEOUS ELECTRICAL WORK	L SUM	1	1
	X0800001	SHOULDER REMOVAL (SPECIAL)	SQ YD	300.6	300.6
	X4400110	TEMPORARY PAVEMENT REMOVAL	SQ YD	169.7	169.7
	X7010202	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1
	Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	91.6	91.6
	Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	18	18
	Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	1841	1841
	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	32	32
	Z0015595	DECK DRAIN EXTENSIONS	EACH	16	16
	Z0015802	PLUG EXISTING DECK DRAINS	EACH	8	8
	Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	60	60
	Z0062456	TEMPORARY PAVEMENT	SQ YD	169.7	169.7

*= SPECIALTY ITEM

USER NAME = $USER$	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 1:100	CHECKED -	REVISED -	
PLOT DATE = 4/21/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	7
		CONTRACT NO. 68G71		
	ILLINOIS FED. AID PROJECT			

REV. 5/23/22

MOBILIZATION	
LOCATION	L SUM
JOBSITE	1

ENGINEER'S FIELD OFFICE, TYPE A	
LOCATION	CAL MONTHS
JOBSITE	4

TRAFFIC CONTROL SURVEILLANCE	
LOCATION	CAL DAYS
JOBSITE	10

MISC ELECTRICAL WORK	
LOCATION	L SUM
JOBSITE	1

CHANGEABLE MESSAGE SIGN	
LOCATION	CAL DAY
CAMERON RD	14
US 34	14
TOTAL	28

TRAFFIC CONTROL & PROTECTION STANDARDS				
LOCATION	TC&P STANDARD, 701321 (SPECIAL)	TC&P STANDARD, 701201	TC&P STANDARD, 701401	TC&P STANDARD 701456
	EACH	L SUM	L SUM	L SUM
CAMERON RD.	1	1		1
US 34			1	

PAVEMENT MARKINGS								
LOCATION		4 INCH		8 INCH	24 INCH	LETTERS & SYMBOLS		
STATION FROM:	STATION TO:	WHITE	YELLOW	WHITE	WHITE	TYPE	QTY	SQ FT
16+25.00	23+67.00	1484						
16+62.00	18+62.00			200		LEFT ARROW (LG)	2	31.2
21+34.00	23+34.00			200		LEFT ARROW (LG)	2	31.2
16+62.00	23+24.00		1324					
RAMP A			80		22			
RAMP B			104					
RAMP C			70		22			
RAMP D			85					
TOTAL		3147		400	44	62.4		
PAINT PAVEMENT MARKINGS		3147		400	44	62.4		
PVMT MARKING REM - WATER BLASTING		1466.1 SQ FT						

TRAFFIC CONTROL						
	TEMPORARY CONCRETE BARRIER	TEMPORARY BRIDGE TRAFFIC SIGNALS	TEMPORARY RUMBLE STRIPS	IMPACT ATTN, TEMPORARY (NON-REDIRECTIVE) TL3	RELOCATE TCB	RELOCATE IMPACT ATTENUATORS
LOCATION	FT	EACH	EACH	EACH	FT	EACH
CAMERON RD OVER US 34	500	1	6	2	500	2

GUARDRAIL SCHEDULE								
LOCATION	SIDE	LENGTH	GUARDRAIL REM	SPBG TYPE A, 6 FT POSTS	TBT TYPE 1 (SPL) TANGENT	GUARDRAIL AGG EROSION CONTROL	GUARDRAIL REFLECTORS, TYPE A	TERMINAL MARKER DIRECT APPLIED
	RT/LT	FOOT	FOOT	FOOT	EACH	TON	EACH	EACH
STA. 16+48.72 to 18+63.72	RT	215.0	177.5	125.0	1	45.8	3	1
STA. 21.34.76 to 23+49.76	LT	215.0	177.5	125.0	1	45.8	3	1
TOTAL			355.0	250	2	91.6	6	2

EROSION CONTROL					
LOCATION	Length	Width	Area	Stone Riprap, Class B4	Filter Fabric
	FT	FT	SQ YD	SQ YD	SQ YD
North Abutment - East Wall	65	7	50.56	50.56	50.56
North Abutment - West Wall	65	7	50.56	50.56	50.56
South Abutment - East Wall	80	7	62.22	62.22	62.22
South Abutment - West Wall	80	7	62.22	62.22	62.22
TOTAL			225.56	225.6	225.6

MEDIAN WORK FOR STAGING								
LOCATION		LENGTH	WIDTH	AREA	MEDIAN REMOVAL	TEMPORARY PAVEMENT, 8''	TEMPORARY PAVEMENT REMOVAL	PCC MEDIAN, TYPE SM-6.12
FROM STA	TO STA	FT	FT	SQ FT	SQ FT	SQ YD	SQ YD	SQ FT
16+74.40	17+97.70	123.3	6	739.8	739.8	82.2	82.2	739.8
21+92.30	23+23.50	131.2	6	787.2	787.2	87.5	87.5	787.2
TOTAL				1527	1527	169.7	169.7	1527

SHOULDER WIDENING					
LOCATION	AREA	AREA	SHOULDER REMOVAL (SPECIAL)	HMA SHOULDER, 8"	POLYMERIZED BITUMINOUS MATL TACK
	SQ FT	SQ YD	SQ YD	SQ YD	LBS
RAMP A	660	73.3	73.3	73.3	158.40
RAMP B	770	85.6	85.6	85.6	184.80
RAMP C	530	58.9	58.9	58.9	127.20
RAMP D	745	82.8	82.8	82.8	178.80
TOTAL	2705	300.6	300.6	300.6	649.2 *

***Roadway Total**
Structure Qty = 1,403 LBS
Project Total = 2,052 LBS

TEMPORARY PAVEMENT MARKING - TYPE IV TAPE			
LOCATION		4 INCH	24 INCH
STATION FROM:	STATION TO:	FT	FT
16+39.00	23+70.00	1250	
15+63.9			30
24+45.4			36
RAMP A			22
RAMP C			22
Subtotal		1250	110
TOTAL (2 STAGES)		2500	220
SHORT TERM PVT MKG REM (SQ FT)		1273.3	

See sheets 12–23 for Bridge Preservation quantities
Total Bill of Materials on sheet 12

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1:100	CHECKED -	REVISED -
PLOT DATE = 4/21/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	8
		CONTRACT NO. 68G71		
		ILLINOIS	FED. AID PROJECT	

LEGEND

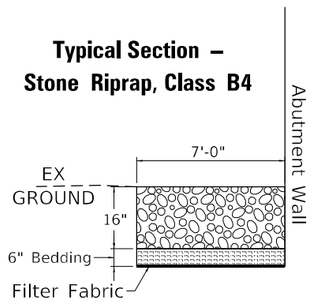
1. Existing signs shall be relocated a minimum of 6' from edge of widened shoulder
2. See Project Specific Notes sheet 3

See "Detail A"

See "Detail B"

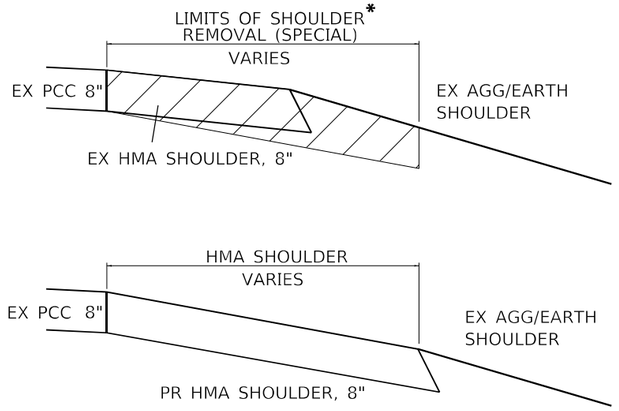
Stone Riprap, Class B4

Typical Section – Stone Riprap, Class B4



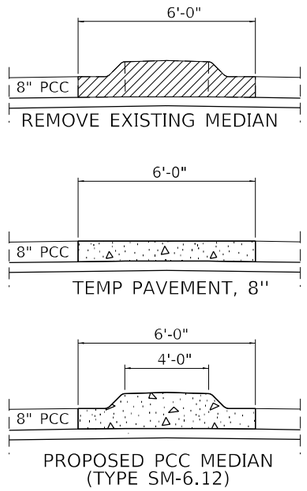
DETAIL A – SHOULDER WIDENING TYPICAL

Shoulder widening must be completed prior to beginning staged work on the structure



***See following sheet for widening widths**

DETAIL B – MEDIAN REMOVAL & REPLACEMENT



PRE-STAGE
1. Remove existing median to limits shown
2. Place Temporary Pavement*

POST-STAGE
1. Remove Temporary Pavement
2. Construct PCC Median Type SM 6.12

*See Special Provision "Temporary Pavement"

USER NAME = $USER$	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 1:100	CHECKED -	REVISED -
PLOT DATE = 4/21/2022	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN
CAMERON RD. OVER US 34

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	9
		CONTRACT NO. 68G71		
	ILLINOIS FED. AID PROJECT			

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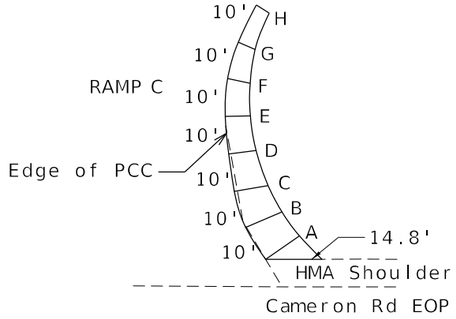
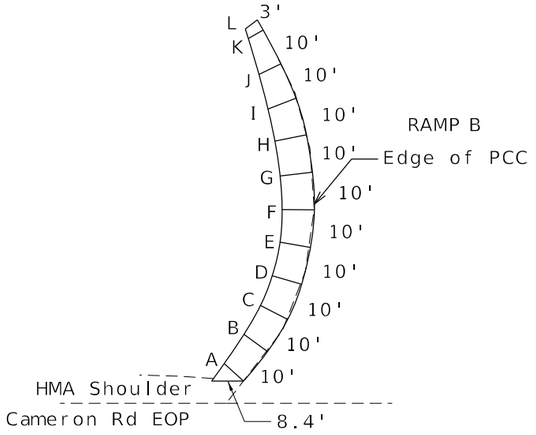
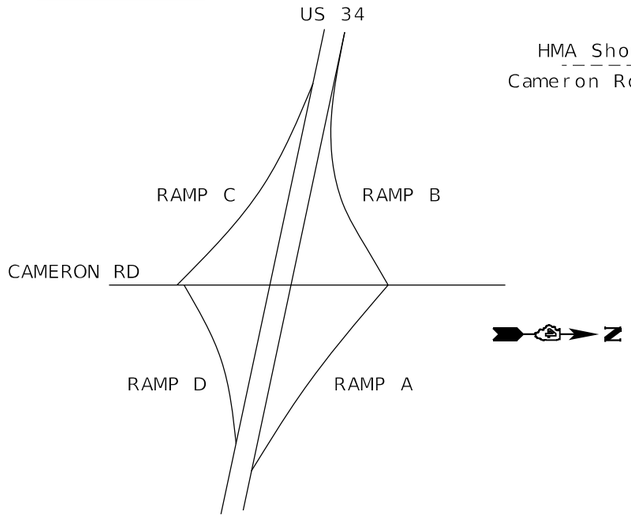
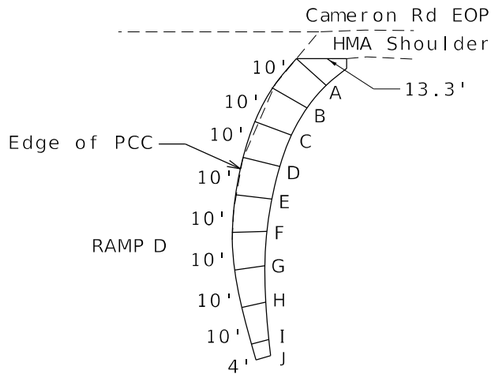


RAMP C	
POINT	WIDTH (FT)
A	10.8
B	10.5
C	9.1
D	7.3
E	6.6
F	6.1
G	4.8
H	4.0

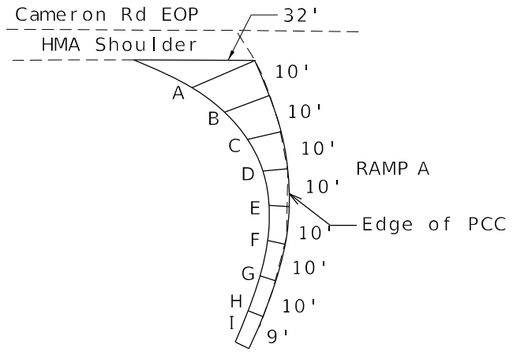


RAMP B	
POINT	WIDTH (FT)
A	6.9
B	7.7
C	8.1
D	8.1
E	8.2
F	8.5
G	8.5
H	8.5
I	7.9
J	6.5
K	4.5
L	4.0





RAMP D	
POINT	WIDTH (FT)
A	10.5
B	10.7
C	10.4
D	10.0
E	9.7
F	9.2
G	8.0
H	6.4
I	4.7
J	4.0



RAMP A	
POINT	WIDTH (FT)
A	18.0
B	12.6
C	9.1
D	6.6
E	5.3
F	4.8
G	4.4
H	4.1
I	4.0

NOTE: WIDTHS MEASURED PERPENDICULAR FROM EDGE OF PCC PAVEMENT

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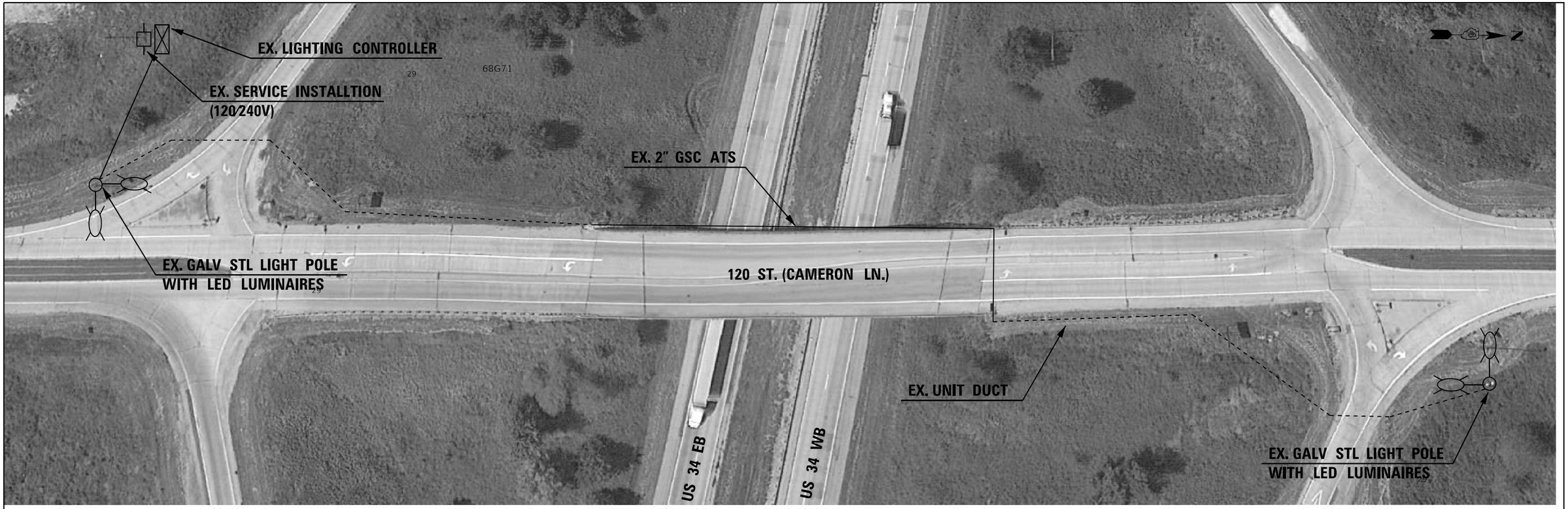
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHOULDER WIDENING
LAYOUT DETAIL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	10
		CONTRACT NO. 68G71		
	ILLINOIS FED. AID PROJECT			



CONSTRUCTION NOTES	
1.	EXISTING UTILITY LOCATION INFORMATION IS NOT SHOWN ON THE PLAN SHEETS. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES PRIOR TO THE INSTALLATION OF ANY COMPONENTS. THE CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS AND TERRAIN PRIOR TO COMMENCING WORK ON THE PROJECT.
2.	THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
3.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
4.	ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
5.	THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03.
6.	ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
7.	THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS.
8.	ANY MAINTENANCE OF EXISTING ELECTRICAL FACILITIES WILL BE CONSIDERED EXTRA WORK IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
9.	THE EXISTING LIGHTING SYSTEM SHALL REMAIN OPERATIONAL AT ALL TIMES.
10.	THE CONTRACTOR SHALL REMOVE ALL DAMAGED CONDUIT FITTINGS AND FLEXIBLE CONDUITS FROM THE CONDUITS ATTACHED TO THE BRIDGE AND INSTALL NEW GALVANIZED STEEL FITTINGS AND FLEXIBLE CONDUITS. THE CONTRACTOR SHALL ENSURE THAT THE CONDUIT AND ASSOCIATED FITTINGS DO NOT HAVE ANY HOLES OR GAPS THAT WOULD ALLOW RODENTS TO ENTER INTO THE CONDUIT SYSTEM. THE CONTRACTOR SHALL CUT THE EXISTING ELECTRICAL CABLES AS REQUIRED TO FACILITATE REPAIRS AND SPLICE THE CABLES BACK TOGETHER AFTER THE REPAIRS HAVE BEEN MADE. THE CONTRACTOR SHALL MINIMIZE THE NUMBER OF CABLE SPLICES AND ALL SPLICES SHALL BE MADE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS WHICH SPECIFY THE USE OF COMPRESSION FITTINGS, HEAT SHRINK, AND WATERPROOF TAPE. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS REQUIRED FOR THE REPAIRS INCLUDING BUT NOT LIMITED TO CONDUIT FITTINGS, FLEXIBLE CONDUIT, WIRE, HARDWARE, BRACKETS, AND CONDUIT. THE CONTRACTOR SHALL ENSURE THAT THE CONTINUITY OF THE GROUND SYSTEM REMAINS INTACT. ALL WORK SHALL BE PERFORMED TO THE SATISFACTION OF THE RESIDENT ENGINEER. THIS WORK SHALL BE PAID FOR AS "MISCELLANEOUS ELECTRICAL WORK".

BILL OF MATERIALS - US 34 & CAMERON LN.		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
MISCELLANEOUS ELECTRICAL WORK	LSUM	1.0

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	DRAWN -	REVISED -			
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	11
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

Traffic control for staged bridge work shall be in accordance with Highway Standard 701321 and as detailed here.

Details provided are intended to identify the location and limits of the following items due to site specific conditions:
- Temporary Concrete Barrier
- Traffic delineators (drums)
- Temporary Traffic Signals
- Stop Bars

Existing pavement markings within limits of proposed temporary stopbars to be removed.
Temporary pavement markings shall be Type IV Tape.

Work Area

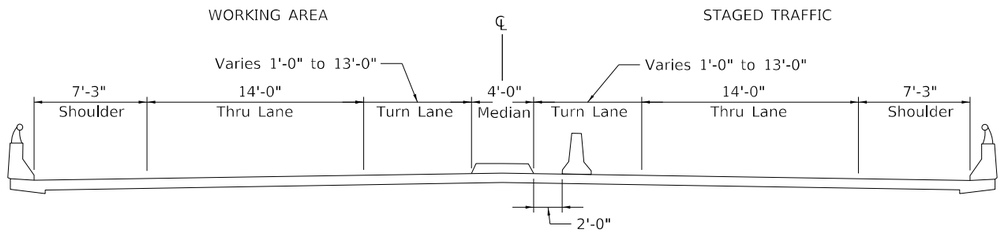
Sign

Drums with steady burning lights @ 25' cts.

Temporary Concrete Barrier

Impact Attenuator

Traffic Signal



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL 701321 (SPECIAL)
STAGE 1

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	12
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

Traffic control for staged bridge work shall be in accordance with Highway Standard 701321 and as detailed here.

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- Temporary Concrete Barrier
- Traffic delineators (drums)
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Work Area

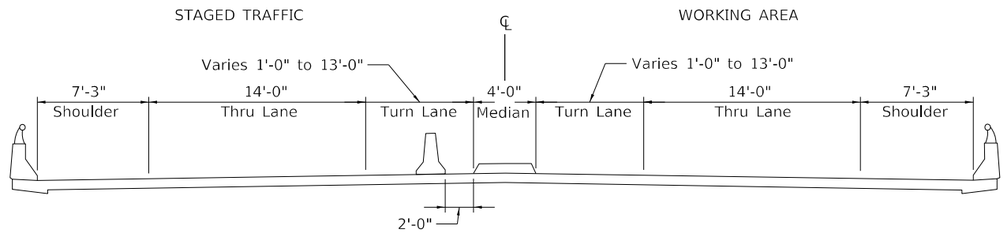
Sign

Drums with steady burning lights @ 25' cts.

Temporary Concrete Barrier

Impact Attenuator

Traffic Signal



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	DRAWN -	REVISED -	
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PLOT DATE = 4/21/2022	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL 701321 (SPECIAL)
STAGE 2

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	13
		CONTRACT NO. 68G71		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Top of R.O.W. marker, 35' Lt. of Station 12+25 on IL 110, Elev. 756.14

Existing Structure: SN 094-0028 was originally constructed in 1979 as a 2 span continuous composite welded plate girder bridge with prestressed concrete beam voided abutments, 275'-3" back-to-back of approach bents, and a 64'-0" width out-to-out reinforced concrete deck. The bridge substructures are supported by steel H piles.

Salvage: None.

DESIGN STRESSES

Field Units - Existing Structure (1979 Construction)
fy = 20,000 psi (AASHTO M183)
Deck Slab (Load Factor Design)
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
Substructure, Curb, and Parapters (Service Load Design)
f'c = 1,400 psi
fy = 20,000 psi (Reinforcement)

Precast Prestressed Units - Existing Structure (1979 Construction)
f'c = 5,000 psi
f'ci = 4,000 psi
f's = 270,000 psi (1/2" Ø strands)
f'si = 189,000 psi (1/2" Ø strands)

Field Units - New Construction
f'c = 4,000 psi (superstructure concrete)
f'c = 3,500 psi (substructure concrete)
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (M270 Grade 36)

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44

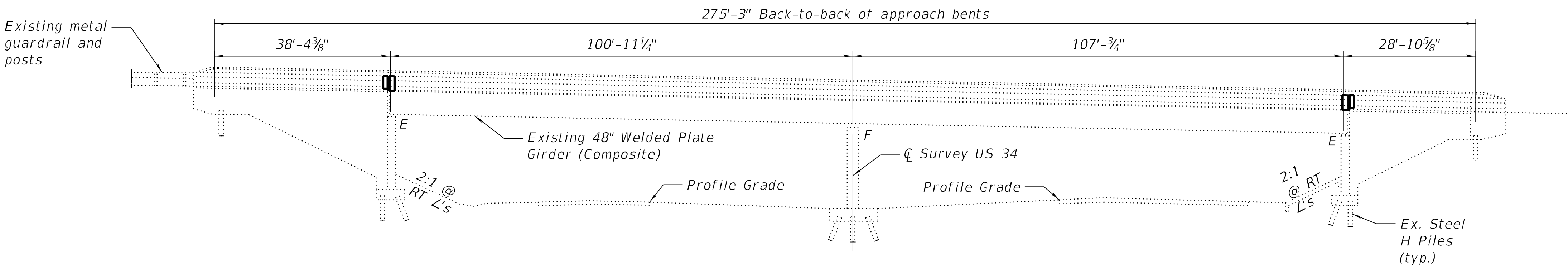
Allow 25#/sq.ft. for future wearing surface

INDEX OF SHEETS

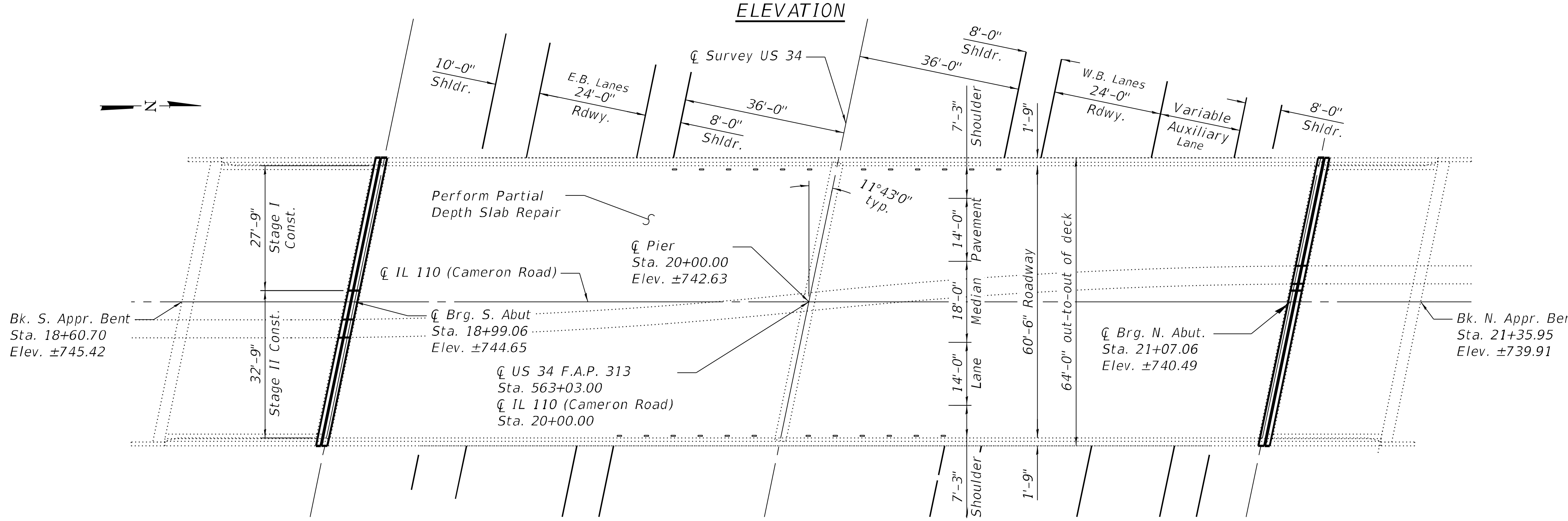
1 - General Plan & Elevation
2 - General Data
3 - Temporary Concrete Barrier
4 - Concrete Removal Details
5 - Superstructure
6 - Superstructure Details
7 - Superstructure Typical Sections
8 - Preformed Joint Strip Seal
9 - Deck Drain Plan and Details
10 - Bearing Details
11 - South Abutment Repair
12 - North Abutment Repair
13 - Pier Crashwall Extensions
14 - Bar Splicer Assembly and Mechanical Splicer Details

SCOPE OF WORK

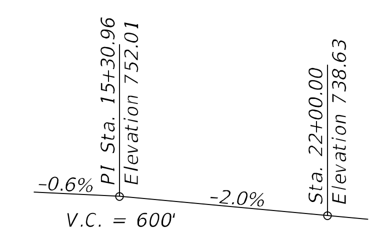
To be completed under stage construction.
1. Replace existing bearings at abutments.
2. Repair bridge deck.
3. Reconstruct deck joints at each abutment with preformed joint strip seal.
4. Modify deck drains.
5. Install new waterproofing and HMA overlay.
6 Repair abutments.
7. Extend existing pier crashwall.
8. Upgrade & reconnect guardrail transitions (See Roadway Plans).



ELEVATION

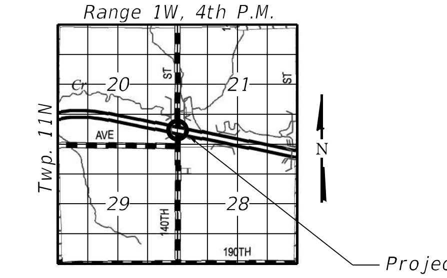


PLAN



PROFILE GRADE
(Along ℄ IL 110 Cameron Road)

Range 1W, 4th P.M.



Project Location

LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL 110 CAMERON RD OVER US 34
F.A.P. 313
SEC. (94-16HB-1)BRR,BJR
WARREN COUNTY
STATION 563+03.00
STRUCTURE NO. 094-0028

STATE OF ILLINOIS JIA WANG 081-006586 CHICAGO LICENSED STRUCTURAL ENGINEER

Signed:

Dated: 06/08/2022

Illinois Structural Engineer
No. 081-006586
License Expires: 11-30-2022

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Kaskaskia Engineering Group, LLC

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	CHECKED - JW	REVISED -
PLOT SCALE =	DRAWN - MLC	REVISED -
PLOT DATE =	CHECKED - JW	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 094-0028
SHEET 1 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	14
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

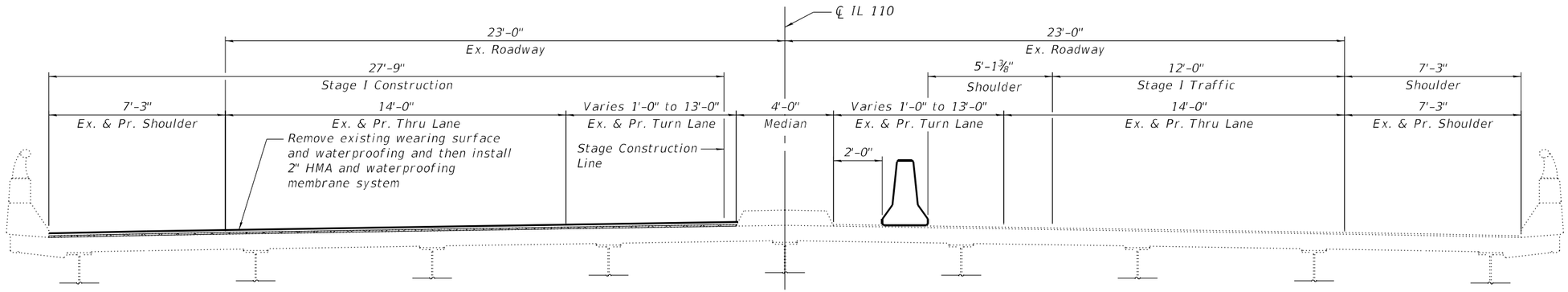
GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. 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.
3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contactor 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.
4. Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications at ambient temperature other than 50°F.
5. Quantity of Deck Slab Repair (Partial) shown on the plans is an estimate based on existing conditions at the time of the estimate. Final quantities shall be determined by the Engineer in the field.
6. All exposed concrete edges shall have a standard 3/4" chamfer unless noted otherwise.
7. After the initial 0.08 lb/sf of residual tack coat has been applied to the surface of the waterproofing membrane system, a second tack coat application of 0.08 lb/sf shall be applied in a 2' strip along the parapets and median curbs such that the coverage extends up the vertical faces approximately 4 inches.
8. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
9. All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
10. Fasteners shall be high strength bolts. Bolts 3/4" diameter, open holes 13/16" diameter, unless otherwise noted.

TOTAL BILL OF MATERIAL

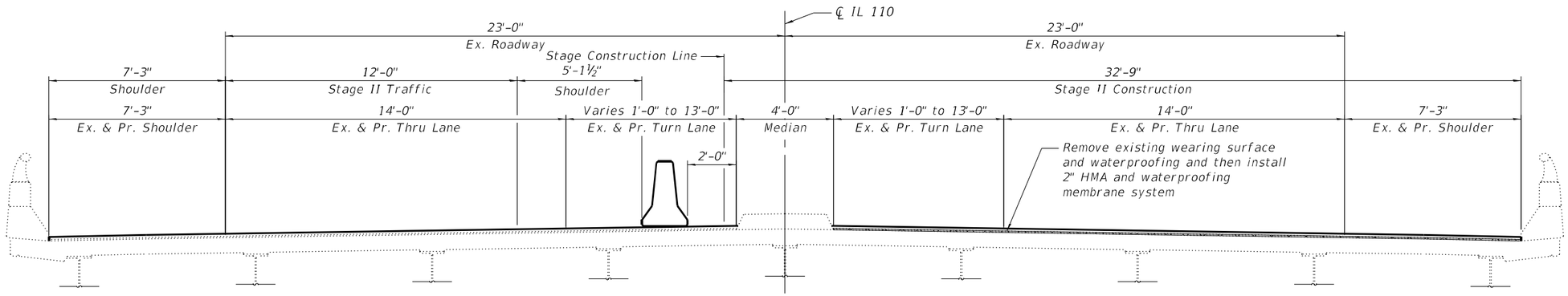
	ITEM	UNIT	SUPER	SUB	TOTAL
	Polymerized Bituminous Materials (Tack Coat)	Pound	1,403		1,403
	Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N50	Ton	144		144
	Concrete Removal	Cu. Yd.	10.3		10.3
	Concrete Structures	Cu. Yd.		16.3	16.3
	Concrete Superstructure	Cu. Yd.	11		11
*	Protective Coat	Sq. Yd.	36	50	86
	Furnishing and Erecting Structural Steel	Pound	3,830		3,830
	Reinforcement Bars, Epoxy Coated	Pound	4,050	1,570	5,620
	Preformed Joint Strip Seal	Foot	131		131
	Elastomeric Bearing Assembly, Type I	Each	18		18
	Anchor Bolts, 1"	Each	36		36
	Waterproofing Membrane System	Sq. Yd.	1,706		1,706
	Jack and Remove Existing Bearings	Each	18		18
	Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1,841		1,841
	Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		32	32
	Deck Drain Extensions	Each	16		16
	Plug Existing Deck Drains	Each	8		8
	Deck Slab Repair (Partial)	Sq. Yd.	60		60

* On new concrete only



STAGE 1 - TYPICAL SECTION

(Looking Upstation)
(Main spans shown, approach spans similar)



STAGE 2 - TYPICAL SECTION

(Looking Upstation)
(Main spans shown, approach spans similar)

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06/08/22 8:40:46 AM

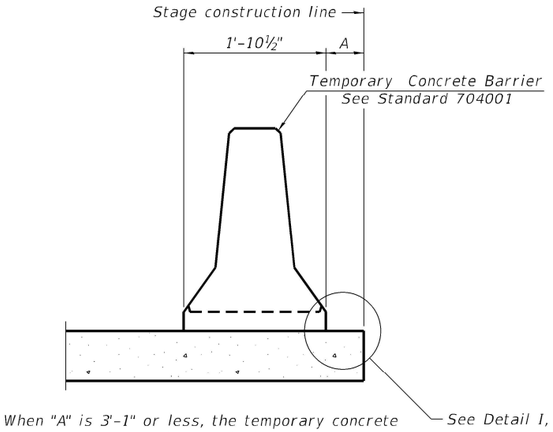
Kaskaskia Engineering Group, LLC
PROFESSIONAL REGISTRATIONS: Illinois Professional Design Firm; Professional Engineering Group
LICENSE NO.: 184.005751; 20-5000546

USER NAME =	DESIGNED - MLC	REVISED -	
	CHECKED - JW	REVISED -	
PLOT SCALE =	DRAWN - MLC	REVISED -	
PLOT DATE =	CHECKED - JW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

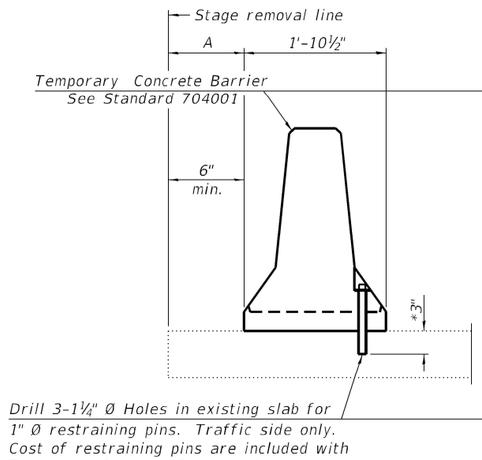
GENERAL DATA
STRUCTURE NO. 094-0028
SHEET 2 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	15
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		



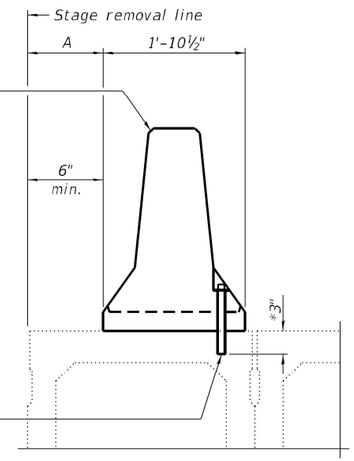
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



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

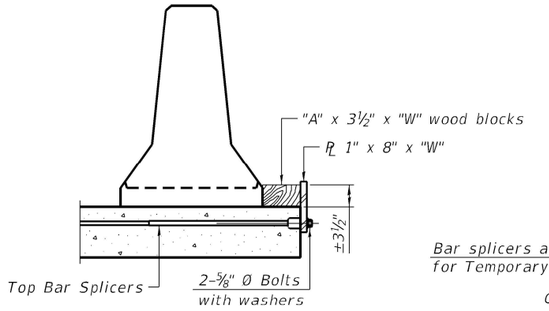
EXISTING SLAB



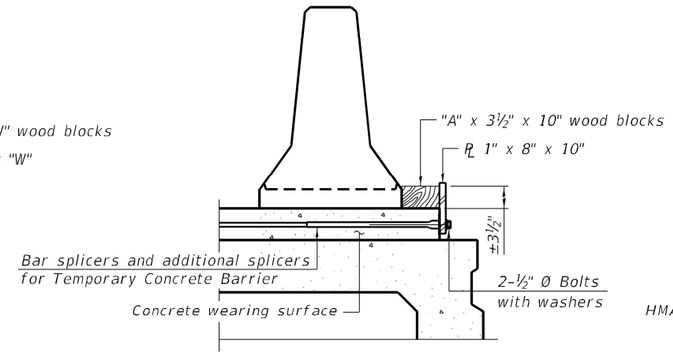
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

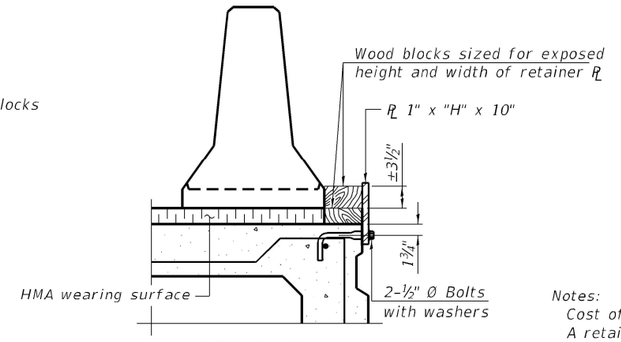
SECTIONS THRU SLAB OR DECK BEAM



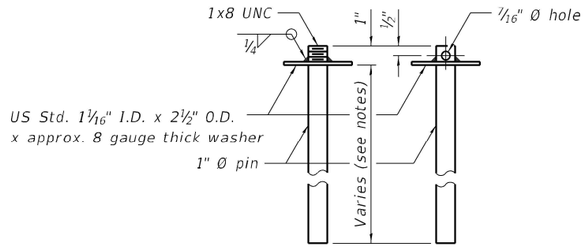
DETAIL I



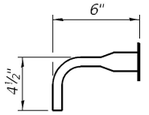
DETAIL II



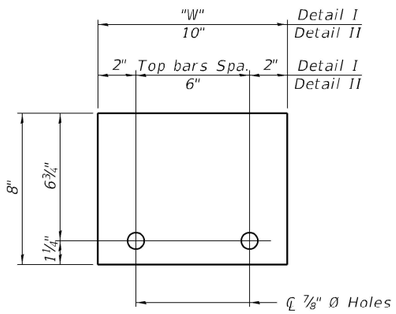
DETAIL III



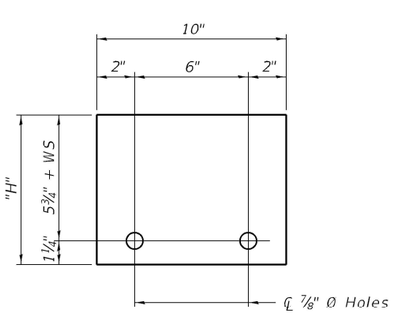
RESTRAINING PIN



BAR SPLICER FOR #4 BAR - DETAIL III



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



STEEL RETAINER PL 1" x "H" x 10"
(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.

RAILING CRITERIA

NCHRP 350 Test Level	3
Railing Weight (plf)	440

R-27

10-12-2021

Kaskaskia Engineering Group, LLC
700 E. Main St., Suite 300, Belleville, Illinois 62220
618.233.5077 phone
618.233.5520 fax
www.KaskaskiaEng.com
PROFESSIONAL SERVICE CERTIFICATE: 184.006775
Illinois Professional Design Firm: Professional Engineering Group
LICENSE NO: 20.5000585

USER NAME =		DESIGNED - MLC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER STRUCTURE NO. 094-0028
		CHECKED - JW	REVISED -		
PLOT SCALE =		DRAWN - MLC	REVISED -		
PLOT DATE =		CHECKED - JW	REVISED -		SHEET 3 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	16
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

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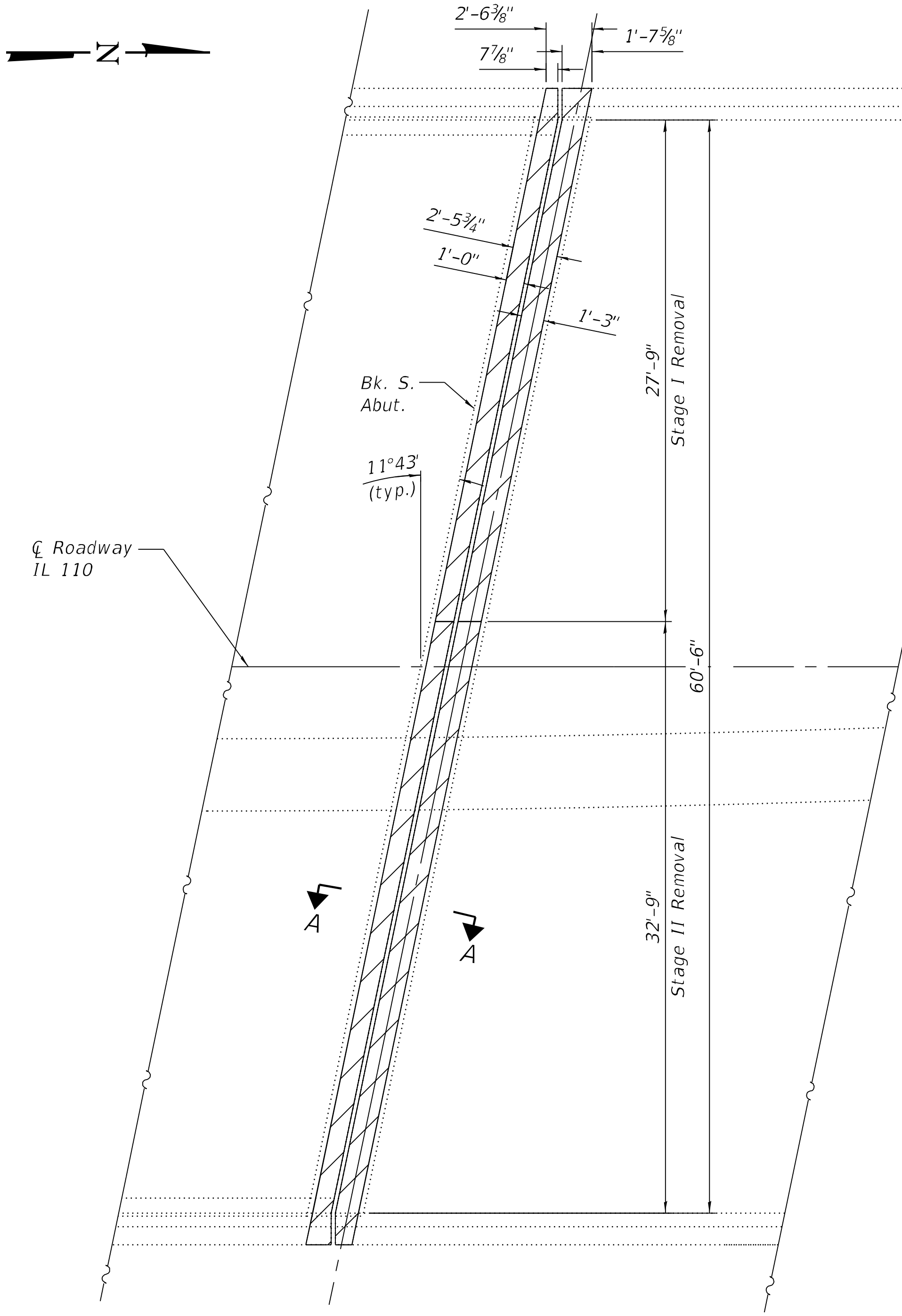
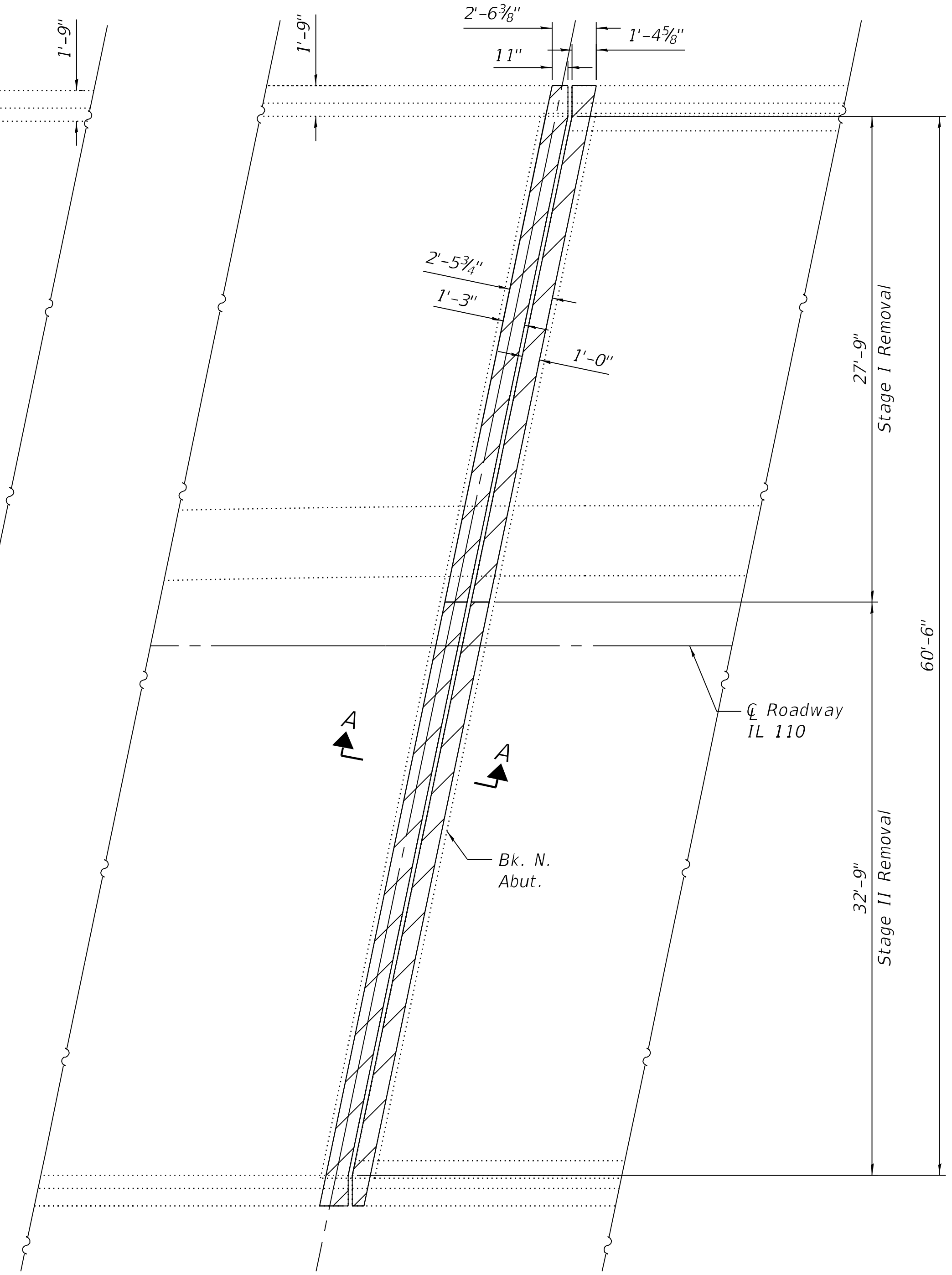
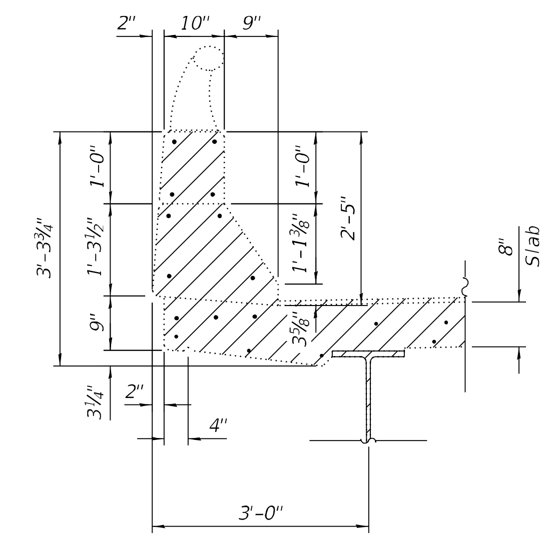


PLAN
(South Abutment – Showing Concrete Removal)



PLAN
(North Abutment – Showing Concrete Removal)



SECTION THRU PARAPET

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	10.3

Notes:

The Contractor shall use extreme care during concrete removal so as not to damage the existing steel beams and PPC I-beams. Any PPC I-beams or steel damaged during concrete removal operations shall be repaired at the Contractor's expense.

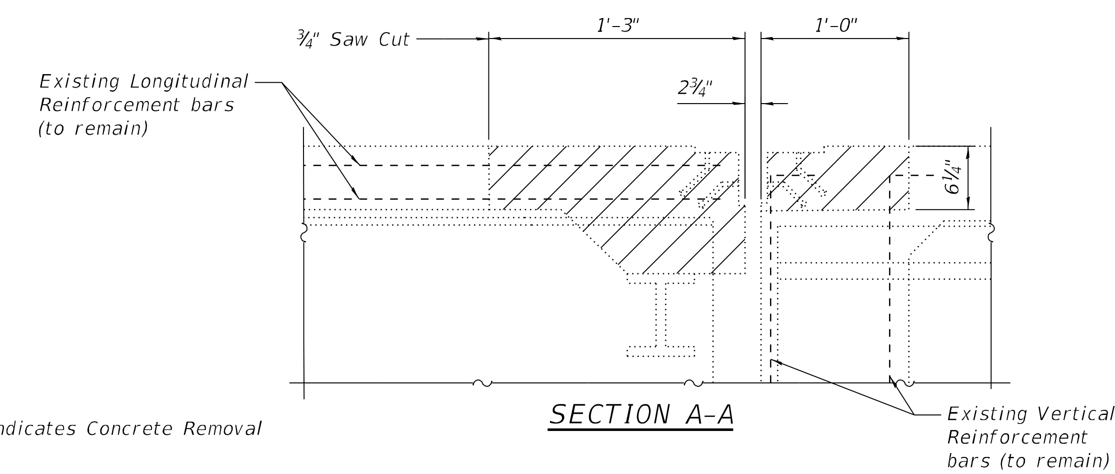
Removal of existing expansion joint and associated material shall not be paid for separately, but shall be included in the cost of Concrete Removal.

Trim existing longitudinal reinforcement in deck at proposed expansion joints to accomodate for the difference between the existing and proposed joint widths.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into new construction.

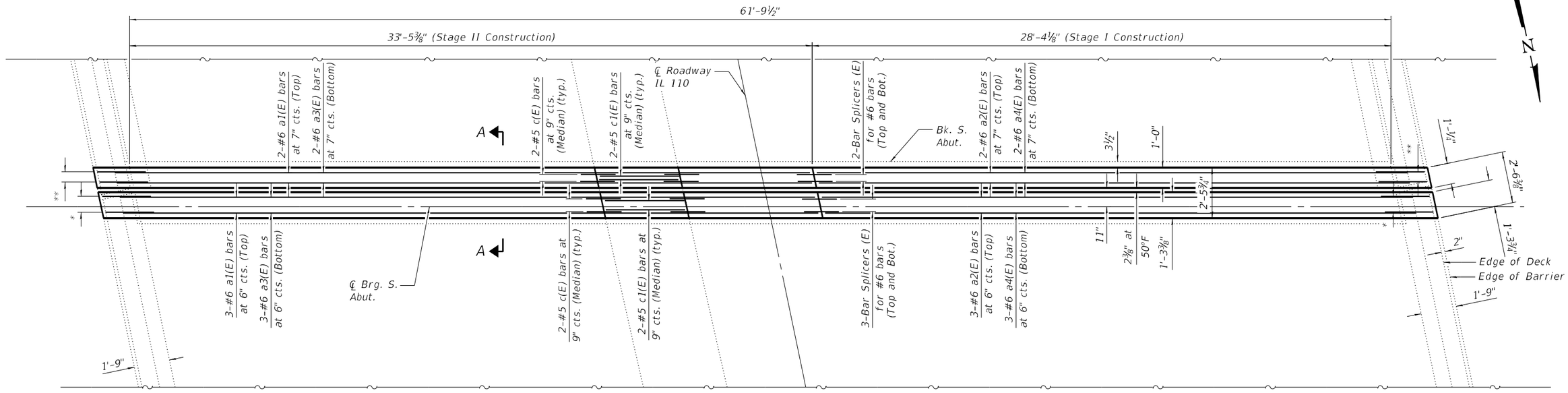
Any reinforcement bars that are damaged during concrete removal operations shall be replaced at the Contractor's expense.

Stud shear connectors damaged during concrete removal operations shall be removed and replaced per Section 505 of the Standard Specifications at the Contractor's expense.



SECTION A-A

Indicates Concrete Removal



PLAN

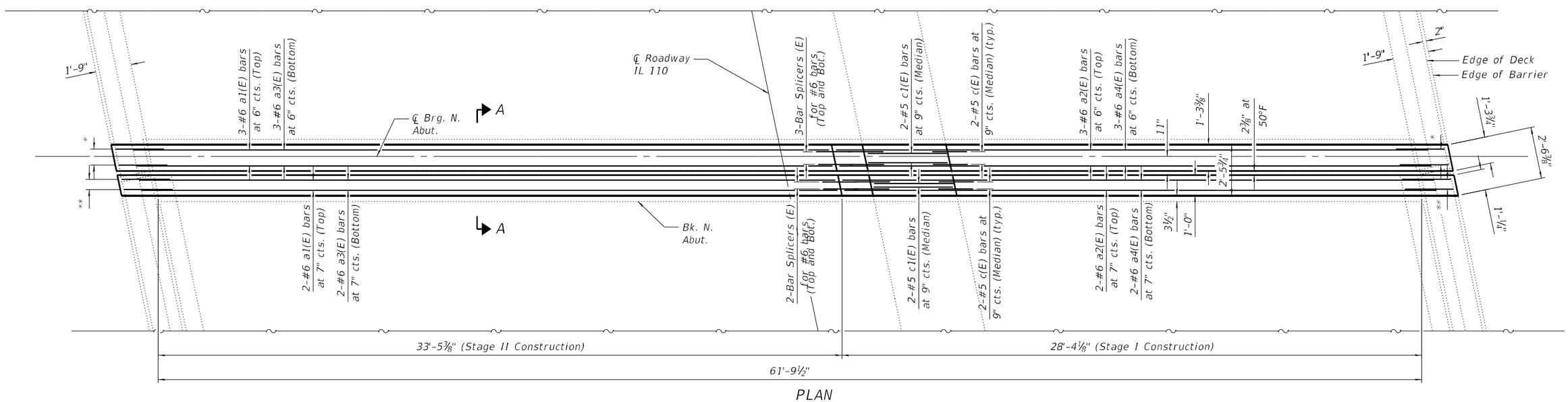
(Showing South Abutment)

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:
See Sheet 6 of 19 for Section A-A.

* 3-#5 d1(E), #4 d(E) and #4 d3(E) bars at 6" cts.
** 2-#5 d1(E), #4 d(E) and #4 d3(E) bars at 7" cts.



PLAN

(Showing North Abutment)

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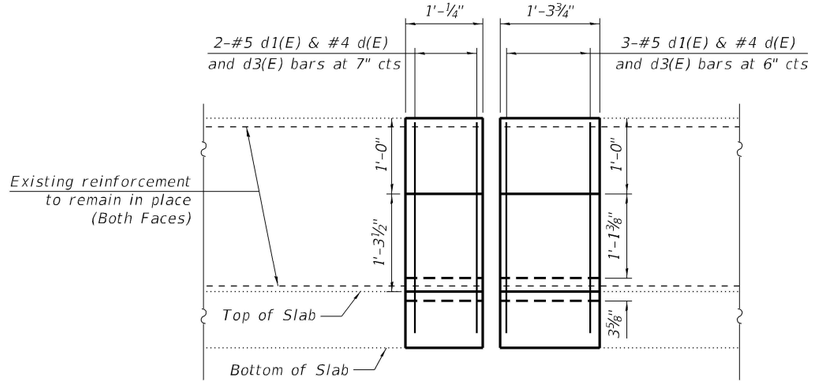
PLOT DATE =	CHECKED - JW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 094-0028
SHEET 5 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	18
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

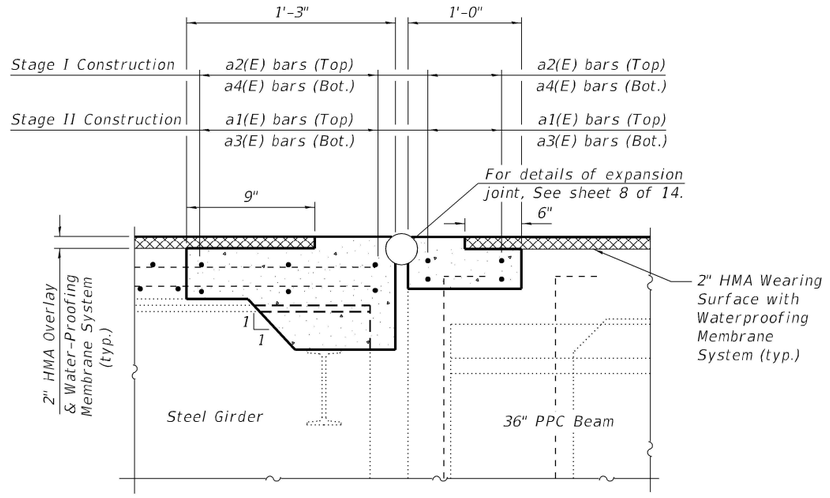


Outside Elevation

(East Parapet – South Abutment shown, others similar)

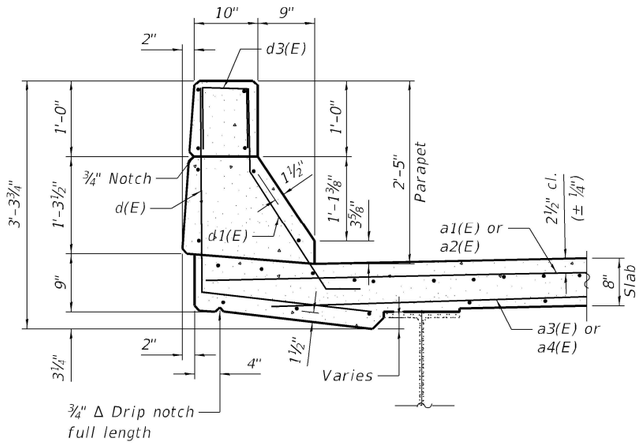
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	20	#6	34'-9"	—
a2(E)	20	#6	29'-8	—
a3(E)	20	#6	33'-9"	—
a4(E)	20	#6	28'-8"	—
c(E)	16	#5	2'-11"	⌐¬
c1(E)	8	#5	3'-0"	—
d(E)	20	#4	4'-5"	⌐
d1(E)	20	#5	3'-7"	⌐
d3(E)	20	#4	2'-1"	⊐
Concrete Superstructure		Cu. Yd.	11.0	
Reinforcement Bars, Epoxy Coated		Pound	4,050	
Hot-Mix Asphalt Surface Course, IL-9.5, Mix "D", N50		Ton	144	
Polymerized Bituminous Materials (Tack Coat)		Pound	1,403	

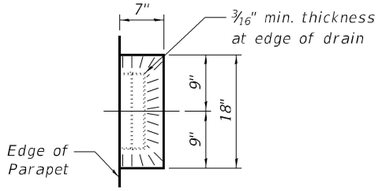


SECTION A-A

(at right angle)

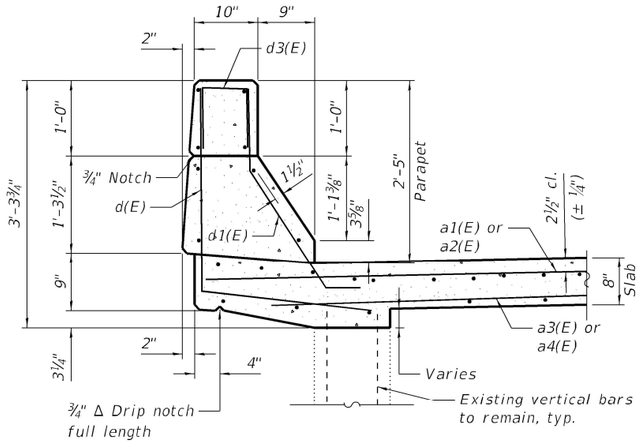


SECTION THRU MAIN SPAN PARAPET

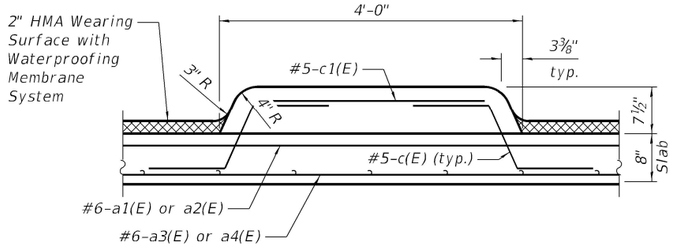


DRAIN DETAIL

*slope to drain

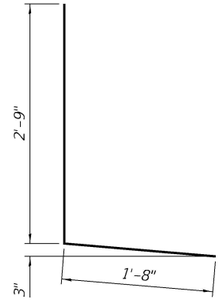


SECTION THRU APPROACH SPAN PARAPET

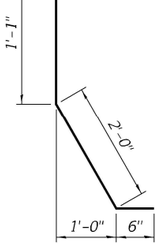


SECTION THRU MEDIAN

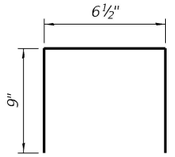
Note:
Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal operations shall be replaced at the Contractor's expense.



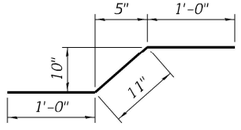
BAR d(E)



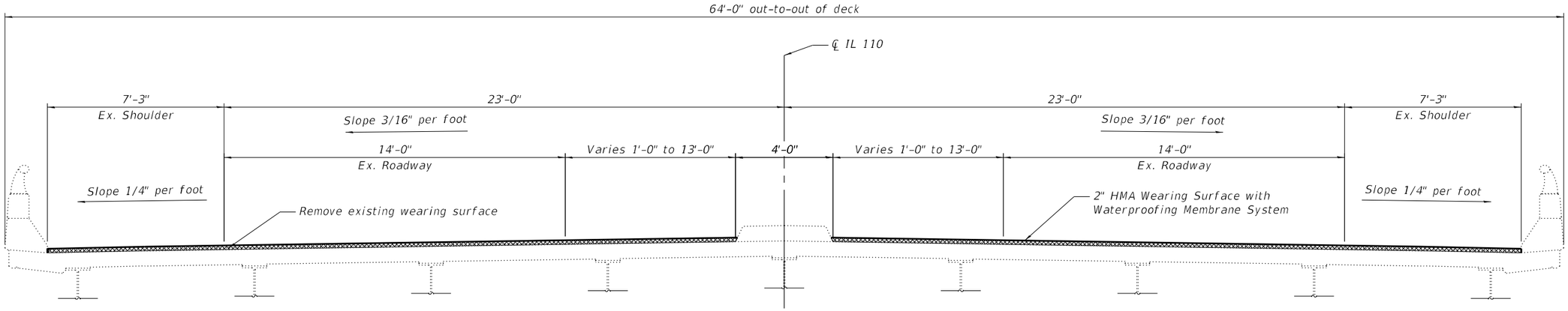
BAR d1(E)



BAR d3(E)

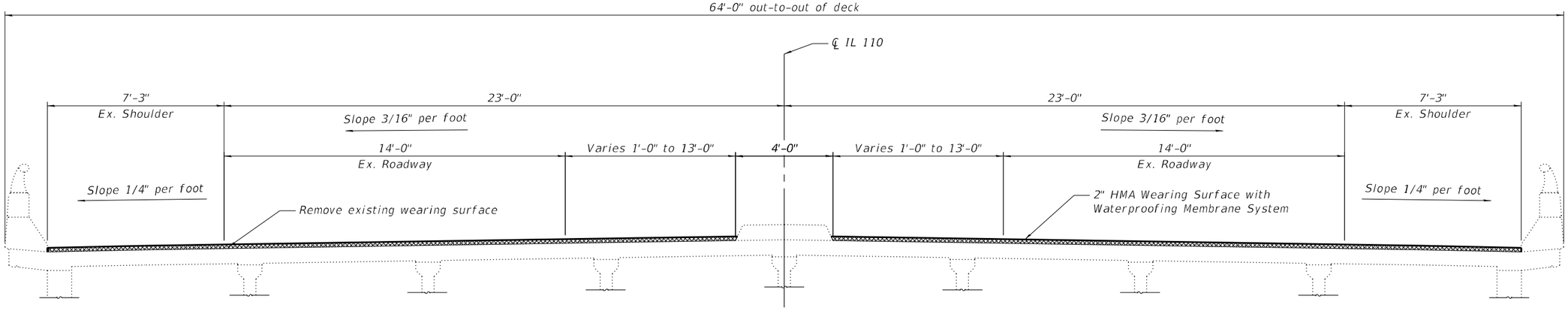


BAR c(E)



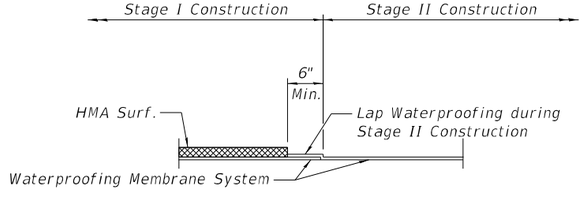
MAIN SPANS-SUPERSTRUCTURE TYPICAL SECTION

(Looking Upstation)



APPROACH SPANS-SUPERSTRUCTURE TYPICAL SECTION

(Looking Upstation)



Note:

See Roadway Plans for additional wearing surface details.

WATERPROOFING TREATMENT AT STAGE CONSTRUCTION

Kaskaskia Engineering Group, LLC
700 E. Main St., Suite 100
Belleville, Illinois 62220
618.233.5077 phone
618.233.5077 fax
www.kaskaskiaeng.com
PROFESSIONAL REGISTRATIONS
Illinois Professional Design Firm
Professional Engineering Group
LICENSE NO.
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20-3680166

USER NAME =	DESIGNED - MLC	REVISED -	
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PLOT SCALE =	DRAWN - MLC	REVISED -	
PLOT DATE =	CHECKED - JW	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE TYPICAL SECTIONS
STRUCTURE NO. 094-0028
SHEET 7 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	20
		CONTRACT NO. 68G71		
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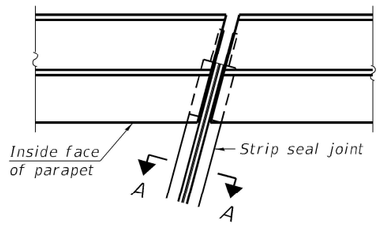
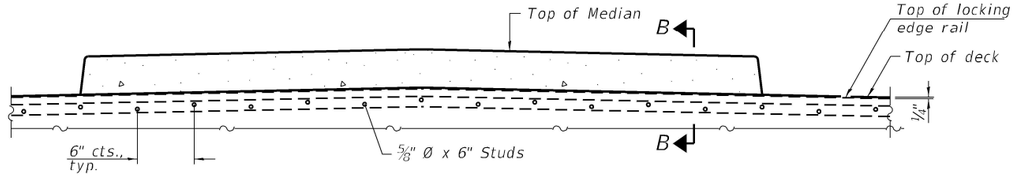
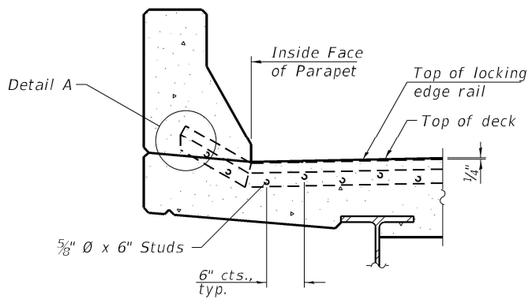


PLAN AT PARAPET



SECTION AT MEDIAN



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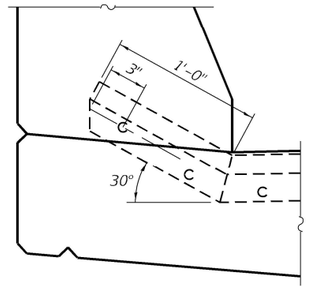
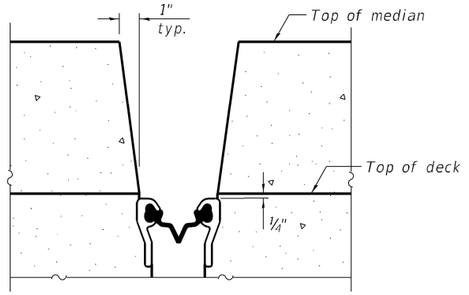


DETAIL A



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.

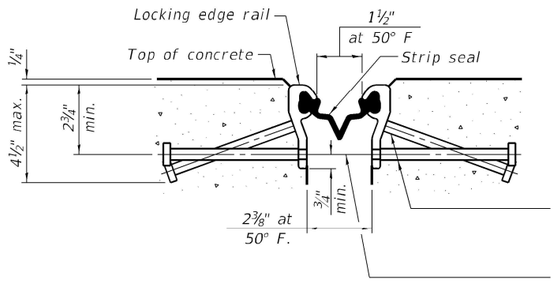
The manufacturer's recommended installation methods shall be followed.

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.

Cost of anchorage studs included with Preformed Joint Strip Seal.

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.



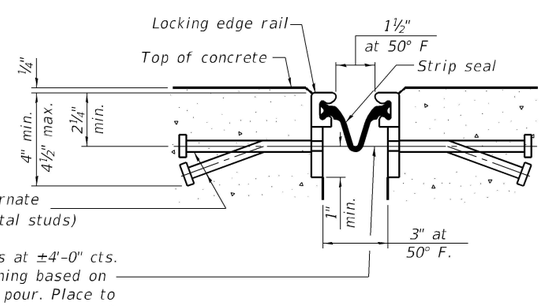
SHOWING ROLLED RAIL JOINT

* ⅝" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

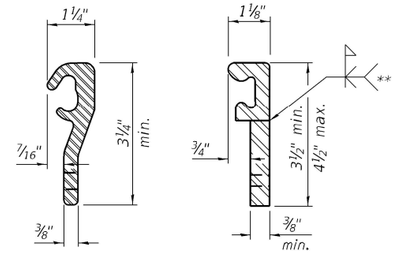
⅞" ϕ threaded rods in 7/16" ϕ holes at ±4'-0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

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



SHOWING WELDED RAIL JOINT



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	131

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FILE NAME: P:\19-1139.13 CH15 Bridge Rehabs\0_IDOT\Structures\0940028-68G71-008-Joint.dgn

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Kaskaskia Engineering Group, LLC
700 E. Main St., Suite 160, Belleville, Illinois 62220
618.233.5877 phone
618.233.5977 fax
www.kaskaskiaeng.com
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USER NAME =	DESIGNED - MLC	REVISED -	
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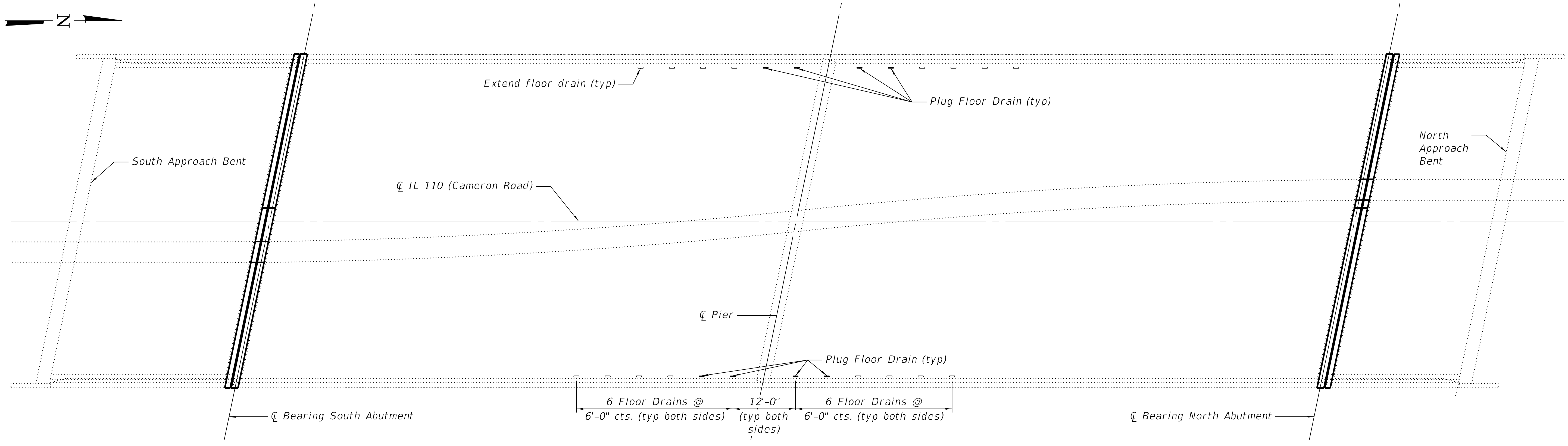
PLOT DATE =	CHECKED - JW	REVISED -	

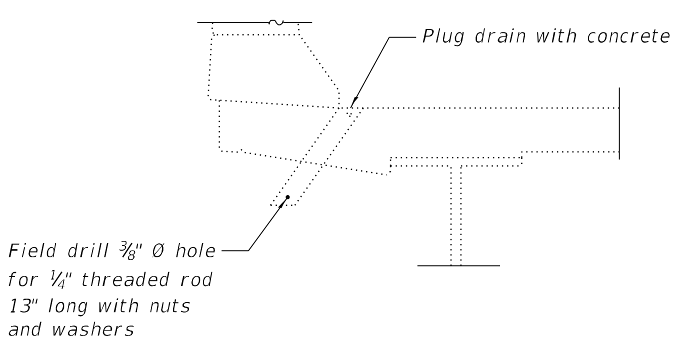
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 094-0028
SHEET 8 OF 14 SHEETS

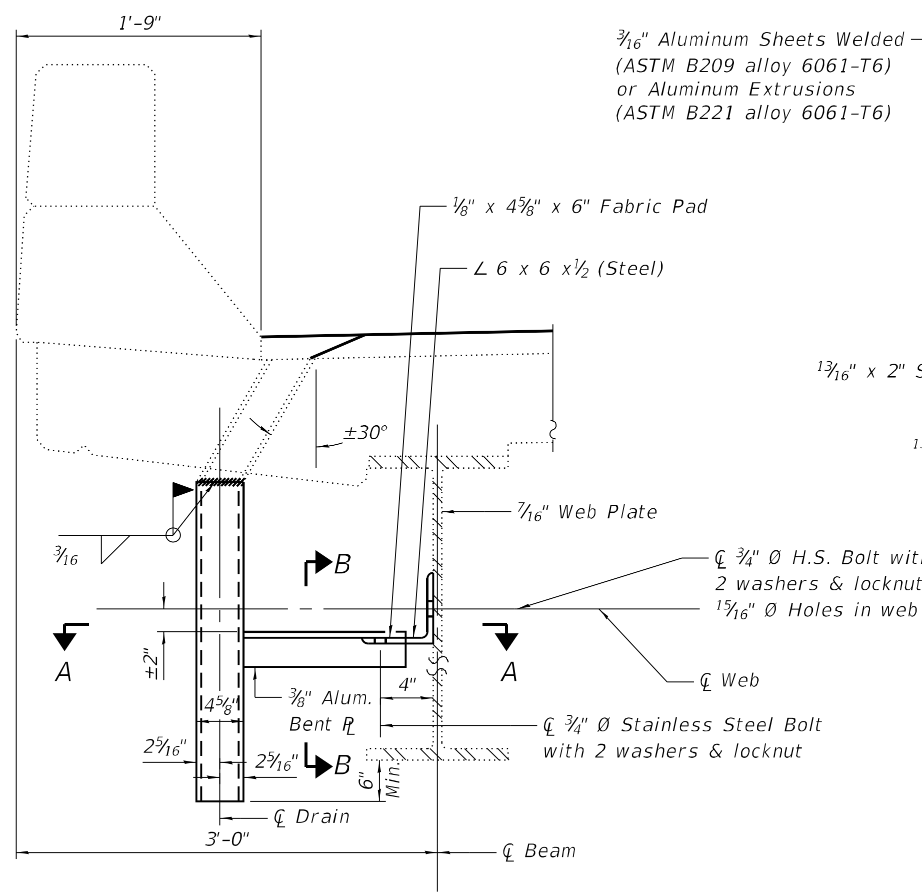
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	21
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		



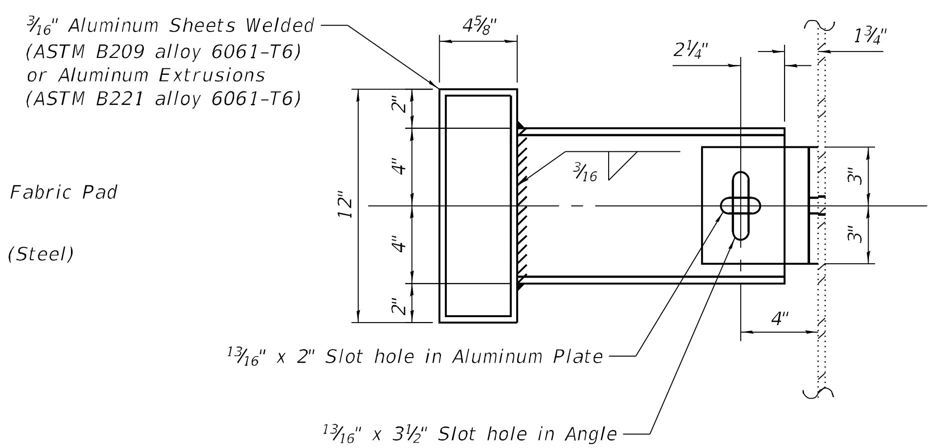
PLAN



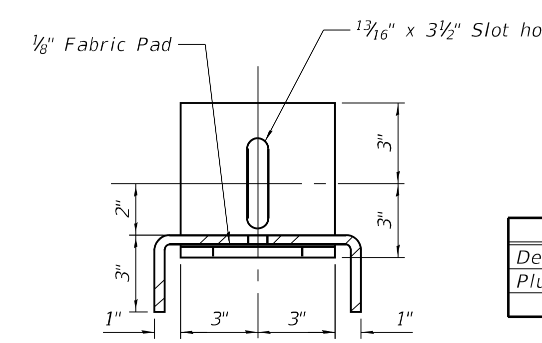
FLOOR DRAIN PLUGGING DETAIL



DRAIN EXTENSION DETAIL



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Deck Drain Extensions	Each	16
Plug Existing Deck Drains	Each	8

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK DRAIN PLAN AND DETAILS
STRUCTURE NO. 094-0028

SHEET 9 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	22
		CONTRACT NO. 68G71		
		ILLINOIS FED. AID PROJECT		

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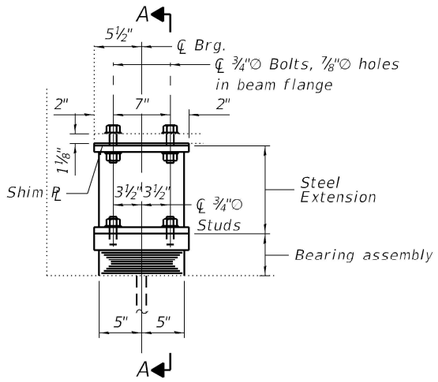

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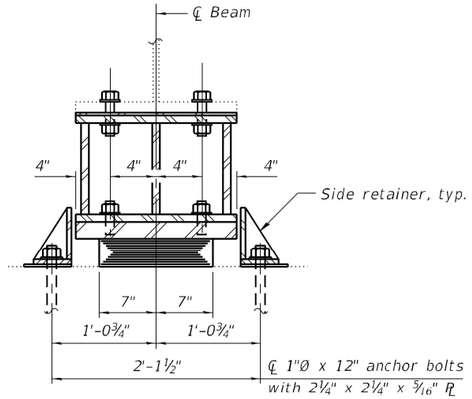
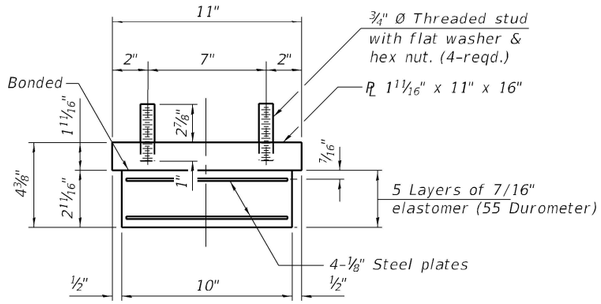


SECTION A-A

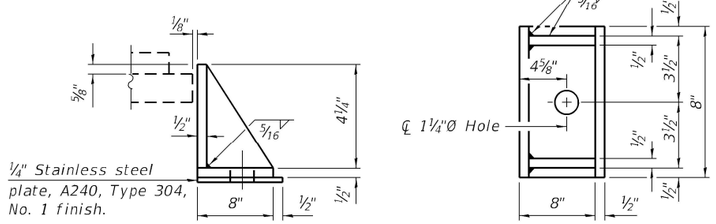
TYPE I ELASTOMERIC EXP. BRG.

BEAM REACTIONS			
		S. Abut.	N. Abut.
R_{ℓ}	(k)	53.6	59.6
R_{ℓ}	(k)	46.8	47.1
$R_{Imp.}$	(k)	10.3	10.2
R_{Total}	(k)	110.7	116.9



BEARING ASSEMBLY

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.

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

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).

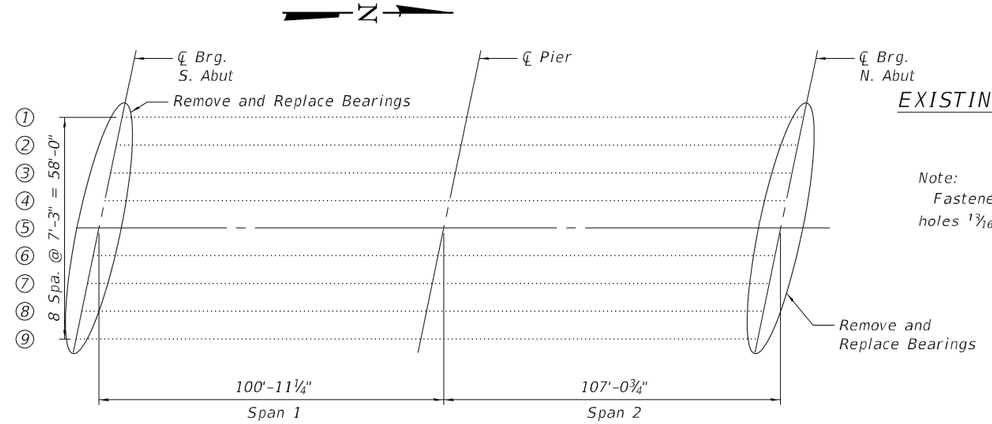
Min. jack capacity = 40 Tons.

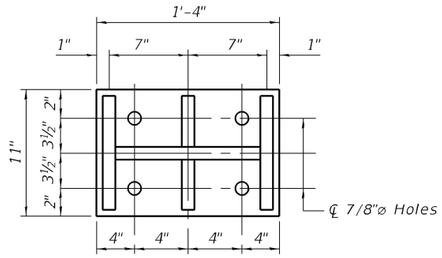
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

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

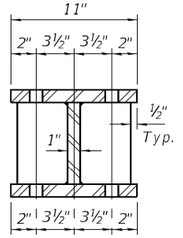
Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.

New structural steel, connection bolts, nuts, and washers shall be hot dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel."

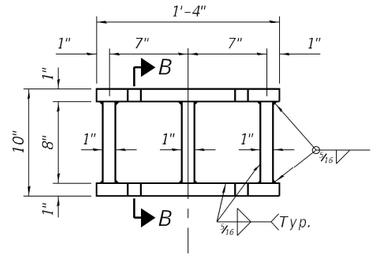




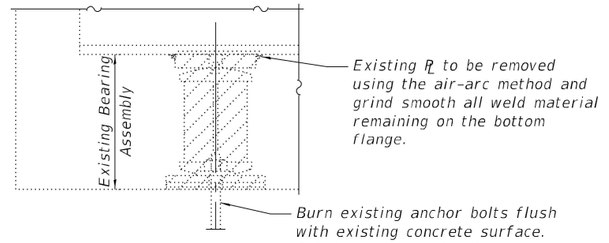
PLAN TOP AND BOTTOM PLATE



SECTION B-B



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings

Note:
Fasteners shall be high strength bolts. Bolts ¾"⌀, open holes 1 5/16"⌀, unless otherwise noted.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Jack and Remove Existing Bearings	Each	18
Furnishing and Erecting Structural Steel	Pound	3,830
Anchor Bolts	Each	36

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200 E. Main St., Suite 101, Belleville, Illinois 62220, 618.233.5877 phone, 618.233.5977 fax, www.kaskaskiaeng.com
PROFESSIONAL DESIGN FIRM: Illinois Professional Design Firm, Professional Engineering Group
LICENSE NO.: ILLINOIS 20-56005166

USER NAME =		DESIGNED - MLC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BEARING DETAILS STRUCTURE NO. 094-0028
		CHECKED - JW	REVISED -		
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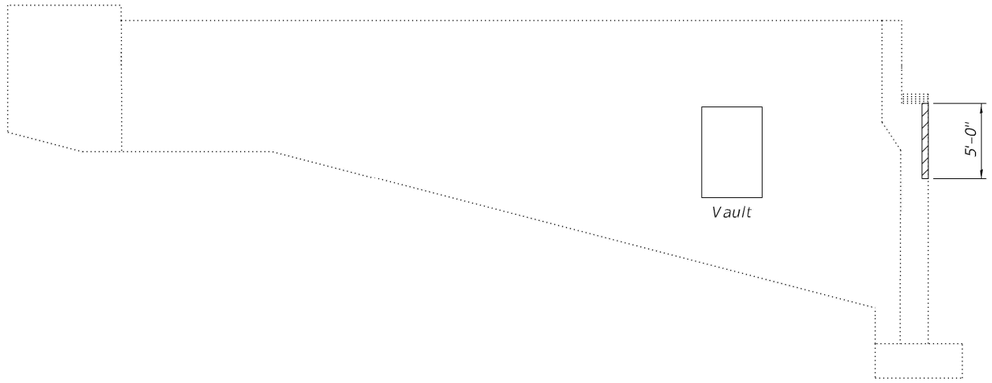
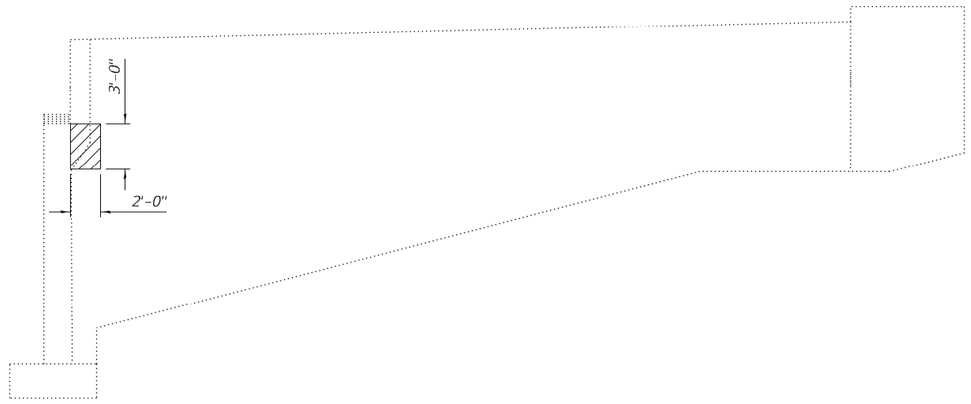
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	23
		CONTRACT NO. 68G71		
		ILLINOIS	FED. AID PROJECT	



SOUTH ABUTMENT EAST WALL
(LOOKING WEST)

SOUTH ABUTMENT



SOUTH ABUTMENT WEST WALL
(LOOKING EAST)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	11

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EXPIRATION: 20.5880501

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		CHECKED - JW	REVISED -		
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	24
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

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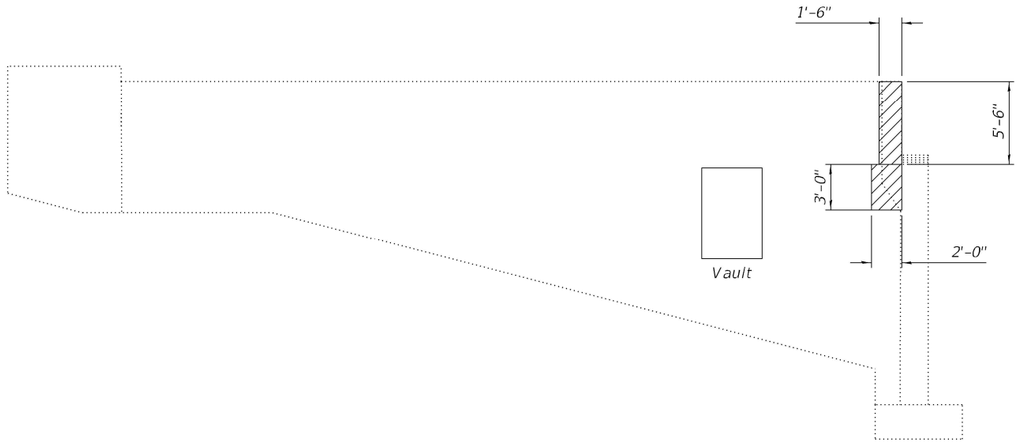
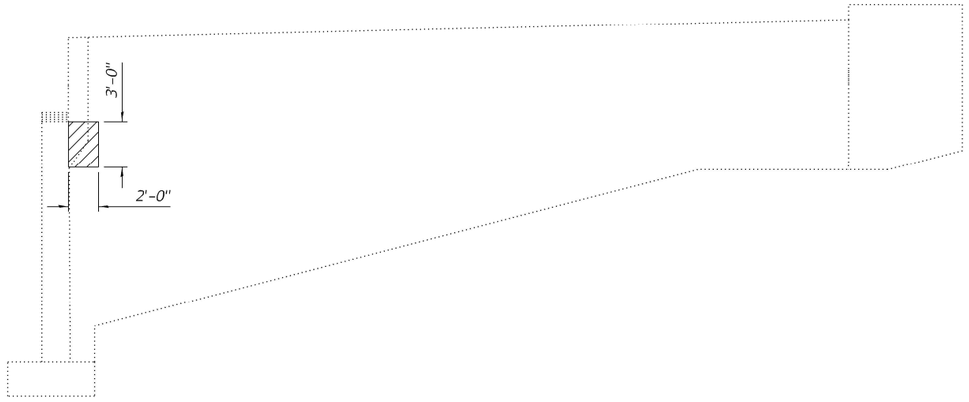


NORTH ABUTMENT WEST WALL
(LOOKING EAST)

NORTH ABUTMENT



NORTH ABUTMENT EAST WALL
(LOOKING WEST)

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	21

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Kaskaskia Engineering Group, LLC
700 E. Main St., Suite 160
Belleville, Illinois 62220
618.233.5077 phone
618.233.5077 fax
www.kaskaskiaeng.com
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Illinois Professional Design Firm:
Professional Engineering Group
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT REPAIRS
STRUCTURE NO. 094-0028
SHEET 12 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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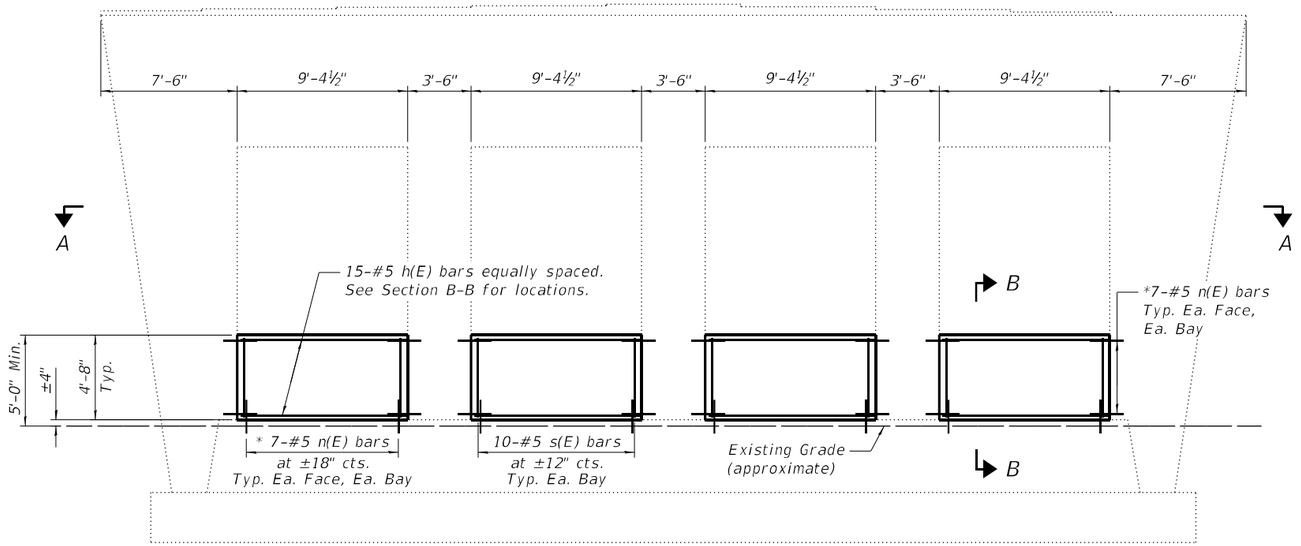
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		



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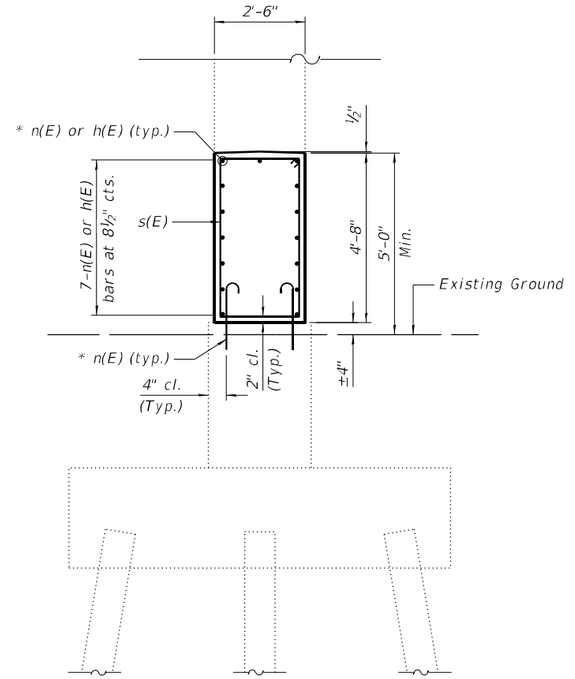
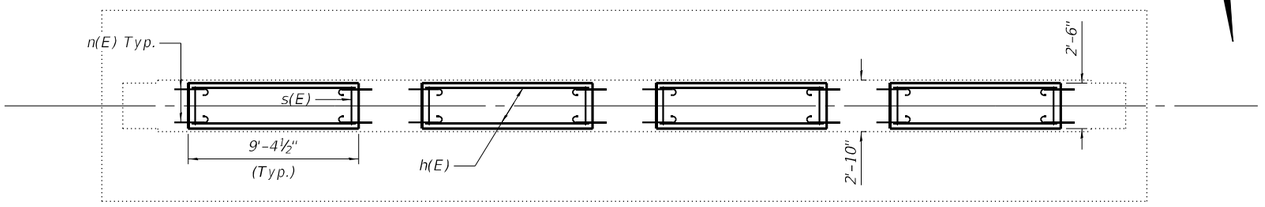
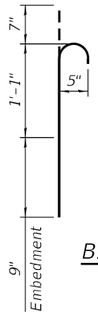


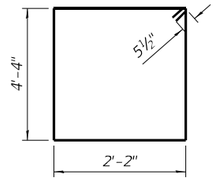
SECTION B-B



SECTION A-A



BAR n(E)



BAR s(E)

* Epoxy grout n(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	60	#5	9'-0"	
n(E)	168	#5	2'-5"	
s(E)	40	#5	13'-11"	
Reinforcement Bars, Epoxy Coated			Pound	1,570
Concrete Structures			Cu. Yd.	16.3
** Protective Coat			Sq. Yd.	50

** Apply to new concrete only.

MODEL: Default
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER CRASHWALL EXTENSIONS
STRUCTURE NO. 094-0028
SHEET 13 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	26
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

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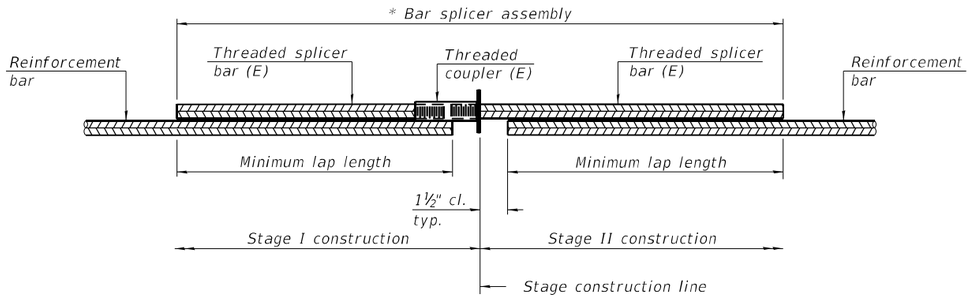


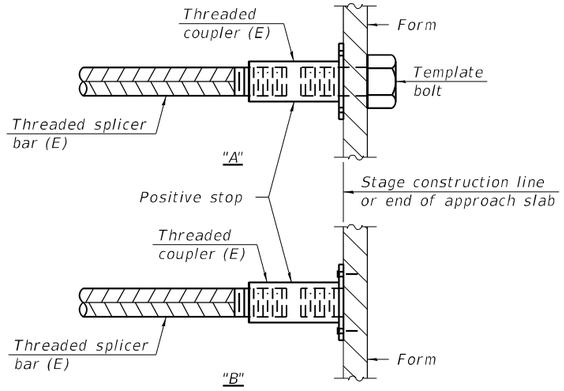
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

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

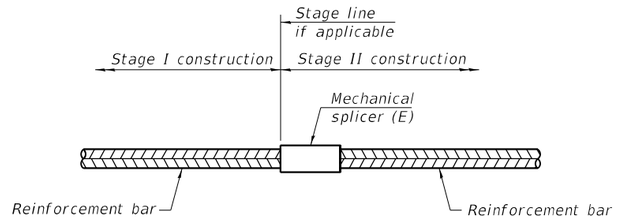
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
S. App. Span Deck	#6	4	5'-9"
N. App. Span Deck	#6	4	5'-9"
Main Span Deck	#6	12	5'-9"



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required

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

BSD-1 1-1-2020

Kaskaskia Engineering Group, LLC
700 E. Main St., Suite 160, Belleville, Illinois 62220
618.233.5077 phone
618.233.5077 fax
www.kaskaskiaeng.com
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 094-0028
SHEET 14 OF 14 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BJR,BRR	WARREN	29	27
		CONTRACT NO. 68G71		
	ILLINOIS	FED. AID PROJECT		

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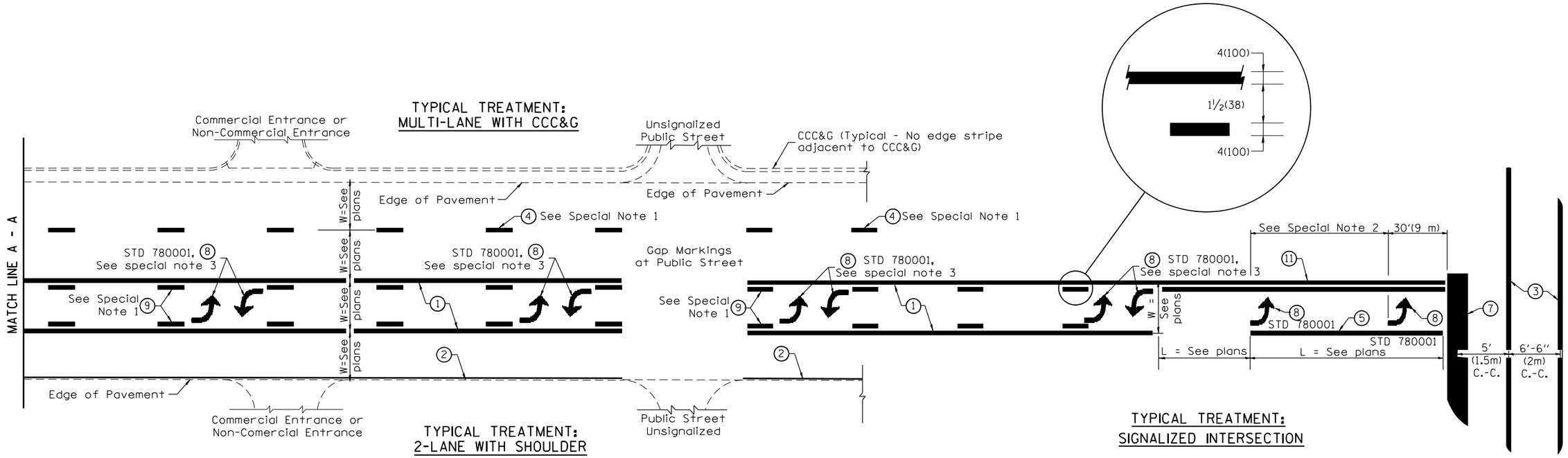


FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

TYPICAL PAVEMENT MARKING LEGEND

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

1. 4(100) Solid (Yellow)
2. 4(100) Solid (White)
3. 2-6(150) Crosswalk @ 6'-6" (2m)min C.-C. (White)
   2-8(200) Crosswalk @ 6'-6" (2m)min C.-C. (White) (When traffic signals are present.)
4. 6(150) Skip-Dash (White) — 10' (3.05m) / 30' (9.14m) / 10' (3.05m) (See Special Note 1)
5. 8(200) Solid (White)
6. 12(300) Diagonal (White) (Item 6 is shown on Std. 780001)
7. 24(600) Stop Bar (White)
8. Letters & Arrows — 33' (10m) (See Std. 780001 and Special Notes 2 & 3)
9. 4(100) Skip-Dash (Yellow) — 10' (3.05m) / 30' (9.14m) / 10' (3.05m) (See Special Note 1)
10. 12(300) Diagonal (Yellow) (See Table A) — 45°
11. 4(100) Double Solid (Yellow) — 11(280) C.-C. — See Table A

SPECIAL NOTES

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

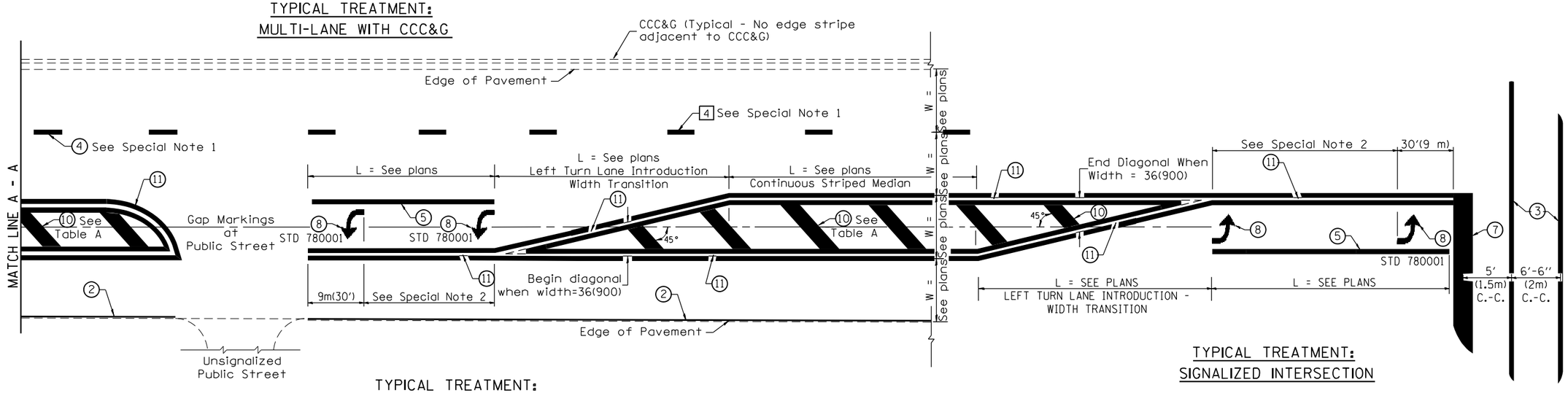
GENERAL NOTES

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

DESIGNER NOTES:
1. Include State Standard 780001 (Typical Pavement Markings)

01-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS
02-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.	2/29/16	ADDED GROOVING AREAS	R.D.		SHT. 1 OF 2
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.	07-16-19	SPELLING CORRECTIONS	R.D.		NOT TO SCALE CADD STD. 780001-D4
08-02	ADD CROSSWALK DMNS. WITH T.S.	M.A.					

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BRR,BJR	WARREN	29	28
		CONTRACT NO. 68G71		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



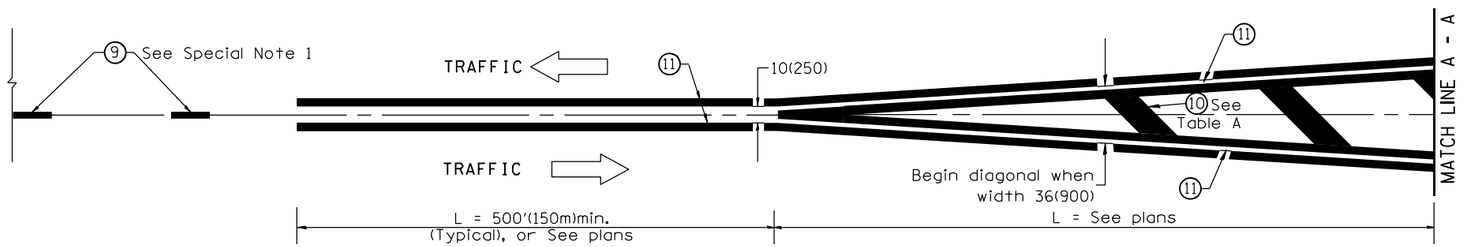
TYPICAL MEDIAN TRANSITIONS

FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A

RECOMMENDED SPACING BETWEEN DIAGONAL LINES

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



MEDIAN INTRODUCTION - WIDTH TRANSITIONS

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS NOT TO SCALE SHT. 2 OF 2 CADD STD. 780001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
313	(94-16HB-1)BDR,BRR,BJR	WARREN	29	29
		CONTRACT NO. 68G71		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		