

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.S. ROUTE 1512 (US-150)
SECTION: 36 BDR

**BRIDGE DECK REPAIRS
MIDDLE FORK VERMILION RIVER WEST OF DANVILLE
VERMILION COUNTY**

C-95-002-12

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36 BDR	VERMILION	34	1
		ILLINOIS	CONTRACT NO. 70965	

D-95-002-12

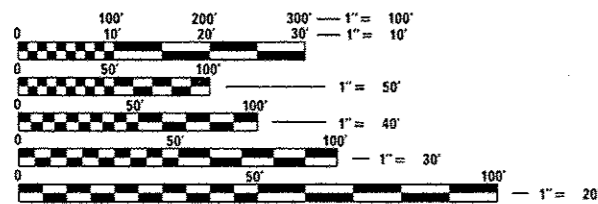


LOCATION OF SECTION INDICATED THUS: - [Symbol] -

**CURRENT
TRAFFIC DATA**

2011 ADT = 3,550
2031 ADT = 4,100
PU+PC % = 92.0
SU % = 5.8
MU% = 2.2

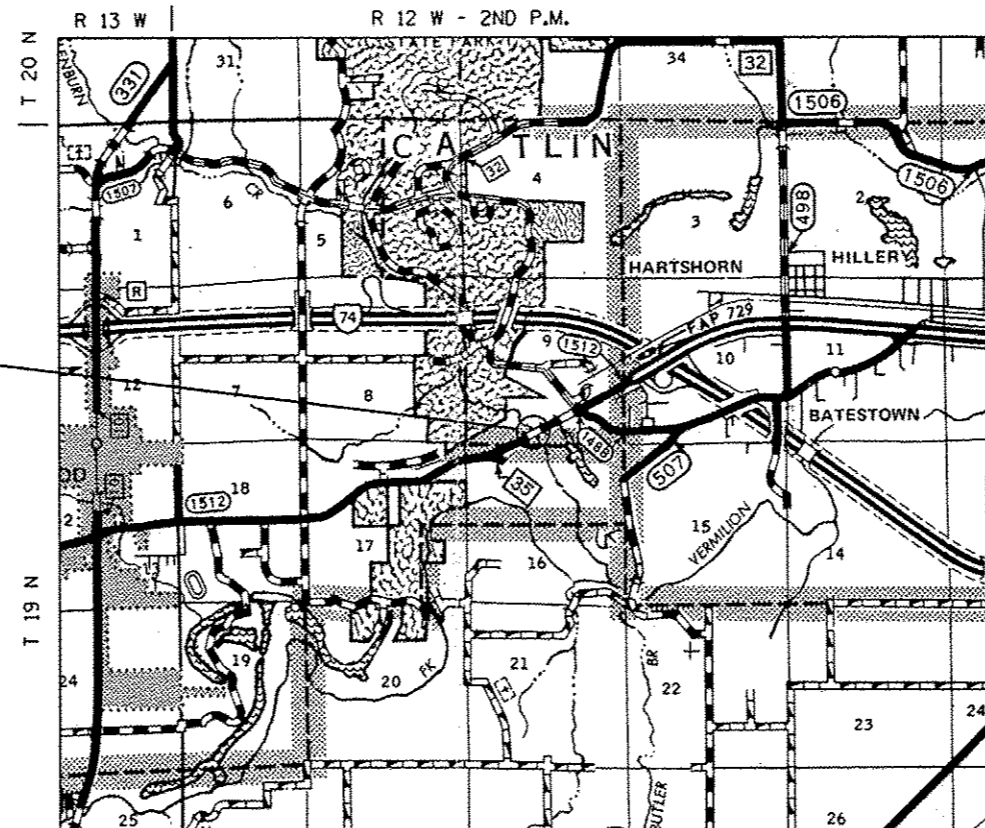
**DESIGN DESIGNATION
MAJOR COLLECTOR**



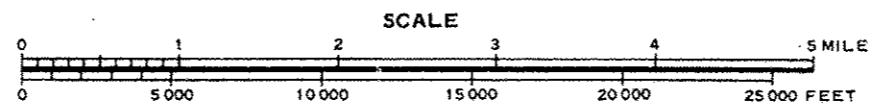
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: TIM BRANDENBURG
PROJECT MANAGER: GARY SIMS
217-465-4181
CONTRACT NO. 70965



EXISTING S.N. 092-0050
F.A.S. 1512 (US-150)
STATION 1362+32.35
OVER MIDDLE FORK
VERMILION RIVER
PROPOSED B-SMART
STRUCTURE REPAIRS



GROSS LENGTH = 404.25 FT. = 0.08 MILE
NET LENGTH = 404.25 FT. = 0.08 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED OCTOBER 4 2013

Joseph S. Crowe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

John D. Baranzelli P.E./E
ENGINEER OF DESIGN AND ENVIRONMENT

Omer Osman P.E./E
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

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LIST OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS GREATER THAN OR EQUAL TO 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT-TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-03	TRAFFIC CONTROL DEVICES
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A

ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-406

THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

G.N.-406H

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

LOCATION	US-150	US-150
MIXTURE USE	SURFACE COURSE	CLASS D PATCHING
AC/PG	PG 64-22	PG 64-22
RAP % (MAX)	See RAP-RAS (BDE) Spec. Prov.	See RAP-RAS (BDE) Spec. Prov.
DESIGN AIR VOIDS	4.0% @ Ndes=50	4.0% @ Ndes=50
MIX COMP (GRADATION)	IL 9.5	IL 19.0
FRICION AGGREGATE	MIX C	N.A.

G.N.-442B

THE PATCHING SCHEDULES INCLUDED IN THE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AT THE TIME OF COMPLETION OF THE PLANS FOR LETTING. VARIATIONS IN LOCATION AND SIZES OF BOTH FULL-DEPTH AND PARTIAL-DEPTH PATCHES MAY OCCUR.

G.N.-781

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

NO COMMITMENTS

FILE NAME *	USER NAME * ceerlock_jd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, LIST OF STANDARDS & GENERAL NOTES	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
779965-shit-gennate.dgn	DRAWN - GMS	REVISED -	1512			36BDR	VERMILION	34	2	
PLOT SCALE # 48,2881 / / in.	CHECKED -	REVISED -	CONTRACT NO. 70965							
PLOT DATE # 10/3/2013	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

FAS 1512 (US-150)
 VERMILION CO.
 RURAL
 TWO-LANE
 100% STATE
 S. N. 092-0050
 CONSTRUCTION TYPE CODE: 0014

CODE NO	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	11.0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	110.0
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	107.0
44201789	CLASS D PATCHES, TYPE II, 12 INCH	SQ YD	30.0
50102400	CONCRETE REMOVAL	CU YD	9.1
50300100	FLOOR DRAINS	EACH	22.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.2
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1690.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1230.0
50800515	BAR SPLICERS	EACH	22.0
52000110	PREFORMED JOINT STRIP SEAL	FOOT	66.0
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	5.0
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	5.0
52100520	ANCHOR BOLTS, 1"	EACH	20.0

2.0/16/12

FILE NAME =	USER NAME = gearlock_jd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwwork\pwwork\gearlock_jd\0208772\0	70965-shr-500.dgn	DRAWN - GMS	REVISED -			1512	36 BDR	VERMILION	34	3	
	PLOT SCALE = 42,000' / in.	CHECKED -	REVISED -			CONTRACT NO. 70965					
	PLOT DATE = 2/25/2013	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

FAS 1512 (US-150)
 VERMILION CO.
 RURAL
 TWO-LANE
 100% STATE
 S. N. 092-0050
 CONSTRUCTION TYPE CODE: 0014

CODE NO	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
58100200	WATERPROOFING MEMBRANE SYSTEM	SO YD	1205.0
67100100	MOBILIZATION	L SUM	1.0
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1.0
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1.0
70106700	TEMPORARY RUMBLE STRIPS	EACH	6.0
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
70800105	TEMPORARY WATER FILLED BARRIER	FOOT	662.5
78001110	PAINT PAVEMENT MARKING - LINE4"	FOOT	1317.0
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	6.0
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6.0
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1.0
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SO YD	22.0

* SPECIALTY ITEM

FILE NAME *	USER NAME * cmarlockjd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
01\pwork\pvidot\cmarlock_jd\028077210	078905-sh1-500.dgn	DRAWN - GMS	REVISED -			1512	36 BDR	VERMILION	34	4	
	PLOT SCALE * 48.0001' / 1"	CHECKED -	REVISED -			CONTRACT NO. 70965					
	PLOT DATE * 10/3/2013	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

GENERAL PLAN & ELEVATION

S.N. 092-0050

THE EXISTING STRUCTURE WAS BUILT IN 1928 BY THE STATE OF ILLINOIS AS S.B.I. ROUTE 10, SECTION 36B-C AT STATION 201+00 IN VERMILION COUNTY. THE STRUCTURE WAS REHABILITATED IN 1977 WITH F.A. ROUTE 11, SECTION 36BR AT STATION 1362+32.35. WITH THAT SECTION, THE ORIGINAL STEEL THROUGH TRUSSES WERE REMOVED AND THE SUBSTRUCTURE UNITS WERE REBUILT TO ACCOMMODATE A NEW WIDENED PLATE GIRDER WITH R.C. DECK SUPERSTRUCTURE. THE STRUCTURE CARRIES F.A.S. 1512 (US-150) OVER THE MIDDLE FORK VERMILION RIVER WEST OF DANVILLE.

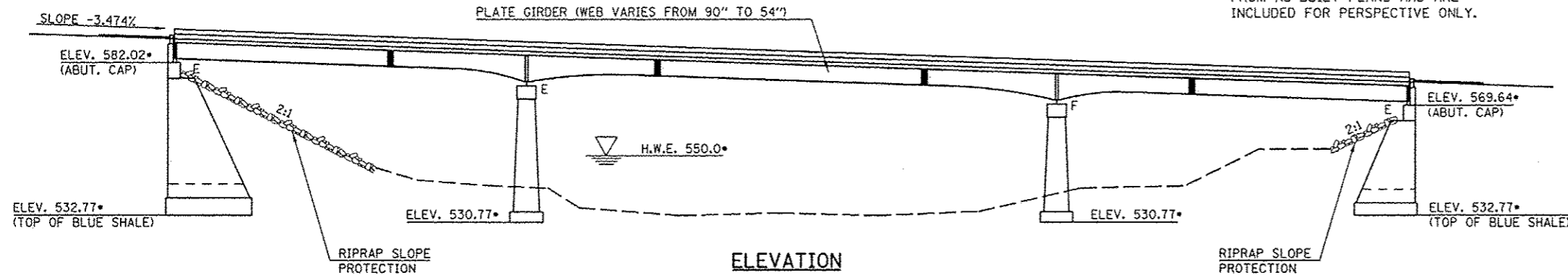
THE SUPERSTRUCTURE CONSISTS OF A 7 1/2" R.C. DECK WITH A WATERPROOFING MEMBRANE SYSTEM AND A 1 1/2" H.M.A. WEARING SURFACE SUPPORTED BY FIVE HAUNCHED WEATHERING STEEL PLATE GIRDERS WITH WEB DEPTHS VARYING FROM 54"-90". THE SUPERSTRUCTURE IS SUPPORTED BY TWO RETROFITTED COUNTERFORT ABUTMENTS AND TWO TAPERED STEM PIERS ON SPREAD FOOTINGS. THE STRUCTURE MEASURES 357'-3" FROM BACK TO BACK OF ABUTMENTS. THE DECK HAS A CLEAR WIDTH OF 30'-6" FROM FACE TO FACE OF CURB AND AN OUT-TO-OUT WIDTH OF 34'-0".

METHOD OF CONSTRUCTION: STAGE CONSTRUCTION. SEE PROPOSED IMPROVEMENTS ON THIS SHEET.

TOTAL BILL OF MATERIALS

ITEM	UNIT	TOTAL
H.M.A. SURFACE REMOVAL (DECK)	SQ YD	1199.0
H.M.A. SURFACE REMOVAL, 1 1/2"	SQ YD	107.0
CLASS D PATCHES, TYPE II, 12"	SQ YD	30.0
WATERPROOFING MEMBRANE SYSTEM	SQ YD	1205.0
BITUMINOUS MATERIALS (PRIME COAT)	GAL	11.0
H.M.A. SURFACE CSE. MIX C, N-50	TON	110.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	90.0
DECK SLAB REPAIR (FULL-DEPTH, TYPE I)	SQ YD	8.0
DECK SLAB REPAIR (FULL-DEPTH, TYPE II)	SQ YD	25.0
APPROACH SLAB REPAIR (PARTIAL)	SQ YD	22.0
JACK AND REMOVE EXISTING BEARINGS	EACH	10.0
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	5.0
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	5.0
FURNISHING & ERECTING STRUCTURAL STEEL	POUND	1690.0
ANCHOR BOLTS, 1"	EACH	20.0
CONCRETE REMOVAL	CU YD	9.1
CONCRETE SUPERSTRUCTURE	CU YD	10.2
REINFORCEMENT, BARS (E)	POUND	1230.0
BAR SPLICERS	EACH	22.0
FLOOR DRAINS	EACH	22.0
PREFORMED JOINT STRIP SEAL	FOOT	66.0

• ELEVATIONS SHOWN HAVE BEEN TAKEN FROM AS-BUILT PLANS AND ARE INCLUDED FOR PERSPECTIVE ONLY.



GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE 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 WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

SEE SPECIAL PROVISION "DECK SLAB REPAIR" FOR ADDITIONAL REQUIREMENTS PERTAINING TO DECK SLAB REPAIR AND H.M.A. SURFACE REMOVAL (DECK).

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. COST INCLUDED WITH CONCRETE REMOVAL.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270, GR. 36, UNLESS OTHERWISE NOTED.

FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 3/4"Ø, OPEN HOLES 1/8"Ø, UNLESS OTHERWISE NOTED.

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 THE 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.

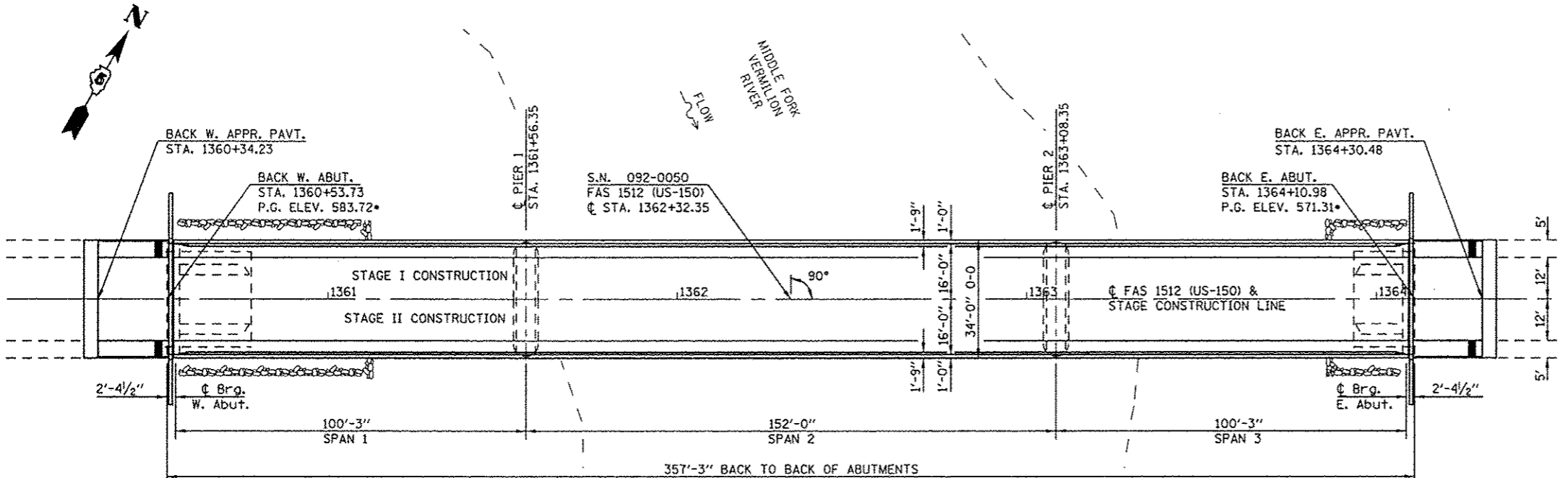
EXISTING STRUCTURAL STEEL THAT WILL BE IN CONTACT WITH NEW STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED PRIOR TO ERECTION AS REQUIRED BY THE SPECIAL PROVISION "CLEANING AND PAINTING CONTACT AREAS OF EXISTING STEEL STRUCTURES".

ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M300, TYPE I. COST INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

IF THE ANALYSIS SUBMITTED TO THE CONTRACTOR FOR THE JACKING/TEMPORARY SUPPORT SYSTEM TO BE USED SHOWS TEMPORARY STIFFENERS ARE REQUIRED TO PREVENT WEB CRIPPLING OR BUCKLING, THE STIFFENERS SHALL BE STEEL AND BOLTED TO THE WEB. IF STIFFENERS ARE NOT REQUIRED, HARDWOOD TIMBERS SHALL BE INSTALLED TIGHTLY BETWEEN THE TOP AND BOTTOM FLANGE TO PREVENT FLANGE ROTATION.

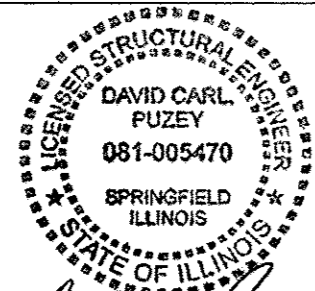
JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STD. SPECS. WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50°F.

THE EXISTING STRUCTURE HAS BEEN FOUND TO CONTAIN NO ASBESTOS.



PROPOSED WORK

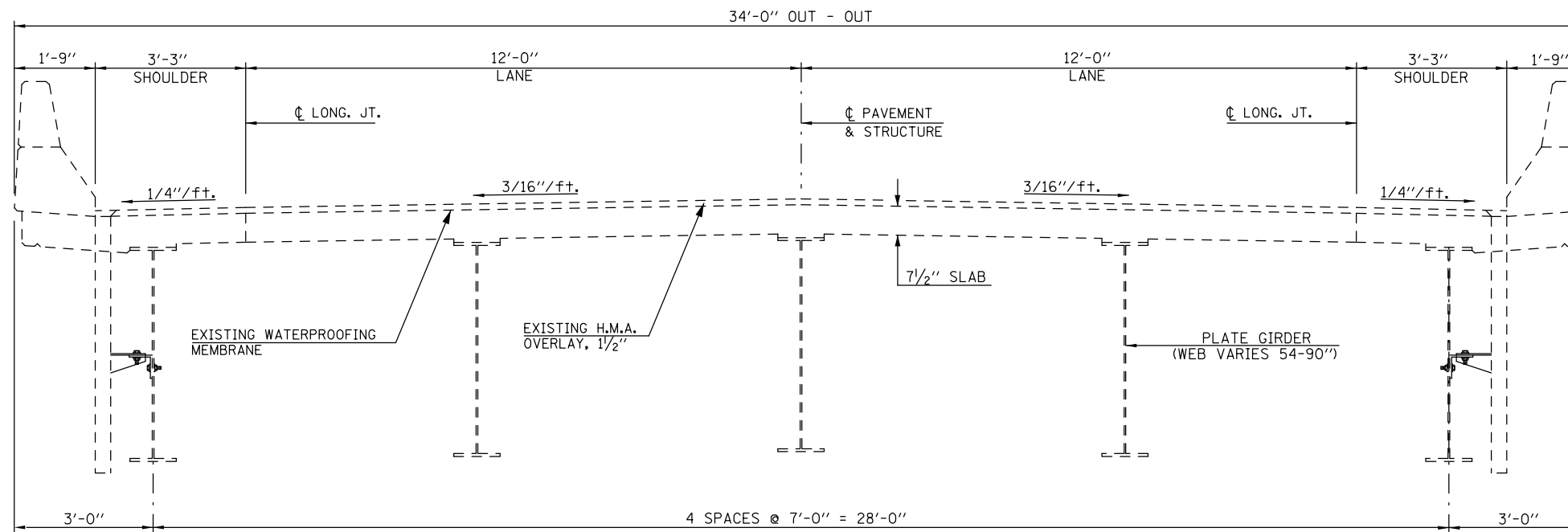
1. REMOVE EXISTING WATERPROOFING MEMBRANE SYSTEM AND H.M.A. WEARING SURFACE ON DECK.
2. MILL 1 1/2" OVER APPROACH PAVEMENTS.
3. PERFORM PARTIAL AND FULL-DEPTH DECK SLAB REPAIR AND PARTIAL DEPTH APPROACH SLAB REPAIR.
4. REPLACE EXISTING ABUTMENT BEARINGS WITH ELASTOMERIC BEARING ASSEMBLIES.
5. REPLACE EXISTING EXPANSION JOINTS WITH PREFORMED JOINT STRIP SEALS.
6. REMOVE DECK DRAINS AND REPLACE WITH FLOOR DRAINS.
7. PLACE NEW WATERPROOFING MEMBRANE SYSTEM AND 1 1/2" H.M.A. WEARING SURFACE ON BRIDGE DECK.
8. PLACE H.M.A. OVERLAY ON APPROACH PAVEMENTS.



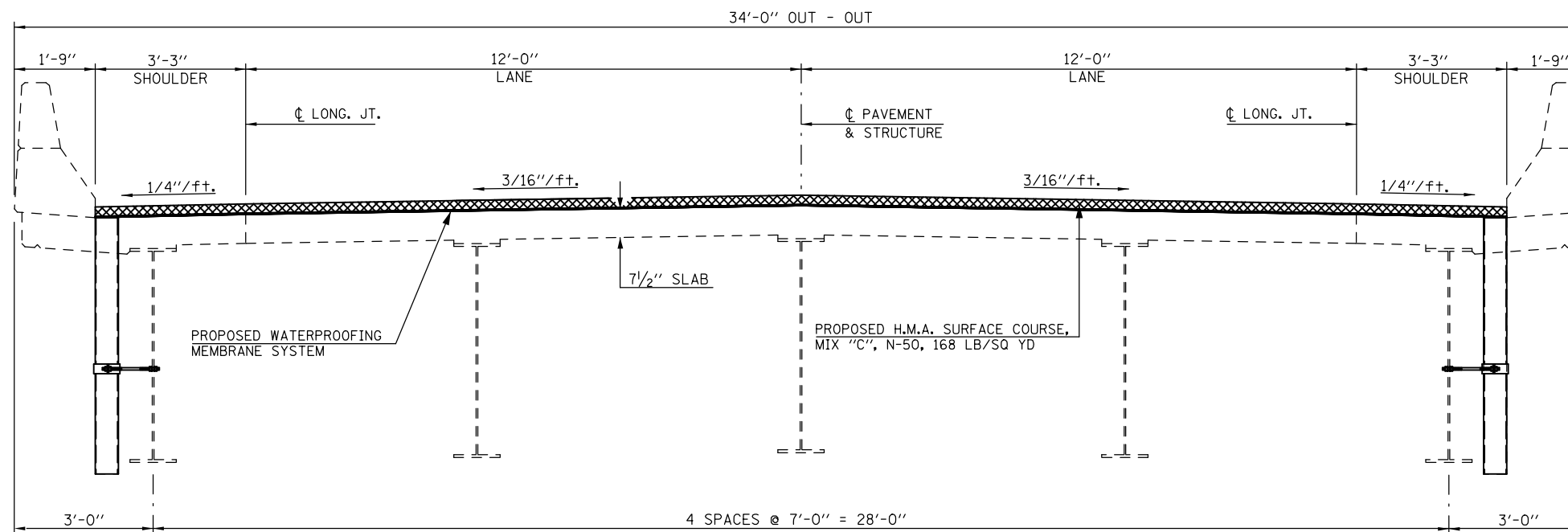
David Carl Puzey 1/23/14
Expires 1/30/14

FILE NAME *	USER NAME * ceerlockjd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN & ELEVATION S.N. 092-0050	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE * 48.0001 / in.	CHECKED -	REVISED -			CONTRACT NO. 70965					
	PLOT DATE * 2/25/2013	DATE - 2-21-2012	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

EXISTING DECK CROSS SECTION S.N. 092-0050

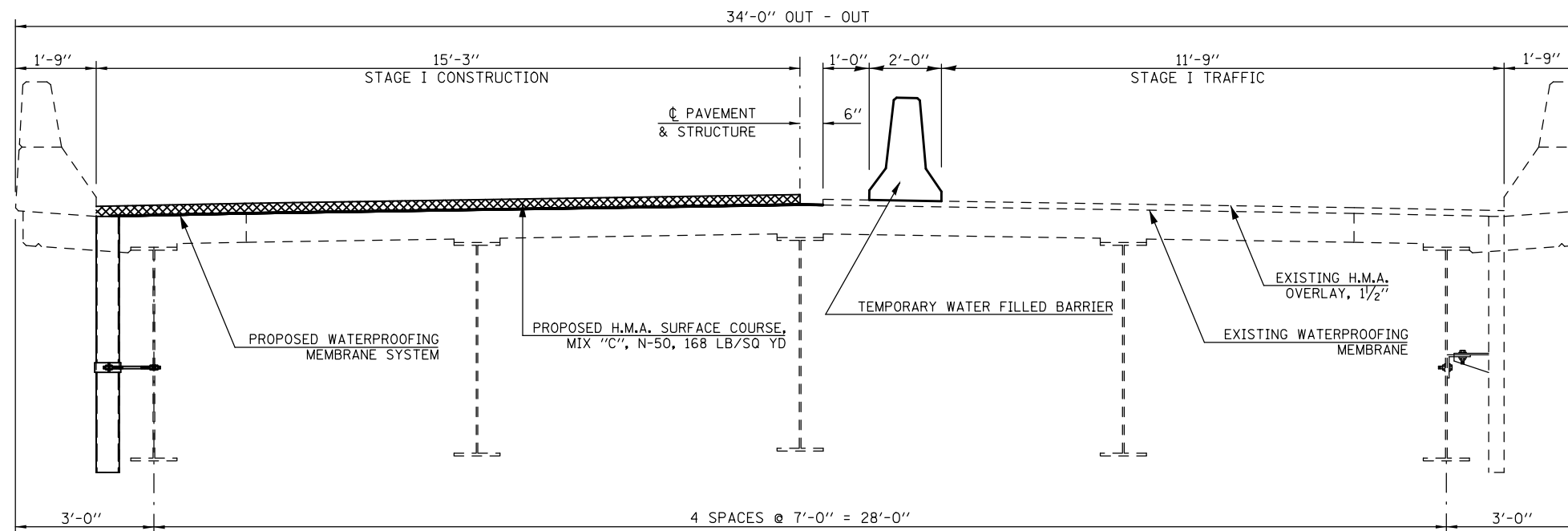


PROPOSED DECK CROSS SECTION S.N. 092-0050

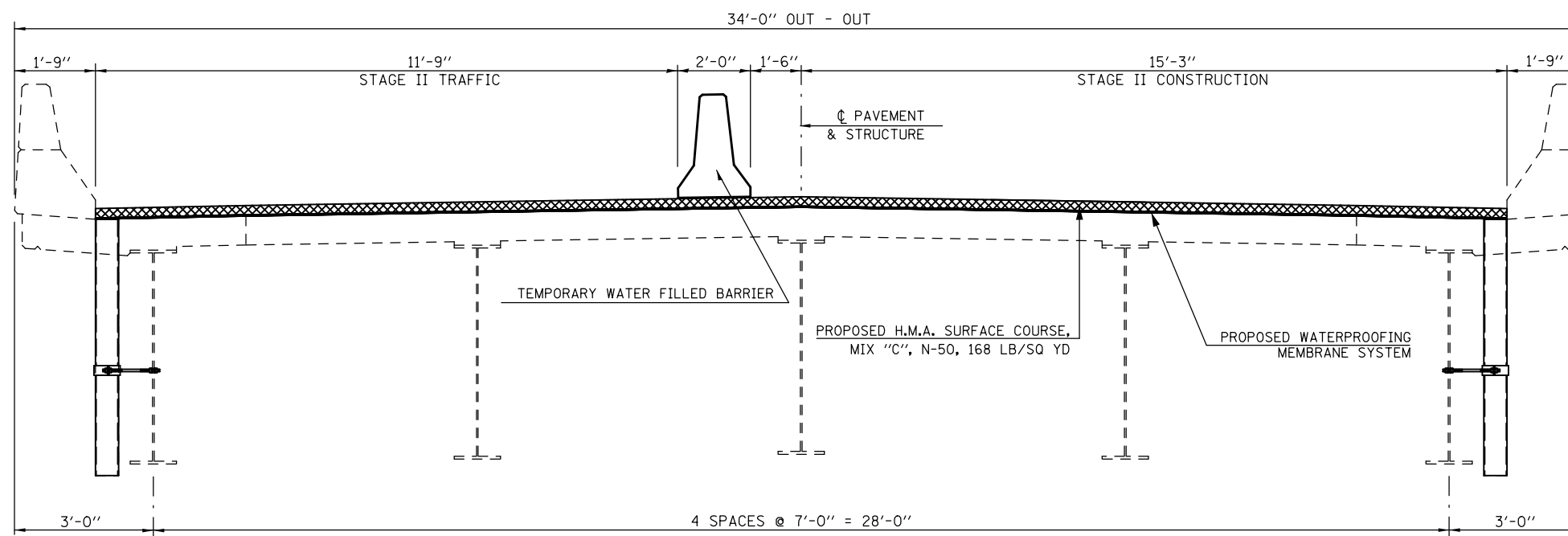


FILE NAME =	USER NAME = ceerlockjd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK CROSS SECTIONS S.N. 092-0050			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ei:\pwork\pwork\ceerlockjd\0280772\B	idge Repairs SN 092-0050.dgn	DRAWN - GMS	REVISED -		SCALE:	SHEET NO. 2 OF 25 SHEETS	STA.	TO STA.	1512	36BDR	VERMILION	34	7
	PLOT SCALE = 40.0001' / in.	CHECKED -	REVISED -						CONTRACT NO. 70965				
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -						ILLINOIS FED. AID PROJECT				

STAGE I DETAILS VIEW EAST



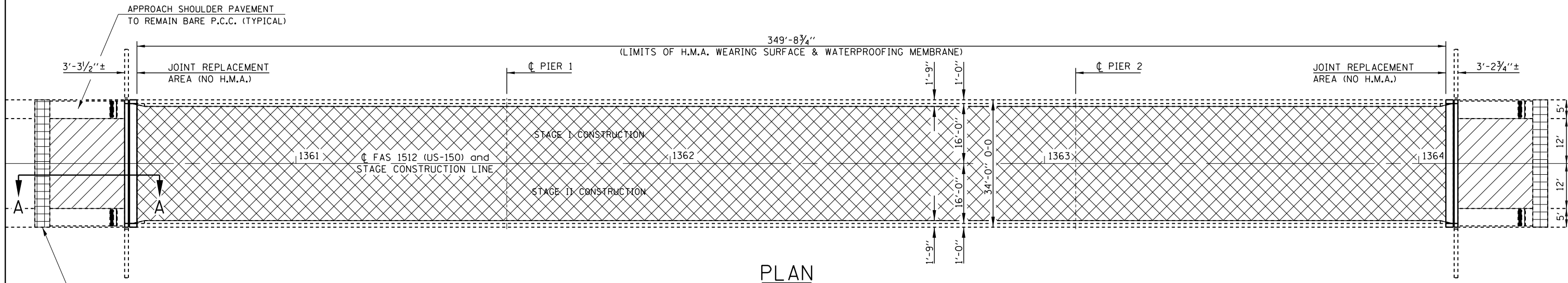
STAGE II DETAILS VIEW EAST



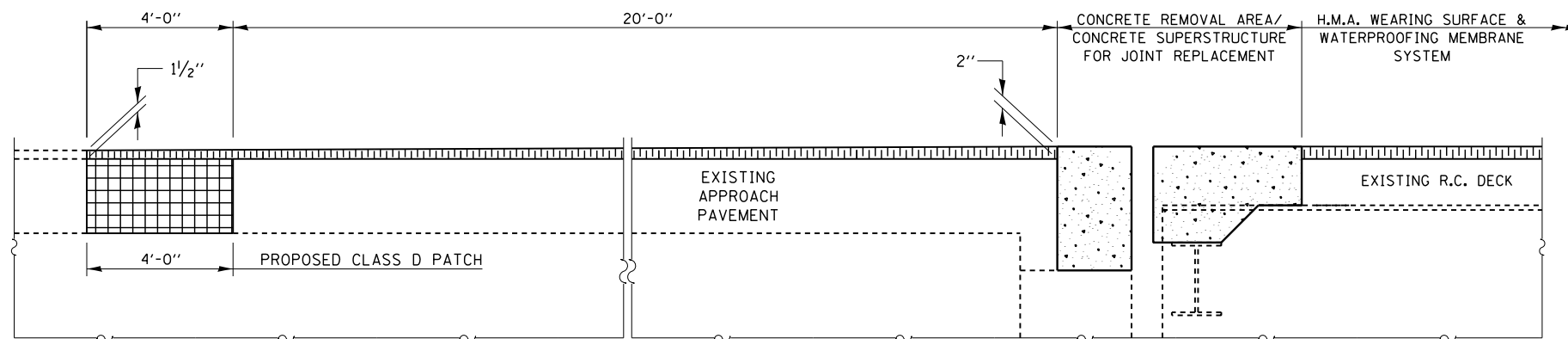
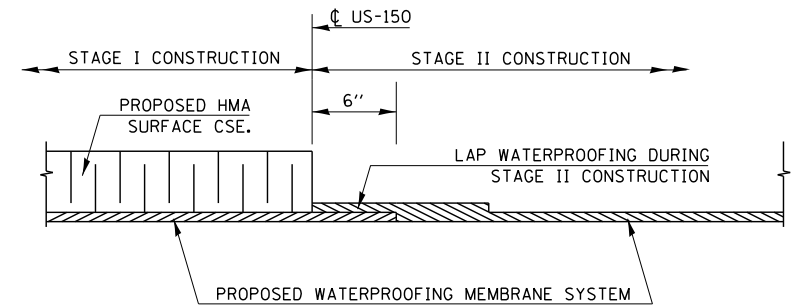
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	Bridge Repairs SN 092-0050.dgn	DRAWN - GMS	REVISED -		SCALE:	SHEET NO. 3 OF 25 SHEETS	STA.	TO STA.	1512	36BDR	VERMILION	34	8
	PLOT SCALE = 40.0001' / in.	CHECKED -	REVISED -					CONTRACT NO. 70965					
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT								

WEARING SURFACE & APPROACH OVERLAY PLAN

S.N. 092-0050



PROPOSED CLASS D PATCHES, TY II, 12" AT END OF APPROACH PAVEMENTS FOR ADDITIONAL EXPANSION. PATCHES SHALL BE FULL WIDTH INCLUDING ANY CURB AT EDGE OF SHOULDER. REPLACE CURB WITH H.M.A. CURB AS NECESSARY. COST INCLUDED WITH THE VARIOUS H.M.A. PAY ITEMS.



LEGEND

- H.M.A. SURFACE REMOVAL (DECK) & PROPOSED 1 1/2" H.M.A. WEARING SURFACE AND WATERPROOFING MEMBRANE SYSTEM
- H.M.A. SURFACE REMOVAL, 1 1/2" & PROPOSED H.M.A. SURFACE OVER APPROACHES
- CLASS D PATCHES, TY II, 12" & 1 1/2" H.M.A. SURFACE COURSE

BILL OF MATERIALS

ITEM	UNIT	TOTAL
H.M.A. SURFACE REMOVAL (DECK)	SQ YD	1199.0
H.M.A. SURFACE REMOVAL, 1 1/2"	SQ YD	107.0
WATERPROOFING MEMBRANE SYSTEM	SQ YD	1205.0
H.M.A. SURFACE COURSE, MIX C, N-50	TON	110.0
BITUMINOUS MATERIALS (PRIME COAT)	GAL	11.0
CLASS D PATCHES, TY II, 12 INCH	SQ YD	30.0

FILE NAME =	USER NAME = brandenburgtj	DESIGNED - GMS	REVISED -
ct:\pw\work\p1dot\brandenburgtj\d0280772\Bridg	Bridge Repairs SN 092-0050.dgn	DRAWN - GMS	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

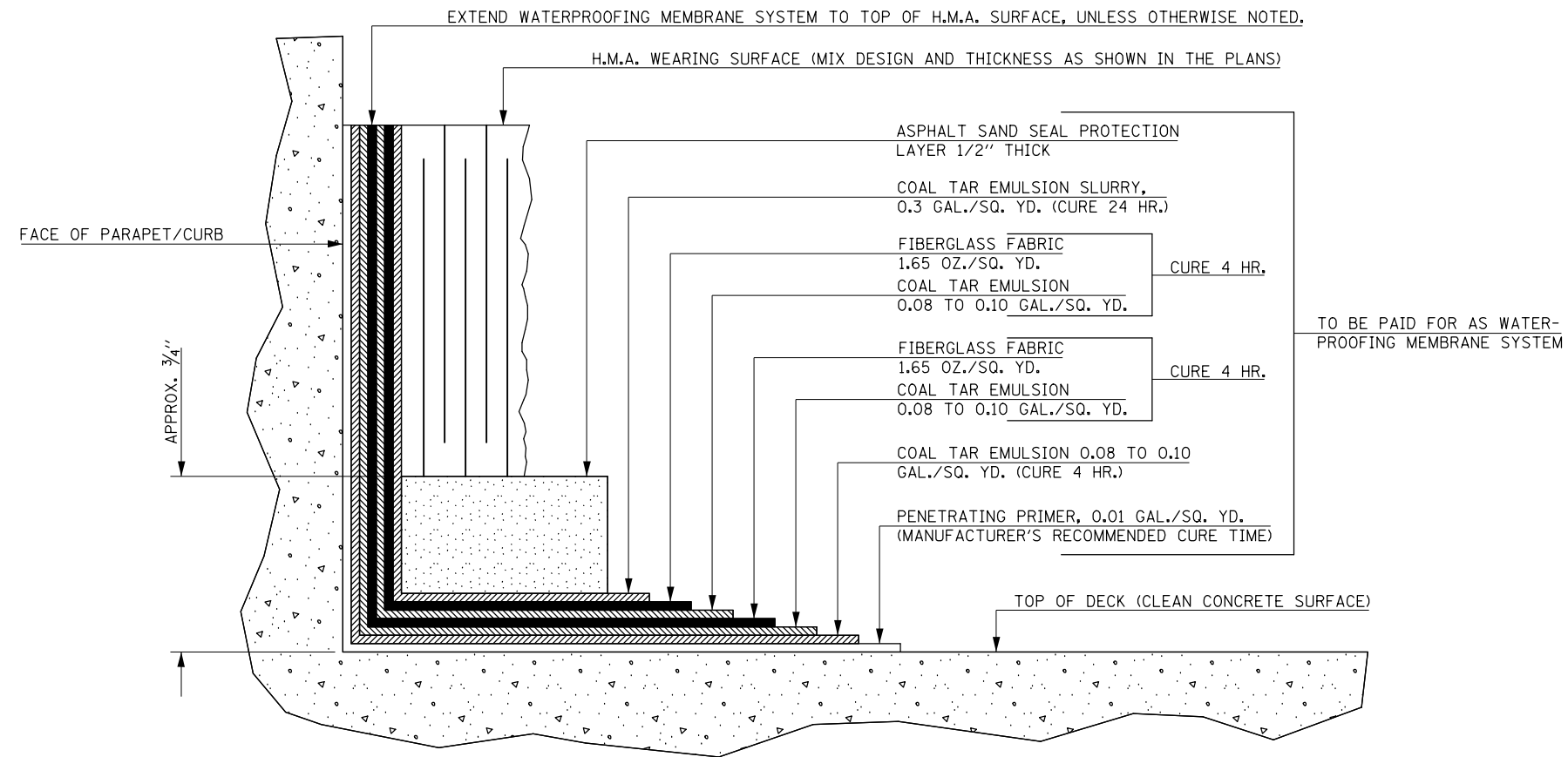
**WEARING SURFACE & APPROACH OVERLAY PLAN
S.N. 092-0050**

SCALE: SHEET NO. 4 OF 25 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36BDR	VERMILION	34	9
			CONTRACT NO. 70965	
ILLINOIS FED. AID PROJECT				

WATERPROOFING MEMBRANE SYSTEM

S.N. 092-0050



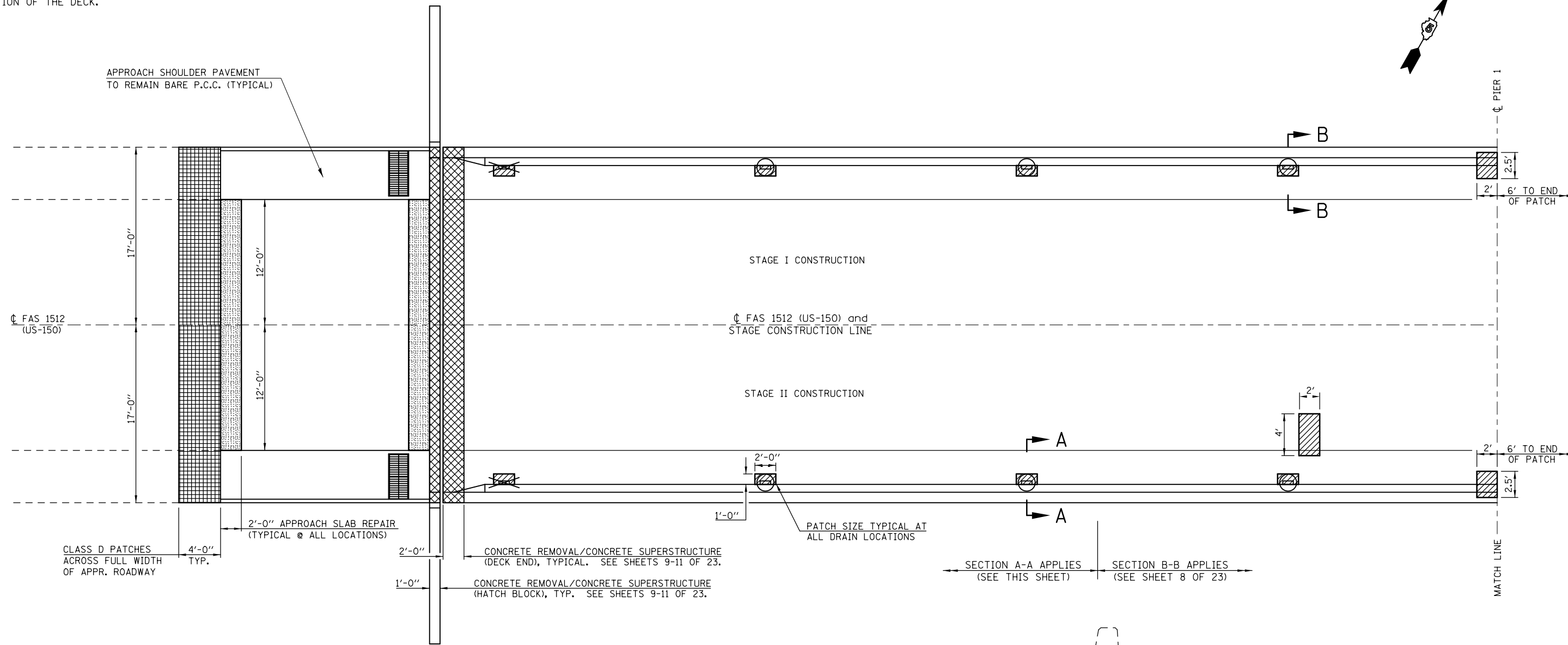
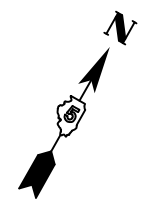
NOTES

THIS DETAIL HAS BEEN INCLUDED TO ILLUSTRATE THE ASSOCIATED LAYERS AND CURE TIMES NECESSARY FOR THE PLACEMENT OF THE WATERPROOFING MEMBRANE SYSTEM. THIS DETAIL SHALL SUPPLEMENT, NOT SUPERSEDE, SECTION 581 OF THE STANDARD SPECIFICATIONS.

FILE NAME =	USER NAME = ceorlockjd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WATERPROOFING MEMBRANE SYSTEM			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	et:\pwork\pwork\ceorlockjd\0280772\B	DRAWN - GMS	REVISED -		S.N. 092-0050			1512	36BDR	VERMILION	34	10
		CHECKED -	REVISED -					CONTRACT NO. 70965				
		DATE - 2-21-2012	REVISED -					ILLINOIS FED. AID PROJECT				
							SCALE:	SHEET NO. 5 OF 25 SHEETS	STA.	TO STA.		

DECK SURVEY PERFORMED ON AUGUST 25, 2011. IF MORE THAN ONE WINTER FREEZE-THAW CYCLE OCCURS BETWEEN THE INITIAL INSPECTION AND THE COMMENCEMENT OF WORK, THE FINAL PLAN QUANTITIES FOR DECK REPAIRS MUST BE BASED ON A NEW INSPECTION OF THE DECK.

DECK SLAB AND APPROACH REPAIR PLAN WEST APPROACH AND SPAN 1



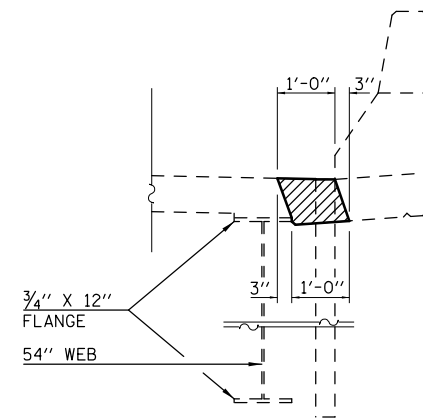
LEGEND

- ELIMINATE FLOOR DRAIN — SEE SHEET 13 OF 23 FOR DETAILS ASSOCIATED WITH PROPOSED FLOOR DRAINS
- PROPOSED FLOOR DRAIN LOCATION
- DECK SLAB REPAIR (FULL DEPTH, TYPE I & TYPE II)
- CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE
- APPROACH SLAB REPAIR, PARTIAL DEPTH
- CLASS D PATCHES, TYPE II, 12"

NOTES

PATCH SIZES SHOWN REPRESENT CONDITIONS AT THE TIME THE PLANS WERE COMPLETED. THE ACTUAL SIZES AND LOCATIONS OF PATCHING SHALL BE DETERMINED BY THE ENGINEER. THE ENGINEER SHALL SHOW THE ACTUAL LOCATIONS OF THE DECK REPAIRS ON THIS SHEET.

THE EXISTING DECK DRAINS SHALL BE REMOVED. COST INCLUDED WITH "DECK SLAB REPAIR (FULL DEPTH, TYPE I)".



SECTION A-A

SHOWING REMOVAL LIMITS FOR DECK SLAB REPAIR (FULL-DEPTH, TYPE I) AT DRAIN LOCATIONS IN AREAS WITH 3/4" X 12" FLANGE.

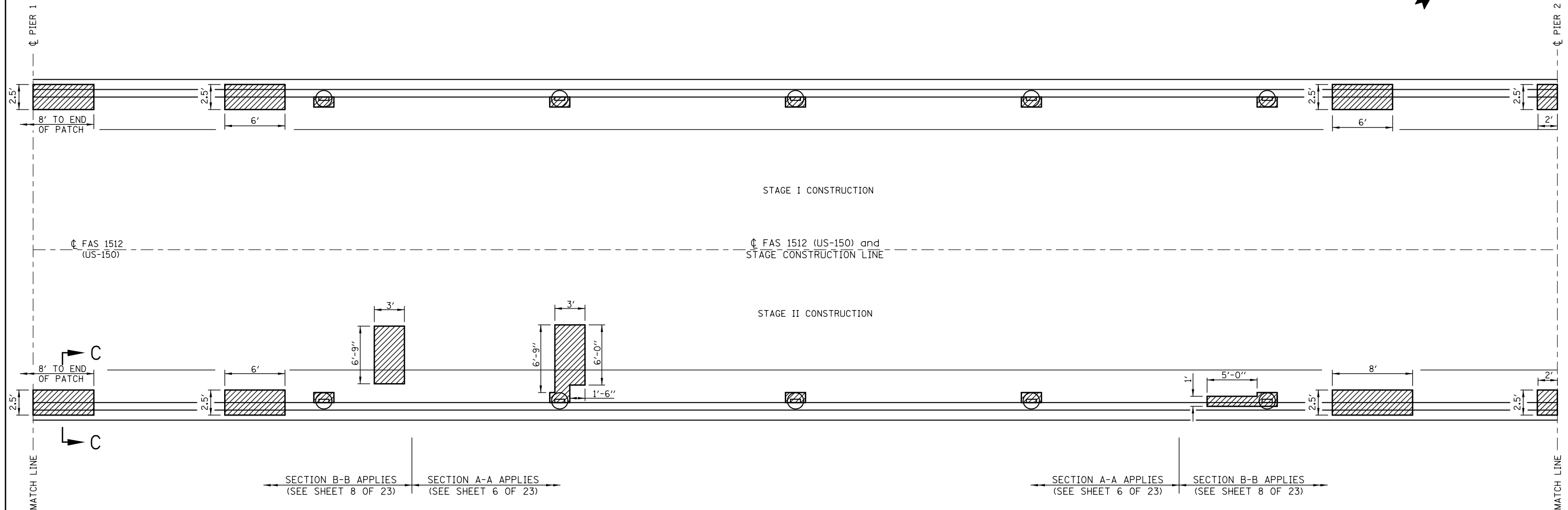
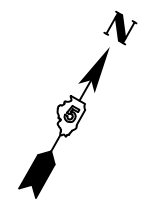
BILL OF MATERIALS (THIS SHEET)

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (FULL DEPTH, TY I)	SQ YD	2.5
DECK SLAB REPAIR (FULL DEPTH, TY II)	SQ YD	3.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	25.0
APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	11.0

FILE NAME =	USER NAME = ceorlockjd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK SLAB AND APPROACH REPAIR PLAN WEST APPROACH AND SPAN 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ei:\pw\work\p\midot\ceorlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN - GMS	REVISED -			1512	36BDR	VERMILION	34	11
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 70965				
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -			ILLINOIS FED. AID PROJECT				
SCALE:						SHEET NO. 6 OF 25 SHEETS	STA.	TO STA.		

DECK SURVEY PERFORMED ON AUGUST 25, 2011. IF MORE THAN ONE WINTER FREEZE-THAW CYCLE OCCURS BETWEEN THE INITIAL INSPECTION AND THE COMMENCEMENT OF WORK, THE FINAL PLAN QUANTITIES FOR DECK REPAIRS MUST BE BASED ON A NEW INSPECTION OF THE DECK.

DECK SLAB REPAIR PLAN SPAN 2



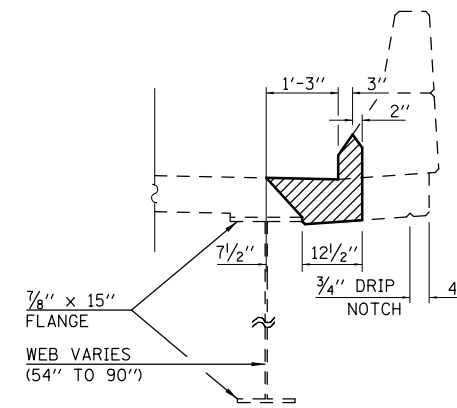
LEGEND

- ELIMINATE FLOOR DRAIN — SEE SHEET 13 OF 23 FOR DETAILS ASSOCIATED WITH PROPOSED FLOOR DRAINS
- PROPOSED FLOOR DRAIN LOCATION
- DECK SLAB REPAIR (FULL DEPTH, TYPE I & TYPE II)

NOTES

PATCH SIZES SHOWN REPRESENT CONDITIONS AT THE TIME THE PLANS WERE COMPLETED. THE ACTUAL SIZES AND LOCATIONS OF PATCHING SHALL BE DETERMINED BY THE ENGINEER. THE ENGINEER SHALL SHOW THE ACTUAL LOCATIONS OF THE DECK REPAIRS ON THIS SHEET.

THE EXISTING DECK DRAINS SHALL BE REMOVED. COST INCLUDED WITH "DECK SLAB REPAIR (FULL DEPTH, TYPE I)".



SECTION C-C

SHOWING REMOVAL LIMITS FOR DECK SLAB REPAIR (FULL-DEPTH, TYPE II) AT LOCATIONS UNDER PARAPET

BILL OF MATERIALS (THIS SHEET)

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (FULL DEPTH, TY I)	SQ YD	3.0
DECK SLAB REPAIR (FULL DEPTH, TY II)	SQ YD	18.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	40.0

FILE NAME =	USER NAME = ceorlockjd	DESIGNED - GMS	REVISED -
ce:\pwwork\pwwork\ceorlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN - GMS	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

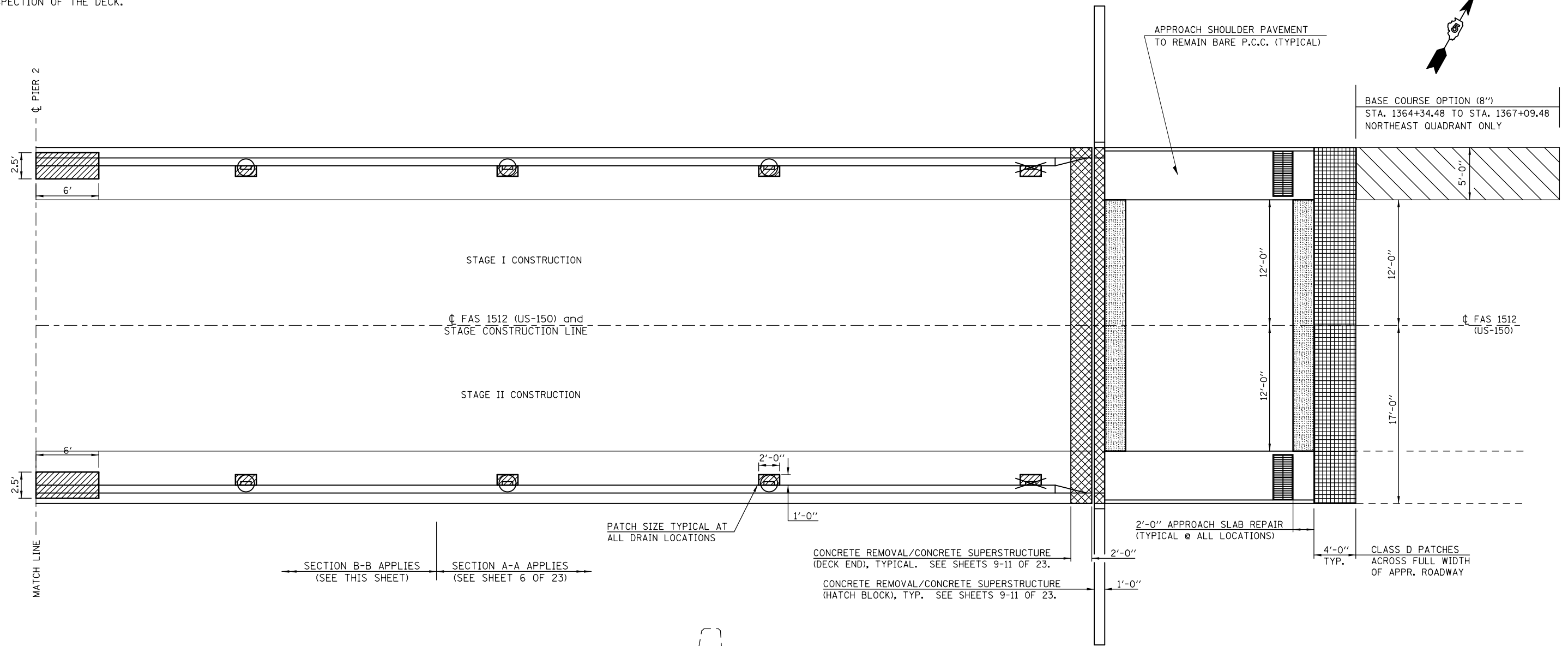
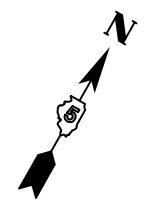
**DECK SLAB REPAIR PLAN
SPAN 2**

SCALE: SHEET NO. 7 OF 25 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36BDR	VERMILION	34	12
CONTRACT NO. 70965				
ILLINOIS FED. AID PROJECT				

DECK SURVEY PERFORMED ON AUGUST 25, 2011. IF MORE THAN ONE WINTER FREEZE-THAW CYCLE OCCURS BETWEEN THE INITIAL INSPECTION AND THE COMMENCEMENT OF WORK, THE FINAL PLAN QUANTITIES FOR DECK REPAIRS MUST BE BASED ON A NEW INSPECTION OF THE DECK.

DECK SLAB AND APPROACH REPAIR PLAN SPAN 3 AND EAST APPROACH



SECTION B-B APPLIES (SEE THIS SHEET) SECTION A-A APPLIES (SEE SHEET 6 OF 23)

PATCH SIZE TYPICAL AT ALL DRAIN LOCATIONS

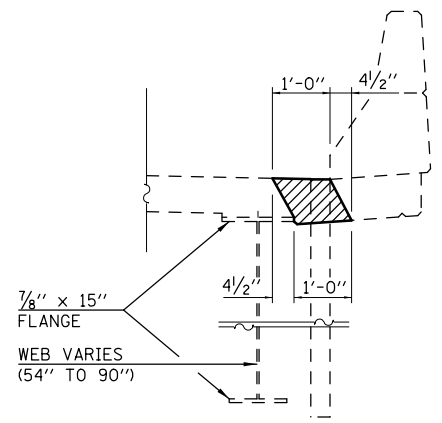
CONCRETE REMOVAL/CONCRETE SUPERSTRUCTURE (DECK END), TYPICAL. SEE SHEETS 9-11 OF 23.
CONCRETE REMOVAL/CONCRETE SUPERSTRUCTURE (HATCH BLOCK), TYP. SEE SHEETS 9-11 OF 23.

2'-0" APPROACH SLAB REPAIR (TYPICAL @ ALL LOCATIONS)

CLASS D PATCHES ACROSS FULL WIDTH OF APPR. ROADWAY

LEGEND

- BASE COURSE OPTION (8")
 - ELIMINATE FLOOR DRAIN
 - PROPOSED FLOOR DRAIN LOCATION
 - DECK SLAB REPAIR (FULL DEPTH, TYPE I & TYPE II)
 - CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE
 - APPROACH SLAB REPAIR, PARTIAL DEPTH
 - CLASS D PATCHING, 12"
- SEE SHEET 13 OF 23 FOR DETAILS ASSOCIATED WITH PROPOSED FLOOR DRAINS



SECTION B-B

SHOWING REMOVAL LIMITS FOR DECK SLAB REPAIR (FULL-DEPTH, TYPE I) AT DRAIN LOCATIONS IN AREAS WITH 7/8" X 15" FLANGE.

NOTES

PATCH SIZES SHOWN REPRESENT CONDITIONS AT THE TIME THE PLANS WERE COMPLETED. THE ACTUAL SIZES AND LOCATIONS OF PATCHING SHALL BE DETERMINED BY THE ENGINEER. THE ENGINEER SHALL SHOW THE ACTUAL LOCATIONS OF THE DECK REPAIRS ON THIS SHEET.

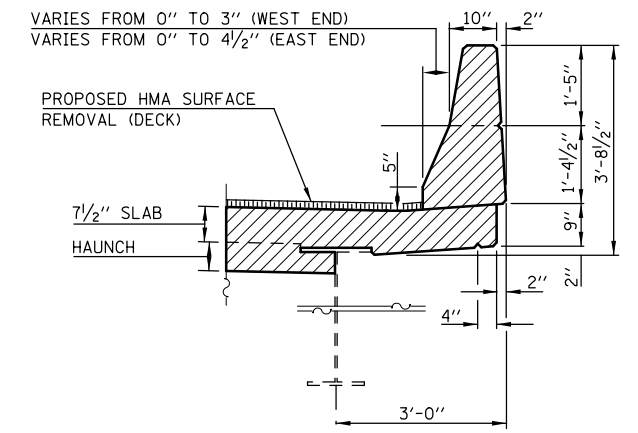
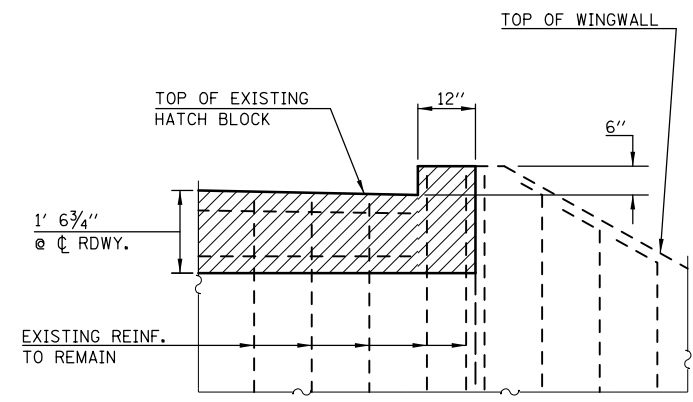
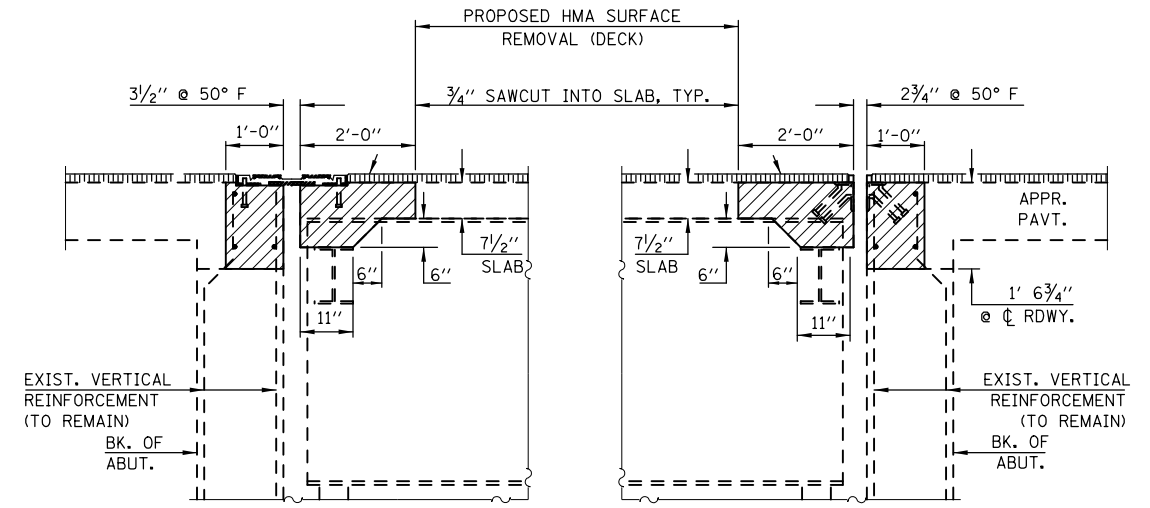
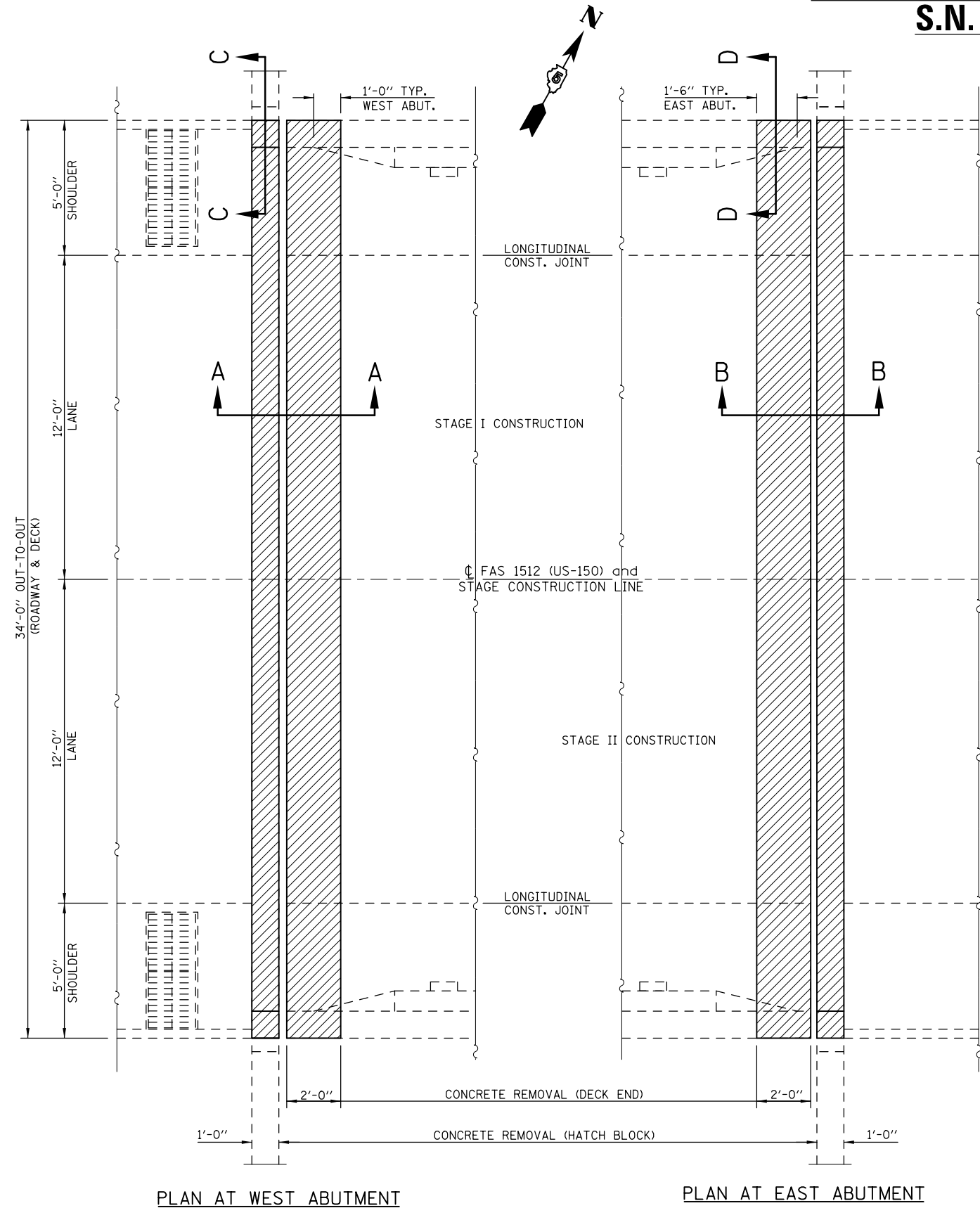
THE EXISTING DECK DRAINS SHALL BE REMOVED. COST INCLUDED WITH "DECK SLAB REPAIR (FULL DEPTH, TYPE I)".

BILL OF MATERIALS (THIS SHEET)

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (FULL DEPTH, TY I)	SQ YD	2.5
DECK SLAB REPAIR (FULL DEPTH, TY II)	SQ YD	4.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	25.0
APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	11.0

CONCRETE REMOVAL PLAN

S.N. 092-0050



NOTES:

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

THE EXISTING EXPANSION JOINT SYSTEMS SHALL BE REMOVED COMPLETELY, AS WELL AS ANY FOREIGN MATERIAL THAT HAS ACCUMULATED OR BEEN PLACED IN THE JOINT OPENINGS. THE COST FOR THIS WORK IS INCLUDED IN CONCRETE REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

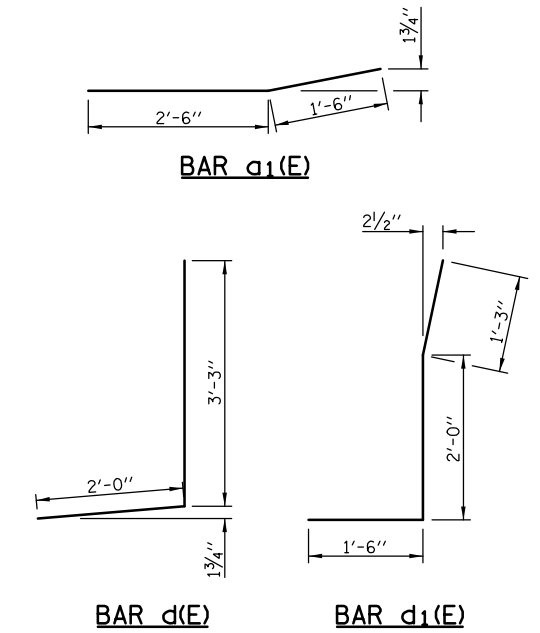
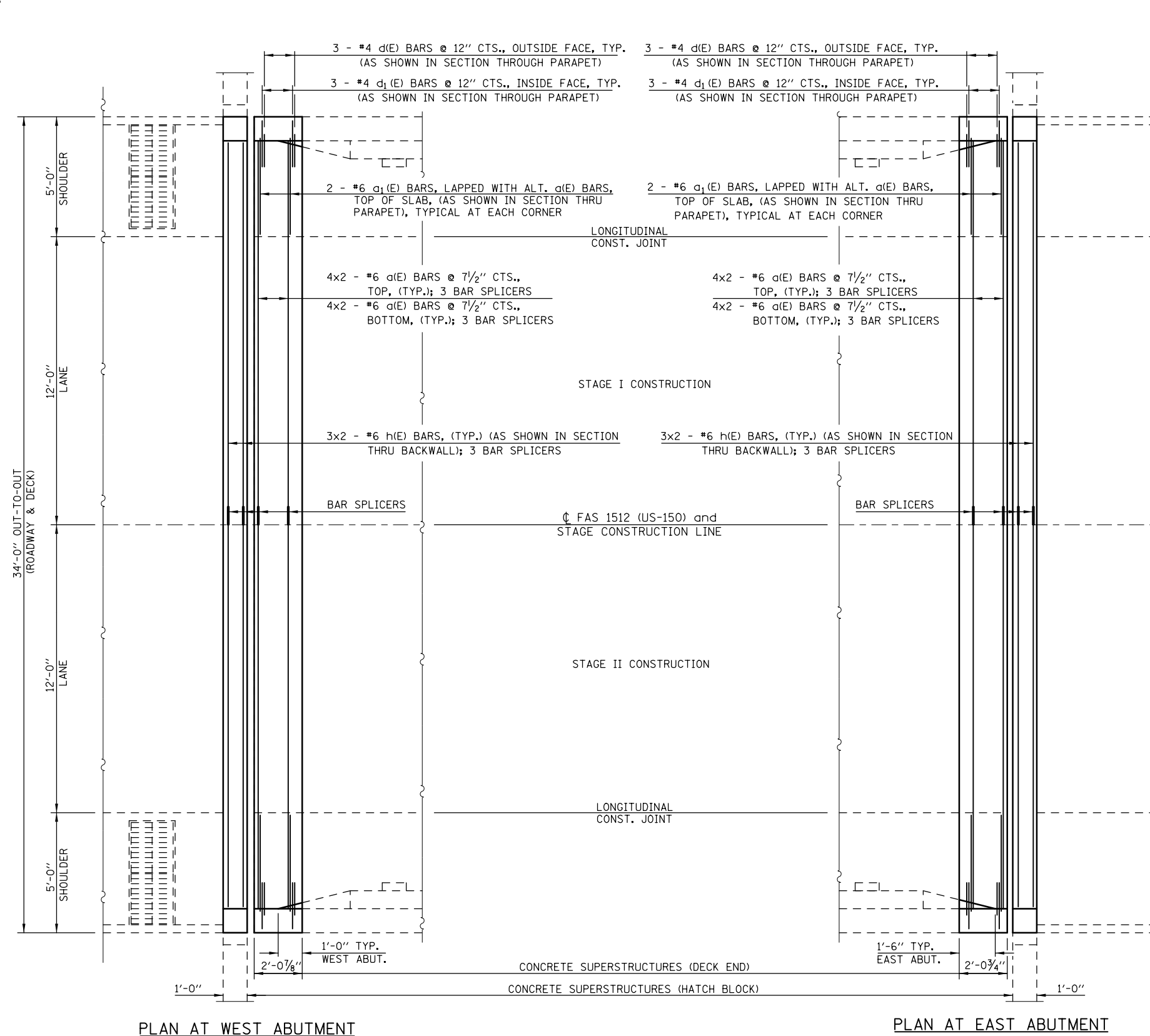
THE GUARDRAIL ATTACHED TO THE END OF THE PARAPETS SHALL BE UNBOLTED TO ALLOW FOR THE REMOVAL AND REPLACEMENT OF THE PARAPET ENDS. FOLLOWING COMPLETION OF THE PARAPET ENDS, THE GUARDRAIL SHALL BE RE-ATTACHED. THE COST OF THIS WORK SHALL BE INCLUDED IN CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURES.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	9.1

SUPERSTRUCTURE REPAIR PLAN

S.N. 092-0050



SEE SECTION DETAILS NEXT SHEET.

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE	
a(E)	32	#6	16'-0"	—	
a ₁ (E)	8	#6	4'-0"	—	
d(E)	12	#4	5'-3"	┌	
d ₁ (E)	12	#5	6'-9"	┌	
h(E)	12	#6	15'-11"	—	
REINFORCEMENT BARS (EPOXY COATED)				POUND	1230.0
CONCRETE SUPERSTRUCTURE				CU YD	10.2
BAR SPLICERS				EACH	22.0

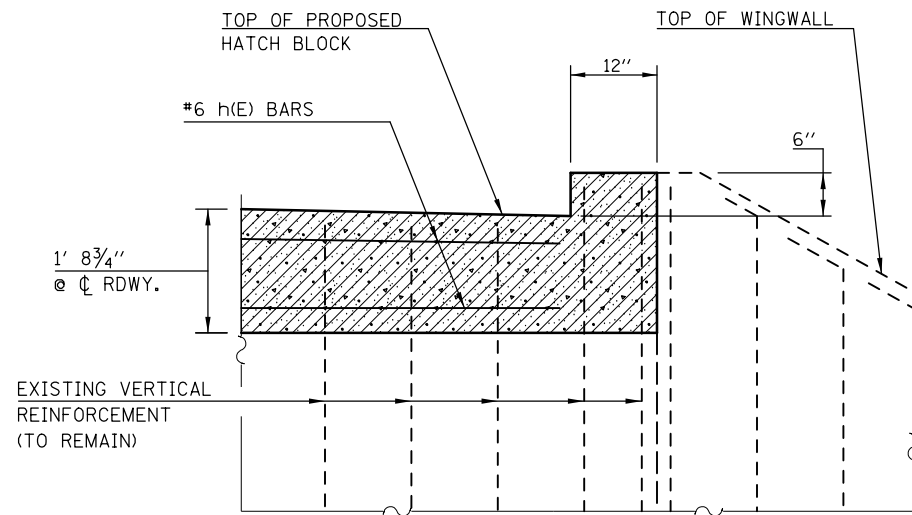
NOTES

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

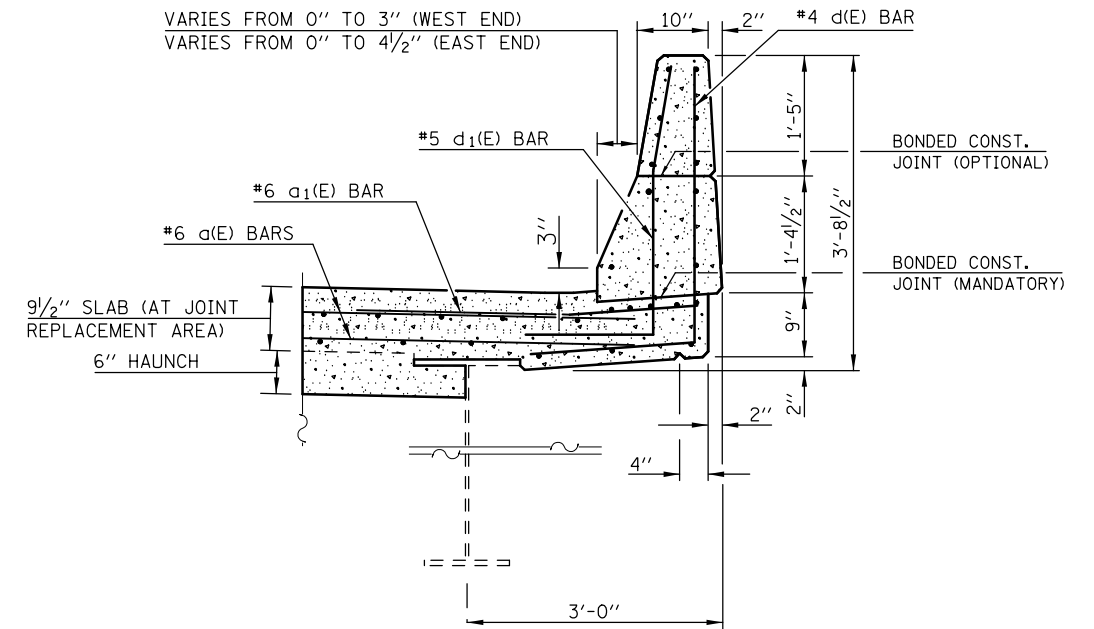
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

SUPERSTRUCTURE REPAIR DETAILS

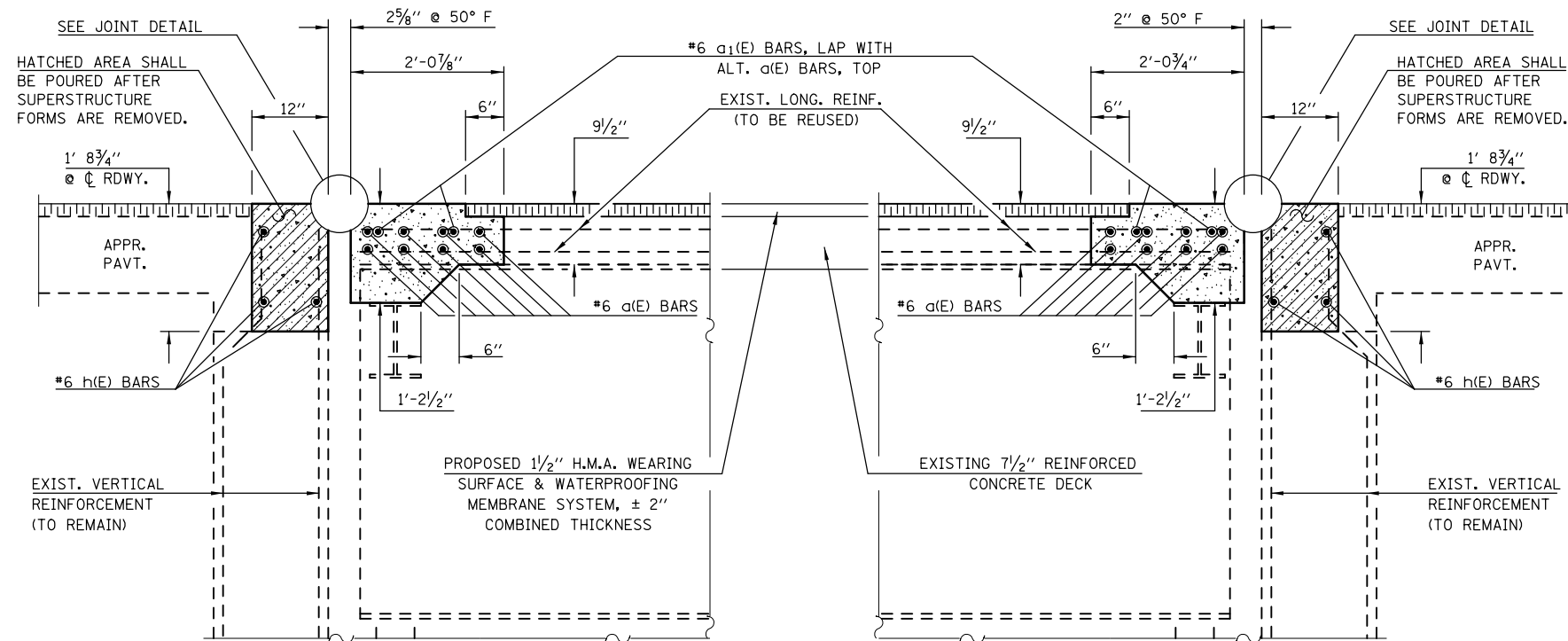
S.N. 092-0050



SECTION C-C
SHOWING CONCRETE SUPERSTRUCTURE LIMITS AT HATCH BLOCKS

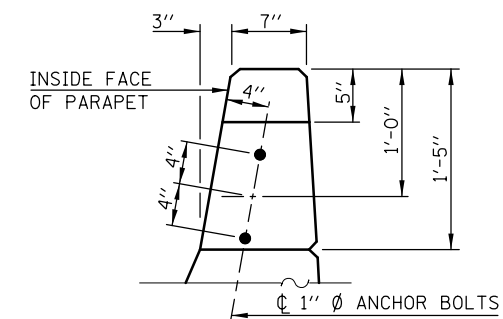


SECTION D-D
SHOWING CONCRETE SUPERSTRUCTURE AT PARAPETS AND DECK ENDS



SECTION A-A
SHOWING CONCRETE SUPERSTRUCTURE LIMITS AT WEST ABUTMENT / DECK END

SECTION B-B
SHOWING CONCRETE SUPERSTRUCTURE LIMITS AT EAST ABUTMENT / DECK END



END VIEW OF PARAPET
SHOWING LOCATIONS OF 1" Ø ANCHOR BOLTS FOR GUARDRAIL

NOTES

THE GUARDRAIL ATTACHED TO THE END OF THE PARAPETS SHALL BE UNBOLTED TO ALLOW FOR THE REMOVAL AND REPLACEMENT OF THE PARAPET ENDS. THE EXISTING ANCHOR BOLTS ARE 3'-6" IN LENGTH WITH ONLY 4"± EXPOSED. CARE SHALL BE TAKEN TO PROTECT THE EXISTING ANCHOR BOLTS DURING CONCRETE REMOVAL SO THAT THEY MAY BE REUSED. IF THE ANCHOR BOLTS ARE DAMAGED OR DETERMINED UNUSABLE BY THE ENGINEER, THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. FOLLOWING COMPLETION OF THE PARAPET ENDS, THE GUARDRAIL SHALL BE RE-ATTACHED. THE COST OF THIS WORK SHALL BE INCLUDED IN CONCRETE REMOVAL & CONCRETE SUPERSTRUCTURES.

EXISTING LONGITUDINAL REINFORCEMENT IN THE DECK AND PARAPETS AND VERTICAL REINFORCEMENT IN THE HATCH BLOCKS SHALL BE REUSED.

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

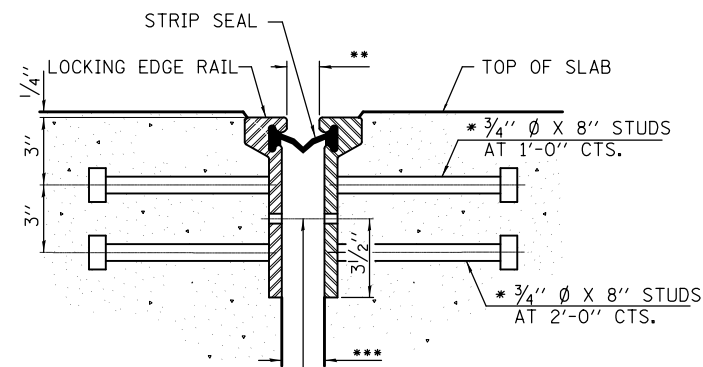
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

FILE NAME =	USER NAME = ceerlockjd	DESIGNED - GMS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE REPAIR DETAILS			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ce:\pw\work\p\dtdot\ceerlockjd\0280772\B	idge Repairs SN 092-0050.dgn	DRAWN - GMS	REVISED -		S.N. 092-0050			1512	36BDR	VERMILION	34	16
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -					CONTRACT NO. 70965				
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -					ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. 11 OF 25 SHEETS STA. TO STA.

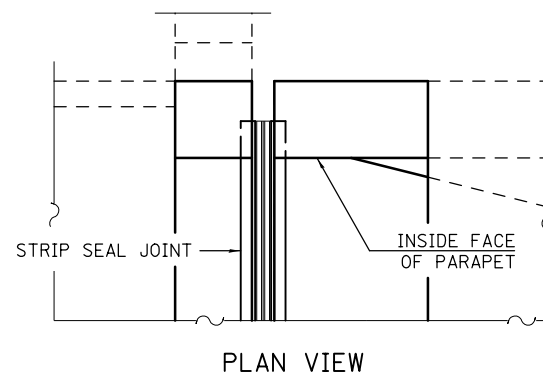
PREFORMED JOINT STRIP SEAL DETAILS

S.N. 092-0050

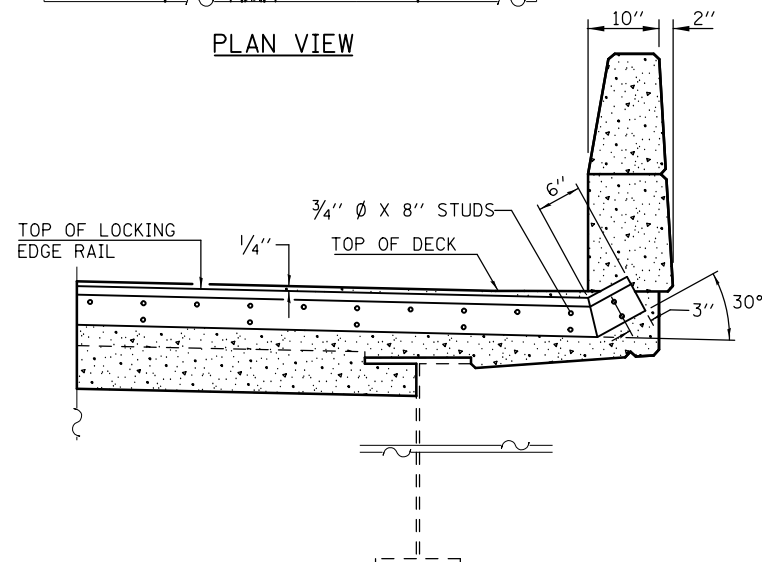


7/16" Ø HOLES AT 4'-0" CTS. FOR 3/8" Ø BOLTS. ALL BOLTS SHALL BE BURNED, SAWED, OR CHIPPED OFF FLUSH WITH THE PLATES AFTER FORMS ARE REMOVED, TYP.

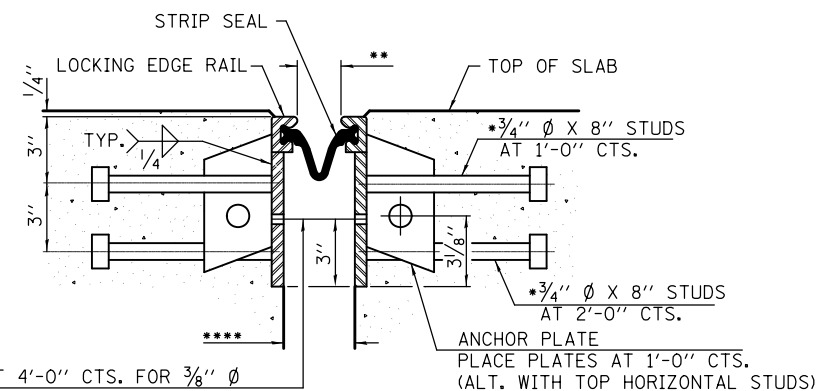
SECTION THRU ROLLED RAIL JOINT



PLAN VIEW



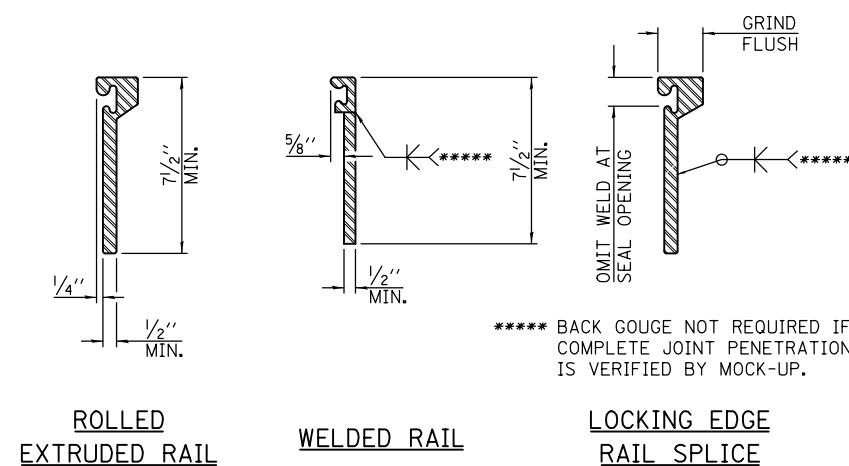
TYPICAL END TREATMENT AT PARAPET



7/16" Ø HOLES AT 4'-0" CTS. FOR 3/8" Ø BOLTS. ALL BOLTS SHALL BE BURNED, SAWED, OR CHIPPED OFF FLUSH WITH THE PLATES AFTER FORMS ARE REMOVED, TYP.

SECTION THRU WELDED RAIL JOINT

- * GRANULAR OR SOLID FLUX FILLED HEADED STUDS CONFORMING TO ARTICLE 1006.32 OF THE STD. SPECS., AUTOMATICALLY END WELDED.
- ** 2 1/8" @ 50° F AT WEST ABUTMENT, 1 1/2" @ 50° F AT EAST ABUTMENT
- *** 2 5/8" @ 50° F AT WEST ABUTMENT, 2" @ 50° F AT EAST ABUTMENT
- **** 3 3/8" @ 50° F AT WEST ABUTMENT, 2 3/4" @ 50° F AT EAST ABUTMENT



ROLLLED EXTRUDED RAIL WELDED RAIL LOCKING EDGE RAIL SPLICE

***** BACK GOUGE NOT REQUIRED IF COMPLETE JOINT PENETRATION IS VERIFIED BY MOCK-UP.

LOCKING EDGE RAILS

THE INSIDE OF THE LOCKING EDGE RAIL GROOVE SHALL BE FREE OF WELD RESIDUE. (ROLLED RAIL SHOWN, WELDED RAIL SIMILAR)

BILL OF MATERIALS

ITEM	UNIT	TOTAL
PREFORMED JOINT STRIP SEAL	FOOT	66.0

NOTES:

THE STRIP SEAL SHALL BE MADE CONTINUOUS AND SHALL HAVE A MINIMUM THICKNESS OF 1/4". THE CONFIGURATION OF THE STRIP SEAL SHALL MATCH THE CONFIGURATION OF THE LOCKING EDGE RAILS. OPEN OR "WEBBED" STRIP SEAL GLAND CONFIGURATIONS ARE NOT PERMITTED. THE GLAND SHALL BE SIZED FOR A MAXIMUM RATED MOVEMENT OF 4 INCHES.

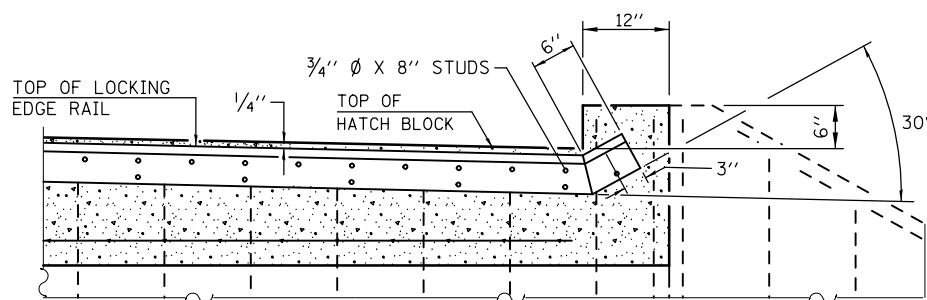
THE LOCKING EDGE RAILS DEPICTED ARE CONCEPTUAL ONLY, EXCEPT FOR THE MINIMUM DIMENSIONS SHOWN. THE ACTUAL CONFIGURATION OF THE LOCKING EDGE RAILS AND MATCHING STRIP SEAL MAY VARY FROM MANUFACTURER TO MANUFACTURER. FLANGED EDGE RAILS WILL NOT BE ALLOWED. LOCKING EDGE RAILS MAY BE SPLICED AT SLOPE DISCONTINUITIES.

THE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS SHALL BE FOLLOWED.

THE JOINT OPENING AND DECK DIMENSIONS DETAILED ON THE SUPERSTRUCTURE ARE BASED ON A ROLLED RAIL EXPANSION JOINT. IF THE CONTRACTOR ELECTS TO USE THE WELDED RAIL EXPANSION JOINT, THE OPENING AND DECK DIMENSIONS SHALL BE MODIFIED ACCORDING TO THE DIMENSIONS DETAILED ON THIS SHEET. REQUIRED MODIFICATIONS SHALL BE MADE AT NO ADDITIONAL COST TO THE STATE.

ALL STEEL COMPONENTS SHALL BE GALVANIZED AFTER FABRICATION ACCORDING TO ARTICLE 520.03 OF THE STANDARD SPECIFICATIONS.

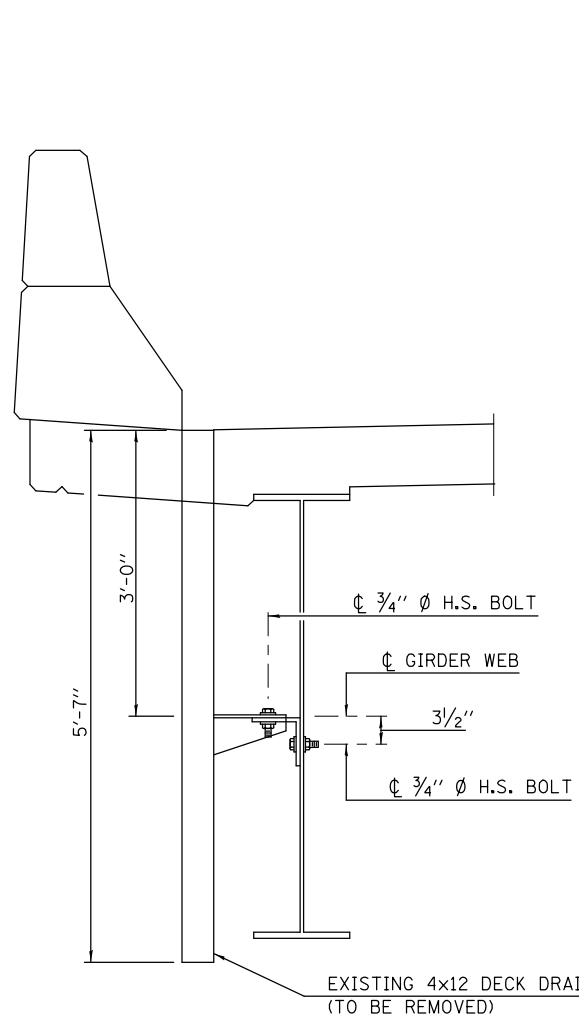
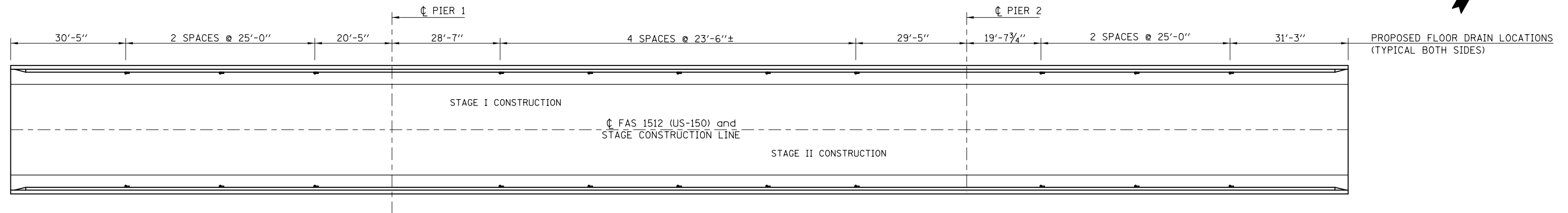
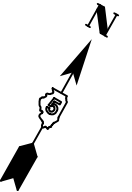
MAXIMUM SPACE BETWEEN RAIL SEGMENTS AT STAGE LINES SHALL BE 3/16", SEALED WITH A SUITABLE SEALANT.



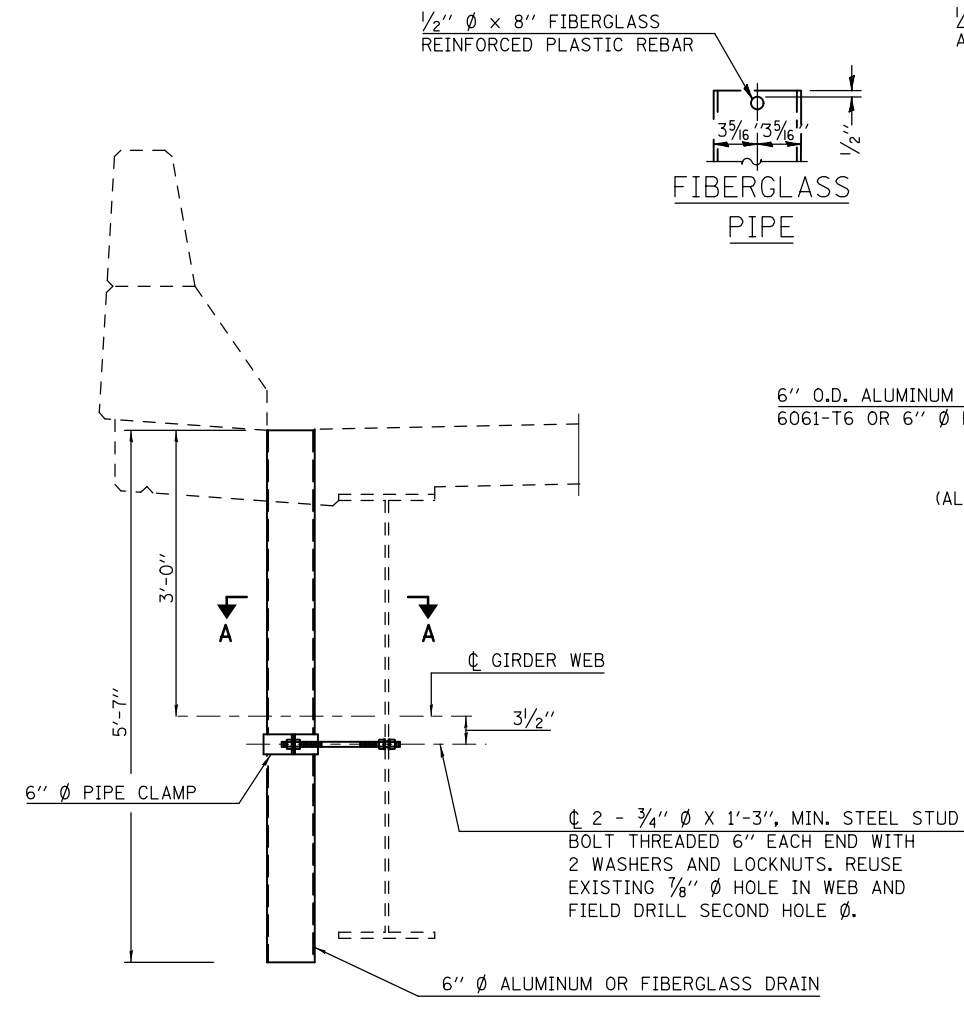
TYPICAL END TREATMENT AT HATCH BLOCK

FLOOR DRAIN DETAILS

S.N. 092-0050

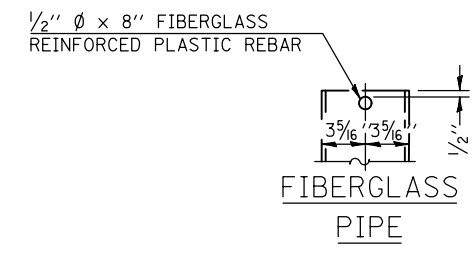


SECTION AT
EXISTING DRAIN

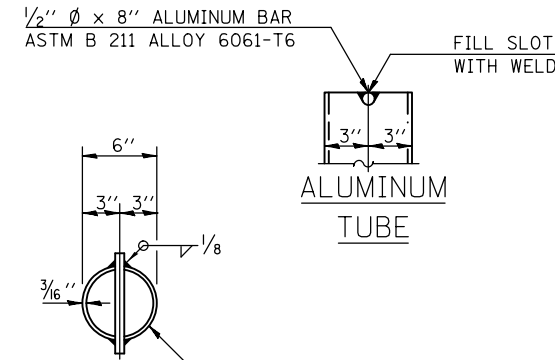


SECTION AT
PROPOSED DRAIN

TO REMOVE AND REPLACE DRAINS,
SEE CONCRETE REMOVAL DETAILS

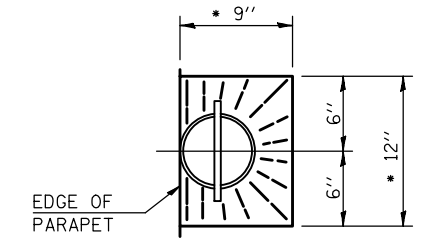


FIBERGLASS
PIPE



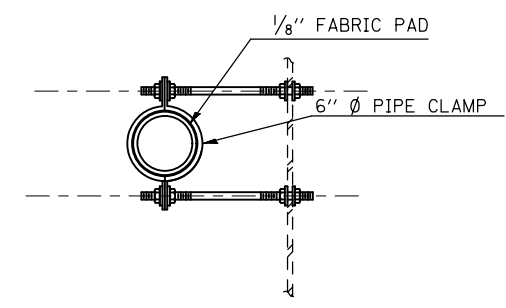
6" O.D. ALUMINUM TUBE ALLOY
6061-T6 OR 6" Ø FIBERGLASS PIPE

TOP PLAN
(ALUMINUM TUBE SHOWN)



TOP PLAN

• SLOPE TO DRAIN



SECTION A-A

SHOWING PIPE CLAMP
ANCHORAGE STYLE

NOTES:

PROPOSED FLOOR DRAIN LOCATIONS HAVE BEEN ADJUSTED APPROXIMATELY 5" TO ALLOW FOR THE REUSE OF THE EXISTING HOLES IN THE WEATHERING STEEL BEAM WEBS.

FLOOR DRAINS NEED NOT BE PAINTED.

FIBERGLASS PIPE SHALL CONFORM TO ASTM D 2996, WITH SHORT-TIME RUPTURE STRENGTH HOOP TENSILE STRESS OF 30,000 P.S.I. MINIMUM.

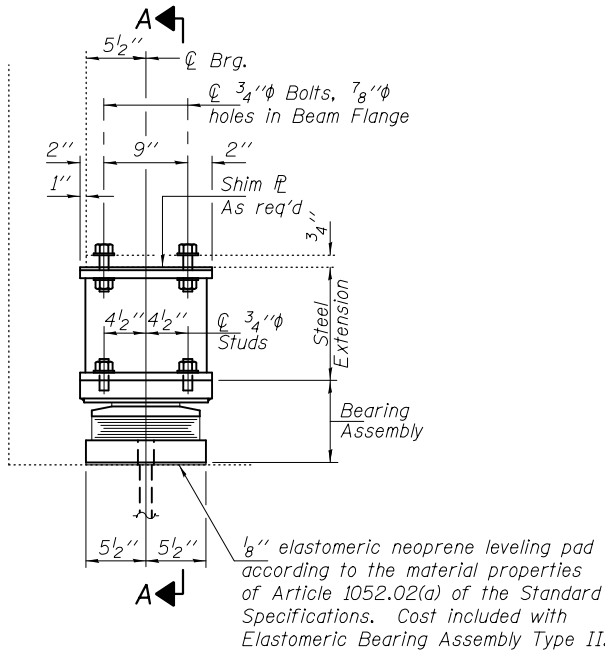
GALVANIZE CLAMPING DEVICE AND ALL STUD BOLTS, WASHERS AND NUTS ACCORDING TO AASHTO M232.

ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING OF MATERIALS.

BILL OF MATERIALS

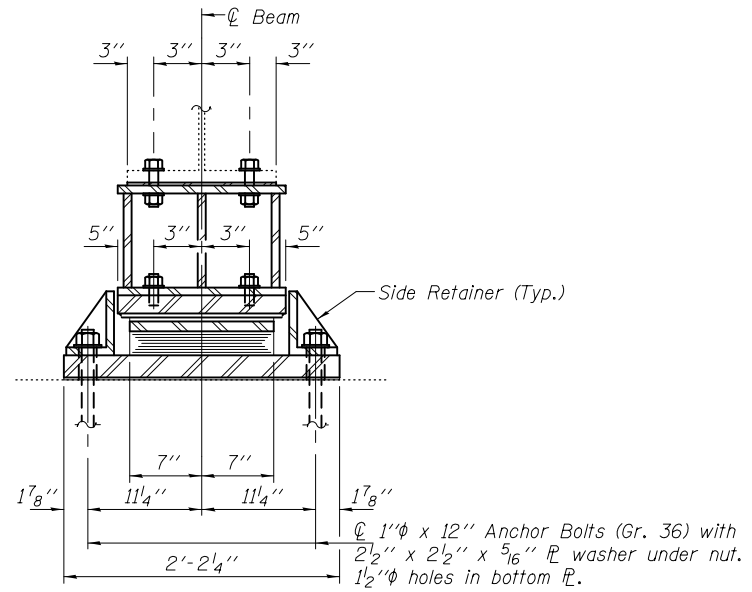
ITEM	UNIT	TOTAL
FLOOR DRAINS	EACH	22.0

COST OF REMOVAL OF EXISTING DRAINS IS INCLUDED IN DECK SLAB REPAIR.



ELEVATION AT ABUTMENT

TYPE II TFE ELASTOMERIC EXP. BRG.

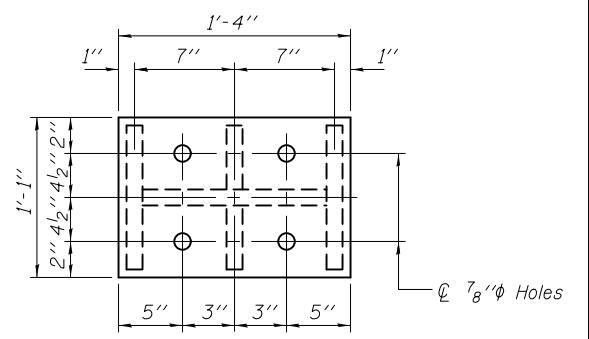


SECTION A-A

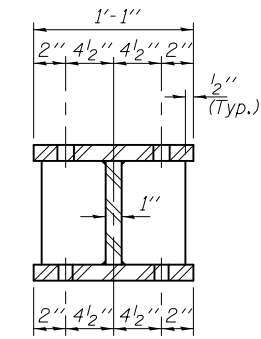
BEAM REACTIONS

R _l	(K)	43.6
R _t	(K)	40.6
Imp.	(K)	9.0
R (Total)	(K)	93.2

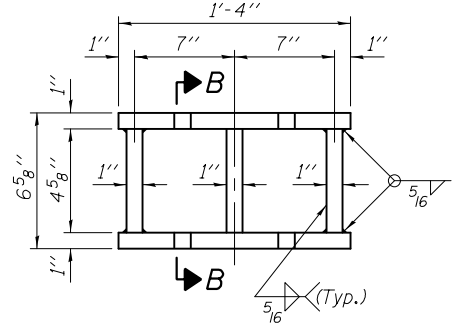
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 55 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



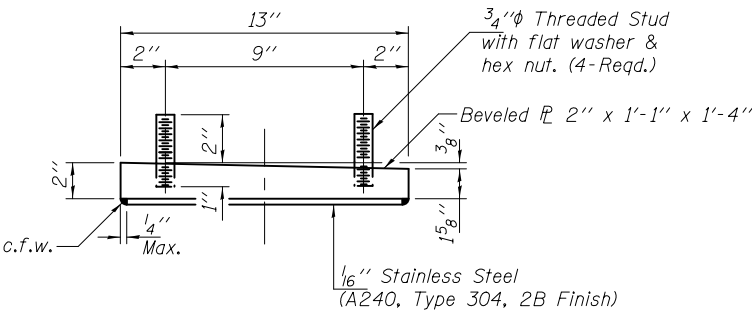
PLAN TOP AND BOTTOM PLATE



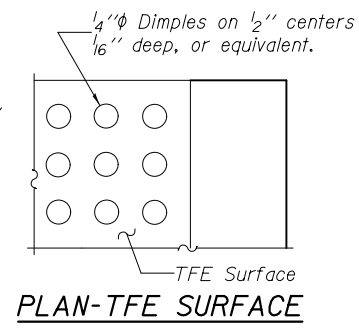
SECTION B-B



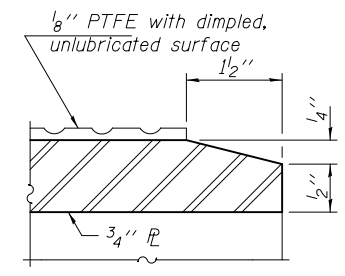
STEEL EXTENSION DETAIL



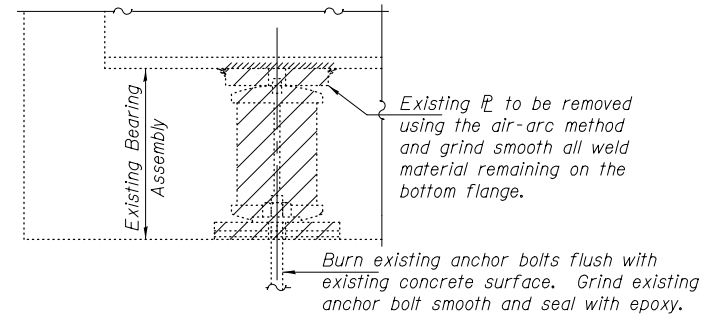
TOP BEARING ASSEMBLY
(Looking North)



PLAN-TFE SURFACE

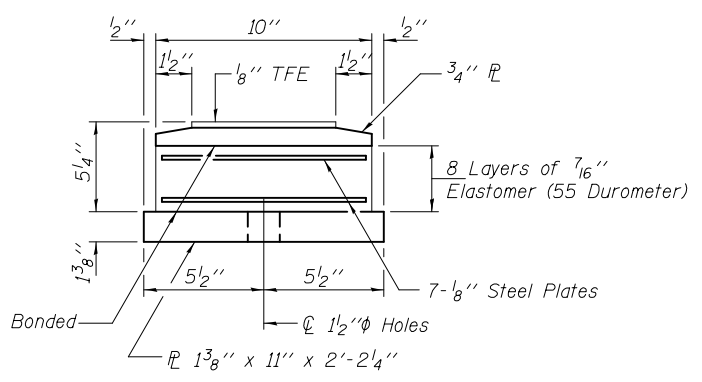


SECTION THRU TFE

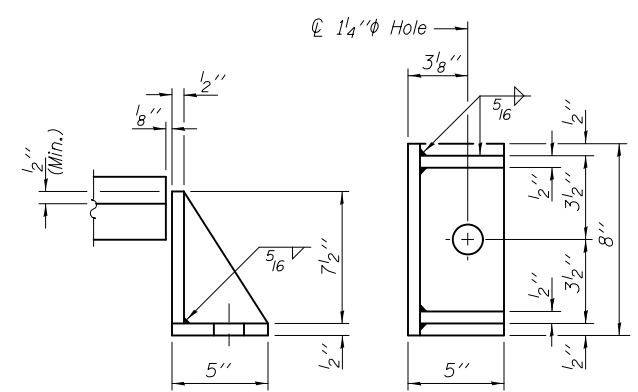


EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

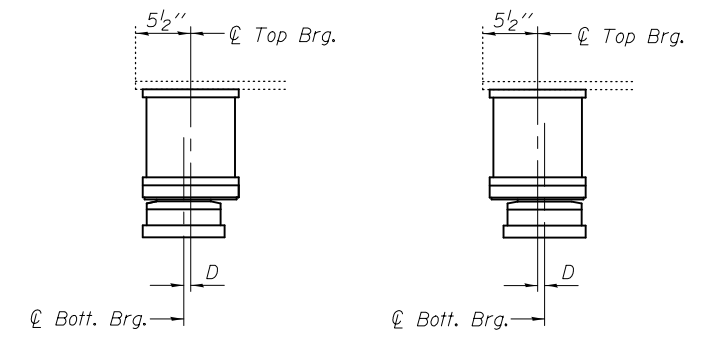


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

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



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	920
Anchor Bolts 1"φ	Each	10

TYII/REPS 12-03-2008

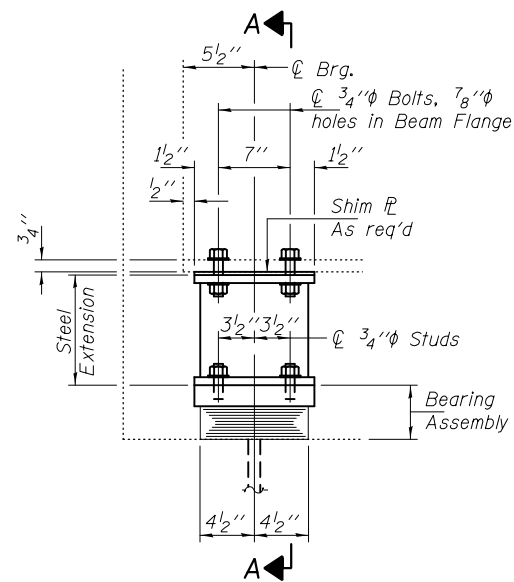
DESIGNED VHV	EXAMINED	DATE - JANUARY 22, 2014
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES
CHECKED VHV DAB		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

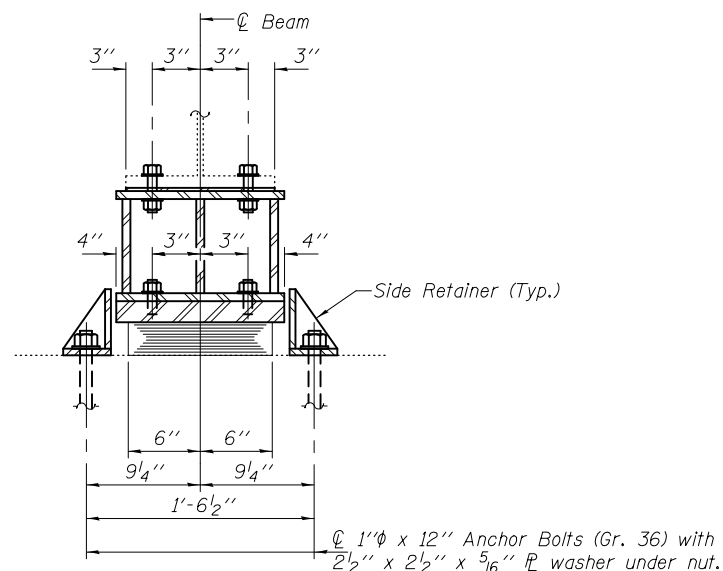
W. ABUTMENT BEARING REPLACEMENT DETAILS
SN 092-0050

SHEET NO. 14 OF 25 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36BDR	VERMILION	34	19
CONTRACT NO. 70965				
ILLINOIS FED. AID PROJECT				

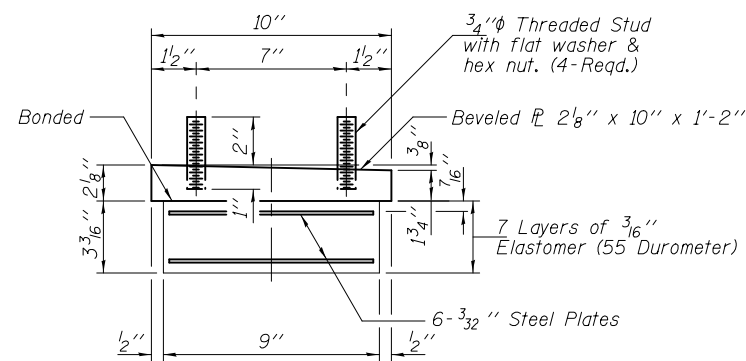


ELEVATION AT ABUTMENT



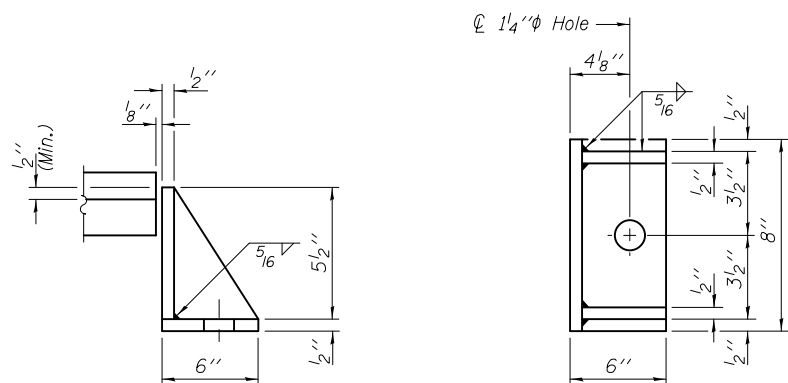
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

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



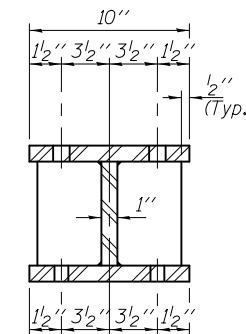
SIDE RETAINER

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

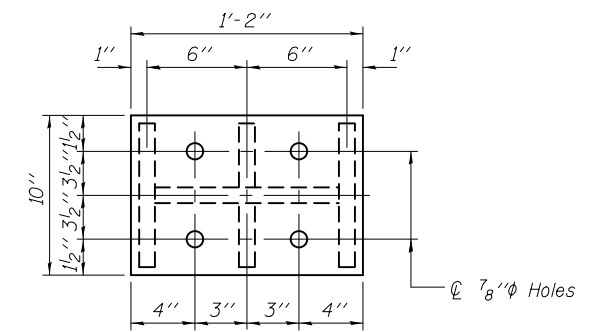
BEAM REACTIONS

R _D	(K)	43.6
R _L	(K)	40.6
Imp.	(K)	9.0
R (Total)	(K)	93.2

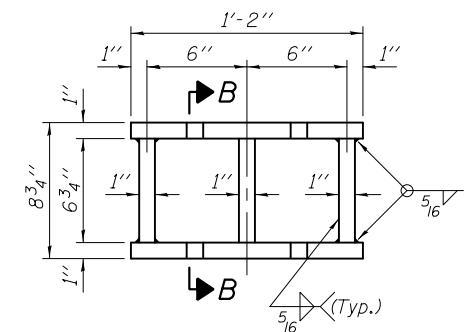
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Min. jack capacity = 55 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.
 Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



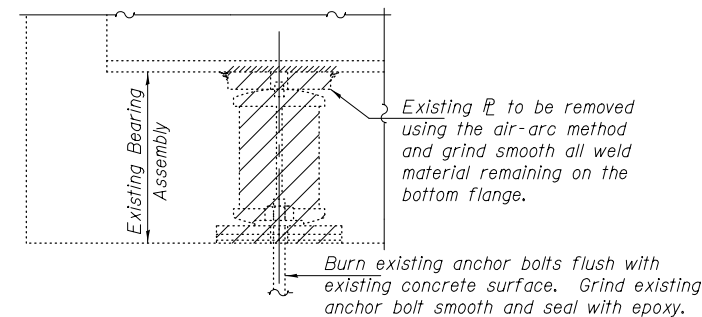
SECTION B-B



PLAN TOP AND BOTTOM PLATE



STEEL EXTENSION DETAIL



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Jack and Remove Existing Bearings	Each	5
Furnishing and Erecting Structural Steel	Pound	770
Anchor Bolts 1 inch	Each	10

TYI/REPS 12-03-2008

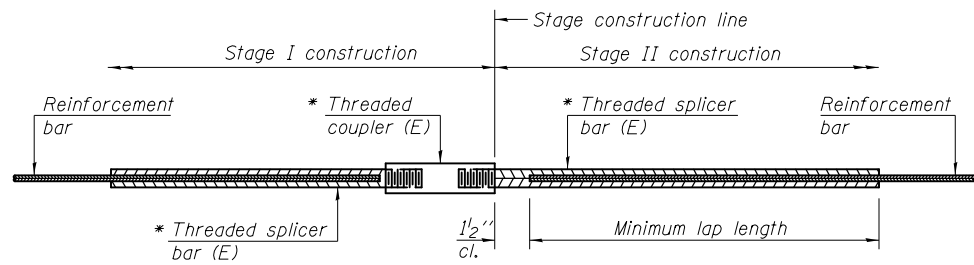
DESIGNED VHV	EXAMINED	DATE - JANUARY 22, 2014
CHECKED DAB	ACTING ENGINEER OF STRUCTURAL SERVICES	
DRAWN baliva	PASSED	ACTING ENGINEER OF BRIDGES AND STRUCTURES
CHECKED VHV DAB		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

E. ABUTMENT BEARING REPLACEMENT DETAILS
 SN 092-0050

SHEET NO. 15 OF 25 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36BDR	VERMILION	34	20
CONTRACT NO. 70965				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

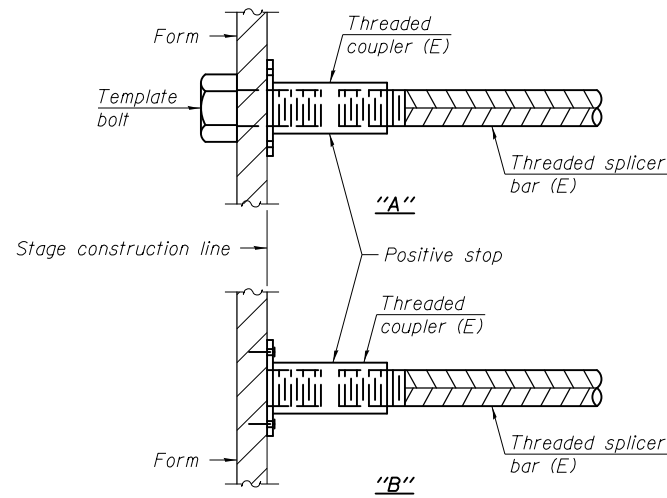
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

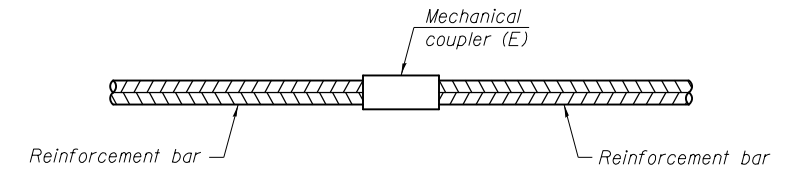
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
DECK ENDS	#6	16	TABLE 3
HATCH BLOCKS	#6	6	TABLE 3



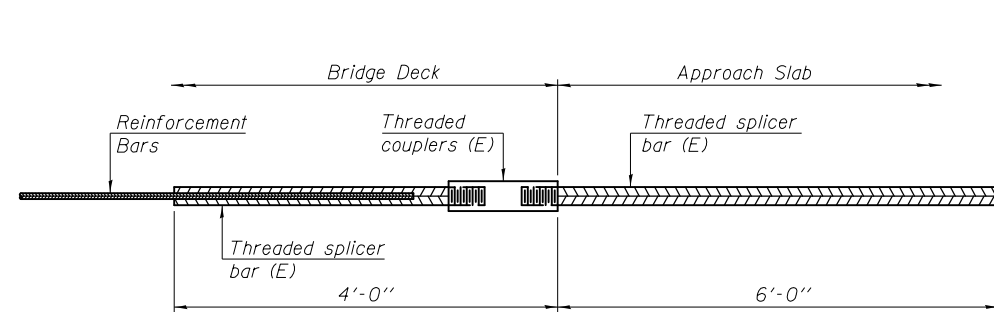
INSTALLATION AND SETTING METHODS

"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.



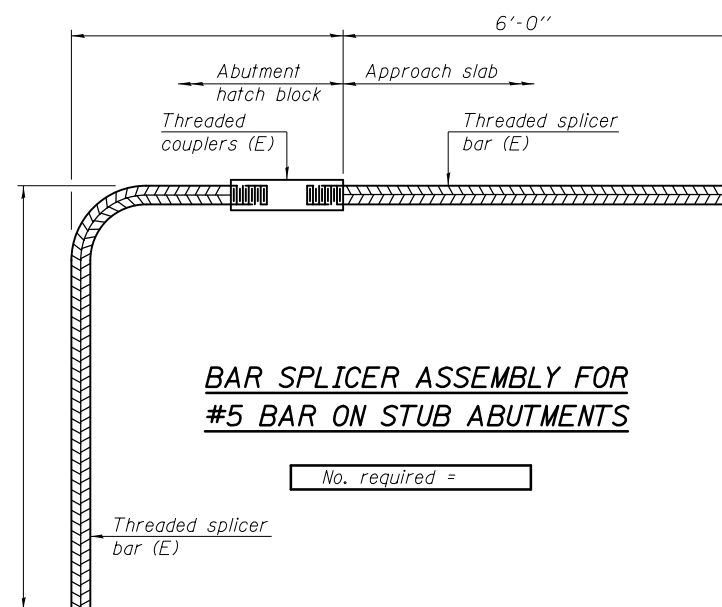
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

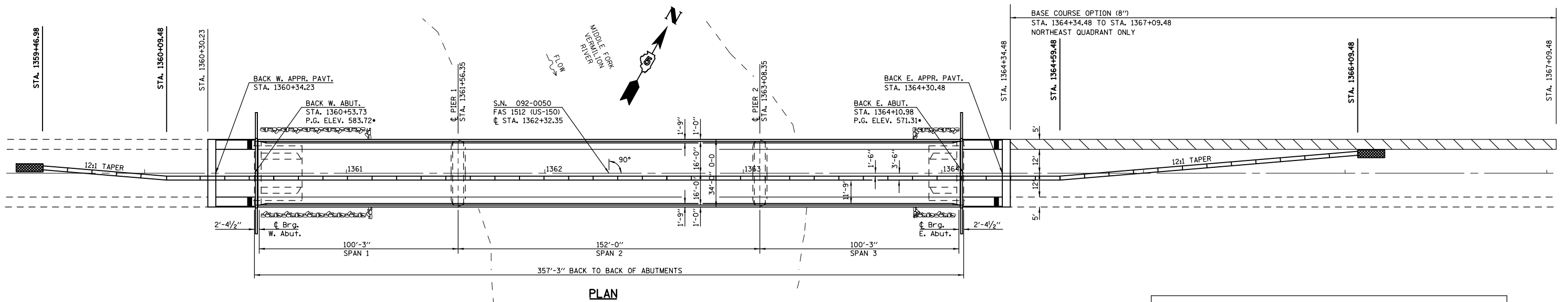
NOTES

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

BSD-1

7-1-10

TEMPORARY WATER FILLED BARRIER LAYOUT – STAGE I



PLAN

NOTES:

THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER.

REFER TO HIGHWAY STANDARD 701321 FOR ADDITIONAL STAGING DETAILS.

SEE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY WATER FILLED BARRIER.

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO COMMERCIAL AND PRIVATE PROPERTIES ABUTTING THE HIGHWAY IN ACCORDANCE WITH ARTICLE 107.09 OF THE STANDARD SPECIFICATIONS.

REFLECTORS AND VERTICAL PANELS AT 25' CTS. FOR BARRIER, BRIDGE RAIL AND GUARDRAIL SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR. PAVEMENT MARKINGS THAT CONFLICT WITH STAGED TRAFFIC MARKINGS SHALL BE REMOVED. REMOVAL OF EXISTING AND TEMPORARY PAVEMENT MARKINGS AND PLACEMENT OF TEMPORARY PAVEMENT MARKINGS SHALL BE INCLUDED IN THE COST FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.

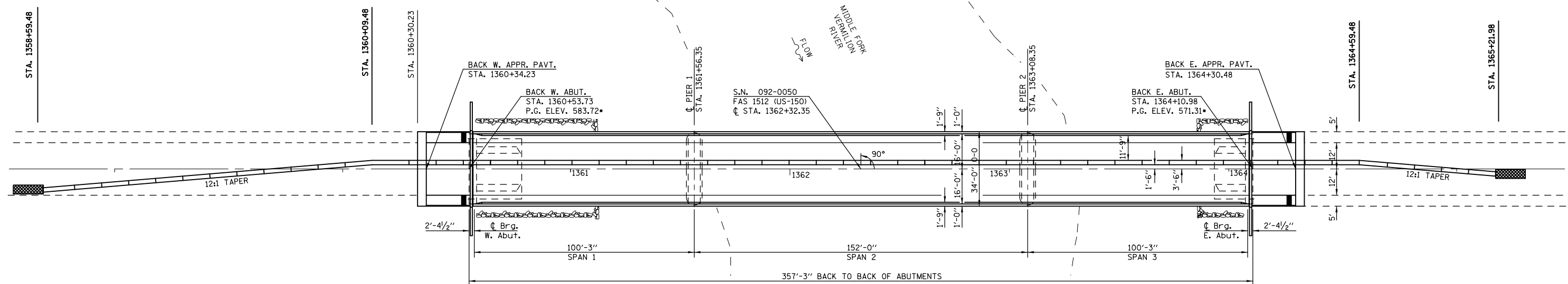
PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS, THE CONTRACTOR SHALL SECURE THE GRATINGS ON SHOULDER INLETS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

SYMBOLS	
	TEMPORARY WATER FILLED BARRIER
	IMPACT ATTENUATOR
	BASE COURSE (OPTION)

SCHEDULE FOR BASE COURSE (OPTION)*	
STA. 1364+34.48 TO 1367+09.48 LT.	153.0 SQ YD
TOTAL:	153.0 SQ YD

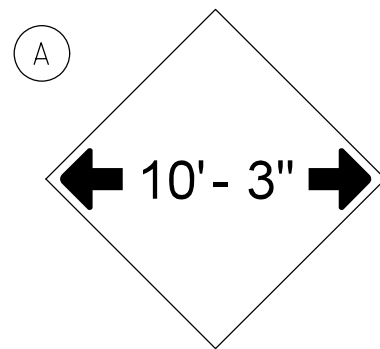
* EXCAVATION REQUIRED TO PLACE BASE COURSE SHALL BE INCLUDED WITH THE COST OF THE BASE COURSE (OPTION). SEE SPECIAL PROVISIONS

TEMPORARY WATER FILLED BARRIER LAYOUT – STAGE II



PLAN

FILE NAME =	USER NAME = ceerlockjd	DESIGNED - TJB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY WATER FILLED BARRIER LAYOUT S.N. 092-0050	F.A.S. RTE. 1512	SECTION 36BDR	COUNTY VERMILION	TOTAL SHEETS 34	SHEET NO. 22		
ei:\pwwork\pwwork\ceerlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN - TJB	REVISED -			SCALE:	SHEET NO. 17 OF 25 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 70965
	PLOT SCALE = 40.0001' / in.	CHECKED -	REVISED -									
	PLOT DATE = 2/25/2013	DATE - 2-21-2012	REVISED -									

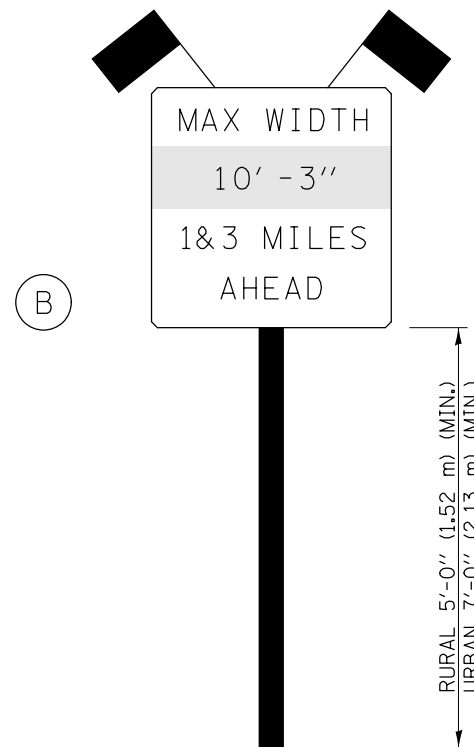


W12-2(0)-48"x48"(1200x1200)

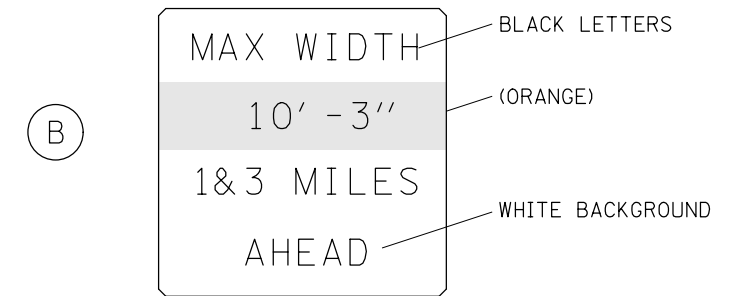
SIGN (A) 4 SIGNS - W12-2(0)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

STAGE WIDTHS:

STAGE 1 WIDTH = 11'-9" actual; 10'-3" posted
 STAGE 2 WIDTH = 11'-9" actual; 10'-3" posted



(B)



W12-I103(0)-48"x48"(1200x1200)
 "D" LETTERS/NUMBERS

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

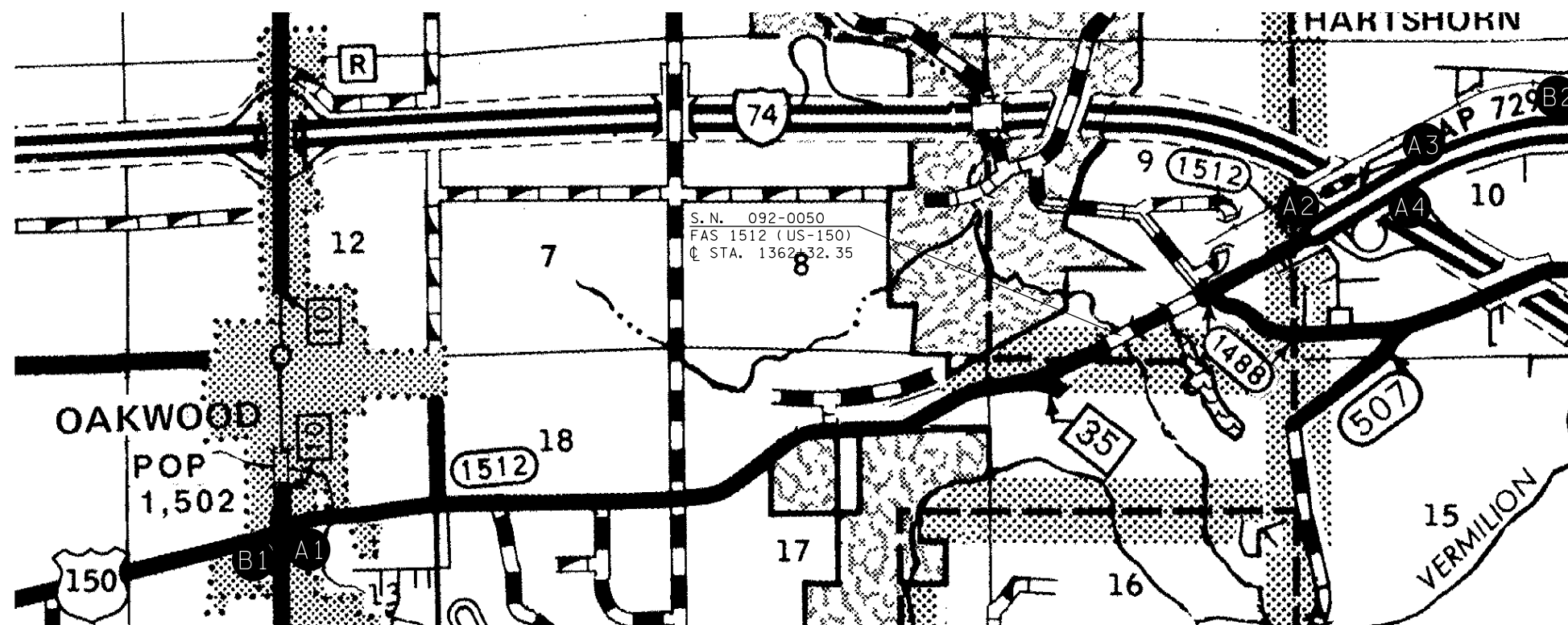
AT US 150 / FAI 74 INTERCHANGE

- (B2) EAST OF US150/FAI74 INTERCHANGE
 ERECT BY SPEED LIMIT 55 SIGNS; WEST OF HENNING ROAD; 1 MILE AHEAD
- (A2) WEST OF US150/FAI74 INTERCHANGE ON US 150;
 ERECT JUST PRIOR TO 2 WAY TRAFFIC SIGN
- (A3) EAST OF US150/FAI74 INTERCHANGE ON US 150;
 ERECT JUST PAST GREENBOARDS AT SPLIT; INCLUDE 1 MILE SIGN BELOW WIDTH SIGN
- (A4) SOUTH OF US150/FAI74 INTERCHANGE ON FAI74 WB
 EXIT RAMP; ERECT BEHIND LEFT SIDE DO NOT ENTER SIGN; INCLUDE LEFT ARROW SIGN BELOW WIDTH SIGN

US 150 / CH 10 INTERSECTION IN OAKWOOD

- (B1) ERECT IN SW QUAD OF US150/CH10 INTERSECTION BY SPEED LIMIT 40 MPH SIGN; 3 MILES AHEAD
- (A1) ERECT IN SE QUAD OF US150/CH10 INTERSECTION PRIOR TO CASEY'S DRIVE; INCLUDE 3 MILES SIGN BELOW WIDTH SIGN

SIGN PANEL, TYPE II



GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED - 11/06
ce:\pwork\pwork\ceerlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN -	REVISED - 05/08
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - 10/08 - KJT
	PLOT DATE = 2/25/2013	DATE -	REVISED - 7/09 - KJT

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING

SCALE: SHEET NO. 18 OF 25 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. X7200201				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36 BDR	VERMILION	34	23
CONTRACT NO. 70965				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

AS-BUILT PLANS FOR INFORMATION ONLY

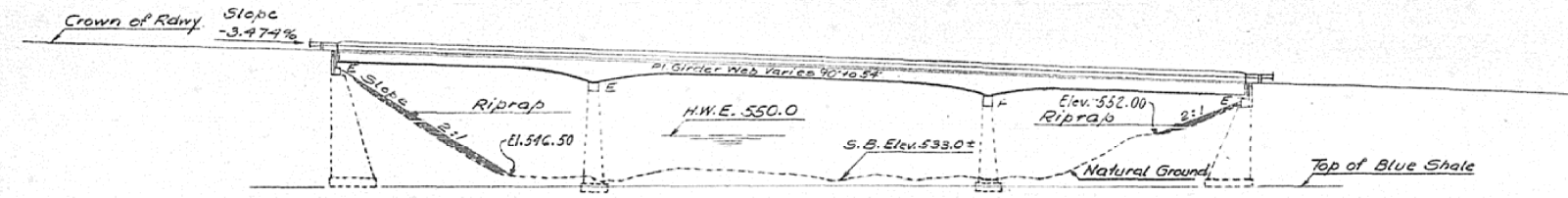
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
110	36BR	VERMILION	25	13
13 SHEETS				

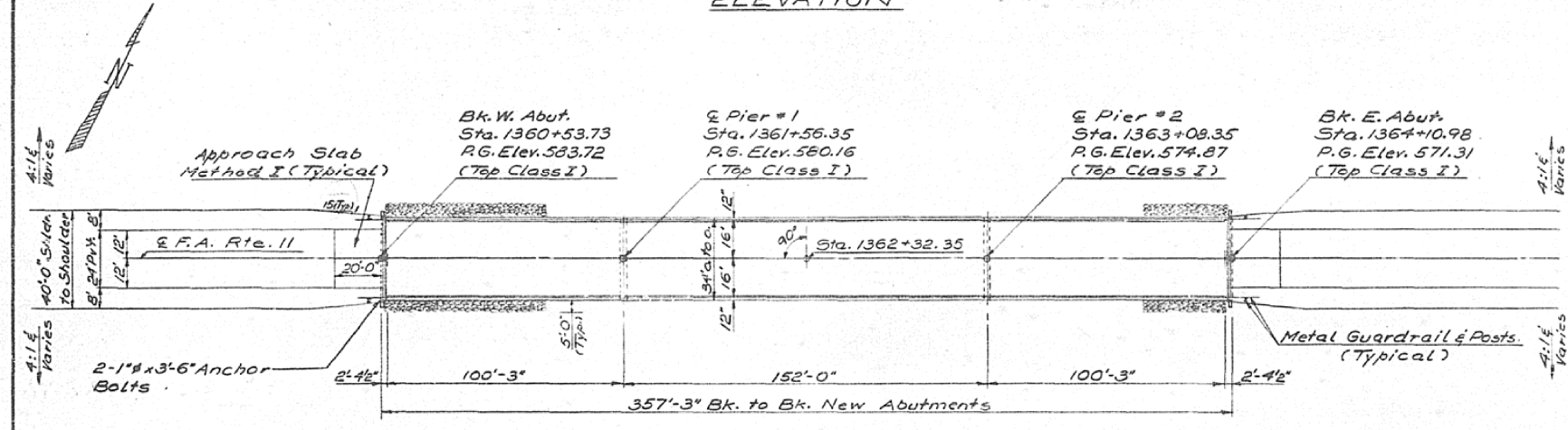
B.M.: 110' Rt. Sta. 1376+90 on S. end of Culvert in top of S.E. Wing near Hdwl; Standard tablet stamped "12M 1929 Reset 1953" Elev. 561.104.
The existing superstructure with three span steel trusses shall be removed. The existing P.C.C. piers and Spill-Thru abuts shall be rebuilt to accommodate a new widened Plate Girder with concrete deck superstructure. Traffic shall be detoured during reconstruction. Existing Structure: No. 092-0050; Built as S.B.I. Rte. 10, Sec. 36 B & C, at Sta. 201+00 in 1927. No salvage.

GENERAL NOTES

- Fasteners shall be high strength bolts. Bolts 2" dia., cover holes 1/8", unless otherwise noted.
- Calculated weight of Structural Steel = 362270 Lbs.
- All structural steel shall be AASHTO M 222 unpainted except expansion joint angles and attached bars which shall be AASHTO M 183 and shop painted with two coats of basic lead silico chromate paint.
- Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
- Anchor bolts shall be set before bolting cross frames over supports. It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
- Protective coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
- Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8". Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- Any structure excavation required shall be incidental to Concrete Removal.



ELEVATION



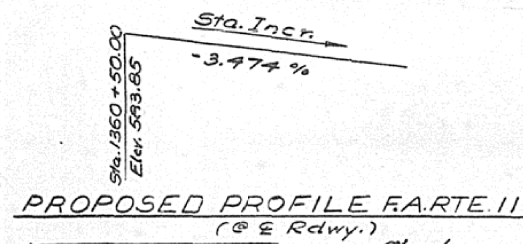
PLAN

STATION 1362+32.35
REBUILT BY
STATE OF ILLINOIS
F.A.R.T. II SEC. 36 BR
LOADING HS 20

NAME PLATE
(See Std. 2113)

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course Class I	Sq. Yds	67		67
Removal of Existing Superstructures	Each		1	1
Concrete Removal	Cu. Yds.		153	153
Class X Concrete	Cu. Yds.	376.4	123.0	499.4
Reinforcement Bars	Lbs.	98480	17,600	116,080
Structural Steel	L.S.	L.S.		L.S.
Expansion Bolts (3/4")	Each		72	72
Name Plates	Each		1	1
Preformed Joint Sealer (4")	Lin. Ft.	34		34
Neoprene Exp. Joint (4")	Lin. Ft.	35		35
Shear Stud Connections	Each	2385		2385
Protective Coat	Sq. Yds.	285		285
Waterproofing Membrane System	Sq. Yds.	1199		1199
Stone Riprap	Sq. Yds.		454	454



PROPOSED PROFILE F.A.R.T. II
(@ E Rdwy.)

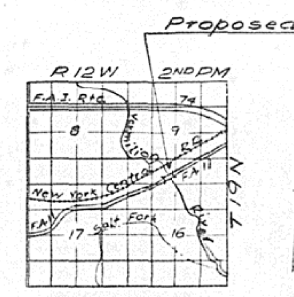
DESIGNED	R.E. Mathews	EXAMINED	March 5 2016
CHECKED	James Pence	PASSED	Director of Bridges and Traffic Engineering
DRAWN	V.H. J.R.	APPROVED	Director of Highway
CHECKED	JNP		

WATERWAY INFORMATION
Drainage Area 447 Sq. Mi.
Required Opening 2500 Sq. Ft.

Proposed Opening 2500 Sq. Ft.
H.W.E. (150) 550 ft.
 $\Delta H(150) = .11'$
 $Q(150) = 15,750 cfs$
H.W.E. (100) 550.3'
 $\Delta H(100) = .13'$
 $Q(100) = 18,150 cfs$

DESIGN STRESSES

$f_c = 1400$ psi (Sub. Curb & Parapet)
 $f_c = 1200$ psi (Deck Slab)
 $f_s = 20000$ psi (Reint.)
 $f_s = 20000$ psi (Struct.) (M183)
 $f_s = 27000$ psi (Struct.) (M222)
 $\eta = .85$
Loading: HS 20-44
Allow 25 #/a for fut. W.S.
Design Specifications: 1973 AASHTO, 1974 and 1975 Interim Specifications.



LOCATION SKETCH

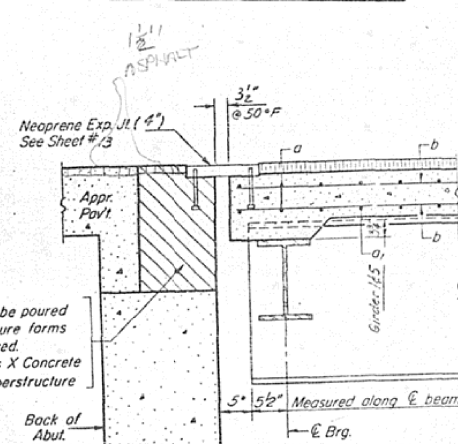
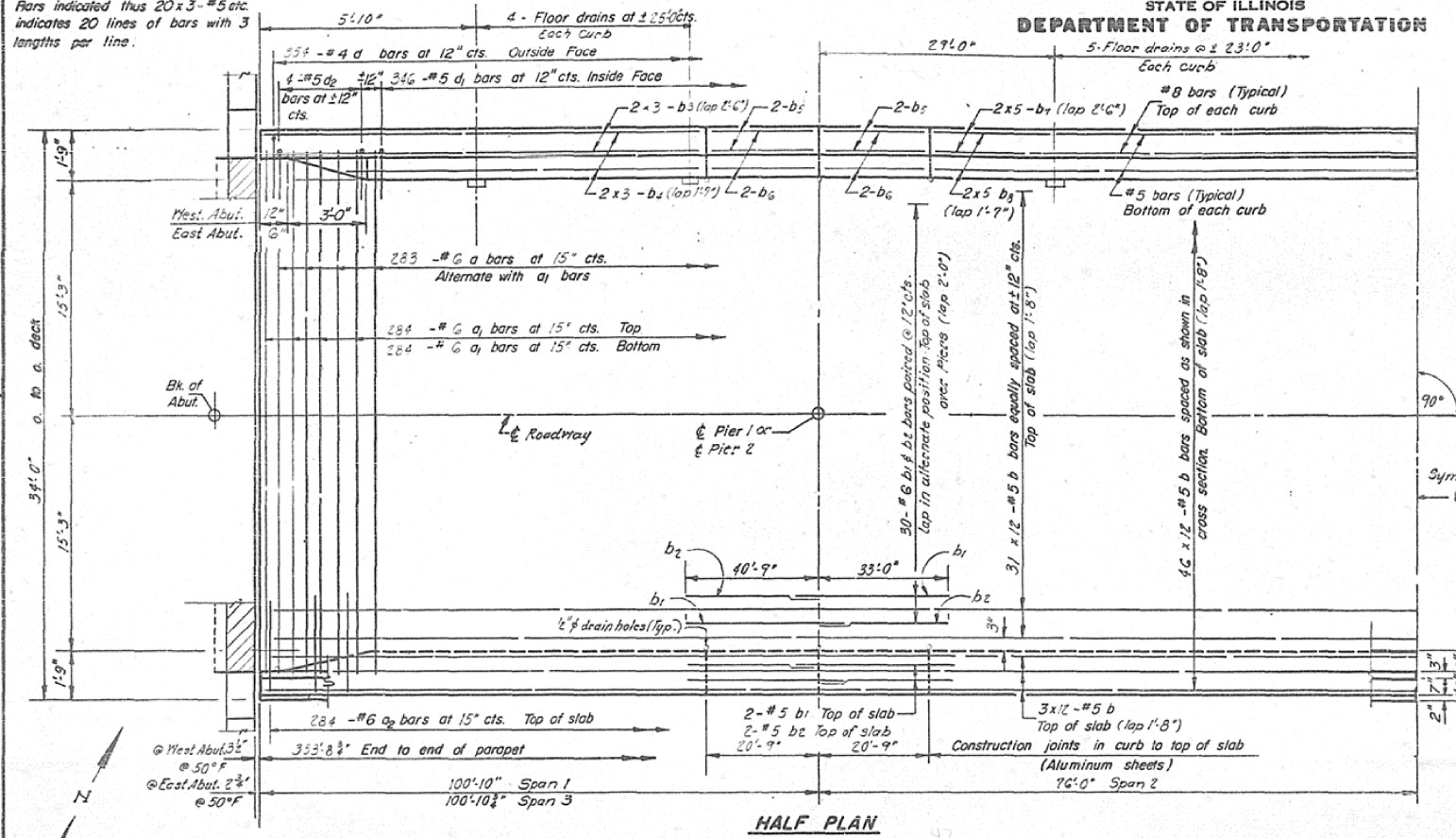
GENERAL PLAN & ELEVATION
F.A.R.T. II OVER MIDDLE FORK
OF VERMILION RIVER
F.A.R.T. II SECTION 36 BR
VERMILION COUNTY
STA 1362+32.35

AS-BUILT PLANS FOR INFORMATION ONLY

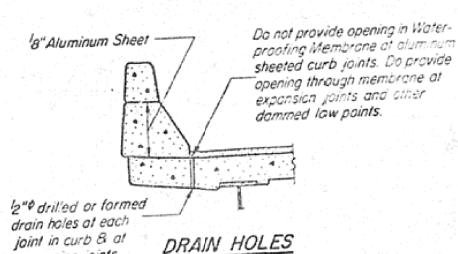
Note:
Bars indicated thus 20x3-#5 etc.
indicates 20 lines of bars with 3
lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36BR	VERMILION	IL	34	25
13 SHEETS				



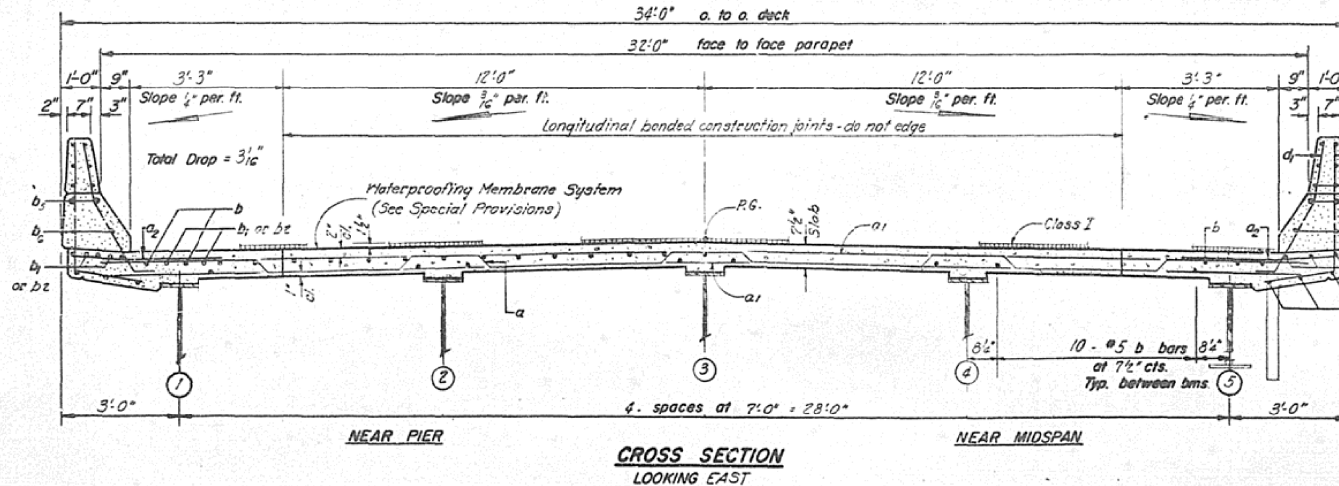
Note:
For Sec. of East Abut.
See sheet #5



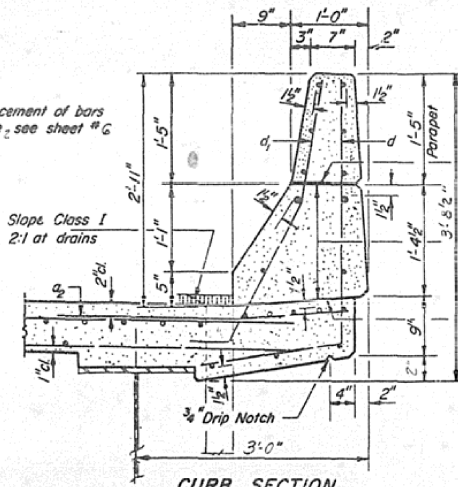
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	333	#6	33'-0"	—
a1	568	#6	32'-0"	—
a2	568	#6	4'-0"	—
b	996	#5	30'-11"	—
b1	68	#6	45'-0"	—
b2	68	#6	30'-9"	—
b3	24	#8	28'-2"	—
b4	24	#5	29'-9"	—
b5	16	#8	20'-0"	—
b6	16	#5	20'-0"	—
b7	20	#8	24'-2"	—
b8	20	#5	23'-4"	—
d	798	#4	5'-5"	—
d1	692	#5	2'-0"	—
d2	16	#5	2'-9"	—
Reinforcement Bars Lbs. 15,610				
Class X Concrete Cu. Yds. 343.0				

Parapet reinforcement and Class X Concrete are billed on sheet #6



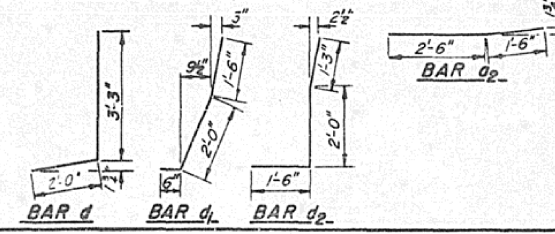
Note: For placement of bars
a thru e, see sheet #6



CURB SECTION

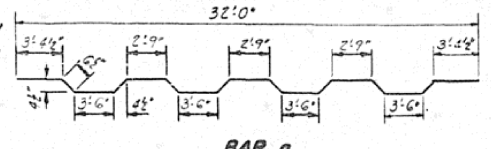
Cost of Aluminum Sheets and Drains are incidental to Class X Concrete

Note:
For Drain details
See sheet #5



DESIGNED	Examined
CHECKED	James Price
DRAWN	Jim Betsworth
CHECKED	JNU

EXAMINED
March 5 1976
CARL G. HANCOCK
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES



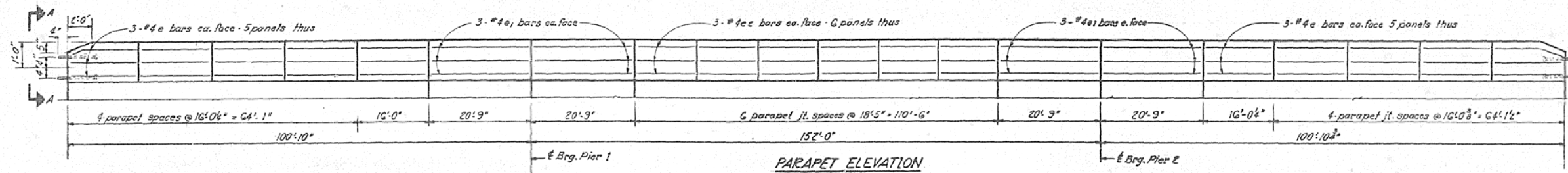
PI-5-0 7-15-75

SUPERSTRUCTURE
F.A.R.T. II SEC. 36BR
VERMILION CO.
STA. 1362+32.35

AS-BUILT PLANS FOR INFORMATION ONLY

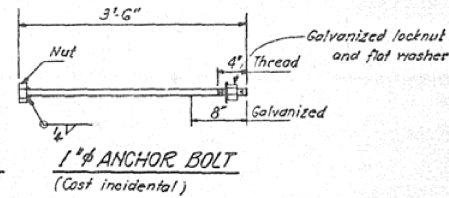
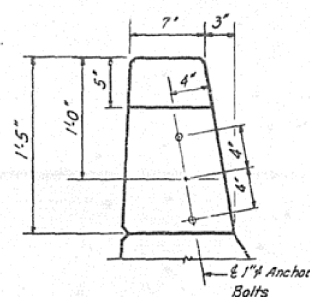
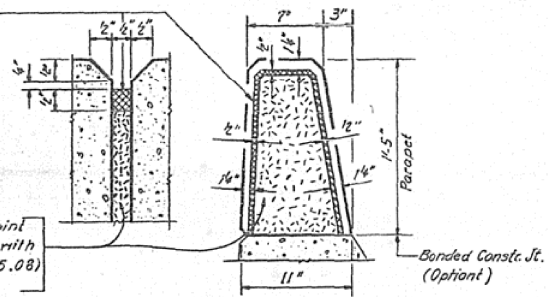
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	QUANTITY	TOTAL QUANTITY	SHEET NO.	SHEET NO. 6 13 SHEETS
F.A. RT. 11	36DR	VERMILION	2.5	11	
FOR ROAD DIST. NO. 1		ALIGNED	FOR AID PROJECT		



The component non-staining gray sealing compound with polysulfide liquid polymers gun grade with primer

1/2" Preformed Cork Joint Filler (In accordance with Articles 715.07 or 715.08) Cast incidental.



BILL OF MATERIAL

Bars	No.	Size	Length	Shape
e	110	#4	15'-0"	
e1	48	#4	20'-6"	
e2	72	#4	18'-2"	
Class X Concrete		Cu. Yds.	27.8	
Reinforcement Bars		Lbs.	2,770	

DESIGNED	<i>R. Nathan</i>
CHECKED	<i>James Price</i>
DRAWN	<i>Ann Holcomb</i>
CHECKED	JND

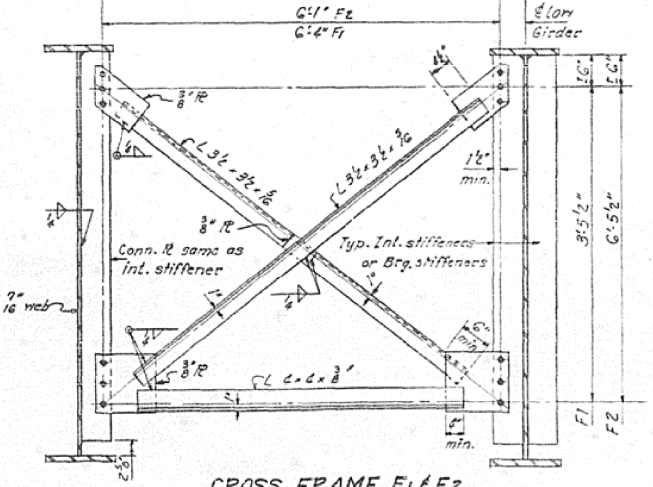
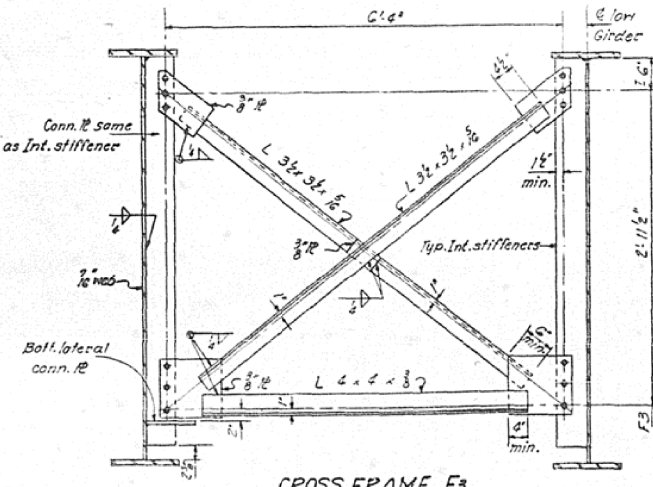
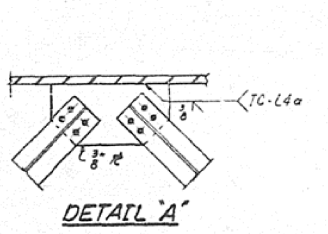
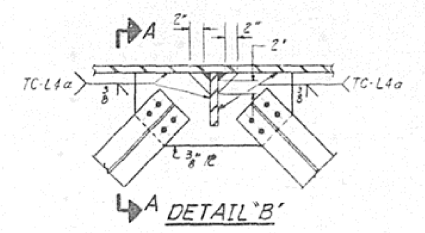
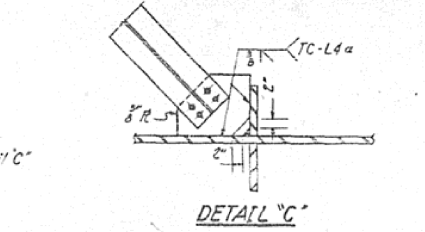
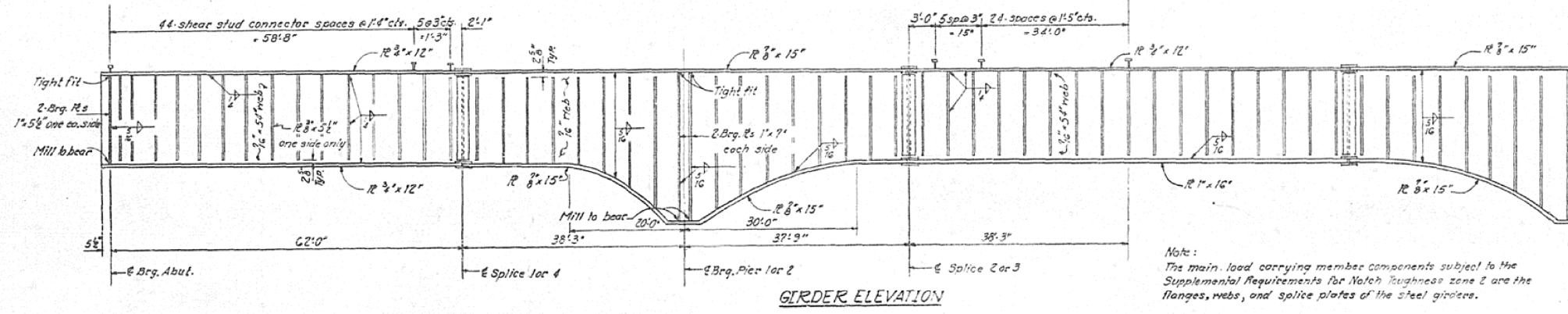
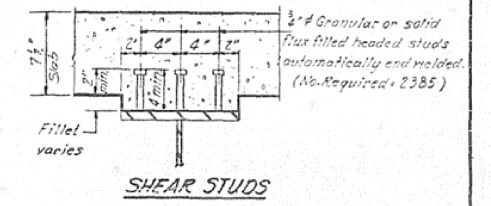
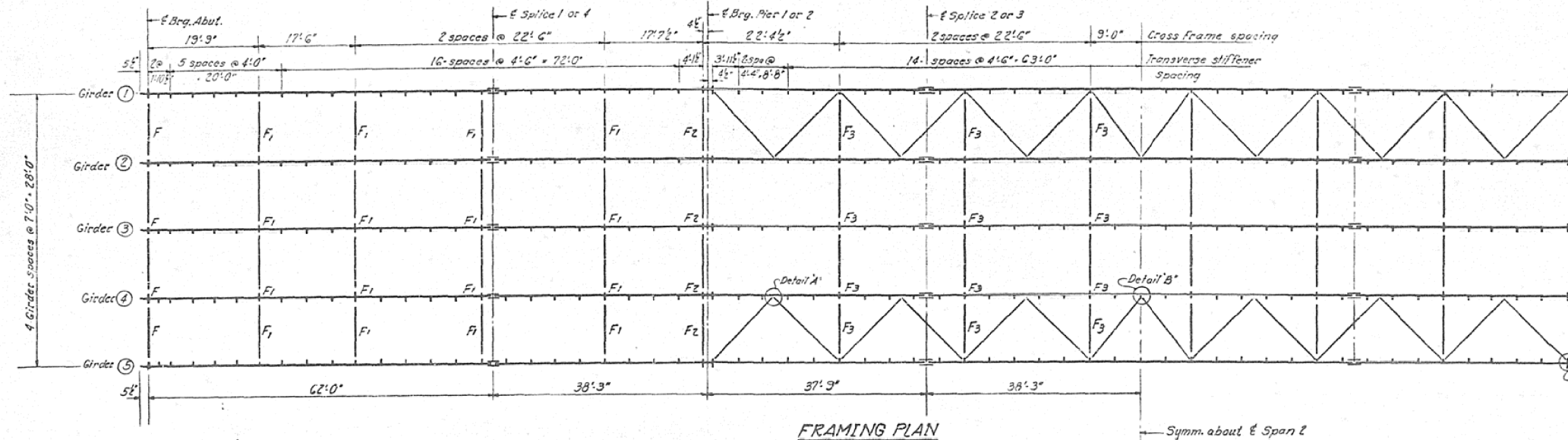
EXAMINED	<i>March 5 1976</i> <i>Carl E. Hummer</i>
PASSED	
APPROVED	

**PARAPET
F.A. RT. 11 SEC. 36DR
VERMILION COUNTY
STA. 1362+32.35**

AS-BUILT PLANS FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36BDR	VERMILION	23	12
13 SHEETS			



Note:
Use 1/2\"/>

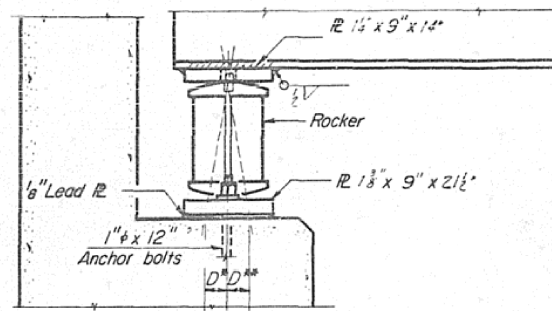
DESIGNED	ls wallace	EXAMINED	March 5 1976 Carl E. Thompson Jr. MEMBER OF SOCIETY
CHECKED	James Pire	PASSED	
DRAWN	Simon Krasicki	APPROVED	
CHECKED	JNV		

STRUCTURAL STEEL
F.A.R.T. II SEC. 36BDR
VERMILION COUNTY
STA. 1362+32.35

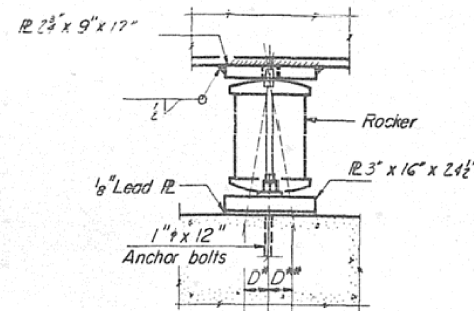
AS-BUILT PLANS FOR INFORMATION ONLY

STATE OF ILLINOIS

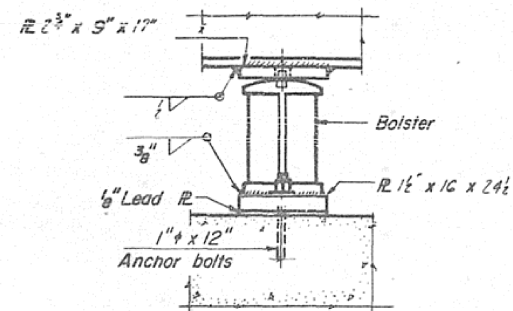
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36BR	VERMILION	IL	15	10
13 SHEETS				



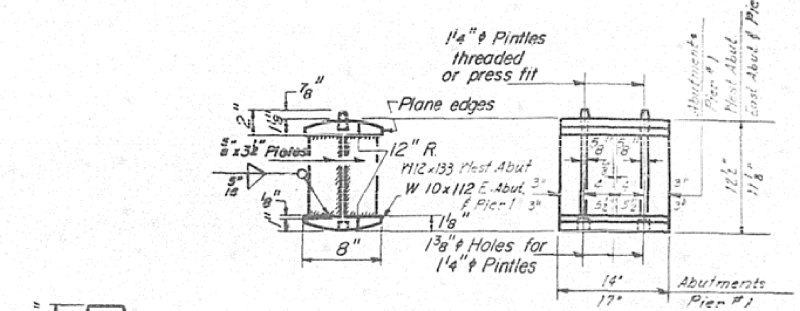
SECTION AT ABUTMENTS



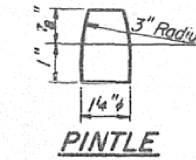
ELEVATION - PIER 1



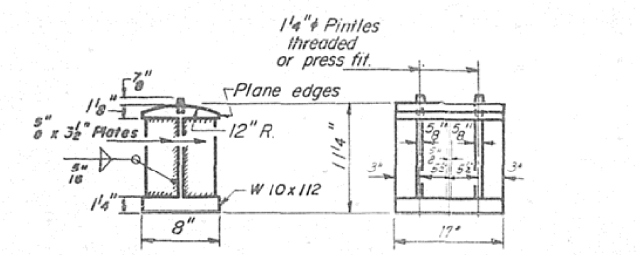
ELEVATION - PIER 2



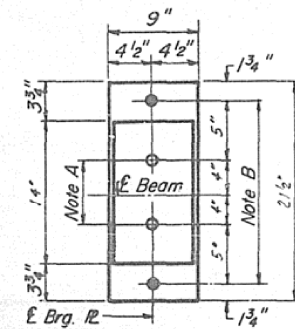
ROCKER



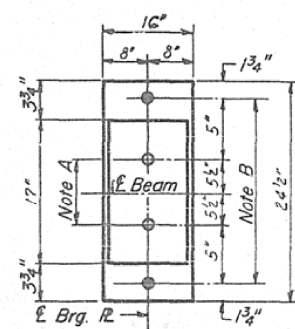
PINTLE



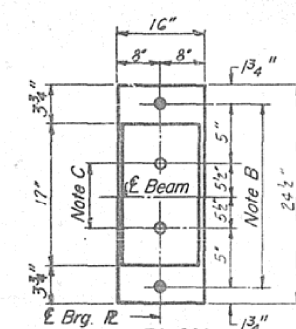
BOLSTER



PLAN AT ABUTMENTS



PLAN AT PIER # 1



PLAN AT PIER # 2

NOTE A
1 3/8" Holes - 1" deep in top IR for pintles. Thread or press fit pintles into bottom IR.

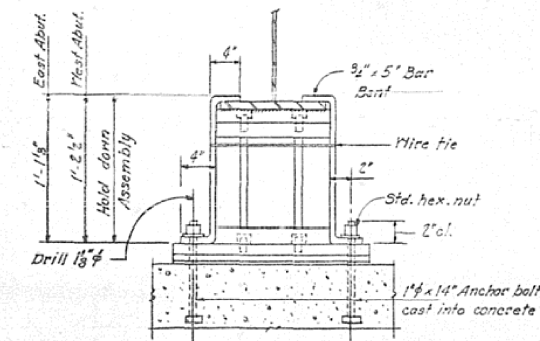
NOTE B
1 1/2" Holes for 1" anchor bolts. 16 x 2 1/2 x 2 1/2 IR. Washers under nut.

NOTE C
1 3/8" Holes 1" deep in top IR only for 1/4" pintles.

BEARING ASSEMBLY DETAILS

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.
- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.



BEAM HOLD DOWN DETAIL

Note:
Beams shall be held down at the Abutment on the opposite end of Bridge from which the deck pour is commenced. After pouring is completed the Hold Down Assembly shall be removed and Nuts placed on Anchor Bolts.
Cost of Hold Down Assembly, incidental to Class X Concrete.

DESIGNED	<i>R. J. ...</i>	EXAMINED	<i>March 5 1976</i>
CHECKED	<i>James ...</i>	PASSED	<i>Paul E. ...</i>
DRAWN	<i>P.G. Barnett</i>	APPROVED	
CHECKED	<i>JWP</i>		

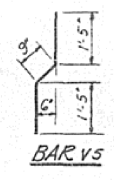
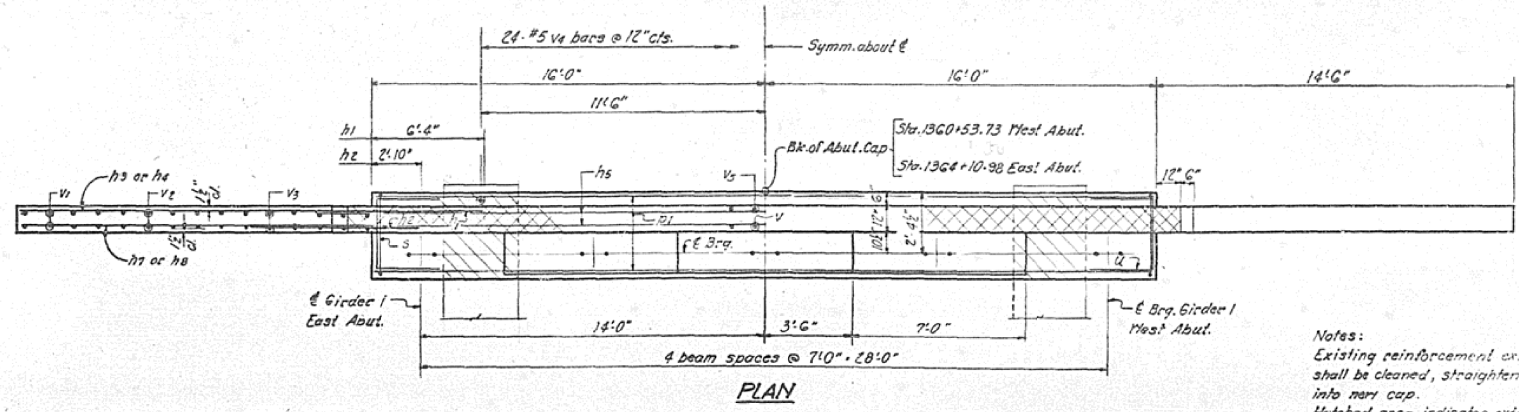
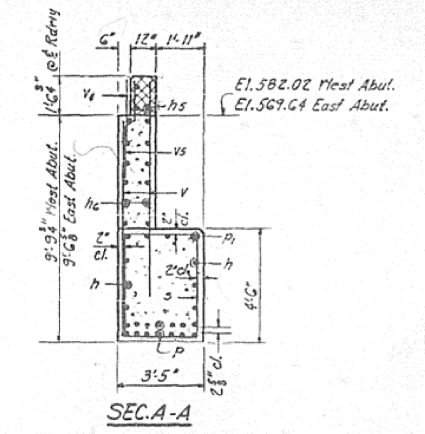
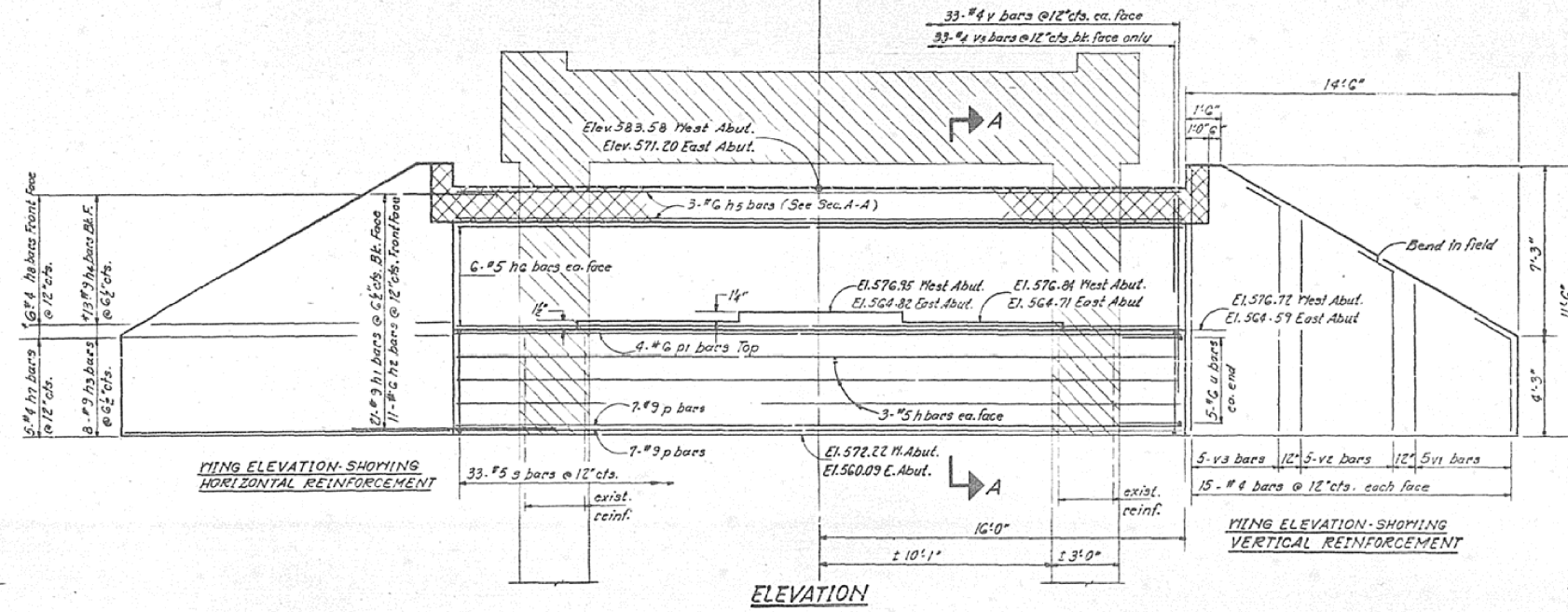
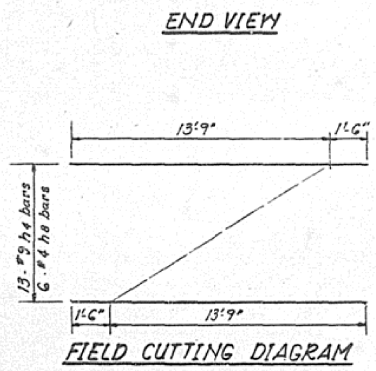
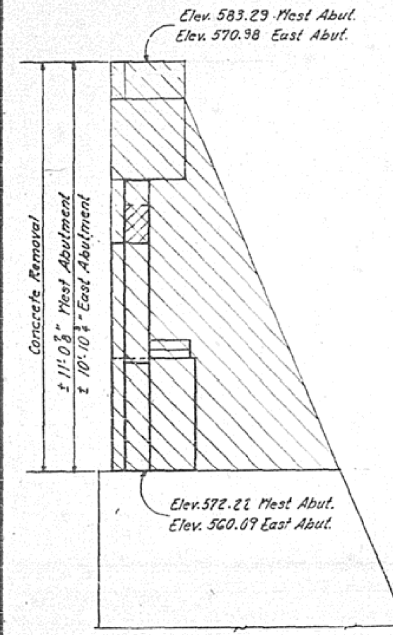
I-2-B 9-1-65, 8-1-70

STRUCTURAL STEEL-DETAILS
PART II SEC. 36 BR
VERMILION COUNTY
STA. 1362+32.35

AS-BUILT PLANS FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 11	TOTAL SHEETS	PROJECT NO.	SHEET NO.
13	30	36BR	25

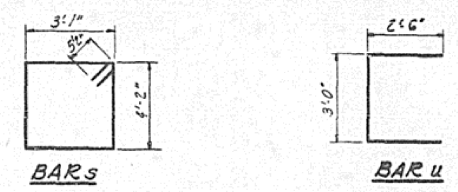


**TYO ABUTMENTS
BILL OF MATERIAL**

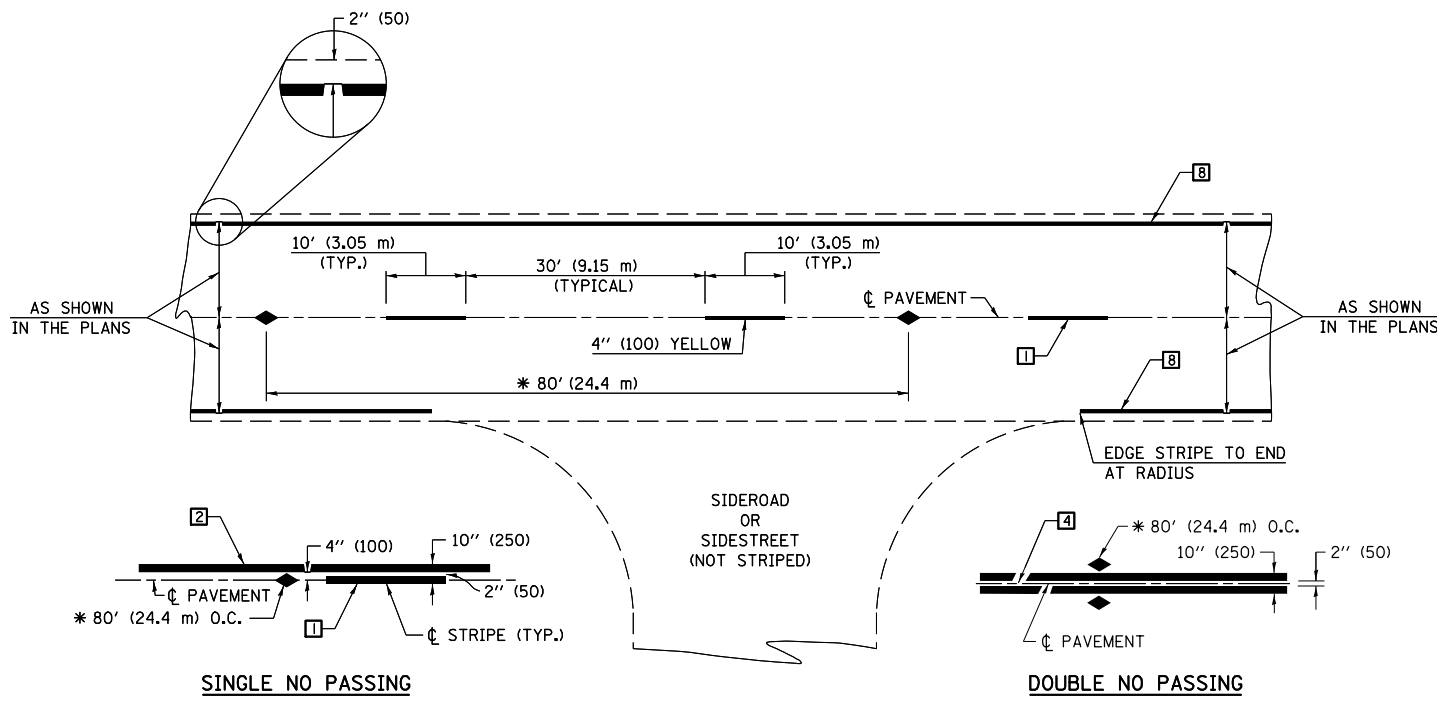
Bar	No.	Size	Length	Shape
h	12	#5	31'-9"	
h1	84	#9	12'-8"	
h2	44	#6	5'-8"	
h3	32	#9	14'-3"	
h4	26	#9	15'-3"	
h5	6	#6	31'-9"	
h6	24	#5	31'-9"	
h7	20	#4	14'-3"	
h8	12	#4	15'-3"	
p	28	#9	31'-9"	
p1	8	#6	31'-9"	
s	66	#5	15'-5"	
u	20	#6	8'-0"	
v	132	#4	9'-3"	
v1	40	#4	6'-3"	
v2	40	#4	8'-9"	
v3	40	#4	11'-3"	
v4	48	#5	7'-6"	
v5	66	#4	31'-7"	
Concrete Removal		Cu. Yds.	37	
Class X Concrete		Cu. Yds.	72.8	
Reinforcement Bars		Lbs.	15,119.0	

Notes:
Existing reinforcement extending into new concrete shall be cleaned, straightened and incorporated into new cap.
Hatched area indicates extent of concrete removal.
Cross-hatched area shall be poured after superstructure forms have been removed and be filled with superstructure concrete.

DESIGNED <i>R. Mathews</i>	EXAMINED <i>March 5 2016</i>
CHECKED <i>James Hines</i>	PASSED
DRAWN <i>Anna M. ...</i>	APPROVED
CHECKED <i>JND</i>	



**ABUTMENTS
F.A.R.T. II SEC. 36 BR
VERMILION COUNTY
STA. 1362+32.35**



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

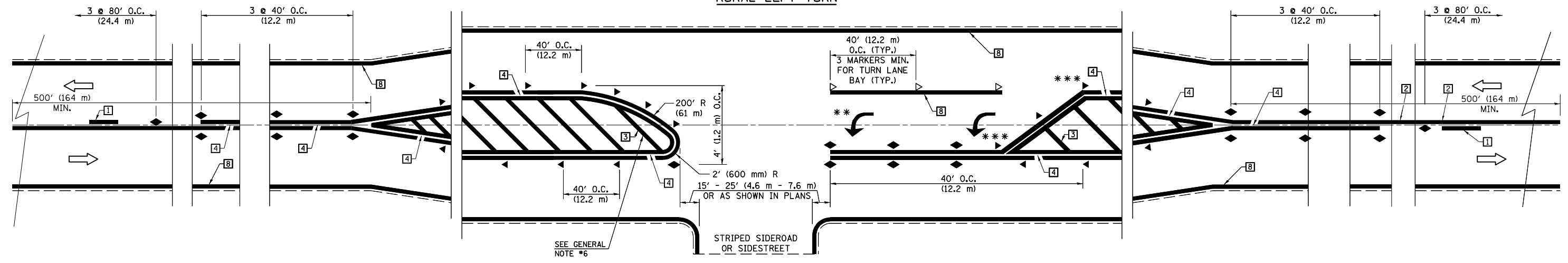
TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

RURAL LEFT TURN

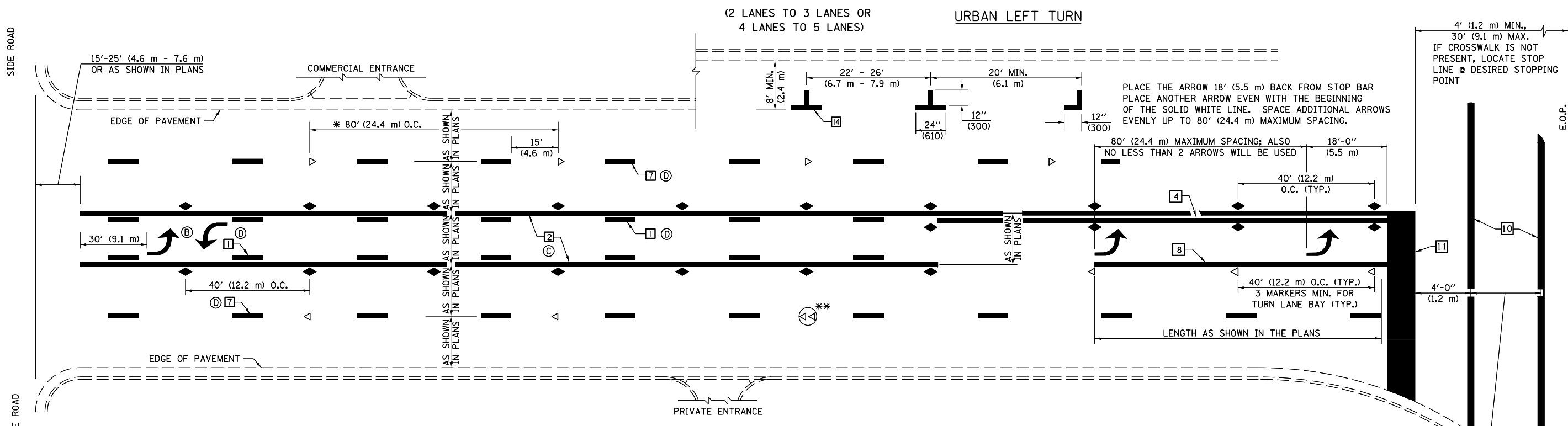


*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.
 ** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAA

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ce:\pwork\pwork\ceerlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN -	REVISED - 09/2009 - KJT				1512	36BDR	VERMILION	34	31
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 70965						
	PLOT DATE = 2/25/2013	DATE -	REVISED -		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT					

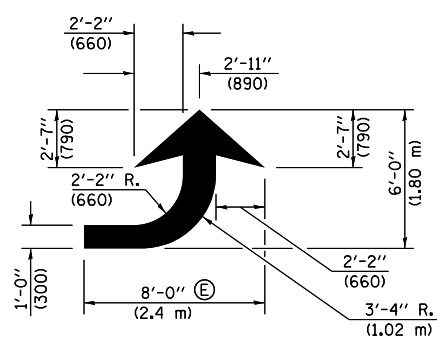


* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

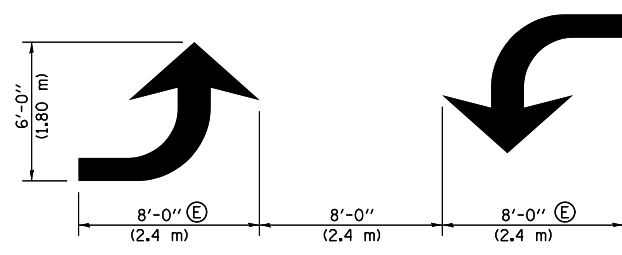
GENERAL NOTES:

- ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
- ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
- ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



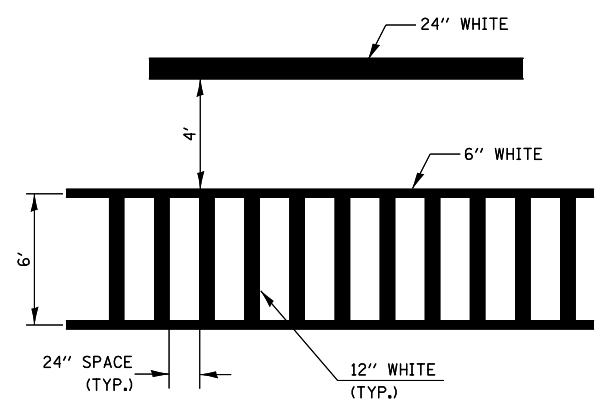
LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²)
(WHITE)

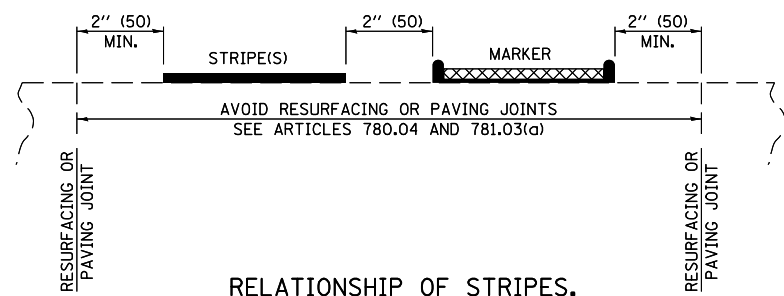


TYPICAL DOUBLE TURN ARROWS (WHITE)

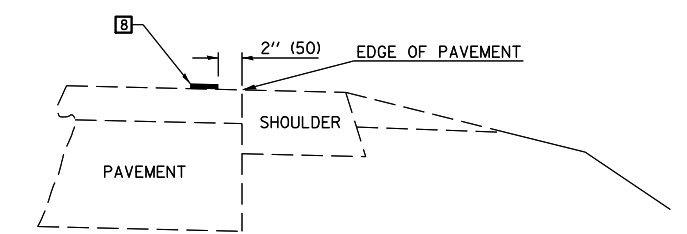
BLOOMINGTON-NORMAL CITY LIMITS ONLY



TYPICAL SPACING FOR CROSSWALKS & STOP BARS



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT (SAFETY SHOULDER OR PAVED SURFACE) SEE ARTICLE 780.04

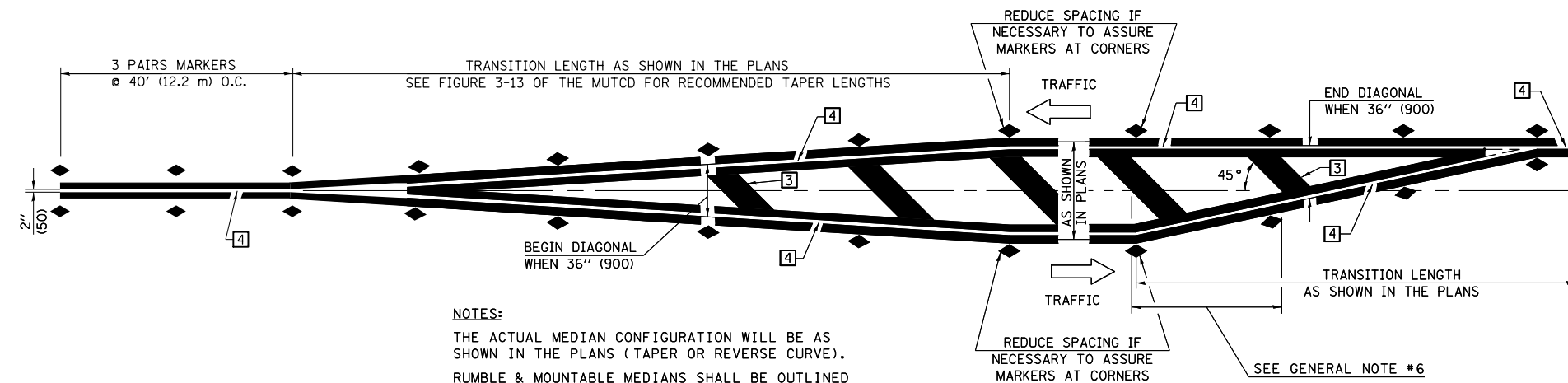
CROSSWALK WIDTH 6'-0" (1.8 m) OR AS SHOWN IN THE PLANS

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAA

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED - 11/06	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ei:\pwork\pwork\ceerlockjd\0280772\B	idge Repairs SN 092-0050.dgn	DRAWN -	REVISED - 09/2009 - KJT			1512	36BDR	VERMILION	34	32
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 70965				
	PLOT DATE = 2/25/2013	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.

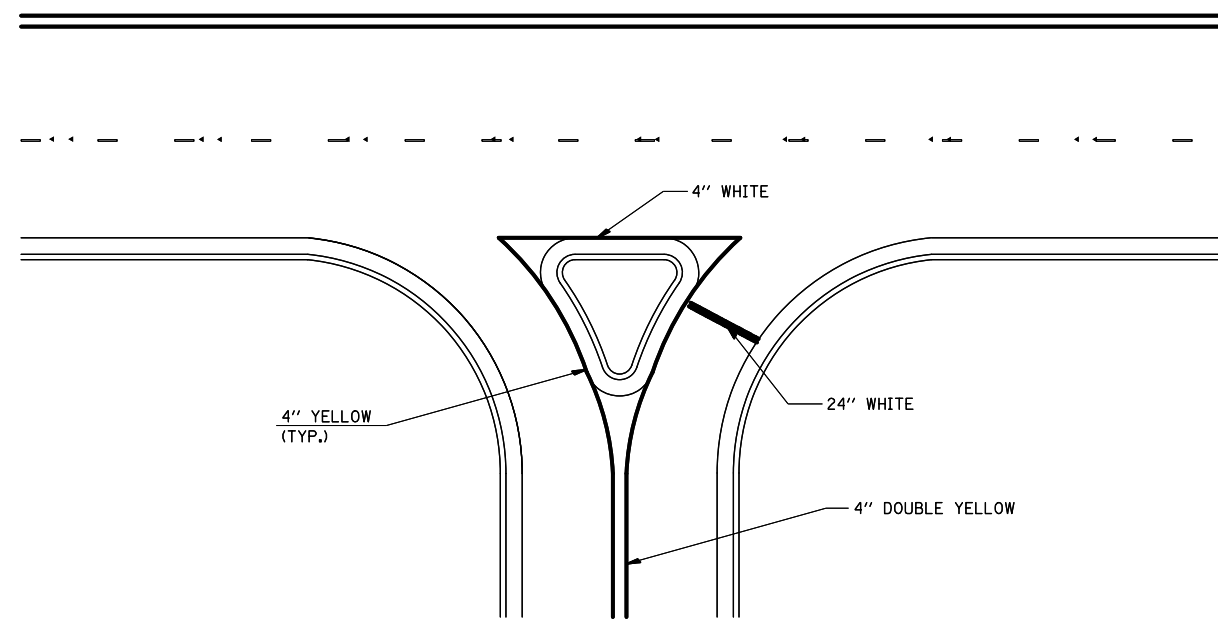


NOTES:
 THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).
 RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

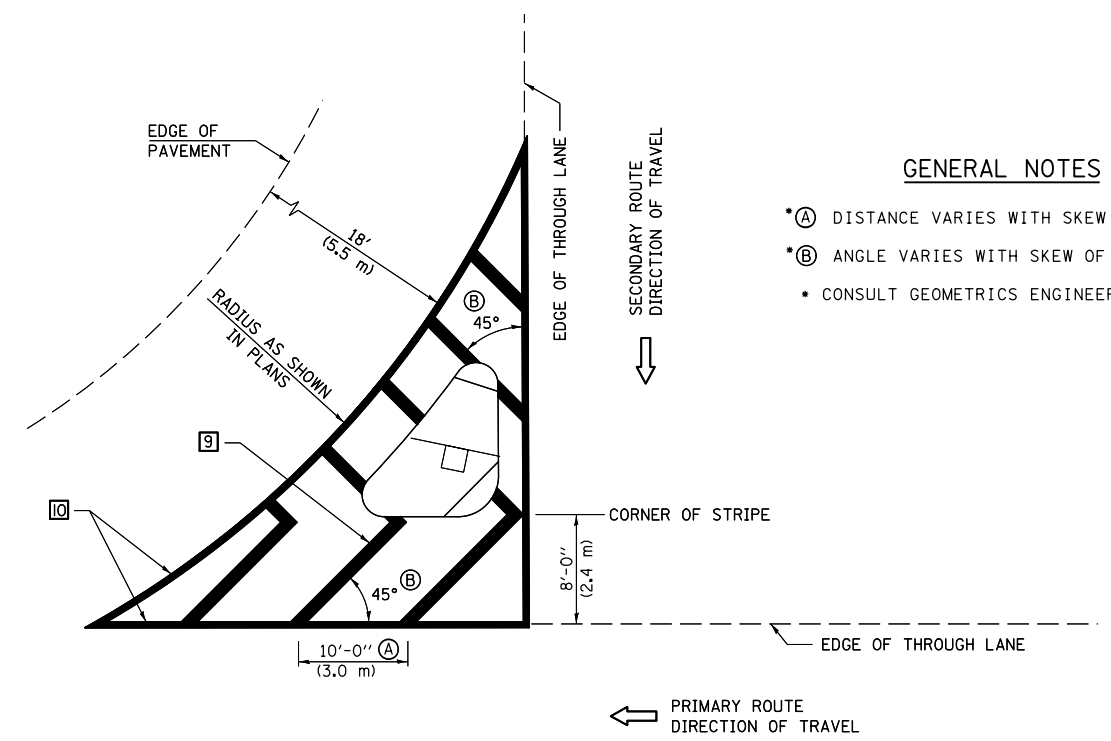
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
 < 30 MPH USE 15' (< 50 km/h USE 4.5 m)
 30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
 > 45 MPH USE 30' (> 75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



GENERAL NOTES

- (A) DISTANCE VARIES WITH SKEW OF INTERSECTION.
- (B) ANGLE VARIES WITH SKEW OF INTERSECTION.
- CONSULT GEOMETRICS ENGINEER

ISLAND

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED - 11/06
ei:\pwork\pwork\ceerlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/25/2013	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
 (RURAL & URBAN APPLICATIONS)**

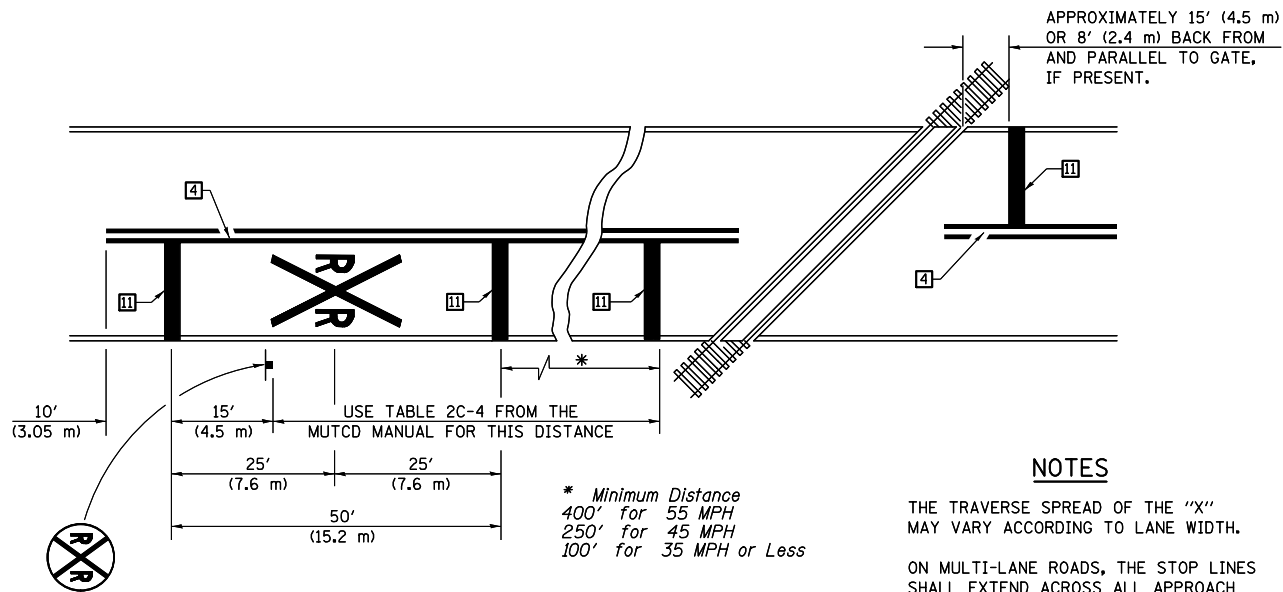
SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36BDR	VERMILION	34	33
CONTRACT NO. 70965				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

RAILROAD CROSSING WITH INTERCONNECT ONLY

RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



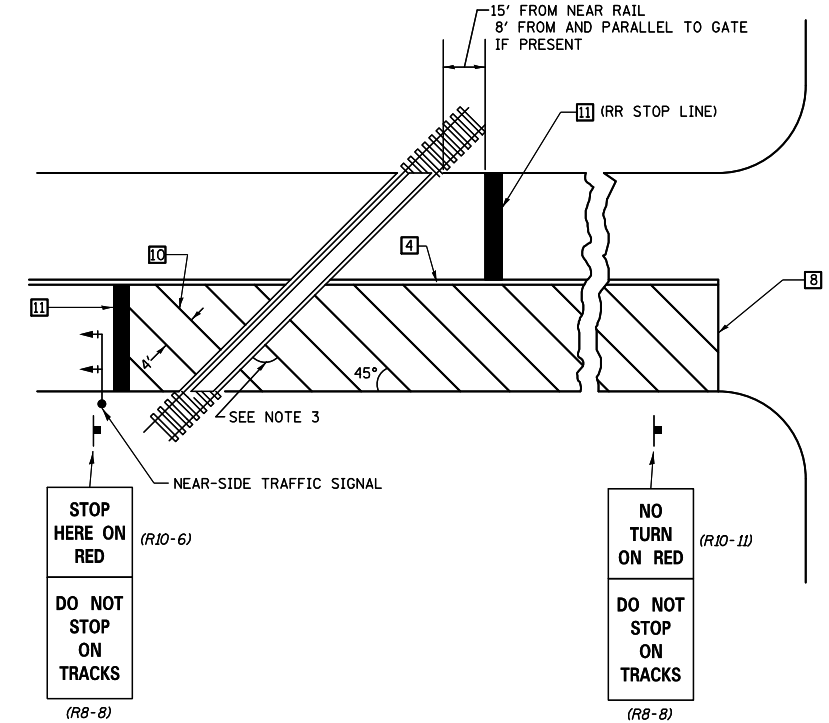
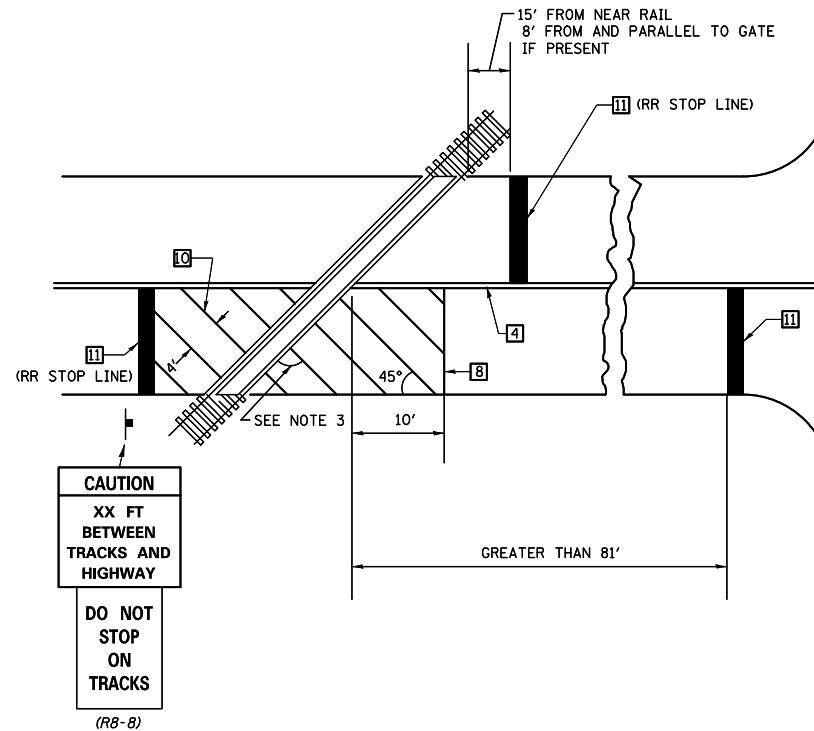
PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

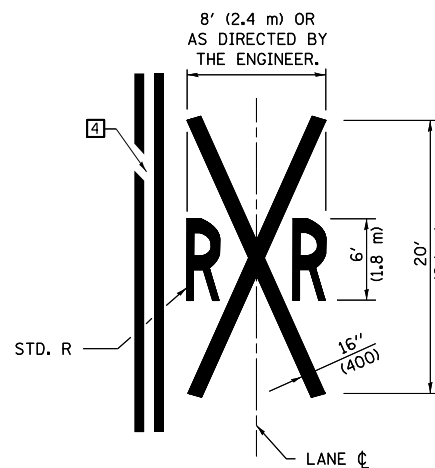
WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- WHERE THE ANGLE BETWEEN THE DIAGONAL PAVEMENT MARKINGS AND THE TRACK WOULD BE LESS THAN 20°, THE PAVEMENT MARKINGS SHOULD BE PLACED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = ceerlockjd	DESIGNED -	REVISED - 11/06
ei:\pwork\pwork\ceerlockjd\0280772\B	Bridge Repairs SN 092-0050.dgn	DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 2/25/2013	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: SHEET NO. 4 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1512	36BDR	VERMILION	34	34
CONTRACT NO. 70965				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				