

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

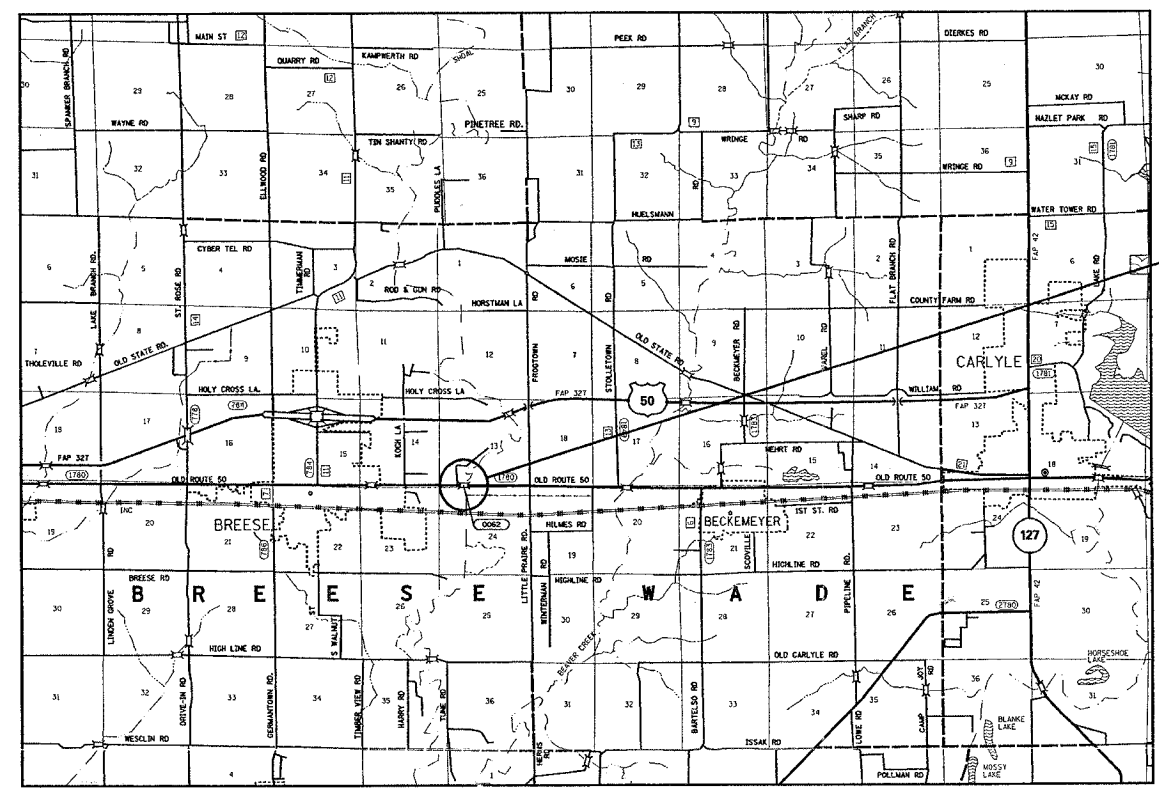
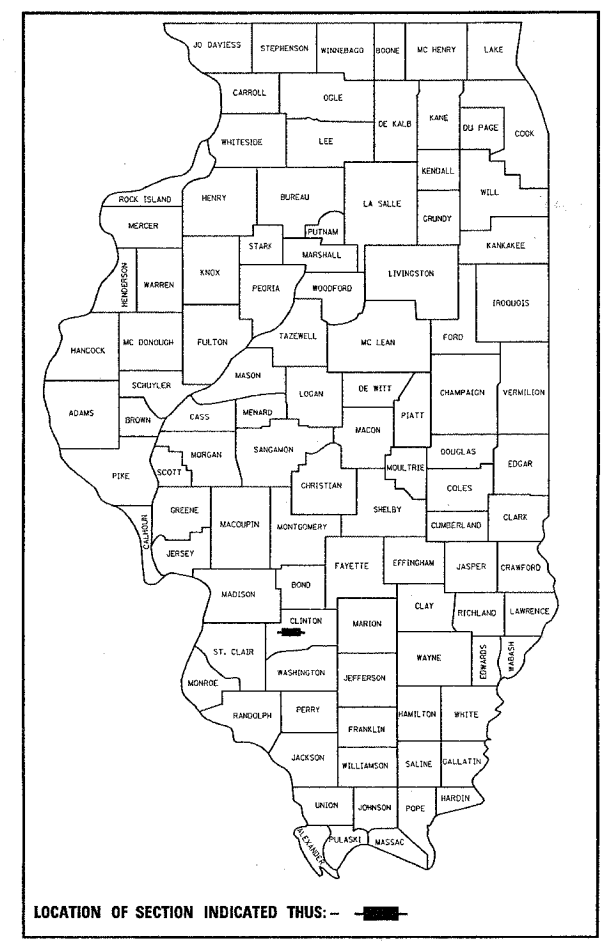
**PROPOSED  
HIGHWAY PLANS**

FAS ROUTE 1780 (OLD US 50)  
SECTION 24-BR-2  
PROJECT BHS-1780 ( 120 )  
SUPERSTRUCTURE REPLACEMENT  
CLINTON COUNTY

C-98-040-06

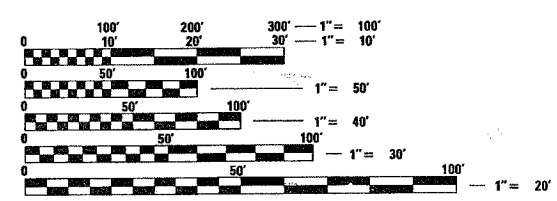
FOR INDEX OF SHEETS, SEE SHEET NO. 2

D-98-039-05



3 SPAN STEEL AND 12 SPAN  
PPC DECK BEAM COMBINATION  
REMOVE & REPLACE PPC DECK  
BEAMS IN KIND AND OVERLAY  
ENTIRE STRUCTURE  
OVER SHOAL CREEK  
BEGIN STA 100+75  
END STA 111+00  
SN 014-0062

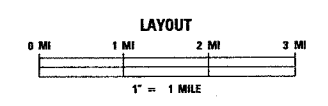
MICROFILMED \_\_\_\_\_  
REEL NUMBER \_\_\_\_\_  
AWARDED \_\_\_\_\_  
RESIDENT ENGINEER \_\_\_\_\_  
AS BUILT CHANGES WERE MADE  
ON THE FOLLOWING SHEETS



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

DESIGN DESIGNATION	ADT = 5400 (2003)
NA	ADT = 7700 (2027)
	SU = 4.0%
	MU = 1.8%



LAT 38.60972  
LONG 89.49508

GROSS LENGTH 0.16 MI  
NET LENGTH 0.16 MI

PROJECT ENGINEER: PATTI LEBEAU (618) 346-3179  
SQUAD CONTACT: ARTHUR MUEHLFELD (618) 346-3209

CONTRACT NO. 76899

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED: *May 18, 2000*  
*Alan Ames*  
DEPUTY DIRECTOR OF HIGHWAYS  
REGION FIVE ENGINEER

*June 30, 2006*  
*Mike New RD*  
ENGINEER OF DESIGN AND ENVIRONMENT

*June 30, 2006*  
*Victor R. Sosa, P.E. RD*  
DIRECTOR, DIVISION OF HIGHWAYS

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

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**INDEX OF SHEETS**

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- 2 INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES & COMMITMENTS
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- 4 TYPICAL SECTIONS
- 5 SCHEDULES
- 6 TIE POINTS & BENCHMARKS
- 7 REMOVAL PLAN
- 8-10 PLAN SHEETS
- 11-21 STAGE CONSTRUCTION
- 22-24 PAVEMENT MARKING SHEETS
- 25-63 BRIDGE PLANS

GENERAL NOTES:

1. THE STANDARDS AND REVISION NUMBERS SHALL APPLY TO THIS PROJECT.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
3. ILLINOIS STATE LAW REQUIRES A 48-HOUR NOTICE BE GIVEN TO UTILITIES WITHIN THE PROJECT AREA BEFORE DIGGING BY CALLING J.U.L.I.E. AND BY NOTIFYING NON-J.U.L.I.E. MEMBERS INDIVIDUALLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT AREA ARE AS FOLLOWS:
  - CITY OF BREESE (WATER)
  - CENTERPOINT ENERGY (GAS)
  - CHARTER COMMUNICATIONS, INC.
  - QWEST COMMUNICATIONS
  - SBC (COMMUNICATIONS)
 MEMBERS OF J.U.L.I.E. (800) 892-0123 ARE INDICATED BY \*. NON-MEMBERS MUST BE NOTIFIED INDIVIDUALLY.
4. THE CONTRACTOR SHALL PROVIDE TWO SIGNAL HEADS (EACH) FOR THE APPROACHES ON BOTH SIDE ROADS ON THE WEST END OF THE STRUCTURE. THE SIGNALS, DETECTOR LOOPS, THE NUMBER OF TURNS OF WIRE IN THE LOOPS SHALL BE AS DETERMINED BY THE ENGINEER.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL WOOD SIGN SUPPORTS IN ACCORDANCE WITH SECTION 730 OF THE STANDARD SPECIFICATIONS; HOWEVER, INSTALLATION BY METHOD 'A' (ARTICLE 730.04(G)) SHALL BE THE ONLY METHOD PERMITTED.
6. "ROAD CONSTRUCTION AHEAD" SIGNS SHALL BE PLACED AT THE BEGINNING AND ENDING OF THE PROJECT AND WILL BE INCLUDED IN THE TRAFFIC CONTROL PAY ITEMS. ALL CONSTRUCTION SIGNS SHALL BE FLOURESCENT ORANGE.
7. ALL SIGNS THAT INTERFERE WITH CONSTRUCTION OPERATIONS SHALL BE REMOVED, STORED AND RE-ERECTED ACCORDING TO ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
8. ANY DAMAGE TO SIGNS CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
9. ALL SAW CUTTING FOR REMOVAL ITEMS SHALL BE FULL DEPTH AND SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEM.
10. NO TRENCHES OR OPEN PITS WILL BE PERMITTED ADJACENT TO A TRAFFIC LANE DURING NON-WORKING HOURS. ALL WIDENING TRENCHES SHALL BE BACKFILLED DURING THE SAME WORKING DAY IT WAS EXCAVATED.
11. THE COST FOR EARTH EXCAVATION AND GRADING AND SHAPING ALONG THE PROPOSED WIDENING SHALL BE INCLUDED IN THE COST OF "PAVED SHOULDER REMOVAL".
12. CHANGEABLE MESSAGE SIGNS MUST NOTIFY THE PUBLIC OF THE ROAD CLOSURE TWO WEEKS PRIOR TO THE CLOSURE
13. THE TRAFFIC CONTROL MEASURES SHOWN ON PLANS FOR STAGE II AND III SHALL SUPPLEMENT AND BE IN ACCORDANCE WITH TRAFFIC CONTROL STANDARD 701321.
14. THE COST OF "BARRICADES, TYPE III" USED DURING STAGE I SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR". THOSE USED DURING STAGE II AND III SHALL BE INCLUDED IN THE COST OF "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)".
15. THE COST TO REMOVE THE EXISTING TRAFFIC BARRIER TERMINALS ATTACHED TO THE STRUCTURE AND TBT, TYPE II'S USED DURING STAGE III SHALL BE INCLUDED IN THE COST OF "GUARDRAIL REMOVAL".
16. A QUANTITY OF 1162.5 FEET OF "TEMPORARY PAVEMENT MARKING - LINE 6 INCHES" WHITE HAS BEEN INCLUDED IN THE PLANS FOR PAINTING THE BOTTOM 6" OF THE TEMPORARY CONCRETE BARRIER.
17. THE BARRIER UNIT AT EACH END OF THE TRAFFIC CONTROL INSTALLATION SHALL BE SECURED TO THE PAVEMENT OR SHOULDER USING ALL SIX ANCHORING PINS FOR F-SHAPE BARRIER OR ALL SIX DOWEL BARS FOR NEW JERSEY SHAPE BARRIER.
18. THE TEMPORARY CONCRETE BARRIER (STATE OWNED) IS LOCATED AT IL ROUTE 111, NORTH OF I-55/70. THE CONTRACTOR SHALL PICK UP THE BARRIER AND RETURN THE BARRIER TO THE SAME LOCATION UPON COMPLETION OF THE PROJECT. ANY DAMAGED BARRIER WILL NOT HAVE TO BE REPLACED. THE CONTRACTOR SHALL DISPOSE OF DAMAGED CONCRETE BARRIER IN AN APPROVED DUMP SITE. THE CONNECTOR PINS SHALL BE FURNISHED BY THE CONTRACTOR AND THE COST SHALL BE INCLUDED WITH THE COST OF "TEMPORARY CONCRETE BARRIER (STATE OWNED)".

EROSION CONTROL PLAN

ANY AREAS DISTURBED DUE TO CONSTRUCTION ACTIVITIES SHALL BE SEEDED (TEMPORARY AND PERMANENT) AT THE CONTRACTOR'S EXPENSE AND NO OTHER COMPENSATION WILL BE PERMITTED.

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PRODUCT, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A NOTARIZED CERTIFICATION BY THE PRODUCER STATING THE INTENDED USE OF THE PRODUCT AND THAT THE PHYSICAL PROPERTIES REQUIRED FOR THIS APPLICATION ARE MET OR EXCEEDED. THE CONTRACTOR SHALL PROVIDE MANUFACTURER RECOMMENDED INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

TEMPORARY SEEDING AND MULCH SHALL BE COMPLETED ON A WEEKLY BASIS ON EXPOSED GROUND AND SHALL BE IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS. TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRE.

EARTH STOCKPILES SHALL BE TEMPORARILY SEEDED IF THEY ARE TO REMAIN UNUSED FOR MORE THAN FOURTEEN DAYS.

FINAL SEEDING SHALL BE PERFORMED AS SOON AS POSSIBLE WITH CLASS 2 SEEDING.

COMMITMENTS

THE BRIDGE WILL BE CLOSED AND A DETOUR IN PLACE FOR STAGE I CONSTRUCTION. THIS DETOUR IS LIMITED TO 14 CALENDAR DAYS MAXIMUM.

A STREAM GAUGING SYSTEM IS LOCATED ON THE NORTH SIDE OF SPAN 2. THIS WILL HAVE TO BE REMOVED PRIOR TO THE PARAPET RETROFIT. USGS SHALL BE NOTIFIED ONE WEEK PRIOR TO THE RETROFIT IN THE AREA IN ORDER FOR THEM TO REMOVE IT. THEY SHALL ALSO BE NOTIFIED AFTER CONCRETE IS CURED IN ORDER FOR THEM TO REPLACE IT.

CONTACT INFORMATION IS AS FOLLOWS:

JOHN MAURER  
 US GEOLOGICAL SURVEY  
 FEDERAL BUILDING  
 105 SOUTH 6TH STREET, ROOM 231  
 MT. VERNON, IL 62864  
 OFFICE PHONE (618) 242-4495  
 CELLULAR PHONE (618) 316-1455

IT IS ANTICIPATED THAT THE CONTRACTOR MAY TEMPORARILY IMPACT WETLANDS LOCATED ON EITHER THE NORTH OR SOUTH SIDE OF THE STRUCTURE WHILE ACCESSING THE PROJECT SITE. UPON DETERMINATION BY THE CONTRACTOR OF HIS ACCESS, A WETLAND SURVEY WILL BE CONDUCTED BY THE DEPARTMENT. IN ORDER TO COMPENSATE FOR THE TEMPORARY IMPACTS, ANY EXPOSED SOIL CAUSED BY THE EQUIPMENT DRIVING OVER THE WETLANDS MUST BE RESEDED WITH AGROSTIS ALBA (REDTOP) AT 10 LBS/ACRE. AT NO TIME WILL THE CONTRACTOR BE PERMITTED TO PLACE ANY PERMANENT MEASURES (ROCK OR HAUL ROAD) IN THE WETLAND AREA. THE MEASURES AS NOTED ABOVE WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT.

PERTINENT INFORMATION

ACCESS TO SIDE ROADS SHALL BE MAINTAINED AT ALL TIMES.

**HIGHWAY STANDARDS**

- 000001-04 701311-02
- 515001-02 701321-08
- 631031-05 701326-02
- 631051-01 702001-06
- 635011-01 704001-02
- 701011-01 780001-01
- 701301-02 781001-02
- 701306-01 BLR 21-6

PLOT DATE = 6/21/2006  
 PLOT SCALE = 5/8"=1'-0"  
 REFERENCE = #REF\*

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**INDEX OF SHEETS, HIGHWAY  
 STANDARDS, GENERAL NOTES  
 AND COMMITMENTS**

FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

# SUMMARY OF QUANTITIES

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES			80% FED 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		X080-2A	SFTY-3N
X0325294	PREFORMED JOINT STRIP SEAL	FOOT	378	378	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.2	0.2	
40600300	AGGREGATE (PRIME COAT)	TON	1	1	
40600990	TEMPORARY RAMP	SQ YD	53	53	
44000006	BITUMINOUS SURFACE REMOVAL 1 1/2"	SQ YD	480	480	
44000910	BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	693	693	
44004250	PAVED SHOULDER REMOVAL	SQ YD	48	48	
50101600	REMOVAL OF EXISTING SUPERSTRUCTURES	L SUM	1	1	
50102400	CONCRETE REMOVAL	CU YD	9.3	9.3	
50300150	NEOPRENE EXPANSION JOINT 2"	FOOT	33	33	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	230.3	230.3	
50300300	PROTECTIVE COAT	SQ YD	577	577	
50400405	PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)	SQ FT	22028	22028	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	1650	1650	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	25590	25590	
50900905	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	159	159	
51401600	TEMPORARY BRIDGE RAIL	FOOT	844	844	
51500100	NAME PLATES	EACH	1	1	
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	2833	2833	
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	6343	6343	
58700200	BRIDGE SEAT SEALER	SQ FT	1299	1299	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100110	TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	146	146	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	26	26	
67100100	MOBILIZATION	L SUM	1	1	
70100100	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316	EACH	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70101205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)	EACH	1	1	
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1	
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1	

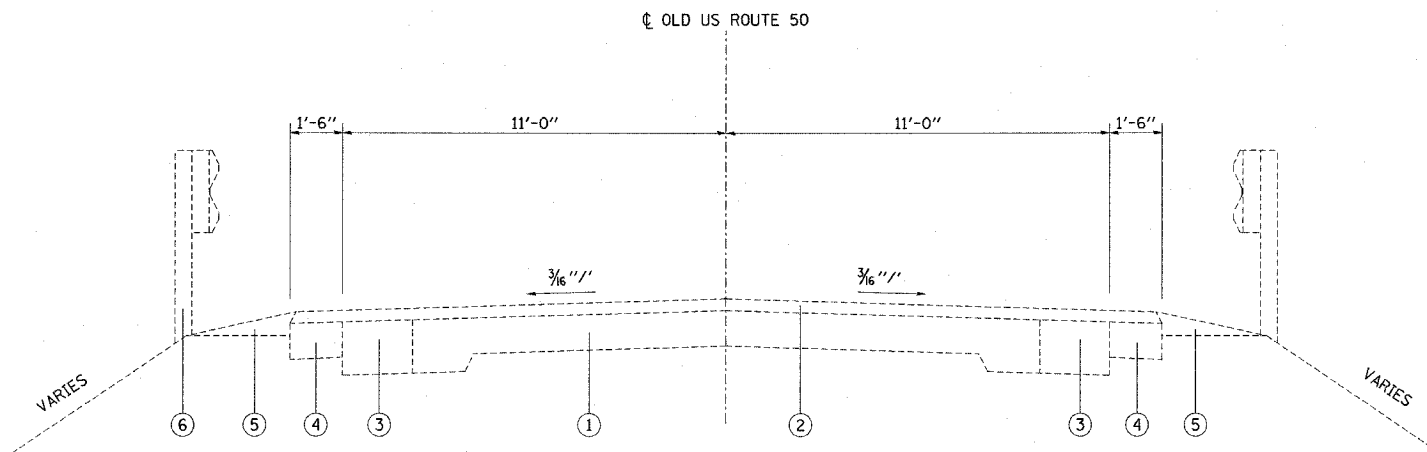
SUMMARY OF QUANTITIES			80% FED 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		X080-2A	SFTY-3N
70106600	TEMPORARY BRIDGE TRAFFIC SIGNALS (STATE FURNISHED CONTROLLER)	EACH	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	128	128	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3101	3101	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1162.5	1162.5	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1076	1076	
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	1000	1000	
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	162.5	162.5	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	3101	3101	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	2	2	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	11	11	
* 78100300	REPLACEMENT REFLECTOR	EACH	4	4	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	4	4	
* 78200520	BARRIER WALL MARKERS, TYPE B	EACH	22	22	
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	22	22	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1034	1034	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	9	9	
X0320047	REMOVAL OF EXISTING PRECAST PRESTRESSED CONCRETE DECK BEAMS	SQ FT	1110	1110	
X0321468	PLUG EXISTING DECK DRAINS	EACH	40	40	
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	356	356	
<del>X0325356</del>	<del>PREFORMED JOINT STRIP SEAL, 1"</del>	<del>FOOT</del>	<del>346.5</del>	<del>346.5</del>	
X3560130	BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCH	SQ YD	127	127	
X4066426	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70	TON	385	385	
X7015000	CHANGEABLE MESSAGE SIGN	CAL MO	4	4	
X7200200	WIDE LOAD SIGNING	L SUM	1	1	
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	310	310	
Z0002600	BAR SPLICERS	EACH	88	88	
Z0015595	DECK DRAIN EXTENSIONS	EACH	26	26	
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	70	70	
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
Z0053750	RETROFIT CONCRETE PARAPET	FOOT	450	450	

PLOT DATE = 5/16/2006  
 PLOT SCALE = 1/4" = 1'-0"  
 PLOT SCALE = 1/4" = 1'-0"  
 REFERENCE = #REF#

\*SPECIALTY ITEMS

REV.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	4
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



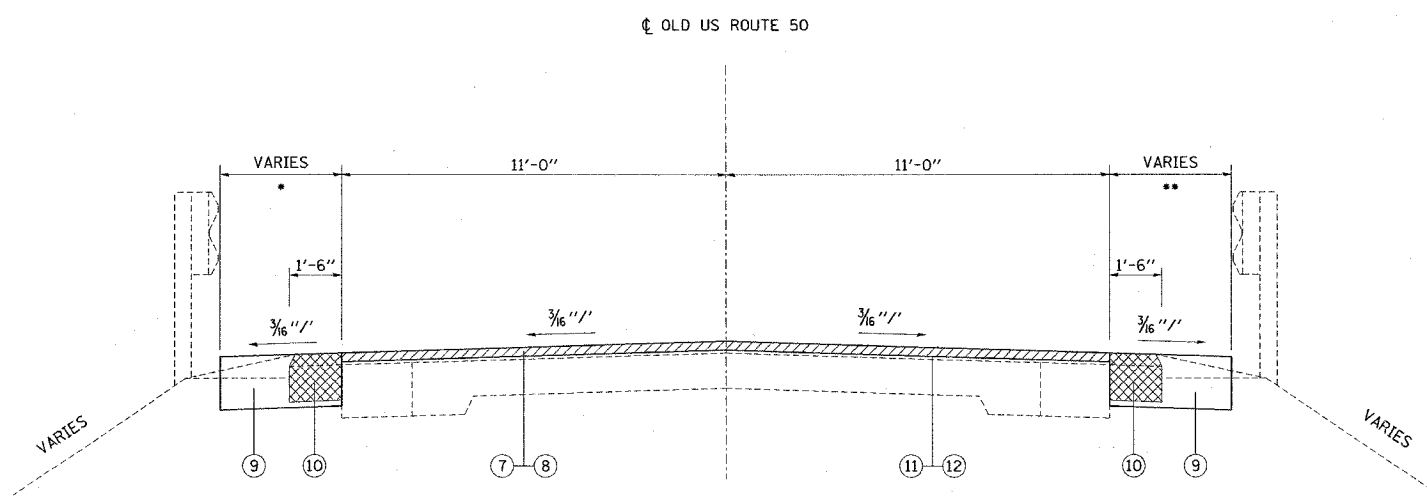
**EXISTING TYPICAL SECTION**  
STA 100+75.0 TO STA 101+28.0  
STA 110+10.48 TO STA 111+00.0

- LEGEND**
- ① EXISTING PCC PAVEMENT - 9"-6"-9"
  - ② EXISTING RESURFACING - 2"
  - ③ EXISTING PCC BASE COURSE WIDENING - 9"
  - ④ EXISTING BITUMINOUS SHOULDER (TBR)
  - ⑤ EXISTING AGGREGATE SHOULDER
  - ⑥ EXISTING GUARDRAIL
  - ⑦ PROPOSED BITUMINOUS SURFACE REMOVAL - 1 1/2"
  - ⑧ PROPOSED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE - 1 1/2 "
  - ⑨ PROPOSED BITUMINOUS BASE COURSE WIDENING, SUPERPAVE - 9"
  - ⑩ PROPOSED PAVED SHOULDER REMOVAL
  - ⑪ PROPOSED BITUMINOUS MATERIALS PRIME COAT
  - ⑫ PROPOSED AGGREGATE (PRIME COAT)

**BITUMINOUS MIXTURE CHART**

MIXTURE USE	SURFACE	BINDER / BSE CSE	INCIDENTAL SURFACE
AC/PG	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	10%	15%	10%
DESIGN AIR VOIDS	4.0% @ Ndes=70	4.0% @ Ndes=70	4.0% @ Ndes=70
MIX COMPOSITION (GRADATION MIXTURE)			
FRICITION AGG	MIXTURE "D"	MIXTURE "B"	MIXTURE "C"

PLAN QUANTITIES FOR BITUMINOUS CONCRETE SURFACE COURSE ITEMS ARE CALCULATED USING A UNIT WEIGHT OF 112 LB/SQ YD/IN (59.8 KG/SQ M/25 MM THICKNESS).



**PROPOSED TYPICAL SECTION**  
STA 100+75.0 TO STA 101+28.0  
STA 110+10.48 TO STA 111+00.0

▪ 4'-3" STA 100+75 TO STA 101+28  
4'-0" STA 110+10.48 TO STA 111+00

•• 3'-9" STA 100+75 TO STA 101+28  
4'-0" STA 110+10.48 TO STA 111+00

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**TYPICAL SECTION**  
  
FAS ROUTE 1780  
SECTION 24-BR-2  
CLINTON COUNTY  
SN 014-0062

PLOT DATE = #DATE#  
FILE NAME = #FILE#  
PLOT SCALE = #SCALE#  
REFERENCE = #REF#

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	5
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

EARTHWORK SCHEDULE (FOR INFORMATION ONLY)

LOCATION STATION TO STATION	EARTH EXCAVATION (WIDENING)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (25%)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CUYD
STA 100+75.00 TO STA 101+28.00	7.5	5.6	+5.6
STA 110+10.48 TO STA 111+00.00	12.5	9.4	+9.4
SUBTOTAL	20	15	+15

NOTE: EARTHWORK IS INCLUDED IN THE COST OF PAVED SHOULDER REMOVAL

RESURFACING SCHEDULE

LOCATION STATION TO STATION	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE	BITUMINOUS CONCRETE BASE COURSE WIDENING SUPERPAVE 9 INCH	BITUMINOUS SURFACE REMOVAL 1 1/2"	PAVED SHOULDER REMOVAL
	TON	TON	TON	SQ YD	SQ YD	SQ YD
STA 100+75.00 TO STA 101+47.50	0.08	0.4	14.9	47.3	195.7	17.9
BRIDGE OMISSION						
STA 109+91.23 TO STA 111+00.00	0.12	0.6	22.3	79.7	284.3	30.1
TOTAL	0.2	1	37 **	127	480	48

\*\* BITUMINOUS CONCRETE SURFACE COURSE IS NOT A TOTAL QUANTITY. SEE BRIDGE PLANS FOR ADDITIONAL QUANTITY.

GUARDRAIL SCHEDULE

LOCATION	GUARDRAIL REMOVAL	TRAFFIC BARRIER, TERMINAL, TYPE 6	GUARDRAIL MARKERS, TYPE A
	FOOT	EACH	EACH
NW QUADRANT	31.25	1	1
NE QUADRANT	31.25	1	1
SW QUADRANT	31.25	1	1
SE QUADRANT	31.25	1	1
TOTAL	125 *	4	4

\* GUARDRAIL REMOVAL IS NOT A TOTAL QUANTITY. SEE STAGING SCHEDULE FOR ADDITIONAL QUANTITY.

NOTE: SEE STAGING SCHEDULE FOR TRAFFIC BARRIER TERMINAL, TYPE 11 QUANTITY.

TEMPORARY RAMP SCHEDULE

LOCATION	WIDTH	LENGTH	TEMPORARY RAMP
	FOOT	FOOT	SQ YD
STA 100+75	24	5	13.3
STA 101+47.50	24	5	13.2
STA 109+91.23	24	5	13.2
STA 111+00	24	5	13.3
TOTAL			53

PAVEMENT MARKING SCHEDULE

LOCATION STATION TO STATION	PAVEMENT MARKING REMOVAL			THERMOPLASTIC PAVEMENT MARKING			TEMPORARY PAVEMENT MARKING LINE - 4"	SHORT-TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	REPLACEMENT REFLECTOR	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	BARRIER WALL MARKERS, TYPE B		BARRIER WALL MARKERS, TYPE C				
	SKIP-DASH CENTERLINE 4" YELLOW	EDGE LINE 4" WHITE		SKIP-DASH CENTERLINE 4" YELLOW	EDGE LINE 4" WHITE									2-WAY AMBER	2-WAY AMBER	2-WAY AMBER	LT	RT	LT	RT
		LT	RT		LT	RT														
STA 99+07.30 TO STA 103+00.00	33.5	130.9	130.9	100	392.7	392.7	885	36	307	5	2	1	2	2	2	2				
STA 103+00.00 TO STA 109+00.00	50.0	200.0	200.0	150	600.0	600.0	1350	56	468	1	8	8	8	8	8	8				
STA 109+00.00 TO STA 112+82.90	33.5	127.6	127.6	100	382.8	382.8	866	36	301	3	2	1	1	1	1	1				
SUB-TOTAL	117	458.5	458.5	350	1375.5	1375.5									11	11				
TOTAL	1034			3101			3101	128	1076	9	4	2	11	22		22				

STAGING SCHEDULE

LOCATION	TRAFFIC CONTROL & PROTECTION FOR TEMPORARY DETOUR	TRAFFIC CONTROL & PROTECTION STANDARD 701321 (SPECIAL)	TRAFFIC CONTROL & PROTECTION STANDARD 701316	WIDE LOAD SIGNING	CHANGEABLE MESSAGE SIGN	TEMPORARY PAVEMENT MARKING LINE 6"	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	TEMPORARY BRIDGE RAIL	TRAFFIC BARRIER TERMINAL, TYPE 11	GUARDRAIL REMOVAL	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE)	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE)
	EACH	EACH	EACH	L SUM	CAL MO	FOOT	FOOT	FOOT	FOOT	EACH	FOOT	EACH	EACH
STAGE I	1				4								
STAGE II		1		1		1000	1000					2	
STAGE III			1			162.5		162.5	844	2	21		2
TOTAL	1	1	1	1	4	1162.5	1000	162.5	844	2	21 *	2	2

\* GUARDRAIL REMOVAL IS NOT A TOTAL QUANTITY. SEE GUARDRAIL SCHEDULE FOR ADDITIONAL QUANTITY.

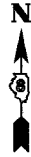
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

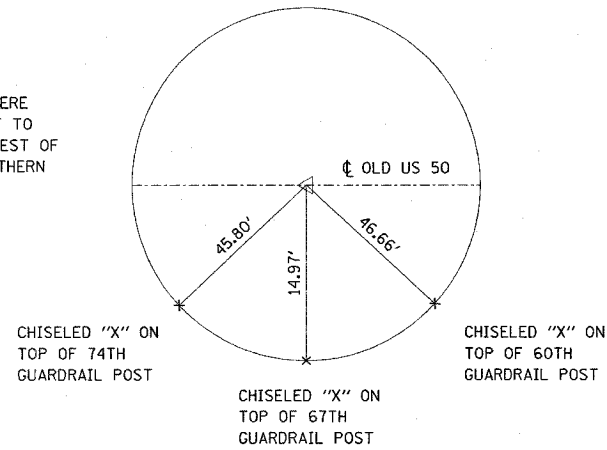
SCHEDULE OF QUANTITIES

FAS ROUTE 1780  
SECTION 24-BR-2  
CLINTON COUNTY  
SN 014-0062

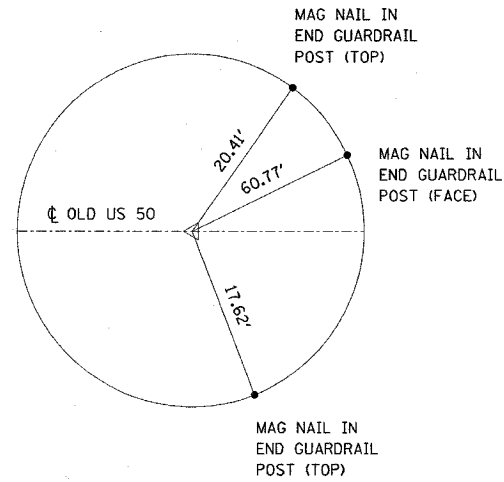
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1780	24-BR-2	CLINTON	63	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



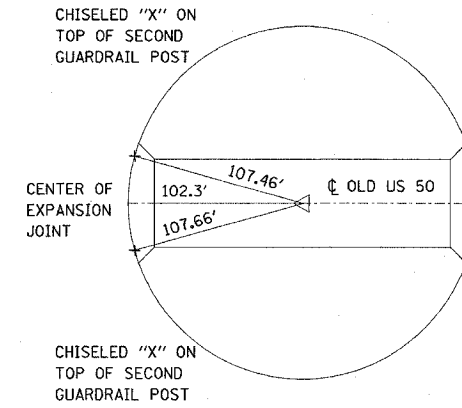
NOTE:  
GUARDRAIL POSTS WERE  
COUNTED FROM EAST TO  
WEST - STARTING WEST OF  
CHOPPER ROAD (SOUTHERN  
GUARDRAIL)



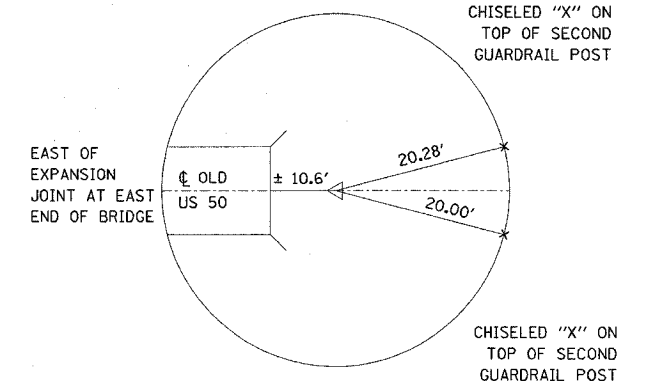
TIE POINT  
MAG NAIL  
P.C. STA 96+13.45



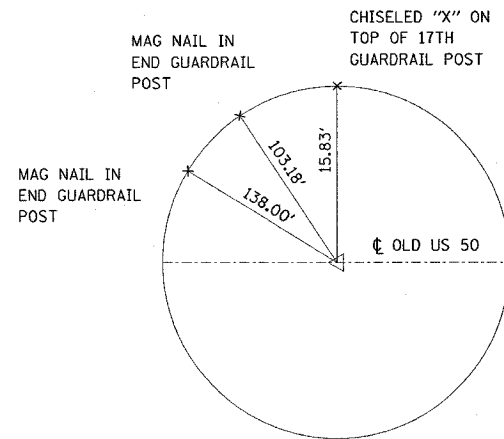
TIE POINT  
MAG NAIL  
P.T. STA 100+22.71



TIE POINT  
MAG NAIL  
STA 102+51.47



TIE POINT  
MAG NAIL  
P.O.L. STA 110+00



TIE POINT  
MAG NAIL  
P.O.L. STA 115+43.00

NOTE:  
GUARDRAIL POSTS WERE  
COUNTED FROM WEST TO  
EAST- STARTING AT NW  
FIELD ENTRANCE  
(NORTHERN GUARDRAIL)

BENCHMARK

NGS BM K-152 - BRASS DISK SET IN THE TOP OF NORTH END OF EAST ABUTMENT OF STEEL RR BRIDGE OVER SHOAL CREEK NEAR MILEPOLE 297-19, APPROX 0.4 MILES SOUTH OF BRIDGE SN 014-0062 ON OLD US RTE 50  
ELEV = 439.110

TEMPORARY BENCHMARKS

TBM-1 - RR SPIKE IN W. SIDE OF 1ST POWERPOLE IN ROW OF 7 ON EAST SIDE OF DRIVEWAY TO NEW WATER TREATMENT PLANT, APPROX. 200' SOUTH OF WEST END OF BRIDGE SN 014-0062  
STA 101+86 OFFSET = 124' RT  
ELEV = 437.930

TBM-2 - CENTER OF BRASS DISK FOUND ON SW WINGWALL OF SN 014-0062  
STA 101+45.2 OFFSET = 19.6' RT  
ELEV = 442.723

TBM-3 - SQUARE CUT IN TOP OF EAST END OF SE CONCRETE RAILWALL FOR BRIDGE SN 014-0062  
STA 110+10.1 OFFSET = 16.2' RT  
ELEV = 444.140

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

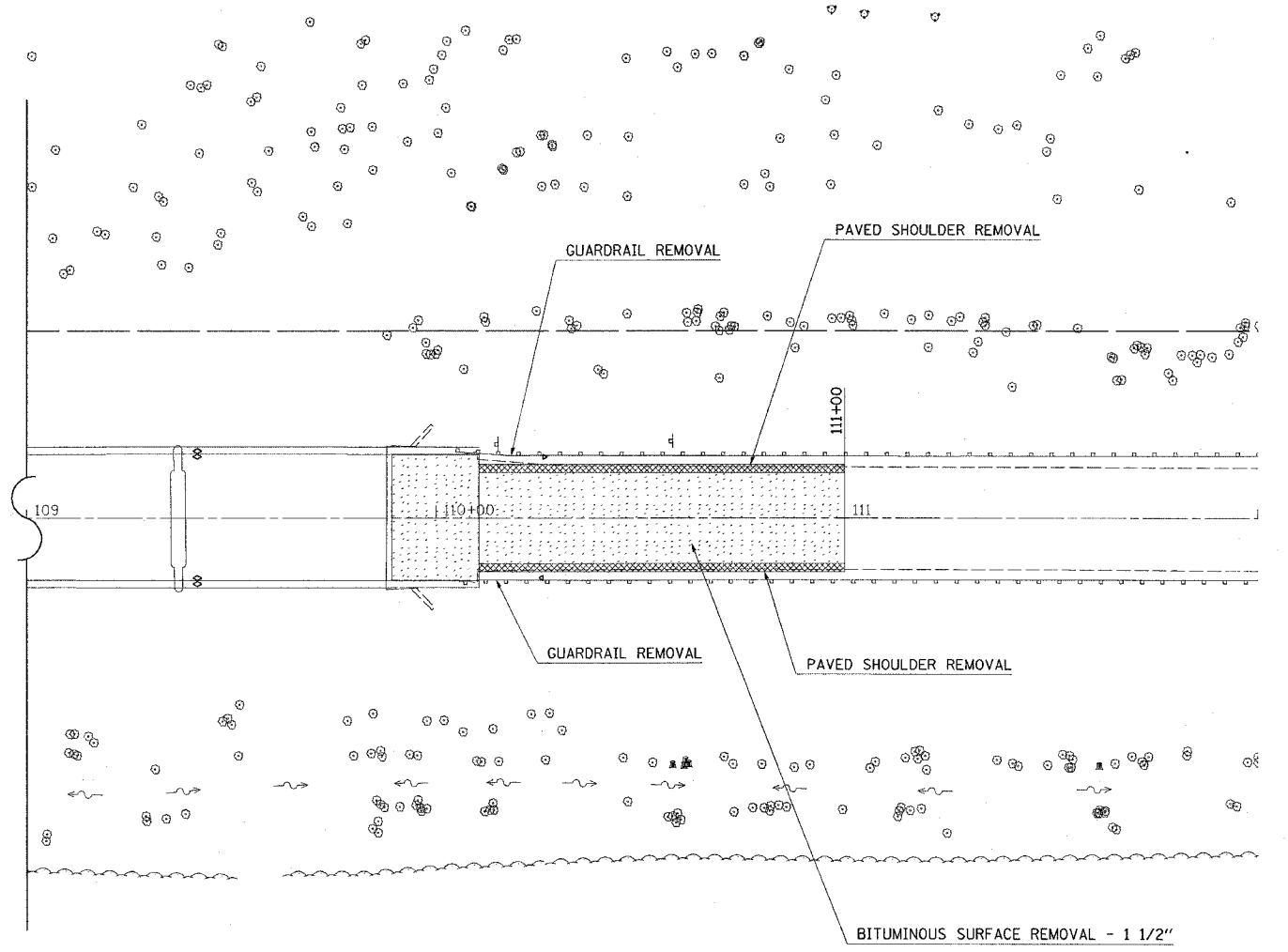
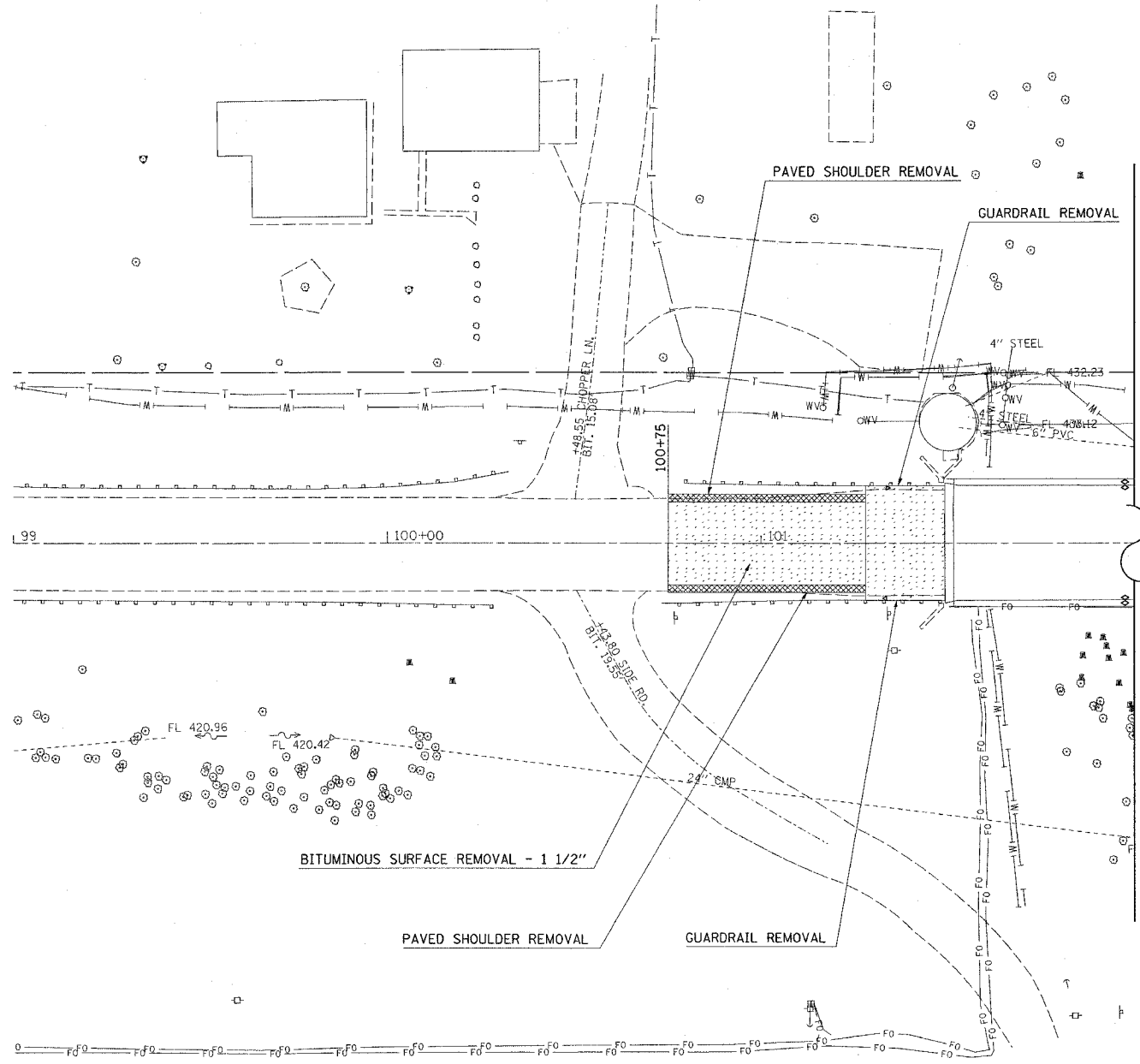
**TIE POINTS AND BENCHMARKS**

FAS ROUTE 1780  
SECTION 24-BR-2  
CLINTON COUNTY

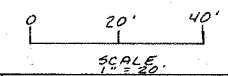
NOTE: ALL TIES PULLED DIRECT

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1780	24-BR-2	CLINTON	63	7
STA. 97+00		TO STA. 115+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



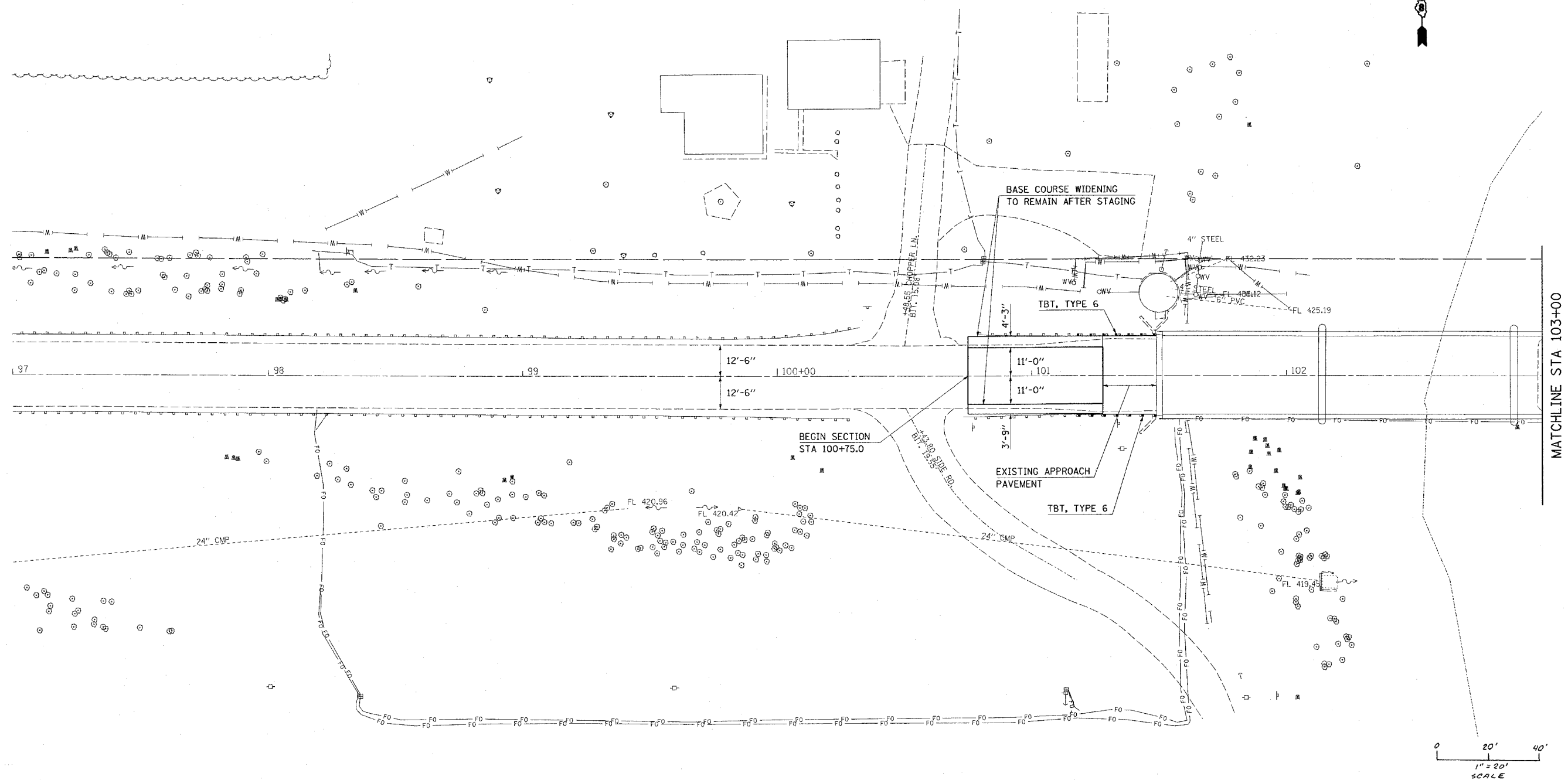
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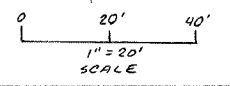
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**REMOVAL PLAN**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	8
STA. 97+00		TO STA. 103+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



MATCHLINE STA 103+00



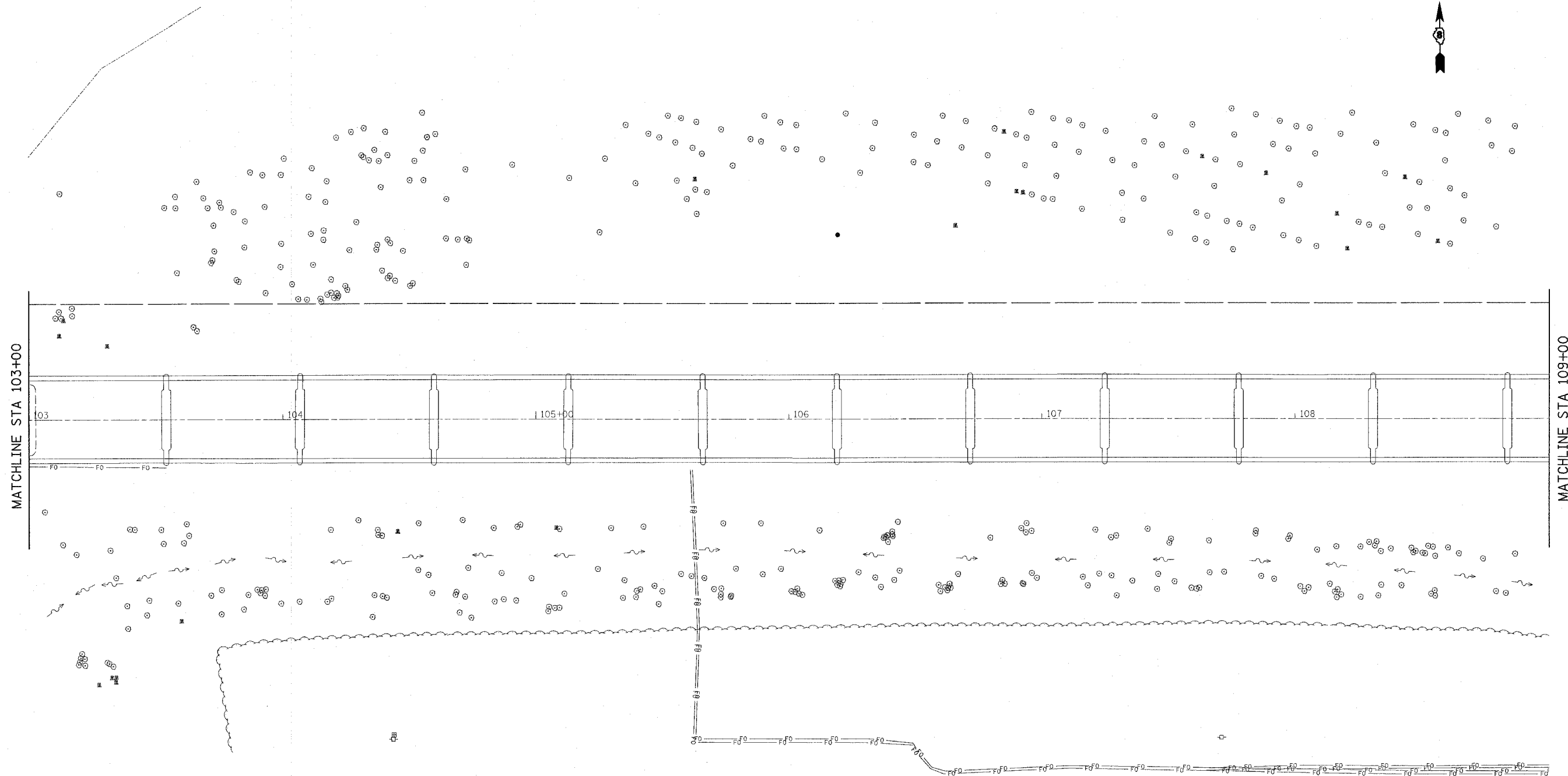
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAN SHEET**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

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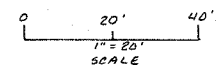
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1780	24-BR-2	CLINTON	63	9
STA. 103+00		TO STA. 109+00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



MATCHLINE STA 103+00

MATCHLINE STA 109+00

103 104 105+00 106 107 108

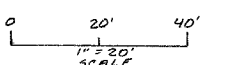
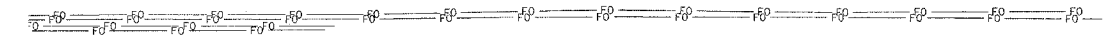
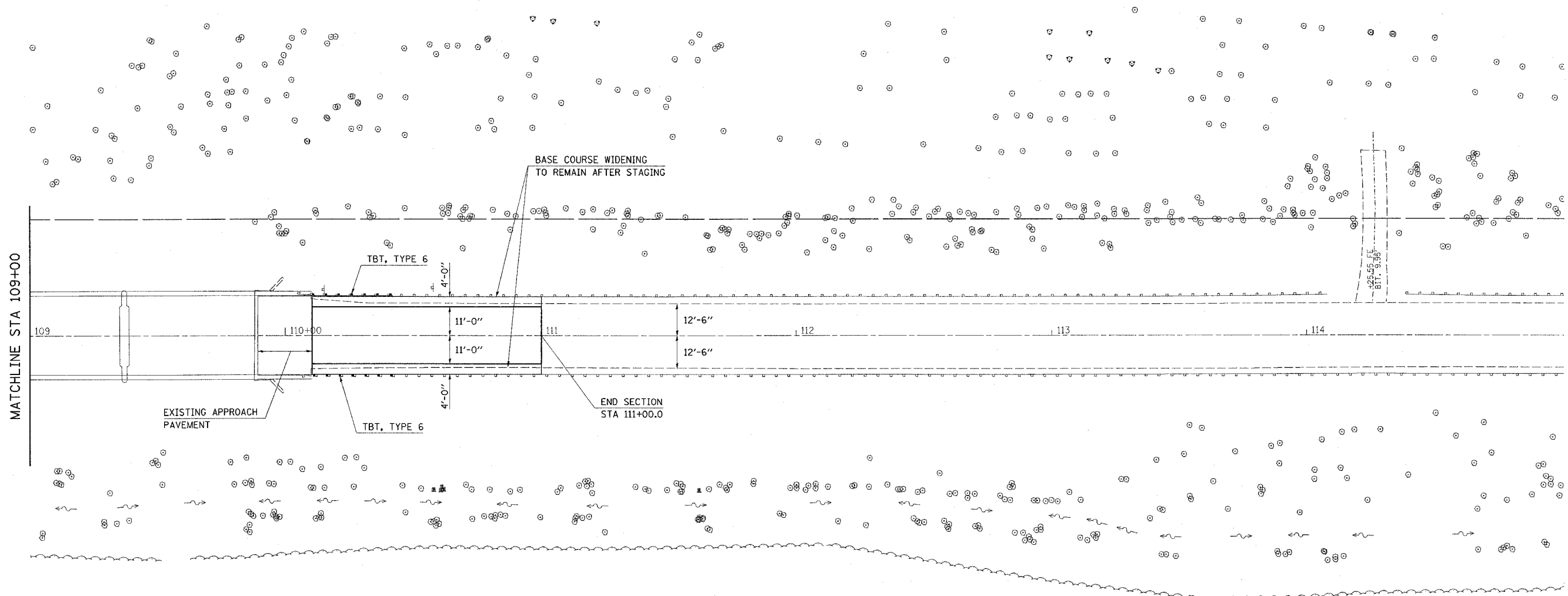


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAN SHEET**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	10
STA. 109+00		TO STA. 115+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PLAN SHEET**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	11
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

**NOTES**

- ① DETOUR SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T. CONTACT JEAN SLAPE AT (618) 346-3289.
- ② THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HGTS., AND RETURN THEM UPON COMPLETION OF THE CONTRACT.
- ③ CONTRACTOR SHALL FURNISH ADVANCE WARNING SIGNS AND ALL SIGNS AND TRAFFIC CONTROL DEVICES REQUIRED BY STANDARD BLR 21-6.
- ④ ALL ADVANCE WARNING SIGNS SHALL BE 48" FLUORESCENT ORANGE WITH FLASHING LIGHT.
- ⑤ THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- ⑥ THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR" AND NO OTHER COMPENSATION WILL BE ALLOWED.
- ⑦ SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
- ⑧ THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.
- ⑨ TYPE III BARRICADES (SEE STANDARD 702001), TO BE PROVIDED BY THE CONTRACTOR & INCLUDED IN THE PRICE OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.


**DETOUR SIGNS**

(TO BE SUPPLIED BY IDOT)

OLD US 50 (14)  (3)

DETOUR (14)

EAST (3)

 (11)

ROAD CLOSED  
x MILES AHEAD  
LOCAL TRAFFIC ONLY



(1) - 1.5 MILES  
(1) - 2 MILES  
(1) - 3 MILES



OLD US 50 CLOSED  
AT SHOAL CREEK  
EAST OF BREESE  
DETOUR VIA US 50 (1)

OLD US 50 CLOSED  
AT SHOAL CREEK  
EAST OF BREESE  
DETOUR AHEAD (1)

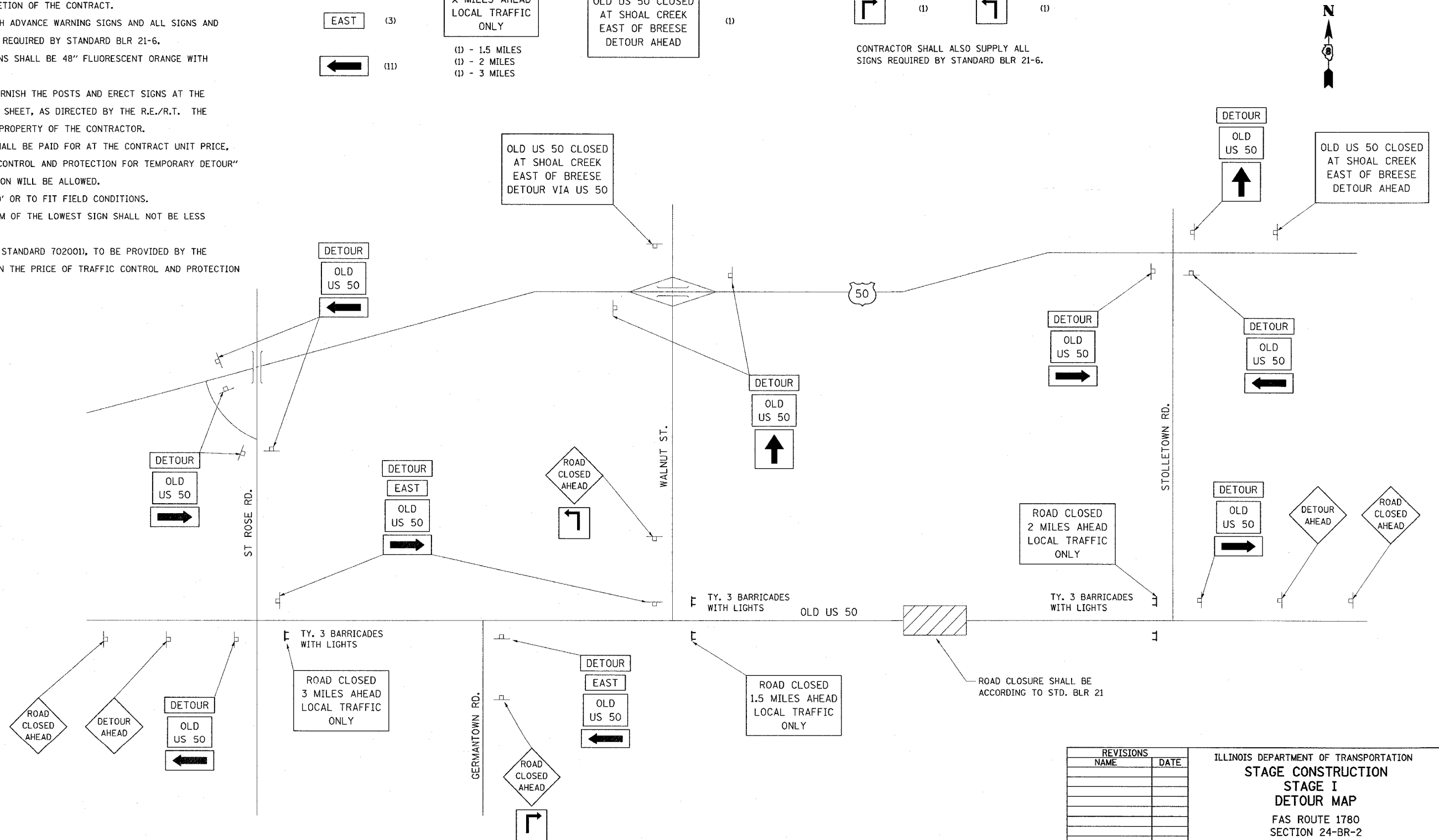
**ADVANCED WARNING SIGNS**

(TO BE SUPPLIED BY CONTRACTOR)

 (4)  (2)

 (1)  (1)

CONTRACTOR SHALL ALSO SUPPLY ALL SIGNS REQUIRED BY STANDARD BLR 21-6.

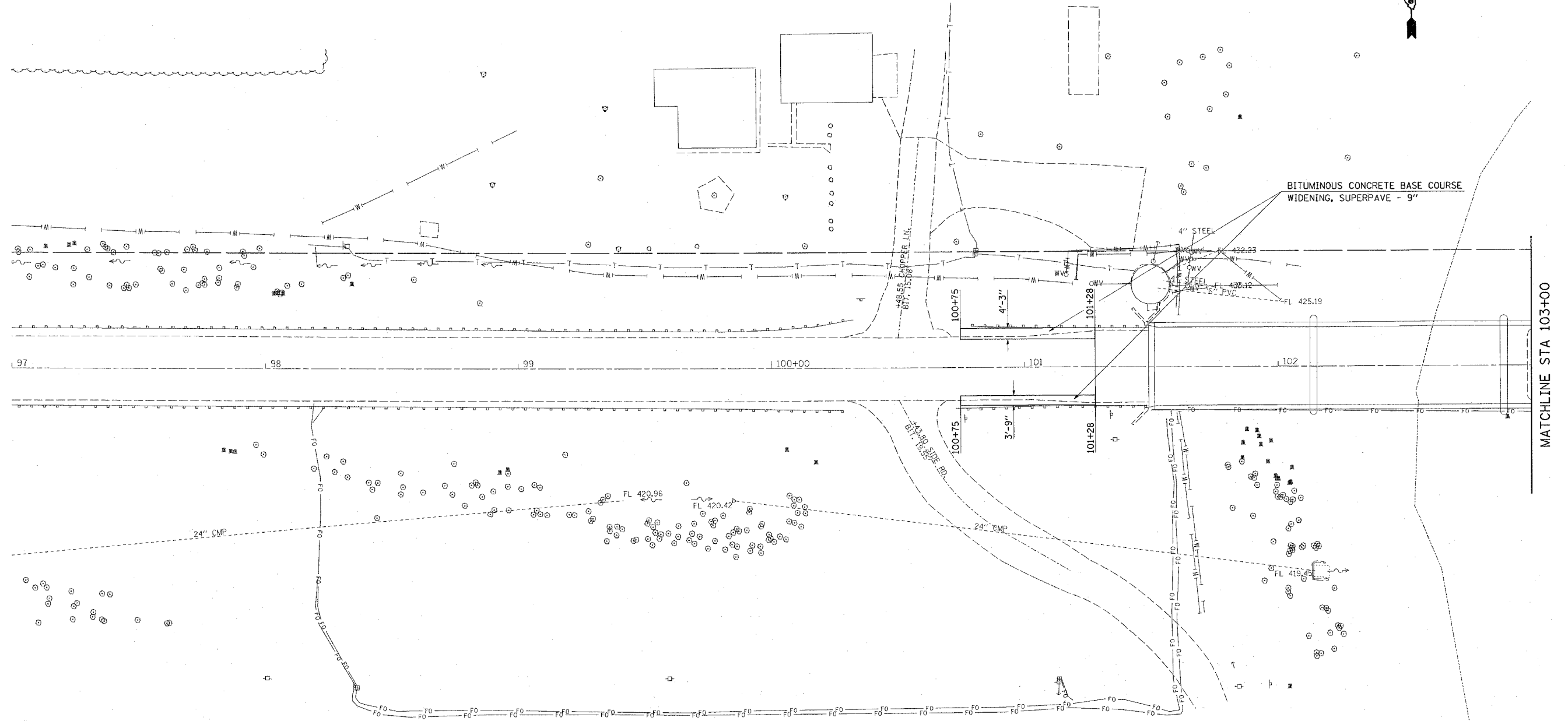


REVISIONS	
NAME	DATE

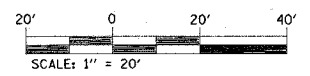
ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE I**  
**DETOUR MAP**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY

PLOT DATE = #DATE#  
 FILE NAME = #FILE#  
 PLOT SCALE = #SCALE#  
 REFERENCE = #REF#

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	12
STA. 97+00		TO STA. 103+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



MATCHLINE STA 103+00



**STAGE I DESCRIPTION OF WORK:**

ROADWAY CLOSED AND DETOUR ESTABLISHED.

COMPLETE CLOSURE IS NECESSARY TO REMOVE AND REPLACE SEVEN CRITICAL BEAMS PRIOR TO STAGE CONSTRUCTION AS SHOWN IN THE STRUCTURE PLANS.

"BITUMINOUS CONCRETE BASE COURSE WIDENING, SUPERPAVE 9 INCHES" SHALL BE CONSTRUCTED TO ALLOW FOR TRAFFIC IN STAGES II AND III.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**STAGE CONSTRUCTION  
STAGE I**

FAS ROUTE 1780  
SECTION 24-BR-2  
CLINTON COUNTY  
SN 014-0062

PLOT DATE = 5/17/2006  
 PLOT SCALE = 24.0000' / IN.  
 USER NAME = owerbj

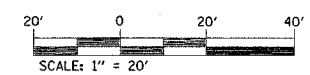
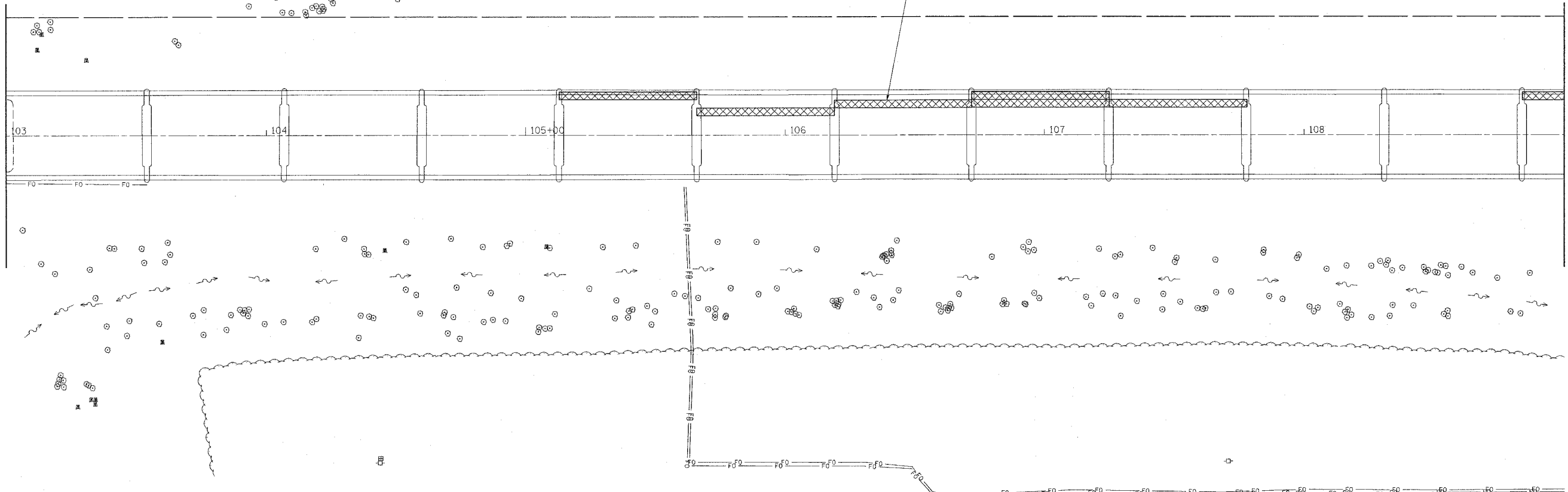
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	13
STA. 103+00		TO STA. 109+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



REMOVAL OF EXISTING DECK BEAMS  
 PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH)  
 (SEE STRUCTURE PLANS)

MATCHLINE STA 103+00

MATCHLINE STA 109+00

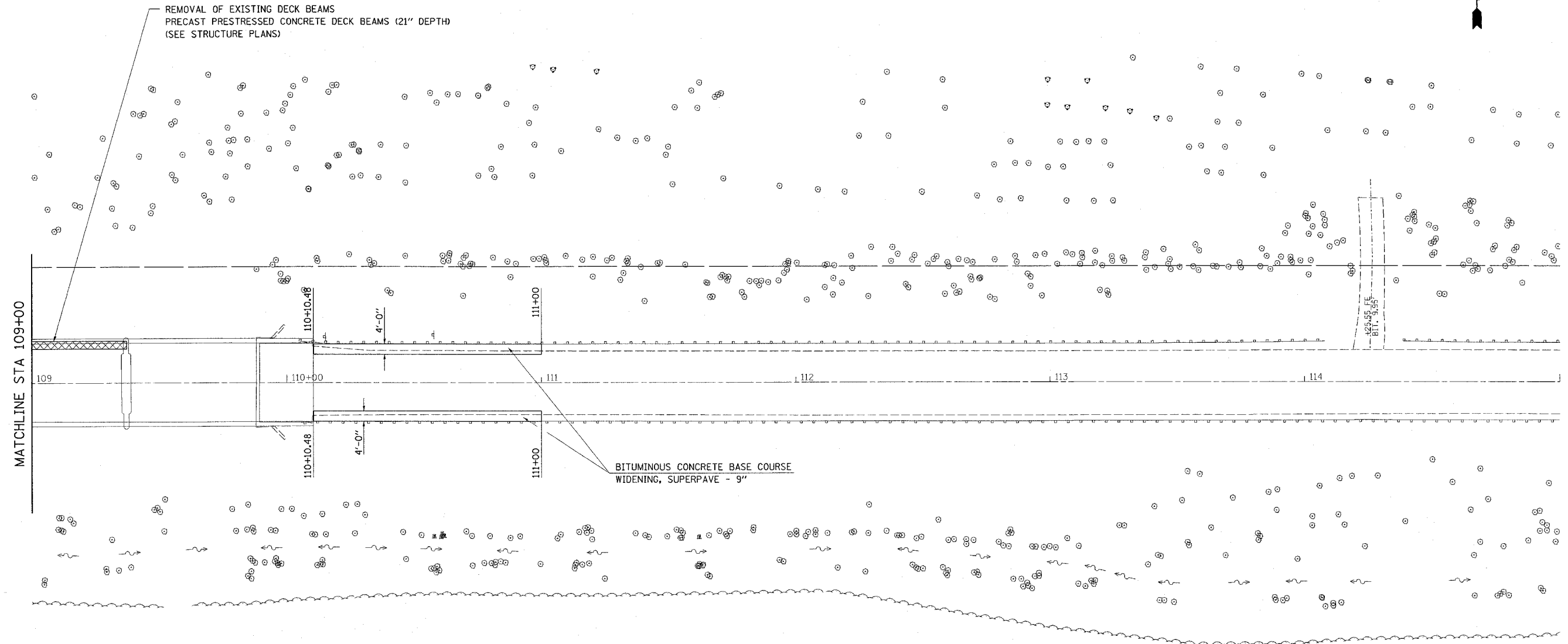


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE I**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

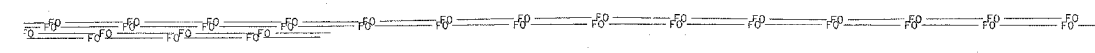
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	14
STA. 109+00		TO STA. 115+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



MATCHLINE STA 109+00

BITUMINOUS CONCRETE BASE COURSE  
WIDENING, SUPERPAVE - 9"



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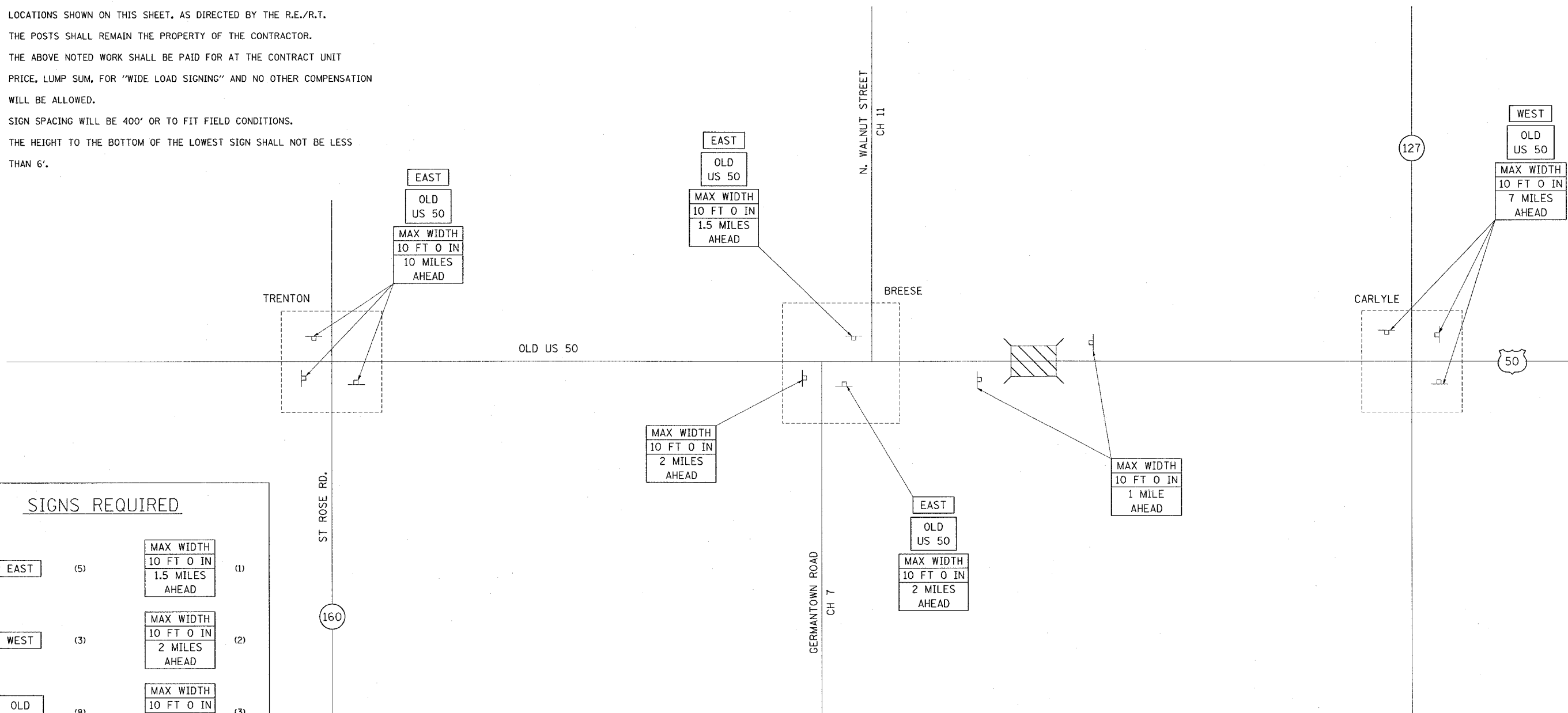
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE I**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	15
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

**NOTES**

- ① ALL SIGNS REQUIRED WILL BE SUPPLIED TO THE CONTRACTOR BY I.D.O.T. CONTACT JEAN SLAPE AT (618) 346-3289.
- ② THE CONTRACTOR SHALL GIVE ILLINOIS DEPARTMENT OF TRANSPORTATION, BUREAU OF OPERATIONS TWO WEEKS NOTICE FOR SIGNS. THE CONTRACTOR SHALL PICK UP THE SIGNS AT THE T.M. BUILDING IN FAIRVIEW HGTS., AND RETURN THEM UPON COMPLETION OF THE CONTRACT.
- ③ THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE R.E./R.T. THE POSTS SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.
- ④ THE ABOVE NOTED WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE, LUMP SUM, FOR "WIDE LOAD SIGNING" AND NO OTHER COMPENSATION WILL BE ALLOWED.
- ⑤ SIGN SPACING WILL BE 400' OR TO FIT FIELD CONDITIONS.
- ⑥ THE HEIGHT TO THE BOTTOM OF THE LOWEST SIGN SHALL NOT BE LESS THAN 6'.



**SIGNS REQUIRED**

EAST	(5)	MAX WIDTH 10 FT 0 IN 1.5 MILES AHEAD	(1)
WEST	(3)	MAX WIDTH 10 FT 0 IN 2 MILES AHEAD	(2)
OLD US 50	(8)	MAX WIDTH 10 FT 0 IN 7 MILES AHEAD	(3)
MAX WIDTH 10 FT 0 IN 1 MILE AHEAD	(2)	MAX WIDTH 10 FT 0 IN 10 MILES AHEAD	(3)






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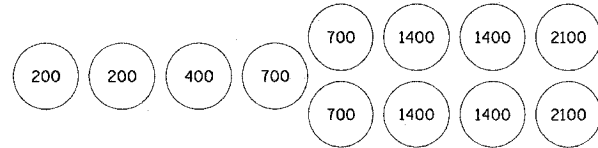
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE II & III**  
**WIDE LOAD SIGNING**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY

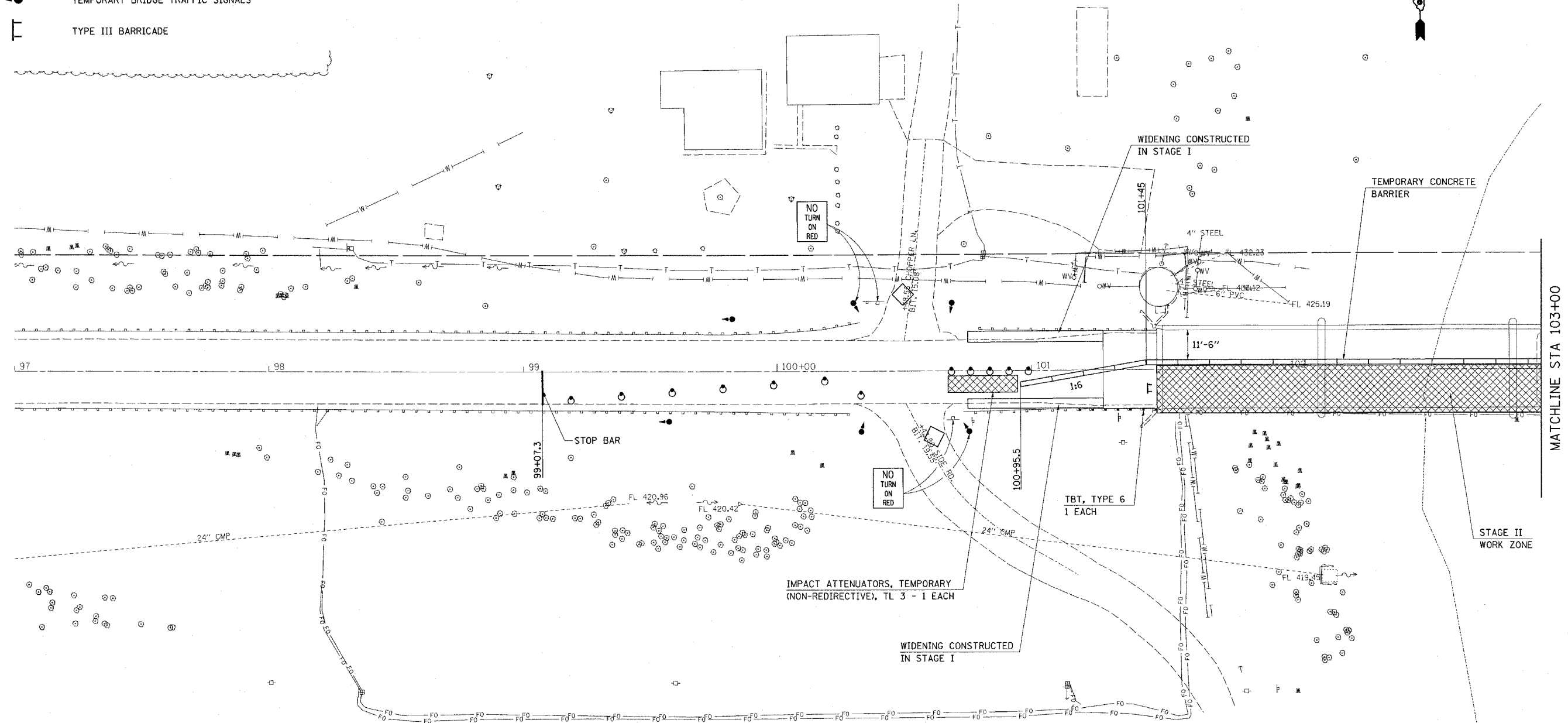
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	16
STA. 97+00		TO STA. 103+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

LEGEND

-  IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
-  TEMPORARY BRIDGE TRAFFIC SIGNALS
-  TYPE III BARRICADE



SAND BARREL LAYOUT (IF OPTION USED)



STAGE II DESCRIPTION OF WORK:

TRAFFIC CONTROL SHALL BE INSTALLED AS SHOWN IN THE PLANS AND STANDARD 701321. THE COST OF THIS TRAFFIC CONTROL SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)"

ROADWAY SHALL BE OPENED WITH TRAFFIC PLACED ON THE NORTH SIDE OF THE STRUCTURE.

BOTH SIDE ROADS ON THE WEST END OF THE STRUCTURE SHALL REMAIN OPEN AND SHALL BE CONTROLLED WITH TWO TEMPORARY BRIDGE SIGNALS. THE COST OF THESE EXTRA SIGNALS SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY BRIDGE TRAFFIC SIGNALS (SFC)"

SEQUENCE OF CONSTRUCTION:

- PLACE STOP BARS AS SHOWN ON PLANS.
- REMOVE SKIP-DASH AND CONFLICTING SOLID EDGE PAVEMENT MARKINGS BETWEEN STOP BARS.
- PLACE 1000 FT TEMPORARY CONCRETE BARRIER AND 2 EACH IMPACT ATTENUATORS, TEMPORARY.
- SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.
- PERFORM ALL NECESSARY BRIDGE WORK IN STAGE II WORK ZONE.
- REMOVE EXISTING TRAFFIC BARRIER TERMINAL ATTACHED TO THE STRUCTURE AND REPLACE WITH TBT, TYPE 6 IN SW AND SE QUADRANTS



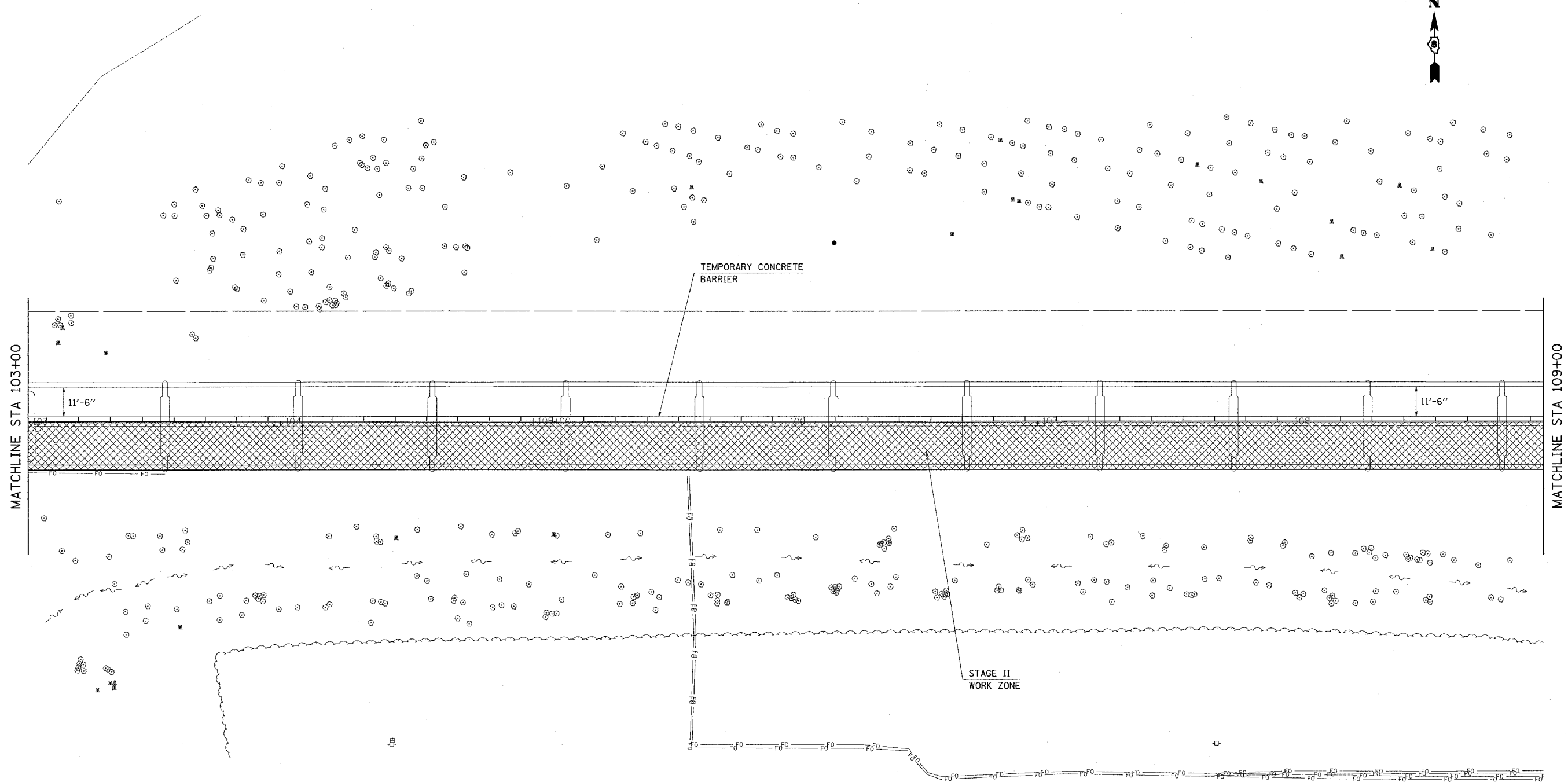
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE II**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

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 USER NAME = #USER#



F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	17
STA. 103+00		TO STA. 109+00		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	



REVISIONS	
NAME	DATE






ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE II**

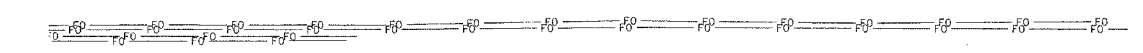
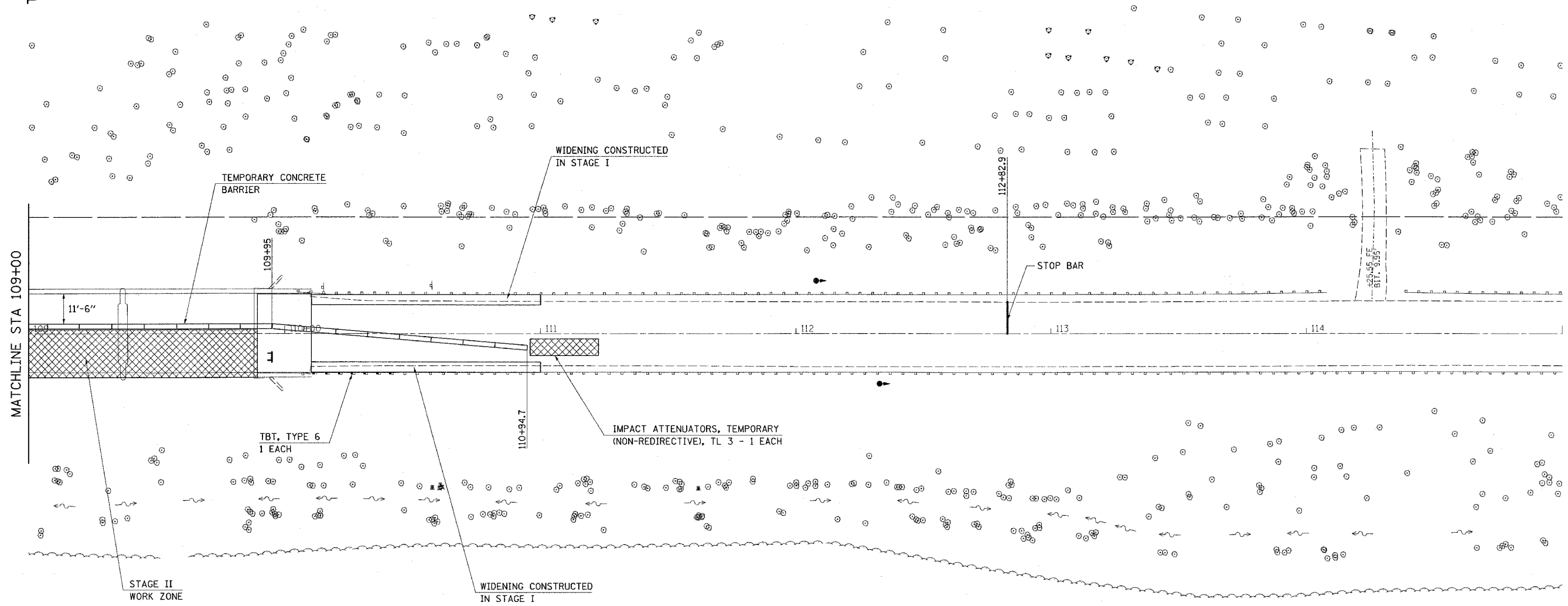
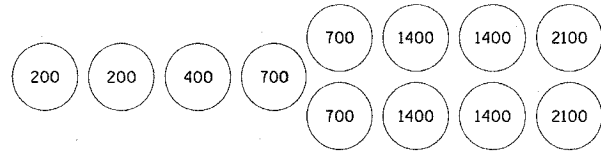
FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	18
STA. 109+00		TO STA. 115+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

LEGEND

-  IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
-  TEMPORARY BRIDGE TRAFFIC SIGNALS
-  TYPE III BARRICADE








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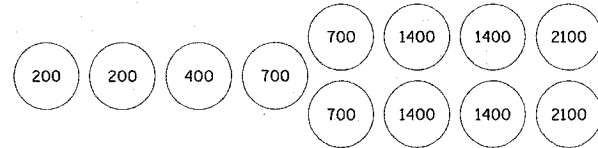
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION  
STAGE II**  
  
FAS ROUTE 1780  
SECTION 24-BR-2  
CLINTON COUNTY  
SN 014-0062

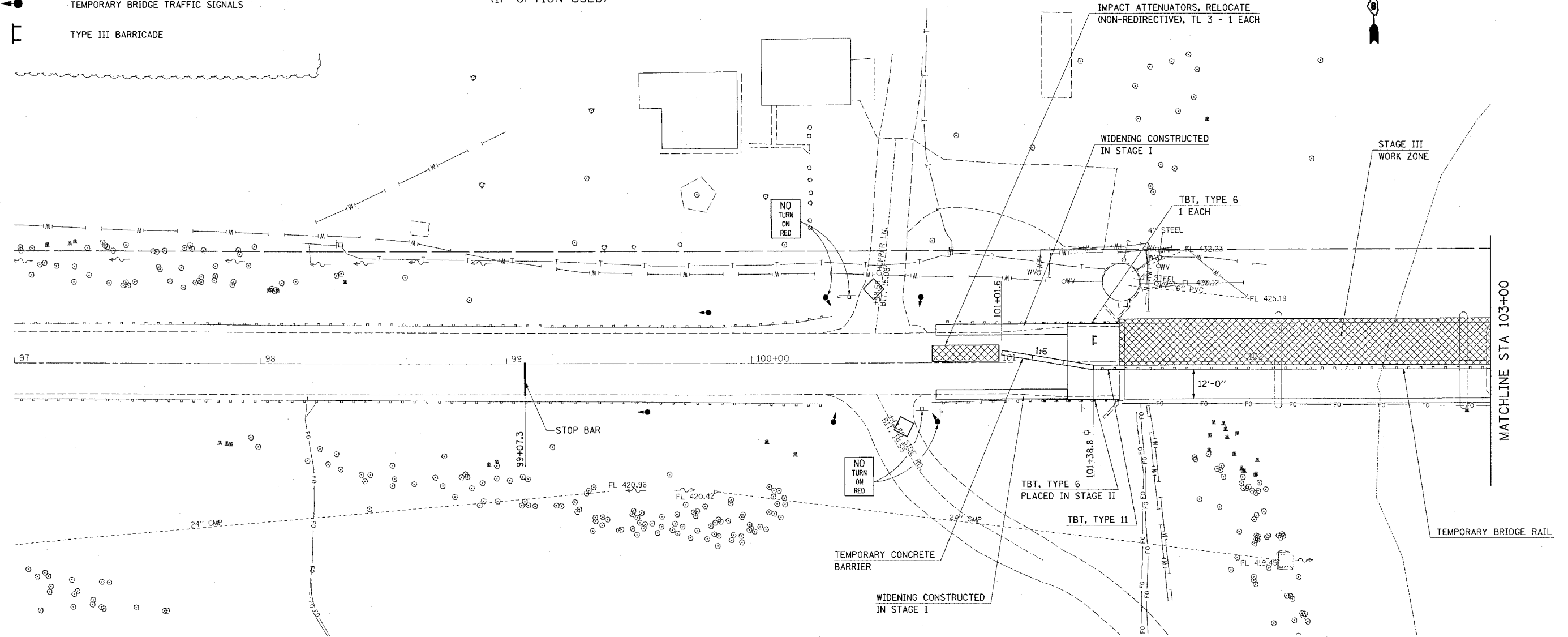
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1780	24-BR-2	CLINTON	63	19
STA. 97+00		TO STA. 103+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

LEGEND

-  IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
-  TEMPORARY BRIDGE TRAFFIC SIGNALS
-  TYPE III BARRICADE



SAND BARREL LAYOUT (IF OPTION USED)



STAGE III DESCRIPTION OF WORK:

TRAFFIC CONTROL SHALL BE INSTALLED AS SHOWN IN THE PLANS AND STANDARD 701321. THE COST OF THIS TRAFFIC CONTROL SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321 (SPECIAL)"

ROADWAY SHALL BE OPENED WITH TRAFFIC PLACED ON THE SOUTH SIDE OF THE STRUCTURE.

BOTH SIDE ROADS ON THE WEST END OF THE STRUCTURE SHALL REMAIN OPEN AND SHALL BE CONTROLLED WITH TWO TEMPORARY BRIDGE SIGNALS. THE COST OF THESE EXTRA SIGNALS SHALL BE INCLUDED IN THE PAY ITEM "TEMPORARY BRIDGE TRAFFIC SIGNALS (SFC)"

SEQUENCE OF CONSTRUCTION:

REMOVE 837.5 FT AND RELOCATE 162.5 FT OF TEMPORARY CONCRETE BARRIER.

PLACE 844 FT OF TEMPORARY BRIDGE RAIL. PLACE TBT, TYPE 11 TO CONNECT BARRIER AND BRIDGE RAIL AND RELOCATE 2 EACH IMPACT ATTENUATORS.

SEE STANDARD 701321 FOR DETAILS NOT SHOWN ON PLANS.

PERFORM ALL NECESSARY BRIDGE WORK IN STAGE II WORK ZONE.

REMOVE EXISTING TRAFFIC BARRIER TERMINAL ATTACHED TO THE STRUCTURE AND REPLACE WITH TBT, TYPE 6 IN NW AND NE QUADRANTS.

TEMPORARY BRIDGE RAIL SHALL BE REMOVED PRIOR TO PLACEMENT OF THE WATERPROOFING MEMBRANE SYSTEM AND BITUMINOUS OVERLAY. SEE STANDARD 701316.

TBT, TYPE 11 REMOVAL SHALL BE PAID FOR AS "GUARDRAIL REMOVAL".



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE III**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

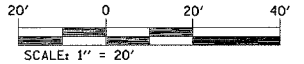
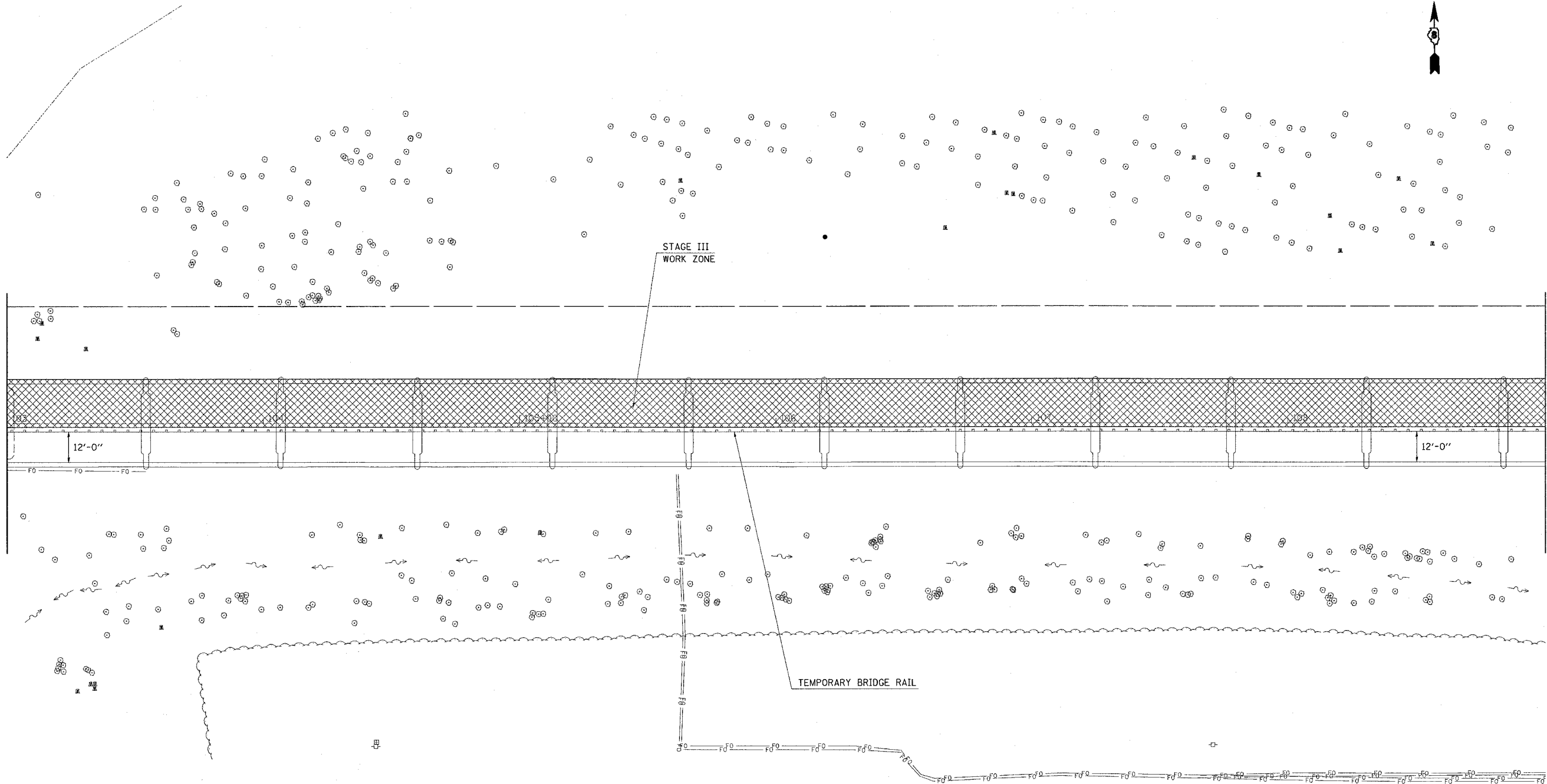
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1780	24-BR-2	CLINTON	63	20
STA. 103+00		TO STA. 109+00		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	



MATCHLINE STA 103+00

MATCHLINE STA 109+00








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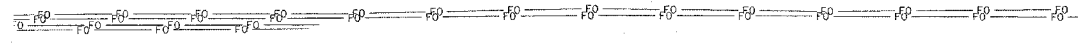
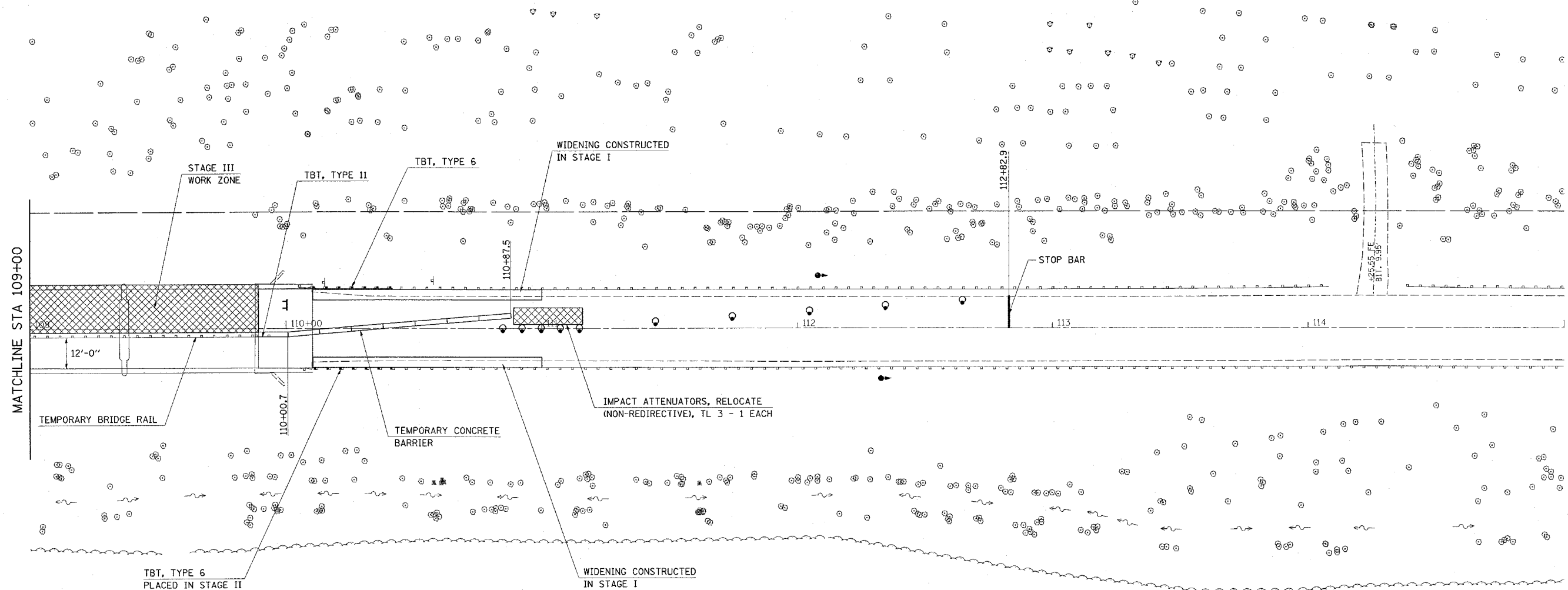
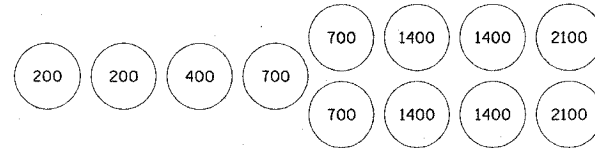
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE III**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	21
STA. 109+00		TO STA. 115+00		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		

LEGEND

-  IMPACT ATTENUATOR
-  TEMPORARY CONCRETE BARRIER
-  BARRELS OR BARRICADES WITH STEADY BURNING LIGHT
-  TEMPORARY BRIDGE TRAFFIC SIGNALS
-  TYPE III BARRICADE

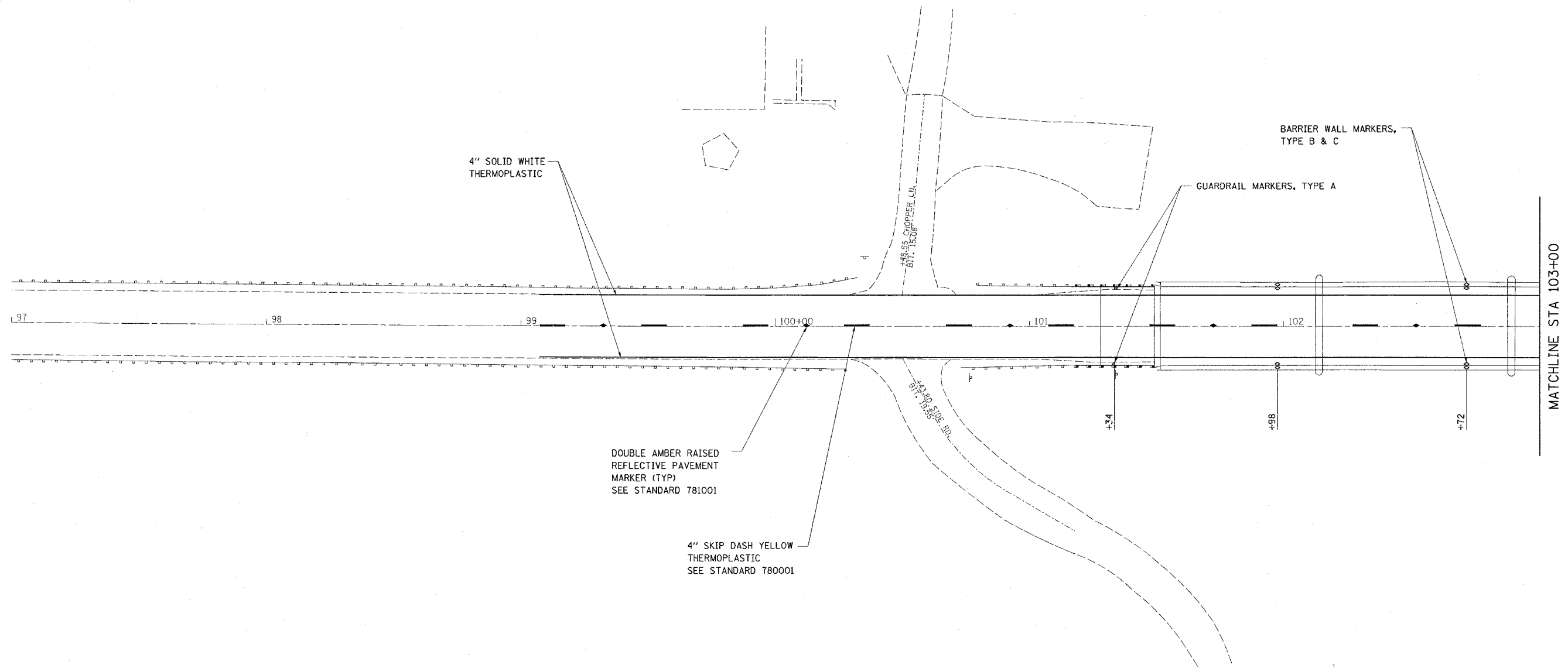


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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**STAGE CONSTRUCTION**  
**STAGE III**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	22
STA. 97+00		TO STA. 103+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DOUBLE AMBER RAISED REFLECTIVE PAVEMENT MARKER (TYP) SEE STANDARD 781001

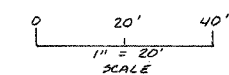
4" SKIP DASH YELLOW THERMOPLASTIC SEE STANDARD 780001

4" SOLID WHITE THERMOPLASTIC

GUARDRAIL MARKERS, TYPE A

BARRIER WALL MARKERS, TYPE B & C

MATCHLINE STA 103+00



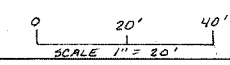
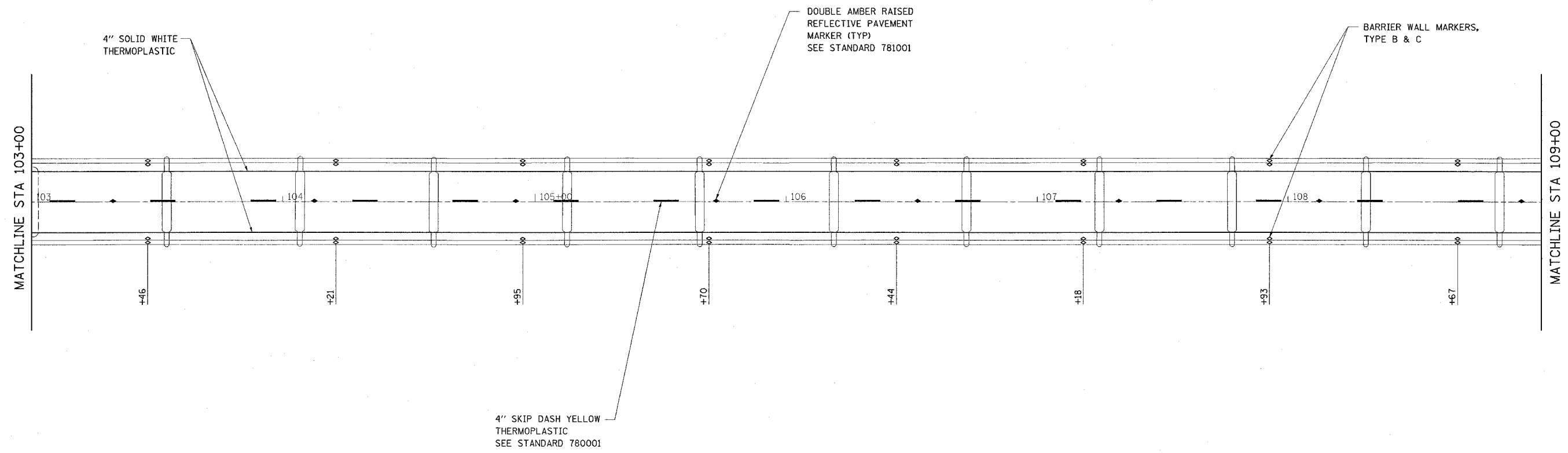
SEE STANDARD 635011 FOR BARRIER WALL MARKER DETAILS. "BARRIER WALL MARKERS, TYPE C" SHALL BE PLACED ON THE TOP OF THE BARRIER WALL. "BARRIER WALL MARKERS, TYPE B" SHALL BE PLACED ON THE SIDE OF THE BARRIER WALL.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

PLOT DATE = DATE  
 PLOT TIME = TIME  
 PLOT SCALE = SCALE  
 REFERENCE = REF

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 103+00		TO STA. 109+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



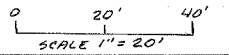
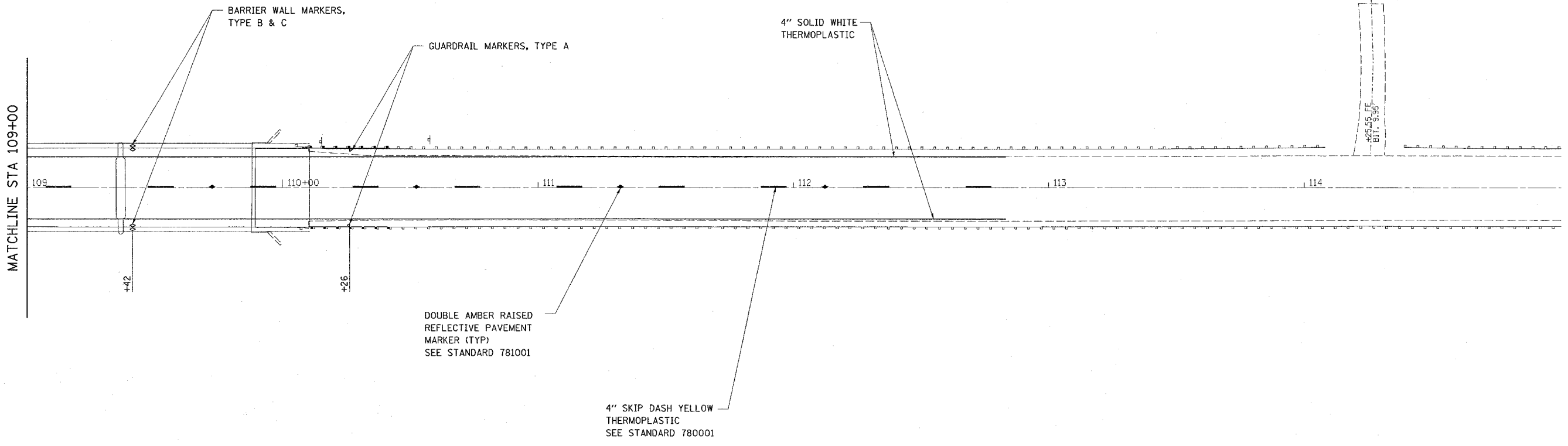
SEE STANDARD 635011 FOR BARRIER WALL MARKER DETAILS. "BARRIER WALL MARKERS, TYPE C" SHALL BE PLACED ON THE TOP OF THE BARRIER WALL. "BARRIER WALL MARKERS, TYPE B" SHALL BE PLACED ON THE SIDE OF THE BARRIER WALL.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062

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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1780	24-BR-2	CLINTON	63	24
STA. 109+00		TO STA. 115+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



SEE STANDARD 635011 FOR BARRIER WALL MARKER DETAILS. "BARRIER WALL MARKERS, TYPE C" SHALL BE PLACED ON THE TOP OF THE BARRIER WALL. "BARRIER WALL MARKERS, TYPE B" SHALL BE PLACED ON THE SIDE OF THE BARRIER WALL.

PLOT DATE = DATE  
 PLOT SCALE = SCAL  
 REFERENCE = REF

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKING**  
 FAS ROUTE 1780  
 SECTION 24-BR-2  
 CLINTON COUNTY  
 SN 014-0062



Bench Mark: Brass disc in the southwest wingwall of S.N. 014-0062 19.59 ft. Right of Sta. 101+45.23, Elevation 442.71.

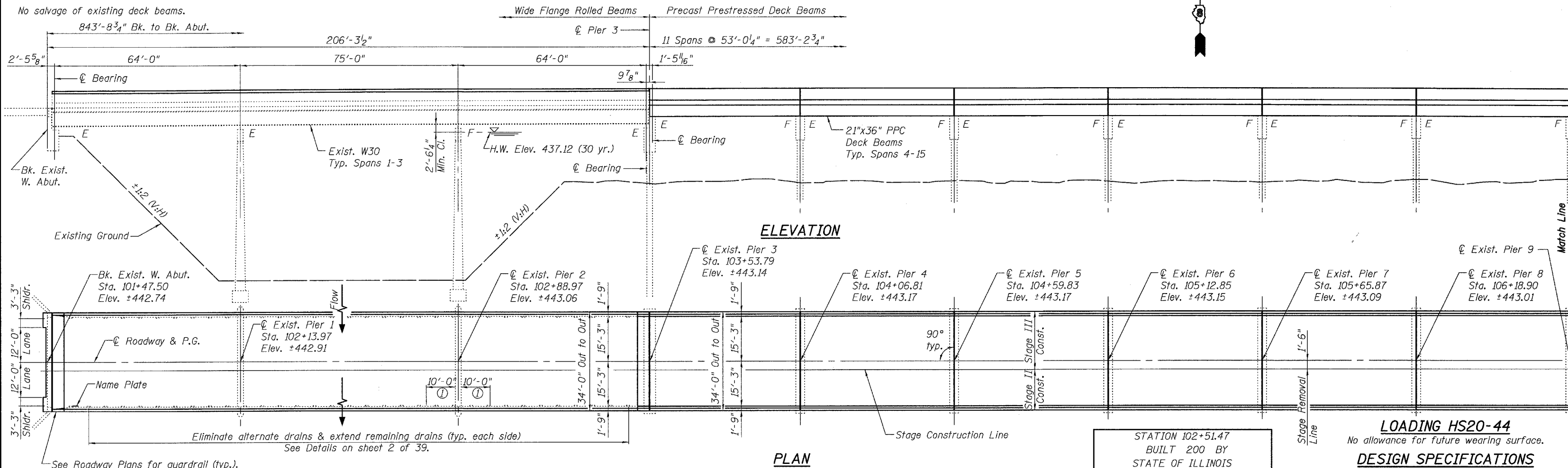
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
-	-	-	63	25	39 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76899

Existing Structure: S.N. 014-0062 was reconstructed in 1977 as FAS Route 1780, Section 24-BR at Sta. 102+51.47. The structure consists of a 3 span concrete deck supported on steel wide flange beams over the main channel and 12 PPC deck beam spans on pile bent abutment to the west, solid wall abutment founded on spread footing to the east and pile supported solid wall piers. The bk. to bk. of abutments measures 843'-8<sup>3</sup>/<sub>4</sub>" while the 0-0. width measures 34'-0". Traffic to be deflected to allow individual beam replacement during Stage I Construction. Partial road closure with a signalized one lane crossing will be used during Stage II & III Construction.

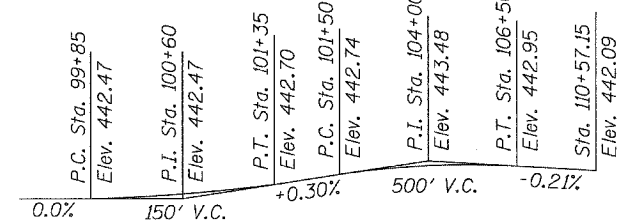
No salvage of existing deck beams.



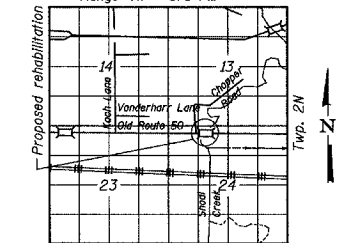
STATION 102+51.47  
BUILT 200 BY  
STATE OF ILLINOIS  
FAS ROUTE 1780 - SEC 24-BR-2  
LOADING HS20  
STR. NO. 014-0062

**NAME PLATE**  
See Std. 515001  
Existing Name Plate shall be cleaned and relocated adjacent to new Name Plate. Cost included with Name Plates.

**LOADING HS20-44**  
No allowance for future wearing surface.  
**DESIGN SPECIFICATIONS**  
2002 AASHTO  
**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (reinforcement)  
 $f_y = 36,000$  psi (structural steel)  
**PRECAST PRESTRESSED UNITS**  
 $f'_c = 5,000$  psi  
 $f_{ci} = 4,000$  psi  
 $f'_s = 270,000$  psi (1/2" low lax. strands)  
 $f_{si} = 201,960$  psi (1/2" low lax. strands)  
Range 4W - 3rd PM

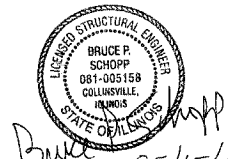


**PROFILE GRADE**  
(along centerline)



**LOCATION SKETCH**

Plans Prepared By:  
Oates Associates, Inc.



05/15/06  
EXPIRES 11/30/06

**GENERAL PLAN**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

Notes:  
① Eliminate existing deck drains within 10 feet of the face of piers and abutments, spans 1-3. See Drain Elimination Detail sheet 2 of 39.

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USER NAME = \$USER\$

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	26
FED. ROAD DIST. NO. 7			ILLINOIS FED. AID PROJECT-	

SHEET NO. 2  
39 SHEETS

Contract #76899

**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field 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 the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the Manufacturers specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and is included with the cost of the beam.

All construction joints shall be bonded.

Repair of the substructure shall be completed prior to placement of the new deck beams. (Stage II & III)

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure. During Stage II traffic, the Field Engineer shall visually inspect the Precast Prestressed Concrete Deck Beam superstructure (top & bottom of the deck beams) on a daily basis. If any evidence of additional deterioration is found, the Department shall be notified immediately.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats, the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum, and grouting and curing the shear keys. A temporary means of lateral restraint will be required for fascia beams at expansion ends of beams to prevent movement of the beams.

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures.

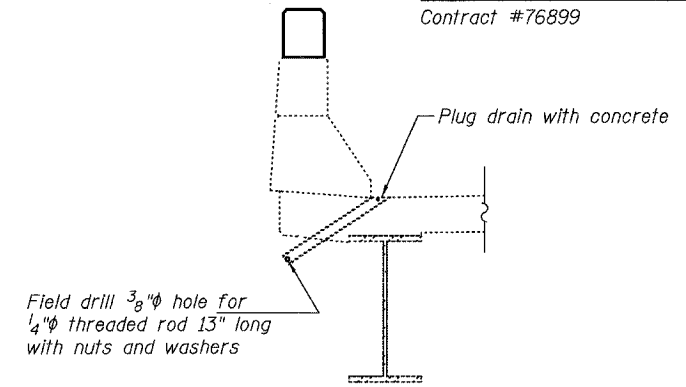
The top surface of the beams shall be finished according to Article 504.06 of the Standard Specification except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 1/4".

Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

The thickness of the overlay shall be 2" minimum (1 1/2" bituminous + 1/2" waterproofing membrane system) and varies as required to adjust for the profile grade, crown and beam camber.

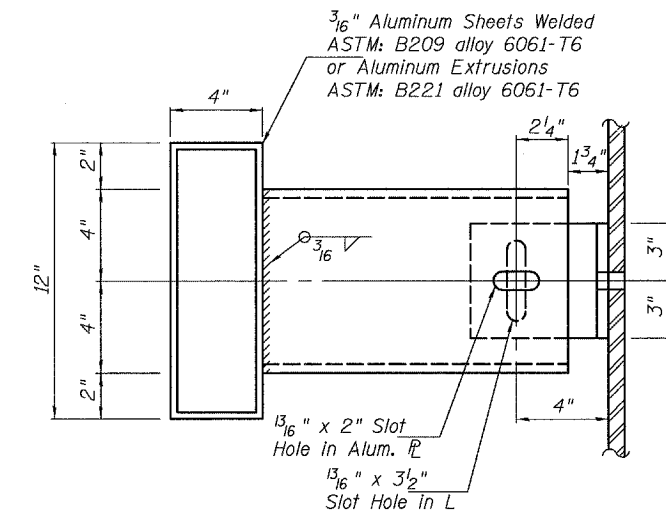
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	577	—	577
Bituminous Concrete Removal (Deck)	Sq. Yd.	693	—	693
Removal of Existing Superstructures	L. Sum	1	—	1
Concrete Removal	Cu. Yd.	9.3	—	9.3
Neoprene Expansion Joint 2"	Foot	33.0	—	33.0
Concrete Superstructure	Cu. Yd.	230.3	—	230.3
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	—	356	356
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	22,028	—	22,028
Furnishing and Erecting Structural Steel	Pound	1,650	—	1,650
Reinforcement Bars, Epoxy Coated	Pound	25,590	—	25,590
Removing and Re-Erecting Existing Railing	Foot	159	—	159
Name Plates	Each	1	—	1
Waterproofing Membrane System	Sq. Yd.	2,833	—	2,833
Portland Cement Mortar Fairing Course	Foot	6,343	—	6,343
Bridge Seat Sealer	Sq. Ft.	—	1,299	1,299
Removal of Existing Precast Prestressed Concrete Deck Beams	Sq. Ft.	1,110	—	1,110
Plug Existing Deck Drains	Each	40	—	40
Asbestos Bearing Pad Removal	Each	310	—	310
Bar Splicers	Each	88	—	88
Deck Drain Extensions	Each	26	—	26
Deck Slab Repair (Partial)	Sq. Yd.	70	—	70
Retrofit Concrete Parapet	Foot	450	—	450
Preformed Joint Strip Seal	Foot	378	—	378
Bituminous Concrete Surface Course Superpave, Mix "D" N70	Ton	348	—	348

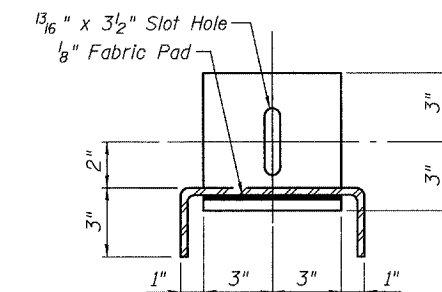


**DRAIN ELIMINATION DETAIL**

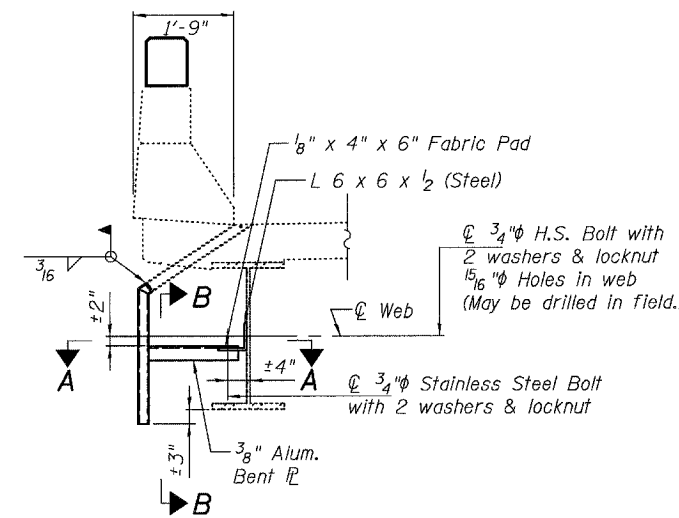
Eliminate alternate existing deck drains in Spans 1-3 and all deck drains within 10 feet of the substructure (40 required).



**SECTION A-A**



**SECTION B-B**



**DRAIN EXTENSION DETAIL**

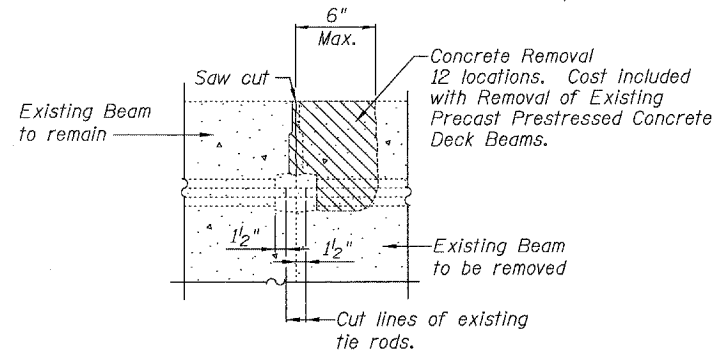
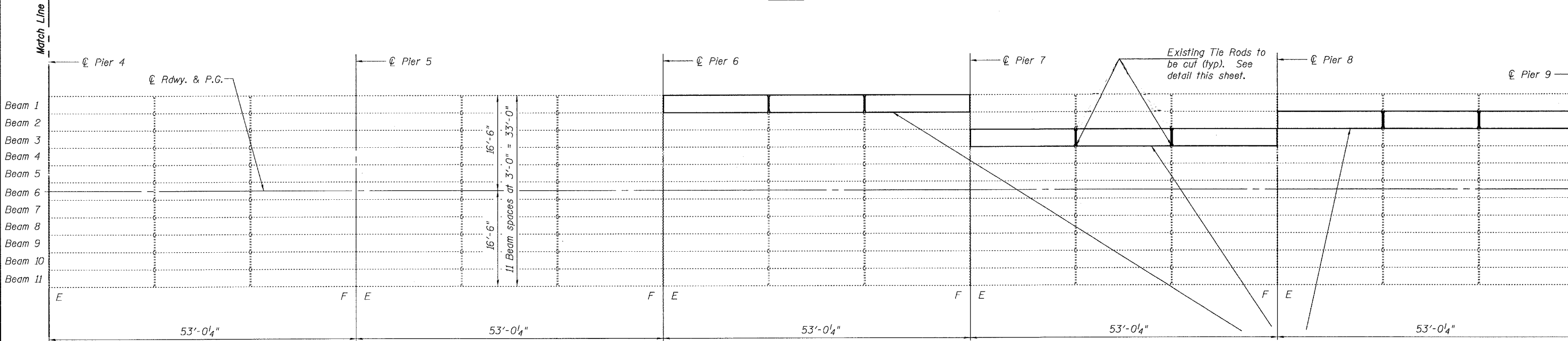
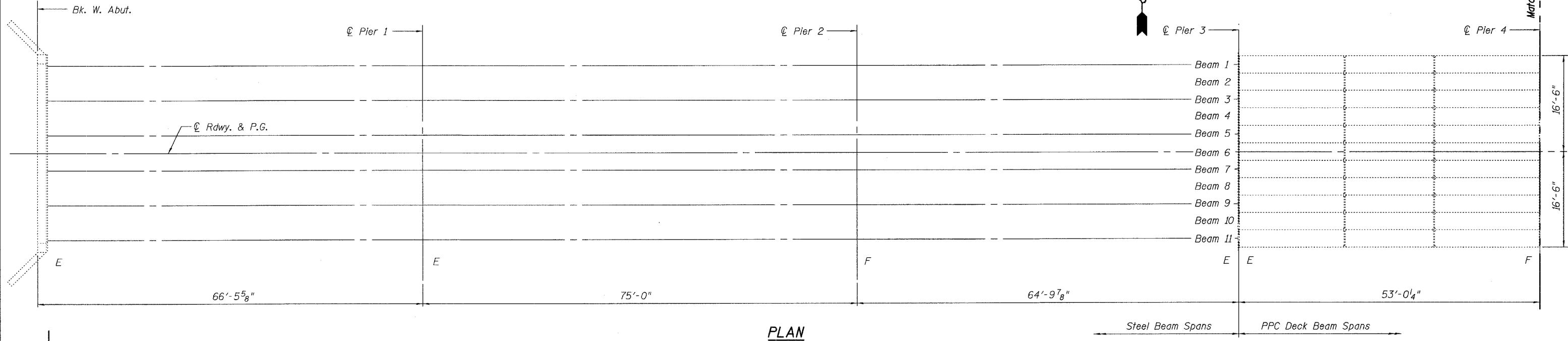
**GENERAL NOTES, DETAILS &  
TOTAL BILL OF MATERIALS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-2  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062**

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
-	-	-	63	27	39 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

Contract #76899



**BEAM REMOVAL DETAIL  
AT TRANSVERSE TIES**

**PLAN**

**NOTE:**  
④ Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of "Removal of Existing Precast"

**STAGE I  
DECK BEAM REPLACEMENT DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062**

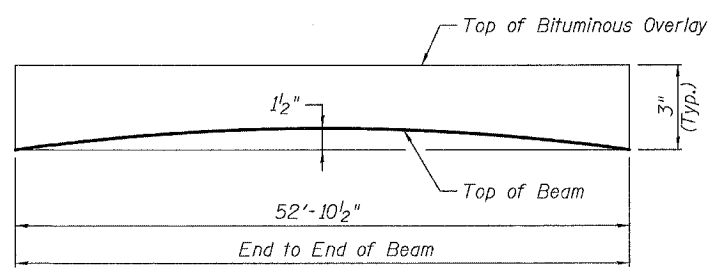
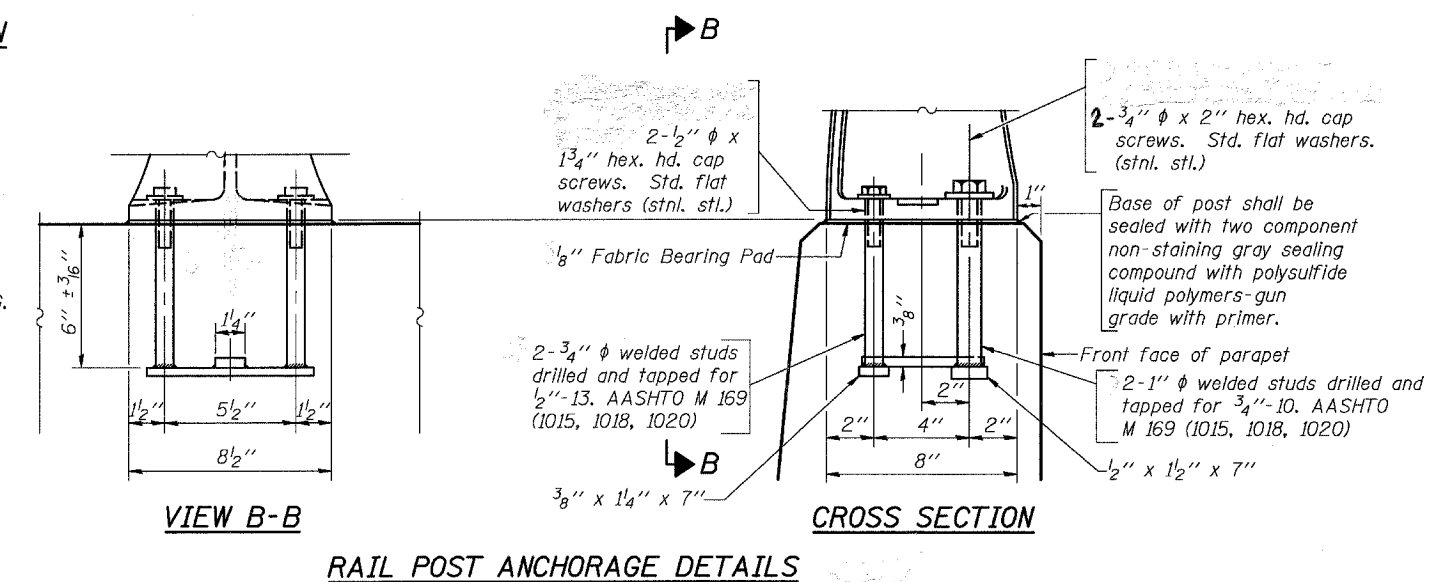
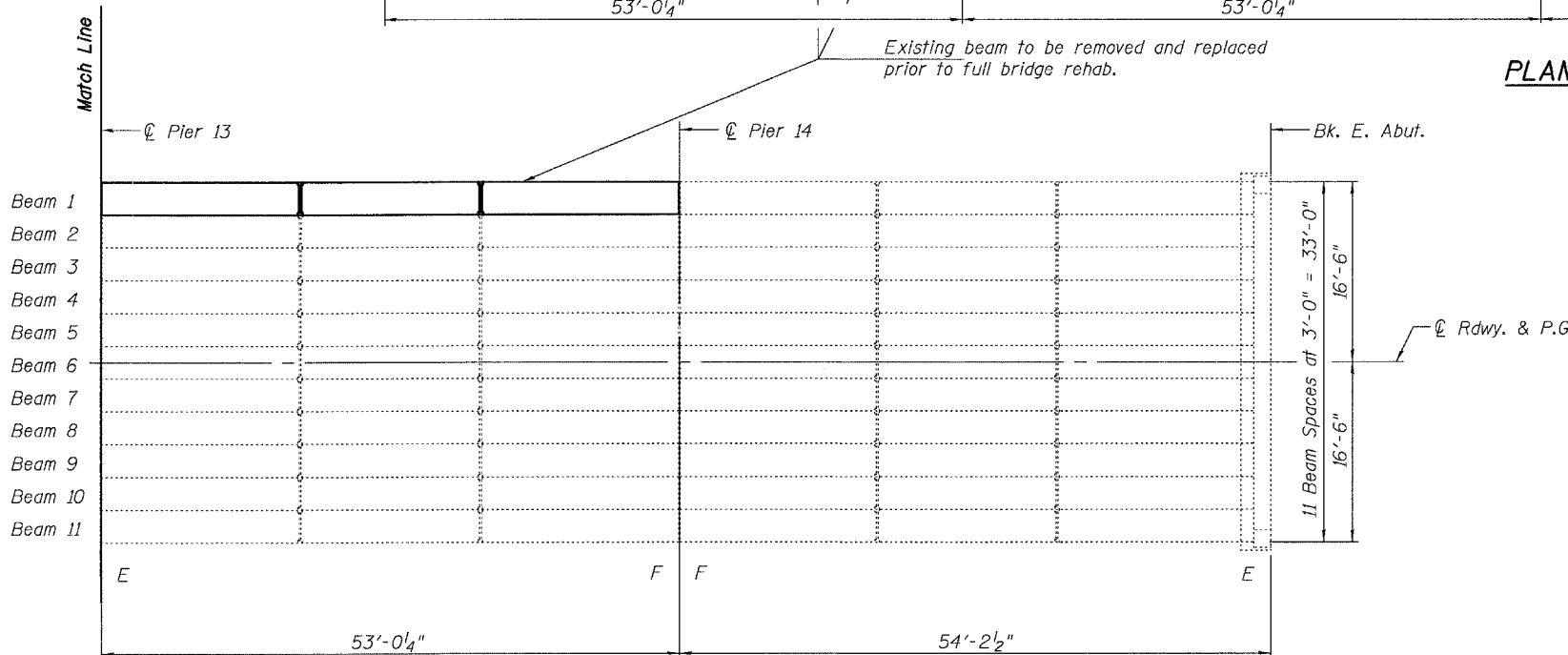
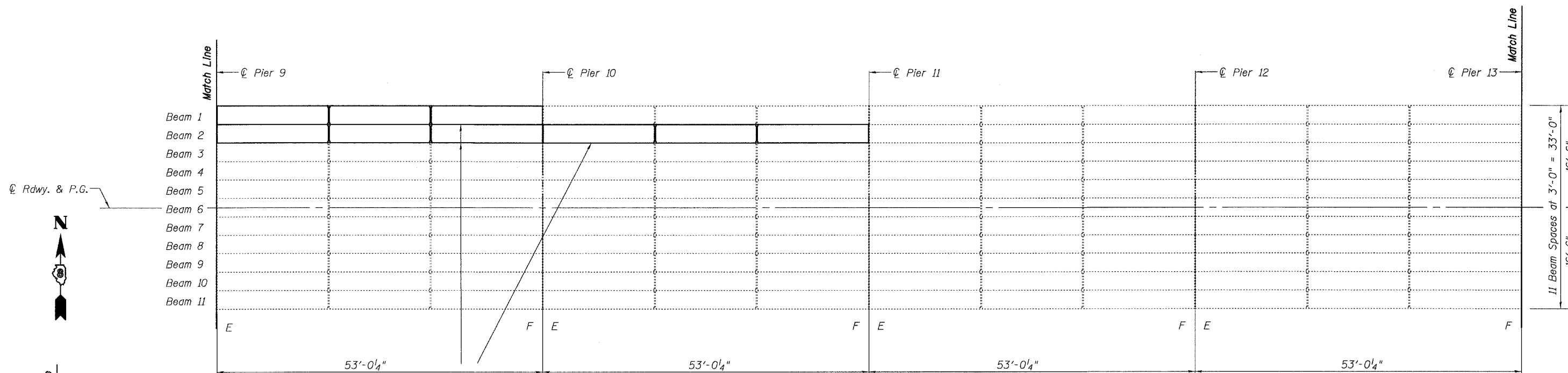
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract #76899

SHEET NO. 4  
39 SHEETS

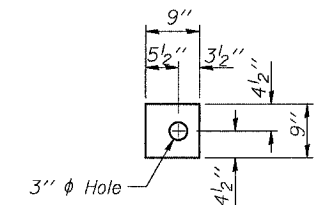


STAGE I  
DECK BEAM REPLACEMENT DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-2  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

PLOT DATE = 05/15/2006  
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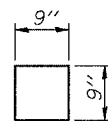
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Contract #76899



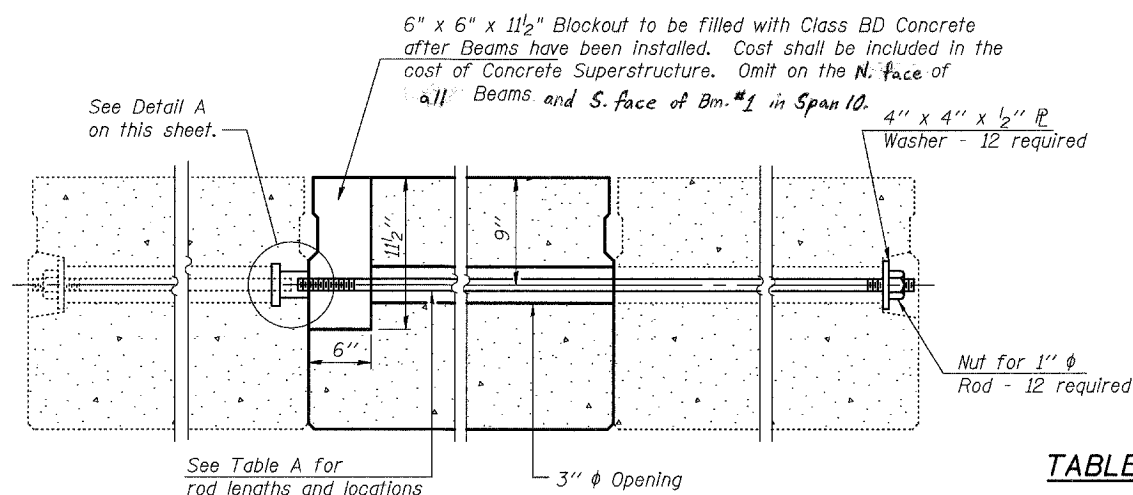
FABRIC BEARING PAD

FIXED



FABRIC BEARING PAD

EXPANSION



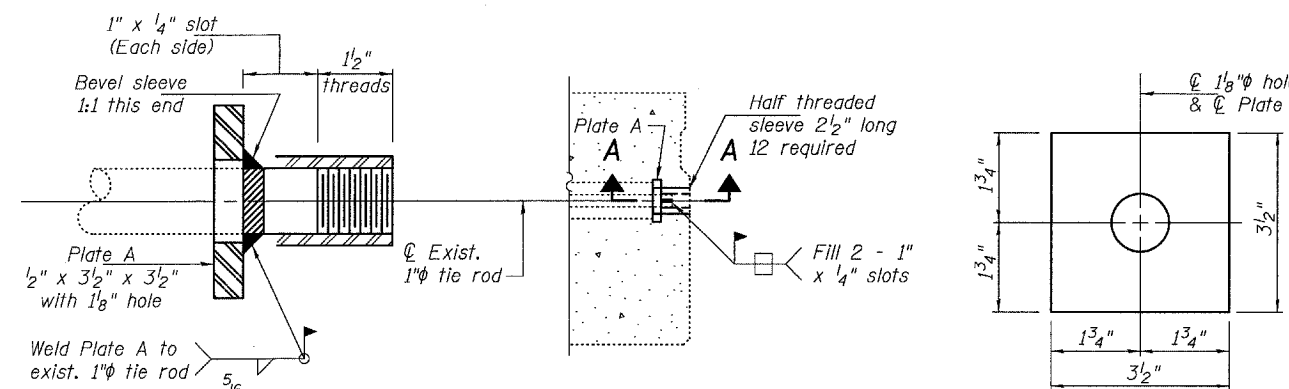
See Table A for rod lengths and locations

TYPICAL TRANSVERSE TIE ASSEMBLY

TABLE A

Location	No.	Length
Span 8	2	8'-11"
Span 9, 10 & 11	2	5'-11"
Span 7 & 14	2	2'-11"

(Thread each end 4")



SECTION A-A

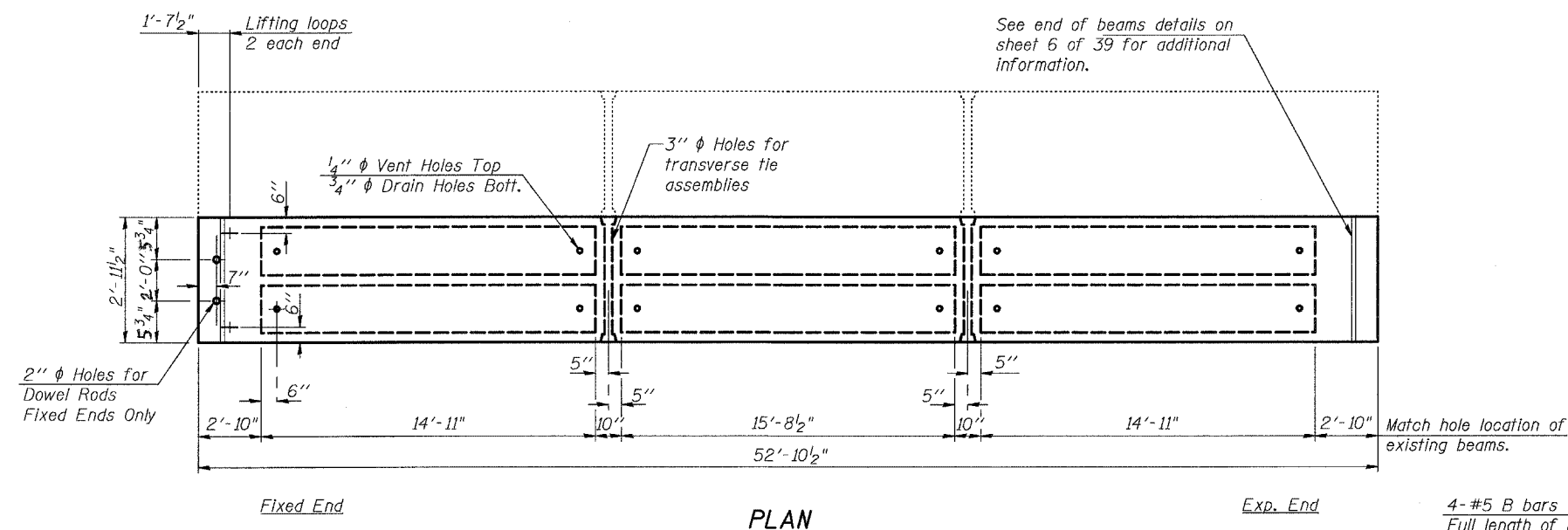
DETAIL A

PLATE A

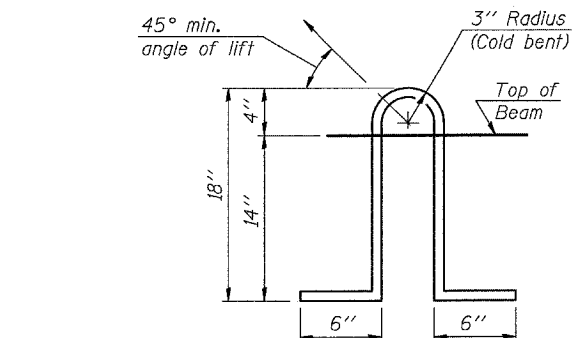
(12 Required)

NOTES

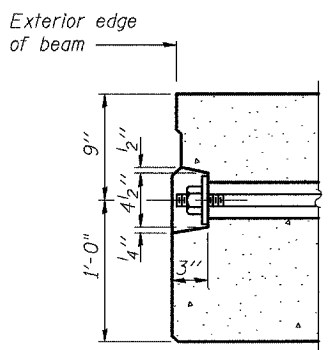
- 1 Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- 2 The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- 3 Lifting loops shall be 2 - 1/2" diameter - 270 ksi strands, as shown.
- 4 The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- 5 The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Bearing Pad shall be provided for each bearing.
- 6 Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- 7 Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- 8 Required Release Strength, f'ci, shall be 4,000 p.s.i.
- 9 Place strands symmetrically about centerline of beam.
- 10 Each beam shall have four lifting loops, two cast in each end as shown. Loops shall be burned off after beams have been erected.



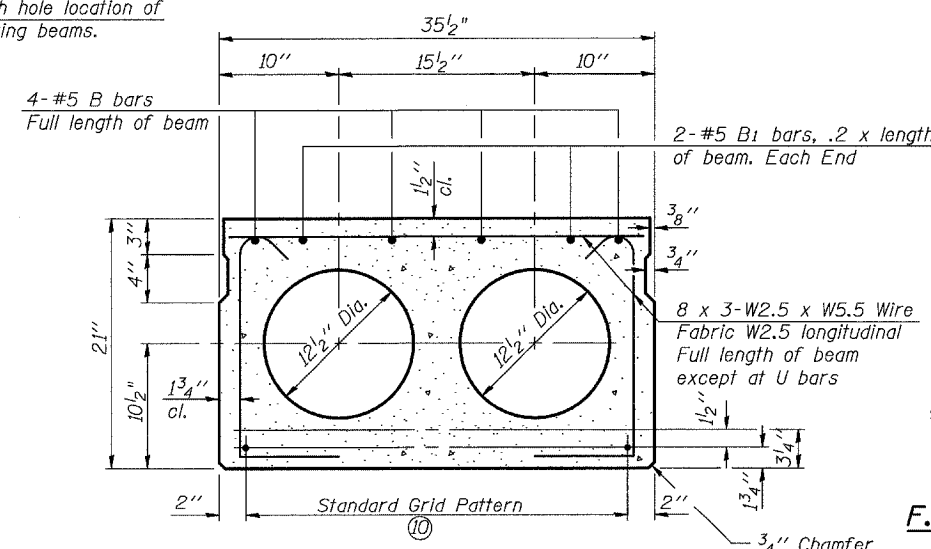
PLAN



LIFTING LOOP DETAIL



FASCIA BEAM TRANSVERSE TIE DETAIL



TYPICAL SECTION REPLACEMENT BEAM

1/2" diameter Strands, Each Strand Stressed to 30,900 Lbs.  
6-Strands 1 3/4" up, 8-Strands 3/4" up, 2-Strands 9" up  
(7 Required)

STAGE I  
DECK BEAM REPLACEMENT DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

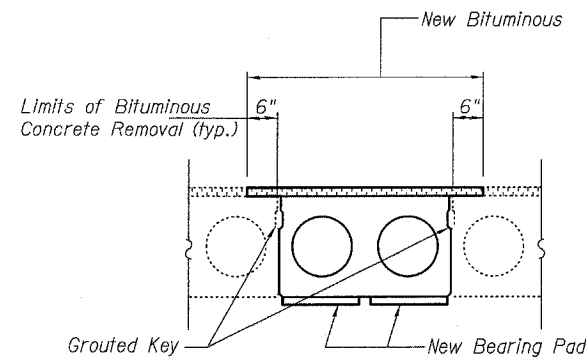
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			63	30
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 39 SHEETS

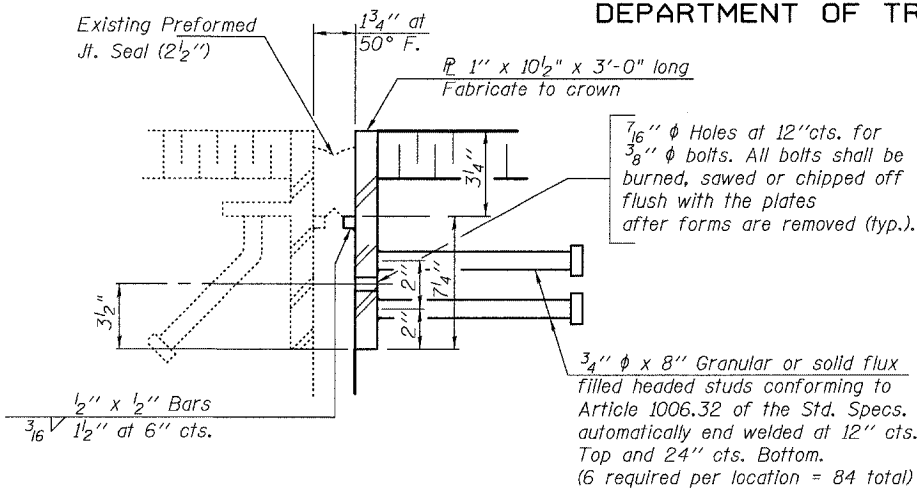
Contract #76899



**PARTIAL CROSS SECTION**

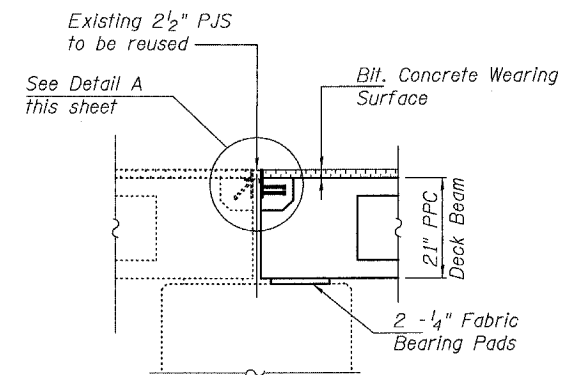
(Interior beam shown fascia beam similar.)

The cost of Bituminous Concrete Removal shall be included with Removal of Existing PPC Deck Beams.



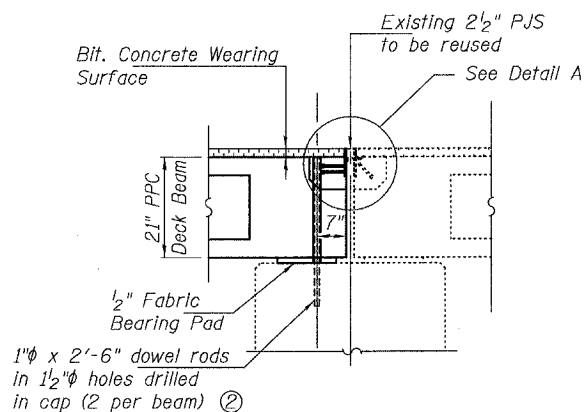
**DETAIL A**

(8 Locations)



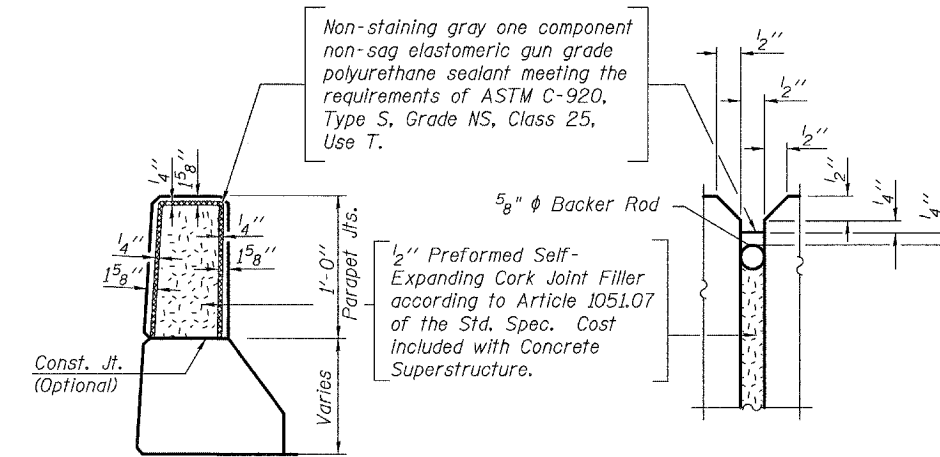
**TYPICAL SECTION AT PIER (EXPANSION END)**

(Looking North)

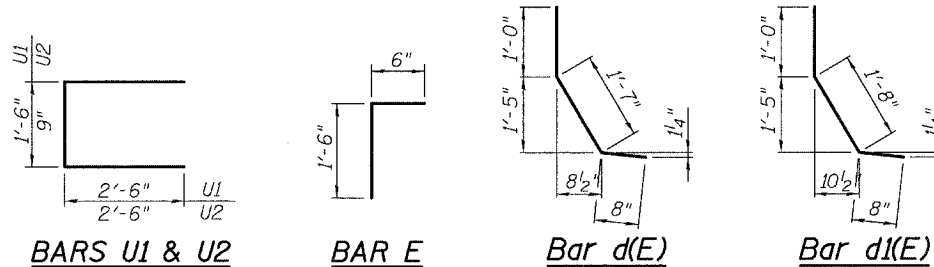


**TYPICAL SECTION AT PIER (FIXED END)**

(Looking North)

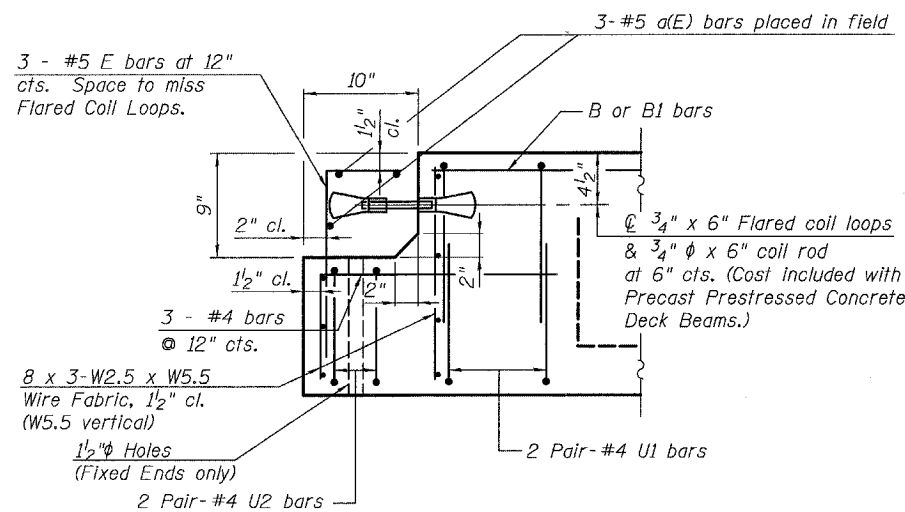


**PARAPET JOINT DETAILS**

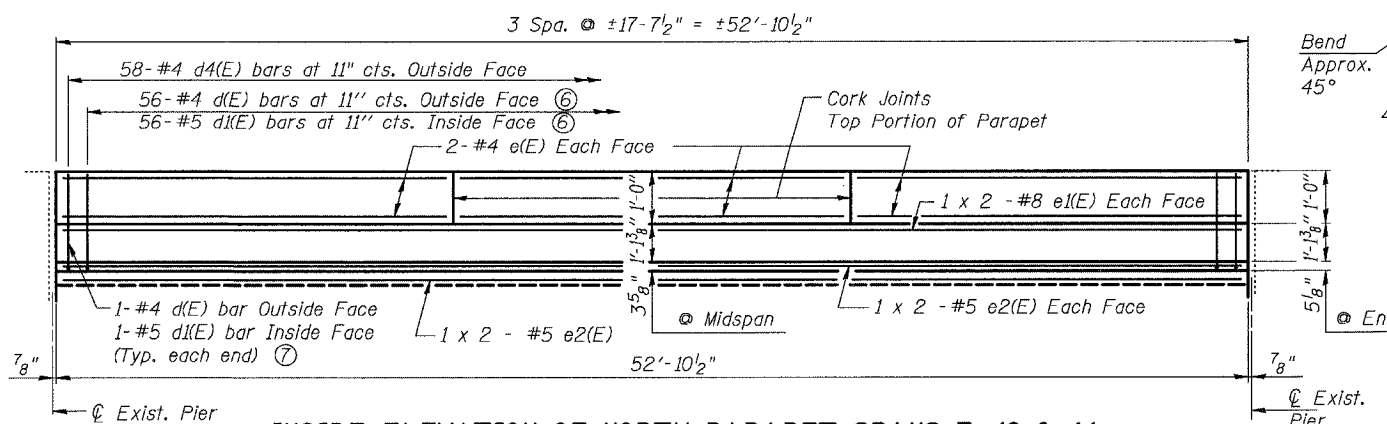


**SECTION THRU PARAPET SPANS 7, 10 & 14 - BEAM 1**

(All edges shall have 3/4" chamfers.)

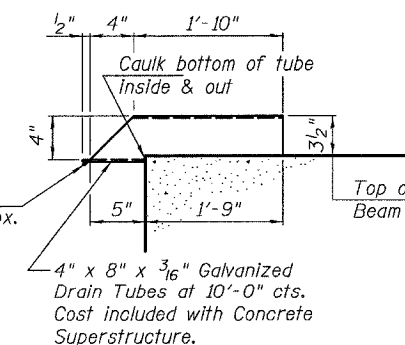


**END OF BEAM DETAIL**



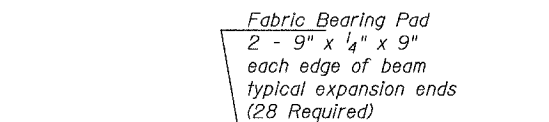
**INSIDE ELEVATION OF NORTH PARAPET SPANS 7, 10 & 14**

(Looking North)



**DRAIN DETAIL**

(Spans 7, 10 & 14 - Beam 1 only)



**BEARING PAD LAYOUT**

**SUPERSTRUCTURE STAGE I**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	42	#5	3'-0"	
d(E)	6	#4	3'-3"	
d(E)	6	#5	3'-6"	
d(E)	174	#4	2'-10"	
e(E)	36	#4	17'-4"	
e(E)	12	#8	28'-6"	
e(E)	18	#5	27'-4"	
Precast Prestressed Conc. Deck Bms. (21" Depth)			Sq. Ft.	1,095
Reinforcement Bars, Epoxy Coated			Pound	2,340
Concrete Superstructure			Cu. Yds.	20.4
Removing & Re-erecting Existing Railing			Foot	159

Notes:

- All structural steel (except Drain Tubes) shall be shop painted with the inorganic zinc rich primer per AASHTO M300 Type I. Cost included with F. & E. Structural Steel.
- Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear key.
- See sheet 5 of 39 for bearing pad details.
- Minimum bar laps: #5 - 2'-2" #8 - 4'-6".
- Expansion guards that are not cast into the precast units shall be fabricated and erected according to Article 503.10(c) of the Standard Specifications and are included with Furnishing and Erecting Structural Steel.
- Bars d(E) & d(E) shall be cast with the PPC Deck Beams. Cost included in the cost of Precast Prestressed Concrete Deck Beams (21" Depth).
- Bars d(E) & d(E) placed in the field are included with Reinforcement Bars, Epoxy Coated.

**STAGE I  
DECK BEAM REPLACEMENT DETAILS**

**OLD U.S. ROUTE 50 OVER**

**SHOAL CREEK**

**F.A.S. ROUTE 1780 - SECTION 24-BR-2**

**CLINTON COUNTY**

**STA. 102+51.47**

**STRUCTURE NO. 014-0062**

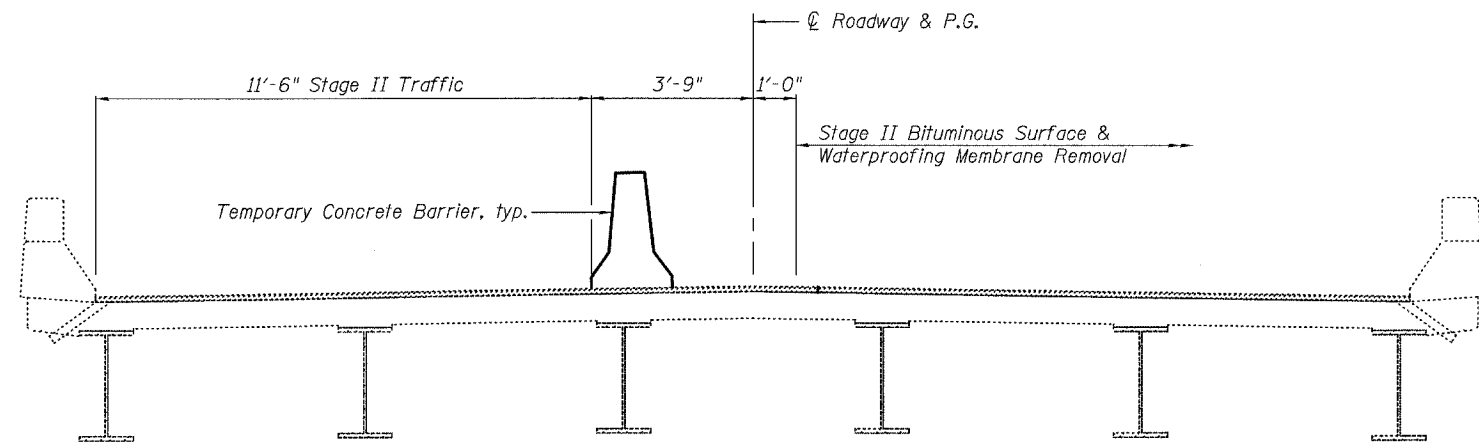
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

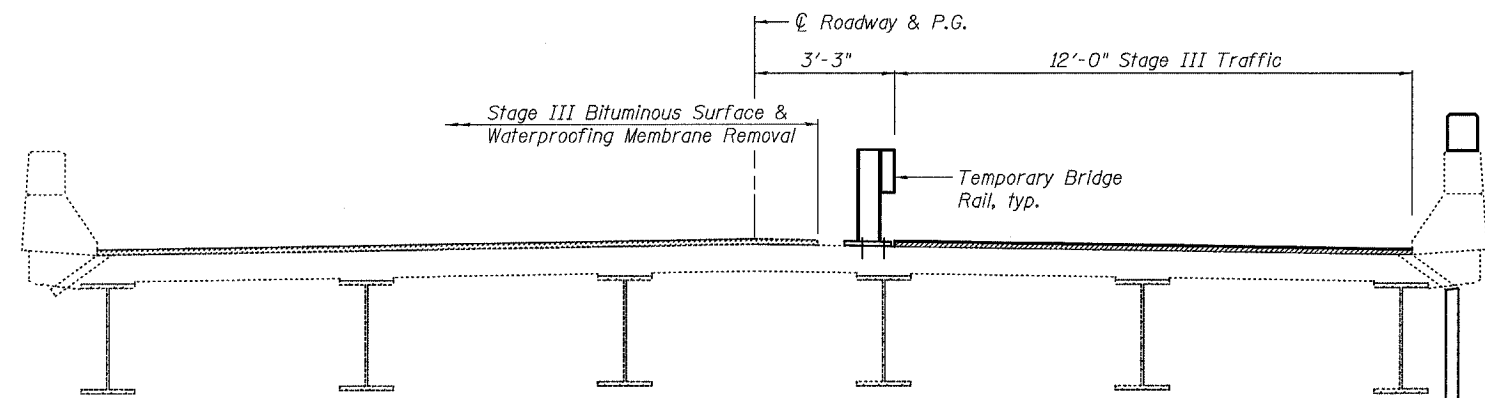
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	31
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

Contract #76899

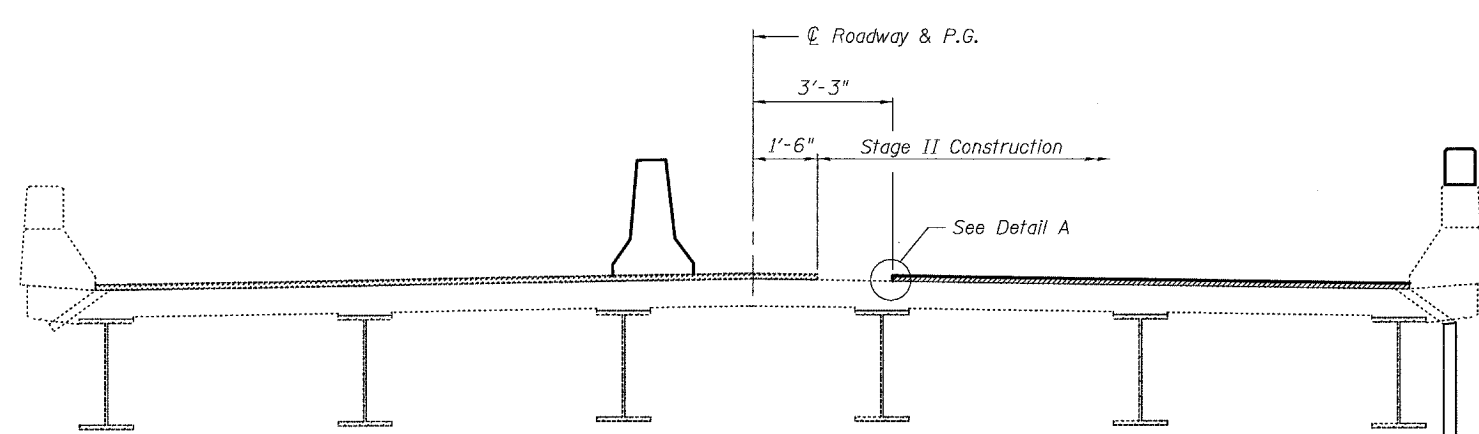
SHEET NO. 7  
39 SHEETS



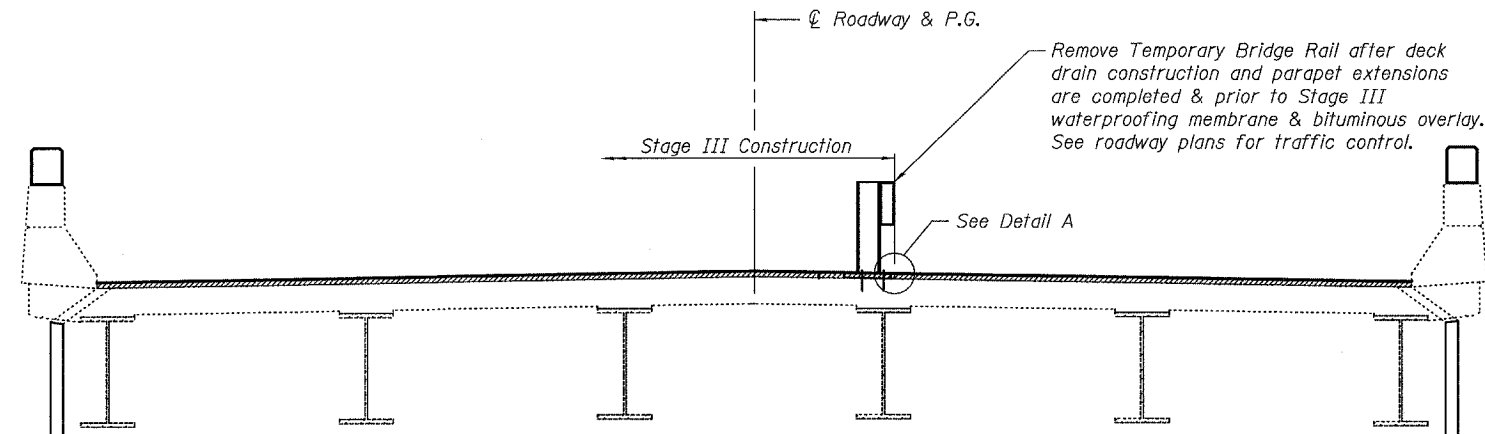
**STAGE II REMOVAL**  
(Looking East)



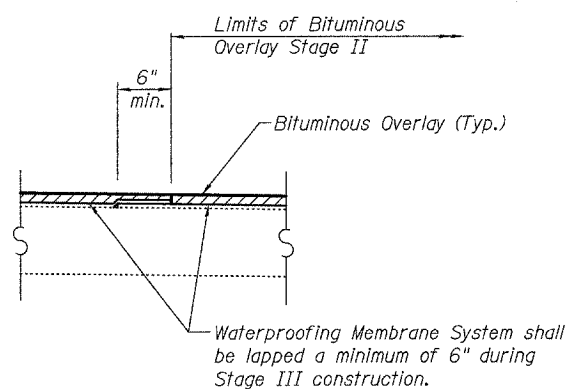
**STAGE III REMOVAL**  
(Looking East)



**STAGE II CONSTRUCTION**  
(Looking East)



**STAGE III CONSTRUCTION**  
(Looking East)



**DETAIL A**

- Notes:
- ① For quantity of Temporary Concrete Barrier, see roadway plans.
  - ② For details of Temporary Bridge Rail, see sheets 9 & 10 of 39.
  - ③ For details of Temporary Concrete Barrier, see sheet 11 of 39.

**STAGE CONSTRUCTION DETAILS**  
**SPANS 1-3**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

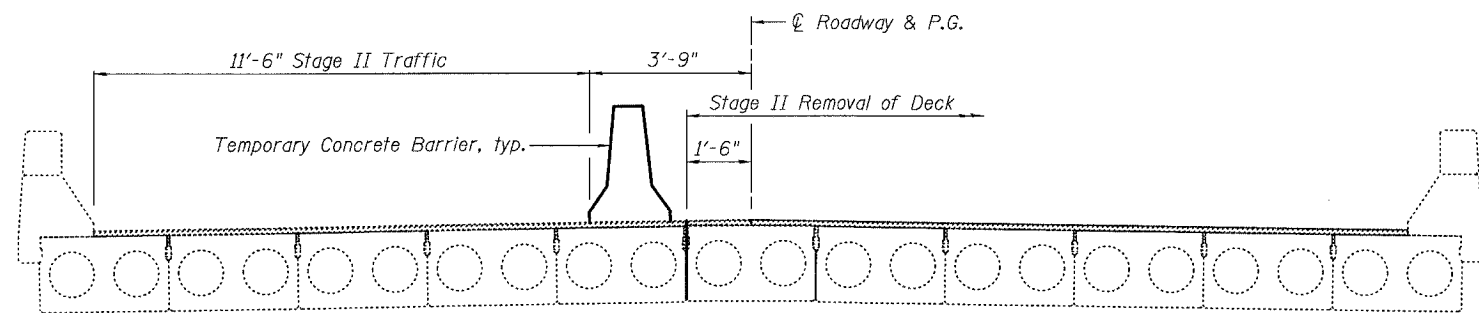
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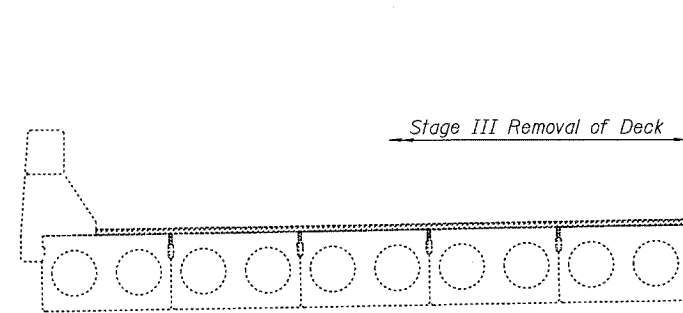
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8 39 SHEETS
-	-	-	03	32	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

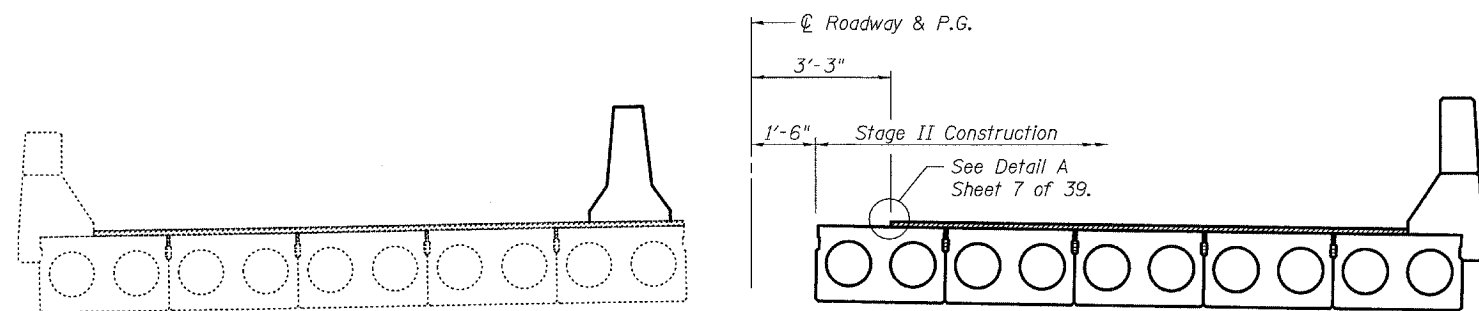
Contract #76899



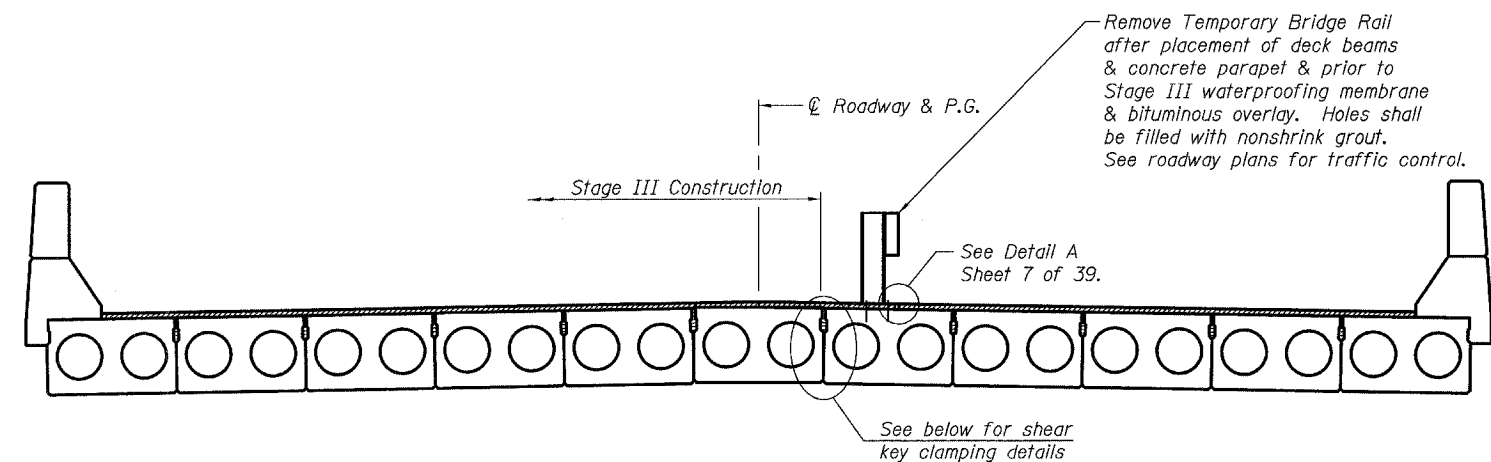
**STAGE II REMOVAL**  
(Looking East)



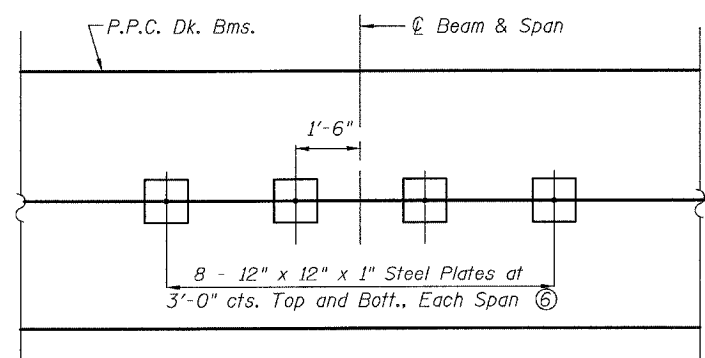
**STAGE III REMOVAL**  
(Looking East)



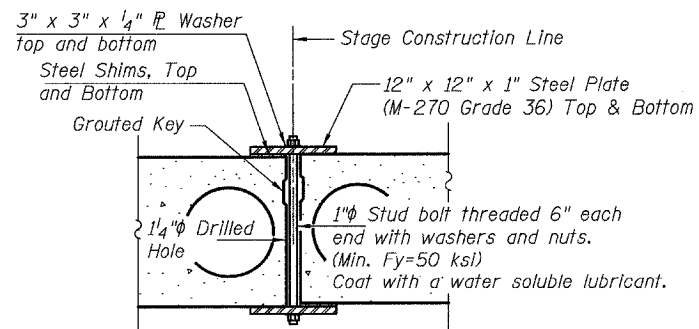
**STAGE II CONSTRUCTION**  
(Looking East)



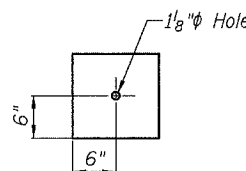
**STAGE III CONSTRUCTION**  
(Looking East)



**PLAN**



**SECTION**



**CLAMPING PLATE**

- Notes:
- For quantity of Temporary Bridge Rail and Temporary Concrete Barrier, see roadway plans.
  - For details of Temporary Bridge Rail, see sheet 9 & 10 of 39.
  - For details of Temporary Concrete Barrier, see sheet 11 of 39.
  - See Special Provisions for Stage Construction Precast Prestressed Concrete Deck Beams.
  - Cost of shear key clamps is included with Precast Prestressed Concrete Deck Beams (21" Depth).
  - Space clamping plates to miss temporary bridge rail posts.

**STAGE CONSTRUCTION DETAILS**  
**SPANS 4-15**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

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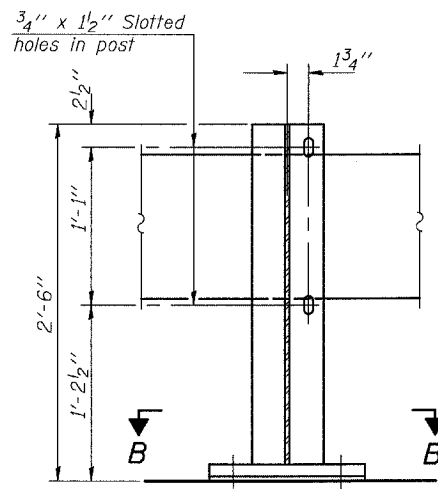


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	33
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

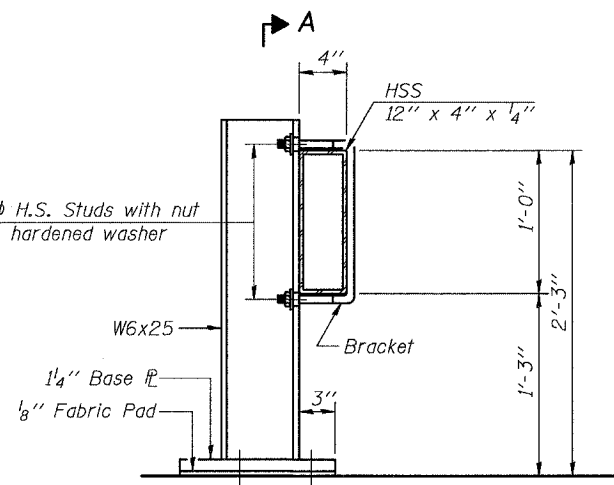
SHEET NO. 9  
39 SHEETS

Contract #76899

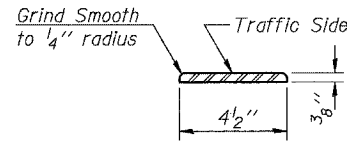


SECTION A-A

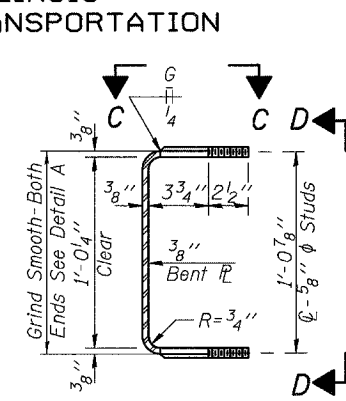
2-5/8" φ H.S. Studs with nut and flat hardened washer



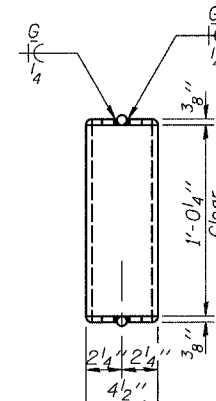
SECTION AT RAIL POST



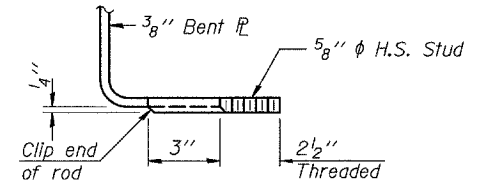
DETAIL A



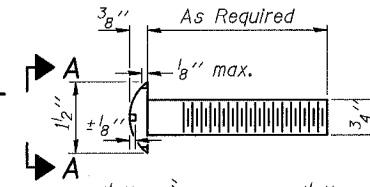
SECTION THRU BRACKET



VIEW D-D

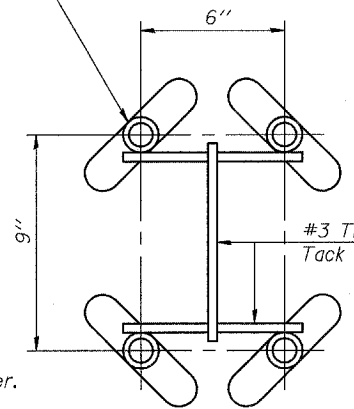


VIEW E-E

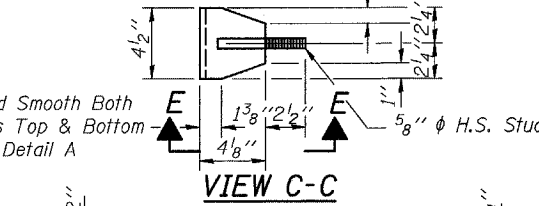


VIEW A-A  
ROUND HEAD BOLT

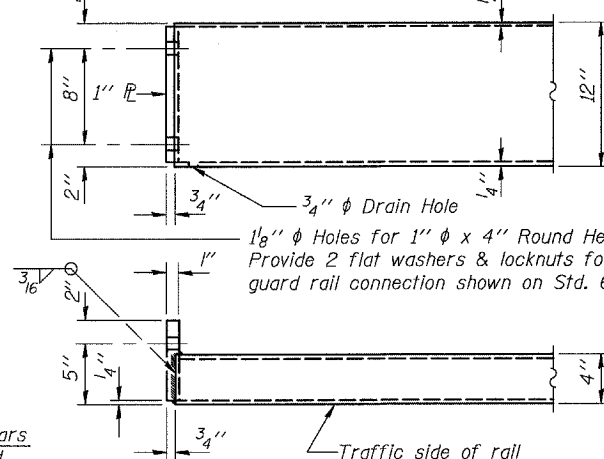
Wing type threaded inserts tapped for 1" φ H.S. bolts. (Insert Load Capacity = 4.2 k min./bolt)



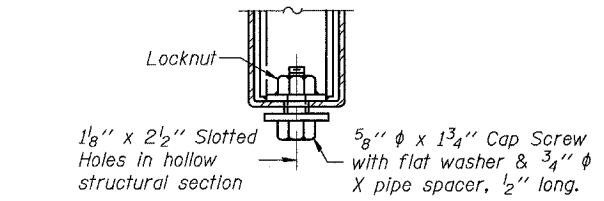
INSERT DETAIL



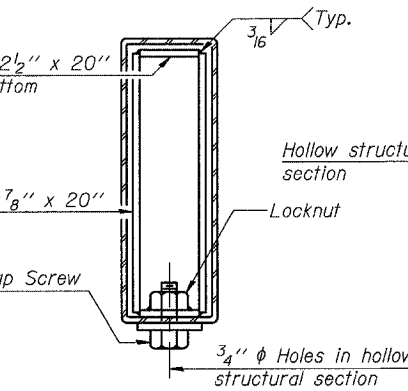
VIEW C-C



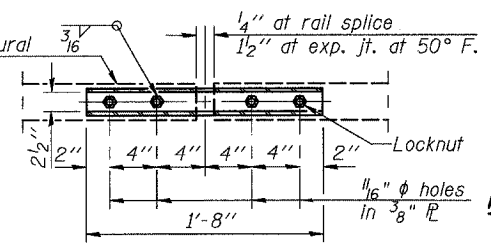
END OF RAIL DETAILS



RAIL SPLICE CONNECTION  
AT EXPANSION JT.



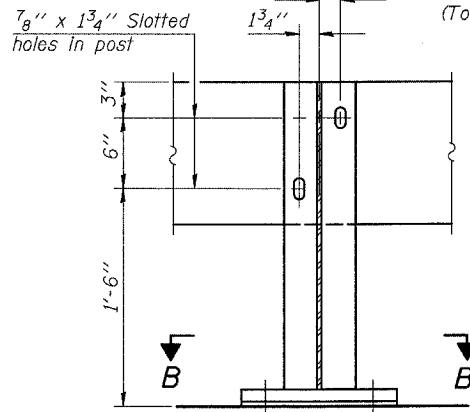
SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE R  
TYPICAL

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing. All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and brackets shall conform to AASHTO M 270, Grade 50. Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, threaded rods, studs, nuts and washers noted which shall conform to AASHTO M 164. The bridge rail shall receive one shop coat of a steel prime paint. The 1" φ high strength bolts or threaded rods used to connect the railposts shall be tightened according to Article 505.04(f)(2) of the Standard Specifications. Temporary Bridge Rail shall be according to Section 514 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Temporary Bridge Rail. See sheet 10 of 39 for Rail Post spacing. The contact surfaces between post flange, rail and inside face of bracket for Alternate I shall be free of all lubricants. The nut for 5/8" φ high strength studs used in Alternate I to connect bracket to post shall be tightened to a snug fit and given an additional one half turn.

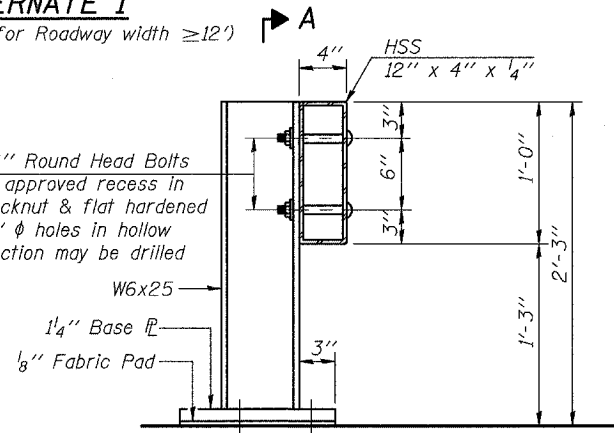


SECTION A-A

ALTERNATE I

(To be used only for Roadway width ≥ 12')

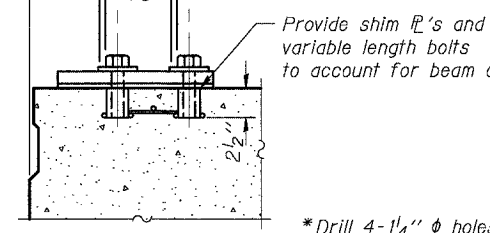
2-3/4" φ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat hardened washer. 7/8" φ holes in hollow structural section may be drilled in the field.



SECTION AT RAIL POST

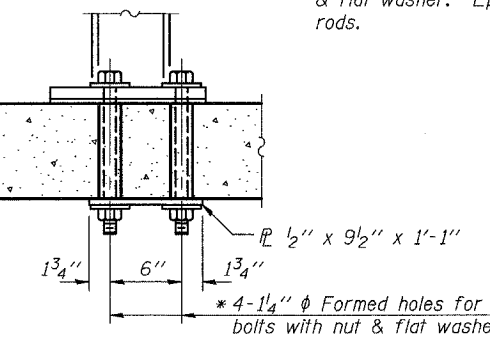
ALTERNATE II

4 - Wing type threaded inserts for 1" φ H.S. bolts with flat hardened washer. Grout holes after removal. Provide shim fl's and variable length bolts to account for beam camber.

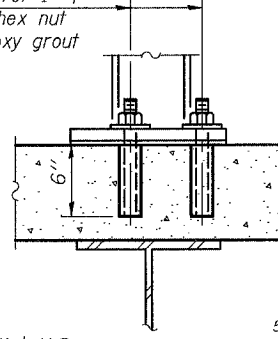


P.P.C. DECK BEAMS

\*Drill 4-1 1/4" φ holes for 1" φ threaded rods with hex nut & flat washer. Epoxy grout rods.



NEW & EXISTING DECKS  
ANCHORAGE DETAILS



SECTION AT RAIL SPLICE

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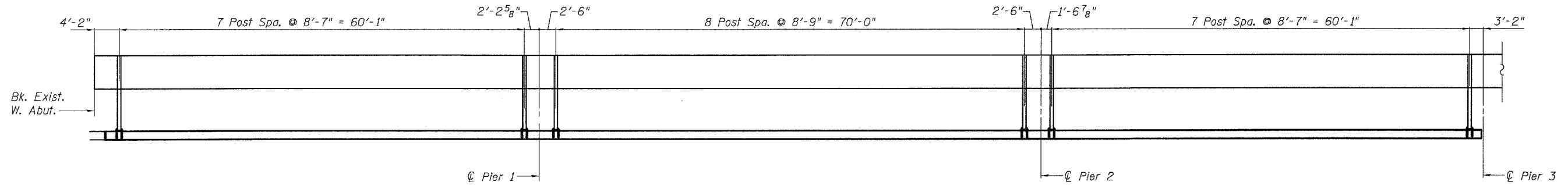
TEMPORARY BRIDGE RAIL  
FOR STAGE CONSTRUCTION  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

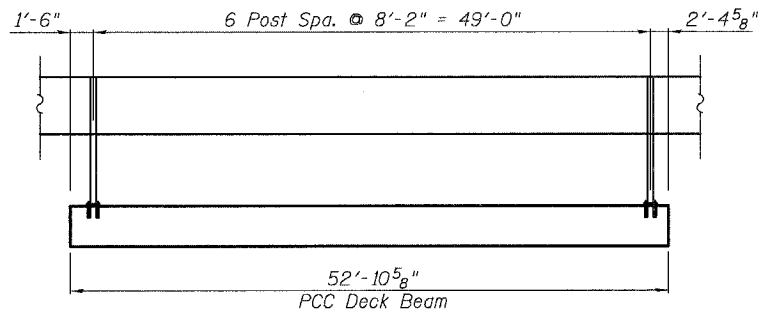
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	03	3A
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 3A  
39 SHEETS

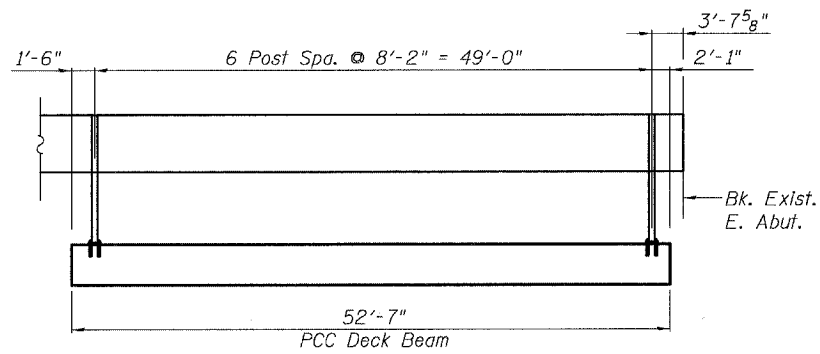
Contract #76899



RAIL POST SPACING SPANS 1-3



RAIL POST SPACING SPANS 4-14



RAIL POST SPACING SPAN 15

Notes:

- ① See sheet 9 of 39 for Temporary Bridge Rail details.
- ② Spans 4-15 shall have the threaded inserts precast into the PPC Deck Beams.

**TEMPORARY BRIDGE RAIL POST SPACING**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

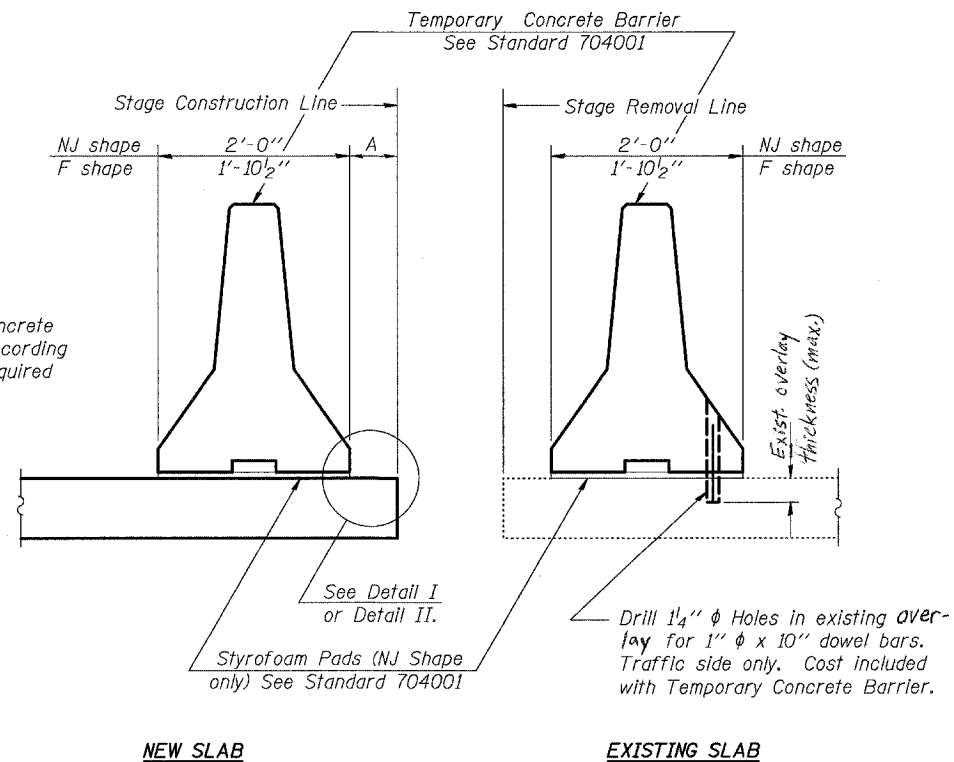
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1  
39 SHEETS

Contract #76899



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

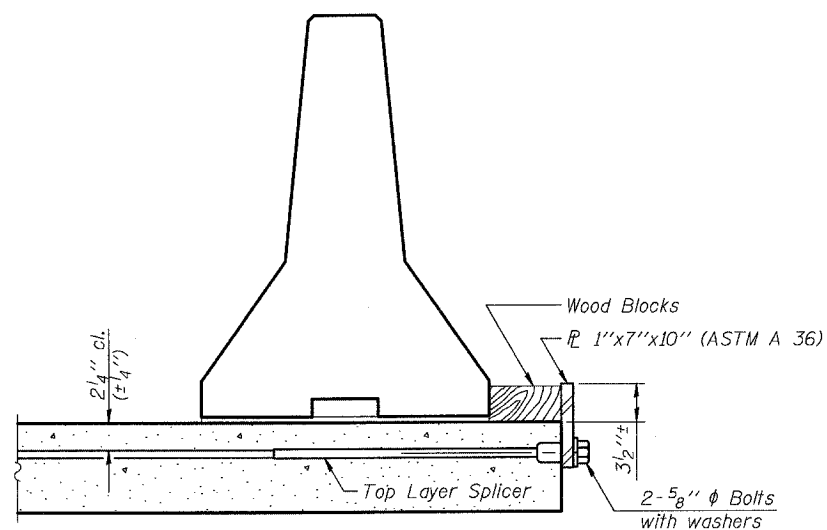
See Detail I or Detail II.

Styrofoam Pads (NJ Shape only) See Standard 704001

**NOTES**

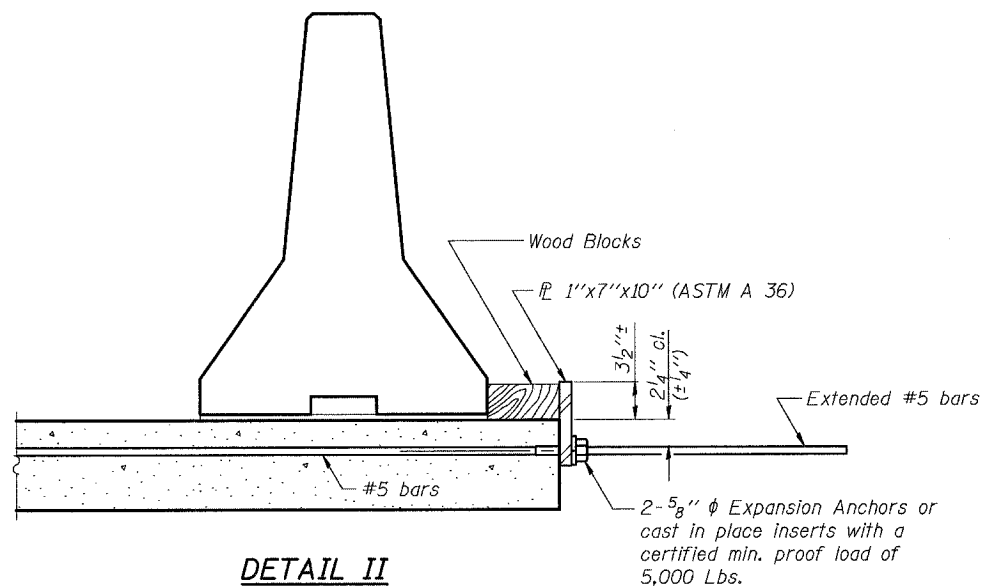
- Detail I - With Bar Splicer or Couplers:**  
Connect one (1) 1"x7"x10" steel PL to the top layer of couplers with 2-5/8" phi bolts screwed to coupler at approximate C of each barrier panel.
- Detail II - With Extended Reinforcement Bars:**  
Connect one (1) 1"x7"x10" steel PL to the concrete slab with 2-5/8" phi Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.

**SECTIONS THRU SLAB**



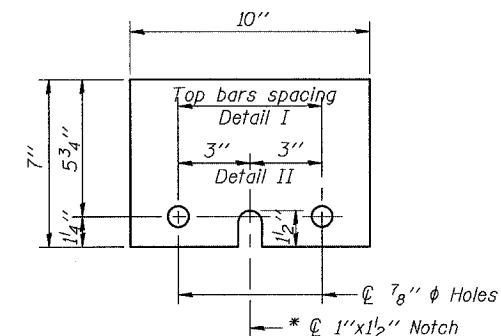
**DETAIL I**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



PL 1"x7"x10"

\* Required only with Detail II

**TEMPORARY CONCRETE BARRIER**

**FOR STAGE CONSTRUCTION**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**

**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

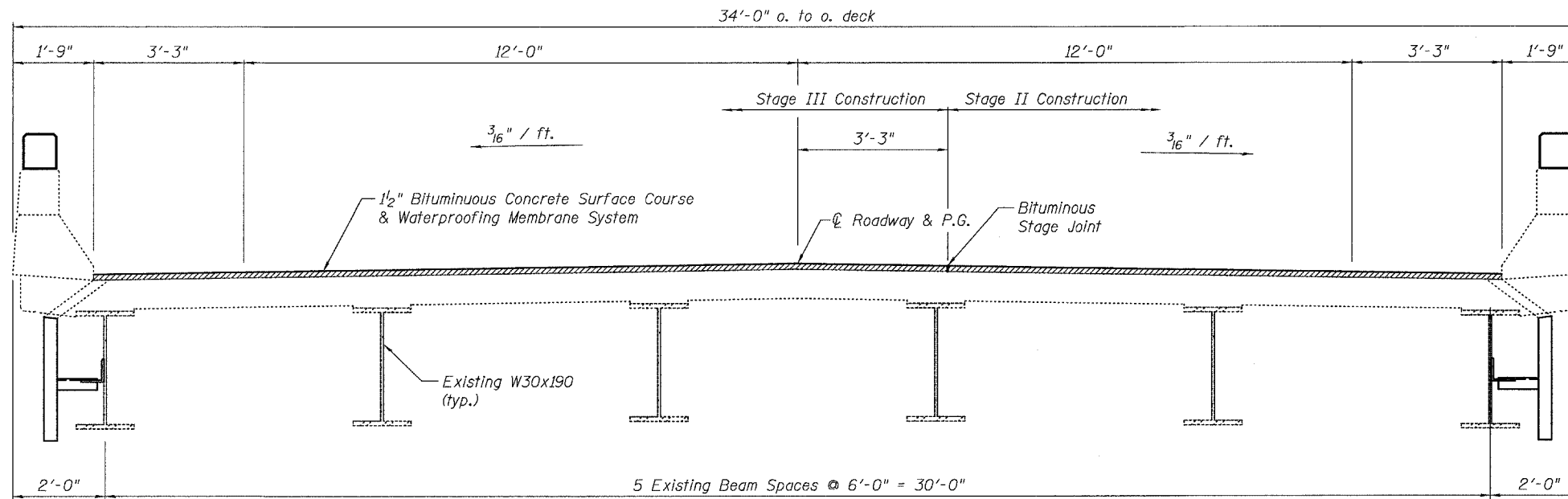
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

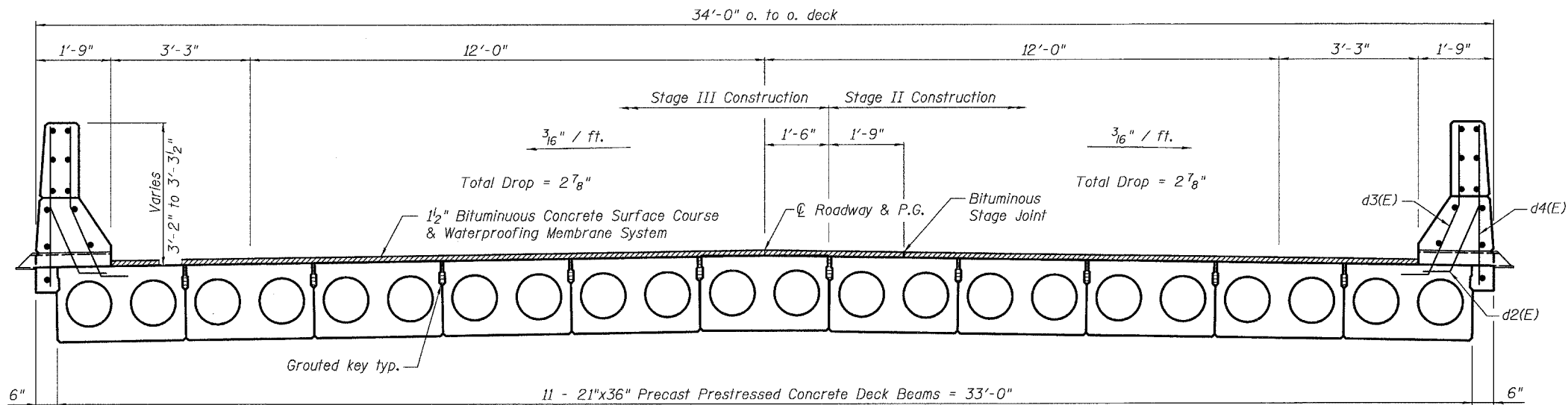
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-	-	-	63	36
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 36  
39 SHEETS

Contract #76899



**CROSS SECTION SPANS 1-3**  
(Looking East)



**CROSS SECTION SPANS 4-15**  
(Looking East)

**SUPERSTRUCTURE**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

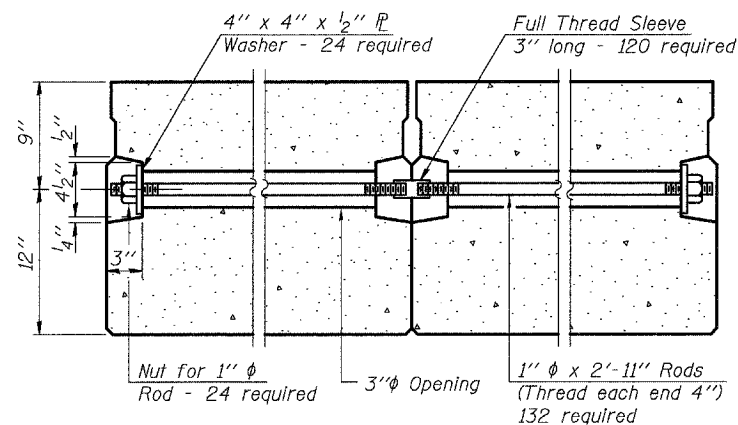
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	03	37
FED. ROAD DIST. NO. 7			ILLINOIS	FED. AID PROJECT-

SHEET NO. 1  
39 SHEETS

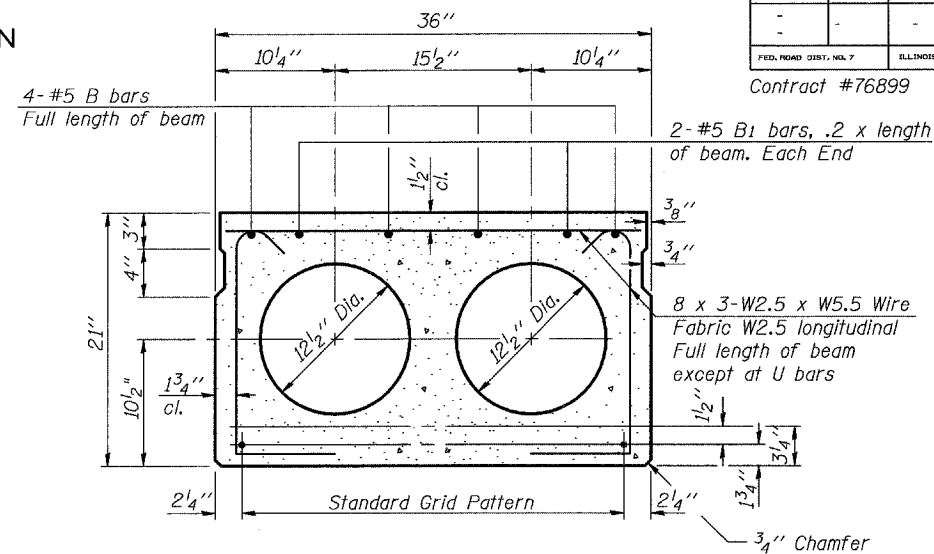
Contract #76899

Span	Dimension		
	A	B	C
4-13	23'-2 <sup>3</sup> / <sub>8</sub> "	23'-2 <sup>1</sup> / <sub>4</sub> "	52'-10 <sup>5</sup> / <sub>8</sub> "
14	23'-7 <sup>3</sup> / <sub>8</sub> "	23'-7 <sup>1</sup> / <sub>4</sub> "	52'-10 <sup>5</sup> / <sub>8</sub> "
15	23'-5 <sup>1</sup> / <sub>2</sub> "	23'-5 <sup>1</sup> / <sub>2</sub> "	52'-7"

TABLE OF BEAM DIMENSIONS



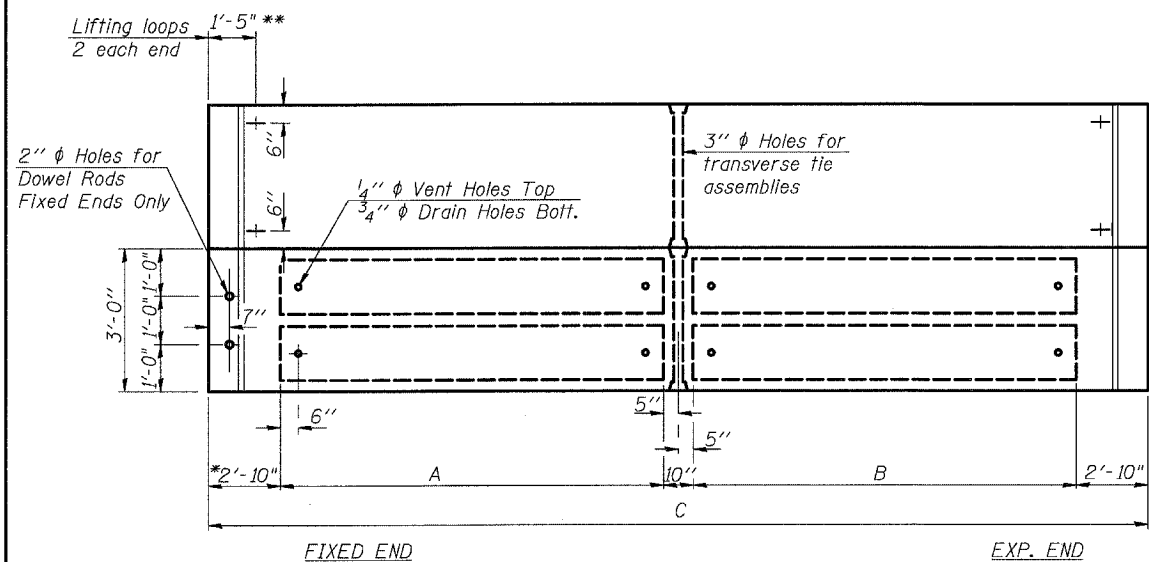
TYPICAL TRANSVERSE TIE ASSEMBLY



TYPICAL SECTION

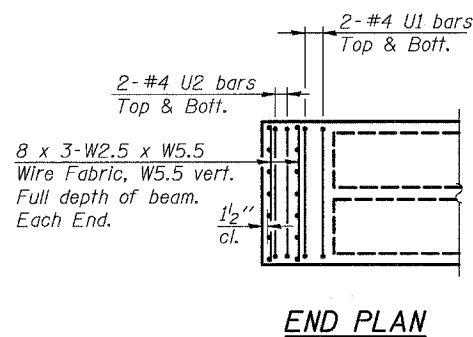
(See section thru parapet for additional reinforcement at exterior beams.)  
1/2" phi Strands, Each Strand Stressed to 30,900 Lbs.  
6-Strands 1 3/4" up, 8-Strands 3/4" up, 2-Strands 9" up

Note:  
Place strands symmetrically about centerline of beam.

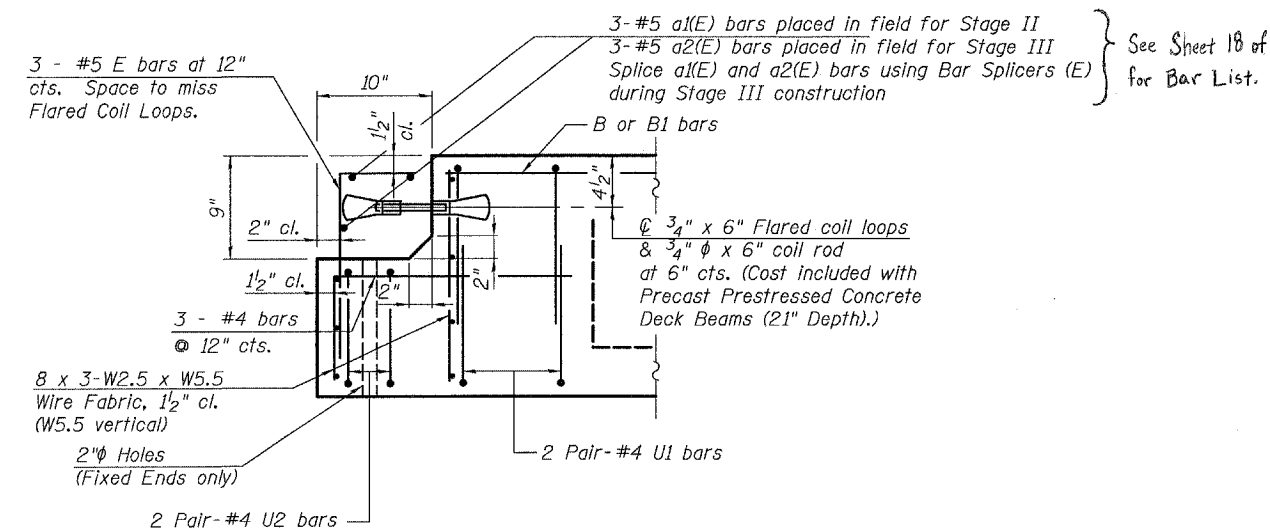


PLAN

\* 2'-0" for Spans 14 & 15  
\*\* 1'-0" for Spans 14 & 15



END PLAN

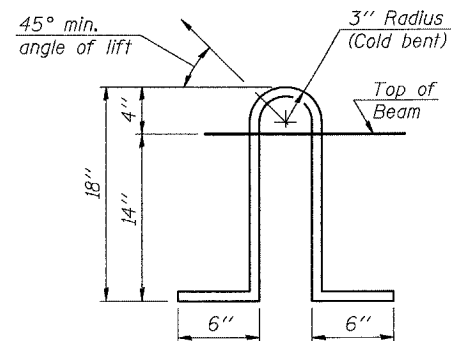


END OF BEAM DETAIL

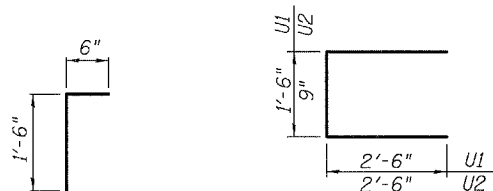
(Omit block-out at fixed end of beams (Pier 14) for spans 14 & 15.)

NOTES

- 1) Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270.
- 2) The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- 3) Lifting loops shall be 2 - 1/2" phi - 270 ksi strands, as shown.
- 4) The 1" phi rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place.
- 5) The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.
- 6) Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key.
- 7) Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.
- 8) Required Release Strength, f'ci, shall be 4,000 p.s.i.
- 9) Each beam shall have four lifting loops, two cast in each end as shown. Loops shall be burned off after beams have been erected.
- 10) Bridge rail inserts shall be cast in precast beams along Stage Construction Joint. See sheet 10 of 39 for location of rail anchors.
- 11) See Sheet 18 of 39 for details of parapet bars which are to be cast into the fascia beams.



LIFTING LOOP DETAIL



BAR E

BARS U1 & U2

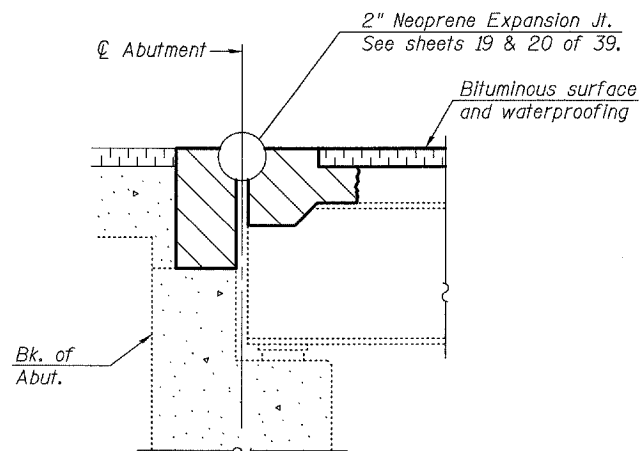
SUPERSTRUCTURE DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

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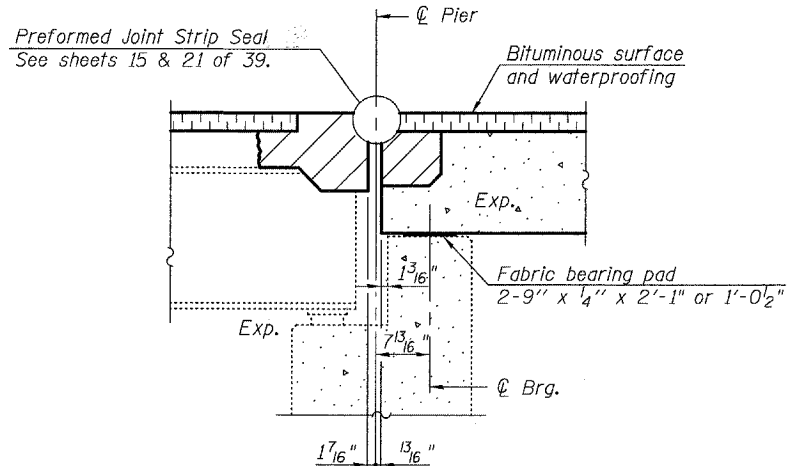
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			63	38
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

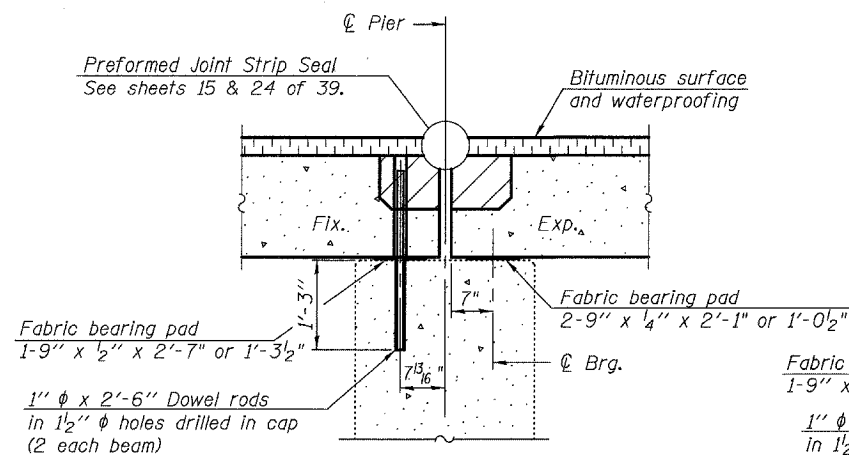
Contract #76899



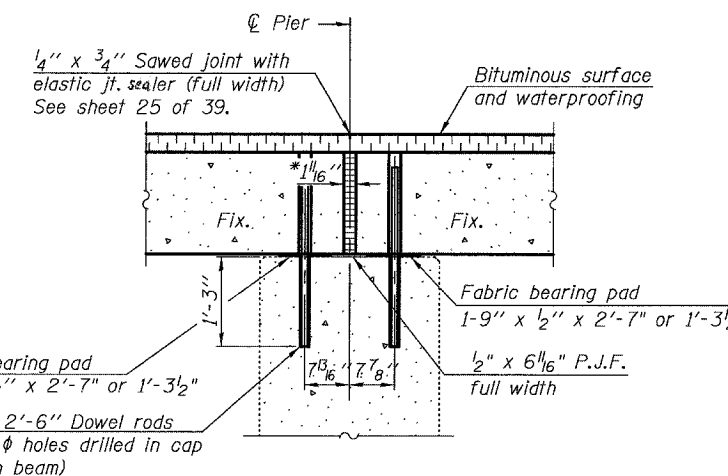
SECTION THRU WEST ABUTMENT ②



SECTION THRU PIER 3 ②

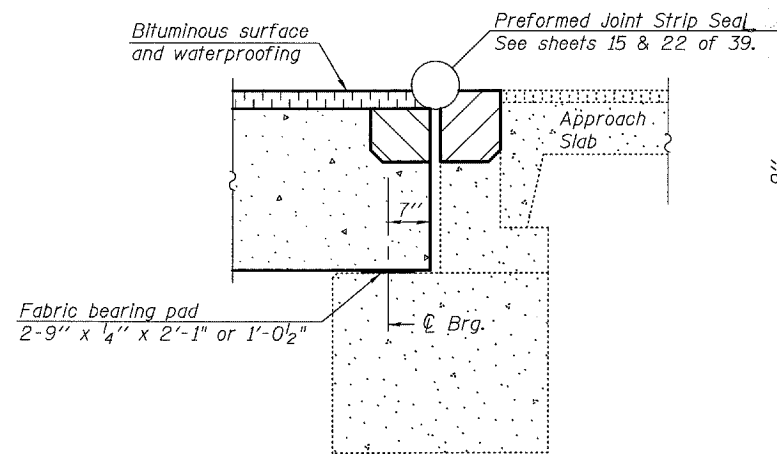


SECTION THRU PIERS 4-13 ②

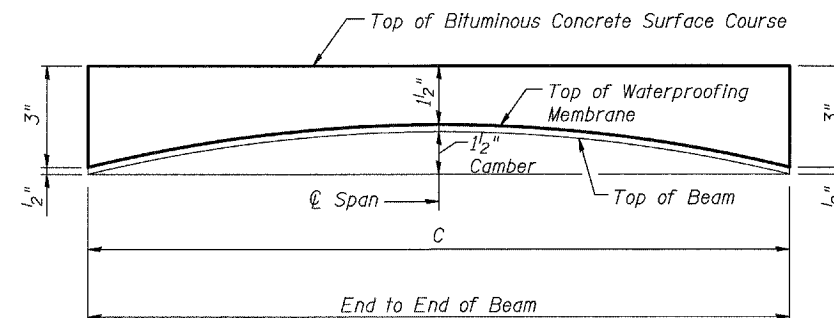
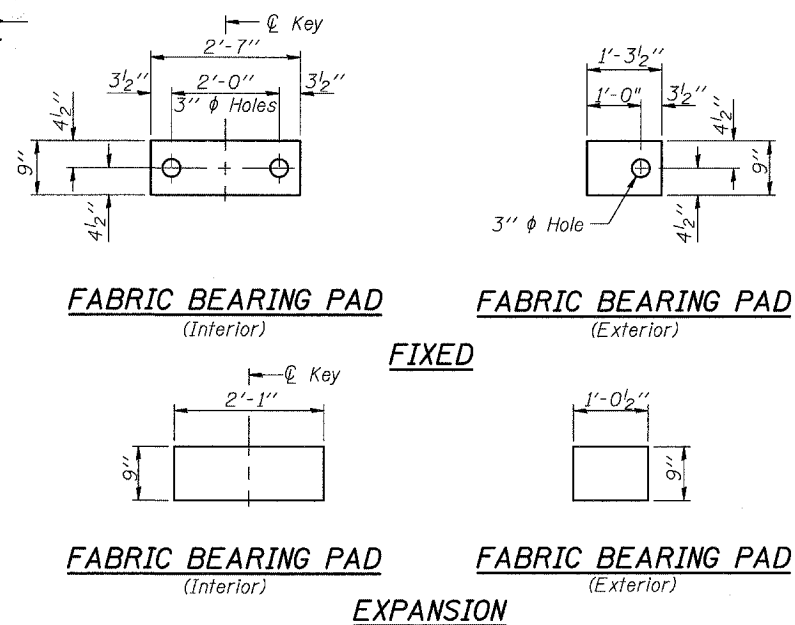


SECTION THRU PIER 14 ②

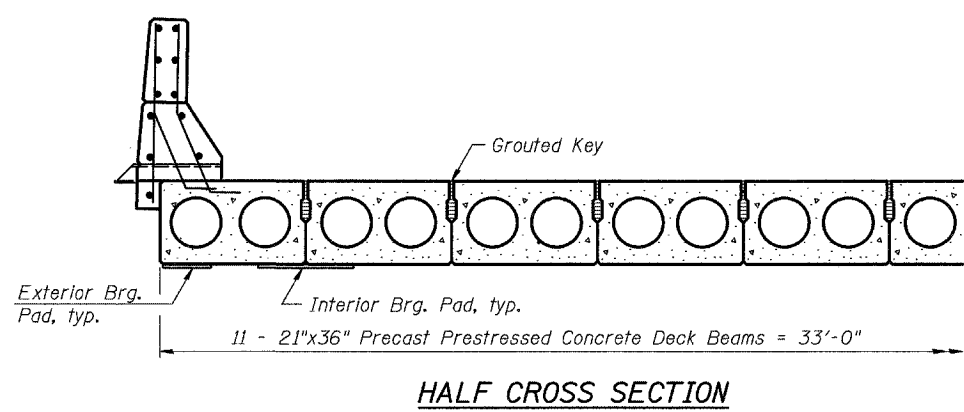
\* 1 1/16" gap to be filled with non-shrink grout. Dimensions may vary to accommodate tolerance in beam lengths.



SECTION THRU EAST ABUTMENT ②



BITUMINOUS OVERLAY PROFILE SPANS 4-15 & ANTICIPATED INITIAL CAMBER DIAGRAM ③  
(See Sheet 13 of 39 for Table of Beam Dimensions for dimension C.)



HALF CROSS SECTION

- Notes:
- After beams have been erected, holes shall be drilled into substructure and anchor dowels placed at the fixed ends of the beams. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.
  - Hatched area to be poured after beams are in place.
  - Thicknesses shown are for Beams 1 thru 5 and 7 thru 11. Thickness for Beam 6 will vary from those shown at beam edges to 1/4" additional at Roadway.

**SUPERSTRUCTURE DETAILS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

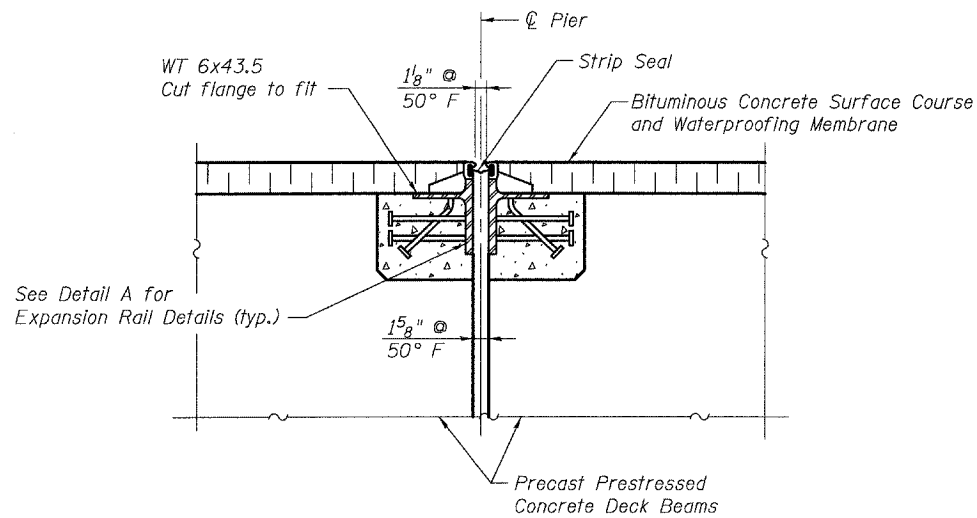
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

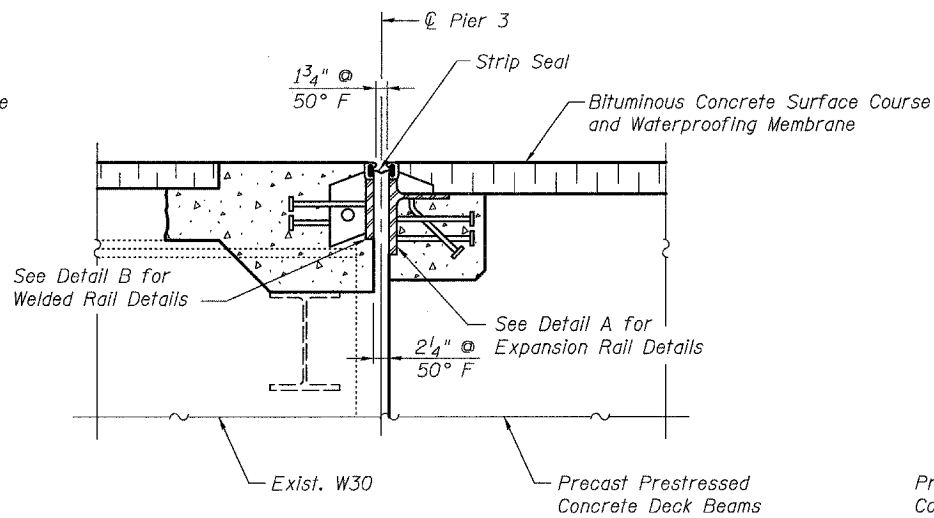
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 1  
39 SHEETS

Contract #76899

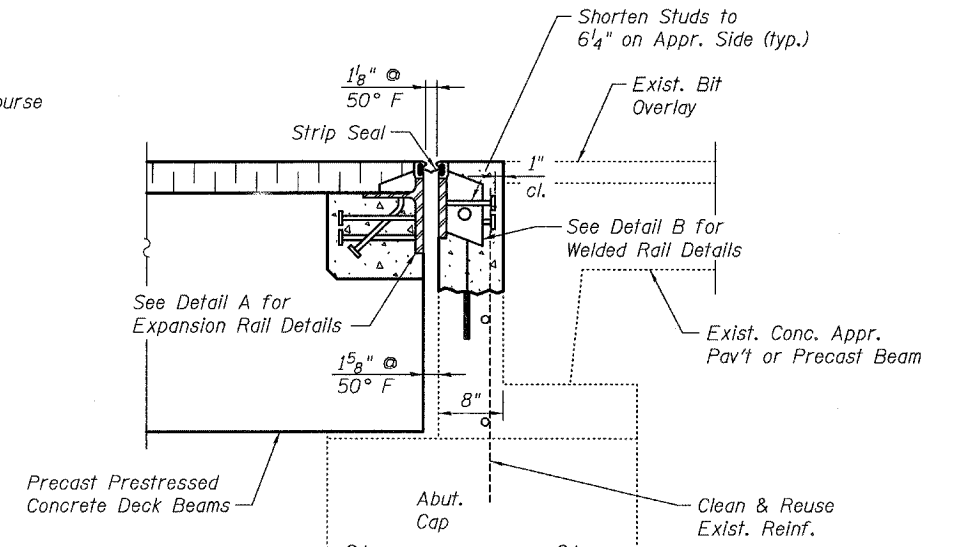


TYP. PIER JOINT (PIERS 4-13)

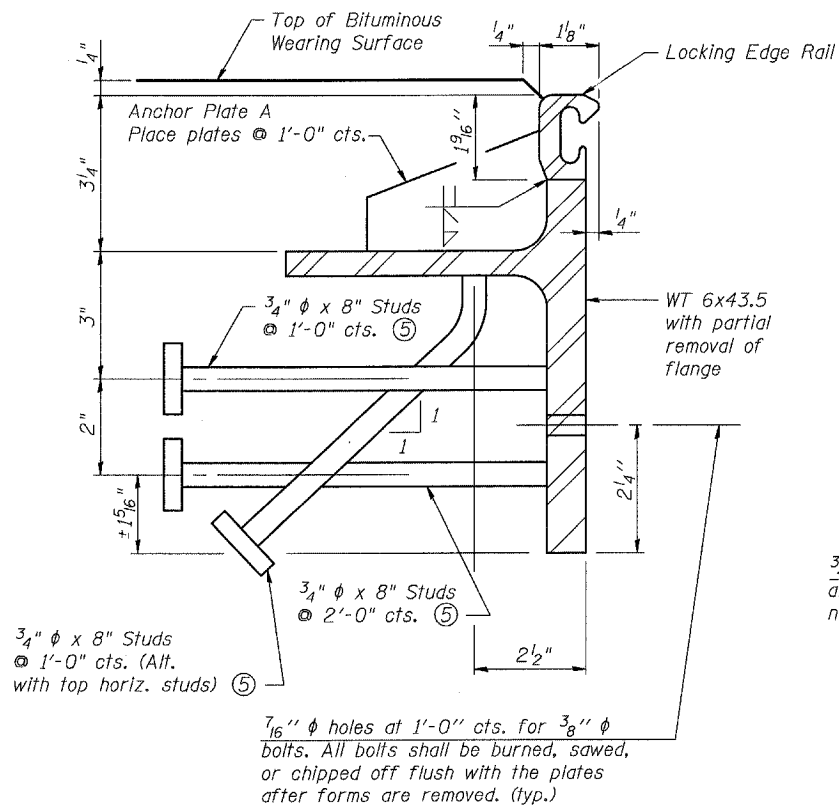


TYP. PIER JOINT (PIER 3)

(Looking North)

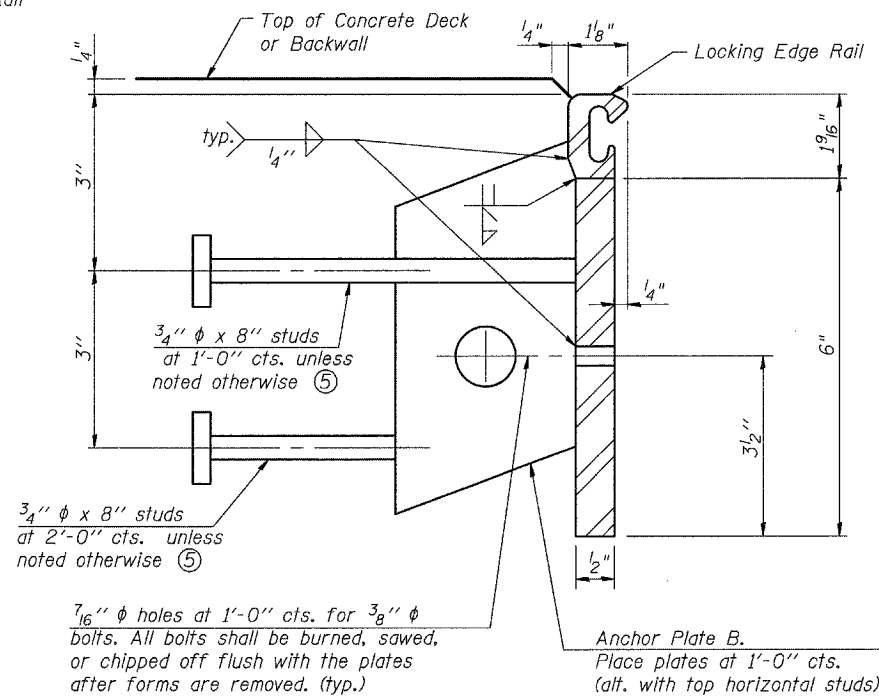


EAST ABUTMENT



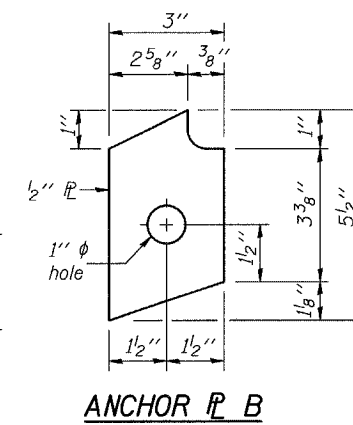
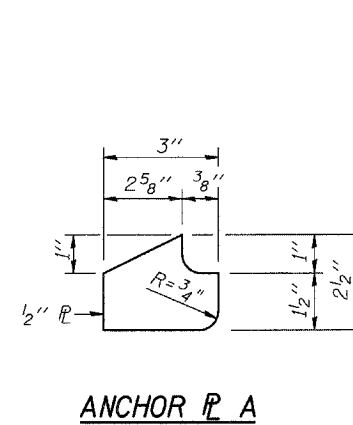
DETAIL A

(1782 Studs Required)



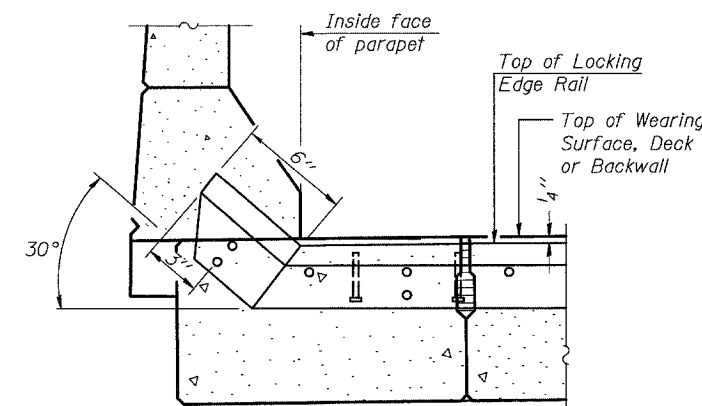
DETAIL B

(102 Studs Required)  
(60 Anchor Plates Required)



GENERAL NOTES

- Only the strip seal joint system will be allowed. 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.
- The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer.
- Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
- The manufacturer's recommended installation methods shall be followed.
- Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs. automatically end welded.
- Joint openings shall be adjusted according to Article 503.10 of the Standard Specifications when the blockouts are pour at an ambient temperature other than 50° F.



TYPICAL END TREATMENT AT PARAPET

SUPERSTRUCTURE DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK

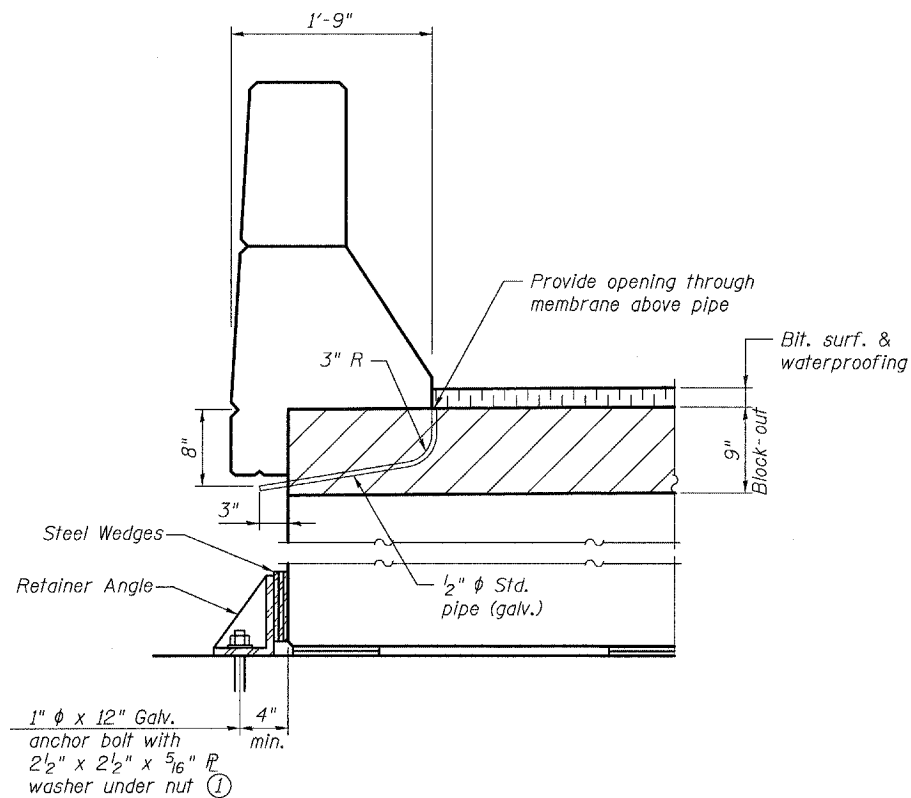
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

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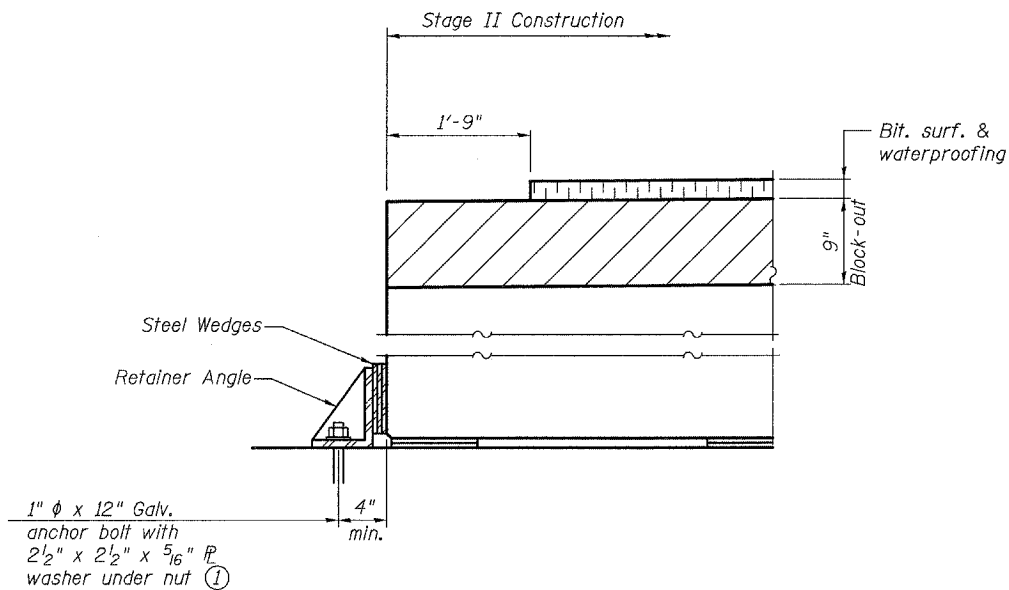
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
-	-	-	63	40	39 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76899

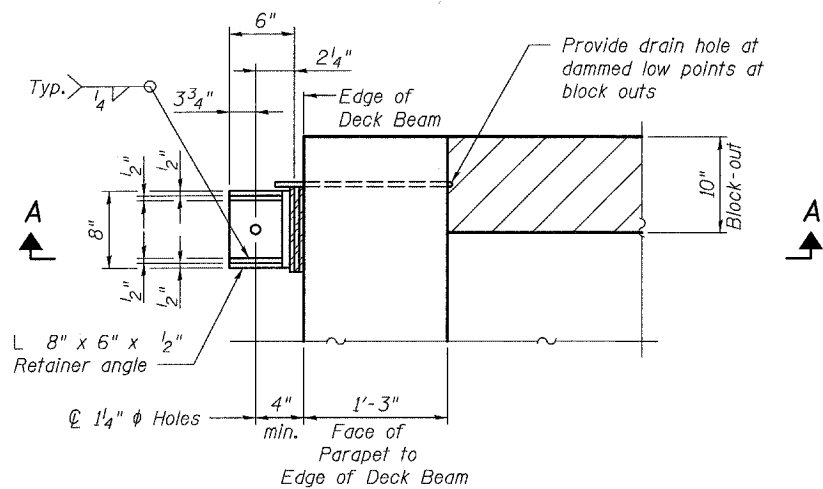


**SECTION A-A**



**SECTION B-B**

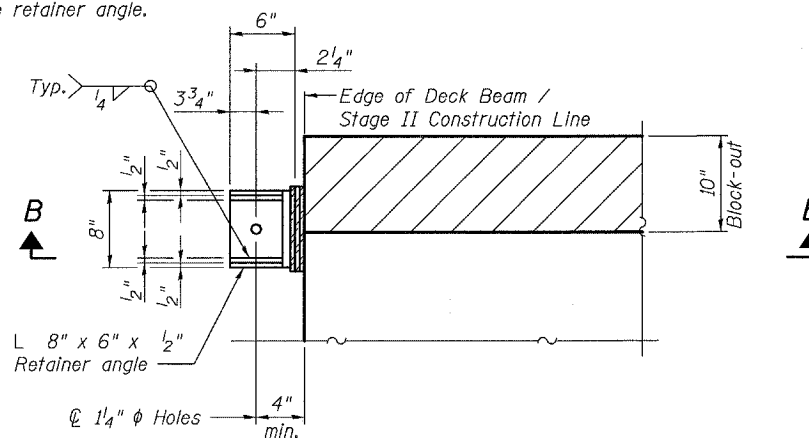
Anchor bolts shall be cut and ground flush with the surface of the pier and sealed with epoxy upon removal of the retainer angle.



**PLAN**

(Parapet not shown for clarity.)

**RETAINER ANGLE AT EXPANSION JOINT**



**PLAN**

**RETAINER ANGLE AT EXPANSION JOINT  
ALONG STAGE II CONSTRUCTION JOINT**

Notes:

- ① Approved threaded rod shall be placed in drilled holes and grouted in place. Cost of retainer and accessories are included with Precast Prestressed Concrete Deck Beams (21" Depth).
- ② Retainer angles are to be used at the expansion ends of deck beams only. After block-outs are poured and cured the retainer angles shall be removed. Anchor bolts may be left in place at Beams 1 and 11.
- ③ Cost of 1/2" Standard pipe shall be included in the cost of the Precast Prestressed Concrete Deck Beams (21" Depth).

**SUPERSTRUCTURE DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062**

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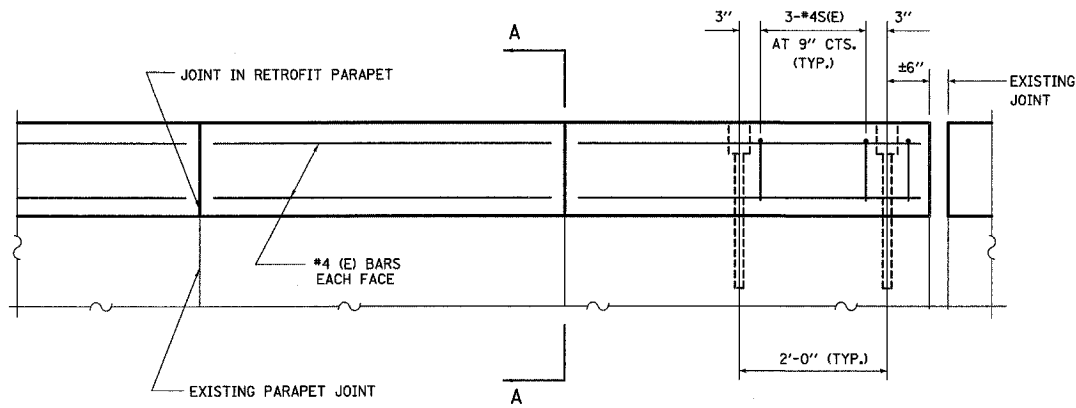


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

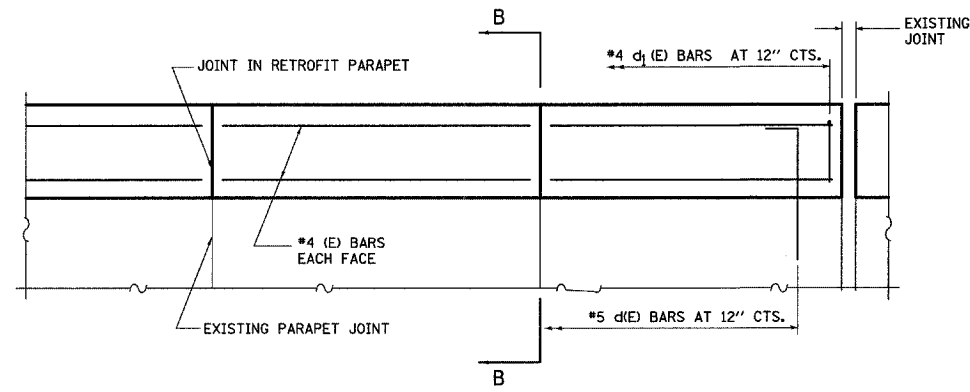
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-	-	-	63	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1  
39 SHEETS

Contract #76899

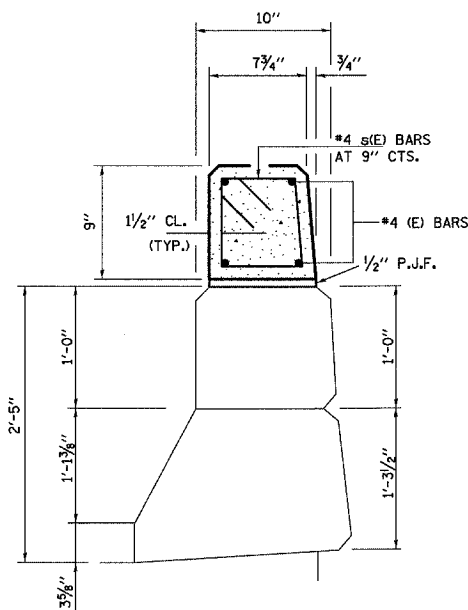


**INSIDE ELEVATION OF PARAPET**  
(PRECAST ALTERNATE)  
(SPANS 1-3 AND AT EAST APPROACH SLAB.)

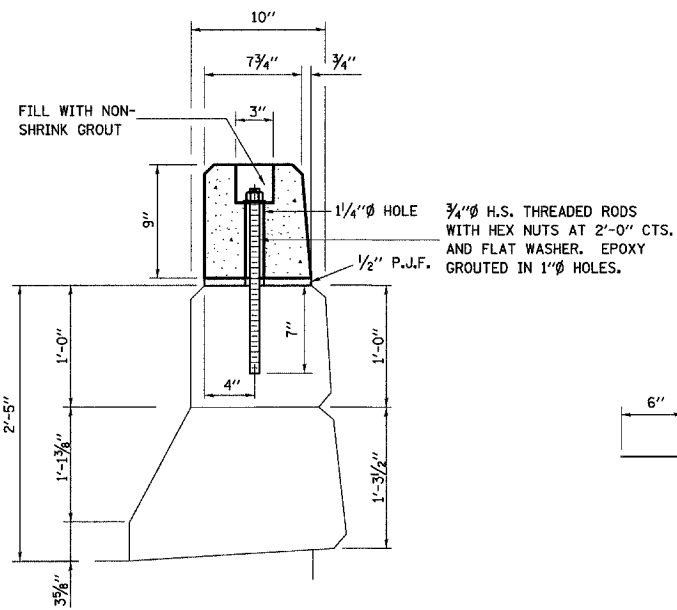


**INSIDE ELEVATION OF PARAPET**  
(CAST-IN-PLACE ALTERNATE)  
(Spans 1-3 and at East Approach Slab.)

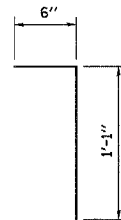
- GENERAL NOTES**
- CLASS SI CONCRETE SHALL BE USED THROUGHOUT FOR CAST-IN-PLACE OPTION.
  - CLASS PC CONCRETE SHALL BE USED THROUGHOUT FOR PRECAST OPTION.
  - ALL EXPOSED EDGES SHALL BE CHAMFERED 3/4".
  - CLASS SI OR PC CONCRETE; REINFORCEMENT BARS, EPOXY COATED; THREADED ANCHOR RODS; 1/2" P.J.F. AND ALL OTHER ACCESSORIES NEEDED FOR INSTALLATION AND ERECTION SHALL BE INCLUDED IN THE COST OF "RETROFIT CONCRETE PARAPET".
  - THE CONTRACTOR SHALL USE THE CAPSULE OR THE ADHESIVE CARTRIDGE TYPE ANCHOR RODS THAT HAVE BEEN PREVIOUSLY TESTED AND GIVEN A PRIOR APPROVAL BY THE DEPARTMENT. THE CONTRACTOR SHALL INSTALL THESE ANCHOR RODS IN PRE-DRILLED HOLES ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
  - THE CAPSULE OR THE ADHESIVE CARTRIDGE SHALL BE SEALED GLASS CAPSULE OR A SEALED GLASS ADHESIVE CARTRIDGE CONTAINING PREMEASURED AMOUNT OF ADHESIVE CHEMICAL. THE THREADED ROD STUD WITH NUT & WASHERS SHALL CONFORM TO ASTM A307.
  - HOLES FOR THE DOWEL RODS SHALL MISS EXISTING PARAPET JOINTS.
  - THE PRECAST SECTIONS MAY BE CAST IN UNITS OF 3', 5', 7', ETC. LENGTH AS DESIRED. WHERE THEY OVERLAP THE JOINTS IN THE PARAPET, THE PRECAST UNITS SHALL BE SAW CUT TO LINE UP WITH THE JOINTS IN THE PARAPET. THE SAWCUT FACES OF THE UNITS SHALL BE GIVEN A COAT OF BOILED LINSEED OIL MIXTURE (PROTECTIVE COAT). THE COST OF THE PROTECTIVE COAT SHALL BE INCLUDED IN THE COST FOR "RETROFIT CONCRETE PARAPET".
  - THE CONCRETE PARAPET RETROFIT WILL BE MEASURED FOR PAYMENT IN FOOT (FT) ALONG THE TOP OF PARAPET END TO END. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (FT) OF "RETROFIT CONCRETE PARAPET".
  - EPOXY GROUT d(E) BARS IN 3/8" Ø X 6" (MIN.) DRILLED HOLES. THE GROUT AND THE METHOD OF APPLICATION SHALL BE APPROVED BY THE DEPARTMENT. (SEE SECTION 584 OF THE STANDARD SPECIFICATIONS.) COST INCLUDED WITH RETROFIT CONCRETE PARAPET.
  - RETROFIT CONCRETE PARAPET SHALL BE USED ON THE EXISTING PARAPETS IN SPANS 1-3 AND AT THE EXISTING PARAPETS AT THE EAST APPROACH SLAB.



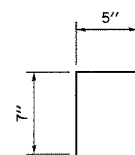
**PRECAST ALTERNATE**  
(SHOWING REINFORCEMENT)



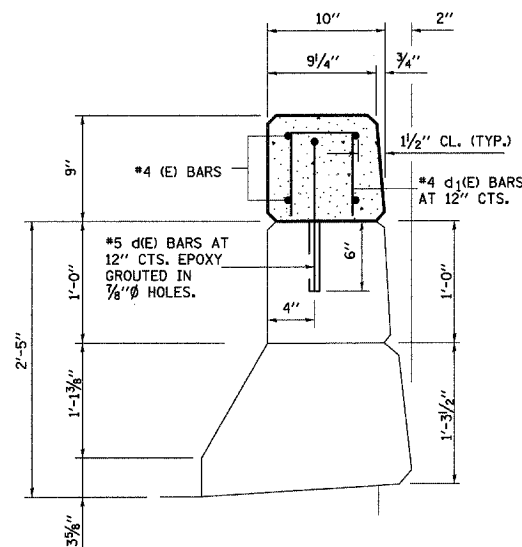
**PRECAST ALTERNATE**  
(SHOWING ATTACHMENT)



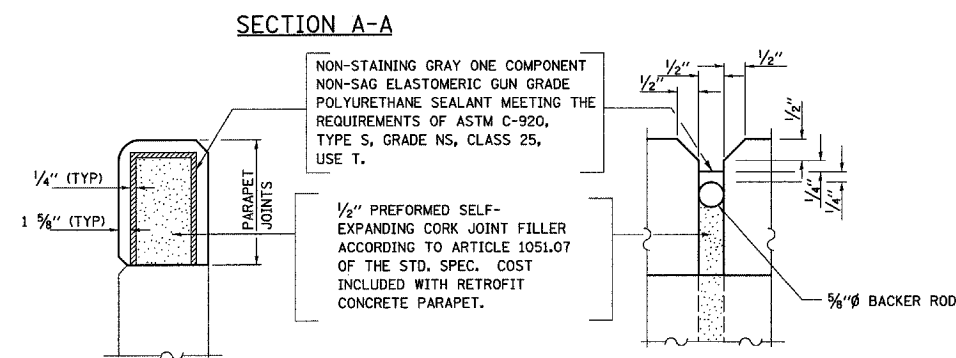
BAR d(E)



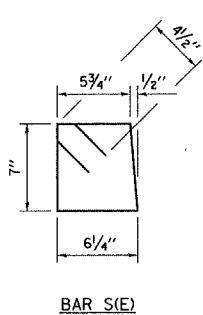
BAR d1(E)



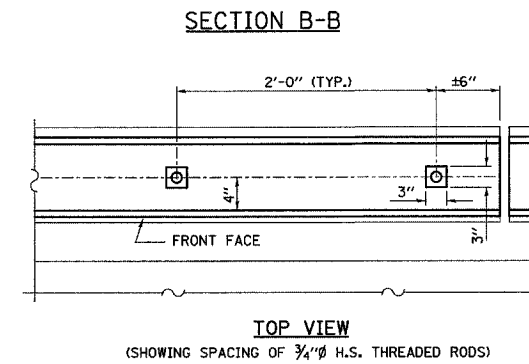
**CAST-IN-PLACE ALTERNATE**



**JOINT DETAIL**



BAR S(E)



**TOP VIEW**  
(SHOWING SPACING OF 3/4" H.S. THREADED RODS)

**BILL OF MATERIAL**

PAY ITEM	UNIT	QUANTITY
RETROFIT CONCRETE PARAPET	FOOT	450

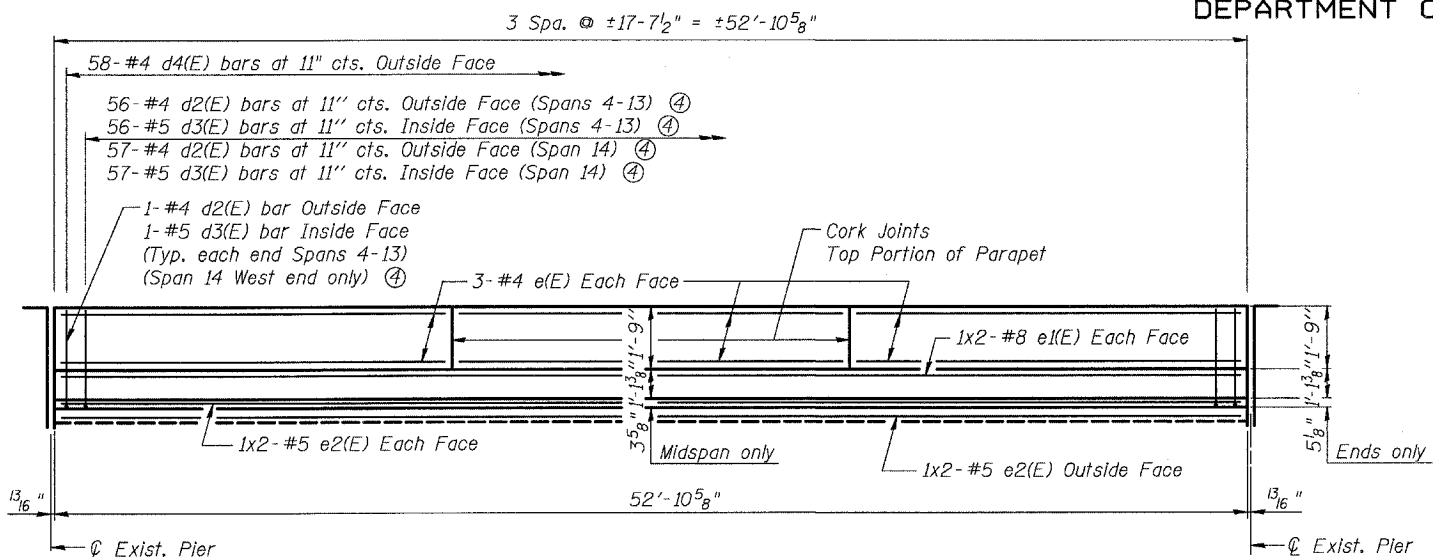
**SUPERSTRUCTURE DETAILS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

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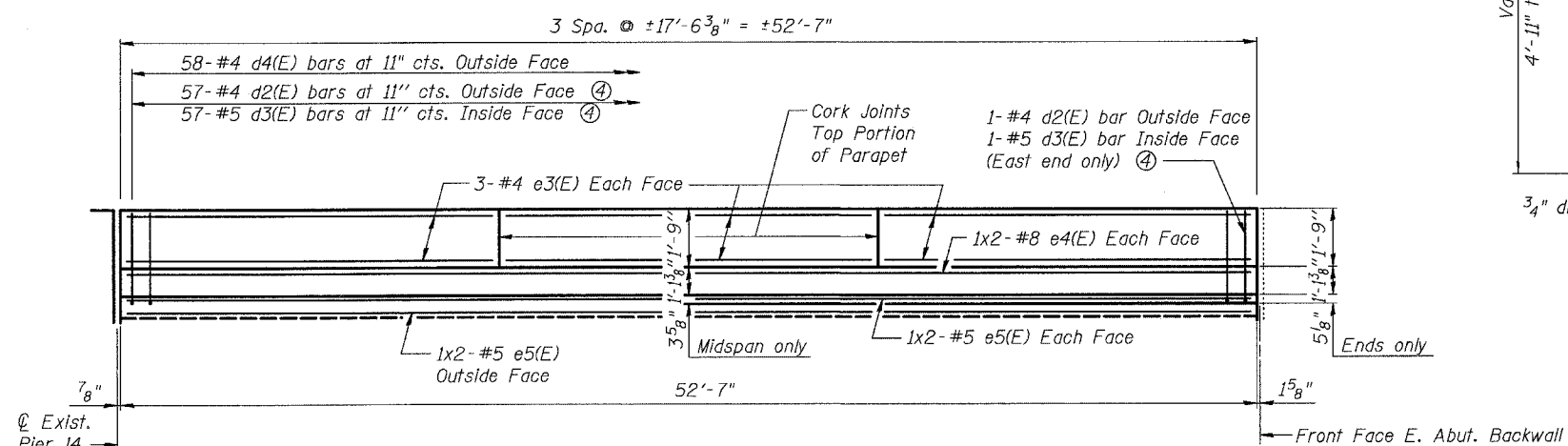
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract #76899

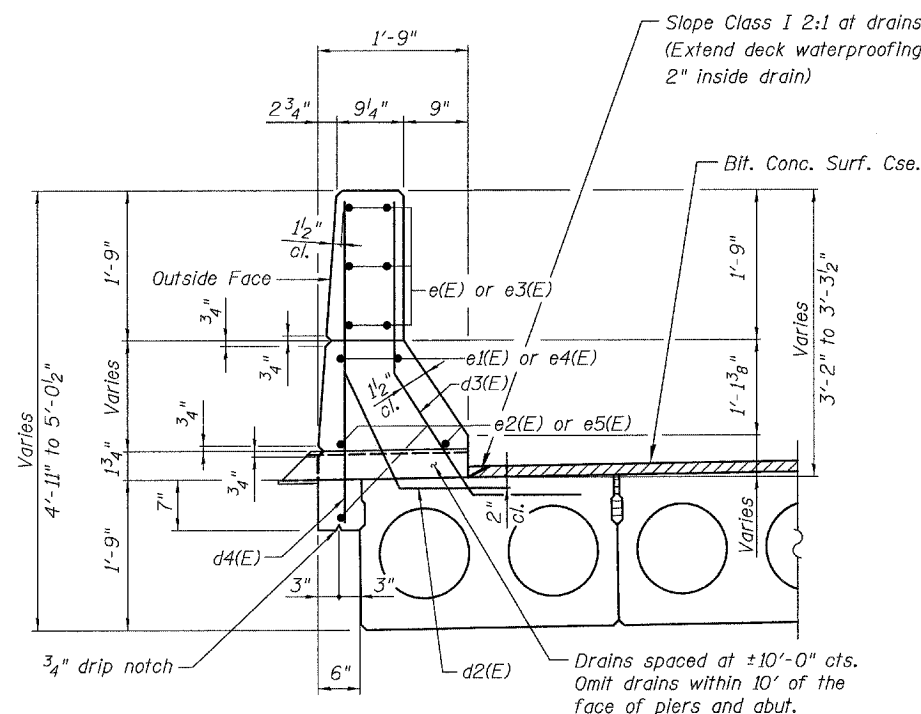


INSIDE ELEVATION OF PARAPET SPANS 4-14



INSIDE ELEVATION OF NORTH PARAPET SPAN 15

(South parapet opposite hand)

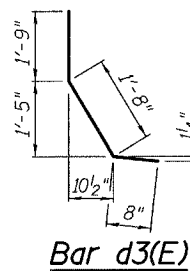
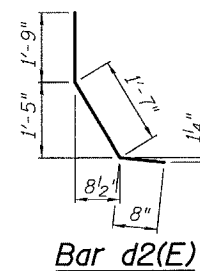


SECTION THRU PARAPET SPANS 4-15

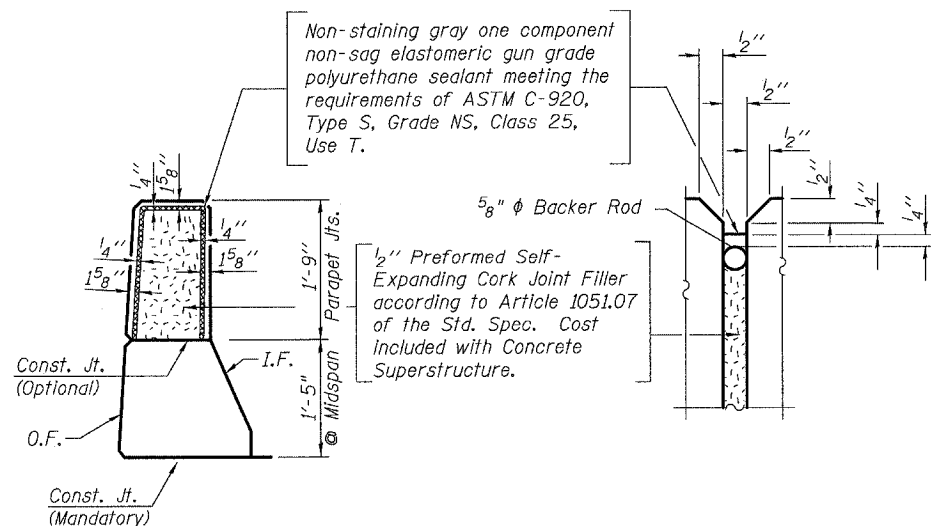
(All edges shall have 3/4" chamfers.)

SUPERSTRUCTURE BILL OF MATERIAL

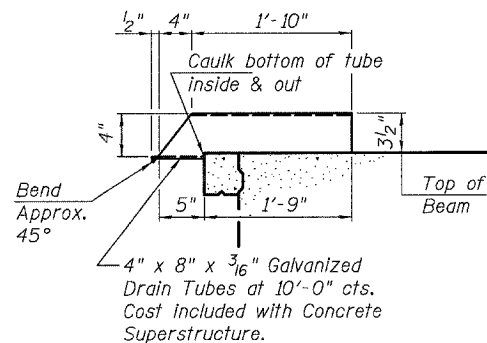
Bar	No.	Size	Length	Shape	
a1(E)	66	#5	14'-9"	—	
a2(E)	66	#5	17'-9"	—	
d2(E)	44	#4	4'-0"	⌒	
d3(E)	44	#5	4'-1"	⌒	
d4(E)	1,392	#4	3'-5"	—	
e(E)	396	#4	17'-3"	—	
e1(E)	88	#8	28'-6"	—	
e2(E)	132	#5	27'-4"	—	
e3(E)	36	#4	17'-2"	—	
e4(E)	8	#8	28'-4"	—	
e5(E)	12	#5	27'-2"	—	
Precast Prestressed Concrete Deck Beams (21" Depth)				Sq. Ft.	20,933
Reinforcement Bars, Epoxy Coated				Pound	22,100
Concrete Superstructure				Cu. Yds.	200.6



- Notes:
- Reinforcement bars designated (E) shall be epoxy coated.
  - Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.
  - Minimum bar lap lengths in parapet:  
#5 - 2'-2"  
#8 - 4'-6"
  - Bars d2(E) & d3(E) cast with the PPC Deck Beams are included in the cost of Precast Prestressed Concrete Deck Beams (21" Depth).



PARAPET JOINT DETAILS



DRAIN DETAIL

SUPERSTRUCTURE DETAILS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

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USER NAME = #USER#

Contract #76899

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

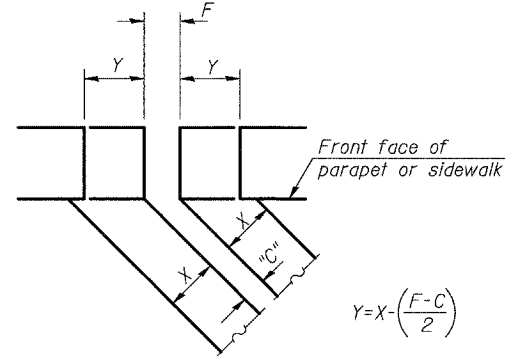
**INSTALLATION NOTES**

- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

Note A:  
Maximum spacing of anchor bolts shall be 12" centers.

**SKEW LIMITATIONS**

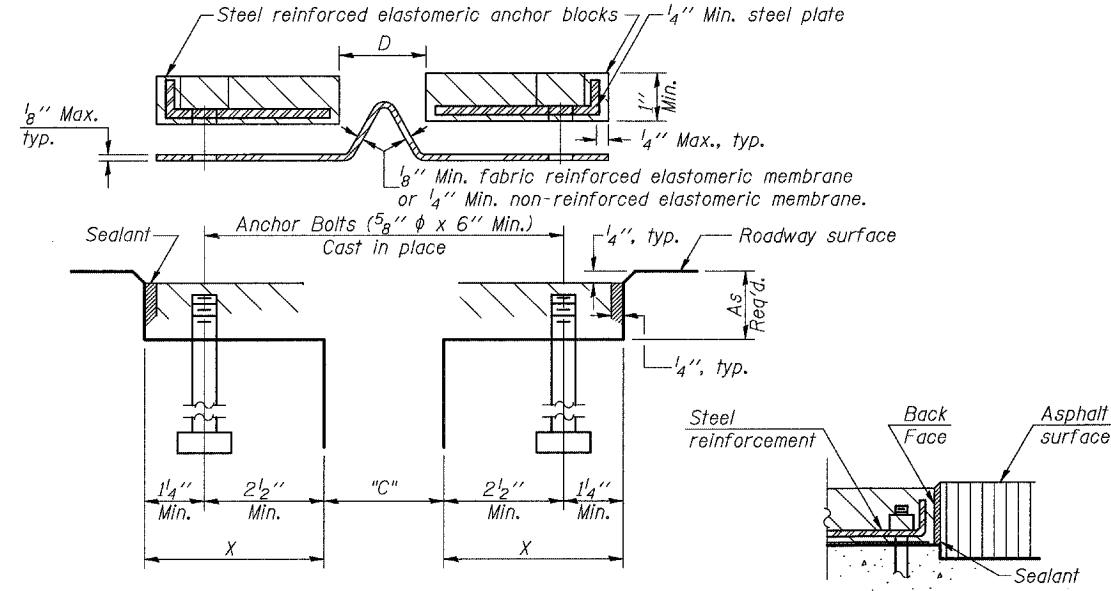
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



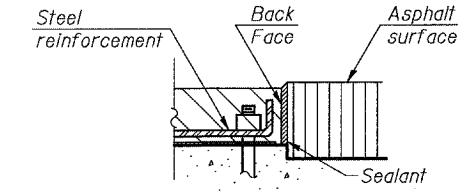
$$Y = X - \left( \frac{F - C}{2} \right)$$

For dimension "F" see sheet 18 of 37.

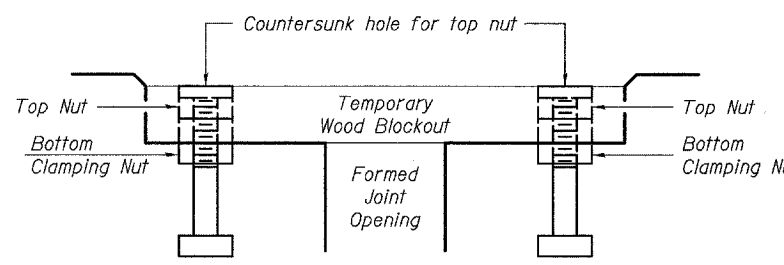
**FORMING BLOCKOUT SKETCH**



**CROSS SECTION**



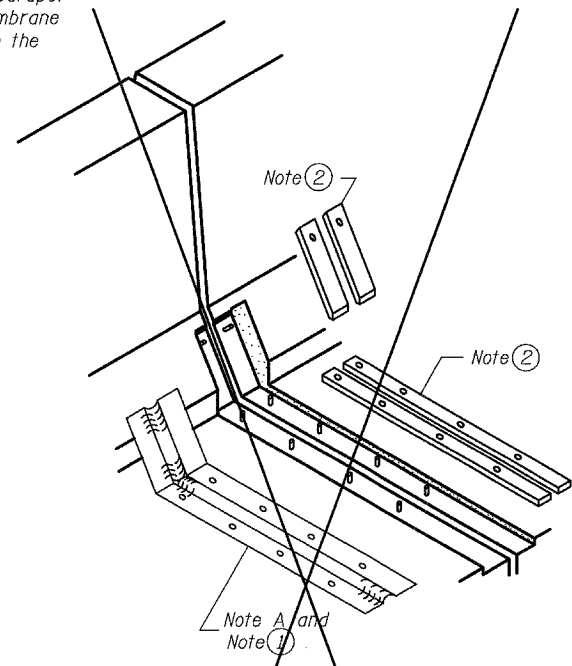
**ANCHOR BLOCK WITH ASPHALT SURFACE**



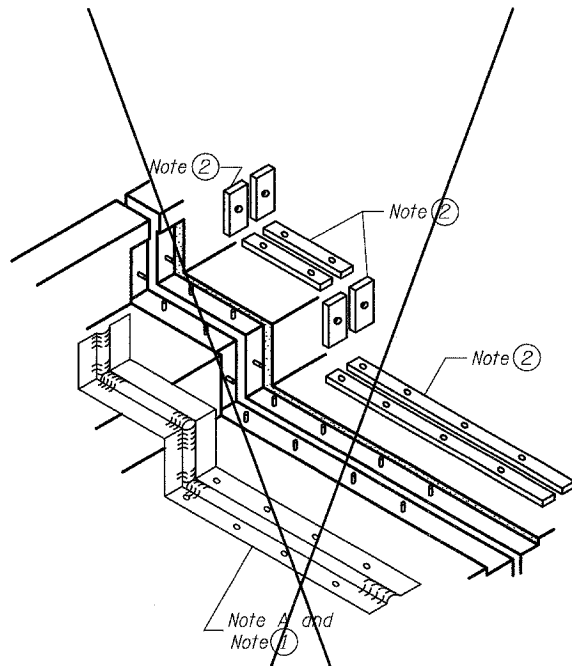
Note:  
Stud needs to be threaded lower to allow for use of clamping nut.

Anchor studs should be stainless

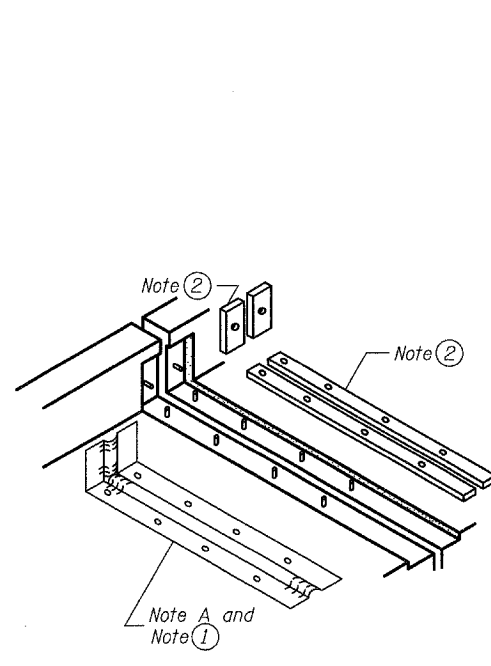
**RECOMMENDED BLOCKOUT DETAIL**



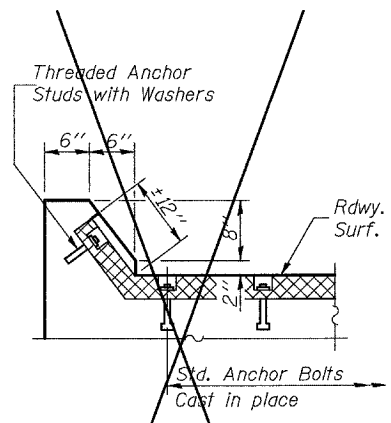
**AT PARAPET**



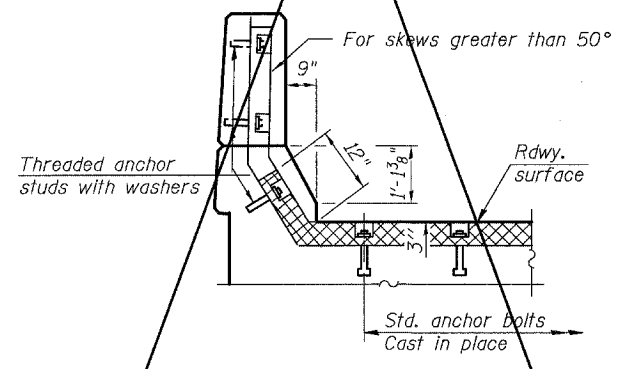
**AT SIDEWALK OR MEDIAN**



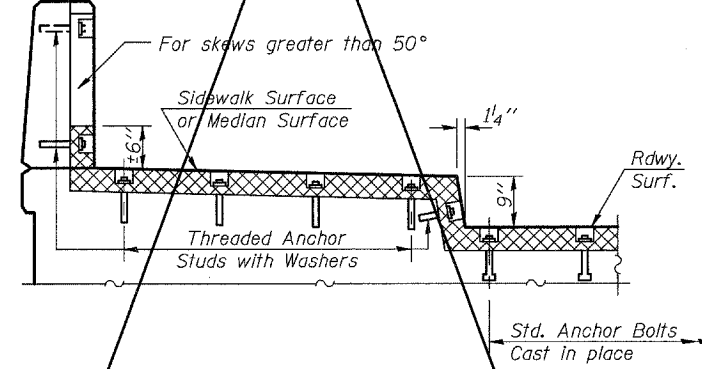
**AT WALL**



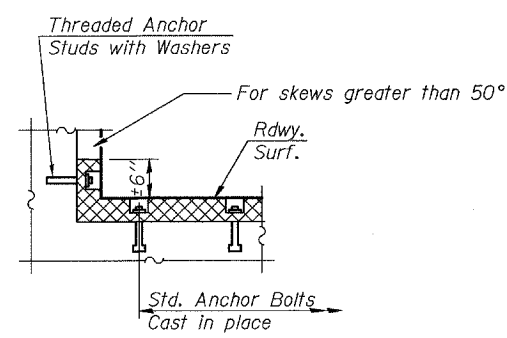
**AT CURB**



**AT PARAPET**



**AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS**



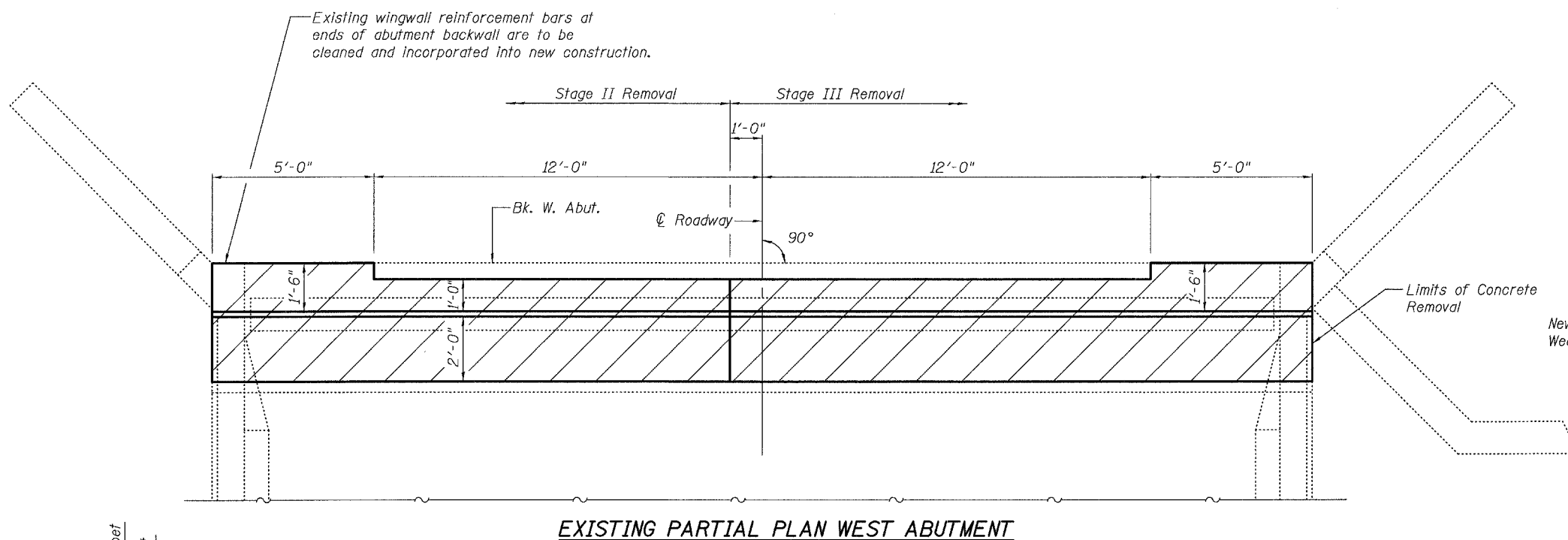
**AT WALL**

**CONTINUOUS SEAL TYPE  
NEOPRENE EXPANSION JOINTS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062**

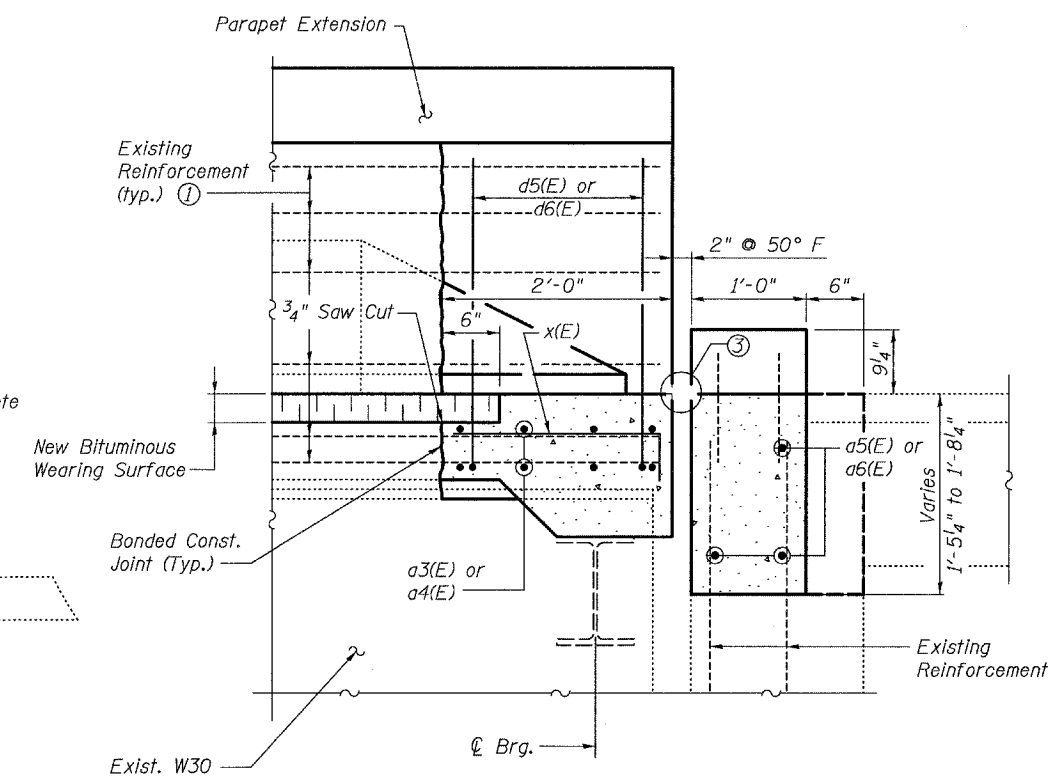
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

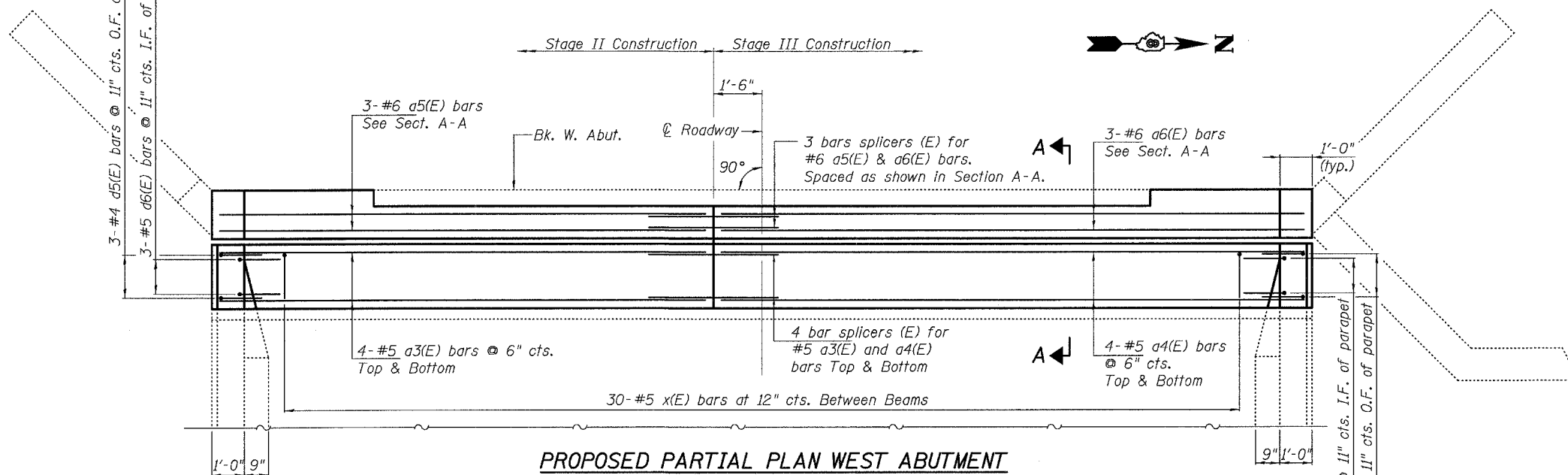
Contract #76899



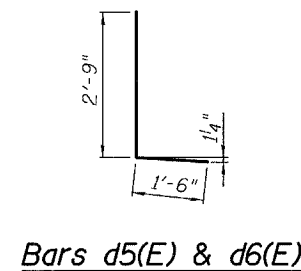
EXISTING PARTIAL PLAN WEST ABUTMENT



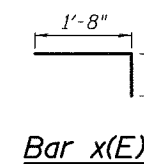
SECTION A-A



PROPOSED PARTIAL PLAN WEST ABUTMENT



Bars d5(E) & d6(E)



Bar x(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a3(E)	8	#5	15'-0"	—	
a4(E)	8	#5	18'-0"	—	
a5(E)	3	#6	15'-2"	—	
a6(E)	3	#6	18'-2"	—	
d5(E)	6	#4	4'-3"	L	
d6(E)	6	#5	4'-3"	L	
x(E)	30	#5	2'-3"	┌	
Reinforcement Bars, Epoxy Coated				Pound	540
Concrete Superstructure				Cu. Yd.	4.7
Concrete Removal				Cu. Yd.	4.7

Notes:

- Existing reinforcement bars shown are to be cleaned and incorporated into new construction.
- See sheet 39 of 39 for bar splicer details.
- See sheet 19 of 39 for neoprene expansion joint details.
- O.F. denotes outside face. I.F. denotes inside face.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in Concrete Removal.

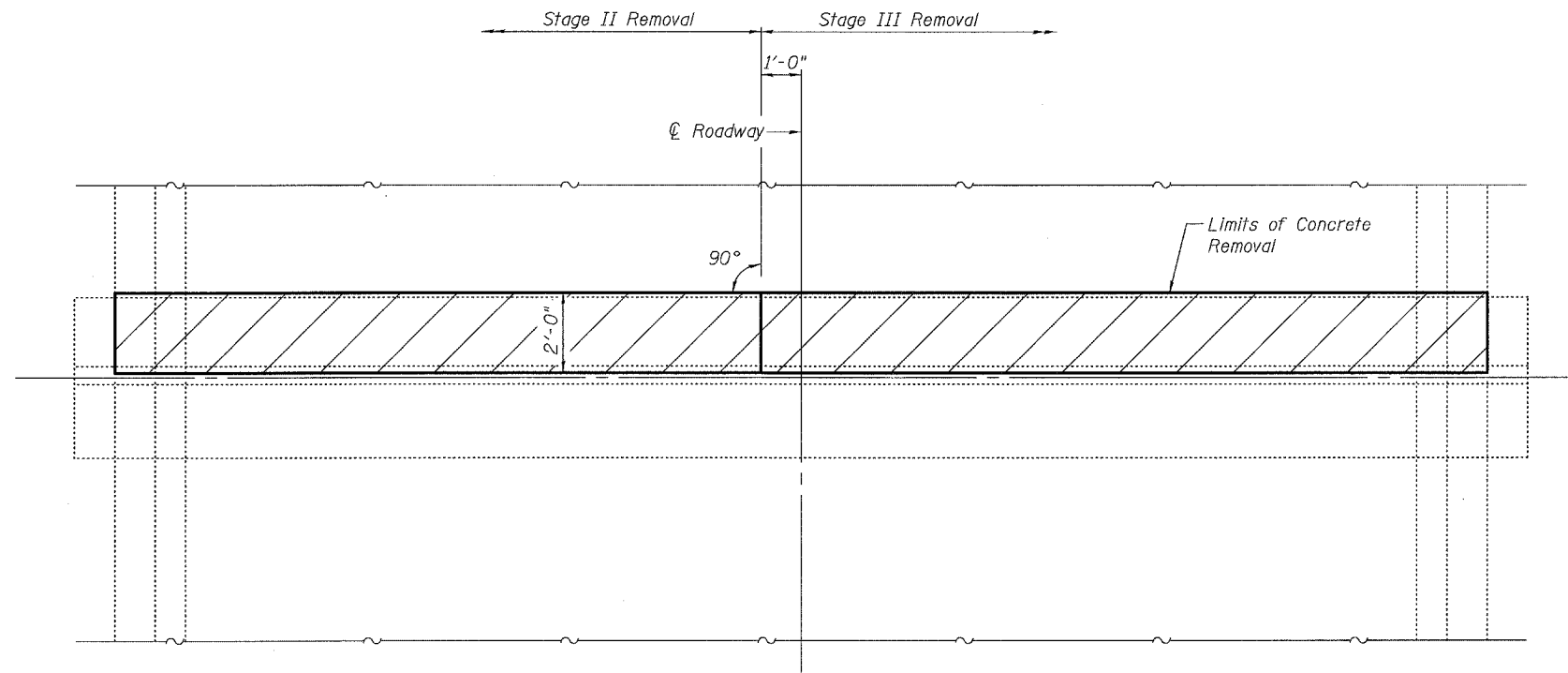
WEST ABUTMENT EXPANSION JOINT  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

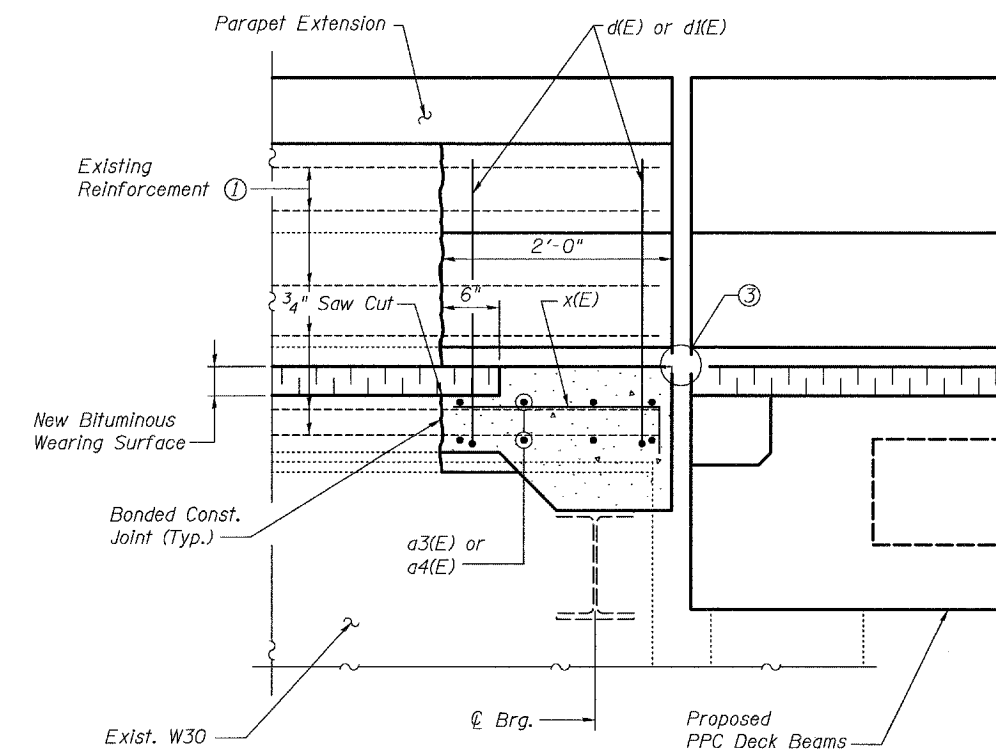
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	45
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 45  
39 SHEETS

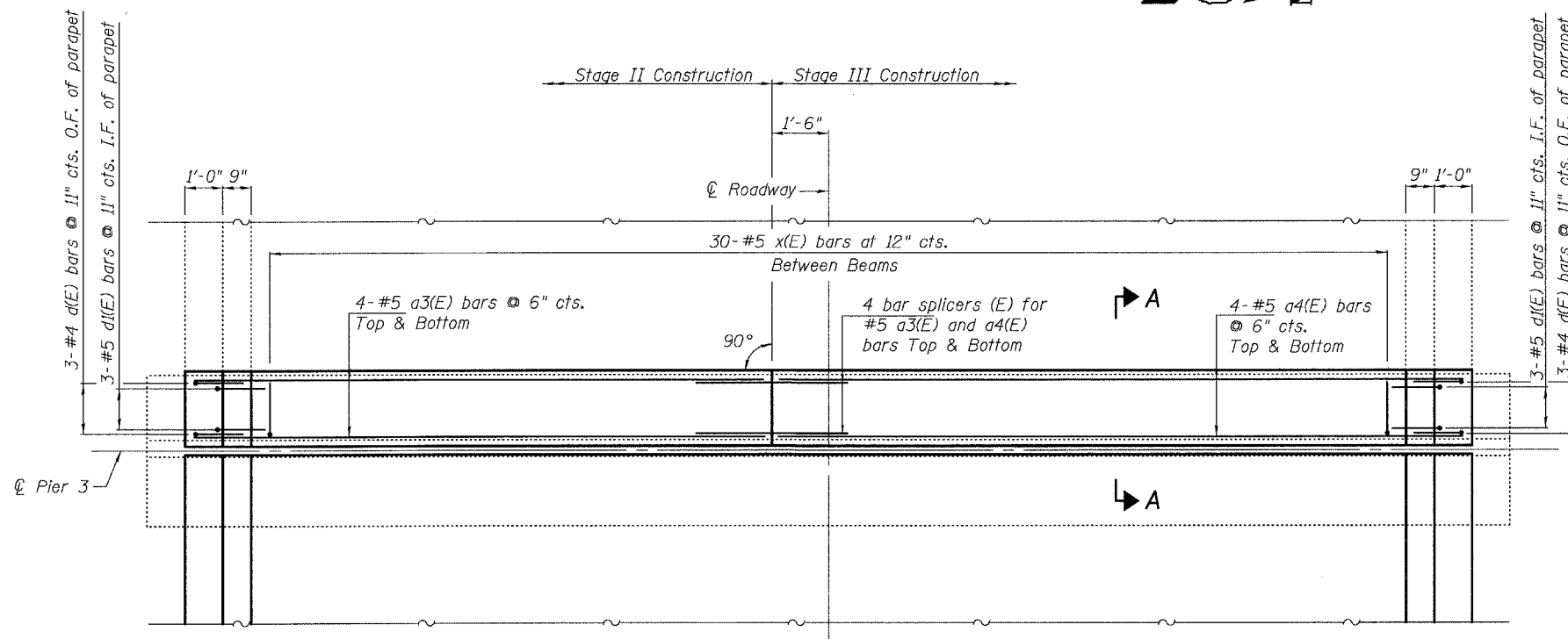
Contract #76899



EXISTING PARTIAL PLAN PIER 3



SECTION A-A



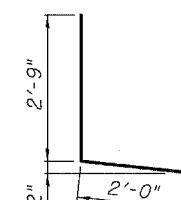
PROPOSED PARTIAL PLAN PIER 3

Notes:

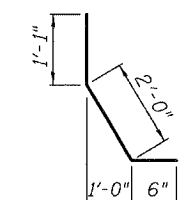
- ① Existing reinforcement bars shown are to be cleaned and incorporated into new construction.
- ② See sheet 39 of 39 for bar splicer details.
- ③ See sheet 15 of 39 for Preformed Joint Strip Seal details.
- ④ Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in Concrete Removal.

BILL OF MATERIAL

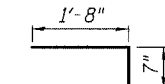
Bar	No.	Size	Length	Shape	
a3(E)	8	#5	15'-0"	—	
a4(E)	8	#5	18'-0"	—	
d(E)	6	#4	4'-9"	L	
d1(E)	6	#5	3'-7"	L	
x(E)	30	#5	2'-3"	┌	
Reinforcement Bars, Epoxy Coated				Pound	390
Concrete Superstructure				Cu. Yd.	2.7
Concrete Removal				Cu. Yd.	2.7



Bar d(E)



Bar d1(E)



Bar x(E)

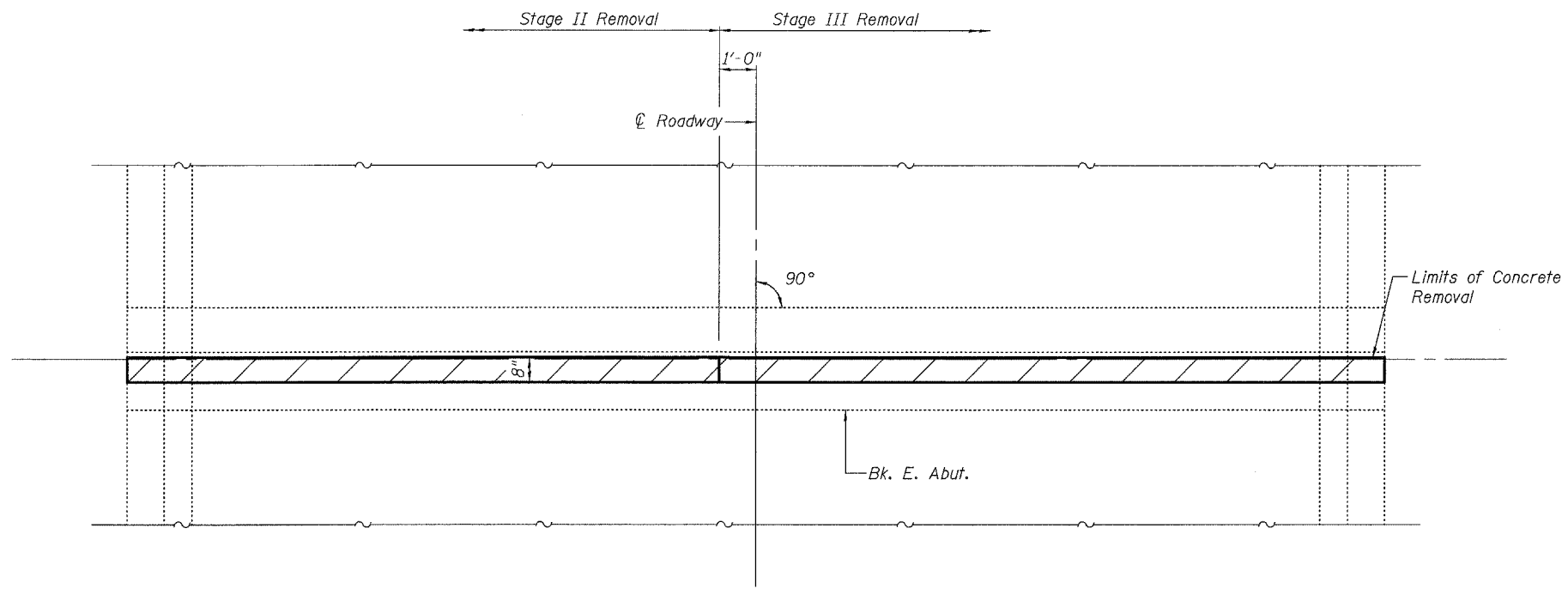
PIER 3 EXPANSION JOINT  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

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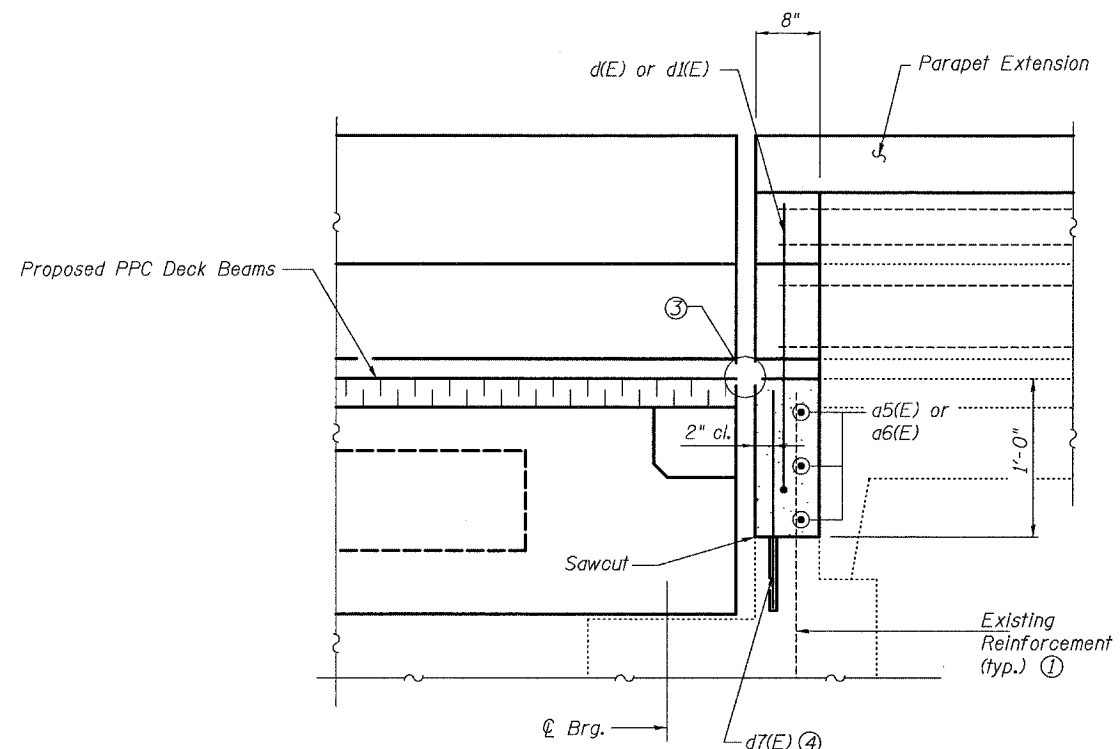
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
-	-	-	63	46	39 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

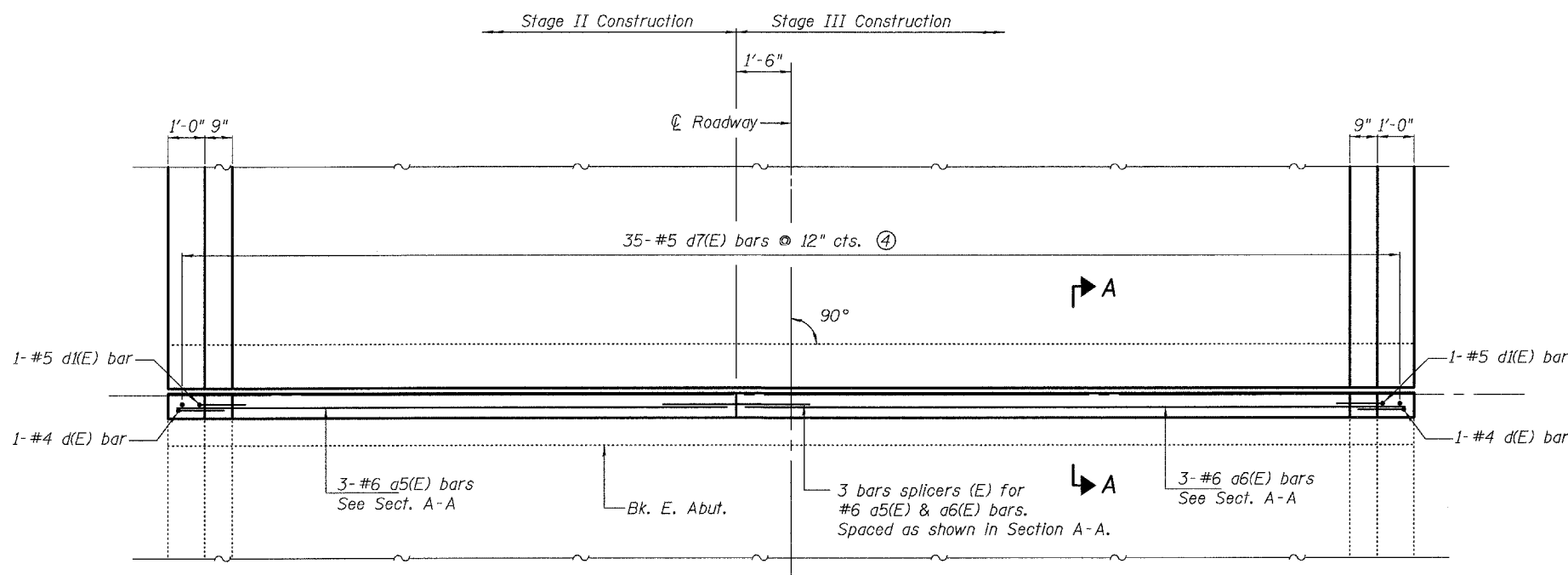
Contract #76899



EXISTING PARTIAL PLAN EAST ABUTMENT



SECTION A-A

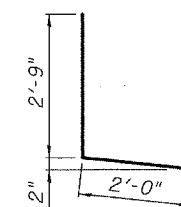


EXISTING PARTIAL PLAN EAST ABUTMENT

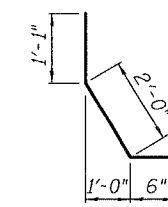
BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a5(E)	3	#6	15'-2"	—	
a6(E)	3	#6	18'-2"	—	
d(E)	2	#4	3'-9"	L	
d1(E)	2	#5	3'-7"	L	
d7(E)	35	#5	1'-7"	—	
Reinforcement Bars, Epoxy Coated				Pound	220
Concrete Superstructure				Cu. Yd.	1.9
Concrete Removal				Cu. Yd.	1.9

- Notes:
- Existing reinforcement bars shown are to be cleaned and incorporated into new construction.
  - See sheet 39 of 39 for bar splicer details.
  - See sheet 15 of 39 for Preformed Joint Strip Seal details.
  - Epoxy grout d7(E) bars in 7/8"φ x 9" minimum drilled holes. The grout and the method of application shall be approved by the Department. See Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.
  - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included in Concrete Removal.



Bar d(E)



Bar d1(E)

EAST ABUTMENT EXPANSION JOINT  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-2  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

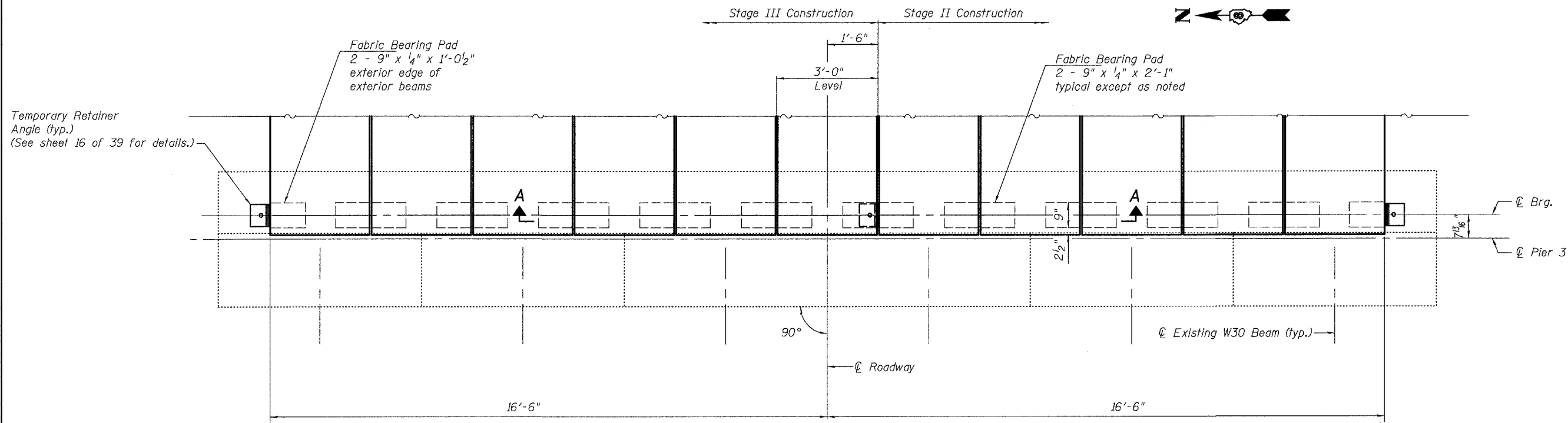
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

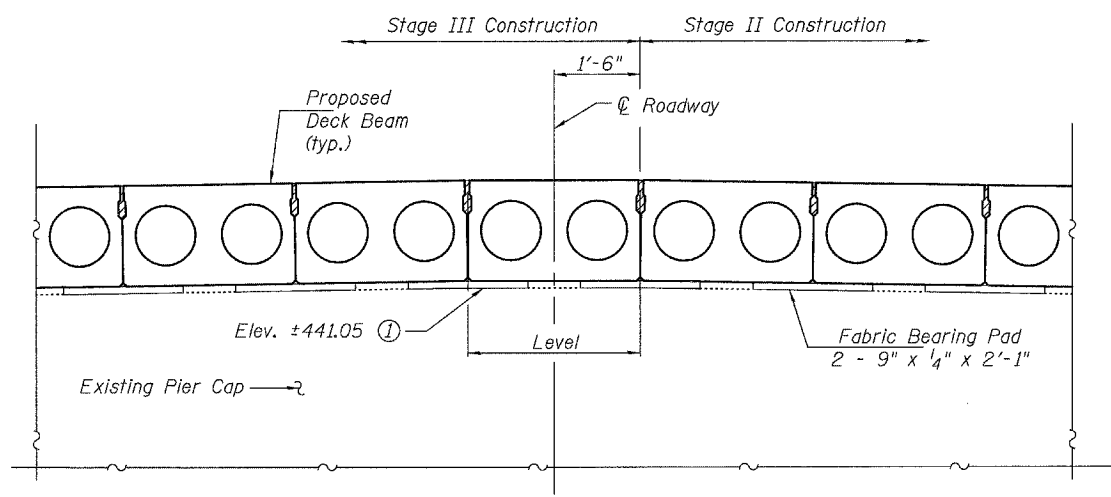
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	47
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2  
39 SHEETS

Contract #76899



**PLAN**



**SECTION A-A**

(Looking East)  
(Bituminous Surface Course and shim Bearing Pads not shown)

Notes:  
① Elevations are taken from existing plans.  
Contractor shall verify prior to ordering materials.

**PIER 3 LAYOUT**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

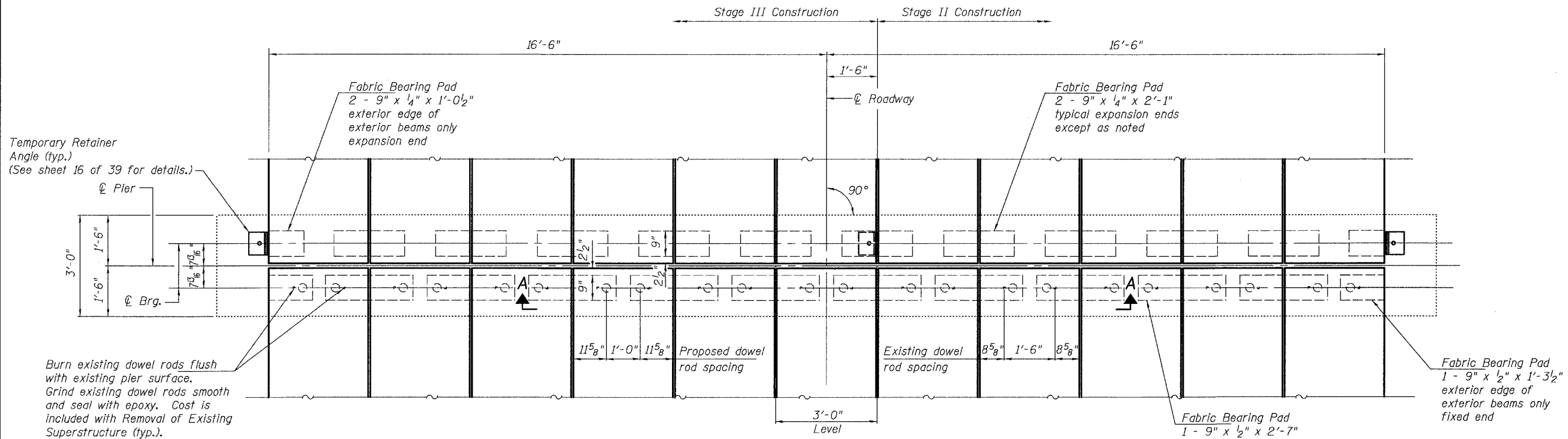
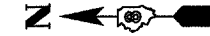
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	13	48
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2  
39 SHEETS

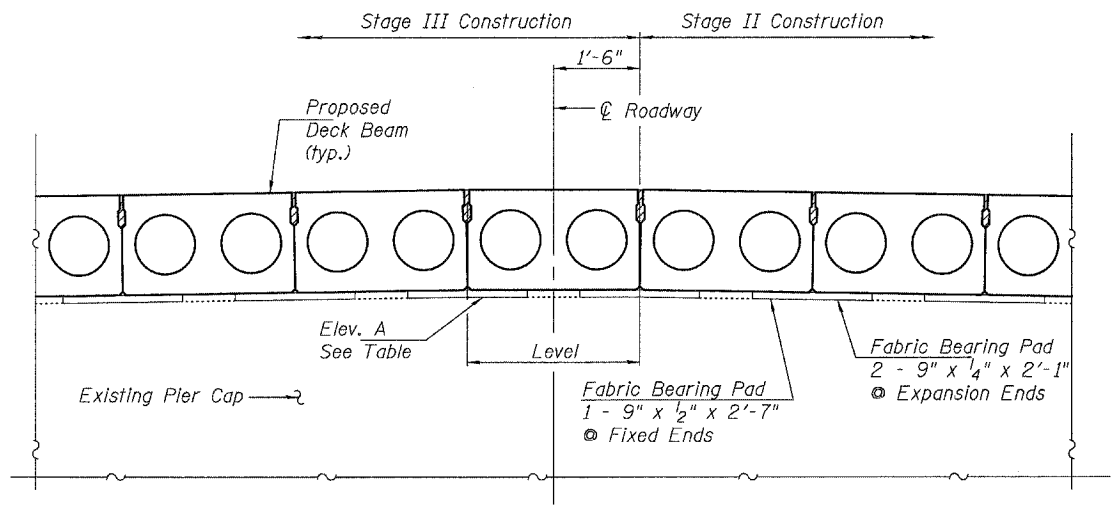
Contract #76899



Temporary Retainer  
Angle (typ.)  
(See sheet 16 of 39 for details.)

Burn existing dowel rods flush  
with existing pier surface.  
Grind existing dowel rods smooth  
and seal with epoxy. Cost is  
included with Removal of Existing  
Superstructure (typ.).

**PLAN**



**SECTION A-A**

(Looking East)  
(Bituminous Surface Course and shim Bearing Pads not shown)

**TABLE OF ELEVATIONS ①**

Pier No.	Elevation A
4	±441.08
5	±441.08
6	±441.06
7	±441.00
8	±440.92
9	±440.81
10	±440.70
11	±440.59
12	±440.48
13	±440.37

Notes:  
① Elevations are taken from existing plans.  
Contractor shall verify prior to ordering materials.

**PIERS 4-13 LAYOUT  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062**

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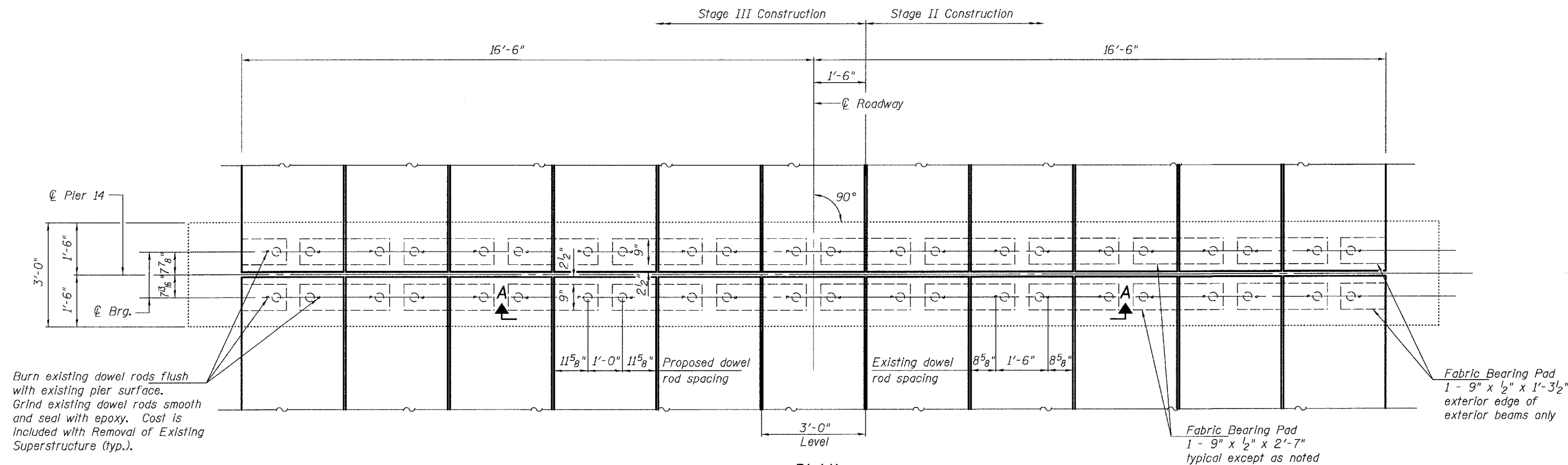
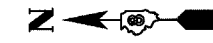


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

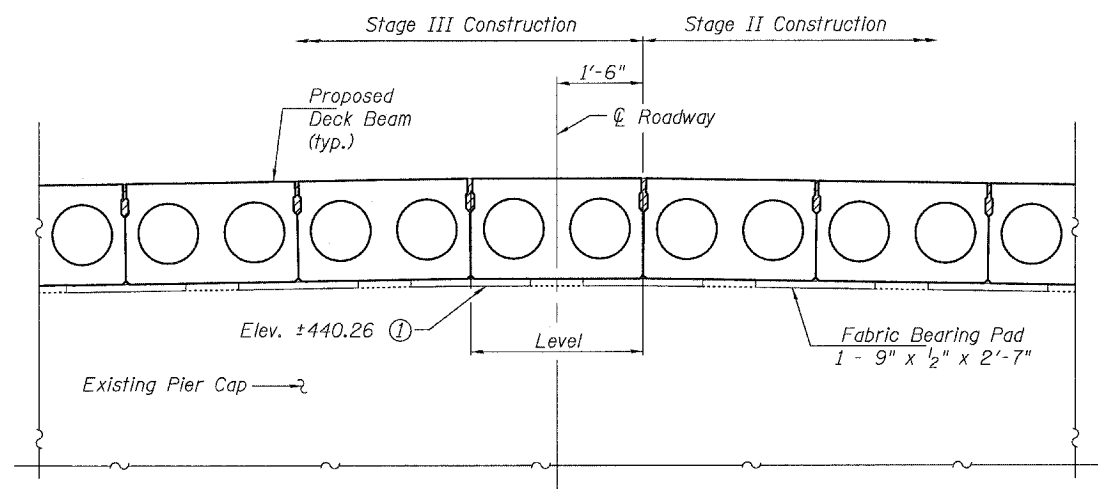
SHEET NO. 2  
39 SHEETS

Contract #76899



Burn existing dowel rods flush with existing pier surface. Grind existing dowel rods smooth and seal with epoxy. Cost is included with Removal of Existing Superstructure (typ.).

PLAN



SECTION A-A

(Looking East)  
(Bituminous Surface Course and shim Bearing Pads not shown)

- Notes:  
① Elevations are taken from existing plans.  
Contractor shall verify prior to ordering materials.

PIER 14 LAYOUT  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062

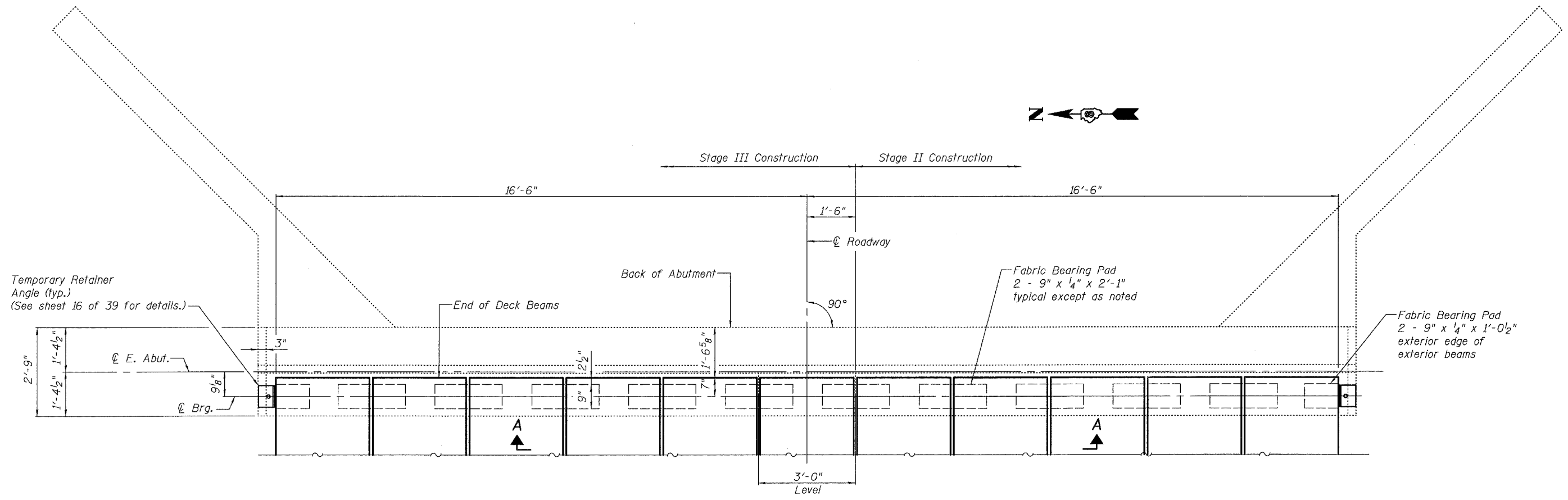
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

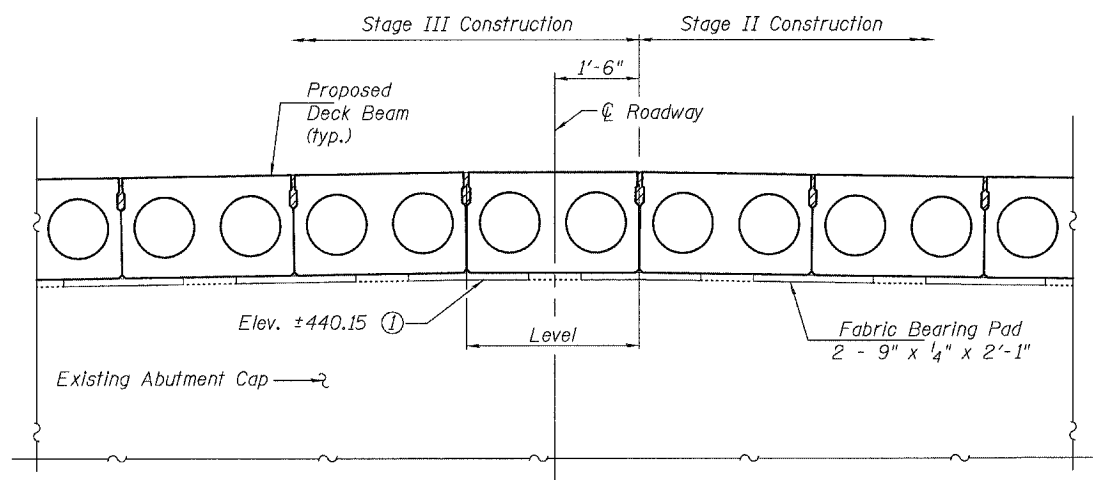
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-	-	-	63	50
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 2  
39 SHEETS

Contract #76899



**PLAN**



**SECTION A-A**

(Looking East)  
(Bituminous Surface Course and shim Bearing Pads not shown)

Notes:  
① Elevations are taken from existing plans.  
Contractor shall verify prior to ordering materials.

**EAST ABUTMENT LAYOUT**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

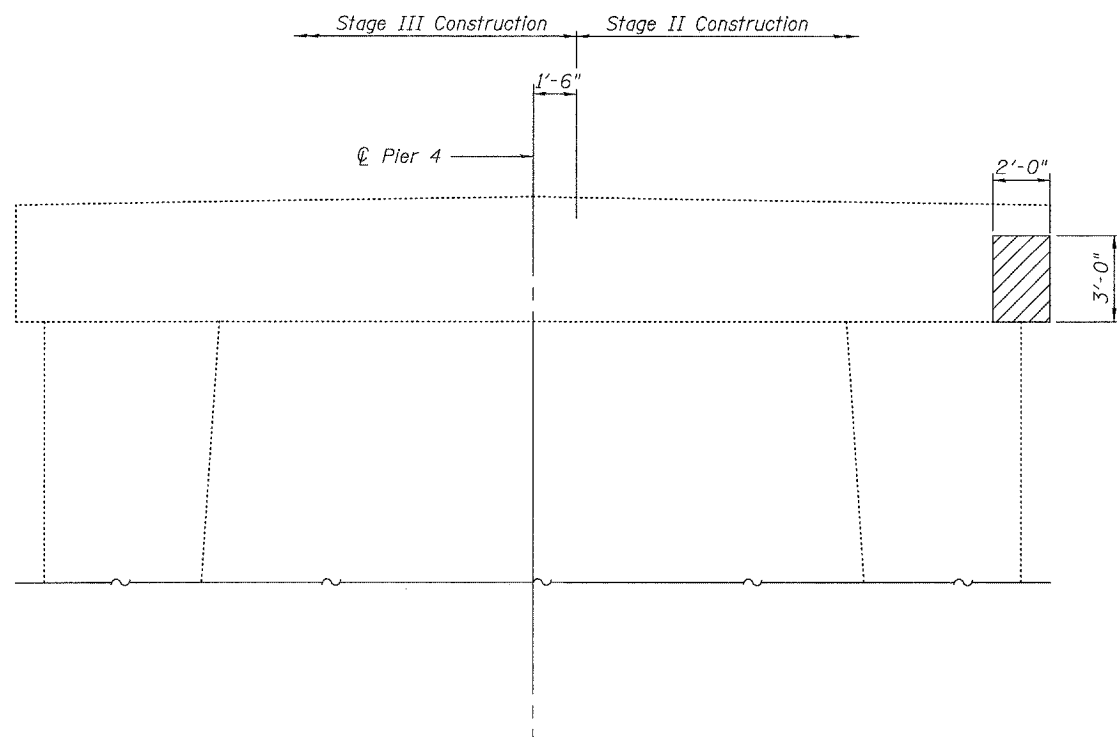
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

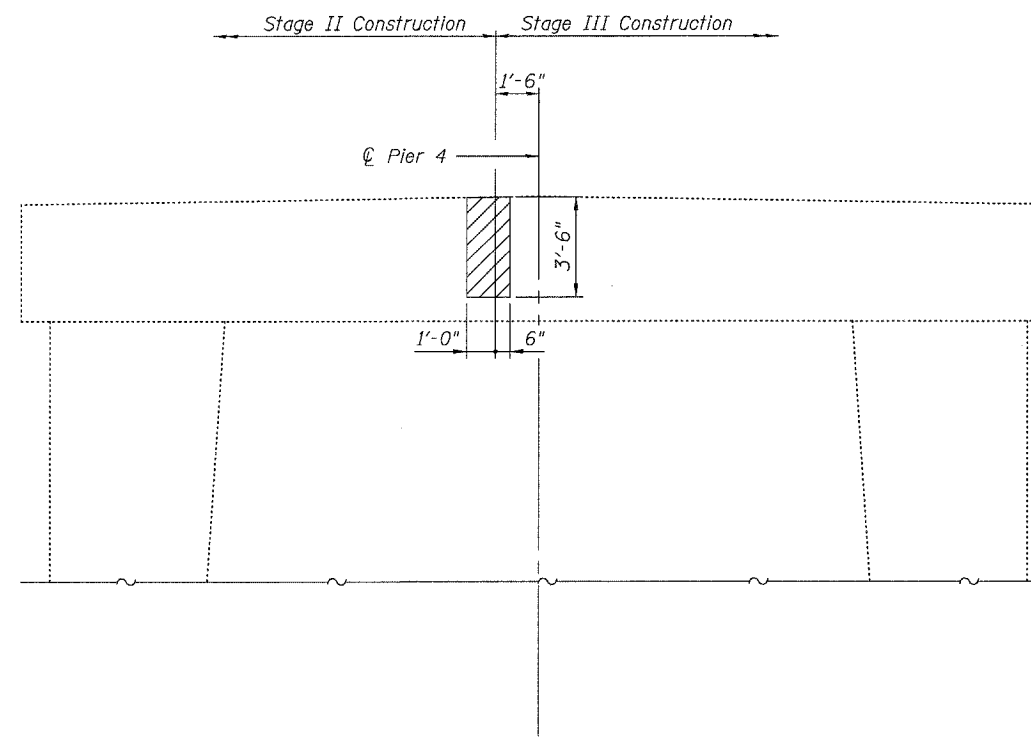
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-	-	-	63	51
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2  
39 SHEETS

Contract #76899



**WEST SIDE PIER 4**  
(Looking East)



**EAST SIDE PIER 4**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5''$ )	Sq. Ft.	11

**PIER 4 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

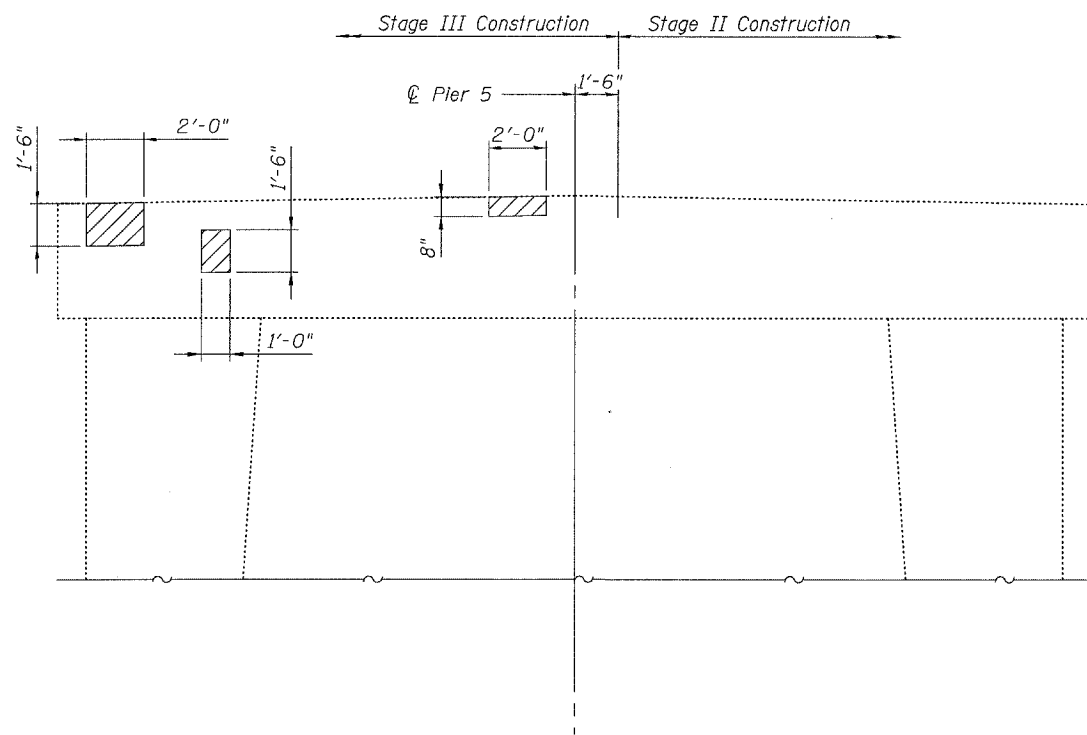
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

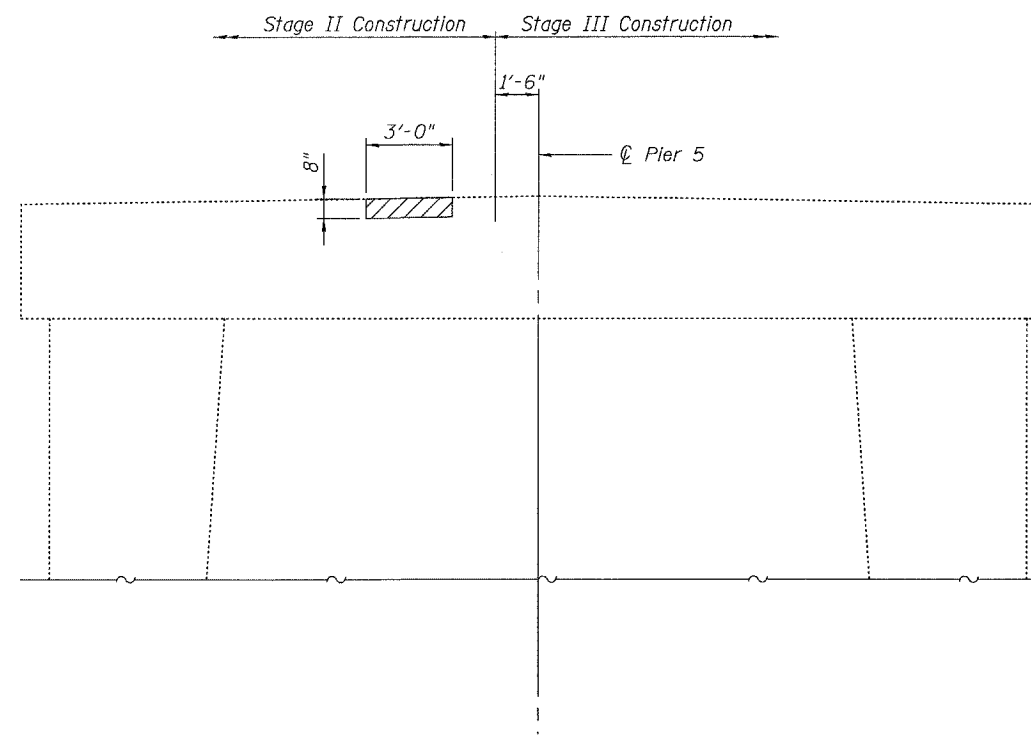
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-	-	-	63	52
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2  
39 SHEETS

Contract #76899



**WEST SIDE PIER 5**  
(Looking East)



**EAST SIDE PIER 5**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5"$ )	Sq. Ft.	8
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**PIER 5 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

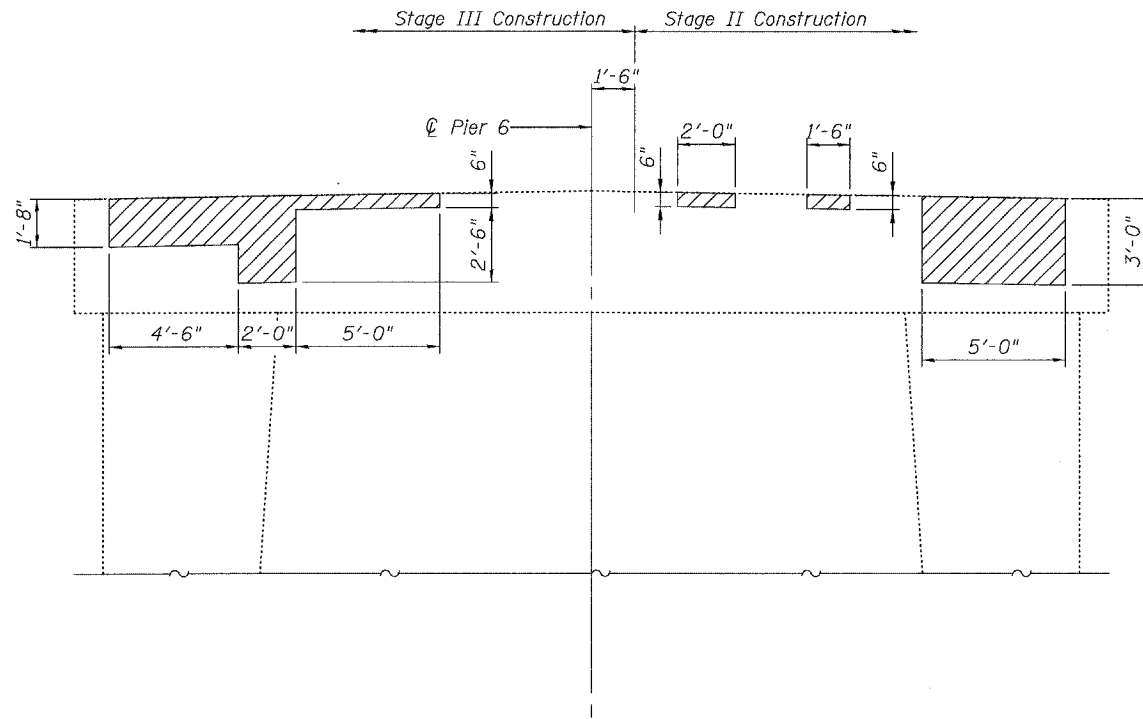
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

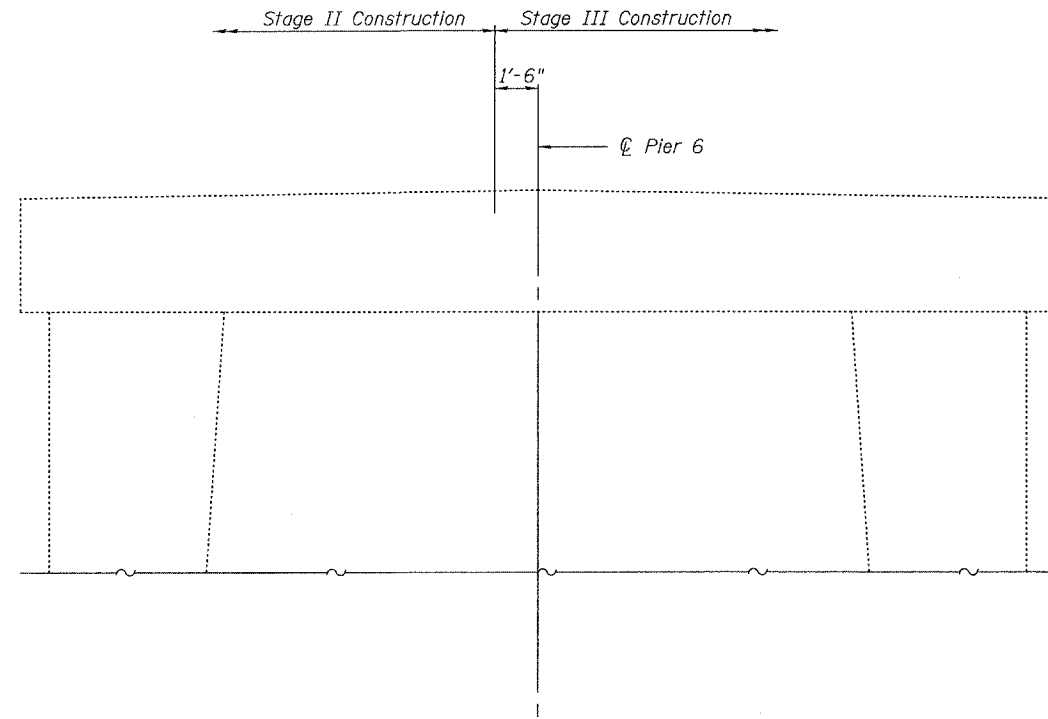
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-	-	-	63	53
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 2  
39 SHEETS

Contract #76899



**WEST SIDE PIER 6**  
(Looking East)



**EAST SIDE PIER 6**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5"$ )	Sq. Ft.	33

**PIER 6 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

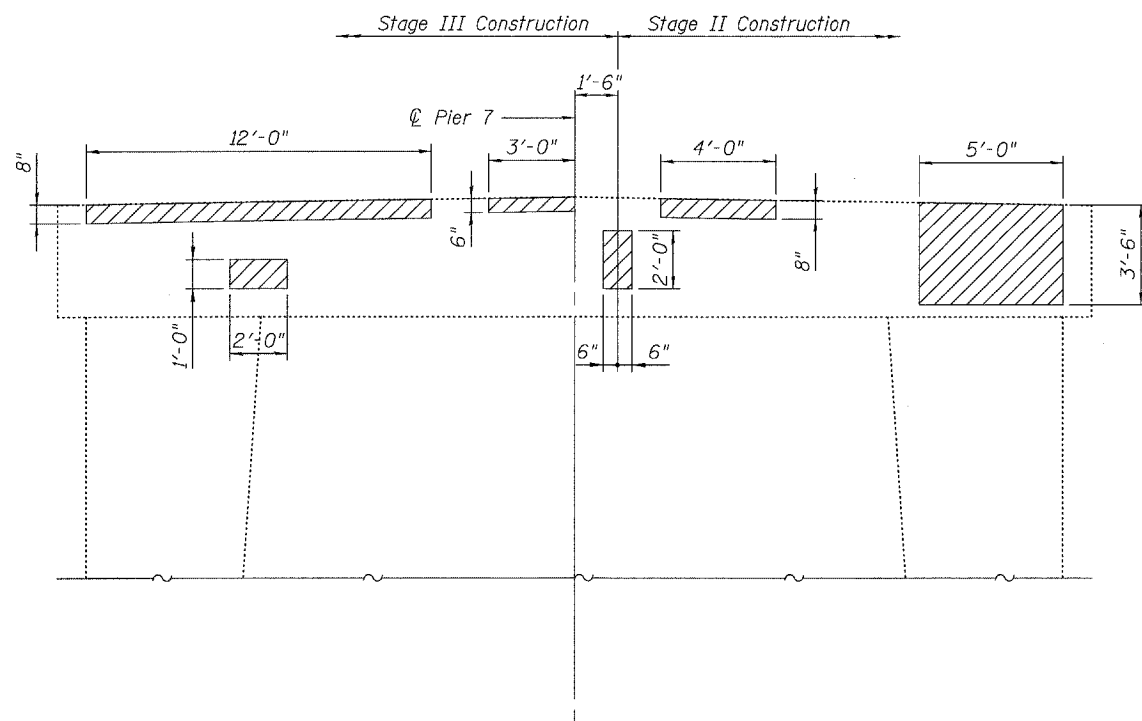
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

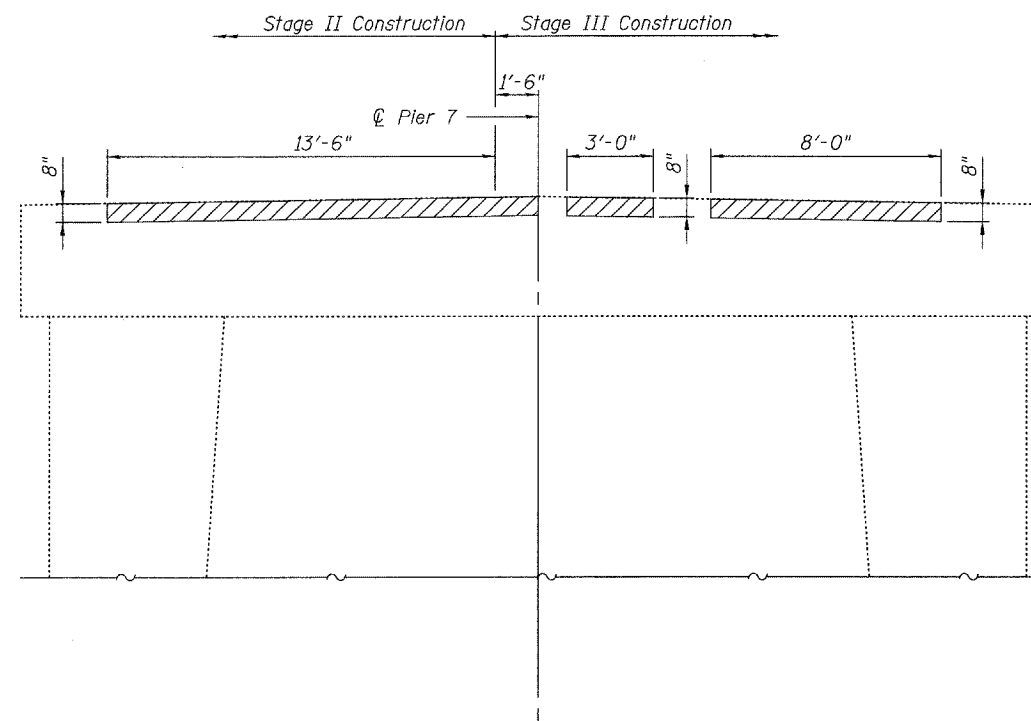
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-	-	-	63	5A
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3  
39 SHEETS

Contract #76899



**WEST SIDE PIER 7**  
(Looking East)



**EAST SIDE PIER 7**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5''$ )	Sq. Ft.	51

**PIER 7 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

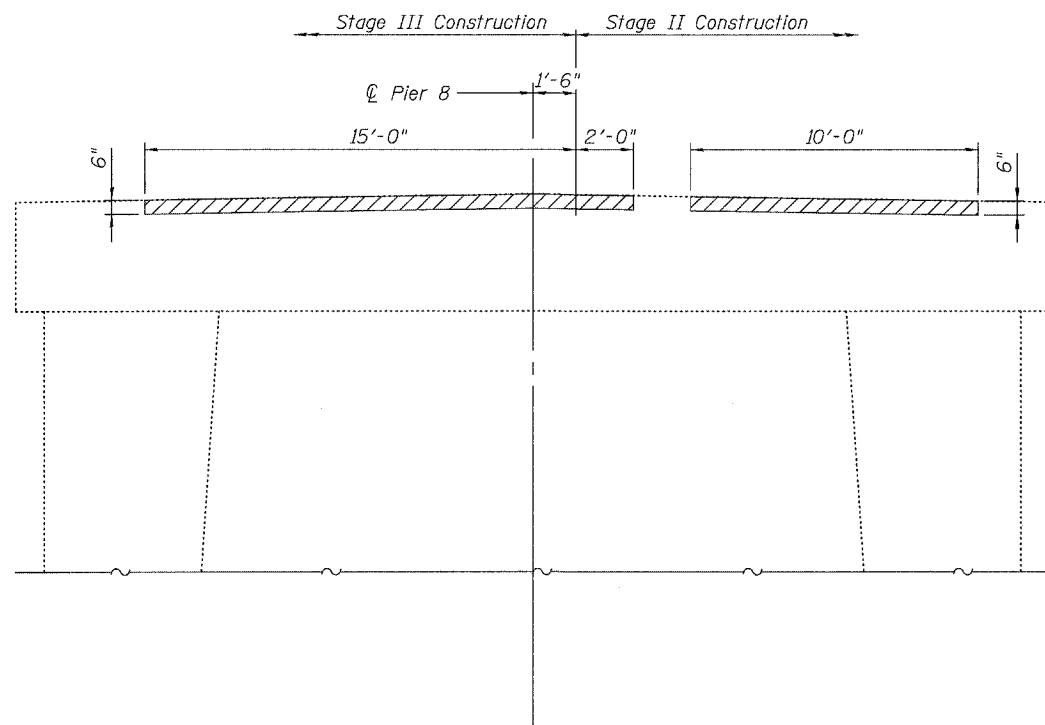
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

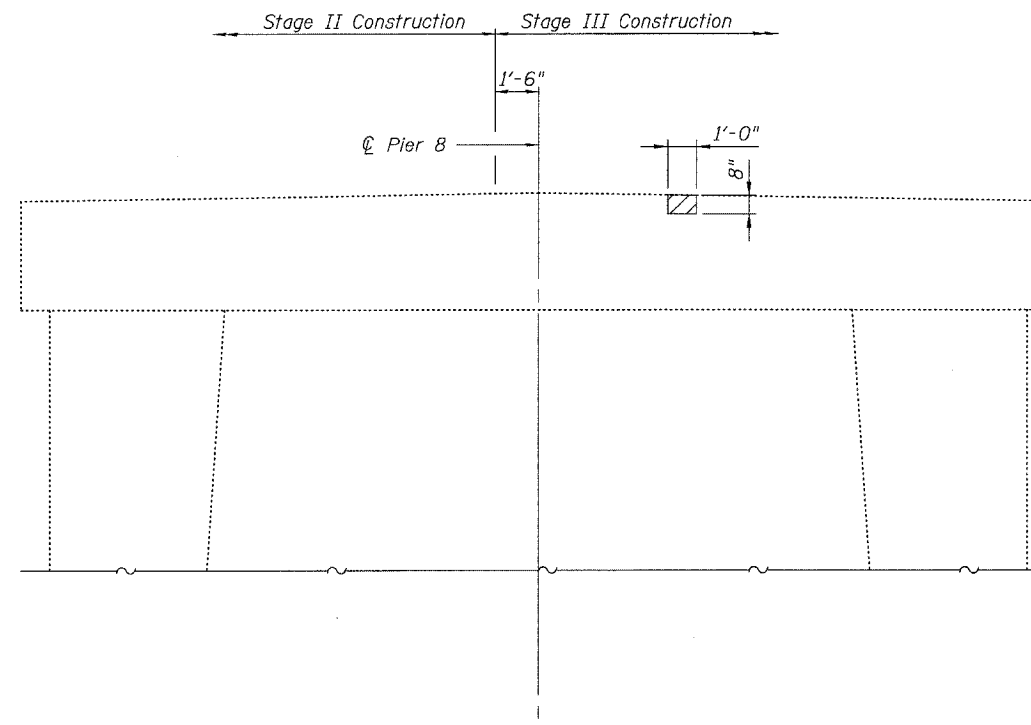
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-	-	-	63	55
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3  
39 SHEETS

Contract #76899



**WEST SIDE PIER 8**  
(Looking East)



**EAST SIDE PIER 8**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5''$ )	Sq. Ft.	14

**PIER 8 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

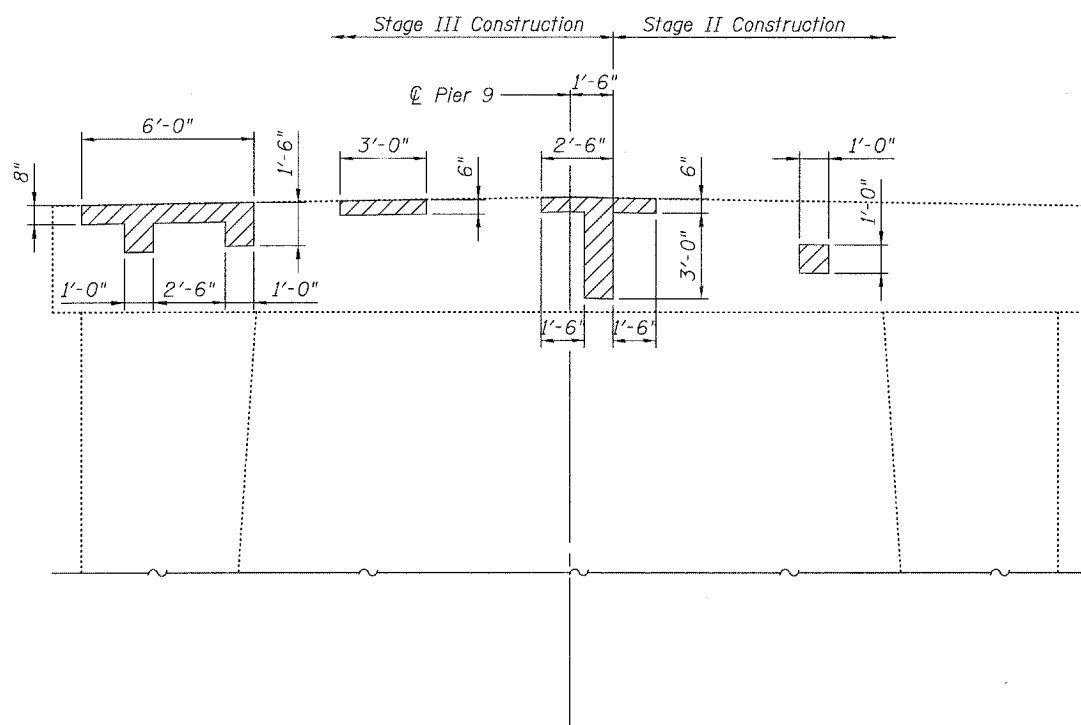
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

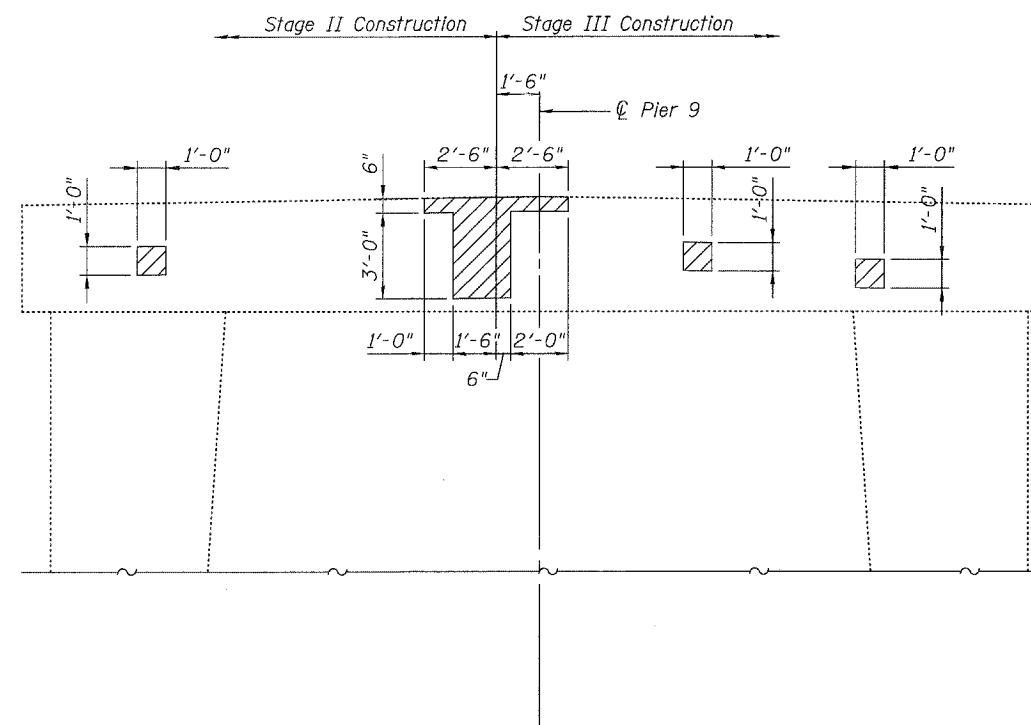
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-	-	-	63	56
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3  
39 SHEETS

Contract #76899



**WEST SIDE PIER 9**  
(Looking East)



**EAST SIDE PIER 9**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5''$ )	Sq. Ft.	25
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**PIER 9 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

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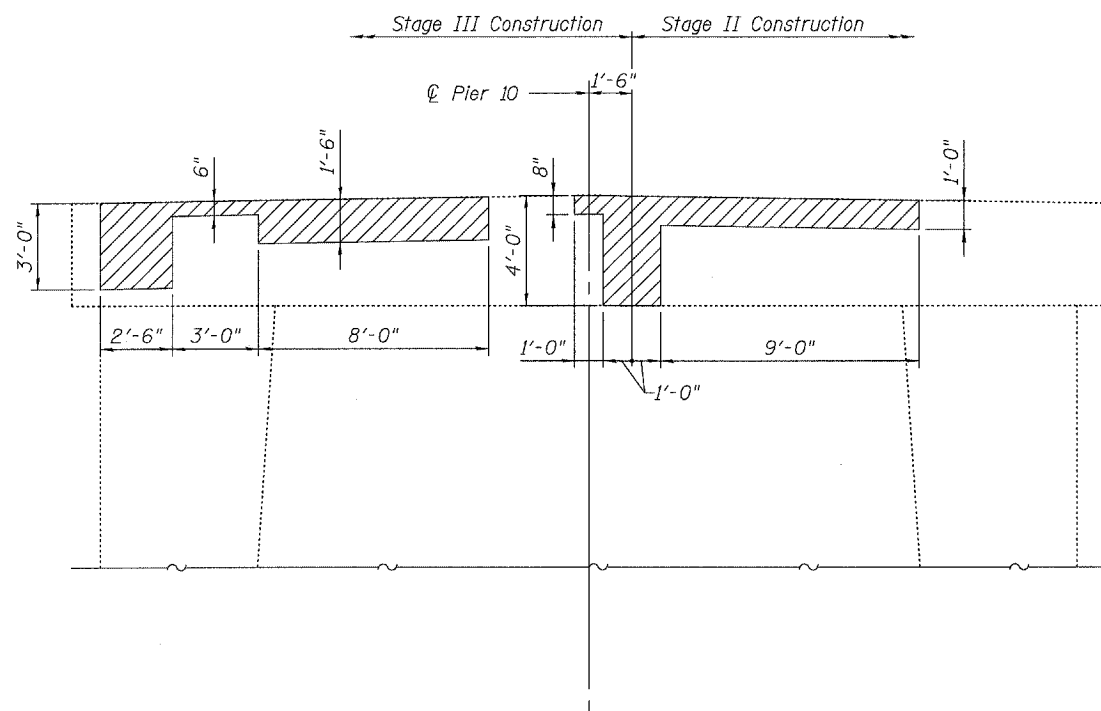


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

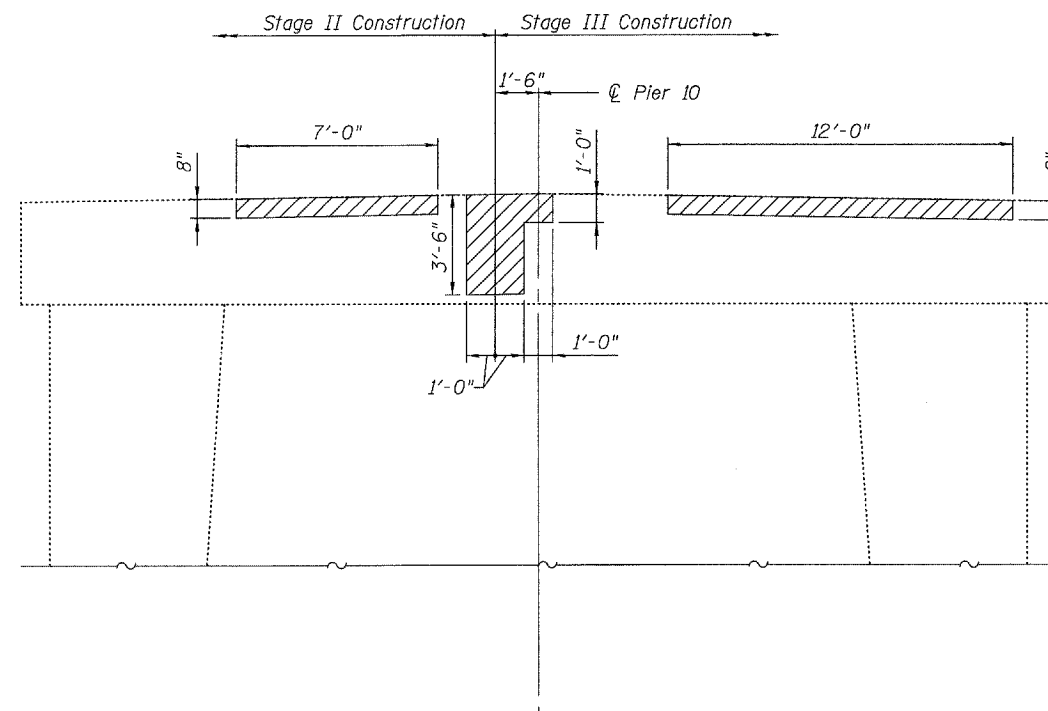
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET
-	-	-	63	51
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3  
39 SHEETS

Contract #76899



**WEST SIDE PIER 10**  
(Looking East)



**EAST SIDE PIER 10**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5''$ )	Sq. Ft.	59

**PIER 10 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

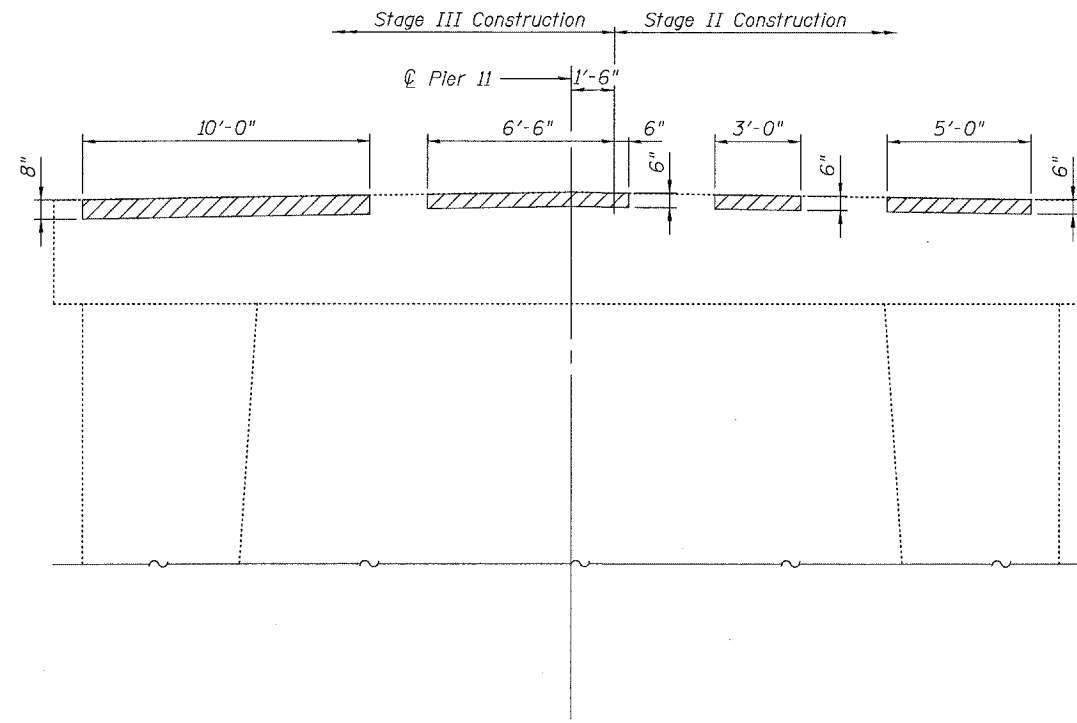
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

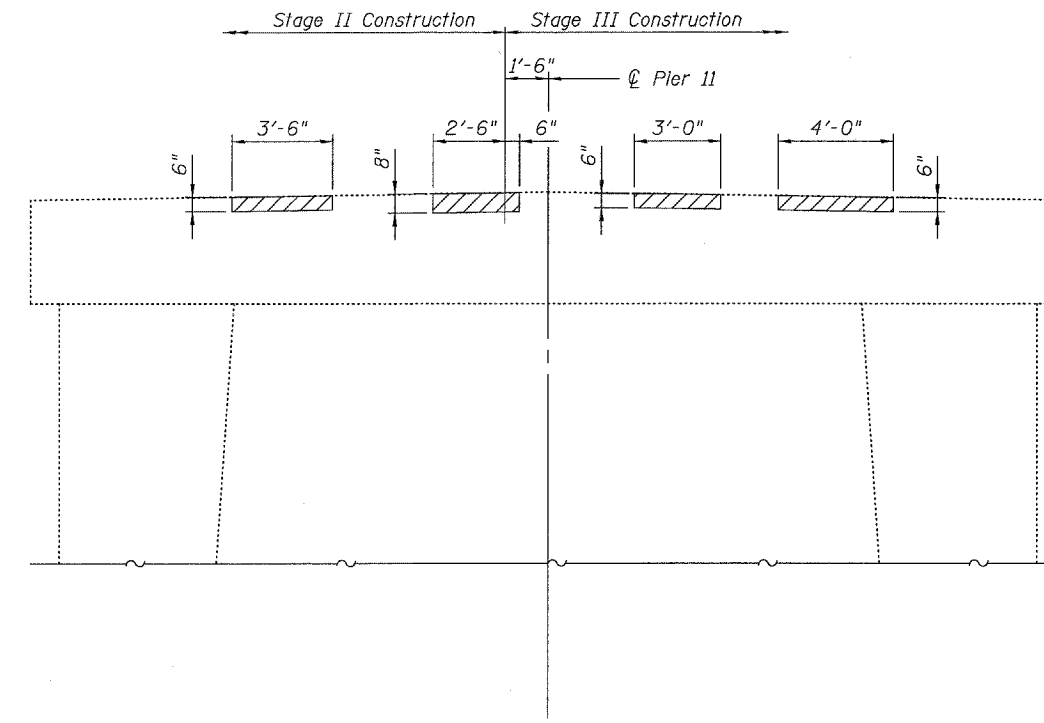
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-	-	-	63	58
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3  
39 SHEETS

Contract #76899



**WEST SIDE PIER 11**  
(Looking East)



**EAST SIDE PIER 11**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5"$ )	Sq. Ft.	21

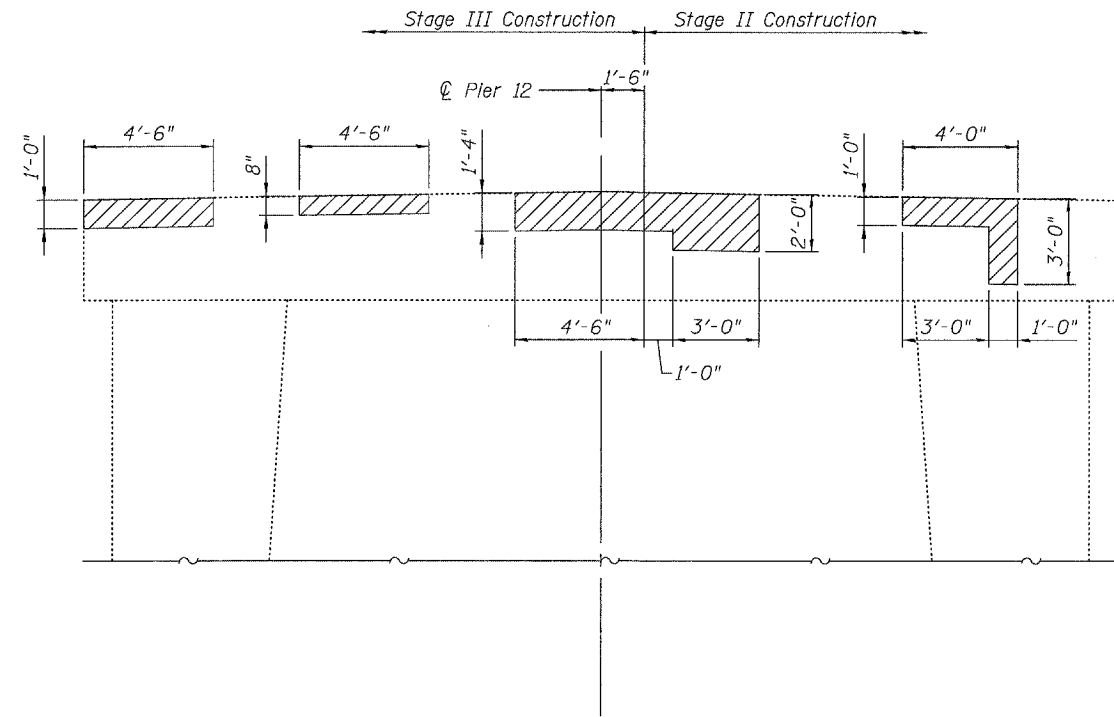
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**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

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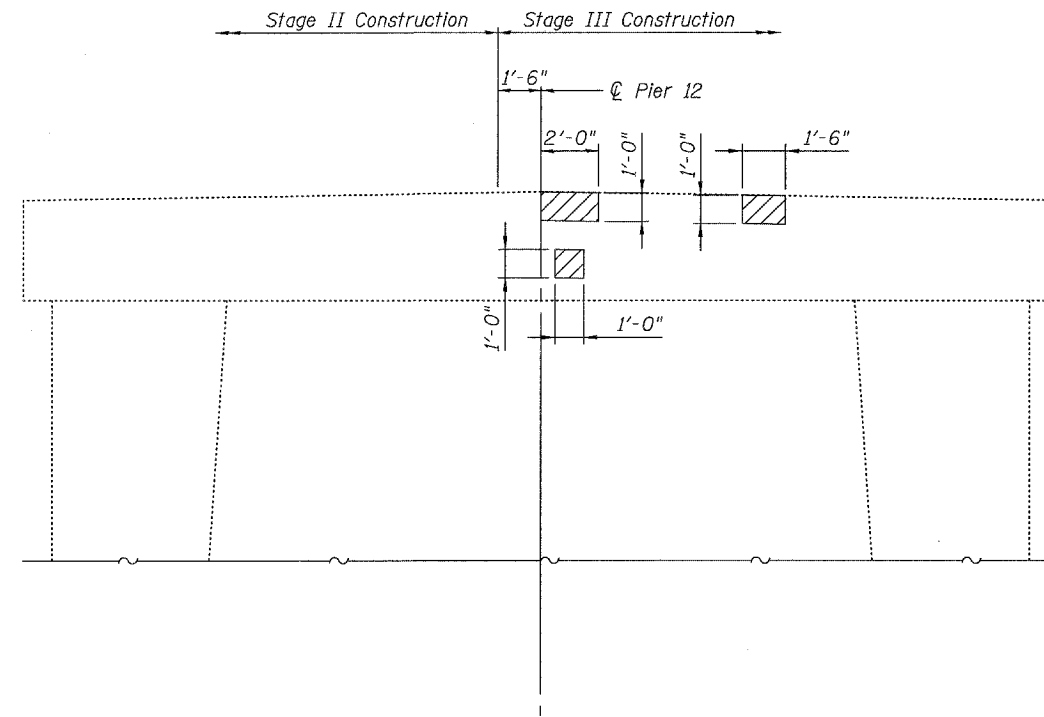
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.	SHEET NO. 35
-	-	-	63	59	39 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76899



**WEST SIDE PIER 12**  
(Looking East)



**EAST SIDE PIER 12**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete (≤ 5")	Sq. Ft.	31

**PIER 12 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

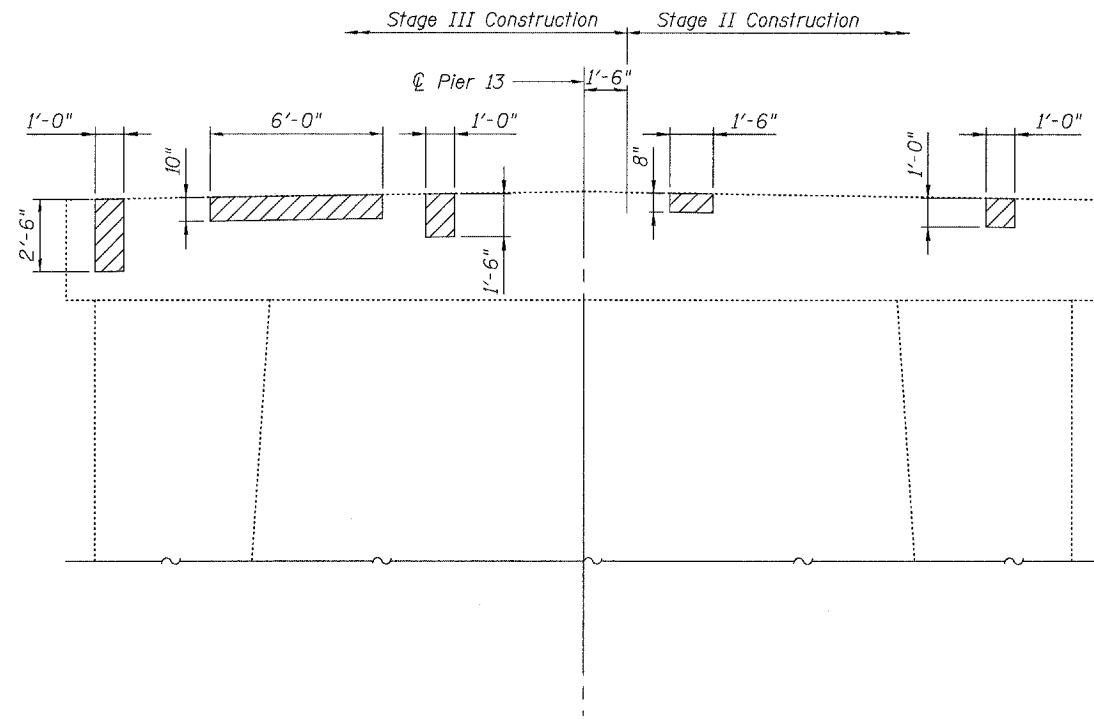
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DEPARTMENT OF TRANSPORTATION

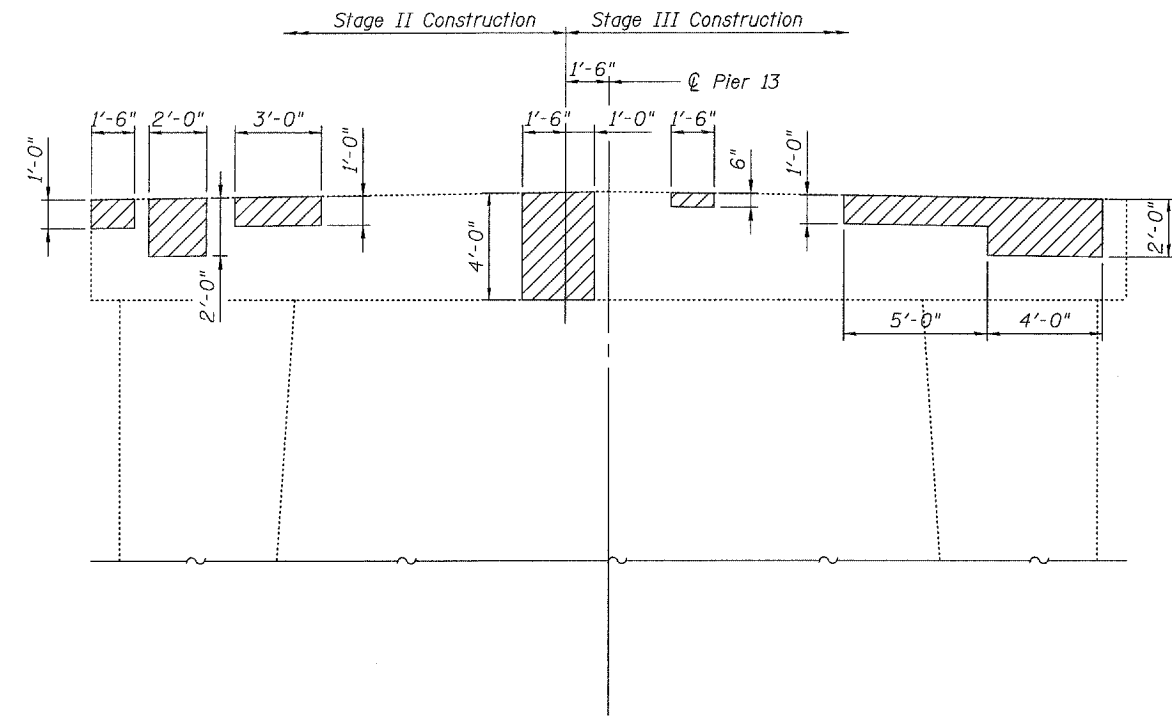
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	63	60
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 36  
39 SHEETS

Contract #76899



**WEST SIDE PIER 13**  
(Looking East)



**EAST SIDE PIER 13**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete (≤ 5")	Sq. Ft.	43
--------------------------------------	---------	----

**PIER 13 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

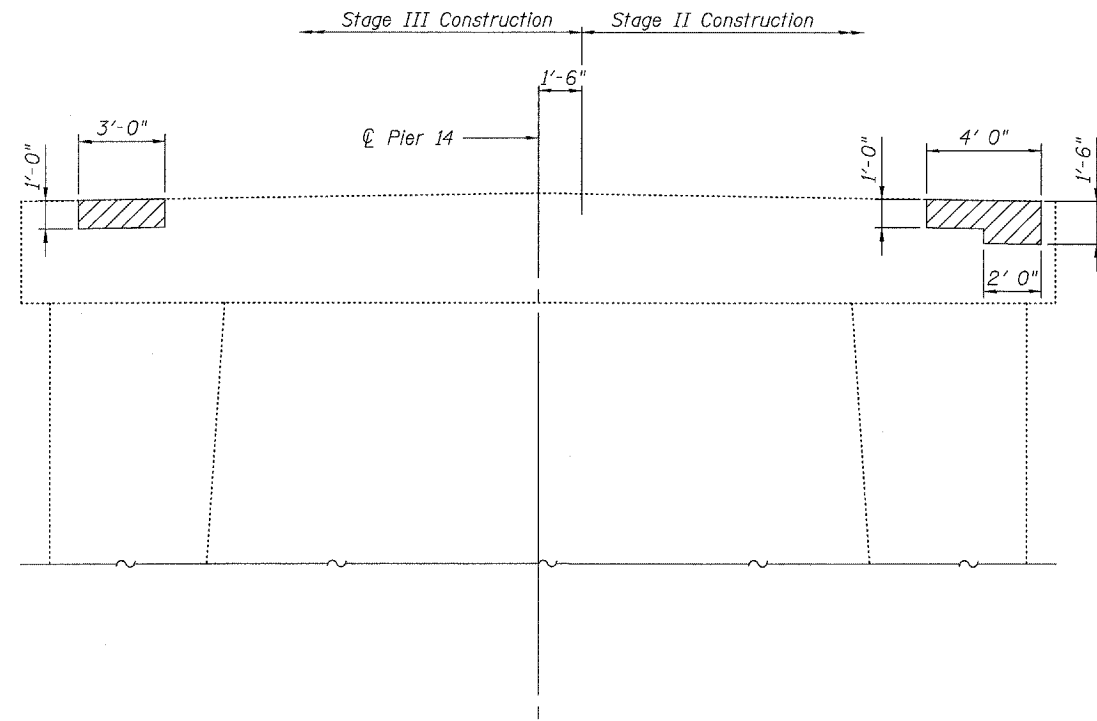
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

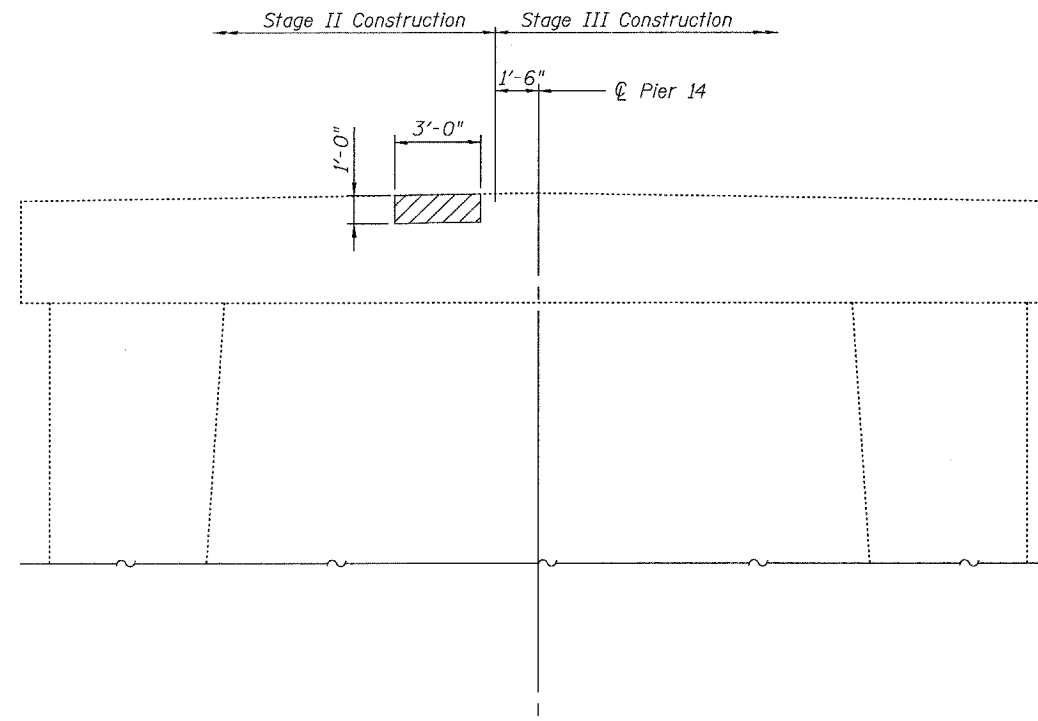
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-	-	-	63	61
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 31  
39 SHEETS

Contract #76899



**WEST SIDE PIER 14**  
(Looking East)



**EAST SIDE PIER 14**  
(Looking West)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5"$ )	Sq. Ft.	11

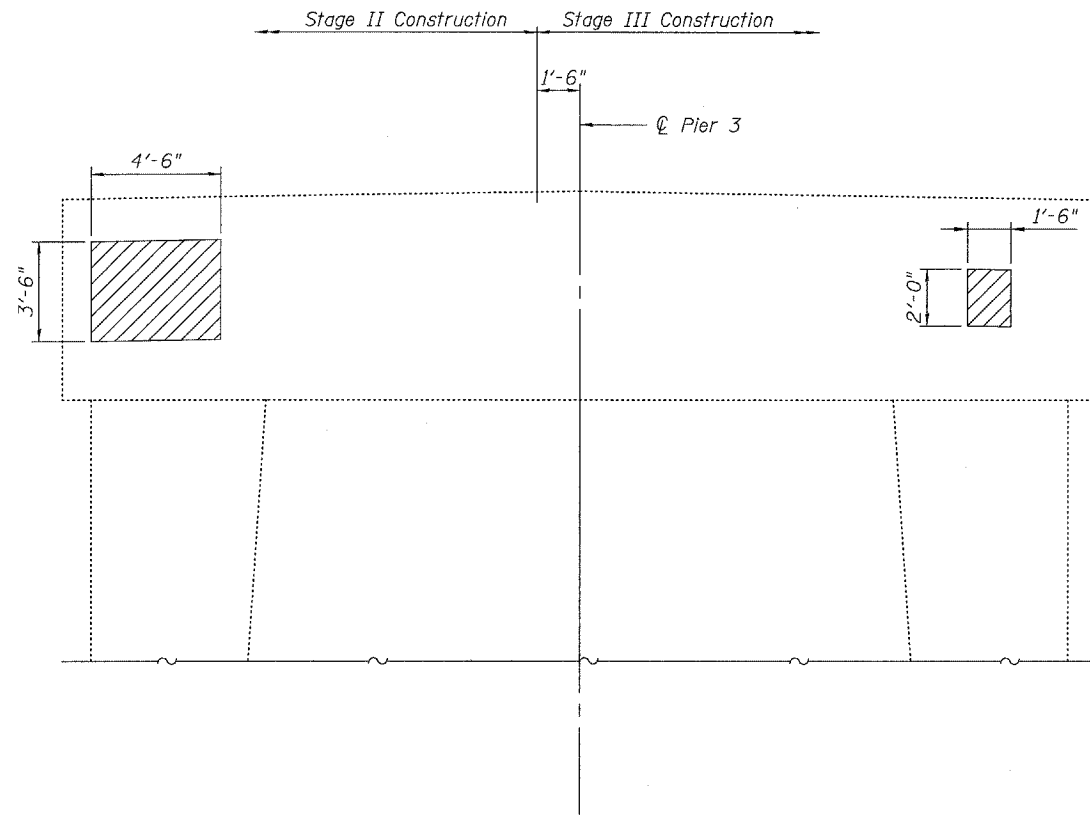
**PIER 14 CONCRETE REPAIRS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-2**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**

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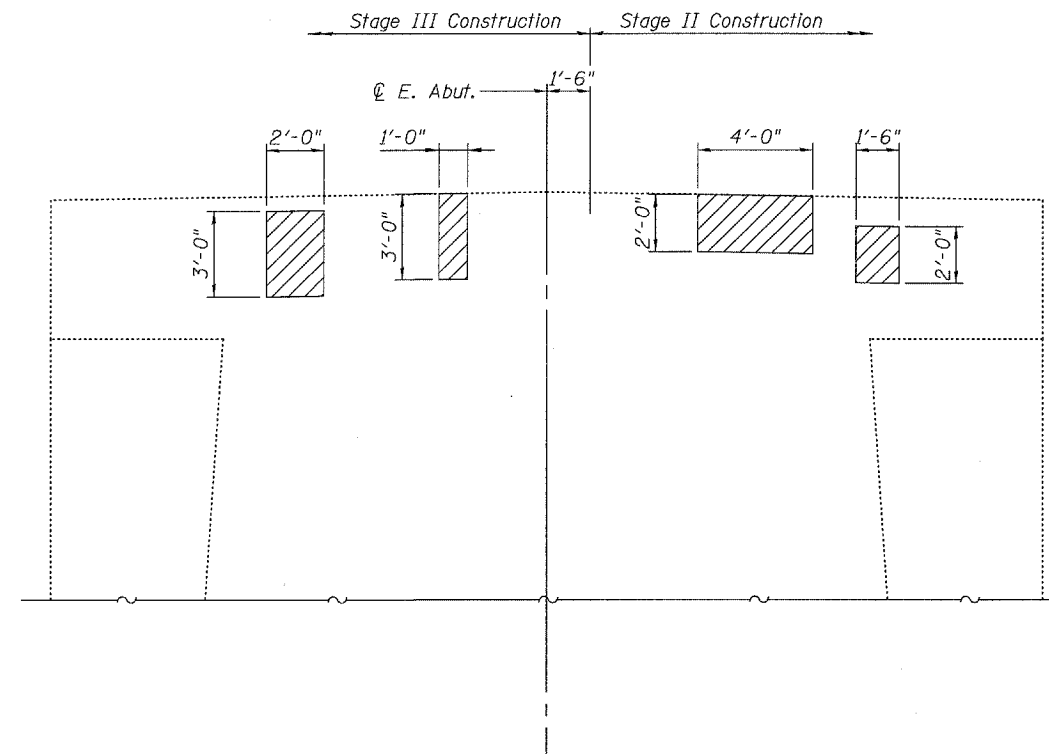
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 39
-	-	-	63	62	39 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract #76899



**EAST SIDE PIER 3**  
(Looking West)



**EAST ABUTMENT**  
(Looking East)

Note:  
Hatched area indicates approximate area of Structural Repair of Concrete. Exact repair area to be determined by Engineer.

**BILL OF MATERIAL**

Structural Repair of Concrete ( $\leq 5"$ )	Sq. Ft.	39

**EAST ABUTMENT & PIER 3  
CONCRETE REPAIRS  
OLD U.S. ROUTE 50 OVER  
SHOAL CREEK  
F.A.S. ROUTE 1780 - SECTION 24-BR-2  
CLINTON COUNTY  
STA. 102+51.47  
STRUCTURE NO. 014-0062**

PLOT DATE = 05/15/2006  
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	-	-	03	03
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3  
39 SHEETS

Contract #76899

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length. All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity =  $1.25 \times f_y \times A_f$   
(Tension in kips)

② Minimum \*Pull-out Strength =  $1.25 \times f_{s_{allow}} \times A_f$   
(Tension in kips)

Where  $f_y$  = Yield strength of lapped reinforcement bars in ksi.

$f_{s_{allow}}$  = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)

$A_f$  = Tensile stress area of lapped reinforcement bars.

\* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

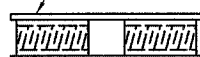
The diameter of this part is the same as the diameter of the bar spliced.

**ROLLED THREAD DOWEL BAR**



**\*\* ONE PIECE**

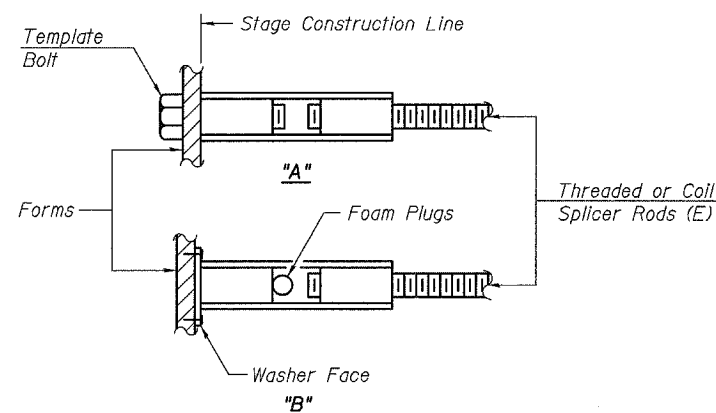
Wire Connector



**WELDED SECTIONS**

**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

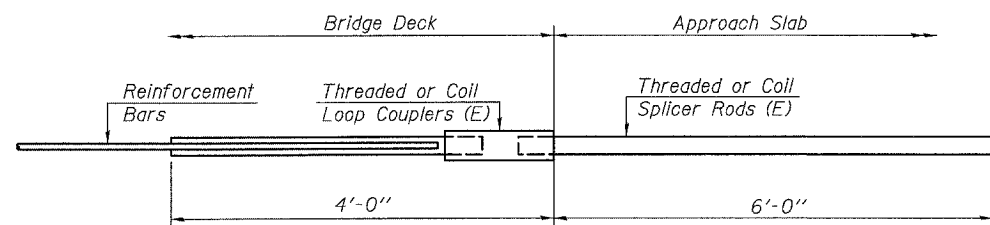


**INSTALLATION AND SETTING METHODS**

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

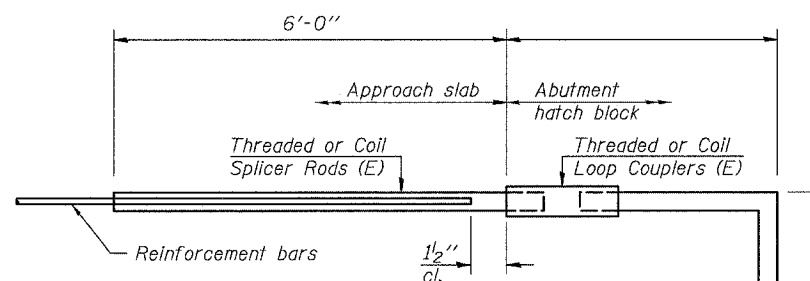
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



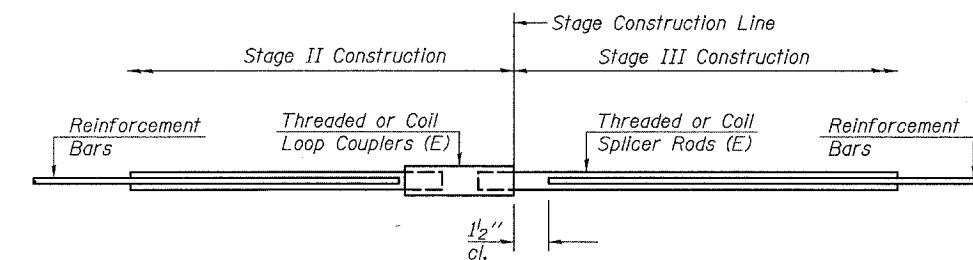
**FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



**FOR PILE BENT ABUTMENTS**

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



**STANDARD**

Bar Size	No. Assemblies Required	Location
#5	8	W. Abut. Exp. Jt.
#6	3	W. Abut. Exp. Jt.
#5	8	Pier 3 Exp. Jt.
#6	3	E. Abut. Exp. Jt.
#5	66	Exp. Jt. Blockouts Beams @ Piers 3-13 & E. Abut.

**BAR SPLICER ASSEMBLY DETAILS**  
**OLD U.S. ROUTE 50 OVER**  
**SHOAL CREEK**  
**F.A.S. ROUTE 1780 - SECTION 24-BR-**  
**CLINTON COUNTY**  
**STA. 102+51.47**  
**STRUCTURE NO. 014-0062**