

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAI ROUTE 80 (I-80)  
SECTION (06-2) BR-3,4  
PROJECT : ACNHPP-0080(401)  
**DUAL STRUCTURE REPLACEMENT  
CROSSOVERS AND RESURFACING  
BUREAU COUNTY**

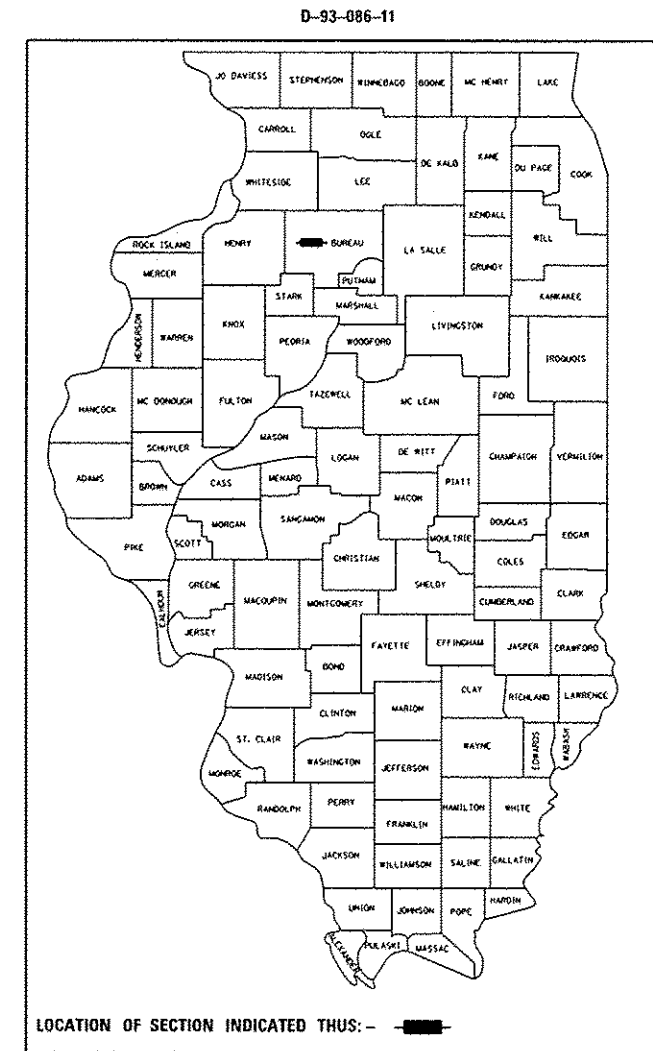
C-93-136-11

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	1
		ILLINOIS	CONTRACT NO. 66998	

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FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

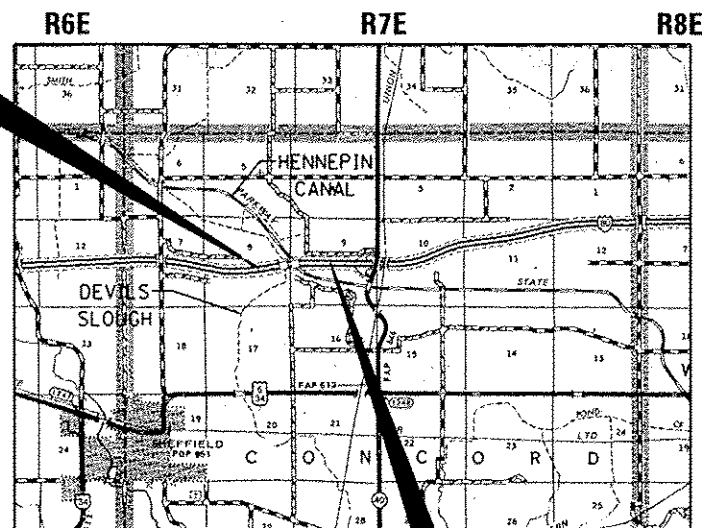


EXISTING STRUCTURES OVER DEVIL'S SLOUGH  
S.N. 006-0009 EB STA. 422+57.15 TO STA. 423+63.45  
S.N. 006-0010 WB STA. 422+66.67 TO STA. 423+72.88

EXISTING STRUCTURES OVER HENNEPIN CANAL ARE THREE SPAN STEEL BEAMS WITH A CONCRETE DECK AND BITUMINOUS OVERLAY SUPPORTED BY OPEN ABUTMENTS FOUNDED ON METAL SHELL PILES AND CONCRETE PIERS FOUNDED ON PRECAST CONCRETE PILES.  
S.N. 006-0011 EB STA. 426+40.91 TO STA. 427+88.33 (BACK TO BACK ABUTMENTS)  
S.N. 006-0012 WB STA. 425+52.83 TO STA. 426+98.38 (BACK TO BACK ABUTMENTS)

EXISTING LAND BRIDGE STRUCTURE IS A 12" THICK REINFORCED STRUCTURAL SLAB FOUNDED ON REINFORCED CONCRETE PILE CAPS ON METAL SHELL PILES.  
EB STA. 423+94.53 TO STA. 426+40.91  
WB STA. 424+10.27 TO STA. 425+52.83

PROPOSED STRUCTURES OVER HENNEPIN CANAL ARE THREE SPAN STEEL BEAMS WITH A CONCRETE DECK SUPPORTED BY INTEGRAL ABUTMENTS FOUNDED ON METAL SHELL PILES AND CONCRETE PIERS FOUNDED ON PRECAST CONCRETE PILES  
S.N. 006-0184 EB STA. 426+23.43 TO STA. 428+06.31  
S.N. 006-0185 WB STA. 425+34.22 TO STA. 427+15.49



**BEGIN IMPROVEMENT  
STA. 404 + 59.85 (EB & WB)**

**END IMPROVEMENT  
STA. 444 + 69.24 (EB)  
STA. 444 + 87.68 (WB)**



LOCATION MAP  
NOT TO SCALE

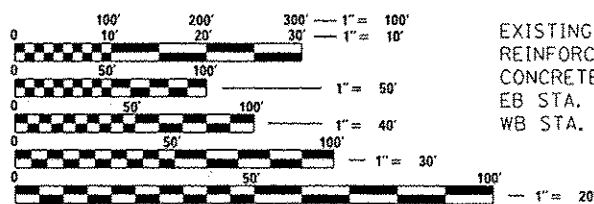
**GROSS LENGTH**

4009 FT. (EB) = 0.759 MILE  
4028 FT. (WB) = 0.763 MILE

**NET LENGTH**

3590 FT. (EB) = 0.680 MILE  
3604 FT. (WB) = 0.683 MILE

**FUNCTIONAL CLASSIFICATION  
RURAL INTERSTATE  
2011 ADT = 17,100  
P.V. = 49% S.U. = 6% M.U. = 45%**



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

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

PROJECT ENGINEER: CRAIG REED, P.E.  
PROJECT MANAGER: MARK JONES, P.E.

CONTRACT NO. 66998



*Brian Heil* 7/30/13  
BRIAN S. HEIL DATE

EXPIRES: 11/30/13

COVERS ALL SHEETS EXCEPT:  
LIGHTING PLANS SHT 43-44 (PROVIDED BY IDOT CENTRAL OFFICE)



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *Aug. 13<sup>th</sup>* 20 *13*

*Paul A. [Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*October 4* 20 *13*  
*John D. Baramelli, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

*October 4* 20 *13*  
*Omer Osman, P.E.*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**HIGHWAY STANDARDS**

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 420401-09 BRIDGE APPROACH PAVEMENT CONNECTOR
- 482001-02 HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
- 515001-03 NAME PLATE FOR BRIDGES
- 542301-03 PRECAST REINFORCED CONCRETE FLARED END SECTION
- 601001-04 SUB-SURFACE DRAINS
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630201-06 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-06 SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
- 631011-09 TRAFFIC BARRIER TERMINAL, TYPE 2
- 631031-11 TRAFFIC BARRIER TERMINAL, TYPE 6
- 635001-01 DELINEATORS
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 642001-02 SHOULDER RUMBLE STRIP 16 IN.
- 701101-03 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
- 701401-07 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701406-07 LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
- 701416-07 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH CROSSOVER AND BARRIER
- 701901-02 TRAFFIC CONTROL DEVICES
- 704001-07 TEMPORARY CONCRETE BARRIER
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-03 SIGN PANEL ERECTION DETAILS
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
- 780001-03 TYPICAL PAVEMENT MARKINGS
- 781001-03 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
- 782001 PRISMATIC CURB REFLECTORS
- 825001-01 LIGHTING CONTROLLER 240V, POLE MOUNTED

830026

**COMMITMENTS**

1. THE MULTI-USE PATH AND EQUESTRIAN TRAIL WILL HAVE A MINIMUM VERTICAL CLEARANCE OF 8FT.
2. PROVIDE A SILT FENCE AROUND THE WETLAND DELINEATED AT STA. 431+73 TO STA. 435+09.
3. NO OPEN FLAMES OR SMOKING WILL BE ALLOWED ON IDNR PROPERTY.
4. NO OPEN FLAMES WILL BE ALLOWED ON IDOT RIGHT OF WAY.
5. PLACE STONE DUMPED RIPRAP ALONG THE HENNEPIN CANAL'S WATER EDGE WITHIN THE PROJECT LIMITS.
6. BRIDGE DECK DRAINS SHALL NOT EMPTY ONTO EITHER THE PATH OR THE TRAIL.
7. THE EQUESTRIAN TRAIL WILL BE REPLACED WITH 10" OF CA 10 AGGREGATE.
8. CANAL EXCAVATION WILL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE IDNR.
9. DEBRIS FROM BRIDGE DEMOLITION WILL NOT BE ALLOWED TO FALL ON THE MULTI-USE PATH OR INTO THE CANAL.
10. THE MULTI-USE PATH WILL REMAIN OPEN DURING DAYLIGHT HOURS WITH A MINIMUM WIDTH OF FIVE FEET AND SIGNAGE INSTRUCTING THE CYCLIST TO DISMOUNT AND WALK THROUGH THE CONSTRUCTION ZONE. A FLAGGER MAY BE PRESENT AS NEEDED TO DIRECT PATH USERS THROUGH THE WORK ZONE.
11. THE EQUESTRIAN TRAIL WILL HAVE INTERMITTENT CLOSURES WHEN WORKING ON THE WEST ABUTMENTS.
12. THE CANAL SHALL BE KEPT OPEN WITH POSSIBLE NIGHT CLOSURES. A CAUSEWAY MAY BE USED IN THE CANAL BUT IT MUST HAVE A DRAFT OF 4 TO 5 FEET, WIDTH OF 15 FEET, AND VERTICAL CLEARANCE OF 7 TO 8 FEET. ANY DISTURBANCE TO THE CANAL CAUSED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO THE ORIGINAL CONDITION.
13. AFTER PROJECT COMPLETION, THE EAST CROSSOVER WILL BE CLOSED AND THE WEST CROSSOVER WILL BE REDUCED TO A 30 FOOT OPENING FOR AUTHORIZED AND EMERGENCY VEHICLES. THE EXISTING MAINTENANCE CROSSOVER EAST OF THE CANAL WILL BE REMOVED.
14. NO TREES SHALL BE REMOVED FROM IDNR PROPERTY.
15. THE CONTRACTOR SHALL CONFINE HIS/HER OPERATIONS TO WITHIN THE ROW OF I-80. PARKING OF VEHICLES OR STORAGE OF MATERIALS IS NOT ALLOWED WITHIN THE CANAL ROW.

**GENERAL NOTES**

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

BEFORE ORDERING PIPE CULVERTS OR PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR EXACT LENGTHS.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES WILL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

ALL ELEVATIONS REFERRING TO U.S.G.S. MEAN SEA LEVEL DATUM.

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

GRANULAR MATERIALS	2.05	TONS / CU YD
HMA RESURFACING	112	LBS / SQ YD / IN
SHORT TERM PAVEMENT MARKING	10	FT / 100 FT OF APPLICATION
MIX FOR CRACKS, JTS & FLGWYS	0.0003	TONS / SQ YD
LEVEL BINDER (HAND METHOD)	0.0005	TONS / SQ YD
SUPPLEMENTAL WATERING	3	GAL / SQ YD / APPLICATION
CALCIUM CHLORIDE	2	LB / SQ YD / APPLICATION
AGGREGATE DITCH CHECKS	5	TONS AGGREGATE

BITUMINOUS MATERIALS (PRIME COAT) RATES	
SURFACE TYPE	RESIDUAL RATE
MILLED HMA OR PCC PAVEMENT	0.05 LBS / SQ FT
FOG COAT (BETWEEN ADDITIONAL HMA LIFTS)	0.025 LBS / SQ FT

THE EQUESTRIAN TRAIL IS OPEN FROM APRIL 15TH TO OCTOBER 31ST, WITH A MINIMAL AMOUNT OF USERS. THE MULTI-USE PATH RECEIVES A MODERATE AMOUNT OF TRAFFIC DURING THE SUMMER. BOTH PATHS CAN BE USED BY SNOWMOBILES IN THE WINTER WITH 6" OF FROST AND 4" OF SNOW. THE CANAL IS OPEN TO BOATS WITH 10HP MOTORS OR SMALLER. THE WATER LEVEL OF THE CANAL RARELY FLUCTUATES AND FLOODING HAS NOT BEEN OBSERVED TO DATE.

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PRESENCE OF DEPARTMENT-OWNED UNDERGROUND ELECTRICAL CABLE WITHIN THE LIMITS OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR SHALL REQUEST THE ILLINOIS DEPARTMENT OF TRANSPORTATION IN OTTAWA (815-434-8417) TO LOCATE THE UNDERGROUND FACILITIES, PROVIDING A MINIMUM OF 72 HOURS NOTICE. THE DEPARTMENT IS NOT A MEMBER OF THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) SYSTEM.

ALL DAMAGE TO DEPARTMENT OWNED UNDERGROUND FACILITIES, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF THE DEPARTMENT AT THE CONTRACTOR'S EXPENSE. THIS SHALL INCLUDE ALL TEMPORARY REPAIRS REQUIRED TO KEEP THE FACILITY OPERATIONAL WHILE MATERIAL IS BEING OBTAINED TO MAKE PERMANENT REPAIRS. SPLICING OF ELECTRIC CABLE WILL NOT BE ALLOWED. ELECTRIC CABLE SHALL BE REPLACED FROM POLE TO POLE OR CONTROLLER.

MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:

- ANR PIPELINE COMPANY

- CORN BELT ENERGY CORPORATION

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

THE MEDIAN CROSSOVERS WILL NOT BE USED DURING THE WINTER MONTHS FROM NOVEMBER 1ST TO MARCH 1ST.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

PREPARED BY: *Don Beaulieu*  
DISTRICT STUDIES & PLANS ENGINEER

DATE: 8-13-13

EXAMINED BY: *[Signature]*  
DISTRICT CONSTRUCTION ENGINEER

*[Signature]*  
DISTRICT MATERIALS ENGINEER

*[Signature]*  
DISTRICT OPERATIONS ENGINEER

90% FED.  
10% STATE

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				ROADWAY	BRIDGE				
				0004	0011				
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	86	86					
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	24	24					
20101000	TEMPORARY FENCE	FOOT	386	386					
20200100	EARTH EXCAVATION	CU YD	1,885	1,885					
20400800	FURNISHED EXCAVATION	CU YD	3,510	3,510					
25000210	SEEDING, CLASS 2A	ACRE	4.75	4.75					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	417	417					
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	417	417					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	417	417					
25100115	MULCH, METHOD 2	ACRE	4.75	4.75					
25100630	EROSION CONTROL BLANKET	SQ YD	1,679	1,679					
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	926	926					
28000400	PERIMETER EROSION BARRIER	FOOT	2,560	2,560					
28000500	INLET AND PIPE PROTECTION	EACH	6	6					

\* SPECIALTY ITEMS

FILE NAME : D360998-ehi-500.dgn	USER NAME : brianhej	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT TIME : 7/18/16 PM	DRAWN -	REVISED -					80	(06-2) BR-3.4	BUREAU	133	3
	PLOT SCALE : 100.0000' / in.	CHECKED -	REVISED -		SCALE: SHEET 1 OF 8 SHEETS STA. TO STA.			CONTRACT NO. 66998				
	PLOT DATE : 7/30/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

90% FED.  
10% STATE

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				ROADWAY	BRIDGE				
				0004	0011				
28100705	STONE DUMPED RIPRAP, CLASS A3	SO YD	401	12	389				
30300001	AGGREGATE SUBGRADE IMPROVEMENT	CU YD	296		296				
31100910	SUBBASE GRANULAR MATERIAL, TYPE A 12"	SO YD	5,619	5,619					
35102200	AGGREGATE BASE COURSE, TYPE B 10"	SO YD	215	215					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	815	815					
40603240	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	2,502	2,502					
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	1,925	1,925					
42000501	PORTLAND CEMENT CONCRETE PAVEMENT 10" (JOINTED)	SO YD	5,337	5,337					
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	78	78					
42400300	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH	SO FT	3,884	3,884					
44000100	PAVEMENT REMOVAL	SO YD	776	776					
44000156	HOT-MIX ASPHALT SURFACE REMOVAL, 1 3/4"	SO YD	14,577	14,577					
44004250	PAVED SHOULDER REMOVAL	SO YD	3,554	3,554					
48101200	AGGREGATE SHOULDERS, TYPE B	TON	1,172	1,172					

\* SPECIALTY ITEMS

FILE NAME * 0366998-wt-500.dgn	USER NAME * brianhoil	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.I. RTE. 80	SECTION 106-21 BR-3,4	COUNTY BUREAU	TOTAL SHEETS 133	SHEET NO. 4		
	PLOT TIME * 7:18:16 PM	DRAWN -	REVISED -			SCALE:	SHEET 2 OF 8 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 66998		
	PLOT SCALE * 1/8" = 100.0000' / 1" = 100'	CHECKED -	REVISED -									
	PLOT DATE * 7/30/2013	DATE -	REVISED -									



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10% STATE

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY	BRIDGE		
				0004	0011		
48203100	HOT-MIX ASPHALT SHOULDERS	TON	1,058	1,058			
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	2		2		
50157300	PROTECTIVE SHIELD	SQ YD	1,227		1,227		
50200100	STRUCTURE EXCAVATION	CU YD	951		951		
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	265		265		
50300225	CONCRETE STRUCTURES	CU YD	294.0		294.0		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1,008.0		1,008.0		
50300260	BRIDGE DECK GROOVING	SQ YD	2,373		2,373		
50300300	PROTECTIVE COAT	SQ YD	2,846		2,846		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1		
50500505	STUD SHEAR CONNECTORS	EACH	10,620		10,620		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	299,740		299,740		
51100100	SLOPE WALL 4 INCH	SQ YD	510		510		
51200700	FURNISHING PRECAST CONCRETE PILES 14"	FOOT	2,208		2,208		

\* SPECIALTY ITEMS

FILE NAME = 0366998-shl-500.dgn	USER NAME = brianhess PLOT TIME = 7/18/16 PM PLOT SCALE = 100.0000' / 1" = PLOT DATE = 7/30/2013	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES SCALE: SHEET 3 OF 8 SHEETS STA. TO STA.	F.A.I. RTE. 80	SECTION (06-2) BR-3,4	COUNTY BUREAU	TOTAL SHEETS 133	SHEET NO. 5	CONTRACT NO. 66998 ILLINOIS FED. AID PROJECT
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90% FED.  
10% STATE

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				ROADWAY	BRIDGE				
				0004	0011				
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	2,669		2,669				
51202305	DRIVING PILES	FOOT	4,877		4,877				
51203000	TEST PILES PRECAST CONCRETE	EACH	4		4				
51203200	TEST PILE METAL SHELLS	EACH	8		8				
51500100	NAME PLATES	EACH	2		2				
52100520	ANCHOR BOLTS, 1"	EACH	96		96				
54200229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	591	591					
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	188		188				
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	6	6					
60108200	PIPE UNDERDRAINS 6" (SPECIAL)	FOOT	117	117					
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	789.8	789.8					
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1					
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	7	7					
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4					

\* SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY	BRIDGE		
				0004	0011		
63200310	GUARDRAIL REMOVAL	FOOT	1,392	1,392			
63500310	REMOVE AND REINSTALL DELINEATORS	EACH	8	8			
64200116	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	10,020	10,020			
64300450	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	10	10			
66500105	WOVEN WIRE FENCE, 4'	FOOT	311	311			
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	250	250			
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	8	8			
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1			
66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	2	2			
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	22	22			
67100100	MOBILIZATION	L SUM	1	1			
70100410	TRAFFIC CONTROL AND PROTECTION, STANDARD 701416	EACH	2	2			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	27	27			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	60	60			
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,716	1,716			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	17,350	17,350			

\* SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY	BRIDGE		
				0004	0011		
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	41,702	41,702			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	13,901	13,901			
70400100	TEMPORARY CONCRETE BARRIER	FOOT	3,448	3,448			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	6,954	6,954			
72000100	SIGN PANEL - TYPE 1	SO FT	60	60			
72000200	SIGN PANEL - TYPE 2	SO FT	20	20			
72400310	REMOVE SIGN PANEL - TYPE 1	SO FT	30	30			
72400320	REMOVE SIGN PANEL - TYPE 2	SO FT	20	20			
72600100	MILE POST MARKER ASSEMBLY	EACH	2	2			
73000100	WOOD SIGN SUPPORT	FOOT	98	98			
78003130	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 6"	FOOT	2,950	2,950			
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	14,400	14,400			
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	298	298			
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	28	28			

14 \* SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY	BRIDGE		
				0004	0011		
78200410	GUARDRAIL MARKERS, TYPE A	EACH	6	6			
78200530	BARRIER WALL MARKERS, TYPE C	EACH	6	6			
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4			
78300100	PAVEMENT MARKING REMOVAL	SO FT	6,275	6,275			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	298	298			
X0322288	MEDIAN CLOSURE	EACH	1	1			
X0325754	REPLACEMENT OF SENSORS FOR ROADWAY WEATHER INFORMATION SYSTEM	L SUM	1	1			
X0326208	ALTERNATE ROUTE SIGNING	L SUM	1	1			
X0326649	LINEAR DELINEATOR PANELS, 6 INCH	EACH	35	35			
X0326867	RADAR SPEED TRAILER	CAL MO	30	30			
X4060110	BITUMINOUS MATERIALS (PRIME COAT)	POUND	8,491	8,491			
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SO YD	2,644	2,644			
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	425		425		
X6015000	REMOVE CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	7	7			

\* SPECIALTY ITEMS

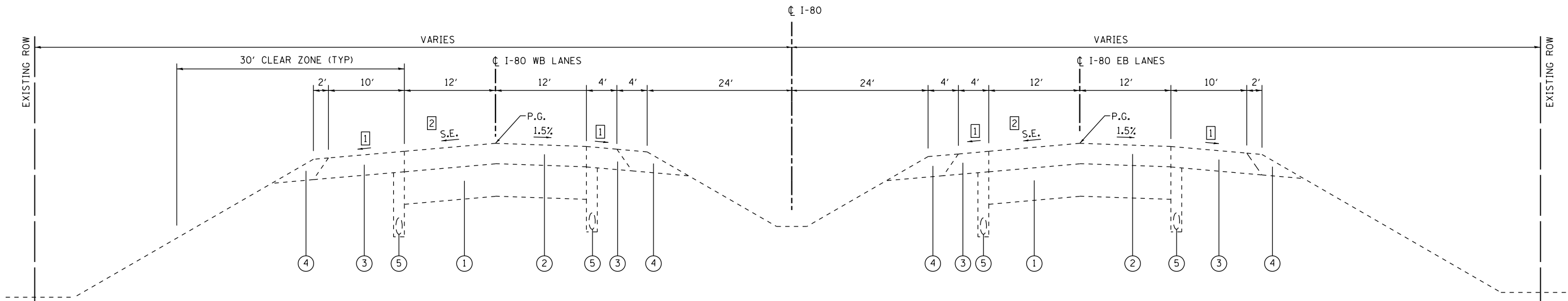
FILE NAME D360998-shc-500.dgn	USER NAME brionholl	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>			F.A.I. RTE. 80	SECTION (06-2) BR-3,4	COUNTY BUREAU	TOTAL SHEETS 133	SHEET NO. 9
	PLOT TIME 7/28/17 PM	DRAWN -	REVISED -					SCALE: SHEET 7 OF 8 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT	
	PLOT SCALE 1/8" = 100.0000' / in.	CHECKED -	REVISED -					CONTRACT NO. 66998				
	PLOT DATE 7/30/2013	DATE -	REVISED -									

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				ROADWAY	BRIDGE		
				0004	0011		
X6380205	TEMPORARY MODULAR GLARE SCREEN	FOOT	6,954	6,954			
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1			
X7010805	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)	L SUM	1	1			
X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	8,539	8,539			
X7830074	GROOVING FOR RECESSED PAVEMENT MARKING 7"	FOOT	2,950	2,950			
X8410102	TEMPORARY LIGHTING SYSTEM	L SUM	1	1			
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
Z0018002	DRAINAGE SCUPPERS, DS-11	EACH	2		2		
Z0034105	MATERIAL TRANSFER DEVICE	TON	1,932	1,932			
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	475		475		
Z0065752	SLOTTED DRAIN 12" WITH 6" SLOT	FOOT	252	252			
Z0077800	WOOD POST	EACH	16	16			
X5421559	METAL END SECTION, 24", SPECIAL	EACH	4	4			
X5930100	CONTROLLED LOW-STRENGTH MATERIAL, SPECIAL	CU YD	151	151			

\* SPECIALTY ITEMS

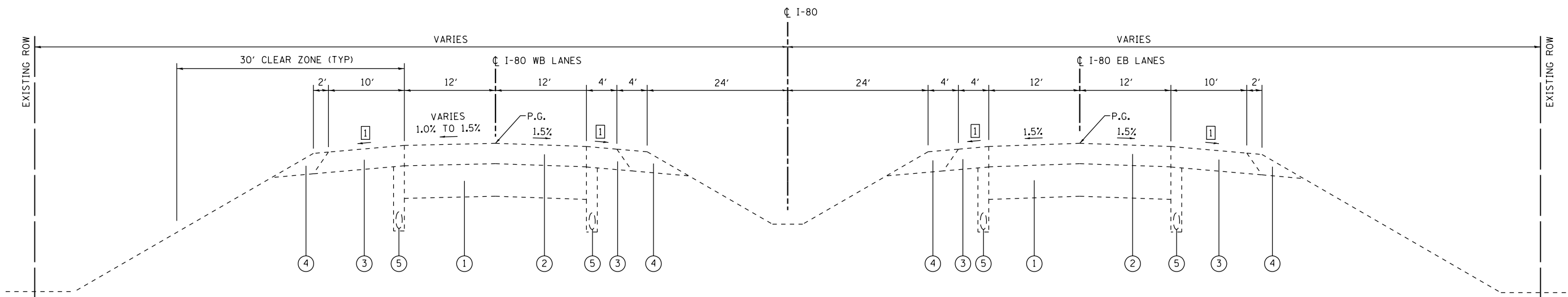
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PLOT TIME 11:46:43 AM	DRAWN -	REVISED -	SCALE: SHEET 8 OF 8 SHEETS					STA. TO STA.	CONTRACT NO. 66998			
PLOT SCALE 100:0000 / 125	CHECKED -	REVISED -	ILLINOIS FED. AID PROJECT									
PLOT DATE 7/31/2013	DATE -	REVISED -										





**EXISTING FAI 80 (I-80)**

STA. 408+00.00 TO STA. 413+00.00 EB & WB



**EXISTING FAI 80 (I-80)**

STA. 404+59.85 TO STA. 408+00.00 EB & WB  
 STA. 436+00.00 TO STA. 445+00.00 EB & WB

- 1 SEE STANDARD 482001 FOR SHOULDER CROSS SLOPE
- 2 SUPERELEVATION TRANSITION FROM STA. 408+00.00 TO STA. 410+73.92 SE = 1.5% FROM STA. 410+73.92 TO STA. 424+50.00

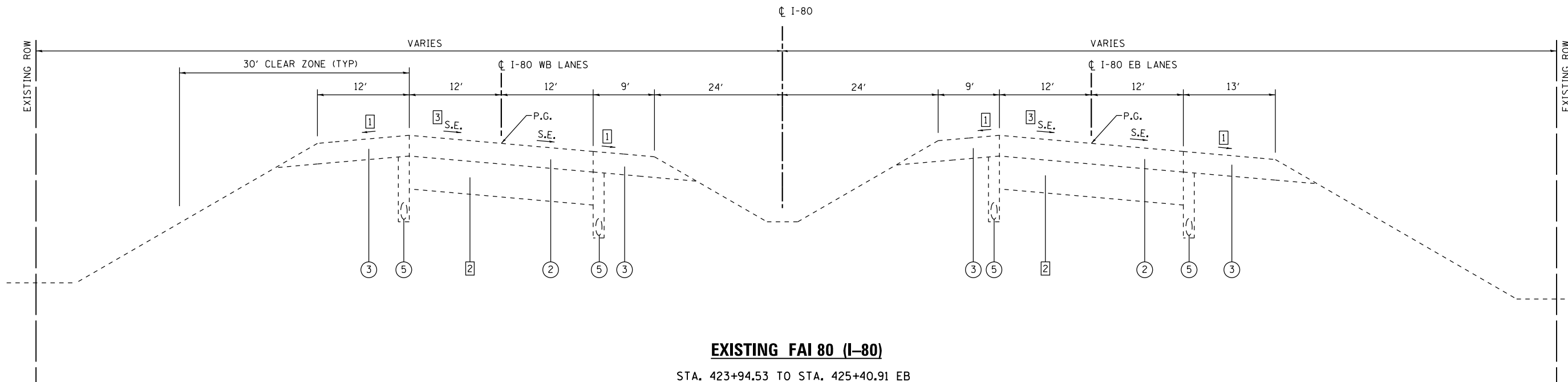
- LEGEND**
- 1 EXISTING CONCRETE PAVEMENT 10"
  - 2 EXISTING HOT-MIX ASPHALT RESURFACING 6 1/4"
  - 3 EXISTING HOT-MIX ASPHALT SHOULDER
  - 4 EXISTING AGGREGATE SHOULDER
  - 5 EXISTING PIPE UNDERDRAIN
  - 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 1 3/4"
  - 7 PROPOSED HOT-MIX ASPHALT BINDER COURSE, VARIABLE DEPTH
  - 8 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 3/4"
  - 9 PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIABLE DEPTH
  - 10 PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
  - 11 PROPOSED AGGREGATE BASE COURSE TYPE B, 10"
  - 12 PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 6"
  - 13 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
  - 14 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VAR. DEPTH

FILE NAME = D366998-sht-typical.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
	PLOT TIME = 7:18:18 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

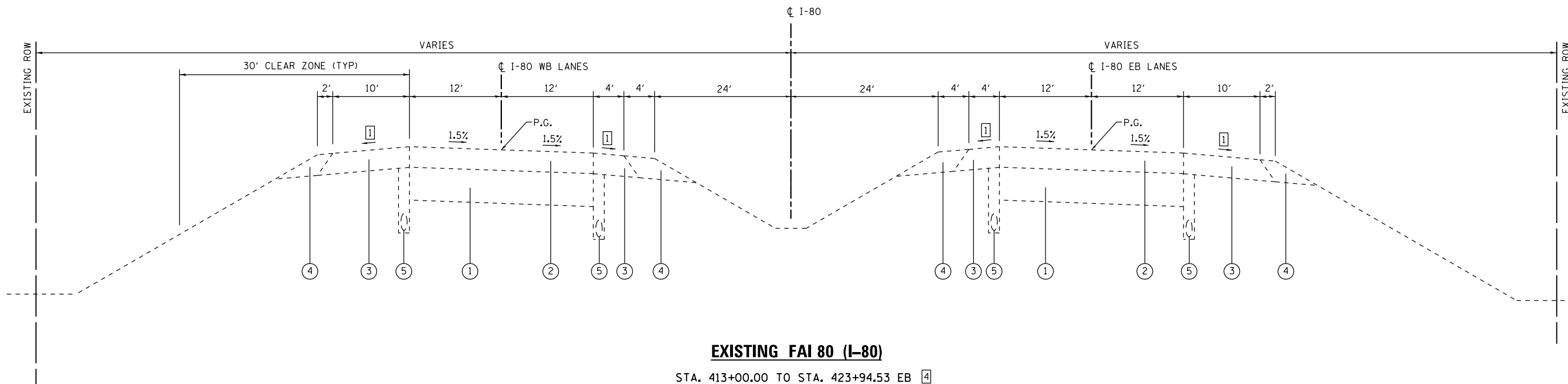
**TYPICAL SECTIONS**  
 SCALE: SHEET 1 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	11
<b>CONTRACT NO. 66998</b>				
ILLINOIS FED. AID PROJECT				



**EXISTING FAI 80 (I-80)**

STA. 423+94.53 TO STA. 425+40.91 EB  
 STA. 424+10.27 TO STA. 425+52.83 WB



**EXISTING FAI 80 (I-80)**

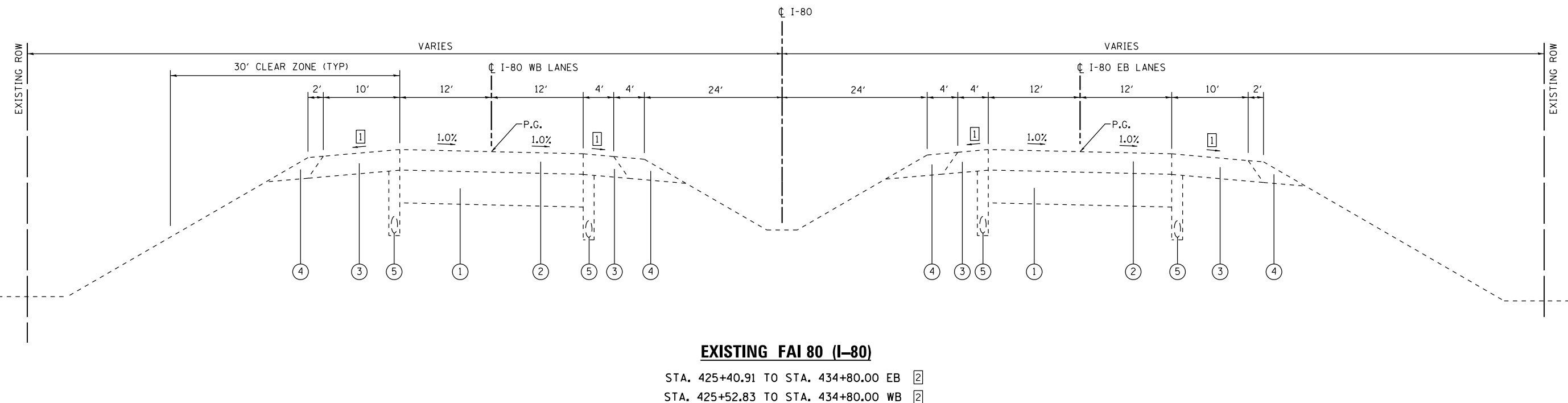
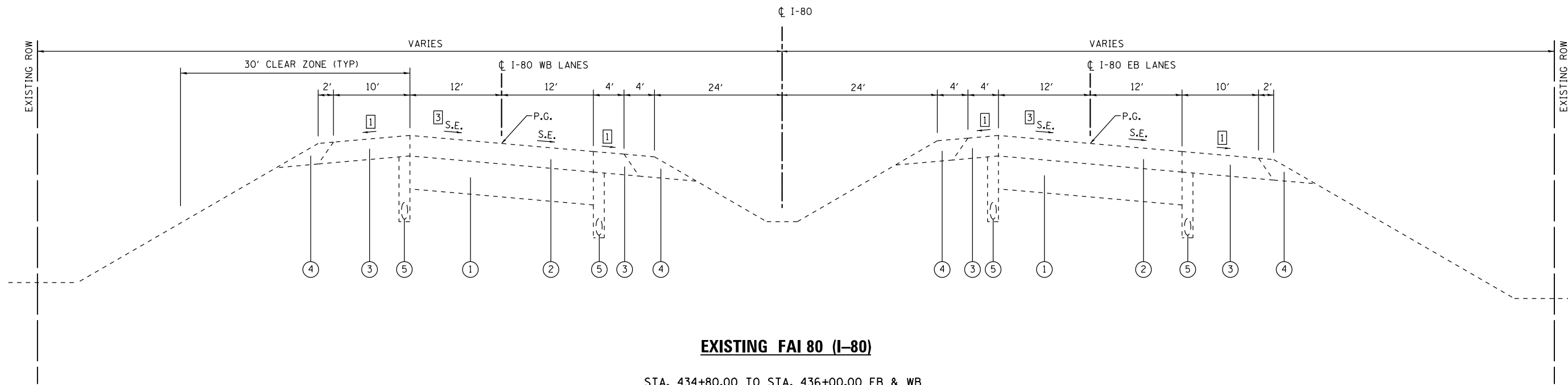
STA. 413+00.00 TO STA. 423+94.53 EB [4]  
 STA. 413+00.00 TO STA. 424+10.27 WB [4]

**LEGEND**

- [1] SEE STANDARD 482001 FOR SHOULDER CROSS SLOPE
- [2] EXISTING REINFORCED CONCRETE LAND BRIDGE SLAB, 12"  
 STA. 423+94.53 TO STA. 426+40.91 EB  
 STA. 424+10.27 TO STA. 425+52.83 WB
- [3] SUPERELEVATION TRANSITION (1.5% TO 1.0%) FROM STA. 424+50 TO STA. 425+00
- [4] OMISSION - EXISTING DEVIL'S SLOUGH BRIDGE STRUCTURE, APPROACHES AND CONNECTORS  
 S.N. 006-0009 - STA. 422+20.00 TO STA. 423+94.53 EB  
 S.N. 006-0010 - STA. 422+29.48 TO STA. 424+10.27 WB

- [1] EXISTING CONCRETE PAVEMENT 10"
- [2] EXISTING HOT-MIX ASPHALT RESURFACING 6 1/4"
- [3] EXISTING HOT-MIX ASPHALT SHOULDER
- [4] EXISTING AGGREGATE SHOULDER
- [5] EXISTING PIPE UNDERDRAIN
- [6] PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 1 3/4"
- [7] PROPOSED HOT-MIX ASPHALT BINDER COURSE, VARIABLE DEPTH
- [8] PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 3/4"
- [9] PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIABLE DEPTH
- [10] PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
- [11] PROPOSED AGGREGATE BASE COURSE TYPE B, 10"
- [12] PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 6"
- [13] PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
- [14] PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VAR. DEPTH

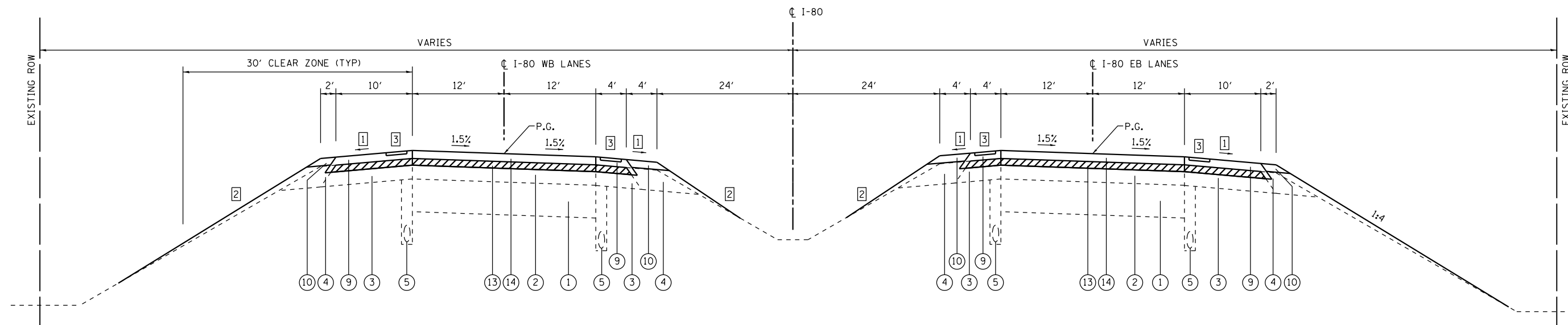
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	PLOT TIME = 7:18:18 PM	DRAWN -	REVISED -					80	(06-2) BR-3,4	BUREAU	133	12
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE:	SHEET 2 OF 6 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			
	PLOT DATE = 7/30/2013	DATE -	REVISED -						CONTRACT NO. 66998			



- 1 SEE STANDARD 482001 FOR SHOULDER CROSS SLOPE
- 2 OMISSION - EXISTING HENNEPIN CANAL BRIDGE STRUCTURE  
S.N. 006-0011 - STA. 426+40.91 TO STA. 427+88.33 EB  
S.N. 006-0012 - STA. 425+52.83 TO STA. 426+98.38 WB
- 3 SUPERELEVATION TRANSITION (SEE TABLE)  
STA. 434+50.70 TO STA. 435+34.70 EB  
STA. 434+69.14 TO STA. 435+53.14 WB

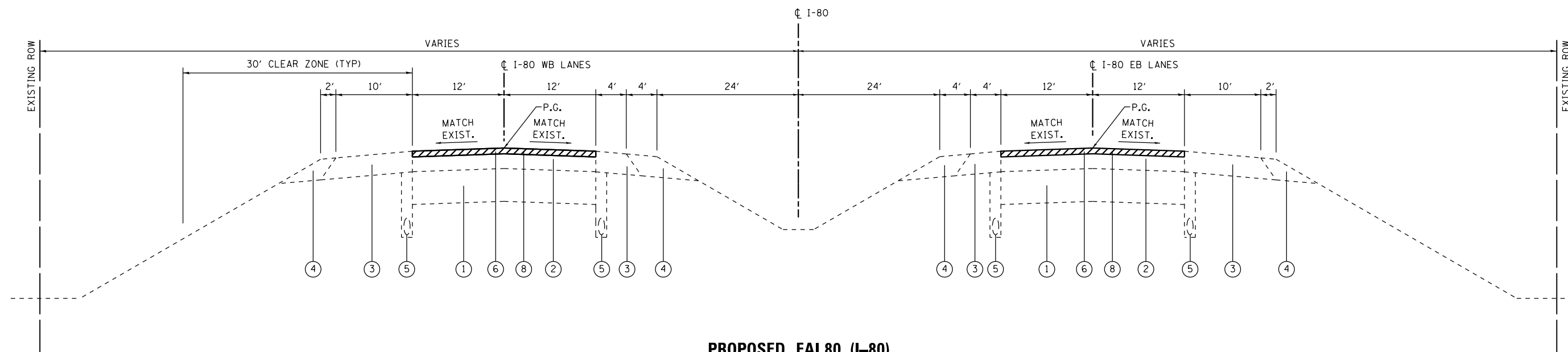
- LEGEND**
- 1 EXISTING CONCRETE PAVEMENT 10"
  - 2 EXISTING HOT-MIX ASPHALT RESURFACING 6 1/4"
  - 3 EXISTING HOT-MIX ASPHALT SHOULDER
  - 4 EXISTING AGGREGATE SHOULDER
  - 5 EXISTING PIPE UNDERDRAIN
  - 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 1 1/4"
  - 7 PROPOSED HOT-MIX ASPHALT BINDER COURSE, VARIABLE DEPTH
  - 8 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 3/4"
  - 9 PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIABLE DEPTH
  - 10 PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
  - 11 PROPOSED AGGREGATE BASE COURSE TYPE B, 10"
  - 12 PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 6"
  - 13 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
  - 14 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VAR. DEPTH

FILE NAME = D366998-sht-typical.dgn	USER NAME = brianheil	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT TIME = 7:18:24 PM	DRAWN -	REVISED -					80	(06-2) BR-3,4	BUREAU	133	13
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE:	SHEET 3 OF 6 SHEETS	STA.	TO STA.	CONTRACT NO. 66998			
	PLOT DATE = 7/30/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



**PROPOSED FAI 80 (I-80)**

STA. 431+50.00 TO STA. 435+60.00 EB [4][6]  
 STA. 433+00.00 TO STA. 435+60.00 WB [4][6]



**PROPOSED FAI 80 (I-80)**

STA. 404+59.85 TO STA. 422+20.00 EB [5]  
 STA. 435+60.00 TO STA. 444+69.24 EB  
 STA. 404+59.85 TO STA. 422+29.48 WB [5]  
 STA. 435+60.00 TO STA. 444+87.68 WB

- [1] SEE STANDARD 482001 FOR SHOULDER CROSS SLOPE
- [2] VARIES 1:2 TO 1:4, SEE CROSS SECTIONS
- [3] SEE STANDARD 642001 FOR RUMBLE STRIP  
 STA. 428+30 TO STA. 435+60 EB  
 STA. 427+40 TO STA. 435+60 WB
- [4] SUPERELEVATION TRANSITION (SEE TABLE)  
 STA. 434+50.70 TO STA. 435+34.70 EB  
 STA. 434+69.14 TO STA. 435+53.14 WB
- [5] OMISSION - EXISTING DEVILS SLOUGH BRIDGE STRUCTURE, APPROACHES AND CONNECTORS  
 S.N. 006-0009 - STA. 422+20.00 TO STA. 423+94.53 EB  
 S.N. 006-0010 - STA. 422+29.48 TO STA. 424+10.27 WB
- [6] BUTT JOINT INCLUDED IN STATION RANGE
- [7] SEE STAGING TYPICALS FOR SHOULDER WORK

**LEGEND**

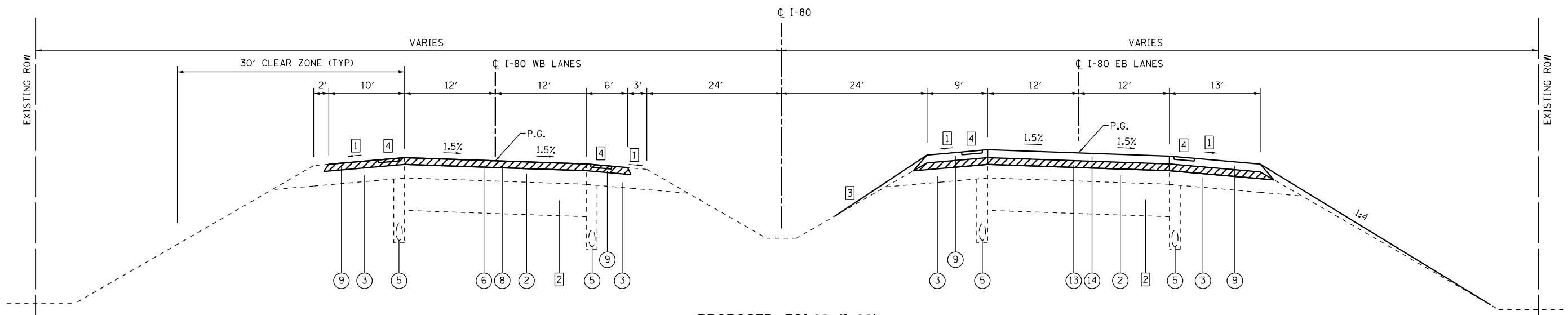
- [1] EXISTING CONCRETE PAVEMENT 10"
  - [2] EXISTING HOT-MIX ASPHALT RESURFACING 6 1/4"
  - [3] EXISTING HOT-MIX ASPHALT SHOULDER
  - [4] EXISTING AGGREGATE SHOULDER
  - [5] EXISTING PIPE UNDERDRAIN
  - [6] PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 1 3/4"
  - [7] PROPOSED HOT-MIX ASPHALT BINDER COURSE, VARIABLE DEPTH
  - [8] PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 3/4"
  - [9] PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIABLE DEPTH
  - [10] PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
  - [11] PROPOSED AGGREGATE BASE COURSE TYPE B, 10"
  - [12] PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 6"
  - [13] PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
  - [14] PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VAR. DEPTH
- [Hatched Box] HMA SURFACE REMOVAL

FILE NAME = D366998-sht-typical.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
	PLOT TIME = 7:18:24 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

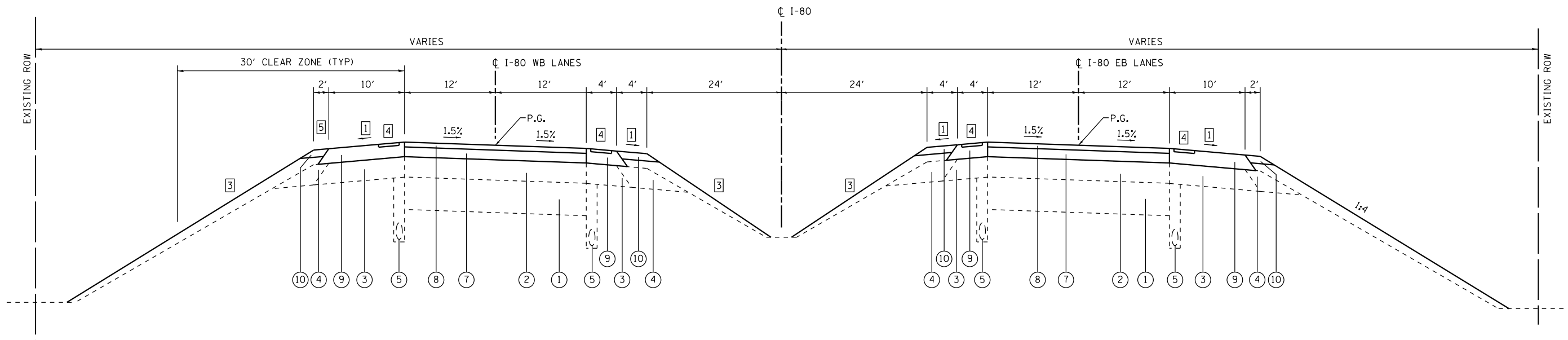
<b>TYPICAL SECTIONS</b>	
SCALE:	SHEET 4 OF 6 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	14
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**PROPOSED FAI 80 (I-80)**

STA. 424+44.64 TO STA. 426+17.04 EB 7  
 STA. 424+10.27 TO STA. 424+85.52 WB



**PROPOSED FAI 80 (I-80)**

STA. 428+42.17 TO STA. 431+50.00 EB 6  
 STA. 427+51.58 TO STA. 433+00.00 WB 6 7

**SUPERELEVATION TRANSITION TABLES**

EASTBOUND I-80					
STATION (EB)	LT EDGE EOP	SLOPE	PROFILE GRADE	SLOPE	RT EDGE EOP
434+50.70	645.71	1.50%	645.53	-1.50%	645.35
434+75.00	645.80	0.63%	645.72	-1.50%	645.54
434+92.70	645.86	0.00%	645.86	-1.50%	645.68
435+00.00	645.89	-0.26%	645.92	-1.50%	645.74
435+34.70	646.06	-1.50%	646.24	-1.50%	646.06

WESTBOUND I-80					
STATION (WB)	LT EDGE EOP	SLOPE	PROFILE GRADE	SLOPE	RT EDGE EOP
434+69.14	646.01	1.50%	645.83	-1.50%	645.65
434+75.00	646.01	1.29%	645.86	-1.50%	645.68
435+00.00	646.09	0.40%	646.04	-1.50%	645.86
435+11.14	646.12	0.00%	646.12	-1.50%	645.94
435+25.00	646.17	-0.50%	646.23	-1.50%	646.05
435+50.00	646.27	-1.39%	646.44	-1.50%	646.26
435+53.14	646.28	-1.50%	646.46	-1.50%	646.28

- 1 SEE STANDARD 482001 FOR SHOULDER CROSS SLOPE
- 2 EXISTING REINFORCED CONCRETE LAND BRIDGE SLAB, 12"
- 3 VARIES 1:2 TO 1:4, SEE CROSS SECTIONS
- 4 SEE STANDARD 642001 FOR RUMBLE STRIP  
STA. 428+30 TO STA. 435+60 EB  
STA. 427+40 TO STA. 435+60 WB
- 5 WIDTH OF AGGREGATE SHOULDER IS 4' FROM  
STA. 427+08 TO STA. 429+00 WB
- 6 OMISSION - PROPOSED HENNEPIN CANAL BRIDGE STRUCTURE, APPROACHES & CONNECTORS  
S.N. 006-0184 - STA. 425+63.52 TO STA. 428+42.17 EB  
S.N. 006-0185 - STA. 424+74.06 TO STA. 427+51.58 WB
- 7 BUTT JOINT INCLUDED IN STATION RANGE
- 8 SEE STAGING TYPICALS FOR SHOULDER WORK

**LEGEND**

- 1 EXISTING CONCRETE PAVEMENT 10"
  - 2 EXISTING HOT-MIX ASPHALT RESURFACING 6 1/4"
  - 3 EXISTING HOT-MIX ASPHALT SHOULDER
  - 4 EXISTING AGGREGATE SHOULDER
  - 5 EXISTING PIPE UNDERDRAIN
  - 6 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 1 1/4"
  - 7 PROPOSED HOT-MIX ASPHALT BINDER COURSE, VARIABLE DEPTH
  - 8 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 3/4"
  - 9 PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIABLE DEPTH
  - 10 PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
  - 11 PROPOSED AGGREGATE BASE COURSE TYPE B, 10"
  - 12 PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 6"
  - 13 PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
  - 14 PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VAR. DEPTH
- HMA SURFACE REMOVAL

FILE NAME =  
D366998-sht-typical.dgn

USER NAME = brianheil  
 PLOT TIME = 7:18:24 PM  
 PLOT SCALE = 100.0000' / in.  
 PLOT DATE = 7/30/2013

DESIGNED -  
 DRAWN -  
 CHECKED -  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**  
 SCALE: SHEET 5 OF 6 SHEETS STA. TO STA.

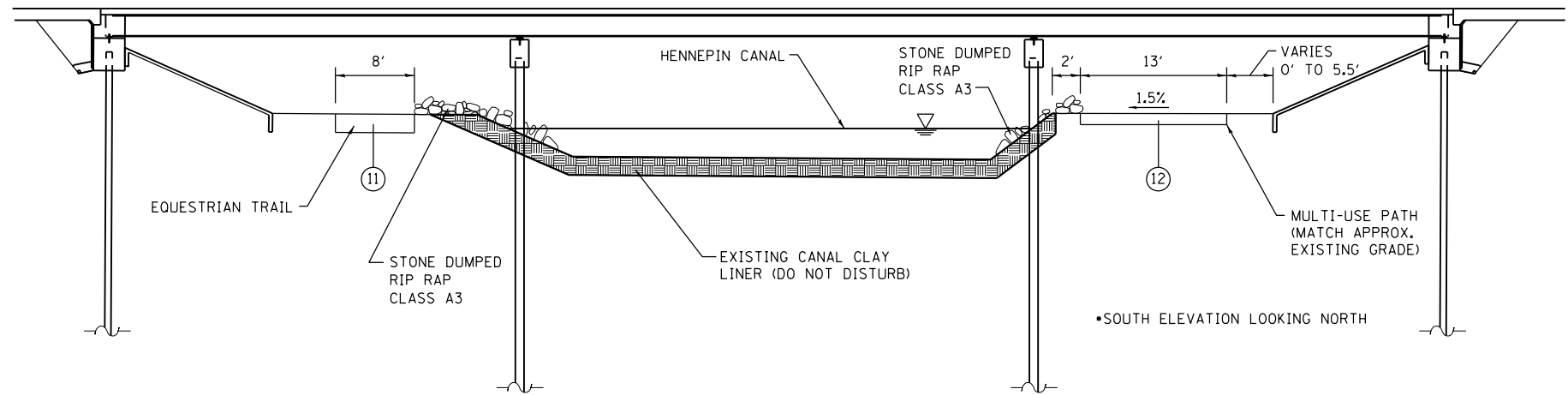
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	15
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

**PROFILE RAISE THICKNESS TABLES**

LANE	STA.	EX ELEV	PR ELEV	DIFF IN ELEV (FT)	DEPTH OF SURF REMOVAL (FT)	SURF CSE (FT)	BINDER DEPTH (FT)
EB	424+44.64	643.34	643.35	0.02	0.13	0.15	
EB	424+50	643.34	643.37	0.02	0.12	0.15	
EB	424+75	643.36	643.43	0.07	0.08	0.15	
EB	425+04.64	643.39	643.52	0.13	0.02	0.15	
EB	425+25	643.41	643.59	0.18	0.03	0.21	
EB	425+50	643.44	643.69	0.25	0.10	0.35	
EB	425+63.52	643.45	643.75	0.30		0.30	
HENNEPIN CANAL STRUCTURE							
EB	428+42.17	643.86	645.43	1.57		0.15	1.42
EB	428+50	643.88	645.45	1.57		0.15	1.43
EB	429+00	644.02	645.54	1.51		0.15	1.37
EB	429+50	644.21	645.52	1.31		0.15	1.17
EB	430+00	644.35	645.40	1.05		0.15	0.91
EB	430+50	644.41	645.18	0.78		0.15	0.63
EB	431+00	644.46	644.96	0.50		0.15	0.35
EB	431+50	644.50	644.81	0.31		0.31	
EB	432+00	644.53	644.73	0.20	0.06	0.26	
EB	432+50	644.54	644.74	0.20	0.05	0.25	
EB	433+00	644.63	644.82	0.19	0.04	0.23	
EB	433+50	644.92	644.98	0.07	0.08	0.15	
EB	434+00	645.21	645.22	0.01	0.13	0.15	
EB	434+50	645.53	645.53	0.00	0.14	0.15	
EB	435+00	645.89	645.92	0.04	0.11	0.15	
EB	435+50	646.39	646.39	0.00	0.15	0.15	
EB	435+60	646.49	646.49	0.00	0.15	0.15	

BUTT JOINT

BUTT JOINT



**PROPOSED HENNEPIN CANAL**

STA. 8+00.00 TO STA. 11+50.00

LANE	STA.	EX ELEV	PR ELEV	DIFF IN ELEV (FT)	DEPTH OF SURF REMOVAL (FT)	SURF CSE (FT)	CL BINDER DEPTH (FT)
WB	424+10.27	643.31	643.32	0.01	0.14	0.15	
WB	424+25	643.33	643.34	0.00	0.14	0.15	
WB	424+50	643.37	643.38	0.01	0.13	0.15	
WB	424+74.06	643.41	643.43	0.02	0.13	0.15	
HENNEPIN CANAL STRUCTURE							
WB	427+51.58	643.76	644.97	1.21		0.15	1.07
WB	428+00	643.94	645.30	1.36		0.15	1.21
WB	428+50	644.06	645.54	1.48		0.15	1.33
WB	429+00	644.16	645.68	1.51		0.15	1.37
WB	429+50	644.34	645.71	1.37		0.15	1.23
WB	430+00	644.49	645.65	1.16		0.15	1.02
WB	430+50	644.54	645.49	0.95		0.15	0.80
WB	431+00	644.58	645.28	0.70		0.15	0.56
WB	431+50	644.63	645.14	0.51		0.15	0.36
WB	432+00	644.67	645.06	0.39		0.15	0.24
WB	432+50	644.63	645.05	0.42		0.15	0.27
WB	433+00	644.79	645.11	0.33		0.33	
WB	433+50	645.04	645.24	0.20	0.06	0.26	
WB	434+00	645.31	645.44	0.13	0.02	0.15	
WB	434+50	645.67	645.71	0.04	0.11	0.15	
WB	435+00	646.04	646.04	0.00	0.14	0.15	
WB	435+50	646.44	646.44	0.00	0.14	0.15	
WB	435+60	646.52	646.52	0.00	0.14	0.15	

BUTT JOINT

**MIXTURES TABLE**

MIXTURE USE(S):	HMA SURFACE	HMA BINDER	HMA SHOULDER TOP LIFT	HMA SHOULDER BOTTOM LIFT
AC/PG:	SBS PG 70-22	SBS PG 70-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4.0% @ Ndes=90	4.0% @ Ndes=90	4.0% @ Ndes=50	4.0% @ Ndes=50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5	IL 19.0	IL 9.5	IL 19.0
FRICTION AGGREGATE	MIXTURE "D"		MIXTURE "C"	
DENSITY TEST METHOD	CORES	CORES	CORES	CORES

**LEGEND**

- ① EXISTING CONCRETE PAVEMENT 10"
- ② EXISTING HOT-MIX ASPHALT RESURFACING 6 1/4"
- ③ EXISTING HOT-MIX ASPHALT SHOULDER
- ④ EXISTING AGGREGATE SHOULDER
- ⑤ EXISTING PIPE UNDERDRAIN
- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 1 3/4"
- ⑦ PROPOSED HOT-MIX ASPHALT BINDER COURSE, VARIABLE DEPTH
- ⑧ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, 1 3/4"
- ⑨ PROPOSED HOT-MIX ASPHALT SHOULDERS, VARIABLE DEPTH
- ⑩ PROPOSED AGGREGATE SHOULDERS, TYPE B, 6"
- ⑪ PROPOSED AGGREGATE BASE COURSE TYPE B, 10"
- ⑫ PROPOSED PORTLAND CEMENT CONCRETE SIDEWALK, 6"
- ⑬ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
- ⑭ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, VAR. DEPTH

FILE NAME = D366998-sht-typical.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
	PLOT TIME = 7:18:25 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	16
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**EROSION CONTROL SCHEDULE**

STATION	OFFSET	STATION	OFFSET	TEMP FENCE (FOOT)	SEEDING CL 2A (AC)	NITROGEN FERT NUTR (LBS)	PHOSPHOROUS FERT NUTR (LBS)	POTASSIUM FERT NUTR (LBS)	MULCH METHOD 2 (AC)	EROSION CONTR BLANKET (SY)	TEMP EROS CONTR SEED (LBS)	PERIMETER EROS BAR (FOOT)	INLET & PIPE PROTECT (EACH)	STONE DUMP RIP CL A3 (SY)
<b>I-80</b>														
404+53		422+29			2.17	195	195	195	2.17		434			
407+08	CL												1	
411+00	CL												1	
423+69	80' RT	427+06	101' RT									338		
423+72	78' LT	424+98	89' LT									127		
423+97		426+09			0.35	32	32	32	0.35		70			
424+30	LT	425+30	LT							125				
424+36	CL												1	
425+30	CL	426+07	CL							390				
425+10	RT	426+95	RT							137				
425+22	WB													6
426+17	EB													6
426+18	115' LT	435+70	81' LT									978		
426+30	LT	427+50	LT							258				
427+30	CL	428+00	CL							352				
427+30		444+85			2.11	190	190	190	2.11		422			
428+25	5' RT												1	
428+25	RT	430+50	RT							417				
428+35	85' RT	435+92	77' RT									754		
431+56	117' RT	435+43	120' RT	386										
431+68	117' RT	435+31	121' RT									363		
433+00	1' RT												1	
442+50	CL												1	
<b>HENNEPIN CANAL</b>														
8+38		11+83												389
<b>TOTAL</b>				<b>386</b>	<b>4.75</b>	<b>417</b>	<b>417</b>	<b>417</b>	<b>4.75</b>	<b>1,679</b>	<b>926</b>	<b>2,560</b>	<b>6</b>	<b>401</b>

**TRAFFIC CONTROL SCHEDULE**

LOCATION	STATION	OFFSET	STATION	OFFSET	IMP ATTEN NRD TL3 (EACH)	TEMP CONC BARRIER (FOOT)	REL TEMP CONC BARRIER (FOOT)	TEMP MOD GLARE SCREEN (FOOT)	WOOD POST (EACH)
<b>STAGE 1 I-80</b>									
WEST FLARE	406+97	30.3' RT	411+22	2.0' LT		425	425	425	
CENTERLINE	411+22	2.0' LT	438+24	2.0' LT		2702	2702	2702	
EAST FLARE	438+24	2.0' LT	441+45	23.5' RT		321	321	321	
<b>STAGE 2 I-80</b>									
WEST FLARE	407+08	31.5' LT	411+08	2.0' RT			400	400	
CENTERLINE	411+08	2.0' RT	437+99	2.0' RT			2691	2691	
EAST FLARE	437+99	2.0' RT	442+14	32.9' LT			415	415	
<b>I-80</b>									
WEST CROSSOVER	407+82	MED			1				
WEST CROSSOVER	407+92	MED			1				
WEST CROSSOVER	408+02	MED			1				
WEST CROSSOVER	408+12	MED			1				
WEST CROSSOVER	408+22	MED			1				
WEST CROSSOVER	408+52	MED			1				
WEST CROSSOVER	408+62	MED			1				
WEST CROSSOVER	408+72	MED			1				
WEST CROSSOVER	408+82	MED			1				
WEST CROSSOVER	408+92	MED			1				
WEST CROSSOVER	407+39	MED	409+35	MED					8
EAST CROSSOVER	439+94	MED	441+90	MED					8
<b>TOTAL</b>					<b>10</b>	<b>3,448</b>	<b>6,954</b>	<b>6,954</b>	<b>16</b>

**EARTHWORK SCHEDULE**

STATION	STATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (NOTE 1) (CU YD)	EMBANKMENT (NOTE 2) (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (NOTE 3) (CU YD)
<b>I-80</b>					
405+03	443+50	1820	1365	4920	-3560
<b>HENNEPIN CANAL</b>					
8+38	10+80	65	50	0	50
<b>TOTAL</b>		<b>1,885</b>	<b>1,415</b>	<b>4,920</b>	<b>-3,510</b>

**EARTHWORK NOTES:**

- ESTIMATED SHRINKAGE FACTOR = 25%.
- APPROXIMATE EMBANKMENT QUANTITY IS SHOWN FOR INFORMATION ONLY.
- APPROXIMATE EARTHWORK BALANCE IS SHOWN FOR INFORMATION ONLY.

**CLSM SCHEDULE**

LANE	STATION	STATION	PANEL ID	PANEL AVG VOID DEPTH (IN)	CLSM PUMPED IN PLACE (CU YD)
<b>STAGE 1 - I-80 EB</b>					
RT	424+45	424+70	EB1	13.50	11.5
RT	424+70	424+95	EB2	11.75	10.0
RT	424+95	425+27	EB3	12.00	13.3
RT	425+27	425+52	EB4	11.25	9.6
RT	425+52	425+77	EB5	11.00	4.5
LT	424+45	424+70	EB6	12.00	10.2
LT	424+70	424+95	EB7	12.50	10.6
LT	424+95	425+27	EB8	13.25	14.7
LT	425+27	425+52	EB9	12.00	10.2
LT	425+52	425+77	EB10	11.00	4.4
<b>STAGE 2 - I-80 WB</b>					
RT	424+10	424+30	WB1	10.50	7.4
RT	424+30	424+55	WB2	11.50	9.8
RT	424+55	424+80	WB3	11.50	7.6
LT	424+10	424+30	WB4	11.25	7.9
LT	424+30	424+55	WB5	12.75	10.9
LT	424+55	424+80	WB6	12.00	7.9
<b>TOTAL</b>					<b>151</b>

NOTE: QUANTITIES BASED ON GROUND PENETRATING RADAR RESULTS

REMOVAL SCHEDULE

LANE	STATION	OFFSET	STATION	OFFSET	PAVEMENT REM (SO YD)	HMA SURF REM 1 3/4 (SO YD)	PAVED SHLD REMOVAL (SO YD)	GUARDRAIL REMOV (FOOT)	RAISED REF PVT MK REM (EACH)	HMA SURF REM VAR DP (SO YD)	REM CONC HDWL P DRNS (EACH)
<b>I-80</b>											
EB	381+00	CL	442+00						154		
EB	404+60	16' LT	412+14	15.5' LT			329				
EB	404+60	CL	422+20			4694					
EB	407+01	LT									1
EB	408+88	12' RT	422+20	12' RT			602				
EB RT	424+17.48	RT	426+67.12	RT				249.6			
EB LT	424+16.98	LT	426+20.90	LT				203.9			
EB	425+04.64		425+63.52						322		
EB LT	425+46.19	LT	426+31.65	LT	60						
EB RT	425+75.15	RT	426+69.20	RT	98						
EB CL	427+95.70	CL	428+72.99	CL	147						
EB	428+29.00	LT									1
EB	431+50.00		435+00.00						1477		
EB	431+50.00	12' RT	440+19.00	12' RT			386				
EB	435+60.00	CL	444+69.00	CL		2425					
EB	437+14.00	16' LT	444+69.00	16' LT			371				
EB	439+92	LT									1
<b>I-80</b>											
MEDIAN	431+78.31	MEDIAN	432+41.71	MEDIAN	177						
<b>I-80</b>											
WB	404+60.00	16' RT	412+15.00	16' RT			345				
WB	404+60	CL	422+29	CL		4719					
WB	406+94	RT									1
WB	408+00	CL	465+00	CL				144			
WB	409+02.00	12' LT	422+30.00	12' LT			582				
WB ST2	420+98.80	RT	422+11.30	RT				112.5			
WB RT	421+98.78	RT	422+11.30	RT				12.5			
WB	424+10	LT/CL/RT	424+74	LT/CL/RT		265					
WB LT	424+41.38	LT	425+32.24	LT	100						
WB LT	424+53.47	LT	425+27.45	LT				74.0			
WB RT	424+74.35	RT	425+63.98	RT	55						
WB RT	424+93.66	RT	425+73.38	RT				79.7			
WB	426+86.00	12' LT	440+44.00	12' LT			605				
WB CL	426+88.32	CL	427+62.11	CL	139						
WB	428+44.00	RT									1
WB	430+05.00	RT									1
WB	435+60	CL	444+88	CL		2474					
WB LT	426+71.22	LT	429+56.79	LT				285.6			
WB RT	427+17.74	RT	430+91.92	RT				374.2			
WB	433+00.00		435+00.00						845		
WB	437+33.00	16' RT	444+88.00	16' RT			334				
WB	440+11.00	RT									1
<b>TOTAL</b>					<b>776</b>	<b>14,577</b>	<b>3,554</b>	<b>1,392</b>	<b>298</b>	<b>2,644</b>	<b>7</b>

TREE REMOVAL SCHEDULE

STATION	OFFSET	TREE REMOV 6 - 15 (UNIT)	TREE REMOV OVER 15 (UNIT)
<b>I-80</b>			
422+62	78' RT	6	
422+64	78' RT	12	
428+59	83' RT		24
425+91	2' RT	36	
428+64	81' LT	10	
428+86	85' LT	10	
429+20	84' LT	12	
<b>TOTAL</b>		<b>86</b>	<b>24</b>

PERMANENT SURVEY MARKERS

	STATION	OFFSET	PERM SURV MKRS, T1 (EACH)	PERM SURV MKRS, T2 (EACH)
<b>I-80</b>				
EB POT	399+41.70	0	1	
EB PC	410+73.92	0	1	
EB PT	434+64.70	0	1	
EB POT	459+28.85	0	1	
WB POT	399+41.74	0	1	
WB PC	410+73.92	0	1	
WB PT	434+83.14	0	1	
WB POT	459+47.29	0	1	
EB PI	422+73.70	0		1
WB PI	422+82.96	0		1
<b>TOTAL</b>			<b>8</b>	<b>2</b>

PAVEMENT SCHEDULE

LANE	STATION	OFFSET	STATION	OFFSET	SUB GRAN MAT A 12 (SO YD)	AGG BASE CSE B 10 (SO YD)	BIT MATLS PR CT (LBS)	HMA SURF REM BUTT JT (SO YD)	P HMA BC IL 19.0 N90 (TON)	P HMA SC "D" N90 (TON)	PCC PVT 10 JOINTED (SO YD)	BR APPR PVT CON (FLX) (SO YD)	PC CONC SIDEWALK 6 (SO FT)	MATL TRANSFER DEVICE (TON)
<b>I-80</b>														
MED	404+60	CL	412+15	CL	2818						2677			
MED	437+23	CL	444+78	CL	2801						2660			
EB	404+60	CL	422+20	CL			2112			460.0				460.0
EB	408+88	12' RT	422+20	12' RT					299					
EB	424+45	LT	425+05	LT				60						
EB	424+45	CL	425+05	CL				160						
EB	424+45	RT	425+05	RT				87						
EB	424+45	CL	425+64	CL			143			36.1				36.1
EB	428+42.17	CL	431+50	CL					542					
EB	425+46	LT	425+52	LT							4			0.4
EB	425+69	RT	425+75	RT							7			0.7
EB	428+42	CL	435+60	CL			861			224.6				224.6
EB	428+36	CL	428+42	CL							28			2.8
EB	431+50	12' RT	440+19	12' RT					196					
EB	435+00	LT	435+60	LT				27						
EB	435+00	CL	435+60	CL				160						
EB	435+00	RT	435+60	RT				67						
EB	435+60	CL	444+69	CL			1091			237.6				237.6
WB	404+60	CL	422+29	CL			2124			462.5				462.5
WB	409+02	12' RT	422+30	12' RT					299					
WB	435+00	LT	435+60	LT				67						
WB	435+00	CL	435+60	CL				160						
WB	435+00	RT	435+60	RT				27						
WB	424+10	CL	424+74	CL			77			16.7				16.7
WB	424+57	LT	424+63	LT							7			0.7
WB	424+80	RT	424+86	RT							4			0.4
WB	426+86	12' RT	440+44	12' RT					305					
WB	427+52	CL	435+60	CL			970			244.3				244.3
WB	427+46	CL	427+52	CL							28			2.8
WB	427+51.58	CL	433+00	CL					861					
WB	435+60	CL	444+88	CL			1113			242.4				242.4
<b>HENNEPIN CANAL</b>														
	8+38	40' RT	10+80	38' RT		215								
	8+81	26' LT	11+83	25' LT								3884		
<b>TOTAL</b>					<b>5,619</b>	<b>215</b>	<b>8,491</b>	<b>815</b>	<b>2,502</b>	<b>1,925</b>	<b>5,337</b>	<b>78</b>	<b>3,884</b>	<b>1,932</b>

SHOULDER SCHEDULE

LANE	LOCATION	STATION	STATION	AGGREGATE SHLDS B (TON)	HMA SHLDS (TON)	SHOULDER RUM STRIP 16 (FOOT)
<b>I-80</b>						
EB	INSIDE	404+60	407+74	88		
WB	INSIDE	404+60	407+74	88		
EB	INSIDE	404+60	412+14			754
WB	INSIDE	404+60	412+14			754
EB	INSIDE	409+00	412+15	88		
WB	INSIDE	409+00	412+15	88		
WB	INSIDE	424+10	424+80			70
WB	INSIDE	424+10	435+60		183	
EB	INSIDE	424+45	435+60		137	
EB	INSIDE	424+45	425+46			102
WB	INSIDE	427+64	435+60			797
WB	INSIDE	427+72	435+60	150		
EB	INSIDE	428+22	435+60	140		
EB	INSIDE	428+30	435+60			731
EB	INSIDE	437+14	444+69			755
WB	INSIDE	437+33	444+88			755
EB	INSIDE	437+14	440+28	88		
WB	INSIDE	437+32	440+47	88		
EB	INSIDE	441+55	444+69	88		
WB	INSIDE	441+73	444+88	88		
EB	OUTSIDE	408+88	422+20			1332
WB	OUTSIDE	409+02	422+30			1328
WB	OUTSIDE	424+10	424+57			47
WB	OUTSIDE	424+10	435+60		458	
EB	OUTSIDE	424+45	435+60		280	
EB	OUTSIDE	424+45	425+69			125
WB	OUTSIDE	427+27	429+00	29		
WB	OUTSIDE	427+39	440+44			1305
EB	OUTSIDE	428+55	440+19			1165
WB	OUTSIDE	428+67	435+60	79		
WB	OUTSIDE	429+00	435+60	70		
<b>TOTAL</b>				<b>1,172</b>	<b>1,058</b>	<b>10,020</b>

DRAINAGE ITEMS SCHEDULE

LANE	STATION	OFFSET	STATION	OFFSET	P CUL CL D 1 24 (FOOT)	CONC HDWL FOR P DRAIN (EACH)	PIPE UNDERDRAIN 6 SP (FOOT)	SLOT DRAIN 12 W/ 6 SLOT (FOOT)	SLOP MET ES 24 (EACH)
<b>I-80</b>									
EB	406+82.16	43.87' LT	409+91.34	42.99' LT	297				1
EB	407+01	LT				1	18		
EB	407+74.17	44' LT	409+00.51	44' LT				126	
EB	409+91.34	42.99' LT							1
EB	439+33.24	44.69' LT	442+40.63	43.90' LT	294				1
EB	428+29	LT				1	6		
EB	439+46	LT				1	65		
EB	440+28.58	44' LT	441+54.92	44' LT				126	
EB	442+40.63	43.90' LT							1
<b>I-80</b>									
WB	406+94	LT				1	15		
WB	428+44	LT				1	6		
WB	430+05	LT				1	7		
<b>TOTAL</b>					<b>591</b>	<b>6</b>	<b>117</b>	<b>252</b>	<b>4</b>

### GUARDRAIL SCHEDULE

LOCATION	STATION	STATION	SPBGR TY A 6FT POSTS (FOOT)	TRAF BAR TERM T2 (EACH)	TRAF BAR TERM T6 (EACH)	TR BAR TRM T1 SPL FLR (EACH)	GUARDRAIL MKR TYPE A (EACH)	BAR WALL MKR TYPE C (EACH)	TERMINAL MARKER DA (EACH)	LINEAR DELIN PANELS 6 (EACH)
<b>STAGE 1 I-80</b>										
SW QUAD WB	422+08.69	421+46.19	62.5							
SW QUAD WB	421+46.19	420+96.19				1			1	
NE QUAD EB	428+52.28	429+14.78	62.5							
NE QUAD EB	428+09.13	428+52.28			1					
NE QUAD EB	429+14.78	429+64.78				1			1	
NW QUAD EB	425+53.12	424+22.16	131.0							
NW QUAD EB	424+91.04	424+47.89			1					
SW QUAD EB	425+94.01	424+22.67	171.3							
SW QUAD EB	425+31.23	424+88.08			1					
<b>STAGE 2 I-80</b>										
SW QUAD WB	421+33.69	421+46.19		1						
NE QUAD WB	427+45.34	429+32.84	187.5							
NE QUAD WB	427+02.19	427+45.34			1					
NE QUAD WB	429+32.84	429+82.84				1			1	
SE QUAD WB	427+86.30	429+61.30	175.0							
SE QUAD WB	427+43.15	427+86.30			1					
SE QUAD WB	429+61.30	430+11.30				1			1	
NW QUAD WB	424+91.04	424+47.89			1					
SW QUAD WB	425+31.23	424+88.08			1					
<b>I-80</b>										
EB RT	419+00	428+44								9
EB LT	418+83	429+60								9
WB RT	420+98	430+21								9
WB LT	421+99	429+92								8
EB RT	426+80							1		
EB LT	426+80							1		
WB RT	426+99							1		
WB RT	426+19							1		
WB LT	426+70							1		
WB LT	425+90							1		
WB RT	427+79						1			
WB RT	428+59						1			
WB RT	429+39						1			
WB LT	427+50						1			
WB LT	428+30						1			
WB LT	429+10						1			
<b>TOTAL</b>			<b>789.8</b>	<b>1</b>	<b>7</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>35</b>

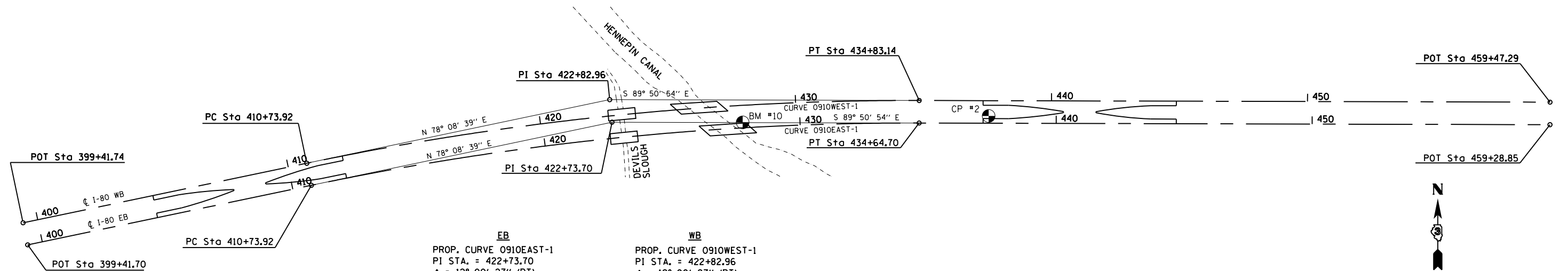
PAVEMENT MARKING SCHEDULE

LANE	STATION	STATION	COMMENT	SHORT TERM PAVT MKING ( FOOT)	TEMP PVT MK LINE 4 ( FOOT)	WORK ZONE PAVT MK REM ( SQ FT)	PREF PL PM TB LINE 6 ( FOOT)	MOD URETH PM LINE 4 ( FOOT)	RAISED REFL PAVT MKR ( EACH)	RAISED REF PVT MKR BR ( EACH)	PAVT MARKING REMOVAL ( SQ FT)	PAVT MARK TAPE T4 4 ( FOOT)	GRV RCSD PVT MRKG 5 ( FOOT)	GRV RCSD PVT MRKG 7 ( FOOT)
<b>I-80</b>														
EB	384+50	406+00	CL FROM STAGE 1	215							269			
EB	381+00	384+50	CL FROM STAGE 2	35							44			
EB	406+00	442+00	CL FROM STAGE 2	360							450			
EB	404+50	444+75	INSIDE EDGE LINE FROM STAGE 2	161							1342			
EB	408+50	440+25	OUTSIDE EDGE LINE FROM STAGE 2	127							1058			
EB	381+00	442+00	CL DASHES		1525		1525		154					1525
EB	408+50	440+25	OUTSIDE EDGE LINE		3175			3175						
EB	408+50	428+55	OUTSIDE EDGE LINE										2005	
EB	404+50	444+75	INSIDE EDGE LINE		4025			4025						
EB	404+50	428+30	INSIDE EDGE LINE										2380	
EB	422+20	424+00	DEVIL'S SLOUGH							6				
EB	425+64	428+42	HENNEPIN CANAL							8				
<b>I-80</b>														
WB	404+50	445+00	INSIDE EDGE LINE FROM STAGE 1	162							1350			
WB	408+00	458+25	CL FROM STAGE 1	503							628			
WB	409+00	440+50	OUTSIDE EDGE LINE FROM STAGE 1	126							1050			
WB	458+25	465+00	CL FROM STAGE 2	27							84			
WB	408+00	465+00	CL DASHES		1425		1425		144					1425
WB	404+50	445+00	OUTSIDE EDGE LINE		4050			4050						
WB	404+50	427+40	OUTSIDE EDGE LINE										2290	
WB	409+00	440+50	INSIDE EDGE LINE		3150			3150						
WB	409+00	427+64	INSIDE EDGE LINE										1864	
WB	422+29	424+10	DEVIL'S SLOUGH							6				
WB	424+74	427+52	HENNEPIN CANAL							8				
<b>STAGE 1 - I-80</b>														
EB	384+55	444+56	OUTSIDE EDGE LINE			2000						6001		
EB	394+55	444+56	INSIDE EDGE LINE			1667						5001		
WB	407+47	458+24	INSIDE EDGE LINE			1692						5077		
WB	409+02	450+44	OUTSIDE EDGE LINE			1381						4142		
<b>STAGE 2 - I-80</b>														
EB	391+08	440+19	OUTSIDE EDGE LINE			1637						4911		
EB	381+08	441+76	INSIDE EDGE LINE			2023						6068		
WB	404+60	454+75	INSIDE EDGE LINE			1672						5015		
WB	404+60	459+47	OUTSIDE EDGE LINE			1829						5487		
<b>TOTAL</b>				<b>1, 716</b>	<b>17, 350</b>	<b>13, 901</b>	<b>2, 950</b>	<b>14, 400</b>	<b>298</b>	<b>28</b>	<b>6, 275</b>	<b>41, 702</b>	<b>8, 539</b>	<b>2, 950</b>

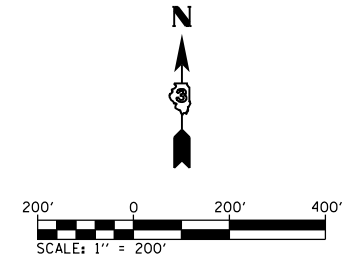
FENCING & SIGNS SCHEDULE

LOCATION	STATION	OFFSET	STATION	OFFSET	SIGN TYPE	REM & REIN DELINEATOR (EACH)	WOV W FENCE 4 (FOOT)	REMOV SIGN PANEL T1 (SQ FT)	REMOV SIGN PANEL T2 (SQ FT)	SIGN PANEL T1 (SQ FT)	SIGN PANEL T2 (SQ FT)	WOOD SIN SUPPORT (FOOT)	MILE POST MKR ASSEMBLY (EACH)
<b>I-80 EB</b>													
EB XOVER	396+60					1							
EB XOVER	404+60					1							
	407+40	44' LT			"NO U TURN" R3-4-3636					9		17	
	407+40	44' LT			"EXCEPT AUTHORIZED VEHICLES" R3-1101-3624					6			
EXISTING "HENNEPIN CANAL" SIGN	428+31	25.7' RT			"HENNEPIN CANAL" D7-1-4830			10		10		15	
"MILE MARKER 44"	428+31	25.7' RT											1
	428+50	RT	435+60	RT		2							
EXISTING SIGN	432+23	43.5' LT			"NO U TURN" R3-4-3636			9					
EXISTING SIGN	432+23	43.5' LT			"EXCEPT AUTHORIZED VEHICLES" R3-1101-3624			6					
EXISTING SIGN	432+23	43.5' LT			"NO U TURN" R3-4-3636			9					
EXISTING SIGN	432+23	43.5' LT			"EXCEPT AUTHORIZED VEHICLES" R3-1101-3624			6					
	439+95	44' LT			"NO U TURN" R3-4-3636					9		17	
	439+95	44' LT			"EXCEPT AUTHORIZED VEHICLES" R3-1101-3624					6			
<b>I-80 WB</b>													
	409+37	44' RT			"NO U TURN" R3-4-3636					9		17	
	409+37	44' RT			"EXCEPT AUTHORIZED VEHICLES" R3-1101-3624					6			
WB XOVER	412+15					1							
WB XOVER	420+15					1							
EXISTING "HENNEPIN CANAL" SIGN	426+43	28.5' LT			"HENNEPIN CANAL" D7-1-4830			10		10		15	
"MILE MARKER 44"	428+04	25.3' LT											1
	428+50	LT	435+60	LT		2							
	442+06	44' RT			"NO U TURN" R3-4-3636					9		17	
	442+06	44' RT			"EXCEPT AUTHORIZED VEHICLES" R3-1101-3624					6			
<b>HENNEPIN CANAL</b>													
WEST CANAL BANK							93						
EAST CANAL BANK							218						
<b>TOTAL</b>						<b>8</b>	<b>311</b>	<b>30</b>	<b>20</b>	<b>60</b>	<b>20</b>	<b>98</b>	<b>2</b>





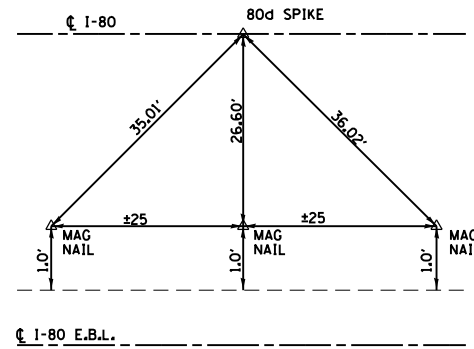
<b>EB</b>	<b>WB</b>
PROP. CURVE 0910EAST-1	PROP. CURVE 0910WEST-1
PI STA. = 422+73.70	PI STA. = 422+82.96
$\Delta = 12^\circ 00' 27''$ (RT)	$\Delta = 12^\circ 00' 27''$ (RT)
D = $0^\circ 30' 08''$	D = $0^\circ 29' 54''$
R = 11,408.05'	R = 11,496.05'
T = 1,199.78'	T = 1,209.04'
L = 2,390.78'	L = 2,409.22'
E = 62.92'	E = 63.40'
e = 1.5%	e = 1.5%
T.R. = 42'	T.R. = 42'
S.E. RUN = 42'	S.E. RUN = 42'
P.C. STA. = 410+73.92	P.C. STA. = 410+73.92
P.T. STA. = 434+64.70	P.T. STA. = 434+83.14
SUPERELEVATION TRANSITION	SUPERELEVATION TRANSITION
STA. 434+50.70 TO STA. 435+34.70	STA. 434+69.14 TO STA. 435+53.14



GROUND COORDINATES

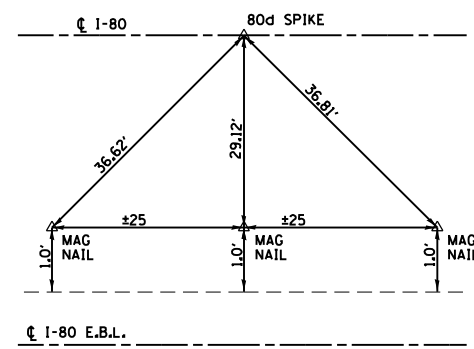
	STATION	NORTHING	EASTING
<b>I-80 EB</b>			
POT	399+41.70	1719048.8474	2421121.3677
PC	410+73.92	1719281.4616	2422229.4298
PI	422+73.70	1719527.9579	2423403.6191
PT	434+64.70	1719524.7841	2424603.3985
POT	459+28.85	1719518.2624	2427067.5395
<b>I-80 WB</b>			
POT	399+41.74	1719134.9776	2421103.3238
PC	410+73.92	1719367.5844	2422211.3502
PI	422+82.96	1719615.9821	2423394.5969
PT	434+83.14	1719612.7838	2424603.6313
POT	459+47.29	1719606.2621	2427067.7724

BM #10 CHISELED SQUARE TOP OF NE WINGWALL SN 006-0011 21.36' LEFT STA. 427+76.16 (EB) ELEVATION 645.82
CP #2 IRON BAR W/ CAP 28.35' LEFT STA. 437+36.36 (EB) ELEVATION 646.03



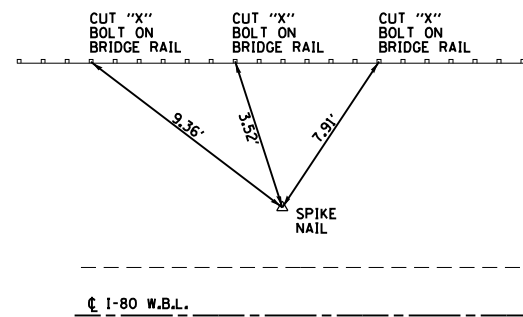
P.C. STA 410+73.92  
I-80 ℄

NOT TO SCALE



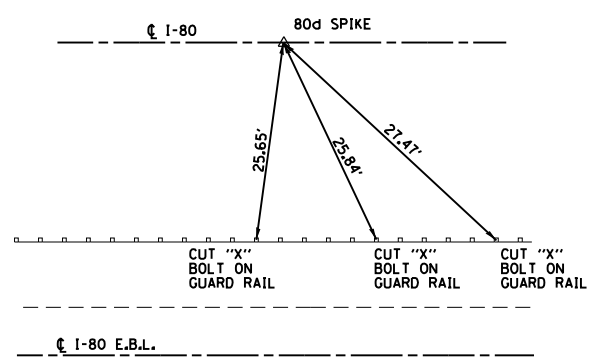
P.O.C. STA 418+00.00  
I-80 ℄

NOT TO SCALE



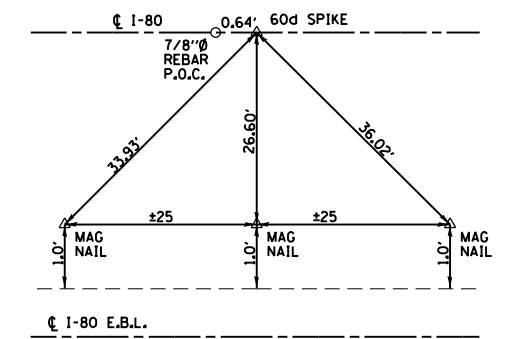
P.I. STA 422+78.33  
I-80 ℄

NOT TO SCALE



P.O.C. STA 428+00.00  
I-80 ℄

NOT TO SCALE



P.T. STA 434+73.92  
I-80 ℄

NOT TO SCALE

FILE NAME =	USER NAME = brianheil	DESIGNED -	REVISED -
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	PLOT SCALE = 400.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

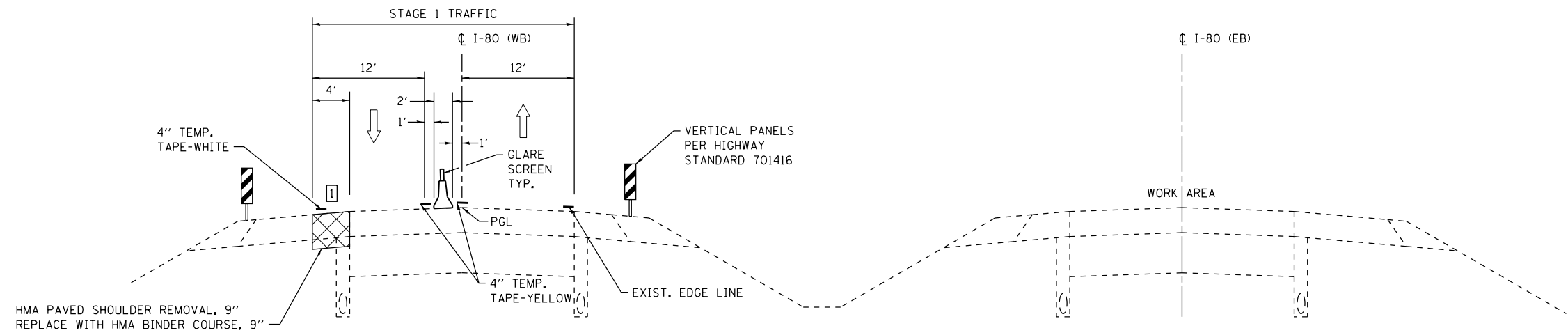
<b>TIE POINTS SHEET</b>			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4		133	24
			CONTRACT NO. 66998	
ILLINOIS FED. AID PROJECT				



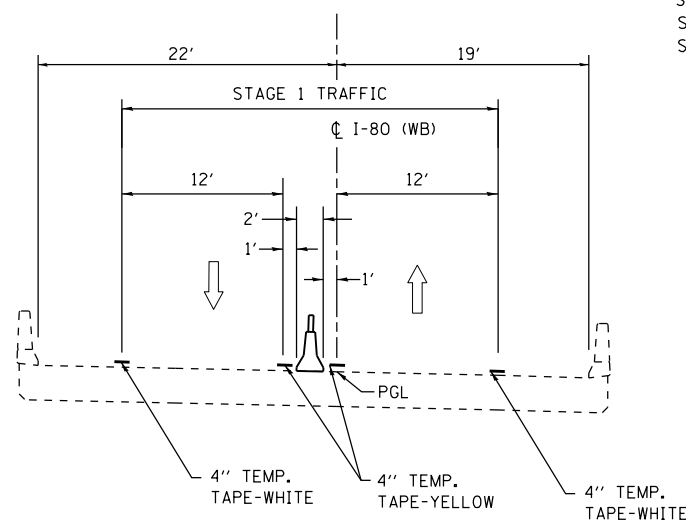






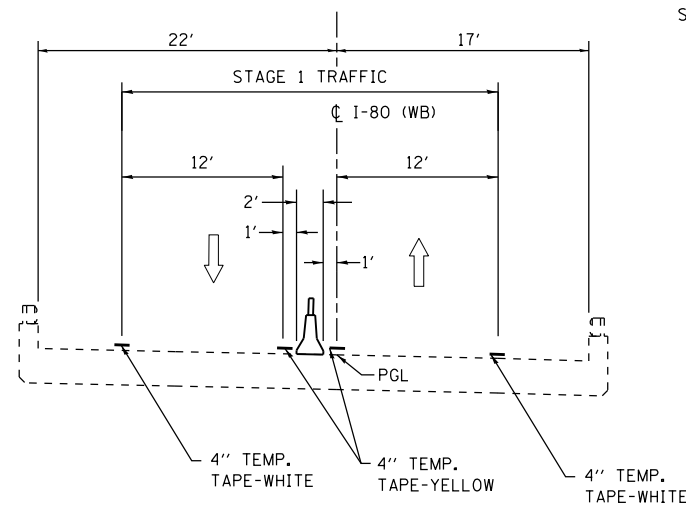
**STAGE 1 MAINLINE**

STA. 409+02.36 TO STA. 422+29.48 WB  
 STA. 424+10.27 TO STA. 425+52.83 WB [1] OMIT SHOULDER REMOVE AND REPLACE IN LAND BRIDGE AREA  
 STA. 426+98.38 TO STA. 440+43.71 WB



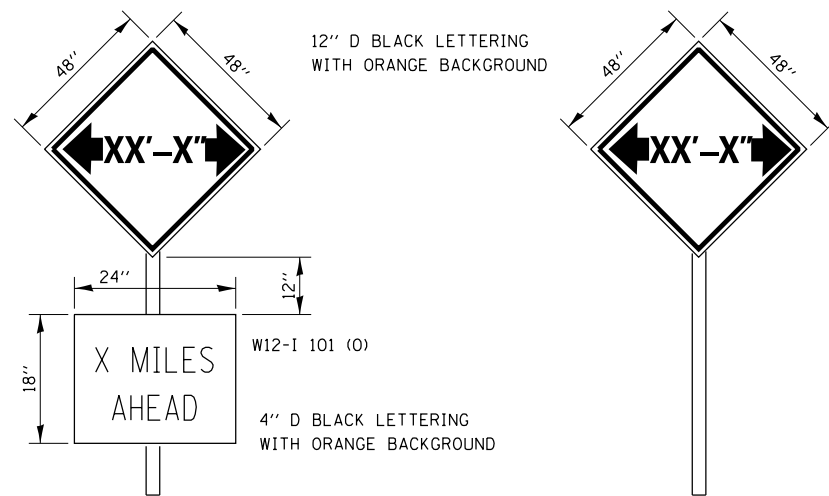
**STAGE 1 THROUGH DEVILS SLOUGH BRIDGE**

STA. 422+29.48 TO STA. 424+10.27 WB



**STAGE 1 THROUGH HENNEPIN CANAL BRIDGE**

STA. 425+52.83 TO STA. 426+98.38 WB



THE ENGINEER WILL SUBMIT AN OPER 2410 PERMIT TO THE CENTRAL BUREAU OF OPERATIONS PERMIT SECTION, 21 CALENDAR DAYS IN ADVANCE OF ANY WIDTH RESTRICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

COST OF SUPPLYING, INSTALLING, MAINTAINING AND REMOVING WIDTH RESTRICTION SIGNS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS.

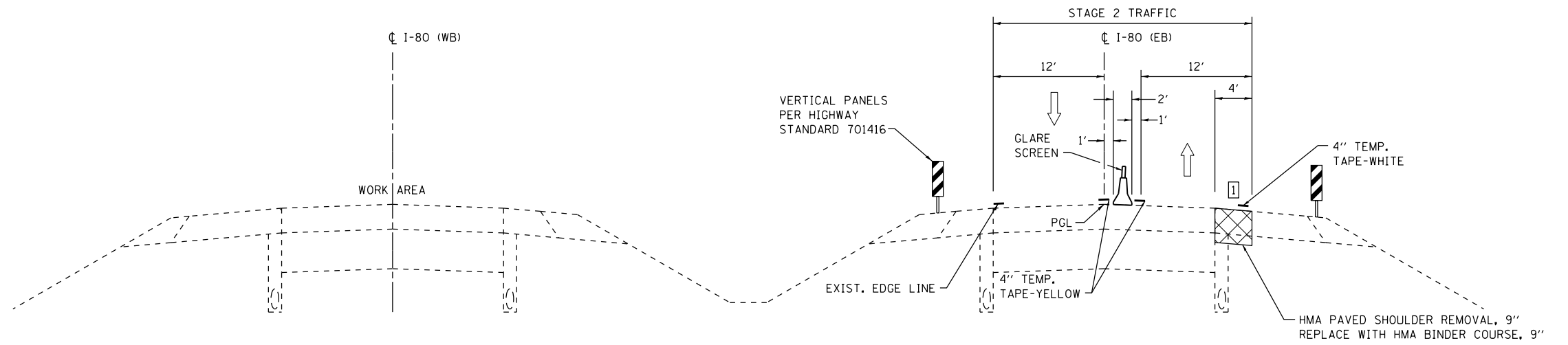
**WIDTH RESTRICTION SIGNING DETAILS**

STAGE I WIDTH 17'-6" WB-PLACE SIGN AT INTERCHANGE OF I-80 & RTE. 26  
 19'-0" ACTUAL CLEARANCE AT DEVIL'S SLOUGH AND 19'-0" ACTUAL CLEARANCE AT HENNEPIN

STAGE I WIDTH 16'-6" EB-PLACE SIGN AT INTERCHANGE OF I-80 & RTE. 78  
 20'-0" ACTUAL CLEARANCE AT DEVIL'S SLOUGH AND 18'-0" ACTUAL CLEARANCE AT HENNEPIN

FILE NAME = D366998-sht-staging.dgn	USER NAME = brianheil	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 CONSTRUCTION TYPICAL SECTIONS			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT TIME = 7:18:30 PM	DRAWN -	REVISED -					80	(06-2) BR-3,4		133	28
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE: 1"=50'	SHEET 1 OF 11 SHEETS	STA.	TO STA.	CONTRACT NO. 66998			
	PLOT DATE = 7/30/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

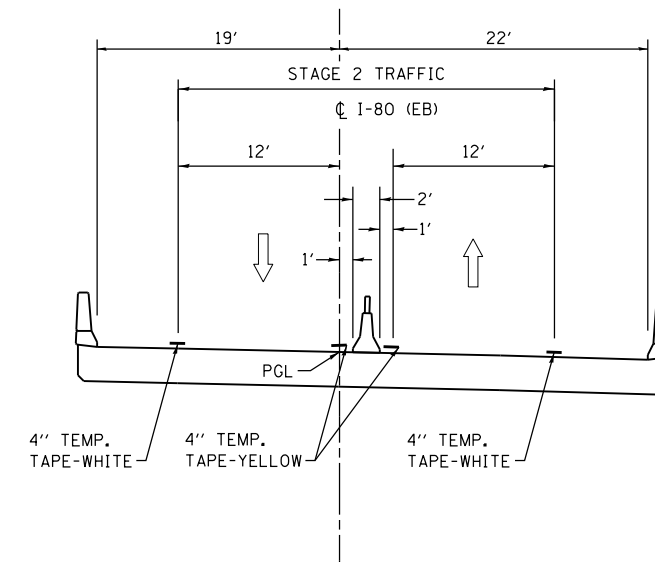
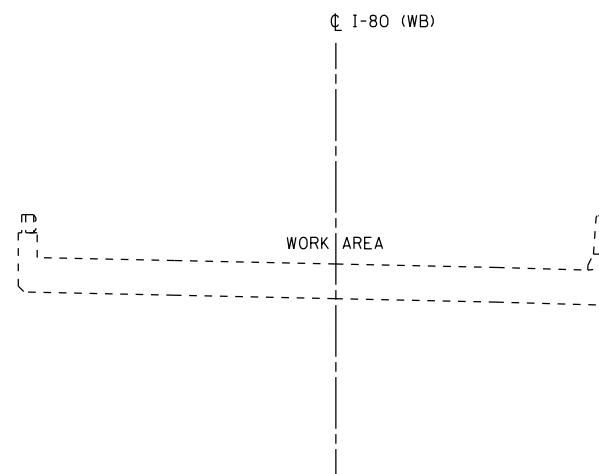
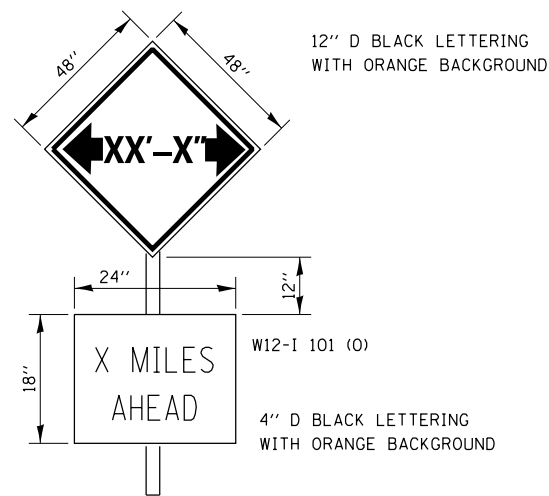




**STAGE 2 MAINLINE**

STA. 408+50.47 TO STA. 422+20.00 EB  
 STA. 423+94.53 TO STA. 425+63.52 EB  
 STA. 428+42.17 TO STA. 440+18.56 EB

1 OMIT SHOULDER REMOVE AND REPLACE IN LAND BRIDGE AREA



**STAGE 2 THROUGH BRIDGES**

STA. 422+20.00 TO STA. 423+94.53 EB  
 STA. 425+63.52 TO STA. 428+42.17 EB

THE ENGINEER WILL SUBMIT AN OPER 2410 PERMIT TO THE CENTRAL BUREAU OF OPERATIONS PERMIT SECTION, 21 CALENDAR DAYS IN ADVANCE OF ANY WIDTH RESTRICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO MEET THIS REQUIREMENT.

COST OF SUPPLYING, INSTALLING, MAINTAINING AND REMOVING WIDTH RESTRICTION SIGNS SHALL BE INCLUDED IN THE COST OF THE TRAFFIC CONTROL AND PROTECTION PAY ITEMS.

**WIDTH RESTRICTION SIGNING DETAILS**

STAGE II WIDTH 17'-6" WB-PLACE SIGN AT INTERCHANGE OF I-80 & RTE. 26  
 20'-0" ACTUAL CLEARANCE AT DEVIL'S SLOUGH AND 19'-0" ACTUAL CLEARANCE AT HENNEPIN

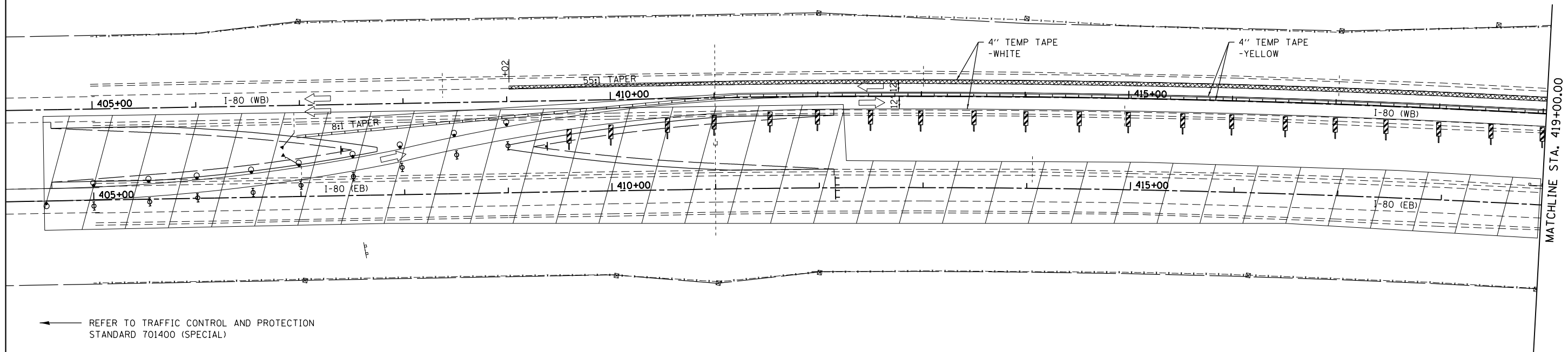
STAGE II WIDTH 17'-6" EB-PLACE SIGN AT INTERCHANGE OF I-80 & RTE. 78  
 20'-0" ACTUAL CLEARANCE AT DEVIL'S SLOUGH AND 19'-0" ACTUAL CLEARANCE AT HENNEPIN

FILE NAME = D366998-sht-staging.dgn	USER NAME = brianheil	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>STAGE 2 CONSTRUCTION TYPICAL SECTIONS</b>			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT TIME = 7:18:31 PM	DRAWN -	REVISED -					80	(06-2) BR-3,4		133	29
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE: 1"=50'	SHEET 2 OF 11 SHEETS	STA.	TO STA.	CONTRACT NO. 66998			
	PLOT DATE = 7/30/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

**STAGE 1**

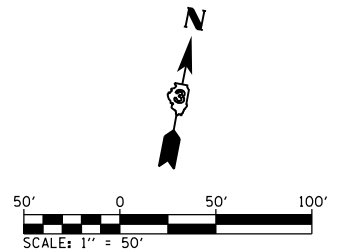
1. CONSTRUCT THE TYPE 1 TERMINAL AND GUARDRAIL IN THE SOUTHWEST QUADRANT OF S.N. 006-0010. SAW CUT AND REMOVE THE 4' STRIP OF OUTSIDE SHOULDER OF THE WESTBOUND LANES AND INSTALL 9" HMA BINDER COURSE IN ITS PLACE UTILIZING TRAFFIC CONTROL AND PROTECTION STANDARDS 701400 (SPECIAL) AND 701401 (SPECIAL).
2. CONSTRUCT THE CROSSOVERS FROM STA. 404+60 TO STA. 412+14 AND STA. 437+14 TO STA. 444+69 UTILIZING TRAFFIC CONTROL AND PROTECTION STANDARDS 701101, 701400 (SPECIAL), AND 701401. EXTEND THE PIPE DRAINS AT STA. 406+94 LT (WB), 407+01 RT (EB), 428+29 LT (WB), 428+44 RT (WB), 430+05 RT (WB), 439+92 LT (EB), AND 440+11 RT (WB). REMOVE THE EXISTING MAINTENANCE CROSSOVER AT STA. 432+02 (EB) AND REDRESS THE MEDIAN IN THIS AREA.
3. INSTALL THE TEMPORARY LIGHTING AT THE CROSSOVERS. UTILIZING TRAFFIC CONTROL AND PROTECTION STANDARD 701406.
4. SWITCH EASTBOUND TRAFFIC ONTO THE WESTBOUND LANES UTILIZING THE CROSSOVERS AND TRAFFIC CONTROL AND PROTECTION STANDARDS 701400 (SPECIAL) AND 701416.
5. FILL VOIDS UNDER LAND BRIDGE SLABS IN THE EB LANES AS NOTED IN THE PLANS.
6. INSTALL THE NEW STEEL LIGHT POLE FOUNDATION AT STA. 422+48 30' RT. RELOCATE THE EXISTING POLE AT STA. 420+56 EB TO THIS NEW FOUNDATION AND INSTALL THE CONDUIT AS SHOWN IN THE PLANS AND SPECS. PERFORM ALL OTHER INSTALLATION PROCEDURES AS REQUIRED IN THE SPECS FOR REPLACEMENT OF SENSORS FOR ROADWAY WEATHER INFORMATION SYSTEM.
7. REMOVE S.N. 006-0011 AND CONSTRUCT S.N. 006-0184. CONSTRUCT THE PROFILE ADJUSTMENT IN THE EASTBOUND LANES AND REDRESS THE SIDE SLOPES AS NEEDED FROM STA. 424+45 TO STA. 435+60. INSTALL THE GUARDRAIL END TREATMENTS IN EACH QUADRANT AND THE NEW GUARDRAIL ON BOTH SIDES OF THE BRIDGE. INSTALL THE INSIDE SHOULDER RUMBLE STRIPS ON THE EB LANE FROM STA. 424+45 TO STA. 425+46 AND STA. 428+30 TO STA. 435+60.
8. SAW CUT AND REMOVE THE 4' STRIP OF OUTSIDE SHOULDER OF THE EASTBOUND LANES AND INSTALL 9" HMA BINDER COURSE IN ITS PLACE.

9. SWITCH TRAFFIC BACK TO THE EASTBOUND AND WESTBOUND LANES. REMOVE THE TEMP. CONCRETE BARRIER AND STORE OFF OF ROW IN PREPARATION FOR USE IN STAGE 2. REMOVE TEMP. PAVEMENT MARKINGS INSTALLED AT THE BEGINNING OF STAGE 1 AND INSTALL TEMP. PAVEMENT MARKING TAPE FOR TWO LANE TRAFFIC IN EACH DIRECTION FROM:
  - 407+47 TO 458+24 (WB)
  - 384+55 TO 406+65 (EB)
  - 424+54 TO 435+60 (EB)
  - 442+46 TO 444+56 (EB)



**LEGEND**

- WORK AREA
- PAVEMENT REMOVAL
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- VERTICAL PANEL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
- DIRECTION OF TRAFFIC



FILE NAME = D366998-sht-staging.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
	PLOT TIME = 7:18:31 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

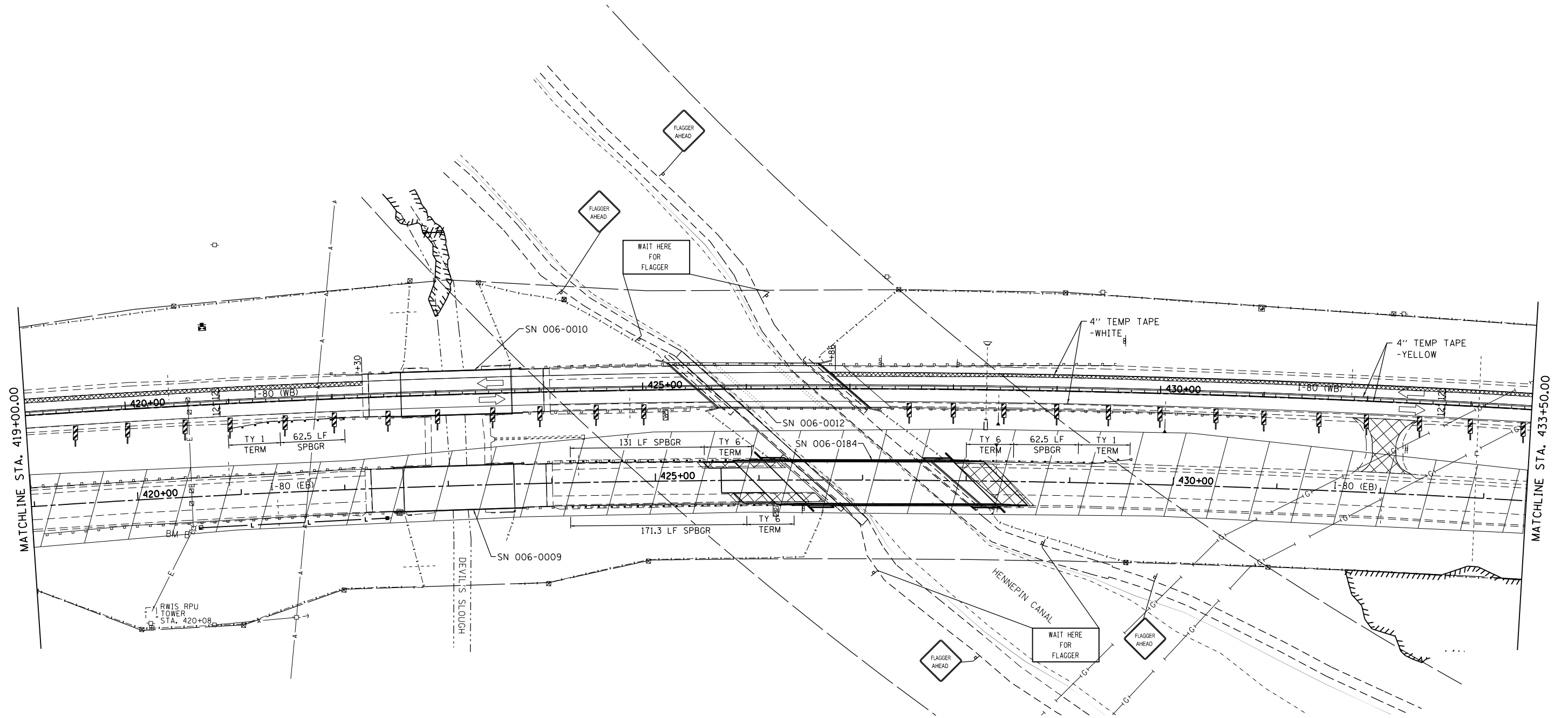
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGE CONSTRUCTION  
STAGE 1**

SCALE: 1"=50' SHEET 3 OF 11 SHEETS STA. 405+00.00 TO STA. 419+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	30
<b>CONTRACT NO. 66998</b>				
ILLINOIS FED. AID PROJECT				

NOTE:  
SEE HIGHWAY STANDARD 701416 FOR DETAILS NOT SHOWN



NOTE:

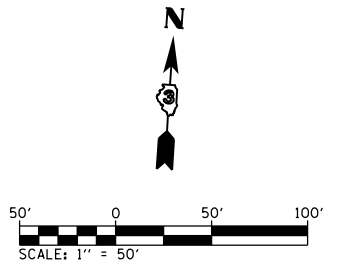
1. CONTRACTOR SHALL PROVIDE REQUIRED CANAL CLEARANCES AS DESCRIBED IN PLAN GENERAL NOTES. A FLAGGER SHALL BE PROVIDED FOR THE MULTI USE PATH AND EQUESTRIAN TRAIL (UNLESS THE TRAIL IS CLOSED) DURING DAYLIGHT WORK HOURS FOR THE FOLLOWING WORK ACTIVITIES OR AS DIRECTED BY THE ENGINEER:

- EXISTING BRIDGE DEMOLITION OVER AND ADJACENT TO THE PATH
- DRIVING PILES ADJACENT TO THE PATH
- SETTING GIRDERS OVER THE PATH
- ERECTING OR DISMANTLING FORMWORK OVER THE PATH
- POURING CONCRETE OVER THE PATH

THE FLAGGER SIGNS SHALL BE COVERED OR REMOVED WHEN THEY CONFLICT WITH CURRENT REQUIREMENTS. THE COST OF THE FLAGGER AND SIGNS AS DETAILED ON THIS SHEET SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL)

**LEGEND**

- WORK AREA
- PAVEMENT REMOVAL
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- VERTICAL PANEL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
- DIRECTION OF TRAFFIC



FILE NAME = D366998-sh1-staging.dgn	USER NAME = brionheil	DESIGNED -	REVISED -
	PLOT TIME = 7:18:31 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

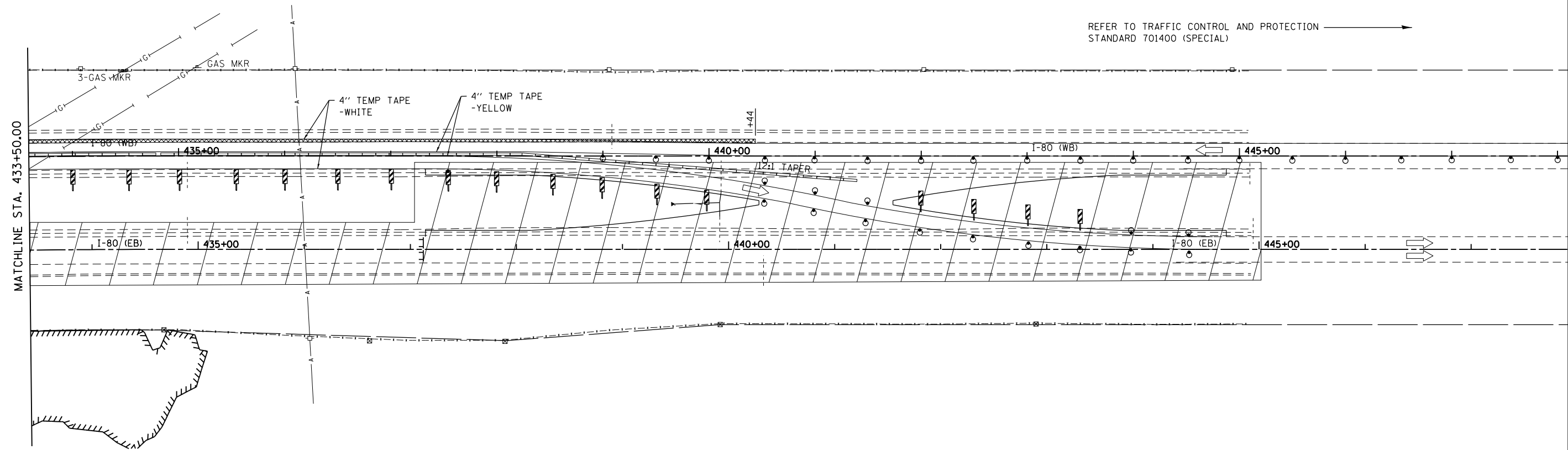
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGE CONSTRUCTION  
STAGE 1**

SCALE: 1"=50' SHEET 4 OF 11 SHEETS STA. 419+00.00 TO STA. 433+50.00









F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	31
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

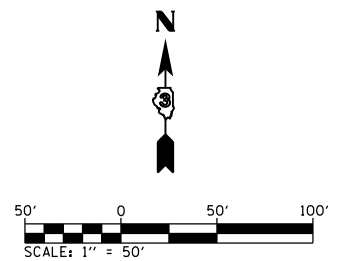
NOTE:  
SEE HIGHWAY STANDARD 701416 FOR DETAILS NOT SHOWN



REFER TO TRAFFIC CONTROL AND PROTECTION  
STANDARD 701400 (SPECIAL)

**LEGEND**

-  WORK AREA
-  PAVEMENT REMOVAL
-  DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  VERTICAL PANEL
-  TEMPORARY CONCRETE BARRIER
-  TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
-  DIRECTION OF TRAFFIC



FILE NAME = D366998-sh1-staging.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
	PLOT TIME = 7:18:32 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

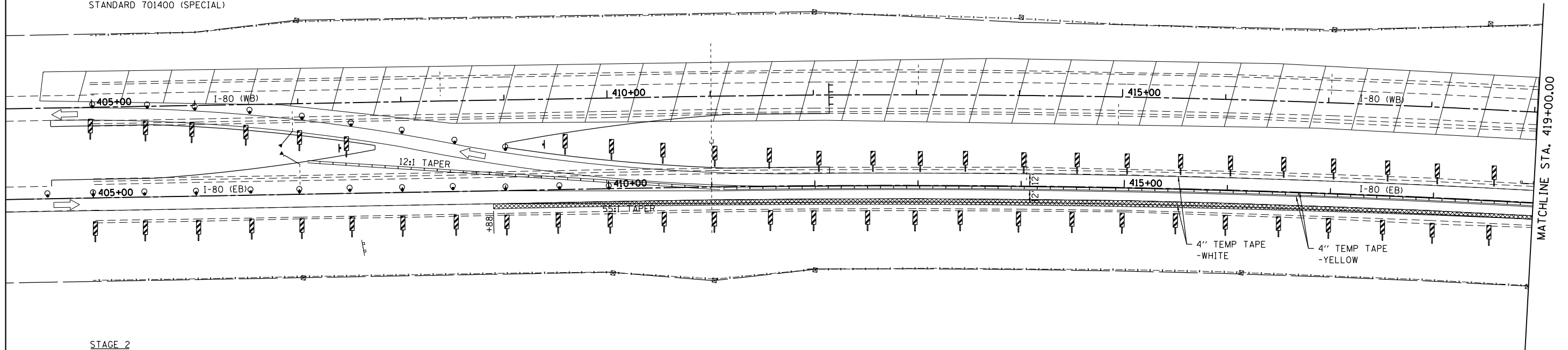
**SUGGESTED STAGE CONSTRUCTION  
STAGE 1**

SCALE: 1"=50' SHEET 5 OF 11 SHEETS STA. 433+50.00 TO STA. 445+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4		133	32
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

NOTE:  
SEE HIGHWAY STANDARD 701416 FOR DETAILS NOT SHOWN

← REFER TO TRAFFIC CONTROL AND PROTECTION  
STANDARD 701400 (SPECIAL)

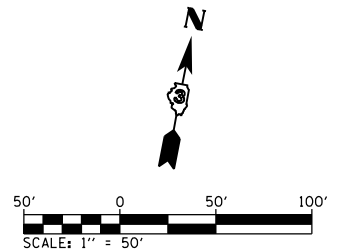


**STAGE 2**

1. RELOCATE THE TEMPORARY CONCRETE BARRIERS TO THE STAGE 2 LOCATIONS AND SWITCH TRAFFIC TO THE EASTBOUND LANES UTILIZING THE CROSSOVERS AND TRAFFIC CONTROL AND PROTECTION STANDARDS 701400 (SPECIAL) AND 701416.
2. FILL VOIDS UNDER LAND BRIDGE SLABS IN THE WB LANES AS NOTED IN THE PLANS.
3. REMOVE S.N. 006-0012 AND CONSTRUCT S.N. 006-0185. CONSTRUCT THE PROFILE ADJUSTMENT IN THE WESTBOUND LANES AND REDRESS THE SIDE SLOPES AS NEEDED FROM STA. 424+10 TO STA. 435+60. INSTALL THE GUARDRAIL END TREATMENTS IN EACH QUADRANT AND THE NEW GUARDRAIL ON BOTH SIDES OF THE BRIDGE AS SHOWN. REMOVE THE TYPE 1 TERMINAL GUARDRAIL SECTION IN THE SW QUADRANT OF WB DEVIL'S SLOUGH AND INSTALL A TYPE 2 TRAFFIC BARRIER TERMINAL AS SHOWN.
4. MILL AND OVERLAY THE WESTBOUND LANES FROM STA. 409+00 TO STA. 422+29 AND STA. 435+60 TO STA. 440+00.
5. INSTALL THE SHOULDER RUMBLE STRIPS ON THE OUTSIDE SHOULDER WB LANES FROM STA. 409+02 TO STA. 422+30, STA. 424+10 TO STA. 424+57, AND STA. 427+39 TO STA. 440+44. INSTALL THE WB INSIDE SHOULDER RUMBLE STRIPS FROM 424+10 TO STA. 424+80 AND STA. 427+64 TO STA. 435+60.
6. INSTALL THE PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE MARKERS IN THE WB LANES FROM STA. 409+00 TO STA. 440+00.

**LEGEND**

- WORK AREA
- PAVEMENT REMOVAL
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- VERTICAL PANEL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
- DIRECTION OF TRAFFIC



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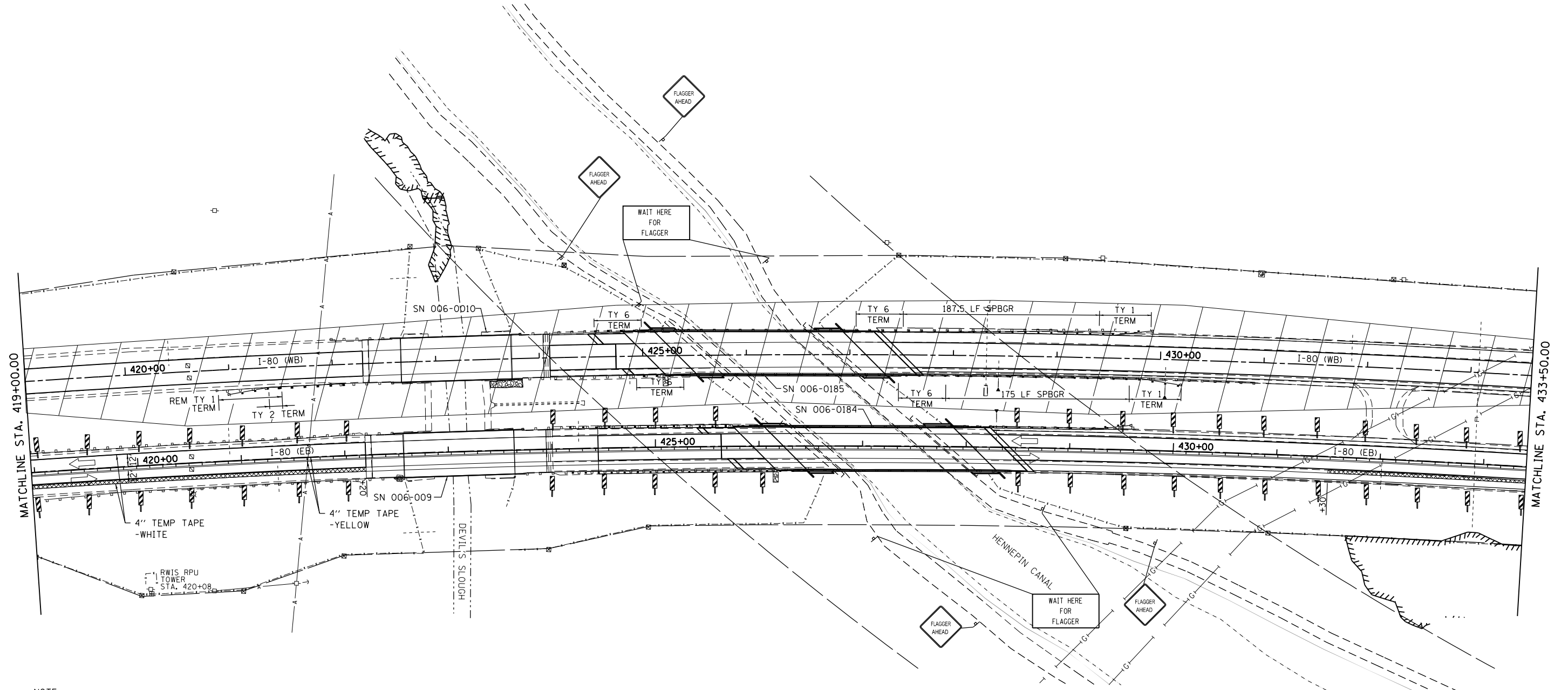
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGE CONSTRUCTION  
STAGE 2**

SCALE: 1"=50' SHEET 6 OF 11 SHEETS STA. 405+00.00 TO STA. 419+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	33
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

NOTE:  
SEE HIGHWAY STANDARD 701416 FOR DETAILS NOT SHOWN



NOTE:

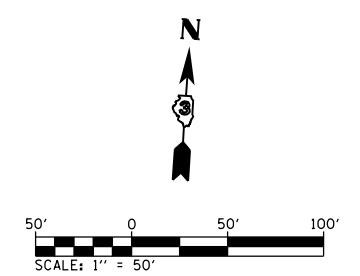
1. CONTRACTOR SHALL PROVIDE REQUIRED CANAL CLEARANCES AS DESCRIBED IN PLAN GENERAL NOTES. A FLAGGER SHALL BE PROVIDED FOR THE MULTI USE PATH AND EQUESTRIAN TRAIL (UNLESS THE TRAIL IS CLOSED) DURING DAYLIGHT WORK HOURS FOR THE FOLLOWING WORK ACTIVITIES OR AS DIRECTED BY THE ENGINEER:

- EXISTING BRIDGE DEMOLITION OVER AND ADJACENT TO THE PATH
- DRIVING PILES ADJACENT TO THE PATH
- SETTING GIRDERS OVER THE PATH
- ERECTING OR DISMANTLING FORMWORK OVER THE PATH
- POURING CONCRETE OVER THE PATH

THE FLAGGER SIGNS SHALL BE COVERED OR REMOVED WHEN THEY CONFLICT WITH CURRENT REQUIREMENTS. THE COST OF THE FLAGGER AND SIGNS AS DETAILED ON THIS SHEET SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (SPECIAL)

**LEGEND**

- WORK AREA
- PAVEMENT REMOVAL
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- VERTICAL PANEL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
- DIRECTION OF TRAFFIC



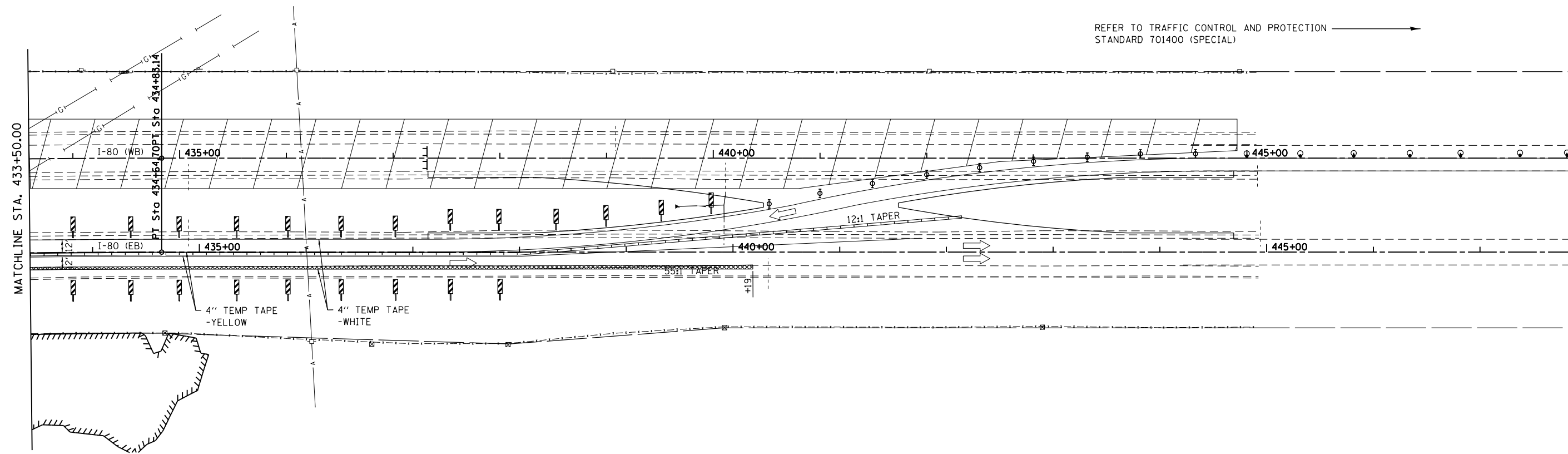
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SUGGESTED STAGE CONSTRUCTION STAGE 2</b>			
SCALE: 1"=50'	SHEET 7 OF 11 SHEETS	STA. 419+00.00 TO STA. 433+50.00	









F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	34
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

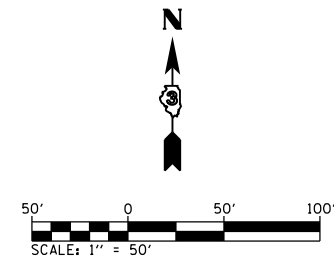
NOTE:  
SEE HIGHWAY STANDARD 701416 FOR DETAILS NOT SHOWN



REFER TO TRAFFIC CONTROL AND PROTECTION  
STANDARD 701400 (SPECIAL) →

**LEGEND**

-  WORK AREA
-  PAVEMENT REMOVAL
-  DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  VERTICAL PANEL
-  TEMPORARY CONCRETE BARRIER
-  TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
-  DIRECTION OF TRAFFIC



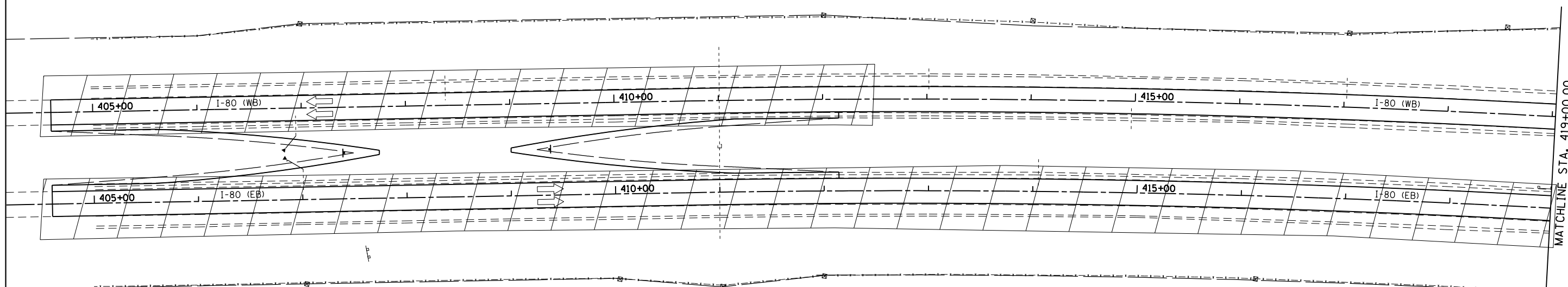
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGE CONSTRUCTION  
STAGE 2**

SCALE: 1"=50' SHEET 8 OF 11 SHEETS STA. 433+50.00 TO STA. 445+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4		133	35
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

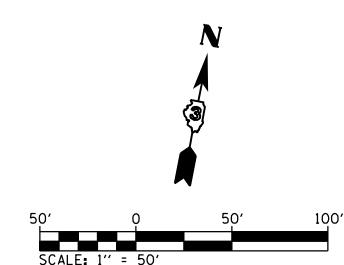


**STAGE 3**

1. UTILIZE TRAFFIC CONTROL AND PROTECTION STANDARD 701406 FOR ALL ITEMS IN STAGE 3. UTILIZE SHORT TERM PAVEMENT MARKINGS FOR STAGE 3 PER SECTION 703.
2. REMOVE THE TEMPORARY CONCRETE BARRIERS AND SWITCH TRAFFIC BACK TO THEIR PROPER LANES.
3. MILL AND OVERLAY THE EASTBOUND LANES FROM STA. 404+60 TO STA. 422+20 AND STA. 435+60 TO STA. 444+69. MILL AND OVERLAY THE WESTBOUND LANES FROM STA. 404+60 TO STA. 408+00 AND STA. 440+00 TO STA. 444+88.
4. INSTALL THE EB SHOULDER RUMBLE STRIPS ON THE INSIDE SHOULDER FROM STA. 404+60 TO STA. 412+14 AND STA. 437+14 TO STA. 444+69 AND ON THE OUTSIDE SHOULDER FROM STA. 408+88 TO STA. 422+20, STA. 424+45 TO STA. 425+69, AND STA. 428+55 TO STA. 440+19. INSTALL THE WB SHOULDER RUMBLE STRIPS ON THE INSIDE SHOULDER FROM STA. 404+60 TO STA. 412+14 AND STA. 437+33 TO STA. 444+88.
5. INSTALL THE PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKINGS IN THE EASTBOUND LANES. INSTALL THE PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKINGS IN THE WB LANES FROM STA. 404+60 TO STA. 409+00 AND 440+00 TO 444+88. INSTALL THE MEDIAN CROSSOVER CLOSURE WITH THE EMERGENCY OPENING AT STA. 408+35 (EB) AND THE PERMANENT MEDIAN CROSSOVER CLOSURE AT STA. 440+90 (EB) PER THE DETAILS IN THE PLANS.
6. REMOVE AND REPLACE THE MULTI USE PATH AS SHOWN. EXCAVATE AND REPLACE THE EQUESTRIAN TRAIL AS SHOWN.
7. REMOVE TEMPORARY LIGHTING AT THE CROSSOVERS UTILIZING TRAFFIC CONTROL AND PROTECTION STANDARD 701406.
8. REINSTALL SIGNS, DELINEATORS, AND MILE MARKERS AS SHOWN IN THE SCHEDULE. INSTALL THE WOVEN WIRE FENCE AT THE TOP OF THE CANAL BANKS.

**LEGEND**

- WORK AREA
- PAVEMENT REMOVAL
- DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
- TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
- VERTICAL PANEL
- TEMPORARY CONCRETE BARRIER
- TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
- DIRECTION OF TRAFFIC



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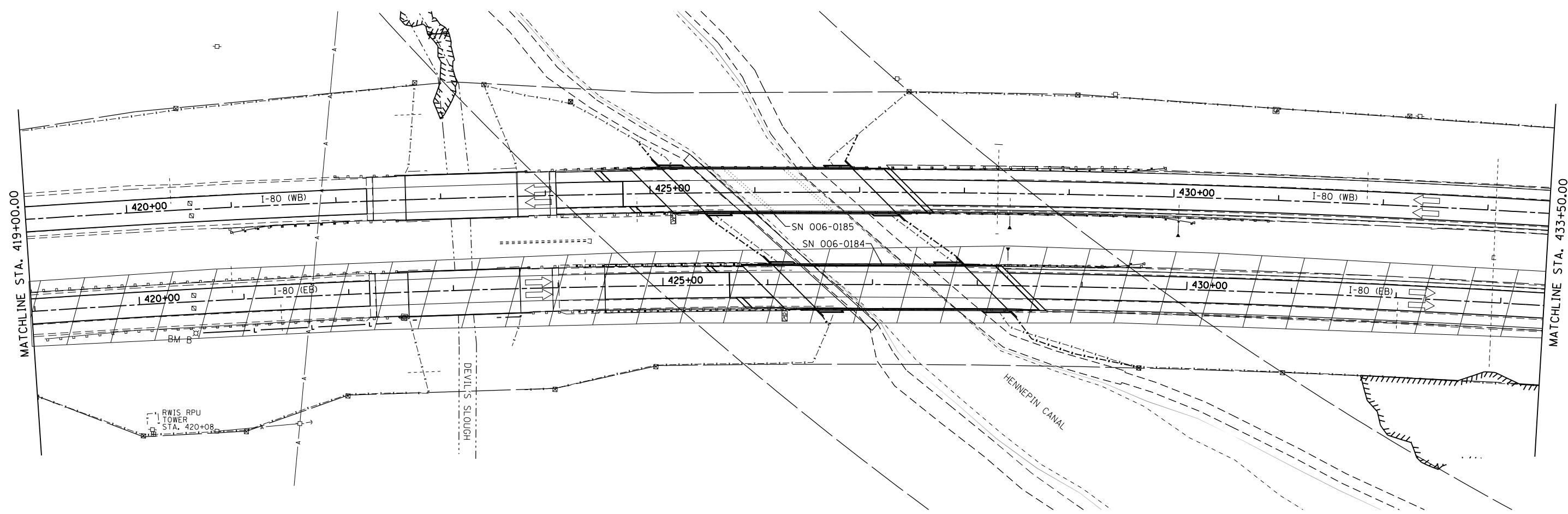
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED STAGE CONSTRUCTION  
STAGE 3**









SCALE: 1"=50' SHEET 9 OF 11 SHEETS STA. 405+00.00 TO STA. 419+00.00

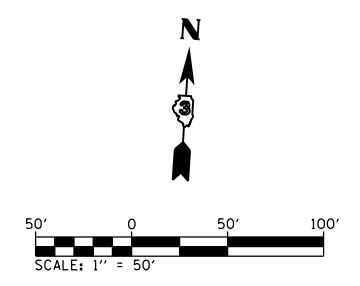
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80	(06-2) BR-3,4	BUREAU	133	36
<b>CONTRACT NO. 66998</b>				
ILLINOIS FED. AID PROJECT				





**LEGEND**

-  WORK AREA
-  PAVEMENT REMOVAL
-  DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  VERTICAL PANEL
-  TEMPORARY CONCRETE BARRIER
-  TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
-  DIRECTION OF TRAFFIC



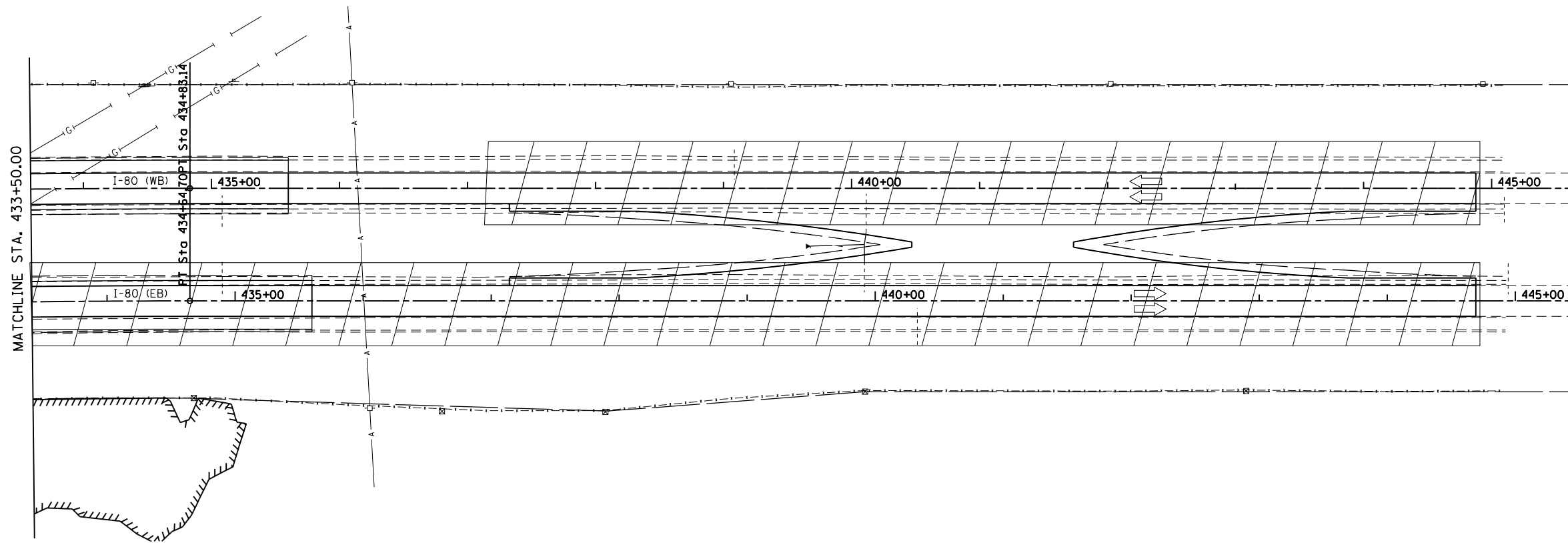
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**









**SUGGESTED STAGE CONSTRUCTION  
STAGE 3**

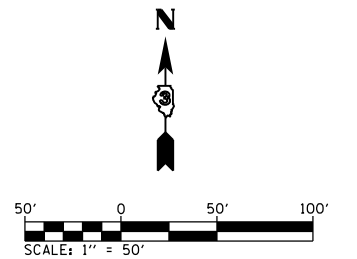
SCALE: 1"=50'      SHEET 10 OF 11 SHEETS      STA. 419+00.00 TO STA. 433+50.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	37
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**LEGEND**

-  WORK AREA
-  PAVEMENT REMOVAL
-  DRUM WITH STEADY BURNING MONODIRECTIONAL LIGHT
-  TYPE II BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  VERTICAL PANEL
-  TEMPORARY CONCRETE BARRIER
-  TYPE III BARRICADES WITH TWO STEADY BURNING LIGHTS
-  DIRECTION OF TRAFFIC



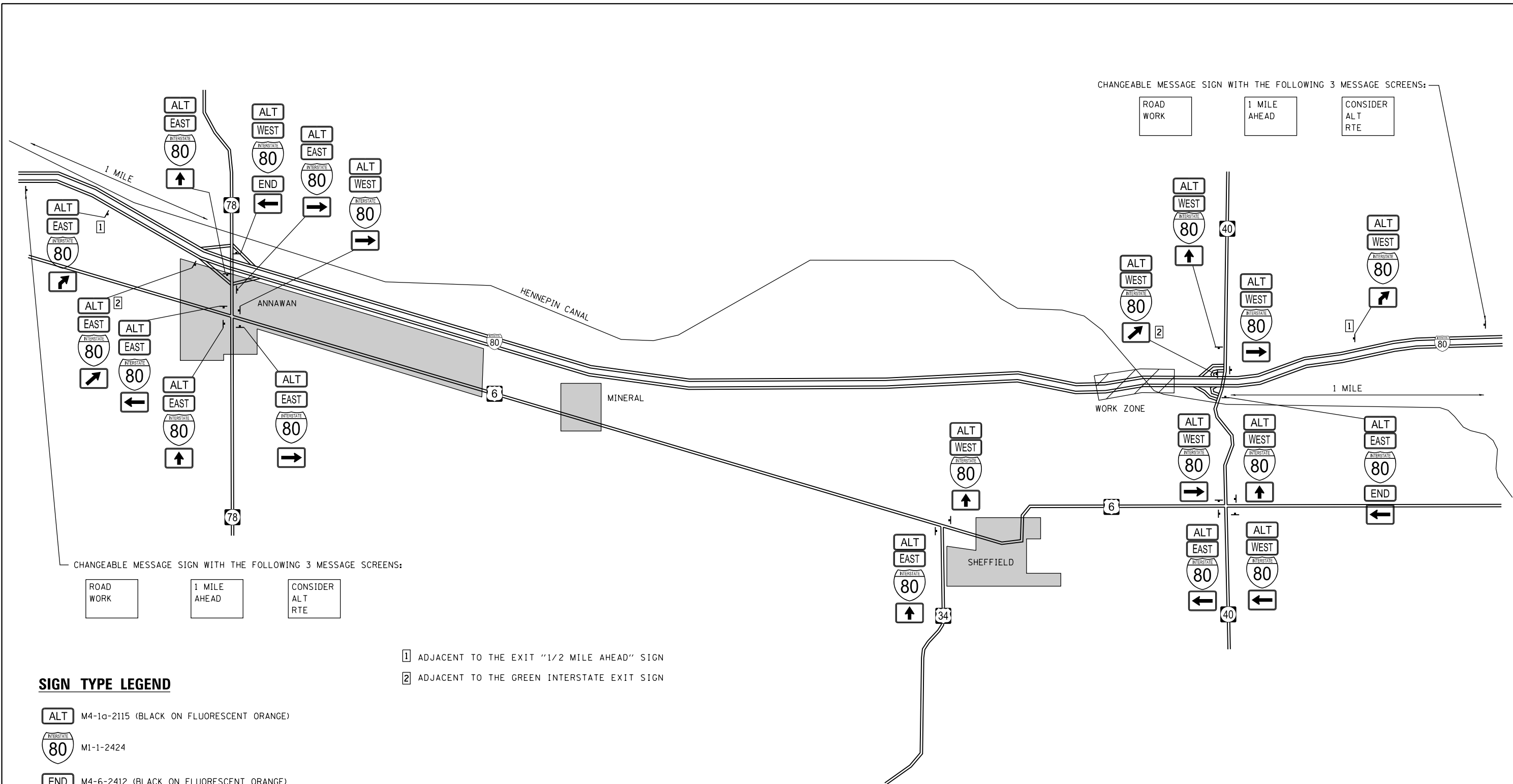
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

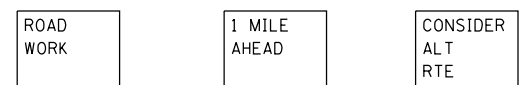
**SUGGESTED STAGE CONSTRUCTION  
STAGE 3**

SCALE: 1"=50'    SHEET 11 OF 11 SHEETS    STA. 433+50.00 TO STA. 445+00.00

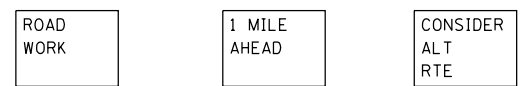
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	38
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



CHANGEABLE MESSAGE SIGN WITH THE FOLLOWING 3 MESSAGE SCREENS:



CHANGEABLE MESSAGE SIGN WITH THE FOLLOWING 3 MESSAGE SCREENS:



**SIGN TYPE LEGEND**

- M4-1a-2115 (BLACK ON FLUORESCENT ORANGE)
- M1-1-2424
- M4-6-2412 (BLACK ON FLUORESCENT ORANGE)
- M3-4-2412
- M3-2-2412
- M6-1-2115 (BLACK ON FLUORESCENT ORANGE)
- M6-3-2115 (BLACK ON FLUORESCENT ORANGE)
- M6-2(R)-2115 (BLACK ON FLUORESCENT ORANGE)
- W5-2(R)-2115 (BLACK ON FLUORESCENT ORANGE)

- 1 ADJACENT TO THE EXIT "1/2 MILE AHEAD" SIGN
- 2 ADJACENT TO THE GREEN INTERSTATE EXIT SIGN

**NOTES:**

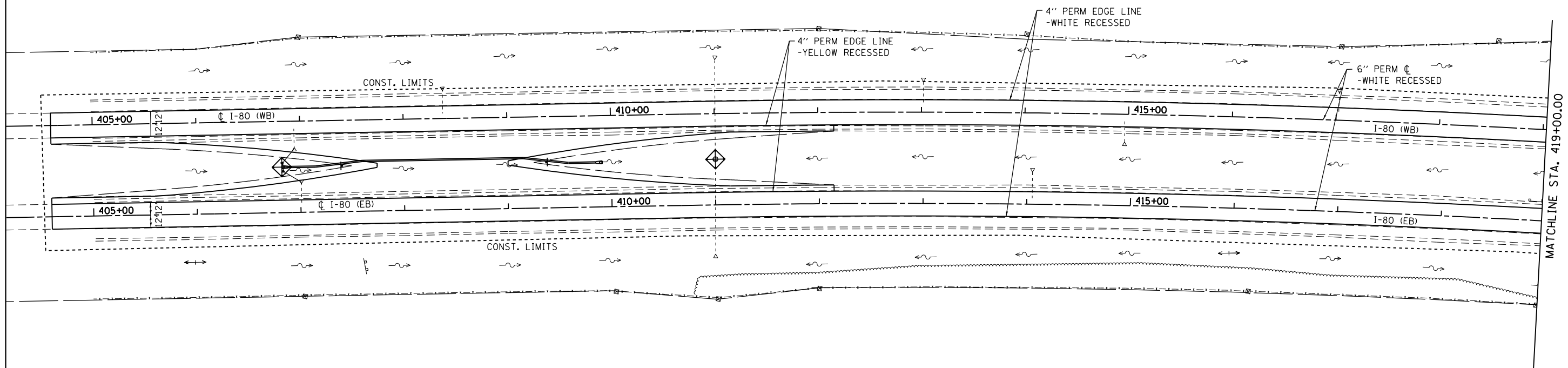
1. ALL SIGNS SHALL BE INSTALLED PER HIGHWAY STANDARD 720001, 720006, AND 720011. ALL SIGNS SHALL BE INSTALLED ON STEEL POSTS DRIVEN INTO THE GROUND.
2. ALL ALTERNATE ROUTE SIGNS AND CHANGEABLE MESSAGE SIGNS SHALL BE INSTALLED AT PROJECT STARTUP AND SHALL REMAIN UNTIL PROJECT COMPLETION. ALL SIGNS SHOWN SHALL BE NEW OR LIKE NEW CONDITION. THE COST TO INSTALL THESE SIGNS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ALTERNATE ROUTE SIGNING.
3. ALL SIGN ASSEMBLIES SHALL BE INSTALLED ADJACENT TO EXISTING ROUTE MARKERS AND AS DIRECTED BY THE ENGINEER.

NOT TO SCALE






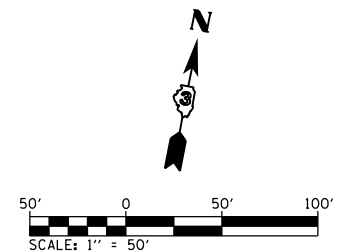
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	PLOT SCALE = 6000.0000' / in.	CHECKED -	REVISED -				CONTRACT NO. 66998				
Default	PLOT DATE = 7/30/2013	DATE -	REVISED -	SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT					

NOTE: SEE TYPICAL PAVEMENT MARKING DETAIL.



**LEGEND**

-  PERIMETER EROSION BARRIER
-  INLET AND PIPE PROTECTION
-  EROSION CONTROL BLANKET



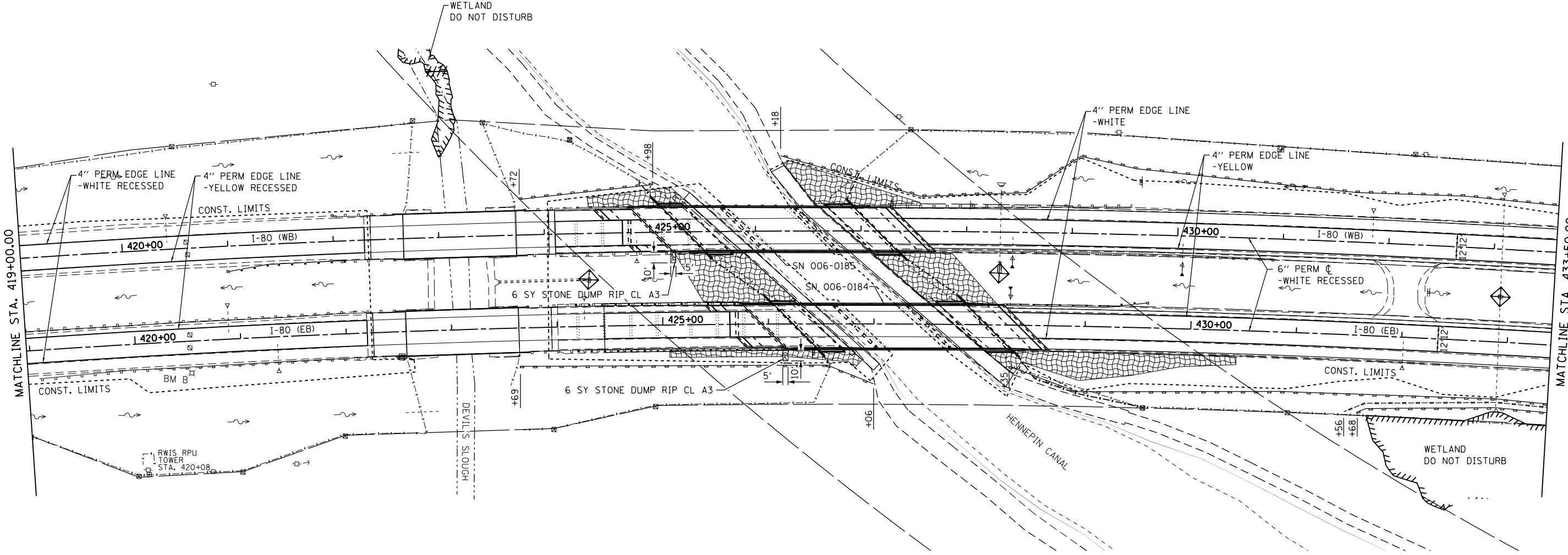
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**




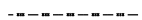
**EROSION AND SEDIMENT CONTROL &  
PERMANENT PAVEMENT MARKING SHEETS**

SCALE: 1"=50' SHEET 1 OF 3 SHEETS STA. 405+00.00 TO STA. 419+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	40
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**LEGEND**

-  PERIMETER EROSION BARRIER
-  INLET AND PIPE PROTECTION
-  EROSION CONTROL BLANKET
-  TEMPORARY FENCE (ORANGE)

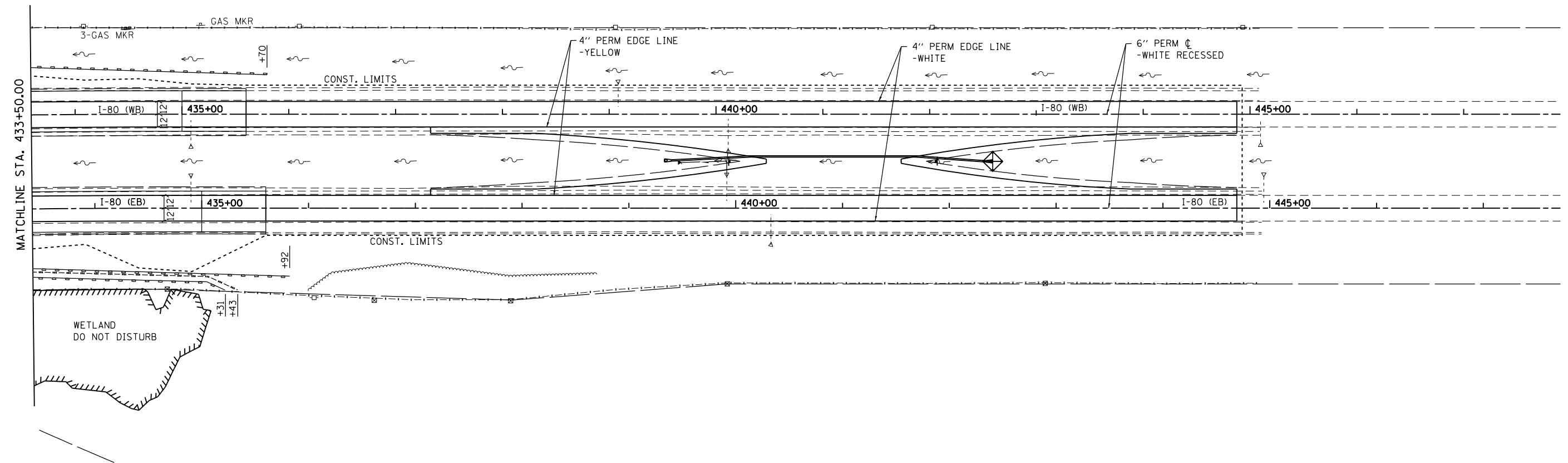


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

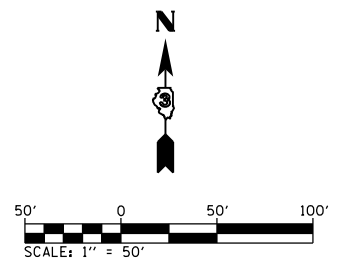
<b>EROSION AND SEDIMENT CONTROL &amp; PERMANENT PAVEMENT MARKING SHEETS</b>			
SCALE: 1"=50'	SHEET 2 OF 3 SHEETS	STA. 419+00.00 TO STA. 433+50.00	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	41
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**LEGEND**

-  PERIMETER EROSION BARRIER
-  INLET AND PIPE PROTECTION
-  EROSION CONTROL BLANKET
-  TEMPORARY FENCE (ORANGE)



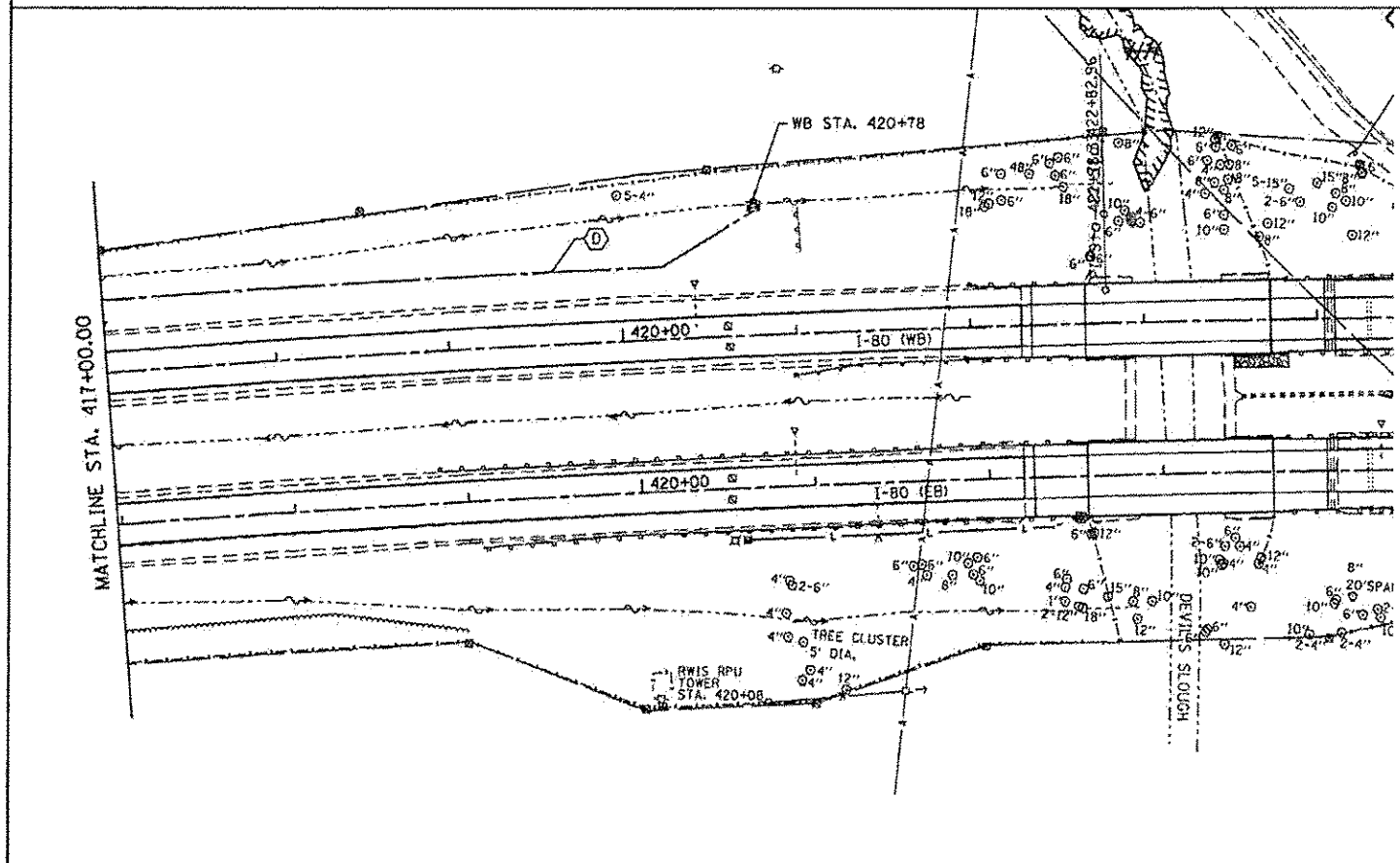
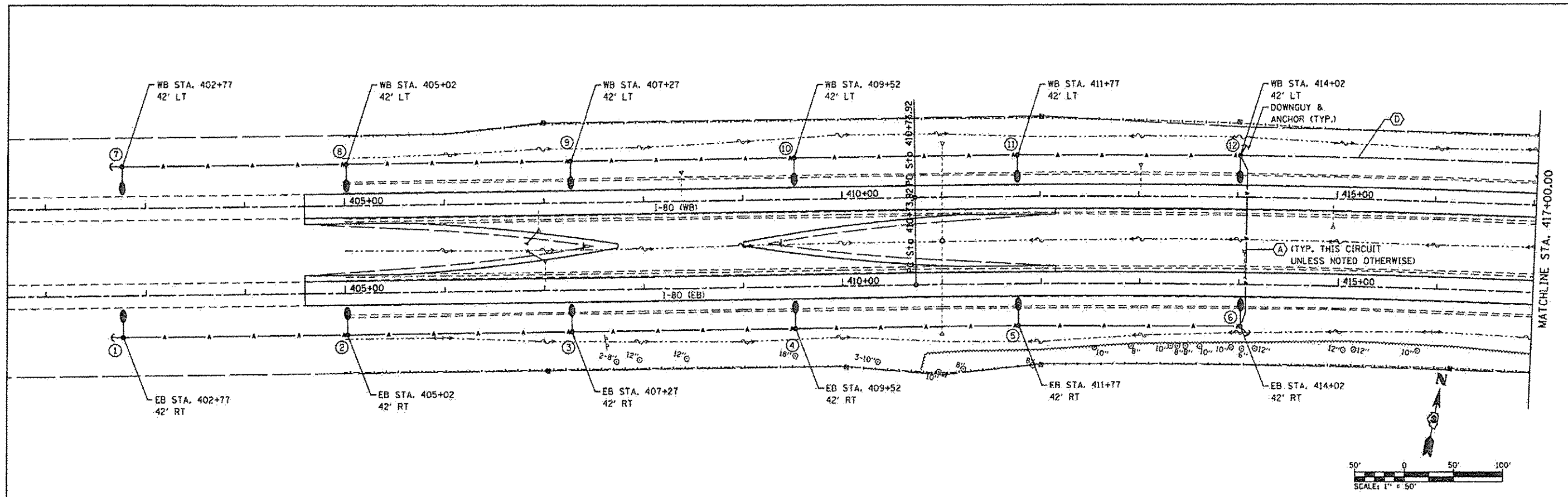
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION AND SEDIMENT CONTROL &  
PERMANENT PAVEMENT MARKING SHEETS**

SCALE: 1"=50' SHEET 3 OF 3 SHEETS STA. 433+50.00 TO STA. 445+00.00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4		133	42
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**CABLE SCHEDULE**

- (A) AERIAL CABLE, 2-1/2 NO. 4 ALUMINUM WITH MESSENGER WIRE
- (B) AERIAL CABLE, 2-1/2 NO. 6 ALUMINUM WITH MESSENGER WIRE
- (C) UNIT DUCT, 600V, 2-1/2 NO. 8, 1/2 NO. 8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE
- (D) UNIT DUCT, 600V, 2-1/2 NO. 4, 1/2 NO. 6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE

**LEGEND**

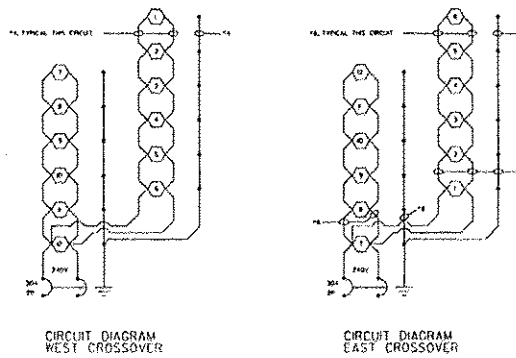
- TEMPORARY LIGHTING UNIT, 50 FT WOOD POLE, CLASS 3 WITH 250W HPS MULTI-MOUNT LUMINAIRE
- ⊠ TEMPORARY LIGHTING CONTROLLER
- TEMPORARY ELECTRIC SERVICE INSTALLATION
- A — AERIAL CABLE, SIZE AS INDICATED
- - - UNIT DUCT, SIZE AS INDICATED

**NOTES**

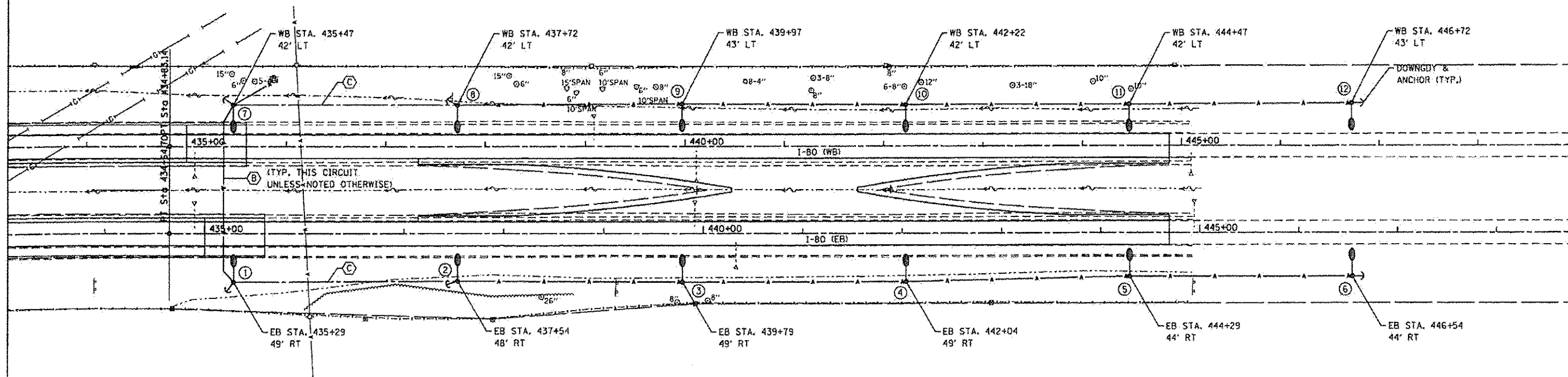
1. POLE HEIGHT SHALL BE INCREASED AS NECESSARY TO MAINTAIN REQUIRED CLEARANCE OF AERIAL CABLE OVER THE ROADWAY.
2. GUYS AND ANCHORS ARE SHOWN AS AN EXAMPLE AND SHALL BE INSTALLED AS NECESSARY TO THE SATISFACTION OF THE ENGINEER.
3. TEMPORARY WOOD POLES SHALL BE SET BACK A MINIMUM OF 30 FT. FROM EXISTING EDGE OF PAVEMENT AND OUTSIDE THE CLEAR ZONE.
4. See plan sheet 44 for circuit diagrams.

FILE NAME 0388918-wht-lighting.dgn	USER NAME brianbeal	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY LIGHTING PLAN SHEETS WEST CROSSOVER</b>		F.A.I. RTE. 80	SECTION 106-21 BR-3,4	COUNTY BUREAU	TOTAL SHEETS 133	SHEET NO. 43		
	PLOT TIME 7:18:36 PM	DRAWN -	REVISED -		SCALE: 1"=50'	SHEET NO. 1 OF 2 SHEETS	STA. 402+00.00 TO STA. 429+00.00	CONTRACT NO. 66998					
	PLOT SCALE 1/8"=1'-0"	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT								
	PLOT DATE 7/20/2013	DATE -	REVISED -										

NOTES:  
 1. ALL NECESSARY REVISIONS TO THE WIRING SHOWN ON THIS SHEET SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER.



○ PROPOSED 250W ROADWAY LUMINAIRE



Notes:  
 1. See plan sheet 43 for legend, cable schedule, notes, and

**BILL OF MATERIALS**

ITEM	UNIT	TOTAL
ELECTRIC SERVICE INSTALLATION	EACH	2
UNIT DUCT, 600V, 2-1/C NO. 8, 1/C NO. 8 GROUND, (XLP-TYPE USE), 3/4" DIA. POLY	FOOT	626
UNIT DUCT, 600V, 2-1/C NO. 4, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1" DIA. POLY	FOOT	710
LIGHT POLE, WOOD, 50 FOOT, CLASS 3	EACH	24
AERIAL CABLE, 2-1/C NO. 4 WITH MESSENGER WIRE	FOOT	2,430
AERIAL CABLE, 2-1/C NO. 6 WITH MESSENGER WIRE	FOOT	2,035
LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	24
LIGHTING CONTROLLER, POLE MOUNTED, 240 VOLT, 30 AMP	EACH	2
REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	24
REMOVAL OF LIGHTING CONTROLLER	EACH	2
REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	2

NOTE: QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY. THE COST TO INSTALL AND REMOVE THE TEMPORARY LIGHTING SYSTEM WILL BE BASED ON A LUMP SUM PRICE.



FILE NAME * D36699B-sh-lighting.dgn	USER NAME * brian.hall	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING PLAN SHEETS EAST CROSSOVER		F.A.T. RT#	SECTION	COUNTY	TOTAL SHEET NO.
	PLOT TIME * 7:18:37 PM	DRAWN -	REVISED -		SCALE: 1"=50'	SHEET 2 OF 2 SHEETS	STA. 434+00.00 TO STA. 448+00.00	80	(06-2) BR-3,4	BUREAU
PLOT SCALE * 1/8"=1'-0"	CHECKED -	REVISED -								CONTRACT NO. 6699B
PLOT DATE * 7/30/2013	DATE -	REVISED -								ILLINOIS FED. AID PROJECT

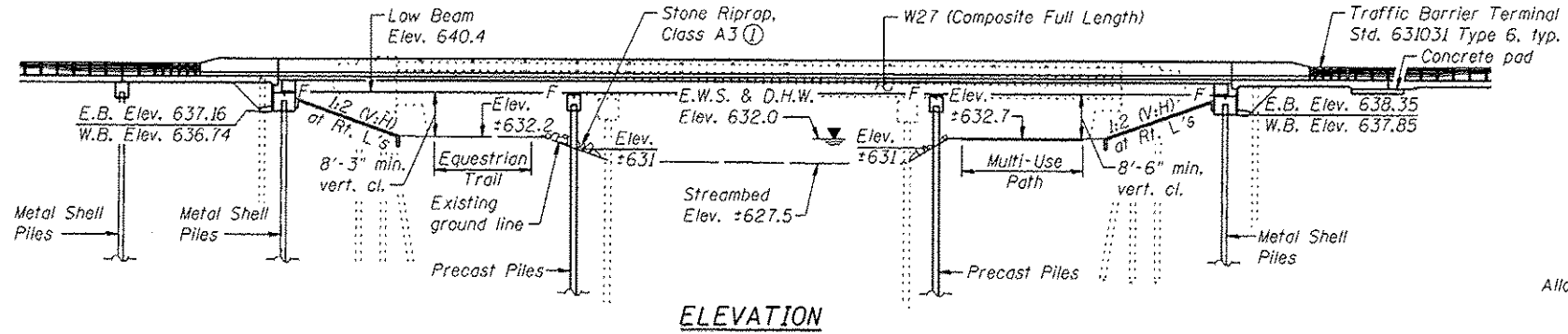


Bench Mark: BM #10-Chiseled square on top of the northeast wingwall of S.N. 006-0011, E.B. Roadway Sta. 427+76.16, 21.36' LT. Elev. 645.82

Existing Structure: S.N. 006-0011 (E.B.) and S.N. 006-0012 (W.B.) were originally built in 1963 as F.A.I. 80, Section (06-2B-1) and reconstructed in 1982 and 2003. The back to back abutment length is 149'-6" and the out to out deck width is 143'-8". Each structure consists of a three span steel W30 superstructure supported by open abutments founded on metal shell piles and concrete piers founded on precast concrete piles. Structures are to be removed and replaced.

Traffic Control: Traffic will be maintained by constructing permanent median crossovers to the east and west of the structures. Stage I will shift eastbound traffic onto the existing westbound structure. Upon completion of the new eastbound structure, westbound traffic will be shifted onto the eastbound structure during Stage II construction.

Salvage: None



**DESIGN SPECIFICATIONS**  
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

**LOADING HL-93**

Allow 50#/sq. ft. for future wearing surface.

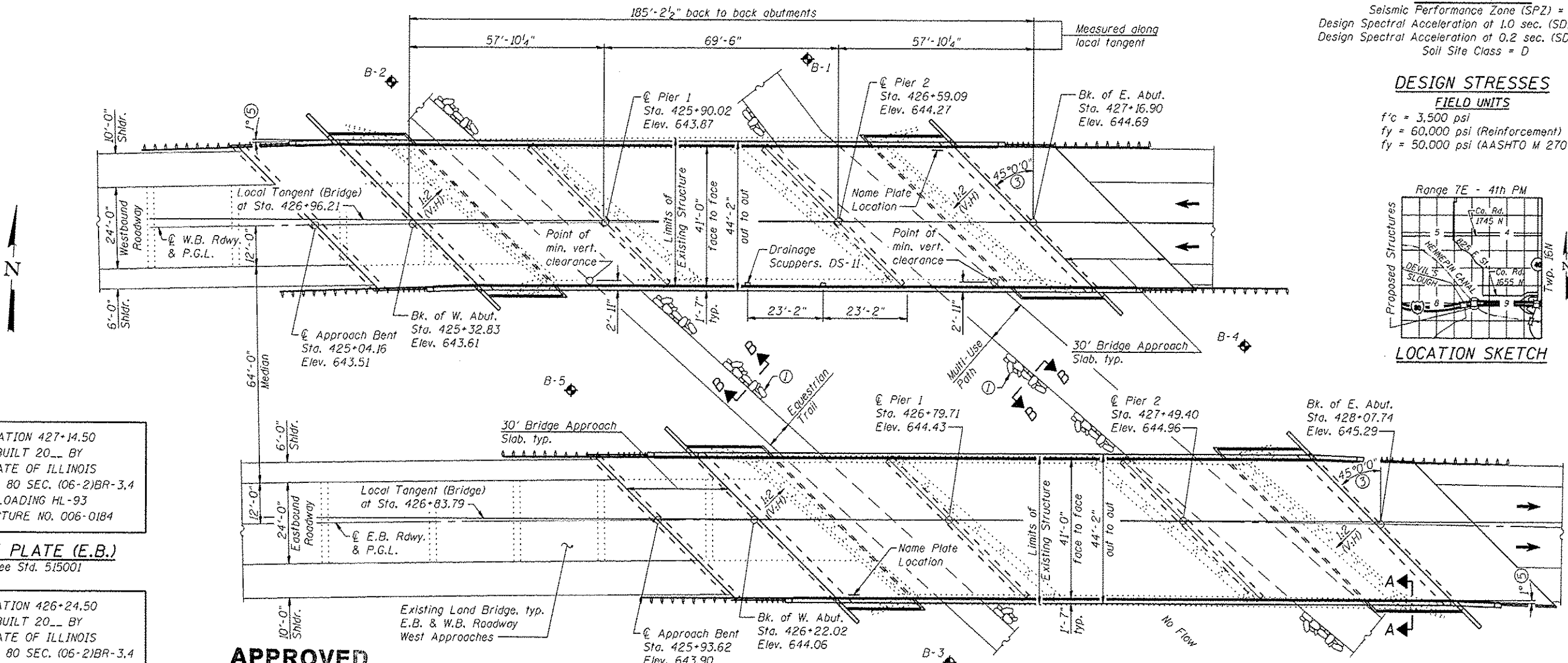
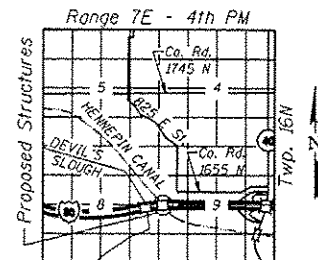
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.094g  
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.151g  
Soil Site Class = D

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,900 psi  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (AASHTO M 270 Grade 50W)



STATION 427+14.50  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RT. 80 SEC. (06-2)BR-3,4  
LOADING HL-93  
STRUCTURE NO. 006-0184

**NAME PLATE (E.B.)**  
See Std. 515001

STATION 426+24.50  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RT. 80 SEC. (06-2)BR-3,4  
LOADING HL-93  
STRUCTURE NO. 006-0185

**NAME PLATE (W.B.)**  
See Std. 515001

**APPROVED**  
For Structural Adequacy Only

*D. Carl Purney, P.E.*  
Engineer of Bridges & Structures

**WATERWAY INFORMATION**

Drainage Area = 1.1 Sq. Mi.      Exist. Low Grade Elev. 643.3 @ Sta. 425+00.00  
Prop. Low Grade Elev. 643.3 @ Sta. 425+00.00

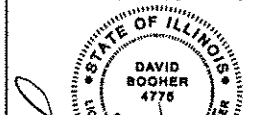
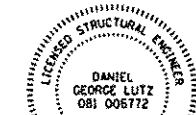
Flood	Freq. Yr.	O C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	N/A	N/A	310	310	632.0	0.0	0.0	632.0	632.0

- Notes:
- Stone Dumped Riprap, Class A3 placed as shown in Section B-B. Extend from ±10' north of W.B. structure to ±10' south of E.B. structure.
  - Due to negligible flow velocities, scour was not considered in design.
  - Angle with respect to Local Tangent (Bridge), typ.
  - For Section A-A and B-B, see sheet 2 of 43.
  - Approach slab parapets and curbs are kinked with respect to bridge parapets, typical W.B. West Approach and E.B. East Approach.

**PLAN**

Plans prepared by  
Oates Associates, Inc.  
Sheets I-10 & 37-43 of 43

Plans prepared by  
Quigg Engineering, Inc.  
Sheets 11-36 of 43



DATE: 7/29/2013  
EXPIRATION: 11/30/2014

DATE: 7-23-13  
EXPIRATION: 11-30-14

**GENERAL PLAN & ELEVATION**  
**I-80 OVER HENNEPIN CANAL**  
**F.A.I. RTE. 80 - SECTION (06-2)BR-3,4**

**BUREAU COUNTY**  
**STATION 427+14.50 (E.B.)**  
**STATION 426+24.50 (W.B.)**  
**STRUCTURE NO. 006-0184 (E.B.)**  
**STRUCTURE NO. 006-0185 (W.B.)**



USER NAME *	DESIGNED - JAD	REVISIONS -
PLOT SCALE *	CHECKED - SJN	REVISIONS -
PLOT DATE *	DRAWN - JAD	REVISIONS -
	CHECKED - SJN	REVISIONS -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. 1 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-2)BR-3,4	BUREAU	133	45
			CONTRACT NO. 66998	
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel = AASHTO M 270 Grade 50W = 368,880 pounds

All structural steel shall be AASHTO M 270 Grade 50W.

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.

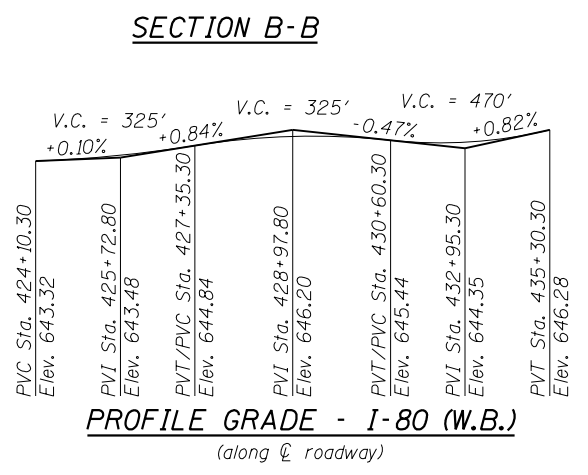
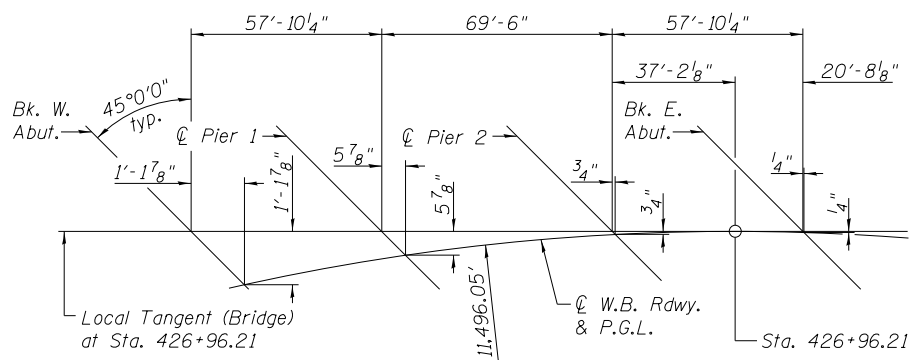
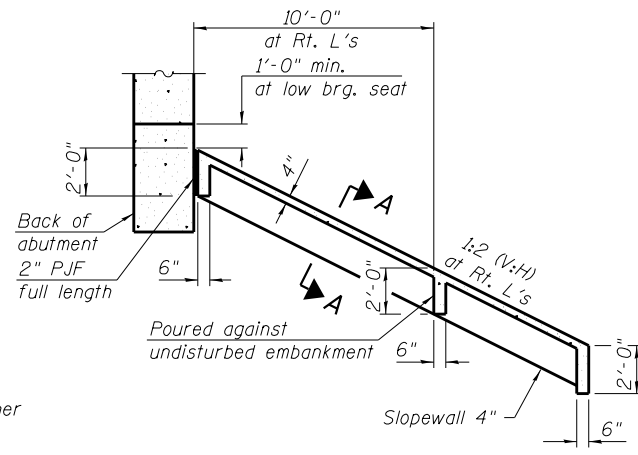
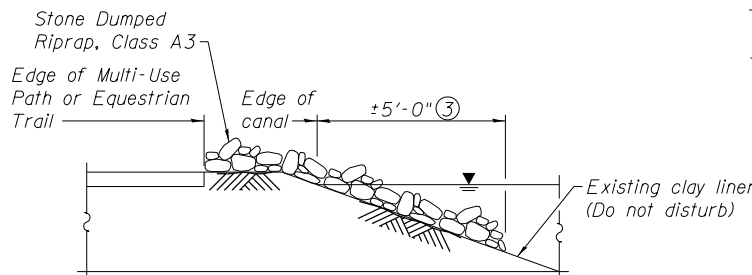
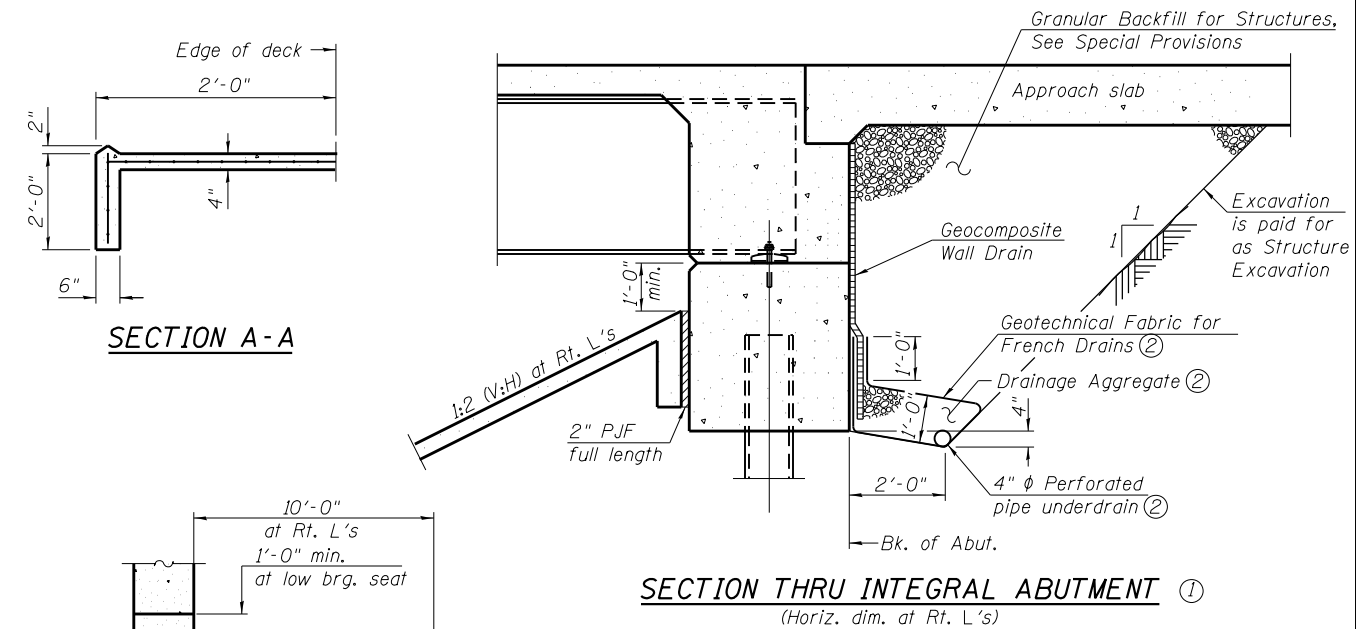
The concrete for bridge decks finished according to Article 503.16(a) of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The machine used for finishing shall be set parallel to the skew for striking off and screeding the concrete.

Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

Excavation within the limits of the channel is not allowed.

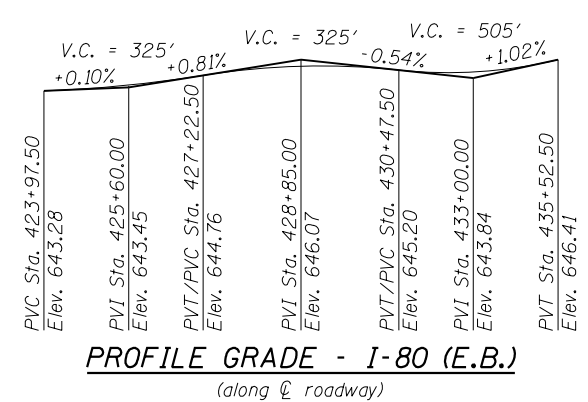
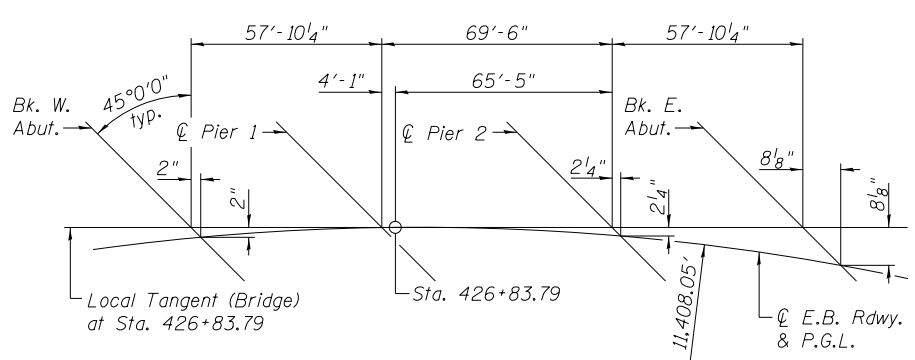
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A3	Sq. Yd.	-	389	389
Aggregate Subgrade Improvement	Cu. Yd.	-	111	111
Removal of Existing Structures	Each	-	2	2
Protective Shield	Sq. Yd.	-	-	1,227
Structure Excavation	Cu. Yd.	-	951	951
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	-	74	74
Concrete Structures	Cu. Yd.	-	280.2	280.2
Concrete Superstructure	Cu. Yd.	838.3	-	838.3
Bridge Deck Grooving	Sq. Yd.	2,107	-	2,107
Protective Coat	Sq. Yd.	2,580	-	2,580
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	10,620	-	10,620
Reinforcement Bars, Epoxy Coated	Pound	205,700	44,680	250,380
Slope Wall 4 Inch	Sq. Yd.	-	510	510
Furnishing Precast Concrete Piles 14"	Foot	-	2,208	2,208
Furnishing Metal Shell Piles 14" x 0.250"	Foot	-	2,205	2,205
Driving Piles	Foot	-	4,413	4,413
Test Pile Precast Concrete	Each	-	4	4
Test Pile Metal Shells	Each	-	6	6
Name Plates	Each	2	-	2
Anchor Bolts, 1"	Each	96	-	96
Geocomposite Wall Drain	Sq. Yd.	-	188	188
Drainage Scuppers, DS-11	Each	2	-	2
Pipe Underdrains for Structures 4"	Foot	-	475	475
Granular Backfill for Structures	Cu. Yd.	-	425	425



**CURVE DATA - I-80 (W.B.)**

P.I. Sta. = 422+82.96  
 Δ = 12° 00' 27" (Rt.)  
 D = 0° 29' 54"  
 R = 11,496.05'  
 T = 1,209.04'  
 L = 2,409.22'  
 E = 63.40'  
 e = 1.50%  
 T.R. = 42'  
 S.E. Run = 42'  
 P.C. Sta. = 410+73.92  
 P.T. Sta. = 434+83.14



**CURVE DATA - I-80 (E.B.)**

P.I. Sta. = 422+73.70  
 Δ = 12° 00' 27" (Rt.)  
 D = 0° 30' 08"  
 R = 11,408.05'  
 T = 1,199.78'  
 L = 2,390.78'  
 E = 62.92'  
 e = 1.50%  
 T.R. = 42'  
 S.E. Run = 42'  
 P.C. Sta. = 410+73.92  
 P.T. Sta. = 434+64.70

**INDEX OF SHEETS**

Sheet No.	Description
1	General Plan & Elevation
2	General Data
3	Footing Layout
4	Construction Details
5-8	Top of Slab Elevations
9-10	Top of Approach Slab Elevations
11-12	Superstructure
13	Superstructure Details
14	Integral Abutment Diaphragm Details
15-17	West Bridge Approach Slab Details
18-20	East Bridge Approach Slab Details
21	Drainage Scupper
22	Framing Plan
23	Beam Details
24	Bearing Details
25-26	Approach Bent Details
27-30	Abutment Details
31-34	Pier Details
35	Metal Shell Pile Details
36	Precast Pile Details
37	Concrete Parapet Slipforming Option
38	Cantilever Forming Brackets For Superstructures With W27 Beams and Smaller
39-43	Soil Boring Logs

- Notes:
- All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).
  - Included in the cost of Pipe Underdrains for Structures 4", see Special Provisions.
  - Dimension at right angle to canal.



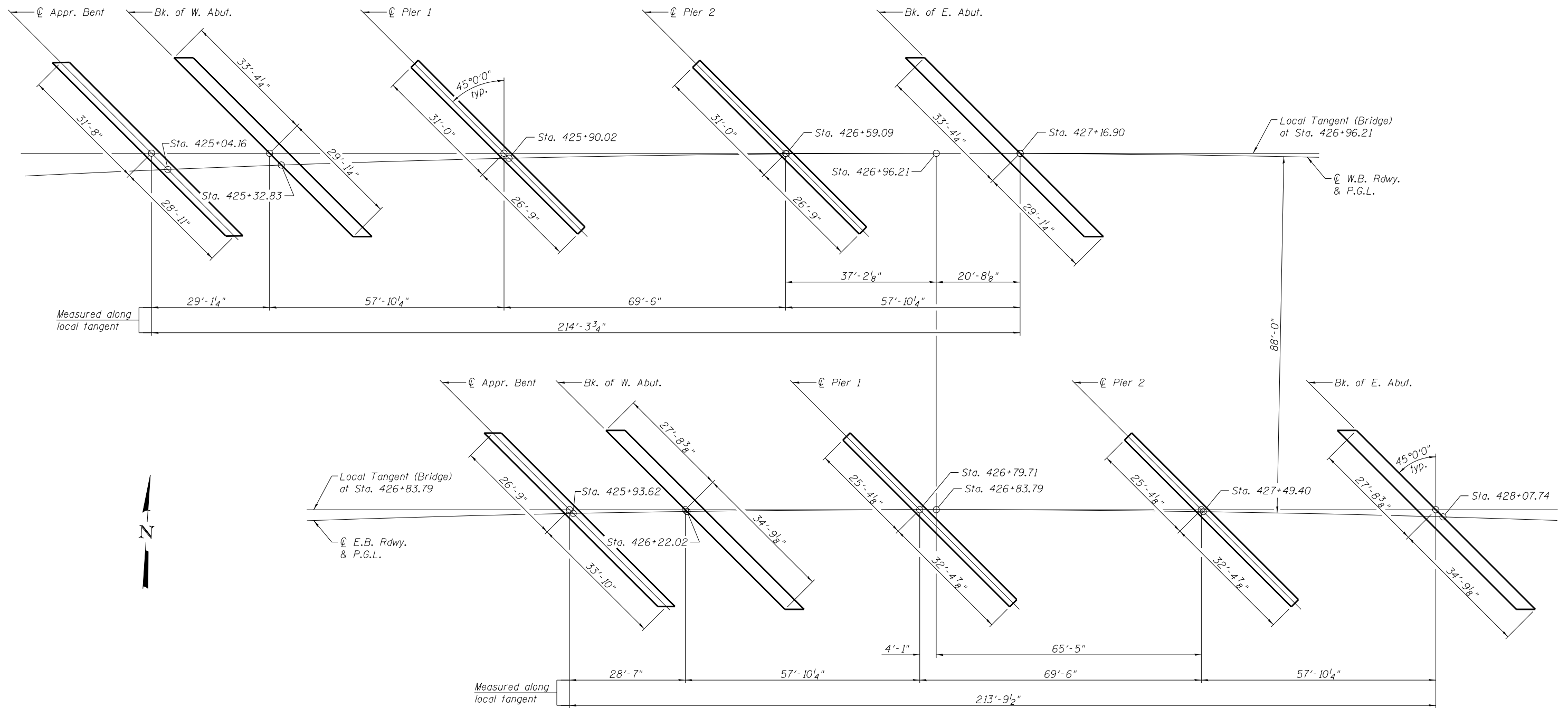
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DESIGNED - JAD	CHECKED - SUN	REVISED -
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SUN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA**  
**STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	106-21BR-3,4	BUREAU	133	46

CONTRACT NO. 66998



PLAN



USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - SUN	REVISED -
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SUN	REVISED -

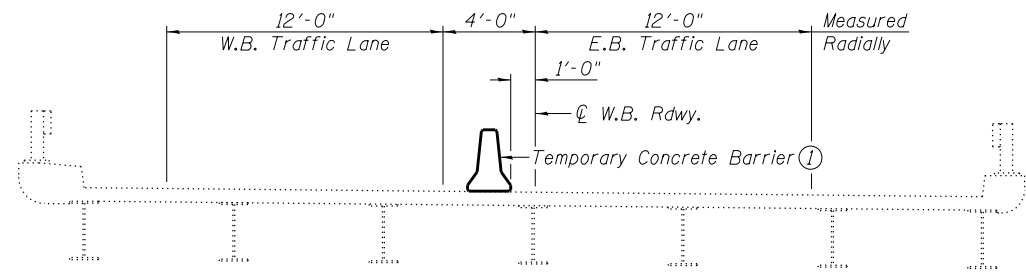
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FOOTING LAYOUT  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

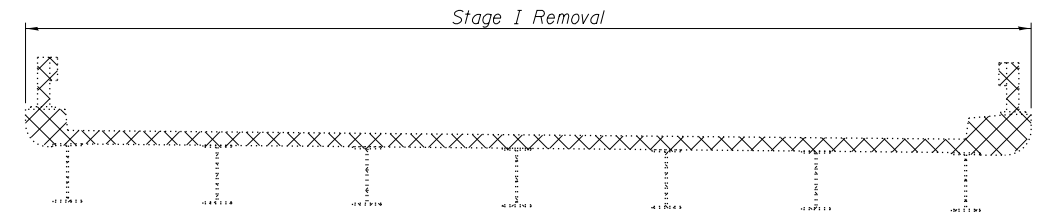
SHEET NO. 3 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	47
CONTRACT NO. 66998				

ILLINOIS FED. AID PROJECT



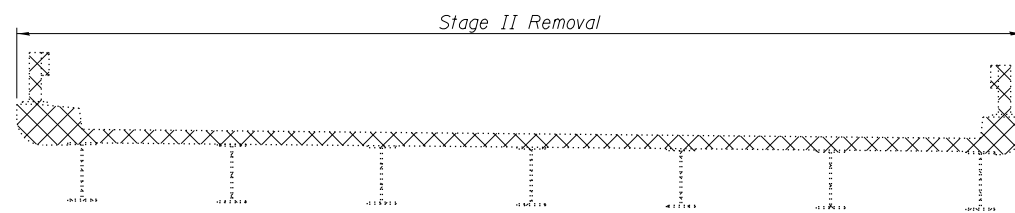
WESTBOUND



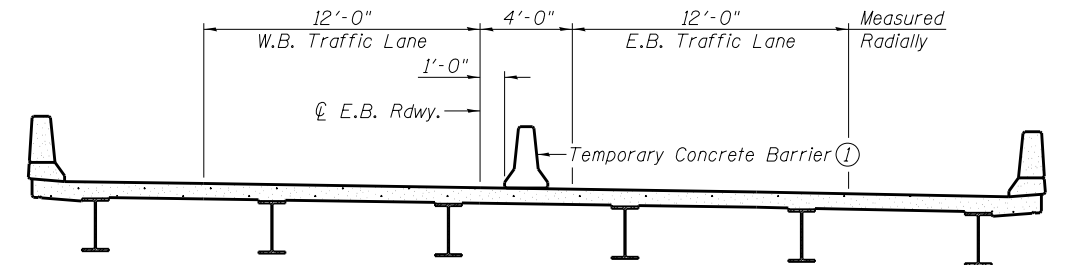
EASTBOUND

**STAGE I REMOVAL & TRAFFIC STAGING**

(Looking East)



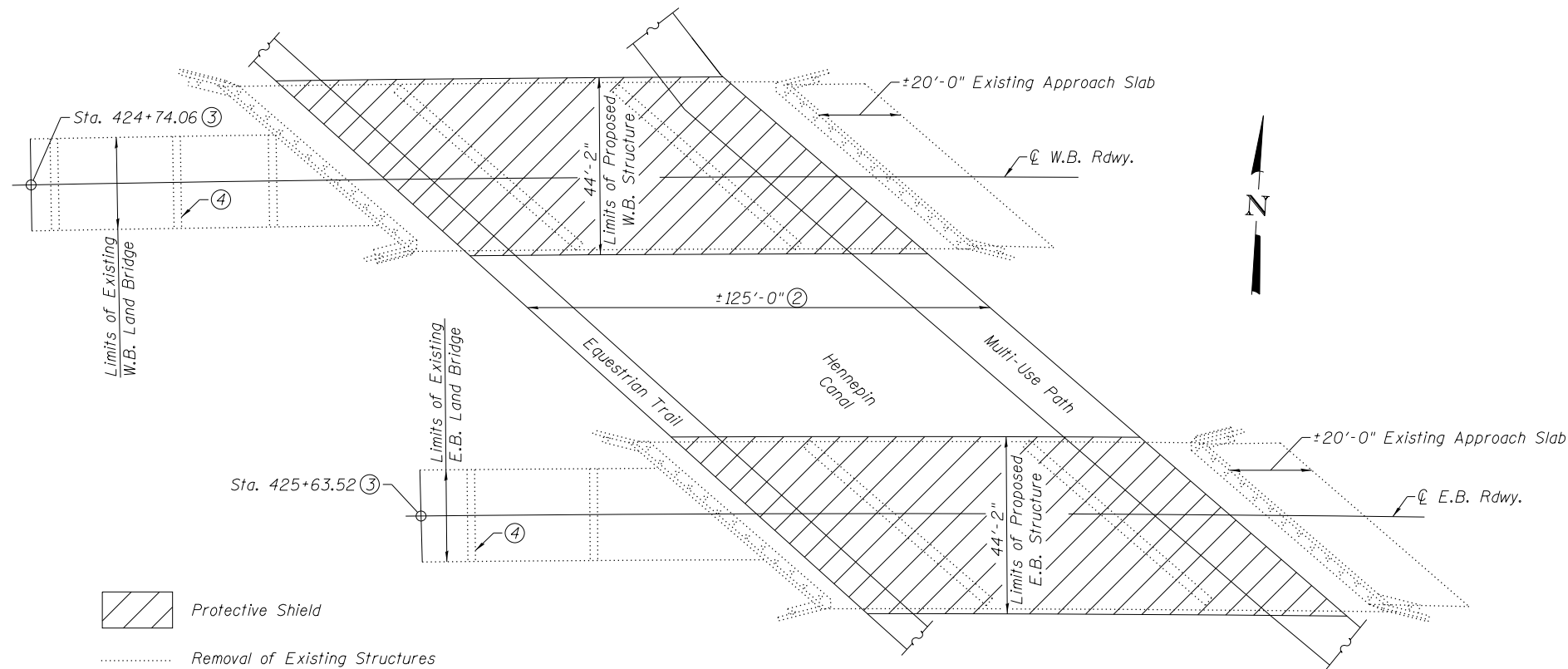
WESTBOUND



EASTBOUND

**STAGE II REMOVAL & TRAFFIC STAGING**

(Looking East)



**REMOVAL & PROTECTIVE SHIELD DETAIL**

Notes:

- ① For quantity of Temporary Concrete Barrier and related traffic control, see Roadway Plans.
- ② Limits of Protective Shield shown are approximate. The Protective Shield shall extend out to out of Equestrian Trail and Multi-use Path. For additional requirements, see Special Provisions.
- ③ Location of full depth saw cut. For exact dimensions of saw cut line, see connector pavement details in Roadway Plans. For additional requirements, see Special Provisions.
- ④ Approximate location of land bridge pile supported bent, typ.
- ⑤ For additional construction requirements, see Commitments in Roadway Plans.



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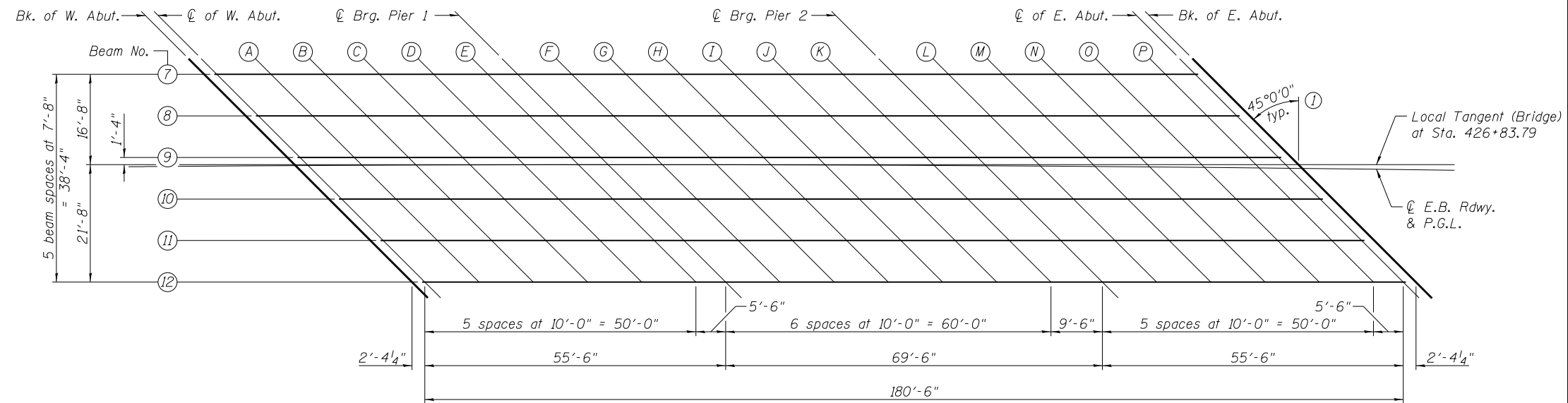
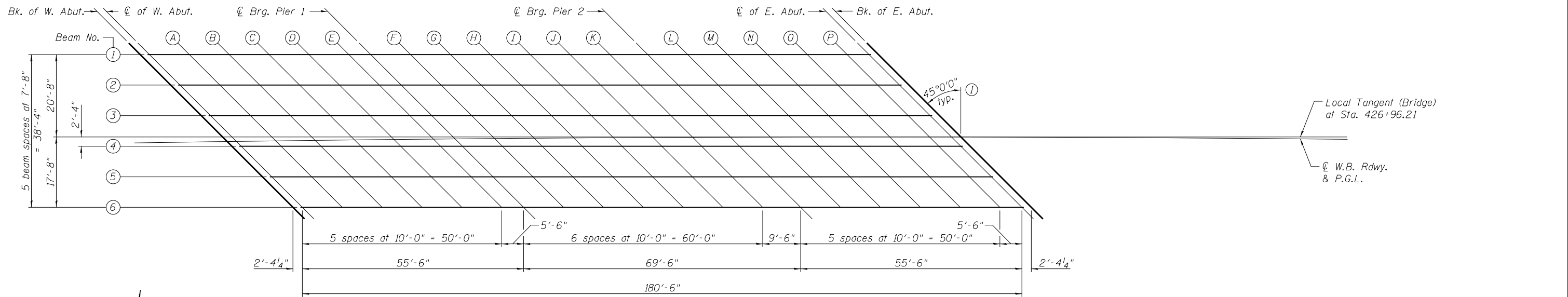
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

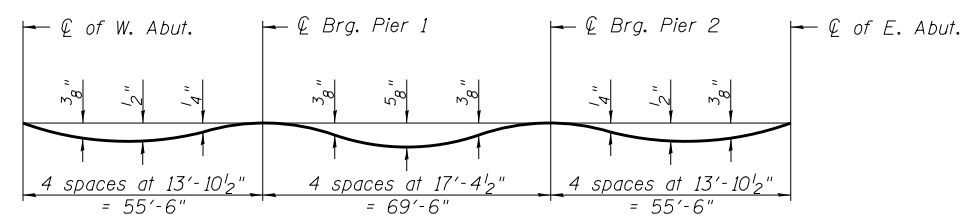
SHEET NO. 4 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	106-21BR-3,4	BUREAU	133	48
CONTRACT NO. 66998				

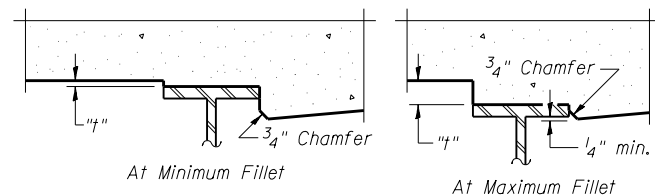
ILLINOIS FED. AID PROJECT



PLAN ④



DEAD LOAD DEFLECTION DIAGRAM ②  
(Includes weight of concrete only)



FILLET HEIGHTS ③

- Notes:
- ① Angle with respect to Local Tangent (Bridge), typ.
  - ② The deflections shown are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" as shown on sheets 6 thru 8 of 43.
  - ③ To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 thru 8 of 43, minus slab thickness, equals the fillet heights "t" above top flange of beams.
  - ④ Longitudinal dimensions are measured along Local Tangent (Bridge).



USER NAME =	DESIGNED - JAD	REVISED -
PLOT SCALE =	CHECKED - SUN	REVISED -
PLOT DATE =	DRAWN - JAD	REVISED -
	CHECKED - SUN	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

F.A.I. RTE. = 80	SECTION = 106-21BR-3,4	COUNTY = BUREAU	TOTAL SHEETS = 133	SHEET NO. = 49
CONTRACT NO. 66998				

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+11.35	-22.16	643.87	643.87
☉ of W. Abut.	425+13.70	-22.12	643.88	643.88
A	425+23.68	-21.96	643.91	643.93
B	425+33.66	-21.82	643.94	643.98
C	425+43.64	-21.68	643.98	644.01
D	425+53.62	-21.55	644.02	644.04
E	425+63.60	-21.43	644.06	644.06
☉ Brg. Pier 1	425+69.09	-21.37	644.09	644.09
F	425+79.07	-21.26	644.13	644.14
G	425+89.06	-21.17	644.18	644.21
H	425+99.04	-21.08	644.23	644.28
I	426+09.02	-21.00	644.28	644.33
J	426+19.00	-20.93	644.34	644.37
K	426+28.98	-20.86	644.39	644.41
☉ Brg. Pier 2	426+38.46	-20.81	644.45	644.45
L	426+48.45	-20.77	644.51	644.52
M	426+58.43	-20.73	644.58	644.60
N	426+68.41	-20.70	644.64	644.68
O	426+78.39	-20.68	644.71	644.75
P	426+88.37	-20.67	644.78	644.80
☉ of E. Abut	426+93.86	-20.67	644.82	644.82
Bk. of E. Abut.	426+96.22	-20.67	644.84	644.84

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+18.88	-14.37	643.78	643.78
☉ of W. Abut.	425+21.24	-14.33	643.79	643.79
A	425+31.22	-14.19	643.82	643.84
B	425+41.21	-14.05	643.86	643.89
C	425+51.20	-13.92	643.89	643.93
D	425+61.19	-13.79	643.94	643.96
E	425+71.17	-13.68	643.98	643.98
☉ Brg. Pier 1	425+76.67	-13.62	644.00	644.00
F	425+86.65	-13.52	644.05	644.07
G	425+96.64	-13.43	644.10	644.14
H	426+06.63	-13.35	644.15	644.20
I	426+16.62	-13.28	644.21	644.26
J	426+26.61	-13.21	644.26	644.30
K	426+36.59	-13.15	644.32	644.34
☉ Brg. Pier 2	426+46.08	-13.11	644.38	644.38
L	426+56.07	-13.07	644.45	644.46
M	426+66.06	-13.04	644.51	644.54
N	426+76.05	-13.02	644.58	644.62
O	426+86.04	-13.00	644.65	644.69
P	426+96.03	-13.00	644.73	644.74
☉ of E. Abut	427+01.52	-13.00	644.77	644.77
Bk. of E. Abut.	427+03.88	-13.00	644.78	644.78

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+26.43	-6.59	643.69	643.69
☉ of W. Abut.	425+28.78	-6.55	643.70	643.70
A	425+38.78	-6.41	643.73	643.76
B	425+48.77	-6.28	643.77	643.81
C	425+58.76	-6.16	643.81	643.85
D	425+68.76	-6.04	643.85	643.87
E	425+78.75	-5.93	643.90	643.90
☉ Brg. Pier 1	425+84.25	-5.88	643.92	643.92
F	425+94.24	-5.79	643.97	643.99
G	426+04.24	-5.70	644.03	644.06
H	426+14.23	-5.63	644.08	644.13
I	426+24.23	-5.56	644.14	644.18
J	426+34.22	-5.50	644.19	644.23
K	426+44.22	-5.45	644.26	644.27
☉ Brg. Pier 2	426+53.71	-5.41	644.32	644.32
L	426+63.71	-5.38	644.38	644.39
M	426+73.70	-5.36	644.45	644.48
N	426+83.70	-5.34	644.52	644.56
O	426+93.69	-5.33	644.59	644.63
P	427+03.69	-5.34	644.67	644.68
☉ of E. Abut	427+09.19	-5.34	644.71	644.71
Bk. of E. Abut.	427+11.54	-5.34	644.73	644.73

**☉ W.B. RDWY. & P.G.L.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+32.83	0.00	643.61	643.61
☉ of W. Abut.	425+35.15	0.00	643.62	643.62
A	425+45.02	0.00	643.66	643.68
B	425+54.89	0.00	643.70	643.74
C	425+64.78	0.00	643.74	643.78
D	425+74.67	0.00	643.79	643.81
E	425+84.57	0.00	643.84	643.84
☉ Brg. Pier 1	425+90.02	0.00	643.87	643.87
F	425+99.93	0.00	643.92	643.93
G	426+09.85	0.00	643.97	644.01
H	426+19.78	0.00	644.03	644.08
I	426+29.72	0.00	644.08	644.13
J	426+39.67	0.00	644.15	644.18
K	426+49.62	0.00	644.21	644.22
☉ Brg. Pier 2	426+59.09	0.00	644.27	644.27
L	426+69.06	0.00	644.34	644.35
M	426+79.04	0.00	644.41	644.43
N	426+89.03	0.00	644.48	644.52
O	426+99.03	0.00	644.55	644.59
P	427+09.03	0.00	644.63	644.64
☉ of E. Abut	427+14.54	0.00	644.67	644.67
Bk. of E. Abut.	427+16.90	0.00	644.69	644.69

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+33.98	1.19	643.60	643.60
☉ of W. Abut.	425+36.34	1.22	643.61	643.61
A	425+46.34	1.36	643.65	643.67
B	425+56.34	1.48	643.69	643.72
C	425+66.34	1.60	643.73	643.76
D	425+76.34	1.71	643.77	643.79
E	425+86.34	1.81	643.82	643.82
☉ Brg. Pier 1	425+91.84	1.86	643.85	643.85
F	426+01.84	1.95	643.90	643.91
G	426+11.84	2.02	643.95	643.99
H	426+21.85	2.09	644.01	644.06
I	426+31.85	2.15	644.07	644.11
J	426+41.85	2.20	644.13	644.16
K	426+51.85	2.25	644.19	644.20
☉ Brg. Pier 2	426+61.35	2.28	644.25	644.25
L	426+71.36	2.31	644.32	644.33
M	426+81.36	2.32	644.39	644.42
N	426+91.36	2.33	644.46	644.50
O	427+01.36	2.33	644.54	644.57
P	427+11.36	2.32	644.61	644.63
☉ of E. Abut	427+16.86	2.31	644.66	644.66
Bk. of E. Abut.	427+19.22	2.31	644.68	644.68

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+41.54	8.96	643.51	643.51
☉ of W. Abut.	425+43.90	8.99	643.52	643.52
A	425+53.91	9.12	643.56	643.58
B	425+63.92	9.24	643.60	643.64
C	425+73.93	9.35	643.65	643.68
D	425+83.93	9.45	643.69	643.71
E	425+93.94	9.55	643.74	643.75
☉ Brg. Pier 1	425+99.45	9.59	643.77	643.77
F	426+09.45	9.67	643.82	643.84
G	426+19.46	9.74	643.88	643.91
H	426+29.47	9.81	643.94	643.99
I	426+39.48	9.86	644.00	644.05
J	426+49.49	9.91	644.06	644.09
K	426+59.50	9.94	644.12	644.14
☉ Brg. Pier 2	426+69.00	9.97	644.19	644.19
L	426+79.01	9.99	644.26	644.27
M	426+89.02	10.00	644.33	644.36
N	426+99.03	10.00	644.40	644.44
O	427+09.04	9.99	644.48	644.51
P	427+19.05	9.98	644.56	644.57
☉ of E. Abut	427+24.55	9.97	644.60	644.60
Bk. of E. Abut.	427+26.91	9.96	644.62	644.62



USER NAME =	DESIGNED - JAD	REVISED -
CHECKED - SUN	REVISED -	
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SUN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

SHEET NO. 6 OF 43 SHEETS

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	50
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	425+49.12	16.73	643.40	643.40
☉ of W. Abut.	425+51.48	16.76	643.41	643.41
A	425+61.49	16.88	643.45	643.48
B	425+71.51	16.99	643.50	643.53
C	425+81.52	17.10	643.54	643.58
D	425+91.54	17.19	643.59	643.61
E	426+01.55	17.28	643.64	643.64
☉ Brg. Pier 1	426+07.06	17.32	643.67	643.67
F	426+17.07	17.39	643.72	643.74
G	426+27.09	17.46	643.78	643.82
H	426+37.10	17.52	643.84	643.89
I	426+47.12	17.56	643.90	643.95
J	426+57.13	17.60	643.96	644.00
K	426+67.15	17.63	644.03	644.04
☉ Brg. Pier 2	426+76.66	17.65	644.10	644.10
L	426+86.68	17.66	644.17	644.18
M	426+96.69	17.67	644.24	644.27
N	427+06.71	17.66	644.32	644.36
O	427+16.73	17.65	644.40	644.43
P	427+26.74	17.63	644.48	644.49
☉ of E. Abut	427+32.25	17.61	644.52	644.52
Bk. of E. Abut.	427+34.61	17.60	644.54	644.54

**BEAM 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+05.30	-16.94	644.21	644.21
☉ of W. Abut.	426+07.65	-16.92	644.23	644.23
A	426+17.64	-16.86	644.28	644.31
B	426+27.62	-16.81	644.34	644.38
C	426+37.61	-16.76	644.40	644.44
D	426+47.60	-16.72	644.46	644.48
E	426+57.58	-16.70	644.53	644.53
☉ Brg. Pier 1	426+63.07	-16.69	644.57	644.57
F	426+73.06	-16.67	644.63	644.65
G	426+83.04	-16.67	644.71	644.74
H	426+93.03	-16.67	644.78	644.83
I	427+03.01	-16.68	644.85	644.90
J	427+13.00	-16.70	644.93	644.97
K	427+22.98	-16.73	645.01	645.02
☉ Brg. Pier 2	427+32.47	-16.77	645.09	645.09
L	427+42.46	-16.82	645.16	645.17
M	427+52.44	-16.87	645.23	645.26
N	427+62.43	-16.94	645.30	645.34
O	427+72.41	-17.01	645.36	645.40
P	427+82.40	-17.09	645.42	645.44
☉ of E. Abut	427+87.89	-17.14	645.45	645.45
Bk. of E. Abut.	427+90.24	-17.16	645.47	645.47

**BEAM 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+12.91	-9.22	644.14	644.14
☉ of W. Abut.	426+15.26	-9.21	644.15	644.15
A	426+25.26	-9.15	644.21	644.24
B	426+35.25	-9.10	644.27	644.31
C	426+45.24	-9.07	644.33	644.37
D	426+55.23	-9.04	644.40	644.42
E	426+65.22	-9.02	644.47	644.47
☉ Brg. Pier 1	426+70.72	-9.01	644.50	644.50
F	426+80.71	-9.00	644.57	644.59
G	426+90.70	-9.00	644.65	644.68
H	427+00.70	-9.01	644.72	644.77
I	427+10.69	-9.03	644.80	644.85
J	427+20.68	-9.06	644.88	644.91
K	427+30.67	-9.10	644.96	644.97
☉ Brg. Pier 2	427+40.16	-9.14	645.03	645.03
L	427+50.16	-9.19	645.10	645.11
M	427+60.15	-9.26	645.17	645.20
N	427+70.14	-9.33	645.23	645.27
O	427+80.13	-9.41	645.29	645.33
P	427+90.12	-9.50	645.35	645.36
☉ of E. Abut	427+95.62	-9.55	645.38	645.38
Bk. of E. Abut.	427+97.97	-9.57	645.39	645.39

**BEAM 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+20.53	-1.51	644.07	644.07
☉ of W. Abut.	426+22.88	-1.50	644.08	644.08
A	426+32.88	-1.45	644.14	644.17
B	426+42.88	-1.41	644.20	644.24
C	426+52.88	-1.38	644.27	644.30
D	426+62.88	-1.35	644.33	644.35
E	426+72.88	-1.34	644.40	644.41
☉ Brg. Pier 1	426+78.38	-1.33	644.44	644.44
F	426+88.37	-1.33	644.51	644.53
G	426+98.37	-1.34	644.59	644.62
H	427+08.37	-1.36	644.67	644.71
I	427+18.37	-1.39	644.74	644.79
J	427+28.37	-1.42	644.82	644.86
K	427+38.37	-1.46	644.90	644.91
☉ Brg. Pier 2	427+47.87	-1.51	644.97	644.97
L	427+57.87	-1.57	645.04	645.05
M	427+67.86	-1.64	645.11	645.13
N	427+77.86	-1.72	645.17	645.20
O	427+87.86	-1.81	645.22	645.26
P	427+97.86	-1.90	645.28	645.29
☉ of E. Abut	428+03.36	-1.96	645.30	645.30
Bk. of E. Abut.	428+05.71	-1.98	645.32	645.32

**☉ E.B. RDWY. & P.G.L.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+22.02	0.00	644.06	644.06
☉ of W. Abut.	426+24.36	0.00	644.07	644.07
A	426+34.32	0.00	644.13	644.15
B	426+44.28	0.00	644.19	644.23
C	426+54.25	0.00	644.26	644.29
D	426+64.23	0.00	644.32	644.34
E	426+74.21	0.00	644.39	644.40
☉ Brg. Pier 1	426+79.71	0.00	644.43	644.43
F	426+89.71	0.00	644.50	644.52
G	426+99.72	0.00	644.58	644.61
H	427+09.74	0.00	644.66	644.70
I	427+19.77	0.00	644.73	644.78
J	427+29.80	0.00	644.81	644.85
K	427+39.85	0.00	644.89	644.90
☉ Brg. Pier 2	427+49.40	0.00	644.96	644.96
L	427+59.46	0.00	645.03	645.04
M	427+69.53	0.00	645.09	645.12
N	427+79.61	0.00	645.15	645.19
O	427+89.70	0.00	645.21	645.24
P	427+99.80	0.00	645.26	645.27
☉ of E. Abut	428+05.36	0.00	645.28	645.28
Bk. of E. Abut.	428+07.74	0.00	645.29	645.29

**BEAM 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+28.15	6.20	644.00	644.00
☉ of W. Abut.	426+30.51	6.21	644.01	644.01
A	426+40.52	6.25	644.07	644.10
B	426+50.52	6.28	644.14	644.18
C	426+60.53	6.31	644.20	644.24
D	426+70.53	6.33	644.27	644.29
E	426+80.54	6.33	644.34	644.35
☉ Brg. Pier 1	426+86.04	6.33	644.38	644.38
F	426+96.05	6.33	644.46	644.47
G	427+06.05	6.31	644.53	644.57
H	427+16.06	6.29	644.61	644.66
I	427+26.07	6.26	644.69	644.74
J	427+36.07	6.21	644.77	644.80
K	427+46.08	6.16	644.84	644.86
☉ Brg. Pier 2	427+55.58	6.11	644.91	644.91
L	427+65.59	6.04	644.98	644.99
M	427+75.59	5.96	645.04	645.07
N	427+85.60	5.88	645.10	645.13
O	427+95.60	5.79	645.15	645.18
P	428+05.61	5.68	645.20	645.21
☉ of E. Abut	428+11.11	5.62	645.23	645.23
Bk. of E. Abut.	428+13.47	5.60	645.24	645.24



USER NAME =	DESIGNED - JAD	REVISED -
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PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SUN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

SHEET NO. 7 OF 43 SHEETS

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	51
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

**BEAM 11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+35.79	13.90	643.92	643.92
☉ of W. Abut.	426+38.15	13.91	643.94	643.94
A	426+48.17	13.94	644.00	644.02
B	426+58.18	13.97	644.06	644.10
C	426+68.19	13.99	644.13	644.17
D	426+78.20	14.00	644.20	644.22
E	426+88.21	14.00	644.27	644.28
☉ Brg. Pier 1	426+93.72	14.00	644.31	644.31
F	427+03.73	13.98	644.39	644.40
G	427+13.75	13.96	644.47	644.50
H	427+23.76	13.93	644.55	644.60
I	427+33.77	13.89	644.63	644.68
J	427+43.78	13.84	644.70	644.74
K	427+53.79	13.79	644.77	644.79
☉ Brg. Pier 2	427+63.31	13.72	644.84	644.84
L	427+73.32	13.65	644.90	644.91
M	427+83.33	13.57	644.96	644.99
N	427+93.34	13.47	645.02	645.05
O	428+03.35	13.37	645.07	645.10
P	428+13.36	13.27	645.11	645.13
☉ of E. Abut	428+18.87	13.20	645.14	645.14
Bk. of E. Abut.	428+21.23	13.17	645.15	645.15

**BEAM 12**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	426+43.44	21.60	643.81	643.81
☉ of W. Abut.	426+45.80	21.60	643.83	643.83
A	426+55.82	21.63	643.89	643.92
B	426+65.84	21.65	643.96	644.00
C	426+75.86	21.66	644.03	644.07
D	426+85.88	21.67	644.10	644.12
E	426+95.90	21.66	644.18	644.18
☉ Brg. Pier 1	427+01.41	21.65	644.22	644.22
F	427+11.43	21.63	644.30	644.31
G	427+21.45	21.60	644.38	644.41
H	427+31.47	21.57	644.46	644.51
I	427+41.48	21.52	644.53	644.58
J	427+51.50	21.47	644.60	644.64
K	427+61.52	21.40	644.67	644.69
☉ Brg. Pier 2	427+71.04	21.33	644.73	644.73
L	427+81.06	21.25	644.79	644.80
M	427+91.08	21.16	644.85	644.88
N	428+01.09	21.06	644.90	644.94
O	428+11.11	20.96	644.95	644.98
P	428+21.13	20.84	644.99	645.01
☉ of E. Abut	428+26.64	20.77	645.02	645.02
Bk. of E. Abut.	428+29.00	20.74	645.03	645.03



EASTPONT Eastport Business Center 1 100 Lamar Court, Suite 1000 Channahon, IL 61024 tel: 815.345.2200 fax: 815.345.7253 www.oatesassoc.com	MISSOURI Lakeside Gateway Building 720 Olive, Suite 1000 St. Louis, MO 63101 tel: 314.588.2881 fax: 314.588.9605	
USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - SJN	REVISED -
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SJN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

SHEET NO. 8 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	52
CONTRACT NO. 66998			ILLINOIS FED. AID PROJECT	



**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	425+75.95	-18.00	644.08
A1	425+85.84	-18.00	644.13
A2	425+95.74	-18.00	644.18
E. End West Appr. Slab	426+05.66	-18.00	644.23
W. End East Appr. Slab	427+87.97	-18.00	645.47
A3	427+97.87	-18.00	645.52
A4	428+07.78	-18.00	645.56
E. End East Appr. Slab	428+17.70	-18.00	645.61

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	425+81.83	-12.00	644.02
A1	425+91.73	-12.00	644.07
A2	426+01.65	-12.00	644.12
E. End West Appr. Slab	426+11.57	-12.00	644.18
W. End East Appr. Slab	427+94.07	-12.00	645.41
A3	428+03.99	-12.00	645.46
A4	428+13.91	-12.00	645.50
E. End East Appr. Slab	428+23.84	-12.00	645.54

**℄ E.B. RDWY. & P.G.L.**

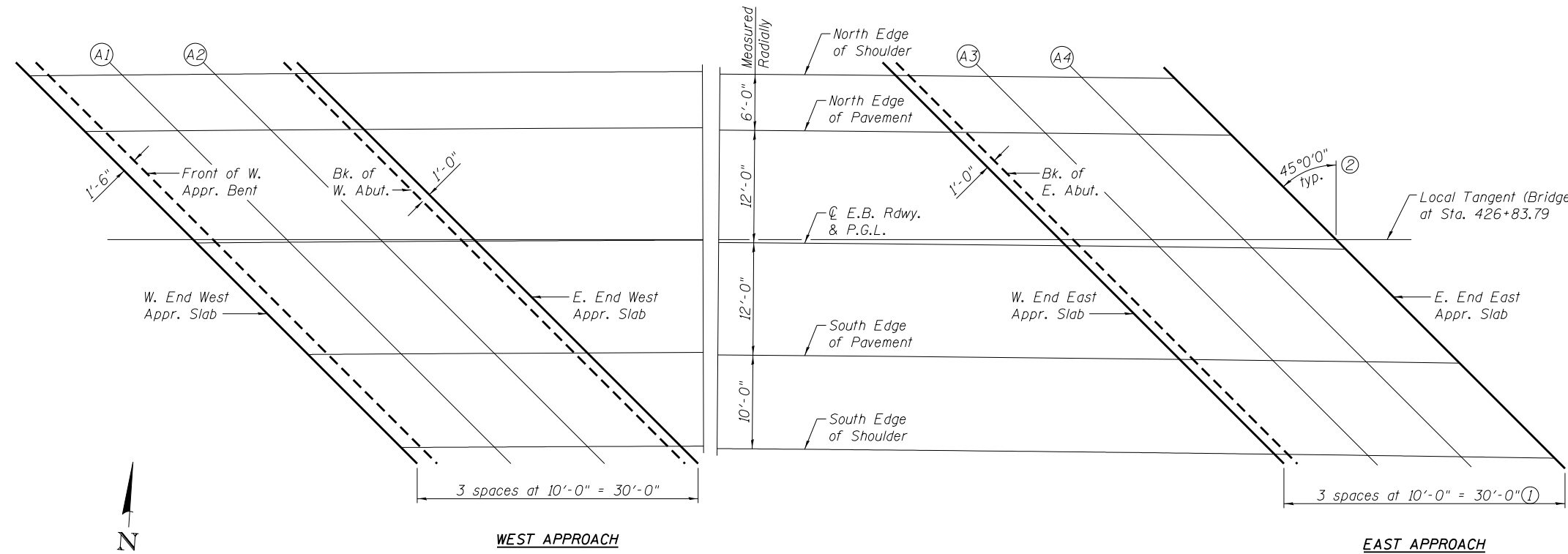
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	425+93.62	0.00	643.90
A1	426+03.55	0.00	643.95
A2	426+13.48	0.00	644.01
E. End West Appr. Slab	426+23.43	0.00	644.06
W. End East Appr. Slab	428+06.31	0.00	645.29
A3	428+16.25	0.00	645.33
A4	428+26.19	0.00	645.37
E. End East Appr. Slab	428+36.15	0.00	645.41

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	426+05.45	12.00	643.78
A1	426+15.40	12.00	643.84
A2	426+25.35	12.00	643.90
E. End West Appr. Slab	426+35.32	12.00	643.96
W. End East Appr. Slab	428+18.59	12.00	645.16
A3	428+28.55	12.00	645.20
A4	428+38.52	12.00	645.23
E. End East Appr. Slab	428+48.49	12.00	645.27

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	426+15.34	22.00	643.64
A1	426+25.30	22.00	643.70
A2	426+35.28	22.00	643.76
E. End West Appr. Slab	426+45.26	22.00	643.82
W. End East Appr. Slab	428+28.86	22.00	645.00
A3	428+38.83	22.00	645.04
A4	428+48.81	22.00	645.07
E. End East Appr. Slab	428+58.81	22.00	645.09



**PLAN**

- Notes:  
 ① Dimension is along Local Tangent (E. Appr.) at Sta. 428+82.90, see sheet 18 of 43.  
 ② Angle with respect to Local Tangent (Bridge), typ.



USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - SJN	REVISED -
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SJN	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TOP OF APPROACH SLAB ELEVATIONS  
 STRUCTURE NO. 006-0184 (E.B.)**

SHEET NO. 9 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	53
CONTRACT NO. 66998			ILLINOIS FED. AID PROJECT	

**NORTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	424+82.94	-22.00	643.78
A1	424+92.92	-22.00	643.81
A2	425+02.90	-22.00	643.84
E. End West Appr. Slab	425+12.89	-22.00	643.87
W. End East Appr. Slab	426+93.48	-22.00	644.84
A3	427+03.46	-22.00	644.92
A4	427+13.45	-22.00	644.99
E. End East Appr. Slab	427+23.45	-22.00	645.07

**NORTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	424+92.57	-12.00	643.66
A1	425+02.56	-12.00	643.69
A2	425+12.56	-12.00	643.72
E. End West Appr. Slab	425+22.57	-12.00	643.76
W. End East Appr. Slab	427+03.46	-12.00	644.77
A3	427+13.46	-12.00	644.84
A4	427+23.47	-12.00	644.92
E. End East Appr. Slab	427+33.49	-12.00	645.01

**℄ W.B. RDWY. & P.G.L.**

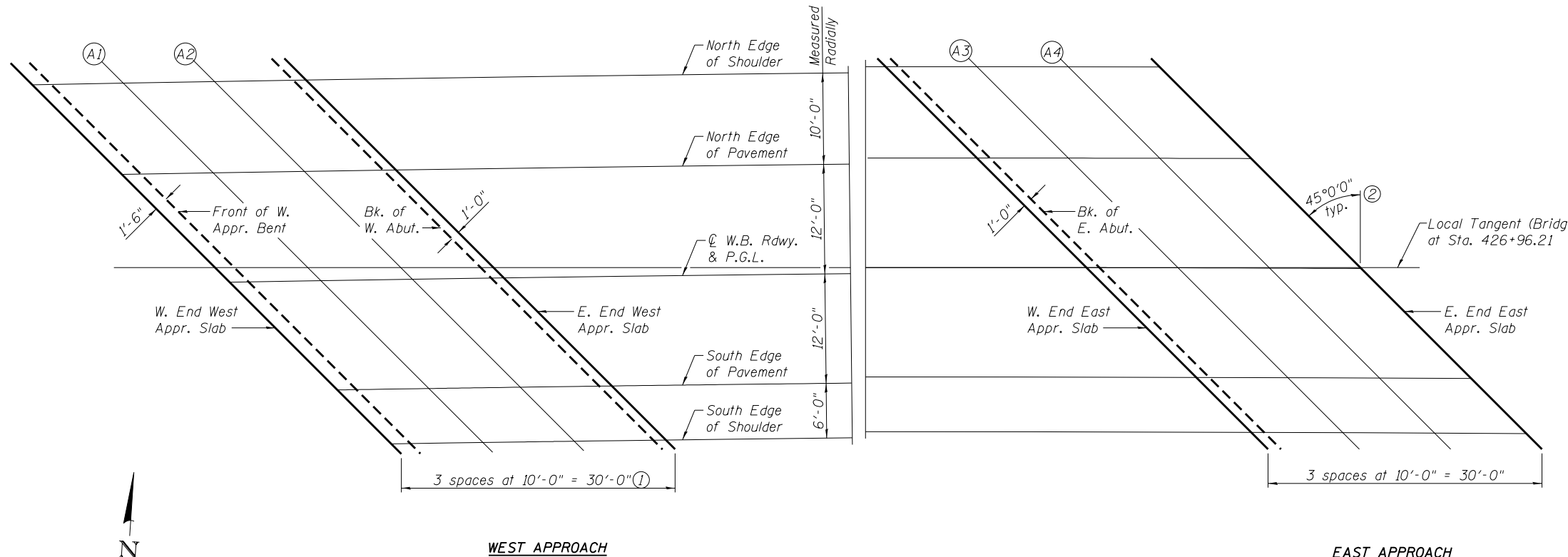
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	425+04.16	0.00	643.51
A1	425+14.17	0.00	643.55
A2	425+24.19	0.00	643.58
E. End West Appr. Slab	425+34.22	0.00	643.62
W. End East Appr. Slab	427+15.49	0.00	644.68
A3	427+25.51	0.00	644.76
A4	427+35.54	0.00	644.84
E. End East Appr. Slab	427+45.58	0.00	644.93

**SOUTH EDGE OF PAVEMENT**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	425+15.78	12.00	643.37
A1	425+25.82	12.00	643.41
A2	425+35.86	12.00	643.44
E. End West Appr. Slab	425+45.90	12.00	643.48
W. End East Appr. Slab	427+27.55	12.00	644.60
A3	427+37.59	12.00	644.68
A4	427+47.64	12.00	644.76
E. End East Appr. Slab	427+57.70	12.00	644.84

**SOUTH EDGE OF SHOULDER**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	425+21.61	18.00	643.27
A1	425+31.65	18.00	643.31
A2	425+41.70	18.00	643.35
E. End West Appr. Slab	425+51.76	18.00	643.39
W. End East Appr. Slab	427+33.59	18.00	644.53
A3	427+43.64	18.00	644.61
A4	427+53.70	18.00	644.69
E. End East Appr. Slab	427+63.77	18.00	644.76



**PLAN**

- Notes:  
 ① Dimension is along Local Tangent (W. Appr.) at Sta. 424+95.57, see sheet 16 of 43.  
 ② Angle with respect to Local Tangent (Bridge), typ.



USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - SJN	REVISED -
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SJN	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TOP OF APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 006-0185 (W.B.)**

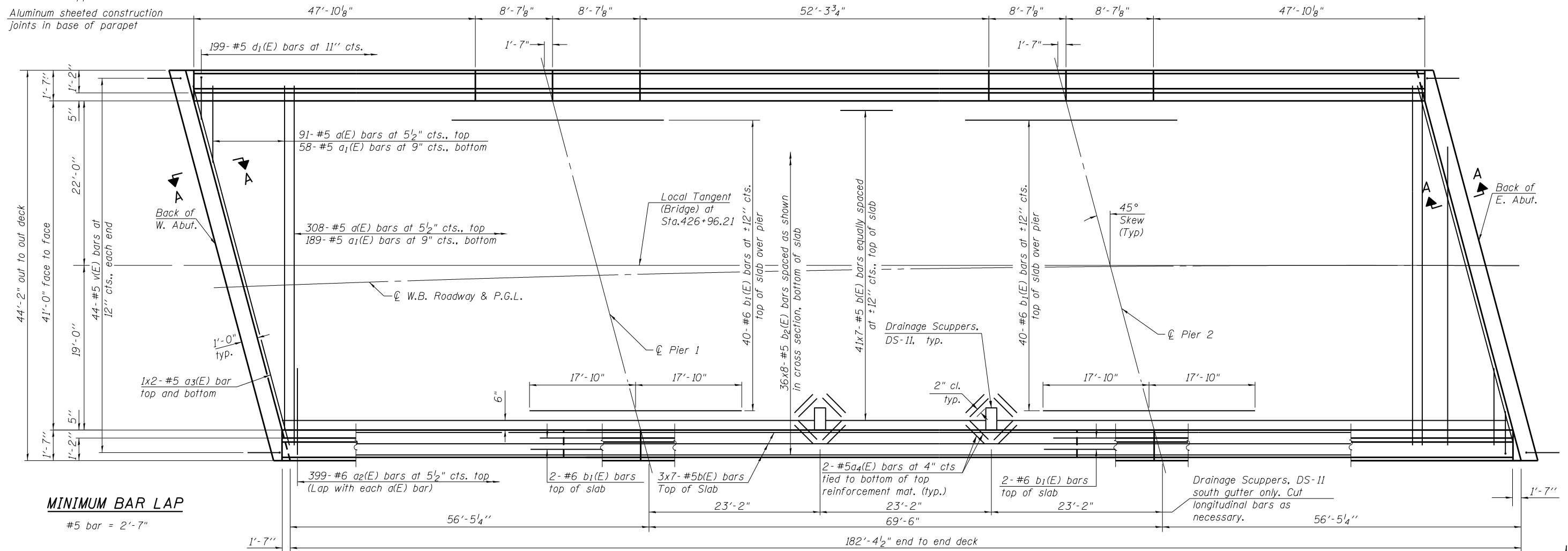
SHEET NO. 10 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	106-21BR-3,4	BUREAU	133	54
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

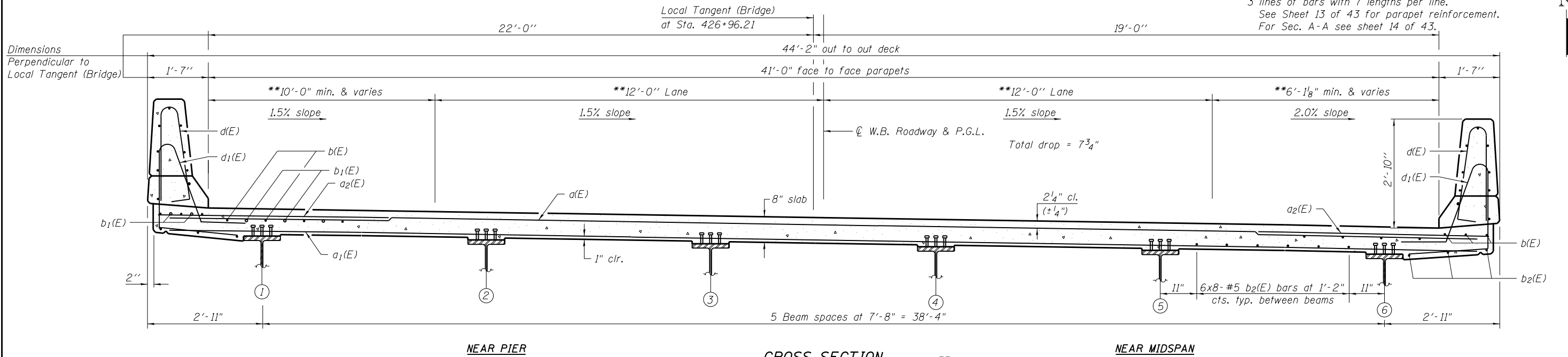


\* Order a(E) and a<sub>1</sub>(E) bars full length.  
Cut to fit skew and use remainder of  
bars in opposite end.

Aluminum sheeted construction  
joints in base of parapet



Notes:  
See Sheet 13 of 43 for superstructure details and Bill of Material.  
Bars indicated thus 3 x 7-#5 etc. indicates 3 lines of bars with 7 lengths per line.  
See Sheet 13 of 43 for parapet reinforcement.  
For Sec. A-A see sheet 14 of 43.



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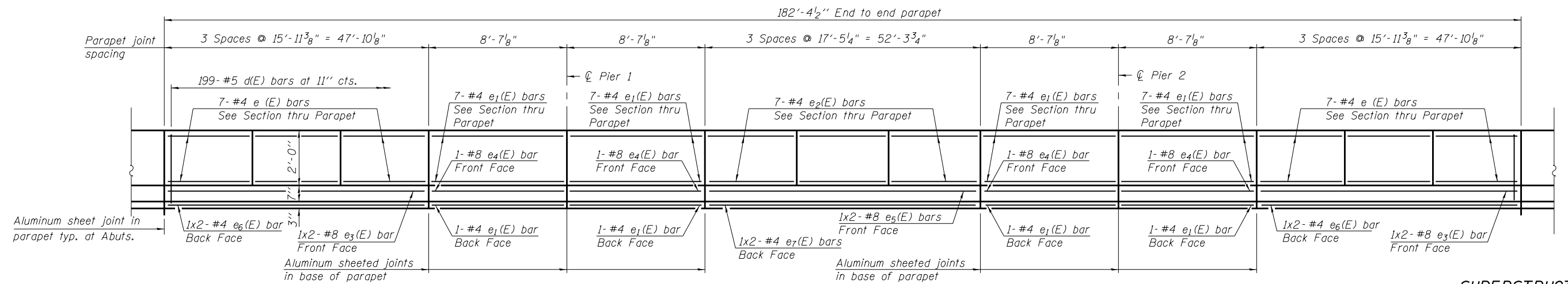
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PLOT DATE = 7/29/2013	CHECKED - SCD	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE  
STRUCTURE NO. 006-0185 (W.B.)

SHEET NO. 12 OF 43 SHEETS

F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	56
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



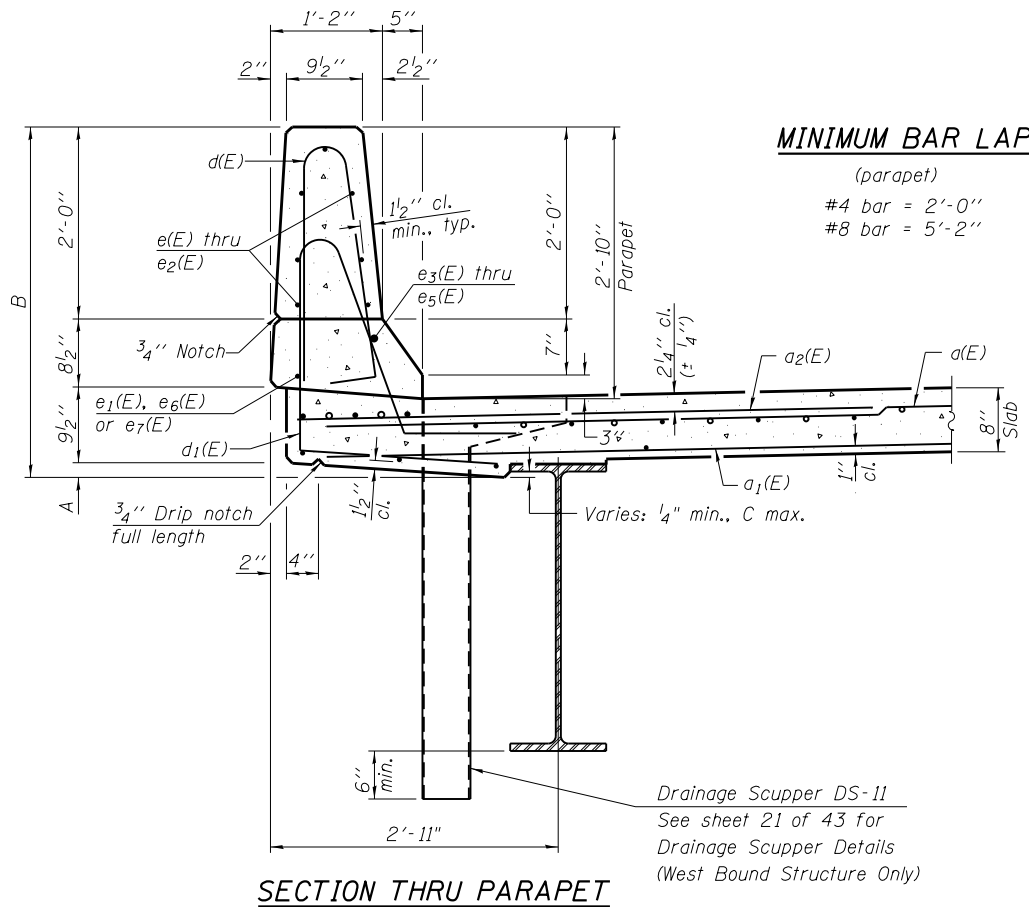
**INSIDE ELEVATION OF PARAPET**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

(Two Structures)

Bar	No.	Size	Length	Shape
d(E)	798	#5	43'-6"	—
a1(E)	494	#5	42'-10"	—
a2(E)	1596	#6	6'-6"	—
a3(E)	16	#5	31'-9"	—
a4(E)	16	#5	1'-6"	—
b(E)	658	#5	28'-3"	—
b1(E)	176	#6	35'-8"	—
b2(E)	576	#5	25'-1"	—
d(E)	796	#5	5'-7"	┌
d1(E)	796	#5	7'-6"	┌
e(E)	168	#4	15'-7"	—
e1(E)	128	#4	8'-3"	—
e2(E)	84	#4	17'-1"	—
e3(E)	16	#8	26'-4"	—
e4(E)	16	#8	8'-3"	—
e5(E)	8	#8	28'-7"	—
e6(E)	16	#4	25'-0"	—
e7(E)	8	#4	27'-0"	—
m(E)	32	#6	32'-6"	—
m1(E)	60	#6	10'-6"	—
m2(E)	24	#6	2'-6"	—
m3(E)	72	#5	4'-0"	—
s(E)	164	#5	9'-10"	┌
s1(E)	164	#5	9'-0"	┌
v(E)	176	#5	3'-1"	┌
Reinforcement Bars, Epoxy Coated	Pound	141,760		
Concrete Superstructure	Cu. Yds.	563.7		

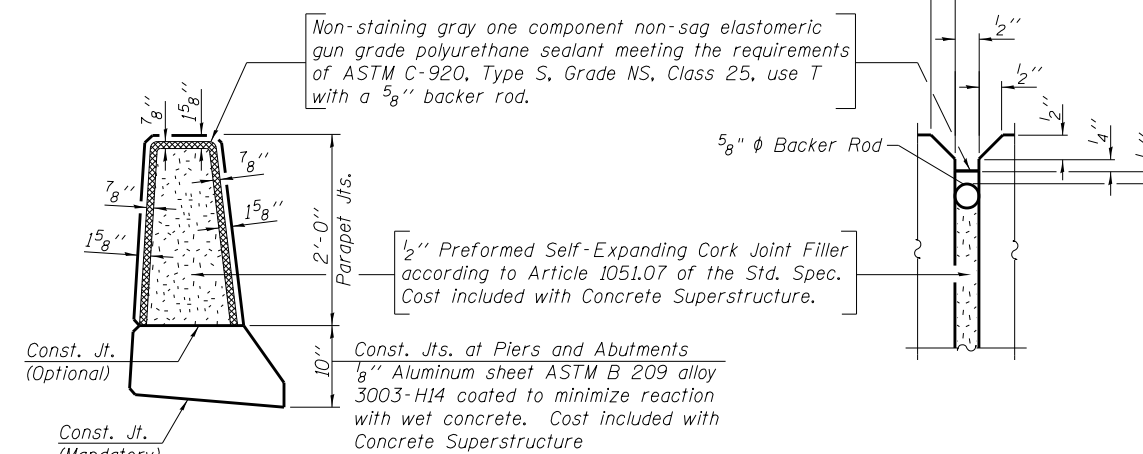
Bars indicated thus 1 x 2-#8 etc. indicates 1 line of bars with 2 lengths per line.



**SECTION THRU PARAPET**

**MINIMUM BAR LAP**

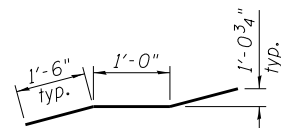
(parapet)  
#4 bar = 2'-0"  
#8 bar = 5'-2"



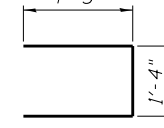
**PARAPET JOINT DETAILS**

**SOFFIT DIMENSIONS**

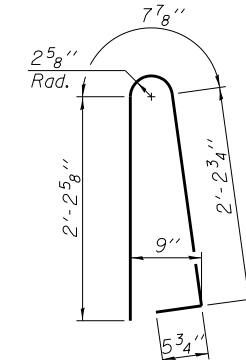
Location	A	B	C
WB BM 1	3 3/8"	3'-9 3/8"	1 3/8"
WB BM 6	2 1/2"	3'-8 1/2"	1 3/8"
EB BM 7	3 3/8"	3'-9 3/8"	1 3/8"
EB BM 12	2 3/4"	3'-8 3/4"	1 5/8"



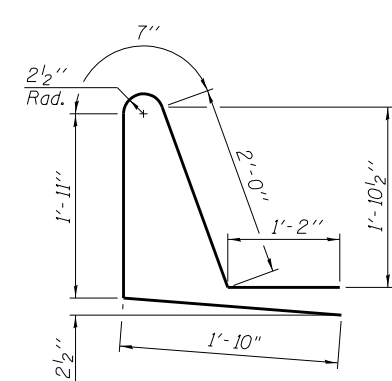
**BAR m3(E)**



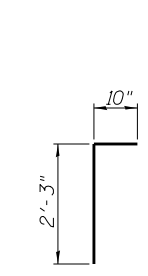
**BAR s(E)**



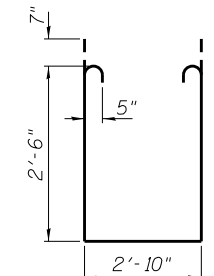
**BAR d(E)**



**BAR d1(E)**



**BAR v(E)**



**BAR s1(E)**

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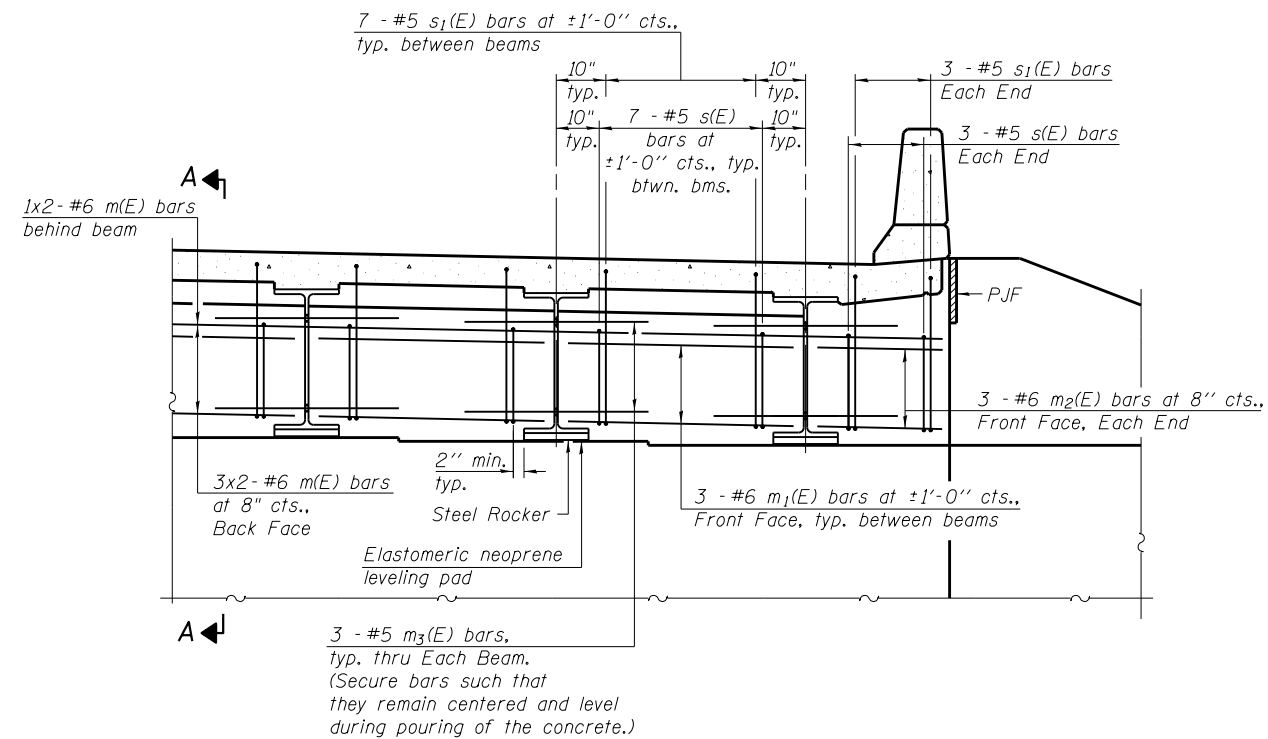
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REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

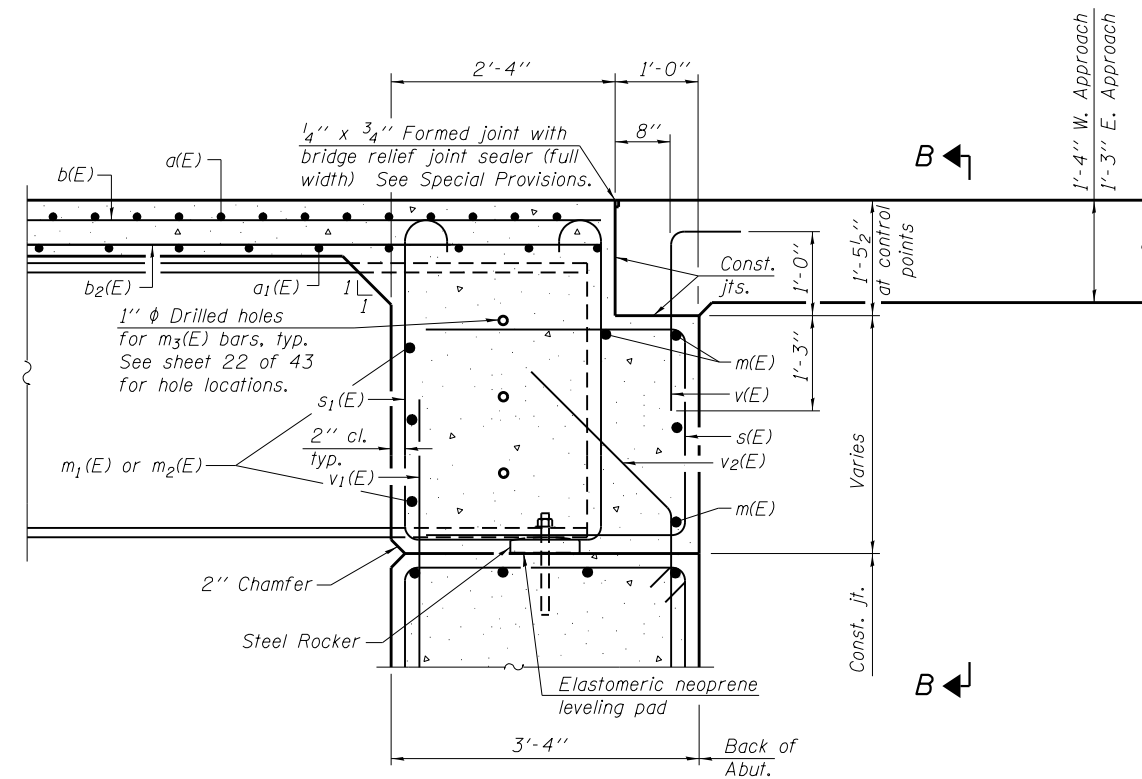
SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

SHEET NO. 13 OF 43 SHEETS

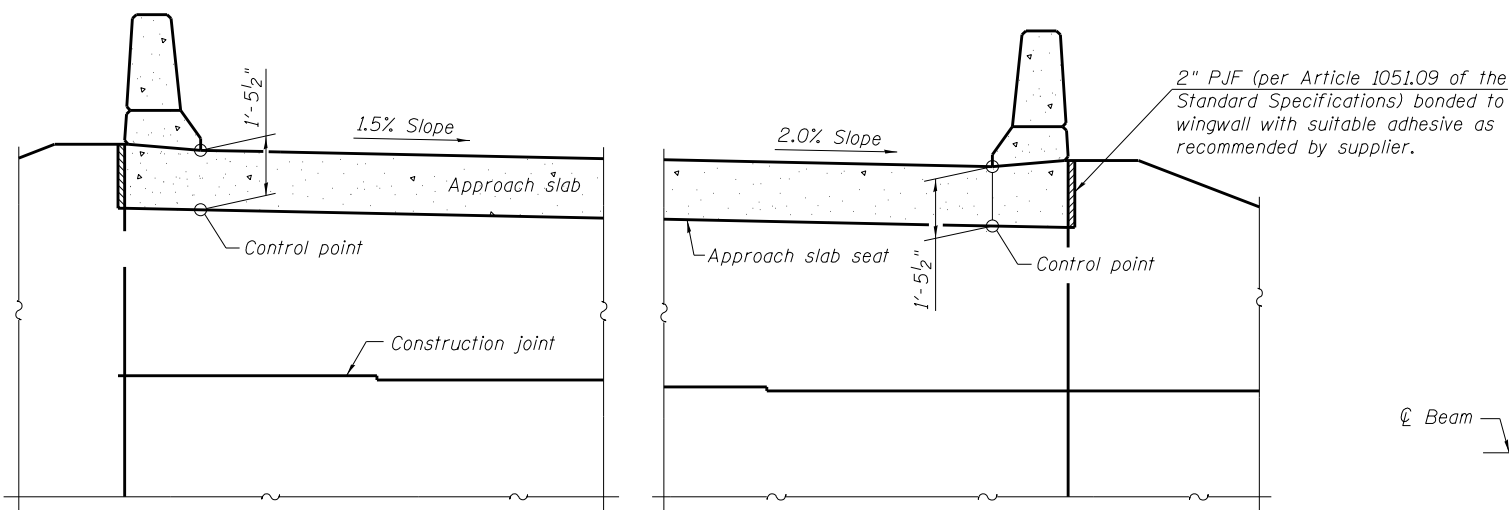
F.A.I. RFE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
80 (06-2)BR-3,4 BUREAU 133 57  
CONTRACT NO. 66998  
ILLINOIS FED. AID PROJECT



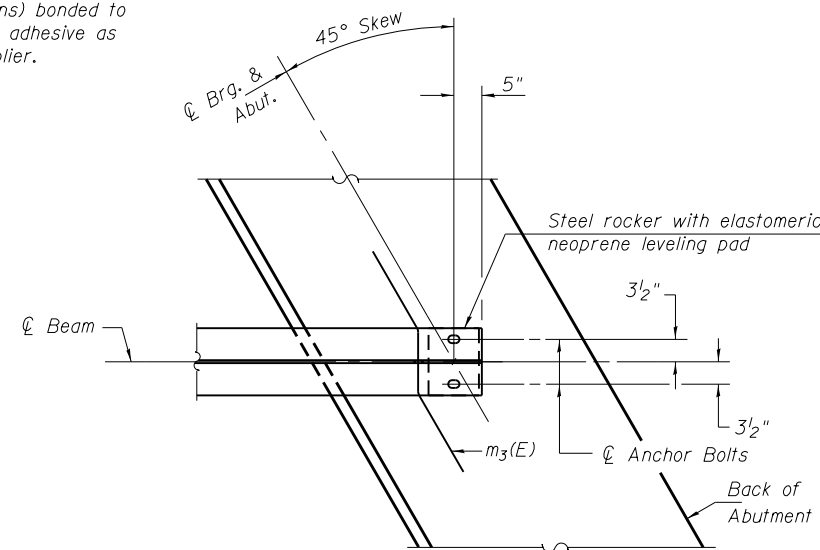
**DIAPHRAGM ELEVATION AT ABUTMENT**



**SECTION A - A**  
(at Rt. L's)



**SECTION B - B**



**PARTIAL PLAN AT ABUTMENT**  
(Showing bottom flange of beam)

**MINIMUM BAR LAP**  
(diaphragm)  
#6 bar = 4'-5"

Notes:  
Reinforcement bars in diaphragm are billed with superstructure on sheet 13 of 43.  
Concrete in diaphragm is included with Concrete Superstructure on sheet 13 of 43.  
For details of bars s(E), s1(E) and v(E) see sheet 13 of 43.  
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.  
The approach slab seat shall have a constant slope determined from the control points shown.  
For bearing details see sheet 24 of 43.  
Bars indicated thus 1x2-#6 etc. indicates 1 line of bars with 2 lengths per line.

FILE NAME = 0060184\_0185\_66998-14-Diaphragm.dgn  
MODEL = Default  
PLOT DRIVER = V8\_PDF\_1x17.plt



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DESIGNED - SCD  
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REVISED  
REVISED  
REVISED  
REVISED

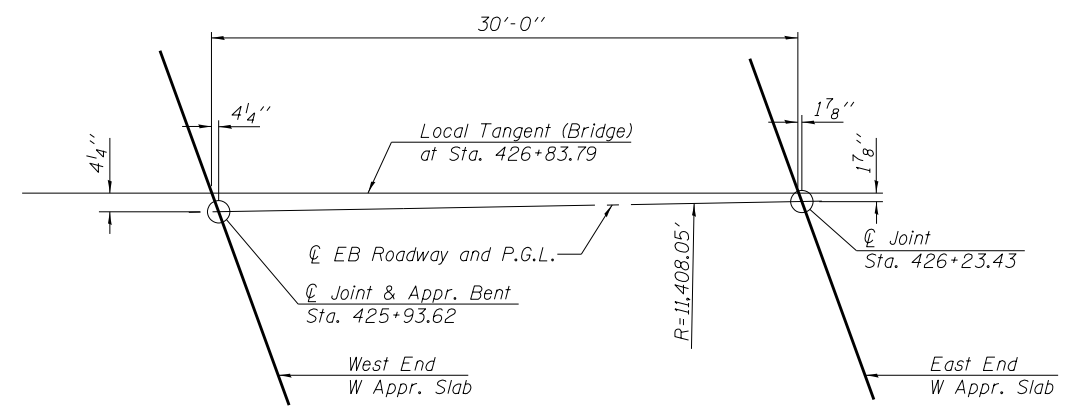
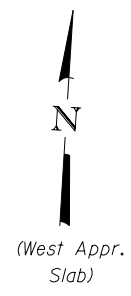
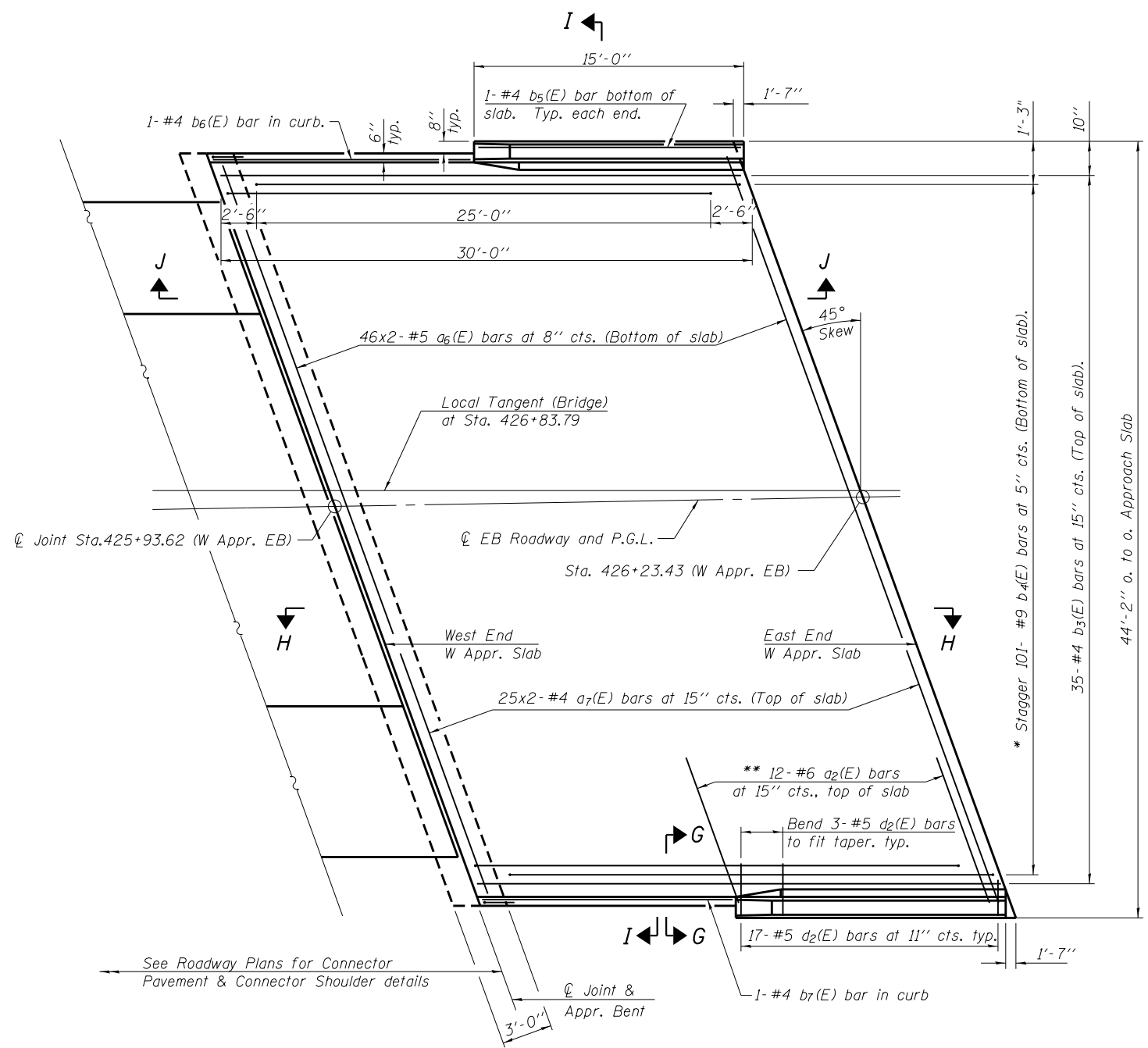
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTEGRAL ABUTMENT DIAPHRAGM DETAILS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

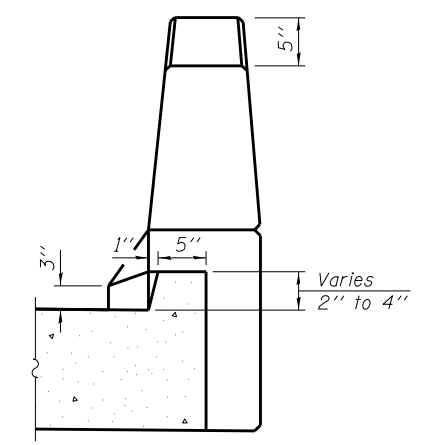
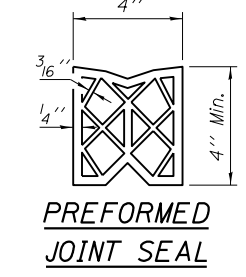
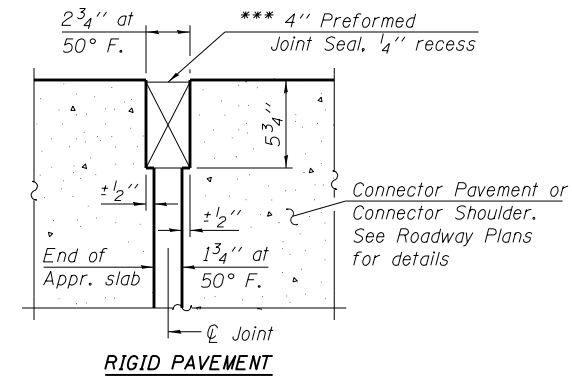
SHEET NO. 14 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	58
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

Notes:  
 See sheet 17 of 43 for Sections H-H & I-I and View J-J.  
 $a_6(E)$  and  $a_7(E)$  bar spacings measured along Local Tangent (Bridge).  
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be  $1\frac{1}{2}$ " for installation purposes.



\* Tilt #9  $b_4(E)$  bars as required to maintain clearance.  
 \*\* Space between  $a_7(E)$  bars, typ. each parapet.  
 \*\*\* Cost included with Concrete Superstructure.



(Sheet 1 of 3)

FILE NAME = 0060184\_0185\_66998-15-W\_Appr\_SlabEB.dgn  
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PLOT DATE = 7/29/2013	CHECKED - SCD	REVISED

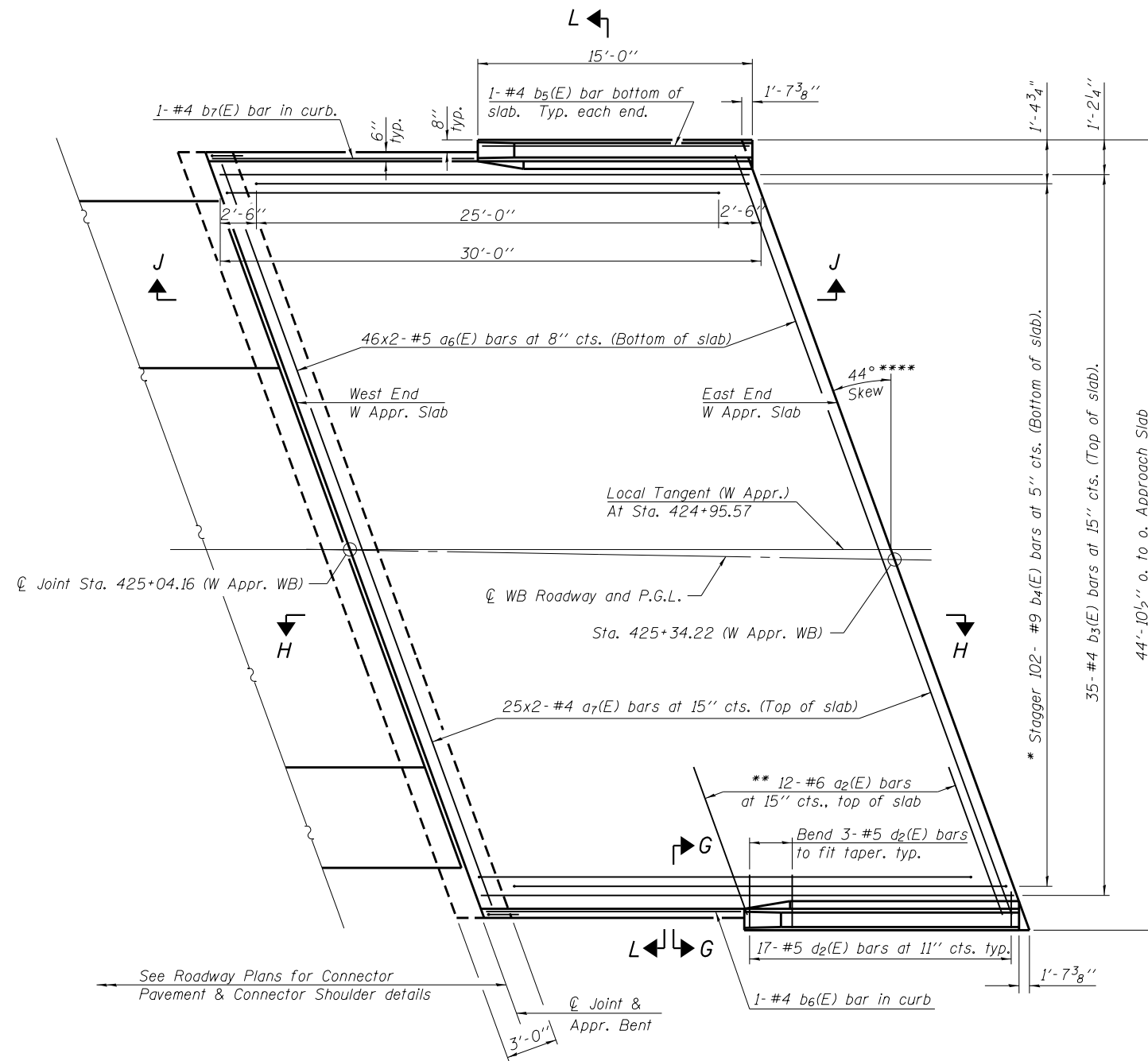
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 006-0184 (E.B.)

SHEET NO. 15 OF 43 SHEETS

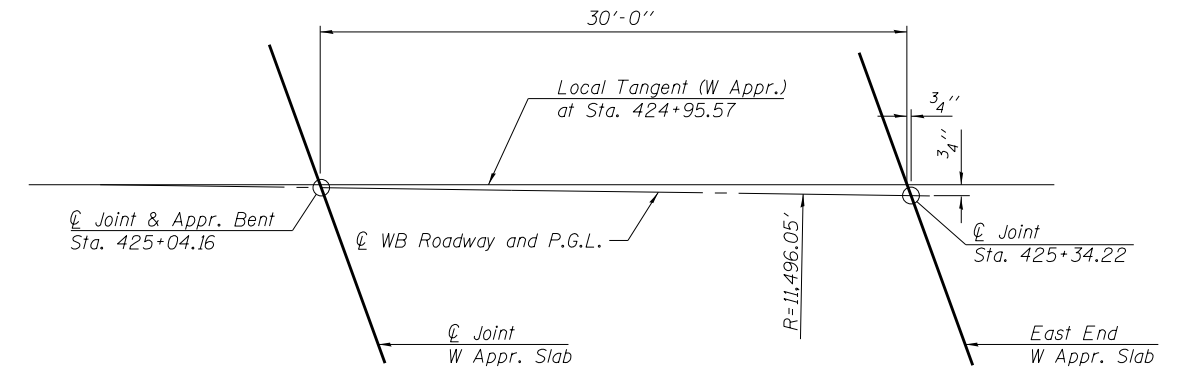
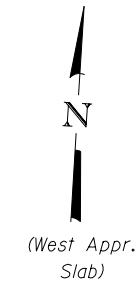
F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	59
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

Notes:  
 See sheet 17 of 43 for Sections H-H & L-L and View J-J.  
 $a_6(E)$  and  $a_7(E)$  bar spacings measured along Local Tangent (W Appr.)  
 See sheet 15 of 43 for View G-G.



**PLAN**

\* Tilt #9  $b_4(E)$  bars as required to maintain clearance.  
 \*\* Space between  $a_7(E)$  bars, typ. each parapet.  
 \*\*\*\* With respect to Local Tangent (W Appr.) at Sta. 424+95.57



**OFFSET SKETCH**

(Sheet 2 of 3)

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

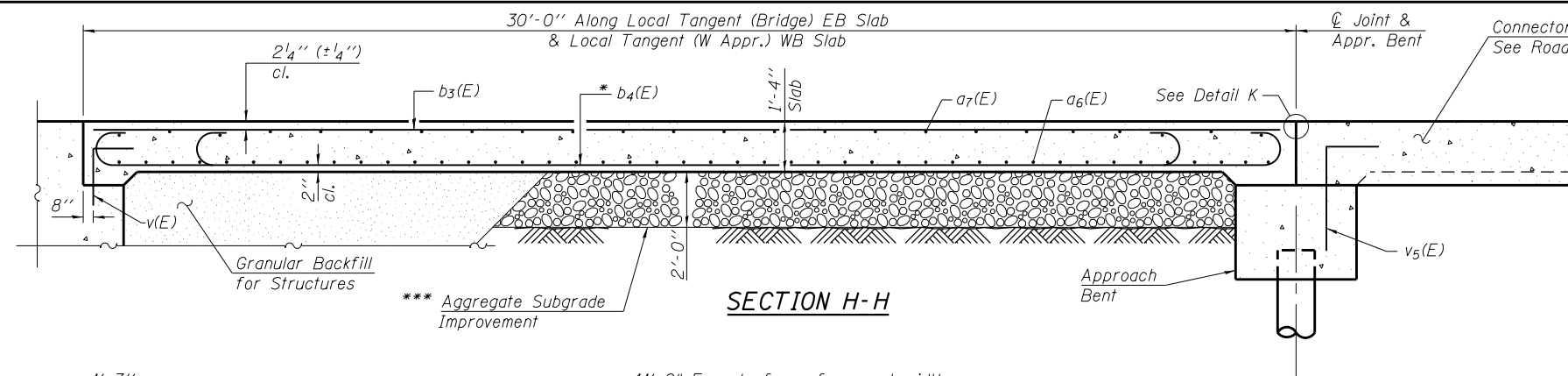
**WEST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 006-0185 (W.B.)**

SHEET NO. 16 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	60
CONTRACT NO. 66998				

ILLINOIS FED. AID PROJECT

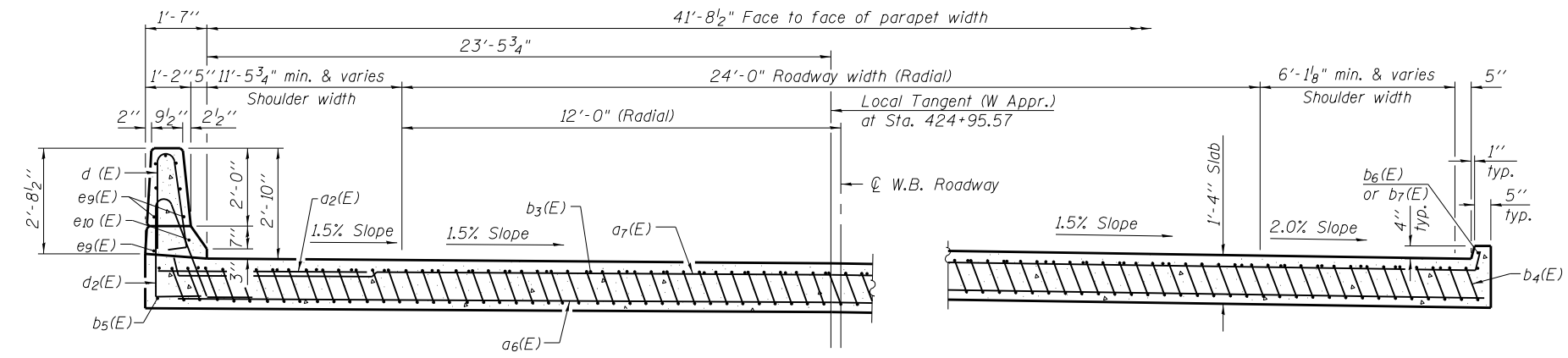
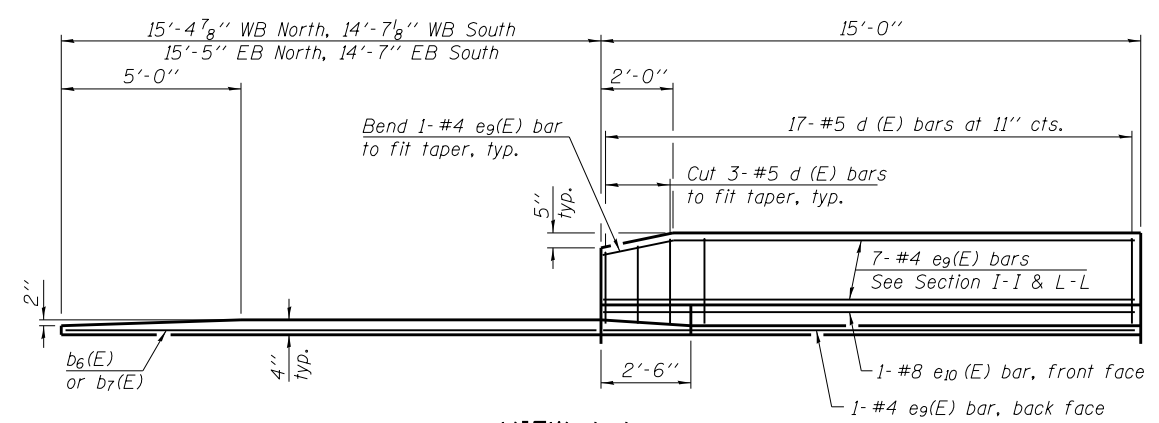
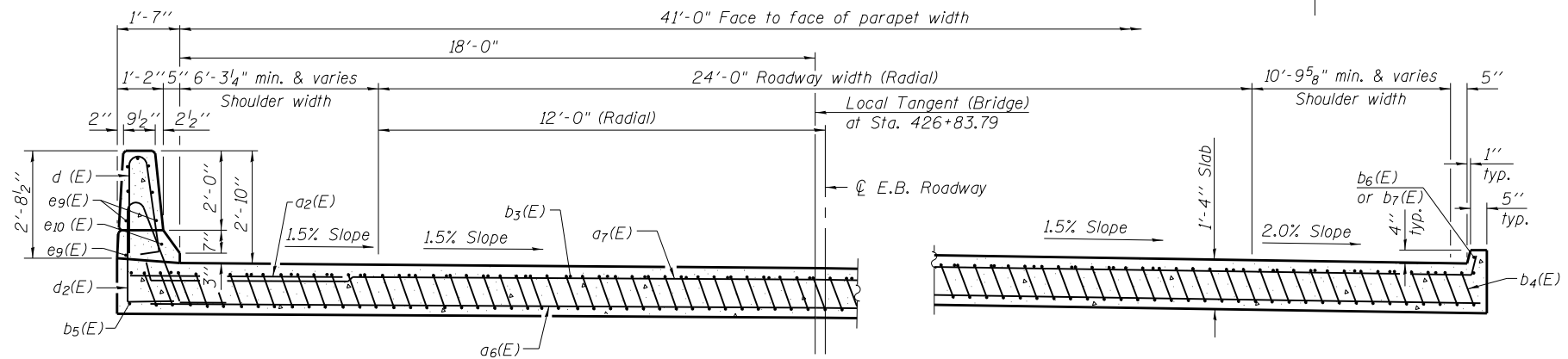




Notes:  
 See sheet 15 of 43 for Detail K and View G-G.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v(E) bar details, see sheets 11-14 of 43.  
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 43.  
 For additional parapet details, see sheet 13 of 43.  
 For Approach Bent & v5(E) bar details, see sheets 25 and 26 of 43.

\* Tilt #9 b4(E) bars as required to maintain clearance.

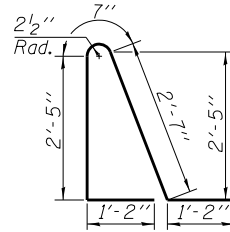
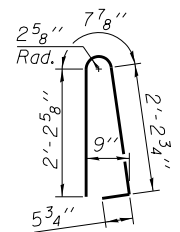
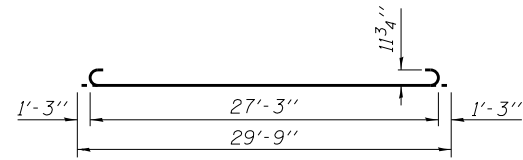
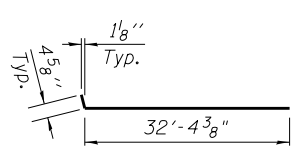
\*\*\* Quantity of Aggregate Subgrade Improvement is based on the depth shown and the horizontal limits of the approach slab. Actual depth to be determined by the Engineer based on conditions encountered in the field. Excavation shall be paid for as Removal and Disposal of Unsuitable Material for Structures. For additional requirements, see Special Provisions.



**MINIMUM BAR LAP**  
 #4 bar = 2'-11"  
 #5 bar = 2'-7"

**BILL OF MATERIAL**  
 (Two West Approaches)

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a6(E)	184	#5	31'-3"	—
a7(E)	100	#4	32'-9"	—
b3(E)	70	#4	29'-8"	—
b4(E)	203	#9	29'-9"	—
b5(E)	4	#4	14'-8"	—
b6(E)	2	#4	14'-0"	—
b7(E)	2	#4	15'-3"	—
d(E)	68	#5	5'-7"	—
d2(E)	68	#5	7'-11"	—
e9(E)	32	#4	14'-8"	—
e10(E)	4	#8	14'-8"	—
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	74
Concrete Superstructure			Cu. Yd.	144.0
Reinforcement Bars, Epoxy Coated			Pound	32,080
Aggregate Subgrade Improvement			Cu. Yd.	111



(Sheet 3 of 3)

FILE NAME = 0060184\_0185\_66998-17-W\_Appr\_Slab.dgn  
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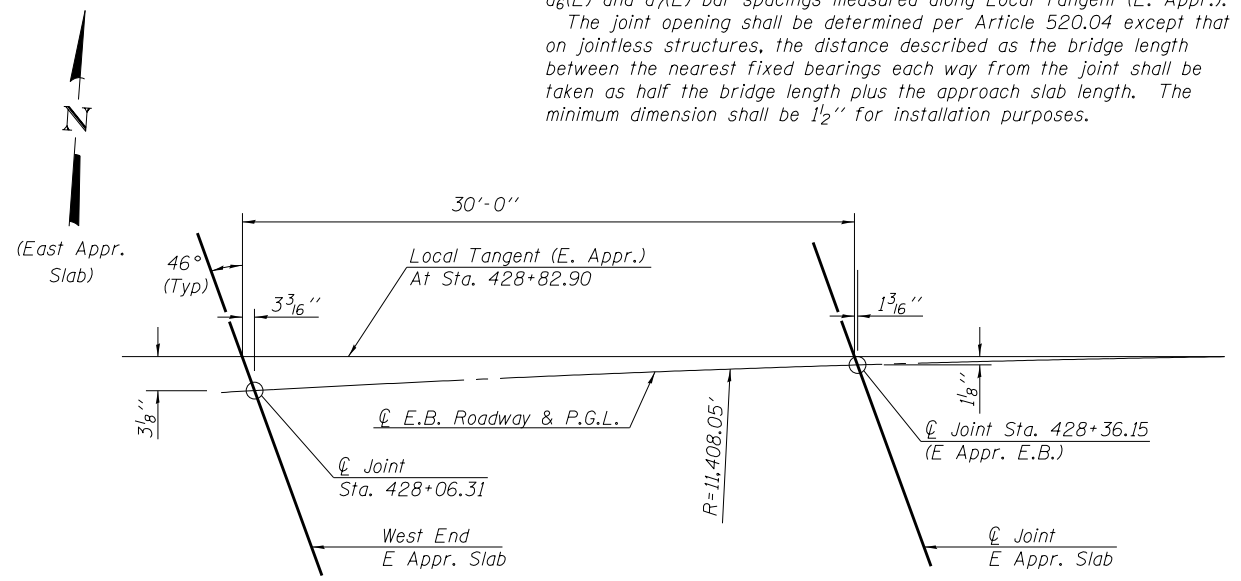
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

WEST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

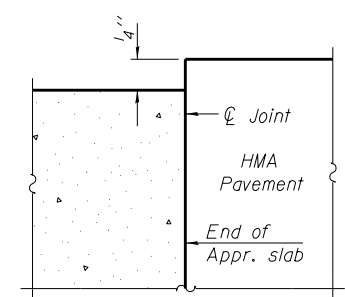
F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	61
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

SHEET NO. 17 OF 43 SHEETS

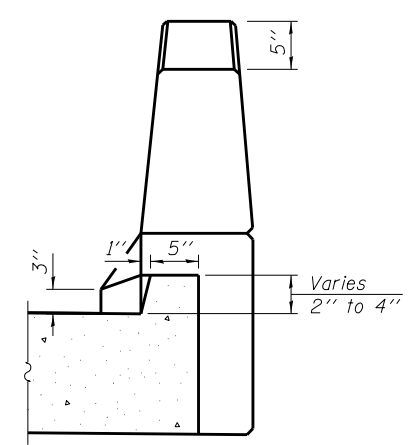
Notes:  
 See sheet 20 of 43 for Sections C-C & D-D and View E-E.  
 $a_6(E)$  and  $a_7(E)$  bar spacings measured along Local Tangent (E. Appr.).  
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be  $1\frac{1}{2}$ " for installation purposes.



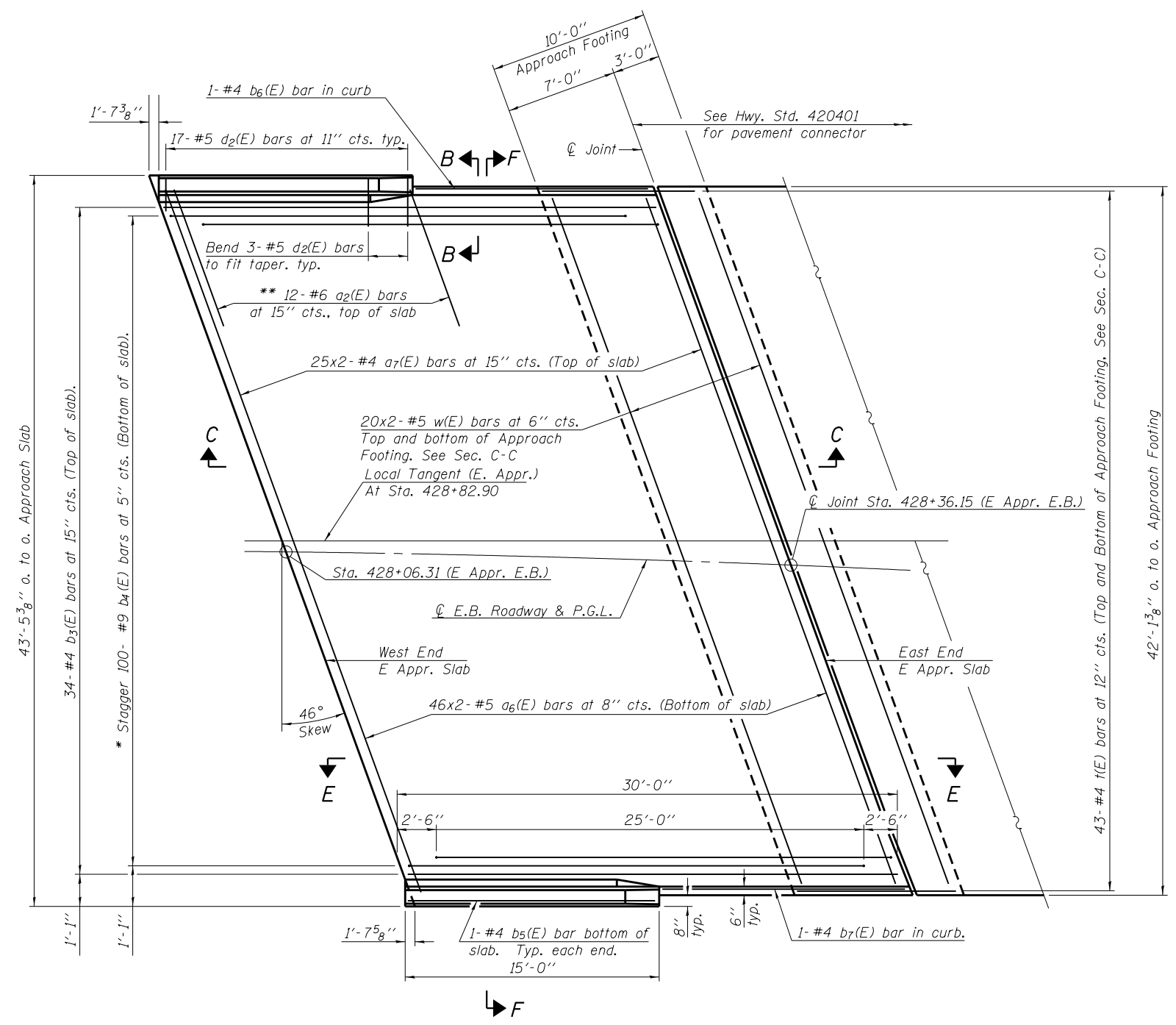
OFFSET SKETCH



FLEXIBLE PAVEMENT  
 DETAIL A



VIEW B-B



PLAN

\* Tilt #9 b4(E) bars as required to maintain clearance.  
 \*\* Space between  $a_7(E)$  bars, typ. each parapet.

(Sheet 1 of 3)

FILE NAME = 0060184\_0185\_66998-18-E.Appr.SlabEB.dgn  
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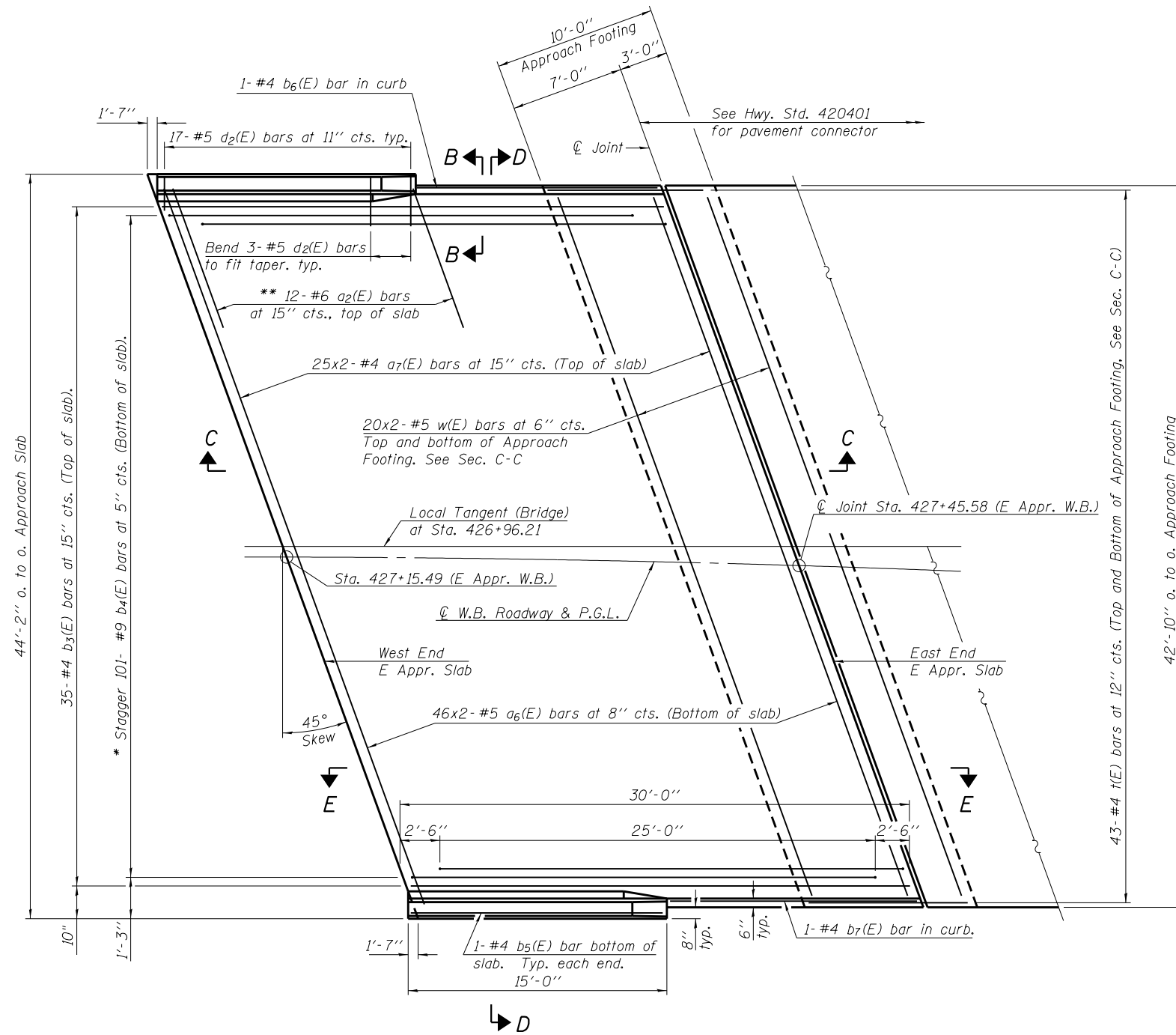
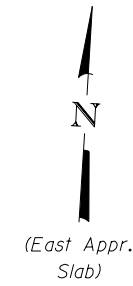
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EAST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 006-0184 (E.B.)

SHEET NO. 18 OF 43 SHEETS

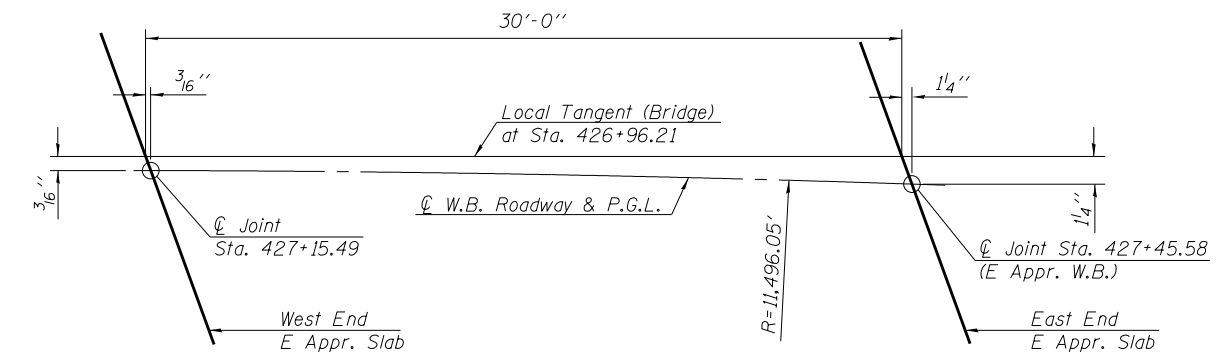
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	62
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

Notes:  
See sheet 20 of 43 for Sections C-C & D-D and View E-E.  
 $a_6(E)$  and  $a_7(E)$  bar spacings measured along Local Tangent (Bridge).



**PLAN**

\* Tilt #9 b4(E) bars as required to maintain clearance.  
\*\* Space between  $a_7(E)$  bars, typ. each parapet.



**OFFSET SKETCH**

(Sheet 2 of 3)

FILE NAME = 0060184\_0185\_66998-19-E.Appr-SlabMB.dgn  
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CHECKED - DRB  
DRAWN - TKW  
CHECKED - SCD

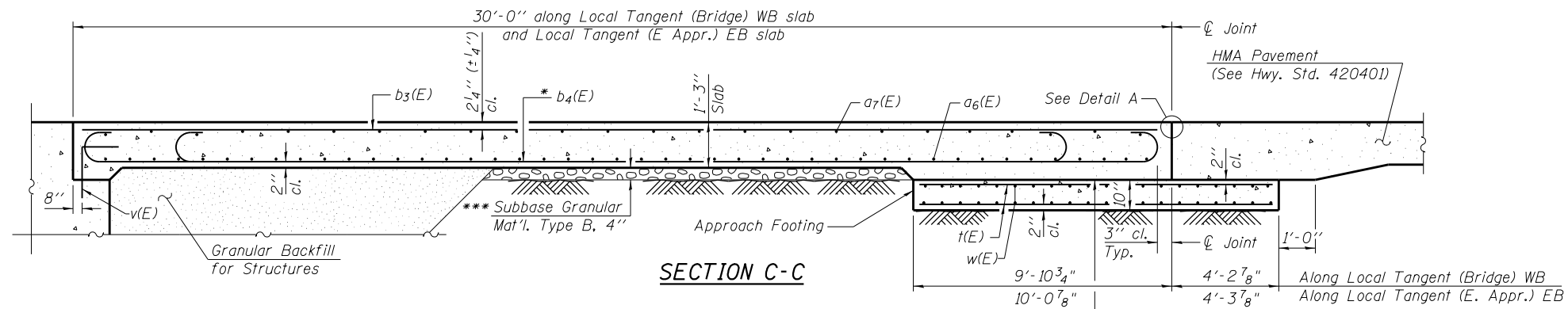
REVISED  
REVISED  
REVISED  
REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

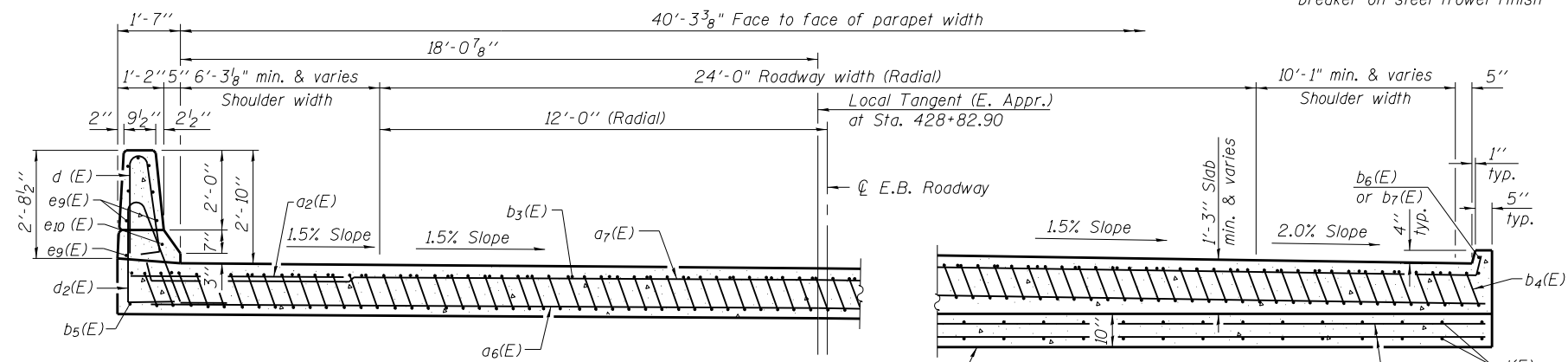
**EAST BRIDGE APPROACH SLAB DETAILS  
STRUCTURE NO. 006-0185 (W.B.)**

SHEET NO. 19 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	63
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



Notes:  
 See sheet 18 of 43 for Detail A and View B-B.  
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.  
 Approach footing concrete shall be paid for as Concrete Structures.  
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.  
 For v(E) bar details, see sheets 11-14 of 43.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ksf.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 43.  
 For additional parapet details, see sheet 13 of 43.



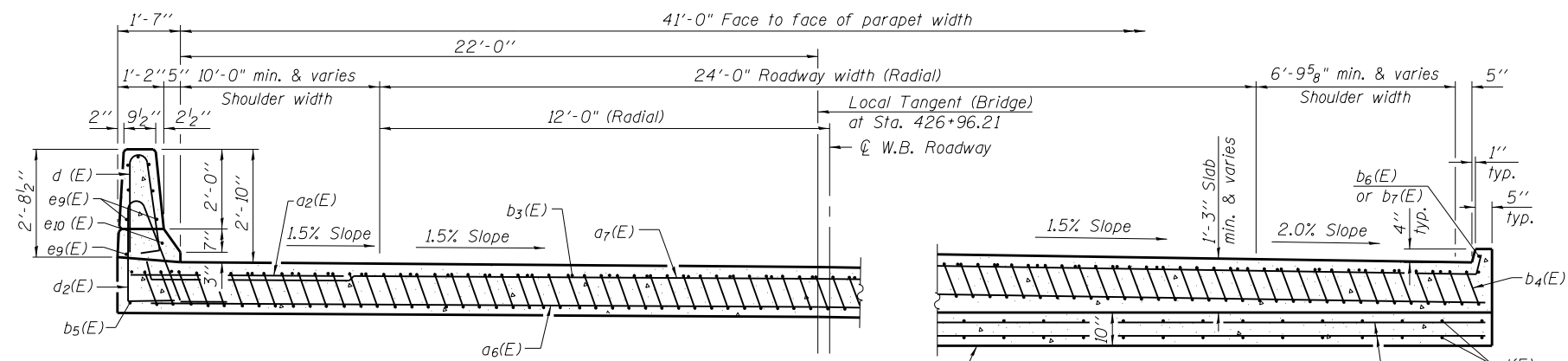
NEAR ABUTMENT

SECTION F-F

(See Plan for dimensions not shown)  
 (E. Appr. EB)



AT APPROACH FOOTING



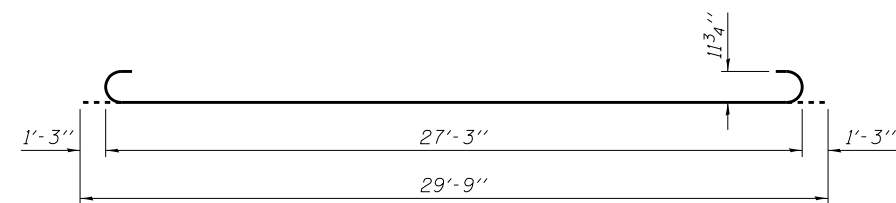
NEAR ABUTMENT

SECTION D-D

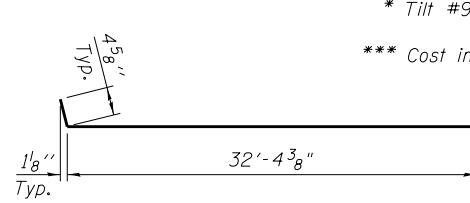
(See Plan for dimensions not shown)  
 (E. Appr. WB)



AT APPROACH FOOTING



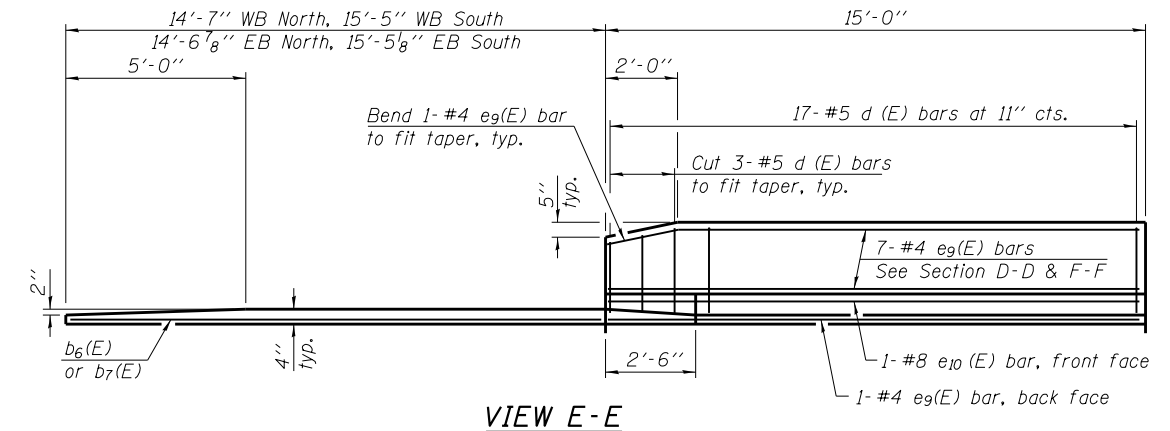
BAR b4(E)



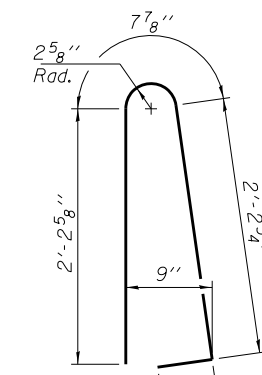
BAR a7(E)

\* Tilt #9 b4(E) bars as required to maintain clearance.

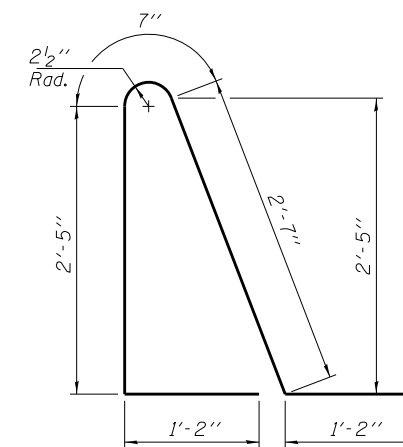
\*\*\* Cost included with Concrete Superstructure.



VIEW E-E



BAR d(E)



BAR d2(E)

MINIMUM BAR LAP

#4 bar = 2'-11"  
 #5 bar = 2'-7"

BILL OF MATERIAL

(Two East Approaches)

Bar	No.	Size	Length	Shape
a2(E)	48	#6	6'-6"	—
a6(E)	184	#5	31'-3"	—
a7(E)	100	#4	32'-9"	—
b3(E)	69	#4	29'-8"	—
b4(E)	201	#9	29'-9"	—
b5(E)	4	#4	14'-8"	—
b6(E)	2	#4	14'-0"	—
b7(E)	2	#4	15'-3"	—
d(E)	68	#5	5'-7"	—
d2(E)	68	#5	7'-11"	—
e9(E)	32	#4	14'-8"	—
e10(E)	4	#8	14'-8"	—
t(E)	172	#4	13'-10"	—
w(E)	160	#5	31'-4"	—

Concrete Superstructure Cu. Yd. 130.6  
 Concrete Structures Cu. Yd. 37.4  
 \*\* Reinforcement Bars, Epoxy Coated Pound 38,680

\*\* Weight includes: 31,860 (Superstructure)  
 6,820 (Substructure)

(Sheet 3 of 3)

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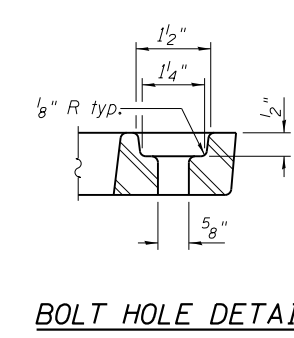
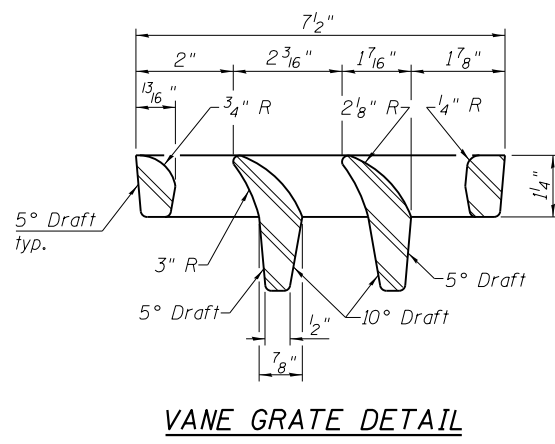
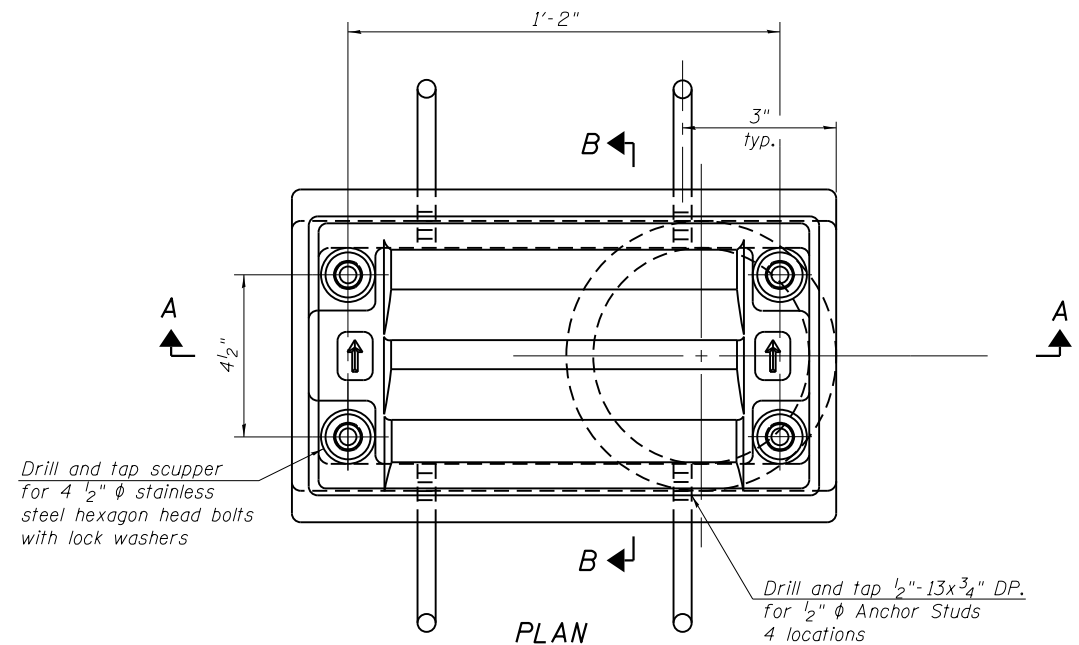
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EAST BRIDGE APPROACH SLAB DETAILS  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

SHEET NO. 20 OF 43 SHEETS

F.A.I. RTE. 80	SECTION (06-2)BR-3,4	COUNTY BUREAU	TOTAL SHEETS 133	SHEET NO. 64
			CONTRACT NO. 66998	
ILLINOIS FED. AID PROJECT				



Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

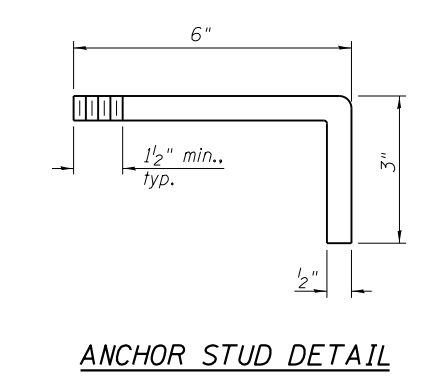
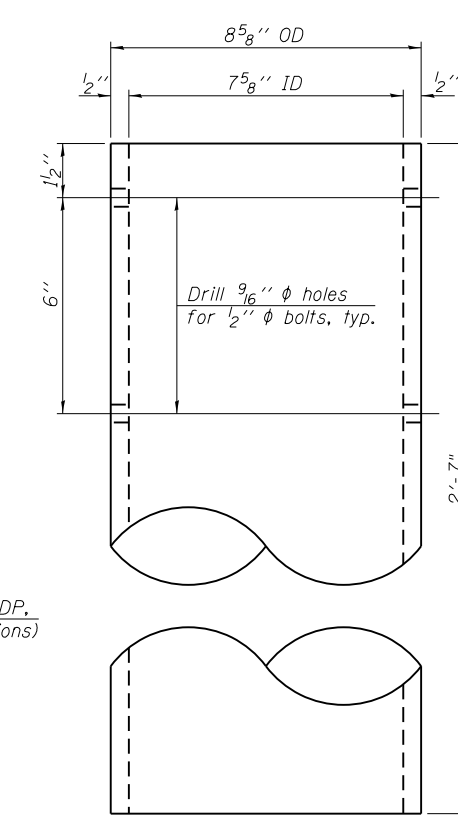
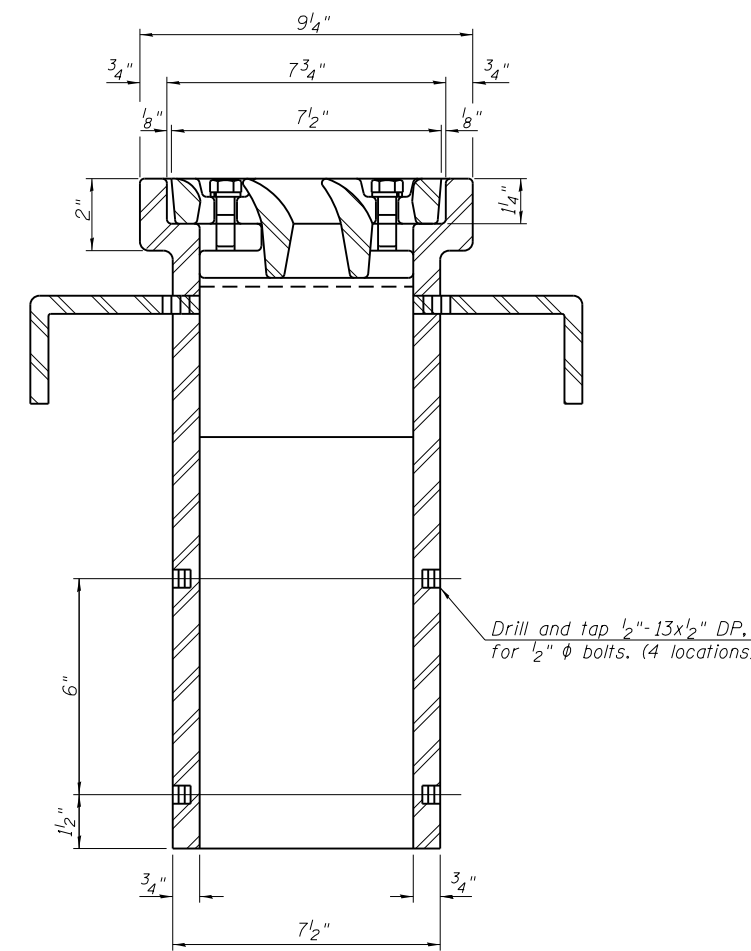
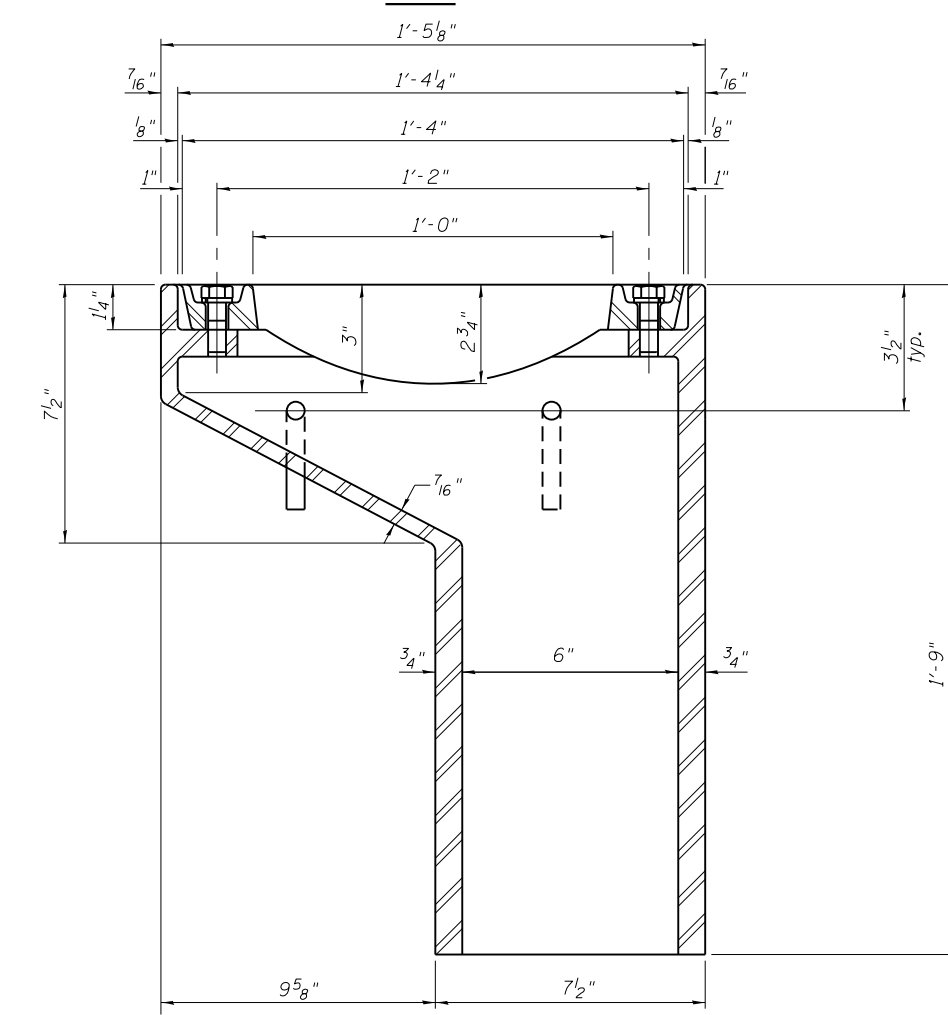
As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-11.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



See sheets 12 and 13 of 43 for scupper location relative to parapet.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	2

DS-11

7-1-10



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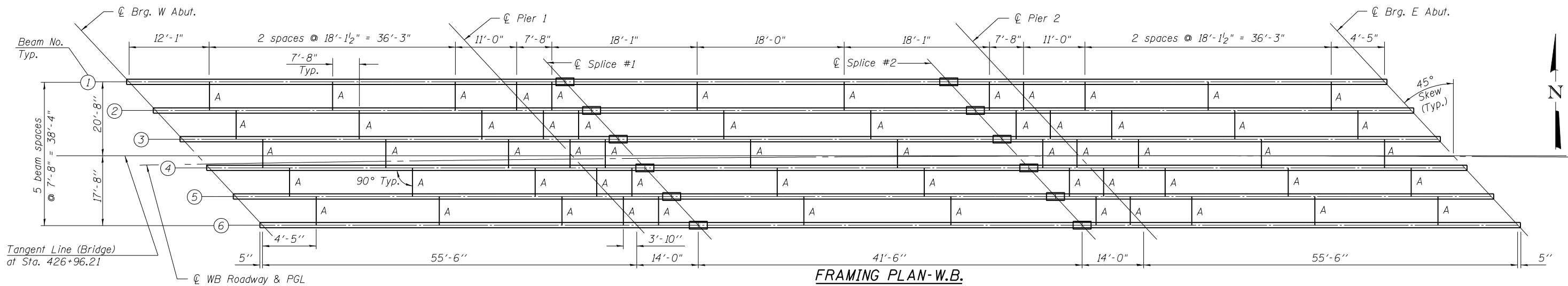
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPER  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

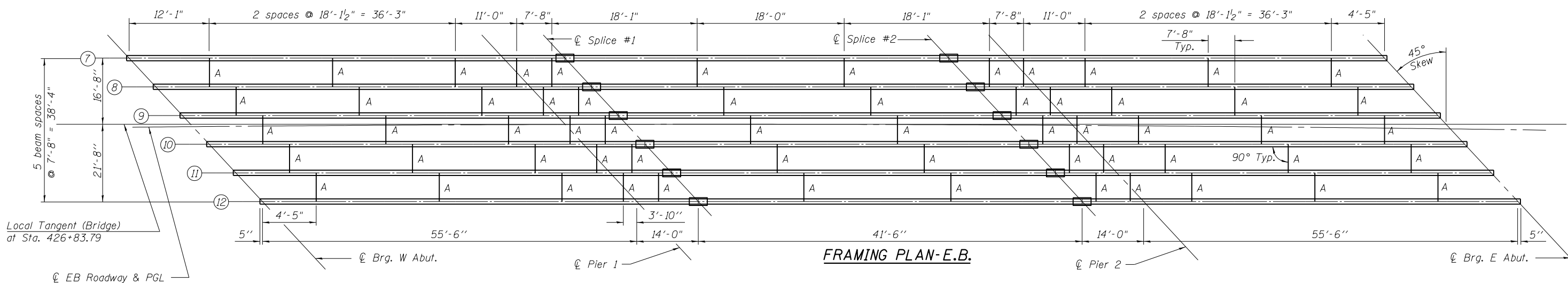
SHEET NO. 21 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	65
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

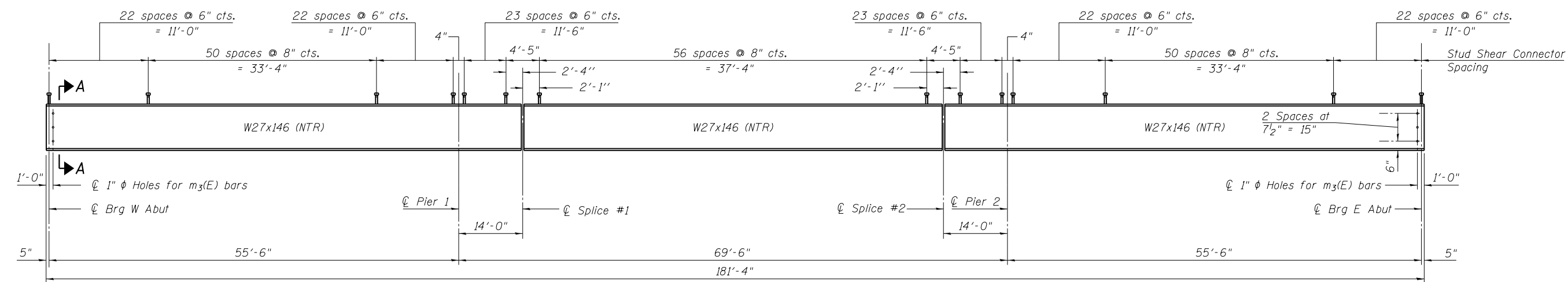
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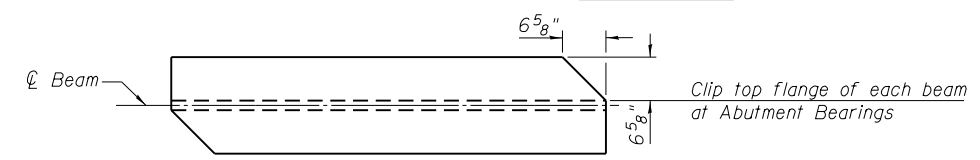
**FRAMING PLAN-W.B.**



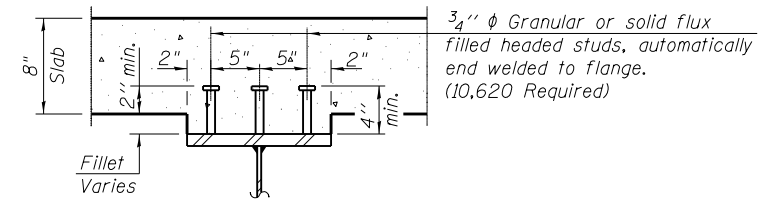
**FRAMING PLAN-E.B.**



**ELEVATION**



**PLAN**



**SECTION A-A**

**Notes:**  
 For diaphragm details see Sheet 23 of 43.  
 All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

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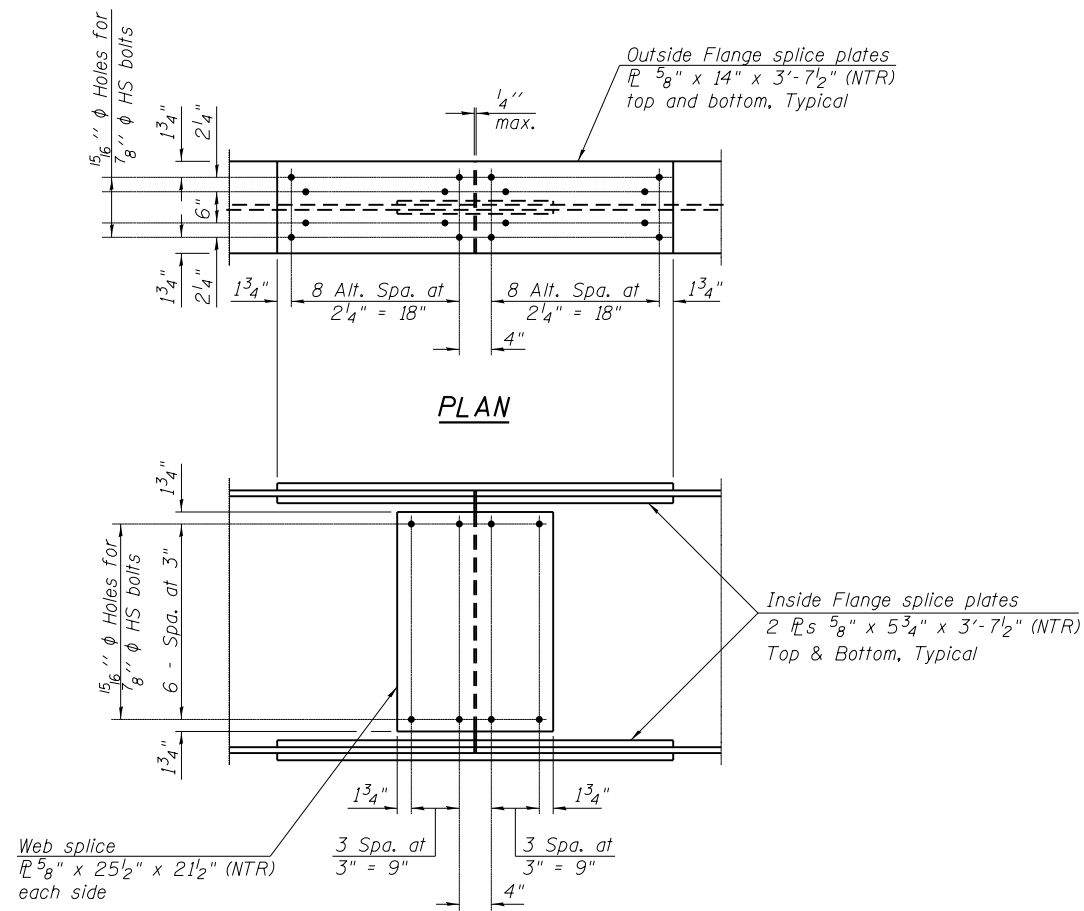
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

SHEET NO. 22 OF 43 SHEETS

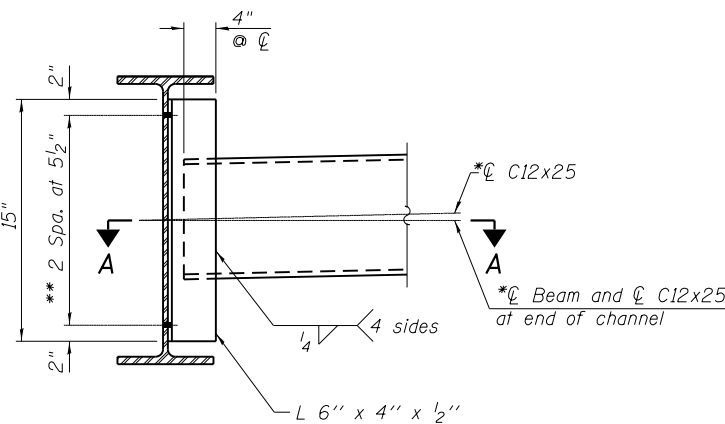
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-2IBR-3,4	BUREAU	133	66
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



**PLAN**

**ELEVATION**

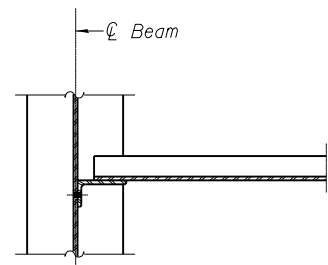
**SPLICE DETAIL**  
(24 Required)



**DIAPHRAGM A**

(120 Required)

Note:  
Two hardened washers required for each set of oversized holes.  
\*Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.  
\*\*3/4 inch HS bolts, 1 5/16 inch holes



**SECTION A-A**

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	0.5 Sp. 2	Piers
$I_s$	(in <sup>4</sup> )	5,630.0	5,630.0	5,630.0
$I_c(n)$	(in <sup>4</sup> )	15,801.0	15,801.0	15,801.0
$I_c(3n)$	(in <sup>4</sup> )	11,531.0	11,531.0	11,531.0
$I_c(cr)$	(in <sup>4</sup> )	---	---	7,799.0
$S_s$	(in <sup>3</sup> )	411.0	411.0	411.0
$S_c(n)$	(in <sup>3</sup> )	608.0	608.0	608.0
$S_c(3n)$	(in <sup>3</sup> )	550.0	550.0	550.0
$S_c(cr)$	(in <sup>3</sup> )	---	---	476.0
$DC1$	(k/ft)	0.976	0.976	0.976
$M_{DC1}$	(k)	204.9	207.3	382.1
$DC2$	(k/ft)	0.150	0.150	0.150
$M_{DC2}$	(k)	31.5	31.9	58.7
$DW$	(k/ft)	0.342	0.342	0.342
$M_{DW}$	(k)	71.7	72.6	133.8
$M_L + IM$	(k)	666.4	663.6	636.5
$M_u$ (Strength I)	(k)	1,569.3	1,569.2	1,865.6
$\phi_r M_n$	(k)	2,993.0	2,993.0	1,980.0
$f_s DC1$	(ksi)	5.98	6.05	11.16
$f_s DC2$	(ksi)	0.69	0.70	1.28
$f_s DW$	(ksi)	1.56	1.58	2.92
$f_s (\xi + IM)$	(ksi)	13.15	13.10	12.56
$f_s$ (Service II)	(ksi)	25.33	25.36	31.69
$0.95R_n F_y f$	(ksi)	47.50	47.50	47.50
$f_s$ (Total)(Strength I)	(ksi)	33.69	33.73	48.01
$\phi_r F_n$	(ksi)			
$V_r$	(k)	31.2	32.8	55.8

INTERIOR GIRDER REACTION TABLE			
	Abut.	Piers	
$R_{DC1}$	(k)	20.1	67.8
$R_{DC2}$	(k)	3.1	10.4
$R_{DW}$	(k)	7.0	23.8
$R_{\xi + IM}$	(k)	92.4	139.3
$R_{Total}$	(k)	122.6	241.3

**TOP OF BEAM ELEVATIONS**

(SN 006-0184 - For Fabrication Only)

Location	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12
⊕ Brg W Abut	643.52	643.44	643.37	643.30	643.23	643.12
⊕ Brg Pier 1	643.83	643.77	643.71	643.65	643.58	643.48
⊕ Splice # 1	643.91	643.85	643.79	643.73	643.66	643.57
⊕ Splice # 2	644.23	644.17	644.12	644.06	643.99	643.89
⊕ Brg Pier 2	644.33	644.27	644.22	644.15	644.08	643.98
⊕ Brg E Abut	644.74	644.67	644.59	644.52	644.43	644.31

**TOP OF BEAM ELEVATIONS**

(SN 006-0185 - For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
⊕ Brg W Abut	643.17	643.08	642.99	642.90	642.81	642.70
⊕ Brg Pier 1	643.35	643.27	643.20	643.12	643.04	642.94
⊕ Splice # 1	643.40	643.32	643.25	643.17	643.10	643.00
⊕ Splice # 2	643.62	643.55	643.48	643.41	643.35	643.25
⊕ Brg Pier 2	643.72	643.65	643.59	643.52	643.46	643.37
⊕ Brg E Abut	644.11	644.06	644.00	643.95	643.89	643.81

$I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $I_c(cr), S_c(cr)$ : Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing  $f_s$  (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).  
 $DC1$ : Un-factored non-composite dead load (kips/ft.).  
 $M_{DC1}$ : Un-factored moment due to non-composite dead load (kip-ft.).  
 $DC2$ : Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).  
 $M_{DC2}$ : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).  
 $DW$ : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).  
 $M_{DW}$ : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).  
 $M_L + IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).  
 $M_u$  (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_L + IM$   
 $\phi_r M_n$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).  
 $f_s DC1$ : Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).  
 $M_{DC1} / S_{nc}$   
 $f_s DC2$ : Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).  
 $M_{DC2} / S_c(3n)$  or  $M_{DC2} / S_c(cr)$  as applicable.  
 $f_s DW$ : Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).  
 $M_{DW} / S_c(3n)$  or  $M_{DW} / S_c(cr)$  as applicable.  
 $f_s (\xi + IM)$ : Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).  
 $M_L + IM / S_c(n)$  or  $M_{DW} / S_c(cr)$  as applicable.  
 $f_s$  (Service II): Sum of stresses as computed below (ksi).  
 $f_{SDC1} + f_{SDC2} + f_{SDW} + 1.3 f_s (\xi + IM)$   
 $0.95R_n F_y f$ : Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).  
 $f_s$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).  
 $1.25 (f_{SDC1} + f_{SDC2}) + 1.5 f_{SDW} + 1.75 f_s (\xi + IM)$   
 $\phi_r F_n$ : Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).  
 $V_r$ : Maximum factored shear range in span computed according to Article 6.10.10.

Notes:  
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

FILE NAME = 0060184\_0185\_66998-23-BeamDetail.dgn  
 MODEL = Default  
 PLOT DRIVER = V8\_PDF\_11x17.plt



USER NAME = tfray  
 FILE NAME =  
 PLOT SCALE = 240.0000 ' / ft.  
 PLOT DATE = 7/29/2013

DESIGNED - SCD  
 CHECKED - DRB  
 DRAWN - TKW  
 CHECKED - SCD

REVISED  
 REVISED  
 REVISED  
 REVISED

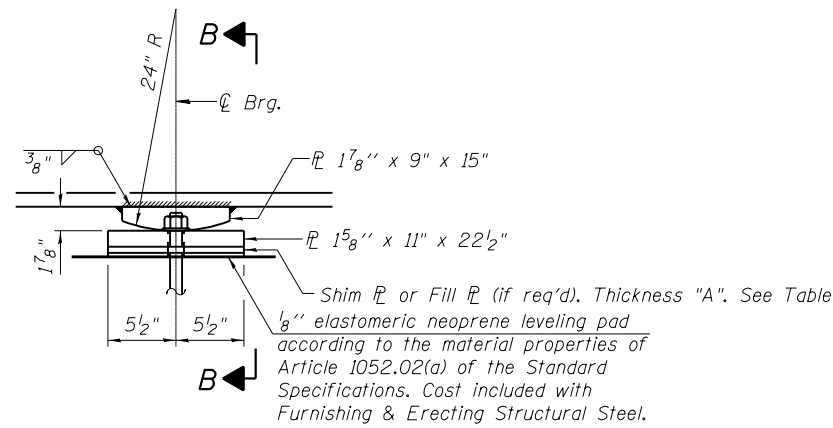
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BEAM DETAILS  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

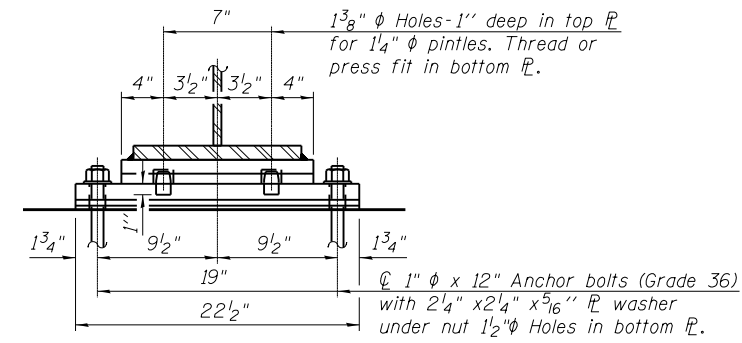
SHEET NO. 23 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-2IBR-3,4	BUREAU	133	67
CONTRACT NO. 66998				

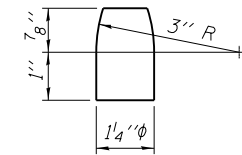
ILLINOIS FED. AID PROJECT



**ELEVATION AT PIERS**



**SECTION B-B**

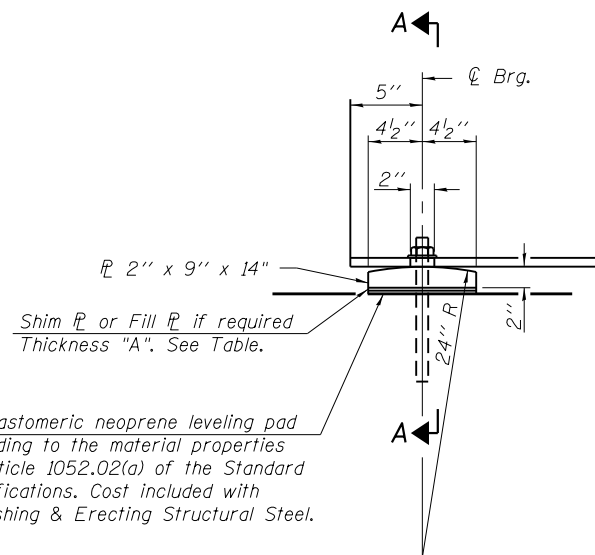


**PINTLE**

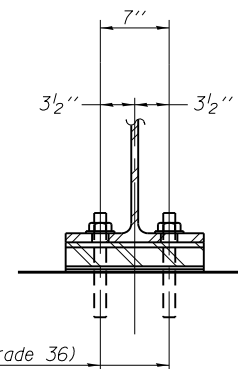
**FIXED BEARING AT PIERS**

(Typical Pier 1 & 2)  
(24 Required)

Notes:  
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.  
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
All Bearing plates and Pintles shall be AASHTO M270 Grade 50.  
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



**ELEVATION AT ABUTMENTS**



**SECTION A-A**

**FIXED BEARING AT ABUTMENTS**

(Typical East & West Abutments)  
(24 Required)

**FILL PLATES**

Location	Beam	"A"
EB, Pier 2	7	3/4"
WB, E. Abut.	1	3/4"
WB, E. Abut.	3	5/8"

**BILL OF MATERIAL**

Item	Unit	Total
Anchor Bolts 1"	Each	96

FILE NAME = 0060184\_0185\_66998-24-Brg-Details1.dgn  
MODEL = Default  
PLOT DRIVER = V8\_PDF...1x17.plt



USER NAME = tfray  
FILE NAME =  
PLOT SCALE = 240.0000' / ft.  
PLOT DATE = 7/29/2013

DESIGNED - SCD  
CHECKED - DRB  
DRAWN - TKW  
CHECKED - SCD

REVISED  
REVISED  
REVISED  
REVISED

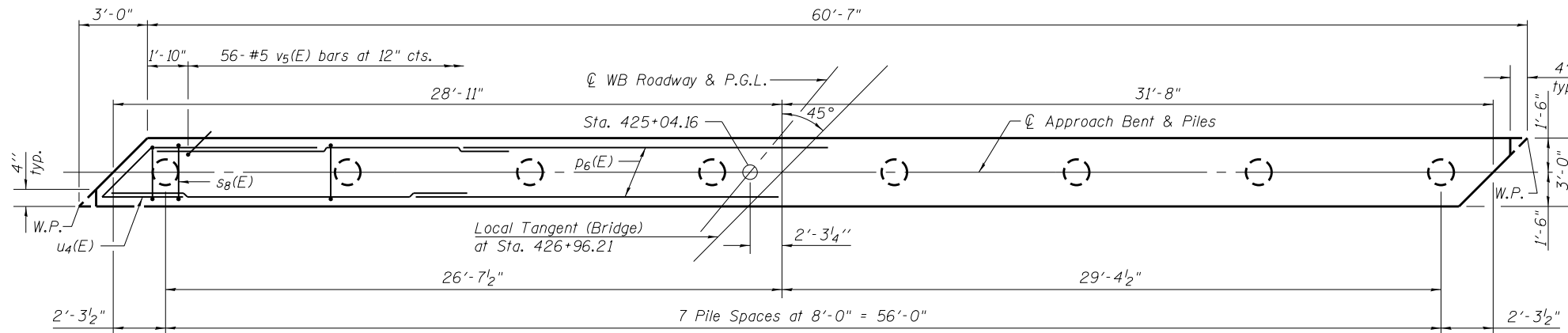
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

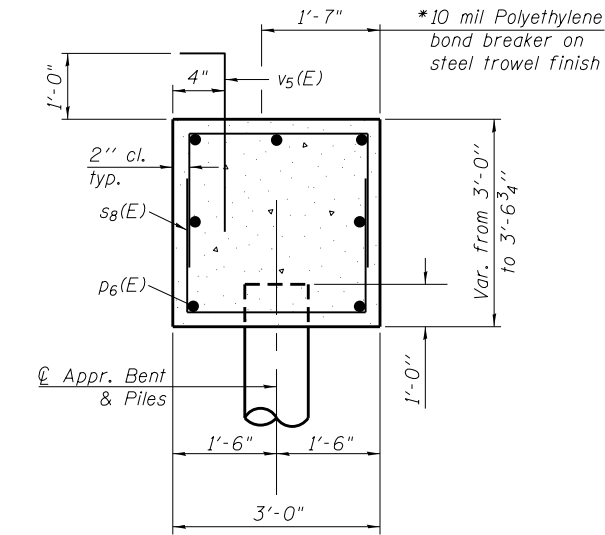
SHEET NO. 24 OF 43 SHEETS

F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	68
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



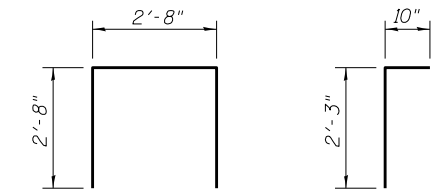


**APPROACH BENT PLAN**

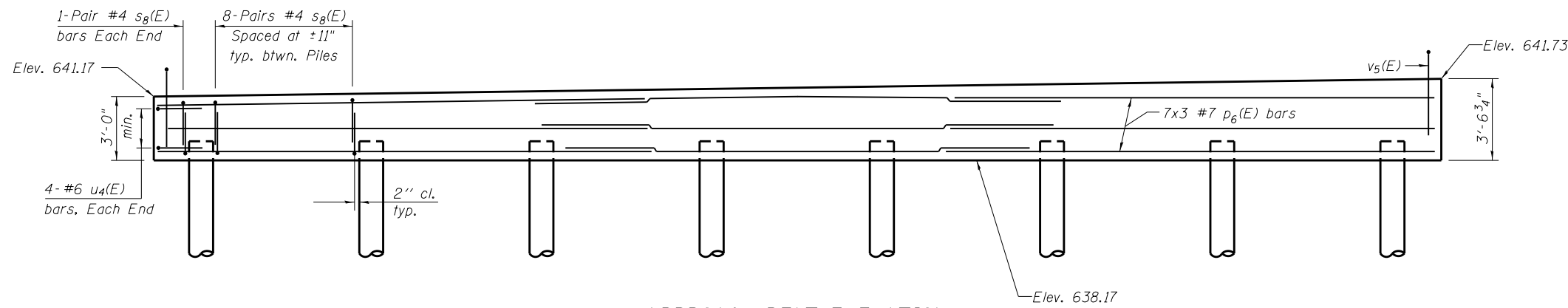


**SECTION THRU BENT**

(Looking North)  
Dimensions at right angles to Bent  
\* Cost included with Concrete Superstructure

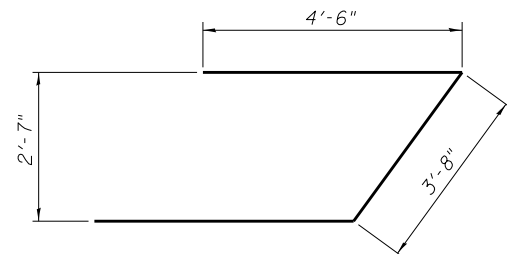


**BAR s8(E)      BAR v5(E)**



**APPROACH BENT ELEVATION**  
(Looking West)

**PILE DATA**  
Type: 14" Metal Shell x 0.25"  
Nominal Required Bearing: 260 kips  
Factored Resistance Available: 143 kips  
Est. Length: 50'  
No. Production Piles: 7  
No. Test Piles: 1



**Bar u4(E)**

**MINIMUM BAR LAP**

#4 bar = 2'-1"  
#7 bar = 5'-10"

**BILL OF MATERIAL**

(WB Appr. Bent)

Bar	No.	Size	Length	Shape
p6(E)	21	#7	24'-0"	—
s8(E)	116	#4	8'-0"	U
u4(E)	8	#6	12'-8"	U
v5(E)	56	#5	3'-1"	T
Structure Excavation		Cu. Yd.	49	
Concrete Structures		Cu. Yd.	22.1	
Reinforcement Bars, Epoxy Coated		Pound	1,980	
Furnishing Metal Shell Piles 14"x 0.25"		Foot	350	
Driving Piles		Foot	350	
Test Pile Metal Shells		Each	1	

For details of piles see sheet 35 of 43.  
Bars indicated thus 7x3-#7 etc. indicates 7 line of bars with 3 lengths per line.

FILE NAME = 0060184\_0185\_66998-25-WB.bent.dgn  
MODEL = Default  
PLOT DRIVER = V8...PDF...1x17.plt



USER NAME = tfray	DESIGNED - SCD	REVISED
FILE NAME =	CHECKED - DRB	REVISED
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PLOT DATE = 7/29/2013	CHECKED - SCD	REVISED

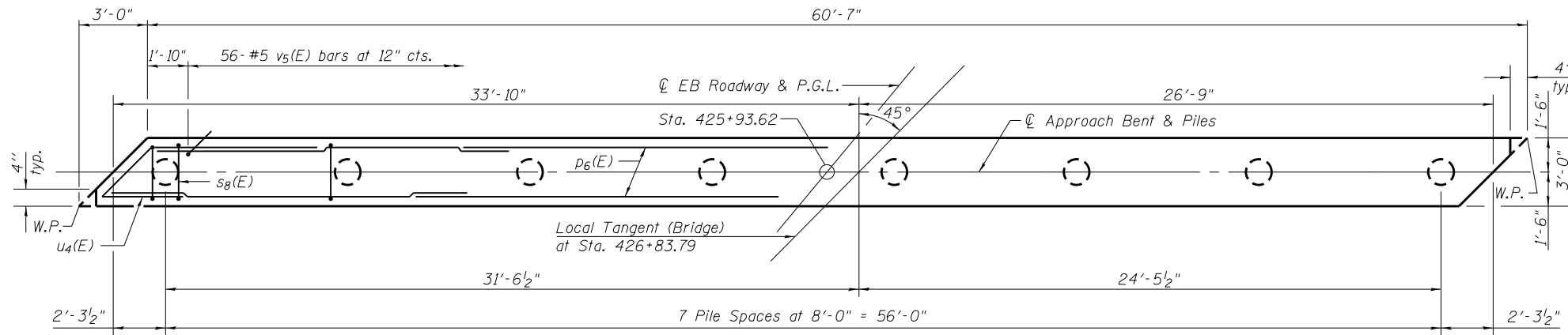
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**APPROACH BENT DETAILS**  
**STRUCTURE NO. 006-0185 (W.B.)**

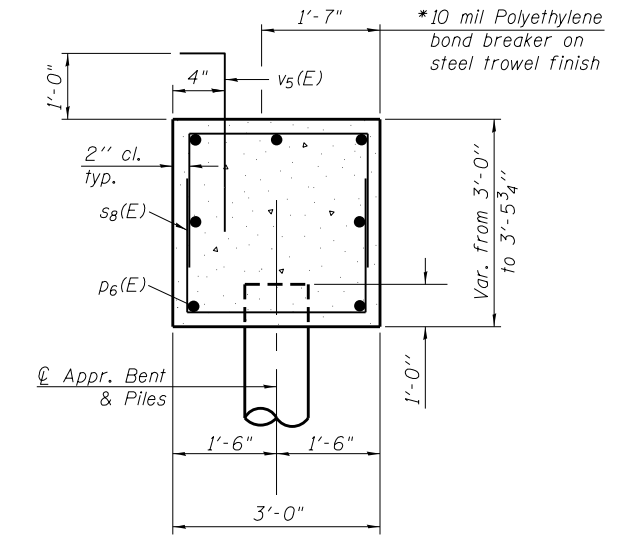
SHEET NO. 25 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	69
CONTRACT NO. 66998				

ILLINOIS FED. AID PROJECT

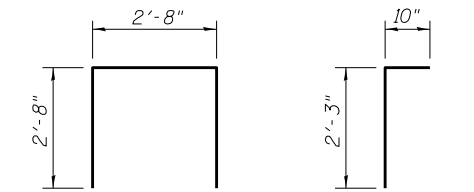


**APPROACH BENT PLAN**

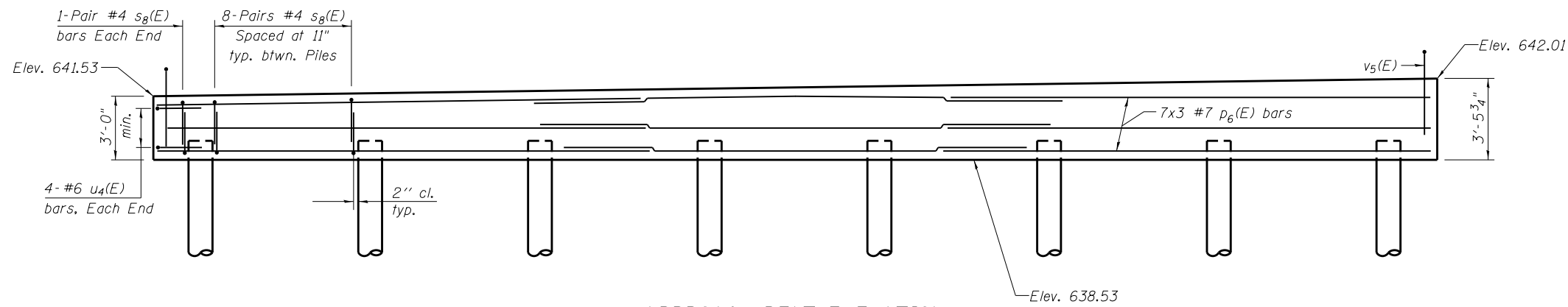


**SECTION THRU BENT**

(Looking North)  
Dimensions at right angles to Bent  
\* Cost included with Concrete Superstructure

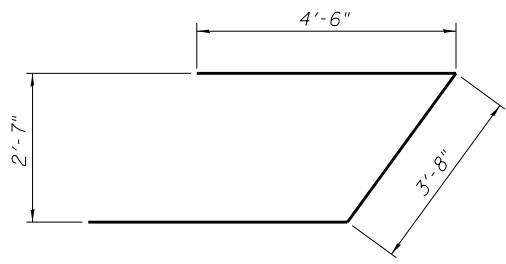


**BAR s8(E) BAR v5(E)**



**APPROACH BENT ELEVATION**  
(Looking West)

**PILE DATA**  
Type: 14" Metal Shell x 0.25"  
Nominal Required Bearing: 260 kips  
Factored Resistance Available: 143 kips  
Est. Length: 48'  
No. Production Piles: 7  
No. Test Piles: 1



**Bar u4(E)**

**MINIMUM BAR LAP**

#4 bar = 2'-1"  
#7 bar = 5'-10"

**BILL OF MATERIAL**

(EB Pile Bent)

Bar	No.	Size	Length	Shape
p6(E)	21	#7	24'-0"	—
s8(E)	116	#4	8'-0"	U
u4(E)	8	#6	12'-8"	∩
v5(E)	56	#5	3'-1"	⌒
Structure Excavation			Cu. Yd.	52
Concrete Structures			Cu. Yd.	21.8
Reinforcement Bars, Epoxy Coated			Pound	1,980
Furnishing Metal Shell Piles 14"x 0.25"			Foot	336
Driving Piles			Foot	336
Test Pile Metal Shells			Each	1

For details of piles see sheet 35 of 43.  
Bars indicated thus 7x3-#7 etc. indicates 7 line of bars with 3 lengths per line.

FILE NAME = 0060184\_0185\_66998-26-EB\_Bent.dgn  
MODEL = Default  
PLOT DRIVER = V8\_PDF\_1x17.plt



USER NAME = tfrey  
FILE NAME =  
PLOT SCALE = 480:0.0000 ' / ft.  
PLOT DATE = 7/29/2013

DESIGNED - SCD  
CHECKED - DRB  
DRAWN - TKW  
CHECKED - SCD

REVISED  
REVISED  
REVISED  
REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**APPROACH BENT DETAILS  
STRUCTURE NO. 006-0184 (E.B.)**

SHEET NO. 26 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	70
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				





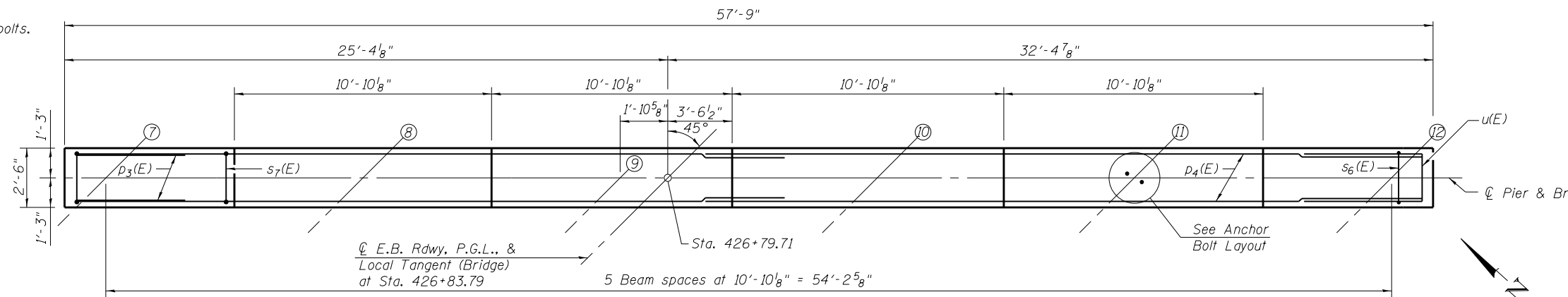




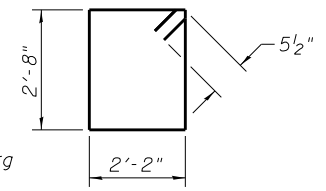
Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 36 of 43.

**PILE DATA**

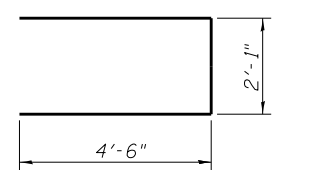
Type: Precast 14"x14"  
 Nominal Required Bearing: 265 kips  
 Factored Resistance Available: 146 kips  
 Est. Length: 46'  
 No. Production Piles: 12  
 No. Test Piles: 1



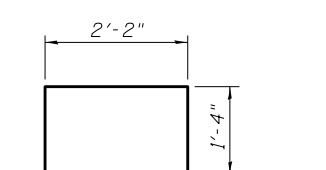
**TOP PLAN**



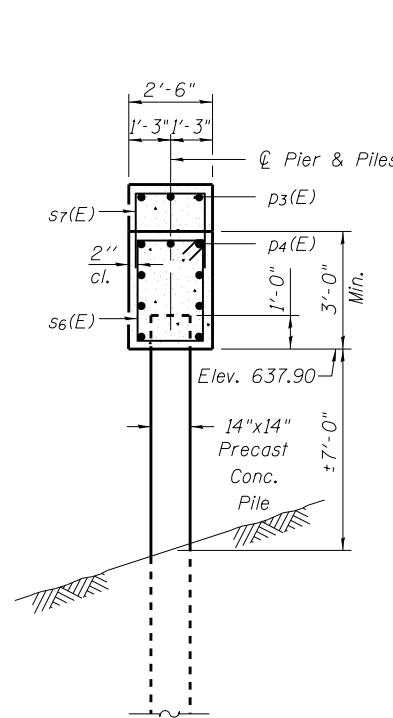
**BAR s6(E)**



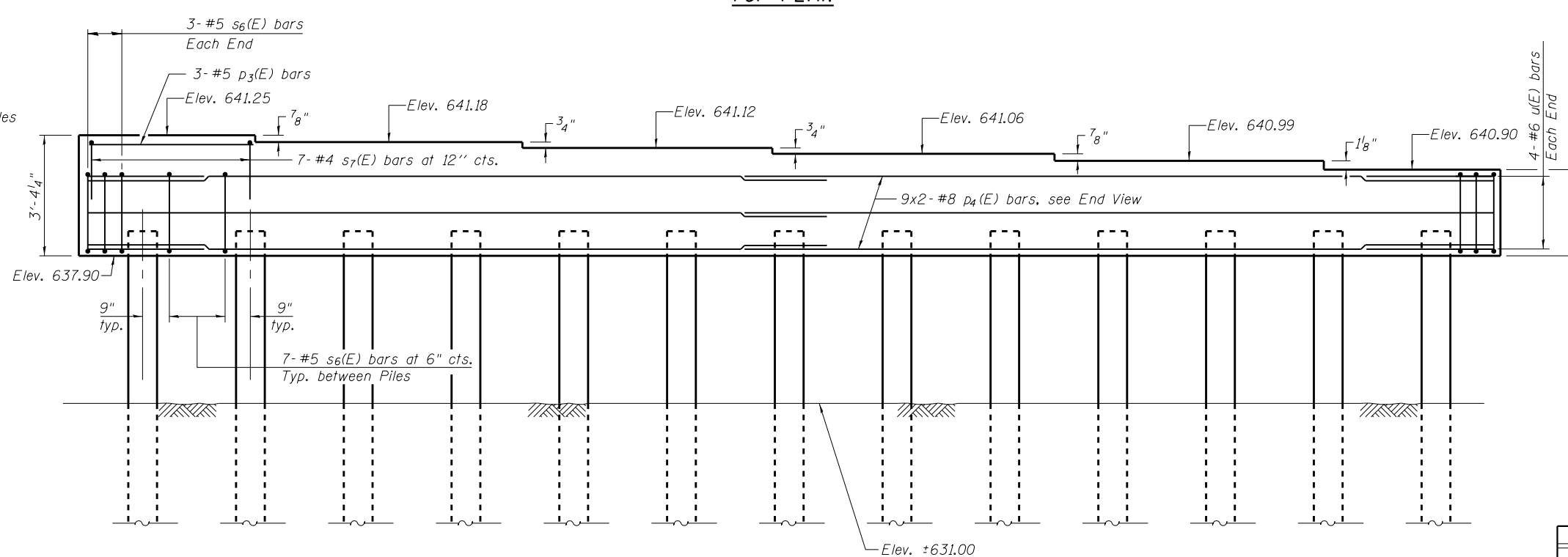
**BAR u(E)**



**BAR s7(E)**



**END VIEW**



**ELEVATION**  
(Looking East)

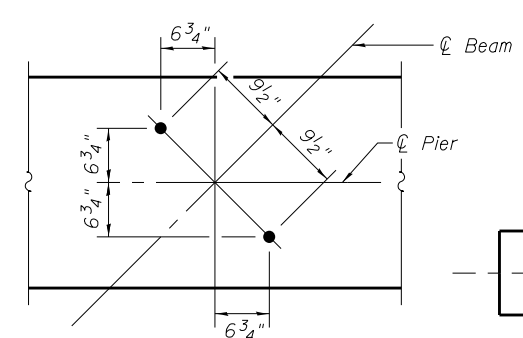
**MIN BAR LAP**

#8 7'-8"

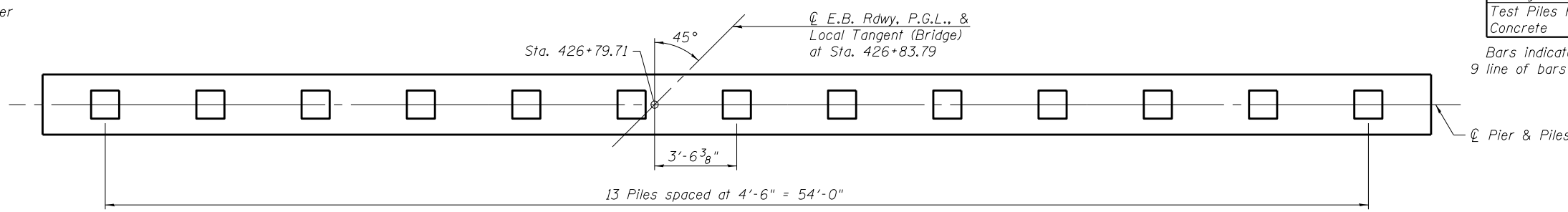
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p3(E)	3	#5	6'-9"	—
p4(E)	18	#8	32'-6"	—
s6(E)	90	#5	10'-7"	□
s7(E)	7	#4	4'-10"	□
u(E)	8	#6	11'-1"	□
Concrete Structures			Cu. Yd.	17.0
Reinforcement Bars, Epoxy Coated			Pound	2,730
Furnishing Precast Concrete Piles 14"			Foot	552
Driving Piles			Foot	552
Test Piles Precast Concrete			Each	1

Bars indicated thus 9 x 2-#8 etc. indicates 9 line of bars with 2 lengths per line.



**ANCHOR BOLT LAYOUT**



**PILE PLAN**

FILE NAME = 0060184\_0185\_66998-31-Pier1EB.dgn  
 MODEL = Default  
 PLOT DRIVER = V8\_PDF\_11x17.pltcf9



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 FILE NAME =  
 PLOT SCALE = 240.0000' / ft.  
 PLOT DATE = 7/29/2013

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 CHECKED - DRB  
 DRAWN - TKW  
 CHECKED - SCD  
 REVISED  
 REVISED  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS  
 STRUCTURE NO. 006-0184 (E.B.)

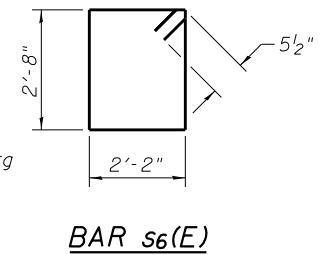
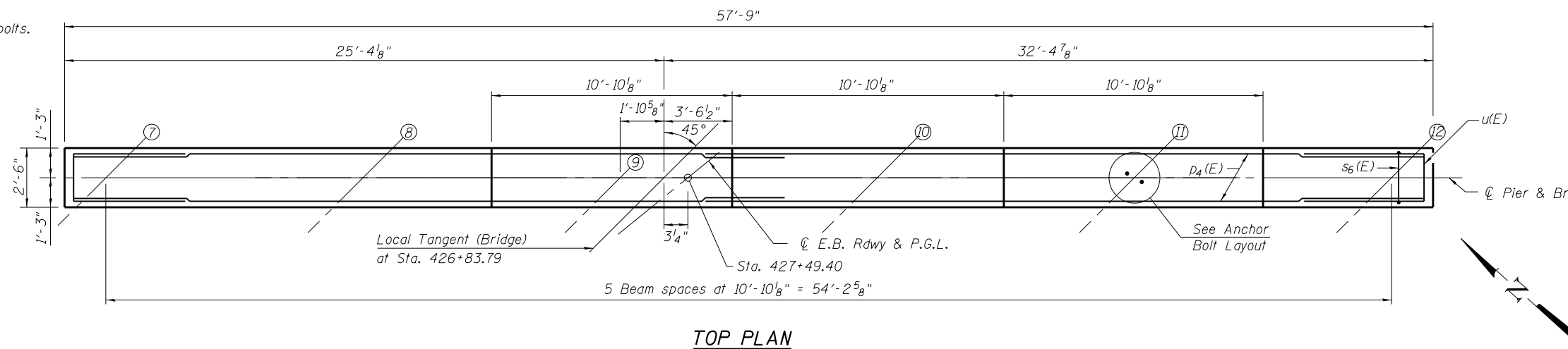
SHEET NO. 31 OF 43 SHEETS

F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	75
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

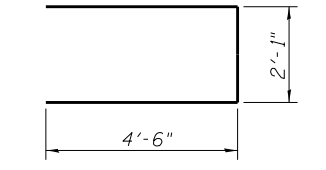
Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 36 of 43.

**PILE DATA**

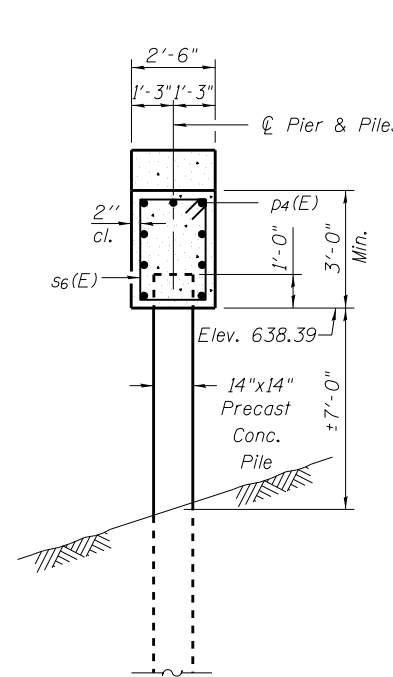
Type: Precast 14"x14"  
 Nominal Required Bearing: 265 kips  
 Factored Resistance Available: 146 kips  
 Est. Length: 46'  
 No. Production Piles: 12  
 No. Test Piles: 1



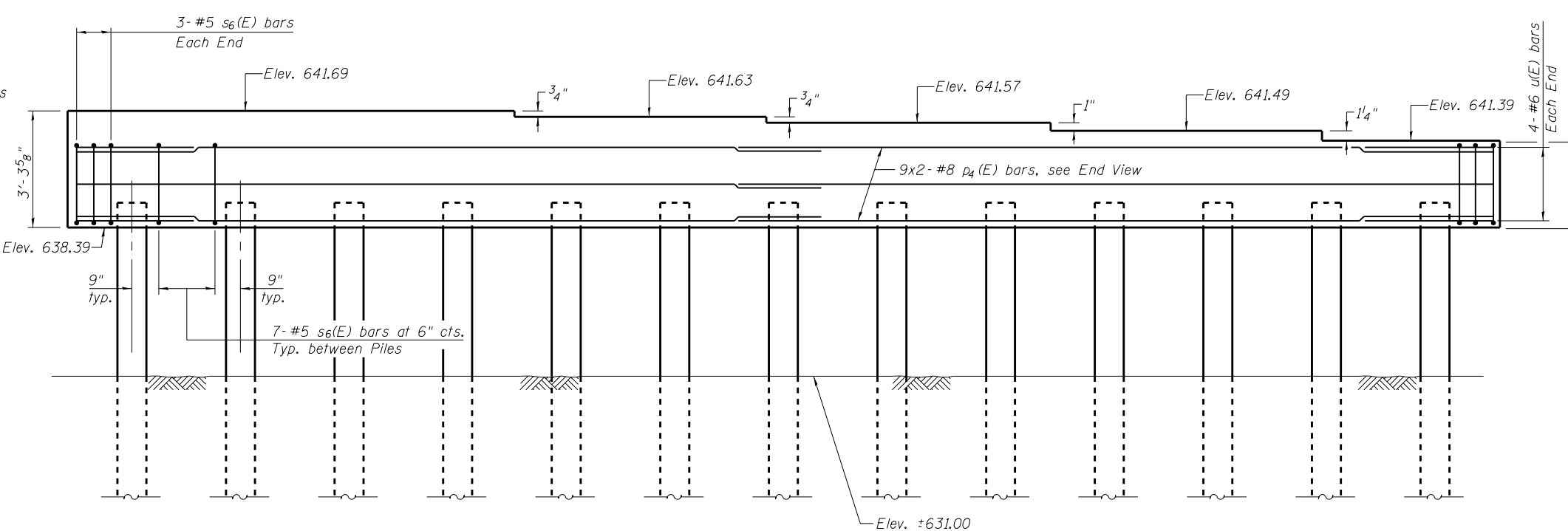
**BAR s6(E)**



**BAR u(E)**

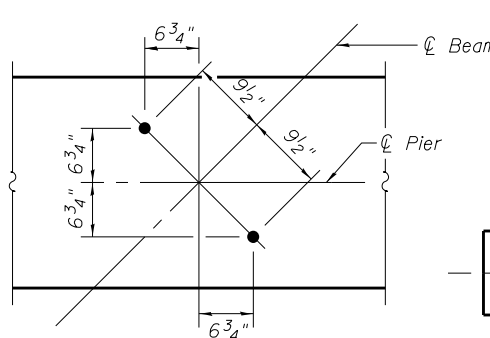


**END VIEW**

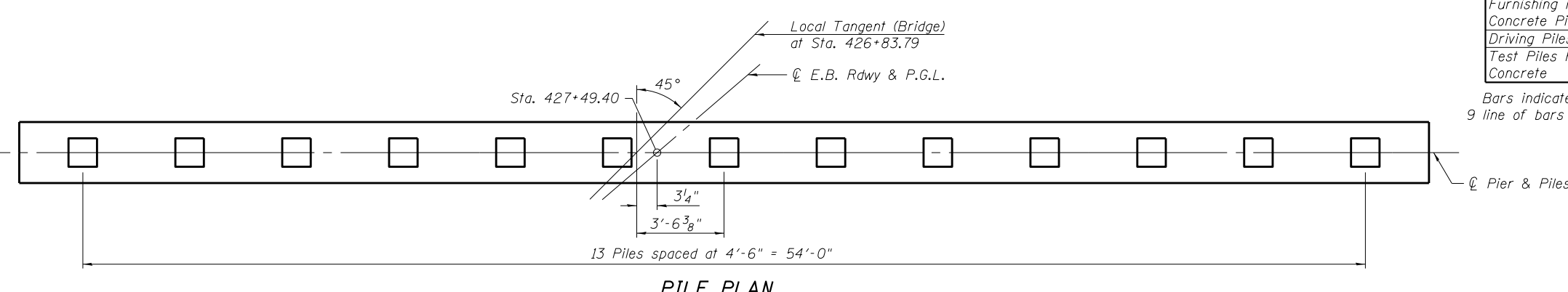


**ELEVATION**  
(Looking East)

**MIN BAR LAP**  
#8 7'-8"



**ANCHOR BOLT LAYOUT**



**PILE PLAN**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p4(E)	18	#8	32'-6"	—
s6(E)	90	#5	10'-7"	□
u(E)	8	#6	11'-1"	▭
Concrete Structures			Cu. Yd.	17.1
Reinforcement Bars, Epoxy Coated			Pound	2,690
Furnishing Precast Concrete Piles 14"			Foot	552
Driving Piles			Foot	552
Test Piles Precast Concrete			Each	1

Bars indicated thus 9 x 2-#8 etc. indicates 9 line of bars with 2 lengths per line.

FILE NAME = 0060184\_0185\_66998-32-Pier-2EB.dgn  
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 PLOT DRIVER = V8\_PDF\_11x17.pltcf9



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FILE NAME =	CHECKED - DRB	REVISED
PLOT SCALE = 240.0000' / ft.	DRAWN - TKW	REVISED
PLOT DATE = 7/29/2013	CHECKED - SCD	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 2 DETAILS**  
**STRUCTURE NO. 006-0184 (E.B.)**

SHEET NO. 32 OF 43 SHEETS

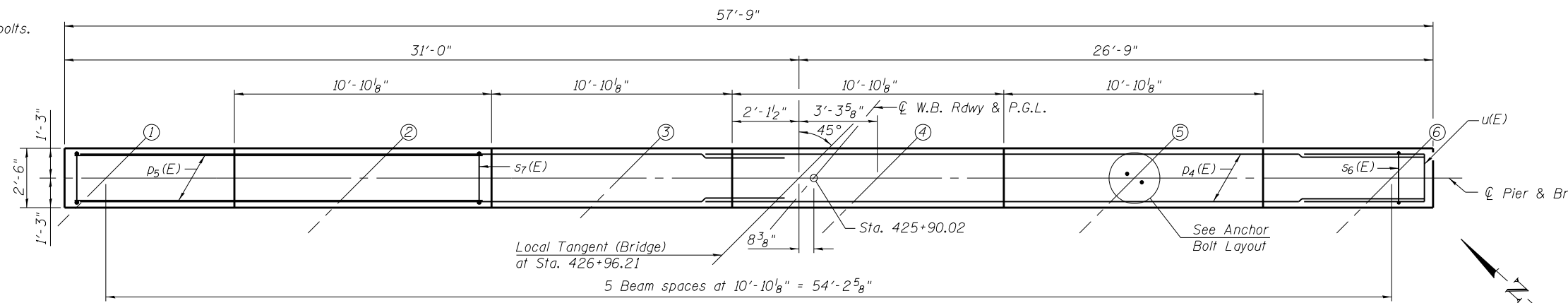
F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	76
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



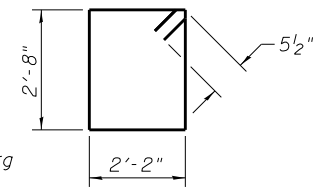
Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 36 of 43.

**PILE DATA**

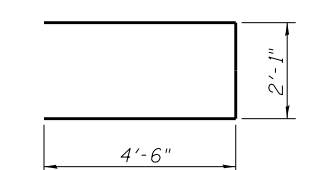
Type: Precast 14"x14"  
 Nominal Required Bearing: 265 kips  
 Factored Resistance Available: 146 kips  
 Est. Length: 45'  
 No. Production Piles: 12  
 No. Test Piles: 1



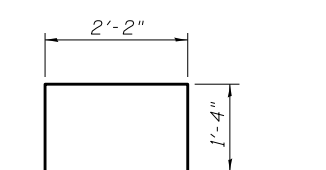
**TOP PLAN**



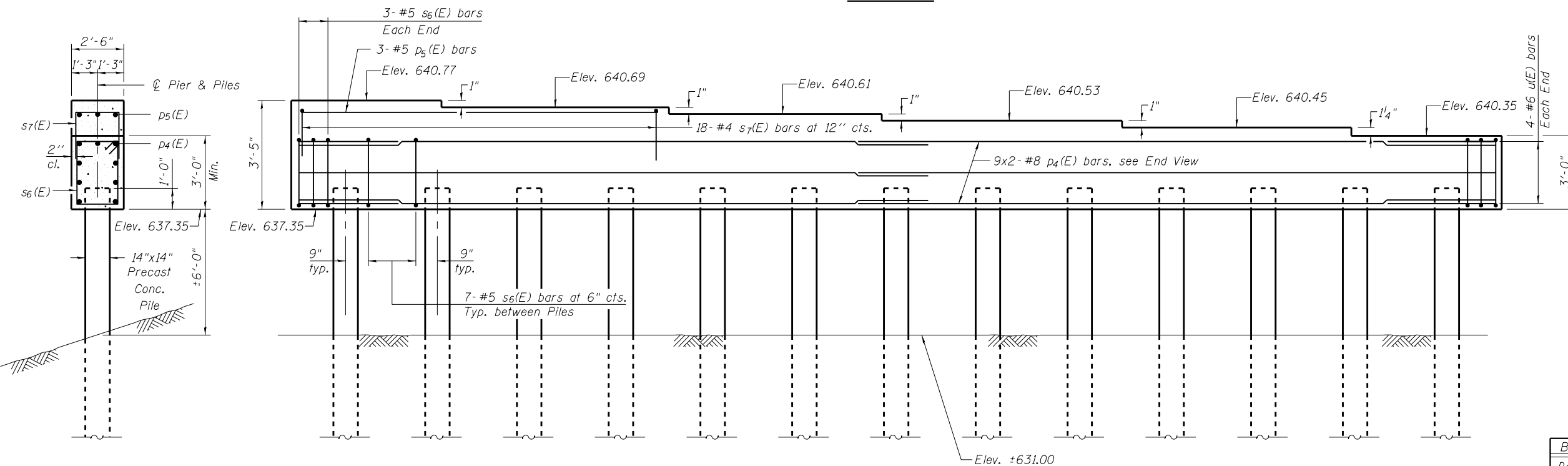
**BAR s6(E)**



**BARS u(E)**



**BAR s7(E)**



**ELEVATION**  
(Looking East)

**MIN BAR LAP**

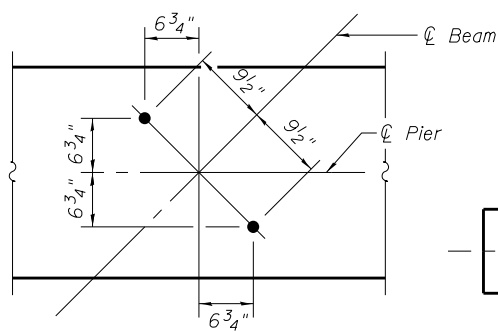
#8 7'-8"

**BILL OF MATERIAL**

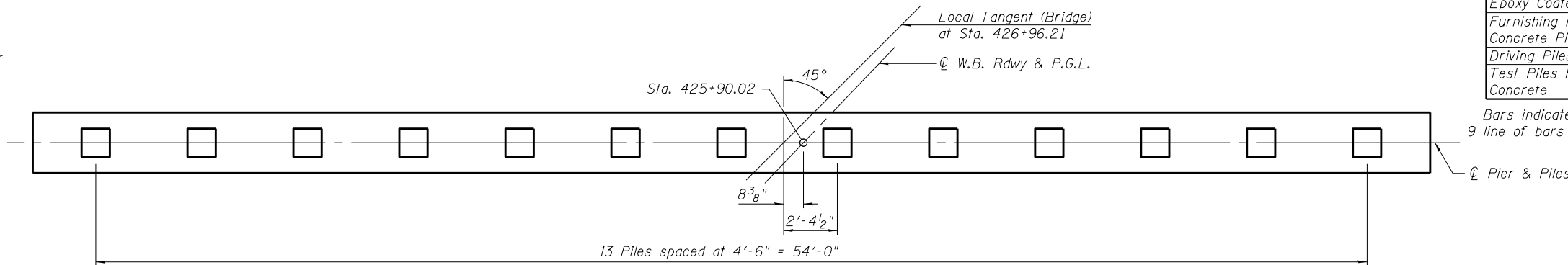
Bar	No.	Size	Length	Shape
p4(E)	18	#8	32'-6"	—
p5(E)	3	#5	17'-2"	—
s6(E)	90	#5	10'-7"	□
s7(E)	18	#4	4'-10"	▭
u(E)	8	#6	11'-1"	▭
Concrete Structures			Cu. Yd.	17.2
Reinforcement Bars, Epoxy Coated			Pound	2,800
Furnishing Precast Concrete Piles 14"			Foot	540
Driving Piles			Foot	540
Test Piles Precast Concrete			Each	1

Bars indicated thus 9 x 2-#8 etc. indicates 9 line of bars with 2 lengths per line.

**END VIEW**



**ANCHOR BOLT LAYOUT**



**PILE PLAN**

FILE NAME = 0060184\_0185\_66998-33-Pier-1WB.dgn  
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 PLOT DRIVER = V8\_PDF\_11x17.plt



USER NAME = tfray  
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 PLOT SCALE = 240.0000' / ft.  
 PLOT DATE = 7/29/2013

DESIGNED - SCD  
 CHECKED - DRB  
 DRAWN - TKW  
 CHECKED - SCD

REVISED  
 REVISED  
 REVISED  
 REVISED

STATE OF ILLINOIS  
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PIER 1 DETAILS  
 STRUCTURE NO. 006-0185 (W.B.)

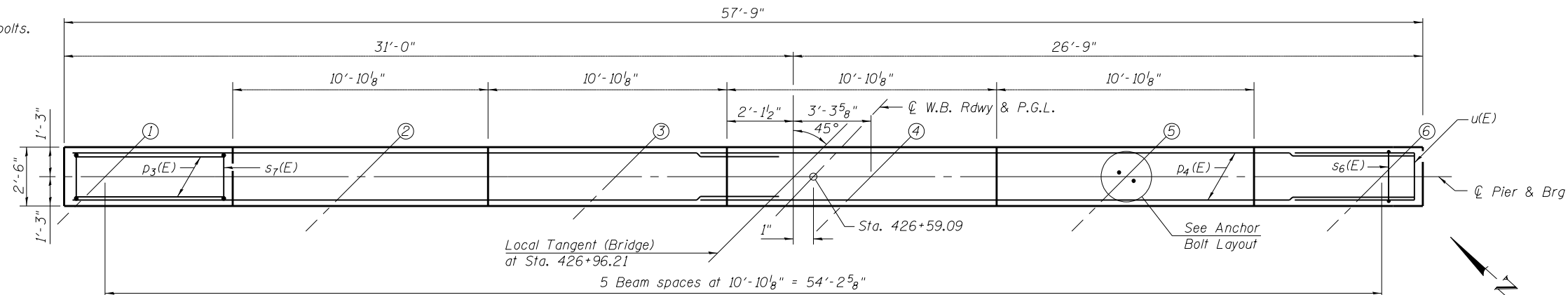
SHEET NO. 33 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	77
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

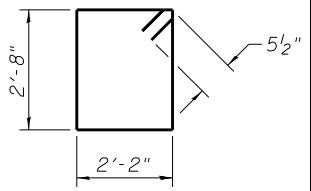
Notes:  
 Space reinforcement in cap to miss anchor bolts.  
 Pour steps monolithically with cap.  
 For details of piles, see sheet 36 of 43.

**PILE DATA**

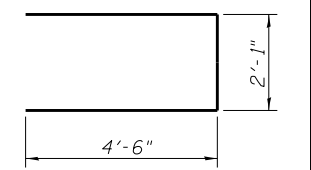
Type: Precast 14"x14"  
 Nominal Required Bearing: 265 kips  
 Factored Resistance Available: 146 kips  
 Est. Length: 47'  
 No. Production Piles: 12  
 No. Test Piles: 1



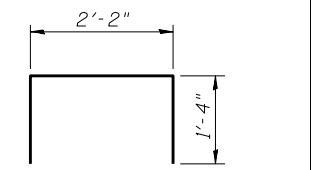
**TOP PLAN**



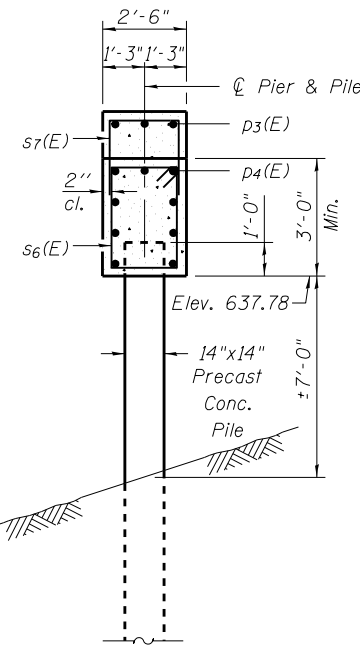
**BAR s6(E)**



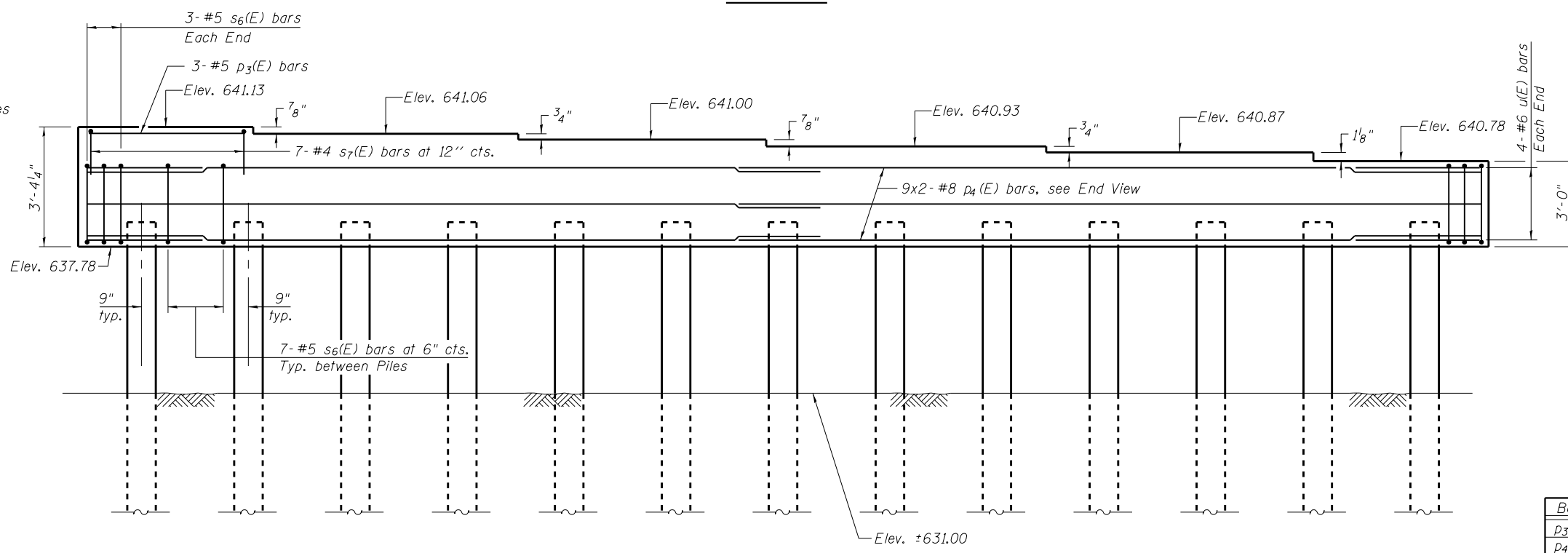
**BARS u(E)**



**BAR s7(E)**



**END VIEW**



**ELEVATION**  
(Looking East)

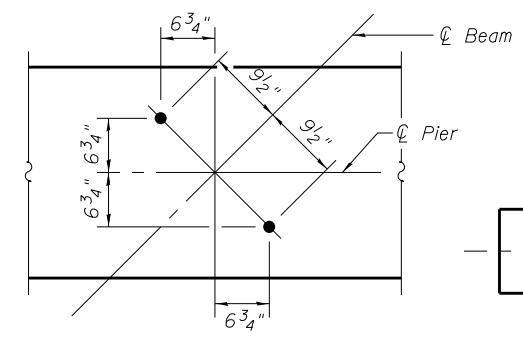
**MIN BAR LAP**

#8 7'-8"

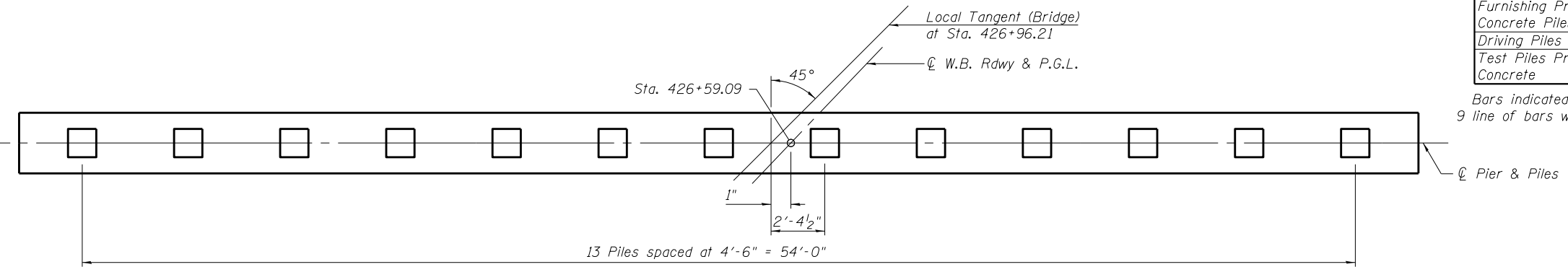
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p3(E)	3	#5	6'-9"	—
p4(E)	18	#8	32'-6"	—
s6(E)	90	#5	10'-7"	□
s7(E)	7	#4	4'-10"	□
u (E)	8	#6	11'-1"	□
Concrete Structures		Cu. Yd.	17.0	
Reinforcement Bars, Epoxy Coated		Pound	2,730	
Furnishing Precast Concrete Piles 14"		Foot	564	
Driving Piles		Foot	564	
Test Piles Precast Concrete		Each	1	

Bars indicated thus 9 x 2-#8 etc. indicates 9 line of bars with 2 lengths per line.



**ANCHOR BOLT LAYOUT**



**PILE PLAN**

FILE NAME = 0060184\_0185\_66998-34-Pier-2WB.dgn  
 MODEL = Default  
 PLOT DRIVER = V8\_PDF\_11x17.plt



USER NAME = tfrrey  
 FILE NAME =  
 PLOT SCALE = 240.0000' / ft.  
 PLOT DATE = 7/29/2013

DESIGNED - SCD  
 CHECKED - DRB  
 DRAWN - TKW  
 CHECKED - SCD

REVISED  
 REVISED  
 REVISED  
 REVISED

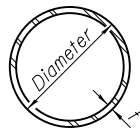
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS  
 STRUCTURE NO. 006-0185 (W.B.)

SHEET NO. 34 OF 43 SHEETS

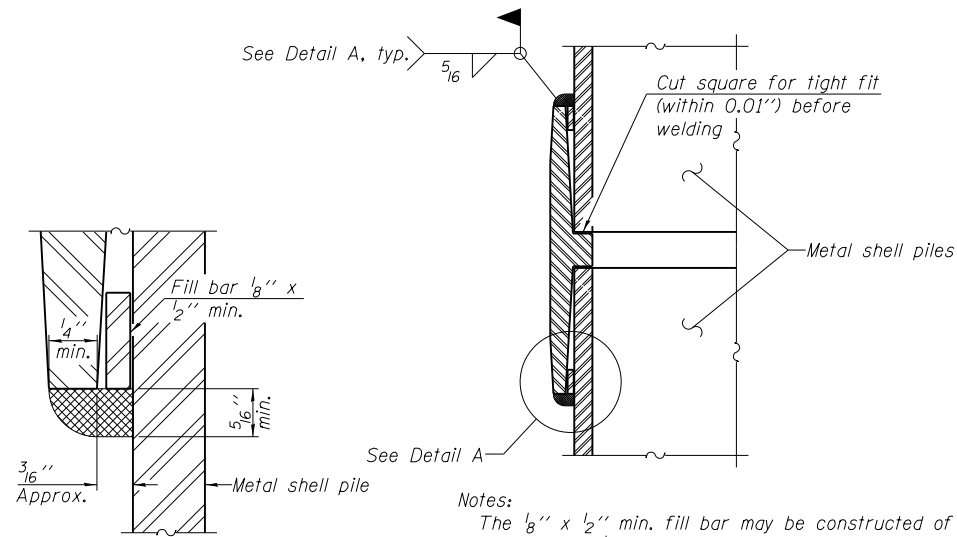
F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	78
CONTRACT NO. 66998				

ILLINOIS FED. AID PROJECT



**METAL SHELL PILE TABLE**

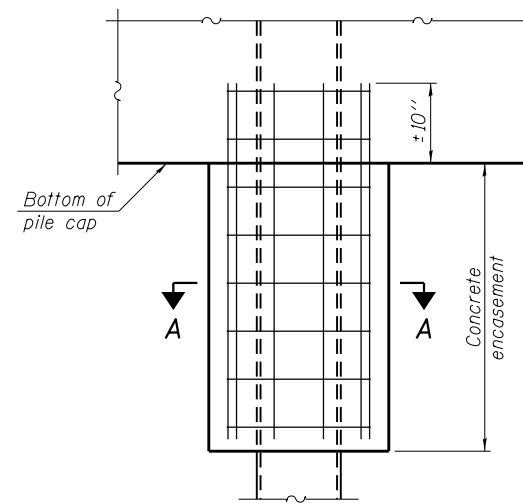
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. <sup>3</sup> /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



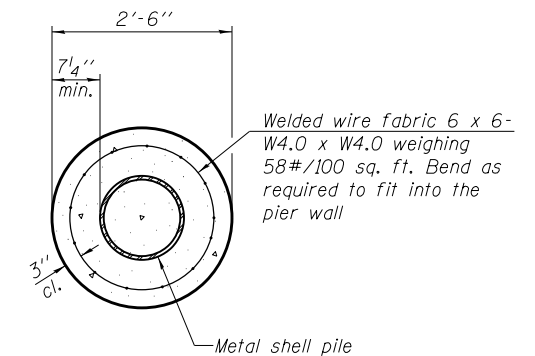
**DETAIL A**

**Notes:**  
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
 Pile segments shall be driven to solid contact with splicer before welding.

**WELDED COMMERCIAL SPLICE**



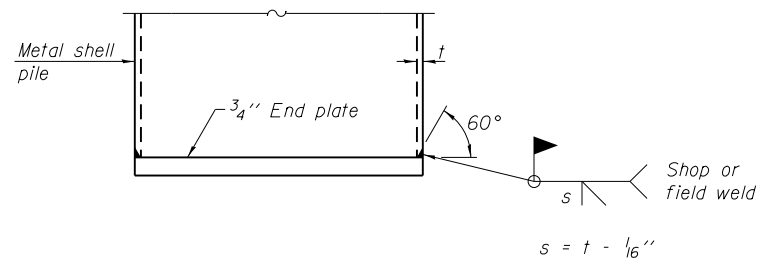
**ELEVATION**



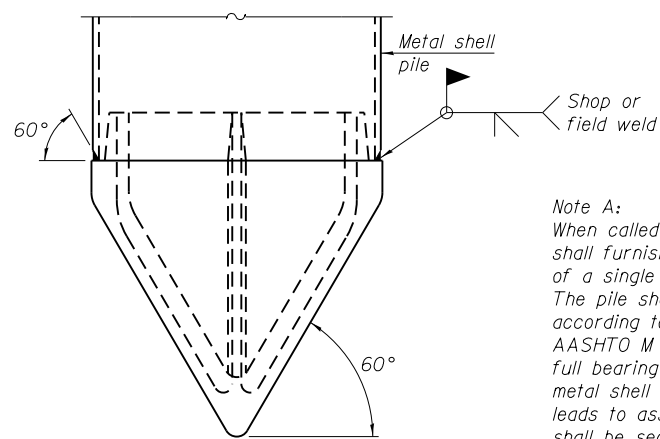
**SECTION A-A**

**Note:**  
 Forms for encasement may be omitted when soil conditions permit.

**CONCRETE ENCASEMENT AT PIERS**



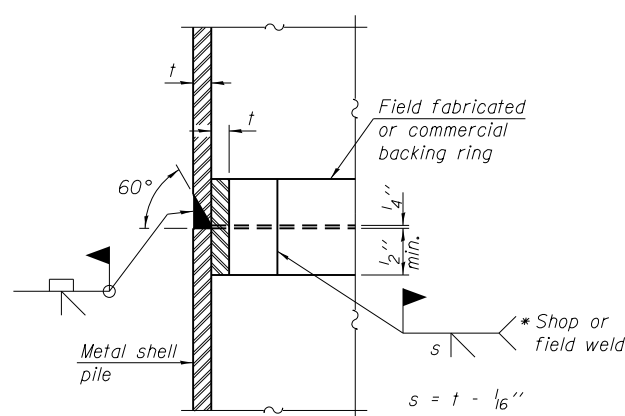
**END PLATE ATTACHMENT**



**METAL SHELL PILE SHOE ATTACHMENT**

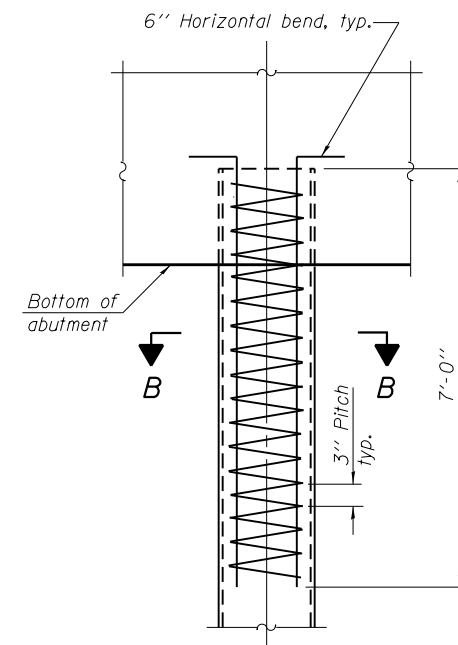
(See Note A)

**Note A:**  
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



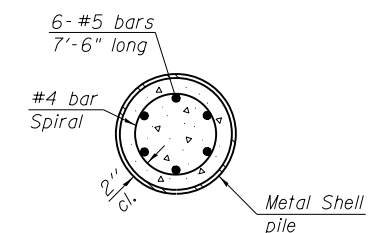
**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



**ELEVATION**

**METAL SHELL REINFORCEMENT AT ABUTMENTS**



**SECTION B-B**

**Note:**  
 The metal shell piles shall be according to ASTM A 252 Grade 3.

FILE NAME = 0060184\_0185\_66998-35-MetalShell11P1.dwg  
 MODEL = Default  
 PLOT DRIVER = V8\_PDF\_Plotter11x17.plt

F-MS 1-27-12



USER NAME = tfray	DESIGNED - SCD	REVISED
FILE NAME =	CHECKED - DRB	REVISED
PLOT SCALE = 240.0000' / ft.	DRAWN - TKW	REVISED
PLOT DATE = 7/29/2013	CHECKED - SCD	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

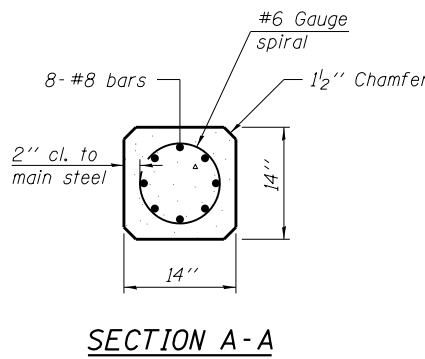
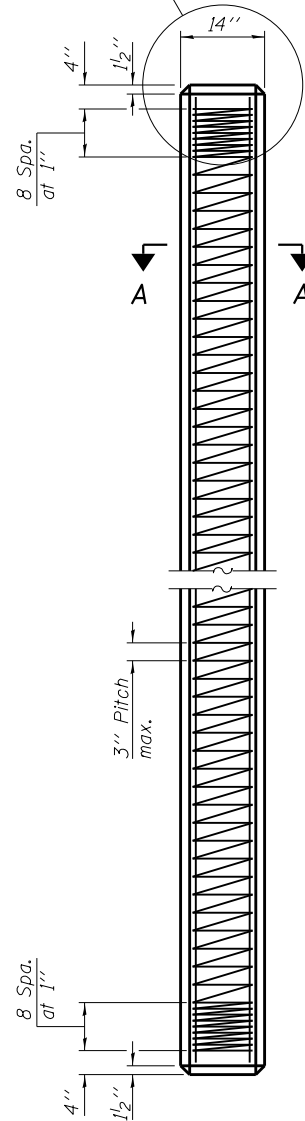
**METAL SHELL PILE DETAILS  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

SHEET NO. 35 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	79
CONTRACT NO. 66998				

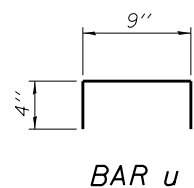
ILLINOIS FED. AID PROJECT

See End Plan and End Elevation for end reinforcement, typ.

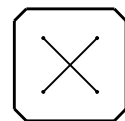


SECTION A-A

PRECAST CONCRETE PILE



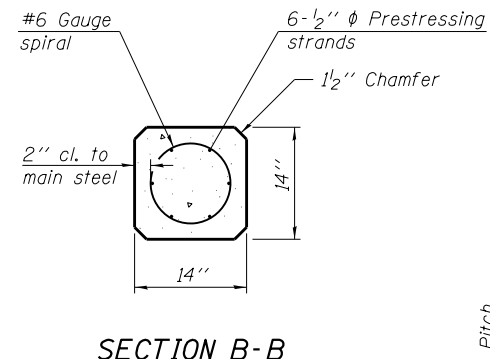
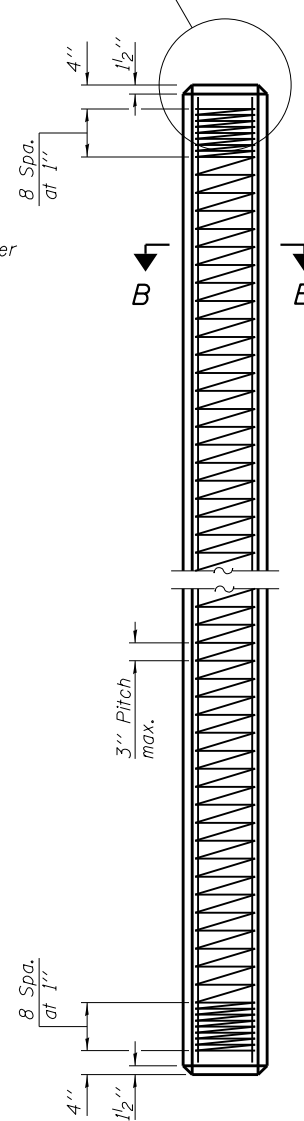
BAR U



END PLAN

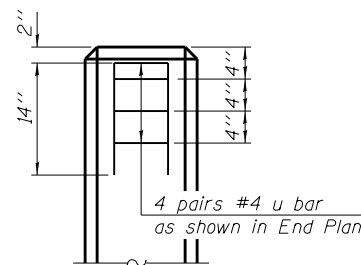
(End reinforcement only)

See End Plan and End Elevation for end reinforcement, typ.



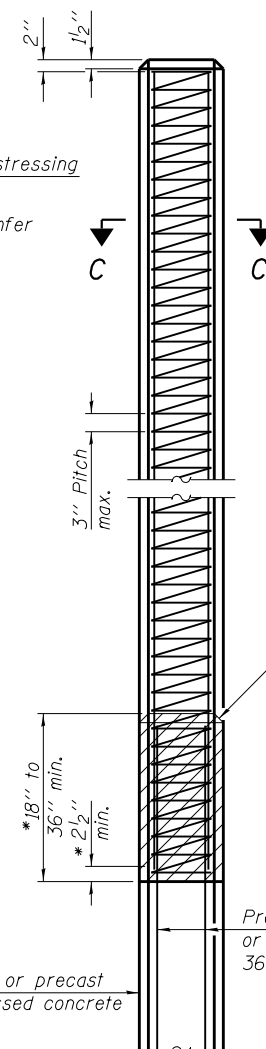
SECTION B-B

PRECAST PRESTRESSED CONCRETE PILE



END ELEVATION

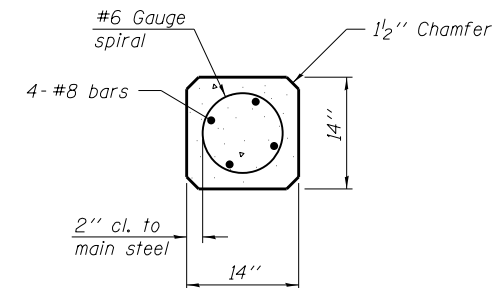
(End reinforcement only)



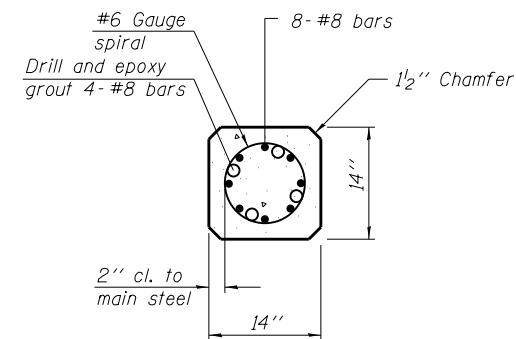
STANDARD PILE EXTENSION

NOTES

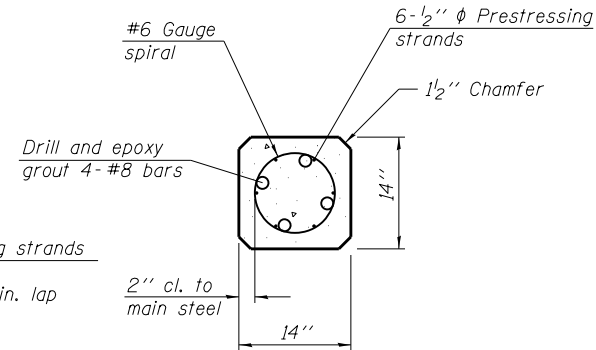
Prestressing steel shall be uncoated high strength, low-relaxation 7-wire strand. The nominal diameter shall be 1/2" with a cross-sectional area of 0.153 in<sup>2</sup>.  
 For Pile lengths up to 65', use two slings placed at a distance of 0.21 L\* from each end. For Piles longer than 65', use three slings placed at a distance of 0.12 L\* from each end and at midpoint of pile. \*L= Overall length of pile to be handled.  
 For handling pile lengths up to 45', use two slings placed at a distance of 0.21 L from each end. For handling piles longer than 45', use three slings placed at a distance of 0.12 L from each end and at midpoint of pile.



SECTION C-C



SECTION D-D (Precast)

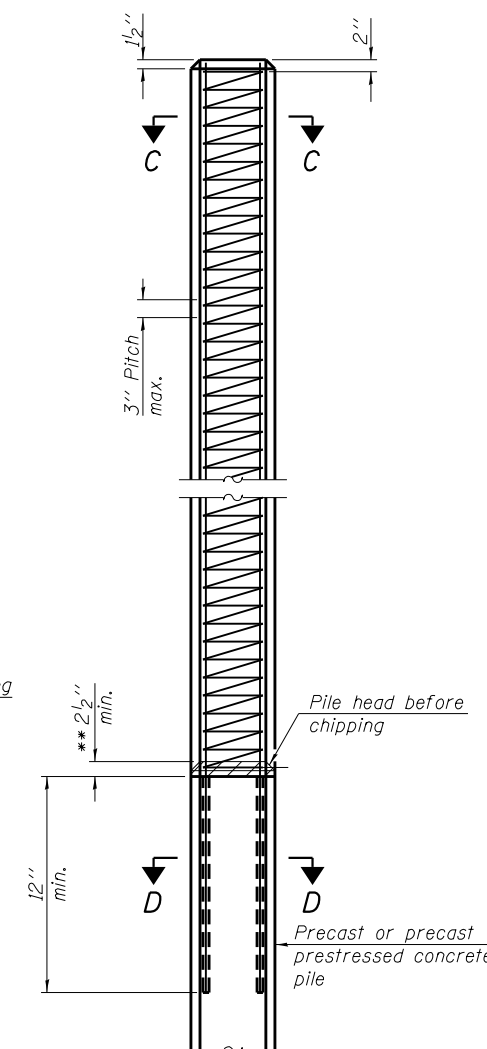


SECTION D-D (Precast prestressed)

\* To construct pile extension, chip top of pile back 36 bar  $\phi$  min. to expose vertical bars and lap vertical buildup bars. Remove spiral to 2 1/2" min. above chipping and provide full strength lap weld exterior face (4" min. length).

\*\* To construct pile extension, chip top of pile back 2 1/2" to expose wire spiral and provide full strength lap weld exterior face (4" min. length).

ALTERNATE PILE EXTENSION



DESIGN STRESSES

$f'_c$  = 5,000 p.s.i. (prestressed)  
 $f'_c$  = 4,500 p.s.i. (precast)  
 $f'_{ci}$  = 4,000 p.s.i.  
 $f'_s$  = 270,000 p.s.i. (41,300 lbs. - 1/2"  $\phi$ )  
 $f_{si}$  = 189,000 p.s.i. (28,900 lbs. - 1/2"  $\phi$ )

FILE NAME = 0060184\_0185\_66998-36-PrecastPileDetail.dgn  
 MODEL = Default  
 PLOT DRIVER = V8i\_PDF\_11x17.plt

F-PC 7-1-10



USER NAME = tfray	DESIGNED - SCD	REVISED
FILE NAME =	CHECKED - DRB	REVISED
PLOT SCALE = 240.0000 ' / ft.	DRAWN - TKW	REVISED
PLOT DATE = 7/29/2013	CHECKED - SCD	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

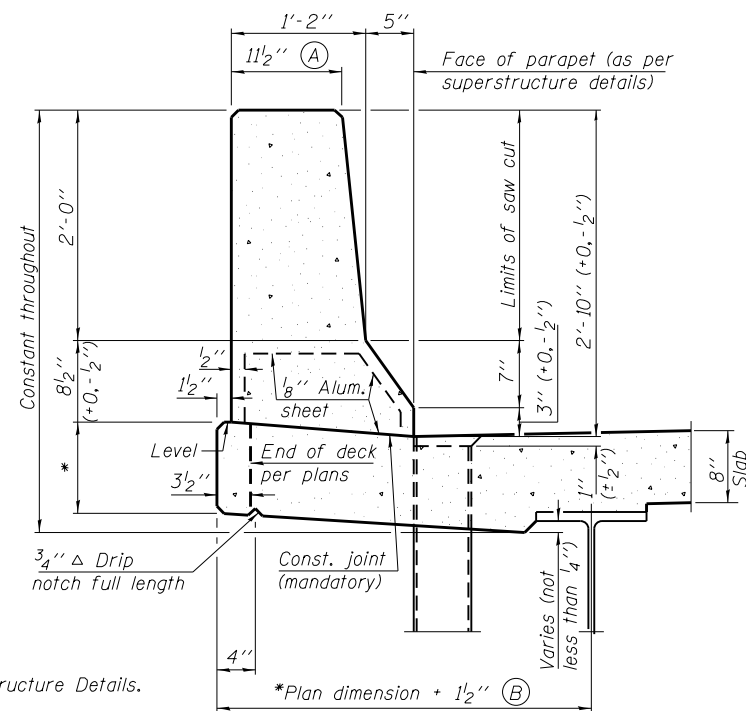
PRECAST PILE DETAILS  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

SHEET NO. 36 OF 43 SHEETS

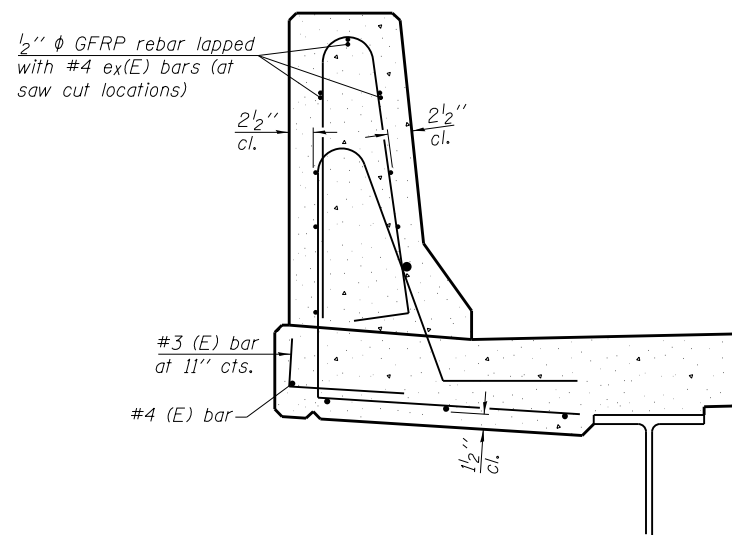
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	80
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet. Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler. Steel superstructure shown. Other superstructure types similar.

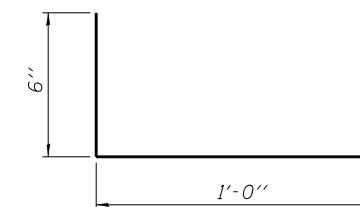


**34" F SHAPE PARAPET SECTION**  
(Showing dimensions)

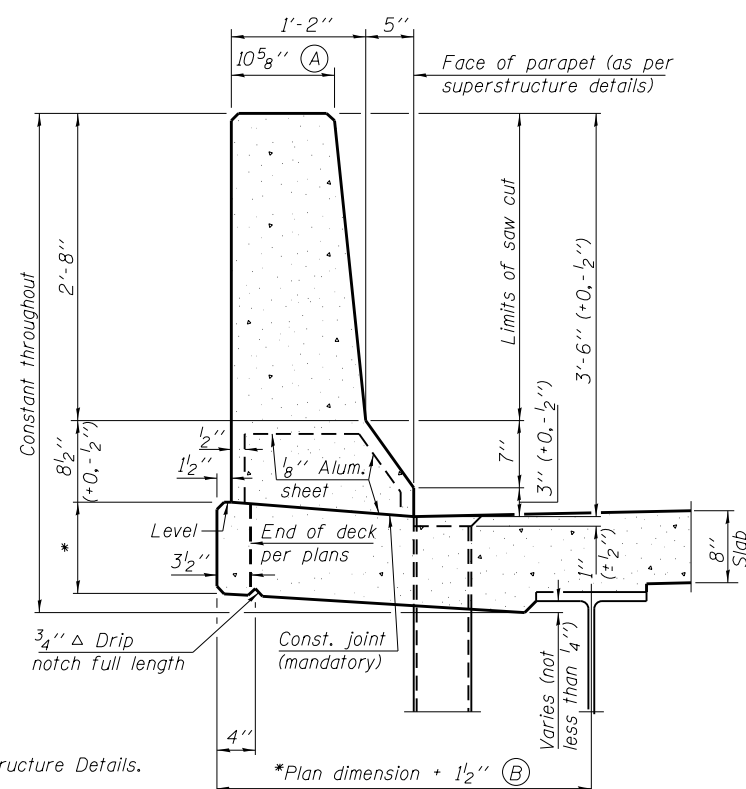


**SECTION**

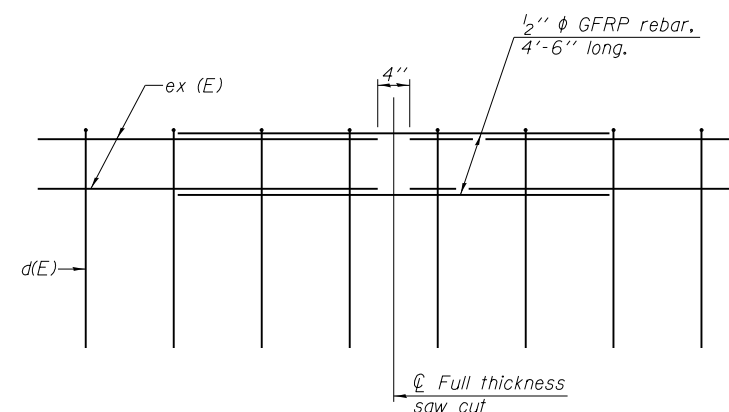
(34" parapet shown - 42" parapet similar)  
(Showing reinforcement clearances for slip forming and additional reinforcement bars)



**#3 (E) BAR**

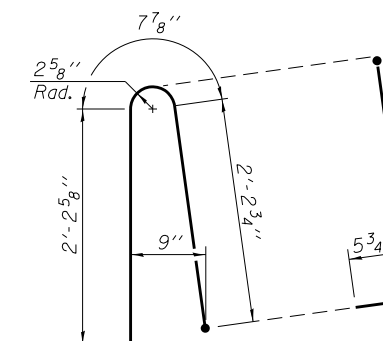


**42" F SHAPE PARAPET SECTION**  
(Showing dimensions)

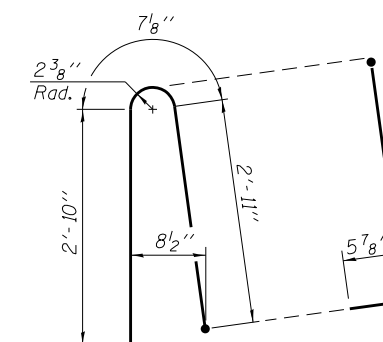


**GFRP REBAR STIFFENING DETAIL**

(Place as shown in parapet section at each parapet joint location.)



**ALTERNATE BAR d(E)**  
(For 34" parapet when conduit is present)



**ALTERNATE BAR d(E)**  
(For 42" parapet when conduit is present)

SFP 34-42

8-16-12



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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

SHEET NO. 37 OF 43 SHEETS

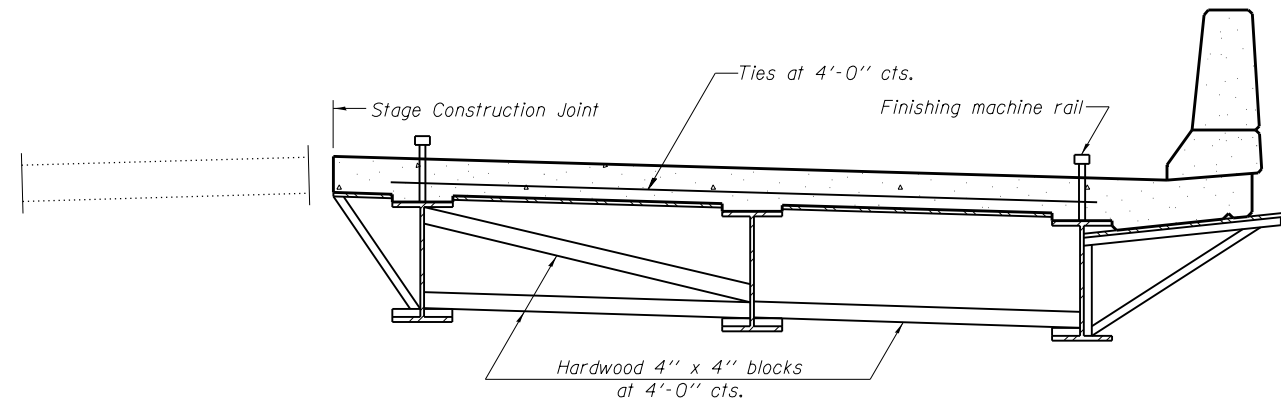
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	81
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

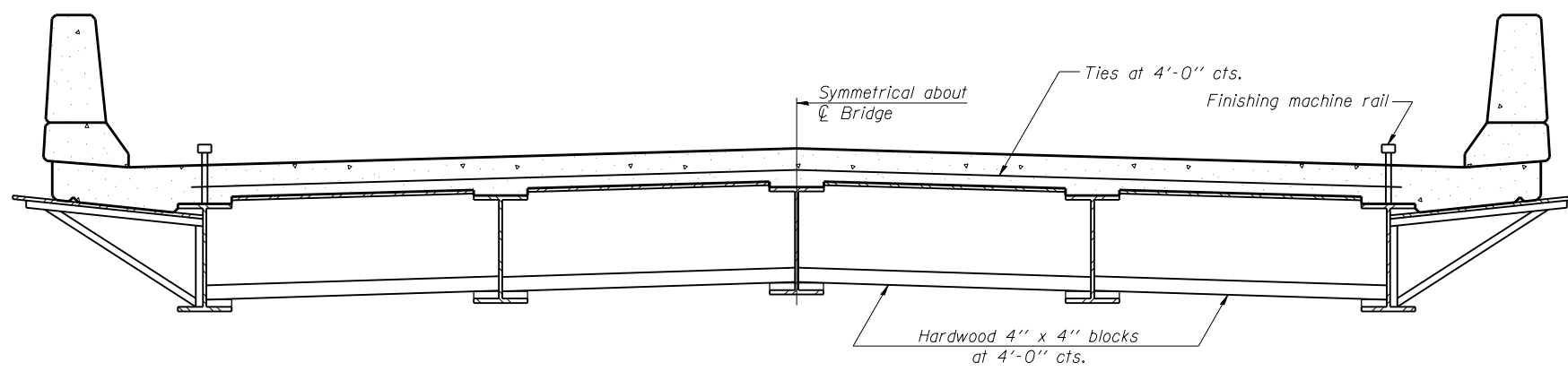
The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR  
STAGE CONSTRUCTION**



**FORM BRACES FOR  
STANDARD CONSTRUCTION**

SB-1

7-1-10



1410 N. ...  
100 Lamar Court, Suite 100  
Champaign, IL 61824  
tel: 618.345.2200  
fax: 618.345.7223  
www.oatesassoc.com

1410 N. ...  
720 W. ...  
St. Louis, MO 63101  
tel: 314.588.3381  
fax: 314.588.9605

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

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27  
BEAMS AND SMALLER STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	06-21BR-3,4	BUREAU	133	82
CONTRACT NO. 66998				

SHEET NO. 38 OF 43 SHEETS

ILLINOIS FED. AID PROJECT



Illinois Department of Transportation  
Division of Highways  
ILLINOIS DOT

### SOIL BORING LOG

Page 1 of 3

Date 6/25/04

ROUTE I-80 DESCRIPTION I-80 over Hennepin Canal, 1 mile West of IL 40 LOGGED BY C. Jenkins

SECTION (06-2)BR-3, 4 LOCATION Concord Twp. - 9NW, SW, SEC. , TWP. 16N, RNG. 7E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	(%)	Surface Water Elev.	ft	Stream Bed Elev.	ft	Groundwater Elev.:	ft	First Encounter	ft	Upon Completion	ft	After	Hrs.	ft	(ft)	(/6")	(tsf)	(%)
006-0012	426+69.5	1	426+50	48.00ft Lt CL WB	633.30						632.00	628.00	625.3		625.3												
MEDIUM black SANDY LOAM								0.8	17.0																		
MEDIUM black SANDY LOAM								1	0.7	36.0																	
MEDIUM gray SILTY LOAM								1	0.5	36.0																	
MEDIUM gray SAND & GRAVEL								0	8																		
Same as above								12																			
LOOSE tan SAND & GRAVEL								6																			
MEDIUM tan fine grained SAND								3																			
Wash MEDIUM tan SAND & GRAVEL								4																			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
ILLINOIS DOT

### SOIL BORING LOG

Page 2 of 3

Date 6/25/04

ROUTE I-80 DESCRIPTION I-80 over Hennepin Canal, 1 mile West of IL 40 LOGGED BY C. Jenkins

SECTION (06-2)BR-3, 4 LOCATION Concord Twp. - 9NW, SW, SEC. , TWP. 16N, RNG. 7E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	(%)	Surface Water Elev.	ft	Stream Bed Elev.	ft	Groundwater Elev.:	ft	First Encounter	ft	Upon Completion	ft	After	Hrs.	ft	(ft)	(/6")	(tsf)	(%)
006-0012	426+69.5	1	426+50	48.00ft Lt CL WB	633.30						632.00	628.00	625.3		625.3												
Wash MEDIUM tan fine SAND with some GRAVEL								3																			
Wash VERY STIFF mauve SILTY CLAY TILL								6	2.1	12.0																	
Wash Same as above								3																			
Wash LOOSE tan fine SAND								3																			
Wash 6/28/04 LOOSE tan SAND & GRAVEL								2																			
Wash MEDIUM tan SAND & GRAVEL								5																			
Wash MEDIUM tan SAND & GRAVEL								7																			
Wash MEDIUM tan SAND & GRAVEL								8																			
Wash STIFF brown SILTY CLAY TILL								4																			
Wash VERY STIFF brown SILTY CLAY TILL								6	2.3	12.0																	
Wash STIFF brown SILTY CLAY TILL								4																			
Wash Same as above								8	1.7	13.0																	
Wash 6/28/04 LOOSE tan SAND & GRAVEL								2																			
Wash VERY STIFF brown SILTY CLAY TILL								3																			
Wash STIFF brown SILTY CLAY TILL								6																			
Wash VERY STIFF brown SILTY CLAY TILL								8	2.1	12.0																	
Wash MEDIUM tan SAND & GRAVEL								7																			
Wash MEDIUM tan SAND & GRAVEL								8																			
Wash STIFF brown SILTY CLAY TILL with a SAND lens								2																			
Wash STIFF brown SILTY CLAY TILL								5	1.6	12.0																	
Wash MEDIUM tan SAND & GRAVEL								7																			
Wash MEDIUM tan SAND & GRAVEL								8																			
Wash MEDIUM tan SAND & GRAVEL								9																			
Wash MEDIUM tan SAND & GRAVEL								10																			
Wash MEDIUM tan SAND & GRAVEL								17																			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation  
Division of Highways  
ILLINOIS DOT

### SOIL BORING LOG

Page 3 of 3

Date 6/25/04

ROUTE I-80 DESCRIPTION I-80 over Hennepin Canal, 1 mile West of IL 40 LOGGED BY C. Jenkins

SECTION (06-2)BR-3, 4 LOCATION Concord Twp. - 9NW, SW, SEC. , TWP. 16N, RNG. 7E

COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	ft	(ft)	(/6")	(tsf)	(%)	Surface Water Elev.	ft	Stream Bed Elev.	ft	Groundwater Elev.:	ft	First Encounter	ft	Upon Completion	ft	After	Hrs.	ft	(ft)	(/6")	(tsf)	(%)
006-0012	426+69.5	1	426+50	48.00ft Lt CL WB	633.30						632.00	628.00	625.3		625.3												
VERY STIFF brown SILTY CLAY TILL								5																			
STIFF brown SILTY CLAY TILL								3																			
VERY STIFF brown SILTY CLAY TILL								5																			
Wash Same as above								6	2.1	12.0																	
Wash Same as above								6	1.9	13.0																	
Wash Same as above								8	2.1	11.0																	
Wash Same as above								6																			
Wash Same as above								8	2.1	12.0																	
Wash Same as above								7	2.1	8.0																	
Wash HARD brown SILTY CLAY TILL								6																			
End of Boring								6																			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
BBS, form 137 (Rev. 8-99)



USER NAME =  
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PLOT SCALE =  
DRAWN -  
PLOT DATE =

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS  
STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)

SHEET NO. 39 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	83
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				









### SOIL BORING LOG

Date 7/6/04

ROUTE I-80 DESCRIPTION I-80 over Hennepin Canal, 1 mile West of IL 40 LOGGED BY W. Garza  
 SECTION (06-2)BR-3, 4 LOCATION Concord Twp. - 9 NW, SW, SEC., TWP. 16N, RNG. 7E  
 COUNTY Bureau DRILLING METHOD Hollow Stem Auger HAMMER TYPE B-53 Diedrich Automatic

STRUCT. NO.	Station	DESCRIPTION	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 85.0 Hrs.	D	B	U	M
			ft	ft	ft	ft	ft	ft	(ft)	(/6")	(tsf)	(%)
006-0012	426+69.5		632.00	628.00								
4	427+80		630.6									
	36.00ft RI WB CL											
	645.80		621.6									
		LOOSE brown SANDY LOAM									10.0	
	643.10	STIFF gray brown SANDY LOAM with GRAVEL										
	641.60											
		MEDIUM gray SANDY CLAY LOAM										
	636.60											
		LOOSE gray fine SAND										
	636.60											
		MEDIUM gray medium SAND										
	634.10											
		LOOSE tan SAND with medium GRAVEL										
	631.60											
		LOOSE tan/gray fine SAND with medium GRAVEL										
	629.10											
		LOOSE gray fine SAND										
	626.60											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
 BBS, form 137 (Rev. 8-99)



### SOIL BORING LOG

Date 7/6/04

ROUTE I-80 DESCRIPTION I-80 over Hennepin Canal, 1 mile West of IL 40 LOGGED BY W. Garza  
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			ft	ft	ft	ft	ft	ft	(ft)	(/6")	(tsf)	(%)
006-0012	426+69.5		632.00	628.00								
4	427+80		630.6									
	36.00ft RI WB CL											
	645.80		621.6									
		MEDIUM gray fine SAND										
	604.10											
		Wash DENSE gray fine SAND										
	601.60											
	601.60											
		Wash MEDIUM gray fine SAND										
	599.10											
		Wash DENSE gray fine SAND with SILT lens										
	596.60											
	594.10											
		Wash LOOSE gray medium SAND										
	591.60											
		Wash VERY STIFF gray SILTY CLAY TILL										
	574.10											
		Wash VERY STIFF gray SILTY CLAY TILL										
	571.60											
		Wash DENSE gray fine SAND										
	569.10											
		Wash STIFF gray SILTY CLAY TILL										
	566.60											
		7/8/04 STIFF gray SILTY CLAY TILL										
	566.60											
		End of Boring										

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)  
 BBS, form 137 (Rev. 8-99)



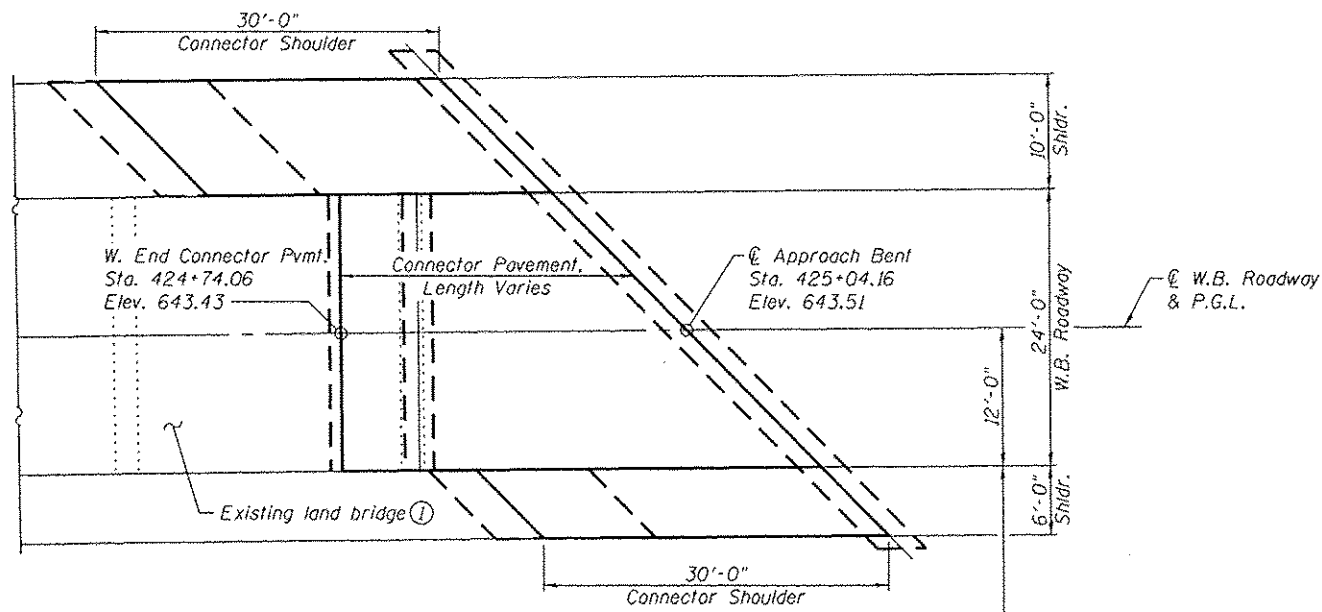
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PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS  
 STRUCTURE NO. 006-0184 (E.B.) & 006-0185 (W.B.)  
 SHEET NO. 42 OF 43 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	86
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				





**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Aggregate Subgrade Improvement	Cu. Yd.	-	185	185
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	-	191	191
Concrete Structures	Cu. Yd.	-	13.8	13.8
Concrete Superstructure	Cu. Yd.	169.7	-	169.7
Bridge Deck Grooving	Sq. Yd.	266	-	266
Protective Coat	Sq. Yd.	266	-	266
Reinforcement Bars, Epoxy Coated	Pound	46,930	2,430	49,360
Furnishing Metal Shell Piles 14" x 0.250"	Foot	-	464	464
Driving Piles	Foot	-	464	464
Test Pile Metal Shells	Each	-	2	2

**INDEX OF SHEETS**

Sheet No.	Description
1	Connector General Plan
2	Connector Pavement Details
3	E.B. Connector Shoulder Details
4	W.B. Connector Shoulder Details
5	Connector Shoulder Details

**DESIGN SPECIFICATIONS**

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

**LOADING HL-93**

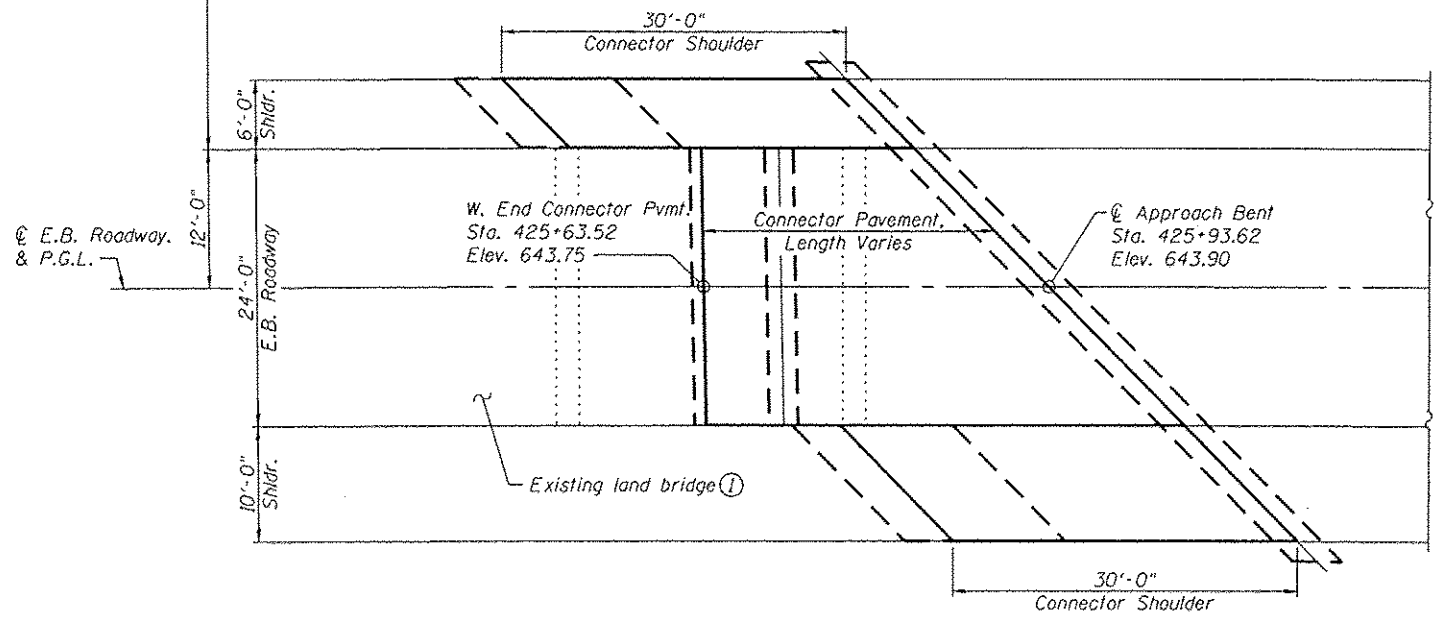
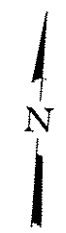
Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**

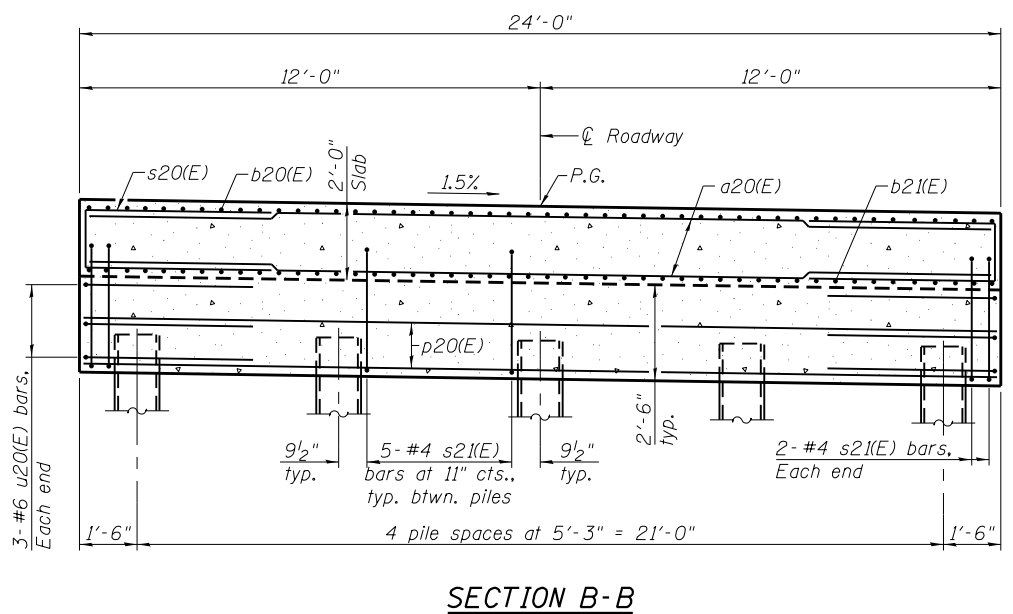
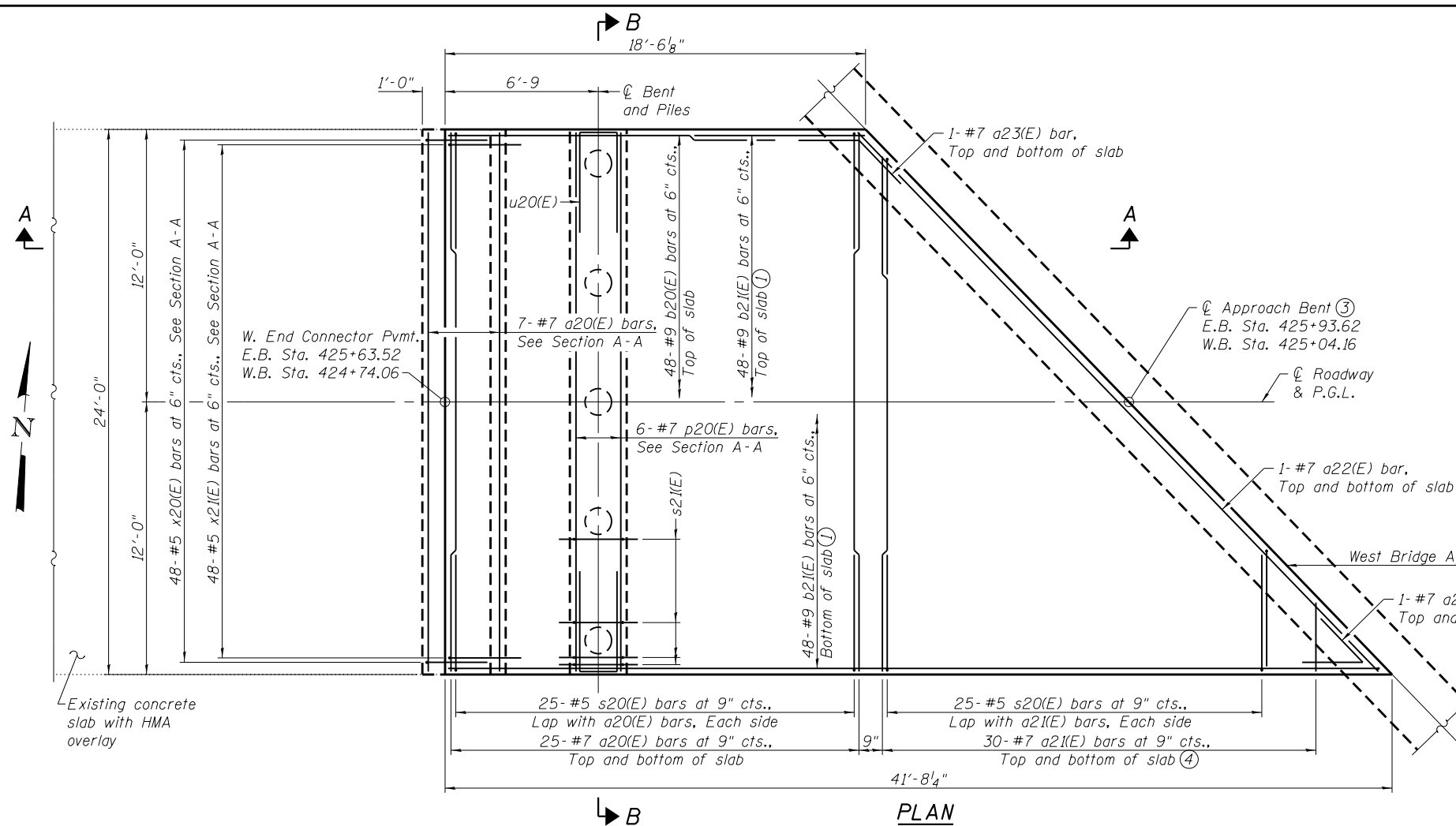
**FIELD UNITS**

$f'_c = 3,500 \text{ psi}$   
 $f_y = 60,000 \text{ psi (Reinforcement)}$

- Notes:
- ① For limits of removal of existing land bridge, see Bridge Plans.
  - ② For additional information, see Bridge Plans.
  - ③ Cost of existing land bridge removal included in Removal of Existing Structures. Cost of shoulder removal included in Pavement Removal. All additional excavation included in Removal and Disposal of Unsuitable Material for Structures.



STATE OF ILLINOIS  
 LICENSED STRUCTURAL ENGINEER  
 DANIEL GEORGE LUTZ  
 081 006712  
 DATE: 7/30/2013  
 EXPIRATION: 11/30/2014



**SECTION B-B**

**MINIMUM BAR LAP**  
#9 bar = 7'-9"

**TWO CONNECTORS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a20(E)	114	#7	23'-8"	—
a21(E)	60	#7	24'-0"	—
a22(E)	4	#7	32'-11"	—
a23(E)	4	#7	9'-4"	↙
a24(E)	4	#7	9'-4"	↘
b20(E)	96	#9	18'-4"	—
b21(E)	96	#9	50'-2"	—
p20(E)	12	#7	23'-8"	—
s20(E)	200	#5	10'-9"	⊃
s21(E)	48	#4	10'-4"	⊂
u20(E)	12	#6	10'-11"	⊃
x20(E)	96	#5	5'-10"	⊃
x21(E)	96	#5	7'-2"	⊂
Aggregate Subgrade Improvement		Cu. Yd.	91	
Removal and Disposal of Unsuitable Material for Structures		Cu. Yd.	84	
Concrete Superstructure		Cu. Yd.	122.6	
Reinforcement Bars, Epoxy Coated		Pound	35,890	
Furnishing Metal Shell Piles 14" x 0.250"		Foot	464	
Driving Piles		Foot	464	
Test Pile Metal Shells		Each	2	

**E.B. PILE DATA**

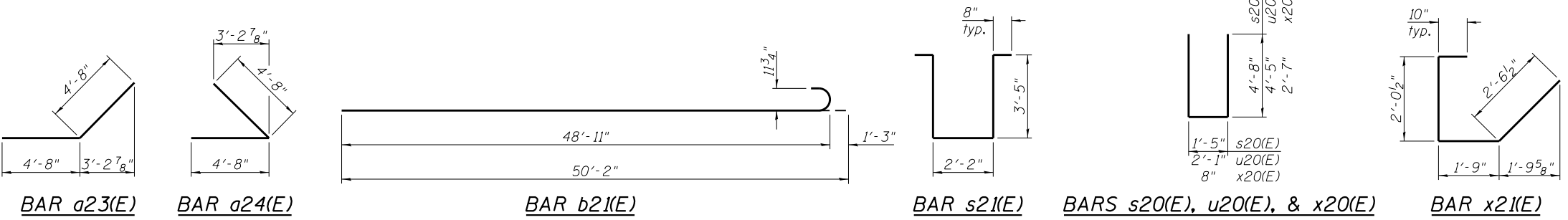
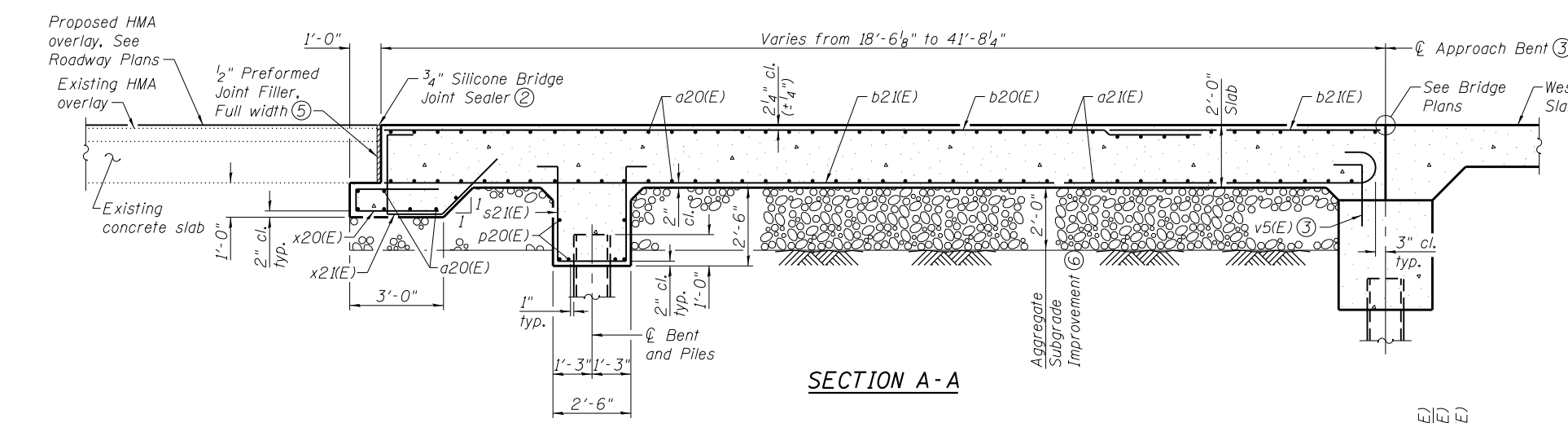
Type: Metal Shell - 14 in. dia x 0.250 in. walls  
Nominal Required Bearing: 318 kips  
Factored Resistance Available: 175 kips  
Est. Length: 60 ft  
No. Production Piles: 4  
No. Test Piles: 1

**W.B. PILE DATA**

Type: Metal Shell - 14 in. dia x 0.250 in. walls  
Nominal Required Bearing: 318 kips  
Factored Resistance Available: 175 kips  
Est. Length: 56 ft  
No. Production Piles: 4  
No. Test Piles: 1

**Notes:**

- Order b21(E) bars full length. Cut to fit bottom of slab and use remainder of bars in top of slab at east end, lapping with b20(E) bars.
- For Silicone Bridge Joint Sealer requirements, see Special Provisions. Cost included with Concrete Superstructure.
- For Approach Bent and West Bridge Approach Slab details, see Bridge Plans.
- Order a21(E) bars full length. Cut to fit skew and use remainder of bars in opposite face.
- Cost included with Concrete Superstructure.
- Quantity of Aggregate Subgrade Improvement is based on the depth shown and the horizontal limits of the connector pavement. Actual depth to be determined by the Engineer based on conditions encountered in the field. Excavation shall be paid for as Removal and Disposal of Unsuitable Material for Structures. For additional requirements, see Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONNECTOR PAVEMENT DETAILS**

SHEET NO. 2 OF 5 SHEETS



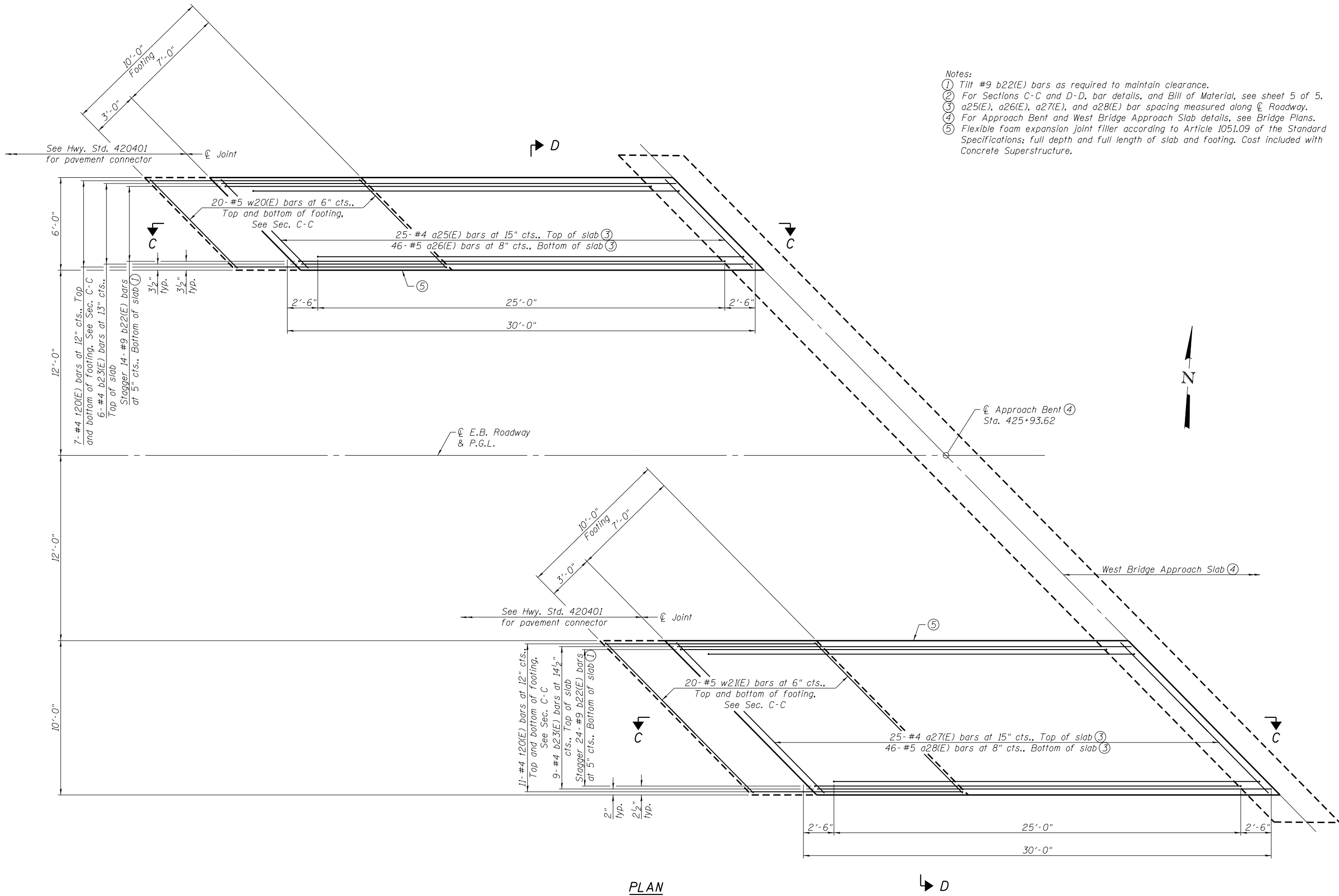
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	106-21BR-3,4	BUREAU	133	89
<b>CONTRACT NO. 66998</b>				
ILLINOIS FED. AID PROJECT				

- Notes:
- ① Tilt #9 b22(E) bars as required to maintain clearance.
  - ② For Sections C-C and D-D, bar details, and Bill of Material, see sheet 5 of 5.
  - ③ a25(E), a26(E), a27(E), and a28(E) bar spacing measured along  $\varnothing$  Roadway.
  - ④ For Approach Bent and West Bridge Approach Slab details, see Bridge Plans.
  - ⑤ Flexible foam expansion joint filler according to Article 1051.09 of the Standard Specifications; full depth and full length of slab and footing. Cost included with Concrete Superstructure.



PLAN



USER NAME =	DESIGNED - JAD	REVISED -
PLOT SCALE =	CHECKED - SUN	REVISED -
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	CHECKED - SUN	REVISED -

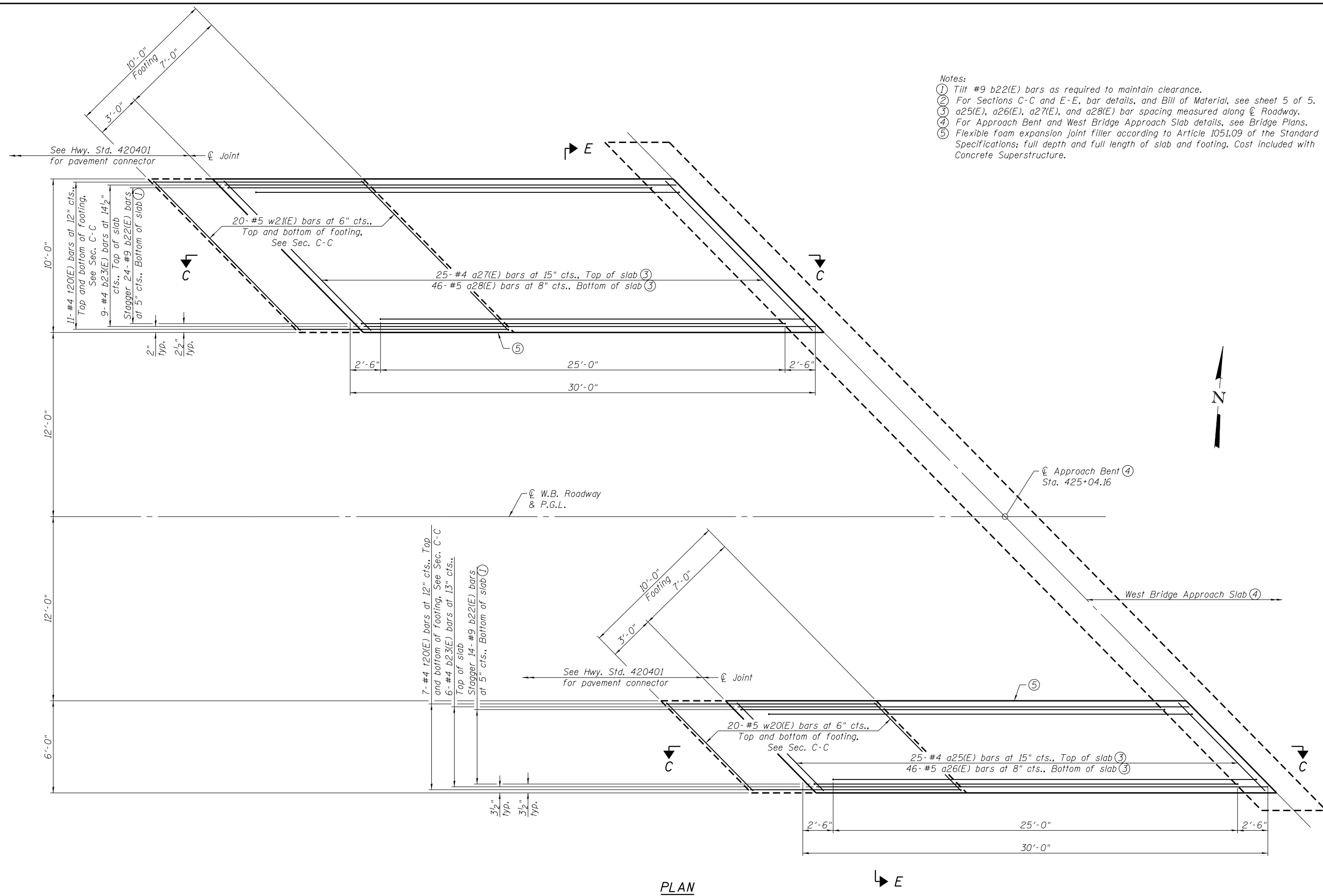
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

E.B. CONNECTOR SHOULDER DETAILS

SHEET NO. 3 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	90
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

- Notes:
- ① Tilt #9 b22(E) bars as required to maintain clearance.
  - ② For Sections C-C and E-E, bar details, and Bill of Material, see sheet 5 of 5.
  - ③ a25(E), a26(E), a27(E), and a28(E) bar spacing measured along  $\text{\textcircled{C}}$  Roadway.
  - ④ For Approach Bent and West Bridge Approach Slab details, see Bridge Plans.
  - ⑤ Flexible foam expansion joint filler according to Article 1051.09 of the Standard Specifications; full depth and full length of slab and footing. Cost included with Concrete Superstructure.



PLAN



USER NAME =	DESIGNED - JAD	REVISED -
	CHECKED - SUN	REVISED -
PLOT SCALE =	DRAWN - JAD	REVISED -
PLOT DATE =	CHECKED - SUN	REVISED -

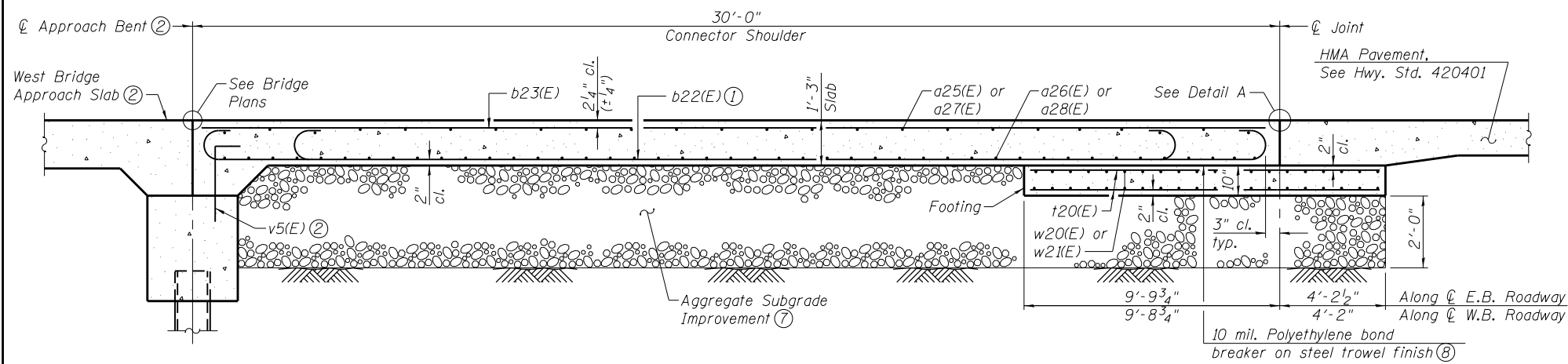
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

W.B. CONNECTOR SHOULDER DETAILS

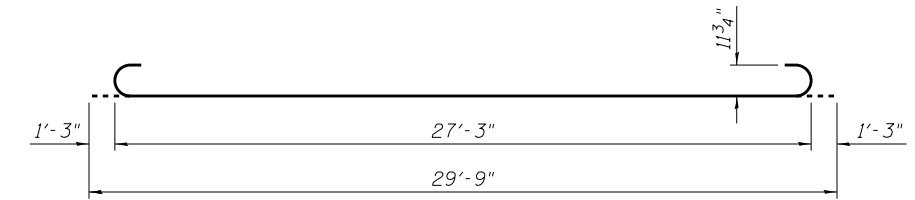
SHEET NO. 4 OF 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2)BR-3,4	BUREAU	133	91
CONTRACT NO. 66998				

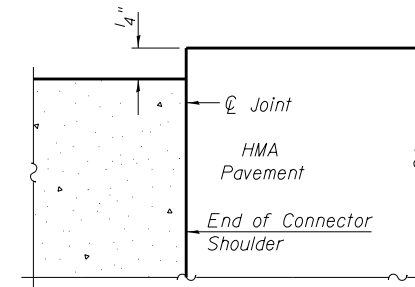
ILLINOIS FED. AID PROJECT



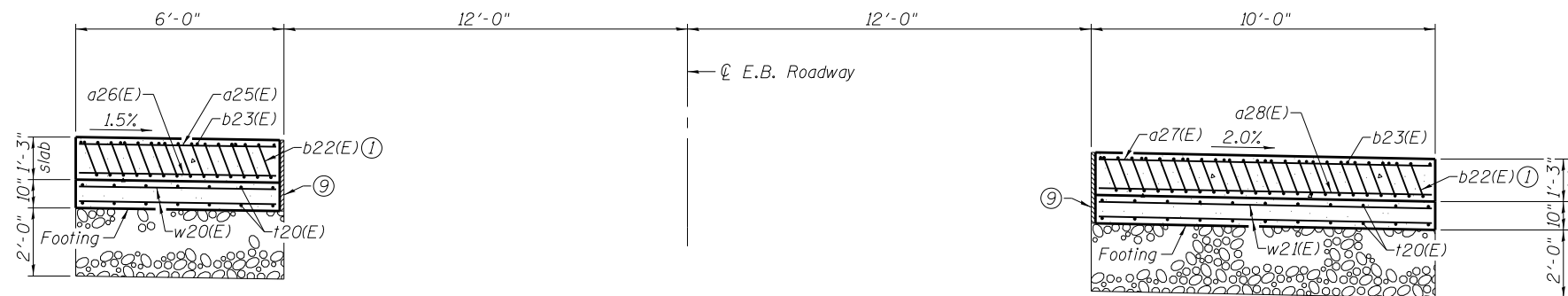
**SECTION C-C**



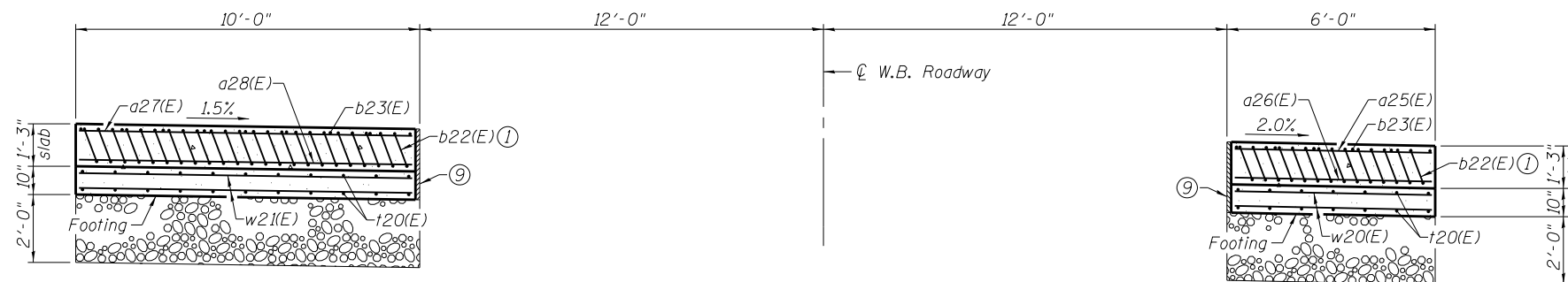
**BAR b22(E)**



**DETAIL A**



**SECTION D-D**  
(Showing Footing)



**SECTION E-E**  
(Showing Footing)

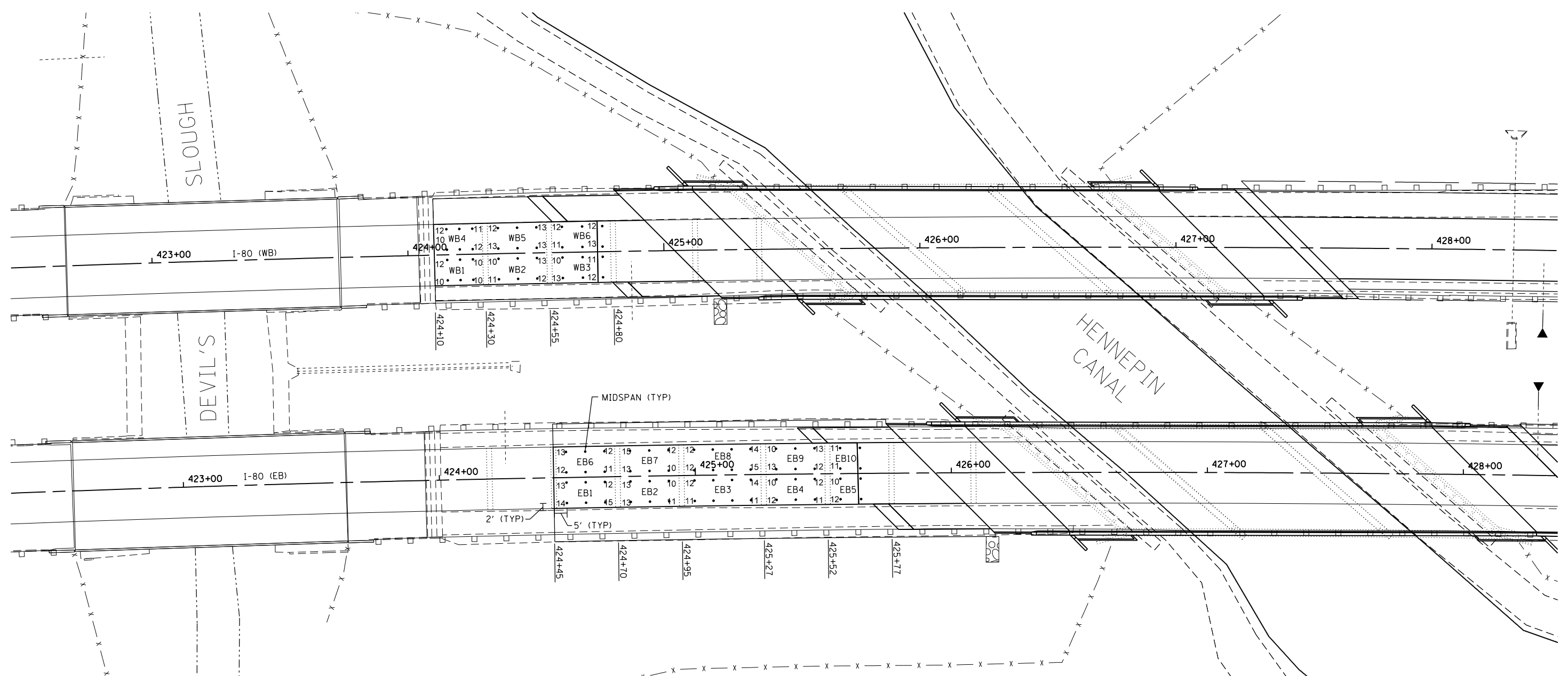
**FOUR SHOULDERS  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a25(E)	50	#4	7'-11"	————
a26(E)	92	#5	7'-11"	————
a27(E)	50	#4	13'-5"	————
a28(E)	92	#5	13'-5"	————
b22(E)	76	#9	29'-9"	⌋
b23(E)	30	#4	29'-8"	————
t20(E)	72	#4	13'-5"	————
w20(E)	80	#5	7'-11"	————
w21(E)	80	#5	13'-5"	————
Aggregate Subgrade Improvement			Cu. Yd.	94
Removal and Disposal of Unsuitable Material for Structures			Cu. Yd.	107
Concrete Structures			Cu. Yd.	13.8
Concrete Superstructure			Cu. Yd.	47.1
Reinforcement Bars, Epoxy Coated			Pound	13,470

**Notes:**

- ① Tilt #9 b22(E) bars as required to maintain clearance.
- ② For Approach Bent and West Bridge Approach Slab details, see Bridge Plans.
- ③ Connector Shoulder concrete shall be paid for as Concrete Superstructure.
- ④ Footing concrete shall be paid for as Concrete Structures.
- ⑤ Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- ⑥ The footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- ⑦ Quantity of Aggregate Subgrade Improvement is based on the depth shown and the horizontal limits of the connector shoulder. Actual depth to be determined by the Engineer based on conditions encountered in the field. Excavation shall be paid for as Removal and Disposal of Unsuitable Material for Structures. For additional requirements, see Special Provisions.
- ⑧ Cost included with Concrete Superstructure.
- ⑨ Flexible foam expansion joint filler. Cost included with Concrete Superstructure. See Plan on sheets 3 and 4 of 5.
- ⑩ Reinforcement bars designated (E) shall be epoxy coated.
- ⑪ Calculated weight of Reinforcement Bars, Epoxy Coated = 11,040 pounds (Superstructure) 2,430 pounds (Substructure)



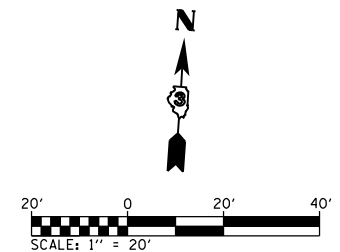


**LEGEND**

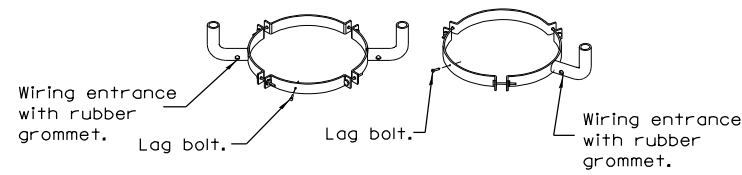
- SUGGESTED CORE LOCATION
- 10 DEPTH OF VOID IN INCHES

**NOTE:**

1. ALL WORK ITEMS DETAILED IN THE SPECIAL PROVISION FOR "CLSM PUMPED IN PLACE" SHALL BE COMPLETED AT THE BEGINNING OF EACH STAGE BEFORE OTHER WORK ITEMS ARE PERFORMED.



FILE NAME = D366998-sht-detail-CLSM.dgn	USER NAME = brianheil	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>FILLING VOIDS UNDER CONCRETE SLAB DETAIL</b>		F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -	REVISED -	SCALE:      SHEET 1 OF 1 SHEETS      STA.      TO STA.		CONTRACT NO. 66998					
PLOT DATE = 7/30/2013	DATE -	REVISED -	REVISED -	ILLINOIS FED. AID PROJECT							



**TWIN**

**SINGLE**

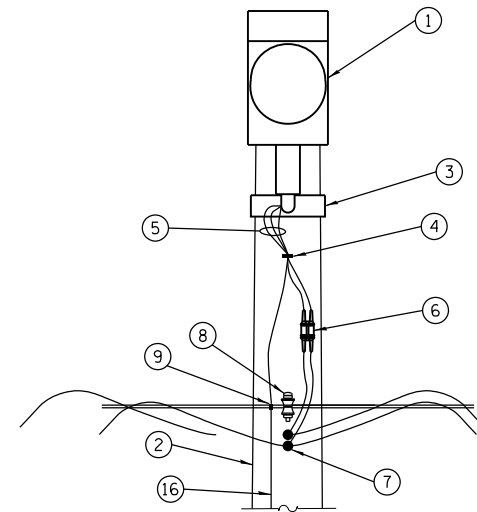
**MOUNTING BRACKET DETAILS**

**GENERAL NOTES**

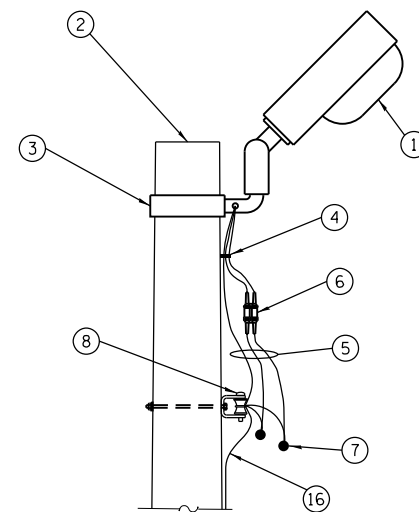
See plans for wire and unit duct sizes not shown.

Provide guy wires with strain insulators and anchors, as needed.

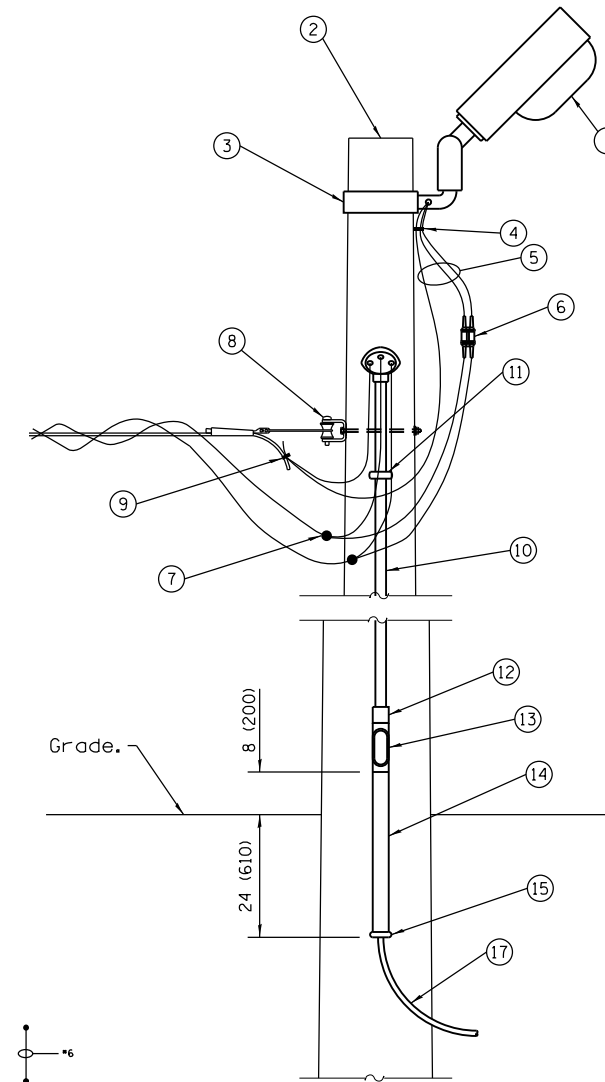
All dimensions are in inches (millimeters) unless otherwise shown.



**FACING VIEW**



**SIDE VIEW**

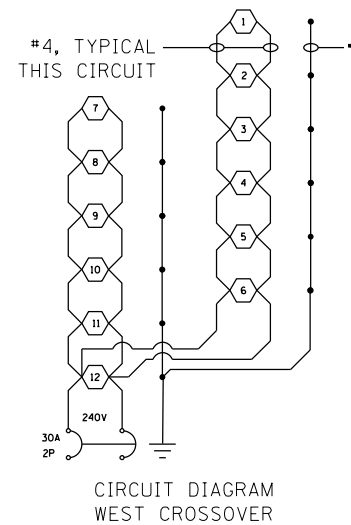


**LIGHT POLE WITH CIRCUIT Routed UNDERGROUND**

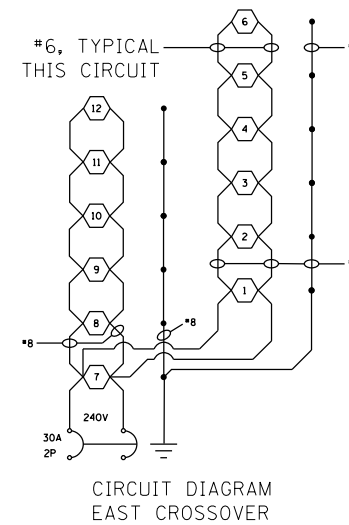
- ① Luminaire.
  - ② Wood light pole.
  - ③ Luminaire mounting bracket.
  - ④ Cable clamps on 24 (600) centers.
  - ⑤ Three #10 XLP-USE cable.
  - ⑥ Waterproof, two-pole fuse holder with fuses.
  - ⑦ Waterproof insulation piercing tap connector.
  - ⑧ Heavy duty insulated pulley clevis with mounting bolt and hardware.
  - ⑨ Ground clamp.
  - ⑩ 1 (25) rigid steel conduit.
  - ⑪ Malleable iron conduit clamps, 5' (1.5 m) intervals.
  - ⑫ Threaded conduit reducer.
  - ⑬ "C" conduit, threaded.
  - ⑭ 1/2 (40) rigid steel conduit.
  - ⑮ Conduit bushing.
  - ⑯ #6 Bare copper ground wire to 10 ft. ground rod, every third light pole.
  - ⑰ Unit duct.
- Size larger as needed.

**LUMINAIRE MOUNTING DETAILS**

42' (12.8 m) mounting height, unless otherwise noted on the plans.



**CIRCUIT DIAGRAM WEST CROSSOVER**



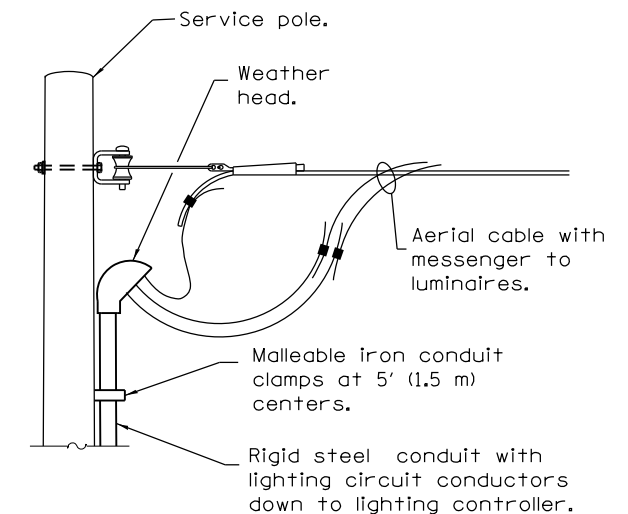
**CIRCUIT DIAGRAM EAST CROSSOVER**

**CIRCUIT DIAGRAM**

NOTES:

1. ALL NECESSARY REVISIONS TO THE WIRING SHOWN ON THIS SHEET SHALL BE MADE AT NO ADDITIONAL COST TO THE DEPARTMENT AND TO THE SATISFACTION OF THE ENGINEER.

○ PROPOSED 250W ROADWAY LUMINAIRE



**LIGHTING CIRCUIT AT SERVICE/CONTROLLER**

See standard 825001 for service installation.

ILLINOIS DEPARTMENT OF TRANSPORTATION  
250W LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS

ROADWAY DATA:	Pavement Width	24 FT
	Number Of Lanes (In Direction of Travel)	2
	Median Width	64 FT
	IES Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA:	Mounting Height	42 FT
	Mast Arm Length	0 FT
	Pole Set-Back From Edge Of Pavement	35 FT
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	28500
	IES Vertical Distribution	L
	IES Control Of Distribution	NC
	IES Lateral Distribution	4
	Total Light Loss Factor	0.684
LAYOUT DATA:	Spacing	225 FT
	Configuration	Opposite
	Luminaire Overhang Over Edge Of Pavement Lane	-35 FT

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E <sub>ave</sub> )	6.0	Lux
	Uniformity Ratio, (E <sub>ave</sub> /E <sub>min</sub> )	3.0	
LUMINANCE:	Average Luminance: (L <sub>ave</sub> )	0.4	Cd/m <sup>2</sup>
	Uniformity Ratios: (L <sub>ave</sub> /L <sub>min</sub> )	3.5	
	(L <sub>max</sub> /L <sub>min</sub> )	6.0	
	Maximum Veiling Luminance Ratio: (L <sub>v</sub> /L <sub>ave</sub> )		

FILE NAME = D366998-shd-detail-lighting.dgn

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PLOT TIME = 7:18:38 PM  
PLOT SCALE = 100.0000' / in.  
PLOT DATE = 7/30/2013

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

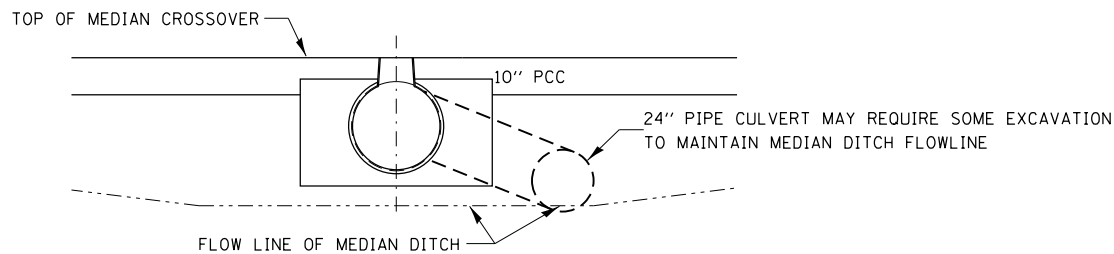
REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

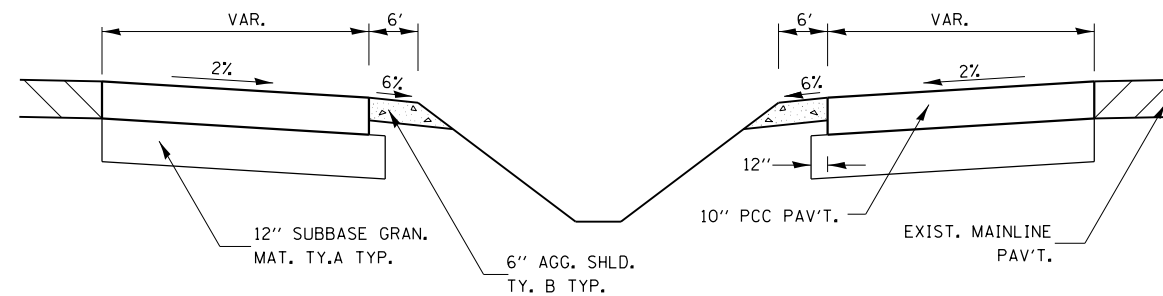
TEMPORARY ROADWAY LIGHTING  
DETAIL

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	94
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



SECTION A-A

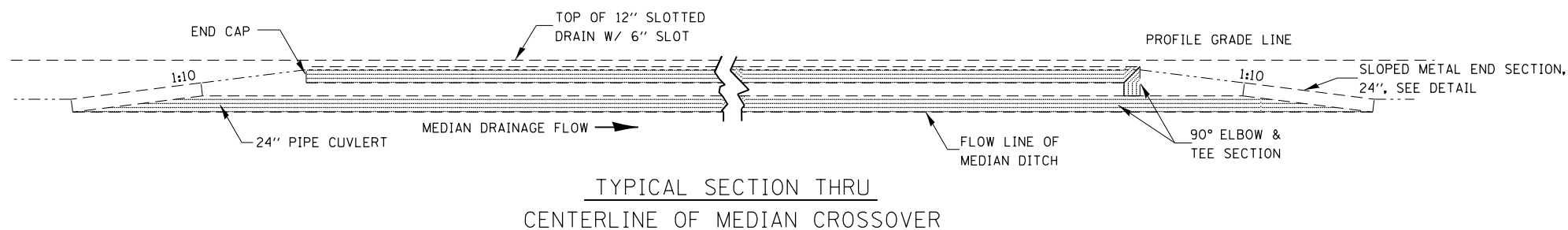


TYPICAL SECTION

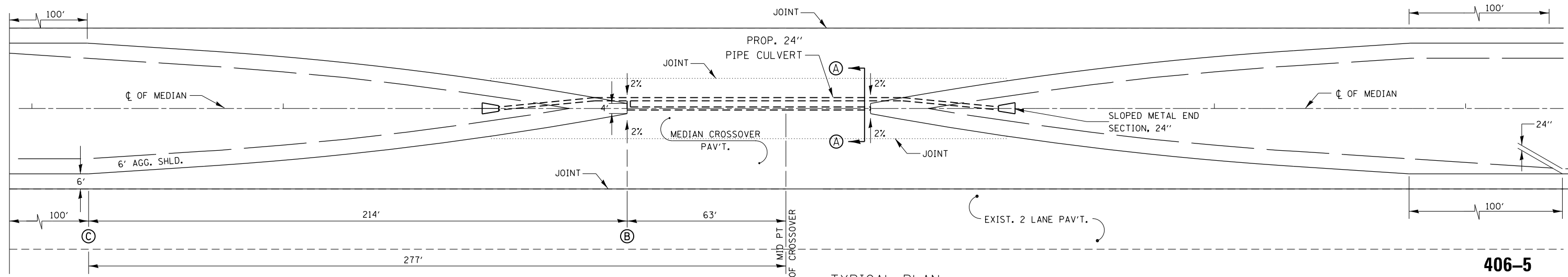
TABLE OF OFFSETS AND DROPS											
DISTANCE FROM LOCATION STATION	0	63.17'	75'	100'	125'	150'	175'	200'	225'	250'	277.49'
OFFSETS FROM INSIDE EDGE OF PAVEMENT	32'	30'	27.86'	23.67'	19.93'	16.64'	13.80'	11.40'	9.44'	7'	6'
DROP FROM INSIDE EDGE OF PAVEMENT	.64'	.60'	.56'	.47'	.40'	.33'	.28'	.23'	.19'	.16'	.24'

ⓑ

ⓒ



TYPICAL SECTION THRU CENTERLINE OF MEDIAN CROSSOVER



TYPICAL PLAN

1" = 20'

GENERAL NOTES:

CONSTRUCTION OF MEDIAN CROSSOVER SHALL CONFORM TO THE REQUIREMENTS OF CURRENT STANDARD SPECIFICATIONS.

PRICE BID FOR CONTRACT ITEMS SHALL BE CONSIDERED FULL COMPENSATION FOR FURNISHING ALL NECESSARY MATERIALS AND LABOR TO CONSTRUCT THE MEDIAN CROSSOVER AS DETAILED.

ALL LONGITUDINAL JOINTS SHALL BE A MAXIMUM OF 14'. ALL JOINTS SHALL BE SEALED.

TRAFFIC CONTROL STANDARD 701416 IS TO BE USED WITH THIS DETAIL.

406-5  
MODIFIED

FILE NAME = D366998-sht-detail 406-5.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
	PLOT TIME = 11:46:46 AM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/31/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSSOVER DETAIL

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

F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	95
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

**GENERAL**

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

THIS SPECIFICATION COVERS SLOTTED DRAIN USED FOR THE REMOVAL OF WATER AS SHOWN ON THE PLANS.

THE SLOTTED DRAIN SHALL BE CORRUGATED PIPE CULVERT WITH INTEGRAL SLOTTED DRAINS.

BEFORE PLACING THE CONCRETE ADJACENT TO THE PIPE, THE SLOT SHALL BE COVERED BY EITHER THIN, FLAT METAL SHEETING OR BY A BOARD NOTCHED TO FIT OVER THE GRATE BARS. THIS COVERING MUST FIT CLOSELY IN THE SLOT TO PREVENT ENTRY OF CONCRETE INTO THE PIPE. PAVING OVER THE SLOTTED DRAIN WILL THEN BE ONE CONTINUOUS OPERATION OVER THE PROTECTED DRAIN. THE PROTECTION FOR THE DRAIN SLOT SHALL THEN BE REMOVED. THE PIPE SHALL DRAIN INTO THE SIDE OF THE INLET. THE OPENING WHERE THE SLOT IS REMOVED SHALL BE COVERED TO PREVENT CONCRETE FROM ENTERING THE PIPE.

THE CORRUGATED STEEL PIPE USED IN THE SLOTTED DRAIN SHALL MEET THE REQUIREMENTS OF AASHTO M36/ ASTM A7860.

THE CMP SHALL BE ALUMINIZED STEEL TYPE 2.

THE DIAMETER AND GAGE SHALL BE AS SHOWN ON THE PLAN.

STEEL GRATING SHALL MEET THE GALVANIZING REQUIREMENTS OF AASHTO M111.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR SLOTTED DRAIN 12" WITH 6" SLOT, AND SHALL INCLUDE ELBOWS, DRILLING HOLES IN GRATING, SUPPLYING AND PLACING A1 BARS, A2 BARS, LONGITUDINAL BARS AND CONCRETE AND GRATING FOR DEPTH SPECIFIED ON PLANS.

USE APPROVED END CAP TO PREVENT CONCRETE ENTRY INTO THE PIPE DURING GUTTER CONSTRUCTION ON THE UPSTREAM END OF THE PIPE.

**CONNECTIONS**

THE CORRUGATED STEEL PIPE SHALL HAVE A MINIMUM OF TWO REROLLED ANNULAR ENDS.

THE SLOTTED DRAIN BANDS SHALL BE MODIFIED HUGGER BANDS TO SECURE THE PIPE AND PREVENT INFILTRATION OF THE BACKFILL.

WHEN THE SLOTTED DRAIN IS Banded TOGETHER, THE ADJACENT GRATES SHALL HAVE A MAXIMUM 3" GAP.

**GRATES**

THE GRATES SHALL BE MANUFACTURED FROM ASTM A670, GRADE 36 STEEL. THE SPACERS AND BEARING BARS (SIDES) SHALL BE 3/16 " MATERIAL ±0.008".

THE SPACERS SHALL BE ON 6" CENTERS AND WELDED ON BOTH SIDES TO EACH BEARING BAR (SIDES) WITH FOUR (4) 1 1/4 " LONG 3/16 " FILLET WELDS ON EACH SIDE OF THE BEARING BAR.

THE PLATE EXTENDER SHALL BE 7 GAGE STEEL MEETING ASTM A761.

THE ENGINEER MAY CALL FOR TENSILE STRENGTH TESTS ON THE GRATE IF THE GRATE IS NOT IN COMPLIANCE WITH THE ABOVE SPACER SPECIFICATIONS. IF TENSILE STRENGTH TESTS ARE CALLED FOR, MINIMUM RESULTS FOR AN IN-PLACE SPACER PULLED PERPENDICULAR TO THE BEARING BAR SHALL BE:  
 T = 12,000 POUNDS FOR 2 1/2 " GRATE  
 T = 15,000 POUNDS FOR 6" GRATE

**GALVANIZING**

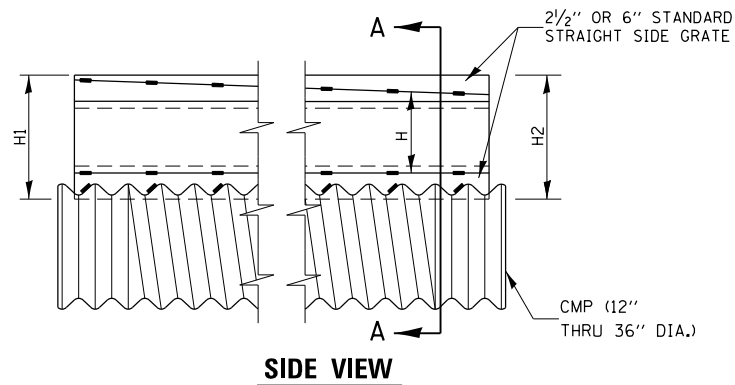
THE GRATE AND PLATE EXTENDERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 EXCEPT WITH A 2 OZ. GALVANIZED COATING.

**GRATE ATTACHED TO CSP**

THE GRATE SHALL BE FILLET WELDED WITH A MINIMUM WELD 1" LONG TO THE CSP ON EACH SIDE OF THE GRATE AT EVERY OTHER CORRUGATION.

**TOLERANCES - FINISHED SLOTTED DRAIN - 20' LENGTH**

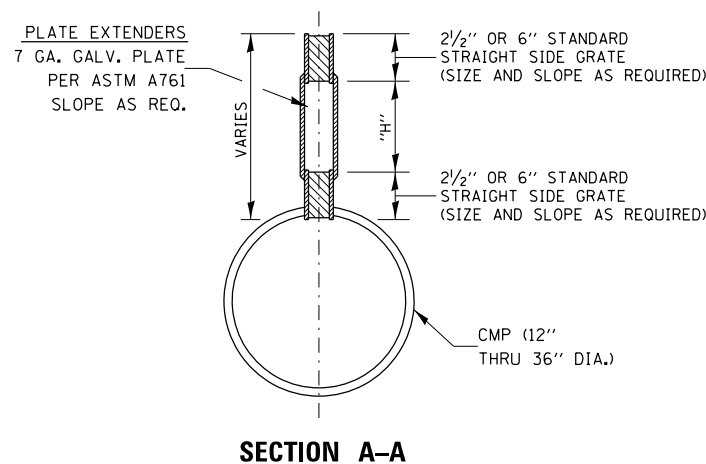
VERTICAL BOW = ± 3/8 "  
 HORIZONTAL BOW = ± 5/8 "  
 TWIST = ± 1/2 "



**DETAIL WITH VARIABLE HEIGHT GRATE**

LOADING CONDITION	MAX. EXTENDER HEIGHT - "H"
H20/H25 • 750 PSI CONCRETE	19"

• 125 PSI TIRE PRESSURE



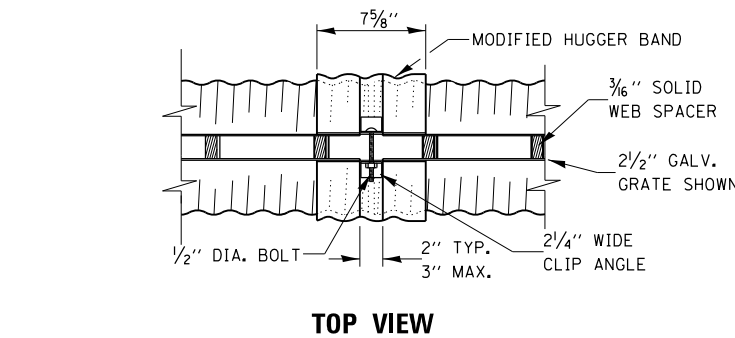
GAGE OF PIPE	DIAMETER OF PIPE					
	12"	15"	18"	24"	30"	36"
16	X	X	X	X	X	X
14	X	X	X	X	X	X
12	N.A.	N.A.	N.A.	N.A.	X	X

GRATE TYPE	"A"
VERT 2 1/2"	1 3/4"
VERT 6"	1 3/4"
TRAP 2 1/2"	2 1/4"
TRAP 6"	3"

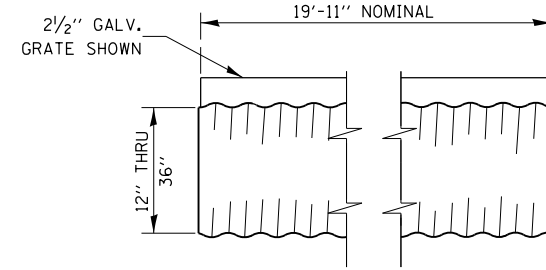
VERT = VERTICAL  
 TRAP = TRAPIZOIDAL

**SLOTTED DRAIN NOTES**

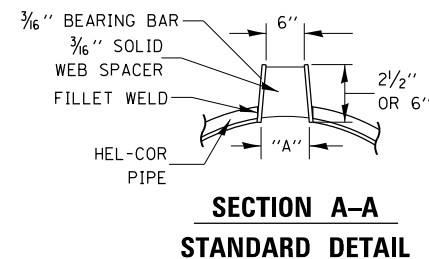
- H1 AND H2 MEASURED FROM TOP OF GRATE TO BOTTOM OF GRATE.



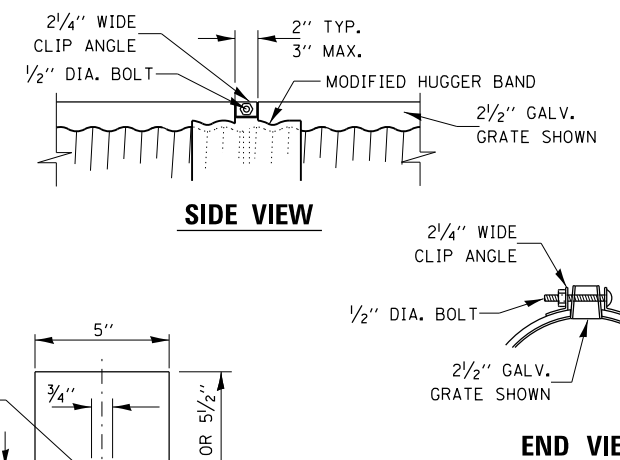
**TYPICAL PIPE SECTION**



**TYPICAL PIPE SECTION**

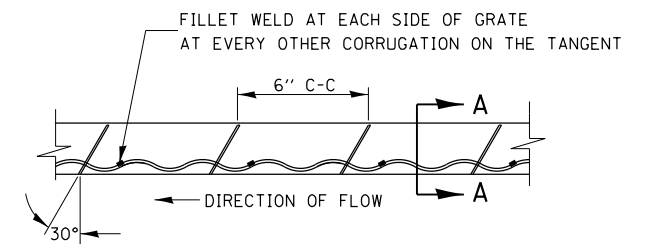


**SECTION A-A STANDARD DETAIL**

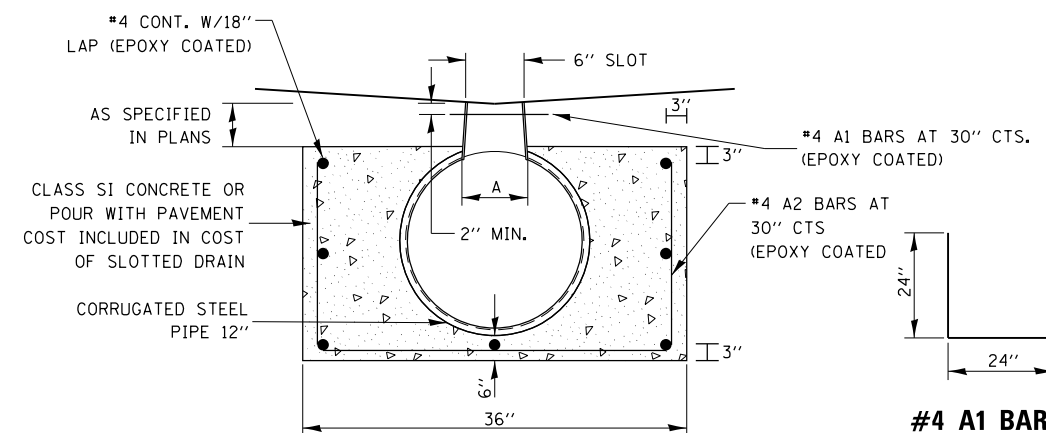


**GAP PLATE (OPTIONAL)**

MAY BE PLACED DIRECTLY OVER BAND BOLT TO PROVIDE CONTINUOUS FORM FOR GROUTING



**GRATE WELDING DETAIL**



**#4 A1 BARS**

**601-2 MODIFIED**

FILE NAME = D366998-sht-detail 601-2.dgn	USER NAME = brianheil	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SLOTTED DRAIN DETAIL</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT TIME = 7:18:39 PM	DRAWN -	REVISED -			80	(06-2) BR-3,4	BUREAU	133	96	
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -			CONTRACT NO. 66998					
	PLOT DATE = 7/30/2013	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

**GENERAL NOTES**

**STEEL**  
STEEL SHALL MEET A.A.S.H.T.O. SPECIFICATIONS.

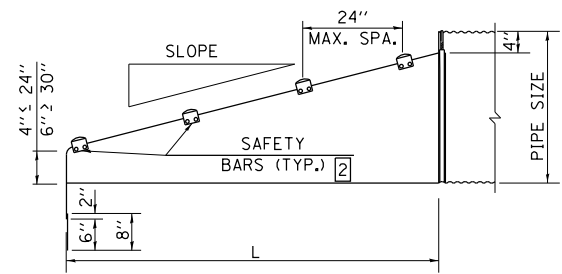
**CONNECTORS**  
SIZES THRU 24" ATTACH TO PIPE WITH TYPE #1 STRAPS. ALL OTHER SIZES ATTACH WITH TYPE #2 RODS AND LUGS.

**TOE PLATE EXTENSIONS**  
TOE PLATE EXTENSIONS ARE TO BE THE SAME GAGE AS END SECTION. DIMENSIONS SHALL BE OVERALL WIDTH LESS 6 INCHES BY 8 INCHES HIGH.

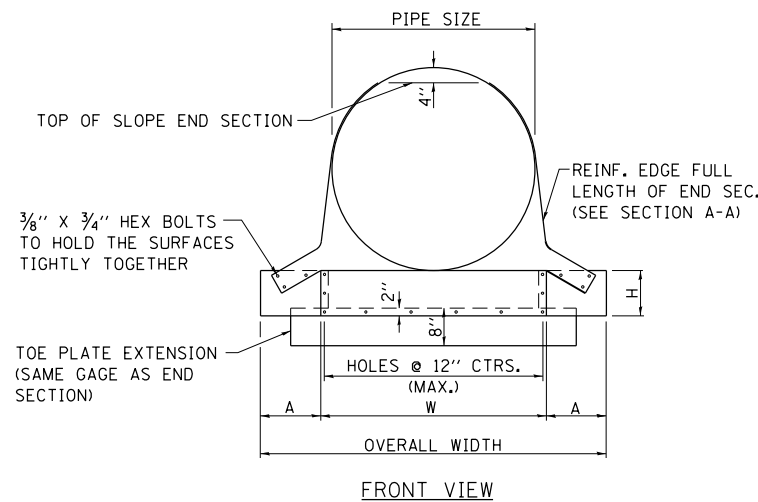
**OPTIONAL SAFETY BARS**  
SAFETY BARS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE. PIPE TO BE GALVANIZED AFTER FORMING.

**MISCELLANEOUS DETAILS**  
SIZES OVER 24" AND 28" X 20" HAVE MULTIPLE PANELS JOINED WITH BOLTS AND NUTS.

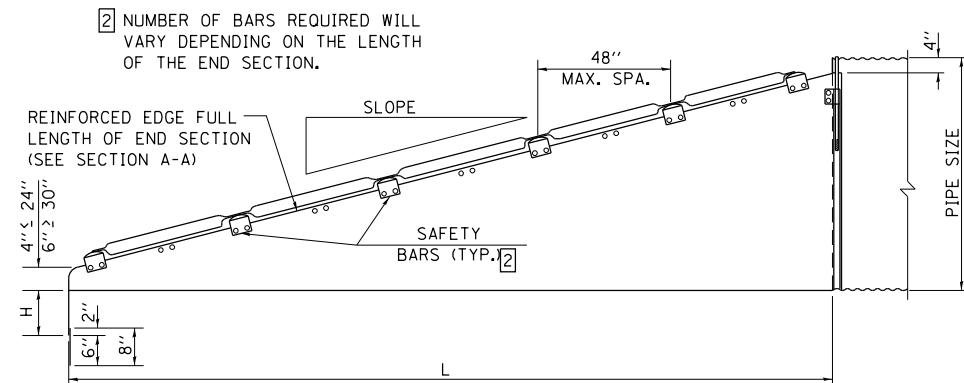
SLOTTED HOLES FOR SAFETY BAR ATTACHMENT SHALL BE PROVIDED FOR ALL END SECTIONS.



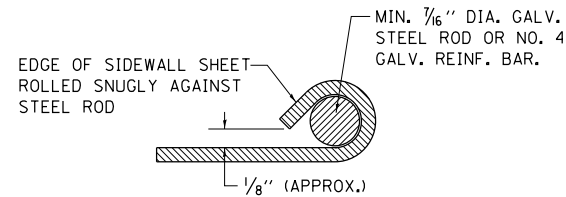
SIDE ELEVATION OF PARALLEL DRAINAGE STRUCTURE



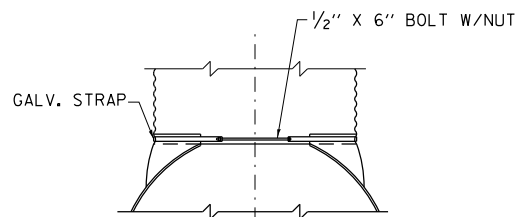
FRONT VIEW



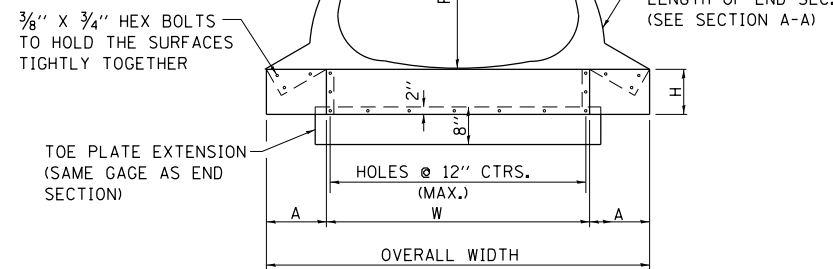
SIDE ELEVATION FOR CROSS DRAINAGE STRUCTURE



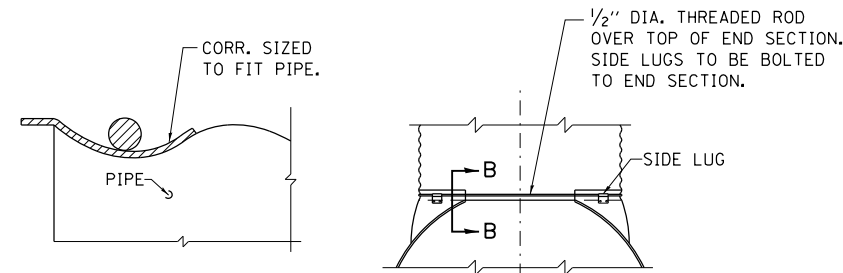
SECTION A-A



TYPE #1 CONNECTOR DETAIL THRU 24"



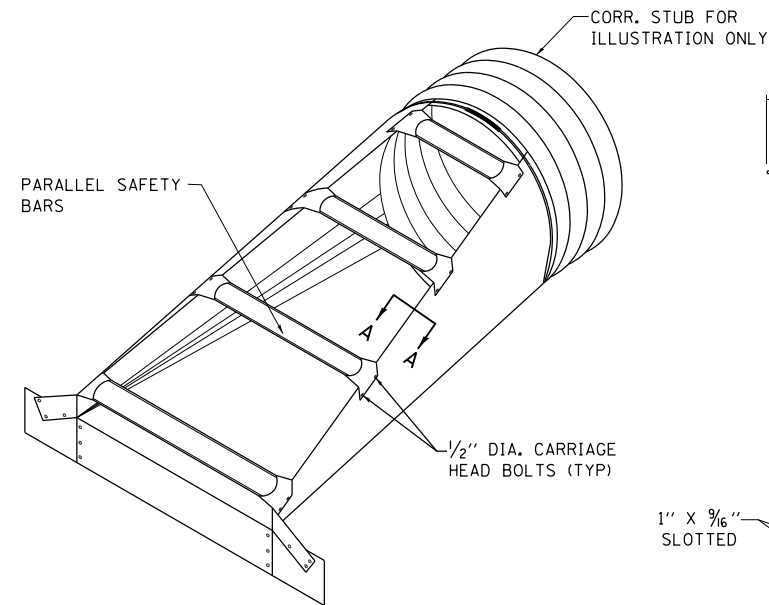
FRONT VIEW



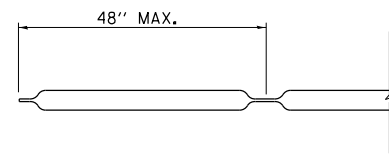
SECTION B-B

TYPE #2 CONNECTOR DETAILS FOR 30" AND LARGER 21" X 15" AND LARGER

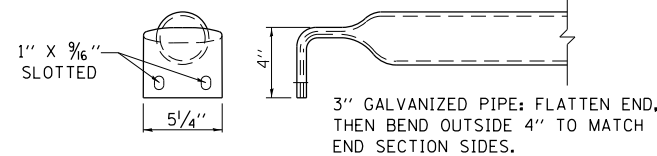
PIPE DIA. (IN.)	MIN. THICK. (IN.)	DIM. + OR - 2"			L DIM. + OR - 2"							
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)	
12	.064	16	8	4	18	34	1:4	20	1:6	27	1:10	70
15	.064	16	8	6	21	37	1:4	20	1:6	30	1:10	70
18	.064	16	8	6	24	40	1:4	32	1:6	48	1:10	100
21	.064	16	8	6	27	43	1:4	44	1:6	66	1:10	130
24	.064	16	8	6	30	46	1:4	56	1:6	84	1:10	160
30	.109	12	12	9	36	60	1:4	80	1:6	120	1:10	220
36	.109	12	12	9	42	66	1:4	104	1:6	156	1:10	280
42	.109	12	16	12	48	80	1:4	128	1:6	192	-	-
48	.109	12	16	12	54	86	1:4	152	1:6	228	-	-
54	.109	12	16	12	60	92	1:4	176	1:6	264	-	-
60	.109	12	16	12	66	98	1:4	200	1:6	300	-	-



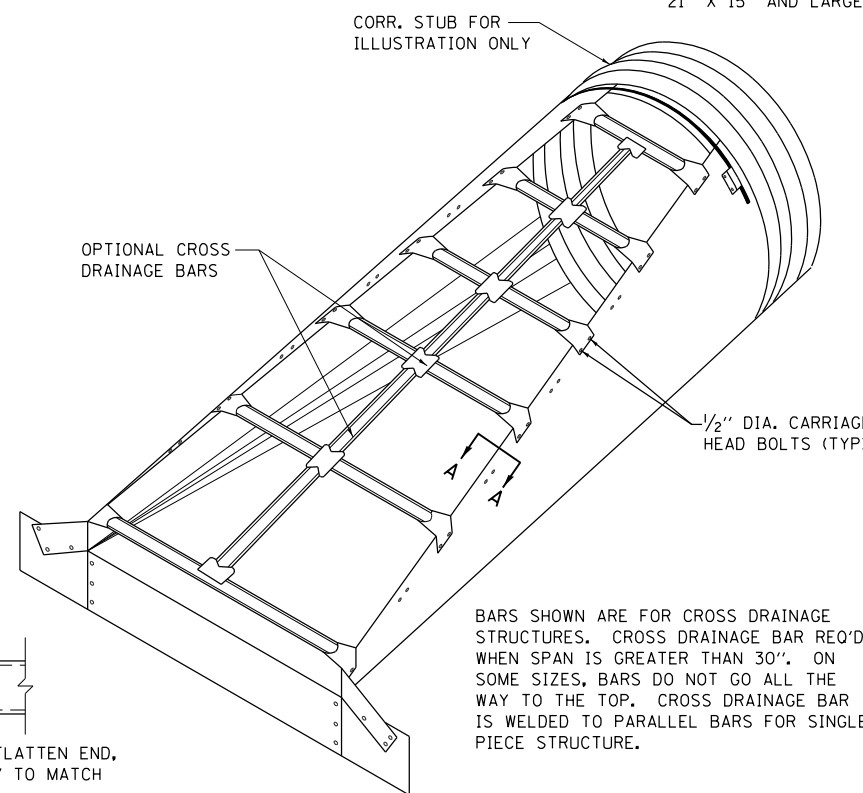
24" PARALLEL DRAINAGE STRUCTURE 1:6 SLOPE



CROSS DRAINAGE STRUCTURE DETAIL OF SAFETY BARS



PARALLEL DRAINAGE STRUCTURE DETAIL OF SAFETY BARS



48" CROSS DRAINAGE STRUCTURE 1:6 SLOPE

BARS SHOWN ARE FOR CROSS DRAINAGE STRUCTURES. CROSS DRAINAGE BAR REQ'D WHEN SPAN IS GREATER THAN 30". ON SOME SIZES, BARS DO NOT GO ALL THE WAY TO THE TOP. CROSS DRAINAGE BAR IS WELDED TO PARALLEL BARS FOR SINGLE PIECE STRUCTURE.

EQUIV. DIA. (IN.)	(INCHES) SPAN	RISE	MIN. THICK. (IN.)	GAGE	DIM. + OR - 2"			L DIM. + OR - 2"						
					A	H	W	OVERALL WIDTH	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)	SLOPE	LENGTH (IN.)
15	17	13	.064	16	7	6	30	44	1:4	19	1:6	30	1:10	70
18	21	15	.064	16	8	6	27	43	1:4	20	1:6	30	1:10	70
21	24	18	.064	16	8	6	30	46	1:4	32	1:6	48	1:10	100
24	28	20	.064	16	8	6	34	50	1:4	40	1:6	60	1:10	120
30	35	24	.079	14	12	9	41	65	1:4	56	1:6	84	1:10	160
36	42	29	.109	12	12	9	48	72	1:4	76	1:6	114	1:10	210
42	49	33	.109	12	16	12	55	87	1:4	92	1:6	138	-	-
48	57	38	.109	12	16	12	63	95	1:4	112	1:6	168	-	-
54	64	43	.109	12	16	12	70	102	1:4	132	1:6	198	-	-
60	71	47	.109	12	16	12	77	109	1:4	148	1:6	222	-	-
72	83	57	.109	12	16	12	89	121	1:4	188	1:6	282	-	-

MINIMUM THICKNESS OF ALL 1:10 SLOPE END SECTIONS IS .109" - 12 GAGE

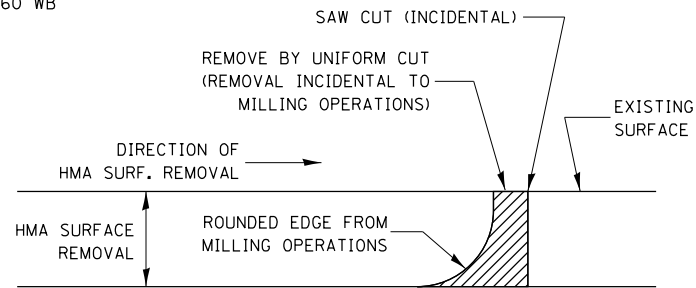
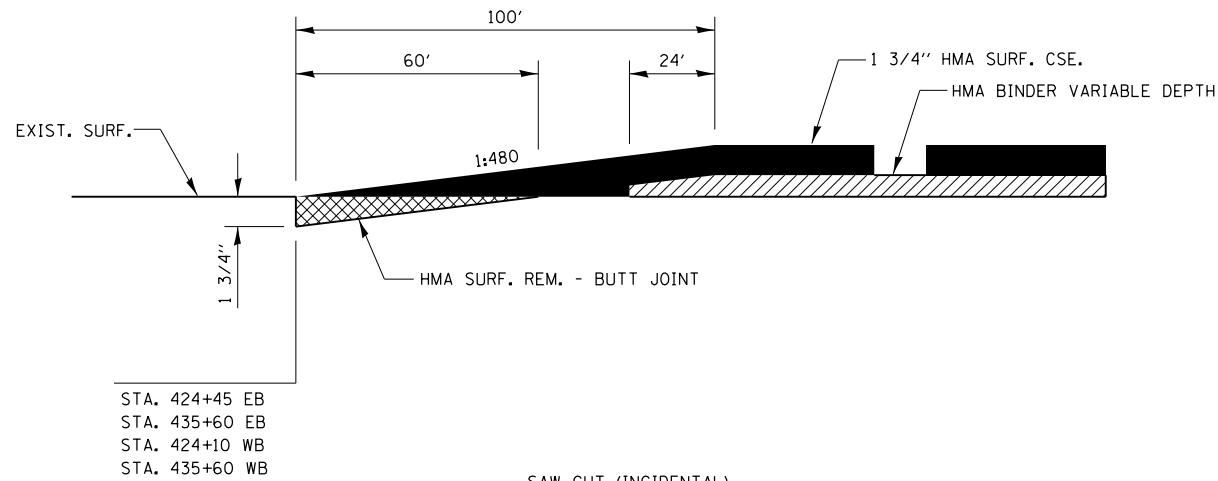
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		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SLOPED METAL END  
SECTION DETAIL

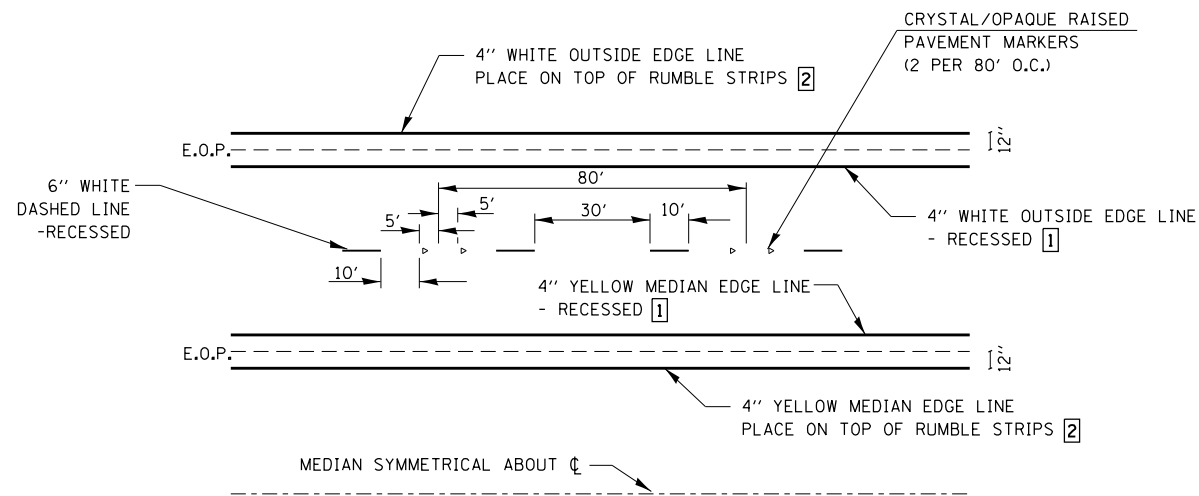
SCALE: NO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	97
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



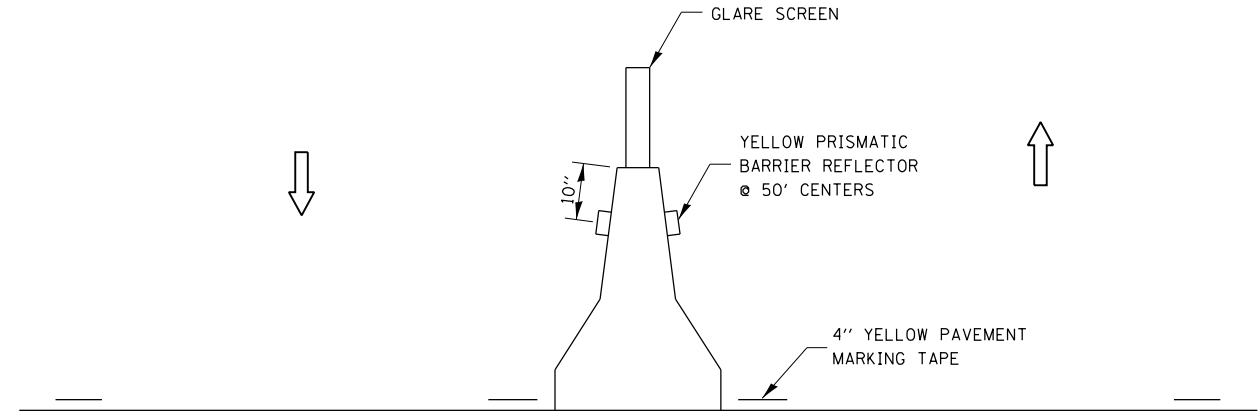
NOTE:  
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

**HMA DETAIL AT BUTT JOINTS**



**TYPICAL PAVEMENT MARKINGS**

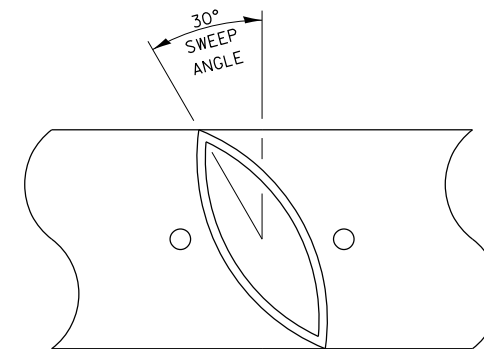
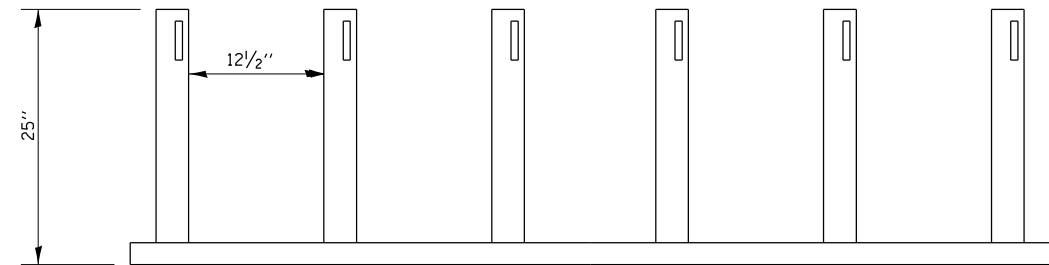
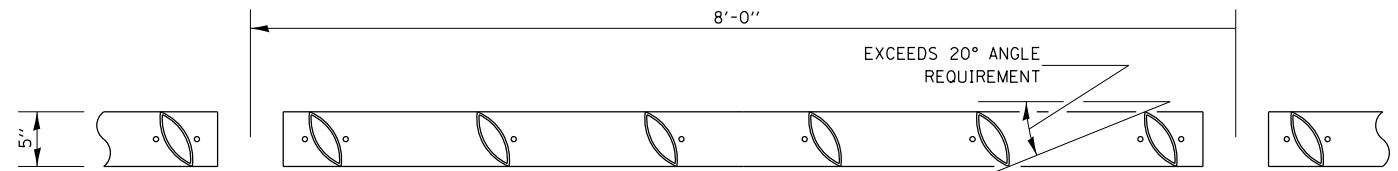
- [1] STA. 408+55 TO STA. 428+55 EB OUTSIDE  
STA. 404+50 TO STA. 428+30 EB MEDIAN  
STA. 404+50 TO STA. 427+40 WB OUTSIDE  
STA. 409+00 TO STA. 427+64 WB MEDIAN
- [2] STA. 428+55 TO STA. 444+70 EB OUTSIDE  
STA. 428+30 TO STA. 444+70 EB MEDIAN  
STA. 427+40 TO STA. 444+88 WB OUTSIDE  
STA. 427+64 TO STA. 444+88 WB MEDIAN



**STAGE TRAFFIC BARRIER DETAIL**

- NOTES:  
1. THE COST OF THE REFLECTORS IS INCLUDED IN THE COST OF THE TEMPORARY CONCRETE BARRIER.

**701-2  
(MODIFIED)**



**DETAIL DRAWING**

**MODULAR GLARE SCREEN BLADES**

**638-1**

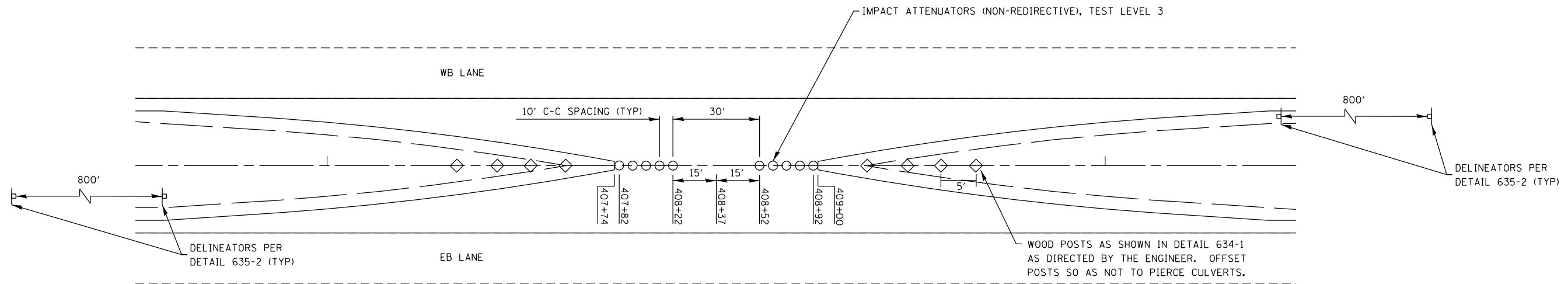
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	PLOT TIME = 7:18:40 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MISC DETAILS**

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

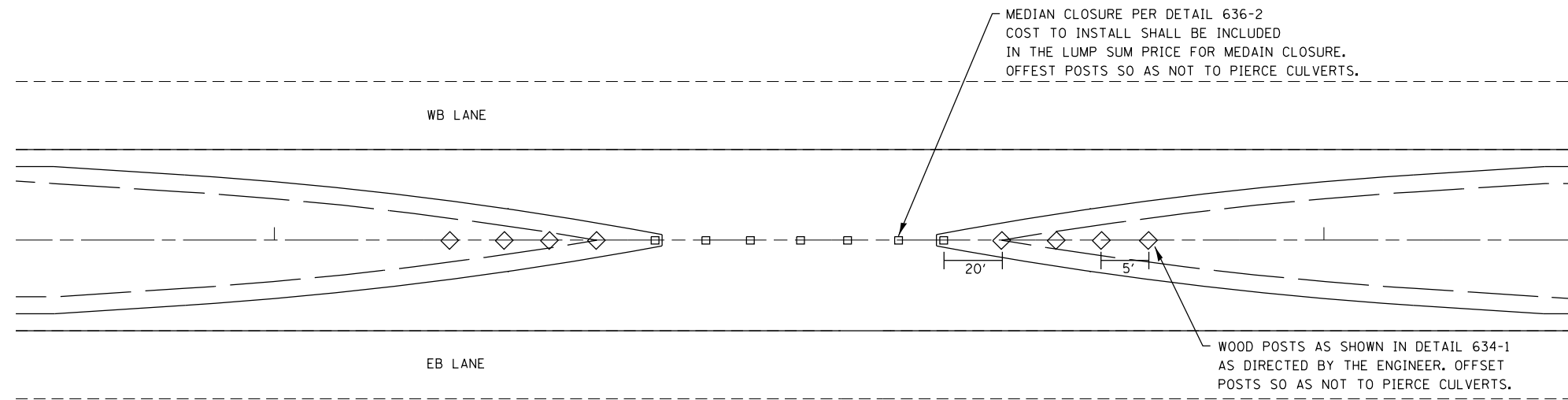
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	98
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				



### WEST MEDIAN CROSSOVER CLOSURE

NOTE: IMPACT ATTENUATORS SHALL BE NEW AND SHALL BECOME THE PROPERTY OF THE STATE. (REFLECTIVE SHEETING IS NOT REQUIRED)

THIS WORK SHALL BE PAID FOR AS THE CONTRACT UNIT PRICE EACH AS IMPACT ATTENUATORS. THE ATTENUATORS SHALL EACH BE FILLED WITH 200 LBS OF SAND. THE WOOD POSTS SHALL BE PAID FOR AS EACH.



### EAST MEDIAN CROSSOVER CLOSURE

THIS WORK SHALL BE PAID FOR AS THE CONTRACT UNIT PRICE FOR MEDIAN CLOSURE AND FOR THE WOOD POSTS AS EACH.

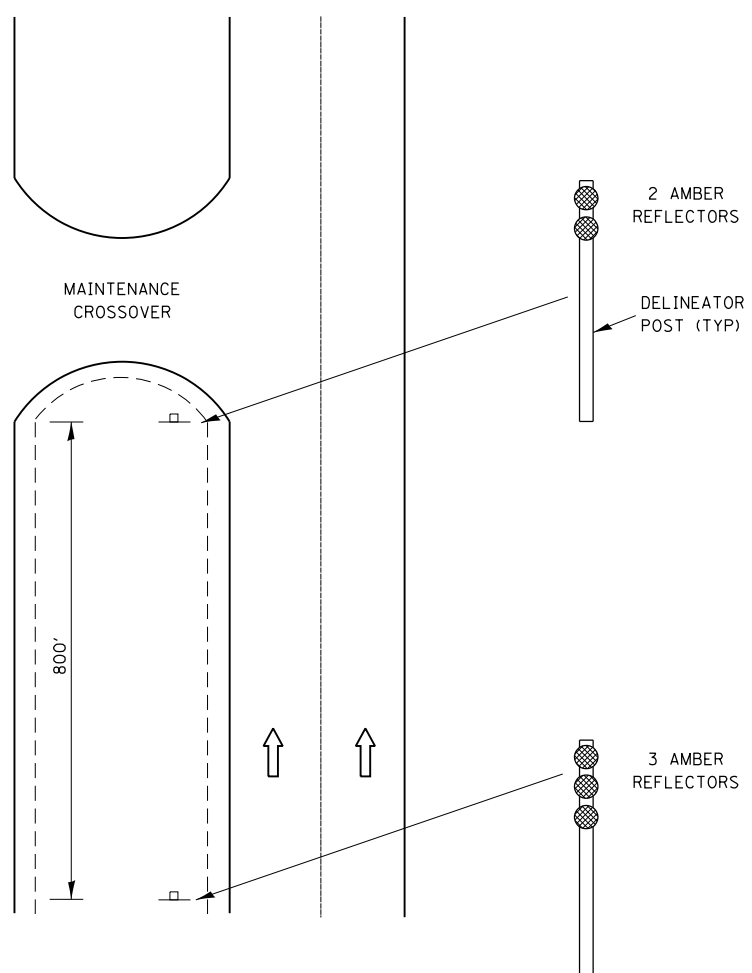
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	PLOT TIME = 7:18:41 PM	DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

#### MISC DETAILS

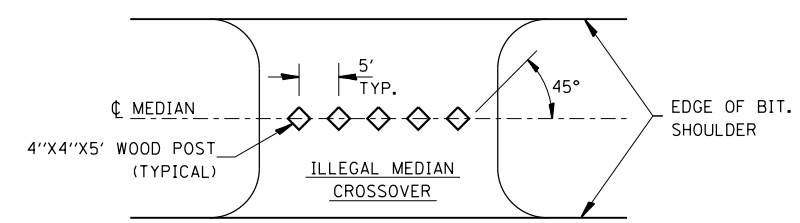
SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4	BUREAU	133	99
CONTRACT NO. 66998				
ILLINOIS FED. AID PROJECT				

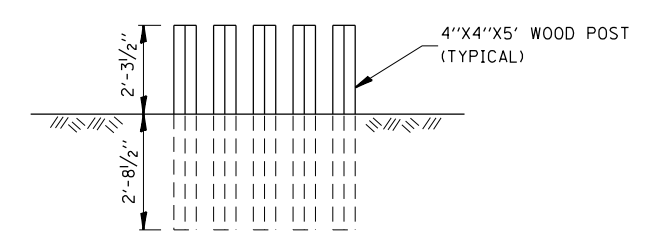


**DELINEATION FOR MAINTENANCE CROSSOVER (TYPICAL FOR BOTH DIRECTIONS)**

**635-2**



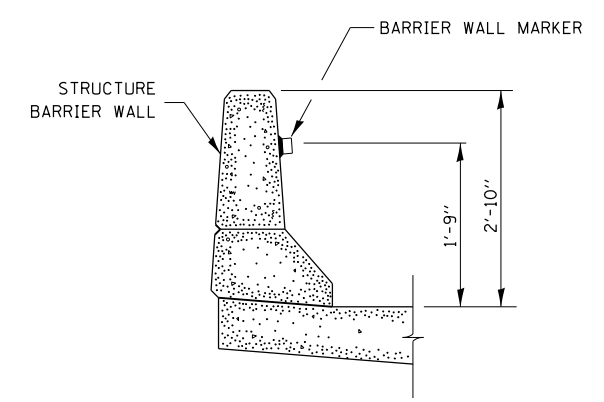
**PLAN**



**ELEVATION**

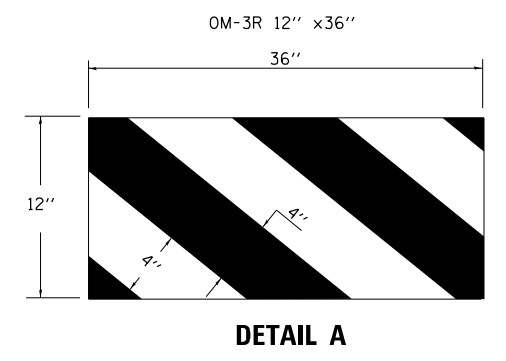
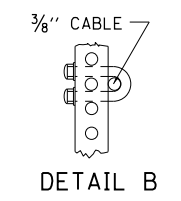
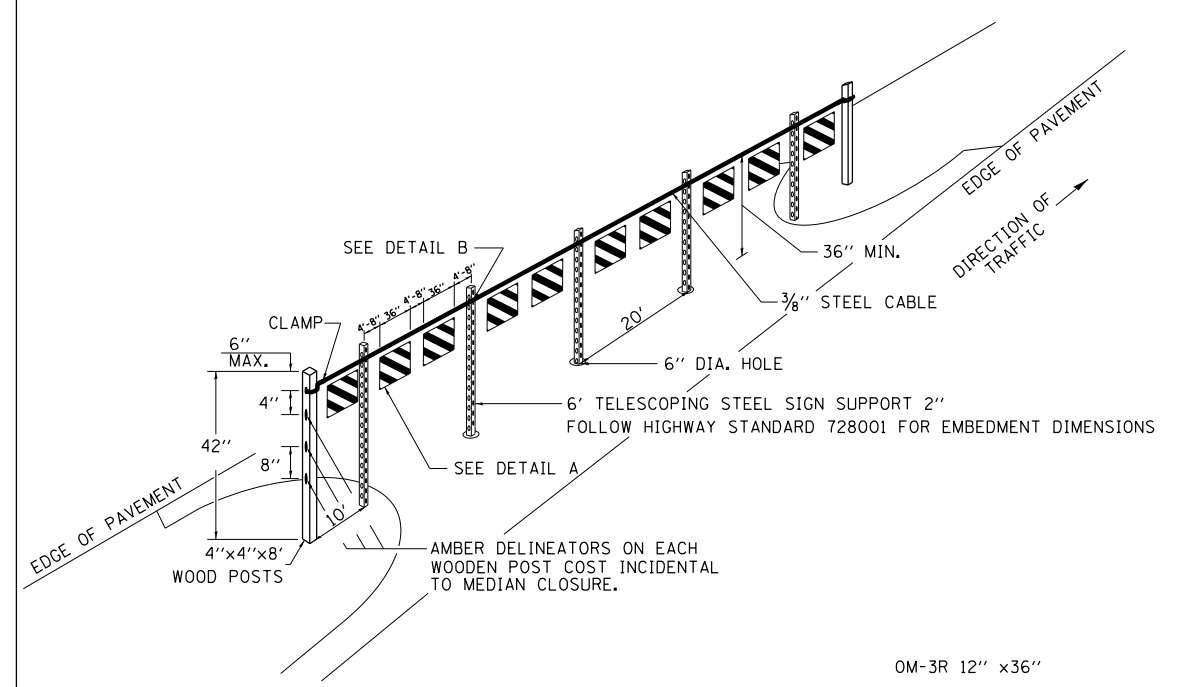
**WOOD POST DETAIL**

**634-1**



**BARRIER WALL MARKER**

**782-4**



**GENERAL NOTES**

WOOD POSTS, CABLE, AND SIGN SUPPORTS SHALL BE IN ACCORDANCE WITH SECTION 634 & 636 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. THE PANELS SHALL BE ANCHORED TO THE 3/8" CABLE IN SUCH A MANNER SO THEY CANNOT SLIDE ALONG THE CABLE.

THE REFLECTIVE SHEETING USED FOR THE PANELS SHALL MEET THE REQUIREMENTS OF ARTICLE 1084.02 OF THE STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION AND SHALL BE ON BOTH SIDES.

ALL PANELS SHALL HAVE ALTERNATING REFLECTORIZED WHITE & RED STRIPES SLOPING DOWNWARD AT 45° TOWARD THE SIDE ON WHICH TRAFFIC WILL PASS AND ON BOTH SIDES OF PANEL. THE CORING OF 6" DIA. HOLES SHALL BE INCIDENTAL TO THE MEDIAN CLOSURE.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE LUMP SUM FOR MEDIAN CLOSURE.

**DETAIL 636-2 TYPICAL MEDIAN CROSSOVER CLOSURE**

FILE NAME = D366998-sht-detail misc2.dgn	USER NAME = brianheil	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/30/2013	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MISC DETAILS**

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	(06-2) BR-3,4		133	100
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 66998	