

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

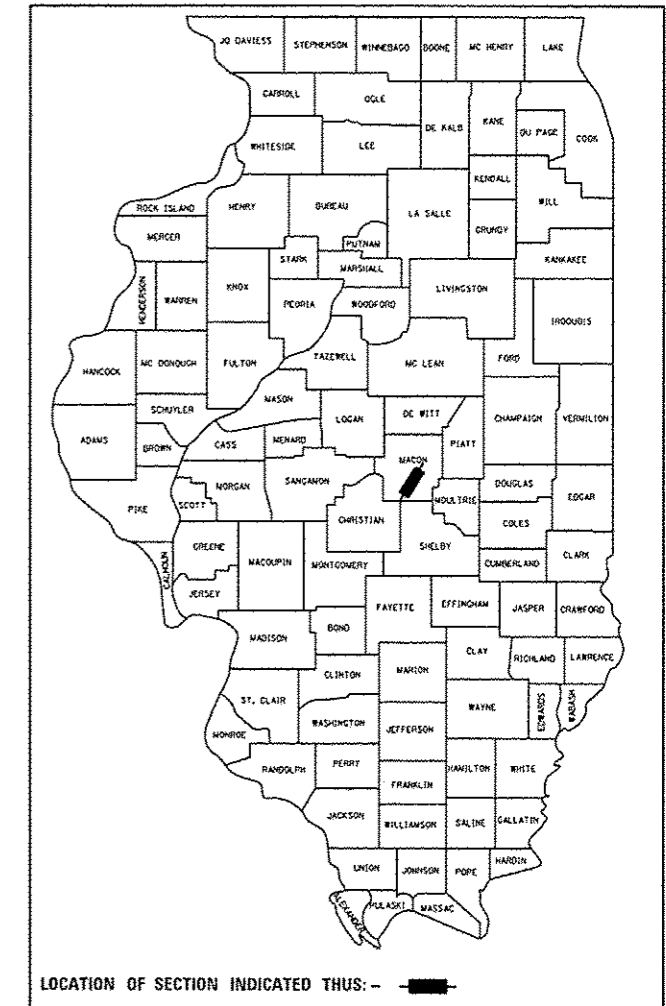
F.A.P. ROUTE 710 (IL 105)
SECTION (48X-B-2)BR & (48BR)BR

BRIDGE REHABILITATION
MACON COUNTY

C-97-041-10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	1
ILLINOIS			CONTRACT NO. 74438	

D-97-018-10



FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET 4

OTHER PRINCIPAL ARTERIAL
ADT = 14,760 (2011) NB
ADT = 14,350 (2011) SB

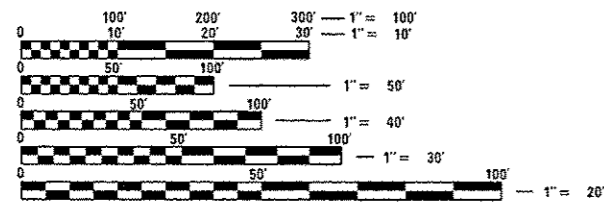
PROPOSED IMPROVEMENT ENDS
STA. 661 + 51.35 (SB)
STA. 660 + 97.71 (NB)

PROPOSED IMPROVEMENT BEGINS
STA. 650 + 36.40 (NB)
STA. 650 + 73.29 (SB)

PROPOSED DECK REPLACEMENT
SN 058-0049 (SB)
STATION 655 + 79.10
476'-6" B-B APPROACH BENTS
32'-0" REINF. CONC. DECK
SKEW = 0 DEGREES

PROPOSED DECK REPLACEMENT
SN 058-0010 (NB)
STATION 655 + 79.10
530'-0" B-B APPROACH BENTS
31'-6" REINF. CONC. DECK
SKEW = 0 DEGREES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED June 25 20 14
Roman C. Oriskany
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Aug 15 20 14
John D. Baranzelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
Aug 15 20 14
Ormer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

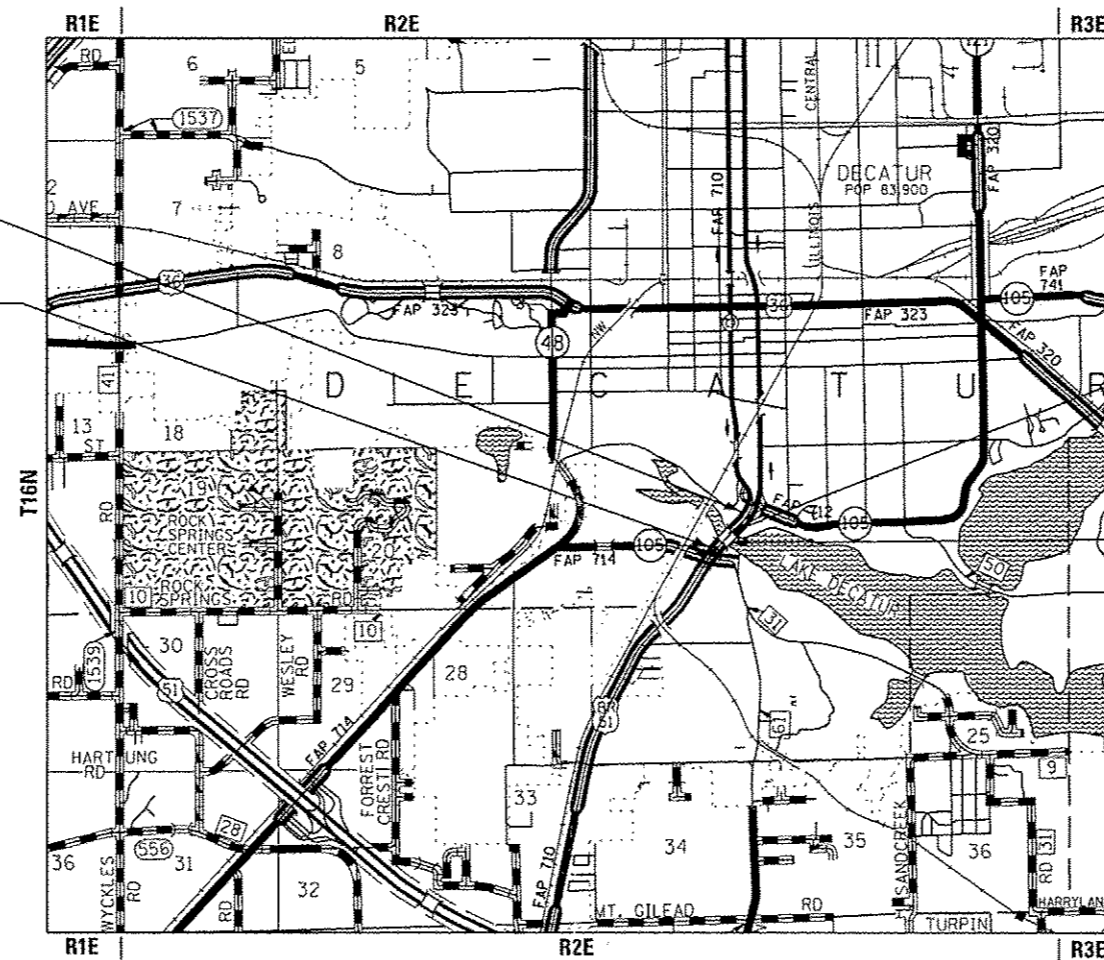


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: TOM ROMAN
DISTRICT 7 PHONE: (217) 342-8320

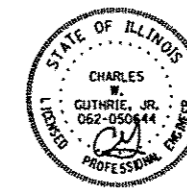
CONTRACT NO. 74438



LOCATION MAP



GROSS LENGTH = 1114.9 FT. = 0.211 MILE
NET LENGTH = 1114.9 FT. = 0.211 MILE



BLANK, WESSELINK, COOK & ASSOCIATES
ENGINEERS - CONSULTANTS
DECATUR, ILLINOIS

Charles W. Guthrie, Jr.
CHARLES W. GUTHRIE, JR., P.E.
DATE June 19 20 14
EXPIRES NOVEMBER 30, 2015

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OF THE STATE OF ILLINOIS

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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
420601-05	24' PCC PAVEMENT
420701-02	PAVEMENT FABRIC
442201-03	CLASS C AND D PATCHES
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
542311-05	TRAVERSABLE PIPE GRATE
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
602301-04	INLET - TYPE A
602401-03	MANHOLE TYPE A
602601-03	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-03	FRAME AND LIDS TYPE 1
604006-04	FRAME AND GRATE TYPE 3
604036-02	GRATE TYPE 8
606001-05	COMBINATION CURB TYPE B AND COMBINATION CURB AND GUTTER
606401-01	PAVED DITCH
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
631026-05	TRAFFIC BARRIER TERMINAL, TYPE 5
631031-12	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
667101-02	PERMANENT SURVEY MARKERS
701101-04	OFF-RD OPERATIONS, MULTILANE, 15' TO 24' FROM EDGE OF PAVEMENT
701427-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701901-03	TRAFFIC CONTROL DEVICES
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
821101	LUMINAIRE WIRING DIAGRAM
830001-02	LIGHT POLE ALUMINUM MAST ARM

FILE NAME #	USER NAME # USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	#FILE#	DRAWN -	REVISED -				710	(48X-6-2)BR & (48BR)BR	MACON	144	2
	PLOT SCALE # SCALE#	CHECKED -	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
	PLOT DATE # DATE#	DATE -	REVISED -						CONTRACT NO. 74438		

GENERAL NOTES

1. THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2012; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" INDICATED ON THE CHECK SHEET, AND "THE SPECIAL PROVISIONS" INCLUDED IN THE PROPOSAL.
2. THE WORK INCLUDED IN THIS SECTION CONSISTS OF DECK REPLACEMENT FOR SN 058-0010 AND DECK REPLACEMENT, BACKWALL REPLACEMENT, AND ABUTMENT BEARING REPLACEMENT FOR SN 058-0049. TEMPORARY Crossovers WILL BE UTILIZED TO DIVERT TRAFFIC DURING CONSTRUCTION.
3. PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO THE CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
4. ALL ELEVATIONS SHOWN IN PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)
5. THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 96 HOURS ADVANCE NOTICE THROUGH THE J.U.L.J.E. SYSTEM BY CALLING 800-892-0123
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING SIGNS OR REMOVING SIGNS AND REPLACING THEM AFTER THE CONSTRUCTION IS COMPLETE, AS DIRECTED BY THE ENGINEER. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL ITEMS.
7. THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE BITUMINOUS PLANT'S QUALITY CONTROL LAB SO THAT BITUMINOUS REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL BITUMINOUS ITEMS.
8. THE FOLLOWING HOT MIX ASPHALT MIXTURE REQUIREMENTS APPLICABLE TO THIS PROJECT:
 LOCATION(S): FINAL ROADWAY SURFACE
 MIXTURE USE(S): SURFACE MIX (1 1/2")
 APPLICATION: POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90
 AC/PG: SBS PG 70-22
 DESIGN AIR VOIDS: 4.0% @ NDES=90
 MIX COMP: (GRADATION) IL 9.5
 FRICTION AGGREGATE: MIX "D"

 LOCATION(S):
 MIXTURE USE(S): CLASS D PATCHING
 APPLICATION: HOT-MIX ASPHALT BINDER COURSE IL-19.0 N90
 AC/PG: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDES=90
 MIX COMP: (GRADATION) IL 19.0
 FRICTION AGGREGATE: N/A
9. THE RESIDENT ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE CURING TIME FOR THE VARIOUS HOT-MIX ASPHALT LIFTS.
10. THE RESIDENT ENGINEER SHALL CONTACT RANDY ALWARDT, DISTRICT 7 CHIEF OF SURVEYS, AT 217-342-8318 TO GET LOCATIONS FOR THE PERMANENT SURVEY MARKERS, TYPE II.
11. THE PAY ITEM TEMPORARY RAMP HAS BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY RAMPS IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST SHALL INCLUDE BOTH THE INSTALLATION AND THE REMOVAL OF THE TEMPORARY RAMPS.

GENERAL NOTES (Cont' d)

12. A UNIFORMLY STRAIGHT SAW CUT SHALL BE MADE AT LOCATIONS WHERE PROPOSED NEW CONSTRUCTION WILL ABUT EXISTING HOT-MIX ASPHALT SURFACES. THE SAW CUT SHALL BE MADE FULL DEPTH THROUGH THE EXISTING SURFACE. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT ITEMS INVOLVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.
13. PIPE DRAINS ARE INCLUDED TO EXTEND ABUTMENT DRAINS TO TOE OF THE SLOPE. ALL WORK NECESSARY TO ATTACH ONTO THE ABUTMENT DRAIN PIPE, TRENCHING AND INSTALLING THE PIPE INTO THE HEADWALLS WILL BE INCLUDED IN THE PAY ITEM PIPE UNDERDRAINS FOR STRUCTURES 4".
14. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING PLAN QUANTITIES:
 AGGREGATE SHOULDERS 2.05 TONS/CU YD
 BITUMINOUS (PRIME COAT) 0.05 LB/50 FT
 HOT-MIX ASPHALT 112 LBS/50 YD/INCH
15. UNLESS OTHERWISE NOTED, STATION AND OFFSET CALLOUTS ARE FROM THE NORTHBOUND ALIGNMENT OF IL 105.
16. AGGREGATE BASE COURSE(S) SHALL BE CRUSHED STONE.
17. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEED. SEEDING SHALL BE CLASS 2A IN ACCORDANCE WITH THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. THE FOLLOWING APPLICATION RATE SHALL BE USED FOR THE VARIOUS ITEMS NECESSARY FOR SEEDING.
 NITROGEN FERTILIZER NUTRIENTS - 90 LB/ACRE
 PHOSPHORUS FERTILIZER NUTRIENTS - 90 LB/ACRE
 POTASSIUM FERTILIZER NUTRIENTS - 90 LB/ACRE
 AGRICULTURAL GROUND LIMESTONE - 2 TONS/ACRE
18. PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SECTION 780 OF THE STANDARD SPECIFICATIONS. SHORT TERM PAVEMENT MARKING SHALL BE APPLIED TO THE MILLED SURFACE. BITUMINOUS MATERIALS (PRIME COAT), HOT-MIX ASPHALT BINDER, AND HOT-MIX ASPHALT SURFACE COURSE AS SPECIFIED IN SECTION 703 OF THE STANDARD SPECIFICATIONS. TEMPORARY TAPE SHALL BE USED ON THE SURFACE COURSE AND PAINT SHALL BE USED ON MILLED SURFACES.
 THE TOTAL QUANTITY OF EPOXY PAVEMENT MARKING-LINE 4" CONSISTS OF 1,384 FEET OF YELLOW AND 1,734 FEET OF WHITE.
19. THE RESIDENT ENGINEER SHALL CONTACT THE DISTRICT 7 CHIEF OF SURVEYS TO GET THE LOCATION OF WHERE TO INSTALL THE PERMANENT SURVEY MARKERS.
20. THE PAY ITEM "RAISED REFLECTIVE PAVEMENT MARKER REMOVAL" IS INCLUDED IN THE PLANS FOR THE PURPOSE OF REMOVING MARKERS THAT CONFLICT WITH THE STAGE CONSTRUCTION TRAFFIC MARKING.
21. THERE ARE NO COMMITMENTS FOR THIS PROJECT.

FILE NAME = c:\p-work\p\p\dot\stefeffenk\20171546\07	USER NAME = stefeffenk	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	4438-ant-gmnotax.dgn	DRAWN -	REVISED -			710	148X-B-21BR & 148BR1BR	MACON	144	3
Default	PLOT SCALE = 180.0000' / 1" =	CHECKED -	REVISED -	SCALE: N/A	SHEET 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 74438		
	PLOT DATE = 7/9/2014	DATE -	REVISED -							

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
20200100	EARTH EXCAVATION	CU YD	1110	1110	
20800150	TRENCH BACKFILL	CU YD	418	39	379
25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	68	68	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	68	68	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	68	68	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	2	2	
25100115	MULCH, METHOD 2	ACRE	0.75	0.75	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	225	225	
28000305	TEMPORARY DITCH CHECKS	FOOT	66	66	
28000400	PERIMETER EROSION BARRIER	FOOT	374	374	
28000500	INLET AND PIPE PROTECTION	EACH	21	21	
28100809	STONE DUMPED RIPRAP, CLASS A5	TON	15		15
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	1036	1036	

URBAN

URBAN

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
35400540	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 14"	SQ YD	87	87	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	485	485	
40600990	TEMPORARY RAMP	SQ YD	122	122	
40603545	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N90	TON	96	96	
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	1481	1481	
44000100	PAVEMENT REMOVAL	SQ YD	1481	1481	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1512	1512	
44004000	PAVED DITCH REMOVAL	FOOT	615	615	
44201827	CLASS D PATCHES, TYPE II, 15 INCH	SQ YD	102	102	
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SQ YD	20	20	
44201833	CLASS D PATCHES, TYPE IV, 15 INCH	SQ YD	87		87
44213100	PAVEMENT FABRIC	SQ YD	1481	1481	
50102400	CONCRETE REMOVAL	CU YD	220.6	220.6	

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	URBAN 0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
50104701	REMOVAL OF EXISTING CONCRETE DECK NO. 1	EACH	1	1	
50104702	REMOVAL OF EXISTING CONCRETE DECK NO. 2	EACH	1	1	
50200100	STRUCTURE EXCAVATION	CU YD	92	92	
50300100	FLOOR DRAINS	EACH	116	116	
50300225	CONCRETE STRUCTURES	CU YD	46.2	46.2	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1401.2	1401.2	
50300260	BRIDGE DECK GROOVING	SQ YD	3238	3238	
50300300	PROTECTIVE COAT	SQ YD	4635	4635	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	5854	5854	
50500505	STUD SHEAR CONNECTORS	EACH	6681	6681	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	334,665	334,665	
50900105	ALUMINUM RAILING, TYPE L	FOOT	507	507	
51500100	NAME PLATES	EACH	2	2	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	72	72	

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		
			TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	URBAN 0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
CODE NO	ITEM	UNIT			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	9	9	
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	4	4	
52100030	ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	5	5	
52100505	ANCHOR BOLTS, 5/8"	EACH	40	40	
52100520	ANCHOR BOLTS, 1"	EACH	32	32	
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1		1
5421A024	PIPE CULVERTS, CLASS A, TYPE 1 24" (TEMPORARY)	FOOT	172	172	
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	180		180
550A0410	STORM SEWERS, CLASS A, TYPE 2 24"	FOOT	169		169
550A0710	STORM SEWERS, CLASS A, TYPE 3 24"	FOOT	110		110
58700300	CONCRETE SEALER	SQ FT	1206	1206	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	49	49	
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	2	2	

URBAN

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	0044 DRAINAGE SYSTEM 100% CITY OF DECATUR	
60221100	MANHOLES, TYPE A, 5' -DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	5		5	
60238800	INLETS, TYPE A	EACH	3		3	
60256400	MANHOLES TO BE ADJUSTED WITH NEW TYPE 8 GRATE	EACH	2	2		
60260100	INLETS TO BE ADJUSTED	EACH	3	3		
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1512	1512		
60616120	PAVED DITCH, TYPE A-37	FOOT	615	615		
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	300	300		
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1	1		
* 63100070	TRAFFIC BARRIER TERMINAL, TYPE 5	EACH	1	1		
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	5	5		
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2		
63200310	GUARDRAIL REMOVAL	FOOT	259	259		

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* SPECIALTY ITEMS

URBAN

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
66700305	PERMANENT SURVEY MARKERS, TYPE II	EACH	2	2	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18	
67100100	MOBILIZATION	L SUM	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	140	140	
70300220	TEMPORARY PAVEMENT MARKING LINE 4"	FOOT	3118	3118	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	50 FT	4006	4006	
70600240	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	EACH	2	2	
70600340	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 2	EACH	1	1	
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3118	3118	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	5	5	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	13	13	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8	

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* SPECIALTY ITEMS

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	URBAN 0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
* 78200420	GUARDRAIL MARKERS, TYPE B	EACH	24	24	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	3	3	
78300100	PAVEMENT MARKING REMOVAL	SO FT	1154	1154	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	4	4	
* 81100400	CONDUIT ATTACHED TO STRUCTURE, 1 1/4" DIA., GALVANIZED STEEL	FOOT	818	818	
* 81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	70	70	
* 81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	77	77	
* 81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	11	11	
* 81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	1	1	
* 81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	231	231	
* 81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	2850	2850	
* 82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	7	7	

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SUMMARY OF QUANTITIES			URBAN CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
* 83007400	LIGHT POLE, ALUMINUM, 35 FT. M.H., 10 FT. MAST ARM	EACH	7	7	
* 84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	7	7	
* X0323710	REMOVE CONDUIT ATTACHED TO STRUCTURE	FOOT	1729	1729	
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	1079	1079	
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	91	91	
X6026200	INLETS TO BE ADJUSTED (SPECIAL)	EACH	5	5	
X6028000	MANHOLES TO BE RECONSTRUCTED (SPECIAL)	EACH	1		1
X6640304	CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED	FOOT	20		20
X7010228	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601, SPECIAL	L SUM	1	1	
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28	28	
X7810400	TEMPORARY RAISED PAVEMENT MARKER	EACH	171	171	
* X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	3118	3118	
* X8110455	CONDUIT ATTACHED TO STRUCTURE, 1 1/4" DIA., STAINLESS STEEL	FOOT	132	132	
* X8950130	MODIFY EXISTING LIGHTING CONTROLLER	EACH	1	1	

SUMMARY OF QUANTITIES			URBAN CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	STATE URBAN FOUR-LANE ROADWAY 100% STATE 0014	0044 DRAINAGE SYSTEM 100% CITY OF DECATUR
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	18	18	
Z0001905	STRUCTURAL STEEL REPAIR	POUND	11920	11920	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	298	298	
Z0005010	HOT-MIX ASPHALT FOR PATCHING POTHOLE (COLD MIX)	TON	6	6	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0018801	DRAINAGE SYSTEM, NO. 1	EACH	1		1
Z0018802	DRAINAGE SYSTEM, NO. 2	EACH	1		1
Z0034390	MODULAR EXPANSION JOINT 6"	FOOT	72	72	
Z0038700	PERMANENT BENCH MARKS	EACH	2	2	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	161	161	
Z0049790	RELOCATING NAME PLATES	EACH	2	2	

* SPECIALTY ITEM

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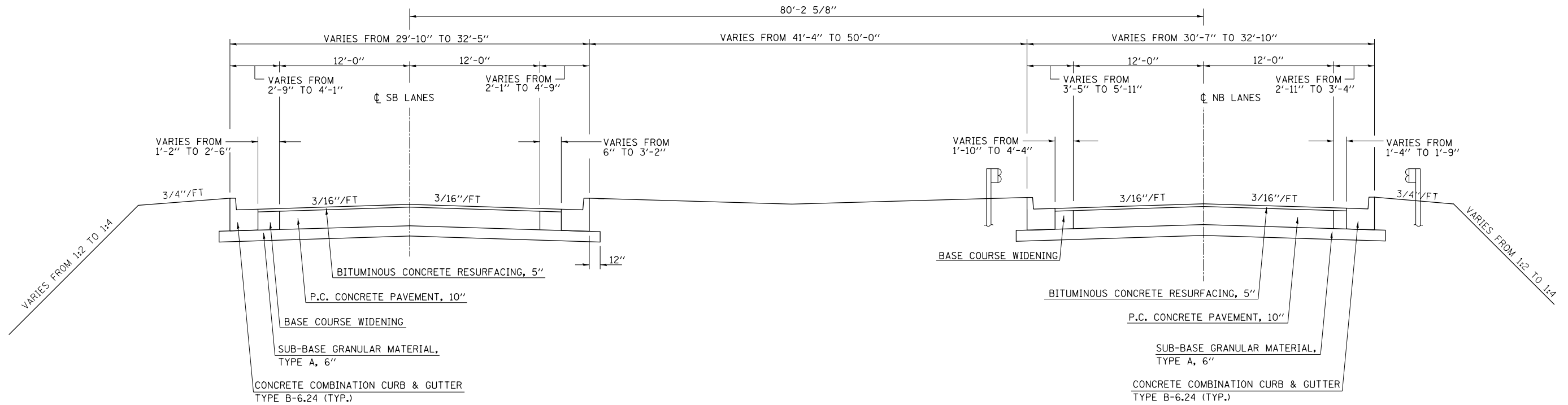
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

F.A.P. RIE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	148X-B-21BR & 148BR1BR	MACON	144	11
SCALE: N/A			SHEET 8 OF 8 SHEETS	STA. TO STA.
ILLINOIS FED. AID PROJECT CONTRACT NO. 7443B				

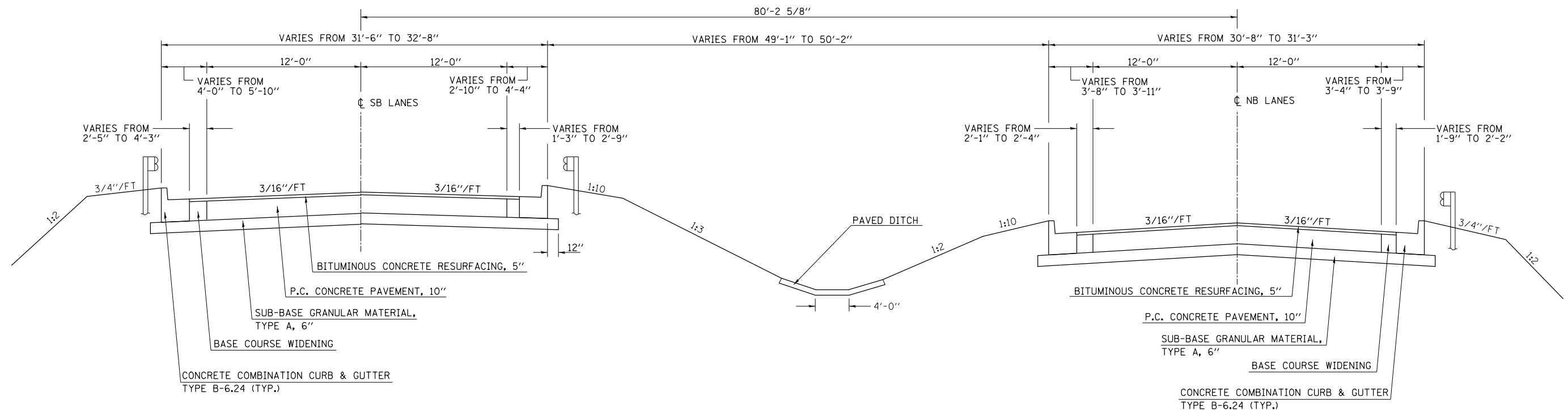
EXISTING TYPICAL CROSS SECTION

STA. 650 + 36.40 TO STA. 653 + 14.10 (NB)
 STA. 650 + 73.29 TO STA. 653 + 40.85 (SB)




EXISTING TYPICAL CROSS SECTION

STA. 658 + 44.10 TO STA. 660 + 97.71 (NB)
 STA. 658 + 17.35 TO STA. 661 + 51.35 (SB)



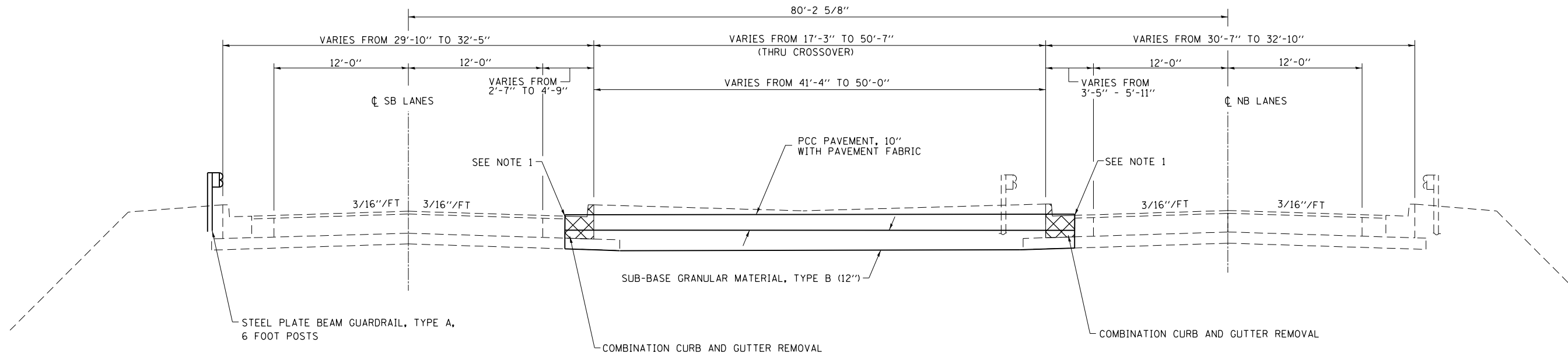
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.	710	(48X-B-2)BR & (48BR)BR	MACON	144	12
		CHECKED -	REVISED -		CONTRACT NO. 74438								
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								


LEGEND
 COMBINATION CURB AND GUTTER REMOVAL

PROPOSED TYPICAL CROSS SECTION W/CROSSOVER

STA. 650 + 36.40 TO STA. 653 + 14.10 (NB)
 STA. 650 + 73.29 TO STA. 653 + 40.85 (SB)

- NOTES:
1. THE PROPOSED EDGE OF PAVEMENT SHALL MATCH THE EXISTING EDGE OF PAVEMENT AT STA. 652+00.00 (NB) AND STA. 652+50.00 (SB)
 2. CROSSOVER FROM STA. 650+36.44 TO STA. 652+57.70 (NB) AND FROM STA. 650+73.30 TO STA. 652+77.95 (SB)

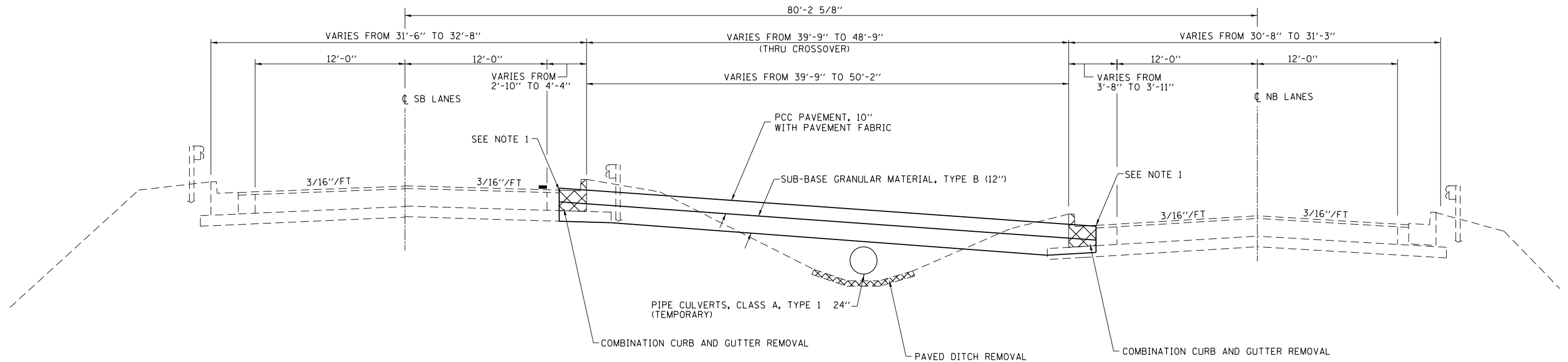


LEGEND
 COMBINATION CURB AND GUTTER REMOVAL

PROPOSED TYPICAL CROSS SECTION W/CROSSOVER

STA. 658 + 44.10 TO STA. 660 + 97.71 (NB)
 STA. 658 + 17.35 TO STA. 661 + 51.35 (SB)

- NOTE:
1. THE PROPOSED EDGE OF PAVEMENT SHALL MATCH THE EXISTING EDGE OF PAVEMENT AT STA. 658+80.34 (NB) AND STA. 659+54.20 (SB)
 2. CROSSOVER FROM STA. 658+57.11 TO STA. 660+93.70 (NB) AND FROM STA. 658+74.74 TO STA. 661+59.22 (SB)





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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS	
SCALE:	SHEET NO. 2 OF 3 SHEETS
STA.	TO STA.

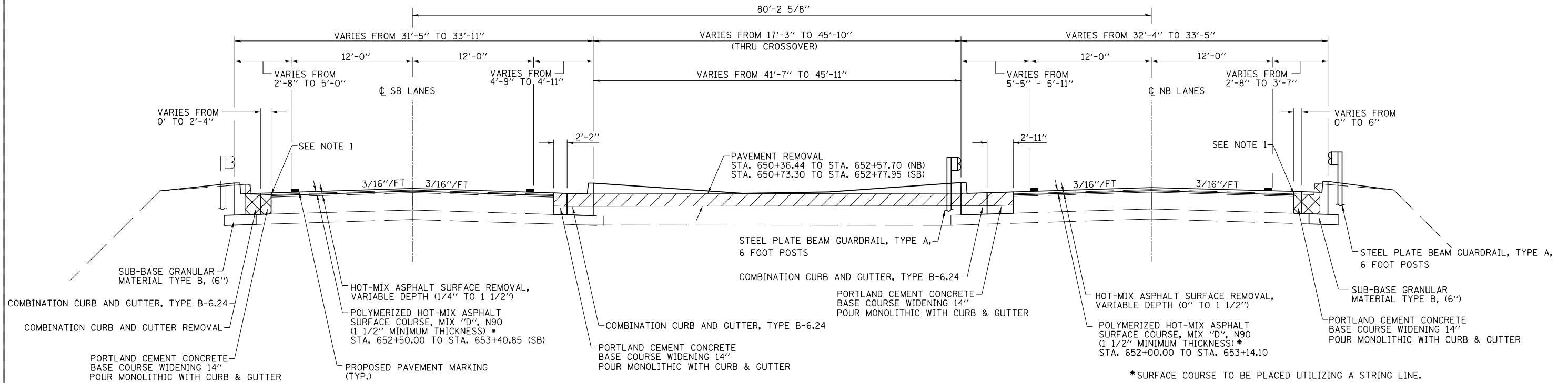
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	13
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



	COMBINATION CURB AND GUTTER REMOVAL
	PAVEMENT REMOVAL

PROPOSED TYPICAL CROSS SECTION (FINAL)

STA. 650 + 36.40 TO STA. 653 + 14.10 (NB)
 STA. 650 + 73.29 TO STA. 653 + 40.85 (SB)

NOTE:
 1. THE PROPOSED EDGE OF PAVEMENT SHALL MATCH THE EXISTING EDGE OF PAVEMENT AT STA. 652+00.00 (NB) AND STA. 652+50.00 (SB)

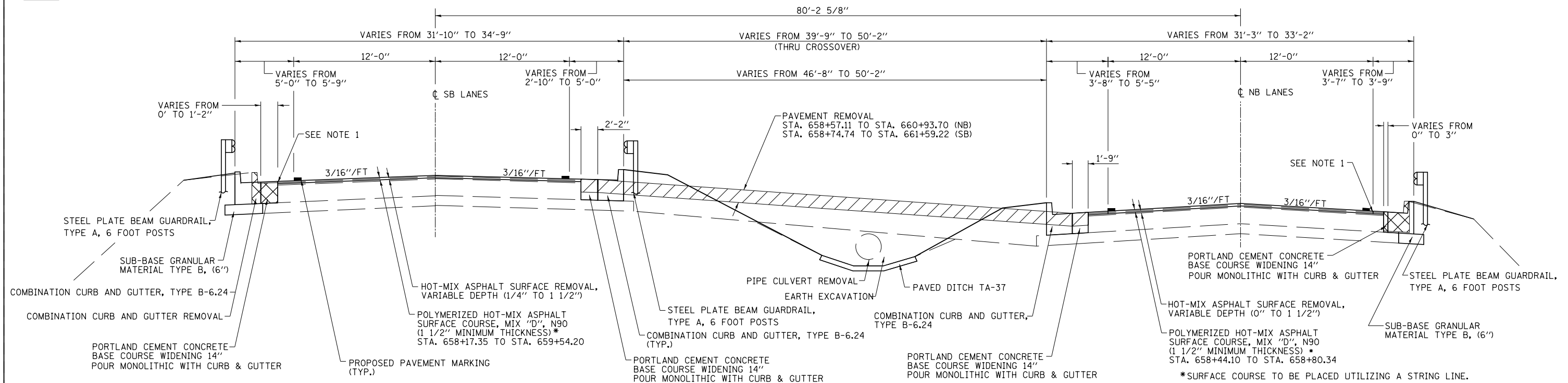


	COMBINATION CURB AND GUTTER REMOVAL
	PAVEMENT REMOVAL

PROPOSED TYPICAL CROSS SECTION (FINAL)

STA. 658 + 44.10 TO STA. 660 + 97.71 (NB)
 STA. 658 + 17.35 TO STA. 661 + 51.35 (SB)

NOTE:
 1. THE PROPOSED EDGE OF PAVEMENT SHALL MATCH THE EXISTING EDGE OF PAVEMENT AT STA. 658+80.34 (NB) AND STA. 659+54.20 (SB)



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS	
SCALE:	SHEET NO. 3 OF 3 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	14
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

EXIST. CURVE SBC1
 PI STA. = 642+09.31
 $\Delta = 15^\circ 45' 00''$ (RT)
 $D = 1^\circ 36' 19''$
 $R = 3,569.13'$
 $T = 493.67'$
 $L = 981.11'$
 $E = 33.98'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. \text{ RUN} = \text{-----}$
 P.C. STA. = 637+15.64
 P.T. STA. = 646+96.75

EXIST. CURVE SBC2
 PI STA. = 667+33.51
 $\Delta = 80^\circ 58' 21''$ (LT)
 $D = 8^\circ 08' 59''$
 $R = 703.05'$
 $T = 600.17'$
 $L = 993.58'$
 $E = 221.33'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. \text{ RUN} = \text{-----}$
 P.C. STA. = 661+33.34
 P.T. STA. = 671+26.91

EXIST. CURVE NBC1
 PI STA. = 640+14.20
 $\Delta = 15^\circ 38' 13''$ (RT)
 $D = 1^\circ 21' 46''$
 $R = 4,204.38'$
 $T = 577.31'$
 $L = 1,147.44'$
 $E = 39.45'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. \text{ RUN} = \text{-----}$
 P.C. STA. = 634+36.89
 P.T. STA. = 645+84.33

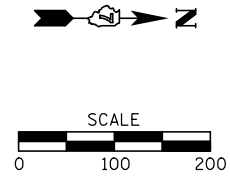
EXIST. CURVE NBC1
 PI STA. = 665+83.55
 $\Delta = 42^\circ 37' 12''$ (LT)
 $D = 3^\circ 28' 21''$
 $R = 1,649.97'$
 $T = 643.63'$
 $L = 1,227.35'$
 $E = 121.09'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. \text{ RUN} = \text{-----}$
 P.C. STA. = 659+39.92
 P.T. STA. = 671+67.26

BM# 1 = BRASS PLUG ON SE CORNER OF WINGWALL,
 N.B. SN 058-0008 OVER IL 105
 STA. 664+18.36
 O/S = 21.98' RT
 EL. = 640.565

BM# 2 = CHISELED "X" IN TOP FLANGE BOLT NEXT TO "M" IN
 MUELLER ON FIRE HYDRANT AT NORTHEAST CORNER OF
 1ST DRIVE & IL 105
 STA. 665+83.55
 O/S = 21.98' RT
 EL. = 629.800

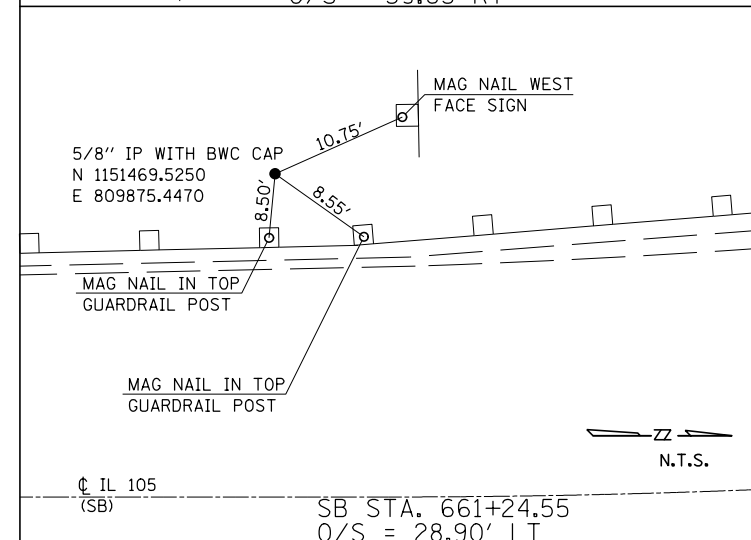
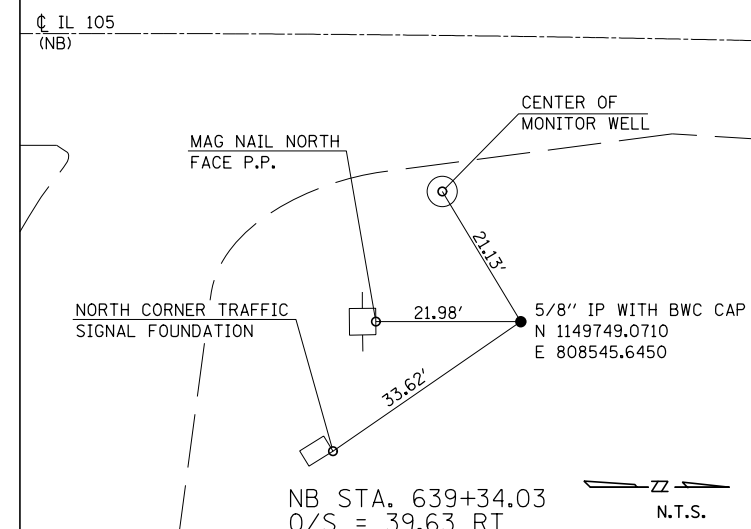
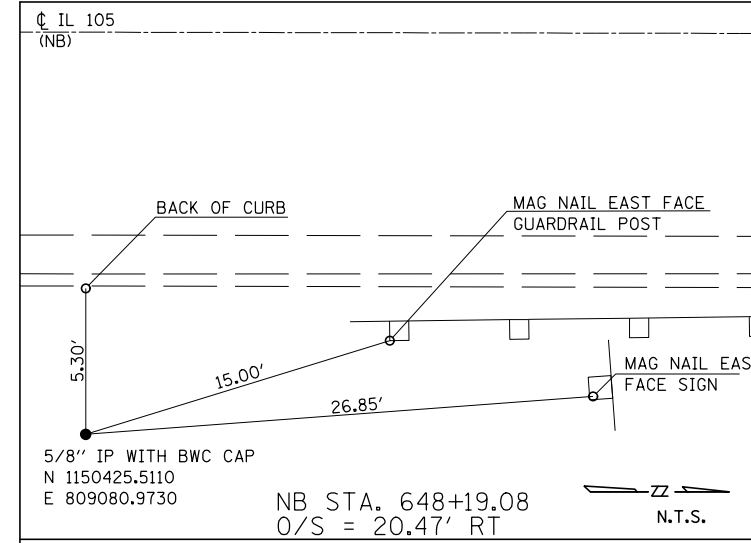
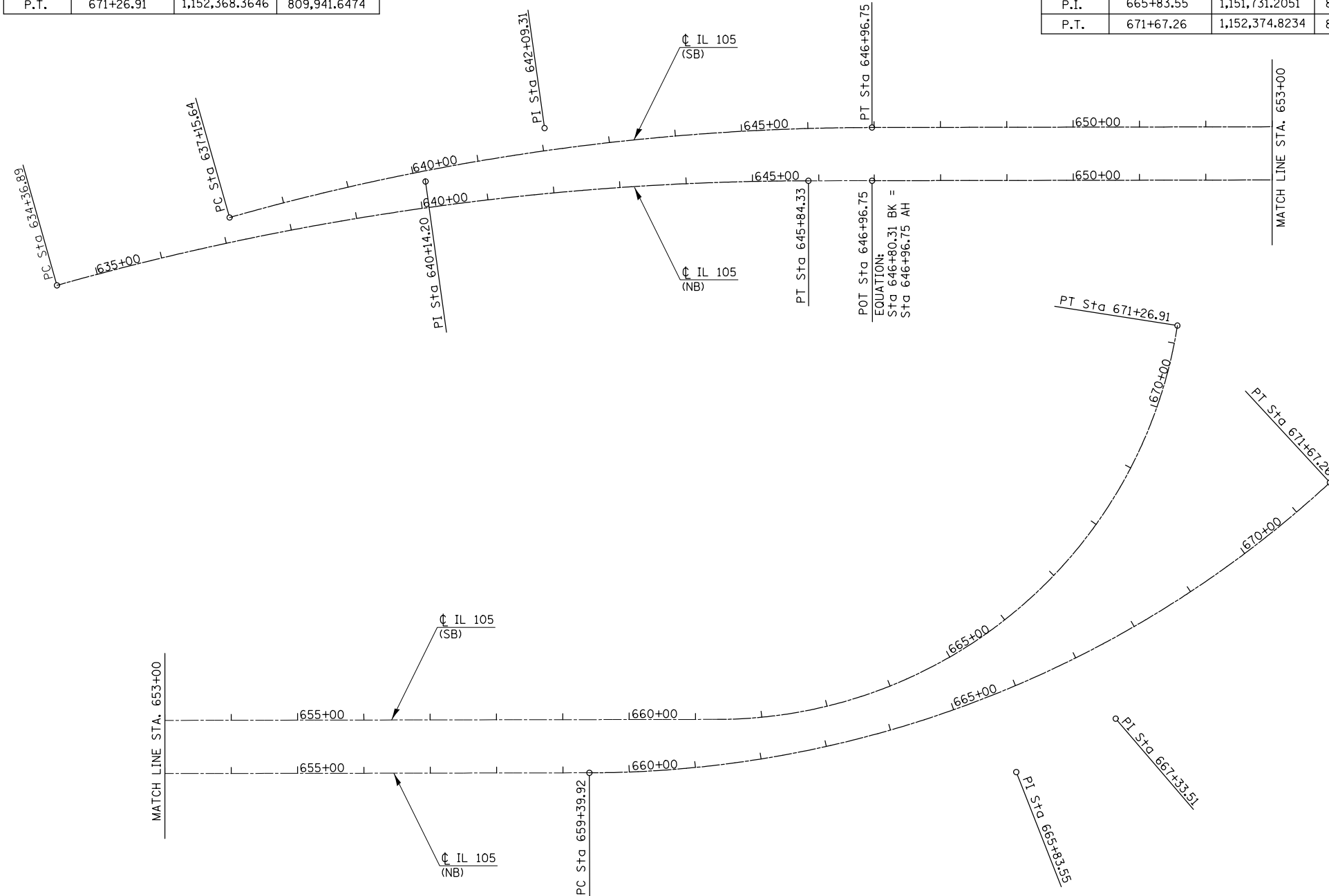
BM# SLDG = CHISELED "□" ON NORTHEAST LEDGE OF CONCRETE
 SLOPEWALL AT SOUTH ABUTMENT OF NORTHBOUND LANES
 STA. 664+18.36
 O/S = 21.98' RT
 EL. = 614.055

BM# NLDG = CHISELED "□" ON SOUTHEAST LEDGE OF CONCRETE
 SLOPEWALL AT NORTH ABUTMENT OF NORTHBOUND LANES
 STA. 664+18.36
 O/S = 21.98' RT
 EL. = 614.065



SB LANES	STATION (FEET)	NORTHING (FEET)	EASTING (FEET)
P.C.	637+15.64	1,149,604.0369	808,362.1054
P.I.	642+09.31	1,150,043.1602	808,587.6729
P.T.	646+96.75	1,150,404.5686	808,923.9674
P.C.	661+33.34	1,151,456.2684	809,902.5856
P.I.	667+33.51	1,151,895.6436	810,311.4291
P.T.	671+26.91	1,152,368.3646	809,941.6474

NB LANES	STATION (FEET)	NORTHING (FEET)	EASTING (FEET)
P.C.	634+36.89	1,149,344.0077	808,259.2391
P.I.	640+14.20	1,149,857.0075	808,524.0359
P.T.	645+84.33	1,150,279.6471	808,917.3067
P.O.T.	646+96.75	1,150,349.9102	808,982.6873
P.C.	659+39.92	1,151,260.0145	809,829.5494
P.I.	665+83.55	1,151,731.2051	810,267.9974
P.T.	671+67.26	1,152,374.8234	810,271.5754



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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HORIZONTAL ALIGNMENT, BENCHMARKS & SURVEY TIES

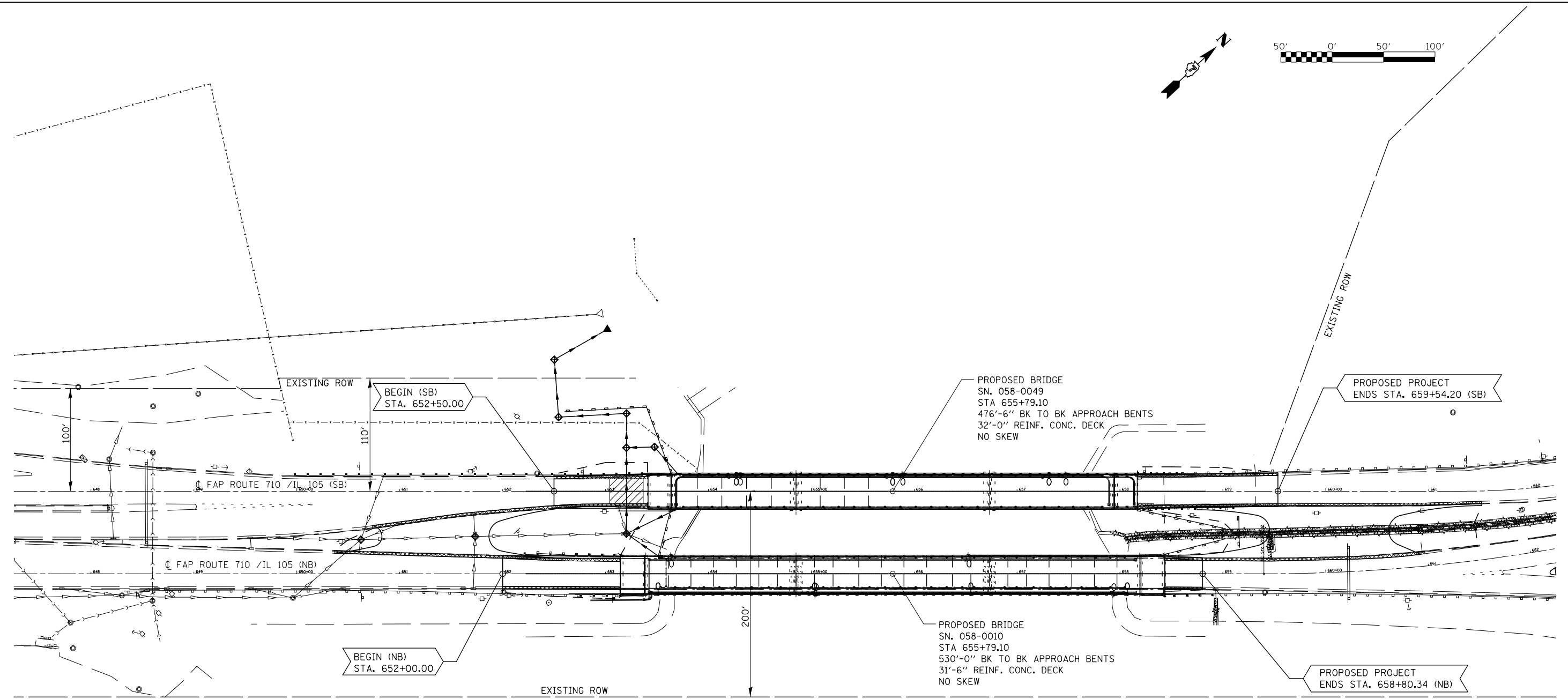
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	17
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK	
	NO.	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK	
	NO.	
	FILE NAME	



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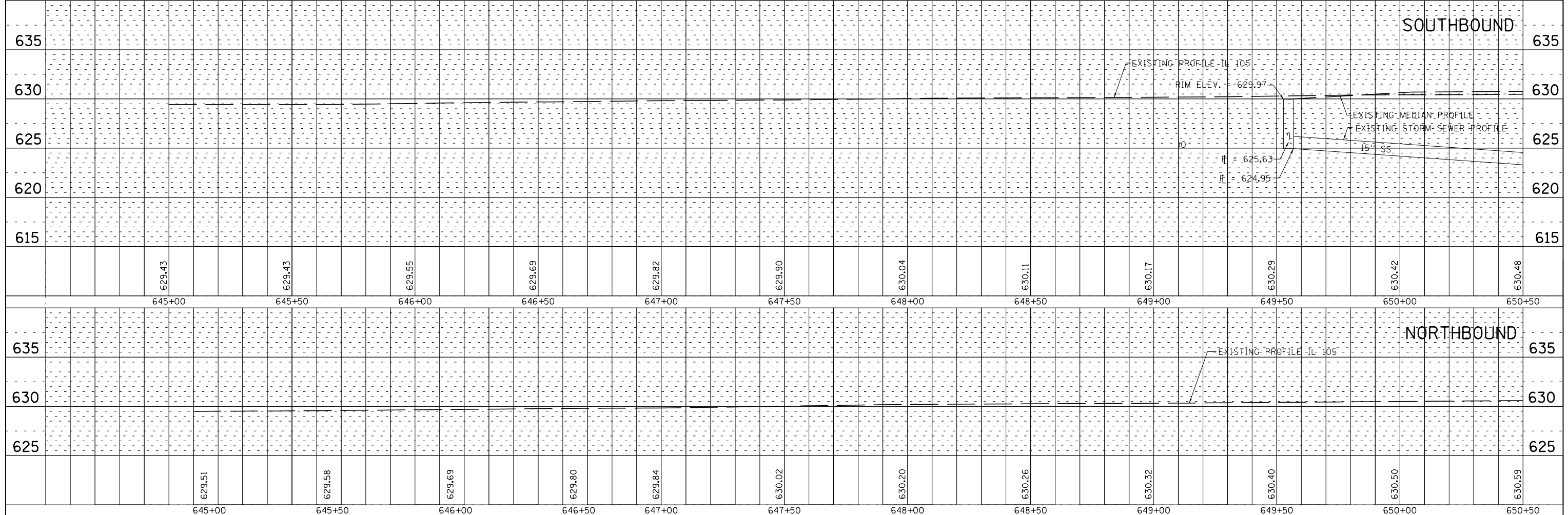
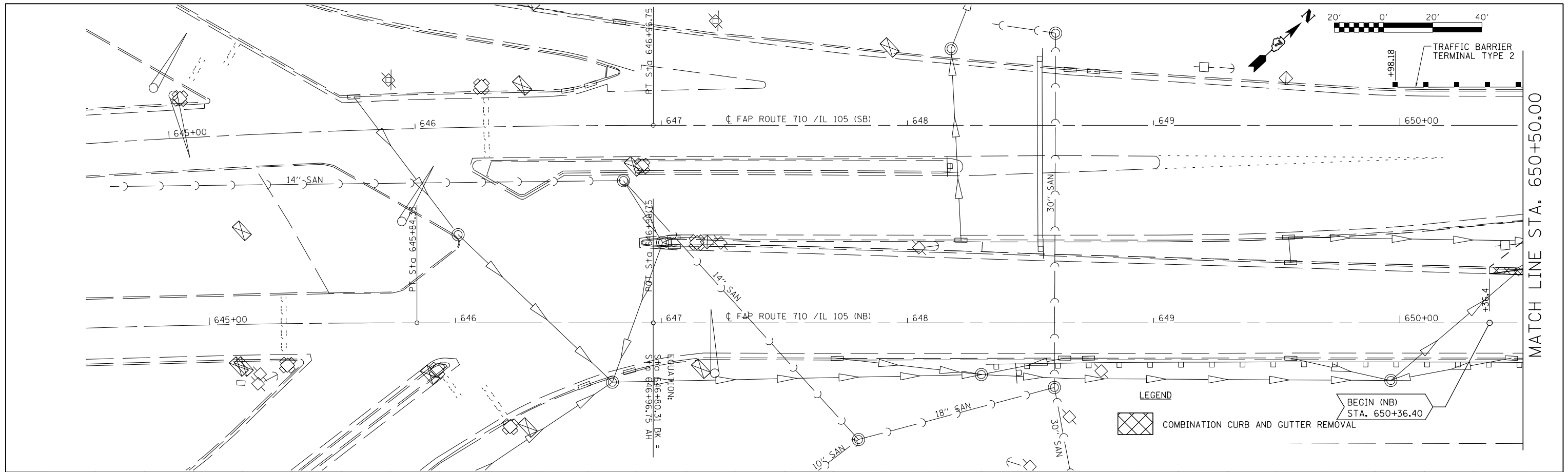
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48-X-B-2)BR & (48BR)BR	MACON	144	18
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
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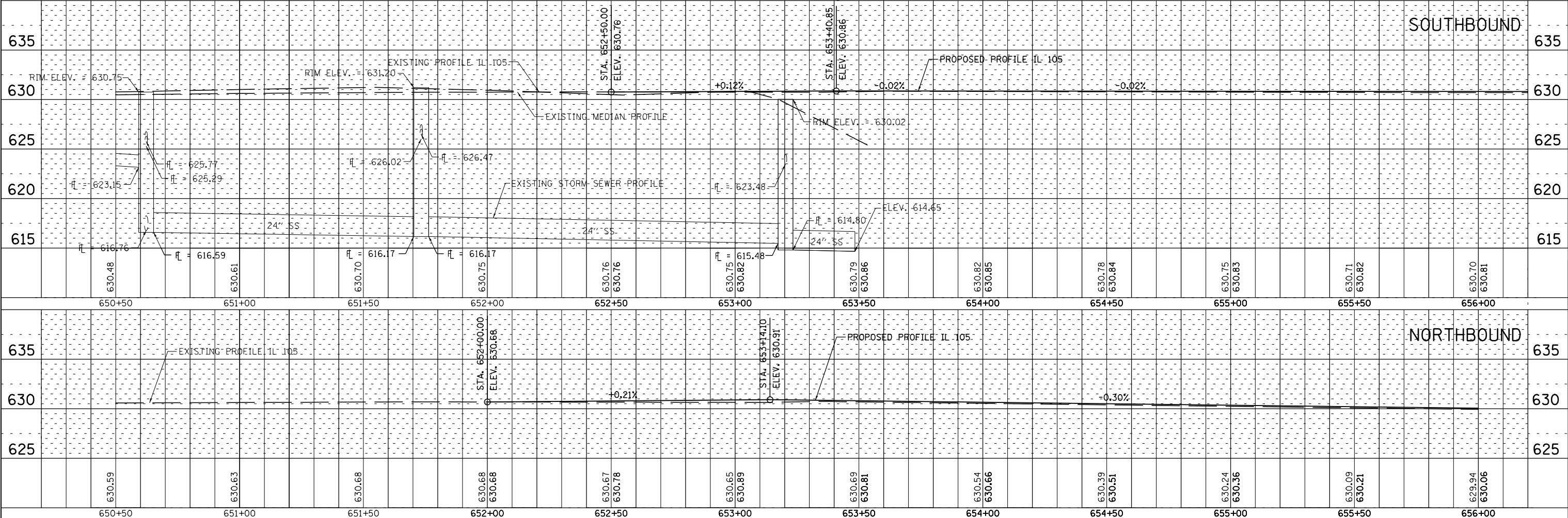
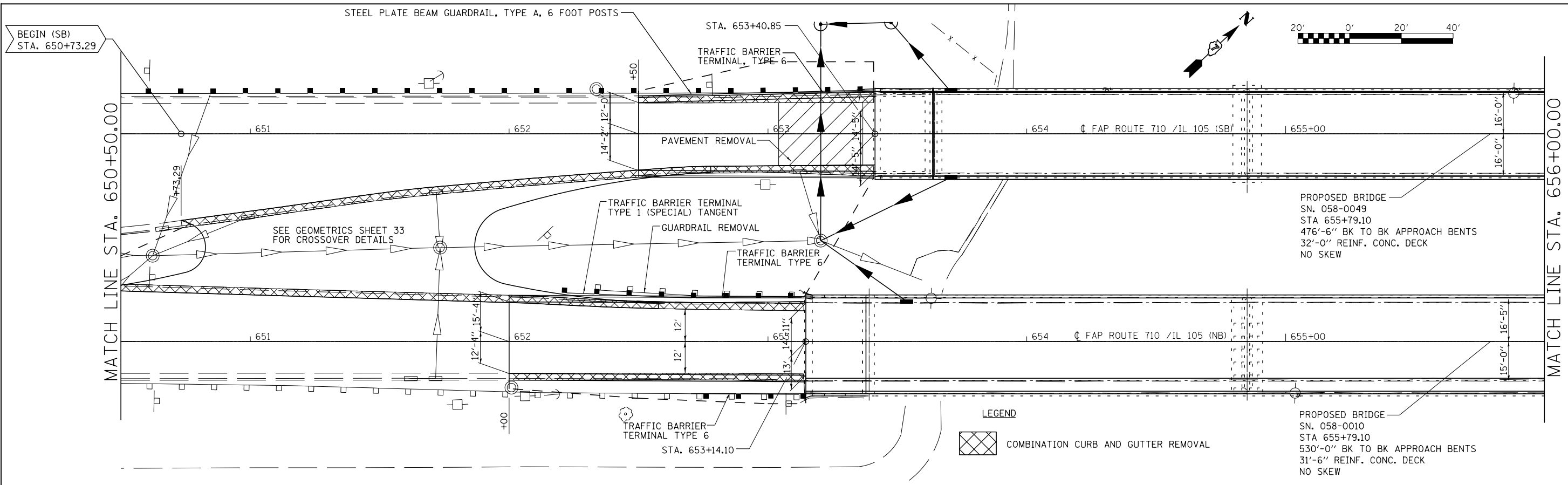
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		CHECKED -	REVISÉ -					ILLINOIS FED. AID PROJECT				
								SCALE:	SHEET NO. 1 OF 3 SHEETS	STA. 650+50.00 TO STA. 650+50.00		

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	DESIGNED	
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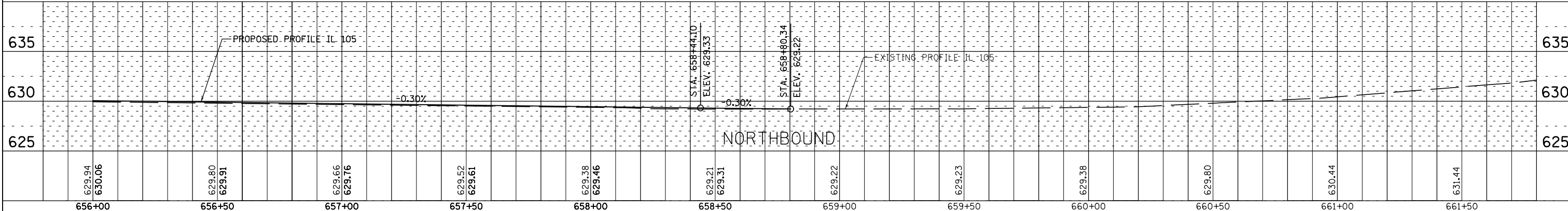
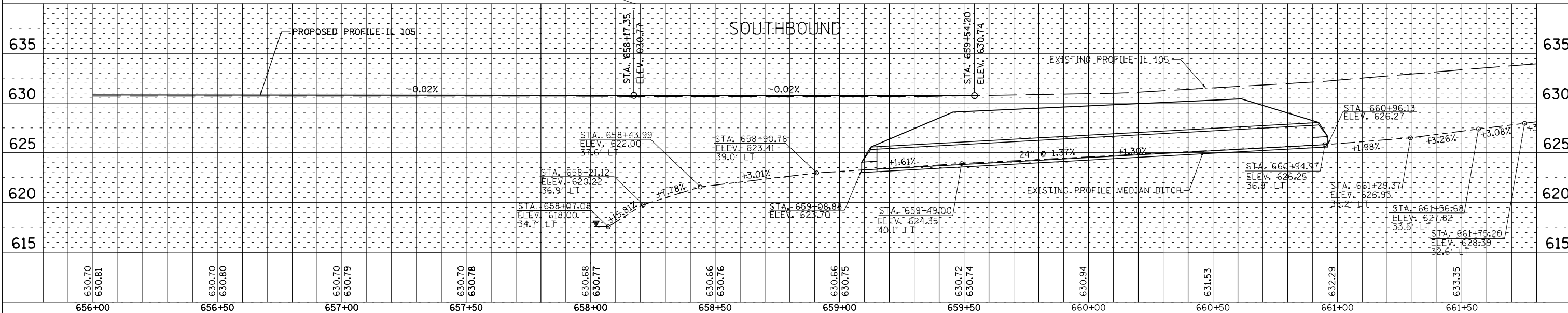
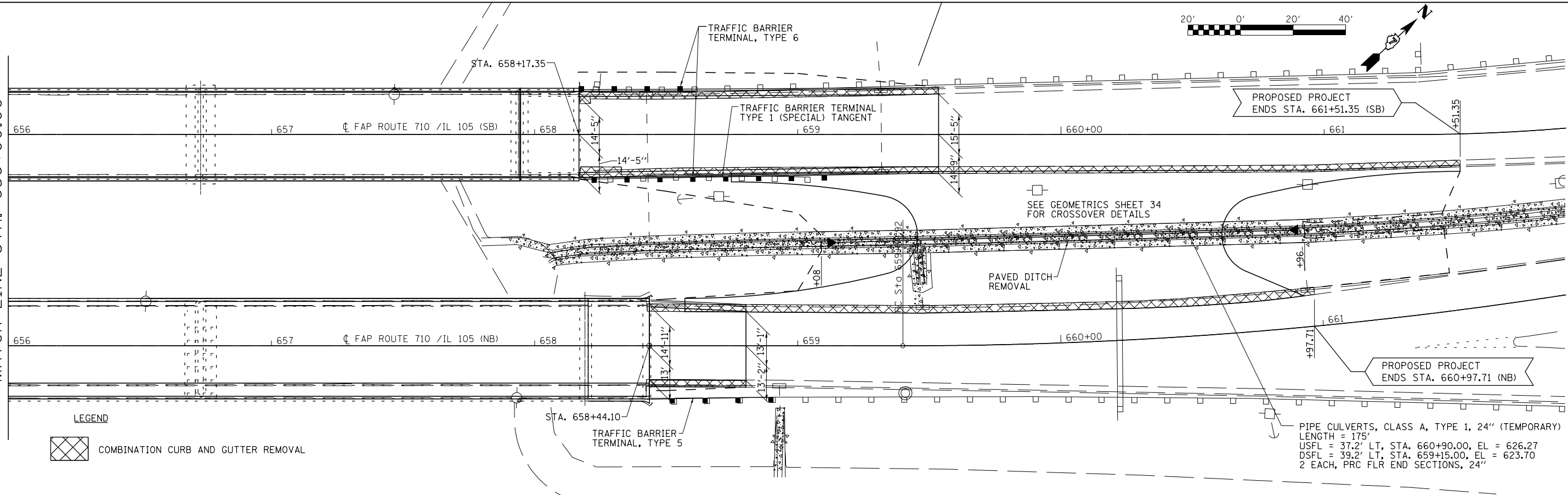


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		CHECKED -	REVISED -					ILLINOIS FED. AID PROJECT				
				SCALE:	SHEET NO. 2 OF 3 SHEETS	STA. 650+50.00 TO STA. 656+00.00						

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNMENT CHECKED	
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PROFILE	SURVEYED	DATE
	PLOTTED	BY
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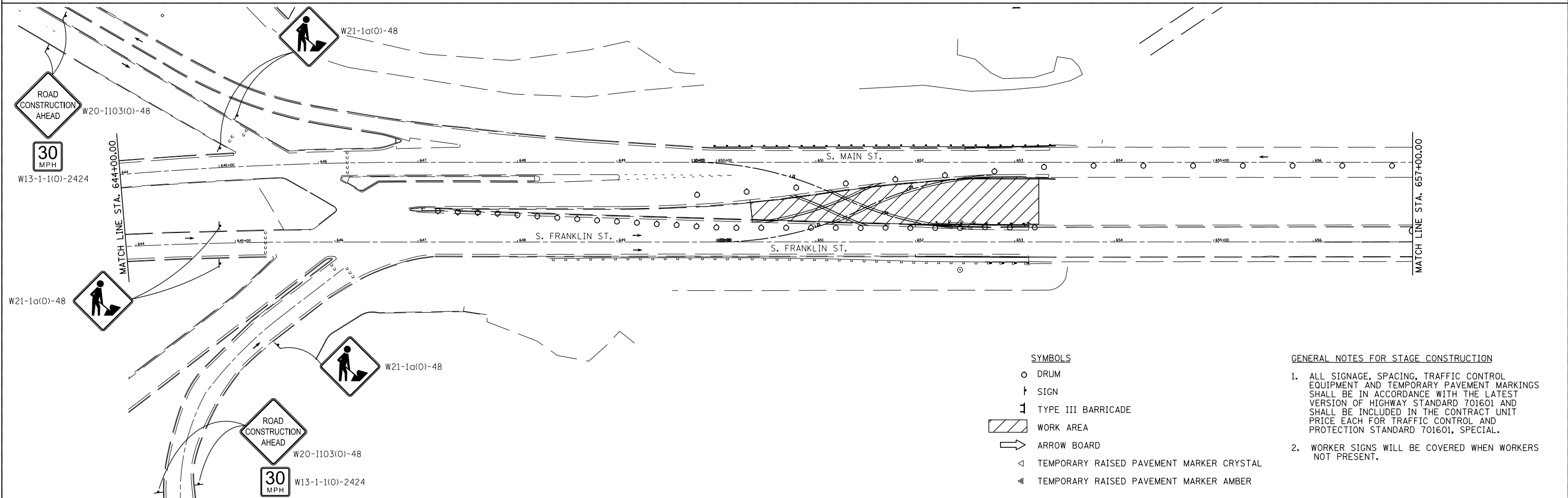
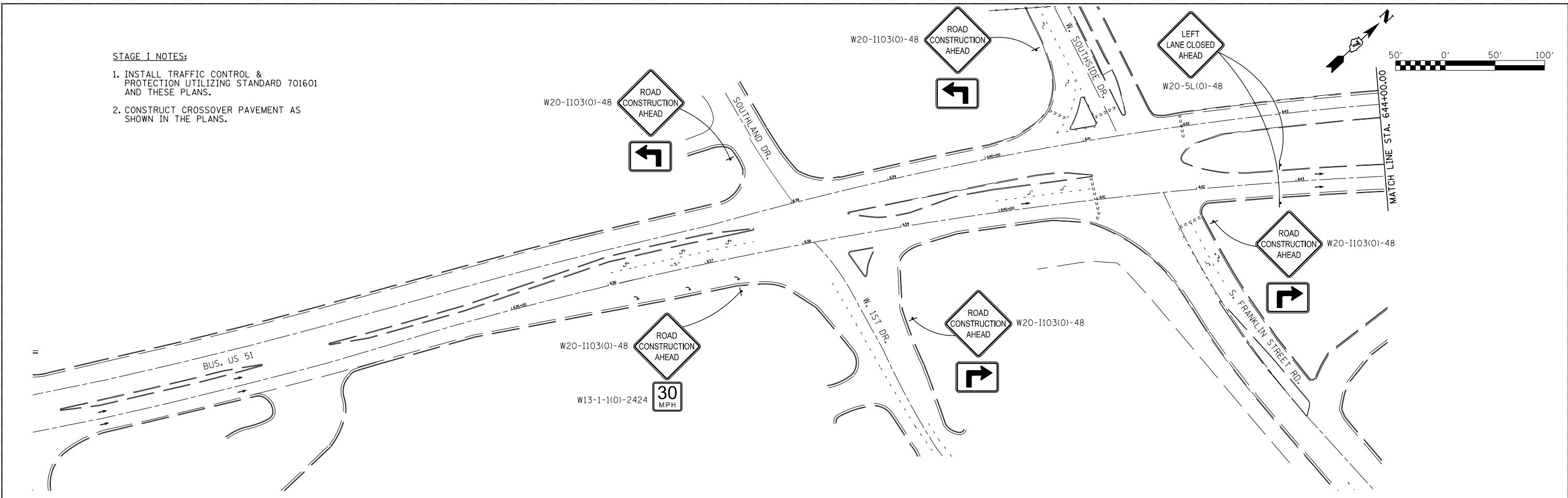
MATCH LINE STA. 656+00.00



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		PLOT DATE = *DATE*	REVISED -				ILLINOIS FED. AID PROJECT					

STAGE I NOTES:

1. INSTALL TRAFFIC CONTROL & PROTECTION UTILIZING STANDARD 701601 AND THESE PLANS.
2. CONSTRUCT CROSSOVER PAVEMENT AS SHOWN IN THE PLANS.

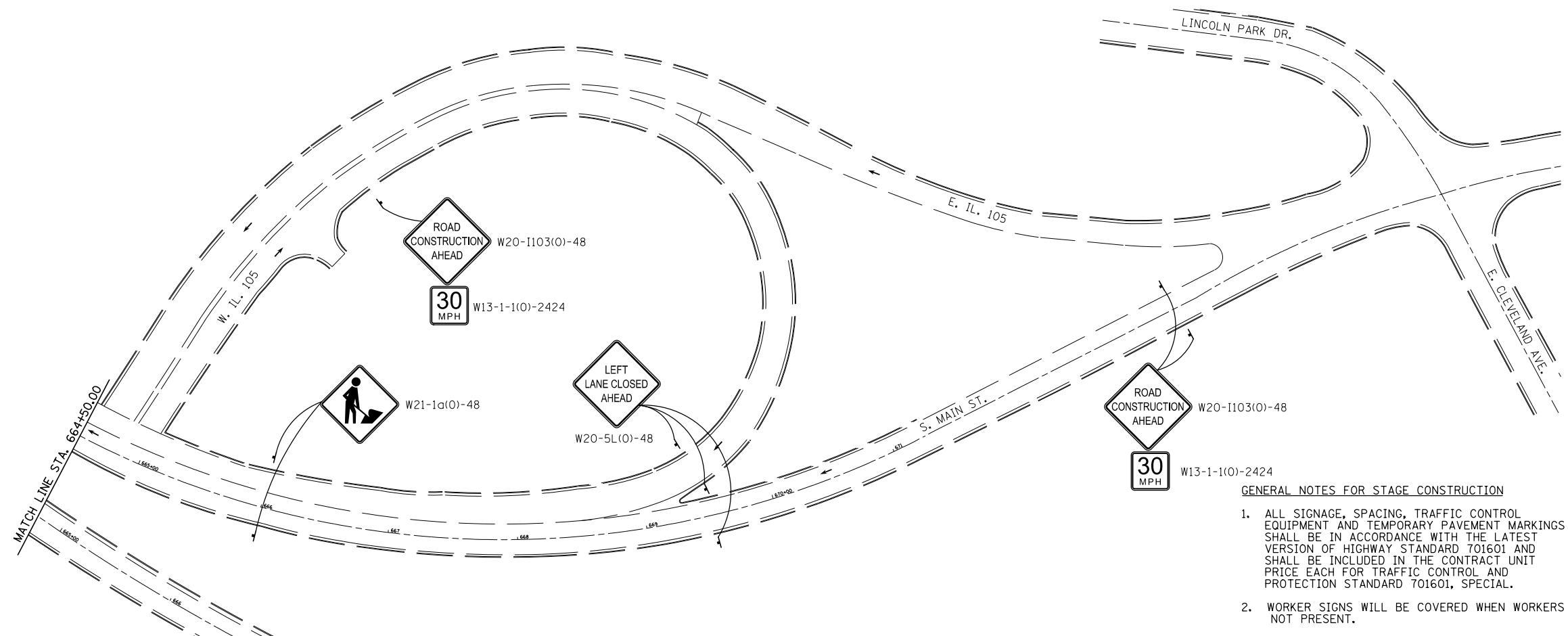
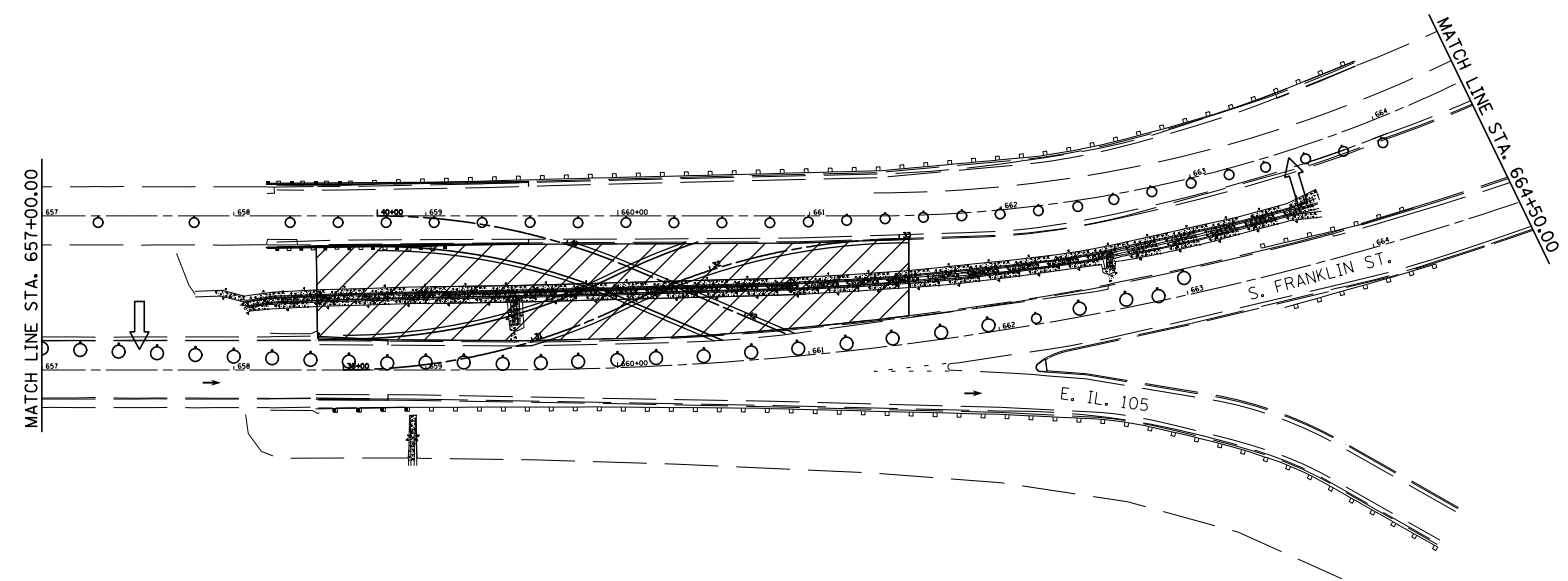
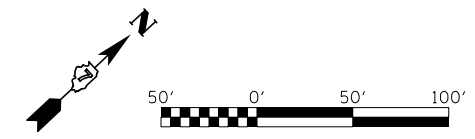


- SYMBOLS**
- DRUM
 - † SIGN
 - ⊥ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➡ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

GENERAL NOTES FOR STAGE CONSTRUCTION

1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.
2. WORKER SIGNS WILL BE COVERED WHEN WORKERS NOT PRESENT.

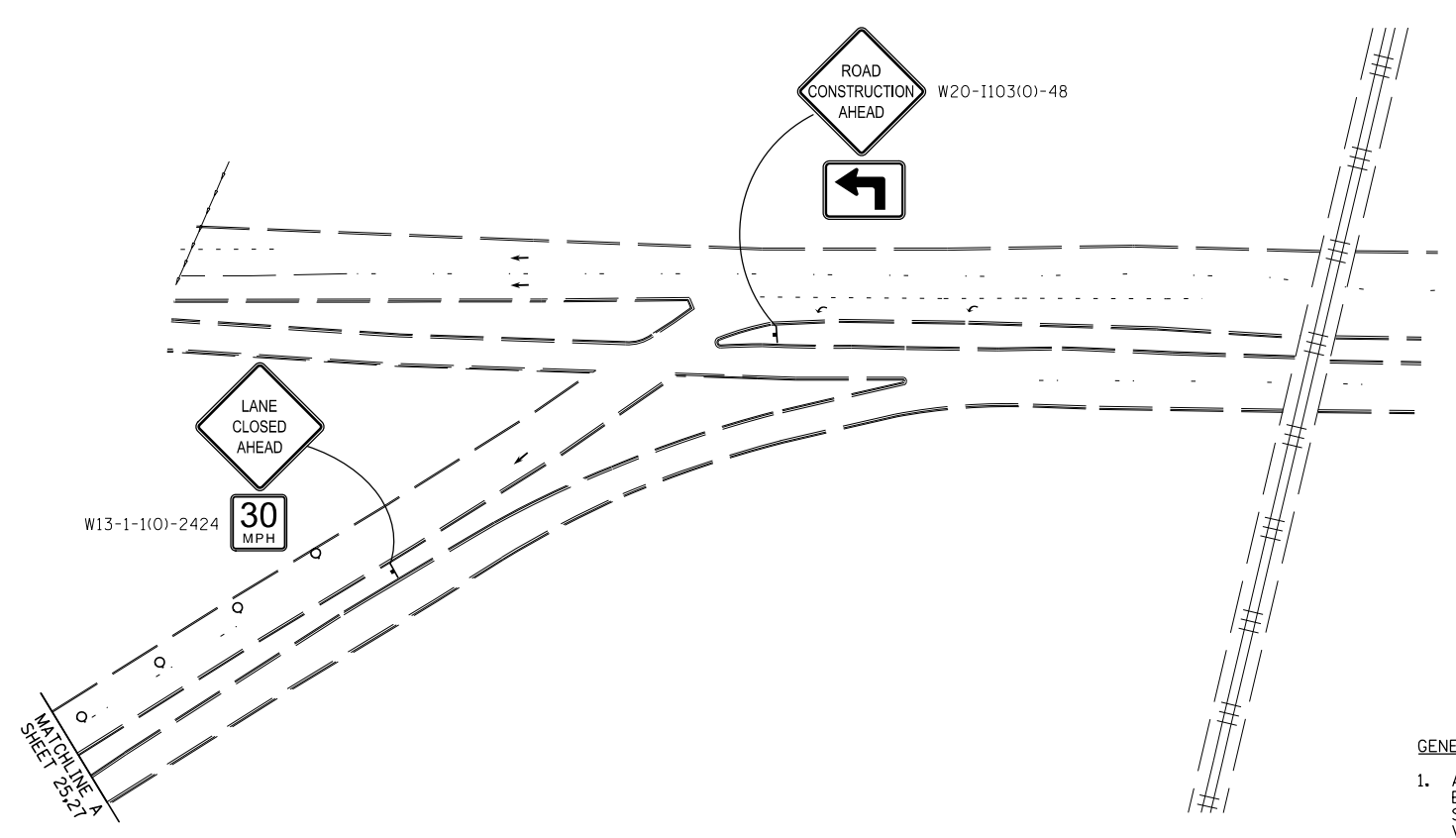
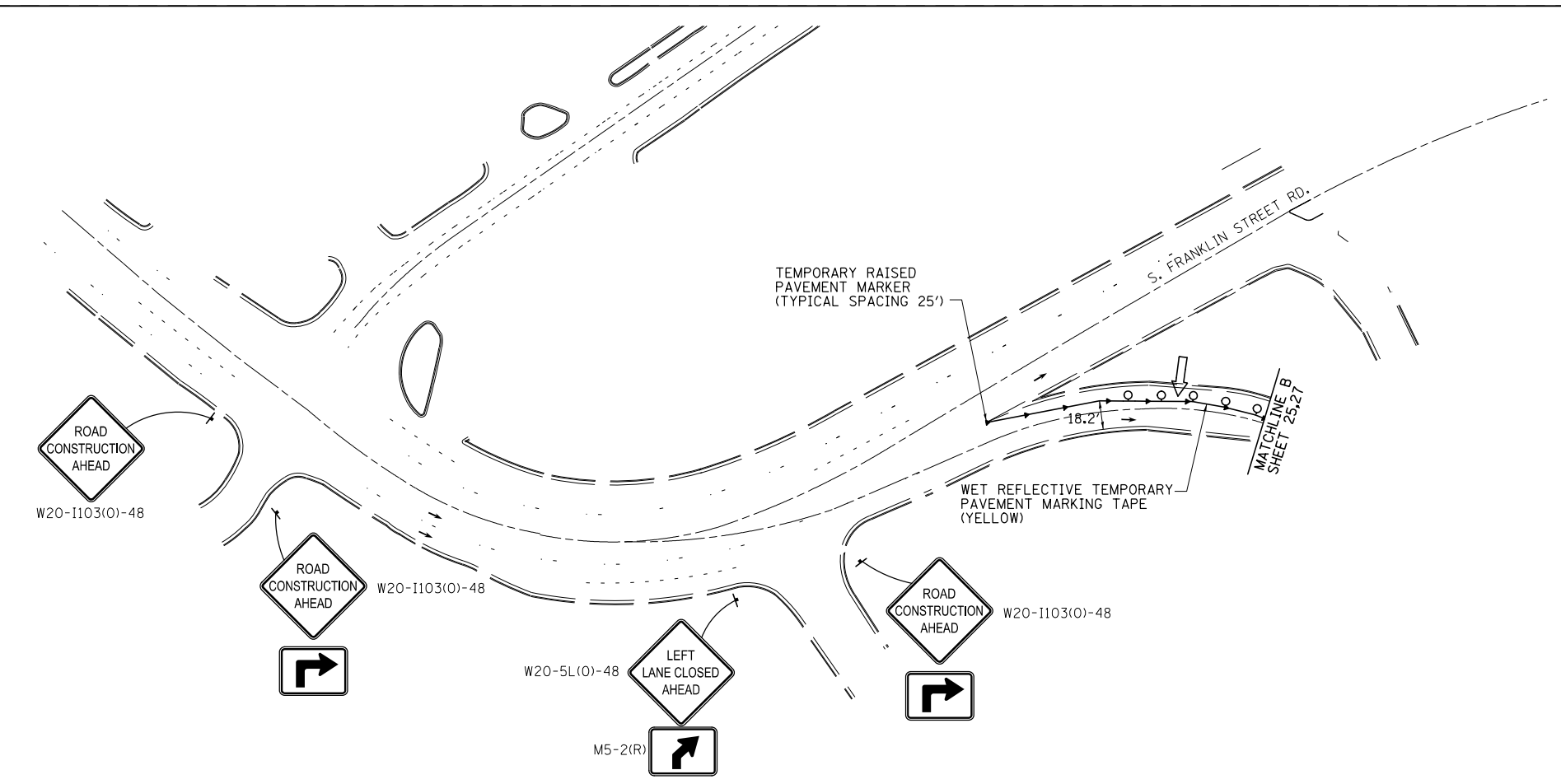
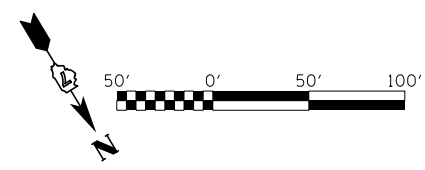
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	PLOT SCALE = *SCALE*	DRAWN -	REVISED -		SCALE:	SHEET NO. 1 OF 9 SHEETS	STA.	710	(49-X-B-2)BR & (48BR)BR	MACON	144	22
	PLOT DATE = *DATE*	CHECKED -	REVISED -		TO STA. 657+00.00				CONTRACT NO. 74438			
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



- SYMBOLS**
- DRUM
 - † SIGN
 - ⌋ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➔ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ▲ TEMPORARY RAISED PAVEMENT MARKER AMBER

- GENERAL NOTES FOR STAGE CONSTRUCTION**
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.
 2. WORKER SIGNS WILL BE COVERED WHEN WORKERS NOT PRESENT.

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE I TRAFFIC CONTROL			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -		SCALE: SHEET NO. 2 OF 9 SHEETS STA. 657+00.00 TO STA.			710	(49-X-B-2)BR & (48BR)BR	MACON	144	23
		PLOT SCALE = *SCALE*	REVISED -					CONTRACT NO. 74438				
		PLOT DATE = *DATE*	REVISED -					ILLINOIS FED. AID PROJECT				



- SYMBOLS**
- DRUM
 - † SIGN
 - ⌚ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➡ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

GENERAL NOTES FOR STAGE CONSTRUCTION

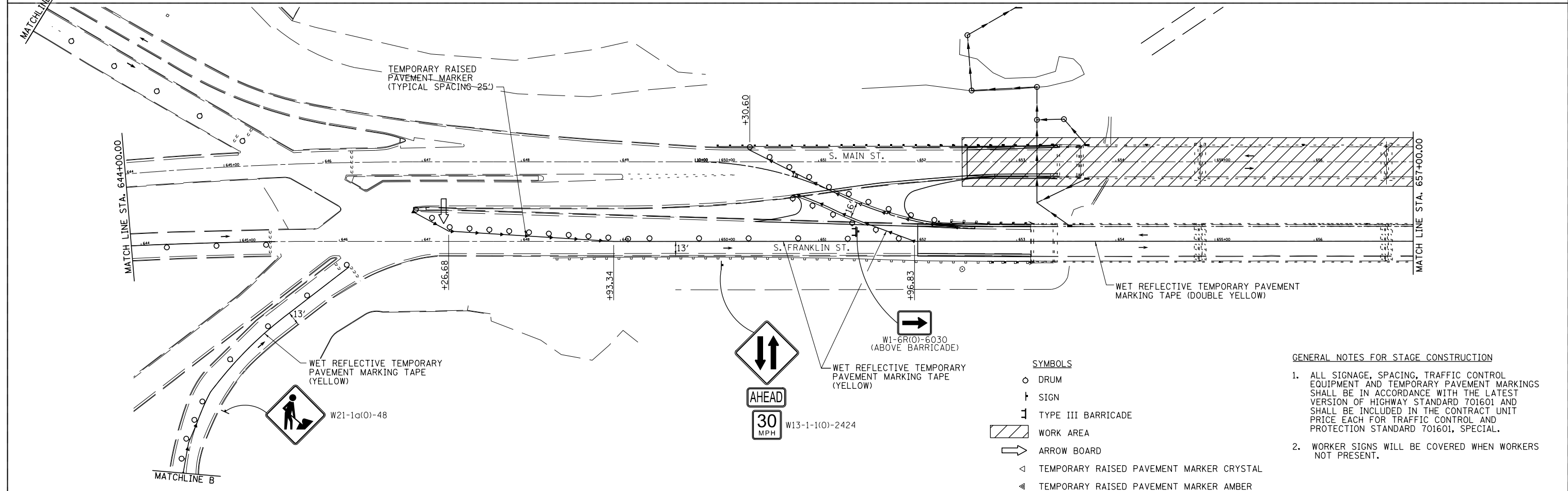
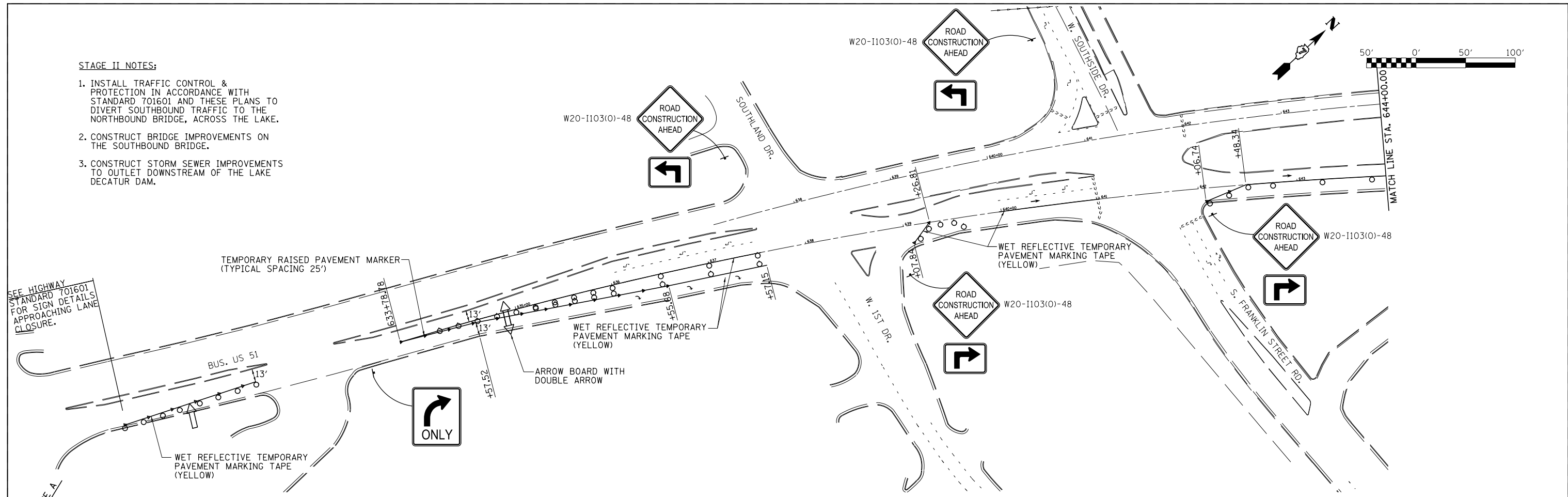
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.

FILE NAME = *FILEL*	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE II & III TRAFFIC CONTROL ADVANCED SIGNAGE			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = *SCALE*	DRAWN -	REVISED -		SCALE:	SHEET NO. 3 OF 9 SHEETS	STA.	TO STA.	710	(49-X-B-2)BR & (48BR)BR	MACON	144	24
	PLOT DATE = *DATE*	CHECKED -	REVISED -		CONTRACT NO. 74438								
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

STAGE II NOTES:

1. INSTALL TRAFFIC CONTROL & PROTECTION IN ACCORDANCE WITH STANDARD 701601 AND THESE PLANS TO DIVERT SOUTHBOUND TRAFFIC TO THE NORTHBOUND BRIDGE, ACROSS THE LAKE.
2. CONSTRUCT BRIDGE IMPROVEMENTS ON THE SOUTHBOUND BRIDGE.
3. CONSTRUCT STORM SEWER IMPROVEMENTS TO OUTLET DOWNSTREAM OF THE LAKE DECATUR DAM.

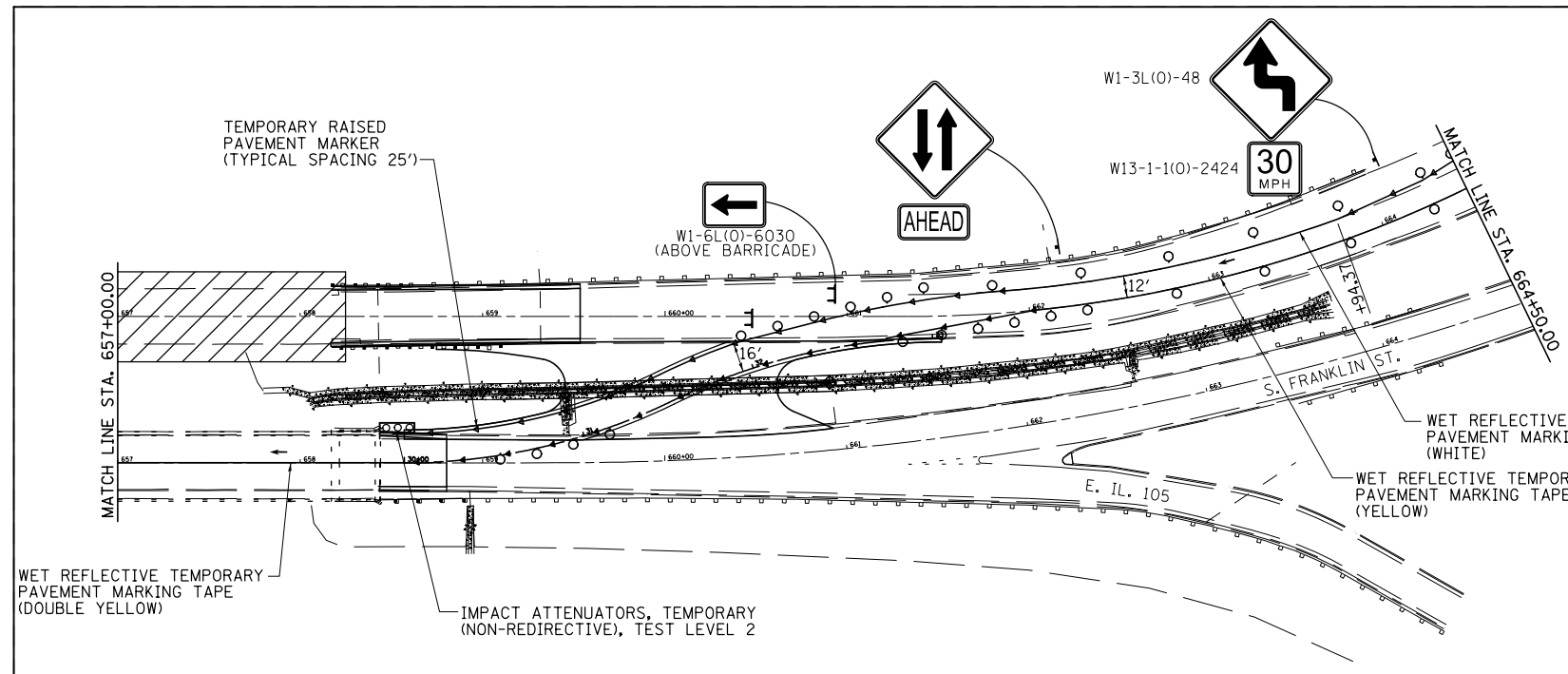
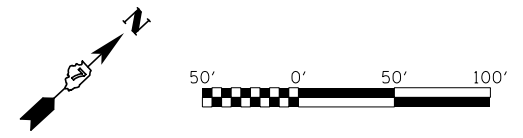
SEE HIGHWAY STANDARD 701601 FOR SIGN DETAILS APPROACHING LANE CLOSURE.



GENERAL NOTES FOR STAGE CONSTRUCTION

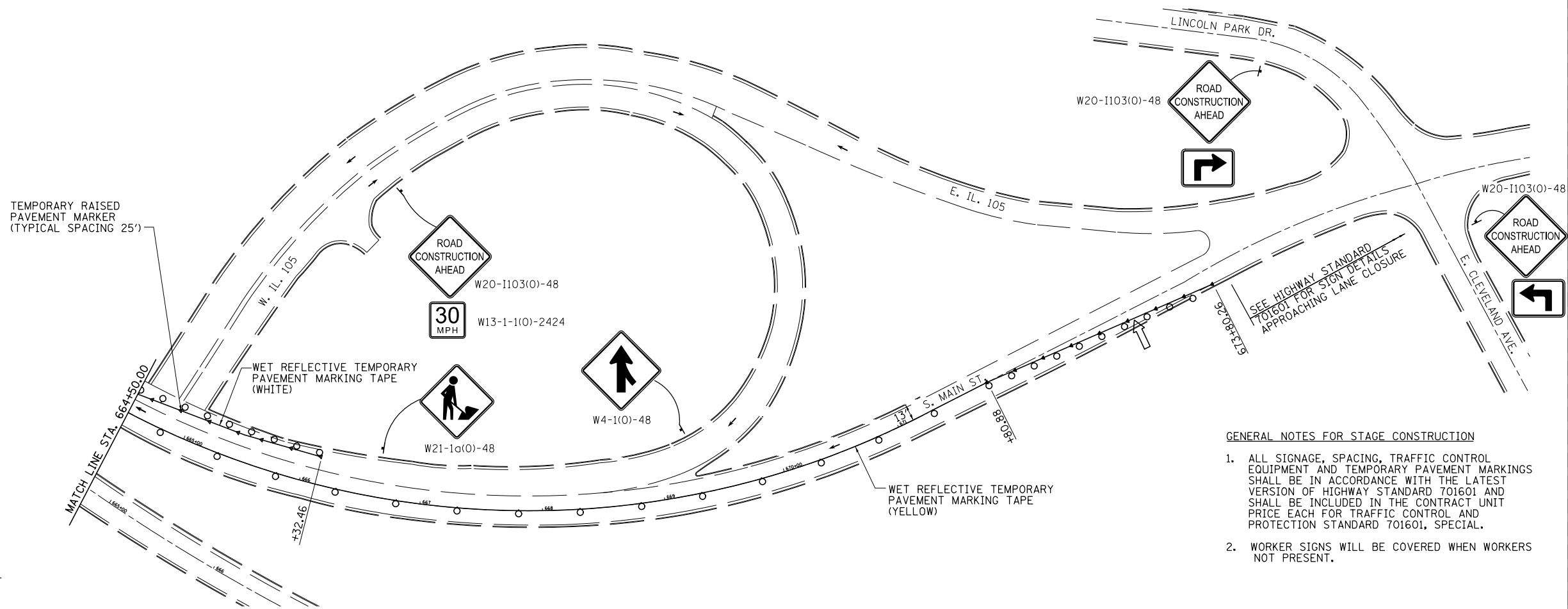
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.
2. WORKER SIGNS WILL BE COVERED WHEN WORKERS NOT PRESENT.

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE II TRAFFIC CONTROL			F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO. 4 OF 9 SHEETS	STA.	TO STA.	710	(49-X-B-2)BR & (48BR)BR	MACON	144	25
		CHECKED -	REVISED -		CONTRACT NO. 74438								
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								



WET REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE (DOUBLE YELLOW)

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2



- SYMBOLS**
- DRUM
 - † SIGN
 - ⊥ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➔ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

- GENERAL NOTES FOR STAGE CONSTRUCTION**
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.
 2. WORKER SIGNS WILL BE COVERED WHEN WORKERS NOT PRESENT.

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
\$FILEL\$		DRAWN -	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
	PLOT DATE = \$DATE\$	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE II TRAFFIC CONTROL

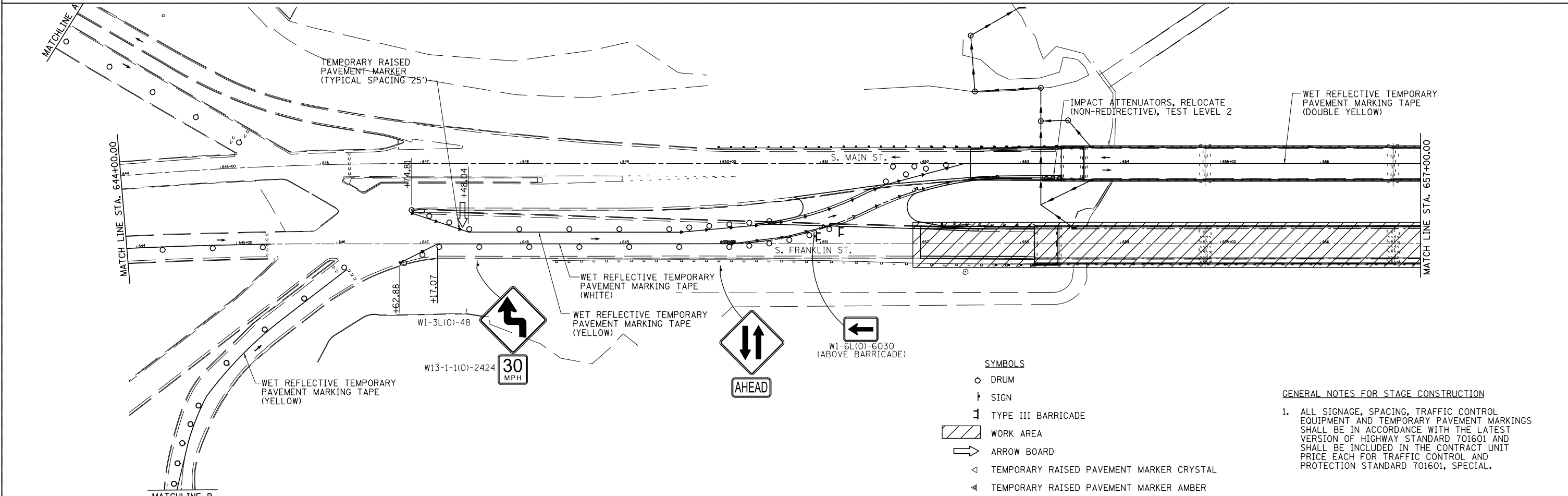
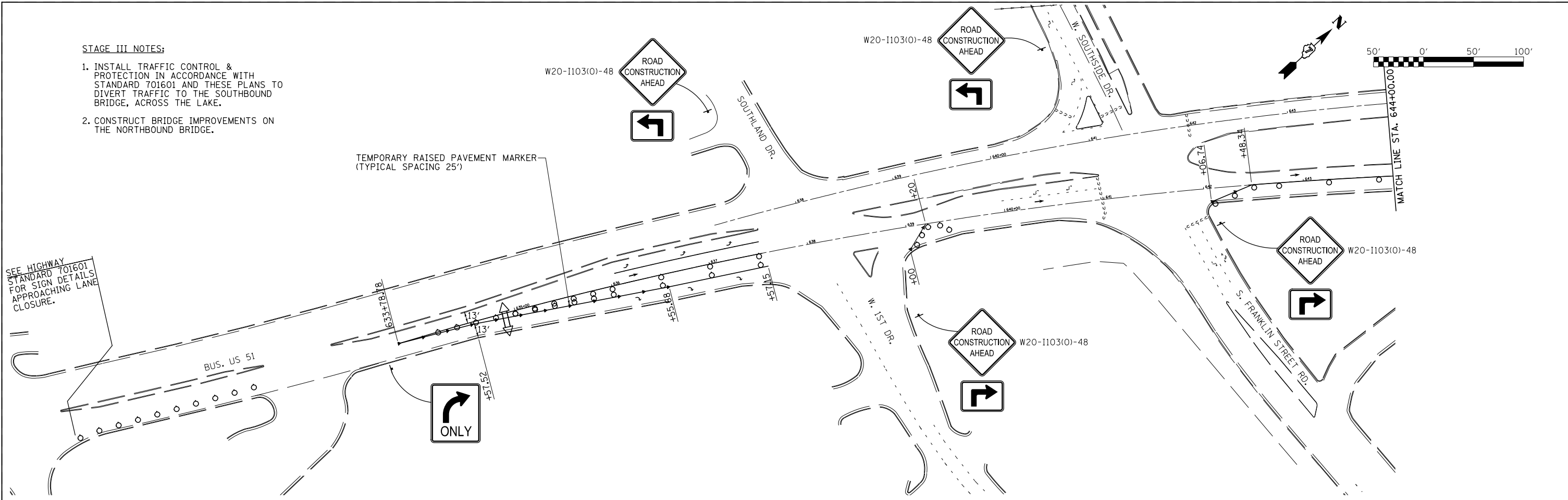
SCALE: SHEET NO. 5 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(49-X-B-2)BR & (48BR)BR	MACON	144	26
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

STAGE III NOTES:

1. INSTALL TRAFFIC CONTROL & PROTECTION IN ACCORDANCE WITH STANDARD 701601 AND THESE PLANS TO DIVERT TRAFFIC TO THE SOUTHBOUND BRIDGE, ACROSS THE LAKE.
2. CONSTRUCT BRIDGE IMPROVEMENTS ON THE NORTHBOUND BRIDGE.

SEE HIGHWAY STANDARD 701601 FOR SIGN DETAILS APPROACHING LANE CLOSURE.

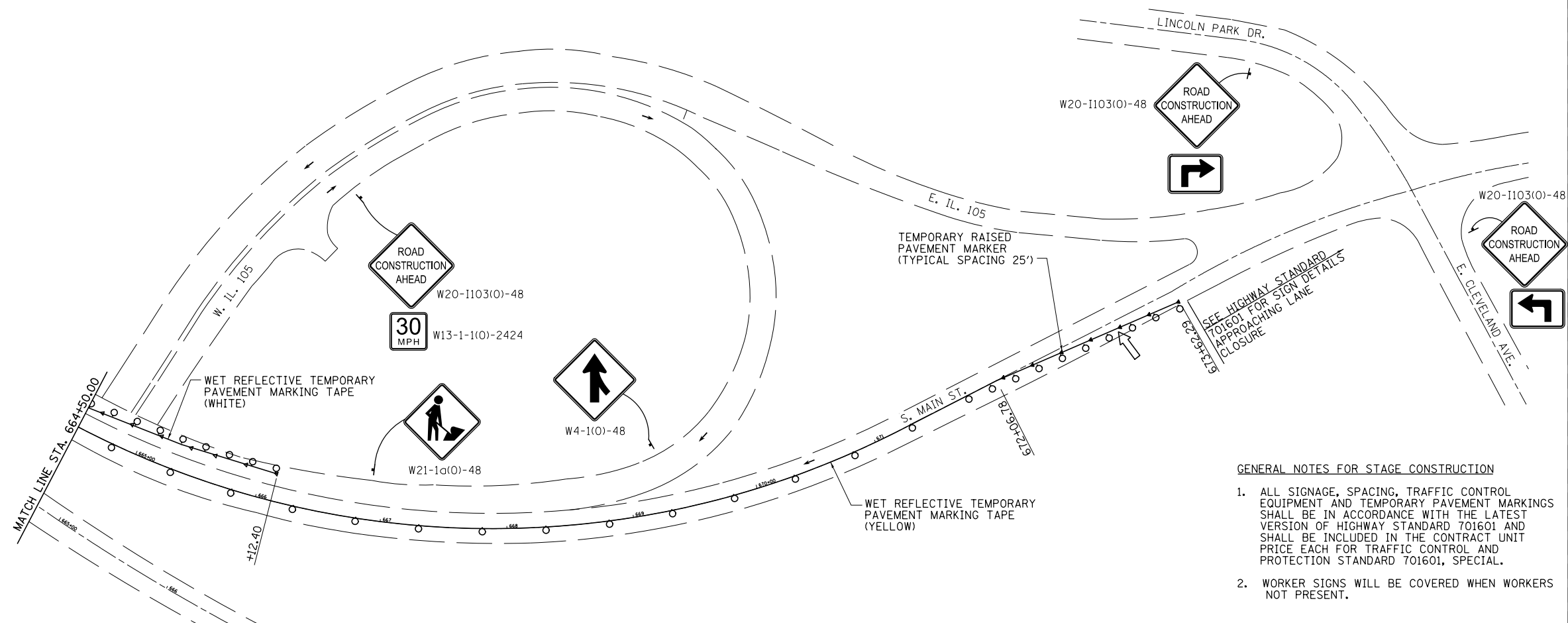
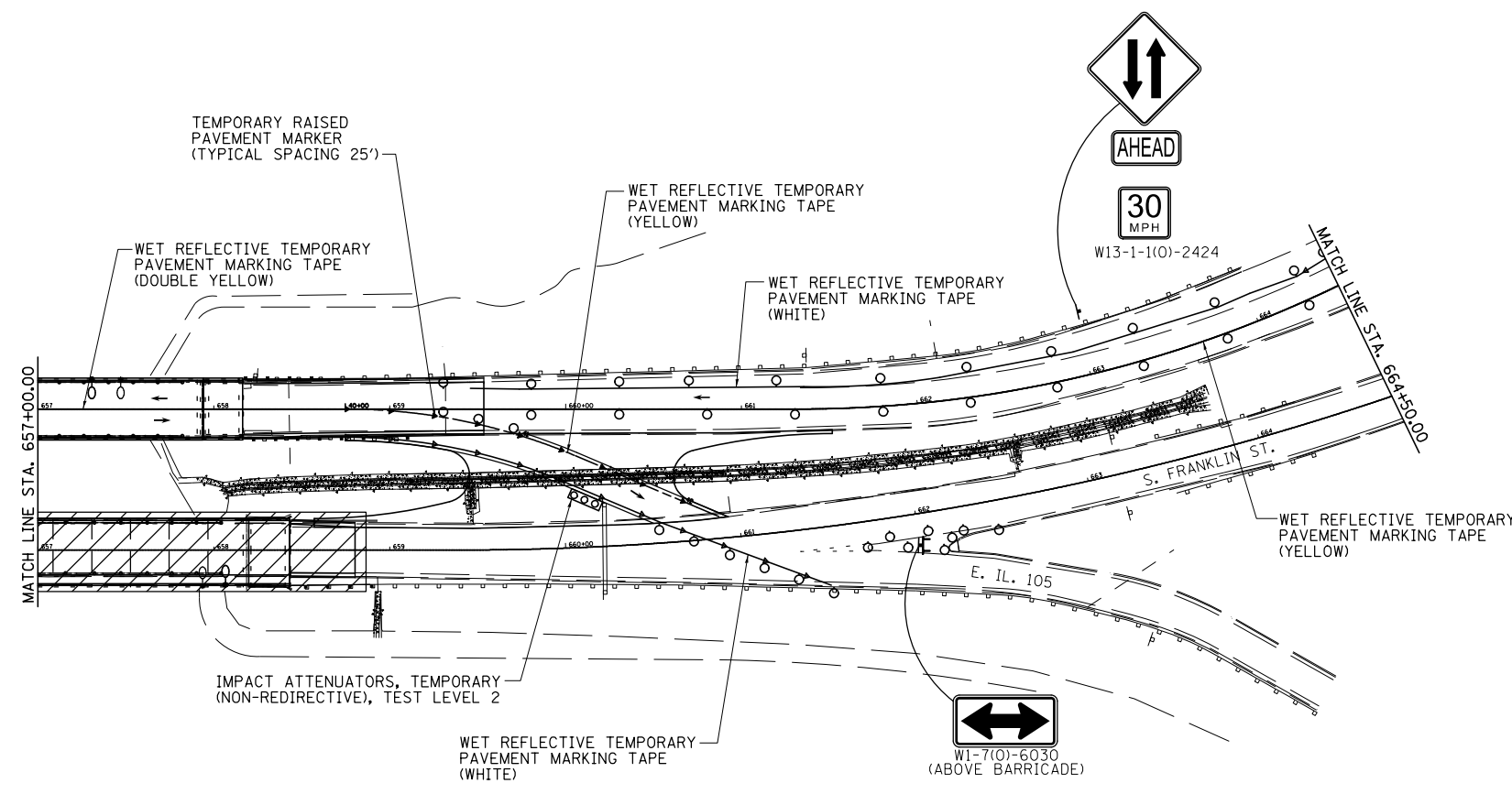
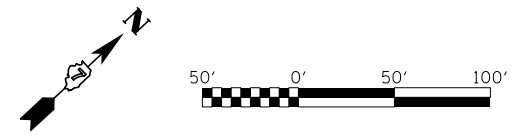


- SYMBOLS**
- DRUM
 - † SIGN
 - ⊥ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➔ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

- GENERAL NOTES FOR STAGE CONSTRUCTION**
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE III TRAFFIC CONTROL			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		710	(49-X-B-2)BR & (48BR)BR	MACON	144	27			
PLOT SCALE = #SCALE#		CHECKED -	REVISED -		CONTRACT NO. 74438							
PLOT DATE = #DATE#		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

SCALE: SHEET NO. 6 OF 9 SHEETS STA. TO STA.



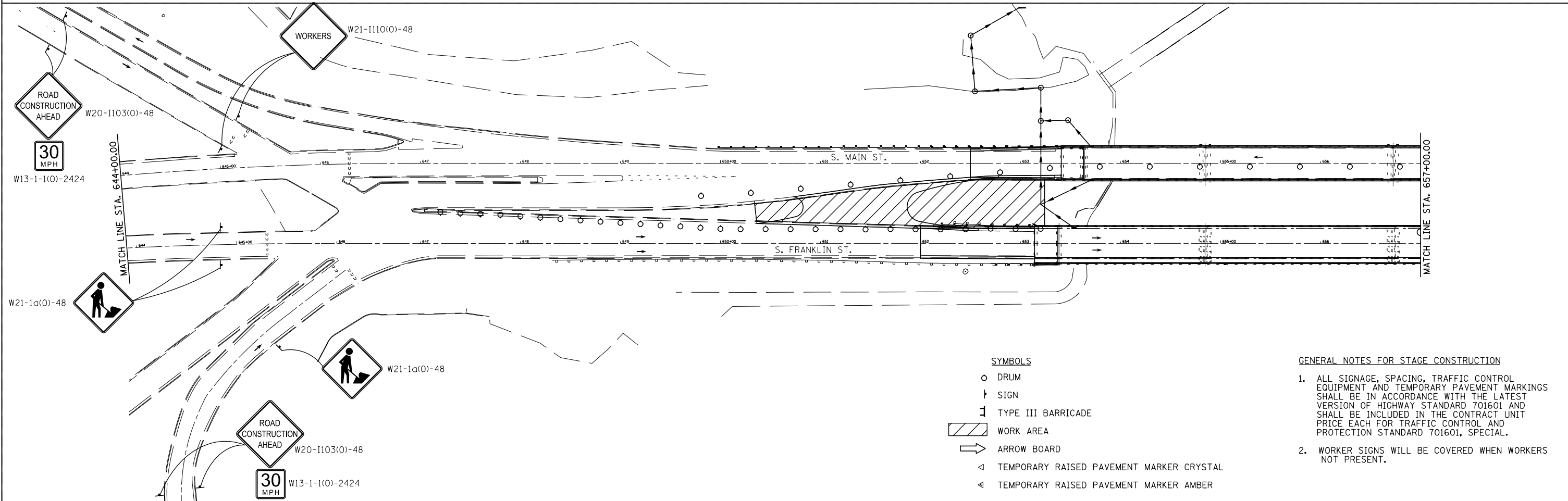
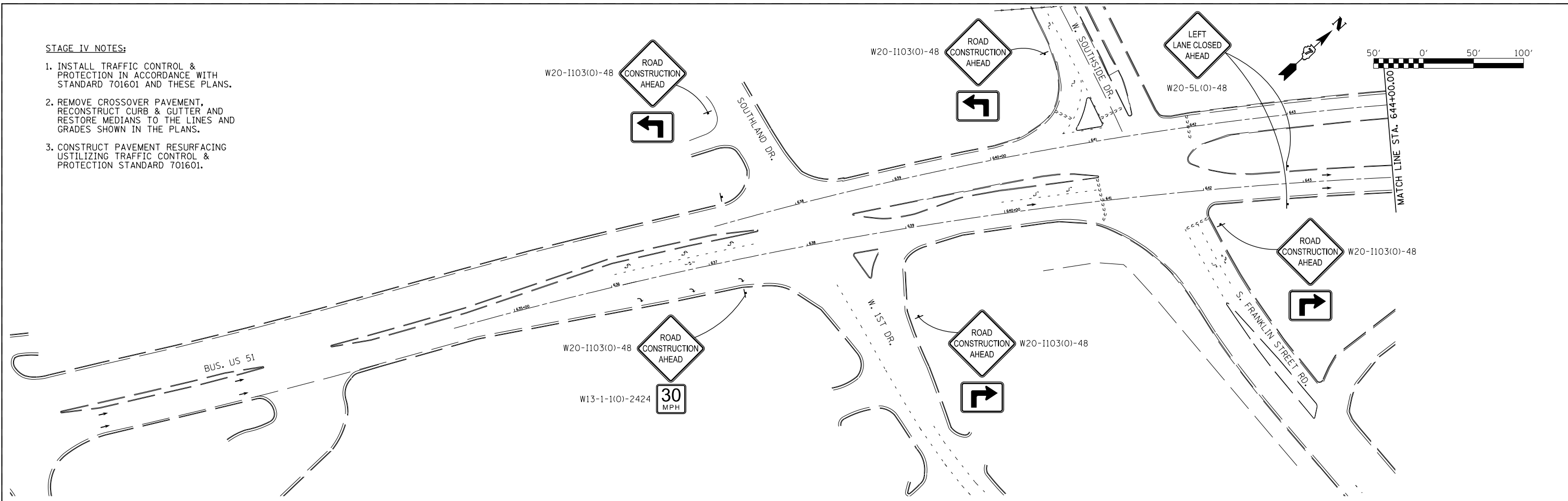
- SYMBOLS**
- DRUM
 - † SIGN
 - ⊥ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➡ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

- GENERAL NOTES FOR STAGE CONSTRUCTION**
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 2. WORKER SIGNS WILL BE COVERED WHEN WORKERS NOT PRESENT.

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE III TRAFFIC CONTROL			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					710	(49-X-B-2)BR & (48BR)BR	MACON	144	28
		CHECKED -	REVISED -					CONTRACT NO. 74438				
		DATE -	REVISED -					ILLINOIS FED. AID PROJECT				
				SCALE:		SHEET NO. 7 OF 9 SHEETS		STA.		TO STA.		

STAGE IV NOTES:

1. INSTALL TRAFFIC CONTROL & PROTECTION IN ACCORDANCE WITH STANDARD 701601 AND THESE PLANS.
2. REMOVE CROSSOVER PAVEMENT, RECONSTRUCT CURB & GUTTER AND RESTORE MEDIANS TO THE LINES AND GRADES SHOWN IN THE PLANS.
3. CONSTRUCT PAVEMENT RESURFACING UTILIZING TRAFFIC CONTROL & PROTECTION STANDARD 701601.



- SYMBOLS**
- DRUM
 - † SIGN
 - ⌚ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➡ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

GENERAL NOTES FOR STAGE CONSTRUCTION

1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.
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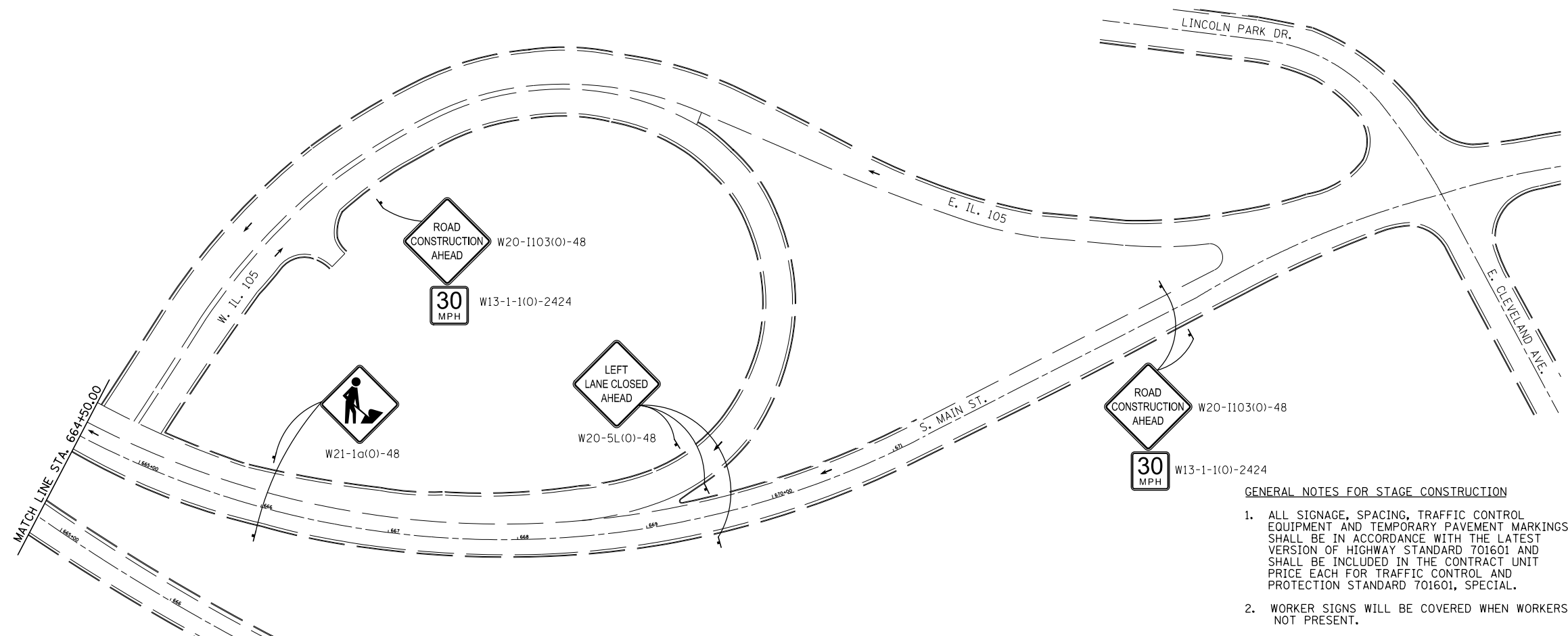
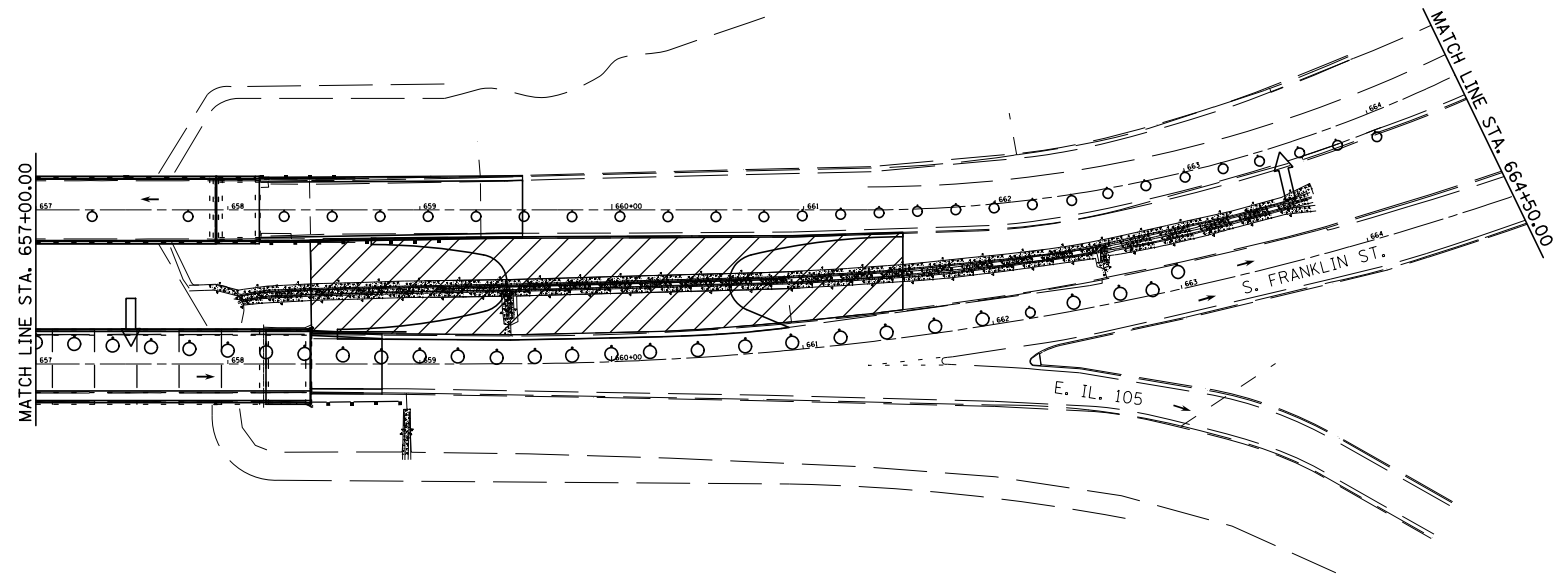
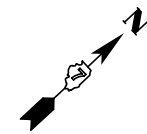
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*FILE#		DRAWN -	REVISED -
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -
	PLOT DATE = *DATE*	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE IV TRAFFIC CONTROL

SCALE: SHEET NO. 8 OF 9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(49-X-B-2)BR & (48BR)BR	MACON	144	29
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



- SYMBOLS**
- DRUM
 - † SIGN
 - ⊥ TYPE III BARRICADE
 - ▨ WORK AREA
 - ➔ ARROW BOARD
 - ◁ TEMPORARY RAISED PAVEMENT MARKER CRYSTAL
 - ◄ TEMPORARY RAISED PAVEMENT MARKER AMBER

- GENERAL NOTES FOR STAGE CONSTRUCTION**
1. ALL SIGNAGE, SPACING, TRAFFIC CONTROL EQUIPMENT AND TEMPORARY PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAY STANDARD 701601 AND SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701601, SPECIAL.
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FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
\$FILEL\$		DRAWN -	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
	PLOT DATE = \$DATE\$	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGE IV TRAFFIC CONTROL			
SCALE:	SHEET NO. 9 OF 9 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(49-X-B-2)BR & (48BR)BR	MACON	144	30
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

- LEGEND**
- ▲ MANHOLE
 - ⊕ STORM SEWER
 - INLET

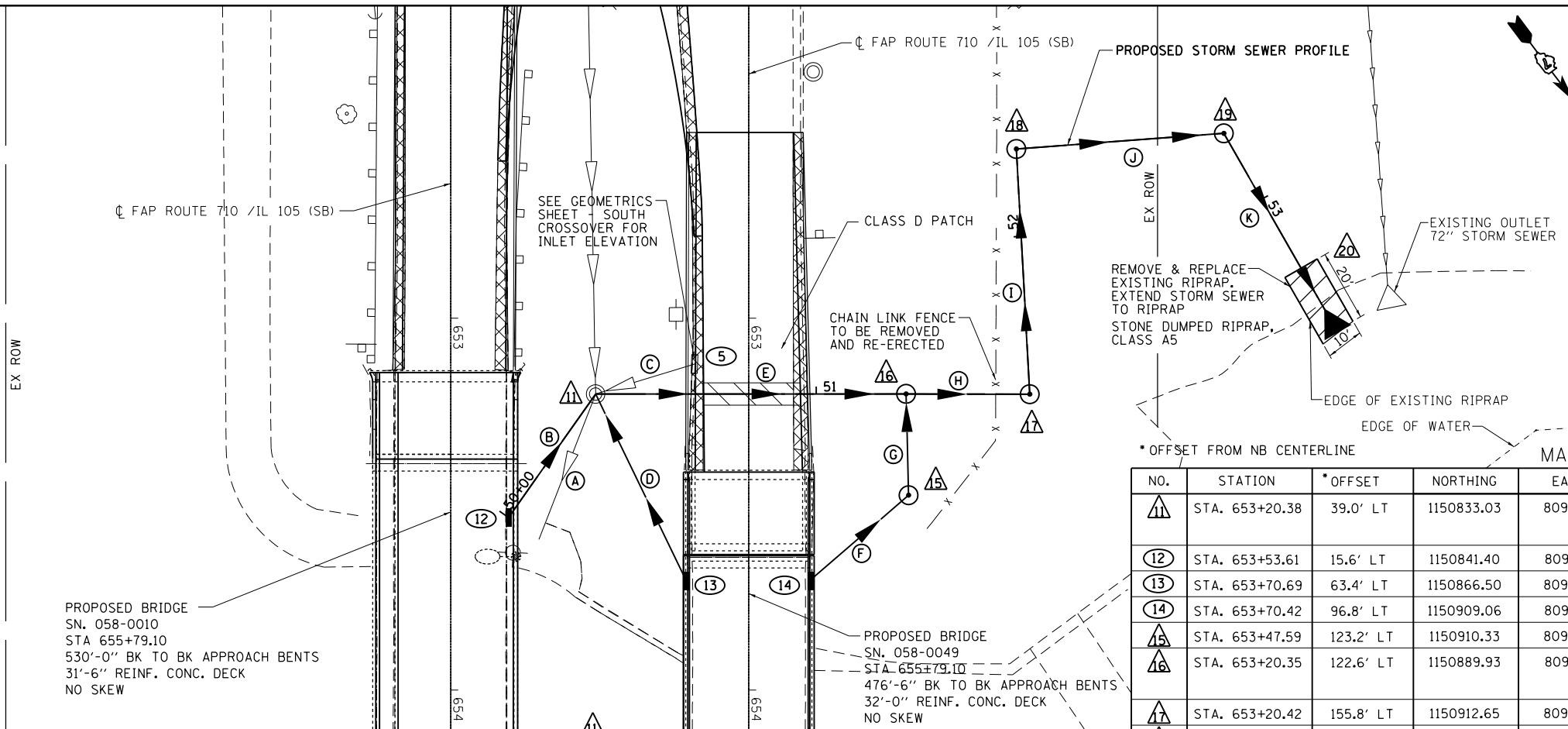


STORM SEWER SCHEDULE

NO.	STATION	* OFFSET	NORTHING	EASTING	STRUCTURE	RIM ELEVATION	INVERT ELEVATION
(A)	EXIST. 24" Ø SS CLA TY 2				TBR		
(B)	12" Ø SS CLA TY 2	40' @ -1.0%					
(C)	12" Ø SS CLA TY 2	25' @ -15.0%					
(D)	12" Ø SS CLA TY 2	55' @ -1.0%					
(E)	24" Ø SS CLA TY 3	80' @ -1.81%					
(F)	12" Ø SS CLA TY 2	30' @ -1.0%					
(G)	12" Ø SS CLA TY 2	30' @ -1.0%					
(H)	24" Ø SS CLA TY 3	30' @ -2.0%					
(I)	24" Ø SS CLA TY 2	65' @ -1.85%					
(J)	24" Ø SS CLA TY 2	56' @ -1.43%					
(K)	24" Ø SS CLA TY 2	48' @ -1.56%					

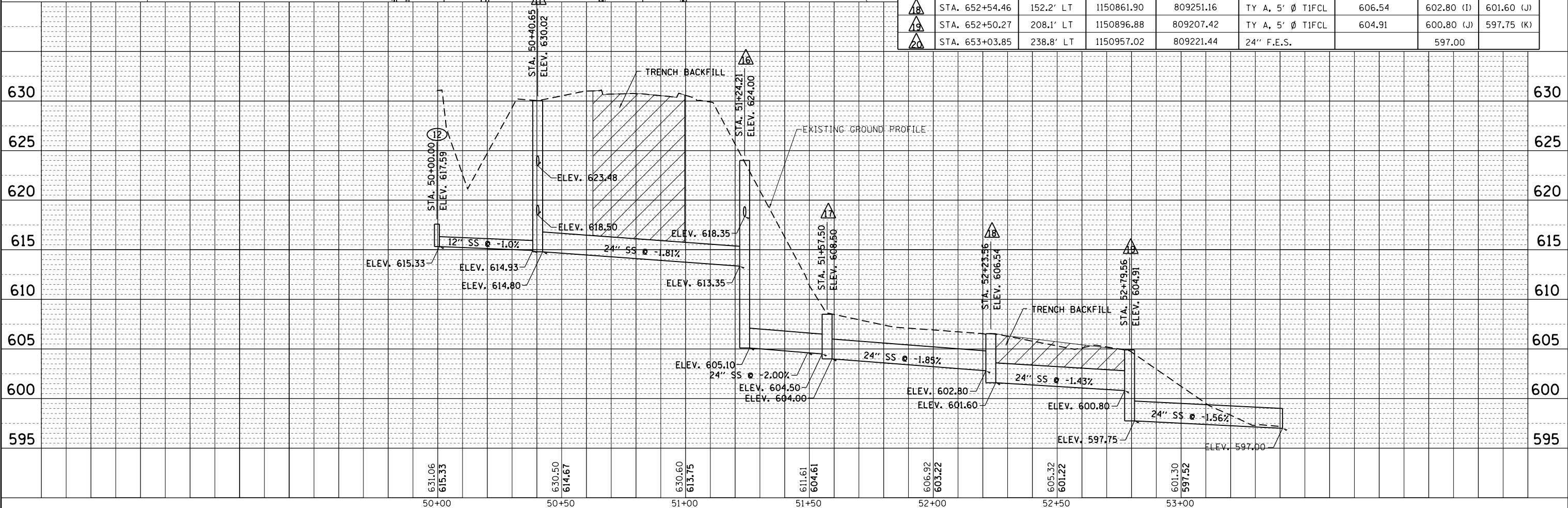
MANHOLE & INLET SCHEDULE

NO.	STATION	* OFFSET	NORTHING	EASTING	STRUCTURE	RIM ELEVATION	INVERT ELEVATION
▲11	STA. 653+20.38	39.0' LT	1150833.03	809378.97	RECONSTRUCT MANHOLE	630.02	618.50 (D) 623.48 (C) 614.93 (B) 614.80 (E)
○12	STA. 653+53.61	15.6' LT	1150841.40	809418.75	TY A, INLET	617.59	615.33
○13	STA. 653+70.69	63.4' LT	1150866.50	809395.35	TY A, INLET	621.09	619.07
○14	STA. 653+70.42	96.8' LT	1150909.06	809370.71	TY A, INLET	621.09	619.07
▲15	STA. 653+47.59	123.2' LT	1150910.33	809335.83	TY A, 5' Ø T1FCL	624.50	618.75 618.65
▲16	STA. 653+20.35	122.6' LT	1150889.93	809317.77	TY A, 5' Ø T1FCL	624.00	613.35 (E) 618.35 (G) 605.10 (H)
▲17	STA. 653+20.42	155.8' LT	1150912.65	809293.45	TY A, 5' Ø T1FCL	608.5	604.50 (H) 604.00 (I)
▲18	STA. 652+54.46	152.2' LT	1150861.90	809251.16	TY A, 5' Ø T1FCL	606.54	602.80 (I) 601.60 (J)
▲19	STA. 652+50.27	208.1' LT	1150896.88	809207.42	TY A, 5' Ø T1FCL	604.91	600.80 (J) 597.75 (K)
▲20	STA. 653+03.85	238.8' LT	1150957.02	809221.44	24" F.E.S.		597.00



PROPOSED BRIDGE
SN. 058-0010
STA 655+79.10
530'-0" BK TO BK APPROACH BENTS
31'-6" REINF. CONC. DECK
NO SKEW

PROPOSED BRIDGE
SN. 058-0049
STA. 655+79.10
476'-6" BK TO BK APPROACH BENTS
32'-0" REINF. CONC. DECK
NO SKEW

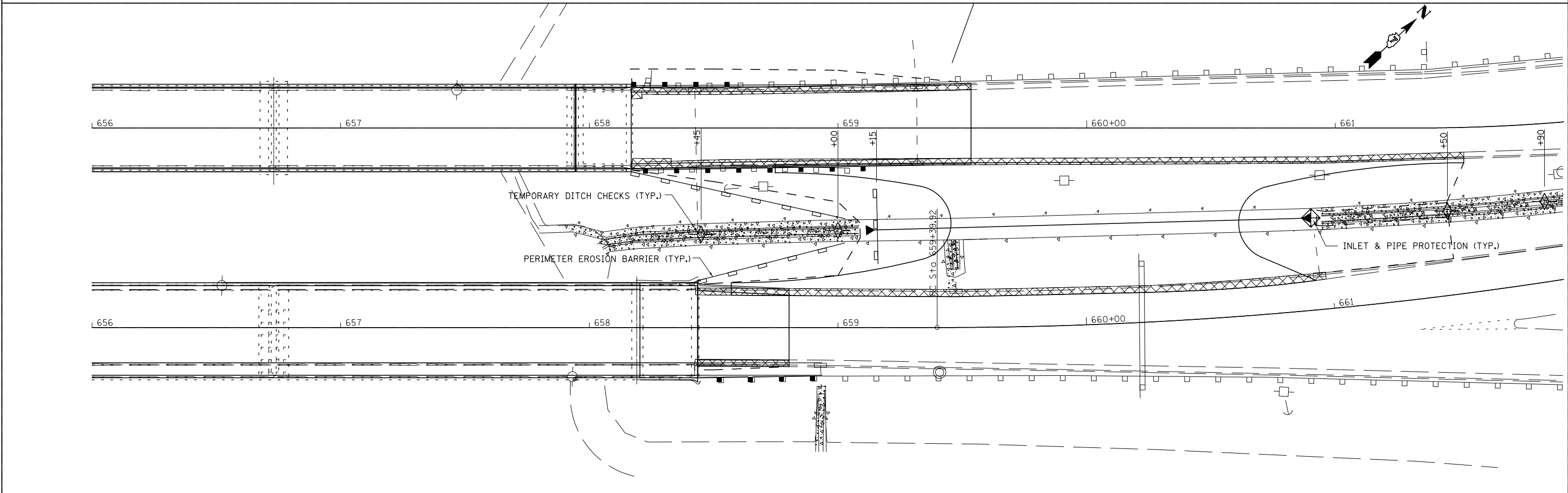
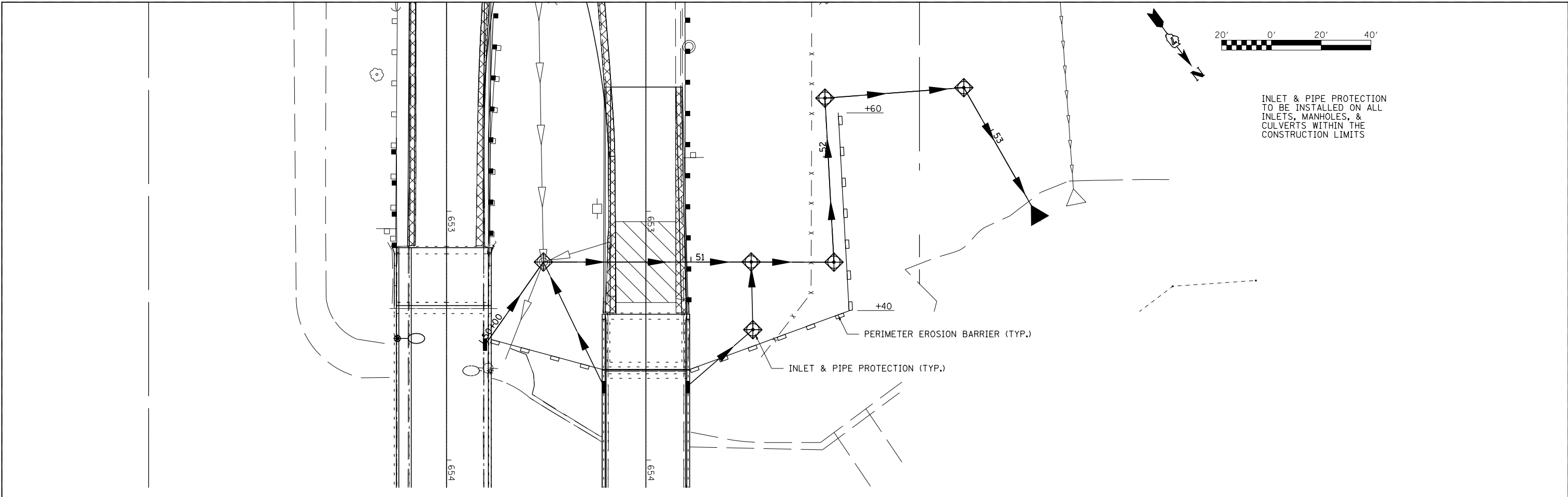


PLAN

DATE	
BY	
SURVEYED	
PLOTTED	
ALIGNED	
CHECKED	
DESIGNED	
FILE NAME	
NO.	

PROFILE

DATE	
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
STRUCTURE	
NOTATIONS CHECKED	
NO.	



FILE NAME =	USER NAME = \$USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL SHEET			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
*FILEL\$		DRAWN -	REVISED -		SCALE:	SHEET 1	OF 1 SHEETS	STA.	TO STA.	710	(48-X-B-2)BR & (48BR)BR	MACON	144	32
		CHECKED -	REVISED -		CONTRACT NO. 74438									
*MODELNAME\$		DATE -	REVISED -		ILLINOIS FED. AID PROJECT									

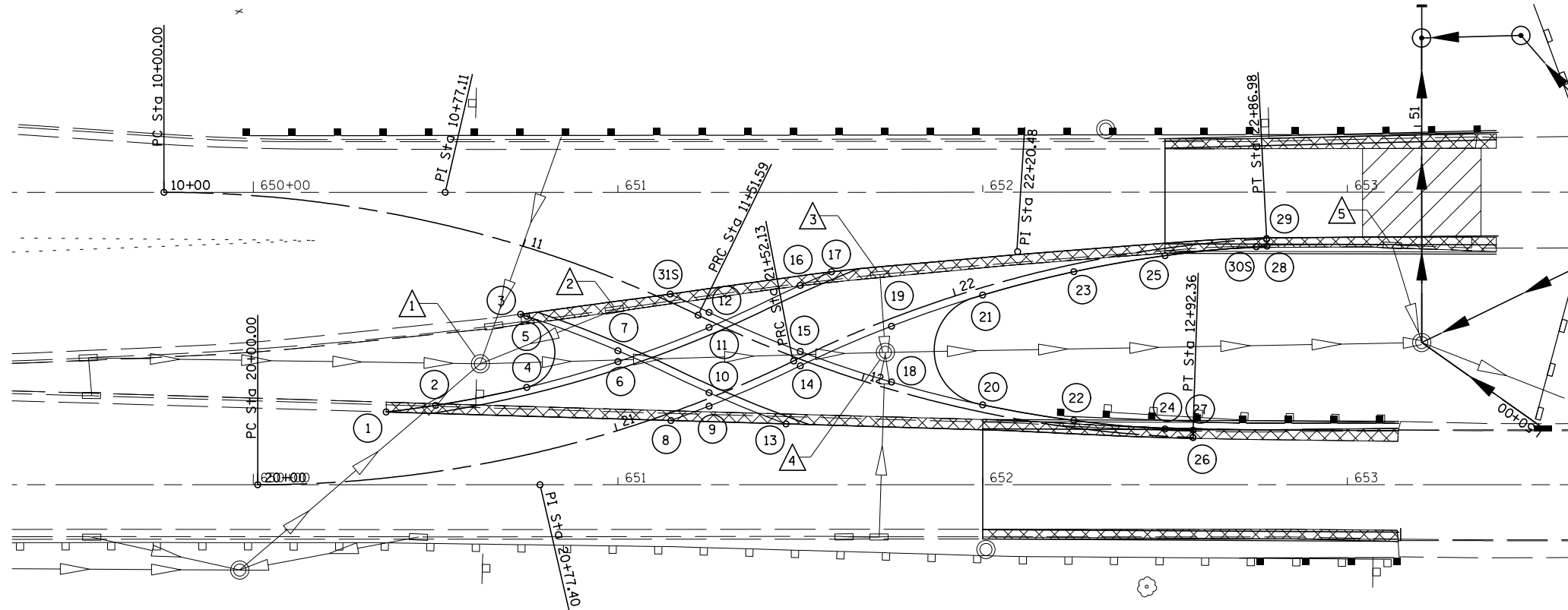
1 MANHOLES TO BE ADJUSTED WITH TYPE 8 GRATE
 EXISTING MANHOLE, OPEN LID
 STA. 650+62.28, 33.16 LT (FROM NB IL 105)
 RIM ELEV. = 630.75 (RIM ELEV. = 630.23)
 12" N (LT) = 625.77
 24" N (RT) = 616.59
 18" SE = 616.59
 12" SW = 623.15
 12" NW = 625.29

4 MANHOLES TO BE ADJUSTED WITH TYPE 8 GRATE
 EXISTING CATCH BASIN (RIM ELEV. = 630.35)
 STA. 651+73.32, 36.31 LT (FROM NB IL 105)
 RIM ELEV. = 631.20
 24" N = 616.17
 12" E = 626.47
 24" S = 616.17
 12" W = 626.02

2 INLETS TO BE ADJUSTED (SPECIAL)
 EXISTING INLET, TYPE B (CURB INLET)
 STA. 650+99.03, 32.21 RT (FROM SB IL 105)
 RIM ELEV. = 630.32 (RIM ELEV. = 630.32)

5 INLETS TO BE ADJUSTED
 STA. 653+12.28, 14.60 RT (FROM SB IL 105)
 RIM ELEV. = 630.62 (RIM ELEV. = 630.69)
 BOTTOM ELEV. = 627.19

3 INLETS TO BE ADJUSTED (SPECIAL)
 EXISTING INLET, TYPE A (CURB INLET)
 STA. 651+71.80, 22.61 RT (FROM SB IL 105)
 RIM ELEV. = 630.50 (RIM ELEV. = 630.50)
 12" E = 627.95



LEGEND

COMBINATION CURB AND GUTTER REMOVAL

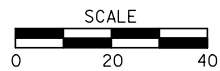
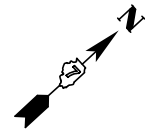
PROP. CURVE XOVR1
 PI STA. = 10+77.11
 P.T. STA = 11+51.59
 P.C. STA = 10+00.00
 E = 8.76'
 L = 151.59'
 T = 77.11'
 R = 335.00'
 D = 17° 06' 12"
 Δ = 25° 55' 34" (RT)

PROP. CURVE XOVR2
 PI STA. = 12+23.03
 Δ = 24° 04' 33" (LT)
 D = 17° 06' 12"
 R = 335.00'
 T = 71.44'
 L = 140.77'
 E = 7.53'
 P.C. STA = 11+51.59
 P.T. STA = 12+92.36

PROP. CURVE XOVR3
 PI STA. = 20+77.40
 Δ = 26° 01' 08" (LT)
 D = 17° 06' 12"
 R = 335.00'
 T = 77.40'
 L = 152.13'
 E = 8.83'
 P.C. STA = 20+00.00
 P.T. STA = 21+52.13

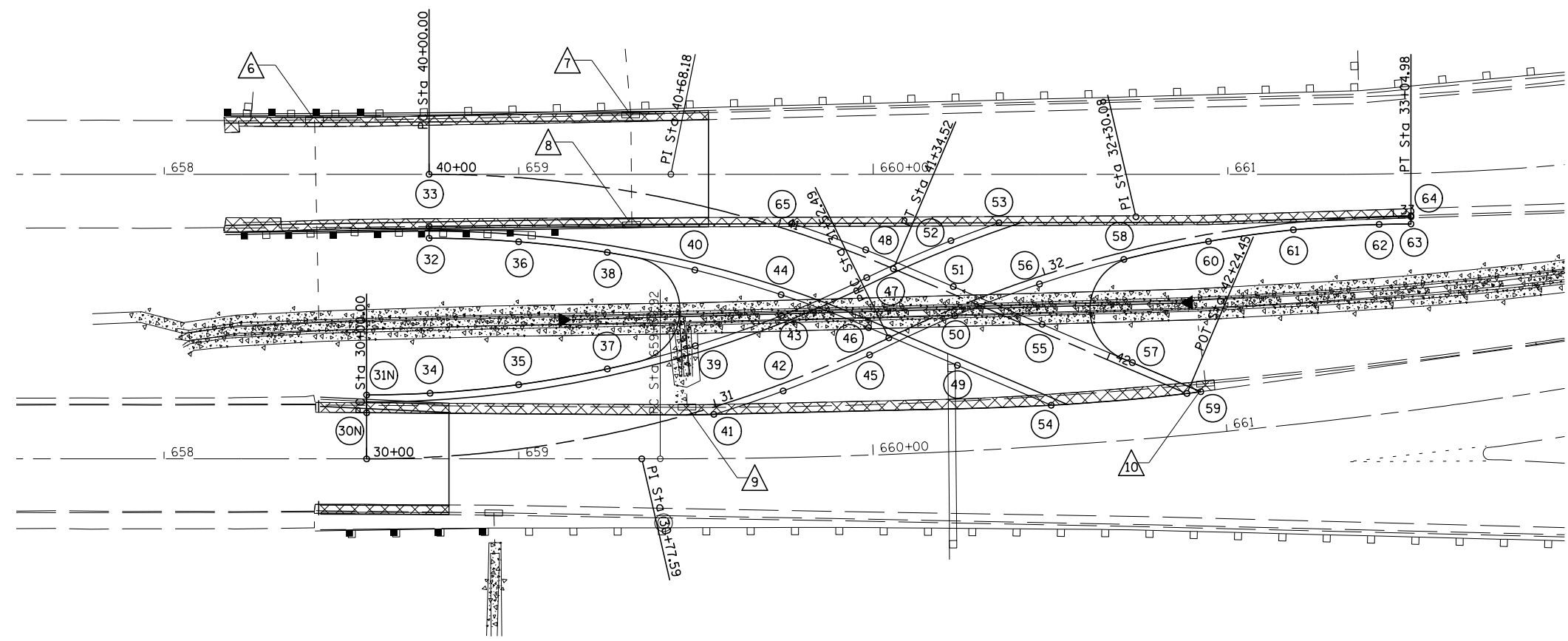
PROP. CURVE XOVR4
 PI STA. = 22+20.48
 Δ = 23° 03' 48" (RT)
 D = 17° 06' 12"
 R = 335.00'
 T = 68.35'
 L = 134.85'
 E = 6.90'
 P.C. STA = 21+52.13
 P.T. STA = 22+86.98

LOCATION	STATION	OFFSET	ELEVATION
1	650+36.44	20.0' LT	630.53
2	650+50.00	21.8' LT	630.52
3	650+73.30	46.8' LT	630.26
4	650+75.00	26.7' LT	630.50
5	650+75.00	46.2' LT	630.27
6	651+00.00	33.8' LT	630.47
7	651+00.00	36.8' LT	630.41
8	651+14.51	17.6' LT	630.64
9	651+25.00	21.6' LT	630.58
10	651+25.00	25.3' LT	630.55
11	651+25.00	43.2' LT	630.51
12	651+25.00	47.3' LT	630.53
13	651+46.08	16.7' LT	630.66
14	651+50.00	32.6' LT	630.54
15	651+50.00	36.6' LT	630.55
16	651+50.00	54.7' LT	630.64
17	651+58.56	58.4' LT	630.68
18	651+75.00	28.2' LT	630.58
19	651+75.00	43.5' LT	630.60
20	652+00.00	21.9' LT	630.60
21	652+00.00	52.0' LT	630.66
22	652+25.00	17.6' LT	630.62
23	652+25.00	58.4' LT	630.71
24	652+50.00	15.3' LT	630.64
25	652+50.00	62.8' LT	630.77
26	652+57.70	13.0' LT	630.65
27	652+57.70	15.0' LT	630.65
28	652+77.95	65.5' LT	630.83
29	652+77.83	67.7' LT	630.84
30S	652+75.00	65.3' LT	630.82
31S	651+14.32	52.3' LT	630.52

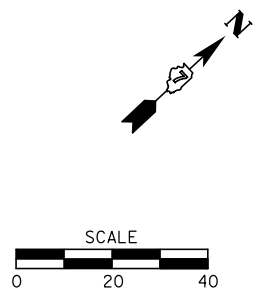


- △ 6 INLETS TO BE ADJUSTED
EXISTING CURB INLET
STA. 658+42.36, 15.40' LT (FROM SB IL 105)
RIM ELEV. = 630.02 (RIM ELEV. = 630.11)
12" E = 625.87
- △ 7 INLETS TO BE ADJUSTED
EXISTING CURB INLET
STA. 659+31.57, 16.75' LT (FROM SB IL 105)
RIM ELEV. = 630.12 (RIM ELEV. = 630.17)
15" E = 626.37
15" W = 626.55
- △ 8 INLETS TO BE ADJUSTED (SPECIAL)
EXISTING CURB INLET
STA. 659+31.82, 14.19' RT (FROM SB IL 105)
RIM ELEV. = 630.16 (RIM ELEV. = 630.21)

- △ 9 INLETS TO BE ADJUSTED (SPECIAL)
EXISTING CURB INLET
STA. 659+47.52, 14.59' LT (FROM NB IL 105)
RIM ELEV. = 628.67 (RIM ELEV. = 628.67)
12" W = 625.97
- △ 10 INLETS TO BE ADJUSTED (SPECIAL)
EXISTING CURB INLET
STA. 660+95.22, 14.01' LT (FROM NB IL 105)
RIM ELEV. = 629.85 (RIM ELEV. = 629.85)
12" W = 627.55



LOCATION	STATION	OFFSET	ELEVATION
30N	658+57.11	13.0' LT	629.12
31N	658+57.11	18.0' LT	629.04
32	658+74.74	62.2' LT	630.37
33	658+74.74	65.5' LT	630.42
34	658+75.00	18.5' LT	628.97
35	659+00.00	20.9' LT	628.90
36	659+00.00	61.2' LT	630.27
37	659+25.00	25.4' LT	628.85
38	659+25.00	58.2' LT	630.18
39	659+50.00	31.8' LT	628.80
40	659+50.00	53.2' LT	630.07
41	659+55.16	12.5' LT	628.89
42	659+75.00	18.8' LT	629.27
43	659+75.00	40.0' LT	629.65
44	659+75.00	45.9' LT	629.97
45	660+00.00	28.2' LT	629.80
46	660+00.00	35.9' LT	629.90
47	660+00.00	50.0' LT	630.40
48	660+00.00	57.9' LT	630.53
49	660+25.00	24.2' LT	629.75
50	660+25.00	38.2' LT	630.30
51	660+25.00	46.4' LT	630.60
52	660+25.00	59.4' LT	630.98
53	660+39.36	63.7' LT	631.32
54	660+51.03	11.4' LT	629.54
55	660+50.00	34.3' LT	630.37
56	660+50.00	45.7' LT	630.90
57	660+75.00	21.7' LT	630.14
58	660+75.00	50.9' LT	631.55
59	660+93.70	11.8' LT	629.97
60	661+00.00	53.8' LT	632.18
61	661+25.00	54.5' LT	632.81
62	661+50.00	53.2' LT	633.45
63	661+59.54	52.1' LT	633.68
64	661+59.22	54.4' LT	633.71
65	659+78.61	65.9' LT	630.68

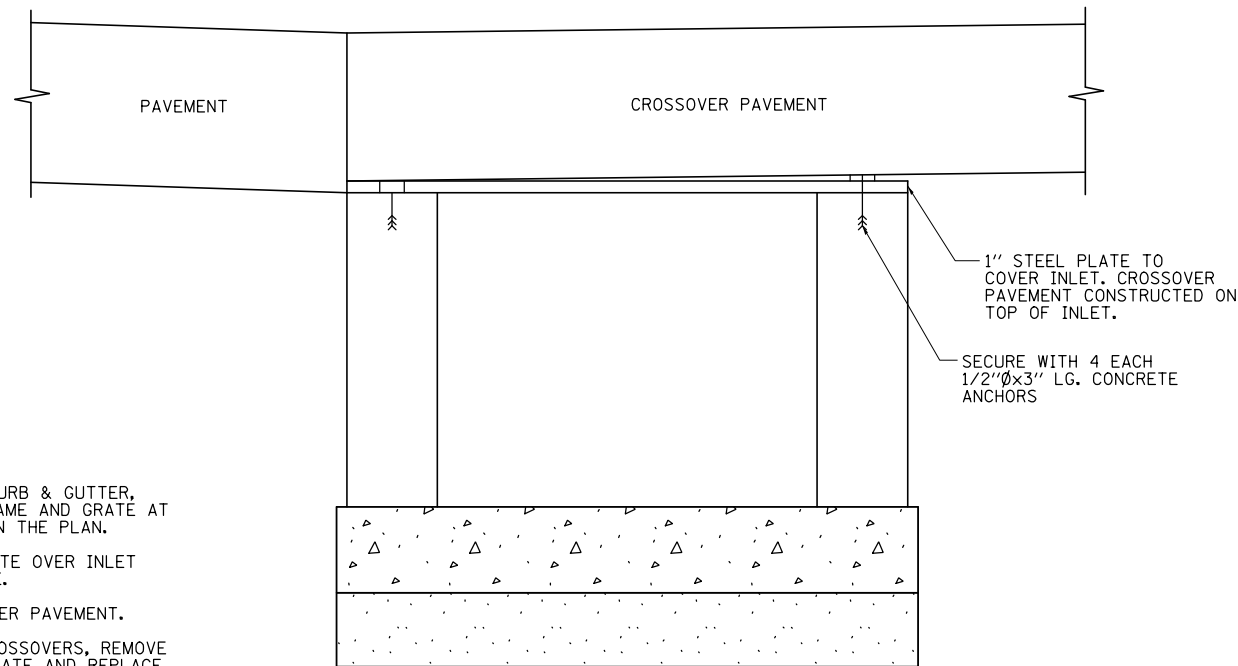
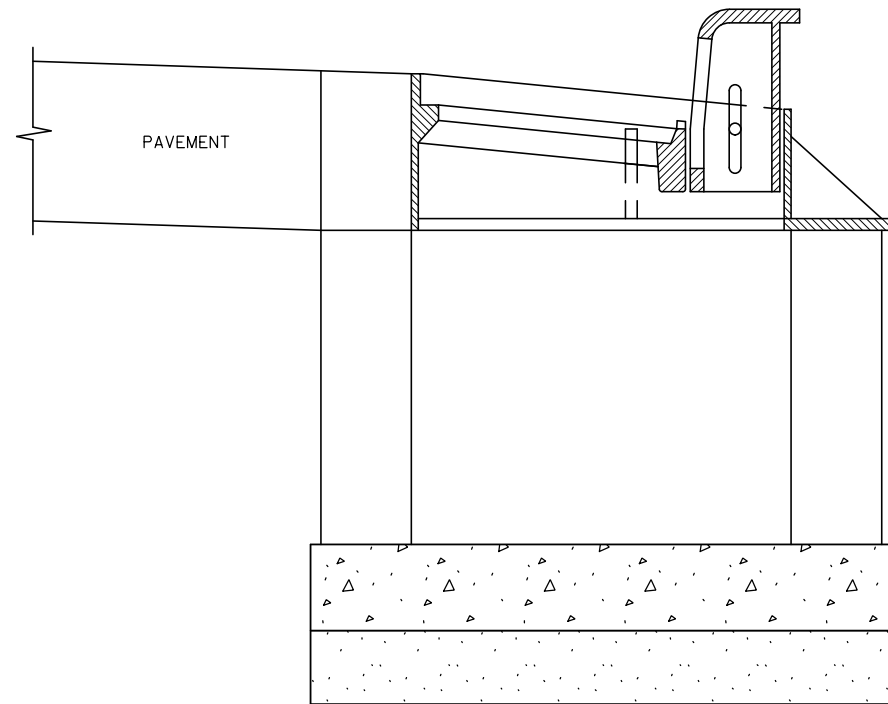


LEGEND
 COMBINATION CURB AND GUTTER REMOVAL

PROP. CURVE XOVR5
 PI STA. = 30+77.59
 $\Delta = 26^\circ 04' 50''$ (LT)
 $D = 17^\circ 06' 12''$
 $R = 335.00'$
 $T = 77.59'$
 $L = 152.49'$
 $E = 8.87'$
 P.C. STA = 30+00.00
 P.T. STA = 31+52.49

PROP. CURVE XOVR6
 PI STA. = 32+30.08
 $\Delta = 26^\circ 04' 50''$ (RT)
 $D = 17^\circ 06' 12''$
 $R = 335.00'$
 $T = 77.59'$
 $L = 152.49'$
 $E = 8.87'$
 P.C. STA = 31+52.49
 P.T. STA = 33+04.98

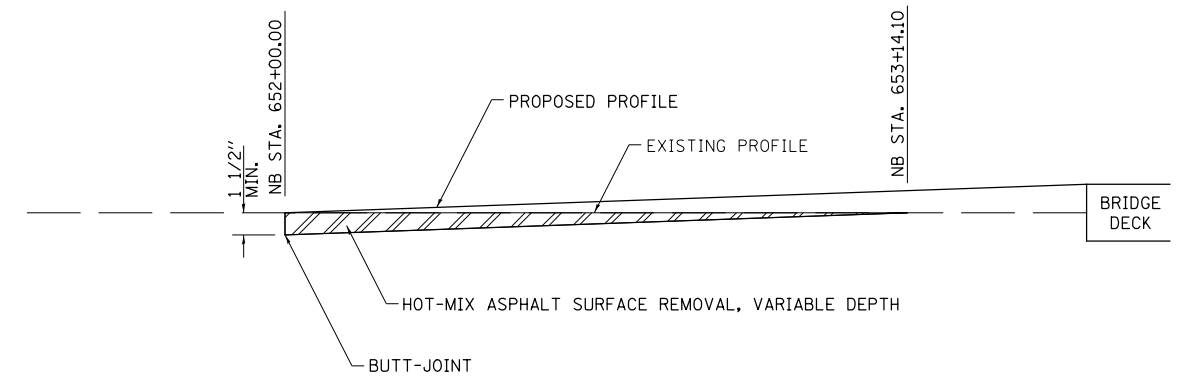
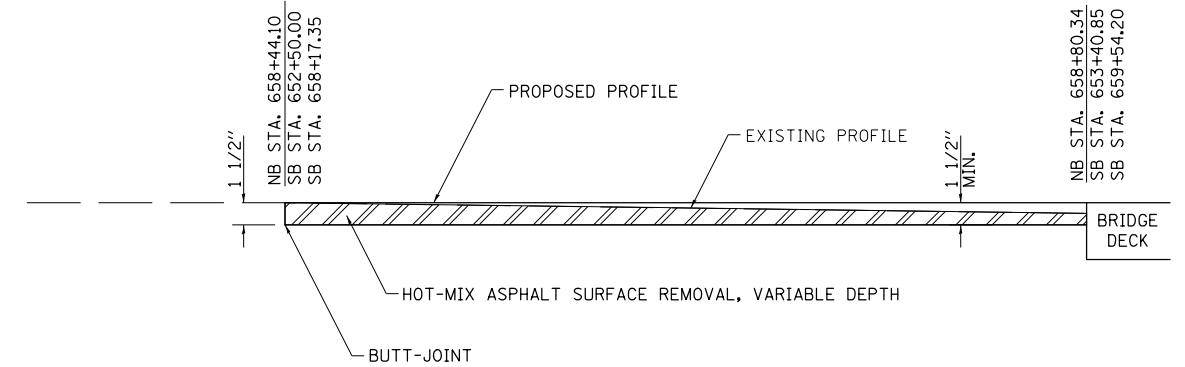
PROP. CURVE XOVR7
 PI STA. = 40+68.18
 $\Delta = 23^\circ 00' 24''$ (RT)
 $D = 17^\circ 06' 12''$
 $R = 335.00'$
 $T = 68.18'$
 $L = 134.52'$
 $E = 6.87'$
 P.C. STA = 40+00.00
 P.T. STA = 41+34.52



NOTES:

1. REMOVE CONCRETE CURB & GUTTER, SALVAGE TYPE 3 FRAME AND GRATE AT LOCATIONS SHOWN ON THE PLAN.
2. PLACE 1" STEEL PLATE OVER INLET OPENING AND SECURE.
3. CONSTRUCT CROSSOVER PAVEMENT.
4. FOR REMOVAL OF CROSSOVERS, REMOVE PAVEMENT, STEEL PLATE AND REPLACE TYPE 3 FRAME AND GRATE.
5. CONSTRUCT NEW CONSTRUCTION CURB AND GUTTER, TYPE B-6.24

INLETS TO BE ADJUSTED (SPECIAL)



ALL HOT-MIX ASPHALT SURFACE REMOVAL WILL BE PAID FOR AS "HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH"

MILLING AND BUTT JOINT DETAILS

FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -
FILEL		DRAWN -	REVISED -
	PLOT SCALE = *SCALE*	CHECKED -	REVISED -
	PLOT DATE = *DATE*	DATE -	REVISED -

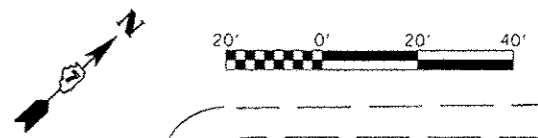
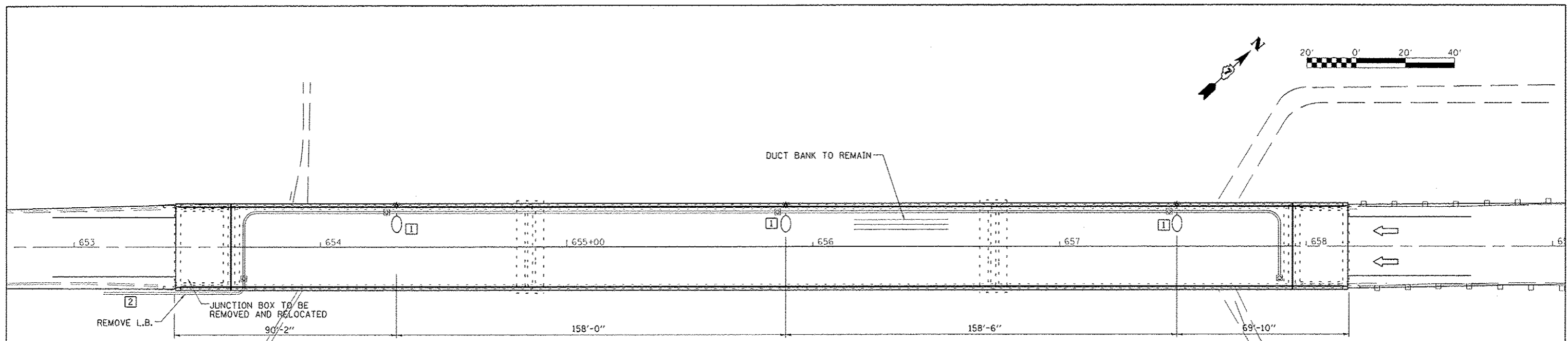
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	35
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
PLANNED	
FILED	
NO.	

DATE	
BY	
DESIGNED	
CHECKED	
DRAWN	
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FILED	
NO.	

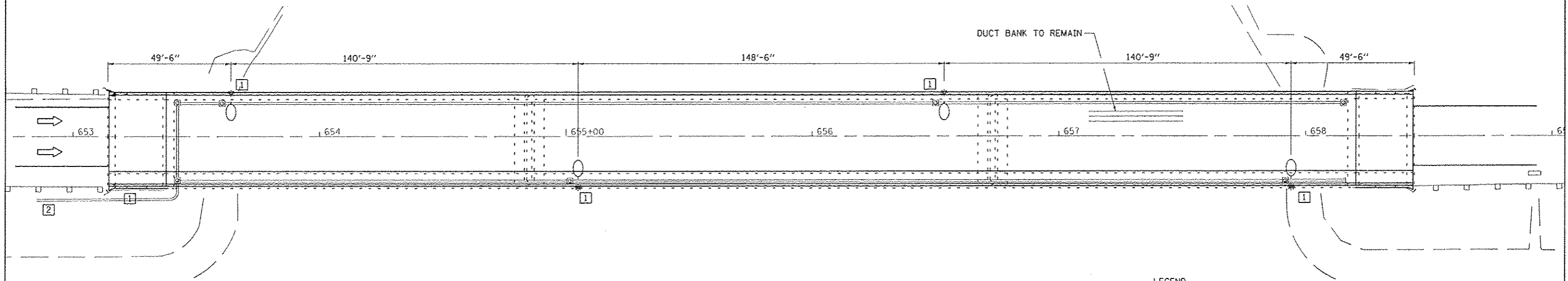


GENERAL NOTES FOR DEMOLITION

- DISCONNECT AND REMOVE ELECTRICAL ITEMS AND ASSOCIATED CONDUIT, WIRING, ETC. AS SHOWN OR NOTED.
- DISCONNECT AND REMOVE ALL DEVICES, CONDUIT, WIRING, ETC. ASSOCIATED WITH LIGHTING AND POWER SYSTEMS BEING REMOVED.
- BE RESPONSIBLE FOR CONTINUITY OF ALL EXISTING POWER AND LIGHTING CIRCUITS AND SYSTEMS OF ALL REMAINING DEVICES AND SYSTEMS WHICH MAY BE AFFECTED BY MODIFICATIONS.
- EXISTING CIRCUIT CONDUCTORS CONNECTED TO OTHER FIXTURES, DEVICES OR OTHER ELECTRICAL EQUIPMENT THAT ARE NOT TO BE REMOVED OR DISCONNECTED AND ARE PASSING THROUGH OUTLET BOXES, FIXTURES, AND CONDUIT THAT ARE BEING REMOVED, SHALL BE REROUTED FROM REMAINING EXISTING DEVICE TO NEXT REMAINING DEVICE AS NECESSARY TO KEEP REMAINING DEVICES IN SERVICE AND EXISTING CIRCUIT CONDUCTORS CONTINUOUS.
- FOR EACH ITEM DISCONNECTED AND REMOVED, DISCONNECT AND REMOVE ABANDONED CIRCUIT WIRING AND CONDUIT BACK TO NEXT ACTIVE REMAINING DEVICE OR TO PANEL OR SWITCHBOARD FROM WHICH THE CIRCUIT ORIGINATES.
- FOR EACH ITEM DISCONNECTED AND REMOVED, DISCONNECT AND REMOVE ABANDONED, EXPOSED CONDUITS AND/OR CONDUITS MADE EXPOSED BY DEMOLITION, BACK TO NEXT ACTIVE REMAINING DEVICE OR TO PANEL OR SWITCHBOARD FROM WHICH THE CIRCUIT ORIGINATES.
- TURN OVER ALL REMOVED LIGHT FIXTURES TO THE OWNER AND DELIVER TO A PLACE OF STORAGE AS DIRECTED.

KEYED NOTES (FOR THIS SHEET ONLY)

- 1 REMOVE ALL CONDUIT, WIRE, LIGHTING POLES, FIXTURES AND JUNCTION BOXES UNLESS OTHERWISE NOTED.
- 2 EXISTING RIGID CONDUIT AND WIRE TO REMAIN.



LEGEND

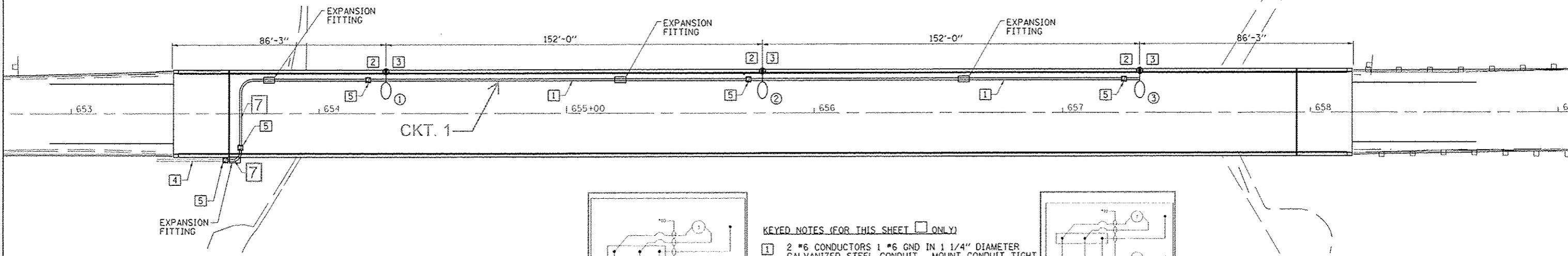
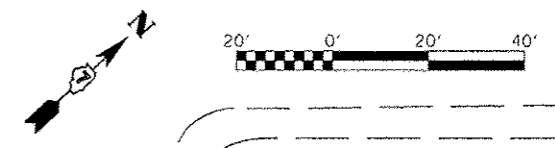
- ⊗ EXISTING JUNCTION BOX
- * EXISTING MAST ARM LIGHT POLE WITH LUMINAIRE
- EXISTING CONDUIT
- EXISTING CONDUIT STUB
- 1 INDICATES KEYED NOTE FOR SHEET ON WHICH IT APPEARS UNLESS OTHERWISE NOTED.

REV.

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING PLAN (REMOVAL)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		CHECKED -	REVISED -			710	(48-X-B-2)BR & (48BR)BR	MACON	144	36
		DRAWN -	REVISED -			SCALE: SHEET NO. 1 OF 3 SHEETS STA. TO STA.		CONTRACT NO. 74438		
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT				

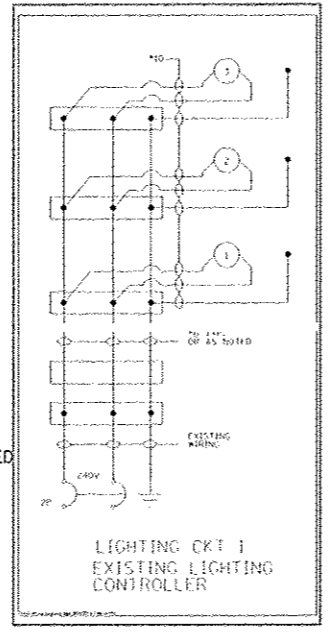
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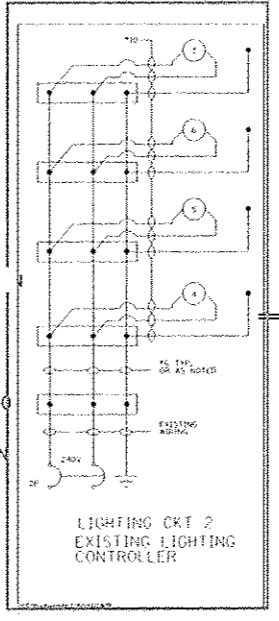
GENERAL LIGHTING NOTES:

1. EXISTING LIGHT POLES, LUMINAIRES AND FOUNDATIONS ARE TO BE REMOVED, AND ALL ASSOCIATED HARDWARE AND APPURTANCES ARE TO BE SALVAGED. THE CONTRACTOR SHALL RETURN THE PROPERTY TO THE CITY OF DECATUR.
2. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ELECTRICAL WORK WITH OTHER TRADES AND ALL SERVICE CONNECTIONS WITH LOCAL UTILITY COMPANY.
3. CONTRACTOR SHALL INSTALL LIGHT POLES AT THE LOCATIONS INDICATED ON THE PLANS, MAINTAINING ADEQUATE CLEARANCE FROM OVERHEAD UTILITY LINES. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY CLEARANCES PER NATIONAL ELECTRICAL SAFETY CODE AND/OR THE REQUIREMENTS OF THE UTILITY COMPANIES. THE LOCATION OF BURIED AND ABOVE GROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE SHOWN FOR INFORMATION ONLY. REROUTING, DISCONNECTION, RELOCATION, PROTECTION, ETC. OF ANY UTILITIES MUST BE COORDINATED BETWEEN THE CONTRACTOR, UTILITY COMPANY, AND OWNER. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE LIGHTING SYSTEM UNTIL IDOT HAS THE ACCEPTANCE OF THE SYSTEM. ALL EXISTING CIRCUITS AND CABLES TO THE LIGHT POLES SHALL BE MAINTAINED AS NEEDED AND THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.
5. BREAKWAY DEVICES SHALL NOT BE INSTALLED FOR POLES MOUNTED ON BRIDGE PARAPET WALLS.
6. THE CONTRACTOR SHALL COMPLY WITH ALL THE LATEST IDOT, NEC AND LOCAL CODES AND ORDINANCES.



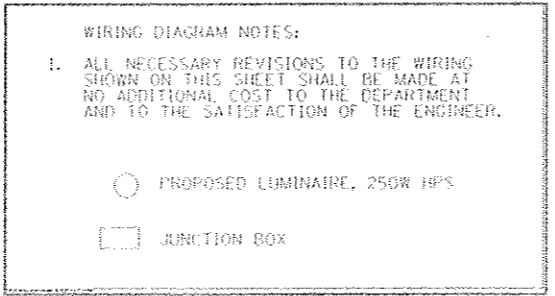
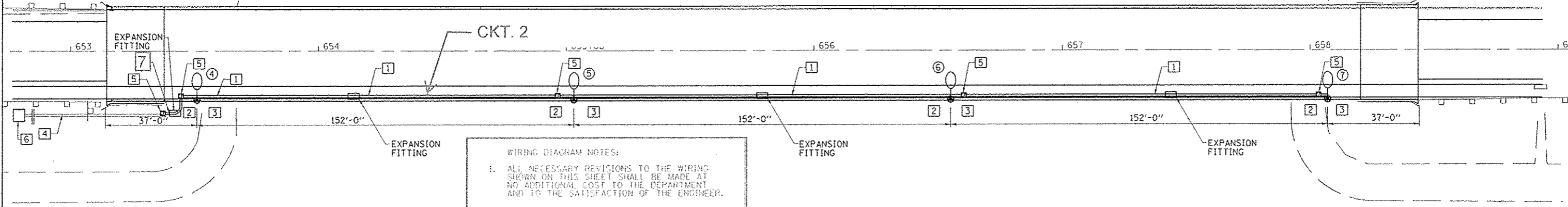
KEYED NOTES (FOR THIS SHEET ONLY)

- 1 2 #6 CONDUCTORS 1 #6 GND IN 1 1/4" DIAMETER GALVANIZED STEEL CONDUIT. MOUNT CONDUIT TIGHT TO UNDERSIDE OF BRIDGE DECK.
- 2 2 #10 CONDUCTORS WITH 1 #10 GND IN 2" DIAMETER PVC CONDUIT EMBEDDED IN STRUCTURE. (SEE STRUCTURE PLANS)
- 3 COORDINATE THE INSTALLATION OF 2" DIA. EMBEDDED PVC CONDUIT, COUPLING AND 2" GALV. STEEL CONDUIT WITH BRIDGE CONTRACTOR. COST OF COUPLING SHALL BE INCLUDED IN THE COST OF 2" DIA. GALV. STEEL CONDUIT
- 4 FIELD VERIFY EXISTING CONDUIT AND CONDUCTORS TO REMAIN.
- 5 PROVIDE AND INSTALL 6" SQUARE, 4" DEEP JUNCTION BOX WITH STAINLESS STEEL, TAMPER PROOF SCREWS ATTACHED TO STRUCTURE.
- 6 PROVIDE AND INSTALL 12"x10"x6" STAINLESS STEEL JUNCTION BOX TO REPLACE THE EXISTING BOX CONTAINING THE LIGHT CONTROL EQUIPMENT.
- 7 2 1/C #6 AND 1/C #6 GND IN 1 1/4" DIA. STAINLESS STEEL CONDUIT



LEGEND

- JUNCTION BOX STAINLESS STEEL, ATTACHED TO STRUCTURE, 6"x4"x4"
- LIGHT POLE, ALUMINUM, 35 FT M.H., 10 FT MAST ARM, WITH LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT AND VIBRATION ISOLATION PADS.
- RIGID CONDUIT
- 1 INDICATES KEYED NOTE FOR SHEET ON WHICH IT APPEARS UNLESS OTHERWISE NOTED.
- LIGHTPOLE NUMBER



REV.

FILE NAME :	USER NAME : USERS	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING PLAN		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILE# :	PLOT SCALE : *SCALE*	CHECKED -	REVISED -		SCALE:	SHEET NO. 2 OF 3 SHEETS	STA. TO STA.	710	(48-X-B-2)BR & (48)BR	MACON	144	37
	PLOT DATE : *DATE*	DRAWN -	REVISED -					CONTRACT NO. 74438				
		CHECKED -	REVISED -					ILLINOIS FED. AID PROJECT				

Bench Mark: Brass Plug on SE wingwall N.B. S.N.058-0008 over IL 105 Elevation = 640.56

Existing Structure: S.N. 058-0049 built in 1971 as F.A. Rt. 2 Section 48BR at Station 655+79.10. The superstructure consists of three span continuous steel plate girders with a reinforced concrete deck slab and bituminous overlay (1984). Approach slabs are supported off of vaulted abutments and approach bents on precast piles. The solid wall piers are supported on precast piled footings. The structure length measure 476'-6" bk-to-bk of approach bents and 34'-0" out-to-out of deck with no skew. Spans 1 & 3 are 120'-9" and Span 2 is 188'-0". The vaulted abutments slabs are 21'-2 1/2" long. Existing concrete decks, abutment backwalls and abutment bearings to be removed and replaced.

Traffic to be maintained detour to SN 058-0010 (IL 105) with crossovers.

No Salvage

LOADING HS20-44

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

DESIGN SPECIFICATIONS (NEW CONST.)

(NEW CONSTRUCTION)

2002 AASHTO Standard Specifications

SEISMIC DATA

Seismic Performance Category (SPC)=A
Bedrock acceleration coefficient (A) = 0.048
Site Coefficient (S) = 1.2

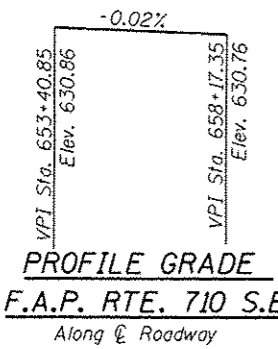
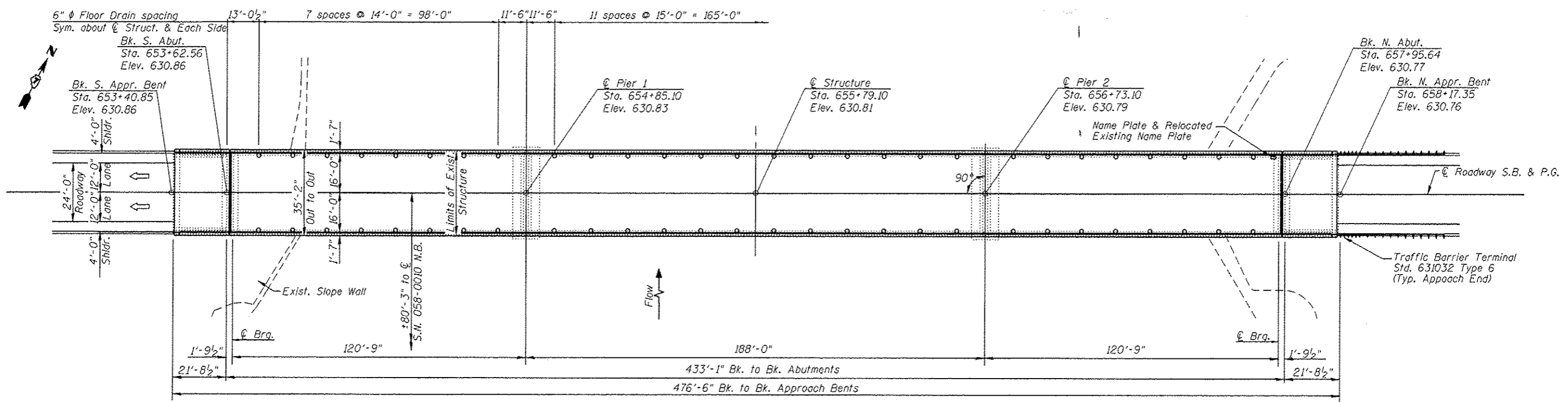
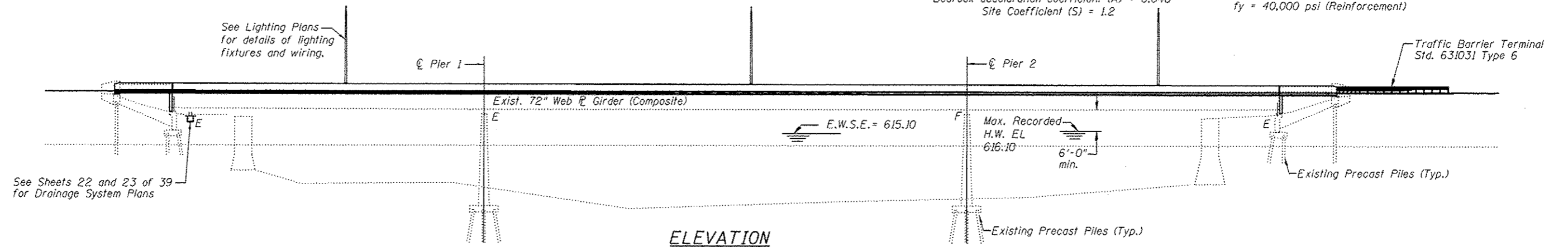
DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (Steel)

FIELD UNITS (EXIST. CONSTRUCTION)

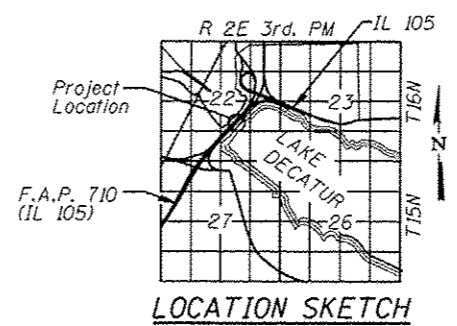
fy = 36,000 psi (Structural Steel)
f'c = 3,500 psi (Substructure)
fy = 40,000 psi (Reinforcement)



APPROVED
For Structural Adequacy Only
Mary Louise Blodgett
Engineer of Bridges & Structures



Mary Louise Blodgett
ILLINOIS STRUCTURAL NO. 4859
EXPIRES 11/30/14
DATE: 06/11/14



GENERAL PLAN AND ELEVATION
IL 105 SOUTHBOUND
OVER LAKE DECATUR
F.A.P. 710 - SEC. (48X-B-2)BR & (48BR)BR
MACON COUNTY
STATION 655+79.10
STRUCTURE NO. 058-0049

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME *	USER NAME *	DESIGNED PBB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 058-0049 SHEET NO. 1 OF 39 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		CHECKED MCB	REVISED -			710	(48X-B-2)BR & (48BR)BR	MACON	144	39	
		DRAWN MLO	REVISED -			CONTRACT NO. 74438					
		CHECKED PBB/MCB	REVISED -			ILLINOIS FED. AID PROJECT					

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 General Notes and Bill of Material
- 3-5 Top of Slab Elevations
- 6 Top of South Approach Slab Elevations
- 7 Top of North Approach Slab Elevations
- 8 Superstructure
- 9-11 Superstructure Details
- 12 Vaulted Approach Slab
- 13 Vaulted Approach Slab Details
- 14 Preformed Joint Strip Seal
- 15 Modular Expansion Joint
- 16 Framing Plan
- 17 North Abutment Bearing Details
- 18 South Abutment Bearing Details
- 19 Concrete Removal Details
- 20 Abutment Backwall Details
- 21 Concrete Parapet Slipforming Option
- 22-23 Drainage System
- 24-39 Existing Bridge Plans

GENERAL NOTES

Fasteners shall be ASTM A325 Type I, mechanically galvanized bolts, bolts $\frac{3}{4}$ in. ϕ , holes $\frac{13}{16}$ in. ϕ , unless otherwise noted.

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding $\frac{1}{4}$ in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

If the Contractor elects to use cantilever forming brackets on the exterior girders. The brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Concrete Sealer shall be applied to the designated areas of the abutment hatched block and backwalls.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

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

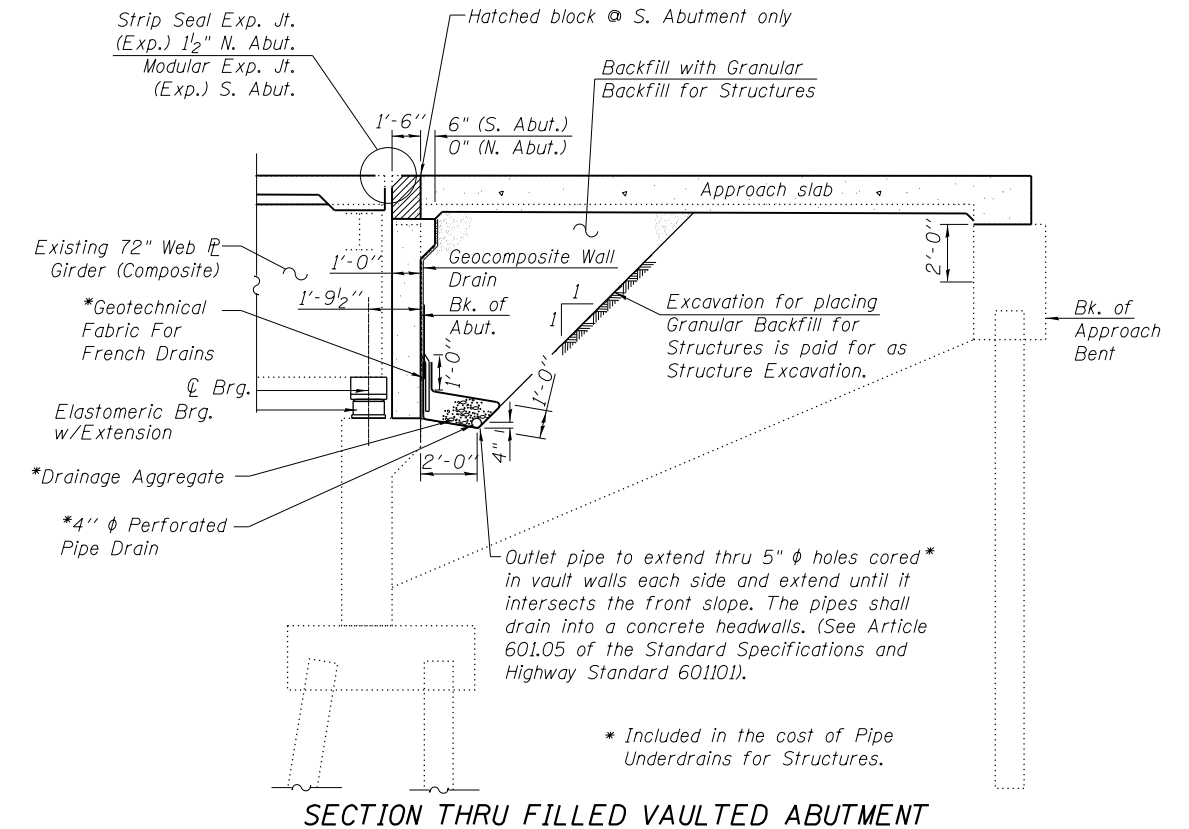
Slipforming of parapets is not allowed at parapet sections with light pedestals.

All new structural steel for modular joint shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Granular Backfill for Structures	Cu Yd	91		91
Concrete Removal	Cu. Yd.		95.2	95.2
Removal of Existing Concrete Deck No. 2	Each	1		1
Structure Excavation	Cu. Yd.		91	91
Floor Drains	Each	56		56
Concrete Structures	Cu. Yd.		17.4	17.4
Concrete Superstructure	Cu. Yd.	607.6		607.6
Bridge Deck Grooving	Sq. Yd.	1,568		1,568
* Protective Coat	Sq. Yd.	2,085		2,085
Furnishing and Erecting Structural Steel	Pound		2,524	2,524
Stud Shear Connectors	Each	3,465		3,465
Reinforcement Bars, Epoxy Coated	Pound	129,855	2,640	132,495
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	34		34
Elastomeric Bearing Assembly, Type I	Each		5	5
Elastomeric Bearing Assembly, Type III	Each		5	5
Anchor Bolts, $\frac{5}{8}$ "	Each		40	40
Concrete Sealer	Sq Ft	520		520
Geocomposite Wall Drain	Sq Yd	49		49
Pipe Underdrains for Structures 4"	Foot	161		161
Jack and Remove Existing Bearings	Each		10	10
Modular Expansion Joint 6"	Foot	34		34
Drainage System, No. 2	Each	1		1

* Apply on new concrete only



STATION 655+79.10
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. 710 SEC. (48X-B-2)BR & (48BR)BR
LOADING HS20-44
STR. NO. 058-0049

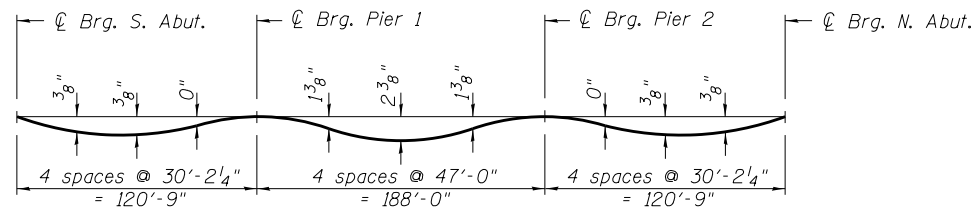
NAME PLATE

See Std. 515001

Existing Name Plate shall be cleaned and relocated next to new Name Plate.
Cost included with Name Plates.

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND BILL OF MATERIAL STRUCTURE NO. 058-0049	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED <i>MCB</i>	REVISED -	710			(48X-B-2)BR & (48BR)BR	MACON	144	40	
PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -		CONTRACT NO. 74438						
PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -		SHEET NO. 2 OF 39 SHEETS						
ILLINOIS FED. AID PROJECT										

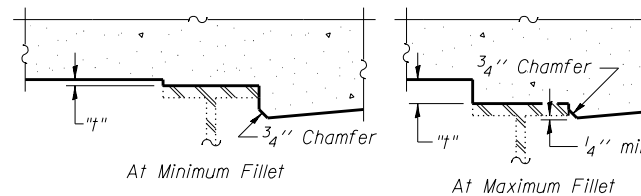


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

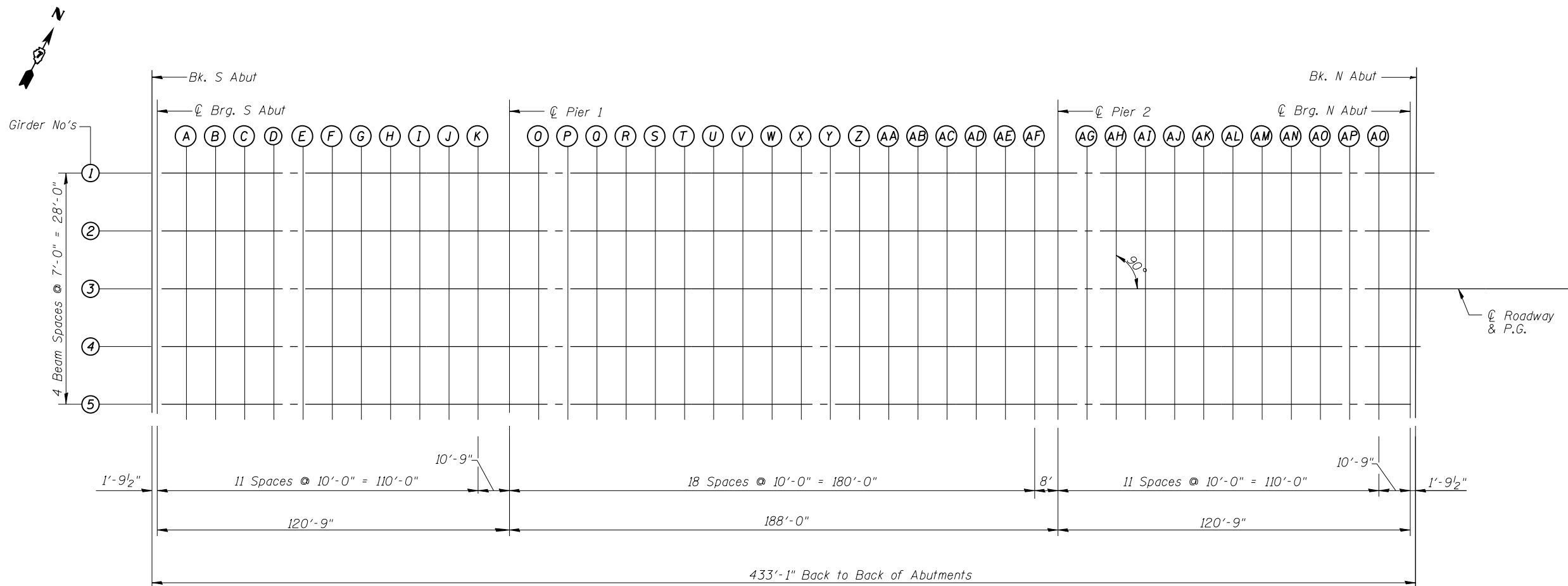
Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 4 and 5 of 39.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 4 and 5 of 39, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 058-0049**

SHEET NO. 3 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	41
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't.	653+41.35	-16.00	630.59
A	653+51.35	-16.00	630.59
N. End of S. Appr. Pav't.	653+62.06	-16.00	630.59

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't.	653+41.35	-12.00	630.67
A	653+51.35	-12.00	630.67
N. End of S. Appr. Pav't.	653+62.06	-12.00	630.67

☉ ROADWAY & PG

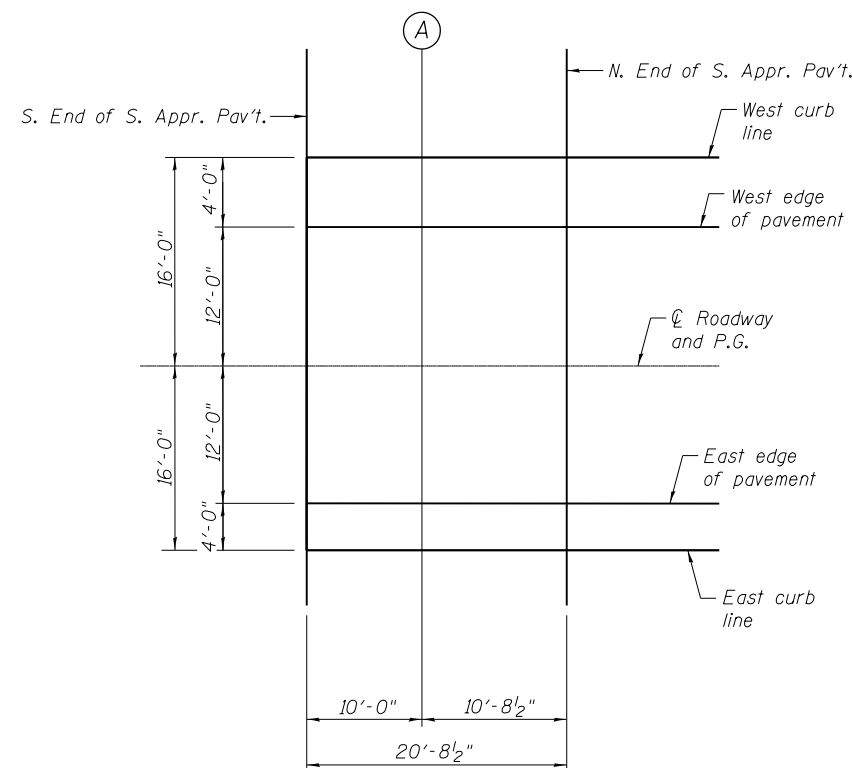
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't.	653+41.35	0.00	630.86
A	653+51.35	0.00	630.86
N. End of S. Appr. Pav't.	653+62.06	0.00	630.86

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't.	653+41.35	12.00	630.67
A	653+51.35	12.00	630.67
N. End of S. Appr. Pav't.	653+62.06	12.00	630.67

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't.	653+41.35	16.00	630.59
A	653+51.35	16.00	630.59
N. End of S. Appr. Pav't.	653+62.06	16.00	630.59



PLAN

E-AS

7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-0049**

SHEET NO. 6 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	44
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	657+94.64	-16.00	630.49
B	658+04.64	-16.00	630.49
N. End of N. Appr. Pav't.	658+16.85	-16.00	630.49

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	657+94.64	-12.00	630.57
B	658+04.64	-12.00	630.57
N. End of N. Appr. Pav't.	658+16.85	-12.00	630.57

☉ ROADWAY & PG

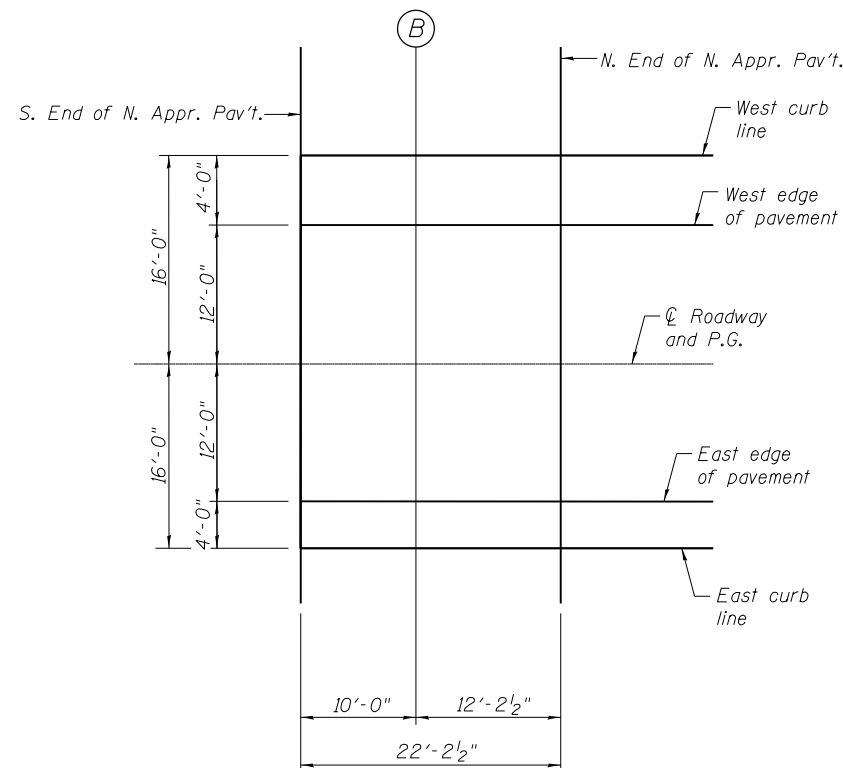
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	657+94.64	0.00	630.76
B	658+04.64	0.00	630.76
N. End of N. Appr. Pav't.	658+16.85	0.00	630.76

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	657+94.64	12.00	630.57
B	658+04.64	12.00	630.57
N. End of N. Appr. Pav't.	658+16.85	12.00	630.57

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	657+94.64	16.00	630.49
B	658+04.64	16.00	630.49
N. End of N. Appr. Pav't.	658+16.85	16.00	630.49



PLAN

E-AS

7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

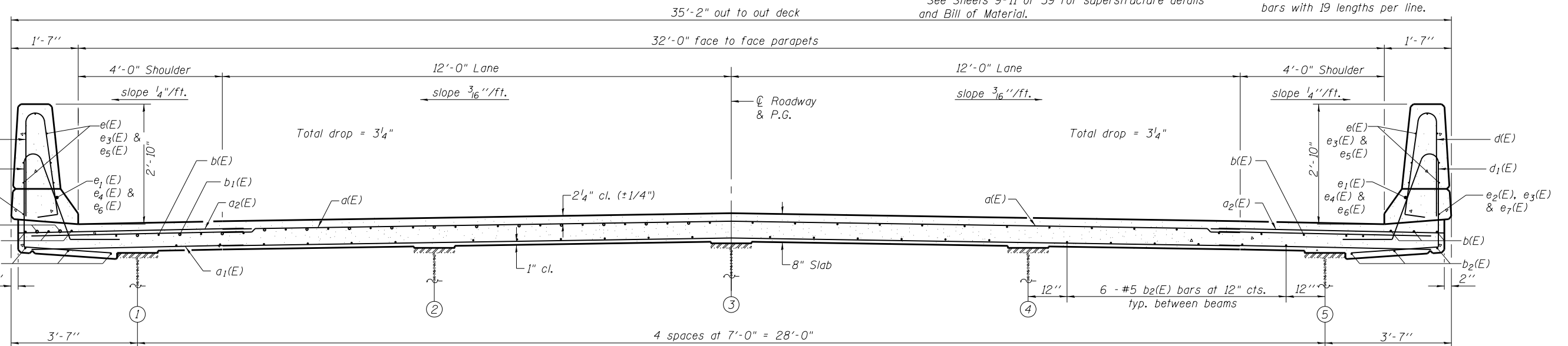
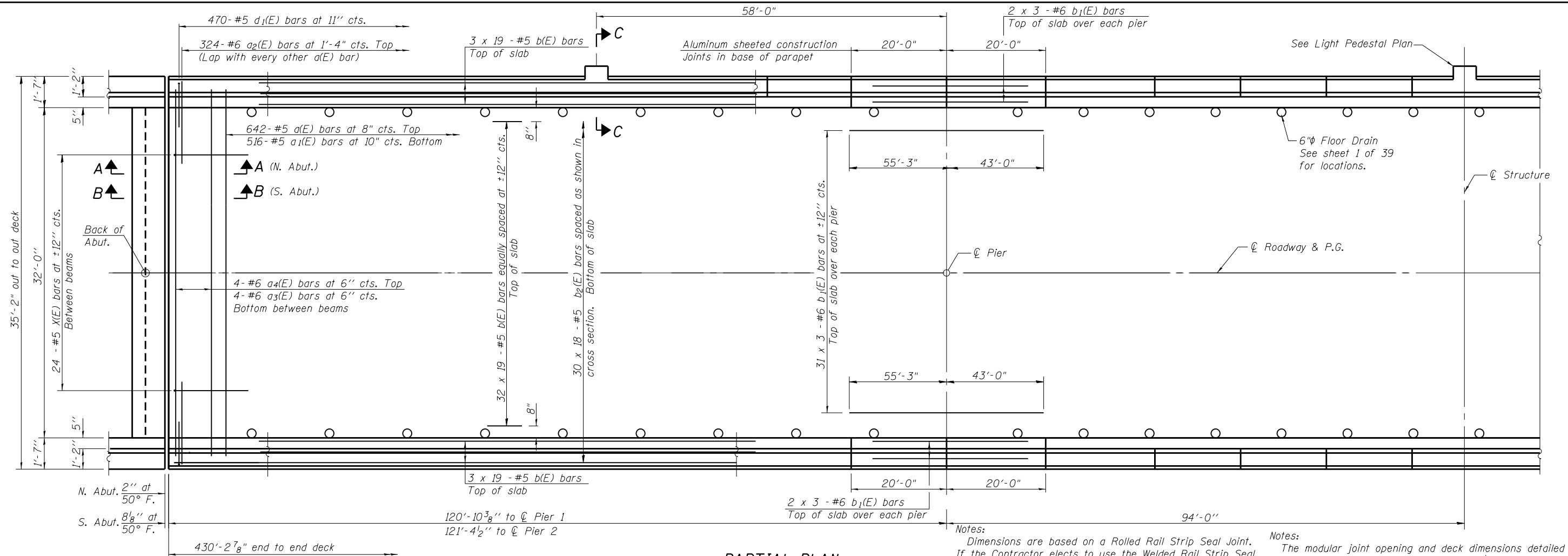
FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-0049**

SHEET NO. 7 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	45
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

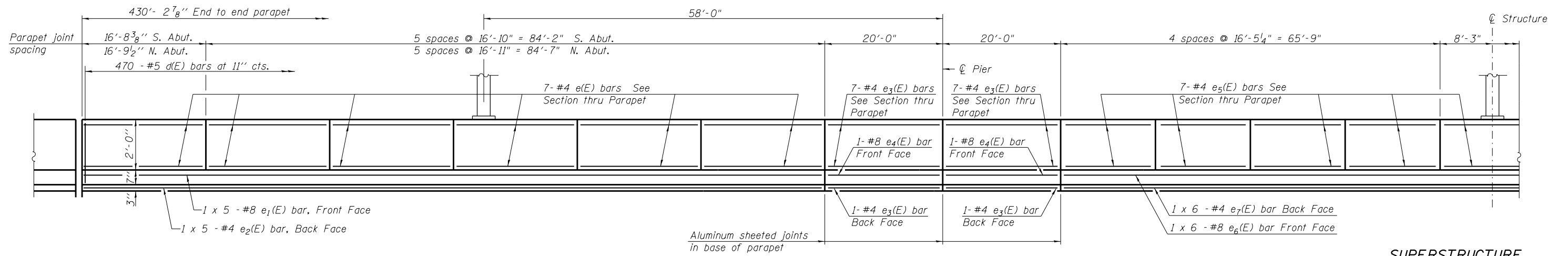
FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
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	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 058-0049

SHEET NO. 8 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	46
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

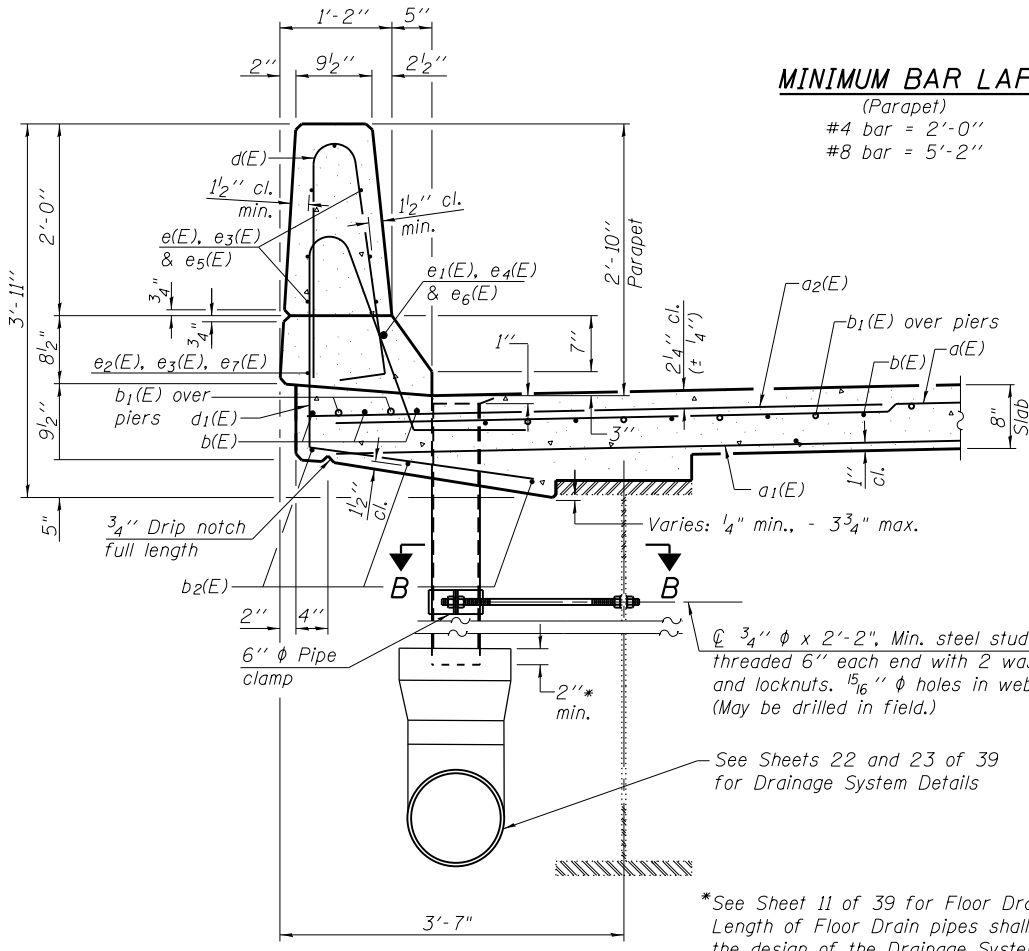


INSIDE ELEVATION OF WEST PARAPET
(Symmetric about ϕ of Structure)
(Similar for East Parapet)

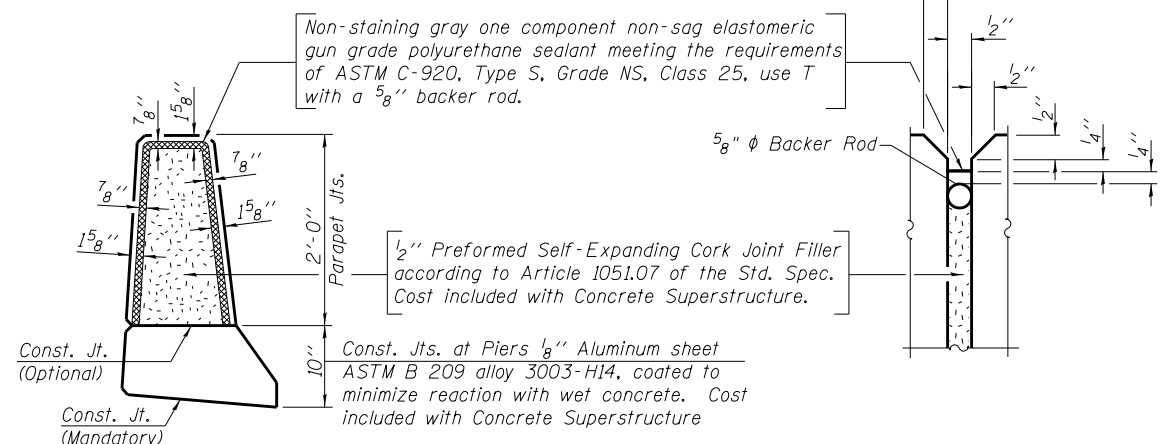
**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	642	#5	34'-4"	—
a1(E)	516	#5	33'-2"	—
a2(E)	648	#6	6'-6"	—
a3(E)	32	#6	6'-10"	U
a4(E)	8	#6	34'-4"	—
b(E)	722	#5	25'-1"	—
b1(E)	210	#6	34'-1"	—
b2(E)	540	#5	26'-4"	—
d(E)	940	#5	5'-7"	L
d1(E)	940	#5	7'-11"	L
d2(E)	9	#6	4'-5"	L
d3(E)	15	#6	8'-11"	U
e(E)	168	#4	16'-6"	—
e1(E)	20	#8	24'-5"	—
e2(E)	20	#4	21'-10"	—
e3(E)	64	#4	19'-9"	—
e4(E)	8	#8	19'-9"	—
e5(E)	126	#4	16'-2"	—
e6(E)	12	#8	29'-0"	—
e7(E)	12	#4	26'-4"	—
x(E)	48	#5	6'-1"	U
Reinforcement Bars, Epoxy Coated		Pound	113,400	
Concrete Superstructure		Cu. Yd.	529.4	
Floor Drains		Each	56	

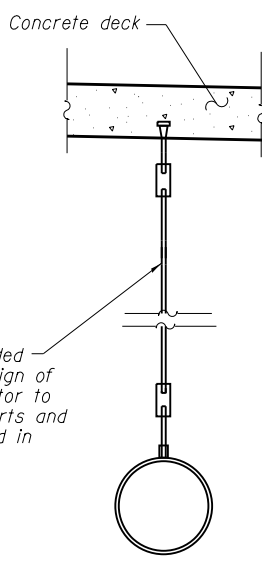
MINIMUM BAR LAP
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



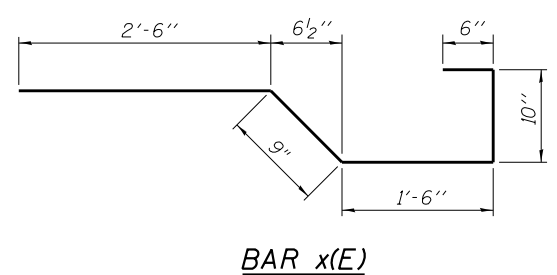
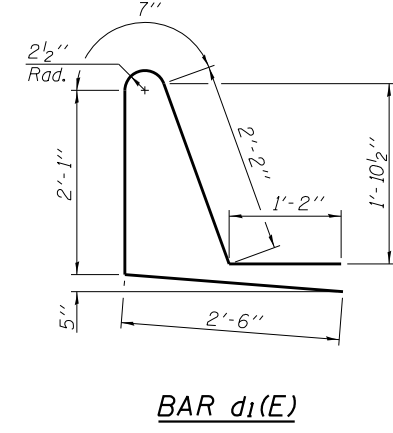
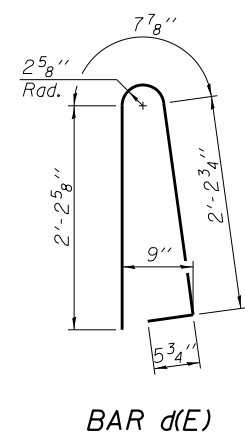
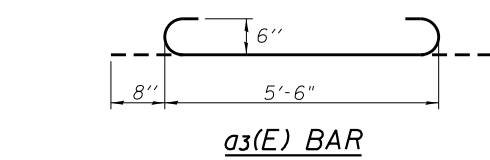
SECTION THRU PARAPET



PARAPET JOINT DETAILS



PIPE HANGAR DETAIL



BLANK, WESSELINK, COOK & ASSOCIATES

DECATUR, ILLINOIS ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

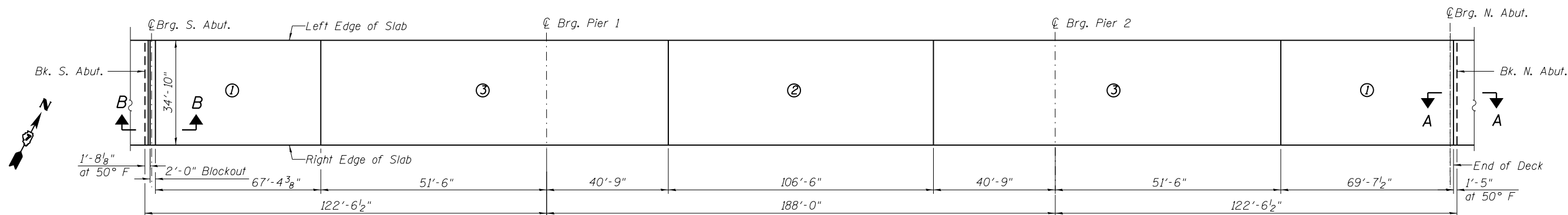
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0049

SHEET NO. 9 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	47
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT



DECK POURING SEQUENCE

Notes:

When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:

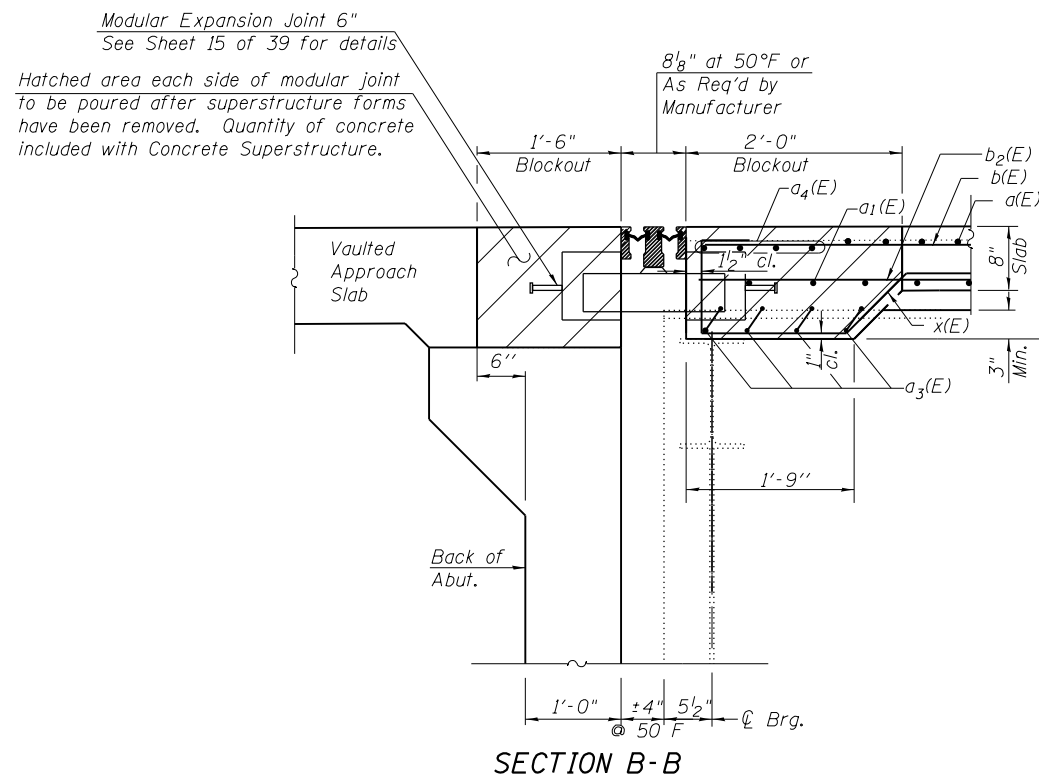
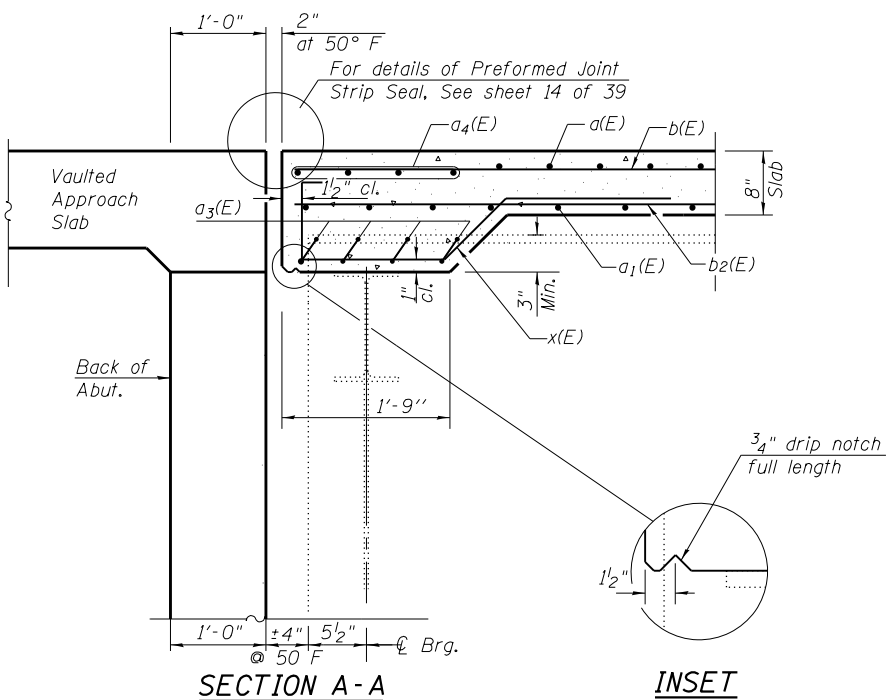
1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi

Contractor may deviate from the Deck Pouring Sequence shown upon approval of the Engineer. All deck concrete in the positive moment regions shall be placed and cured per Note 1 prior to pouring the deck concrete in the negative moment regions.

Expansion Joint Blockouts to be poured following pour ③, the approach spans and the sidewalk pour. See Sheets 12 and 20 of 39 for additional blockout details.

Legend

- ① Deck Pouring Sequence Number



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		CHECKED <i>MCB</i>	REVISED -
		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

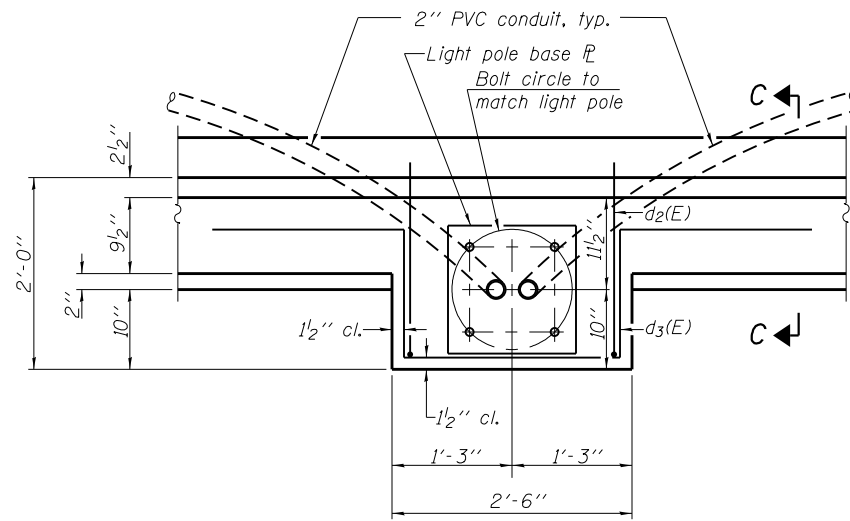
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0049**

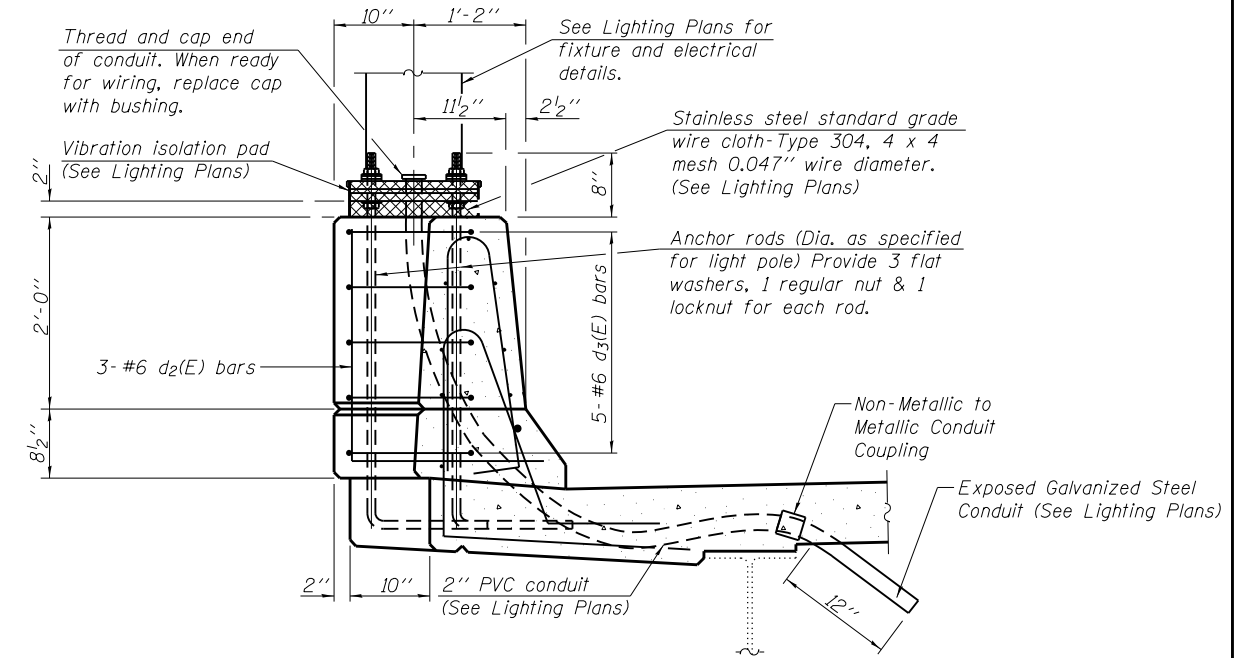
SHEET NO. 10 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	48
CONTRACT NO. 74438				

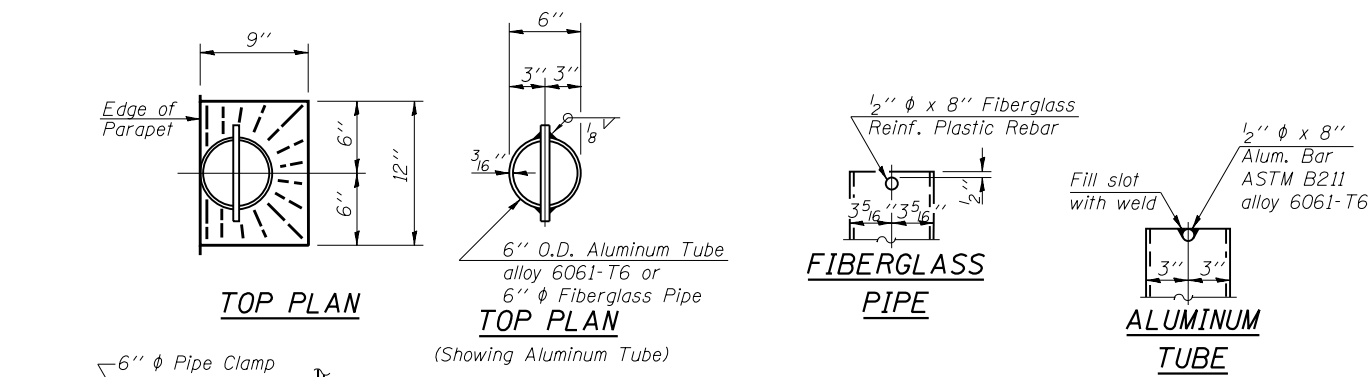
ILLINOIS FED. AID PROJECT



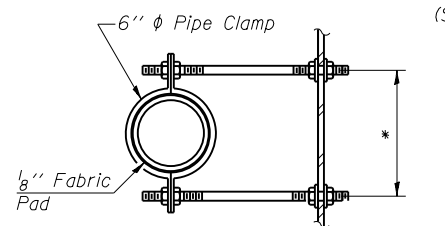
LIGHT PEDESTAL PLAN



SECTION C-C

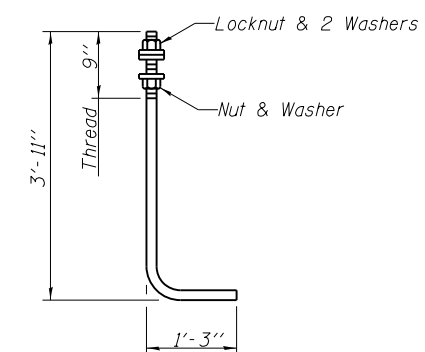


FLOOR DRAIN DETAILS



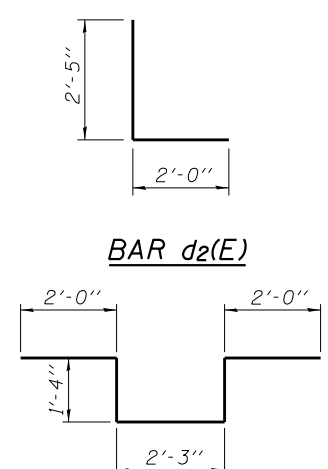
SECTION THRU PIPE CLAMP
*Dimension as required by Pipe Clamp

Notes:
Drains shall be located clear of all diaphragms.
Floor drains need not be painted.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232.
Cost of clamping device and galvanizing is included with Floor Drains.



ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105) Full length hot dipped galvanized



BAR d2(E)

BAR d3(E)

Notes:
Cost of anchor rods is included with Concrete Superstructure.
See lighting plans for conduit details & quantities.

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		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

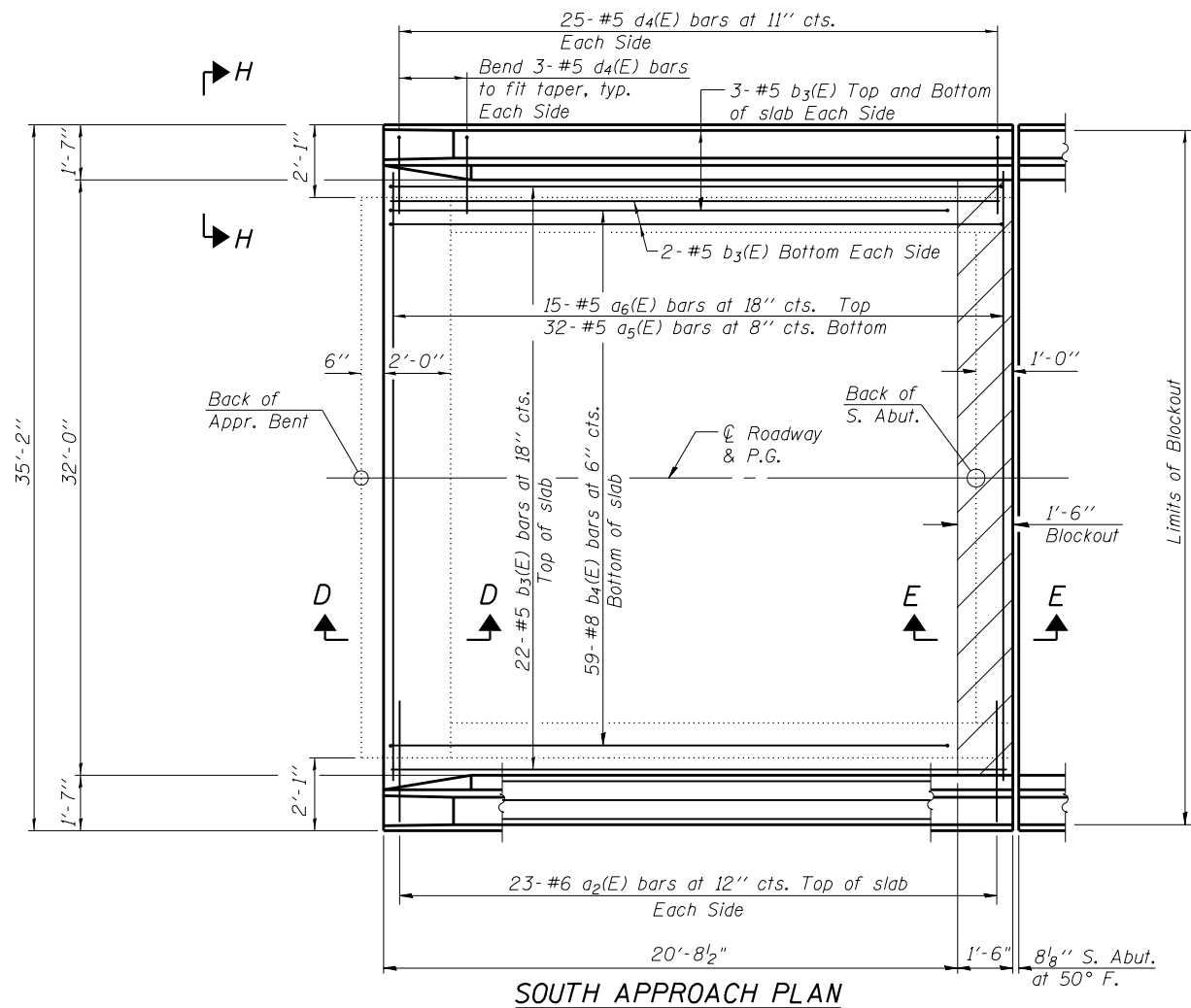
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0049**

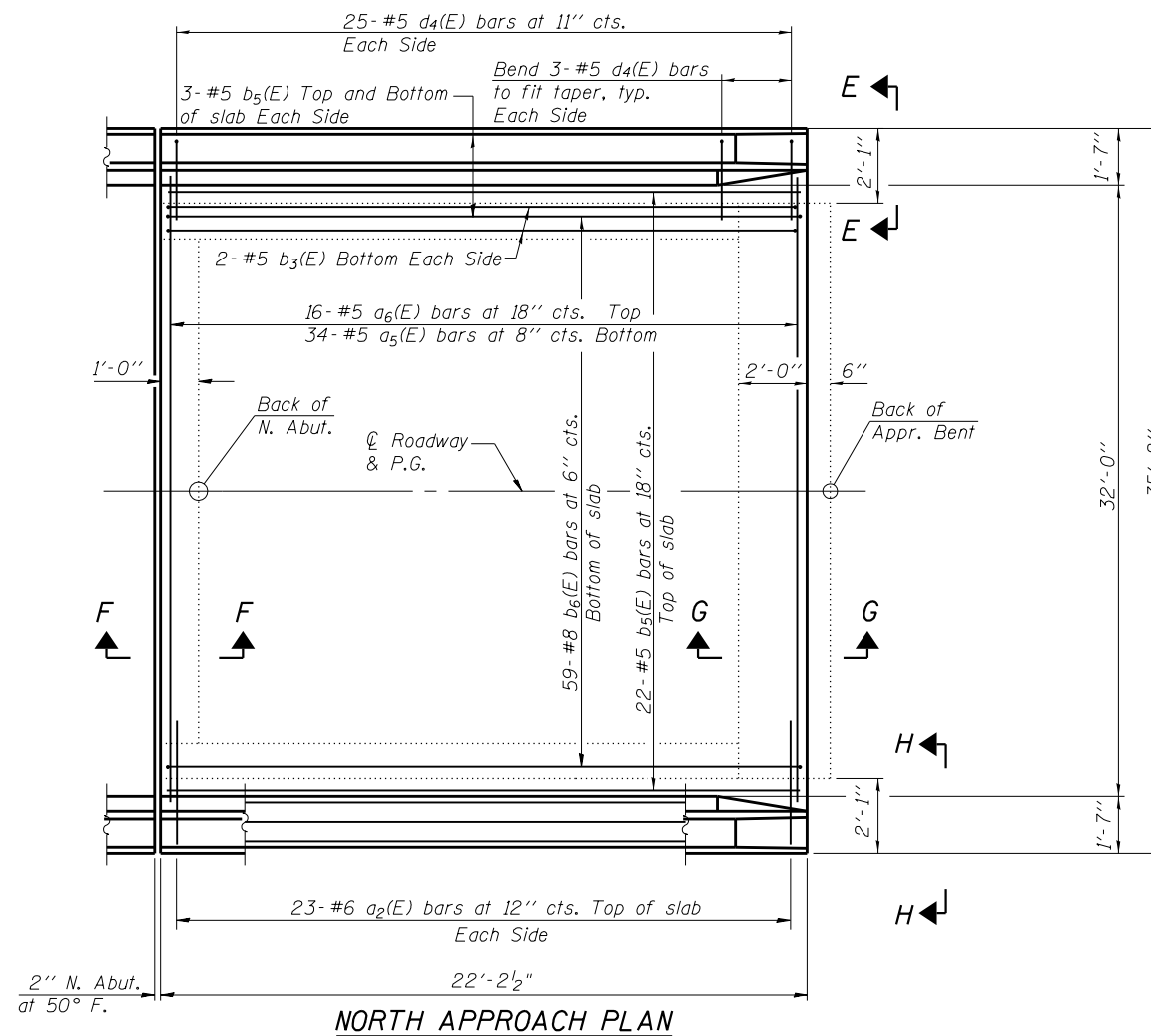
SHEET NO. 11 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	49
CONTRACT NO. 74438				

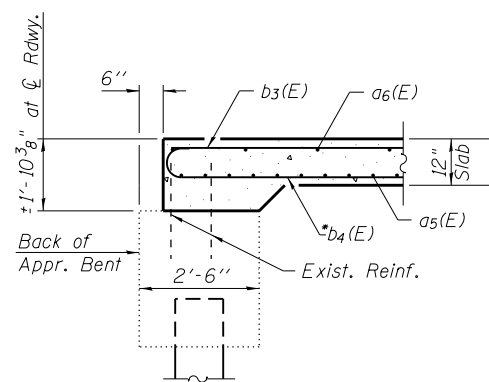
ILLINOIS FED. AID PROJECT



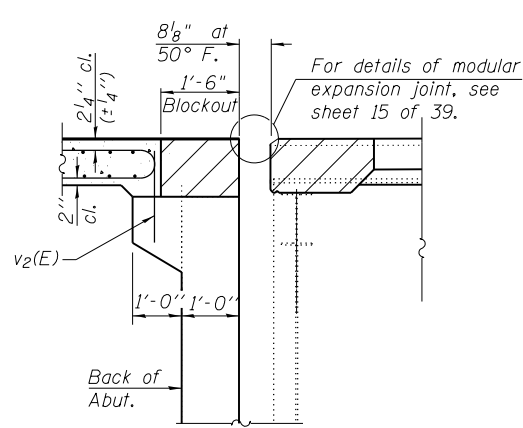
SOUTH APPROACH PLAN



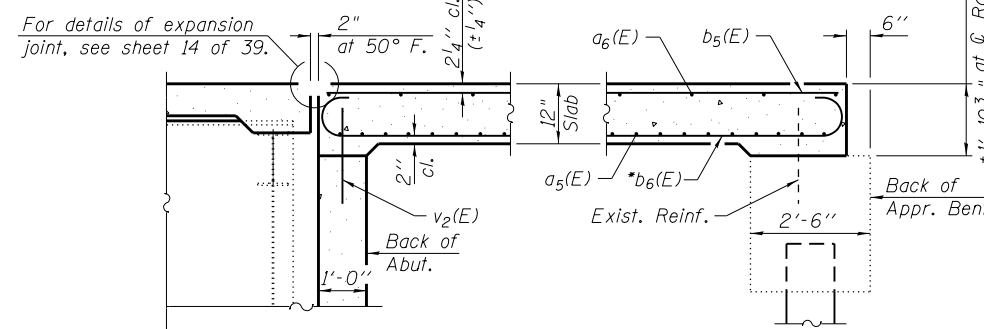
NORTH APPROACH PLAN



SECTION D-D



SECTION E-E



SECTION F-F

SECTION G-G

Notes:
 See Sheet 19 of 39 for Concrete Removal Details.
 Existing reinforcement extending into new construction shall be cleaned and incorporated into the new construction.
 Cost included with Concrete Removal.
 See Sheet 20 of 39 for additional blockout details.

*Tilt bars to maintain clearance

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		CHECKED <i>MCB</i>	REVISED -
		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

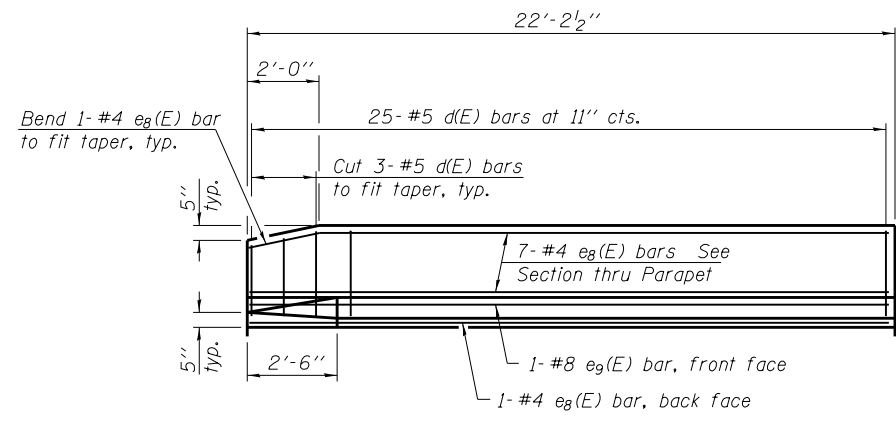
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**VAULTED APPROACH SLAB
 STRUCTURE NO. 058-0049**

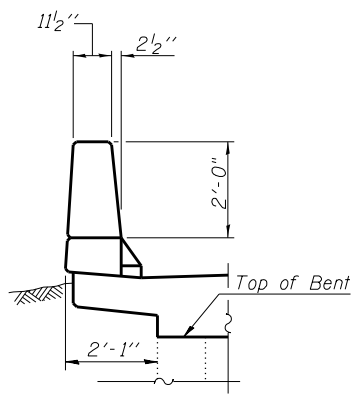
SHEET NO. 12 OF 39 SHEETS

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	50
CONTRACT NO. 74438				

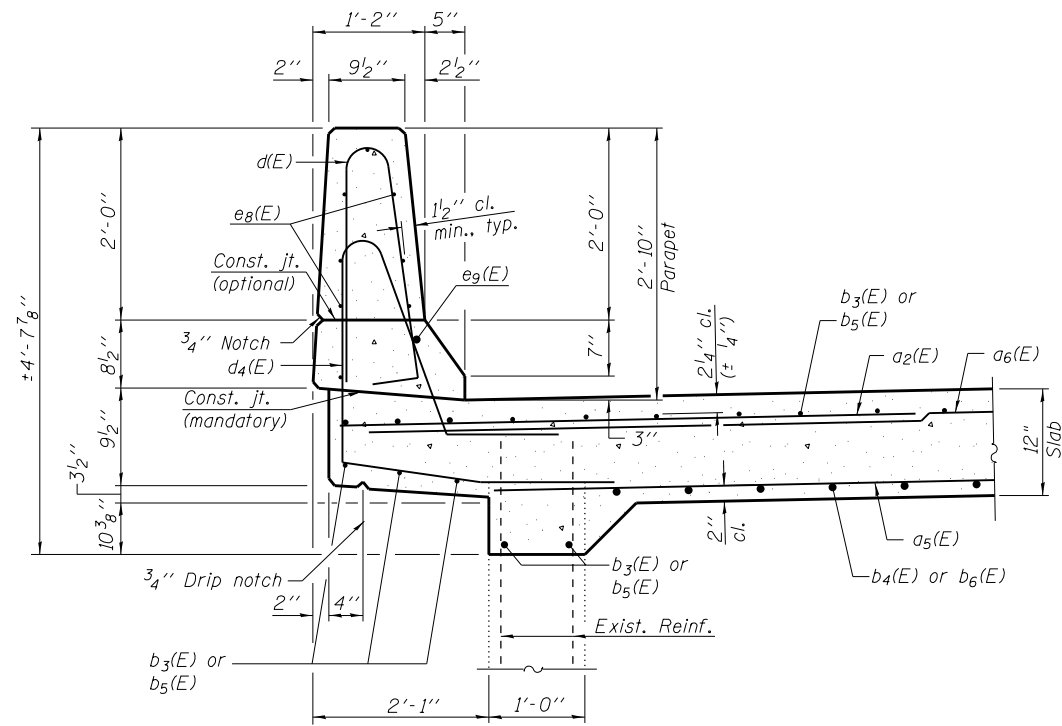
ILLINOIS FED. AID PROJECT



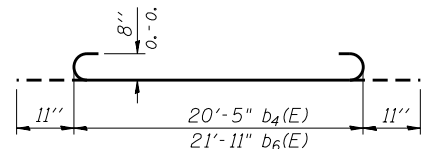
INSIDE ELEVATION OF PARAPET



VIEW H-H



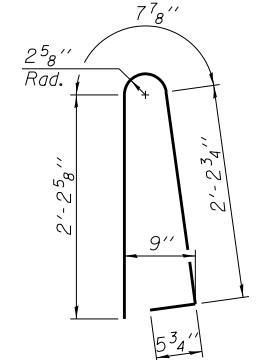
SECTION THRU PARAPET



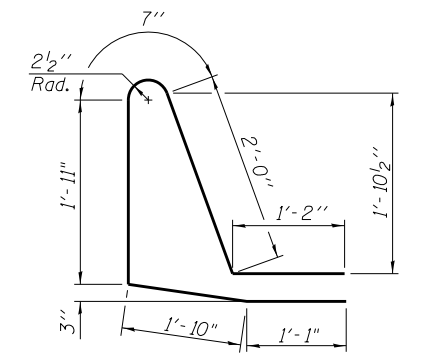
BAR b4(E) or b6(E)

**TWO APPROACH SLABS
BILL OF MATERIAL**

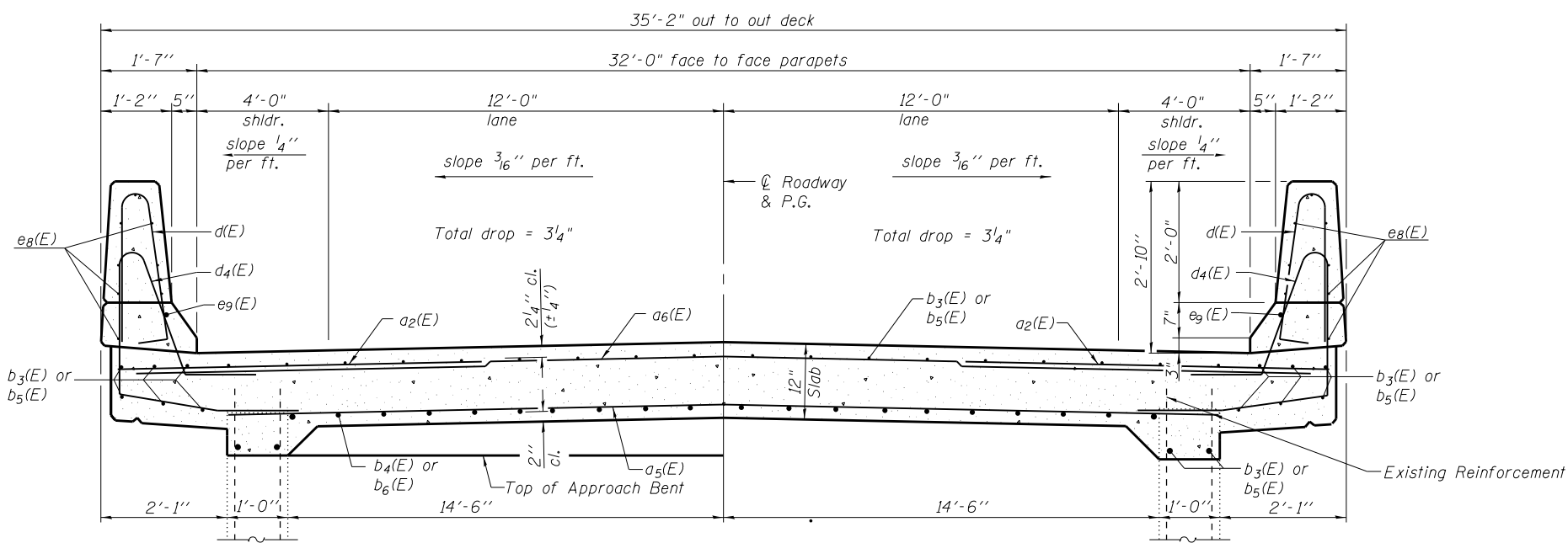
Bar	No.	Size	Length	Shape	
a2(E)	92	#6	6'-6"	—	
a5(E)	66	#6	30'-9"	—	
a6(E)	31	#5	33'-9"	—	
b3(E)	38	#5	20'-5"	—	
b4(E)	59	#8	22'-3"	—	
b5(E)	34	#5	21'-11"	—	
b6(E)	59	#8	23'-9"	—	
d(E)	100	#5	5'-7"	—	
d4(E)	100	#5	8'-11"	—	
e8(E)	32	#4	21'-11"	—	
e9(E)	4	#8	21'-11"	—	
Reinforcement Bars, Epoxy Coated				Pound	16,090
Concrete Superstructure				Cu. Yd.	78.2



BAR d(E)



BAR d4(E)



CROSS SECTION

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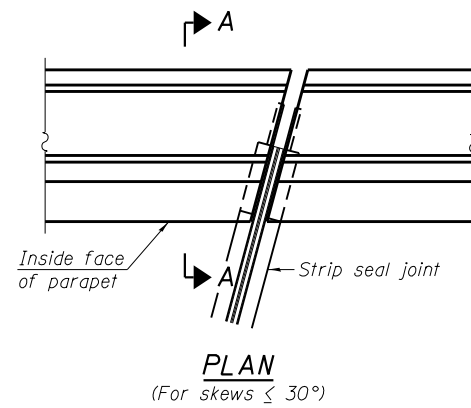
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**VAULTED APPROACH SLAB DETAILS
STRUCTURE NO. 058-0049**

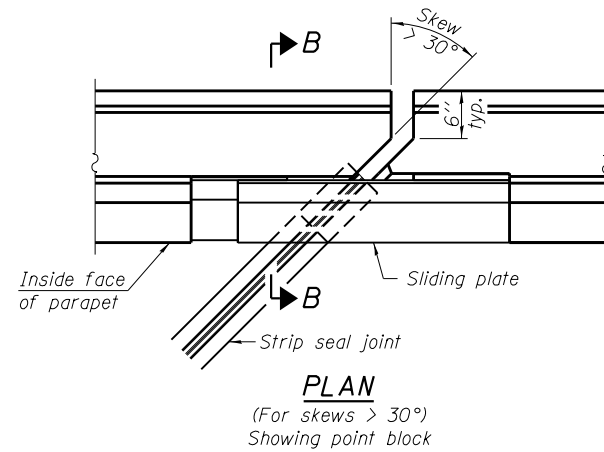
SHEET NO. 13 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & 148BR1BR	MACON	144	51
CONTRACT NO. 74438				

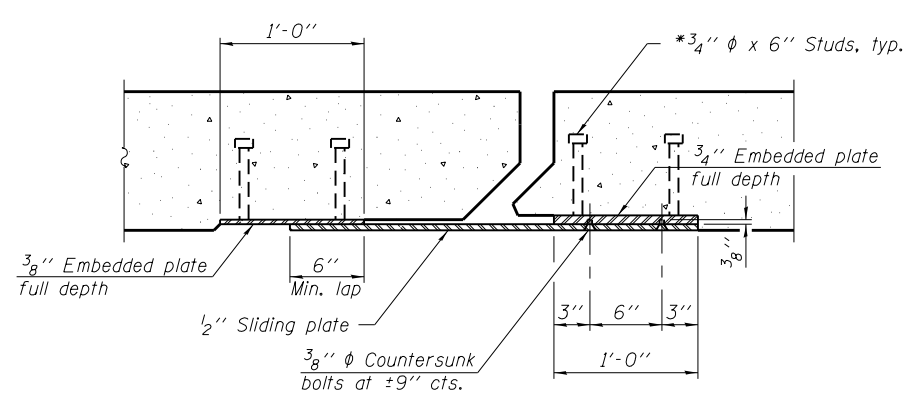
ILLINOIS FED. AID PROJECT



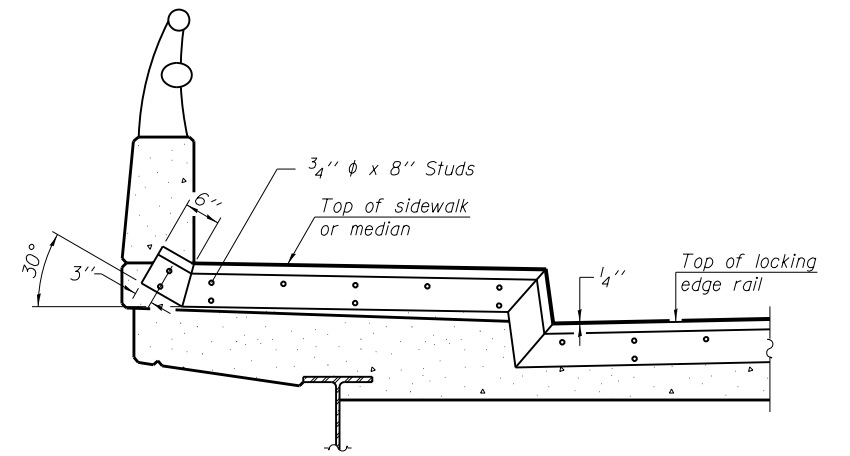
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

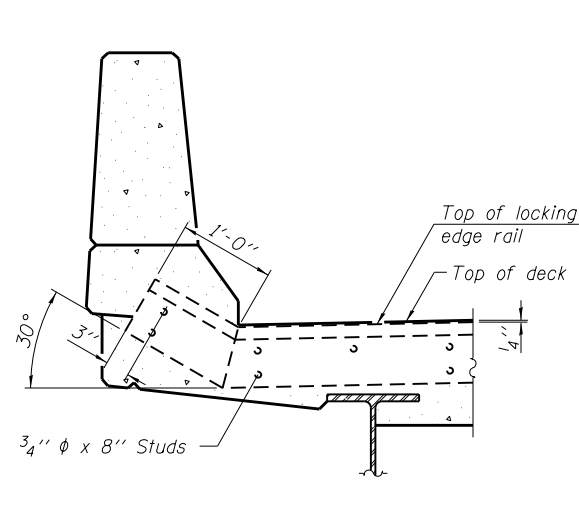


SECTION C-C

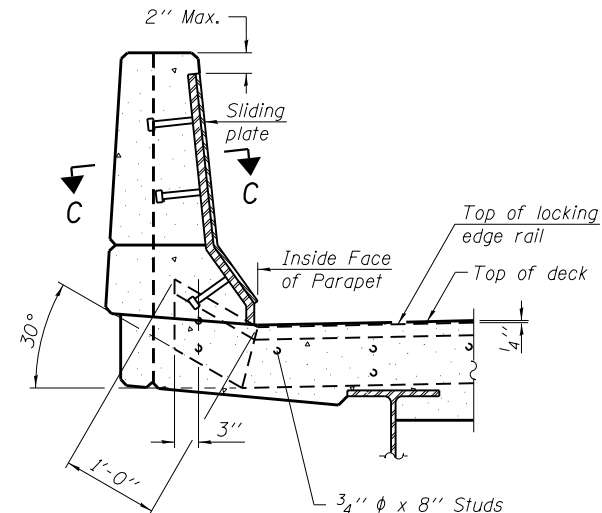


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

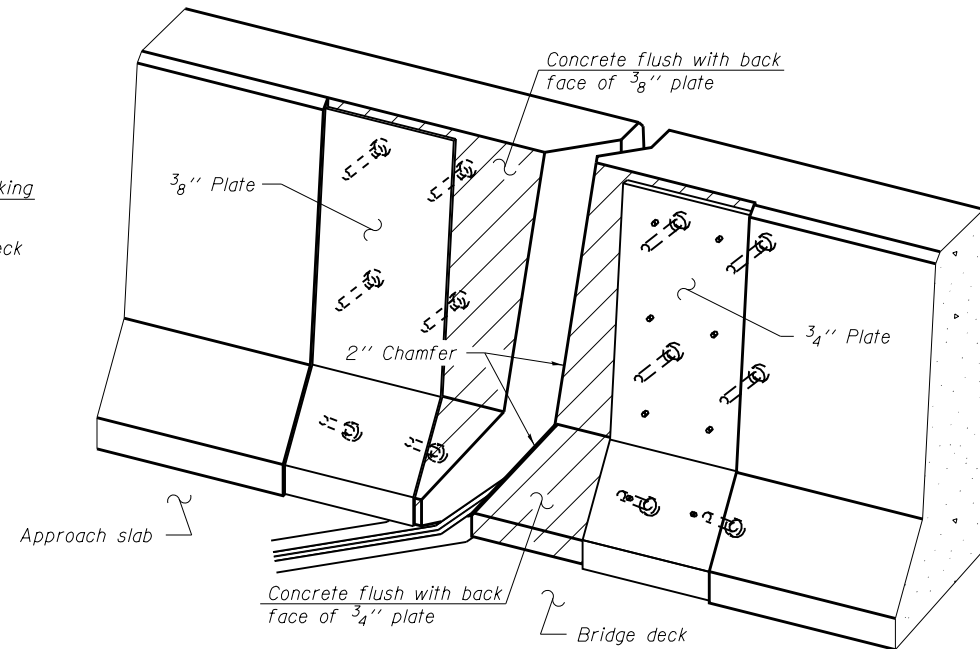
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



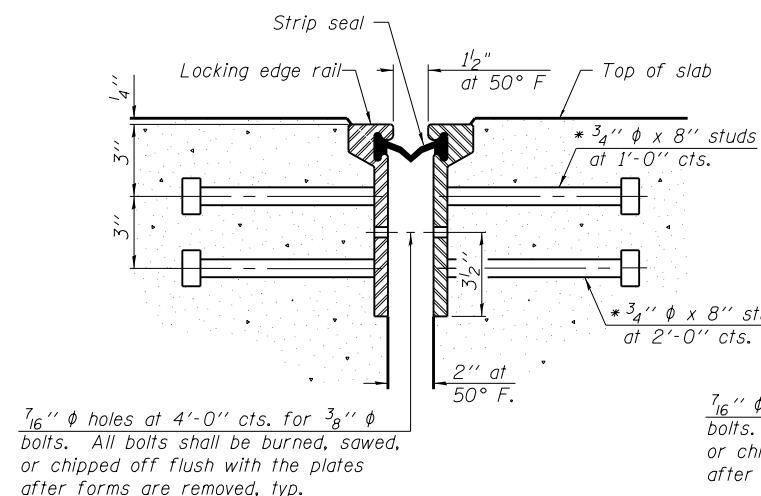
SECTION A-A



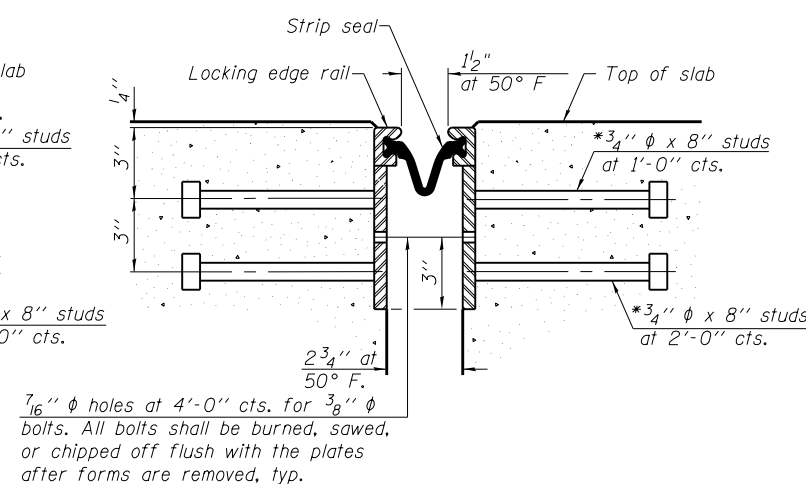
SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

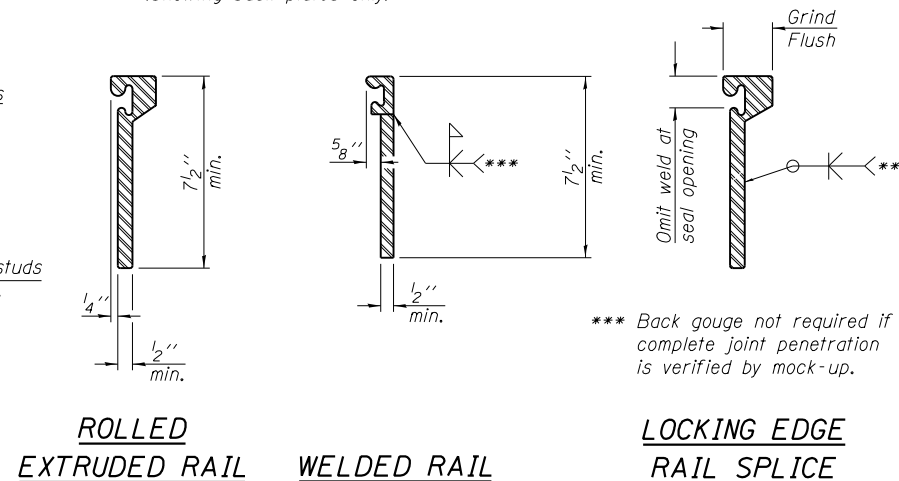


SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT

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



ROLED EXTRUDED RAIL WELDED RAIL

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	34

EJ-SSJ

1-27-12

BLANK, WESSELINK, COOK & ASSOCIATES

DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

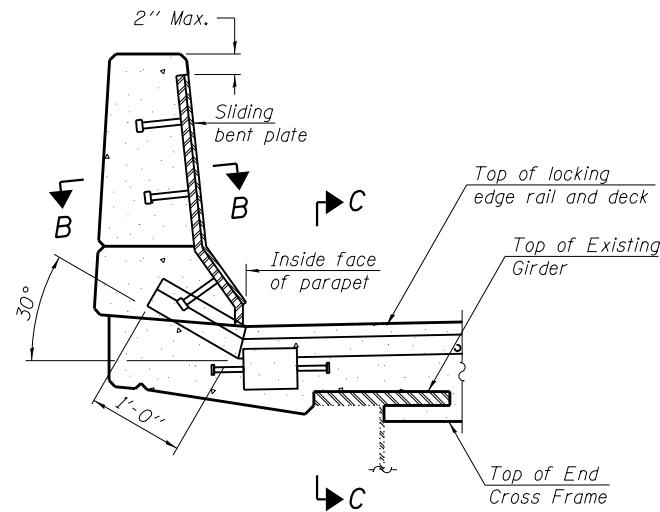
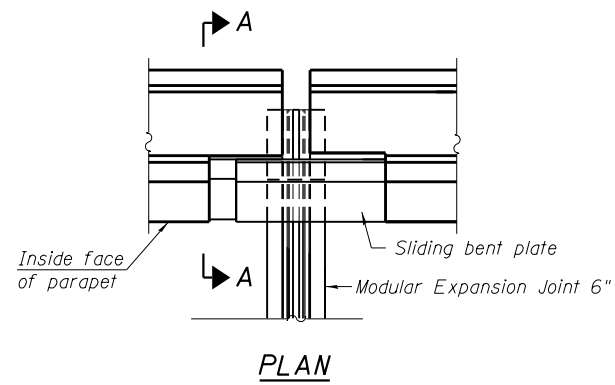
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 058-0049

SHEET NO. 14 OF 39 SHEETS

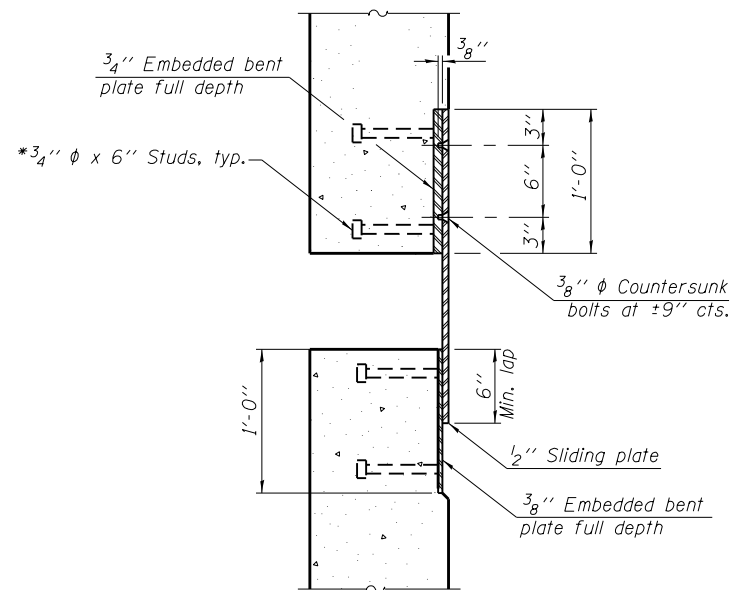
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	52
				CONTRACT NO. 74438

ILLINOIS FED. AID PROJECT

FILE NAME =	USER NAME =	DESIGNED	REVISIONS
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		MCB	-
		MLO	-
		PBB/MCB	-



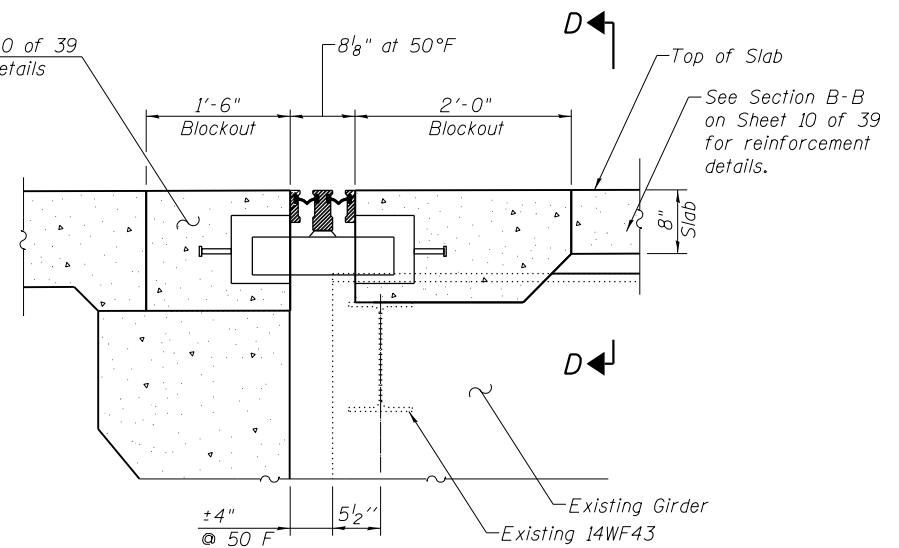
SECTION A-A



SECTION B-B

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

See Sheet 13 and 20 of 39 for reinforcement details



SECTION C-C

Notes:

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

The manufacturer's recommended installation and fabrication methods shall be followed as approved by the Engineer.

Parapet plates, Sidewalk plates, shims, stools, brackets, anchorage studs, hardware and any additional reinforcement are included in the cost of Modular Expansion Joint 6".

The modular expansion joint system shall be capable of handling 2 1/2" of longitudinal movement either direction from 50°F (5" total).

Support boxes shall be rigidly attached to diaphragms and backwall by adjustable brackets, stools or shims.

Prior to ordering stools or shims, the Contractor shall verify in the field all top of steel elevations.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

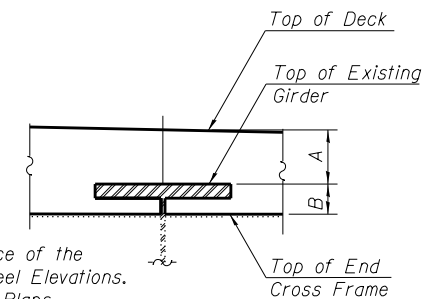
See Guide Bridge Special Provision for Modular Expansion Joint.

Beam Number	Dim. A	Dim. B
1	10"	3 3/4"
2	9 5/8"	5 1/4"
3	9 1/2"	6 5/8"
4	9 1/2"	5 1/4"
5	9"	3 3/4"

Notes:

Dim. A is the theoretical difference of the Proposed Deck Elev. and Top of Steel Elevations.

Dim. B is from the 1970 Existing Plans.



SECTION D-D

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint 6"	Foot	34

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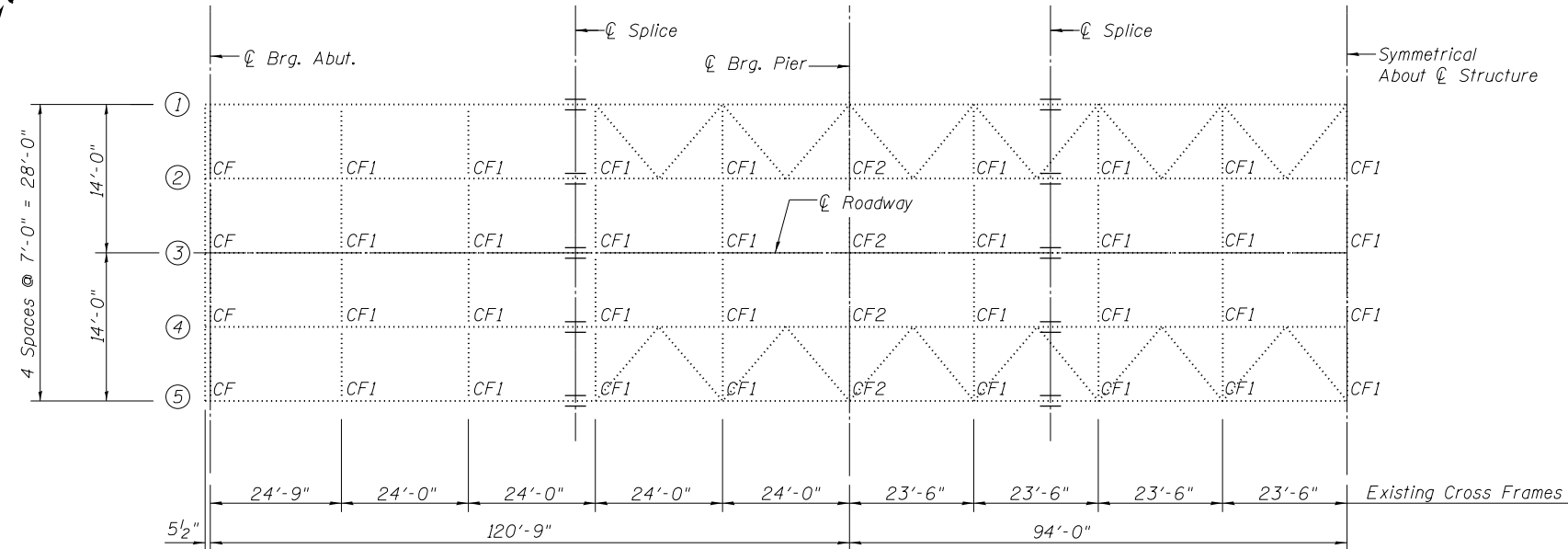
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	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MODULAR EXPANSION JOINT
STRUCTURE NO. 058-0049**

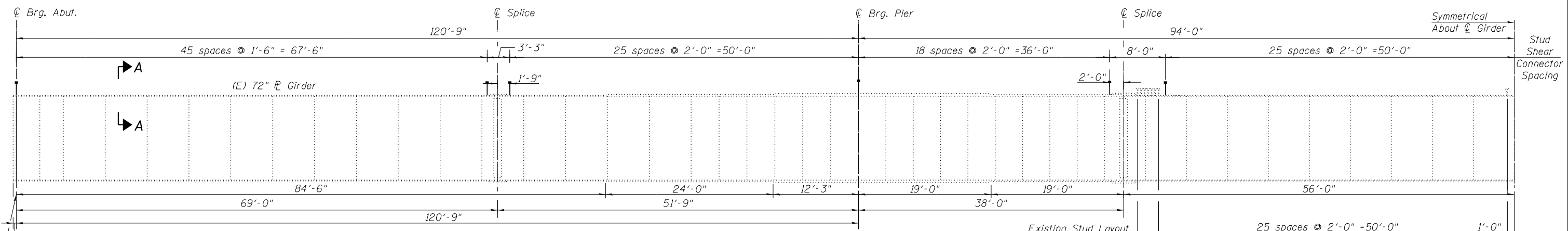
SHEET NO. 15 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	53
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



HALF FRAMING PLAN

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in^4 and in^3).
 $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in^4 and in^3).
 $I_c(3n), S_c(3n)$: 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 and Overload) due to long-term composite (superimposed) dead loads (in^4 and in^3).
 $I_c(cr), S_c(cr)$: 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^4 and in^3).
 Z : Plastic Section Modulus of the steel section in non-composite areas (in^3).
 Q : Un-factored non-composite dead load (kips/ft.).
 M_Q : Un-factored moment due to non-composite dead load (kip-ft.).
 s_Q : Un-factored long-term composite (superimposed) dead load (kips/ft.).
 M_{sQ} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
 M_L : Un-factored live load moment (kip-ft.).
 M_I : Un-factored moment due to impact (kip-ft.).
 M_a : Factored design moment (kip-ft.).
 $1.3 [M_Q + M_{sQ} + \frac{5}{3} (M_L + M_I)]$
 M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
 f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_Q + M_{sQ} + \frac{5}{3} (M_L + M_I)$
 f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M_Q + M_{sQ} + \frac{5}{3} (M_L + M_I)]$
 VR : Maximum L + impact shear range within the composite portion of the span for stud shear connector design (kips).



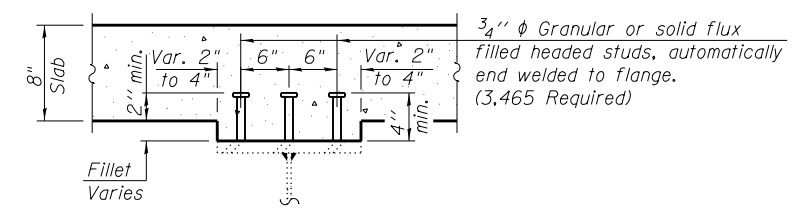
HALF GIRDER ELEVATION

MOMENT TABLE	INTERIOR GIRDERS		
	0.4 Sp.1/ 0.6 Sp.3	Pier 1 & 2	0.5 Sp. 2
I_s	(in^4) 45365	137690	63979
$I_c(n)$	(in^4) 104552	230825	165155
$I_c(3n)$	(in^4) 77603	179748	115276
$I_c(cr)$	(in^4) 150841		
S_s	(in^3) 1234	3600	2250
$S_c(n)$	(in^3) 1697	4152	3002
$S_c(3n)$	(in^3) 1542	3900	2749
$S_c(cr)$	(in^3) 3707		
Q	(k/ft) 1.120	1.222	1.120
M_Q	(k) 496	3266	1652
s_Q	(k/ft) 0.340	0.340	0.340
M_{sQ}	(k) 208	951	639
M_L	(k) 934	1656	1444
M_{IM}	(k) 190	301	231
$\frac{5}{3} [M_L + M_I]$	(k) 1874	3262	2792
M_a	(k) 3351	9722	6607
M_u	(k) 4821	7181	
f_s Q non-comp	(ksi) 4.9	10.9	8.8
f_s Q (comp)	(ksi) 1.7	3.1	2.8
f_s $\frac{5}{3} [M_L + M_I]$	(ksi) 13.3	10.6	11.2
f_s (Overload)	(ksi) 19.9	24.6	22.8
f_s (Total)	(ksi) 32.0		
VR	(k) 58.2	75.2	59.9

REACTION TABLE	INTERIOR GIRDERS	
	Abut.	Pier
R_Q	(k) 47.5	250.5
R_L	(k) 41.4	94.2
R_I	(k) 8.4	10.9
R_{Total}	(k) 97.3	355.6

CONSTRUCTION SEQUENCE

The bearings shall be removed and replaced following the concrete deck removal and before the proposed deck is constructed.

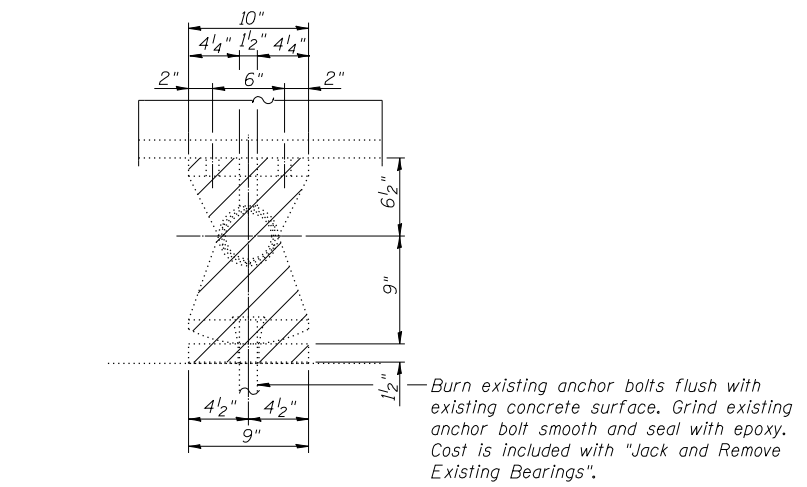
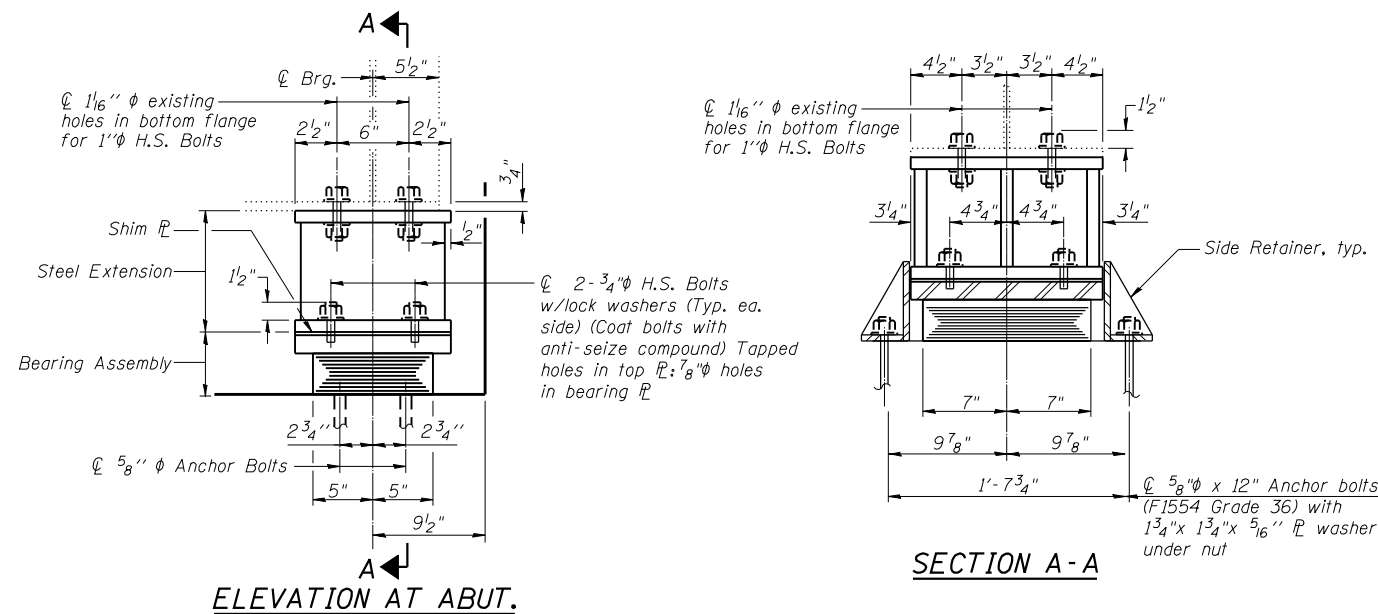


SECTION A-A

*Compact section
 **Braced non-compact and partially braced section

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FILE NAME =	USER NAME =	DESIGNED PBB	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN STRUCTURE NO. 058-0049	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED MCB	REVISD -	710			(48X-B-2)BR & 148BR)BR	MACON	144	54	
PLOT SCALE =	DRAWN MLO	REVISD -	CONTRACT NO. 74438							
PLOT DATE =	CHECKED PBB/MCB	REVISD -	ILLINOIS FED. AID PROJECT							



EXISTING BEARING REMOVAL DETAIL

PROCEDURE FOR JACKING AND REMOVING EXISTING BEARINGS (At Abutments)

1. The Contractor shall submit, for approval by the Engineer, plans for jacking and removing the existing bearings at the abutments prior to commencing any work at the abutment bearings.
2. In each stage, jacking and removal of existing bearings shall be done after the existing deck is removed and before new deck is poured.
3. The minimum jack capacity is 10 tons per girder.
4. The new bearings and steel extensions shall be in place and the jacks lowered prior to pouring the new concrete deck in each stage. See Special Provision for Jack and Remove Existing Bearings.

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.

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

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

Steel extensions, shims and bolts shall be included in the cost of Furnishing & Erecting Structural Steel.

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.

Cost of field drilling included with Furnishing and Erecting Structural Steel.

Note:

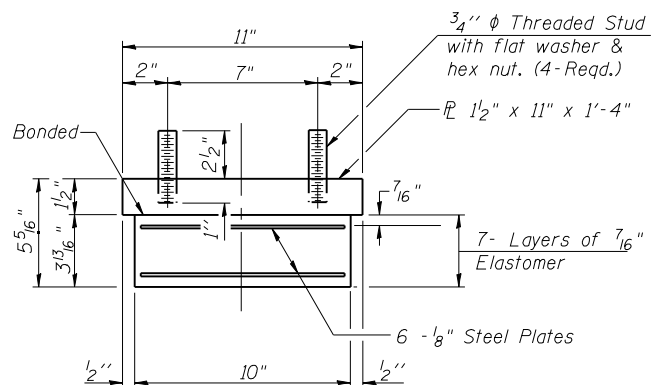
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Jacking Loads per Girder	Abut.
R @ Steel Only	(K) 10
Min. Jack Capacity, Steel Only	(K) 20

BILL OF MATERIAL

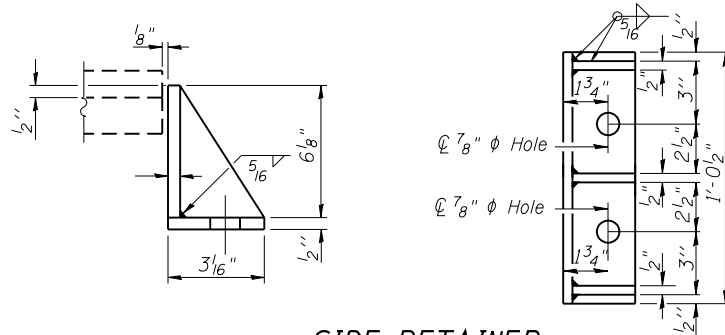
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Anchor Bolts, 5/8"	Each	20
Furnishing and Erecting Structural Steel	Pound	1,216
Jack and Remove Existing Bearings	Each	5

TYPE I ELASTOMERIC EXP. BRG.



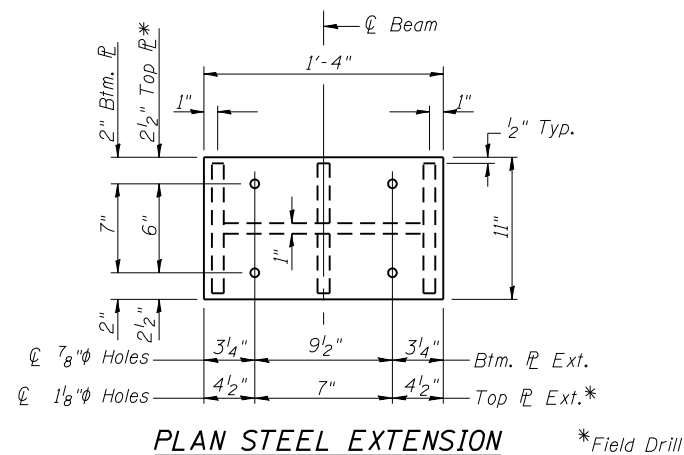
BEARING ASSEMBLY

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

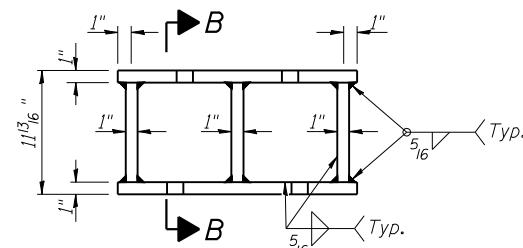


SIDE RETAINER

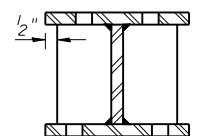
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PLAN STEEL EXTENSION *Field Drill



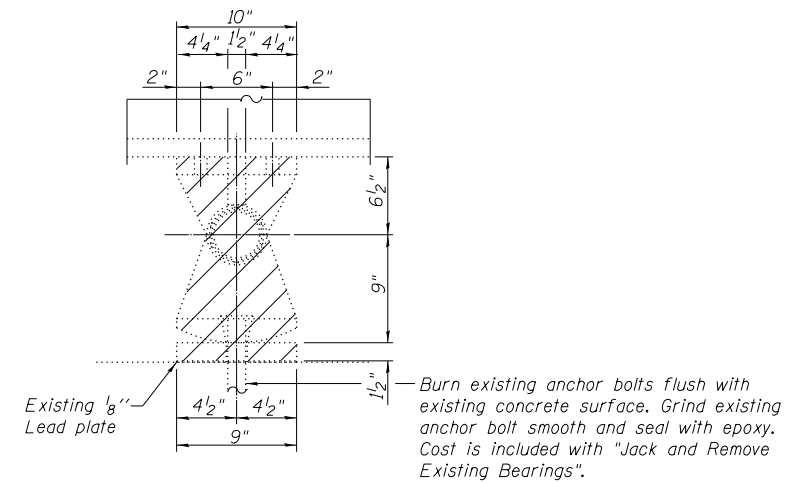
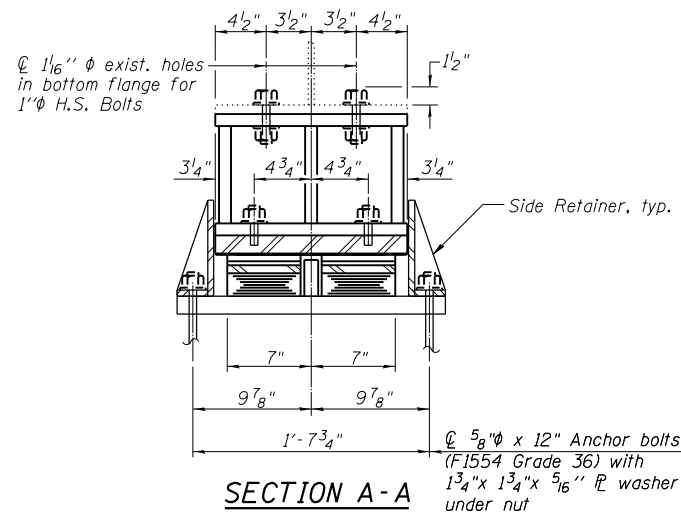
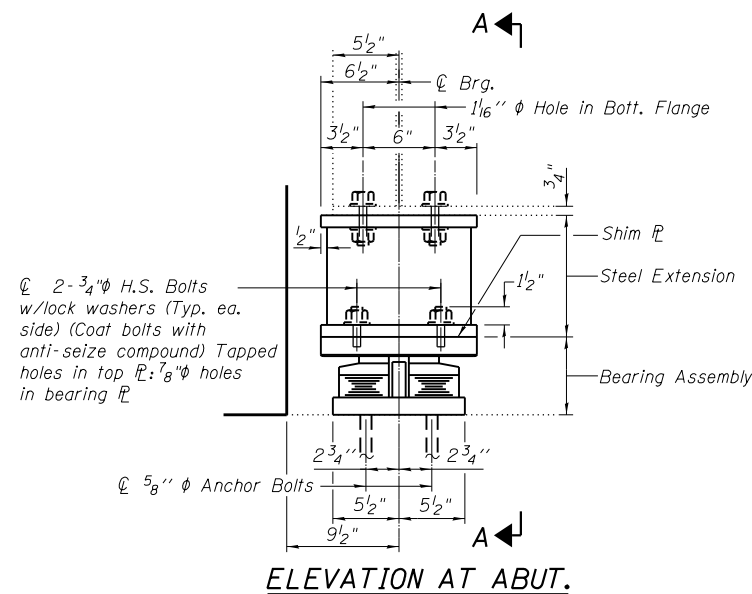
ELEVATION STEEL EXTENSION



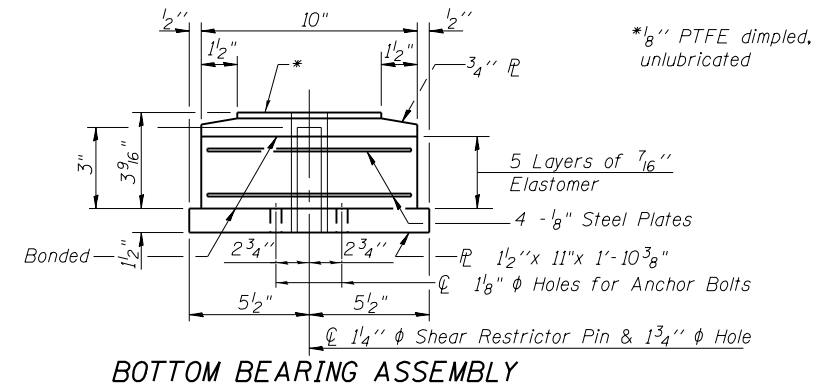
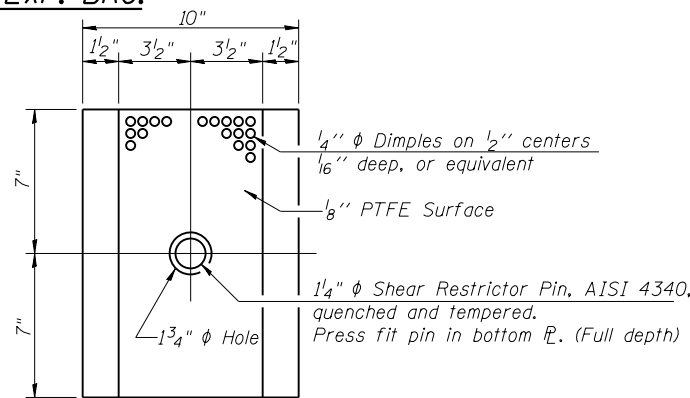
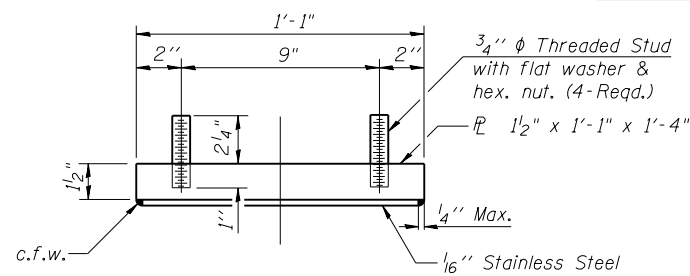
SECTION B-B

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	PLOT SCALE =	DRAWN MLO	REVISED -
	PLOT DATE =	CHECKED PBB/MCB	REVISED -

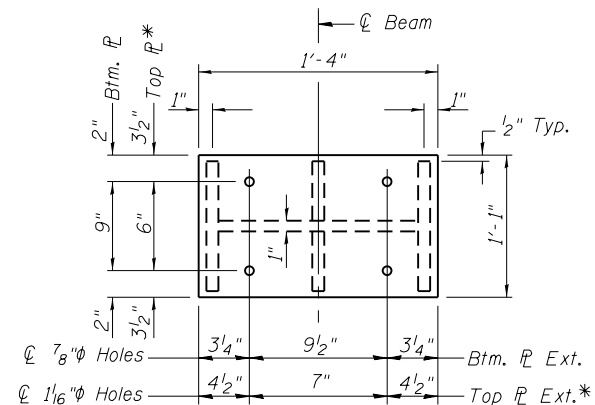
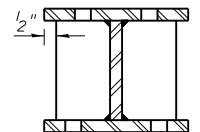
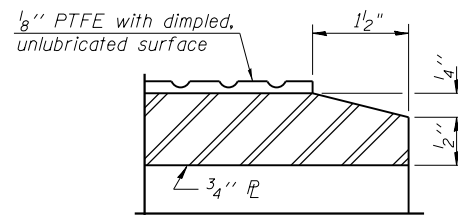
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	55
				CONTRACT NO. 74438
ILLINOIS FED. AID PROJECT				



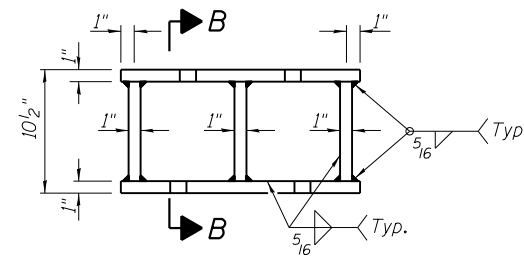
TYPE III ELASTOMERIC EXP. BRG.



PLAN-PTFE ELASTOMERIC BRG.



PLAN STEEL EXTENSION



PROCEDURE FOR JACKING AND REMOVING EXISTING BEARINGS (At Abutments)

- The Contractor shall submit, for approval by the Engineer, plans for jacking and removing the existing bearings at the abutments prior to commencing any work at the abutment bearings.
- In each stage, jacking and removal of existing bearings shall be done after the existing deck is removed and before new deck is poured.
- The minimum jack capacity is 10 tons per girder.
- The new bearings and steel extensions shall be in place and the jacks lowered prior to pouring the new concrete deck in each stage. See Special Provision for Jack and Remove Existing Bearings.

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 for Type III bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

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

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

Steel extensions, shims and bolts shall be included in the cost of Furnishing & Erecting Structural Steel.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

Two 1/2 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Cost of field drilling included with Furnishing and Erecting Structural Steel.

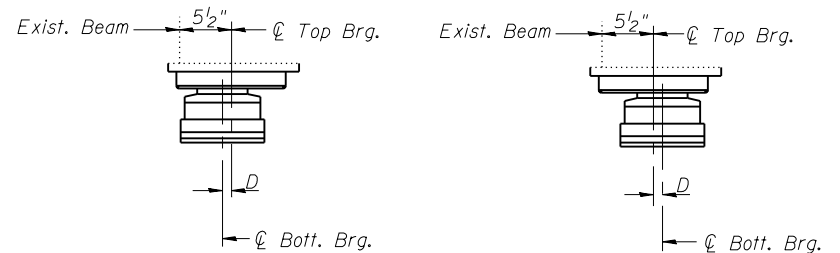
Note:

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

Jacking Loads per Girder	Abut.
R @ Steel Only	(K) 10
Min. Jack Capacity, Steel Only	(K) 20

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	5
Anchor Bolts, 5/8"	Each	20
Furnishing and Erecting Structural Steel	Pound	1,308
Jack and Remove Existing Bearings	Each	5



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FILE NAME =	USER NAME =	DESIGNED	REVISIONS
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		MCB	-
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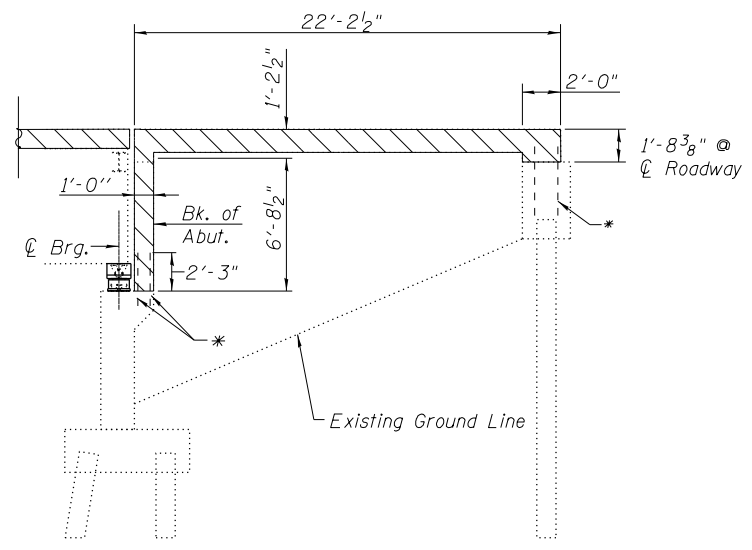
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT BEARING DETAILS
STRUCTURE NO. 058-0049

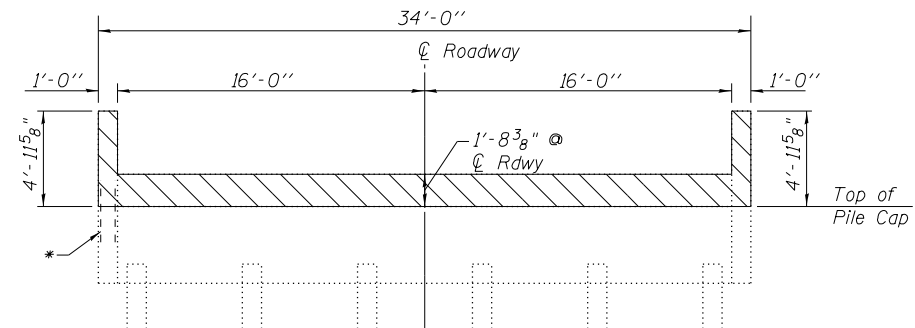
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710	(48X-B-2)BR & (48BR)BR	MACON	144	56
CONTRACT NO. 74438				

SHEET NO. 18 OF 39 SHEETS

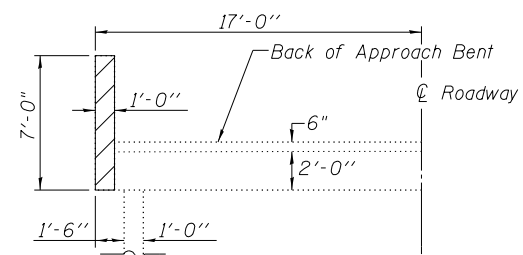
ILLINOIS FED. AID PROJECT



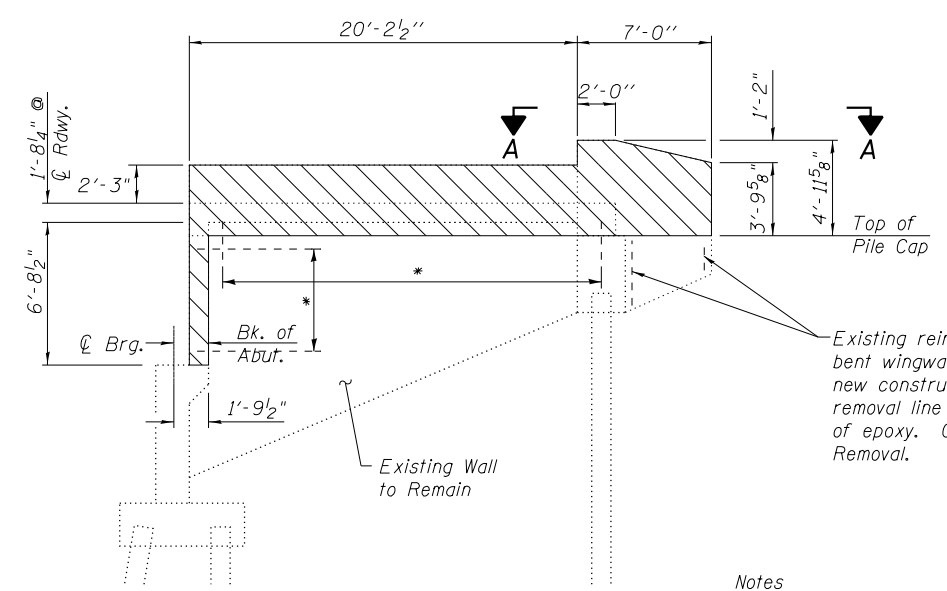
SECTION THRU FILLED VAULTED ABUTMENT



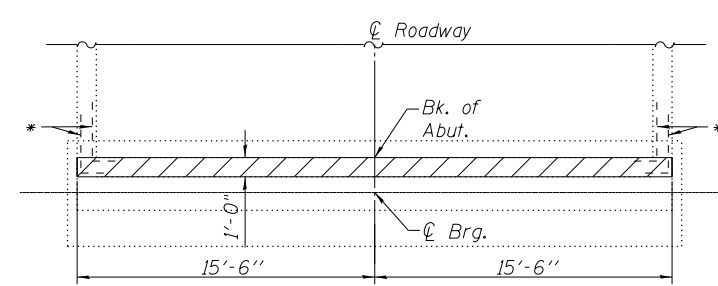
SECTION AT APPROACH BENT
(S. Abut. Looking South - N. Abut. Similar)



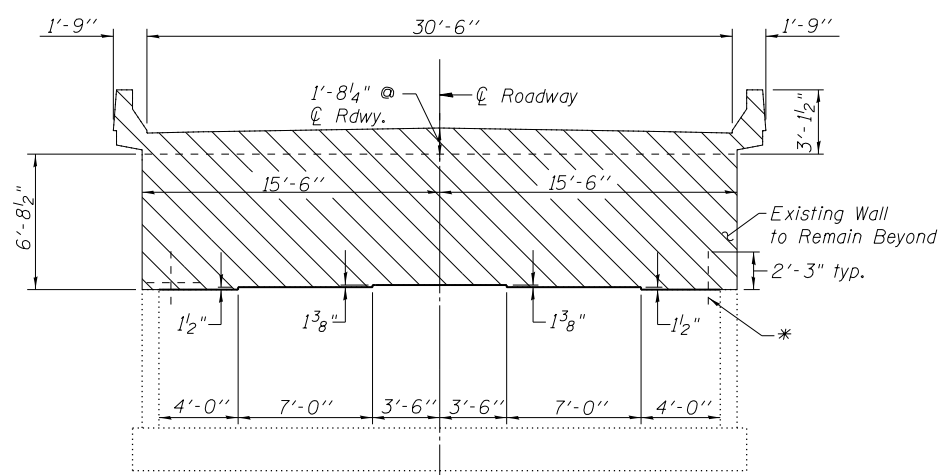
PLAN VIEW A-A
(N. Abut. Shown - S. Abut. Similar)



TYPICAL WING ELEVATION



PLAN AT BACKWALL
(N. Abut. Shown - S. Abut. Similar)



ELEVATION
(S. Abut. Looking South - N. Abut. Similar)

Existing reinforcement in the approach bent wingwall that does not extend into new construction shall be cut at the removal line and covered with a layer of epoxy. Cost included with Concrete Removal.

Notes
Hatched areas indicate Concrete Removal.
* Existing reinforcement extending into new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
See Sheets 12, 13 and 20 of 39 for additional details depicting existing reinforcement extending into the new construction.



BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	95.2

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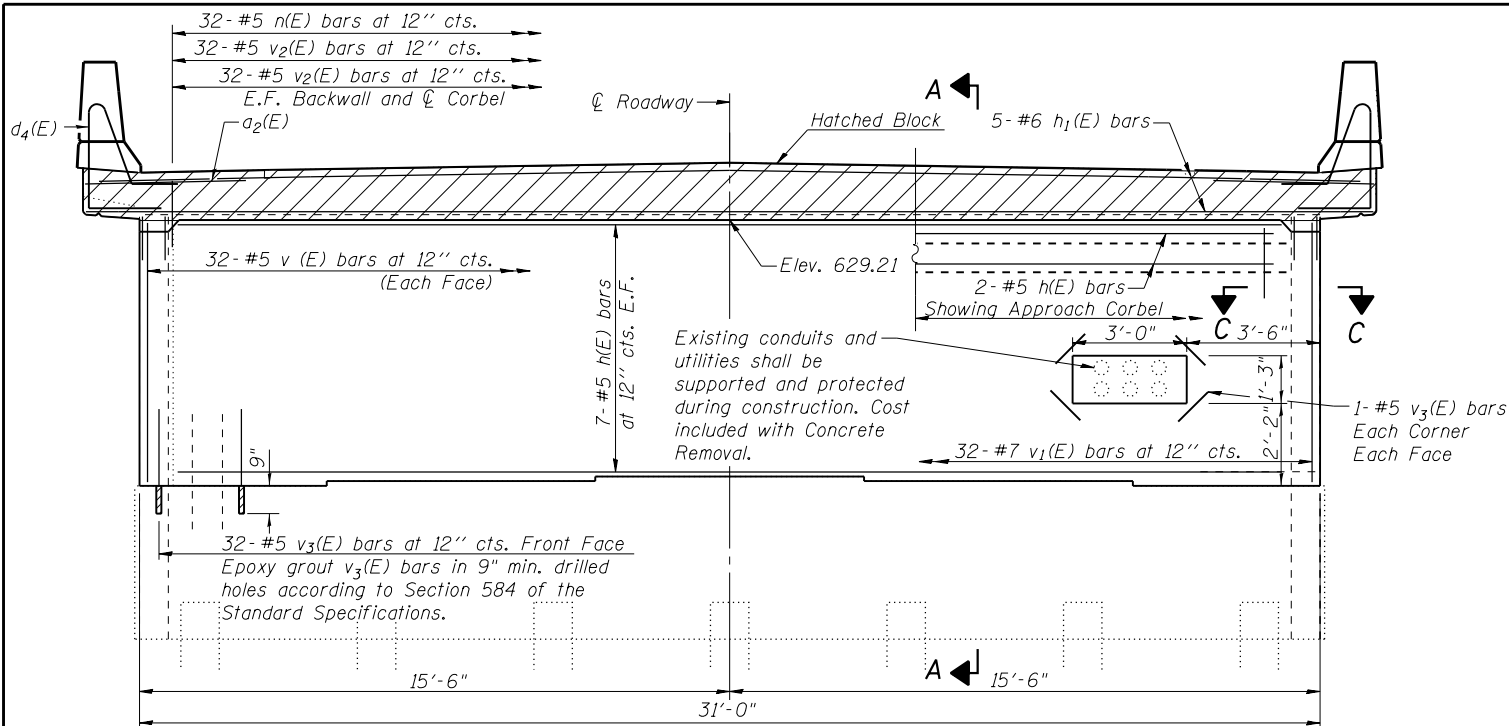
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

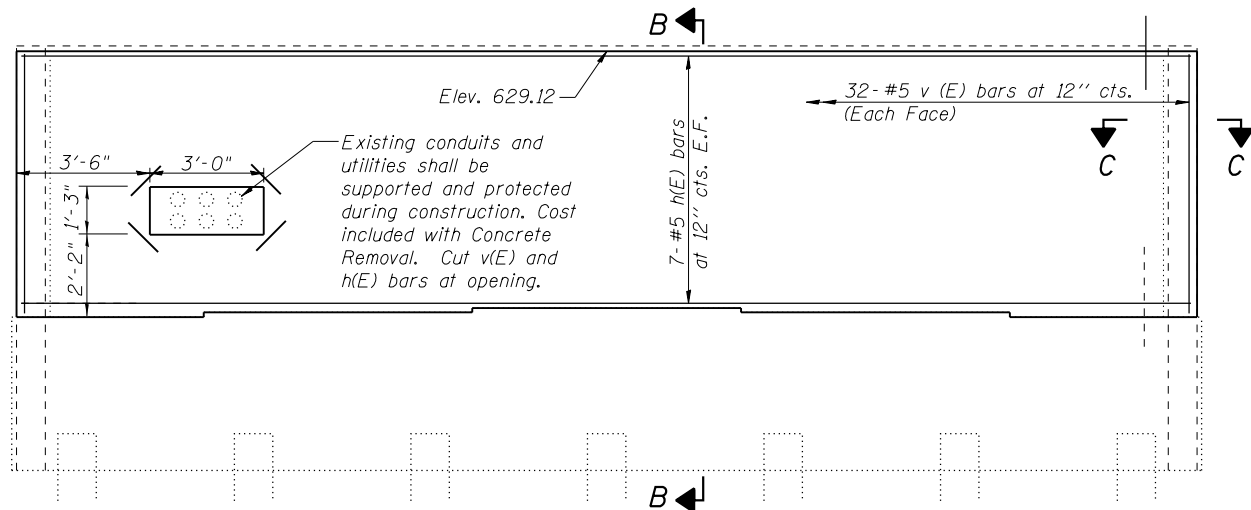
**CONCRETE REMOVAL DETAILS
STRUCTURE NO. 058-0049**

SHEET NO. 19 OF 39 SHEETS

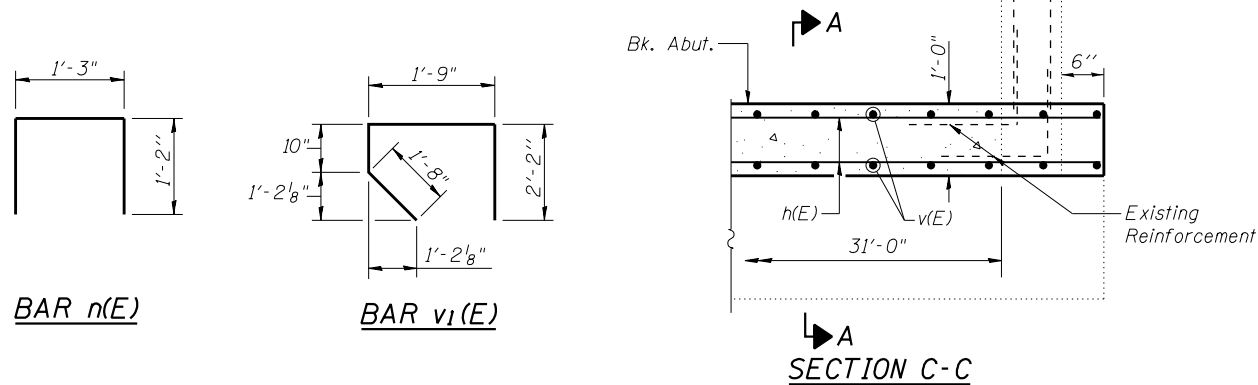
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	57
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



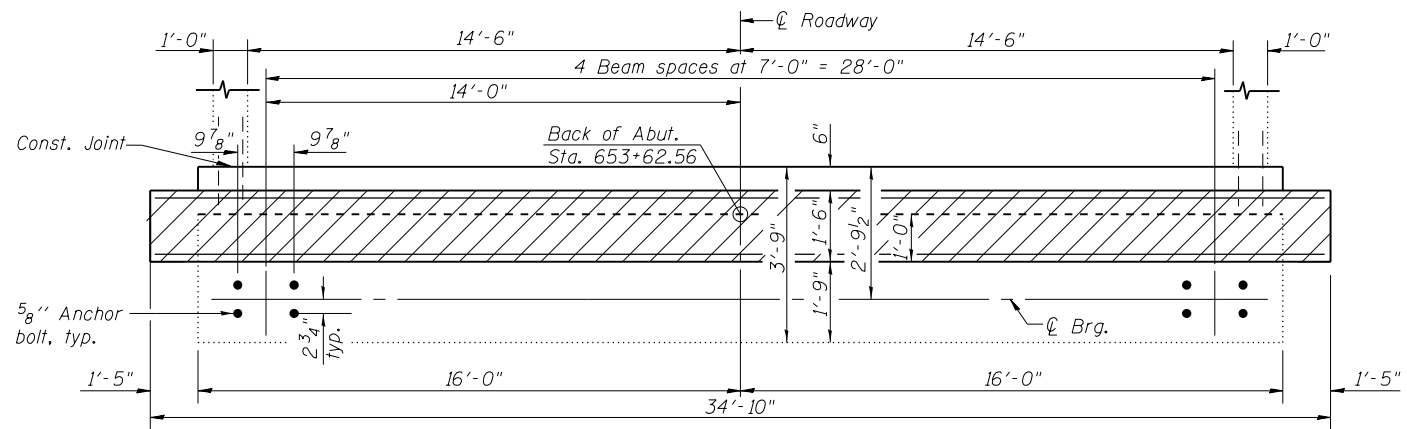
BACKWALL ELEVATION
(S. Abut. Looking South)



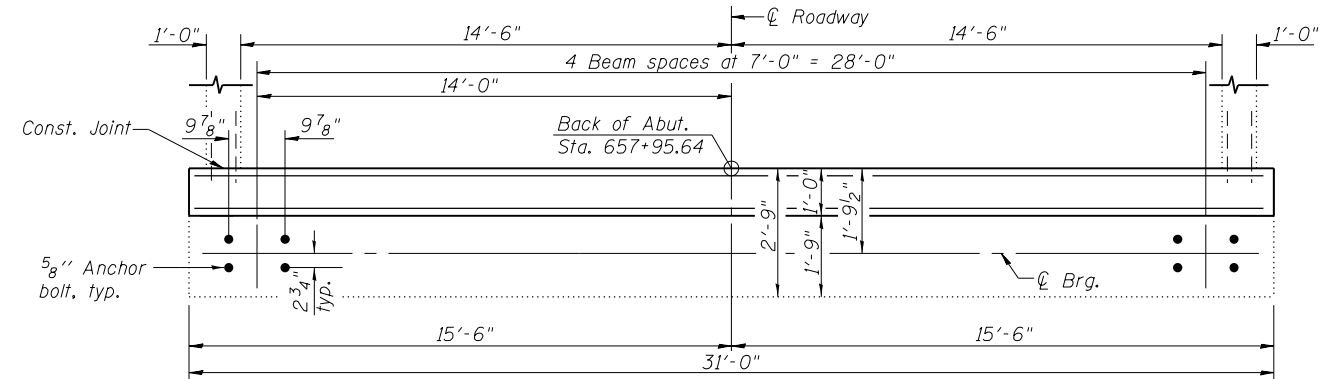
BACKWALL ELEVATION
(N. Abut. Looking North)



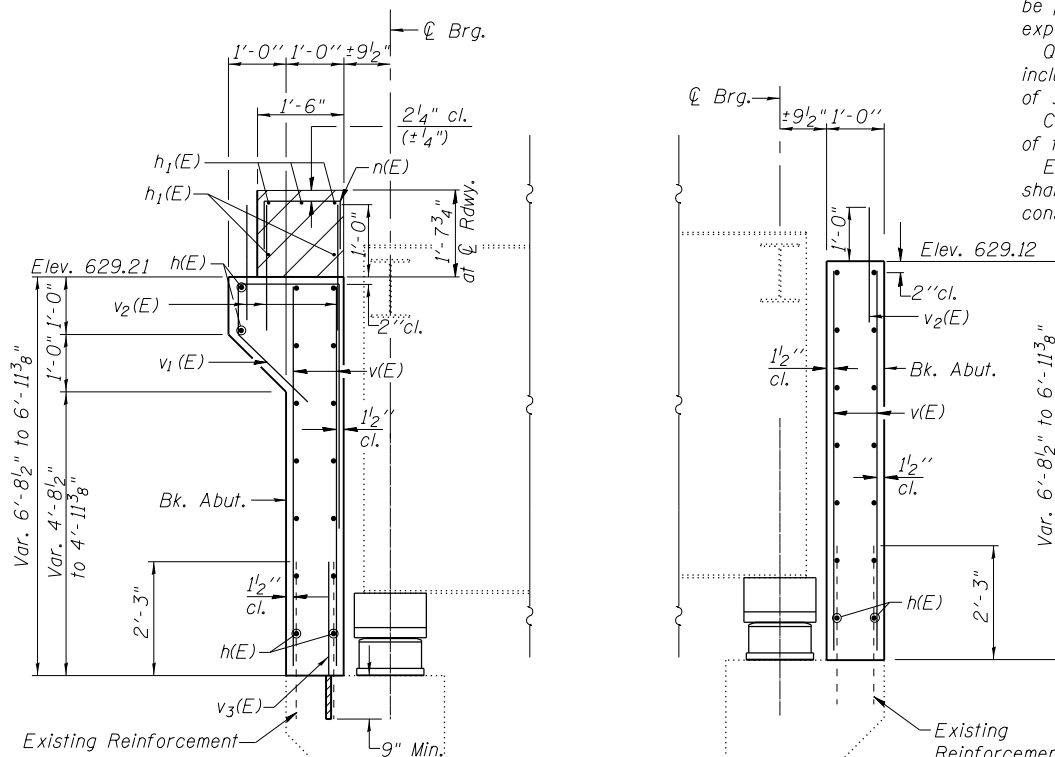
SECTION C-C



PLAN VIEW
(S. Abut.)



PLAN VIEW
(N. Abut.)



SECTION A-A
(S. Abut.)

SECTION B-B
(N. Abut.)

Notes:
See Sheets 12 and 13 of 39 for details of $a_2(E)$ and $d_4(E)$ bars.
The blockout area represented by hatching shall be poured following the installation of the modular expansion joint.
Quantity of concrete for the hatch block area is included with Concrete Superstructure on Sheet 9 of 39.
Concrete Sealer shall be applied to the front face of the abutment backwall and hatched block.
Existing reinforcement extending into new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

**TWO ABUTMENT BACKWALLS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$h(E)$	30	#5	30'-8"	—
$h_1(E)$	5	#6	32'-8"	—
$n(E)$	32	#5	3'-7"	□
$v(E)$	128	#5	6'-4"	—
$v_1(E)$	32	#7	6'-5"	┌
$v_2(E)$	128	#5	2'-0"	—
$v_3(E)$	32	#5	2'-8"	—
$v_4(E)$	16	#5	3'-0"	—
Reinforcement Bars, Epoxy Coated	Pound	3,005		
Concrete Structures	Cu. Yd.	17.4		
Concrete Sealer	Sq. Ft.	520		

Note A:
365 lbs (Superstr.)
2,640 lbs (Substr.)

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

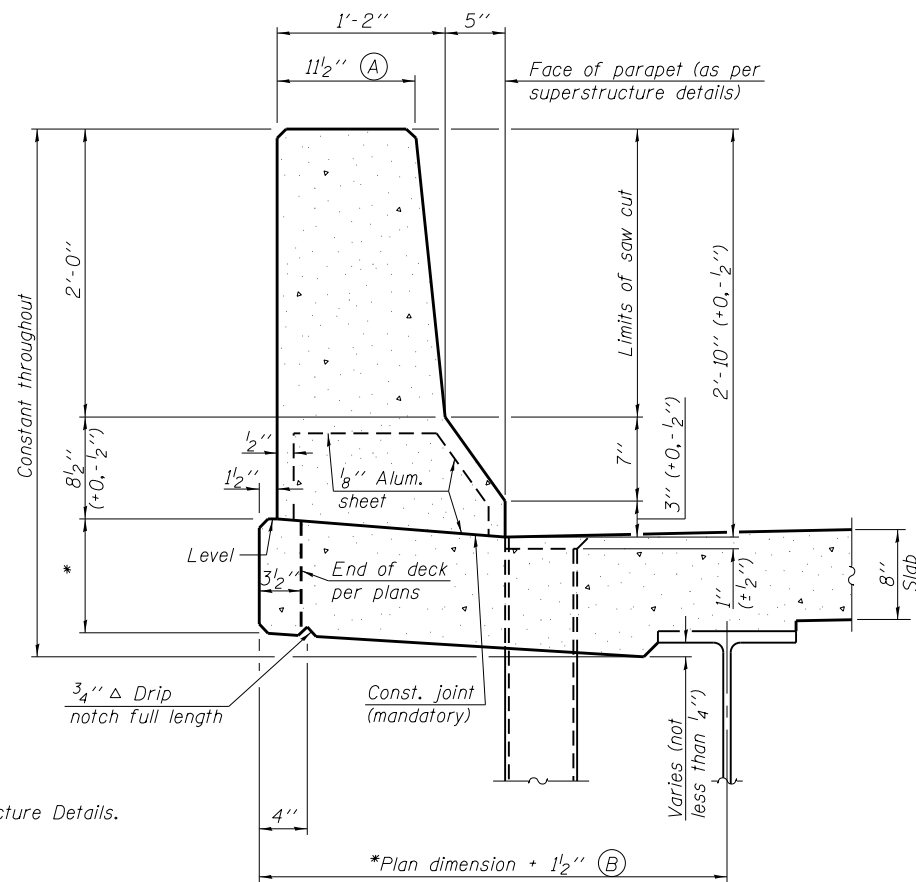
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		CHECKED MCB	REVISED -
		DRAWN MLO	REVISED -
		CHECKED PBB/MCB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT BACKWALL DETAILS
STRUCTURE NO. 058-0049

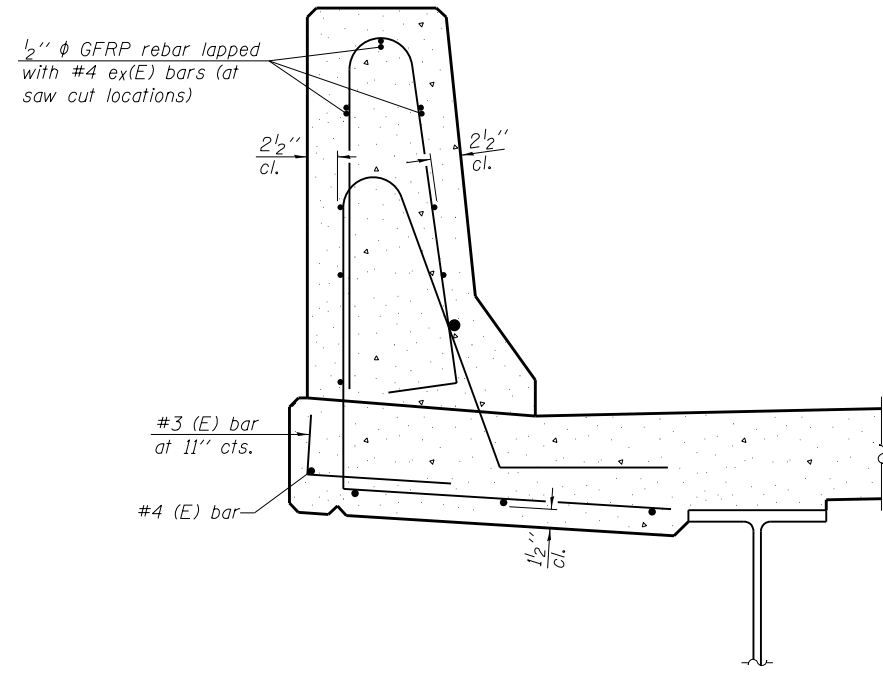
SHEET NO. 20 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	58
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



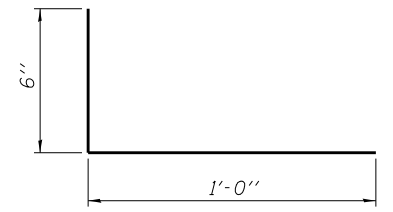
SECTION
(Showing dimensions)

* See Superstructure Details.

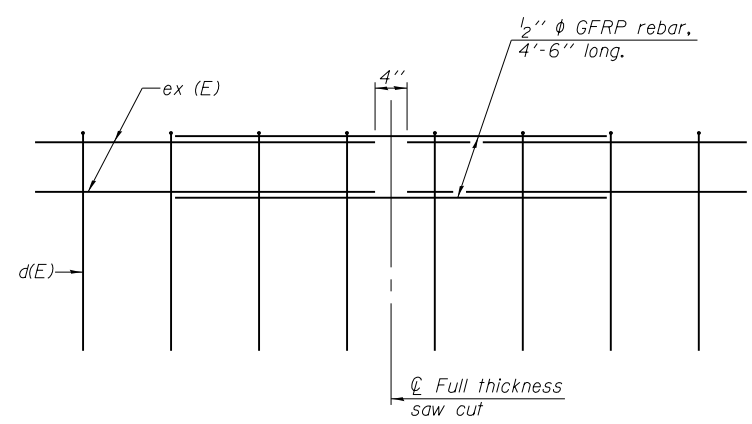


SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

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. of 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.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

SFP-34 1-27-12

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	CHECKED PBB/MCB	REVISED -	

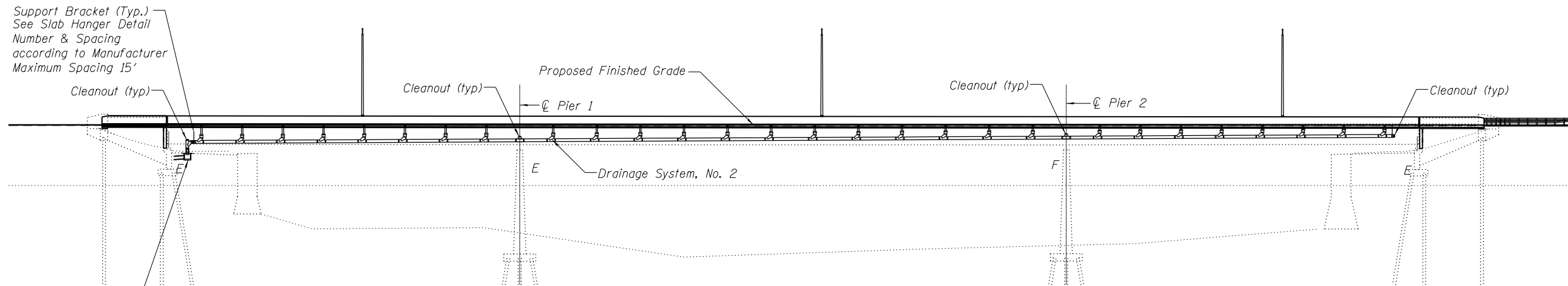
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 058-0049

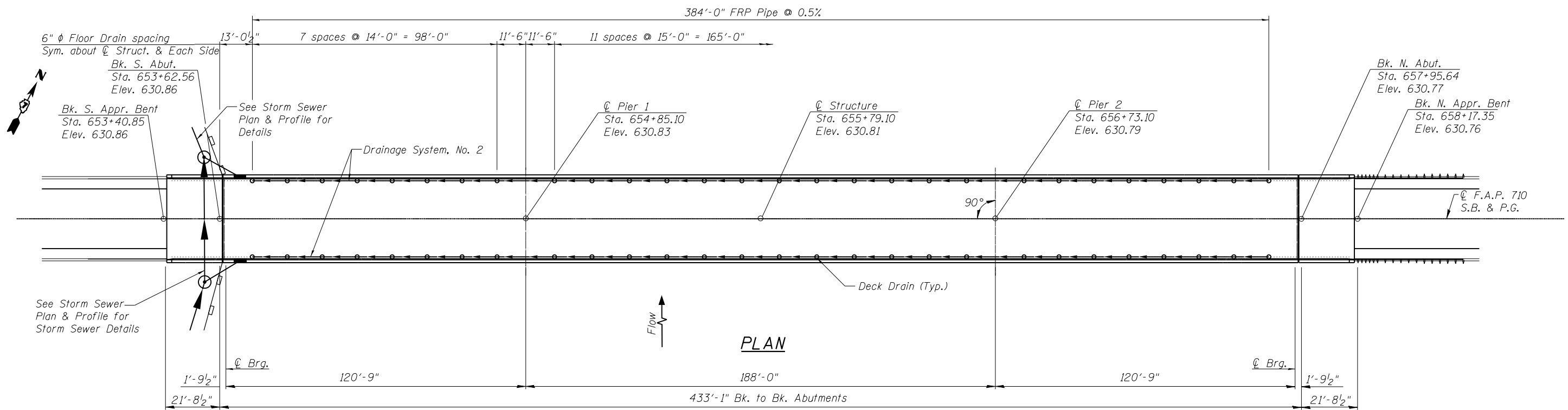
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	59
CONTRACT NO. 74438				

SHEET NO. 21 OF 39 SHEETS

ILLINOIS FED. AID PROJECT



ELEVATION



PLAN

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

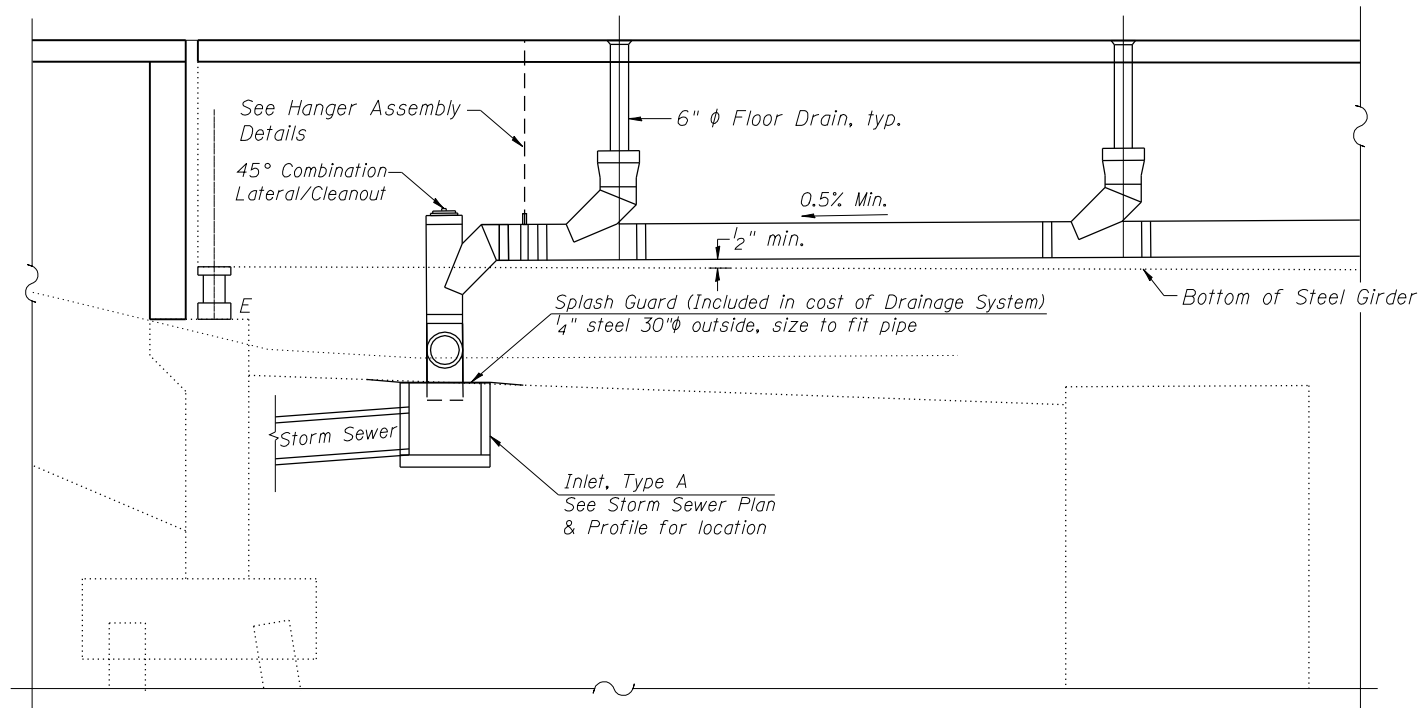
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SYSTEM
STRUCTURE NO. 058-0049

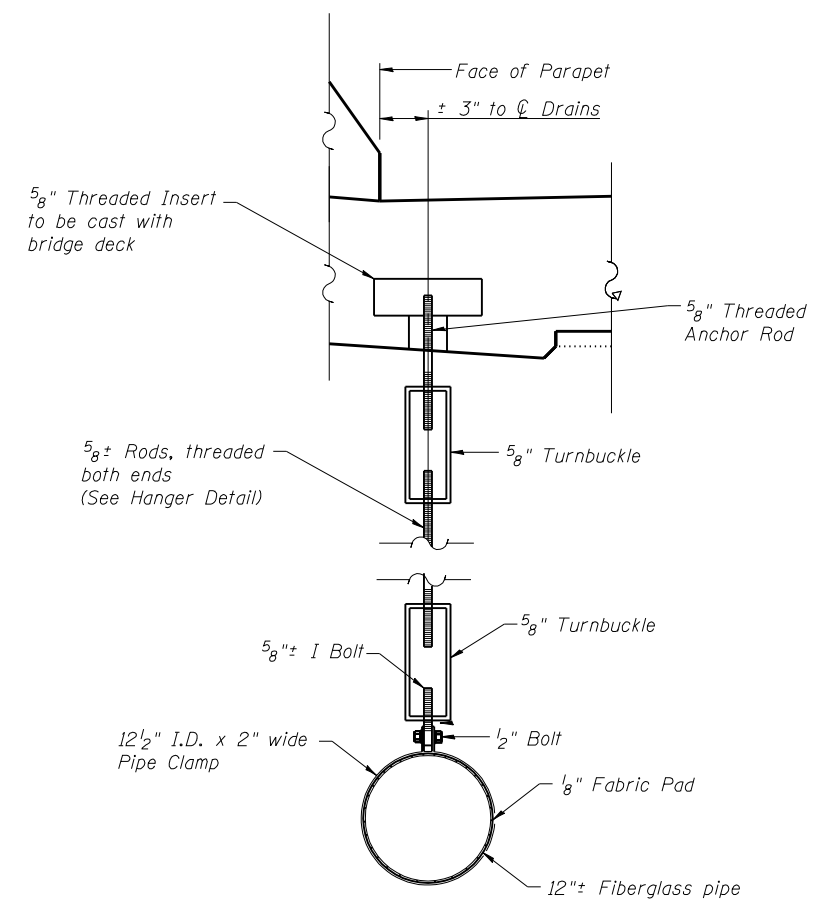
SHEET NO. 22 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	60
CONTRACT NO. 74438				

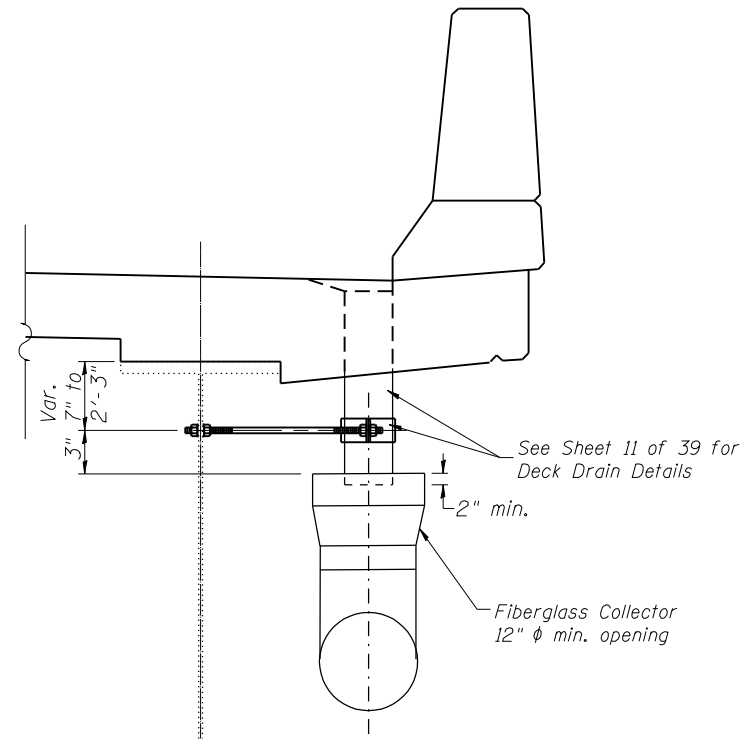
ILLINOIS FED. AID PROJECT



TYPICAL DETAIL BRIDGE DRAINAGE SYSTEM OUTLET SN 058-0049



HANGER ASSEMBLY DETAILS



SECTION THRU PARAPET (TYP.)

BILL OF MATERIAL

Item	Unit	Total
Drainage System, No. 2	Each	1

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FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SYSTEM DETAILS
STRUCTURE NO. 058-0049**

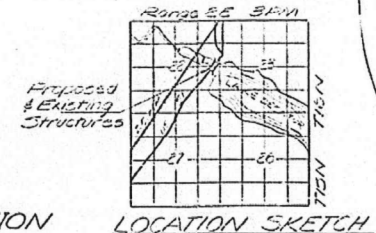
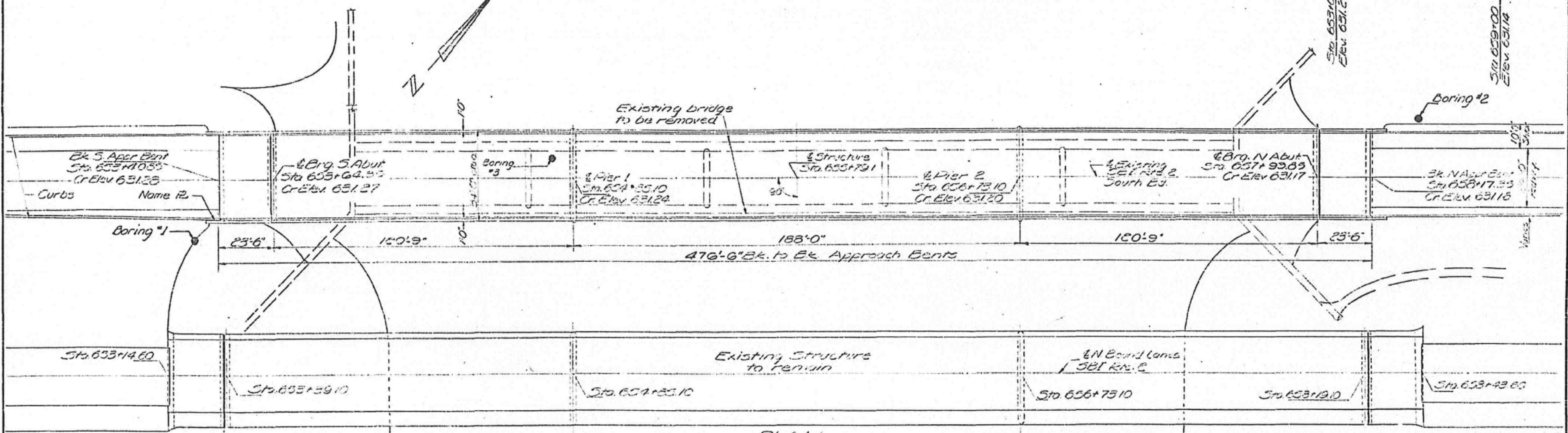
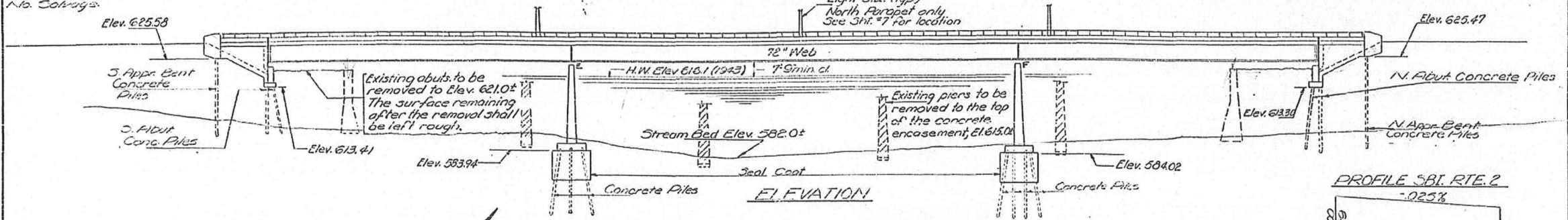
SHEET NO. 23 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	61
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

BM: N. End Dam Top NW Corner of Headgate (U.S.G.S. T15-28F) Elevation 622.89
 Existing Structure: Deck Pile Bridge with 3 simple spans of 75' with 28' Rdwy. on steel and concrete piers and concrete closed abutments. Existing N Structure to be removed by Bridge Contractor before starting new construction. East Bound traffic to be detoured over South Structure. No. Solways.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
16	148B	MACON	26	11	16 SHEETS



DESIGN STRESSES

$f_c = 1200$ psi (Super)
 $f_s = 20,000$ psi (Reinf.)
 $f_s = 20,000$ psi (Struct)
 $f_c = 1400$ psi (Curb, Parapet & Sub)
 $w_c = 75$ psi (Figs)
 $n = 10$
 $E = 41200$ (Composite)
 $E = 41000$ (Accouton-composite)
 Fut. WS. 25 psp. $E = 41000$ (as applicable)
 Design Specs. 1989 AASHTO

WATERWAY INFORMATION

Drainage Area - 906 Sq. Mi.
 Character - Level, rolling & cultivated
 Present Opening - 9570 Sq. Ft.
 Reqd. Opening - 9000 Sq. Ft.
 Proposed Opening - 10000 Sq. Ft.
 * Incl. area for piers
LOADING HS20-44

DESIGNED: [Signature]
 CHECKED: [Signature]
 DRAWN: A. Borraza
 EXAMINED: [Signature]
 PASSED: [Signature]
 APPROVED: [Signature]

GENERAL PLAN & ELEVATION
 So. Bound FA. RTE 2 OVER LAKE DECATUR

FA. RTE 2 28 BR
 MACON COUNTY
 STA 655+00 TO 658+00

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -
		CHECKED	REVISED -
		DRAWN MLO	REVISED -
		CHECKED	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

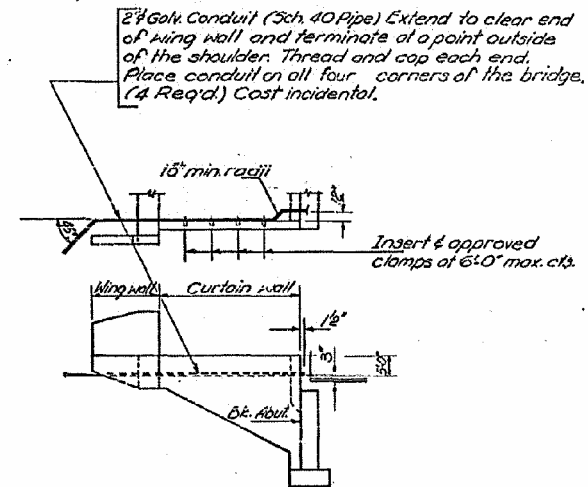
EXISTING BRIDGE PLANS

SHEET NO. 24 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	62
				CONTRACT NO. 74438
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " open holes $1\frac{1}{2}$ " unless otherwise noted.
Calculated weight of Structural Steel = 640,990 Lbs.
Cast steel shall be Class 70. Structural steel weldments of equal sections and meeting ASTM A-485 may be substituted for castings at the option of the Contractor, subject to approval by the Engineer prior to fabrication. No additional compensation will be allowed to the Contractor for this substitution.
Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
Anchor bolts shall be set before bolting cross frames over supports.
The Contractor shall drive one concrete test pile each in a permanent location at the South Abut. & Piers 1 & 2 as directed by the Engineer before ordering the remainder of piles.
The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.
All structural steel shall be shop coated with a zinc coating. Field painting shall consist of spot painting damaged areas and all field connection areas, not previously coated, with the zinc coating. See Special Provisions for zinc coating.



ELECTRICAL CONDUIT LOCATION

STRESS TABLES
INTERIOR GIRDER MOMENT TABLE

	4 Span	Pier Length	5 Span
I_s (in ⁴)	43380	137103	63792
I_c (in ⁴)			146395
S_x (in ³)	1235	3600	2249
S_y (in ³)			2555
I_D (in ⁴)	912	1195	935
$M.D.$ (in ⁴)	495	3009	1526
I_s to (in ⁴)	74	13.4	110
S_x to (in ³)	379	379	379
I_D to (in ⁴)	264	977	677
$M.D.$ to (in ⁴)	892	1325	1521
M (in ⁴)	181	272	243
Total (in ⁴)	1832	3820	3787
I_s to (in ⁴)	10.4	6.0	7.3
I_s Total (in ⁴)	178	19.4	18.3
V_R (k)			52.9

INTERIOR GIRDER REACTION TABLE

	Abut.	Piers
R_2 (k)	26.3	246.8
R_4 (k)	41.0	92.6
Imp (k)	8.3	16.9
R Total (k)	75.6	356.3

I_s & S_x are the moment of inertia and section modulus of the steel section
 I_c & S_y are the moment of inertia and section modulus of the composite section used in computing I_s
 V_R is the maximum V plus impact shear range in span.

STATION 655+79.1W
BUILT 197 BY
STATE OF ILLINOIS
F.A. RTE. 2 SEC. 48BR

LOADING HS 20

NAME PLATE
(See Std. 2113)

TOTAL BILL OF MATERIAL

Item	Super	Sub.	Total
Class A Excavation for Structures	Cu. Yds.	647	647
Cofferdam Excavation	Cu. Yds.	1156	1156
Cofferdam Pier 1	Ea.		1
Cofferdam Pier 2	Ea.		1
Protective Coat	Sq. Yds.	1965	1965
Class A Concrete	Cu. Yds.	364.7	364.7
Class X Concrete	Cu. Yds.	513.2	645.0
Seal Coat Concrete	Cu. Yds.	459	459
Structural Steel	Lump Sum	1	1
Stud Shear Connectors	Ea.	960	960
Aluminum Railing	Lin. Ft.	943	943
Reinforcement Bars	Lbs.	129470	129470
Concrete Piles	Lin. Ft.	4315	4315
Test Piles (Concrete)	Ea.	3	3
Name Plates	Ea.	1	1
Removal of Existing Structures	Ea.		1
Neoprene Expansion Jt. (2)	Lin. Ft.	34	34
Neoprene Expansion Jt. (4)	Lin. Ft.	34	34
Sand Backfill	Cu. Yds.	164	164

GENERAL DATA
F.A. RTE. 2 SEC. 48BR
MACON COUNTY
STA. 655+79.1W

DESIGNED: [Signature]
CHECKED: [Signature]
DRAWN: A. Barroza
CHECKED: GR

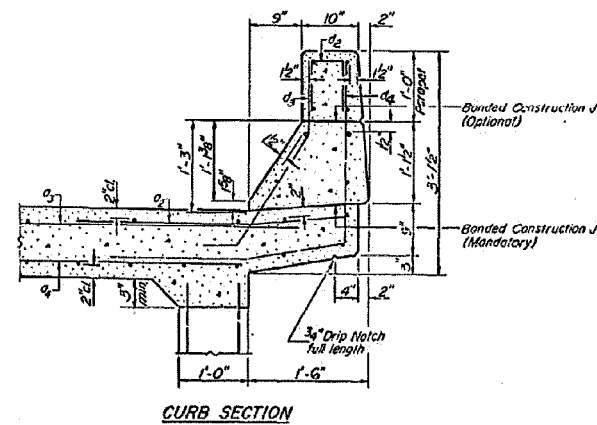
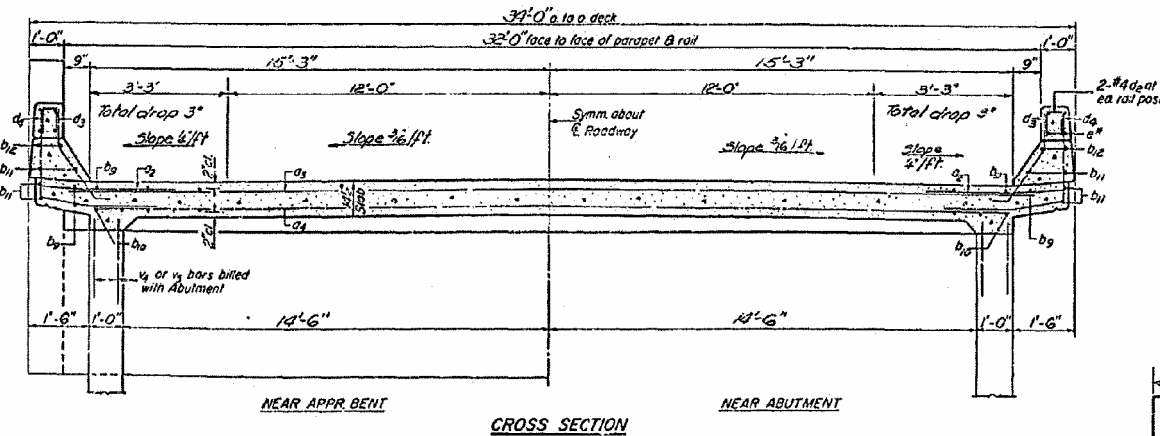
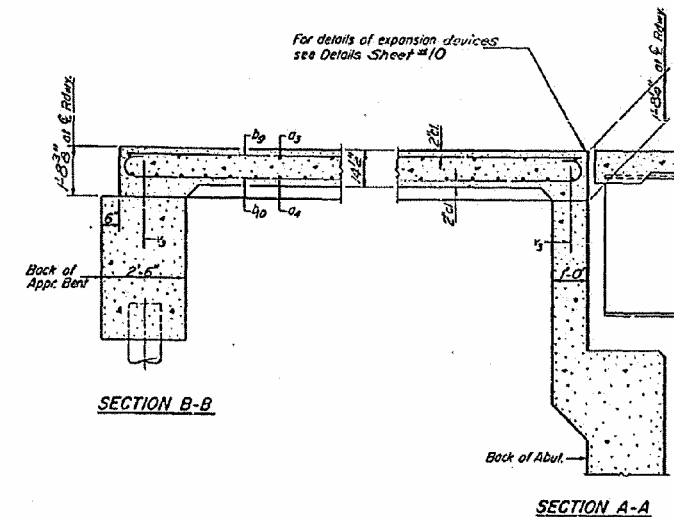
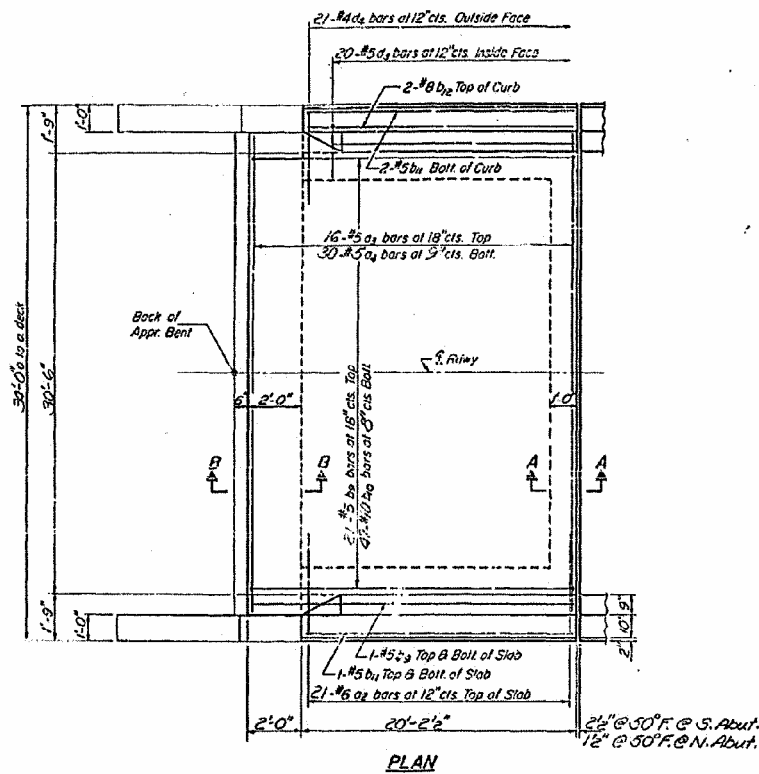
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PASSED: [Signature]
APPROVED: [Signature]

Dec 22 1970

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -
		CHECKED	REVISED -
	PLOT SCALE =	DRAWN MLO	REVISED -
	PLOT DATE =	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
2	48BR	MACON	26	15	16 SHEETS



**TWO APPR. SLABS
BILL OF MATERIAL**

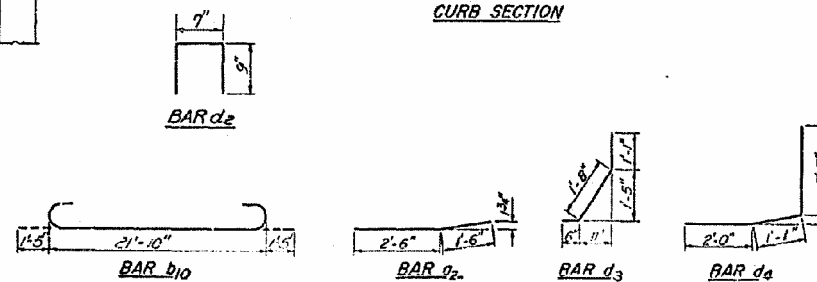
Bar	No.	Size	Length	Shape
a ₂	32	#5	4'-0"	—
a ₃	32	#5	3'-4 1/2"	—
a ₄	60	#5	30'-3"	—
b ₉	26	#5	2'-1 1/2"	—
b ₁₀	22	#5	2'-4 1/2"	C
b ₁₁	16	#5	20'-0"	—
b ₁₂	2	#8	20'-0"	—
d ₁	2A	#5	2'-1 1/2"	—
d ₂	30	#5	3'-3"	J
d ₃	3A	#4	5'-8"	J
Reinforcement Bars			Lbs.	15560
Class X Concrete			Cu. Yds.	73.0

DESIGNED: *[Signature]*
 CHECKED: *[Signature]*
 DRAWN: *[Signature]*
 CHECKED: *[Signature]*

EXAMINED: *[Signature]*
 PASSED: *[Signature]*
 APPROVED: *[Signature]*

Dec 30 1970

SAS-0 3-1-67



*Longitudinal Parapet Reinforcement and Class X Concrete are killed on Sheet # 7

APPROACH SPANS
 F.A. RT. 2 SEC. 48 BR
 MACON COUNTY
 STATION 655+79.11V

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISOR -
	CHECKED	CHECKED	REVISOR -
	PLOT SCALE =	DRAWN MLO	REVISOR -
	PLOT DATE =	CHECKED	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

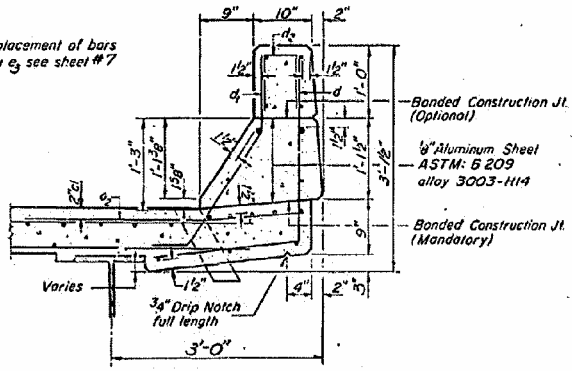
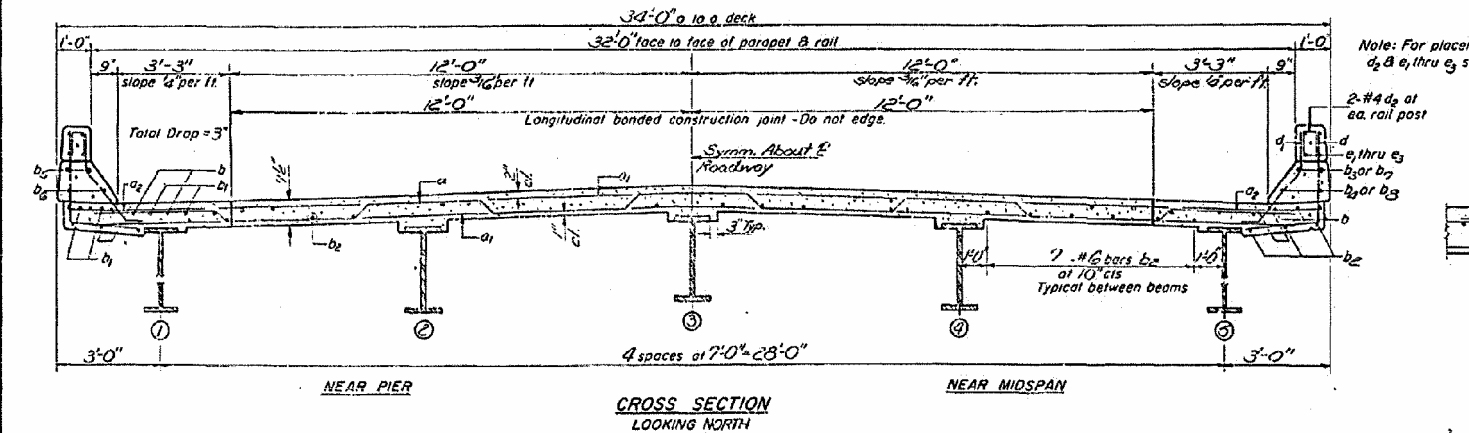
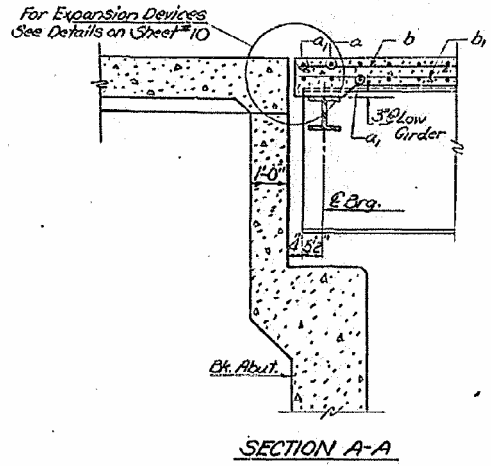
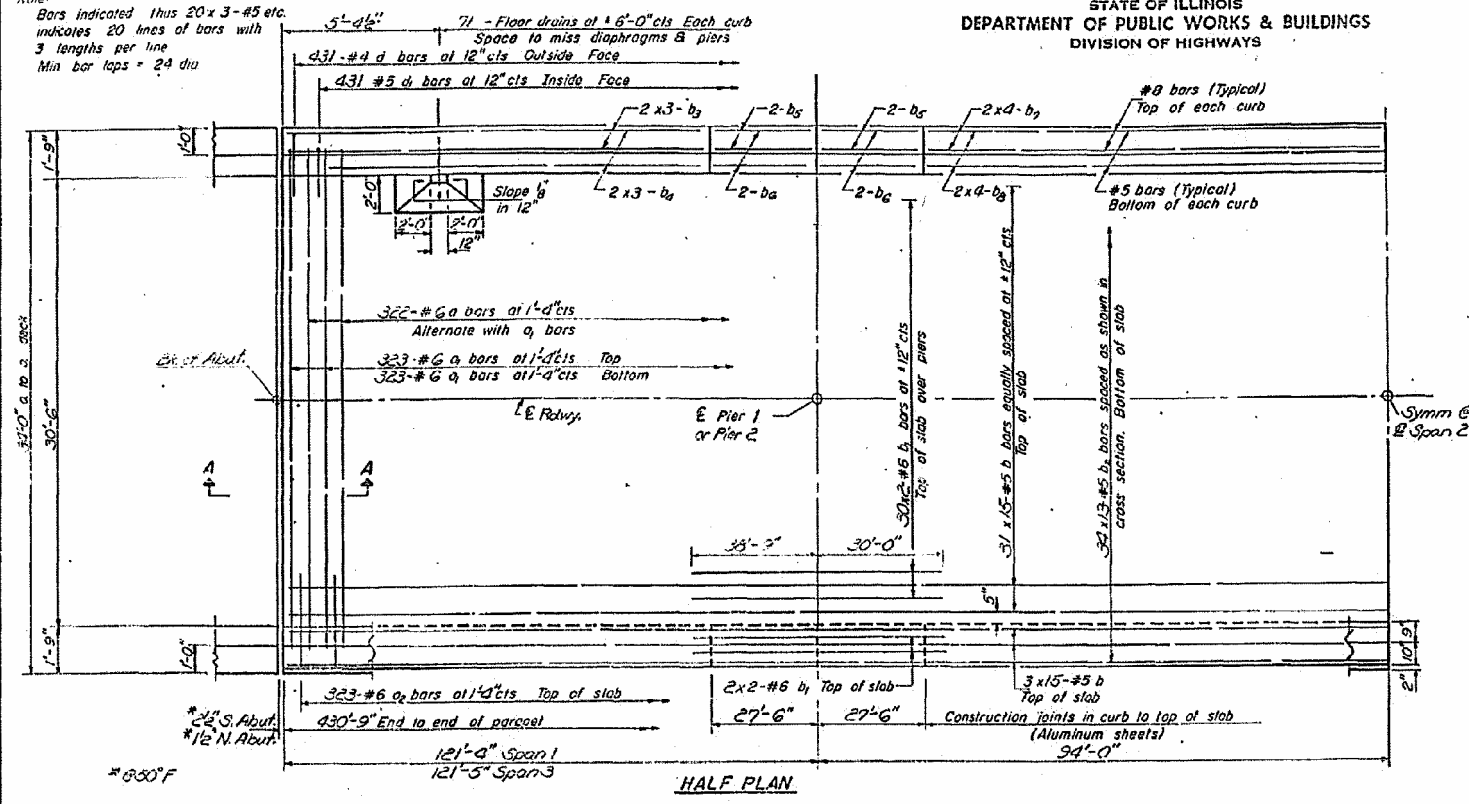
SHEET NO. 26 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	64
CONTRACT NO. 74438			ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
2	488A	MACON	26	18	16 SHEETS

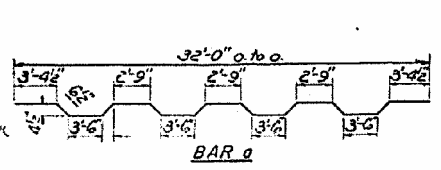
Note:
Bars indicated thus 20 x 3-#5 etc.
indicates 20 lines of bars with
3 lengths per line
Min bar laps = 24 dia



BILL OF MATERIAL

Bar	No	Size	Length	Shape	
a	322	#6	33'-0"		
a ₁	626	#6	32'-0"		
a ₂	606	#6	4'-0"		
b	553	#5	30'-0"		
b ₁	136	#6	32'-3"		
b ₂	402	#6	30'-0"		
b ₃	24	#8	32'-9"		
b ₄	24	#5	32'-3"		
b ₅	16	#8	27'-3"		
b ₆	16	#5	27'-3"		
b ₇	16	#8	34'-9"		
b ₈	16	#5	34'-3"		
d	862	#4	4'-0"	J	
d ₁	862	#5	3'-5"	J	
d ₂	176	#4	2'-1"	I	
Reinforcement Bars				Lbs	110920
Class X Concrete				Cu Yds	4097

DESIGNED: [Signature]
EXAMINED: [Signature]
CHECKED: [Signature]
DRAWN: J. Sutherland
CHECKED: [Signature]



Note: For placement of bars a₂ & a₃ thru e₃ see sheet #7

Cost of Aluminum Drains and Sheets shall be incidental to Class X Concrete

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet #7

SUPERSTRUCTURE
F.A. RT. 2 SEC. 48 BR
MACON COUNTY
SECTION 655+79.1W

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -
	CHECKED	CHECKED	REVISED -
	PLOT SCALE =	DRAWN MLO	REVISED -
	PLOT DATE =	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

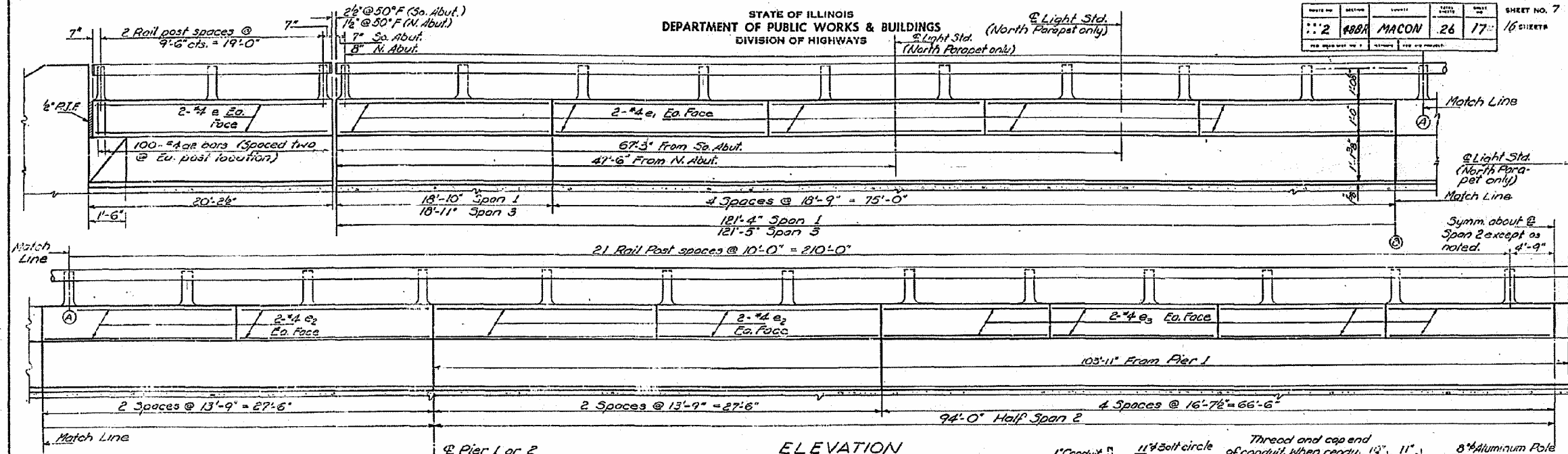
SHEET NO. 27 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	65
				CONTRACT NO. 74438

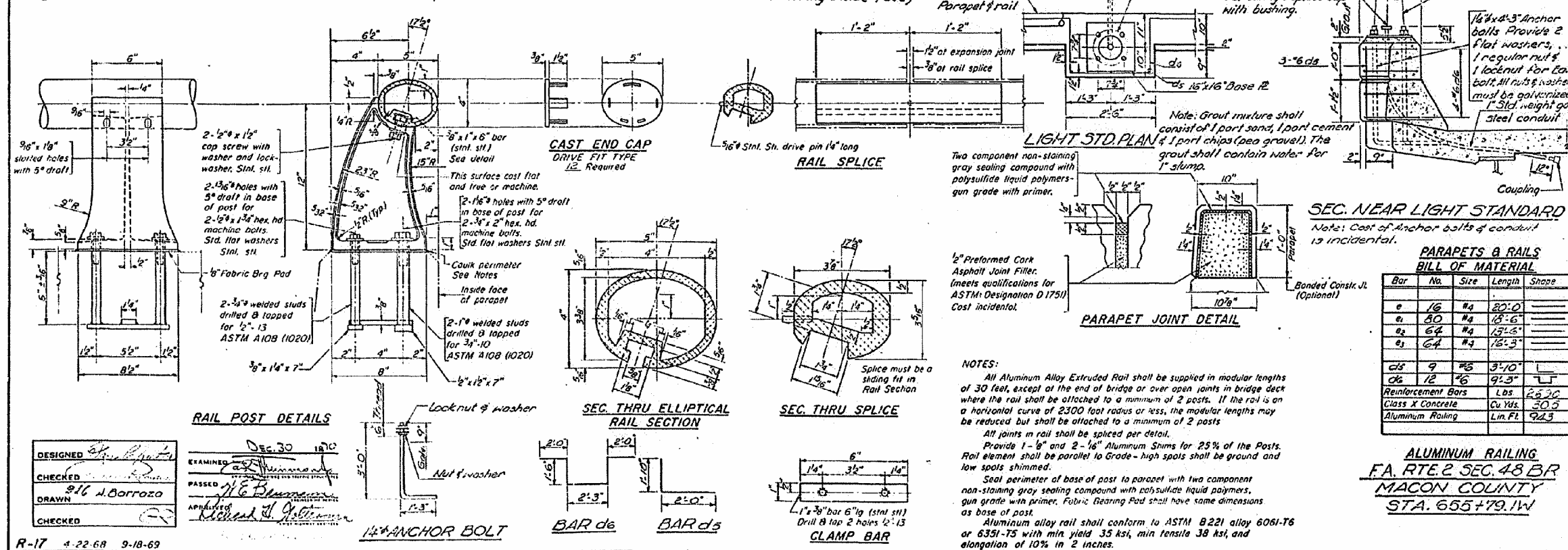
ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	SECTION	PROJECT	DATE	SHEET NO.	SHEET NO.
2	488A	MACON	26	17	16
SHEET NO. 7					



ELEVATION
(Showing Inside Face)



DESIGNED: *[Signature]*
CHECKED: *[Signature]*
DRAWN: *[Signature]*
CHECKED: *[Signature]*

EXAMINED: *[Signature]*
PASSED: *[Signature]*
APPROVED: *[Signature]*

DES. 30 1970
MLO
9-18-69

NOTES:

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

Provide 1-1/8" and 2-1/8" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymers, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

PARAPETS & RAILS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e	16	#4	20'-0"	
a	20	#4	18'-6"	
a2	64	#4	15'-6"	
a3	64	#4	15'-3"	
cl5	9	#5	3'-10"	
cl6	12	#6	9'-3"	
Reinforcement Bars		Lbs	2520	
Class X Concrete		Cu Yds.	30.5	
Aluminum Railing		Lm Ft.	923	

ALUMINUM RAILING
FA. RTE. 2 SEC. 48 BR
MACON COUNTY
STA. 655+79.1W

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -
	CHECKED	MLO	REVISED -
	PLOT SCALE =	DRAWN MLO	REVISED -
	PLOT DATE =	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

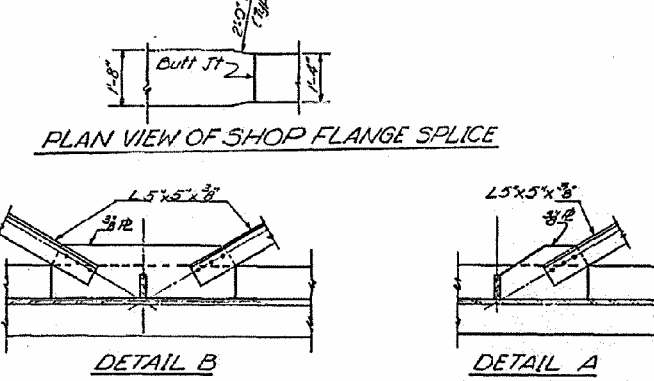
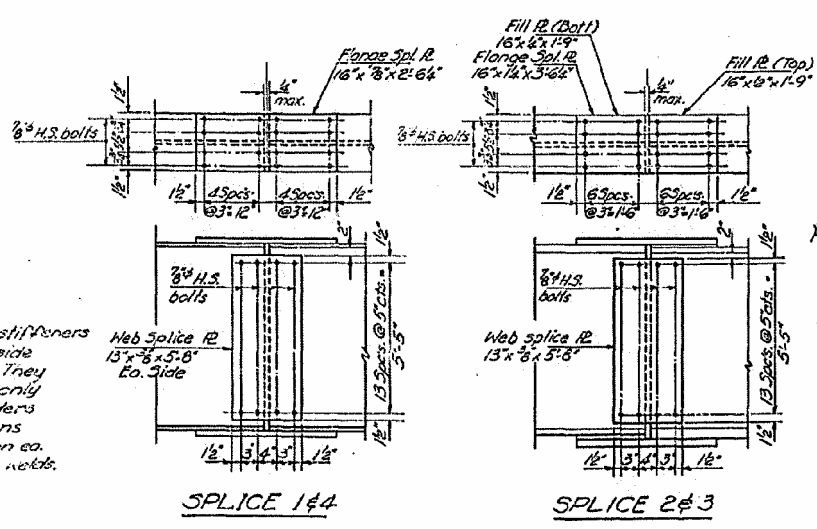
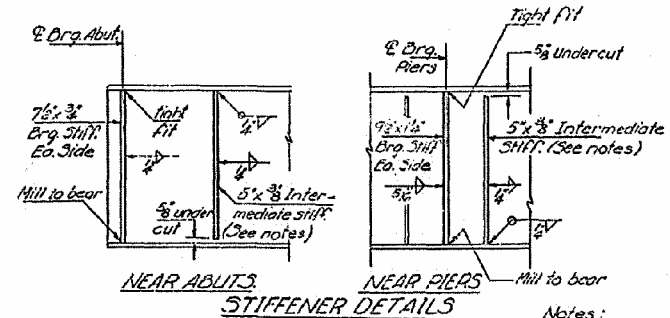
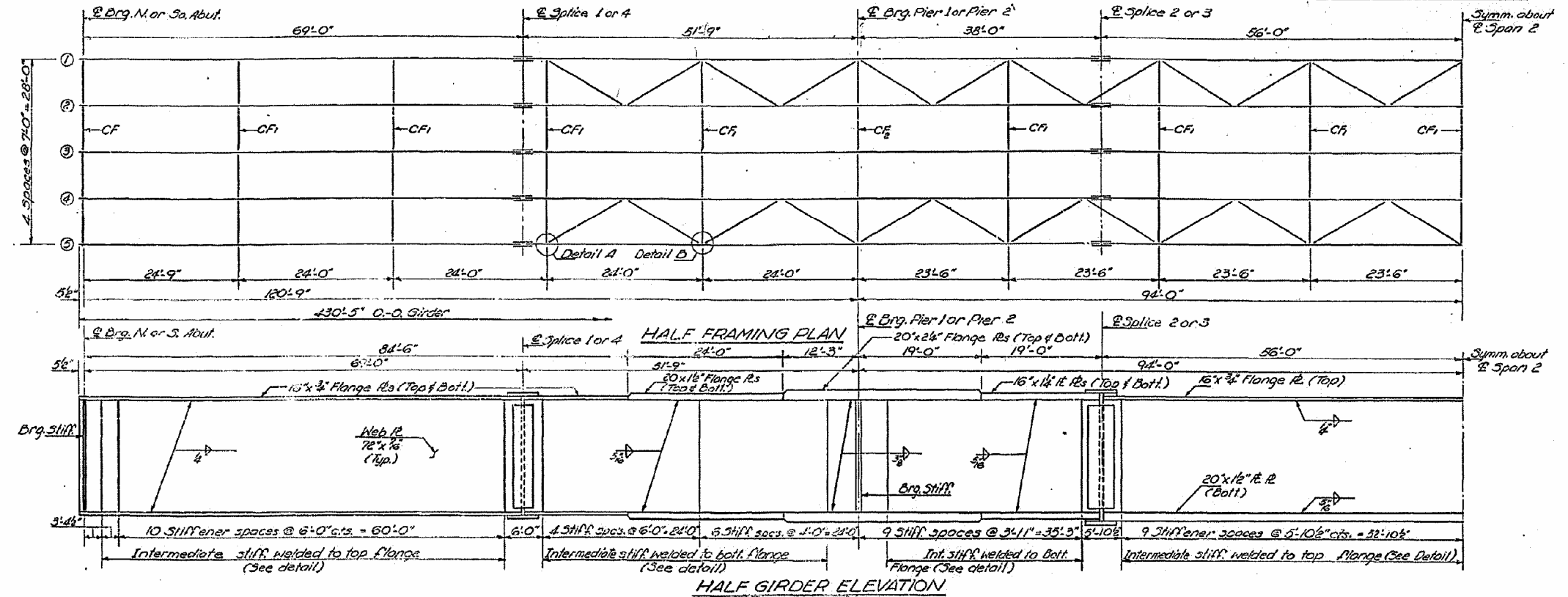
EXISTING BRIDGE PLANS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48)BRBR	MACON	144	66
CONTRACT NO. 74438				

SHEET NO. 28 OF 39 SHEETS

ILLINOIS FED. AID PROJECT

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
2	48BR	MACON	26	18	15 SHEETS



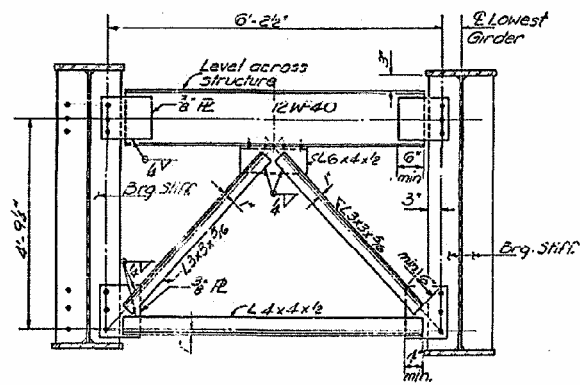
DESIGNED	Dec. 30 1970
CHECKED	
DRAWN	A. Corrozo 046
CHECKED	GR

Notes:
No intermediate stiffeners are to be placed on the outside face of the fascia girders. They shall be placed on one side only on the remainder of the girders except at cross frame locations where they shall be placed on ea. side. Clip stiff. 6x6" to clear welds.

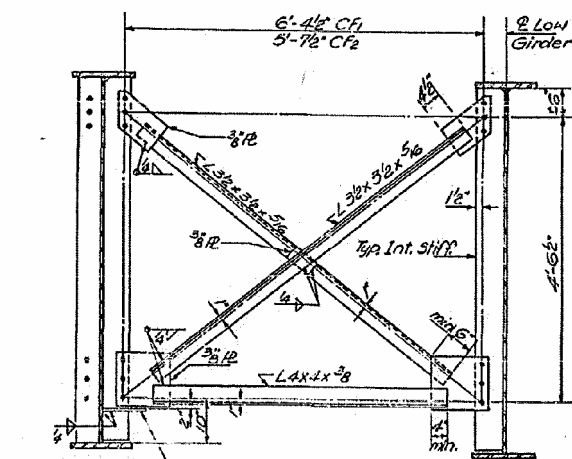
STRUCTURAL STEEL DETAILS
F.A. RTE. 2 SEC. 48 BR
MACON COUNTY
STA. 655+79.1A

FILE NAME =	USER NAME =	DESIGNED PBB	REVISED -
		CHECKED	REVISED -
	PLOT SCALE =	DRAWN MLO	REVISED -
	PLOT DATE =	CHECKED	REVISED -

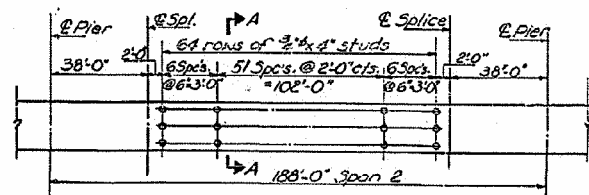
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	67
			CONTRACT NO. 74438	



CROSS FRAME-CF
(8-REQUIRED)

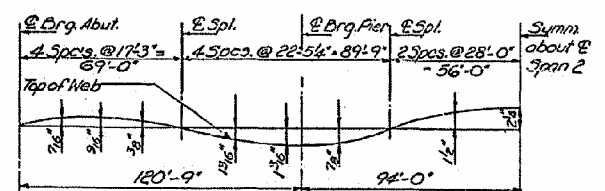


CROSS FRAME-CF1 & CF2
(60-REQUIRED CF1)
(8-REQUIRED CF2)

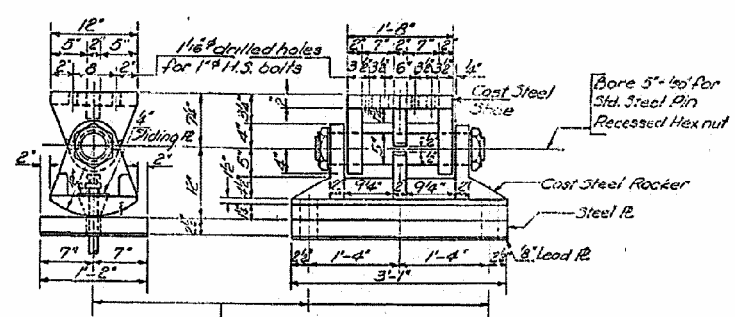


GIRDER PLAN
(Showing Shear Conn.)
3/4"x4" CR1020
Steel Granular or
solid flux filled
headed studs
automatically
end welded.

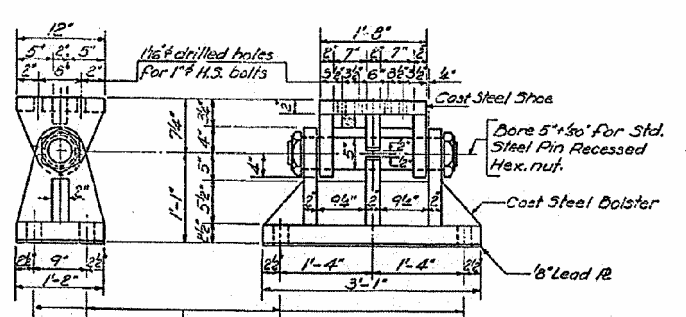
SEC. A-A



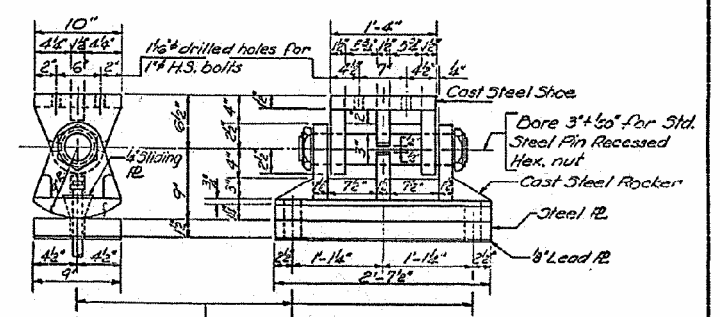
CAMBER DIAGRAM



DETAIL OF BEARINGS AT PIER 1 (EXP)



DETAIL OF BEARINGS AT PIER 2 (FIX)



DETAIL OF BEARINGS AT ABUTS (EXP)

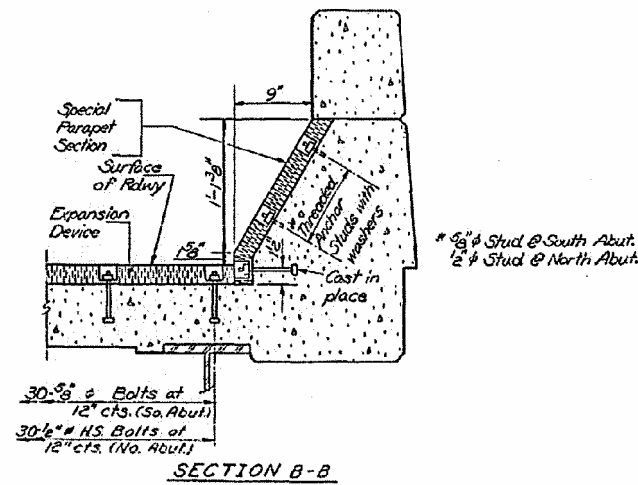
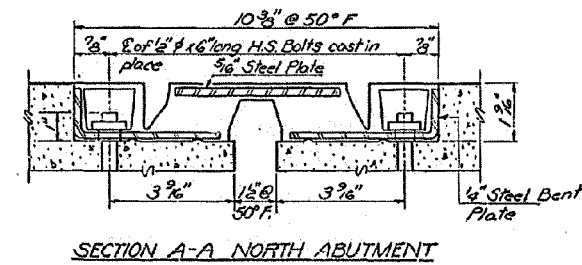
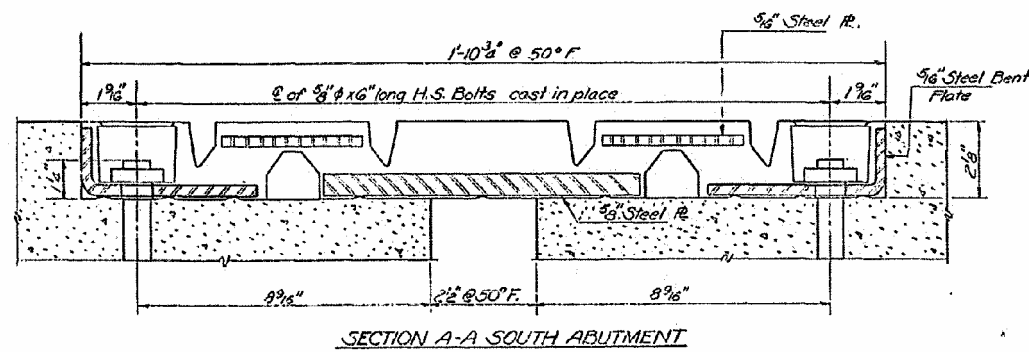
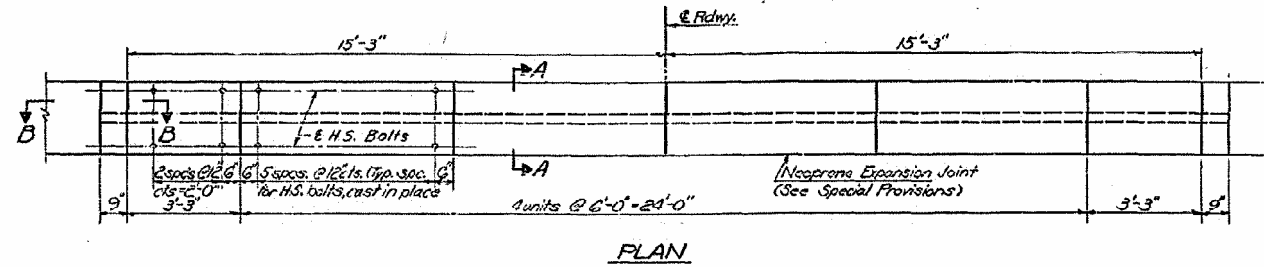
DESIGNED	<i>W. J. Hill</i>	EXAMINED	<i>W. J. Hill</i>
CHECKED	<i>W. J. Hill</i>	PASSED	<i>W. J. Hill</i>
DRAWN	<i>A. Borrozo</i>	APPROVED	<i>Richard J. Spill</i>
CHECKED	<i>GR</i>		

Dec 30 1970

STRUCTURAL STEEL DETAILS
FA. RTE. 2 SEC. 48BR
MACON COUNTY
STA. 655+79.1 W

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	2	48BR	MACOM	26	20	SHEET NO. 10
15 SHEETS						



DESIGNED *[Signature]*
CHECKED *[Signature]*
DRAWN *[Signature]*
CHECKED *[Signature]*

EXAMINED *[Signature]*
PASSED *[Signature]*
APPROVED *[Signature]*

Dec. 30 1970

EXPANSION DEVICES
FA. RT. 2 SECTION 48BR
MACON COUNTY
STATION 655+79.1W

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
	CHECKED	CHECKED	REVISED -
	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

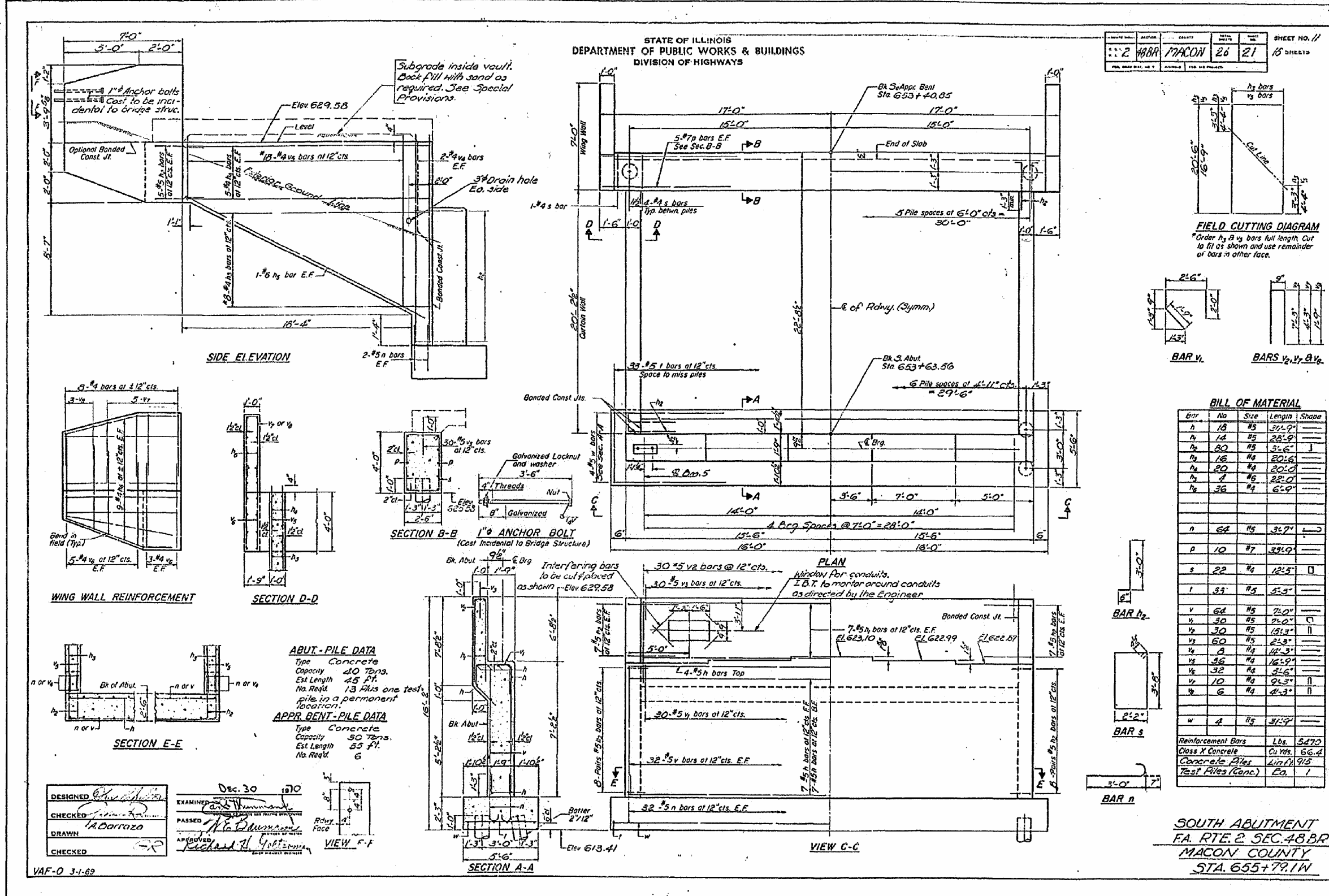
SHEET NO. 31 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	69
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
2 488R	MACON	26	21
SHEET NO. 16			TOTAL SHEETS
			16 SHEETS



BILL OF MATERIAL

Bar	No	Size	Length	Shape
n	18	#5	31'-9"	—
n	14	#5	28'-9"	—
n	20	#5	32'-6"	—
n	16	#4	20'-6"	—
n	20	#4	20'-0"	—
n	4	#6	22'-0"	—
n	36	#4	6'-9"	—
n	62	#5	31'-7"	—
p	10	#7	33'-9"	—
s	22	#4	12'-5"	□
i	33	#5	5'-3"	—
v	62	#5	7'-0"	—
v	30	#5	7'-0"	—
v	30	#5	15'-9"	—
v	60	#5	2'-3"	—
v	4	#4	14'-3"	—
v	36	#4	16'-9"	—
v	32	#4	3'-6"	—
v	10	#4	9'-3"	—
v	6	#4	2'-3"	—
w	4	#5	31'-9"	—

Reinforcement Bars Lbs. 5270
Class X Concrete Cu Yds. 66.4
Concrete Piles Lin ft. 915
Test Piles (Conc) Co. 1

SOUTH ABUTMENT
FA. RTE. 2 SEC. 48 BR
MACON COUNTY
STA. 655+79.1 W

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

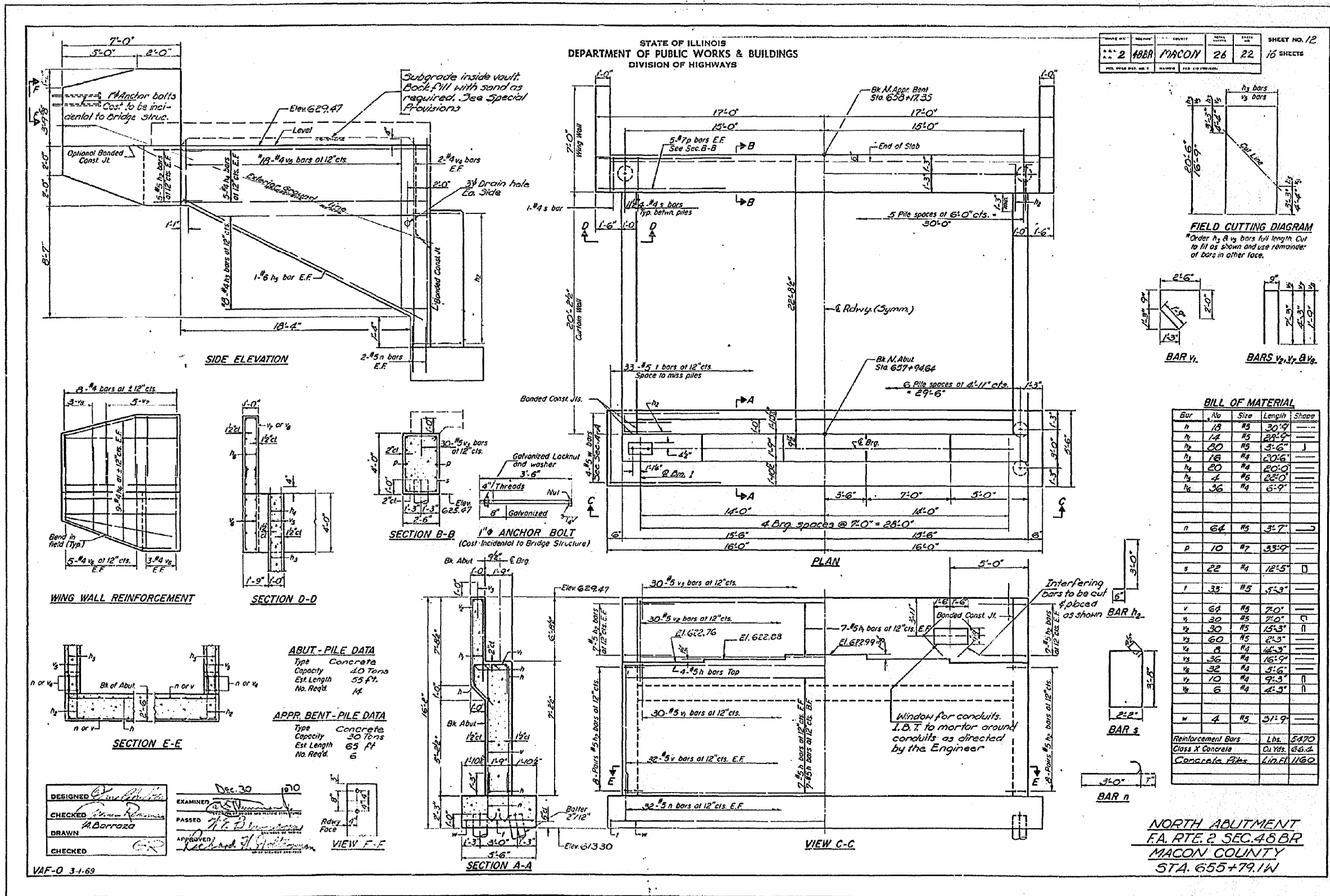
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	CHECKED	CHECKED	REVISOR -
	PLOT SCALE =	DRAWN MLO	REVISOR -
	PLOT DATE =	CHECKED	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 32 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	148X-B-2BR & 148BR1BR	MACON	144	70
				CONTRACT NO. 74438
ILLINOIS FED. AID PROJECT				



BLANK, WESSELINK, COOK & ASSOCIATES

DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 33 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48B)RBR	MACON	144	71
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

DESIGNED *Richard W. Borrozo*

CHECKED *Richard W. Borrozo*

DRAWN *MLO*

DESIGNED *Richard W. Borrozo*

CHECKED *Richard W. Borrozo*

DRAWN *MLO*

CHECKED *Richard W. Borrozo*

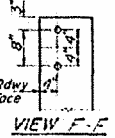
EXAMINED *Richard W. Borrozo*

PASSED *Richard W. Borrozo*

APPROVED *Richard W. Borrozo*

ABUT - PILE DATA
Type Concrete
Capacity 40 Tons
Est Length 55 ft.
No. Req'd 14

APPR. BENT - PILE DATA
Type Concrete
Capacity 30 Tons
Est Length 65 ft.
No. Req'd 6



DESIGNED *Richard W. Borrozo*

CHECKED *Richard W. Borrozo*

DRAWN *MLO*

DESIGNED *Richard W. Borrozo*

CHECKED *Richard W. Borrozo*

DRAWN *MLO*

CHECKED *Richard W. Borrozo*

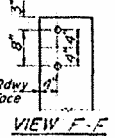
EXAMINED *Richard W. Borrozo*

PASSED *Richard W. Borrozo*

APPROVED *Richard W. Borrozo*

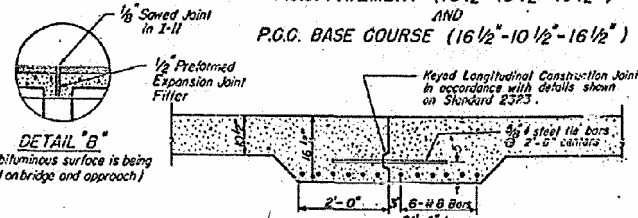
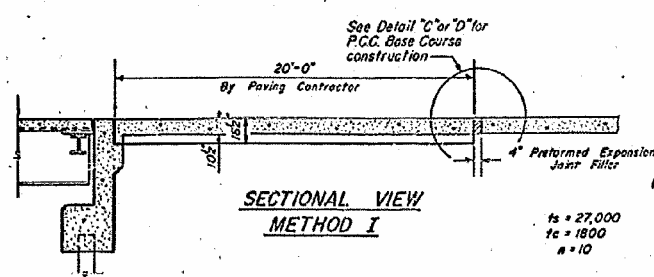
ABUT - PILE DATA
Type Concrete
Capacity 40 Tons
Est Length 55 ft.
No. Req'd 14

APPR. BENT - PILE DATA
Type Concrete
Capacity 30 Tons
Est Length 65 ft.
No. Req'd 6



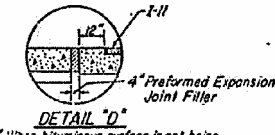
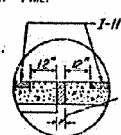
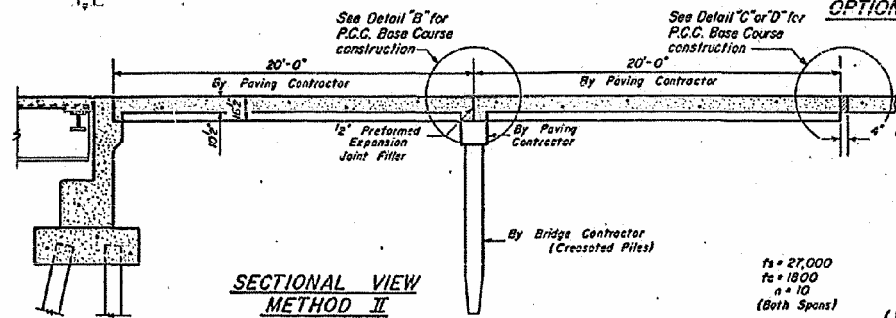
DETAILS OF BRIDGE APPROACHES

P.C.C. PAVEMENT (16 1/2'-10 1/2'-16 1/2')
AND
P.C.C. BASE COURSE (16 1/2'-10 1/2'-16 1/2')

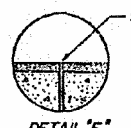
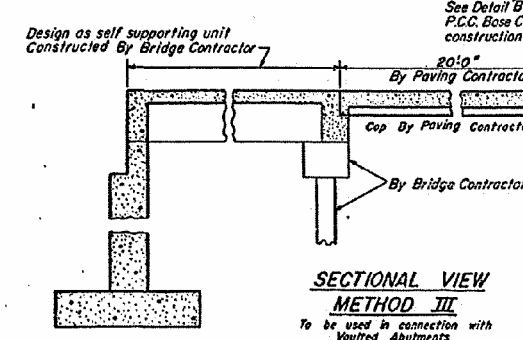


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the width of pour by use of the optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a Traffic Lane.

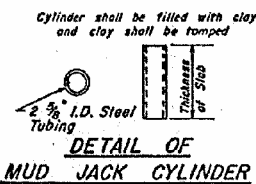
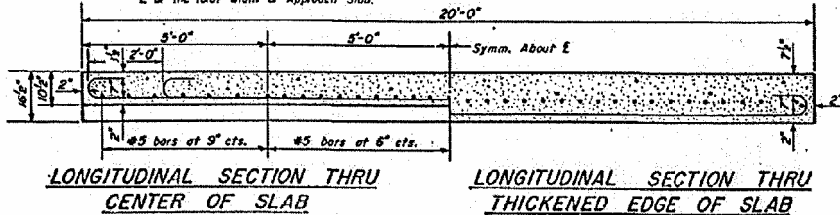


SECTION A-A

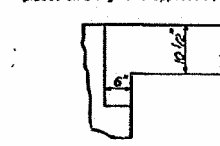


LONGITUDINAL EXPANSION JOINT

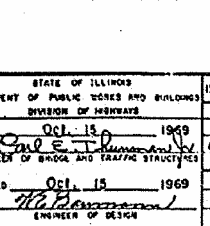
To be used when Approach Slabs are greater than 36'-0" wide. Joint shall be placed at edge of Traffic Lane nearest to the E of the total width of Approach Slab.



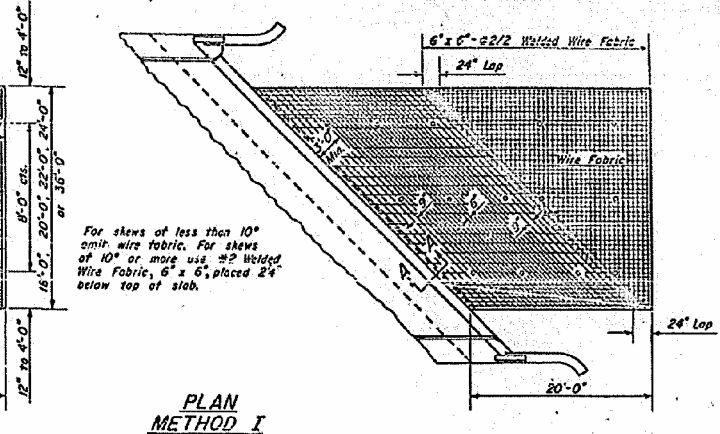
SECTION A-A



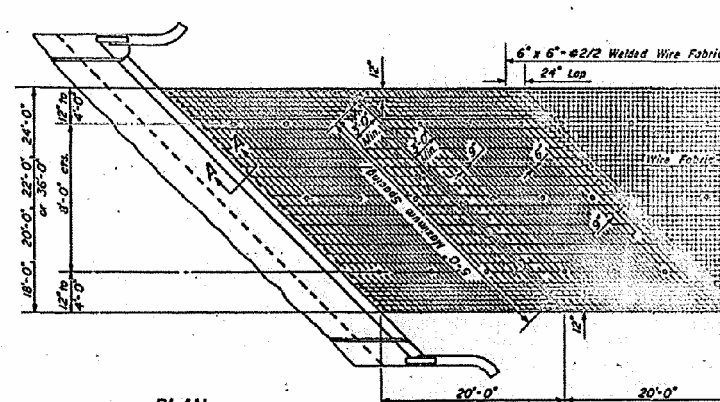
SECTION A-A



STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS		ISSUED 12-18-58	For Paper Joint	
DESIGNED	WAJ	2-2-59	W.F.	5-10-67
CHECKED	CET	10-22-59	W.F.	7-15-63
DRAWN	WAS	12-9-59	GR.	0-1-69
APPROVED	W.H.F.	9-17-63	J.K.P.	10-15-69
	K.H.W.	7-29-64		
	W.F.	10-28-64		



Expanded Metal weighing not less than 70 Lbs. per 100 sq. ft. or a welded bar not weighing not less than 70 Lbs. per 100 sq. ft. having members of equal size in both directions and spaced not over 8" apart may be used instead of the #2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar mat is furnished at no additional cost to the State.



GENERAL NOTES

FOR P.C.C. PAVEMENT

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2'-10 1/2'-16 1/2').

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Mud Jack Cylinders, and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2'-10 1/2'-16 1/2').

Preformed Expansion Joint Filler shall conform to Section 715 of the Standard Specification.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

The Contractor shall, after completion of the finishing operations, mark the location of the Mud Jack Cylinders.

Note: When road plans show curb and gutter or gutter adjacent to approach slabs place 1/2" steel 1/2" bars of 2'-6" cts. Cost of the bars included in contract unit price for Curb & Gutter or Gutter.

The transition for gutter shall be made in 100 feet and will be paid for as CONCRETE GUTTER, of the type specified.

The transition for curb and gutter shall be made in 20 feet and will be paid for as COMBINATION CURB and GUTTER, of the type specified.

FOR P.C.C. BASE COURSE

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE BASE COURSE (16 1/2'-10 1/2'-16 1/2').

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Concrete Headers and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE BASE COURSE (16 1/2'-10 1/2'-16 1/2').

Preformed Expansion Joint Filler shall conform to Section 715 of the Standard Specification.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated.

The Contractor shall, after completion of the finishing operations, mark the location of the Mud Jack Cylinders.

Note: When road plans show curb and gutter or gutter adjacent to approach slabs place 1/2" steel 1/2" bars of 2'-6" cts. Cost of the bars included in contract unit price for Curb & Gutter or Gutter.

The transition for gutter shall be made in 100 feet and will be paid for as CONCRETE GUTTER, of the type specified.

The transition for curb and gutter shall be made in 20 feet and will be paid for as COMBINATION CURB and GUTTER, of the type specified.

STANDARD 1909-10

BLANK, WESSELINK, COOK & ASSOCIATES

DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 34 OF 39 SHEETS

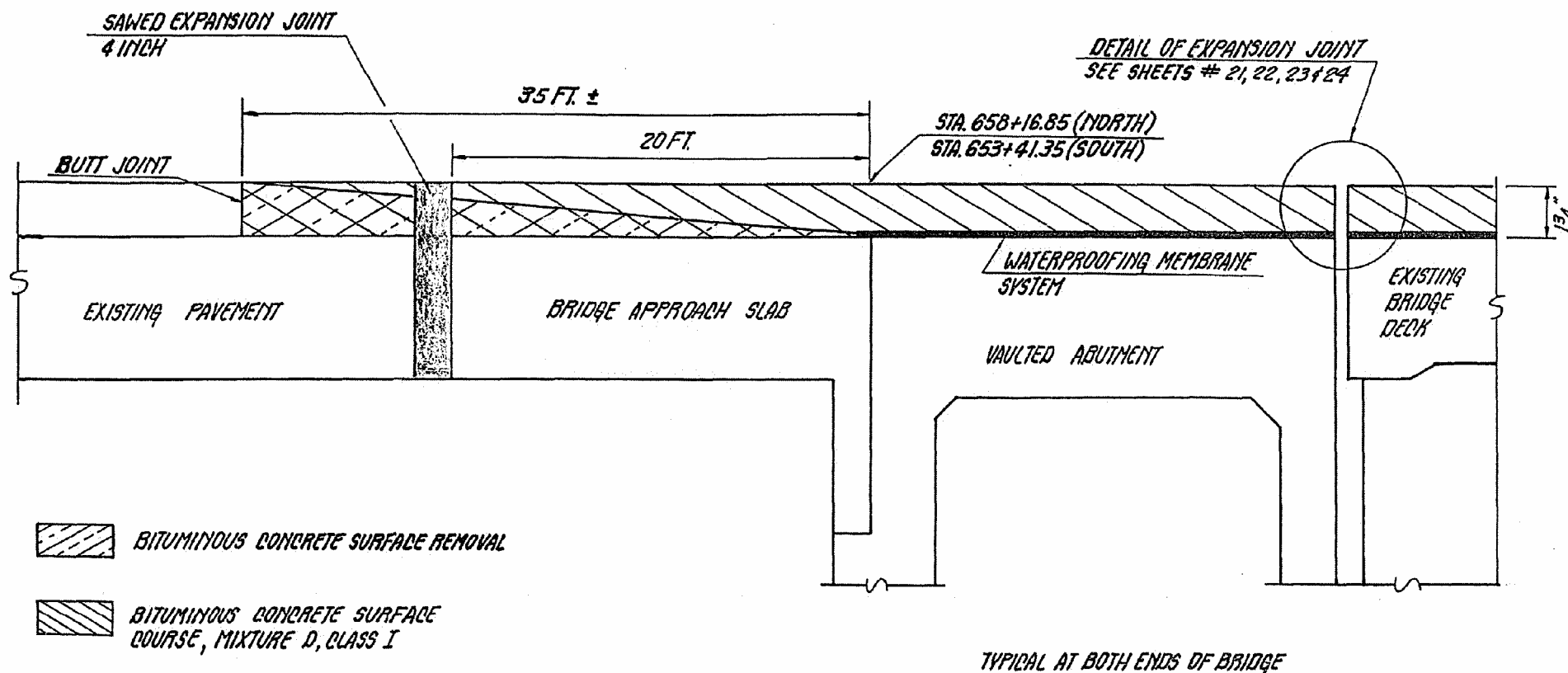
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	148X-B-21BR & 148BR1BR	MACON	144	72
				CONTRACT NO. 74438

ILLINOIS FED. AID PROJECT

DETAIL OF PROPOSED APPROACH PROFILE
STRUCTURE NUMBER 058-0049

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	*	MACON	26	10

* DISTRICT 5 BRIDGE DECK REPAIR 1984-2



- BITUMINOUS CONCRETE SURFACE REMOVAL
- BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I

TELETYPE POST 2/11/79

DRAWN BY	T.G.D. 5-84
CHECKED BY	LRQ 5-84

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME	USER NAME	DESIGNED	REVISIONS
		PBB	-
		CHECKED	-
		DRAWN	-
		MLQ	-
		CHECKED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 35 OF 39 SHEETS

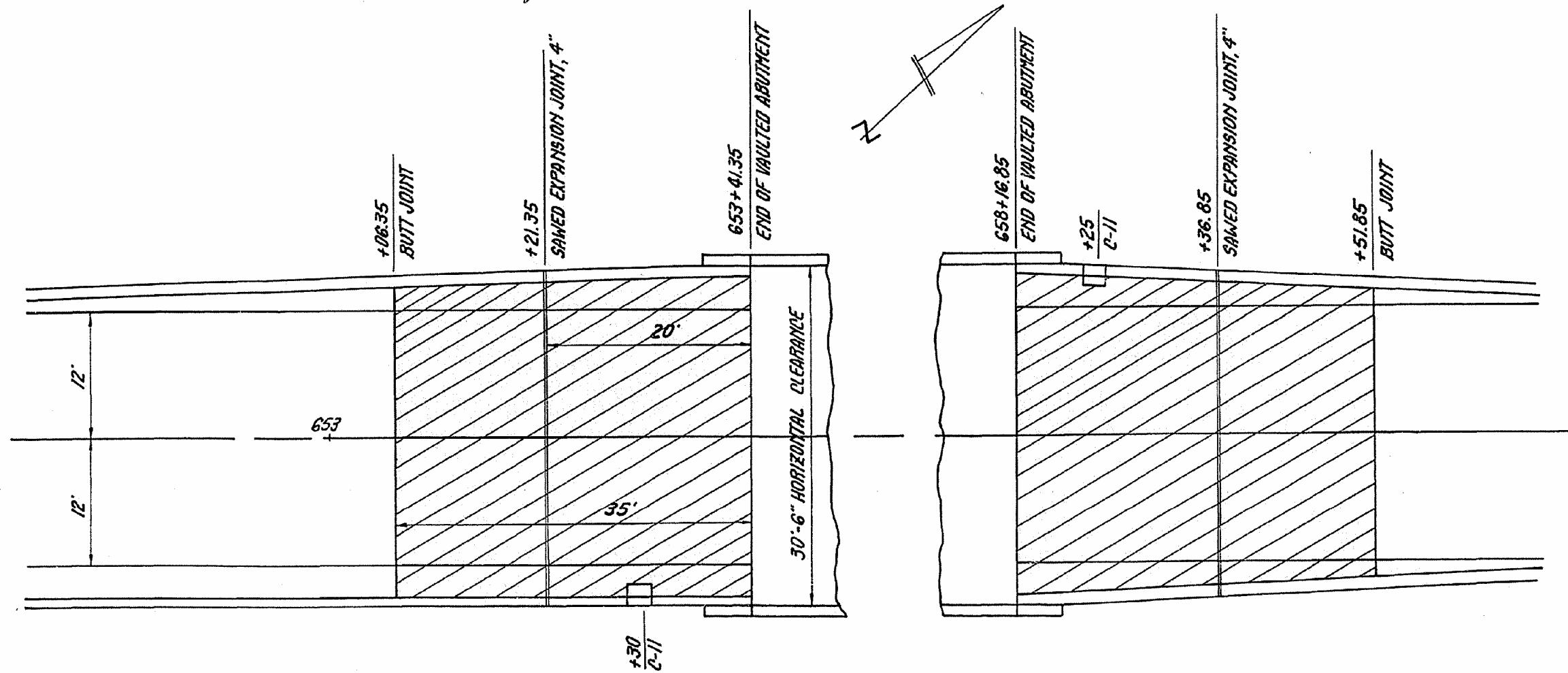
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	73
				CONTRACT NO. 74438

ILLINOIS FED. AID PROJECT

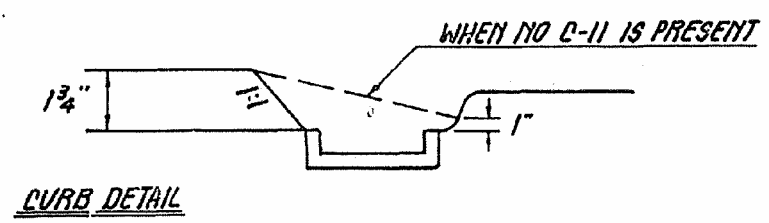
DETAIL OF APPROACHES
STRUCTURE NUMBER 058-0049

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	*	MACON	26	11

* DISTRICT 5 BRIDGE DECK REPAIR 1984-2



BITUMINOUS CONCRETE SURFACE COURSE
MIXTURE D, CLASS I



TELEPHONE NO. 141127

DRAWN BY	T.G.D. 5-84
CHECKED BY	K.R.W. 5-84

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME :	USER NAME :	DESIGNED <i>PBB</i>	REVISED -
		CHECKED	REVISED -
	PLOT SCALE :	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE :	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 36 OF 39 SHEETS

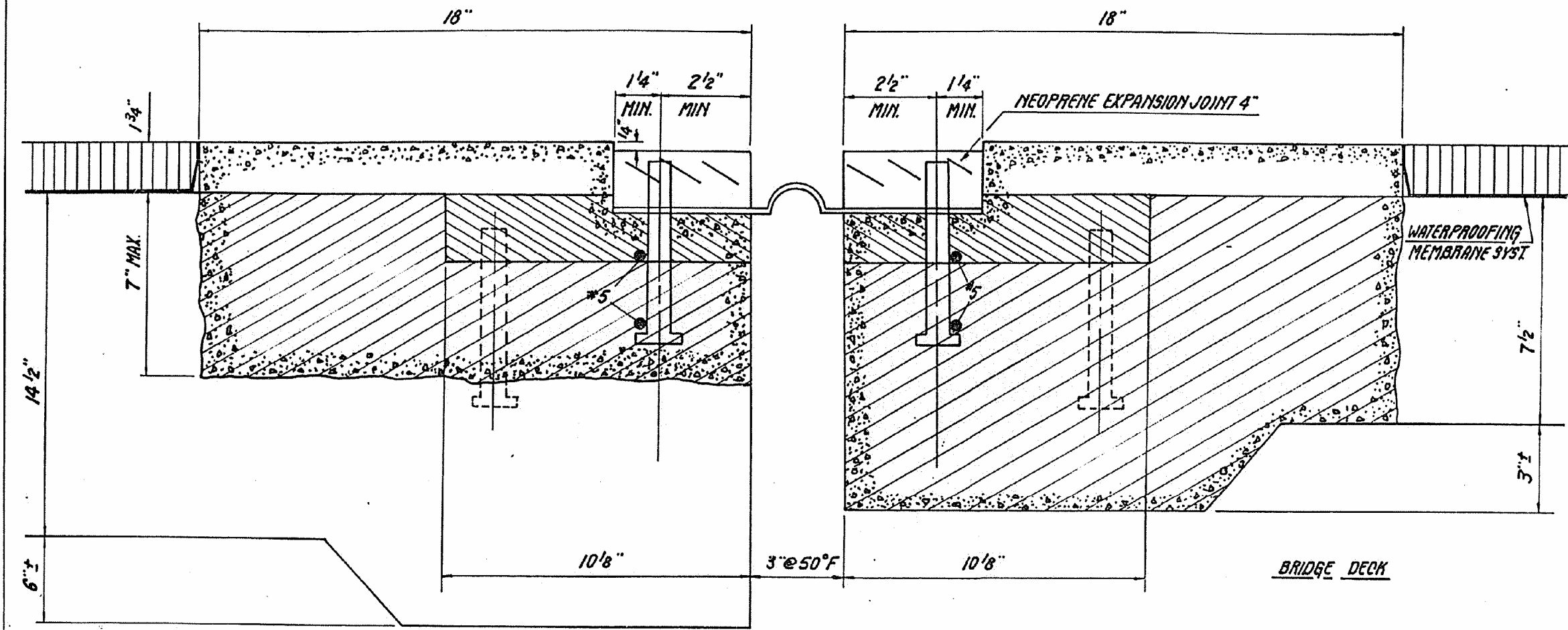
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	74
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

RECONSTRUCTION OF SOUTH ABUTMENT JOINT STA. 653+63.56

STRUCTURE NUMBER 058-0049

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	*	MACON	26	21

* DISTRICT 5 BRIDGE DECK REPAIR 1984-2



APPROACH SPAN

BRIDGE DECK

ANCHOR BOLTS (1/2" φ) SHALL BE CAST IN PLACE AND ARE TO BE CONSIDERED AS INCIDENTAL TO NEOPRENE EXPANSION JOINT 4"
TWO #5 REINFORCEMENT BARS ARE TO BE PLACED WITH ANCHOR BOLTS EACH SIDE OF JOINT.

- CONCRETE REMOVAL
- EXISTING JOINT MATERIAL TO BE REMOVED
- PROPOSED CLASS X CONCRETE
- 1 3/4" BITUMINOUS CONCRETE SURFACE COURSE MIXTURE D, CLASS I

DRAWN BY	J.G.D. 5-9-84
CHECKED BY	A.E.K. 5-84

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME :	USER NAME :	DESIGNED <i>PBB</i>	REVISED -
		CHECKED	REVISED -
	PLOT SCALE :	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE :	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 37 OF 39 SHEETS

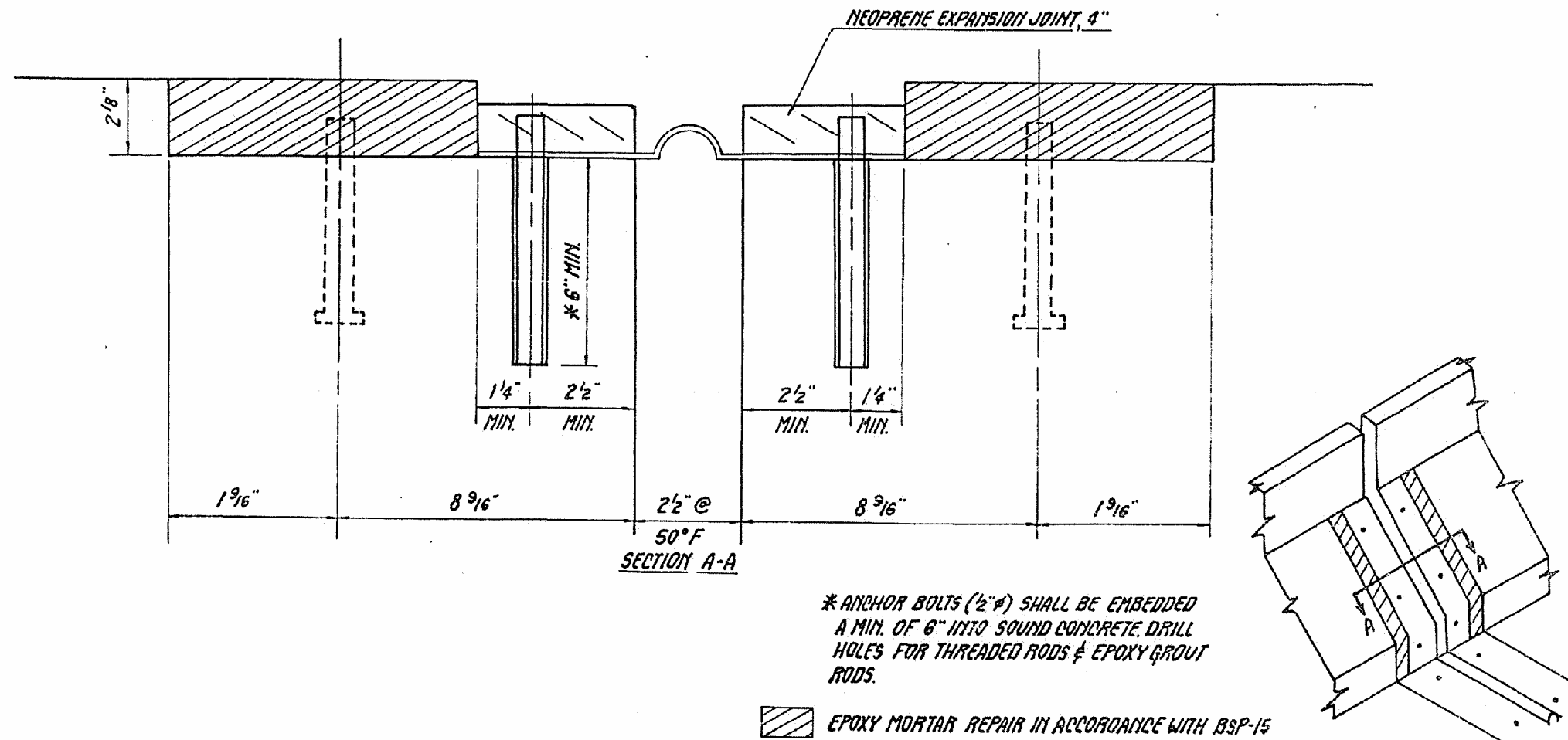
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	75
			CONTRACT NO. 74438	
ILLINOIS FED. AID PROJECT				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	*	MACON	26	22

* DISTRICT 5 BRIDGE DECK REPAIR 1984-2

RECONSTRUCTION OF SOUTH PARAPET JOINT STA. 653+63.56

STRUCTURE NUMBER 058-0049



DRAWN BY J.G.D. 5-5-84
 CHECKED BY K.R.W. 5-84

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME :	USER NAME :	DESIGNED <i>PBB</i>	REVISED -
		CHECKED	REVISED -
	PLOT SCALE :	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE :	CHECKED	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 38 OF 39 SHEETS

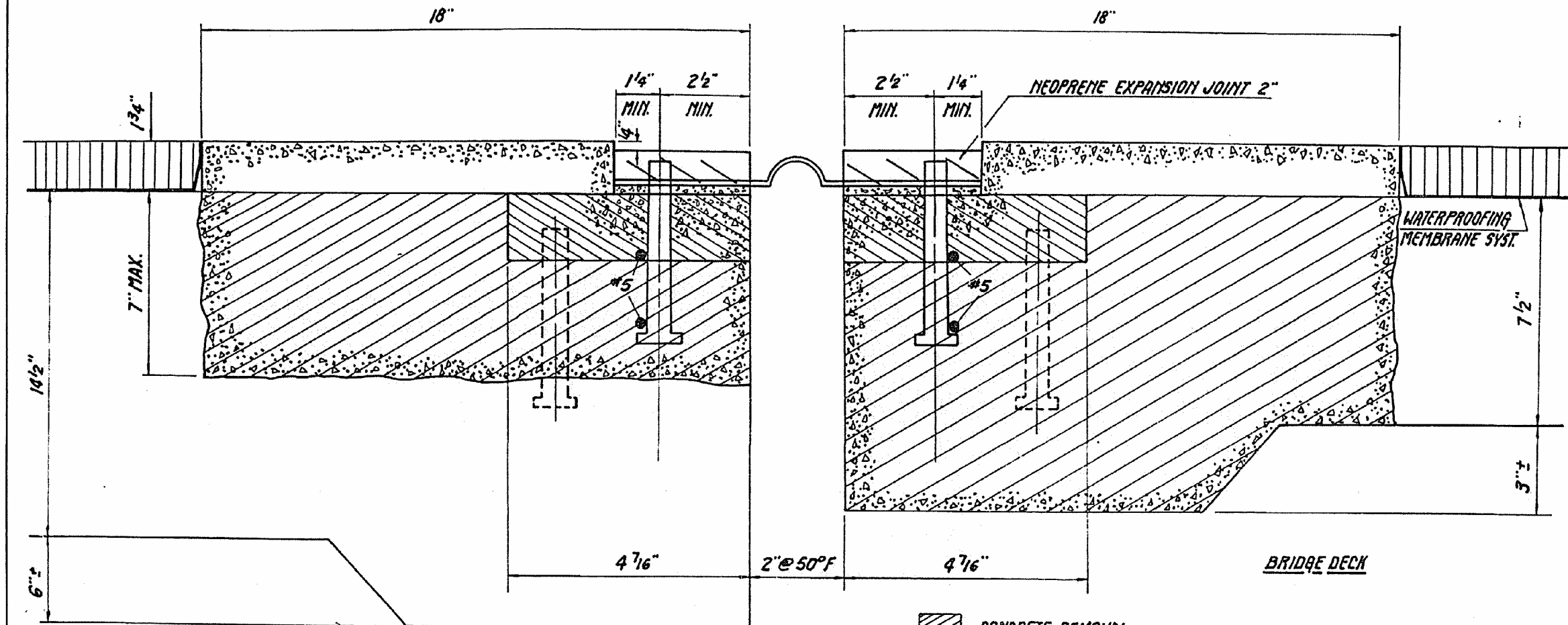
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	76
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

RECONSTRUCTION OF NORTH ABUTMENT JOINT STA. 657+94.64
STRUCTURE NUMBER 058-0049

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIOUS	*	MACON	26	23





* DISTRICT 5 BRIDGE DECK REPAIR 1984-2



APPROACH SPAN

BRIDGE DECK

ANCHOR BOLTS (1/2" φ) SHALL BE CAST IN PLACE AND ARE TO BE CONSIDERED AS INCIDENTAL TO NEOPRENE EXPANSION JOINT 2". TWO #5 REINFORCEMENT BARS ARE TO BE PLACED WITH ANCHOR BOLTS EACH SIDE OF JOINT.

-  CONCRETE REMOVAL
-  EXISTING JOINT MATERIAL TO BE REMOVED
-  PROPOSED CLASS X CONCRETE
-  1 3/4" BITUMINOUS CONCRETE SURFACE COURSE MIXTURE D, CLASS I

DRAWN BY	T.G.D. 5-10-84
CHECKED BY	A.E.H. 5-84

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME :	USER NAME :	DESIGNED <i>PBB</i>	REVISED -
		CHECKED	REVISED -
	PLOT SCALE :	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE :	CHECKED	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS

SHEET NO. 39 OF 39 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	77
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

Bench Mark: Brass Plug on SE wingwall US51 (Bus) N.B. SN 058-0008 over IL 105 Elevation = 640.56

Existing Structure: S.N. 058-0010 built in 1962 as S.B.I Rt. 2 Section 48X-B2 & F2 at Station 655+79.10. The superstructure consists of three span continuous steel plate girders with a reinforced concrete deck slab. Approach slabs are supported off of vaulted abutments and approach bents on precast piles. The solid wall piers are supported on precast piled footings. The structure length measure 530'-0" bk-to-bk of approach bents and 38'-8" out-to-out of deck with no skew. Spans 1 & 3 are 146'-0" and Span 2 is 188'-0". The vaulted abutments slabs are 22'-0" long. Existing concrete decks, abutment backwalls and abutment bearings to be removed and replaced.

Traffic to be maintained using a detour to SN 058-0049 (S.B. IL 105) with crossovers.

No Salvage

LOADING HS20-44

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

DESIGN SPECIFICATIONS

(NEW CONSTRUCTION)

2002 AASHTO Standard Specifications

SEISMIC DATA

Seismic Performance Category (SPC)=A
Bedrock acceleration coefficient (A) = 0.048
Site Coefficient (S) = 1.2

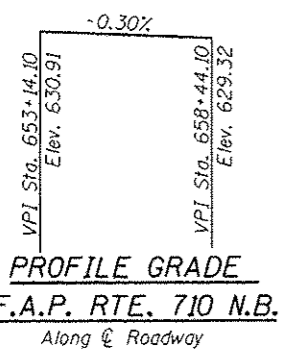
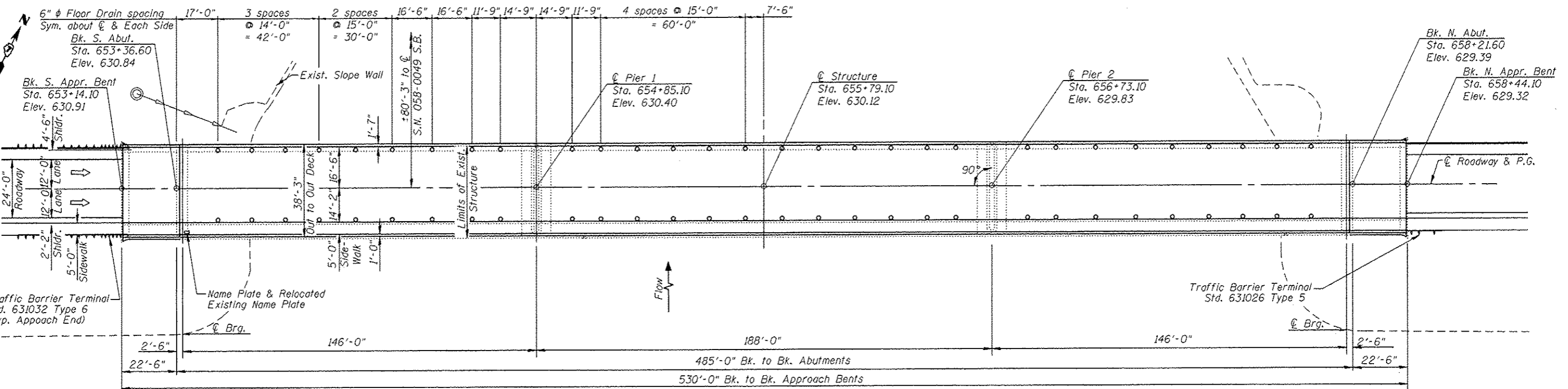
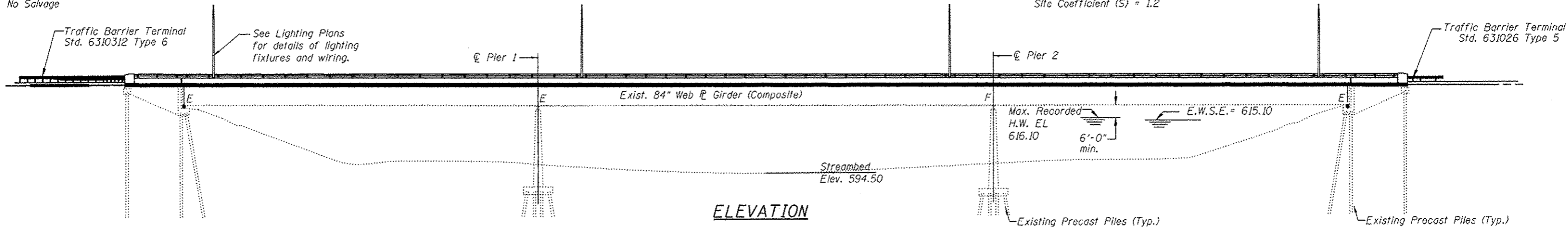
DESIGN STRESSES

FIELD UNITS (NEW CONSTRUCTION)

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 36,000 psi (Steel)

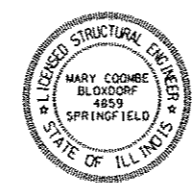
FIELD UNITS (EXIST. CONSTRUCTION)

fy = 33,000 psi (Structural Steel)
f'c = 3,500 psi (Substructure)
fy = 40,000 psi (Reinforcement)

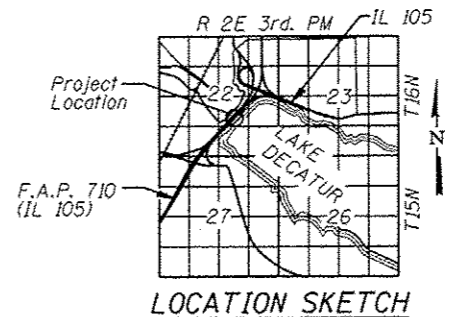


APPROVED
For Structural Adequacy Only

De Carl Perry
Engineer of Bridges & Structures



Mary Coombe Blosdorf
ILLINOIS STRUCTURAL NO. 4859
EXPIRES 11/30/14
DATE: 06/11/14



GENERAL PLAN AND ELEVATION
IL 105 NORTHBOUND
OVER LAKE DECATUR
F.A.P. 710 - SEC. (48X-B-2)BR & (48BR)BR
MACON COUNTY
STATION 655+79.10
STRUCTURE NO. 058-0010

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		GENERAL PLAN AND ELEVATION STRUCTURE NO. 058-0010 SHEET NO. 1 OF 34 SHEETS		F.A.P. RTE. 710 (48X-B-2)BR & (48BR)BR		MACON	TOTAL SHEETS 144	SHEET NO. 78
FILE NAME *	USER NAME *	DESIGNED PBB	REVISD -					CONTRACT NO. 74438		ILLINOIS FED. AID PROJECT		
		CHECKED MCB	REVISD -									
		DRAWN MLO	REVISD -									
		CHECKED PBB/MCB	REVISD -									

INDEX OF SHEETS

- 1 General Plan
- 2 General Notes and Bill of Material
- 3-5 Top of Slab Elevations
- 6 Top of South Approach Slab Elevations
- 7 Top of North Approach Slab Elevations
- 8 Superstructure
- 9-11 Superstructure Details
- 12 Vaulted Approach Slab
- 13 Vaulted Approach Slab Details
- 14 Aluminum Railing, Type L
- 15 Preformed Joint Strip Seal
- 16 Modular Expansion Joint
- 17 Framing Plan
- 18 Pier Bearing Stiffener Repair Details
- 19 North Abutment Bearing Details
- 20 South Abutment Bearing Details
- 21 Concrete Removal Details
- 22 Abutment Backwall Details
- 23 Concrete Parapet Slipforming Option
- 24-25 Drainage System
- 26-34 Existing Bridge Plans

GENERAL NOTES

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

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

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

As directed by the Engineer, existing construction accessories welded to the top flange of girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by qualified personnel approved by the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.

If the Contractor elects to use cantilever forming brackets on the exterior girders. The brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Concrete Sealer shall be applied to the designated areas of the abutment hatched block and backwalls.

Cleaning and field painting of structural steel shall be done under a separate painting contract.

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

Slipforming of parapets is not allowed at parapet sections with light pedestals.

All new structural steel for modular joint shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type I.

TOTAL BILL OF MATERIAL

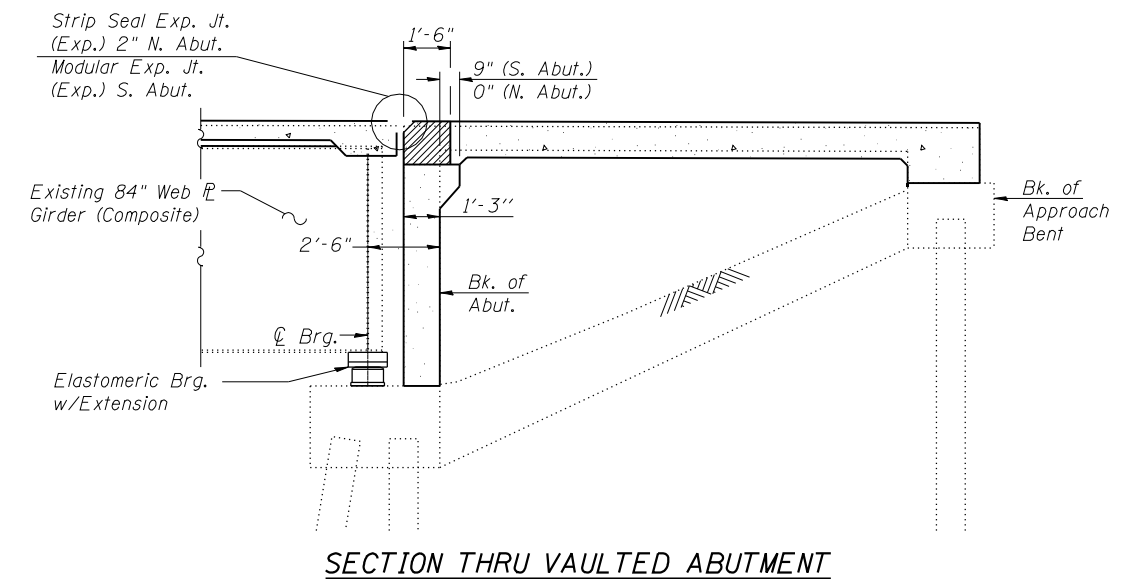
ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		125.4	125.4
Removal of Existing Concrete Deck No. 1	Each	1		1
Structure Excavation	Cu. Yd.		1	1
Floor Drains	Each	60		60
Concrete Structures	Cu. Yd.		28.8	28.8
Concrete Superstructure	Cu. Yd.	793.6		793.6
Bridge Deck Grooving	Sq. Yd.	1,670		1,670
* Protective Coat	Sq. Yd.	2,550		2,550
Furnishing and Erecting Structural Steel	Pound		3,330	3,330
Stud Shear Connectors	Each	3,216		3,216
Reinforcement Bars, Epoxy Coated	Pound	198,780	3,390	202,170
Aluminum Railing, Type L	Foot	507		507
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	38		38
Elastomeric Bearing Assembly, Type I	Each		4	4
Elastomeric Bearing Assembly, Type II	Each		4	4
Anchor Bolts, 1"	Each		32	32
Concrete Sealer	Sq Ft		686	686
Jack and Remove Existing Bearings	Each		8	8
Structural Steel Repair	Pound	11,920		11,920
Modular Expansion Joint 6"	Foot	38		38
Drainage System, No. 1	Each	1		1

* Apply on new concrete only

STATION 655+79.10
REBUILT 20__ BY
STATE OF ILLINOIS
F.A.P. 710 SEC. (48X-B-2)BR & (48BR)BR
LOADING HS20-44
STR. NO. 058-0010

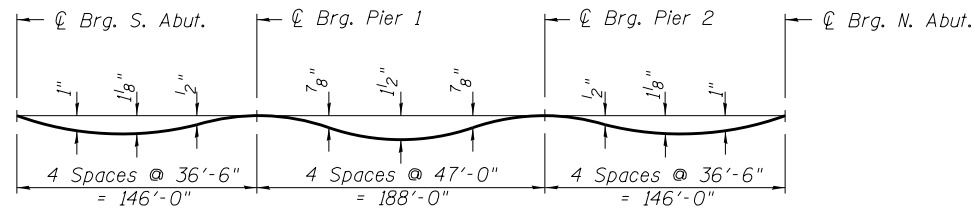
NAME PLATE

See Std. 515001
Existing Name Plate shall be
cleaned and relocated next
to new Name Plate.
Cost included with Name Plates.



BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES AND BILL OF MATERIALS STRUCTURE NO. 058-0010	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED <i>MCB</i>	REVISED -	710			(48X-B-2)BR & (48BR)BR	MACON	144	79	
PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -		CONTRACT NO. 74438						
PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -		SHEET NO. 2 OF 34 SHEETS						
ILLINOIS FED. AID PROJECT										

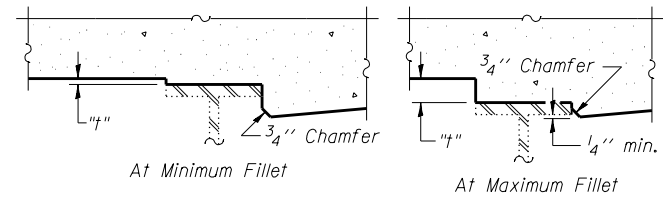


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

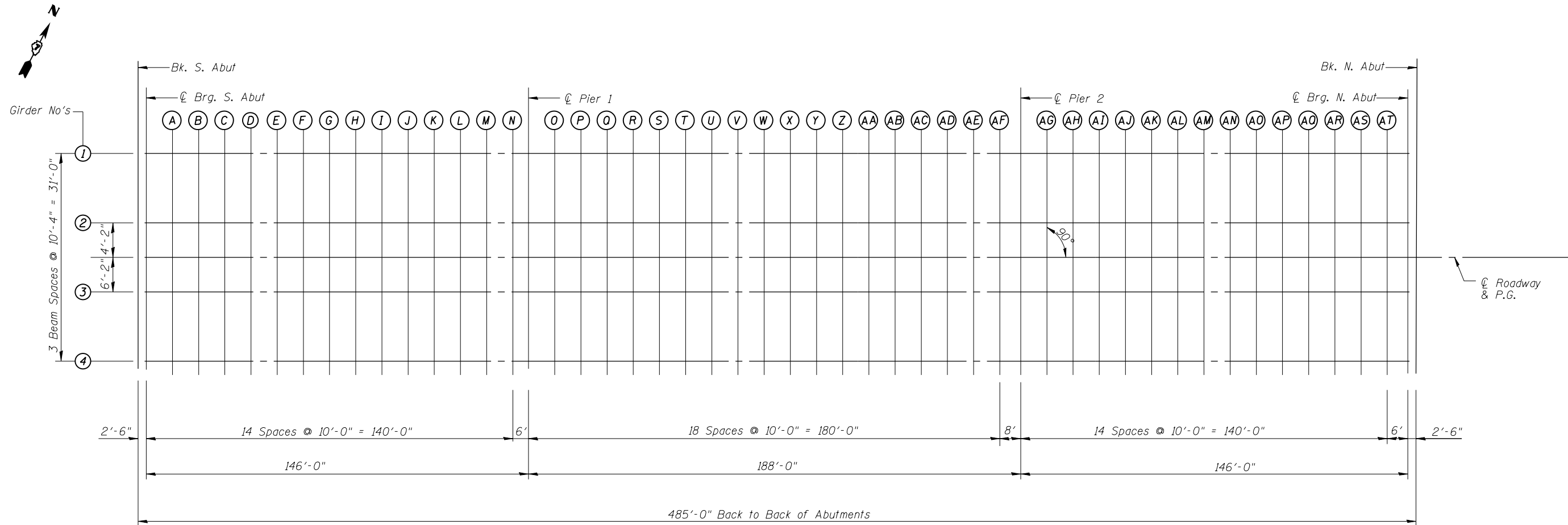
Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 4 and 5 of 34.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 4 and 5 of 34, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 058-0010**

SHEET NO. 3 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	80
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.S.Abut.	653+36.60	6.17	630.74	630.74
Cl.Brg.S.Abut.	653+39.10	6.17	630.73	630.73
A	653+49.10	6.17	630.70	630.73
B	653+59.10	6.17	630.67	630.72
C	653+69.10	6.17	630.64	630.71
D	653+79.10	6.17	630.61	630.69
E	653+89.10	6.17	630.58	630.67
F	653+99.10	6.17	630.55	630.65
G	654+09.10	6.17	630.52	630.61
H	654+19.10	6.17	630.49	630.57
I	654+29.10	6.17	630.46	630.53
J	654+39.10	6.17	630.43	630.48
K	654+49.10	6.17	630.40	630.44
L	654+59.10	6.17	630.37	630.39
M	654+69.10	6.17	630.34	630.35
N	654+79.10	6.17	630.31	630.31
CL.Pier1	654+85.10	6.17	630.30	630.30
O	654+95.10	6.17	630.27	630.28
P	655+05.10	6.17	630.24	630.26
Q	655+15.10	6.17	630.21	630.25
R	655+25.10	6.17	630.18	630.23
S	655+35.10	6.17	630.15	630.22
T	655+45.10	6.17	630.12	630.21
U	655+55.10	6.17	630.09	630.20
V	655+65.10	6.17	630.06	630.18
W	655+75.10	6.17	630.03	630.15
X	655+85.10	6.17	630.00	630.12
Y	655+95.10	6.17	629.97	630.09
Z	656+05.10	6.17	629.94	630.04
AA	656+15.10	6.17	629.91	630.00
AB	656+25.10	6.17	629.88	629.95
AC	656+35.10	6.17	629.85	629.90
AD	656+45.10	6.17	629.82	629.85
AE	656+55.10	6.17	629.79	629.81
AF	656+65.10	6.17	629.76	629.77
CL.Pier2	656+73.10	6.17	629.73	629.73
AG	656+83.10	6.17	629.70	629.70
AH	656+93.10	6.17	629.67	629.68
AI	657+03.10	6.17	629.64	629.66
AJ	657+13.10	6.17	629.61	629.65
AK	657+23.10	6.17	629.58	629.64
AL	657+33.10	6.17	629.55	629.62
AM	657+43.10	6.17	629.52	629.60
AN	657+53.10	6.17	629.49	629.58
AO	657+63.10	6.17	629.46	629.55
AP	657+73.10	6.17	629.43	629.51
AQ	657+83.10	6.17	629.40	629.47
AR	657+93.10	6.17	629.37	629.43
AS	658+03.10	6.17	629.34	629.38
AT	658+13.10	6.17	629.31	629.32
Cl.Brg.N.Abut.	658+19.10	6.17	629.30	629.30
Bk.N.Abut.	658+21.60	6.17	629.29	629.29

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk.S.Abut.	653+36.60	16.50	630.56	630.56
Cl.Brg.S.Abut.	653+39.10	16.50	630.55	630.55
A	653+49.10	16.50	630.52	630.55
B	653+59.10	16.50	630.49	630.54
C	653+69.10	16.50	630.46	630.53
D	653+79.10	16.50	630.43	630.51
E	653+89.10	16.50	630.40	630.49
F	653+99.10	16.50	630.37	630.47
G	654+09.10	16.50	630.34	630.43
H	654+19.10	16.50	630.31	630.39
I	654+29.10	16.50	630.28	630.35
J	654+39.10	16.50	630.25	630.30
K	654+49.10	16.50	630.22	630.26
L	654+59.10	16.50	630.19	630.21
M	654+69.10	16.50	630.16	630.17
N	654+79.10	16.50	630.13	630.13
CL.Pier1	654+85.10	16.50	630.12	630.12
O	654+95.10	16.50	630.09	630.10
P	655+05.10	16.50	630.06	630.08
Q	655+15.10	16.50	630.03	630.07
R	655+25.10	16.50	630.00	630.05
S	655+35.10	16.50	629.97	630.04
T	655+45.10	16.50	629.94	630.03
U	655+55.10	16.50	629.91	630.02
V	655+65.10	16.50	629.88	630.00
W	655+75.10	16.50	629.85	629.97
X	655+85.10	16.50	629.82	629.94
Y	655+95.10	16.50	629.79	629.91
Z	656+05.10	16.50	629.76	629.86
AA	656+15.10	16.50	629.73	629.82
AB	656+25.10	16.50	629.70	629.77
AC	656+35.10	16.50	629.67	629.72
AD	656+45.10	16.50	629.64	629.67
AE	656+55.10	16.50	629.61	629.63
AF	656+65.10	16.50	629.58	629.59
CL.Pier2	656+73.10	16.50	629.55	629.55
AG	656+83.10	16.50	629.52	629.52
AH	656+93.10	16.50	629.49	629.50
AI	657+03.10	16.50	629.46	629.48
AJ	657+13.10	16.50	629.43	629.47
AK	657+23.10	16.50	629.40	629.46
AL	657+33.10	16.50	629.37	629.44
AM	657+43.10	16.50	629.34	629.42
AN	657+53.10	16.50	629.31	629.40
AO	657+63.10	16.50	629.28	629.37
AP	657+73.10	16.50	629.25	629.33
AQ	657+83.10	16.50	629.22	629.29
AR	657+93.10	16.50	629.19	629.25
AS	658+03.10	16.50	629.16	629.20
AT	658+13.10	16.50	629.13	629.14
Cl.Brg.N.Abut.	658+19.10	16.50	629.12	629.12
Bk.N.Abut.	658+21.60	16.50	629.11	629.11

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOP OF SLAB ELEVATIONS STRUCTURE NO. 058-0010	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED <i>MCB</i>	REVISED -			710	(48X-B-2)BR & (48BR)BR	MACON	144	82
	PLOT DATE =	DRAWN <i>MLO</i>	REVISED -	SHEET NO. 5 OF 34 SHEETS		CONTRACT NO. 74438				
		CHECKED <i>PBB/MCB</i>	REVISED -	ILLINOIS FED. AID PROJECT						

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	653+14.60	-16.50	630.63
A	653+24.60	-16.50	630.60
N. End of S. Appr. Pav't	653+36.35	-16.50	630.56

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	653+14.60	-12.00	630.72
A	653+24.60	-12.00	630.69
N. End of S. Appr. Pav't	653+36.35	-12.00	630.65

CL ROADWAY & PG

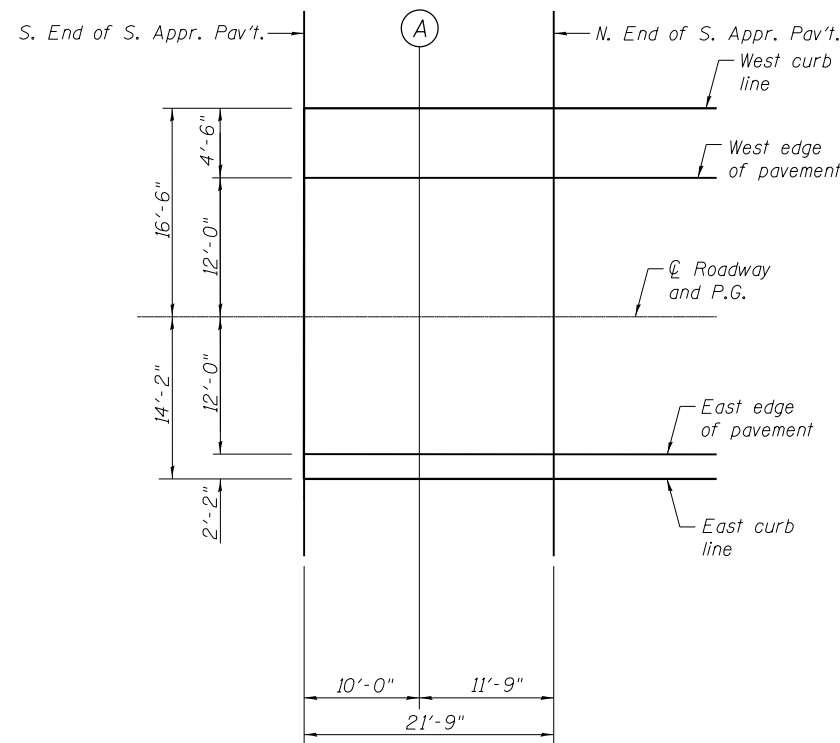
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	653+14.60	0.00	630.91
A	653+24.60	0.00	630.88
N. End of S. Appr. Pav't	653+36.35	0.00	630.84

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	653+14.60	12.00	630.72
A	653+24.60	12.00	630.69
N. End of S. Appr. Pav't	653+36.35	12.00	630.65

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Pav't	653+14.60	14.17	630.68
A	653+24.60	14.17	630.65
N. End of S. Appr. Pav't	653+36.35	14.17	630.61



PLAN

E-AS

7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES

DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-0010**

SHEET NO. 6 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	83
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	658+20.35	-16.50	629.11
B	658+30.35	-16.50	629.08
N. End of N. Appr. Pav't	658+43.60	-16.50	629.04

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	658+20.35	-12.00	629.20
B	658+30.35	-12.00	629.17
N. End of N. Appr. Pav't	658+43.60	-12.00	629.13

☉ ROADWAY & PG

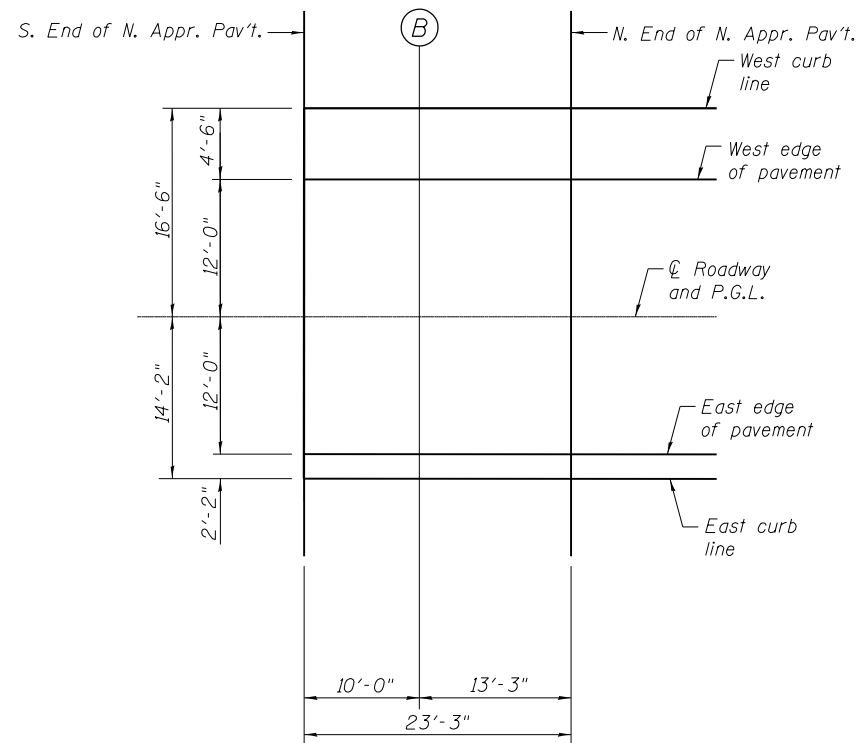
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	658+20.35	0.00	629.39
B	658+30.35	0.00	629.36
N. End of N. Appr. Pav't	658+43.60	0.00	629.32

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	658+20.35	12.00	629.20
B	658+30.35	12.00	629.17
N. End of N. Appr. Pav't	658+43.60	12.00	629.13

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Pav't.	658+20.35	14.17	629.16
B	658+30.35	14.17	629.13
N. End of N. Appr. Pav't	658+43.60	14.17	629.09



PLAN

E-AS

7-1-10

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

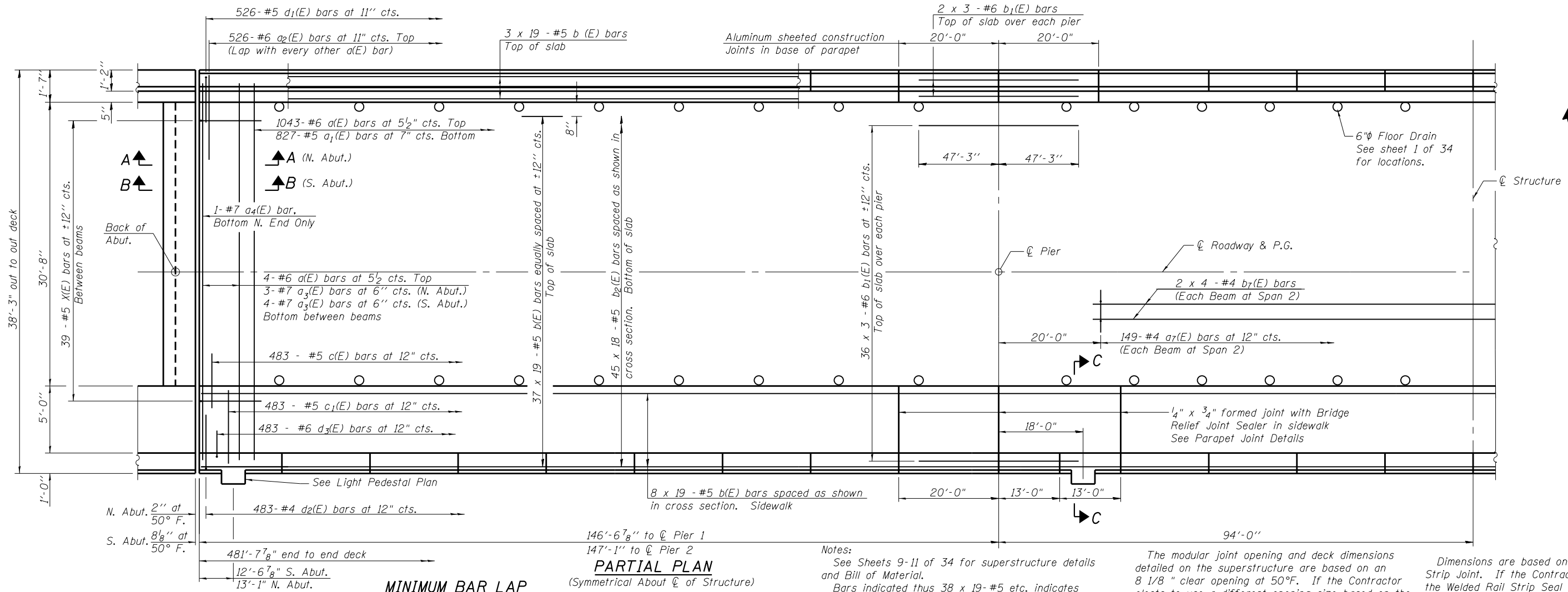
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		CHECKED <i>PBB/MCB</i>	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 058-0010

SHEET NO. 7 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	84
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



MINIMUM BAR LAP

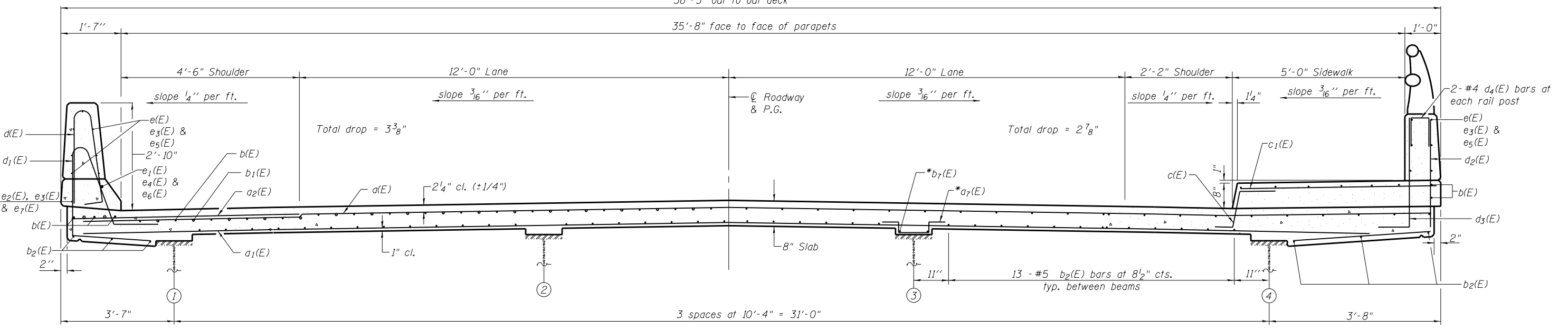
- #4 bar = 2'-1"
- #5 bar = 2'-7"
- #6 bar = 3'-1"

PARTIAL PLAN
(Symmetrical About C of Structure)

Notes:
 See Sheets 9-11 of 34 for superstructure details and Bill of Material.
 Bars indicated thus 38 x 19 - #5 etc. indicates 38 lines of bars with 19 lengths per line.
 See Sheets 10 and 11 of 34 for parapet reinforcement.
 See Sheet 9 of 34 for Sections A-A, B-B and C-C.

The modular joint opening and deck dimensions detailed on the superstructure are based on an 8 1/8" clear opening at 50°F. If the Contractor elects to use a different opening size based on the manufacturers recommendations, all associated deck dimensions shall be modified. Required modifications shall be made at no additional cost to the State.

Dimensions are based on a Rolled Rail Strip Joint. If the Contractor elects to use the Welded Rail Strip Seal Joint, deck dimensions may require adjustments to satisfy the details on Base Sheet EJ-SSJ. (Sheet 15 of 34)



NEAR PIER

CROSS SECTION
(Looking North)

NEAR MIDSPAN

*a7(E) and b7(E) bars at Span 2 only

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FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
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		DRAWN <i>MLO</i>	REVISED -
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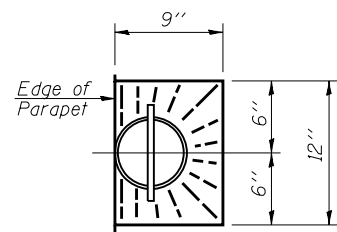
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 058-0010

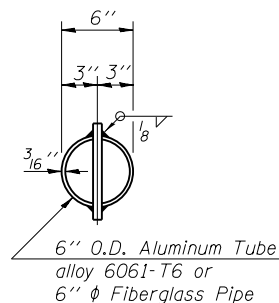
SHEET NO. 8 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	85
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT

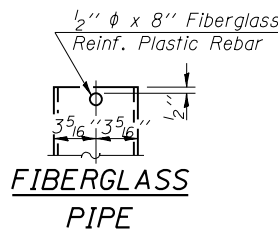


TOP PLAN

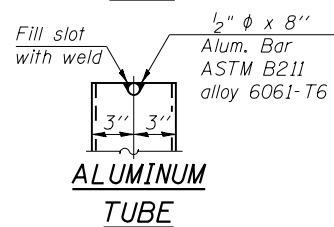


TOP PLAN

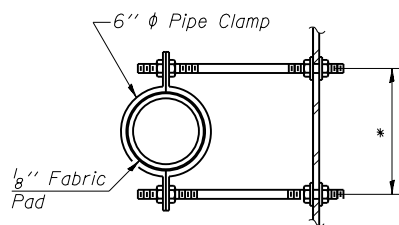
(Showing Aluminum Tube)



FIBERGLASS PIPE



ALUMINUM TUBE



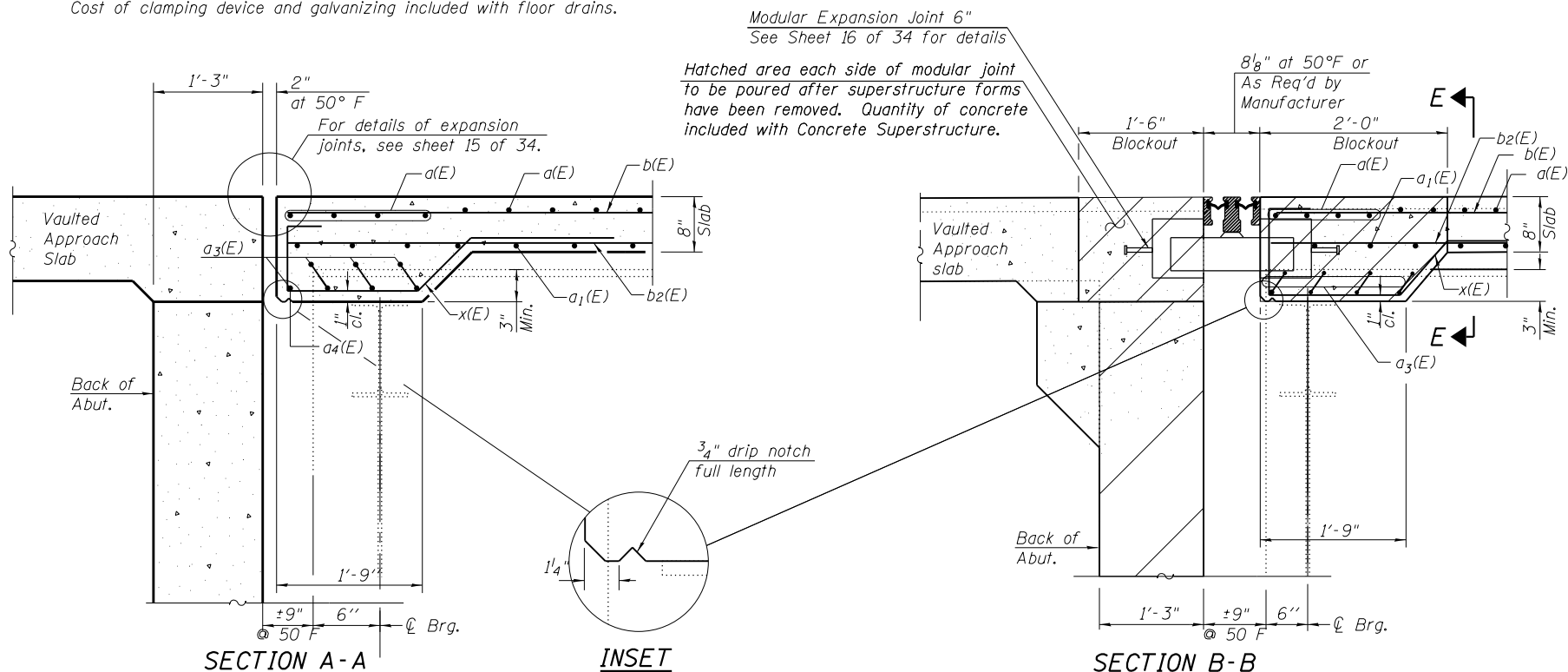
SECTION THRU PIPE CLAMP

*Dimension as required by Pipe Clamp

FLOOR DRAIN DETAILS

Notes:

- Drains shall be located clear of all cross frames.
- Floor drains need not be painted.
- Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
- Galvanize clamping device according to AASHTO M232.
- Cost of clamping device and galvanizing included with floor drains.

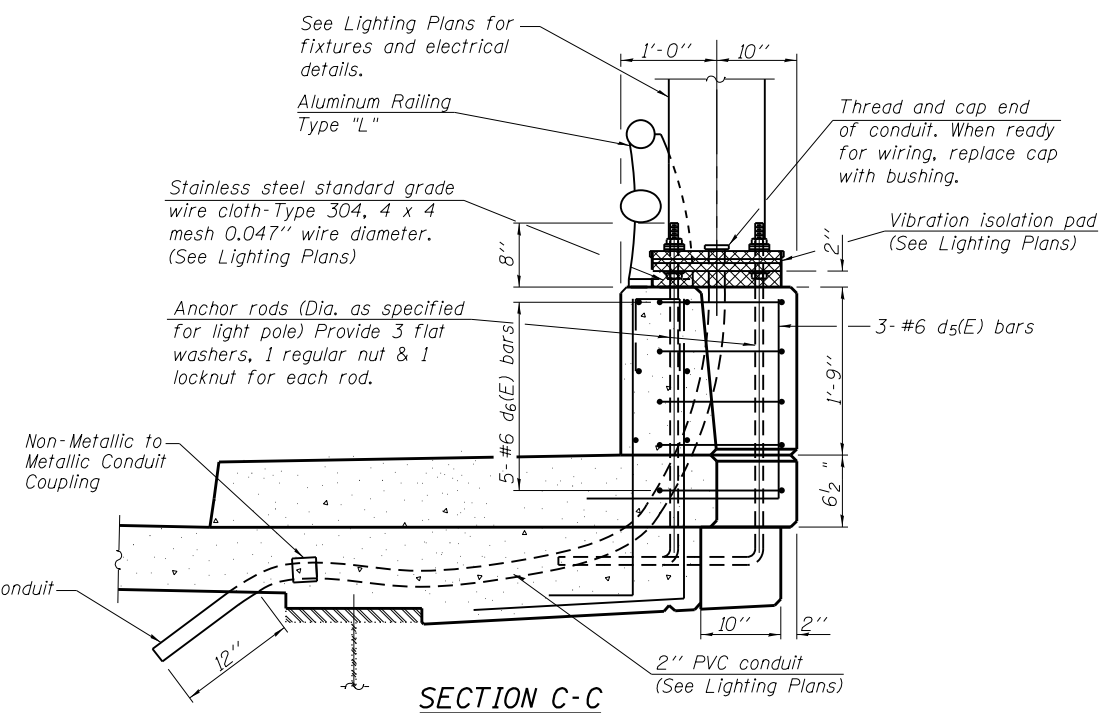


SECTION A-A

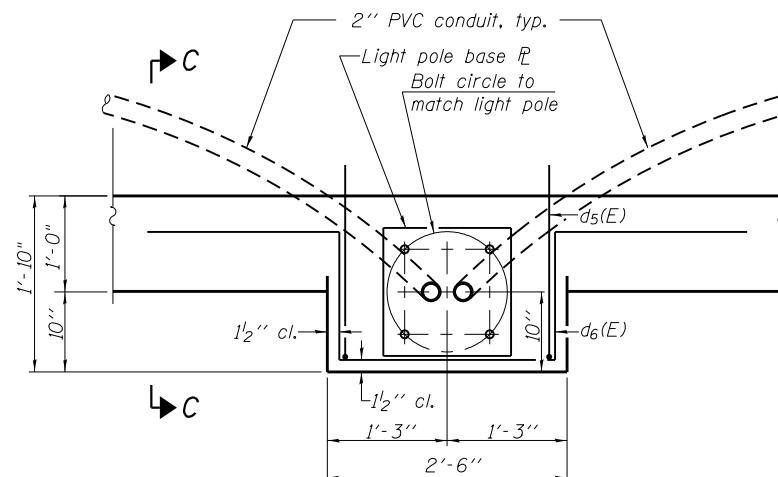
INSET

SECTION B-B

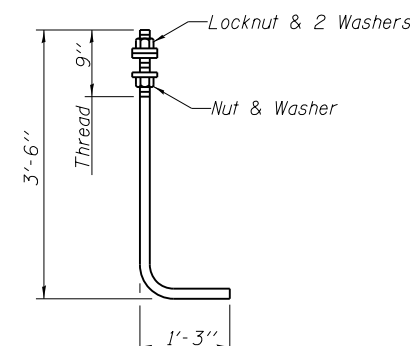
Note: See Sheet 16 of 34 for Section E-E.



SECTION C-C

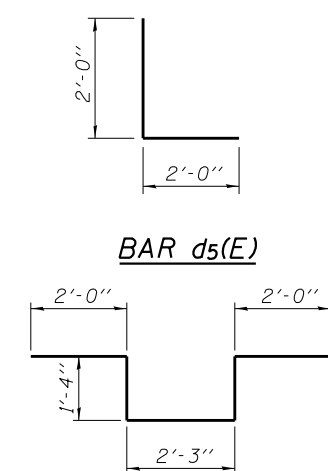


LIGHT PEDESTAL PLAN



ANCHOR ROD

Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized



BAR d5(E)

BAR d6(E)

Note: Cost of anchor rods is included with Concrete Superstructure. See lighting plans for conduit details & quantities.

BLANK, WESSELINK, COOK & ASSOCIATES

DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

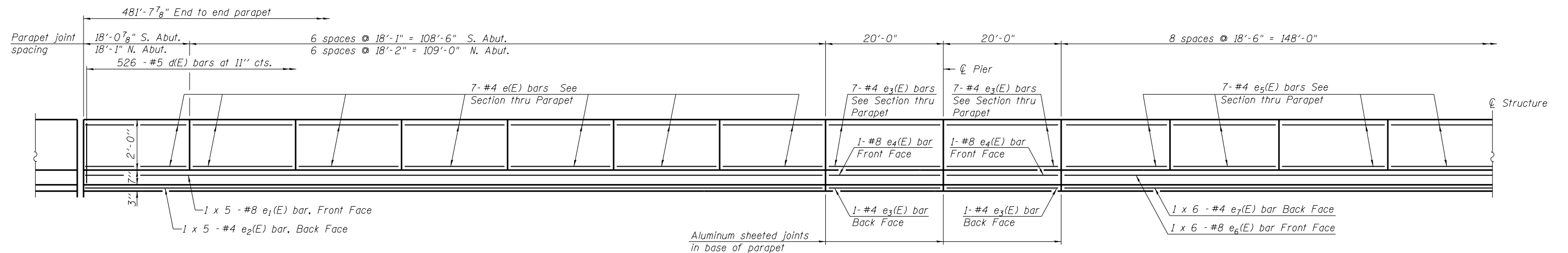
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0010**

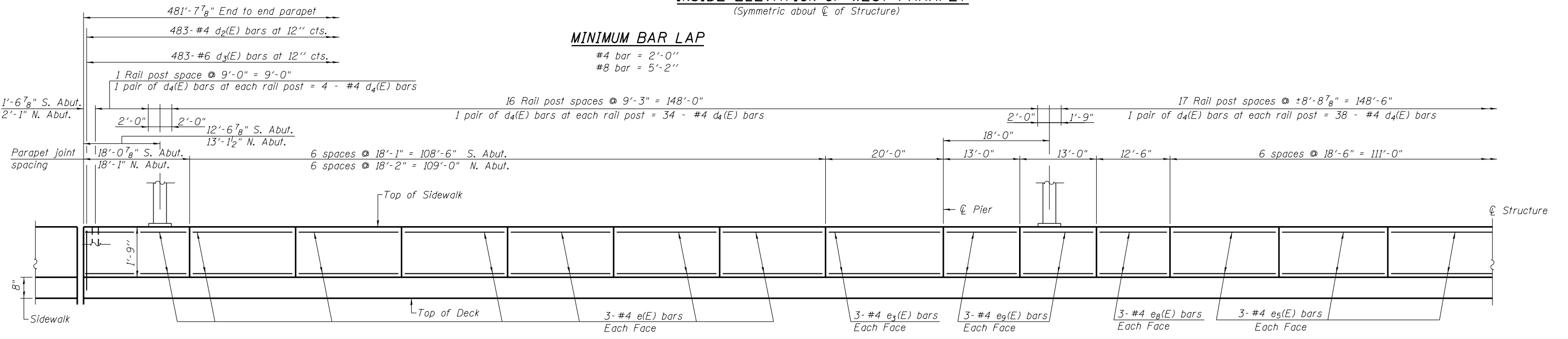
SHEET NO. 9 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	86
CONTRACT NO. 74438				

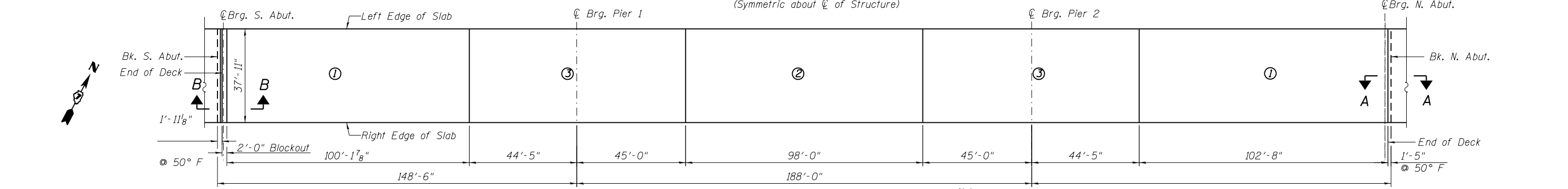
ILLINOIS FED. AID PROJECT



INSIDE ELEVATION OF WEST PARAPET
(Symmetric about C of Structure)



INSIDE ELEVATION OF EAST PARAPET
(Symmetric about C of Structure)



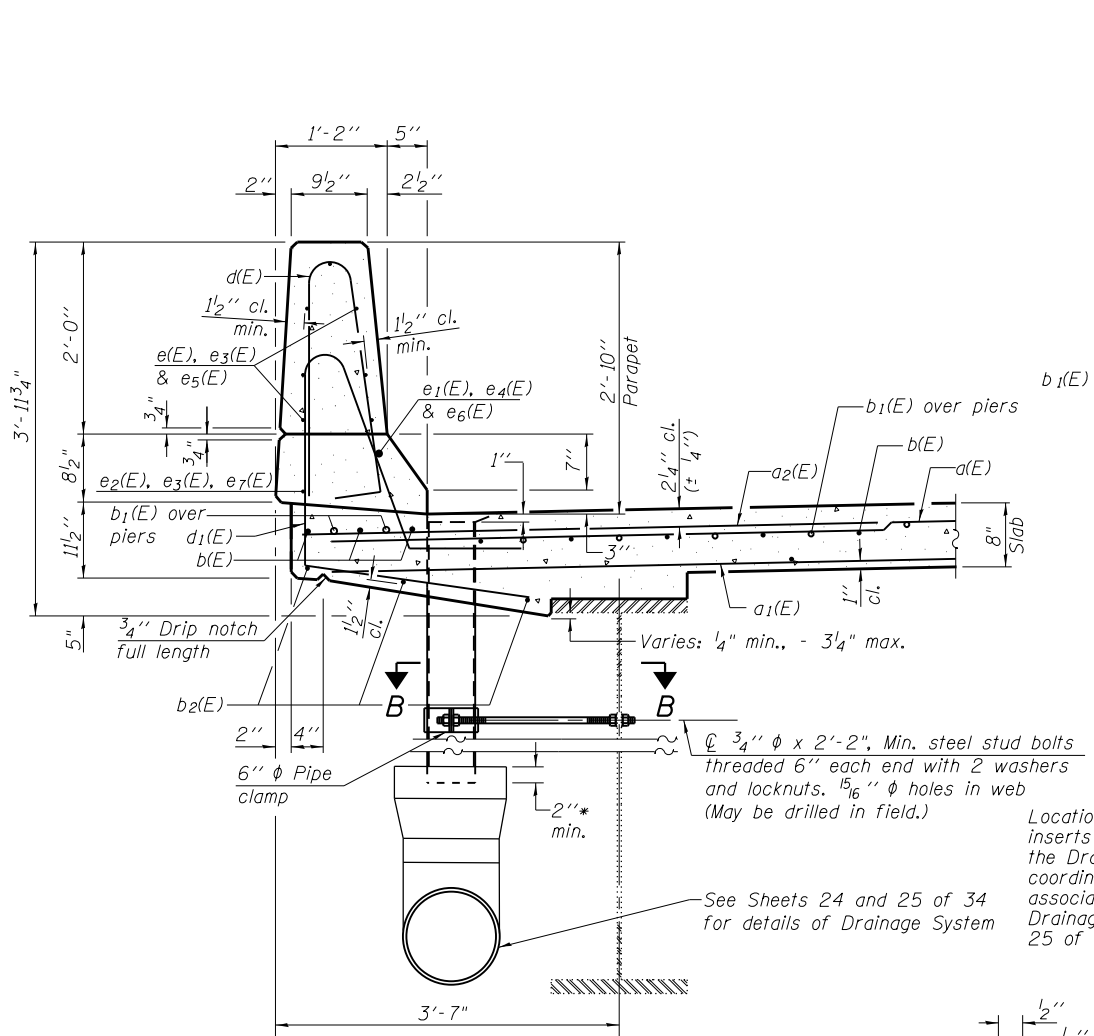
DECK POURING SEQUENCE

Notes:
 When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
 1. At least 72 hours shall have elapsed from the end of the previous pour.
 2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
 Contractor may deviate from the Deck Pouring Sequence shown upon approval of the Engineer. All deck concrete in the positive moment regions shall be placed and cured per Note 1 prior to pouring the deck concrete in the negative moment regions.
 Expansion Joint Blockouts to be poured following pour ③, the approach spans and the sidewalk pour.
 See Sheet 9 of 34 for blockout details.
 See Sheet 9 of 34 for Sections A-A & B-B.

Legend
 ① Deck Pouring Sequence Number

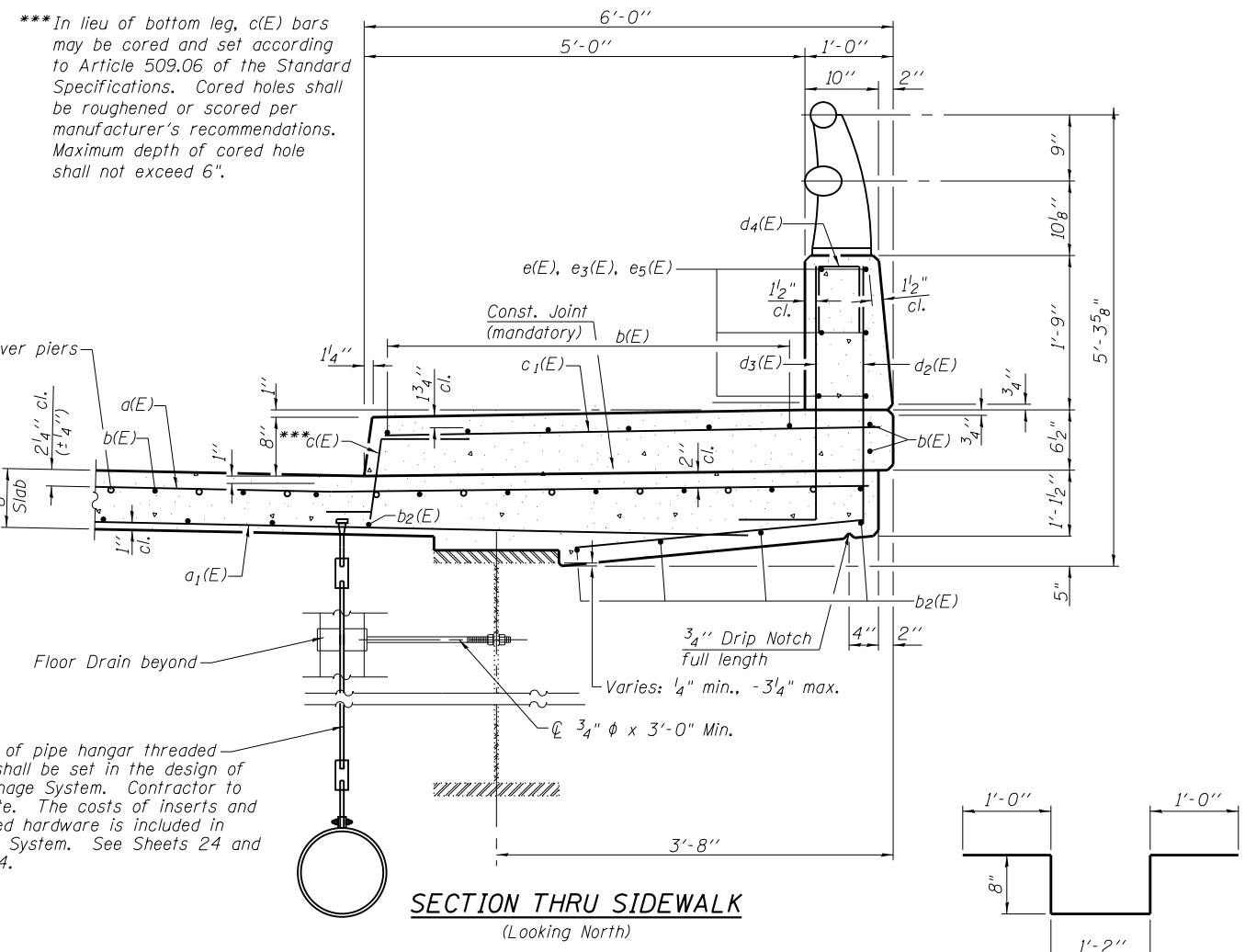
BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED PBB	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUPERSTRUCTURE DETAILS STRUCTURE NO. 058-0010	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED MCB	REVISD -	710			(48X-B-2)BR & (48BR)BR	MACON	144	87	
PLOT SCALE =	DRAWN MLO	REVISD -	CONTRACT NO. 74438							
PLOT DATE	CHECKED PBB/MCB	REVISD -	ILLINOIS FED. AID PROJECT							



SECTION THRU PARAPET
(Looking North)

*See Sheet 9 of 34 for Floor Drain details. Length of Floor Drain pipes shall be set in the design of the Drainage System. Contractor to coordinate.



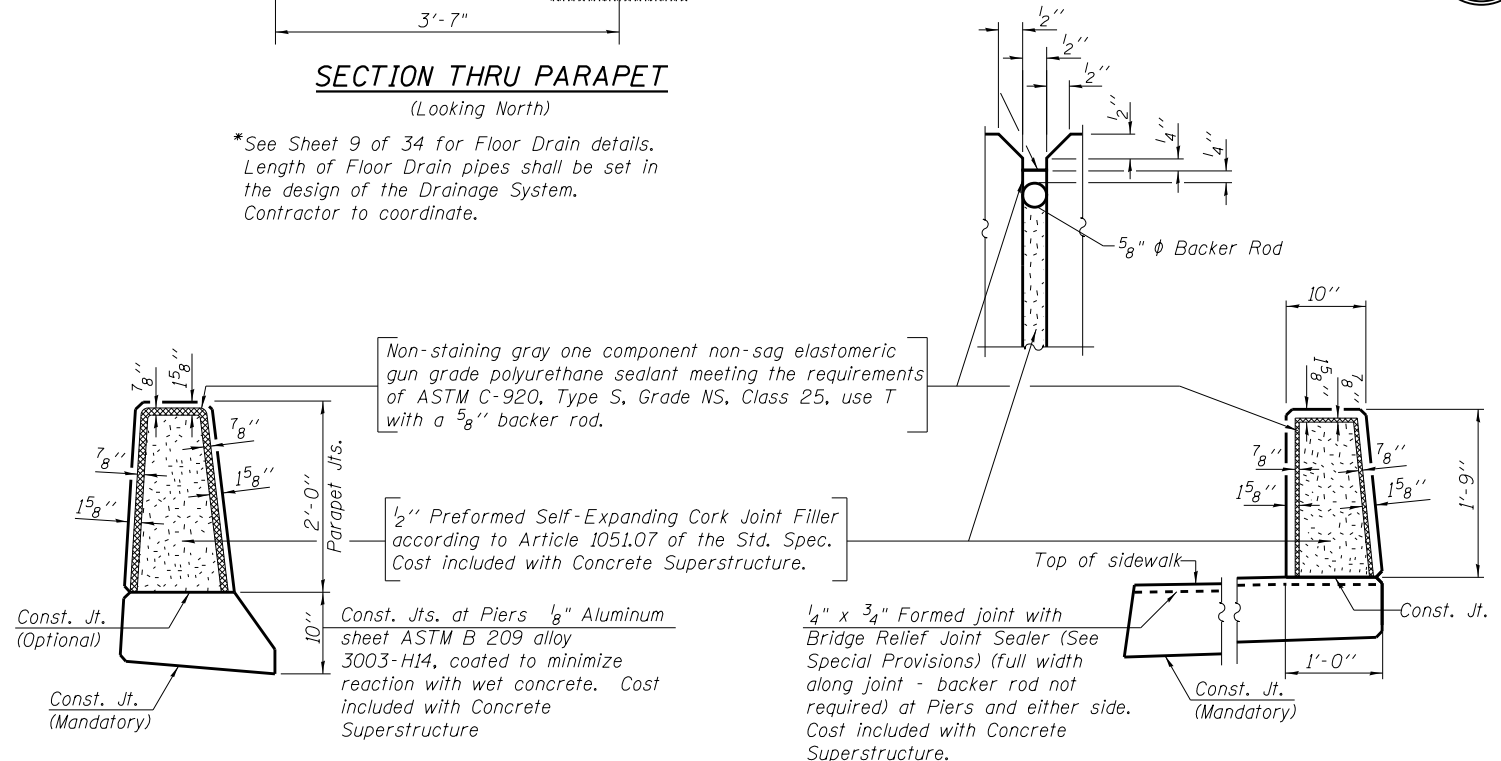
SECTION THRU SIDEWALK
(Looking North)

Location of pipe hanger threaded inserts shall be set in the design of the Drainage System. Contractor to coordinate. The costs of inserts and associated hardware is included in Drainage System. See Sheets 24 and 25 of 34.

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	1051	#6	37'-5"	—
a ₁ (E)	827	#5	36'-3"	—
a ₂ (E)	526	#6	6'-6"	—
a ₃ (E)	21	#7	10'-6"	U
a ₄ (E)	1	#7	36'-3"	—
a ₇ (E)	596	#4	4'-6"	U
b(E)	912	#5	27'-10"	—
b ₁ (E)	114	#6	33'-7"	—
b ₂ (E)	810	#5	29'-3"	—
b ₇ (E)	32	#4	39'-0"	—
c(E)	483	#5	2'-4"	L
c ₁ (E)	483	#5	5'-8"	—
d(E)	526	#5	5'-7"	L
d ₁ (E)	526	#5	8'-3"	L
d ₂ (E)	483	#4	5'-9"	L
d ₃ (E)	483	#6	3'-9"	L
d ₄ (E)	114	#4	2'-0"	L
d ₅ (E)	12	#6	4'-0"	L
d ₆ (E)	20	#6	8'-11"	L
e(E)	182	#4	17'-10"	—
e ₁ (E)	10	#8	29'-7"	—
e ₂ (E)	10	#4	27'-1"	—
e ₃ (E)	44	#4	19'-9"	—
e ₄ (E)	4	#8	19'-9"	—
e ₅ (E)	92	#4	18'-3"	—
e ₆ (E)	6	#8	29'-0"	—
e ₇ (E)	6	#4	26'-4"	—
e ₈ (E)	12	#4	12'-3"	—
e ₉ (E)	24	#4	12'-9"	—
x(E)	78	#5	6'-1"	U
Reinforcement Bars, Epoxy Coated		Pound	178,670	
Concrete Superstructure		Cu. Yd.	691.7	
Floor Drains		Each	60	

**See sheet 17 of 34 for fillet reinforcement details.



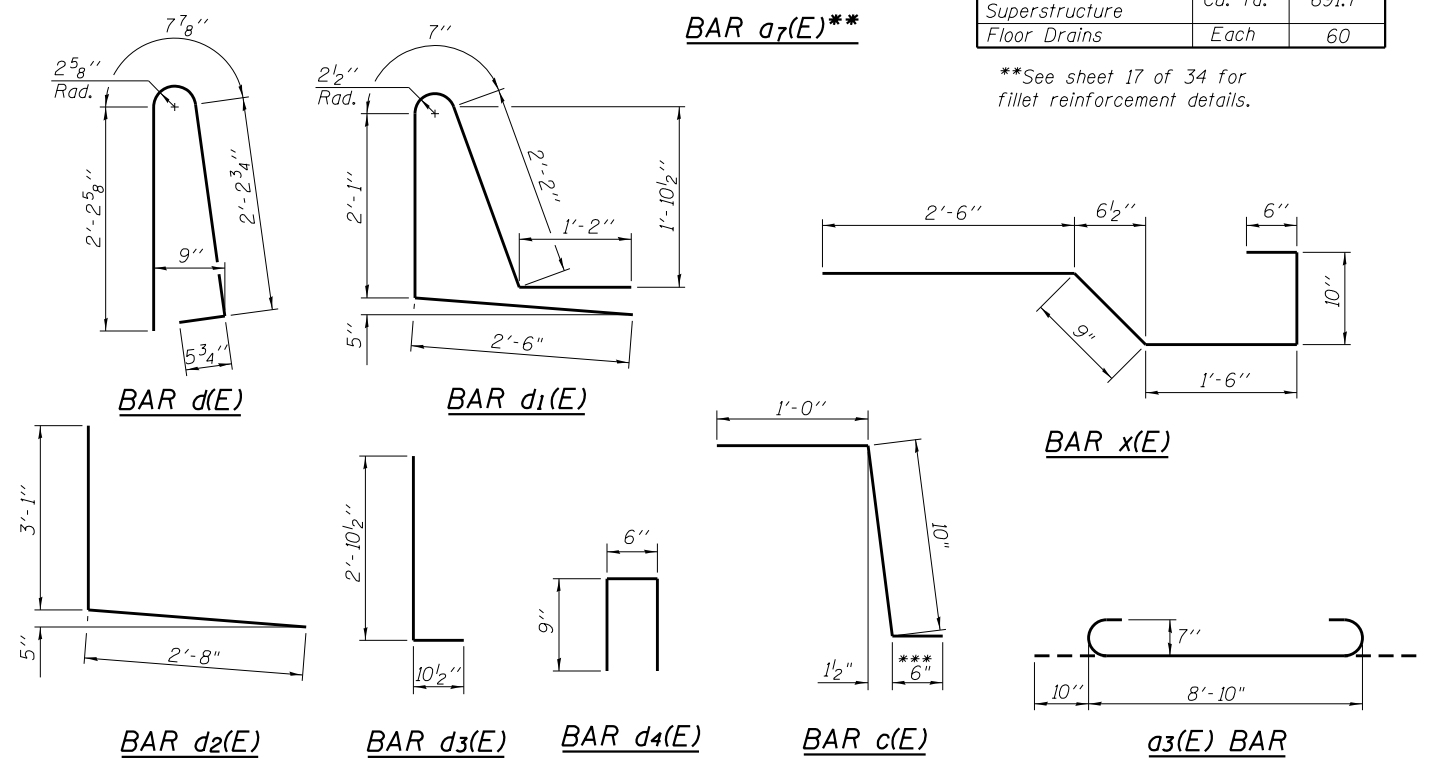
PARAPET JOINT DETAILS

Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25, use T with a 5/8" backer rod.

1/2" Preformed Self-Expanding Cork Joint Filler according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure.

Const. Jts. at Piers 1/8" Aluminum sheet ASTM B 209 alloy 3003-H14, coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure

1/4" x 3/4" Formed joint with Bridge Relief Joint Sealer (See Special Provisions) (full width along joint - backer rod not required) at Piers and either side. Cost included with Concrete Superstructure.



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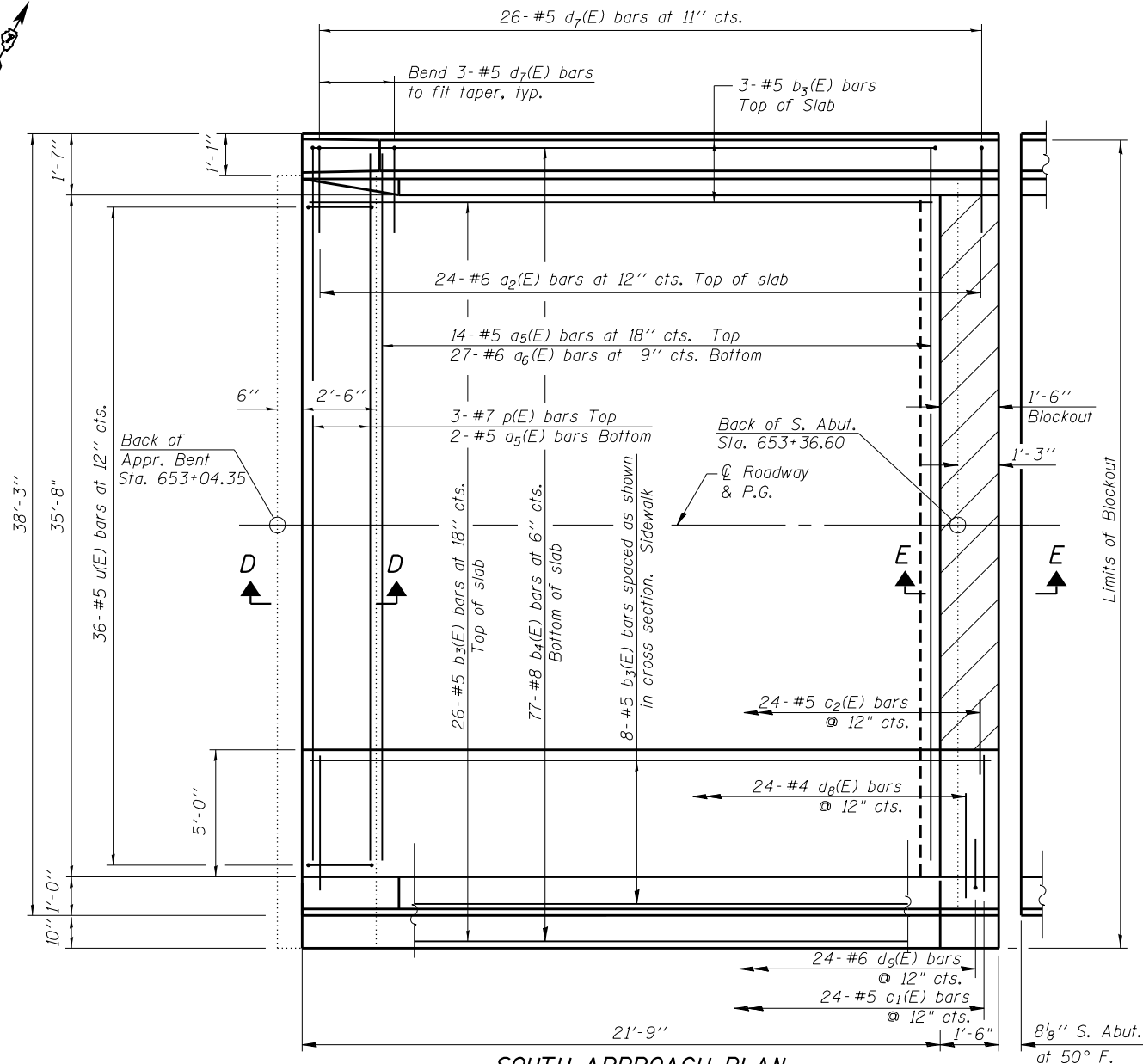
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PLOT DATE	CHECKED PBB/MCB		REvised -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

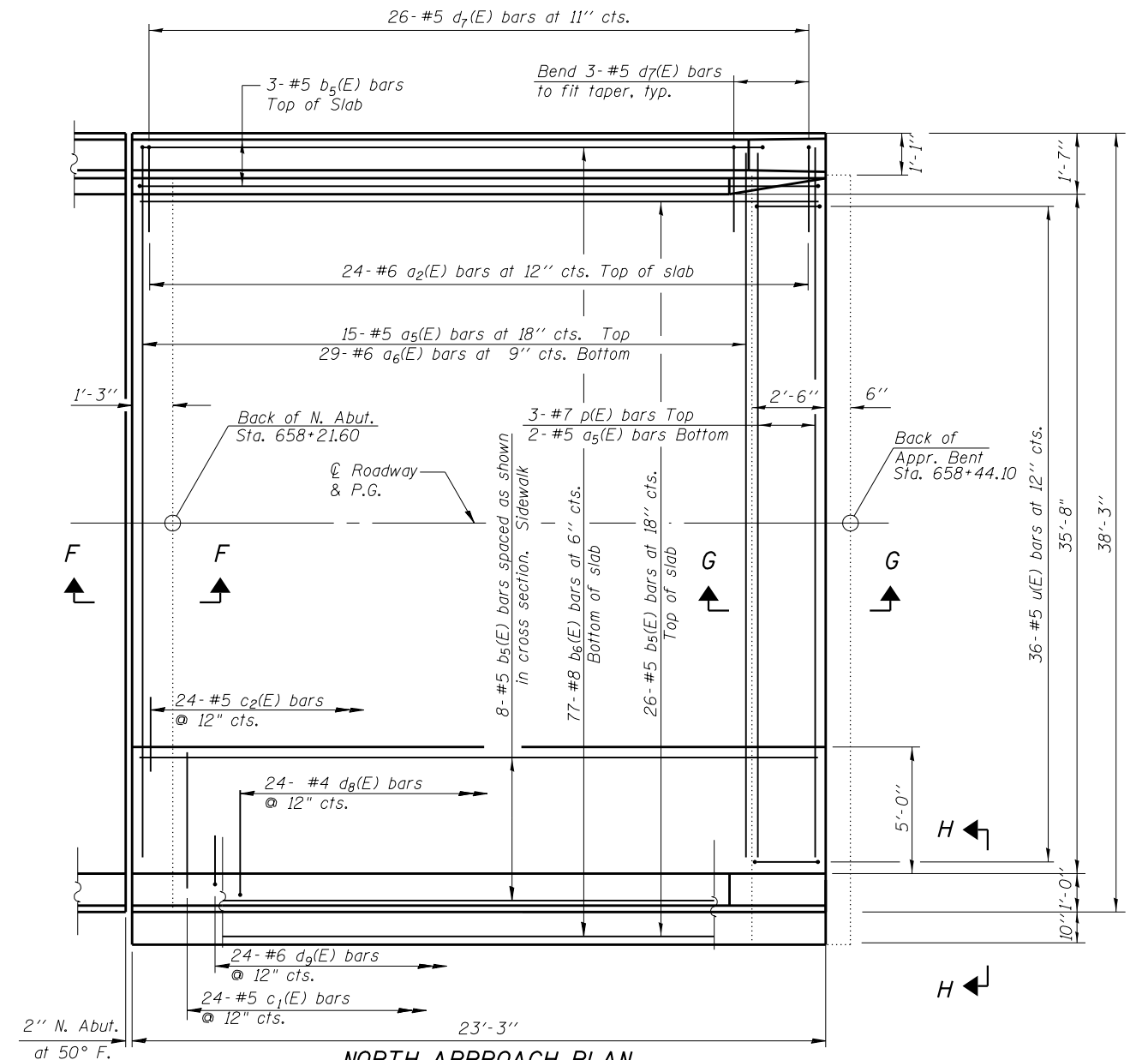
**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 058-0010**

SHEET NO. 11 OF 34 SHEETS

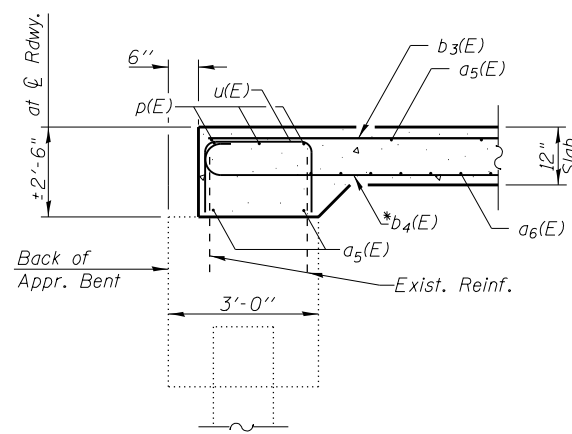
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	88
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



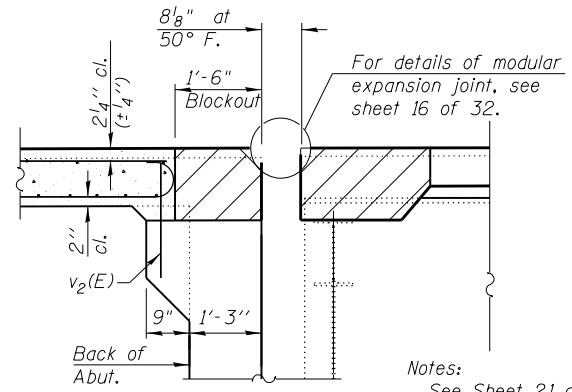
SOUTH APPROACH PLAN



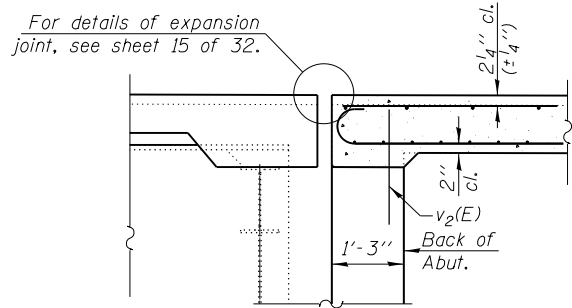
NORTH APPROACH PLAN



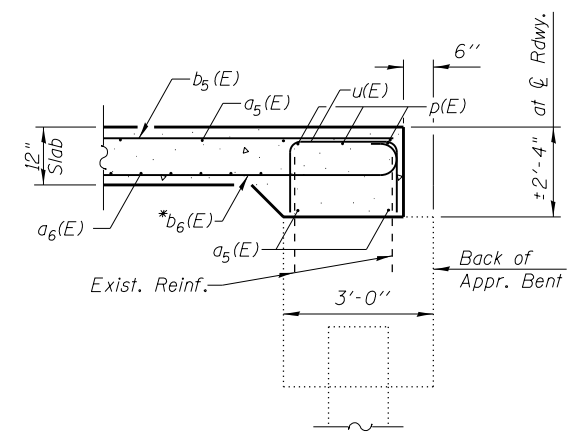
SECTION D-D



SECTION E-E



SECTION F-F



SECTION G-G

Notes:
 See Sheet 21 of 34 for Concrete Removal Details.
 Existing reinforcement extending into new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
 See Sheet 22 of 34 for additional blockout details.
 See Sheet 13 of 34 for View H-H.

*Tilt bars to maintain clearance

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FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
		CHECKED <i>MCB</i>	REVISED -
		DRAWN <i>MLO</i>	REVISED -
		CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**VAULTED APPROACH SLAB
 STRUCTURE NO. 058-0010**

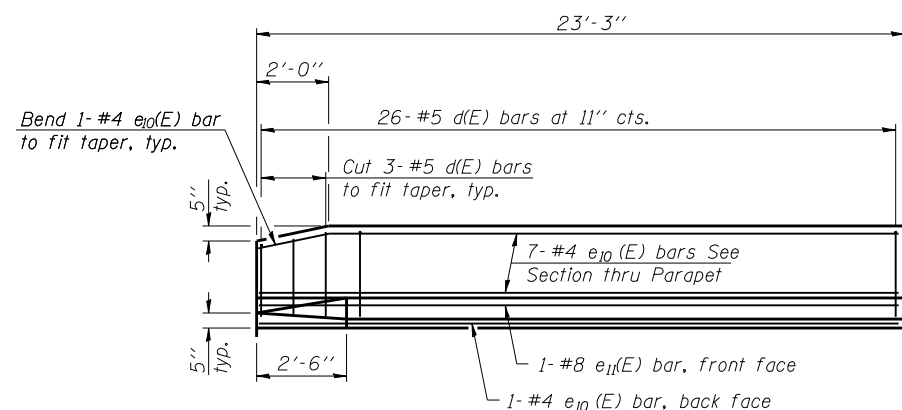
SHEET NO. 12 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	89
CONTRACT NO. 74438				

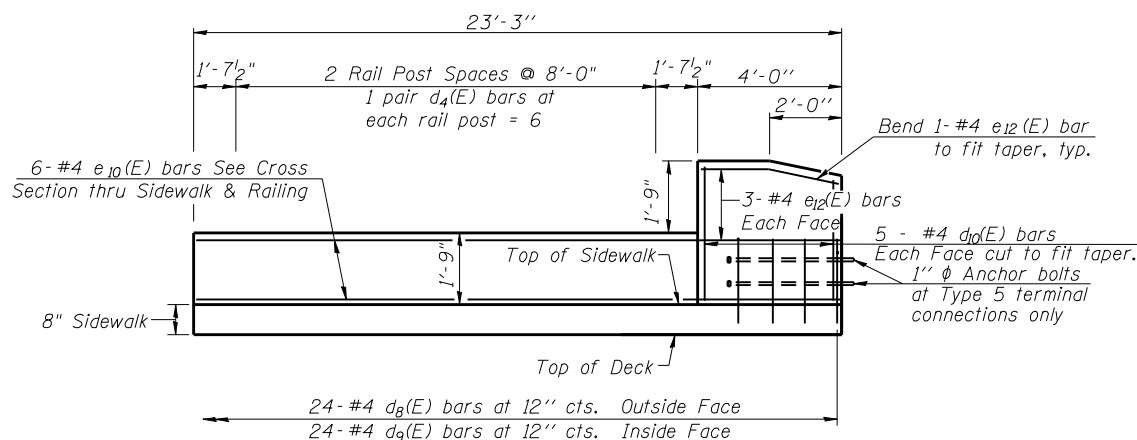
ILLINOIS FED. AID PROJECT

**TWO APPROACH SLABS
BILL OF MATERIAL**

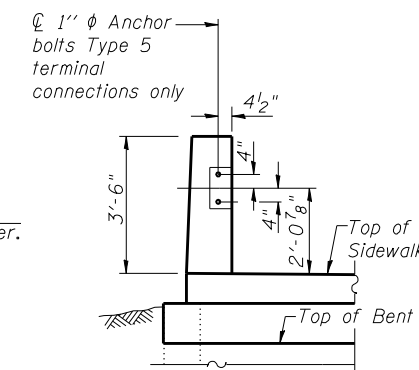
Bar No.	Size	Length	Shape	
a ₂ (E)	#48	#6	6'-6"	—
a ₅ (E)	#33	#5	37'-9"	—
a ₆ (E)	#56	#6	37'-9"	—
b ₃ (E)	#37	#5	21'-6"	—
b ₄ (E)	#77	#8	23'-4"	—
b ₅ (E)	#37	#5	23'-0"	—
b ₆ (E)	#77	#8	24'-10"	—
c ₁ (E)	#48	#5	5'-8"	—
c ₂ (E)	#48	#5	2'-8"	—
d(E)	#52	#5	5'-7"	—
d ₄ (E)	#12	#4	2'-0"	—
d ₇ (E)	#52	#5	7'-1"	—
d ₈ (E)	#48	#4	4'-0"	—
d ₉ (E)	#48	#6	4'-2"	—
d ₁₀ (E)	#20	#4	4'-3"	—
e ₁₀ (E)	#28	#4	23'-0"	—
e ₁₁ (E)	#2	#8	23'-0"	—
e ₁₂ (E)	#12	#4	3'-9"	—
p(E)	#6	#7	37'-9"	—
u(E)	#72	#5	6'-3"	—
Reinforcement Bars, Epoxy Coated		Pound	19,690	
Concrete Superstructure		Cu. Yd.	101.9	



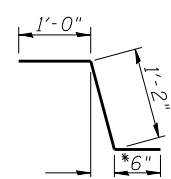
INSIDE ELEVATION OF PARAPET



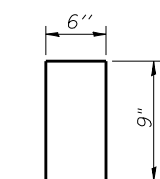
INSIDE ELEVATION OF PARAPET SIDEWALK AND PARAPET



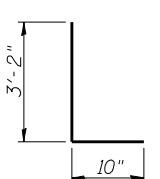
VIEW H-H



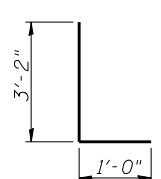
BAR c₂(E)



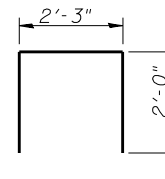
BAR d₄(E)



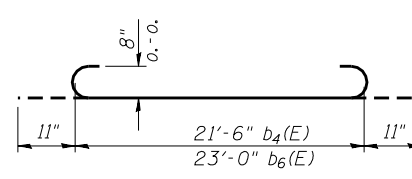
BAR d₈(E)



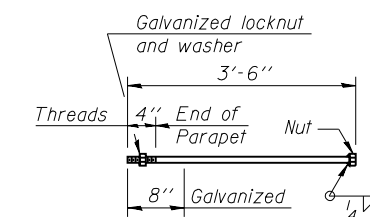
BAR d₉(E)



BAR u(E)

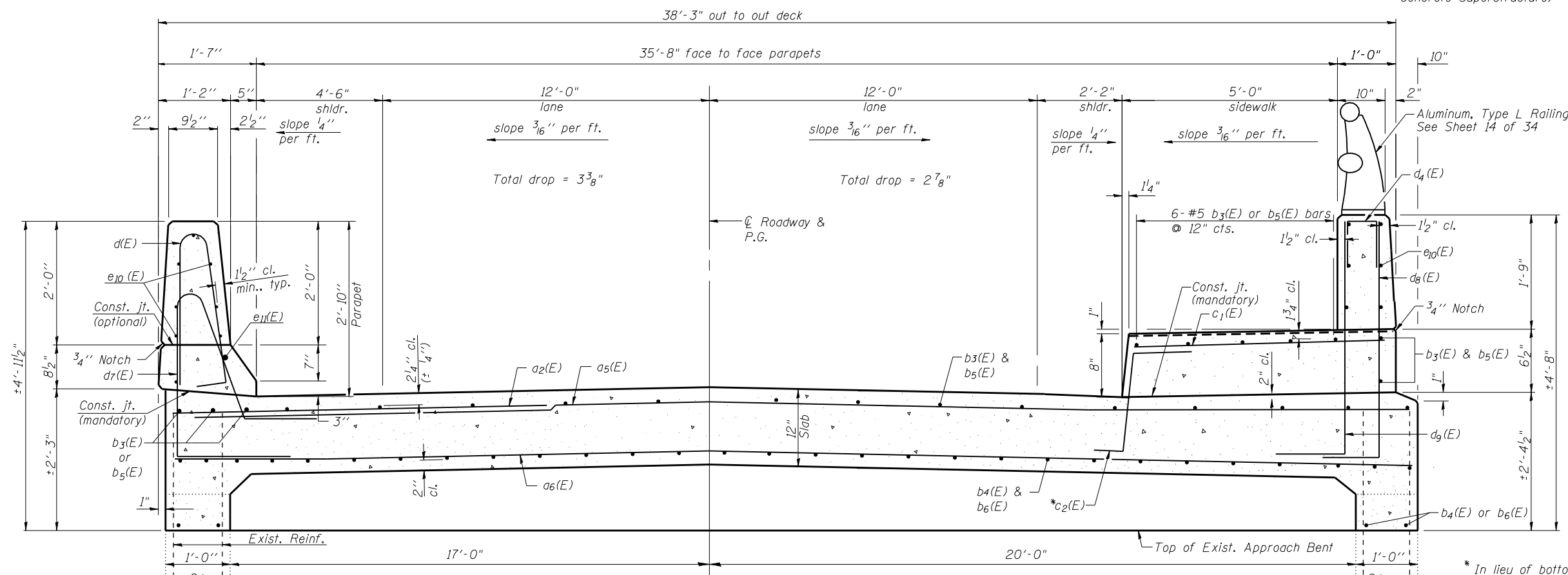


BAR b₄(E) or b₆(E)



1" ANCHOR BOLT

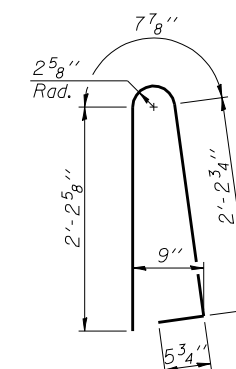
(Cost included with Concrete Superstructure)



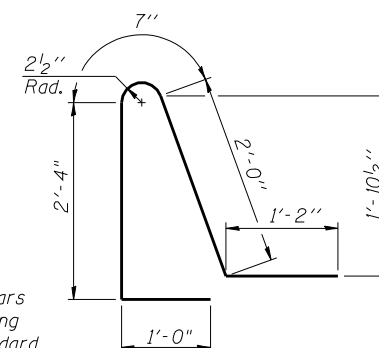
NEAR APPR. BENT

CROSS SECTION

NEAR ABUTMENT



BAR d(E)



BAR d₇(E)

* In lieu of bottom leg, c₂(E) bars may be cored and set according to Article 509.06 of the Standard Specifications. Cored holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of cored hole shall not exceed 6".

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DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

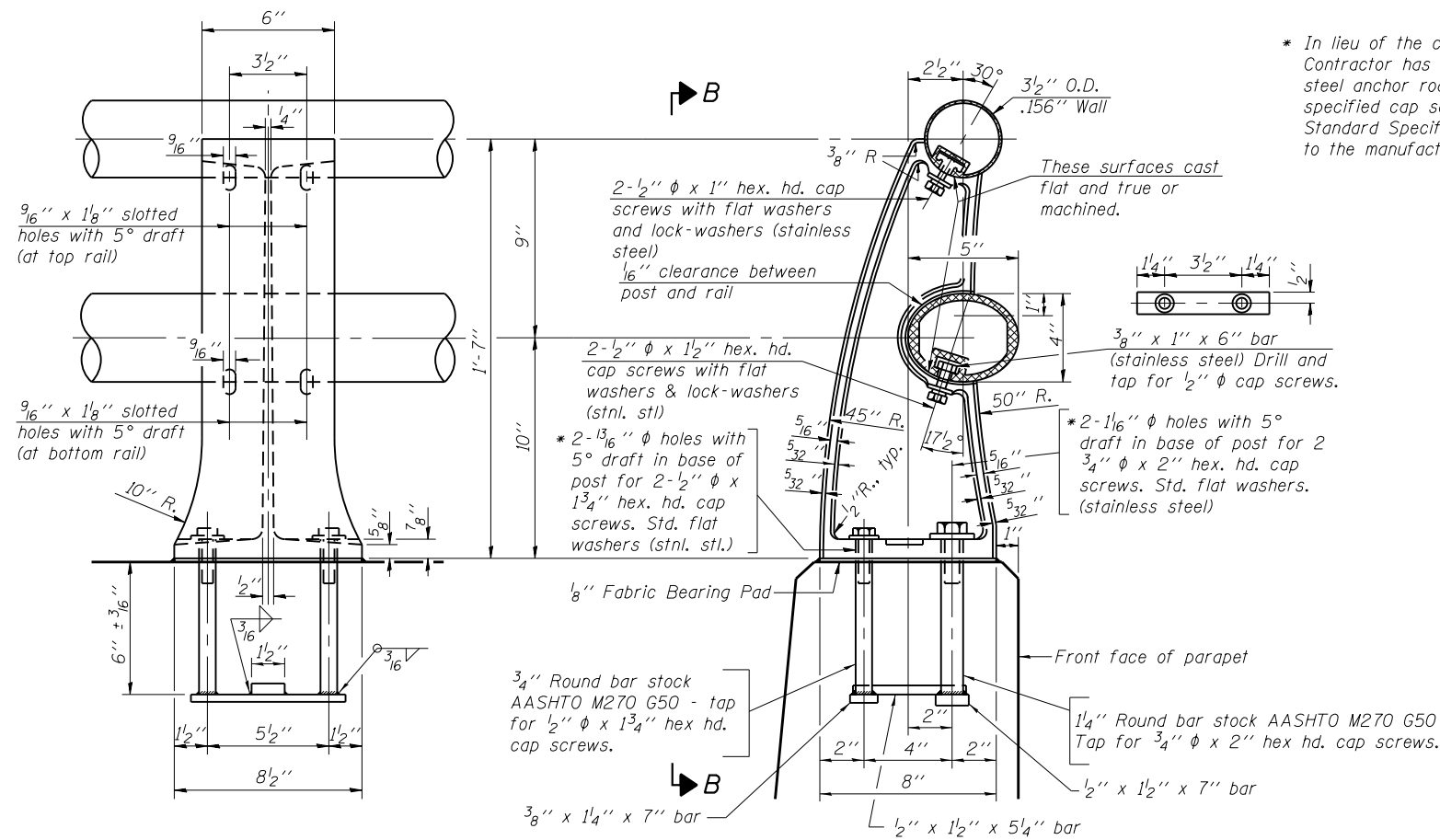
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**VAULTED APPROACH SLAB DETAILS
STRUCTURE NO. 058-0010**

SHEET NO. 13 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	90
CONTRACT NO. 74438				

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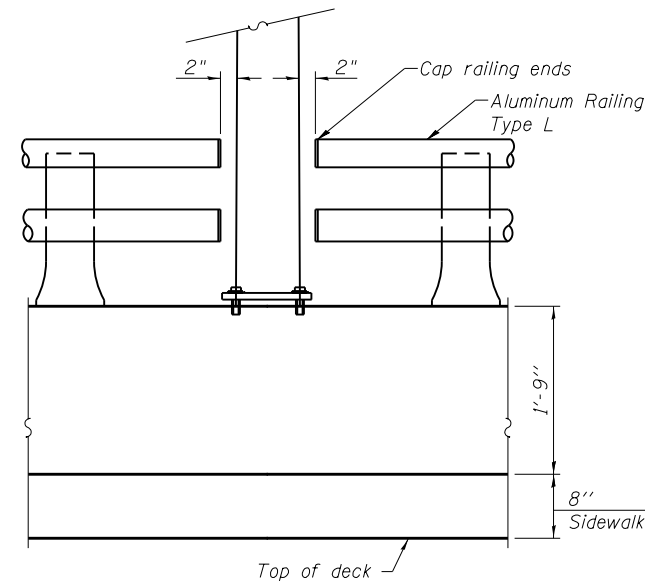


VIEW B-B

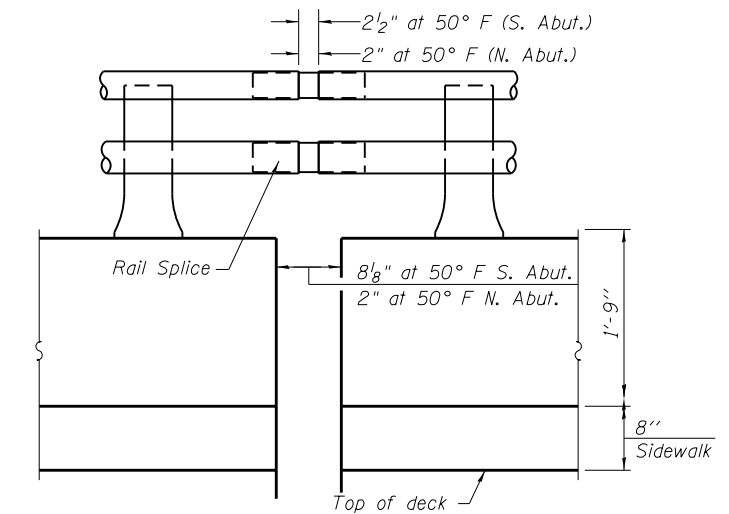
SECTION A-A

RAIL POST DETAILS

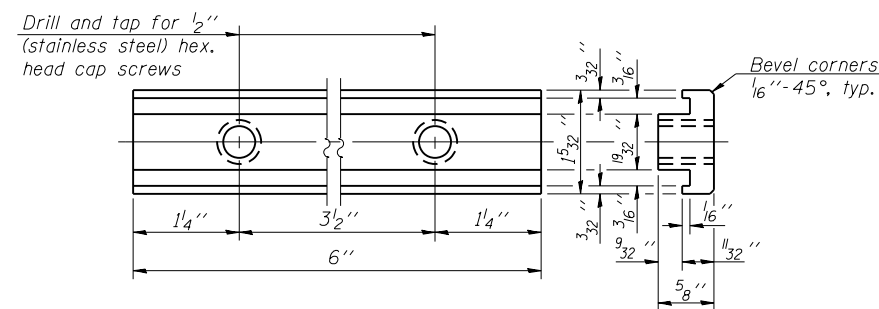
* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



RAIL TREATMENT @ LIGHT POST

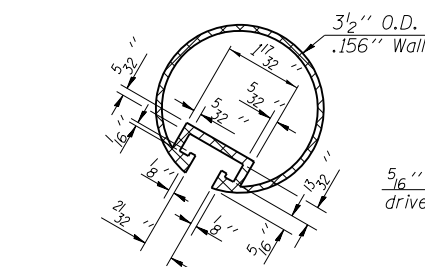


RAIL TREATMENT @ MODULAR EXPANSION JOINT

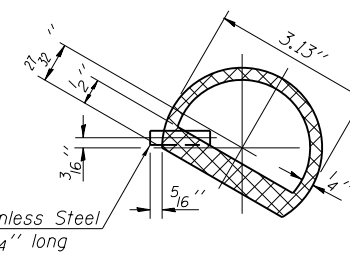


RAIL POST CLAMP BAR

For Top Rail

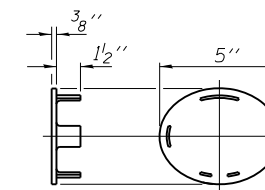


SECTION THRU TOP RAIL



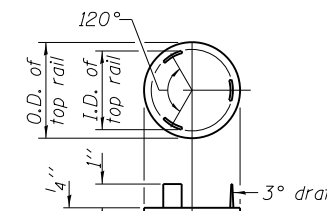
SECTION THRU SPLICE

For Top Rail



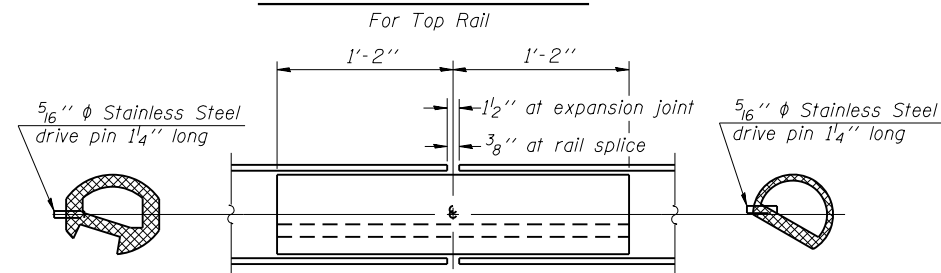
CAST END CAP

For bottom rail
DRIVE FIT TYPE

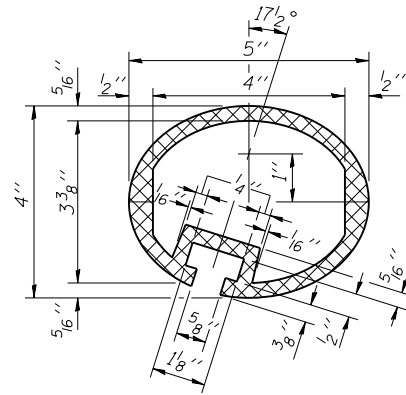


CAST END CAP

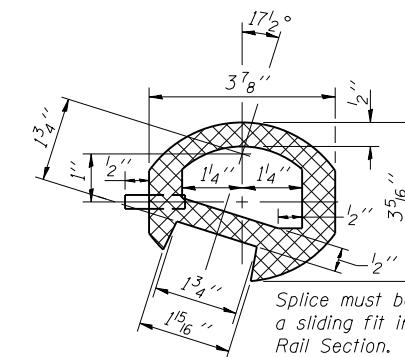
For top rail



RAIL SPLICE

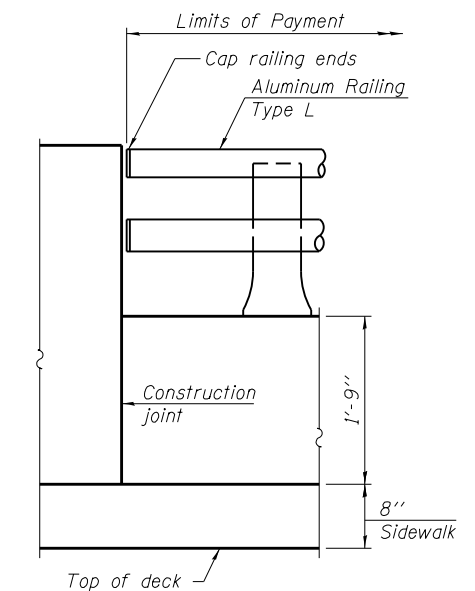


SEC. THRU ELLIPTICAL
RAIL SECTION



SEC. THRU SPLICE

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
All exposed rail ends shall be capped per detail.
Provide 1- 1/8" and 2- 1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
See sheet 10 & 13 of 34 for rail post spacing.



RAIL END TREATMENT AT
APPROACH SPAN PARAPET

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	507

BLANK, WESSELINK, COOK & ASSOCIATES

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ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

FILE NAME =	USER NAME =	DESIGNED	REVISIONS
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		MCB	-
		MLO	-
		PBB/MCB	-

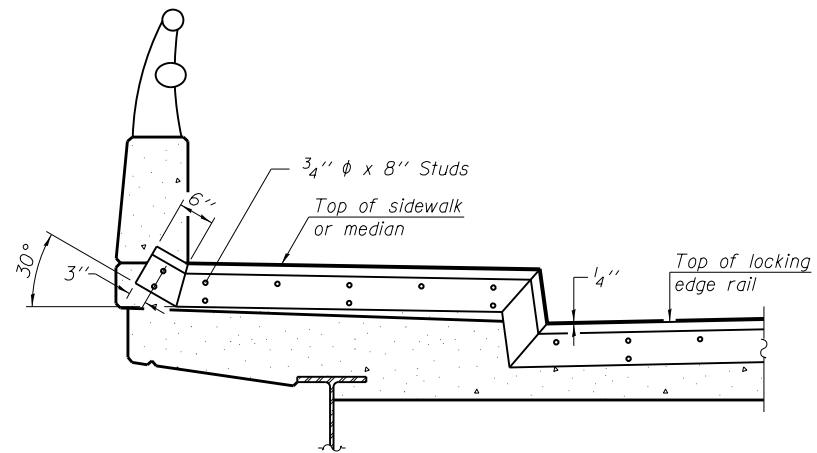
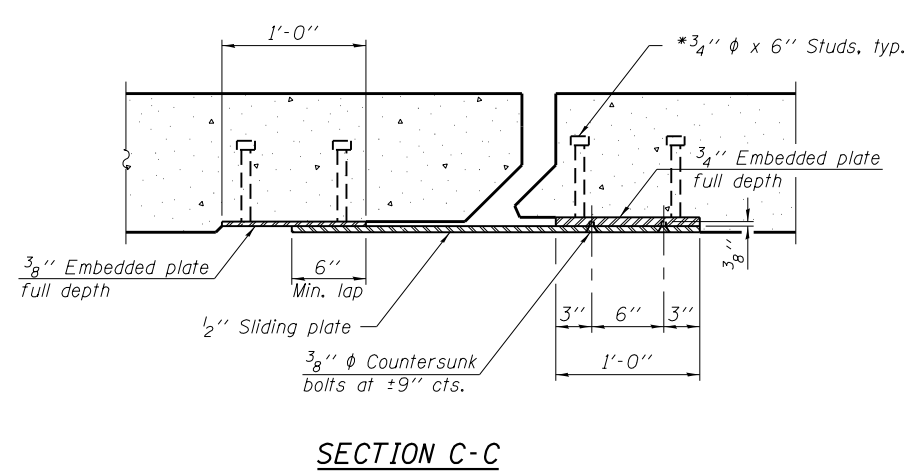
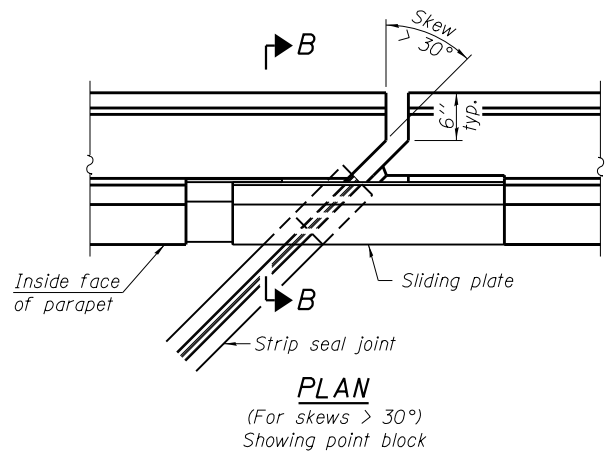
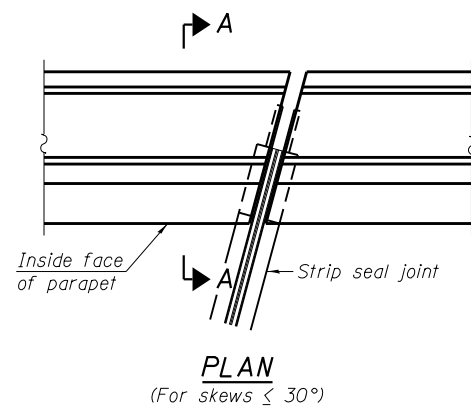
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALUMINUM RAILING, TYPE L
STRUCTURE NO. 058-0010

SHEET NO. 14 OF 34 SHEETS

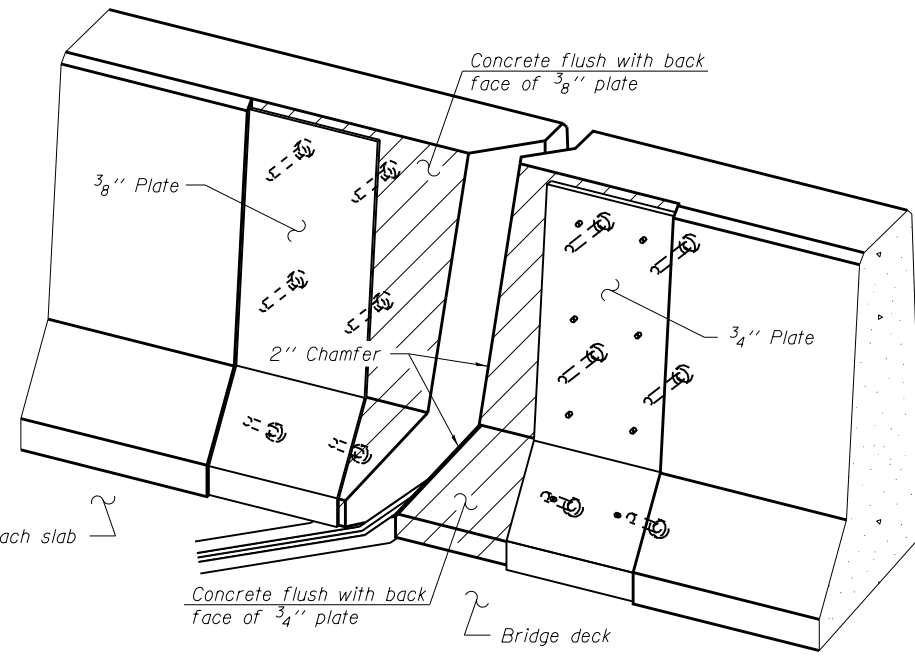
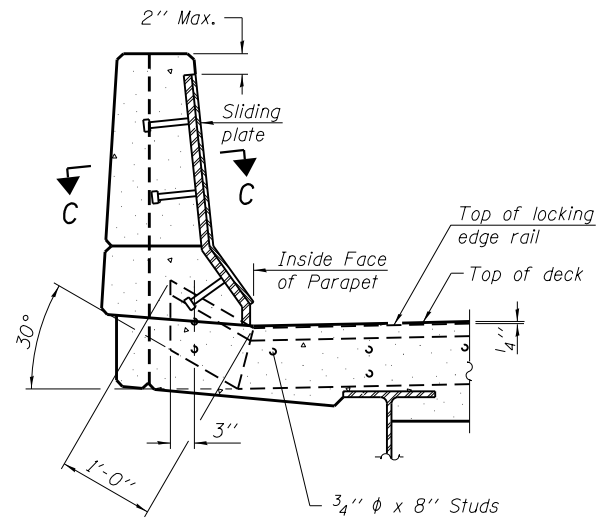
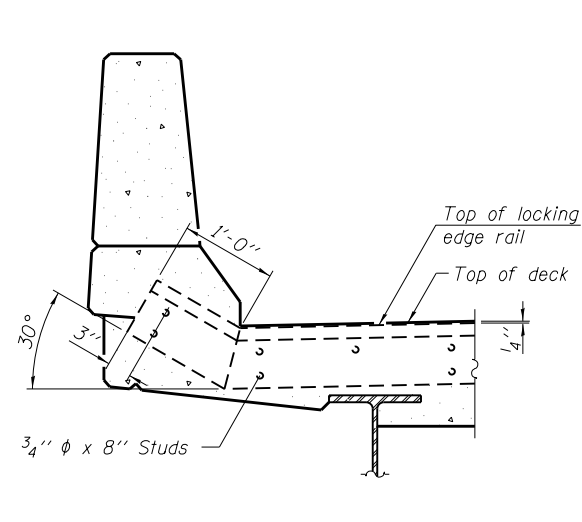
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	91
				CONTRACT NO. 74438

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TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

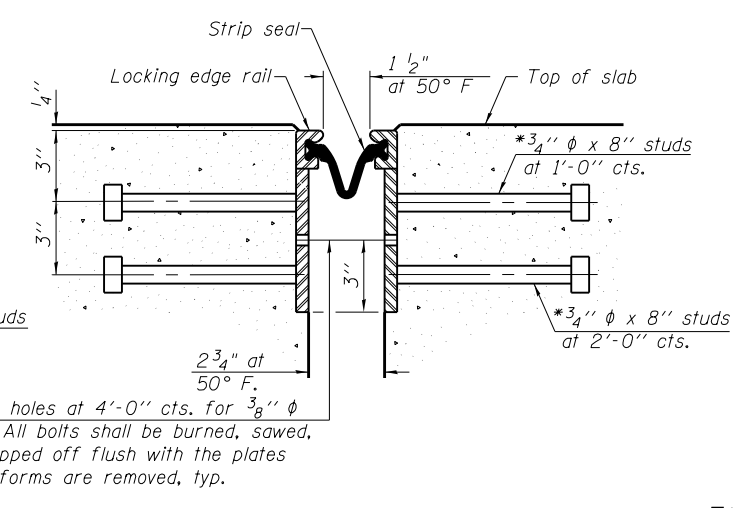
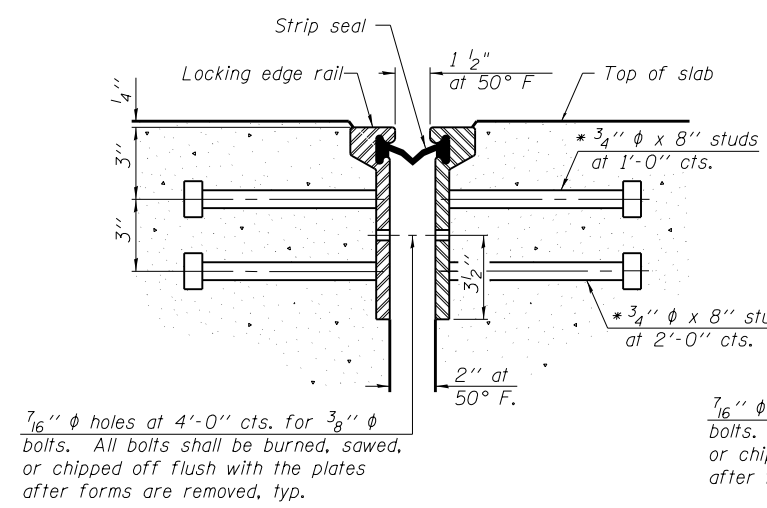
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

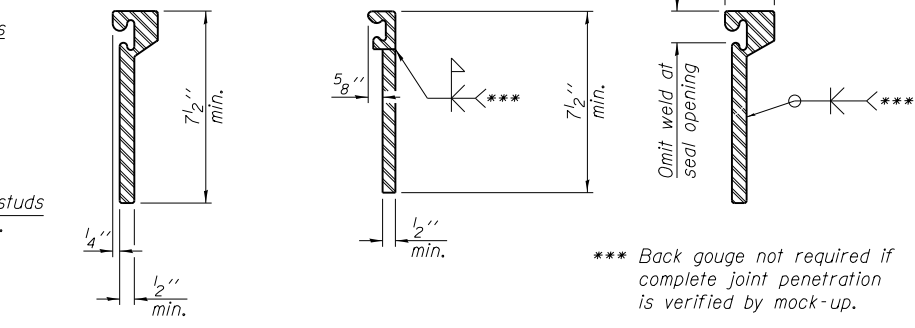
Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	38

EJ-SSJ
BLANK, WESSELINK, COOK & ASSOCIATES

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 058-0010

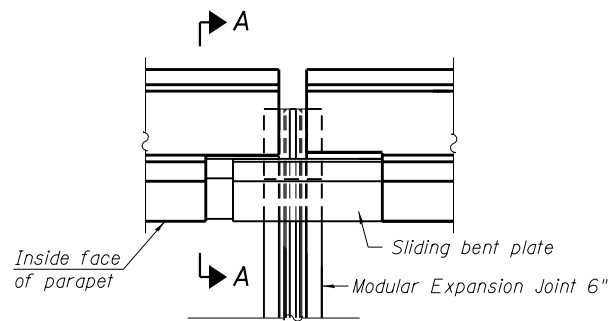
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	92
CONTRACT NO. 74438				

FILE NAME =	USER NAME =	DESIGNED	REVISIONS
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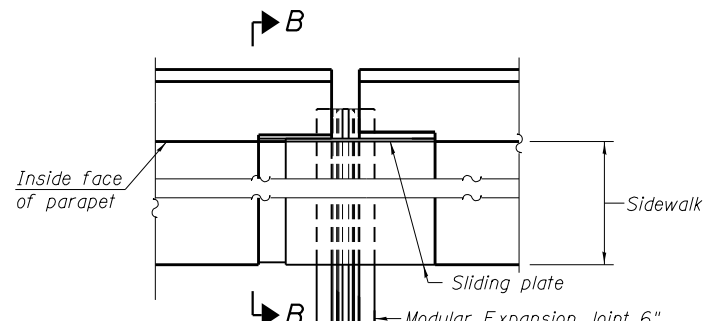
DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

SHEET NO. 15 OF 34 SHEETS

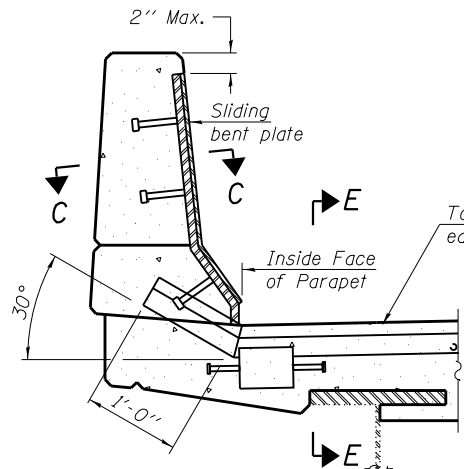
ILLINOIS FED. AID PROJECT



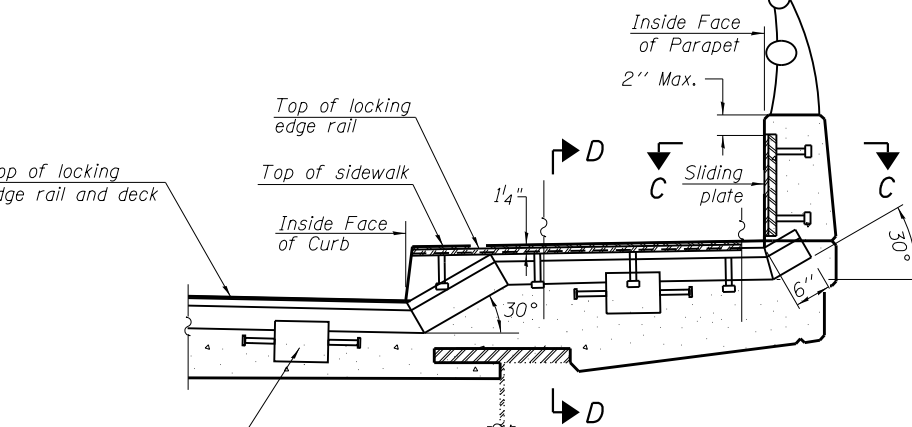
PLAN



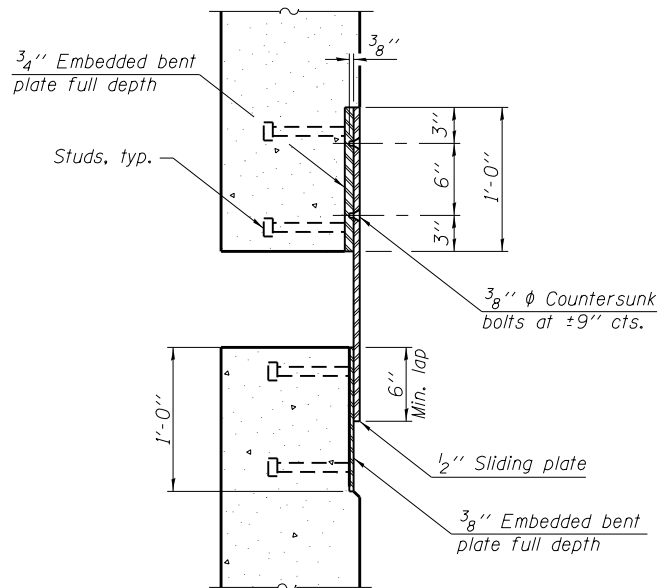
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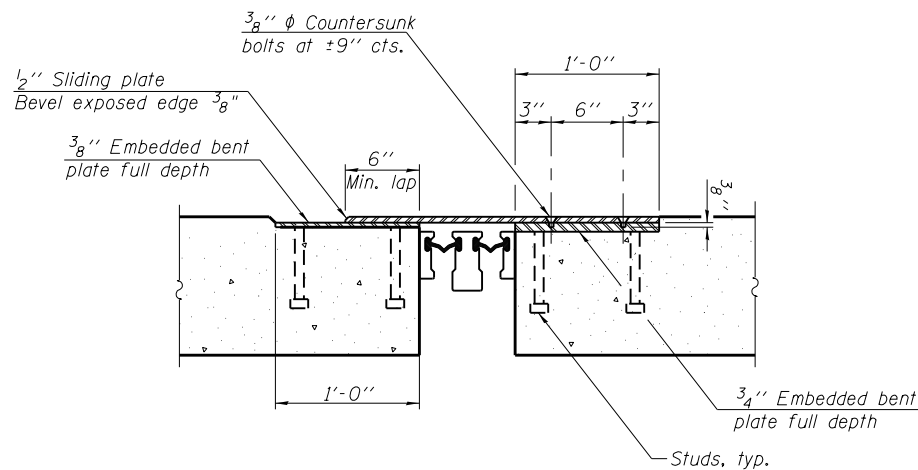
SECTION A-A



SECTION B-B

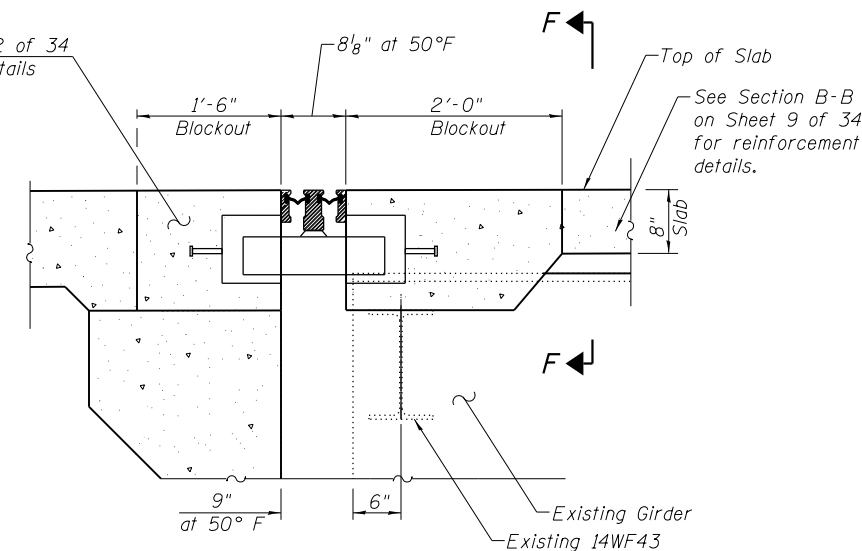


SECTION C-C



SECTION D-D

See Sheet 13 and 22 of 34 for reinforcement details



SECTION E-E

Notes:

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

The manufacturer's recommended installation and fabrication methods shall be followed as approved by the Engineer.

Parapet plates, sidewalk plates, shims, stools, brackets, anchorage studs, hardware and any additional reinforcement are included in the cost of Modular Expansion Joint 6".

The modular expansion joint system shall be capable of handling 2 1/2" of longitudinal movement either direction from 50°F (5" total).

Support boxes shall be rigidly attached to diaphragms and backwall by adjustable brackets, stools or shims.

Prior to ordering stools or shims, the Contractor shall verify in the field all top of steel elevations.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

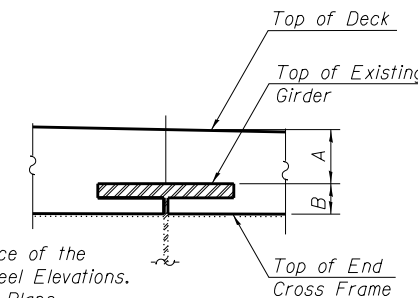
See Guide Bridge Special Provision for Modular Expansion Joint.

Girder Number	Dim. A	Dim. B
1	10"	3 3/4"
2	9 7/8"	5 5/8"
3	10"	5 3/8"
4	10"	3 3/8"

Notes:

Dim. A is the theoretical difference of the Proposed Deck Elev. and Top of Steel Elevations.

Dim. B is from the 1960 Existing Plans.



SECTION F-F

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint 6"	Foot	38

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FILE NAME =	USER NAME =	DESIGNED <i>PBB</i>	REVISED -
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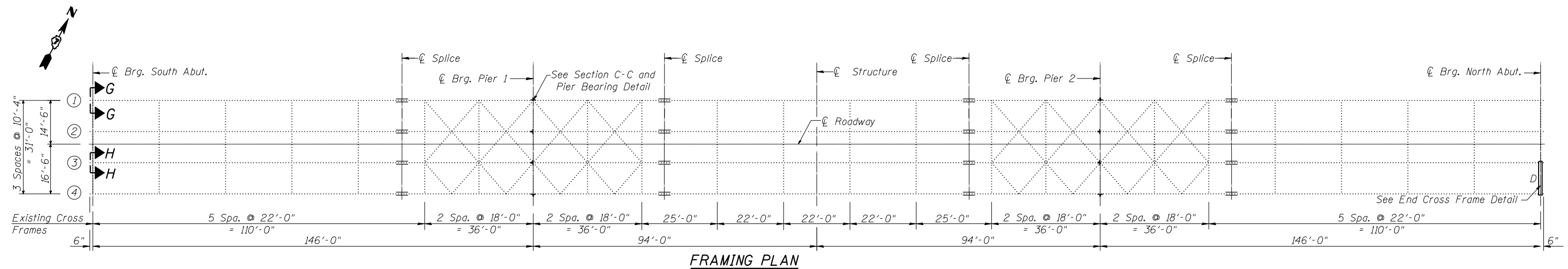
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODULAR EXPANSION JOINT
STRUCTURE NO. 058-0010

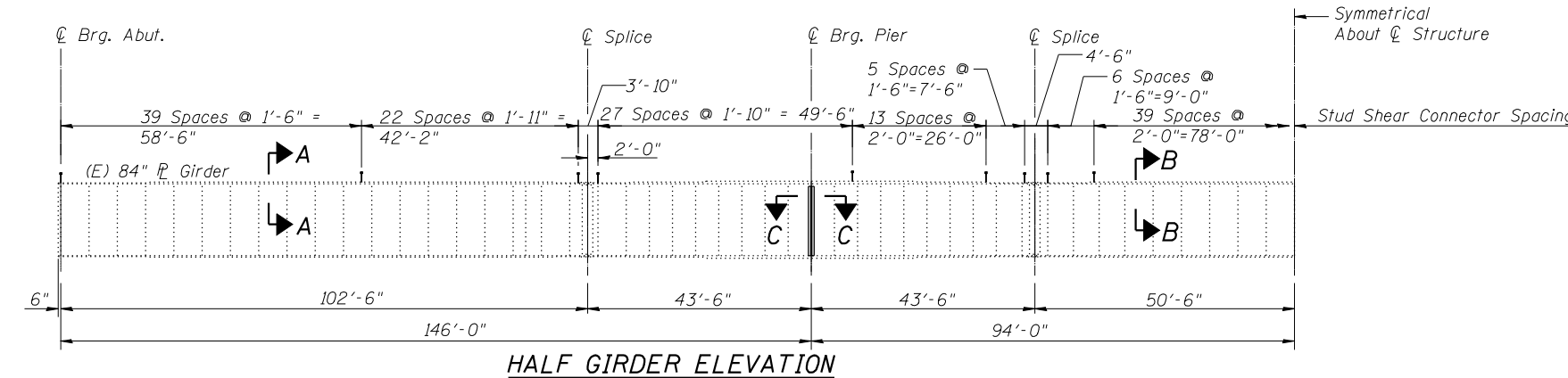
SHEET NO. 16 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	93
CONTRACT NO. 74438				

ILLINOIS FED. AID PROJECT



FRAMING PLAN

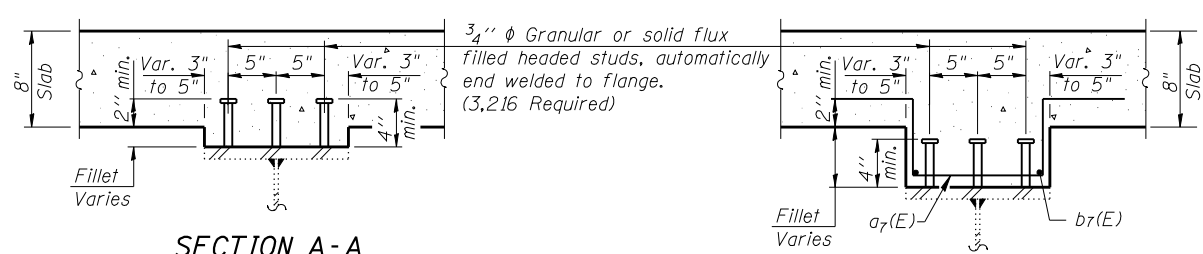


HALF GIRDER ELEVATION

BILL OF MATERIAL

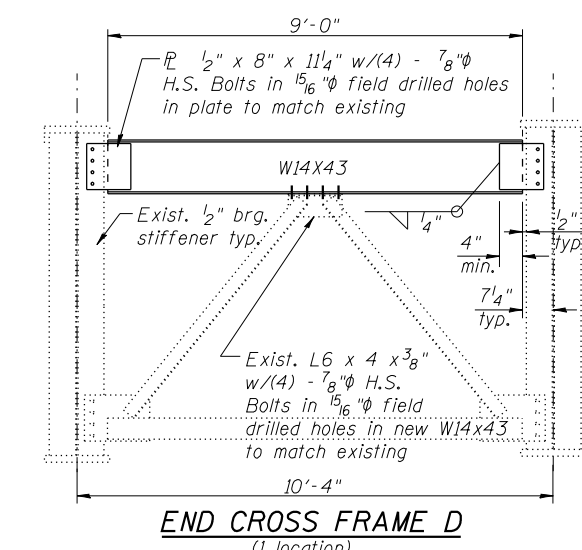
Item	Unit	Quantity
Structural Steel Repair	Pound	434

Note:
See sheet 18 of 34 for Section C-C, Section G-G and Section H-H.

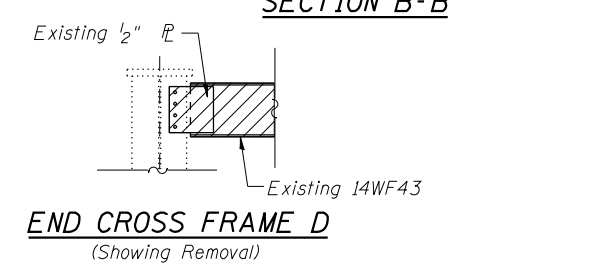


SECTION A-A

SECTION B-B



END CROSS FRAME D
(I location)



END CROSS FRAME D
(Showing Removal)

CONSTRUCTION SEQUENCE

The bearings and noted portion of End Cross Frame D shall be removed and replaced following the concrete deck removal and before the proposed deck is constructed.

Note:
Existing 14WF43 and 1/2" connection plates to be removed. Cost included with Structural Steel Repair.
Cost of field drilling is included with Structural Steel Repair.

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n), S_c(3n)$: 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 and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr), S_c(cr)$: 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.⁴ and in.³).

Q : Un-factored non-composite dead load (kips/ft.).

M_D : Un-factored moment due to non-composite dead load (kip-ft.).

s_D : Un-factored long-term composite (superimposed) dead load (kips/ft.).

M_{sD} : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_I : Un-factored moment due to impact (kip-ft.).

M_a : Factored design moment (kip-ft.).
 $1.3 [M_D + M_{sD} + \frac{5}{3} (M_L + M_I)]$

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M_D + M_{sD} + \frac{5}{3} (M_L + M_I)$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M_D + M_{sD} + \frac{5}{3} (M_L + M_I)]$

VR: Maximum $\ell +$ impact shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp.1/ 0.6 Sp.3	Pier 1 & 2	0.5 Sp. 2
I_s	(in ⁴) 134088	251856	134088
$I_c(n)$	(in ⁴) 251081	401211	251081
$I_c(3n)$	(in ⁴) 190661	317108	190661
$I_c(cr)$	(in ⁴) 274650		
S_s	(in ³) 3065	5596	3065
$S_c(n)$	(in ³) 3752	6358	3752
$S_c(3n)$	(in ³) 3469	5993	3469
$S_c(cr)$	(in ³) 5748		
Q	(k/ft) 1.495	1.714	1.495
M_D	(k) 1875	4884	1879
s_D	(k/ft) 0.535	0.535	0.535
M_{sD}	(k) 769	1536	855
M_L	(k) 1809	2444	1964
M_{IM}	(k) 335	420	313
$5/3 [M_L + M_I]$	(k) 3573	4773	3795
M_a	(k) 8083	14551	8488
M_u	(k) 9667		9666
$f_s \ell$ non-comp	(ksi) 7.3	10.5	7.4
$f_s \ell$ (comp)	(ksi) 2.7	3.1	3.0
$f_s 5/3 [M_L + M_I]$	(ksi) 11.4	9.0	12.1
f_s (Overload)	(ksi) 21.4	22.6	22.5
f_s (Total)	(ksi) 29.3		
VR	(k) 87.9	111.3	92.2

* Compact section
** Braced non-compact and partially braced section

INTERIOR GIRDER REACTION TABLE		
	Abuts.	Piers
R_D	(k) 104.7	386.9
R_L	(k) 63.9	142.8
R_I	(k) 11.8	15.6
R_{Total}	(k) 180.4	545.3

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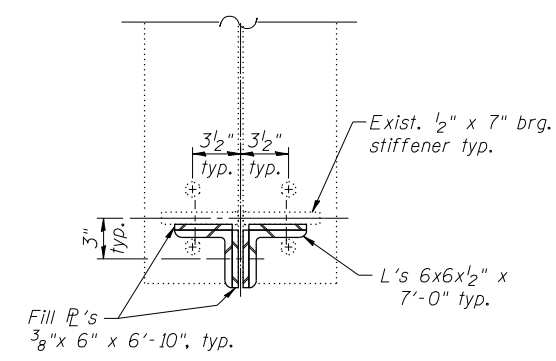
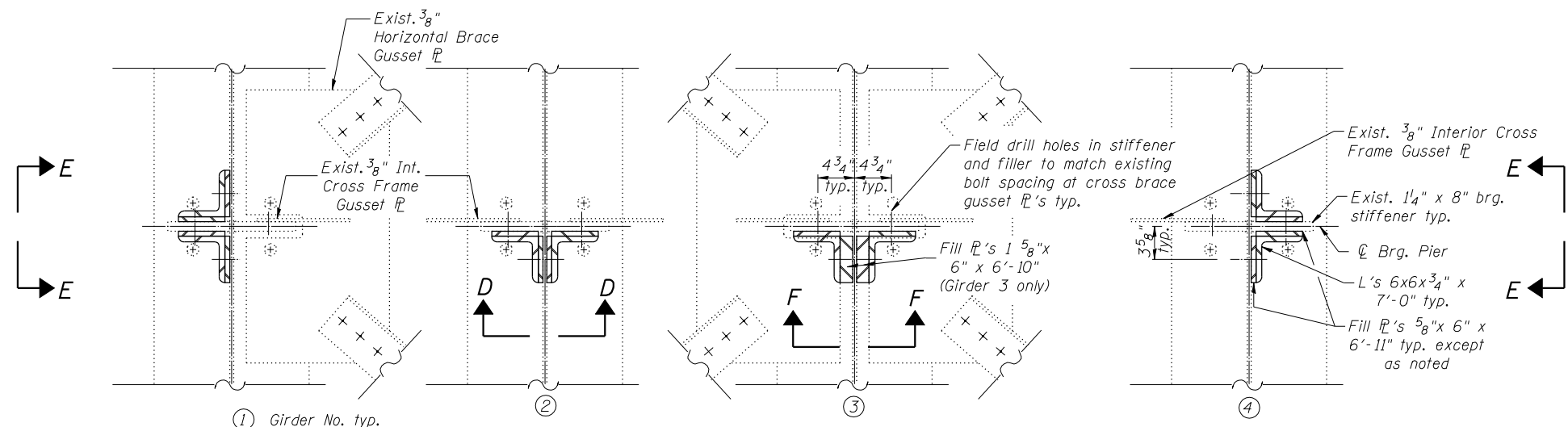
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		MCB	-
		MLO	-
		PBB/MCB	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 058-0010

SHEET NO. 17 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	94
CONTRACT NO. 74438				
ILLINOIS FED. AID PROJECT				



PLAN AT ABUTMENT ENDS
(Sec. G-G & H-H)

Note:
Cost of field drilling included with Structural Steel Repair.
Structural Steel Repair is typical at both Piers.
See Sheet 17 of 34 for location of Section G-G & Section H-H.

BILL OF MATERIAL - TWO PIERS

Item	Unit	Quantity
Structural Steel Repair	Pound	7167

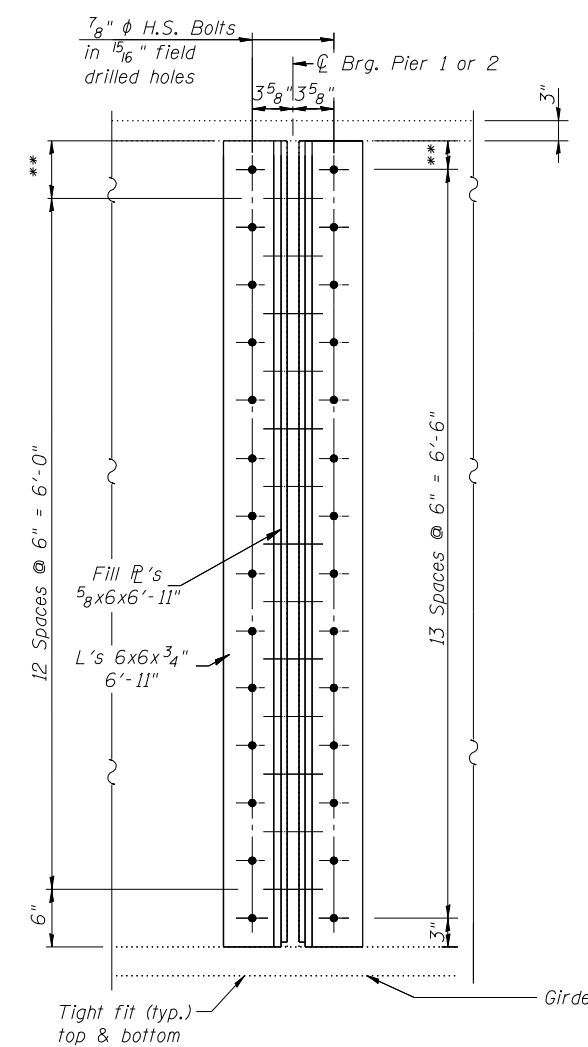
BILL OF MATERIAL - TWO ABUTMENTS

Item	Unit	Quantity
Structural Steel Repair	Pound	4319

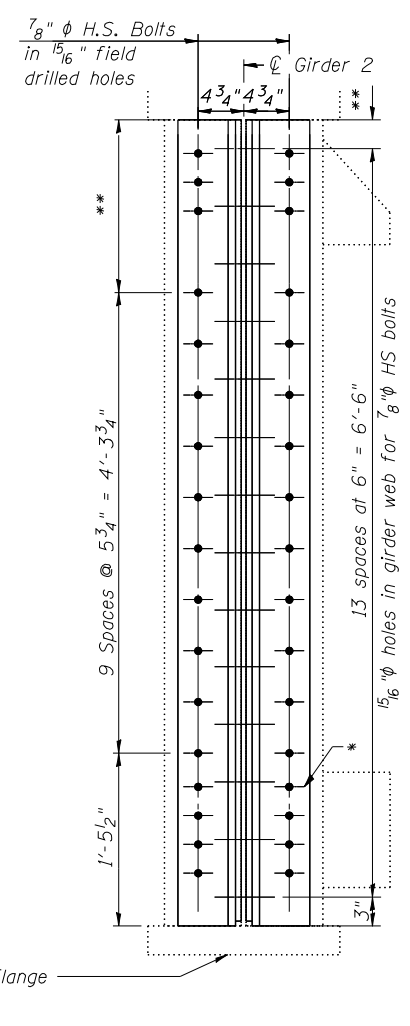
SECTION C-C
See Sheet 17 of 34 for location of Section C-C.

*Field drill holes in stiffener and filler to match existing bolt spacing at cross brace gusset PL's typ. each side
Girders 2 & 3 and typ. inside Girders 1 & 4 at Abutments.

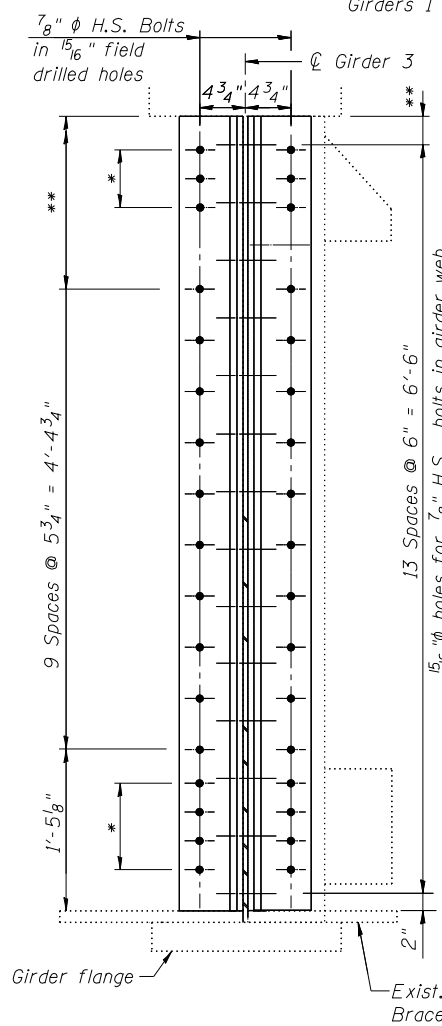
**measure in field and cut to fit



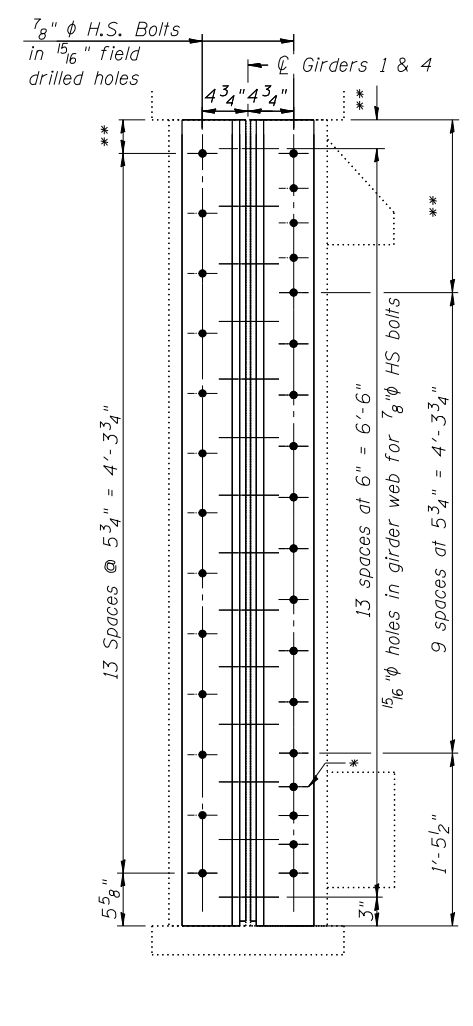
SECTION E-E
(4 locations)



SECTION D-D
(2 locations)

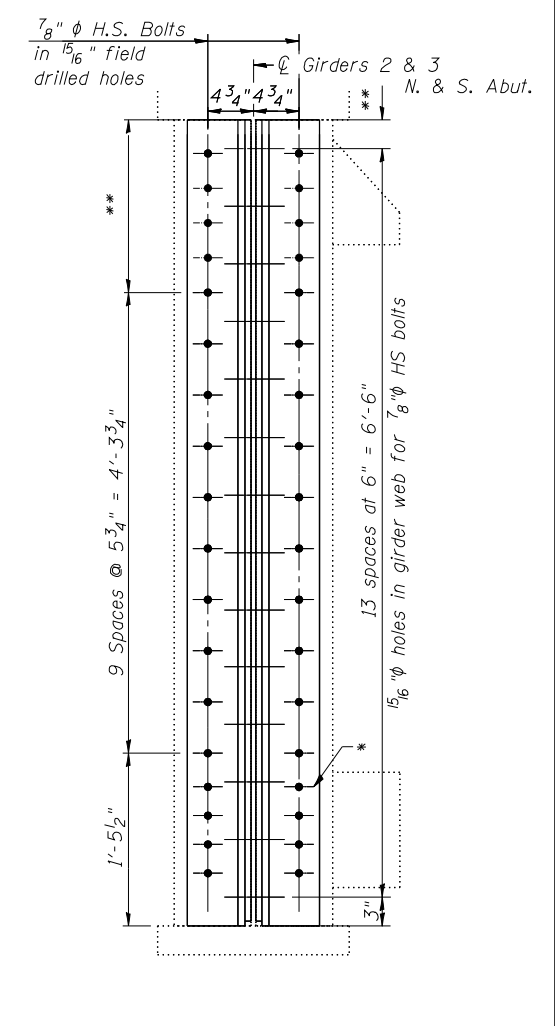


SECTION F-F
(2 locations)



SECTION G-G
(4 locations)

(Girder 1, S. Abut. & Girder 4, N. Abut. shown)
(Girder 1, N. Abut. & Girder 4, S. Abut. opposite)



SECTION H-H
(4 locations)

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	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

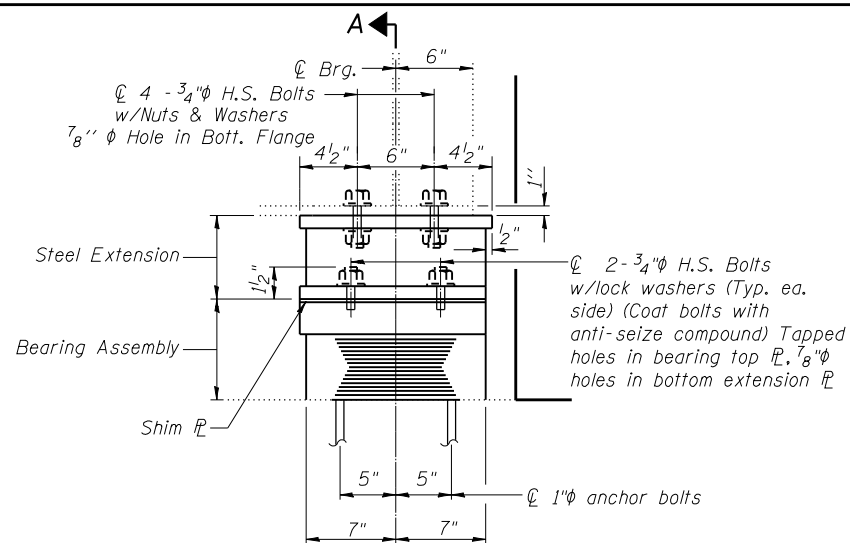
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING STIFFENER REPAIR DETAILS
STRUCTURE NO. 058-0010

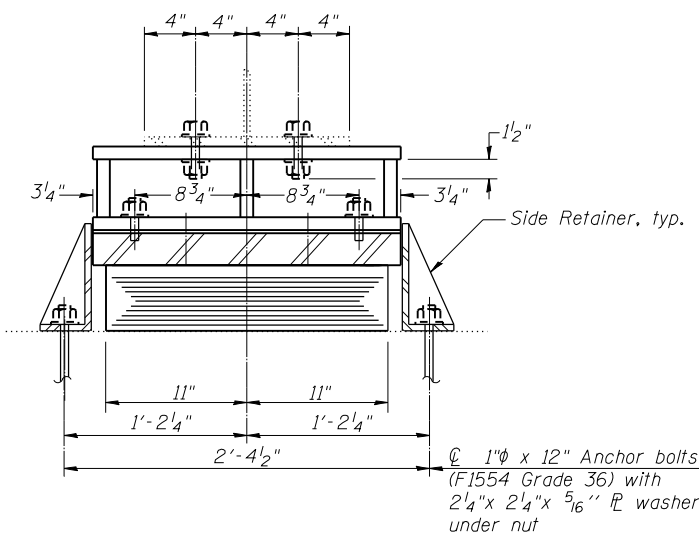
SHEET NO. 18 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	95
CONTRACT NO. 74438				

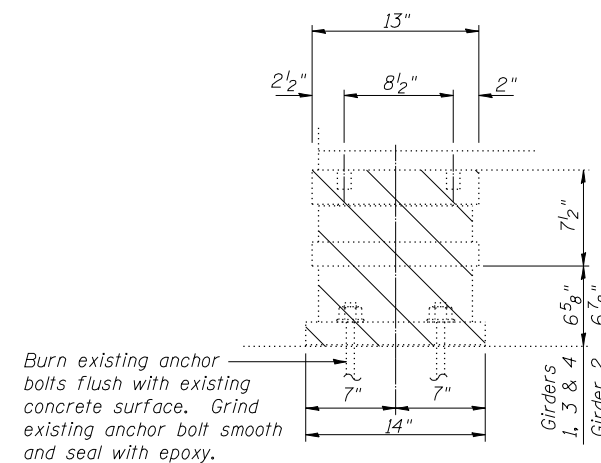
ILLINOIS FED. AID PROJECT



ELEVATION AT NORTH ABUT.

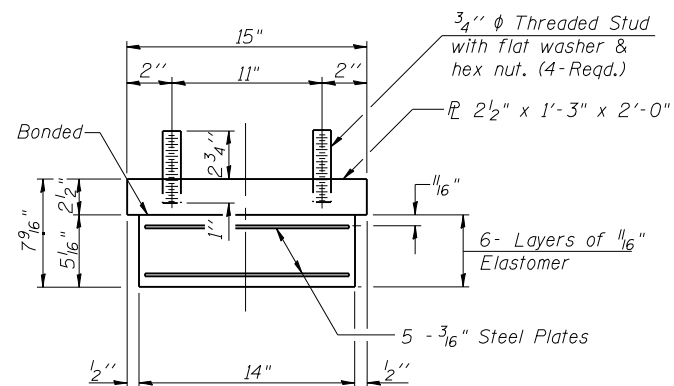


SECTION A-A



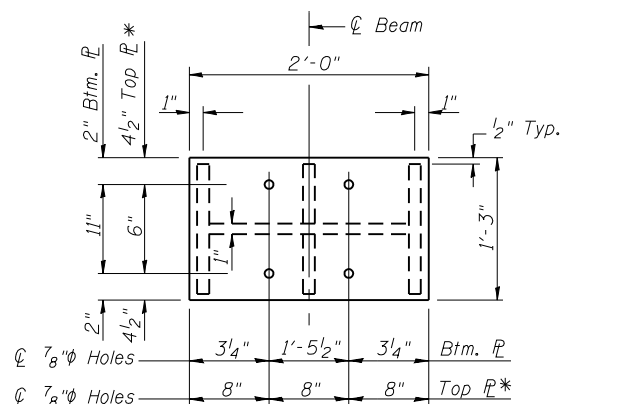
EXISTING BEARING REMOVAL DETAIL

TYPE I ELASTOMERIC EXP. BRG.



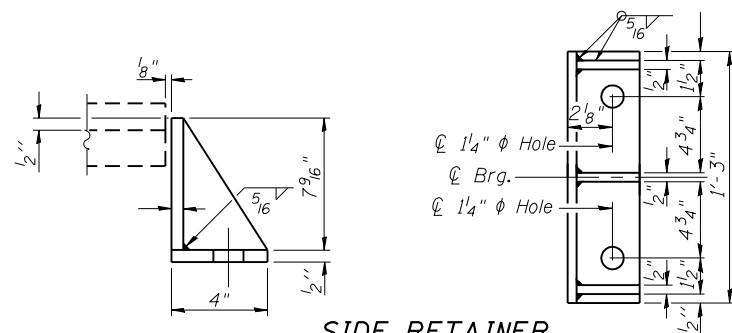
BEARING ASSEMBLY

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



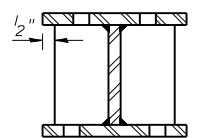
PLAN STEEL EXTENSION

*Field Drill

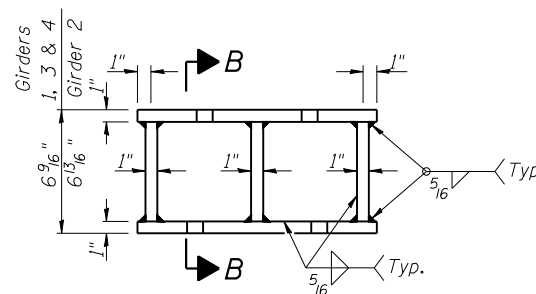


SIDE RETAINER

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



SECTION B-B



ELEVATION STEEL EXTENSION

PROCEDURE FOR JACKING AND REMOVING EXISTING BEARINGS (At Abutments)

- The Contractor shall submit, for approval by the Engineer, plans for jacking and removing the existing bearings at the abutments prior to commencing any work at the abutment bearings.
- In each stage, jacking and removal of existing bearings shall be done after the existing deck is removed and before new deck is poured.
- The new bearings and steel extensions shall be in place and the jacks lowered prior to pouring the new concrete deck in each stage. See Special Provision for Jack and Remove Existing Bearings.

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.

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

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I. Steel extensions, shims and bolts shall be included in the cost of Furnishing & Erecting Structural Steel.

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.

See Sheets 19 and 20 of 34 for minimum jack capacity. Cost of field drilling included with Furnishing and Erecting Structural Steel.

Fill the unused existing lower flange bolt holes with silicone sealant suitable for structural steel. Cost included with Jack and Remove Existing Bearings.

Note:
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	4
Anchor Bolts, 1"	Each	16
Furnishing & Erecting Structural Steel	Pound	1,377
Jack and Remove Existing Bearings	Each	4

Jacking Loads per Girder	ABUT.
R @ Steel Only	(K) 21
Min. Jack Capacity, Steel Only	(K) 42

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FILE NAME =	USER NAME =	DESIGNED	REVISIONS
		PBB	-
		MCB	-
		MLO	-
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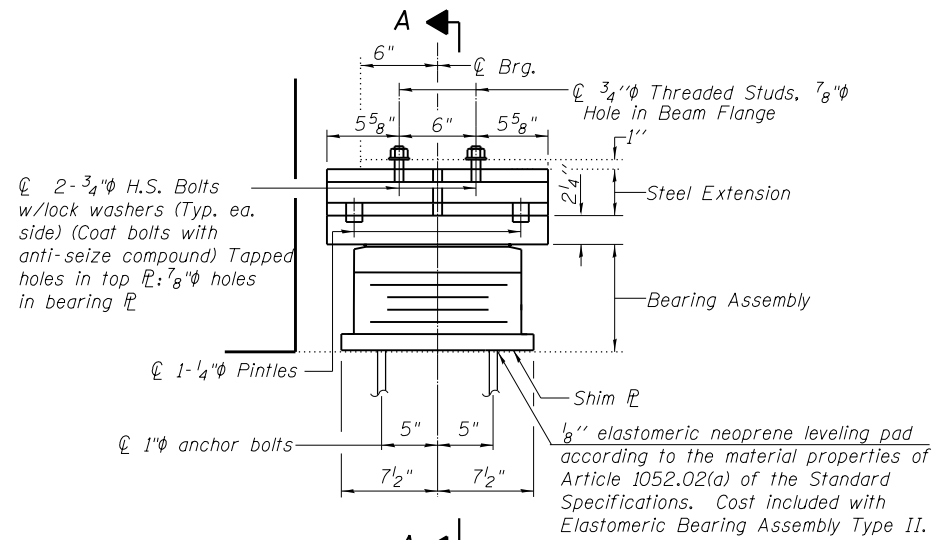
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT BEARING DETAILS
STRUCTURE NO. 058-0010

SHEET NO. 19 OF 34 SHEETS

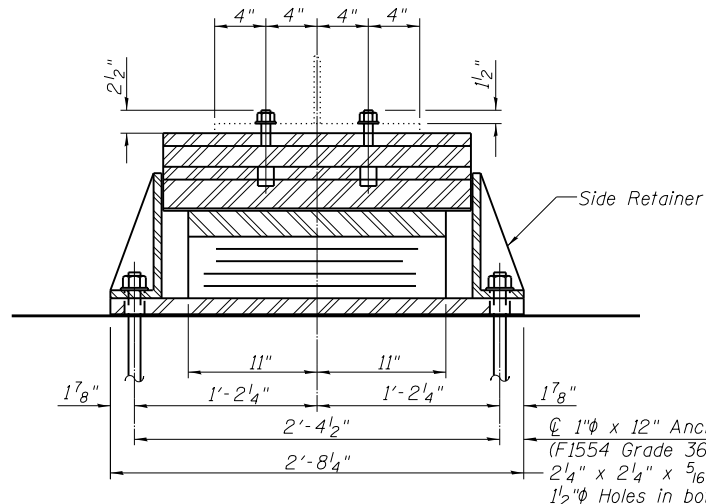
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	96
CONTRACT NO. 74438				

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ELEVATION AT SOUTH ABUT.

TYPE II ELASTOMERIC EXP. BRG.



SECTION A-A

Burn existing anchor bolts flush with existing concrete surface. Grind existing anchor bolt smooth and seal with epoxy.

EXISTING BEARING REMOVAL DETAIL

PROCEDURE FOR JACKING AND REMOVING EXISTING BEARINGS (At Abutments)

1. The Contractor shall submit, for approval by the Engineer, plans for jacking and removing the existing bearings at the abutments prior to commencing any work at the abutment bearings.
2. In each stage, jacking and removal of existing bearings shall be done after the existing deck is removed and before new deck is poured.
3. The new bearings and steel extensions shall be in place and the jacks lowered prior to pouring the new concrete deck in each stage. See Special Provision for Jack and Remove Existing Bearings.

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 for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

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

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

Steel extensions, shims and bolts shall be included in the cost of Furnishing & Erecting Structural Steel.

The 1/8 inch PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8 inch PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

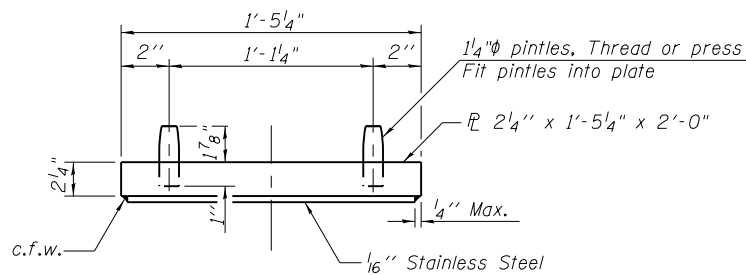
Two 1/8 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

See Sheets 19 and 20 of 34 for minimum jack capacity. Cost of field drilling included with Furnishing and Erecting Structural Steel.

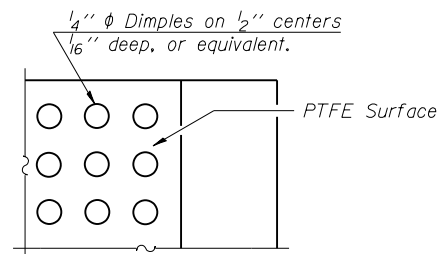
Fill the unused existing lower flange bolt holes with silicone sealant suitable for structural steel. Cost included with Jack and Remove Existing Bearings.

Note:

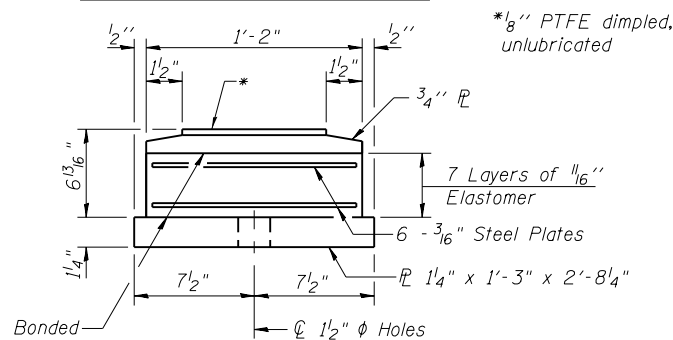
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.



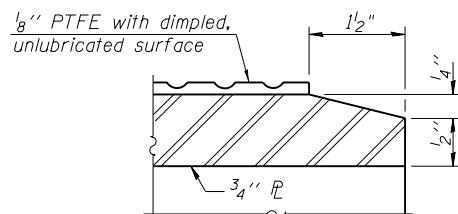
TOP BEARING ASSEMBLY



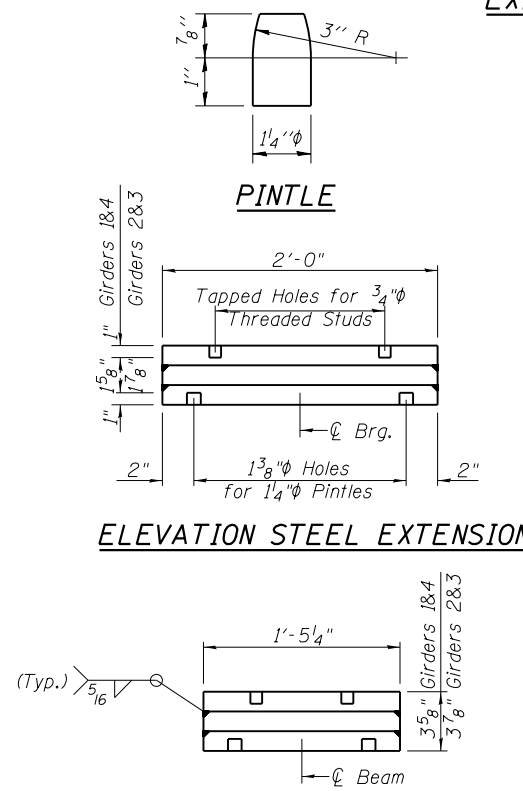
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

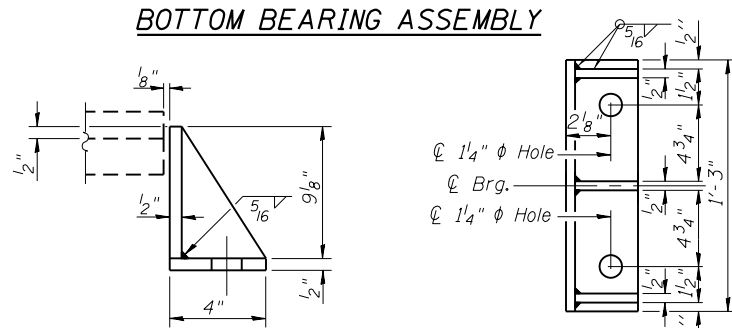


SECTION THRU PTFE



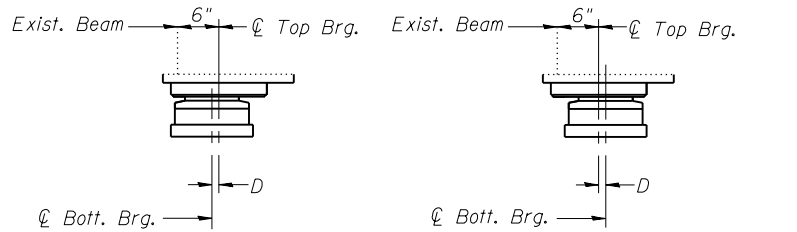
ELEVATION STEEL EXTENSION

END VIEW STEEL EXTENSION



SIDE RETAINER

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



BELOW 50°F.

(Move bott. brg. away from fixed brg.)

ABOVE 50°F.

(Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

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

Jacking Loads per Girder	ABUT.
R @ Steel Only	(K) 21
Min. Jack Capacity, Steel Only	(K) 42

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	4
Anchor Bolts, 1"	Each	16
Furnishing & Erecting Structural Steel	Pound	1,953
Jack and Remove Existing Bearings	Each	4

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DECATUR, ILLINOIS

ENGINEERS - CONSULTANTS

DESIGN FIRM NO. 184000894

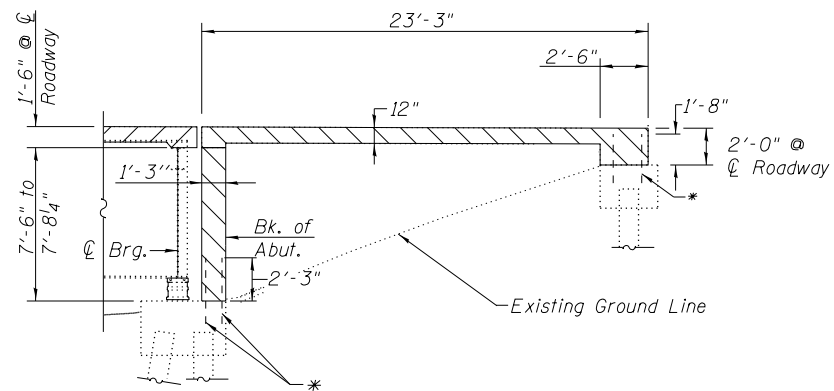
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT BEARING DETAILS
STRUCTURE NO. 058-0010

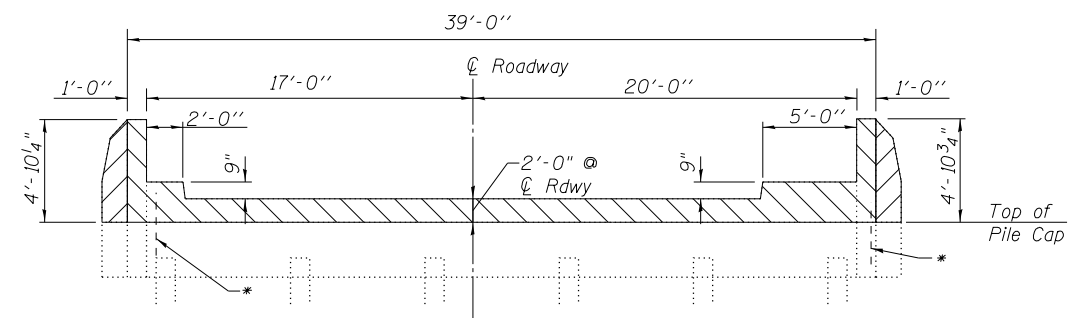
SHEET NO. 20 OF 34 SHEETS

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	97
CONTRACT NO. 74438				

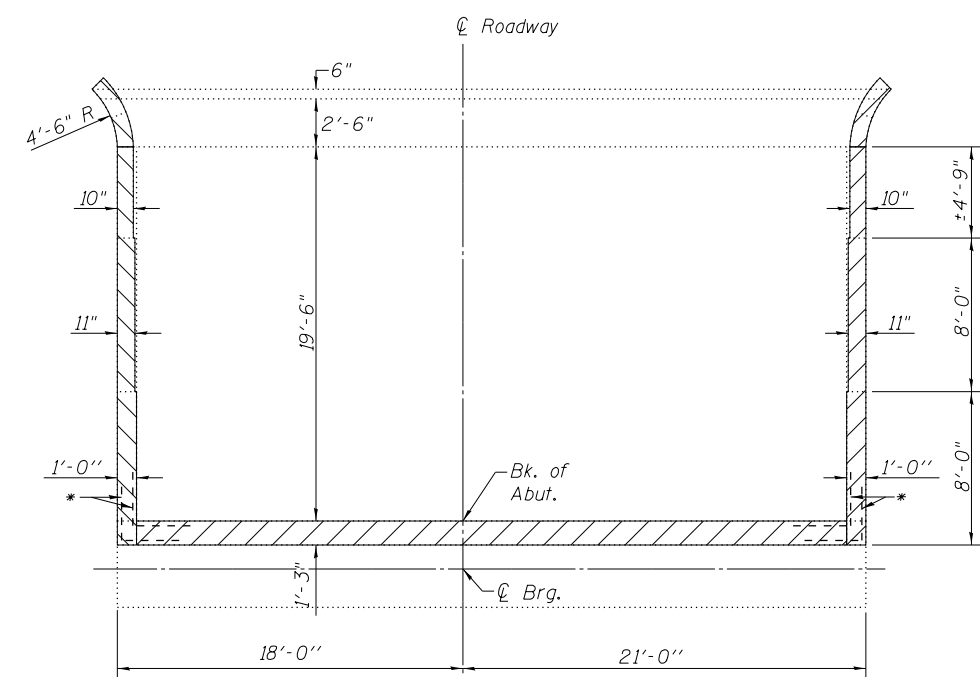
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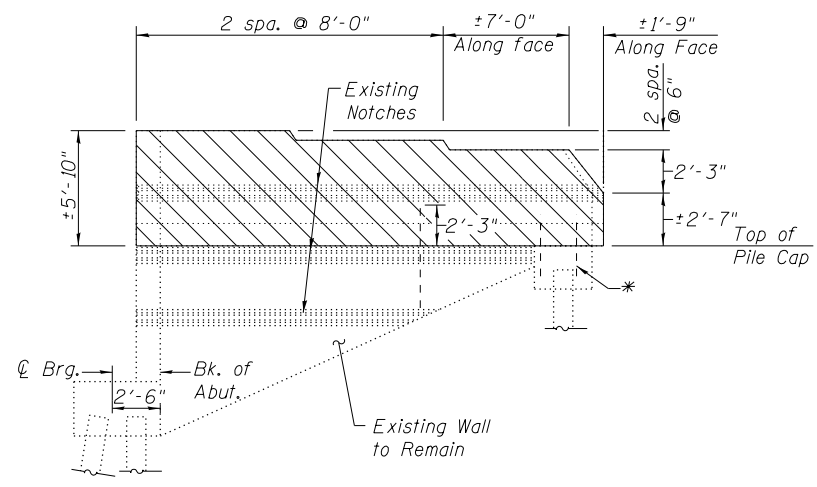
SECTION THRU VAULTED ABUTMENT



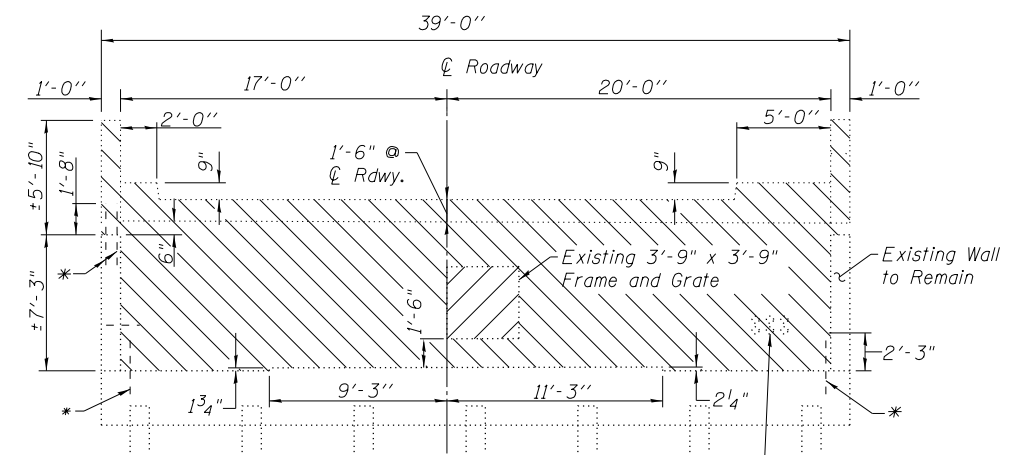
SECTION AT APPROACH BENT
(N. Abut. Looking North - S. Abut. Similar)



PLAN
(N. Abut. Shown - S. Abut. Similar)



TYPICAL WING ELEVATION



ELEVATION
(N. Abut. Looking North - S. Abut. Similar)

Notes
Hatched areas indicate Concrete Removal.
* Existing reinforcement extending into new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

Existing conduits and utilities in pipe sleeves shall be supported and protected during construction. Cost included with Concrete Removal.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	125.4

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	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
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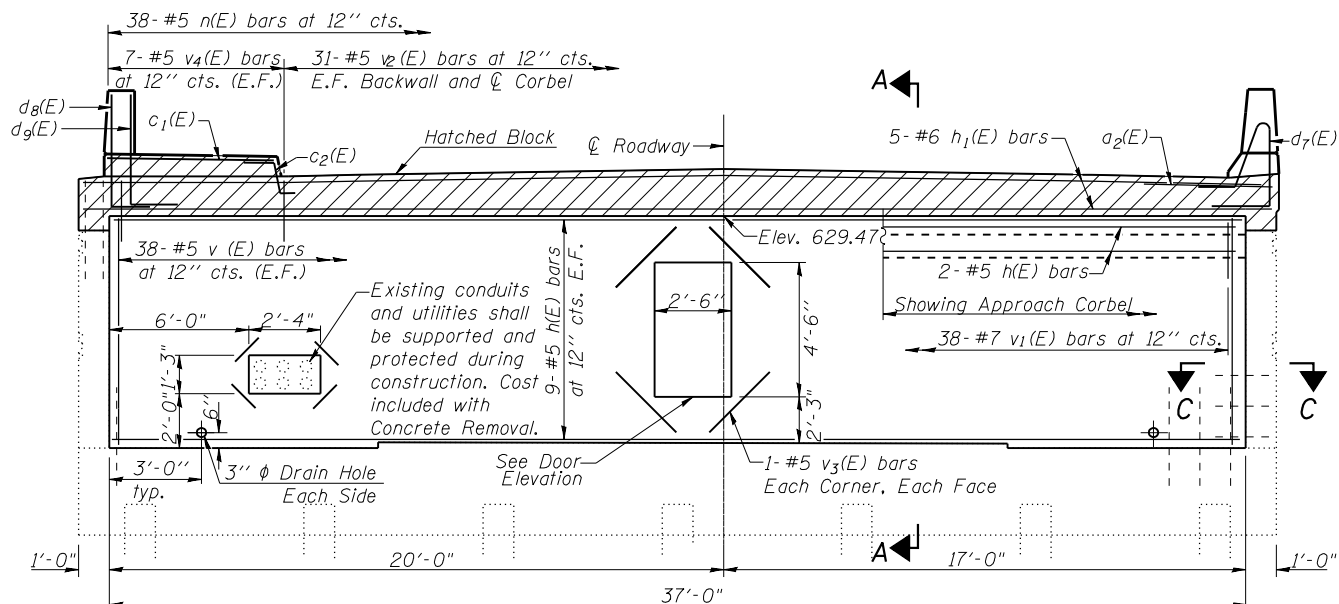
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL DETAILS
STRUCTURE NO. 058-0010

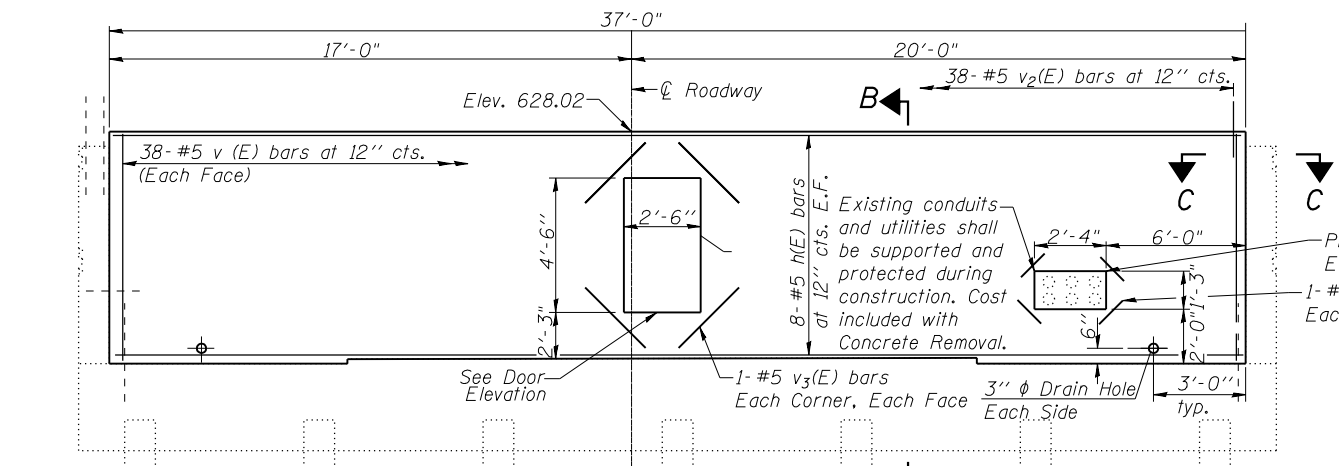
SHEET NO. 21 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	98
CONTRACT NO. 74438				

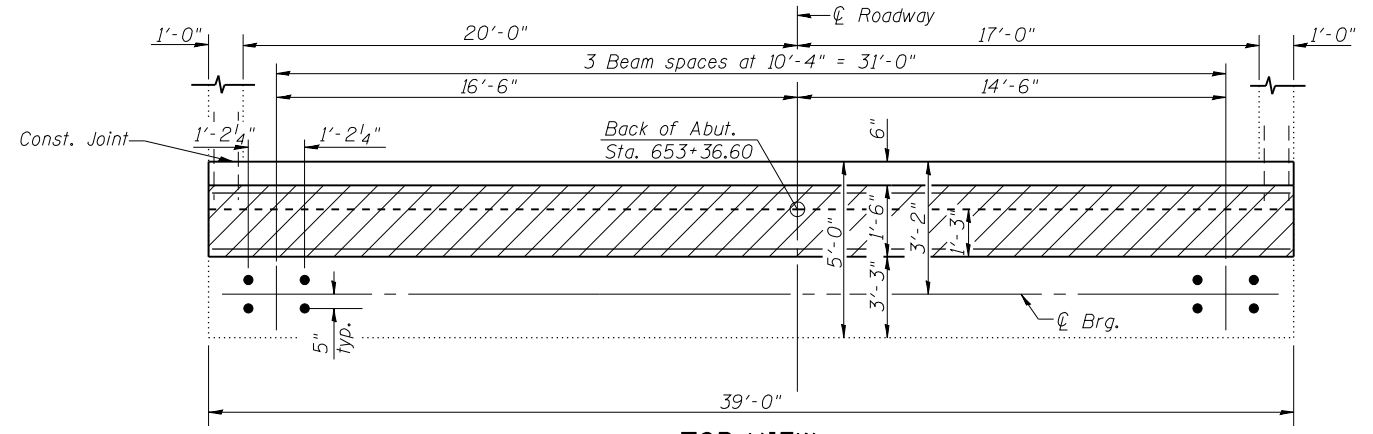
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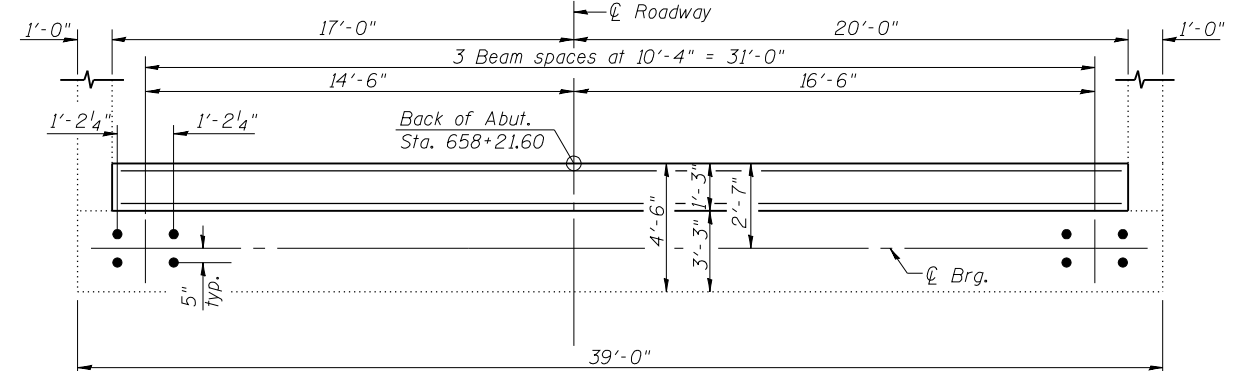
BACKWALL ELEVATION
(S. Abut. Looking South)



BACKWALL ELEVATION
(N. Abut. Looking North)



TOP VIEW
(S. Abut.)



TOP VIEW
(N. Abut.)

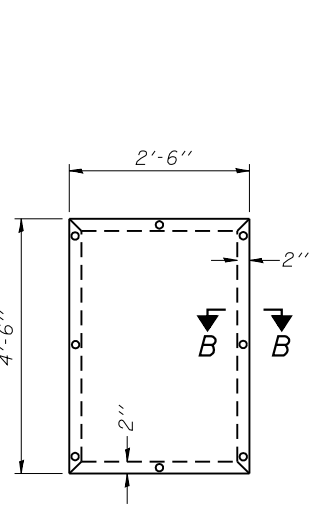
Notes:
See Sheets 12 and 13 of 34 for details of $a_2(E)$, $c(E)$, $c_2(E)$ and $d_7(E)$ - $d_9(E)$ bars.
The blockout area represented by hatching shall be poured following the installation of the modular expansion joint.
The concrete quantity for the hatch block area is included with Concrete Superstructure on Sheet 11 of 34.
Concrete Sealer shall be applied to the front face of the abutment backwall and hatched block.
Cut $v(E)$ and $h(E)$ bars at openings for door and conduit.
Existing reinforcement extending into new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.

TWO ABUTMENT BACKWALLS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h(E)$	36	#5	36'-8"	—
$h_1(E)$	5	#6	38'-8"	—
$n(E)$	38	#5	3'-1"	└
$v(E)$	152	#5	7'-6"	—
$v_1(E)$	38	#7	6'-2"	└
$v_2(E)$	131	#5	2'-0"	—
$v_3(E)$	8	#5	3'-0"	—
$v_4(E)$	14	#5	2'-8"	—
Reinforcement Bars, Epoxy Coated		Pound	3,810	
Concrete Structures		Cu. Yd.	28.8	
Concrete Sealer		Sq. Ft.	686	
Structure Excavation		Cu. Yd.	1	

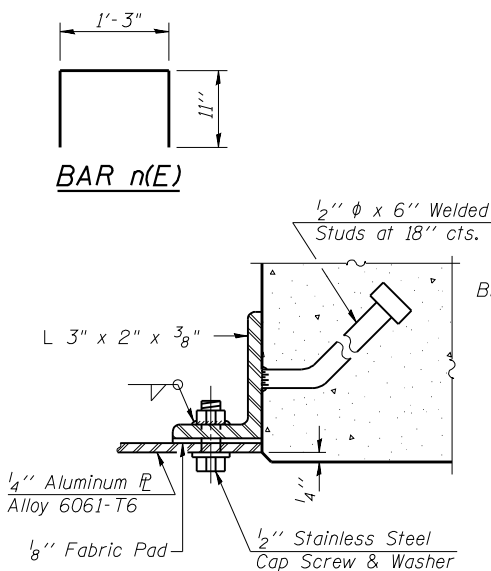
(See Note A)

Note A:
420 lbs (Superstr.)
3,390 lbs (Substr.)

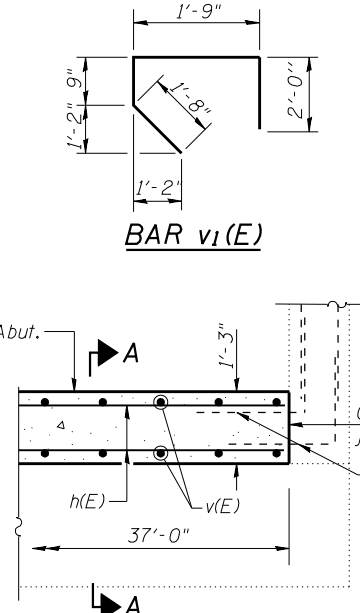


DOOR ELEVATION

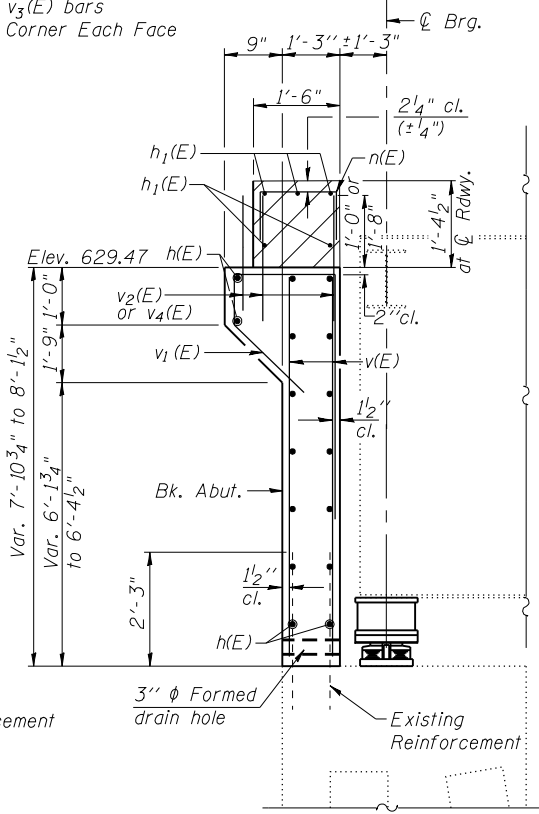
Cost of door and frame are included with Concrete Structures.



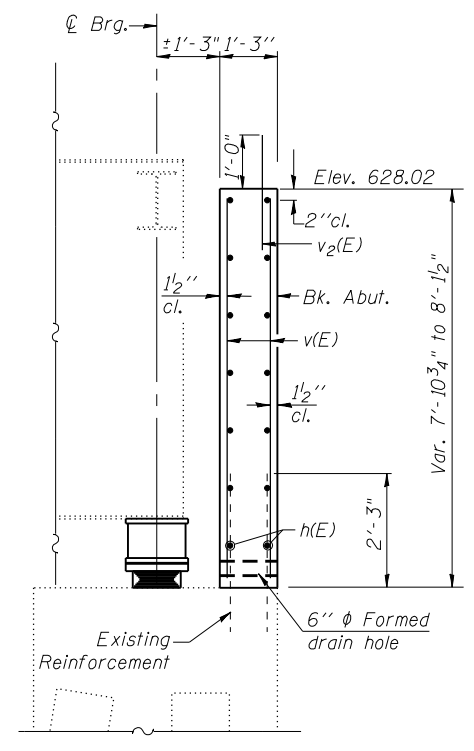
SECTION B-B



SECTION C-C



SECTION A-A
(S. Abut.)



SECTION B-B
(N. Abut.)

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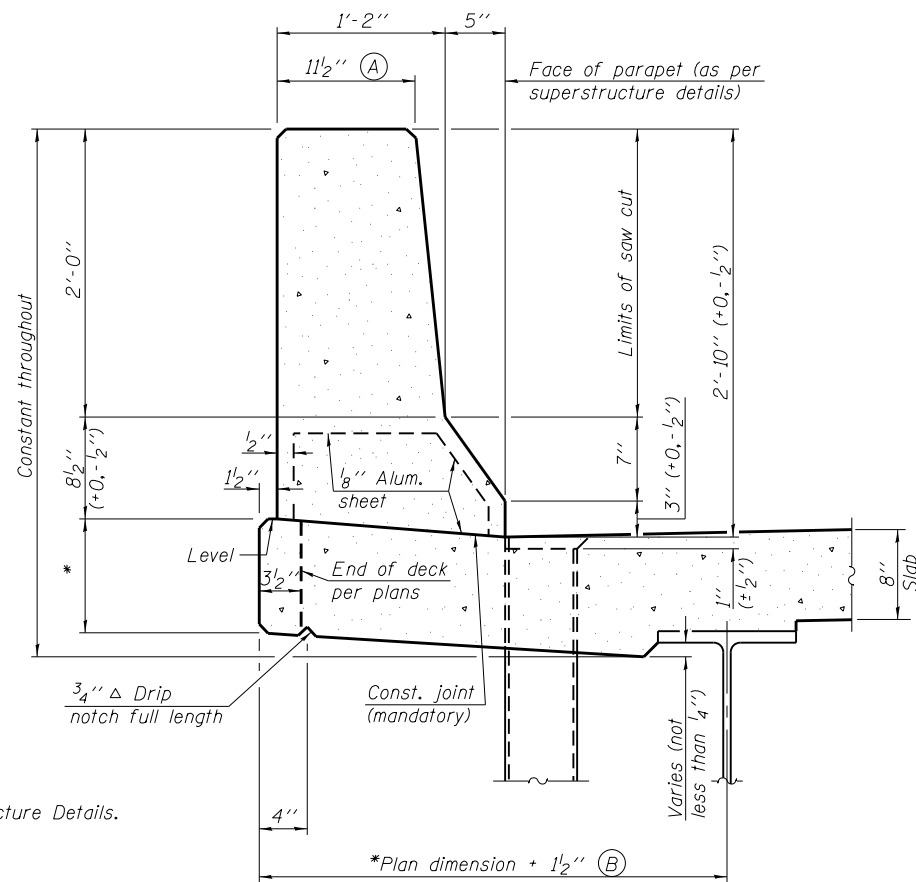
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT BACKWALL DETAILS
STRUCTURE NO. 058-0010

SHEET NO. 22 OF 34 SHEETS

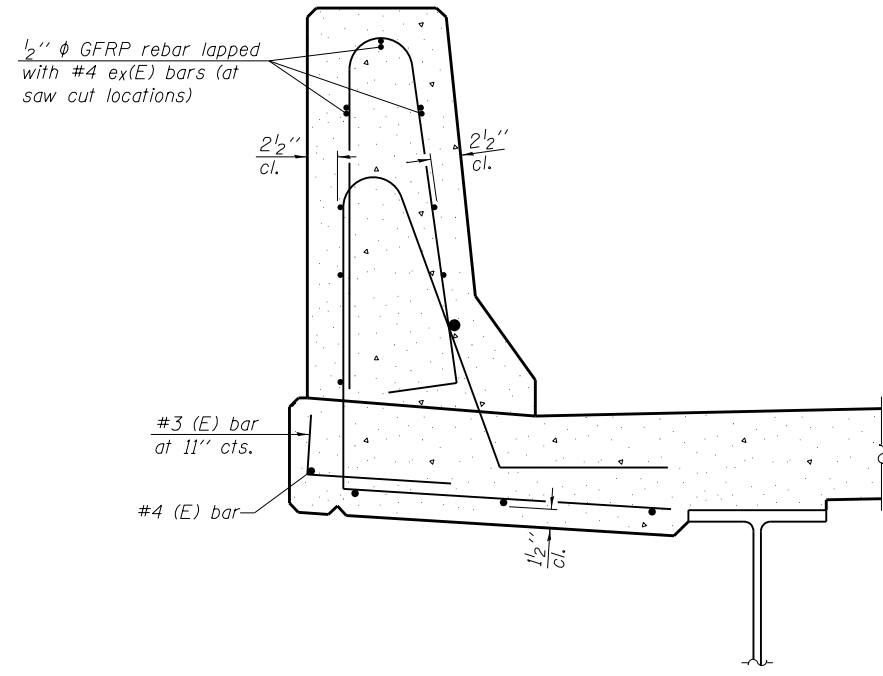
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	99
			CONTRACT NO. 74438	

ILLINOIS FED. AID PROJECT



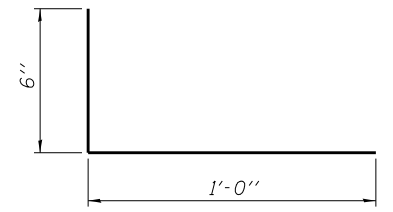
SECTION
(Showing dimensions)

* See Superstructure Details.

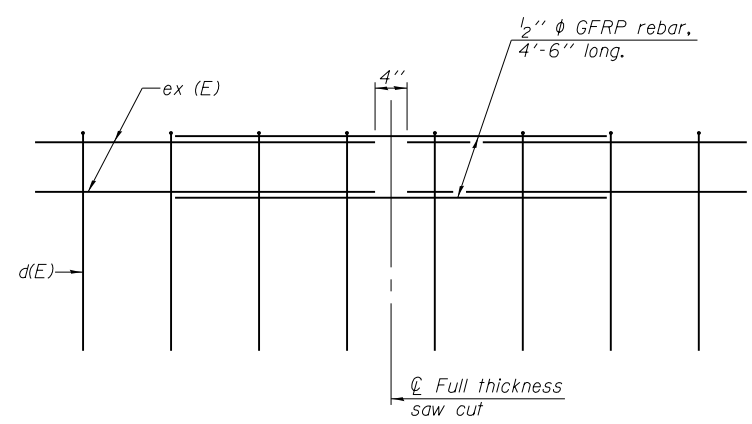


SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

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. of 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.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

SFP-34

1-27-12

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		CHECKED <i>PBB/MCB</i>	REVISED -

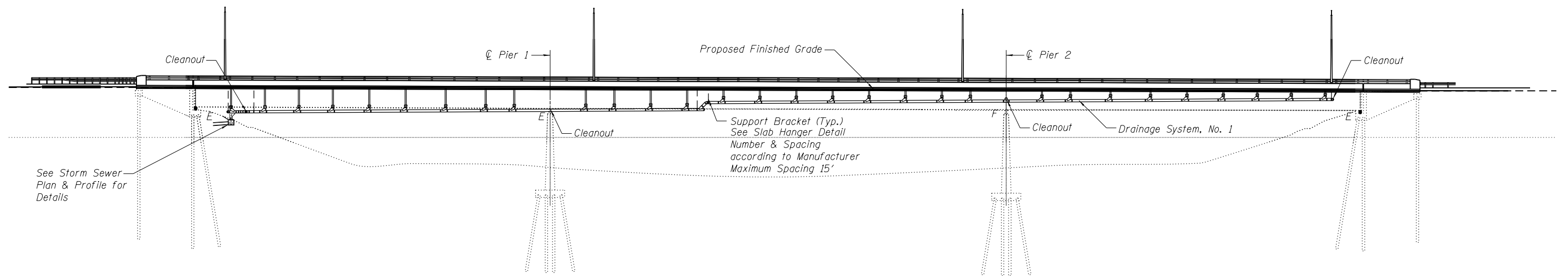
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 058-0010**

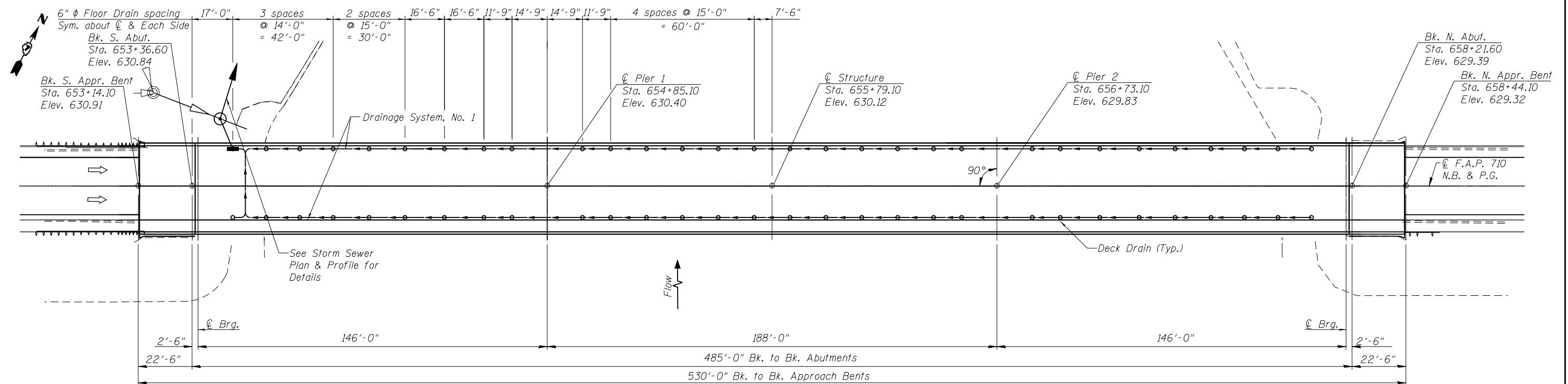
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	100
CONTRACT NO. 74438				

SHEET NO. 23 OF 34 SHEETS

ILLINOIS FED. AID PROJECT



ELEVATION



PLAN

BLANK, WESSELINK, COOK & ASSOCIATES DECATUR, ILLINOIS ENGINEERS - CONSULTANTS DESIGN FIRM NO. 184000894

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	PLOT SCALE =	DRAWN <i>MLO</i>	REVISED -
	PLOT DATE =	CHECKED <i>PBB/MCB</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SYSTEM
STRUCTURE NO. 058-0010**

SHEET NO. 24 OF 34 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
710	(48X-B-2)BR & (48BR)BR	MACON	144	101
CONTRACT NO. 74438				

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