

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	1
		ILLINOIS	CONTRACT NO. 68759	

1 COVER SHEET
 2-3 GENERAL NOTES AND COMMITMENTS
 4 STATUS OF UTILITIES
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 17-18 SCHEDULES OF QUANTITIES
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 28 EROSION CONTROL & PAVEMENT MARKING SHEET
 29 REMOVAL PLAN SHEET
 30 RIGHT-OF-WAY PLAN SHEET
 31-92 STRUCTURE PLANS AND STRUCTURE BORINGS
 93-96 CONSTRUCTION DETAILS
 97-105 DISTRICT 4 STANDARDS
 106-122 CROSS SECTIONS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

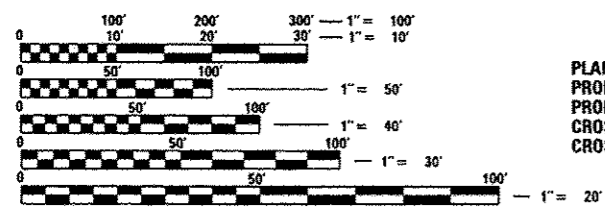
FAP ROUTE 626 (IL 97)
 SECTION (44-B-1) BR
 PROJECT ACF-0626(007)
 BRIDGE REPLACEMENT
 KNOX COUNTY
 C-94-138-07

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542401-01	METAL END SECTIONS FOR PIPE CULVERTS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
610001-06	SHOULDER INLET WITH CURB
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-09	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-11	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-04	OFF-RD OPERATIONS, 2L, 2W 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701011-03	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701306-03	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS-DAY ONLY
701321-13	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
780001-03	TYPICAL PAVEMENT MARKINGS

DISTRICT 4 STANDARDS

205001-D4	SLOPE STEPS DETAIL
406101-D4	BUTT JOINTS
440001-D4	HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
601301-D4	PIPE ELBOW
630101-D4	GUARDRAIL EROSION CONTROL TREATMENTS
667101-D4	PERMANENT SURVEY TIE & PERMANENT SURVEY MARKERS TY.I - TY.II
780001-D4	TYPICAL PAVEMENT MARKINGS

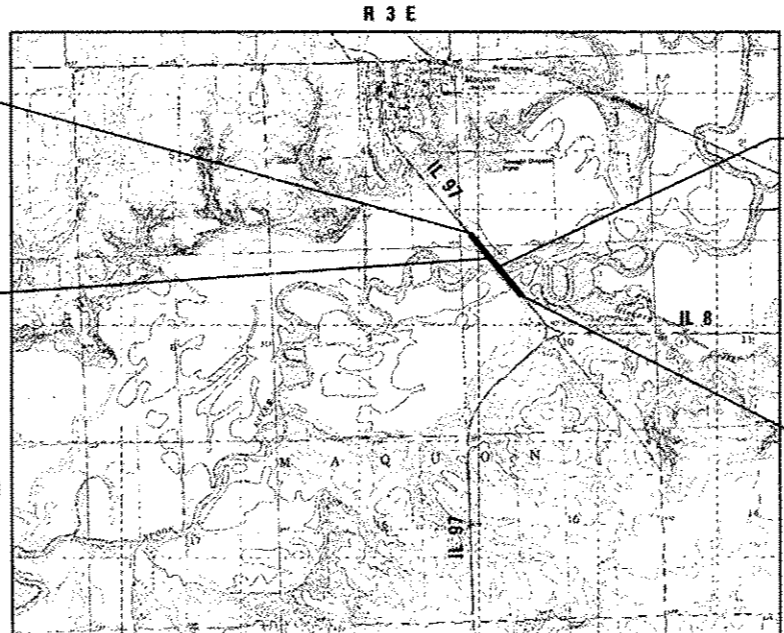


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

PROJECT ENGINEER **CHRISTOPHER MAUSHARD 309-671-3453**
 PROJECT MANAGER **MICHAEL HUDELSON 309-671-3466**
 CONTRACT NO. 68759
 CATALOG NO. 033598-00D

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

IL ROUTE 97 OVER SPOON RIVER
 REPLACEMENT OF EXISTING BRIDGE

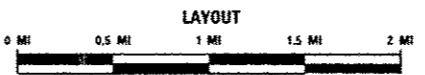


PROJECT INCLUDES A 7-SPAN STRUCTURE, CONSISTING OF A REINFORCED CONCRETE DECK ON STEEL PLATE GIRDER SUPERSTRUCTURE FOUNDED ON OPEN ABUTMENTS AND PILE/DRILLED SHAFT SUPPORTED PIERS
 EXIST. S. N. 048-0075
 PROP. S. N. 048-0100

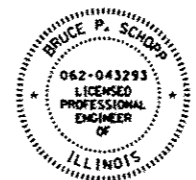
BEGIN SECTION
 STA. 1958 + 80

END SECTION
 STA. 1980 + 25

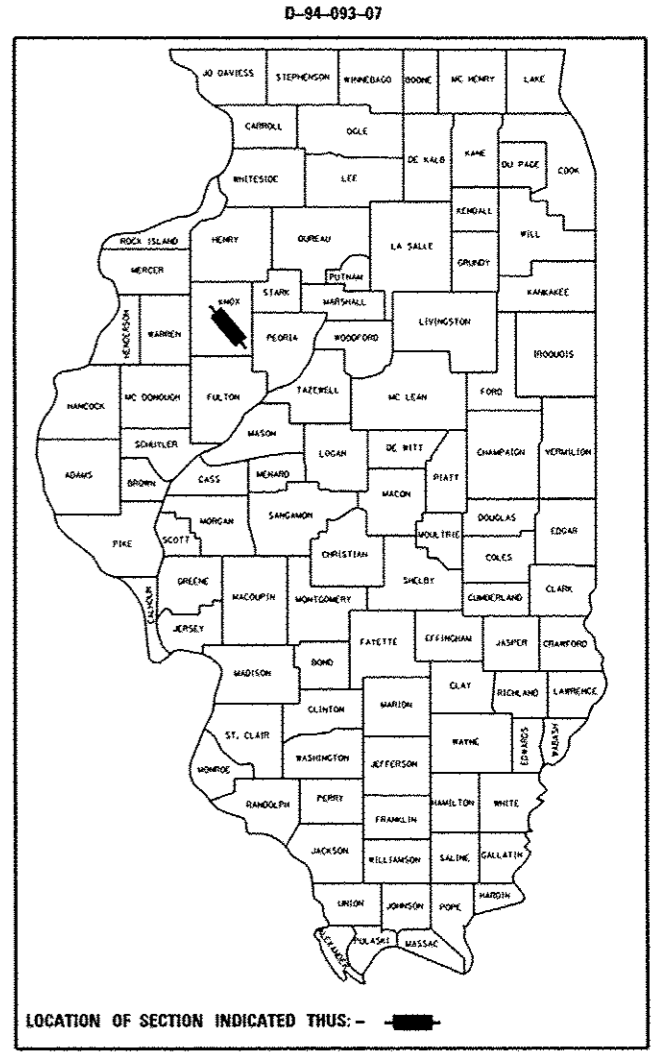
STA. 1964 + 57.30 TO
 STA. 1973 + 72.70
 BRIDGE REPLACEMENT



GROSS LENGTH = 2,145.00 FT. = 0.406 MILE
 NET LENGTH = 2,145.00 FT. = 0.406 MILE



Bruce P. Schopp 8/9/13
 BRUCE P. SCHOPP, P.E.
 License Expires 11/30/2013



DESIGN DESIGNATION

MINOR ARTERIAL (RURAL)
 CURRENT ADT: 1,800 (2011)
 DESIGN ADT: 2,200 (2031)
 DESIGN SPEED: 55 MPH
 POSTED SPEED: 55 MPH
 MU = 5.0%, SU = 5.0%

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 SUBMITTED 8-13 2013
Joseph E. Crowe
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 4 2013
John D. Baranzelli, P.E.
 acting ENGINEER OF DESIGN AND ENVIRONMENT
October 4 2013
Omer Osman, P.E.
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



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GENERAL NOTES

1. AVAILABILITY OF ELECTRONIC FILES

MICRO STATION AND GEOPAK FILES OF THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR. IF THERE IS A CONFLICT BETWEEN THE ELECTRONIC FILES AND THE PRINTED CONTRACT PLANS AND DOCUMENTS, THE PRINTED CONTRACT PLANS AND DOCUMENTS SHALL TAKE PRECEDENCE OVER THE ELECTRONIC FILES. THE CONTRACTOR SHALL ACCEPT ALL RISK ASSOCIATED WITH USING THE ELECTRONIC FILES AND SHALL HOLD THE DEPARTMENT HARMLESS FOR ANY ERRORS OR OMISSIONS IN THE ELECTRONIC FILES AND THE DATA CONTAINED THEREIN. ERRORS OR DELAYS RESULTING FROM THE USE OF THE ELECTRONIC FILES BY THE CONTRACTOR SHALL NOT RESULT IN AN EXTENSION OF TIME FOR ANY INTERIM OR FINAL COMPLETION DATE OR SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL NOT USE, SHARE, OR DISTRIBUTE THESE ELECTRONIC FILES EXCEPT FOR THE PURPOSE OF CONSTRUCTING THIS CONTRACT. ANY CLAIMS BY THIRD PARTIES DUE TO USE OR ERRORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THIS DISCLAIMER WITH THE TRANSFER OF THESE ELECTRONIC FILES TO ANY OTHER PARTIES AND SHALL INCLUDE APPROPRIATE LANGUAGE BINDING THEM TO SIMILAR RESPONSIBILITIES.

2. UTILITIES - LOCATIONS / INFORMATION ON PLANS

THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. UNLESS ELEVATIONS ARE SHOWN - ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY THE UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.

3. TREE REMOVAL - UTILITY RELOCATION

TREE REMOVAL MAY BE NECESSARY PRIOR TO UTILITY COMPANIES BEING ABLE TO RELOCATE THEIR FACILITIES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHOULD COORDINATE ANY CONTRACT TREE REMOVAL ACTIVITIES WITH THE UTILITY COMPANIES TO ELIMINATE CONFLICTS AND POTENTIAL DELAYS CAUSED BY UTILITY TREE REMOVAL ACTIVITIES OR INCOMPLETE UTILITY RELOCATIONS.

4. PLAN ELEVATIONS - U. S. G. S. MEAN SEA LEVEL DATUM

ALL ELEVATIONS SHOWN ON THE PLANS ARE ESTABLISHED FROM U. S. G. S. MEAN SEA LEVEL DATUM.

5. PROPERTY OWNER ACCESS REQUIREMENTS

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

6. TEMPORARY MATERIAL REQUIREMENTS - UTILITY AND DRIVEWAY CROSSINGS

AGGREGATE SURFACE COURSE MAY BE USED FOR ALL DRIVEWAY CROSSINGS EXCEPT DURING WINTER SHUTDOWN IN ACCORDANCE WITH ARTICLE 107.09.

7. WINTER SHUTDOWN RESTRICTIONS ON COLD MILLED PROJECTS

PRIOR TO WINTER SHUTDOWN THE FOLLOWING STEPS SHALL BE TAKEN:

- ALL COLD MILLED SURFACES SHALL BE OVERLAID.
- ALL LANES SHALL BE REOPENED TO TRAFFIC.
- MANHOLES, WHERE APPLICABLE, SHALL BE ADJUSTED TO THE ELEVATION OF THE BINDER COURSE/LEVELING BINDER TO EASE IN PLOWING SNOW, AND RE-ADJUSTED TO FINISHED GRADE IN THE SPRING. THE INITIAL MANHOLE ADJUSTMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE AND ANY RE-ADJUSTMENT, AS DIRECTED BY THE ENGINEER, WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.
- TEMPORARY OR PERMANENT PAVEMENT MARKING SHALL BE PLACED AS APPLICABLE.

8. CRITICAL PATH WORK SCHEDULE REQUIREMENT

THE CONTRACTOR WILL SUBMIT TO THE ENGINEER A SATISFACTORY PROGRESS SCHEDULE AND CRITICAL PATH SCHEDULE WHICH SHALL SHOW THE PROPOSED SEQUENCE OF WORK AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE.

9. CONSTRUCTION LIMITS

THE CONTRACTOR SHALL CONFINE ALL OPERATIONS TO THE CONSTRUCTION LIMITS LINE SHOWN ON THE PLANS. ANY AREA DISTURBED BEYOND THESE LIMITS SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT THE CONTRACTORS EXPENSE UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE RESIDENT ENGINEER.

10. TREE REMOVAL

THE RESIDENT ENGINEER SHOULD BE CONTACTED AND PRIOR APPROVAL OBTAINED FOR ANY TREE REMOVAL BEYOND THE LIMITS/LOCATIONS INCLUDED IN THE PLANS.

11. ENVIRONMENTAL REVIEWS

PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND/OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS WILL NEED TO BE OBTAINED AND FILED BY THE CONTRACTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (ENVIRONMENTAL SURVEY REQUEST)
- A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- SIGNED PROPERTY OWNER AGREEMENT FORM-D4 P10100
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA
- BORROW AREA ENTRY AGREEMENT FORM-D4 P10101

PLEASE NOTE THAT A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED ENVIRONMENTAL CLEARANCES.

12. SEEDING - SIDE SLOPE RIPPING

ALL SLOPES STEEPER THAN 3 TO 1 AND OVER 15 FT (4.5 M) IN HEIGHT SHALL BE RIPPED. THIS SHALL CONSIST OF RIPPING BETWEEN 18 INCHES TO 24 INCHES (450 MM TO 600 MM) DEEP NORMAL TO THE SLOPE. THE INTERVAL OF RIPPING ALONG THE SLOPE SHALL BE 12 FT. (3.6 M). THIS WORK SHALL BE DONE AFTER THE SEED BED HAS BEEN PREPARED BUT BEFORE ANY FERTILIZER OR SEED HAS BEEN APPLIED. THE FERTILIZER AND SEED SHALL BE APPLIED WITHIN A 24-HOUR PERIOD AFTER THE RIPPING HAS BEEN DONE. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS ITEMS OF SEEDING INVOLVED.

13. AGGREGATE SURFACE COURSE, TYPE B

AGGREGATE SURFACE COURSE, TYPE B SHALL BE REQUIRED FOR ALL GRANULAR CONSTRUCTION OF SIDE ROADS, ENTRANCES, AND MAILBOX TURNOUTS, WHETHER OR NOT PORTIONS OF THE SURFACES THUS CONSTRUCTED ARE TO BE COVERED WITH A BITUMINOUS SURFACE, EXCEPT WHERE NOTED DIFFERENTLY ON THE PLANS.

14. AGGREGATE FOR DRIVEWAY REPLACEMENT

THE MATERIAL USED FOR CONSTRUCTION OF PERMANENT AGGREGATE DRIVEWAYS SHALL BE GRAVEL OR CRUSHED STONE AS DIRECTED BY THE ENGINEER, TO REPLACE IN KIND THE EXISTING AGGREGATE DRIVEWAYS.

NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR THIS REQUIREMENT BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE PAY ITEM FOR THE AGGREGATE AS SPECIFIED ON THE PLANS.

FILE NAME 0468759-sh1-gennote.dgn	USER NAME * default	DESIGNED - RGV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & COMMITMENTS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT TIME * 8:50:32 AM	DRAWN - RGV	REVISED -					626	(44-B-1) BR	KNOX	122	2
	PLOT SCALE * 100.0000' / IN.	CHECKED - BPS	REVISED -		SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.			CONTRACT NO. 68759				
	PLOT DATE * 8/9/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

15. PAVEMENT STATIONING NUMBERS & PLACEMENT

THE CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS REQUIRED TO IMPRINT PAVEMENT STATION NUMBERS IN THE FINISHED SURFACE OF THE PAVEMENT AND/OR OVERLAY. THE NUMBERS SHALL BE APPROXIMATELY 3/4 INCH (20MM) WIDE, 5 INCHES (125 MM) HIGH AND 5/8 INCH (15 MM) DEEP.

THE PAVEMENT STATION NUMBERS SHALL BE INSTALLED AS SPECIFIED HEREIN:

INTERVAL - 200 FEET (ENGLISH STATIONING) OR 100 METERS (METRIC STATIONING)

BOTTOM OF NUMBERS - 6 INCHES (150 MM) FROM THE INSIDE EDGE OF THE PAVEMENT MARKING

LOCATION:

- 2, 3, & 5 LANE PAVEMENTS - RIGHT EDGE OF PAVEMENT IN DIRECTION OF INCREASING STATIONS
- MULTI-LANE DIVIDED ROADWAYS - OUTSIDE EDGE OF PAVEMENT IN BOTH DIRECTIONS
- RAMPS - ALONG BASELINE EDGE OF PAVEMENT

POSITION - STATIONS SHALL BE PLACED SO THEY CAN BE READ FROM THE ADJACENT SHOULDER

FORMAT - ENGLISH (METRIC) PAVEMENT STATIONS SHALL USE THIS FORMAT "XXX (XX+X00)" WHERE X REPRESENTS THE PAVEMENT STATION

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE COST OF THE ASSOCIATED PAVEMENT AND/OR OVERLAY PAY ITEMS.

16. POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) RATES

SURFACE TYPE	ESTIMATED TRUCK APPLICATION RATE	RESIDUAL RATE
MILLED (HMA OR PCC)	0.10 GAL/SY (0.0004 TON/SY)	0.05 GAL/SY
EXISTING PAVEMENT	0.05 GAL/SY (0.00022 TON/SY)	0.025 GAL/SY
FOG COAT (BETWEEN LIFTS)	0.05 GAL/SY (0.00022 TON/SY)	0.025 GAL/SY

NOTE: ESTIMATED TRUCK APPLICATION RATE IS USED FOR ESTIMATING QUANTITIES.

17. HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE(S):	SURFACE COURSE	HMA BINDER VAR. DEPTH & 2.25" NOMINAL	HMA BASE CSE	HMA SHOULDER (SURFACE LIFT)	HMA SHOULDER (LOWER LIFTS)
AC/PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
RAP% (MAX): **	15%	25%	25%	30%	25%
DESIGN AIR VOIDS:	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50	3.0% @ N=30	4.0% @ N=50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5 OR IL12.5	IL 12.5 ONLY	IL 19.0	IL 9.5L	IL 19.0
FRICITION AGGREGATE:	MIXTURE D (DOLOMITE ONLY)	N.A.	N.A.	MIXTURE C	N.A.

** IF THE RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED BY THE MATERIALS ENGINEER
 1) INDIVIDUAL LIFT THICKNESS OF EACH MIX TYPE WILL BE NO LESS THAN 3 TIMES NOMINAL MAXIMUM AGGREGATE SIZE AND NO MORE THAN 6 TIMES NOMINAL MAXIMUM AGGREGATE SIZE.
 2) FOR IL 12.5 MIXES, CA14 WILL BE ALLOWED IN CONJUNCTION WITH CA16.

18. PAVING SURFACE COURSE

CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE HOT-MIX ASPHALT SURFACE. NO INTERRUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED. ALL SURFACE COURSE PLACEMENT SHOULD BE DONE AFTER STAGE 2 AND AFTER ALL BARRIER WALLS HAVE BEEN REMOVED.

19. SAW CUT - 18" (450 MM) SHOULDER REMOVAL - IN-PLACE WHEEL SAW GRINDING PERMITTED

A FULL-DEPTH SAW CUT SHALL BE REQUIRED AT THE JOINT BETWEEN THE PAVEMENT THAT IS TO BE LEFT IN PLACE AND THE EXISTING SHOULDER THAT IS TO BE REMOVED. THE CONTRACTOR MAY HAVE THE OPTION OF USING A WHEEL SAW TO GRIND UP THE EXISTING SHOULDER AND LEAVE THE FINELY GROUND PIECES ON SITE UNDER THE NEW SHOULDER AND ON THE FORE SLOPE, WITH THE APPROVAL OF THE ENGINEER. MAXIMUM SIZE OF PIECES SHALL BE NO MORE THAN 3" (75 MM). LARGER PIECES SHALL BE PICKED UP/REMOVED FROM THE JOB SITE. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR VARIATIONS IN ASSUMED THICKNESS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEMS.

20. ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTH OF THE BOX/PIPE CULVERTS, STORM SEWERS, AND/OR PIPE DRAINS REQUIRED PRIOR TO ORDERING THESE ITEMS.

21. RIGHT-OF-WAY

IN CASE OF CONFLICT BETWEEN THE CONSTRUCTION PLANS AND THE RIGHT OF WAY PLANS, THE RIGHT OF WAY PLANS SHALL TAKE PRECEDENCE IN MATTERS CONCERNING RIGHT OF WAY AND EASEMENTS. THE CONSTRUCTION PLANS SHALL TAKE PRECEDENCE IN MATTERS CONCERNING CONSTRUCTION ITEMS.

WHEN INSTALLING RIGHT-OF-WAY MARKERS, CARE SHALL BE TAKEN TO NOT DISTURB ANY EXISTING PROPERTY/RIGHT-OF-WAY PINS. IF A PROPERTY/RIGHT-OF-WAY PIN IS FOUND AT THE LOCATION OF A PROPOSED RIGHT-OF-WAY MARKER, THE MARKER SHALL BE PLACED ONE (1) FOOT IN FRONT OF THE PIN.

22. ENGINEERS FIELD OFFICE

ADD THE FOLLOWING SENTENCE TO THE END OF PARAGRAPH 670.02 (I) AND 670.04 (E): ALL OF THE TELEPHONE LINES PROVIDED SHALL HAVE UNPUBLISHED NUMBERS.

23. SIGNING

SIGN LOCATIONS MAY VARY FROM THE STATIONS SHOWN ON THE PLANS IN ACCORDANCE WITH DIRECTIONS FROM THE ENGINEER AT THE TIME OF CONSTRUCTION. SIGN LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID ANY FOUND UTILITIES.

ALL WOOD POST LOCATIONS SHALL BE VERIFIED WITH THE BUREAU OF OPERATIONS, TRAFFIC SECTION, BEFORE INSTALLATION.

24. APPROXIMATE QUANTITIES

THE FOLLOWING ITEMS AND APPROXIMATE QUANTITIES ARE INCLUDED IN THE SUMMARY OF QUANTITIES IN ORDER TO ESTABLISH A UNIT COST FOR WORK WHICH MAY BE REQUIRED TO CONSTRUCT THIS SECTION. THE ACTUAL QUANTITY OF EACH ITEM SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

AGGREGATE FOR TEMPORARY ACCESS 100 TON

COMMITMENTS

PARCEL 44B003
 COMMITMENT TO MR. JIM BUCKMAN TO REPAIR THE DAMAGED FIELD TILE LOCATED AT THE FLOW LINE OF THE EXISTING DITCH, APPROXIMATE STATION 1979+10, 42' LT +/- . REPAIRS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

FILE NAME 0468759-sh1-gennote.dgn	USER NAME Default	DESIGNED - RGV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & COMMITMENTS			F.A.P. RTE. 626	SECTION (44-B-1) BR	COUNTY KNOX	TOTAL SHEETS 122	SHEET NO. 3
								SCALE:	SHEET 2 OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 68759
PLOT TIME 8:59:33 AM		DRAWN - RGV	REVISED -									
PLOT SCALE 100.0000 / 1 IN.		CHECKED - BPS	REVISED -									
PLOT DATE 8/9/2013		DATE -	REVISED -									

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004	0011
				ROADWAY	STRUCTURAL
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	35	35	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	60	60	
20101000	TEMPORARY FENCE	FOOT	1,435	1,435	
20200100	EARTH EXCAVATION	CU YD	6,855	6,620	235
20200500	EARTH EXCAVATION (WIDENING)	CU YD	275	275	
20400800	FURNISHED EXCAVATION	CU YD	390	390	
20700220	POROUS GRANULAR EMBANKMENT	CU YD	143	143	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	14,975	14,975	
25000305	SEEDING, CLASS 3A	ACRE	3.25	3.25	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	294	294	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	294	294	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	294	294	
25100630	EROSION CONTROL BLANKET	SO YD	16,875	16,875	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	730	730	

NOTES:
 • SPECIALTY ITEM

14

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004 ROADWAY	0011 STRUCTURAL
28000305	TEMPORARY DITCH CHECKS	FOOT	88	88	
28000400	PERIMETER EROSION BARRIER	FOOT	2,035	2,035	
28000500	INLET AND PIPE PROTECTION	EACH	7	7	
28100705	STONE DUMPED RIPRAP, CLASS A3	SO YD	124	124	
28100709	STONE DUMPED RIPRAP, CLASS A5	SO YD	2,115		2,115
28200200	FILTER FABRIC	SO YD	1,764	124	1,640
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SO YD	1,583	1,583	
35600708	HOT-MIX ASPHALT BASE COURSE WIDENING, 8"	SO YD	1,376	1,376	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	866	866	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	100	100	
40600215	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	TON	1.7	1.7	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	690	690	
40600990	TEMPORARY RAMP	SO YD	58	58	
40603000	HOT-MIX ASPHALT BINDER COURSE, IL-12.5, N50	TON	367	367	

NOTES:
• SPECIALTY ITEM

14

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004 ROADWAY	0011 STRUCTURAL
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	272	272	
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	106	106	
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SO YD	58	58	
44000100	PAVEMENT REMOVAL	SO YD	161	161	
44000152	HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"	SO YD	2,827	2,827	
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	133	133	
44004250	PAVED SHOULDER REMOVAL	SO YD	847	847	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	262	262	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	222	222	
50200100	STRUCTURE EXCAVATION	CU YD	809		809
50200300	COFFERDAM EXCAVATION	CU YD	77		77
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1		1
50300100	FLOOR DRAINS	EACH	24		24

NOTES:
• SPECIALTY ITEM

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004	0011
				ROADWAY	STRUCTURAL
50300225	CONCRETE STRUCTURES	CU YD	698.8		698.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1,103.9		1,103.9
50300260	BRIDGE DECK GROOVING	SO YD	3,028		3,028
50300265	SEAL COAT CONCRETE	CU YD	39.2		39.2
50300280	CONCRETE ENCASEMENT	CU YD	7.7		7.7
50300300	PROTECTIVE COAT	SO YD	3,998		3,998
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	10,392		10,392
50800105	REINFORCEMENT BARS	POUND	33,320		33,320
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	346,210		346,210
50800515	BAR SPLICERS	EACH	3,454		3,454
50800530	MECHANICAL SPLICERS	EACH	128		128
51201600	FURNISHING STEEL PILES HP12X53	FOOT	1,485		1,485
51201800	FURNISHING STEEL PILES HP14X73	FOOT	560		560

NOTES:
• SPECIALTY ITEM

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004 ROADWAY	0011 STRUCTURAL
51202305	DRIVING PILES	FOOT	2,045		2,045
51203600	TEST PILE STEEL HP12X53	EACH	4		4
51203800	TEST PILE STEEL HP14X73	EACH	2		2
51500100	NAME PLATES	EACH	1		1
51602000	PERMANENT CASING	FOOT	60		60
51603000	DRILLED SHAFT IN SOIL	CU YD	110.7		110.7
51604000	DRILLED SHAFT IN ROCK	CU YD	48.4		48.4
52000110	PREFORMED JOINT STRIP SEAL	FOOT	86.5		86.5
52000212	FINGER PLATE EXPANSION JOINT, 4"	FOOT	41		41
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	6		6
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	18		18
52100520	ANCHOR BOLTS, 1"	EACH	108		108
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	2	2	
54010704	PRECAST CONCRETE BOX CULVERTS 7' X 4'	FOOT	90	90	

NOTES:
 * SPECIALTY ITEM

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004	0011
				ROADWAY	STRUCTURAL
542D1063	PIPE CULVERTS, CLASS D, TYPE 2 18"	FOOT	85	85	
542D1909	PIPE CULVERTS, CLASS D, TYPE 3 24"	FOOT	100	100	
542I0182	PIPE ELBOW, 12"	EACH	8	8	
542I5547	METAL END SECTIONS 12"	EACH	4	4	
542I5553	METAL END SECTIONS 18"	EACH	2	2	
542I5559	METAL END SECTIONS 24"	EACH	1	1	
58700300	CONCRETE SEALER	SO FT	1,687		1,687
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	74		74
60100945	PIPE DRAINS 12"	FOOT	147	147	
60600605	CONCRETE CURB, TYPE B	FOOT	80	80	
60801024	FLAP GATE 24"	EACH	1	1	
60900515	CONCRETE THRUST BLOCKS	EACH	4	4	
61000335	TYPE G INLET BOX, STANDARD 610001	EACH	4	4	
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	1,562.5	1,562.5	

NOTES:
 • SPECIALTY ITEM

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004	0011
				ROADWAY	STRUCTURAL
63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	8	8	
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2	
63200310	GUARDRAIL REMOVAL	FOOT	1,571	1,571	
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	19	19	
66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	1	1	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24	24	
67000600	ENGINEER'S FIELD LABORATORY	CAL MO	24	24	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	

NOTES:
 • SPECIALTY ITEM

80/20

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				0004	0011
				ROADWAY	STRUCTURAL
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	390	390	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	14,331	14,331	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	24	24	
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	2,745	2,745	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	3,345	3,345	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	2,562.5	2,562.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,575	1,575	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	8	8	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600352	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4	
78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	4,826	4,826	

NOTES:
 • SPECIALTY ITEM

80/20

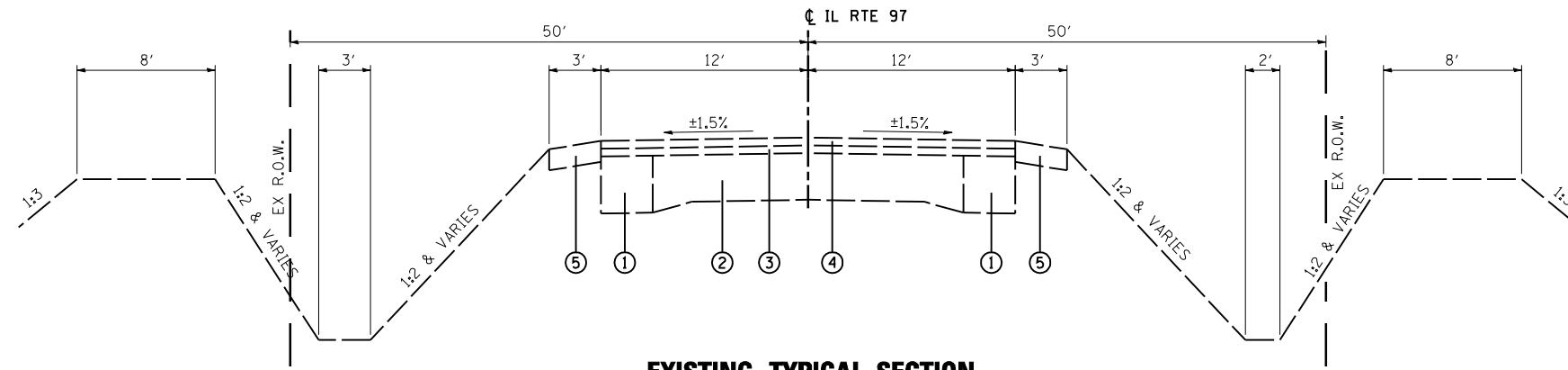
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				0004	0011
				ROADWAY	STRUCTURAL
78200410	GUARDRAIL MARKERS, TYPE A	EACH	31	31	
78200510	BARRIER WALL MARKERS, TYPE A	EACH	22	22	
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	923	923	
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	355	355	
Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	24		24
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0018002	DRAINAGE SCUPPERS, DS-II	EACH	20		20
Z0022800	FENCE REMOVAL	FOOT	720	720	
Z0026407	TEMPORARY SHEET PILING	SO FT	939		939
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	192		192
X5210140	HIGH LOAD MULTI-ROTATIONAL BEARINGS, GUIDED EXPANSION, 350K	EACH	6		6
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	155		155
X6330725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	216	216	

NOTES:
 • SPECIALTY ITEM

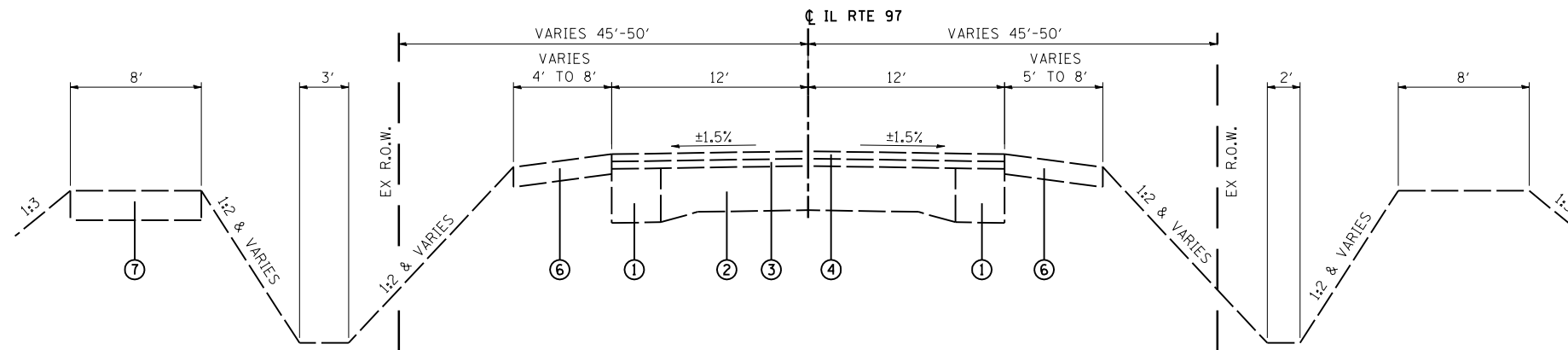
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PLOT SCALE 100.0000 / IN.								ILLINOIS FED. AID PROJECT				
PLOT DATE 8/9/2013												

LEGEND

- ① EXISTING BITUMINOUS BASE COURSE WIDENING
- ② EXISTING PCC PAVEMENT
- ③ EXISTING BITUMINOUS OVERLAY
- ④ EXISTING BITUMINOUS SURFACE COURSE
- ⑤ EXISTING AGGREGATE SHOULDERS
- ⑥ EXISTING HOT-MIX ASPHALT SHOULDERS (TO BE REMOVED)
- ⑦ EXISTING AGGREGATE SURFACE
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-12.5, N50, VAR DP (NOTE 1)
- ⑨ PROPOSED HMA SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑩ PROPOSED HMA SURFACE REMOVAL, 3/4" (NOTE 5)
- ⑪ PROPOSED POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)
- ⑫ PROPOSED HMA BASE COURSE WIDENING, 8" (SEE STAGING TYPICAL SECTIONS)
- ⑬ PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B 4"
- ⑭ PROPOSED HMA SHOULDERS, VAR DP
- ⑮ PROPOSED HMA SHOULDERS, 1 1/2"
- ⑯ PROPOSED HMA SHOULDERS, 8"
- ⑰ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL, 8" (NOTE 2)
- ⑱ PROPOSED AGGREGATE SURFACE COURSE, TYPE B, 8" (NOTE 4)
- ⑲ PROPOSED TOPSOIL FURNISH AND PLACE, 4"

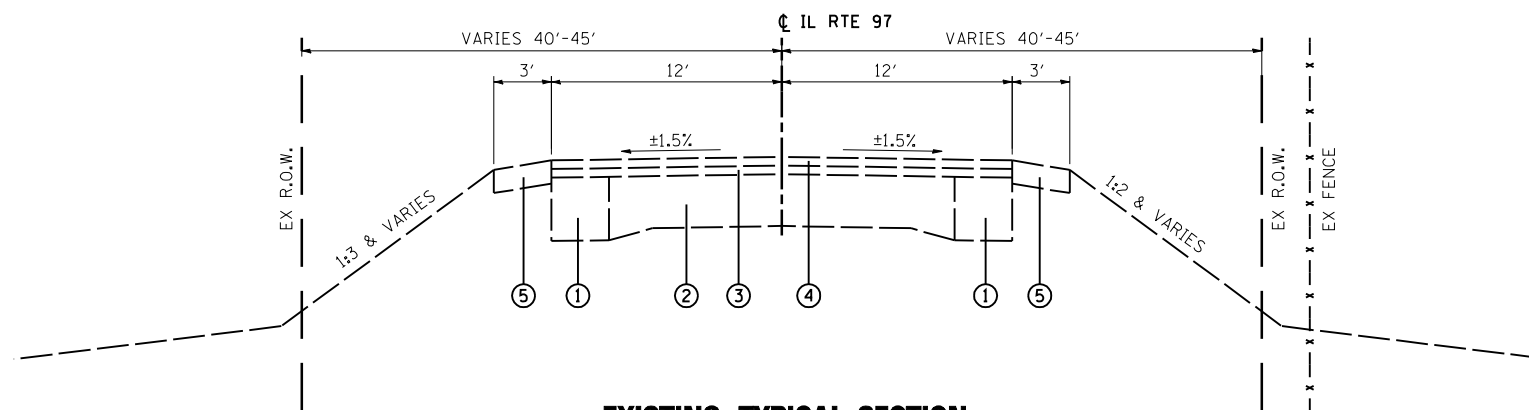


EXISTING TYPICAL SECTION
STA. 1975+50 TO STA. 1980+25



EXISTING TYPICAL SECTION
STA. 1973+09 TO STA. 1975+50

STRUCTURE OMISSION
STA. 1964+99 TO STA. 1973+09



EXISTING TYPICAL SECTION
STA. 1958+80 TO STA. 1964+99

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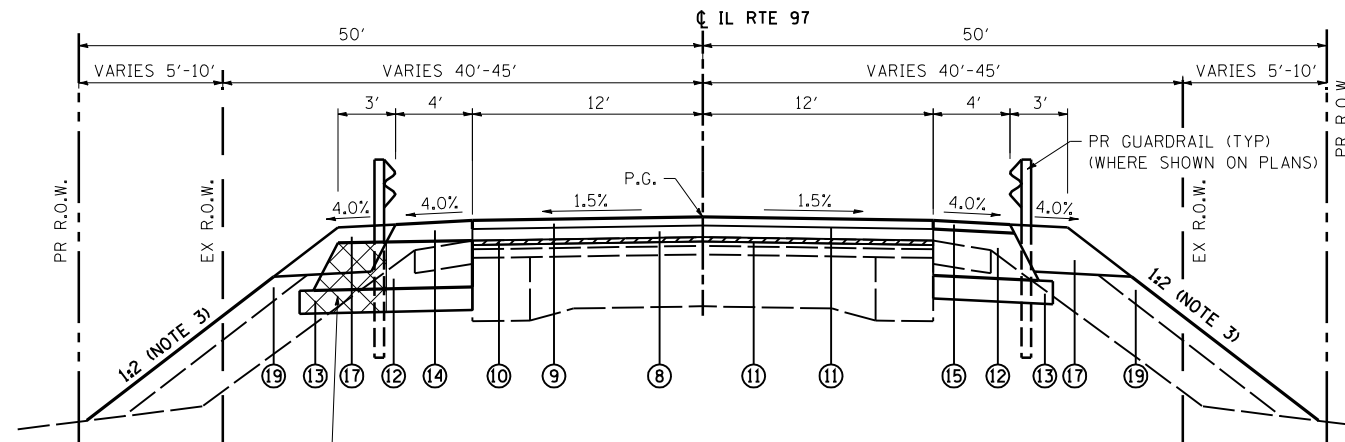
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: NTS SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	14
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

STRUCTURE AND BRIDGE APPROACH PAVEMENT OMISSION
STA. 1964+57.30 TO STA. 1973+72.70



PROPOSED TYPICAL SECTION

STA. 1960+10.00 TO STA. 1964+57.30

REMOVE EXCESS WIDENING
(PAID FOR AS PAVED SHOULDER REMOVAL)

LEGEND

- ① EXISTING BITUMINOUS BASE COURSE WIDENING
- ② EXISTING PCC PAVEMENT
- ③ EXISTING BITUMINOUS OVERLAY
- ④ EXISTING BITUMINOUS SURFACE COURSE
- ⑤ EXISTING AGGREGATE SHOULDERS
- ⑥ EXISTING HOT-MIX ASPHALT SHOULDERS (TO BE REMOVED)
- ⑦ EXISTING AGGREGATE SURFACE
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-12.5, N50, VAR DP (NOTE 1)
- ⑨ PROPOSED HMA SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑩ PROPOSED HMA SURFACE REMOVAL, 3/4" (NOTE 5)
- ⑪ PROPOSED POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)
- ⑫ PROPOSED HMA BASE COURSE WIDENING, 8" (SEE STAGING TYPICAL SECTIONS)
- ⑬ PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B 4"
- ⑭ PROPOSED HMA SHOULDERS, VAR DP
- ⑮ PROPOSED HMA SHOULDERS, 1 1/2"
- ⑯ PROPOSED HMA SHOULDERS, 8"
- ⑰ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL, 8" (NOTE 2)
- ⑱ PROPOSED AGGREGATE SURFACE COURSE, TYPE B, 8" (NOTE 4)
- ⑲ PROPOSED TOPSOIL FURNISH AND PLACE, 4"

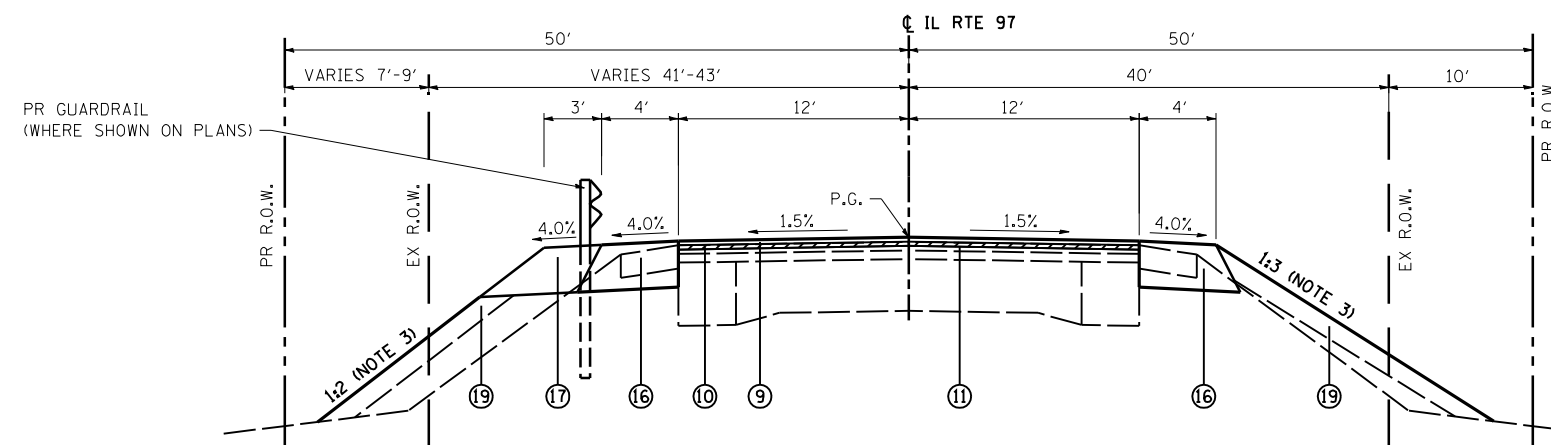
NOTE 1: ESTIMATED VARIABLE DEPTH HMA BINDER COURSE THICKNESS:
STA. 1958+80 TO STA. 1961+54 - NONE ANTICIPATED
STA. 1961+54 TO STA. 1964+50 - VARIES 2 1/4" TO 7 1/2"
STA. 1973+80 TO STA. 1976+71 - VARIES 2 1/4" TO 10 3/4"
STA. 1976+71 TO STA. 1980+25 - NONE ANTICIPATED

NOTE 2: SEE DISTRICT 4 STANDARD FOR EROSION CONTROL AGGREGATE REQUIREMENTS. THIS ITEM IS ONLY REQUIRED BEHIND PROPOSED GUARDRAIL. SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS.

NOTE 3: CONSTRUCT PROPOSED SLOPES AT 1:2 BEHIND GUARDRAIL AND 1:3 ELSEWHERE, WITH ONE EXCEPTION. CONSTRUCT SLOPES AT 1:3 BEHIND GUARDRAIL FROM STA. 1962+00 RT TO THE ENTRANCE AT STA. 1962+91 RT. SEE CONSTRUCTION DETAIL SHEET FOR PROPOSED SLOPES AT ENTRANCES. SEE DISTRICT 4 STANDARD 205001-D4 FOR SLOPE STEPS DETAIL.

NOTE 4: SEE PLAN & PROFILE SHEETS FOR LIMITS OF LEVEE RECONSTRUCTION.

NOTE 5: SURFACE REMOVAL IS ALSO REQUIRED AT HMA BASE COURSE WIDENING AREAS BETWEEN THE HMA BINDER COURSE BUTT JOINTS AND THE BEGINNING (SOUTH OF BRIDGE) AND END (NORTH OF BRIDGE) OF THE WIDENING LIMITS. SEE THE REMOVAL PLAN SHEET FOR LIMITS OF REMOVAL.



PROPOSED TYPICAL SECTION

STA. 1958+80.00 TO STA. 1960+10.00

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

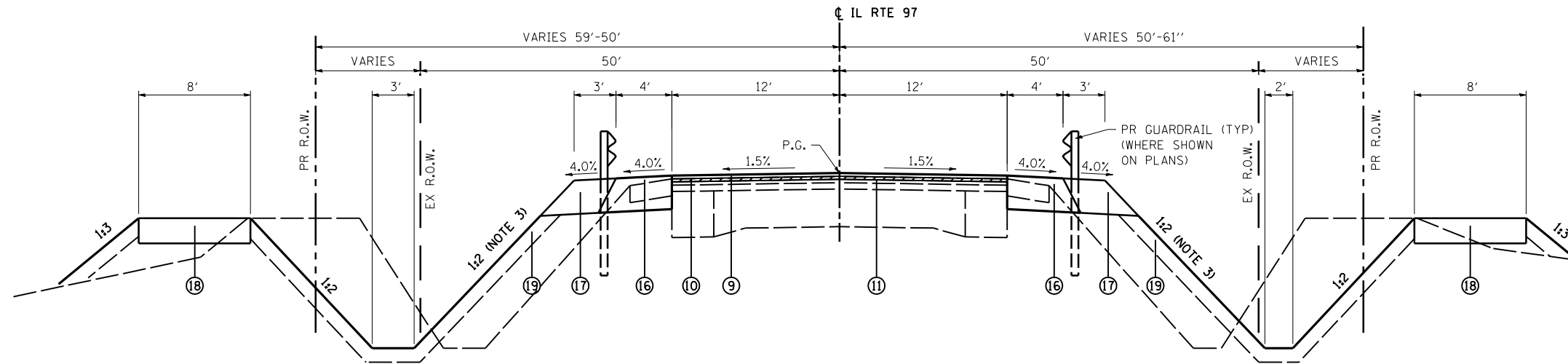
TYPICAL SECTIONS

SCALE: NTS SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	15
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

LEGEND

- ① EXISTING BITUMINOUS BASE COURSE WIDENING
- ② EXISTING PCC PAVEMENT
- ③ EXISTING BITUMINOUS OVERLAY
- ④ EXISTING BITUMINOUS SURFACE COURSE
- ⑤ EXISTING AGGREGATE SHOULDERS
- ⑥ EXISTING HOT-MIX ASPHALT SHOULDERS (TO BE REMOVED)
- ⑦ EXISTING AGGREGATE SURFACE
- ⑧ PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-12.5, N50, VAR DP (NOTE 1)
- ⑨ PROPOSED HMA SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑩ PROPOSED HMA SURFACE REMOVAL, 3/4" (NOTE 5)
- ⑪ PROPOSED POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)
- ⑫ PROPOSED HMA BASE COURSE WIDENING, 8" (SEE STAGING TYPICAL SECTIONS)
- ⑬ PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B 4"
- ⑭ PROPOSED HMA SHOULDERS, VAR DP
- ⑮ PROPOSED HMA SHOULDERS, 1 1/2"
- ⑯ PROPOSED HMA SHOULDERS, 8"
- ⑰ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL, 8" (NOTE 2)
- ⑱ PROPOSED AGGREGATE SURFACE COURSE, TYPE B, 8" (NOTE 4)
- ⑲ PROPOSED TOPSOIL FURNISH AND PLACE, 4"



PROPOSED TYPICAL SECTION
STA. 1978+10.00 TO STA. 1980+25.00

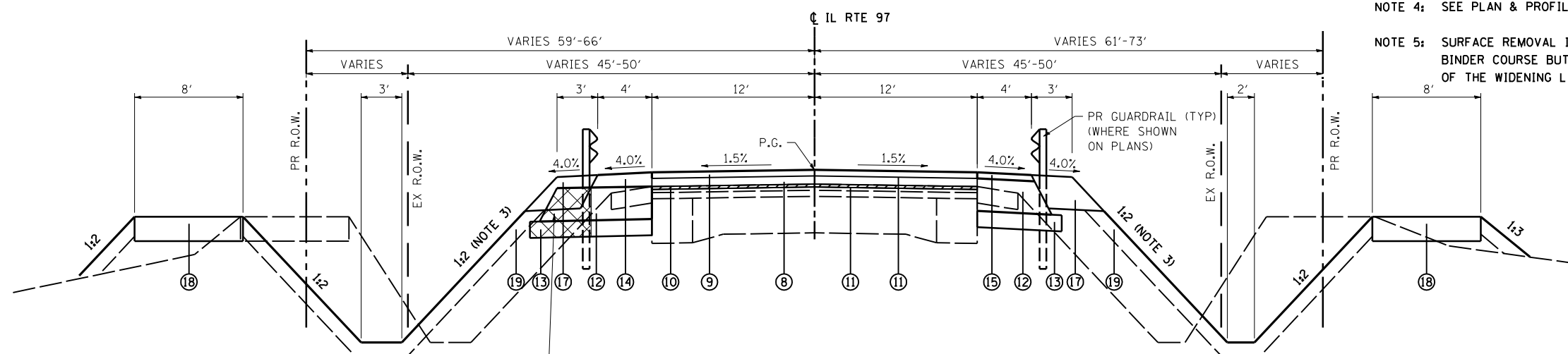
NOTE 1: ESTIMATED VARIABLE DEPTH HMA BINDER COURSE THICKNESS:
 STA. 1958+80 TO STA. 1961+54 - NONE ANTICIPATED
 STA. 1961+54 TO STA. 1964+50 - VARIES 2 1/4" TO 7 1/2"
 STA. 1973+80 TO STA. 1976+71 - VARIES 2 1/4" TO 10 3/4"
 STA. 1976+71 TO STA. 1980+25 - NONE ANTICIPATED

NOTE 2: SEE DISTRICT 4 STANDARD FOR EROSION CONTROL AGGREGATE REQUIREMENTS. THIS ITEM IS ONLY REQUIRED BEHIND PROPOSED GUARDRAIL. SEE PLAN AND PROFILE SHEETS FOR EXACT LOCATIONS.

NOTE 3: CONSTRUCT PROPOSED SLOPES AT 1:2 BEHIND GUARDRAIL AND 1:3 ELSEWHERE, WITH ONE EXCEPTION. CONSTRUCT SLOPES AT 1:3 BEHIND GUARDRAIL FROM STA. 1962+00 RT TO THE ENTRANCE AT STA. 1962+91 RT. SEE CONSTRUCTION DETAIL SHEET FOR PROPOSED SLOPES AT ENTRANCES. SEE DISTRICT 4 STANDARD 205001-D4 FOR SLOPE STEPS DETAIL.

NOTE 4: SEE PLAN & PROFILE SHEETS FOR LIMITS OF LEVEE RECONSTRUCTION.

NOTE 5: SURFACE REMOVAL IS ALSO REQUIRED AT HMA BASE COURSE WIDENING AREAS BETWEEN THE HMA BINDER COURSE BUTT JOINTS AND THE BEGINNING (SOUTH OF BRIDGE) AND END (NORTH OF BRIDGE) OF THE WIDENING LIMITS. SEE THE REMOVAL PLAN SHEET FOR LIMITS OF REMOVAL.



REMOVE EXCESS WIDENING
(PAID FOR AS PAVED SHOULDER REMOVAL)

PROPOSED TYPICAL SECTION
STA. 1973+72.70 TO STA. 1978+10.00

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: NTS SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	16
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

PRECAST BOX CULVERT SCHEDULE (ASTM C 1577)

STATION	STATION	OFFSET	SIZE (SPAN X HEIGHT)	SKEW	DESIGN FILL (FT.)		PGE BACKFILL REQUIRED (NOTE 1) (CU YD)
					MINIMUM	MAXIMUM	
1977+82	1978+84	RT	7 x 4	0	7	8	143
TOTAL							143

PRECAST BOX CULVERT NOTES:

- STRUCTURE EXCAVATION WILL NOT BE PAID FOR SEPARATELY AT THIS LOCATION. THE COST FOR THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR THE ADJACENT PIPE CULVERT REMOVAL ITEMS AND THE COST OF THE PGE.

EROSION CONTROL SCHEDULE

STATION	STATION	O/S	TEMP DITCH CHECKS (FOOT)	PERIMETER EROS BAR (FOOT)	INLET & PIPE PROTECTION (EACH)	STONE DUMPED RIPRAP CL A3 (SO YD)	FILTER FABRIC (SO YD)
1958+75	1965+70	RT		565	1	4	4
1962+80	1964+55	LT			2	25	25
1964+70	1965+40	LT		135			
1972+80	1973+35	LT		125			
1972+95	1979+95	RT	40	640	2	71	71
1973+27	1980+25	LT	48	570	2	24	24
TOTAL			88	2,035	7	124	124

EARTHWORK SCHEDULE

STATION	STATION	EARTH EXCAVATION (CU YD)	EARTH EXCAVATION (WIDENING) (CU YD)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE (NOTE 1) (CU YD)	EMBANKMENT (NOTE 2) (CU YD)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (NOTE 3) (CU YD)
1958+80	1964+87	15		10	1,090	-1,080
AT STRUCTURE		235		180		180
TEMP WIDENING		500	275	580	445	135
1973+43	1980+25	6,105		4,580	4,205	375
TOTAL		6,855	275	5,350	5,740	-390

EARTHWORK NOTES:

- ESTIMATED SHRINKAGE FACTOR = 25%.
- THE ENGINEER SHALL DETERMINE IF EXCAVATION IS SUITABLE FOR USE AS FILL MATERIAL. THE QUANTITY SHOWN FOR TEMP WIDENING ACCOUNTS FOR THE TEMP STAGE 1 SIDE SLOPES ONLY.
- FURNISHED EXCAVATION = 390 CU YD

PAVEMENT SCHEDULE

STATION	STATION	OFFSET	EARTH EXCAVATION (WIDENING) (CU YD)	SUB GRAN MAT B 4 (SO YD)	HMA BASE CSE WID 8 (SO YD)	POLY BIT MATLS PR CT (NOTE 1) (TON)	HMA SURF REM BUTT JT (SO YD)	TEMPORARY RAMP (SO YD)	HMA BC IL-12.5, N50 (NOTE 1) (TON)	HMA SC "D" N50 (NOTE 1) (TON)	BR APPR PVT CON (FLX) (SO YD)	PAVEMENT REM (SO YD)	HMA SURF REM 3/4 (SO YD)	PAVED SHLD REMOVAL (SO YD)	HMA SHOULDERS (NOTE 1) (TON)
1958+80	1964+50					0.70	293	29	135	128			1,226		
1958+80	1960+10	LT													26
1958+80	1960+25	RT													29
1960+10	1965+15	LT	90	533	478	0.06							68	251	31
1960+25	1964+88	RT	45	241	195	0.05							61	12	16
1964+50	1964+78									29	74				
1973+10	1975+28	RT												166	
1973+48	1973+80									29	87				
1973+35	1975+50	LT												147	
1973+36	1978+10	LT	95	528	476	0.05							66	271	47
1973+67	1978+50	RT	45	281	227	0.06							84		18
1973+80	1980+25					0.78	397	29	232	144			1,322		
1978+10	1980+25	LT													43
1978+50	1980+00	RT													30
TOTAL			275	1,583	1,376	1.7	690	58	367	272	58	161	2,827	847	240

PAVEMENT NOTES:

- APPLICATION RATES USED FOR QUANTITY ESTIMATES ARE AS FOLLOWS:
POLY BITUMINOUS MATLS PRIME COAT SEE GENERAL NOTES
HOT-MIX ASPHALT 112 LBS/SY/INCH THICKNESS

TRAFFIC CONTROL ITEMS

STATION	STATION	OFFSET	SHORT TERM PAVT MKING (FOOT)	TEMP PVT MK LINE 4 (FOOT)	TEMP PVT MK LINE 24 (FOOT)	PAVT MARK TAPE T3 4 (FOOT)	WORK ZONE PAVT MK REM (SO FT)	TEMP CONC BARRIER (FOOT)	REL TEMP CONC BARRIER (FOOT)	IMP ATTN TEMP NRD TL3 (EACH)	IMP ATTN TEMP NRD NAR TL3 (EACH)	IMP ATTN REL NRD TL3 (EACH)	IMP ATTN REL NRD NAR TL3 (EACH)
STAGE 1													
1958+82	1958+82	RT			12		24						
1958+92	1978+85	RT		1,995			665						
1960+13	1978+09	LT		1,795			598						
1960+44	1962+77	19' LT						237.5		2			
1960+54	1962+23	5' LT						175		1	1		
1963+65		19' LT								1			
1963+87	1977+39	5' LT						1,350		1	1		
1973+54	1977+81	19' LT						425			1		
1979+45	1979+45	LT			12		24						
STAGE 2													
1959+46	1979+35	LT		1,075		915	358						
1960+26	1978+22	RT		925		915	308						
1960+80	1962+23	2' RT							150		1	1	
1963+87	1977+80	2' RT							1,400		1	1	
WINTER SHUTDOWN													
1960+30	1977+85	LT		390			130						
1960+30	1977+85	RT		255			85						
1960+30	1977+85	RT		3,070		915	1,023						
1964+40	1964+52								12.5				2
1973+78	1973+90								12.5		2		
NOTE 1								375					
STAGE 3													
1958+80	1980+25	CL	390				130						
TOTAL			390	9,505	24	2,745	3,345	2,562.5	1,575	2	8	2	4

TRAFFIC CONTROL NOTES:

- DIFFERENCE BETWEEN TOTAL TEMPORARY CONCRETE BARRIER REQUIRED FOR WINTER SHUTDOWN AND STAGE 1.

FENCE SCHEDULE

STATION	STATION	OFFSET	TEMP FENCE (FOOT)	FENCE REMOVAL (FOOT)
1958+00	1965+75	RT	810	720
1972+10	1978+35	RT	625	
TOTAL			1,435	720

MISCELLANEOUS PAY ITEMS

DESCRIPTION	UNIT	QUANTITY
ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24
ENGINEER'S FIELD LABORATORY	CAL MO	24
MOBILIZATION	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
TRAFFIC CONTROL SURVEILLANCE	CAL DA	10
TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
TEMPORARY RUMBLE STRIPS	EACH	6
CONSTRUCTION LAYOUT	L SUM	1

DRAINAGE SCHEDULE

STATION	STATION	OFFSET	PIPE CULVERT REMOV (FOOT)	BOX CUL END SEC C1 (EACH)	PCBC 7X4 (FOOT)	P CUL CL D 2 18 (FOOT)	P CUL CL D 3 24 (FOOT)	PIPE ELBOW 12 (EACH)	MET END SEC 12 (EACH)	MET END SEC 18 (EACH)	MET END SEC 24 (EACH)	PIPE DRAINS 12 (FOOT)	CONC CURB TB (FOOT)	FLAP GATE 24 (EACH)	CONC THRUST BLOCKS (EACH)	TY G INLET BOX 610001 (EACH)
1962+77	1963+68	LT	60			85				2						
1964+30		RT						2	1			32	20		1	1
1964+55		LT						2	1			22	20		1	1
1973+75		RT						2	1			48	20		1	1
1974+02		LT						2	1			45	20		1	1
1977+82	1978+84	RT	110	2	90									1		
1979+11	1980+14	LT	52				100				1					
TOTAL			222	2	90	85	100	8	4	2	1	147	80	1	4	4

PAVEMENT MARKING SCHEDULE

STATION	STATION	OFFSET	COMMENT	TEMP PVT MK LINE 4 (NOTE 1) (FOOT)	EPOXY PVT MK LINE 4 (FOOT)	PAVT MARKING REMOVAL (SQ FT)
1958+80	1980+25	LT	EDGE LINE	2,145	2,145	664
1958+80	1980+25	RT	EDGE LINE	2,145	2,145	159
1958+80	1980+25	CL	CENTER LINE	536	536	100
TOTAL				4,826	4,826	923

PAVEMENT MARKING NOTES:

1. A QUANTITY FOR TEMPORARY PAVEMENT MARKING EQUAL TO THE AMOUNT OF PERMANENT PAVEMENT MARKING HAS BEEN INCLUDED IN THE PLANS IN THE EVENT THAT A TEMPORARY SHUTDOWN IS NECESSARY.

ROW / SURVEY MARKER SCHEDULE

STATION	OFFSET	FUR ERECT ROW MARKERS (EACH)	PERM SURV MKRS T1 (EACH)
1957+75	42.14' LT	1	
1957+83	50' RT	1	
1958+00	50' LT	1	
1964+78	19' RT		1
1965+50	50' LT	1	
1965+75	45' LT	1	
1965+25	50' RT	1	
1965+50	45' RT	1	
1971+75	45' RT	1	
1972+25	73' RT	1	
1972+50	45' LT	1	
1973+00	66' LT	1	
1973+50	66' LT	1	
1973+50	73' RT	1	
1974+50	59' LT	1	
1977+50	61' RT	1	
1978+50	59' LT	1	
1979+00	61' RT	1	
1980+00	50' RT	1	
1980+00	50' LT	1	
TOTAL		19	1

TREE REMOVAL SCHEDULE

STATION	OFFSET	TREE REMOV 6-15 (UNIT)	TREE REMOV OVER 15 (UNIT)
1962+58	RT	8	
1964+20	RT		20
1964+55	RT		40
1964+72	RT	15	
1974+30	RT	6	
1974+40	RT	6	
TOTAL		35	60

GUARDRAIL SCHEDULE

STATION	STATION	LOCATION	SPBGR TY A 6FT POSTS (FOOT)	TRAF BAR TERM T2 (EACH)	TRAF BAR TERM T6 (EACH)	TR BAR TRM T1 SPL TAN (EACH)	GUARDRAIL REMOVAL (FOOT)	GUARDRAIL MKR TYPE A (EACH)	BAR WALL MKR TYPE A (EACH)	TERMINAL MARKER - DA (NOTE 1) (EACH)	GDRL AGG EROS CONTR (NOTE 2) (TON)	SPBGR (SHORT RADIUS) (FOOT)
1963+08	1964+72	SE QUAD					164					
1963+40	1965+04	SW QUAD					164	6				
1959+75.0	1963+05.1	SW QUAD	262.5	1		1		4		1	66	25
1961+97.3	1962+76.8	SE QUAD	12.5	1		1		1		1	25	26
1963+06.9	1964+64.3	SE QUAD	100.0	1	1			2			27	28
1963+35.6	1964+90.2	SW QUAD	87.5	1	1			2			30	29
1964+64	1973+41	NB							11			
1964+90	1973+67	SB							11			
1973+22	1980+00	NE QUAD					654					
1973+54	1980+25	NW QUAD					589					
1973+41.3	1978+18.0	NE QUAD	412.5	1	1			6			83	27
1973+67.2	1979+45.9	NW QUAD	512.5	1	1			7			88	27
1978+48.0	1980+00.0	NE QUAD	137.5	1				2			27	27
1979+75.9	1980+25.0	NW QUAD	37.5	1				1			9	27
TOTAL			1,562.5	8	4	2	1,571	31	22	2	355	216

GUARDRAIL NOTES:

1. TERMINAL MARKERS ONLY REQUIRED AT TRAFFIC BARRIER TERMINAL, TYPE 1 END SECTIONS.
2. APPLICATION RATES USED FOR QUANTITY ESTIMATES ARE AS FOLLOWS:
GUARDRAIL AGGREGATE EROSION CONTROL 2.05 TONS/CY

SEEDING SCHEDULE

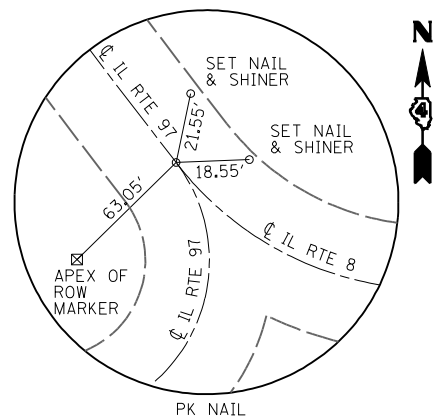
STATION	STATION	OFFSET	COMMENT	TOPSOIL F & P 4 (SQ YD)	SEEDING CL 3A (ACRE)	NITROGEN FERT NUTR (POUND)	PHOSPHORUS FERT NUTR (POUND)	POTASSIUM FERT NUTR (POUND)	EROS CONTR BLANKET (SQ YD)	TEMP EROS CONTR SEED (POUND)
1958+80	1964+90	LT		1,575	0.25	23	23	23	1,575	50
1958+80	1964+65	RT		1,875	0.50	45	45	45	1,875	100
1960+10	1965+15	LT	STAGE 1						875	40
1973+00	1980+25	RT		5,950	1.25	113	113	113	5,950	250
1973+45	1980+25	LT	STAGE 1						1,025	40
1973+70	1980+25	LT		5,575	1.25	113	113	113	5,575	250
TOTAL				14,975	3.25	294	294	294	16,875	730

ENTRANCE /LEVEE SCHEDULE

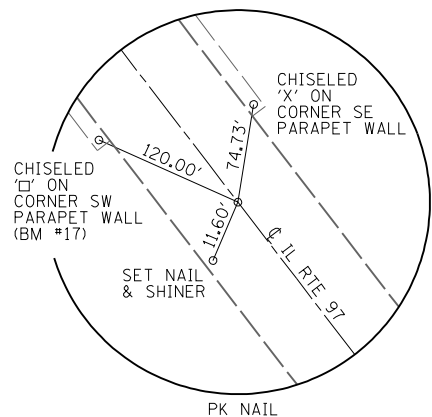
STATION	STATION	OFFSET	ENTRANCE TYPE	ENTRANCE WIDTH "W" (FOOT)	ENTRANCE DEPTH "D" (FOOT)	EXISTING SURFACE TYPE	AGG SURF CSE B (NOTE 1) (TON)	INCIDENTAL BIT SURF (NOTE 1) (TON)	DRIVE PAVEMENT REM (SQ YD)	HMA SHOULDERS (NOTE 1) (TON)
1962+91		RT	FE	30	85	AGG	92			7
1963+19		LT	FE	30	107	AGG	122			1
1973+00	1980+00	RT	LEVEE			DIRT	380			
1974+50	1980+30	LT	LEVEE			AGG / DIRT	272			
1978+33		RT	FE	30	41	HMA		61	77	7
1979+61		LT	FE	30	30	HMA		45	56	7
TOTAL							866	106	133	22

ENTRANCE / LEVEE NOTES:

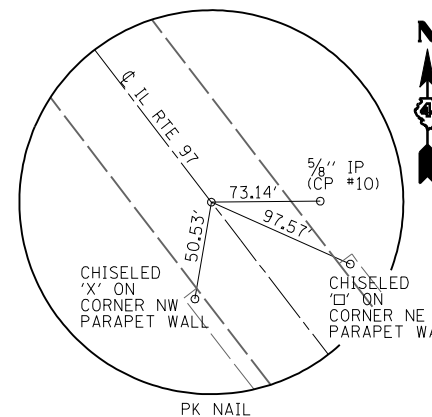
1. APPLICATION RATES USED FOR QUANTITY ESTIMATES ARE AS FOLLOWS:
AGGREGATE SURFACE COURSE 2.05 TONS/CY
HOT-MIX ASPHALT 112 LBS/SY/INCH THICKNESS



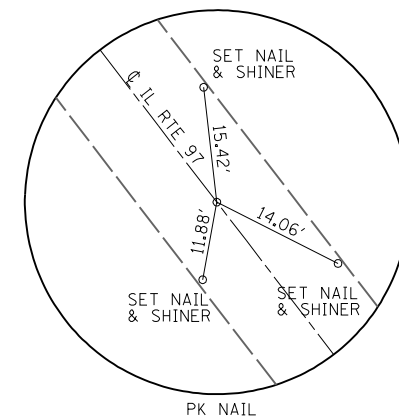
PT STA 1952+34.26
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 E: 2,301,474.9380



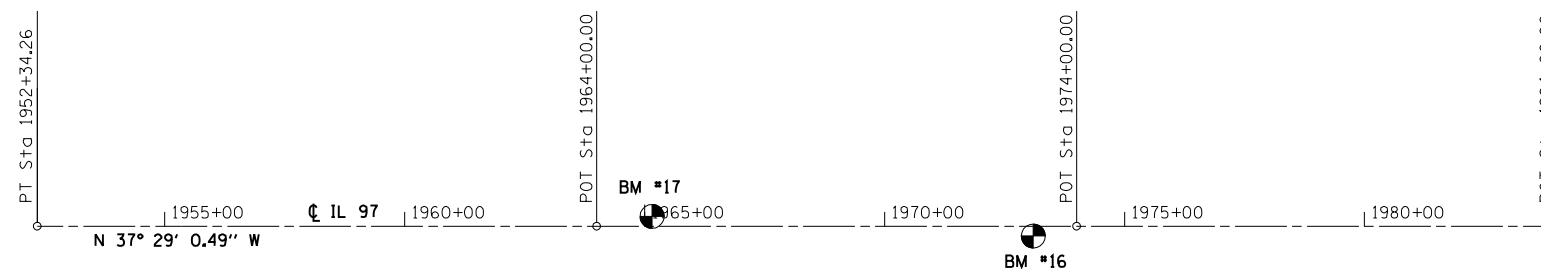
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POT STA 1974+00.00
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 E: 2,300,157.0142

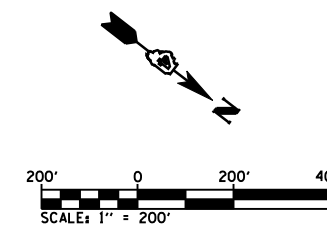


POT STA 1984+00.00
 N: 1,500,679.1150
 E: 2,299,548.4817



BM #17- CHISELED "X"
 ON PARAPET WALL AT
 SW CORNER OF STRUCTURE
 STA. 1965+15.37, 20.71' LT
 ELEVATION 562.09

BM #16- CHISELED "X"
 ON PARAPET WALL AT
 NE CORNER OF STRUCTURE
 STA. 1973+09.86, 20.58' RT
 ELEVATION 562.08



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 PLOT DATE = 8/9/2013

DESIGNED - RGV
 DRAWN - RGV
 CHECKED - BPS
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

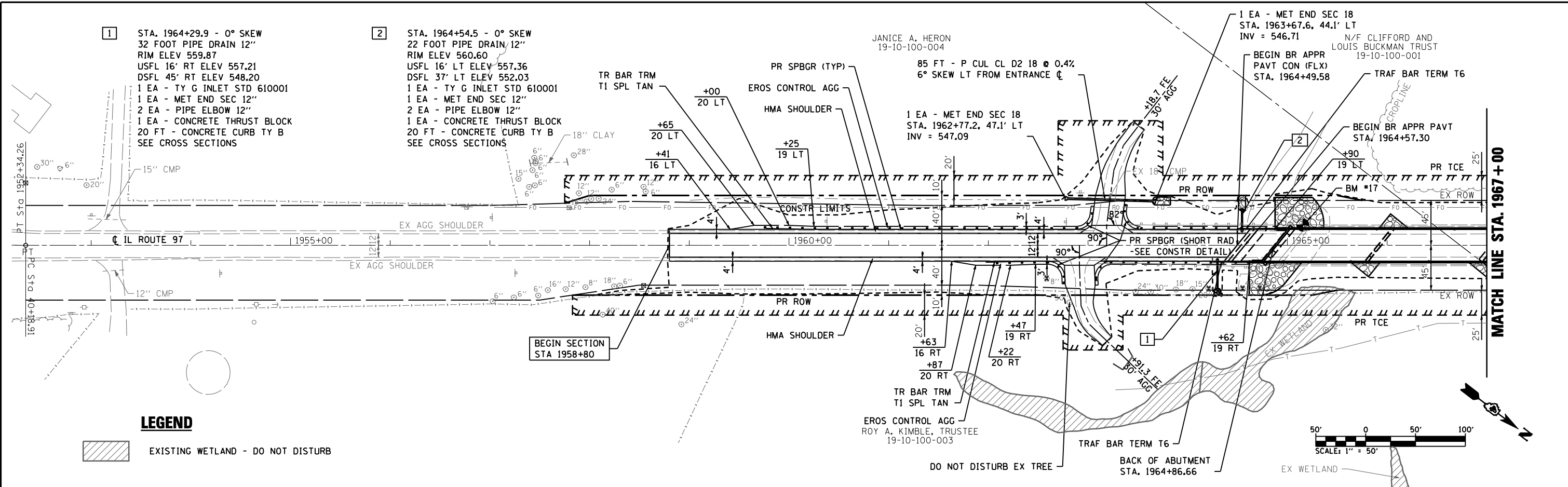
ALIGNMENT TIES & BENCHMARKS

SCALE: 1"=200' SHEET 1 OF 1 SHEETS STA. TO STA.

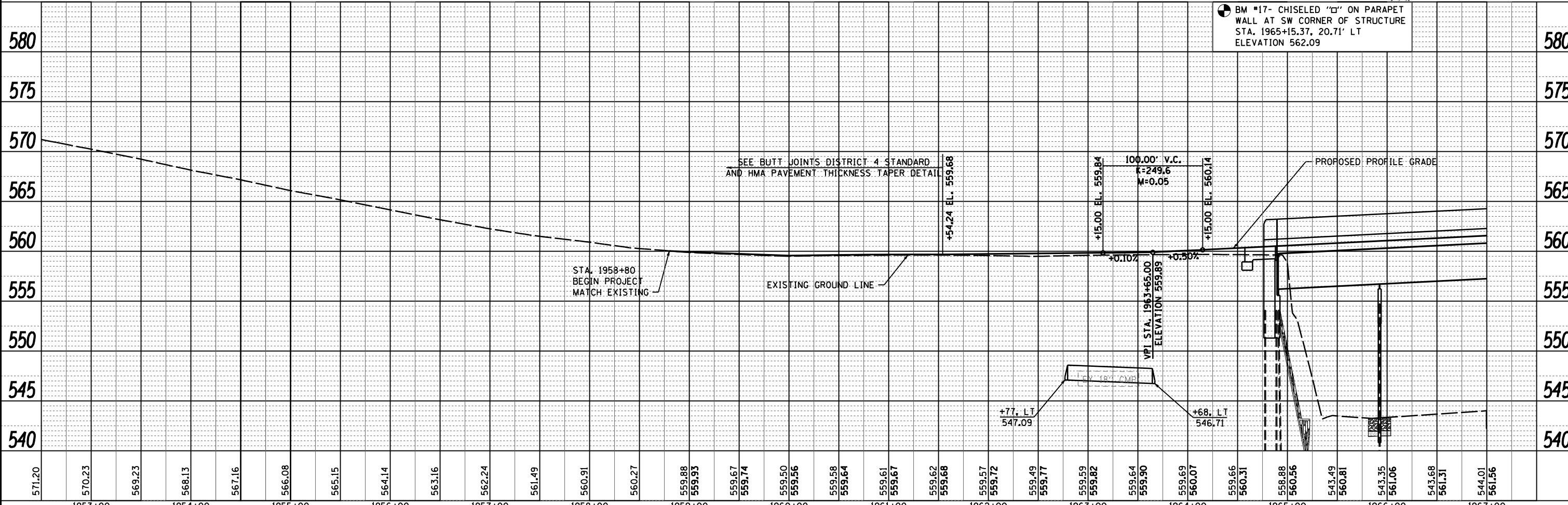
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	19
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	AT	
	FILE NAME	
	NO.	

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	PLOTTED	BY
	CHECKED	
	AT	
	STRUCTURE	
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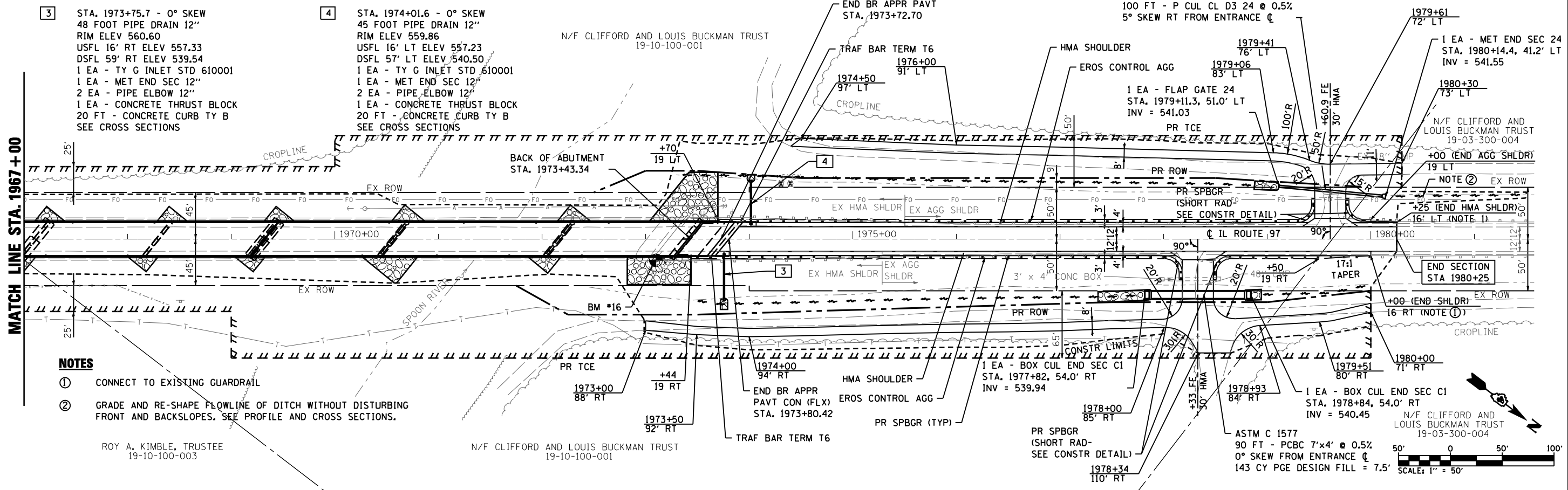
LEGEND
 EXISTING WETLAND - DO NOT DISTURB



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	PLOT SCALE = 100.0000' / IN.	CHECKED - BPS	REVISED -		ILLINOIS FED. AID PROJECT							
	PLOT DATE = 8/9/2013	DATE -	REVISED -									

PLAN	SURVEYED	DATE
	PLOTTED	BY
	CHECKED	
	AT	
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PROFILE	SURVEYED	DATE
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	NO.	



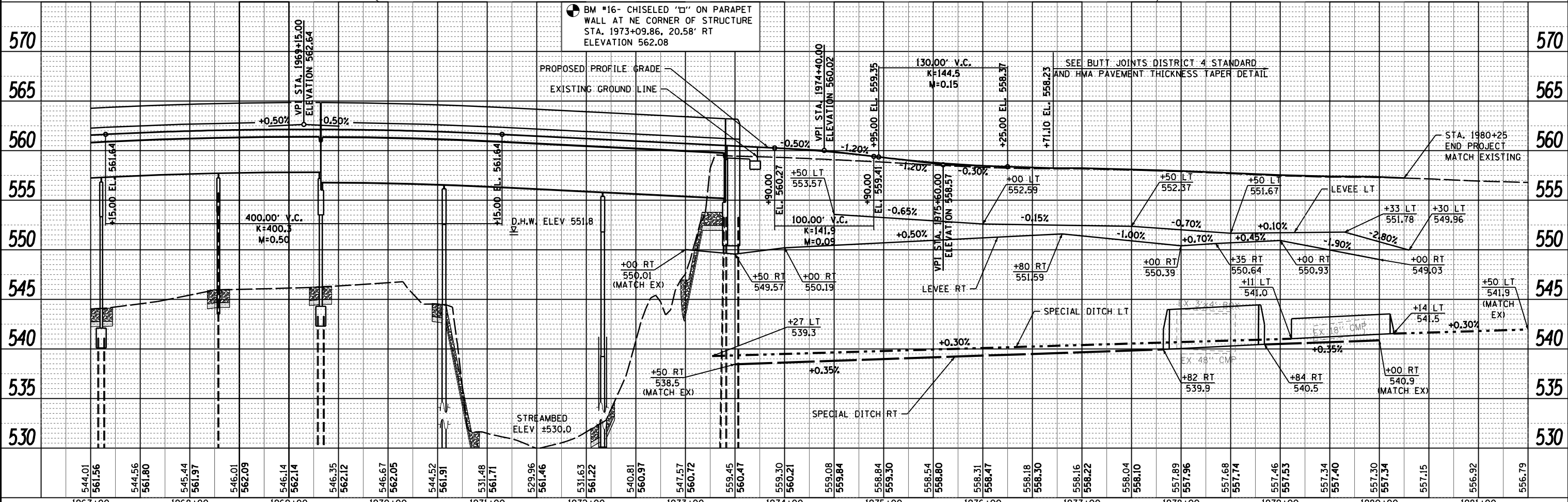
- NOTES**
- ① CONNECT TO EXISTING GUARDRAIL
 - ② GRADE AND RE-SHAPE FLOWLINE OF DITCH WITHOUT DISTURBING FRONT AND BACKSLOPES. SEE PROFILE AND CROSS SECTIONS.

ROY A. KIMBLE, TRUSTEE
19-10-100-003

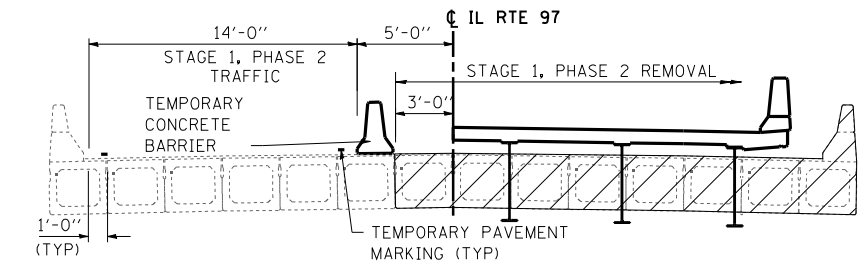
N/F CLIFFORD AND LOUIS BUCKMAN TRUST
19-10-100-001

N/F CLIFFORD AND LOUIS BUCKMAN TRUST
19-03-300-004

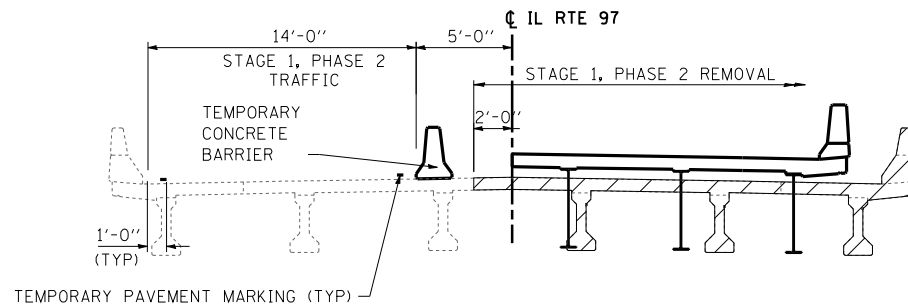
SCALE: 1" = 50'



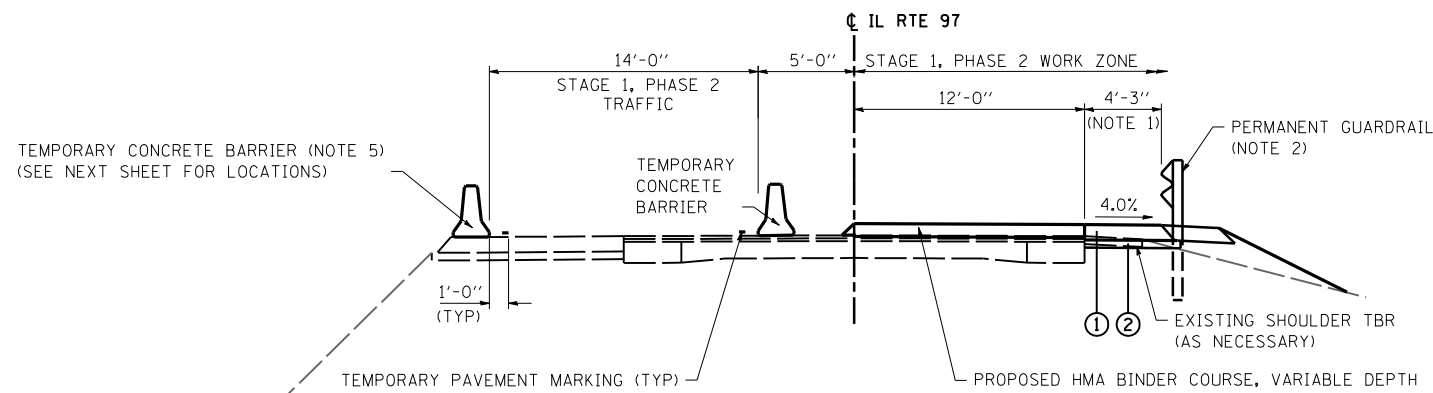
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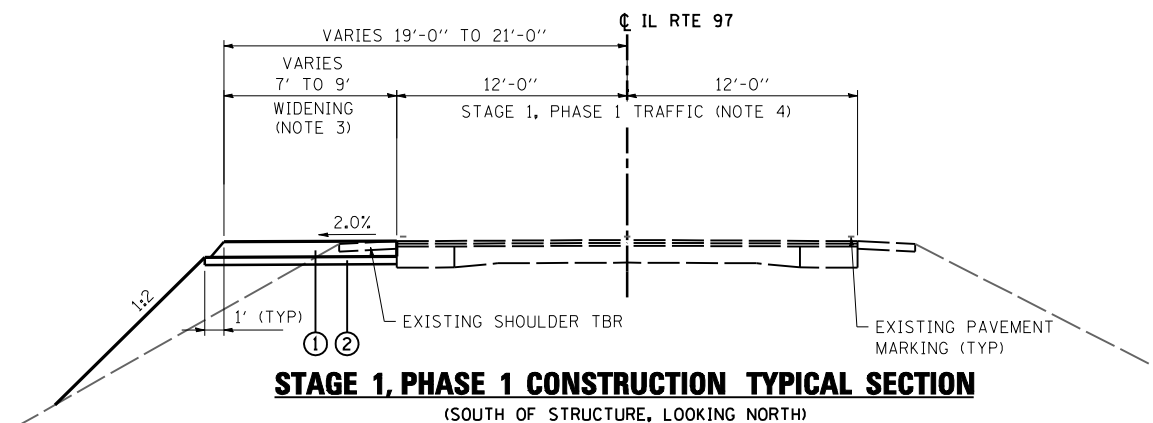
STAGE 1 BRIDGE TYPICAL SECTION - PPC DECK BEAM SPANS
(LOOKING NORTH AT STRUCTURE)
FOR INFORMATION ONLY



STAGE 1 BRIDGE TYPICAL SECTION - PPC I-BEAM SPANS
(LOOKING NORTH AT STRUCTURE)
FOR INFORMATION ONLY



STAGE 1, PHASE 2 CONSTRUCTION TYPICAL SECTION
(SOUTH OF STRUCTURE, LOOKING NORTH)



STAGE 1, PHASE 1 CONSTRUCTION TYPICAL SECTION
(SOUTH OF STRUCTURE, LOOKING NORTH)

LEGEND

- ① PROPOSED HMA BASE COURSE WIDENING, 8"
- ② PROPOSED SUBBASE GRANULAR MATERIAL, TYPE B 4"

STAGE CONSTRUCTION GENERAL NOTES

1. ONE LANE OF TRAFFIC ON ILLINOIS ROUTE 97 SHALL BE MAINTAINED AT ALL TIMES.
2. EMERGENCY ACCESS SHALL BE PROVIDED AT ALL TIMES.

SUGGESTED STAGE 1 CONSTRUCTION

SUGGESTED STAGE 1

PHASE 1

1. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701001 AND 701006, REMOVE THE EXISTING ENTRANCE CULVERTS AND CONSTRUCT THE PROPOSED CULVERTS. GRADE AND SHAPE DITCHES TO MAINTAIN POSITIVE DRAINAGE.
2. RECONSTRUCT LEVEE AT NORTHWEST QUADRANT OF BRIDGE AND SHAPE DITCH TO FINAL PROPOSED GRADES FROM STA. 1973+27 LT TO STA. 1979+08 LT.
3. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701326, REMOVE THE EXISTING GUARDRAIL FROM STA. 1974+00 LT TO STA. 1978+90 LT AND THE TURN DOWN SECTION OF GUARDRAIL AT STA. 1963+40 LT. REMOVE THE EXISTING SHOULDER AND CONSTRUCT THE HMA BASE COURSE WIDENING, 8" ON THE LT SIDE OF THE ROADWAY FROM STA. 1960+10 TO STA. 1978+10. TRAFFIC CONTROL SURVEILLANCE SHALL BE PAID FOR THROUGHOUT THE DURATION THAT STANDARD 701326 IS UTILIZED.
4. PLACE TEMPORARY CONCRETE BARRIER AND IMPACT ATTENUATORS AS SHOWN ON THE NEXT SHEET.
5. INSTALL TEMPORARY TRAFFIC SIGNALS PRIOR TO CLOSING THE RT HALF OF ROADWAY. SEE NEXT PAGE FOR ADDITIONAL NOTES FOR TEMPORARY TRAFFIC SIGNALS.
6. INSTALL TEMPORARY PAVEMENT MARKING FOR STAGE 1, PHASE 2 TRAFFIC.

PHASE 2

1. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, DIRECT TRAFFIC TO THE LT LANE OF IL ROUTE 97.
2. CONSTRUCT TEMPORARY SHEET PILING AT THE NORTH AND SOUTH SIDE OF EXISTING STRUCTURE AND REMOVE THE RT SIDE OF THE EXISTING STRUCTURE.
3. CONSTRUCT THE RT SIDE OF THE BRIDGE AND BRIDGE APPROACH PAVEMENT.
4. PERFORM HMA SURFACE REMOVAL & BUTT JOINT AND CONSTRUCT THE PROPOSED HMA BINDER COURSE ON THE RT SIDE OF IL ROUTE 97, FROM STA. 1961+54 TO STA. 1964+50 AND FROM STA. 1973+80 TO STA. 1976+71.
5. CONSTRUCT THE HMA BASE COURSE WIDENING, 8" ON THE RT SIDE OF THE ROADWAY FROM STA. 1960+25 TO STA. 1978+50.
6. CONSTRUCT TEMPORARY RAMPS AT STA. 1964+50 AND STA. 1973+80.
7. PLACE TEMPORARY AGGREGATE AT ENTRANCES, IF NECESSARY, TO MAINTAIN ACCESS.
8. INSTALL GUARDRAIL AND EROS CONTROL AGG ON RT SIDE OF IL ROUTE 97 AND COMPLETE DRAINAGE AND GRADING IMPROVEMENTS.
9. INSTALL TEMPORARY PAVEMENT MARKING FOR STAGE 2 TRAFFIC.



W12-1103

PRIOR TO JUNCTION OF IL 97 AND IL 8 (2 ASSEMBLIES)
AT INTERSECTION WITH US 150 (2 ASSEMBLIES)

SEE SPECIAL PROVISION "WIDTH RESTRICTION
SIGNING" FOR FURTHER DETAILS.

WIDTH RESTRICTION SIGNING DETAILS

ADDITIONAL NOTES

- NOTE 1: HMA BASE COURSE WIDENING SHALL BE BUILT WIDE ENOUGH TO SUPPORT THE FINAL WIDTH SHOWN ON THE TYPICAL SECTIONS.
- NOTE 2: THE PERMANENT GUARDRAIL SHALL BE BUILT TALL ENOUGH TO MEET THE HEIGHT REQUIREMENTS LISTED ON HWY STD 630001 AFTER SURFACE COURSE HAS BEEN PLACED.
- NOTE 3: PROPOSED WIDENING LIMITS:
STA. 1960+10 TO STA. 1963+65 - 9'
STA. 1963+65 TO STA. 1965+15 - 7'
STA. 1973+43 TO STA. 1978+10 - 9'
- NOTE 4: TWO-WAY TRAFFIC SHALL BE PERMITTED DURING NON-CONSTRUCTION HOURS. SEE HWY STANDARD 701326 FOR LANE CLOSURE PROCEDURES DURING WIDENING OPERATIONS.
- NOTE 5: BARRIER SHALL BE PINNED ON TRAFFIC SIDE IN ALL THREE HOLES.

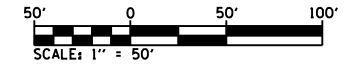
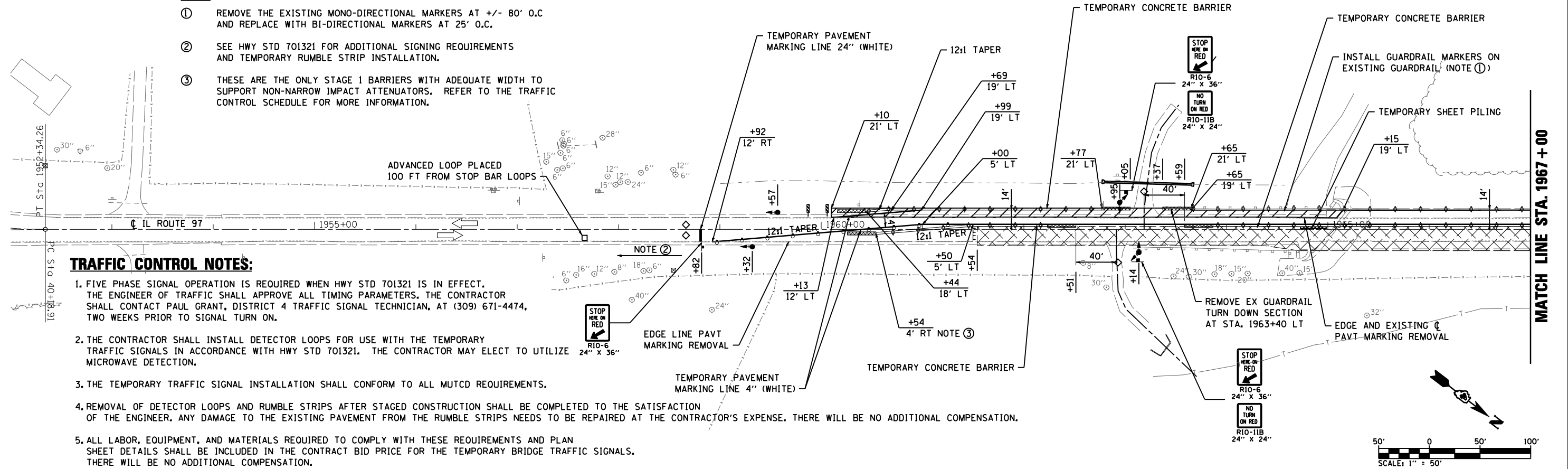
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					SCALE:	SHEET 1	OF 6 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 68759		

NOTES:

- ① REMOVE THE EXISTING MONO-DIRECTIONAL MARKERS AT +/- 80' O.C AND REPLACE WITH BI-DIRECTIONAL MARKERS AT 25' O.C.
- ② SEE HWY STD 701321 FOR ADDITIONAL SIGNING REQUIREMENTS AND TEMPORARY RUMBLE STRIP INSTALLATION.
- ③ THESE ARE THE ONLY STAGE 1 BARRIERS WITH ADEQUATE WIDTH TO SUPPORT NON-NARROW IMPACT ATTENUATORS. REFER TO THE TRAFFIC CONTROL SCHEDULE FOR MORE INFORMATION.

TRAFFIC CONTROL NOTES:

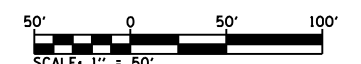
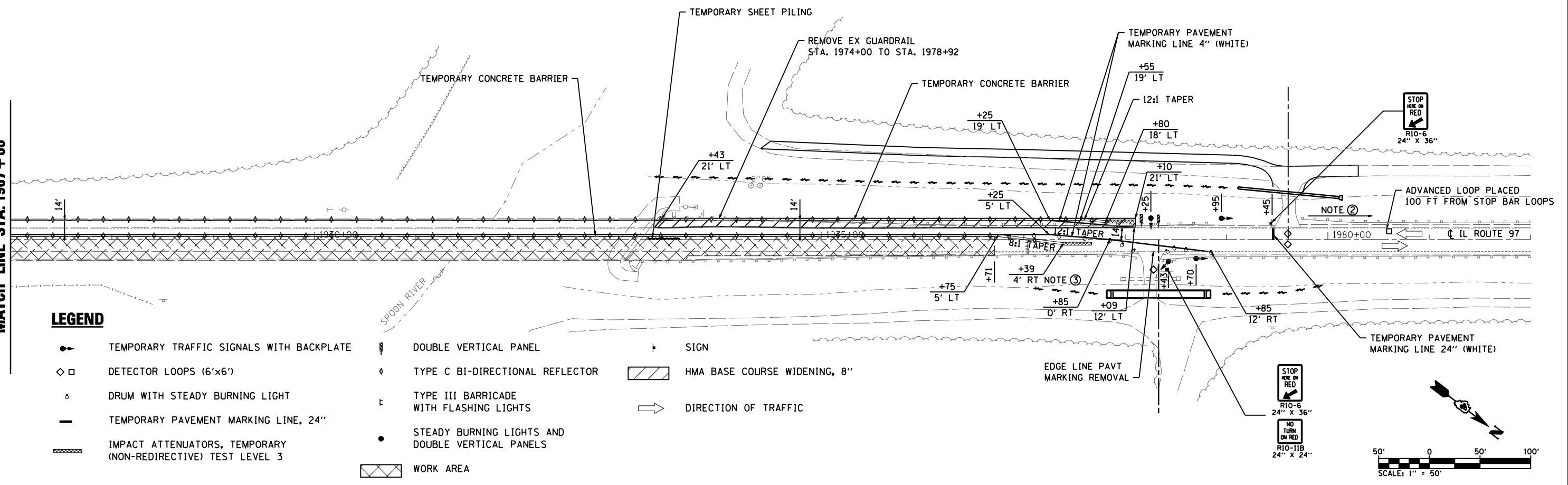
1. FIVE PHASE SIGNAL OPERATION IS REQUIRED WHEN HWY STD 701321 IS IN EFFECT. THE ENGINEER OF TRAFFIC SHALL APPROVE ALL TIMING PARAMETERS. THE CONTRACTOR SHALL CONTACT PAUL GRANT, DISTRICT 4 TRAFFIC SIGNAL TECHNICIAN, AT (309) 671-4474, TWO WEEKS PRIOR TO SIGNAL TURN ON.
2. THE CONTRACTOR SHALL INSTALL DETECTOR LOOPS FOR USE WITH THE TEMPORARY TRAFFIC SIGNALS IN ACCORDANCE WITH HWY STD 701321. THE CONTRACTOR MAY ELECT TO UTILIZE MICROWAVE DETECTION.
3. THE TEMPORARY TRAFFIC SIGNAL INSTALLATION SHALL CONFORM TO ALL MUTCD REQUIREMENTS.
4. REMOVAL OF DETECTOR LOOPS AND RUMBLE STRIPS AFTER STAGED CONSTRUCTION SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER. ANY DAMAGE TO THE EXISTING PAVEMENT FROM THE RUMBLE STRIPS NEEDS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THERE WILL BE NO ADDITIONAL COMPENSATION.
5. ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO COMPLY WITH THESE REQUIREMENTS AND PLAN SHEET DETAILS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE TEMPORARY BRIDGE TRAFFIC SIGNALS. THERE WILL BE NO ADDITIONAL COMPENSATION.



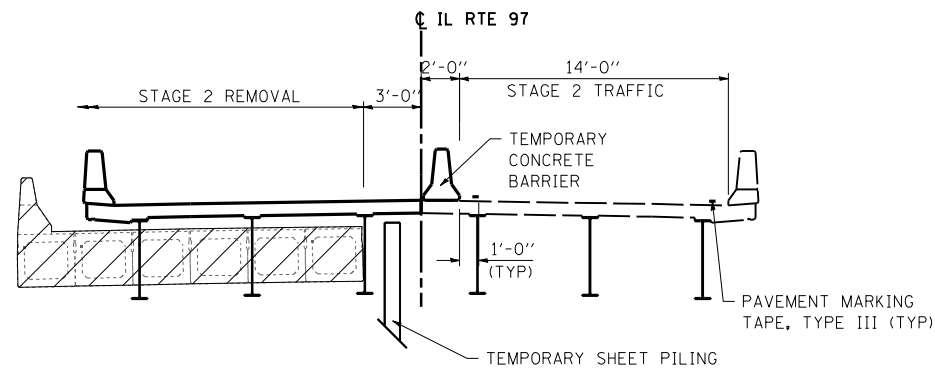
MATCH LINE STA. 1967 + 00

LEGEND

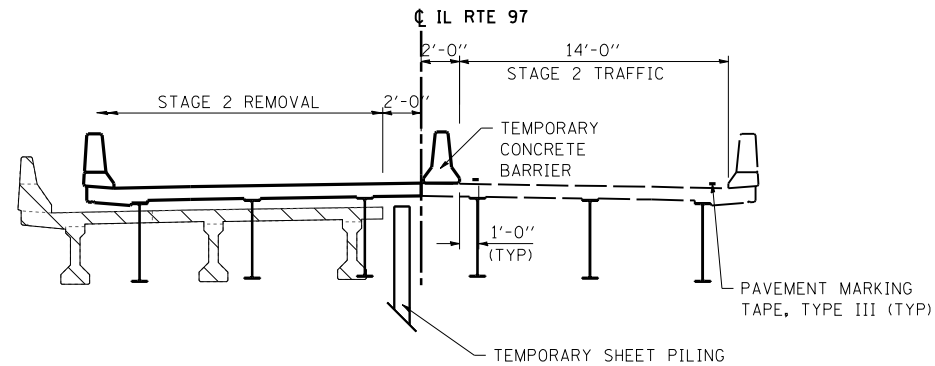
- | | | | | | |
|-----|--|---|--|---|------------------------------|
| ● | TEMPORARY TRAFFIC SIGNALS WITH BACKPLATE | ▩ | DOUBLE VERTICAL PANEL | + | SIGN |
| ◇ □ | DETECTOR LOOPS (6'x6') | ◆ | TYPE C BI-DIRECTIONAL REFLECTOR | ▨ | HMA BASE COURSE WIDENING, 8" |
| ○ | DRUM WITH STEADY BURNING LIGHT | ⊥ | TYPE III BARRICADE WITH FLASHING LIGHTS | ➔ | DIRECTION OF TRAFFIC |
| — | TEMPORARY PAVEMENT MARKING LINE, 24" | ● | STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS | | |
| ▨ | IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3 | ▨ | WORK AREA | | |



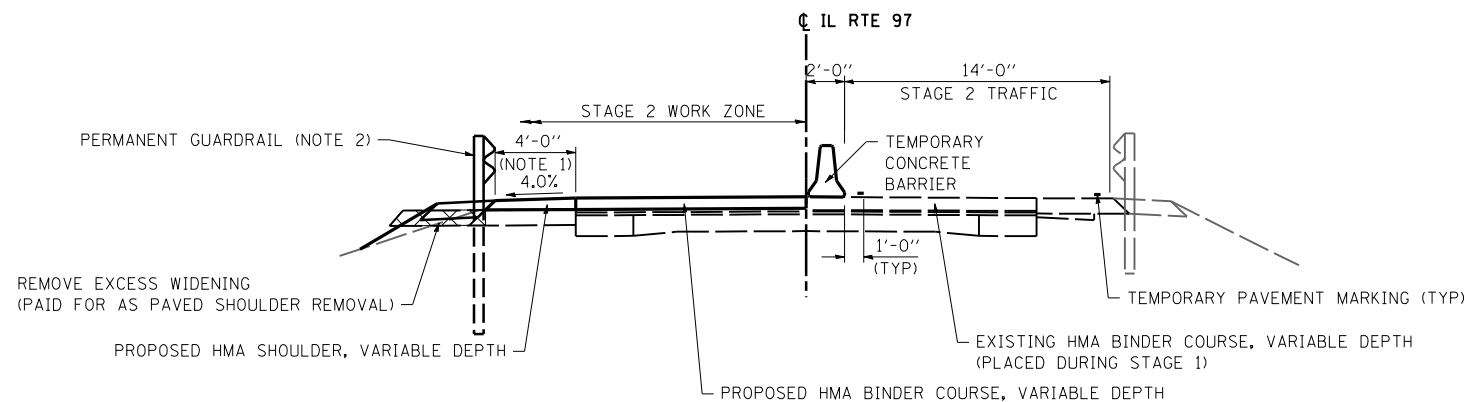
FILE NAME = D468759-sht-staging.dgn	USER NAME = default	DESIGNED - RGV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE 1 CONSTRUCTION & TRAFFIC CONTROL	F.A.P. RTE. 626	SECTION (44-B-1) BR	COUNTY KNOX	TOTAL SHEETS 122	SHEET NO. 23	
	PLOT TIME = 8:52:27 AM	DRAWN - RGV	REVISED -		SCALE: 1"=50'	SHEET 2 OF 6 SHEETS	CONTRACT NO. 68759		ILLINOIS FED. AID PROJECT		
	PLOT SCALE = 100.0000' / IN.	CHECKED - BPS	REVISED -		STA. _____ TO STA. _____						
	PLOT DATE = 8/9/2013	DATE -	REVISED -								



STAGE 2 BRIDGE TYPICAL SECTION – PPC DECK BEAM SPANS
(LOOKING NORTH AT STRUCTURE)
FOR INFORMATION ONLY



STAGE 2 BRIDGE TYPICAL SECTION – PPC I-BEAM SPANS
(LOOKING NORTH AT STRUCTURE)
FOR INFORMATION ONLY



STAGE 2 CONSTRUCTION TYPICAL SECTION
(SOUTH OF STRUCTURE, LOOKING NORTH)

SUGGESTED STAGE 2 & 3 CONSTRUCTION

SUGGESTED STAGE 2

1. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701321, DIRECT TRAFFIC TO THE RT LANE OF IL ROUTE 97.
2. REMOVE THE LT SIDE OF THE EXISTING STRUCTURE.
3. CONSTRUCT THE LT SIDE OF THE BRIDGE AND BRIDGE APPROACH PAVEMENT.
4. PERFORM HMA SURFACE REMOVAL & BUTT JOINT AND CONSTRUCT THE PROPOSED VARIABLE DEPTH HMA BINDER COURSE ON THE LT SIDE OF IL ROUTE 97, FROM STA. 1961+54 TO STA. 1964+50 AND FROM STA. 1973+80 TO STA. 1976+71.
5. CONSTRUCT TEMPORARY RAMPS AT STA. 1964+50 AND STA. 1973+80.
6. INSTALL GUARDRAIL, HMA SHOULDERS, AND EROS CONTROL AGG ON LT SIDE OF IL ROUTE 97 AND COMPLETE DRAINAGE AND GRADING IMPROVEMENTS.

SUGGESTED STAGE 3

1. UTILIZING TRAFFIC CONTROL AND PROTECTION, STANDARD 701306, COMPLETE HMA SURFACE REMOVAL & BUTT JOINT FOR THE RT AND LT LANES (AND AT HMA BASE COURSE WIDENING AS SHOWN ON THE REMOVAL PLAN SHEET) OF IL ROUTE 97 FROM STA. 1958+80 TO STA. 1961+54 AND STA. 1976+71 TO STA. 1980+25.
2. CONSTRUCT TEMPORARY RAMP AT STA. 1958+80 AND STA. 1980+25 IF RE-OPENED TO TRAFFIC PRIOR TO PLACING ASPHALT.
3. CONSTRUCT THE PROPOSED HMA SURFACE COURSE FOR THE RT AND LT LANES OF IL ROUTE 97 FROM STA. 1958+80 TO STA. 1964+50 AND STA. 1973+80 TO STA. 1980+25.
4. CONSTRUCT FINAL HMA SHOULDER LIFTS AND EROSION CONTROL AGGREGATE ON BOTH SIDES OF IL ROUTE 97.
5. CONSTRUCT PROPOSED ENTRANCES AND ALL REMAINING IMPROVEMENTS.

ADDITIONAL NOTES

- NOTE 1: HMA SHOULDER, VARIABLE DEPTH SHALL BE BUILT WIDE ENOUGH TO SUPPORT THE FINAL WIDTH SHOWN ON THE TYPICAL SECTIONS.
- NOTE 2: THE PERMANENT GUARDRAIL SHALL BE BUILT TALL ENOUGH TO MEET THE HEIGHT REQUIREMENTS LISTED ON HWY STD 630001 AFTER SURFACE COURSE HAS BEEN PLACED.

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PLOT SCALE = 100.0000' / IN.
PLOT DATE = 8/9/2013

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

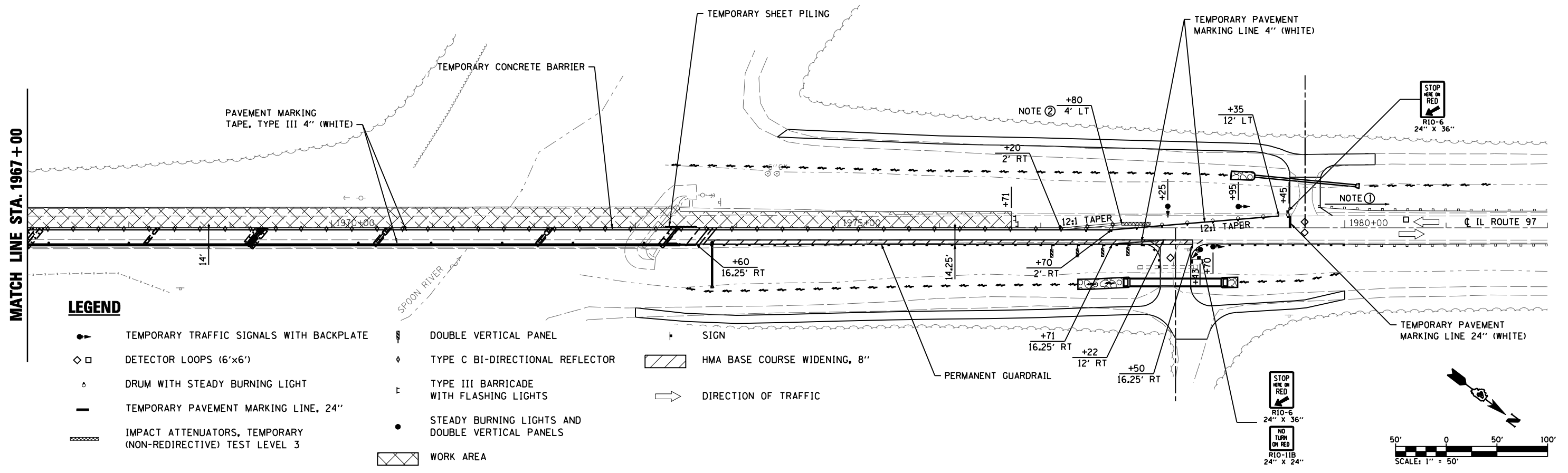
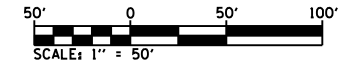
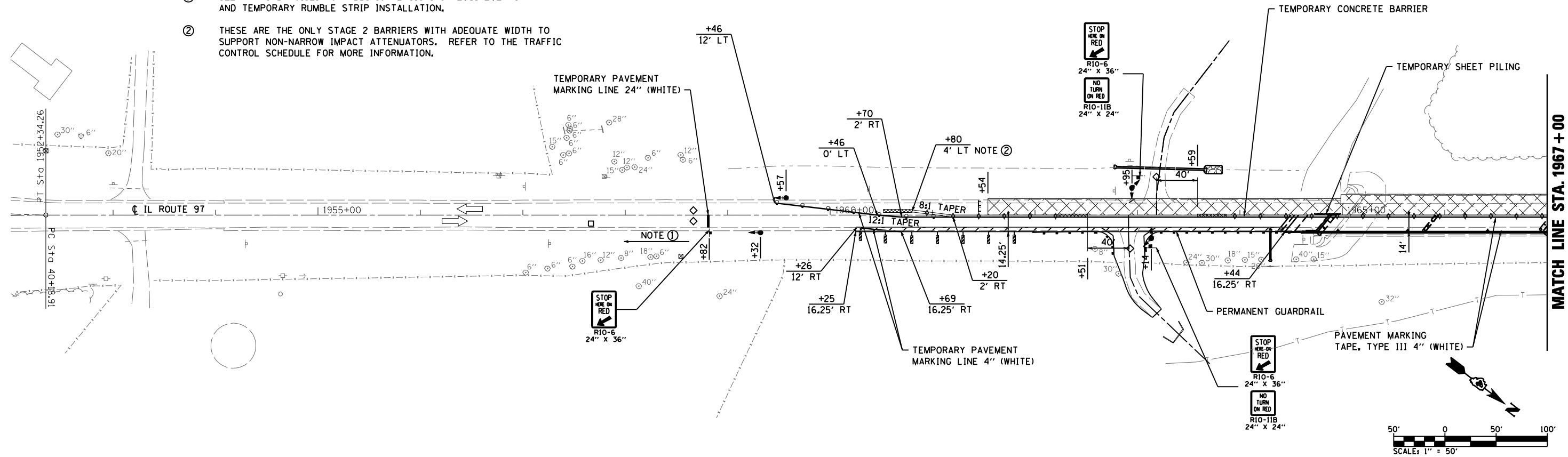
STAGE 2 TYPICAL SECTIONS & STAGING NOTES

SCALE: SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	24
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

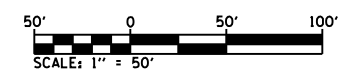
NOTES:

- ① SEE HWY STD 701321 FOR ADDITIONAL SIGNING REQUIREMENTS AND TEMPORARY RUMBLE STRIP INSTALLATION.
- ② THESE ARE THE ONLY STAGE 2 BARRIERS WITH ADEQUATE WIDTH TO SUPPORT NON-NARROW IMPACT ATTENUATORS. REFER TO THE TRAFFIC CONTROL SCHEDULE FOR MORE INFORMATION.



LEGEND

- ▲ TEMPORARY TRAFFIC SIGNALS WITH BACKPLATE
- ◇ □ DETECTOR LOOPS (6'x6')
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY PAVEMENT MARKING LINE, 24"
- ▨ IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
- ▨ WORK AREA
- ▨ DOUBLE VERTICAL PANEL
- ◇ TYPE C BI-DIRECTIONAL REFLECTOR
- ⊠ TYPE III BARRICADE WITH FLASHING LIGHTS
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- ⊠ SIGN
- ▨ HMA BASE COURSE WIDENING, 8"
- ➔ DIRECTION OF TRAFFIC



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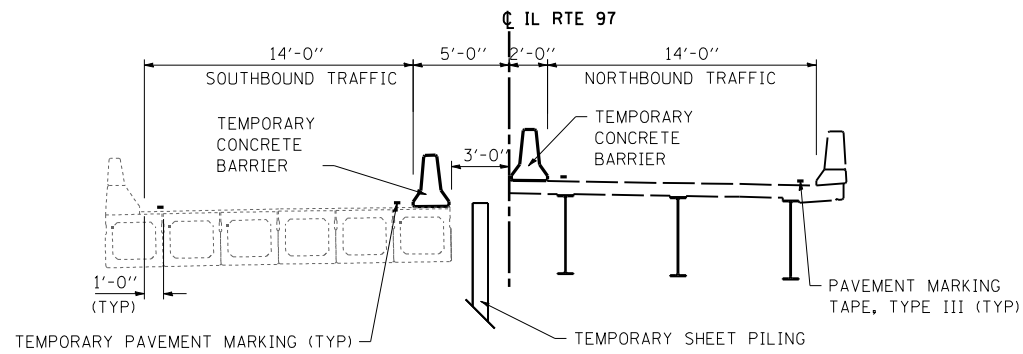
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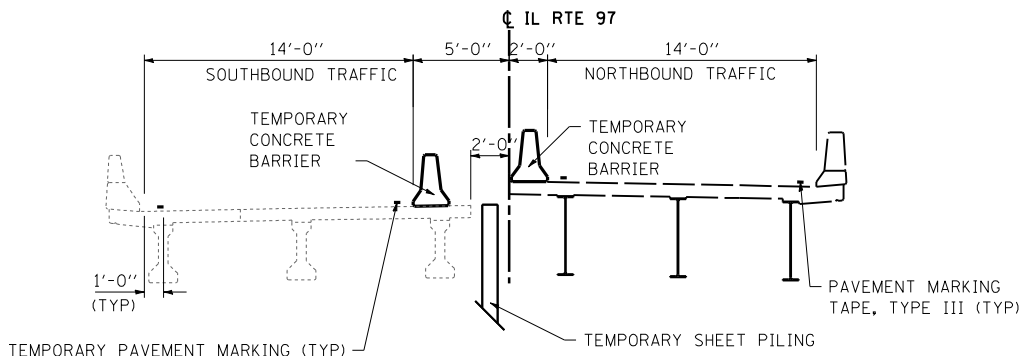
STAGE 2 CONSTRUCTION & TRAFFIC CONTROL

SCALE: 1"=50' SHEET 4 OF 6 SHEETS STA. TO STA.

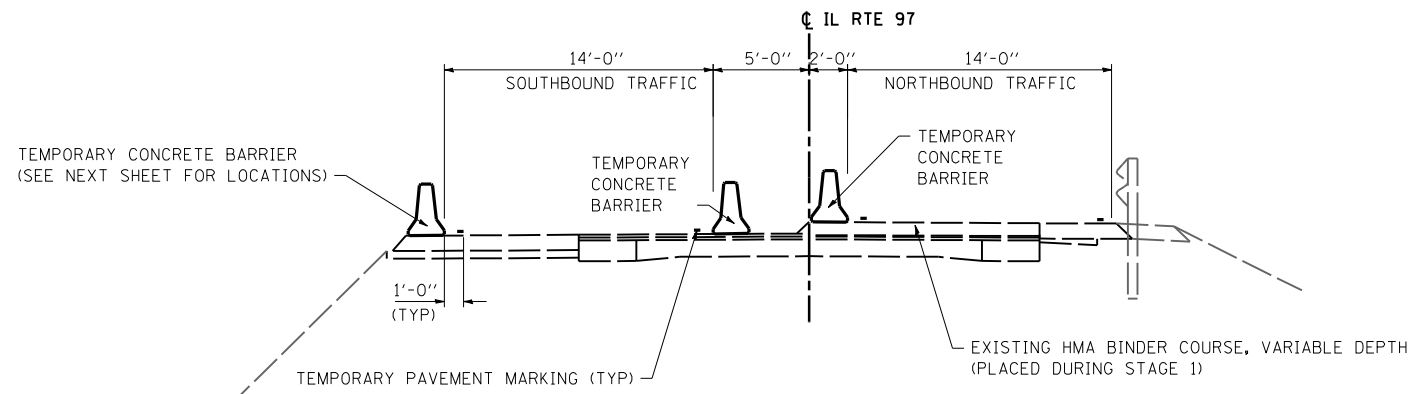
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	25
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



WINTER SHUTDOWN BRIDGE TYPICAL SECTION - PPC DECK BEAM SPANS
(LOOKING NORTH AT STRUCTURE)
FOR INFORMATION ONLY



WINTER SHUTDOWN BRIDGE TYPICAL SECTION - PPC I-BEAM SPANS
(LOOKING NORTH AT STRUCTURE)
FOR INFORMATION ONLY

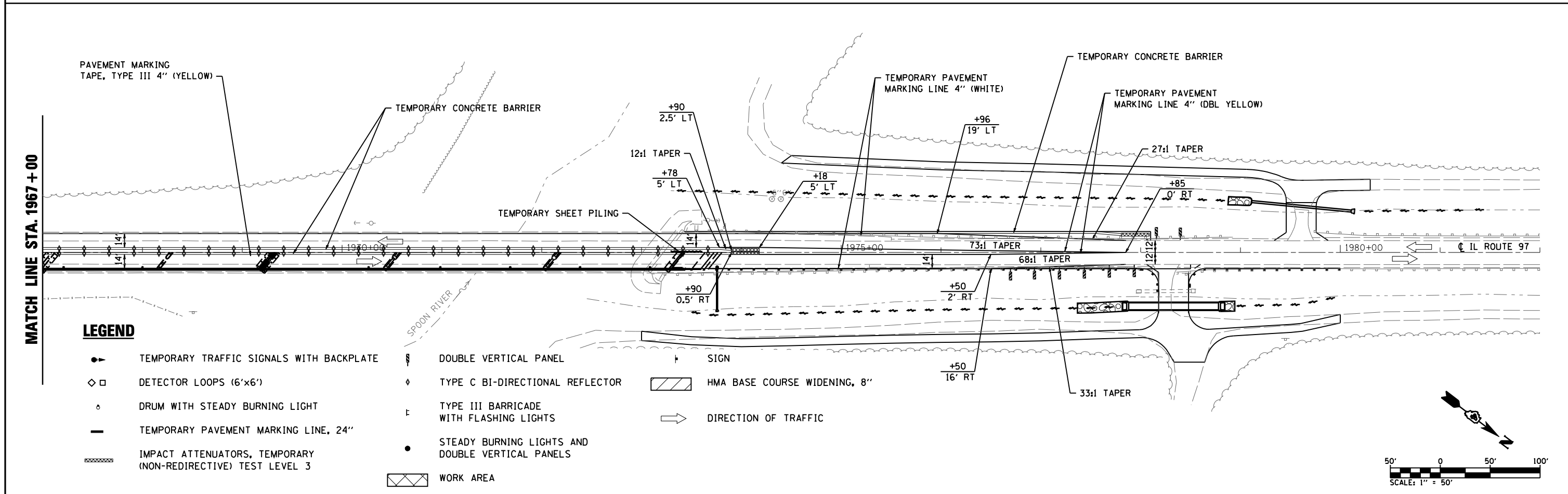
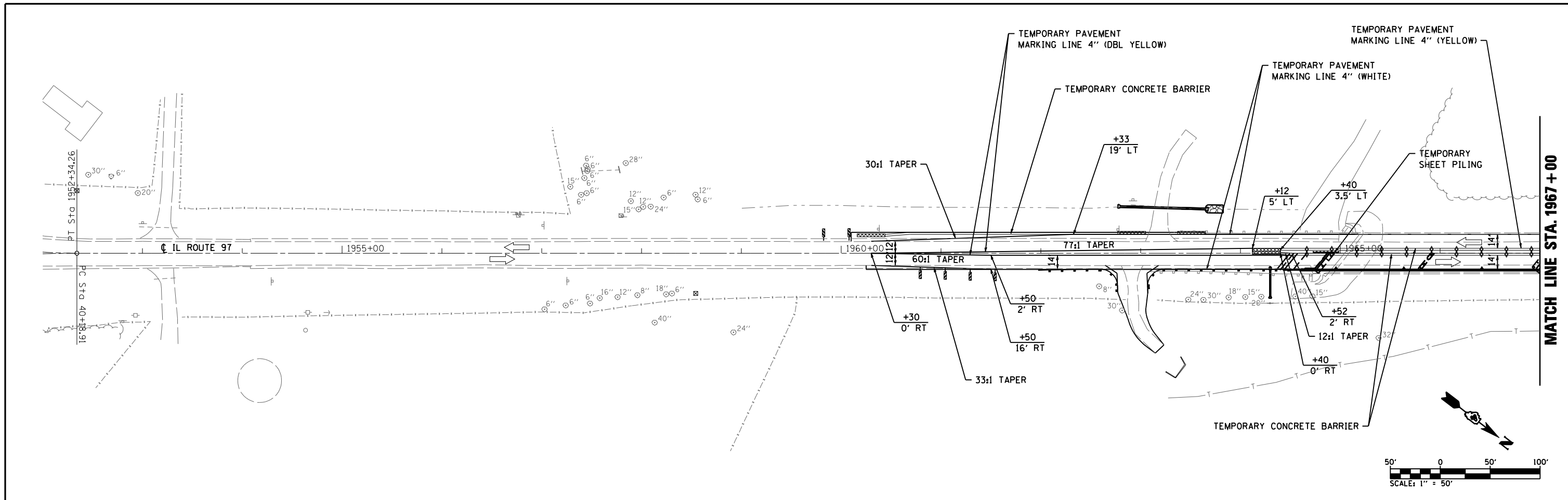


WINTER SHUTDOWN TYPICAL SECTION
(SOUTH OF STRUCTURE, LOOKING NORTH)

SUGGESTED WINTER SHUTDOWN

1. THE CONTRACTOR IS REQUIRED TO REOPEN ALL LANES TO TRAFFIC DURING THE WINTER SHUTDOWN PERIOD.
2. ADJUST THE TEMPORARY CONCRETE BARRIER AS SHOWN ON THE NEXT SHEET.
3. REMOVE THE EXISTING PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS AS SHOWN ON THE NEXT SHEET.
4. DISCONNECT THE TEMPORARY TRAFFIC SIGNAL SYSTEM AND COVER OR REMOVE SIGNAL HEADS FOR WINTER SHUTDOWN, NO ADDITIONAL COMPENSATION WILL BE ADDED.

FILE NAME = D4687591-sht-staging.dgn	USER NAME = default	DESIGNED - RGV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WINTER SHUTDOWN TYPICAL SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT TIME = 8:52:27 AM	DRAWN - RGV	REVISED -					626	(44-B-1) BR	KNOX	122	26
	PLOT SCALE = 100.0000' / IN.	CHECKED - BPS	REVISED -		SCALE:	SHEET 5	OF 6	SHEETS	STA.	TO STA.	CONTRACT NO. 68759	
	PLOT DATE = 8/9/2013	DATE -	REVISED -								ILLINOIS FED. AID PROJECT	



LEGEND

- TEMPORARY TRAFFIC SIGNALS WITH BACKPLATE
- ◇ DETECTOR LOOPS (6'x6')
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY PAVEMENT MARKING LINE, 24"
- ▨ IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3
- ▨ WORK AREA
- ▨ DOUBLE VERTICAL PANEL
- ◇ TYPE C BI-DIRECTIONAL REFLECTOR
- ⊠ TYPE III BARRICADE WITH FLASHING LIGHTS
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- ⊠ SIGN
- ▨ HMA BASE COURSE WIDENING, 8"
- ➔ DIRECTION OF TRAFFIC

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 PLOT DATE = 8/9/2013

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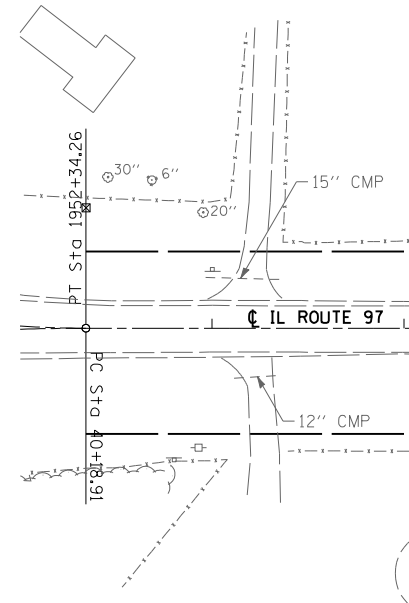
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

WINTER SHUTDOWN TRAFFIC CONTROL
 SCALE: 1"=50'
 SHEET 6 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. 626	SECTION (44-B-1) BR	COUNTY KNOX	TOTAL SHEETS 122	SHEET NO. 27
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

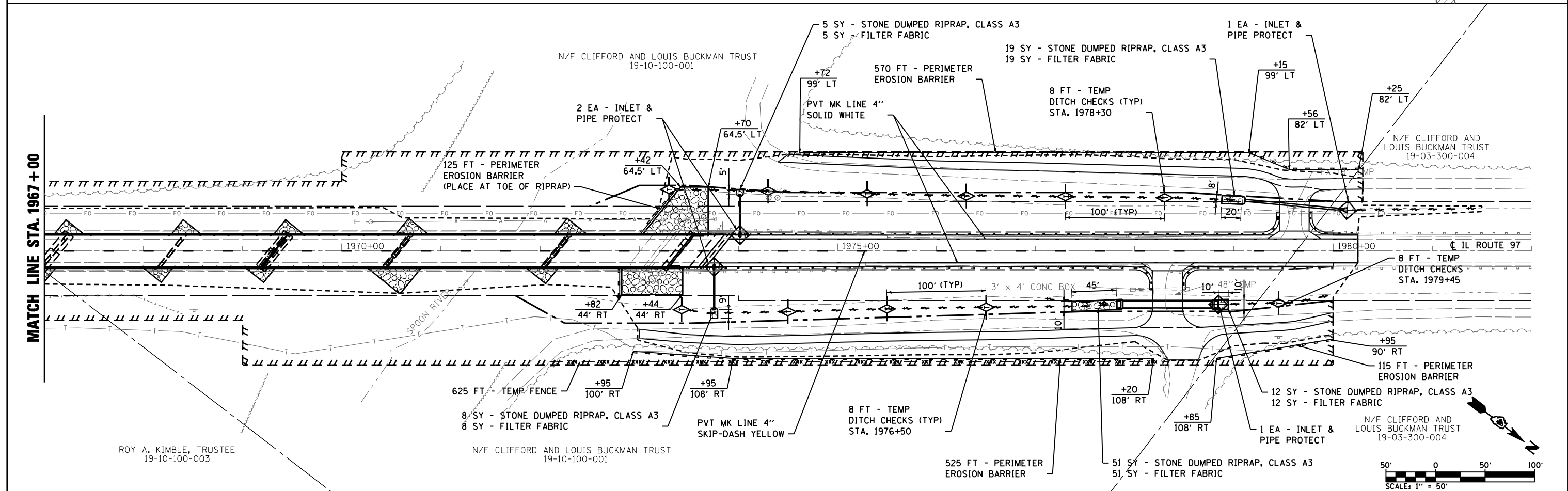
EROSION CONTROL LEGEND

- LIMITS OF CONSTRUCTION
- TEMPORARY DITCH CHECK
- STONE DUMPED RIPRAP
- PERIMETER EROSION BARRIER
SILT FILTER FENCE OR OTHER
AS APPROVED BY THE ENGINEER
- INLET AND PIPE PROTECTION
- TEMPORARY FENCE
- EXISTING WETLAND - DO NOT DISTURB



NOTES

- ① EROSION CONTROL BLANKET SHALL BE PLACED AT ALL AREAS WHERE PERMANENT SEEDING IS REQUIRED. BLANKET IS NOT SHOWN FOR CLARITY.



FILE NAME = D468759-shr-eros-pmk.dgn

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 PLOT SCALE = 100.0000' / IN.
 PLOT DATE = 8/9/2013

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

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 DEPARTMENT OF TRANSPORTATION**

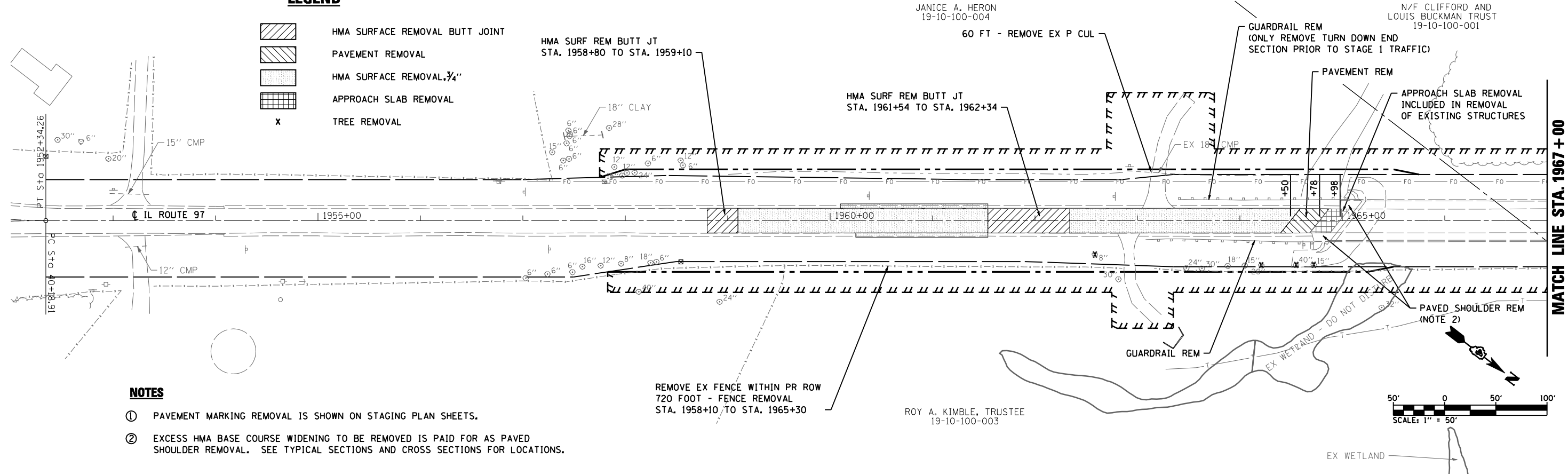
EROSION CONTROL & PAVEMENT MARKING SHEET

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 1953+00 TO STA. 1982+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	28
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

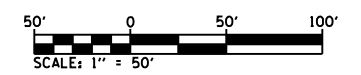
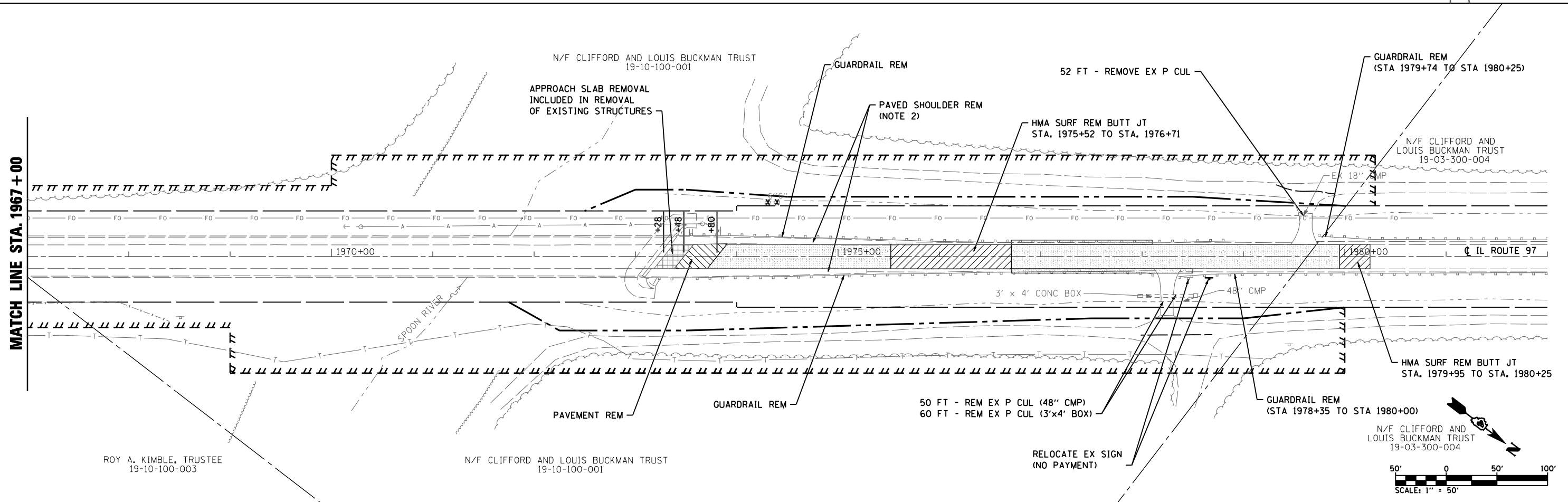
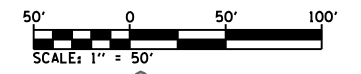
LEGEND

-  HMA SURFACE REMOVAL BUTT JOINT
-  PAVEMENT REMOVAL
-  HMA SURFACE REMOVAL, 3/4"
-  APPROACH SLAB REMOVAL
-  TREE REMOVAL



NOTES

- ① PAVEMENT MARKING REMOVAL IS SHOWN ON STAGING PLAN SHEETS.
- ② EXCESS HMA BASE COURSE WIDENING TO BE REMOVED IS PAID FOR AS PAVED SHOULDER REMOVAL. SEE TYPICAL SECTIONS AND CROSS SECTIONS FOR LOCATIONS.



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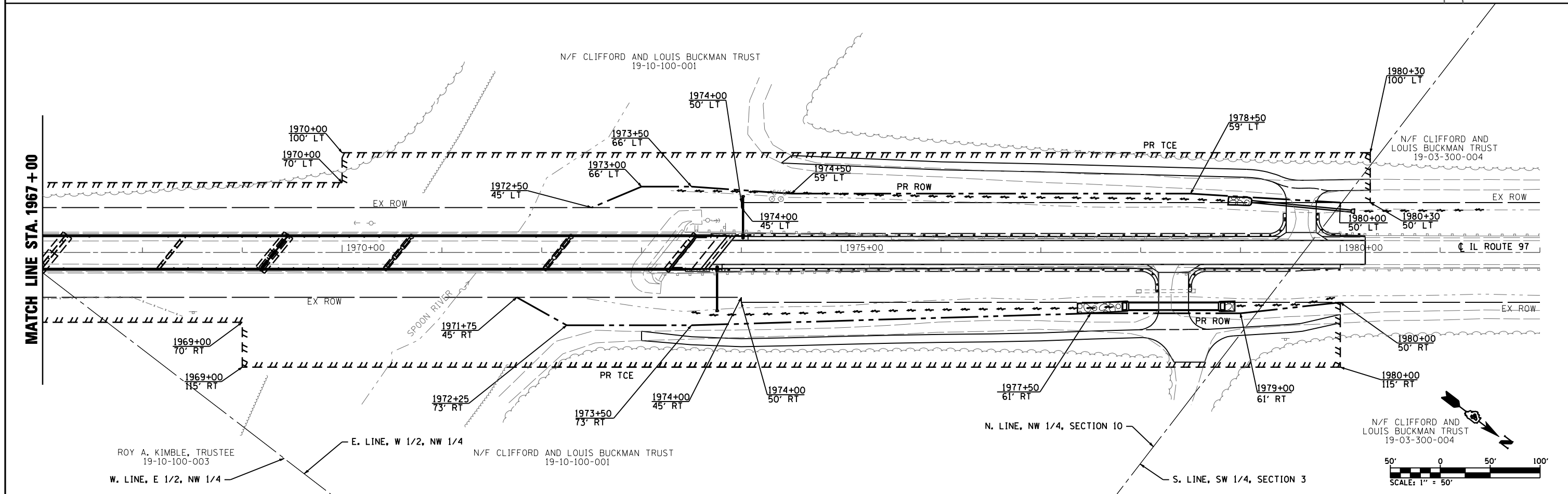
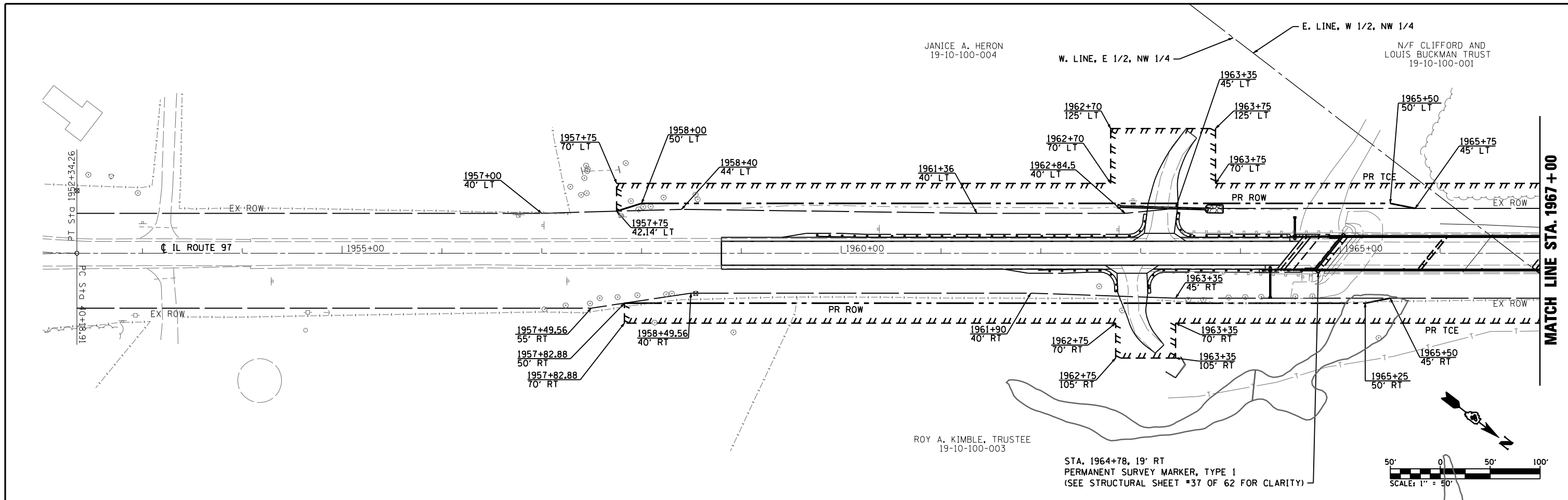
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DEPARTMENT OF TRANSPORTATION**

REMOVAL PLAN SHEET

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. 1953+00 TO STA. 1982+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	29
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



FILE NAME = D468759-sht-rowplan.dgn	USER NAME = default PLOT TIME = 8:52:36 AM PLOT SCALE = 100.0000' / IN. PLOT DATE = 8/9/2013	DESIGNED - RGV DRAWN - RGV CHECKED - BPS DATE -	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		RIGHT-OF-WAY PLAN SHEET		F.A.P. RTE. 626	SECTION (44-B-1) BR	COUNTY KNOX	TOTAL SHEETS 122	SHEET NO. 30
SCALE: 1"=50'						SHEET 1 OF 1 SHEETS		STA. 1953+00 TO STA. 1982+00		CONTRACT NO. 68759 ILLINOIS FED. AID PROJECT		

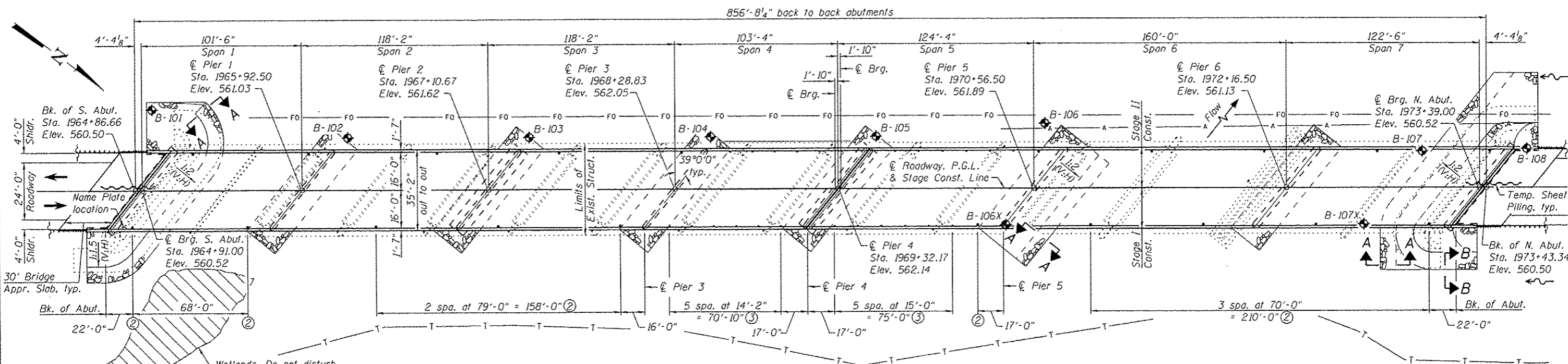
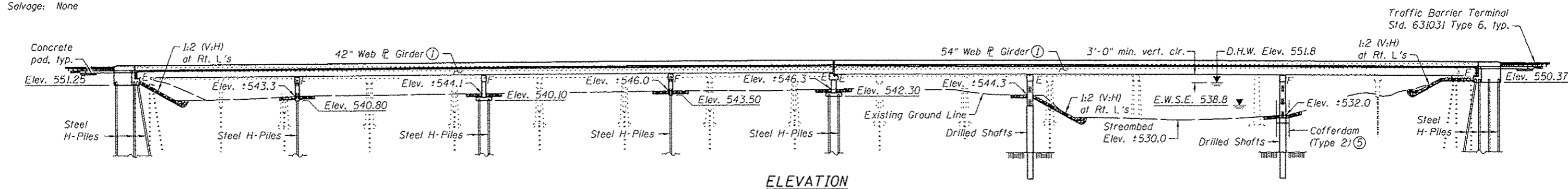
Bench Mark: BM 17 - Chiseled square, top of southwest parapet, Sta. 1965+15.37, 20.71' LT. Elev. 562.09.

Existing Structure: S.N. 048-0075 was originally built in 1926 as S.B.I. Route 8, Section 44B. In 1976, the superstructure and portions of the substructure were removed and replaced under section 44-B-1. The existing superstructure consists of thirteen spans of 36" PPC I-beams and two spans of 33"x36" PPC deck beams. The superstructure is supported by two solid wall pier bent piers founded on steel H-piles, eleven solid wall piers on spread footings founded on timber piles with solid wall pier bent extensions founded on steel H-piles, one solid wall pier founded on a spread footing, and stub abutments founded on steel H-piles. Several PPC deck beams were replaced in 2009 under Section (44-B-1). The back-to-back abutment length is 831'-3" and the out-to-out deck width is 42'-0". Structure to be removed and replaced.

Traffic Control: Stage construction will be utilized to maintain one lane of traffic.

Salvage: None

- Notes:
- Composite full length.
 - Drainage Scuppers, DS-II (Typ. both sides of structure)
 - 6" ϕ Floor Drains (Typ. both sides of structure)
 - For Sections A-A, B-B and Riprap Protection at Piers, see sheet 2 of 62.
 - For Cofferdam details, see sheet 5 of 62.



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)								
	S. Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Pier 6	N. Abut.
0/100	551.3	539.3	536.1	538.0	540.3	538.3	524.0	550.4
0/500	551.3	538.3	534.1	536.0	538.8	536.8	523.0	550.4

WATERWAY INFORMATION

Exist. Low Grade Elev. 558.1 @ Sta. 1977+25.00 Prop. Low Grade Elev. 558.1 @ Sta. 1977+25.00								
Flood	Freq. Yr.	Q	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.
		C.F.S.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	19,600	3,095	4,859	549.8	0.5	0.5	550.3
Base	50	25,750	4,074	6,200	551.8	0.5	0.5	552.3
Overtopping	100	28,250	4,479	6,674	552.5	0.5	0.5	553.0
Max. Calc.	500	34,500	5,413	7,693	554.1	0.6	0.6	554.7

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50W)

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.08g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.12g
 Soil Site Class = C

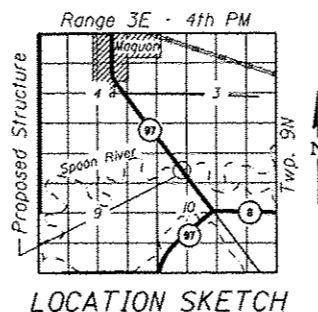
APPROVED
For Structural Adequacy Only

Daniel George Lutz
Engineer of Bridges & Structures

STATION 1969+15.00
 BUILT 20... BY
 STATE OF ILLINOIS
 F.A.P. RT. 626 SEC. (44-B-1)BR
 LOADING HL-93
 STRUCTURE NO. 048-0100

NAME PLATE
See Std. 515001

GENERAL PLAN AND ELEVATION
 IL RTE. 97 OVER SPOON RIVER
 F.A.P. RTE. 626 - SEC. (44-B-1)BR
 KNOX COUNTY
 STATION 1969+15.00
 STRUCTURE NO. 048-0100



LICENSED STRUCTURAL ENGINEER
 DANIEL GEORGE LUTZ
 081 006772
 STATE OF ILLINOIS
 DATE: 8/8/2013
 EXPIRATION: 11/30/2014

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in metallized areas and ASTM A325 Type 3 in non-metallized areas. Bolts $\frac{7}{8}$ in. ϕ , holes $\frac{13}{16}$ in. ϕ , unless otherwise noted.

Calculated weight of Structural Steel = AASHTO M 270 Grade 50W = 1,122,020 pounds
AASHTO M 270 Grade 50 = 7,880 pounds

All structural steel shall be AASHTO M 270 Grade 50W except expansion joints, diaphragms and cross frames below the expansion joint, and structural steel plates of the bearing assemblies below the expansion joints, which shall be AASHTO M 270 Grade 50.

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

Reinforcement bars designated (E) shall be epoxy coated.

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 girder at each of these additional bracket locations.

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

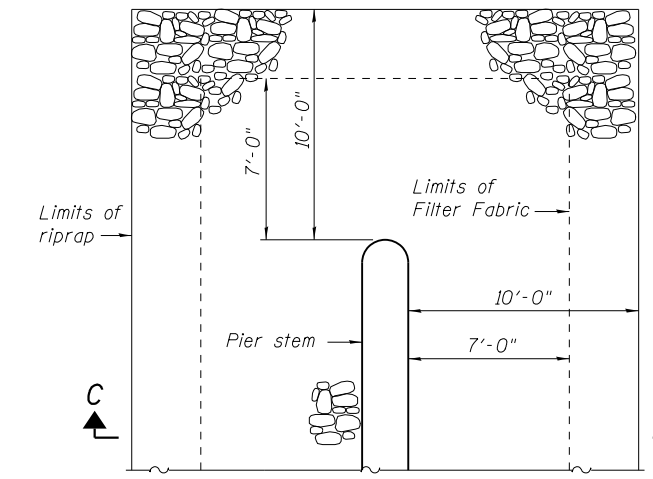
Concrete Sealer shall be applied to the designated areas of the abutments and piers.

All structural steel girders, cross frames, diaphragms, and bearings within a distance of 10 ft. from the expansion joints shall be metallized and painted with a color matching the Federal Color Standard 595a 20045 as specified in the Special Provision for Metallizing Structural Steel. All structural steel components of cross frames, diaphragms, and/or bearings within a distance of 10 ft. from the expansion joints may be galvanized in lieu of metallizing at the Contractor's option. Galvanizing shall be according to the Special Provision for Hot Dip Galvanizing for Structural Steel.

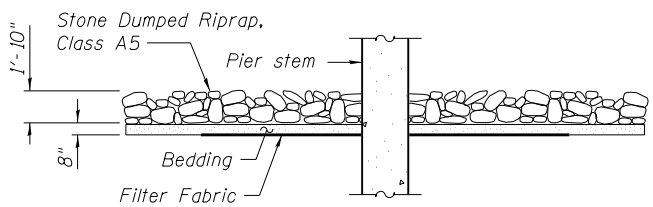
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

TOTAL BILL OF MATERIAL

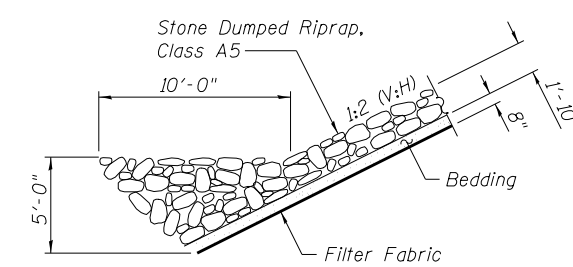
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Dumped Riprap, Class A5	Sq. Yd.	-	2,115	2,115
Filter Fabric	Sq. Yd.	-	1,640	1,640
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	809	809
Cofferdam Excavation	Cu. Yd.	-	77	77
Cofferdam (Type 2) (Location-1)	Each	-	1	1
Floor Drains	Each	24	-	24
Concrete Structures	Cu. Yd.	-	698.8	698.8
Concrete Superstructure	Cu. Yd.	1,103.9	-	1,103.9
Bridge Deck Grooving	Sq. Yd.	3,028	-	3,028
Seal Coat Concrete	Cu. Yd.	-	39.2	39.2
Concrete Encasement	Cu. Yd.	-	7.7	7.7
Protective Coat	Sq. Yd.	3,998	-	3,998
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	10,392	-	10,392
Reinforcement Bars	Pound	-	33,320	33,320
Reinforcement Bars, Epoxy Coated	Pound	261,610	84,600	346,210
Bar Splicers	Each	2,624	830	3,454
Mechanical Splicers	Each	-	128	128
Furnishing Steel Piles HP12x53	Foot	-	1,485	1,485
Furnishing Steel Piles HP14x73	Foot	-	560	560
Driving Piles	Foot	-	2,045	2,045
Test Pile Steel HP12x53	Each	-	4	4
Test Pile Steel HP14x73	Each	-	2	2
Name Plates	Each	1	-	1
Permanent Casing	Foot	-	60	60
Drilled Shaft in Soil	Cu. Yd.	-	110.7	110.7
Drilled Shaft in Rock	Cu. Yd.	-	48.4	48.4
Preformed Joint Strip Seal	Foot	86.5	-	86.5
Finger Plate Expansion Joint, 4"	Foot	41	-	41
Elastomeric Bearing Assembly, Type I	Each	6	-	6
Elastomeric Bearing Assembly, Type II	Each	18	-	18
Anchor Bolts, 1"	Each	108	-	108
Concrete Sealer	Sq. Ft.	-	1,687	1,687
Geocomposite Wall Drain	Sq. Yd.	-	74	74
Asbestos Bearing Pad Removal	Each	-	24	24
Drainage Scuppers, DS-II	Each	20	-	20
Temporary Sheet Piling	Sq. Ft.	-	939	939
Pipe Underdrains for Structures 4"	Foot	-	192	192
High Load Multi-Rotational Bearings, Guided Expansion, 350K	Each	6	-	6
Granular Backfill for Structures	Cu. Yd.	-	155	155



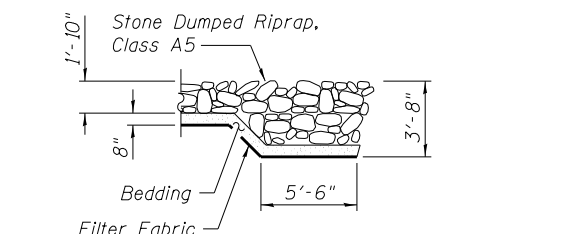
RIPRAP PROTECTION AT PIERS



SECTION C-C



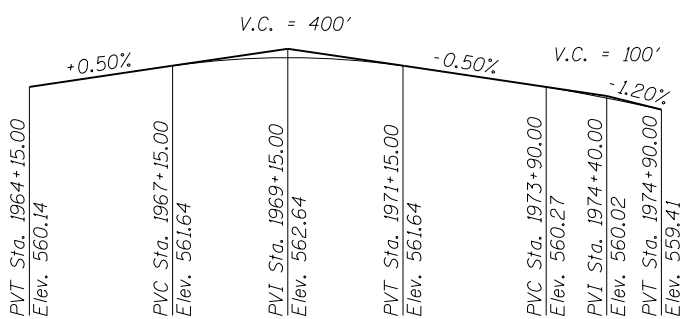
SECTION A-A



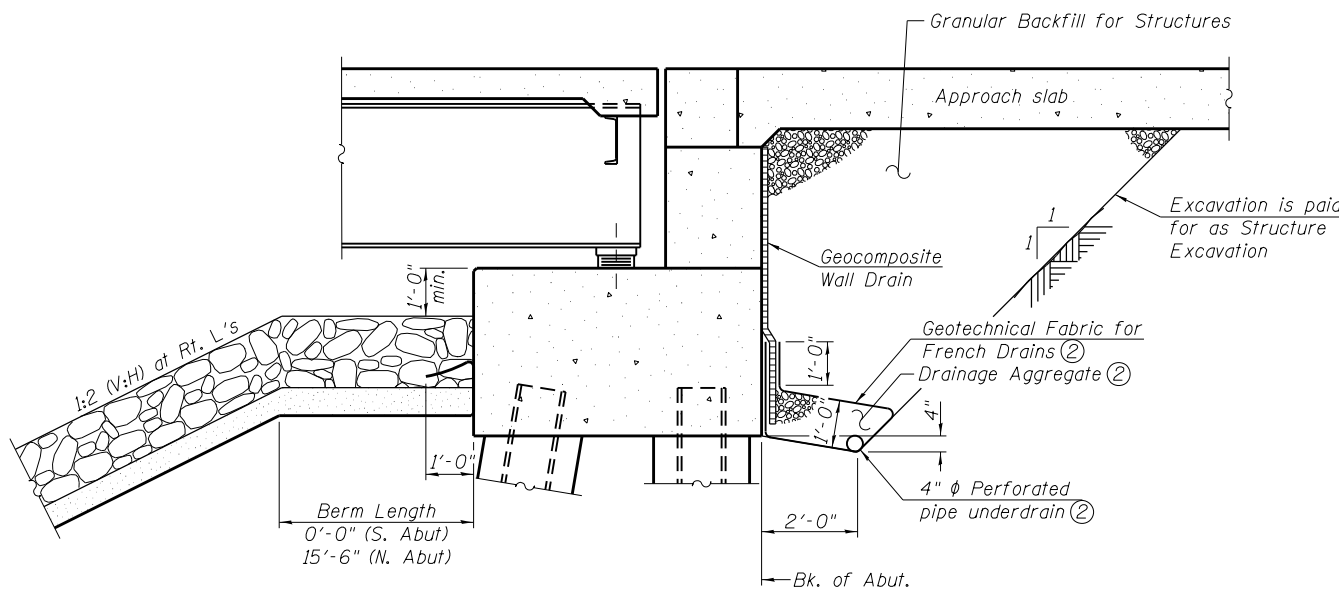
SECTION B-B

INDEX OF SHEETS

Sheet No.	Description
1	General Plan and Elevation
2	General Data
3	Footing Layout
4-5	Construction Details
6	Temporary Concrete Barrier for Stage Construction
7-14	Top of Slab Elevations
15	Top of South Approach Slab Elevations
16	Top of North Approach Slab Elevations
17-18	Superstructure
19-20	Superstructure Details
21-23	Bridge Approach Slab Details
24	Drainage Scuppers, DS-II
25	Preformed Joint Strip Seal
26-27	Finger Plate Expansion Joint
28-29	Framing Plan and Girder Details
30-33	Girder Details
34-36	Bearing Details
37-39	South Abutment Details
40-42	North Abutment Details
43	Pier 1 Details
44	Pier 2 Details
45	Pier 3 Details
46	Pier 4 Details
47	Pier 5 Details
48	Pier 6 Details
49	Pier 5 and 6 Details
50	HP Pile Details
51	Bar Splicer Assembly and Mechanical Splicer Details
52	Concrete Parapet Slipforming Option
53-62	Soil Boring Logs



PROFILE GRADE
(along \bar{C} roadway)



SECTION THRU PILE SUPPORTED STUB ABUTMENT
(Horiz. dim. at Rt. L's)

Notes:

- All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls. The pipe shall extend under the wingwall, until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).
- Included in the cost of Pipe Underdrains for Structures 4".



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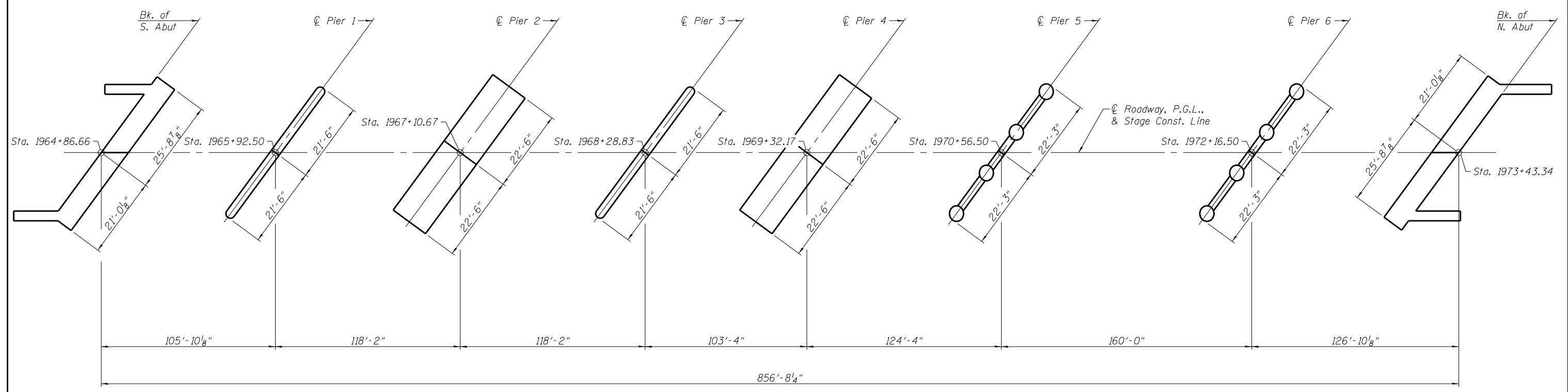
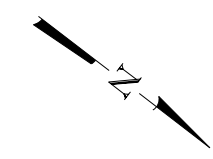
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**GENERAL DATA
STRUCTURE NO. 048-0100**

SHEET NO. 2 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	32
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



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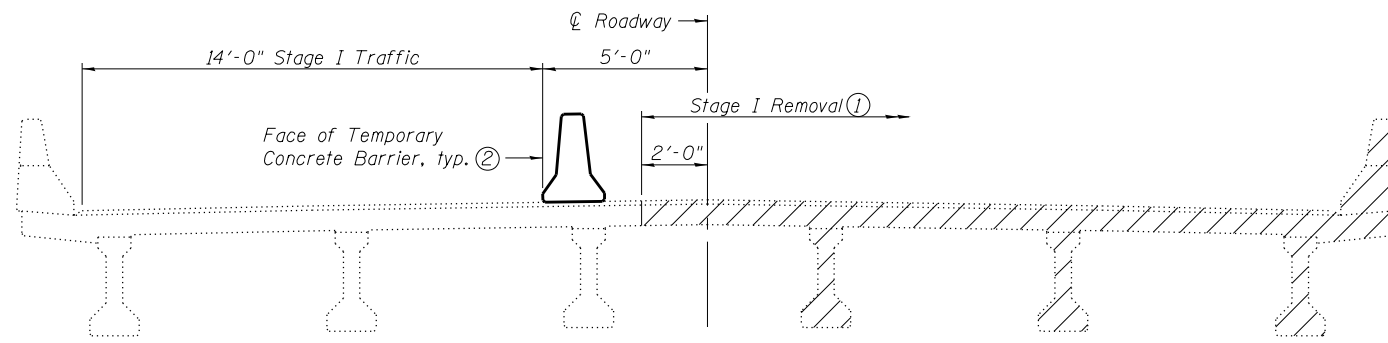
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

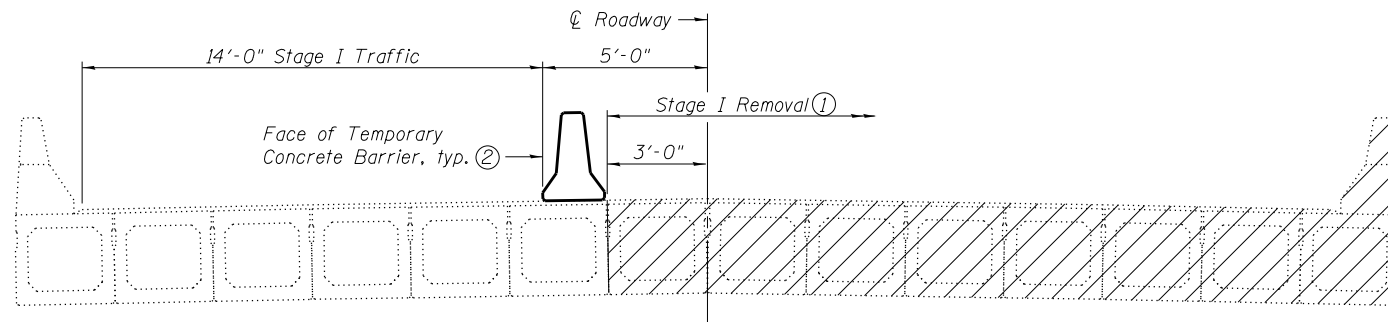
**FOOTING LAYOUT
 STRUCTURE NO. 048-0100**

SHEET NO. 3 OF 62 SHEETS

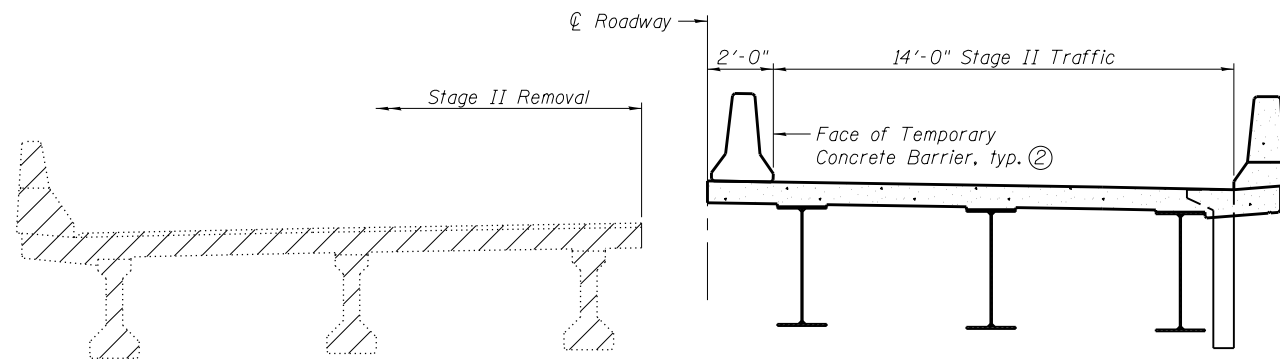
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	33
CONTRACT NO. 68759				
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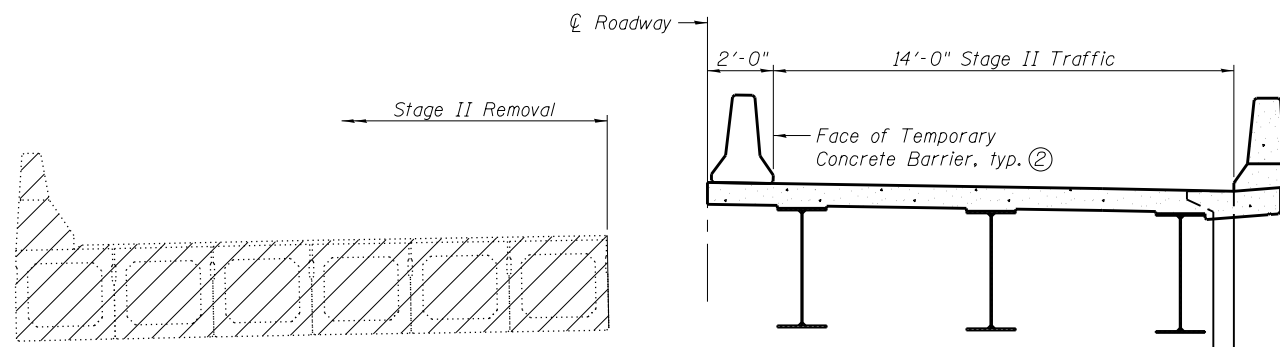
STAGE I REMOVAL
(Existing spans 1 thru 12 and 15)



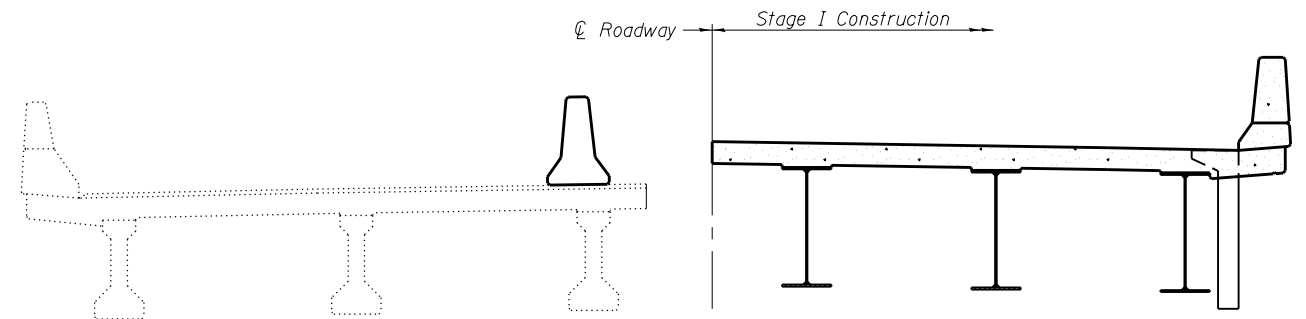
STAGE I REMOVAL
(Existing spans 13 and 14)



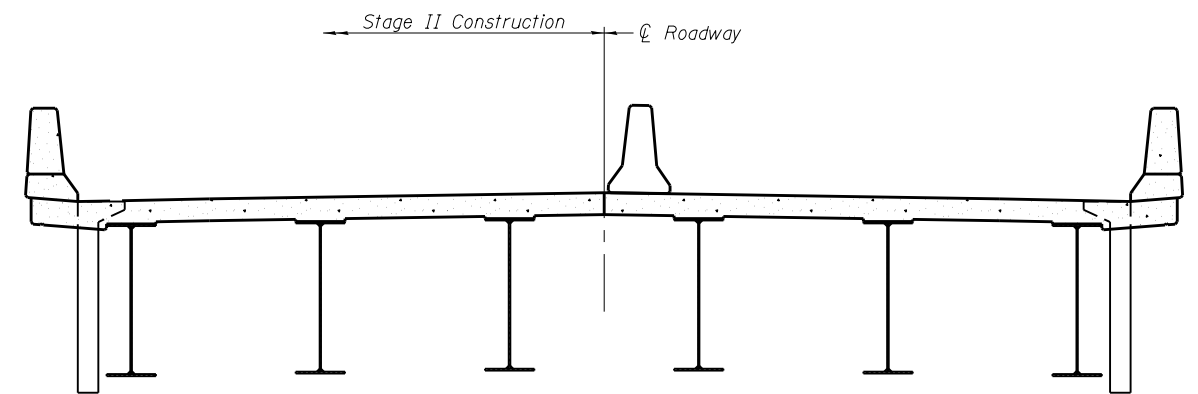
STAGE II REMOVAL
(Existing spans 1 thru 12 and 15)



STAGE II REMOVAL
(Existing spans 13 and 14)



STAGE I CONSTRUCTION ④
(Showing existing spans 1 thru 12 and 15,
existing spans 13 and 14 similar)



STAGE II CONSTRUCTION ④

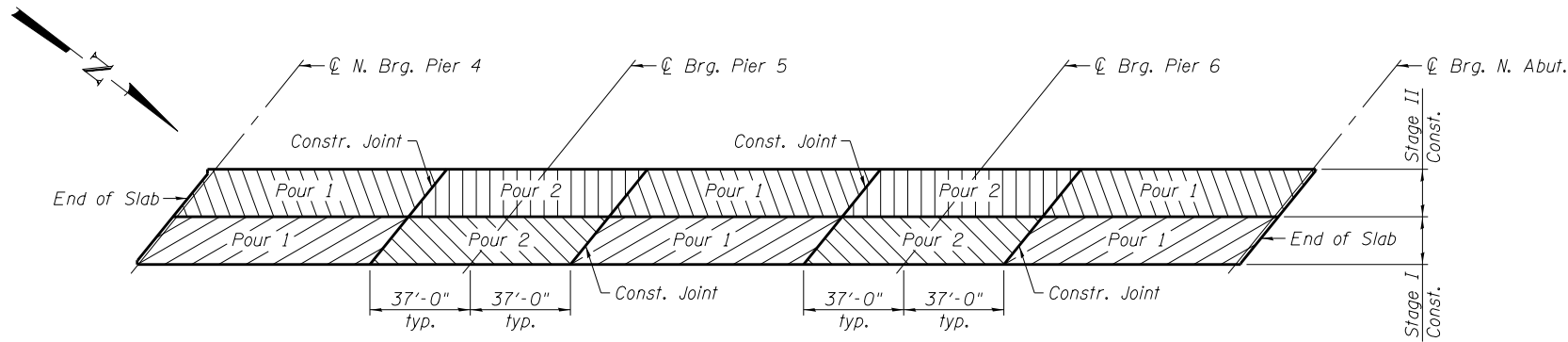
Notes:

- ① Existing piers within the main channel shall only be removed to a height that allows adequate clearance for construction of the Stage I superstructure. The remainder of the pier shall be removed during Stage II removal.
- ② For details of Temporary Concrete Barrier, see sheet 6 of 62. See roadway plans for quantity of Temporary Concrete Barrier and related traffic control.
- ③ All views looking north.
- ④ For winter shutdown details, see roadway plans.

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	34
CONTRACT NO. 68759				

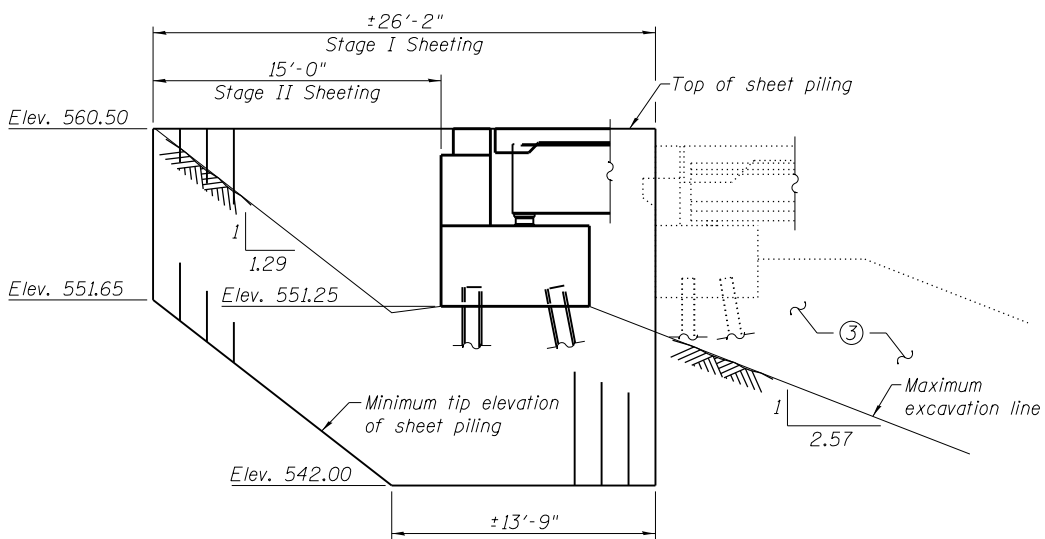
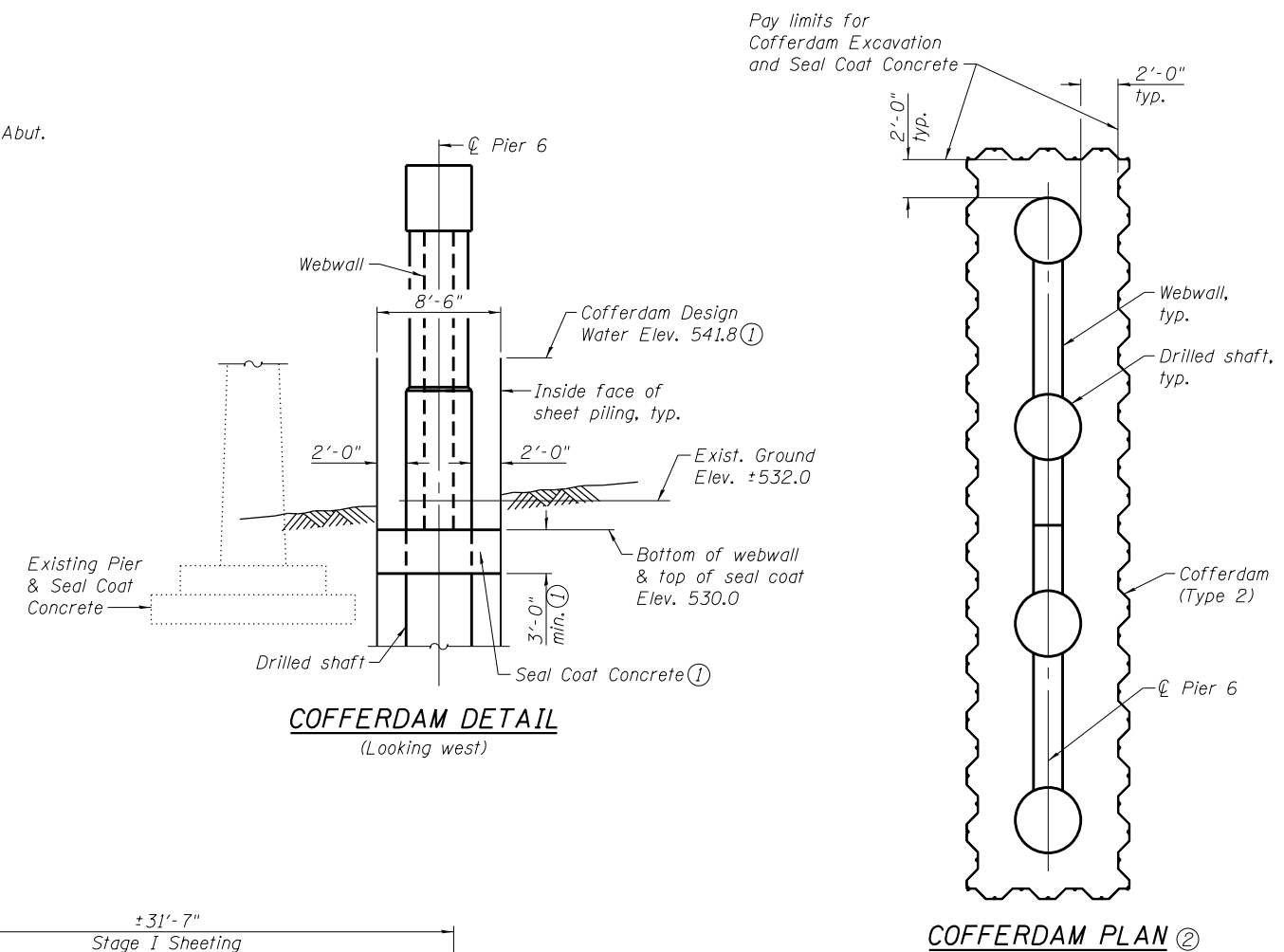
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MANDATORY DECK POURING SEQUENCE - SPANS 5 THRU 7
(No mandatory sequence - Spans 1 thru 4)

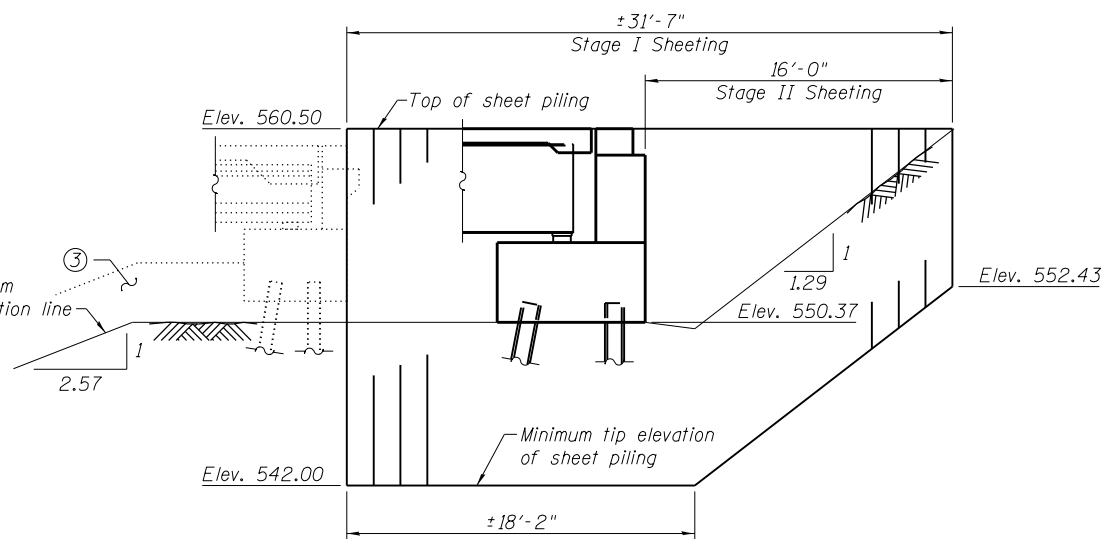
Sequence:

1. Pour 1 shall consist of the three areas identified as Pour 1 in the above sketch. All three Pour 1 areas shall be poured on the same day. The order in which the Pour 1 areas are completed and the direction of the pours are arbitrary and shall be determined by the Contractor.
2. Pour 2 shall not begin until both of the following are met:
 - a. At least 72 hours shall have elapsed from the end of Pour 1.
 - b. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
3. Pour 2 shall consist of the two areas identified as Pour 2 in the above sketch. Both Pour 2 areas shall be poured on the same day. The order in which the Pour 2 areas are completed and the direction of the pours are arbitrary and shall be determined by the Contractor.



SOUTH ABUTMENT

(Minimum Section Modulus = 10 in³/ft)



NORTH ABUTMENT

(Minimum Section Modulus = 10 in³/ft)

TEMPORARY SHEET PILING DETAIL

- Notes:
- ① Seal Coat Concrete is mandatory and the thickness shall not be less than 3'-0". Cofferdam design details shall be submitted to the Engineer for approval. See Special Provisions.
 - ② Cofferdam staging shall be determined by the Contractor.
 - ③ Slope between existing and proposed embankment during Stage I Construction. Slope not to exceed 1:1 (V:H).
 - ④ If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

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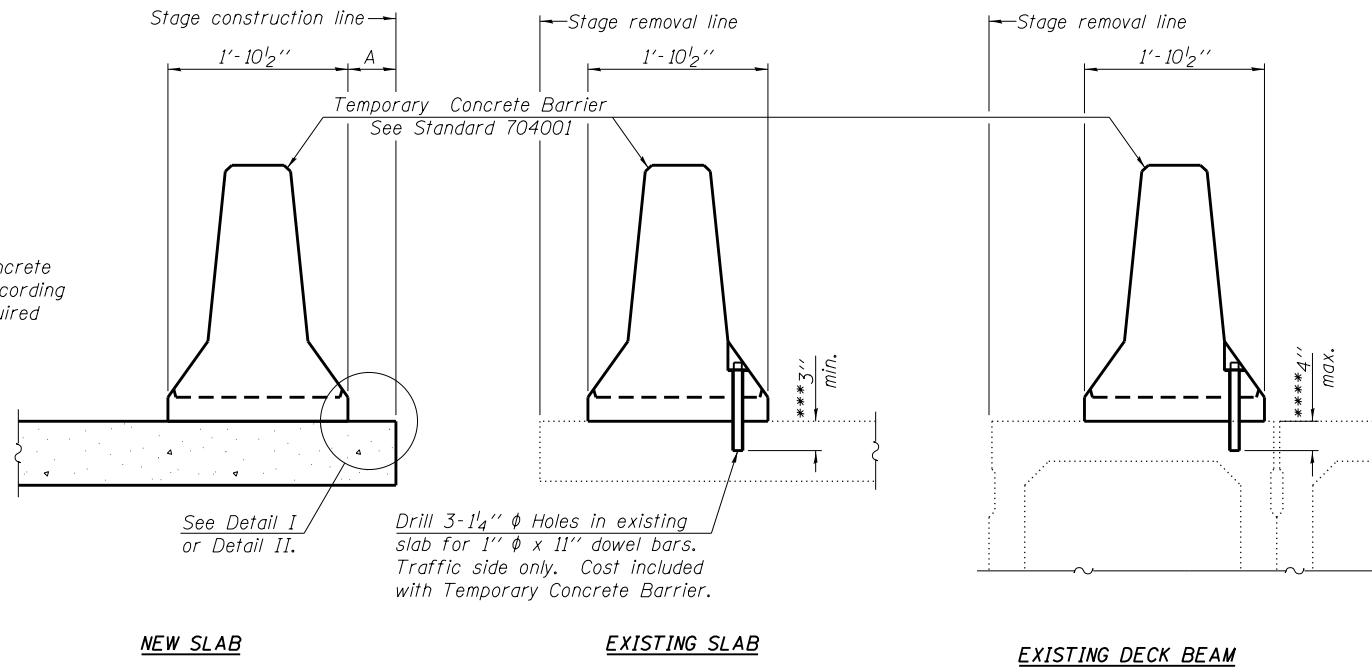
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CONSTRUCTION DETAILS
STRUCTURE NO. 048-1100
SHEET NO. 5 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	35
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

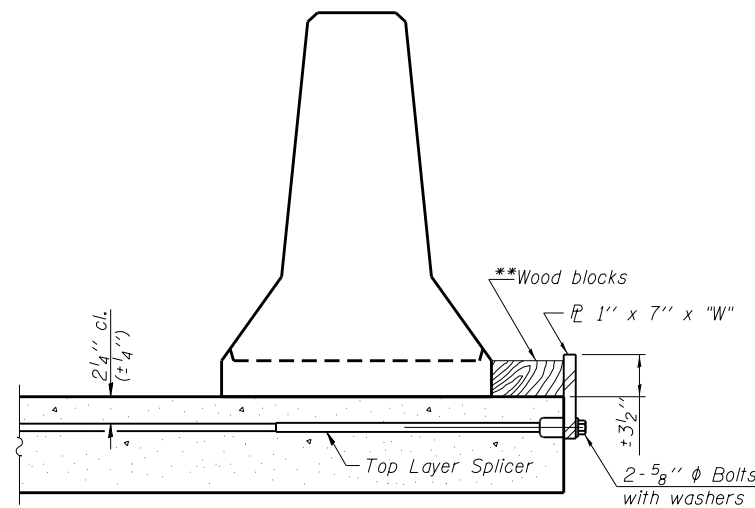
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

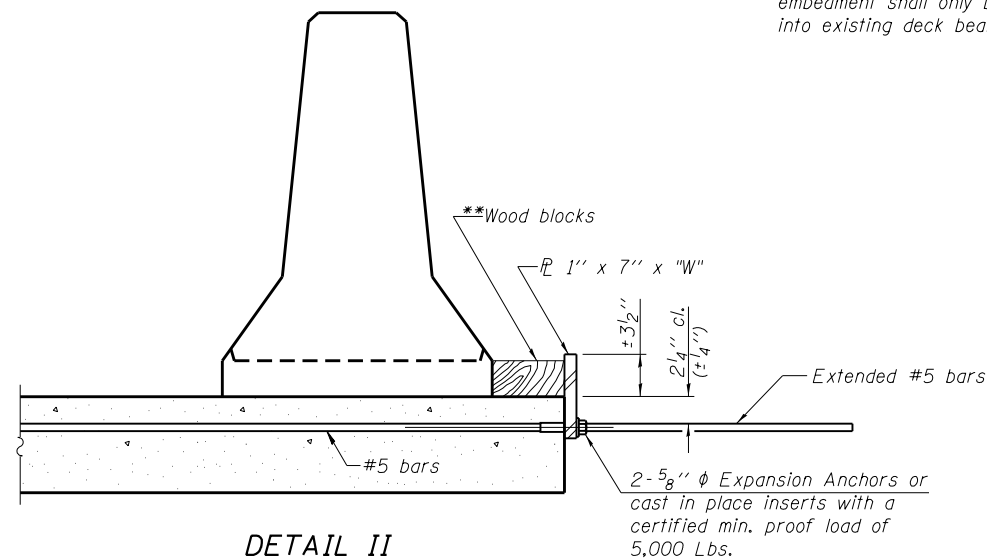
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

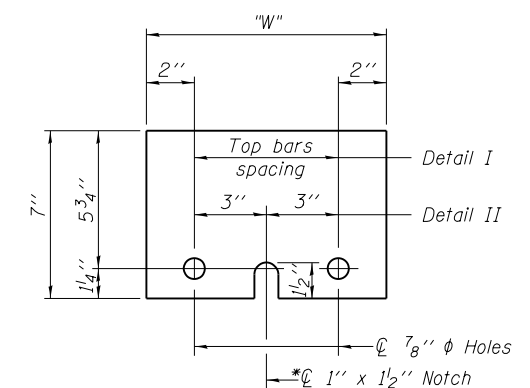
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10



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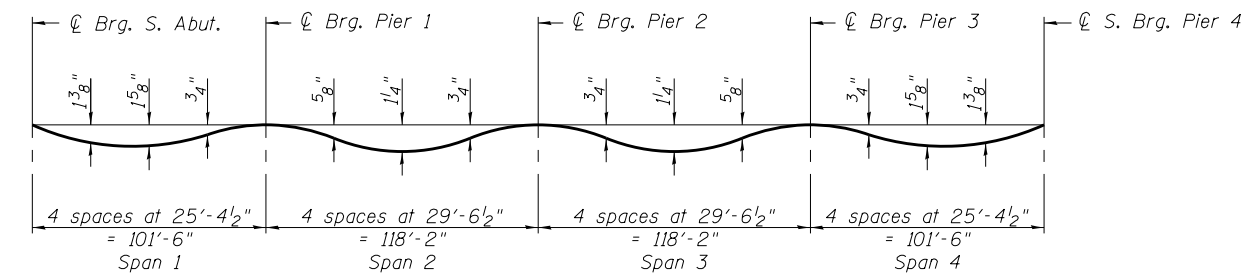
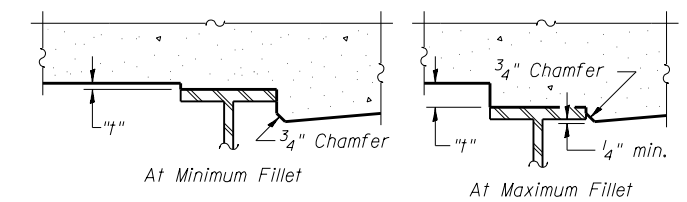
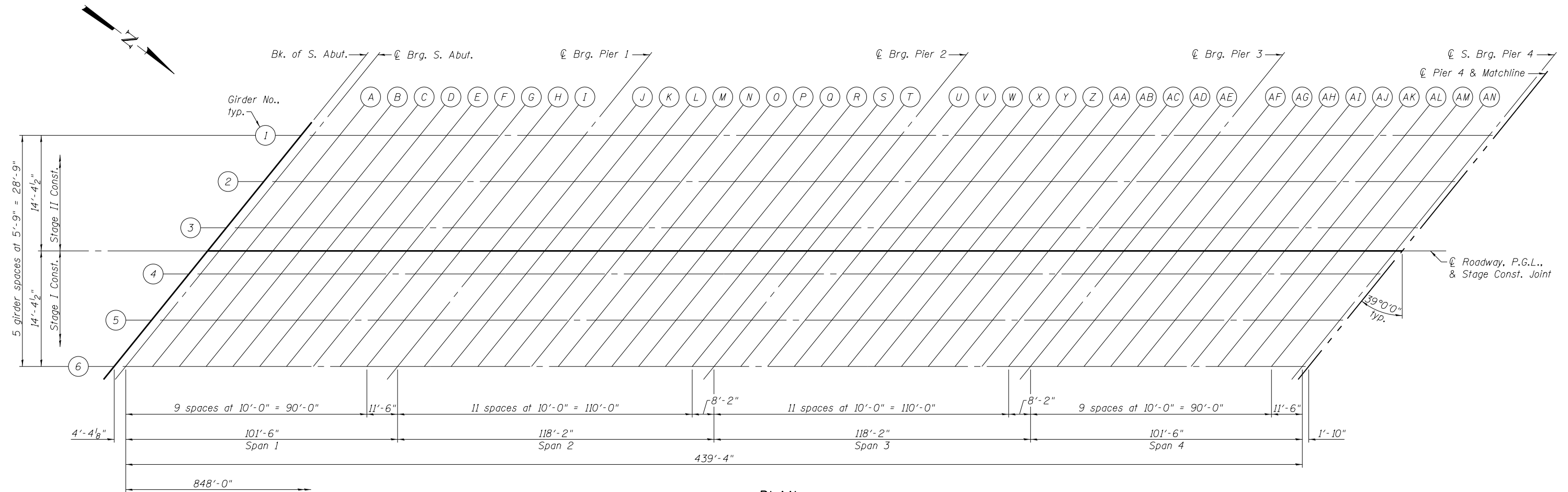
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 048-0100**

SHEET NO. 6 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	36
			CONTRACT NO. 68759	

ILLINOIS FED. AID PROJECT



Notes:
 ① To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 8 thru 10 of 62, minus slab thickness, equals the fillet heights "t" above top flange of girders.
 ② The Dead Load Deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on sheets 8 thru 10 of 62.



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TOP OF SLAB ELEVATIONS - SPANS 1 THRU 4
 STRUCTURE NO. 048-0100
 SHEET NO. 7 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	37
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of S. Abut.	1964+75.02	14.38	560.20	560.20
⊕ Brg. S. Abut.	1964+79.36	14.38	560.22	560.22
A	1964+89.36	14.38	560.27	560.32
B	1964+99.36	14.38	560.32	560.42
C	1965+09.36	14.38	560.37	560.50
D	1965+19.36	14.38	560.42	560.56
E	1965+29.36	14.38	560.47	560.61
F	1965+39.36	14.38	560.52	560.64
G	1965+49.36	14.38	560.57	560.66
H	1965+59.36	14.38	560.62	560.68
I	1965+69.36	14.38	560.67	560.69
⊕ Brg. Pier 1	1965+80.86	14.38	560.73	560.73
J	1965+90.86	14.38	560.78	560.79
K	1966+00.86	14.38	560.83	560.86
L	1966+10.86	14.38	560.88	560.94
M	1966+20.86	14.38	560.93	561.01
N	1966+30.86	14.38	560.98	561.08
O	1966+40.86	14.38	561.03	561.13
P	1966+50.86	14.38	561.08	561.18
Q	1966+60.86	14.38	561.13	561.21
R	1966+70.86	14.38	561.18	561.24
S	1966+80.86	14.38	561.23	561.26
T	1966+90.86	14.38	561.28	561.29
⊕ Brg. Pier 2	1966+99.03	14.38	561.32	561.32
U	1967+09.03	14.38	561.37	561.38
V	1967+19.03	14.38	561.42	561.45
W	1967+29.03	14.38	561.47	561.53
X	1967+39.03	14.38	561.51	561.60
Y	1967+49.03	14.38	561.56	561.66
Z	1967+59.03	14.38	561.60	561.70
AA	1967+69.03	14.38	561.64	561.73
AB	1967+79.03	14.38	561.67	561.75
AC	1967+89.03	14.38	561.70	561.75
AD	1967+99.03	14.38	561.73	561.76
AE	1968+09.03	14.38	561.76	561.77
⊕ Brg. Pier 3	1968+17.19	14.38	561.78	561.78
AF	1968+27.19	14.38	561.81	561.82
AG	1968+37.19	14.38	561.83	561.87
AH	1968+47.19	14.38	561.84	561.93
AI	1968+57.19	14.38	561.86	561.97
AJ	1968+67.19	14.38	561.87	562.01
AK	1968+77.19	14.38	561.88	562.02
AL	1968+87.19	14.38	561.89	562.02
AM	1968+97.19	14.38	561.90	562.00
AN	1969+07.19	14.38	561.90	561.96
⊕ S. Brg. Pier 4	1969+18.69	14.38	561.90	561.90
⊕ Pier 4 & Matchline	1969+20.53	14.38	561.90	561.90



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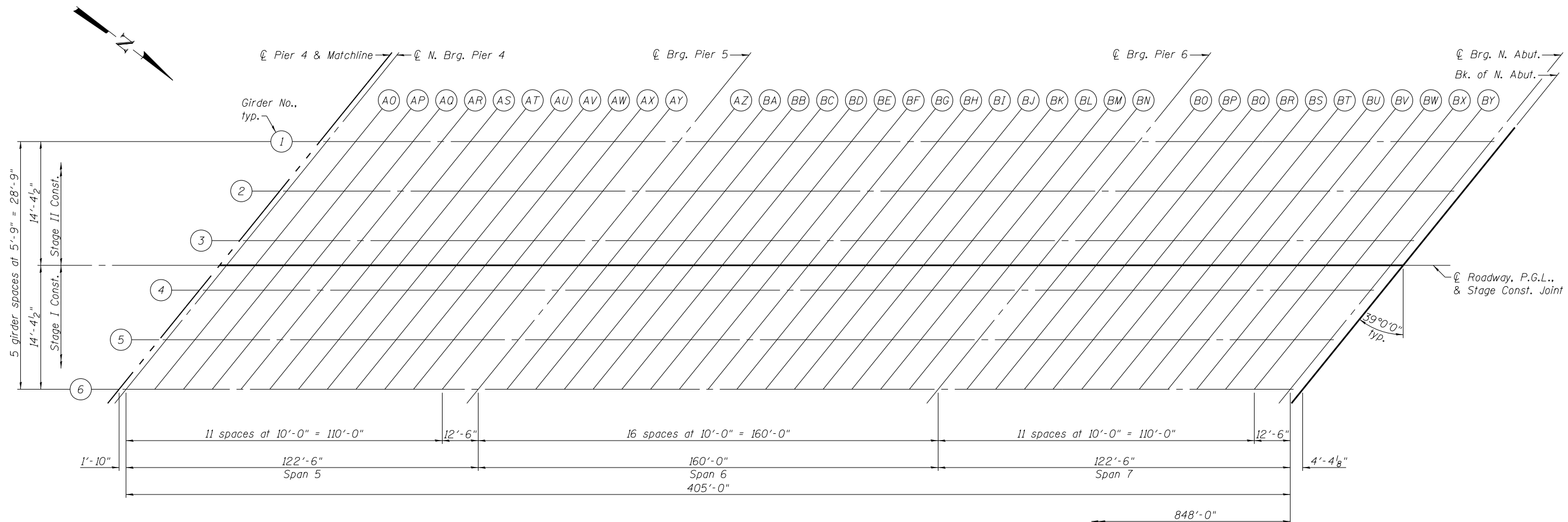
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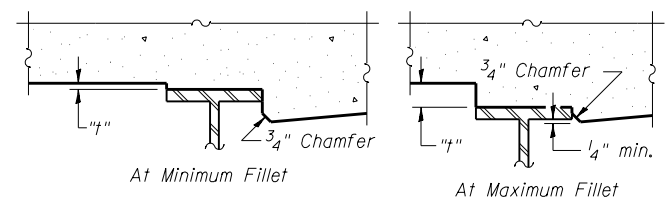
**TOP OF SLAB ELEVATIONS - SPANS 1 THRU 4
 STRUCTURE NO. 048-0100**

SHEET NO. 10 OF 62 SHEETS

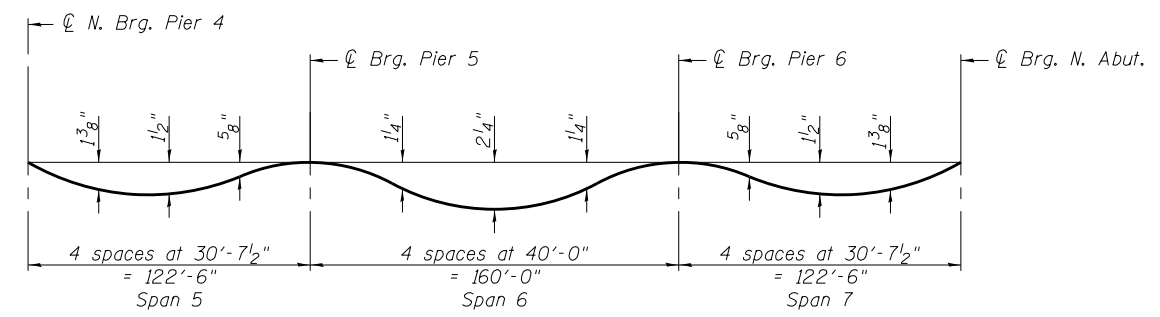
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	40
CONTRACT NO. 68759			ILLINOIS FED. AID PROJECT	



PLAN



FILLET HEIGHTS ①



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

- Notes:
- ① To determine "t": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 12 thru 14 of 62, minus slab thickness, equals the fillet heights "t" above top flange of girders.
 - ② The Dead Load Deflections are not to be used in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown on sheets 12 thru 14 of 62.

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TOP OF SLAB ELEVATIONS - SPANS 5 THRU 7
STRUCTURE NO. 048-0100
SHEET NO. 11 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	41
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+43.81	-14.38	561.89	561.89
☉ N. Brg. Pier 4	1969+45.64	-14.38	561.89	561.89
AO	1969+55.64	-14.38	561.88	561.92
AP	1969+65.64	-14.38	561.87	561.95
AQ	1969+75.64	-14.38	561.86	561.97
AR	1969+85.64	-14.38	561.84	561.97
AS	1969+95.64	-14.38	561.82	561.95
AT	1970+05.64	-14.38	561.80	561.93
AU	1970+15.64	-14.38	561.78	561.89
AV	1970+25.64	-14.38	561.75	561.83
AW	1970+35.64	-14.38	561.72	561.78
AX	1970+45.64	-14.38	561.69	561.72
AY	1970+55.64	-14.38	561.65	561.67
☉ Brg. Pier 5	1970+68.14	-14.38	561.61	561.61
AZ	1970+78.14	-14.38	561.57	561.58
BA	1970+88.14	-14.38	561.53	561.57
BB	1970+98.14	-14.38	561.48	561.55
BC	1971+08.14	-14.38	561.44	561.54
BD	1971+18.14	-14.38	561.39	561.52
BE	1971+28.14	-14.38	561.34	561.50
BF	1971+38.14	-14.38	561.29	561.46
BG	1971+48.14	-14.38	561.24	561.42
BH	1971+58.14	-14.38	561.19	561.36
BI	1971+68.14	-14.38	561.14	561.30
BJ	1971+78.14	-14.38	561.09	561.22
BK	1971+88.14	-14.38	561.04	561.14
BL	1971+98.14	-14.38	560.99	561.06
BM	1972+08.14	-14.38	560.94	560.98
BN	1972+18.14	-14.38	560.89	560.90
☉ Brg. Pier 6	1972+28.14	-14.38	560.84	560.84
BO	1972+38.14	-14.38	560.79	560.79
BP	1972+48.14	-14.38	560.74	560.76
BQ	1972+58.14	-14.38	560.69	560.74
BR	1972+68.14	-14.38	560.64	560.72
BS	1972+78.14	-14.38	560.59	560.69
BT	1972+88.14	-14.38	560.54	560.66
BU	1972+98.14	-14.38	560.49	560.62
BV	1973+08.14	-14.38	560.44	560.57
BW	1973+18.14	-14.38	560.39	560.50
BX	1973+28.14	-14.38	560.34	560.43
BY	1973+38.14	-14.38	560.29	560.34
☉ Brg. N. Abut	1973+50.64	-14.38	560.23	560.23
Bk. of N. Abut.	1973+54.98	-14.38	560.20	560.20

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+39.15	-8.63	562.00	562.00
☉ N. Brg. Pier 4	1969+40.98	-8.63	562.00	562.00
AO	1969+50.98	-8.63	561.99	562.03
AP	1969+60.98	-8.63	561.98	562.06
AQ	1969+70.98	-8.63	561.96	562.07
AR	1969+80.98	-8.63	561.95	562.08
AS	1969+90.98	-8.63	561.93	562.07
AT	1970+00.98	-8.63	561.91	562.04
AU	1970+10.98	-8.63	561.89	562.00
AV	1970+20.98	-8.63	561.86	561.95
AW	1970+30.98	-8.63	561.84	561.89
AX	1970+40.98	-8.63	561.81	561.84
AY	1970+50.98	-8.63	561.77	561.78
☉ Brg. Pier 5	1970+63.48	-8.63	561.73	561.73
AZ	1970+73.48	-8.63	561.69	561.70
BA	1970+83.48	-8.63	561.65	561.69
BB	1970+93.48	-8.63	561.61	561.68
BC	1971+03.48	-8.63	561.56	561.66
BD	1971+13.48	-8.63	561.51	561.65
BE	1971+23.48	-8.63	561.46	561.62
BF	1971+33.48	-8.63	561.41	561.59
BG	1971+43.48	-8.63	561.36	561.55
BH	1971+53.48	-8.63	561.31	561.49
BI	1971+63.48	-8.63	561.26	561.42
BJ	1971+73.48	-8.63	561.21	561.35
BK	1971+83.48	-8.63	561.16	561.27
BL	1971+93.48	-8.63	561.11	561.18
BM	1972+03.48	-8.63	561.06	561.10
BN	1972+13.48	-8.63	561.01	561.03
☉ Brg. Pier 6	1972+23.48	-8.63	560.96	560.96
BO	1972+33.48	-8.63	560.91	560.92
BP	1972+43.48	-8.63	560.86	560.89
BQ	1972+53.48	-8.63	560.81	560.86
BR	1972+63.48	-8.63	560.76	560.84
BS	1972+73.48	-8.63	560.71	560.82
BT	1972+83.48	-8.63	560.66	560.79
BU	1972+93.48	-8.63	560.61	560.75
BV	1973+03.48	-8.63	560.56	560.69
BW	1973+13.48	-8.63	560.51	560.63
BX	1973+23.48	-8.63	560.46	560.55
BY	1973+33.48	-8.63	560.41	560.47
☉ Brg. N. Abut	1973+45.98	-8.63	560.35	560.35
Bk. of N. Abut.	1973+50.33	-8.63	560.33	560.33

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+34.49	-2.88	562.09	562.09
☉ N. Brg. Pier 4	1969+36.33	-2.88	562.09	562.09
AO	1969+46.33	-2.88	562.08	562.12
AP	1969+56.33	-2.88	562.07	562.15
AQ	1969+66.33	-2.88	562.06	562.17
AR	1969+76.33	-2.88	562.05	562.17
AS	1969+86.33	-2.88	562.03	562.16
AT	1969+96.33	-2.88	562.01	562.14
AU	1970+06.33	-2.88	561.99	562.10
AV	1970+16.33	-2.88	561.97	562.05
AW	1970+26.33	-2.88	561.94	562.00
AX	1970+36.33	-2.88	561.91	561.94
AY	1970+46.33	-2.88	561.88	561.89
☉ Brg. Pier 5	1970+58.83	-2.88	561.84	561.84
AZ	1970+68.83	-2.88	561.80	561.81
BA	1970+78.83	-2.88	561.76	561.80
BB	1970+88.83	-2.88	561.72	561.79
BC	1970+98.83	-2.88	561.67	561.78
BD	1971+08.83	-2.88	561.62	561.76
BE	1971+18.83	-2.88	561.58	561.74
BF	1971+28.83	-2.88	561.53	561.70
BG	1971+38.83	-2.88	561.48	561.66
BH	1971+48.83	-2.88	561.43	561.60
BI	1971+58.83	-2.88	561.38	561.54
BJ	1971+68.83	-2.88	561.33	561.46
BK	1971+78.83	-2.88	561.28	561.38
BL	1971+88.83	-2.88	561.23	561.30
BM	1971+98.83	-2.88	561.18	561.21
BN	1972+08.83	-2.88	561.13	561.14
☉ Brg. Pier 6	1972+18.83	-2.88	561.08	561.08
BO	1972+28.83	-2.88	561.03	561.03
BP	1972+38.83	-2.88	560.98	561.00
BQ	1972+48.83	-2.88	560.93	560.98
BR	1972+58.83	-2.88	560.88	560.96
BS	1972+68.83	-2.88	560.83	560.93
BT	1972+78.83	-2.88	560.78	560.90
BU	1972+88.83	-2.88	560.73	560.86
BV	1972+98.83	-2.88	560.68	560.81
BW	1973+08.83	-2.88	560.63	560.74
BX	1973+18.83	-2.88	560.58	560.67
BY	1973+28.83	-2.88	560.53	560.58
☉ Brg. N. Abut	1973+41.33	-2.88	560.46	560.46
Bk. of N. Abut.	1973+45.67	-2.88	560.44	560.44

☉ ROADWAY, P.G.L., & STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+32.17	0.00	562.14	562.14
☉ N. Brg. Pier 4	1969+34.00	0.00	562.13	562.13
AO	1969+44.00	0.00	562.13	562.17
AP	1969+54.00	0.00	562.12	562.20
AQ	1969+64.00	0.00	562.11	562.22
AR	1969+74.00	0.00	562.10	562.22
AS	1969+84.00	0.00	562.08	562.21
AT	1969+94.00	0.00	562.06	562.19
AU	1970+04.00	0.00	562.04	562.15
AV	1970+14.00	0.00	562.02	562.10
AW	1970+24.00	0.00	561.99	562.05
AX	1970+34.00	0.00	561.96	561.99
AY	1970+44.00	0.00	561.93	561.94
☉ Brg. Pier 5	1970+56.50	0.00	561.89	561.89
AZ	1970+66.50	0.00	561.85	561.87
BA	1970+76.50	0.00	561.81	561.85
BB	1970+86.50	0.00	561.77	561.84
BC	1970+96.50	0.00	561.73	561.83
BD	1971+06.50	0.00	561.68	561.82
BE	1971+16.50	0.00	561.63	561.79
BF	1971+26.50	0.00	561.58	561.76
BG	1971+36.50	0.00	561.53	561.72
BH	1971+46.50	0.00	561.48	561.66
BI	1971+56.50	0.00	561.43	561.59
BJ	1971+66.50	0.00	561.38	561.52
BK	1971+76.50	0.00	561.33	561.44
BL	1971+86.50	0.00	561.28	561.35
BM	1971+96.50	0.00	561.23	561.27
BN	1972+06.50	0.00	561.18	561.20
☉ Brg. Pier 6	1972+16.50	0.00	561.13	561.13
BO	1972+26.50	0.00	561.08	561.09
BP	1972+36.50	0.00	561.03	561.06
BQ	1972+46.50	0.00	560.98	561.03
BR	1972+56.50	0.00	560.93	561.01
BS	1972+66.50	0.00	560.88	560.99
BT	1972+76.50	0.00	560.83	560.96
BU	1972+86.50	0.00	560.78	560.92
BV	1972+96.50	0.00	560.73	560.86
BW	1973+06.50	0.00	560.68	560.80
BX	1973+16.50	0.00	560.63	560.72
BY	1973+26.50	0.00	560.58	560.64
☉ Brg. N. Abut	1973+39.00	0.00	560.52	560.52
Bk. of N. Abut.	1973+43.34	0.00	560.50	560.50

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+29.84	2.88	562.09	562.09
☉ N. Brg. Pier 4	1969+31.67	2.88	562.09	562.09
AO	1969+41.67	2.88	562.08	562.13
AP	1969+51.67	2.88	562.08	562.16
AQ	1969+61.67	2.88	562.07	562.18
AR	1969+71.67	2.88	562.05	562.18
AS	1969+81.67	2.88	562.04	562.17
AT	1969+91.67	2.88	562.02	562.15
AU	1970+01.67	2.88	562.00	562.11
AV	1970+11.67	2.88	561.98	562.06
AW	1970+21.67	2.88	561.95	562.01
AX	1970+31.67	2.88	561.92	561.96
AY	1970+41.67	2.88	561.89	561.90
☉ Brg. Pier 5	1970+54.17	2.88	561.85	561.85
AZ	1970+64.17	2.88	561.82	561.83
BA	1970+74.17	2.88	561.78	561.82
BB	1970+84.17	2.88	561.74	561.81
BC	1970+94.17	2.88	561.69	561.80
BD	1971+04.17	2.88	561.65	561.78
BE	1971+14.17	2.88	561.60	561.76
BF	1971+24.17	2.88	561.55	561.73
BG	1971+34.17	2.88	561.50	561.68
BH	1971+44.17	2.88	561.45	561.63
BI	1971+54.17	2.88	561.40	561.56
BJ	1971+64.17	2.88	561.35	561.48
BK	1971+74.17	2.88	561.30	561.40
BL	1971+84.17	2.88	561.25	561.32
BM	1971+94.17	2.88	561.20	561.24
BN	1972+04.17	2.88	561.15	561.16
☉ Brg. Pier 6	1972+14.17	2.88	561.10	561.10
BO	1972+24.17	2.88	561.05	561.06
BP	1972+34.17	2.88	561.00	561.03
BQ	1972+44.17	2.88	560.95	561.00
BR	1972+54.17	2.88	560.90	560.98
BS	1972+64.17	2.88	560.85	560.95
BT	1972+74.17	2.88	560.80	560.92
BU	1972+84.17	2.88	560.75	560.88
BV	1972+94.17	2.88	560.70	560.83
BW	1973+04.17	2.88	560.65	560.77
BX	1973+14.17	2.88	560.60	560.69
BY	1973+24.17	2.88	560.55	560.60
☉ Brg. N. Abut	1973+36.67	2.88	560.49	560.49
Bk. of N. Abut.	1973+41.01	2.88	560.47	560.47

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+25.18	8.63	562.00	562.00
☉ N. Brg. Pier 4	1969+27.02	8.63	562.00	562.00
AO	1969+37.02	8.63	562.00	562.04
AP	1969+47.02	8.63	561.99	562.07
AQ	1969+57.02	8.63	561.98	562.09
AR	1969+67.02	8.63	561.97	562.10
AS	1969+77.02	8.63	561.96	562.09
AT	1969+87.02	8.63	561.94	562.07
AU	1969+97.02	8.63	561.92	562.03
AV	1970+07.02	8.63	561.90	561.98
AW	1970+17.02	8.63	561.87	561.93
AX	1970+27.02	8.63	561.85	561.88
AY	1970+37.02	8.63	561.82	561.83
☉ Brg. Pier 5	1970+49.52	8.63	561.78	561.78
AZ	1970+59.52	8.63	561.74	561.76
BA	1970+69.52	8.63	561.71	561.74
BB	1970+79.52	8.63	561.67	561.74
BC	1970+89.52	8.63	561.62	561.73
BD	1970+99.52	8.63	561.58	561.71
BE	1971+09.52	8.63	561.53	561.69
BF	1971+19.52	8.63	561.48	561.66
BG	1971+29.52	8.63	561.43	561.62
BH	1971+39.52	8.63	561.38	561.56
BI	1971+49.52	8.63	561.33	561.49
BJ	1971+59.52	8.63	561.28	561.42
BK	1971+69.52	8.63	561.23	561.34
BL	1971+79.52	8.63	561.18	561.25
BM	1971+89.52	8.63	561.13	561.17
BN	1971+99.52	8.63	561.08	561.10
☉ Brg. Pier 6	1972+09.52	8.63	561.03	561.03
BO	1972+19.52	8.63	560.98	560.99
BP	1972+29.52	8.63	560.93	560.96
BQ	1972+39.52	8.63	560.88	560.93
BR	1972+49.52	8.63	560.83	560.91
BS	1972+59.52	8.63	560.78	560.89
BT	1972+69.52	8.63	560.73	560.86
BU	1972+79.52	8.63	560.68	560.82
BV	1972+89.52	8.63	560.63	560.76
BW	1972+99.52	8.63	560.58	560.70
BX	1973+09.52	8.63	560.53	560.62
BY	1973+19.52	8.63	560.48	560.54
☉ Brg. N. Abut	1973+32.02	8.63	560.42	560.42
Bk. of N. Abut.	1973+36.36	8.63	560.40	560.40

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
☉ Pier 4 & Matchline	1969+20.53	14.38	561.90	561.90
☉ N. Brg. Pier 4	1969+22.36	14.38	561.90	561.90
AO	1969+32.36	14.38	561.90	561.94
AP	1969+42.36	14.38	561.89	561.97
AQ	1969+52.36	14.38	561.88	561.99
AR	1969+62.36	14.38	561.87	562.00
AS	1969+72.36	14.38	561.86	561.99
AT	1969+82.36	14.38	561.85	561.97
AU	1969+92.36	14.38	561.83	561.94
AV	1970+02.36	14.38	561.81	561.89
AW	1970+12.36	14.38	561.78	561.84
AX	1970+22.36	14.38	561.76	561.79
AY	1970+32.36	14.38	561.73	561.74
☉ Brg. Pier 5	1970+44.86	14.38	561.69	561.69
AZ	1970+54.86	14.38	561.66	561.67
BA	1970+64.86	14.38	561.62	561.66
BB	1970+74.86	14.38	561.58	561.65
BC	1970+84.86	14.38	561.54	561.65
BD	1970+94.86	14.38	561.50	561.63
BE	1971+04.86	14.38	561.45	561.61
BF	1971+14.86	14.38	561.40	561.58
BG	1971+24.86	14.38	561.35	561.54
BH	1971+34.86	14.38	561.30	561.48
BI	1971+44.86	14.38	561.25	561.41
BJ	1971+54.86	14.38	561.20	561.34
BK	1971+64.86	14.38	561.15	561.26
BL	1971+74.86	14.38	561.10	561.17
BM	1971+84.86	14.38	561.05	561.09
BN	1971+94.86	14.38	561.00	561.02
☉ Brg. Pier 6	1972+04.86	14.38	560.95	560.95
BO	1972+14.86	14.38	560.90	560.91
BP	1972+24.86	14.38	560.85	560.88
BQ	1972+34.86	14.38	560.80	560.86
BR	1972+44.86	14.38	560.75	560.83
BS	1972+54.86	14.38	560.70	560.81
BT	1972+64.86	14.38	560.65	560.78
BU	1972+74.86	14.38	560.60	560.74
BV	1972+84.86	14.38	560.55	560.69
BW	1972+94.86	14.38	560.50	560.62
BX	1973+04.86	14.38	560.45	560.54
BY	1973+14.86	14.38	560.40	560.46
☉ Brg. N. Abut	1973+27.36	14.38	560.34	560.34
Bk. of N. Abut.	1973+31.70	14.38	560.32	560.32



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - SPANS 5 THRU 7
 STRUCTURE NO. 048-0100**

SHEET NO. 14 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	44
CONTRACT NO. 68759			ILLINOIS FED. AID PROJECT	

WEST EDGE OF SHOULDER

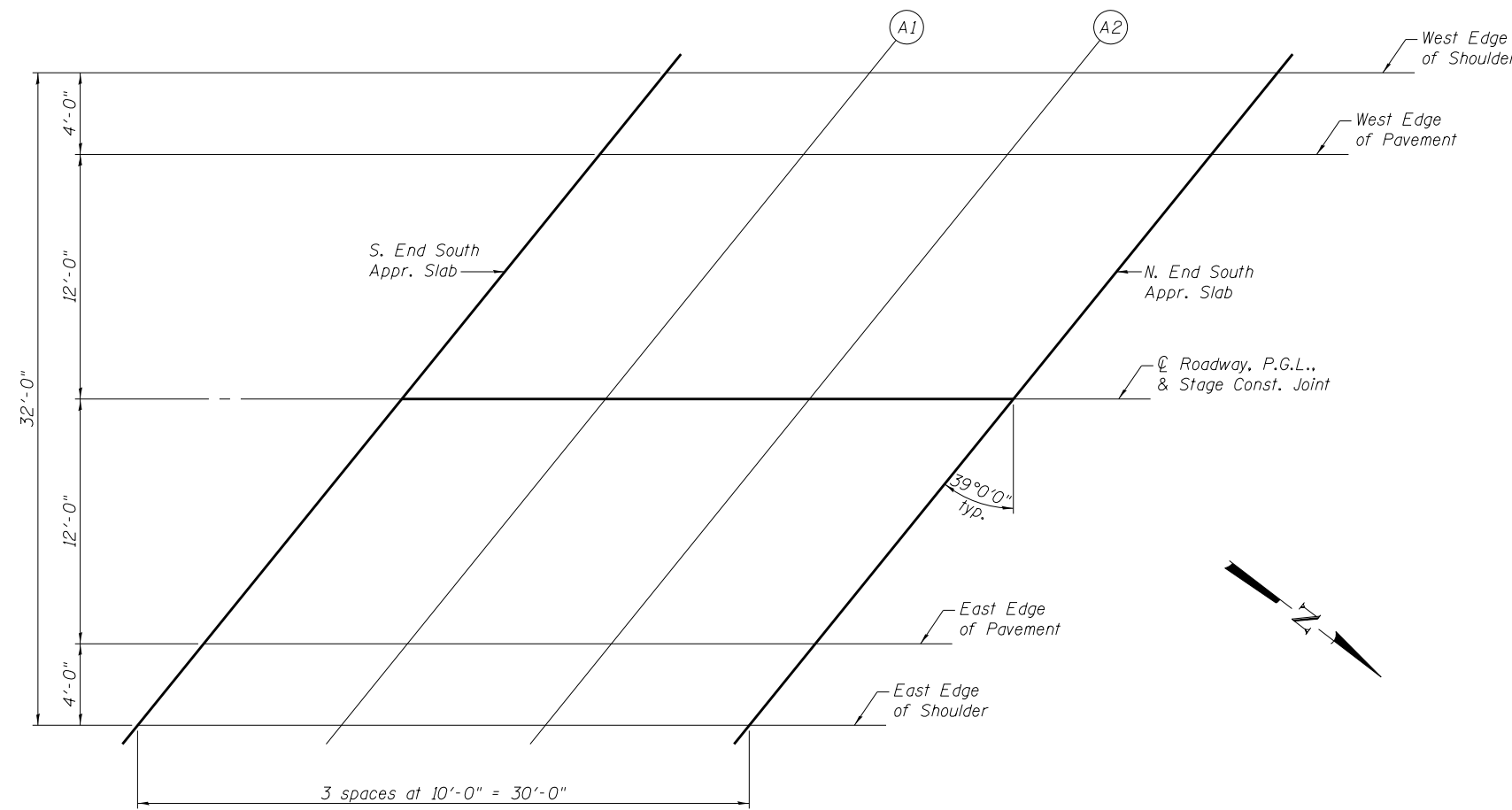
Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1964+70.26	-16.00	560.14
A1	1964+80.26	-16.00	560.19
A2	1964+90.26	-16.00	560.24
N. End South Appr. Slab	1965+00.26	-16.00	560.29

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1964+67.02	-12.00	560.21
A1	1964+77.02	-12.00	560.26
A2	1964+87.02	-12.00	560.31
N. End South Appr. Slab	1964+97.02	-12.00	560.36

☉ ROADWAY, P.G.L., & STAGE CONST. JOINT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1964+57.30	0.00	560.35
A1	1964+67.30	0.00	560.40
A2	1964+77.30	0.00	560.45
N. End South Appr. Slab	1964+87.30	0.00	560.50



PLAN

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1964+47.58	12.00	560.11
A1	1964+57.58	12.00	560.16
A2	1964+67.58	12.00	560.21
N. End South Appr. Slab	1964+77.58	12.00	560.26

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	1964+44.34	16.00	560.01
A1	1964+54.34	16.00	560.06
A2	1964+64.34	16.00	560.11
N. End South Appr. Slab	1964+74.34	16.00	560.16

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1973+55.66	-16.00	560.17
A3	1973+65.66	-16.00	560.12
A4	1973+75.66	-16.00	560.07
N. End North Appr. Slab	1973+85.66	-16.00	560.02

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1973+52.42	-12.00	560.27
A3	1973+62.42	-12.00	560.22
A4	1973+72.42	-12.00	560.17
N. End North Appr. Slab	1973+82.42	-12.00	560.12

☉ ROADWAY, P.G.L., & STAGE CONST. JOINT

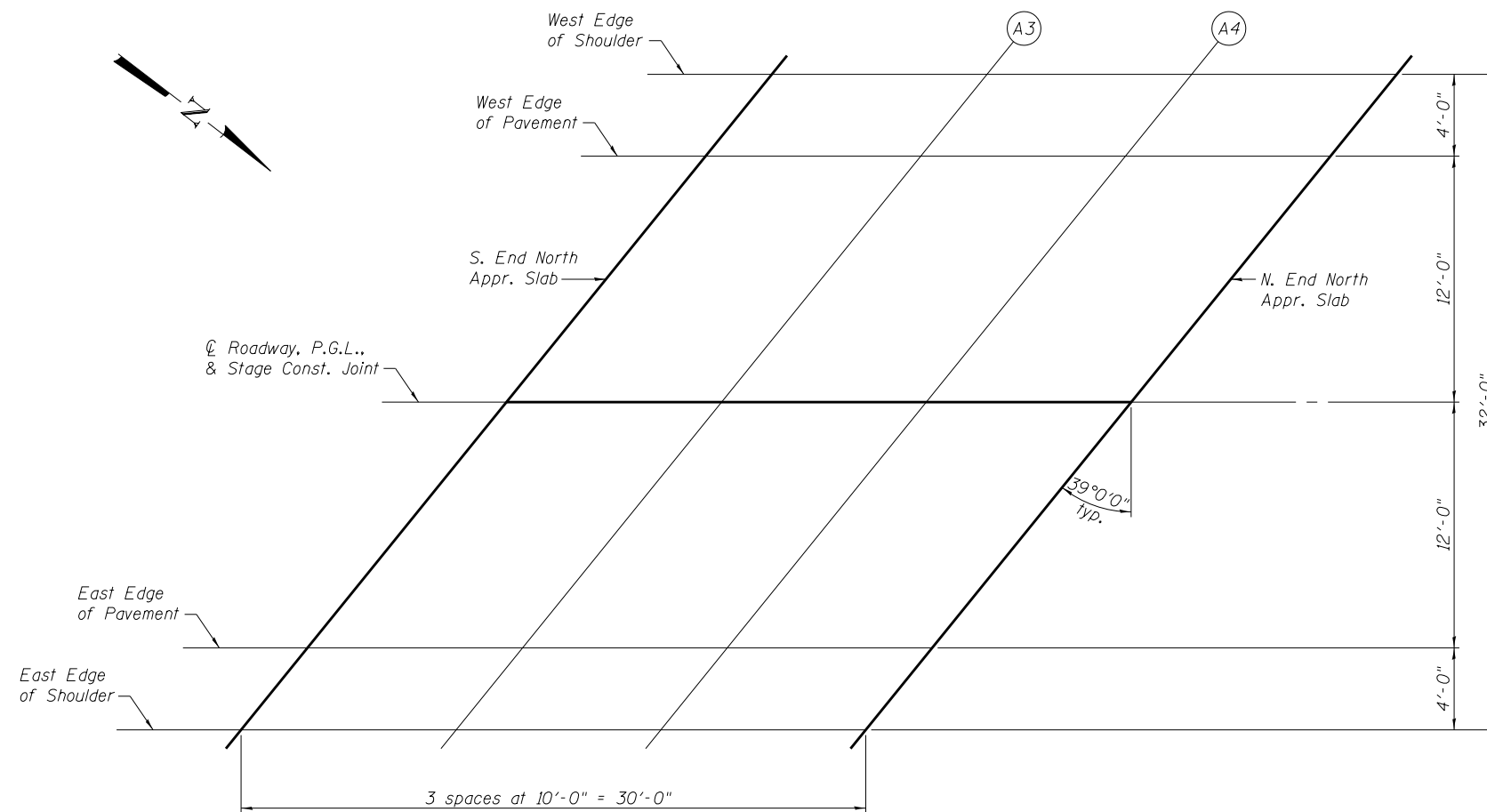
Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1973+42.70	0.00	560.50
A3	1973+52.70	0.00	560.45
A4	1973+62.70	0.00	560.40
N. End North Appr. Slab	1973+72.70	0.00	560.35

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1973+32.98	12.00	560.36
A3	1973+42.98	12.00	560.31
A4	1973+52.98	12.00	560.26
N. End North Appr. Slab	1973+62.98	12.00	560.21

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	1973+29.74	16.00	560.30
A3	1973+39.74	16.00	560.25
A4	1973+49.74	16.00	560.20
N. End North Appr. Slab	1973+59.74	16.00	560.15

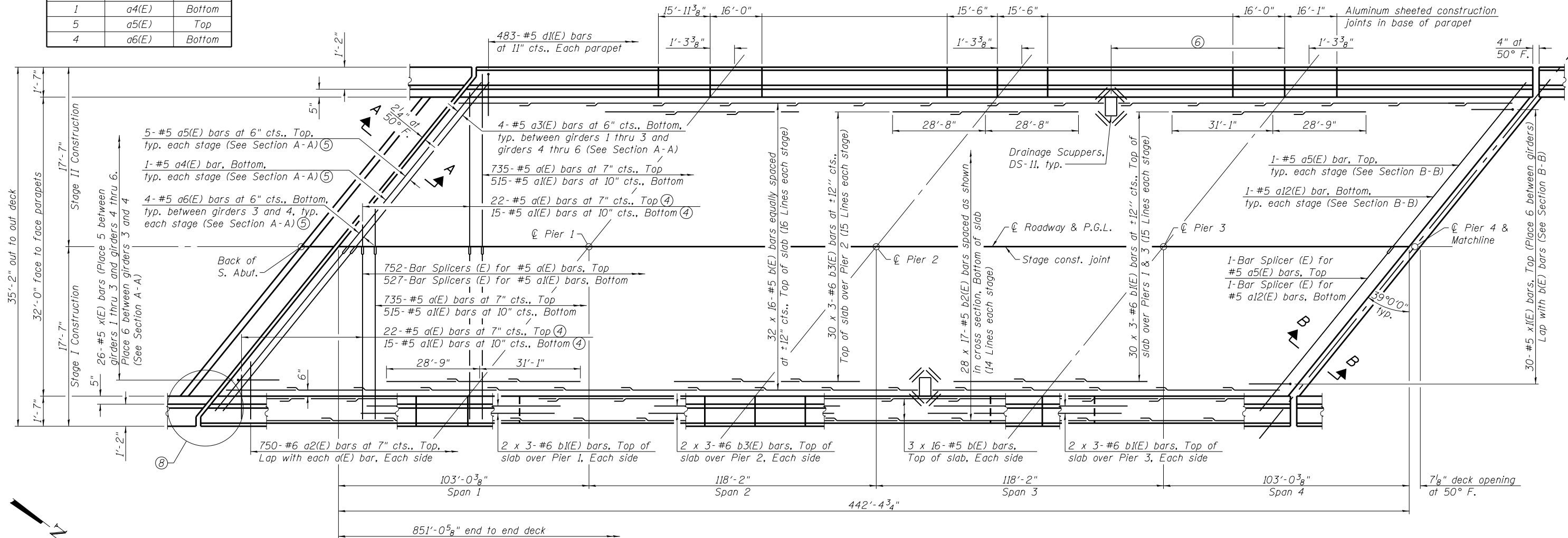


PLAN

EDGE BEAM

BAR SPLICER (E) SCHEDULE

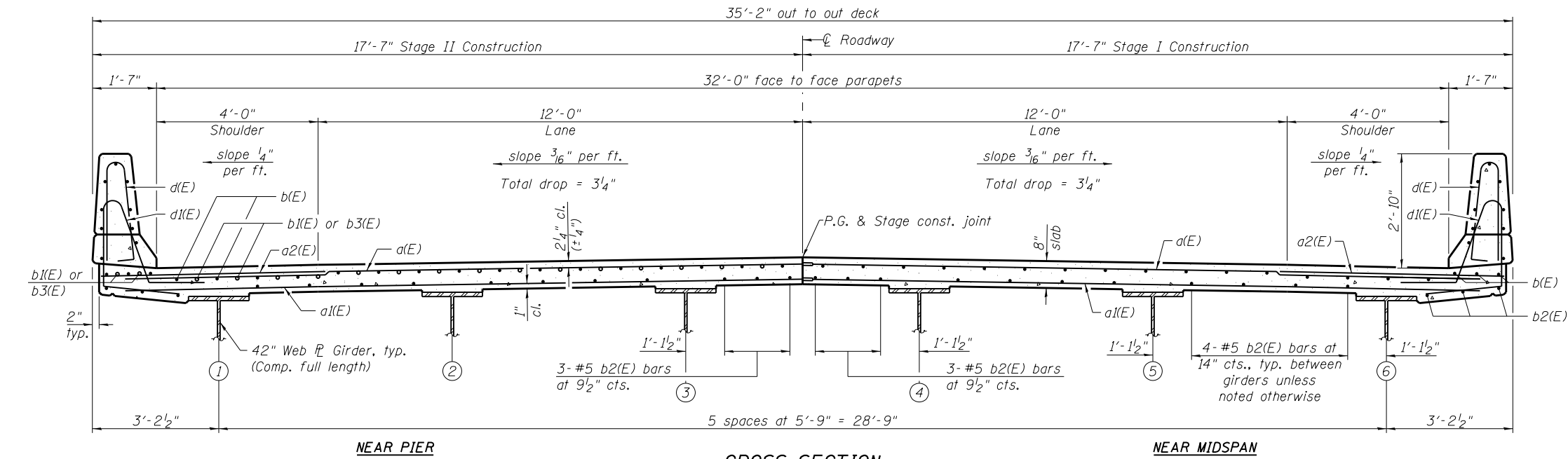
No. Req'd	Spliced Bar	Location
1	a4(E)	Bottom
5	a5(E)	Top
4	a6(E)	Bottom



PARTIAL PLAN

MINIMUM BAR LAP

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



NEAR PIER

CROSS SECTION

(Looking North)

NEAR MIDSPAN

- Notes:
- For parapet reinforcement, see sheet 19 of 62.
 - For superstructure details, bar details, Section A-A, Section B-B, and Bill of Material, see sheet 20 of 62.
 - Bars indicated thus 32 x 16-#5 etc. indicates 32 lines of bars with 16 lengths per line.
 - Order a(E) and a(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
 - See Edge Beam Bar Splicer (E) Schedule.
 - For location of drainage scuppers and floor drains, see sheet 1 of 62. Corner bars shown only required at drainage scuppers.
 - For bar splicer assembly details, see sheet 51 of 62.
 - For point block details, see sheet 25 of 62.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE
STRUCTURE NO. 048-0100**

SHEET NO. 17 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	47

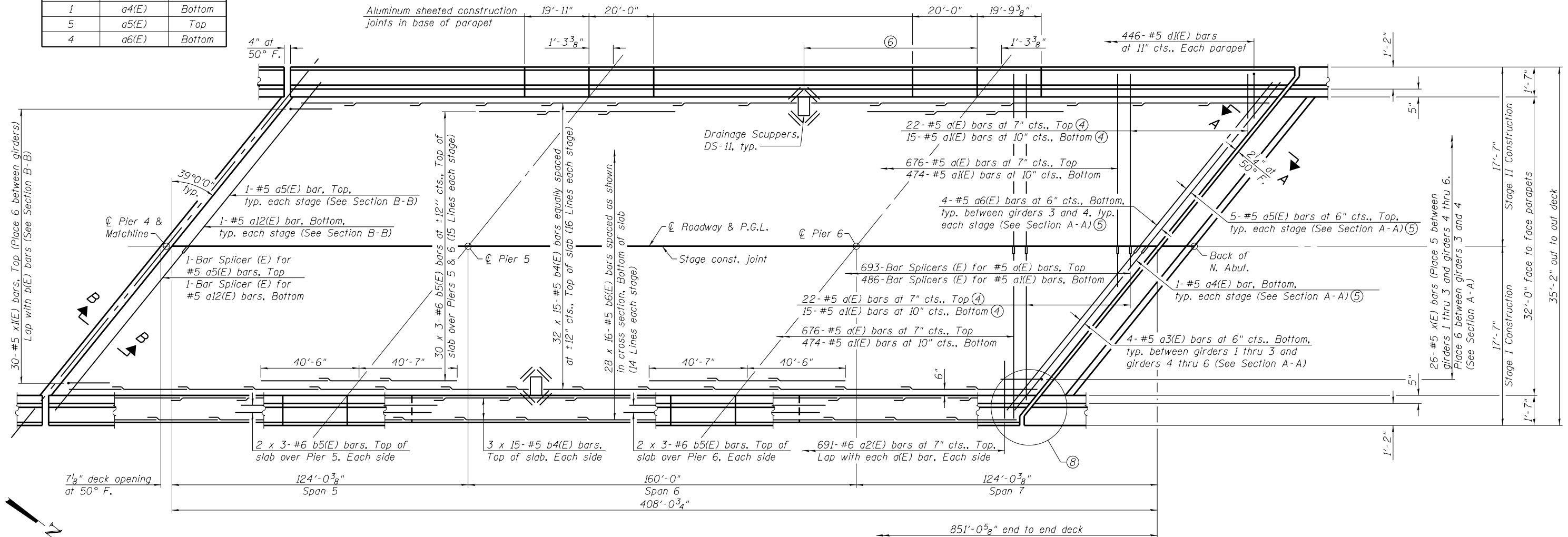
CONTRACT NO. 68759

ILLINOIS FED. AID PROJECT

EDGE BEAM

BAR SPLICER (E) SCHEDULE

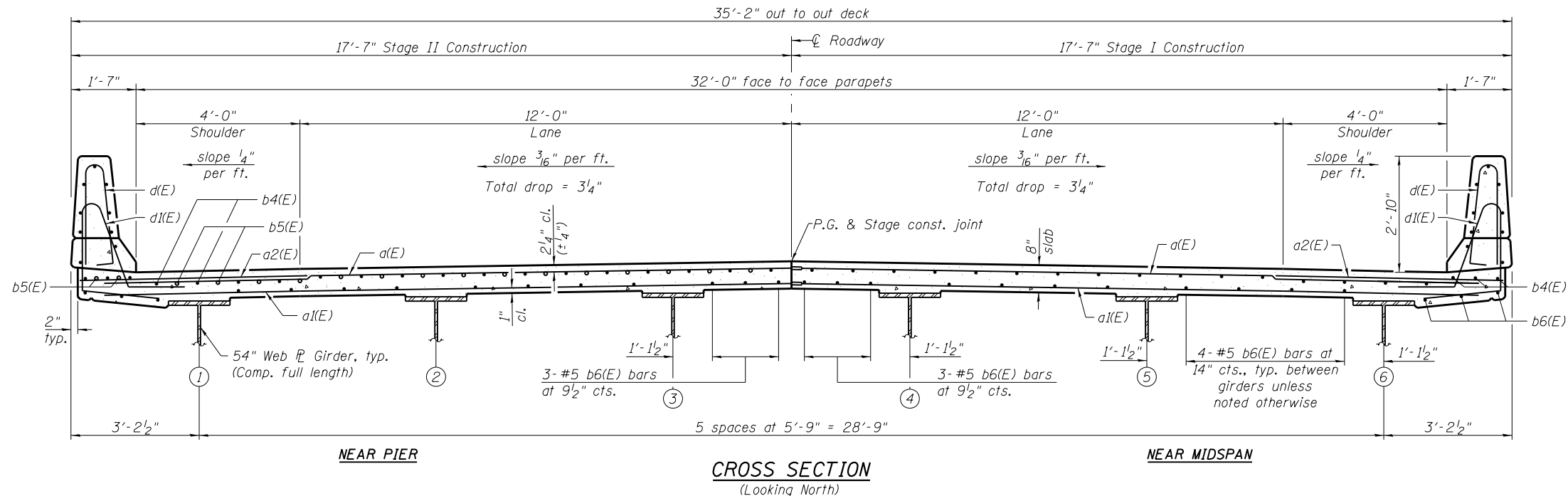
No. Req'd	Spliced Bar	Location
1	a4(E)	Bottom
5	a5(E)	Top
4	a6(E)	Bottom

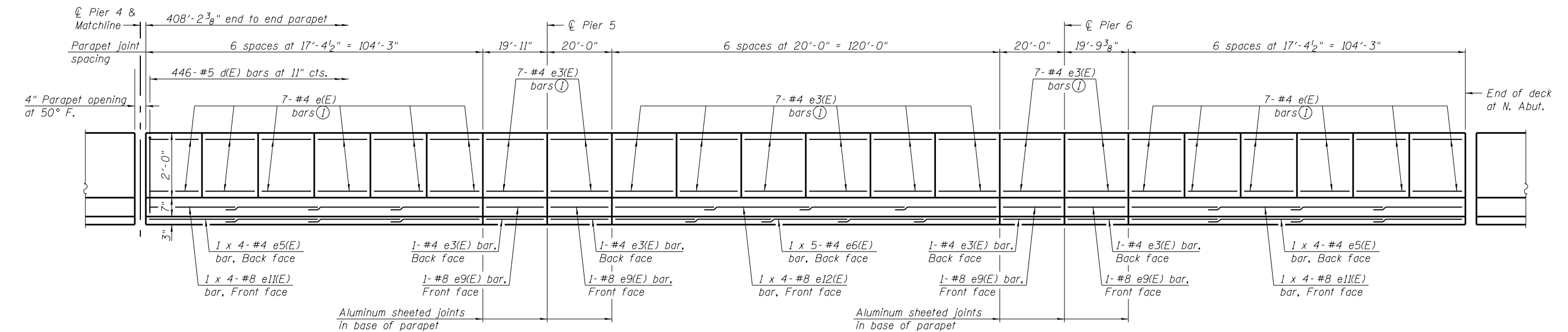
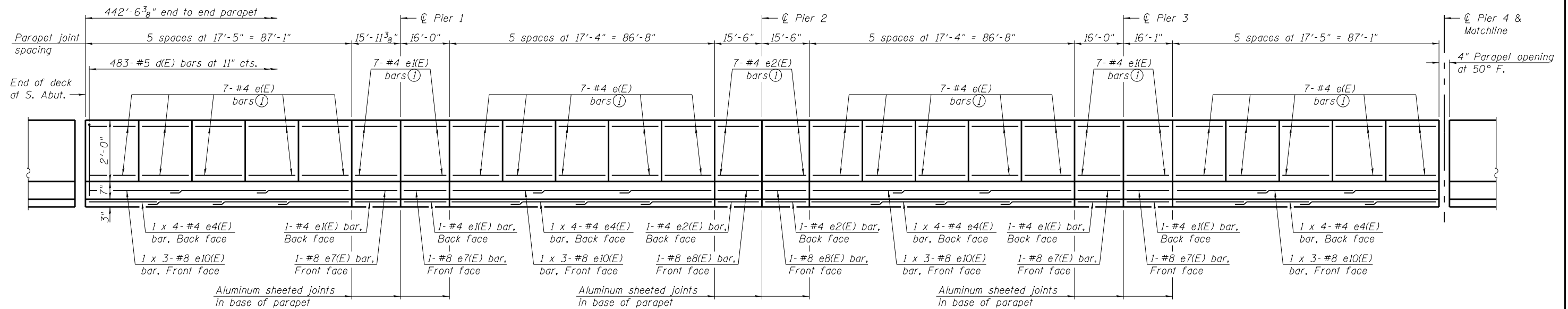


MINIMUM BAR LAP

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

- Notes:
- For parapet reinforcement, see sheet 19 of 62.
 - For superstructure details, bar details, Section A-A, Section B-B, and Bill of Material, see sheet 20 of 62.
 - Bars indicated thus 32 x 15-#5 etc. indicates 32 lines of bars with 15 lengths per line.
 - Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.
 - See Edge Beam Bar Splicer (E) Schedule.
 - For location of drainage scuppers and floor drains, see sheet 1 of 62. Corner bars shown only required at drainage scuppers.
 - For bar splicer assembly details, see sheet 51 of 62.
 - For point block details, see sheet 25 of 62.



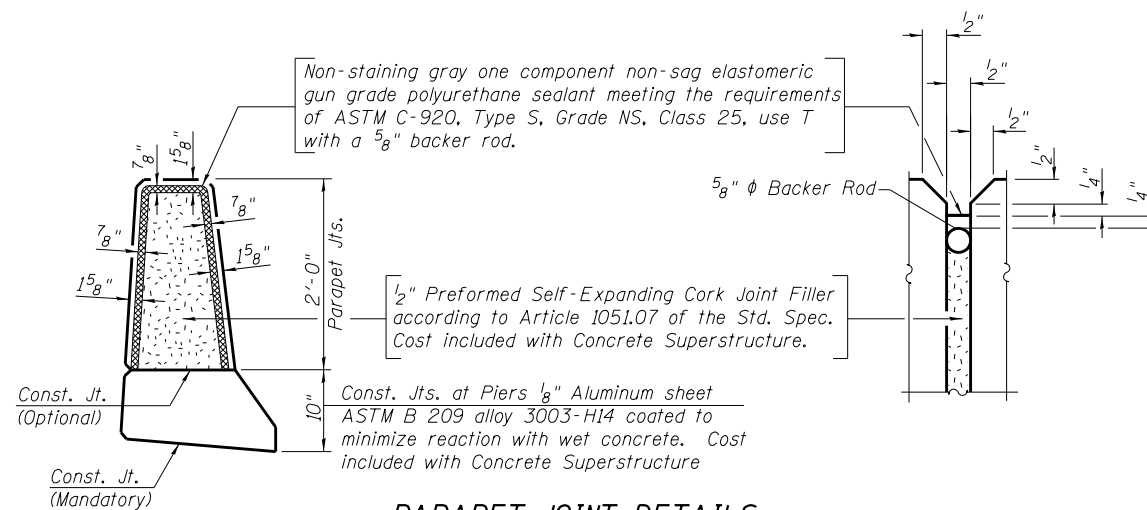


MINIMUM BAR LAP

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

INSIDE ELEVATION OF PARAPET

- Notes:
 ① See Section Thru Parapet on sheet 20 of 62.
 ② Bars indicated thus 1 x 4-#4 etc. indicates 1 line of bars with 4 lengths per line.
 ③ For bar details and Bill of Material, see sheet 20 of 62.



PARAPET JOINT DETAILS



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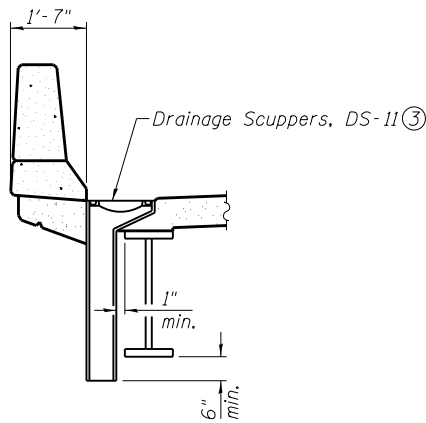
**STATE OF ILLINOIS
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**SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 048-0100**

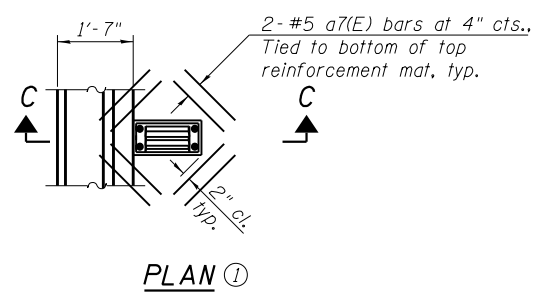
SHEET NO. 19 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	49
CONTRACT NO. 68759				

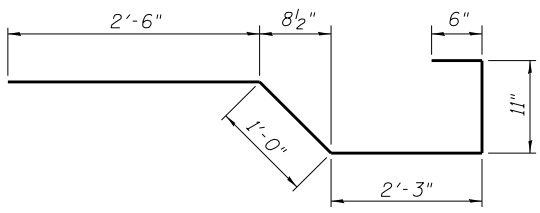
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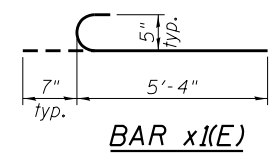
SECTION C-C



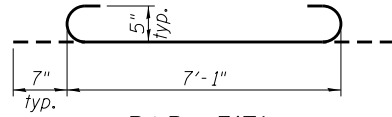
PLAN 1



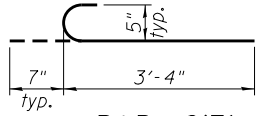
BAR x(E)



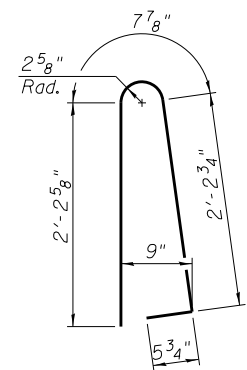
BAR x1(E)



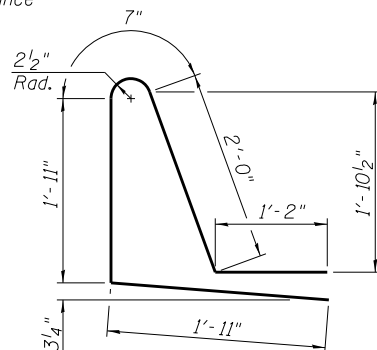
BAR a3(E)



BAR a6(E)



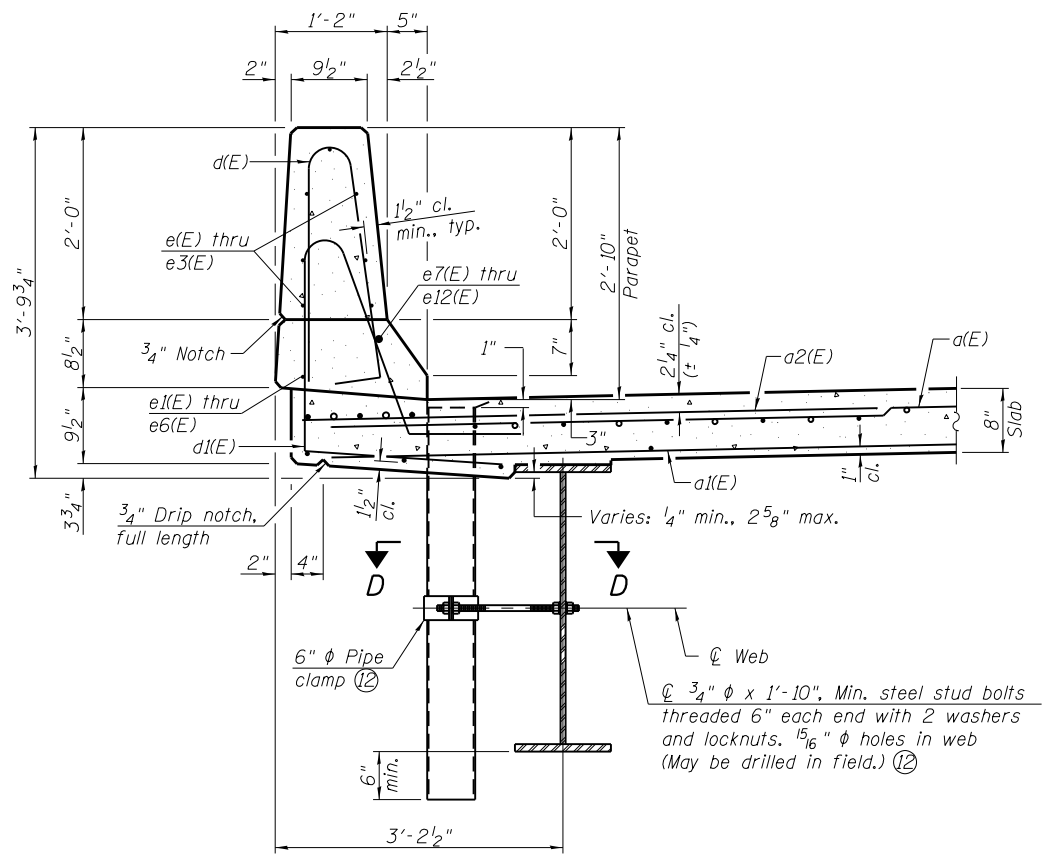
BAR d(E)



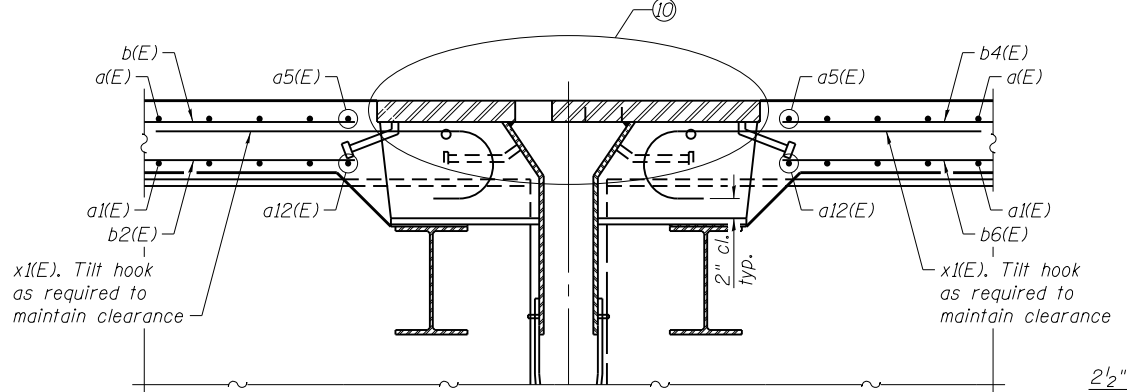
BAR d1(E)

**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	2910	#5	17'-1"	—
a1(E)	2038	#5	16'-9"	—
a2(E)	2882	#6	6'-6"	—
a3(E)	32	#5	8'-3"	U
a4(E)	4	#5	18'-1"	—
a5(E)	24	#5	22'-0"	—
a6(E)	16	#5	3'-11"	U
a7(E)	160	#5	1'-6"	—
a12(E)	4	#5	21'-8"	—
b(E)	608	#5	29'-11"	—
b1(E)	204	#6	22'-0"	—
b2(E)	476	#5	28'-4"	—
b3(E)	102	#6	21'-2"	—
b4(E)	570	#5	29'-6"	—
b5(E)	204	#6	29'-1"	—
b6(E)	448	#5	27'-10"	—
d(E)	1858	#5	5'-7"	L
d1(E)	1858	#5	7'-7"	L
e(E)	448	#4	17'-0"	—
e1(E)	64	#4	15'-7"	—
e2(E)	32	#4	15'-2"	—
e3(E)	148	#4	19'-5"	—
e4(E)	32	#4	23'-3"	—
e5(E)	16	#4	27'-6"	—
e6(E)	10	#4	25'-7"	—
e7(E)	8	#8	15'-7"	—
e8(E)	4	#8	15'-2"	—
e9(E)	8	#8	19'-5"	—
e10(E)	24	#8	32'-5"	—
e11(E)	16	#8	29'-11"	—
e12(E)	8	#8	33'-10"	—
x(E)	52	#5	7'-2"	U
x1(E)	60	#5	5'-11"	U
Concrete Superstructure		Cu. Yd.	1,005.6	
Reinforcement Bars, Epoxy Coated		Pound	239,600	

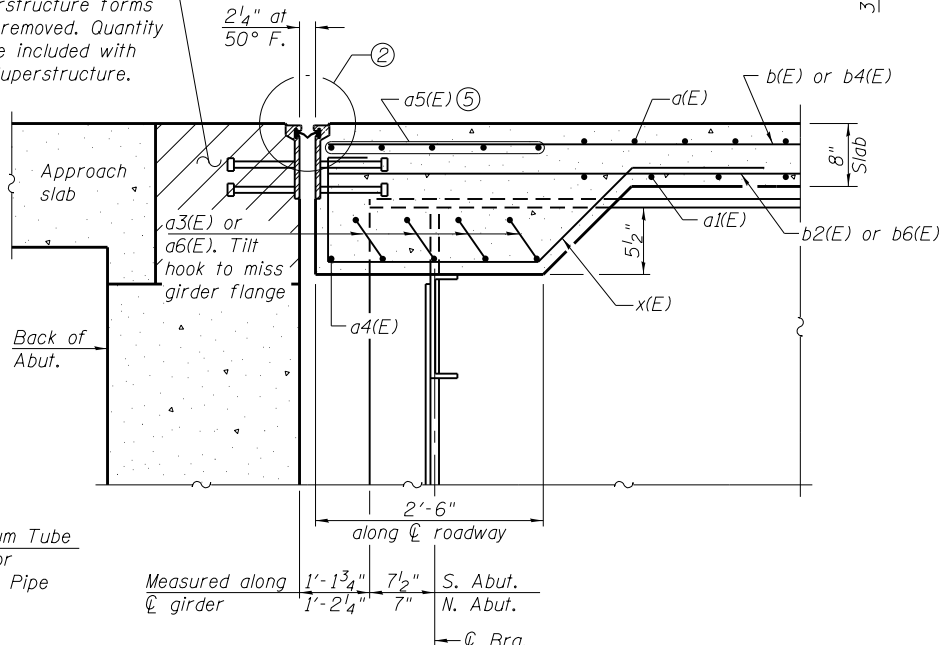


SECTION THRU PARAPET
(Showing 6" φ floor drains) (4)(11)

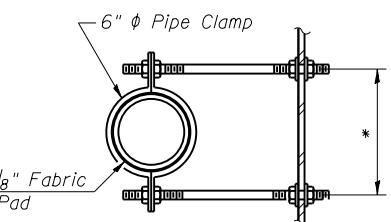


SECTION B-B

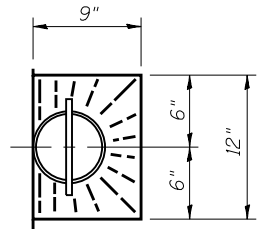
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



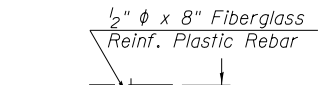
SECTION A-A



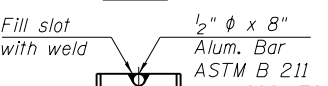
SECTION D-D
*Dimension as required by Pipe Clamp



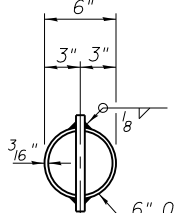
TOP PLAN



FIBERGLASS PIPE



ALUMINUM TUBE



TOP PLAN
(Showing Aluminum Tube)

- Notes:
- 1 Cut longitudinal reinforcement to clear drainage scuppers.
 - 2 For details of expansion joint, see sheet 25 of 62.
 - 3 For location of drainage scuppers, see sheet 1 of 62.
 - 4 For details of drainage scuppers, see sheet 24 of 62.
 - 5 For location of floor drains, see sheet 1 of 62.
 - 6 Place 5 a5(E) bars under longitudinal bars as shown in Section A-A.
 - 7 Drains shall be located clear of all diaphragms and cross frames.
 - 8 Floor drains need not be painted.
 - 9 Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
 - 10 Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.
 - 11 For details of finger plate expansion joint, see sheets 26 and 27 of 62.
 - 12 6" φ floor drains shown. Drainage scuppers similar.
 - 13 At 6" φ floor drains only. Omit at Drainage Scuppers, DS-II.



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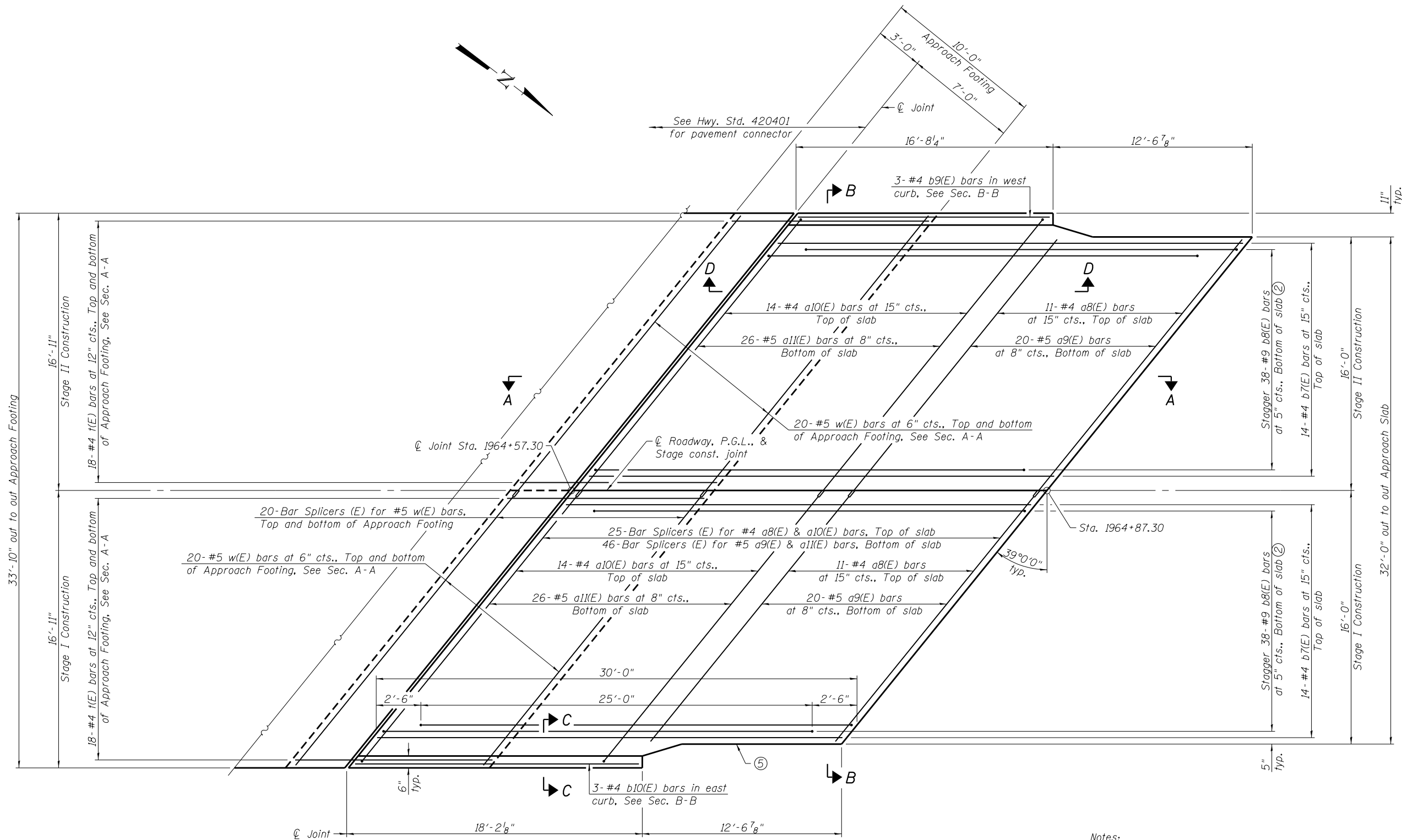
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**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 048-0100**

SHEET NO. 20 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	50
CONTRACT NO. 68759				

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SOUTH APPROACH PLAN

- Notes:
- ① For Section A-A, Section B-B, View C-C, and View D-D, see sheet 23 of 62.
 - ② Tilt #9 b8(E) bars as required to maintain clearance.
 - ③ a8(E), a9(E), a10(E), and a11(E) bar spacings measured along \bar{C} Roadway.
 - ④ b7(E) and b8(E) bars are spaced perpendicular to \bar{C} Roadway.
 - ⑤ Preformed flexible foam expansion joint filler according to Article 1051.09 of the Standard Specifications: full depth of slab, full length of wingwall, typ. each wingwall. Cost included with Concrete Superstructure.



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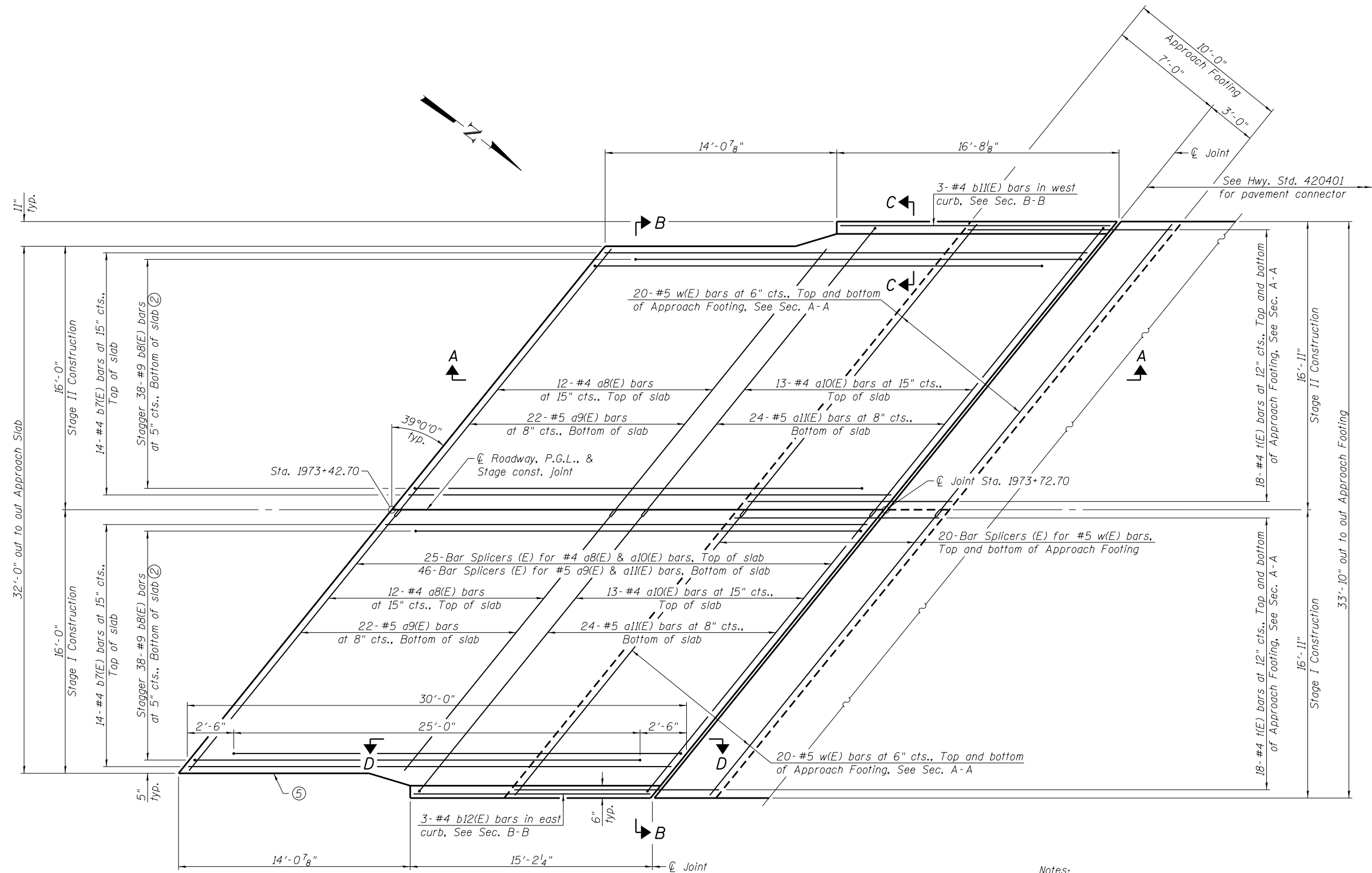
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**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 048-0100**

SHEET NO. 21 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	51
CONTRACT NO. 68759				

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NORTH APPROACH PLAN

Notes:

- ① For Section A-A, Section B-B, View C-C, and View D-D, see sheet 23 of 62.
- ② Tilt #9 b8(E) bars as required to maintain clearance.
- ③ a8(E), a9(E), a10(E), and a11(E) bar spacings measured along \bar{C} Roadway.
- ④ b7(E) and b8(E) bars are spaced perpendicular to \bar{C} Roadway.
- ⑤ Preformed flexible foam expansion joint filler according to Article 1051.09 of the Standard Specifications: full depth of slab, full length of wingwall, typ. each wingwall. Cost included with Concrete Superstructure.



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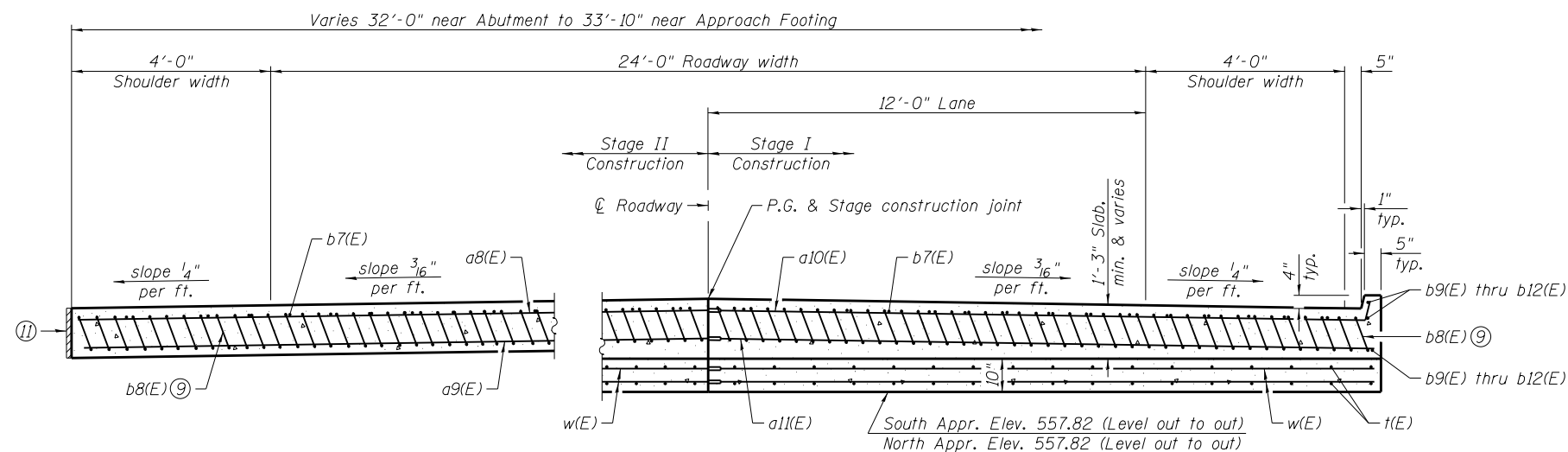
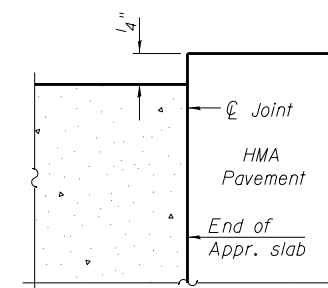
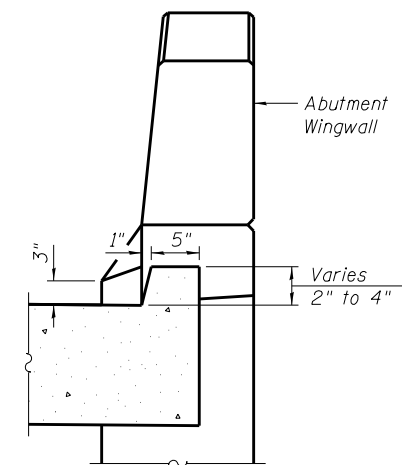
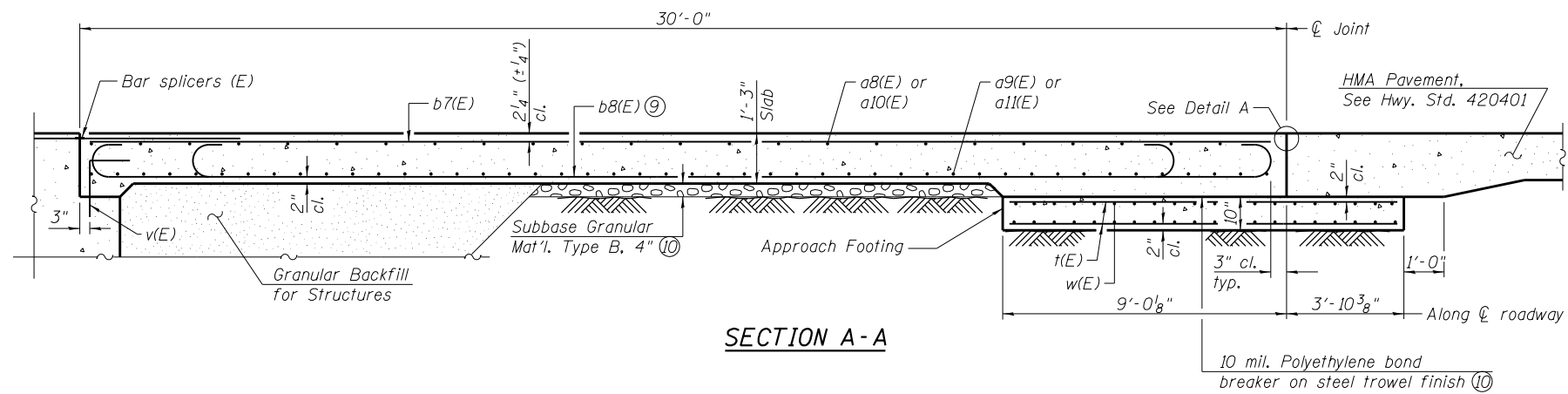
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**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 048-0100**

SHEET NO. 22 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	52
CONTRACT NO. 68759				

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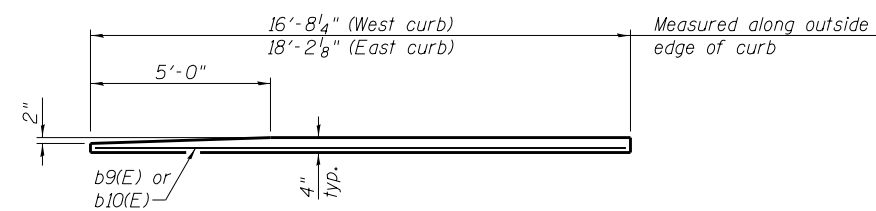


NEAR ABUTMENT

AT APPROACH FOOTING

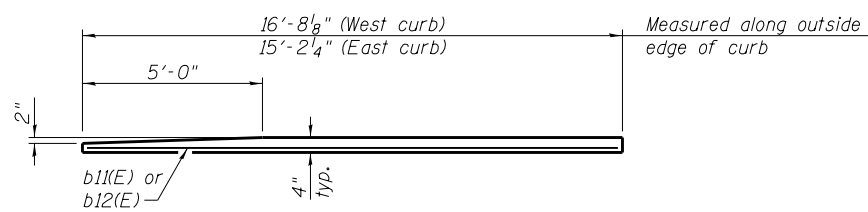
SECTION B-B

(See Plan for dimensions not shown)



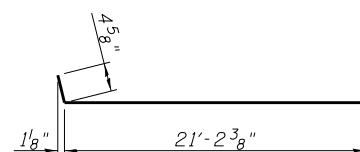
VIEW D-D

(South Approach)

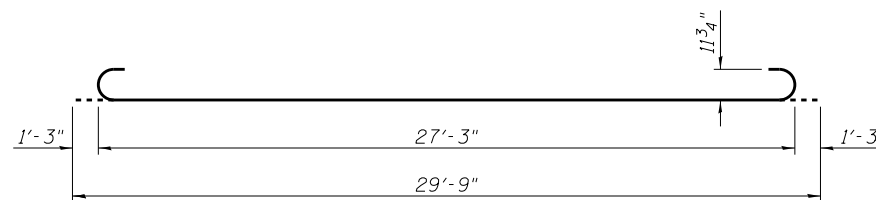


VIEW D-D

(North Approach)



BAR a10(E)



BAR b8(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a8(E)	46	#4	20'-3"	—
a9(E)	84	#5	20'-3"	—
a10(E)	54	#4	21'-7"	┌
a11(E)	100	#5	21'-4"	—
b7(E)	56	#4	29'-8"	—
b8(E)	152	#9	29'-9"	┌
b9(E)	3	#4	16'-4"	—
b10(E)	3	#4	17'-5"	—
b11(E)	3	#4	15'-11"	—
b12(E)	3	#4	14'-10"	—
t(E)	144	#4	12'-5"	—
w(E)	160	#5	21'-4"	—
Concrete Structures			Cu. Yd.	26.7
Concrete Superstructure			Cu. Yd.	98.3
Reinforcement Bars, Epoxy Coated			Pound	26,760

- Notes:
- Approach slab concrete shall be paid for as Concrete Superstructure.
 - Approach footing concrete shall be paid for as Concrete Structures.
 - Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 - For v(E) bar details, see sheets 38 and 41 of 62.
 - The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 - For bar splicer details, see sheet 51 of 62.
 - Cost of excavation for approach footing included with Concrete Structures.
 - For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 62.
 - Tilt #9 b8(E) bars as required to maintain clearance.
 - Cost included with Concrete Superstructure.
 - Preformed flexible foam expansion joint filler, see Plan on sheets 21 and 22 of 62.
 - Calculated weight of Reinforcement Bars, Epoxy Coated = 22,010 (Superstructure) 4,750 (Substructure)

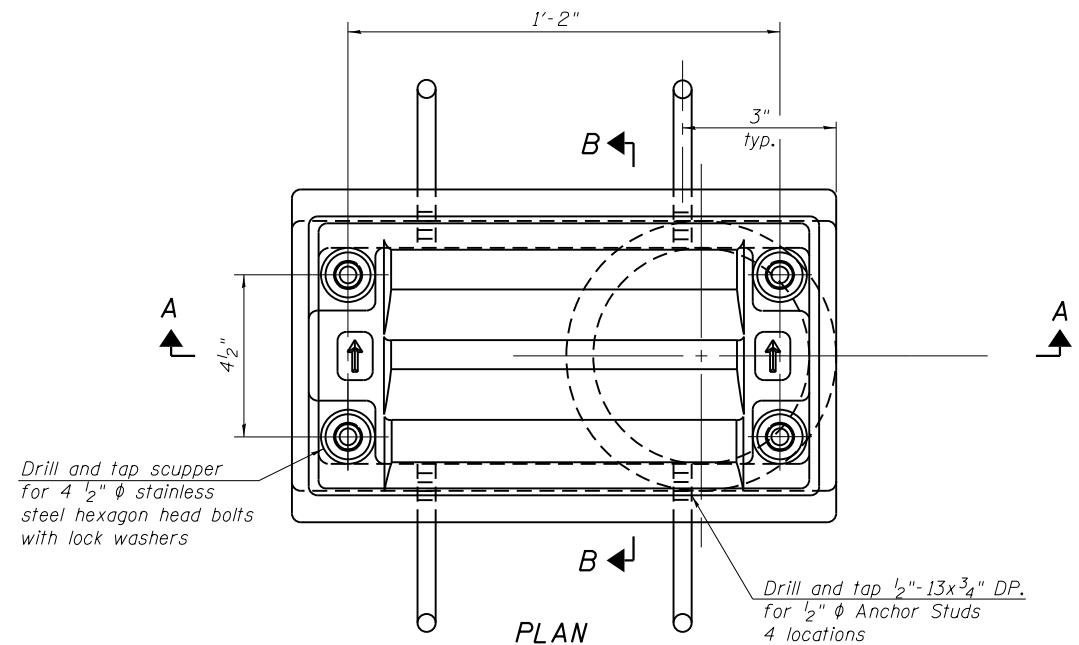


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BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 048-0100

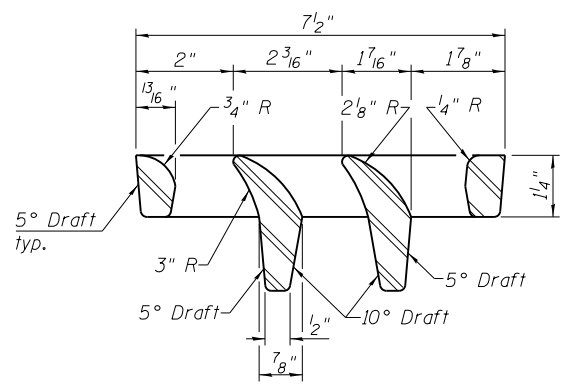
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	53
CONTRACT NO. 68759				



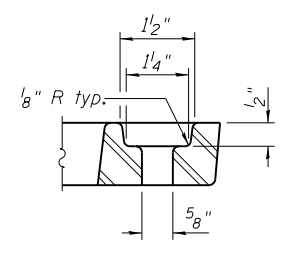
Drill and tap scupper for 4 1/2" φ stainless steel hexagon head bolts with lock washers

Drill and tap 1/2"-13x3/4" DP. for 1/2" φ Anchor Studs 4 locations

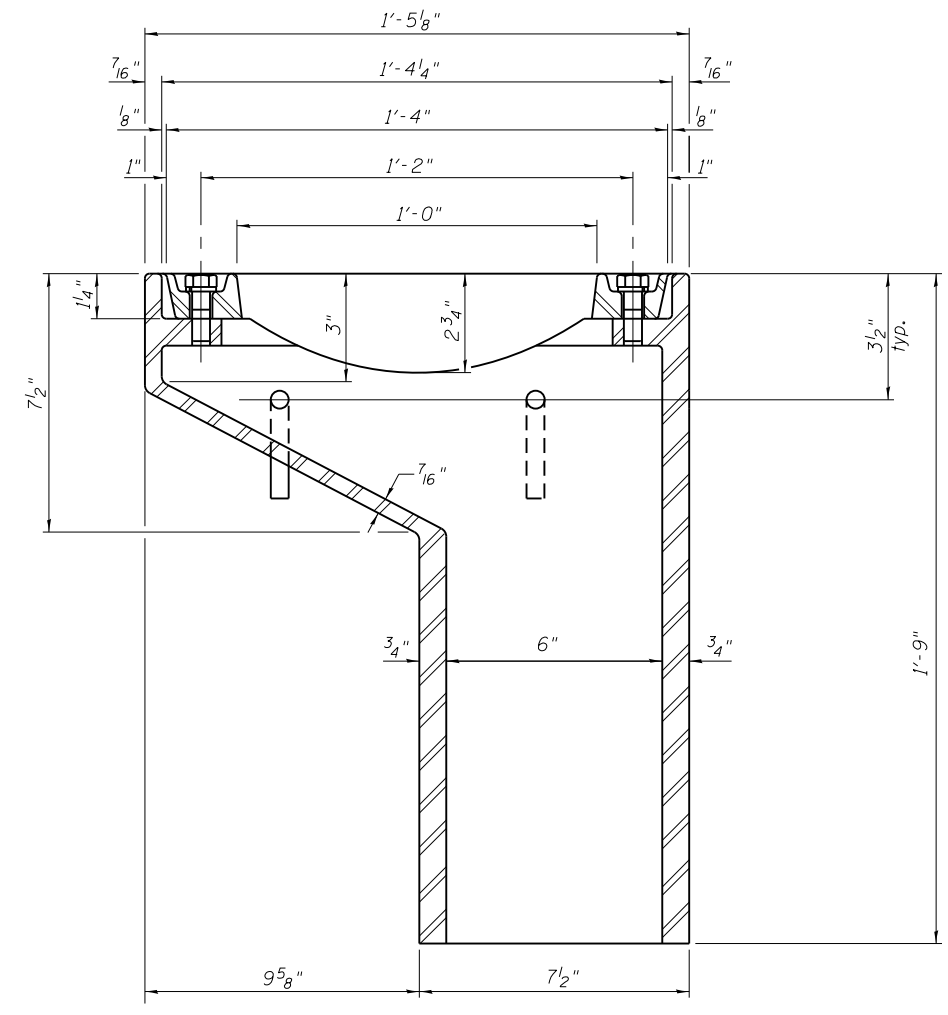
PLAN



VANE GRATE DETAIL

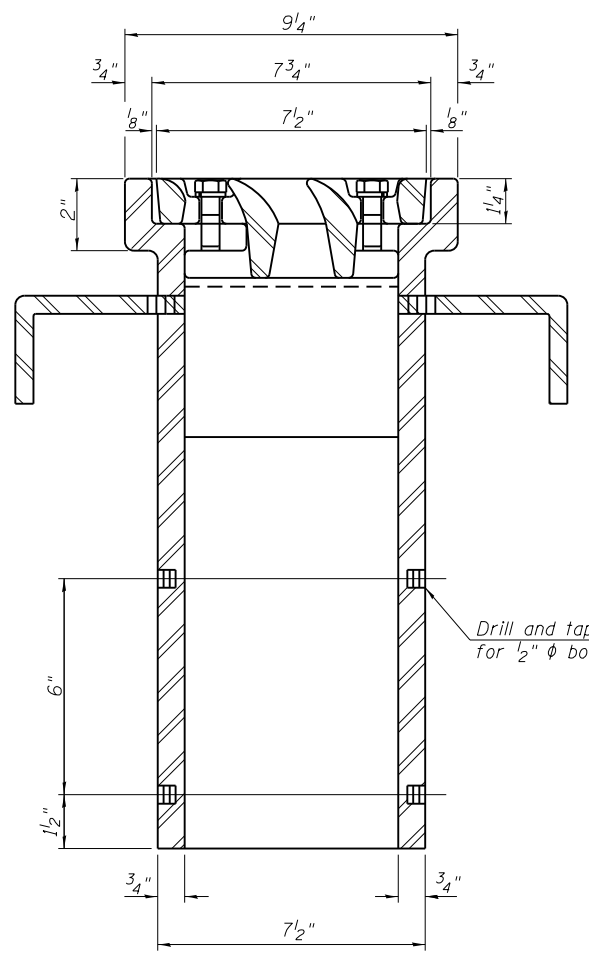


BOLT HOLE DETAIL



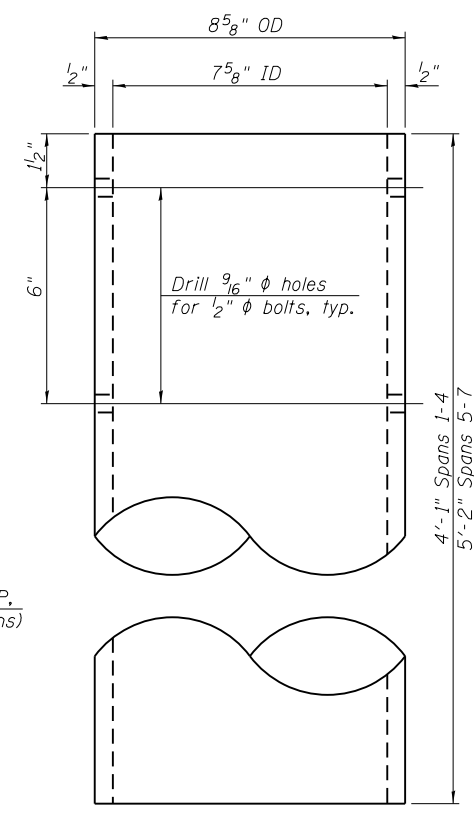
SECTION A-A

See sheet 20 of 62 for scupper location relative to parapet.

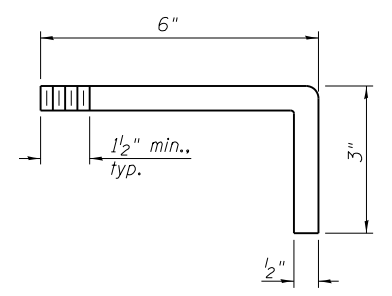


SECTION B-B

Drill and tap 1/2"-13x1/2" DP. for 1/2" φ bolts. (4 locations)



DOWNSPOUT



ANCHOR STUD DETAIL

Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scuppers, DS-11.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	Each	20

DS-11

7-1-10



OATES ASSOCIATES, Inc.
 100 Lamar Court, Suite 100
 Chicago, IL 60624
 Tel: 312.345.2200
 Fax: 312.345.2201
 www.oatesassoc.com

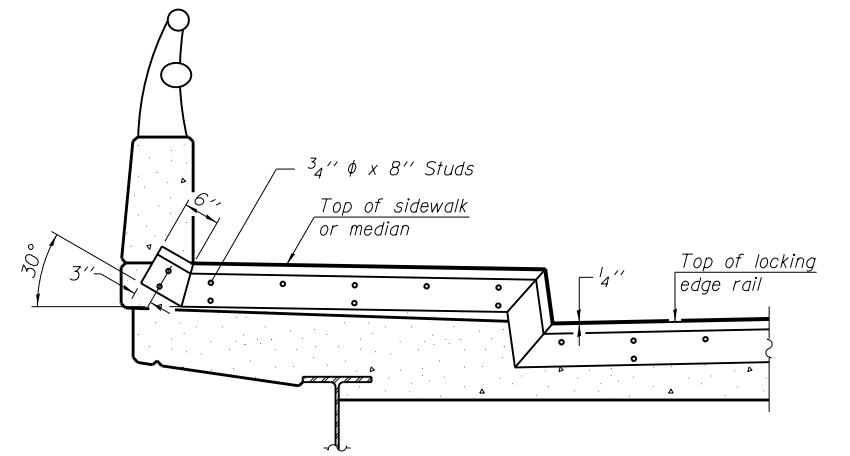
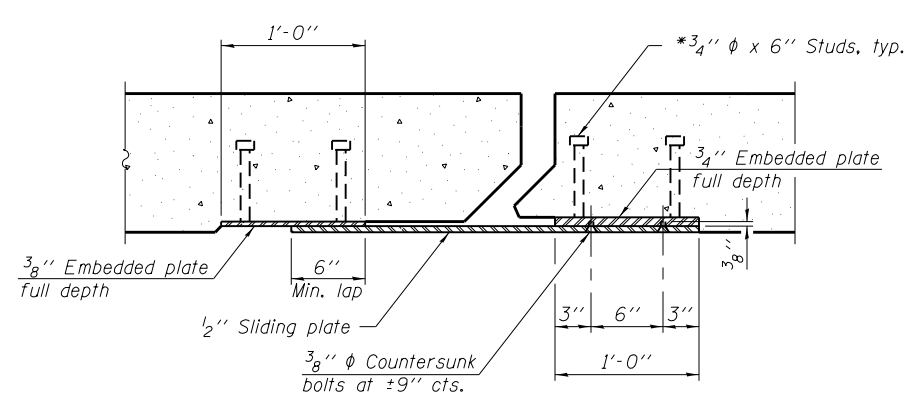
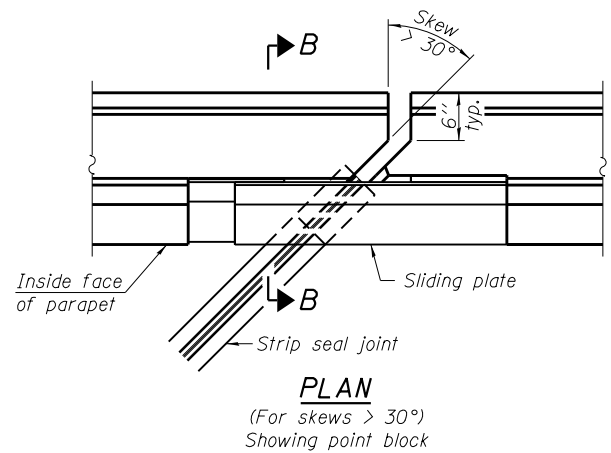
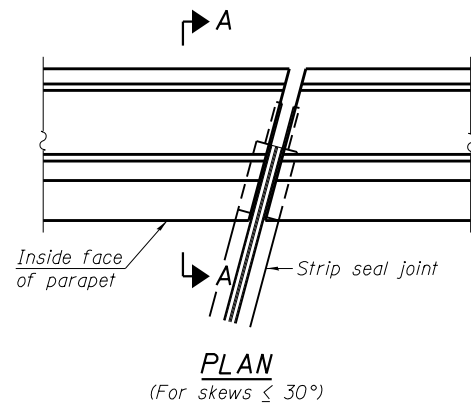
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE SCUPPERS, DS-11
STRUCTURE NO. 048-0100

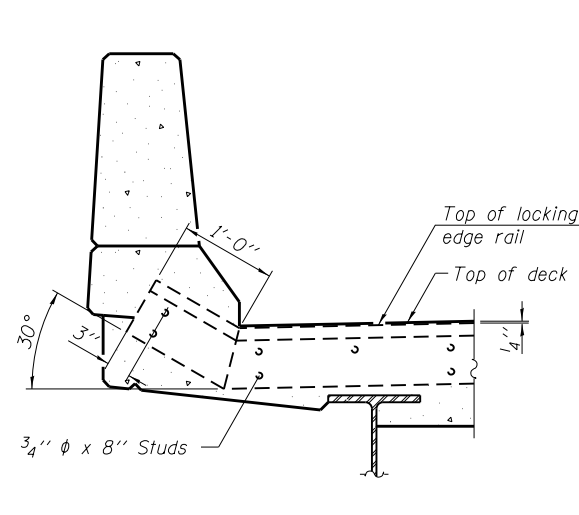
SHEET NO. 24 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	54
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

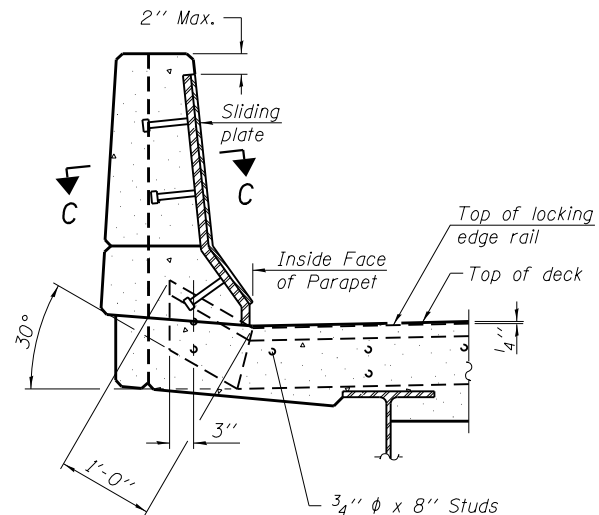


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

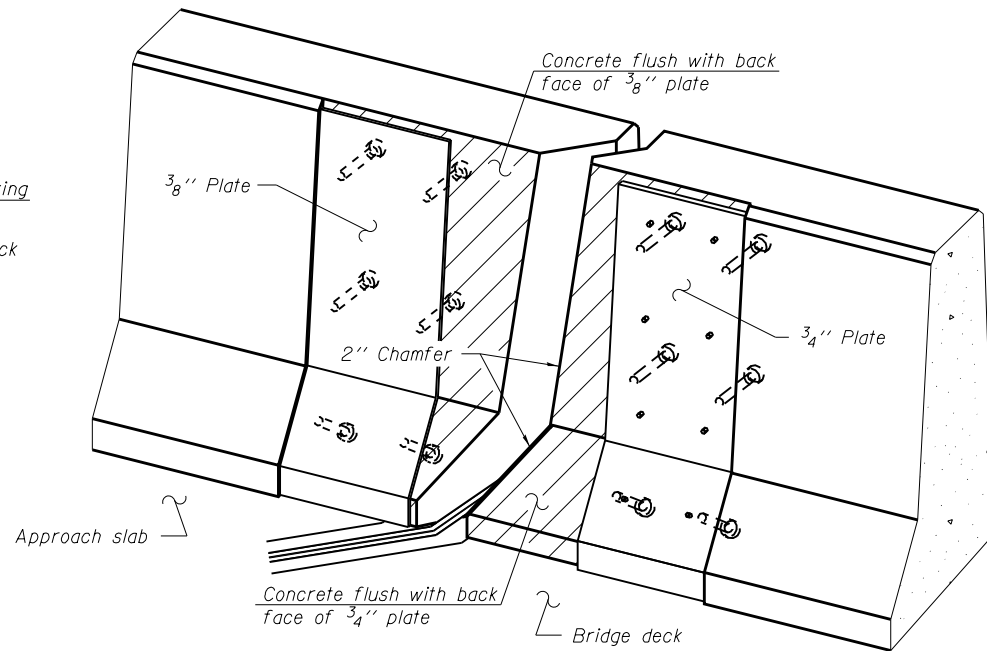
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



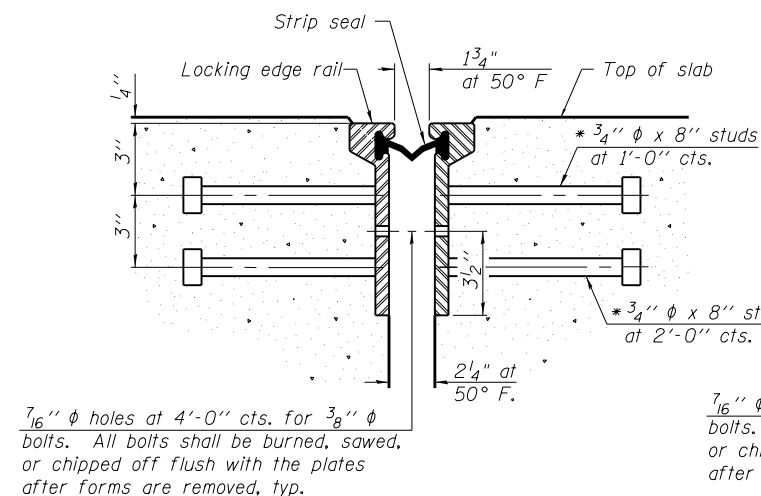
SECTION A-A



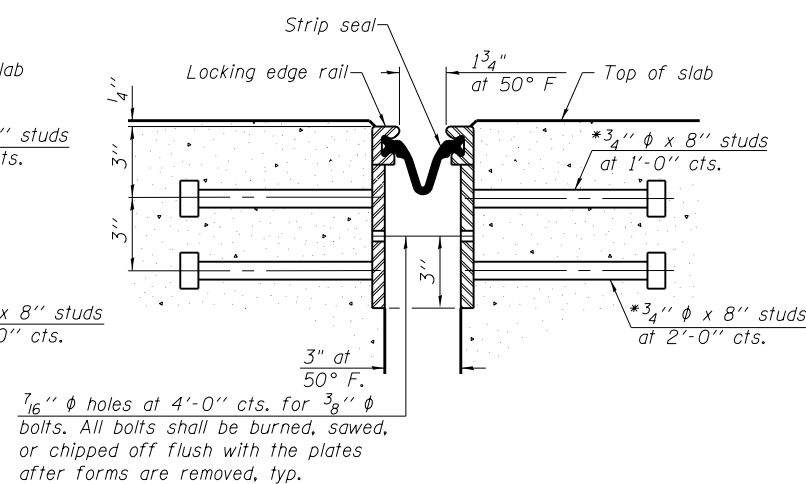
SECTION B-B



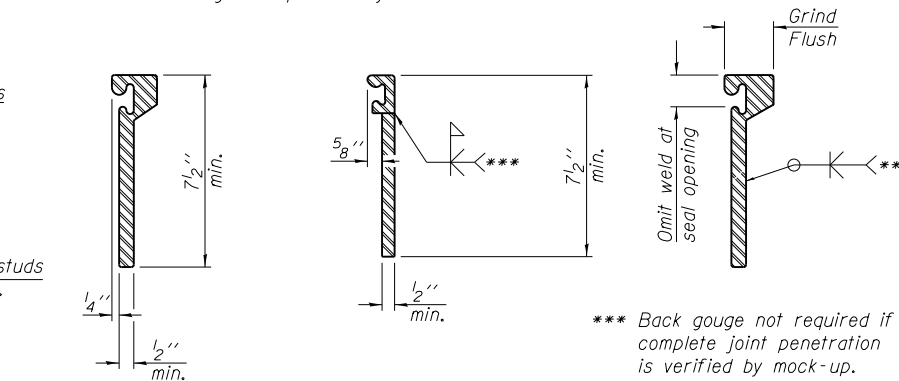
TRIMETRIC VIEW (Showing back plates only)



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT



ROULDED 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.

LOCKING EDGE RAILS

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 degrees included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	86.5

EJ-SSJ

1-27-12



15001 Business Center 1
100 Lamar Court, Suite 1000
Columbia, MD 21046
Tel: 410-345-2200
Fax: 410-345-7250
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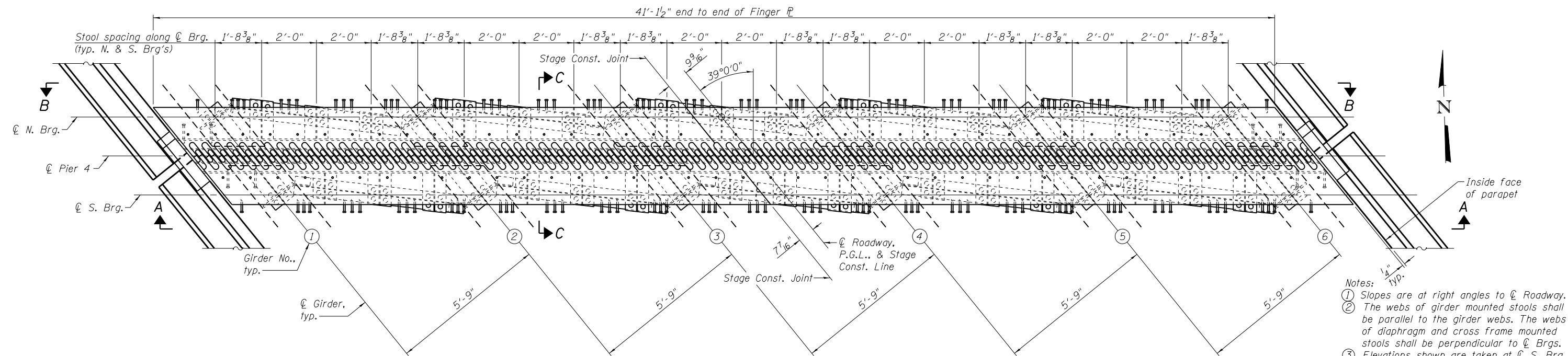
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 048-0100

SHEET NO. 25 OF 62 SHEETS

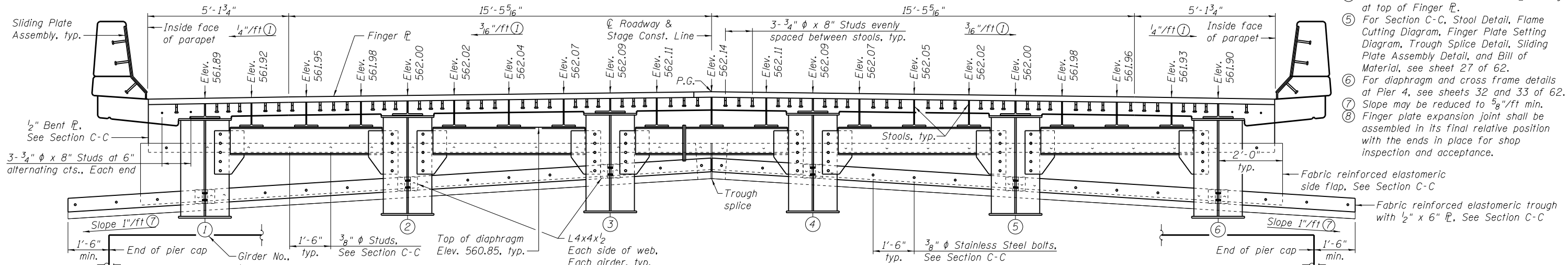
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	55
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

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

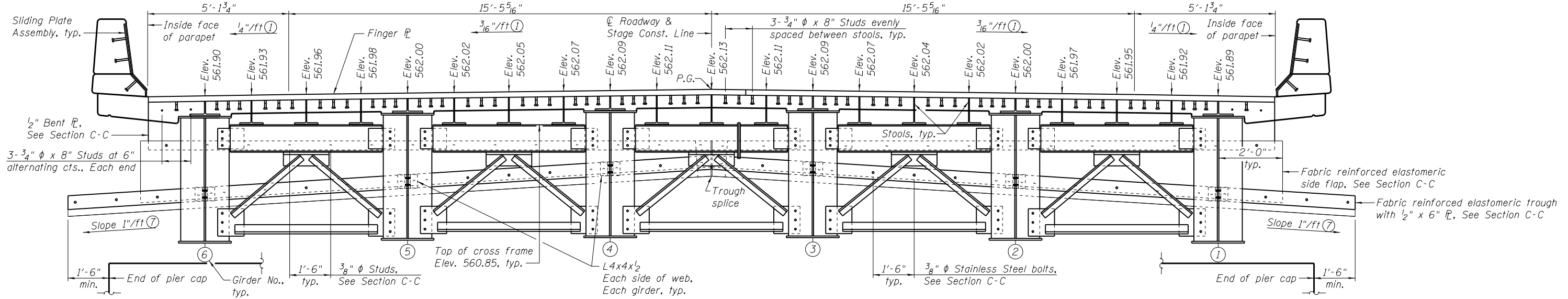


PLAN AT PIER 4

- Notes:
- ① Slopes are at right angles to C Roadway.
 - ② The webs of girder mounted stools shall be parallel to the girder webs. The webs of diaphragm and cross frame mounted stools shall be perpendicular to C Brgs.
 - ③ Elevations shown are taken at C S. Brg. at top of Finger P .
 - ④ Elevations shown are taken at C N. Brg. at top of Finger P .
 - ⑤ For Section C-C, Stool Detail, Flame Cutting Diagram, Finger Plate Setting Diagram, Trough Splice Detail, Sliding Plate Assembly Detail, and Bill of Material, see sheet 27 of 62.
 - ⑥ For diaphragm and cross frame details at Pier 4, see sheets 32 and 33 of 62.
 - ⑦ Slope may be reduced to $\frac{5}{8}$ "/ft min.
 - ⑧ Finger plate expansion joint shall be assembled in its final relative position with the ends in place for shop inspection and acceptance.



SECTION A-A ③



SECTION B-B ④



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 100 Lamar Court, Suite 1
 Columbia, MD 21046
 Tel: 410.345.2200
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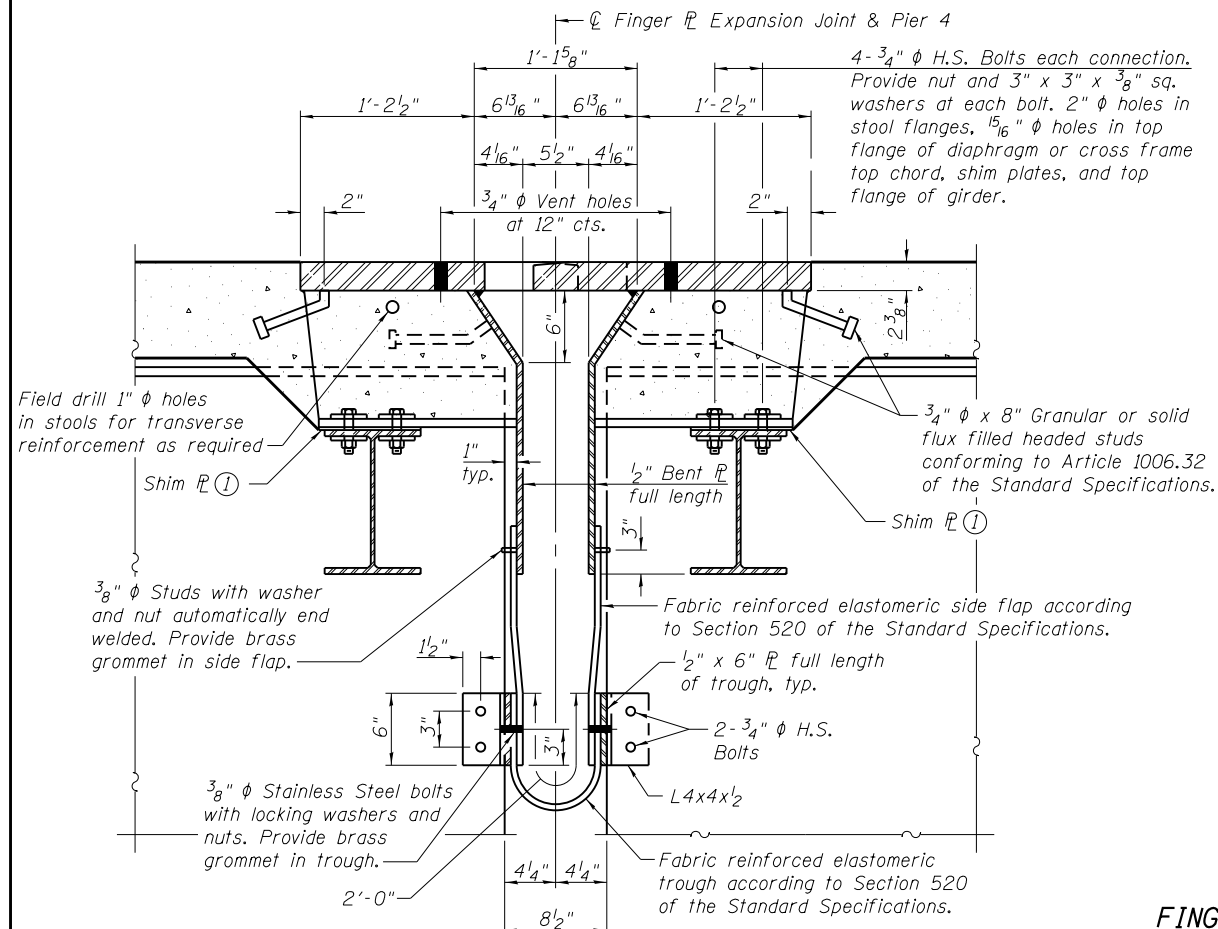
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FINGER PLATE EXPANSION JOINT
 STRUCTURE NO. 048-0100

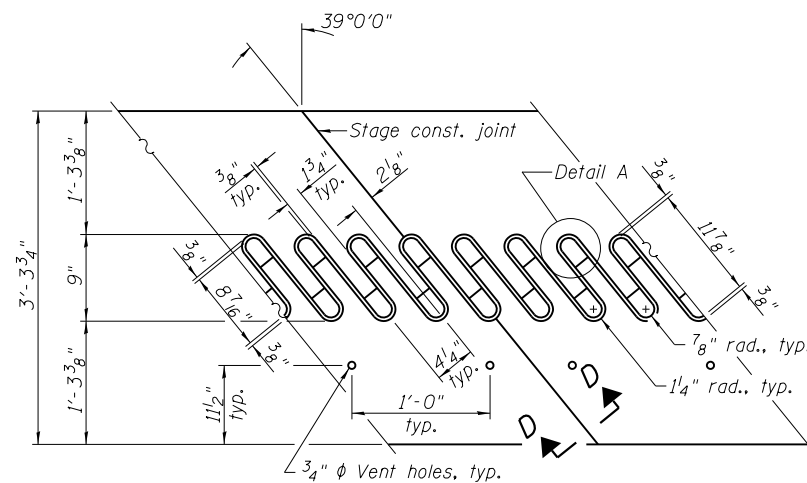
SHEET NO. 26 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	56
CONTRACT NO. 68759				

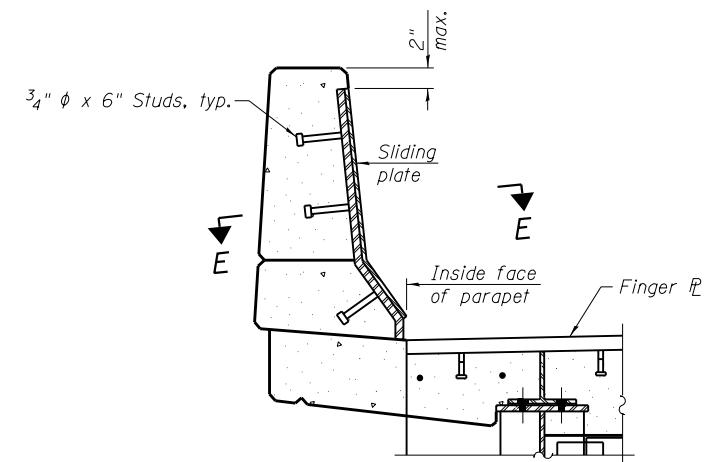
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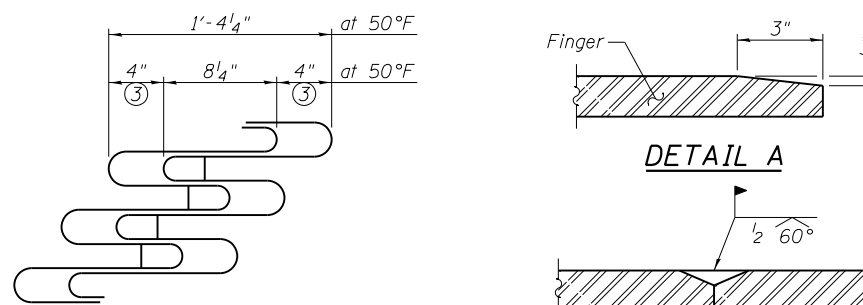
SECTION C-C 2



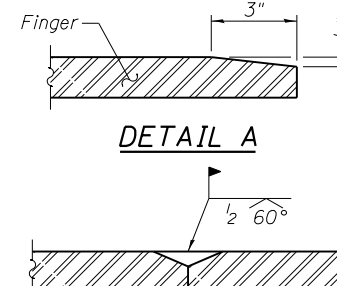
FLAME CUTTING DIAGRAM
(Cut from 2 3/8" x 3'-3 3/4" NTR)



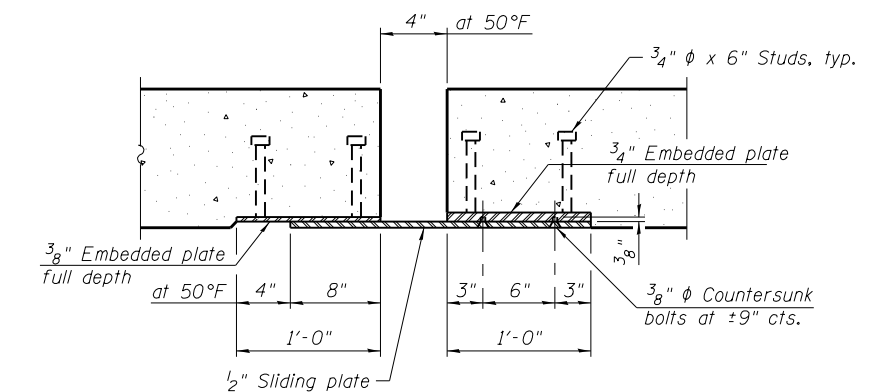
SLIDING PLATE ASSEMBLY DETAIL



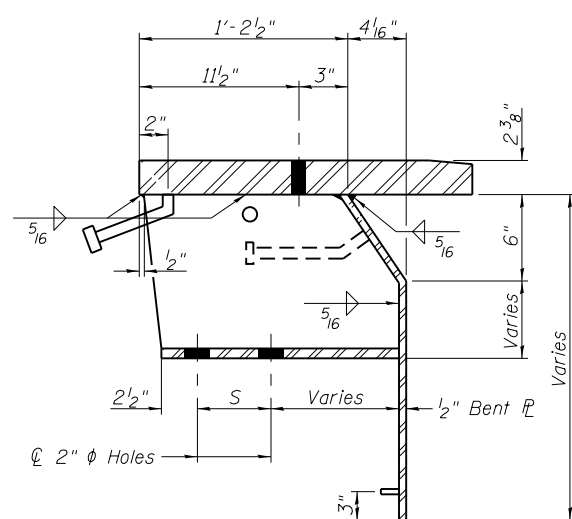
FINGER PLATE SETTING DIAGRAM 4



SECTION D-D



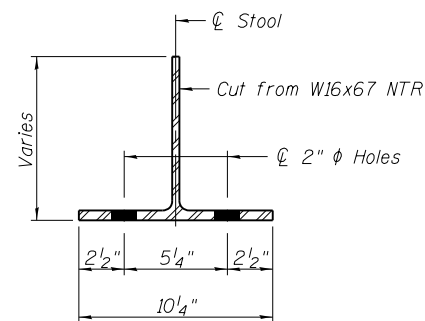
SECTION E-E



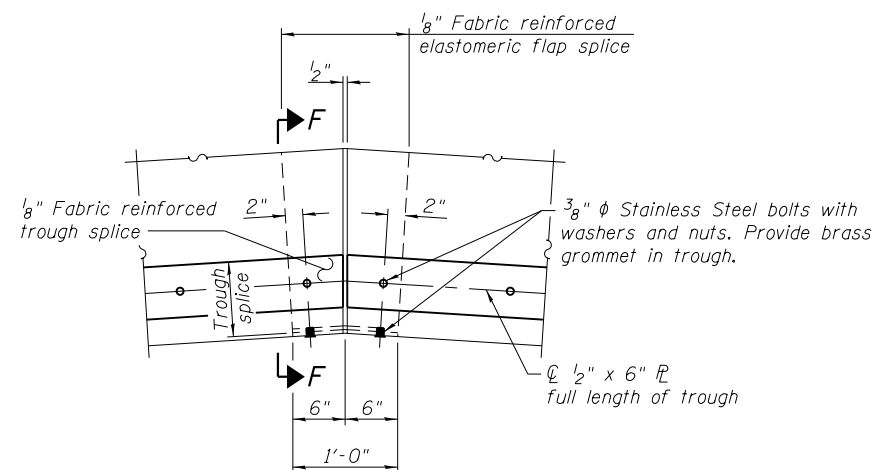
STOOL DETAIL

DIMENSION TABLE

Location	S
Diaphragm or Cross Frame Stool	5 1/2"
Girder Stool	7"



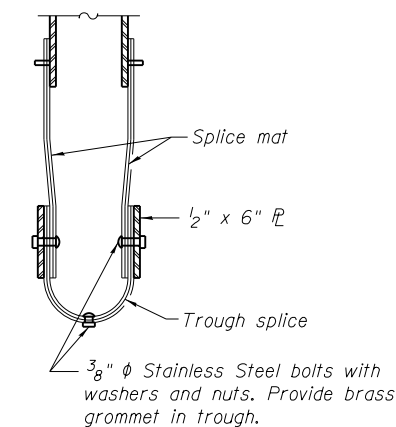
SECTION THRU STOOL



TROUGH SPLICE DETAIL

BILL OF MATERIAL

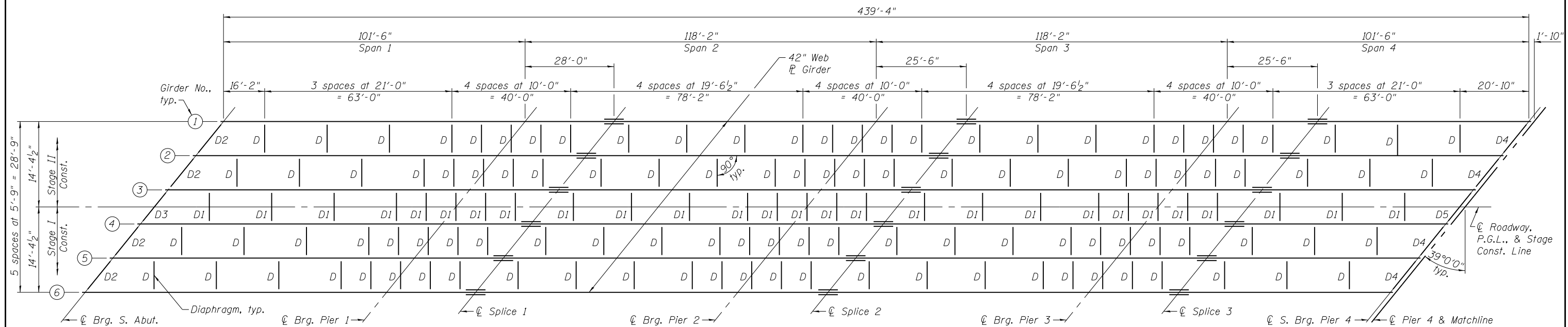
Item	Unit	Total
Finger Plate Expansion Joint, 4"	Foot	41



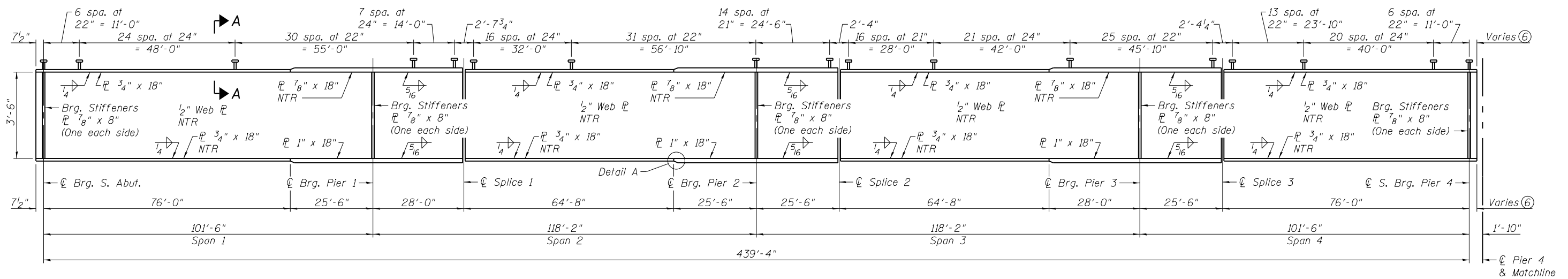
SECTION F-F

Notes:

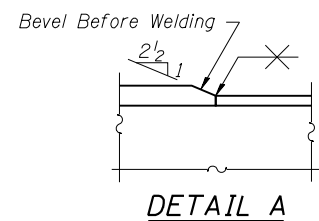
- 1/4" normal shim plus one 1/8" and one 1/16" shim for height adjustment.
- Horizontal dimensions shown at right angles to center line of Pier and at 50° F.
- Length varies from 3/4" at 130° F to 7/4" at -30° F. Expansion length is 506 ft.
- Dimensions measured along center line of girder.
- All steel including hardware associated with the trough system shall be galvanized after fabrication according to Section 520.03 of the Standard Specifications.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.



PARTIAL FRAMING PLAN



PARTIAL GIRDER ELEVATION



- Notes:
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 - All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 - For Section A-A, see sheet 30 of 62.
 - For splice details, see sheet 31 of 62.
 - For diaphragm details, see sheets 31 and 32 of 62.
 - For Girder End Treatment Detail, see sheet 30 of 62.
 - For girder coating requirements, see General Notes on sheet 2 of 62 and Special Provisions.



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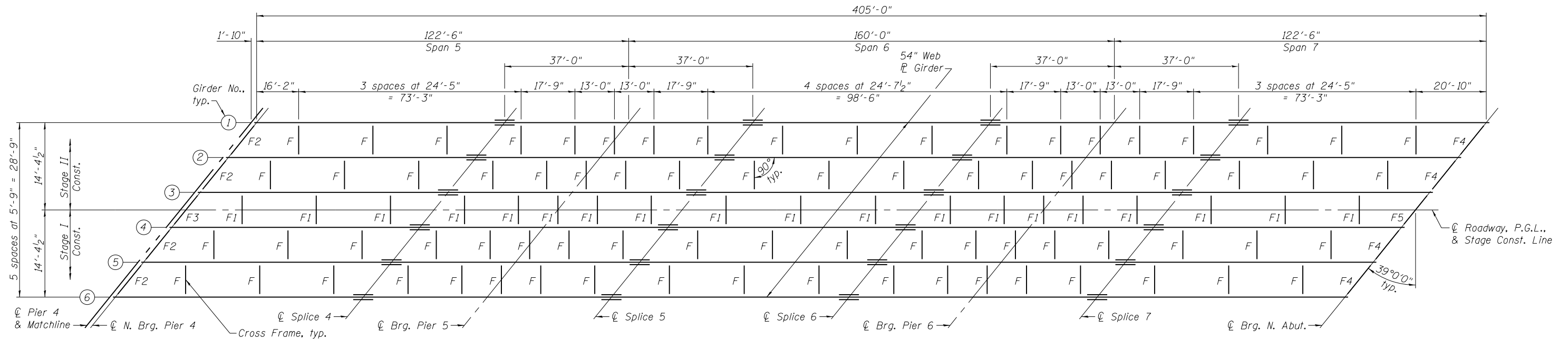
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND GIRDER DETAILS - SPANS 1 THRU 4
STRUCTURE NO. 048-0100

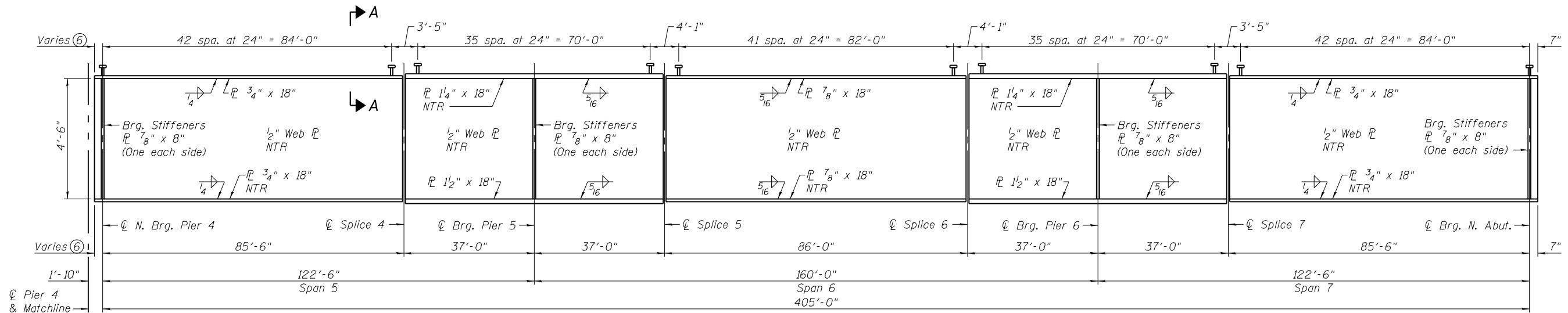
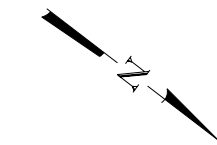
SHEET NO. 28 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	58
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT



PARTIAL FRAMING PLAN



PARTIAL GIRDER ELEVATION

Notes:

- ① Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- ② All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
- ③ For Section A-A, see sheet 30 of 62.
- ④ For splice details, see sheet 31 of 62.
- ⑤ For cross frame details, see sheets 32 and 33 of 62.
- ⑥ For Girder End Treatment Detail, see sheet 30 of 62.
- ⑦ For girder coating requirements, see General Notes on sheet 2 of 62 and Special Provisions.



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CHECKED - JAD	REVISIONS	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN AND GIRDER DETAILS - SPANS 5 THRU 7
STRUCTURE NO. 048-0100**

SHEET NO. 29 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	59
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

INTERIOR GIRDER MOMENT TABLE

	0.4 Sp. 1 or 0.6 Sp. 4	Pier 1 or 3	0.5 Sp. 2 or 3	Pier 2	0.4 Sp. 5 or 0.6 Sp. 7	Pier 5 or 6	0.5 Sp. 6
I_s	(in ⁴) 15,424	18,604	15,424	18,604	26,796	44,318	30,277
$I_c(n)$	(in ⁴) 33,605	39,672	33,605	39,672	56,071	83,808	61,025
$I_c(3n)$	(in ⁴) 25,039	29,385	25,039	29,385	41,852	62,985	45,776
$I_c(cr)$	(in ⁴) -	22,217	-	22,217	-	50,269	-
S_s	(in ³) 709	882	709	882	966	1,652	1,086
$S_c(n)$	(in ³) 928	1,126	928	1,126	1,256	1,999	1,381
$S_c(3n)$	(in ³) 851	1,036	851	1,036	1,148	1,853	1,267
$S_c(cr)$	(in ³) -	943	-	943	-	1,726	-
DC1	(k/ft) 0.811	0.838	0.811	0.838	0.836	0.923	0.853
M_{DC1}	(k) 586.4	1,053.9	422.5	952.0	758.6	1,948.7	828.2
DC2	(k/ft) 0.150	0.150	0.150	0.150	0.150	0.150	0.150
M_{DC2}	(k) 108.9	191.8	78.8	173.9	139.0	331.6	148.3
DW	(k/ft) 0.267	0.267	0.267	0.267	0.267	0.267	0.267
M_{DW}	(k) 193.6	341.0	140.1	309.2	247.0	589.5	263.6
$M_{\xi + IM}$	(k) 1,103.5	1,228.0	1,014.9	1,226.6	1,419.6	1,827.5	1,429.7
M_u (Strength I)	(k) 3,090.7	4,217.4	2,612.8	4,017.8	3,976.8	6,932.7	4,117.9
$\phi_r M_n$	(k) 4,682.2	4,324.3	4,729.4	4,336.5	6,366.8	7,006.9	7,046.9
f_s DC1	(ksi) 9.93	14.34	7.15	12.95	9.42	14.15	9.15
f_s DC2	(ksi) 1.54	2.44	1.11	2.21	1.45	2.31	1.40
f_s DW	(ksi) 2.73	4.34	1.98	3.93	2.58	4.10	2.50
f_s ($\xi + IM$)	(ksi) 14.27	15.63	13.12	15.61	13.56	12.71	12.42
f_s (Service II)	(ksi) 32.75	41.44	27.30	39.38	31.08	37.08	29.20
$0.95R_n F_y$	(ksi) 47.50	47.50	47.50	47.50	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi) -	-	-	-	-	-	-
$\phi_r F_n$	(ksi) -	-	-	-	-	-	-
V_r	(k) 31.4	29.5	22.7	29.4	33.1	30.6	23.8

INTERIOR GIRDER REACTION TABLE

	S. Abut.	Pier 1 or 3	Pier 2	S. Pier 4	N. Pier 4	Pier 5 or 6	N. Abut.
R_{DC1}	(k) 30.9	101.7	95.6	32.4	37.3	140.7	35.8
R_{DC2}	(k) 5.7	18.5	17.4	6.0	6.8	23.9	6.5
R_{DW}	(k) 10.2	32.9	31.0	10.7	12.0	42.5	11.5
$R_{\xi + IM}$	(k) 88.1	140.8	140.8	107.2	112.9	163.2	92.5
R_{Total}	(k) 134.9	293.9	284.8	156.3	169.0	370.3	146.3

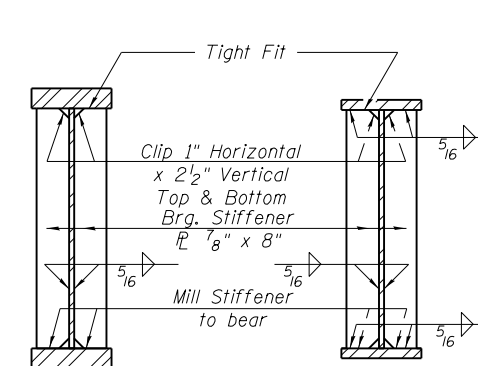
TOP OF WEB ELEVATIONS*

	Girder #1	Girder #2	Girder #3	Girder #4	Girder #5	Girder #6
☉ Brg. S. Abut.	559.55	559.63	559.69	559.67	559.56	559.43
☉ Brg. Pier 1	560.02	560.10	560.16	560.13	560.01	559.88
☉ Splice 1	560.09	560.17	560.23	560.20	560.08	559.95
☉ Brg. Pier 2	560.63	560.71	560.78	560.76	560.64	560.52
☉ Splice 2	560.76	560.84	560.91	560.89	560.78	560.65
☉ Brg. Pier 3	561.02	561.11	561.19	561.18	561.08	560.97
☉ Splice 3	561.05	561.15	561.23	561.23	561.13	561.02
☉ S. Brg. Pier 4	561.10	561.21	561.30	561.30	561.21	561.11
☉ N. Brg. Pier 4	561.10	561.20	561.30	561.30	561.21	561.11
☉ Splice 4	560.88	560.99	561.10	561.11	561.03	560.94
☉ Brg. Pier 5	560.77	560.89	561.00	561.02	560.94	560.86
☉ Splice 5	560.67	560.79	560.90	560.92	560.86	560.77
☉ Splice 6	560.16	560.28	560.40	560.42	560.35	560.27
☉ Brg. Pier 6	560.00	560.13	560.24	560.26	560.20	560.12
☉ Splice 7	559.85	559.97	560.09	560.11	560.04	559.96
☉ Brg. N. Abut.	559.43	559.56	559.67	559.70	559.63	559.55

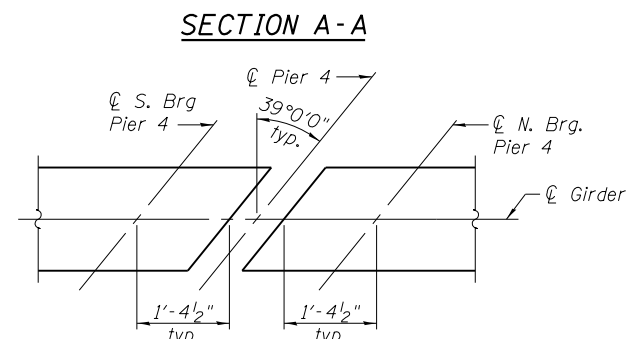
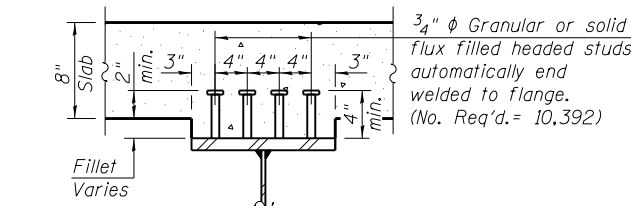
*For fabrication only.

- I_s , S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).
- $I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in⁴ and in³).
- $I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).
- $I_c(cr)$, $S_c(cr)$: 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 (in⁴ and in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_{\xi + IM}$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\xi + IM}$

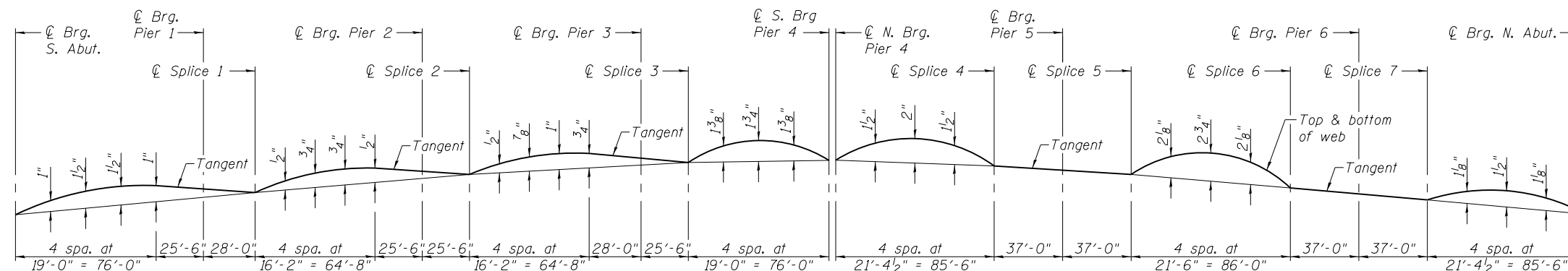
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).
- f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
- M_{DC1} / S_{sc}
- f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
- $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.
- f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
- $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.
- f_s ($\xi + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
- $M_{\xi + IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.
- f_s (Service II): Sum of stresses as computed below (ksi).
- $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (\xi + IM)$
- $0.95R_n F_y$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
- $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (\xi + IM)$
- $\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- V_r : Maximum factored shear range in span computed according to Article 6.10.10.



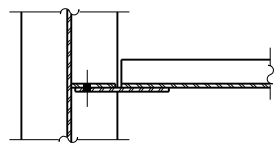
SECTION AT PIERS 1, 2, 3, 5 & 6



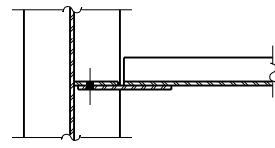
GIRDER END TREATMENT DETAIL



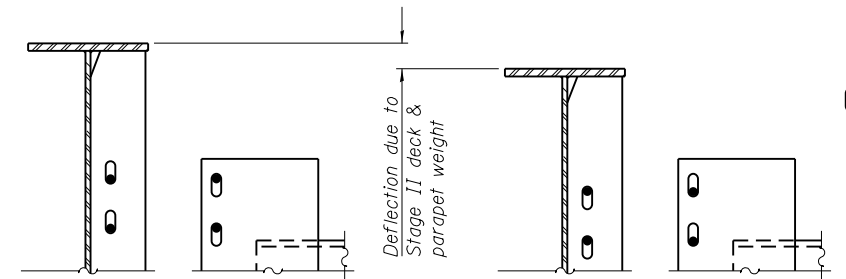
CAMBER DIAGRAM



SECTION B-B



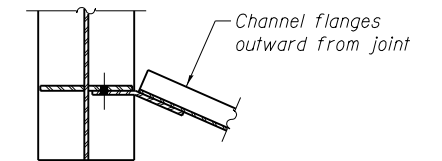
SECTION C-C



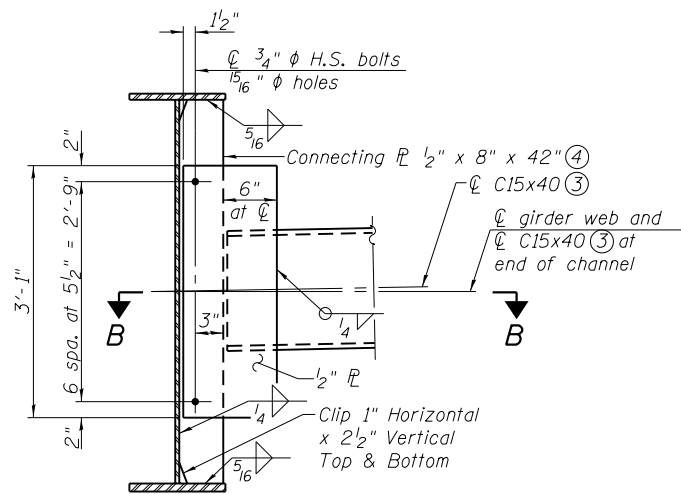
PRIOR TO STAGE II DECK POUR
(Steel weight only)

AFTER STAGE II DECK POUR
(Including parapet weight)

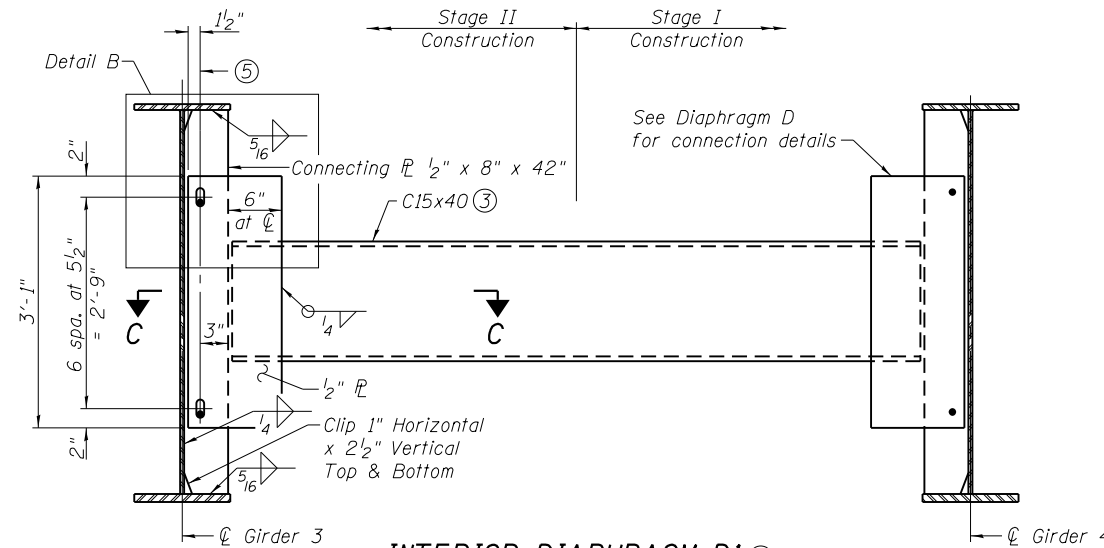
DETAIL B



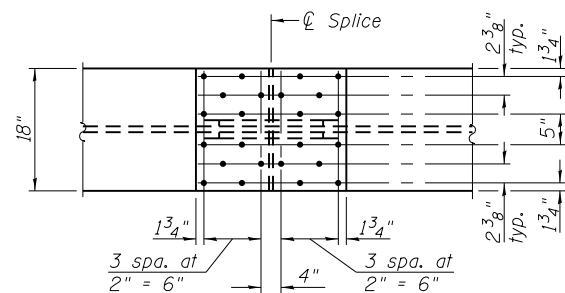
SECTION D-D



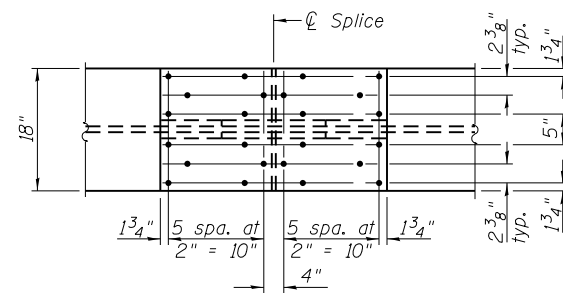
INTERIOR DIAPHRAGM D
(108 Required)



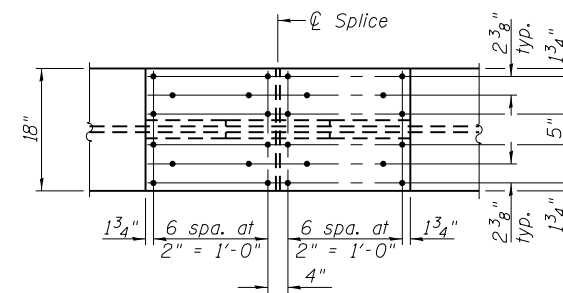
INTERIOR DIAPHRAGM D1
(27 Required)



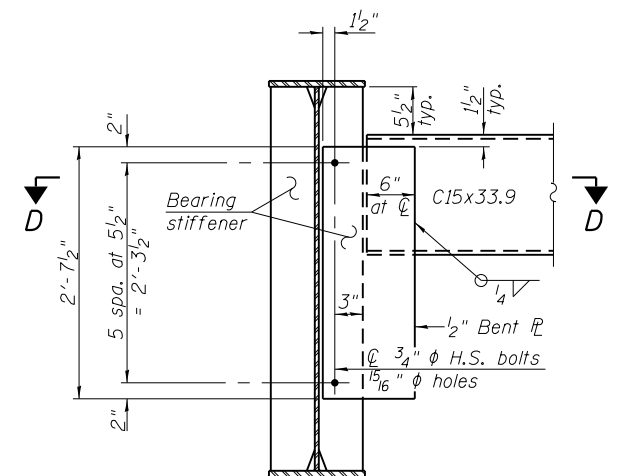
TOP & BOTTOM PLAN



TOP & BOTTOM PLAN



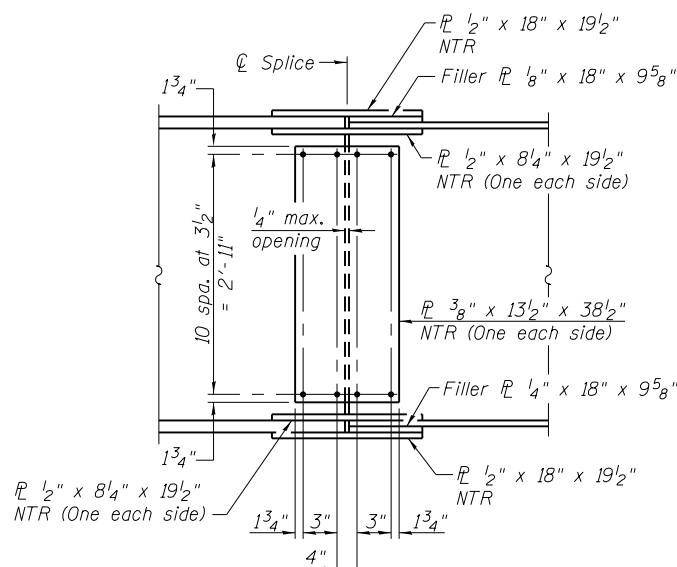
TOP & BOTTOM PLAN



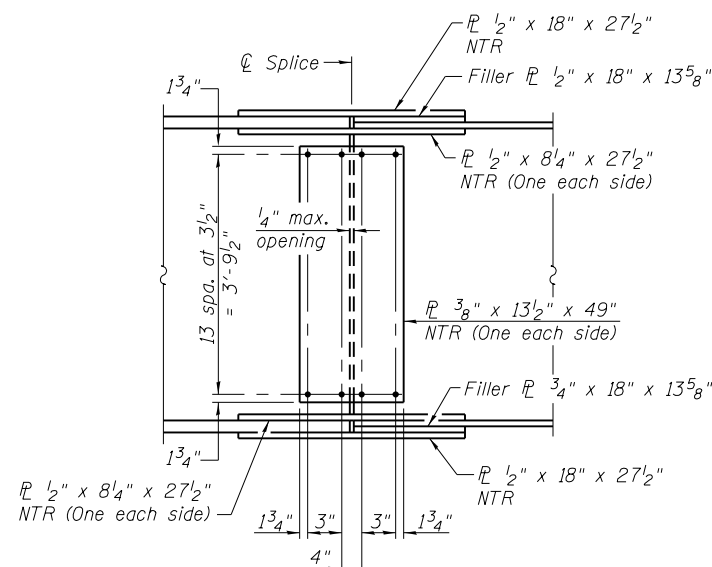
END DIAPHRAGM D2
(4 Required)
(Galvanized)

Notes:

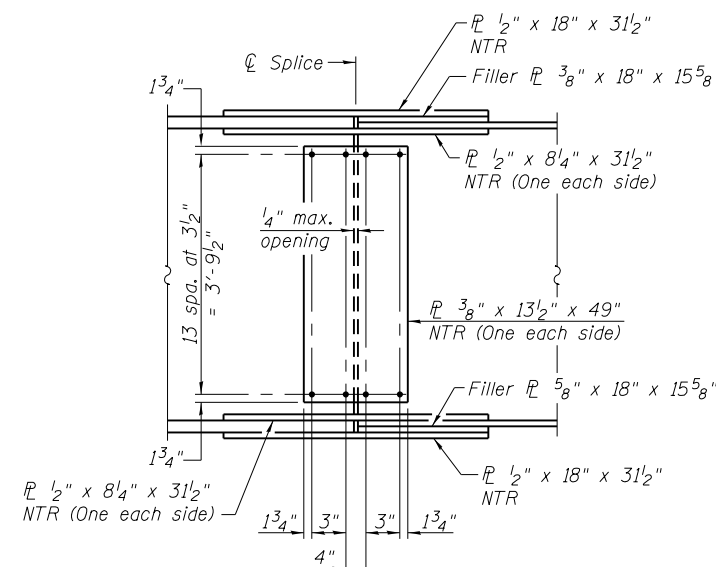
- ① Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- ② Two hardened washers required for each set of oversized holes.
- ③ Alternate channels C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.
- ④ Do not provide plate on exterior face of fascia girders.
- ⑤ Use 3/4 inch diameter H.S. bolts. Provide 1 3/8 inch x 1 7/8 inch vertical slotted holes in connection plate attached to channel diaphragms and girder. Two 5/16 inch structural plate washers required for each set of slotted holes.
- ⑥ The fabricator shall detail connection plate locations on channel to allow for differential deflection during Stage II deck and parapet pour. The bolts shall be finger tight until the Stage II deck and parapet concrete is poured, allowing the Stage II girders to deflect vertically without stressing the DI diaphragms or Stage I girders. The bolts shall be fully tightened after the Stage II deck and parapet concrete is poured. The diaphragm connection shall be detailed so that the centerline of girder web and centerline of diaphragm channel align in their final position.



SPLICE 1, 2, & 3 DETAIL
(18 Required)



SPLICE 4 & 7 DETAIL
(12 Required)



SPLICE 5 & 6 DETAIL
(12 Required)



1500 East 101st Street, Suite 100
Lombard, IL 60148
Tel: 630.345.2200
Fax: 630.345.2201
www.oatesassociates.com

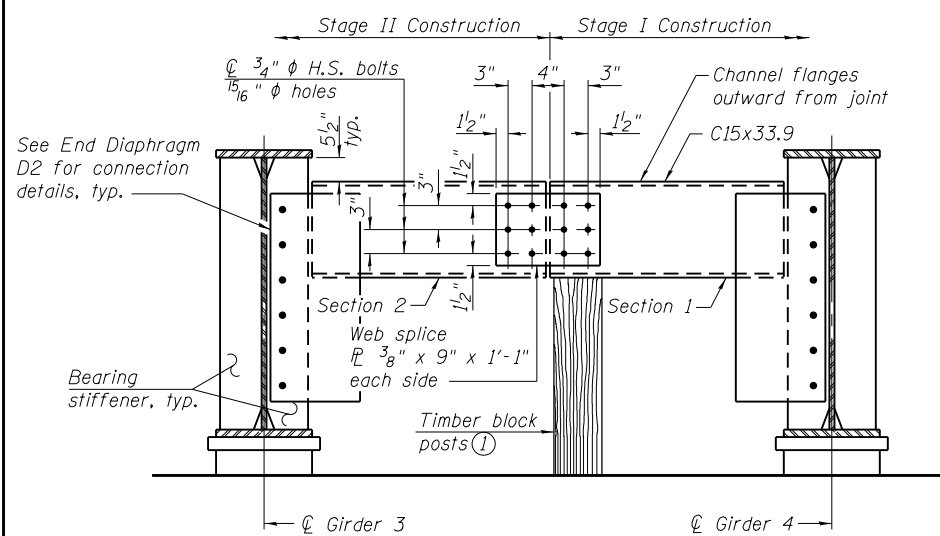
USER NAME =	DESIGNED - SJN	REVISED
PLOT SCALE =	CHECKED - JAD	REVISED
PLOT DATE =	DRAWN - SJN	REVISED
	CHECKED - JAD	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER DETAILS
STRUCTURE NO. 048-0100

SHEET NO. 31 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	61
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

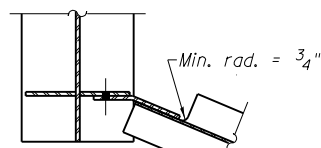


END DIAPHRAGM D3

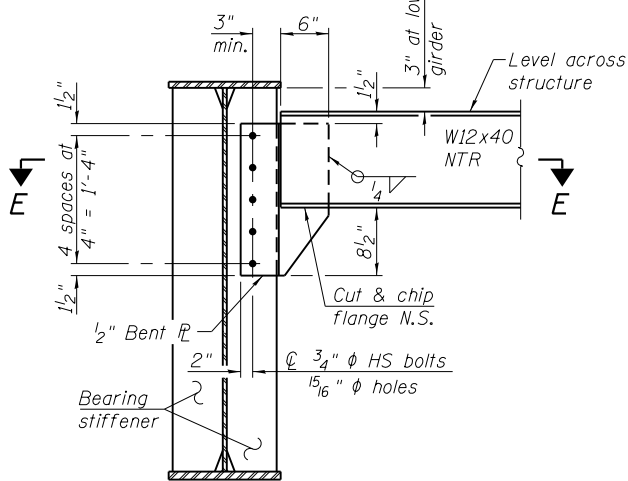
(1 Required)
(Galvanized)

END DIAPHRAGM D3 STAGE CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach Section 1 of diaphragm to girder 4.
- 3.) Place timber block posts between Section 1 of diaphragm and abutment bearing section.
- 4.) Attach Section 2 of diaphragm to both girder 3 and Section 1 of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.

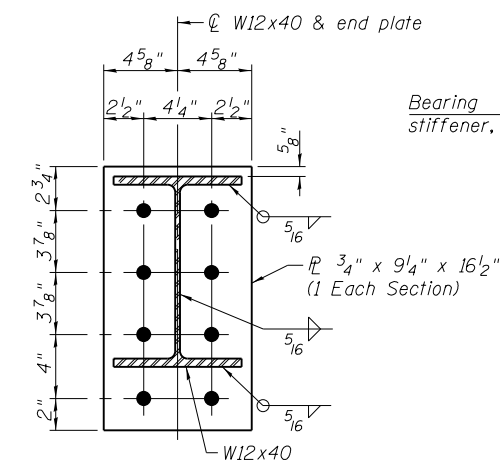


SECTION E-E



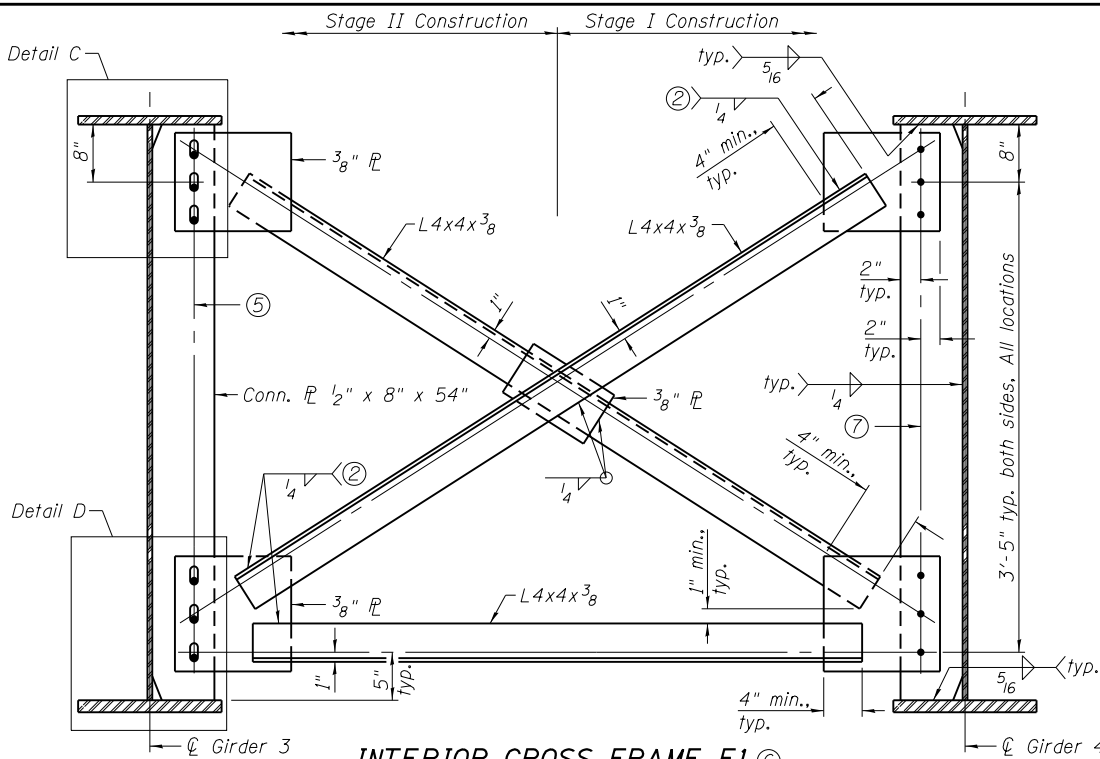
END DIAPHRAGM D4

(4 Required)
(Galvanized)



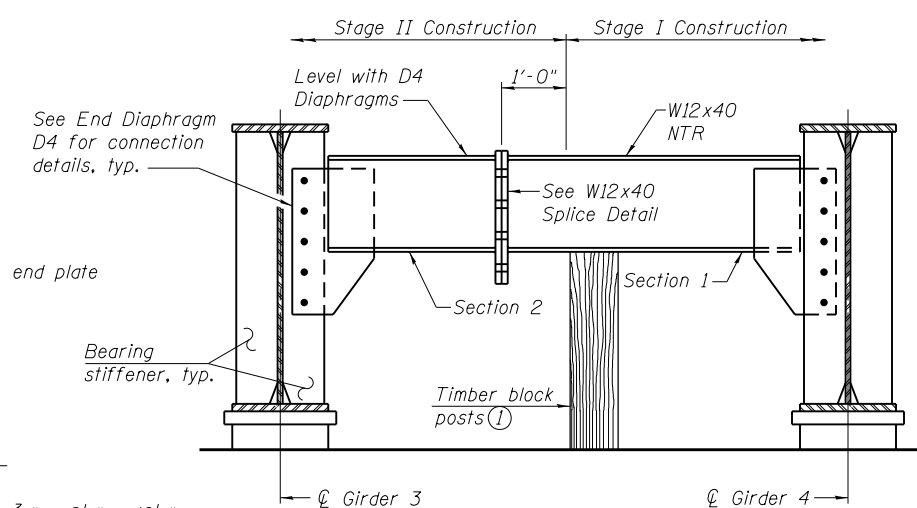
W12x40 SPLICE DETAIL

(2 Splices Required)



INTERIOR CROSS FRAME F1

(Showing final position)
(19 Required)

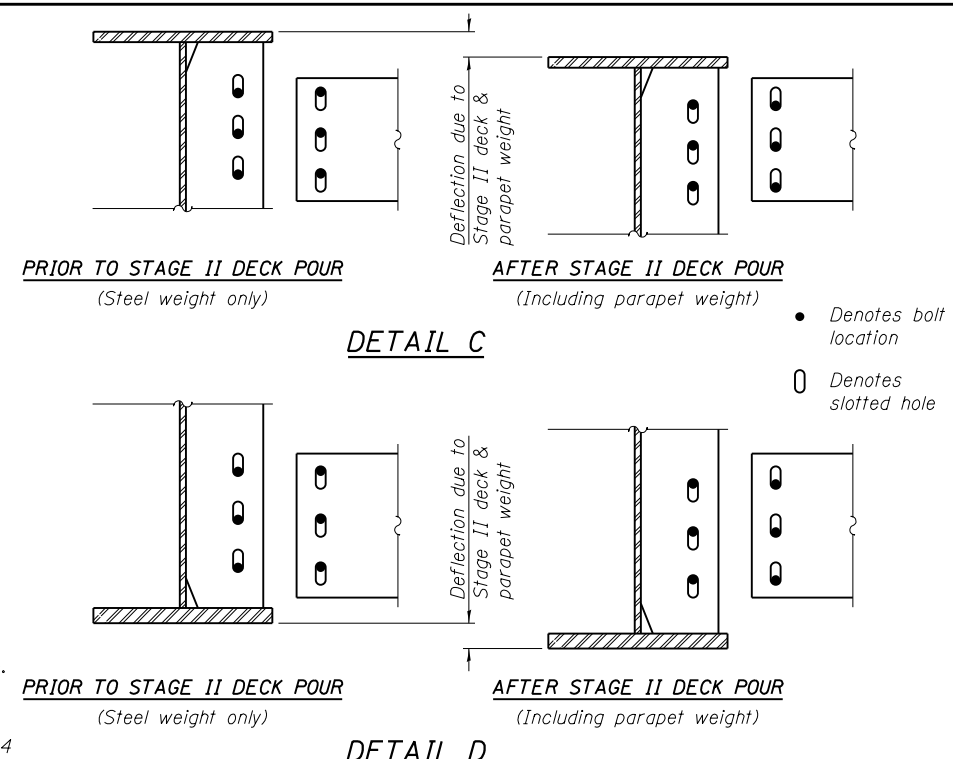


END DIAPHRAGM D5

(1 Required)
(Galvanized)

END DIAPHRAGM D5 STAGE CONSTRUCTION SEQUENCE

- 1.) Order diaphragm in two sections.
- 2.) Attach Section 1 of diaphragm to girder 4.
- 3.) Place timber block posts between Section 1 of diaphragm and pier bearing section.
- 4.) Attach Section 2 of diaphragm to both girder 3 and Section 1 of diaphragm during stage II construction.
- 5.) Remove timber block posts.



INTERIOR CROSS FRAME F

(76 Required)

DETAIL C

PRIOR TO STAGE II DECK POUR
(Steel weight only)

DETAIL C

AFTER STAGE II DECK POUR
(Including parapet weight)

DETAIL D

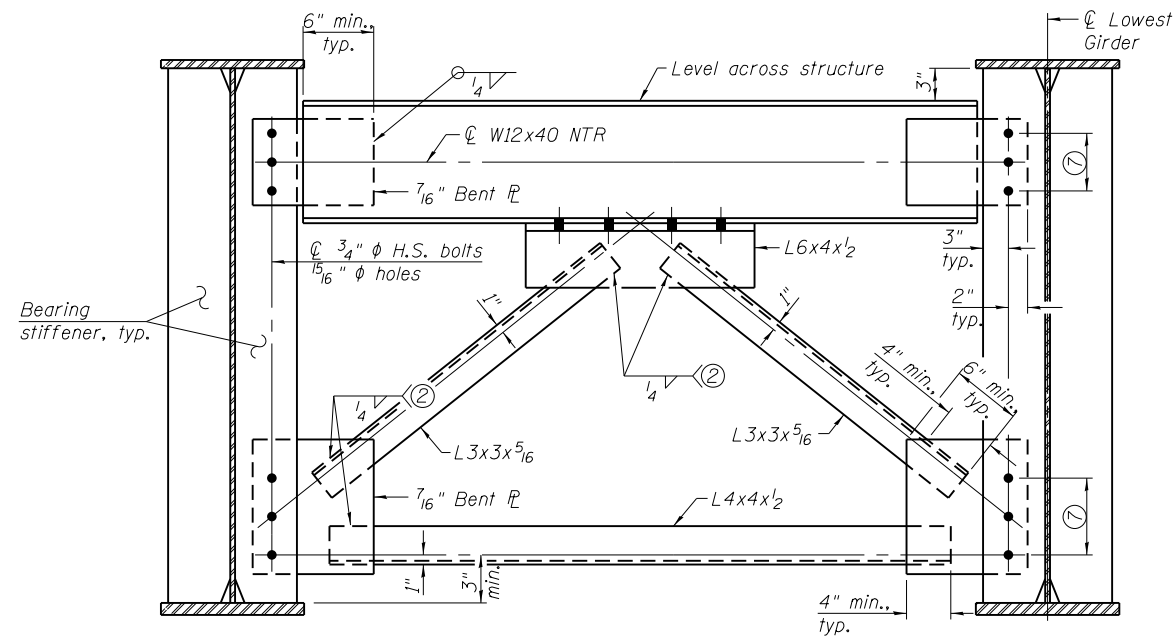
PRIOR TO STAGE II DECK POUR
(Steel weight only)

DETAIL D

AFTER STAGE II DECK POUR
(Including parapet weight)

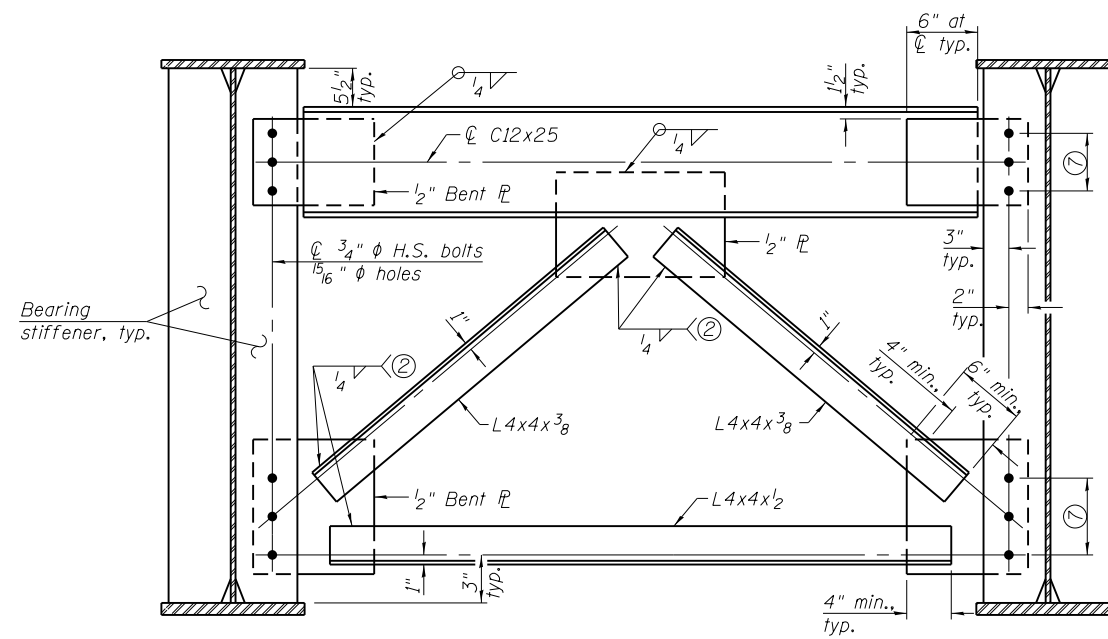
- Denotes bolt location
- Denotes slotted hole

- Notes:
- 1) Cost of Timber Block Posts is included with Furnishing and Erecting Structural Steel.
 - 2) Fillet weld angles along 3 sides on one face of gusset plate.
 - 3) Do not provide plate on exterior face of fascia girders.
 - 4) Two hardened washers required for each set of oversized holes.
 - 5) Use 3-3/4 inch H.S. bolts at 4 inch minimum spacing at each connection. Provide 13/16 inch x 17/8 inch vertical slotted holes in connection plates attached to cross frame angles and girder. Two 5/16 inch structural plate washers required for each set of slotted holes.
 - 6) The Fabricator shall detail connection plate locations on angles to allow for differential deflection during Stage II deck and parapet pour. The bolts shall be finger tight until the Stage II deck and parapet concrete is poured, allowing the Stage II girders to deflect vertically without stressing the F1 cross frames or Stage I girders. The bolts shall be fully tightened after the Stage II deck and parapet concrete is poured. The cross frame connection shall be detailed so that the angle centerlines line up as shown in their final position.
 - 7) 3-3/4 inch H.S. bolts with 5/16 inch holes at 3 inch minimum spacing, typ.
 - 8) Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.



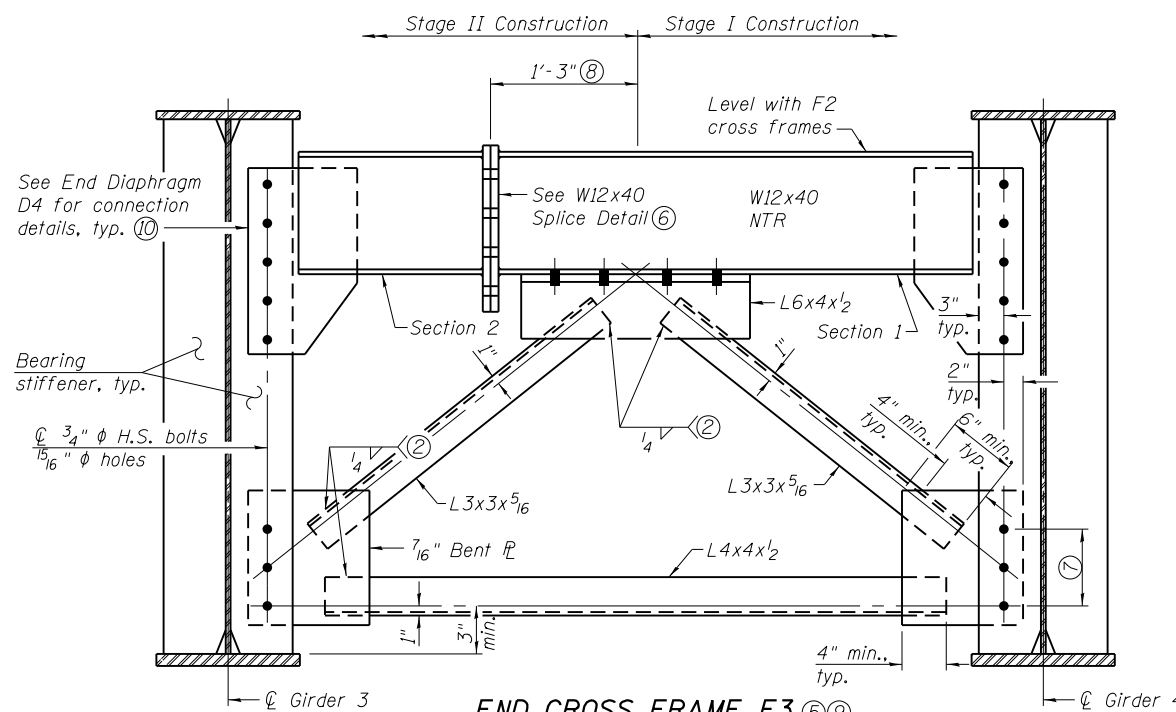
END CROSS FRAME F2 ⑤

(4 Required)
(Galvanized)



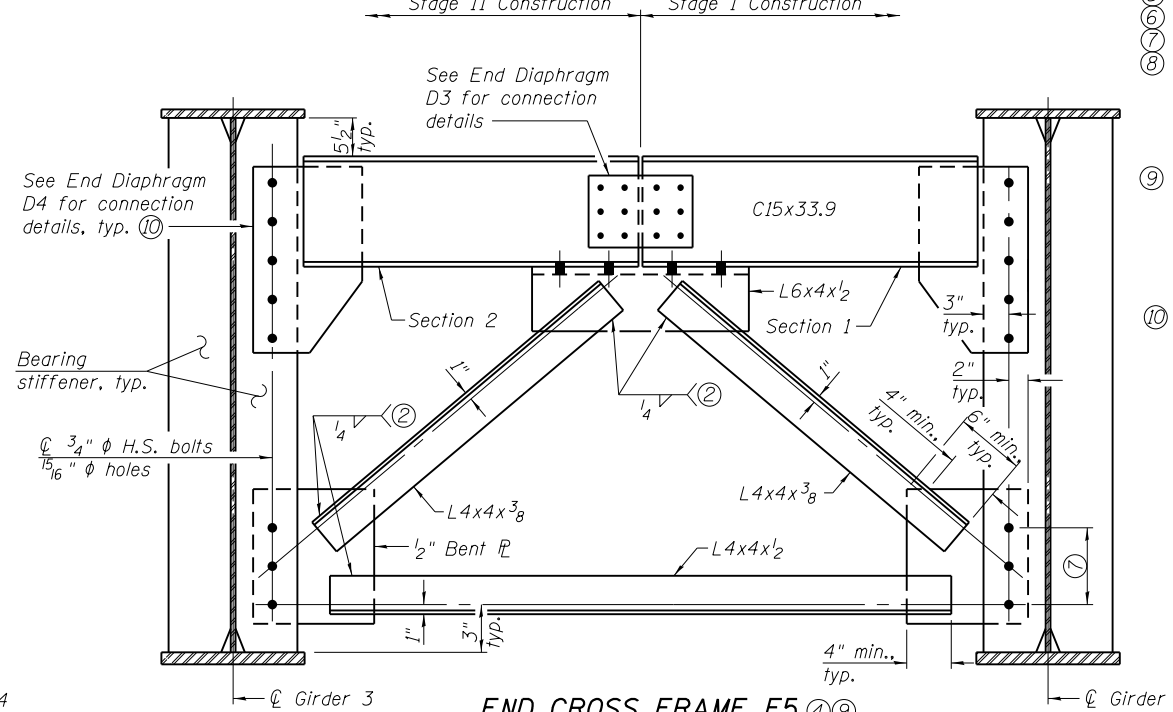
END CROSS FRAME F4 ④

(4 Required)
(Galvanized)



END CROSS FRAME F3 ⑤⑨

(1 Required)
(Galvanized)



END CROSS FRAME F5 ④⑨

(1 Required)
(Galvanized)

END CROSS FRAME F3 STAGE CONSTRUCTION SEQUENCE

- 1.) Order W12x40 in two sections.
- 2.) Attach Section 1 of W12x40 to girder 4.
- 3.) Place timber block posts between Section 1 of W12x40 and pier bearing section.
- 4.) Attach Section 2 of W12x40 to both girder 3 and Section 1 of W12x40 during stage II construction.
- 5.) Remove timber block posts.
- 6.) Install lower portion of cross frame.

END CROSS FRAME F5 STAGE CONSTRUCTION SEQUENCE

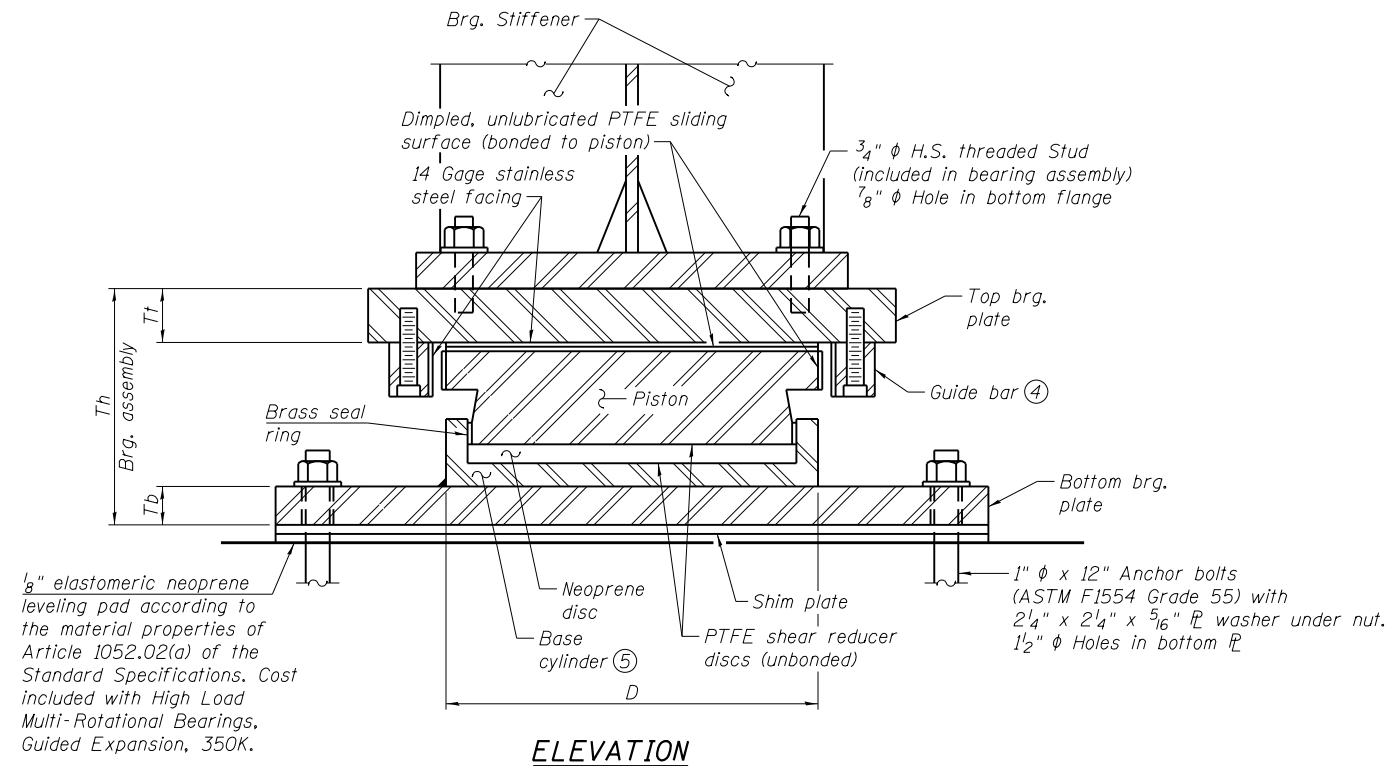
- 1.) Order C15x33.9 in two sections.
- 2.) Attach Section 1 of channel to girder 4.
- 3.) Place timber block posts between Section 1 of channel and abutment bearing section.
- 4.) Attach Section 2 of channel to both girder 3 and Section 1 of channel during stage II construction with splice plates.
- 5.) Remove timber block posts.
- 6.) Install lower portion of cross frame.

Notes:

- ① Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
- ② Fillet weld angles along 3 sides on one face of gusset plate or connection angle.
- ③ Two hardened washers required for each set of oversized holes.
- ④ Detail cross frame with channel flanges and outstanding angle legs outward from joint.
- ⑤ Detail cross frame with outstanding angle legs outward from joint.
- ⑥ For W12x40 Splice Detail, see sheet 32 of 62.
- ⑦ 3-3/4" ϕ H.S. bolts with 15/16" ϕ holes at 3" minimum spacing, typ.
- ⑧ The location of the W12x40 splice shown shall be adjusted if it interferes with the connection of the L6x4x1/2 to the bottom flange of the W12x40. The splice shall not interfere with the connection of the Finger Plate Expansion Joint stools to the top flange of the W12x40.
- ⑨ Timber Block Post not shown for clarity. Timber Block Post location for End Cross Frame F3 similar to End Diaphragm D5 and location for End Cross Frame F5 similar to End Diaphragm D3. For End Diaphragm D3 and D5, see sheet 32 of 62. Cost of Timber Block Post is included with Furnishing and Erecting Structural Steel.
- ⑩ For End Diaphragm D4, see sheet 32 of 62.

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	63
CONTRACT NO. 68759				



DIMENSION TABLE

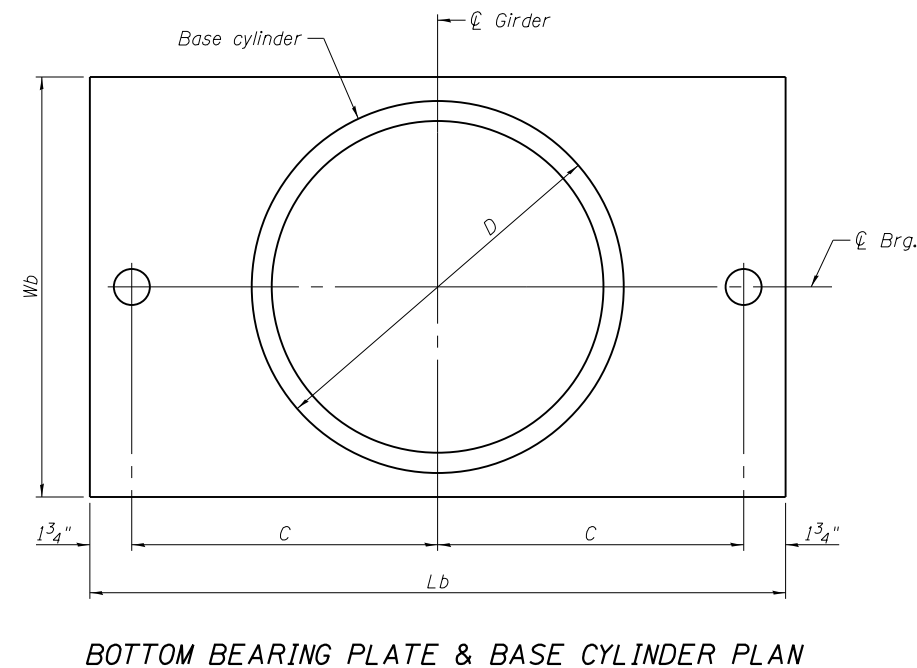
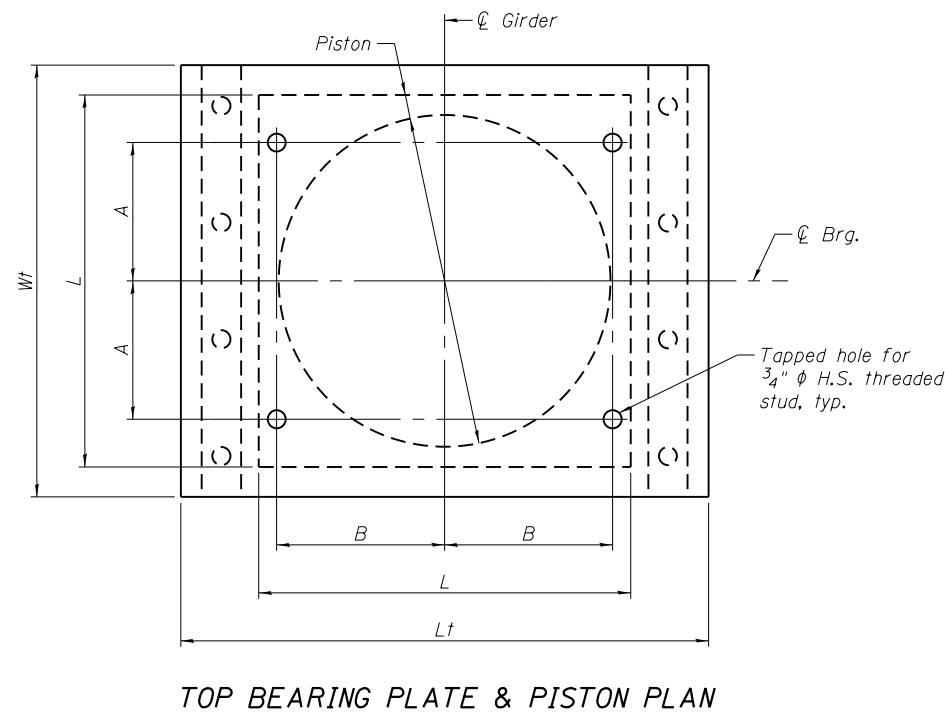
	Pier 5
A	7"
B	7"
C	12 3/4"
D	15 1/2"
L	15 1/2"
Wt	18"
Lt	22"
Wb	17 1/2"
Lb	29"
Tt	2 1/4"
Tb	1"
Th	9 1/4"

DESIGN DATA

	Pier 5
Service Vertical Design Load (kips)	346
Service Lateral Design Load (kips)	42
Service Design Rotation (rad)	0.02
Total Required Movement (inch)	1"

BEARING SHIM PLATES

	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
Pier 5	-	-	-	1/4"	-	-



Notes:

- Anchor bolts shall be ASTM F1554 all-thread or an Engineer approved alternate material of the grade and diameter specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts may be either cast in place or installed in drilled holes.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.
- Base cylinder welds may be omitted if cylinder is recessed into bottom bearing plate.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
- Two 3/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

GUIDED EXPANSION HLMR BEARING
(Pier 5)

BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotational Bearings, Guided Expansion, 350K	Each	6
Anchor Bolts, 1"	Each	12



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

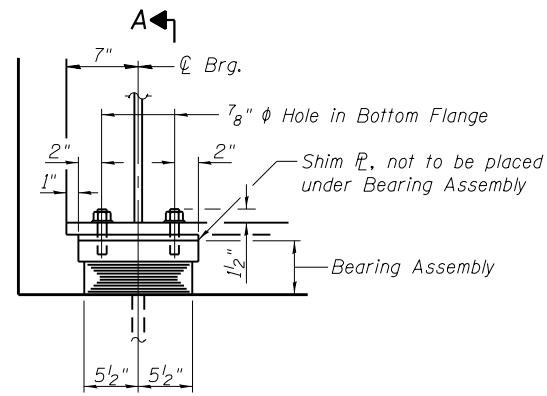
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 048-0100

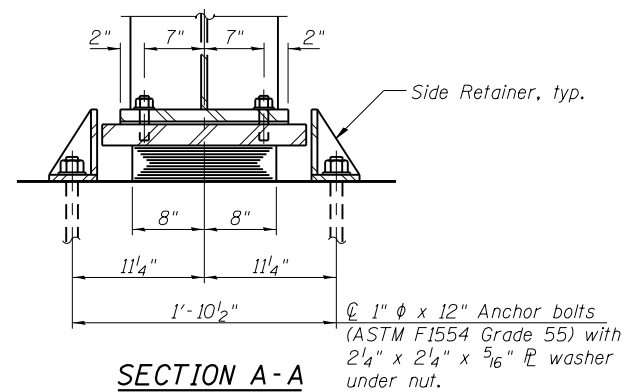
SHEET NO. 34 OF 62 SHEETS

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	64
CONTRACT NO. 68759				

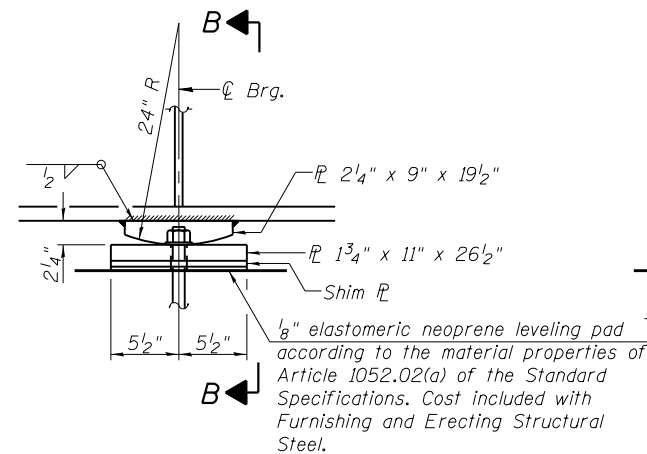
ILLINOIS FED. AID PROJECT



ELEVATION

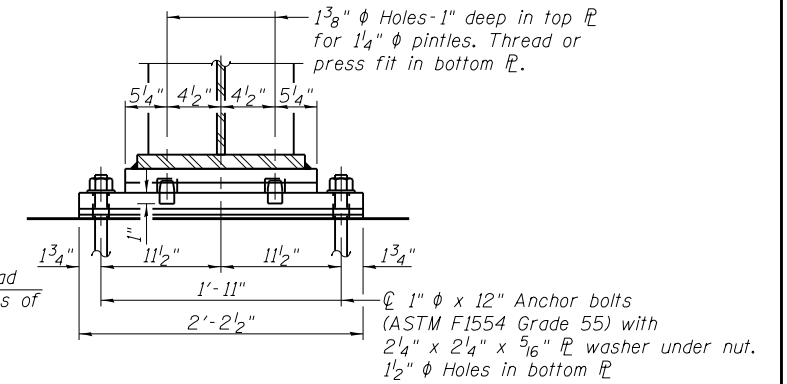


SECTION A-A

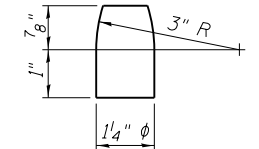


ELEVATION

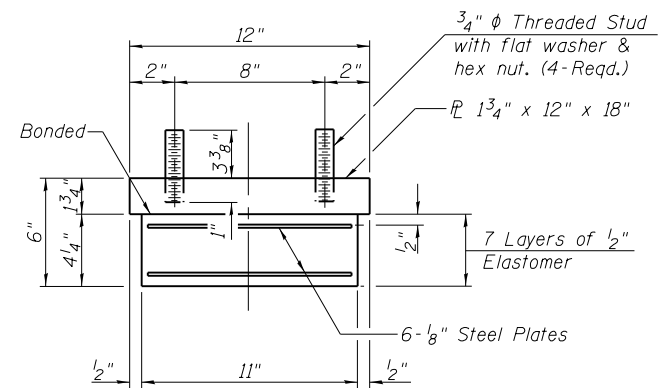
FIXED BEARING
(Piers 1, 2, and 3)



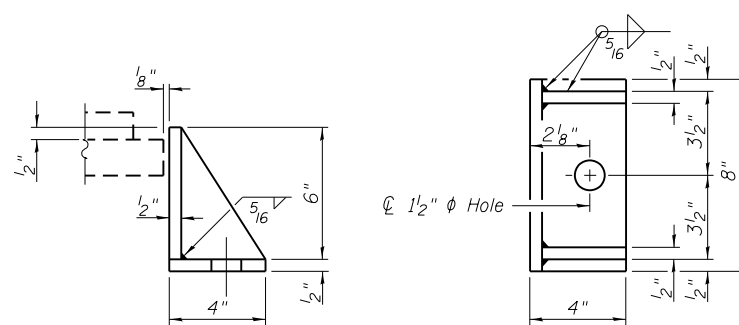
SECTION B-B



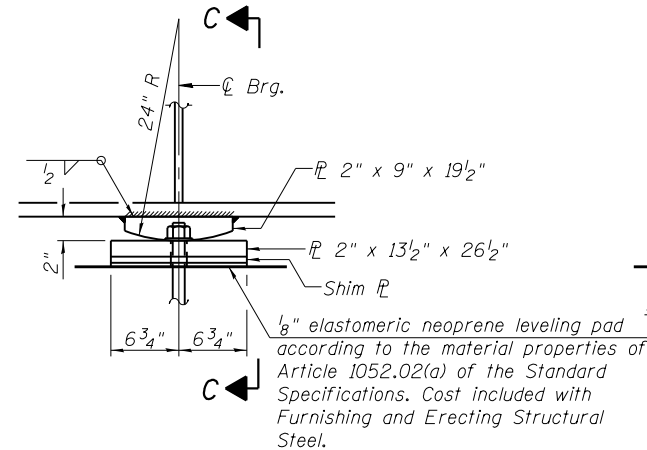
PINTLE



BEARING ASSEMBLY

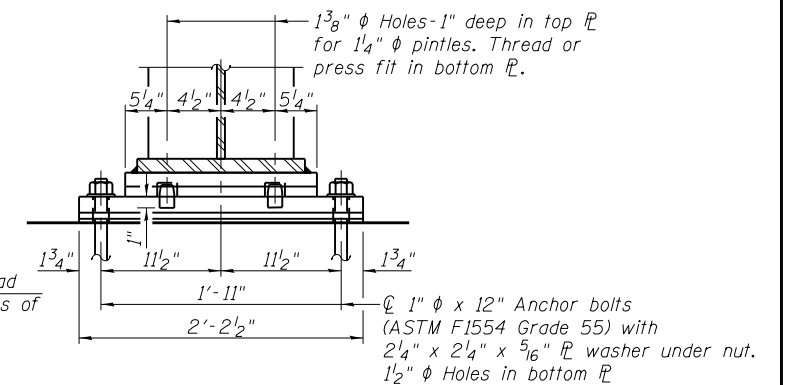


SIDE RETAINER (9)



ELEVATION

FIXED BEARING
(Pier 6)



SECTION C-C

TYPE I ELASTOMERIC EXP. BRG.
(North Abutment)

BEARING SHIM PLATES

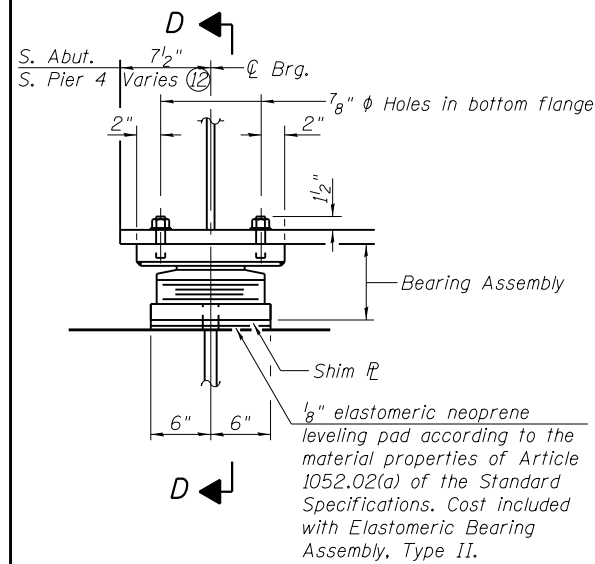
	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
Pier 1	-	-	3/4"	3/8"	-	-
Pier 2	-	-	7/8"	5/8"	-	-
Pier 3	-	-	1/4"	-	-	-
Pier 6	-	-	1/2"	3/4"	-	-
N. Abut.	-	-	5/8"	7/8"	-	-

BILL OF MATERIAL

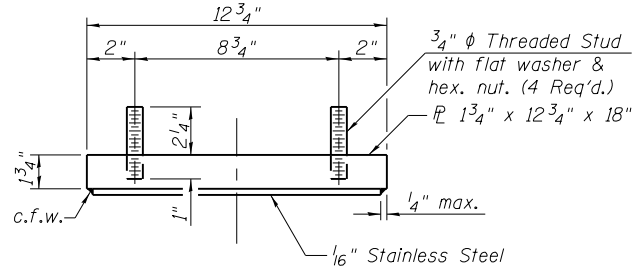
Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Anchor Bolts, 1"	Each	60

Notes:

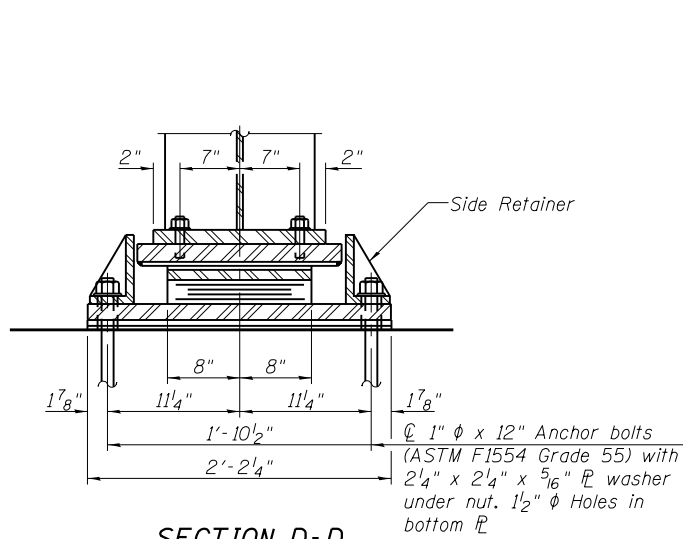
- Anchor bolts shall be ASTM F1554 all-thread or an Engineer approved alternate material of the grade and diameter specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
- 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.
- The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W except bearings below expansion joints which shall conform to the requirements of AASHTO M 270 Grade 50.
- For bearings below expansion joints, all bearing plates, shim plates, and side retainers shall be metallized according to the Special Provision for Metallizing Structural Steel. At the Contractor's option, in lieu of metallizing, the bearing plates, shim plates, and side retainers may be galvanized according to the Special Provision for Hot Dip Galvanizing for 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. For bearings below expansion joints, these plates shall be metallized according to the Special Provision for Metallizing Structural Steel. If the galvanizing option is chosen for the bearings, in lieu of metallizing, these shims shall be galvanized according to the Special Provision for Hot Dip Galvanizing for Structural Steel.
- Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



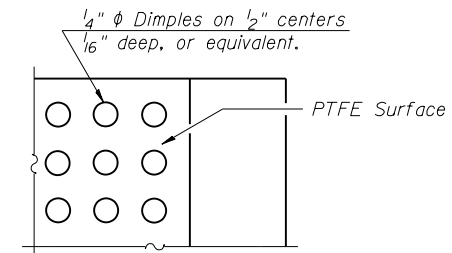
ELEVATION



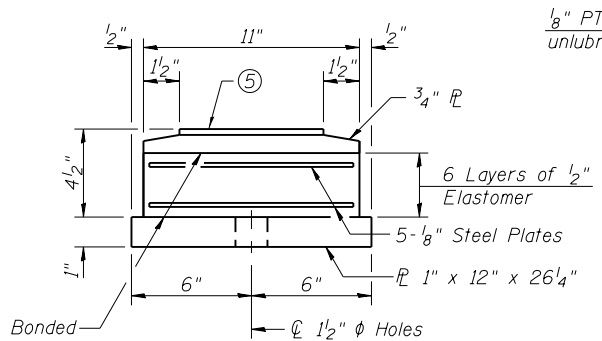
TOP BEARING ASSEMBLY



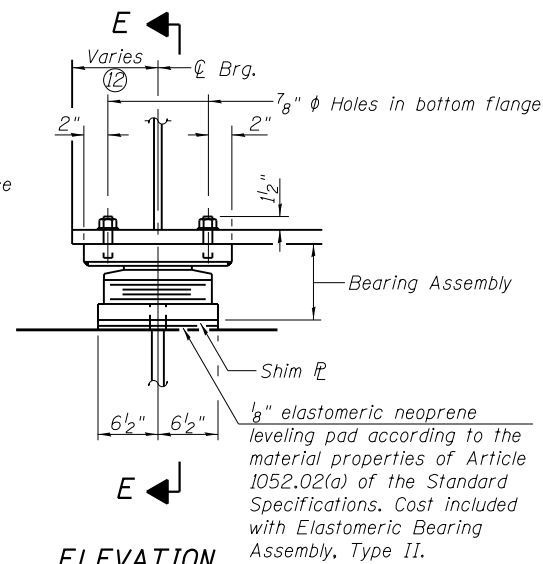
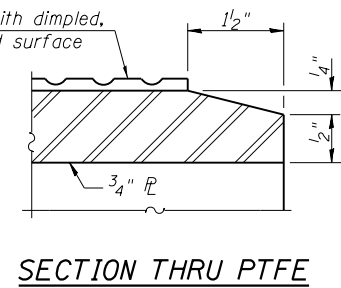
SECTION D-D



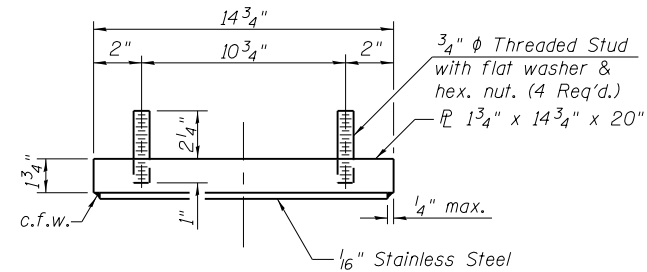
PLAN-PTFE SURFACE



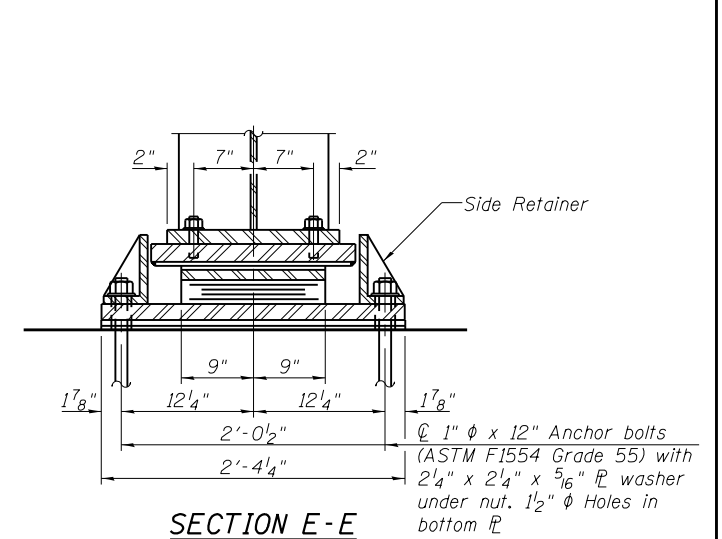
BOTTOM BEARING ASSEMBLY



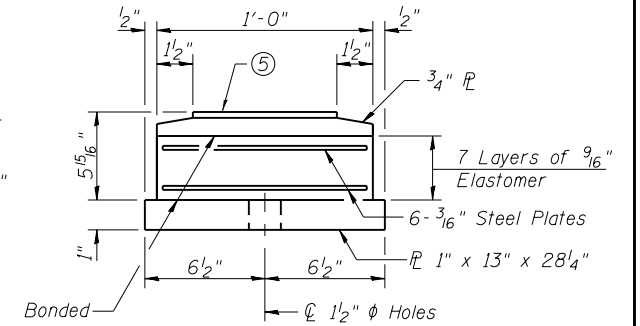
ELEVATION



TOP BEARING ASSEMBLY



SECTION E-E



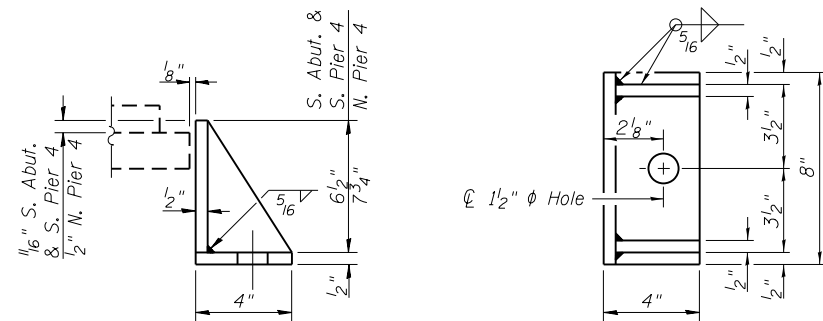
BOTTOM BEARING ASSEMBLY

TYPE II ELASTOMERIC EXP. BRG.

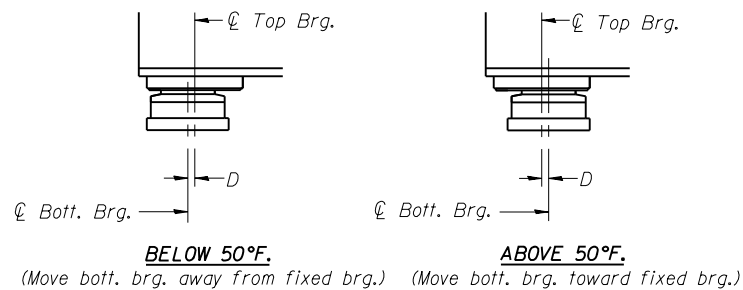
(South Abutment and South Brg. Pier 4)

TYPE II ELASTOMERIC EXP. BRG.

(North Brg. Pier 4)



SIDE RETAINER ⑪



SETTING ANCHOR BOLTS AT EXP. BRG.

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

BEARING SHIM PLATES

	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
S. Abut.	-	-	7/8"	5/8"	-	-
S. Pier 4	-	-	-	1/8"	-	-
N. Pier 4	-	-	-	-	-	-

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	18
Anchor Bolts, 1"	Each	36

Notes:

- Anchor bolts shall be ASTM F1554 all-thread or an Engineer approved alternate material of the grade and diameter 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.
- 1/8" PTFE dimpled, unlubricated.
- 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.
- The structural steel plates of the Bearing Assemblies below expansion joints shall conform to the requirements of AASHTO M 270 Grade 50.
- 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.
- For bearings below expansion joints, all bearing plates, shim plates, and side retainers shall be metallized according to the Special Provision for Metallizing Structural Steel. At the Contractor's option, in lieu of metallizing, the bearing plates, shim plates, and side retainers may be galvanized according to the Special Provision for Hot Dip Galvanizing for 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. For bearings below expansion joints, these plates shall be metallized according to the Special Provision for Metallizing Structural Steel. If the galvanizing option is chosen for the bearings, in lieu of metallizing, these shims shall be galvanized according to the Special Provision for Hot Dip Galvanizing for Structural Steel.
- Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.
- See Girder End Treatment Detail on sheet 30 of 62.



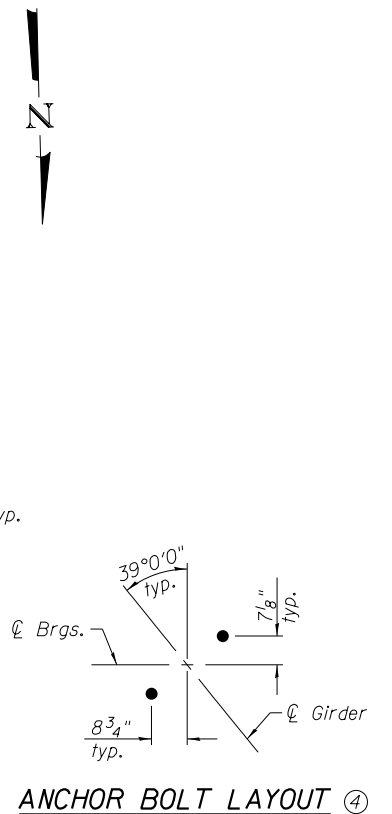
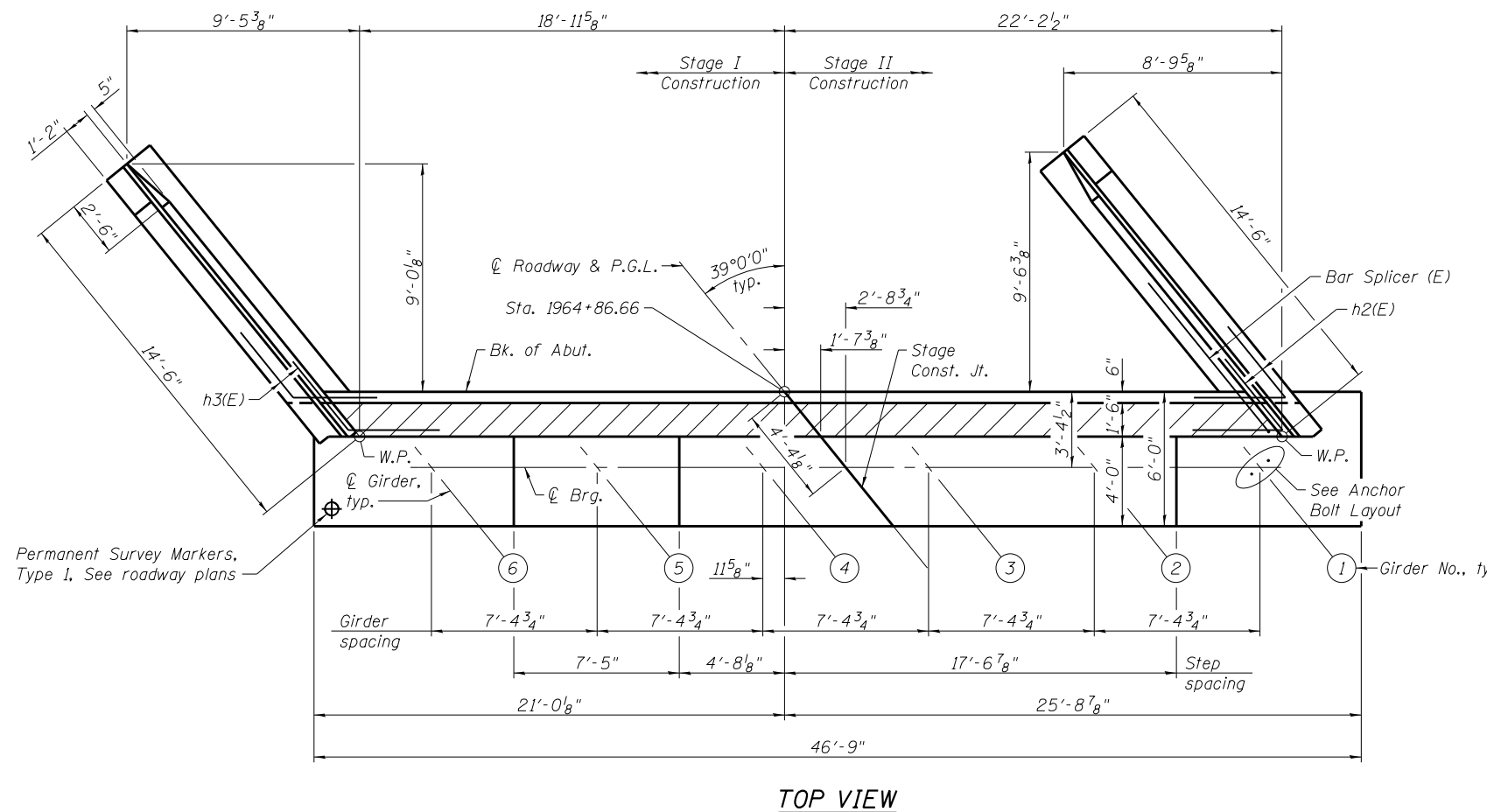
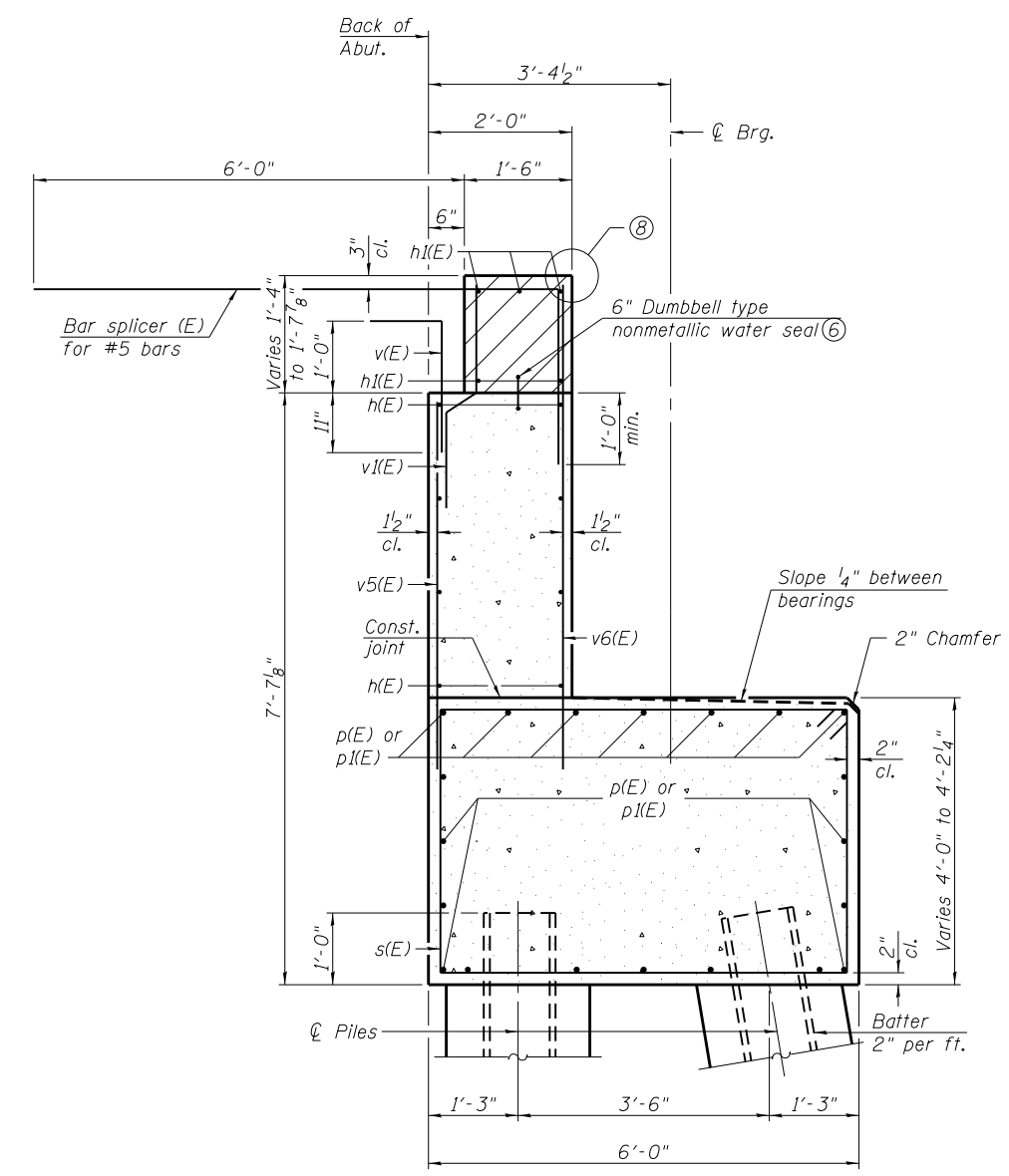
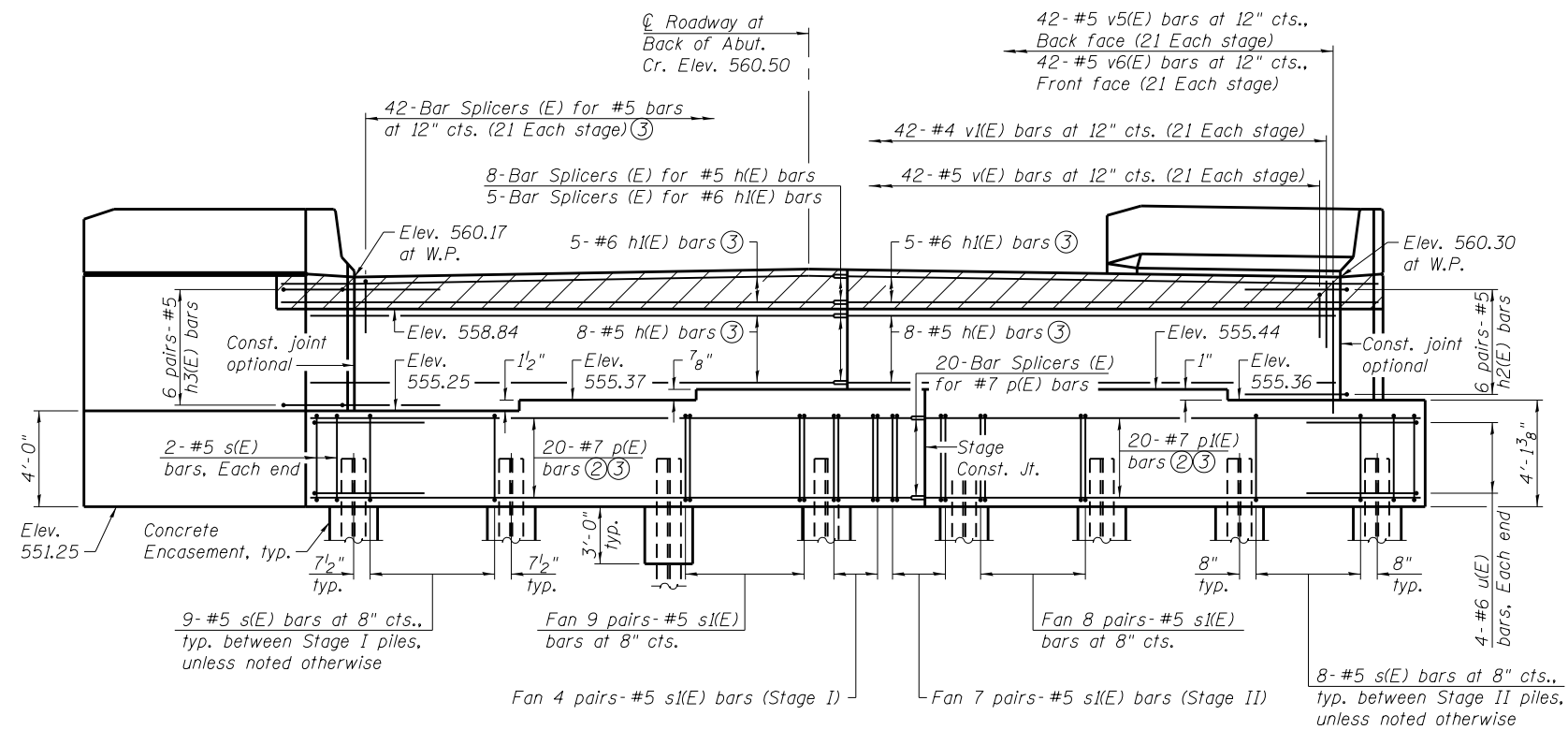
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 048-0100
SHEET NO. 36 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	66
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



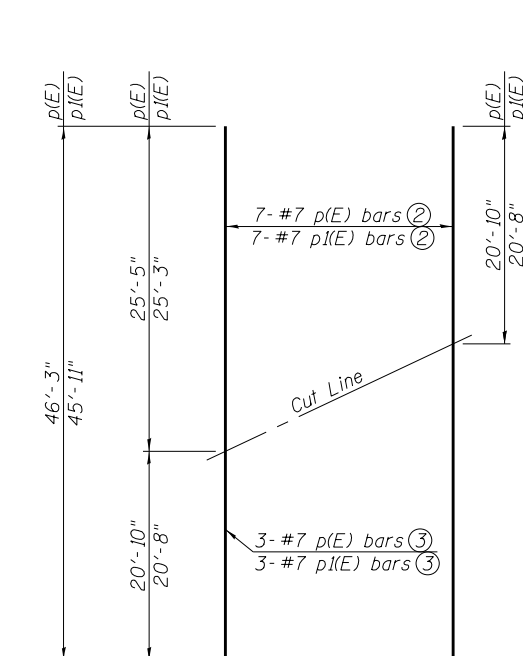
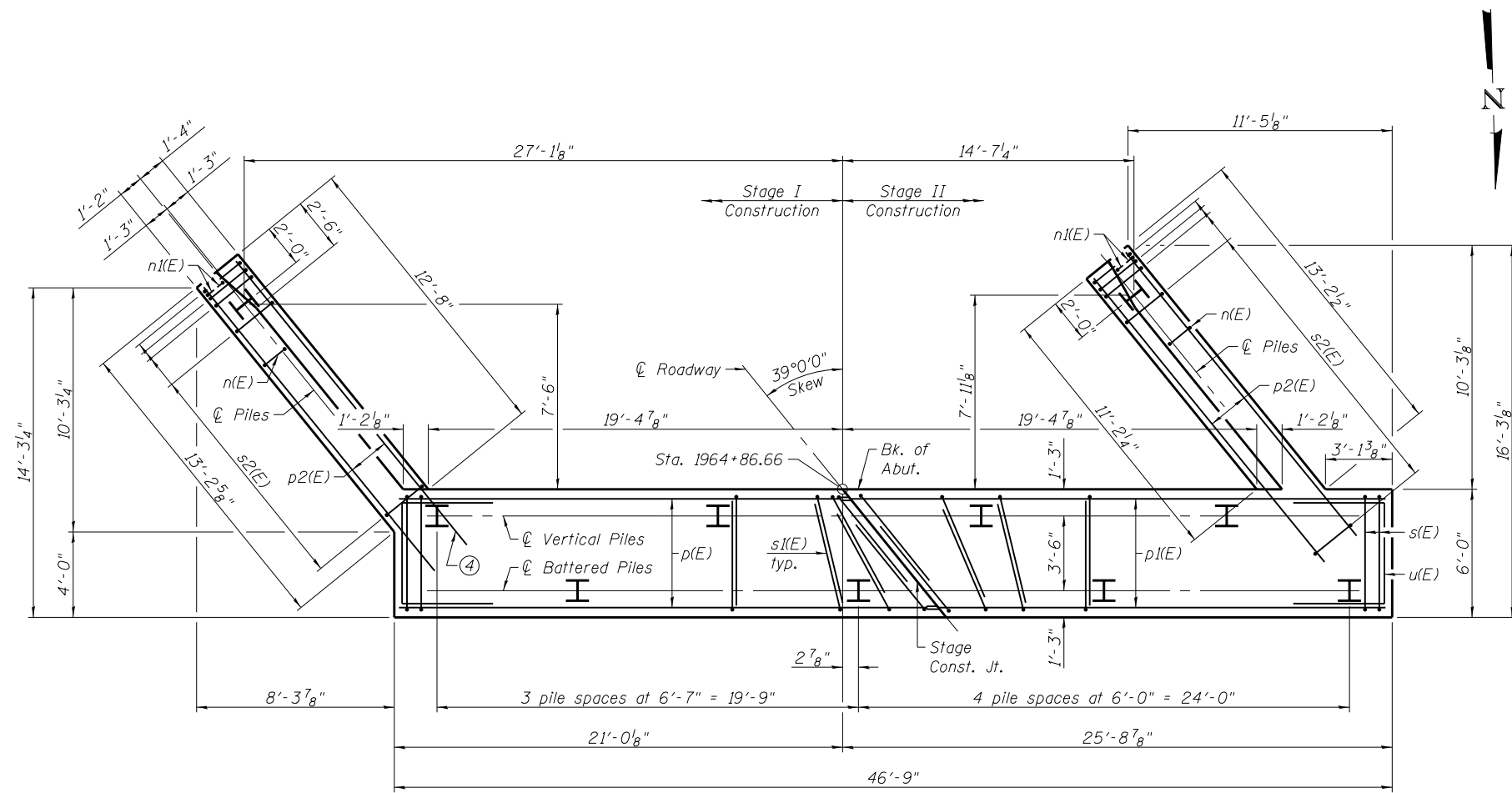
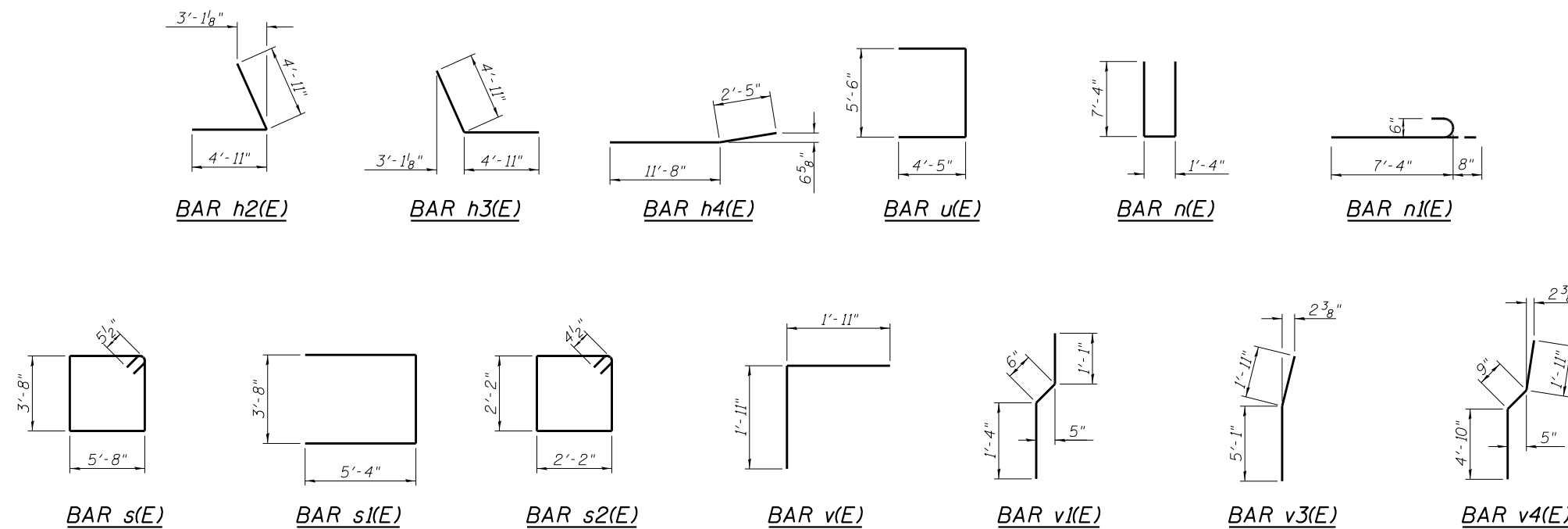
- Notes:**
- (1) For details of Bar Splicers, see sheet 51 of 62.
 - (2) See Field Cutting Diagram on sheet 38 of 62.
 - (3) For bar locations, see Sec. Thru Abut.
 - (4) Space reinforcement in cap to miss anchor bolts.
 - (5) Hatched area to be poured after superstructure falsework has been removed. Cost of concrete included with Concrete Superstructure on sheet 20 of 62.
 - (6) 6" Dumbbell type nonmetallic water seal shall be in accordance with Sections 503.12 and 1054 of the Standard Specifications. Cost included with Concrete Structures.
 - (7) Pour steps monolithically with cap.
 - (8) For Expansion Joint details, see sheet 25 of 62.
 - (9) The abutment shall have all exposed surfaces of backwall, bridge seats, and pile cap treated with Concrete Sealer.

**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	#5	20'-3"	—
h1(E)	10	#6	22'-3"	—
h2(E)	12	#5	9'-10"	L
h3(E)	12	#5	9'-10"	J
h4(E)	16	#4	14'-1"	—
h5(E)	12	#4	13'-3"	—
h6(E)	12	#4	15'-0"	—
n(E)	23	#6	16'-0"	—
n1(E)	12	#6	8'-0"	—
p(E)	10	#7	46'-3"	—
p1(E)	10	#7	45'-11"	—
p2(E)	12	#7	15'-10"	—
s(E)	38	#5	19'-7"	□
s1(E)	56	#5	14'-4"	—
s2(E)	38	#4	9'-5"	□
u(E)	8	#6	14'-4"	—
v(E)	42	#5	3'-10"	Γ
v1(E)	42	#4	2'-11"	—
v2(E)	30	#6	7'-0"	—
v3(E)	6	#6	7'-0"	—
v4(E)	24	#6	7'-6"	—
v5(E)	42	#5	5'-4"	—
v6(E)	42	#5	6'-11"	—
Structure Excavation		Cu. Yd.	222	
Concrete Structures		Cu. Yd.	69.4	
Concrete Encasement		Cu. Yd.	3.5	
Reinforcement Bars, Epoxy Coated		Pound	7,720	
Furnishing Steel Piles HP12x53		Foot	324	
Driving Piles		Foot	324	
Test Pile Steel HP12x53		Each	1	
Concrete Sealer		Sq. Ft.	469	

PILE DATA

Type: Steel HP12x53
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Est. Length: 36 ft
 No. Production Piles: 9
 No. Test Piles: 1

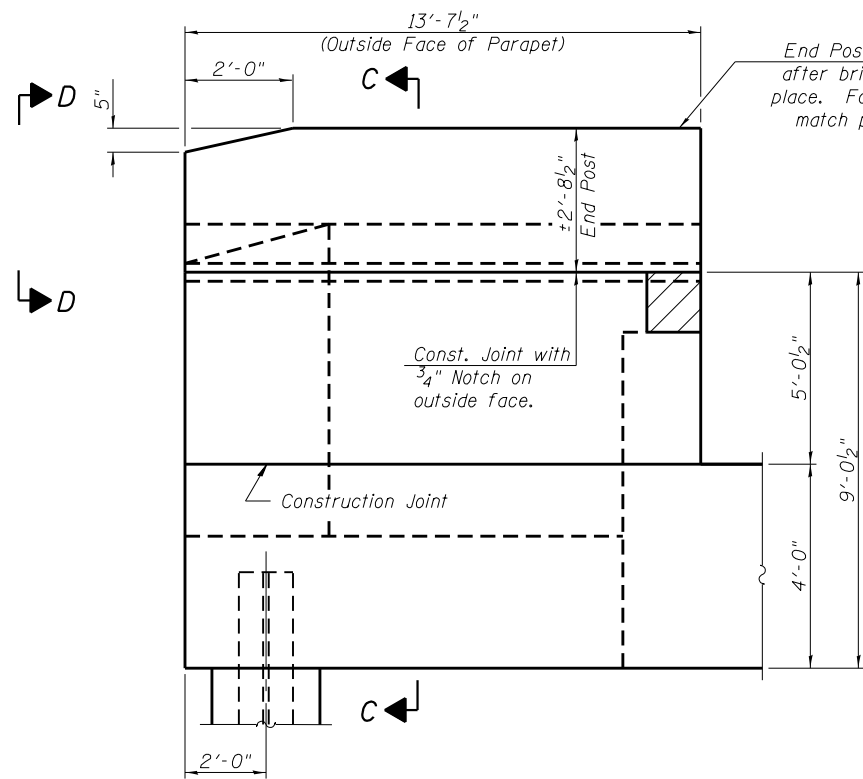


FIELD CUTTING DIAGRAM
 Order p(E) and p1(E) bars full length. ② ③

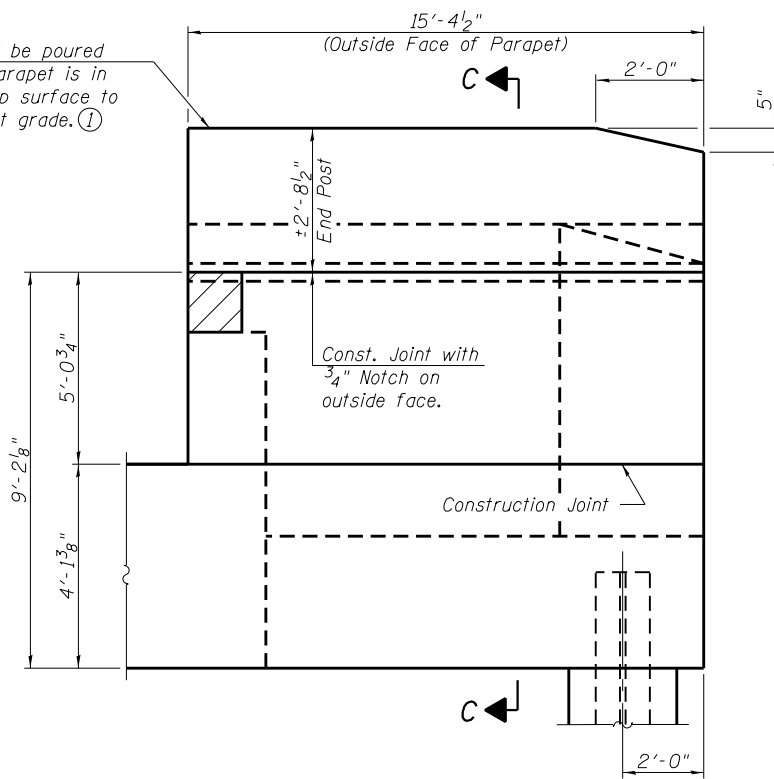
- Notes:
- ① For details of piles and Concrete Encasement, see sheet 50 of 62.
 - ② Cut as shown and place bars in top and bottom faces of abutment cap.
 - ③ Cut as shown and place bars in side faces of abutment cap.
 - ④ Bend p2(E) bars as required to miss pile.

PLAN-PILE CAP

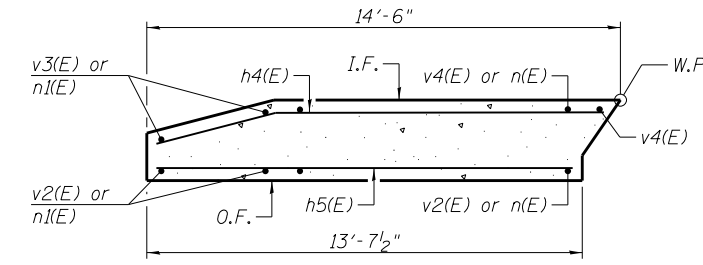
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	CHECKED - SUN	REVISED
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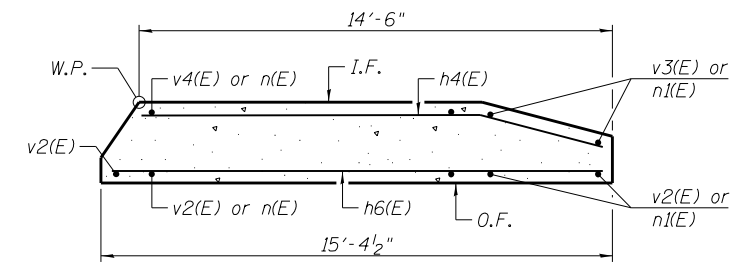
EAST WINGWALL ELEVATION
Showing Dimensions (Looking West)



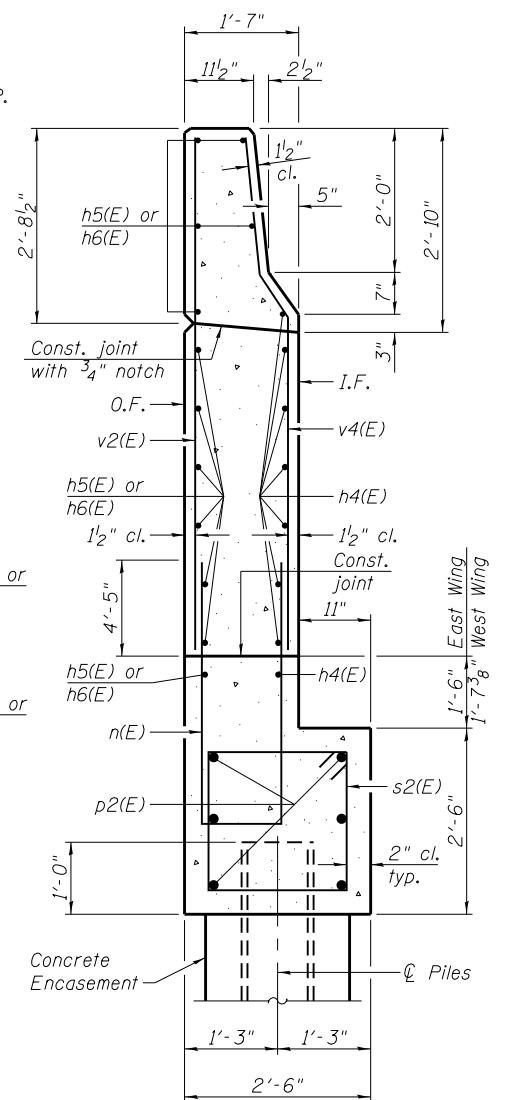
WEST WINGWALL ELEVATION
Showing Dimensions (Looking East)



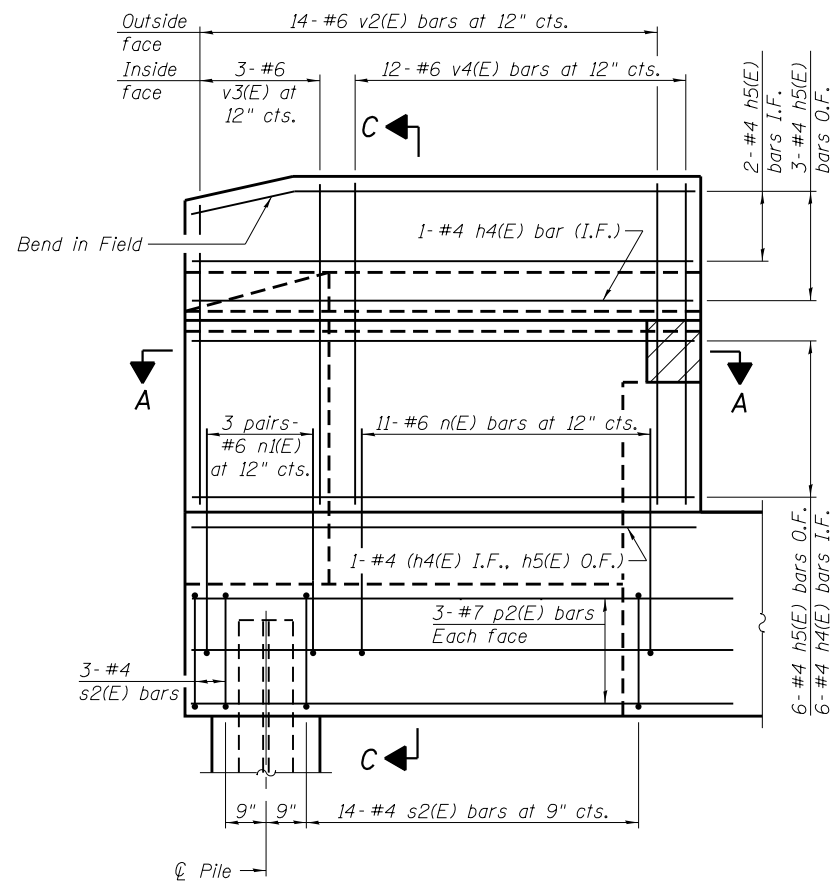
SECTION A-A



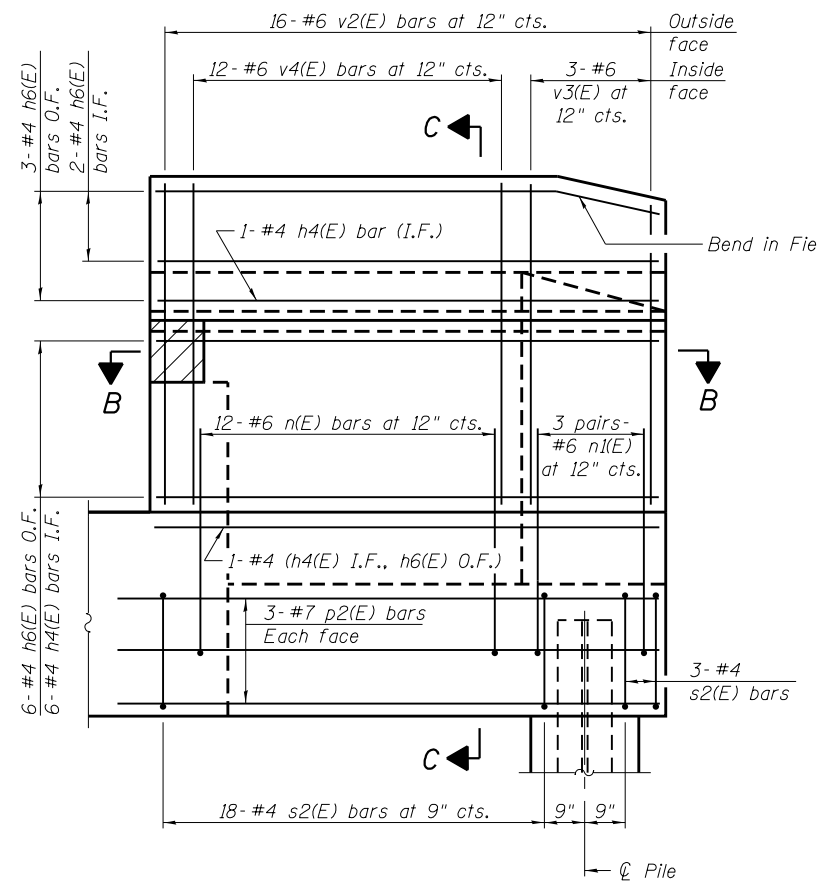
SECTION B-B



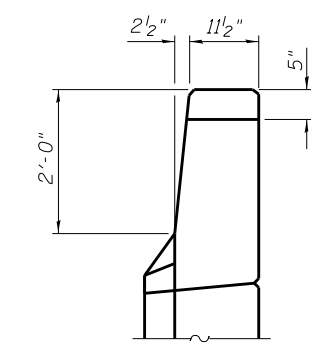
SECTION C-C



EAST WINGWALL ELEVATION
Showing Reinforcement (Looking West)

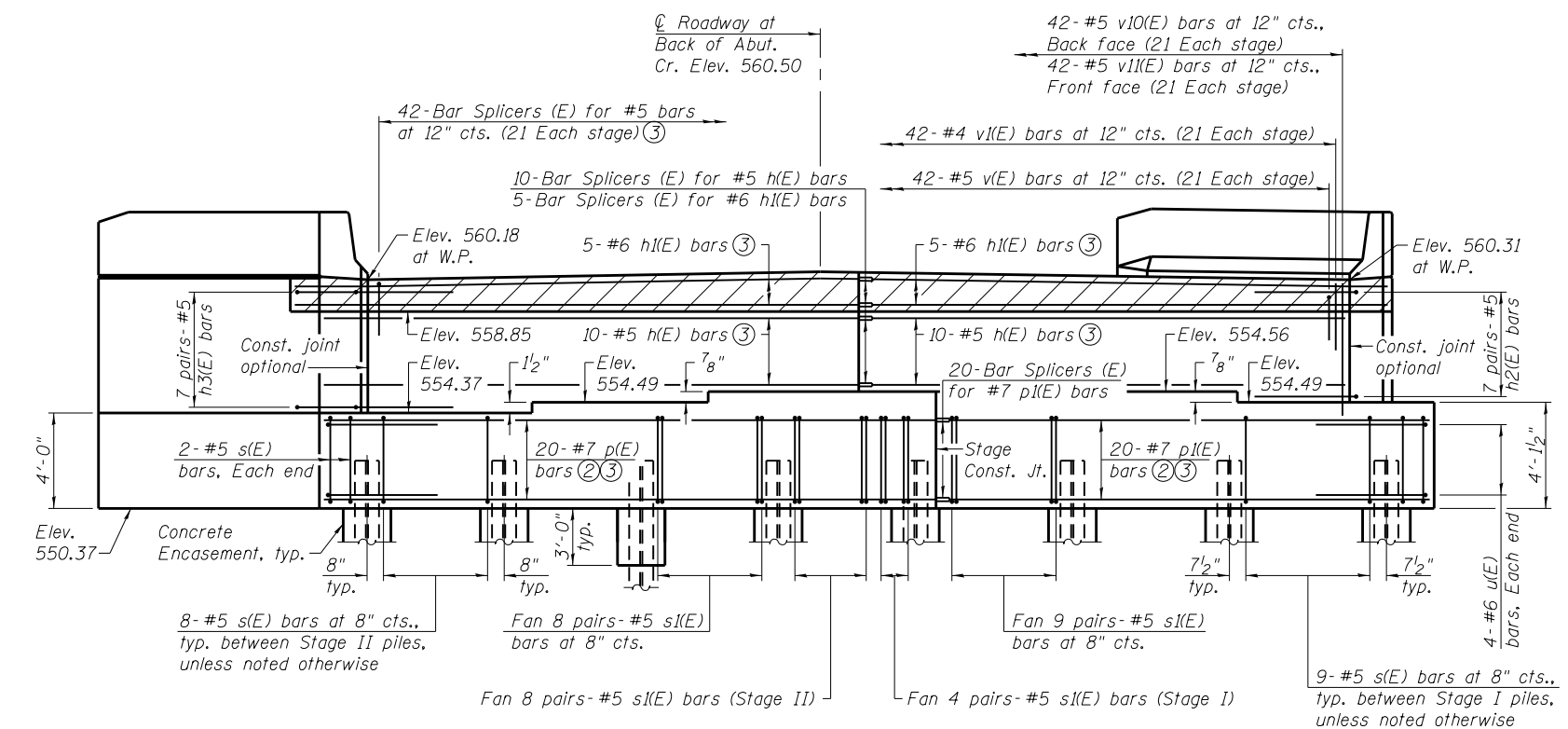


WEST WINGWALL ELEVATION
Showing Reinforcement (Looking East)

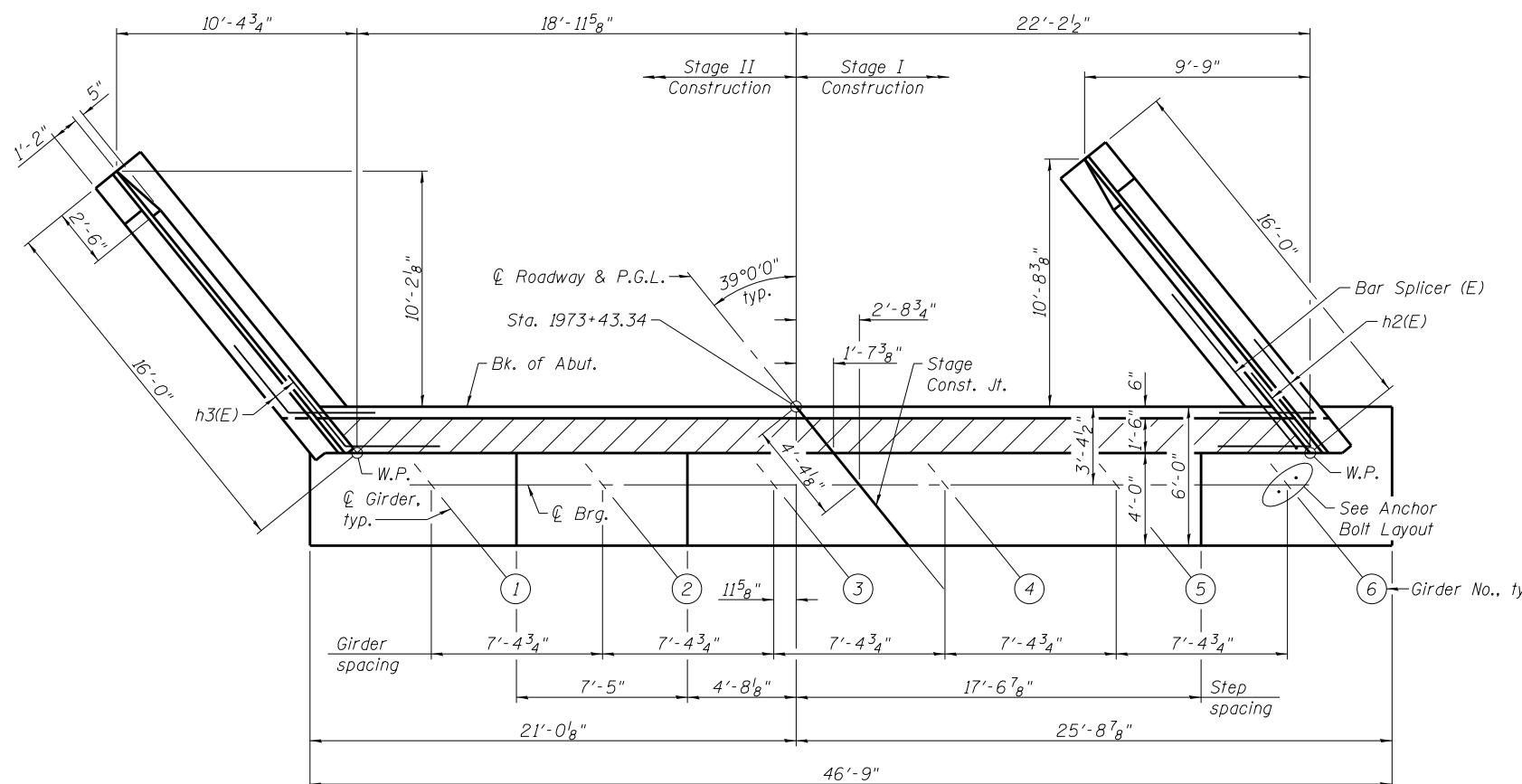


VIEW D-D
(Showing East Wingwall, West Wingwall similar)

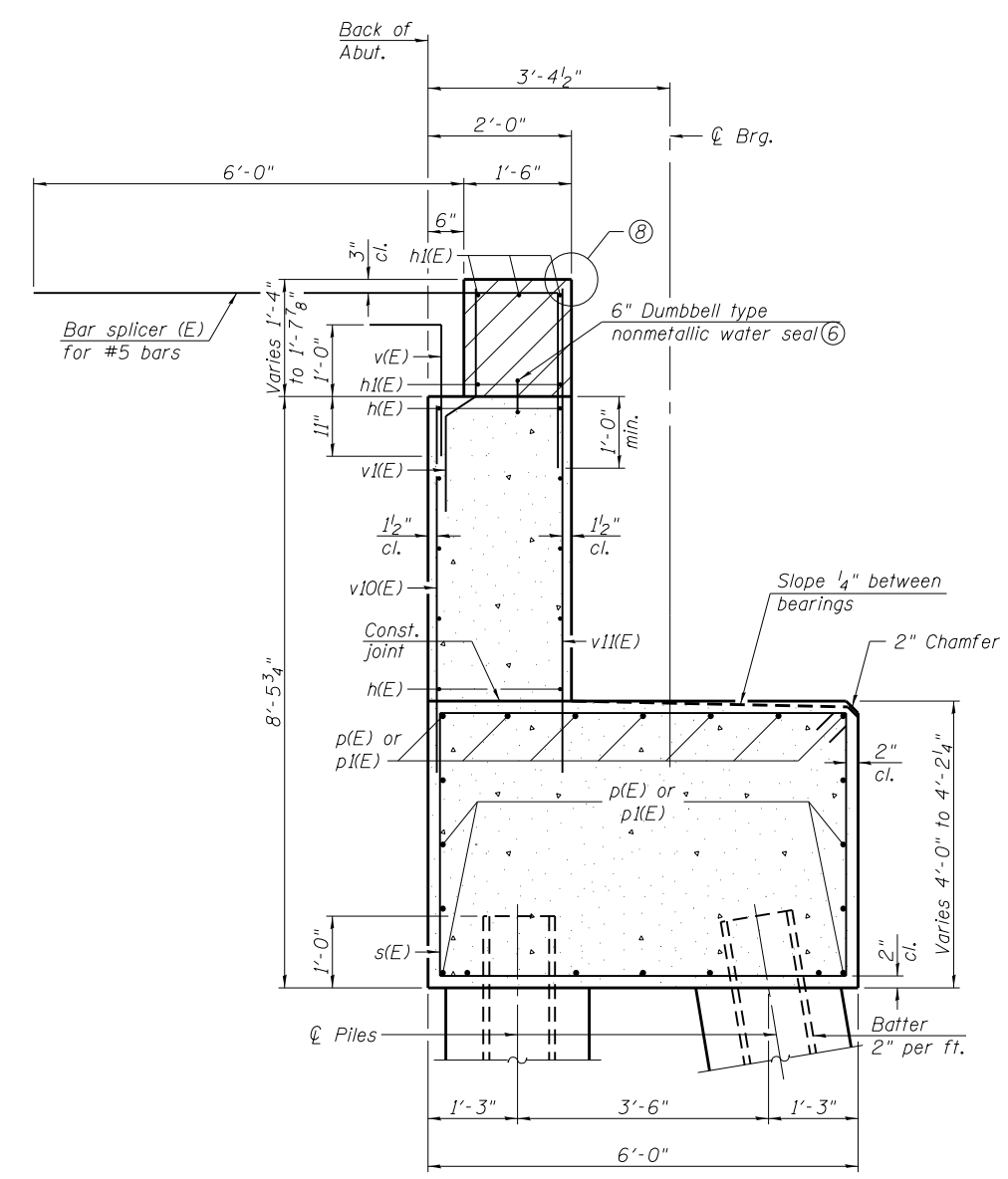
- Notes:
- Quantity of concrete in end post included with Concrete Superstructure on sheet 20 of 62.
 - For Concrete Encasement details, see sheet 50 of 62.
 - I.F. denotes inside face and O.F. denotes outside face.
 - Hatched area to be poured after superstructure falsework has been removed.



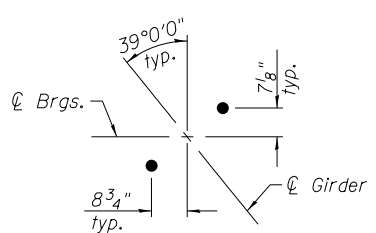
ELEVATION



TOP VIEW



SEC. THRU ABUT.



ANCHOR BOLT LAYOUT ④

- Notes:
- ① For details of Bar Splicers, see sheet 51 of 62.
 - ② See Field Cutting Diagram on sheet 41 of 62.
 - ③ For bar locations, see Sec. Thru Abut.
 - ④ Space reinforcement in cap to miss anchor bolts.
 - ⑤ Hatched area to be poured after superstructure falsework has been removed. Cost of concrete included with Concrete Superstructure on sheet 20 of 62.
 - ⑥ 6" Dumbbell type nonmetallic water seal shall be in accordance with Sections 503.12 and 1054 of the Standard Specifications. Cost included with Concrete Structures.
 - ⑦ Pour steps monolithically with cap.
 - ⑧ For Expansion Joint details, see sheet 25 of 62.
 - ⑨ The abutment shall have all exposed surfaces of backwall, bridge seats, and pile cap treated with Concrete Sealer.

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

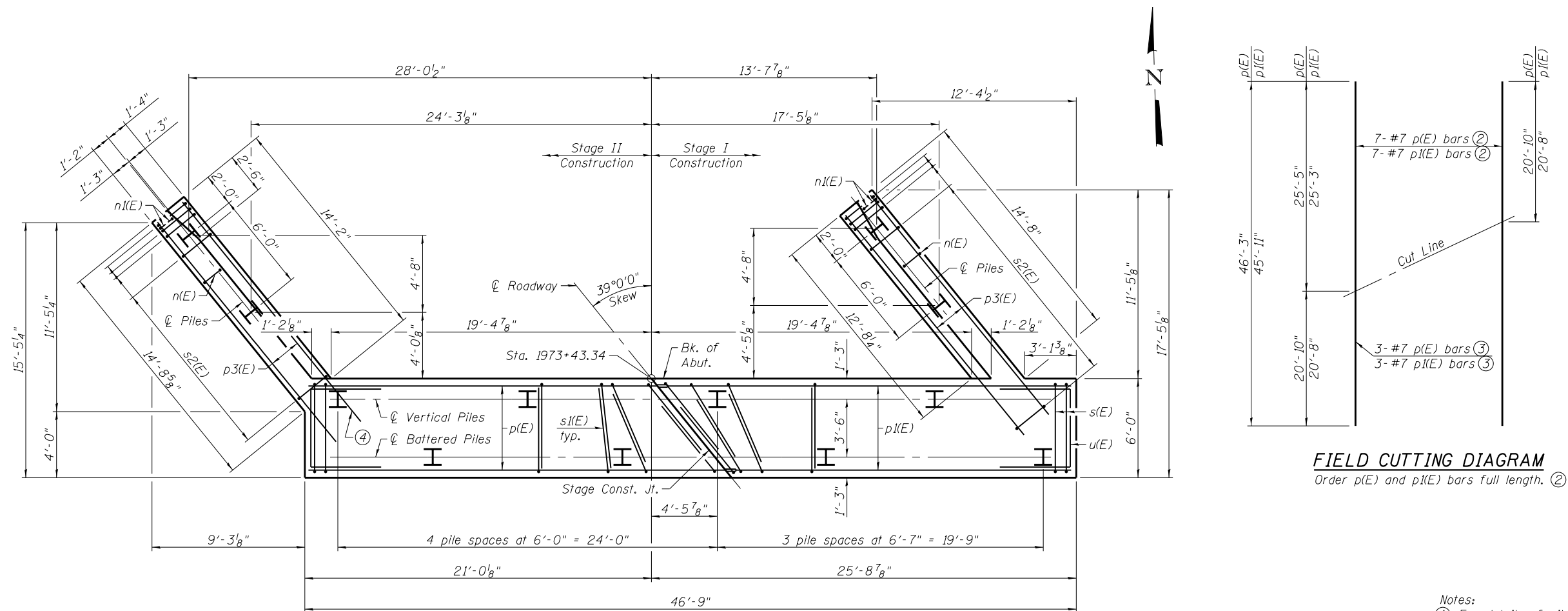
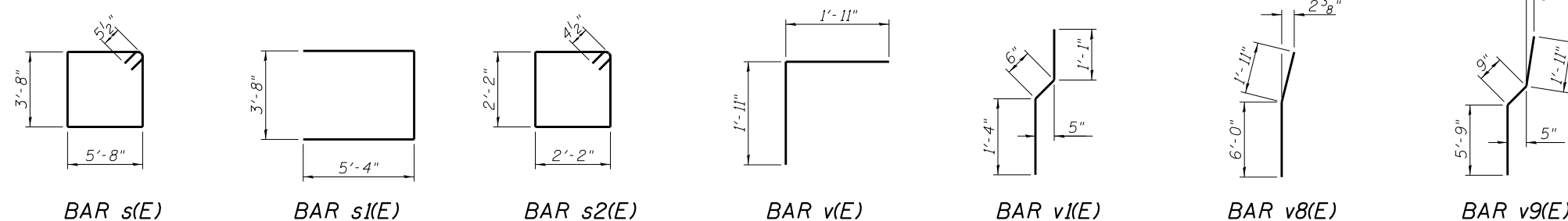
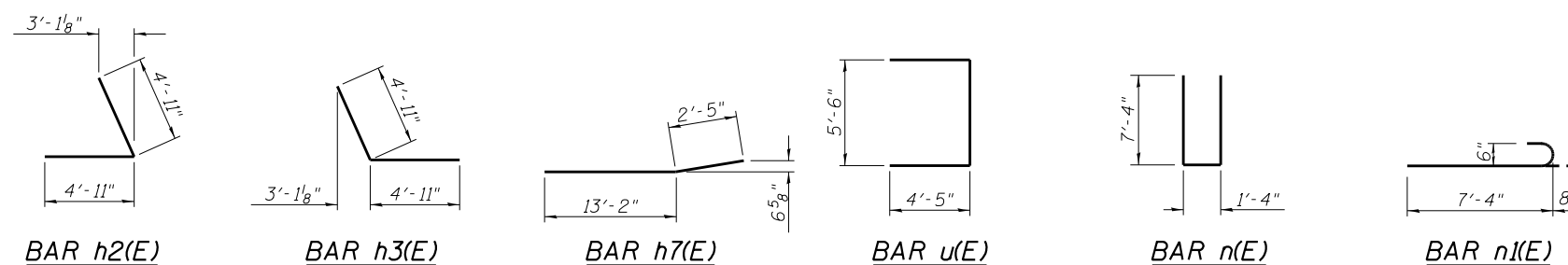
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	70
CONTRACT NO. 68759				

**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	20	#5	20'-3"	—
h1(E)	10	#6	22'-3"	—
h2(E)	14	#5	9'-10"	L
h3(E)	14	#5	9'-10"	J
h7(E)	18	#4	15'-7"	—
h8(E)	13	#4	16'-6"	—
h9(E)	13	#4	14'-9"	—
n(E)	27	#6	16'-0"	—
n1(E)	12	#6	8'-0"	—
p(E)	10	#7	46'-3"	—
p1(E)	10	#7	45'-11"	—
p3(E)	12	#7	17'-4"	—
s(E)	38	#5	19'-7"	□
s1(E)	58	#5	14'-4"	—
s2(E)	40	#4	9'-5"	□
u(E)	8	#6	14'-4"	—
v(E)	42	#5	3'-10"	Γ
v1(E)	42	#4	2'-11"	—
v7(E)	34	#6	7'-11"	—
v8(E)	6	#6	7'-11"	—
v9(E)	28	#6	8'-5"	—
v10(E)	42	#5	6'-3"	—
v11(E)	42	#5	7'-10"	—
Structure Excavation		Cu. Yd.	248	
Concrete Structures		Cu. Yd.	75.6	
Concrete Encasement		Cu. Yd.	4.2	
Reinforcement Bars, Epoxy Coated		Pound	8,370	
Furnishing Steel Piles HP12x53		Foot	396	
Driving Piles		Foot	396	
Test Pile Steel HP12x53		Each	1	
Concrete Sealer		Sq. Ft.	509	

PILE DATA

Type: Steel HP12x53
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Est. Length: 36 ft
 No. Production Piles: 11
 No. Test Piles: 1



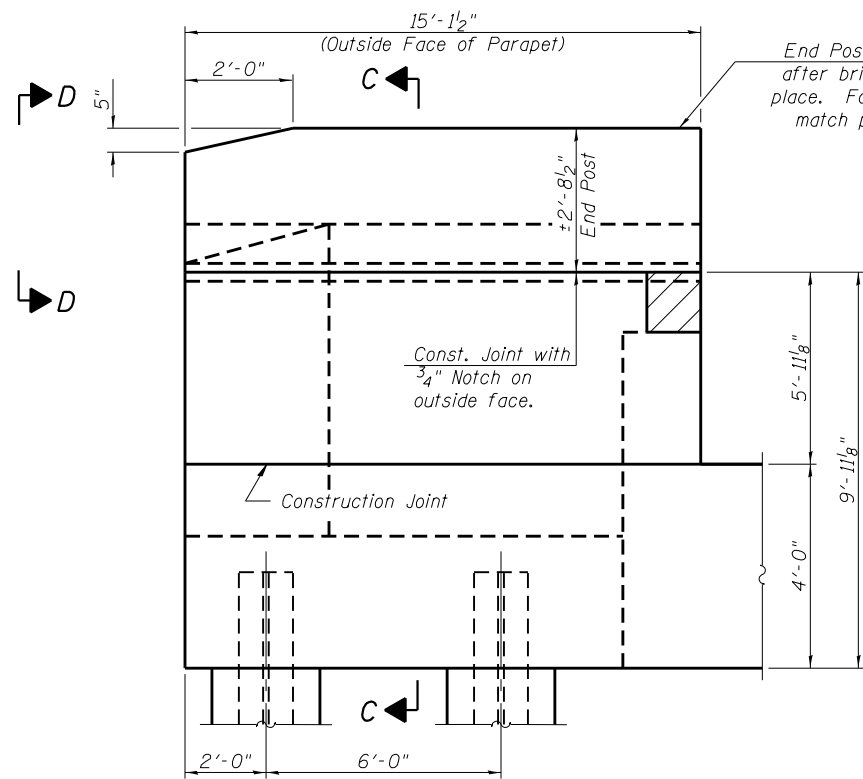
PLAN-PILE CAP

FIELD CUTTING DIAGRAM

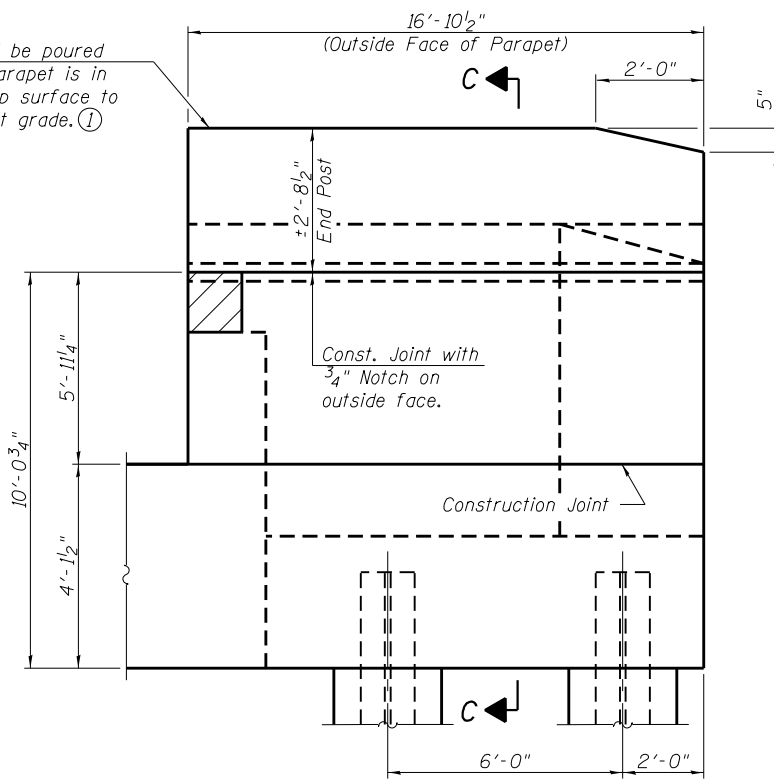
Order p(E) and p1(E) bars full length. ② ③

Notes:

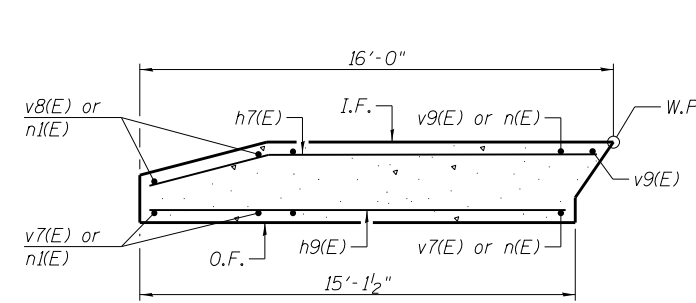
- ① For details of piles and Concrete Encasement, see sheet 50 of 62.
- ② Cut as shown and place bars in top and bottom faces of abutment cap.
- ③ Cut as shown and place bars in side faces of abutment cap.
- ④ Bend p2(E) bars as required to miss pile.



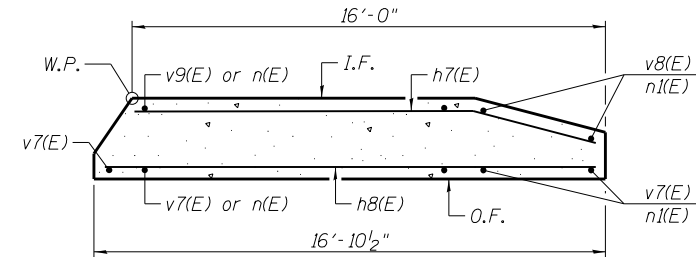
WEST WINGWALL ELEVATION
Showing Dimensions (Looking East)



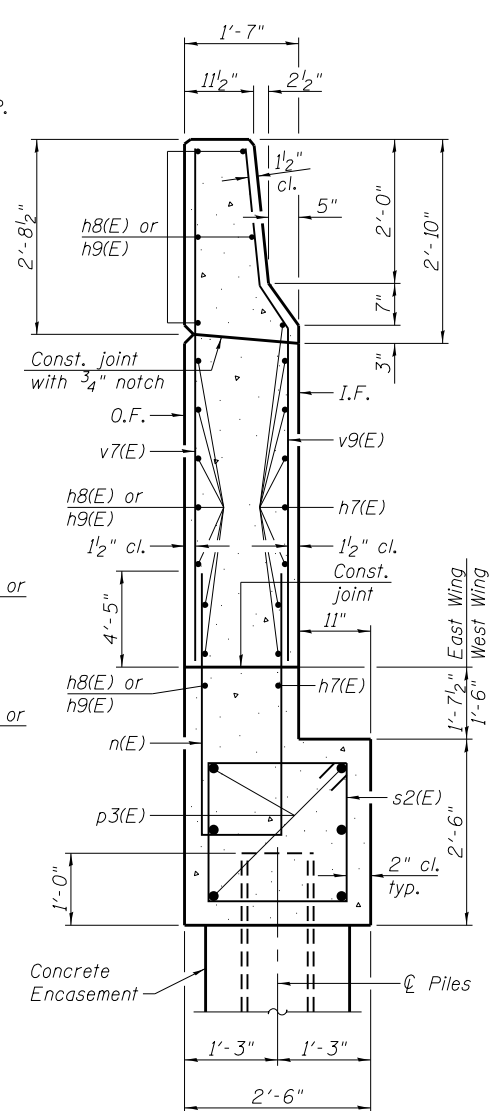
EAST WINGWALL ELEVATION
Showing Dimensions (Looking West)



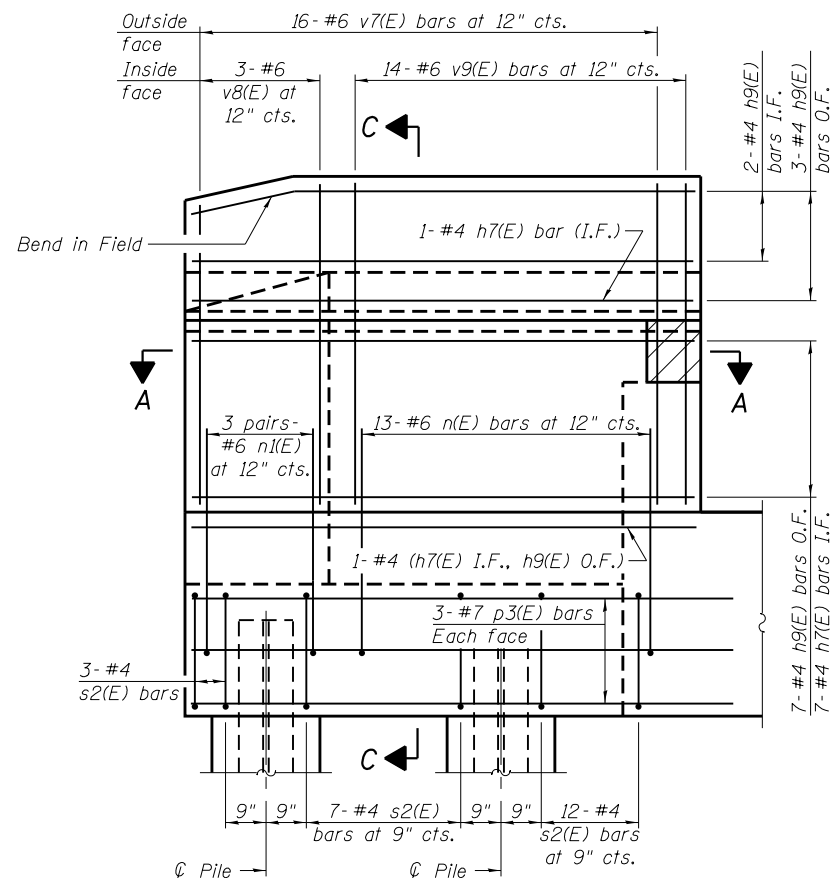
SECTION A-A



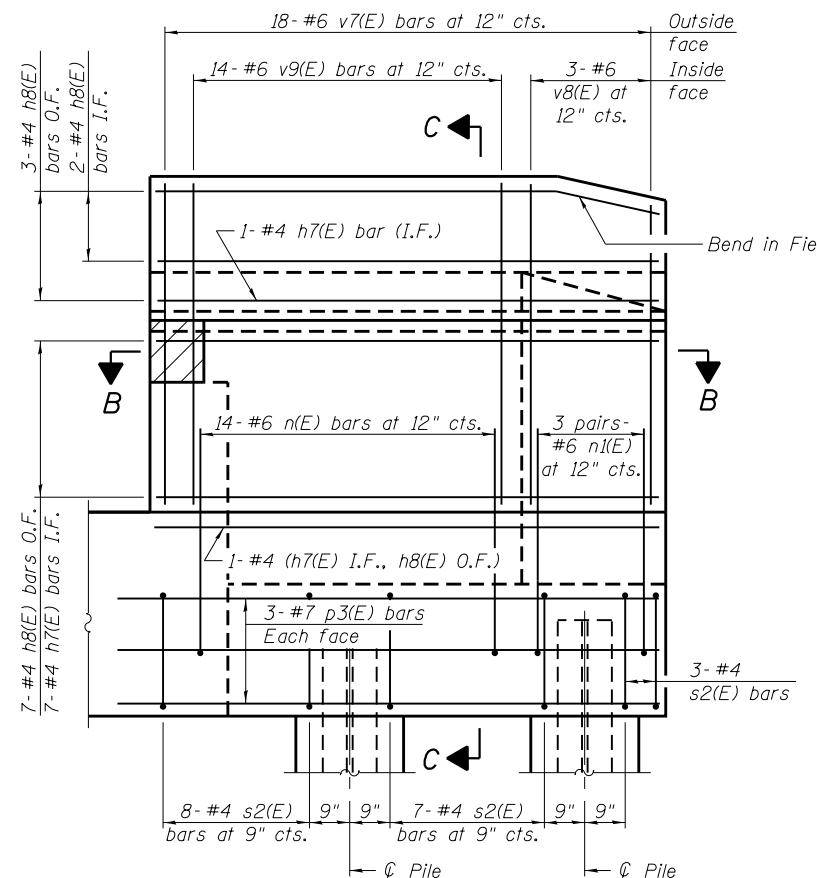
SECTION B-B



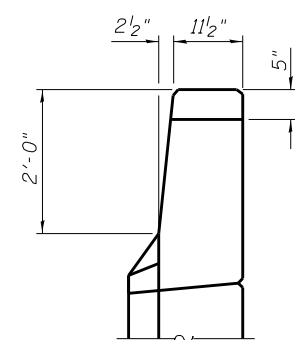
SECTION C-C



WEST WINGWALL ELEVATION
Showing Reinforcement (Looking East)



EAST WINGWALL ELEVATION
Showing Reinforcement (Looking West)



VIEW D-D
(Showing West Wingwall, East Wingwall similar)

- Notes:
- Quantity of concrete in end post included with Concrete Superstructure on sheet 20 of 62.
 - For Concrete Encasement details, see sheet 50 of 62.
 - I.F. denotes inside face and O.F. denotes outside face.
 - Hatched area to be poured after superstructure falsework has been removed.



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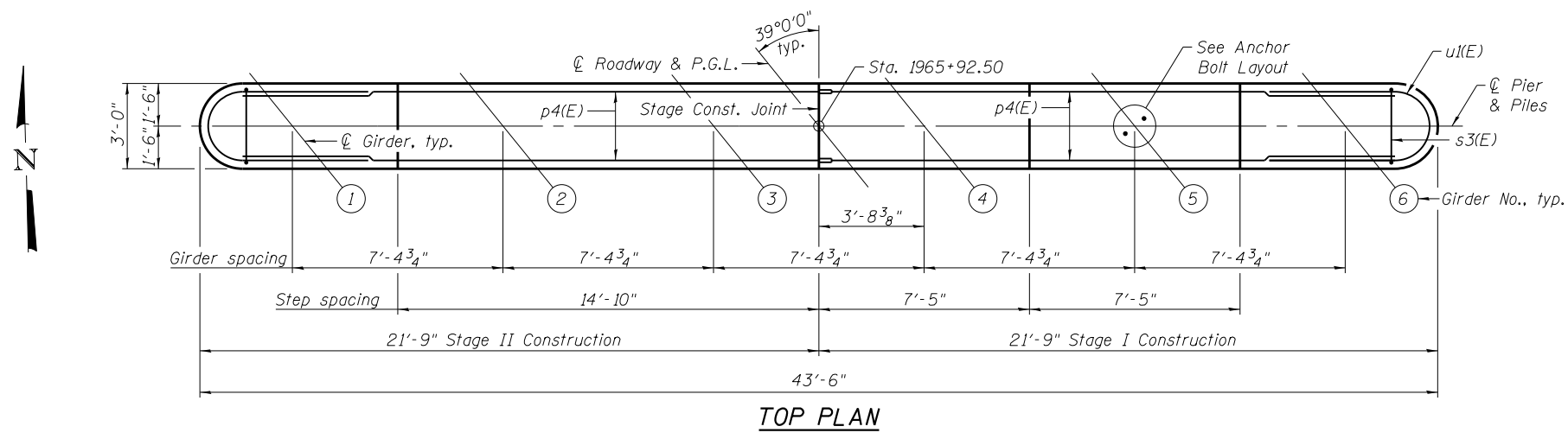
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PLOT SCALE =	CHECKED - SUN	REVISED
PLOT DATE =	DRAWN - MAG	REVISED
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

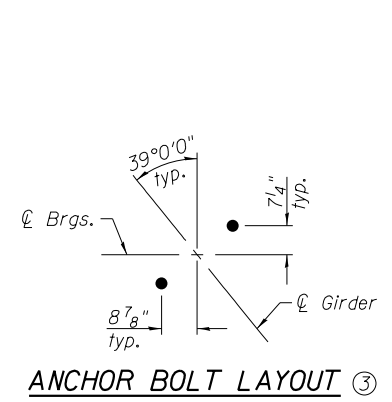
NORTH ABUTMENT DETAILS
STRUCTURE NO. 048-0100

SHEET NO. 42 OF 62 SHEETS

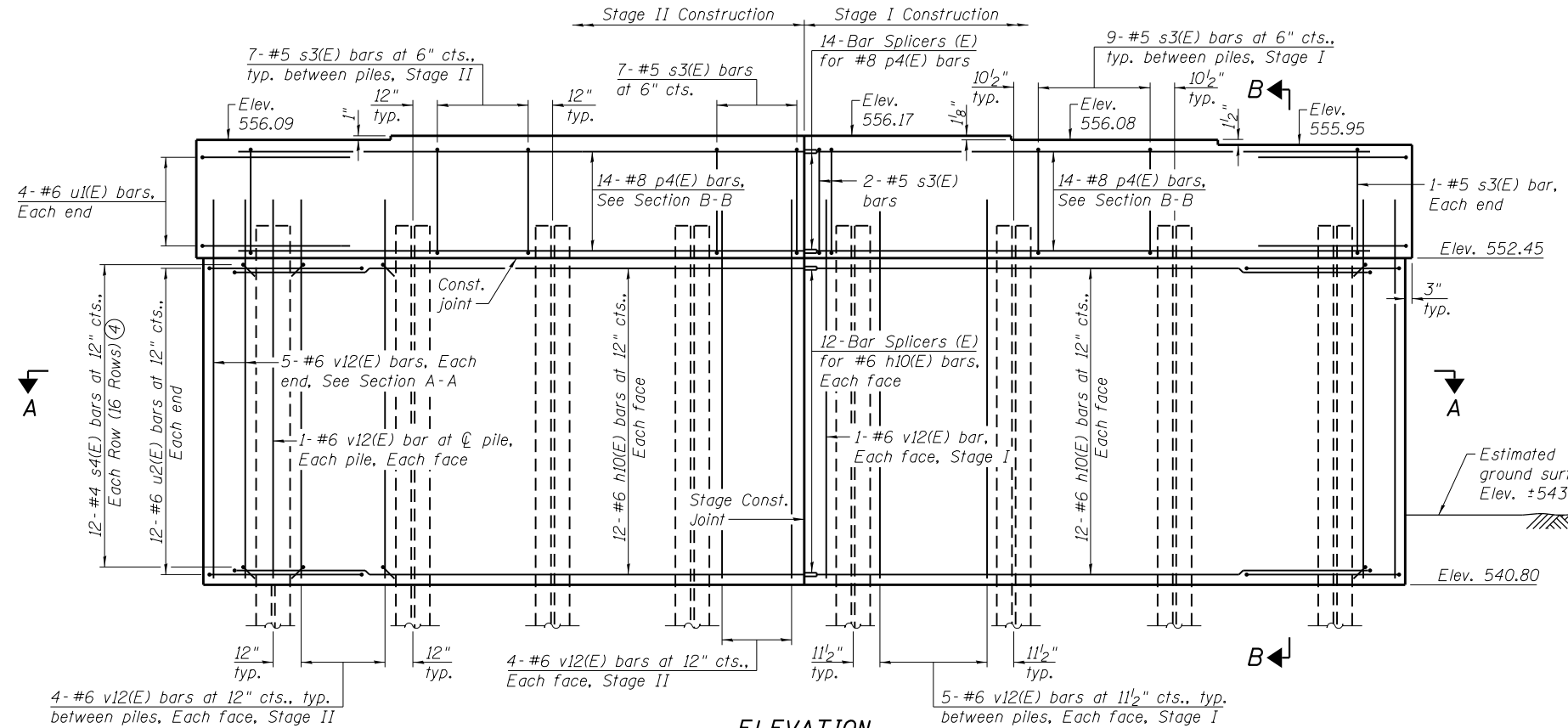
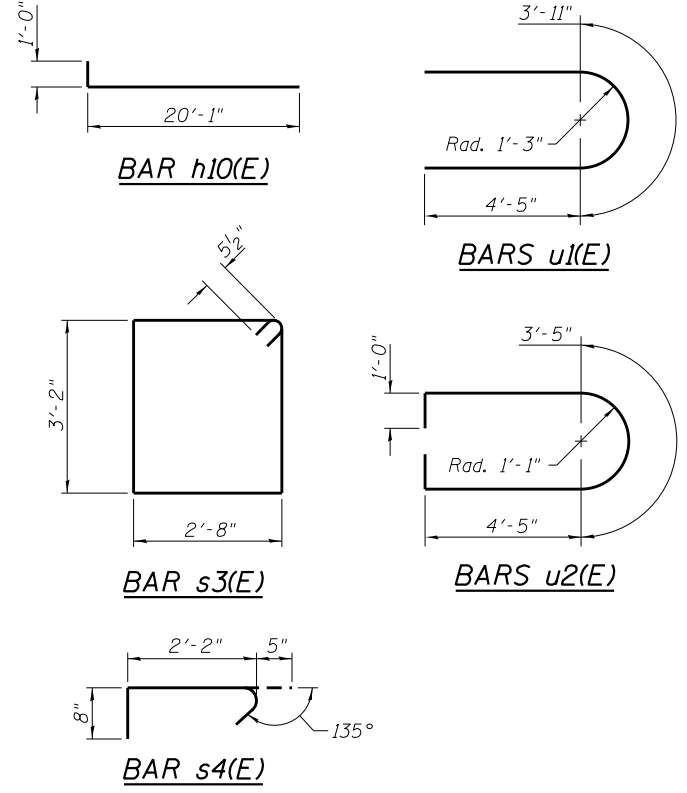
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	72
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



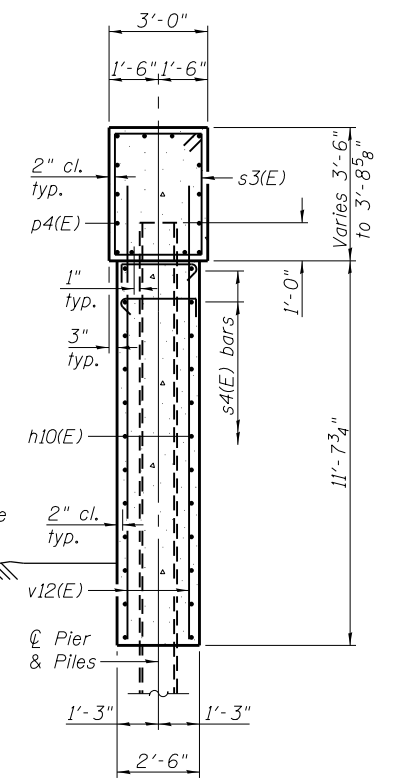
TOP PLAN



ANCHOR BOLT LAYOUT (3)



ELEVATION
(Looking North)



SECTION B-B

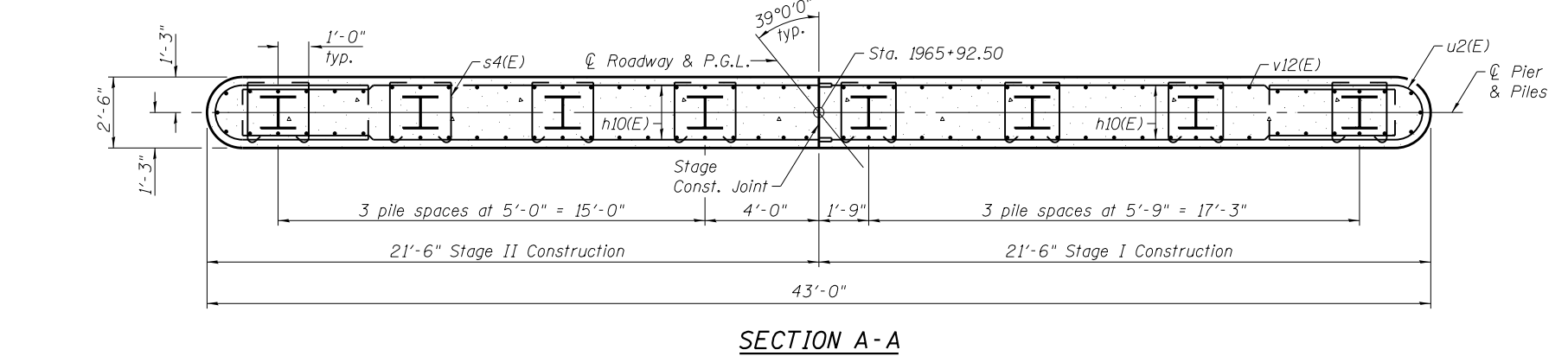
PILE DATA

Type: Steel HP14x73
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 317 kips
 Est. Length: 38 ft
 No. Production Piles: 7
 No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	48	#6	21'-1"	—
p4(E)	28	#8	20'-1"	—
s3(E)	59	#5	12'-7"	□
s4(E)	192	#4	3'-3"	┌
u1(E)	8	#6	12'-9"	U
u2(E)	24	#6	14'-3"	U
v12(E)	90	#6	13'-9"	—
Structure Excavation		Cu. Yd.		28
Concrete Structures		Cu. Yd.		63.2
Reinforcement Bars, Epoxy Coated		Pound		6,740
Furnishing Steel Piles HP14x73		Foot		266
Driving Piles		Foot		266
Test Pile Steel HP14x73		Each		1

- Notes:
 (1) Pour steps monolithically with cap.
 (2) For details of piles, see sheet 50 of 62.
 (3) Space reinforcement in cap to miss anchor bolts.
 (4) Space s4(E) bars vertically with h10(E) bars and horizontally as shown in Section A-A. Alternate s4(E) bars end for end as shown in Section B-B.
 (5) For details of Bar Splicers, see sheet 51 of 62.



SECTION A-A



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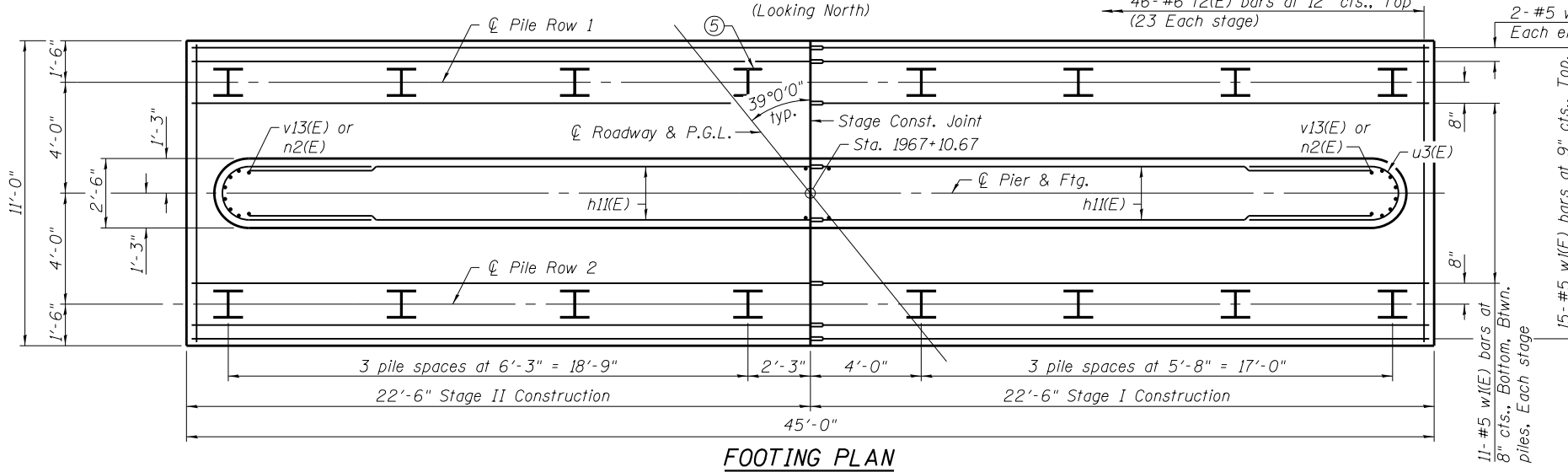
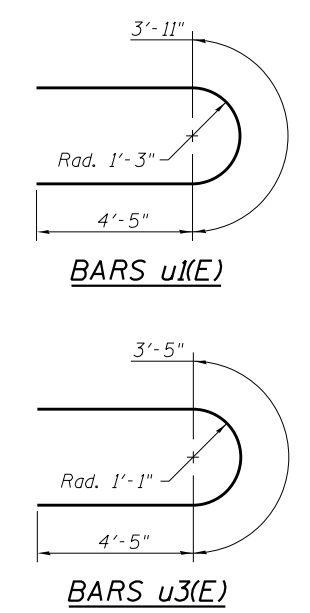
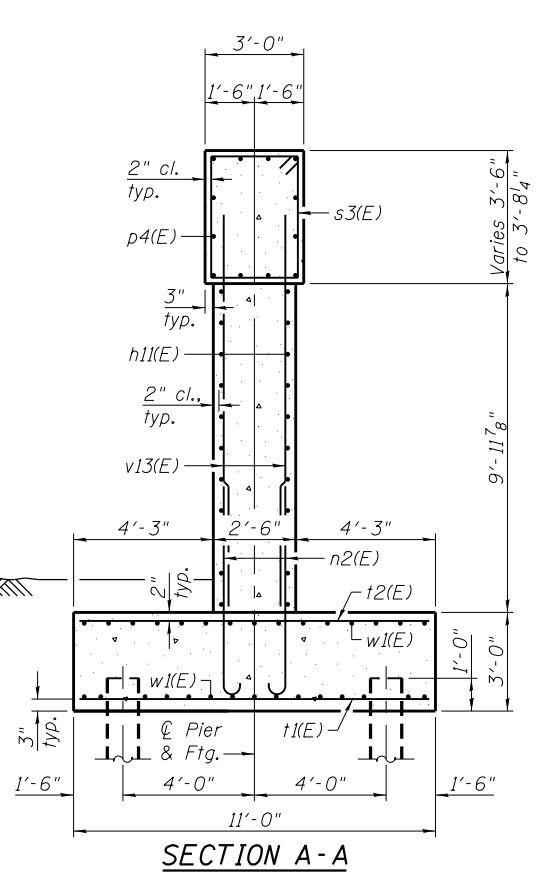
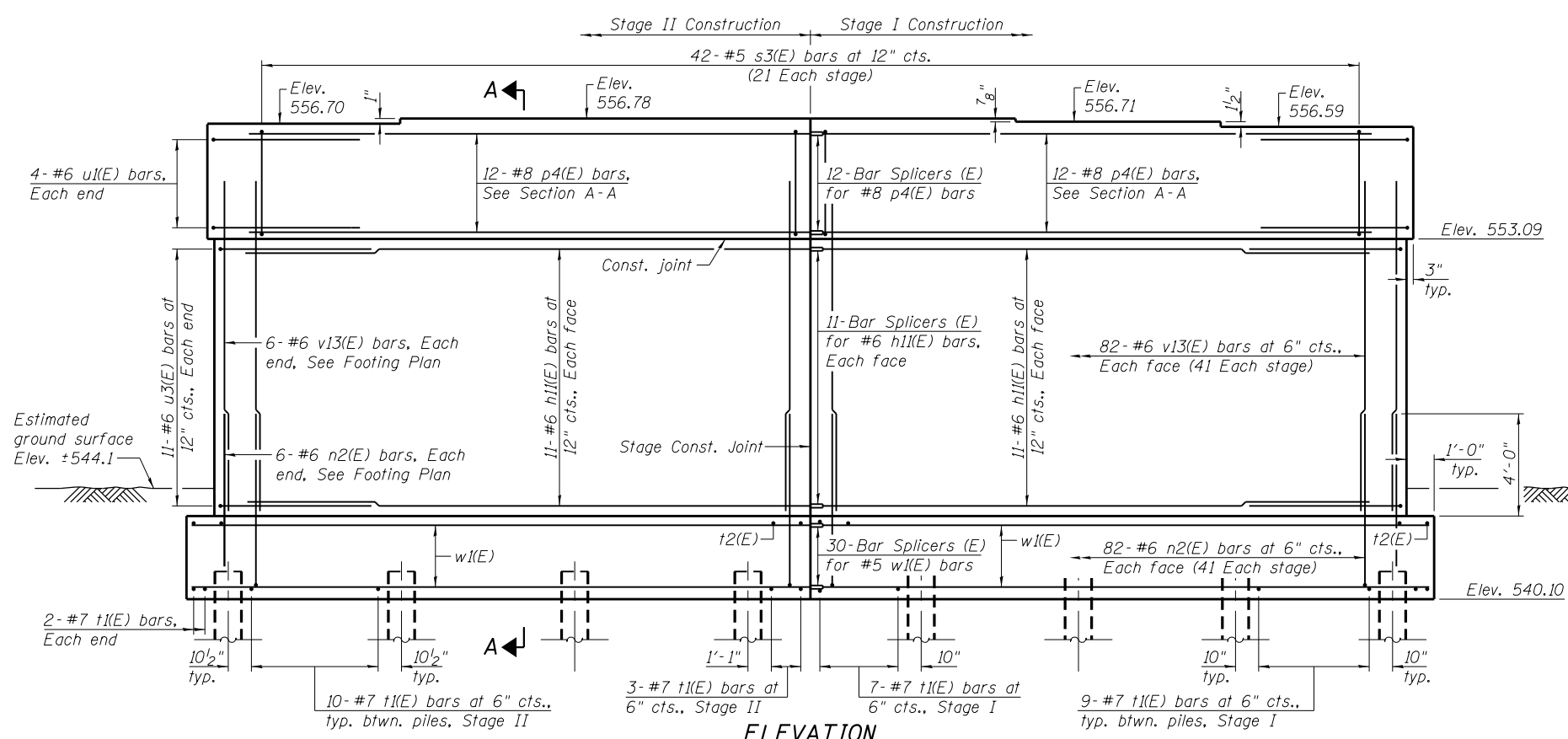
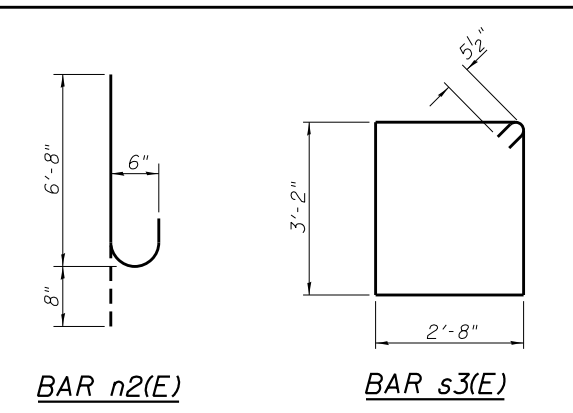
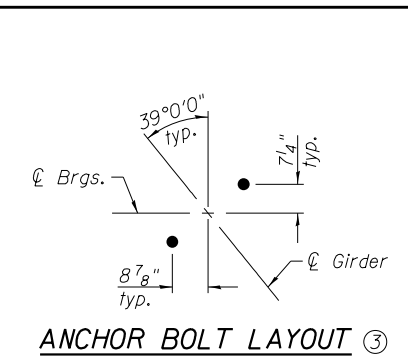
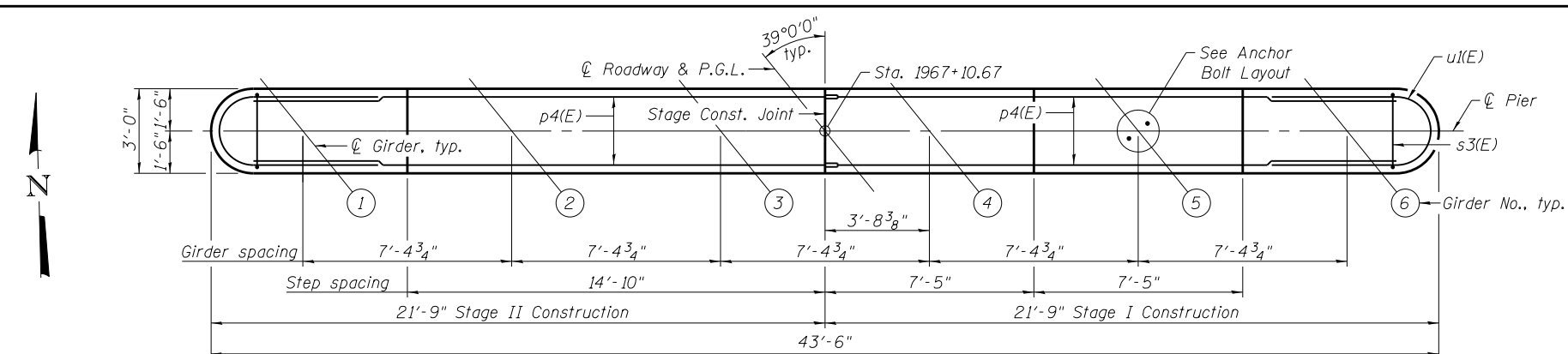
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PLOT SCALE =	CHECKED - SUN	REVISED
PLOT DATE =	DRAWN - DBB	REVISED
	CHECKED - SUN	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS
STRUCTURE NO. 048-0100
 SHEET NO. 43 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	73
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT



PILE DATA

Type: Steel HPI2x53
 Nominal Required Bearing: 419 kips
 Factored Resistance Available: 230 kips
 Est. Length: 23 ft
 No. Production Piles: 15
 No. Test Piles: 1

- Notes:**
- ① Pour steps monolithically with cap.
 - ② For details of piles, see sheet 50 of 62.
 - ③ Space reinforcement in cap to miss anchor bolts.
 - ④ For details of Bar Splicers, see sheet 51 of 62.
 - ⑤ Indicated pile shall be driven during Stage I construction.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
h1(E)	44	#6	20'-1"	—	
n2(E)	176	#6	7'-4"	—	
p4(E)	24	#8	20'-1"	—	
s3(E)	42	#5	12'-7"	□	
t1(E)	71	#7	10'-8"	—	
t2(E)	46	#6	10'-8"	—	
u1(E)	8	#6	12'-9"	—	
u3(E)	22	#6	12'-3"	—	
v13(E)	176	#6	12'-2"	—	
w1(E)	60	#5	22'-2"	—	
Structure Excavation				Cu. Yd.	109
Concrete Structures				Cu. Yd.	111.6
Reinforcement Bars, Epoxy Coated				Pound	12,550
Furnishing Steel Piles HPI2x53				Foot	345
Driving Piles HPI2x53				Foot	345
Test Pile Steel HPI2x53				Each	1

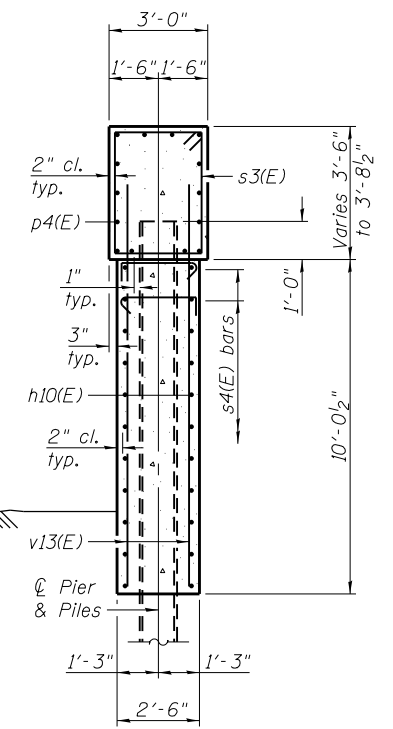
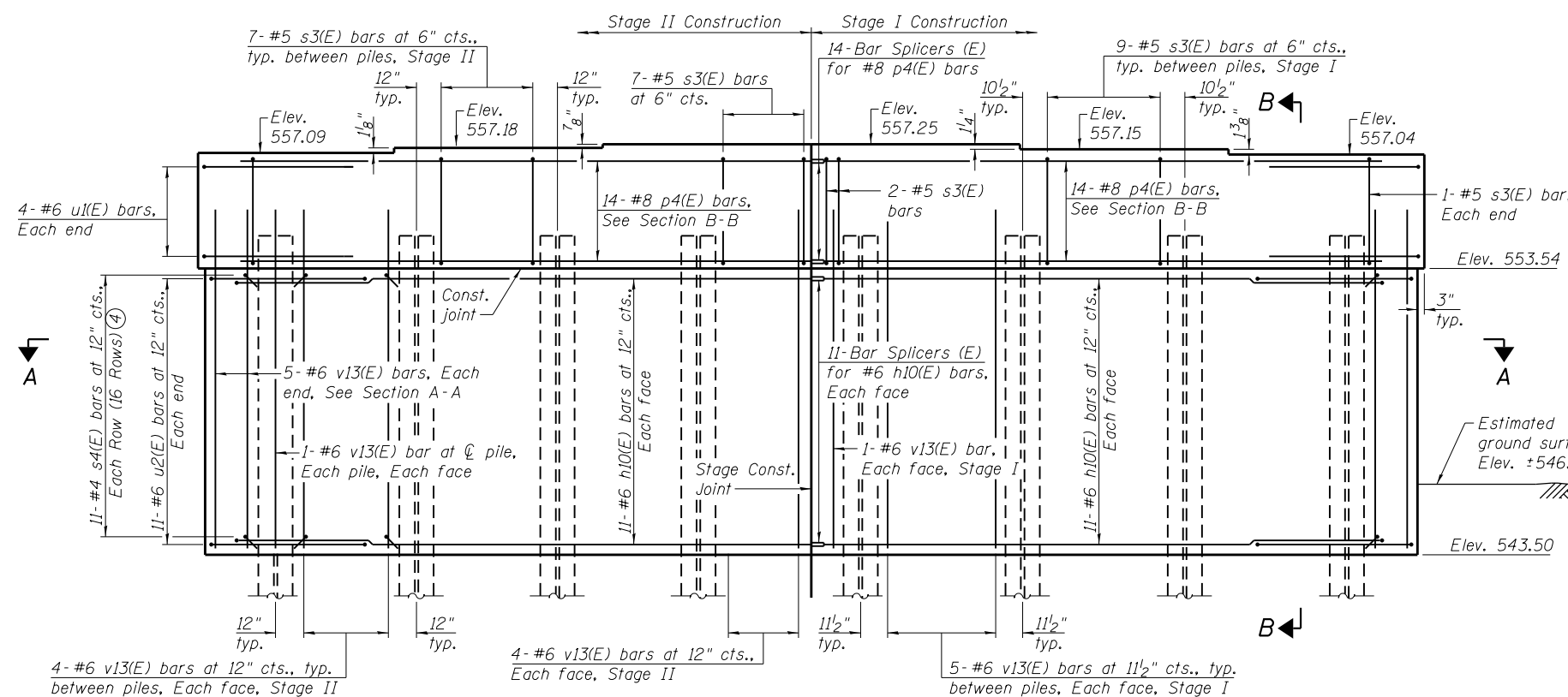
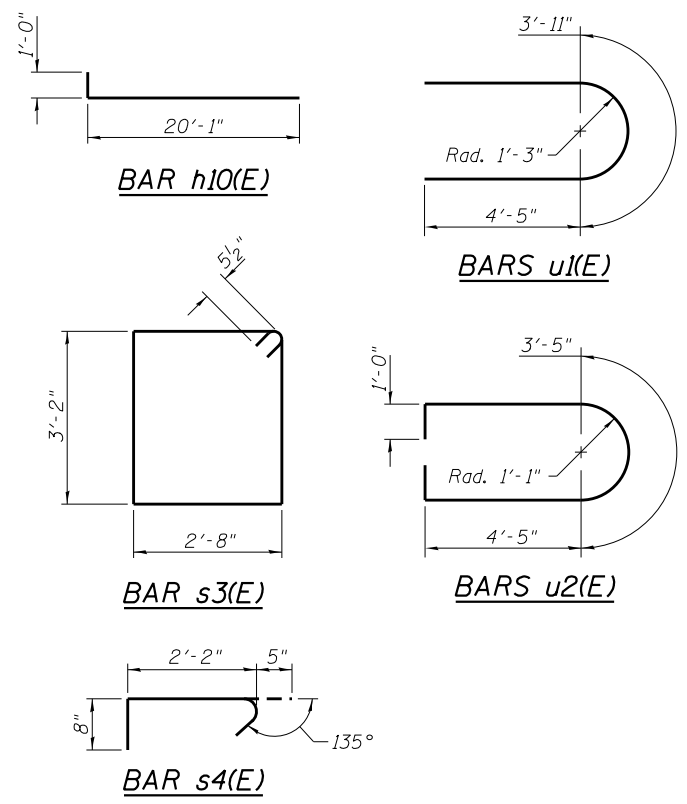
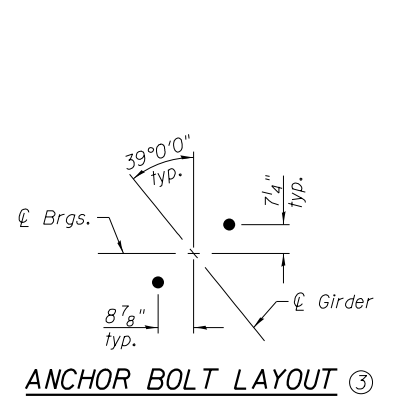
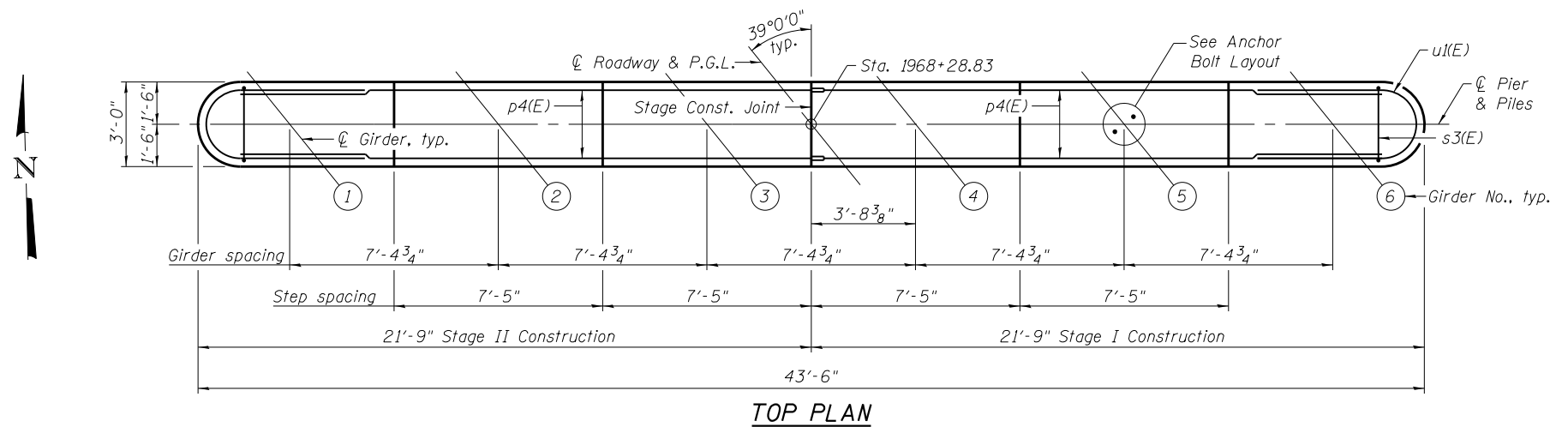


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS
STRUCTURE NO. 048-0100
 SHEET NO. 44 OF 62 SHEETS

F.A.P. RTE. 626	SECTION (44-B-1)BR	COUNTY KNOX	TOTAL SHEETS 122	SHEET NO. 74
CONTRACT NO. 68759				ILLINOIS FED. AID PROJECT



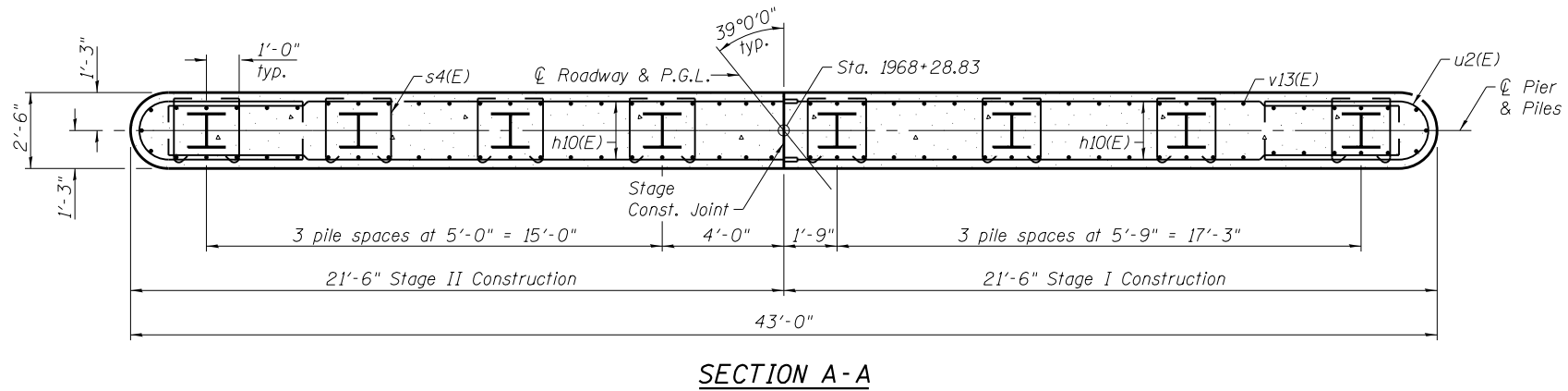
PILE DATA

Type: Steel HP14x73
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 317 kips
 Est. Length: 42 ft
 No. Production Piles: 7
 No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	44	#6	21'-1"	—
p4(E)	28	#8	20'-1"	—
s3(E)	59	#5	12'-7"	□
s4(E)	176	#4	3'-3"	┌
u1(E)	8	#6	12'-9"	U
u2(E)	22	#6	14'-3"	U
v13(E)	90	#6	12'-2"	—
Structure Excavation		Cu. Yd.	28	
Concrete Structures		Cu. Yd.	56.7	
Reinforcement Bars, Epoxy Coated		Pound	6,320	
Furnishing Steel Piles HP14x73		Foot	294	
Driving Piles		Foot	294	
Test Pile Steel HP14x73		Each	1	

- Notes:**
- ① Pour steps monolithically with cap.
 - ② For details of piles, see sheet 50 of 62.
 - ③ Space reinforcement in cap to miss anchor bolts.
 - ④ Space s4(E) bars vertically with h10(E) bars and horizontally as shown in Section A-A. Alternate s4(E) bars end for end as shown in Section B-B.
 - ⑤ For details of Bar Splicers, see sheet 51 of 62.

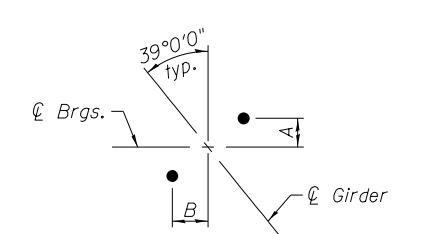
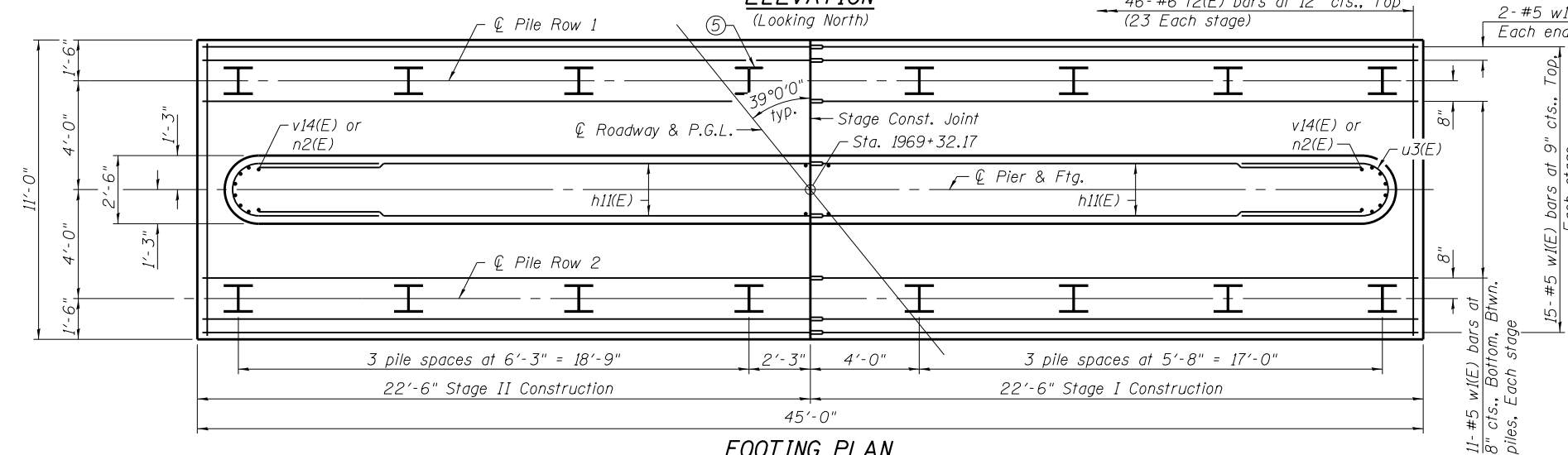
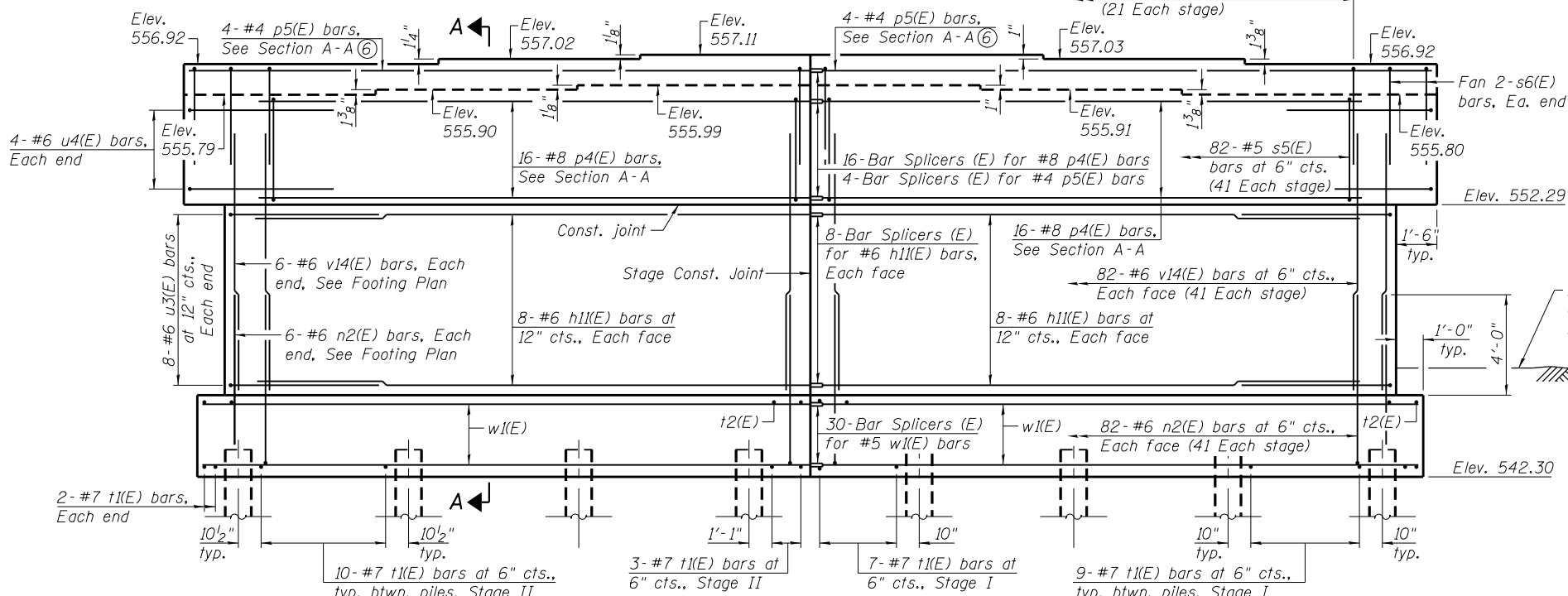
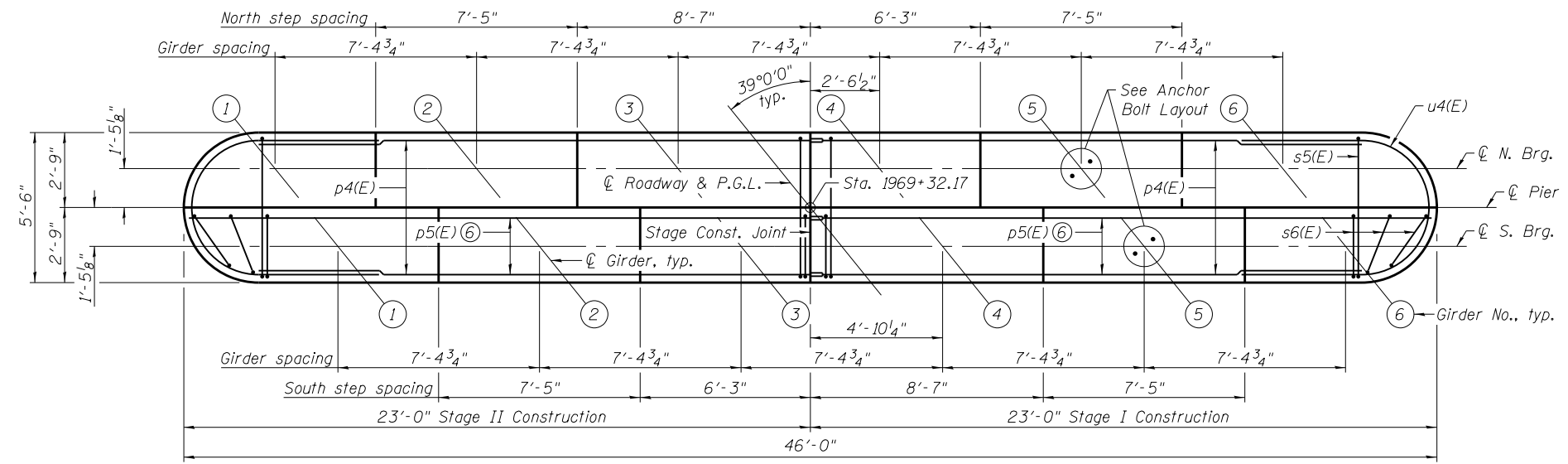


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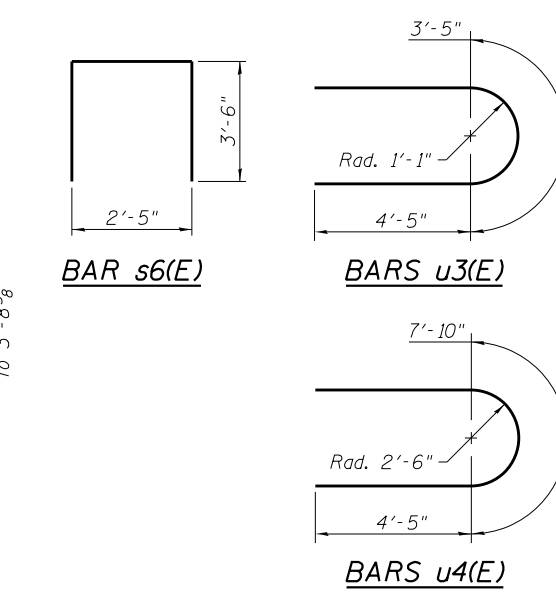
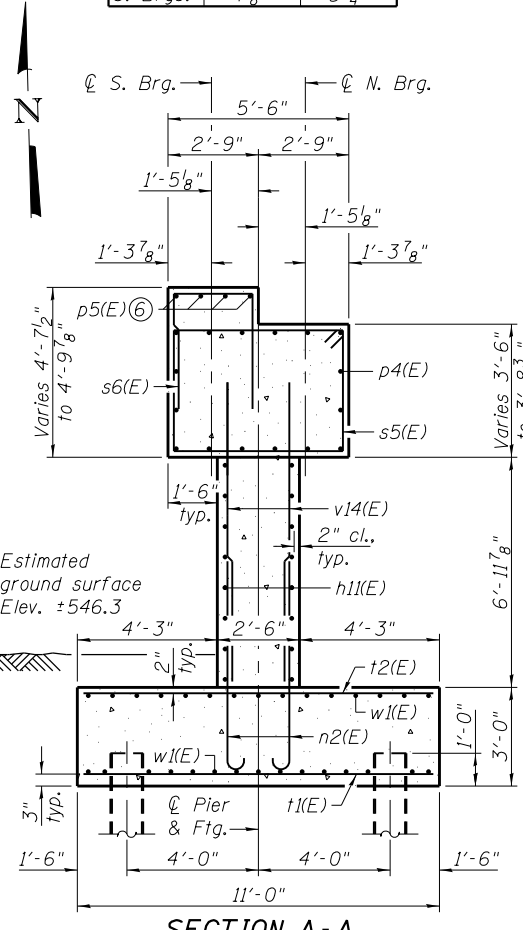
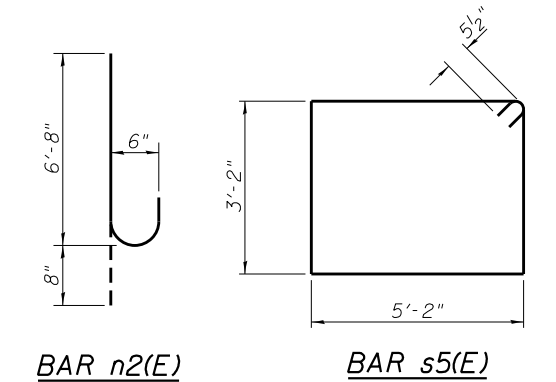
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 3 DETAILS
STRUCTURE NO. 048-0100
 SHEET NO. 45 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	75
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



	Dim. A	Dim. B
N. Brgs.	7 3/4"	9 1/2"
S. Brgs.	7 3/4"	8 3/4"



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	32	#6	20'-1"	—
n2(E)	176	#6	7'-4"	—
p4(E)	32	#8	20'-1"	—
p5(E)	8	#4	22'-8"	—
s5(E)	82	#5	17'-7"	□
s6(E)	46	#5	9'-5"	□
t1(E)	71	#7	10'-8"	—
t2(E)	46	#6	10'-8"	—
u3(E)	16	#6	12'-3"	U
u4(E)	8	#6	16'-8"	U
v14(E)	176	#6	9'-1"	—
w1(E)	60	#5	22'-2"	—
Structure Excavation		Cu. Yd.	109	
Concrete Structures		Cu. Yd.	120.5	
Reinforcement Bars, Epoxy Coated		Pound	13,260	
Furnishing Steel Piles HP12x53		Foot	420	
Driving Piles		Foot	420	
Test Pile Steel HP12x53		Each	1	
Concrete Sealer		Sq. Ft.	709	

PILE DATA

Type: Steel HP12x53

Nominal Required Bearing: 419 kips

Factored Resistance Available: 230 kips

Est. Length: 28 ft

No. Production Piles: 15

No. Test Piles: 1

- Notes:
- ① Pour steps monolithically with cap.
 - ② For details of piles, see sheet 50 of 62.
 - ③ Space reinforcement in cap to miss anchor bolts.
 - ④ For details of Bar Splicers, see sheet 51 of 62.
 - ⑤ Indicated pile shall be driven during Stage I Construction.
 - ⑥ Cut to fit at end of cap.
 - ⑦ The pier shall have all exposed surfaces of the bridge seats and faces of pier cap treated with Concrete Sealer.



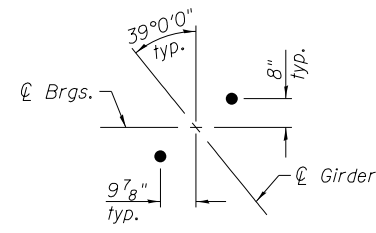
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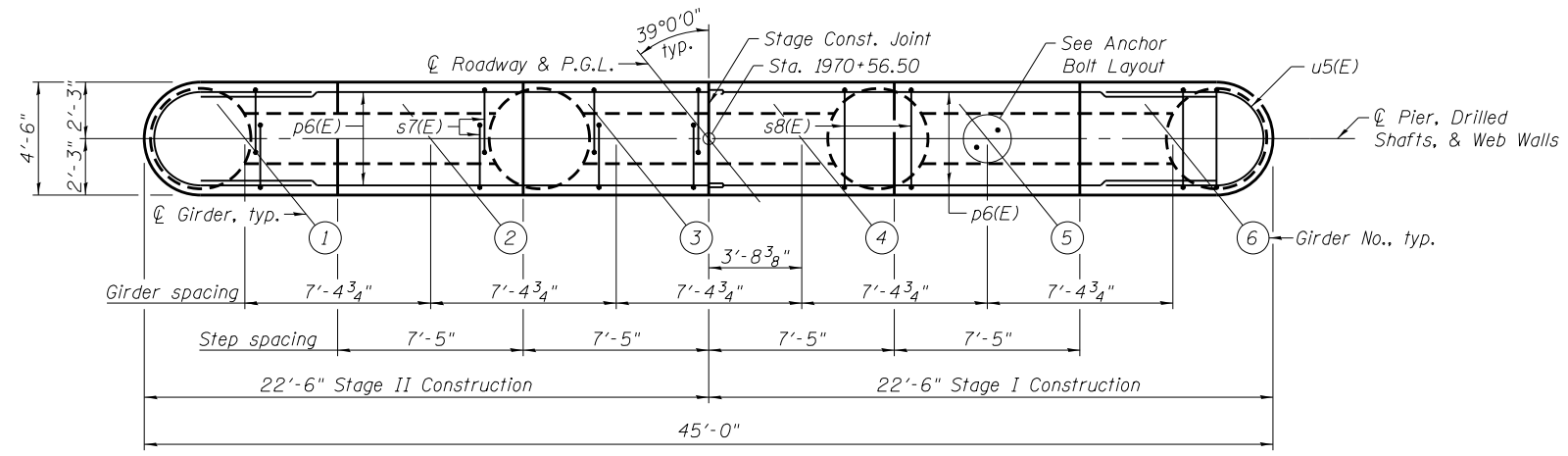
**PIER 4 DETAILS
 STRUCTURE NO. 048-0100**

SHEET NO. 46 OF 62 SHEETS

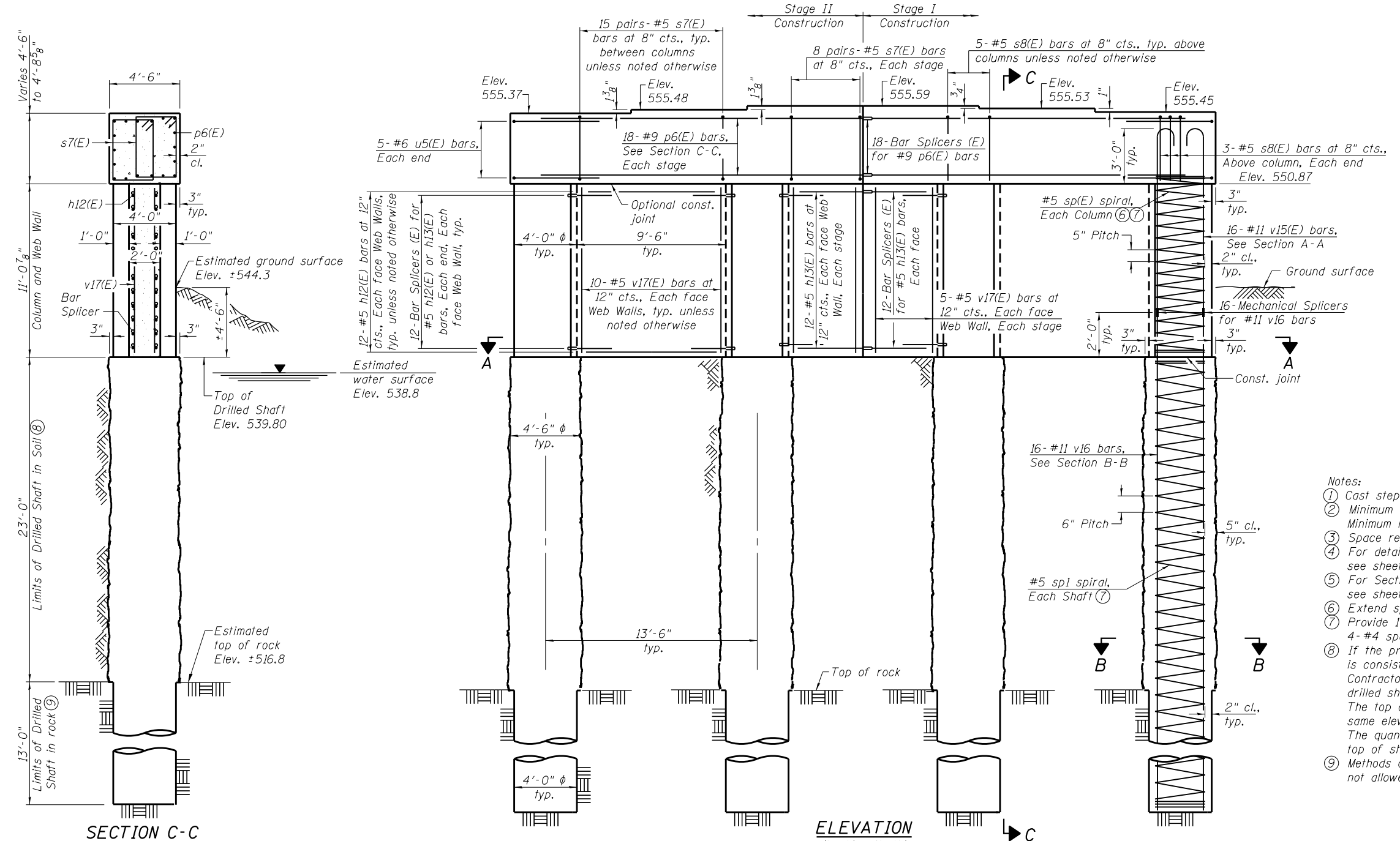
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	76
				CONTRACT NO. 68759
ILLINOIS FED. AID PROJECT				



ANCHOR BOLT LAYOUT ③



TOP PLAN



SECTION C-C

ELEVATION
(Looking North)

- Notes:
- ① Cast steps monolithically with cap.
 - ② Minimum lap for epoxy coated spirals = 3'-9"
 - ③ Minimum lap for non epoxy coated spirals = 2'-6"
 - ④ Space reinforcement in cap to miss anchor bolts.
 - ⑤ For details of Bar Splicers and Mechanical Splicers, see sheet 51 of 62.
 - ⑥ For Section A-A and B-B, bar details, and Bill of Material, see sheet 49 of 62.
 - ⑦ Extend spiral 2" into pier cap.
 - ⑧ Provide 1/2 extra turns top and bottom. Provide min. 4-#4 spacers or equivalent.
 - ⑨ If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the Contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown.
 - ⑩ Methods of drilling that produce a smooth rock socket are not allowed.

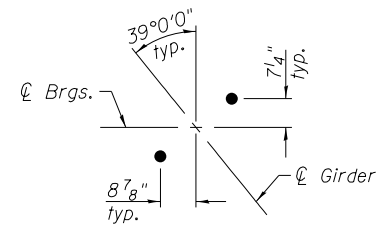


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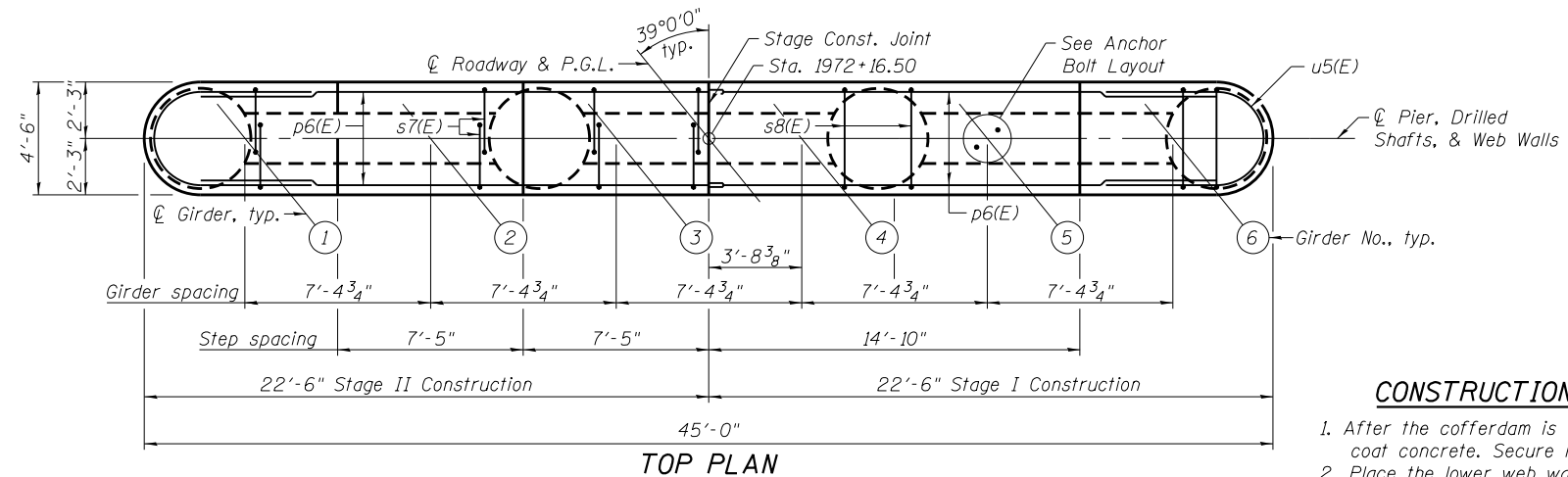
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 5 DETAILS
STRUCTURE NO. 048-0100**
SHEET NO. 47 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	77
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



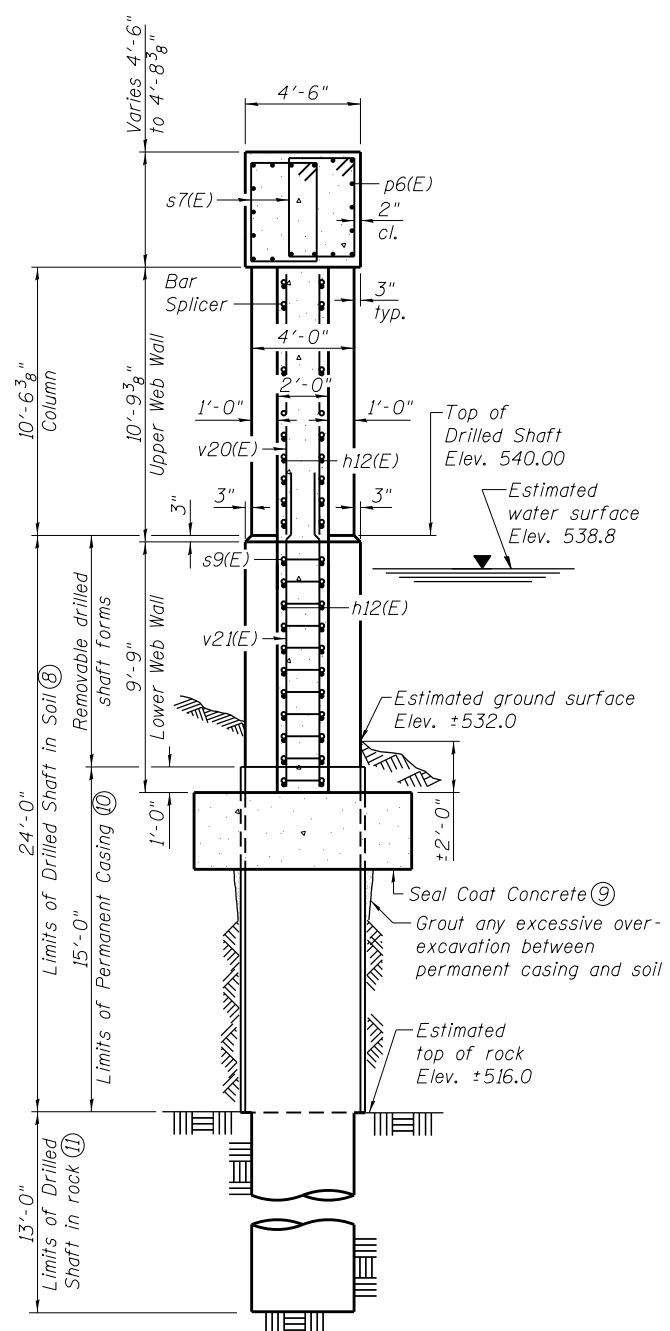
ANCHOR BOLT LAYOUT ③



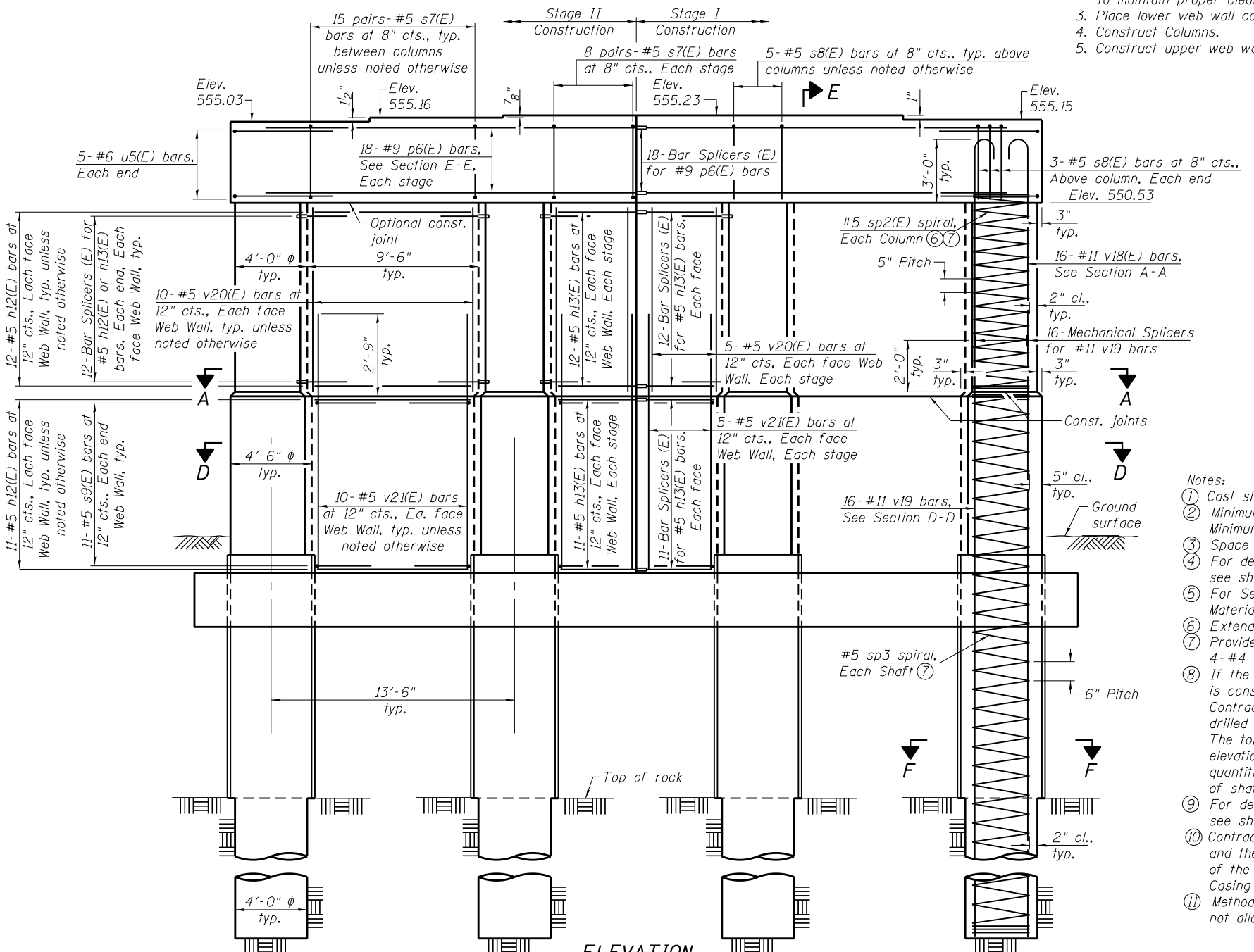
TOP PLAN

CONSTRUCTION SEQUENCE FOR WEB WALL

1. After the cofferdam is dewatered, set lower web wall forms to bear on seal coat concrete. Secure in place with struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. Place lower web wall concrete.
4. Construct Columns.
5. Construct upper web walls.



SECTION E-E



ELEVATION
(Looking North)

- Notes:
- ① Cast steps monolithically with cap.
 - ② Minimum lap for epoxy coated spirals = 3'-9" Minimum lap for non epoxy coated spirals = 2'-6"
 - ③ Space reinforcement in cap to miss anchor bolts.
 - ④ For details of Bar Splicers and Mechanical Splicers, see sheet 51 of 62.
 - ⑤ For Section A-A, D-D, and F-F, bar details, and Bill of Material, see sheet 49 of 62.
 - ⑥ Extend spiral 2" into pier cap.
 - ⑦ Provide 1/2 extra turns top and bottom. Provide min. 4-#4 spacers or equivalent.
 - ⑧ If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the Contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shaft shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown.
 - ⑨ For details of Cofferdam (Type 2) and Seal Coat Concrete, see sheet 5 of 62
 - ⑩ Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing are based on the minimum length shown.
 - ⑪ Methods of drilling that produce a smooth rock socket are not allowed.



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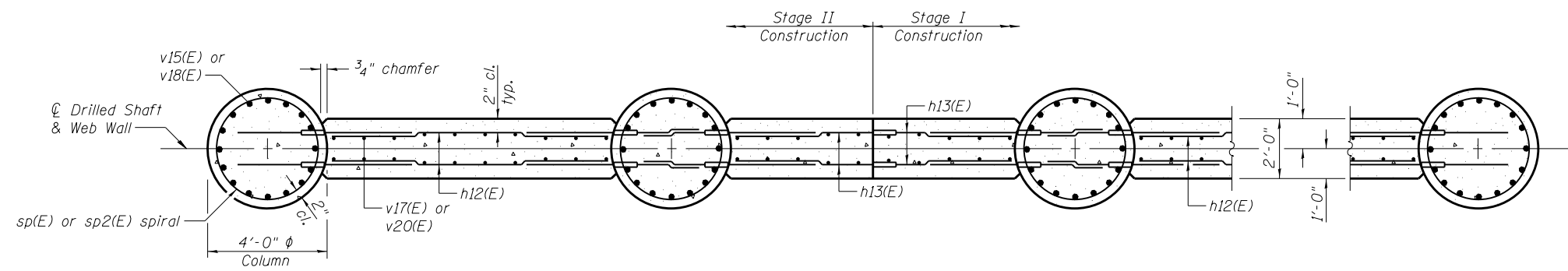
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DEPARTMENT OF TRANSPORTATION

PIER 6 DETAILS
STRUCTURE NO. 048-0100

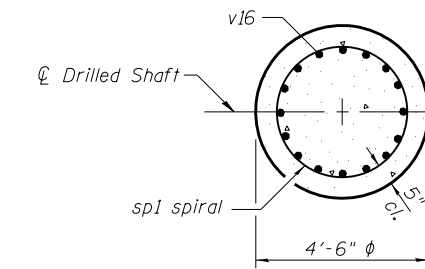
SHEET NO. 48 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	78
CONTRACT NO. 68759				

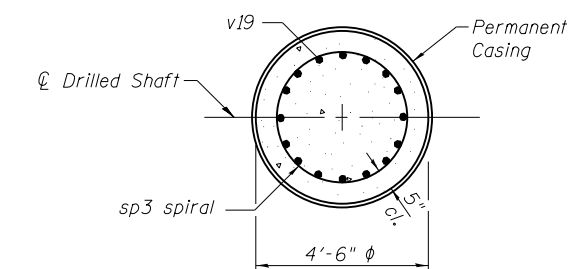
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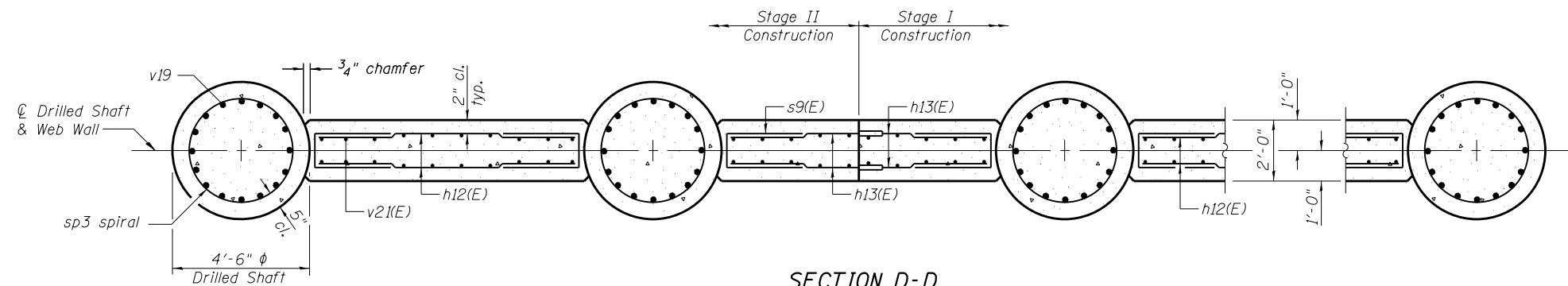
SECTION A-A



SECTION B-B



SECTION F-F



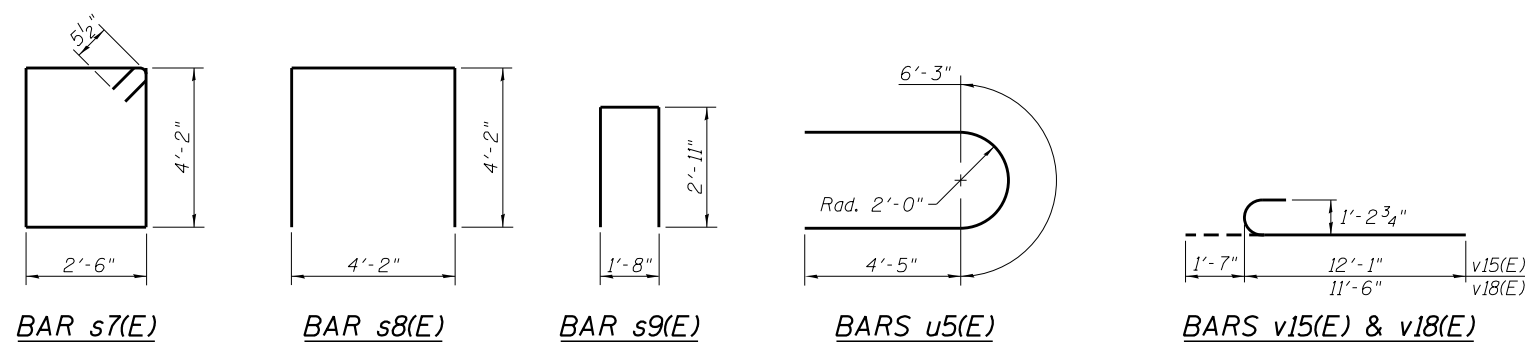
SECTION D-D

PIER 5
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h12(E)	48	#5	8'-8"	—
h13(E)	48	#5	4'-2"	—
p6(E)	36	#9	20'-1"	—
s7(E)	92	#5	14'-3"	□
s8(E)	16	#5	12'-6"	□
sp(E)	4	#5	11'-1"	⋈
sp1	4	#5	35'-8"	⋈
u5(E)	10	#6	15'-1"	⌒
v15(E)	64	#11	13'-8"	—
v16	64	#11	37'-10"	—
v17(E)	60	#5	10'-9"	—
Structure Excavation		Cu. Yd.	65	
Concrete Structures		Cu. Yd.	78.4	
Reinforcement Bars		Pound	16,440	
Reinforcement Bars, Epoxy Coated		Pound	11,650	
Drilled Shaft in Soil		Cu. Yd.	54.2	
Drilled Shaft in Rock		Cu. Yd.	24.2	

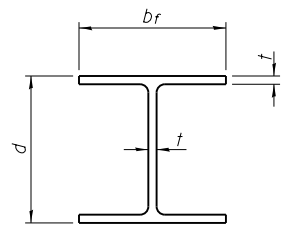
PIER 6
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h12(E)	92	#5	8'-8"	—
h13(E)	92	#5	4'-2"	—
p6(E)	36	#9	20'-1"	—
s7(E)	92	#5	14'-3"	□
s8(E)	16	#5	12'-6"	□
s9(E)	66	#5	7'-6"	□
sp2(E)	4	#5	10'-6"	⋈
sp3	4	#5	36'-8"	⋈
u5(E)	10	#6	15'-1"	⌒
v18(E)	64	#11	13'-1"	—
v19	64	#11	38'-10"	—
v20(E)	60	#5	10'-5"	—
v21(E)	60	#5	12'-4"	—
Cofferdam Excavation		Cu. Yd.	77	
Cofferdam (Type 2) (Location-1)		Each	1	
Concrete Structures		Cu. Yd.	96.7	
Seal Coat Concrete		Cu. Yd.	39.2	
Reinforcement Bars		Pound	16,880	
Reinforcement Bars, Epoxy Coated		Pound	13,240	
Permanent Casing		Foot	60	
Drilled Shaft in Soil		Cu. Yd.	56.5	
Drilled Shaft in Rock		Cu. Yd.	24.2	



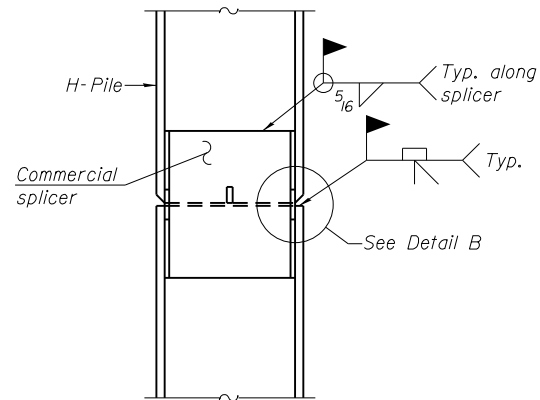
①
②

Notes:
① Length is height of spiral.

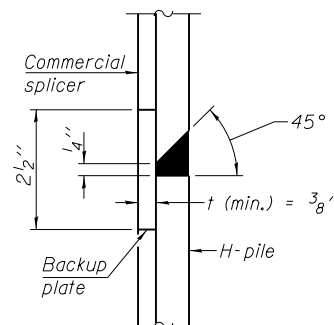


STEEL PILE TABLE

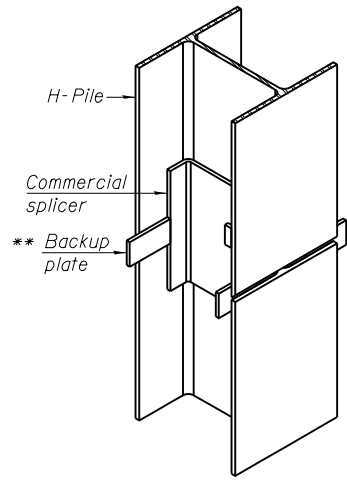
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

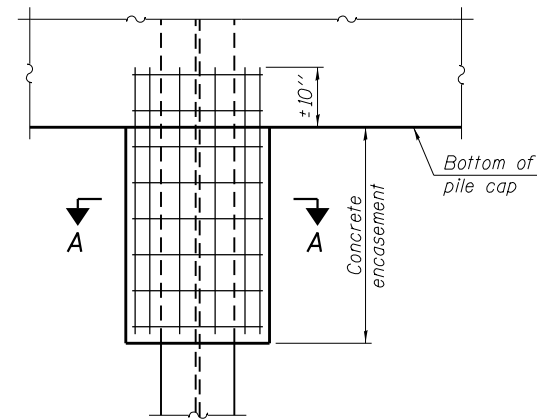


DETAIL "B"



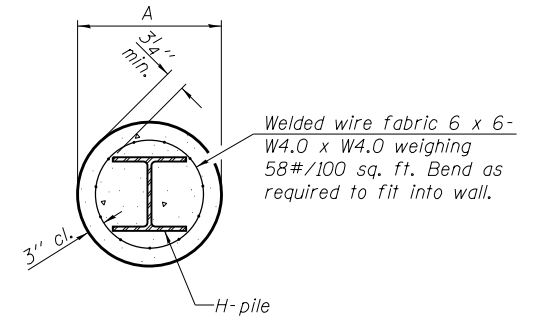
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



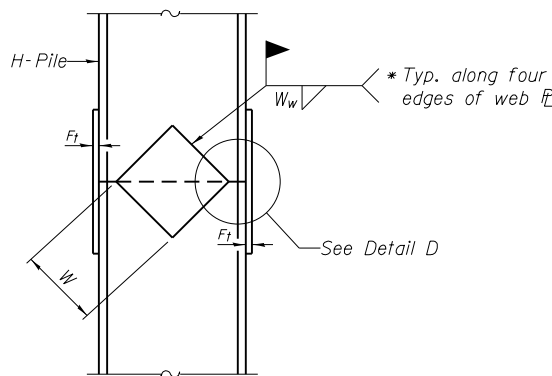
ELEVATION

PILE ENCASEMENT



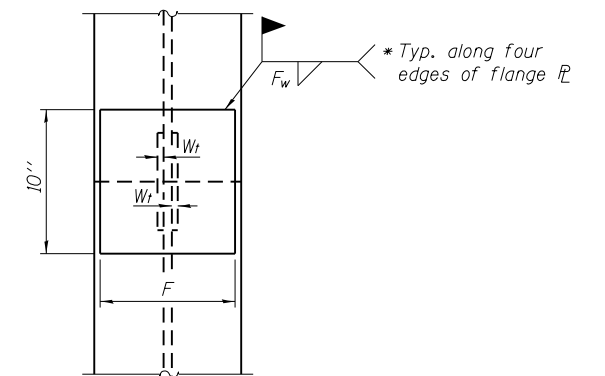
SECTION A-A

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



ELEVATION

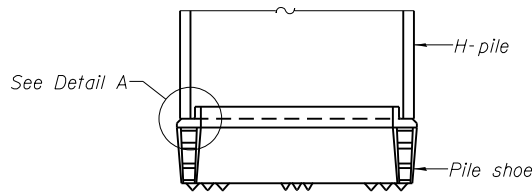
DETAIL D



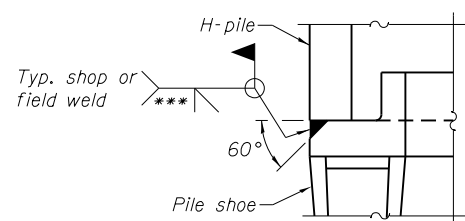
END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

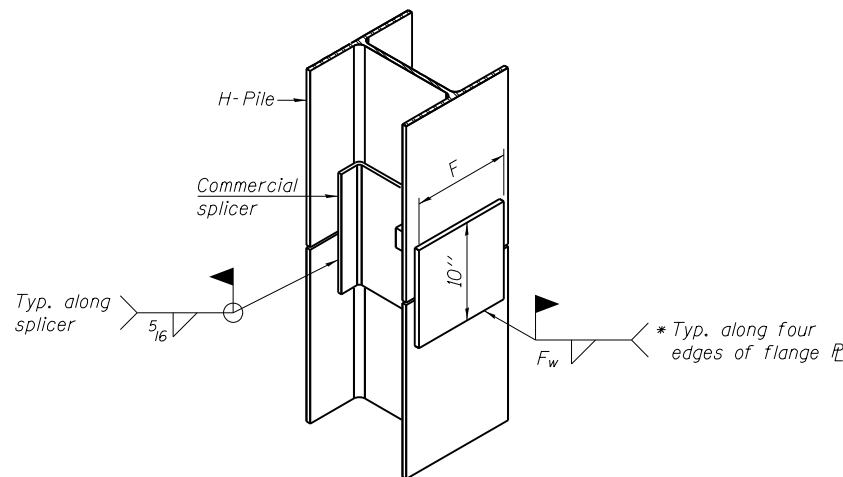


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

Note: The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 1-27-12



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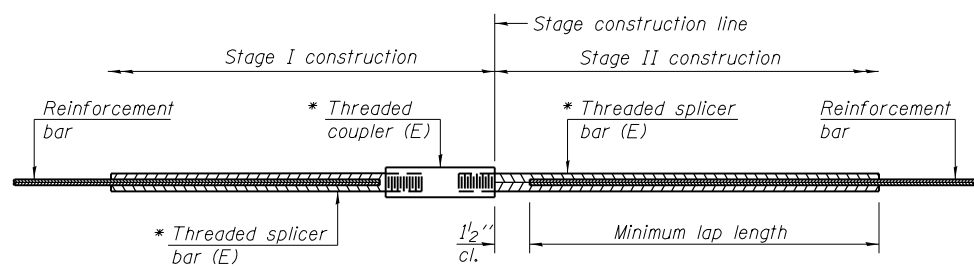
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 048-0100

SHEET NO. 50 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	80
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT



STANDARD BAR SPLICER ASSEMBLY

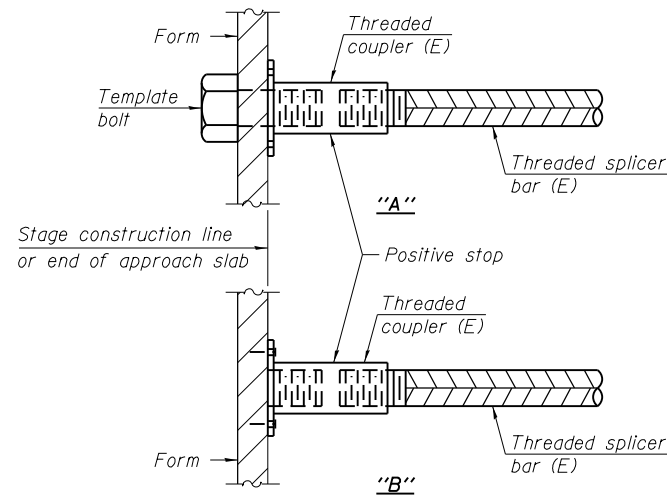
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar lap, Class C

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

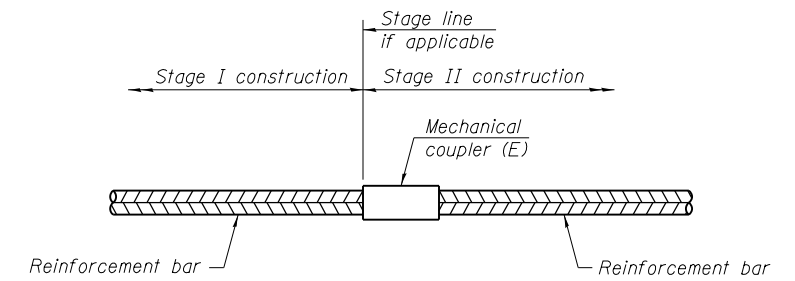
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	2,482	Table 3
Approach Slab	#4	50	Table 4
Approach Slab	#5	92	Table 3
Approach Footing	#5	80	Table 3
South Abutment	#5	8	Table 4
South Abutment	#6	5	Table 4
South Abutment	#7	20	Table 4
North Abutment	#5	10	Table 4
North Abutment	#6	5	Table 4
North Abutment	#7	20	Table 4
Pier 1	#6	24	Table 4
Pier 1	#8	14	Table 4
Pier 2	#5	30	Table 4
Pier 2	#6	22	Table 4
Pier 2	#8	12	Table 4
Pier 3	#6	22	Table 4
Pier 3	#8	14	Table 4
Pier 4	#4	4	Table 3
Pier 4	#5	30	Table 4
Pier 4	#6	16	Table 4
Pier 4	#8	16	Table 4
Pier 5	#5	168	Table 4
Pier 5	#9	18	Table 4
Pier 6	#5	190	Table 4
Pier 6	#9	18	Table 4



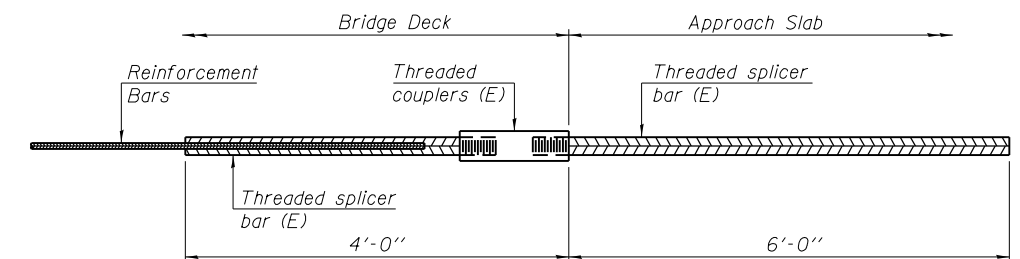
INSTALLATION AND SETTING METHODS

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



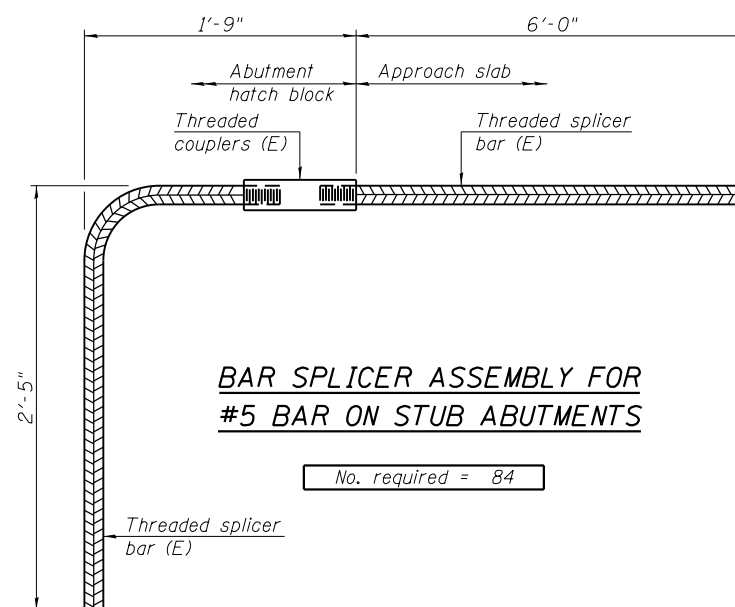
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 5	#11	64
Pier 6	#11	64



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 84

NOTES

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

BSD-1

1-27-12



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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

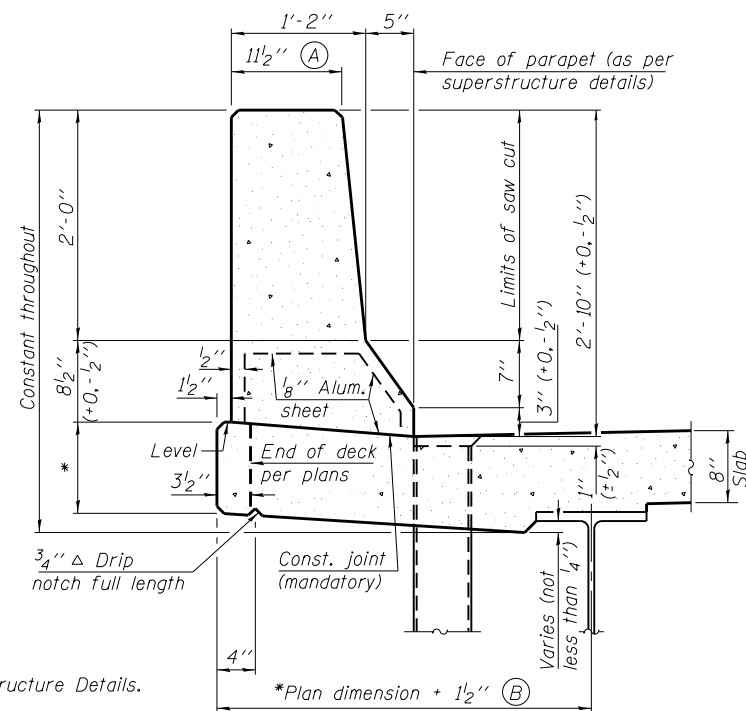
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 048-0100

SHEET NO. 51 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	81
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

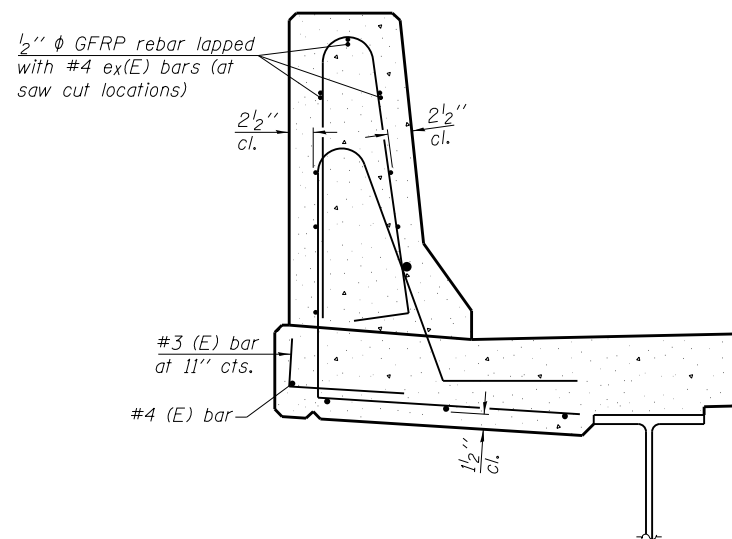
GENERAL NOTES

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



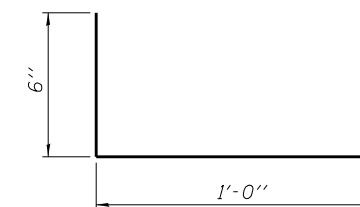
*See Superstructure Details.

34" F SHAPE PARAPET SECTION
(Showing dimensions)

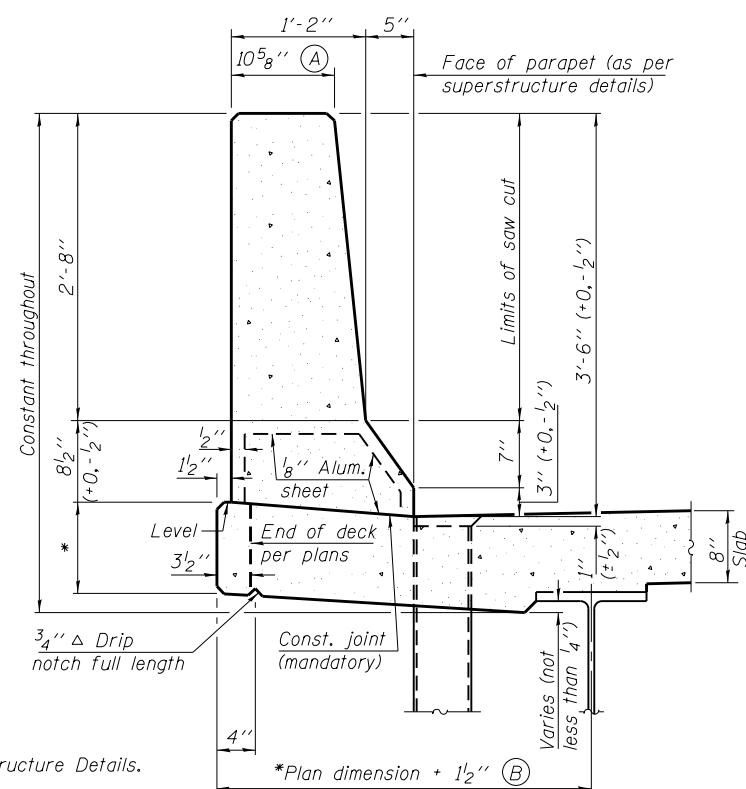


SECTION

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

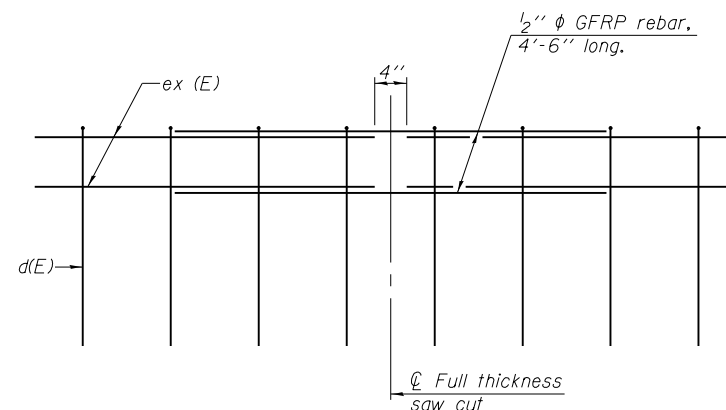


#3 (E) BAR



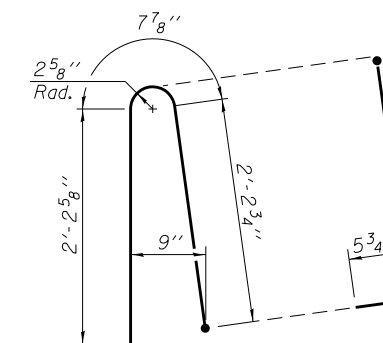
*See Superstructure Details.

42" F SHAPE PARAPET SECTION
(Showing dimensions)

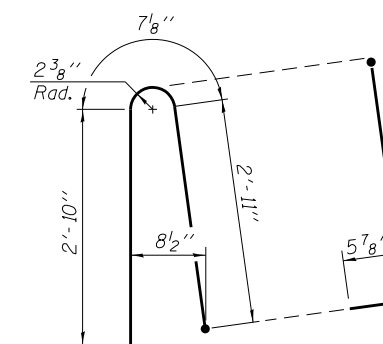


GFRP REBAR STIFFENING DETAIL

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



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



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

SFP 34-42

8-16-12



DAMES ASSOCIATES
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Tel: 410.388.2200
Fax: 410.388.2381
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CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 048-0100

SHEET NO. 52 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	82
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Page 1 of 1

Date 01/25/13

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed South Abutment LOGGED BY SCI (ART)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM

COUNTY Knox DRILLING METHOD CME 750 Track with 3 1/4 HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEP	BUL	UCS	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	After	N/A	Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)
048-0100 (Proposed)	1969+15.00	B-101	1964+91	43.0 ft LT	553.8					538.8	530.0		532.8	Not Obs.	Not Obs.								
GRASS COVER - 3 inches																							
FILL: Brown, clay, trace crushed sone, A-7																							
SILTY CLAY: Dark brown, A-6 (continued)																							
SAND: Brown, fine to coarse, with gravel, A-2																							
SANDY LOAM: Gray, with gravel, A-2																							
SAND: Gray, fine, trace gravel, A-2																							
FILL: Dark gray, shaley clay, A-6																							
SILTY CLAY LOAM: Brown, A-7-6 (22)																							
SHALE: Light gray																							
SHALE: Light gray																							
SAND: Brown and gray, fine to coarse, with gravel, A-2																							
SANDY LOAM: Dark gray and brown, A-2																							
SAND: Brown and gray, fine to coarse, A-2																							
With gravel																							
Boring terminated at 39.3 ft.																							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Page 1 of 1

Date 01/25/13

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 1 LOGGED BY SCI (ART)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM

COUNTY Knox DRILLING METHOD CME 750 Track with 3 1/4 HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEP	BUL	UCS	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	After	N/A	Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)
048-0100 (Proposed)	1969+15.00	B-102	1966+15	25.0 ft LT	545.6					538.8	530.0		Not Obs.	Not Obs.	Not Obs.								
GRASS COVER - 3 inches																							
No sample recovered																							
FILL: Brown, clay, A-7																							
CLAY: Dark gray, A-7																							
SILTY CLAY: Dark gray, A-6																							
SAND: Brown and gray, fine to coarse, A-2 (continued)																							
CLAYEY SHALE: Light gray																							
SHALE: Light gray																							
Boring terminated at 29.3 ft.																							
SANDY LOAM: Dark gray and brown, A-2																							
SAND: Brown and gray, fine to coarse, A-2																							
With gravel																							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



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SCI Engineering, Inc.

SOIL BORING LOG

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Date 01/24/13

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 2 LOGGED BY SCI (ART)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM

COUNTY Knox DRILLING METHOD CME 750 Track with 3 1/4 HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	DEP	BUL	UCS	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.	First Encounter	Upon Completion	After	N/A	Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)
048-0100 (Proposed)	1969+15.00	B-103	1967+30	25.0 ft LT	546.9					538.8	530.0		533.4	Not Obs.	Not Obs.								
GRASS COVER - 2 inches																							
CLAY: Brown, with roots, A-6																							
SHALEY CLAY: Gray, trace fine sand, A-7 (continued)																							
SHALE: Light gray																							
LOAM: Brown, A-6 (6)																							
SAND: Brown and gray, fine to coarse, with gravel, A-2																							
SHALEY CLAY: Gray, trace fine sand, A-7																							
Boring terminated at 33.9 ft.																							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
STRUCTURE NO. 048-0100**
SHEET NO. 53 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	83
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
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SCI Engineering, Inc.

SOIL BORING LOG

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Date 01/24/13

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 3 LOGGED BY SCI (ART)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM

COUNTY Knox DRILLING METHOD CME 750 Track with 3 1/4 HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	D	B	U	M
048-0100 (Proposed)	1969+15.00	B-104	1968+45	25.0 ft LT	547.7	(ft)	(/6")	(tsf)	(%)	538.8	530.0	(ft)	(/6")	(tsf)	(%)
GRASS COVER - 2 inches										CLAYEY SHALE: Light gray and tan					
CLAY: Brown, A-6															
2										10					
2										23					
4										27					
										SHALE: Light gray					
2										5					
3										18					
3										33					
-5										-26					
SILTY CLAY: Brown, A-6															
1										9					
2										18					
1										32					
										15					
0										42					
1										50/3"					
-10										-30					
										32					
1										50/5"					
1										50/5"					
SAND: Brown, fine, A-3															
With gravel										Becomes dark gray, trace fine sand					
2										513.8					
5										50/5"					
8										-38					
SAND: Brown, fine to coarse, with gravel, A-1															
4															
5															
5															
2															
3															
7										512.3					
527.7										-20					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Page 1 of 1

Date 01/23/13

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 4 LOGGED BY SCI (ART)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM

COUNTY Knox DRILLING METHOD CME 750 Track with 3 1/4 HSA HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	D	B	U	M
048-0100 (Proposed)	1969+15.00	B-105	1969+50	25.0 ft LT	548.7	(ft)	(/6")	(tsf)	(%)	538.8	530.0	(ft)	(/6")	(tsf)	(%)
GRASS COVER - 3 inches										CLAYEY SHALE: Light gray					
SILTY CLAY LOAM: Brown, A-6															
1										6					
2										10					
2										15					
										10					
A-6 (15)										20					
2										34					
-5										-26					
With fine sand lenses										Trace fine sand					
1										10					
3										30					
2										42					
										27					
0										50/6"					
1										32					
-10										-30					
SILTY CLAY: Brown, A-6															
0										19					
1										50/6"					
SILTY CLAY LOAM: Brown, A-6															
0										19					
1										50/6"					
SANDY CLAY LOAM: Brown, A-4															
1										27					
SANDY LOAM: Brown, A-2															
0										50/4"					
2										S/15					
-15										-38					
SAND: Brown, fine to coarse, with gravel, A-2															
4										512.3					
5										50/5"					
4															
5															
7															
5										Boring terminated at 36.4 ft.					
528.7										-20					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



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DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 048-0100

SHEET NO. 54 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	84
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Page 1 of 1

Date 1/18-23/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 5 LOGGED BY SCI (ART)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
COUNTY Knox DRILLING METHOD CME 750 Track with 3 1/4 HSA HAMMER TYPE Automatic

STRUCT. NO. 048-0100 (Proposed) Station 1969+15.00		DELTWCST		Surface Water Elev. 538.8 ft Stream Bed Elev. 530.0 ft		DELTWCST			
BORING NO. B-106 Station 1970+57 Offset 33.0 ft LT Ground Surface Elev. 549.0 ft		(ft)	(/ft)	(tsf)	(%)	(ft)	(/ft)	(tsf)	(%)
GRASS COVER - 3 inches SANDY LOAM: Brown, A-2		548.7				SAND: Brown, fine, A-3 (continued) No sample recovered			
		1		NC	17	6		--	
		1				12			
LOAM: Brown, A-4		546.0				SHALEY CLAY: Light gray			
		1		3.0 P	9	5		>4.5 P	13
		4				19			
		6				28			
		5		4.0 P	13	16		3.3 S/10	12
		9				31			
		7				50/5"			
CLAY: Dark gray, A-6		541.0				Becomes dark gray			
		3		0.7 B	28	5		3.3 S/15	12
		3				19			
		5				42			
SILTY CLAY: Dark gray, A-6		538.5				25		>4.5 P	10
		2		0.7 B	30	50/4.5"			
		1							
		3							
		0		0.2 B	36	50/4"		>4.5 P	15
		1							
		1							
SANDY CLAY LOAM: Brown and dark gray, trace coal, A-6		533.5				CLAYEY SHALE: Light gray, soft, with dark gray sandstone stringers			
		1		0.1 B	26	31		3.0 P	7
		1		NC	26	50/3.5"			
SAND: Brown, fine, A-3		532.0				SHALE: Dark gray, moderately hard, slightly weathered			
		2				Borehole continued with rock coring.			
		5		NC	22	1.5 inch layer of clayey shale			
		7							
With gravel		20							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



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SCI Engineering, Inc.

ROCK CORE LOG

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Date 1/18-23/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 5 LOGGED BY SCI (ART)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
COUNTY Knox CORING METHOD Wire Line

STRUCT. NO. 048-0100 (Proposed) Station 1969+15.00		CORE BARREL TYPE & SIZE		RECOVERED		CORE		STRENGTH		MOISTURE	
BORING NO. B-106 Station 1970+57 Offset 33.0 ft LT Ground Surface Elev. 549.0 ft		Split Barrel, NX		(ft)	(#)	(%)	(%)(min/ft)	(tsf)	(%)	(ft)	(%)
SHAPE: Dark gray, moderately hard, slightly weathered (continued)				1	88	75	0.7				
COAL: Black, sub-bituminous to bituminous, trace pyrite stringers				2	100	56	1				
INTERMIXED ARGILLACEOUS SANDSTONE AND SHALE: Light gray, soft to moderately soft, moderately to highly weathered, rare coal stringer								18.6	5.2		
ARGILLACEOUS SANDSTONE: Light gray, fine, moderately hard, slightly weathered				3	100	75	0.8				
SHAPE: Dark gray, moderately hard, moderately to slightly weathered				4	100	88	0.4				
				5	100	100	0.8			48.0	7.8
COAL: Black, bituminous to anthracite				6	96	75	0.8				
SANDY SHALE: Gray, moderately soft, slightly weathered											
SHAPE: Light gray and gray, soft to moderately soft, moderately weathered, trace gravel				7	83	83	0.7			14.3	7.3

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, form 138 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

ROCK CORE LOG

Page 2 of 2

Date 1/18-23/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 5 LOGGED BY SCI (ART)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
COUNTY Knox CORING METHOD Wire Line

STRUCT. NO. 048-0100 (Proposed) Station 1969+15.00		CORE BARREL TYPE & SIZE		RECOVERED		CORE		STRENGTH		MOISTURE	
BORING NO. B-106 Station 1970+57 Offset 33.0 ft LT Ground Surface Elev. 549.0 ft		Split Barrel, NX		(ft)	(#)	(%)	(%)(min/ft)	(tsf)	(%)	(ft)	(%)
Boring terminated at 58.7 ft.				490.3							

Color pictures of the cores Yes
Cores will be stored for examination until
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938) BBS, form 138 (Rev. 8-99)



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 048-0100

SHEET NO. 55 OF 62 SHEETS

F.A.P. RTE. 626	SECTION (44-B-1)BR	COUNTY KNOX	TOTAL SHEETS 122	SHEET NO. 85
			CONTRACT NO. 68759	
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

ROCK CORE LOG

Page 1 of 2

Date 1/16-17/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 6 LOGGED BY SCI (HHF)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
Northing Easting

COUNTY Knox CORING METHOD Wire Line

STRUCT. NO. 048-0100 (Proposed) CORING BARREL TYPE & SIZE Split Barrel, NX
Station 1969+15.00
BORING NO. B-107 Core Diameter 2 in
Station 1972+96 Top of Rock Elev. 521.4 ft
Offset 15.0 ft LT Begin Core Elev. 515.4 ft
Ground Surface Elev. 559.4 ft

DEPTH (ft)	COVER (%)	RECOVERY (%)	Q (%)	TI (min/ft)	REMARKS	STRENGTH (tsf)	MOISTURE (%)
515.4	100	83	0.7		INTERBEDDED SANDSTONE AND SHALE: Banded light and dark gray, moderately hard, slightly weathered, trace fossils		
49.0						6.9	
510.4	2	100	46	0.8	SHALE: Dark gray, moderately soft, slightly weathered, fossiliferous		
509.4					COAL: Black, bituminous to anthracite	24.0	9
507.9					SHALE with ARGILLACEOUS SANDSTONE: Light gray, moderately soft, moderately weathered		
505.9	3	100	50	0.3	INTERMIXED ARGILLACEOUS SANDSTONE AND SHALE: Light gray, moderately hard to hard, moderately to slightly weathered, rare coal stringer		
503.1	4	100	92	0.5		59.1	5.9
					SHALE: Black, moderately soft, moderately weathered		
	5	94	96	0.8	1/4 inch clayey shale seam		
					1/2 inch clayey shale seam		
						21.8	8.0
	6	100	88	0.8	1/2 inch clayey shale seam		

Color pictures of the cores Yes
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

ROCK CORE LOG

Page 2 of 2

Date 1/16-17/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 6 LOGGED BY SCI (HHF)

SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
Northing Easting

COUNTY Knox CORING METHOD Wire Line

STRUCT. NO. 048-0100 (Proposed) CORING BARREL TYPE & SIZE Split Barrel, NX
Station 1969+15.00
BORING NO. B-107 Core Diameter 2 in
Station 1972+96 Top of Rock Elev. 521.4 ft
Offset 15.0 ft LT Begin Core Elev. 515.4 ft
Ground Surface Elev. 559.4 ft

DEPTH (ft)	COVER (%)	RECOVERY (%)	Q (%)	TI (min/ft)	REMARKS	STRENGTH (tsf)	MOISTURE (%)
494.8					SHALE: Black, moderately soft, moderately weathered (continued)		
					Boring terminated at 64.5 ft.		

Color pictures of the cores Yes
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 048-0100
SHEET NO. 57 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	87
CONTRACT NO. 68759			ILLINOIS FED. AID PROJECT	



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Page 1 of 2

Date 1/14-15/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed North Abutment LOGGED BY SCI (HHF)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
COUNTY Knox DRILLING METHOD CME 750 Track w/ 3 1/4 HSA & M.R. HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 20 Hrs.	D	B	U	M
048-0100 (Proposed)	1969+15.00	B-108	1973+62.5	16.5 ft LT	559.2	(ft)	(/6")	(tsf)	(%)	538.8	530.0	534.7	ft	ft	ft	(ft)	(/6")	(tsf)	(%)
ASPHALT - 10 inches																			
FILL: Dark brown clay loam, A-6																			
Fine sand lens																			
SANDY LOAM: Brown, trace gravel, A-2																			
FILL: Dark gray, loam, A-6																			
SAND: Gray and brown, trace gravel, A-2 Large rock wedged in sampler																			
FILL: Dark gray, loam, A-6																			
CLAY LOAM: Dark brown, A-6																			
SILTY CLAY LOAM: Dark brown, A-6																			
CLAY: Dark brown, A-6																			
SILTY CLAY LOAM: Dark brown, A-6																			
CLAY: Dark brown, A-6																			
SILTY CLAY LOAM: Dark brown, A-6																			
Becomes dark gray																			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Page 2 of 2

Date 1/14-15/2013

ROUTE F.A.P. 626 DESCRIPTION Illinois 97 over Spoon River, Proposed North Abutment LOGGED BY SCI (HHF)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM
COUNTY Knox DRILLING METHOD CME 750 Track w/ 3 1/4 HSA & M.R. HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After 20 Hrs.	D	B	U	M
048-0100 (Proposed)	1969+15.00	B-108	1973+62.5	16.5 ft LT	559.2	(ft)	(/6")	(tsf)	(%)	538.8	530.0	534.7	ft	ft	ft	(ft)	(/6")	(tsf)	(%)
CLAYEY SHALE: Light gray (continued)																			
Harder drilling observed																			
SHALE: Dark gray, trace fine sand																			
Boring terminated at 48.9 ft.																			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)



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PLOT DATE =	CHECKED -	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS
STRUCTURE NO. 048-0100**

SHEET NO. 58 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	88
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Date 5/20-22/2013

ROUTE FAP 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 6 LOGGED BY SCI (HHF)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM,
Latitude, Longitude
COUNTY Knox DRILLING METHOD CME 550 Track w/ 3" Casing & M.R. HAMMER TYPE Manual

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	N/A	Hrs.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	N/A	Hrs.
048-0100 (Proposed)	1969+15.00	B-107X	1972+72	15.0 ft RT	559.4	(ft)	(/6")	(tsf)	(%)	538.8	530.0	N/A	N/A	N/A	N/A			(ft)	(/6")	(tsf)	(%)	538.8	530.0	N/A	N/A	N/A	N/A		
ASPHALT - 1.75 inches										Began mud rotary drilling																			
REINFORCED CONCRETE - 7.5 inches																													
Open air below bridge deck																													
Existing ground surface																													
No soil sampling performed.																													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BSS, form 137 (Rev. 8-99)



Illinois Department of Transportation
Division of Highways
SCI Engineering, Inc.

SOIL BORING LOG

Date 5/20-22/2013

ROUTE FAP 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 6 LOGGED BY SCI (HHF)
SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM,
Latitude, Longitude
COUNTY Knox DRILLING METHOD CME 550 Track w/ 3" Casing & M.R. HAMMER TYPE Manual

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	N/A	Hrs.	D	B	U	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	N/A	Hrs.
048-0100 (Proposed)	1969+15.00	B-107X	1972+72	15.0 ft RT	559.4	(ft)	(/6")	(tsf)	(%)	538.8	530.0	N/A	N/A	N/A	N/A			(ft)	(/6")	(tsf)	(%)	538.8	530.0	N/A	N/A	N/A	N/A		
Mud rotary drilling																													
Borehole continued with rock coring.																													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
AASHTO Classifications are based on visual classifications unless otherwise noted BSS, form 137 (Rev. 8-99)



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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
STRUCTURE NO. 048-0100

SHEET NO. 61 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	91
CONTRACT NO. 68759				

ILLINOIS FED. AID PROJECT



ROCK CORE LOG

Date 5/20-22/2013

ROUTE FAP 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 6 LOGGED BY SCI (HHF)
 SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM,
 COUNTY Knox CORING METHOD Wire Line

STRUCT. NO.	STATION	CORING BARREL TYPE & SIZE	DEPTH (ft)	RECOVERY (%)	RECOVERED Q (%)	CORE TIME (min/ft)	STRENGTH (tsf)	MOISTURE (%)
048-0100 (Proposed)	1969+15.00	Solid Barrel, NX						
BORING NO. B-107X	Station 1972+72	Core Diameter 2 in						
	Offset 15.0 ft RT	Top of Rock Elev. 514.7 ft						
	Ground Surface Elev. 559.4 ft	Begin Core Elev. 514.7 ft						
SANDSTONE: Black and light gray, banded, fine grained, moderately hard, slightly weathered			514.7	1	100	14	4.1	10
SHALE: Dark gray, moderately soft, with thin shaley clay seams			512.3	2	93	42	4.7	
COAL: Black, bituminous to anthracite			508.9					14
ARGILLACEOUS SANDSTONE: Light gray, fine grained, moderately hard, slightly weathered, with shale seams			507.8					18
0.5 inch clay seam								5
0.3 inch clay seam							42.6	5
SHALE: Dark gray, moderately hard			502.4	3	98	15	4.6	12
COAL: Black, bituminous to anthracite			495.6					15
SHALE: Light gray, moderately hard			494.7					13
SHALE: Light gray, moderately hard			494.7					12
SHALE: Light gray, moderately hard			494.7					5

Color pictures of the cores Yes
 Cores will be stored for examination until _____
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)



ROCK CORE LOG

Date 5/20-22/2013

ROUTE FAP 626 DESCRIPTION Illinois 97 over Spoon River, Proposed Pier 6 LOGGED BY SCI (HHF)
 SECTION (44-B-1)BR LOCATION NW 1/4, SEC. 10, TWP. 9N, RNG. 3E, 4th PM,
 COUNTY Knox CORING METHOD Wire Line

STRUCT. NO.	STATION	CORING BARREL TYPE & SIZE	DEPTH (ft)	RECOVERY (%)	RECOVERED Q (%)	CORE TIME (min/ft)	STRENGTH (tsf)	MOISTURE (%)
048-0100 (Proposed)	1969+15.00	Solid Barrel, NX						
BORING NO. B-107X	Station 1972+72	Core Diameter 2 in						
	Offset 15.0 ft RT	Top of Rock Elev. 514.7 ft						
	Ground Surface Elev. 559.4 ft	Begin Core Elev. 514.7 ft						
CLAYEY SHALE: Light gray, soft								13
Becomes moderately hard			492.4					
ARGILLACEOUS SANDSTONE: Light gray, fine grained, moderately hard, moderately weathered			488.7	4	62	21	6.9	
S-SHALEY CLAY: Gray			487.9					12
ARGILLACEOUS SANDSTONE: Light gray, fine grained, moderately hard, moderately weathered			487.2					6
S-SHALEY CLAY: Gray								16
CLAYEY SHALE: Dark gray, moderately soft			483.6					1.8
SILTSTONE: Dark gray, moderately soft, slightly to moderately weathered			482.2	5	100	37	3.6	6
0.5 inch clay seam								
Becomes laminated with fine sandstone stringers								8
SANDSTONE: Light gray, fine grained, moderately hard, slightly weathered			478.3					
S-SHALE: Dark gray, moderately hard			477.4					7
SHALE: Dark gray, moderately hard			474.7					6

Boring terminated at 84.7 ft.
 Color pictures of the cores Yes
 Cores will be stored for examination until _____
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
 BBS, form 138 (Rev. 8-99)

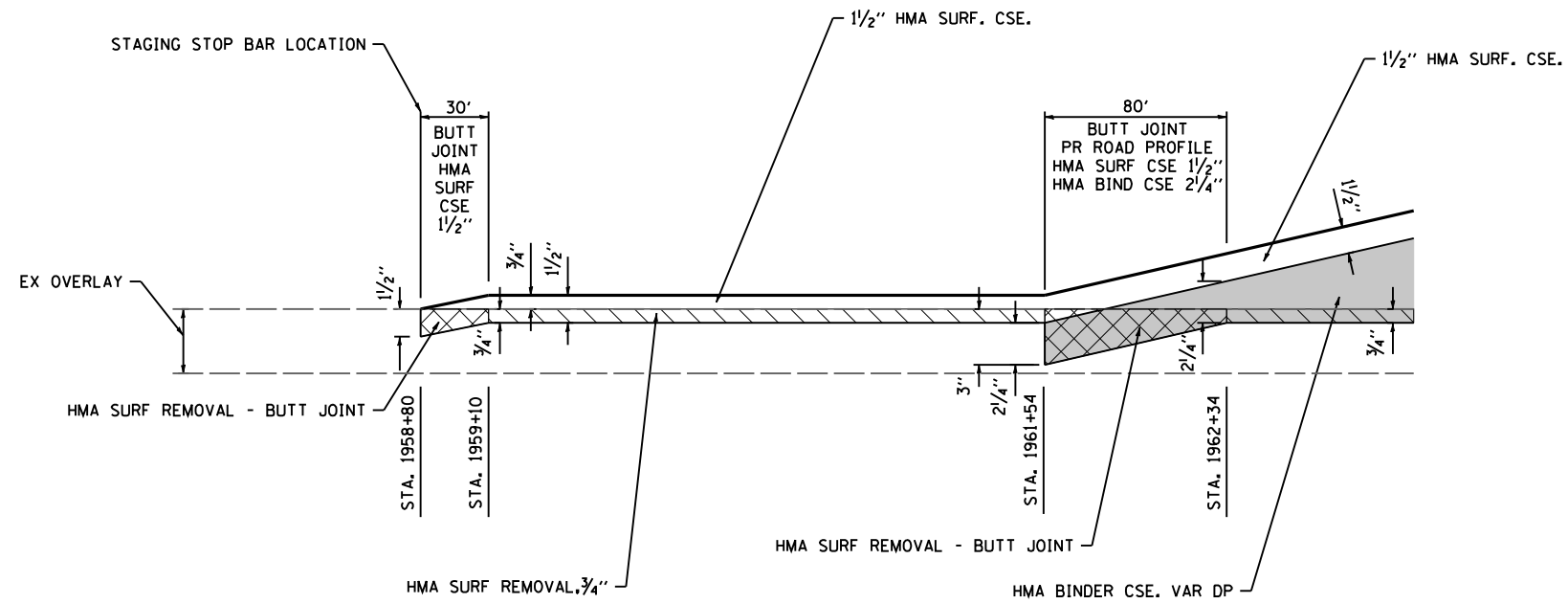


USER NAME =	DESIGNED -	REVISED
	CHECKED -	REVISED
PLOT SCALE =	DRAWN -	REVISED
PLOT DATE =	CHECKED -	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
 STRUCTURE NO. 048-0100
 SHEET NO. 62 OF 62 SHEETS




F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1)BR	KNOX	122	92
CONTRACT NO. 68759				

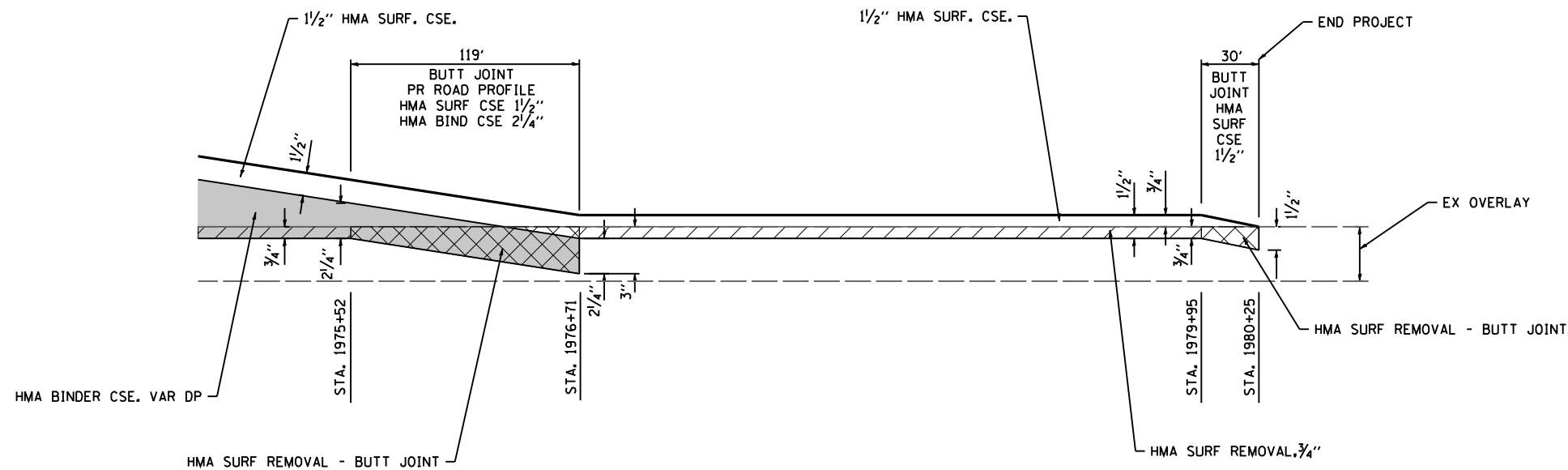


HMA PAVEMENT THICKNESS TAPER DETAIL – SOUTH OF BRIDGE

NOT TO SCALE

LEGEND

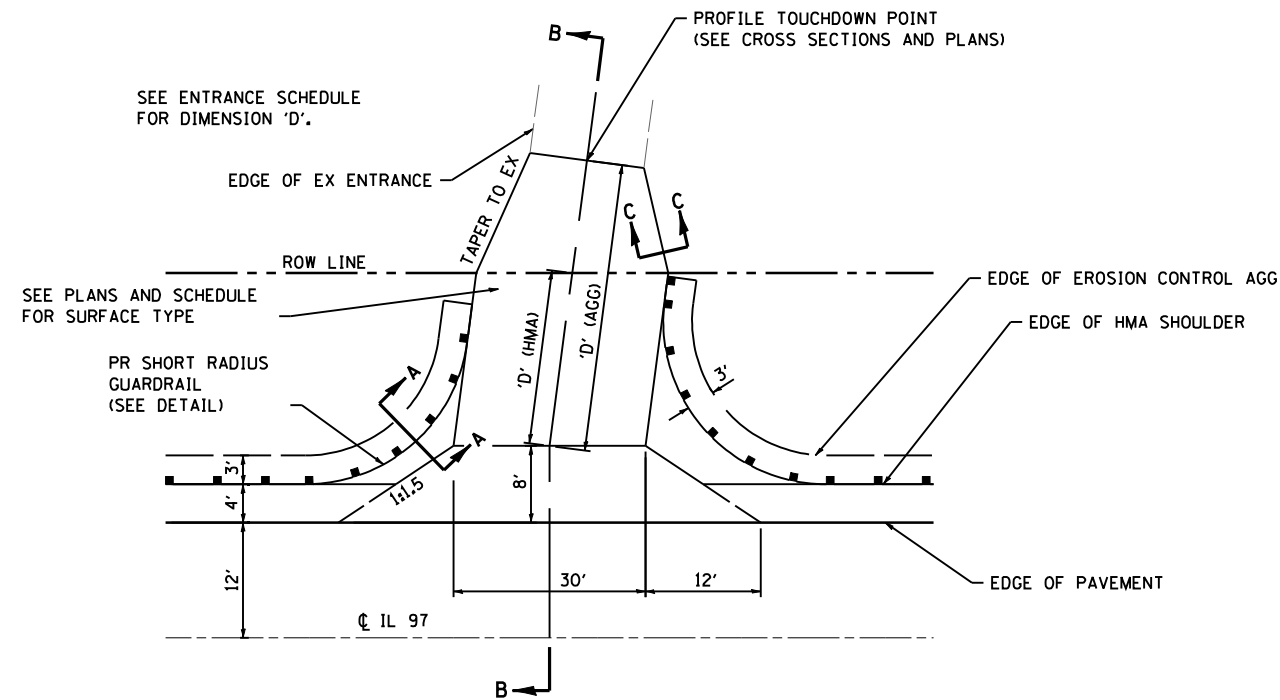
-  HMA SURFACE REMOVAL BUTT JOINT
-  HMA SURFACE REMOVAL, 3/4"
-  HMA BINDER COURSE



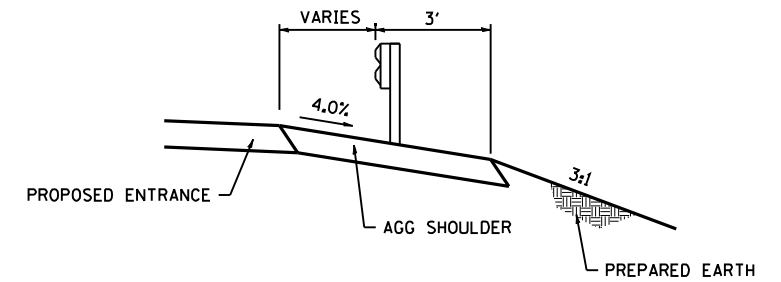
HMA PAVEMENT THICKNESS TAPER DETAIL – NORTH OF BRIDGE

NOT TO SCALE

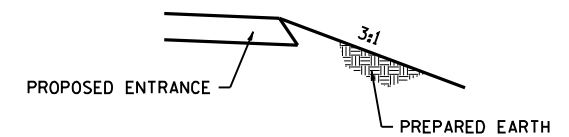
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	PLOT TIME = 8:52:37 AM	DRAWN - RGV	REVISED -					626	(44-B-1) BR	KNOX	122	93
	PLOT SCALE = 100.0000' / IN.	CHECKED - BPS	REVISED -		SCALE:	SHEET 1 OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 68759			
	PLOT DATE = 8/9/2013	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



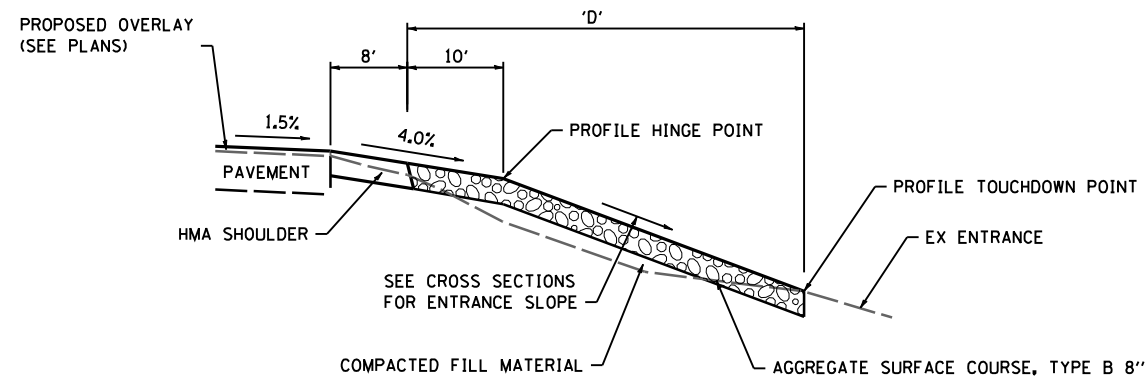
PLAN AT FIELD ENTRANCES
NOT TO SCALE



SECTION A-A
NOT TO SCALE
SHOULDER TREATMENT FOR RURAL ENTRANCES

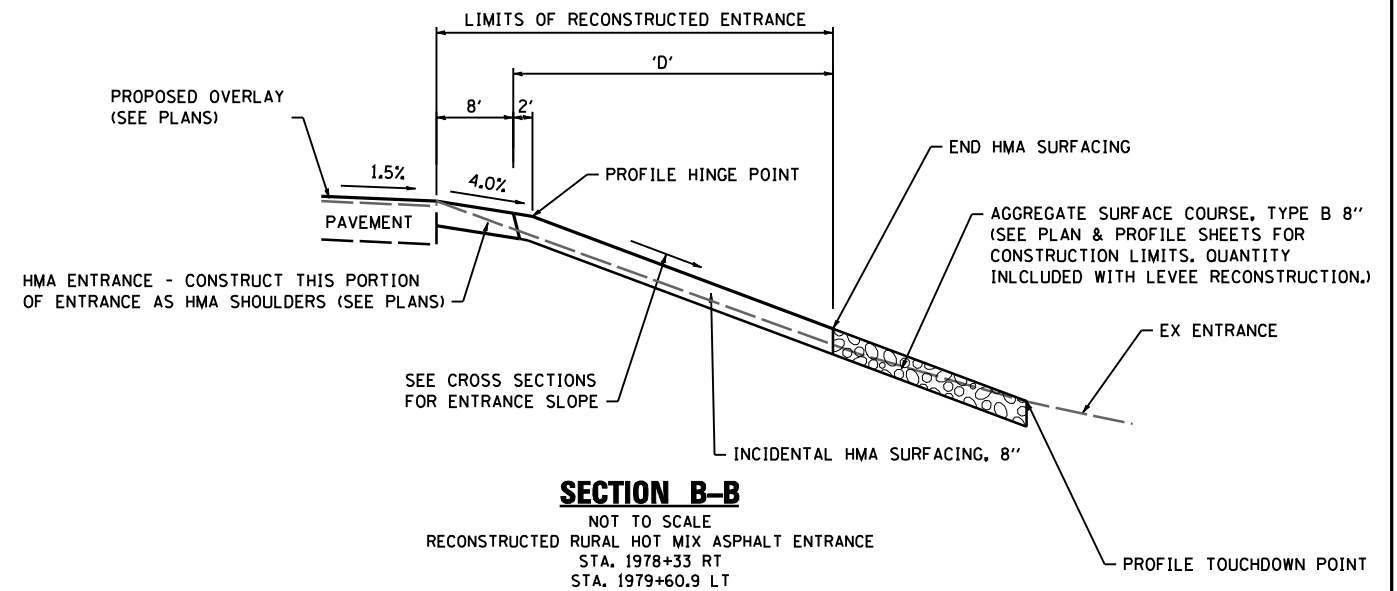


SECTION C-C
NOT TO SCALE
SHOULDER TREATMENT FOR RURAL ENTRANCES



SECTION B-B
NOT TO SCALE
RECONSTRUCTED RURAL AGGREGATE ENTRANCE
STA. 1962+91.3 RT
STA. 1963+18.7 LT

SEE ENTRANCE SCHEDULE FOR DIMENSION 'D'.



SECTION B-B
NOT TO SCALE
RECONSTRUCTED RURAL HOT MIX ASPHALT ENTRANCE
STA. 1978+33 RT
STA. 1979+60.9 LT

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PLOT SCALE = 100.0000' / IN.
PLOT DATE = 8/9/2013

DESIGNED - RGV
DRAWN - RGV
CHECKED - BPS
DATE -

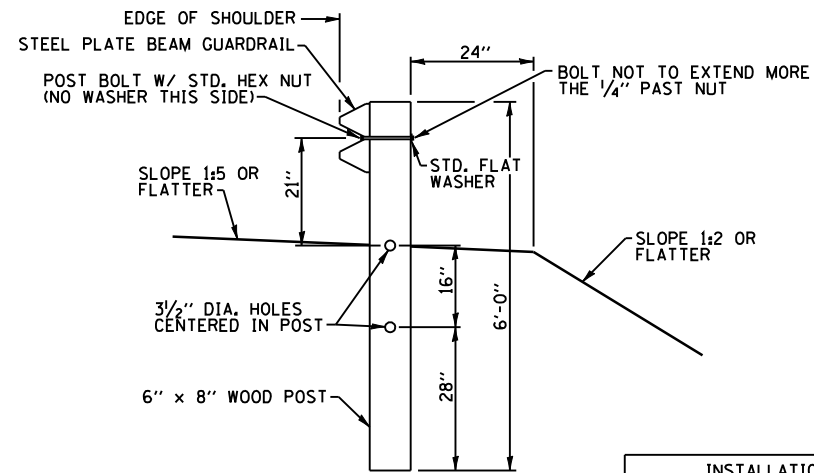
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION DETAILS

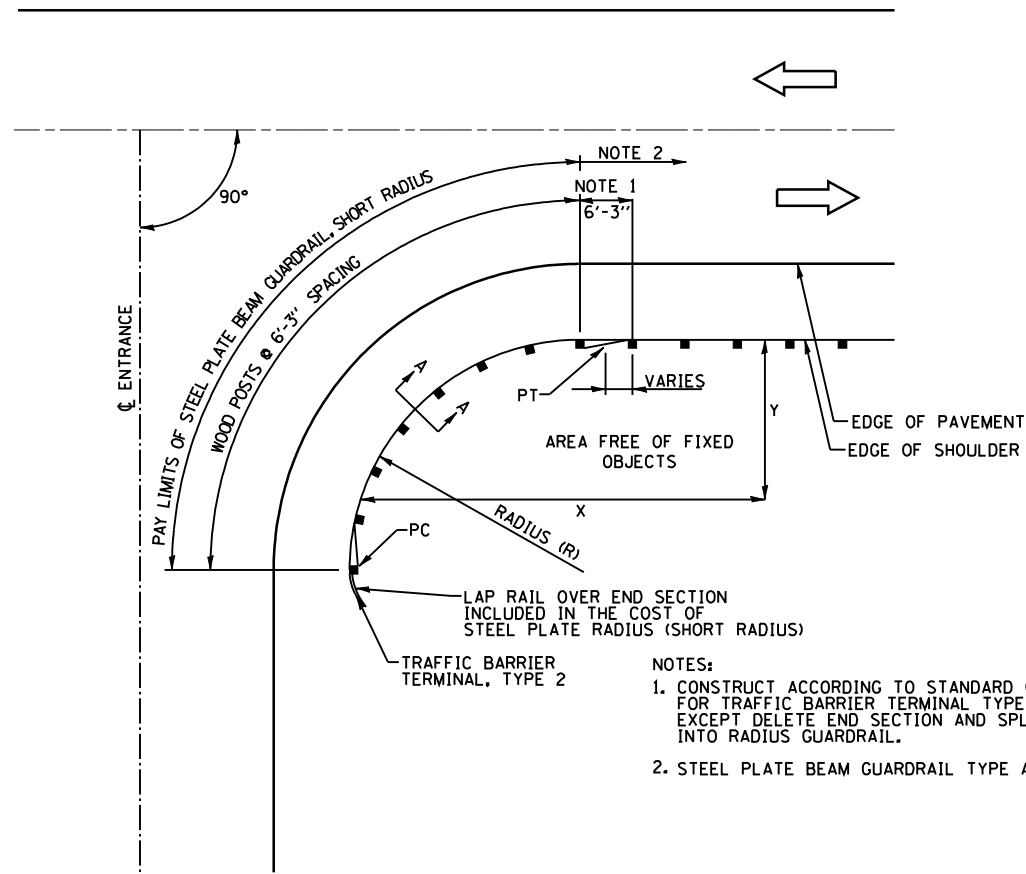
SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	94
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



SECTION A-A
NOT TO SCALE

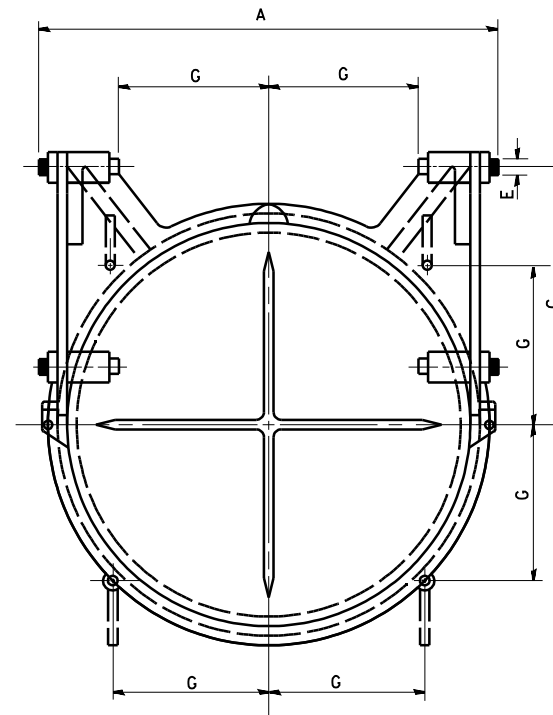
INSTALLATION CHARACTERISTICS PER DESIGN RADIUS			
R	NO. OF WOOD POSTS	X	Y
17'-0"	6	30'	15'



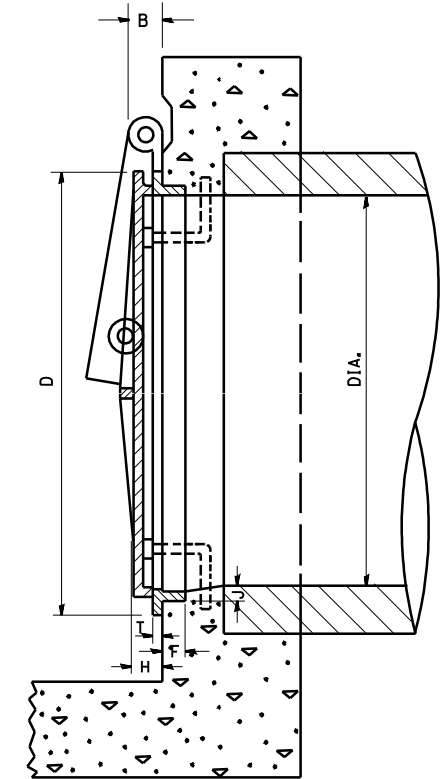
PLAN VIEW
NOT TO SCALE

STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)
NOT TO SCALE

- NOTES:
- CONSTRUCT ACCORDING TO STANDARD 631011 FOR TRAFFIC BARRIER TERMINAL TYPE 2, EXCEPT DELETE END SECTION AND SPLICE INTO RADIUS GUARDRAIL.
 - STEEL PLATE BEAM GUARDRAIL TYPE A.



FRONT ELEVATION



SECTION

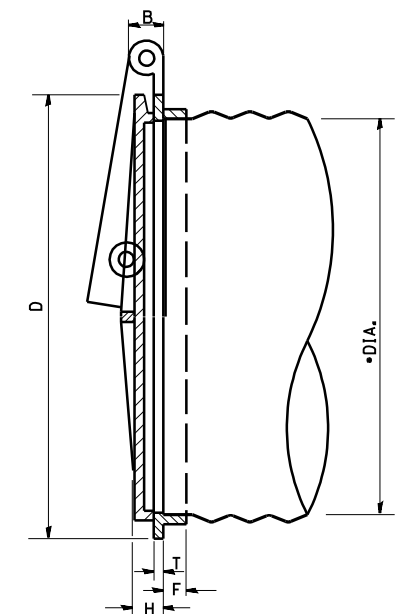
IT IS INTENDED THAT THE AUTOMATIC FLAP GATES SHALL BE A COMMERCIAL PRODUCT BY A RELIABLE MANUFACTURER. THE GATE MAY BE MADE OF CAST IRON, CAST STEEL OR OTHER SUITABLE MATERIAL. THE DESIGN MAY DIFFER FROM THE DRAWING IF IT WILL WORK IN A SATISFACTORY, TROUBLE FREE MANNER AND WILL WITHSTAND THE WATER PRESURE AT THE INSTALLATION LOCATION.

THE SIZE OF AUTOMATIC FLAP GATES SHALL REFER TO THE DIAMETER OF THE OUTLET PIPE OR OPENING.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR FLAP GATES OF THE SIZE SPECIFIED AND SHALL INCLUDE ALL MATERIALS AND COMPLETE INSTALLATION.

TABLE OF DIMENSIONS

DIA.	A	B	C	D	E	F	G	H	J	T
8	10 3/4	1 3/8	5 1/16	10	1/2	1 1/8	3 3/16	1 1/4	3/8	3/8
10	12 3/4	1 3/8	7 1/8	12 1/4	1/2	1 1/8	4 3/8	1 1/2	1/2	1/16
12	14 3/4	1 3/8	8 1/2	14 1/2	1/2	1 1/8	5 5/8	1 1/2	1/2	1/2
14	17 1/4	1 3/8	9 7/8	16 3/4	1/2	1 1/4	5 5/8	1 1/2	1/2	3/16
15	17 3/4	1 3/8	10 5/8	17 3/4	1/2	1 1/4	6 1/4	1 1/2	1/2	3/16
16	19 1/4	1 3/8	11 1/4	18 3/4	1/2	1 1/4	6 5/8	1 1/2	1/2	3/16
18	22 1/4	2	12 5/8	21	3/4	1 3/8	7 1/16	1 3/4	5/8	3/16
20	24 3/4	2	14 1/8	23 3/4	3/4	1 3/8	8 1/4	1 3/4	5/8	5/8
21	25 1/4	2	14 7/8	24 1/4	3/4	1 3/8	8 3/16	1 3/4	5/8	5/8
24	28 1/4	2	17	27 1/2	3/4	1 1/2	9 3/4	1 3/4	5/8	5/8
30	35 1/4	2 1/2	20 1/2	34	1	1 3/8	12	2	1 1/16	5/8
36	41 1/2	2 1/2	25	40 3/8	1	2 1/16	14 3/16	2 1/4	1 1/8	1 1/16
42	47 1/2	2 1/2	29 3/4	47	1	2 5/16	16 5/8	2 1/4	1 1/8	3/4
48	53 1/2	2 1/2	34	54	1	2 3/4	19 1/16	2 1/4	1 3/8	3/4
54	60 3/4	2 1/2	38	62 1/4	1 1/4	2 3/4	22	3	1 1/2	7/8
60	67	2 1/2	42	68 1/2	1 1/4	2 3/4	24 1/4	3	1 1/2	1 5/16
66	73 3/8	2 1/2	47	75	1 1/4	2 7/8	26 1/2	3	1 1/2	1
72	79	2 1/2	51	82	1 1/4	3	29	3	1 1/2	1
78	86	2 1/2	55 1/4	88 3/4	1 1/4	3 1/2	31 3/8	3	1 5/8	1 1/8
84	92 1/2	3 1/2	59 1/2	95 1/2	1 1/2	3 1/2	33 3/4	3	1 3/4	1 1/4



SECTION SHOWING METHOD OF APPLICATION TO CORRUGATED METAL PIPE

FLAP GATES
NOT TO SCALE

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D468759-sht-details.dgn

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PLOT SCALE = 100.0000 / IN.
PLOT DATE = 8/9/2013

DESIGNED - RGV
DRAWN - RGV
CHECKED - BPS
DATE -

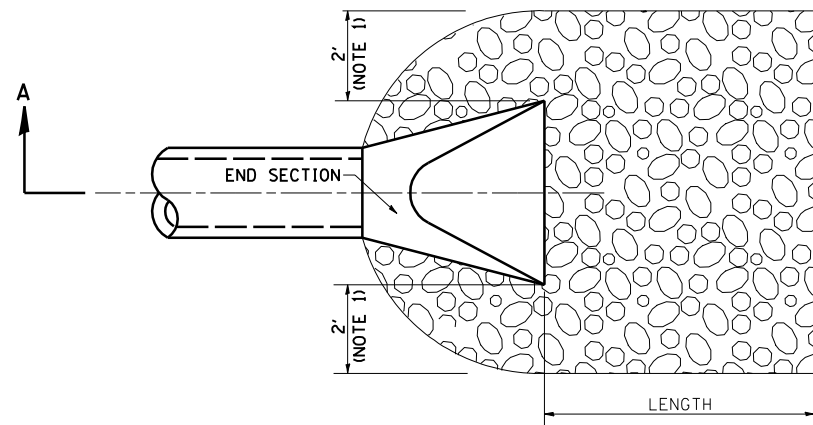
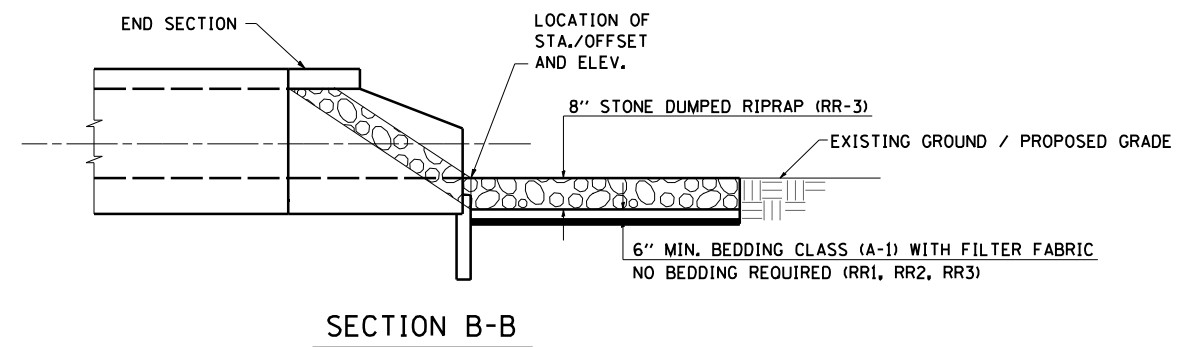
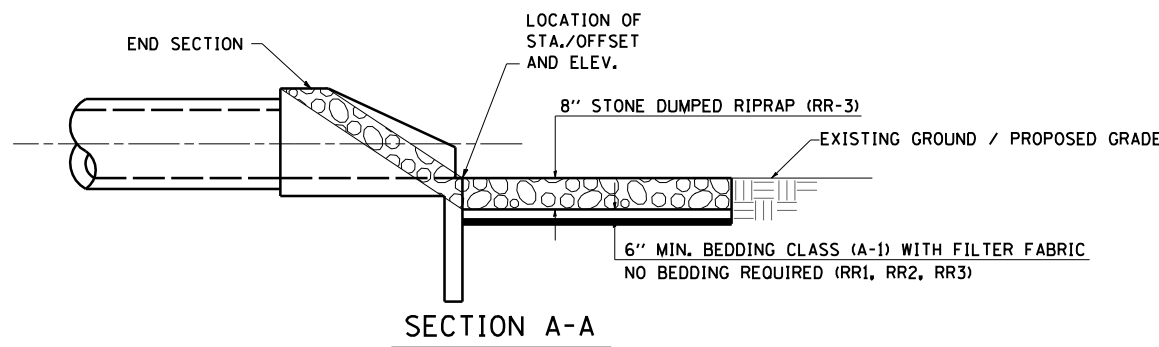
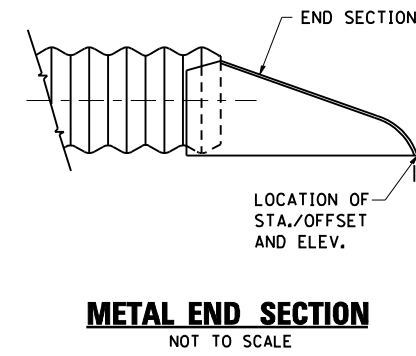
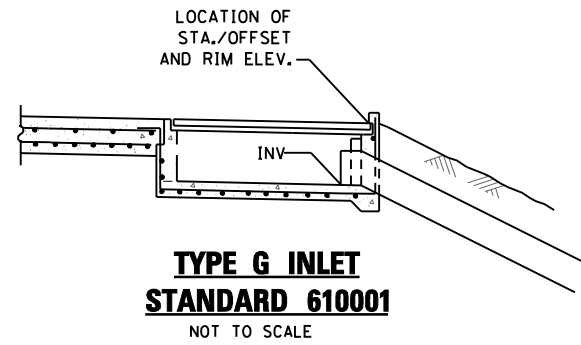
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REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION DETAILS

SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.

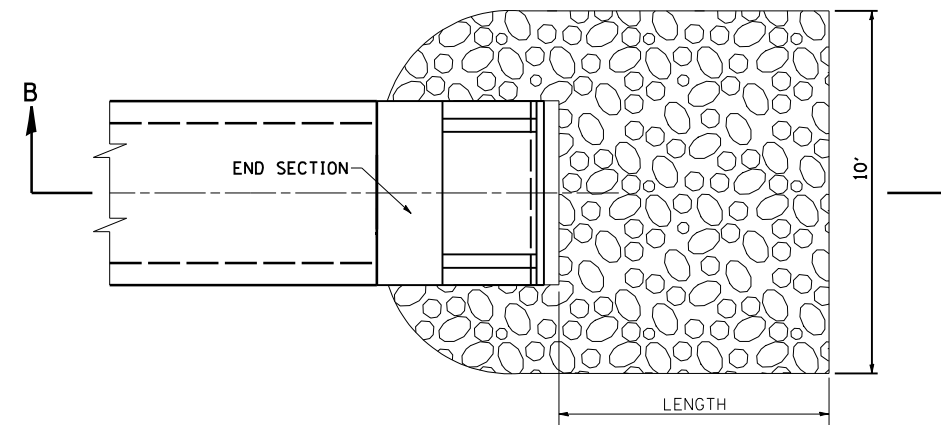
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	95
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				



NOTE 1: USE 2' BEYOND THE END SECTION FOR 12" PIPES. SEE EROSION CONTROL PLANS FOR WIDTHS FOR ALL OTHER PIPE SIZES.

PIPE CULVERT

SEE CROSS SECTIONS AND EROSION CONTROL PLANS FOR LENGTH OF PROTECTION



BOX CULVERT

SEE EROSION CONTROL PLANS FOR LENGTH OF PROTECTION

TYPICAL RIPRAP DETAIL
NOT TO SCALE

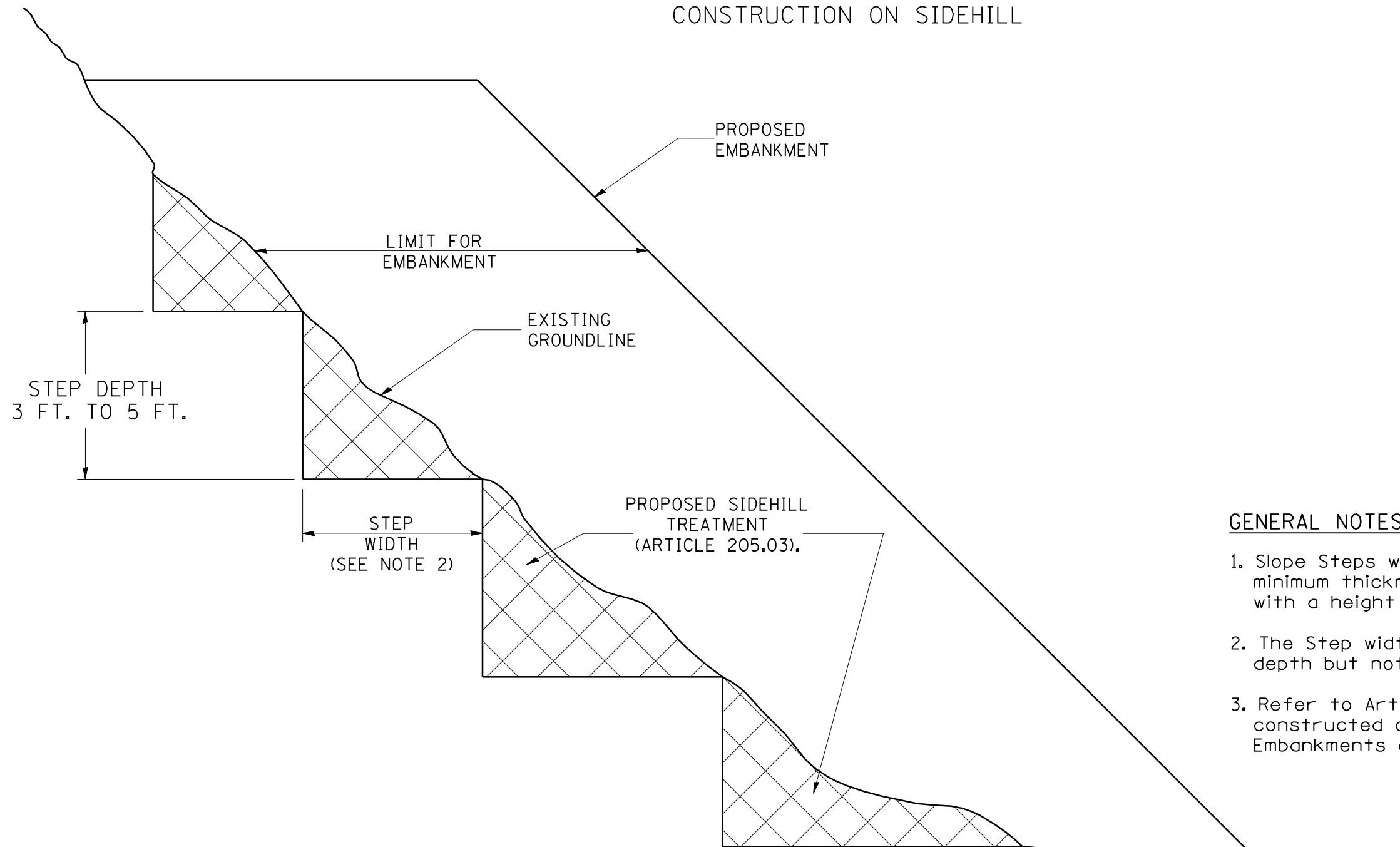
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	PLOT DATE = 8/9/2013	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CONSTRUCTION DETAILS			
SCALE:	SHEET 4	OF 4 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	96
CONTRACT NO. 68759				
ILLINOIS FED. AID PROJECT				

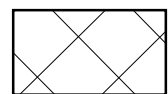
SLOPE STEPS DETAIL
TYPICAL CROSS-SECTION EMBANKMENT
CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

1. Slope Steps will be required for all 12" minimum thickness "sliver fills" and on fills with a height of 10'(3.0m).
2. The Step width shall be twice the Step depth but not less than 6 feet.
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

REPLACEMENT MATERIAL:



STANDARD EMBANKMENT
 (IN ACCORDANCE WITH
 205 OF THE STANDARD SPECIFICATION).

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

1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

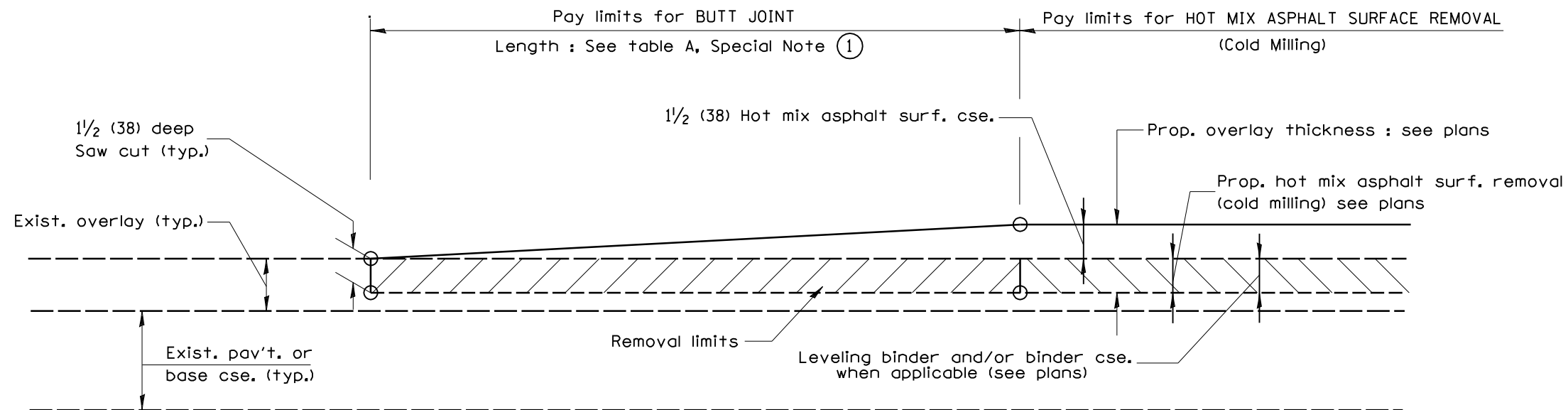
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOT TO SCALE

DISTRICT 4 STANDARDS
SLOPE STEPS DETAIL

CADD STD. 205001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	97
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68759	



CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

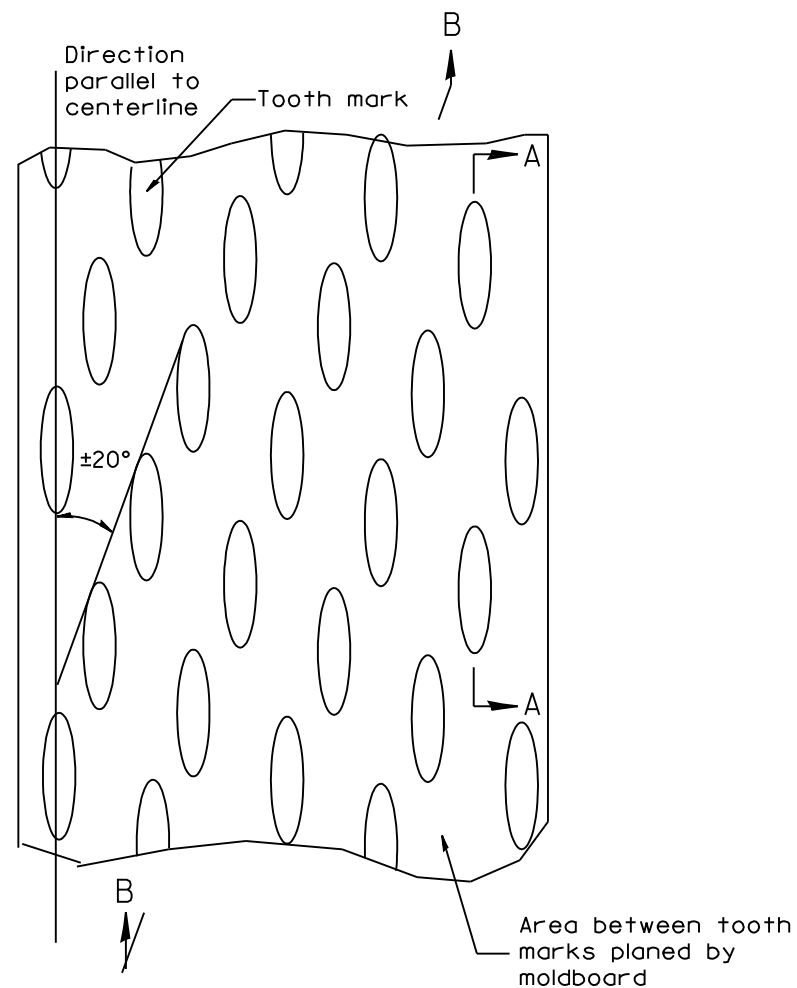
TABLE A
(LENGTHS AND TAPER RATES)

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	LENGTH OF BUTT JOINT	60'(18.0 m)	30'(9.0 m)
②	PERMANENT TAPER RATE	1:480	1:240
③	TEMPORARY RAMP TAPER RATE	1:80	1:40
④	TEMPORARY RAMP LENGTH	10'(3.0 m)	5'(1.5 m)
⑤	LENGTH OF BUTT JOINT	10'(3.0 m)	10'(3.0 m)

GENERAL NOTES

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.

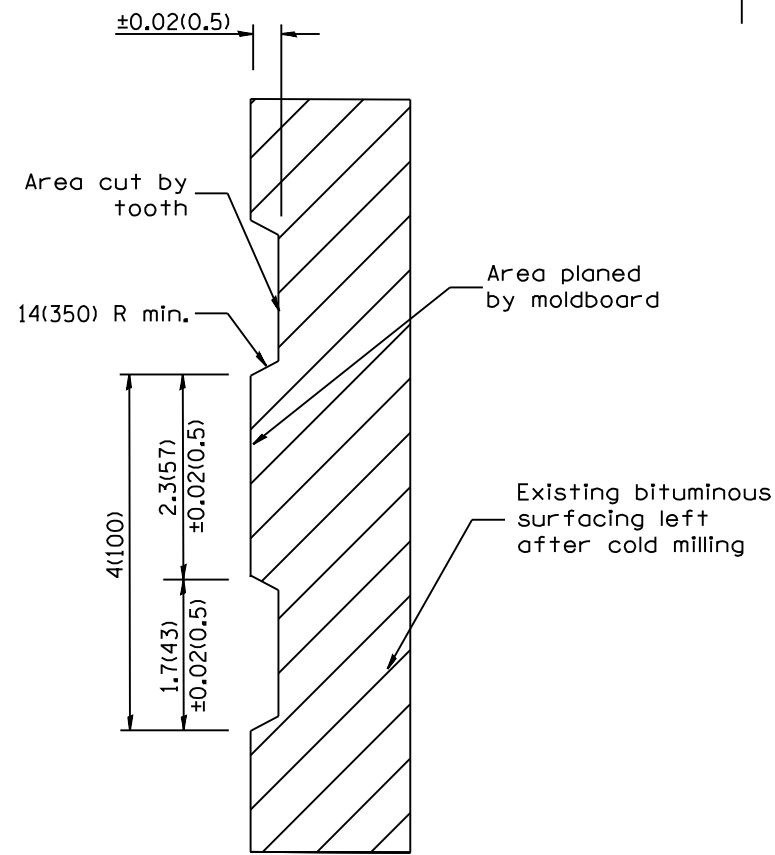
(MODIFIED)
All dimensions are in inches (millimeters) unless otherwise noted.



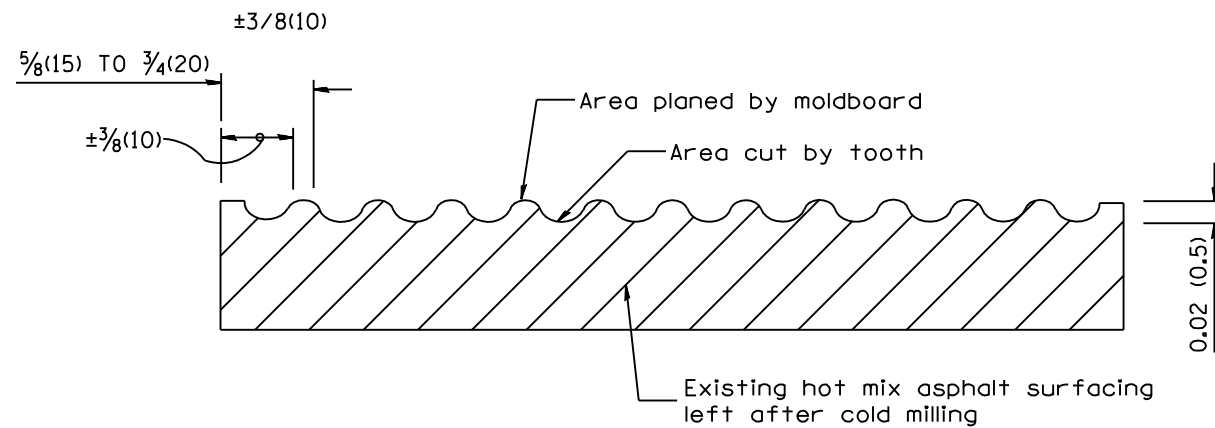
PLAN

General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.



SECTION A-A



SECTION B-B PROJECTED
PERPENDICULAR TO CENTERLINE

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

01-01-97	RENUM. C-104.01, NEW REVISION BOX	T.P.
04-20-98	REMOVED MILLING DETAIL FROM STANDARD	J.A.
09-08-98	CORRECT NOTE LEADER PLACEMENT	R.W.
10-16-06	REVISED TO 2007 SPEC.	M.A.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 4 STANDARDS
HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
NOT TO SCALE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
626	(44-B-1) BR	KNOX	122	99
CONTRACT NO. 68759				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

CADD STD. 440001-D4

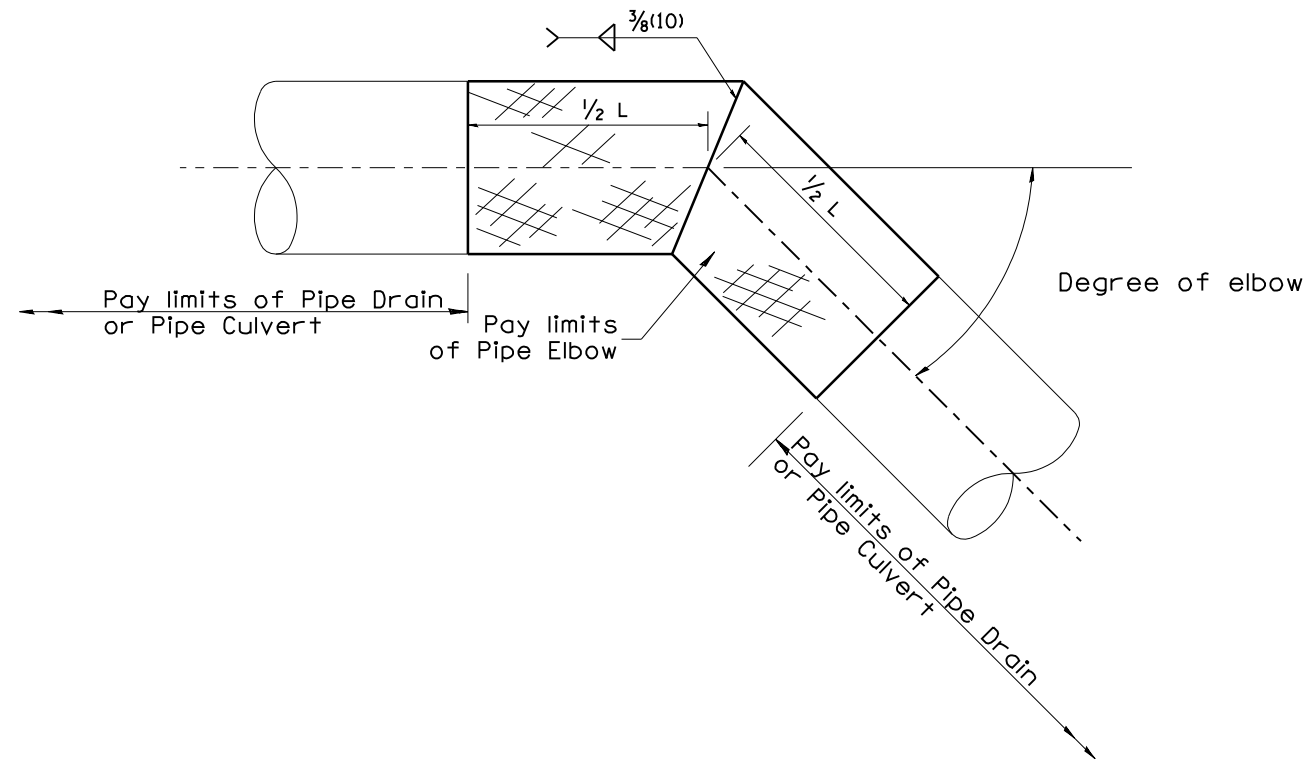
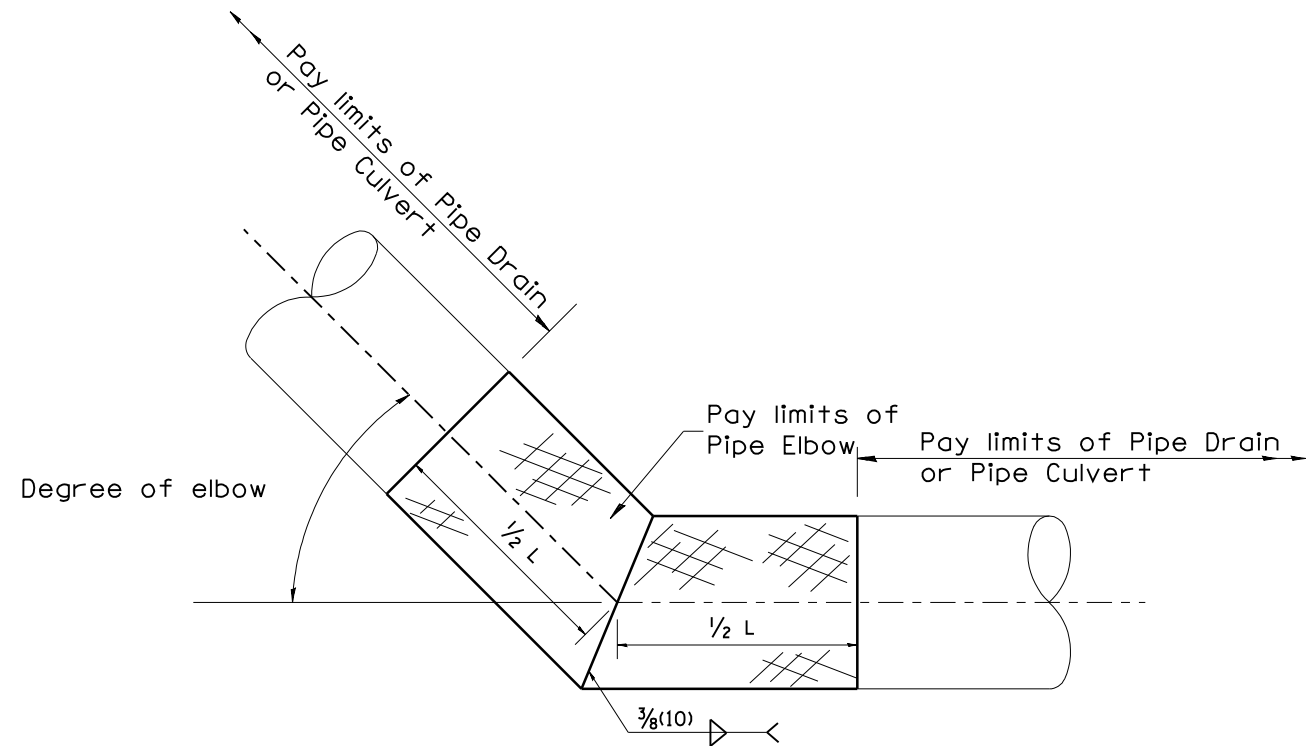


TABLE A		
ELBOW DESIGN CONTROLS		
PIPE DIAMETER	L = Pay limits of Pipe Elbow and minimum length of pipe required for fabrication	
	DEGREE OF ELBOW ≤ 45°	DEGREE OF ELBOW ≥ 46°
12(300)	24(600)	4'(1.22M)
15(375)	24(600)	4'(1.22M)
18(450)	24(600)	4'(1.22M)
21(525)	24(600)	4'(1.22M)
24(600)	4'(1.22M)	4'(1.22M)
30(750)	4'(1.22M)	6'(1.83M)
36(900)	4'(1.22M)	6'(1.83M)

TABLE B	
ELBOW DESIGN CONTROLS	
EARTH SLOPE (V:H)	DEGREE OF ELBOW *
1:6	9°
1:4	14°
1:3	18°
1:2	26°
1:1 1/2	33°

* Approximate - based upon 0.5% inlet and outlet flowlines.



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