

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	01
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

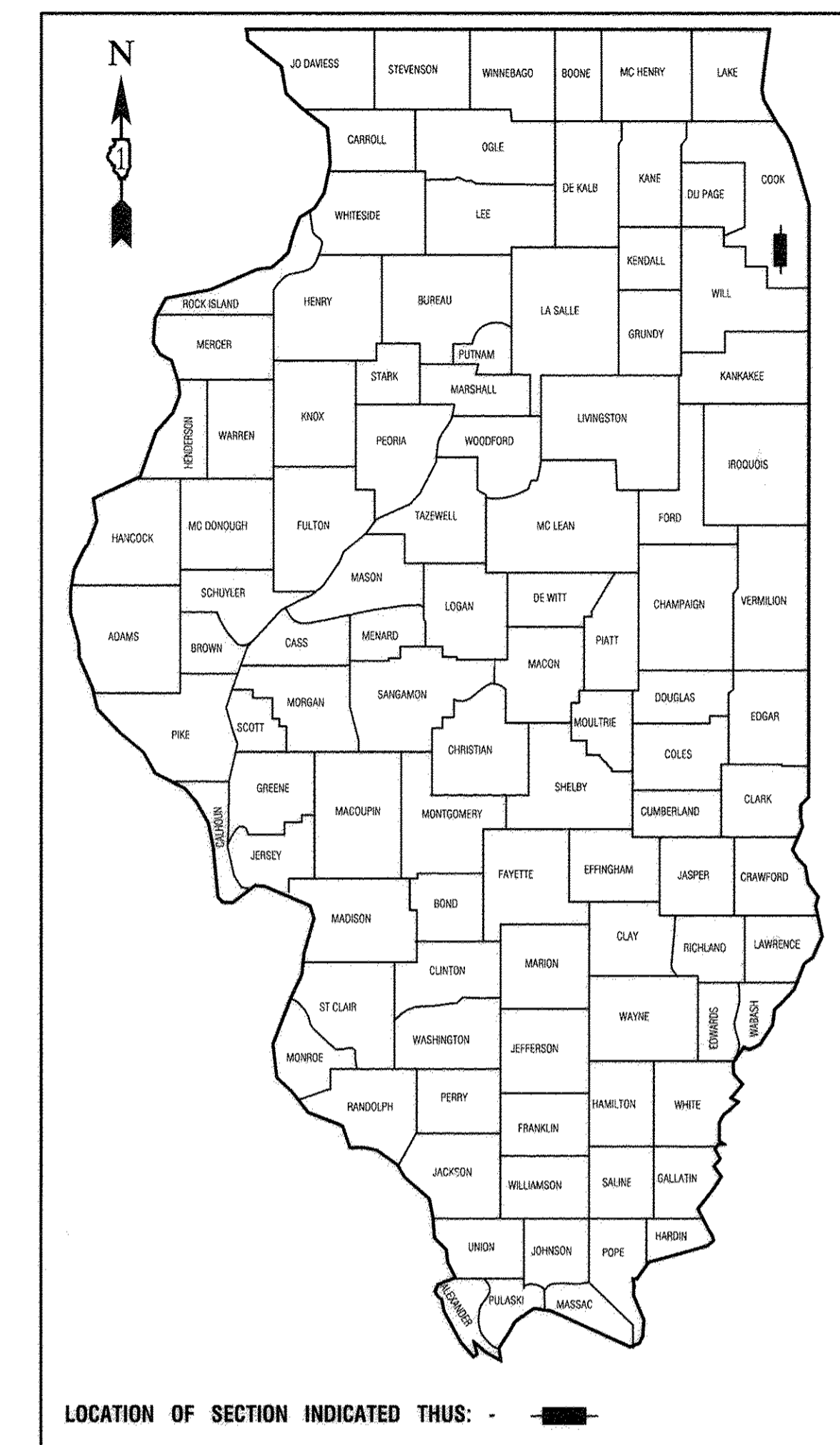
CONTRACT #61D83

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

MUN 17 (WOODLAWN AVENUE WEST)
OVER THE LITTLE CALUMET RIVER
BRIDGE REPLACEMENT
SECTION NO.: 11-00095-00-BR
PROJECT NO.: M-BROS-4003(877)
VILLAGE of SOUTH HOLLAND
COOK COUNTY
JOB NO.: C-91-156-17

INDEX OF SHEETS
SEE SHEET NO. 2

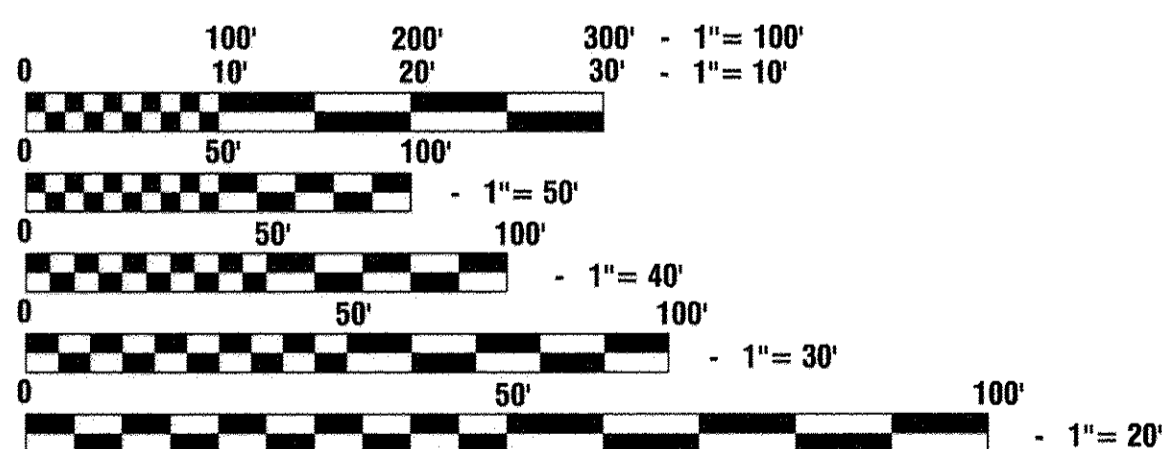
HIGHWAY STANDARDS
SEE SHEET NO. 2



WOODLAWN AVENUE WEST	
2016 ADT -	200
2040 ADT -	250
POSTED SPEED LIMIT -	25 MPH
DESIGN PERIOD -	20 YEARS
DESIGN SPEED LIMIT -	30 mph
STREET CLASSIFICATION -	LOCAL ROAD

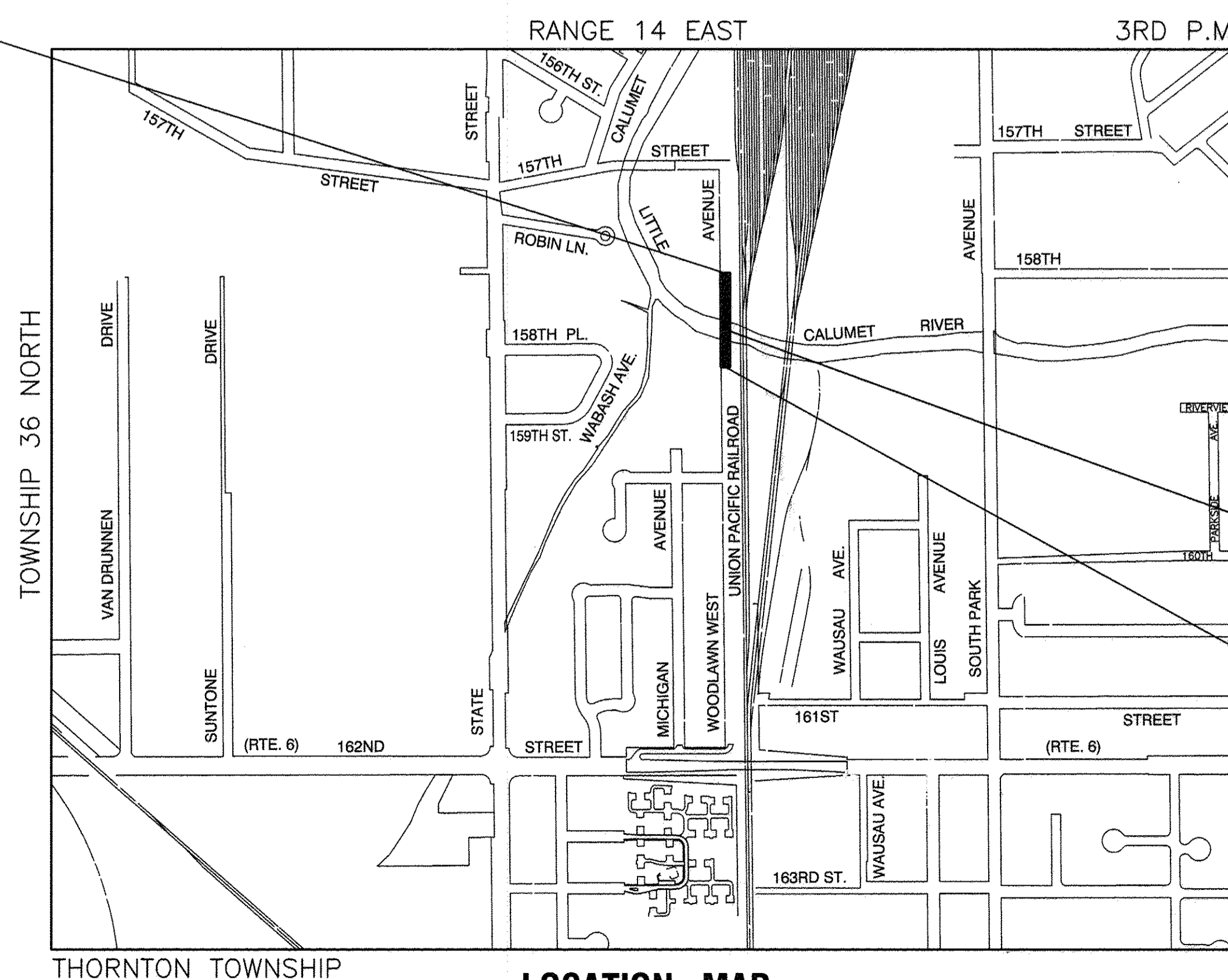
END OF IMPROVEMENTS
WOODLAWN AVENUE WEST
STA 9+25.94

SCALES
 PLAN - 1"=50'
 PROFILE HORIZ. - 1"=50'
 PROFILE VERT. - 1"=5'
 CROSS SECTIONS - 1"=10'



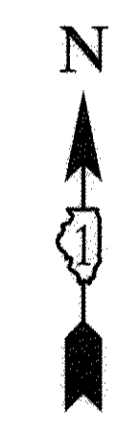
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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



LOCATION MAP

GROSS LENGTH= 515.94 FEET= 0.10 MILES
NET LENGTH= 515.95 FEET= 0.10 MILES



SN 016-8048
STA 6+61.68

BEGINNING OF IMPROVEMENTS
WOODLAWN AVENUE WEST
STA 4+10.00

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

Approved: 1-30-2017
Joseph K. Heisman
VILLAGE ADMINISTRATOR, VILLAGE OF SOUTH HOLLAND

Passed: 2-2-2017
COHalt
District 1 Engineer of Local Roads & Streets

Released for Bid Based on Limited Review: February 6, 2017
Paul G. Virgilio
Regional Engineer

PRINTED BY THE AUTHORITY OF
THE STATE OF ILLINOIS

PAUL G. VIRGLIO
081-004693
LICENSED
STRUCTURAL
ENGINEER
STATE OF ILLINOIS

Paul G. Virgilio 01/30/2017
Signature Date
Expires 11/30/2018

PREPARED BY OR UNDER THE
DIRECT SUPERVISION OF:
Joseph K. Heisman
1-30-2017

PATRICIA K. HANCOCK
62-51255
REGISTERED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

LICENSE EXPIRES: 11/30/17

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, PE, 847-705-4406, SCHAUMBURG, IL

CONTRACT NO. 61D83

GENERAL NOTES

INDEX OF SHEETS

- 1. TITLE SHEET
- 2. INDEX OF SHEETS AND HIGHWAY STANDARDS
- 3.-6. SUMMARY OF QUANTITIES
- 7. ROADWAY TYPICAL CROSS SECTIONS
- 8. ROADWAY REMOVAL PLAN
- 9. UTILITY REMOVAL PLAN
- 10. PROPOSED PAVEMENT PLAN
- 11. TEMPORARY RUNAROUND PLAN
- 12. PROPOSED UTILITY PLAN
- 13. PROPOSED WATERMAIN PLAN
- 14. MAINTENANCE OF TRAFFIC PLAN
- 15. LANDSCAPING AND EROSION CONTROL PLAN
- 16.-52. STRUCTURAL PLANS
- 53.-54. IDOT DISTRICT ONE DETAILS
- 55.-58. CROSS SECTIONS - WOODLAWN AVENUE WEST
- 59.-62. CROSS SECTIONS - MAINTENANCE OF TRAFFIC

HIGHWAY STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 420406 PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
- 515001-03 NAME PLATE FOR BRIDGES
- 542301-03 PRECAST REINFORCED CONCRETE FLARED END SECTION
- 602011-02 CATCH BASIN TYPE C
- 602501-02 VALVE VAULT, TYPE A
- 602701-02 MANHOLE STEPS
- 604001-04 FRAME AND LIDS TYPE 1
- 604036-03 GRATE TYPE 8
- 630001-11 STEEL PLATE BEAM GUARDRAIL
- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701321-16 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701331-04 LANE CLOSURE, 2L, 2W, WITH RUN-AROUND, FOR SPEEDS ≤ 45 MPH
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701901-06 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 780001-05 TYPICAL PAVEMENT MARKINGS

- 1. BOTH ROBINSON ENGINEERING, LTD. (708) 331-6700 AND THE VILLAGE OF SOUTH HOLLAND (708) 339-2323 SHALL BE NOTIFIED TWO (2) WORKING DAYS BEFORE CONSTRUCTION BEGINS.
- 2. THE EXISTING ROAD SIGNS AND MAILBOXES THAT INTERFERE WITH THE CONSTRUCTION WILL BE REMOVED AND REINSTALLED. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REINSTALL THE SIGNS AND MAILBOXES AS DIRECTED BY THE ENGINEER. EXISTING BRIDGE LOAD POSTING SIGNS SHALL BE RELOCATED IF NECESSARY BUT SHALL AT NO TIME SHALL BE TAKEN DOWN UNTIL THE NEW PERMANENT BRIDGE IS OPEN TO TRAFFIC AND AUTHORIZED BY IDOT.
- 3. WHEN ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES OR OTHER DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, IT SHALL BE REMOVED AT THE CLOSE OF EACH DAY BY THE CONTRACTOR.
- 4. CONTRACTOR SHALL PROVIDE THE VILLAGE AND ENGINEER WITH A VIDEO RECORDING DETAILING ALL SURFACE CONDITIONS WITHIN THE PROJECT AREA PRIOR TO EXCAVATION. ALL RESTORATION SHALL BE COMPLETED AS COORDINATED WITH THE VILLAGE.
- 5. AREAS DISTURBED BY CONSTRUCTION SHALL BE KEPT TO A MINIMUM. TRENCH BOXES SHALL BE UTILIZED TO LIMIT DISTURBED AREA. ALL AREAS DISTURBED UNNECESSARILY SHALL BE RESTORED AS REQUIRED IN THE SPECIAL PROVISIONS. EXISTING TREES SHALL BE PRESERVED, WHERE POSSIBLE.
- 6. ALL PAVEMENT, CURB AND SIDEWALK REMOVALS SHALL BE MADE BY MEANS OF A STRAIGHT SAW CUT JOINT.
- 7. TEMPORARY ACCESS TO PROPERTIES AFFECTED BY THE CONSTRUCTION SHALL BE MAINTAINED AT ALL TIMES BY PLACEMENT OF TEMPORARY AGGREGATE. THE CONTRACTOR SHALL PERIODICALLY MONITOR ALL AFFECTED AREAS DURING THE PROJECT, AND SHALL PLACE ADDITIONAL AGGREGATE WHEN NECESSARY OR AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE PAID FOR AS TEMPORARY ACCESS (PRIVATE ENTRANCE).
- 8. UTILITIES INDICATED ON THE PLANS ARE PROVIDED FOR THE CONTRACTOR'S USE AND ARE BASED UPON INFORMATION AVAILABLE. THE VILLAGE AND ENGINEER DO NOT GUARANTEE THE ACCURACY OF UTILITIES INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO VERIFY LOCATIONS OF ALL UTILITIES.
- 9. EXISTING DRAINAGE FACILITIES SHALL NOT BE UNNECESSARILY DISTURBED. TEMPORARY DRAINAGE FACILITIES SHALL BE PROVIDED BY THE CONTRACTOR WHEREVER NECESSARY TO MAINTAIN EXISTING DRAINAGE PATTERNS.
- 10. THE SOUTH HOLLAND UTILITIES DEPARTMENT MUST BE NOTIFIED PRIOR TO THE OPENING OR CLOSING OF ALL WATER VALVES, FIRE HYDRANTS AND OTHER WATER SYSTEM APPURTENANCES - CALL (708) 339-2323.
- 11. CONTRACTOR SHALL TAKE GREAT CARE TO PROTECT EXISTING UTILITIES THAT WILL BE EXPOSED DURING THE INSTALLATION OF THE PROPOSED WATER MAIN.
- 12. THE TOP OF ALL STRUCTURES SHALL BE FLUSH WITH THE ADJACENT SURFACE. FRAMES ON ALL NEW STRUCTURES SHALL BE ADJUSTED TO THE FINAL SURFACE ELEVATIONS AS PART OF THE NEW STRUCTURE. THE CONTRACTOR SHALL NOTE THE EXISTENCE OF MWRD MANHOLES IN THE PROJECT AREA AND THEIR EXISTING RIM ELEVATIONS. THESE SHALL BE RAISED AS NEEDED TO MAINTAIN TRAFFIC AND ADJUSTED BACK TO THEIR ORIGINAL ELEVATIONS.
- 13. THE CONTRACTOR SHALL KEEP AN "AS BUILT" SET OF DRAWINGS WHICH SHALL SHOW ALL CHANGES MADE IN THE FIELD WHICH ARE DIFFERENT THAN WHAT IS SHOWN ON THE DRAWINGS. "AS BUILT" DRAWINGS ARE TO BE SUBMITTED TO THE VILLAGE AND ENGINEER BEFORE THE PROJECT IS ACCEPTED AND FINAL PAYMENT IS MADE.
- 14. THE VILLAGE OF SOUTH HOLLAND REQUIRES GENERAL COMPLIANCE WITH THE NPDES PHASE II PROGRAM. AS SUCH, THE VILLAGE REQUIRES THAT ALL CONTRACTORS PROVIDE, TO THE EXTENT POSSIBLE, CONSTRUCTION SITE RUN-OFF CONTROL AND ILLICIT DISCHARGE PREVENTION AND ELIMINATION. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY. THE CONTRACTOR SHALL ALSO MAINTAIN ALL EROSION CONTROL MEASURES THROUGHOUT THE PROJECT.
- 15. WHEN WORK COMMENCES, THE CONTRACTOR SHALL ASSUME THE MAINTENANCE OF ALL PAVEMENT, SHOULDERS, DRAINAGE FACILITIES, TRAFFIC CONTROL SIGNS, PAVEMENT MARKINGS AND OTHER APPURTENANCES ON ROADWAYS WITHIN THE LIMITS OF THE CONTRACT WHICH ARE TO BE USED BY THE PUBLIC DURING CONSTRUCTION AND TO RETAIN THIS MAINTENANCE RESPONSIBILITY UNTIL THE VILLAGE ASSUMES THE MAINTENANCE. NEED FOR SNOW AND ICE CONTROL DURING THE CONSTRUCTION PERIOD SHALL BE ACCOMMODATED FOR BY OTHERS.
- 16. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON VILLAGE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE VILLAGE.
- 17. ANY SHORT-TERM ACTIVITY NECESSARY WHICH REQUIRES ENCROACHMENT ON TO THE LANE OPEN TO TRAFFIC SHALL BE RESTRICTED TO WITHIN THE HOURS OF 9:00 A.M. AND 3:00 P.M. THESE CLOSURES SHALL BE IN ACCORDANCE WITH THE APPLICABLE STANDARDS.
- 18. TREES TO BE REMOVED: THE INDICATED TREES (INCLUDING STUMPS) TO BE REMOVED SHALL BE SUITABLY MARKED BY THE ENGINEER BEFORE TREE REMOVAL OPERATIONS BEGIN.
- 19. REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION.
- 20. ITEMS OF WORK LISTED IN THE SUMMARY OF QUANTITIES WHICH ARE NOT SPECIFICALLY INDICATED IN THE PLANS SHALL BE PERFORMED AT LOCATIONS AS DIRECTED BY THE ENGINEER.
- 21. DRAINAGE STRUCTURE ELEVATIONS: GRADES OF SEWER LINES WERE DETERMINED FROM AVAILABLE PLANS AND SURVEYS. ACCORDINGLY, AS DIRECTED BY THE ENGINEER, THE INVERTS OF THE PROPOSED DRAINAGE WILL BE REVISED TO MEET EXISTING FIELD CONDITIONS.
- 22. FRAME ELEVATIONS ARE GIVEN ONLY TO ASSIST IN DETERMINING THE APPROXIMATE OVERALL HEIGHT OF THE STRUCTURE. FRAMES ON ALL NEW STRUCTURES WILL BE ADJUSTED TO THE FINAL ELEVATION OF THE AREA IN WHICH THEY ARE LOCATED.
- 23. ALL TRENCHES WITHIN 2 FEET OF PROPOSED PAVEMENT, DRIVEWAYS, AND SIDEWALKS SHALL BE BACKFILLED WITH TRENCH BACKFILL ONLY.
- 24. ALL STORM SEWERS FOR THIS PROJECT SHALL BE FURNISHED AND INSTALLED WITH PREFORMED FLEXIBLE GASKETS IN ACCORDANCE WITH ARTICLE 1056.01 OF THE STANDARD SPECIFICATIONS.
- 25. ABANDONED PIPES SHALL BE PLUGGED ACCORDING TO SECTION 605.2 OF THE STANDARD SPECIFICATIONS.
- 26. THE THICKNESS OF THE HMA MIXTURE STATED IN THE SPECIFICATIONS IS THE NOMINAL THICKNESS, DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA SURFACE IS PLACED AS APPROVED BY THE ENGINEER.
- 27. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- 28. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. THOSE SEEKING HISTORIC AS-BUILT OR OTHER RECORD PLANS SHOULD CONTACT THE OWNER OF RECORD. TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION PLEASE CONTACT:

PATRICIA K. BARKER, P.E., VILLAGE ENGINEER
ROBINSON ENGINEERING, LTD.
(708)331-6700
- 29. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COORDINATE WITH THE UNION PACIFIC RAILROAD WHENEVER CONSTRUCTION ACTIVITY IS WITHIN 25 FEET OF THE RAILROAD ROW. THE CONTRACTOR SHALL RETAIN FLAGMEN EMPLOYED AND DESIGNATED BY THE UNION PACIFIC RAILROAD TO MONITOR ON-COMING TRAIN TRAFFIC, AND ADVISE CONTRACTOR PERSONNEL WHEN ACTIVITY ON OR NEAR THE RAILROAD RIGHT-OF-WAY MAY PROCEED. THIS ITEM WILL BE PAID FOR ACCORDING TO ARTICLE 107.12 AND WILL BE REIMBURSED ACCORDING TO ARTICLE 109.05.
- 30. THIS PROJECT REQUIRES A U.S. ARMY CORPS OF ENGINEERS (USACE) 404 PERMIT SECURED BY THE LOCAL AGENCY. ALL CONDITIONS OF THE 404 PERMIT, FOUND IN THE SPECIAL PROVISIONS, MUST BE FOLLOWED. AS A CONDITION OF THIS PERMIT, THE CONTRACTOR WILL NEED TO SUBMIT AN IN-STREAM WORK PLAN TO THE LOCAL AGENCY FOR APPROVAL. GUIDELINES ON ACCEPTABLE IN-STREAM WORK TECHNIQUES CAN BE FOUND ON THE USACE CHICAGO DISTRICT WEBSITE. THE USACE DEFINES AND DETERMINES IN-STREAM WORK IN WETLANDS AND WATERWAYS. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT AN IN-STREAM WORK PLAN WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 31. THOSE SEEKING THE FULL HYDRAULIC REPORT SHOULD CONTACT THE OWNER OF RECORD. TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION PLEASE CONTACT:

PATRICIA K. BARKER, P.E., VILLAGE ENGINEER
ROBINSON ENGINEERING, LTD.
(708)331-6700
- 32. TEMPORARY INFORMATION SIGNING IS PROVIDED FOR USE AT THE DIRECTION OF THE ENGINEER.

FILE NAME = 11519_02-INDX-01 - IDOT INDX-1	USER NAME =	DESIGNED -- JPH	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WOODLAWN AVENUE WEST BRIDGE REPLACEMENT INDEX OF SHEETS & STATE STANDARDS			MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED -- PKB	REVISED --		17	11-00095-00-BR	COOK	62	02			
	PLOT SCALE =	DRAWN -- KWM	REVISED --		CONTRACT NO. 61D83							
	PLOT DATE = 01/30/17	CHECKED -- AGP	REVISED --		SCALE: NONE	SHEET NO. 02 OF 62 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT N/A		

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
S.I.	CODE NO.	ITEM	TOTAL QUANTITY	UNIT	ROADWAY 0011	SAFETY 0021	TRAINEES 0042
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	153	UNIT	153		
	20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	38	UNIT	38		
	20200100	EARTH EXCAVATION	700	CU YD	700		
	20400800	FURNISHED EXCAVATION	600	CU YD	600		
	20800150	TRENCH BACKFILL	10	CU YD	10		
	21101615	TOPSOIL FURNISH AND PLACE, 4"	1,550	SQ YD	1,550		
	21301060	EXPLORATION TRENCH 60" DEPTH	60	FOOT	60		
*	25000210	SEEDING, CLASS 2A	0.10	ACRE	0.10		
*	25000314	SEEDING, CLASS 4B	0.30	ACRE	0.30		
*	25000400	NITROGEN FERTILIZER NUTRIENT	27	POUND	27		
*	25000600	POTASSIUM FERTILIZER NUTRIENT	27	POUND	27		
*	25100630	EROSION CONTROL BLANKET	1,550	SQ YD	1,550		
	28000250	TEMPORARY EROSION CONTROL SEEDING	33	POUND	33		
	28000400	PERIMETER EROSION BARRIER	280	FOOT	280		
	35101800	AGGREGATE BASE COURSE, TYPE B 6"	852	SQ YD	852		
	40602978	HOT-MIX ASPHALT BINDER COURSE, IL- 9.5, N50	110	TON	110		
	40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	85	TON	85		
	40700100	BITUMINOUS MATERIALS (TACK COAT)	575	POUND	575		
	42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	40	SQ YD	40		
	44000100	PAVEMENT REMOVAL	1,138	SQ YD	1,138		
	44000200	DRIVEWAY PAVEMENT REMOVAL	62	SQ YD	62		
	48101620	AGGREGATE SHOULDERS, TYPE B 10"	97	SQ YD	97		
	50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	1	EACH	1		

* - INDICATES SPECIALTY ITEMS

FILE NAME = 11519_02-QUAN-01 - IDOT P01	USER NAME =	DESIGNED -- JPH	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WOODLAWN AVENUE WEST BRIDGE REPLACEMENT SUMMARY OF QUANTITIES			MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED -- PKB	REVISED --					17	11-00095-00-BR	COOK	62	03	
	PLOT DATE = 01/30/17	DRAWN -- KWM	REVISED --					CONTRACT NO. 61D83					
		CHECKED -- AG	REVISED --					SCALE: NONE	SHEET NO. 03 OF 62 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
S.I.	CODE NO.	ITEM	TOTAL QUANTITY	UNIT	ROADWAY 0011	SAFETY 0021	TRAINEES 0042
	50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	1	EACH	1		
	50200100	STRUCTURE EXCAVATION	540	CU YD	540		
	50200300	COFFERDAM EXCAVATION	60	CU YD	60		
	50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	2	EACH	2		
	50300225	CONCRETE STRUCTURES	425	CU YD	425		
	50300255	CONCRETE SUPERSTRUCTURE	320	CU YD	320		
	50300260	BRIDGE DECK GROOVING	600	SQ YD	600		
	50300300	PROTECTIVE COAT	150	SQ YD	150		
	50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	1	L SUM	1		
	50500505	STUD SHEAR CONNECTORS	6,090	EACH	6,090		
	50800105	REINFORCEMENT BARS	7,385	POUND	7,385		
	50800205	REINFORCEMENT BARS, EPOXY COATED	108,330	POUND	108,330		
	50800515	BAR SPLICERS	72	EACH	72		
*	50900105	ALUMINUM RAILING, TYPE L	209	FOOT	209		
	51201600	FURNISHING STEEL PILES HP12X53	2,551	FOOT	2,551		
	51201800	FURNISHING STEEL PILES HP14X73	670	FOOT	670		
	51202305	DRIVING PILES	3,221	FOOT	3,221		
	51203600	TEST PILE STEEL HP12X53	1	EACH	1		
	51203800	TEST PILE STEEL HP14X73	1	EACH	1		
	51300105	TEMPORARY BRIDGE COMPLETE	1	EACH	1		
	51500100	NAME PLATES	1	EACH	1		
	Z0043900	PREFORMED JOINT FILLER	74	FOOT	74		
	52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	15	EACH	15		

* - INDICATES SPECIALTY ITEMS

FILE NAME = 11519_02-QUAN-01 - IDOT P02

USER NAME =	DESIGNED -- JPH	REVISED --
CHECKED -- PKB	REVISED --	
PLOT SCALE =	DRAWN -- KWM	REVISED --
PLOT DATE = 01/30/17	CHECKED -- AG	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
SUMMARY OF QUANTITIES

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	04
FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT N/A	

SCALE: NONE SHEET NO. 04 OF 62 SHEETS STA. TO STA.

CONTRACT NO. 61D83

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
S.I.	CODE NO.	ITEM	TOTAL QUANTITY	UNIT	ROADWAY 001	SAFETY 0021	TRAINEES 0042
	52100400	STEEL BEARING ASSEMBLY	5	EACH	5		
	52100540	ANCHOR BOLTS, 1 1/2"	40	EACH	40		
	52200020	TEMPORARY SOIL RETENTION SYSTEM	1,200	SQ FT	1,200		
	54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	2	EACH	2		
	550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	170	FOOT	170		
	55100200	STORM SEWER REMOVAL 6"	126	FOOT	126		
	55100300	STORM SEWER REMOVAL 8"	20	FOOT	20		
	55100900	STORM SEWER REMOVAL 18"	84	FOOT	84		
*	56400400	FIRE HYDRANTS TO BE RELOCATED	1	EACH	1		
*	56400825	FIRE HYDRANT WITH AUXILIARY VALVE, VALVE BOX AND TEE	2	EACH	2		
	59100100	GEOCOMPOSITE WALL DRAIN	150	SQ YD	150		
	60107600	PIPE UNDERDRAINS 4"	135	FOOT	135		
*	60266600	VALVE BOXES TO BE ADJUSTED	1	EACH	1		
	60500060	REMOVING INLETS	1	EACH	1		
*	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	160	FOOT	160		
*	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	4	EACH	4		
*	63200310	GUARDRAIL REMOVAL	164	FOOT	164		
	67100100	MOBILIZATION	1	LSUM	1		
	X7015005	CHANGEABLE MESSAGE SIGN	540	CAL DA	540		
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	1,376	FOOT	1,376		
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	26	FOOT	26		
	70400100	TEMPORARY CONCRETE BARRIER	425	FOOT	425		
	70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	4	EACH	4		

* - INDICATES SPECIALTY ITEMS

FILE NAME = 11519_02-QUAN-01 - IDOT P03

USER NAME =	DESIGNED -- JPH	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- KWM	REVISED --
PLOT DATE = 01/30/17	CHECKED -- AG	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
SUMMARY OF QUANTITIES

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	05
CONTRACT NO. 61D83				

SCALE: NONE SHEET NO. 05 OF 62 SHEETS STA. TO STA.

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
S.I.	CODE NO.	ITEM	TOTAL QUANTITY	UNIT	ROADWAY 0011	SAFETY 0021	TRAINEES 0042
*	A2001024	TREE, ACER RUBRUM (RED MAPLE), 3" CALIPER, BALLED AND BURLAPPED	4	EACH	4		
*	A2007122	TREE, QUERCUS RUBRA (RED OAK), 3" CALIPER, BALLED AND BURLAPPED	4	EACH	4		
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	228	SQ FT	228		
	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	2	EACH	2		
*	X5610708	WATER MAIN REMOVAL, 8"	38	FOOT	38		
*	X5610720	WATER MAIN REMOVAL, 20"	20	FOOT	20		
*	X5610724	WATER MAIN REMOVAL, 24"	263	FOOT	263		
*	X5611106	<i>CLASS 52</i> DUCTILE IRON WATER MAIN WITH POLYETHYLENE ENCASEMENT, 6"	20	FOOT	20		
*	X5611108	<i>CLASS 52</i> DUCTILE IRON WATER MAIN WITH POLYETHYLENE ENCASEMENT, 8"	50	FOOT	50		
*	X5611120	<i>CLASS 52</i> DUCTILE IRON WATER MAIN WITH POLYETHYLENE ENCASEMENT, 20"	397	FOOT	397		
*	XX009165	42" DIAMETER STEEL SLEEVE, 0.625" WALL THICKNESS, OPEN CUT INSTALLATION	60	FOOT	60		
*	XX009166	42" DIAMETER STEEL SLEEVE, 0.625" WALL THICKNESS, AUGERED	140	FOOT	140		
*	XX009167	20" X 20" TAPPING SLEEVE AND VALVE IN VALVE VAULT, TYPE A, 6' DIAMETER, TYPE 1 FRAME, CLOSED LID	2	EACH	2		
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	380	CU YD	380		
*	X6026050	SANITARY MANHOLES TO BE ADJUSTED	6	EACH	6		
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	1	LSUM	1		
	X7016500	TEMPORARY BRIDGE TRAFFIC SIGNALS (SPECIAL)	1	EACH	1		
	X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	750	SQ FT	750		
	XX000679	CUT AND CAP EXISTING WATER MAIN	2	EACH	2		
	XX003037	DUCTILE IRON FITTINGS AND ACCESSORIES	6,070	POUND	6,070		
	XX006500	SANITARY SEWER SERVICE REMOVAL AND REPLACEMENT	60	FOOT	60		
	Z0018004	DRAINAGE SCUPPERS, DS-12	6	EACH	6		
	Z0030850	TEMPORARY INFORMATION SIGNING	150	SQ FT	150		

* - INDICATES SPECIALTY ITEMS

SUMMARY OF QUANTITIES					CONSTRUCTION TYPE CODE		
S.I.	CODE NO.	ITEM	TOTAL QUANTITY	UNIT	ROADWAY 0011	SAFETY 0021	TRAINEES 0042
	Z0062456	TEMPORARY PAVEMENT	297	SQ YD	297		
	Z0076600	TRAINEES	1,000	HOUR			1,000
	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	1,000	HOUR			1,000

* - INDICATES SPECIALTY ITEMS

FILE NAME = 11519_02-QUAN-01 - IDOT P04

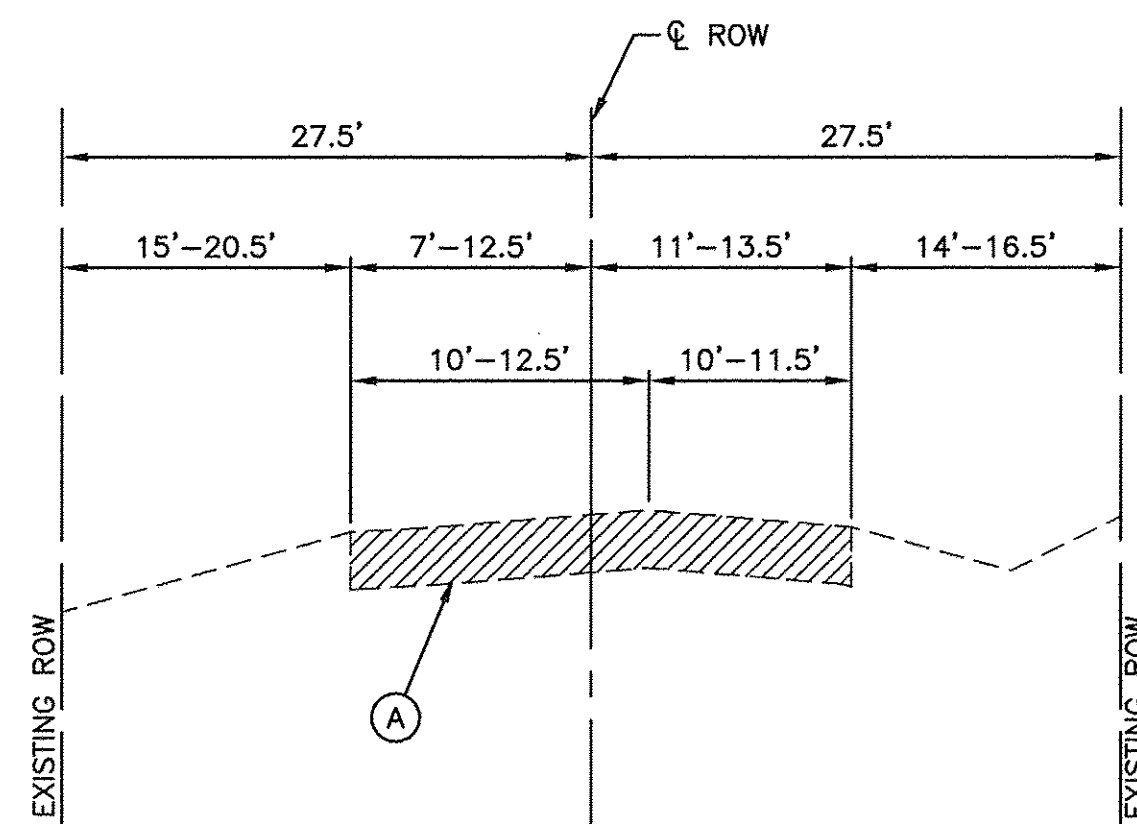
USER NAME =	DESIGNED -- JPH	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- KWM	REVISED --
PLOT DATE = 01/30/17	CHECKED -- AG	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 06 OF 62 SHEETS STA. TO STA.

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	06
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A			CONTRACT NO. 61D83	



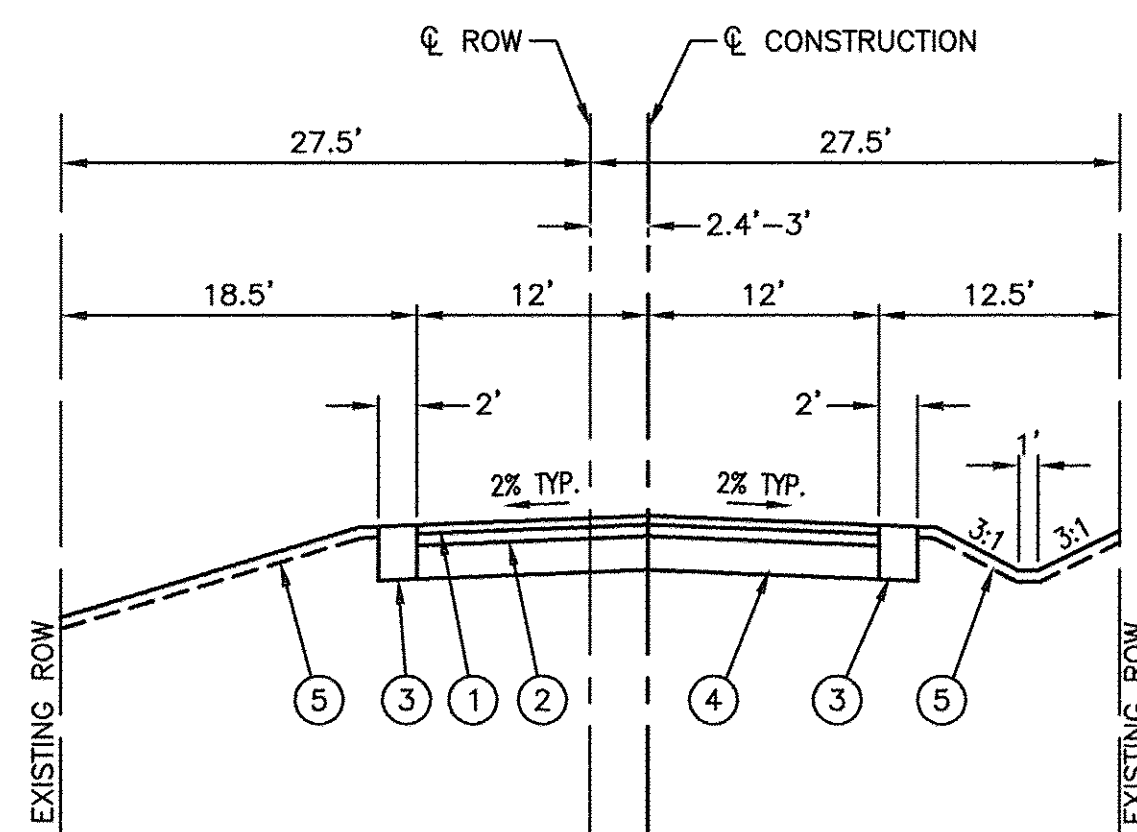
EXISTING TYPICAL SECTION

WOODLAWN AVENUE WEST
 STA. 4+10.00 TO STA. 5+43.94
 STA. 7+79.31 TO STA. 9+25.94

- Ⓐ EXISTING HMA PAVEMENT
- ▨ ITEM TO BE REMOVED

LEGEND

- ① PROPOSED HMA SURFACE COURSE, MIX "D", N50 - 1 3/4"
- ② PROPOSED HMA BINDER COURSE, IL-9.5, N50, 2 1/4"
- ③ PROPOSED AGGREGATE SHOULDERS, TYPE B, 10"
- ④ PROPOSED AGGREGATE BASE COURSE, TYPE B, 6"
- ⑤ TOPSOIL - 4", SEEDING AS NOTED ON THE PLANS



PROPOSED TYPICAL SECTION

WOODLAWN AVENUE WEST
 STA. 4+10.00 TO STA. 5+43.94
 STA. 7+79.31 TO STA. 9+25.94

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
HMA PAVEMENT	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm), 1 3/4"	4% @ 50 Gyr
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 2 1/4"	4% @ 50 Gyr
DRIVEWAYS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm), 1 3/4"	4% @ 50 Gyr
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 2 1/4"	4% @ 50 Gyr
TEMPORARY PAVEMENT	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5mm), 1 3/4"	4% @ 50 Gyr
HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 2 1/4"	4% @ 50 Gyr

THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

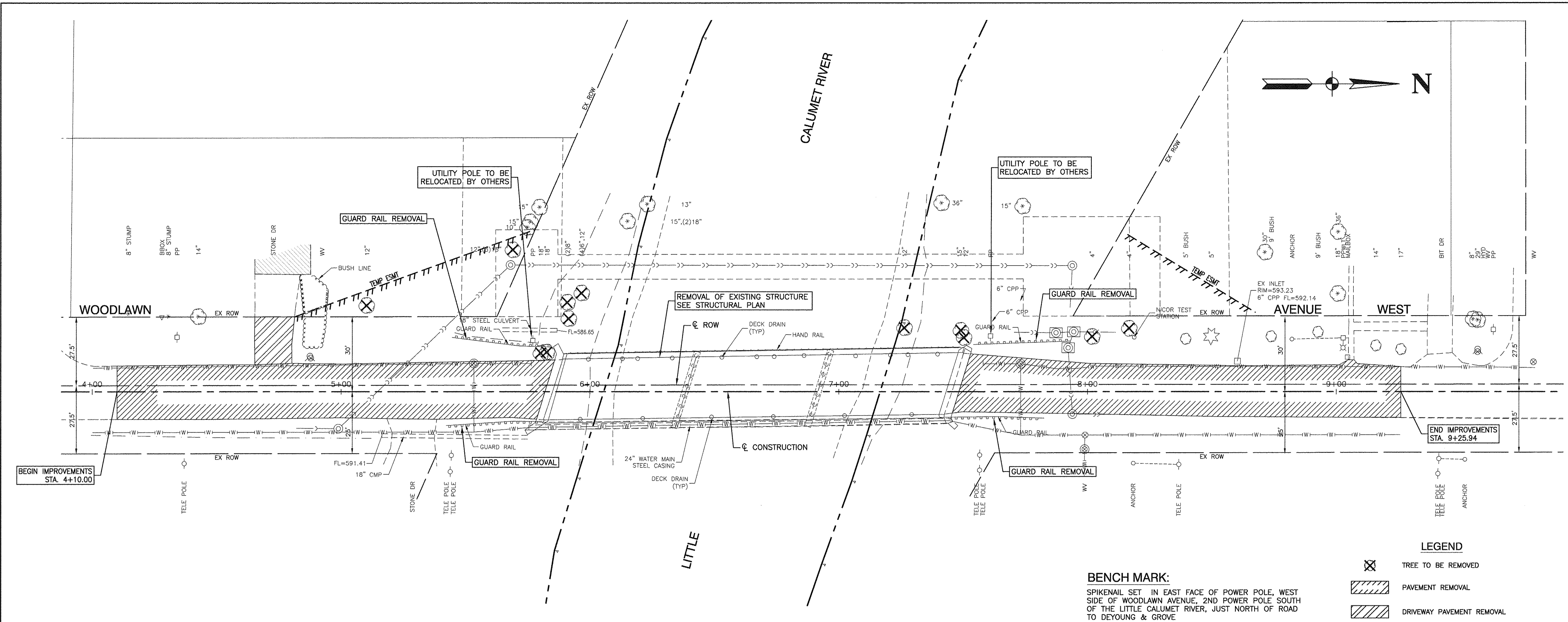
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

FILE NAME = 11519_02-TYPX-01 - IDOT P01

USER NAME =	DESIGNED -- JPH	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- KWM	REVISED --
PLOT DATE = 01/30/17	CHECKED -- AG	REVISED --

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST BRIDGE REPLACEMENT ROADWAY TYPICAL CROSS SECTIONS		MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		17	11-00095-00-BR	COOK	62	07
SCALE:		SHEET NO. 07 OF 62 SHEETS		STA.	TO STA.	
		FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	N/A	

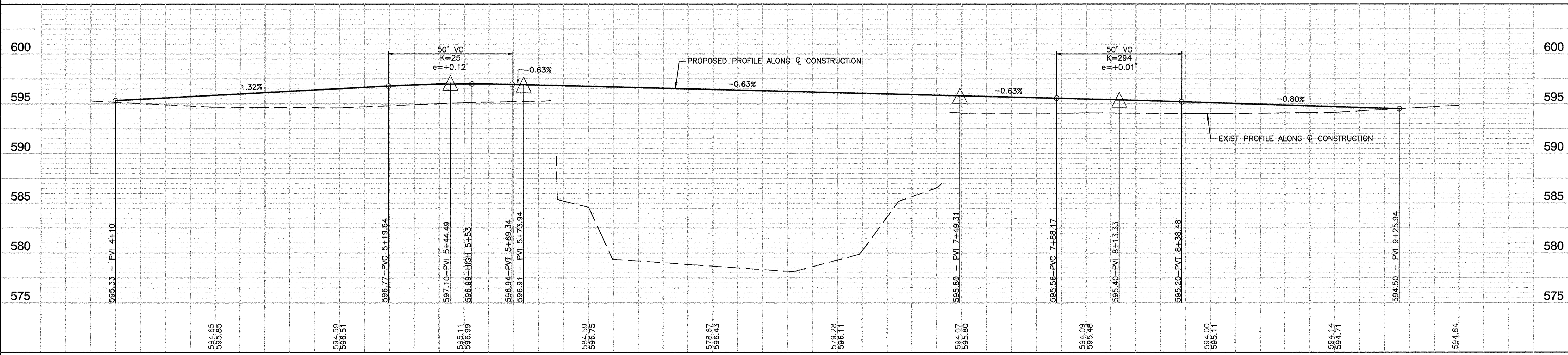


LEGEND

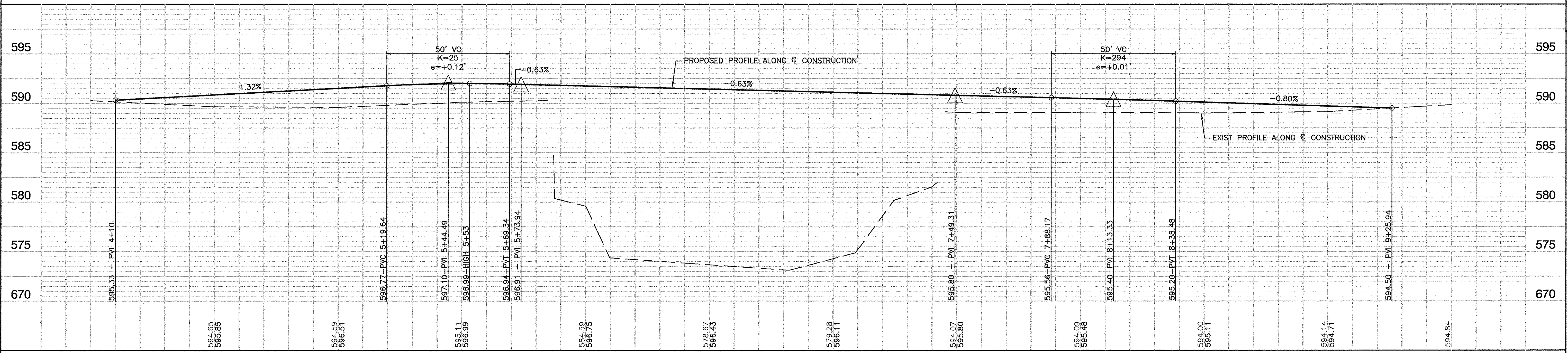
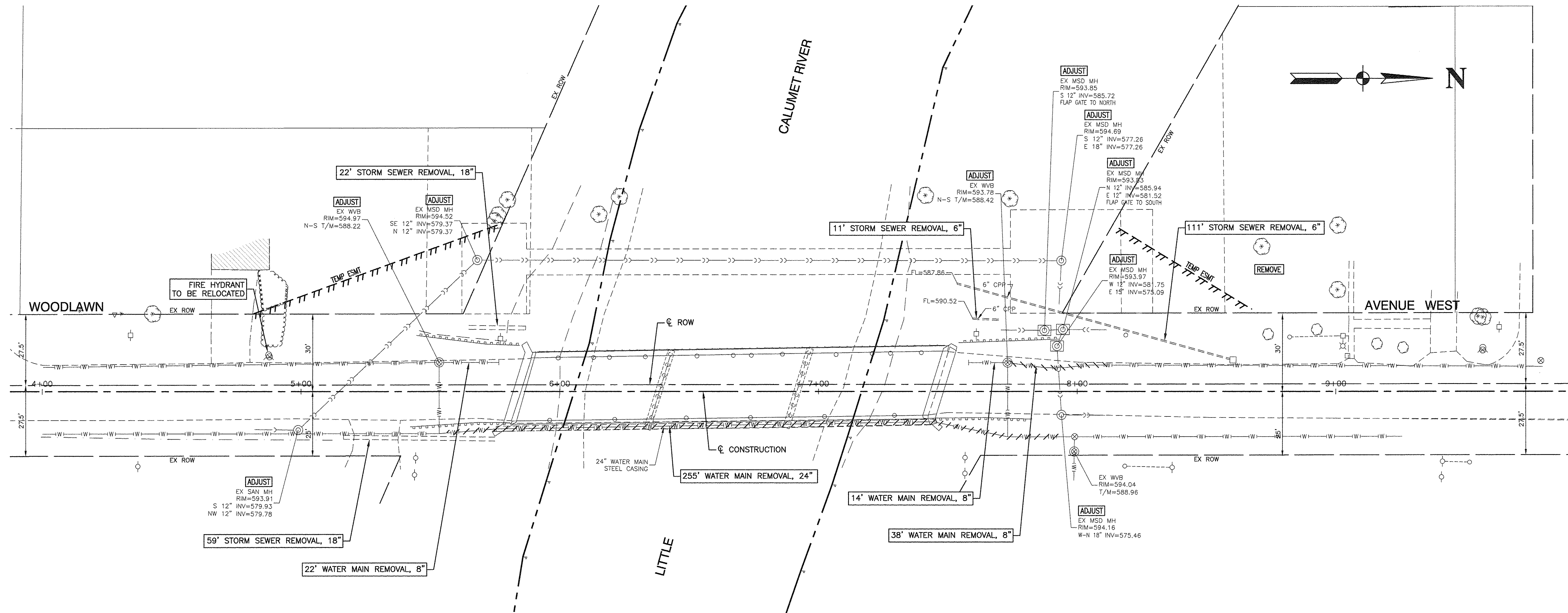
- TREE TO BE REMOVED
- PAVEMENT REMOVAL
- DRIVEWAY PAVEMENT REMOVAL

BENCH MARK:

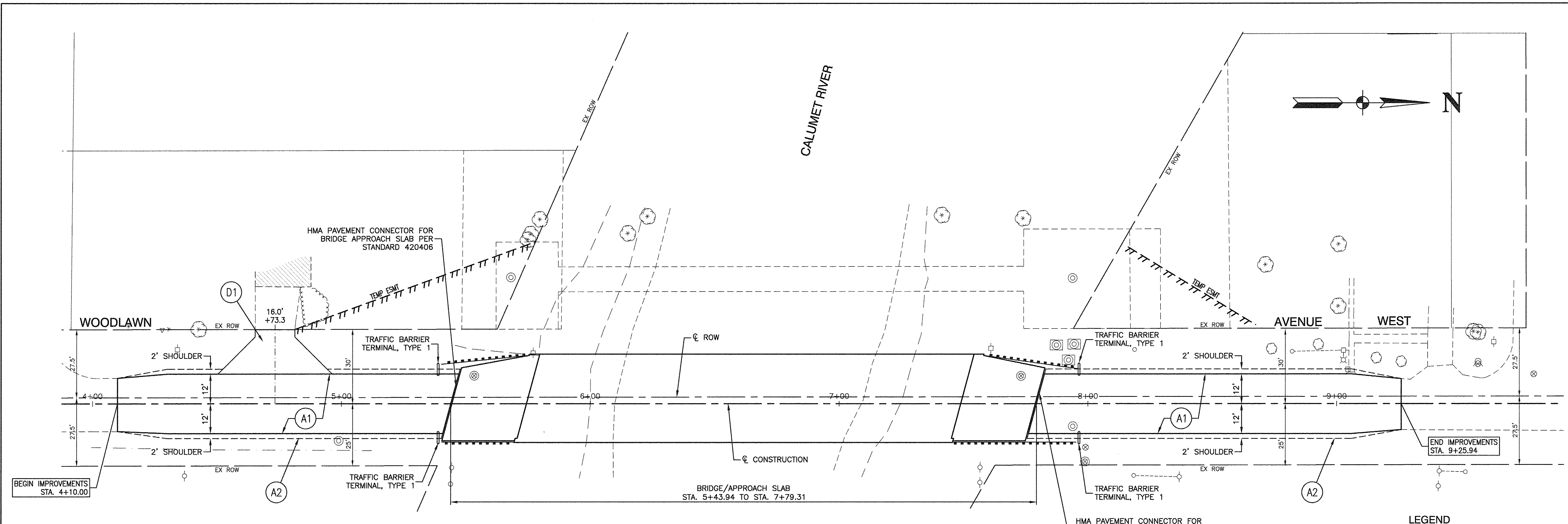
SPIKENAIL SET IN EAST FACE OF POWER POLE, WEST SIDE OF WOODLAWN AVENUE, 2ND POWER POLE SOUTH OF THE LITTLE CALUMET RIVER, JUST NORTH OF ROAD TO DEYOUNG & GROVE ELEVATION=594.76



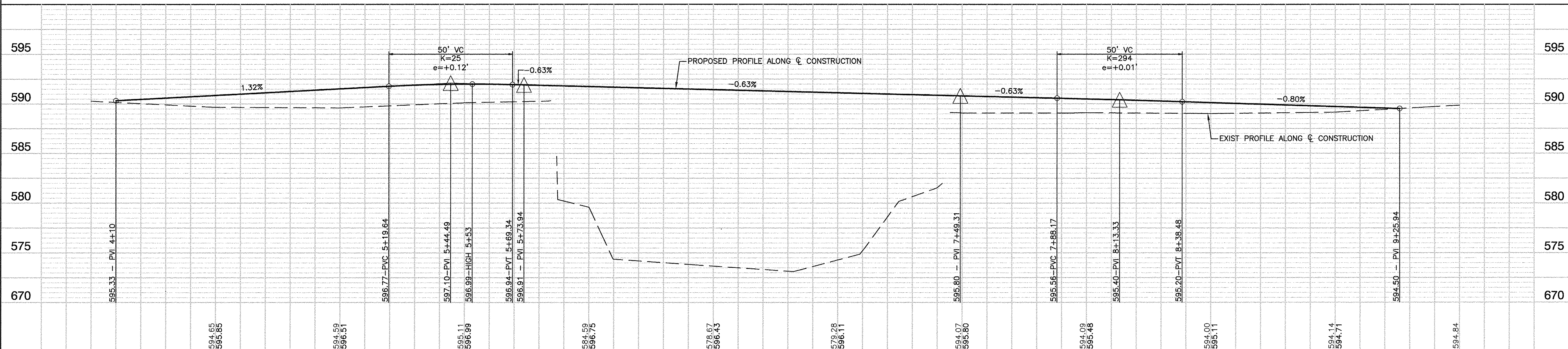
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SCALE: SHEET NO. 08 OF 62 SHEETS STA. TO STA.					



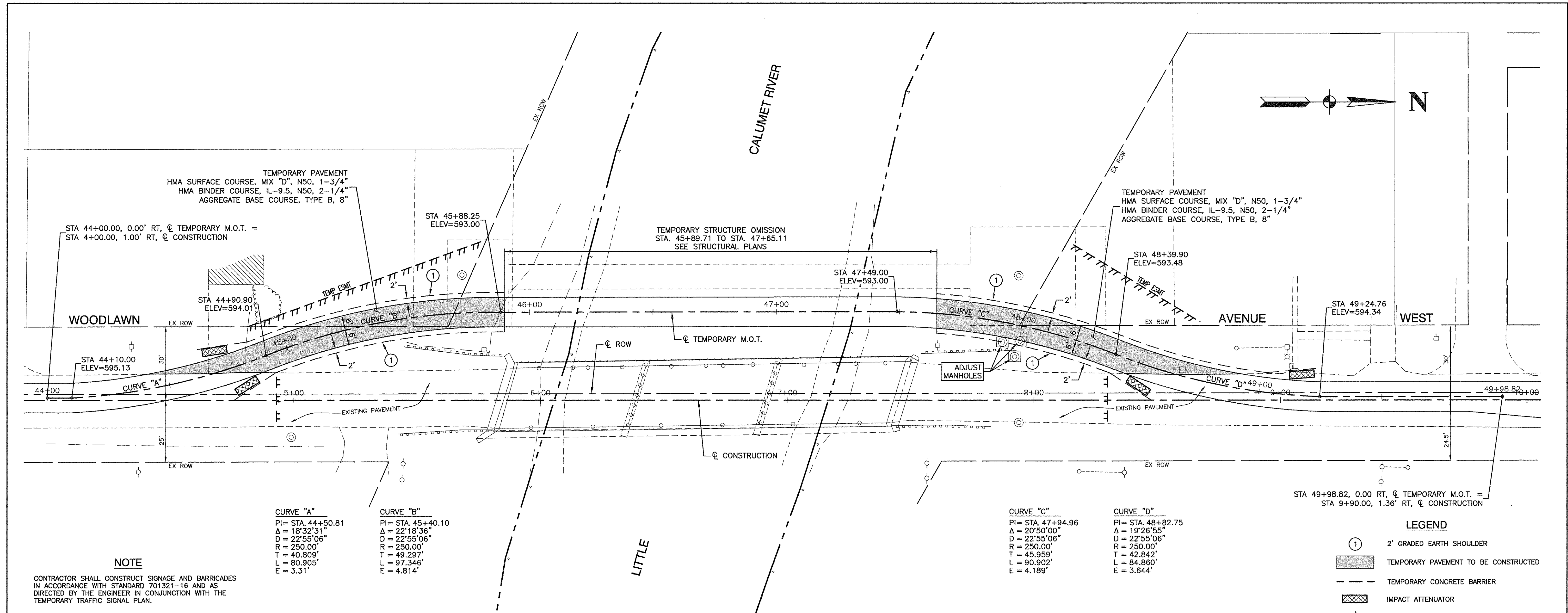
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	PLOT SCALE =	CHECKED — PKB	REVISED —		SCALE:	SHEET NO. 09 OF 62 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT N/A	
	PLOT DATE = 01/30/17	DRAWN — ACAD	REVISED —									
		CHECKED — ACAD	REVISED —									



- LEGEND**
- (A1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1-3/4" HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 2-1/4" AGGREGATE BASE COURSE, TYPE B, 6"
 - (A2) AGGREGATE SHOULDERS, TYPE B, 10"
 - (D1) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1-3/4" HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50, 2-1/4" AGGREGATE BASE COURSE, TYPE B, 6"



FILE NAME = 11519_02-PLPR-01 - PROP 01	USER NAME =	DESIGNED -- JPH	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WOODLAWN AVENUE WEST BRIDGE REPLACEMENT PROPOSED PAVEMENT PLAN	MUN 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 10	
	PLOT SCALE =	CHECKED -- PKB	REVISED --								
	PLOT DATE = 01/30/17	DRAWN -- KWM	REVISED --								
		CHECKED -- APG	REVISED --								
					SCALE:	SHEET NO. 10 OF 62 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A	



NOTE
 CONTRACTOR SHALL CONSTRUCT SIGNAGE AND BARRICADES IN ACCORDANCE WITH STANDARD 701321-16 AND AS DIRECTED BY THE ENGINEER IN CONJUNCTION WITH THE TEMPORARY TRAFFIC SIGNAL PLAN.

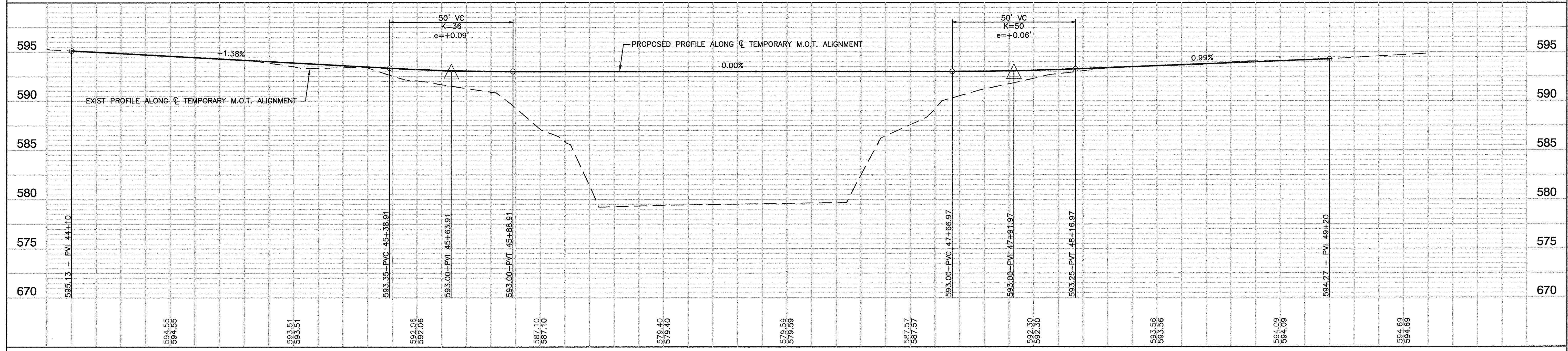
CURVE "A"
 PI= STA. 44+50.81
 Δ = 18°32'31"
 D = 22°55'06"
 R = 250.00'
 T = 40.809'
 L = 80.905'
 E = 3.31'

CURVE "B"
 PI= STA. 45+40.10
 Δ = 22°18'36"
 D = 22°55'06"
 R = 250.00'
 T = 49.297'
 L = 97.346'
 E = 4.814'

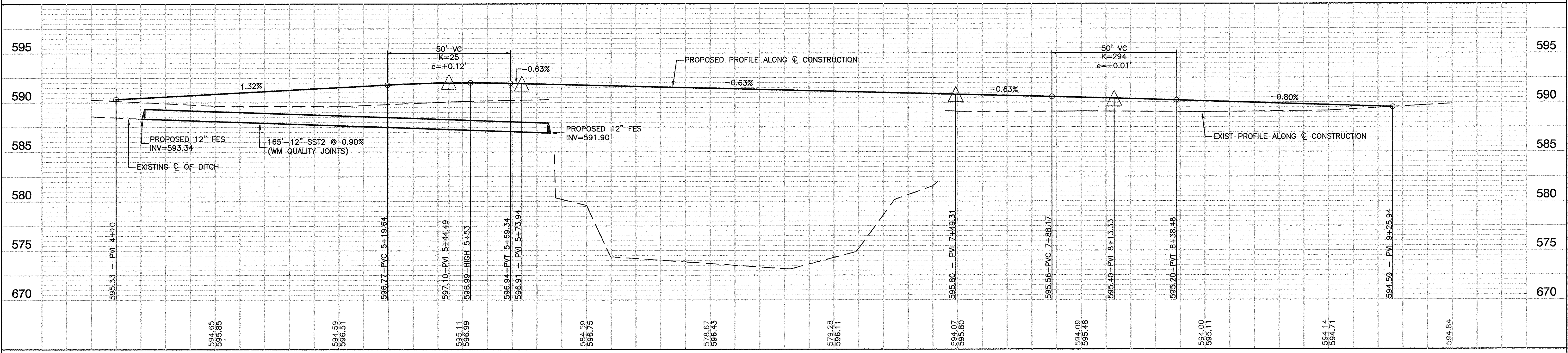
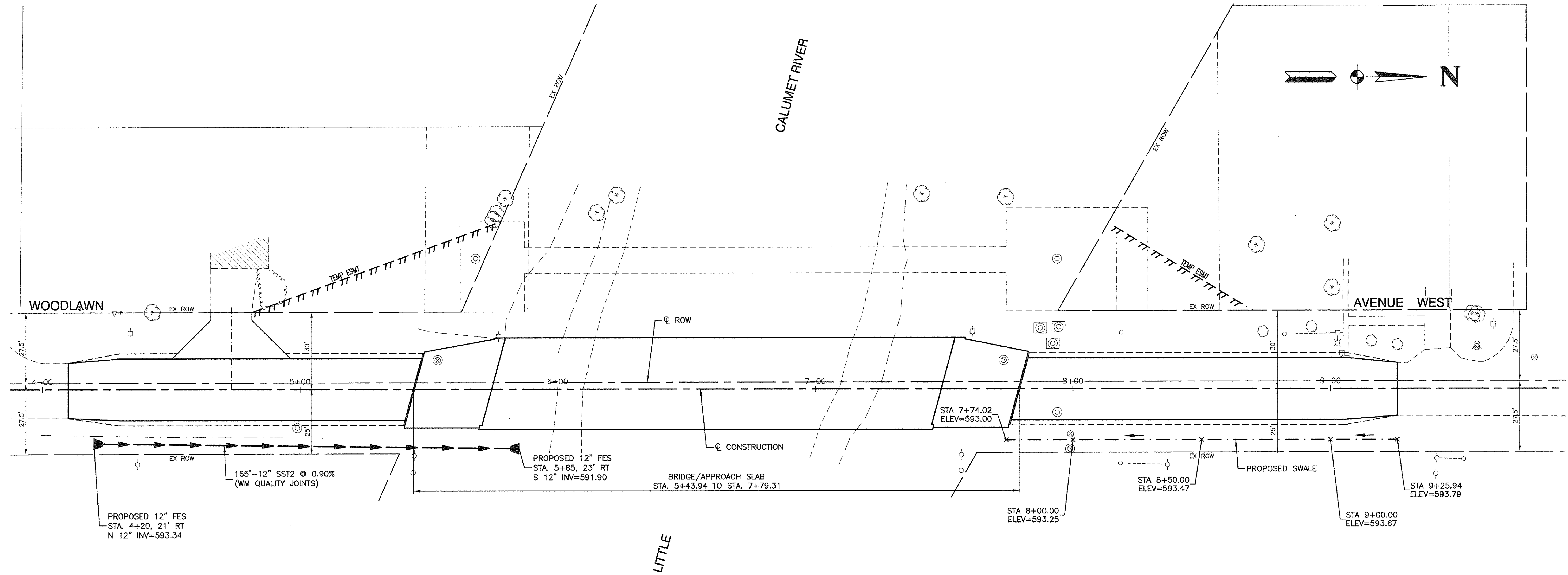
CURVE "C"
 PI= STA. 47+94.96
 Δ = 20°50'00"
 D = 22°55'06"
 R = 250.00'
 T = 45.959'
 L = 90.902'
 E = 4.189'

CURVE "D"
 PI= STA. 48+82.75
 Δ = 19°26'55"
 D = 22°55'06"
 R = 250.00'
 T = 42.842'
 L = 84.860'
 E = 3.644'

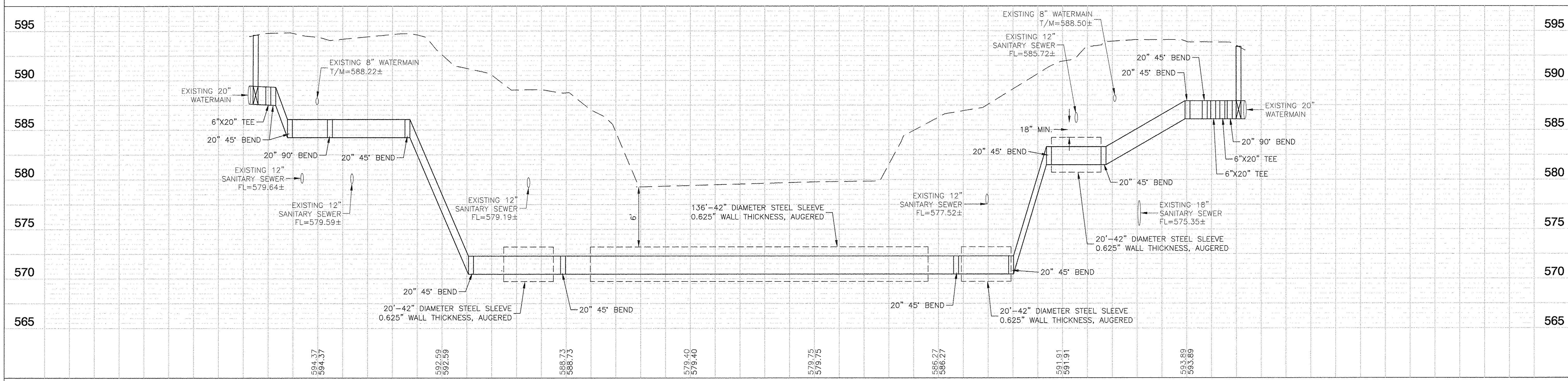
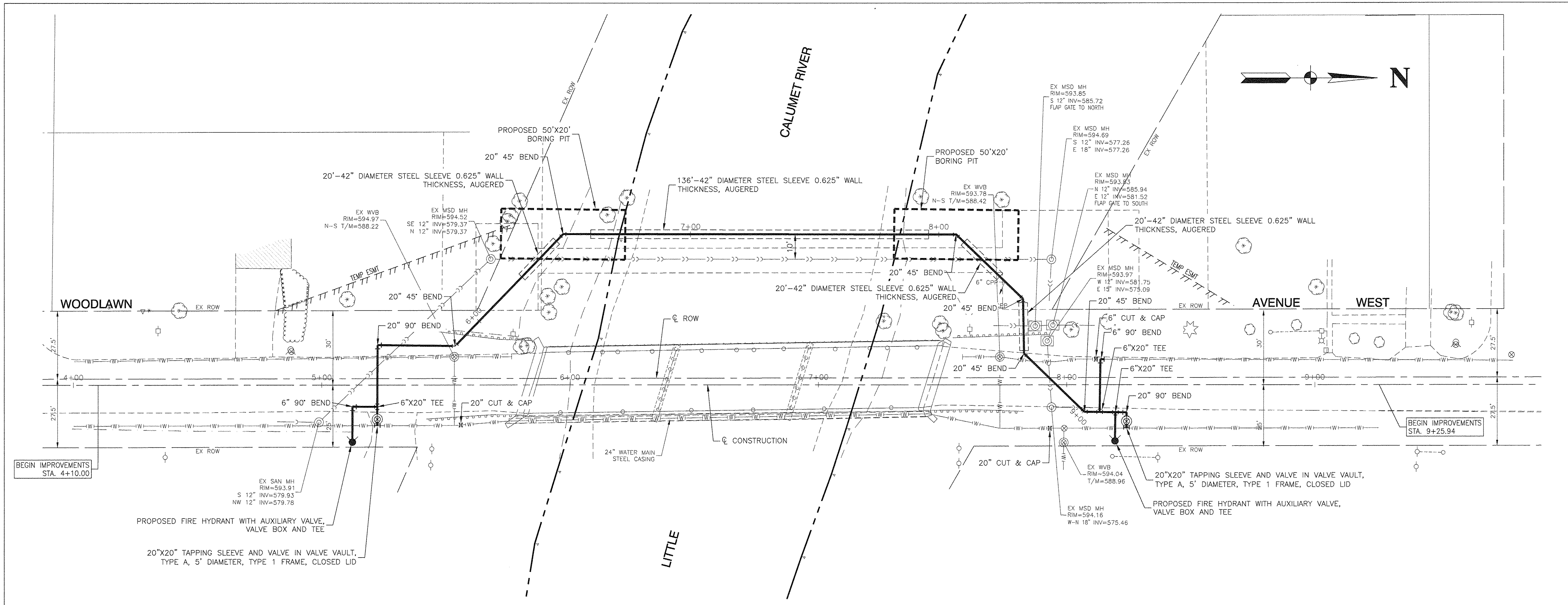
- LEGEND**
- ① 2' GRADED EARTH SHOULDER
 - [Hatched Box] TEMPORARY PAVEMENT TO BE CONSTRUCTED
 - [Dashed Line] TEMPORARY CONCRETE BARRIER
 - [Cross-hatched Box] IMPACT ATTENUATOR
 - [Z-bar Symbol] TYPE III BARRICADE



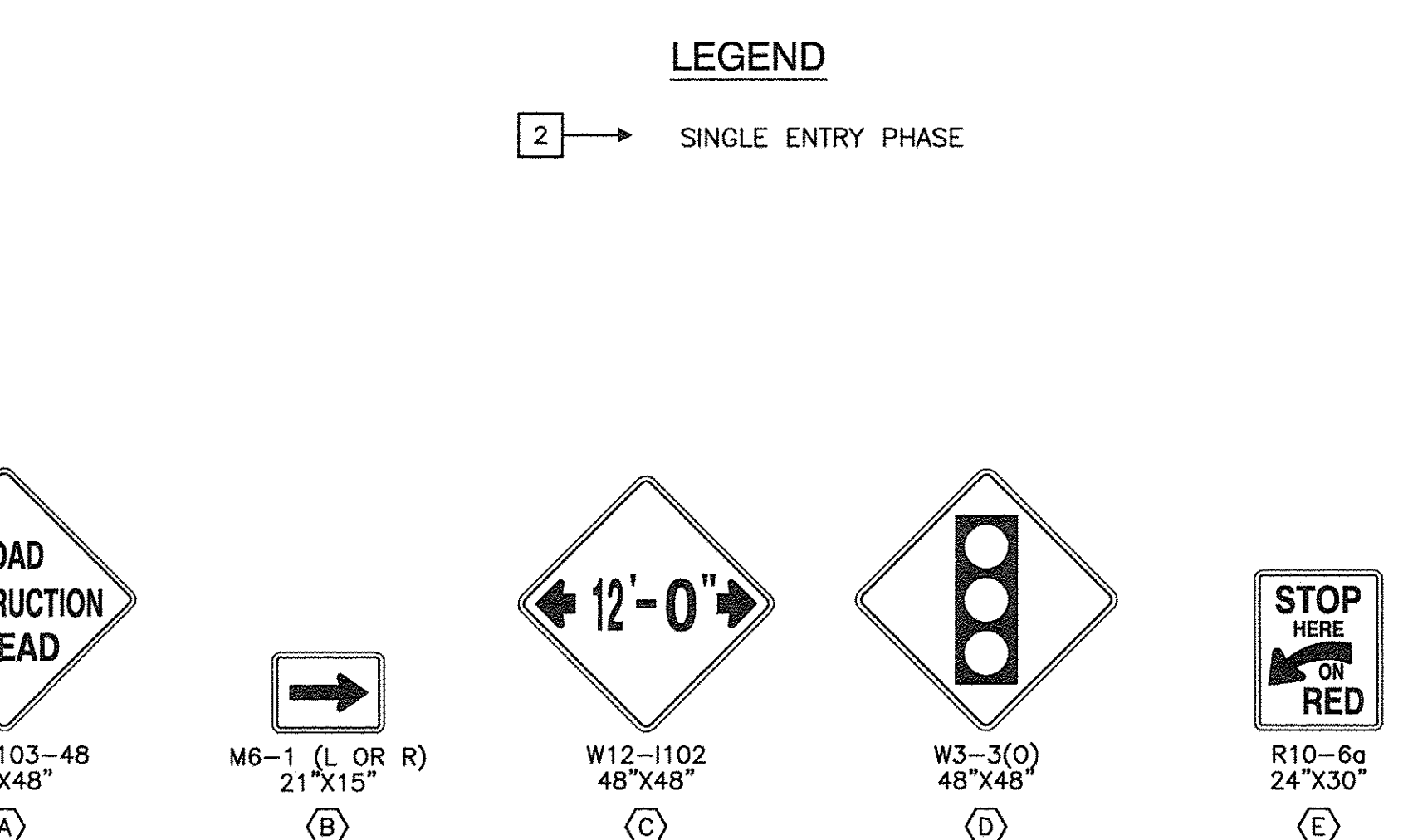
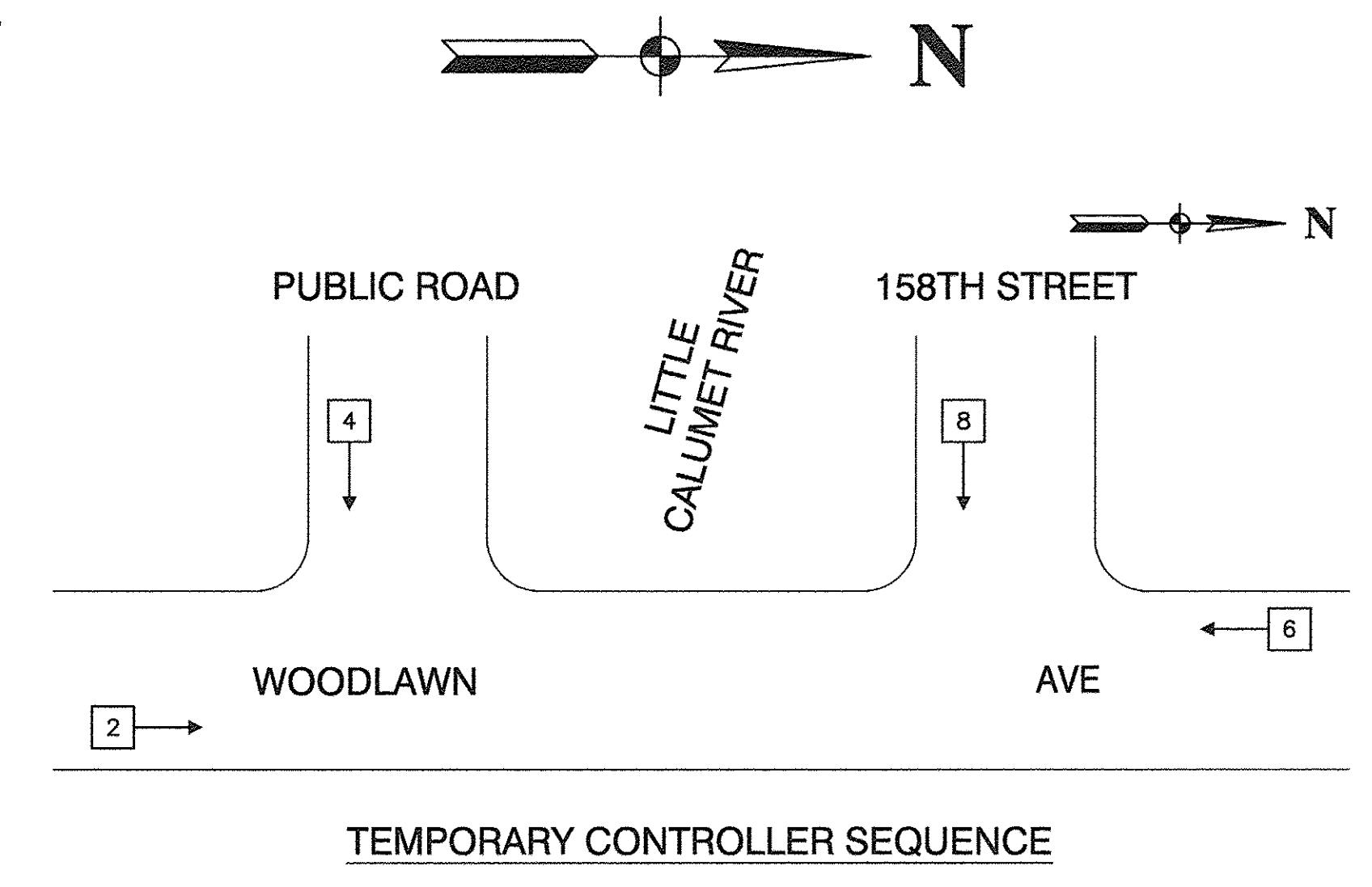
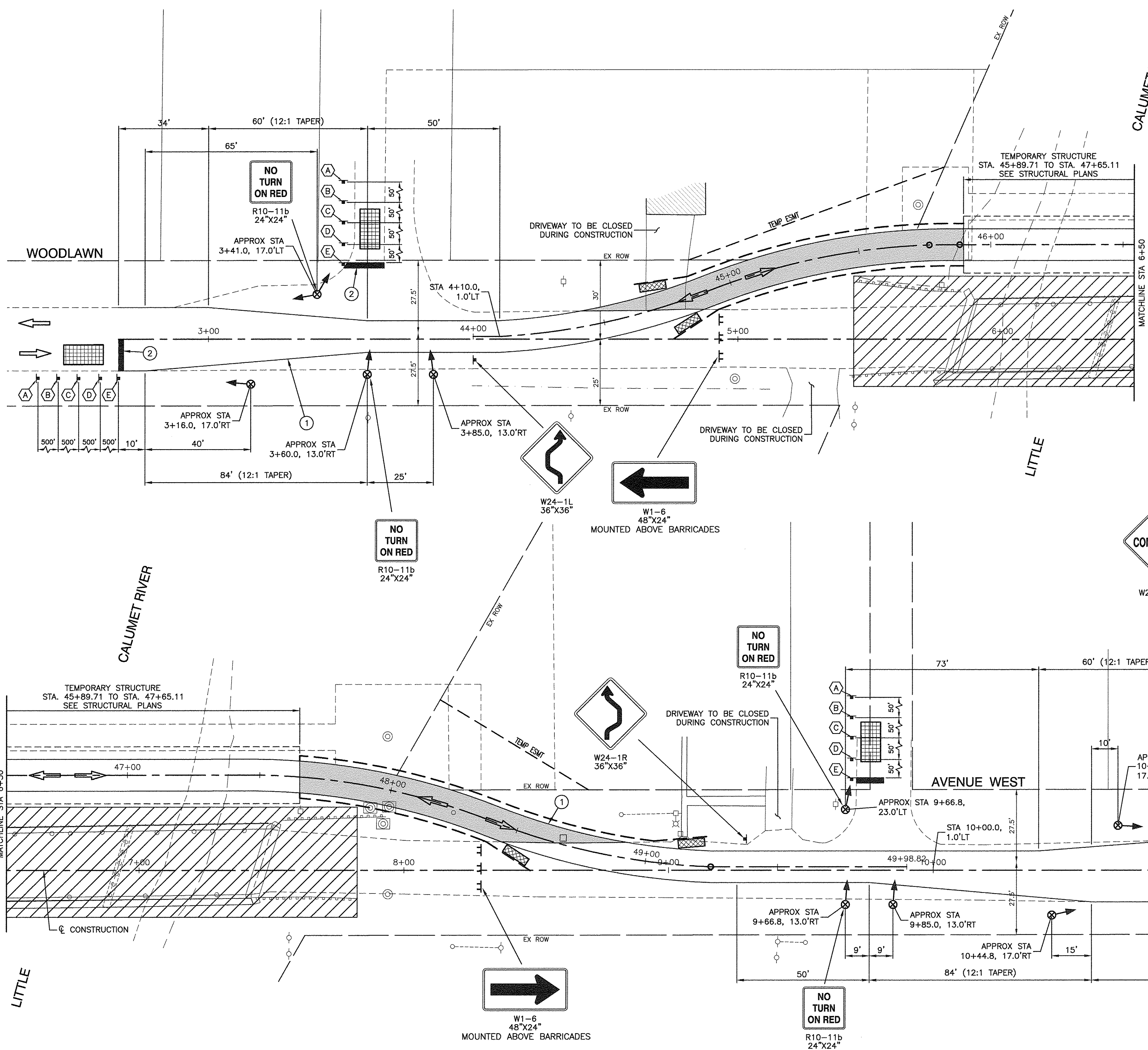
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	PLOT SCALE =	DRAWN - KWM	REVISOR -		SCALE:	SHEET NO. 11	OF 62 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT N/A
	PLOT DATE = 01/30/17	CHECKED - APG	REVISOR -		CONTRACT NO. 61D83							



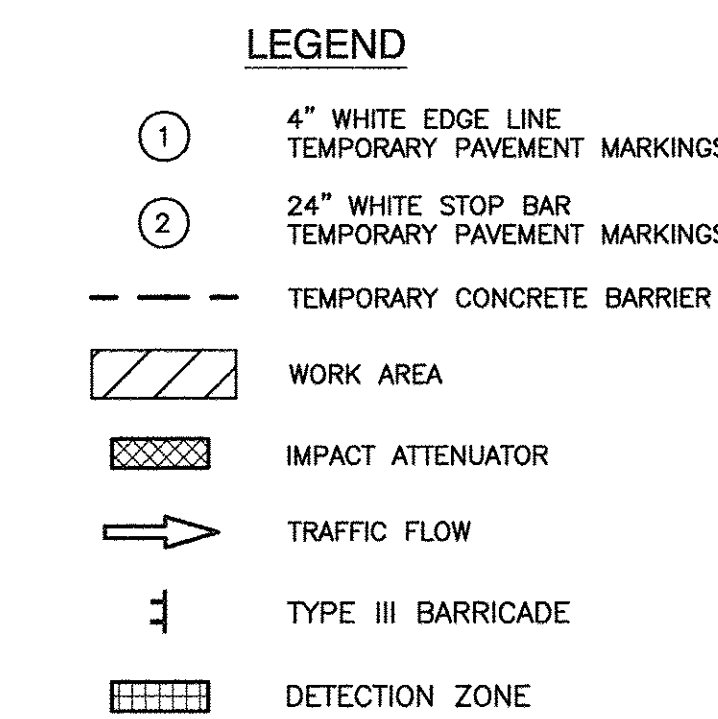
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PLOT SCALE =	CHECKED -- PKB	REVISED --	17			11-00095-00-BR	COOK	62	12	
PLOT DATE = 01/30/17	DRAWN -- ACAD	REVISED --	CONTRACT NO. 61D83							
	CHECKED -- ACAD	REVISED --	FED. ROAD DIST. NO. 1			ILLINOIS	FED. AID PROJECT N/A			



FILE NAME = 11519_02-PLPR-01 - UTIL 01	USER NAME =	DESIGNED -- JPH	REVISED --	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WOODLAWN AVENUE WEST BRIDGE REPLACEMENT PROPOSED WATERMAIN PLAN	MUN 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 13	
	PLOT SCALE =	CHECKED -- PKB	REVISED --		SCALE:	SHEET NO. 13 OF 62 SHEETS	STA.	TO STA.	CONTRACT NO. 61D83		
	PLOT DATE = 01/30/17	DRAWN -- KWM	REVISED --						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A		
		CHECKED -- APG	REVISED --								



SEE IDOT STANDARD 701321-16 FOR TRAFFIC CONTROL RELATED TO SINGLE LANE BRIDGE CROSSING. TAPERS SHALL BE PER PLAN.



FILE NAME = 11519_02-SGNL-01 - TEMP TS

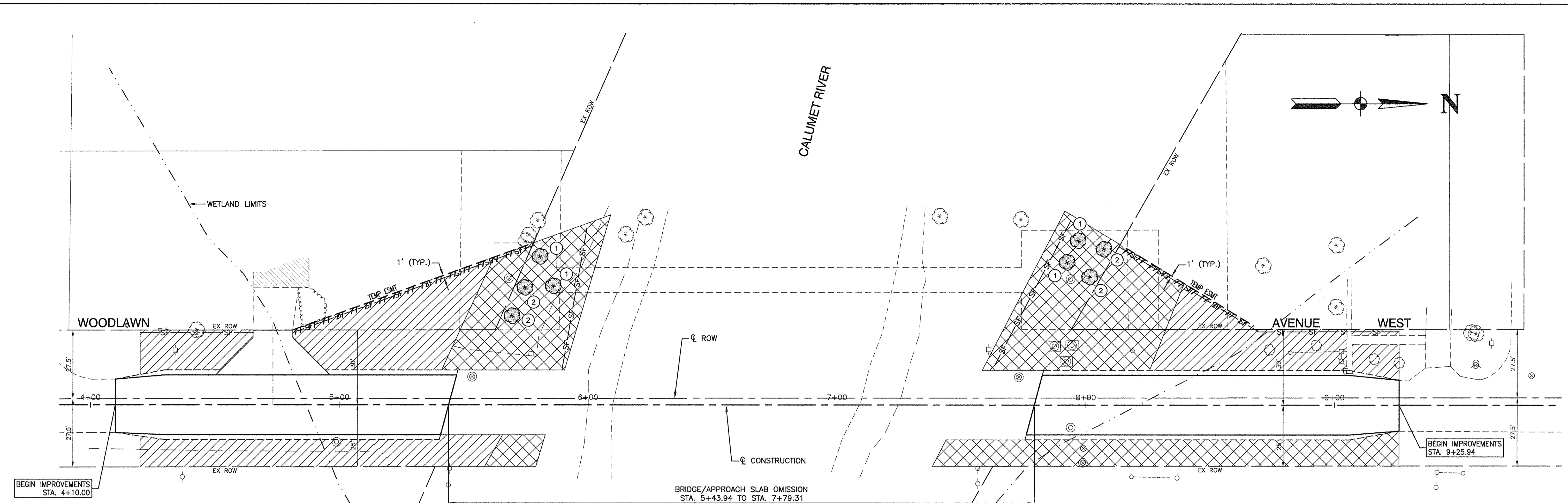
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PLOT SCALE =	DRAWN - KWM	REVISED -
PLOT DATE = 01/30/17	CHECKED - APG	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
MAINTENANCE OF TRAFFIC PLAN

SCALE: 1" = 20'

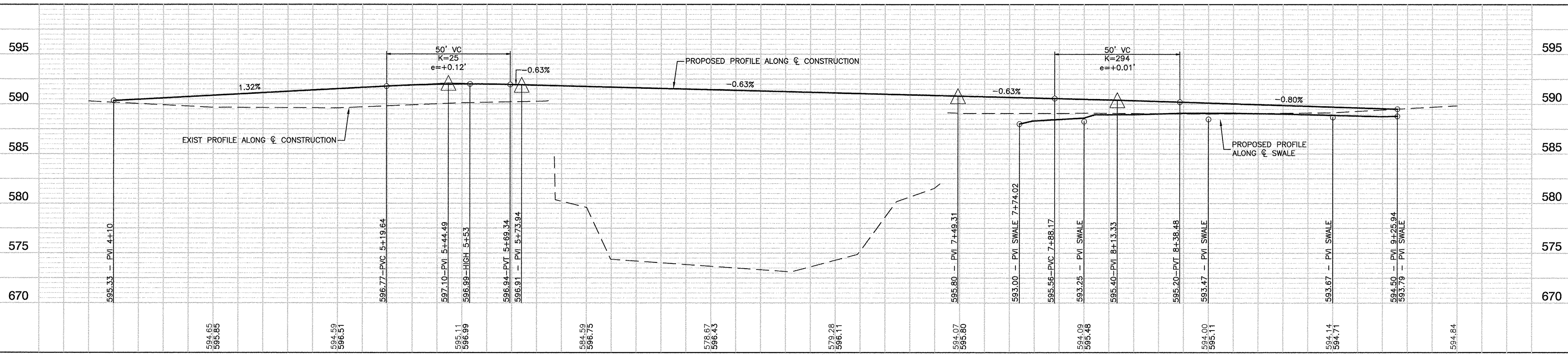
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	82	14
CONTRACT NO. 61D83				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A				



- NOTES**
1. ALL TURF AREAS DISTURBED DURING GRADING OPERATIONS AND CONSTRUCTION OF THE TEMPORARY BRIDGE AND RAMPS SHALL BE STABILIZED WITH TEMPORARY EROSION CONTROL SEEDING AND EROSION CONTROL BLANKET AT THE DIRECTION OF THE ENGINEER.
 2. FINAL TREE LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.

- ① TREE, ACER RUBRUM (RED MAPLE), 3" CALIPER, BALLED AND BURLAPPED
- ② TREE, QUERCUS RUBRA (RED OAK), 3" CALIPER, BALLED AND BURLAPPED

KEY	ITEM NAME
— SF —	PERIMETER EROSION BARRIER
	SEEDING, CLASS 2A TOPSOIL FURNISH AND PLACE, 4" NITROGEN FERTILIZER NUTRIENT
	SEEDING, CLASS 4B TOPSOIL FURNISH AND PLACE, 4" NITROGEN FERTILIZER NUTRIENT



FILE NAME = 11519_02-LNSC-01 - LNSC 01	USER NAME =	DESIGNED — JPH	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WOODLAWN AVENUE WEST BRIDGE REPLACEMENT LANDSCAPING AND EROSION CONTROL			MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — PKB	REVISED —		17	11-00095-00-BR	COOK	62	15			
	PLOT DATE = 01/30/17	DRAWN — KWM	REVISED —		SCALE: 1" = 20'			SHEET NO. 15 OF 62 SHEETS			CONTRACT NO. 61D83	
		CHECKED — APG	REVISED —		STA. TO STA.			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A				

BENCHMARK:

Spike nail in east face of PP, west side of Woodlawn Ave., 2nd pole south of Little Calumet River. Elev. = 594.764

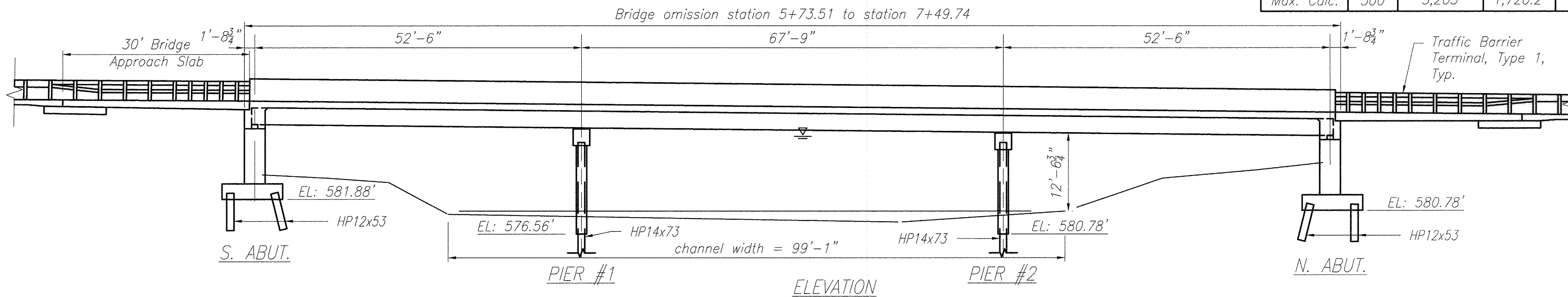
Existing Structure: S.N. 016-8045. Originally built in 1958. The existing structure consists of a 3-span precast pre-stressed concrete (PPC) box deck beam superstructure with a bituminous overlay supported by tall wall reinforced concrete abutments and precast concrete pile bent piers. Rehabilitation in 1990 with the removal and replacement of the east fascia beam and water main and widening of the structure, including one ppc deck beam. Out-to-out width is 30'-0". Back-to-back of abutment length is 163'-3". Structure to be removed and replaced; traffic to be maintained using a temporary structure.

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)				
	S. Abut	Pier 1	Pier 2	N. Abut	Item 113
Q100	575.38	576.73	575.63	587.50	8
Q500	574.32	575.36	575.25	578.30	
Design					
Check					

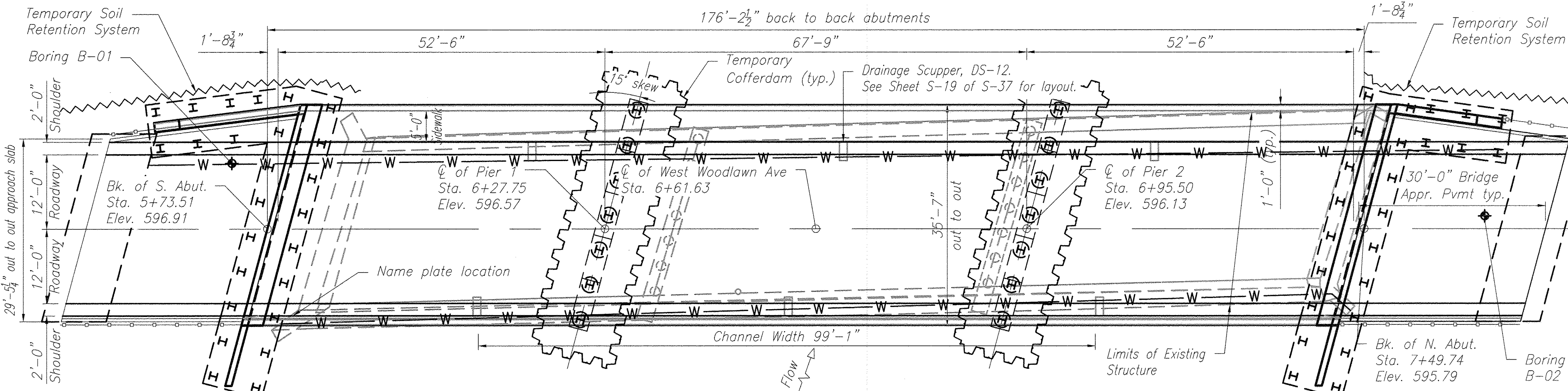
WATERWAY INFORMATION

Drainage Area = 208 sq. mi.		Existing Low Grade Elev. = 591.62 at Sta. 7+40.00 Proposed Low Grade Elev. = 591.69 at Sta. 7+46.75							
Flood Event	Freq. Yr.	Discharge C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater Elev.	
			Existing	Proposed		Exist.	Prop.	Exist.	Prop.
10 year	10	2,180	1,409.6	1,422.8	590.24	0.00	0.00	590.24	590.24
30 year	30	2,749	1,589.2	1,624.5	591.44	-	-	-	-
Design	50	2,890	1,661.2	1,706.8	591.96	0.00	0.00	591.96	591.96
Base	100	3,520	1,721.5	1,761.9	592.73	0.01	0.01	592.74	592.74
Max. Calc.	500	5,203	1,720.2	1,762.3	595.30	0.13	0.12	595.43	595.42



STATION 6+61.63
BUILT 2018 BY
STATE OF ILLINOIS
LOADING HL-93
STR. NO. 016-8048

NAME PLATE



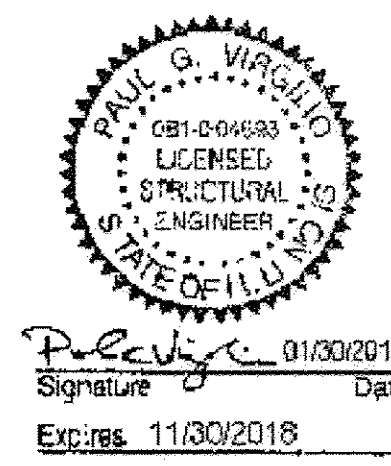
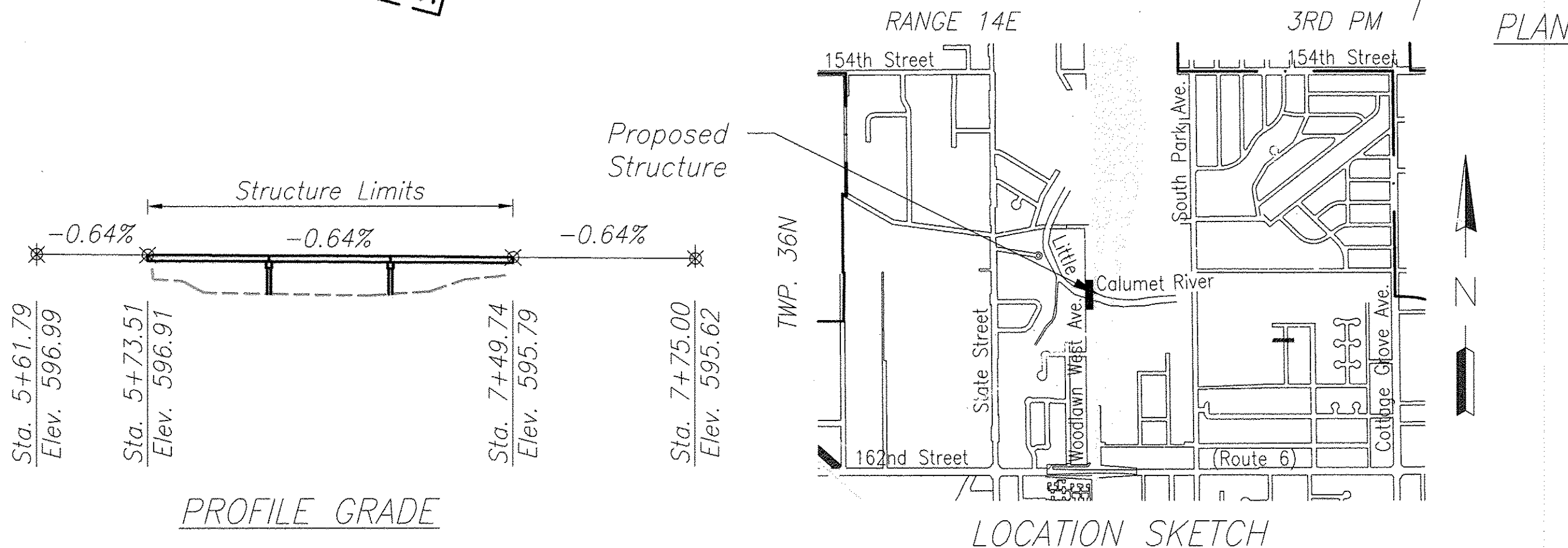
DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications
6th Edition with 2016 Interims

DESIGN STRESSES
Field Units
f'c = 5,000 psi (Superstructure)
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270 Grade 50)

LOADING HL-93
Allow 50 lb/sq.ft. for future wearing surface

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.062
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.110
Soil Site Class = C

HIGHWAY CLASSIFICATION
Woodlawn W Avenue
Functional class: Local road
ADT: 200 (2015) 215 (2032)
ADTT: 8 (2000) 9 (2032)
DHW: 20
Design Speed: 30 mph
Posted Speed: 25 mph (Stature)
Two-way traffic directional distribution: 50/50



**GENERAL PLAN & ELEVATION
WOODLAWN AVENUE BRIDGE
OVER LITTLE CALUMET RIVER
(PUBLIC WATER)
SECTION 11-00095-00-BR
COOK COUNTY
STATION 6+61.63
STRUCTURE NO. 016-8048**

ROBINSON ENGINEERING, LTD.
CONSULTING REGISTERED PROFESSIONAL ENGINEERS
AND PROFESSIONAL LAND SURVEYORS
17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60473
(708) 351-6700 © COPYRIGHT 2016 ILLINOIS DESIGN FIRM REGISTRATION NO. 184001128

USER NAME =	DESIGNED - RSF	REVISIONS -
PLOT SCALE =	CHECKED - PGV	REVISIONS -
PLOT DATE = 02/10/2017	DRAWN -	REVISIONS -
	CHECKED -	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION (GP&E) STRUCTURE NO. 016-8048		MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: NOT TO SCALE		17	11-00095-00-BR	COOK	62	16
SHEET NO. 01 OF 37 SHEETS		STA. 5+73.51 TO STA. 7+49.74		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

CONTRACT NO. 61D83	
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SHEET INDEX

Sheet No.	Sheet No.
1	General Plan & Elevation (GP&E)
2	General Data
3	Existing Bridge Demolition Plan
4	Bridge Foundation Layout
5	Temporary Bridge & Cross-Section
6	Top of Slab Elevations
7	Top of Slab Elevations
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10	Superstructure - Plan & Cross-Section
11	Superstructure Details - East Parapet
12	Superstructure Details - West Parapet
13	Superstructure Details - Section & Joint Details
14	Diaphragm Details
15	Bridge Approach Slab Details - South
16	Bridge Approach Slab Details - North
17	Bridge Approach Slab Details
18	Bridge Railing Details, Aluminum Type L
19	Drainage Scupper DS-12 Details
20	Girder & Framing Details
21	Girder & Framing Details
22	Bearing Details - Abutments
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27	South Abutment Details
28	South Abutment Details
29	North Abutment Details
30	North Abutment Details
31	Pier No. 1 Details
32	Pier No. 2 Details
33	HP Pile Details
34	Bar Splicer Assembly and Mechanical Splicer Details
35	Cantilever Forming Brackets
36	Boring Logs
37	Boring Logs

GENERAL NOTES

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8 in. dia., holes 1 1/16 in. dia., unless noted otherwise.
- All structural steel shall be AASHTO M270 Grade 50.
- Calculated weight of Structural Steel = 155,750 lbs (AASHTO M270 GR. 50)
Calculated weight of Structural Steel = 19,250 lbs (AASHTO M270 GR. 36)
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- The organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all steel surfaces shall be Gray, Munsell No. 5B 7/1.
- If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.
- Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Slipforming of the parapets is not allowed.
- The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for the removal and replacement of the superstructure.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.
- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection. Forms for deck slab shall be removed prior to placement of bridge approach slab.
- The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Soil Retention System.
- A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each		1	1
Removal of Existing Structures No. 2	Each		1	1
Structure Excavation	Cu. Yd.		540	540
Cofferdam Excavation	Cu. Yd.		60	60
Cofferdam Typ 1 Loc 1	Each		2	2
Concrete Structures	Cu.-Yd.		425	425
Concrete Superstructure	Cu.-Yd.	320		320
Bridge Deck Grooving	Sq. Yd.	600		600
Protective Coat	Sq. Yd.		150	150
Furnishing and Erecting Structural Steel	Pounds	175,000		175,000
Stud Shear Connectors	Each	6,090		6,090
Reinforcement Bars	Pound		7,385	7,385
Reinforcement Bars, Epoxy Coated	Pound	72,180	36,150	108,330
Bar Splicers	Each	72		72
Aluminum Railing, Type L	Foot	209		209
Furnishing Steel Piles HP 14x73	Foot		670	670
Furnishing Steel Piles HP 12x53	Foot		2,551	2,551
Driving Steel Piles	Foot		2,411	2,411
Temporary Bridge Complete	Each		1	1
Test Pile - HP 14x73	Each		1	1
Test Pile - HP 12x53	Each		1	1
Name Plates	Each	1		1
Preformed Joint Filler 2"	Foot	74		74
Elastomeric Bearing Assembly, Type I	Each	15		15
Steel Bearing Assembly	Each	5		5
Anchor Bolts, 1 1/2"	Each	40		40
Geocomposite Wall Drain	Sq. Yd.		150	150
Pipe Underdrains for structures, 4"	Foot		135	135
Granular Backfill for Structures	Cu. Yd.		380	380
Temporary Soil Retention System	Sq. Ft.		1,200	1,200
Drainage Scuppers, DS-12	Each	6		6

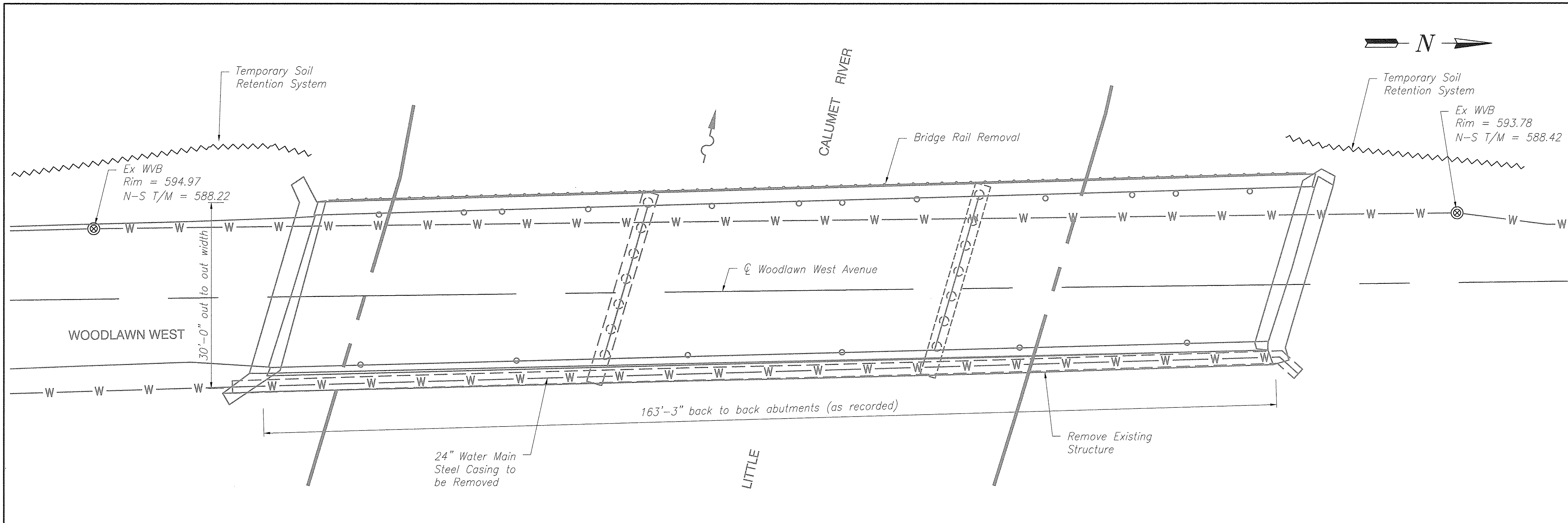
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PLOT DATE = 02/10/2017	CHECKED --	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 016-8048

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	17
SCALE: NOT TO SCALE			SHEET NO. 02 OF 37 SHEETS	
STA. 5+73.51 TO STA. 7+49.74			CONTRACT NO. 61DB3	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



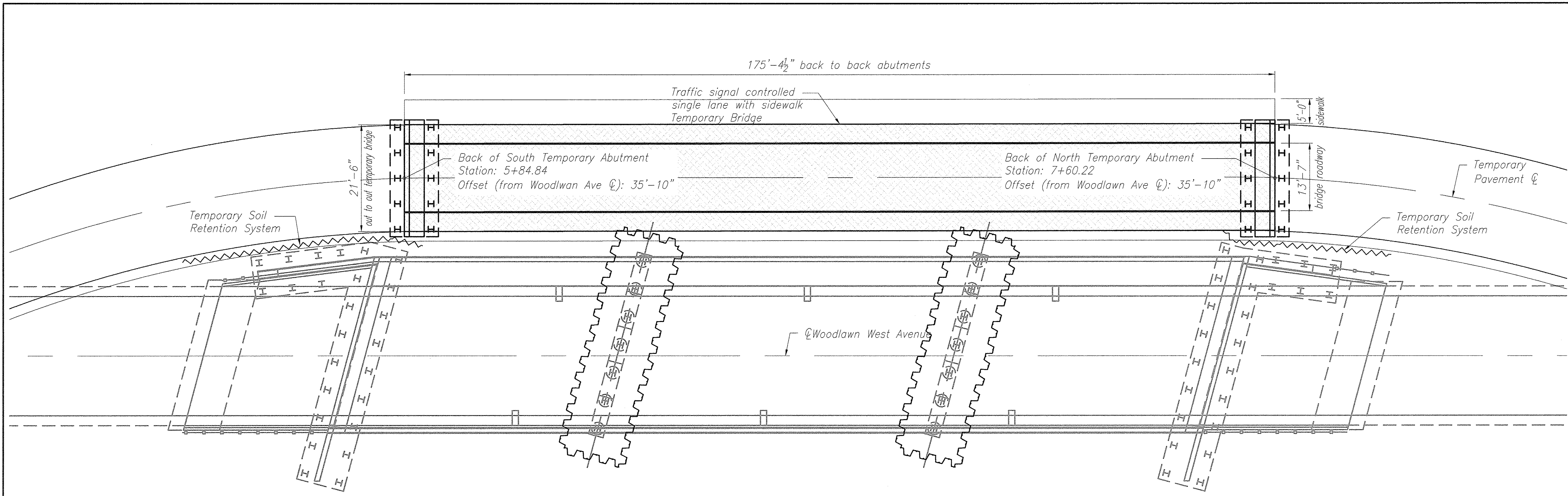
EXISTING BRIDGE DEMOLITION PLAN

BILL OF MATERIAL

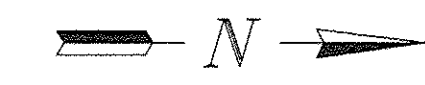
Item	Unit	Quantity
Removal of Existing Structure No. 1	Each	1

SEQUENCE NOTES

1. Install temporary sheet piling along the west side of each existing approach.
2. Excavate and construct temporary bridge foundations.
3. Install temporary bridge, sidewalk and approach roadways.
4. Install temporary traffic signals and shift traffic to temporary roadway and bridge.
5. Remove existing bridge parapets, deck, railings, and approach guardrails.
6. Remove existing abutments and piers.
7. Construct new piers, abutments, and bridge beams and deck.
8. Construct new bridge sidewalk, parapets, and railings.
9. Construct new approach footings and approach slab.
10. Install bridge railings and approach guardrails.
11. Redirect traffic onto new bridge.
12. Remove temporary bridge and roadway
13. Remove temporary bridge foundations (Paid for in Removal of Existing Structure No. 2, see sheet 5 of 37).
14. Remove temporary sheet piling.

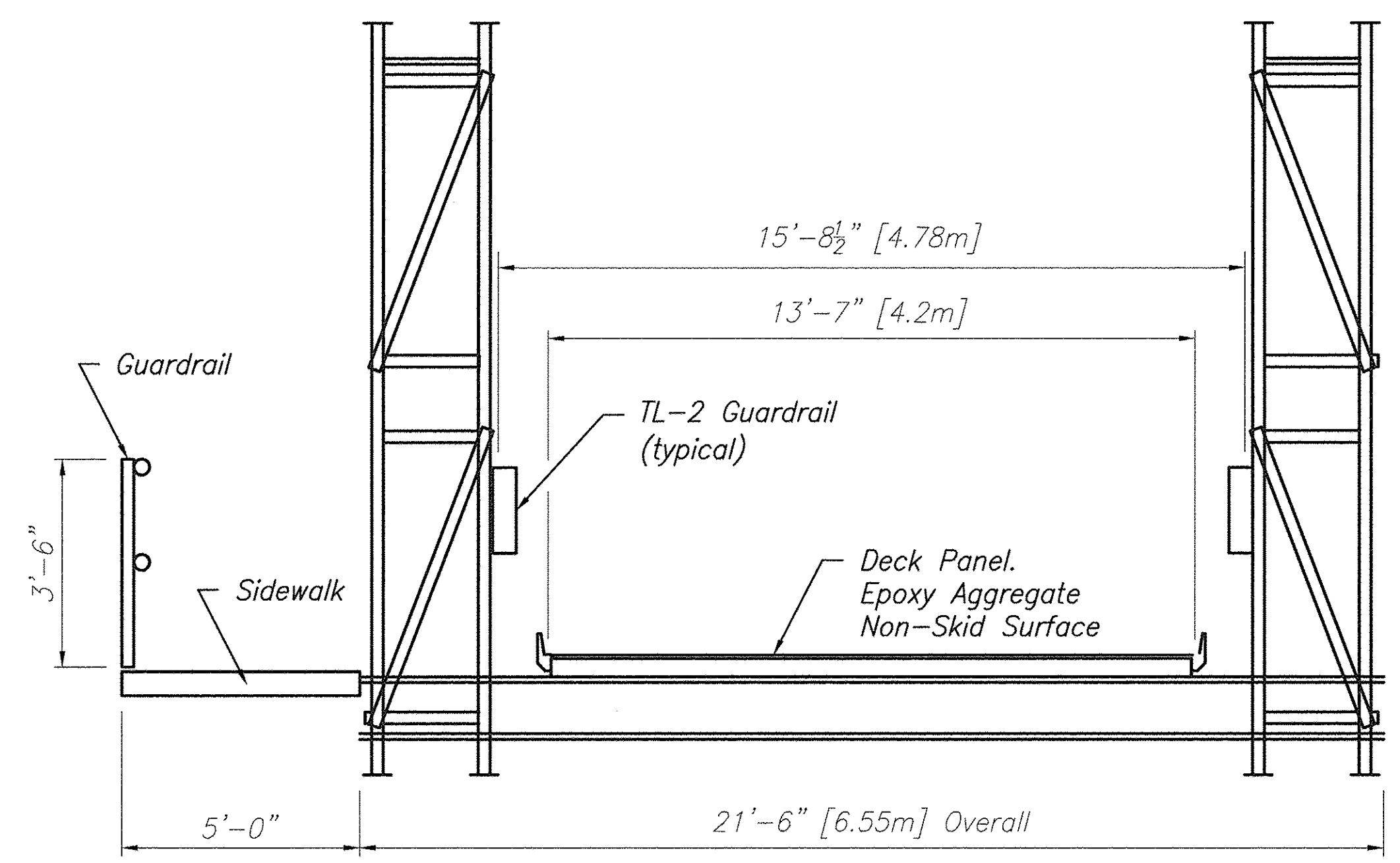


TEMPORARY BRIDGE PLAN



BILL OF MATERIAL

Item	Unit	Quantity
Temporary Bridge Complete	Each	1
Removal of Existing Structures No. 2	Each	1



TEMPORARY BRIDGE CROSS-SECTION
(looking north)

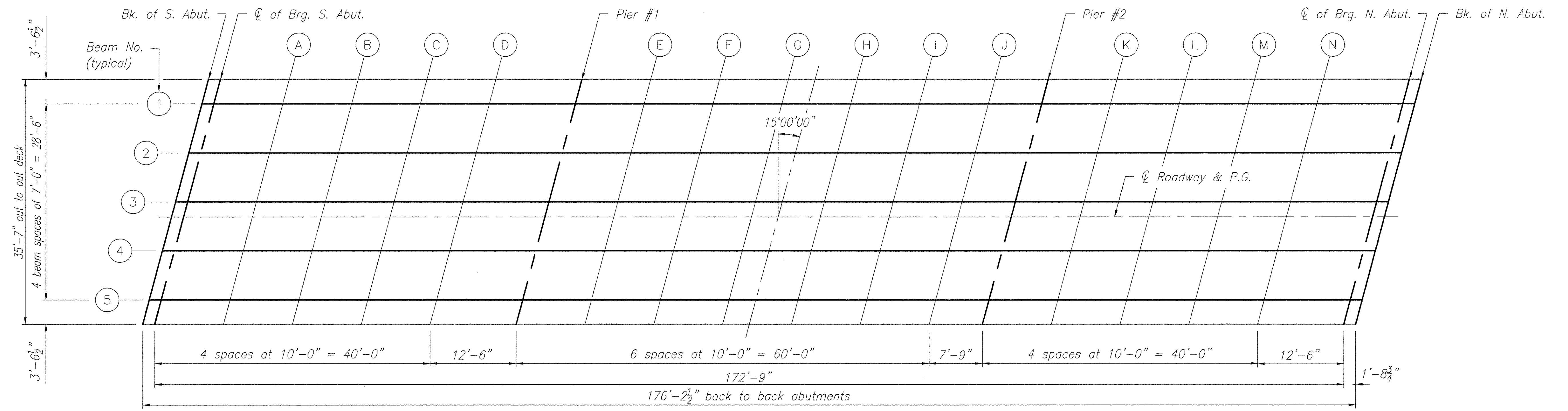
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PLOT DATE = 02/10/2017	DRAWN —	REVISED —
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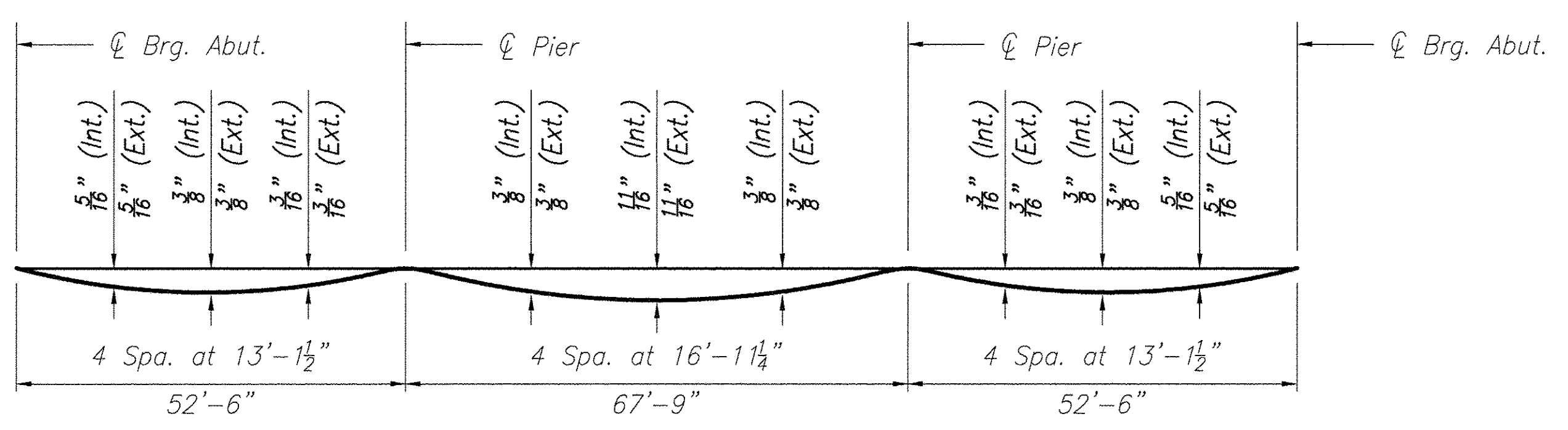
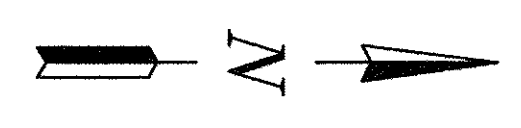
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY BRIDGE PLAN STRUCTURE NO. 016-8048		MUN 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 20
SCALE: NOT TO SCALE		SHEET NO. 05 OF 37 SHEETS		STA. 5+73.51 TO STA. 7+49.74		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

CONTRACT NO. 61D83	
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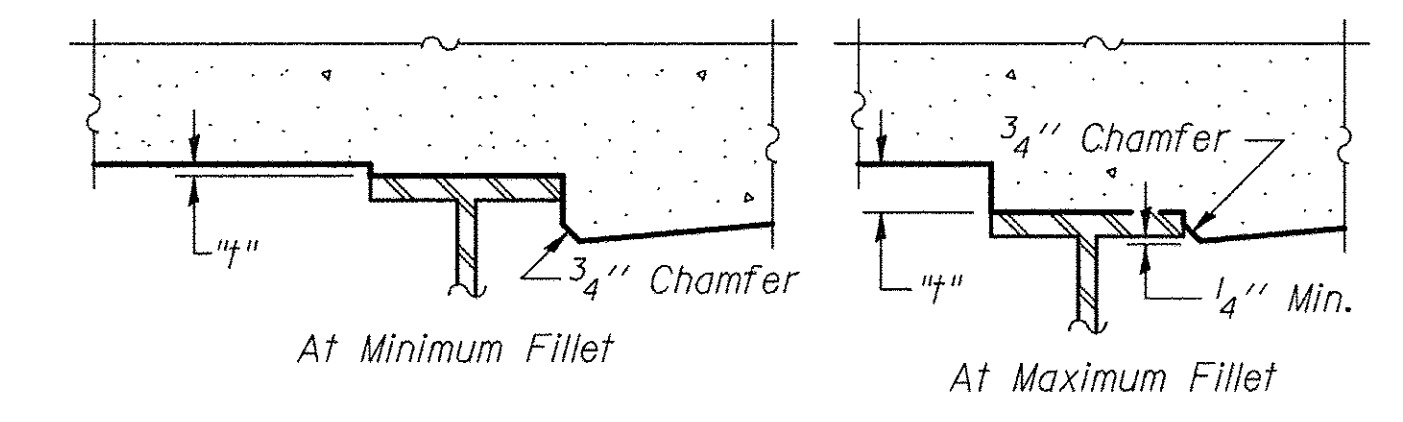


PLAN



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only)

Note:
The above deflections are not to be used in the field if the Engineer is working from the grade elevations adjusted for dead load deflections as shown above.



FILLET HEIGHTS

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

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	PLOT SCALE =	CHECKED — PGV	REVISED —				17	11-00095-00-BR	COOK	62	21
	PLOT DATE = 02/10/2017	DRAWN —	REVISED —				CONTRACT NO. 61D83				
		CHECKED —	REVISED —				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NOT TO SCALE SHEET NO. 06 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74							

BEAM 1				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. of S. Abut.	5+78.28	16.4583	596.63	596.63
☉ of Brg. S. Abut.	5+79.60	16.4583	596.62	596.62
A	5+89.60	16.4583	596.56	596.53
B	5+99.60	16.4583	596.49	596.46
C	6+09.60	16.4583	596.43	596.40
D	6+19.60	16.4583	596.36	596.35
☉ Brg. Pier 1	6+32.10	16.4583	596.28	596.28
E	6+42.10	16.4583	596.22	596.20
F	6+52.10	16.4583	596.16	596.11
G	6+62.10	16.4583	596.09	596.04
H	6+72.10	16.4583	596.03	595.97
I	6+82.10	16.4583	595.96	595.93
J	6+92.10	16.4583	595.90	595.89
☉ Brg. Pier 2	6+99.85	16.4583	595.85	595.85
K	7+09.85	16.4583	595.79	595.78
L	7+19.85	16.4583	595.72	595.70
M	7+29.85	16.4583	595.66	595.62
N	7+39.85	16.4583	595.59	595.57
☉ of Brg. N. Abut.	7+52.35	16.4583	595.51	595.51
Bk. of N. Abut.	7+53.66	16.4583	595.51	595.51

BEAM 2				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. of S. Abut.	5+76.41	9.3333	596.75	596.75
☉ of Brg. S. Abut.	5+77.72	9.3333	596.74	596.74
A	5+87.72	9.3333	596.68	596.65
B	5+97.72	9.3333	596.61	596.58
C	6+07.72	9.3333	596.55	596.52
D	6+17.72	9.3333	596.49	596.47
☉ Brg. Pier 1	6+30.22	9.3333	596.41	596.41
E	6+40.22	9.3333	596.34	596.32
F	6+50.22	9.3333	596.28	596.24
G	6+60.22	9.3333	596.21	596.16
H	6+70.22	9.3333	596.15	596.10
I	6+80.22	9.3333	596.09	596.05
J	6+90.22	9.3333	596.02	596.01
☉ Brg. Pier 2	6+97.97	9.3333	595.97	595.97
K	7+07.97	9.3333	595.91	595.90
L	7+17.97	9.3333	595.84	595.82
M	7+27.97	9.3333	595.78	595.75
N	7+37.97	9.3333	595.72	595.69
☉ of Brg. N. Abut.	7+50.47	9.3333	595.64	595.64
Bk. of N. Abut.	7+51.78	9.3333	595.63	595.63

BEAM 3				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. of S. Abut.	5+74.53	2.2083	596.87	596.87
☉ of Brg. S. Abut.	5+75.84	2.2083	596.86	596.86
A	5+85.84	2.2083	596.80	596.78
B	5+95.84	2.2083	596.74	596.70
C	6+05.84	2.2083	596.67	596.64
D	6+15.84	2.2083	596.61	596.59
☉ Brg. Pier 1	6+28.34	2.2083	596.53	596.53
E	6+38.34	2.2083	596.46	596.45
F	6+48.34	2.2083	596.40	596.36
G	6+58.34	2.2083	596.34	596.28
H	6+68.34	2.2083	596.27	596.22
I	6+78.34	2.2083	596.21	596.17
J	6+88.34	2.2083	596.14	596.13
☉ Brg. Pier 2	6+96.09	2.2083	596.09	596.09
K	7+06.09	2.2083	596.03	596.02
L	7+16.09	2.2083	595.97	595.94
M	7+26.09	2.2083	595.90	595.87
N	7+36.09	2.2083	595.84	595.81
☉ of Brg. N. Abut.	7+48.59	2.2083	595.76	595.76
Bk. of N. Abut.	7+49.91	2.2083	595.75	595.75

☉ ROADWAY				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. of S. Abut.	5+73.94	0.0000	596.91	596.91
☉ of Brg. S. Abut.	5+75.25	0.0000	596.90	596.90
A	5+85.25	0.0000	596.84	596.81
B	5+95.25	0.0000	596.77	596.74
C	6+05.25	0.0000	596.71	596.68
D	6+15.25	0.0000	596.65	596.63
☉ Brg. Pier 1	6+27.75	0.0000	596.57	596.57
E	6+37.75	0.0000	596.50	596.48
F	6+47.75	0.0000	596.44	596.40
G	6+57.75	0.0000	596.37	596.32
H	6+67.75	0.0000	596.31	596.26
I	6+77.75	0.0000	596.25	596.21
J	6+87.75	0.0000	596.18	596.17
☉ Brg. Pier 2	6+95.50	0.0000	596.13	596.13
K	7+05.50	0.0000	596.07	596.06
L	7+15.50	0.0000	596.00	595.98
M	7+25.50	0.0000	595.94	595.91
N	7+35.50	0.0000	595.88	595.85
☉ of Brg. N. Abut.	7+48.00	0.0000	595.80	595.80
Bk. of N. Abut.	7+49.31	0.0000	595.79	595.79

BEAM 4				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. of S. Abut.	5+72.66	4.9167	596.84	596.84
☉ of Brg. S. Abut.	5+73.97	4.9167	596.83	596.83
A	5+83.97	4.9167	596.77	596.75
B	5+93.97	4.9167	596.71	596.67
C	6+03.97	4.9167	596.64	596.61
D	6+13.97	4.9167	596.58	596.57
☉ Brg. Pier 1	6+26.47	4.9167	596.50	596.50
E	6+36.47	4.9167	596.43	596.42
F	6+46.47	4.9167	596.37	596.33
G	6+56.47	4.9167	596.31	596.25
H	6+66.47	4.9167	596.24	596.19
I	6+76.47	4.9167	596.18	596.14
J	6+86.47	4.9167	596.11	596.10
☉ Brg. Pier 2	6+94.22	4.9167	596.07	596.07
K	7+04.22	4.9167	596.00	595.99
L	7+14.22	4.9167	595.94	595.91
M	7+24.22	4.9167	595.87	595.84
N	7+34.22	4.9167	595.81	595.78
☉ of Brg. N. Abut.	7+46.72	4.9167	595.73	595.73
Bk. of N. Abut.	7+48.03	4.9167	595.72	595.72

BEAM 5				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. of S. Abut.	5+70.78	12.0417	596.75	596.75
☉ of Brg. S. Abut.	5+72.09	12.0417	596.74	596.74
A	5+82.09	12.0417	596.67	596.65
B	5+92.09	12.0417	596.61	596.57
C	6+02.09	12.0417	596.55	596.52
D	6+12.09	12.0417	596.48	596.47
☉ Brg. Pier 1	6+24.59	12.0417	596.40	596.40
E	6+34.59	12.0417	596.34	596.32
F	6+44.59	12.0417	596.27	596.23
G	6+54.59	12.0417	596.21	596.15
H	6+64.59	12.0417	596.15	596.09
I	6+74.59	12.0417	596.08	596.05
J	6+84.59	12.0417	596.02	596.01
☉ Brg. Pier 2	6+92.34	12.0417	595.97	595.97
K	7+02.34	12.0417	595.90	595.89
L	7+12.34	12.0417	595.84	595.81
M	7+22.34	12.0417	595.78	595.74
N	7+32.34	12.0417	595.71	595.68
☉ of Brg. N. Abut.	7+44.84	12.0417	595.63	595.63
Bk. of N. Abut.	7+46.16	12.0417	595.62	595.62

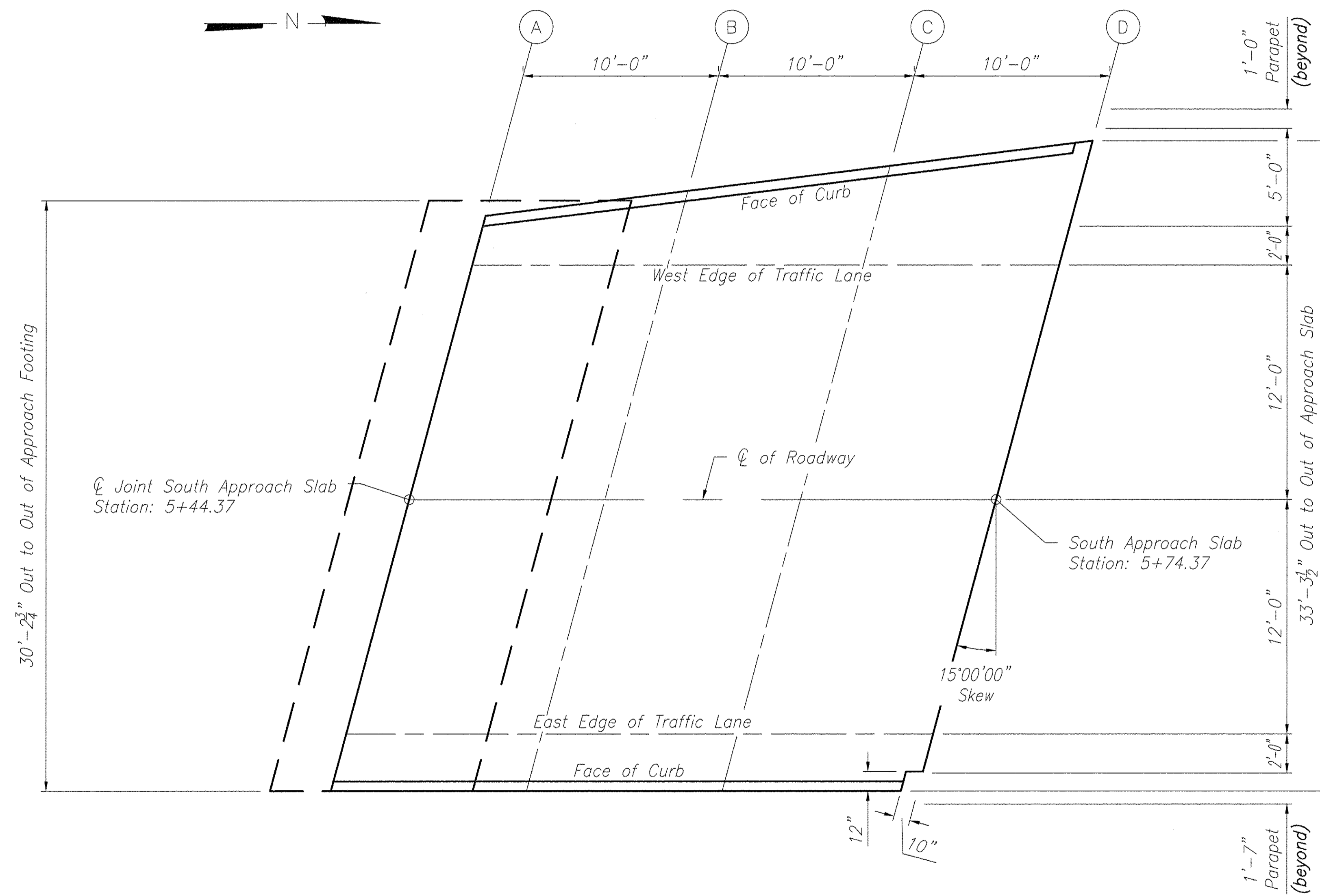
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PLOT DATE = 02/10/2017	DRAWN —	REVISED —
	CHECKED —	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB DECK ELEVATIONS
STRUCTURE NO. 016-8048

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	22
SCALE: NOT TO SCALE			SHEET NO. 07 OF 37 SHEETS	
STA. 5+73.51 TO STA. 7+49.74			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61D83	



PLAN

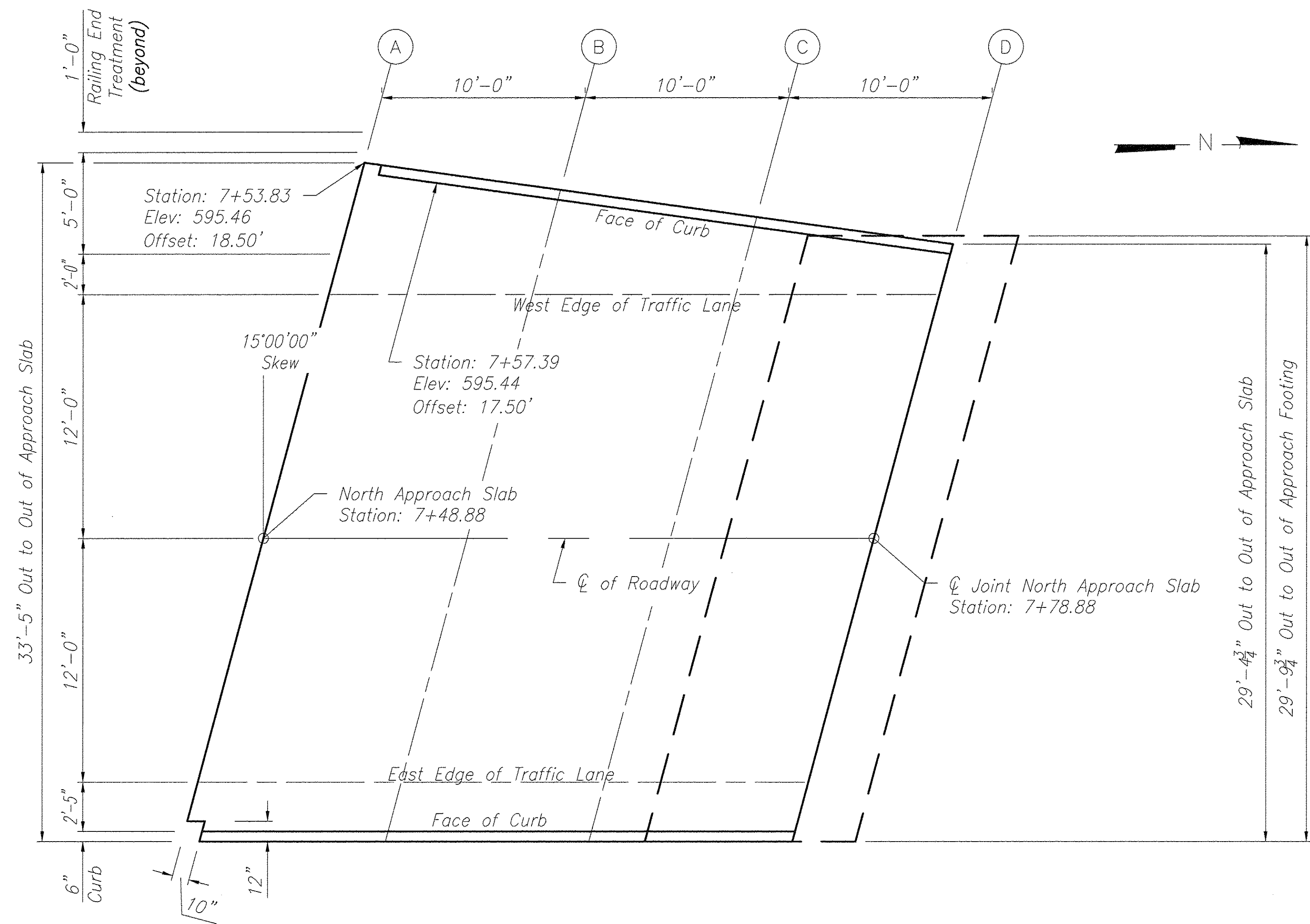
FACE OF WEST CURB			
Location	Station	Offset	Theoretical Grade Elevations
A	5+48.12	14.00'	596.85
B	5+58.47	15.28'	596.77
C	5+68.81	16.57'	596.68
D	5+79.13	17.74'	596.60

WEST EDGE OF TRAFFIC LANE			
Location	Station	Offset	Theoretical Grade Elevations
A	5+47.59	12.00'	596.89
B	5+57.59	12.00'	596.82
C	5+67.59	12.00'	596.76
D	5+77.59	12.00'	596.70

CENTERLINE			
Location	Station	Offset	Theoretical Grade Elevations
A	5+44.37	0.00'	597.10
B	5+54.37	0.00'	597.03
C	5+64.37	0.00'	596.97
D	5+74.37	0.00'	596.90

EAST EDGE OF TRAFFIC LANE			
Location	Station	Offset	Theoretical Grade Elevations
A	5+41.16	12.00'	596.93
B	5+51.16	12.00'	596.86
C	5+61.16	12.00'	596.80
D	5+71.16	12.00'	596.74

FACE OF EAST CURB			
Location	Station	Offset	Theoretical Grade Elevations
A	5+40.51	14.42'	596.89
B	5+50.51	14.42'	596.83
C	5+60.51	14.42'	596.77
D	5+70.51	14.42'	596.70



PLAN

FACE OF WEST CURB			
Location	Station	Offset	Theoretical Grade Elevations
A			
B	7+62.80	16.67'	595.42
C	7+72.99	15.34'	595.40
D	7+82.63	14.00'	595.36

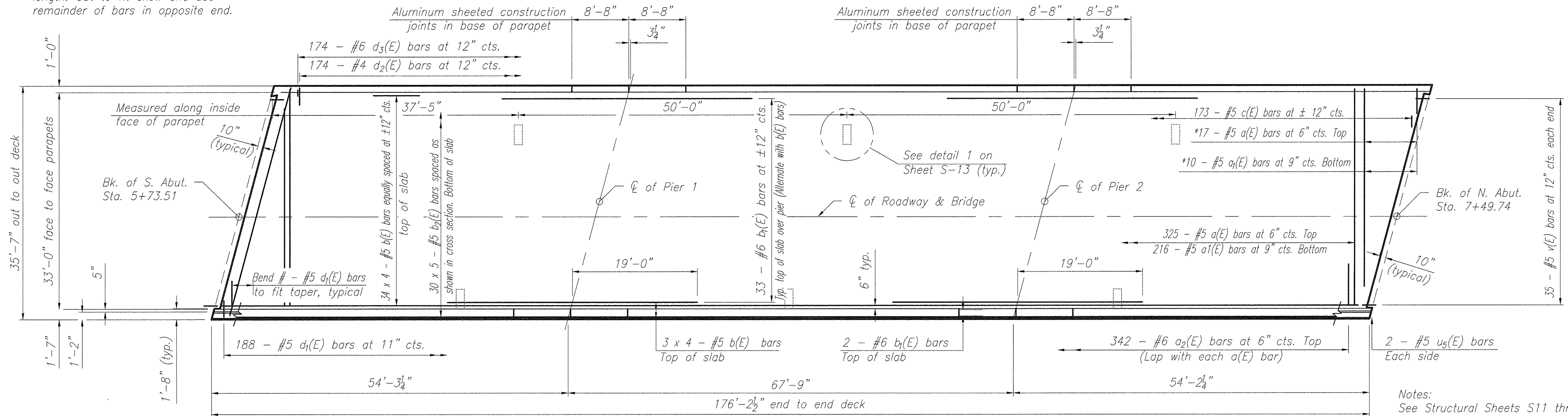
WEST EDGE OF TRAFFIC LANE			
Location	Station	Offset	Theoretical Grade Elevations
A	7+52.09	12.00'	595.59
B	7+62.09	12.00'	595.52
C	7+72.09	12.00'	595.46
D	7+82.09	12.00'	595.49

CENTERLINE			
Location	Station	Offset	Theoretical Grade Elevations
A	7+48.88	0.00'	595.80
B	7+58.88	0.00'	595.73
C	7+68.88	0.00'	595.67
D	7+78.88	0.00'	595.60

EAST EDGE OF TRAFFIC LANE			
Location	Station	Offset	Theoretical Grade Elevations
A	7+45.66	12.00'	595.63
B	7+55.66	12.00'	595.56
C	7+65.66	12.00'	595.50
D	7+75.66	12.00'	595.43

FACE OF EAST CURB			
Location	Station	Offset	Theoretical Grade Elevations
A	7+45.01	14.42'	595.59
B	7+55.01	14.42'	595.53
C	7+65.01	14.42'	595.47
D	7+75.01	14.42'	595.40

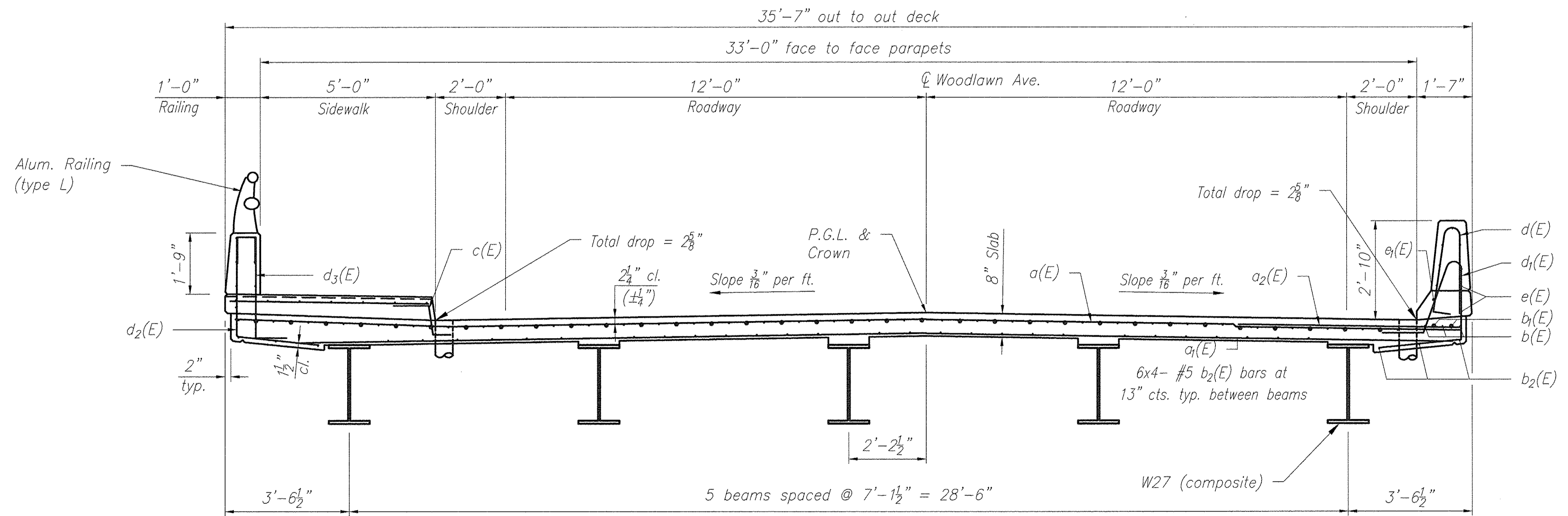
* Order a(E) and a₁(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.



Notes:
See Structural Sheets S11 thru S13 of 37 for superstructure details, parapet reinforcement and Bill of Material.
Bars indicated thus: 20 x 3 - #5 etc. indicates 20 lines with 3 lengths per line

MINIMUM BAR LAP
#5 bar = 3'-6"

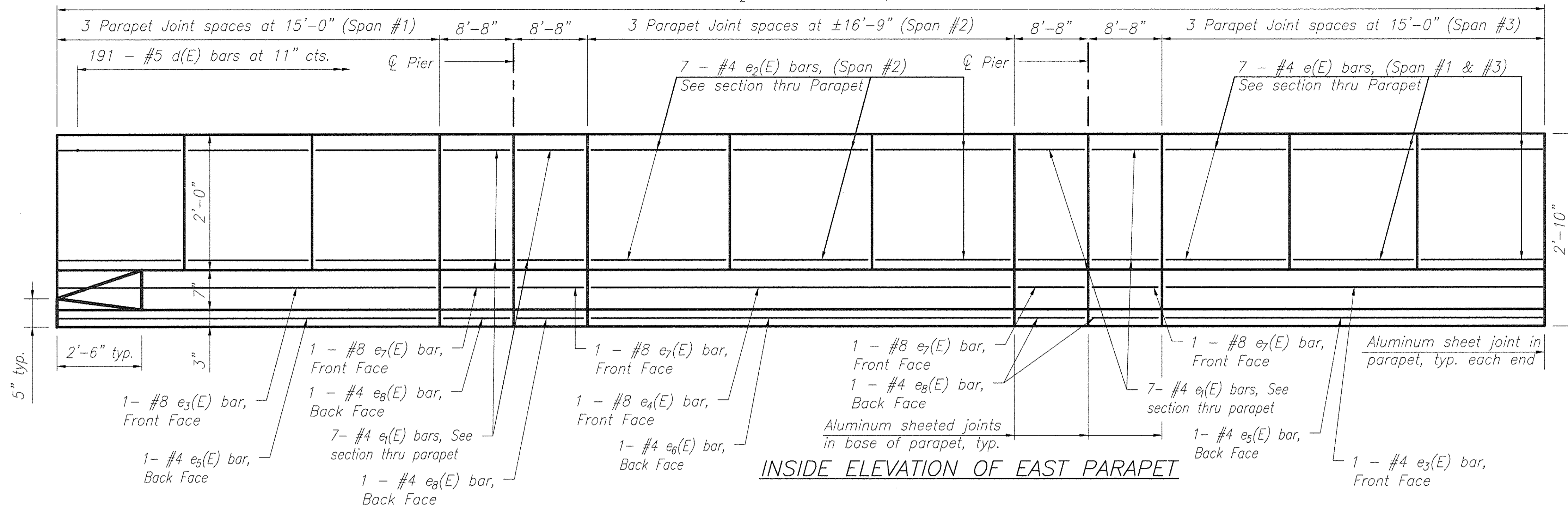
PLAN



CROSS SECTION

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	PLOT SCALE =	CHECKED - PGV	REVISIONS -			17	11-00095-00-BR	COOK	62	25
	PLOT DATE = 02/10/2017	DRAWN -	REVISIONS -			CONTRACT NO. 61D83				
		CHECKED -	REVISIONS -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

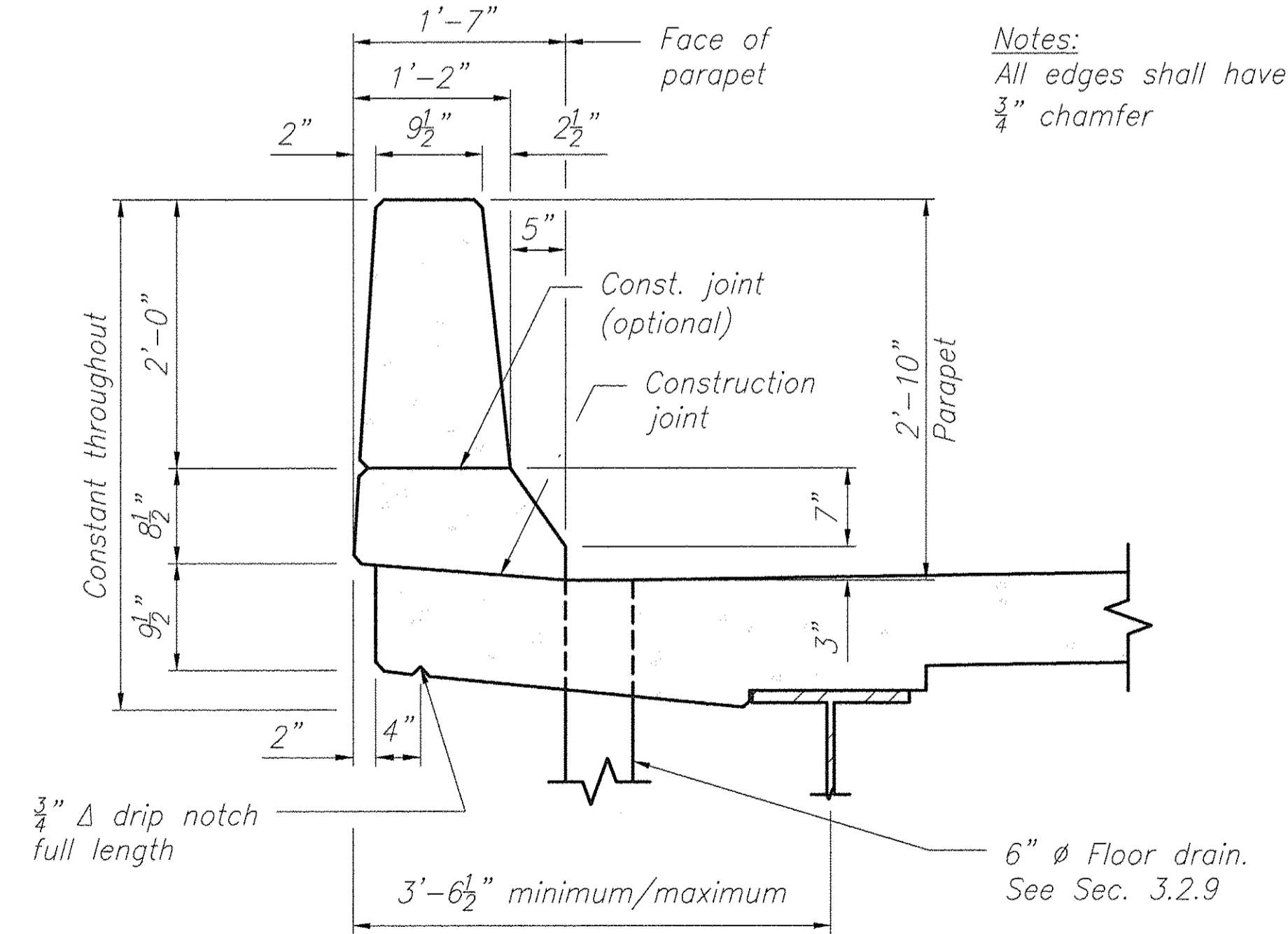
175'-4 1/2" End to End Parapet



INSIDE ELEVATION OF EAST PARAPET

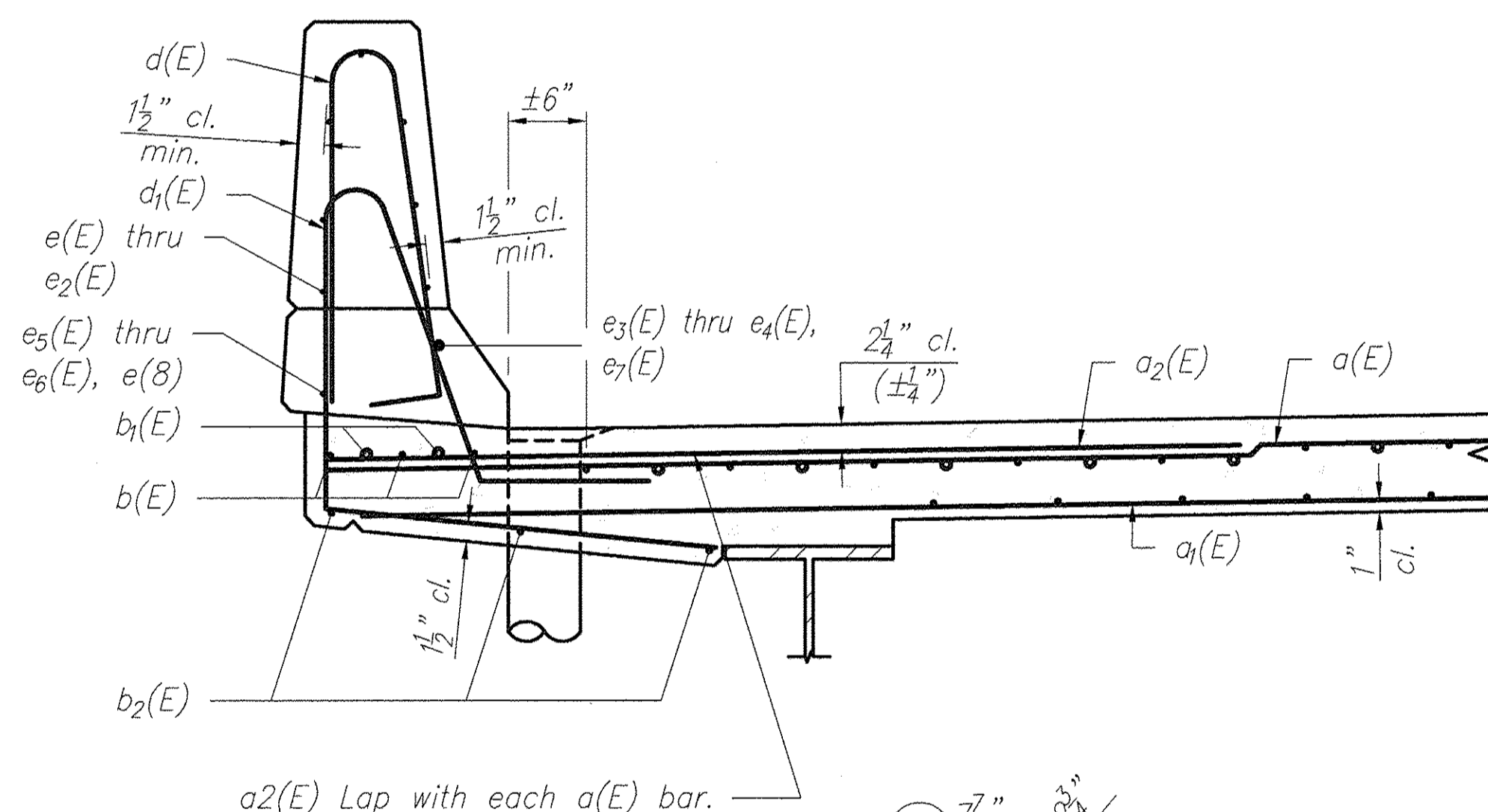
SUPERSTRUCTURE BILL OF MATERIAL

BAR	QTY.	SIZE	LENGTH	SHAPE
a(E)	342	#5	34'-11"	—
a ₁ (E)	226	#5	34'-11"	—
a ₂ (E)	342	#6	6'-6"	—
a ₃ (E)	48	#5	2'-0"	—
b(E)	180	#5	46'-4"	—
b ₁ (E)	70	#6	38'-0"	—
b ₂ (E)	150	#5	37'-9"	—
c(E)	173	#5	2'-4"	⌒
c ₁ (E)	173	#5	5'-8"	—
d(E)	188	#5	5'-7"	⌒
d ₁ (E)	188	#5	7'-11"	⌒
d ₂ (E)	176	#4	5'-5"	⌒
d ₃ (E)	176	#6	3'-9"	⌒
d ₄ (E)	46	#4	2'-0"	⌒
e(E)	78	#4	14'-8"	—
e ₁ (E)	52	#4	8'-4"	—
e ₂ (E)	39	#4	16'-5"	—
e ₃ (E)	2	#8	44'-8"	—
e ₄ (E)	1	#8	50'-0"	—
e ₅ (E)	2	#4	44'-8"	—
e ₆ (E)	6	#4	50'-0"	—
e ₇ (E)	4	#8	8'-4"	—
e ₈ (E)	4	#4	8'-4"	—
m(E)	16	#6	36'-5"	—
m ₁ (E)	16	#6	6'-8"	—
m ₂ (E)	12	#6	3'-0"	—
m ₃ (E)	20	#5	4'-0"	—
s(E)	72	#5	6'-5"	⌒
s ₁ (E)	72	#5	7'-11"	⌒
v(E)	70	#5	2'-6"	⌒
Reinforcement Bars, Epoxy Coated			Pounds	53,030
Concrete Superstructure			Cu. Yd.	186
Aluminum Railing, Type L			Feet	209
Bar Splicers			Each	72

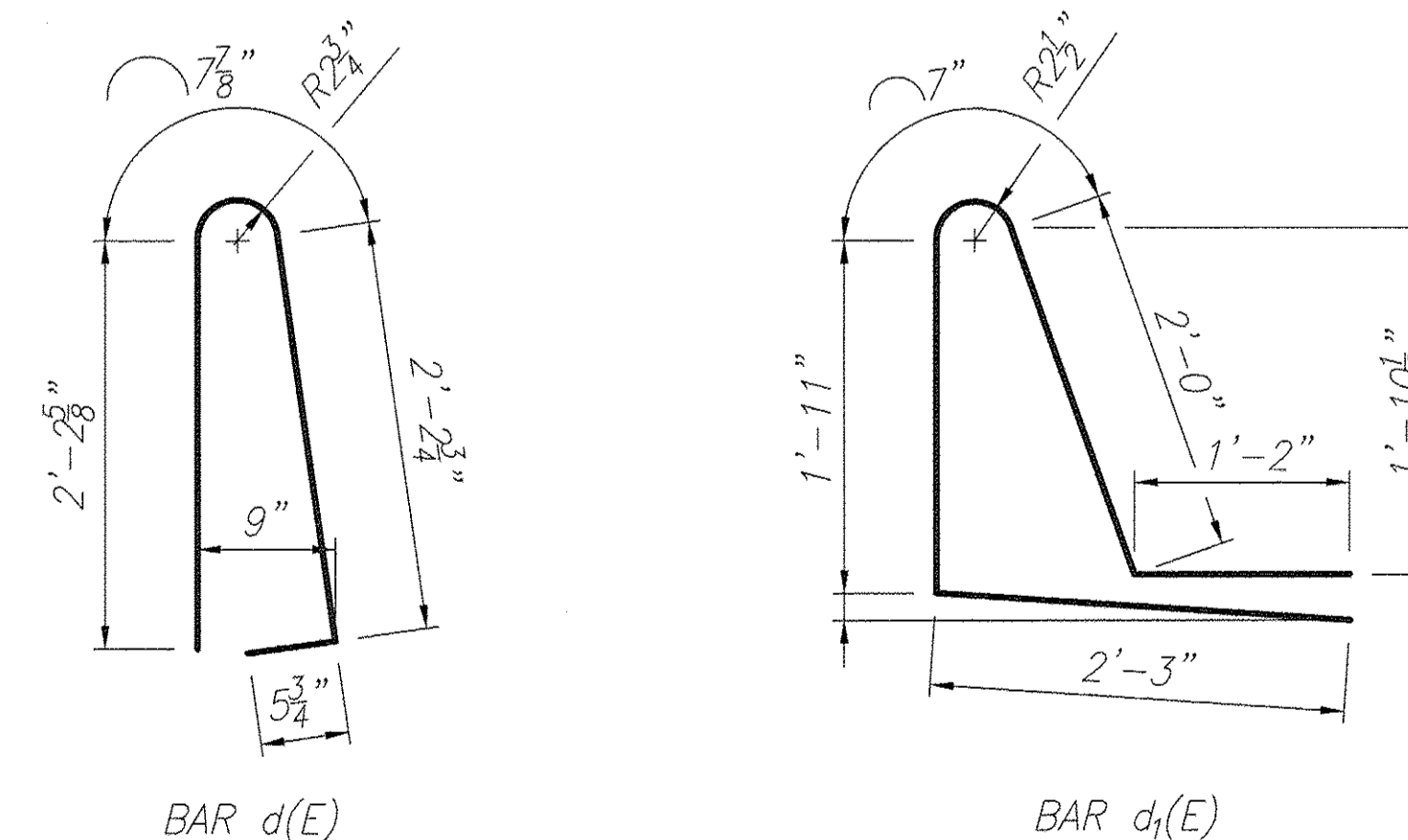


Cross sectional area of parapet = 2.97 ft²

SECTION THRU PARAPET



Note:
Reinforcement bars designated (E) shall be epoxy coated.
Reinforcement bars shall not pass thru aluminum sheets and cork joint filler.

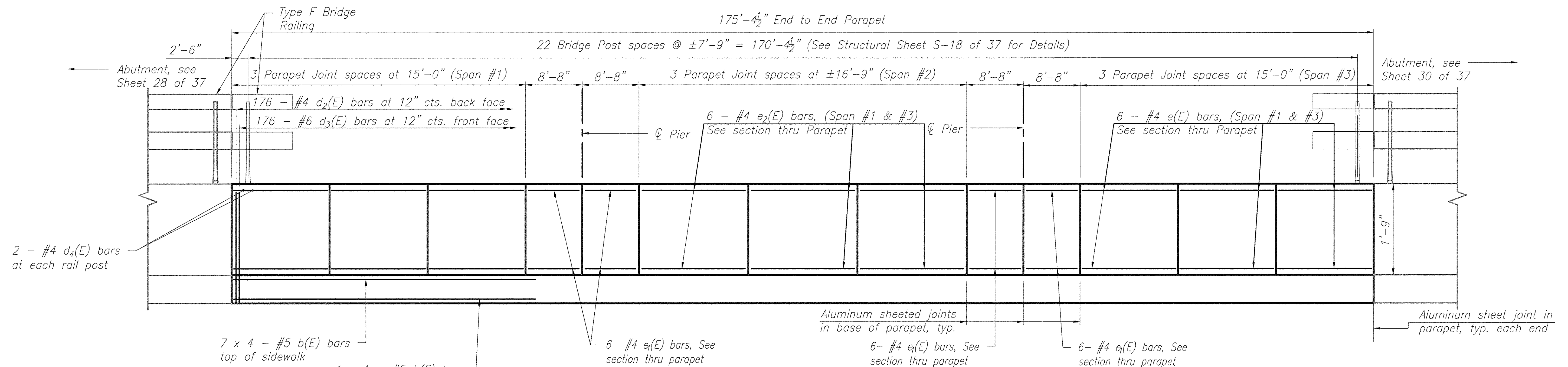


BAR d(E)

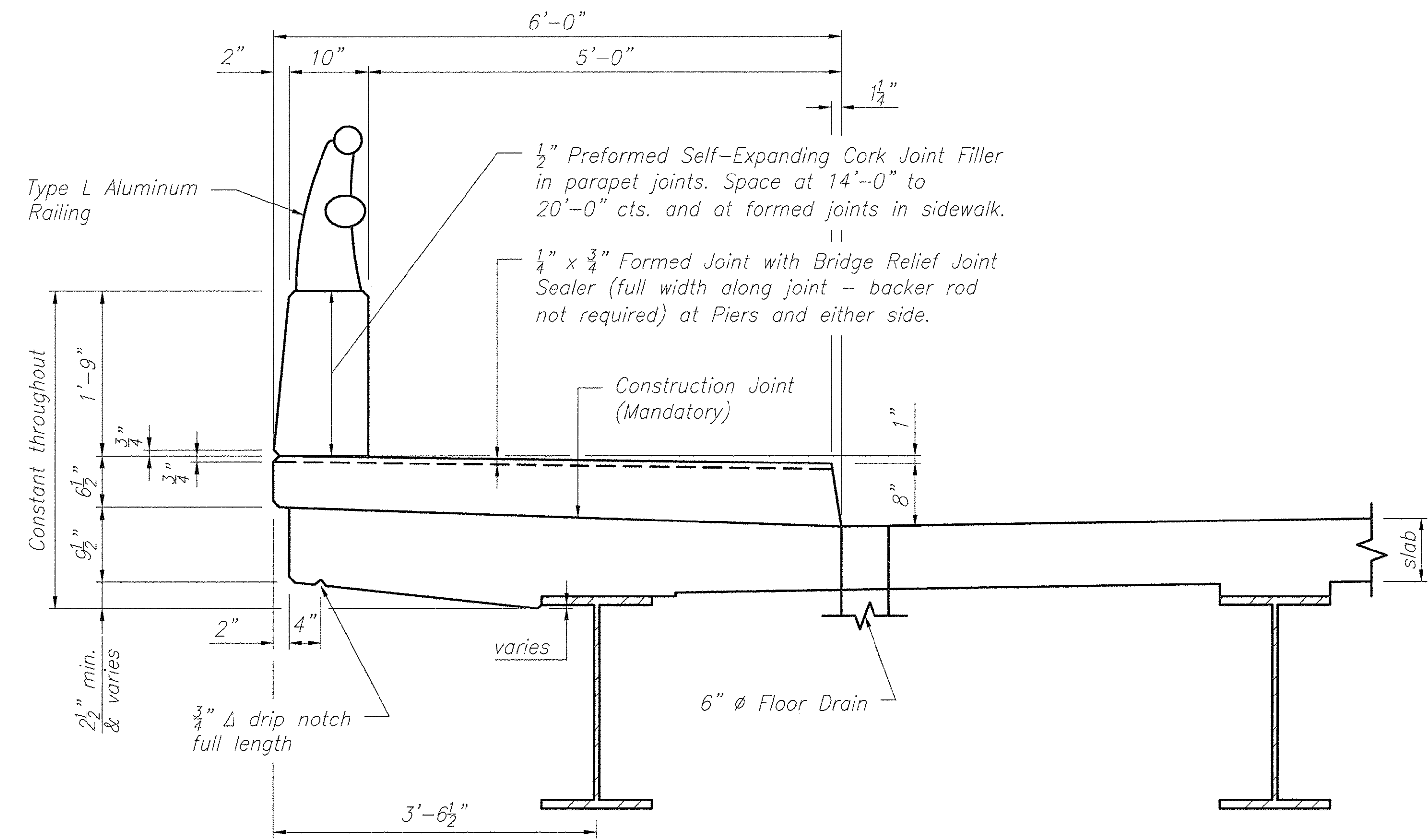
BAR d₁(E)

SECTION THRU DECK & PARAPET

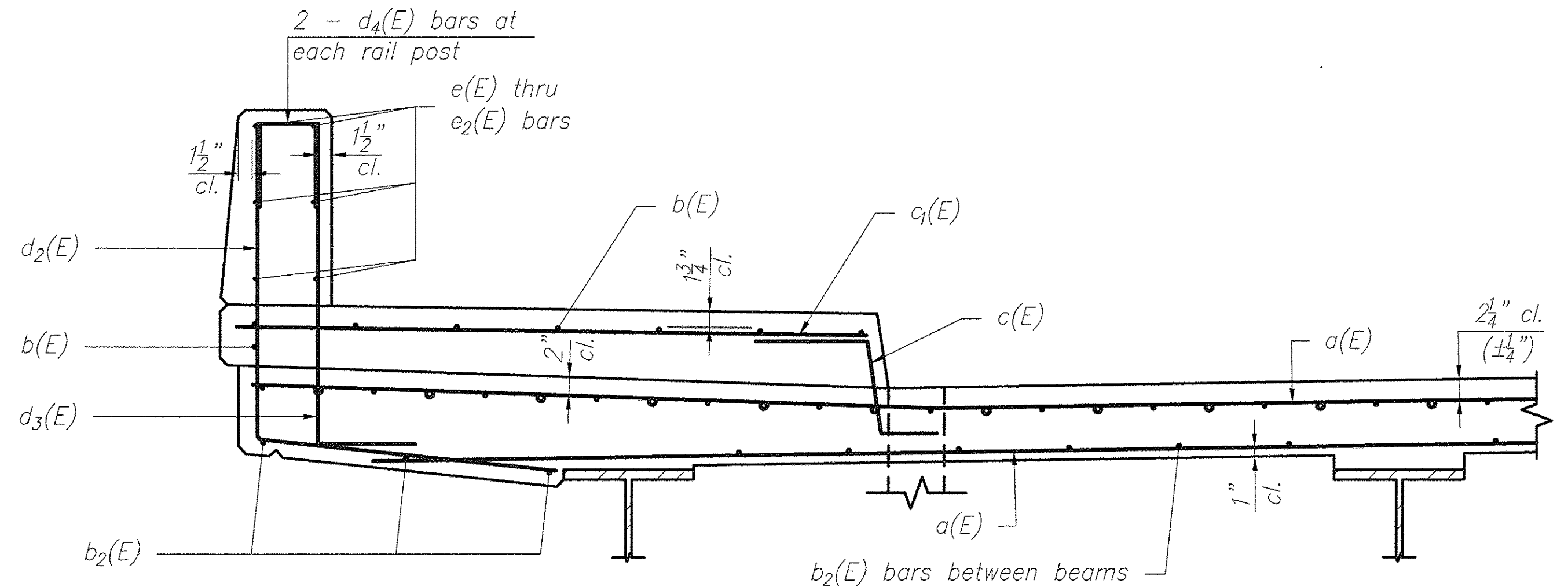
Bars indicated thus 1 x 2 - #8 etc. indicates 1 line of bars with 2 lengths per line



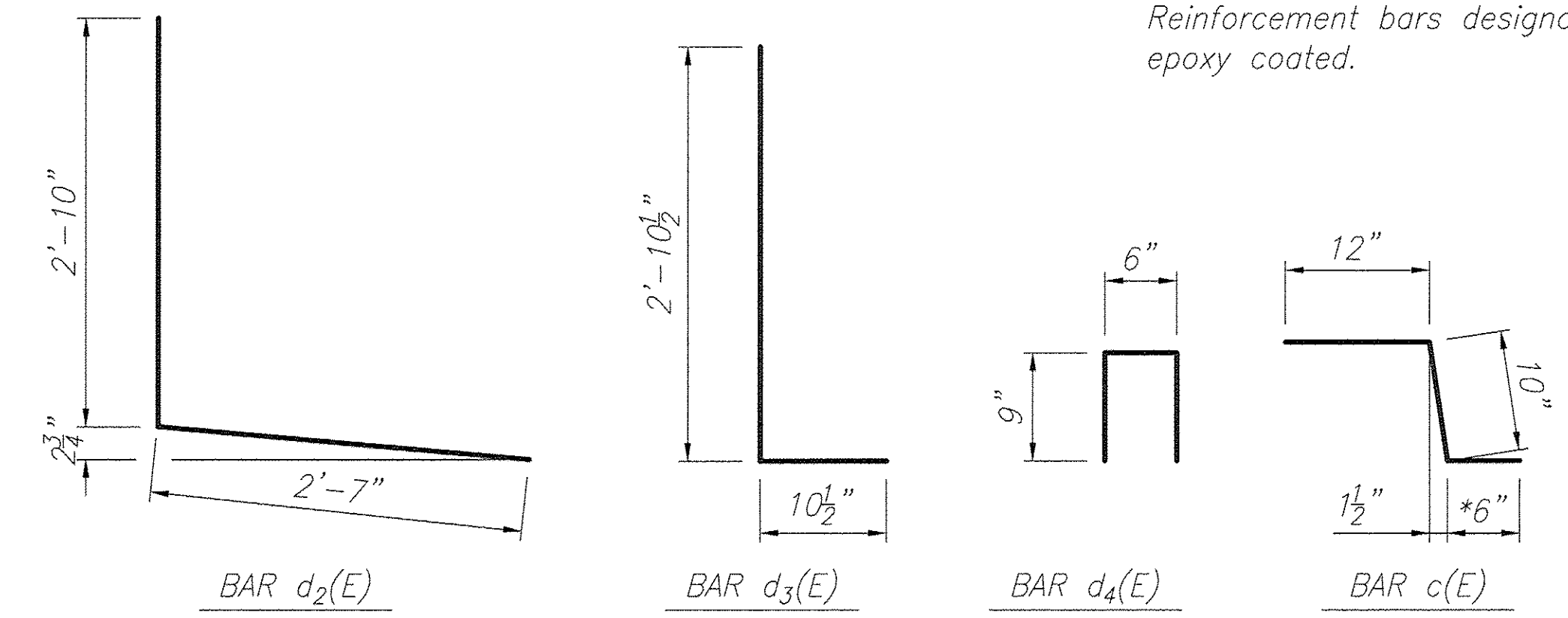
INSIDE ELEVATION OF WEST PARAPET



SIDEWALK CONFIGURATION & DIMENSIONS



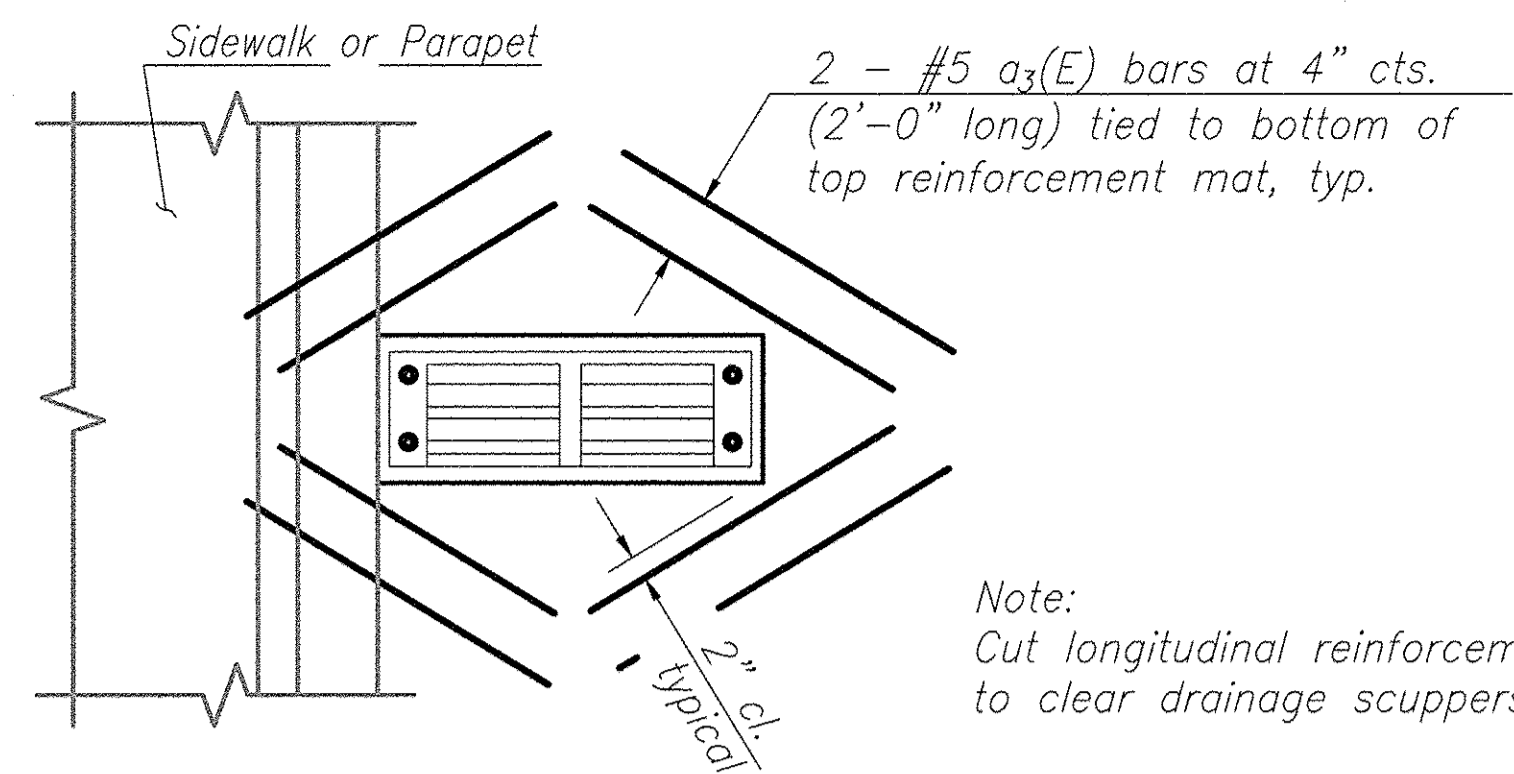
Note: Reinforcement bars designated (E) shall be epoxy coated.



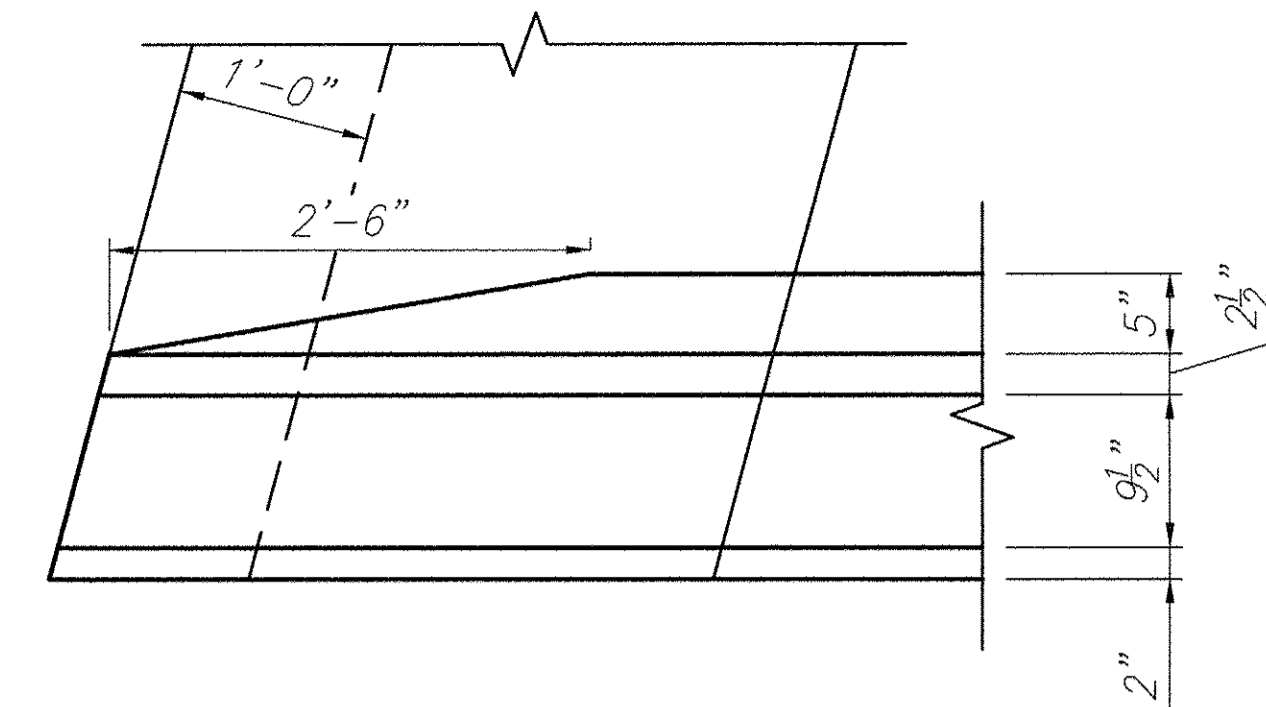
SIDEWALK REINFORCEMENT

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

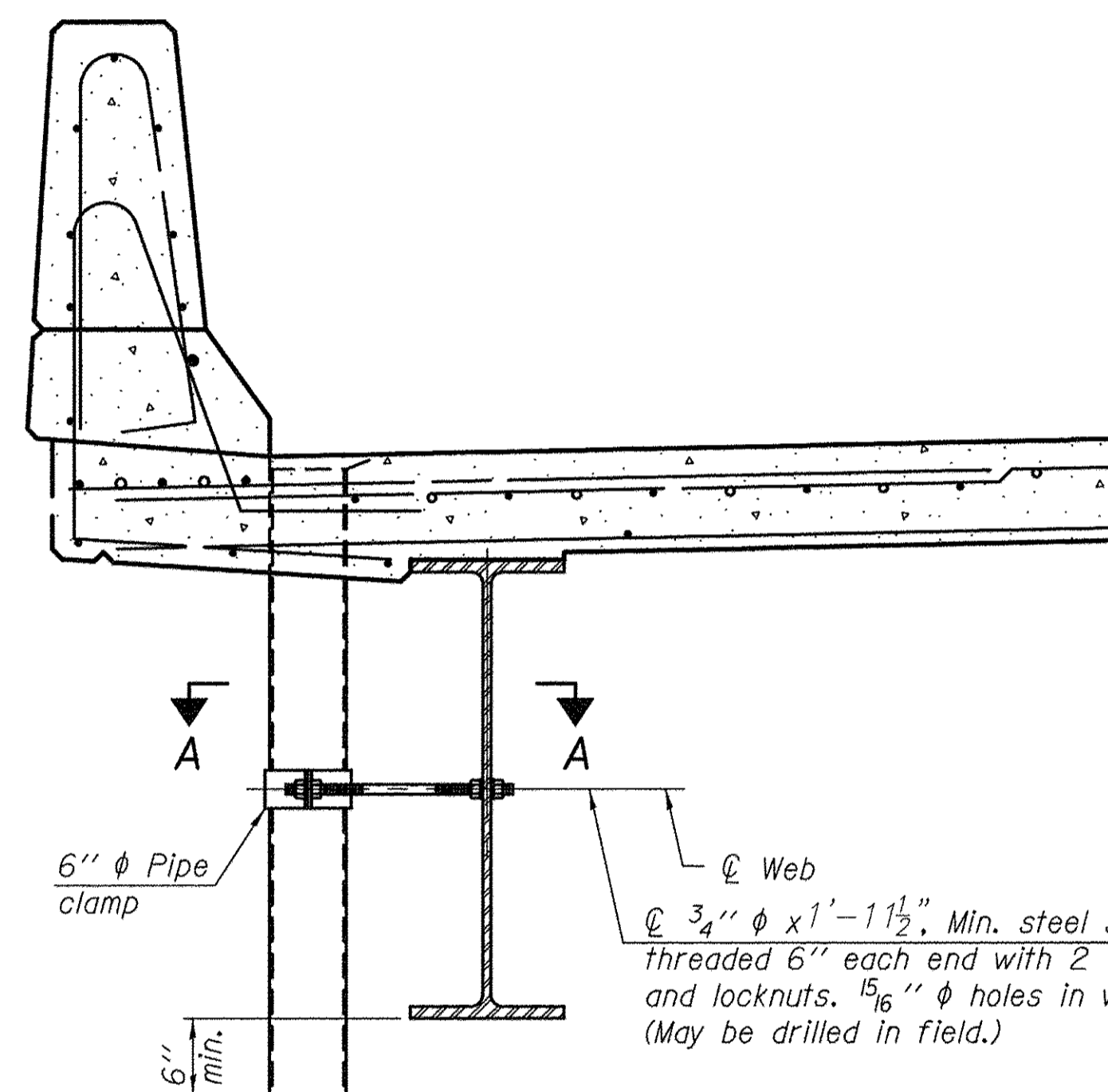
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	PLOT SCALE =	CHECKED — PGV	REVISED —		17	11-00095-00-BR	COOK	62	27		
	PLOT DATE = 02/10/2017	DRAWN —	REVISED —		CONTRACT NO. 61D83						
		CHECKED —	REVISED —		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



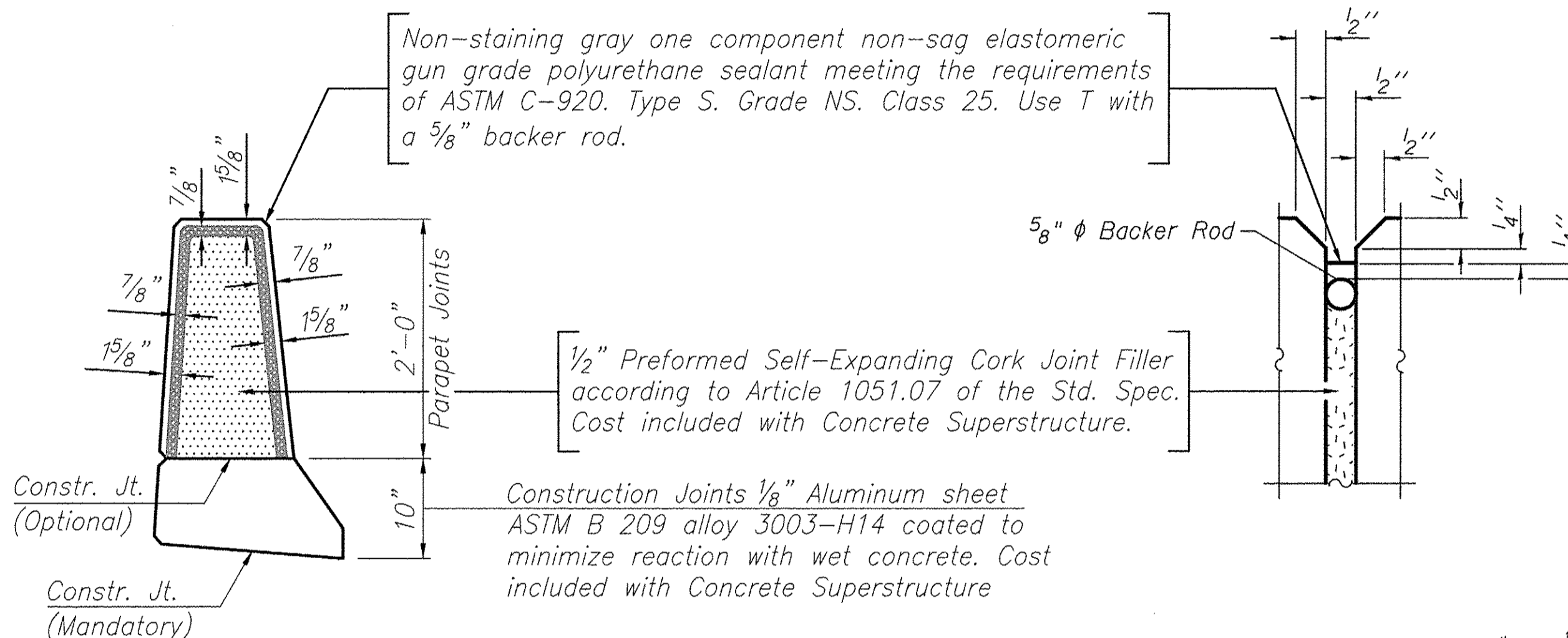
DETAIL 1 - PLAN



S.E. & N.E. PARAPET CORNER DETAIL

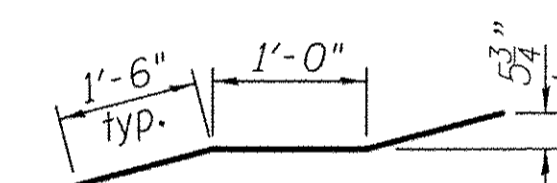


SECTION THRU PARAPET

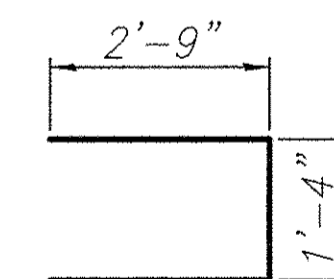


PARAPET JOINT DETAILS

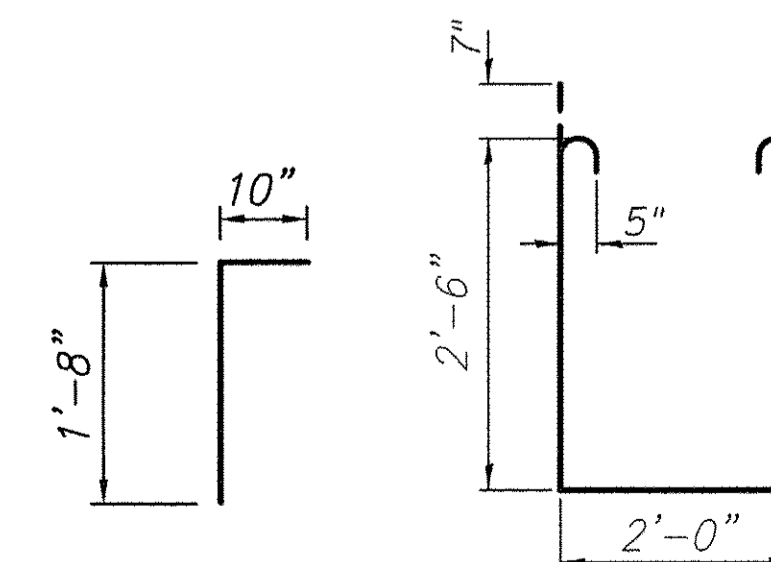
Notes:
 Drains shall be located clear of all diaphragms.
 The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.
 Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 psi minimum.
 Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.



BAR m3(E)

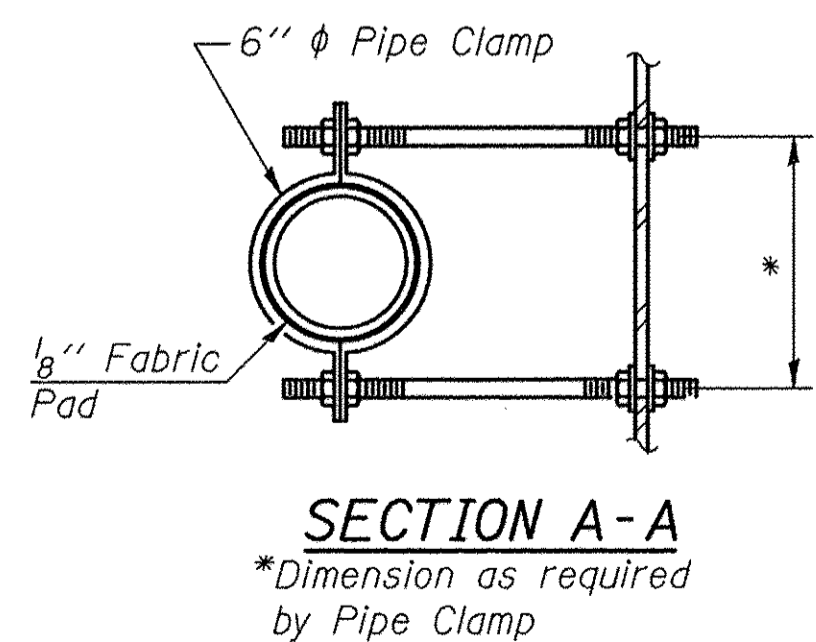


BAR s(E)

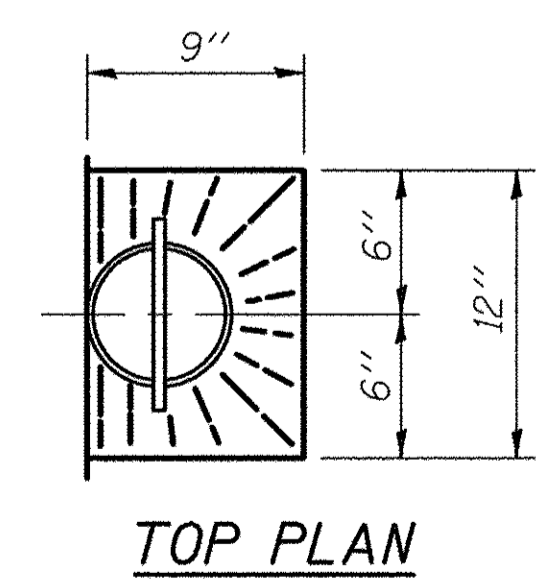


BAR v(E)

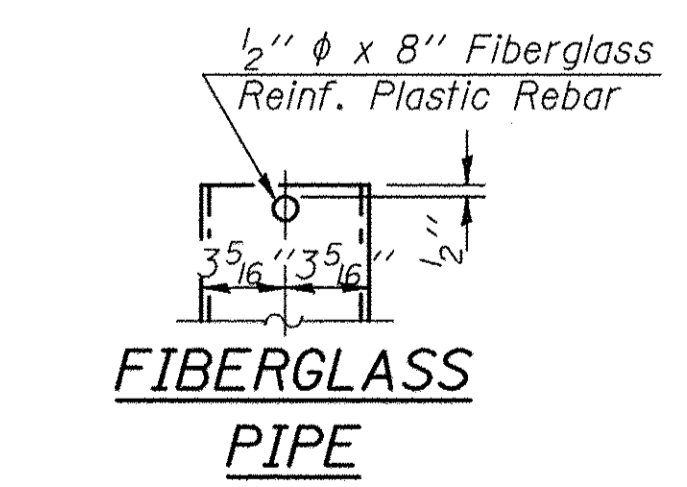
BAR s1(E)



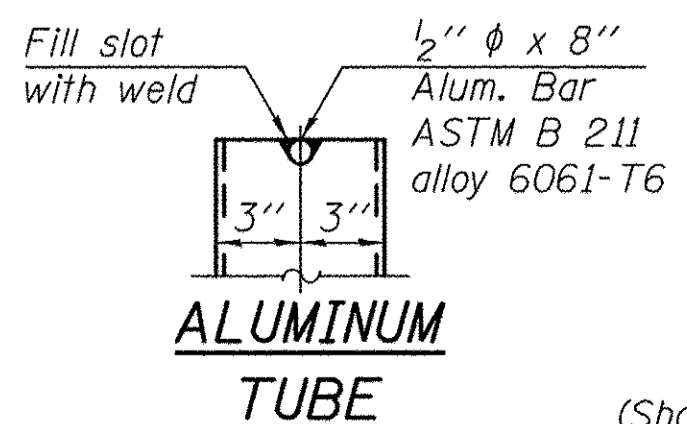
SECTION A-A
 *Dimension as required by Pipe Clamp



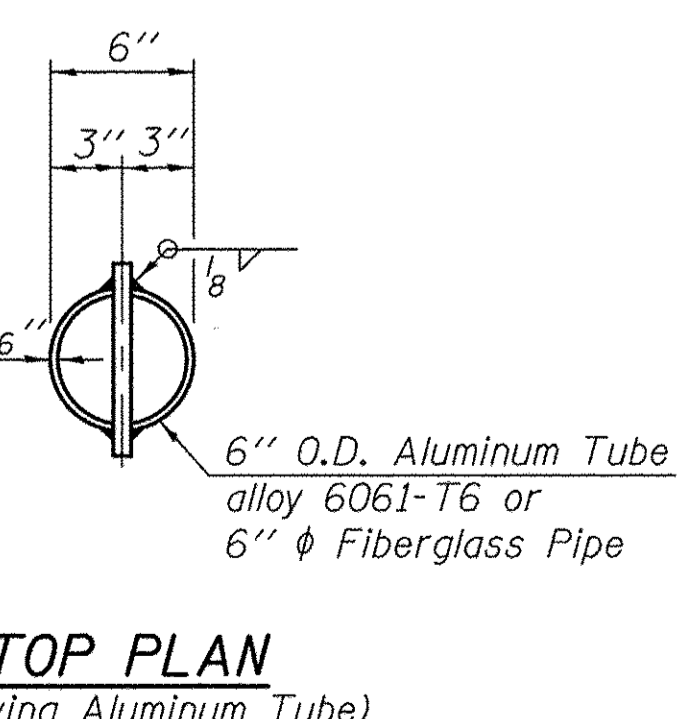
TOP PLAN



FIBERGLASS PIPE



ALUMINUM TUBE



TOP PLAN
 (Showing Aluminum Tube)

SI-D2-LR

6-8-15

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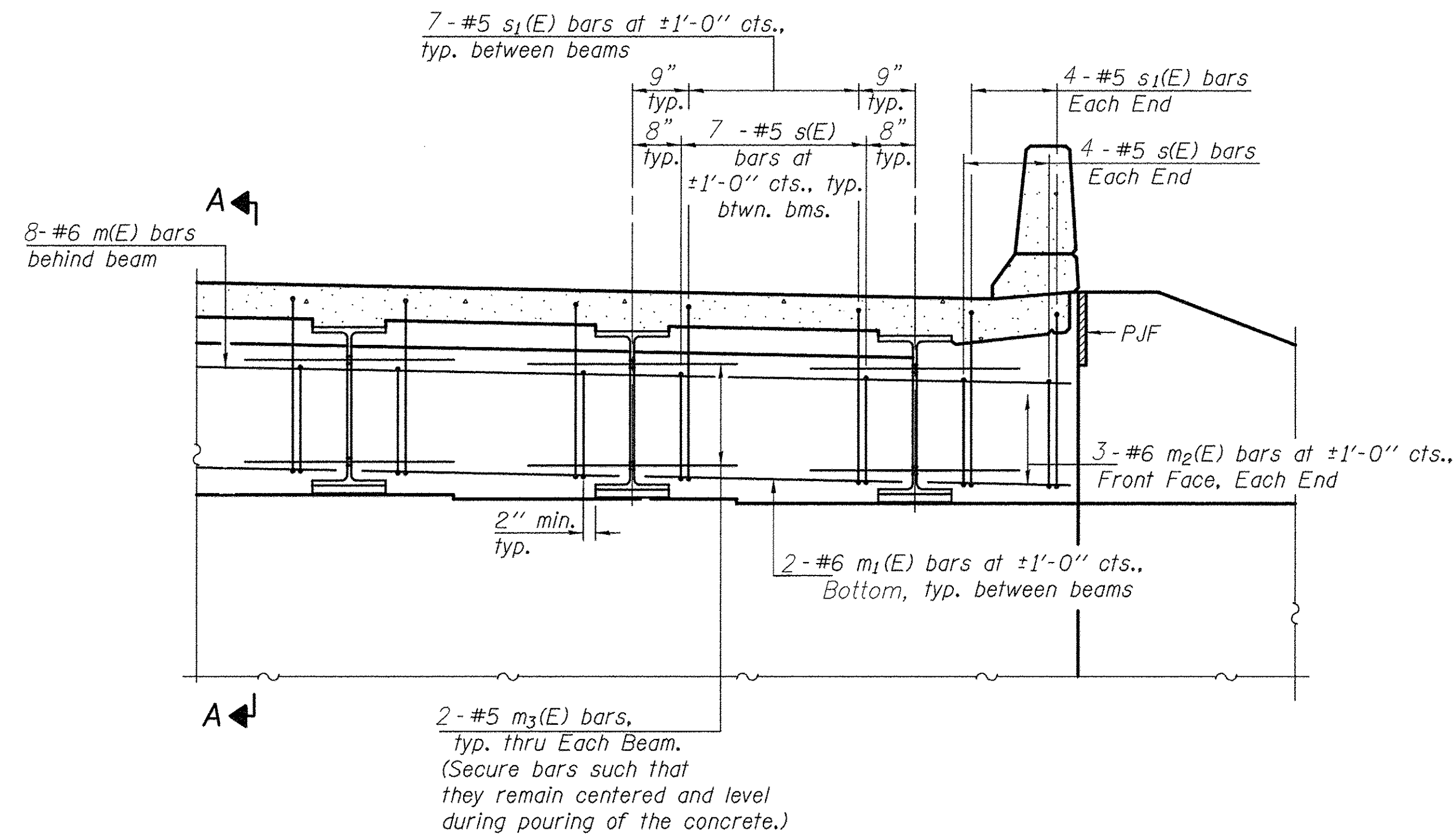
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	CHECKED —	REVISED —

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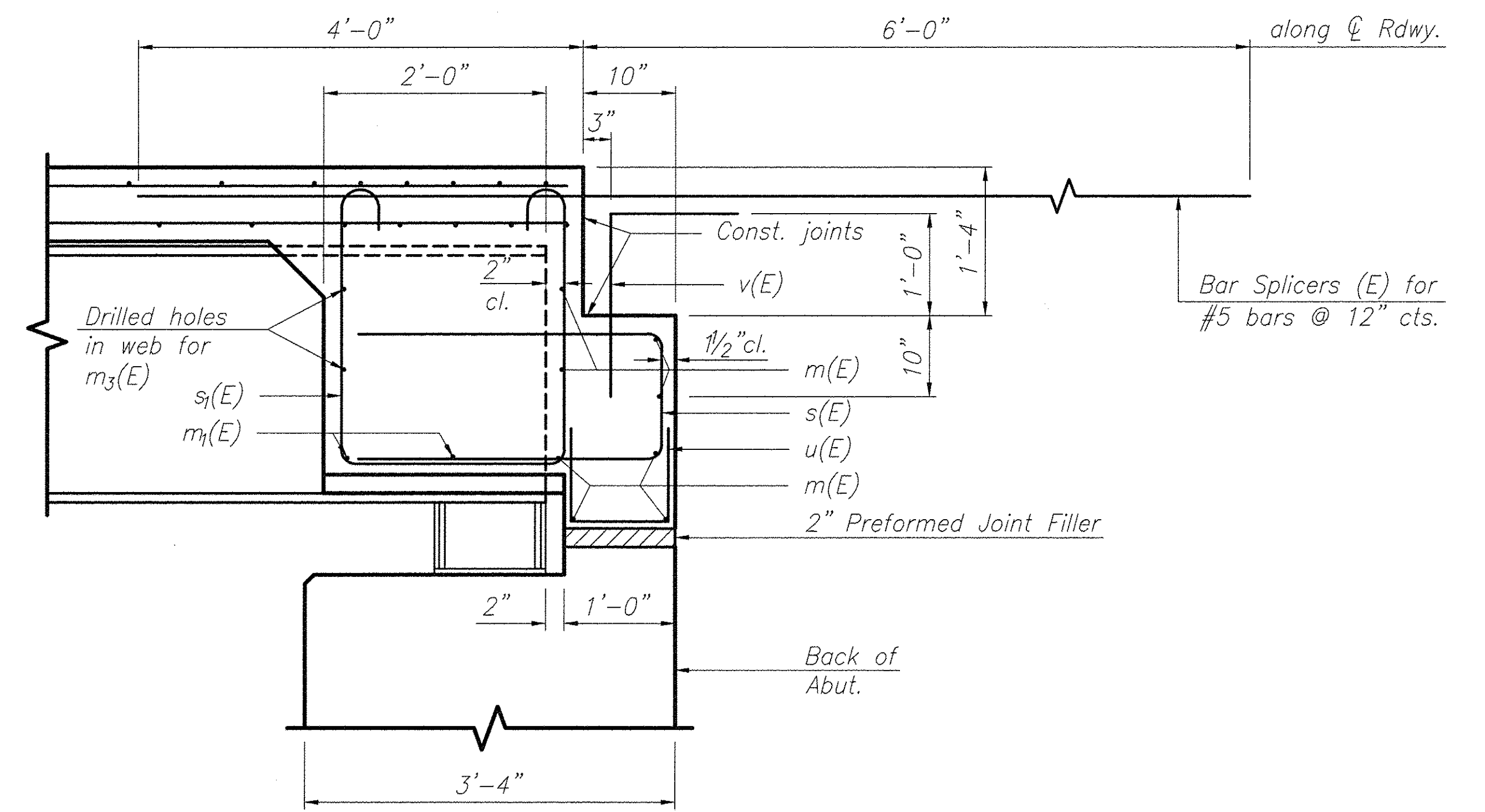
SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 016-8048

SCALE: NOT TO SCALE SHEET NO. 13 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74

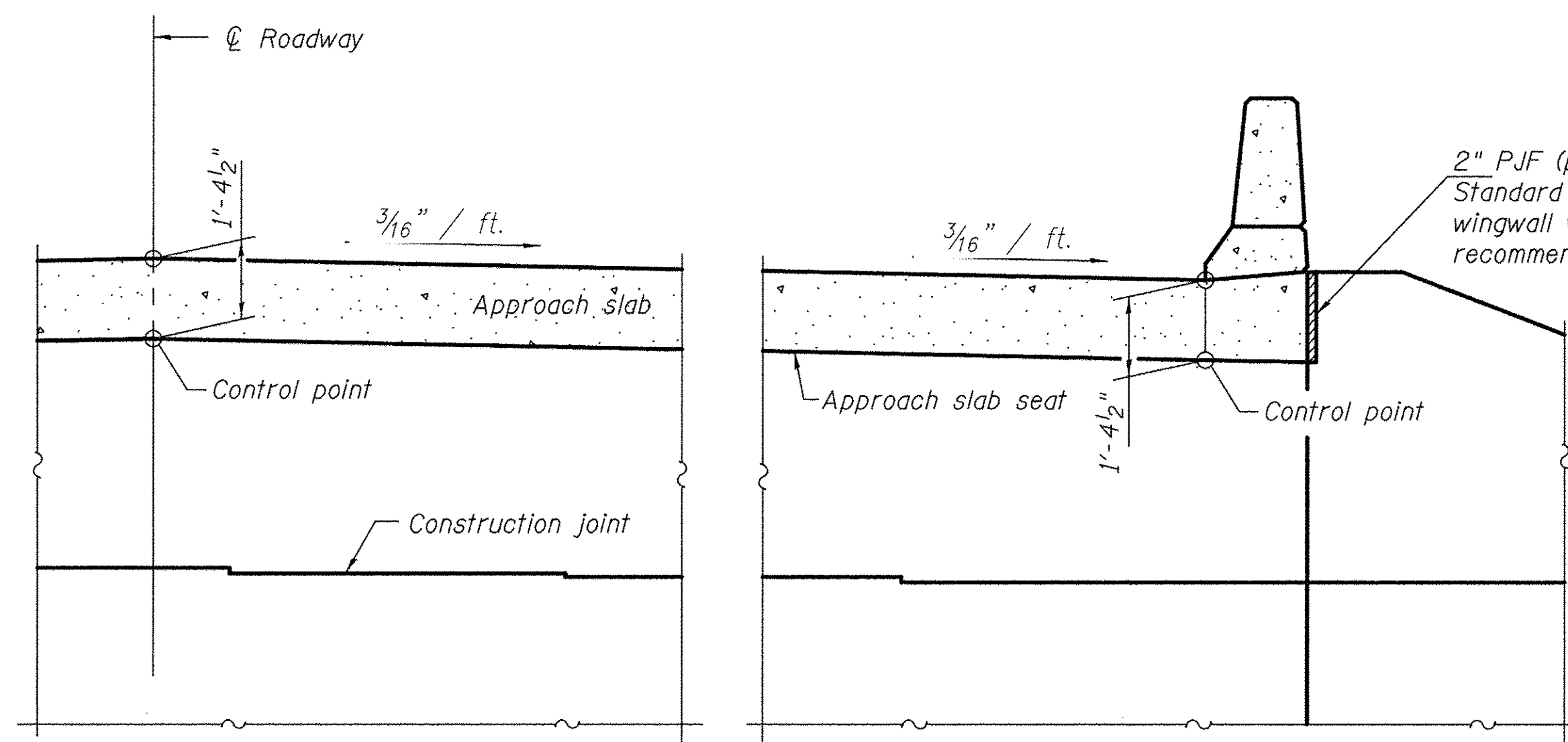
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	28
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT	
			CONTRACT NO. 61D83	



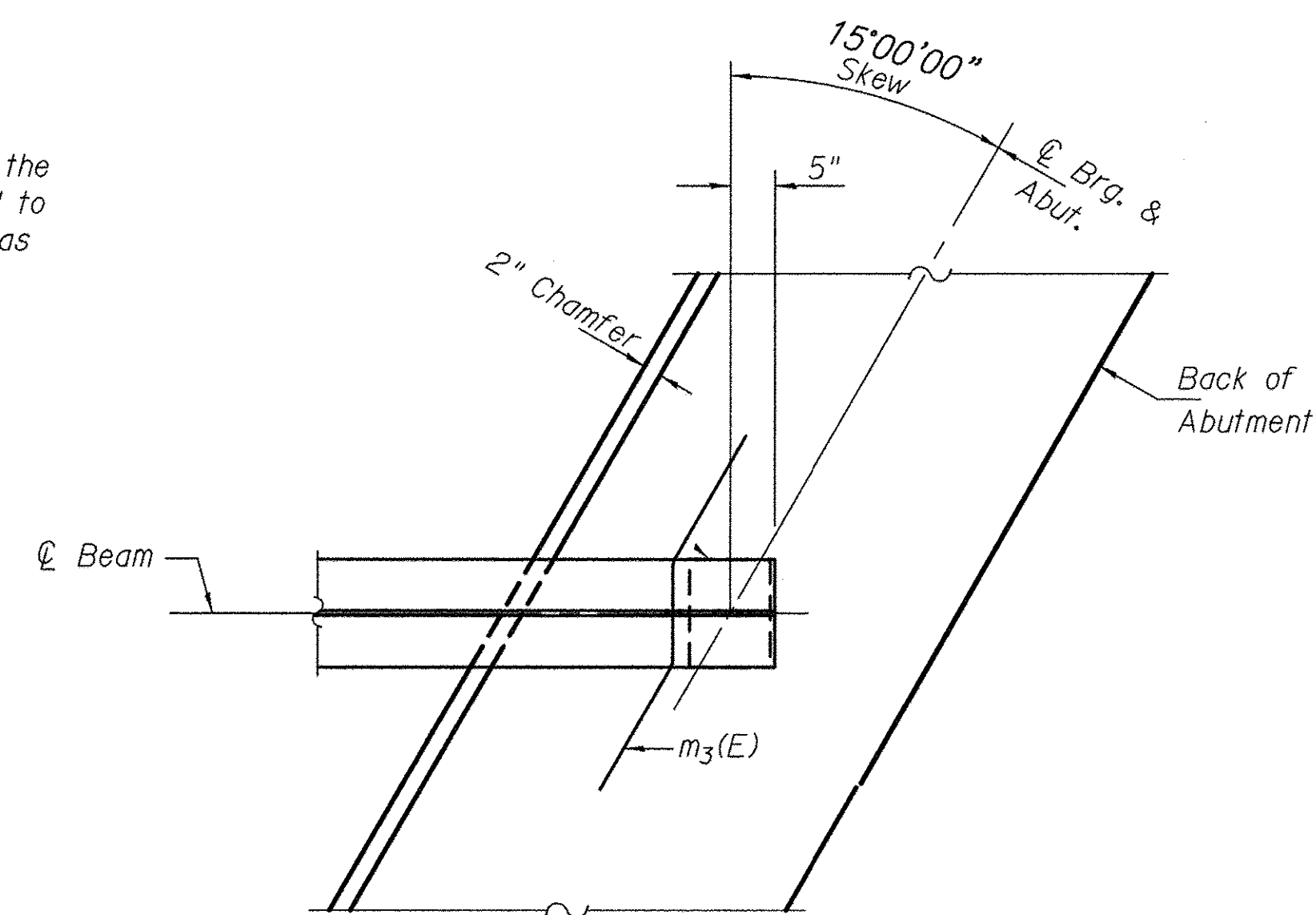
DIAPHRAGM ELEVATION AT ABUTMENT



SECTION A-A
(Dim. at Rt. Z's except as noted)

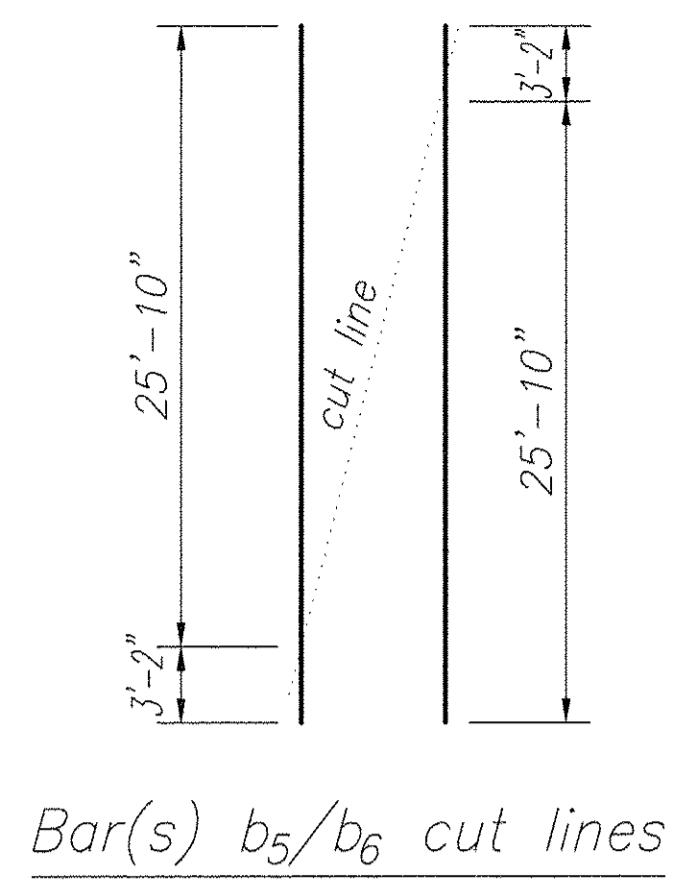


SECTION B-B



PARTIAL PLAN AT ABUTMENT
(Showing bottom flange of beam)

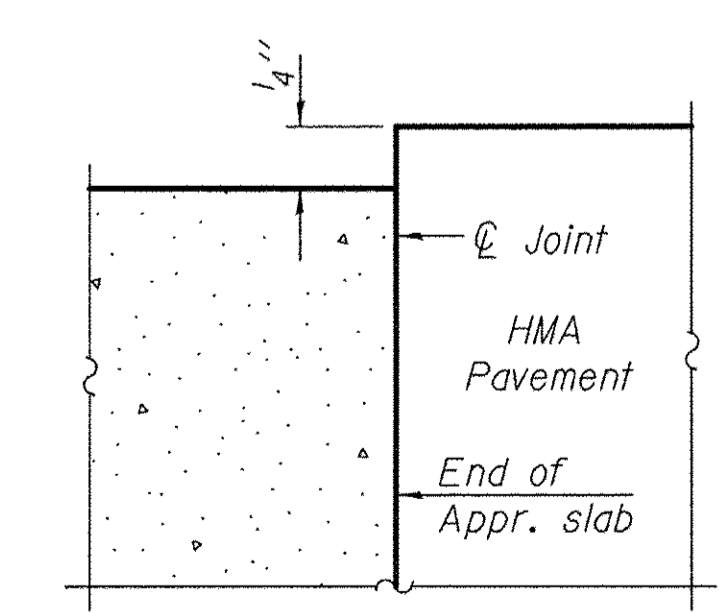
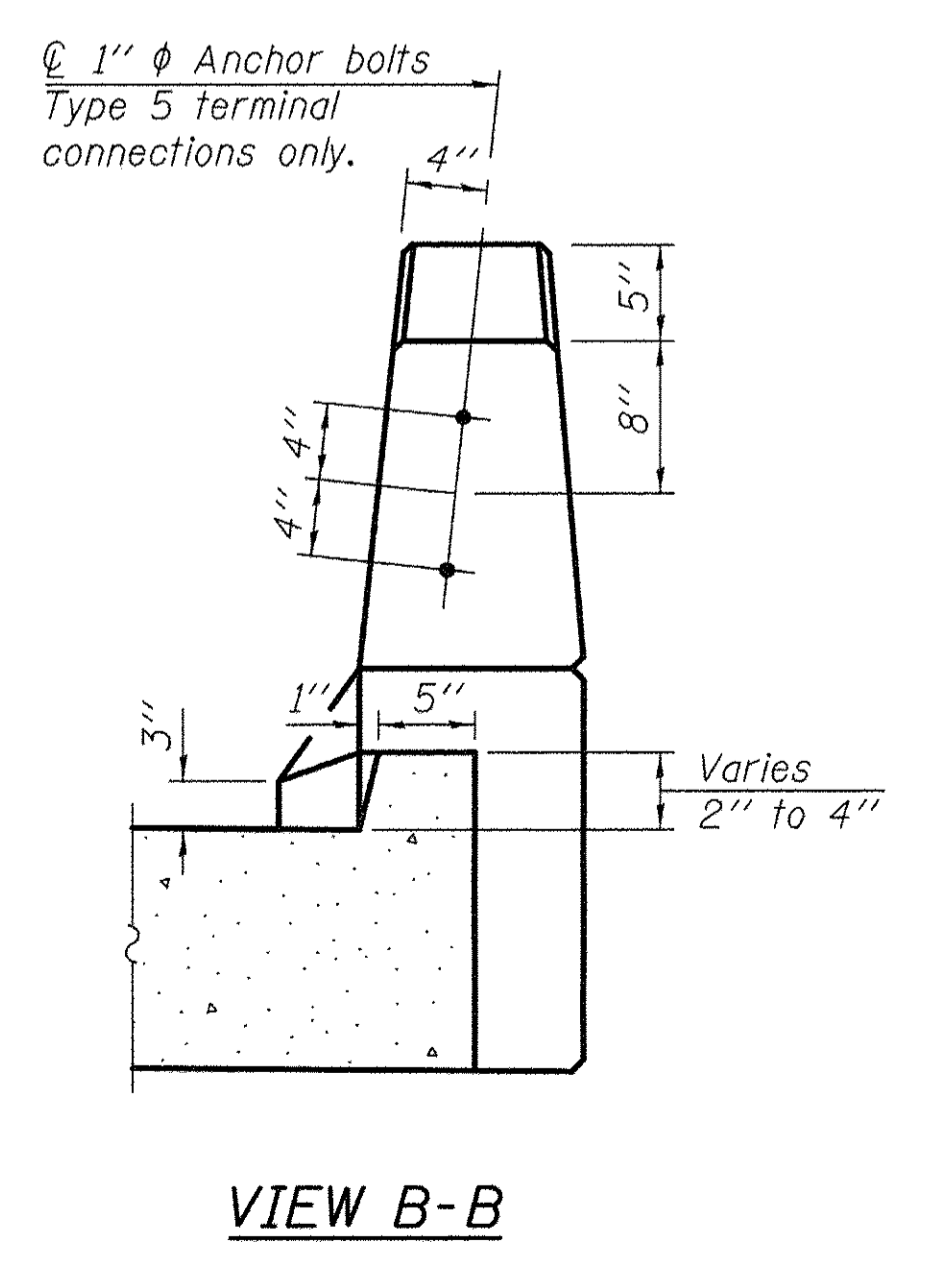
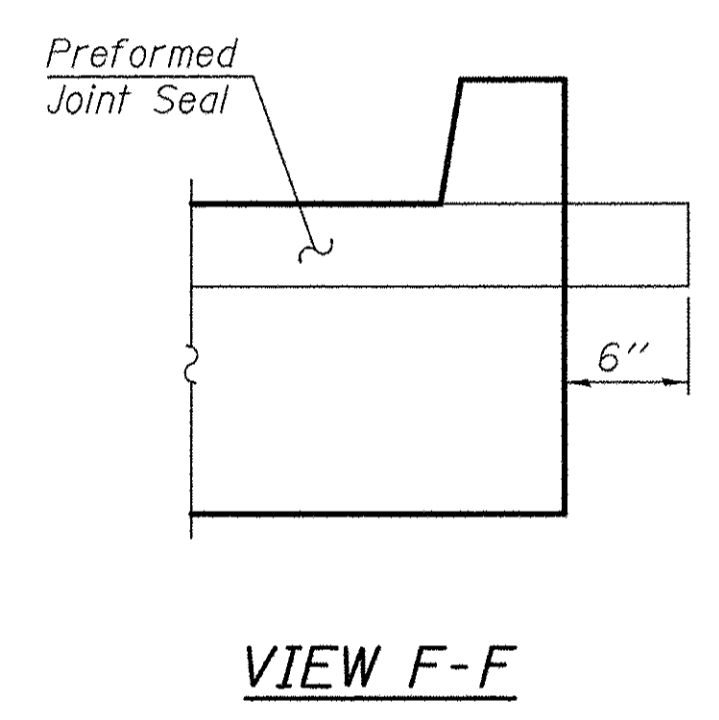
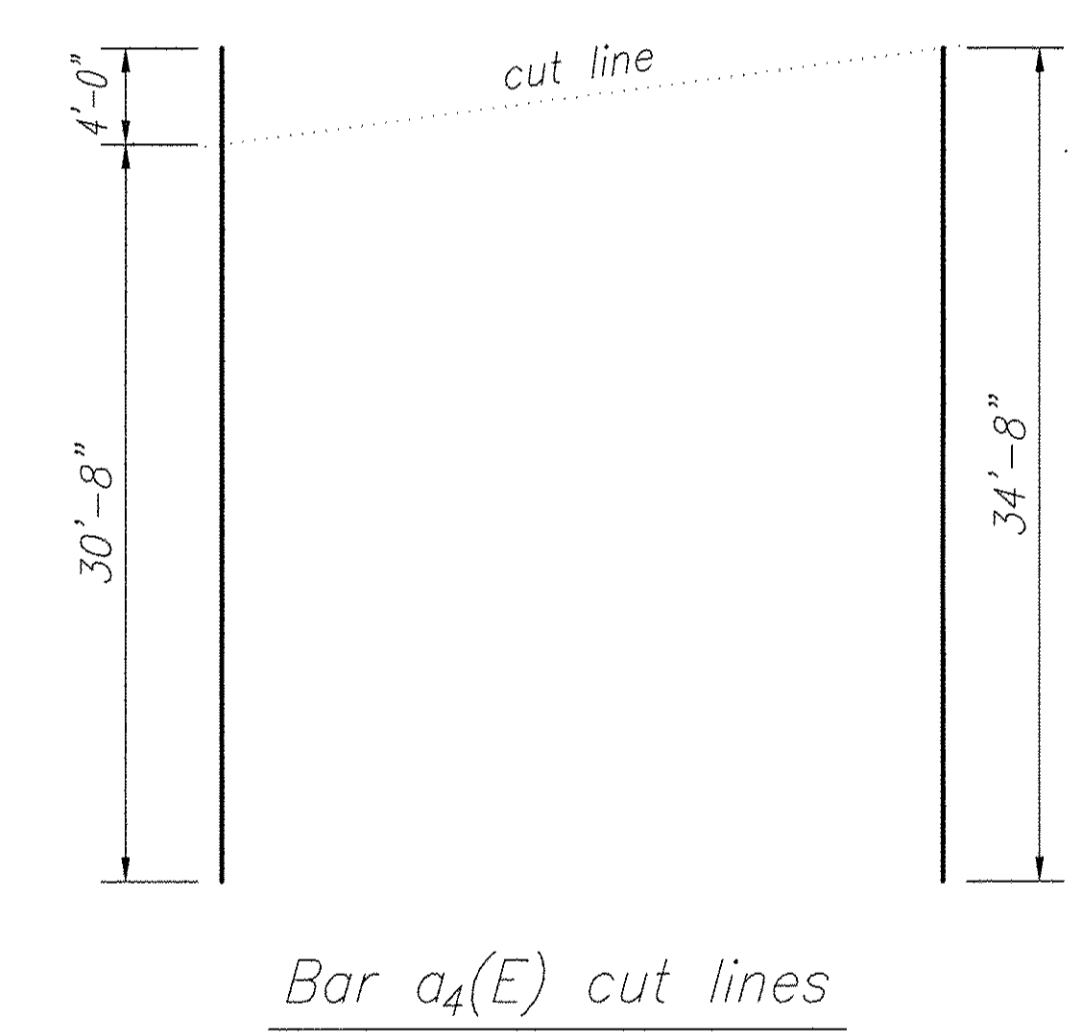
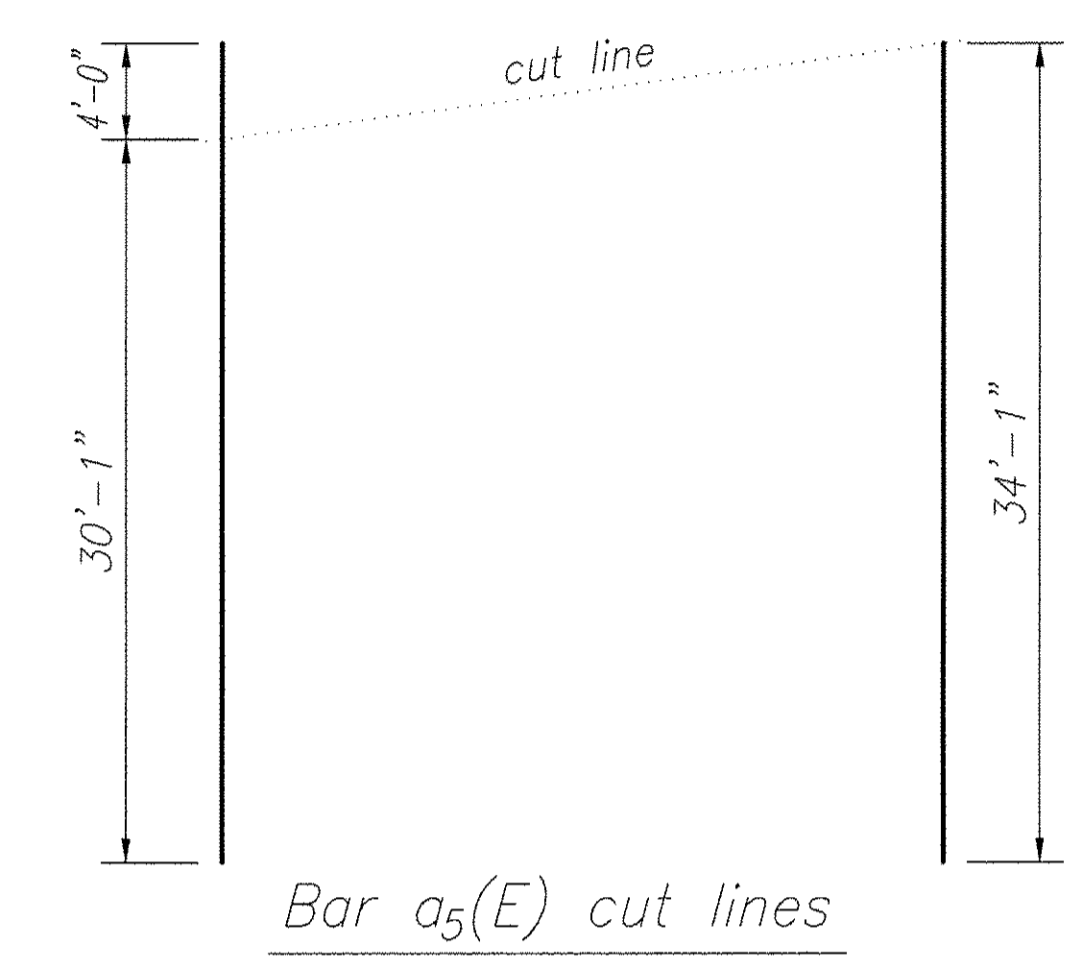
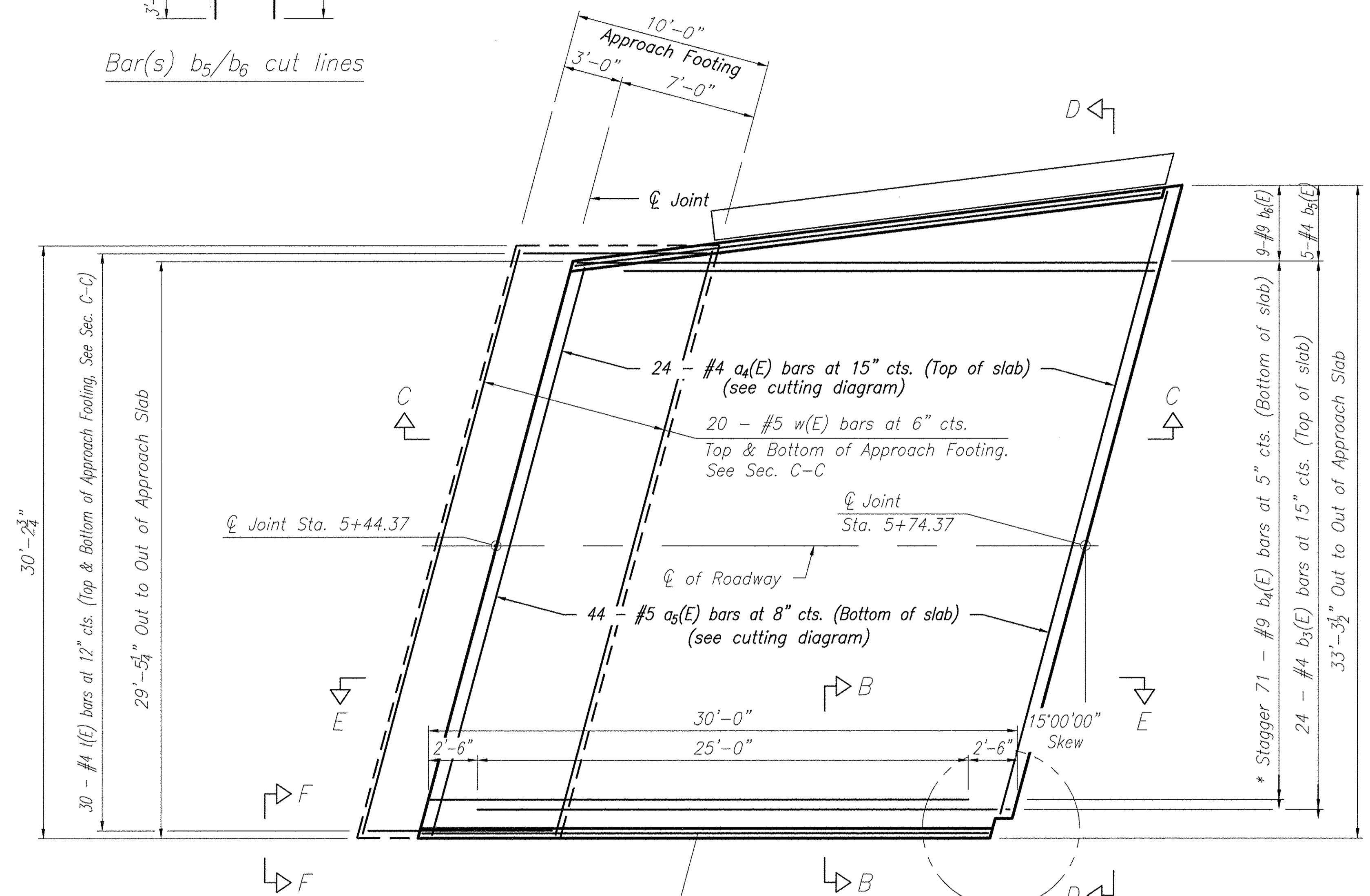
Notes:
 Reinforcement bars in diaphragm are billed with superstructure on sheet S-11 of 37.
 Concrete in diaphragm is included with Concrete Superstructure on sheet S-11 of 37.
 For details of bars s(E), s1(E) and v(E) see sheet S-13 of 37.
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 The approach slab seat shall have a constant slope determined from the control points shown.
 For bearing details see sheet S-22 of 37.



Notes:
See sheet S-17 of 37 for Sections C-C & D-D and View E-E.
 $a_4(E)$ and $a_5(E)$ bar spacings measured along \hat{C} Roadway.

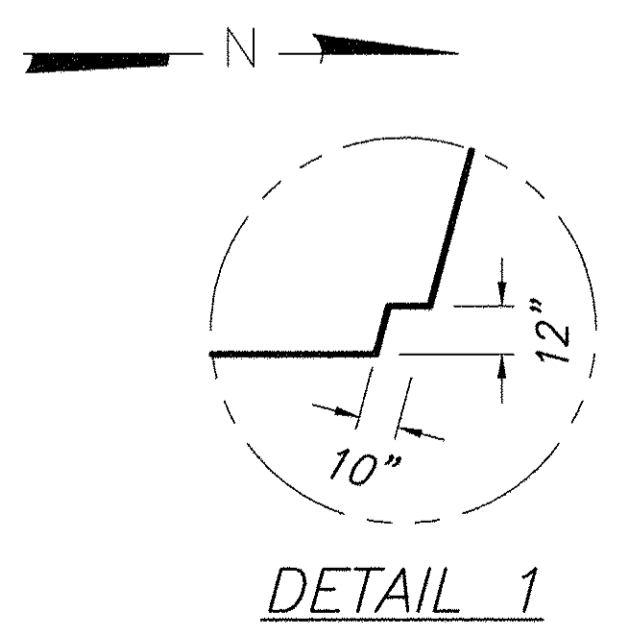
The joint openings shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1/2$ " for installation purposes.

***Cost included with Concrete Superstructure



DETAIL A

VIEW B-B



PLAN

* Tilt #9 $b_4(E)$ bars as required to maintain clearance.

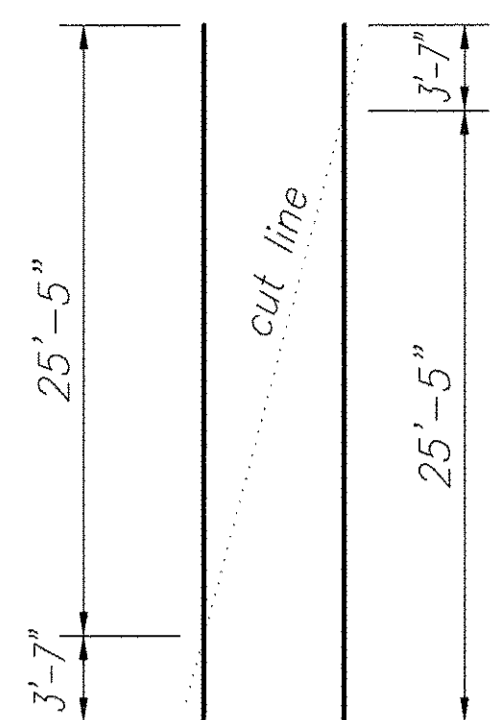
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PLOT DATE = 02/10/2017	CHECKED -	REVISED -

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BRIDGE APPROACH SLAB DETAILS (SOUTH APPROACH) STRUCTURE NO. 016-8048		MUN 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 30
SCALE: NOT TO SCALE	SHEET NO. 15 OF 37 SHEETS	STA. 5+73.51	TO STA. 7+49.74	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

MUN 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 30
CONTRACT NO. 61D83				

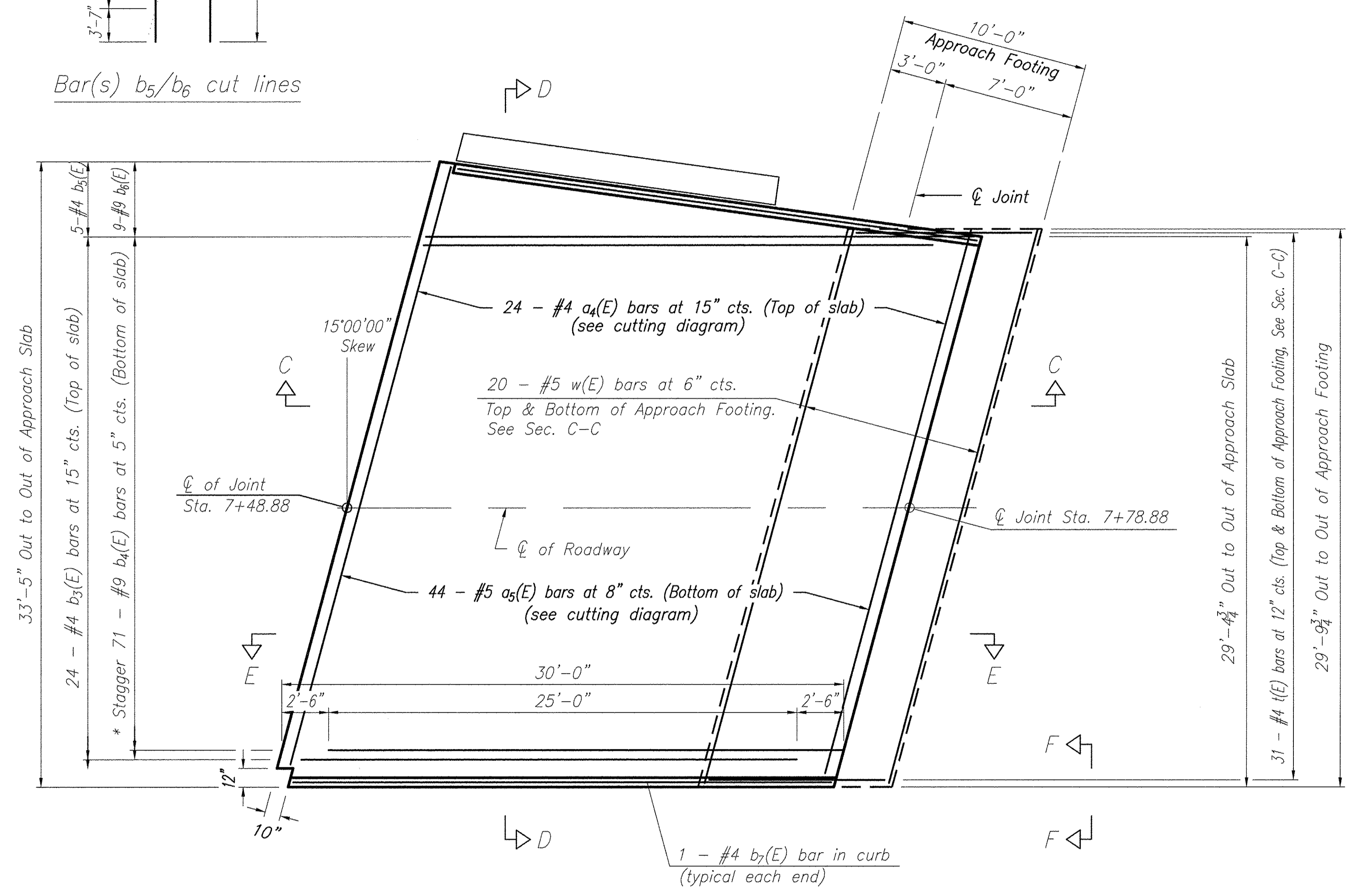


Bar(s) b_5/b_6 cut lines

Notes:
See sheet S-17 of 37 for Sections C-C & D-D and View E-E.
 $a_4(E)$ and $a_5(E)$ bar spacings measured along \hat{C} Roadway.

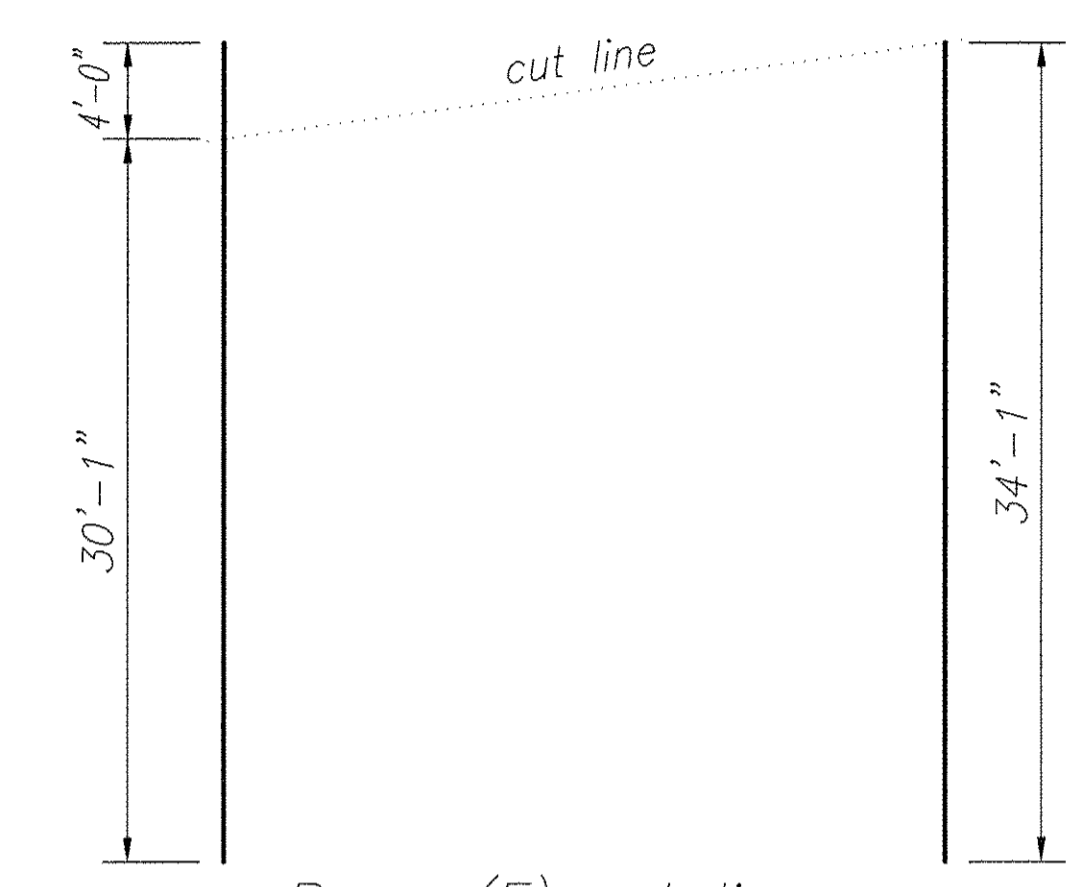
The joint openings shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be $1/2$ " for installation purposes.

***Cost included with Concrete Superstructure

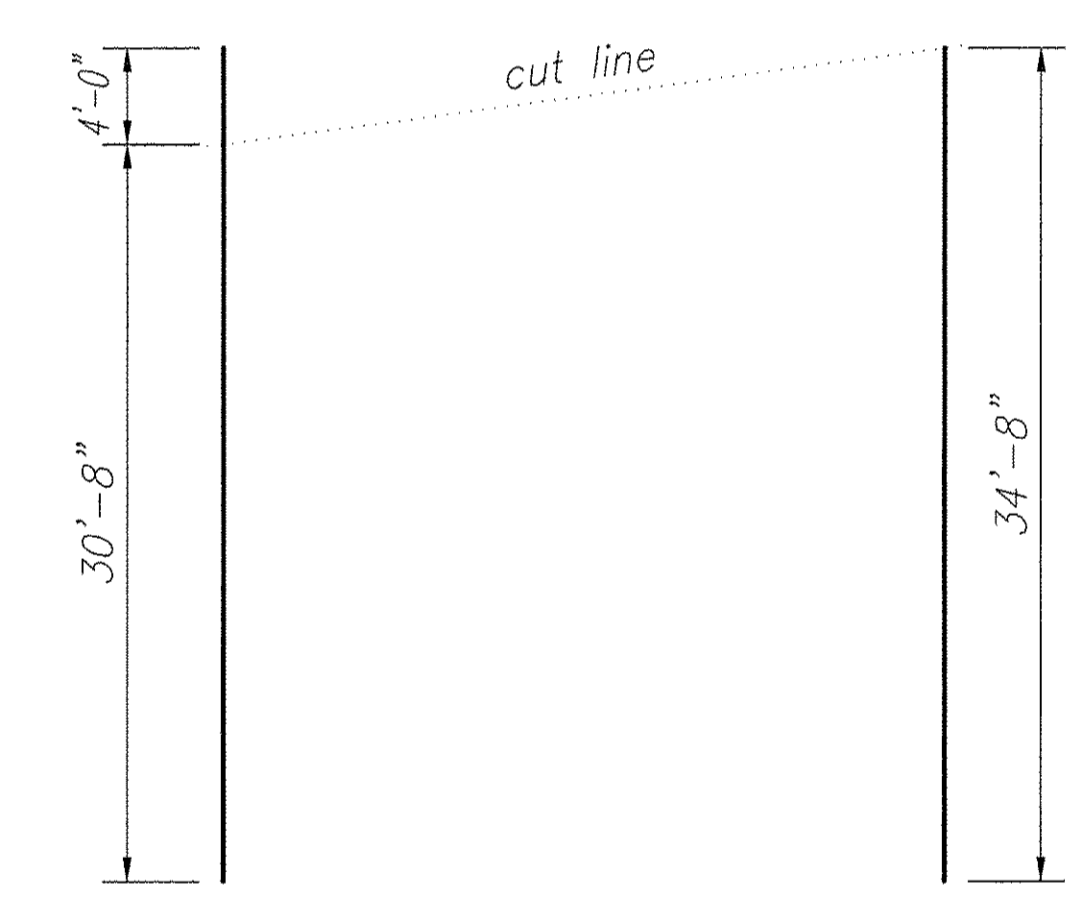


PLAN

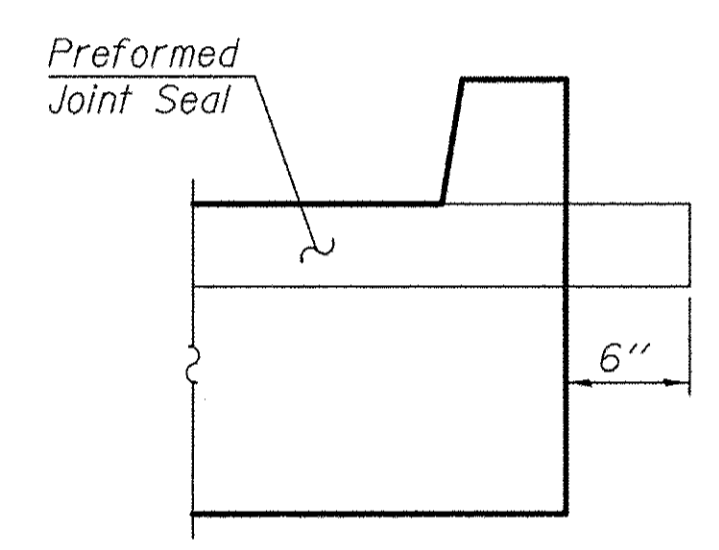
* Tilt #9 $b_4(E)$ bars as required to maintain clearance.



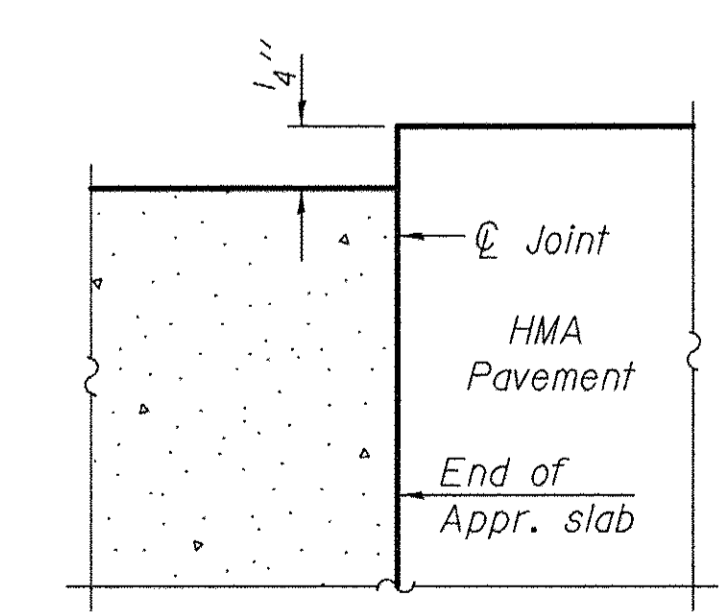
Bar $a_5(E)$ cut lines



Bar $a_4(E)$ cut lines



VIEW F-F



FLEXIBLE PAVEMENT

DETAIL A

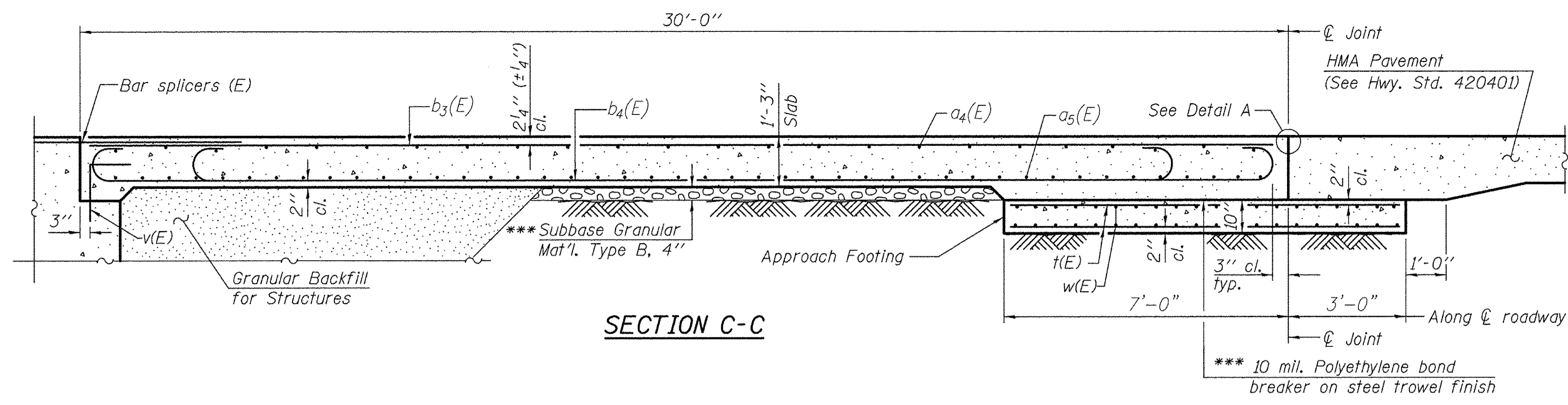
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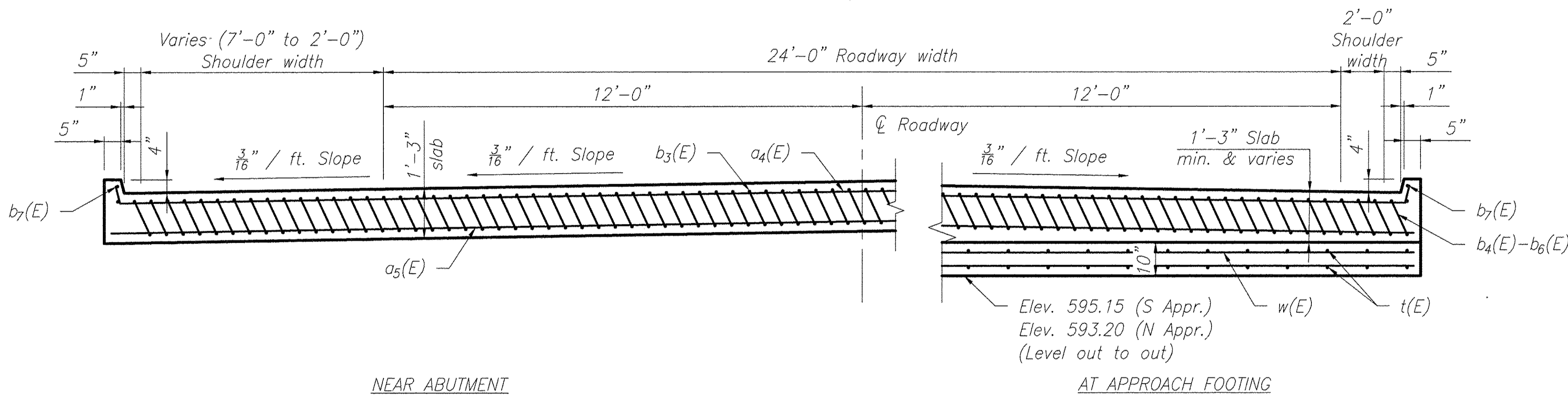
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS (NORTH APPROACH)		MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 016-8048		17	11-00095-00-BR	COOK	62	31
SCALE: NOT TO SCALE		SHEET NO. 16 OF 37 SHEETS		STA. 5+73.51 TO STA. 7+49.74		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

CONTRACT NO. 61D83	
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Notes:
 See sheet S-15 of 37 for Detail A View B-B.
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v(E) bar details, see sheet S-13 of 37.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0ksf
 For bar splicer details, see sheet S-34 of 37.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet S-24 of 37.
 For additional parapet details, see sheet S-11 and S-12 of 37.

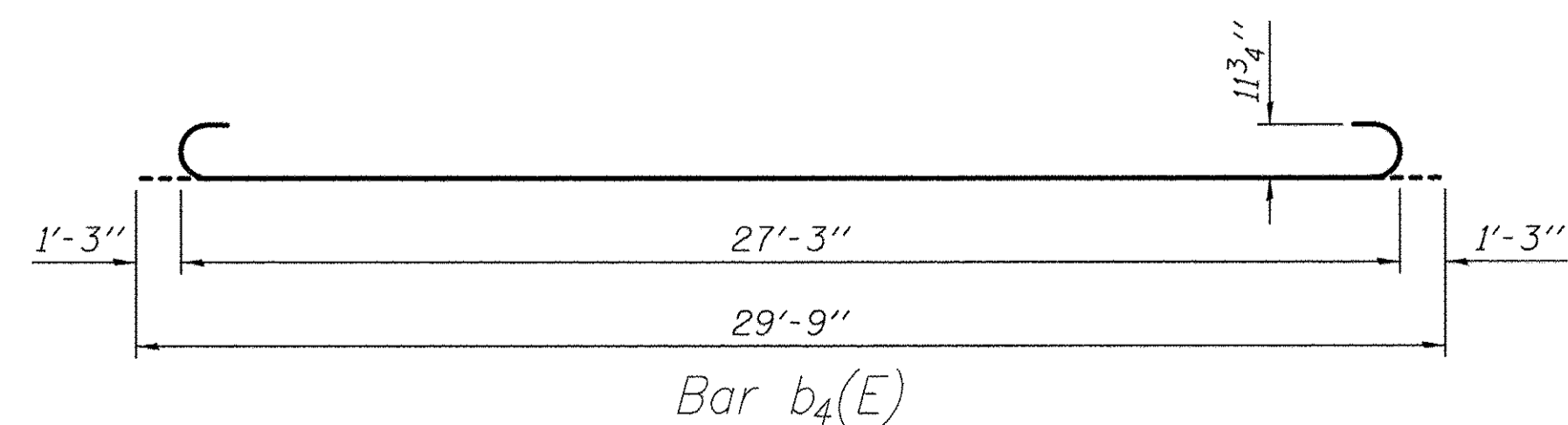
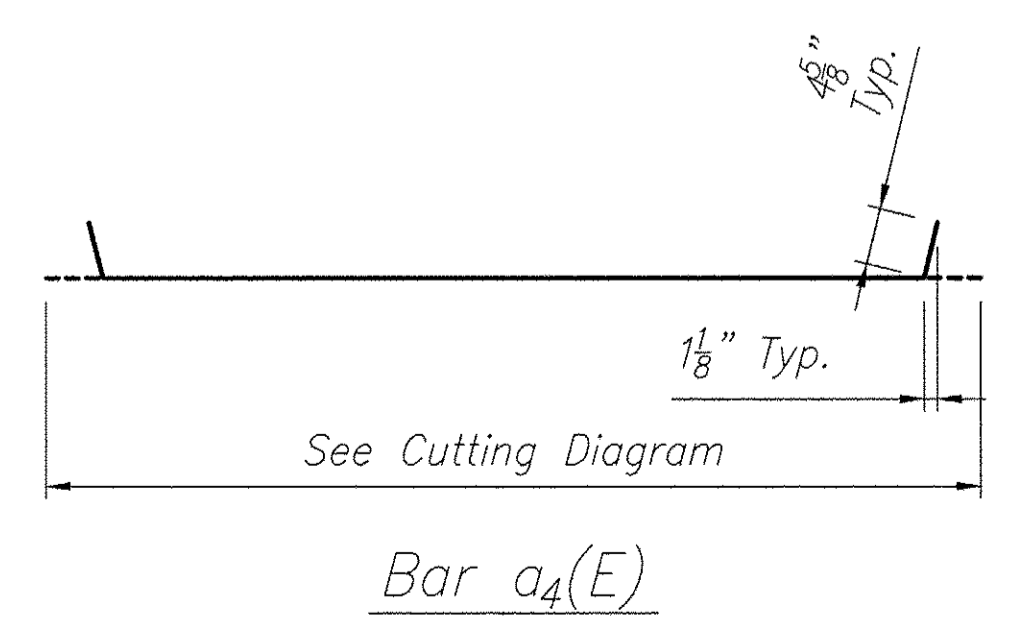
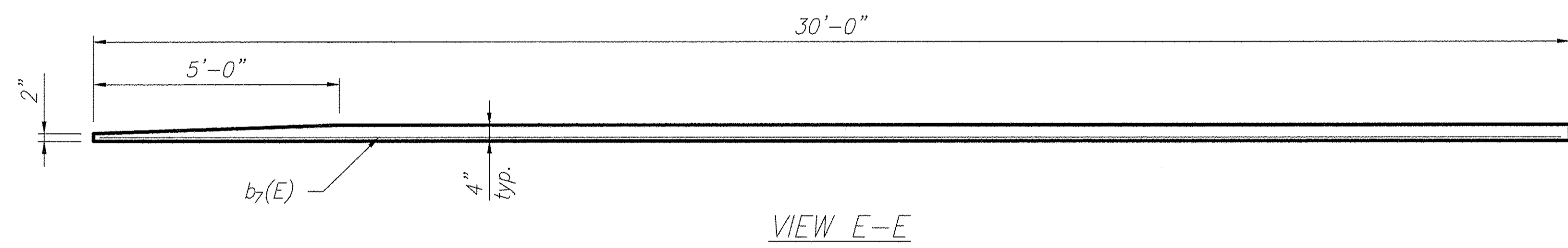


* Tilt #9 b1(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

SECTION D-D
 (See plan for dimensions not shown)

TWO APPROACHES
 BILL OF MATERIAL

BAR	QTY.	SIZE	LENGTH	SHAPE
a4(E)	50	#4	34'-8"	┌───┐
a5(E)	88	#5	34'-1"	───
b3(E)	48	#4	29'-8"	───
b4(E)	142	#9	29'-9"	┌───┐
b5(E)	10	#4	29'-0"	───
b6(E)	18	#4	29'-0"	───
b7(E)	4	#4	29'-8"	───
t(E)	120	#4	9'-8"	───
w(E)	80	#5	30'-9"	───
Concrete Superstructure			Cu. Yd.	109
Concrete Structures			Cu. Yd.	20
Reinforcement Bars, Epoxy Coated			Pounds	23,040



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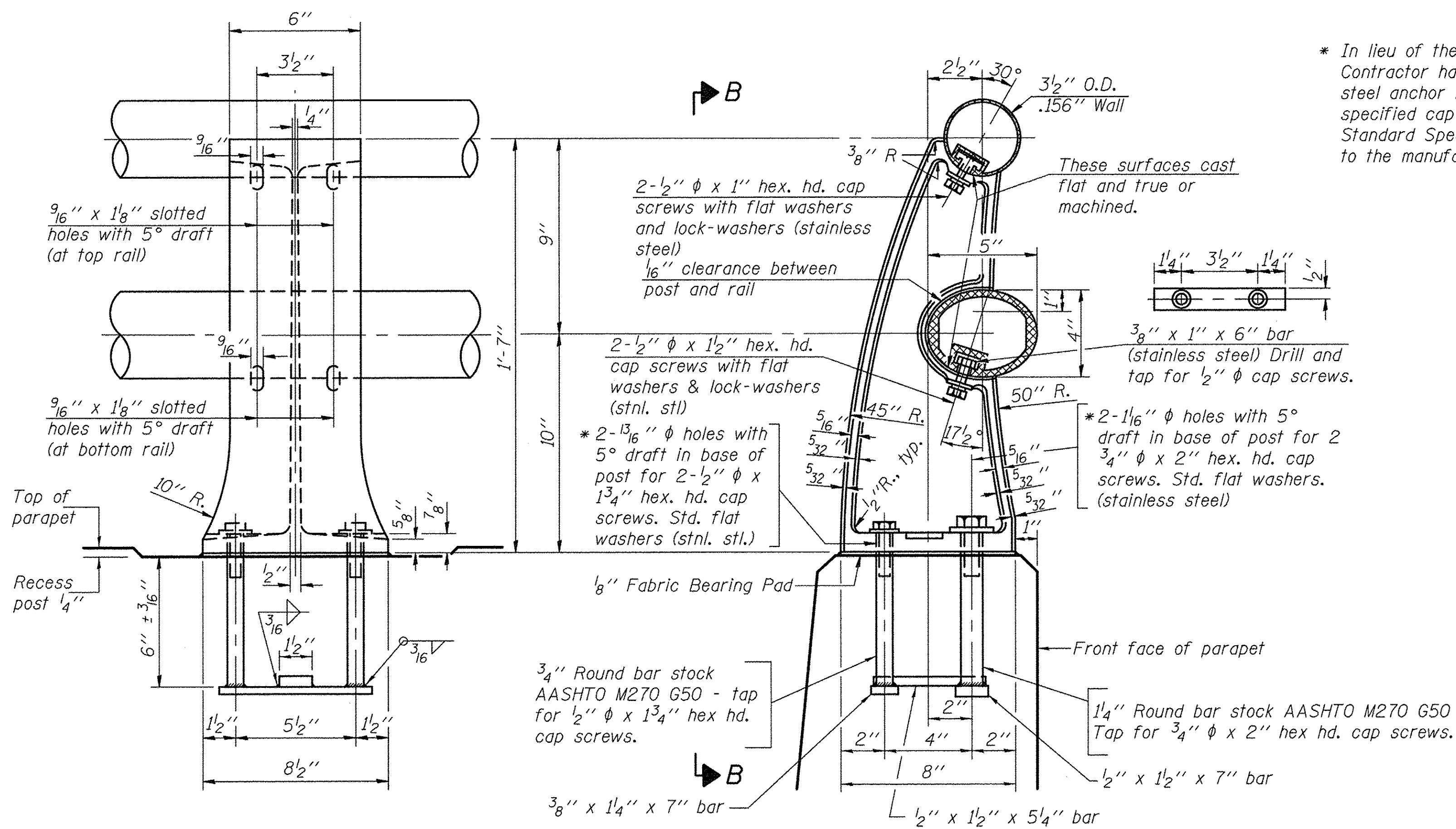
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CHECKED — PGV	REVISED —	
PLOT SCALE =	DRAWN —	REVISED —
PLOT DATE = 02/10/2017	CHECKED —	REVISED —

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS		MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 016-8048		17	11-00095-00-BR	COOK	62	32
SCALE: NOT TO SCALE		SHEET NO. 17 OF 37 SHEETS		STA. 5+73.51 TO STA. 7+49.74		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

CONTRACT NO. 61D83	
--------------------	--

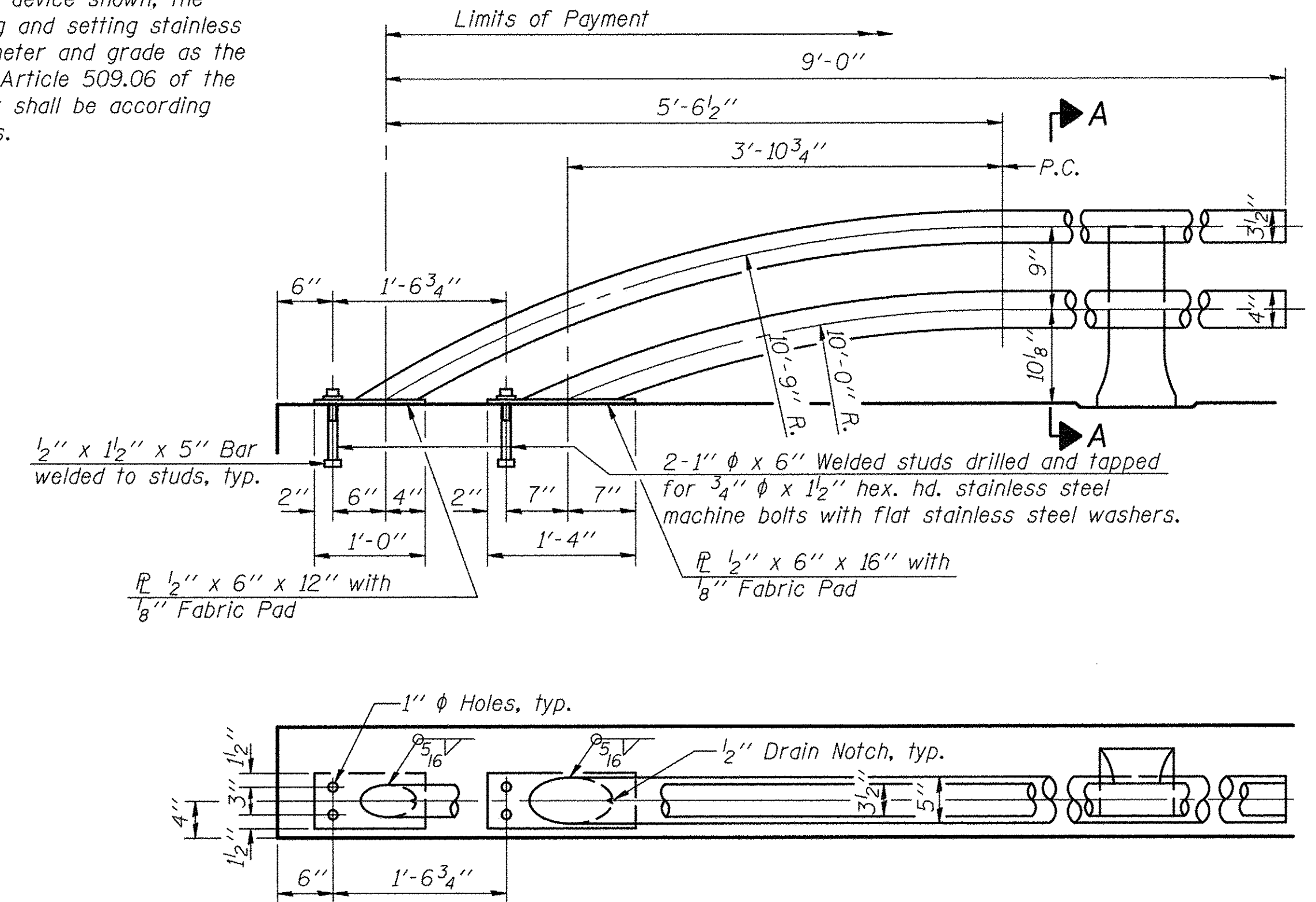
* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's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



VIEW B-B

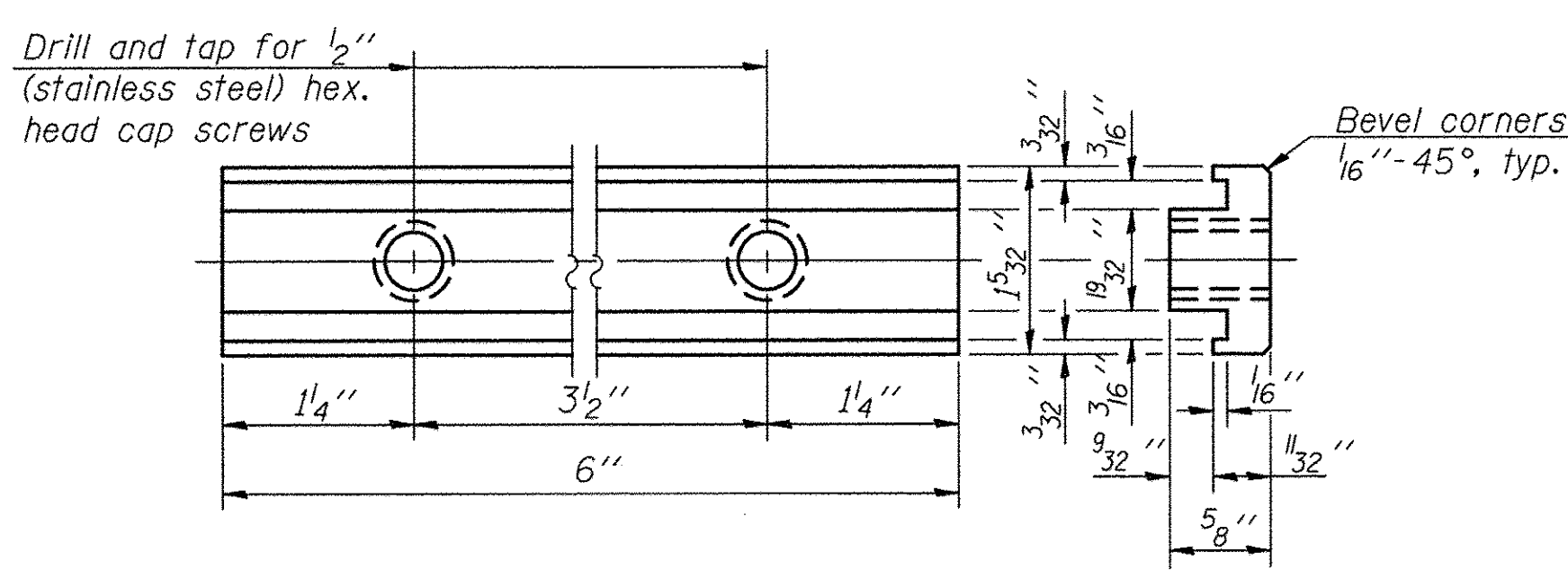
RAIL POST DETAILS

SECTION A-A

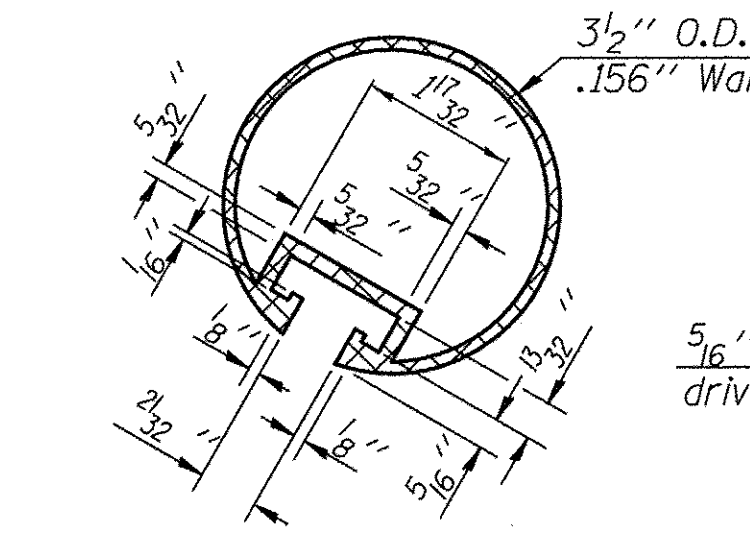


RAIL TERMINAL SECTION

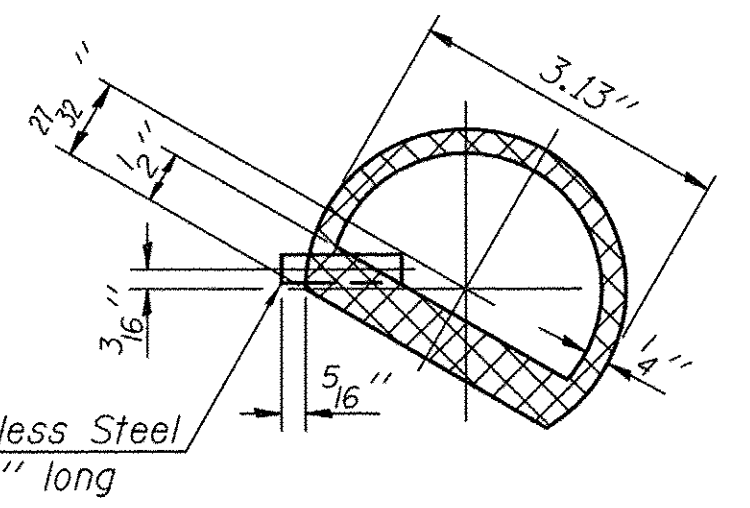
Note: The end rail post shall be set back as required for the terminal rail section.



RAIL POST CLAMP BAR

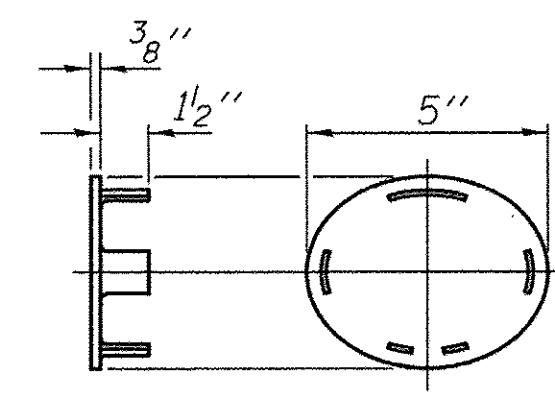


SECTION THRU TOP RAIL



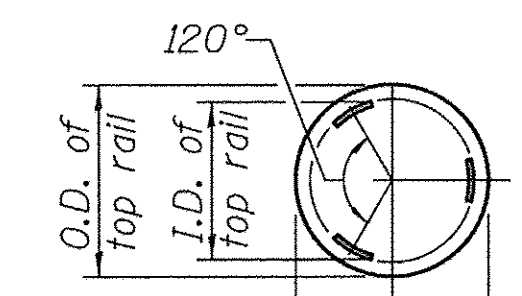
SECTION THRU SPLICE

For Top Rail



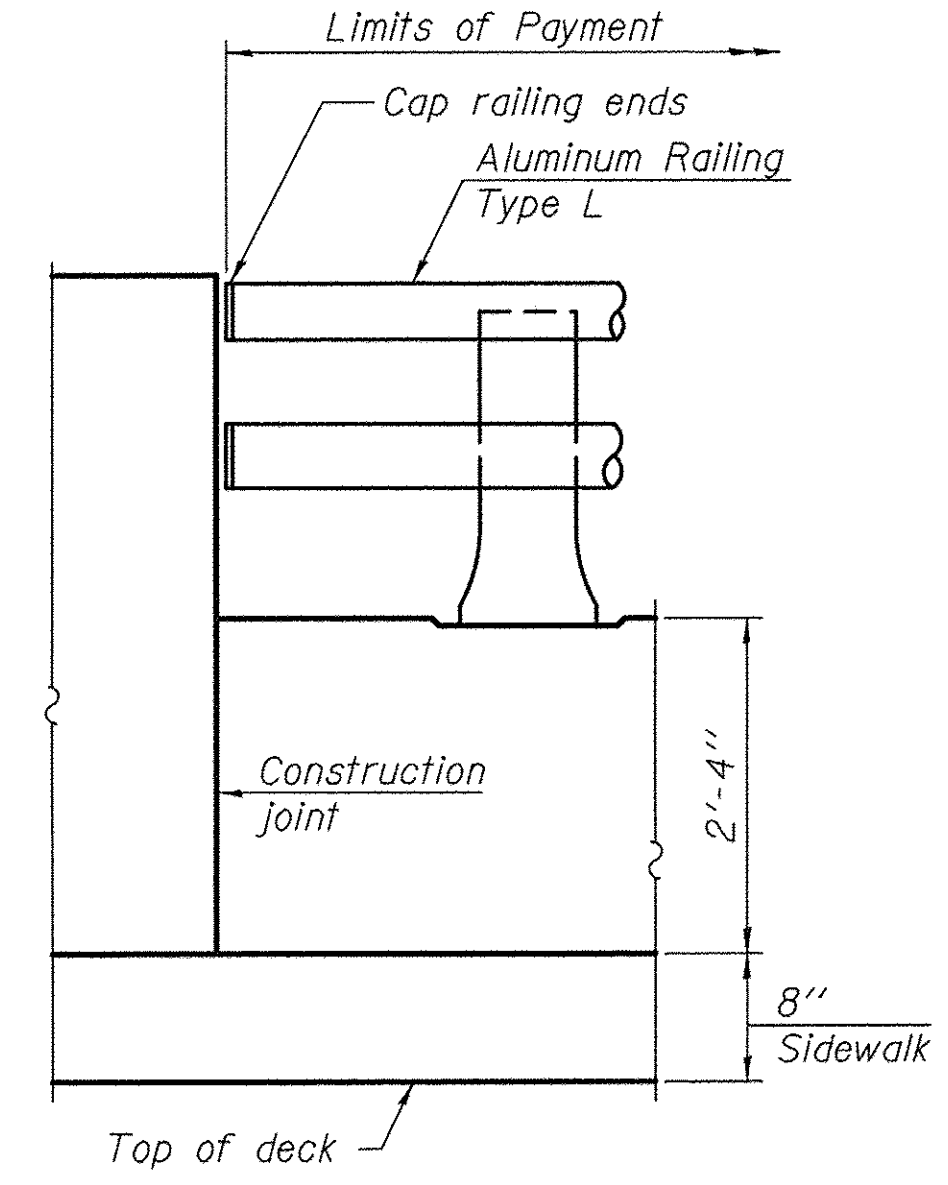
CAST END CAP

For bottom rail
DRIVE FIT TYPE

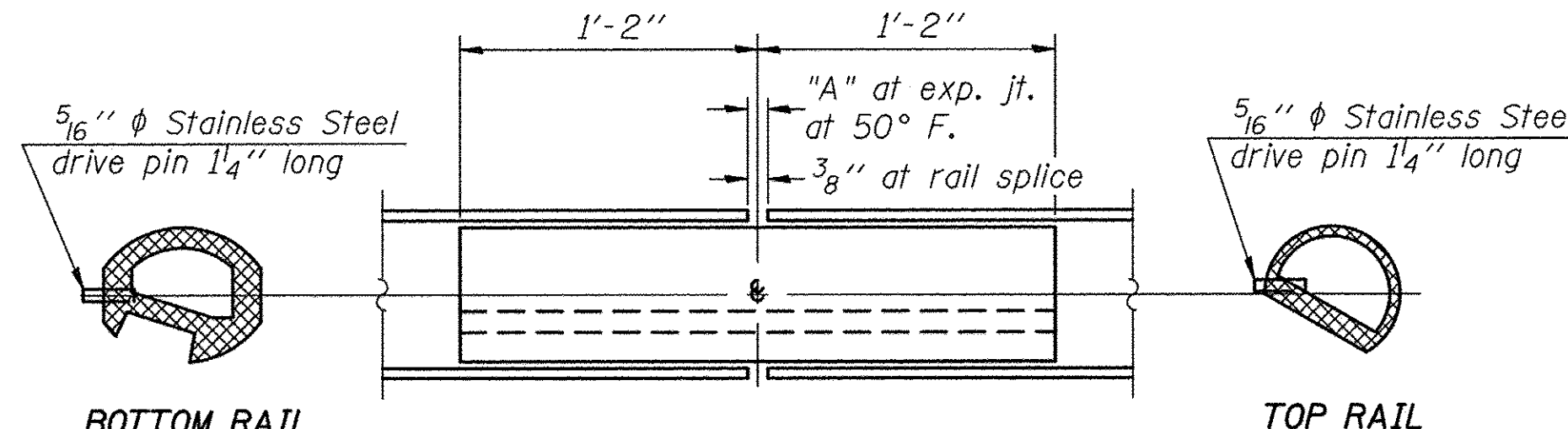


CAST END CAP

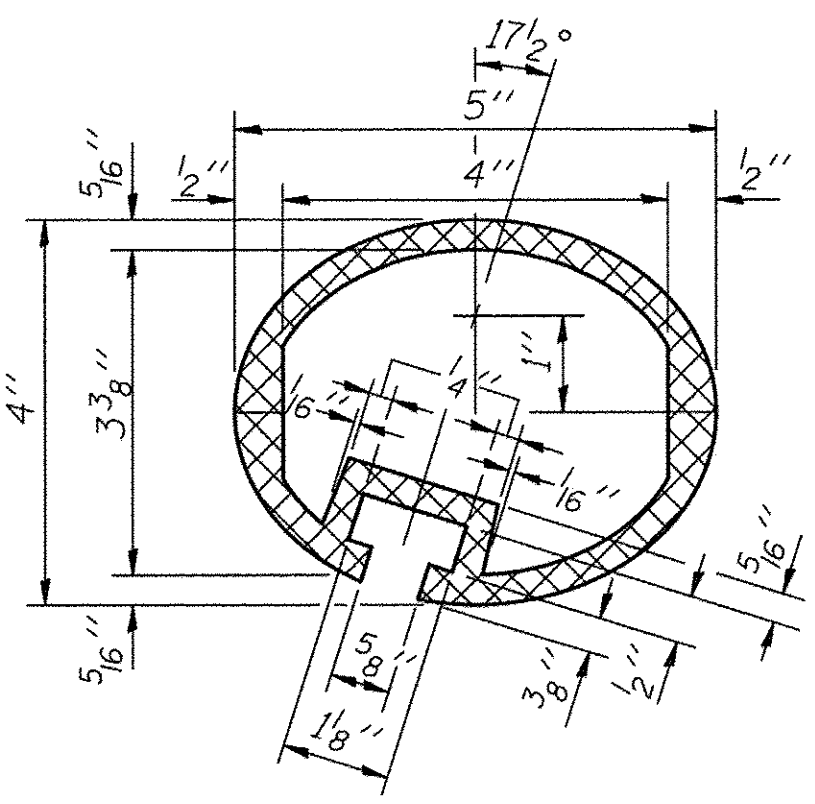
For top rail



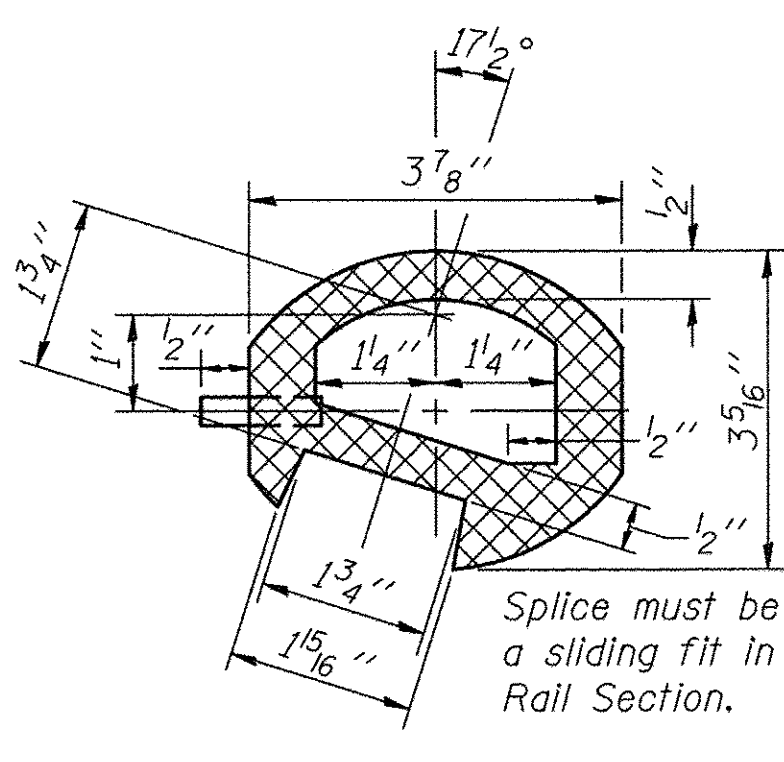
RAIL END TREATMENT FOR TYPE 5 AND 6 TERMINAL



RAIL SPLICE



SEC. THRU ELLIPTICAL RAIL SECTION



SEC. THRU SPLICE

Notes:
All Posts shall be normal to parapet.
All joints in rail shall be spliced per detail.
All exposed rail ends shall be capped per detail.
Provide 1-1/8" and 2-1/16" Aluminum Shims for 25% of the Posts. Rail elements shall be parallel to Grade-high spots will be ground and low spots shimmed.
See sheets 12 of 37 for rail post spacing.

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Railing, Type L	Foot	209

T	"A"
≤ 4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"
> 6 1/2" ≤ 9"	5"
> 9" ≤ 13"	7"

T = Total movement at expansion joint as shown on the design plans.

R-20 1-12-15 (7'-0" to 10'-0" Post spacing)

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AND PROFESSIONAL LAND SURVEYORS
17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60473
(708) 331-6700 FAX (708) 331-3528
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USER NAME =
DESIGNED - RSF
CHECKED - PGV
PLOT SCALE =
DRAWN -
PLOT DATE = 02/10/2017

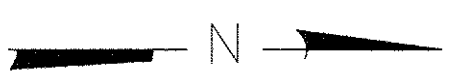
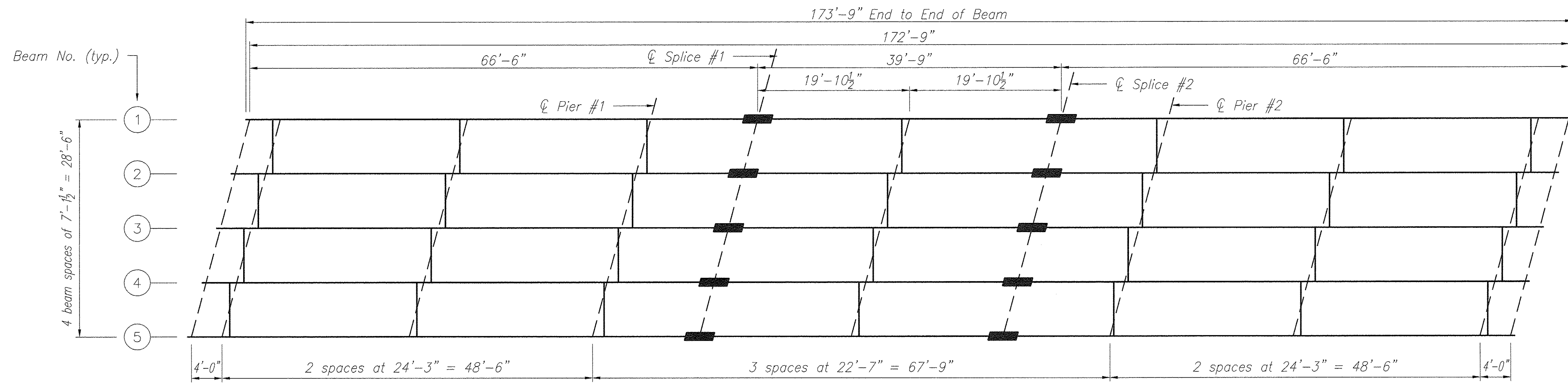
REVISIONS
REVISED -
REVISED -
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

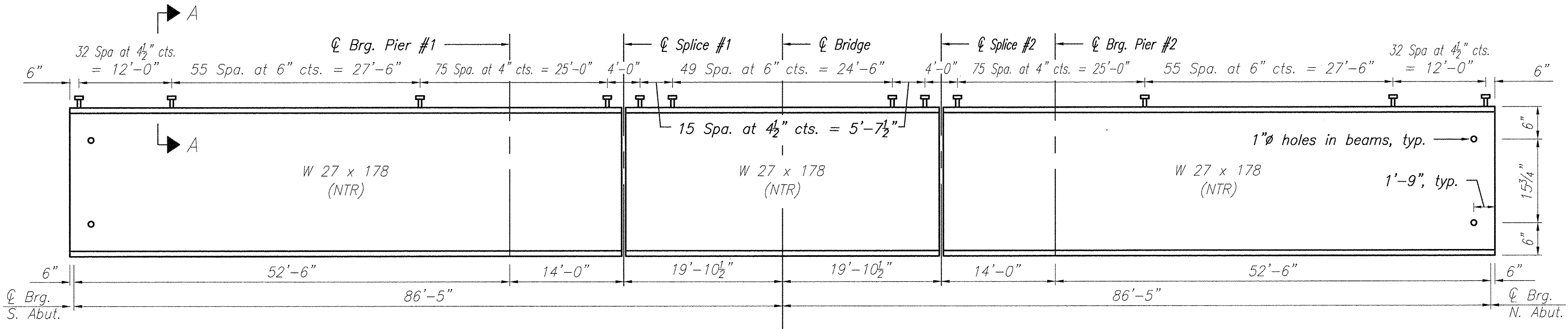
ALUMINUM RAILING, TYPE L
STRUCTURE NO. 016-8048

SCALE: NOT TO SCALE SHEET NO. 18 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74

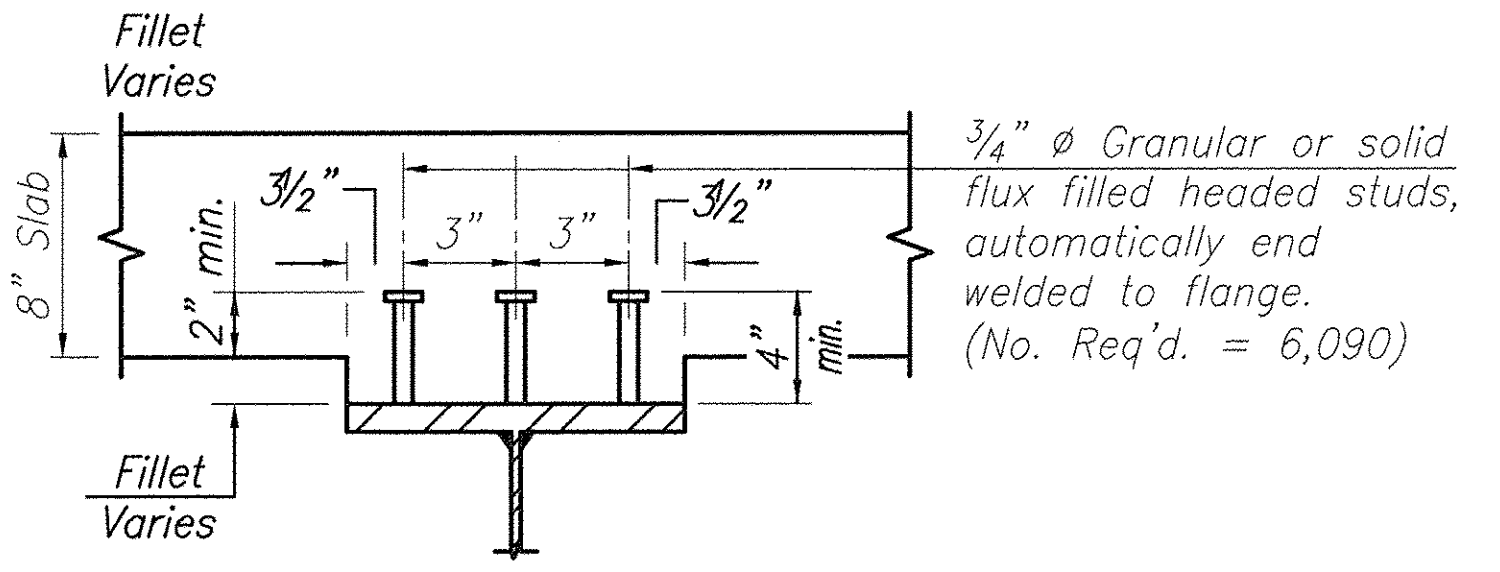
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	33
CONTRACT NO. 61D83				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



FRAMING PLAN



GIRDER ELEVATION



SECTION A-A

Notes:
 See sheet 21 of 37 for diaphragm details, top of beam elevations, and moment and reaction tables.
 See Sheets 22 and 23 for bearing details

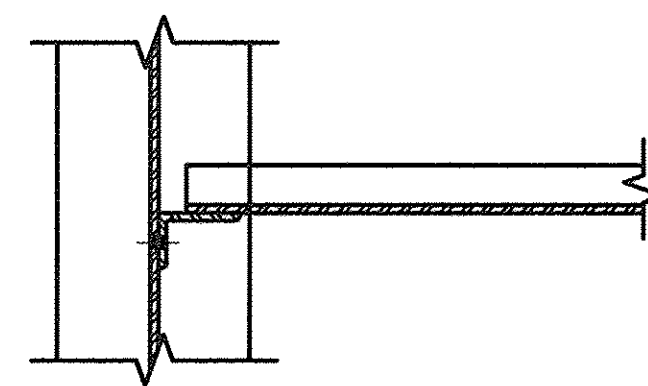
ROBINSON ENGINEERING, LTD. CONSULTING REGISTERED PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS 17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60473 (708) 331-8700 © COPYRIGHT 2016 ILLINOIS DESIGN FIRM REGISTRATION NO. 184001128	USER NAME =	DESIGNED — RSF	REVISED —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GIRDER & FRAMING DETAILS STRUCTURE NO. 016-8048	MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — PGV	REVISED —			17	11-00095-00-BR	COOK	62	35
	PLOT DATE = 02/10/2017	DRAWN —	REVISED —			CONTRACT NO. 61D83				
		CHECKED —	REVISED —			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
SCALE: NOT TO SCALE SHEET NO. 20 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74										

INTERIOR BEAM MOMENT TABLE			
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴)	7,020	7,020
$I_c(n)$	(in ⁴)	18,405	18,405
$I_c(3n)$	(in ⁴)	13,560	13,560
$I_c(CR)$	(in ⁴)	-	9,163
S_s	(in ³)	505	505
$S_c(n)$	(in ³)	722.5	722.5
$S_c(3n)$	(in ³)	532.4	532.4
$S_c(cr)$	(in ³)	-	525.5
DC1	(k/')	0.878	0.878
M_{DC1}	('k)	162.2	323.7
DC2	(k/')	0.315	0.315
M_{DC2}	('k)	58.2	116.1
DW	(k/')	0.350	0.350
M_{DW}	('k)	64.7	129.1
$M(\frac{L}{4} + IM)_1$	('k)	725.8	736.1
M_u (Strength I)	('k)	1,643	2,031
$\phi_r M_n$	('k)	3,809	2,195
f_s DC1	(ksi)	3.85	7.69
f_s DC2	(ksi)	1.31	2.65
f_s DW	(ksi)	1.46	2.95
$f_s (\frac{L}{4} + IM)$	(ksi)	12.05	16.81
f_s (Service II)	(ksi)	22.3	35.1
$0.95R_y F_{yf}$	(ksi)	47.5	47.5
V_f	(k)	28.4	28.4

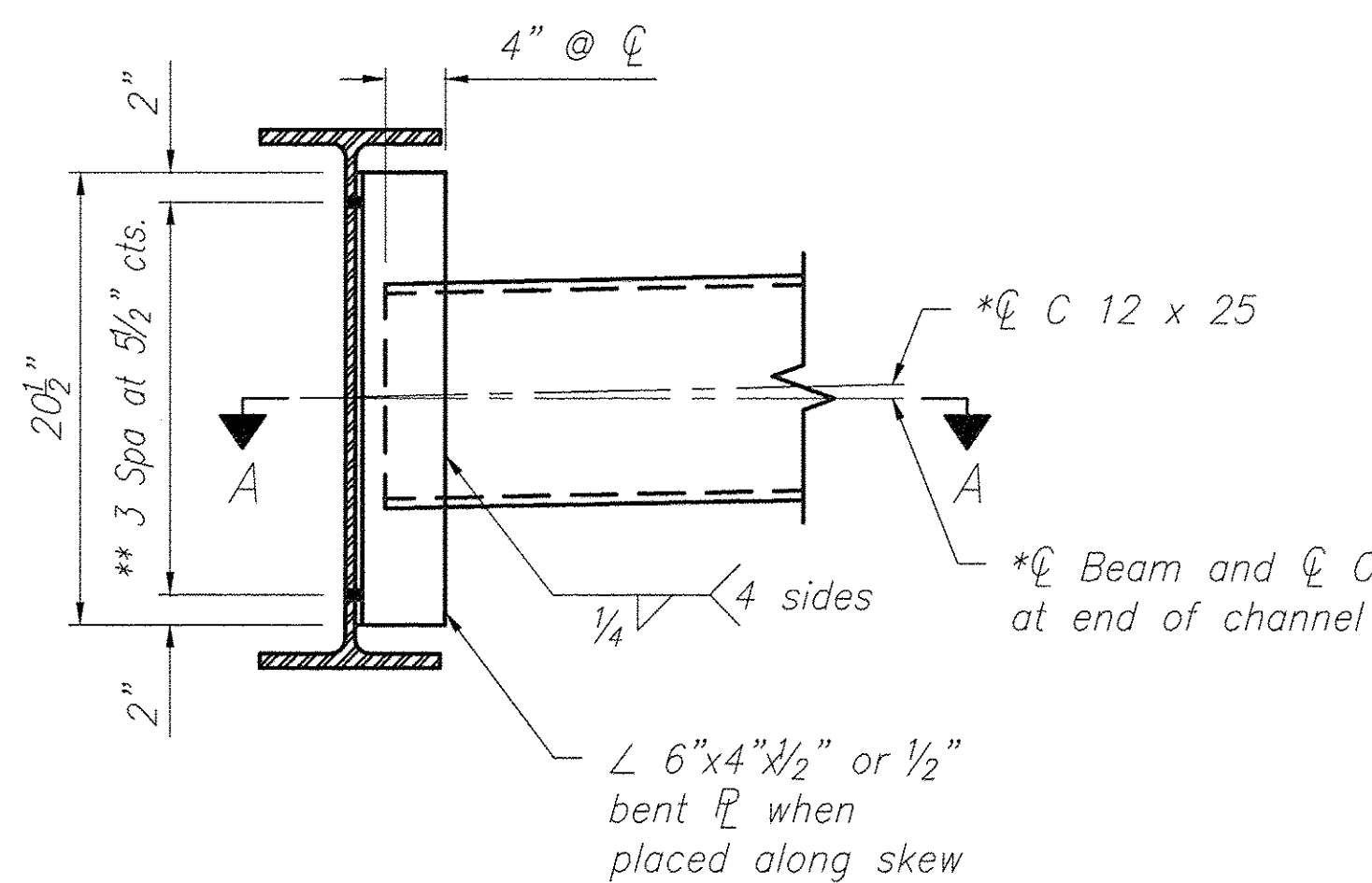
INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier
R_{DC1}	(k)	16.9	59.0
R_{DC2}	(k)	6.1	21.2
R_{DW}	(k)	6.7	23.5
$R(\frac{L}{4} + IM)_1$	(k)	78.8	112
R_{Total}	(k)	108.5	216

NOTES:

$(\frac{L}{4} + IM)_1$ - Designates the HL93 design loading that was used in the STRENGTH I Limit State.



SECTION A-A



INTERIOR DIAPHRAGM

Note:
Two hardened washers required for each set of oversized holes.

*Alternate C 12 x 30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

The alternate, if utilized, shall be provided at no additional cost to the Dept.

**3/4" ϕ HS bolts, 1 5/16" ϕ holes

TOP OF BEAM ELEVATIONS (FOR FABRICATION ONLY)						
Beam Number	South Abutment	Pier #1	Splice #1	Splice #2	Pier #2	North Abutment
1	595.91	595.57	595.49	595.23	595.14	594.80
2	596.03	595.70	595.61	595.35	595.26	594.93
3	596.15	595.82	595.73	595.47	595.38	595.05
4	596.12	595.79	595.70	595.44	595.36	595.02
5	596.03	595.69	595.61	595.35	595.26	594.92

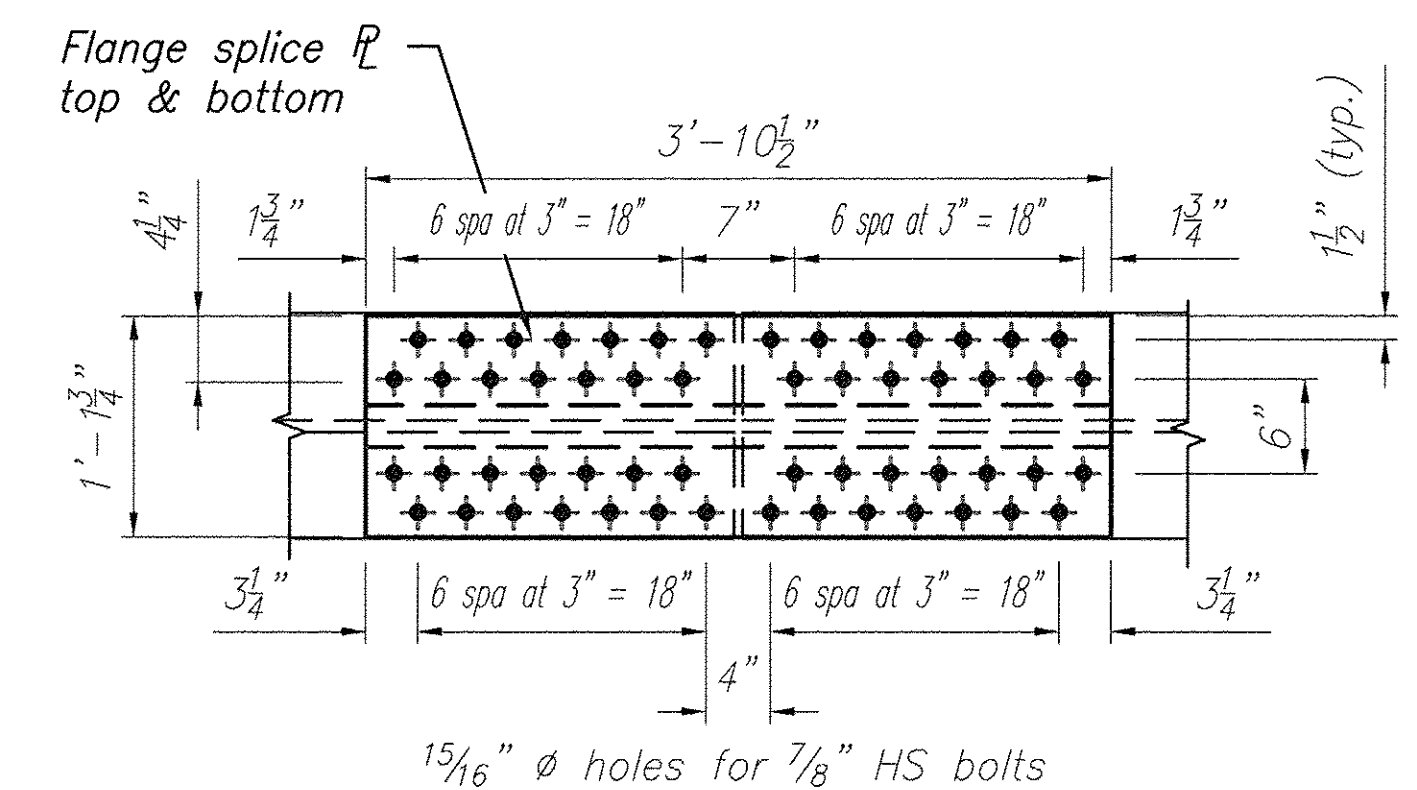
BILL OF MATERIAL

Item	Unit	Quantity
Stud Shear Connectors	Each	6,090
Furnishing & Erecting Structural Steel	Lbs	175,000

NOTES:

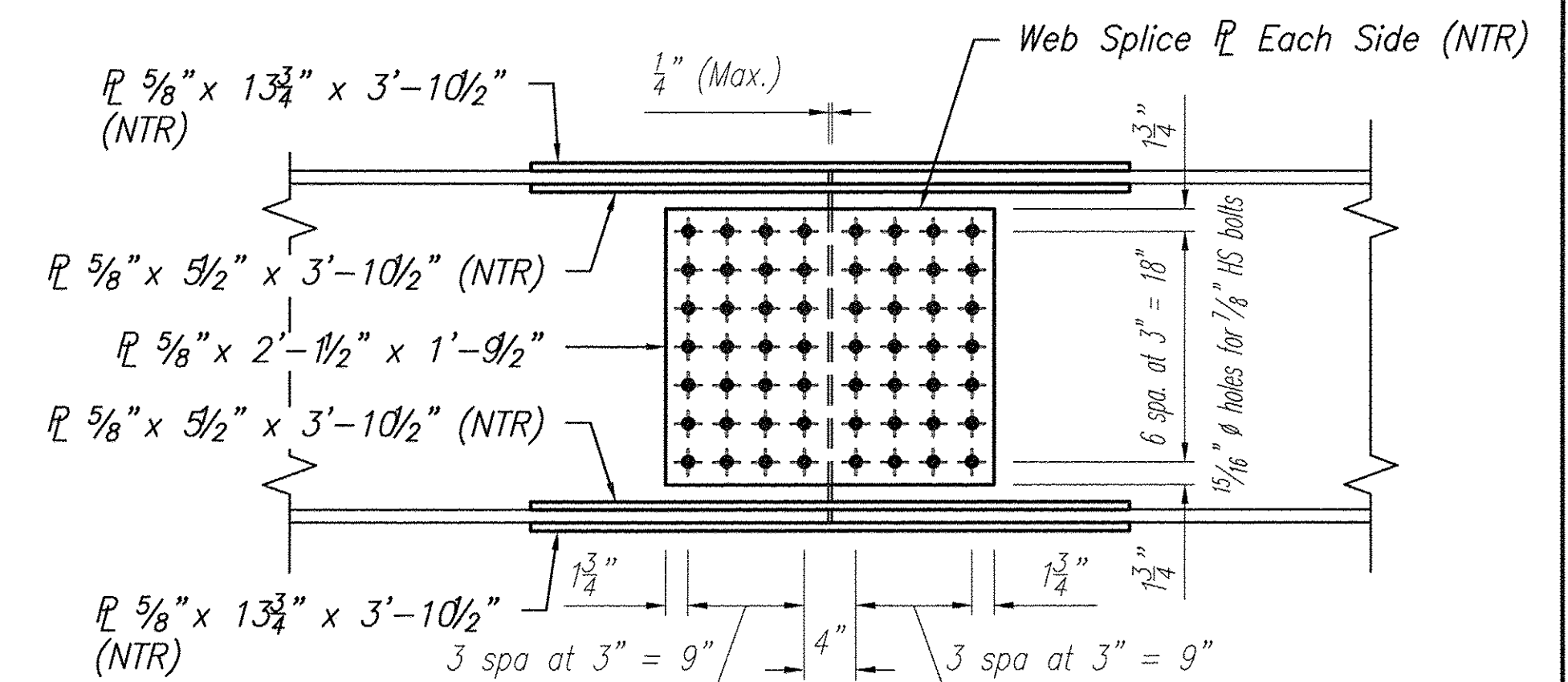
All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

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

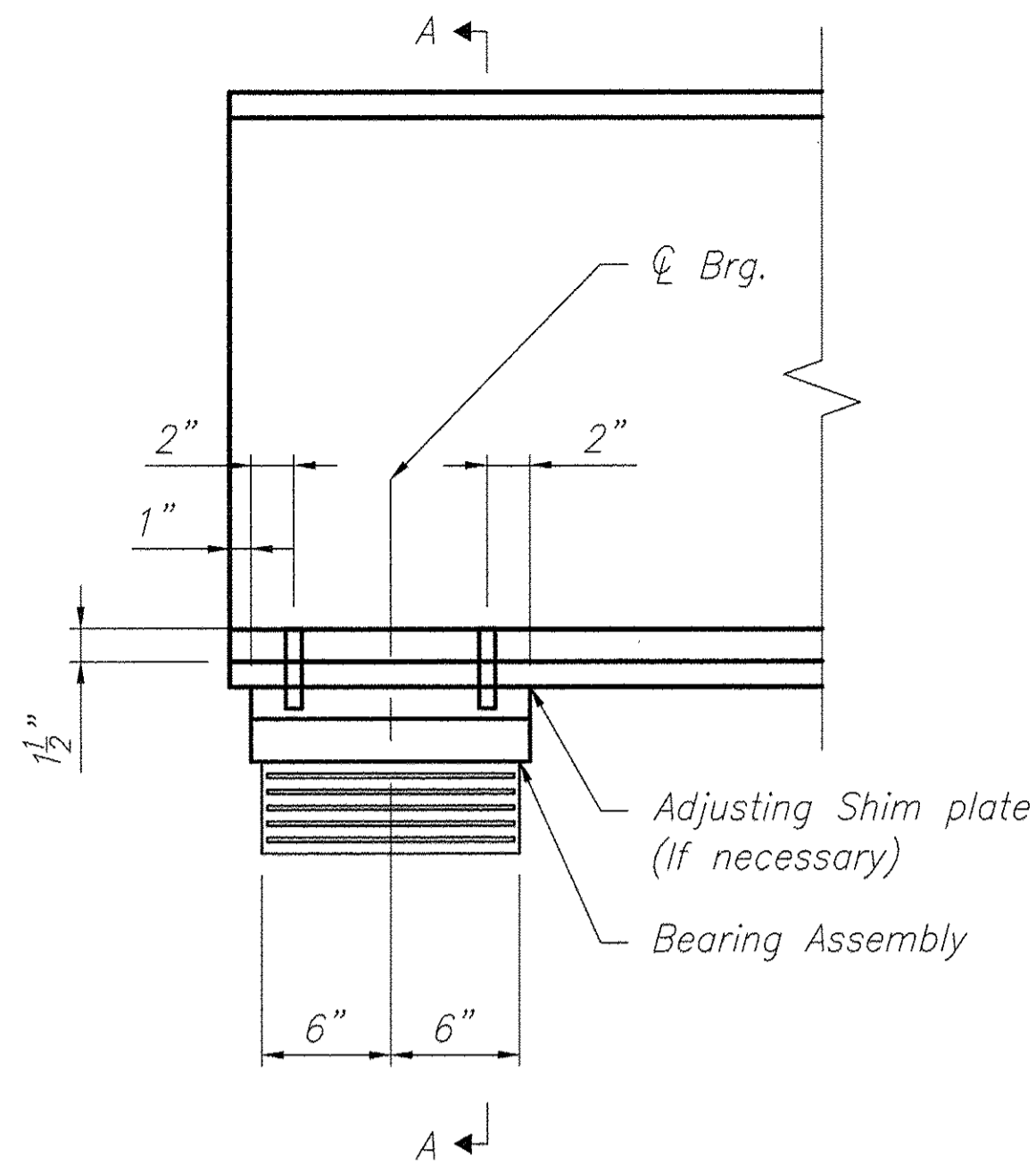


Note:

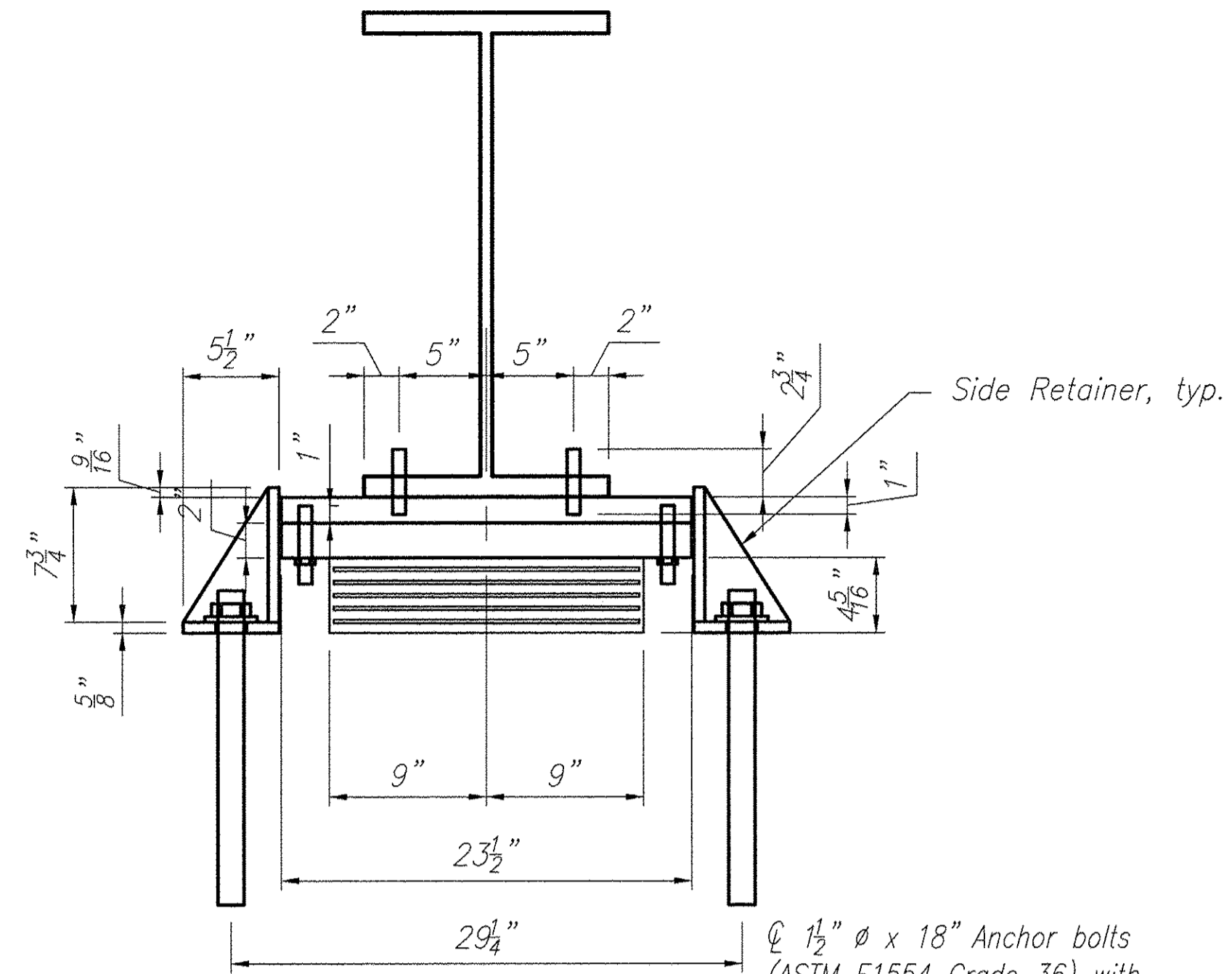
NTR = Notch Toughness Requirements



FIELD SPLICE DETAIL



ELEVATION AT ABUTMENT

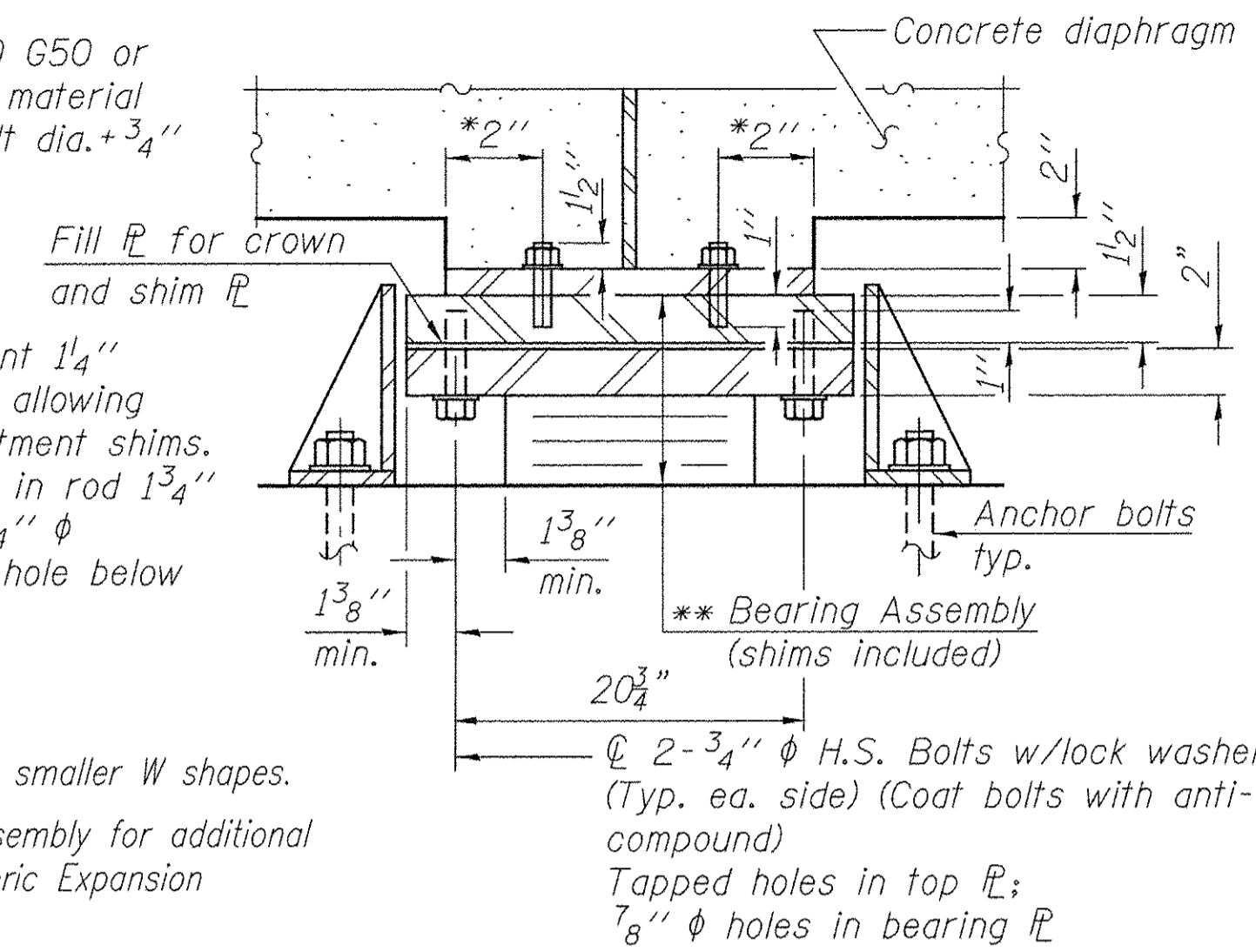


SECTION A - A

Ø 1 1/2" Ø x 18" Anchor bolts (ASTM F1554 Grade 36) with 3" x 3" x 5/16" PL washer under nut

Note A:
AASHTO M270 G50 or G50W or similar material
Rod dia. = bolt dia. + 3/4"

Note B:
Bolt engagement 1 1/4" min., 1 5/8" max., allowing up to 3/8" adjustment shims. Tap full threads in rod 1 3/4" deep. Provide 1/4" Ø galvanizing vent hole below full thread.

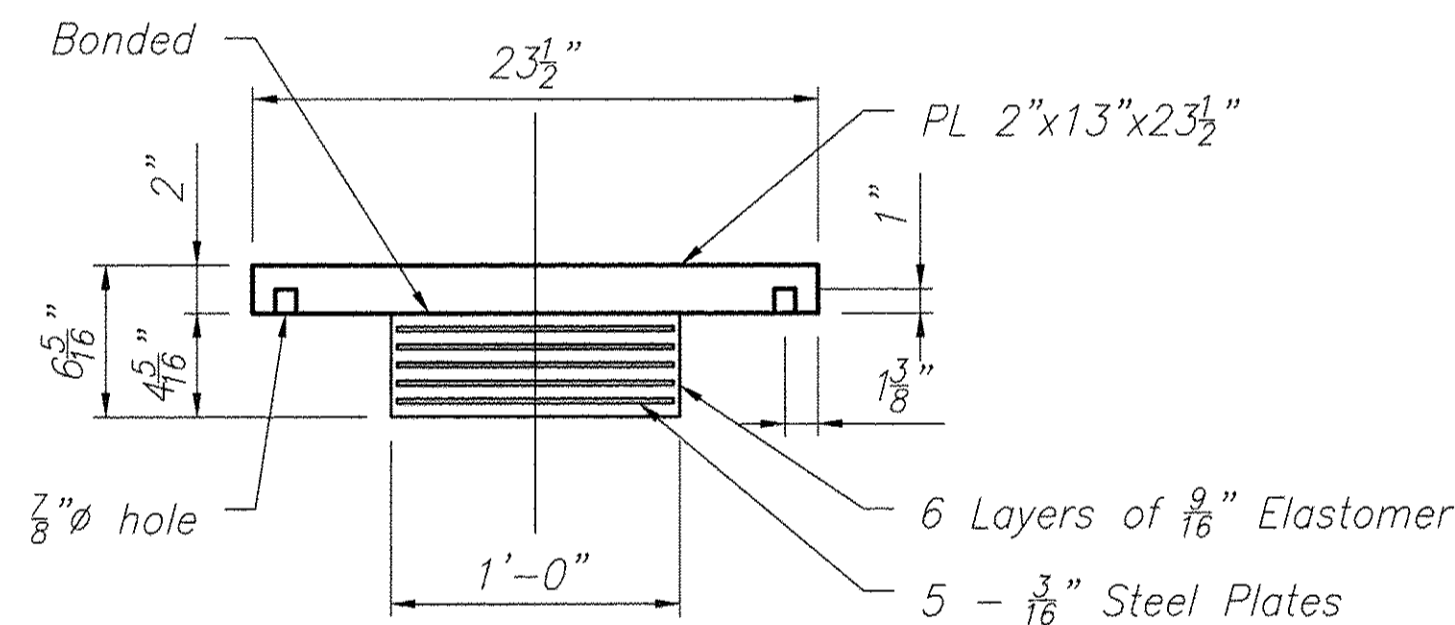


* May be 1 1/2" for smaller W shapes.

** See Bearing Assembly for additional Type I Elastomeric Expansion Bearing Details.

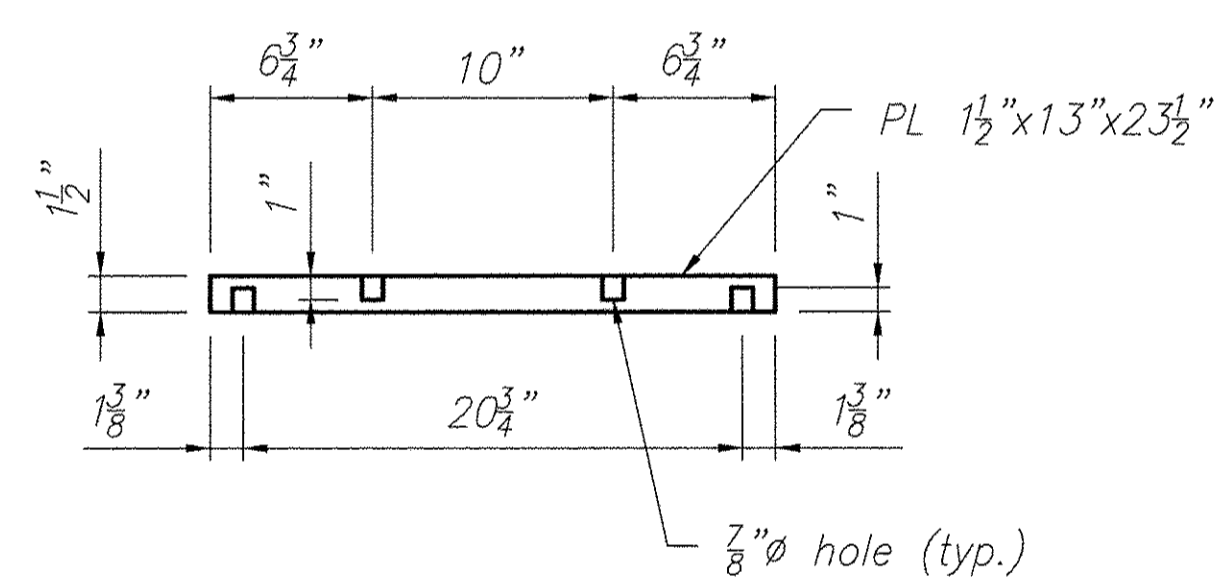
TYPE I

TYPE I ELASTOMERIC EXP. BRG.

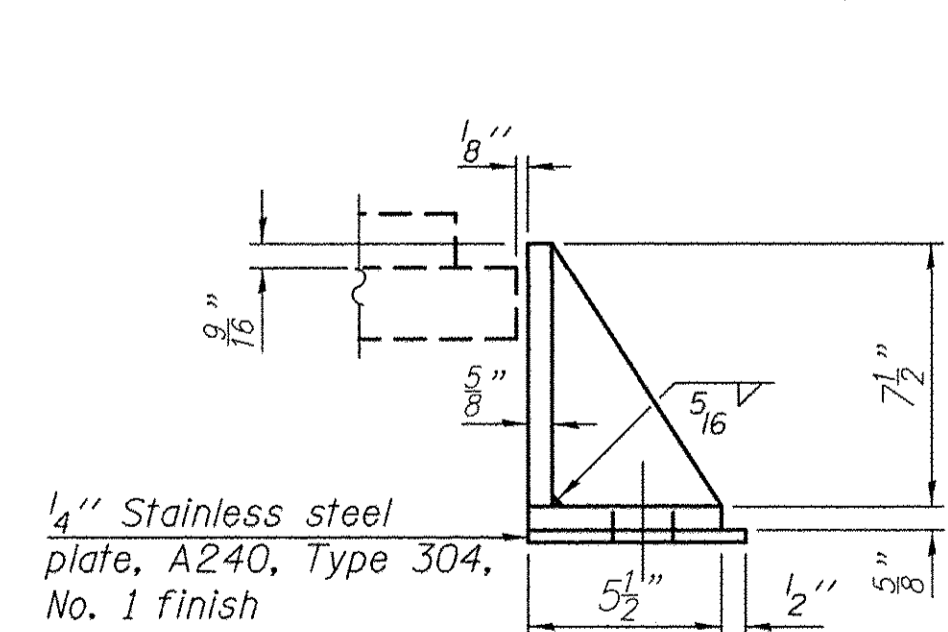


BEARING ASSEMBLY

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

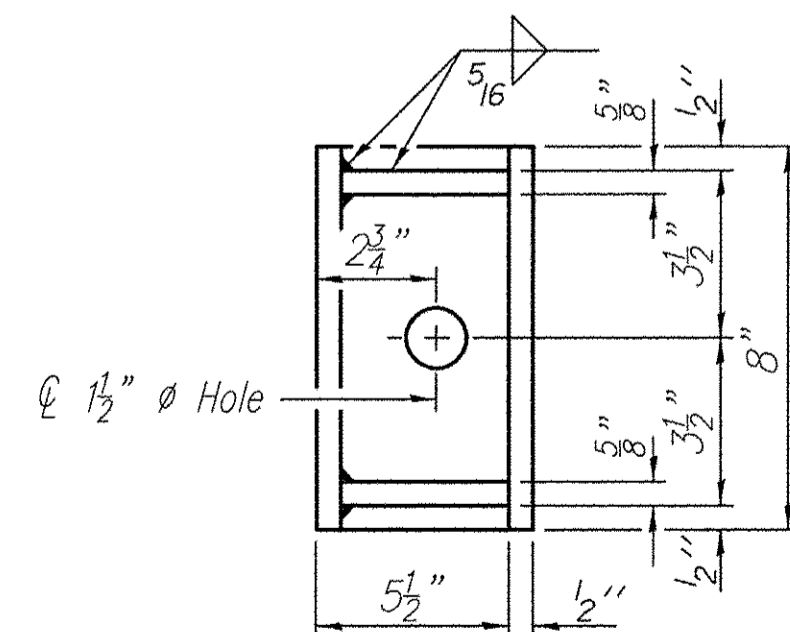


TOP PLATE BEARING ASSEMBLY



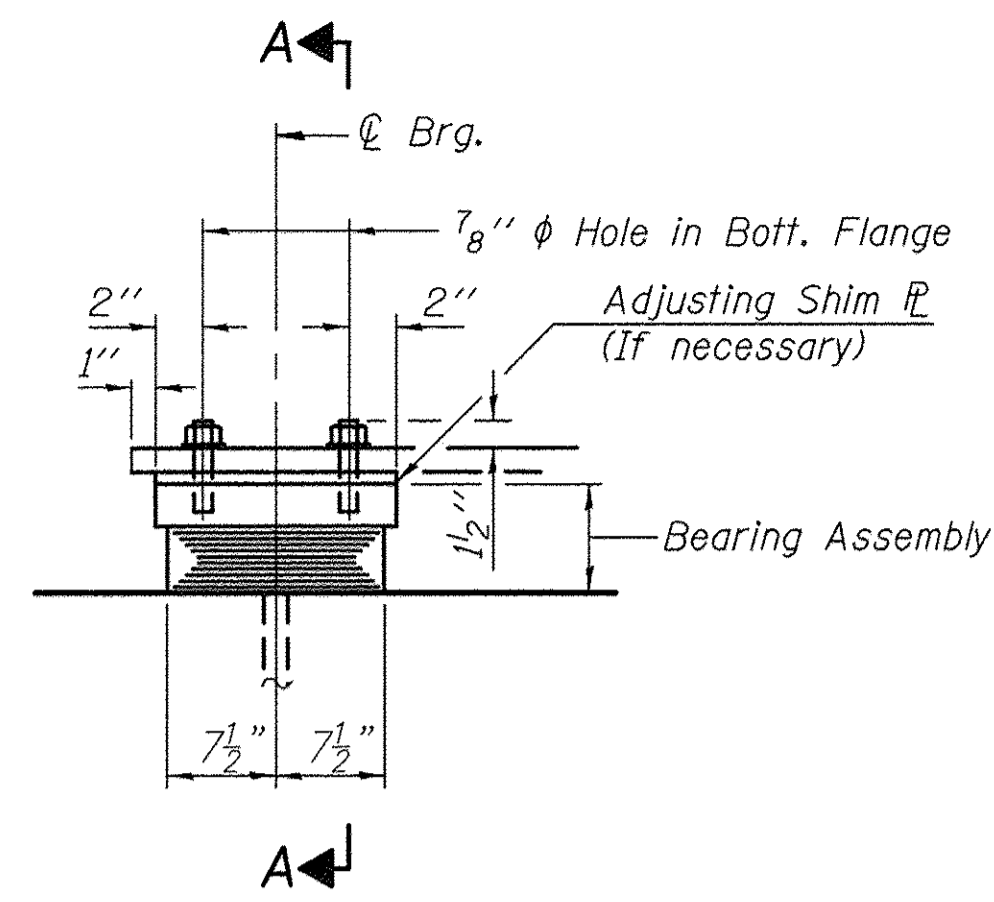
SIDE RETAINER

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

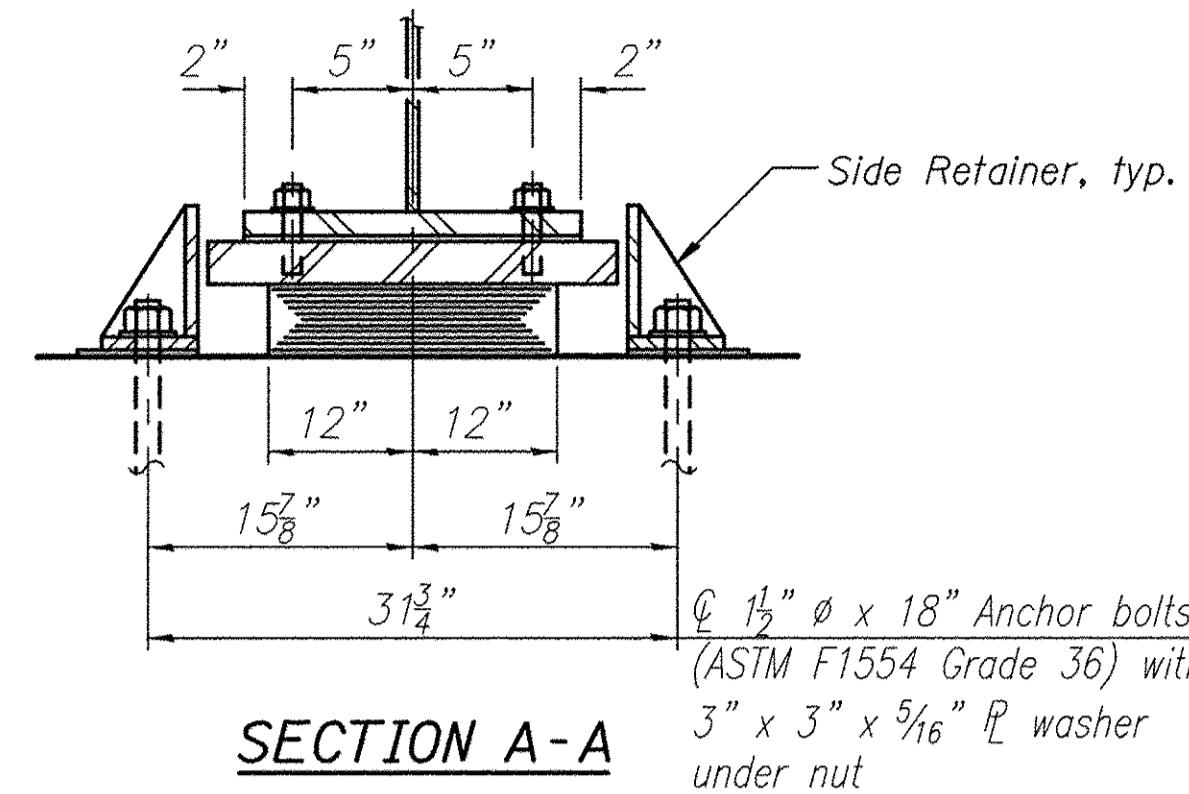


BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	10
Anchor Bolts	Each	20

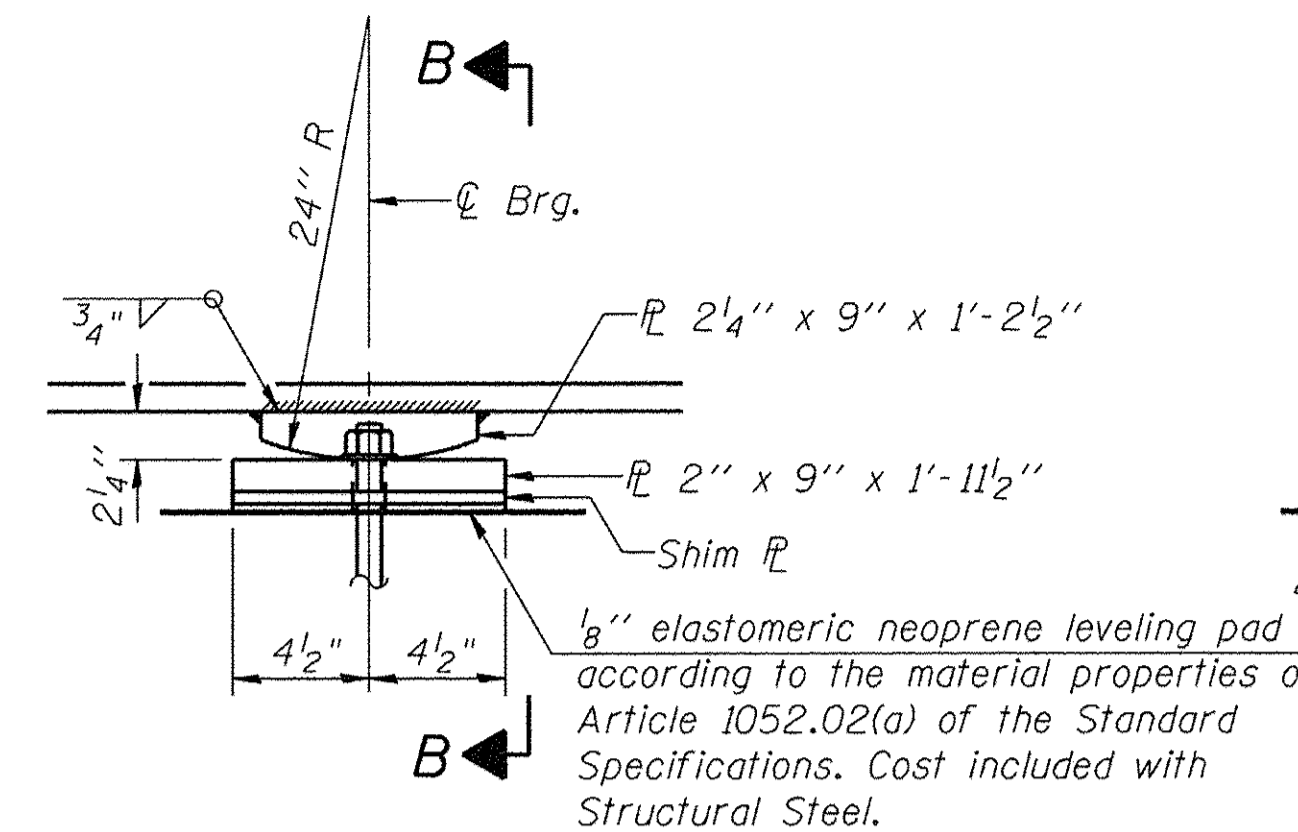


ELEVATION AT PIER 1

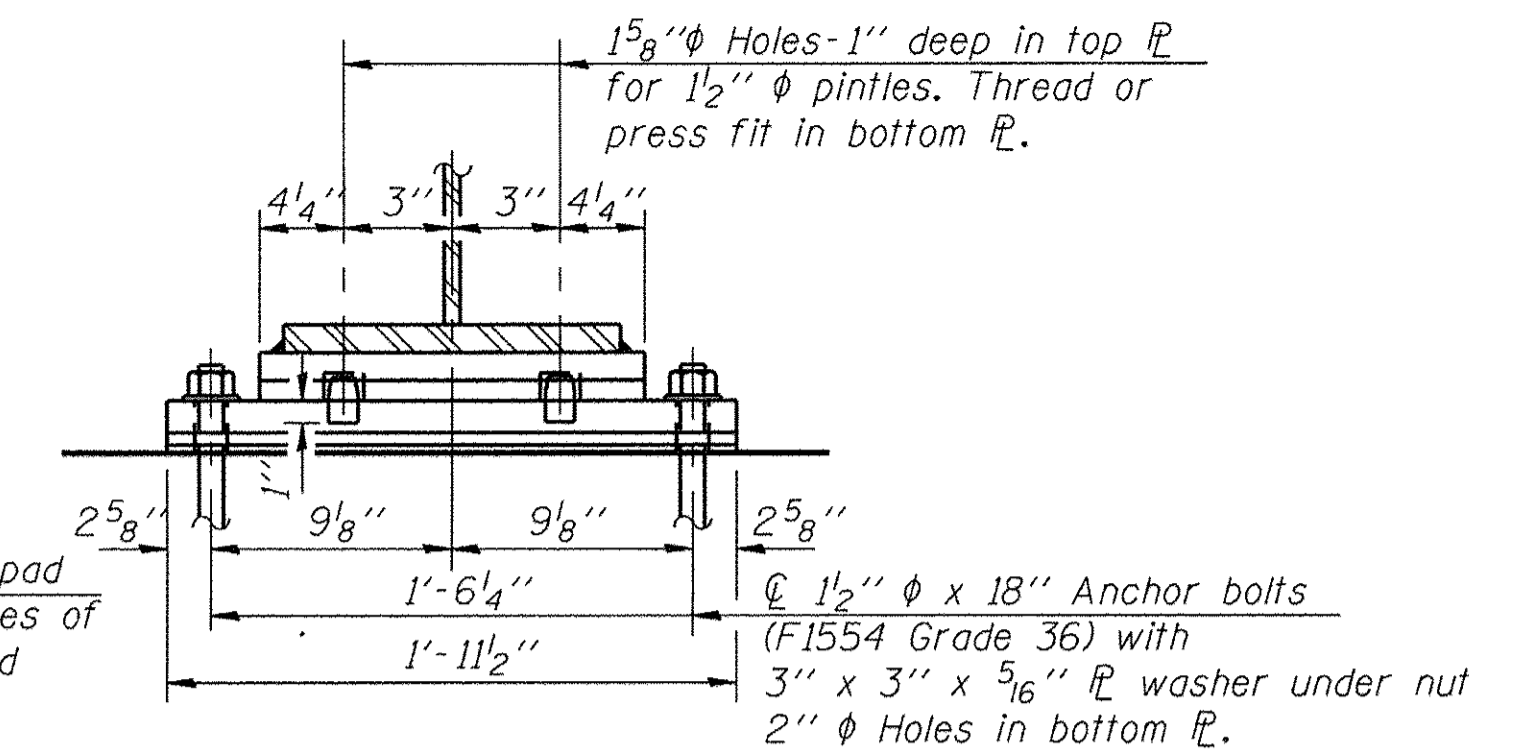


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG. AT PIER 1

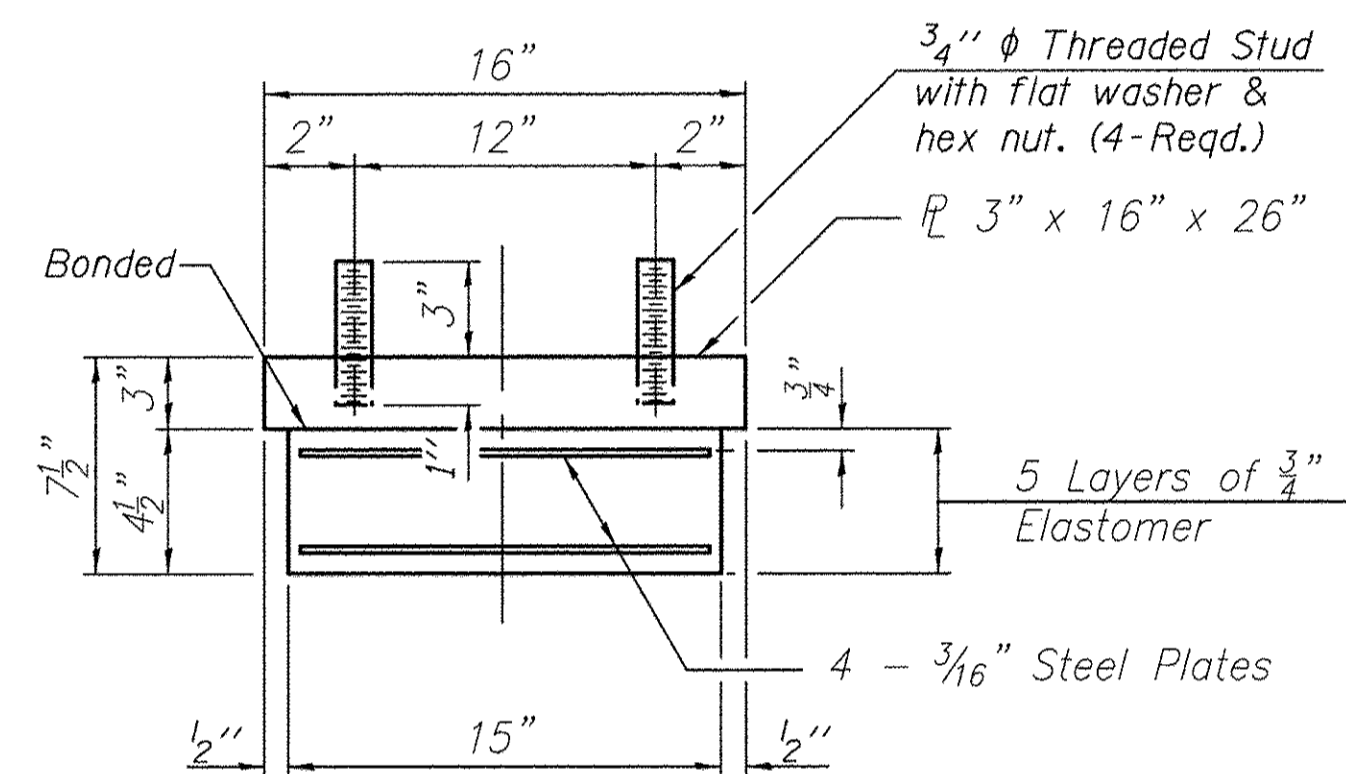


ELEVATION AT PIER 2



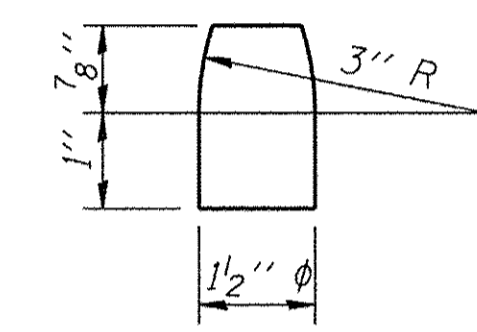
SECTION B-B

FIXED BEARING AT PIER 2



BEARING ASSEMBLY

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



PINTLE

TYPE I ELASTOMERIC EXP. BRG.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

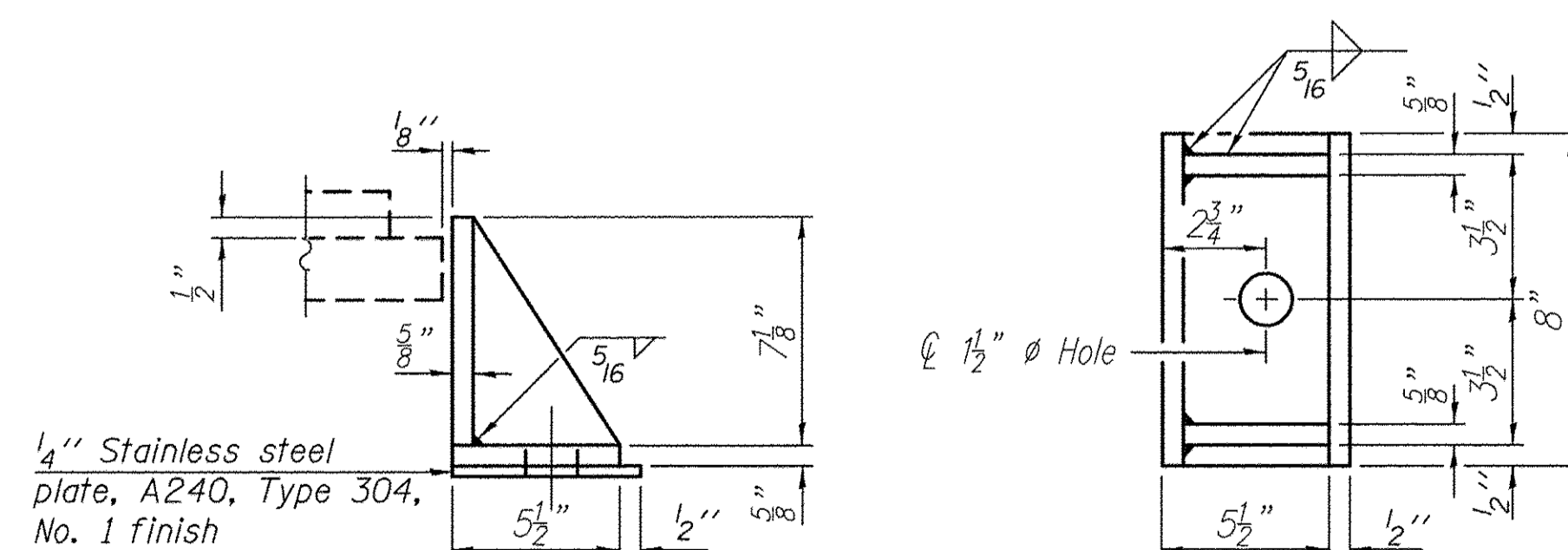
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

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 cast of Elastomeric Bearing Assembly, Type I.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.



SIDE RETAINER

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

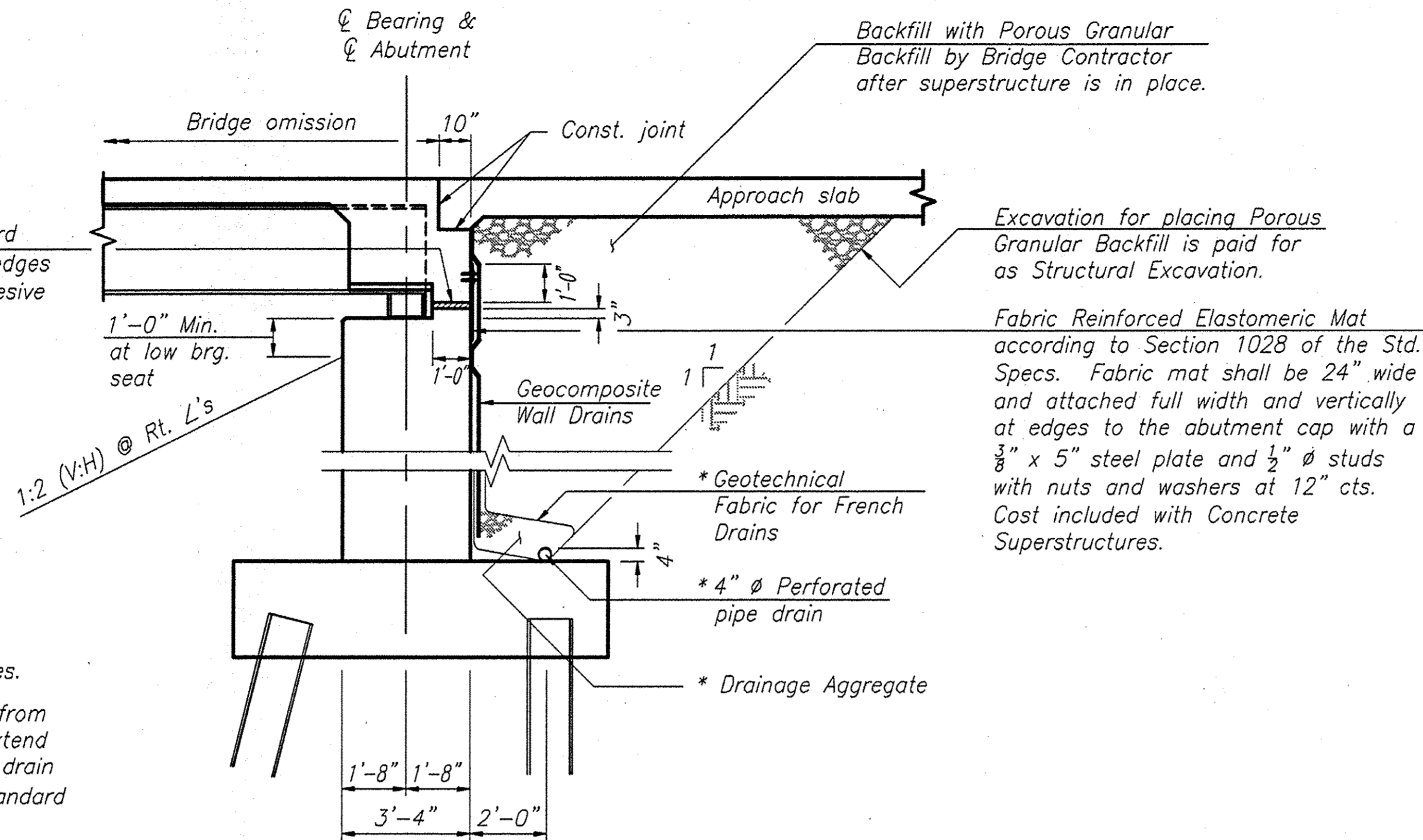
NOTES

- 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.
- All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable
- H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Anchor Bolts	Each	10

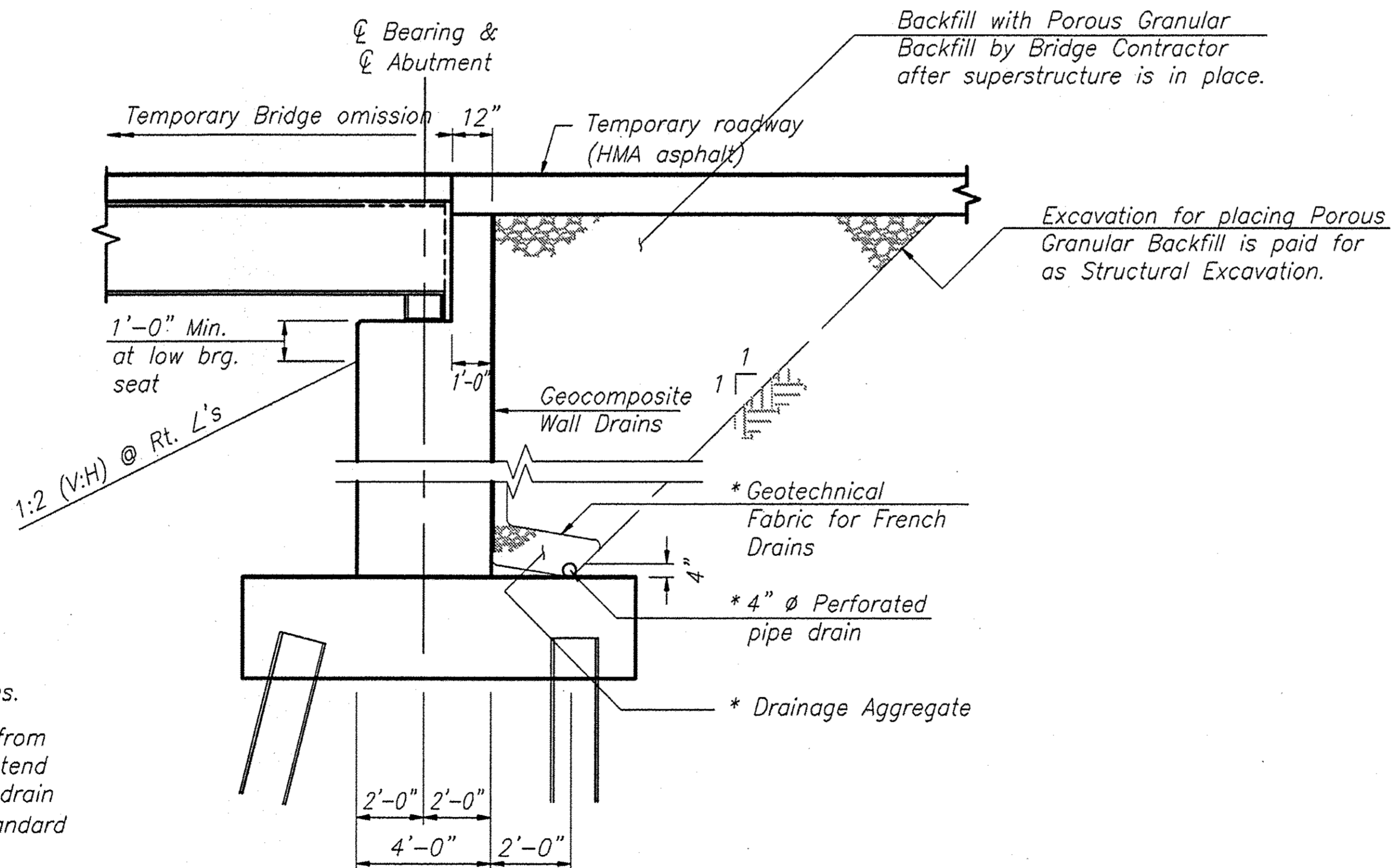
2" PJF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.



TYPICAL SECTION THRU SEMI-INTEGRAL ABUTMENT

* Included in the cost of Pipe Underdrains for Structures.

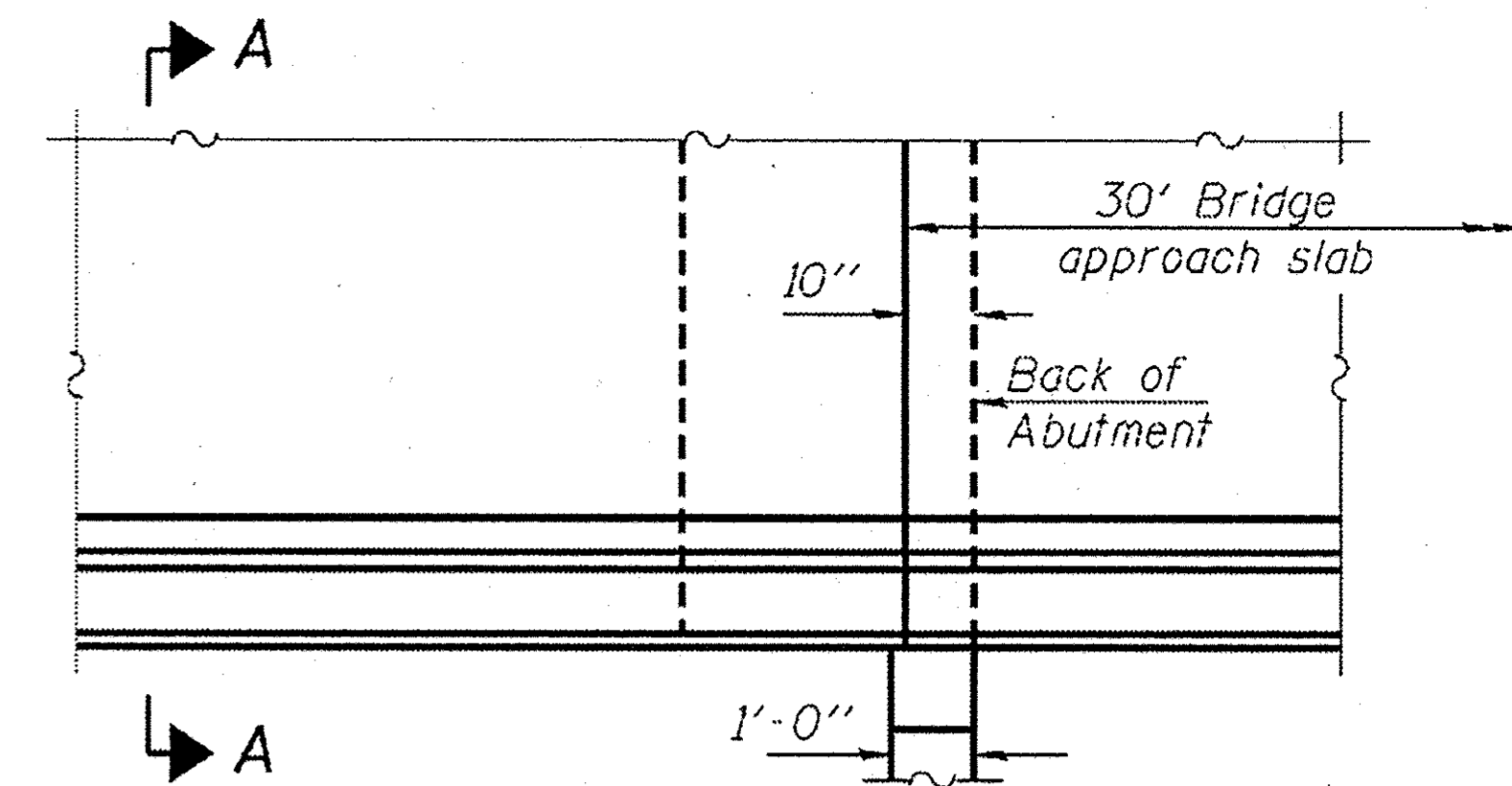
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



TYPICAL SECTION THRU TEMPORARY ABUTMENT

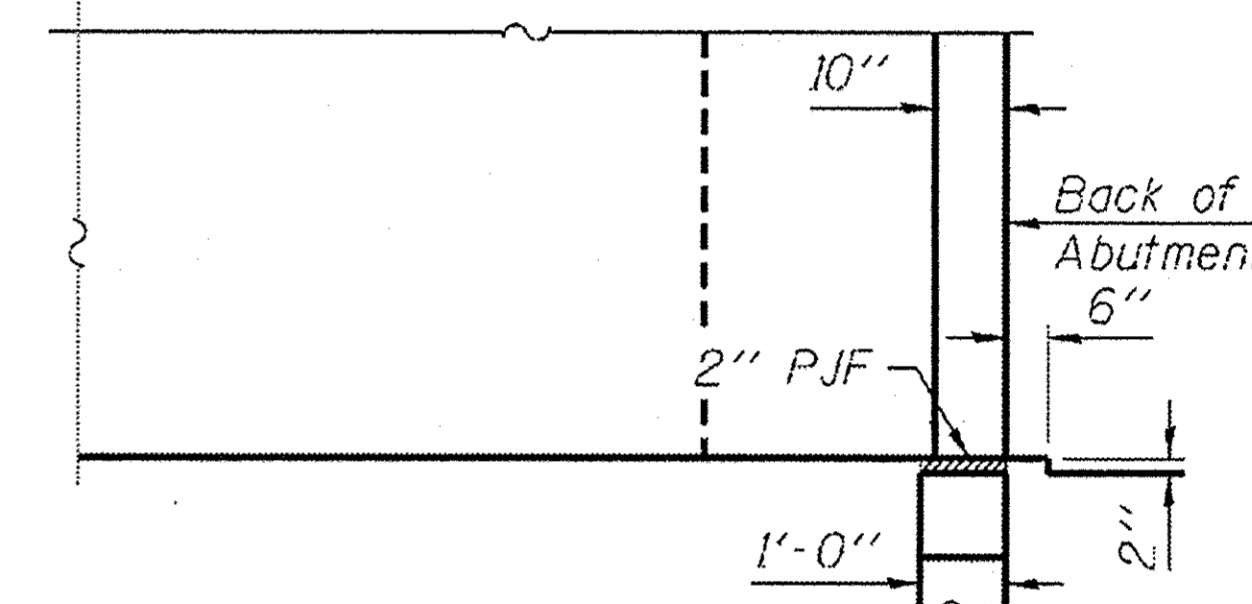
* Included in the cost of Pipe Underdrains for Structures.

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



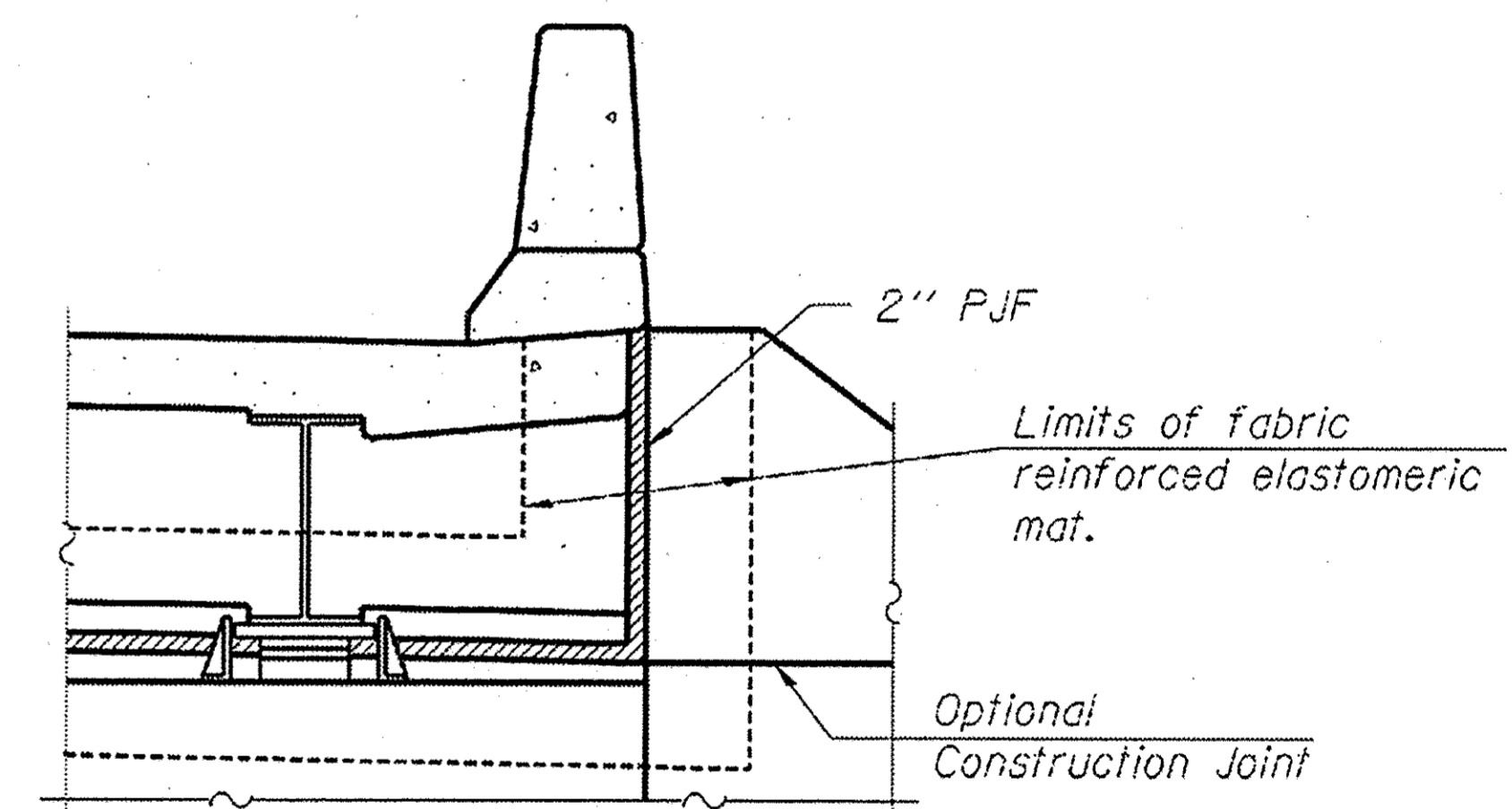
PLAN

(Parapet and approach included)



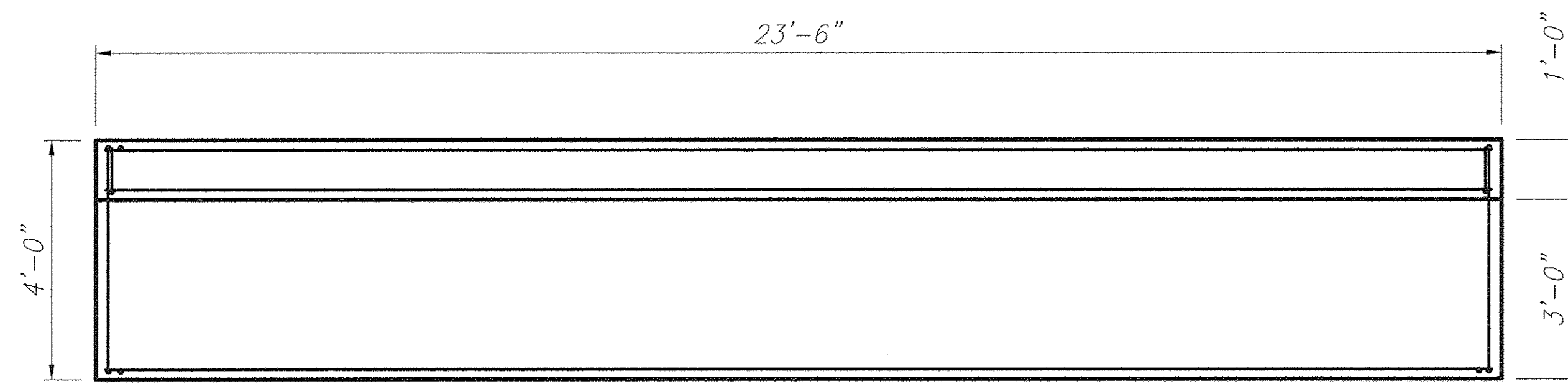
PLAN

(Parapet and approach not included)

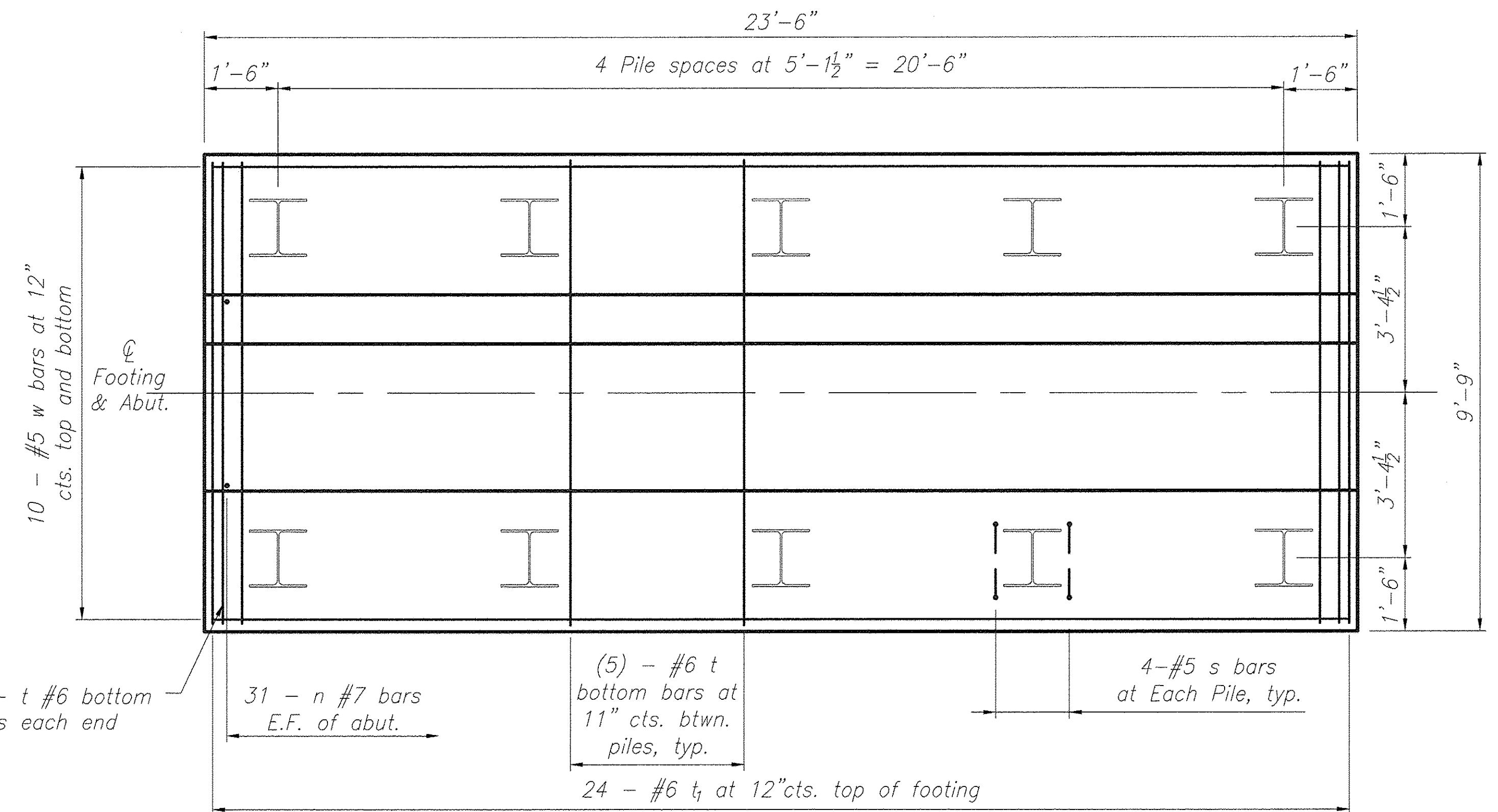
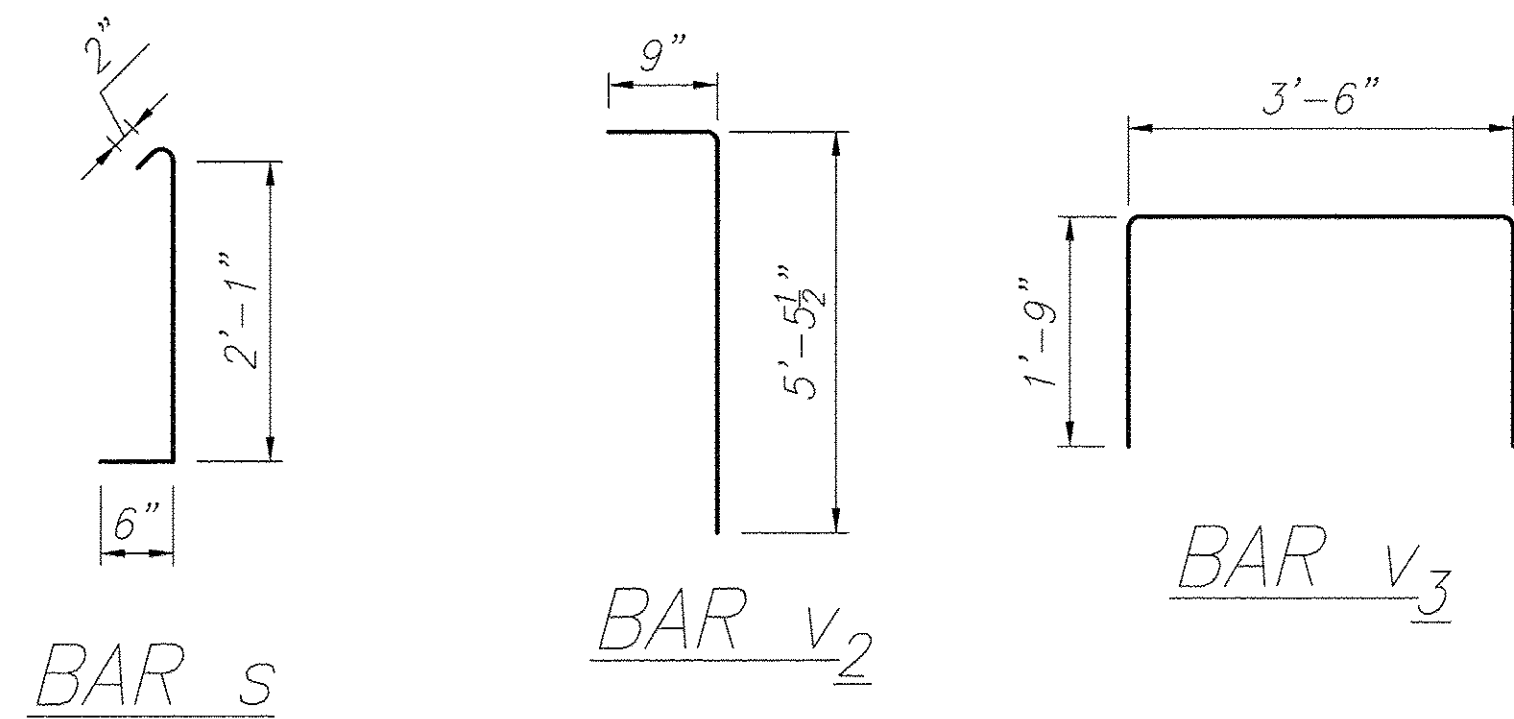


SECTION A-A

Item	Unit	Total
Geocomposite Wall Drain	Sq. Yd.	150
Pipe Underdrain for Structures, 4"	Foot	135
Granular Backfill for Structures	Cu. Yd.	380
2" Preformed Joint Filler	Foot	74



ABUTMENT PLAN



FOOTING PLAN

2 - t #6 bottom bars each end

31 - n #7 bars E.F. of abut.

(5) - #6 t bottom bars at 11" cts. btwn. piles, typ.

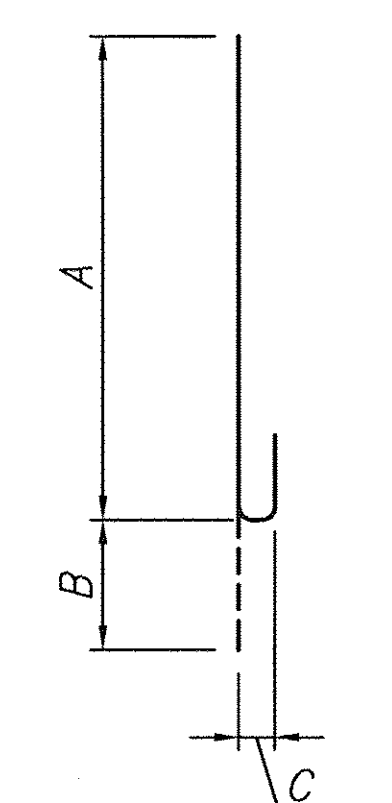
4-#5 s bars at Each Pile, typ.

24 - #6 t4 at 12" cts. top of footing

PILE DATA

Type: HP12x53
 Nominal Required Bearing: 313 kips
 Factored Resistance Available: 172 kips
 Est. Length: 28'
 No. Production Piles: 9
 No. Test Piles: 1

FOOTING PLAN



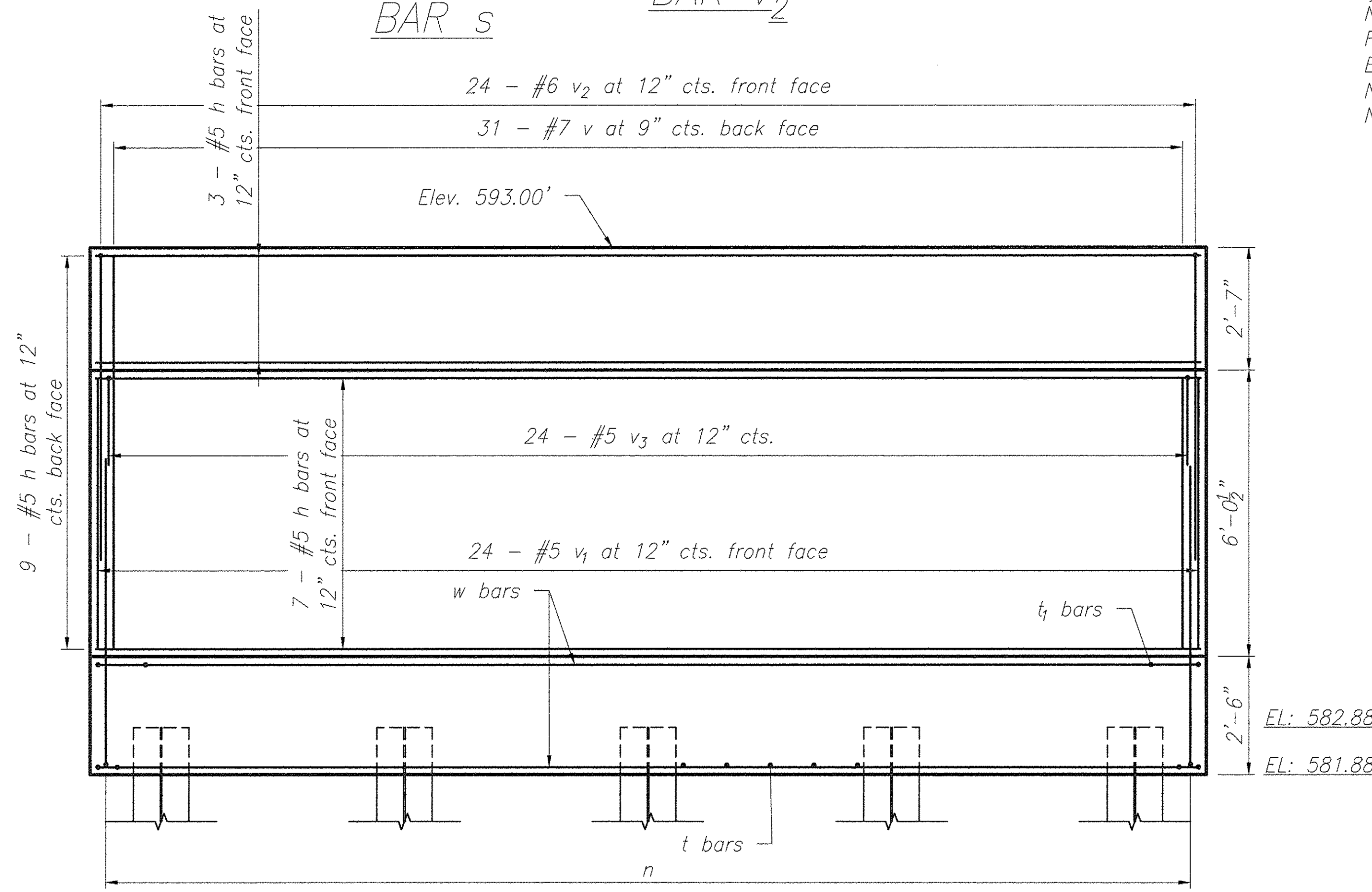
BAR	A	B	C
n	5'-8"	10"	4 1/2"

BAR n

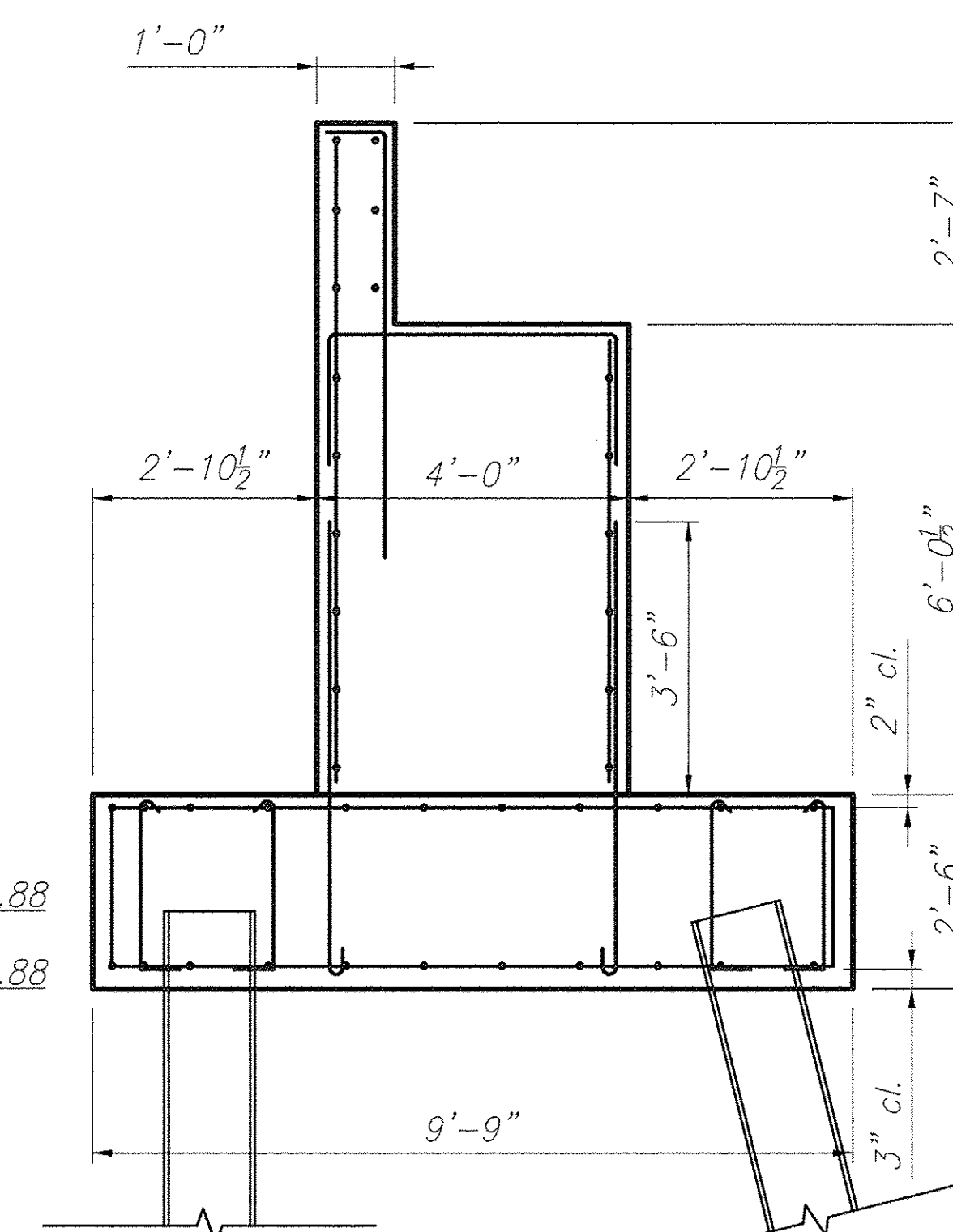
BILL OF MATERIAL - TEMP. SOUTH ABUTMENT

BAR	QTY.	SIZE	LENGTH	SHAPE
h	19	#5	23'-2"	—
n	62	#7	6'-6"	└
s	40	#5	2'-11"	└
t	24	#6	9'-4"	—
t4	24	#6	9'-4"	—
v	31	#7	8'-3"	—
v1	24	#5	5'-8"	—
v2	24	#6	6'-2"	└
v3	24	#5	7'-0"	└
w	20	#5	23'-0"	—
Reinforcement Bars			Pounds	3620
Concrete Structure			Cu. Yd.	44.6
Structure Excavation			Cu. Yd.	80
Furnishing Steel Piles, HP12x53			Feet	380
Driving Piles			Feet	280

Notes:
 All edges shall have 3/4" chamfer except as noted.
 Pour steps monolithically with cap
 Space reinforcement in cap to miss anchor bolts
 See Structural Sheet 33 of 37 for pile details



ELEVATION



SECTION THRU ABUTMENT

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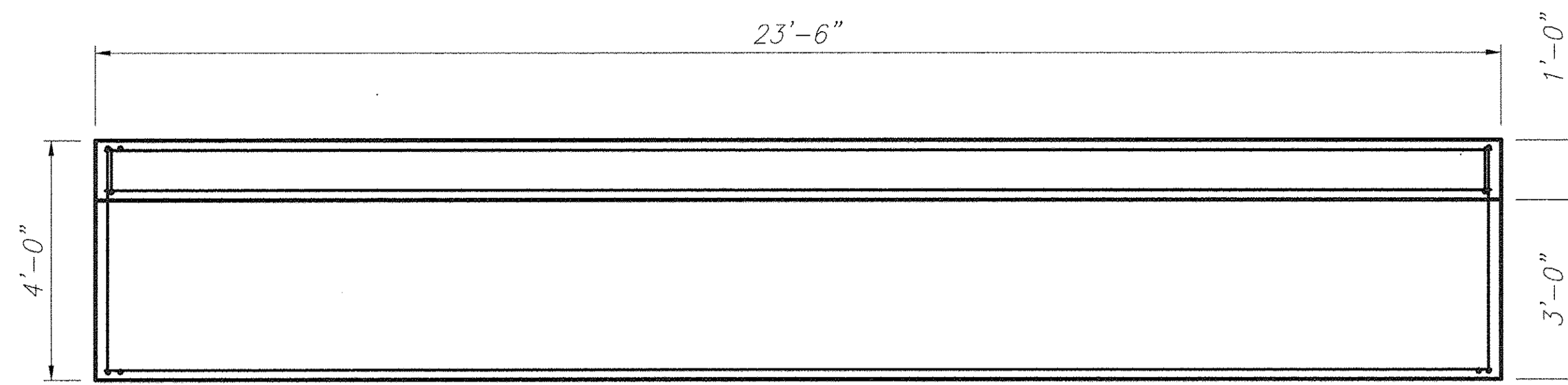
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CHECKED - PGV	REVISIONS -	
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PLOT DATE = 02/10/2017	CHECKED -	REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

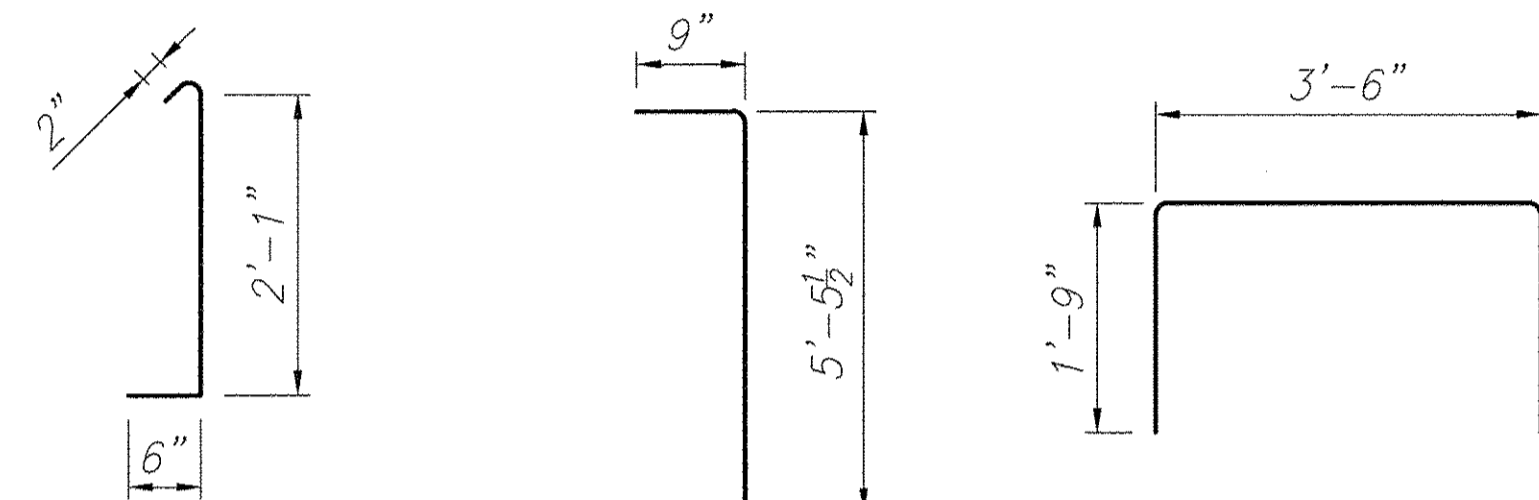
TEMPORARY BRIDGE - SOUTH ABUTMENT
 STRUCTURE NO. 016-8048

SCALE: NOT TO SCALE SHEET NO. 25 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	40
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61D83	



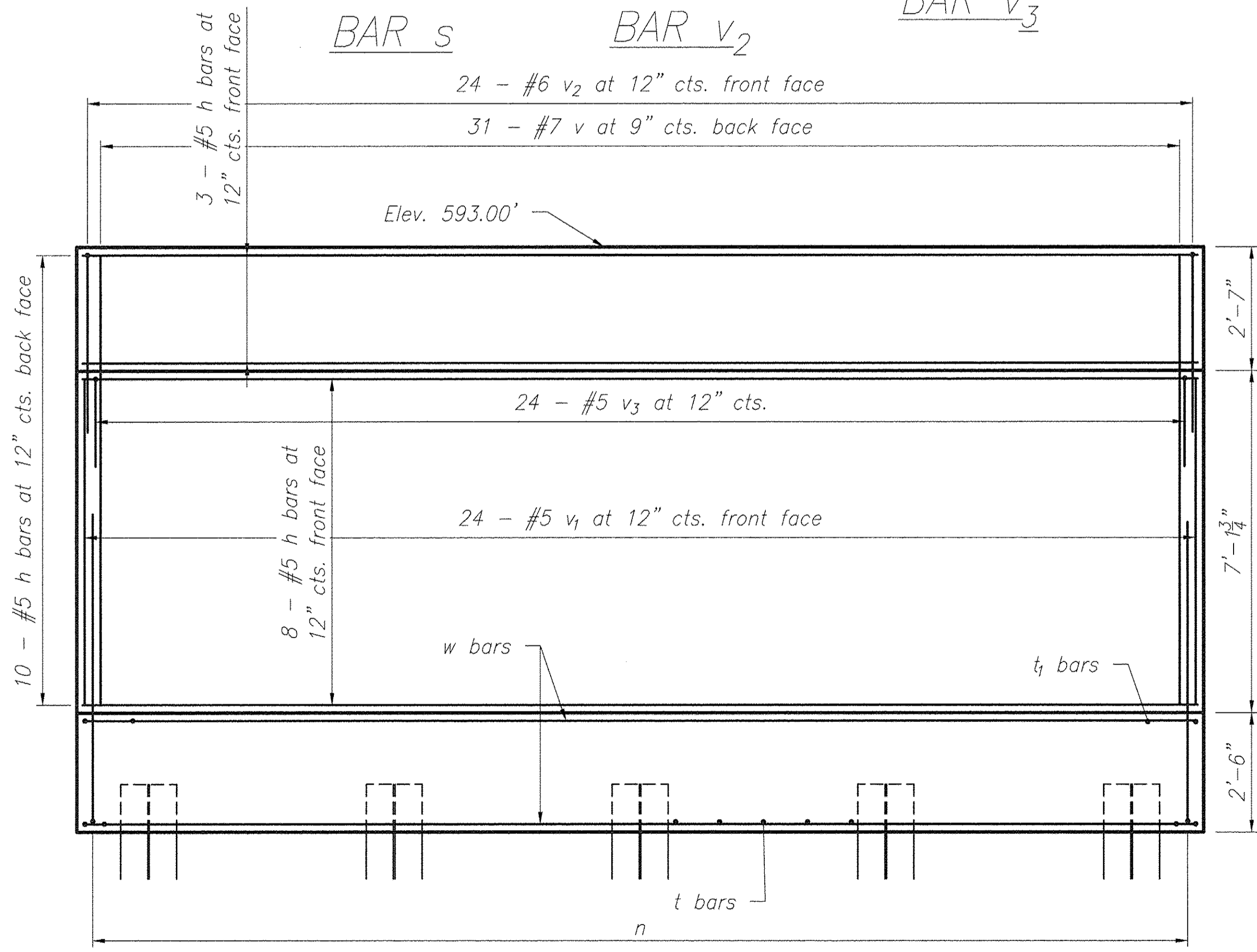
ABUTMENT PLAN



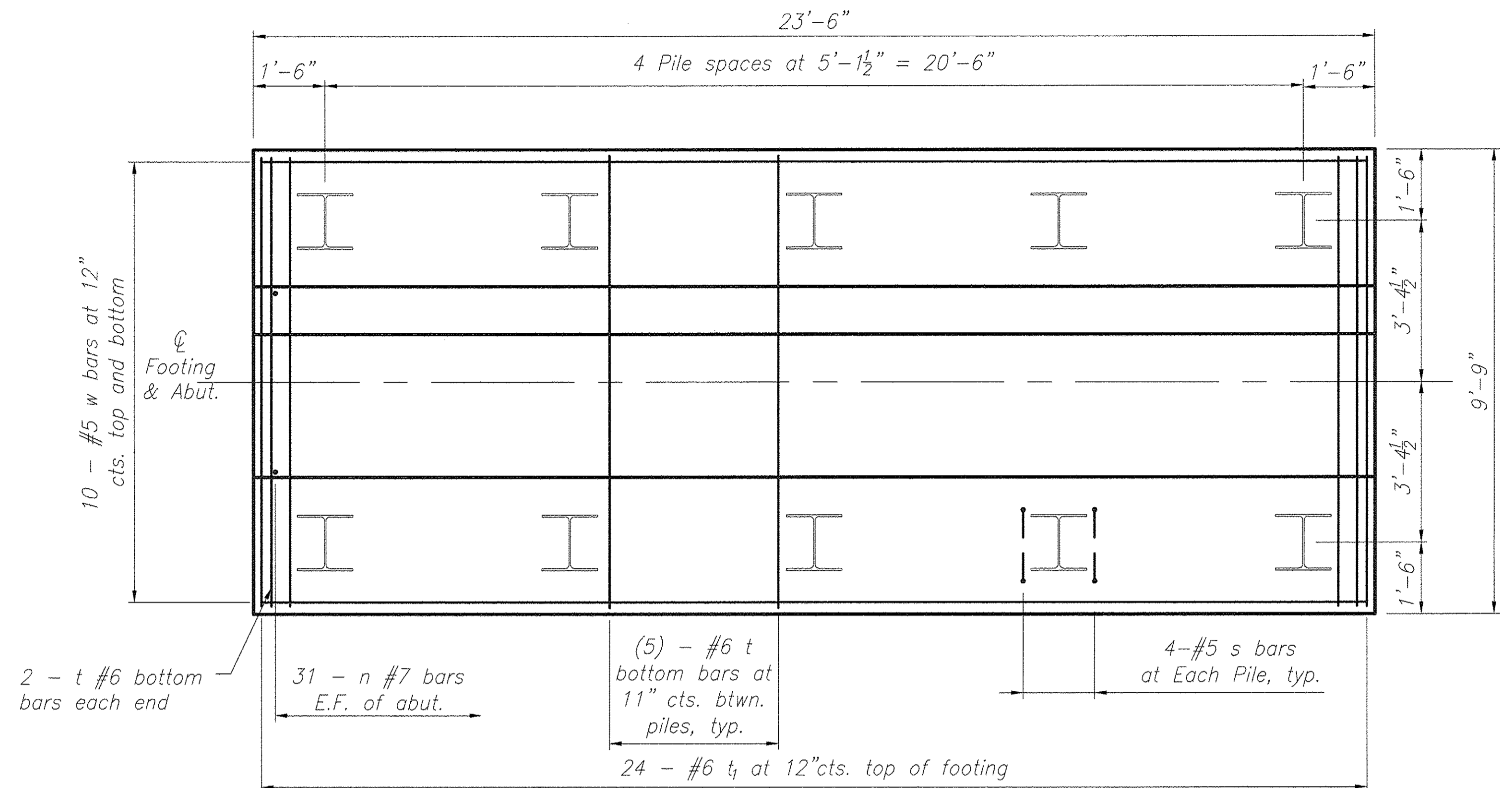
BAR s

BAR v₂

BAR v₃



ELEVATION

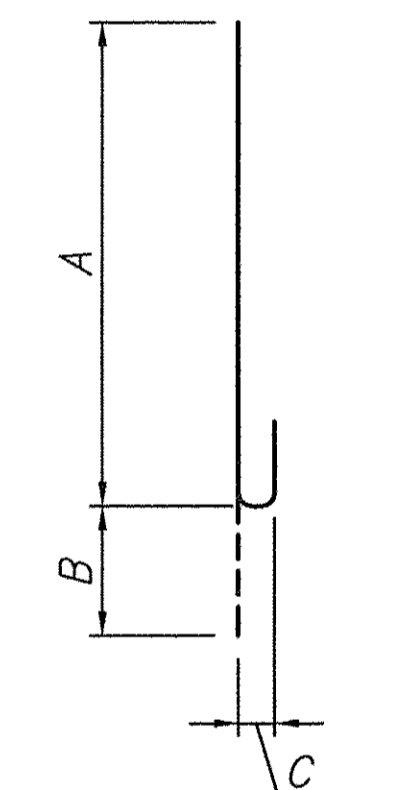


FOOTING PLAN

10 - #5 w bars at 12" cts. top and bottom

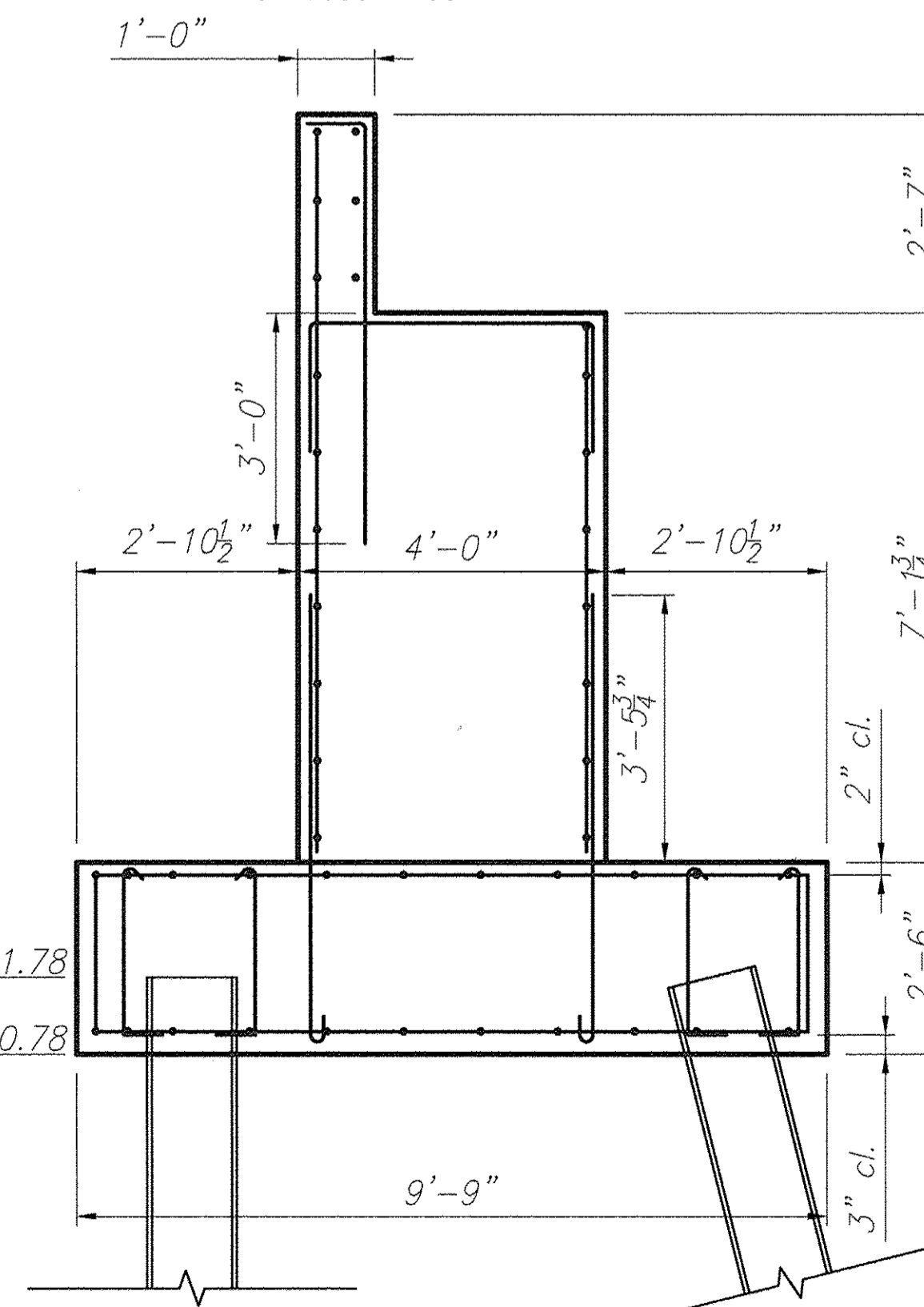
PILE DATA

Type: HP12x53
 Nominal Required Bearing: 382 kips
 Factored Resistance Available: 210 kips
 Est. Length: 27'
 No. Production Piles: 9
 No. Test Piles: 1



BAR	A	B	C
n	5'-8"	10"	4 1/2"

BAR n



SECTION THRU ABUTMENT

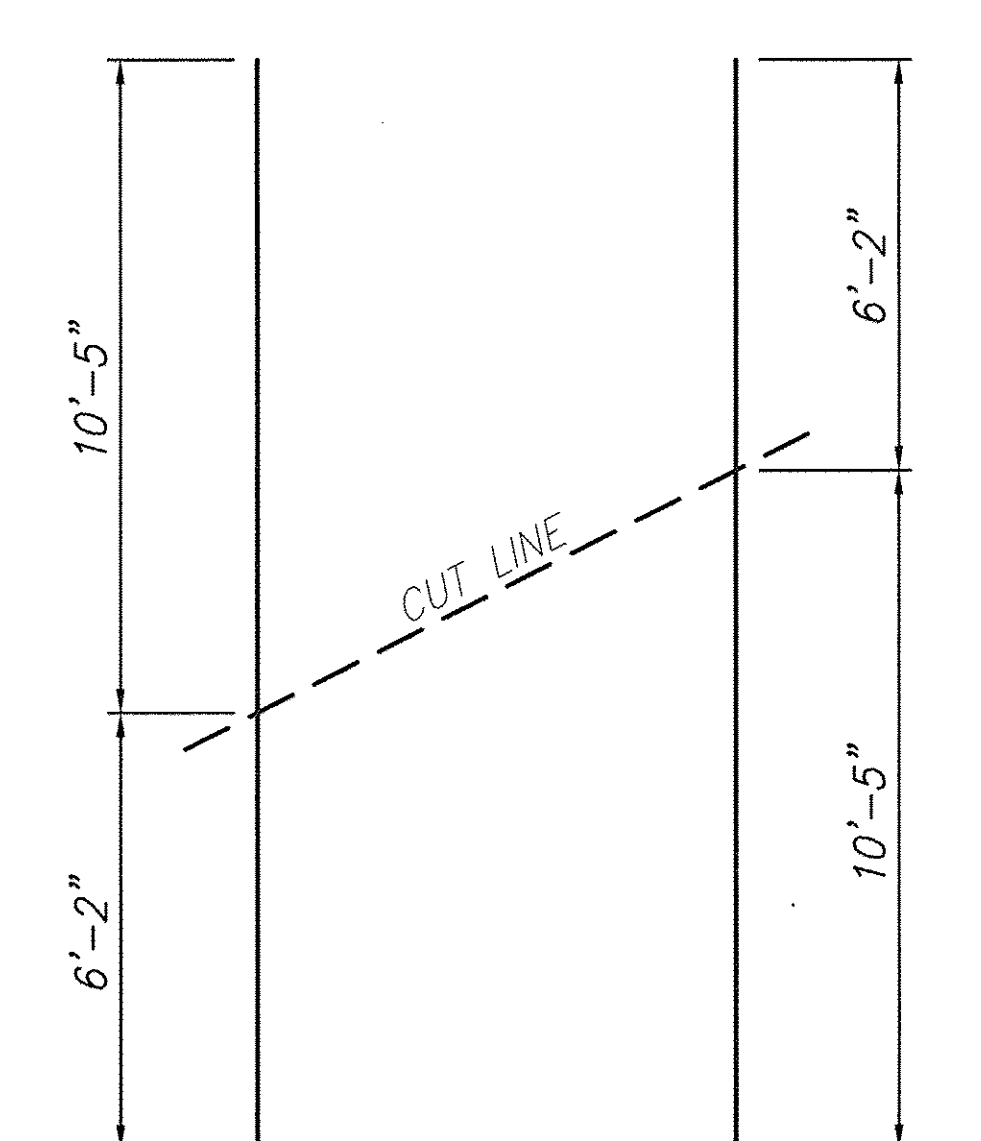
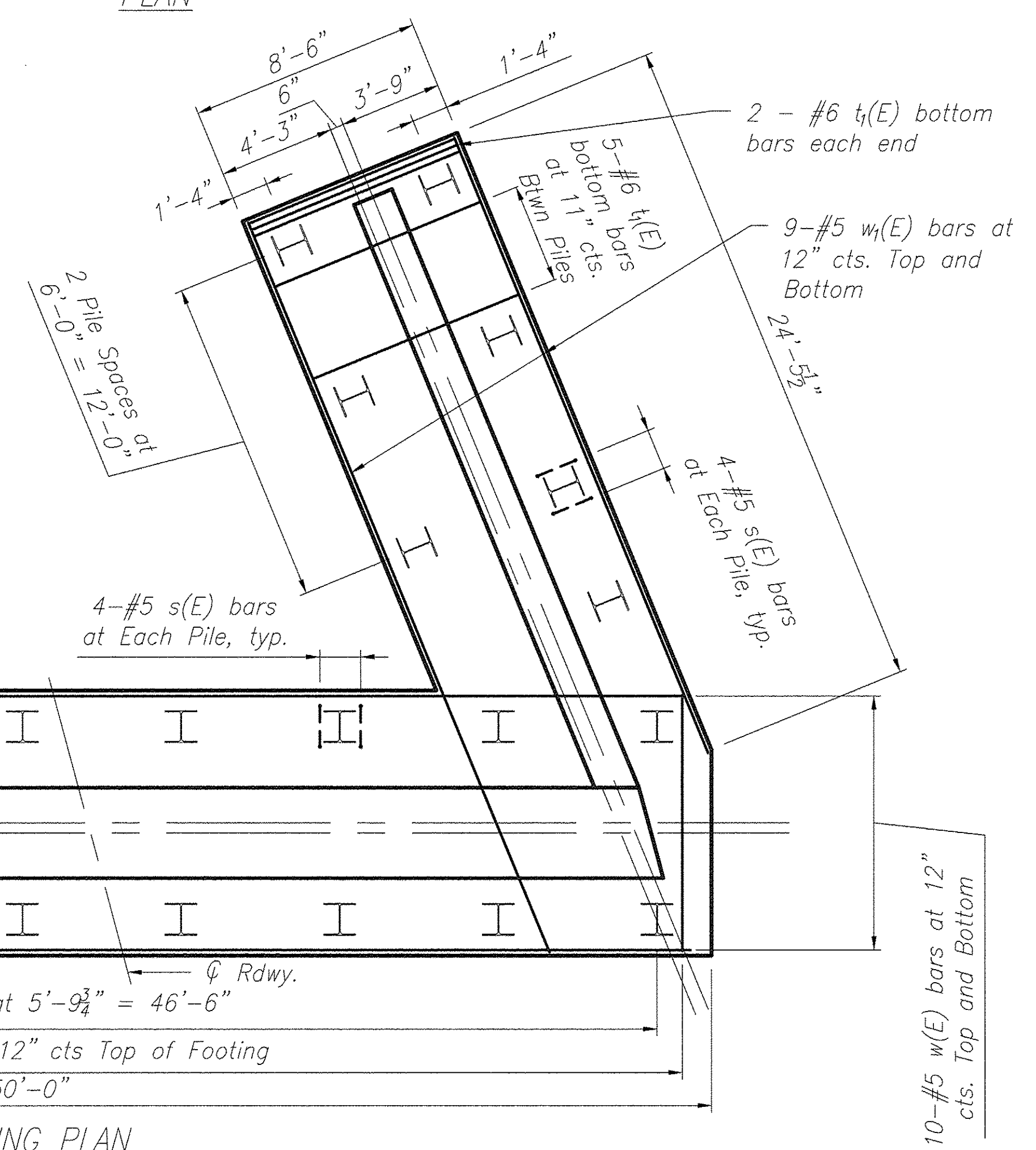
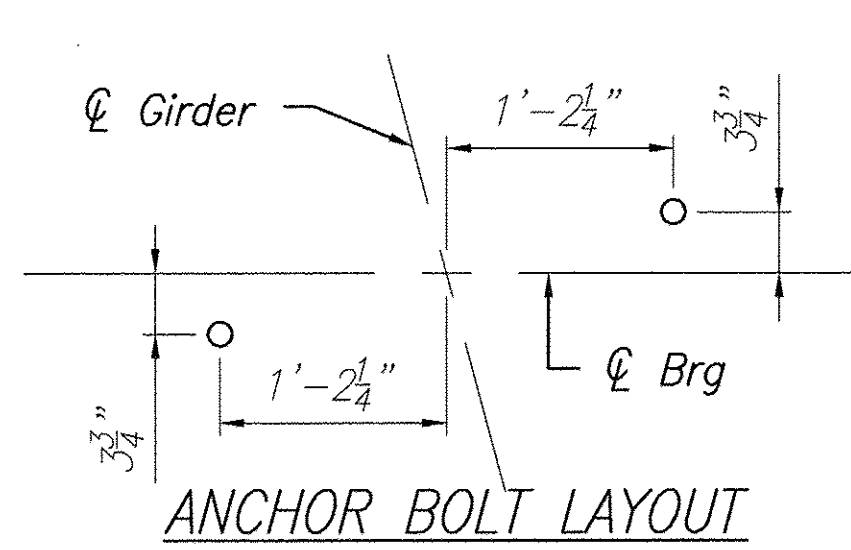
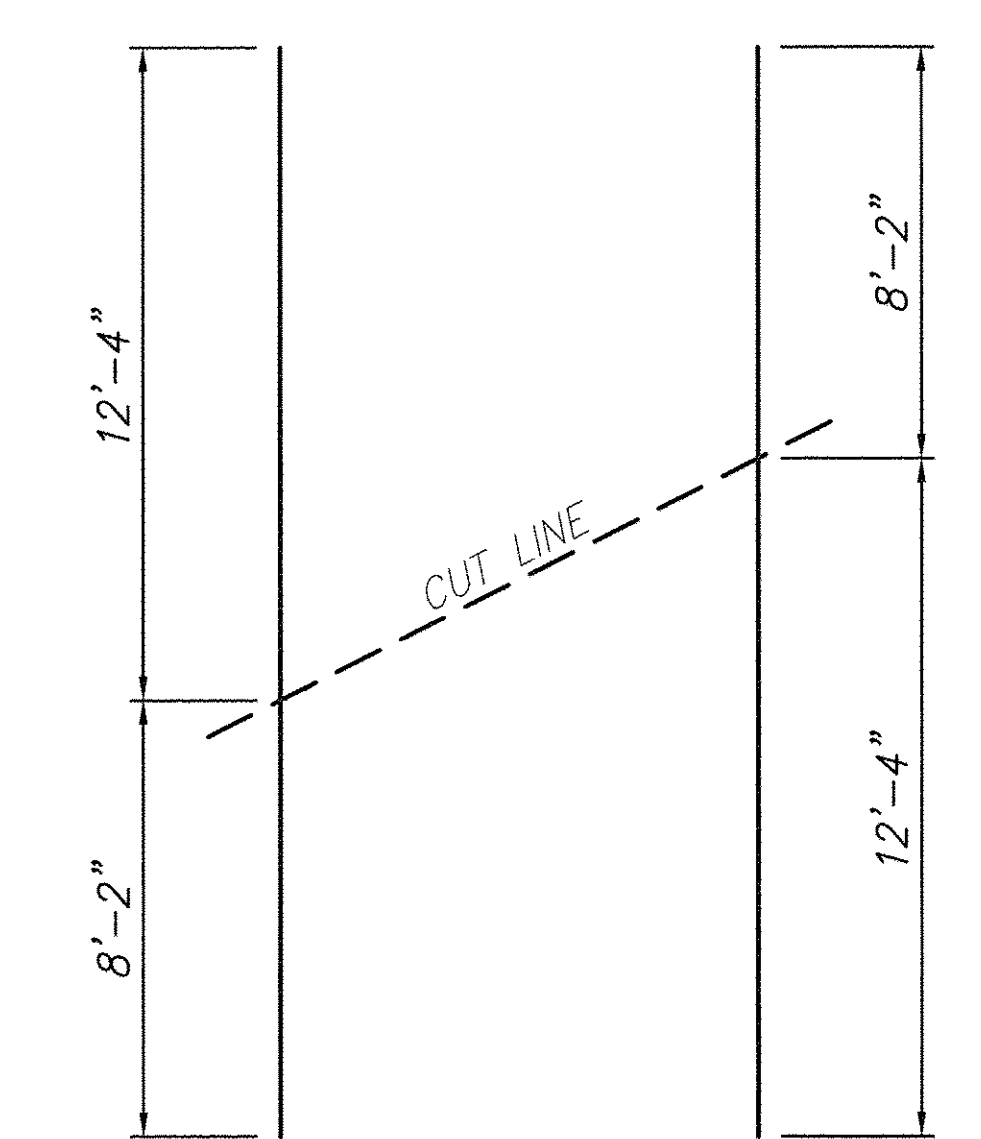
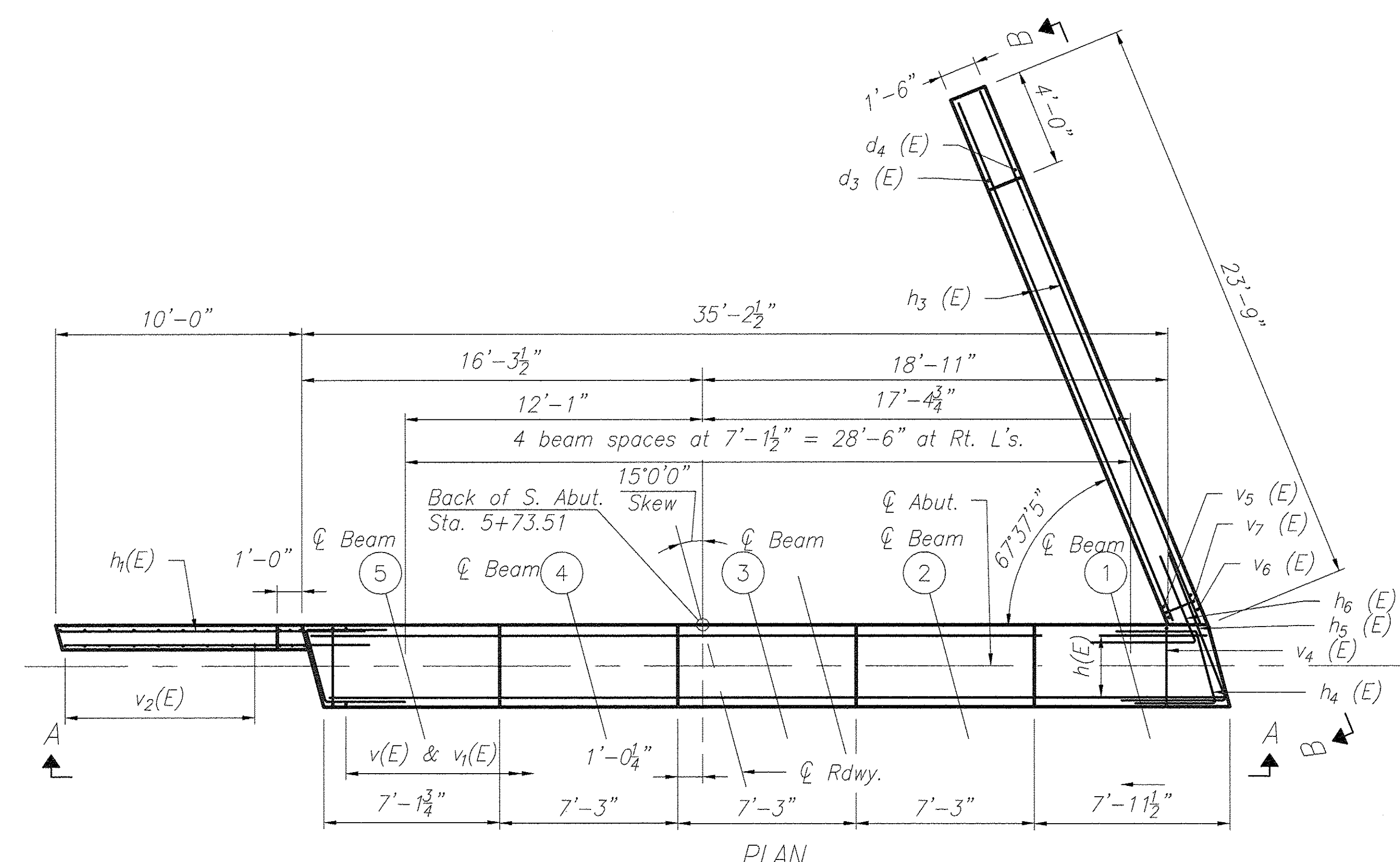
BILL OF MATERIAL - TEMP. NORTH ABUTMENT

BAR	QTY.	SIZE	LENGTH	SHAPE
h	21	#5	23'-2"	—
n	62	#7	6'-6"	┌
s	40	#5	2'-11"	└
t	24	#6	9'-4"	—
t4	24	#6	9'-4"	—
v	31	#7	9'-4"	—
v1	24	#5	6'-9"	—
v2	24	#6	6'-2"	┌
v3	24	#5	7'-0"	└
w	20	#5	23'-0"	—
Reinforcement Bars			Pounds	3765
Concrete Structure			Cu. Yd.	48.3
Structure Excavation			Cu. Yd.	80
Furnishing Steel Piles, HP12x53			Feet	370
Driving Piles			Feet	270

Notes:
 All edges shall have 3/4" chamfer except as noted.
 Pour steps monolithically with cap
 Space reinforcement in cap to miss anchor bolts
 See Structural Sheet 33 of 37 for pile details

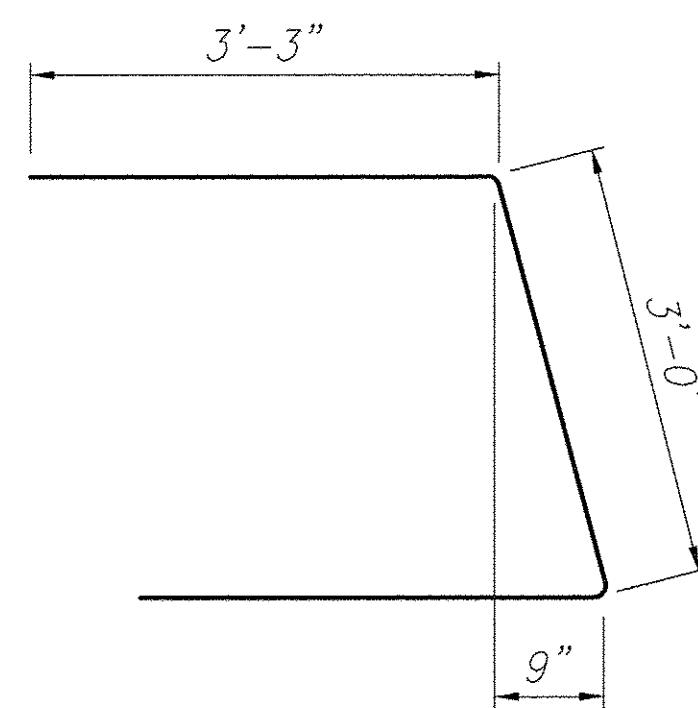
BILL OF MATERIAL - SOUTH ABUTMENT

BAR	QTY.	SIZE	LENGTH	SHAPE
d(E)	20	#6	5'-7"	—
d ₁ (E)	20	#4	4'-7"	—
d ₂ (E)	6	#4	2'-0"	┌
d ₃ (E)	5	#6	7'-0"	—
d ₄ (E)	5	#4	6'-0"	—
e(E)	6	#4	19'-4"	—
h(E)	20	#5	36'-4"	—
h ₁ (E)	20	#5	15'-2"	—
h ₂ (E)	3	#5	16'-7"	—
h ₃ (E)	28	#5	23'-4"	—
h ₄ (E)	20	#5	9'-4"	┌
h ₅ (E)	10	#5	10'-6"	┌
h ₆ (E)	10	#5	8'-0"	┌
h ₇ (E)	10	#4	3'-8"	—
n(E)	188	#8	6'-6"	J
s(E)	100	#5	2'-11"	J
t(E)	91	#6	9'-3"	—
t ₁ (E)	53	#6	8'-0"	—
v(E)	49	#8	8'-4"	—
v ₁ (E)	37	#5	8'-4"	—
v ₂ (E)	9	#8	20'-6"	┌
v ₃ (E)	6	#5	12'-3"	—
v ₄ (E)	37	#5	6'-10"	—
v ₅ (E)	32	#8	12'-3"	—
v ₆ (E)	24	#5	12'-3"	—
v ₇ (E)	24	#5	4'-8"	┌
w(E)	20	#5	49'-0"	—
w ₁ (E)	18	#5	28'-10"	—
Reinforcement Bars, Epoxy Coated			Pounds	13,350
Concrete Structure			Cu. Yd.	125
Structure Excavation			Cu. Yd.	---
Furnishing Steel Piles, HP12x53			Feet	950
Driving Piles			Feet	700



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

Notes:
 All edges shall have 3/4" chamfer except as noted.
 Pour steps monolithically with cap
 Space reinforcement in cap to miss anchor bolts
 See Structural Sheet 33 of 37 for pile details

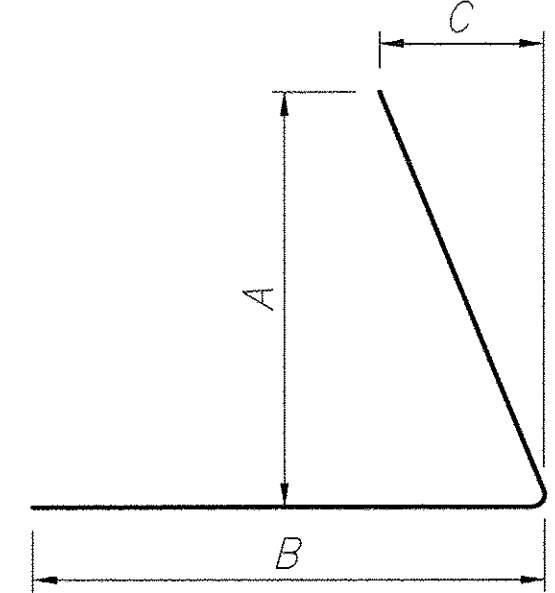


Bar $h_4(E)$

BAR $s(E)$

BAR	A	B	C
$n(E)$	7'-11"	12"	4 1/2"

BAR $n(E)$



BAR $v_x(E)$ & $d_x(E)$

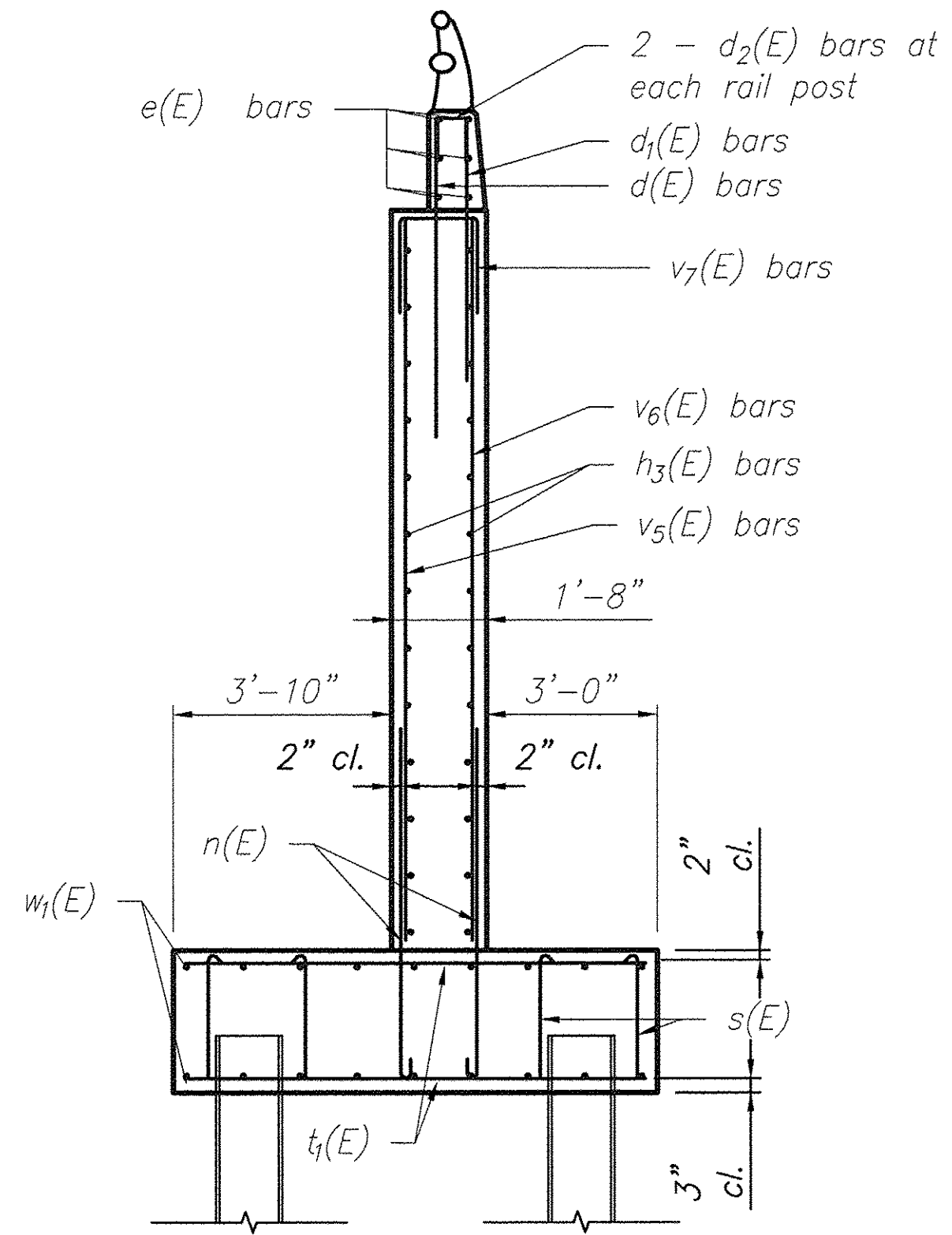
BAR	A	B
$v_4(E)$	2'-11"	2'-0"
$v_7(E)$	1'-2"	1'-6"
$d_2(E)$	6"	1'-0"

BAR	A	B	C
$h_5(E)$	6'-0"	4'-2"	2'-3"
$h_6(E)$	3'-6"	4'-2"	1'-4"

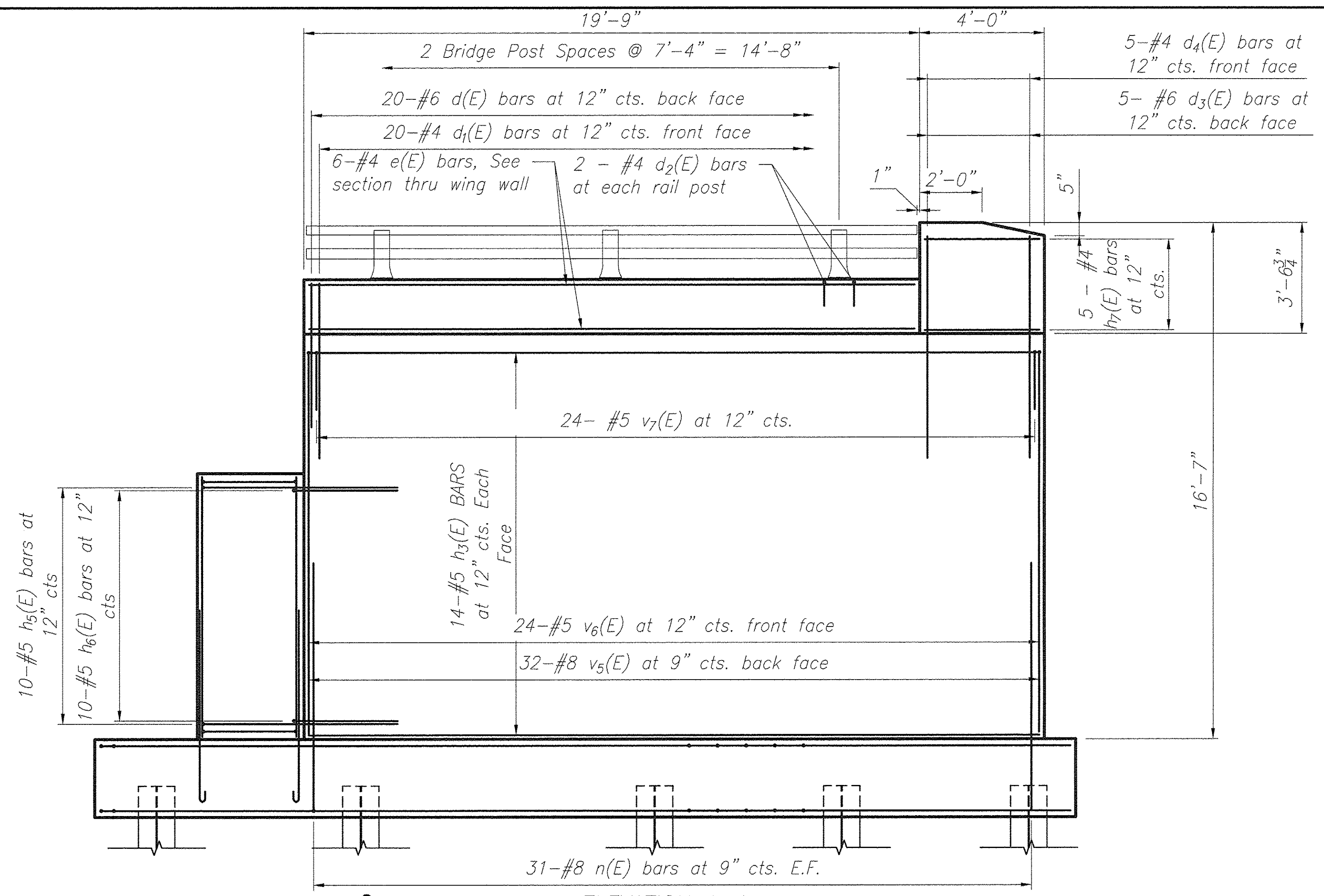
BAR $h_x(E)$

PILE DATA

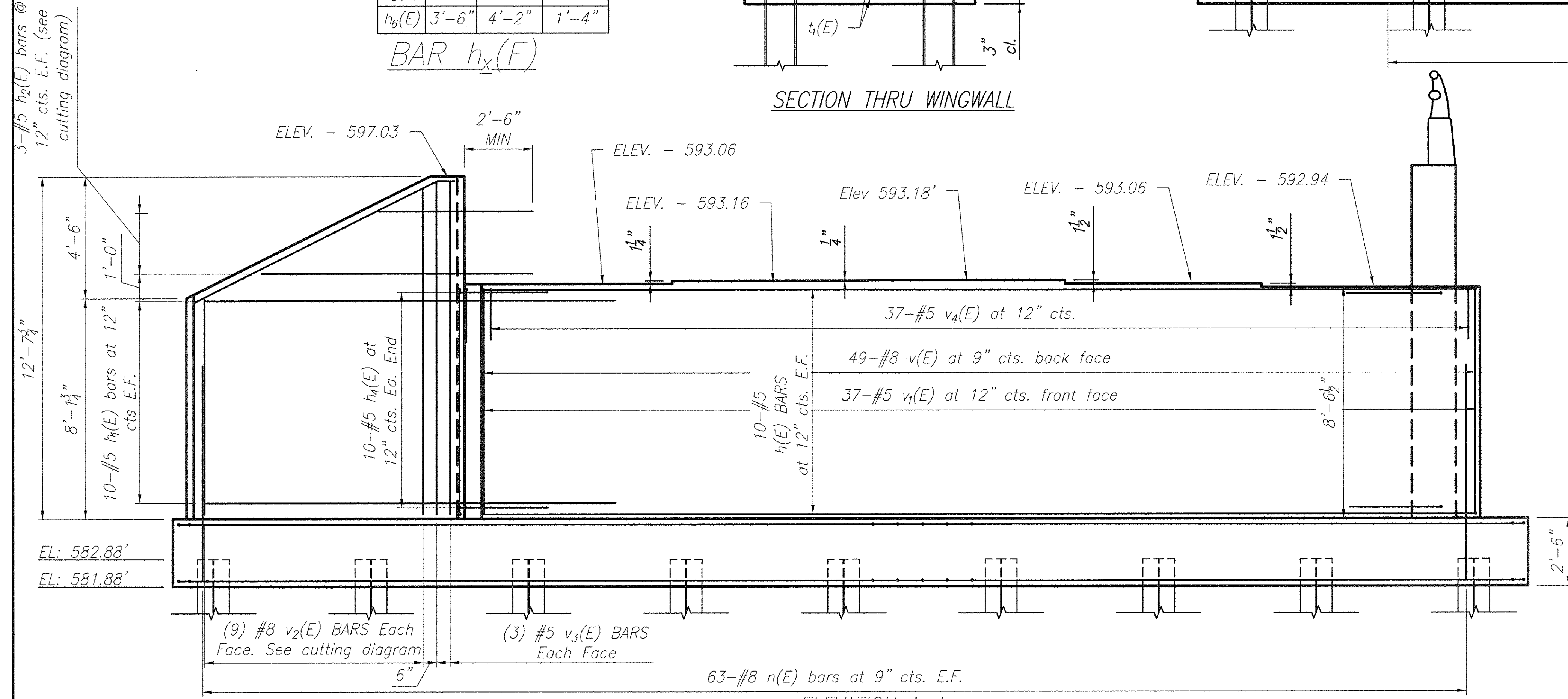
Type: HP12x53
 Nominal Required Bearing: 313 kips
 Factored Resistance Available: 172 kips
 Est. Length: 28'
 No. Production Piles: 9
 No. Test Piles: 1



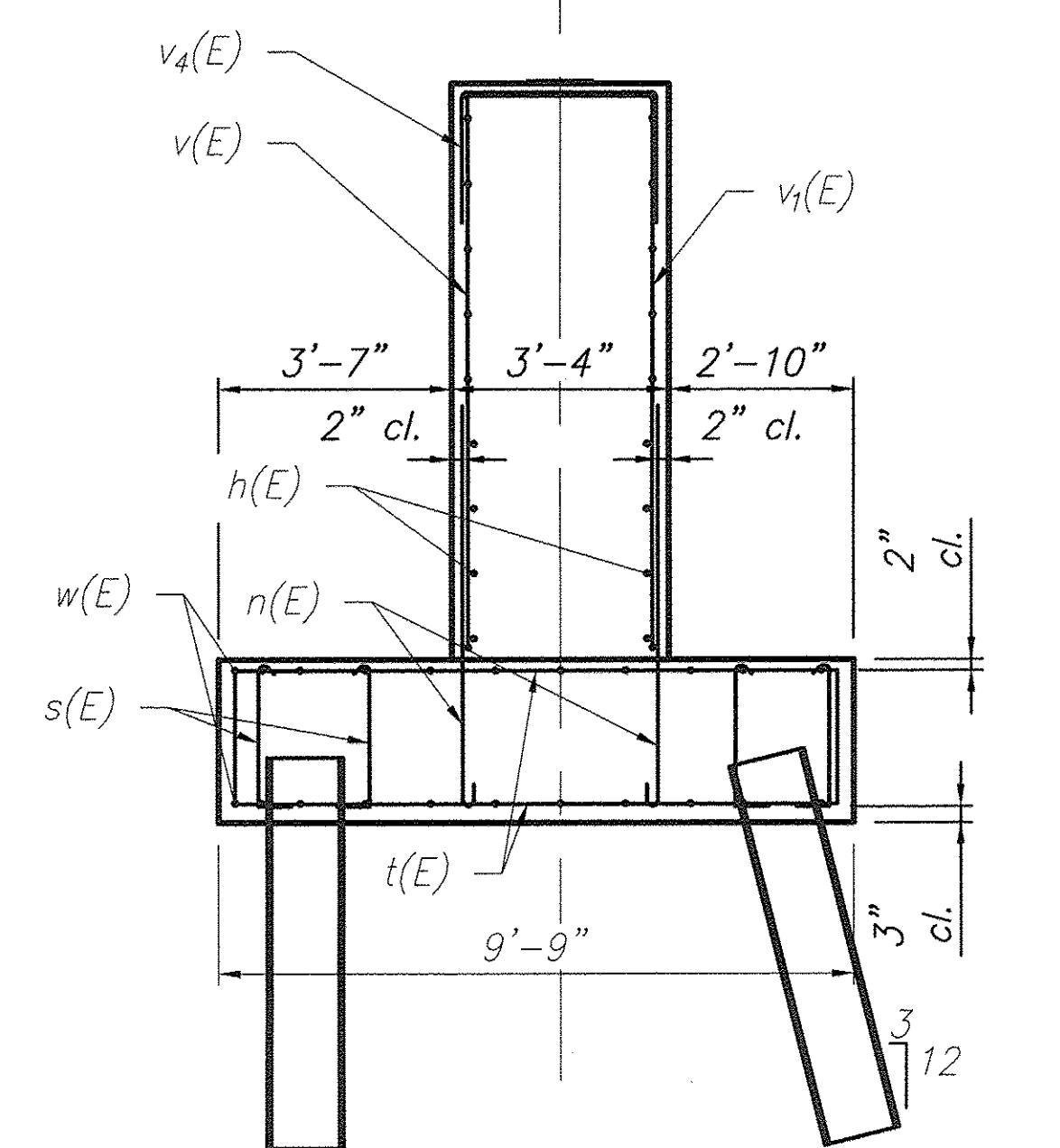
SECTION THRU WINGWALL



ELEVATION A-A



ELEVATION A-A
(LOOKING SOUTH)



SECTION THRU ABUTMENT

ROBINSON ENGINEERING, LTD.
 CONSULTING REGISTERED PROFESSIONAL ENGINEERS
 AND PROFESSIONAL LAND SURVEYORS
 17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60473
 (708) 951-8700 FAX (708) 331-9526
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 ILLINOIS DESIGN FIRM REGISTRATION NO. 184001128

USER NAME =	DESIGNED - RSF	REVISIONS
PLOT SCALE =	CHECKED - PGV	REVISIONS
PLOT DATE = 02/10/2017	DRAWN -	REVISIONS
	CHECKED -	REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS
 STRUCTURE NO. 016-8048
 SCALE: NOT TO SCALE SHEET NO. 28 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	43

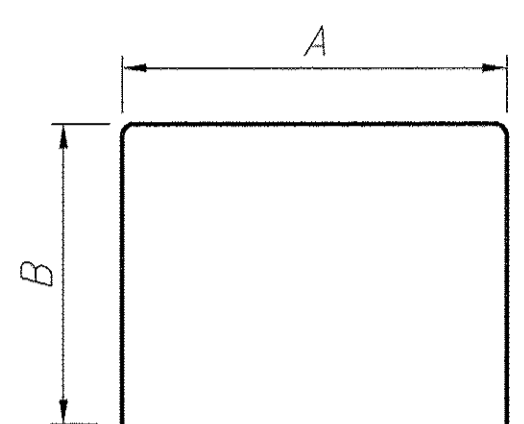
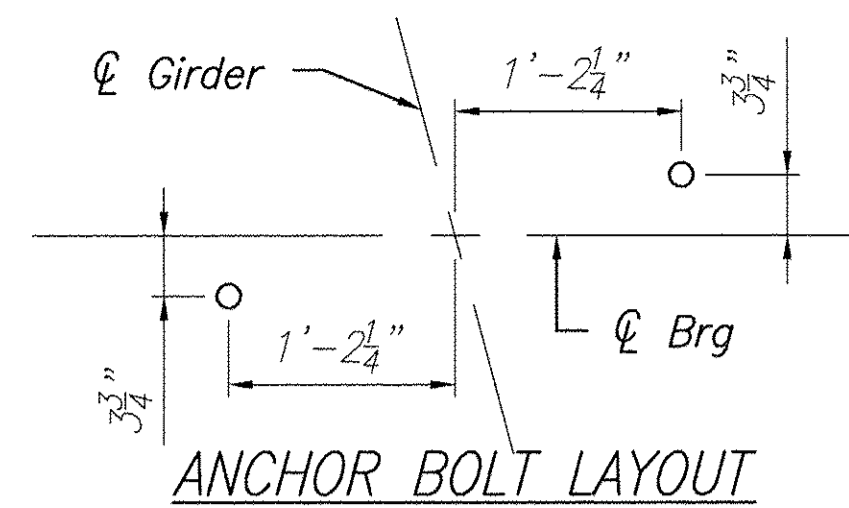
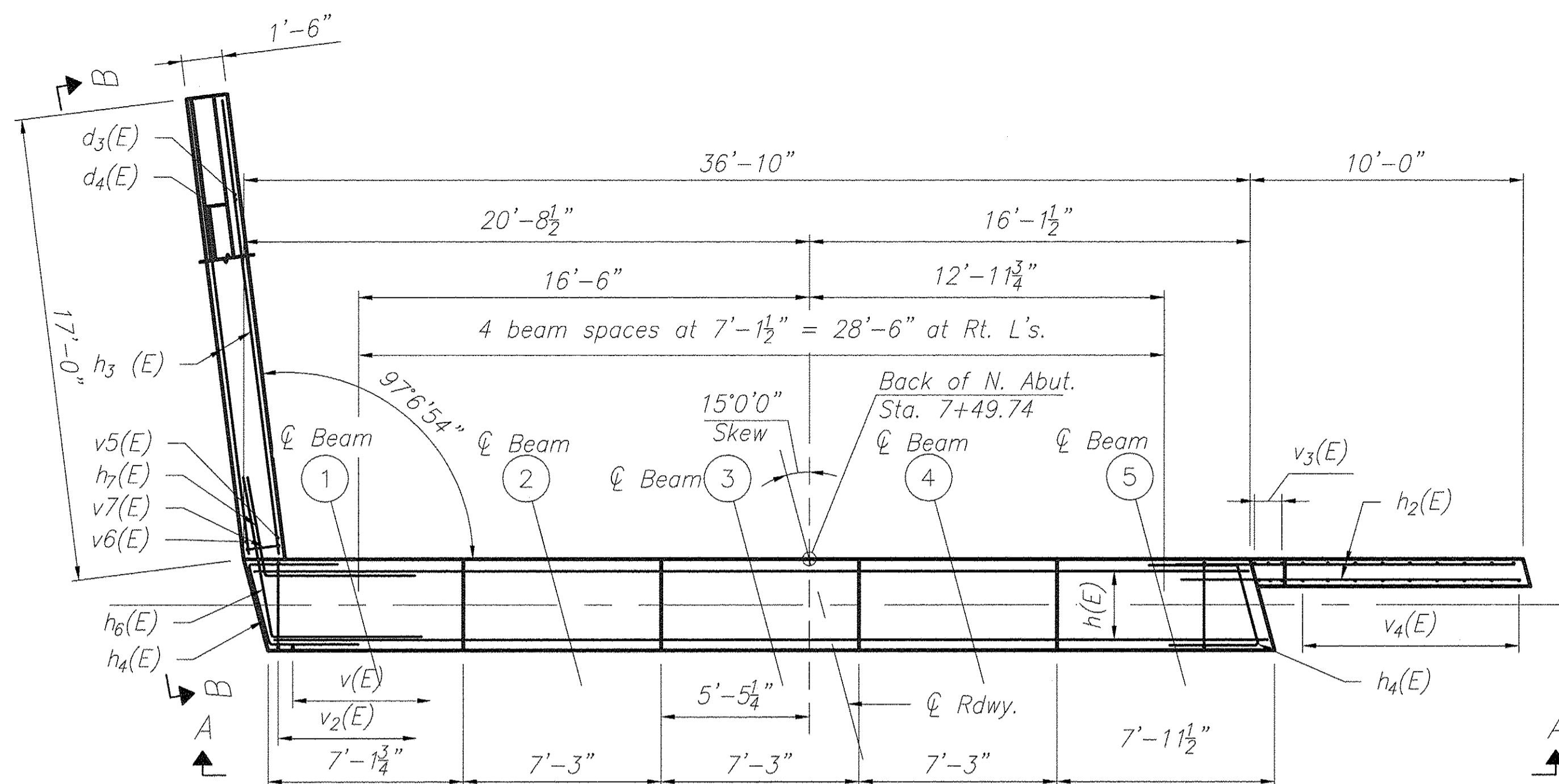
CONTRACT NO. 61D83
 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

BILL OF MATERIAL - NORTH ABUTMENT

BAR	QTY.	SIZE	LENGTH	SHAPE
d(E)	13	#6	5'-7"	=====
d ₁ (E)	13	#4	4'-7"	=====
d ₂ (E)	4	#4	2'-0"	┌
d ₃ (E)	5	#6	7'-0"	=====
d ₄ (E)	5	#4	6'-0"	=====
e(E)	6	#4	12'-8"	=====
h(E)	12	#5	36'-6"	=====
h ₁ (E)	12	#5	12'-3"	=====
h ₂ (E)	6	#5	17'-2"	=====
h ₃ (E)	20	#5	16'-8"	=====
h ₄ (E)	12	#5	9'-4"	┌
h ₅ (E)	6	#5	11'-4"	┌
h ₆ (E)	6	#5	9'-4"	┌
h ₇ (E)	8	#4	3'-8"	=====
n(E)	166	#8	6'-6"	J
s(E)	96	#5	2'-11"	J
t(E)	92	#6	9'-3"	=====
t ₁ (E)	47	#6	8'-0"	=====
v(E)	50	#8	5'-2"	=====
v ₁ (E)	37	#5	5'-2"	=====
v ₂ (E)	37	#5	6'-3"	┌
v ₃ (E)	6	#5	9'-1"	=====
v ₄ (E)	18	#8	20'-6"	=====
v ₅ (E)	22	#8	9'-4"	=====
v ₆ (E)	16	#5	9'-4"	=====
v ₇ (E)	16	#5	4'-6"	┌
w(E)	20	#5	49'-0"	=====
w ₁ (E)	18	#5	25'-0"	=====
Reinforcement Bars, Epoxy Coated			Pounds	11,070
Concrete Structure			Cu. Yd.	96
Structure Excavation			Cu. Yd.	---
Furnishing Steel Piles, HP12x53			Feet	851
Driving Piles			Feet	621
Test Pile, HP12x53			Each	1

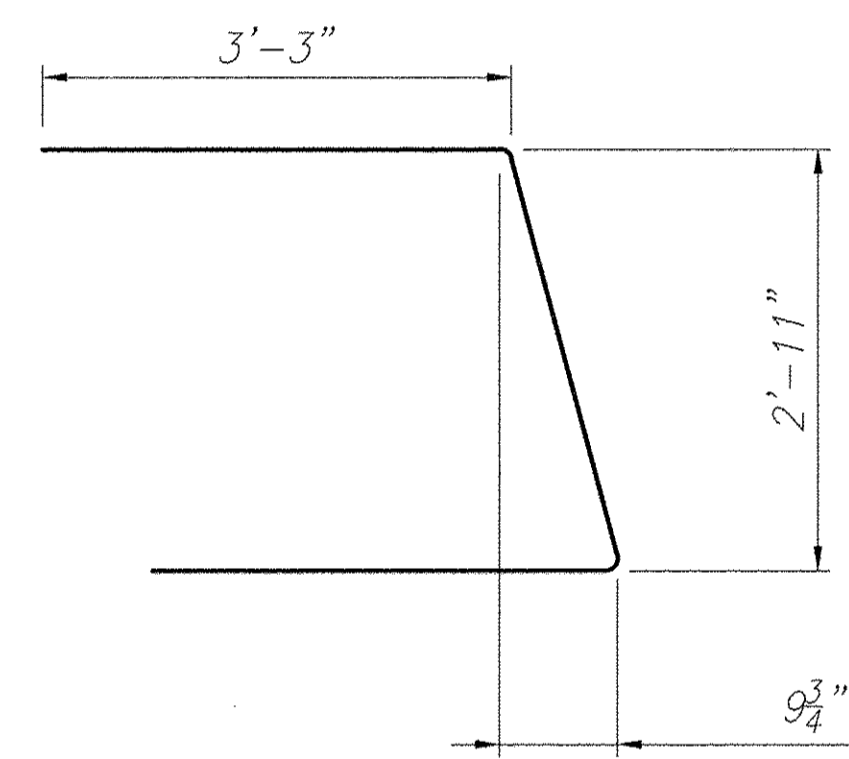
Bars indicated thus 1 x 2 - #8 etc. indicates 1 line of bars with 2 lengths per line

Notes:
 All edges shall have 3/4" chamfer except as noted.
 Pour steps monolithically with cap
 Space reinforcement in cap to miss anchor bolts
 See Structural Sheet 33 of 37 for pile details

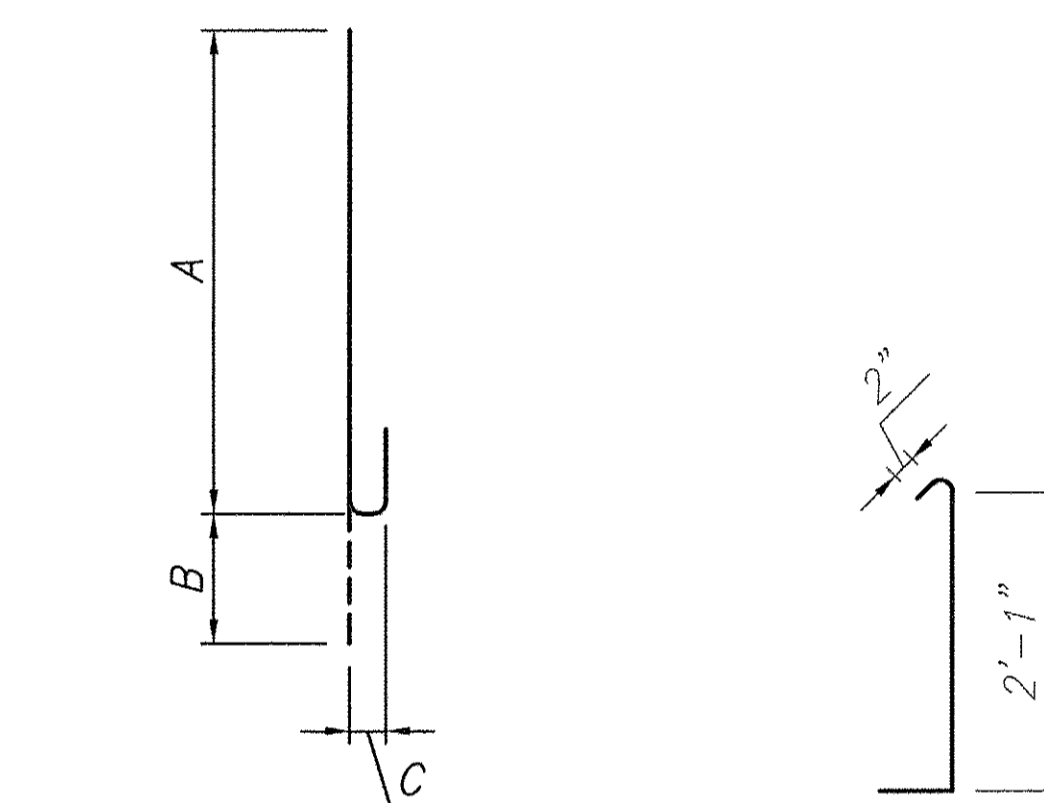


BAR	A	B
d ₂ (E)	6"	1'-0"
v ₂ (E)	3'-0"	1'-6"
v ₇ (E)	1'-2"	1'-6"

BAR v_x(E) & d₂(E)



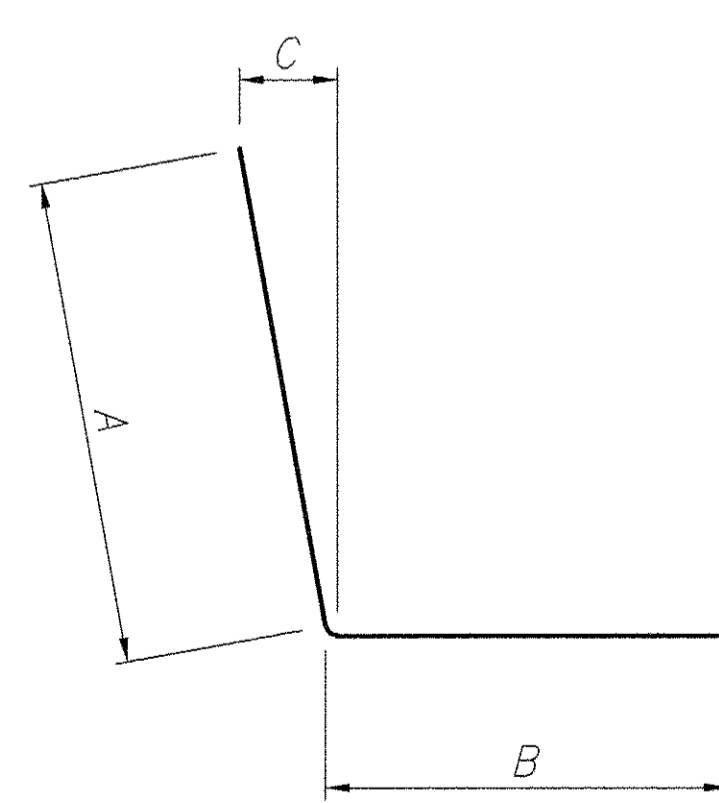
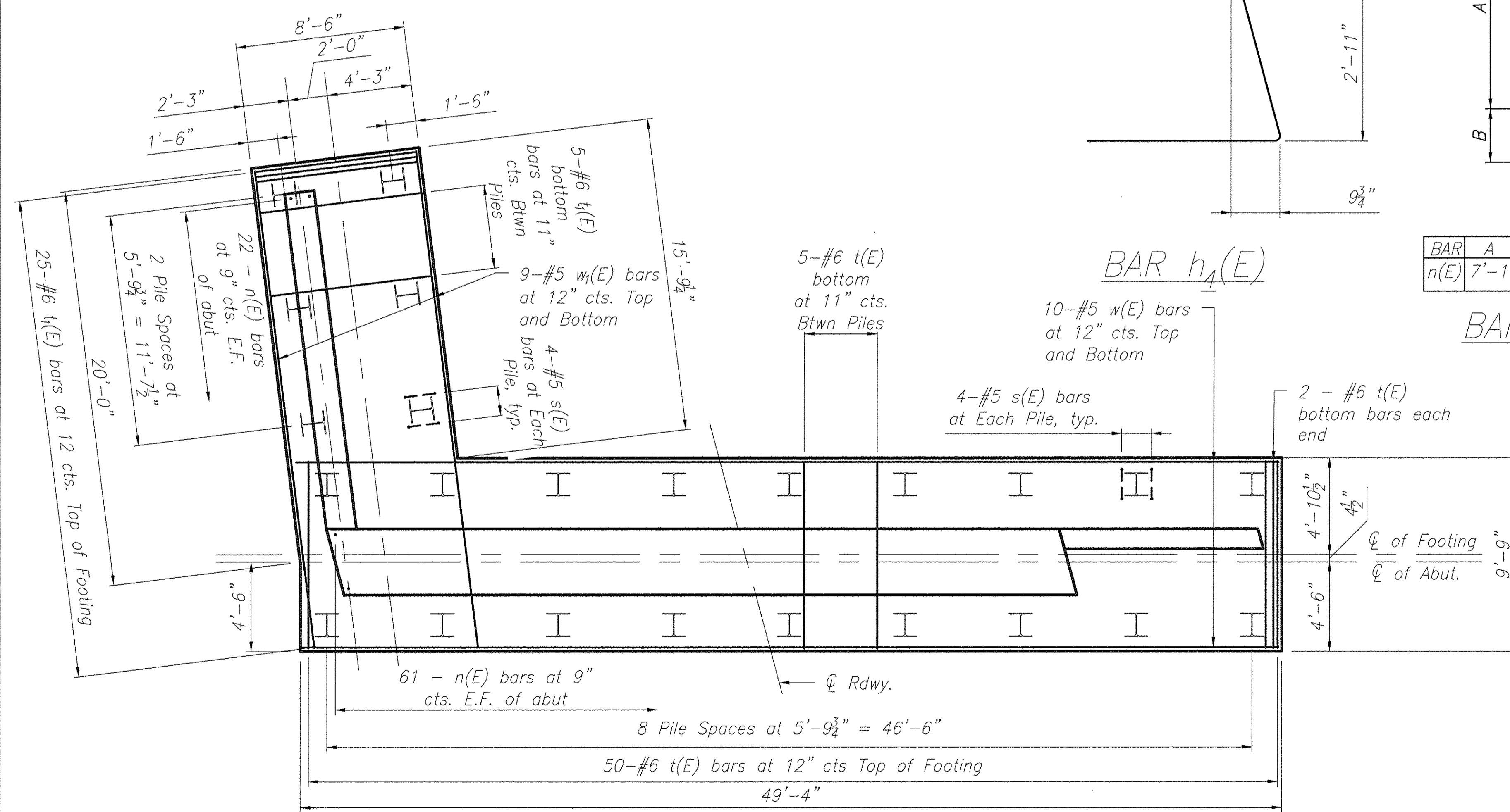
BAR h₄(E)



BAR	A	B	C
n(E)	7'-11"	12"	4 1/2"

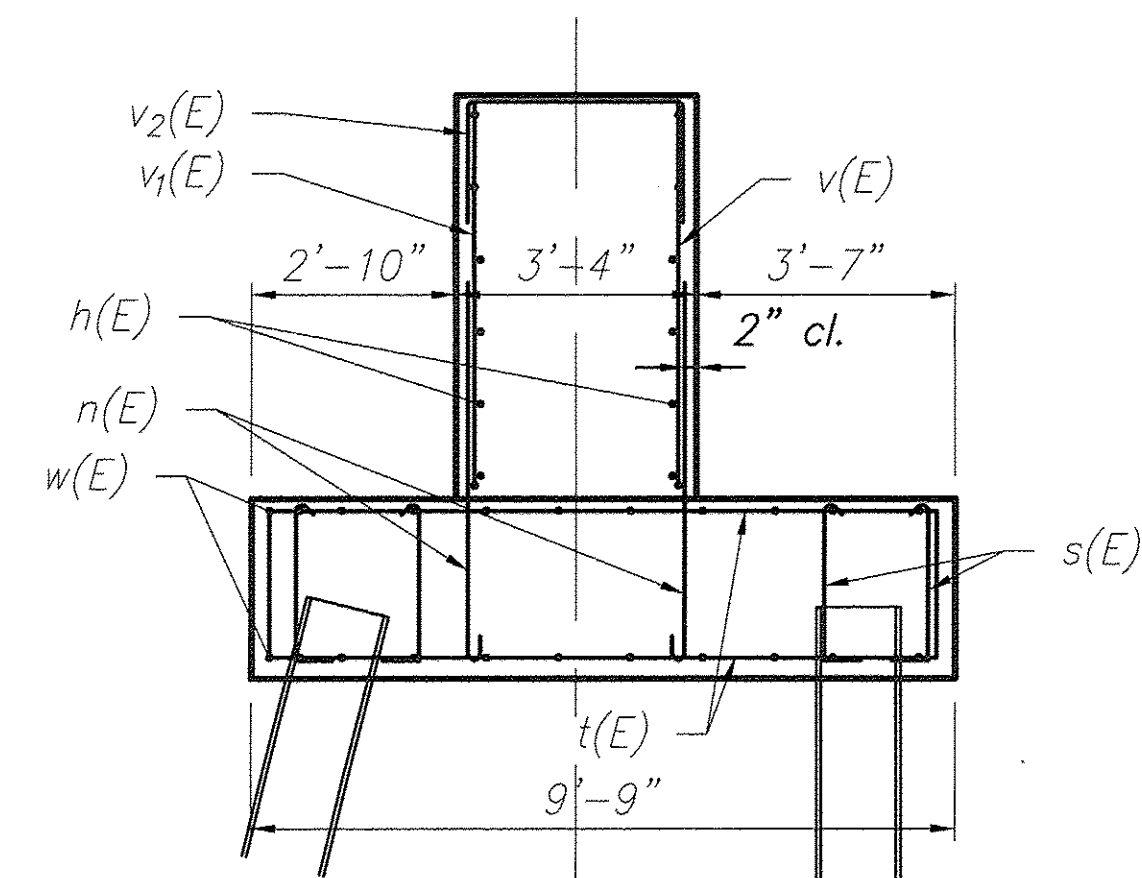
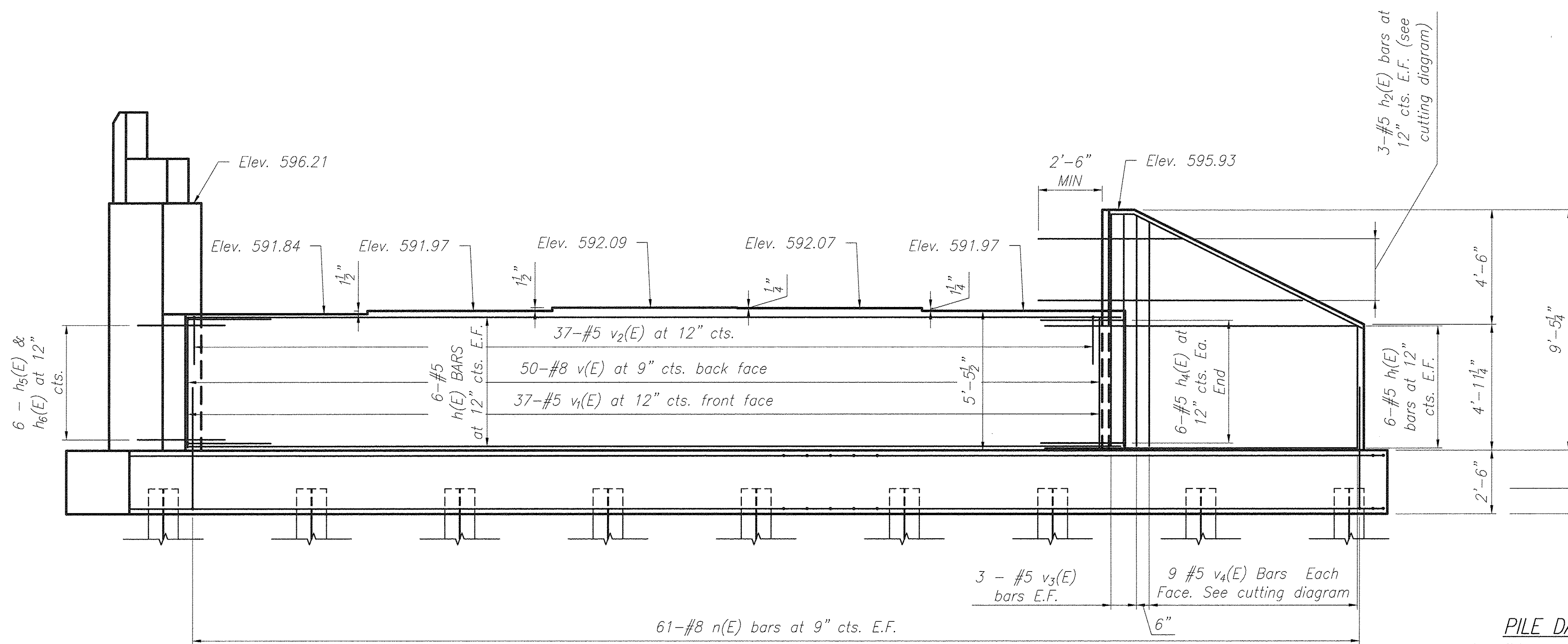
BAR n(E)

BAR s(E)



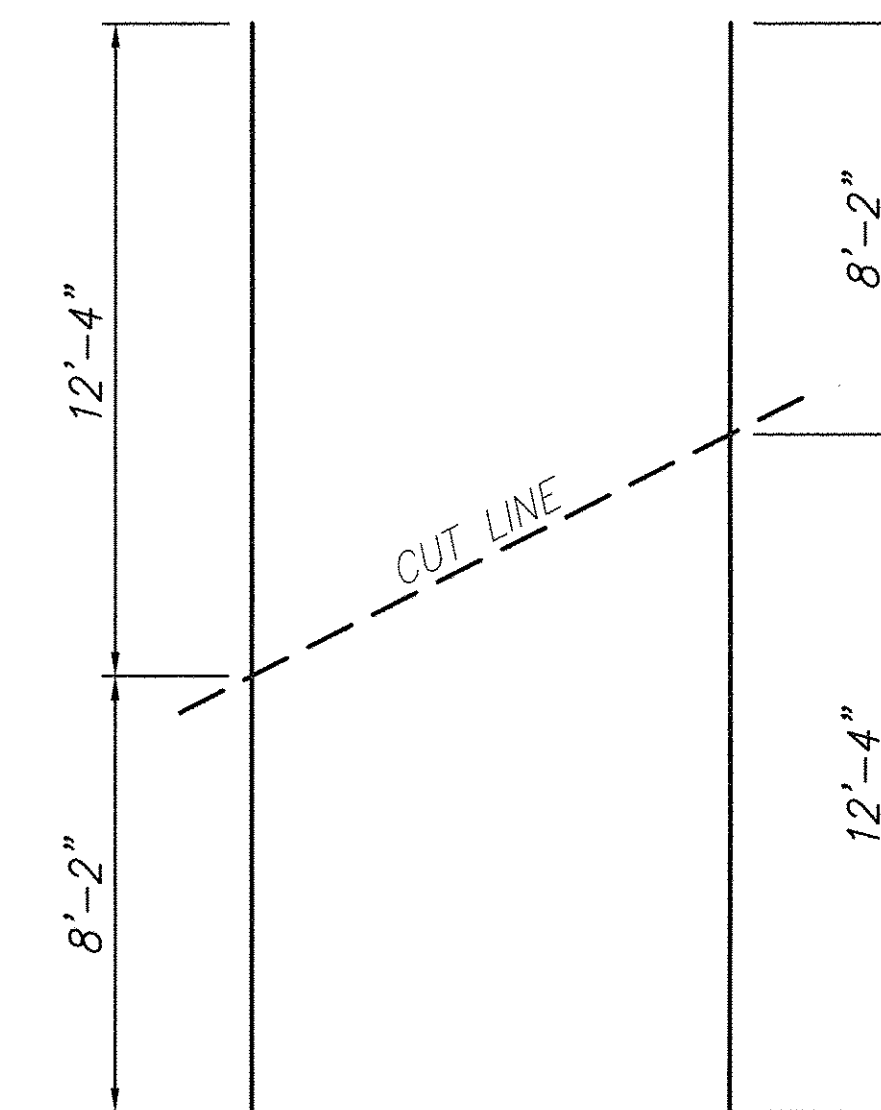
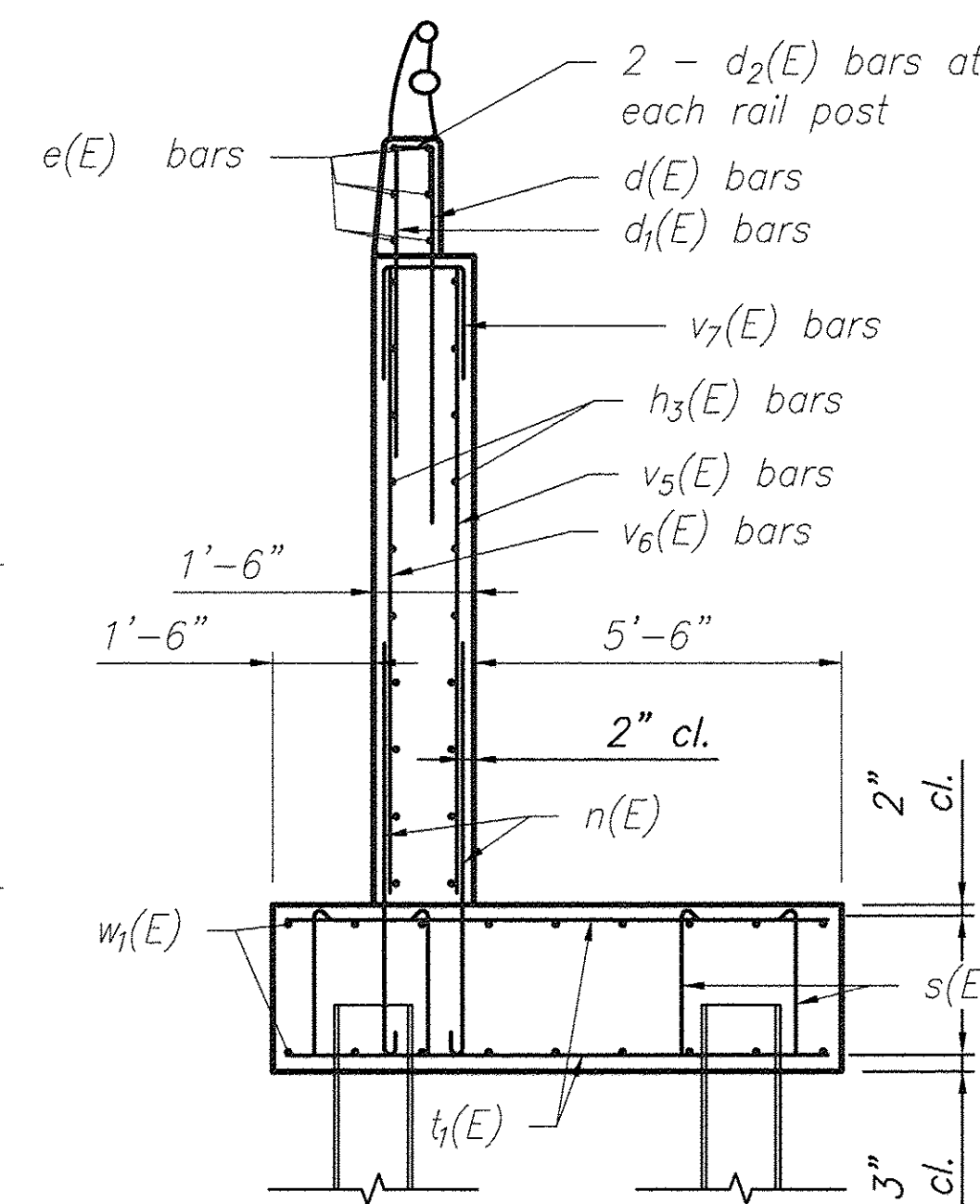
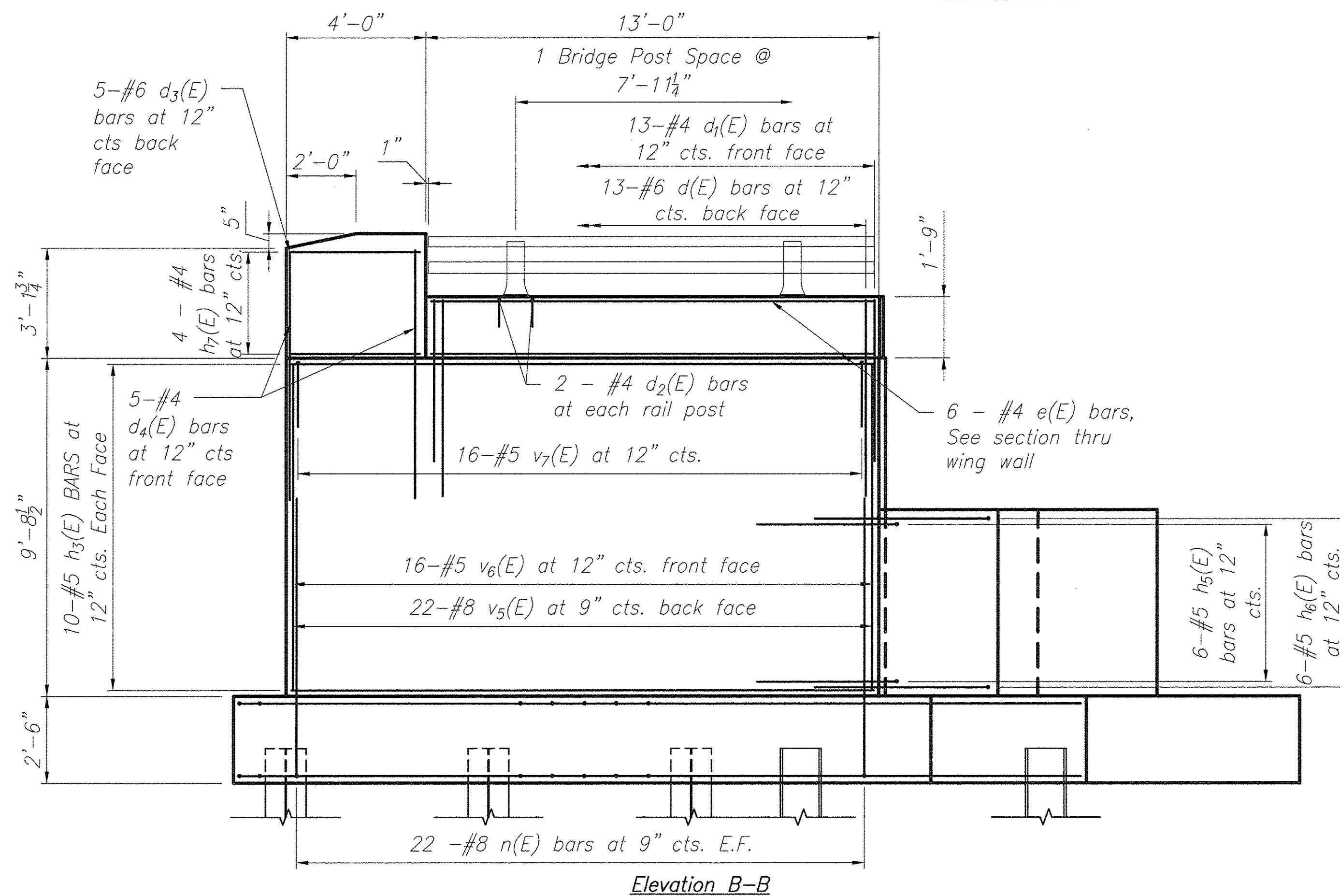
BAR	A	B	C
h ₆ (E)	6'-0"	5'-6"	1'-2"
h ₇ (E)	3'-8"	5'-6"	8 1/2"

BAR h_x(E)

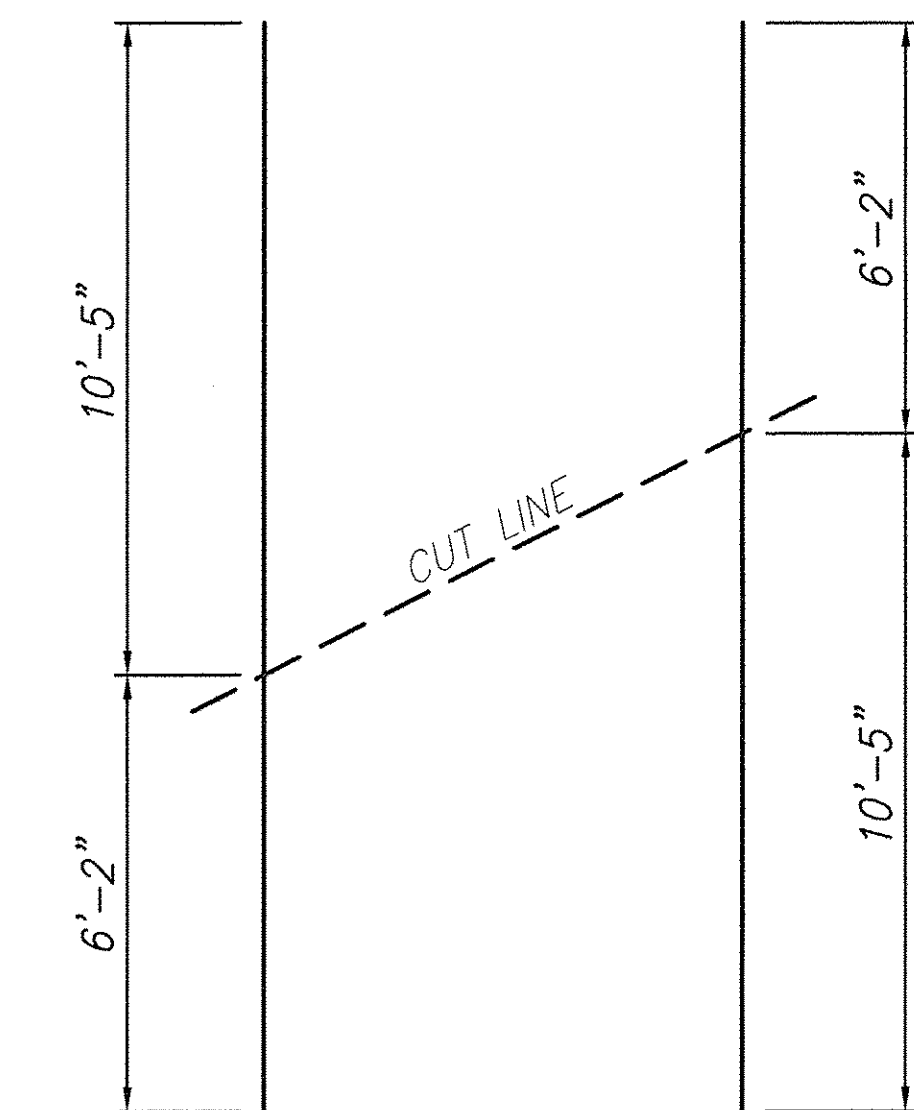


PILE DATA

Type: HP12x53
Nominal Required Bearing: 382 kips
Factored Resistance Available: 210 kips
Est. Length: 27'
No. Production Piles: 9
No. Test Piles: 1



BAR $v_2(E)$



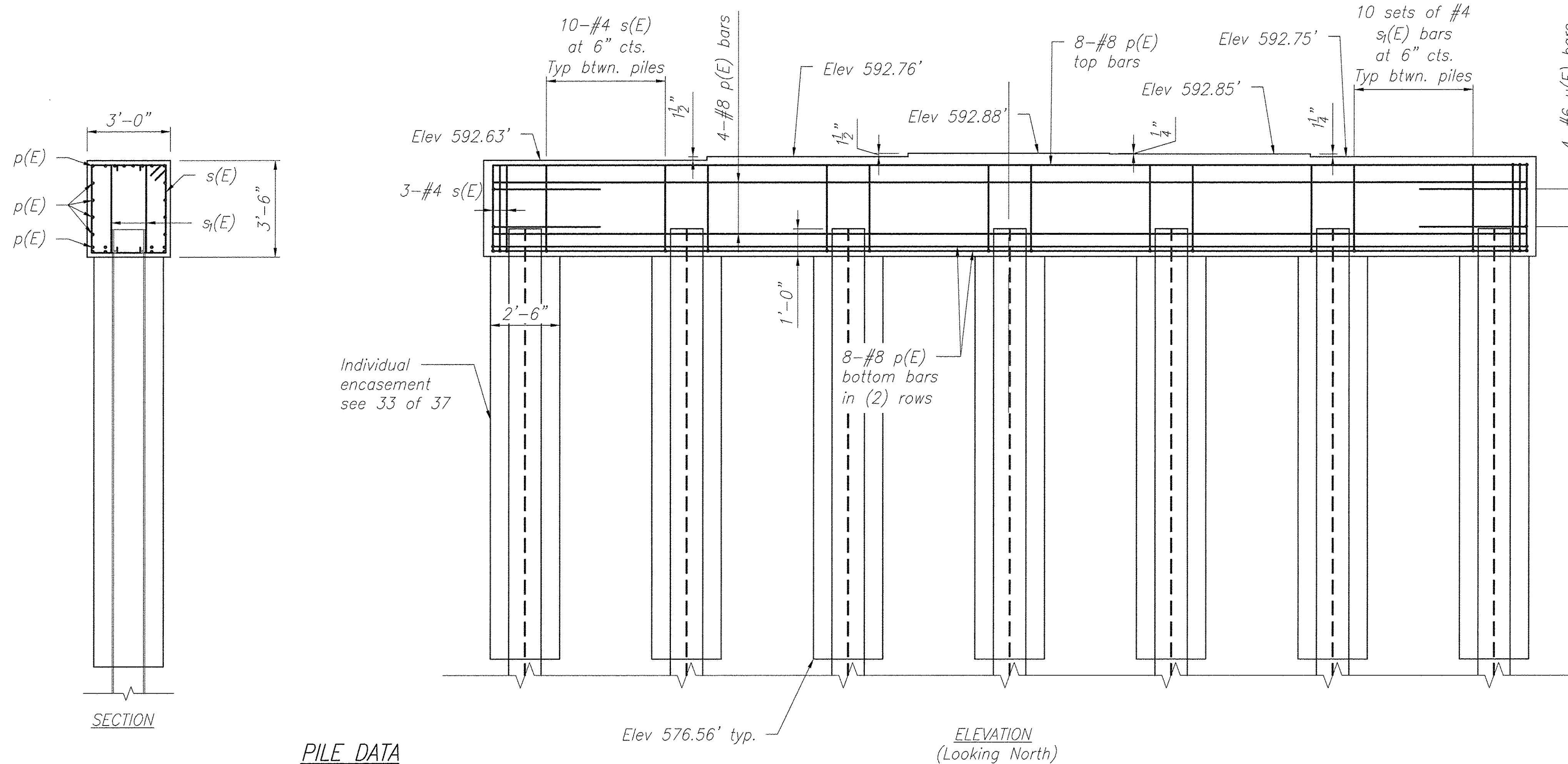
BAR $h_2(E)$

BILL OF MATERIAL - PIER 1 (SOUTH PIER)

BAR	QTY.	SIZE	LENGTH	SHAPE
p(E)	24	#8	37'-5"	—
s(E)	66	#4	12'-3"	□
s ₁ (E)	132	#4	4'-3"	┌
u(E)	8	#6	10'-3"	□
Reinforcement Bars, Epoxy Coated			Pounds	3,920
Concrete Structure			Cu. Yd.	33
Structure Excavation			Cu. Yd.	---
Furnishing Steel Piles, HP14x73			Feet	361
Driving Piles			Feet	291

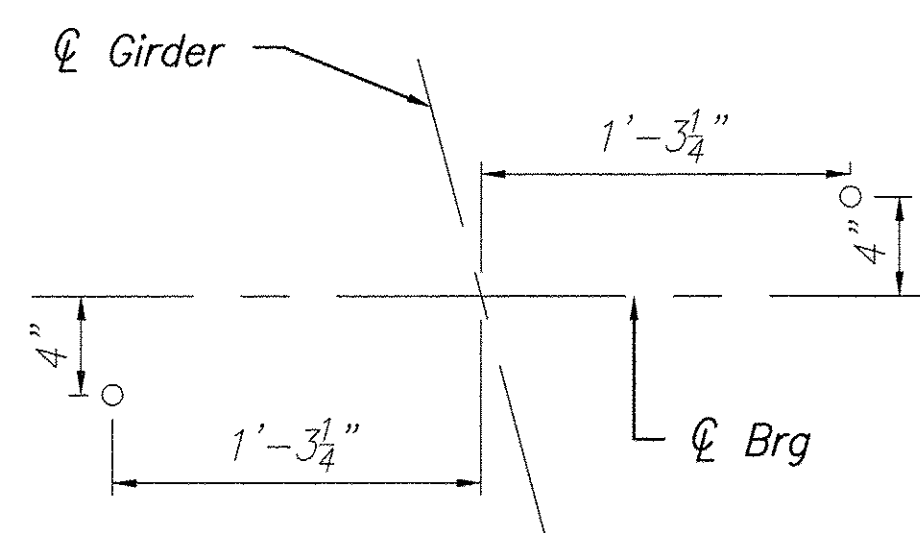
Bars indicated thus 1 x 2 - #8 etc. indicates 1 line of bars with 2 lengths per line

Notes:
 All edges shall have $\frac{3}{4}$ " chamfer except as noted:
 Pour steps monolithically with cap
 Space reinforcement in cap to miss anchor bolts
 See Structural Sheet 33 of 37 for pile details

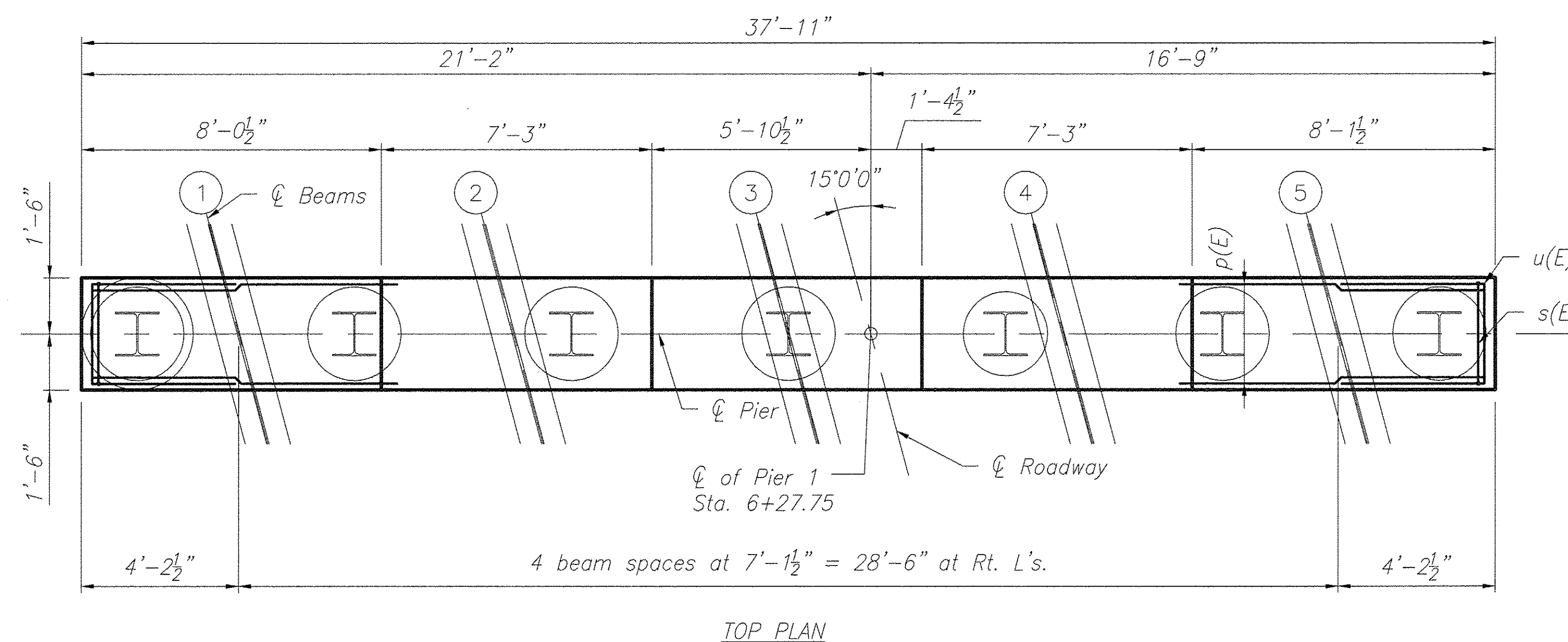


PILE DATA

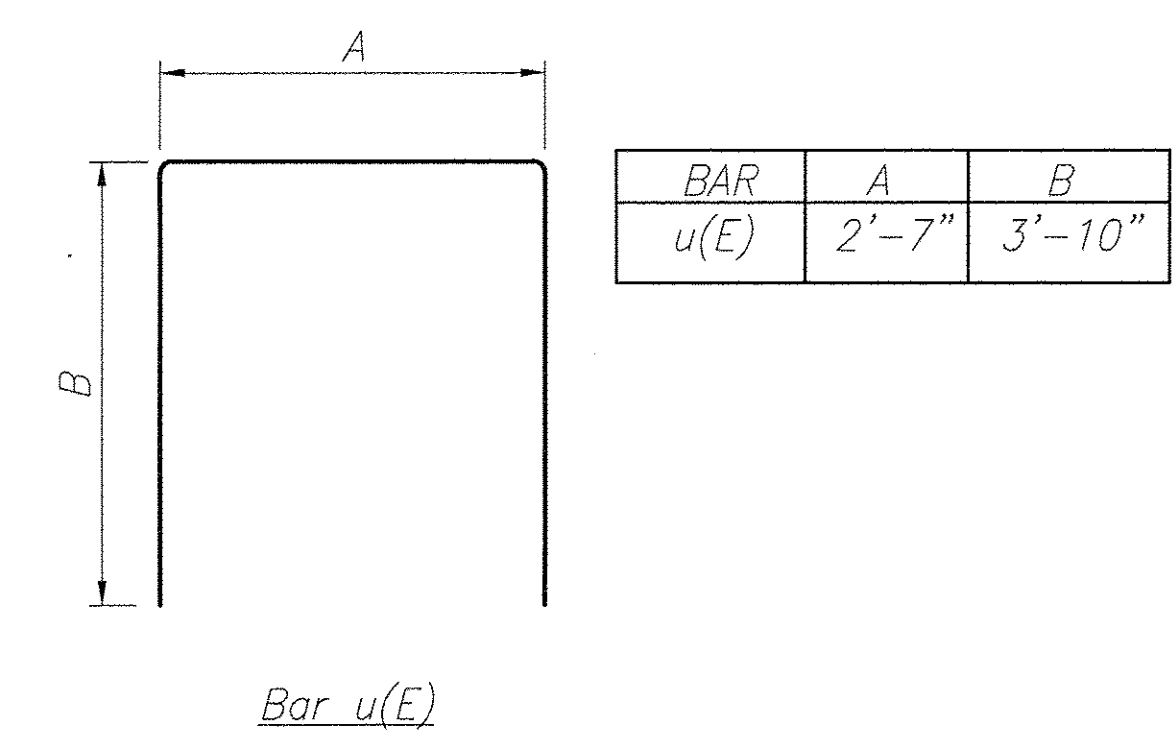
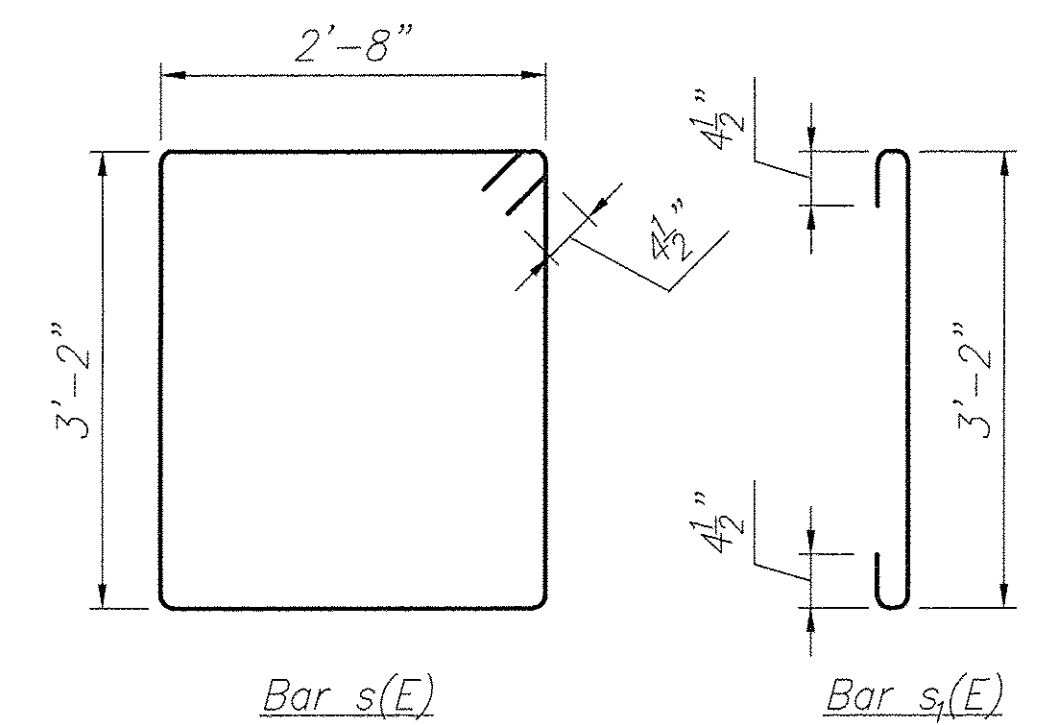
Type: HP14x73
 Nominal Required Bearing: 381 kips
 Factored Resistance Available: 210 kips
 Est. Length: 28'
 No. Production Piles: 6
 No. Test Piles: 1



ANCHOR BOLT LAYOUT



TOP PLAN

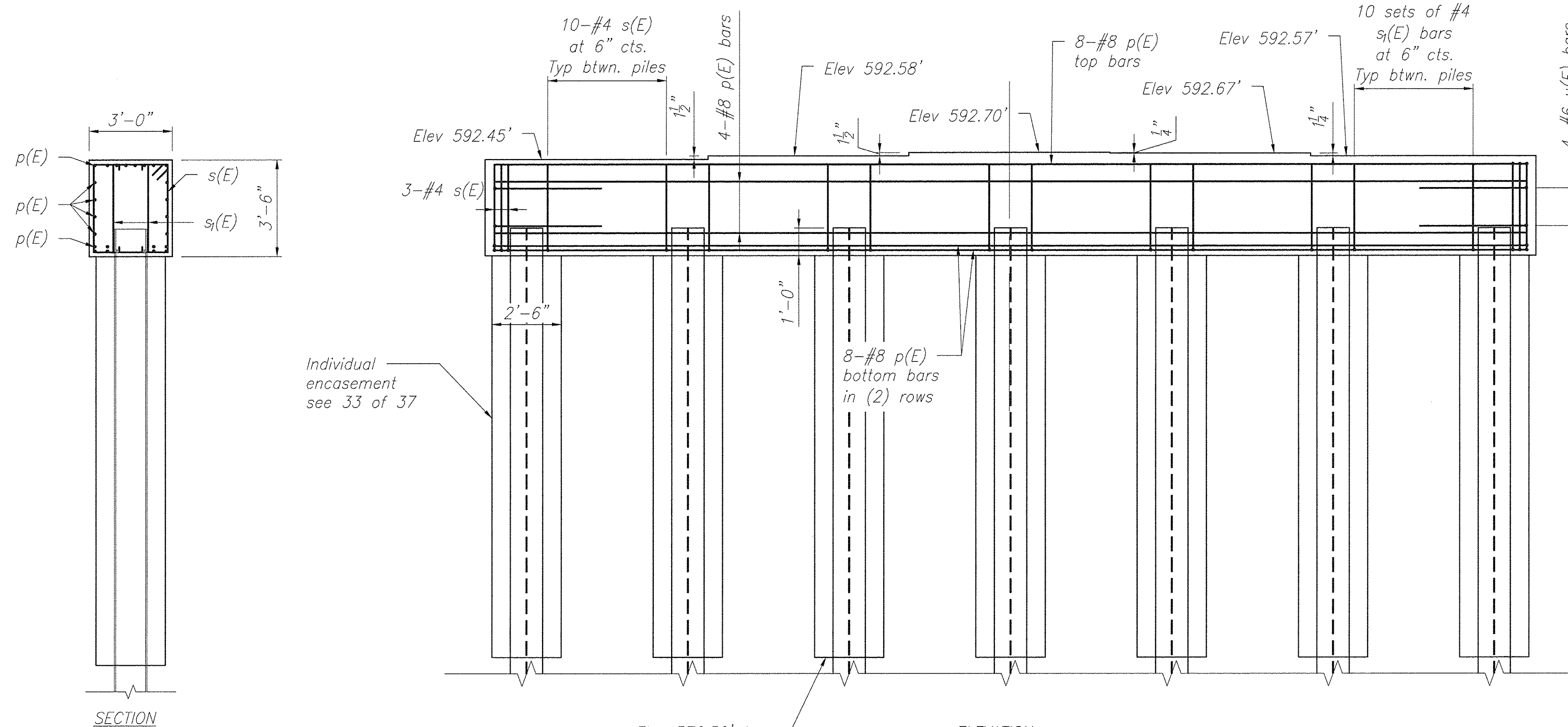


BILL OF MATERIAL - PIER 2 (NORTH PIER)

BAR	QTY.	SIZE	LENGTH	SHAPE
p(E)	24	#8	37'-5"	—
s(E)	66	#4	12'-3"	□
s ₁ (E)	132	#4	4'-3"]
u(E)	8	#6	10'-3"	□
Reinforcement Bars, Epoxy Coated			Pounds	3,920
Concrete Structure			Cu. Yd.	33
Structure Excavation			Cu. Yd.	---
Furnishing Steel Piles, HP14x73			Feet	309
Driving Piles			Feet	249
Test Pile, HP14x73			Each	1

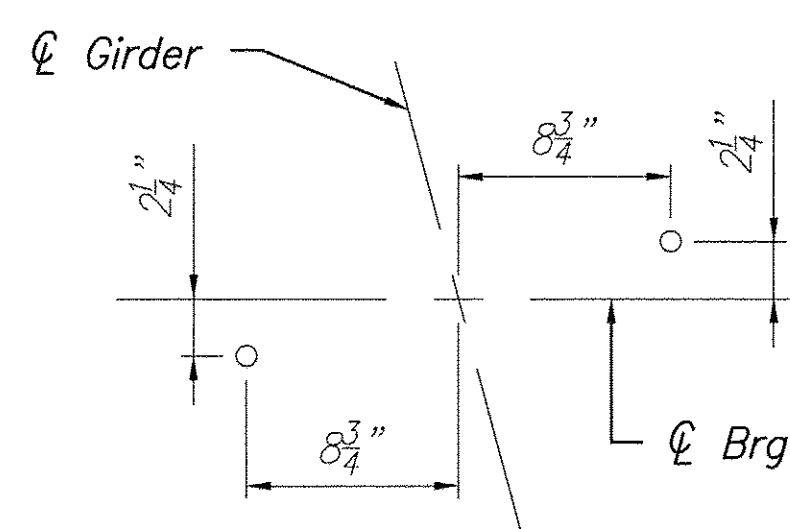
Bars indicated thus 1 x 2 - #8 etc. indicates 1 line of bars with 2 lengths per line

Notes:
 All edges shall have $\frac{3}{4}$ " chamfer except as noted.
 Four steps monolithically with cap
 Space reinforcement in cap to miss anchor bolts
 See Structural Sheet 33 of 37 for pile details

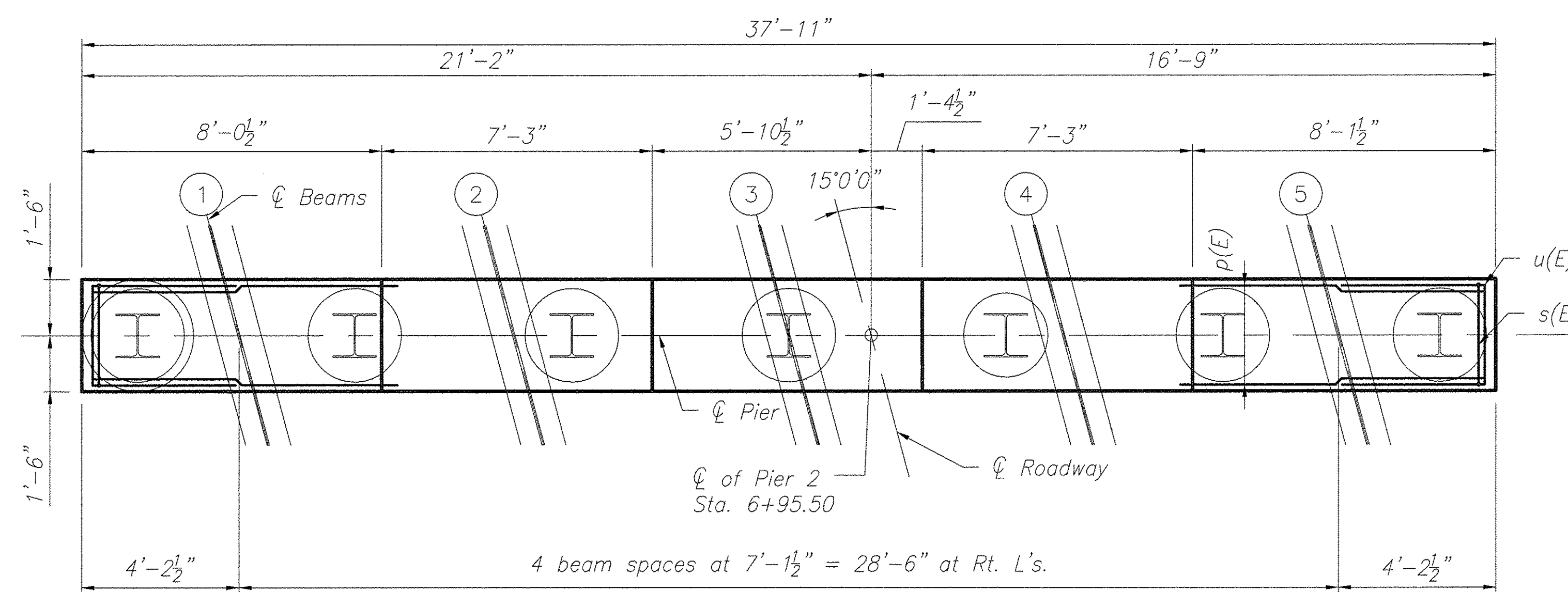


PILE DATA

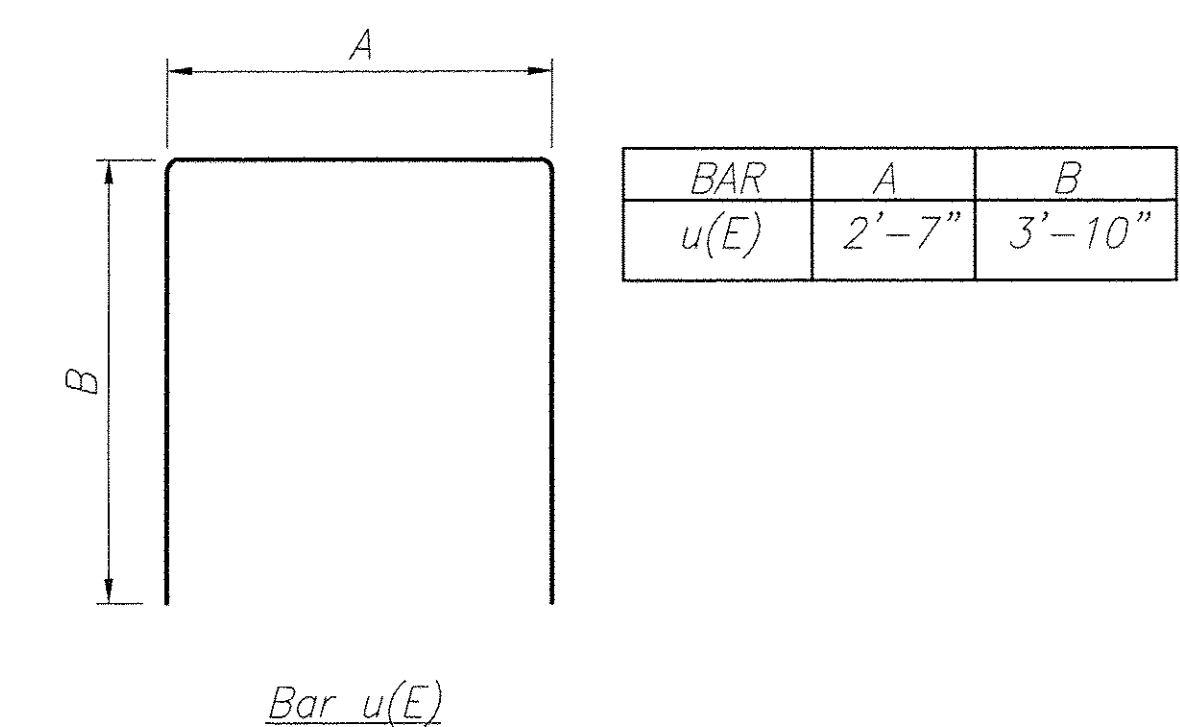
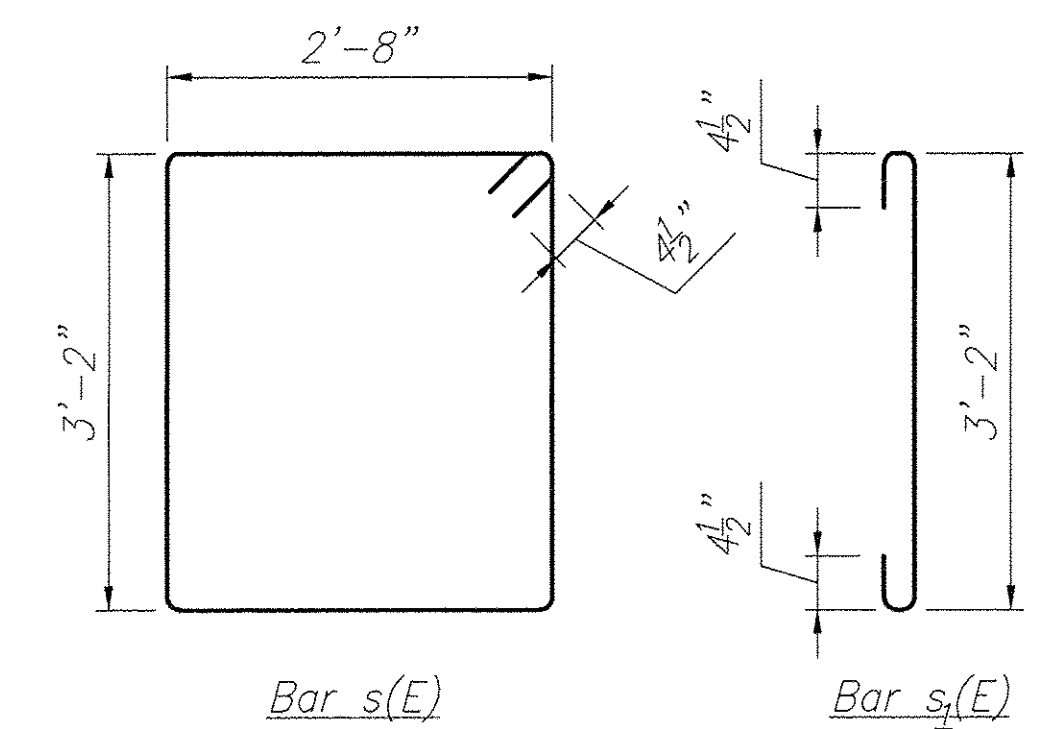
Type: HP14x73
 Nominal Required Bearing: 578 kips
 Factored Resistance Available: 318 kips
 Est. Length: 28'
 No. Production Piles: 6
 No. Test Piles: 1

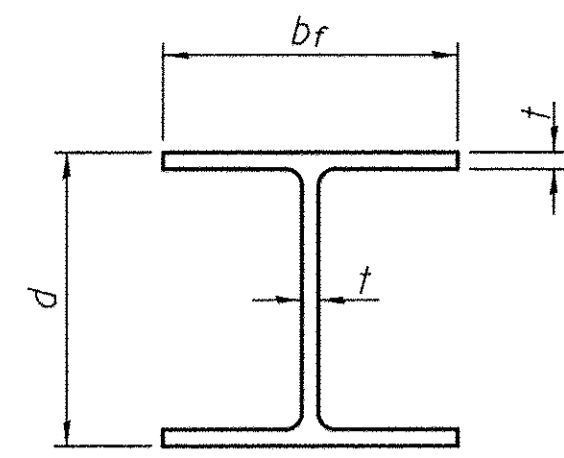


ANCHOR BOLT LAYOUT



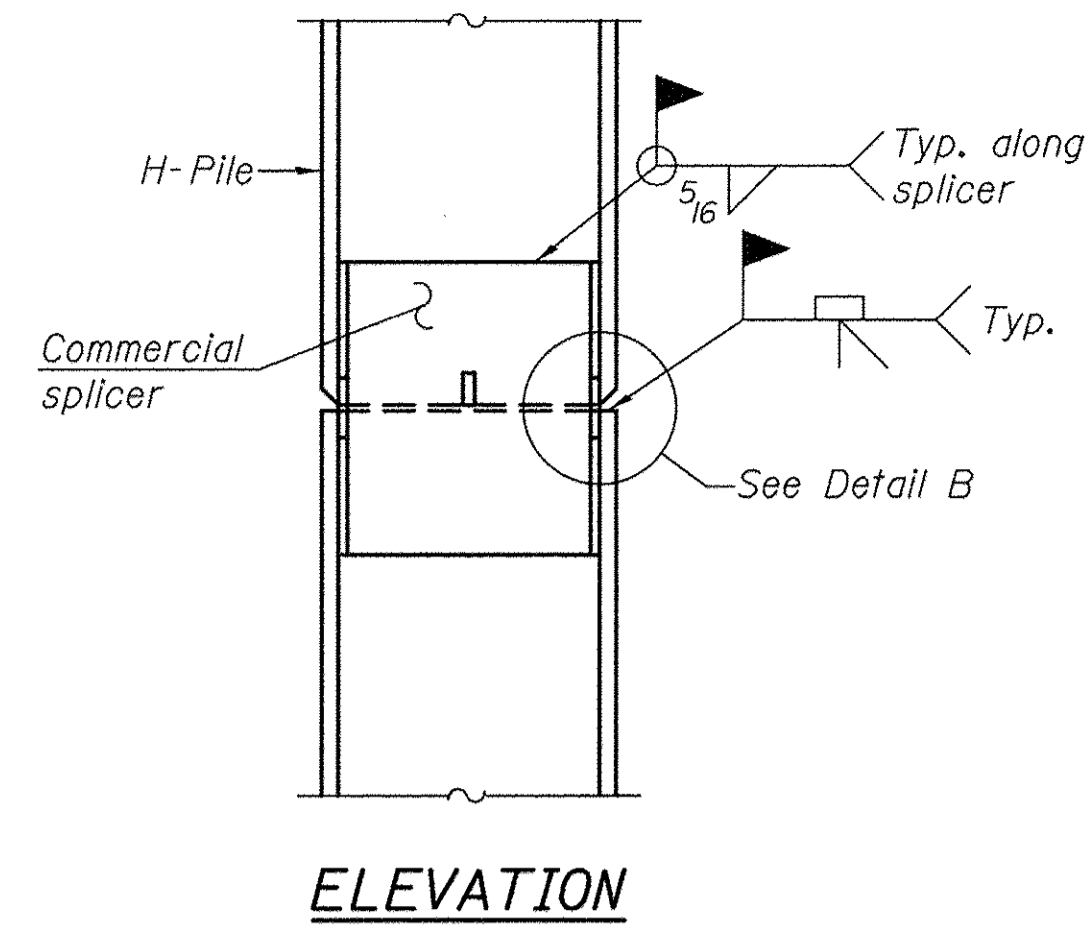
TOP PLAN



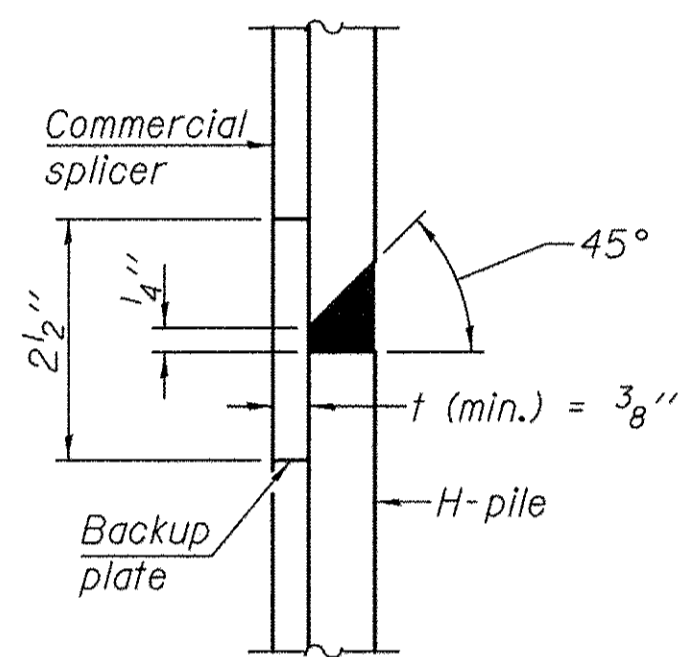


STEEL PILE TABLE

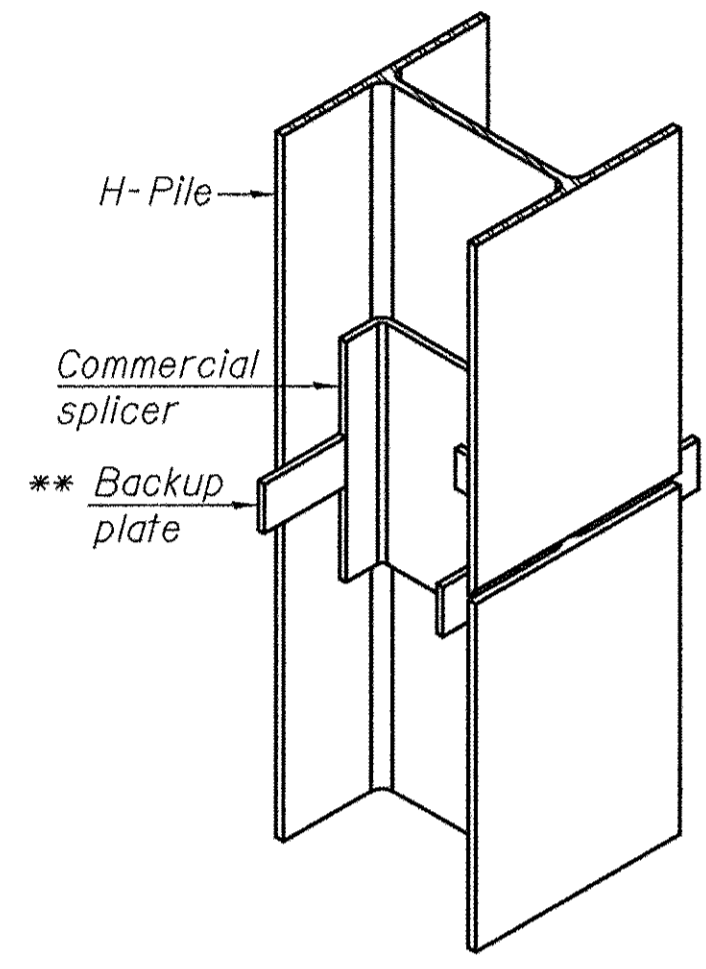
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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



ELEVATION

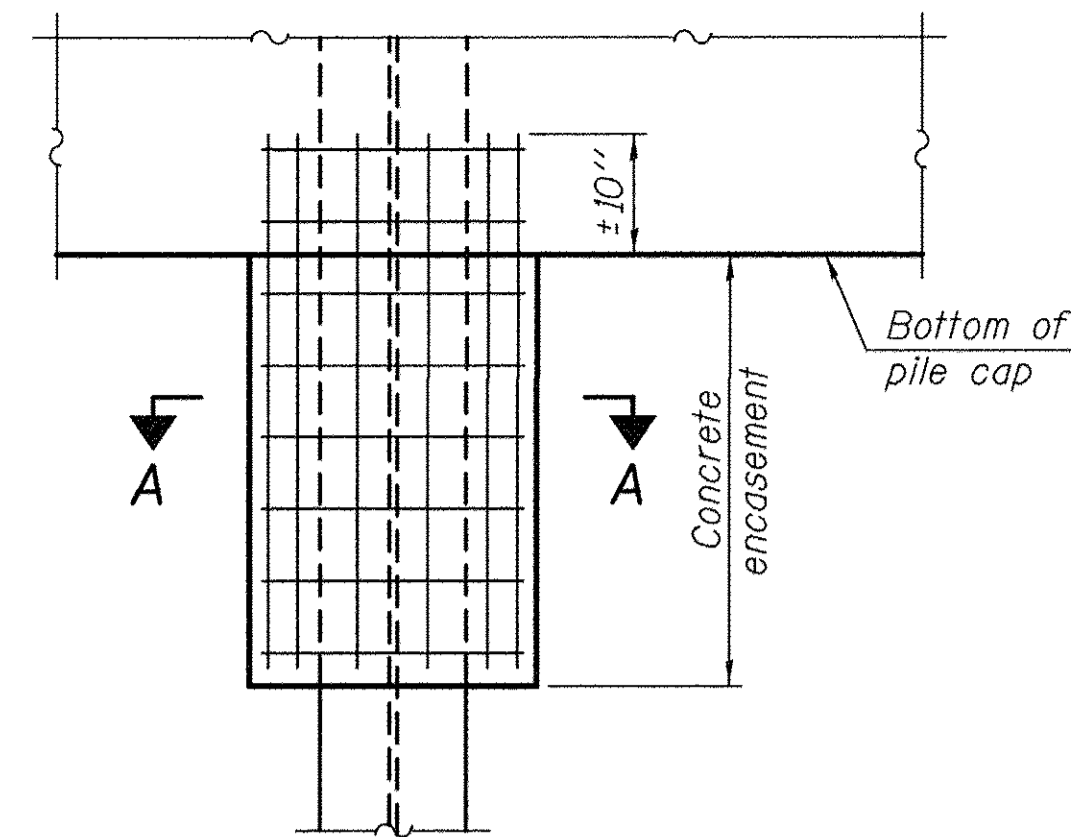


DETAIL "B"



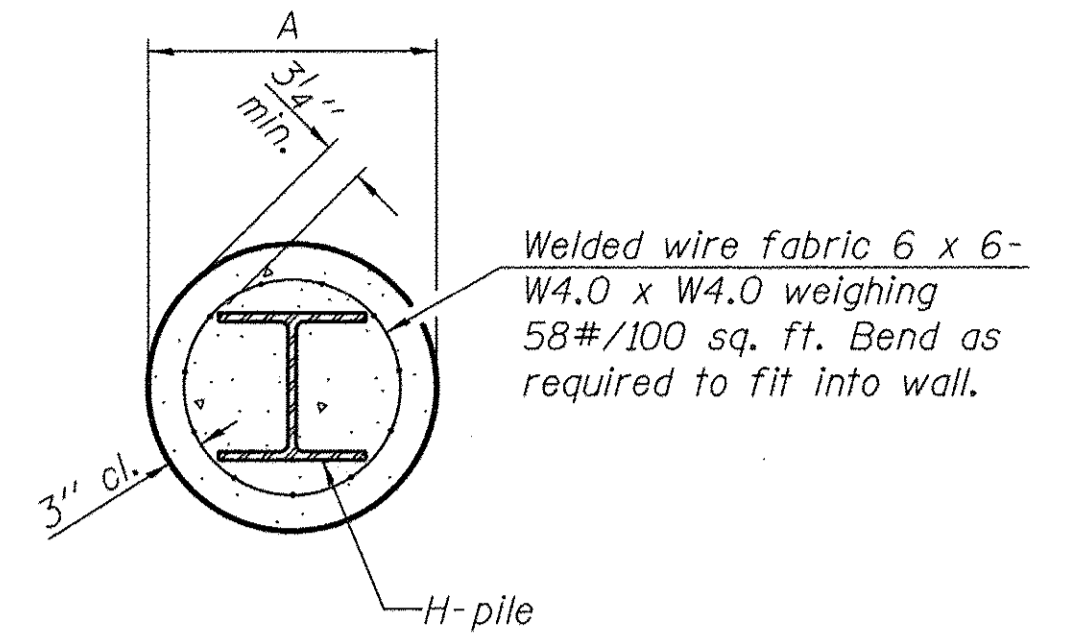
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



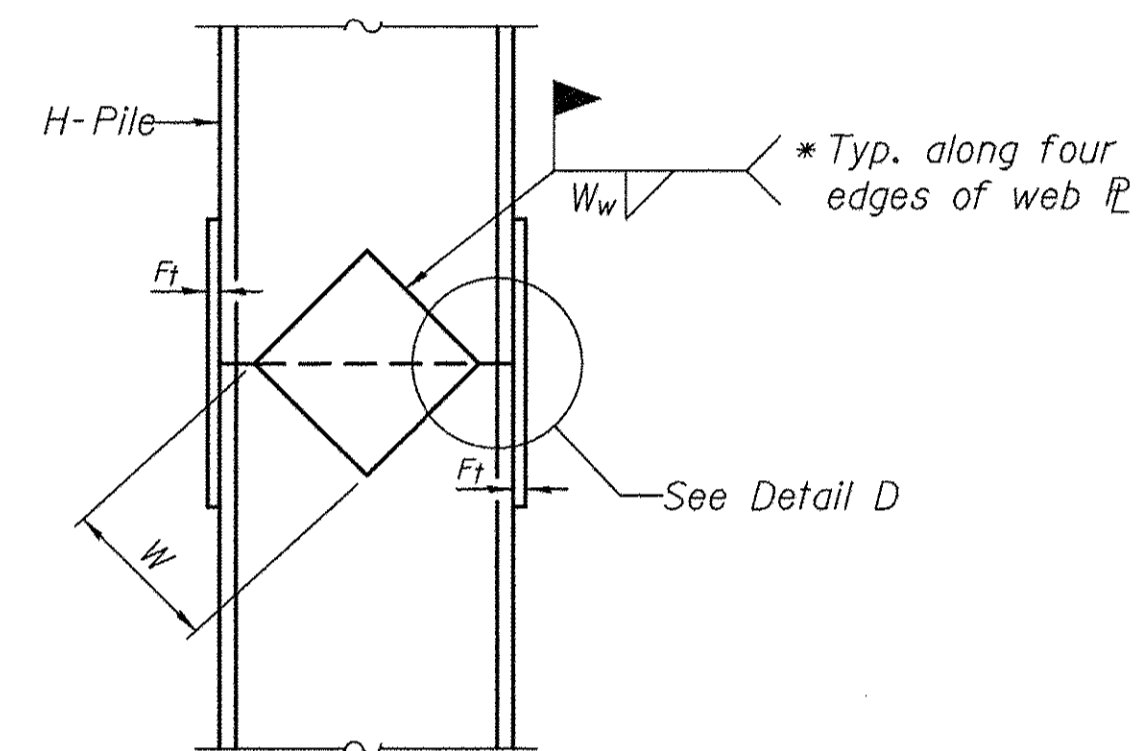
ELEVATION

PILE ENCASEMENT



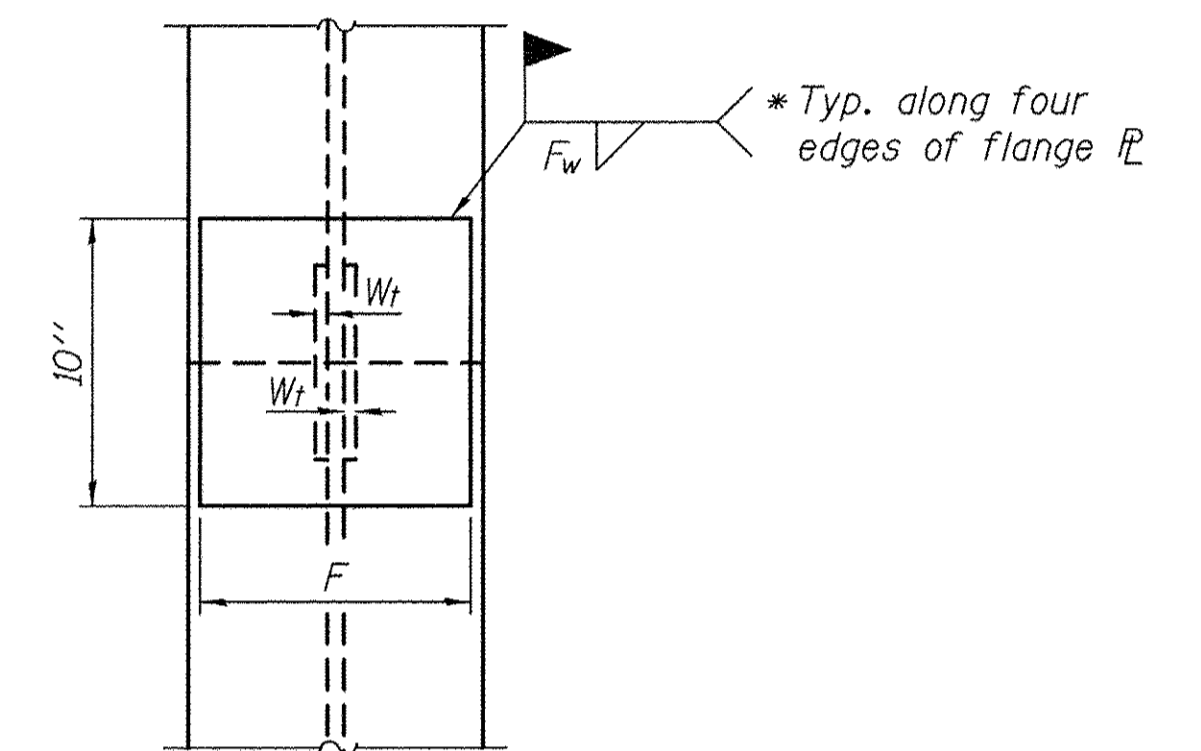
Note: Forms for encasement may be omitted when soil conditions permit.

SECTION A-A



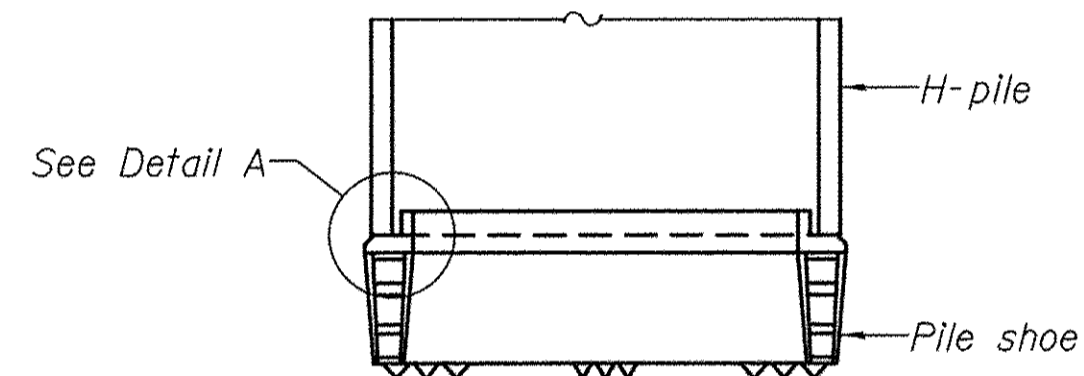
ELEVATION

WELDED PLATE FIELD SPLICE



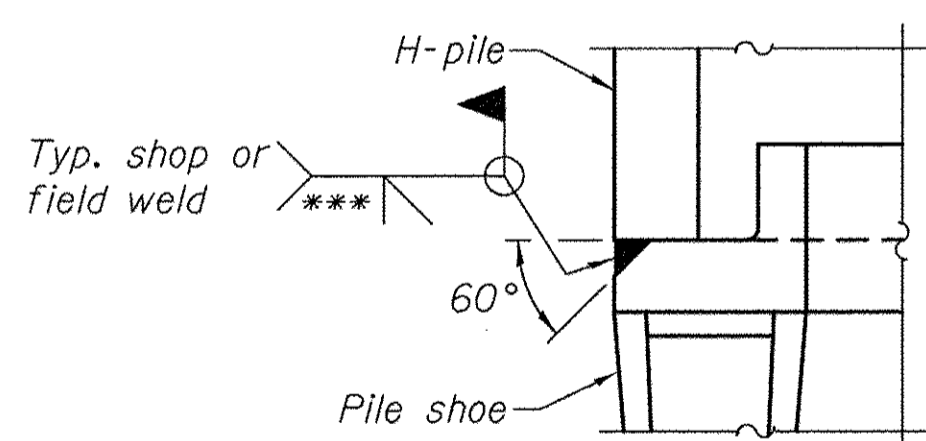
END VIEW

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 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 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 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"

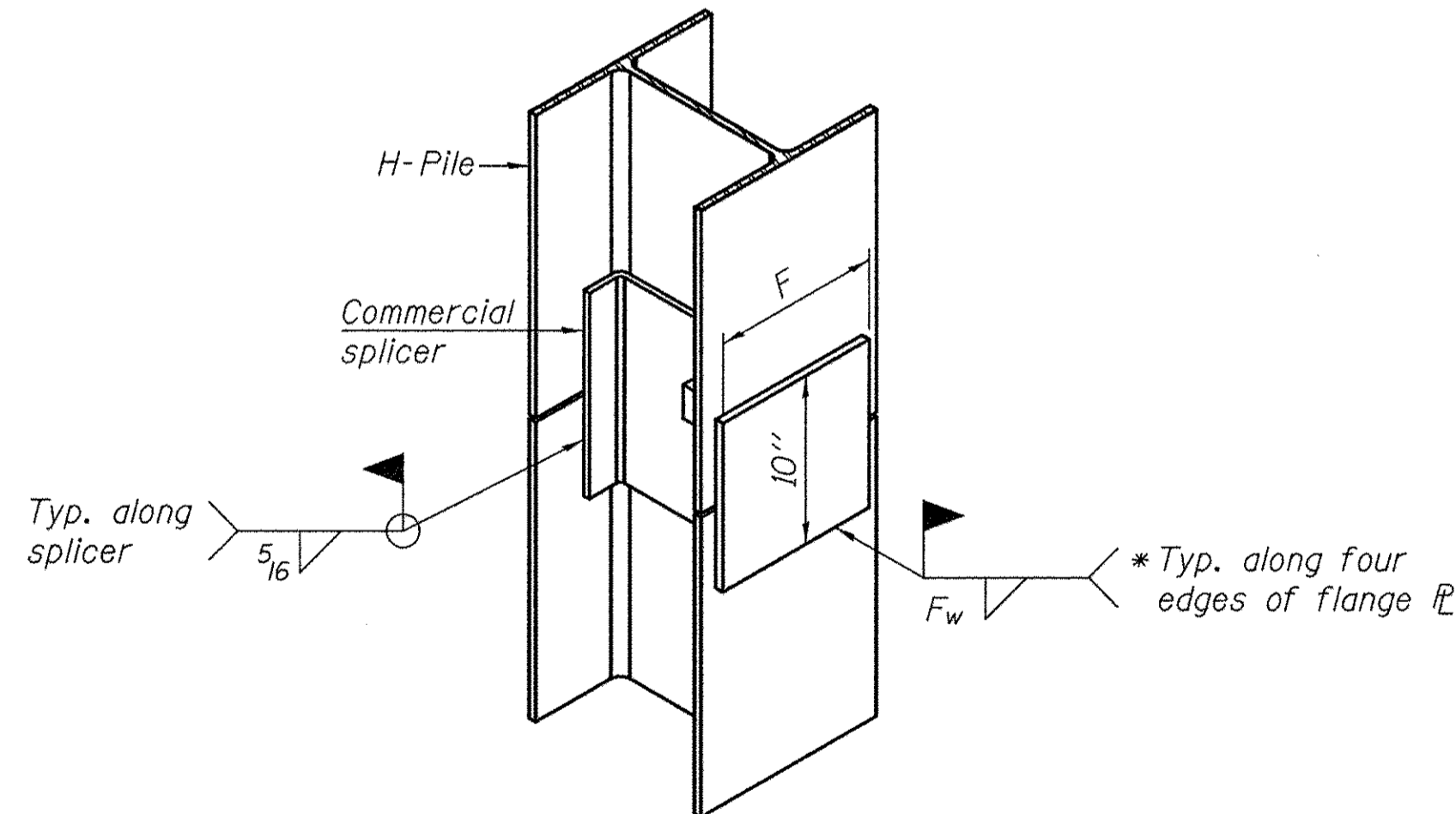


ELEVATION

H-PILE SHOE ATTACHMENT



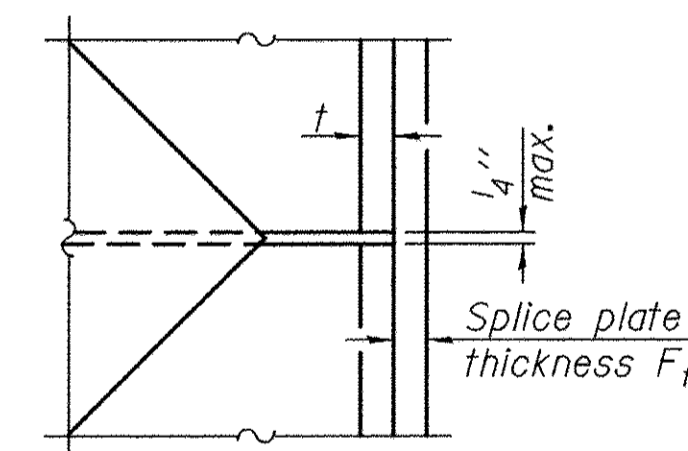
DETAIL A



ISOMETRIC VIEW

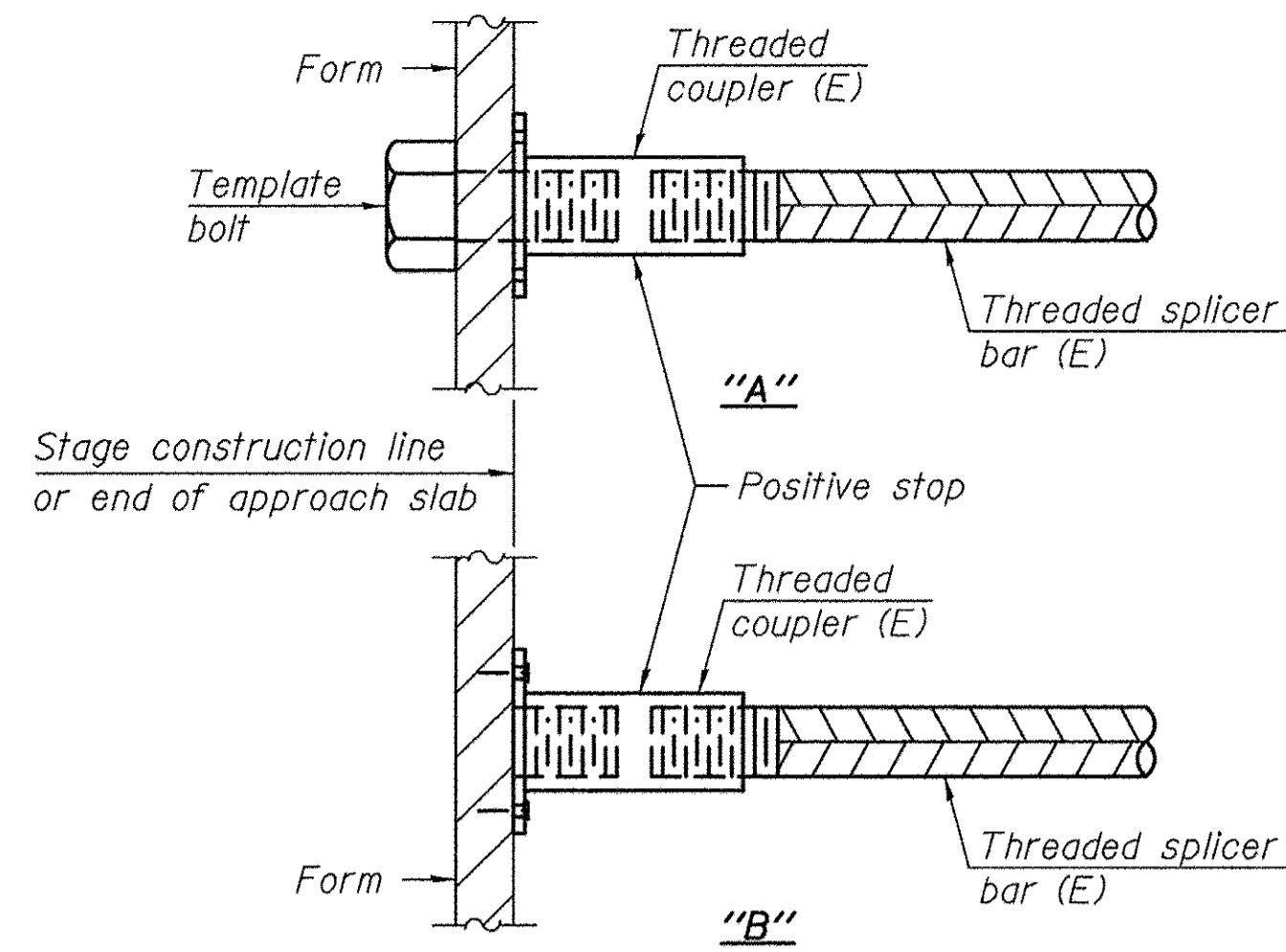
WELDED COMMERCIAL SPLICE ALTERNATE

- * 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.).



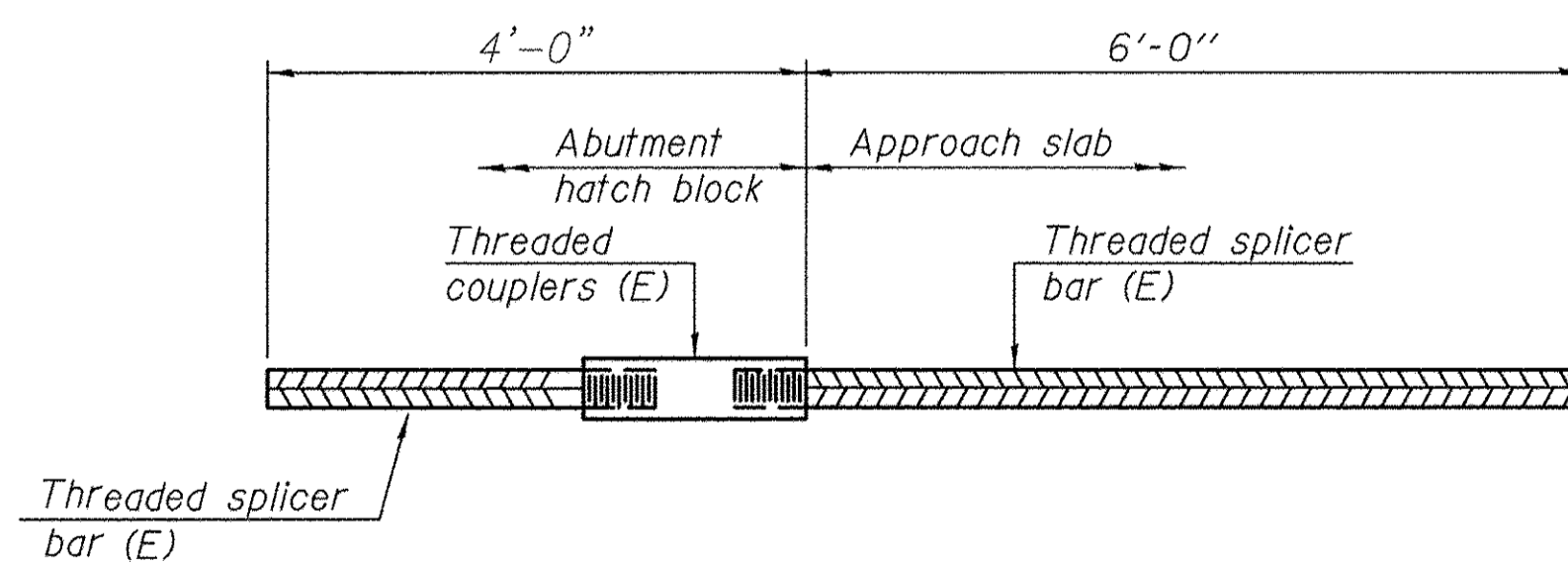
DETAIL D

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



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.



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 62

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.

ROBINSON ENGINEERING, LTD.
 CONSULTING REGISTERED PROFESSIONAL ENGINEERS
 AND PROFESSIONAL LAND SURVEYORS
 17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60473
 (708) 331-6700 © COPYRIGHT 2016 FAX (708) 331-3626
 ILLINOIS DESIGN FIRM REGISTRATION NO. 184001128

USER NAME =	DESIGNED — RSF	REVISED —
	CHECKED — PGV	REVISED —
PLOT SCALE =	DRAWN —	REVISED —
PLOT DATE = 02/10/2017	CHECKED —	REVISED —

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 016-8048

SCALE: NOT TO SCALE SHEET NO. 34 OF 37 SHEETS STA. 5+73.51 TO STA. 7+49.74

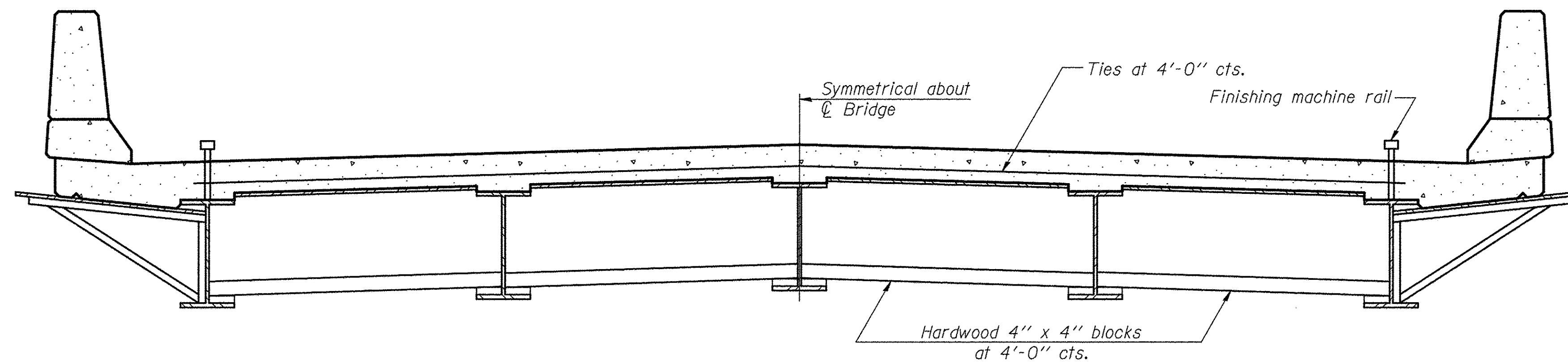
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	49
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61D83	

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

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

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

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



**FORM BRACES FOR
STANDARD CONSTRUCTION**

ROBINSON ENGINEERING, LTD.
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ILLINOIS DESIGN FIRM REGISTRATION NO. 184001128

USER NAME =	DESIGNED — RSF	REVISED —
	CHECKED — PGV	REVISED —
PLOT SCALE =	DRAWN —	REVISED —
PLOT DATE = 02/10/2017	CHECKED —	REVISED —

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CANTILEVER FORMING BRACKETS STRUCTURE NO. 016-8048	
SCALE: NOT TO SCALE	SHEET NO. 35 OF 37 SHEETS
STA. 5+73.51	TO STA. 7+49.74

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	50
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT	
			CONTRACT NO. 61D83	



CLIENT Robinson Engineering, Ltd. PROJECT NAME Woodlawn Avenue West Bridge
 PROJECT NUMBER 14-G773 PROJECT LOCATION South Holland, Illinois
 DATE COMPLETED 12/24/14 LOGGED BY NJ/GL DRILLING METHOD 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS						
												LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX				
0	594.5		0-6" ASPHALT PAVEMENT															
	593.5		6"-18" GRAVEL SUBBASE	SS 1	67	3-4-4 (8)			5.0	94.4								
	592.0		GRAVEL FILL															
5			Brown SILTY CLAY little sand and gravel stiff to very stiff, moist	SS 2	78	3-3-3 (6)	2.5		27.3									
				SS 3	89	4-4-4 (8)	2.25	1.6	22.7									
				SS 4	89	3-4-5 (9)	3.5		20.6									
	583.0			Gray SILTY CLAY trace sand and gravel very stiff to hard, slightly moist to moist	SS 5	89	3-3-4 (7)	2.5		18.2								
10					SS 6	89	2-3-4 (7)	2.5		21.5								
					SS 7	100	9-25-25 (50)	4.5		16.0								
					SS 8	89	8-13-14 (27)	4.5		10.1								
					SS 9	89	8-19-28 (47)	4.5	6.4	9.0								
					SS 10	78	6-21-45 (66)	4.5		10.0								
					SS 11	100	16-45-50/3"			8.6								

COMPLETION DEPTH 52.3 ft GROUND ELEVATION 595 ft
 CAVE DEPTH ft BACKFILL Soil Cuttings
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 29.00 ft / Elev 566.00 ft
 AT END OF DRILLING ---
 AFTER DRILLING ---

NOTES
South Abutment

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

9370 W. Laraway Rd, Suite D Frankfort, Illinois Phone (815) 806-9986 Fax (815) 464-8691



CLIENT Robinson Engineering, Ltd. PROJECT NAME Woodlawn Avenue West Bridge
 PROJECT NUMBER 14-G773 PROJECT LOCATION South Holland, Illinois
 DATE COMPLETED 12/24/14 LOGGED BY NJ/GL DRILLING METHOD 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS					
												LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX			
30	566.0		Gray Weathered LIMESTONE Very Dense, wet	SS 12	100	11-38-50/1"			11.6								
	562.5		@ 32.5' Qu = 9,550 psi	SS 13	33	50			10.5								
35			Gray LIMESTONE @ 33' Qu = 20,915 psi @ 34' Qu = 23,802 psi; 56,864 psi @ 35' Qu = 47,315 psi	RC 14	100 (70)												
			@ 36' Qu = 518 psi; 18,544 psi														
			@ 37' Qu = 14,633 psi														
40			@ 38' Qu = 14,633 psi; 5,660 psi @ 39' Qu = 25,925 psi @ 40' Qu = 15,320 psi; 14,315 psi @ 41' Qu = 13,550 psi; 19,020 psi; 13,820 psi 1" soft clay seam at 41.4 feet @ 42' Qu = 26,660 psi; 16,920 psi	RC 15	100 (89)												
			@ 44' Qu = 1,631 psi; 8,070 psi														
45			@ 45' Qu = 10,210 psi @ 46' Qu = 26,720 psi; 21,226 psi														
			@ 47' Qu = 10,160 psi; 17,490 psi @ 48' Qu = 25,020 psi; 24,600 psi	RC 16	100 (95)												
50			@ 49' Qu = 22,430 psi; 14,600 psi @ 50' Qu = 2,580 psi; 7,300 psi; 26,710 psi														
	542.7		@ 51' Qu = 35,900 psi; 12,030 psi														

Refusal at 29.0 feet.
Bottom of borehole at 52.3 feet.

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CLIENT Robinson Engineering, Ltd. PROJECT NAME Woodlawn Avenue West Bridge
 PROJECT NUMBER 14-G773 PROJECT LOCATION South Holland, Illinois
 DATE COMPLETED 12/29/14 LOGGED BY NJ/GL DRILLING METHOD 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS			
												LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
0			0-8" ASPHALT PAVEMENT												
	593.3		8"-14" GRAVEL SUBBASE												
	592.8		Brown SILTY CLAY little sand and gravel medium stiff, moist	SS 1	56	8-10-5 (15)			6.1						
				SS 2	56	5-2-2 (4)			20.6						
				ST 3	88		2.0	0.8	14.2	101.9		45	25	21	
				SS 4	67	1-2-2 (4)	1.0		29.8						
				ST 5	88		1.0	0.62	31.3	90.0		43	22	21	
	582.0		Gray SILTY CLAY trace sand and gravel soft, very moist	SS 6	100	1-1-1 (2)	0.5		49.1						
				SS 7	78	1-1-1 (2)	0.5		35.2						
				SS 8	89	1-1-1 (2)	0.5		24.6						
	576.0		Gray SANDY CLAY with gravel very soft, moist	ST 9	75		0.5	0.24	22.7	100.0		29	18	11	
	573.0		Gray SAND and GRAVEL dense to very dense, moist to wet	SS 10	100	41-50/1"			10.8						
				SS 11	78	8-15-21 (36)			8.8						
	568.0		Gray Weathered LIMESTONE Very Dense, wet	SS 12	0	50/3"									

COMPLETION DEPTH 39 ft GROUND ELEVATION 594 ft
 CAVE DEPTH ft BACKFILL Soil Cuttings
 GROUND WATER LEVELS:
 ▽ AT TIME OF DRILLING 21.00 ft / Elev 573.00 ft
 AT END OF DRILLING ---
 AFTER DRILLING ---

NOTES
North Abutment

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

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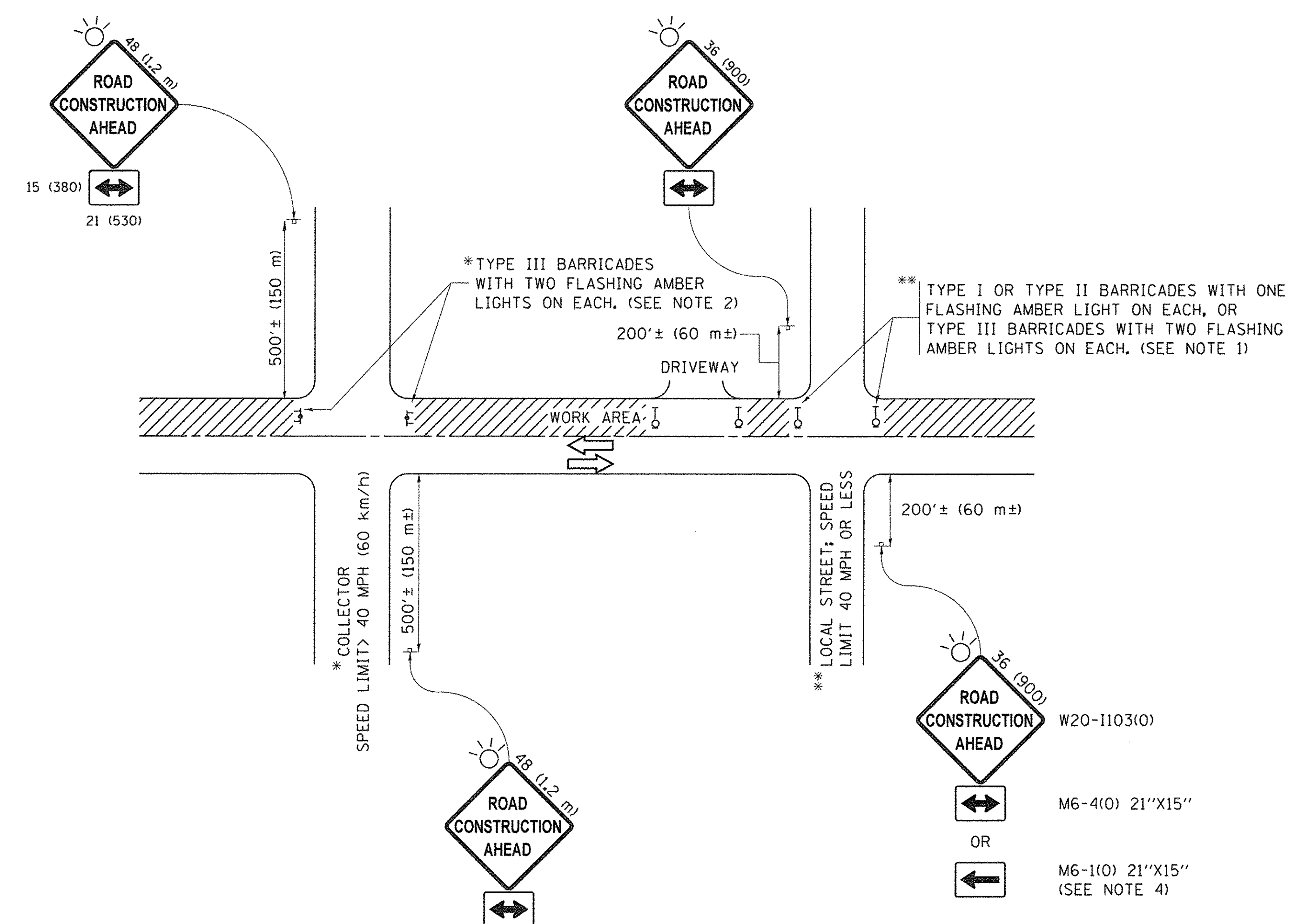
CLIENT Robinson Engineering, Ltd. PROJECT NAME Woodlawn Avenue West Bridge
 PROJECT NUMBER 14-G773 PROJECT LOCATION South Holland, Illinois
 DATE COMPLETED 12/29/14 LOGGED BY NJ/GL DRILLING METHOD 3.25 in. I.D. HSA

DEPTH (ft)	ELEVATION (ft.)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (Qp) (tsf)	UNC. STRENGTH (Qu) (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ORGANIC CONTENT (%)	ATTERBERG LIMITS			
												LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX	
	565.0		Gray LIMESTONE	SS 13	0	50/1"									
			@32' Qu = 16,963 psi												
			@33' Qu = 26,450 psi; 23,350 psi; 30,290 psi												
			@34' Qu = 45,500 psi; 35,165 psi												
			@35' Qu = 4,245 psi												
			@36' Qu = 5,480 psi												
			@37' Qu = 11,474 psi; 17,310 psi												
			@38' Qu = 16,821 psi; 9,980 psi												
			@39' Qu = 21,448 psi												

Refusal at 29.0 feet.
Bottom of borehole at 39.0 feet.

Lines of Demarcation represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and between boring locations, and the transition may be gradual. Dashed lines are indicative of potentially erratic or unknown changes.

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NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

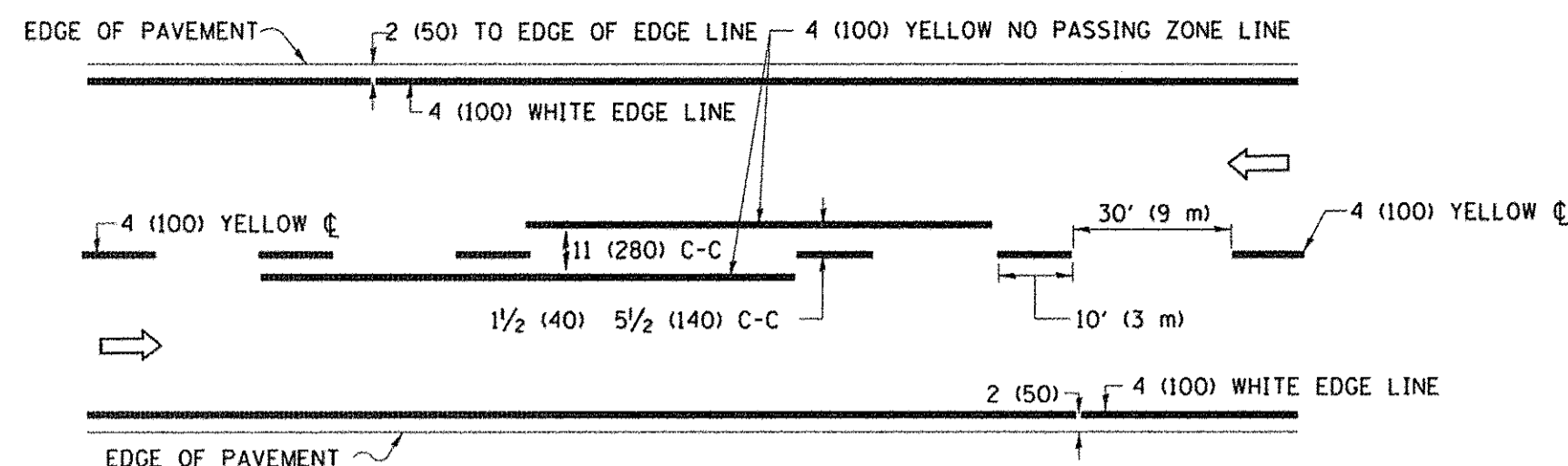
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = 11519_02-DTLS-01 - TC10	USER NAME = footemj	DESIGNED — L.H.A.	REVISED — A. HOUSEH 10-15-96
	'Files\District 1\Projects\01	CHECKED — \CAD\sheets\tcl10.dgn	REVISED — RAMMACHER 01-06-00
	PLOT SCALE = 50.000' / in.	DRAWN —	REVISED — A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	CHECKED — 06-89	REVISED — A. SCHUETZE 09-15-16

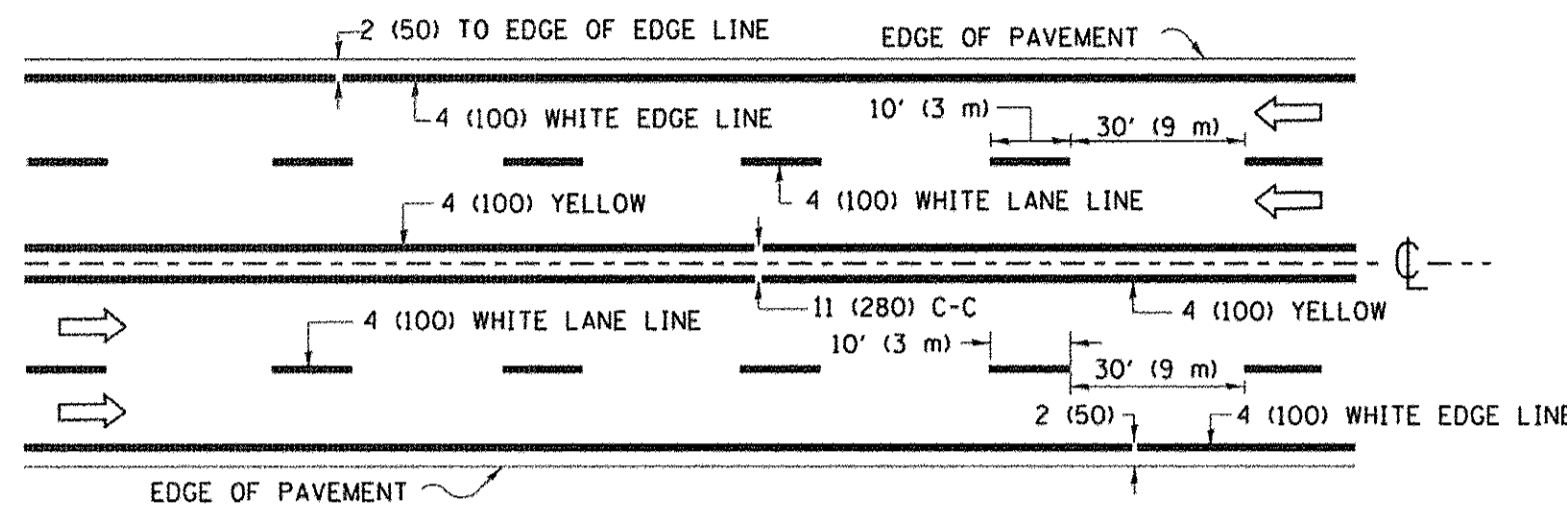
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			
SCALE: NONE	SHEET NO. 53 OF 62 SHEETS	STA.	TO STA.

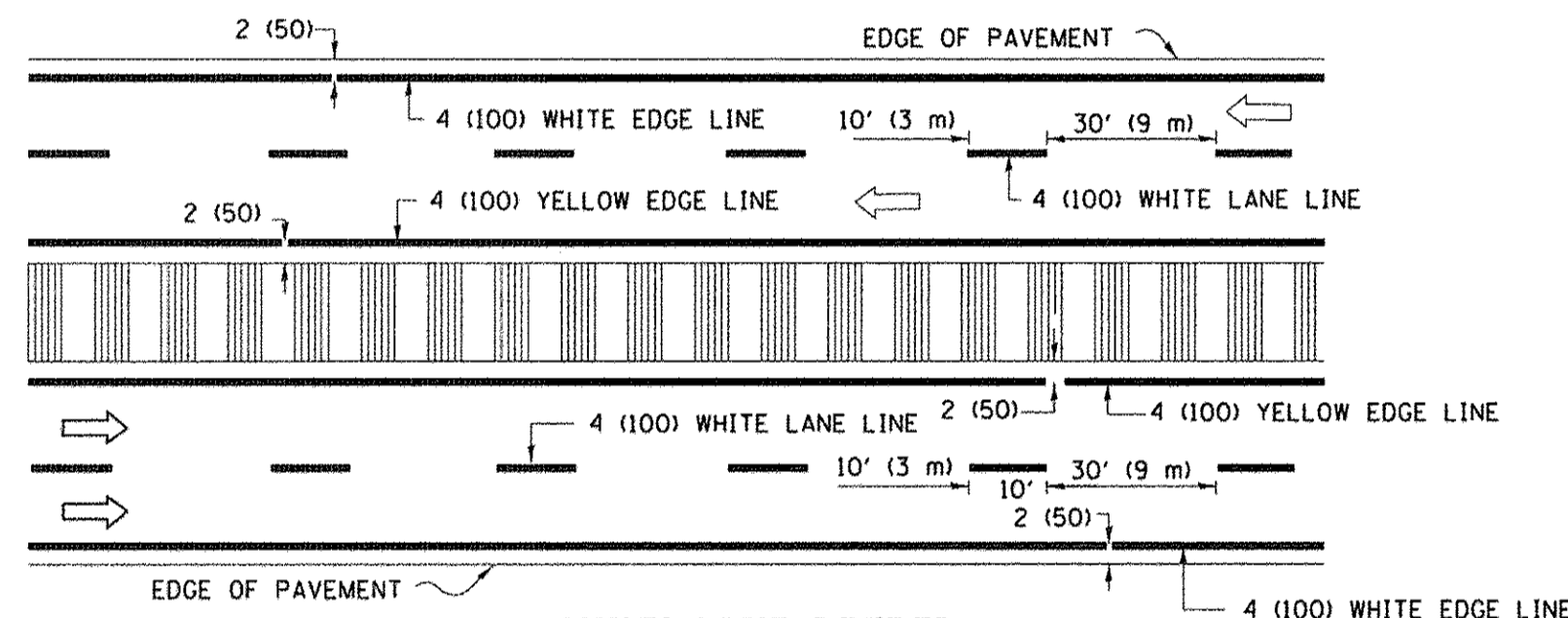
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	53
TC-10		CONTRACT NO. 61D83		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT N/A		



2-LANE ROADWAY

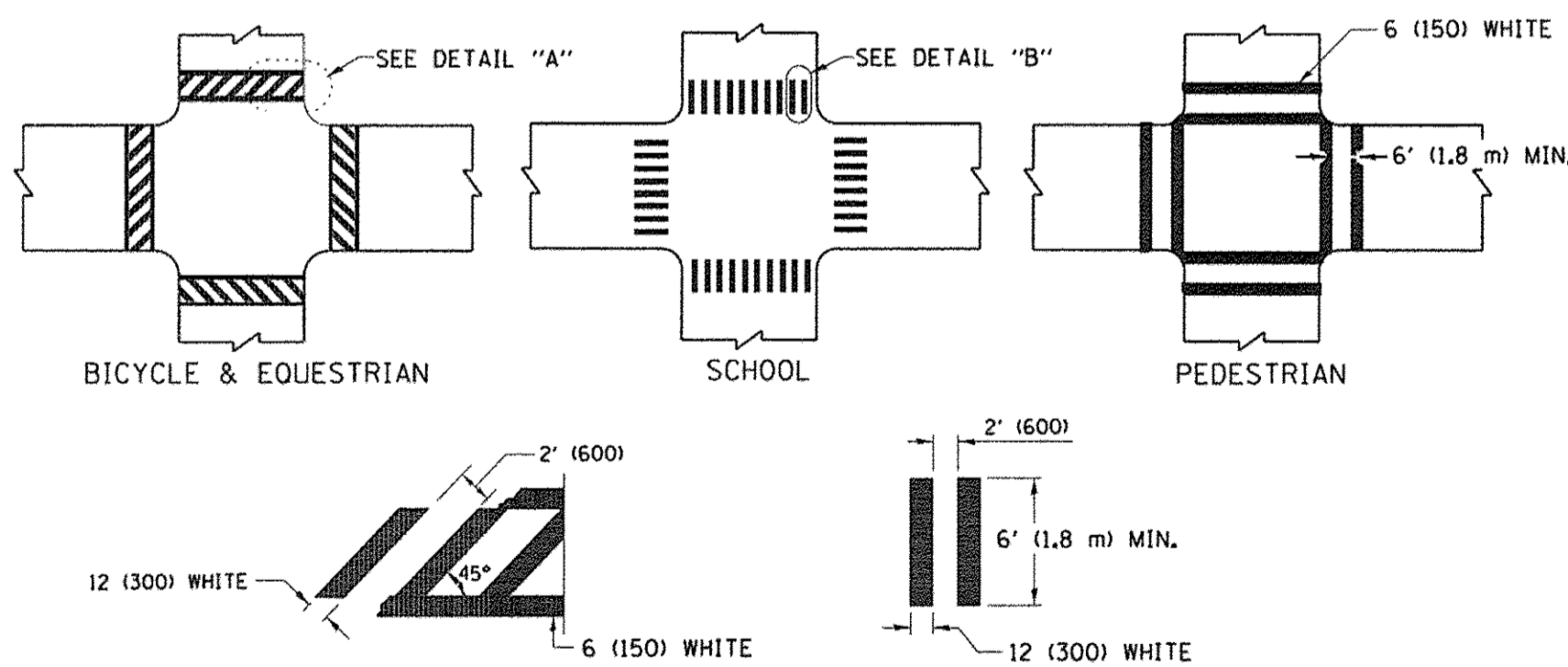


MULTI-LANE UNDIVIDED



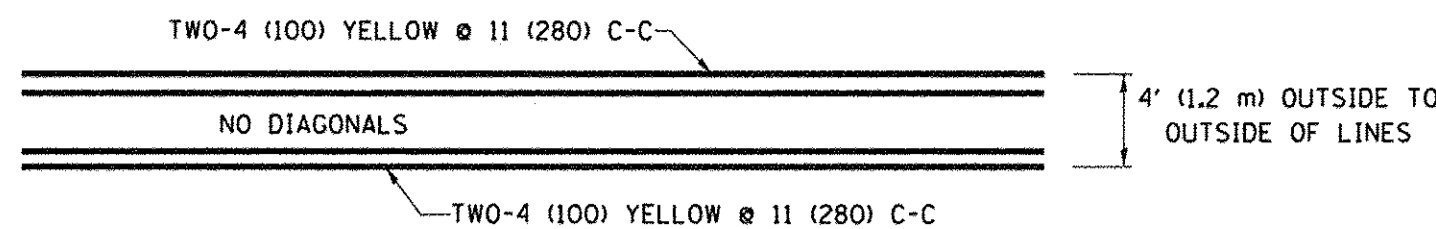
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

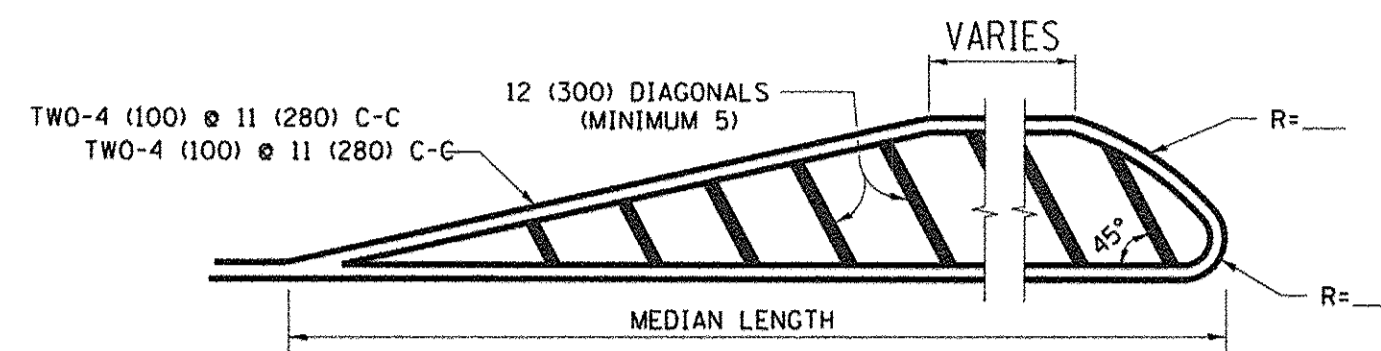


DETAIL "A" TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



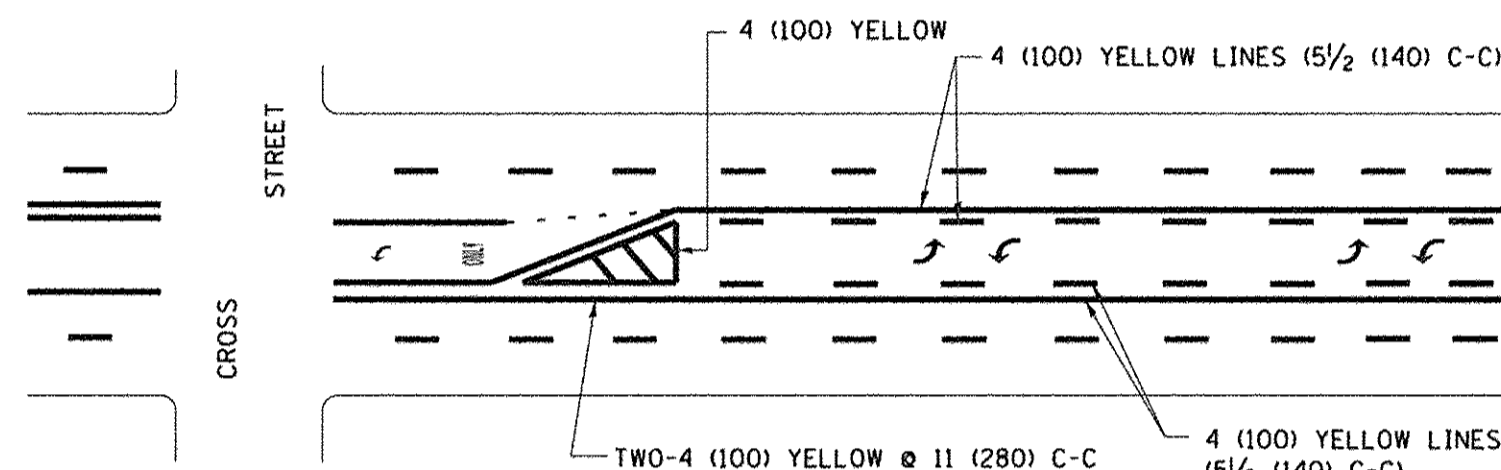
4' (1.2 m) WIDE MEDIANS ONLY



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

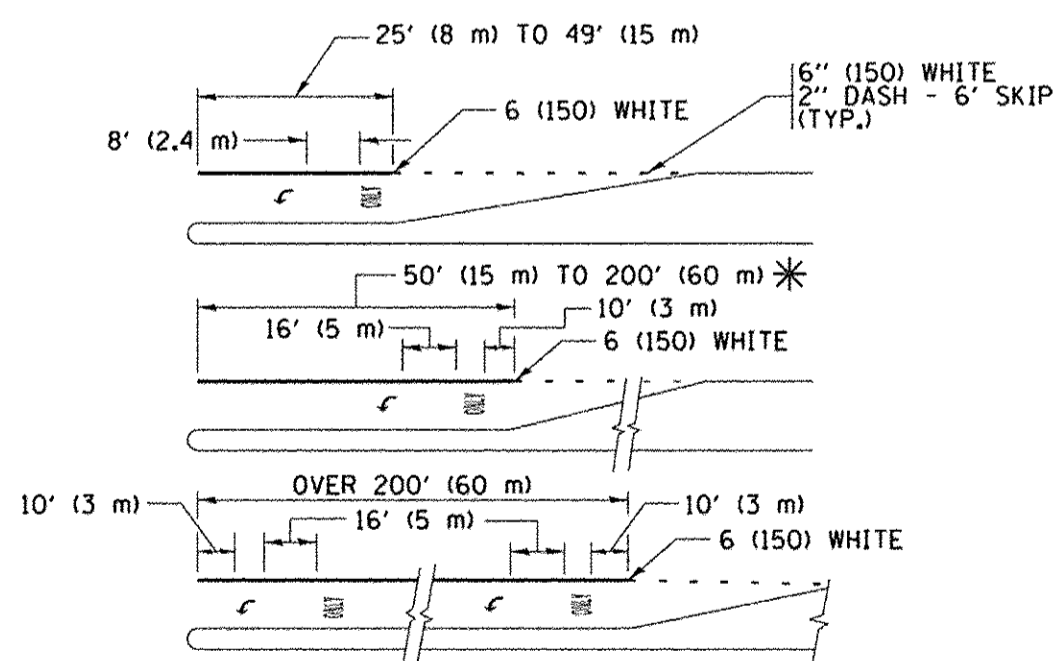
MEDIANS OVER 4' (1.2 m) WIDE



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

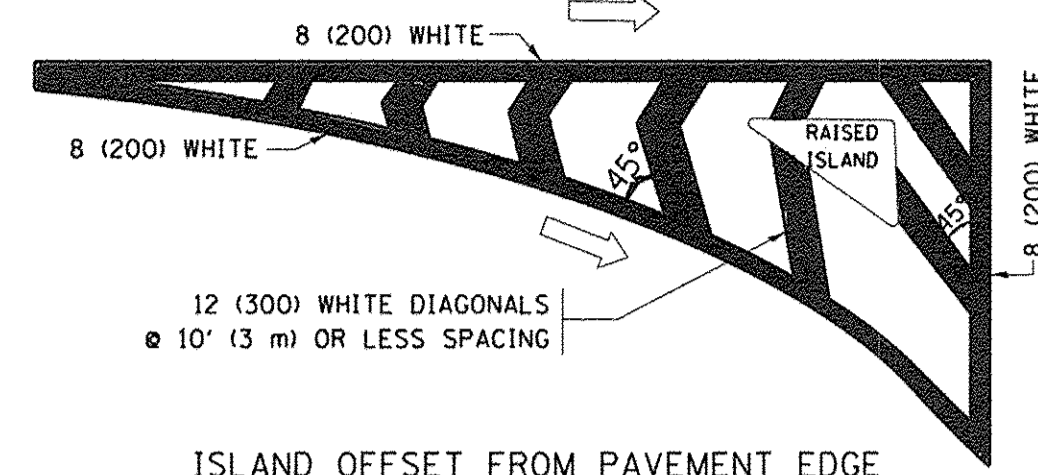


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

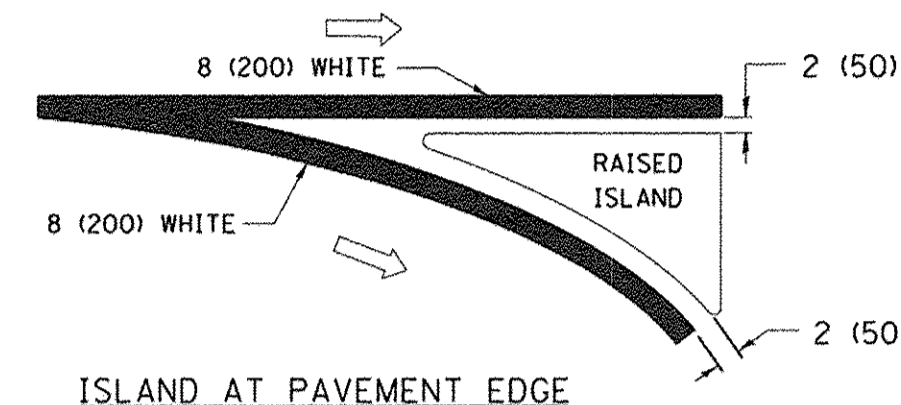
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

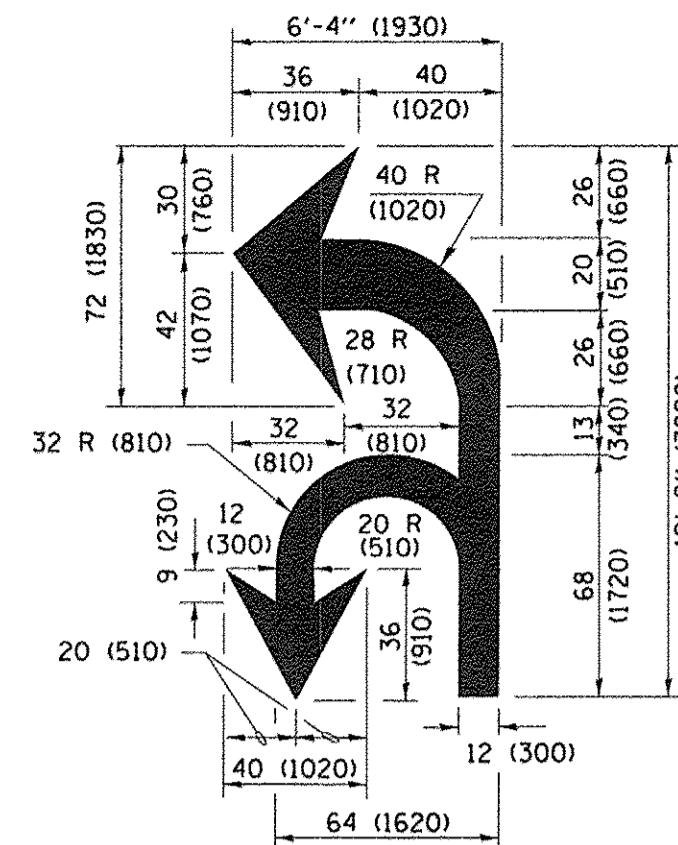


ISLAND OFFSET FROM PAVEMENT EDGE

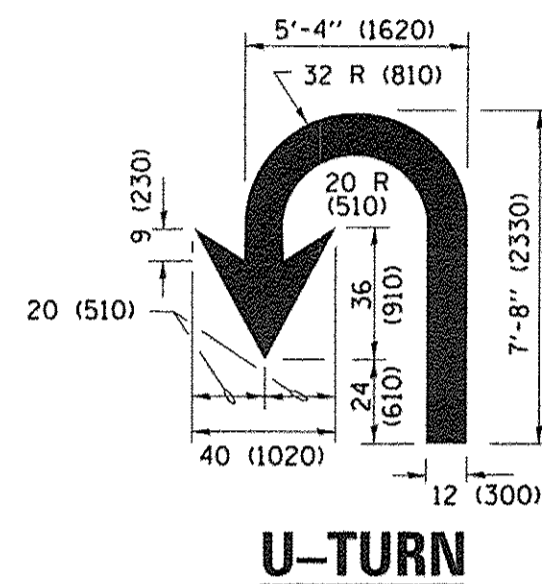


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION

* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6" (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

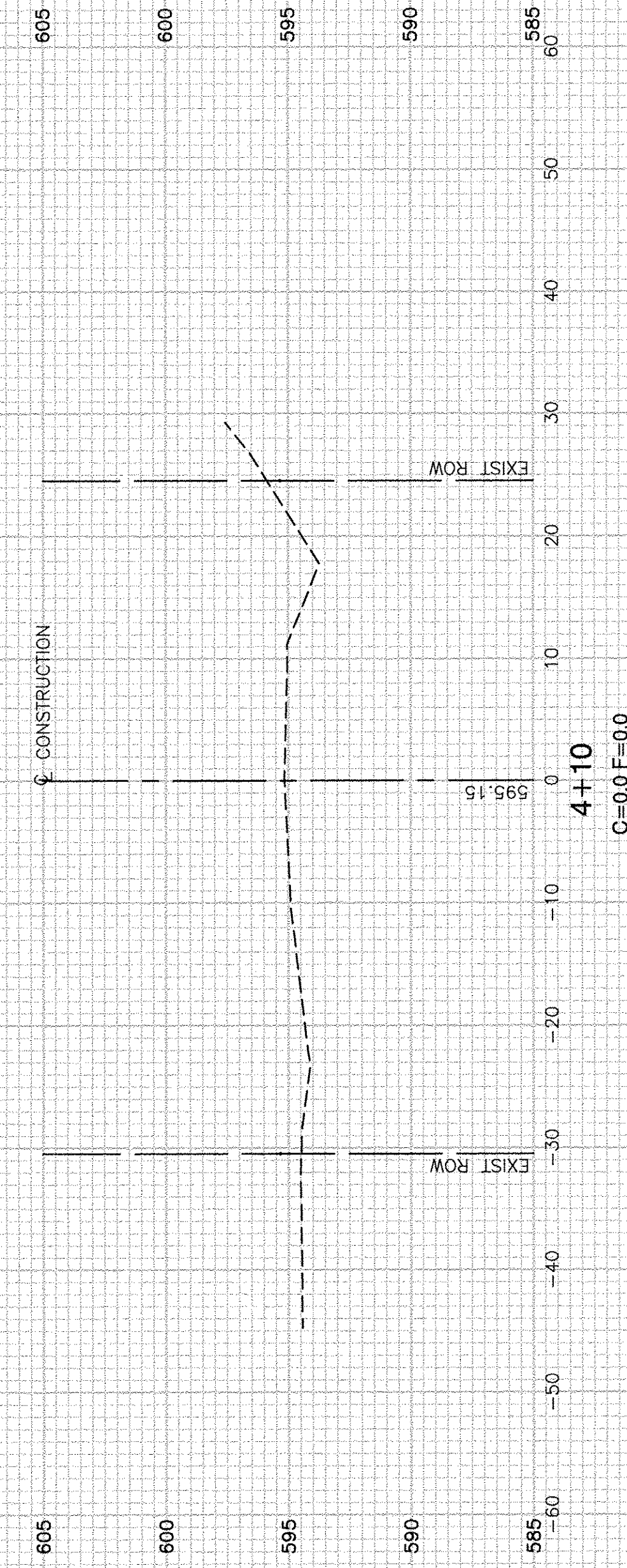
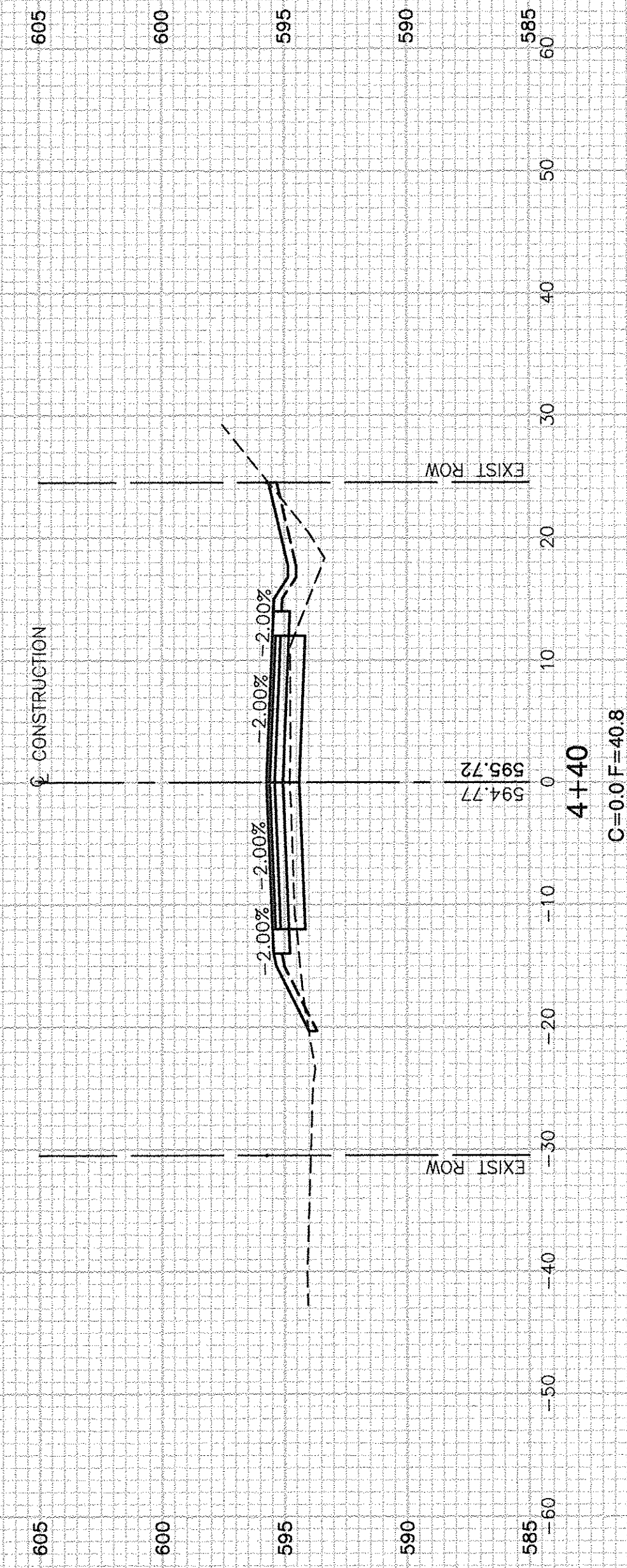
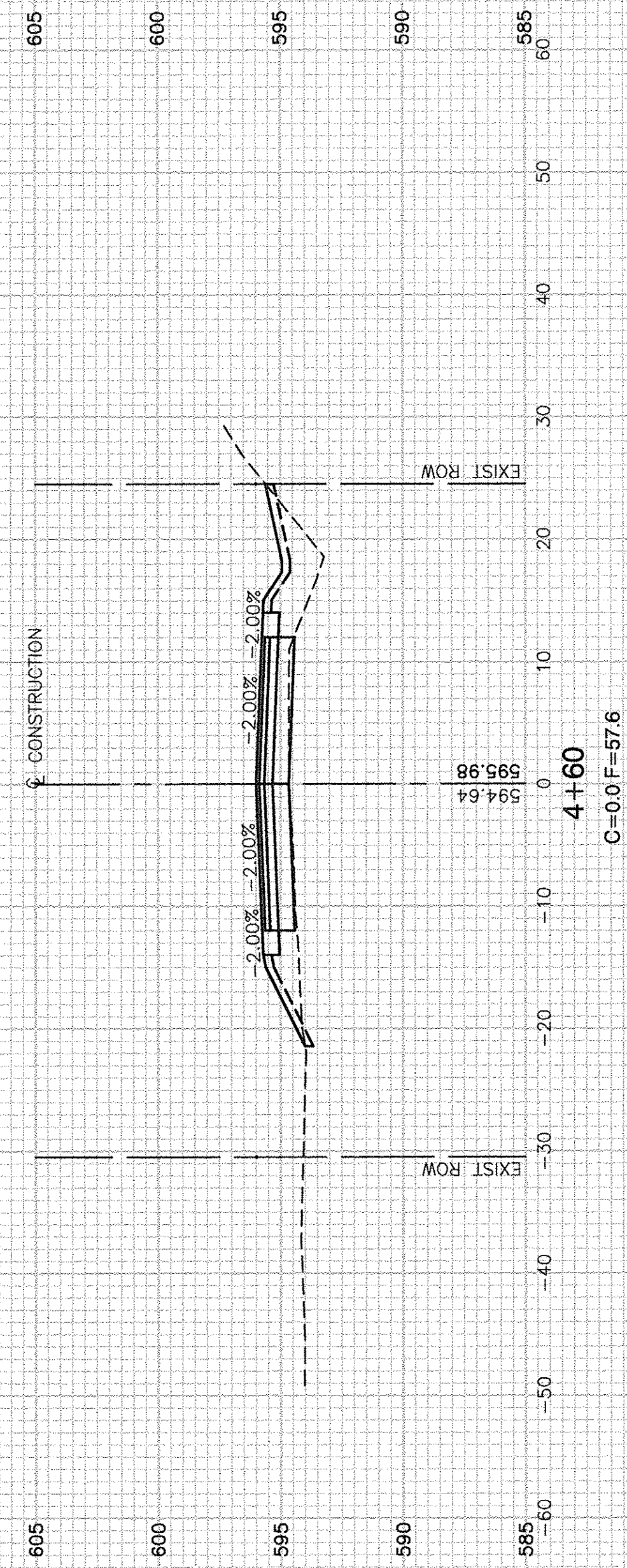
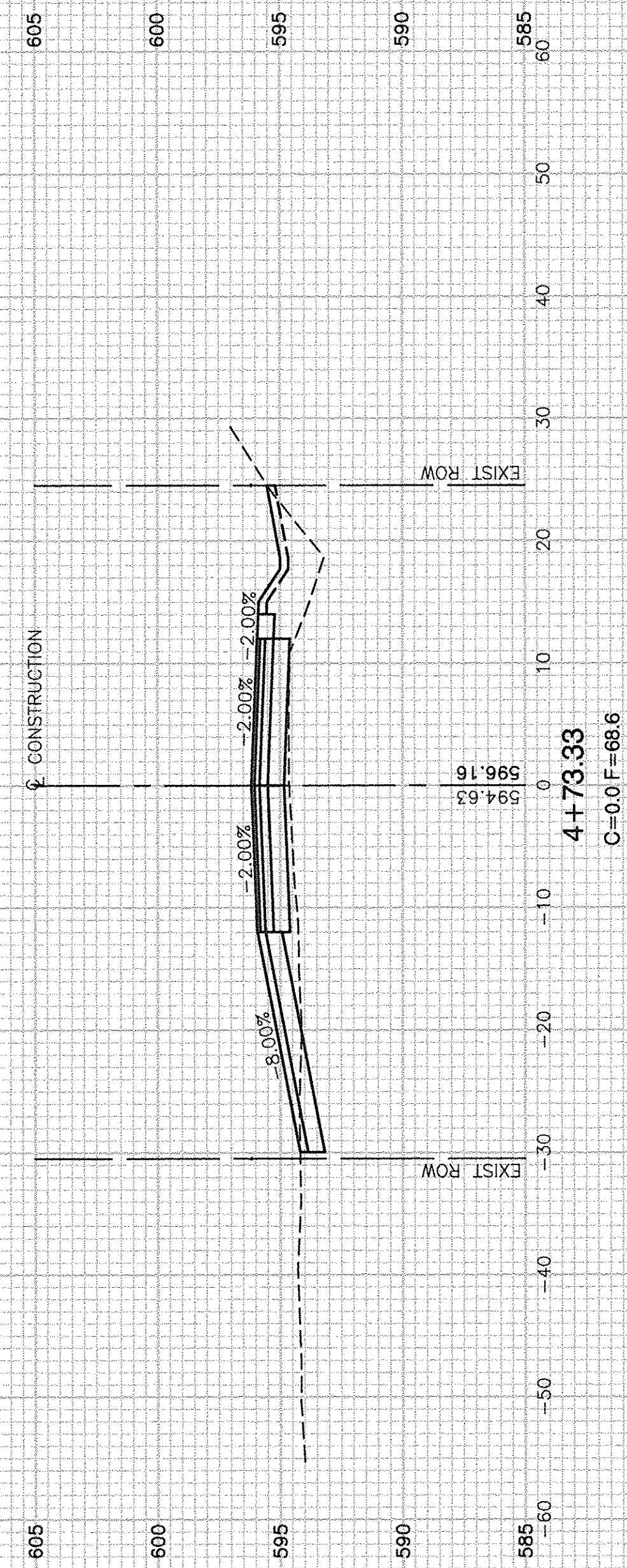
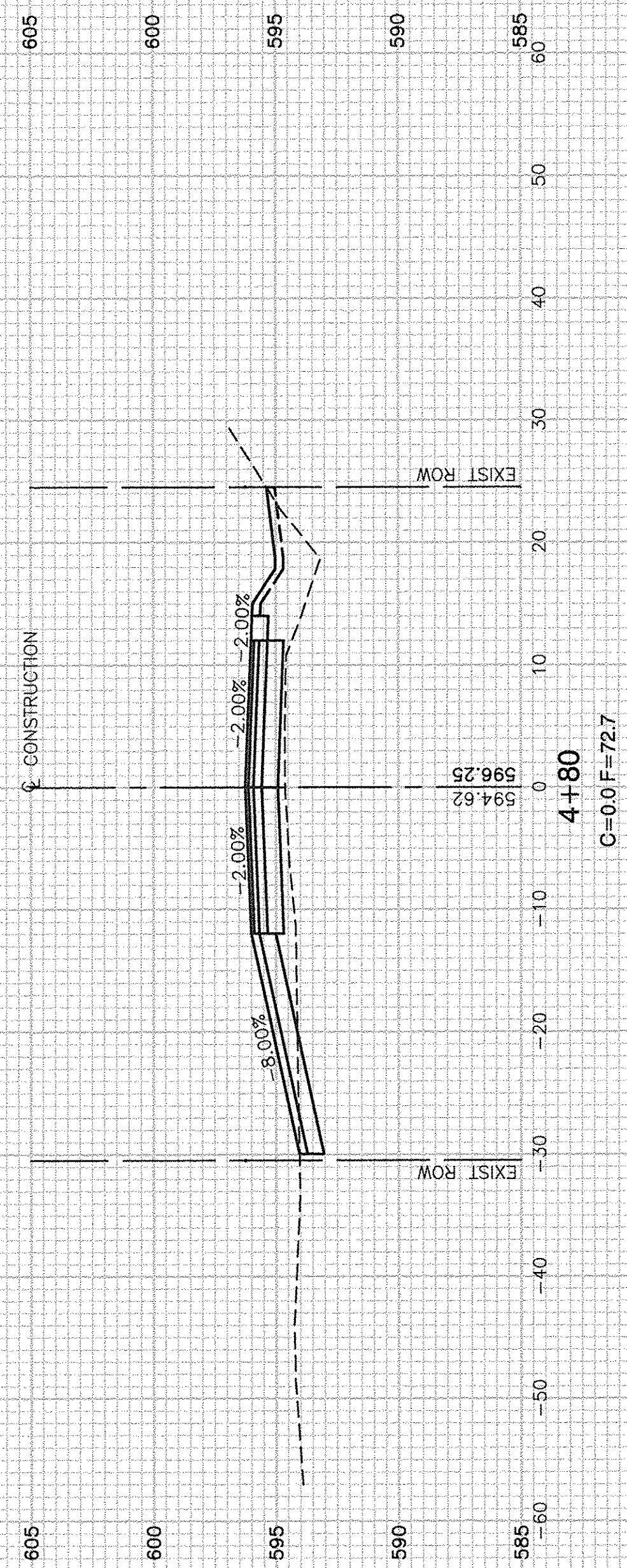
All dimensions are in inches (millimeters) unless otherwise shown.

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	'fices\District 1\Projects\N	CHECKED — CADsheets\1\13.dgn	REVISED — C. JUCIUS 07-01-13
	PLOT SCALE = 50.000' / in.	DRAWN —	REVISED — C. JUCIUS 12-21-15
	PLOT DATE = 4/13/2016	CHECKED — 03-19-90	REVISED — C. JUCIUS 04-12-16

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE	SHEET NO. 54 OF 62 SHEETS	STA. TO STA.	MUN 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 54
			TC-13		CONTRACT NO. 61D83		
			FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT N/A		



FILE NAME = 11519_02-XSCT-01 - IDOT_X(1)

USER NAME =
 PLOT SCALE =
 PLOT DATE = 01/30/17

DESIGNED -- JPH
 CHECKED -- PKB
 DRAWN -- KWM
 CHECKED -- APG

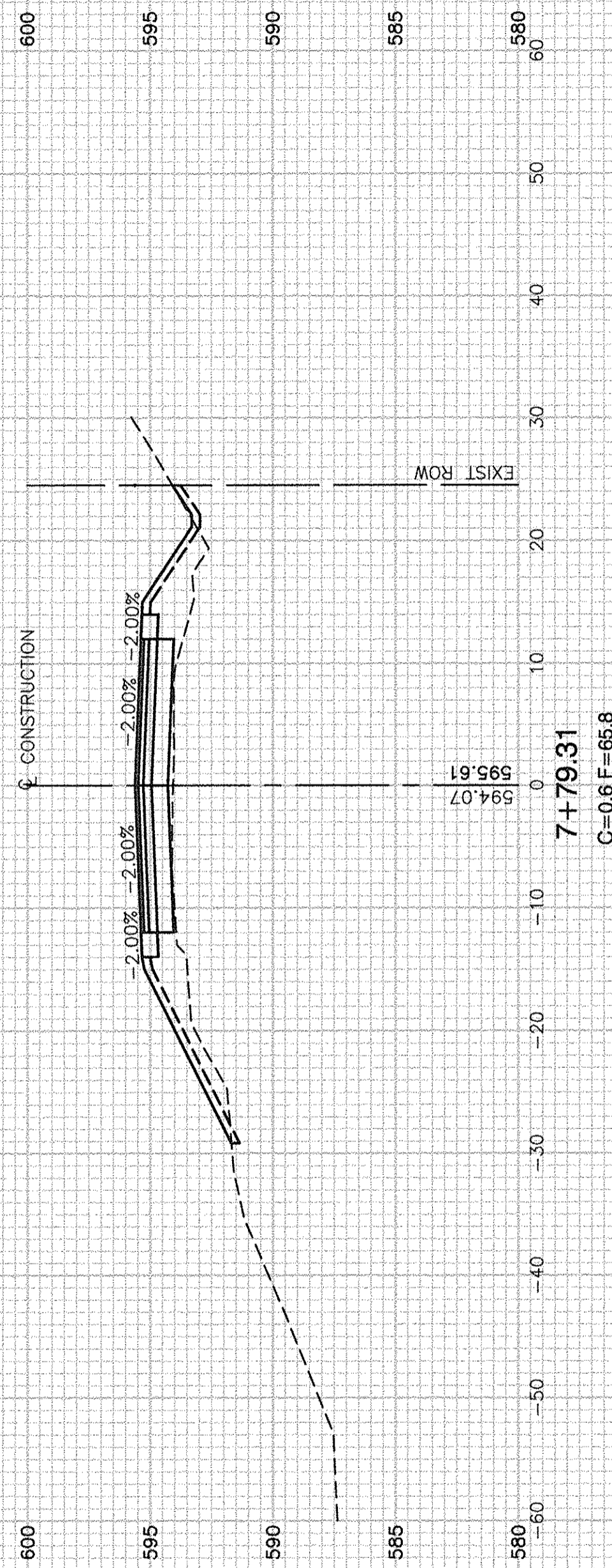
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 REVISED --
 REVISED --

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
 BRIDGE REPLACEMENT
 CROSS SECTIONS - WOODLAWN AVENUE WEST

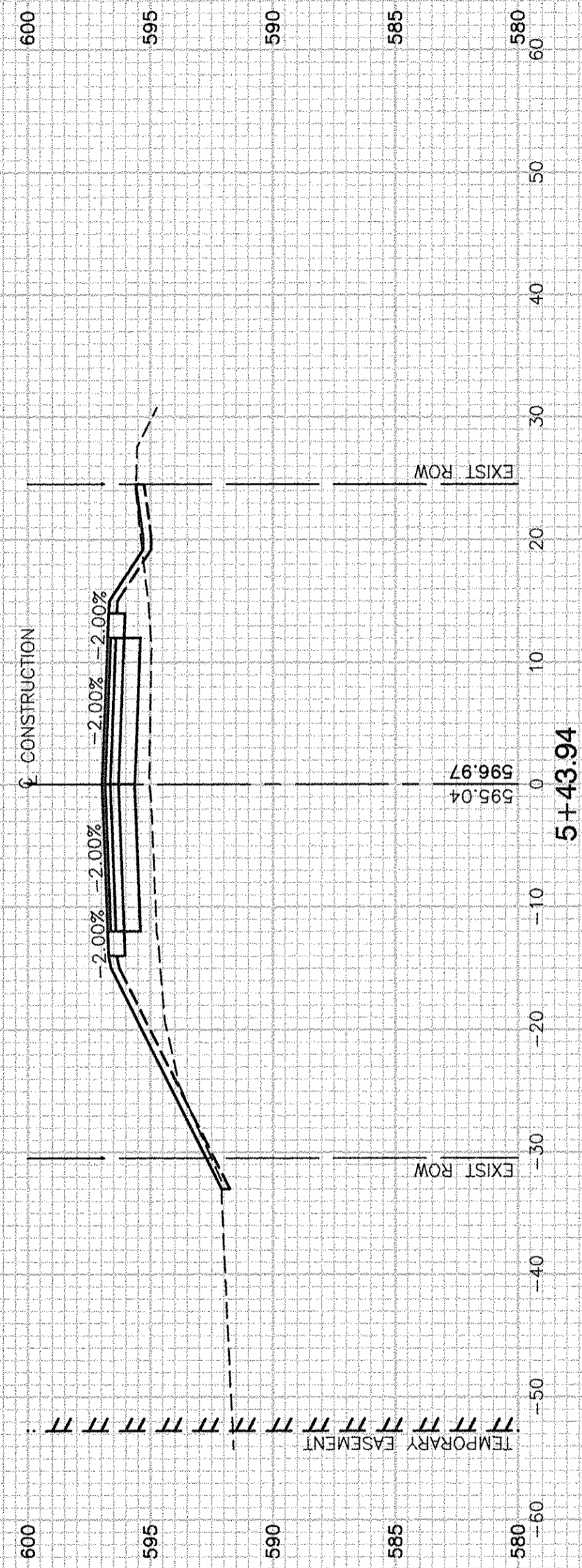
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	55
CONTRACT NO. 61D83				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	N/A	
1				

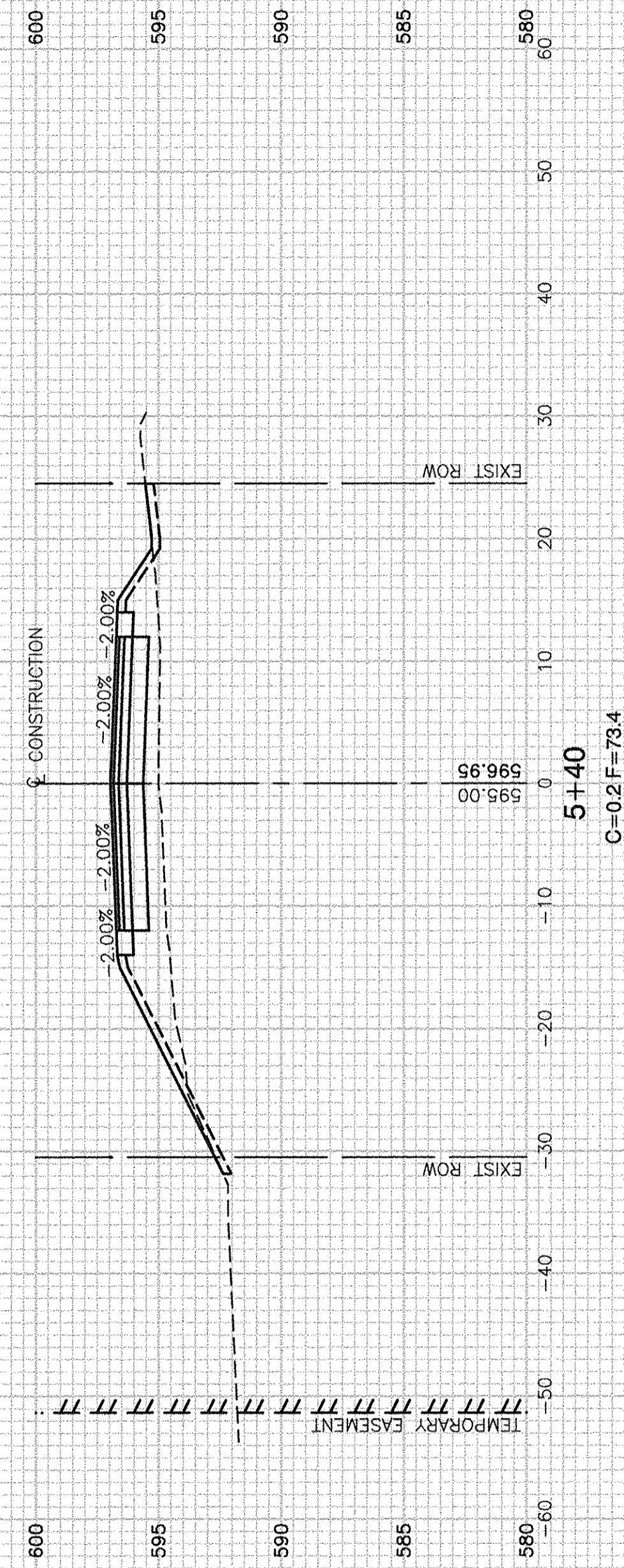


BRIDGE/APPROACH OMISSION
STA. 5+43.94 TO STA. 7+79.31

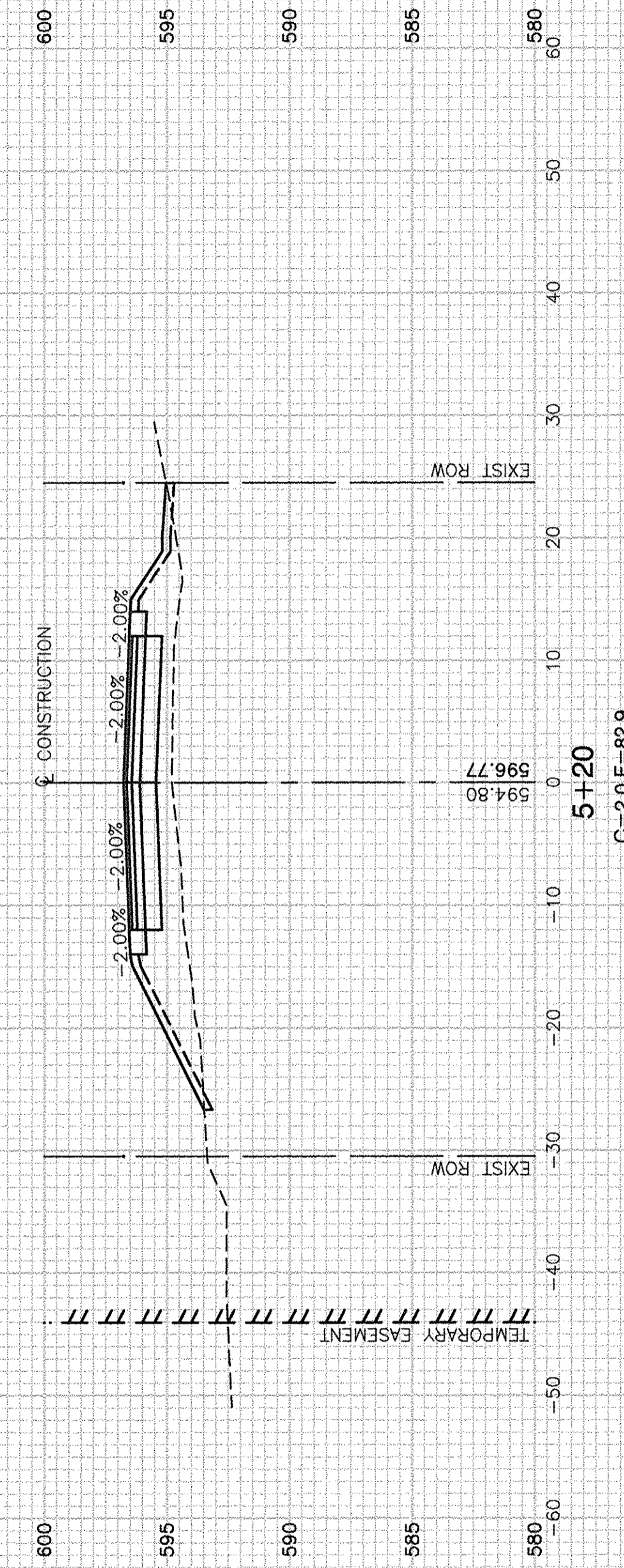
7+79.31
C=0.6 F=66.8



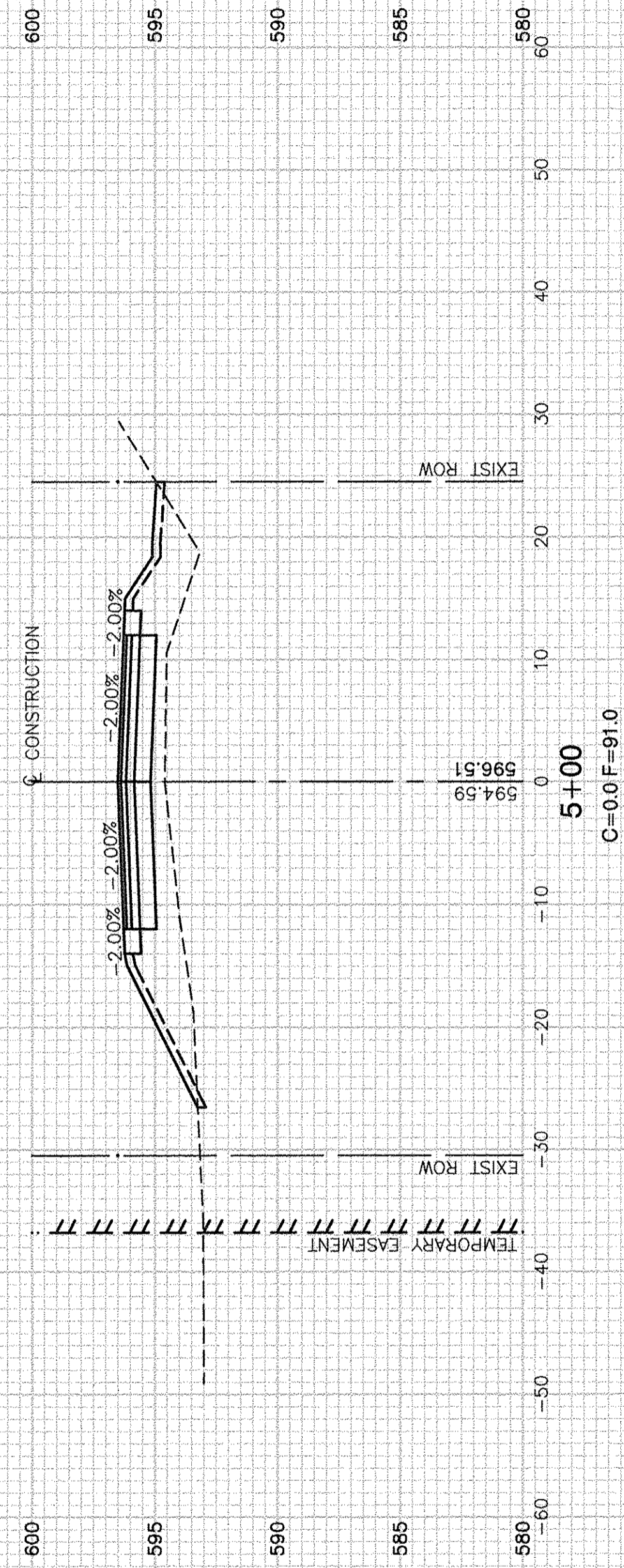
5+43.94
C=0.4 F=73.2



5+40
C=0.2 F=73.4



5+20
C=2.0 F=82.9



5+00
C=0.0 F=91.0

FILE NAME = 11519_02-XSCT-01 - IDOT_X(2)

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PLOT SCALE =
PLOT DATE = 01/30/17

DESIGNED — JPH
CHECKED — PKB
DRAWN — KWM
CHECKED — APG

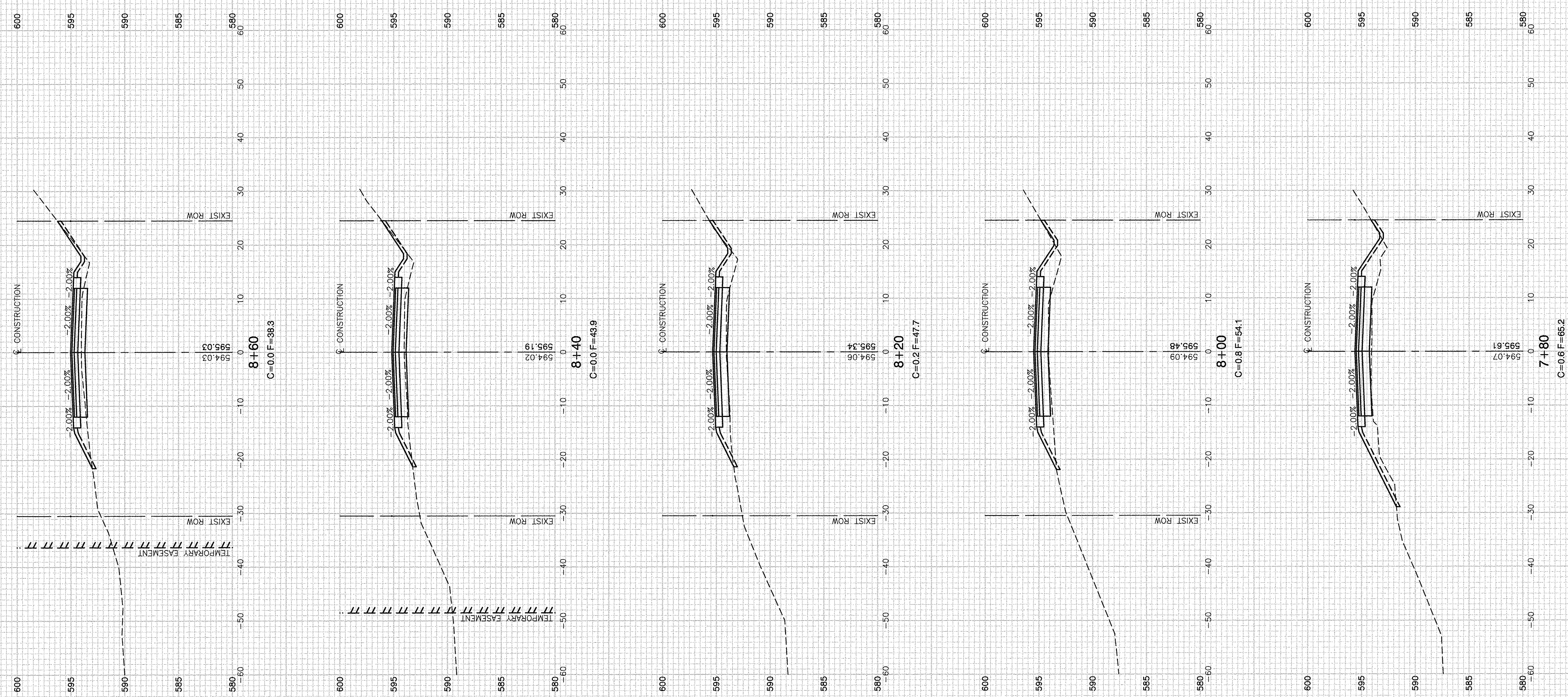
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REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
CROSS SECTIONS - WOODLAWN AVENUE WEST

SCALE: H 1"=10' V 1"=5' SHEET NO. 56 OF 62 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	56
CONTRACT NO. 61D83				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	N/A	



FILE NAME = 11519_02.XSCT-01 - IDOT_X(8)

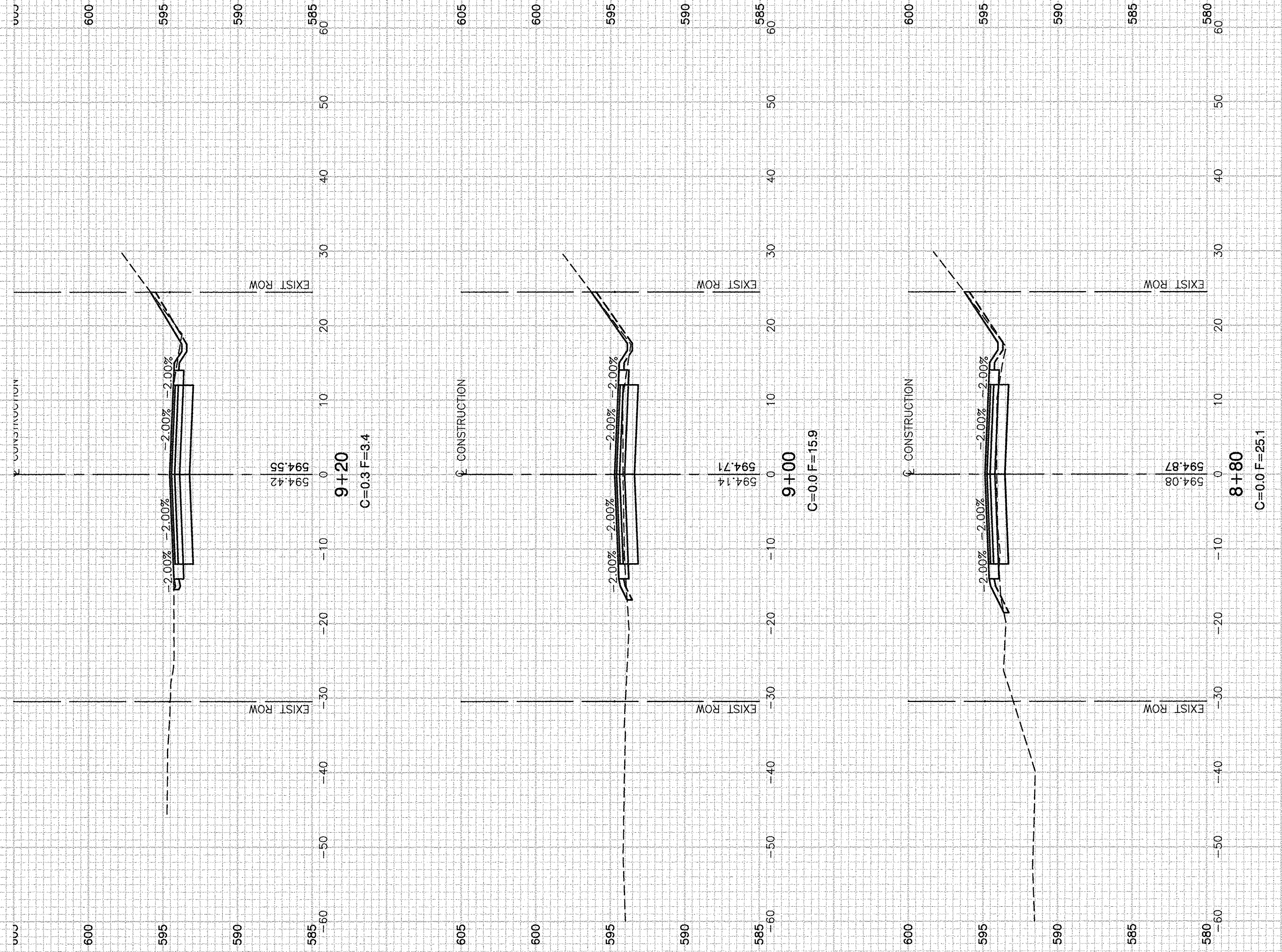
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	CHECKED — PKB	REVISED —
PLOT SCALE =	DRAWN — KWM	REVISED —
PLOT DATE = 01/30/17	CHECKED — APG	REVISED —

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
CROSS SECTIONS - WOODLAWN AVENUE WEST**

SCALE: H 1"=10' V 1"=5' SHEET NO. 57 OF 62 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	57
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A			CONTRACT NO. 61D83	



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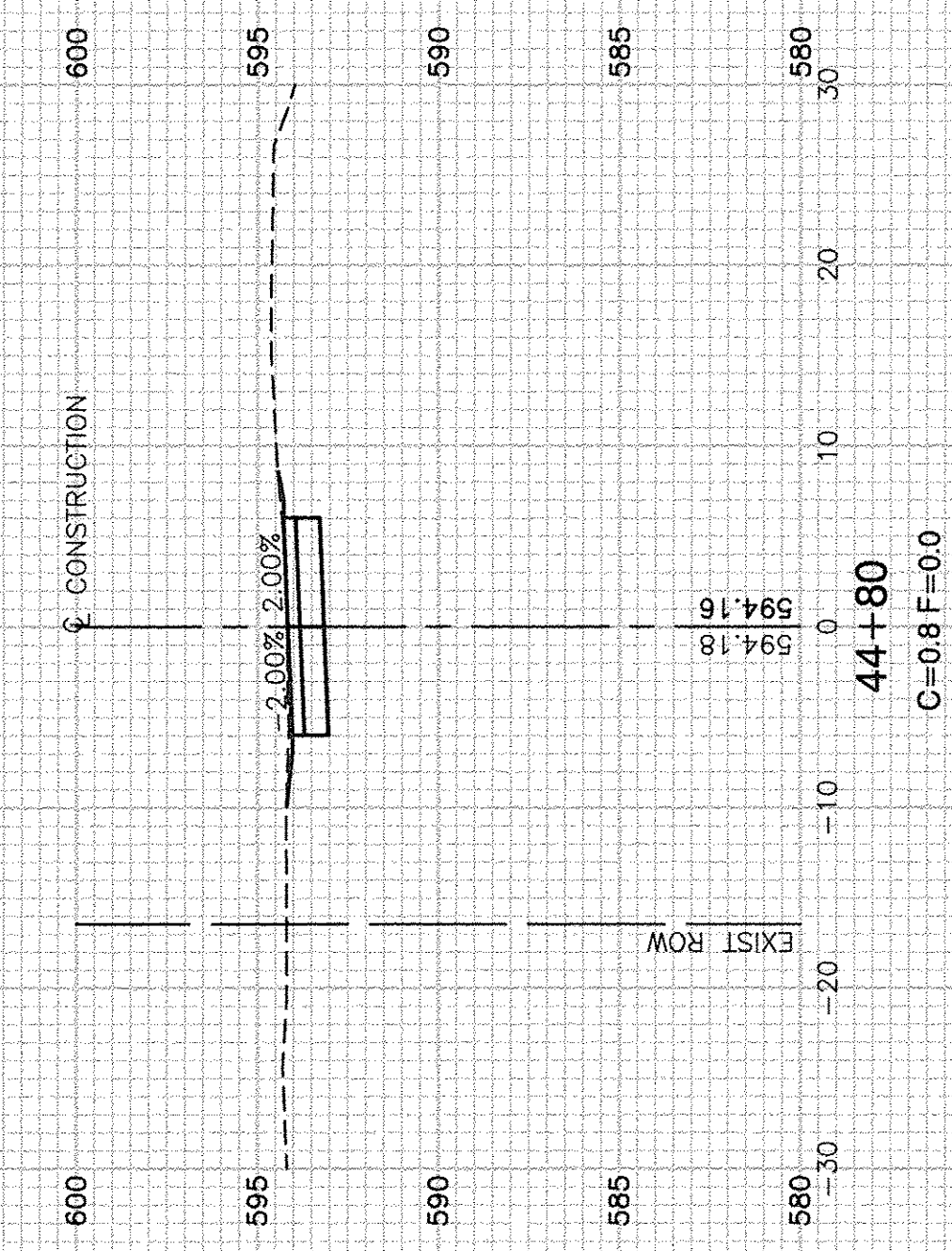
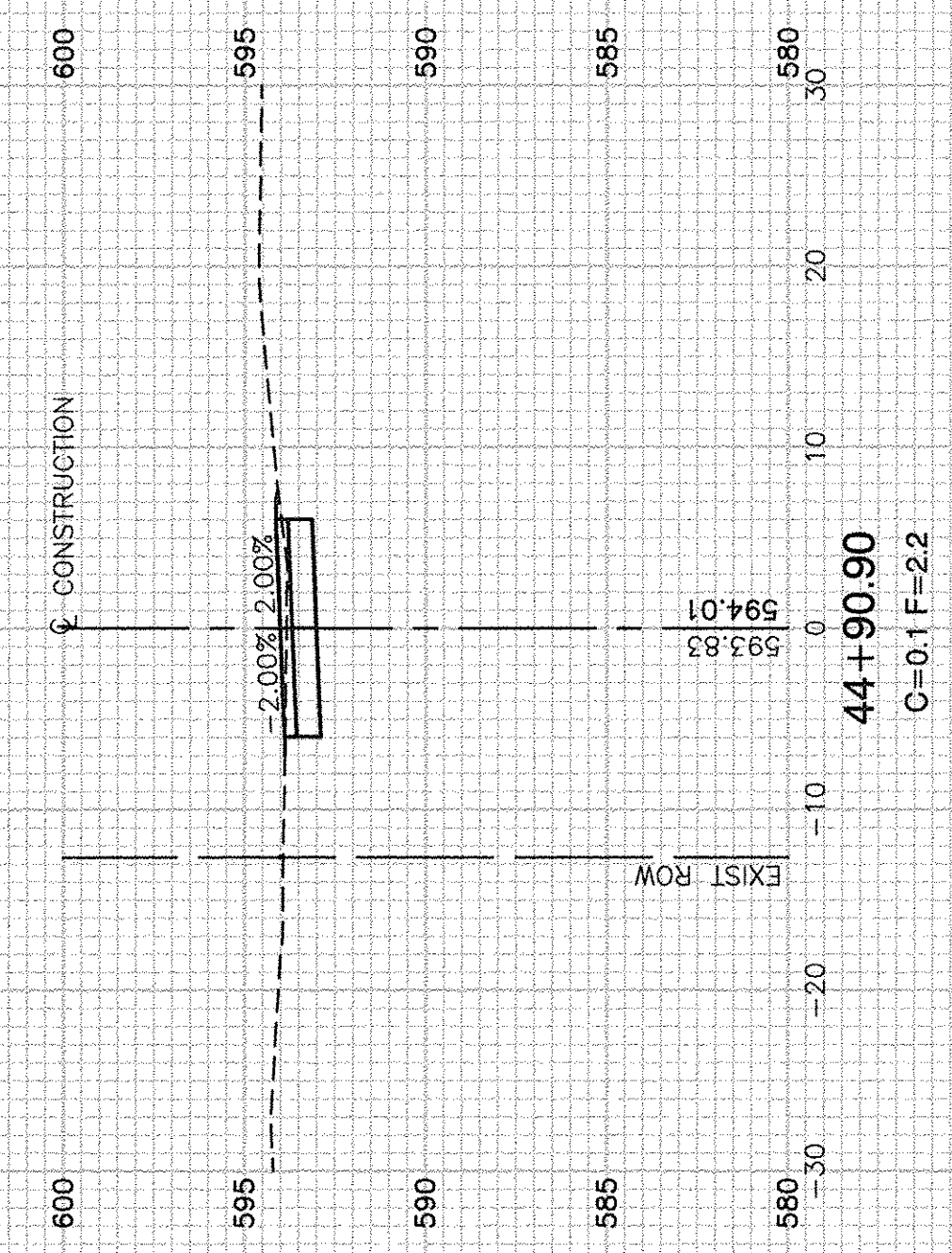
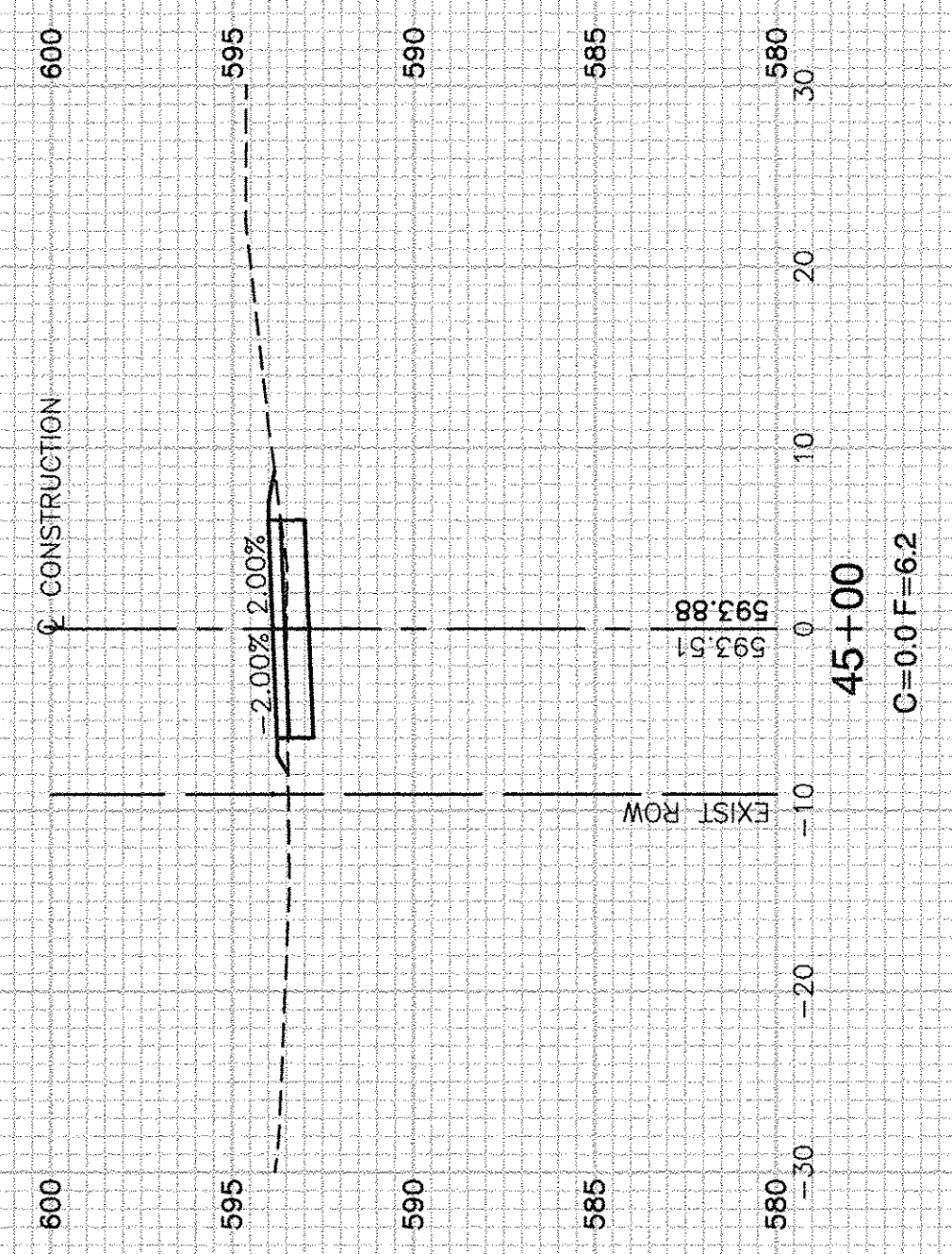
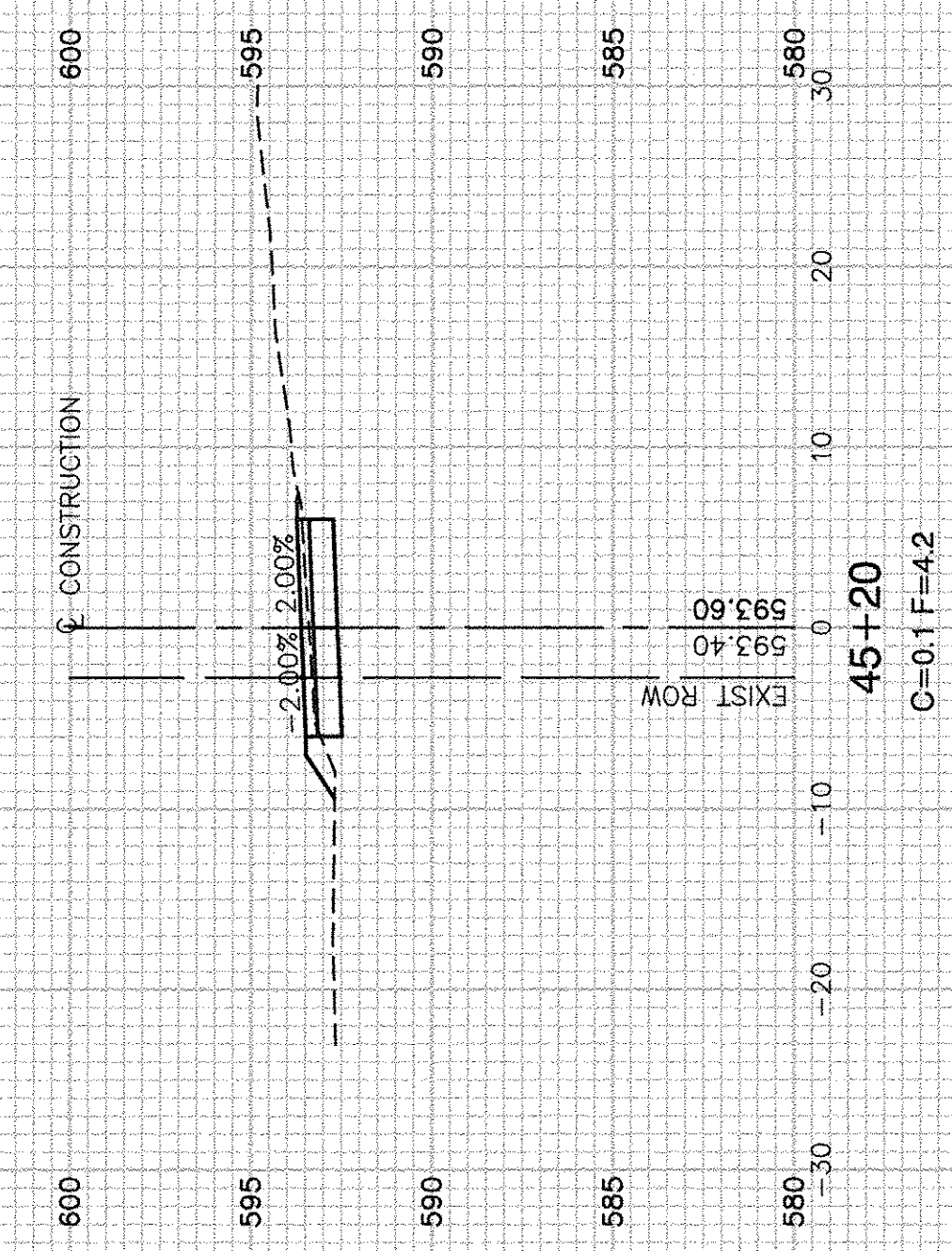
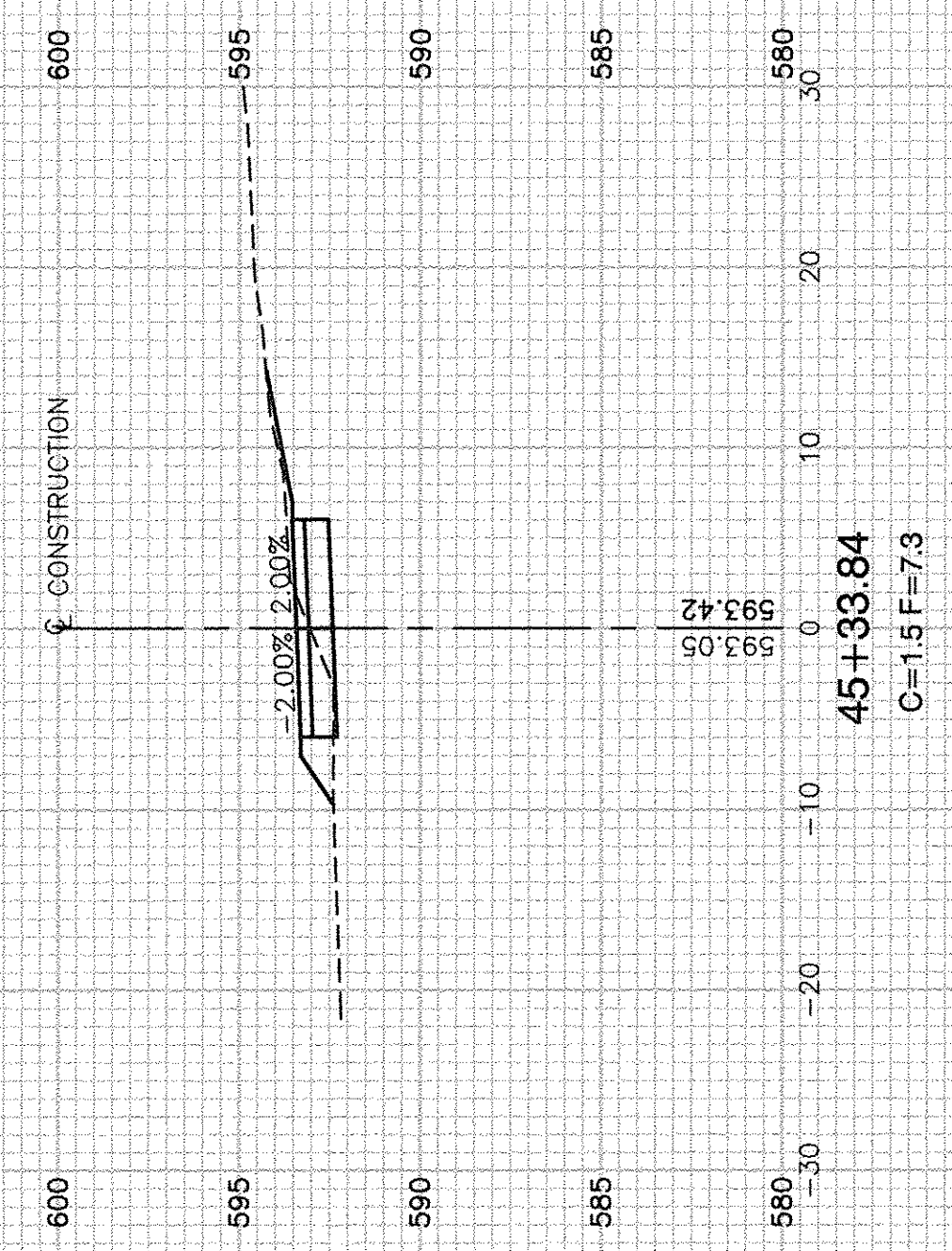
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PLOT SCALE =	DRAWN — KWM	REVISED —
PLOT DATE = 01/30/17	CHECKED — APG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
CROSS SECTIONS - WOODLAWN AVENUE WEST

SCALE: H 1"=10' V 1"=5' SHEET NO. 58 OF 62 SHEETS STA. TO STA.

F.A. RTE. 17	SECTION 11-00095-00-BR	COUNTY COOK	TOTAL SHEETS 62	SHEET NO. 58
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT N/A	
CONTRACT NO. 61D83				



FILE NAME = 11519_02-XSCT-01 - IDOT_X(6)

USER NAME =
 PLOT SCALE =
 PLOT DATE = 01/30/17

DESIGNED — JPH
 CHECKED — PKB
 DRAWN — KWM
 CHECKED — APG

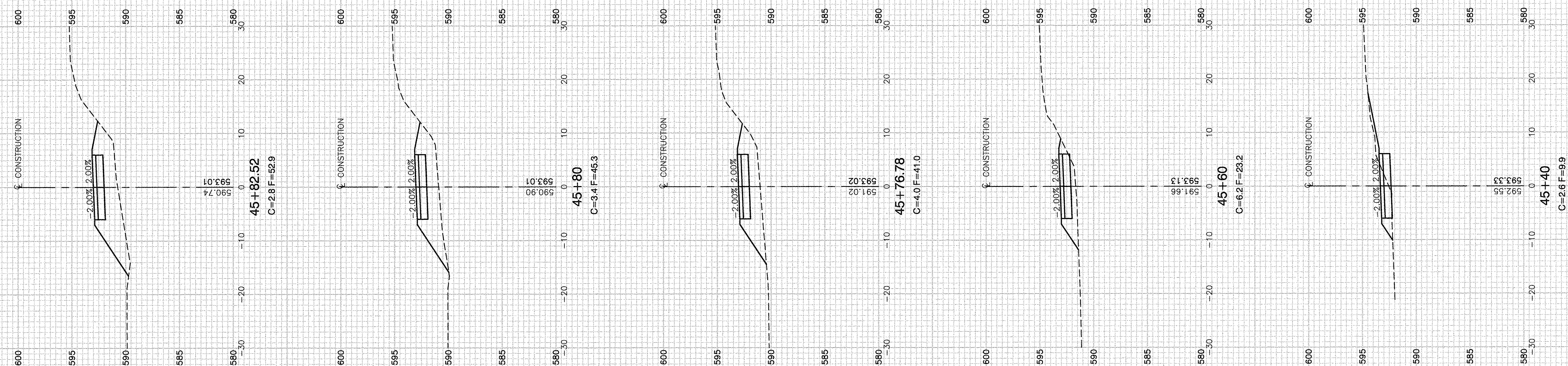
REVISED —
 REVISED —
 REVISED —
 REVISED —

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
 BRIDGE REPLACEMENT
 CROSS SECTIONS - MAINTENANCE OF TRAFFIC

SCALE: H 1"=10' V 1"=5' SHEET NO. 59 OF 62 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	59
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A			CONTRACT NO. 61D83	



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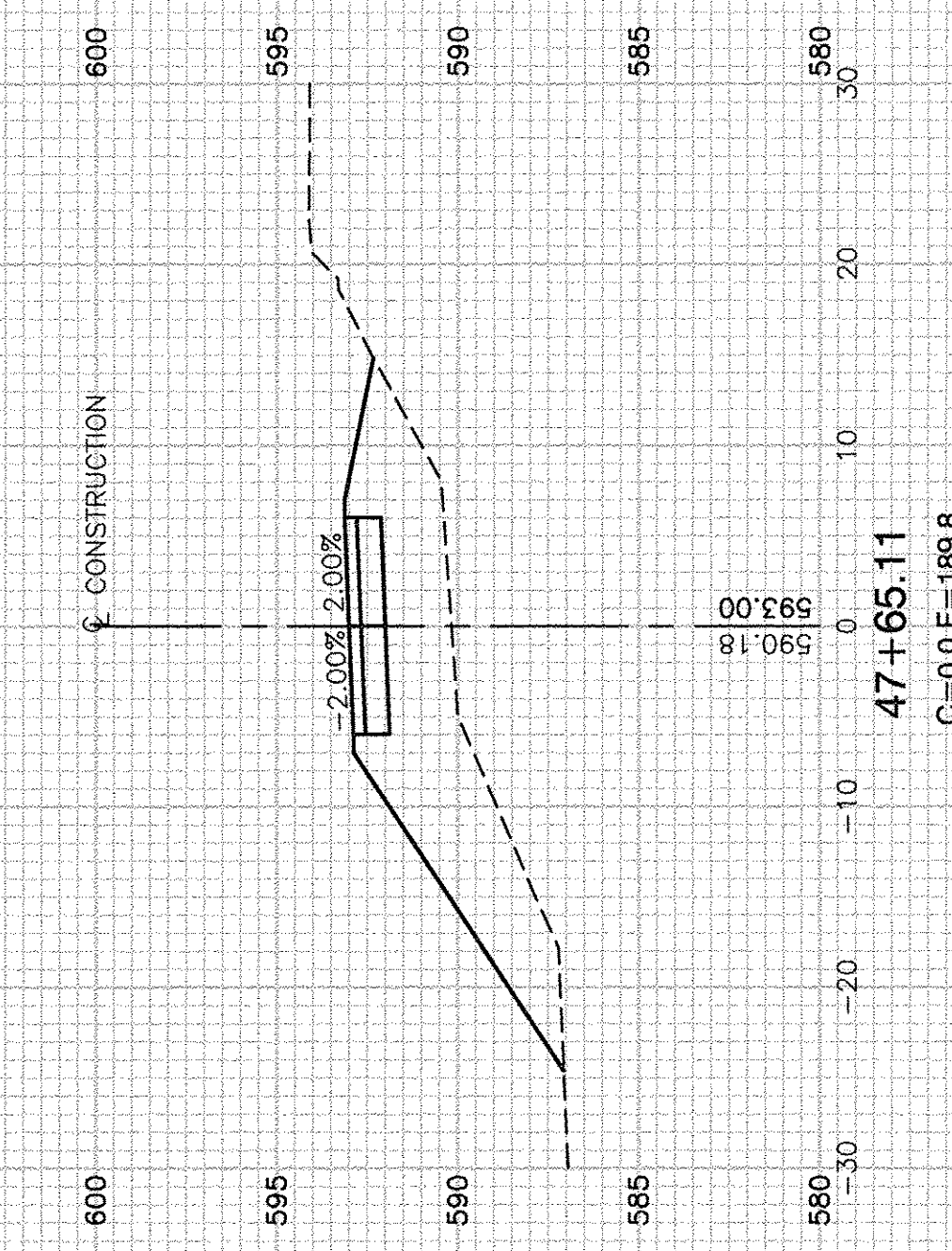
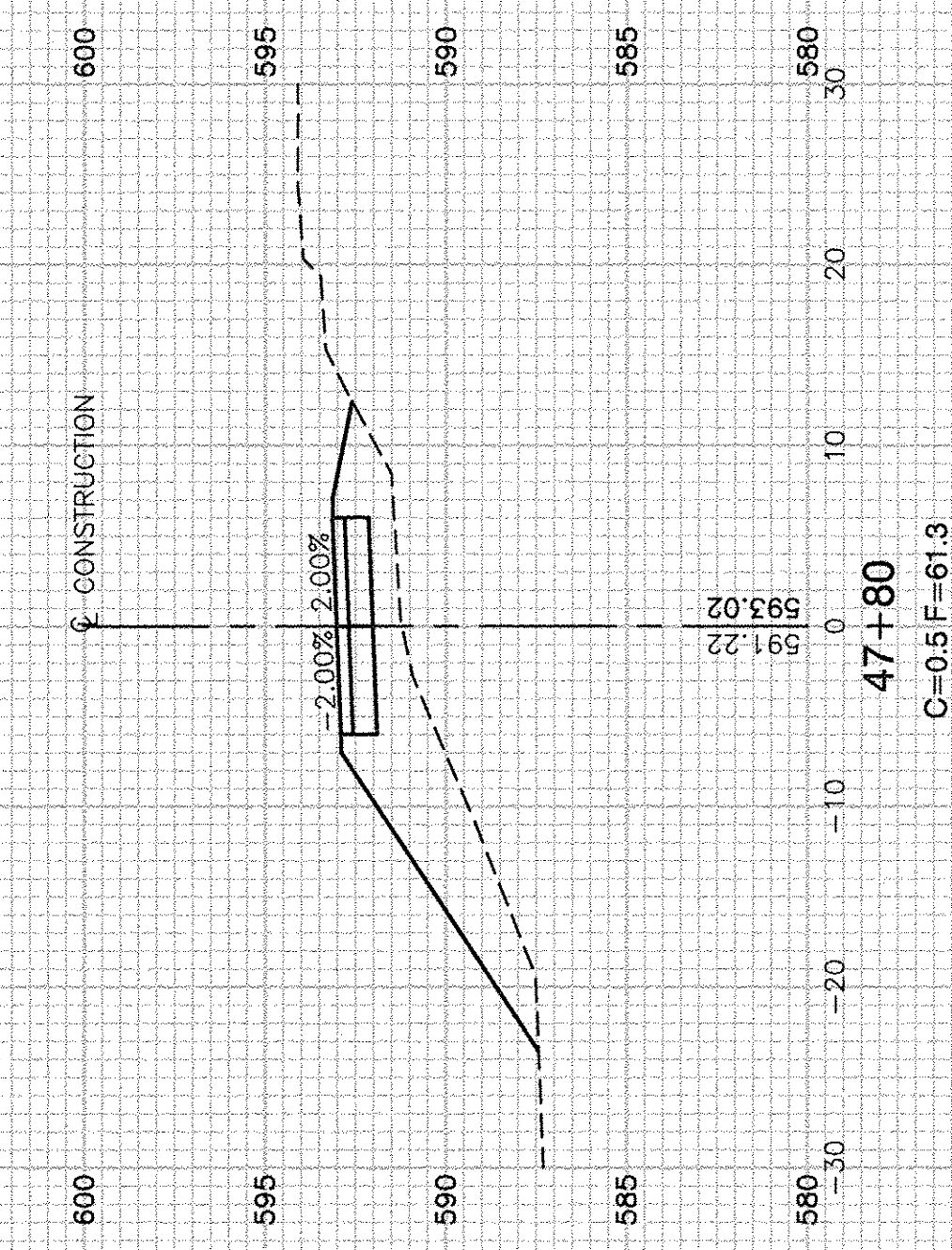
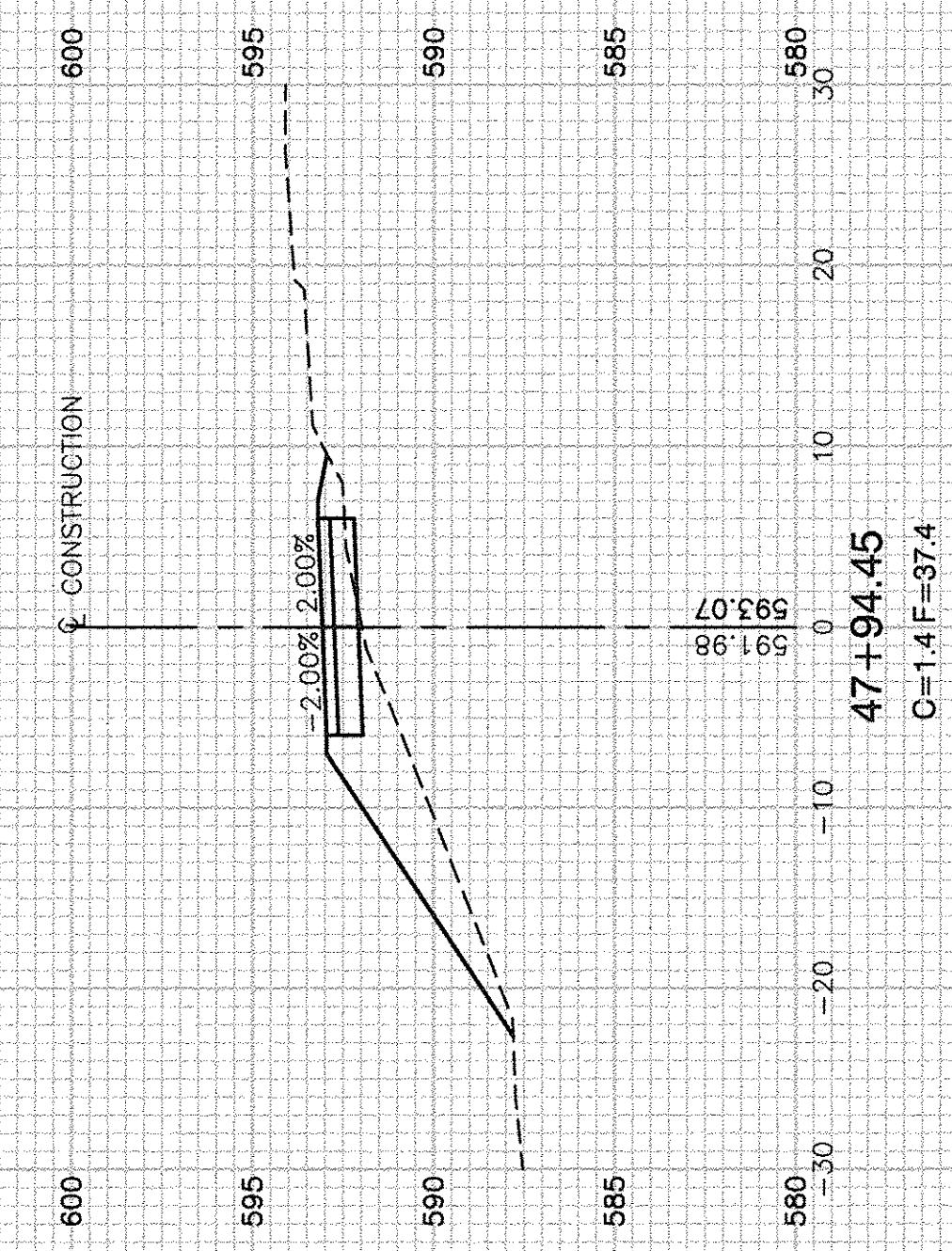
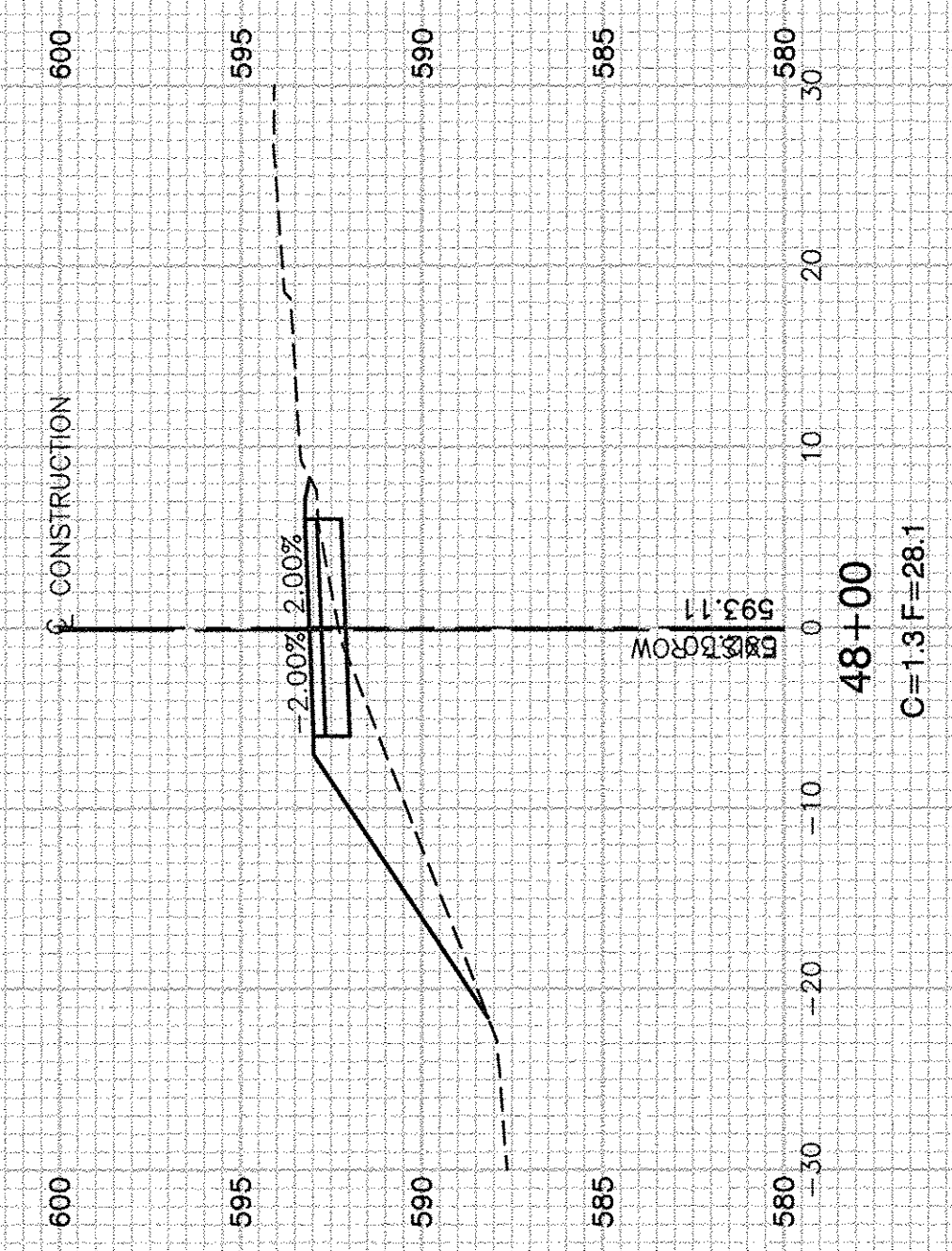
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PLOT DATE = 01/30/17	CHECKED — APG	REVISED —

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

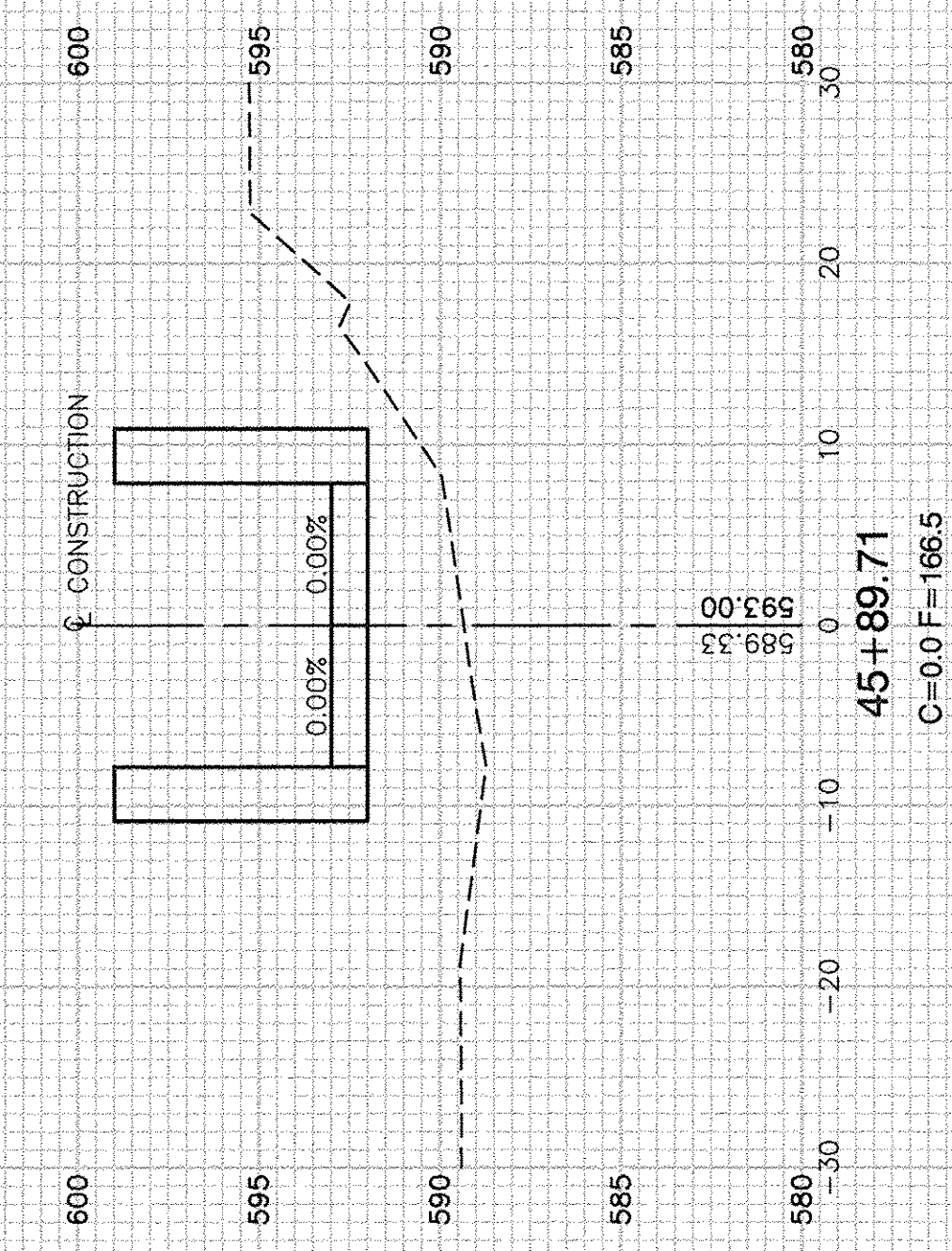
**WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
CROSS SECTIONS - MAINTENANCE OF TRAFFIC**

SCALE: H 1"=10' V 1"=5' SHEET NO. 60 OF 62 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	60
CONTRACT NO. 61D83				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT N/A		



BRIDGE/APPROACH OMISSION
STA. 45+89.71 TO STA. 47+65.11



FILE NAME = 11519_02-XSCT-01 - IDOT_X(8)

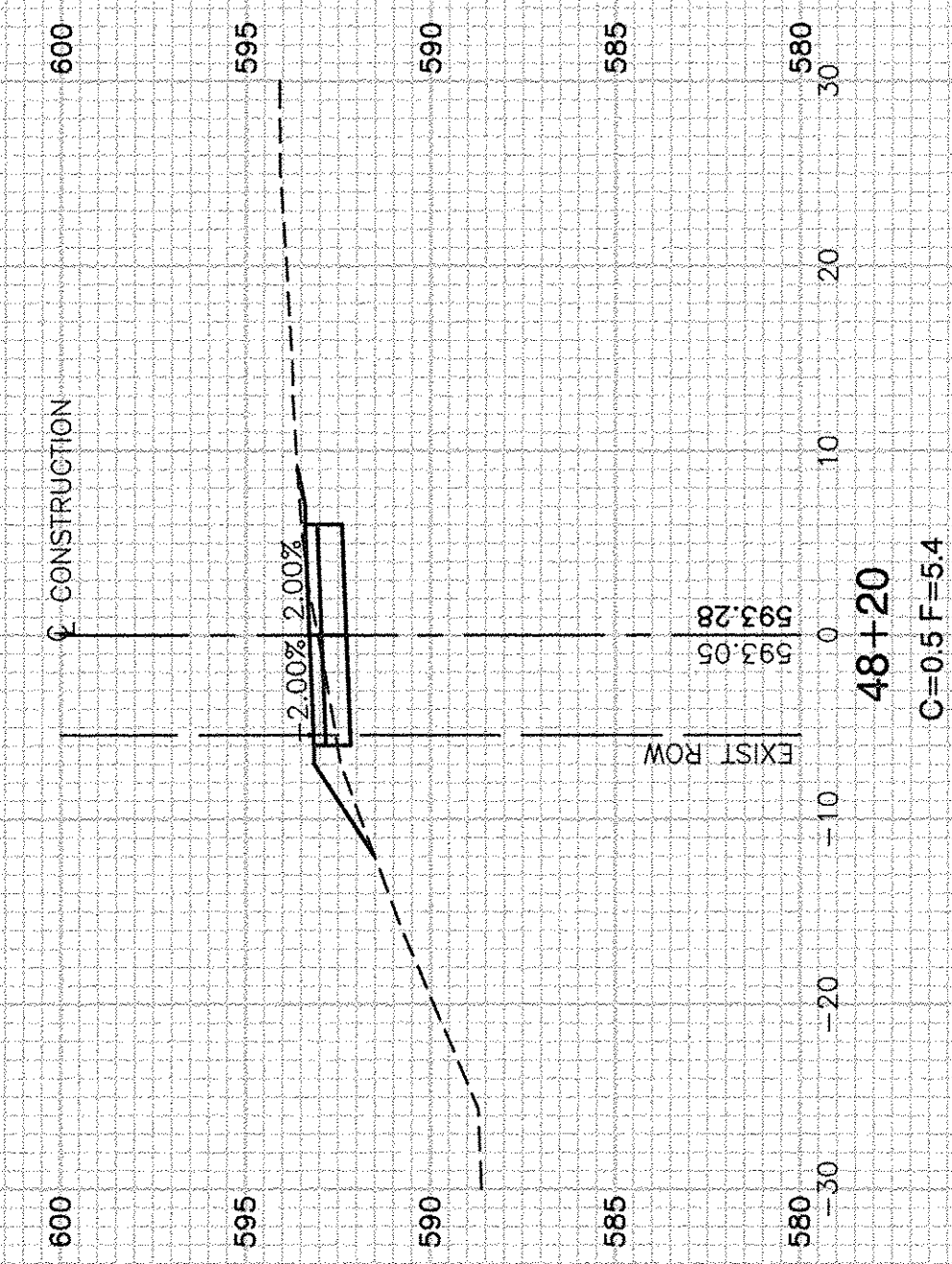
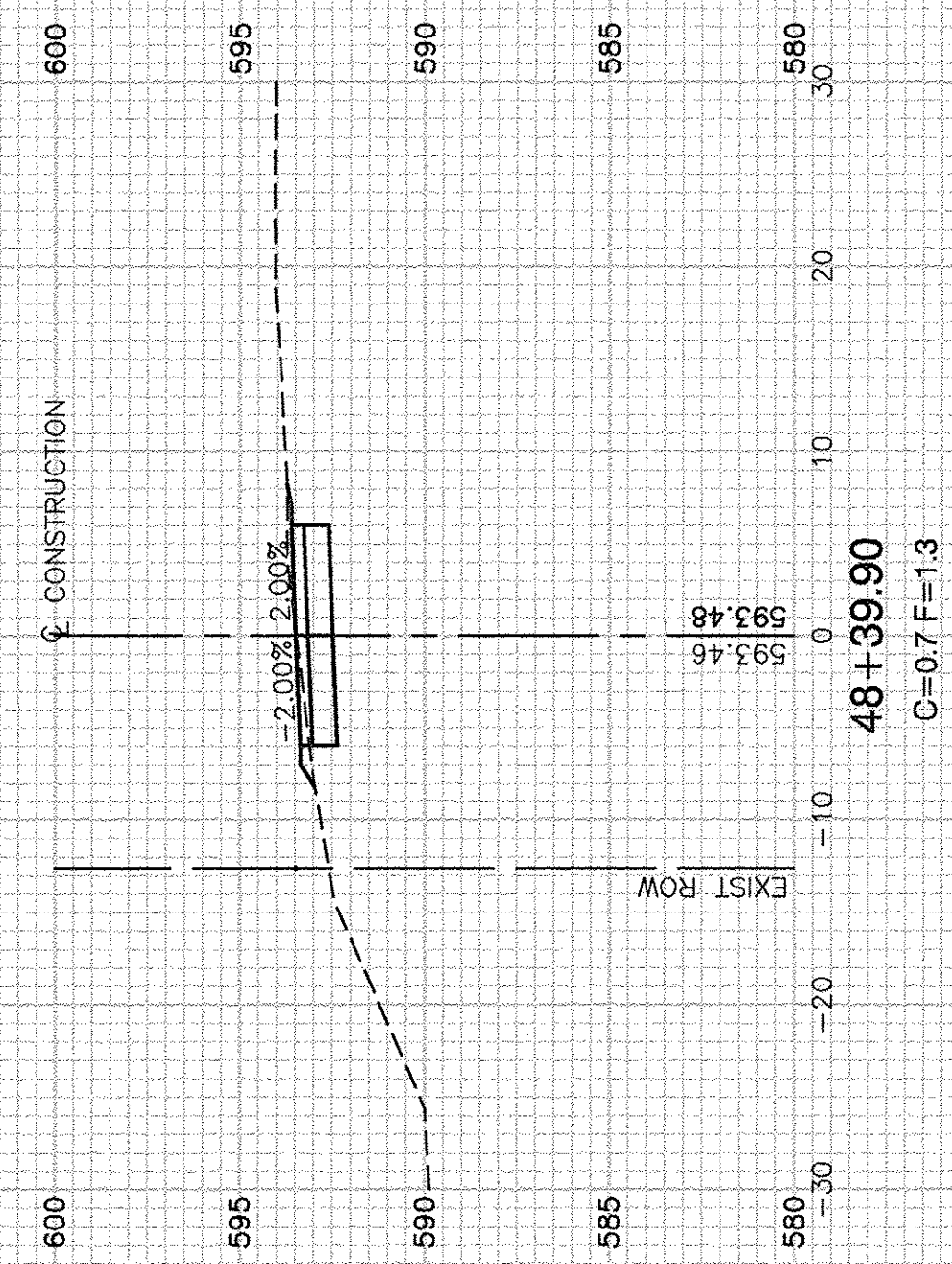
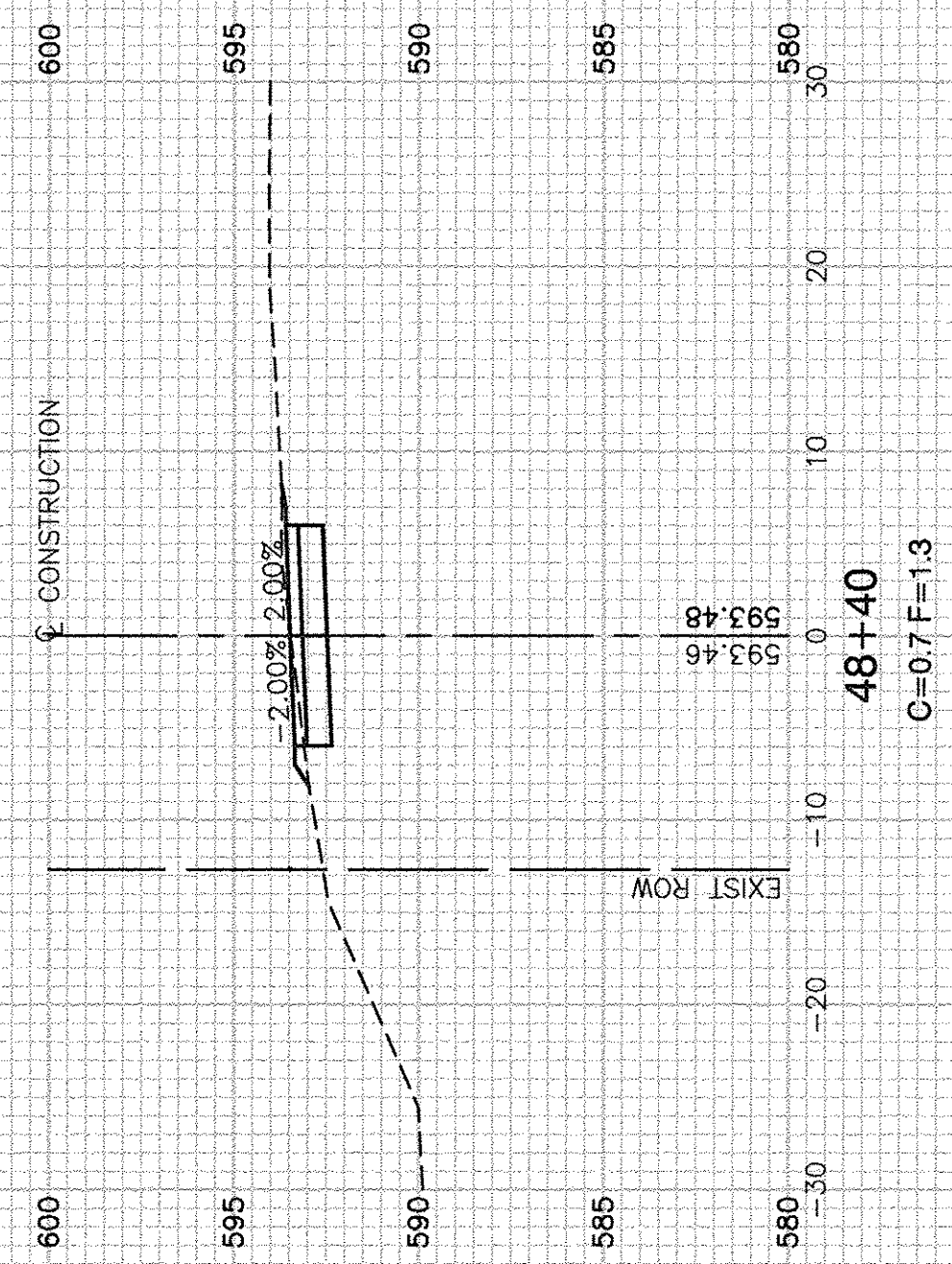
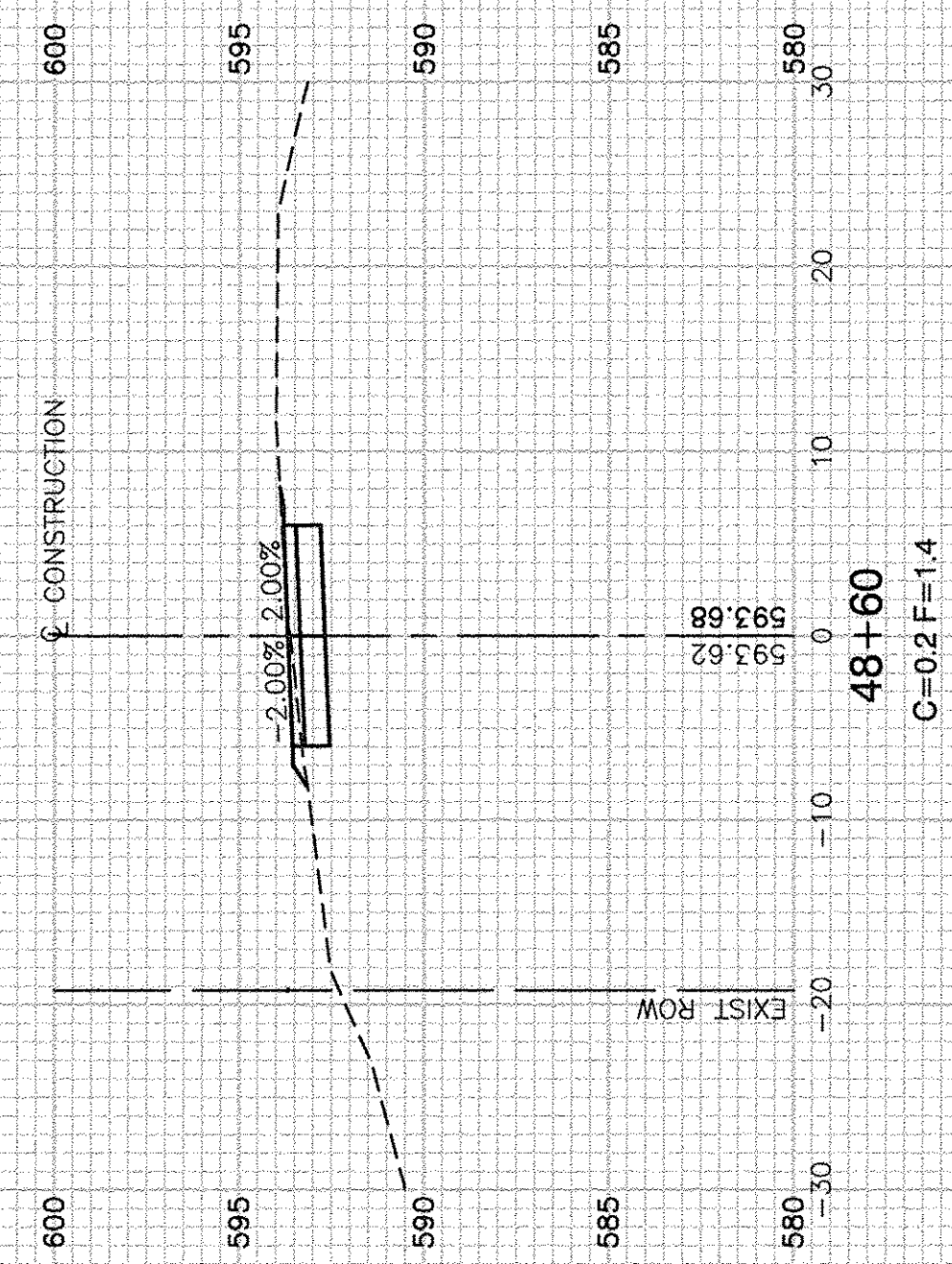
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PLOT SCALE =	DRAWN — KWM	REVISED —
PLOT DATE = 01/30/17	CHECKED — APG	REVISED —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
CROSS SECTIONS - MAINTENANCE OF TRAFFIC

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	61
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A			CONTRACT NO. 61D83	

SCALE: H 1"=10' V 1"=5' SHEET NO. 61 OF 62 SHEETS STA. TO STA.



FILE NAME = 11519_02.XSCT-01 - IDOT_X(8)

USER NAME =	DESIGNED -- JPH	REVISED --
	CHECKED -- PKB	REVISED --
PLOT SCALE =	DRAWN -- KWM	REVISED --
PLOT DATE = 01/30/17	CHECKED -- APG	REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WOODLAWN AVENUE WEST
BRIDGE REPLACEMENT
CROSS SECTIONS - MAINTENANCE OF TRAFFIC

SCALE: H 1"=10' V 1"=5' SHEET NO. 62 OF 62 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	11-00095-00-BR	COOK	62	62
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT N/A			CONTRACT NO. 61D83	