

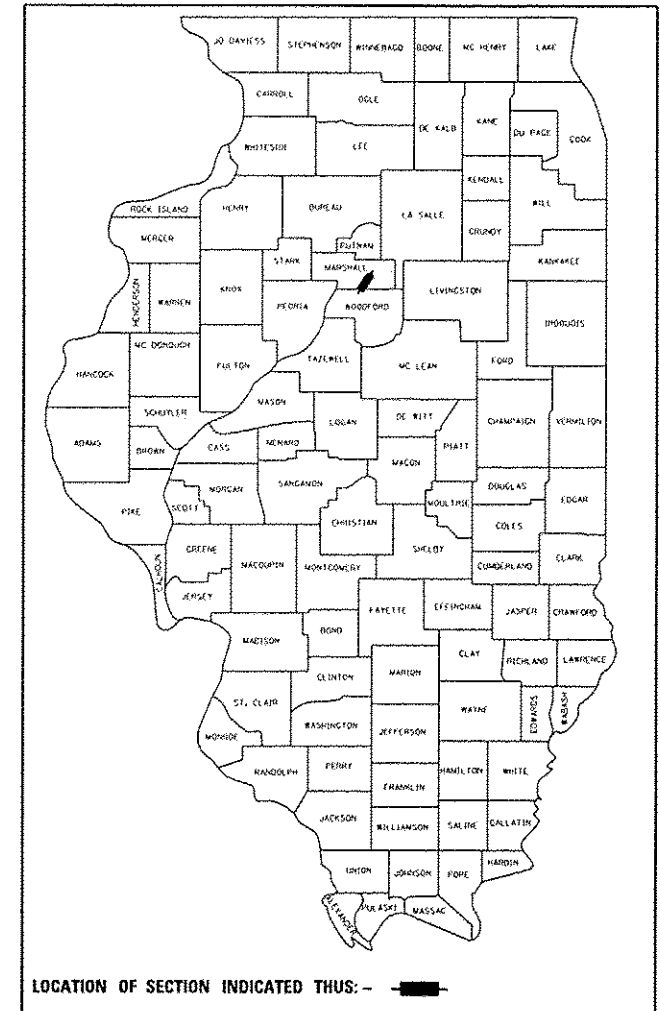
11-21-14 LETTING ITEM 062

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR LIST OF STANDARDS, SEE SHEET NO. 2

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
STRUCTURE PLANS**
F.A.P. ROUTE 698 (IL 89)
SECTION (125VBR)BR
PROJECT ACF-0698 (036)
RECONSTRUCTION HIGHWAY BRIDGE
OVER BNSF RAILROAD AND CROW CREEK
MARSHALL COUNTY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	1
		ILLINOIS	CONTRACT NO. 68580	

D-94-047-06



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Aug 15 20 14
Rensil A. Sannitton
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Oct 17 20 14
John D. Baranzoli PE
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 17 20 14
Omer Osman PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

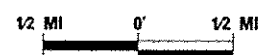
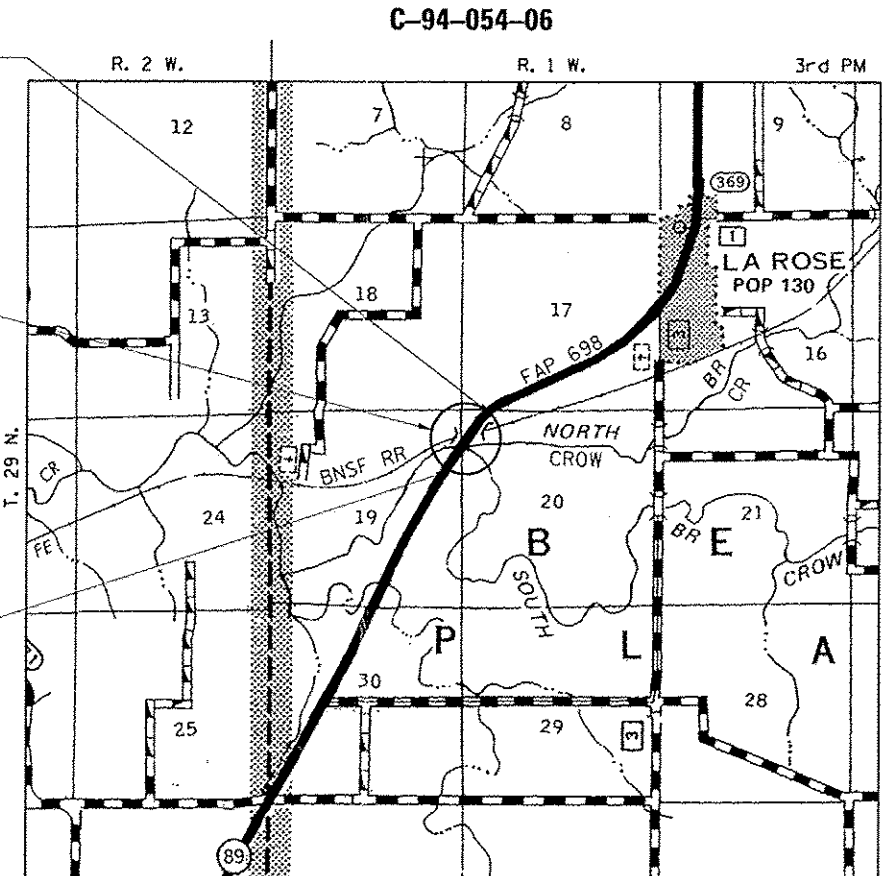
PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

Hutchison Engineering, Inc.
SINCE 1945
1801 West Lafayette
PO Box 820
Jacksonville, Illinois 62651
PHONE : (217)245-7164 FAX (217)243-0468

SECTION (125VBR)BR
BEGINS
STA. 275+00.00

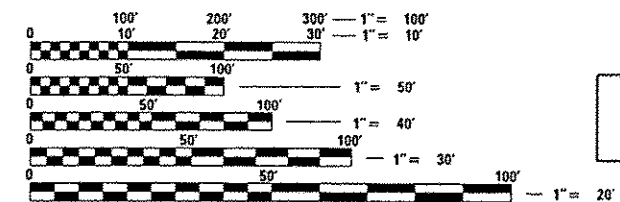
STATION 295+98.15, 0° SKEW
PROPOSED STRUCTURE NO. 062-0086
SEVEN SPAN STEEL GIRDER BRIDGE
697'-4" BK. TO BK. OF ABUTMENTS.
REINFORCED CONCRETE DECK 37'-2"
OUT TO OUT ON STEEL COMPOSITE
WEB PLATE GIRDERS AND REINFORCED
CONCRETE PIERS AND ABUTMENTS.

SECTION (125VBR)BR
ENDS
STA. 308+50.00



GROSS LENGTH = 3,350.00 FT. = 0.634 MILES
NET LENGTH = 3,350.00 FT. = 0.634 MILES

DESIGN DESIGNATION:
ADT 1573 (13) MINOR ARTERIAL
.87 (COMP-20)

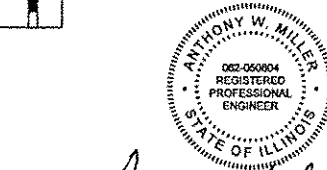


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: CHRISTOPHER MAUSHARD PHONE: (309) 671-3453
CONSULTANT LIAISON: DAVID LAYNE PHONE: (309) 671-3475

CONTRACT NO. 68580
CATALOG NO. 033208-00D



SIGNED: Anthony W. Miller DATE: 7/25/13
EXPIRES: 11/30/13

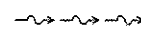
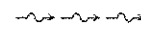
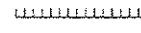
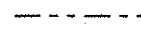


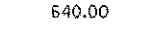
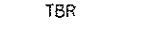

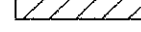
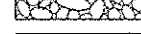
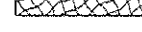
INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES, STANDARDS, & LEGEND
3	GENERAL NOTES
4	COMMITMENTS
5-13	SUMMARY OF QUANTITIES
14-16	TYPICAL SECTIONS
17-18	SCHEDULE OF QUANTITIES
19	ALIGNMENT, TIES, & BENCHMARKS
20-22	ROADWAY PLAN & PROFILE SHEETS
23	MARKED DETOUR LAYOUT
24-25	EROSION CONTROL PLAN SHEETS
26-87	STRUCTURE PLAN SHEETS
88-114	EXISTING STRUCTURE PLAN SHEET
115-119	CULVERT DETAIL SHEETS
120-131	DISTRICT 4 DETAIL SHEETS
132-133	SPECIAL DETAIL SHEETS
134-148	CROSS SECTION SHEETS

LIST OF IDOT STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
353001-04	PCC BASE COURSE WITH HMA BINDER AND SURFACE COURSES
420001-07	PAVEMENT JOINTS
420401-10	BRIDGE APPROACH PAVEMENT CONNECTOR
482006-03	HMA SHOULDER ADJACENT TO RIGID PAVEMENT
482011-03	HMA SHOULDER STRIPS/ SHOULDERS WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
515001-03	NAME PLATE FOR BRIDGES
542401-01	METAL END SECTION FOR PIPE CULVERTS
601001-04	SUB-SURFACE DRAINS
601101-01	CONCRETE HEADWALL FOR PIPE DRAIN
630001-10	STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-12	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
665001-02	WOVEN WIRE FENCE
666001-01	RIGHT OF WAY MARKERS
701901-03	TRAFFIC CONTROL DEVICES
780001-04	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS (TWO-LANE TWO WAY RURAL TRAFFIC) (ROAD CLOSED TO THRU TRAFFIC)

LEGEND

	PROPOSED DITCH
	EXISTING DITCH/SWALE
	EXISTING LEVEE
	SPECIAL DITCH LEFT
	SPECIAL DITCH RIGHT
	ITEM TO BE REMOVED
	EXISTING ELEVATION
	ITEM TO BE REMOVED
	TREE REMOVAL, ACRES
	HMA SURFACE REMOVAL - BUTT JOINT
	PROPOSED RIPRAP
	HEAVY DUTY EROSION CONTROL BLANKET

GENERAL NOTES

AVAILABILITY OF ELECTRONIC FILES

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

STATUS OF UTILITIES

ROUTE	OFFSET	LOCATION	TYPE OF UTILITY	UTILITY COMPANY	TYPE OF CONFLICT	DISPOSITION
IL 89	35' LT TO 15' LT	280+55	BURIED ELECTRIC	AMEREN ILLINOIS	DITCH GRADE	CAUTION
IL 89	40' LT TO 20' LT	281+00	BURIED CABLE	FRONTIER COMMUNICATIONS	DITCH GRADE	CAUTION
IL 89	40' LT	282+00 TO 284+50	BURIED CABLE	FRONTIER COMMUNICATIONS	DITCH GRADE	RELOCATE
IL 89	40' LT	290+25 TO 290+75	BURIED CABLE	FRONTIER COMMUNICATIONS	SLOPE	CAUTION
IL 89	35' LT TO 40' LT	303+00 TO 307+75	BURIED CABLE	FRONTIER COMMUNICATIONS	DITCH GRADE	RELOCATE

UTILITIES - LOCATION/INFORMATION ON PLANS

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

TREE REMOVAL - UTILITY RELOCATION

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

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

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

PROPERTY OWNER ACCESS REQUIREMENTS

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

FILE NAME =	USER NAME = j_daan	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89)		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
v:\transportation\3213\oadd.sheets\04668	99-shrt-gennote@dgn	DRAWN - JCW	REVISED -		INDEX OF SHEETS, GENERAL NOTES, STANDARDS, & LEGEND		698	025V8R)BR	MARSHALL	148	2
	PLOT SCALE = 2.000000 FT / IN.	CHECKED - AWM	REVISED -		SCALE: 1=1	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 68580		
	PLOT DATE = 7/25/2013	DATE - JULY 24, 2013	REVISED -		ILLINOIS FED. AID PROJECT						

GENERAL NOTES

ENVIRONMENTAL REVIEWS

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

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

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

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- * BDE FORM 2289 (ENVIRONMENTAL SURVEY REQUEST)
- * A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- * SIGNED PROPERTY OWNER AGREEMENT FROM - 04 P10100
- * COLOR PHOTOGRAPHS DEPICTING THE USE AREA
- * BORROW AREA ENTRY AGREEMENT FROM - 04 P1101

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

SEEDING - SIDESLOPE RIPPING

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

AGGREGATE SHOULDERS, TYPE B

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

AGGREGATE FOR DRIVEWAY REPLACEMENT

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

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

PAVEMENT STATIONING NUMBERS & PLACEMENT

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

THE PAVEMENT STATION NUMBERS SHALL BE INSTALLED AS SPECIFIED HEREIN:

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

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

LOCATION:

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

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

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

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

PAVING SURFACE COURSE

CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE HOT-MIX ASPHALT SURFACE. NO INTERRUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED.

CROSSING EXISTING STRUCTURES WITH EQUIPMENT

THE FOLLOWING STRUCTURES, SN 062-0031 (EXISTING) & SN 062-0086 (PROPOSED), MAY BE CROSSED WITH AN UNLOADED MATERIAL TRANSFER DEVICE (MTD).

ANY STRUCTURES NOT LISTED ABOVE SHALL BE VERIFIED BY THE RESIDENT PRIOR TO BEGINNING WORK.

ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS

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

RIGHT-OF-WAY MARKERS

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

ENGINEERS FIELD OFFICE

ADD THE FOLLOWING SENTENCE TO THE END OF PARAGRAPH 670.0211 AND 607.0411: ALL TELEPHONE LINES PROVIDED SHALL HAVE UNPUBLISHED NUMBERS.

NO PASSING ZONE VERIFICATION

THE RESIDENT SHALL CONTACT OPERATIONS TO VERIFY THE LOCATION OF NO PASSING ZONES PRIOR TO PLACEMENT OF CENTERLINE STRIPING.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT:

MIXTURE USE(S):	SURFACE COURSE	LEVELING BINDER 1" TO 1 1/4" & VAR	HMA BINDER (VAR. DEPTH)	HMA SHOULDER (SURFACE LIFTS)	HMA SHOULDER (LOWER LIFTS)
AC/PC:	PG 64-22	SBS OR	PG 64-22	PG 64-22	PG 64-22
RAP % (Max):	15%	10%	25%	30%	30%
DESIGN AIR Voids:	4.0% @ N=50	4.0% @ N=50	4.0% @ N=50	3.0% @ N=50	4.0% @ N=50
MIXTURE COMPOSITION:	IL 9.5 DR	IL 4.75	IL 19.0	IL 9.5L	IL 19.0L
GRADATION MIXTURE:	IL 12.5				
PRICION AGGREGATE:	MIXTURE D (DOLOMITE ONLY)	N/A	N/A	MIXTURE C	N/A

NOTE: INDIVIDUAL LIFT THICKNESS EACH MIX TYPE WILL BE NO LESS THAN 3 TIMES NOMINAL MAXIMUM AGGREGATE SIZE AND NO MORE THAN 6 TIMES NOMINAL MAXIMUM AGGREGATE SIZE.

FILE NAME - 0468580-dwt-gamma-02.dgn	USER NAME - jacobson	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) GENERAL NOTES		F.A.P. RTE. 698	SECTION 1125VB1BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 3	
		DRAWN - JCW	REVISED -		SCALE: 1=1	SHEET NO. 1 OF 1 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 68580			
		CHECKED - ANM	REVISED -		ILLINOISIFIED AND PROJECT							
		DATE - JULY 24, 2013	REVISED -									

COMMITMENTS

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT THE WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

ANY ENTITIES REALIZED TO BE AFFECTED BY CONSTRUCTION SHALL BE CONTACTED PRIOR TO THE CLOSING OF THE ROADWAY. THESE INCLUDE BUT ARE NOT LIMITED TO:

- MARSHALL COUNTY HIGHWAY DEPARTMENT - (309) 246-6401
- MARSHALL COUNTY SHERIFF'S OFFICE - (309) 246-2115 (NON-EMERGENCY)
- WOODFORD COUNTY SHERIFF'S OFFICE - (309) 467-2375 (NON-EMERGENCY)
- BELL PLAIN TOWNSHIP HIGHWAY COMMISSIONER - (309) 399-7141
- LOW POINT-WASHBURN SCHOOL DISTRICT OFFICE - (309) 248-7522
- VARNA COMMUNITY FIRE PROTECTION DISTRICT - (309) 463-2573 (NON-EMERGENCY)
- WASHBURN FIRE DISTRICT - (309) 248-7219 (NON-EMERGENCY)
- METAMORA RURAL FIRE - (309) 367-2640 (NON-EMERGENCY)
- US POST OFFICE-LAROSE - (309) 399-7471
- MARSHALL COUNTY EMA (309) 246-2870

FILE NAME =	USER NAME = jdean	DESIGNED = AWM	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) COMMITMENTS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
v:\transportation\3013\cadd.sheets\0468	00-shr-gennote03.dgn	DRAWN = JCW	REVISED =		698	Q25VBR0R	MARSHALL	148	4			
PLOT SCALE = 20.00' / IN.	CHECKED = AWM	REVISED =						CONTRACT NO. 68580				
PLOT DATE = 7/25/2013	DATE = JULY 24, 2013	REVISED =			N/A	SHEET NO. OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				

CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED/STATE	
				CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	78	78	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	130	130	
20100500	TREE REMOVAL, ACRES	ACRE	2	2	
20200100	EARTH EXCAVATION	CU YD	17,695	17,695	
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	79	79	
21001000	GEO TECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	66	66	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	11,943	11,943	
25000210	SEEDING, CLASS 2A	ACRE	1.25	1.25	
25000300	SEEDING, CLASS 3	ACRE	3.00	3.00	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	370	370	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	370	370	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	370	370	
25100115	MULCH, METHOD 2	ACRE	2.5	2.50	
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	8,585	8,585	

FILE NAME *	USER NAME * j_dwan	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
v:\transportation\2013\cadd\sheet\0468	08-shs-S00.dgn	DRAWN - JCW	REVISED -		698	025V8R1BR	MARSHALL	148	5			
PLOT SCALE * 2.00/200 FT / IN.	CHECKED - AWM	REVISED -			SCALE: 3=1	SHEET NO. 1 OF 9 SHEETS	STA. N/A	TO STA. N/A	ILLINOIS FED. AID PROJECT			
PLOT DATE * 7/25/2013	DATE - JULY 24, 2013	REVISED -			CONTRACT NO. 68580							

CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED / STATE CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	822	822	
28000315	AGGREGATE DITCH CHECKS	TON	364	364	
28000400	PERIMETER EROSION BARRIER	FOOT	2,485	2,485	
28000500	INLET AND PIPE PROTECTION	EACH	6	6	
28100705	STONE DUMPED RIPRAP, CLASS A3	SQ YD	50	50	
28100707	STONE DUMPED RIPRAP, CLASS A4	SQ YD	2,667	817	1,850
28200200	FILTER FABRIC	SQ YD	2,717	867	1,850
35101100	AGGREGATE BASE COURSE, TYPE A 12"	SQ YD	1,890	1,890	
35300300	PORTLAND CEMENT CONCRETE BASE COURSE 8"	SQ YD	1,285	1,285	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	108	108	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	50	50	
40600285	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	POUND	16,000	16,000	
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	566	566	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	174	174	

FILE NAME : 0468580-ht-500.dgn	USER NAME : jacobsmr	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) SUMMARY OF QUANTITIES			F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 6
		DRAWN - JCW	REVISED -		SCALE: 1"=1'	SHEET NO. 2 OF 9 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 68580			
		CHECKED - AWM	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - JULY 24, 2013	REVISED -									

CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED/ STATE CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
50200100	STRUCTURE EXCAVATION	CU YD	588		588
50200300	COFFERDAM EXCAVATION	CU YD	536		536
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1		1
50201122	COFFERDAM (TYPE 2) (LOCATION - 2)	EACH	1		1
50300225	CONCRETE STRUCTURES	CU YD	803.5		803.5
50300255	CONCRETE SUPERSTRUCTURE	CU YD	941.7		941.7
50300260	BRIDGE DECK GROOVING	SQ YD	2,683		2,683
50300265	SEAL COAT CONCRETE	CU YD	109.9		109.9
50300280	CONCRETE ENCASEMENT	CU YD	12		12
50300300	PROTECTIVE COAT	SQ YD	3,462		3,462
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	11,466		11,466
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	350,260	8,950	341,310
50800515	BAR SPLICERS	EACH	70		70

FILE NAME :
D468580-sh1-500.dgn

USER NAME : jacobamr

DESIGNED - MYM

REVISED -

PLOT SCALE = 2.000000 FT / IN

CHECKED - AWM

REVISED -

PLOT DATE = 8/14/2014

DATE - JULY 24, 2013

REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE 698 (IL 89)
SUMMARY OF QUANTITIES

SCALE: 1=1

SHEET NO. 4 OF 9 SHEETS

STA. N/A

TO STA. N/A

F.A.P.
RTE.
698

SECTION
1125VBR1BR

COUNTY
MARSHALL

TOTAL SHEETS
148

SHEET NO.
8

CONTRACT NO. 68580

ILLINOIS FED. AID PROJECT

CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED/ STATE CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
50800530	MECHANICAL SPLICERS	EACH	848		848
51200957	FURNISHING METAL SHELL PILES 12" X 0.250"	FOOT	1,176		1,176
51200959	FURNISHING METAL SHELL PILES 14" X 0.312"	FOOT	3,944		3,944
51202305	DRIVING PILES	FOOT	5,120		5,120
51203200	TEST PILE METAL SHELLS	EACH	8		8
51500100	NAME PLATES	EACH	1		1
51204650	PILE SHOES	EACH	134		134
52000110	PREFORMED JOINT STRIP SEAL	FOOT	108		108
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	24		24
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	18		18
52100505	ANCHOR BOLTS, 5/8"	EACH	24		24
52100510	ANCHOR BOLTS, 3/4"	EACH	24		24
52100520	ANCHOR BOLTS, 1"	EACH	24		24
52100530	ANCHOR BOLTS, 1-1/4"	EACH	36		36

FILE NAME : 0468500-ah1-500.dgn	USER NAME : jacobsm	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) SUMMARY OF QUANTITIES		F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 9	
	PLOT SCALE = 2.000000 FT / IN.	CHECKED - AWM	REVISED -		SCALE: 1=1	SHEET NO. 5 OF 9 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 68580			
	PLOT DATE = 8/14/2014	DATE - JULY 24, 2013	REVISED -		ILLINOIS FED. AID PROJECT							

CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED/STATE CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
54002020	EXPANSION BOLTS 3/4 INCH	EACH	48	48	
54003000	CONCRETE BOX CULVERTS	CU YD	40.3	40.3	
54200223	PIPE CULVERTS, CLASS D, TYPE I 18"	FOOT	230	230	
54215553	METAL END SECTIONS 18"	EACH	10	10	
58700300	CONCRETE SEALER	SQ FT	2,570		2,570
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	55		55
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	4	4	
60107600	PIPE UNDERDRAINS 4"	FOOT	1,020	1,020	
60108100	PIPE UNDERDRAINS 4" (SPECIAL)	FOOT	140	140	
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	2,400	2,400	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	6	6	
63200310	GUARDRAIL REMOVAL	FOOT	2,708	2,708	
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	20	20	

* SPECIALTY ITEM

FILE NAME : D:\68500-shr-500.dgn	USER NAME : jacobsmr	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) SUMMARY OF QUANTITIES			F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 10
		DRAWN - JCW	REVISED -		SCALE: 1:1	SHEET NO. 6 OF 9 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 68580			
		CHECKED - AWB	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE - JULY 24, 2013	REVISED -									

CODE NO.	SUMMARY OF QUANTITIES		UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
	ITEM				ROADWAY 0004	BRIDGE 0011
66700205	PERMANENT SURVEY MARKERS, TYPE I		EACH	5	5	
67000400	ENGINEER'S FIELD OFFICE, TYPE A		CAL MO	24	24	
67100100	MOBILIZATION		L SUM	1	1	
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21		L SUM	1	1	
70106800	CHANGEABLE MESSAGE SIGN		CAL MO	2	2	
70300100	SHORT TERM PAVEMENT MARKING		FOOT	800	800	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"		FOOT	6,550	6,550	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"		FOOT	6,700	6,700	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL		SQ FT	5,800	5,800	
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"		FOOT	6,550	6,550	
* 78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"		FOOT	6,700	6,700	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER		EACH	33	33	
* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)		EACH	10	10	
* 78200410	GUARDRAIL MARKERS, TYPE A		EACH	20	20	

* SPECIALTY ITEM

FILE NAME = D468580-sht-S00.dgn	USER NAME = jacobamr	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) SUMMARY OF QUANTITIES			F.A.P. RTE. 698	SECTION 1125V8R1BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 11
		DRAWN - JCW	REVISED -		SCALE: 1=1	SHEET NO. 7 OF 9 SHEETS	STA. N/A	TO STA. N/A	ILLINOIS FED. AID PROJECT			
		CHECKED - ANM	REVISED -									
		DATE - JULY 24, 2013	REVISED -									

CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED/ STATE CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	8	8	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	6	6	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	34	34	
X2020502	BRACED EXCAVATION	CU YD	476		476
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	110		110
X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1	
X7040650	REMOVE TEMPORARY CONCRETE BARRIER	FOOT	1,400	1,400	
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	802	802	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0018002	DRAINAGE SCUPPERS, DS - 11	EACH	7		7
Z0022800	FENCE REMOVAL	FOOT	1,177	1,177	
Z0034105	MATERIAL TRANSFER DEVICE	TON	1241	1241	
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	154		154
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	

* SPECIALTY ITEM

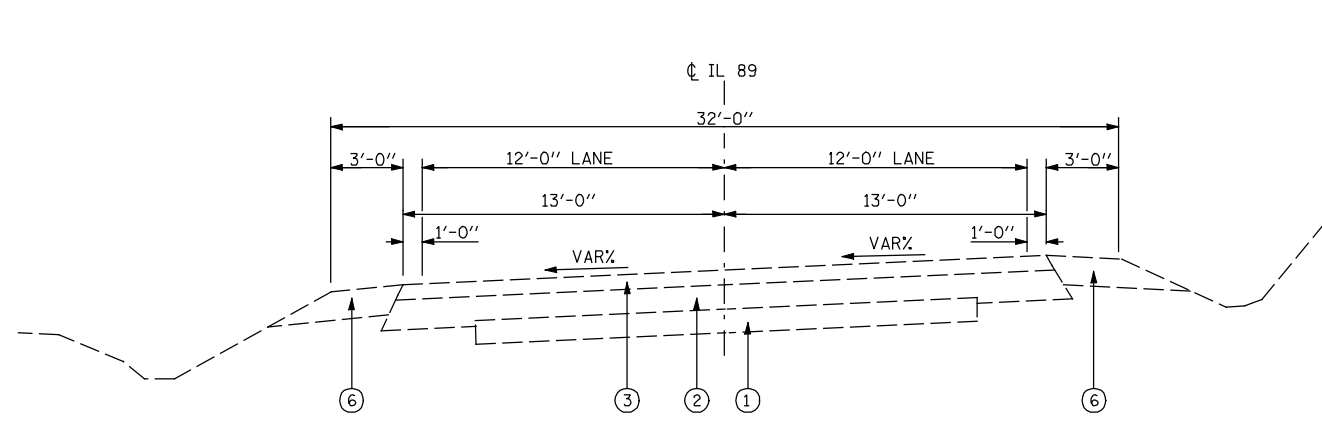
FILE NAME * 0468500-shr-500.dgn	USER NAME * jacobsmr	DESIGNED * MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. ROUTE 698 (IL 89) SUMMARY OF QUANTITIES			F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 12	
	PLOT SCALE * 2.000000 FT / in.	CHECKED - AWM	REVISED -		SCALE: 1:1	SHEET NO. 8	OF 9 SHEETS	STA. N/A	TO STA. N/A	CONTRACT NO. 68580			
	PLOT DATE * 8/14/2014	DATE - JULY 24, 2013	REVISED -		ILLINOIS FED. AID PROJECT								

2014 901

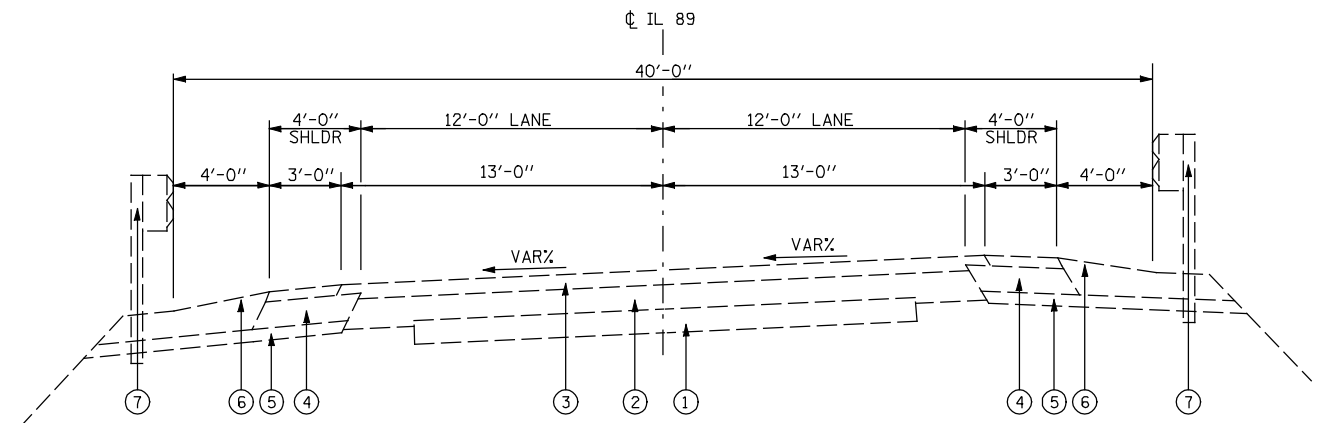
CODE NO.	SUMMARY OF QUANTITIES ITEM	UNIT	TOTAL QUANTITY	80/20 FED/ STATE CONSTRUCTION CODE	
				ROADWAY 0004	BRIDGE 0011
* Z0054400	ROCK FILL	CU YD	76	76	
∅ Z0070600	TRAINEES	Hour	1000	1000	
Z0073002	TEMPORARY SOIL RETENTION SYSYEM	SQ FT	1,035	1,035	
∅ Z0070604	TRAINEES TRAINING PROGRAM GRADUATE	Hour	1000	1000	

2

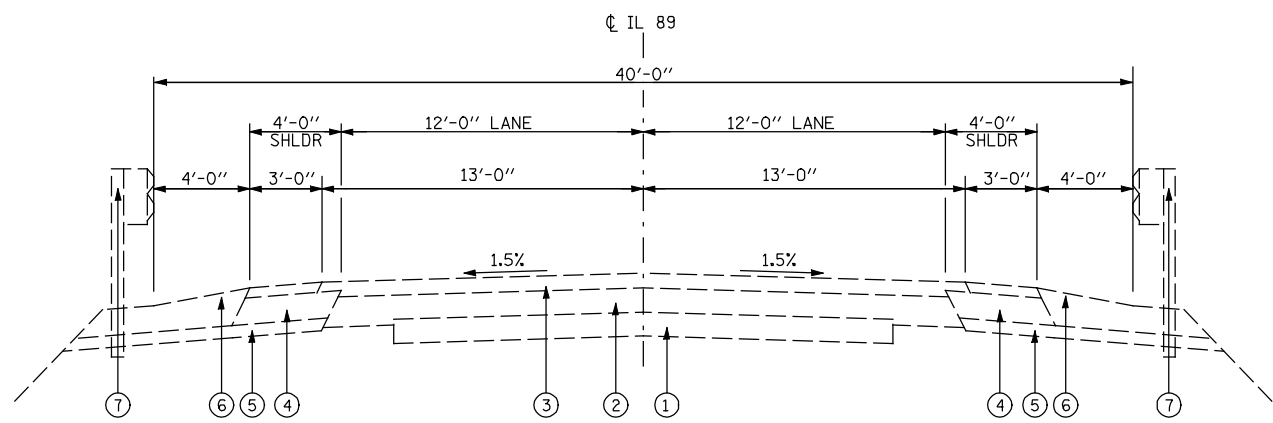
* SPECIALTY ITEM
∅ 0042



EXISTING TYPICAL SECTION #1
STATION 275+00 TO STATION 283+50

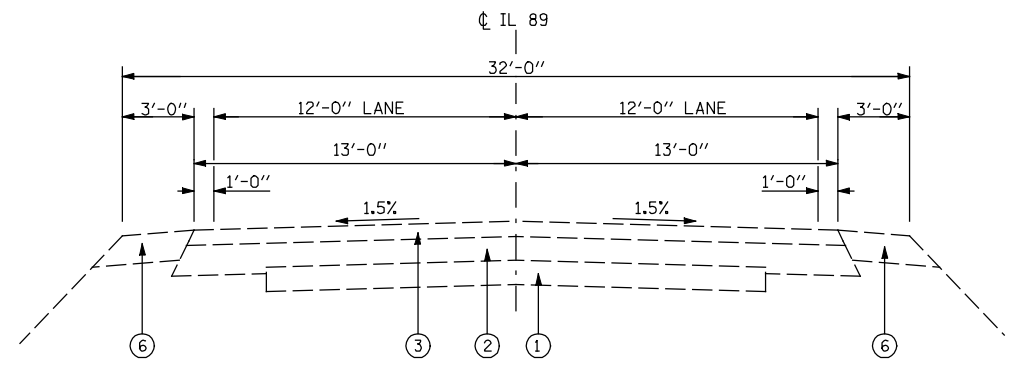


EXISTING TYPICAL SECTION #2
STATION 283+50 TO STATION 294+68
BRIDGE OMISSION
STATION 294+68 TO STATION 301+09

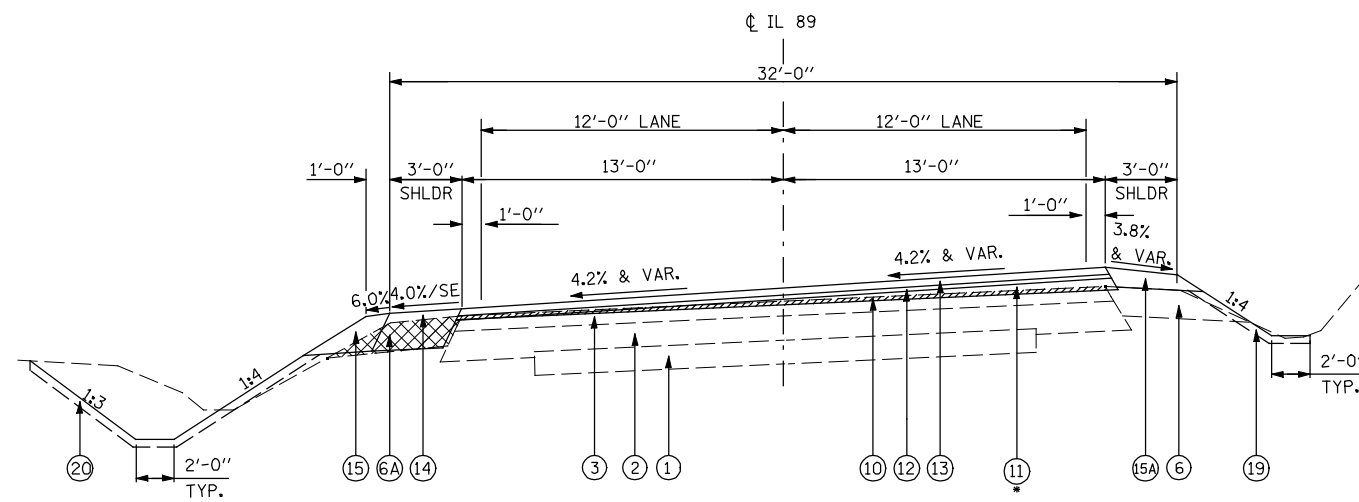


EXISTING TYPICAL SECTION #3
STATION 301+09 TO STATION 308+00

- LEGEND:**
- ① EXISTING PCC PAVEMENT
 - ② EXISTING STABILIZED BASE COURSE
 - ③ EXISTING HMA RESURFACING
 - ④ EXISTING HMA SHOULDER
 - ⑤ EXISTING GRANULAR MATERIAL
 - ⑥ EXISTING AGGREGATE SHOULDER
 - ⑦ EXISTING GUARDRAIL

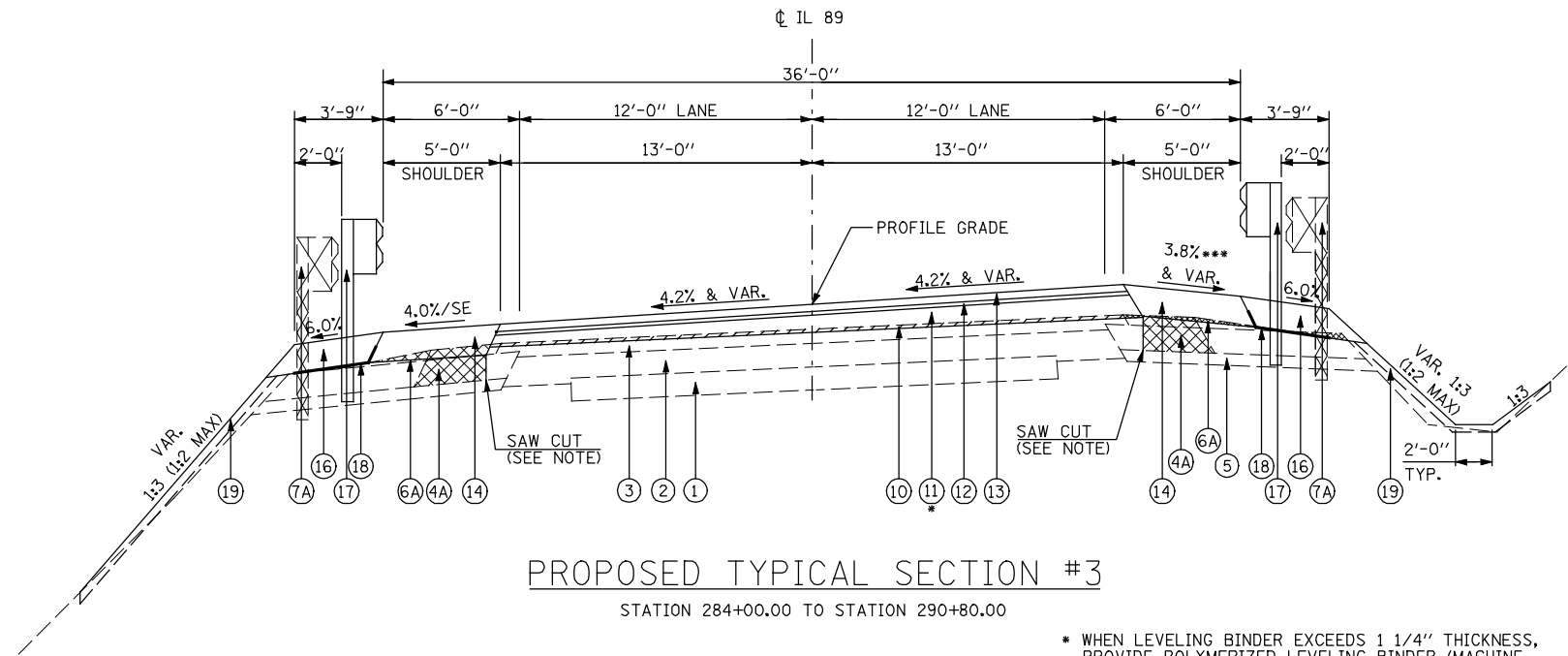


EXISTING TYPICAL SECTION #4
STATION 308+00 TO STATION 308+50



PROPOSED TYPICAL SECTION #1

STATION 275+30.00 LT TO STATION 282+21.40 LT
STATION 275+30.00 RT TO STATION 279+32.35 RT



PROPOSED TYPICAL SECTION #3

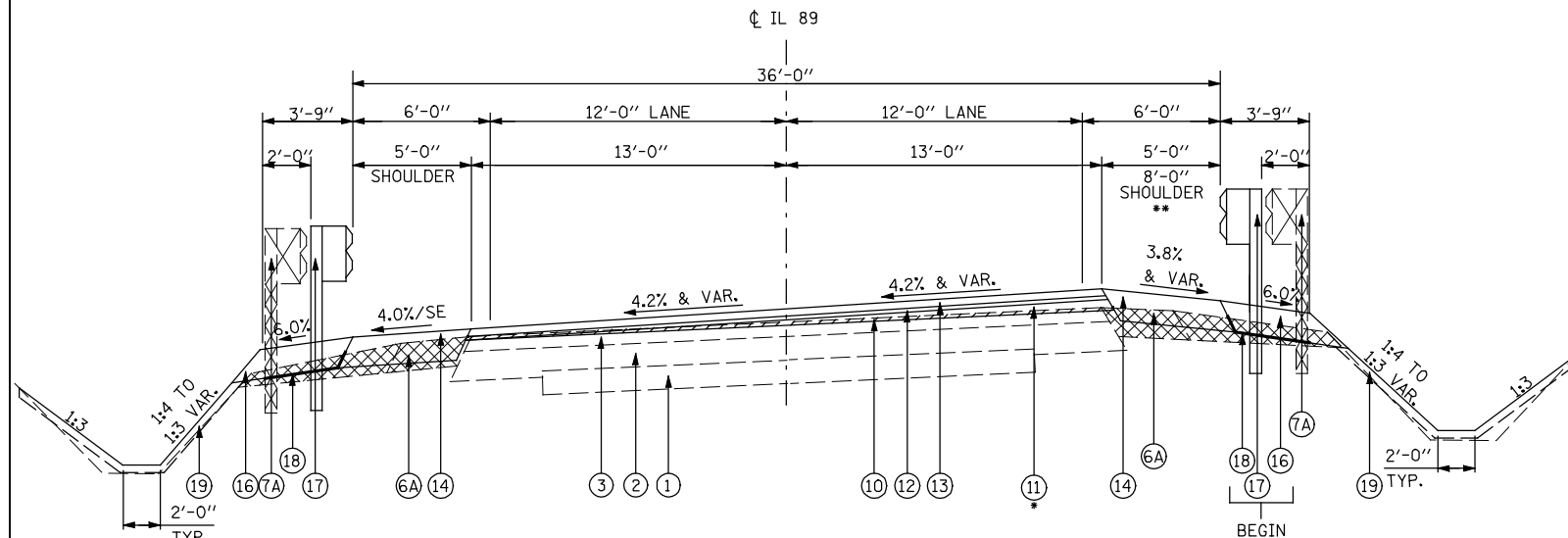
STATION 284+00.00 TO STATION 290+80.00

SEE PLAN AND SCHEDULES FOR LIMITS OF EXISTING AND PROPOSED GUARDRAIL AND SHOULDER VARIATION.

* WHEN LEVELING BINDER EXCEEDS 1 1/4" THICKNESS, PROVIDE POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1" OVER HMA BINDER COURSE, IL-19.0, N50, 2 1/4" & VAR.

NOTES: HMA SHOULDER SHALL REMAIN IN PLACE BEYOND STA. 286+75

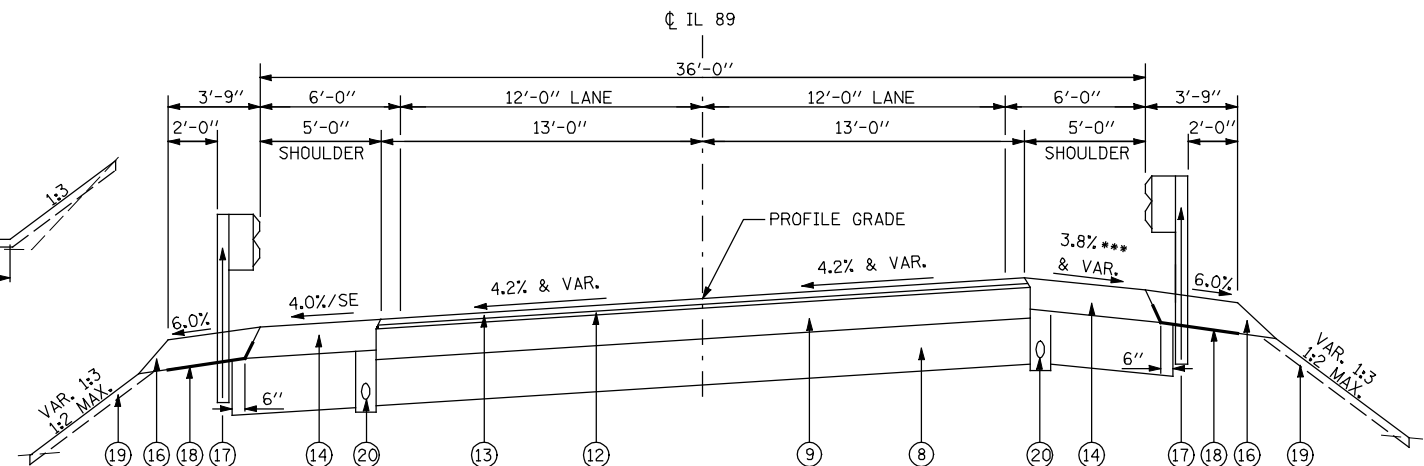
AGGREGATE SHOULDER, TYPE B, 8" STA 286+00.43 TO STA 287+79.65



PROPOSED TYPICAL SECTION #2

STATION 282+21.40 LT TO STATION 284+00.00 LT
STATION 279+32.35 RT TO STATION 284+00.00 RT

** 8'-0" PROPOSED 8" HMA SHOULDER FROM STATION 279+32.35 RT TO STATION 280+90.58 RT



PROPOSED TYPICAL SECTION #4

STATION 290+80.00 TO STATION 293+93.66

*** TRANSITION RIGHT SHOULDER SLOPE FROM -3.8% AT STATION 292+99.33 TO +4.2% AT STATION 293+99.33

BRIDGE OMISSION
STATION 293+93.66 TO STATION 293+99.66 (BRIDGE APPROACH PAVEMENT CONNECTOR)
STATION 293+99.66 TO STATION 294+29.66 (BRIDGE APPROACH PAVEMENT)
STATION 294+29.66 TO STATION 301+24.99 (BRIDGE SECTION (125VBR)BR)
STATION 301+24.99 TO STATION 301+54.99 (BRIDGE APPROACH PAVEMENT)
STATION 301+54.99 TO STATION 301+60.99 (BRIDGE APPROACH PAVEMENT CONNECTOR)

LEGEND:

- ① EXISTING PCC PAVEMENT
- ② EXISTING STABILIZED BASE COURSE
- ③ EXISTING HMA RESURFACING
- ④ EXISTING HMA SHOULDER
- ④A EXISTING HMA SHOULDER TO BE REMOVED
- ⑤ EXISTING GRANULAR MATERIAL
- ⑥ EXISTING AGGREGATE SHOULDER
- ⑥A EXISTING AGGREGATE SHOULDER TO BE REMOVED
- ⑦ EXISTING GUARDRAIL
- ⑦A EXISTING GUARDRAIL TO BE REMOVED
- ⑧ PROPOSED AGGREGATE BASE COURSE, TYPE A, 12"
- ⑨ PROPOSED PCC BASE COURSE, 8"
- ⑩ PROPOSED HMA SURFACE REMOVAL, 3/4"
- ⑪ PROPOSED HMA BINDER COURSE, IL-19.0, N50, 2 1/4" & VAR.
- ⑫ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1" TO 1 1/4" & VAR.
- ⑬ PROPOSED HMA SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑭ PROPOSED HMA SHOULDER, 8"
- ⑭A PROPOSED HMA SHOULDER, 2 1/2" & VAR.
- ⑮ PROPOSED AGGREGATE SHOULDER, TYPE B, 8"
- ⑮A PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑯ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL
- ⑰ PROPOSED STEEL PLATE BEAM GUARDRAIL
- ⑱ PROPOSED GEOTEXTILE FABRIC
- ⑲ PROPOSED TOPSOIL FURNISH AND PLACE, 4"
- ⑳ PROPOSED PIPE UNDERDRAINS, 4" (ONLY STA 290+80.00 TO STA 294+29.33 & STA 301+25.32 TO 302+85.00)

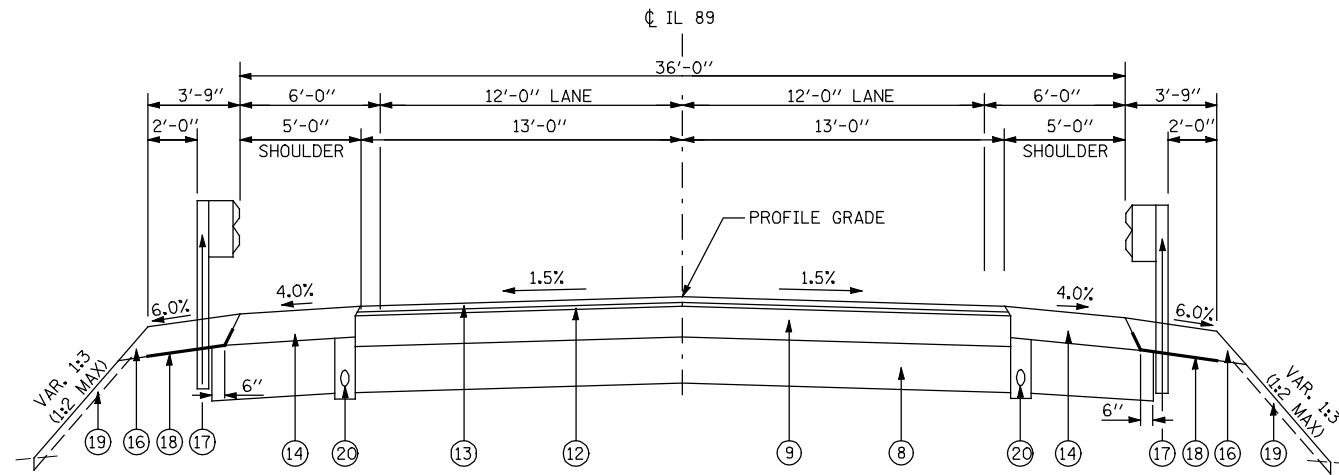
GENERAL NOTES:
SEE SLOPE STEPS DETAIL SHEET FOR ALL MINIMUM THICKNESS "SLIVER FILLS" AND ON FILLS WITH A HEIGHT OF 10' OR GREATER.

FILE NAME =	USER NAME = jdeen	DESIGNED - MVM	REVISED -
v:\transportation\3013\cadd\sheet\0468880-sh1-typical02.dgn		DRAWN - JCW	REVISED -
PLOT SCALE = 20.0000' / IN.		CHECKED - MVM	REVISED -
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -

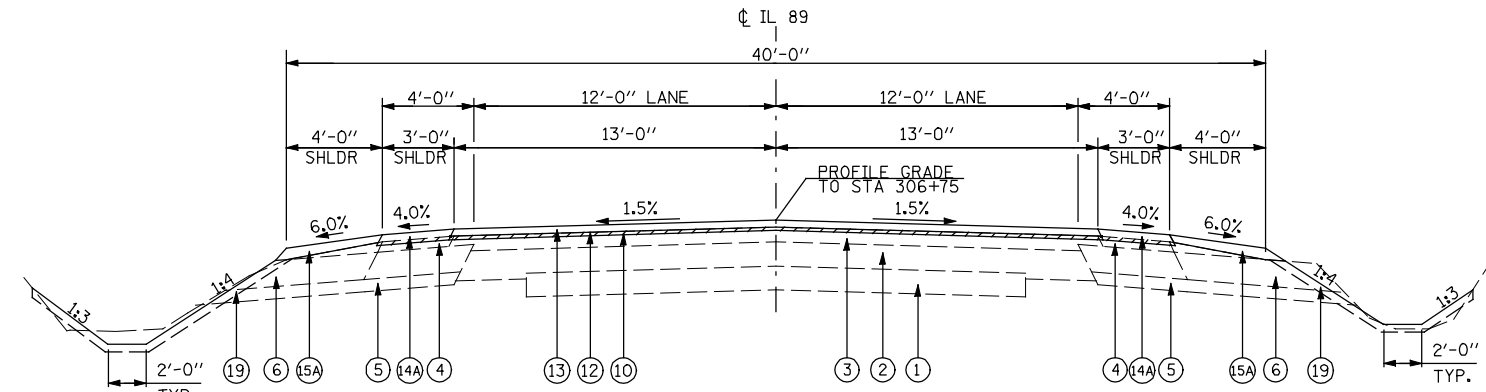
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

F.A.P. ROUTE 698 (IL 89)		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PROPOSED TYPICAL SECTIONS		698	(125VBR)BR	MARSHALL	148	15
SCALE: N/A	SHEET NO. 1 OF 2 SHEETS	STA. N/A	TO STA. N/A		CONTRACT NO. 68580	

ILLINOIS FED. AID PROJECT						
---------------------------	--	--	--	--	--	--



PROPOSED TYPICAL SECTION #5
STATION 301+60.99 TO STATION 302+85.00

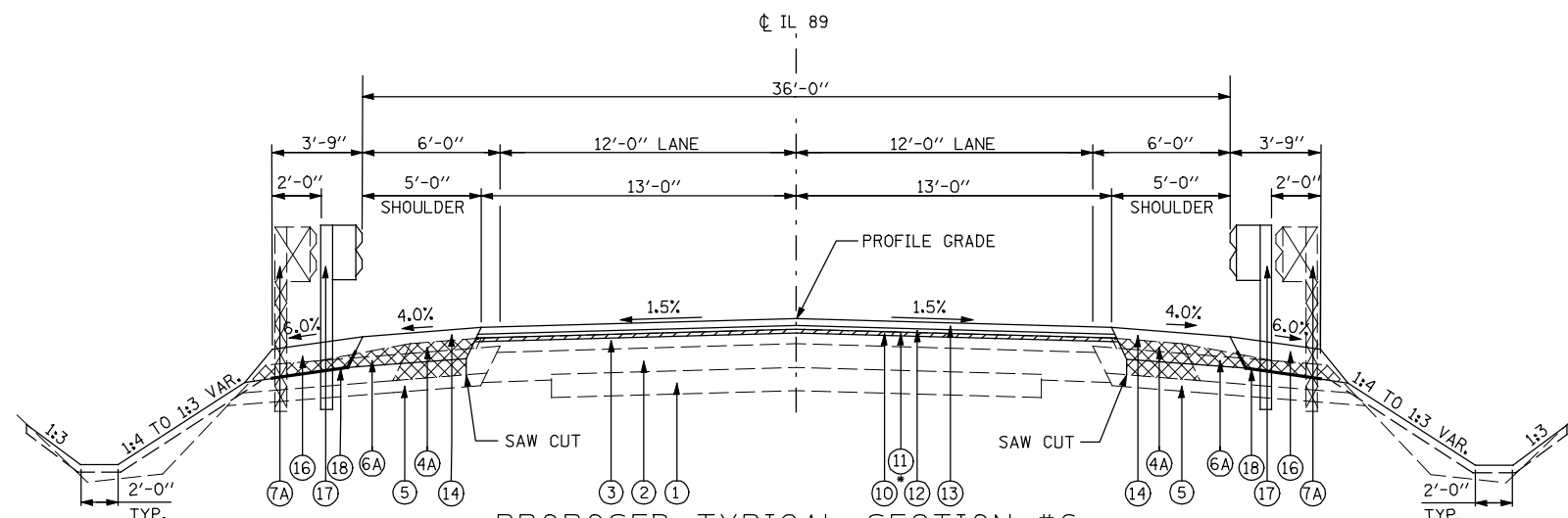


PROPOSED TYPICAL SECTION #7
STATION 306+12.50 LT TO STATION 308+20.00 LT
STATION 305+25.60 RT TO STATION 308+20.00 RT

NOTE: EXISTING PAVEMENT IS TO BE REMOVED

BRIDGE OMISSION

- STATION 293+93.66 TO STATION 293+99.66 (BRIDGE APPROACH PAVEMENT CONNECTOR)
- STATION 293+99.66 TO STATION 294+29.66 (BRIDGE APPROACH PAVEMENT)
- STATION 294+29.66 TO STATION 301+24.99 (BRIDGE SECTION 125VBR/BR)
- STATION 301+24.99 TO STATION 301+54.99 (BRIDGE APPROACH PAVEMENT)
- STATION 301+54.99 TO STATION 301+60.99 (BRIDGE APPROACH PAVEMENT CONNECTOR)



PROPOSED TYPICAL SECTION #6
STATION 302+85.00 LT TO STATION 306+12.50 LT
STATION 302+85.00 RT TO STATION 305+25.60 RT

* WHEN LEVELING BINDER EXCEEDS 1 1/4" THICKNESS, PROVIDE POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1" OVER HMA BINDER COURSE, IL-19.0, N50, 2 1/4" & VAR.

SEE PLAN AND SCHEDULES FOR LIMITS OF EXISTING AND PROPOSED GUARDRAIL AND SHOULDER VARIATION.

LEGEND:

- ① EXISTING PCC PAVEMENT
- ② EXISTING STABILIZED BASE COURSE
- ③ EXISTING HMA RESURFACING
- ④ EXISTING HMA SHOULDER
- ④A EXISTING HMA SHOULDER TO BE REMOVED
- ⑤ EXISTING GRANULAR MATERIAL
- ⑥ EXISTING AGGREGATE SHOULDER
- ⑥A EXISTING AGGREGATE SHOULDER TO BE REMOVED
- ⑦ EXISTING GUARDRAIL
- ⑦A EXISTING GUARDRAIL TO BE REMOVED
- ⑧ PROPOSED AGGREGATE BASE COURSE, TYPE A, 12"
- ⑨ PROPOSED PCC BASE COURSE, 8"
- ⑩ PROPOSED HMA SURFACE REMOVAL, 3/4"
- ⑪ PROPOSED HMA BINDER COURSE, IL-19.0, N50, 2 1/4" & VAR.
- ⑫ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1" TO 1 1/4" & VAR.
- ⑬ PROPOSED HMA SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑭ PROPOSED HMA SHOULDER, 8"
- ⑭A PROPOSED HMA SHOULDER, 2 1/2" & VAR.
- ⑮ PROPOSED AGGREGATE SHOULDER, TYPE B, 8"
- ⑮A PROPOSED AGGREGATE SHOULDER, TYPE B
- ⑯ PROPOSED GUARDRAIL AGGREGATE EROSION CONTROL
- ⑰ PROPOSED STEEL PLATE BEAM GUARDRAIL
- ⑱ PROPOSED GEOTEXTILE FABRIC
- ⑲ PROPOSED TOPSOIL FURNISH AND PLACE, 4"
- ⑳ PROPOSED PIPE UNDERDRAINS, 4"
(ONLY STA 290+80.00 TO STA 294+29.33 & STA 301+25.32 TO 302+85.00)

STRUCTURAL DESIGN INFORMATION

STRUCTURAL DESIGN TRAFFIC:	YEAR 2025
PV=1,450	SU=85 MU=135
ROAD/STREET CLASSIFICATION:	CLASS III
PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:	P=50% S=50% M=50%
SUBGRADE SUPPORT RATING:	IBR=2
COMPOSITE PAVEMENT DESIGN:	
TRAFFIC FACTOR:	TF=0.87
STRUCTURAL NUMBER:	D=3.11
PAVEMENT STRUCTURE:	HMA
	0.40x2 1/2"= 1.00
	PCC BASE
	0.33x8"= 2.64
	TOTAL 3.64

GENERAL NOTES:

SEE SLOPE STEPS DETAIL SHEET FOR ALL MINIMUM THICKNESS "SLIVER FILLS" AND ON FILLS WITH A HEIGHT OF 10' OR GREATER.

FILE NAME =	USER NAME = jdeen	DESIGNED - MVM	REVISED -
v:\transportation\3013\cadd\sheet\0468580-sh-typical02.dgn		DRAWN - JCW	REVISED -
PLOT SCALE = 20.0000' / IN.		CHECKED - MVM	REVISED -
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**F.A.P. ROUTE 698 (IL 89)
PROPOSED TYPICAL SECTIONS**

SCALE: N/A SHEET NO. 2 OF 2 SHEETS STA. N/A TO STA. N/A

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	16
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				

TREE REMOVAL		
LOCATION	TREE REMOVAL	
	6 TO 15 UNITS	OVER 15 UNITS
UNITS		
FAP ROUTE (IL 89)		
STA 282+21.5, 39.6' LT	12	
STA 282+26.2, 38.8' LT	7	
STA 282+37.6, 35.1' LT		24
STA 282+51.2, 44.4' LT	7	
STA 282+73.2, 35.7' LT	12	
STA 286+21.6, 35.7' RT	14	
STA 286+26.6, 36.2' RT	7	
STA 286+28.1, 36.3' RT		19
STA 286+34.1, 33.4' RT	7	
STA 286+57.9, 34.3' RT	12	
STA 289+30.2, 30.6' RT		25
STA 289+45.4, 28.6' RT		16
STA 305+65.4, 37.3' RT		46
TOTAL	78	130

FURNISHING AND ERECTING RIGHT OF WAY MARKERS

STATION	OFFSET FOOT	SIDE	EACH
FAP ROUTE 698 (IL 89)			
274+75.00	44.88	RT	1
276+25.00	100.00	RT	1
277+50.00	105.00	RT	1
281+00.00	95.00	RT	1
282+00.00	41.74	LT	1
282+71.46	55.00	LT	1
284+00.00	70.00	RT	1
285+50.00	45.00	RT	1
288+00.00	42.87	LT	1
289+00.00	45.00	RT	1
291+13.24	62.66	LT	1
292+41.92	68.97	RT	1
301+03.55	69.40	LT	1
302+77.22	45.00	RT	1
303+00.00	70.00	LT	1
304+00.00	60.00	LT	1
306+22.54	61.76	LT	1
307+00.00	45.00	RT	1
308+00.00	50.00	RT	1
309+00.00	41.19	RT	1
TOTAL			20

EARTHWORK

LOCATION	EARTH EXCAVATION	EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE *	EMBANKMENT	BALANCE WASTE (+) OR SHORTAGE (-)	TOPSOIL FURNISH AND PLACE, 4"
BEGINNING OF PROJECT TO STA 294+00					
STA 275+00 TO STA 294+00	10801.4	8641.1	990.1	7651.0	9429.3
STA 294+00 TO PROPOSED BACK OF ABUTMENT					
STA 294+00 TO STA 294+28.83	122.8	98.2	0.0	98.2	51.6
PROPOSED BACK OF ABUTMENT TO EXISTING BACK OF ABUTMENT					
STA 294+28.83 TO STA 294+68.18	1842.5	1474.0	0.0	1474.0	158.4
EXISTING BACK OF ABUTMENT TO EXISTING TOE OF SLOPEWALL					
STA 294+68.18 TO STA 295+32.00	2866.6	2293.3	0.0	2293.3	212.5
BRIDGE OMISSION					
EXISTING TOE OF SLOPEWALL TO EXISTING BACK OF ABUTMENT					
STA 300+65.00 TO STA 301+09.01	476.3	381.0	0.0	381.0	0.0
EXISTING BACK OF ABUTMENT TO PROPOSED BACK OF ABUTMENT					
STA 301+09.01 TO STA 301+25.82	199.3	159.4	0.0	159.4	7.4
PROPOSED BACK OF ABUTMENT TO STATION 301+50					
STA 301+25.82 TO STA 301+50.00	44.9	35.9	0.0	35.9	21.0
STATION 301+50 TO END OF PROJECT					
STA 301+50.00 TO STA 308+50.00	1339.8	1071.8	105.6	966.2	2062.0
TOTAL	17,693.6	14,154.9	1,095.7	13,059.2	11,942.2
USE	17,695	14,155	1,096	13,060	11,943

* SHRINKAGE FACTOR = 20%

TREE REMOVAL, ACRES

LOCATION	SIDE	AREA ACRES
FAP ROUTE 698 (IL 89)		
STA 275+00 TO STA 279+58	RT	0.37
STA 279+76 TO STA 285+40	RT	0.29
STA 282+79 TO STA 295+06	LT	0.53
STA 289+50 TO STA 290+53	RT	0.02
STA 290+97 TO STA 296+31	RT	0.35
STA 301+25 TO STA 302+50	RT	0.03
STA 301+25 TO STA 306+73	LT	0.28
TOTAL		1.88
USE		2.00

PIPE UNDERDRAIN SCHEDULE

STATION TO STATION	SIDE	CONCRETE HEADWALL FOR PIPE DRAINS	PIPE UNDERDRAINS	
			4"	4" (SPECIAL)
EACH			FOOT	
FAP ROUTE 698 (IL 89)				
290+80.00	294+29.66	LT	1	50
290+80.00	294+29.66	RT	1	30
301+24.99	302+85.00	LT	1	40
301+24.99	302+85.00	RT	1	20
TOTAL			4	140
USE			4	140

REMOVE TEMPORARY CONCRETE BARRIER

STATION TO STATION	REMOVE TEMPORARY CONCRETE BARRIER FEET
FAP ROUTE 698 (IL 89)	
294+38 TO 301+38	1,400
TOTAL	1,400
USE	1,400

PERIMETER EROSION BARRIER

LOCATION	SIDE	PERIMETER EROSION BARRIER
		FOOT
FAP ROUTE 698 (IL 89)		
STA 284+48 TO STA 295+07	LT	1,186
STA 284+50 TO STA 285+50	RT	120
STA 291+00 TO STA 296+31	RT	723
STA 301+50 TO STA 303+50	LT	251
STA 301+50 TO STA 303+50	RT	205
TOTAL		2,485

INLET AND PIPE PROTECTION

LOCATION	SIDE	INLET AND PIPE PROTECTION
		EACH
FAP ROUTE 698 (IL 89)		
STA 279+75	RT	1
STA 279+97	LT	1
STA 281+62	LT	1
STA 284+35	RT	1
STA 288+12	RT	1
STA 306+80	LT	1
TOTAL		6

GUARDRAIL REMOVAL

LOCATION	SIDE	GUARDRAIL REMOVAL FOOT
FAP ROUTE 698 (IL 89)		
STA 283+49 TO STA 284+54	LT	105
STA 283+46 TO STA 287+96	RT	450
STA 284+69 TO STA 294+51	LT	982
STA 288+35 TO STA 294+57	RT	622
STA 301+20 TO STA 303+96	LT	276
STA 301+24 TO STA 303+97	RT	273
TOTAL		2,708

FENCE REMOVAL

STATION TO STATION	SIDE	FENCE REMOVAL FOOT	
FAP ROUTE 698 (IL 89)			
275+01.29	278+97.10	RT	412.6
279+96.00	281+42.20	RT	149.3
281+87.36	287+69.59	RT	615.1
TOTAL		1,177.0	
USE		1,177	

PIPE CULVERT REMOVAL

STATION	SIDE	SIZE & TYPE	PIPE CULVERT REMOVAL
			FOOT
FAP ROUTE 698 (IL 89)			
279+75	RT	12" CMP	27
279+97	LT	12" CMP	31
281+62	LT	12" CMP	35
288+17	RT	12" CMP	32
TOTAL			125

TEMPORARY EROSION CONTROL SEEDING

LOCATION	SIDE	TEMPORARY EROSION CONTROL SEEDING (2 APPLICATIONS)
		POUND
FAP ROUTE 698 (IL 89)		
STA 275+00 TO STA 279+65	RT	136
STA 275+00 TO STA 279+85	LT	48
STA 279+75 TO STA 288+08	RT	126
STA 280+05 TO STA 281+51	LT	14
STA 281+73 TO STA 294+00	LT	118
STA 288+27 TO STA 294+00	RT	104
STA 295+67 TO STA 299+67	LT & RT	112
STA 299+86 TO STA 301+25	LT & RT	24
STA 301+50 TO STA 306+70	LT	78
STA 301+50 TO STA 308+50	RT	50
STA 306+90 TO STA 308+50	LT	12
TOTAL		822
USE		822

PERMANENT SEEDING SCHEDULE

LOCATION	SIDE	SEEDING, CLASS 2A	SEEDING, CLASS 3	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2	HEAVY DUTY EROSION CONTROL BLANKET
		ACRE	ACRE	POUND	POUND	POUND	ACRE	SO YD
FAP ROUTE 698 (IL 89)								
STA 275+00 TO STA 279+65	RT	0.11	0.57	61.2	61.2	61.2		3,255.6
STA 275+00 TO STA 279+85	LT	0.11	0.13	21.6	21.6	21.6	0.24	
STA 279+75 TO STA 288+08	RT	0.19	0.44	56.7	56.7	56.7	0.21	2,020.0
STA 280+05 TO STA 281+51	LT	0.03	0.04	6.3	6.3	6.3	0.07	
STA 281+73 TO STA 294+30	LT	0.28	0.31	53.1	53.1	53.1	0.47	572.7
STA 288+27 TO STA 296+31	RT	0.19	0.33	46.8	46.8	46.8	0.25	1,291.3
STA 295+67 TO STA 299+62	LT & RT		0.56	50.4	50.4	50.4	0.56	
STA 299+85 TO STA 301+25	LT & RT		0.12	10.8	10.8	10.8	0.12	
STA 301+25 TO STA 306+70	LT	0.13	0.26	35.1	35.1	35.1	0.31	393.7
STA 301+25 TO STA 308+50	RT	0.17	0.08	22.5	22.5	22.5	0.03	1,051.4
STA 306+90 TO STA 308+50	LT	0.04	0.02	5.4	5.4	5.4	0.06	
TOTAL		1.25	2.86	369.9	369.9	369.9	2.33	8,584.7
USE		1.25	3	370	370	370	2.50	8,585

PIPE CULVERT SCHEDULE

STATION	SIDE	TYPE	STANDARD	PIPE CULVERTS, CLASS D, TYPE 1 18"	METAL END SECTIONS 18"
				FOOT	EACH
FAP ROUTE 698 (IL 89)					
279+75.00	RT	PIPE CULVERT & END SECTION	542401	50	2
279+97.05	LT	PIPE CULVERT & END SECTION	542401	48	2
281+62.00	LT	PIPE CULVERT & END SECTION	542401	48	2
288+12.68	RT	PIPE CULVERT & END SECTION	542401	46	2
306+80.00	LT	PIPE CULVERT & END SECTION	542401	38	2
TOTAL				230	10

CHANGEABLE MESSAGE SIGN

LOCATION	CHANGEABLE MESSAGE SIGN
	CAL MO
FAP ROUTE 698 (IL 89)	
LOCATION 1	1
LOCATION 2	1
TOTAL	2
USE	2

HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT

STATION TO STATION	SIDE	HOT-MIX ASPHALT SURFACE REMOVAL-BUTT JOINT SQ YD
FAP ROUTE 698 (IL 89)		
275+00.00 275+30.00	LT & RT	86.7
308+20.00 308+50.00	LT & RT	86.7
TOTAL		173.4
USE		174

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

STATION TO STATION	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL EACH
FAP ROUTE 698 (IL 89)	
275+54 TO 307+71	34
TOTAL	34
USE	34

RAISED REFLECTIVE PAVEMENT MARKERS

STATION TO STATION	RAISED REFLECTIVE PAVEMENT MARKER EACH	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE) EACH
FAP ROUTE 698 (IL 89)		
275+00.00 TO 293+93.66	24	
293+93.66 TO 301+60.99		10
301+60.99 TO 308+50.00	9	
TOTAL	33	10
USE	33	10

GUARDRAIL SCHEDULE

STATION TO STATION	SIDE	STEEL PLATE BEAM GUARDRAIL, TYPE A FOOT	TRAFFIC BARRIER TERMINALS EACH	
			TYPE 1, SPECIAL (TANGENT)	TYPE 6
FAP ROUTE 698 (IL 89)				
282+03.50 TO 285+67.50	RT	262.5	2	
282+66.26 TO 294+19.76	LT	1,050.0	1	1
288+51.10 TO 294+17.90	RT	475.0	1	1
301+34.82 TO 304+92.97	RT	262.5	1	1
301+34.82 TO 305+80.47	LT	350.0	1	1
TOTALS		2,400	6	4
USE		2,400	6	4

PAVEMENT REMOVAL

STATION TO STATION	SIDE	PAVEMENT REMOVAL SQ YD
FAP ROUTE 698 (IL 89)		
290+80.00 294+69.13	LT & RT	1,124.2
301+08.06 302+85.00	LT & RT	511.2
TOTAL		1,635.4
USE		1,636

PERMANENT SURVEY MARKERS, TYPE 1

STATION	DESCRIPTION	PERMANENT SURVEY MARKERS, TYPE 1 EACH
FAP ROUTE 698 (IL 89)		
275+00.00	POT	1
277+95.58	PC	1
296+18.27	PT	1
306+00	POT	1
NW CORNER OF BRIDGE	BM	1
TOTAL		5
USE		5

GUARDRAIL/ BARRIER WALL MARKERS

STATION TO STATION	SIDE	GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE C	TERMINAL MARKER DIRECT APPLIED
FAP ROUTE 698 (IL 89)				
282+03.50 TO 285+67.50	RT	4		2
282+62.50 TO 305+78.47	LT	10	4	2
288+43.39 TO 304+90.97	RT	6	4	2
TOTALS		20	8	6
USE		20	8	6

GUARDRAIL AGGREGATE EROSION CONTROL

STATION TO STATION	SIDE	GUARDRAIL AGGREGATE EROSION CONTROL TON
FAP ROUTE 698 (IL 89)		
281+65.40 286+00.43	RT	113.6
282+27.27 294+17.24	LT	310.8
288+36.99 294+15.41	RT	151.1
301+37.32 305+27.59	RT	101.9
301+37.32 306+12.99	LT	124.2
TOTAL		801.6
USE		802

ENTRANCE SCHEDULE

LOCATION	SIDE	WIDTH	THICKNESS	AGGREGATE SURFACE COURSE, TYPE B TON
FAP ROUTE 698 (IL 89)				
279+75.00	RT	20'	6"	14
279+97.05	LT	16'	6"	12
281+62.00	LT	24'	6"	19
288+12.68	RT	30'	8"	30
306+80.00	LT	20'	6"	33
TOTAL				98
USE				108

RIPRAP SCHEDULE

LOCATION	SIDE	WIDTH	LENGTH	STONE DUMPED RIPRAP		FILTER FABRIC SO YD
				CLASS A4	CLASS A3	
				SQ YD		
FAP ROUTE 698 (IL 89)						
279+43.00	ENTRANCE	RT	8	37.8		33.5
283+00	284+25	LT	17	125	237.0	237.0
283+50	284+25	RT	17	75	142.0	142.0
290+77	290+83	LT	6	6		4.0
290+77	290+83	RT	6	6		4.0
302+82	302+88	LT	6	6		4.0
302+82	302+88	RT	6	6		4.0
303+00	304+00	LT	14	100	156.0	156.0
303+00	304+00	RT	15	100	167.0	167.0
TOTAL					702.0	751.5
USE					702	752

HOT-MIX ASPHALT SURFACE REMOVAL, 3/4"

STATION TO STATION	SIDE	PAVEMENT REMOVAL SQ YD
FAP ROUTE 698 (IL 89)		
275+30.00 290+80.00	LT & RT	4,477.8
302+85.00 308+20.00	LT & RT	1,545.6
TOTAL		6,023.4
USE		6,024

PAVED SHOULDER REMOVAL

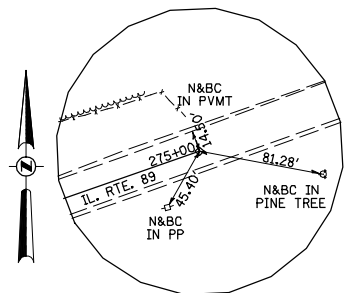
STATION TO STATION	SIDE	PAVED SHOULDER REMOVAL SQ YD
FAP ROUTE 698 (IL 89)		
285+33.09 286+75.00	LT	54.1
285+33.84 286+75.00	RT	41.5
302+85.00 306+12.99	LT	123.8
302+85.00 305+27.59	RT	81.8
TOTAL		301.2
USE		302

PAVING SCHEDULE

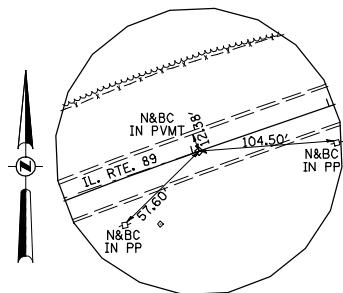
STATION TO STATION	PORTLAND CEMENT CONCRETE BASE COURSE, 8"	AGGREGATE BASE COURSE TYPE A, 12"	HOT-MIX ASPHALT SHOULDERS, 8"	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	HOT-MIX ASPHALT BINDER COURSE, IL-19.0 N50	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	HOT-MIX ASPHALT SHOULDERS	AGGREGATE SHOULDERS, TYPE B
	SQ YD				TON					
FAP ROUTE 698 (IL 89)										
275+00.00 290+80.00			1,476.6		10,300	366.20	1,342.7	412.8		201.0
290+80.00 293+93.66	920.7	1,348.7	343.4		1,380	51.30		81.9		
293+93.66 293+99.66			5.3	113.3						
301+54.99 301+60.99			5.6	113.3						
301+60.99 302+85.00	364.0	541.0	131.7		540	20.30		32.4		
302+85.00 308+50.00			315.6		2,620	127.60	182.6	147.6	37.9	67.8
TOTAL	1,284.7	1,889.7	2,278.2	226.6	14,800	565.4	1,525.3	674.7	37.9	268.8
USE	1,285	1,890	2,279	227	16,000	566	1,526	675	38	269

MODIFIED URETHANE PAVEMENT MARKING

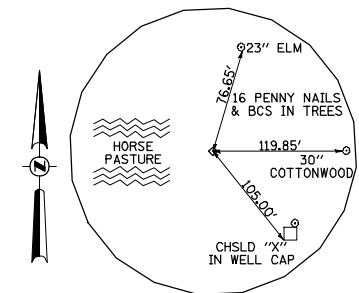
STATION TO STATION	SIDE	YELLOW SKIP DASH	YELLOW DOUBLE SOLID 4"	YELLOW SOLID	WHITE SOLID 6"
FAP ROUTE 698 (IL 89)					
275+00.00 306+50.00	CL		6,300.0		
275+00.00 308+50.00	LT&RT				6,700.0
306+50.00 308+50.00	CL	50.0		200.0	
TOTAL			6,550.0		6,700.0
USE			6,550		6,700



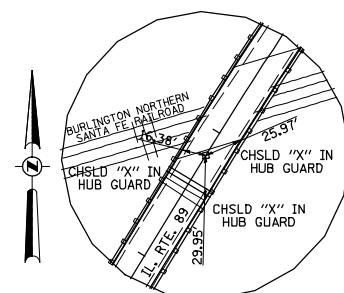
POT STA 275+00.00
MAG NAIL IN CHSLD "X"
N 1,568,888.67 E 2,549,708.17



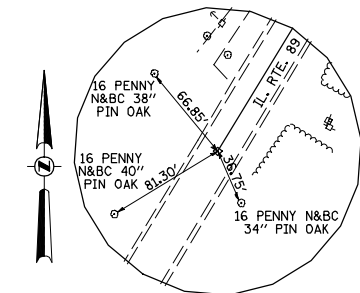
PC STA 277+95.58
MAG NAIL IN CHSLD "X"
N 1,568,791.05 E 2,549,429.17



PI STA 287+44.81
#4 I. PIN
N 1,568,477.56 E 2,548,533.21



PT STA 296+18.27
MAG NAIL IN BIT. BRIDGE DECK
N 1,567,665.82 E 2,548,041.15



POT STA 313+00.00
MAG NAIL IN CHSLD "X"
N 1,566,227.69 E 2,547,169.37

Chain IL89 contains:
58 CUR IL89-1 61

Beginning chain IL89 description

Point 58 N 1,568,888.66 E 2,549,708.17 Sta 275+00.00

Course from 58 to PC IL89-1 S 70°42'56" W Dist 295.58

Curve Data

Curve IL89-1			
P.I. Station	287+44.807 N	1,568,477.56 E	2,548,533.21
Delta	= 39° 29' 30" (LT)		
Degree	= 2° 10' 00"		
Tangent	= 949.23		
Length	= 1,822.69		
Radius	= 2,644.42		
External	= 165.20		
Long Chord	= 1,786.83		
Mid. Ord.	= 155.49		
P.C. Station	277+95.580 N	1,568,791.05 E	2,549,429.17
P.T. Station	296+18.272 N	1,567,665.82 E	2,548,041.15
C.C.	N	1,566,295.01 E	2,550,302.52
Back	= S 70°42'56" W		
Ahead	= S 31°13'26" W		
Chord Bear	= S 50°58'11" W		

Course from PT IL89-1 to 61 S 31°13'26" W Dist 1,681.73

Point 61 N 1,566,227.69 E 2,547,169.37 Sta 313+00.002

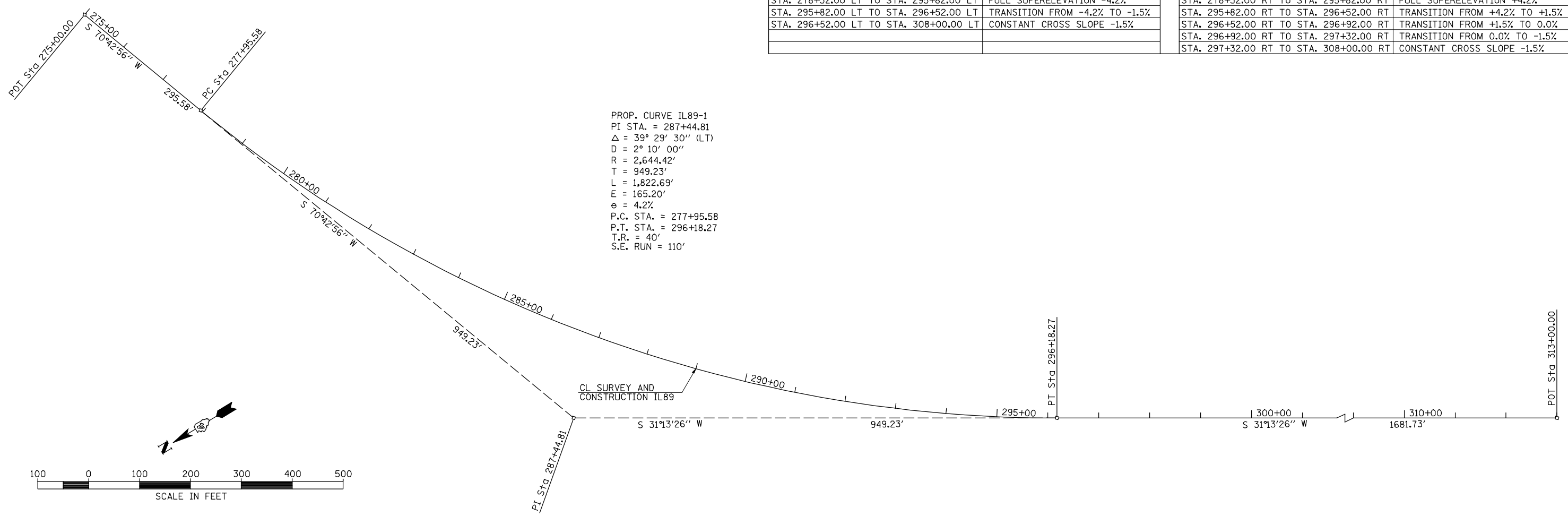
Ending chain IL89 description

BENCHMARKS

BM #	ELEVATION	STATION	OFFSET	DESCRIPTION
BM HEI WR1	640.05	281+46.00	67' LT	CHISELED "□" ON SOUTH CORNER OF THE FIRST (BOTTOM) CONC. STEP @ THE ENTRANCE STAIRWAY TO A TWO-STORY WHITE HOUSE. HOUSE #288
BM HEI 6	634.77	301+08.00	18' RT	SET CHISELED "□" ON TOP OF SW WINGWALL OF IL89 BRIDGE OVER CROW CREEK
BM HEI 5	626.64	305+65.00	37' RT	SET RR SPIKE IN A 46" PIN OAK ±115' SOUTHERLY OF END OF GUARD RAIL ON THE WEST SIDE OF IL89 (FIRST LARGE TREE SOUTH OF CROW CREEK NEAR WEST E.O.P.)

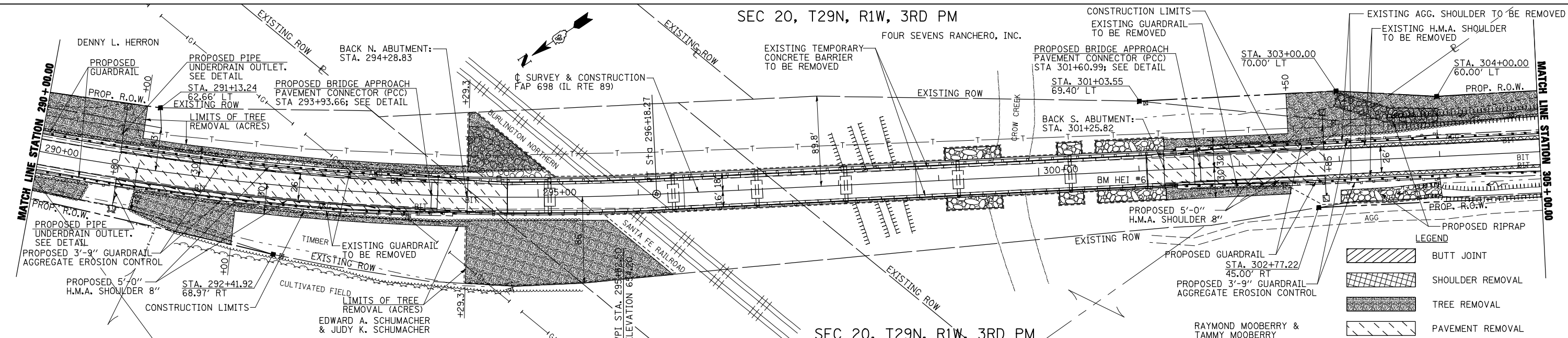
PROPOSED SUPERELEVATION TABLE

LEFT SUPERELEVATION		RIGHT SUPERELEVATION	
STA. 275+50.00 LT TO STA. 276+67.50 LT	TRANSITION FROM +3.0% TO 0.0%	STA. 275+50.00 RT TO STA. 276+67.50 RT	TRANSITION FROM -3.0% TO 0.0%
STA. 276+67.50 LT TO STA. 278+32.00 LT	TRANSITION FROM 0.0% TO -4.2%	STA. 276+67.50 RT TO STA. 278+32.00 RT	TRANSITION FROM 0.0% TO +4.2%
STA. 278+32.00 LT TO STA. 295+82.00 LT	FULL SUPERELEVATION -4.2%	STA. 278+32.00 RT TO STA. 295+82.00 RT	FULL SUPERELEVATION +4.2%
STA. 295+82.00 LT TO STA. 296+52.00 LT	TRANSITION FROM -4.2% TO -1.5%	STA. 295+82.00 RT TO STA. 296+52.00 RT	TRANSITION FROM +4.2% TO +1.5%
STA. 296+52.00 LT TO STA. 308+00.00 LT	CONSTANT CROSS SLOPE -1.5%	STA. 296+52.00 RT TO STA. 296+92.00 RT	TRANSITION FROM +1.5% TO 0.0%
		STA. 296+92.00 RT TO STA. 297+32.00 RT	TRANSITION FROM 0.0% TO -1.5%
		STA. 297+32.00 RT TO STA. 308+00.00 RT	CONSTANT CROSS SLOPE -1.5%

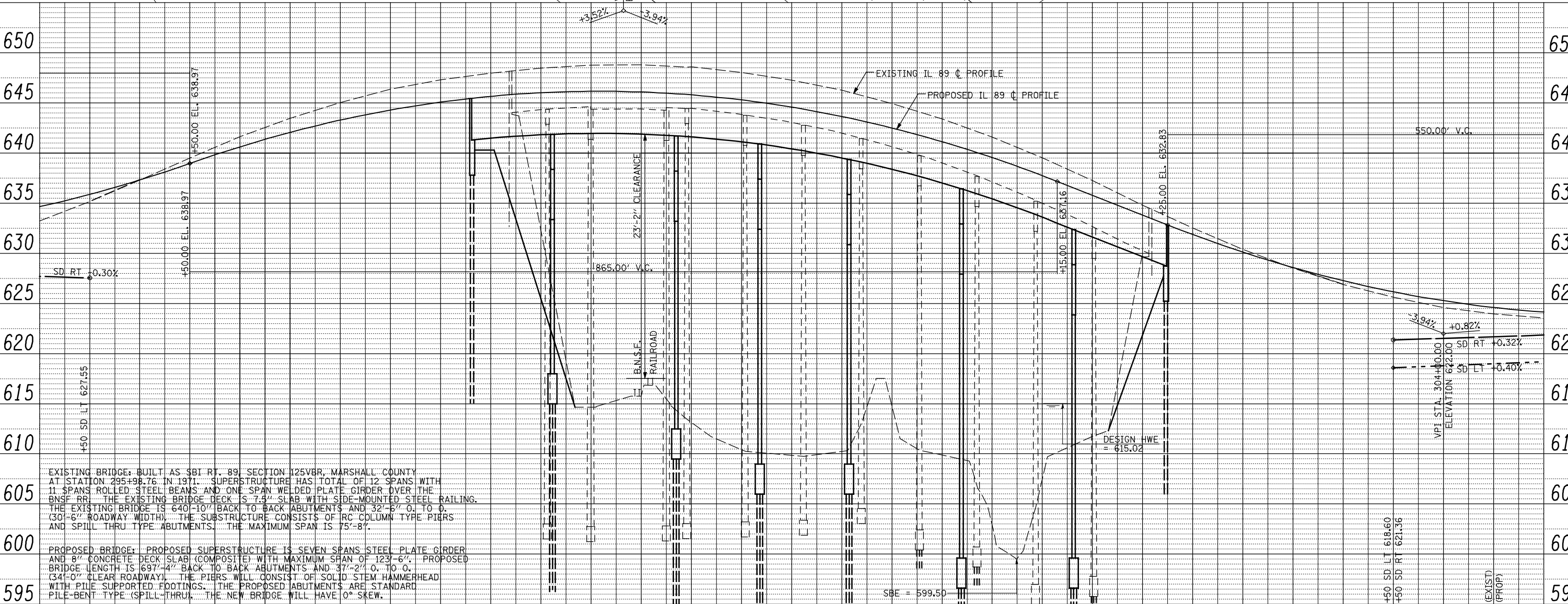


PROP. CURVE IL89-1
PI STA. = 287+44.81
Δ = 39° 29' 30" (LT)
D = 2° 10' 00"
R = 2,644.42'
T = 949.23'
L = 1,822.69'
E = 165.20'
e = 4.2%
P.C. STA. = 277+95.58
P.T. STA. = 296+18.27
T.R. = 40'
S.E. RUN = 110'

SEC 20, T29N, R1W, 3RD PM



SEC 20, T29N, R1W, 3RD PM



EXISTING BRIDGE: BUILT AS SBI RT. 89, SECTION 125VBR, MARSHALL COUNTY AT STATION 295+98.76 IN 1971. SUPERSTRUCTURE HAS TOTAL OF 12 SPANS WITH 11 SPANS ROLLED STEEL BEAMS AND ONE SPAN WELDED PLATE GIRDER OVER THE BNSF RR. THE EXISTING BRIDGE DECK IS 7.5" SLAB WITH SIDE MOUNTED STEEL RAILING. THE EXISTING BRIDGE IS 640'-10" BACK TO BACK ABUTMENTS AND 32'-6" O. TO O. (30'-6" ROADWAY WIDTH). THE SUBSTRUCTURE CONSISTS OF IRC COLUMN TYPE PIERS AND SPILL THRU TYPE ABUTMENTS. THE MAXIMUM SPAN IS 75'-8".

PROPOSED BRIDGE: PROPOSED SUPERSTRUCTURE IS SEVEN SPANS STEEL PLATE GIRDER AND 8" CONCRETE DECK SLAB (COMPOSITE) WITH MAXIMUM SPAN OF 123'-6". PROPOSED BRIDGE LENGTH IS 697'-4" BACK TO BACK ABUTMENTS AND 37'-2" O. TO O. (34'-0" CLEAR ROADWAY). THE PIERS WILL CONSIST OF SOLID STEM HAMMERHEAD WITH PILE SUPPORTED FOOTINGS. THE PROPOSED ABUTMENTS ARE STANDARD PILE-BENT TYPE (SPILL THRU). THE NEW BRIDGE WILL HAVE 0° SKEW.

633.28	634.64	635.22	635.87	637.34	637.31	639.56	638.97	641.67	640.62	643.51	642.06	645.08	643.28	646.41	644.29	647.36	645.08	648.04	645.65	648.46	646.01	648.76	646.15	648.79	646.08	648.61	645.80	648.03	645.29	647.26	644.57	646.25	643.64	644.92	642.49	643.41	641.12	641.58	639.54	639.52	637.75	637.25	635.79	634.80	633.82	632.59	631.87	630.45	630.12	628.60	628.58	626.96	627.26	625.70	626.16	624.66	625.27	624.02	624.60	623.63	624.15
290+00	291+00	292+00	293+00	294+00	295+00	296+00	297+00	298+00	299+00	300+00	301+00	302+00	303+00	304+00	305+00																																														

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NOTE BOOK	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NOTE BOOK	
	NO.	

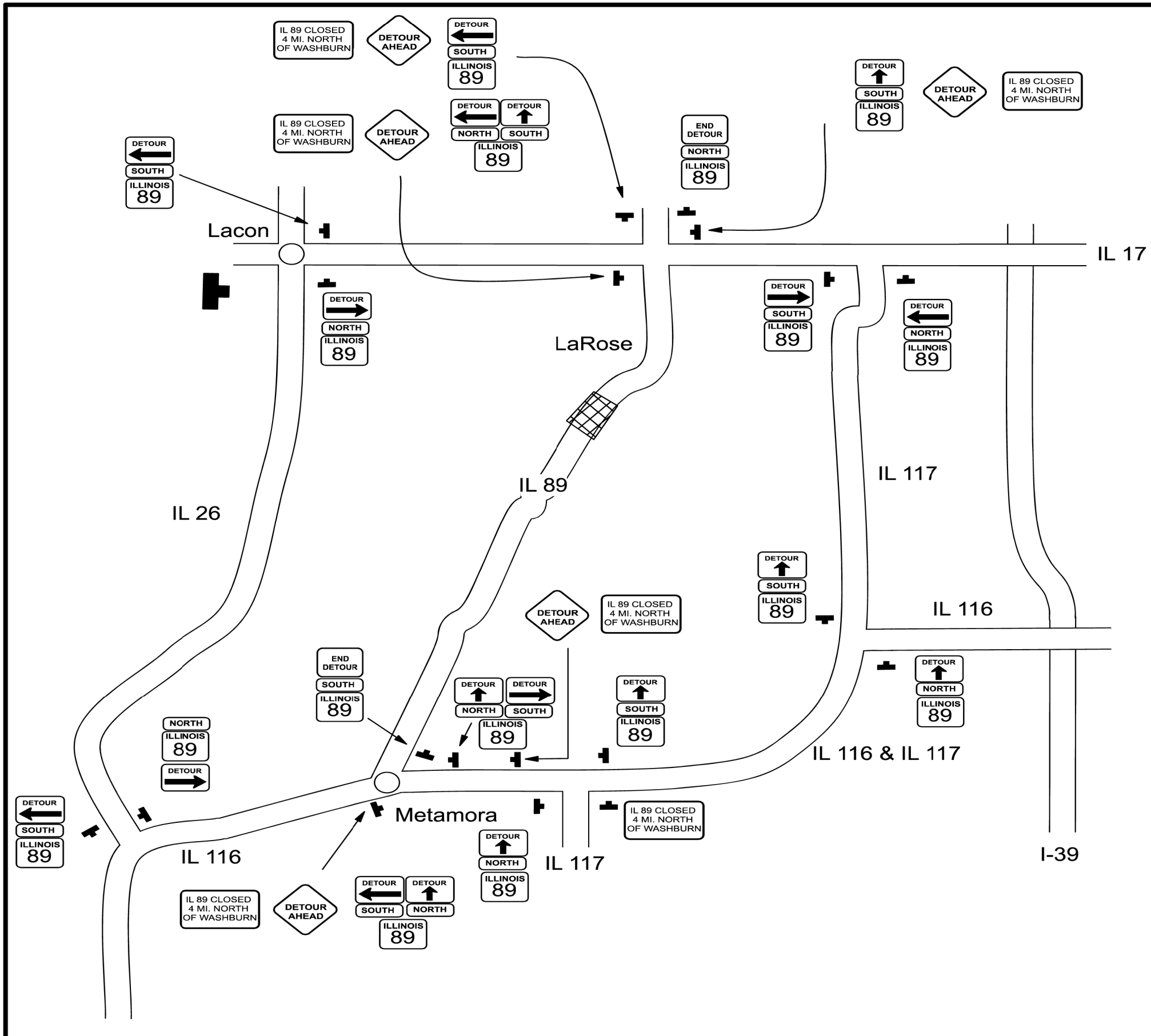
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 698 (IL RTE 89) PLAN & PROFILE
STA 290+00 TO STA 305+00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	21
CONTRACT NO. 68580				

SCALE: 1"=50' SHEET NO. 2 OF 3 SHEETS STA. 290+00.00 TO STA. 305+00.00 FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT

FILE NAME =	USER NAME = jdeen	DESIGNED - MVM	REVISED -
vs:\transportation\3013\cadd_sheets\1468580\shp-plnpr-f02.dgn		DRAWN - TJD	REVISED -
		CHECKED - AWM	REVISED -
		DATE - JULY 24, 2013	REVISED -



ALL DETOUR SIGNAGE SHALL BE POST MOUNTED.
SIGN SPACING- 500'.
MIN. 6" SERIES D LETTERING.
COLORS AS SPECIFIED ON SIGN INVENTORY.

SIGN INVENTORY		
	= 5	BLACK ON ORANGE
	= 6	BLACK ON ORANGE
	= 6	BLACK ON ORANGE
	= 4	BLACK ON ORANGE
	= 8	BLACK ON ORANGE
	= 17	BLACK ON WHITE
	= 9	BLACK ON WHITE
	= 11	BLACK ON WHITE
	= 2	BLACK ON ORANGE

FILE NAME =	USER NAME = jdeen	DESIGNED - MVM	REVISED -
V:\Transportation\3013\CADD_Sheets\468800-sh-t-staging.dgn		DRAWN - TJD	REVISED -
	PLOT SCALE = 0.05" = 1'	CHECKED - AWM	REVISED -
	PLOT DATE = 7/25/2013	DATE - JULY 24, 2013	REVISED -

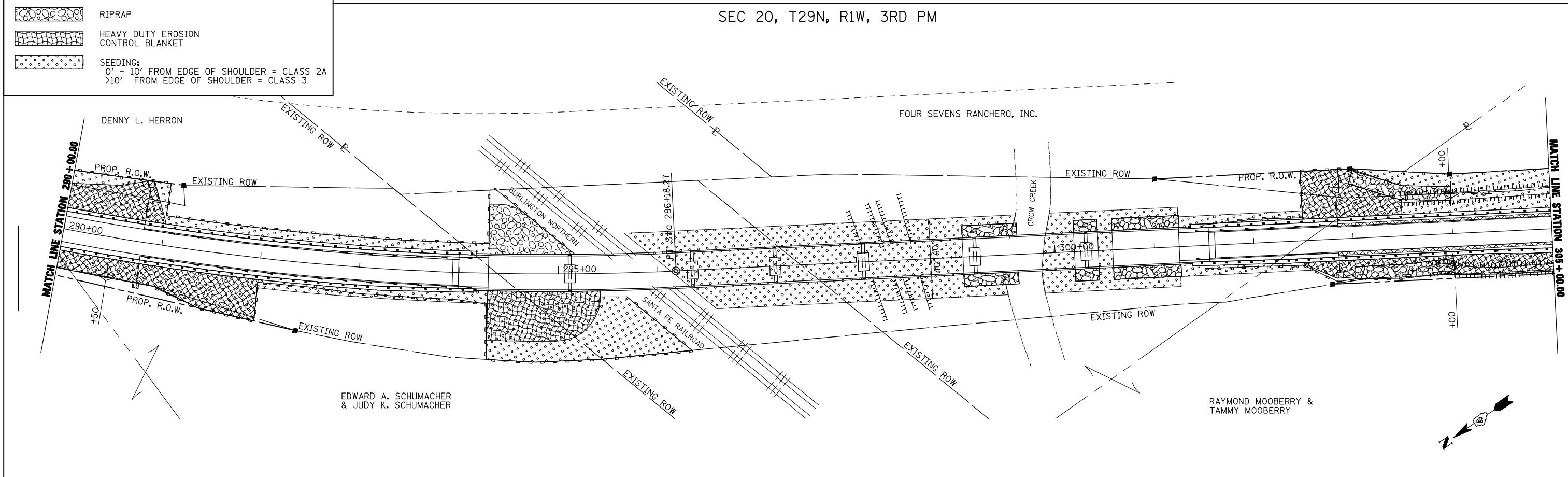
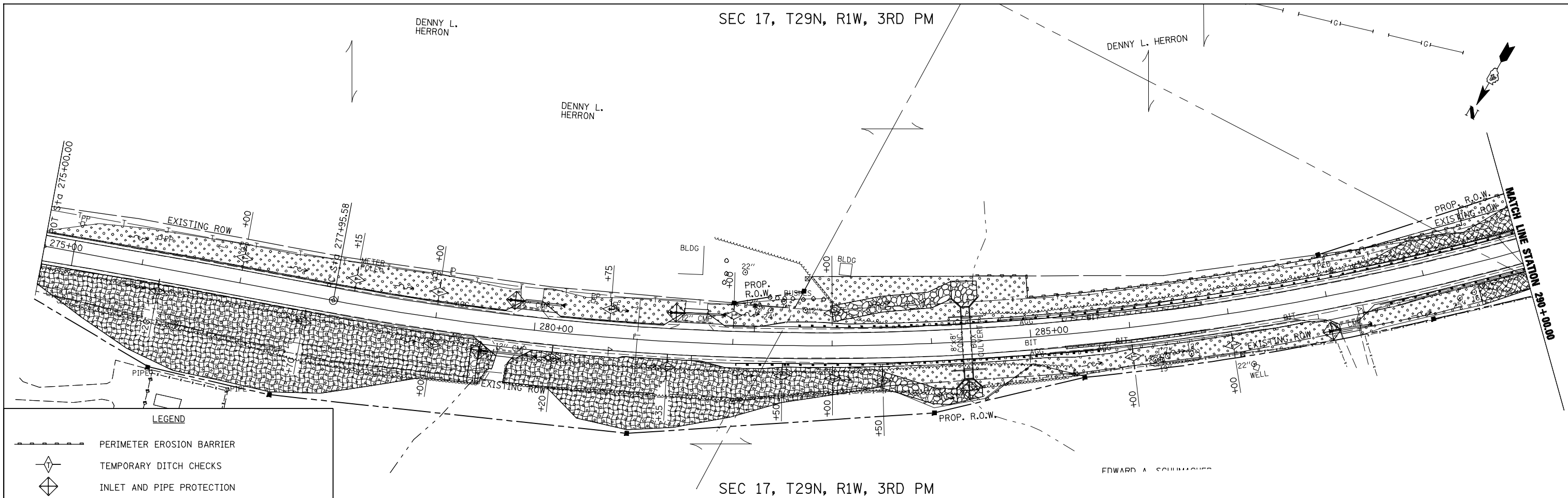
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE 698 (IL 89) MARKED DETOUR LAYOUT			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
698	1125VBR/BR	MARSHALL	148
			SHEET NO. 23
			CONTRACT NO. 68580
N/A	SHEET NO.	OF SHEETS	STA. TO STA.

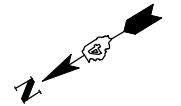
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	1125VBR/BR	MARSHALL	148	23
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTED	
	CHECKED	
	ALIGNED	
	FILED	
	NO.	
	NO.	
	NO.	

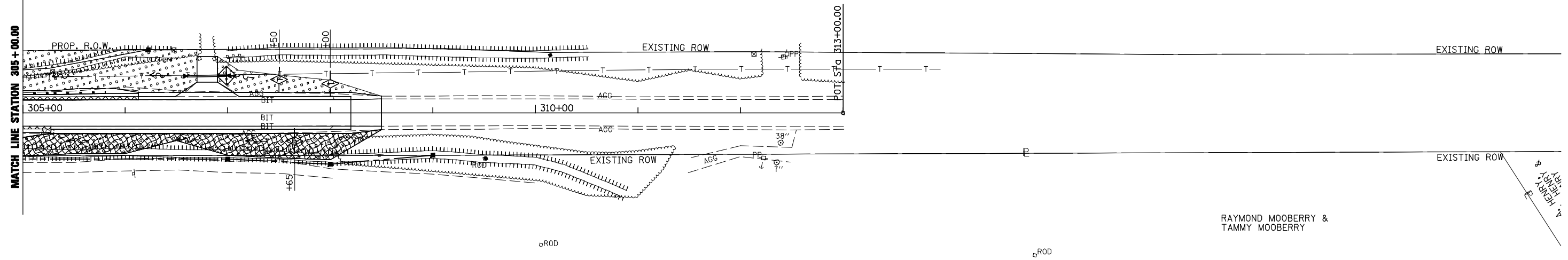
PROFILE	SURVEYED	DATE
	PLOTTED	BY
	NOTED	
	CHECKED	
	ALIGNED	
	FILED	
	NO.	
	NO.	
	NO.	








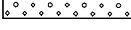
FILE NAME =	USER NAME = jdeen	DESIGNED - MVM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FAP 698 (IL RTE 89) EROSION CONTROL PLAN STA 275+00 TO STA 305+00	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
vs:\transportation\3013\cadd\sheeta\14668580-shr-er-os01.dgn		DRAWN - TJD	REVISED -			698	(125VBR)BR	MARSHALL	148	24
PLOT SCALE = 100.0000' / IN.		CHECKED - AWM	REVISED -			CONTRACT NO. 68580				
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



VERNON HENRY, INC.



LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECKS
-  INLET AND PIPE PROTECTION
-  RIPRAP
-  HEAVY DUTY EROSION CONTROL BLANKET
-  SEEDING:
0' - 10' FROM EDGE OF SHOULDER = CLASS 2A
>10' FROM EDGE OF SHOULDER = CLASS 3

RAYMOND MOOBERRY & TAMMY MOOBERRY

SEC 19, T29N, R1W, 3RD PM

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

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

FILE NAME =	USER NAME = jdeen	DESIGNED - MVM	REVISED -
v:\transportation\3013\cadd\sheets\468580\shet-eros02.dgn		DRAWN - TJD	REVISED -
	PLOT SCALE = 100.0000' / IN.	CHECKED - AWM	REVISED -
	PLOT DATE = 7/25/2013	DATE - JULY 24, 2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP 698 (IL RTE 89) EROSION CONTROL PLAN
STA 305+00 TO STA 313+00

SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 305+00.00 TO STA. 313+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	25
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT			CONTRACT NO. 68580	

B.M.4: RR Spike in Power Pole West Side of Il. 89, ±30' N. of the N. Entrance to the First House South of Crow Creek, MB# 245 Elev. 630.167

B.M.5: RR Spike in 46" Pin Oak ±115' S. of Guardrail End on the W. Side of Il. 89, (First Large Tree S. of Crow Creek Near West E.O.P.) Elev. 626.636

Existing Structure:
Str. No. 062-0031. Built as SBI Rt. 89, Sec. 125VB-125V-C Sta. 301+00 Marshall County in 1930. Superstructure originally consisted of eleven R.C. Deck Girder spans and one Steel Plate Girder span supported on R.C. Piers and Spill-Thru Abutments. 641.6' Bk. to Bk. Abutments and 24'-0" clear width. The Superstructure was replaced in 1971 SBI Rt. 89, Sec. 125VBR, Sta. 295+98.76, Marshall County. The existing superstructure has eleven W-beam spans and one steel plate girder span all with 7 1/2" deck slab 640'-10" Bk. to Bk. Abutment Caps and 32'-6" O. to O. Deck. Portions of the substructure were removed and reconstructed to accommodate the new superstructure.

Traffic will be detoured during construction.

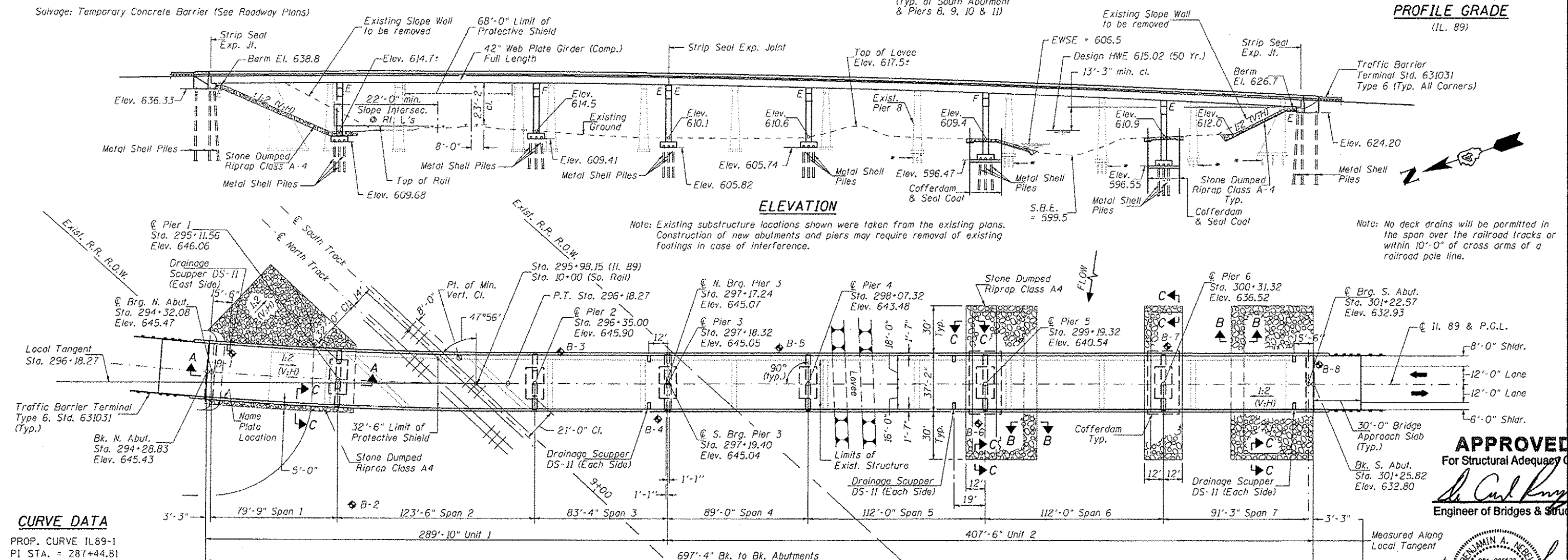
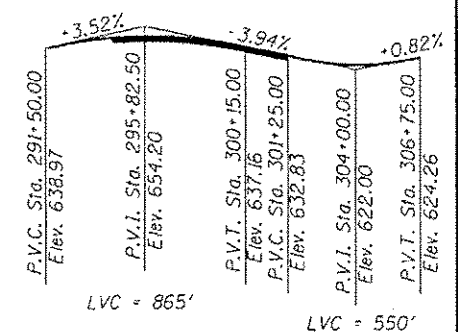
Salvage: Temporary Concrete Barrier (See Roadway Plans)

TOP OF RAIL ELEVATIONS - BNSF RR
(North Track)

Sta. 12+17	Elev. 616.57
Sta. 11+68	Elev. 616.46
Sta. 11+19	Elev. 616.39
Sta. 10+68	Elev. 616.34
Sta. 10+41	Elev. 616.28
Sta. 9+95	Elev. 616.34
Sta. 9+41	Elev. 616.34
Sta. 8+92	Elev. 616.40
Sta. 8+42	Elev. 616.50
Sta. 7+90	Elev. 616.69

TOP OF RAIL ELEVATIONS - BNSF RR
(South Track)

Sta. 12+17	Elev. 617.68
Sta. 11+68	Elev. 617.60
Sta. 11+19	Elev. 617.57
Sta. 10+68	Elev. 617.52
Sta. 10+25	Elev. 617.50
Sta. 9+80	Elev. 617.38
Sta. 9+40	Elev. 617.36
Sta. 8+86	Elev. 617.43
Sta. 8+40	Elev. 617.45
Sta. 7+90	Elev. 617.63



CURVE DATA

PROP. CURVE IL89-1
PI STA. = 287+44.81
Δ = 39° 29' 30" (LT)
D = 2° 10' 00"
R = 2,644.42'
T = 949.23'
L = 1,822.69'
E = 165.20'
e = 4.2%
P.C. STA. = 277+95.58
P.T. STA. = 296+18.27
T.R. = 40.00'
S.E. = 110.00'
S.E. Removed Sta. 295+82 to Sta. 297+32

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Pier 5	Pier 6	S. Abut.
	596.5	596.5	624.2

WATERWAY INFORMATION

Exist. Low Grade Elev. = 623.49 @ Sta. 305+50
Prop. Low Grade Elev. = 623.52 @ Sta. 305+50

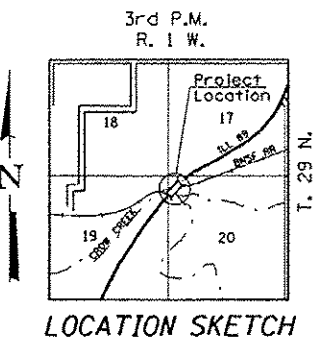
Flood		Freq. Yr.		Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater E.I.	
		Q	C.F.S.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	4,950	816	888	612.08	0.37	0.22	612.45	612.30		
Base	50	7,780	1,382	1,489	615.02	0.28	0.15	615.30	615.17		
Max. Calc.	100	9,010	1,603	1,744	616.17	0.25	0.13	616.42	616.40		
	500	12,000	3,621	3,985	618.66	0.20	0.16	618.86	618.82		

SEISMIC DATA
Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.106g
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.169g
Soil Site Class = D

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

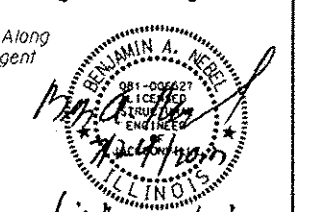
DESIGN SPECIFICATIONS
2010 AASHTO LRFD Design Specifications
5th Edition with 2010 Interims.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)



GENERAL PLAN
ILL RTE 89 OVER
BNSF RR AND CROW CREEK
F.A.P. RTE 698 SEC. (125VBR)BR
MARSHALL COUNTY
STATION 295+98.15
S.N. 062-0086

APPROVED
For Structural Adequacy Only
Carl Kruger
Engineer of Bridges & Structures



Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = Jdean	DESIGNED = JOH	REVISED =
PLOT SCALE = NONE	CHECKED = BAN	REVISED =
PLOT DATE = 7/24/2013	DRAWN = TAC	REVISED =
	CHECKED = JOH/BAN	REVISED =

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 062-0086
SHEET NO. 1 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	26
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				

INDEX TO SHEETS

SHEET #'s	DESCRIPTION
1	General Plan and Elevation
2-3	General Data
4	Footing Layout & Details
5	Braced Excavation Details
6-8	Top of Slab Elevations - Unit 1
9-12	Top of Slab Elevations - Unit 2
13	Top of North Approach Slab Elevations
14	Top of South Approach Slab Elevations
15	Superstructure - Unit 1
16	Superstructure - Unit 2
17-19	Superstructure Details
20-21	North Approach Bridge Slab Details
22-23	South Approach Bridge Slab Details
24	Preformed Joint Strip Seal
25	Drainage Scupper DS-11
26-27	Steel Framing Plan and Details - Unit 1
28	Steel Framing Plan and Details - Unit 2
29-30	Structural Steel Details
31-32	Moment, Shear & Reaction Tables
33-34	Bearing Details - Unit 1
35-36	Bearing Details - Unit 2
37	North Abutment
38	North Abutment Details
39	South Abutment
40	South Abutment Details
41-42	Pier 1 Details
43-44	Pier 2 Details
45-46	Pier 3 Details
47-48	Pier 4 Details
49-50	Pier 5 Details
51-52	Pier 6 Details
53	Metal Shell Pile Details
54	Bar Splicer Assembly & Mechanical Splicer Details
55-62	Soil Borings

GENERAL NOTES

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

Calculated weight of Structural Steel = 794,940 lbs. (AASHTO M270 Gr. 50W)

No field welding is permitted except as specified in the contract documents. Reinforcement bars designated (E) shall be epoxy coated.

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

Concrete Sealer shall be applied to the designated areas of the abutments and pier 3.

The steel girders and all structural steel within 10'-0" each way from bridge expansion joints shall be metallized in the shop according to the Special Provision for "Metallizing Structural Steel".

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all steel surfaces shall be reddish brown, Munsell No. 2.5YR 3/4.

All structural steel and exposed surfaces of bearings within a distance of 10 ft. each way from the deck joints shall be painted as specified in Section 506 of the Standard Specifications.

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

Slipforming of the parapets is not allowed.

Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

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

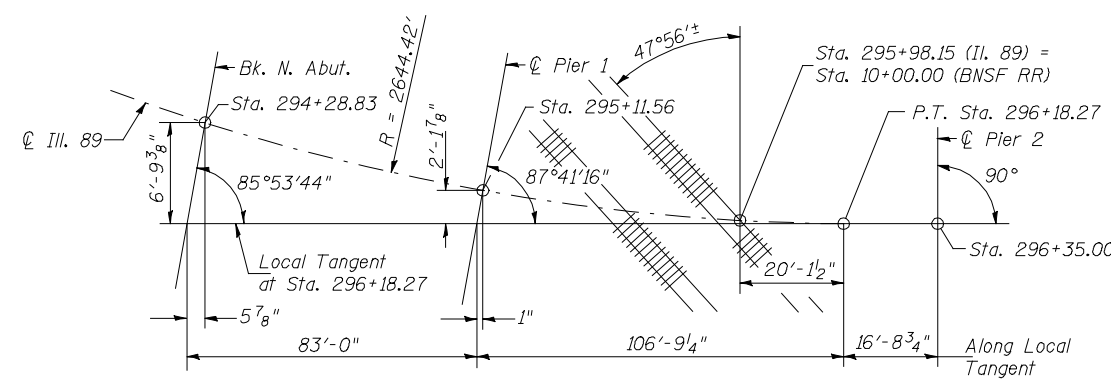
All structural steel shall be AASHTO M270 Grade 50W except expansion joints which shall be AASHTO M270 Grade 50.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Granular Backfill for Structures	CU YD	—	110	110
Stone Dumped Riprap, Class A4	SQ YD	—	—	1,850
Filter Fabric	SQ YD	—	—	1,850
Removal of Existing Structures	EACH	—	—	1
Slope Wall Removal	SQ YD	—	—	550
Structure Excavation	CU YD	—	588	588
Cofferdam Excavation	CU YD	—	536	536
Cofferdam (Type 2) (Location-1)	EACH	—	1	1
Cofferdam (Type 2) (Location-2)	EACH	—	1	1
Concrete Structures	CU YD	—	803.5	803.5
Concrete Superstructure	CU YD	941.7	—	941.7
Bridge Deck Grooving	SQ YD	2,683	—	2,683
Concrete Encasement	CU YD	—	12.0	12.0
Protective Coat	SQ YD	3,462	—	3,462
Furnishing and Erecting Structural Steel	L SUM	1	—	1
Stud Shear Connectors	EACH	11,466	—	11,466
Reinforcement Bars, Epoxy Coated	POUND	242,440	98,870	341,310
Bar Splicers	EACH	—	70	70
Furnishing Metal Shell Piles 14" x 0.312"	FOOT	—	3,944	3,944
Furnishing Metal Shell Piles 12" x 0.250"	FOOT	—	1,176	1,176
Driving Piles	FOOT	—	5,120	5,120
Test Pile Metal Shells	EACH	—	8	8
Pile Shoes	EACH	—	134	134
Name Plates	EACH	1	—	1
Preformed Joint Strip Seal	FOOT	108	—	108
Elastomeric Bearing Assembly, Type I	EACH	24	—	24
Elastomeric Bearing Assembly, Type II	EACH	18	—	18
Anchor Bolts, $\frac{5}{8}$ "	EACH	—	24	24
Anchor Bolts, $\frac{3}{4}$ "	EACH	—	24	24
Anchor Bolts, 1"	EACH	—	24	24
Anchor Bolts, $1\frac{1}{4}$ "	EACH	—	36	36
Concrete Sealer	SQ FT	—	2,570	2,570
Pipe Underdrains for Structures 4"	FOOT	—	154	154
Drainage Scuppers, DS-11	EACH	7	—	7
Braced Excavation	CU YD	—	476	476
Protective Shield	SQ YD	246	—	246
Seal Coat Concrete	CU YD	—	109.9	109.9
Geocomposite Wall Drain	SQ YD	—	55	55
Mechanical Splicers	EACH	—	848	848

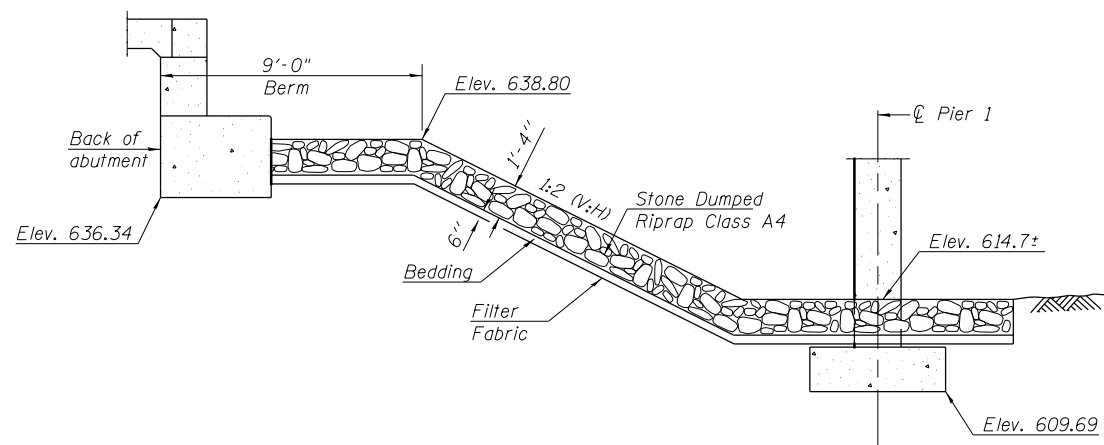
STATION 295+98.15
 BUILT 201- BY
 STATE OF ILLINOIS
 F.A.P. RT. 698 SECTION (125VBR)BR
 LOADING HL-93
 STR. NO. 062-0086

NAME PLATE
 (See Std. 515001)

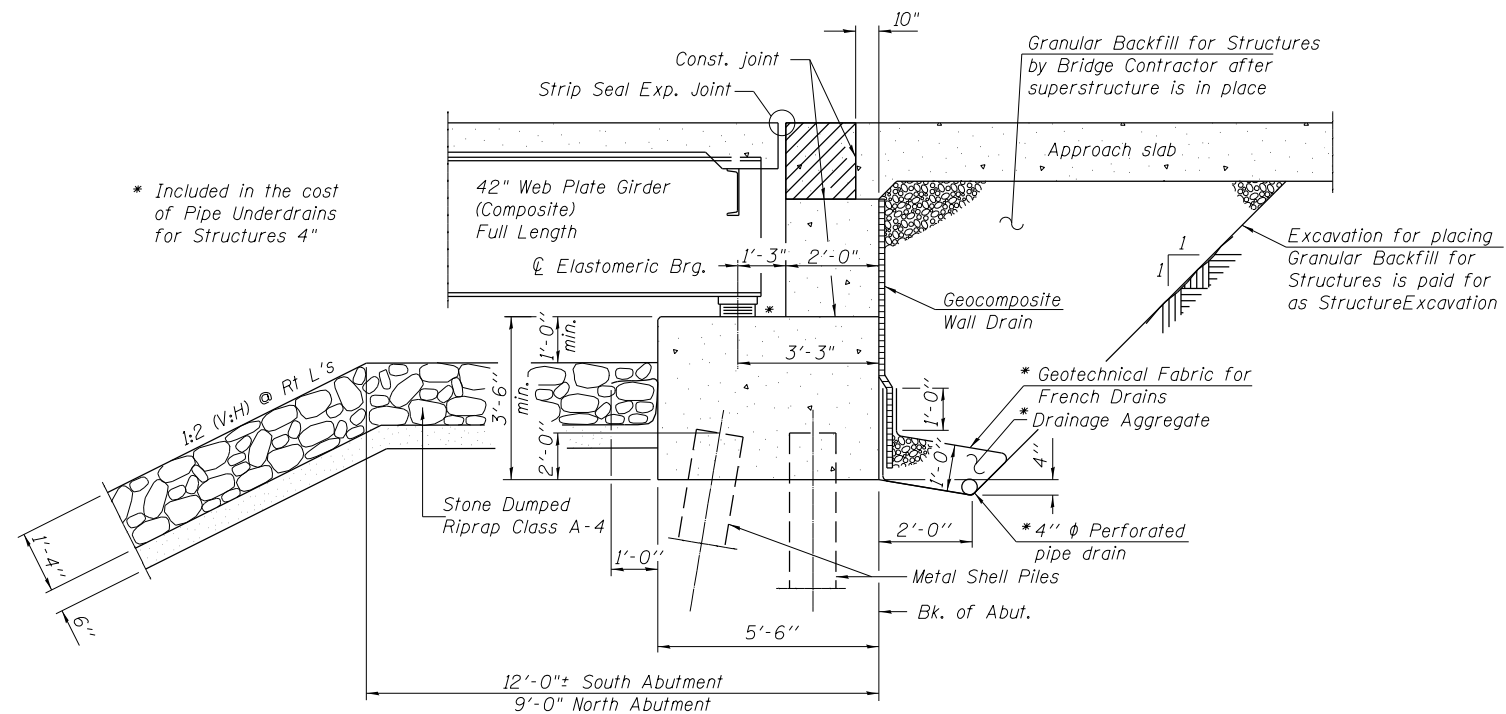


OFFSET SKETCH

v:\transportation\3013\cadd\sheeta\0620086-68580-002-GENERAL DATA.dgn

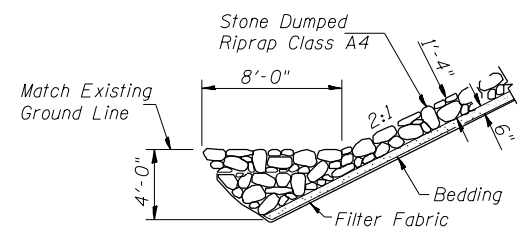


SECTION A-A



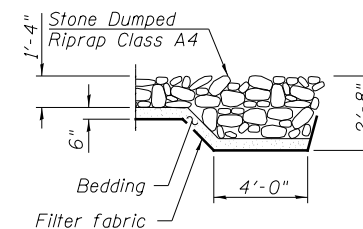
SECTION THRU PILE SUPPORTED
STUB ABUTMENT

Note:
All drainage system components shall extend parallel to the abutment back wall until they intersect the wingwalls or 2'-0" from the end of the wingwalls when the wings are parallel to the abutment. The pipe shall extend under the wingwall, if necessary until intersecting the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110).



STONE RIPRAP ANCHOR DETAIL

SECTION B-B



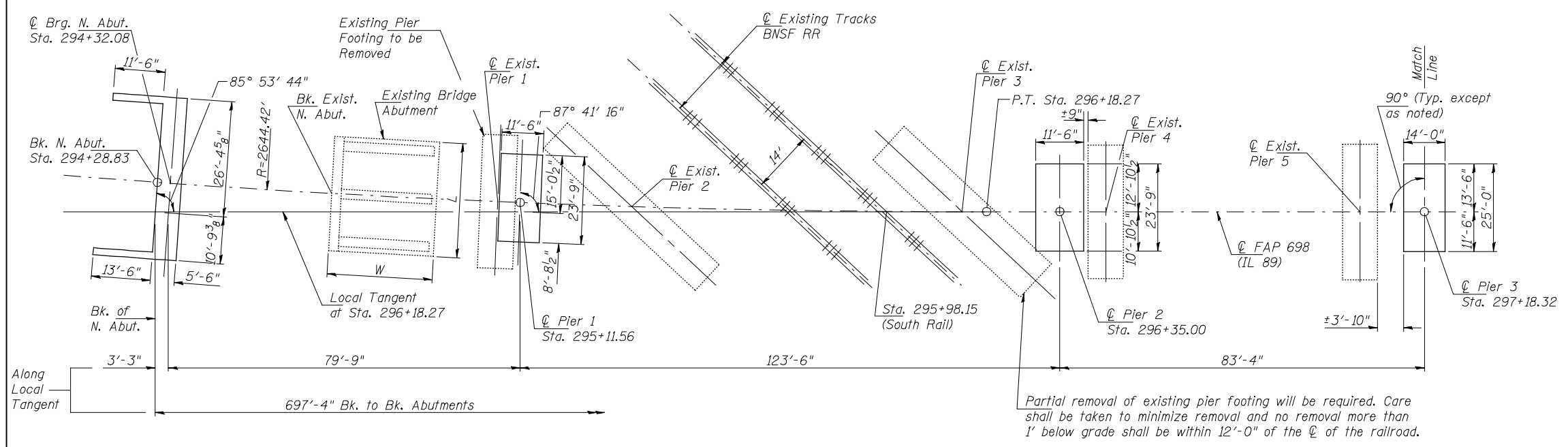
SECTION C-C

Note: Existing piers and abutments shall be removed to at least 1'-0" below the proposed ground surface. Portions of existing structures that interfere with the proposed construction shall be removed as necessary. Cost included with REMOVAL OF EXISTING STRUCTURES.

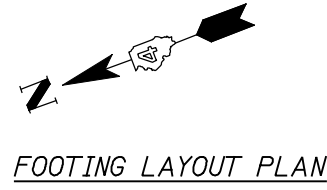
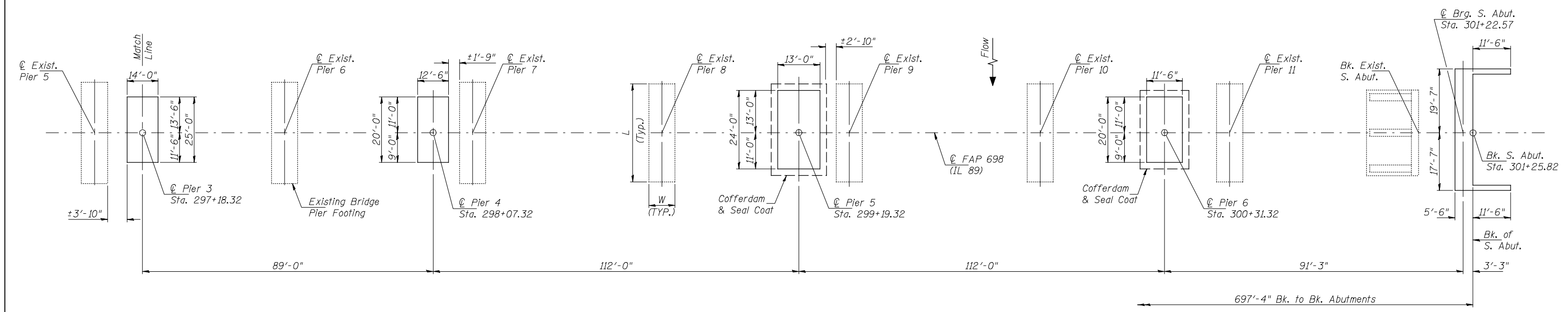
***EXISTING SUBSTRUCTURE FOOTINGS STATIONS & DIMENSIONS**

Exist Substructure Location	Station	Footing Size W x L x D
Bk. N. Abut.	294+68.32	24'-0" x 26'-2" x 3'-6"
Pier 1	295+06.44	8'-0" x 30'-6" x 18"
Pier 2	295+38.09	8'-0" x 47'-6" x 18"
Pier 3	296+13.76	8'-0" x 46'-0" x 18"
Pier 4	296+45.50	8'-0" x 30'-6" x 18"
Pier 5	297+03.60	8'-0" x 31'-0" x 18"
Pier 6	297+61.80	8'-0" x 31'-0" x 18"
Pier 7	298+19.40	8'-0" x 31'-0" x 18"
Pier 8	298+77.40	8'-0" x 30'-0" x 24"
Pier 9	299+34.80	8'-0" x 30'-0" x 24"
Pier 10	299+93.30	8'-0" x 30'-0" x 24"
Pier 11	300+51.30	8'-0" x 30'-0" x 24"
Bk. S. Abut.	301+09.15	16'-0" x 26'-2" x 2'-9"

* Existing substructure information obtained from the existing structure plans on sheets 87-113 of 147.
D = Existing Footing Thickness



Partial removal of existing pier footing will be required. Care shall be taken to minimize removal and no removal more than 1' below grade shall be within 12'-0" of the centerline of the railroad.



Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

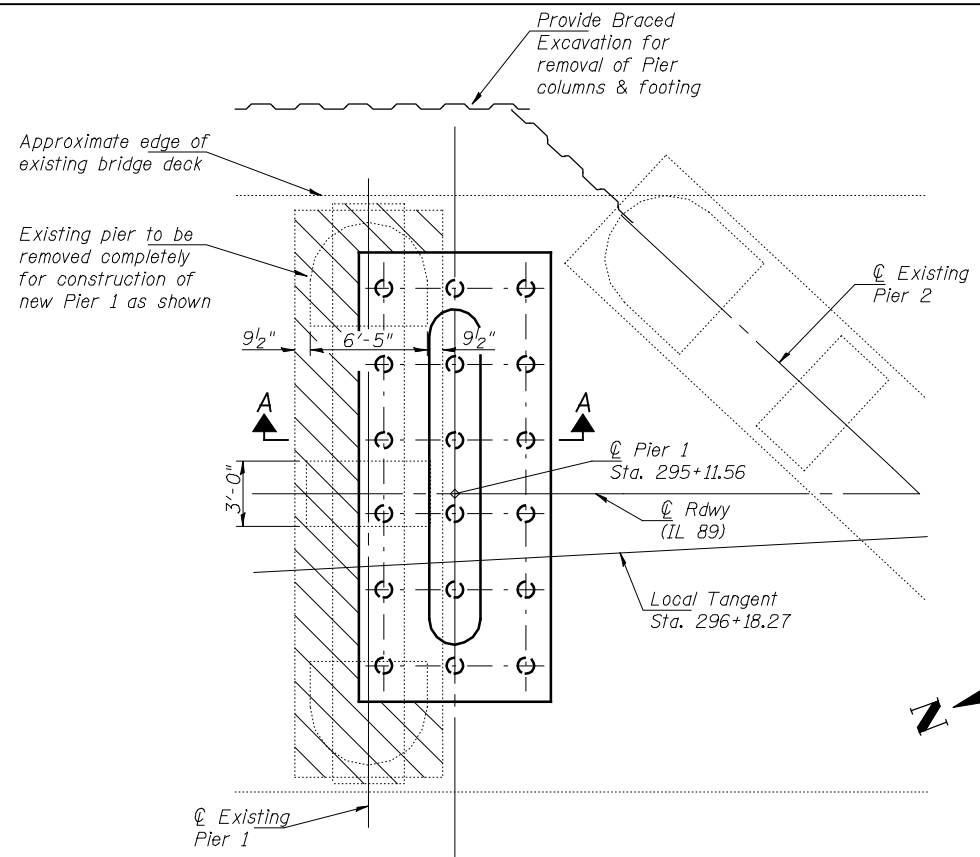
USER NAME = Jdeen	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TJD	REVISED -
	CHECKED - JOH/BAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

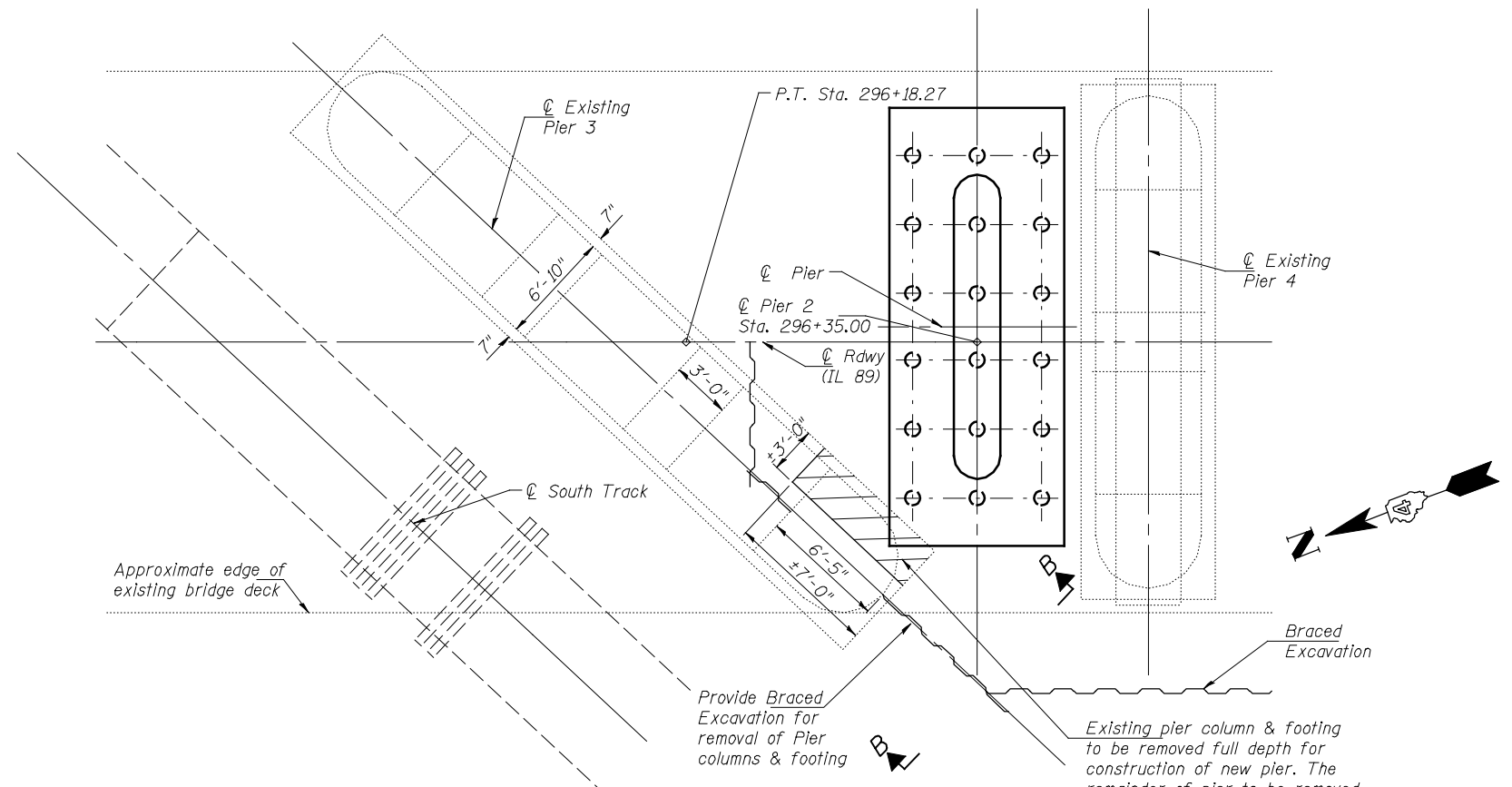
FOOTING LAYOUT AND DETAILS
STRUCTURE NO. 062-0086

SHEET NO. 4 OF 62 SHEETS

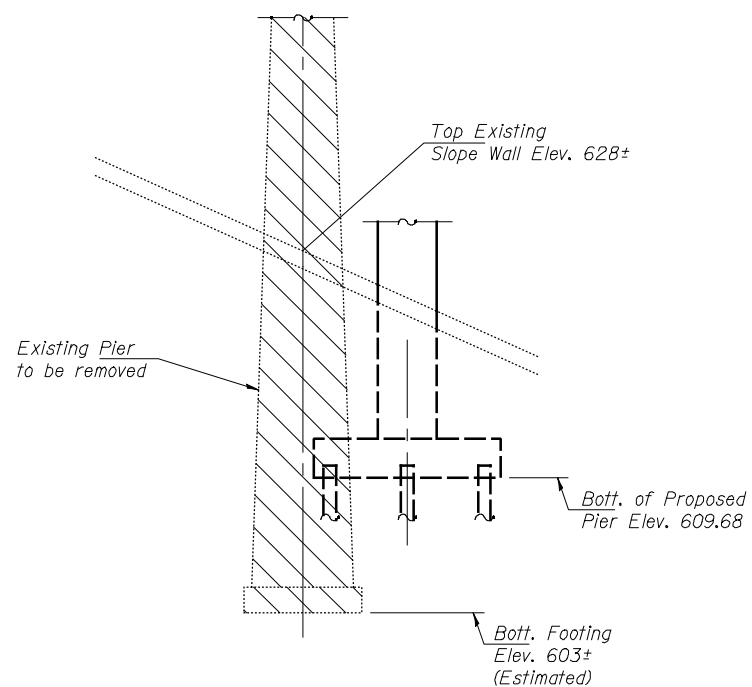
F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 29
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68580	



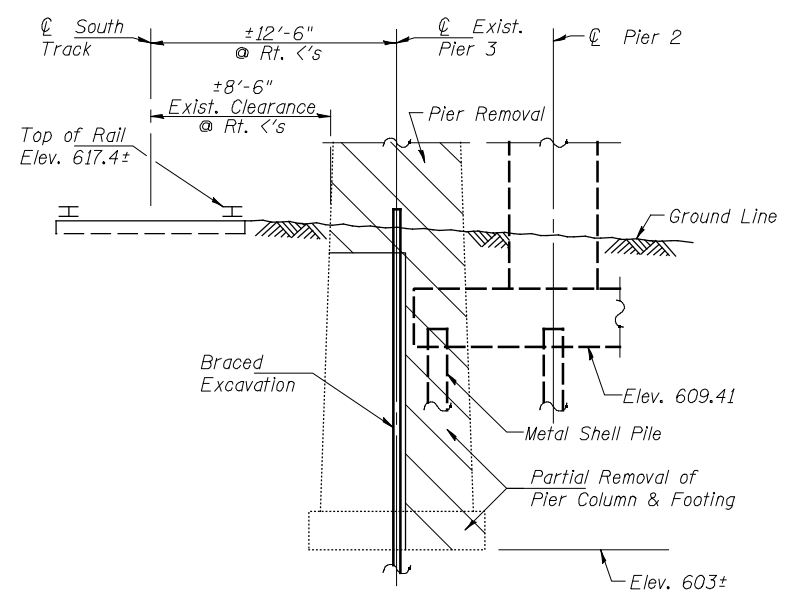
PLAN AT PIER 1



PLAN AT PIER 2



SECTION A-A



SECTION B-B

Notes:
Contractor shall submit the Braced Excavation design calculations and shop drawings prepared and sealed by an Illinois Licensed Structural Engineer to the Engineer for approval.

Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

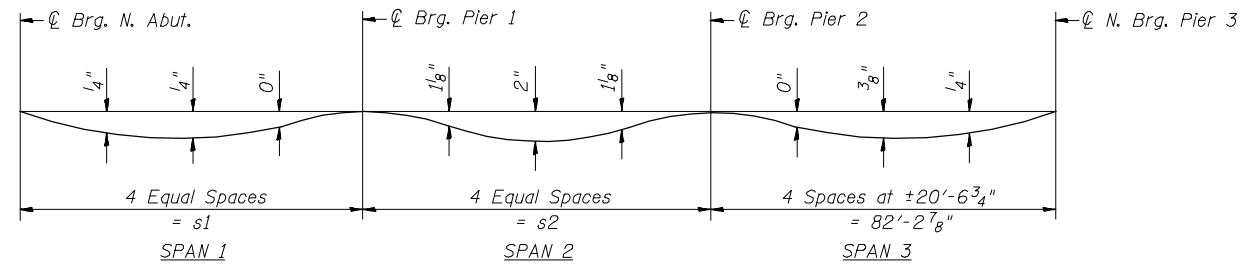
USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TJD	REVISED -
	CHECKED - JOH/BAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRACED EXCAVATION DETAILS
STRUCTURE NO. 062-0086

SHEET NO. 5 OF 62 SHEETS

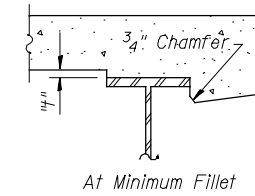
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	30
CONTRACT NO. 68580				
ILLINOIS FED. AID PROJECT				



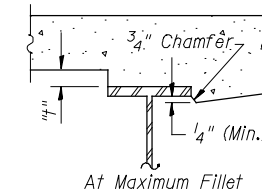
DEAD LOAD DEFLECTION DIAGRAM - UNIT 1

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the theoretical grade elevations adjusted for dead load deflections as shown in the tables on sheets 7 thru 8 of 62.



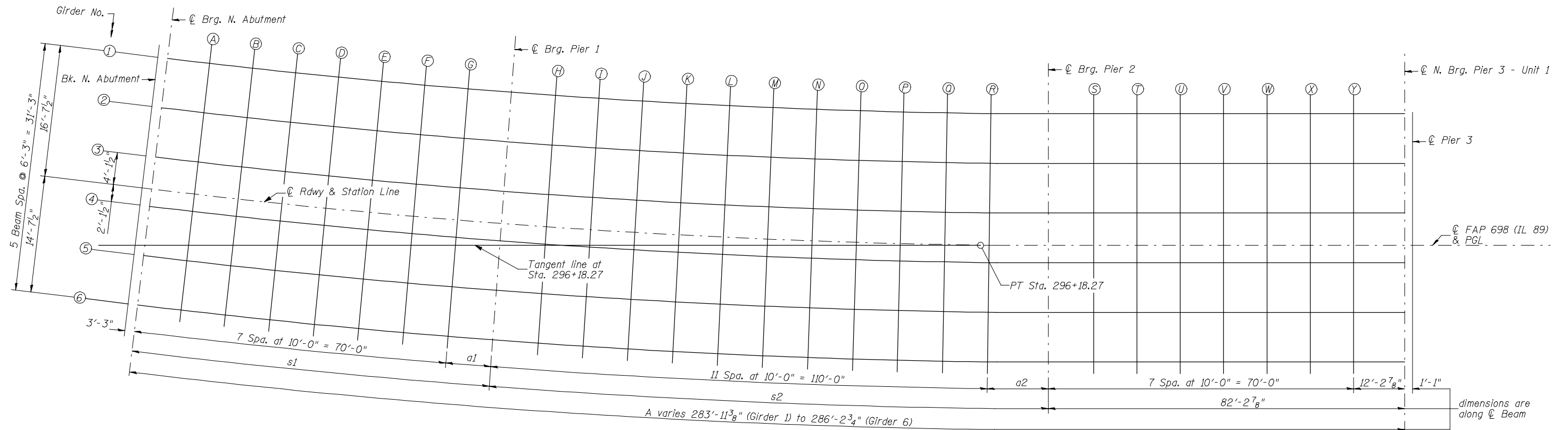
At Minimum Fillet



At Maximum Fillet

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

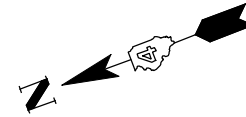
FILLET HEIGHTS



PLAN - UNIT 1

DIMENSION TABLE

	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6
a1	8'-11 1/4"	9'-1 3/4"	9'-4 1/8"	9'-6 5/8"	9'-9"	9'-11 1/2"
s1	78'-11 1/4"	79'-1 3/4"	79'-4 1/8"	79'-6 5/8"	79'-9"	79'-11 1/2"
a2	12'-9 1/4"	13'-0 1/4"	13'-3 1/4"	13'-6 1/4"	13'-9 3/8"	14'-0 3/8"
s2	122'-9 1/4"	123'-0 1/4"	123'-3 1/4"	123'-6 1/4"	123'-9 3/8"	124'-0 3/8"
A	283'-11 3/8"	284'-4 7/8"	284'-10 1/4"	285'-3 3/4"	285'-9 1/4"	286'-2 3/4"



BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	-16.63	644.74	644.74
CL Brg. N. Abut.	29432.10	-16.63	644.77	644.77
A	29442.16	-16.63	644.88	644.89
B	29452.23	-16.63	644.97	645.00
C	29462.29	-16.63	645.06	645.09
D	29472.35	-16.63	645.14	645.16
E	29482.42	-16.63	645.21	645.22
F	29492.48	-16.63	645.27	645.27
G	29502.54	-16.63	645.32	645.32
CL Pier 1	29511.56	-16.63	645.36	645.36
H	29521.62	-16.63	645.40	645.42
I	29531.69	-16.63	645.43	645.48
J	29541.75	-16.63	645.45	645.53
K	29551.81	-16.63	645.46	645.58
L	29561.88	-16.63	645.46	645.60
M	29571.94	-16.63	645.45	645.60
N	29582.00	-16.63	645.44	645.58
O	29592.07	-16.63	645.47	645.60
P	29602.13	-16.63	645.50	645.60
Q	29612.19	-16.63	645.53	645.59
R	29622.23	-16.63	645.54	645.56
CL Pier 2	29635.00	-16.63	645.53	645.53
S	29645.00	-16.63	645.52	645.51
T	29655.00	-16.63	645.47	645.47
U	29665.00	-16.63	645.38	645.40
V	29675.00	-16.63	645.29	645.31
W	29685.00	-16.63	645.18	645.22
X	29695.00	-16.63	645.07	645.10
Y	29705.00	-16.63	644.95	644.97
CL N. Brg. Pier 3	29717.24	-16.63	644.79	644.79
CL Pier 3	29718.32	-16.63	644.77	644.77

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	-10.38	645.00	645.00
CL Brg. N. Abut.	29432.09	-10.38	645.03	645.03
A	29442.13	-10.38	645.14	645.15
B	29452.17	-10.38	645.24	645.26
C	29462.21	-10.38	645.32	645.35
D	29472.25	-10.38	645.40	645.42
E	29482.29	-10.38	645.47	645.48
F	29492.33	-10.38	645.53	645.53
G	29502.37	-10.38	645.59	645.58
CL Pier 1	29511.56	-10.38	645.63	645.63
H	29521.60	-10.38	645.66	645.69
I	29531.64	-10.38	645.69	645.75
J	29541.68	-10.38	645.71	645.80
K	29551.72	-10.38	645.72	645.84
L	29561.76	-10.38	645.72	645.87
M	29571.80	-10.38	645.71	645.87
N	29581.84	-10.38	645.70	645.85
O	29591.88	-10.38	645.71	645.84
P	29601.91	-10.38	645.72	645.82
Q	29611.95	-10.38	645.72	645.78
R	29621.98	-10.38	645.71	645.74
CL Pier 2	29635.00	-10.38	645.68	645.68
S	29645.00	-10.38	645.65	645.64
T	29655.00	-10.38	645.59	645.60
U	29665.00	-10.38	645.51	645.52
V	29675.00	-10.38	645.41	645.44
W	29685.00	-10.38	645.30	645.34
X	29695.00	-10.38	645.19	645.22
Y	29705.00	-10.38	645.07	645.09
CL N. Brg. Pier 3	29717.24	-10.38	644.91	644.91
CL Pier 3	29718.32	-10.38	644.89	644.89

BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	-4.13	645.26	645.26
CL Brg. N. Abut.	29432.09	-4.13	645.30	645.30
A	29442.10	-4.13	645.40	645.42
B	29452.12	-4.13	645.50	645.52
C	29462.13	-4.13	645.58	645.61
D	29472.15	-4.13	645.66	645.68
E	29482.16	-4.13	645.73	645.74
F	29492.18	-4.13	645.80	645.79
G	29502.19	-4.13	645.85	645.84
CL Pier 1	29511.56	-4.13	645.89	645.89
H	29521.58	-4.13	645.93	645.95
I	29531.59	-4.13	645.95	646.01
J	29541.61	-4.13	645.97	646.06
K	29551.62	-4.13	645.98	646.11
L	29561.64	-4.13	645.98	646.13
M	29571.65	-4.13	645.98	646.14
N	29581.67	-4.13	645.96	646.11
O	29591.68	-4.13	645.95	646.08
P	29601.70	-4.13	645.93	646.04
Q	29611.72	-4.13	645.91	645.97
R	29621.73	-4.13	645.87	645.90
CL Pier 2	29635.00	-4.13	645.81	645.81
S	29645.00	-4.13	645.76	645.76
T	29655.00	-4.13	645.69	645.69
U	29665.00	-4.13	645.60	645.62
V	29675.00	-4.13	645.51	645.53
W	29685.00	-4.13	645.40	645.43
X	29695.00	-4.13	645.29	645.32
Y	29705.00	-4.13	645.17	645.19
CL N. Brg. Pier 3	29717.24	-4.13	645.00	645.00
CL Pier 3	29718.32	-4.13	644.99	644.99

☉ ROADWAY & PG LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	0.00	645.43	645.43
CL Brg. N. Abut.	29432.08	0.00	645.47	645.47
A	29442.08	0.00	645.57	645.59
B	29452.08	0.00	645.67	645.69
C	29462.08	0.00	645.76	645.78
D	29472.08	0.00	645.84	645.86
E	29482.08	0.00	645.91	645.91
F	29492.08	0.00	645.97	645.97
G	29502.08	0.00	646.02	646.01
CL Pier 1	29511.56	0.00	646.06	646.06
H	29521.56	0.00	646.10	646.12
I	29531.56	0.00	646.13	646.18
J	29541.56	0.00	646.15	646.24
K	29551.56	0.00	646.16	646.28
L	29561.56	0.00	646.16	646.31
M	29571.56	0.00	646.15	646.31
N	29581.56	0.00	646.13	646.29
O	29591.56	0.00	646.11	646.24
P	29601.56	0.00	646.08	646.18
Q	29611.56	0.00	646.04	646.10
R	29621.56	0.00	645.99	646.02
CL Pier 2	29635.00	0.00	645.90	645.90
S	29645.00	0.00	645.83	645.83
T	29655.00	0.00	645.75	645.76
U	29665.00	0.00	645.67	645.68
V	29675.00	0.00	645.57	645.60
W	29685.00	0.00	645.47	645.50
X	29695.00	0.00	645.35	645.38
Y	29705.00	0.00	645.23	645.25
CL N. Brg. Pier 3	29717.24	0.00	645.07	645.07
CL Pier 3	29718.32	0.00	645.05	645.05

BEAM #4

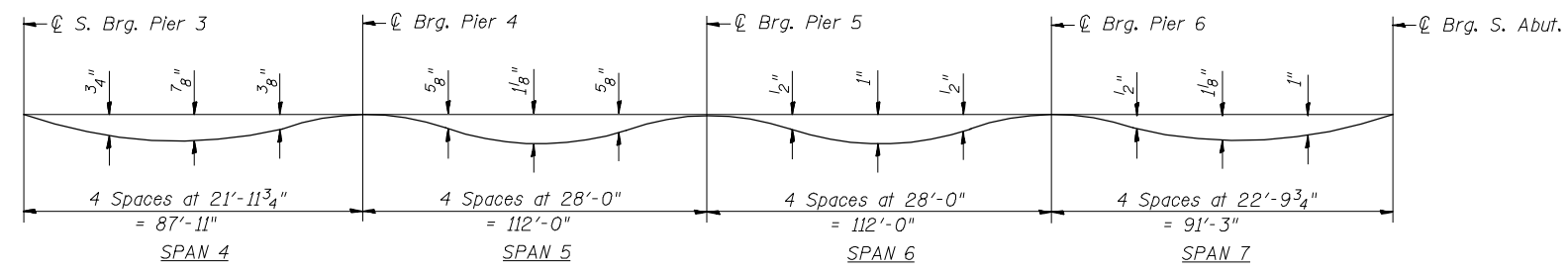
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	2.13	645.52	645.52
CL Brg. N. Abut.	29432.08	2.13	645.56	645.56
A	29442.07	2.13	645.66	645.68
B	29452.06	2.13	645.76	645.78
C	29462.05	2.13	645.85	645.87
D	29472.05	2.13	645.93	645.94
E	29482.04	2.13	646.00	646.00
F	29492.03	2.13	646.06	646.06
G	29502.02	2.13	646.11	646.10
CL Pier 1	29511.56	2.13	646.15	646.15
H	29521.55	2.13	646.19	646.21
I	29531.54	2.13	646.22	646.27
J	29541.54	2.13	646.23	646.33
K	29551.53	2.13	646.24	646.37
L	29561.52	2.13	646.25	646.40
M	29571.51	2.13	646.24	646.40
N	29581.50	2.13	646.22	646.38
O	29591.50	2.13	646.19	646.33
P	29601.49	2.13	646.15	646.25
Q	29611.48	2.13	646.10	646.17
R	29621.47	2.13	646.04	646.08
CL Pier 2	29635.00	2.13	645.95	645.95
S	29645.00	2.13	645.87	645.87
T	29655.00	2.13	645.78	645.79
U	29665.00	2.13	645.69	645.70
V	29675.00	2.13	645.58	645.61
W	29685.00	2.13	645.47	645.50
X	29695.00	2.13	645.35	645.38
Y	29705.00	2.13	645.22	645.24
CL N. Brg. Pier 3	29717.24	2.13	645.05	645.05
CL Pier 3	29718.32	2.13	645.03	645.03

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	8.38	645.79	645.79
CL Brg. N. Abut.	29432.07	8.38	645.82	645.82
A	29442.04	8.38	645.93	645.94
B	29452.01	8.38	646.02	646.05
C	29461.98	8.38	646.11	646.13
D	29471.94	8.38	646.19	646.21
E	29481.91	8.38	646.26	646.26
F	29491.88	8.38	646.32	646.32
G	29501.85	8.38	646.37	646.37
CL Pier 1	29511.56	8.38	646.41	646.41
H	29521.53	8.38	646.45	646.48
I	29531.50	8.38	646.48	646.54
J	29541.47	8.38	646.50	646.59
K	29551.43	8.38	646.51	646.64
L	29561.40	8.38	646.51	646.66
M	29571.37	8.38	646.50	646.67
N	29581.34	8.38	646.49	646.64
O	29591.31	8.38	646.43	646.57
P	29601.28	8.38	646.37	646.47
Q	29611.24	8.38	646.30	646.36
R	29621.22	8.38	646.21	646.25
CL Pier 2	29635.00	8.38	646.09	646.09
S	29645.00	8.38	645.98	645.98
T	29655.00	8.38	645.87	645.87
U	29665.00	8.38	645.75	645.76
V	29675.00	8.38	645.63	645.65
W	29685.00	8.38	645.49	645.52
X	29695.00	8.38	645.34	645.38
Y	29705.00	8.38	645.19	645.21
CL N. Brg. Pier 3	29717.24	8.38	644.99	644.99
CL Pier 3	29718.32	8.38	644.97	644.97

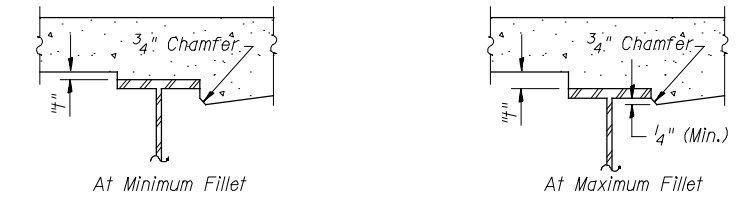
BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	29428.83	14.63	646.05	646.05
CL Brg. N. Abut.	29432.06	14.63	646.08	646.08
A	29442.01	14.63	646.19	646.20
B	29451.95	14.63	646.28	646.31
C	29461.90	14.63	646.37	646.40
D	29471.84	14.63	646.45	646.47
E	29481.79	14.63	646.52	646.53
F	29491.73	14.63	646.58	646.58
G	29501.68	14.63	646.63	646.63
CL Pier 1	29511.56	14.63	646.68	646.68
H	29521.50	14.63	646.71	646.74
I	29531.45	14.63	646.74	646.80
J	29541.39	14.63	646.76	646.85
K	29551.34	14.63	646.77	646.90
L	29561.28	14.63	646.77	646.93
M	29571.23	14.63	646.76	646.93
N	29581.17	14.63	646.75	646.91
O	29591.12	14.63	646.67	646.82
P	29601.06	14.63	646.59	646.70
Q	29611.01	14.63	646.49	646.56
R	29620.97	14.63	646.39	646.42
CL Pier 2	29635.00	14.63	646.22	646.22
S	29645.00	14.63	646.10	646.09
T	29655.00	14.63	645.96	645.96
U	29665.00	14.63	645.82	645.83
V	29675.00	14.63	645.67	645.69
W	29685.00	14.63	645.51	645.53
X	29695.00	14.63	645.33	645.36
Y	29705.00	14.63	645.15	645.17
CL N. Brg. Pier 3	29717.24	14.63	644.92	644.92
CL Pier 3	29718.32	14.63	644.89	644.89



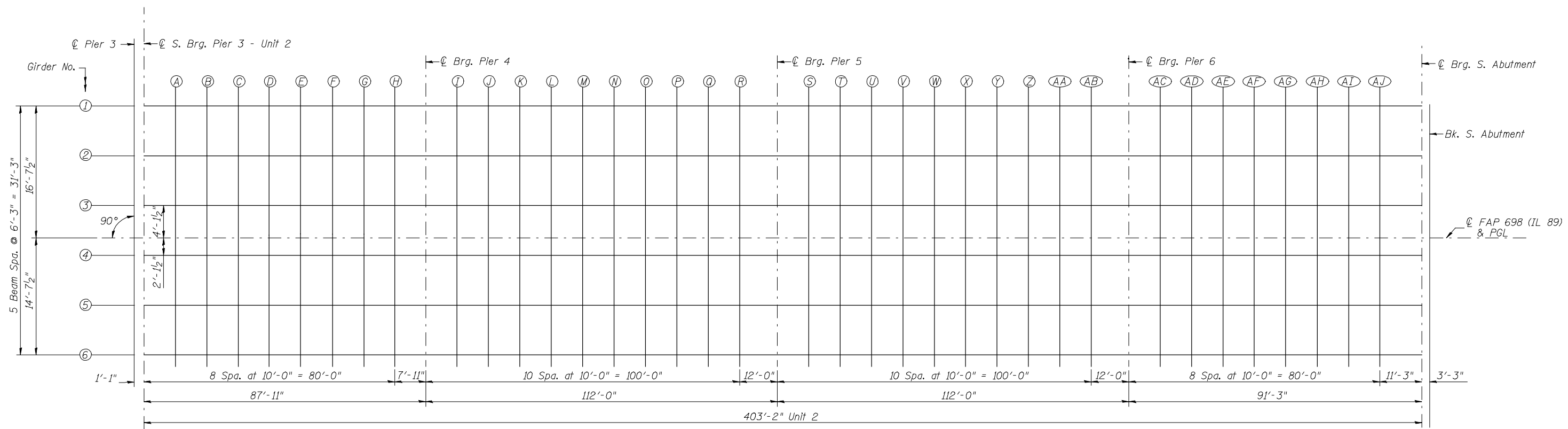
DEAD LOAD DEFLECTION DIAGRAM - UNIT 2
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the theoretical grade elevations adjusted for dead load deflections as shown in the tables on sheets 10 thru 12 of 62.

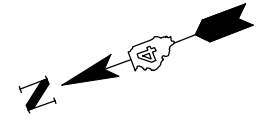


FILLET HEIGHTS

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



PLAN - UNIT 2



Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS - UNIT 2
STRUCTURE NO. 062-0086**

SHEET NO. 9 OF 62 SHEETS

F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 34
CONTRACT NO. 68580				
ILLINOIS FED. AID PROJECT				

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	-16.63	644.77	644.77
CL S. Brg Pier 3	29719.40	-16.63	644.76	644.76
A	29729.40	-16.63	644.61	644.65
B	29739.40	-16.63	644.46	644.52
C	29749.40	-16.63	644.30	644.38
D	29759.40	-16.63	644.13	644.21
E	29769.40	-16.63	643.95	644.02
F	29779.40	-16.63	643.77	643.81
G	29789.40	-16.63	643.57	643.60
H	29799.40	-16.63	643.37	643.37
CL Pier 4	29807.32	-16.63	643.20	643.20
I	29817.32	-16.63	642.98	642.99
J	29827.32	-16.63	642.75	642.75
K	29837.32	-16.63	642.52	642.57
L	29847.32	-16.63	642.27	642.35
M	29857.32	-16.63	642.02	642.11
N	29867.32	-16.63	641.76	641.85
O	29877.32	-16.63	641.49	641.57
P	29887.32	-16.63	641.21	641.27
Q	29897.32	-16.63	640.92	640.95
R	29907.32	-16.63	640.62	640.64
CL Pier 5	29919.32	-16.63	640.25	640.25
S	29929.32	-16.63	639.94	639.95
T	29939.32	-16.63	639.61	639.64
U	29949.32	-16.63	639.28	639.33
V	29959.32	-16.63	638.94	639.01
W	29969.32	-16.63	638.59	638.67
X	29979.32	-16.63	638.23	638.32
Y	29989.32	-16.63	637.86	637.94
Z	29999.32	-16.63	637.49	637.54
AA	30009.32	-16.63	637.10	637.13
AB	30019.32	-16.63	636.71	636.72
CL Pier 6	30031.32	-16.63	636.24	636.24
AC	30041.32	-16.63	635.84	635.86
AD	30051.32	-16.63	635.45	635.49
AE	30061.32	-16.63	635.06	635.12
AF	30071.32	-16.63	634.66	634.75
AG	30081.32	-16.63	634.27	634.37
AH	30091.32	-16.63	633.87	633.97
AI	30101.32	-16.63	633.48	633.56
AJ	30111.32	-16.63	633.09	633.13
CL Brg. S. Abut.	30122.57	-16.63	632.64	632.64
Bk. S. Abut.	30125.82	-16.63	632.52	632.52

BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	-10.38	644.89	644.89
CL S. Brg Pier 3	29719.40	-10.38	644.88	644.88
A	29729.40	-10.38	644.73	644.77
B	29739.40	-10.38	644.58	644.65
C	29749.40	-10.38	644.42	644.50
D	29759.40	-10.38	644.25	644.33
E	29769.40	-10.38	644.07	644.14
F	29779.40	-10.38	643.89	643.93
G	29789.40	-10.38	643.69	643.72
H	29799.40	-10.38	643.49	643.50
CL Pier 4	29807.32	-10.38	643.32	643.32
I	29817.32	-10.38	643.10	643.11
J	29827.32	-10.38	642.88	642.91
K	29837.32	-10.38	642.64	642.70
L	29847.32	-10.38	642.39	642.47
M	29857.32	-10.38	642.14	642.23
N	29867.32	-10.38	641.88	641.97
O	29877.32	-10.38	641.61	641.69
P	29887.32	-10.38	641.33	641.39
Q	29897.32	-10.38	641.04	641.08
R	29907.32	-10.38	640.74	640.76
CL Pier 5	29919.32	-10.38	640.38	640.38
S	29929.32	-10.38	640.06	640.07
T	29939.32	-10.38	639.74	639.76
U	29949.32	-10.38	639.40	639.45
V	29959.32	-10.38	639.06	639.13
W	29969.32	-10.38	638.71	638.79
X	29979.32	-10.38	638.35	638.44
Y	29989.32	-10.38	637.99	638.06
Z	29999.32	-10.38	637.61	637.66
AA	30009.32	-10.38	637.22	637.25
AB	30019.32	-10.38	636.83	636.84
CL Pier 6	30031.32	-10.38	636.36	636.36
AC	30041.32	-10.38	635.97	635.98
AD	30051.32	-10.38	635.57	635.61
AE	30061.32	-10.38	635.18	635.24
AF	30071.32	-10.38	634.78	634.87
AG	30081.32	-10.38	634.39	634.49
AH	30091.32	-10.38	634.00	634.09
AI	30101.32	-10.38	633.60	633.68
AJ	30111.32	-10.38	633.21	633.26
CL Brg. S. Abut.	30122.57	-10.38	632.77	632.77
Bk. S. Abut.	30125.82	-10.38	632.64	632.64

BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	-4.13	644.99	644.99
CL S. Brg Pier 3	29719.40	-4.13	644.97	644.97
A	29729.40	-4.13	644.83	644.87
B	29739.40	-4.13	644.68	644.74
C	29749.40	-4.13	644.52	644.60
D	29759.40	-4.13	644.35	644.43
E	29769.40	-4.13	644.17	644.24
F	29779.40	-4.13	643.99	644.03
G	29789.40	-4.13	643.79	643.81
H	29799.40	-4.13	643.59	643.59
CL Pier 4	29807.32	-4.13	643.42	643.42
I	29817.32	-4.13	643.20	643.21
J	29827.32	-4.13	642.97	643.00
K	29837.32	-4.13	642.74	642.79
L	29847.32	-4.13	642.49	642.57
M	29857.32	-4.13	642.24	642.33
N	29867.32	-4.13	641.98	642.07
O	29877.32	-4.13	641.71	641.79
P	29887.32	-4.13	641.43	641.49
Q	29897.32	-4.13	641.14	641.17
R	29907.32	-4.13	640.84	640.85
CL Pier 5	29919.32	-4.13	640.47	640.47
S	29929.32	-4.13	640.16	640.17
T	29939.32	-4.13	639.83	639.86
U	29949.32	-4.13	639.50	639.55
V	29959.32	-4.13	639.16	639.23
W	29969.32	-4.13	638.81	638.89
X	29979.32	-4.13	638.45	638.53
Y	29989.32	-4.13	638.08	638.16
Z	29999.32	-4.13	637.71	637.76
AA	30009.32	-4.13	637.32	637.35
AB	30019.32	-4.13	636.93	636.94
CL Pier 6	30031.32	-4.13	636.46	636.46
AC	30041.32	-4.13	636.06	636.08
AD	30051.32	-4.13	635.67	635.71
AE	30061.32	-4.13	635.28	635.34
AF	30071.32	-4.13	634.88	634.97
AG	30081.32	-4.13	634.49	634.59
AH	30091.32	-4.13	634.09	634.19
AI	30101.32	-4.13	633.70	633.78
AJ	30111.32	-4.13	633.31	633.35
CL Brg. S. Abut.	30122.57	-4.13	632.86	632.86
Bk. S. Abut.	30125.82	-4.13	632.74	632.74

CL RDWY & PG LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	0.00	645.05	645.05
CL S. Brg Pier 3	29719.40	0.00	645.04	645.04
A	29729.40	0.00	644.90	644.93
B	29739.40	0.00	644.74	644.81
C	29749.40	0.00	644.58	644.66
D	29759.40	0.00	644.41	644.49
E	29769.40	0.00	644.24	644.30
F	29779.40	0.00	644.05	644.10
G	29789.40	0.00	643.86	643.88
H	29799.40	0.00	643.65	643.66
CL Pier 4	29807.32	0.00	643.48	643.48
I	29817.32	0.00	643.27	643.28
J	29827.32	0.00	643.04	643.07
K	29837.32	0.00	642.80	642.86
L	29847.32	0.00	642.56	642.63
M	29857.32	0.00	642.30	642.39
N	29867.32	0.00	642.04	642.13
O	29877.32	0.00	641.77	641.85
P	29887.32	0.00	641.49	641.55
Q	29897.32	0.00	641.20	641.24
R	29907.32	0.00	640.91	640.92
CL Pier 5	29919.32	0.00	640.54	640.54
S	29929.32	0.00	640.22	640.23
T	29939.32	0.00	639.90	639.93
U	29949.32	0.00	639.57	639.62
V	29959.32	0.00	639.22	639.30
W	29969.32	0.00	638.87	638.96
X	29979.32	0.00	638.51	638.60
Y	29989.32	0.00	638.15	638.22
Z	29999.32	0.00	637.77	637.82
AA	30009.32	0.00	637.39	637.42
AB	30019.32	0.00	636.99	637.00
CL Pier 6	30031.32	0.00	636.52	636.52
AC	30041.32	0.00	636.13	636.14
AD	30051.32	0.00	635.73	635.77
AE	30061.32	0.00	635.34	635.40
AF	30071.32	0.00	634.95	635.03
AG	30081.32	0.00	634.55	634.65
AH	30091.32	0.00	634.16	634.26
AI	30101.32	0.00	633.76	633.84
AJ	30111.32	0.00	633.37	633.42
CL Brg. S. Abut.	30122.57	0.00	632.93	632.93
Bk. S. Abut.	30125.82	0.00	632.80	632.80

BEAM #4

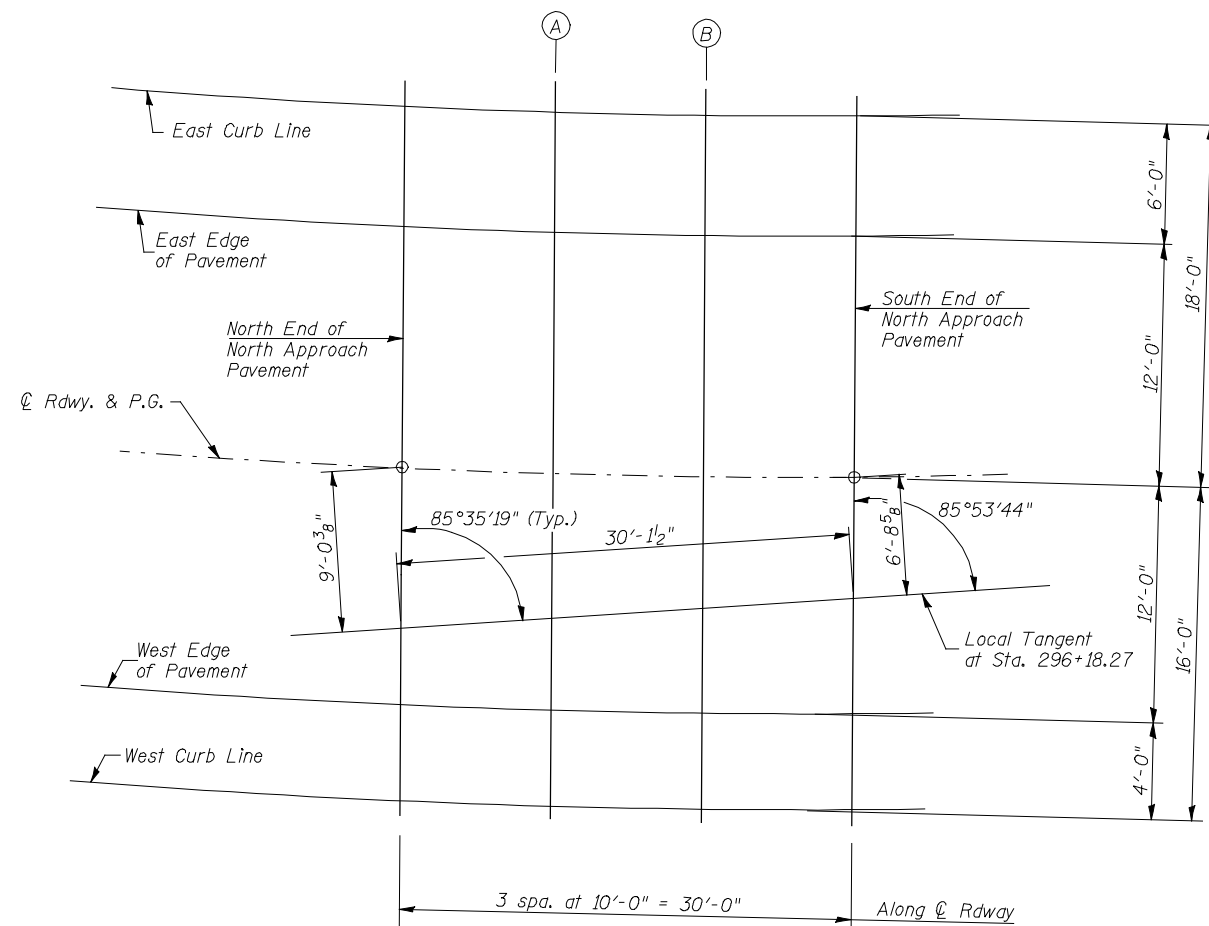
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	2.13	645.03	645.03
CL S. Brg Pier 3	29719.40	2.13	645.02	645.02
A	29729.40	2.13	644.86	644.90
B	29739.40	2.13	644.71	644.77
C	29749.40	2.13	644.55	644.63
D	29759.40	2.13	644.38	644.46
E	29769.40	2.13	644.20	644.27
F	29779.40	2.13	644.02	644.06
G	29789.40	2.13	643.82	643.85
H	29799.40	2.13	643.62	643.62
CL Pier 4	29807.32	2.13	643.45	643.45
I	29817.32	2.13	643.23	643.24
J	29827.32	2.13	643.00	643.04
K	29837.32	2.13	642.77	642.82
L	29847.32	2.13	642.52	642.60
M	29857.32	2.13	642.27	642.36
N	29867.32	2.13	642.01	642.10
O	29877.32	2.13	641.74	641.82
P	29887.32	2.13	641.46	641.52
Q	29897.32	2.13	641.17	641.21
R	29907.32	2.13	640.87	640.89
CL Pier 5	29919.32	2.13	640.51	640.51
S	29929.32	2.13	640.19	640.20
T	29939.32	2.13	639.87	639.89
U	29949.32	2.13	639.53	639.58
V	29959.32	2.13	639.19	639.26
W	29969.32	2.13	638.84	638.92
X	29979.32	2.13	638.48	638.57
Y	29989.32	2.13	638.11	638.19
Z	29999.32	2.13	637.74	637.79
AA	30009.32	2.13	637.35	637.38
AB	30019.32	2.13	636.96	636.97
CL Pier 6	30031.32	2.13	636.49	636.49
AC	30041.32	2.13	636.09	636.11
AD	30051.32	2.13	635.70	635.74
AE	30061.32	2.13	635.31	635.37
AF	30071.32	2.13	634.91	635.00
AG	30081.32	2.13	634.52	634.62
AH	30091.32	2.13	634.13	634.22
AI	30101.32	2.13	633.73	633.81
AJ	30111.32	2.13	633.34	633.38
CL Brg. S. Abut.	30122.57	2.13	632.89	632.89
Bk. S. Abut.	30125.82	2.13	632.77	632.77

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	8.38	644.97	644.97
CL S. Brg Pier 3	29719.40	8.38	644.95	644.95
A	29729.40	8.38	644.77	644.81
B	29739.40	8.38	644.61	644.68
C	29749.40	8.38	644.45	644.53
D	29759.40	8.38	644.28	644.36
E	29769.40	8.38	644.11	644.17
F	29779.40	8.38	643.92	643.97
G	29789.40	8.38	643.72	643.75
H	29799.40	8.38	643.52	643.53
CL Pier 4	29807.32	8.38	643.35	643.35
I	29817.32	8.38	643.13	643.14
J	29827.32	8.38	642.91	642.94
K	29837.32	8.38	642.67	642.73
L	29847.32	8.38	642.43	642.50
M	29857.32	8.38	642.17	642.26
N	29867.32	8.38	641.91	642.00
O	29877.32	8.38	641.64	641.72
P	29887.32	8.38	641.36	641.42
Q	29897.32	8.38	641.07	641.11
R	29907.32	8.38	640.77	640.79
CL Pier 5	29919.32	8.38	640.41	640.41
S	29929.32	8.38	640.09	640.10
T	29939.32	8.38	639.77	639.80
U	29949.32	8.38	639.43	639.49
V	29959.32	8.38	639.09	639.16
W	29969.32	8.38	638.74	638.83
X	29979.32	8.38	638.38	638.47
Y	29989.32	8.38	638.02	638.09
Z	29999.32	8.38	637.64	637.69
AA	30009.32	8.38	637.26	637.29
AB	30019.32	8.38	636.86	636.87
CL Pier 6	30031.32	8.38	636.39	636.39
AC	30041.32	8.38	636.00	636.01
AD	30051.32	8.38	635.60	635.64
AE	30061.32	8.38	635.21	635.27
AF	30071.32	8.38	634.82	634.90
AG	30081.32	8.38	634.42	634.52
AH	30091.32	8.38	634.03	634.13
AI	30101.32	8.38	633.63	633.71
AJ	30111.32	8.38	633.24	633.29
CL Brg. S. Abut.	30122.57	8.38	632.80	632.80
Bk. S. Abut.	30125.82	8.38	632.67	632.67

BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
CL Pier 3	29718.32	14.63	644.89	644.89
CL S. Brg Pier 3	29719.40	14.63	644.87	644.87
A	29729.40	14.63	644.67	644.71
B	29739.40	14.63	644.50	644.57
C	29749.40	14.63	644.34	644.42
D	29759.40	14.63	644.17	644.25
E	29769.40	14.63	643.99	644.06
F	29779.40	14.63	643.81	643.85
G	29789.40	14.63	643.61	643.64
H	29799.40	14.63	643.41	643.42
CL Pier 4	29807.32	14.63	643.24	643.24
I	29817.32	14.63	643.02	643.03
J	29827.32	14.63	642.80	642.83
K	29837.32	14.63	642.56	642.62
L	29847.32	14.63	642.31	642.39
M	29857.32	14.63	642.06	642.15
N	29867.32	14.63	641.80	641.89
O	29877.32	14.63	641.53	641.61
P	29887.32	14.63	641.25	641.31
Q	29897.32	14.63	640.96	641.00
R	29907.32	14.63	640.66	640.68
CL Pier 5	29919.32	14.63	640.30	640.30
S	29929.32	14.63	639.98	639.99
T	29939.32	14.63	639.66	639.68
U	29949.32	14.63	639.32	639.37
V	29959.32	14.63	638.98	639.05
W	29969.32	14.63	638.63	638.71
X	29979.32	14.63	638.27	638.36
Y	29989.32	14.63	637.91	637.98
Z	29999.32	14.63	637.53	637.58
AA	30009.32	14.63	637.14	637.17
AB	30019.32	14.63	636.75	636.76
CL Pier 6	30031.32	14.63	636.28	636.28
AC	30041.32	14.63	635.89	635.90
AD	30051.32	14.63	635.49	635.53
AE	30061.32	14.63	635.10	635.16
AF	30071.32	14.63	634.70	634.79
AG	30081.32	14.63	634.31	634.41
AH	30091.32	14.63	633.92	634.01
AI	30101.32	14.63	633.52	633.60
AJ	30111.32	14.63	633.13	633.18
CL Brg. S. Abut.	30122.57	14.63	632.69	632.69
Bk. S. Abut.	30125.82	14.63	632.56	632.56



PLAN NORTH APPROACH PAVEMENT



EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Approach	29399.56	-18.00	644.32
A	29409.63	-18.00	644.45
B	29419.70	-18.00	644.57
S. End of North Approach	29429.66	-18.00	644.69

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Approach	29399.59	-12.00	644.57
A	29409.64	-12.00	644.70
B	29419.69	-12.00	644.83
S. End of North Approach	29429.66	-12.00	644.94

☉ ROADWAY & P.G. LINE

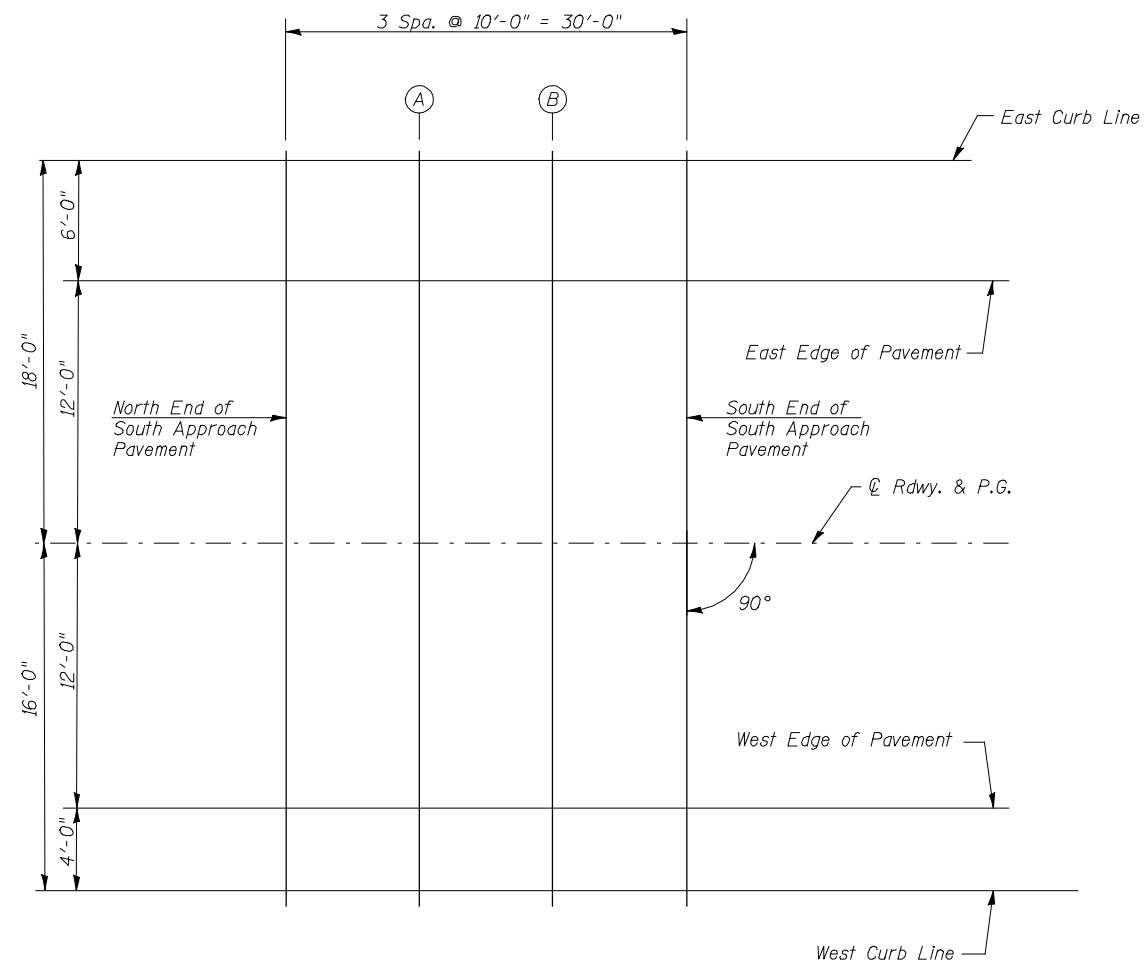
Location	Station	Offset	Theoretical Grade Elevations
N. End of North Approach	29399.66	0.00	645.07
A	29409.66	0.00	645.21
B	29419.66	0.00	645.33
S. End of North Approach	29429.66	0.00	645.43

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Approach	29399.73	12.00	645.58
A	29409.69	12.00	645.71
B	29419.64	12.00	645.83
S. End of North Approach	29429.66	12.00	645.95

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of North Approach	29399.75	16.00	645.75
A	29409.69	16.00	645.88
B	29419.63	16.00	646.00
S. End of North Approach	29429.66	16.00	646.12



PLAN SOUTH APPROACH PAVEMENT

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of South Approach	30124.99	-18.00	632.52
A	30134.99	-18.00	632.13
B	30144.99	-18.00	631.75
S. End of South Approach	30154.99	-18.00	631.38

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of South Approach	30124.99	-12.00	632.64
A	30134.99	-12.00	632.26
B	30144.99	-12.00	631.87
S. End of South Approach	30154.99	-12.00	631.50

C RRDWAY & PG LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of South Approach	30124.99	0.00	632.83
A	30134.99	0.00	632.44
B	30144.99	0.00	632.06
S. End of South Approach	30154.99	0.00	631.69

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of South Approach	30124.99	12.00	632.64
A	30134.99	12.00	632.26
B	30144.99	12.00	631.87
S. End of South Approach	30154.99	12.00	631.50

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of South Approach	30124.99	16.00	632.56
A	30134.99	16.00	632.17
B	30144.99	16.00	631.79
S. End of South Approach	30154.99	16.00	631.42

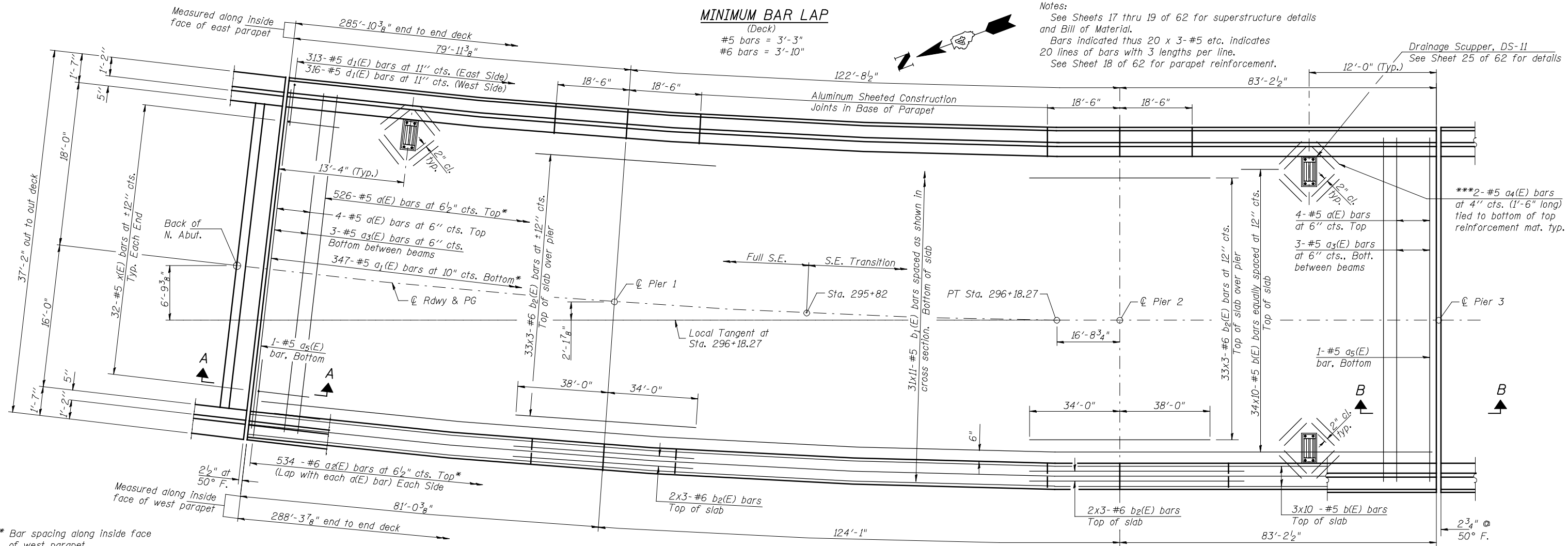
MINIMUM BAR LAP

(Deck)
 #5 bars = 3'-3"
 #6 bars = 3'-10"

Notes:

See Sheets 17 thru 19 of 62 for superstructure details and Bill of Material.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet 18 of 62 for parapet reinforcement.

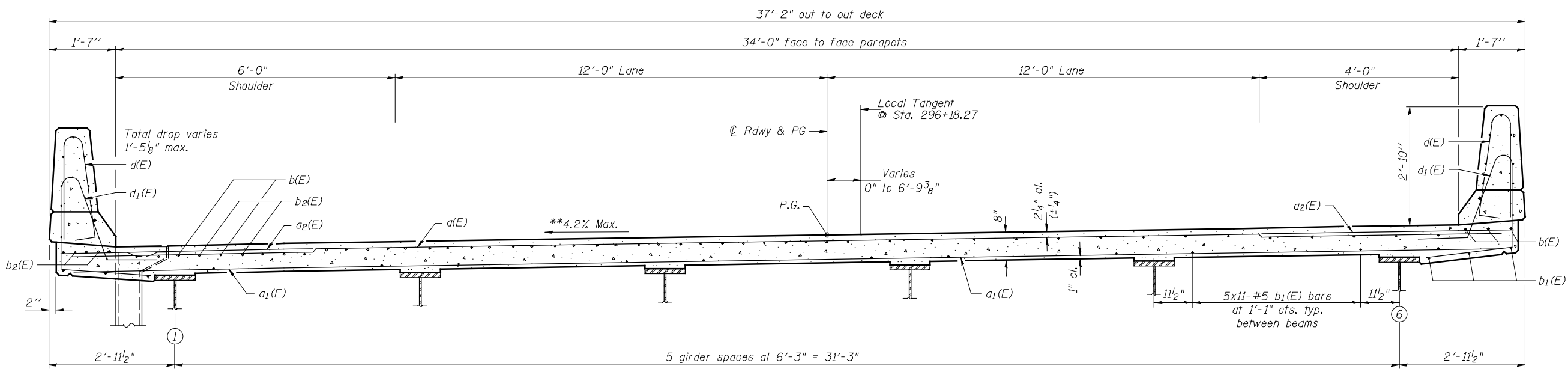
Drainage Scupper, DS-11
 See Sheet 25 of 62 for details



DECK PLAN - UNIT 1

* Bar spacing along inside face of west parapet.

***Cut longitudinal reinforcement to clear drainage scuppers



CROSS SECTION
 (Looking South)

** S.E. removed from Sta. 295+82 to Sta. 297+32. (See Deck Cross Slope Detail on Sheet No. 19 of 62)

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

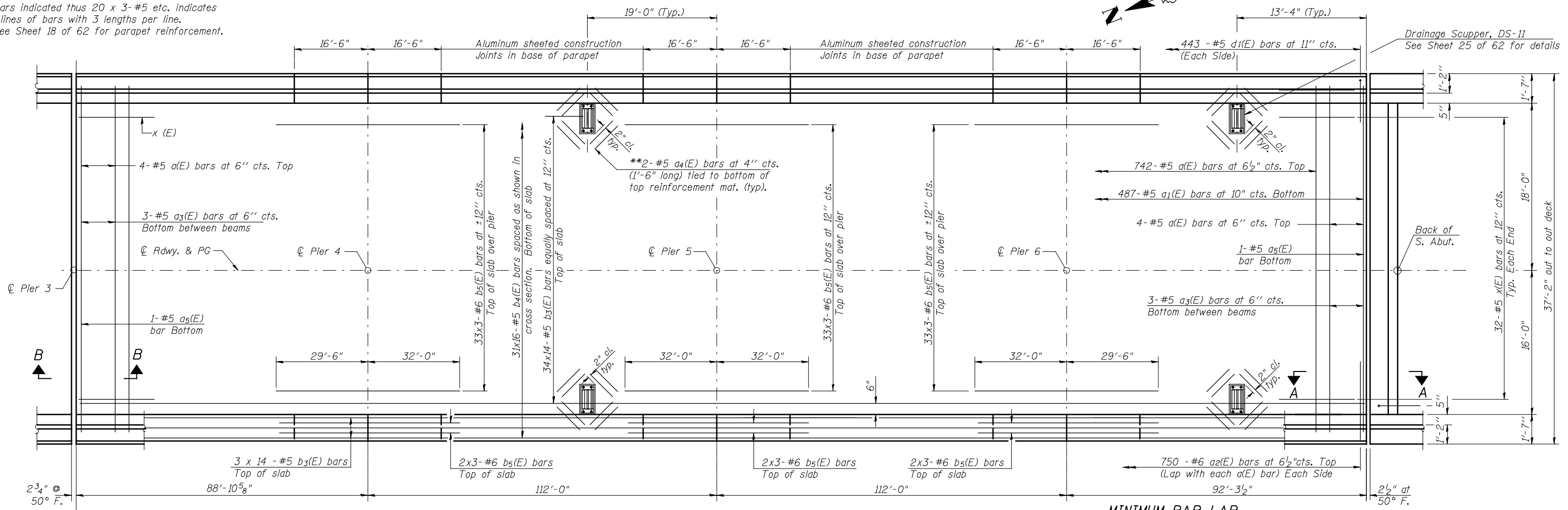
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE - UNIT 1
STRUCTURE NO. 062-0086

SHEET NO. 15 OF 62 SHEETS

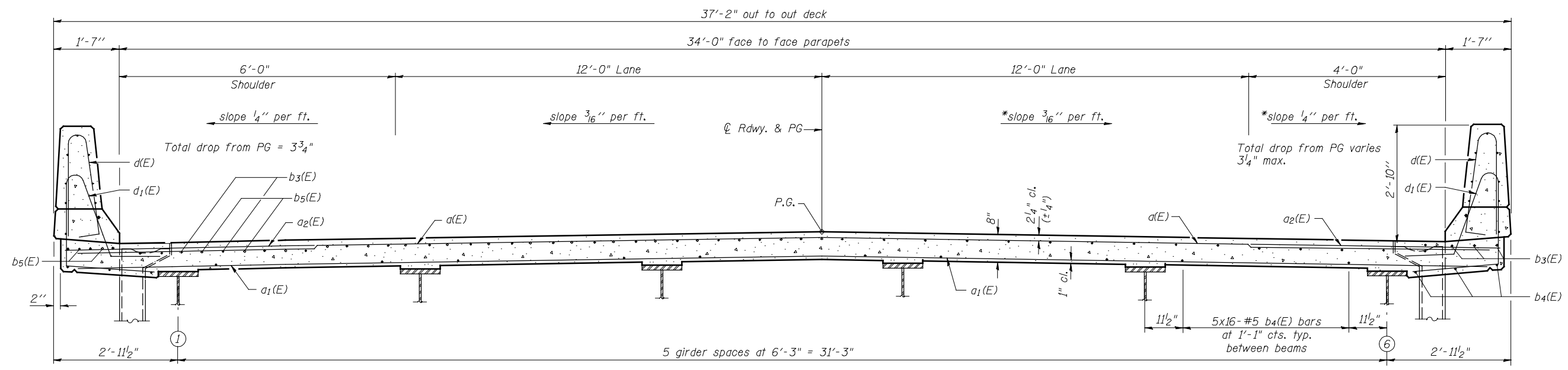
F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 40
CONTRACT NO. 68580				
ILLINOIS FED. AID PROJECT				

Notes:
 See Sheets 17 thru 19 of 62 for superstructure details and Bill of Material.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet 18 of 62 for parapet reinforcement.



DECK PLAN - UNIT 2

MINIMUM BAR LAP
 (Deck)
 #5 bars = 3'-3"
 #6 bars = 3'-10"



CROSS SECTION
 (Looking South)

Hutchison Engineering, Inc.
 Jacksonville, Peoria, &
 Shorewood, Illinois

USER NAME = jdean
 PLOT SCALE = NONE
 PLOT DATE = 7/25/2013

DESIGNED - JOH
 CHECKED - BAN
 DRAWN - TAC
 CHECKED - JOH/BAN

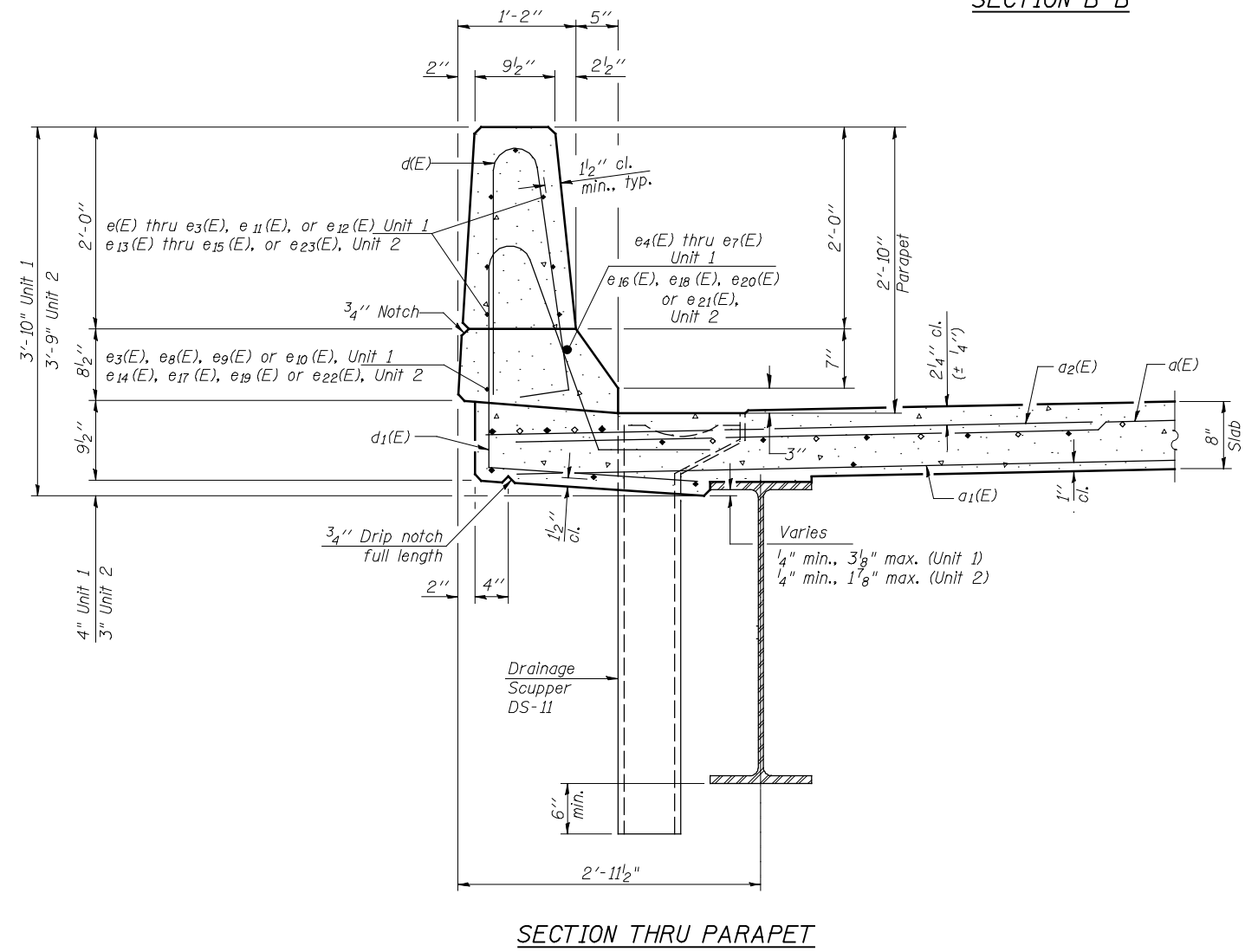
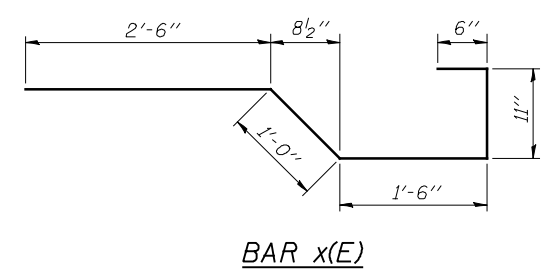
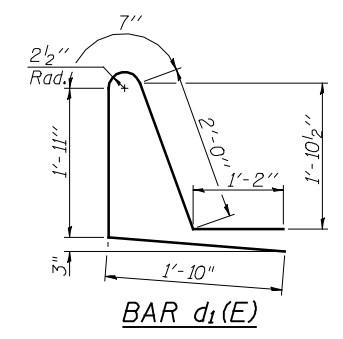
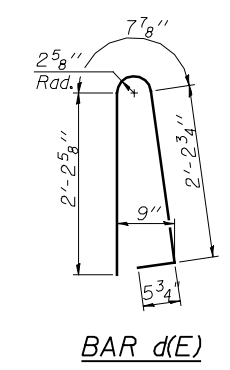
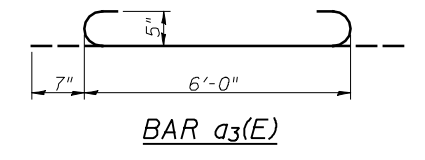
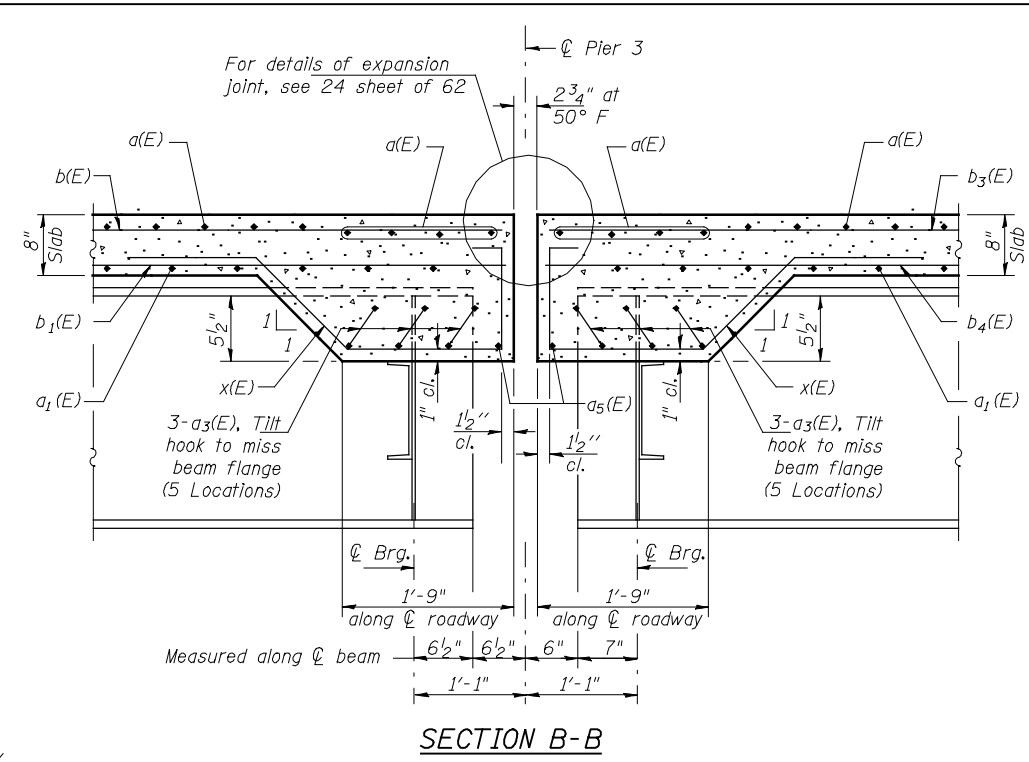
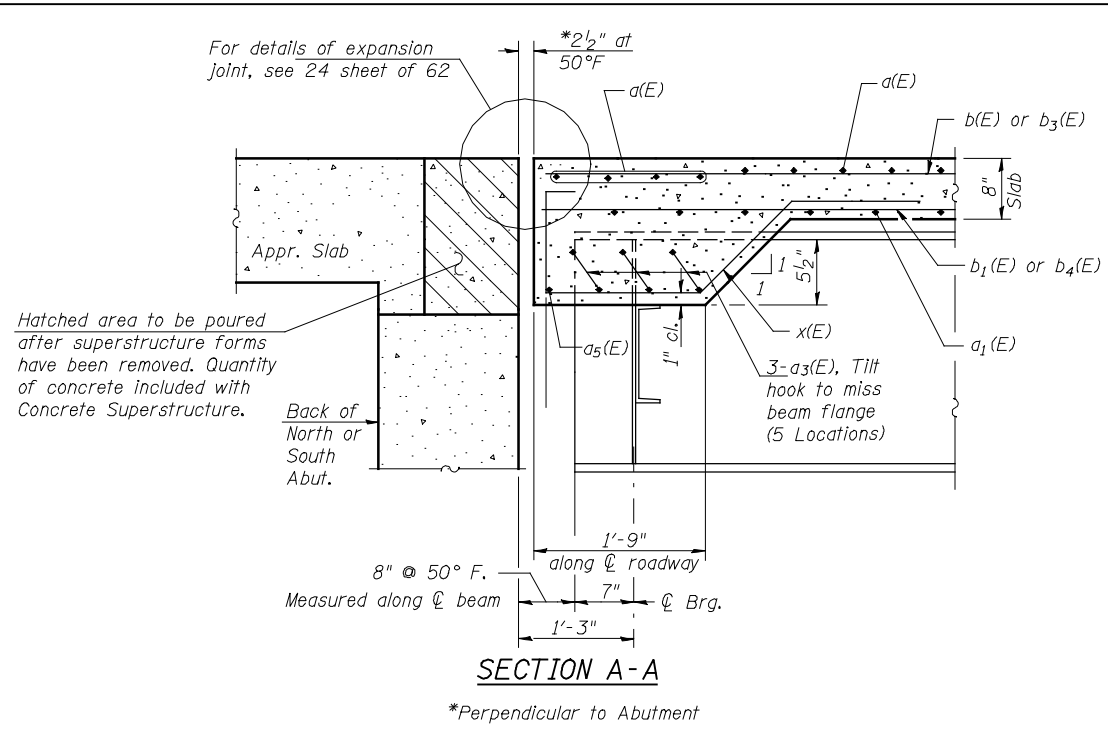
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE - UNIT 2
 STRUCTURE NO. 062-0086

SHEET NO. 16 OF 62 SHEETS

F.A.P. RTE. 698	SECTION (I25VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 41
CONTRACT NO. 68580				
ILLINOIS FED. AID PROJECT				



Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean
DESIGNED - JOH
CHECKED - BAN
DRAWN - TAC
CHECKED - JOH/BAN
PLOT SCALE = NONE
PLOT DATE = 7/25/2013

REVISED -
REVISED -
REVISED -
REVISED -

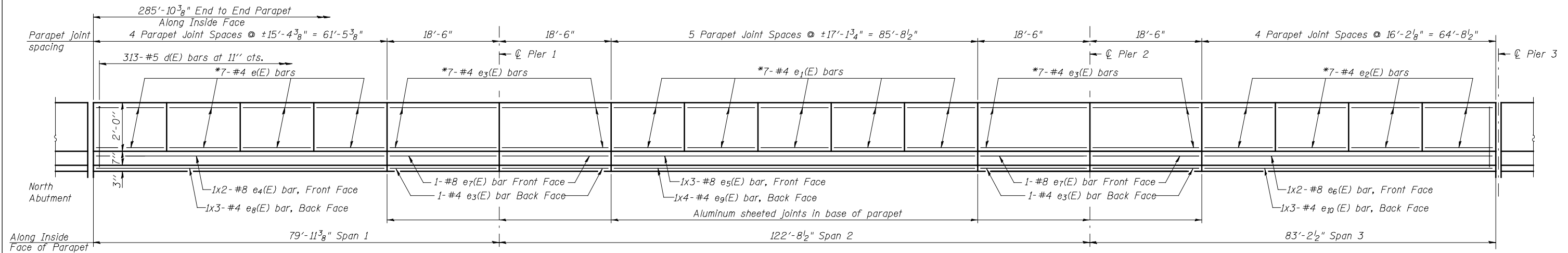
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 062-0086**

SHEET NO. 17 OF 62 SHEETS

F.A.P. RTE. 698	SECTION (I25VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 42
ILLINOIS FED. AID PROJECT				

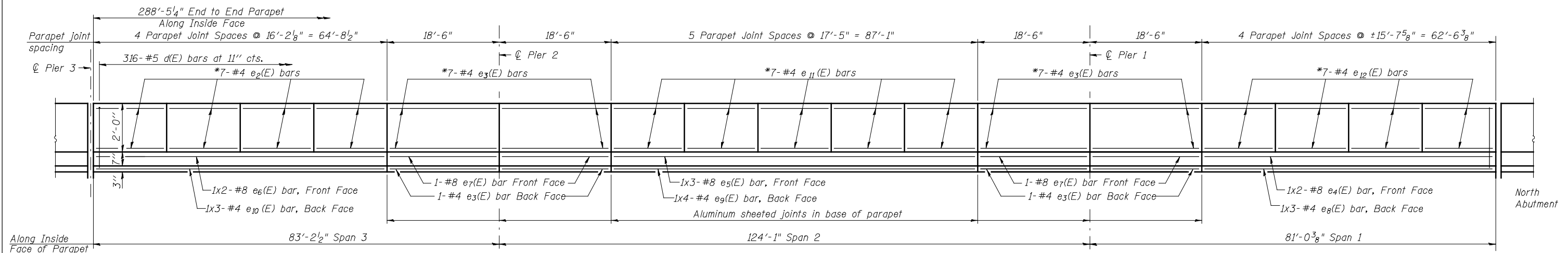
v:\transportation\3013\cadd\sheet\0620086-68580-017- SUPERSTRUCTURE DETAILS.dgn



INSIDE ELEVATION OF EAST PARAPET - UNIT 1
(Looking East)

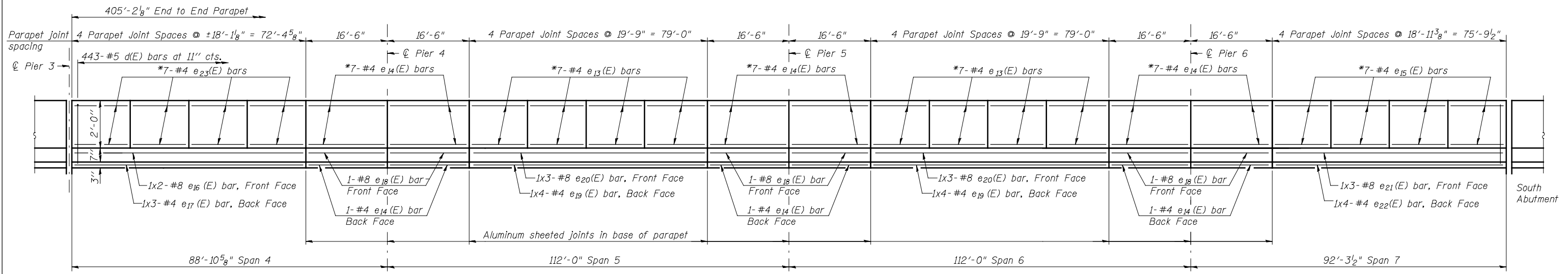
*See Section thru parapet on Sheet No. 17 of 62

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



INSIDE ELEVATION OF WEST PARAPET - UNIT 1
(Looking West)

*See Section thru parapet on Sheet No. 17 of 62



INSIDE ELEVATION OF PARAPET - UNIT 2
(East Parapet shown, West Parapet, opposite hand)

*See Section thru parapet on Sheet No. 17 of 62

Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean
PLOT SCALE = NONE
PLOT DATE = 7/25/2013

DESIGNED - JOH
CHECKED - BAN
DRAWN - TAC
CHECKED - JOH/BAN

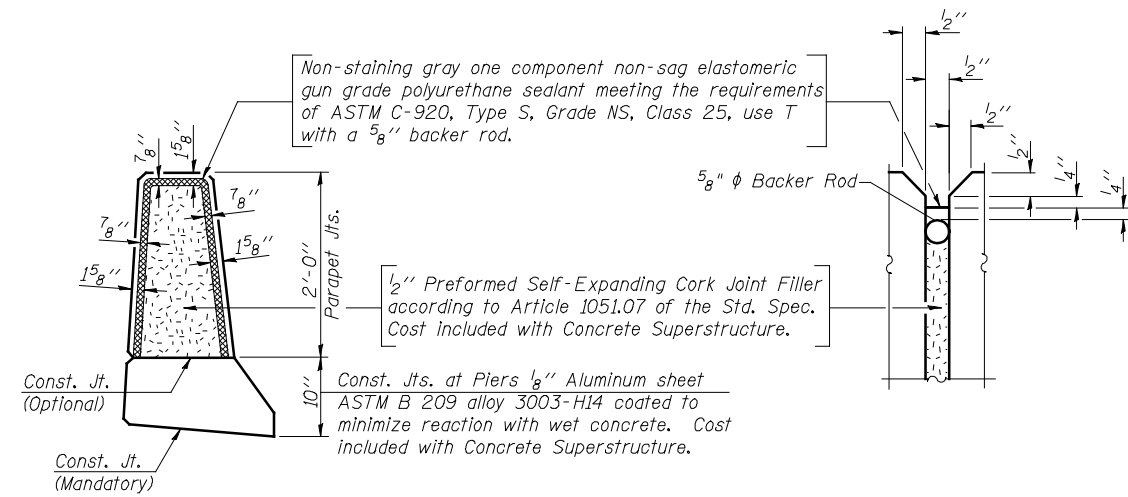
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

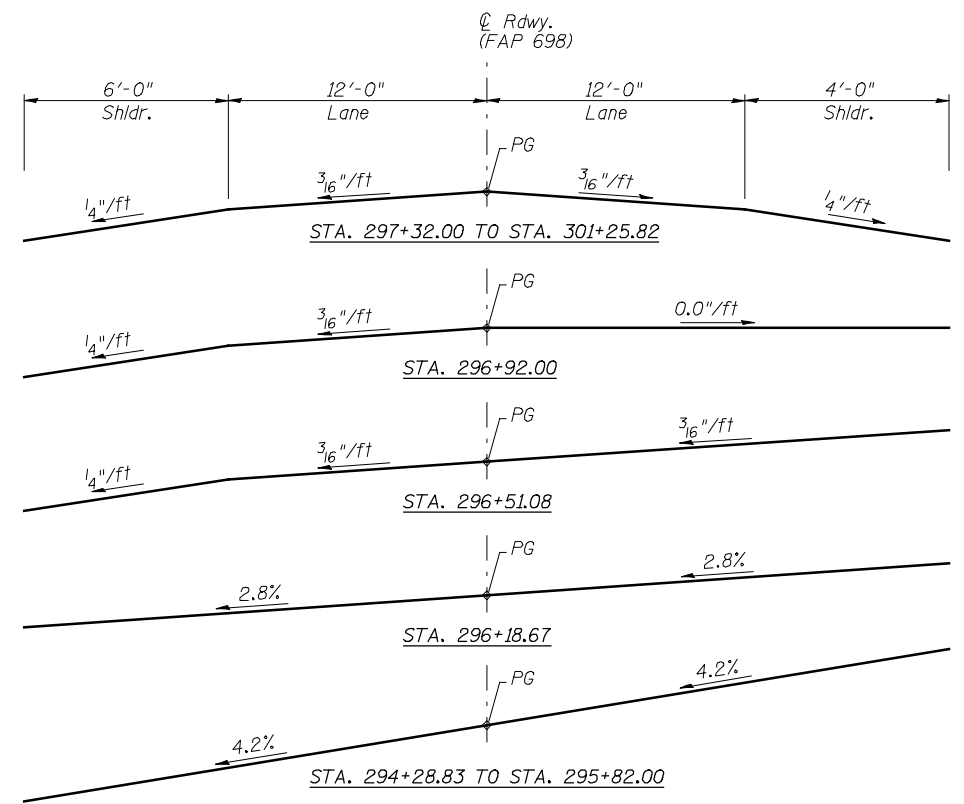
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 062-0086

SHEET NO. 18 OF 62 SHEETS

F.A.P. RTE. 698	SECTION (I25VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 43
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68580	



PARAPET JOINT DETAILS



BRIDGE DECK CROSS SLOPE
(Looking South)

**UNIT 1
SUPERSTRUCTURE
BILL OF MATERIAL**

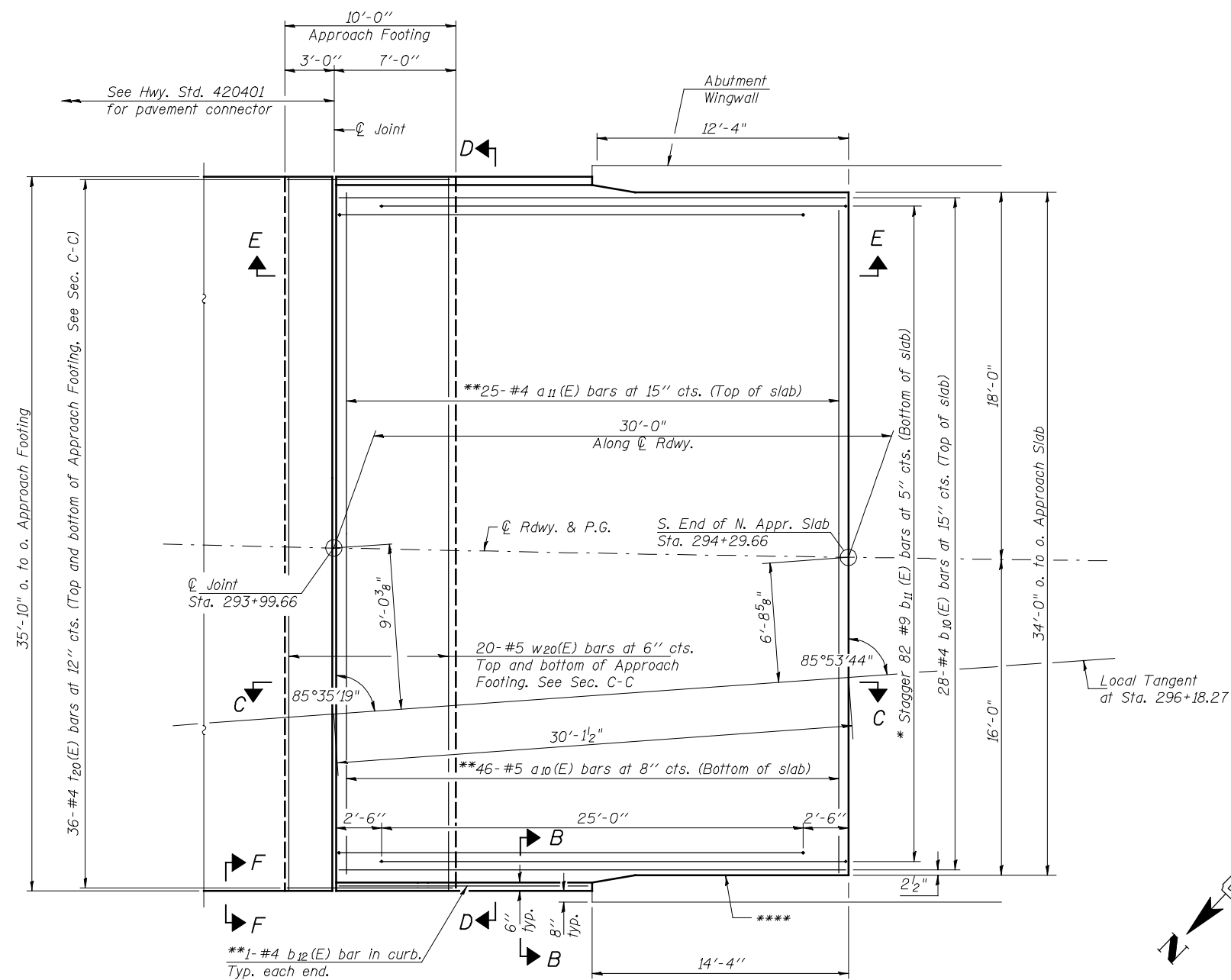
Bar	No.	Size	Length	Shape
a(E)	534	#5	36'-6"	—
a1(E)	347	#5	35'-6"	—
a2(E)	1,068	#6	6'-6"	—
a3(E)	30	#5	7'-2"	⌒
a4(E)	24	#5	1'-6"	—
a5(E)	2	#5	31'-0"	—
b(E)	400	#5	31'-9"	—
b1(E)	341	#5	29'-2"	—
b2(E)	222	#6	26'-7"	—
d(E)	629	#5	5'-7"	⏏
d1(E)	629	#5	7'-6"	⏏
e(E)	28	#4	15'-1"	—
e1(E)	35	#4	16'-10"	—
e2(E)	56	#4	15'-11"	—
e3(E)	64	#4	18'-3"	—
e4(E)	4	#8	33'-9"	—
e5(E)	6	#8	32'-5"	—
e6(E)	4	#8	34'-10"	—
e7(E)	8	#8	18'-3"	—
e8(E)	6	#4	22'-2"	—
e9(E)	8	#4	23'-3"	—
e10(E)	6	#4	22'-10"	—
e11(E)	35	#4	17'-2"	—
e12(E)	28	#4	15'-4"	—
x(E)	64	#5	6'-5"	⌒
Reinforcement Bars, Epoxy Coated		POUND	90,110	
Concrete Superstructure		CU YD	347.7	
* Bridge Deck Grooving		SQ YD	1,132	
* Protective Coat		SQ YD	1,459	

* Includes North Approach Slab.

**UNIT 2
SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	750	#5	36'-6"	—
a1(E)	487	#5	35'-6"	—
a2(E)	1500	#6	6'-6"	—
a3(E)	30	#5	7'-2"	⌒
a4(E)	32	#5	1'-6"	—
a5(E)	2	#5	31'-0"	—
b3(E)	560	#5	32'-0"	—
b4(E)	496	#5	28'-5"	—
b5(E)	333	#6	23'-11"	—
d(E)	886	#5	5'-7"	⏏
d1(E)	886	#5	7'-6"	⏏
e13(E)	112	#4	19'-6"	—
e14(E)	96	#4	16'-3"	—
e15(E)	56	#4	18'-8"	—
e16(E)	4	#8	38'-8"	—
e17(E)	6	#4	25'-5"	—
e18(E)	12	#8	16'-3"	—
e19(E)	16	#4	21'-3"	—
e20(E)	12	#8	29'-9"	—
e21(E)	6	#8	28'-8"	—
e22(E)	8	#4	20'-5"	—
e23(E)	56	#4	17'-10"	—
x(E)	64	#5	6'-5"	⌒
Reinforcement Bars, Epoxy Coated		POUND	126,090	
Concrete Superstructure		CU YD	488.2	
** Bridge Deck Grooving		SQ YD	1,551	
** Protective Coat		SQ YD	2,003	

** Includes South Approach Slab.

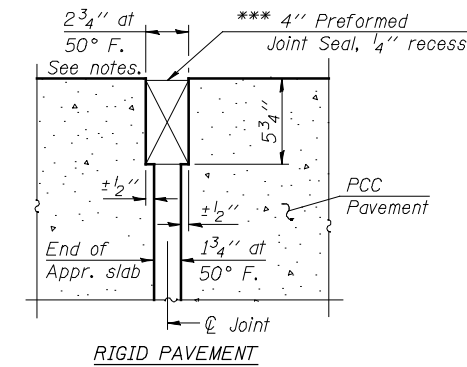


PLAN

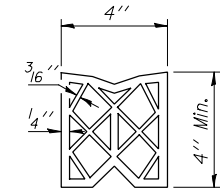
- * Tilt #9 b₁₁(E) bars as required to maintain clearance.
- ** Cut bars to fit at parapet.
- **** Closed cell joint filler according to Article 1051.08 of the Standard Specifications. Full depth of slab, full length of parapet. Typ. Each Parapet.

Notes:
 See sheet 21 of 62 for Sections C-C & D-D and View E-E, d(E) and a₁(E) bar spacings measured along ϕ Rdwy.
 The joint opening shall be determined per Article 520.04 of the Standard Specifications. The minimum dimension shall be 1 1/2" for installation purposes.

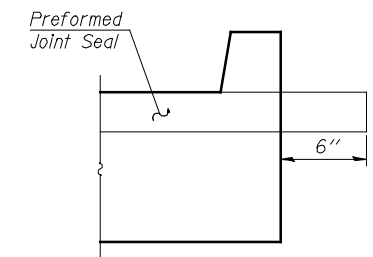
*** Cost included with Concrete Superstructure.



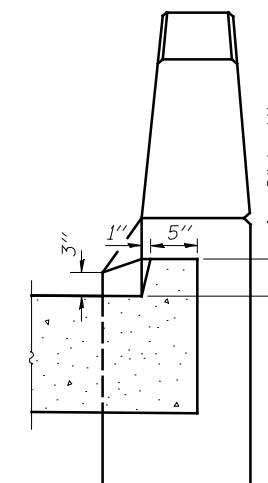
DETAIL A



PREFORMED JOINT SEAL



VIEW F-F



VIEW B-B

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

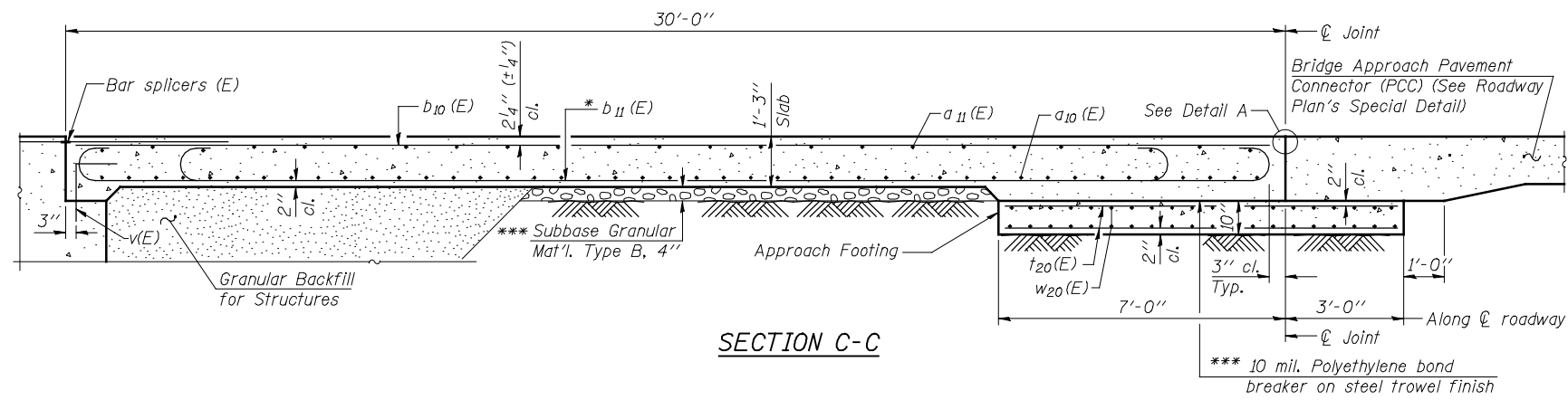
USER NAME = jdeen	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 062-0086**

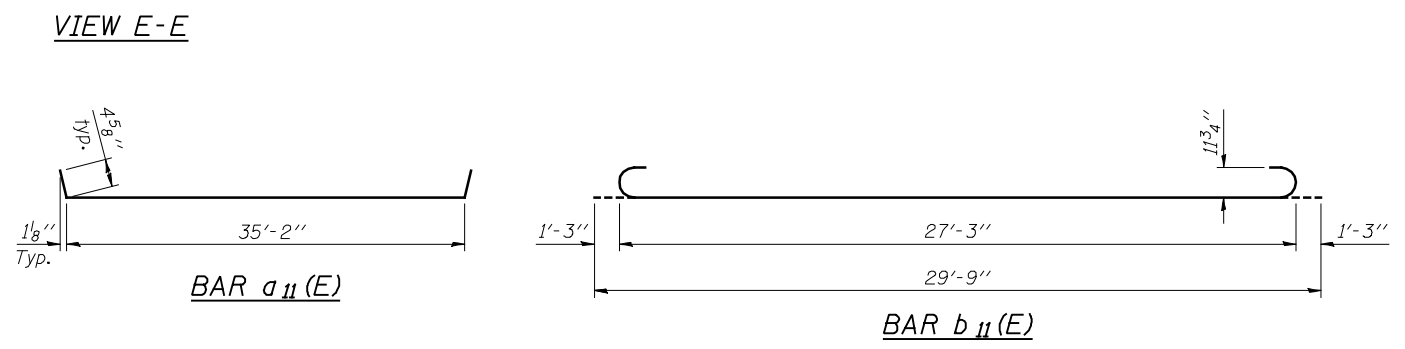
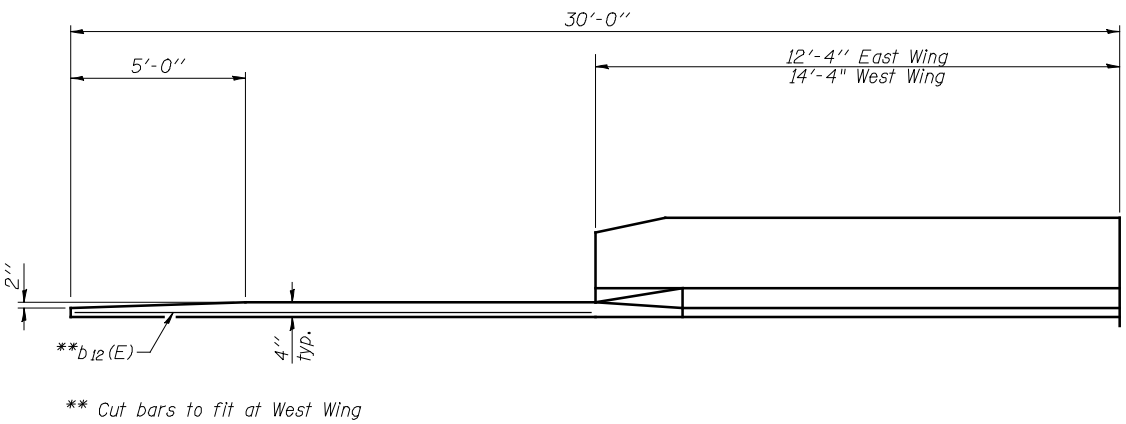
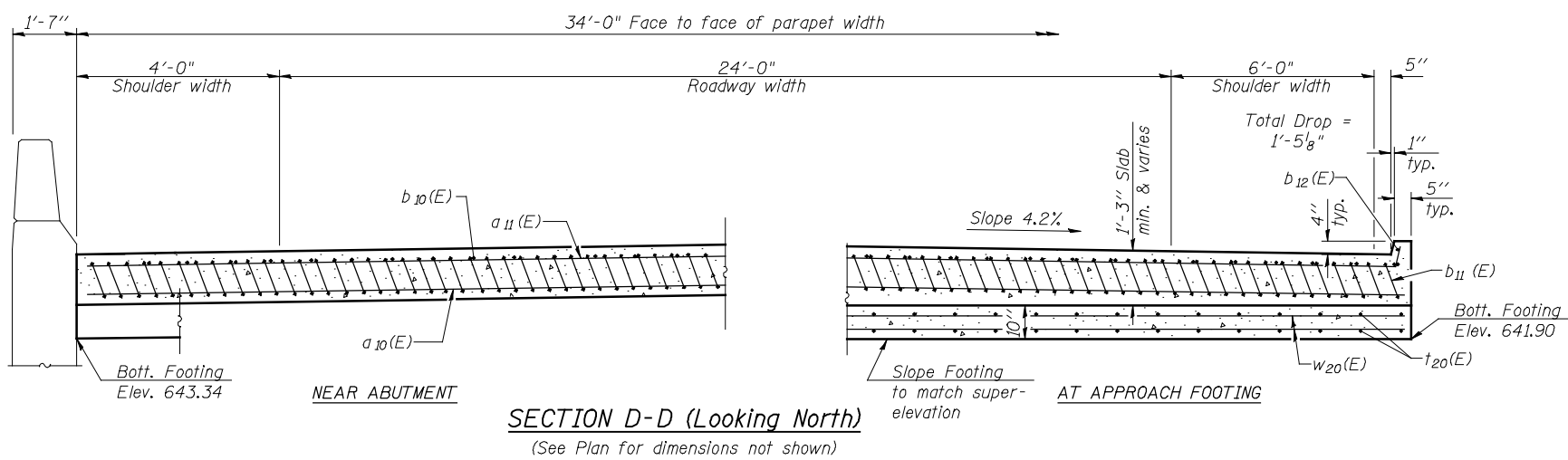
F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 45
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				

SHEET NO. 20 OF 62 SHEETS



Notes:
 See sheet 20 of 62 for Detail A.
 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 37 & 38 of 62.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet 54 of 62.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 3 of 62.

* Tilt #9 b₁₁(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



**NORTH APPROACH SLAB
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a ₁₀ (E)	46	#5	35'-6"	—
a ₁₁ (E)	25	#4	36'-0"	—
b ₁₀ (E)	28	#4	29'-8"	—
b ₁₁ (E)	82	#9	29'-9"	—
b ₁₂ (E)	2	#4	17'-4"	—
t ₂₀ (E)	72	#4	9'-8"	—
w ₂₀ (E)	40	#5	35'-6"	—
Concrete Superstructure		CU YD	52.0	
Concrete Structures		CU YD	11.0	
Reinforcement Bars, Epoxy Coated		POUND	13,120	

Hutchison Engineering, Inc.
 Jacksonville, Peoria, &
 Shorewood, Illinois

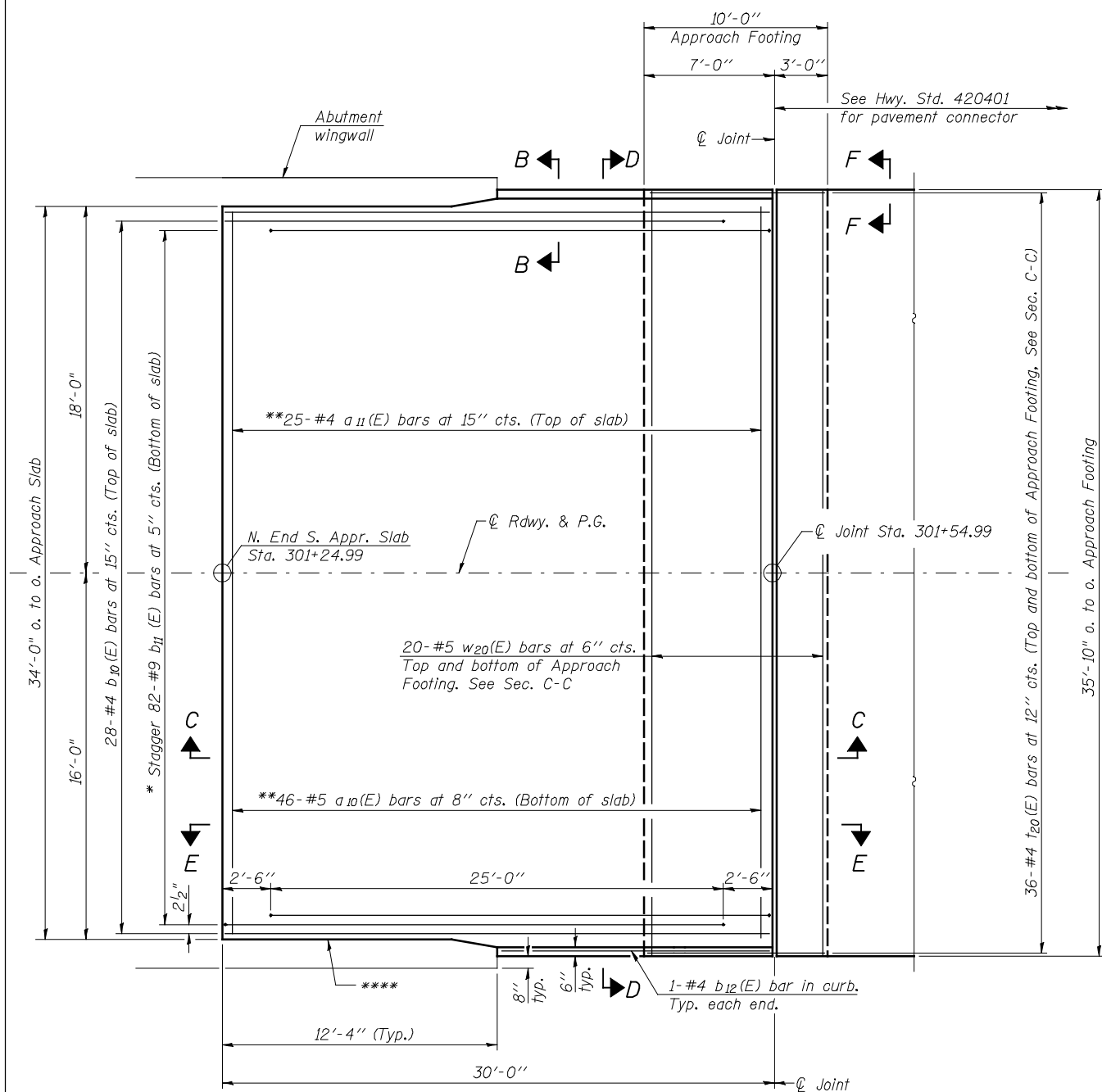
USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**NORTH BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 062-0086**

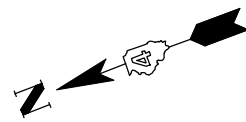
F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 46
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68580	

SHEET NO. 21 OF 62 SHEETS



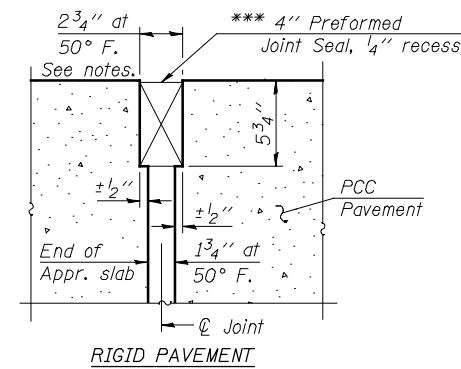
PLAN

- * Tilt #9 b₁₁(E) bars as required to maintain clearance.
- ** Cut bars to fit at parapet.
- **** Closed cell joint filler according to Article 1051.08 of the Standard Specifications. Full depth of slab, full length of parapet. Typ. Each Parapet.

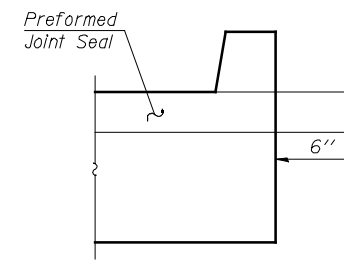
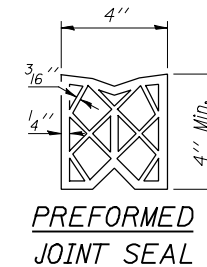


Notes:
 See sheet 23 of 62 for Sections C-C & D-D and View E-E.
 a₁₀(E) and a₁₁(E) bar spacings measured along C.R.
 The joint opening shall be determined per Article 520.04 of the Standard Specifications. The minimum dimension shall be 1 1/2" for installation purposes.

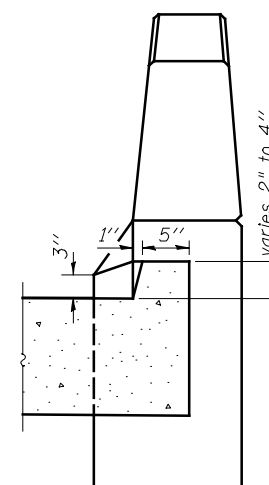
*** Cost Included with Concrete Superstructure.



DETAIL A



VIEW F-F



VIEW B-B

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

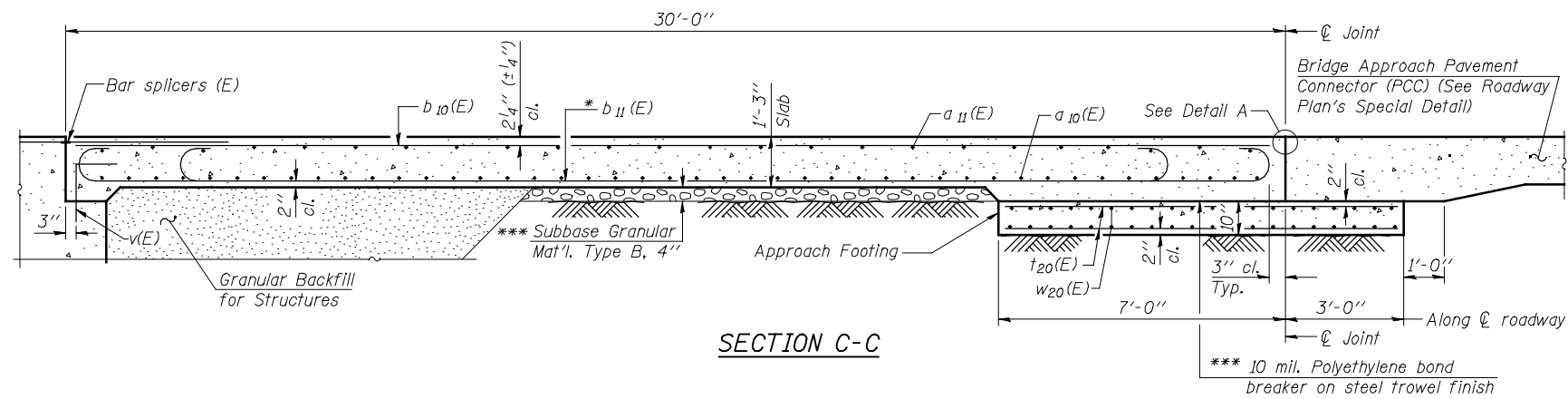
USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 062-0086

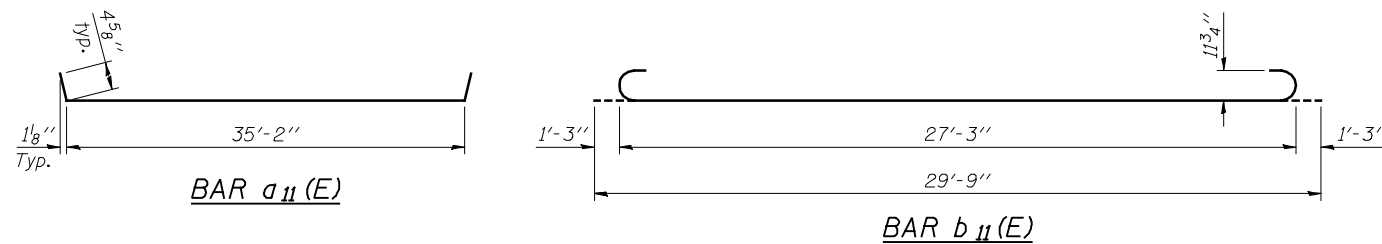
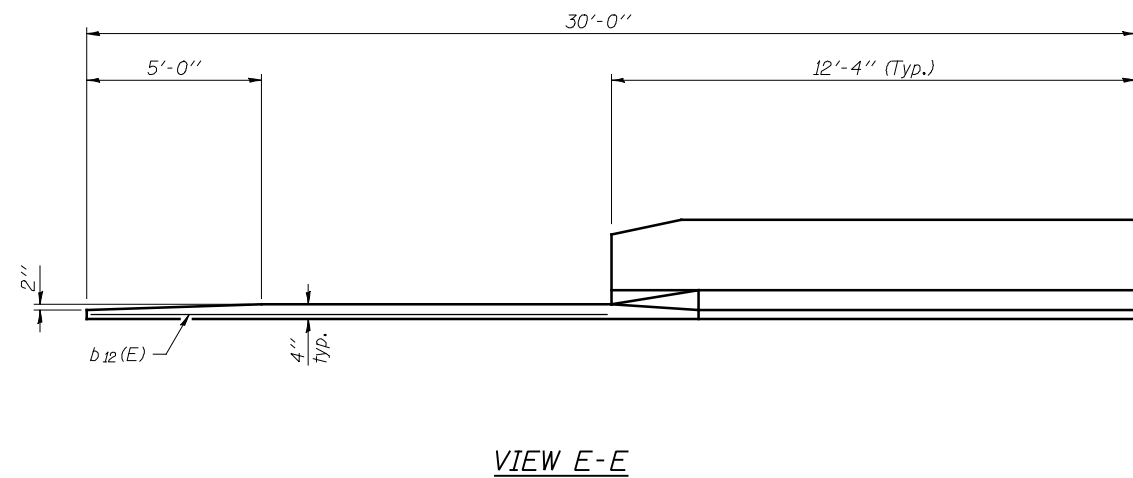
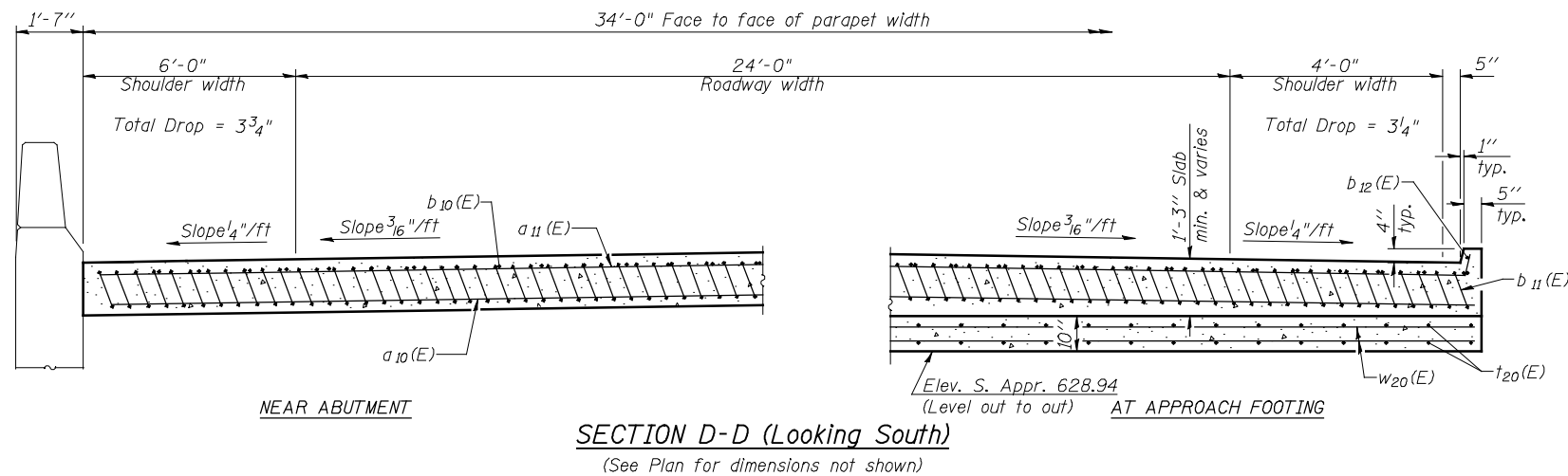
F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 47
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				

SHEET NO. 22 OF 62 SHEETS



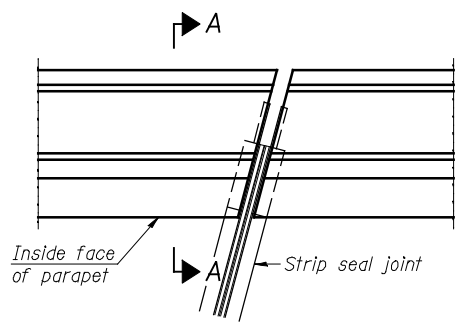
Notes:
 See sheet 22 of 62 for Detail A.
 Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v(E) bar details, see sheet 39 & 40 of 62.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 3 of 62.

* Tilt #9 b₁₁(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

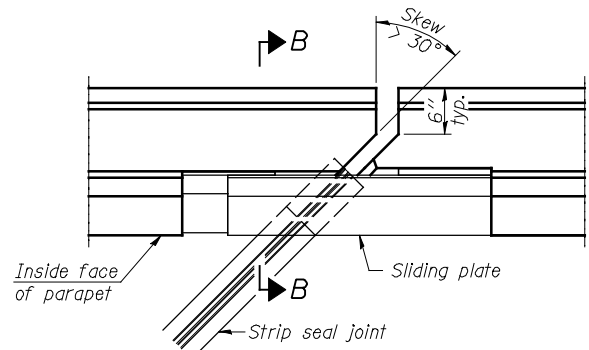


**SOUTH APPROACH SLAB
 BILL OF MATERIAL**

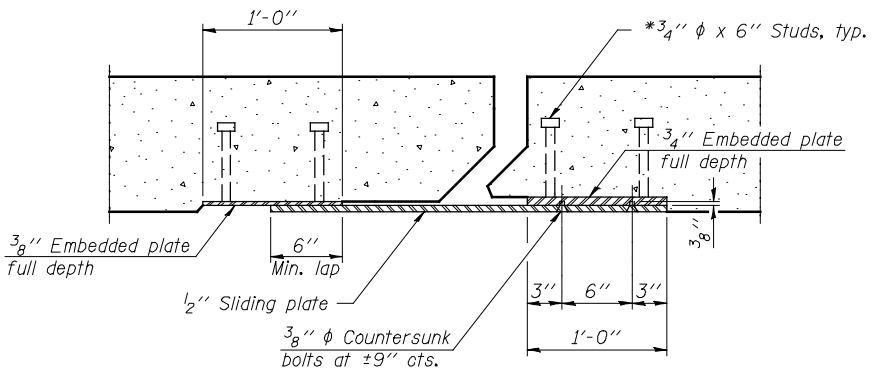
Bar	No.	Size	Length	Shape
a ₁₀ (E)	46	#5	35'-6"	—
a ₁₁ (E)	25	#4	36'-0"	—
b ₁₀ (E)	28	#4	29'-8"	—
b ₁₁ (E)	82	#9	29'-9"	—
b ₁₂ (E)	2	#4	17'-4"	—
t ₂₀ (E)	72	#4	9'-8"	—
w ₂₀ (E)	40	#5	35'-6"	—
Concrete Superstructure		CU YD	53.8	
Concrete Structures		CU YD	11.0	
Reinforcement Bars, Epoxy Coated		POUND	13,120	



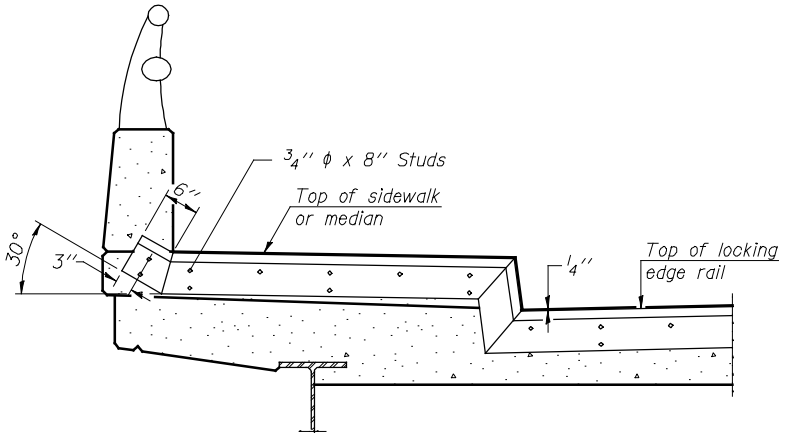
PLAN
(For skews $\leq 30^\circ$)



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

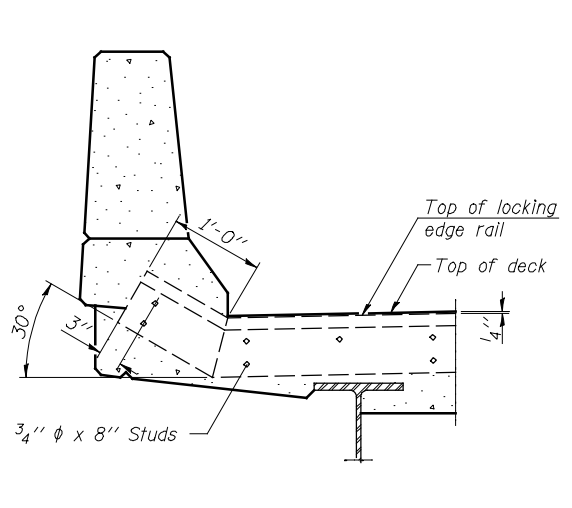


SECTION C-C

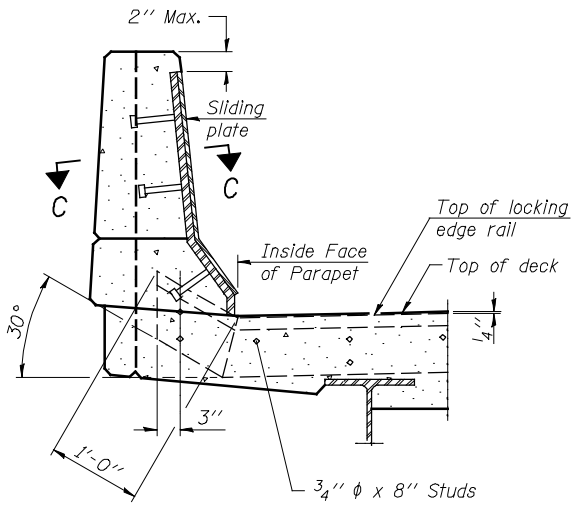


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

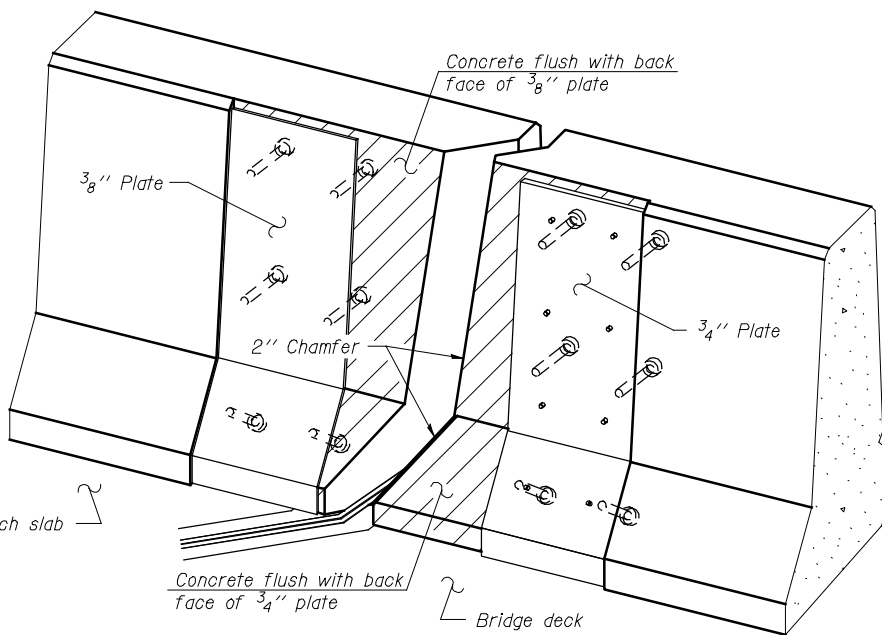
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

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

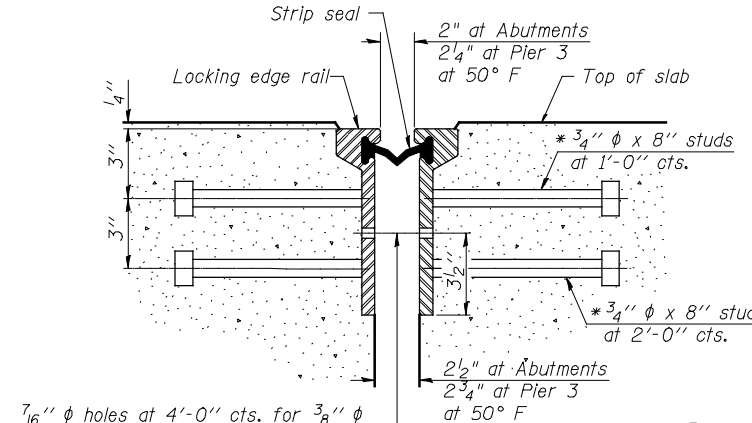
The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

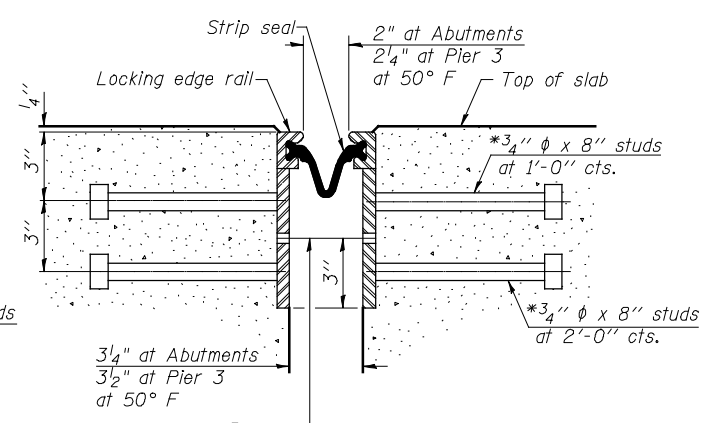
The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications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

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.

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

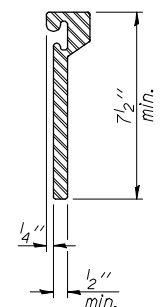


SECTION THRU ROLLED RAIL JOINT

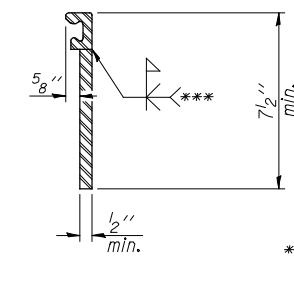


SECTION THRU WELDED RAIL JOINT

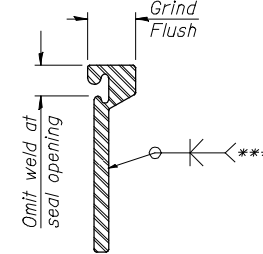
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL



WELDED RAIL



LOCKING EDGE RAIL SPLICE

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

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

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	FOOT	108

EJ-SSJ
Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

1-27-12
USER NAME = jdean
PLOT SCALE = NONE
PLOT DATE = 7/25/2013

DESIGNED - JOH
CHECKED - BAN
DRAWN - TAC
CHECKED - JOH/BAN

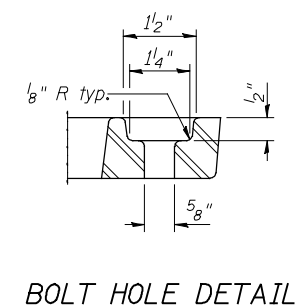
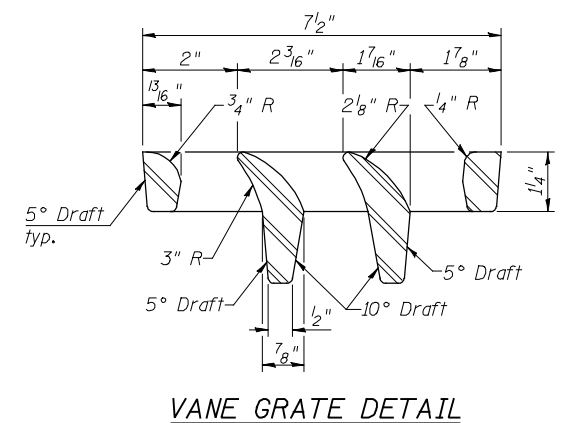
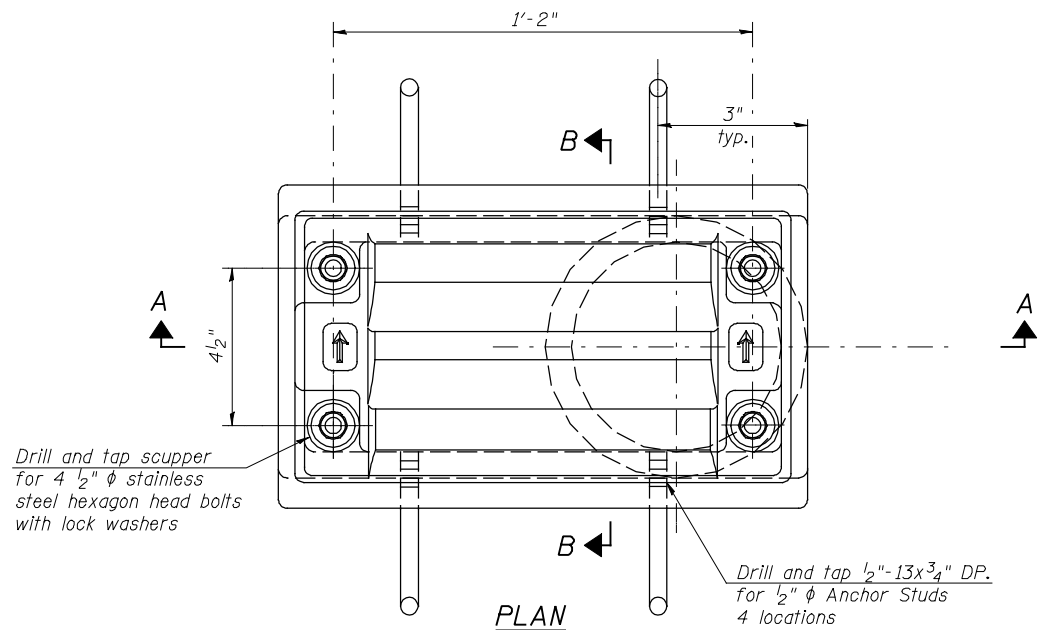
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

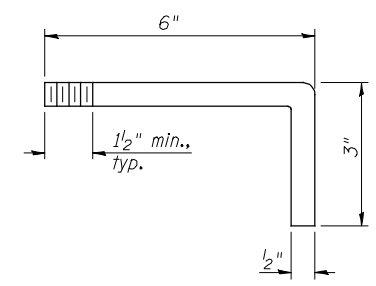
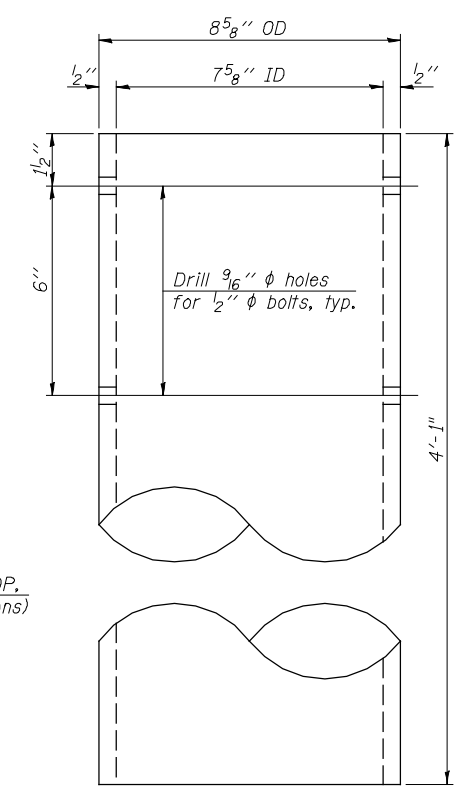
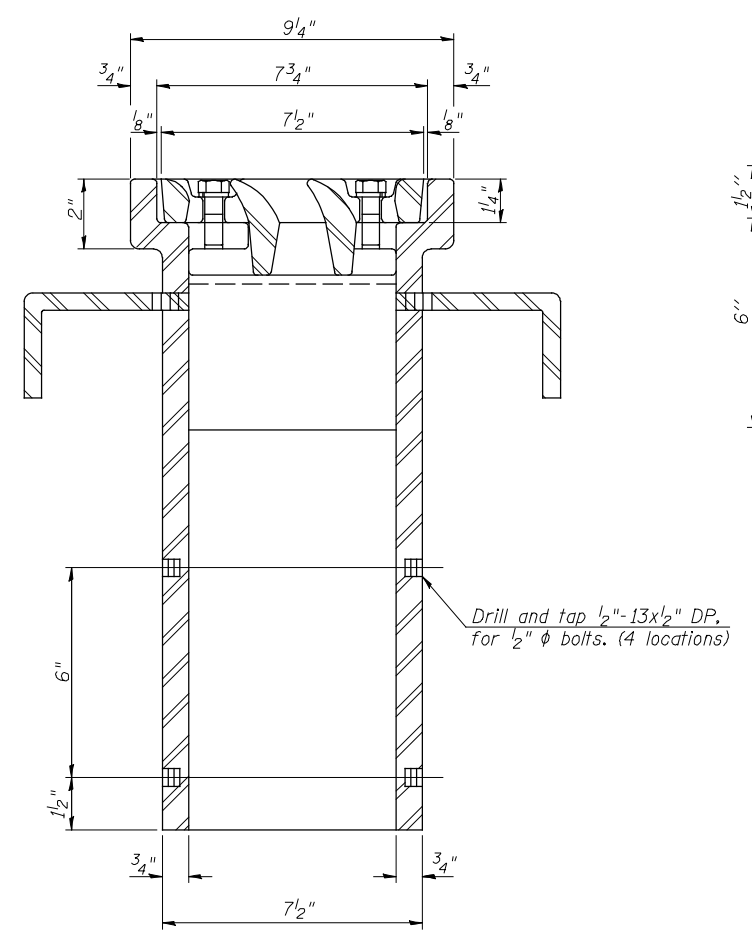
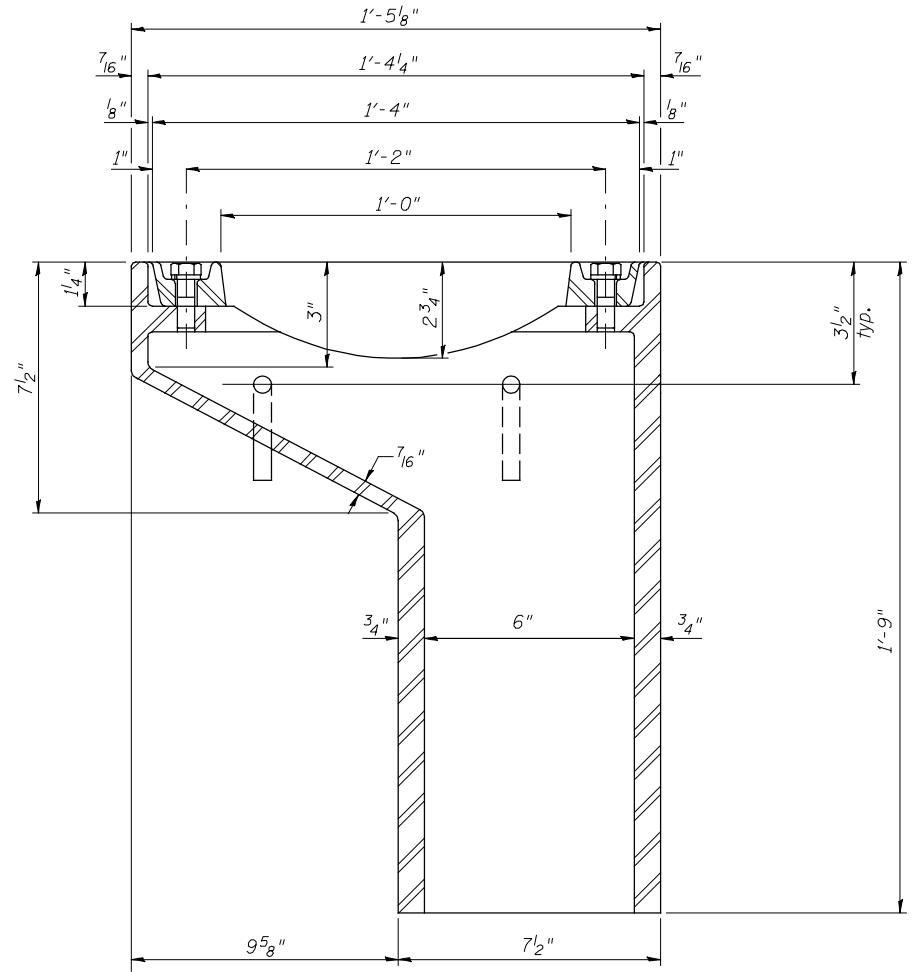
PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 062-0086

SHEET NO. 24 OF 62 SHEETS

F.A.P. RTE. 698
SECTION (125VBR)BR
COUNTY MARSHALL
TOTAL SHEETS 148
SHEET NO. 49
CONTRACT NO. 68580
ILLINOIS FED. AID PROJECT



Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M11.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scuppers, DS-11	EACH	7

DS-11 7-1-10

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdeen	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

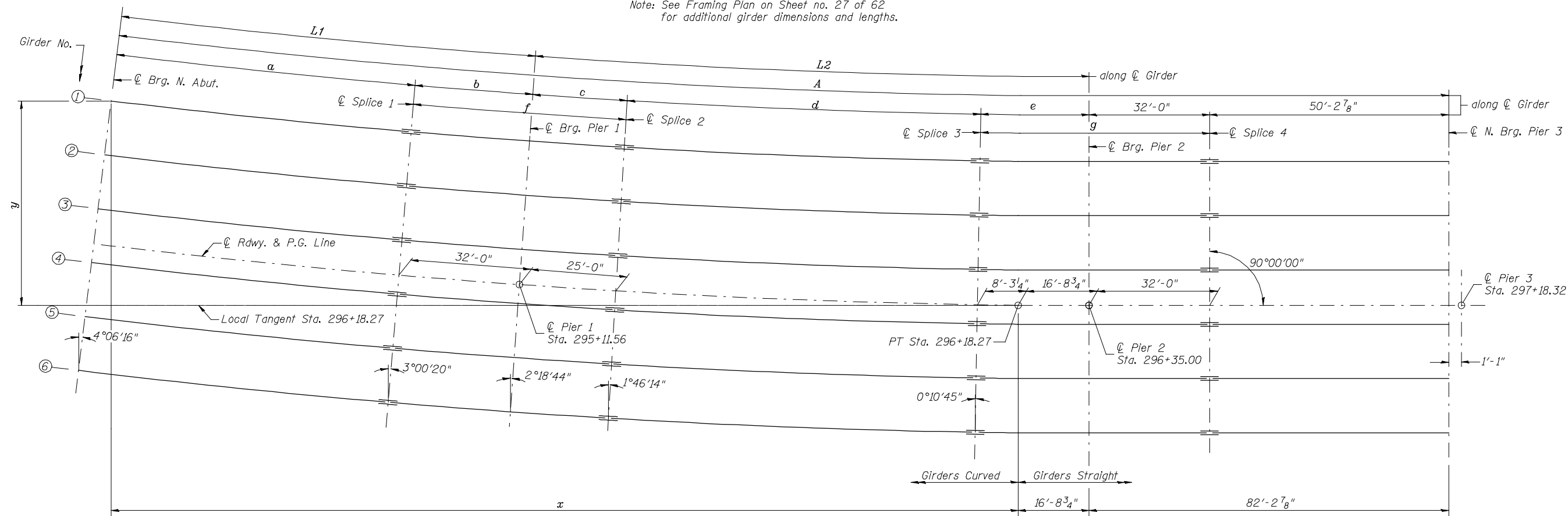
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DRAINAGE SCUPPER DS-11
 STRUCTURE NO. 062-0086**

SHEET NO. 25 OF 62 SHEETS

F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 50
ILLINOIS FED. AID PROJECT				

Note: See Framing Plan on Sheet no. 27 of 62 for additional girder dimensions and lengths.



LAYOUT PLAN - UNIT 1

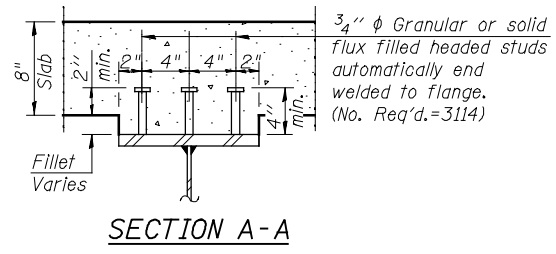
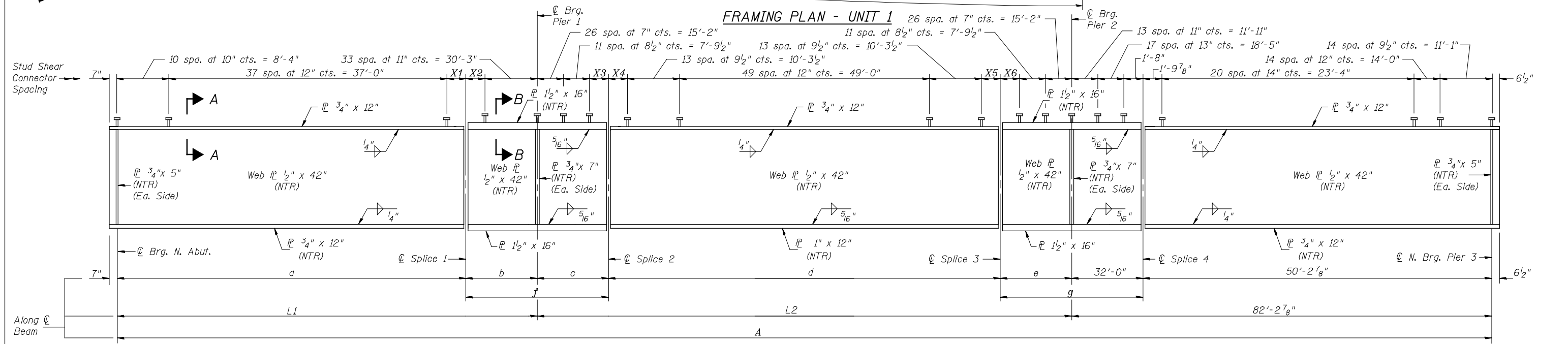
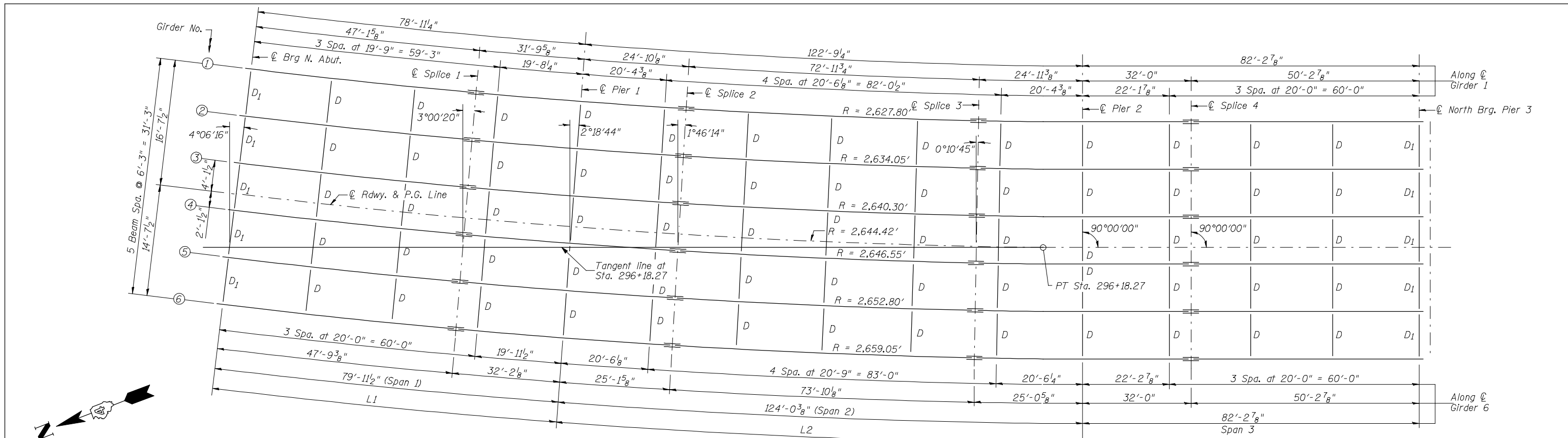
LAYOUT DIMENSIONS

Girder No.	℄ Brg. N. Abut.		℄ Field Splice 1		℄ Brg. Pier 1		℄ Field Splice 2		℄ Field Splice 3	
	x	y	x	y	x	y	x	y	x	y
Girder 1	184'-9 ⁷ / ₈ "	23'-1 ⁵ / ₈ "	137'-9 ³ / ₈ "	20'-2 ⁷ / ₈ "	106'-0 ¹ / ₈ "	18'-9 ⁸ / ₈ "	81'-2 ¹ / ₄ "	17'-10 ¹ / ₂ "	8'-2 ⁵ / ₈ "	16'-7 ⁵ / ₈ "
Girder 2	185'-3 ³ / ₈ "	16'-10 ³ / ₄ "	138'-1 ¹ / ₄ "	14'-0"	106'-3 ¹ / ₈ "	12'-6 ¹ / ₄ "	81'-4 ¹ / ₂ "	11'-7 ⁵ / ₈ "	8'-2 ⁷ / ₈ "	10'-4 ⁵ / ₈ "
Girder 3	185'-8 ⁷ / ₈ "	10'-8"	138'-5 ¹ / ₈ "	7'-9 ¹ / ₈ "	106'-6 ¹ / ₄ "	6'-3 ¹ / ₄ "	81'-6 ⁷ / ₈ "	5'-4 ⁵ / ₈ "	8'-3 ¹ / ₂ "	4'-1 ⁵ / ₈ "
Girder 4	186'-2 ³ / ₈ "	4'-5 ¹ / ₄ "	138'-9 ¹ / ₈ "	1'-6 ¹ / ₈ "	106'-9 ¹ / ₄ "	0 ³ / ₈ "	81'-9 ¹ / ₈ "	-10 ³ / ₈ "	8'-3 ³ / ₈ "	-2'-1 ³ / ₈ "
Girder 5	186'-7 ³ / ₄ "	-1'-9 ⁵ / ₈ "	139'-1"	-4'-8 ³ / ₄ "	107'-0 ¹ / ₄ "	-6'-2 ⁵ / ₈ "	81'-11 ¹ / ₂ "	-7'-1 ¹ / ₄ "	8'-3 ⁵ / ₈ "	-8'-4 ³ / ₈ "
Girder 6	187'-1 ¹ / ₄ "	-8'-0 ³ / ₈ "	139'-5"	-10'-11 ⁵ / ₈ "	107'-3 ¹ / ₄ "	-12'-5 ¹ / ₂ "	82'-1 ³ / ₄ "	-13'-4 ¹ / ₄ "	8'-3 ³ / ₄ "	-14'-7 ³ / ₈ "

See Sheet 27 of 62 for Girder Details

GIRDER DIMENSIONS

Girder No.	Radius	a	b	c	d	e	f	g	L1	L2	A
Girder 1	2,627.80	47'-1 ⁵ / ₈ "	31'-9 ⁵ / ₈ "	24'-10 ¹ / ₈ "	72'-11 ³ / ₄ "	24'-11 ³ / ₈ "	56'-7 ³ / ₄ "	56'-11 ³ / ₈ "	78'-11 ¹ / ₄ "	122'-9 ¹ / ₄ "	283'-11 ³ / ₈ "
Girder 2	2,634.05	47'-3 ¹ / ₄ "	31'-10 ¹ / ₂ "	24'-10 ⁷ / ₈ "	73'-1 ³ / ₄ "	24'-11 ⁵ / ₈ "	56'-9 ³ / ₈ "	56'-11 ⁵ / ₈ "	79'-1 ³ / ₄ "	123'-0 ¹ / ₄ "	284'-4 ⁷ / ₈ "
Girder 3	2,640.30	47'-4 ³ / ₄ "	31'-11 ³ / ₈ "	24'-11 ¹ / ₂ "	73'-3 ⁷ / ₈ "	24'-11 ⁷ / ₈ "	56'-10 ⁷ / ₈ "	56'-11 ⁷ / ₈ "	79'-4 ¹ / ₈ "	123'-3 ¹ / ₄ "	284'-10 ¹ / ₄ "
Girder 4	2,646.55	47'-6 ¹ / ₄ "	32'-0 ³ / ₈ "	25'-0 ¹ / ₈ "	73'-6"	25'-0 ¹ / ₈ "	57'-0 ¹ / ₂ "	57'-0 ¹ / ₈ "	79'-6 ⁵ / ₈ "	123'-6 ¹ / ₄ "	285'-3 ³ / ₄ "
Girder 5	2,652.80	47'-7 ³ / ₄ "	32'-1 ¹ / ₄ "	25'-0 ¹ / ₈ "	73'-8 ¹ / ₈ "	25'-0 ³ / ₈ "	57'-2 ¹ / ₈ "	57'-0 ³ / ₈ "	79'-9"	123'-9 ³ / ₈ "	285'-9 ¹ / ₄ "
Girder 6	2,659.05	47'-9 ³ / ₈ "	32'-2 ¹ / ₈ "	25'-1 ⁵ / ₈ "	73'-10 ¹ / ₈ "	25'-0 ⁵ / ₈ "	57'-3 ³ / ₄ "	57'-0 ⁵ / ₈ "	79'-11 ¹ / ₂ "	124'-0 ³ / ₈ "	286'-2 ³ / ₄ "



SHEAR STUD DIMENSIONS - UNIT 1

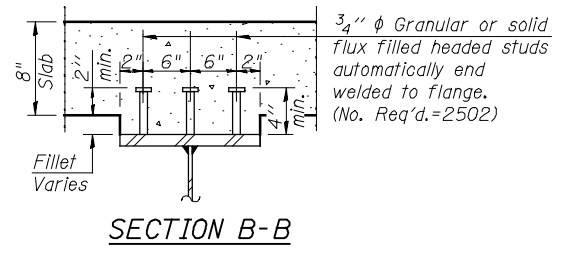
X1	Varies from 1'-9 5/8" to 2'-5 3/8"	(Girder 1 to Girder 6)
X2	Varies from 1'-6 5/8" to 1'-11 1/8"	(Girder 1 to Girder 6)
X3	Varies from 1'-10 5/8" to 2'-2 1/8"	(Girder 1 to Girder 6)
X4	Varies from 1'-8 3/8" to 2'-1 1/2"	(Girder 1 to Girder 6)
X5	Varies from 1'-8 3/8" to 2'-1 5/8"	(Girder 1 to Girder 6)
X6	Varies from 1'-11 1/8" to 2'-1 1/8"	(Girder 1 to Girder 6)

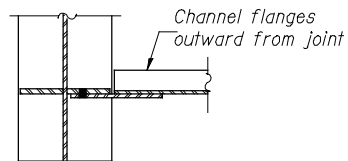
Notes:

All diaphragms between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

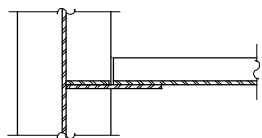
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

See Layout Plan and Dimension Table on Sheet no. 26 of 62 for additional girder dimensions.

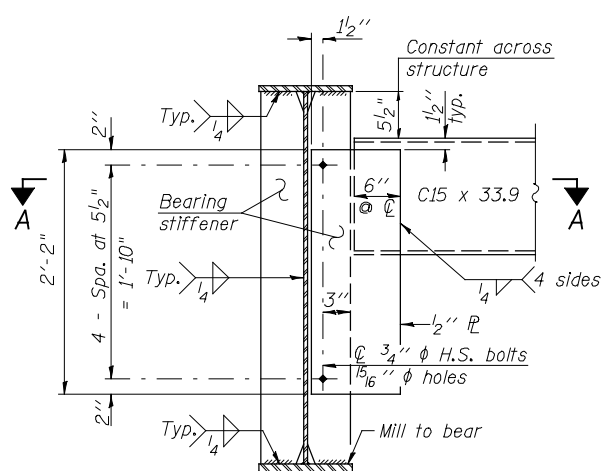




SECTION A-A

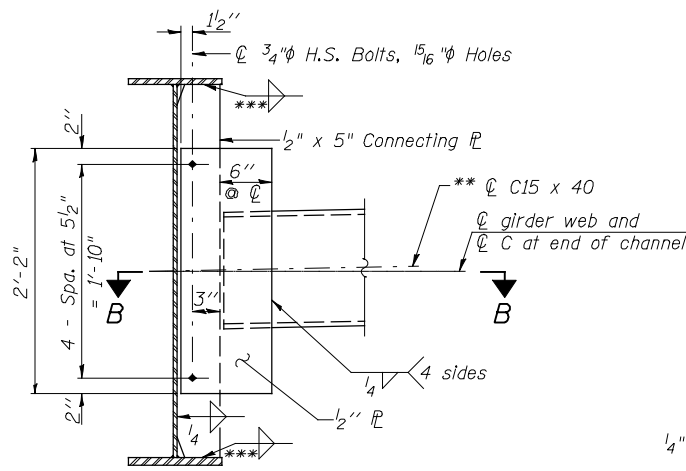


SECTION B-B



END DIAPHRAGM, D1
(10 Required)

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

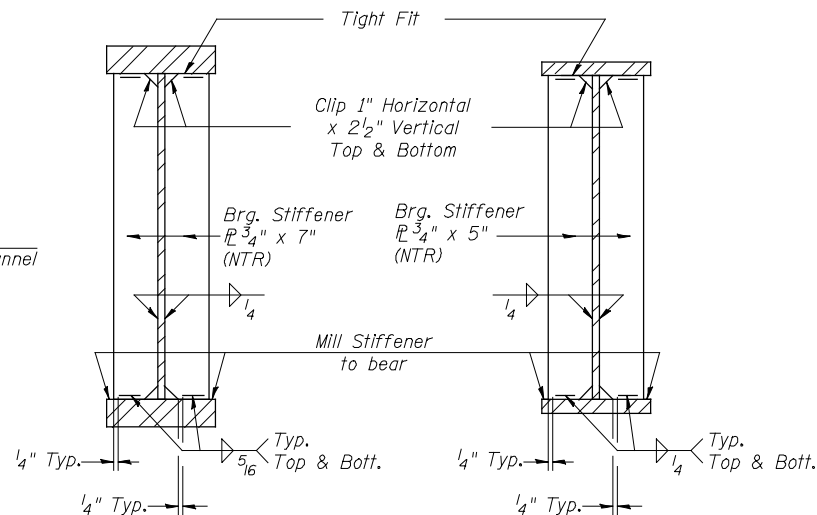


INTERIOR DIAPHRAGM, D
(65 Required)

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

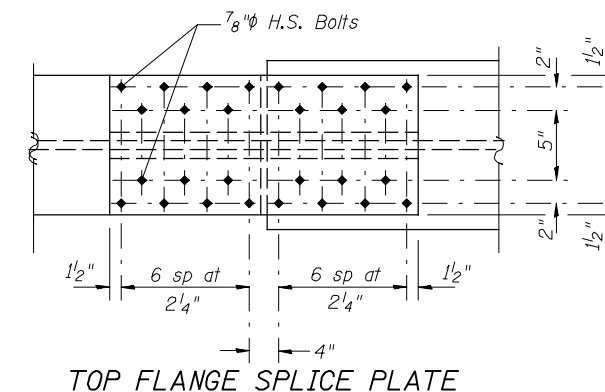
** Alternate channel C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.

*** 1/4" for 3/4" flange plates, 5/16" for all others

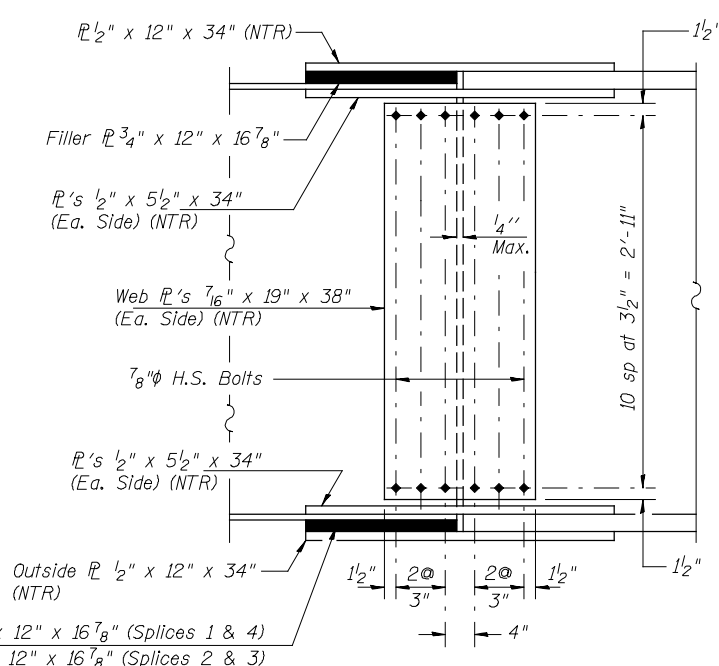


SECTION AT PIERS
1 & 2

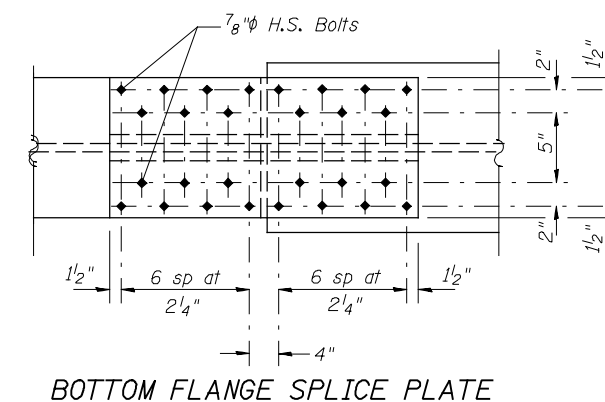
SECTION AT N. ABUTMENT
& N. BRG. PIER 3



TOP FLANGE SPLICE PLATE



WEB SPLICE PLATE



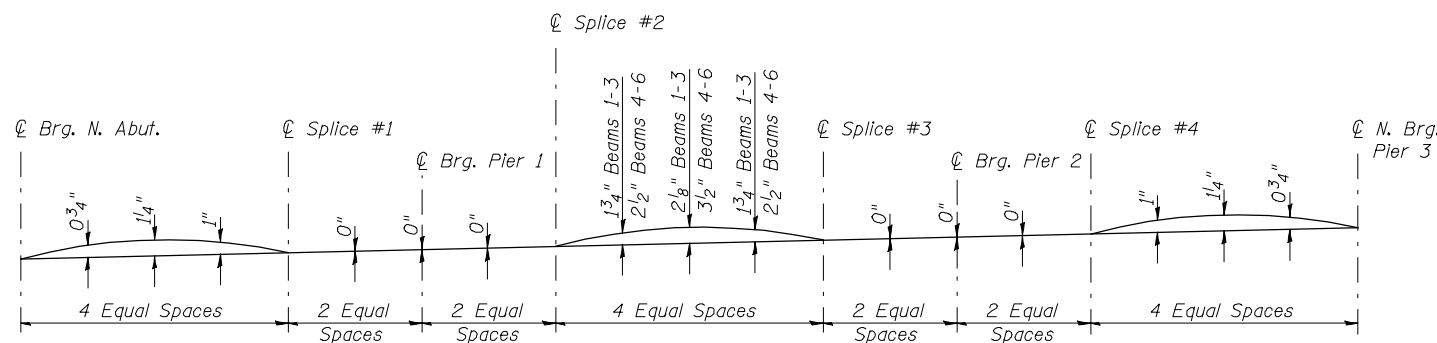
BOTTOM FLANGE SPLICE PLATE

FIELD SPLICE DETAIL

*TOP OF WEB ELEVATIONS

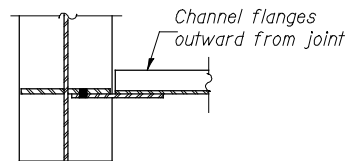
Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
⊕ Brg. at N. Abut.	643.98	644.24	644.50	644.76	645.02	645.29
⊕ Splice 1	644.29	644.57	644.82	645.08	645.35	645.61
⊕ Brg. at Pier 1	644.48	644.75	645.01	645.27	645.54	645.80
⊕ Splice 2	644.62	644.89	645.15	645.41	645.68	645.94
⊕ Splice 3	644.71	644.90	645.10	645.30	645.50	645.69
⊕ Brg. at Pier 2	644.61	644.77	644.93	645.07	645.21	645.35
⊕ Splice 4	644.48	644.59	644.70	644.78	644.84	644.90
⊕ N. Brg. at Pier 3	643.99	644.11	644.21	644.25	644.19	644.12

*For fabrication only

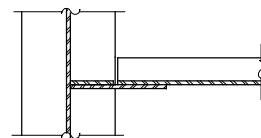


CAMBER DIAGRAM

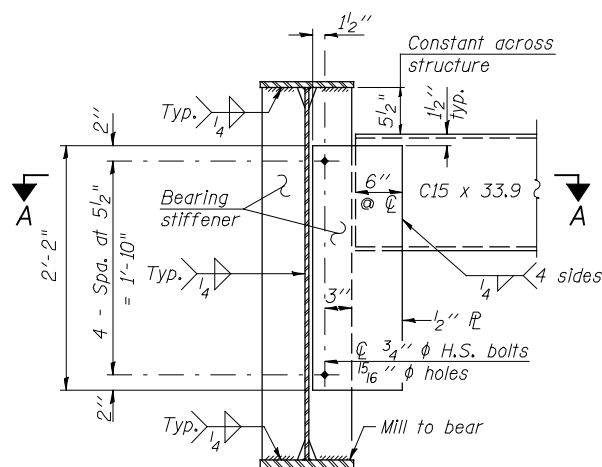
Notes:
All diaphragms between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.



SECTION A-A

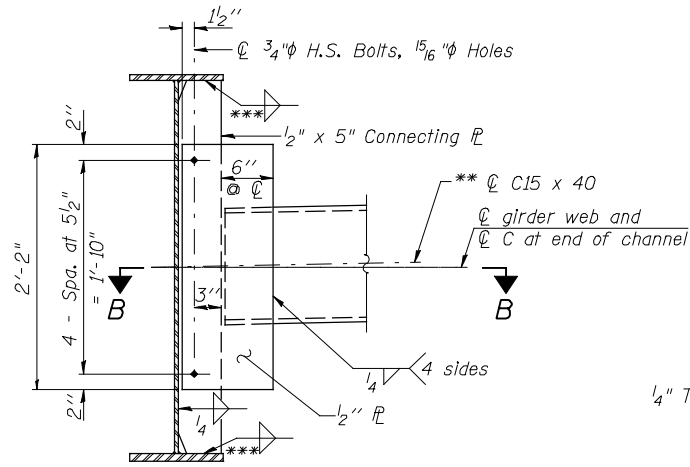


SECTION B-B



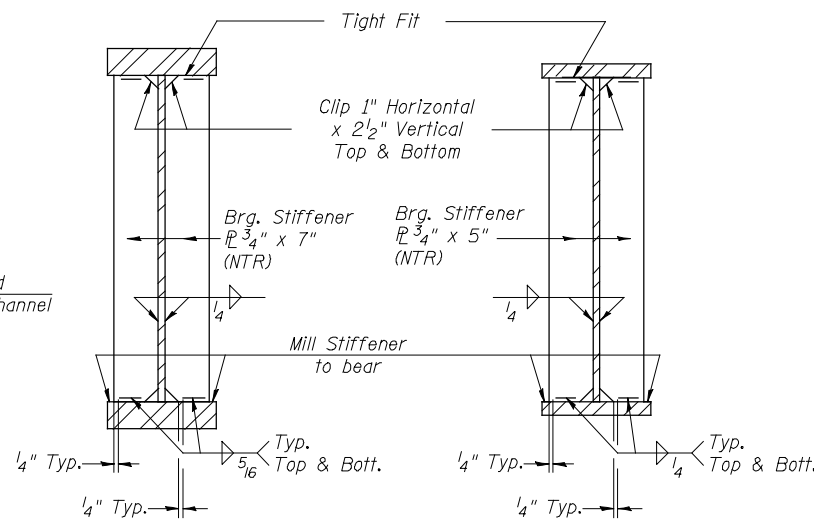
END DIAPHRAGM, D1
(10 Required)

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



INTERIOR DIAPHRAGM, D
(85 Required)

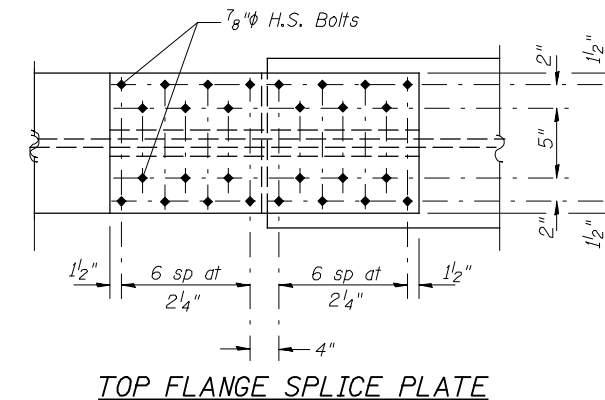
Note: Two hardened washers required for each set of oversized holes.



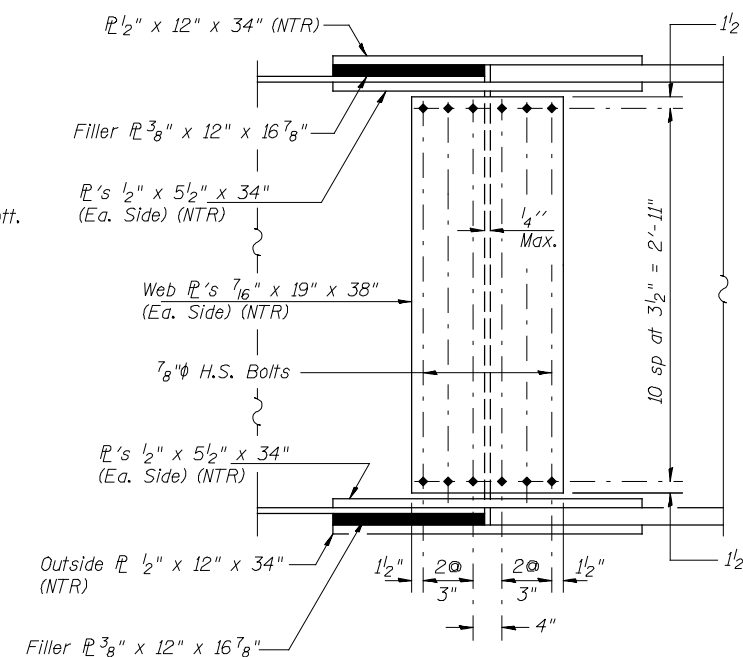
SECTION AT PIERS
4, 5 & 6

SECTION AT S. ABUTMENT
& S. BRG. PIER 3

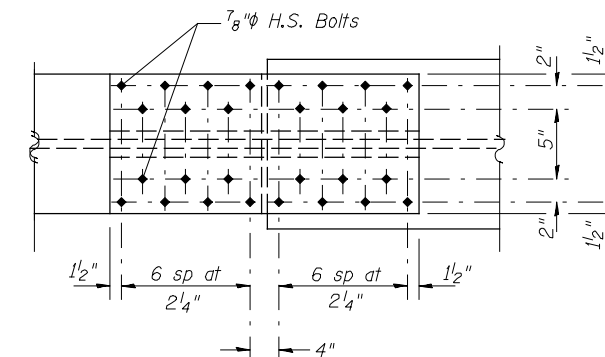
** Alternate channel C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.
*** 1/4" for 3/4" flange plates, 5/16" for all others



TOP FLANGE SPLICE PLATE



WEB SPLICE PLATE



BOTTOM FLANGE SPLICE PLATE

FIELD SPLICE DETAIL

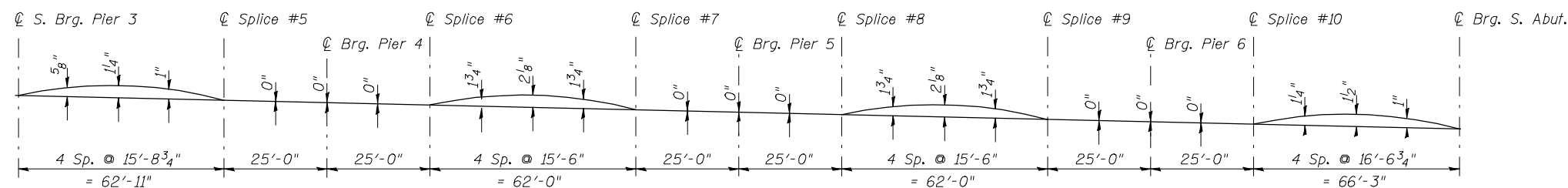
* TOP OF WEB ELEVATIONS

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
℄ S. Brg. at Pier 3	643.96	644.08	644.18	644.22	644.15	644.08
℄ Splice 5	642.89	643.01	643.11	643.14	643.04	642.93
℄ Brg. at Pier 4	642.36	642.48	642.58	642.61	642.51	642.40
℄ Splice 6	641.82	641.94	642.04	642.07	641.97	641.86
℄ Splice 7	640.19	640.31	640.41	640.44	640.34	640.23
℄ Brg. at Pier 5	639.41	639.53	639.63	639.66	639.56	639.45
℄ Splice 8	638.63	638.75	638.85	638.88	638.78	638.67
℄ Splice 9	636.39	636.51	636.61	636.64	636.54	636.43
℄ Brg. at Pier 6	635.42	635.54	635.63	635.67	635.57	635.46
℄ Splice 10	634.44	634.56	634.65	634.70	634.59	634.48
℄ Brg. at S. Abut.	631.85	631.97	632.07	632.10	632.00	631.89

* For fabrication only

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

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



CAMBER DIAGRAM

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

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

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

S_{xc} : Section modulus about the major axis of section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.³).

DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
M_l + IM: Un-factored live load moment plus dynamic load allowance (impact)(kip-ft.).
M_u (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_l + IM
f_l: Factored calculated normal stress at edge of flange for controlling flange plate due to lateral bending, Strength I or Service II as applicable (kip-ft.).
φ_rM_n: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1 / S_{nc}
f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2 / S_c(3n) or MDC2 / S_c(cr) as applicable.
f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW / S_c(3n) or MDW / S_c(cr) as applicable.
f_s (l+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M_l + IM / S_c(n) or MDW / S_c(cr) as applicable.
f_s + 1/2 (Service II): Sum of stresses as computed below (ksi).
f_s DC1 + f_s DC2 + f_s DW + 1.3 f_s (l + IM) + 1/2 (0.95R_nF_yf): Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
f_s + 1/3 (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_sDC1 + f_sDC2) + 1.5 f_sDW + 1.75 f_s(l + IM) + 1/3 φ_rF_n: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
V_r: Maximum factored shear range in span computed according to Article 6.10.10.
Note:
M_l and R_l include the effects of centrifugal force and superelevation.

	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3
I _s	(in ⁴) 11,312	25,803	12,645	25,803	11,312
I _c (n)	(in ⁴) 27,983	-	32,222	-	27,983
I _c (3n)	(in ⁴) 20,817	-	23,605	-	20,817
I _c (cr)	(in ⁴) -	29,839	-	29,839	-
S _s	(in ³) 520	1,147	619	1,147	520
S _c (n)	(in ³) 737	-	866	-	737
S _c (3n)	(in ³) 669	-	790	-	669
S _c (cr)	(in ³) -	1,208	-	1,208	-
S _{xc}	(in ³) 705	1,190	797	-	-
DC1	(k/ft) 0.795	0.912	0.806	0.912	0.795
MDC1	(k) 217	1,111.0	485.0	1,128.0	239.0
DC2	(k/ft) 0.150	0.150	0.150	0.150	0.150
MDC2	(k) 45.0	183.0	105.0	185.0	50.0
DW	(k/ft) 0.313	0.313	0.313	0.313	0.313
MDW	(k) 93.0	382.0	219.0	387.0	105.0
M _l + IM	(k) 965.0	1,373.0	1,079.0	1,388.0	978.0
f _l (Strength I)	(ksi) 6.19	3.94	6.77	-	-
M _u + 1/3 φ _r S _{xc}	(k) 2,277	4,724	3,104	4,651	2,230
φ _r M _n	(k) -	-	-	4,920	3,886
f _s DC1	(ksi) 5.01	11.62	9.40	11.80	5.51
f _s DC2	(ksi) 0.81	1.82	1.59	1.84	0.90
f _s DW	(ksi) 1.67	3.79	3.33	3.84	1.88
f _s (l+IM)	(ksi) 15.72	13.64	14.95	13.79	15.93
f _l (Service II)	(ksi) 4.62	2.97	5.07	-	-
f _s + 1/2 (Service II)	(ksi) 30.23	36.45	36.30	35.41	29.01
0.95R _n F _y f	(ksi) 47.50	47.50	47.50	47.50	47.50
f _s + 1/3 (Total)(Strength I)	(ksi) 39.35	47.68	47.16	-	-
φ _r F _n	(ksi) 50.00	50.00	50.00	-	-
V _r	(k) 43.1	48.9	35.6	48.5	43.7

	N. Abut.	Pier 1	Pier 2	N. Brg. Pier 3
RDC1	(k) 19.4	102.6	103.2	20.5
RDC2	(k) 3.7	17.6	17.7	3.9
RDW	(k) 7.7	36.8	37.0	8.2
R _l + IM	(k) 85.6	157.5	153.2	86.4
R _{Total}	(k) 116.4	314.5	311.1	119.0

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

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

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{ℓ + IM}: Un-factored live load moment plus dynamic load allowance (impact) ((kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{ℓ + IM}$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
 $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
 $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (ℓ+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
 $M_{ℓ + IM} / S_c(3n)$ or $M_{ℓ + IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(\ell + IM)$

$0.95R_h F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

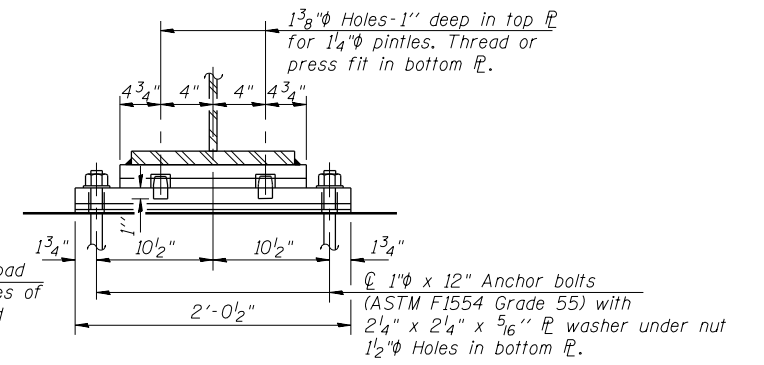
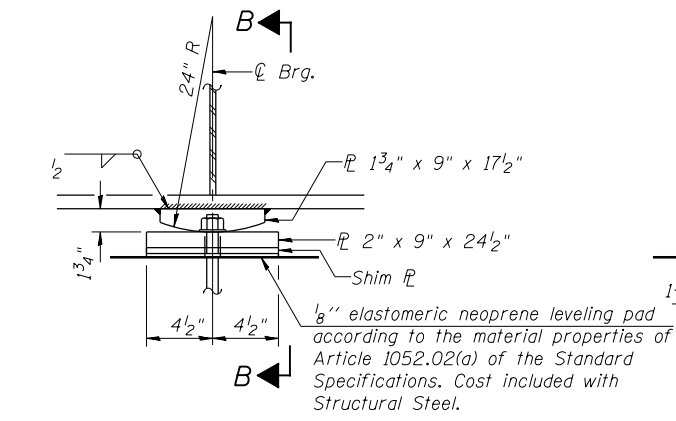
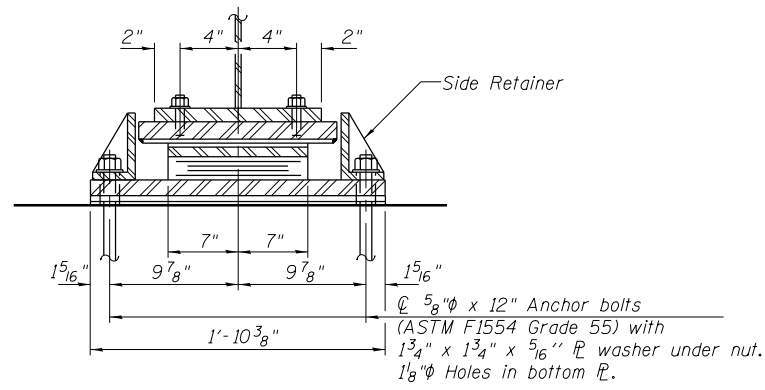
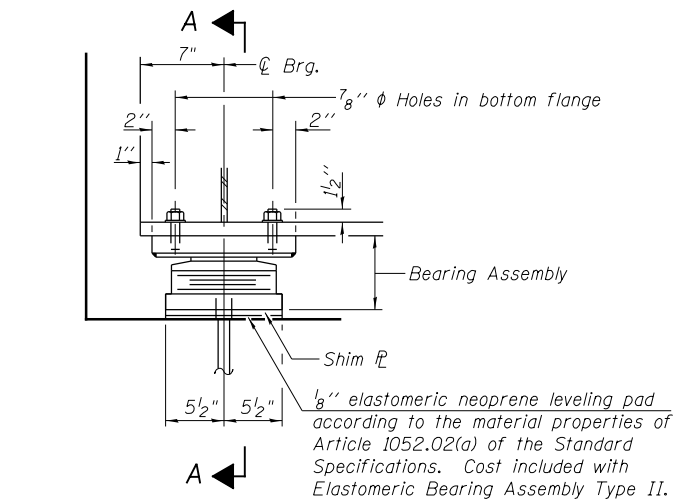
f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s(\ell + IM)$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_r : Maximum factored shear range in span computed according to Article 6.10.10.

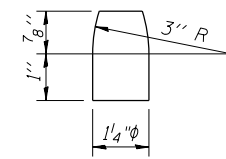
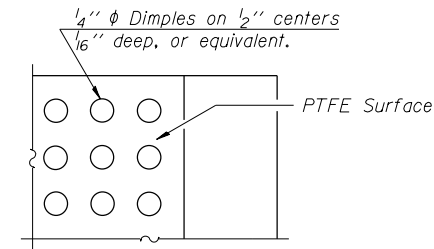
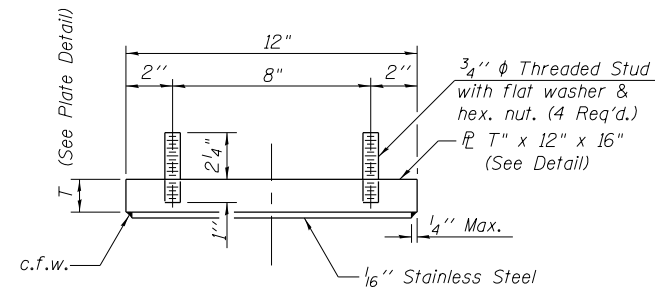
		0.4 Sp. 4	Pier 4	0.5 Sp. 5	Pier 5	0.5 Sp. 6	Pier 6	0.6 Sp. 7
I_s	(in ⁴)	11,312	19,829	11,312	19,829	11,312	19,829	11,312
$I_c(n)$	(in ⁴)	27,983	-	27,983	-	27,983	-	27,983
$I_c(3n)$	(in ⁴)	20,817	-	20,817	-	20,817	-	20,817
$I_c(cr)$	(in ⁴)	-	23,685	-	23,685	-	23,685	-
S_s	(in ³)	520	896	520	896	520	896	520
$S_c(n)$	(in ³)	737	-	737	-	737	-	737
$S_c(3n)$	(in ³)	669	-	669	-	669	-	669
$S_c(cr)$	(in ³)	-	959	-	959	-	959	-
DC1	(k/')	0.795	0.865	0.795	0.865	0.795	0.865	0.795
M _{DC1}	(k)	375.0	922.0	348.0	927.0	333.0	952.0	420.0
DC2	(k/')	0.150	0.150	0.150	0.150	0.150	0.150	0.150
M _{DC2}	(k)	73.0	166.0	68.0	168.0	66.0	171.0	82.0
DW	(k/')	0.313	0.313	0.313	0.313	0.313	0.313	0.313
M _{DW}	(k)	152.0	345.0	143.0	350.0	138.0	356.0	170.0
M _{ℓ + IM}	(k)	1,025.0	1,305.0	1,021.0	1,335.0	1,024.0	1,322.0	1,066.0
M _u (Strength I)	(k)	2,582.0	4,161.0	2,521.0	4,230.0	2,498.0	4,251.0	2,748.0
$\phi_r M_n$	(k)	3,779	4,457	3,801	4,456	3,812	4,455	3,743
f_s DC1	(ksi)	8.65	12.35	8.03	12.42	7.68	12.75	9.69
f_s DC2	(ksi)	1.31	2.08	1.22	2.10	1.18	2.14	1.47
f_s DW	(ksi)	2.72	4.32	2.56	4.38	2.47	4.45	3.05
f_s (ℓ+IM)	(ksi)	16.70	16.33	16.64	16.70	16.68	16.54	17.37
f_s (Service II)	(ksi)	34.40	39.97	33.44	40.61	33.03	40.85	36.79
$0.95R_h F_y f$	(ksi)	47.50	47.50	47.50	47.50	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-	-	-	-	-
$\phi_r F_n$	(ksi)	-	-	-	-	-	-	-
V_r	(k)	26.6	29.6	20.2	29.1	20.2	29.5	26.2

		S. Brg. Pier 3	Pier 4	Pier 5	Pier 6	S. Abut.
R _{DC1}	(k)	25.4	93.2	92.7	94.8	26.7
R _{DC2}	(k)	4.7	16.9	16.8	17.1	5.0
R _{DW}	(k)	9.8	35.2	35.1	35.8	10.4
R _{ℓ + IM}	(k)	75.0	140.8	144.8	141.9	75.8
R _{Total}	(k)	114.9	286.1	289.4	289.6	117.9



TYPE II ELASTOMERIC EXP. BRG.

FIXED BEARING
(6 Required)



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

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

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

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

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

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

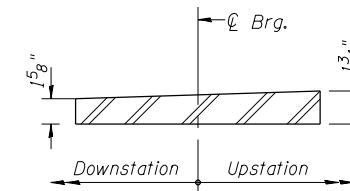
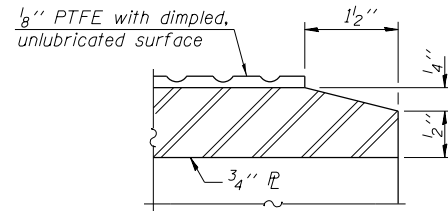
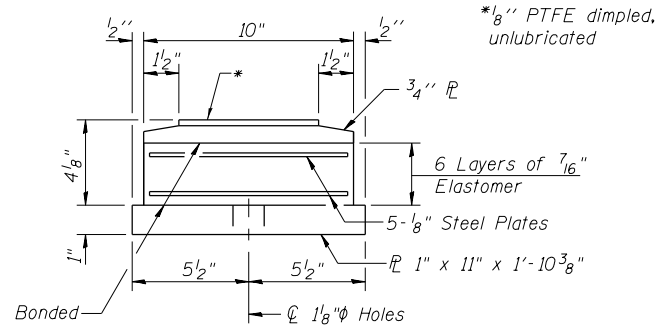
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

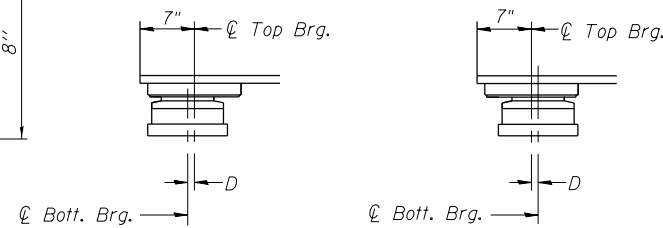
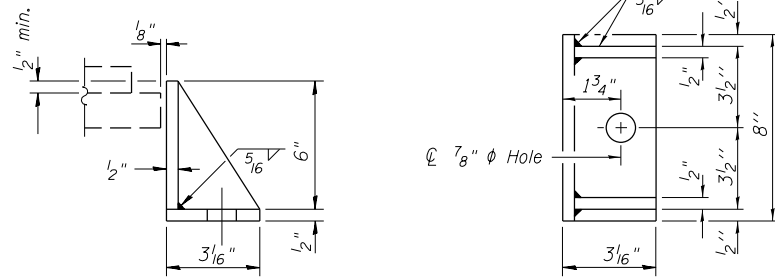
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All 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.



BOTTOM BEARING ASSEMBLY



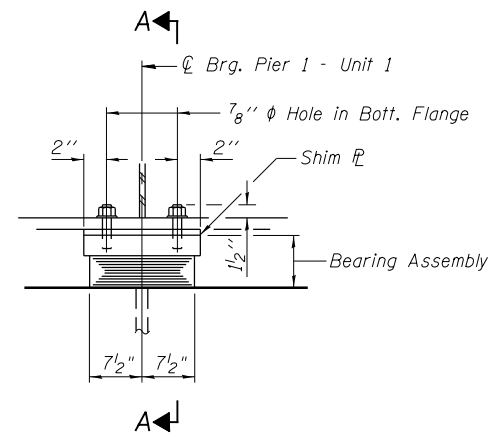
BELOW 50°F. (Move bott. brg. away from fixed brg.)
ABOVE 50°F. (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

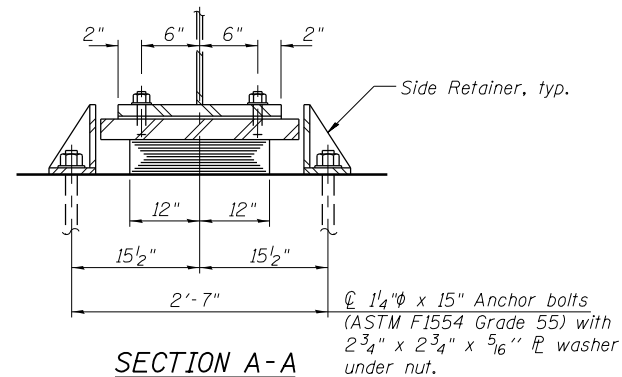
D = 1/8" per each 100' of expansion for every 15° change from the normal temp. of 50°F.

BILL OF MATERIAL

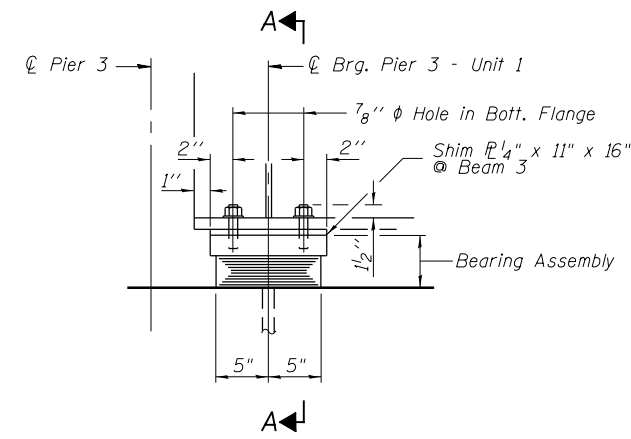
Item	Unit	Total
Elastomeric Bearing Assembly Type II	EACH	6
Anchor Bolts, 5/8"	EACH	12
Anchor Bolts, 1"	EACH	12



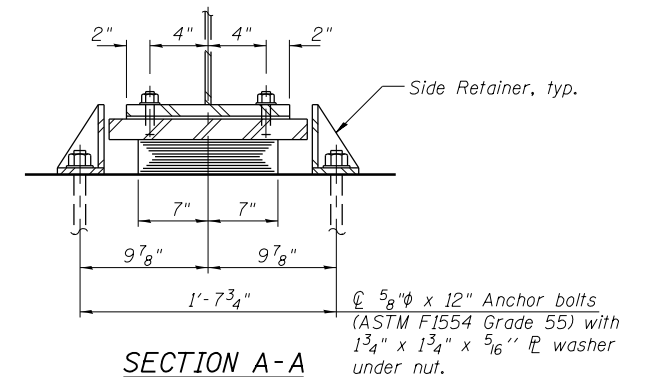
ELEVATION AT PIER 1 - UNIT 1



SECTION A-A

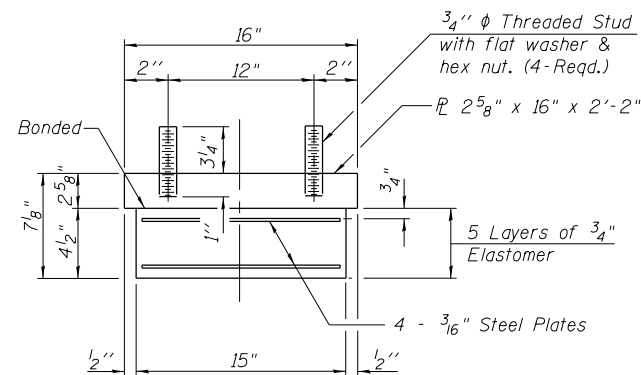


ELEVATION AT PIER 3 - UNIT 1



SECTION A-A

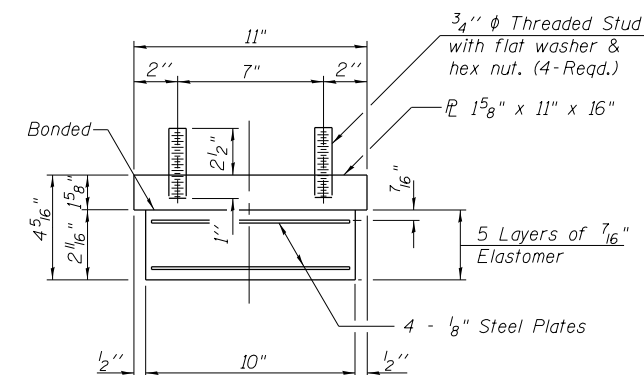
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

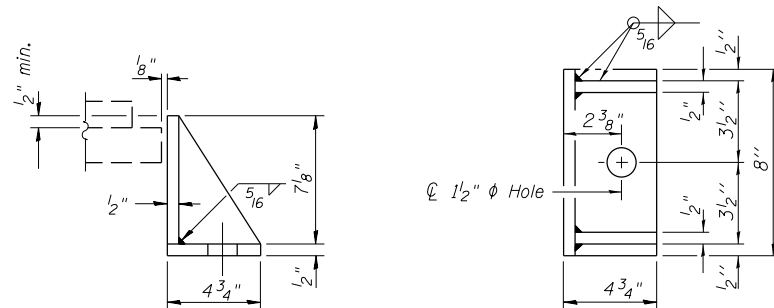
Note:
Shim plates shall not be placed under Bearing Assembly.

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

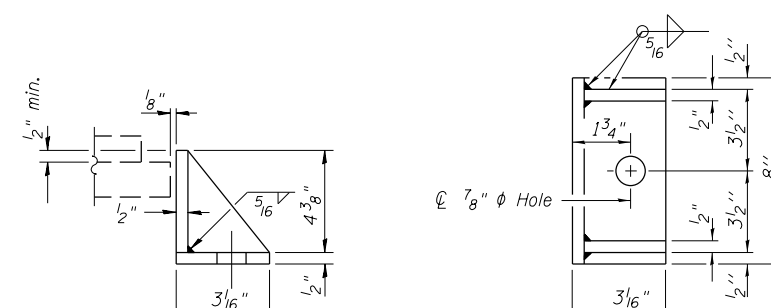
Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

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

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly Type I.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.
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 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.

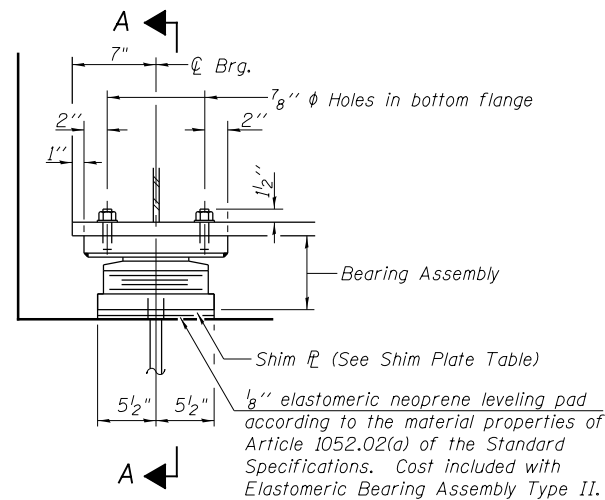


SIDE RETAINER

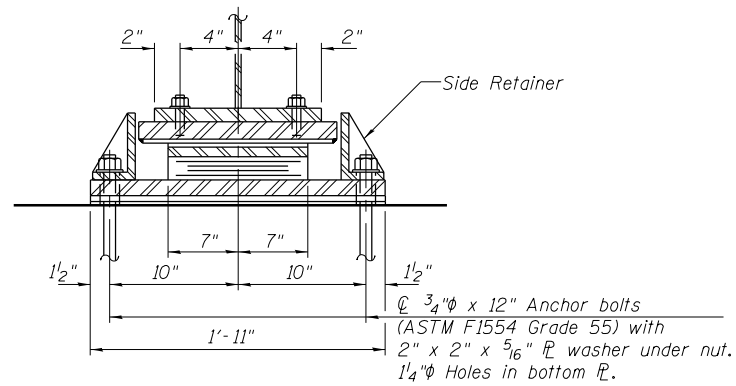
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

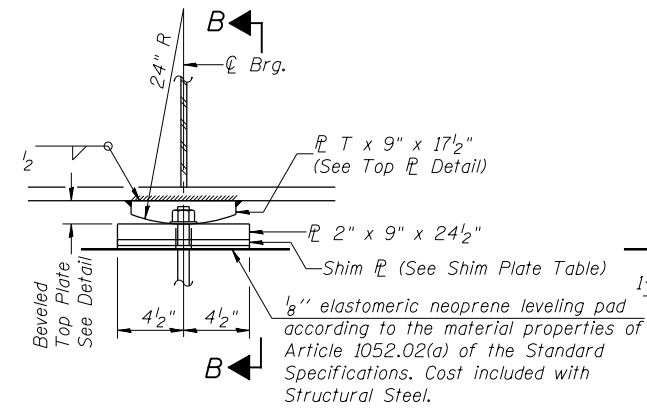
Item	Unit	Total
Elastomeric Bearing Assembly Type I	EACH	12
Anchor Bolts, 5/8"	EACH	12
Anchor Bolts, 1/4"	EACH	12



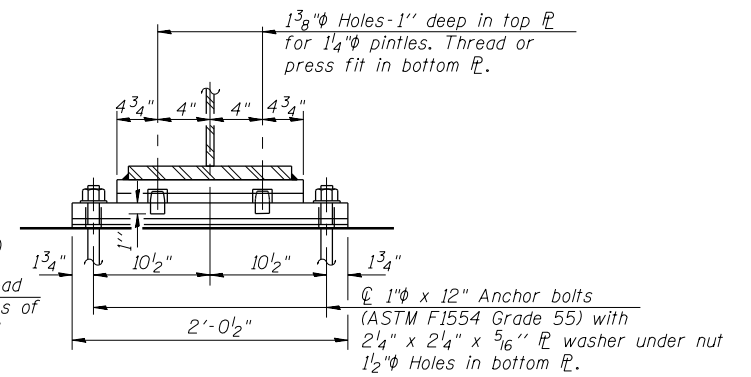
ELEVATION AT S. ABUT. & PIER 3 - UNIT 2



SECTION A-A

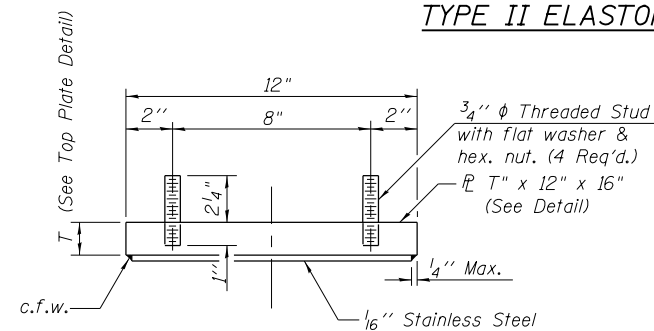


ELEVATION AT PIER 5 - UNIT 2

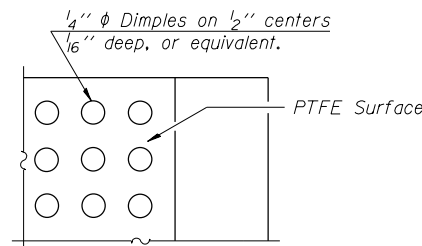


SECTION B-B

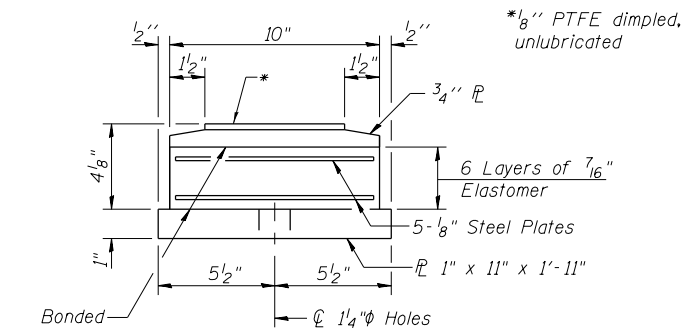
TYPE II ELASTOMERIC EXP. BRG.



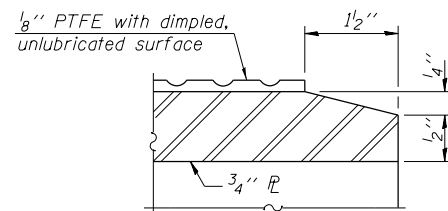
TOP BEARING ASSEMBLY



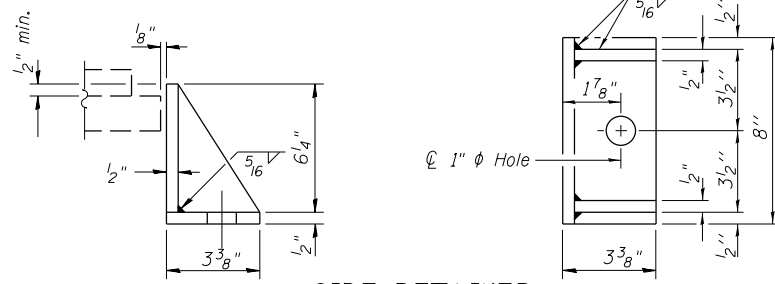
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

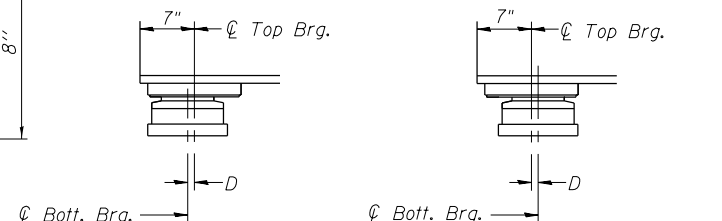


SECTION THRU PTFE



SIDE RETAINER

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



BELOW 50°F.

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

ABOVE 50°F.

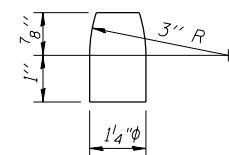
(Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

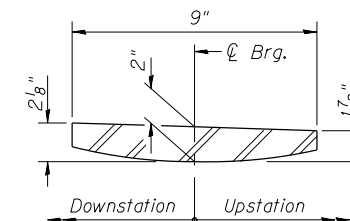
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

FIXED BEARING

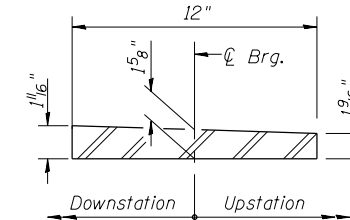
(6 Required)



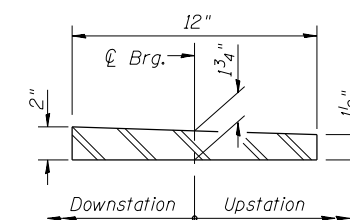
PINTLE



BEVELED TOP ϕ DETAIL (at Pier 5)



BEVELED TOP ϕ DETAIL (at Pier 3 - Unit 2)



BEVELED TOP ϕ DETAIL (at S. Abutment)

Notes:

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

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

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

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

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

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

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

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

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 bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

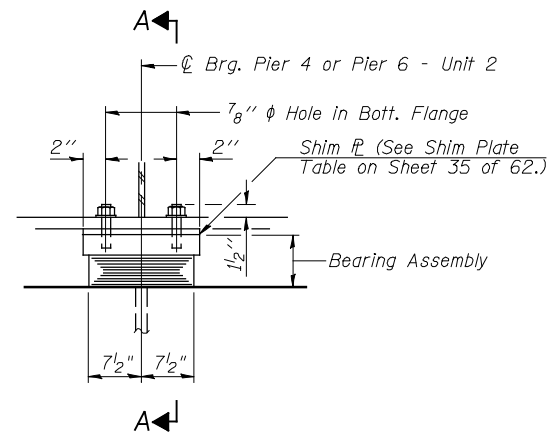
H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.

SHIM PLATE TABLE

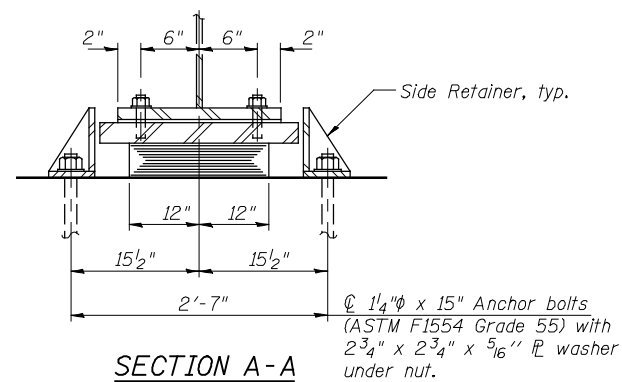
Location / Beam No.	Shim ϕ Thickness
Pier 3 / Beam 3	1/4"
Pier 4 / Beam 3	3/8"
Pier 5 / Beam 3	3/8"
Pier 6 / Beam 3	1/4"
S. Abut. / Beam 4	3/8"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	EACH	12
Anchor Bolts, 3/4"	EACH	24
Anchor Bolts, 1"	EACH	12



ELEVATION AT PIERS 4 & 6 - UNIT 2



SECTION A-A

Notes:

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

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

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

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

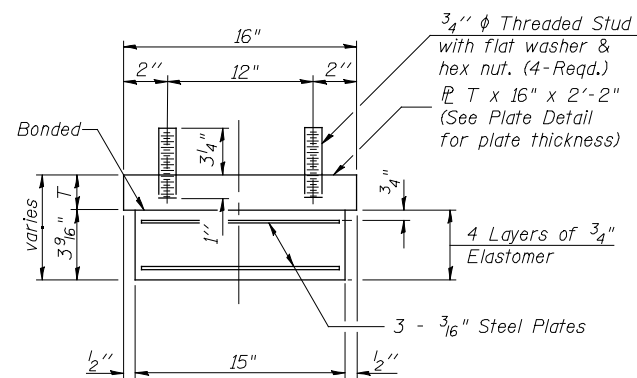
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

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 bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to AASHTO M111 or M232 as applicable.

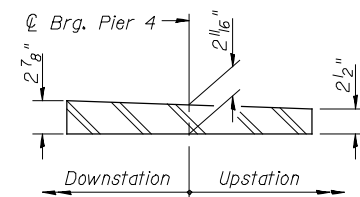
H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.

TYPE I ELASTOMERIC EXP. BRG.

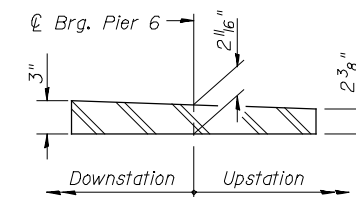


BEARING ASSEMBLY

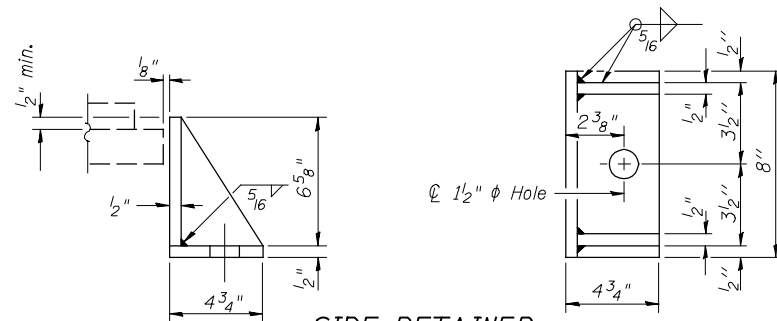
Note:
Shim plates shall not be placed under Bearing Assembly.



BEVELED TOP \bar{P} DETAIL
(at Pier 4)



BEVELED TOP \bar{P} DETAIL
(at Pier 6)

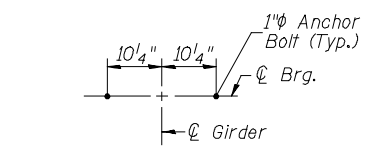
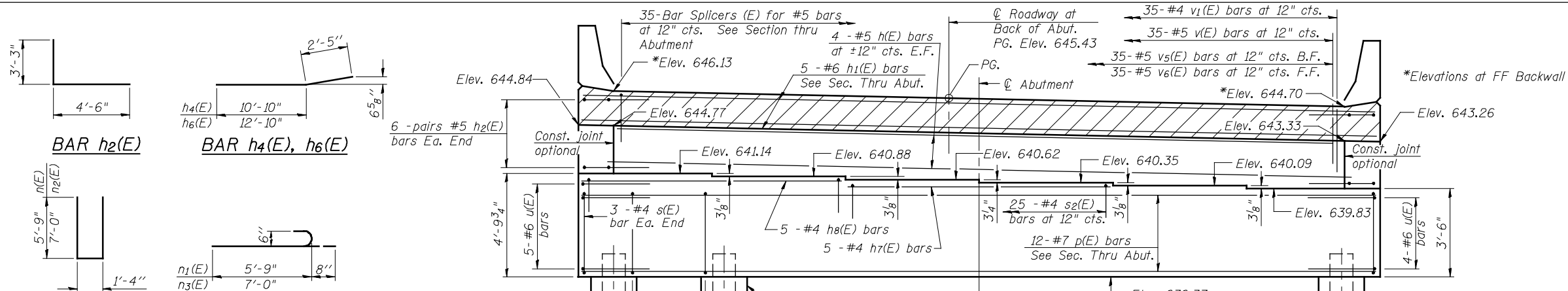


SIDE RETAINER

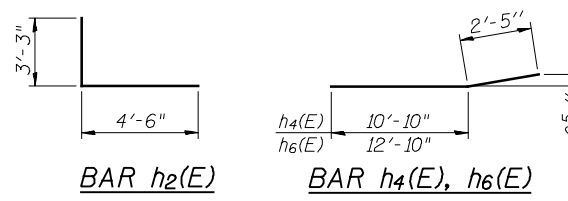
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL

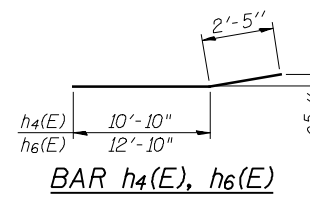
Item	Unit	Total
Elastomeric Bearing Assembly Type I	EACH	12
Anchor Bolts, 1 1/4"	EACH	24



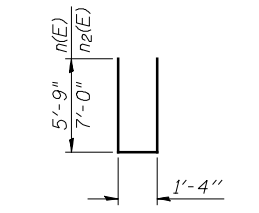
ANCHOR BOLT DETAIL



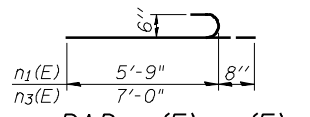
BAR h2(E)



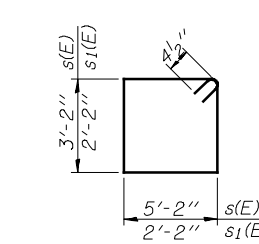
BAR h4(E), h6(E)



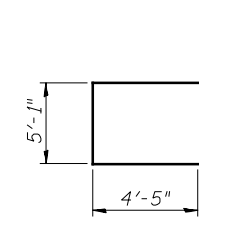
BAR n(E), n2(E)



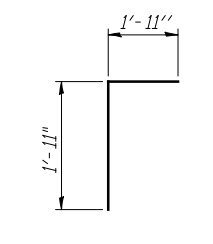
BAR n1(E), n3(E)



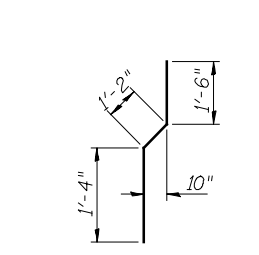
BARS s(E) & s1(E)



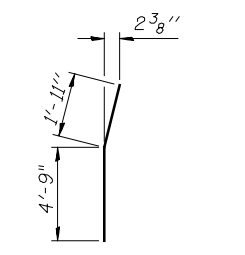
BAR u(E)



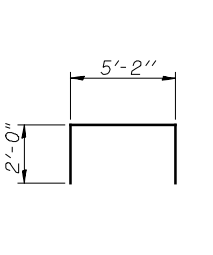
BAR v(E)



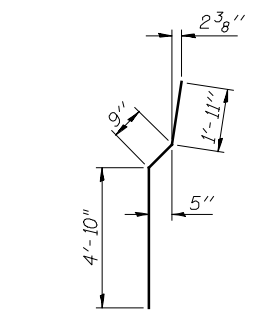
BAR v1(E)



BAR v3(E)



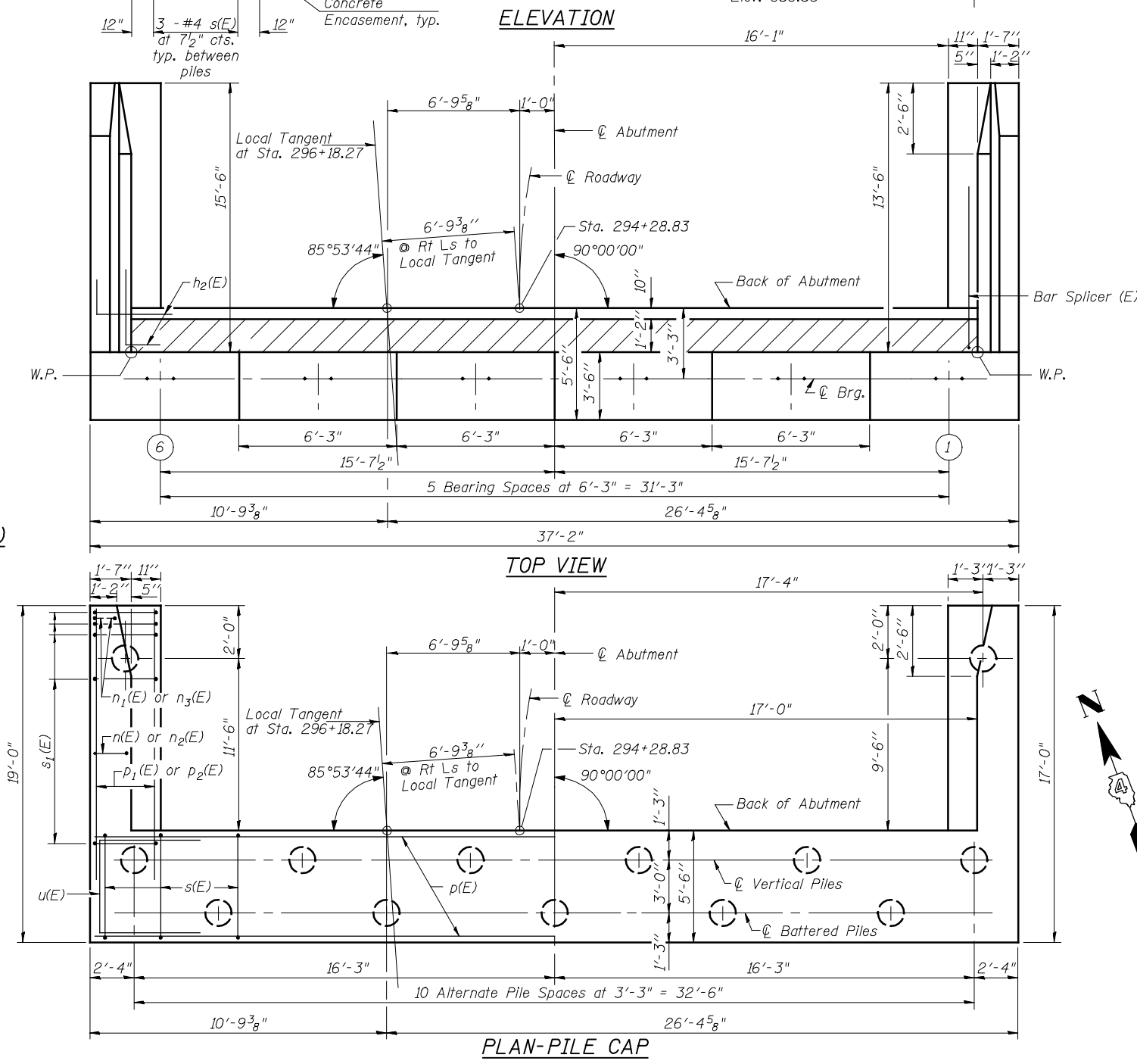
BAR s2(E)



BAR v4(E)

PILE DATA

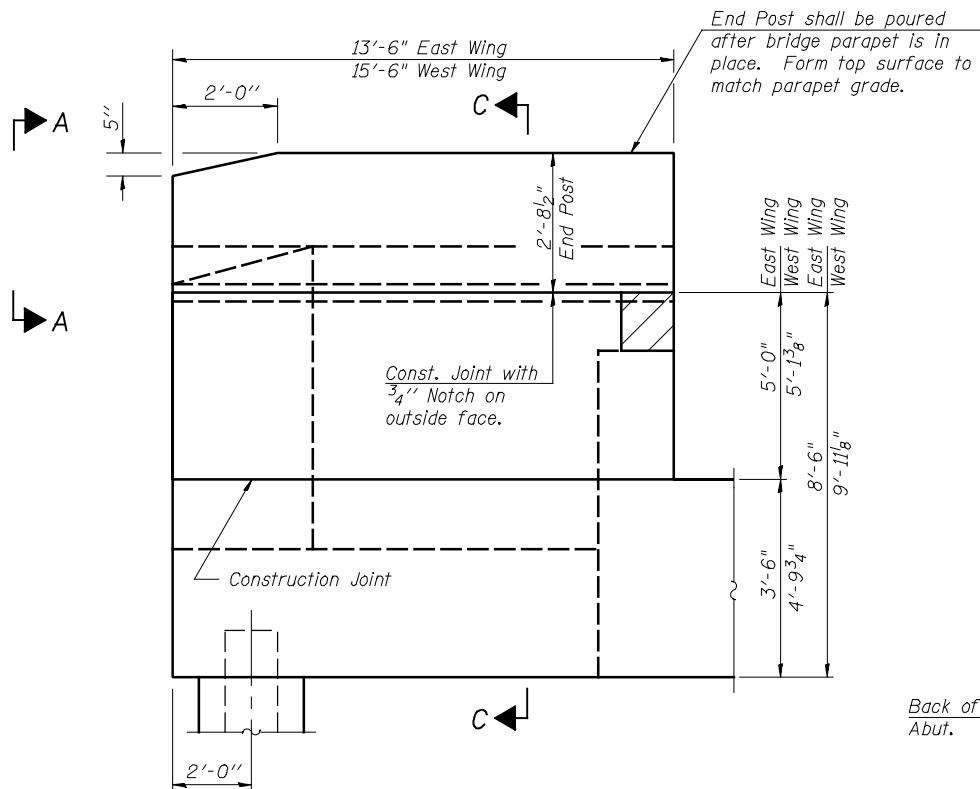
Type: Metal Shell 12" dia. x 0.250" Walls with Pile Shoes
 Nominal Required Bearing: 258k
 Factored Resistance Available: 142k
 Est. Length: 54'
 No. Production Piles: 12
 No. Test Piles: 1



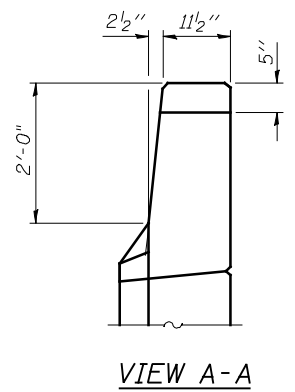
**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	8	#5	33'-9"	—
h1(E)	5	#6	36'-10"	—
h2(E)	24	#5	7'-9"	└
h3(E)	11	#4	13'-3"	—
h4(E)	7	#4	13'-3"	—
h5(E)	12	#4	15'-3"	—
h6(E)	8	#4	15'-3"	—
h7(E)	5	#4	12'-3"	—
h8(E)	5	#4	12'-0"	—
n(E)	11	#6	12'-10"	└
n1(E)	6	#6	6'-5"	└
n2(E)	13	#6	15'-4"	└
n3(E)	6	#6	7'-8"	└
p(E)	12	#7	36'-10"	—
p1(E)	6	#7	14'-6"	—
p2(E)	6	#7	16'-6"	—
s(E)	36	#4	17'-5"	└
s1(E)	32	#4	9'-5"	└
s2(E)	25	#4	9'-2"	└
u(E)	9	#6	13'-11"	└
v(E)	35	#5	3'-10"	└
v1(E)	35	#4	4'-0"	└
v2(E)	30	#6	7'-6"	—
v3(E)	6	#6	6'-8"	└
v4(E)	24	#6	7'-6"	└
v5(E)	35	#5	6'-9"	—
v6(E)	35	#5	8'-1"	—
Structure Excavation	CU YD		142	
Concrete Structures	CU YD		57.0	
Reinforcement Bars, Epoxy Coated	POUND		5,520	
Furnishing Metal Shell Piles 12" x 0.250"	FOOT		648	
Driving Piles	FOOT		648	
Test Pile Metal Shells	EACH		1	
Pile Shoes	EACH		13	
Concrete Encasement	CU YD		6.0	
Concrete Sealer	SQ FT		444	
Bar Splicers	EACH		35	

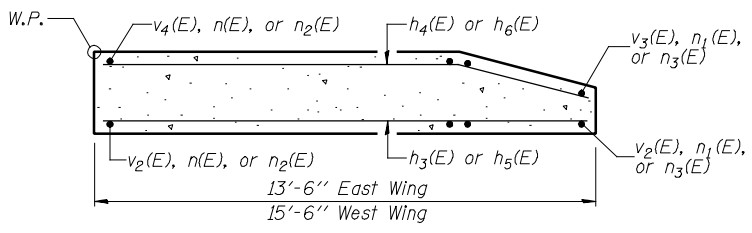
For details of Bar Splicers, see sheet 54 of 62.
 For details of piles and Concrete Encasement, see sheet 53 of 62.



WING WALL ELEVATION
Showing Dimensions

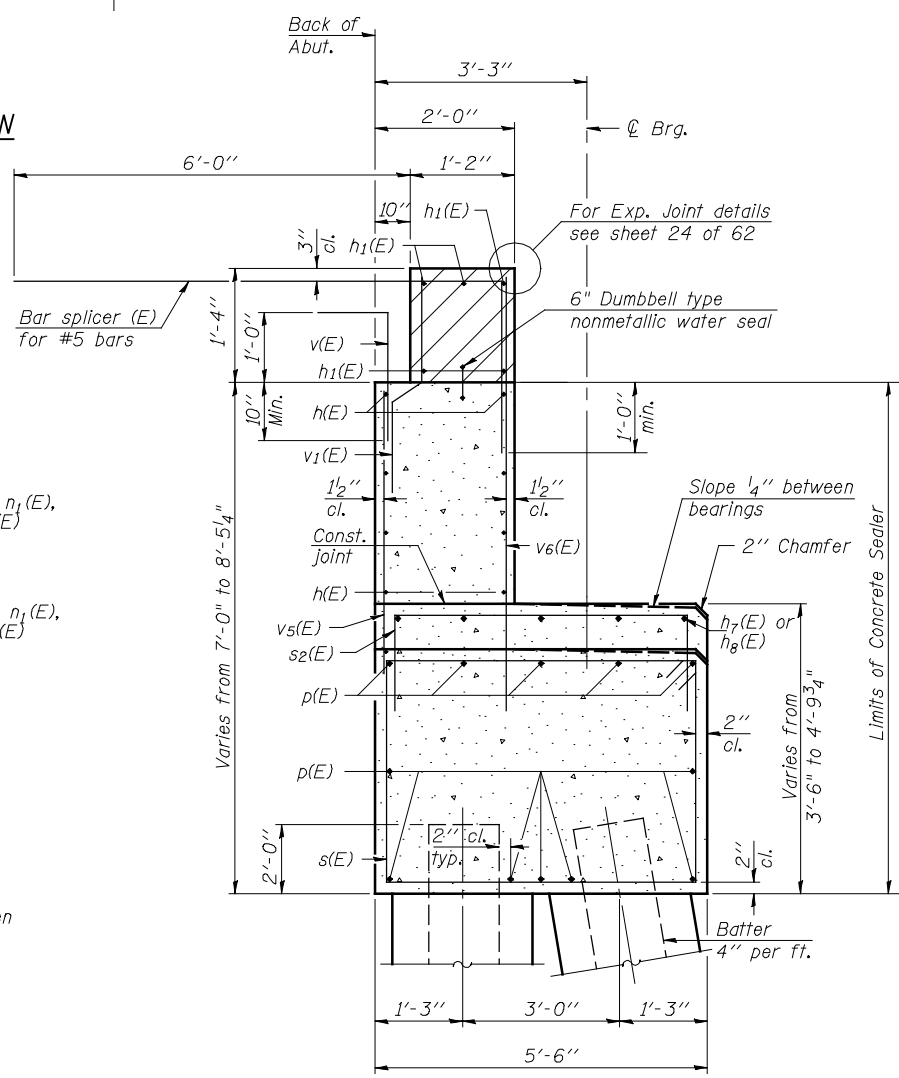


VIEW A-A

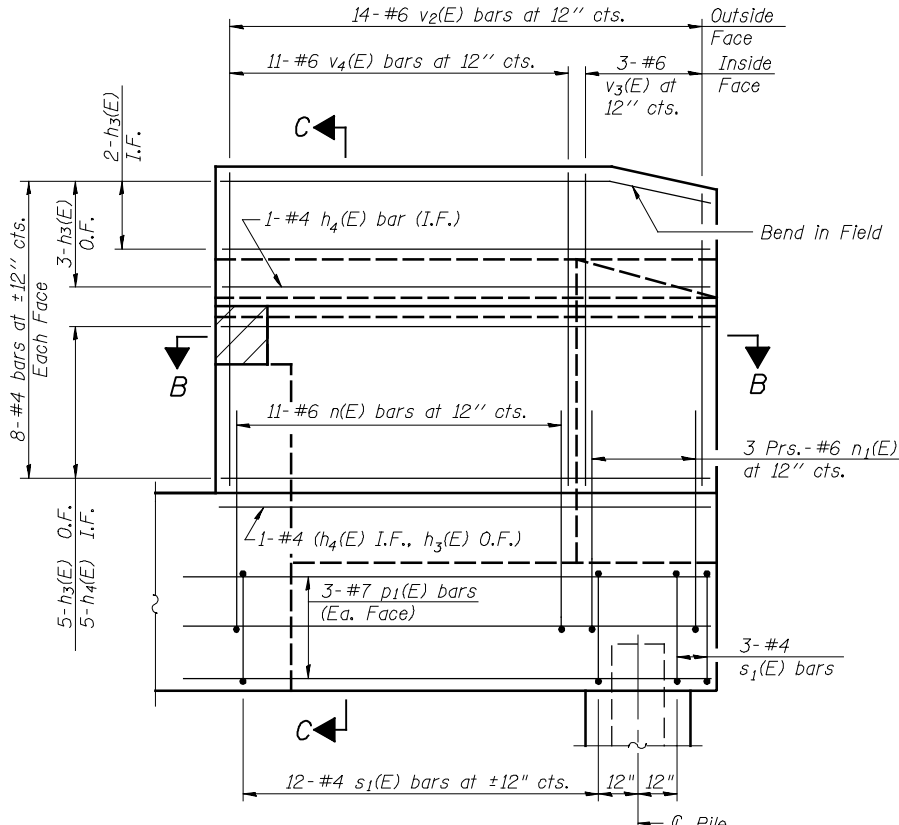


SECTION B-B

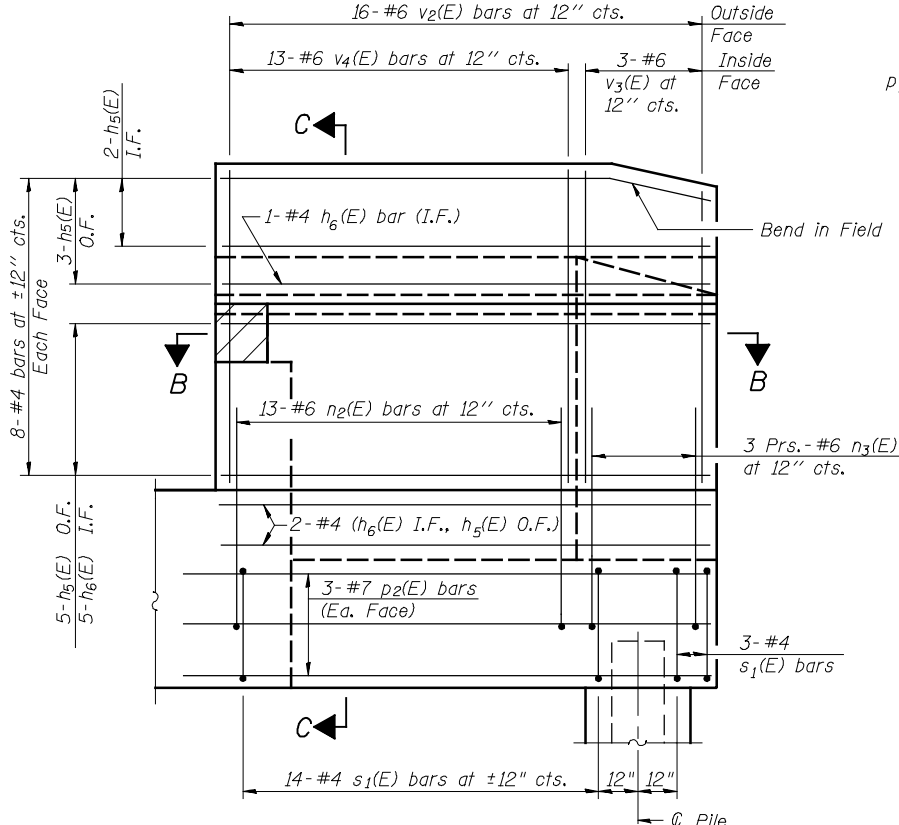
Notes:
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 Quantity of concrete in end post included with Concrete Superstructure on sheet 19 of 62.
 For Concrete Encasement details, see sheet 53 of 62.



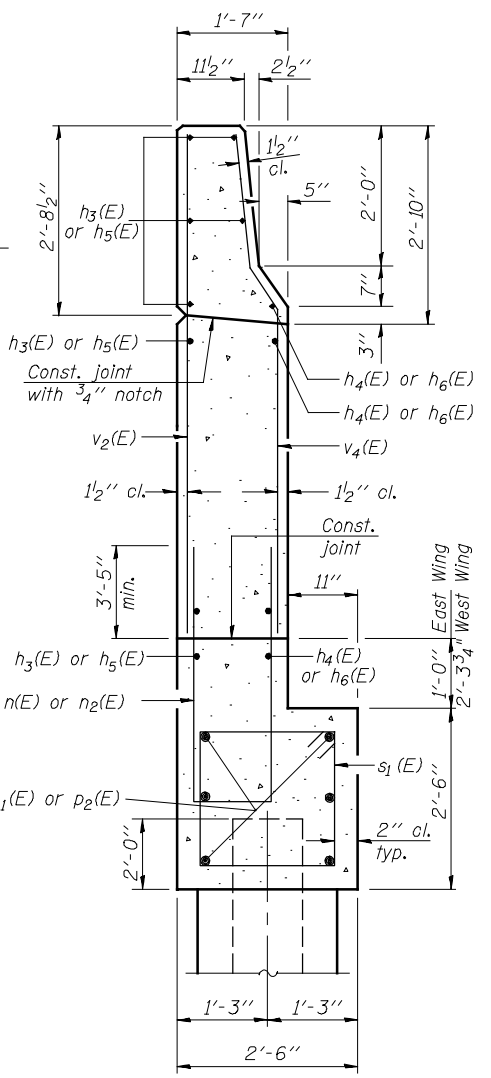
SEC. THRU ABUT.



EAST WING WALL ELEVATION
Showing Reinforcement



WEST WING WALL ELEVATION
Showing Reinforcement



SECTION C-C

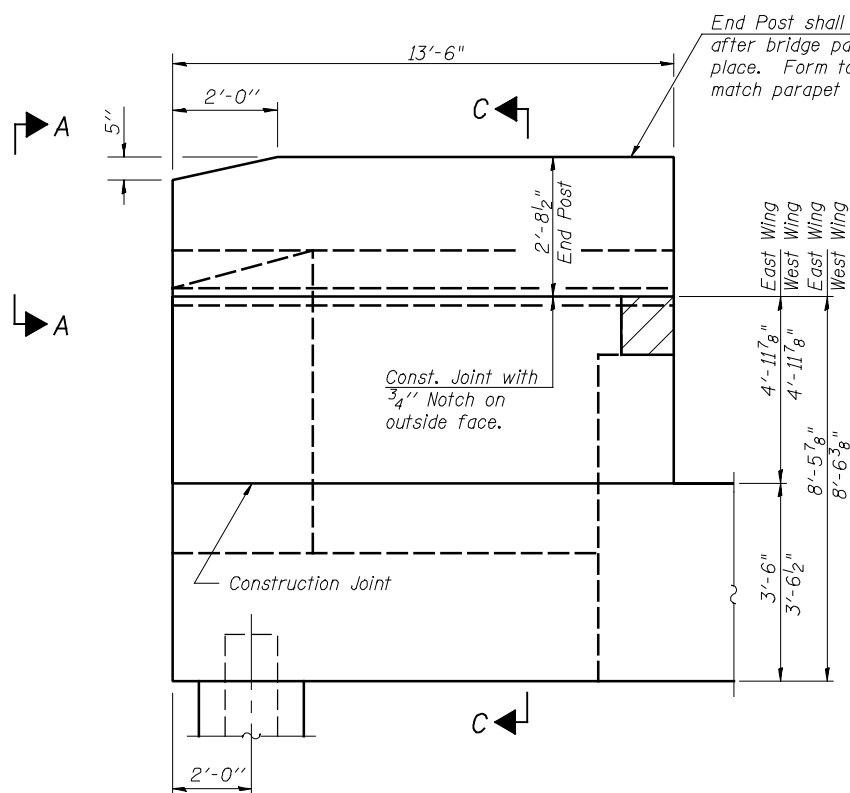
Hutchison Engineering, Inc.
 Jacksonville, Peoria, &
 Shorewood, Illinois

USER NAME = jdean	DESIGNED - JOH	REVISIONS -
PLOT SCALE = NONE	CHECKED - BAN	REVISIONS -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISIONS -
	CHECKED - JOH/BAN	REVISIONS -

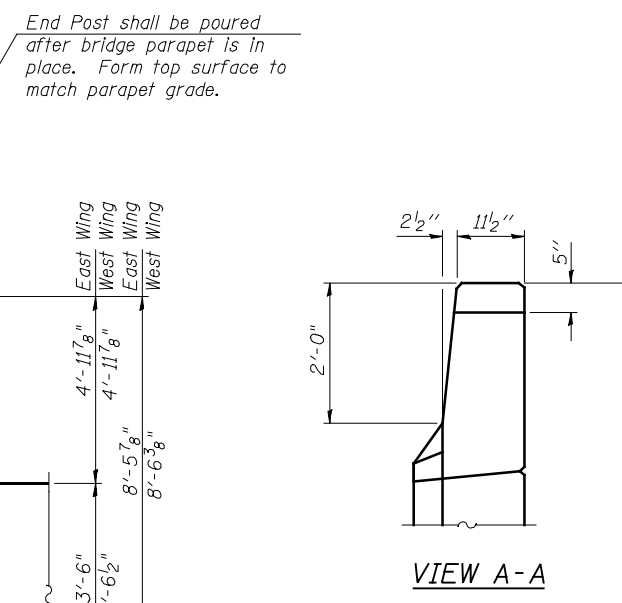
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT DETAILS
STRUCTURE NO. 062-0086

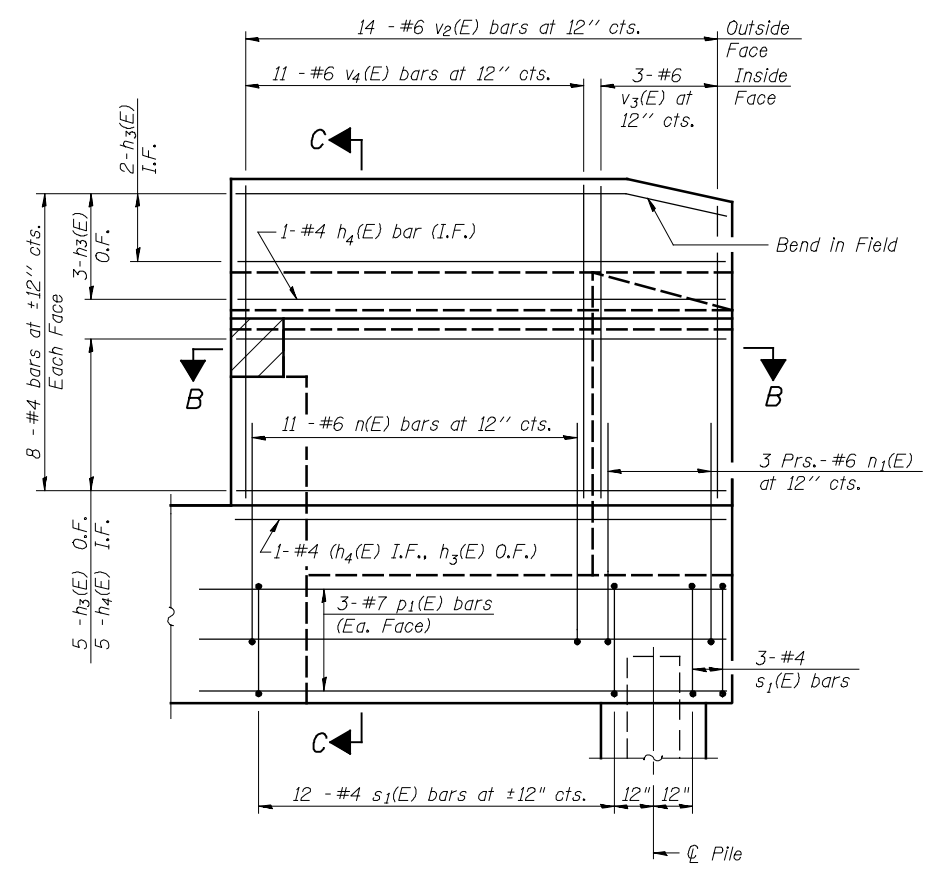
F.A.P. RTE. 698	SECTION (125VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 63
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				



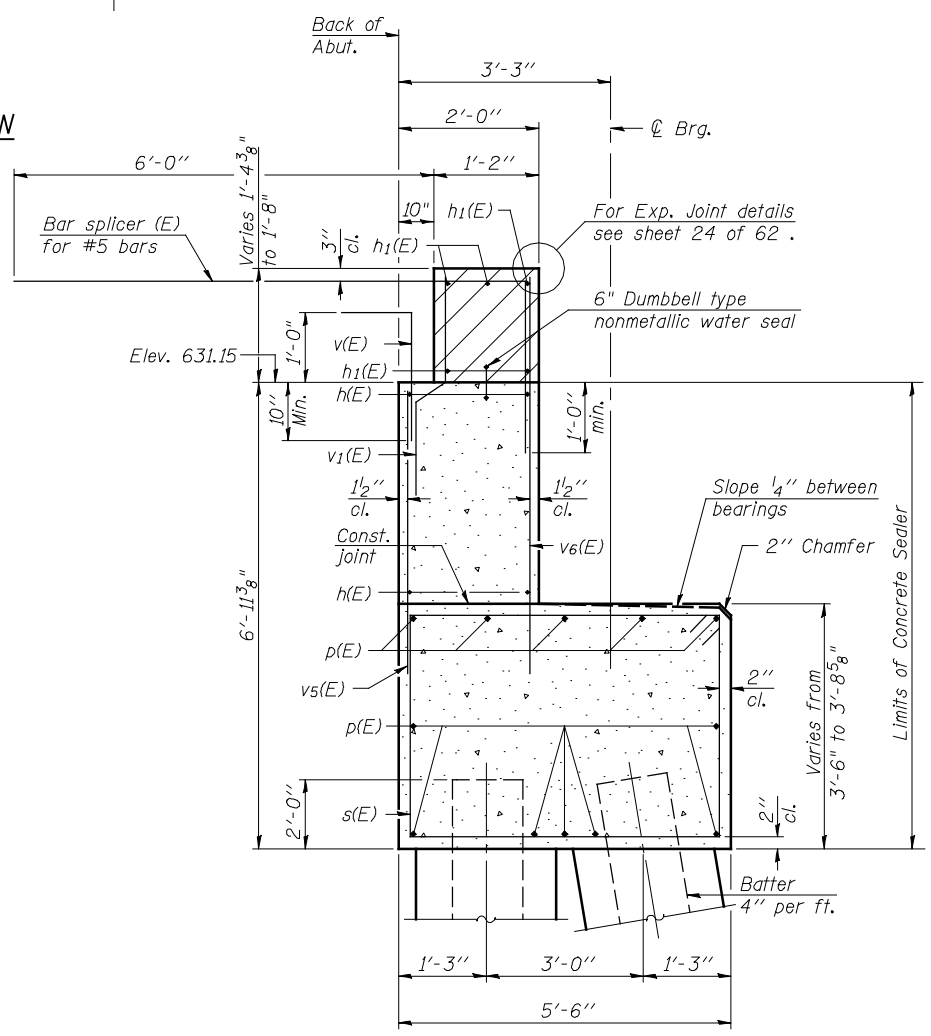
WING WALL ELEVATION
Showing Dimensions



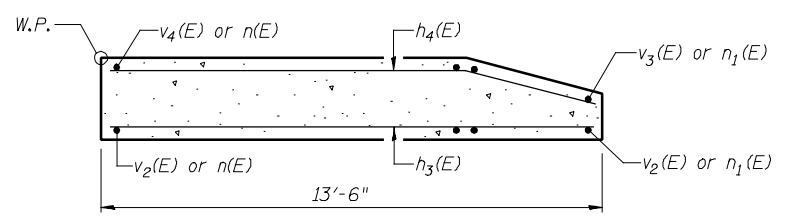
VIEW A-A



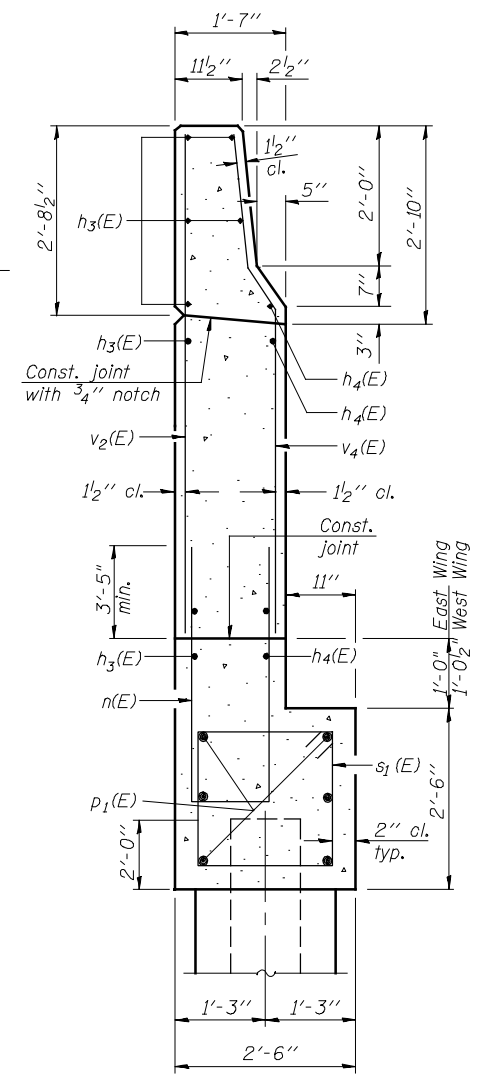
WING WALL ELEVATION
Showing Reinforcement



SEC. THRU ABUT.



SECTION B-B

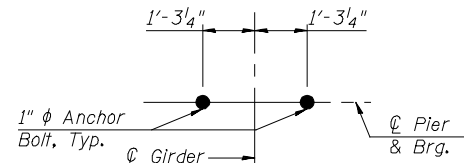


SECTION C-C

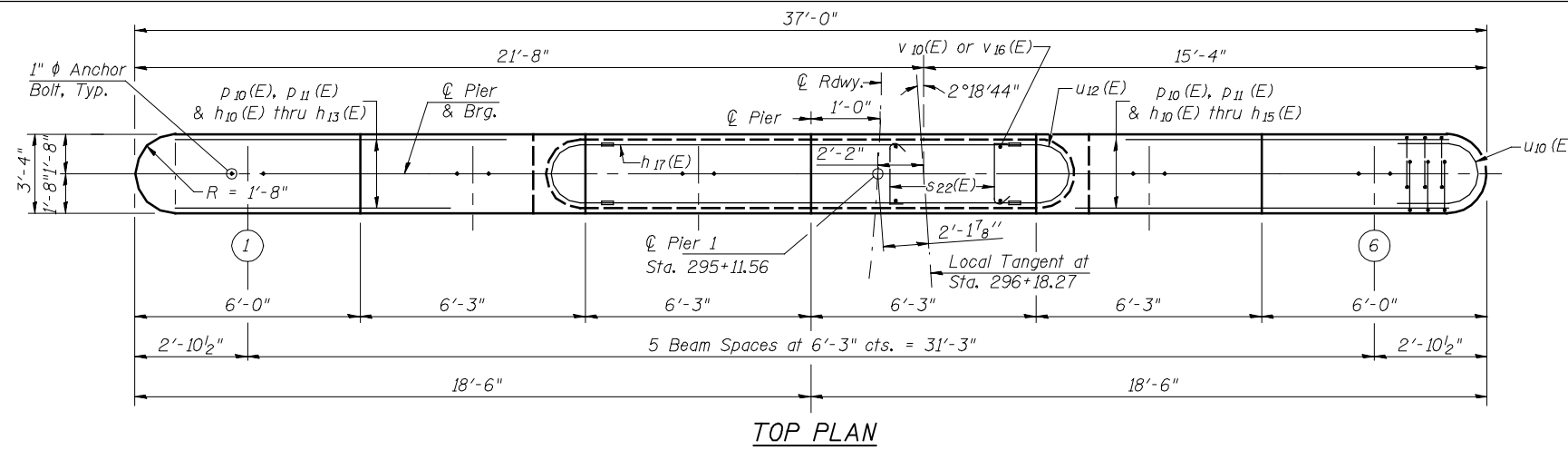
Notes:
 Hatched area to be poured after superstructure false work has been removed. Quantity of concrete included with Concrete Superstructure.
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 Quantity of concrete in end post included with Concrete Superstructure on sheet 19 of 62.
 For Concrete Encasement details, see sheet 53 of 62.

Notes:

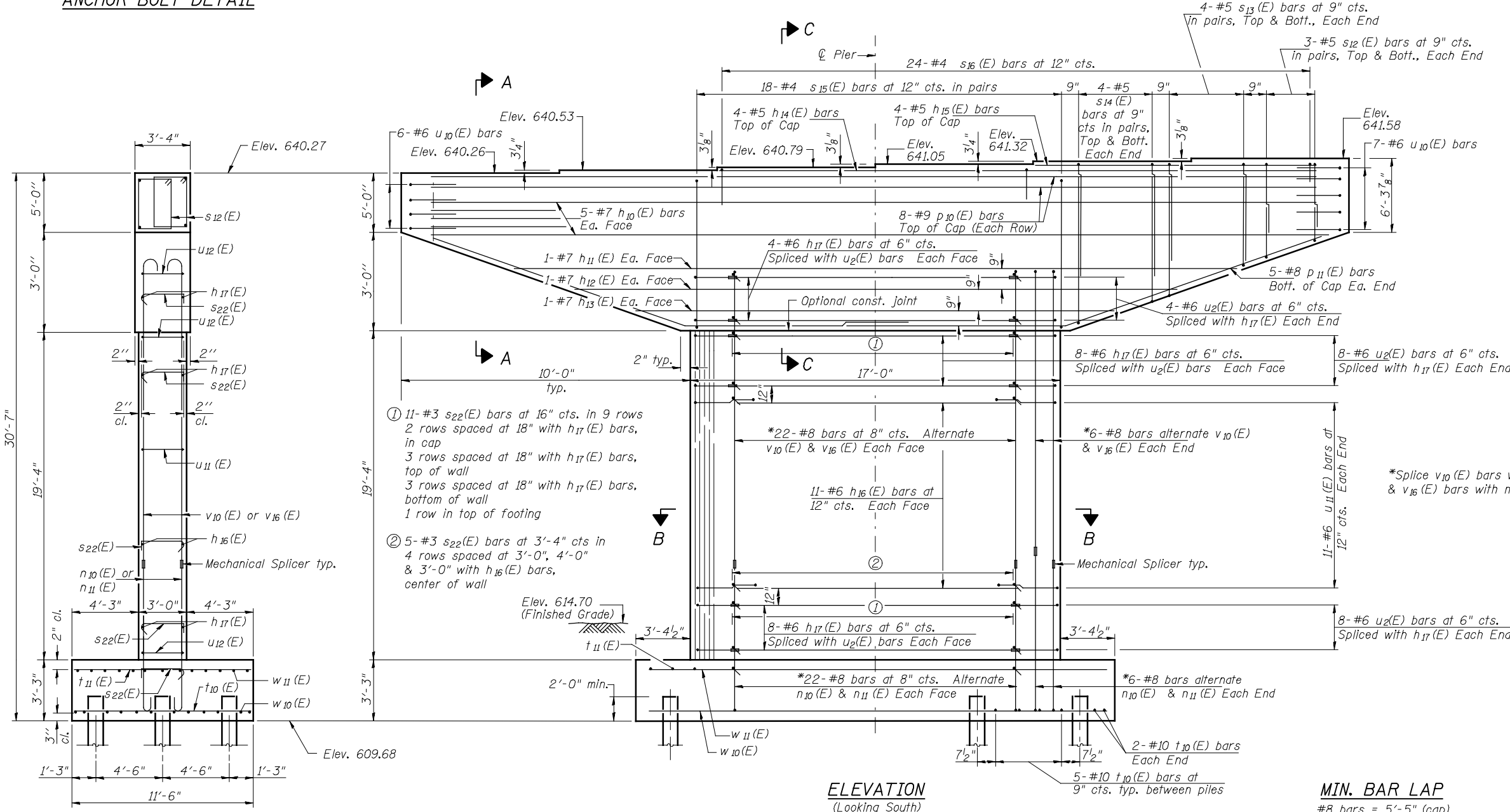
Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 53 of 62.



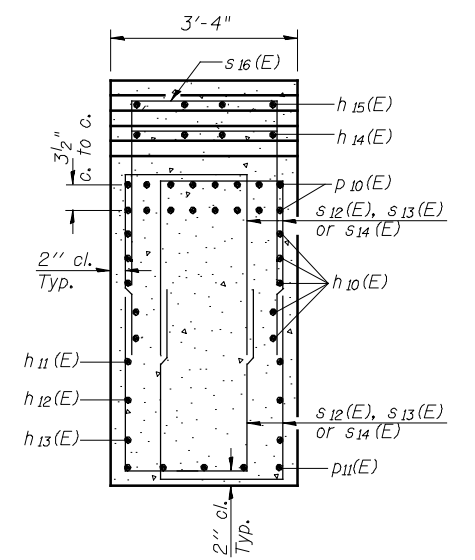
ANCHOR BOLT DETAIL



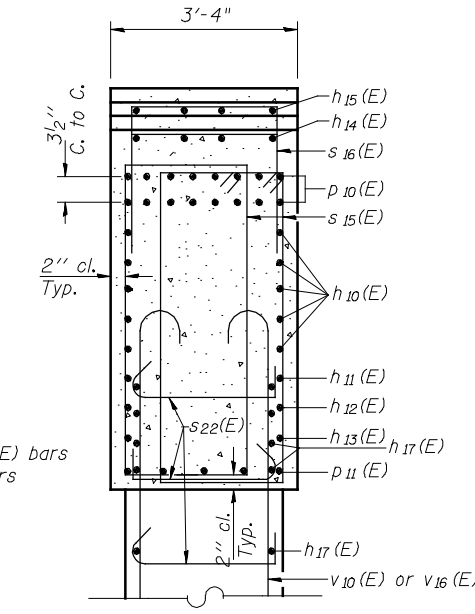
TOP PLAN



ELEVATION
(Looking South)



SECTION A-A

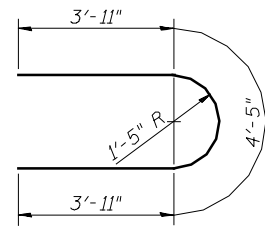


SECTION C-C

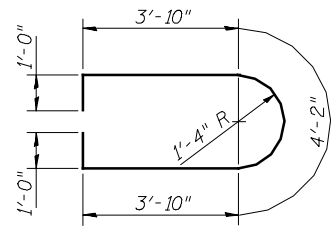
PILE DATA

Type: Metal Shell 14" dia. x 0.312" Walls with Pile Shoes
 Nominal Required Bearing: 446k
 Factored Resistance Available: 245k
 Est. Length: 49'
 No. Production Piles: 17
 No. Test Piles: 1

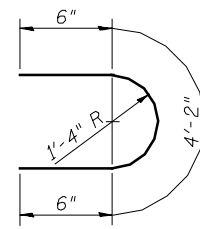
MIN. BAR LAP
 #8 bars = 5'-5" (cap)



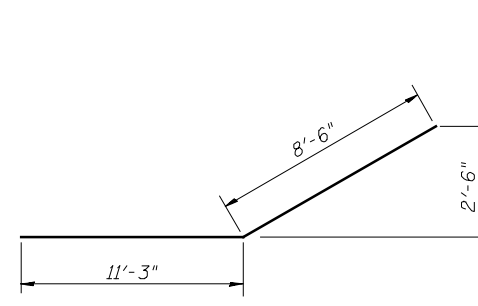
BAR $u_{10}(E)$



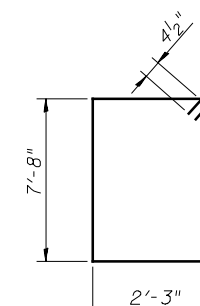
BAR $u_{11}(E)$



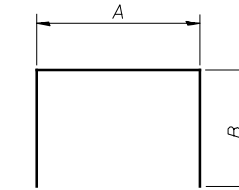
BAR $u_{12}(E)$



BAR $p_{11}(E)$



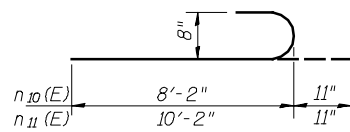
BAR $s_{15}(E)$



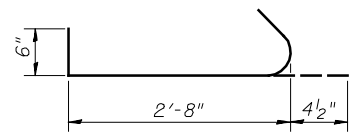
BARS $s_{12}(E)$, $s_{13}(E)$, $s_{14}(E)$, & $s_{16}(E)$

A & B DIMENSIONS

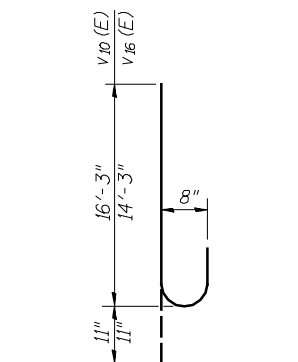
Bar	A	B
$s_{12}(E)$	2'-3"	4'-1"
$s_{13}(E)$	2'-3"	4'-7"
$s_{14}(E)$	2'-3"	5'-3"
$s_{16}(E)$	3'-0"	1'-3"



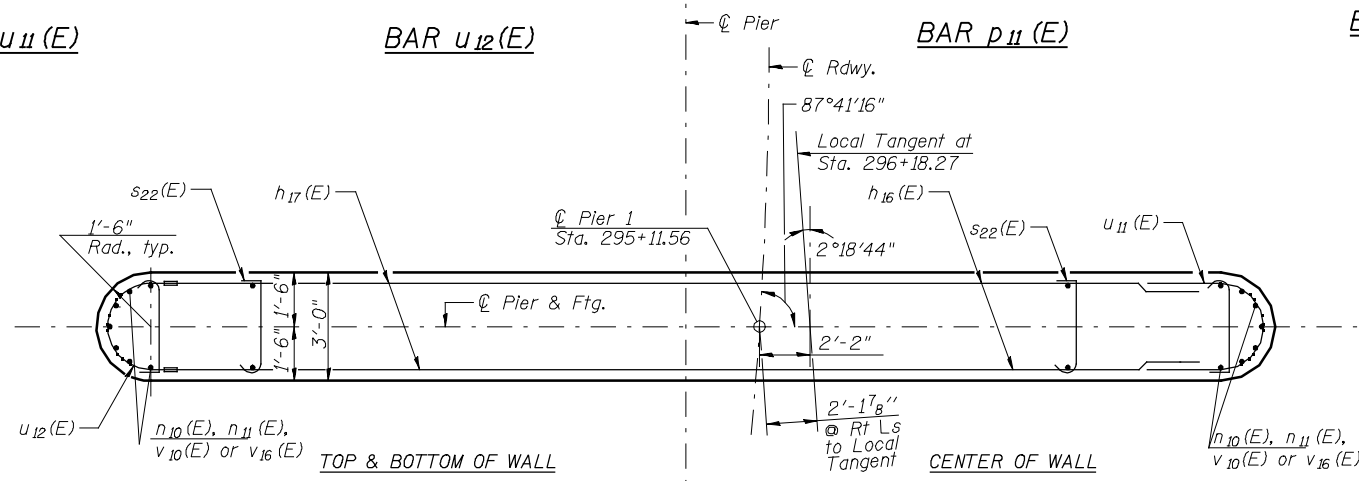
BAR $n_{10}(E)$ & $n_{11}(E)$



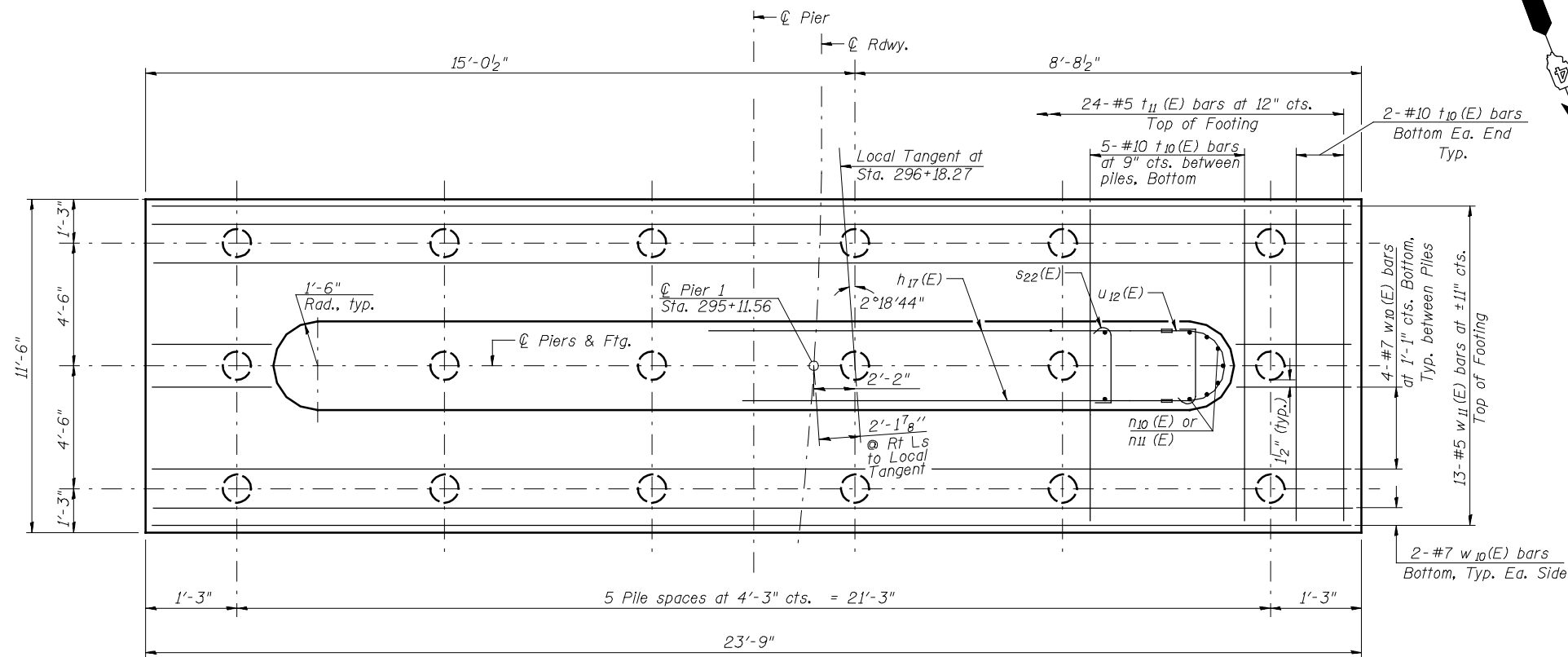
BAR $s_{22}(E)$



BAR $v_{10}(E)$ & $v_{16}(E)$



SECTION B-B

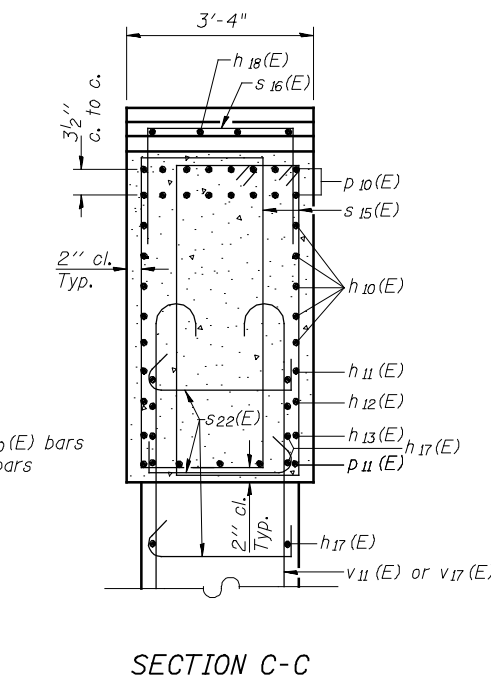
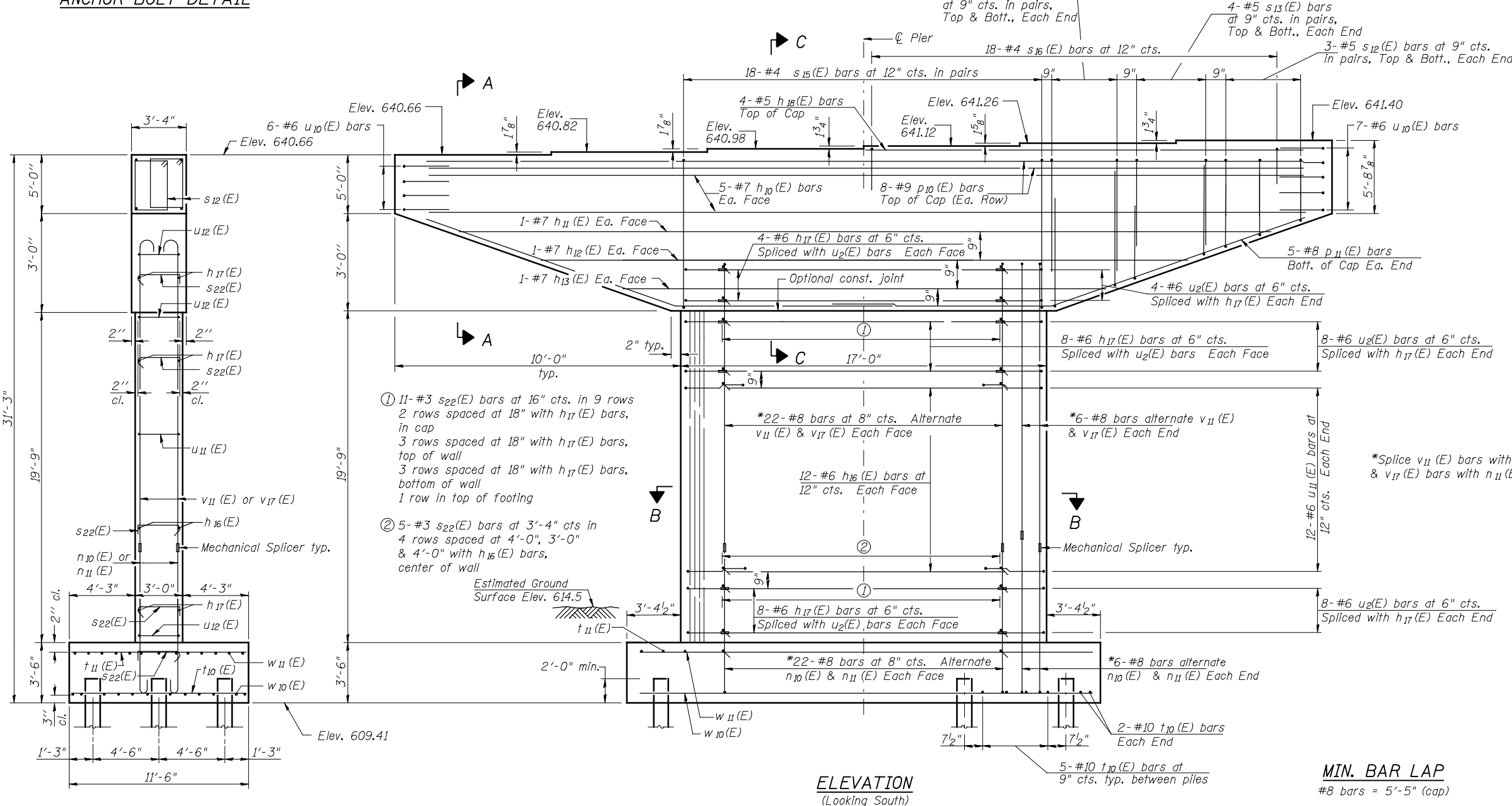
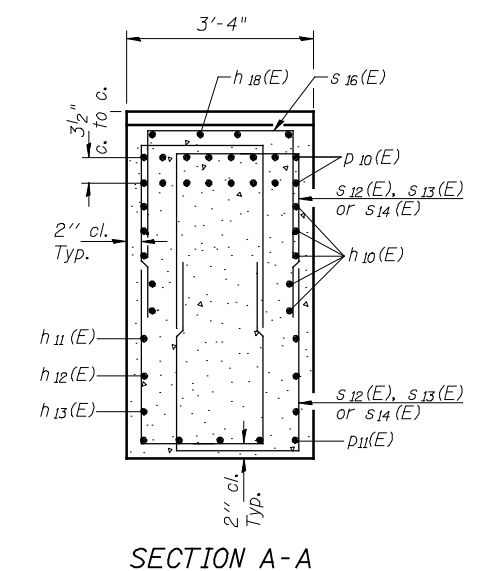
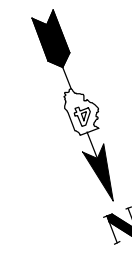
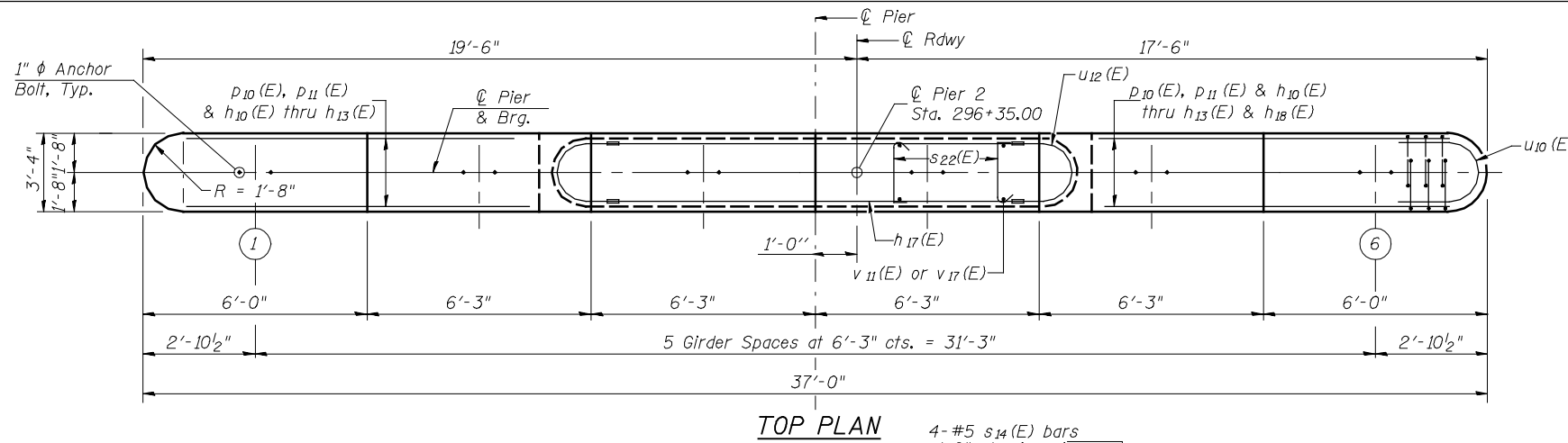
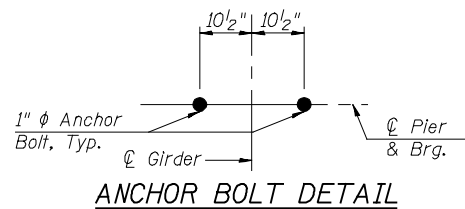


FOOTING PLAN

PIER 1
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{10}(E)$	10	#7	33'-8"	—
$h_{11}(E)$	2	#7	31'-8"	—
$h_{12}(E)$	2	#7	27'-0"	—
$h_{13}(E)$	2	#7	22'-0"	—
$h_{14}(E)$	4	#5	22'-9"	—
$h_{15}(E)$	4	#5	10'-1"	—
$h_{16}(E)$	22	#6	14'-0"	—
$h_{17}(E)$	40	#6	13'-0"	—
$n_{10}(E)$	28	#8	9'-1"	U
$n_{11}(E)$	28	#8	11'-1"	U
$p_{10}(E)$	16	#9	33'-8"	—
$p_{11}(E)$	10	#8	19'-9"	—
$s_{12}(E)$	24	#5	10'-5"	□
$s_{13}(E)$	32	#5	11'-5"	□
$s_{14}(E)$	32	#5	12'-9"	□
$s_{15}(E)$	36	#4	20'-7"	□
$s_{16}(E)$	24	#4	5'-6"	□
$s_{22}(E)$	119	#3	3'-7"	U
$t_{10}(E)$	29	#10	11'-2"	—
$t_{11}(E)$	24	#5	11'-2"	—
$u_{10}(E)$	13	#6	12'-3"	U
$u_{11}(E)$	22	#6	13'-10"	U
$u_{12}(E)$	40	#6	5'-2"	U
$v_{10}(E)$	28	#8	17'-2"	U
$v_{16}(E)$	28	#8	15'-2"	U
$w_{10}(E)$	12	#7	23'-5"	—
$w_{11}(E)$	13	#5	23'-5"	—
Structure Excavation			CU YD	80
Concrete Structures			CU YD	102.7
Reinforcement Bars, Epoxy Coated			POUND	14,070
Furnishing Metal Shell Piles 14" x 0.312"			FOOT	833
Driving Piles			FOOT	833
Test Pile Metal Shells			EACH	1
Pile Shoes			EACH	18

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 53 of 62.



PILE DATA
 Type: Metal Shell 14" dia. x 0.312" Walls with Pile Shoes
 Nominal Required Bearing: 446k
 Factored Resistance Available: 245k
 Est. Length: 41'
 No. Production Piles: 17
 No. Test Piles: 1

MIN. BAR LAP
 #8 bars = 5'-5" (cap)

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean
 DESIGNED - JOH
 CHECKED - BAN
 DRAWN - TAC
 CHECKED - JOH/BAN

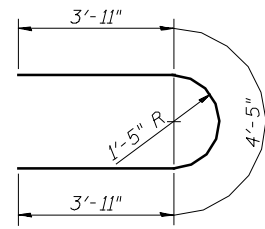
REVISOR -
 CHECKED -
 DRAWN -
 CHECKED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

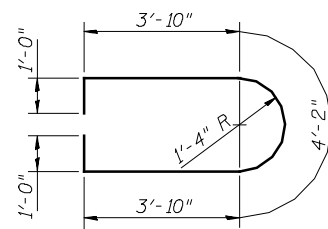
PIER 2 DETAILS
STRUCTURE NO. 062-0086

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	68

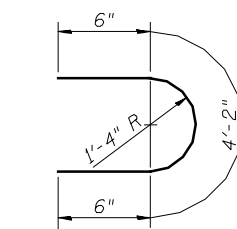
CONTRACT NO. 68580



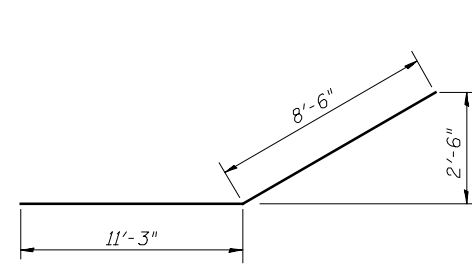
BAR $u_{10}(E)$



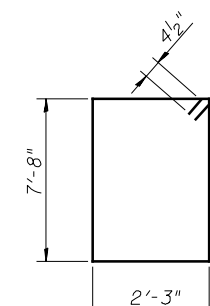
BAR $u_{11}(E)$



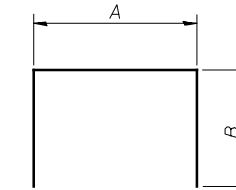
BAR $u_{12}(E)$



BAR $p_{11}(E)$



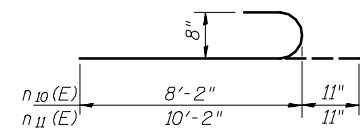
BAR $s_{15}(E)$



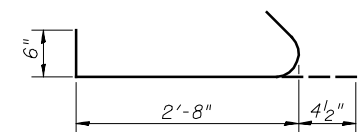
BARS $s_{12}(E)$, $s_{13}(E)$, $s_{14}(E)$, & $s_{16}(E)$

A & B DIMENSIONS

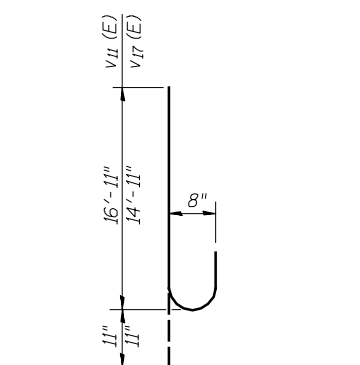
Bar	A	B
$s_{12}(E)$	2'-3"	4'-1"
$s_{13}(E)$	2'-3"	4'-7"
$s_{14}(E)$	2'-3"	5'-3"
$s_{16}(E)$	3'-0"	1'-3"



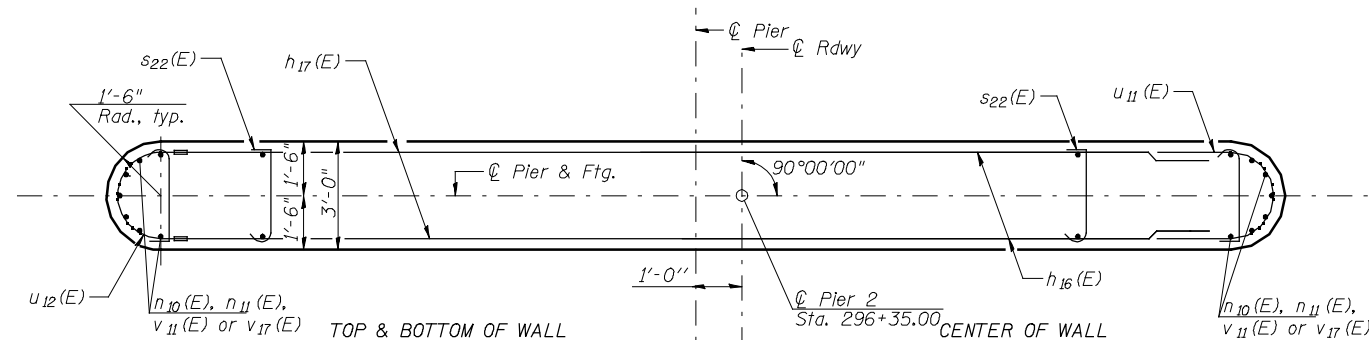
BAR $n_{10}(E)$ & $n_{11}(E)$



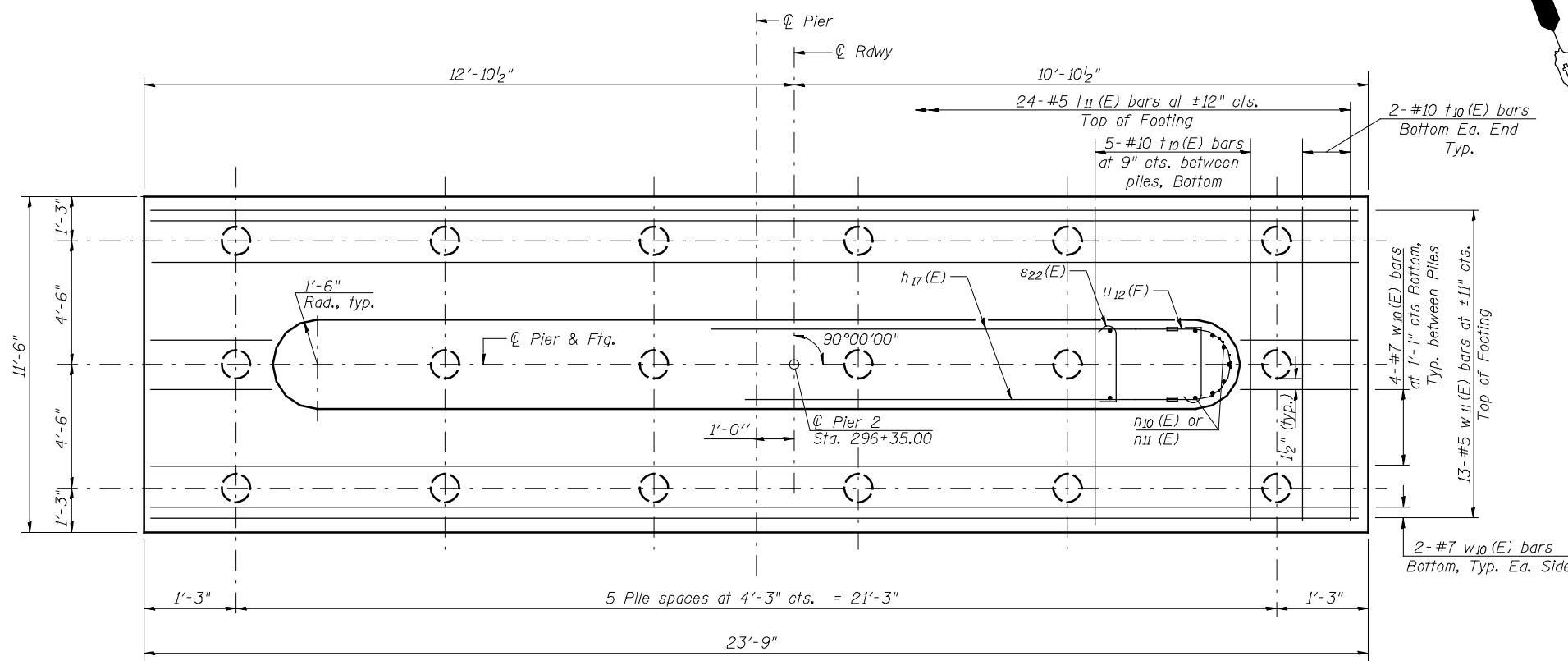
BAR $s_{22}(E)$



BAR $v_{11}(E)$ & $v_{17}(E)$



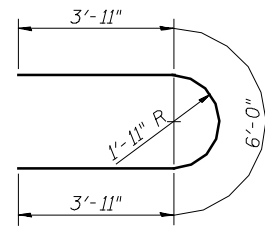
SECTION B-B



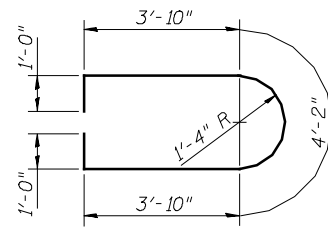
FOOTING PLAN

PIER 2
BILL OF MATERIAL

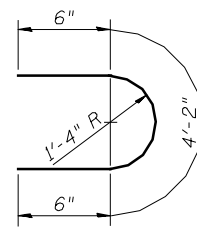
Bar	No.	Size	Length	Shape
$h_{10}(E)$	10	#7	33'-8"	—
$h_{11}(E)$	2	#7	31'-8"	—
$h_{12}(E)$	2	#7	27'-0"	—
$h_{13}(E)$	2	#7	22'-0"	—
$h_{16}(E)$	24	#6	14'-0"	—
$h_{17}(E)$	40	#6	13'-0"	—
$h_{18}(E)$	4	#5	16'-8"	—
$n_{10}(E)$	28	#8	9'-1"	U
$n_{11}(E)$	28	#8	11'-1"	U
$p_{10}(E)$	16	#9	33'-8"	—
$p_{11}(E)$	10	#8	19'-9"	—
$s_{12}(E)$	24	#5	10'-5"	□
$s_{13}(E)$	32	#5	11'-5"	□
$s_{14}(E)$	32	#5	12'-9"	□
$s_{15}(E)$	36	#4	20'-7"	□
$s_{16}(E)$	18	#4	5'-6"	□
$s_{22}(E)$	119	#3	3'-7"	U
$t_{10}(E)$	29	#10	11'-2"	—
$t_{11}(E)$	24	#5	11'-2"	—
$u_{10}(E)$	13	#6	12'-3"	U
$u_{11}(E)$	22	#6	13'-10"	U
$u_{12}(E)$	40	#6	5'-2"	U
$v_{11}(E)$	28	#8	17'-10"	U
$v_{17}(E)$	28	#8	15'-10"	U
$w_{10}(E)$	12	#7	23'-5"	—
$w_{11}(E)$	13	#5	23'-5"	—
Structure Excavation	CU YD		81	
Concrete Structures	CU YD		104.7	
Reinforcement Bars, Epoxy Coated	POUND		14,120	
Furnishing Metal Shell Piles 14" x 0.312"	FOOT		697	
Driving Piles	FOOT		697	
Test Pile Metal Shells	EACH		1	
Pile Shoes	EACH		18	



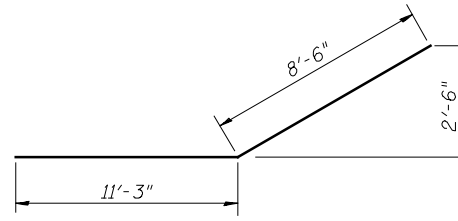
BAR $u_{13}(E)$



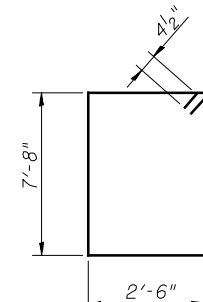
BAR $u_{11}(E)$



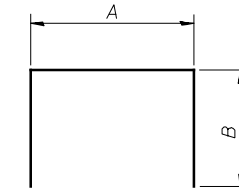
BAR $u_{12}(E)$



BAR $p_{11}(E)$



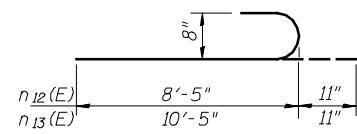
BAR $s_{20}(E)$



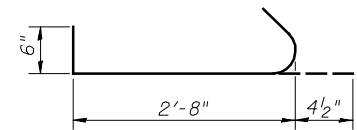
BARS $s_{17}(E)$, $s_{18}(E)$, $s_{19}(E)$, & $s_{21}(E)$

A & B DIMENSIONS

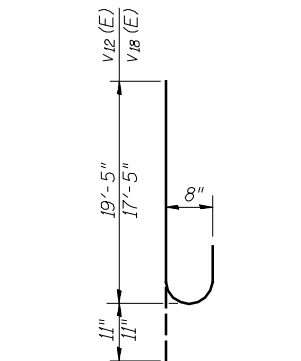
Bar	A	B
$s_{17}(E)$	2'-6"	4'-1"
$s_{18}(E)$	2'-6"	4'-7"
$s_{19}(E)$	2'-6"	5'-3"
$s_{21}(E)$	1'-10"	1'-3"



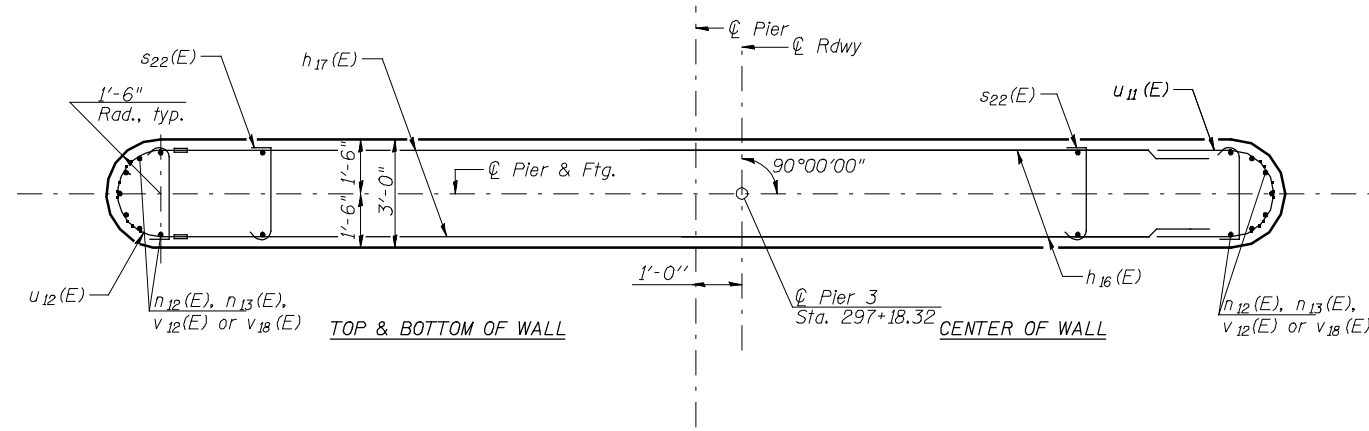
BAR $n_{12}(E)$ & $n_{13}(E)$



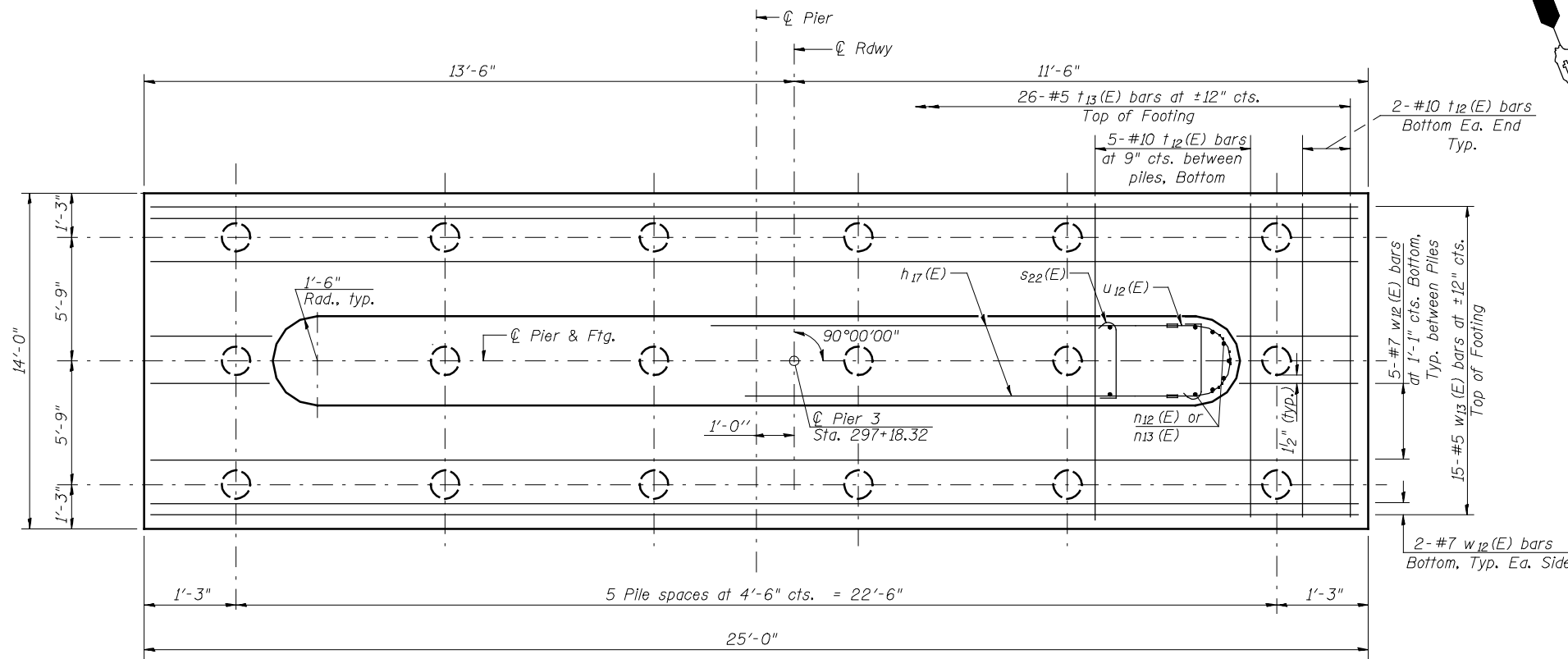
BAR $s_{22}(E)$



BAR $v_{12}(E)$ & $v_{18}(E)$



SECTION B-B



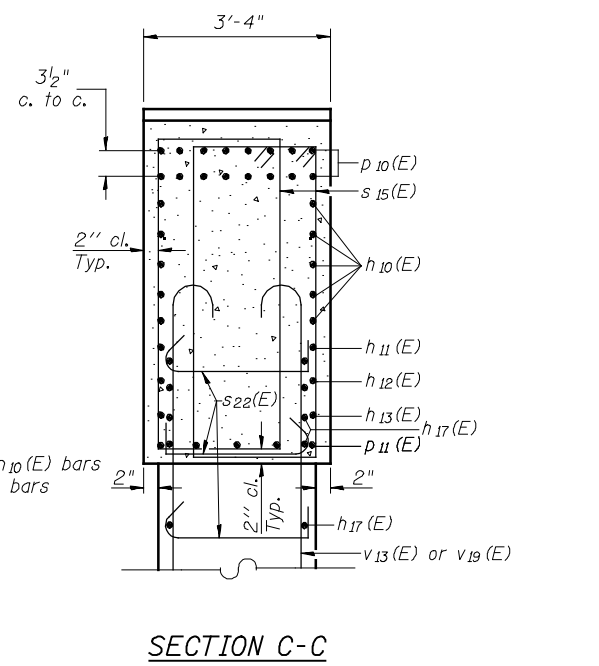
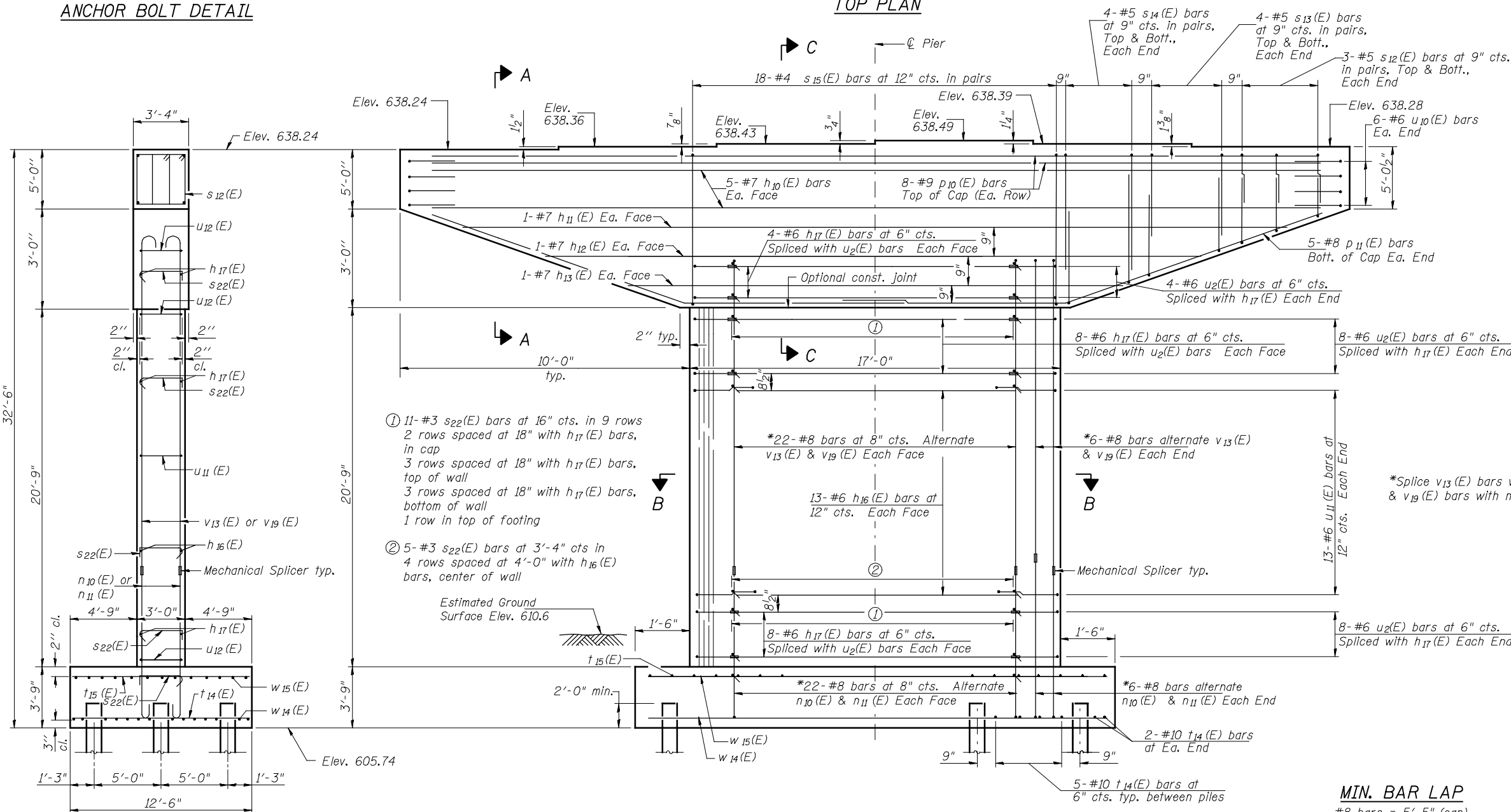
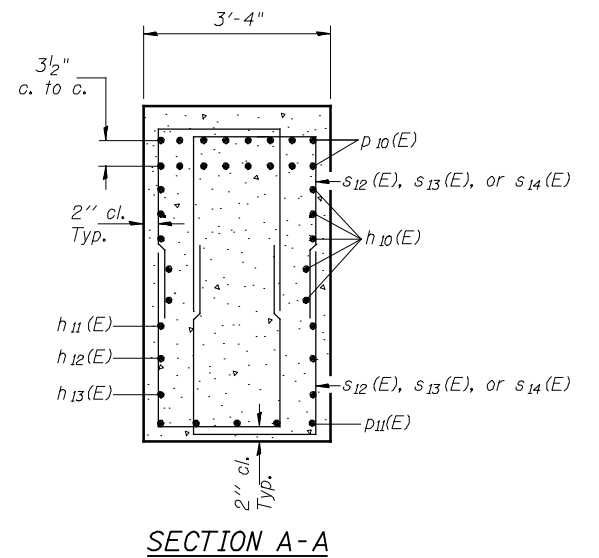
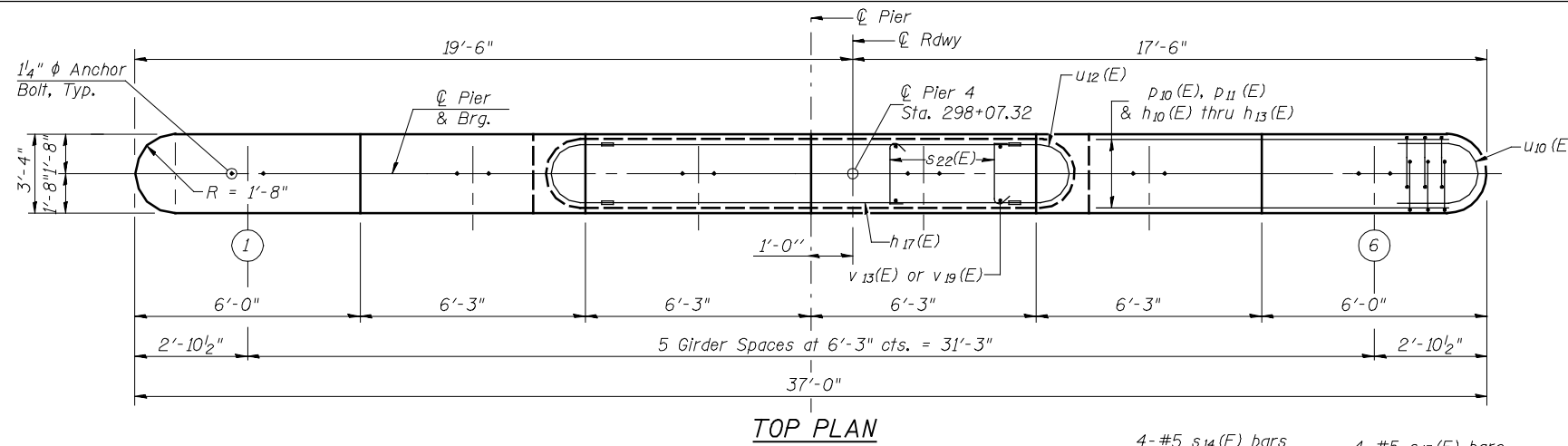
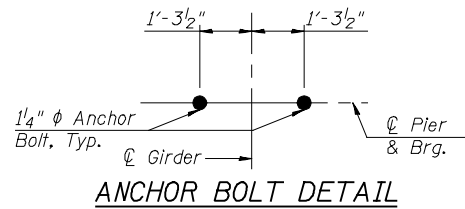
FOOTING PLAN

PIER 3
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{10}(E)$	10	#7	33'-8"	—
$h_{11}(E)$	2	#7	31'-8"	—
$h_{12}(E)$	2	#7	27'-0"	—
$h_{13}(E)$	2	#7	22'-0"	—
$h_{16}(E)$	28	#6	14'-0"	—
$h_{17}(E)$	44	#6	13'-0"	—
$h_{19}(E)$	3	#5	29'-2"	—
$n_{12}(E)$	28	#8	9'-4"	U
$n_{13}(E)$	28	#8	11'-4"	U
$p_{10}(E)$	16	#9	33'-8"	—
$p_{11}(E)$	12	#8	19'-9"	—
$s_{17}(E)$	24	#5	10'-8"	□
$s_{18}(E)$	32	#5	11'-8"	□
$s_{19}(E)$	32	#5	13'-0"	□
$s_{20}(E)$	36	#4	21'-1"	□
$s_{21}(E)$	30	#4	4'-4"	□
$s_{22}(E)$	124	#3	3'-7"	U
$t_{12}(E)$	29	#10	13'-8"	—
$t_{13}(E)$	26	#5	13'-8"	—
$u_{11}(E)$	28	#6	13'-10"	U
$u_{12}(E)$	44	#6	5'-2"	U
$u_{13}(E)$	12	#6	13'-10"	U
$v_{12}(E)$	28	#8	20'-4"	U
$v_{18}(E)$	28	#8	18'-4"	U
$w_{12}(E)$	14	#7	24'-8"	—
$w_{13}(E)$	15	#5	24'-8"	—
Structure Excavation		CU YD		83
Concrete Structures		CU YD		130.3
Reinforcement Bars, Epoxy Coated		POUND		15,650
Furnishing Metal Shell Piles 14"x 0.312"		FOOT		493
Driving Piles		FOOT		493
Test Pile Metal Shells		EACH		1
Pile Shoes		EACH		18
Concrete Sealer		SQ FT		1,710



Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 53 of 62.



PILE DATA

Type: Metal Shell 14" dia. x 0.312" Walls with Pile Shoes
 Nominal Required Bearing: 398k
 Factored Resistance Available: 219k
 Est. Length: 42'
 No. Production Piles: 17
 No. Test Piles: 1

MIN. BAR LAP
 #8 bars = 5'-5" (cap)

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean
 DESIGNED - JOH
 CHECKED - BAN
 DRAWN - TAC
 CHECKED - JOH/BAN

REVISOR -
 CHECKED -
 DRAWN -
 CHECKED -

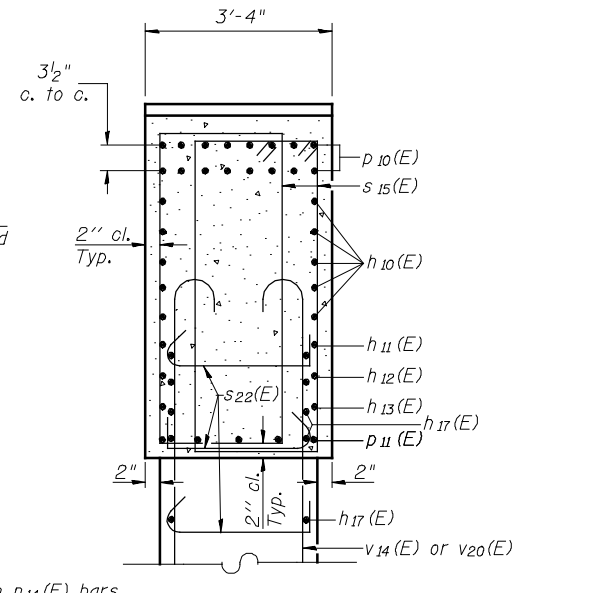
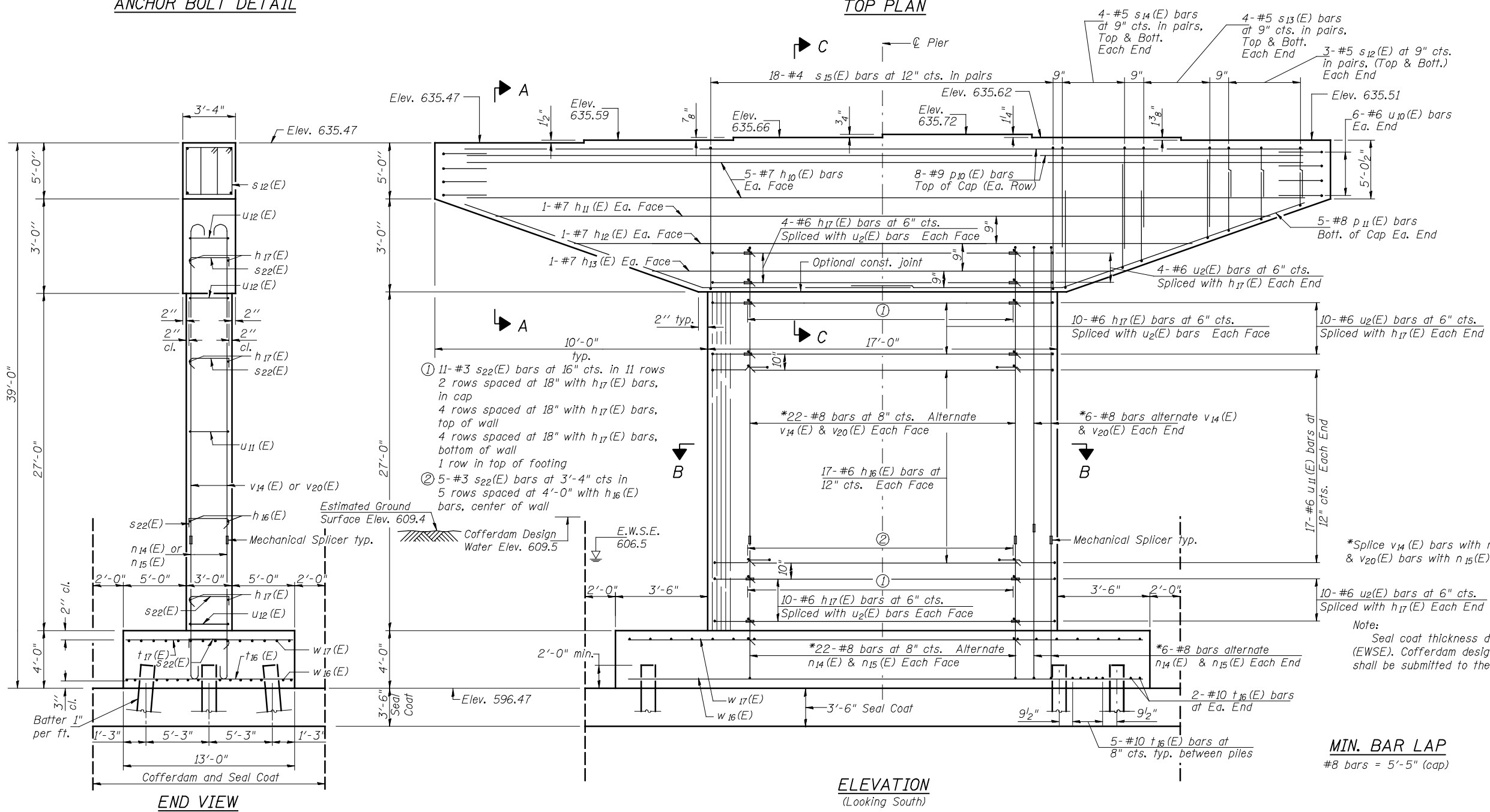
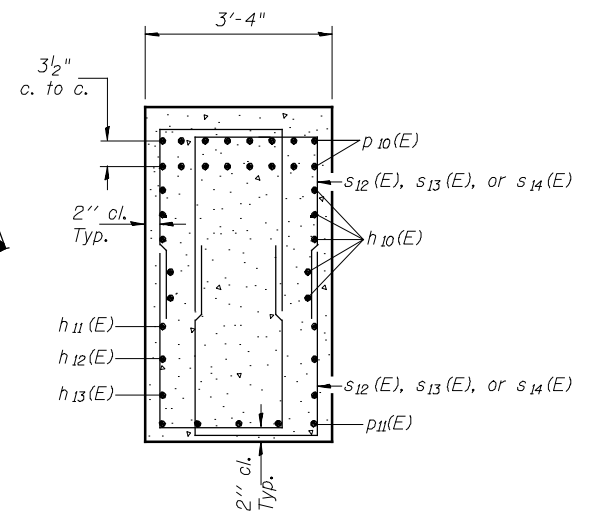
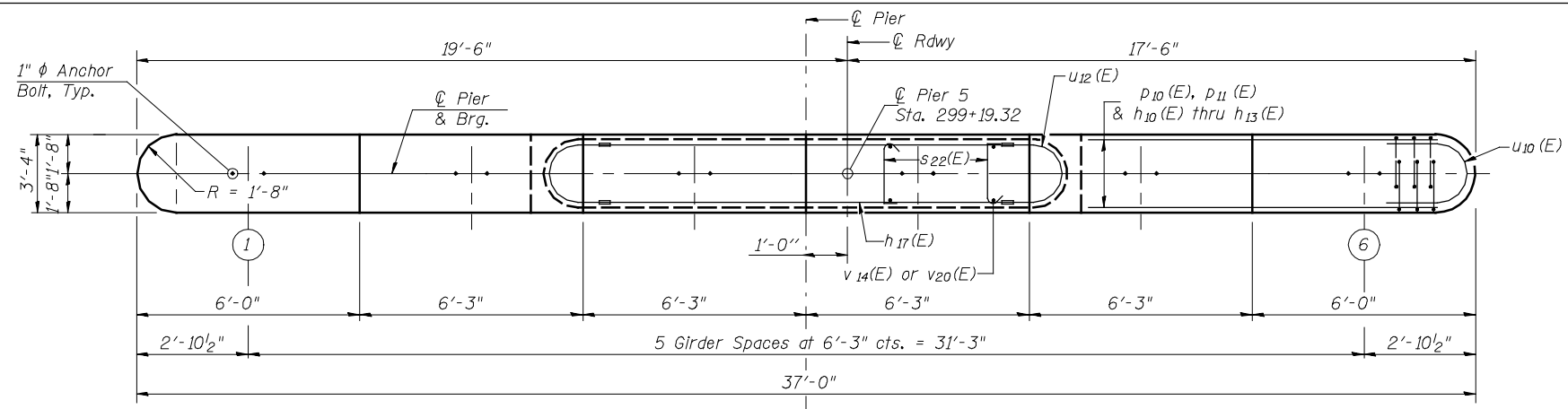
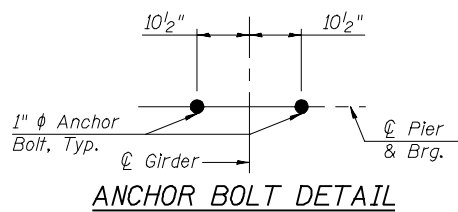
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 4 DETAILS
STRUCTURE NO. 062-0086

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	72

CONTRACT NO. 68580
 ILLINOIS FED. AID PROJECT

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 53 of 62.



Note:
 Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

PILE DATA

Type: Metal Shell 14" dia. x 0.312" Walls with Pile Shoes
 Nominal Required Bearing: 464k
 Factored Resistance Available: 255k
 Est. Length: 29'
 No. Production Piles: 17
 No. Test Piles: 1

MIN. BAR LAP
 #8 bars = 5'-5" (cap)

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdeen
 PLOT SCALE = NONE
 PLOT DATE = 7/25/2013

DESIGNED - JOH
 CHECKED - BAN
 DRAWN - TAC
 CHECKED - JOH/BAN

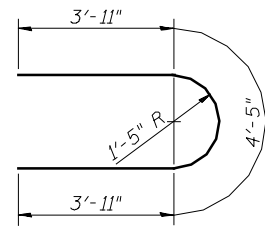
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

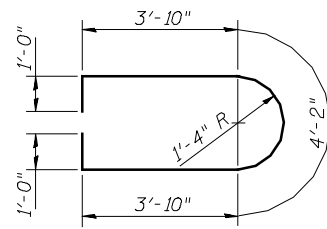
PIER 5 DETAILS
STRUCTURE NO. 062-0086

SHEET NO. 49 OF 62 SHEETS

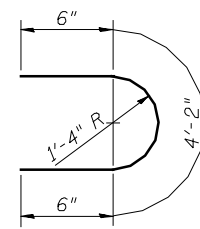
F.A.P. RTE. 698	SECTION 125(VB)RBR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 74
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68580	



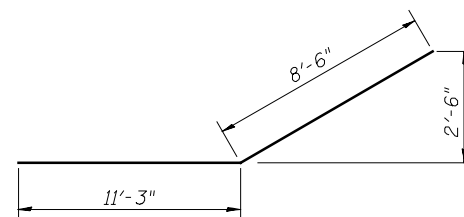
BAR $u_{10}(E)$



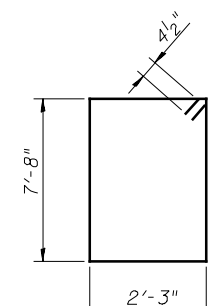
BAR $u_{11}(E)$



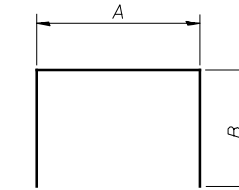
BAR $u_{12}(E)$



BAR $p_{11}(E)$



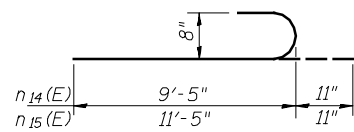
BAR $s_{15}(E)$



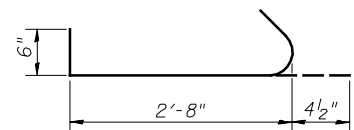
BARS $s_{12}(E)$,
 $s_{13}(E)$, & $s_{14}(E)$

A & B DIMENSIONS

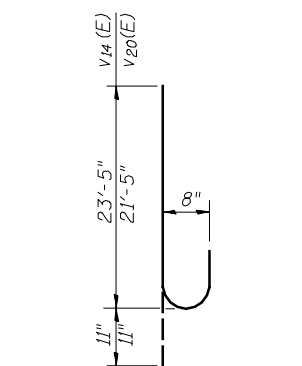
Bar	A	B
$s_{12}(E)$	2'-3"	4'-1"
$s_{13}(E)$	2'-3"	4'-7"
$s_{14}(E)$	2'-3"	5'-3"



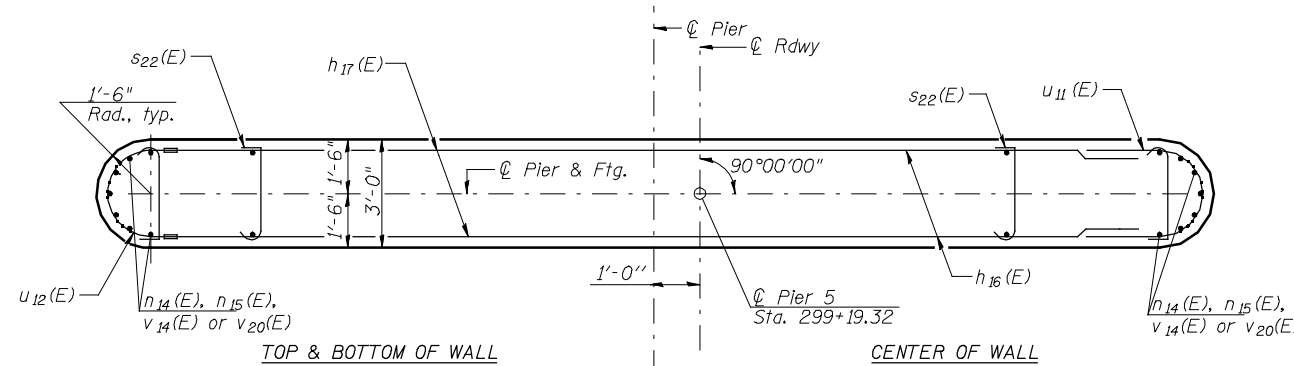
BAR $n_{14}(E)$ & $n_{15}(E)$



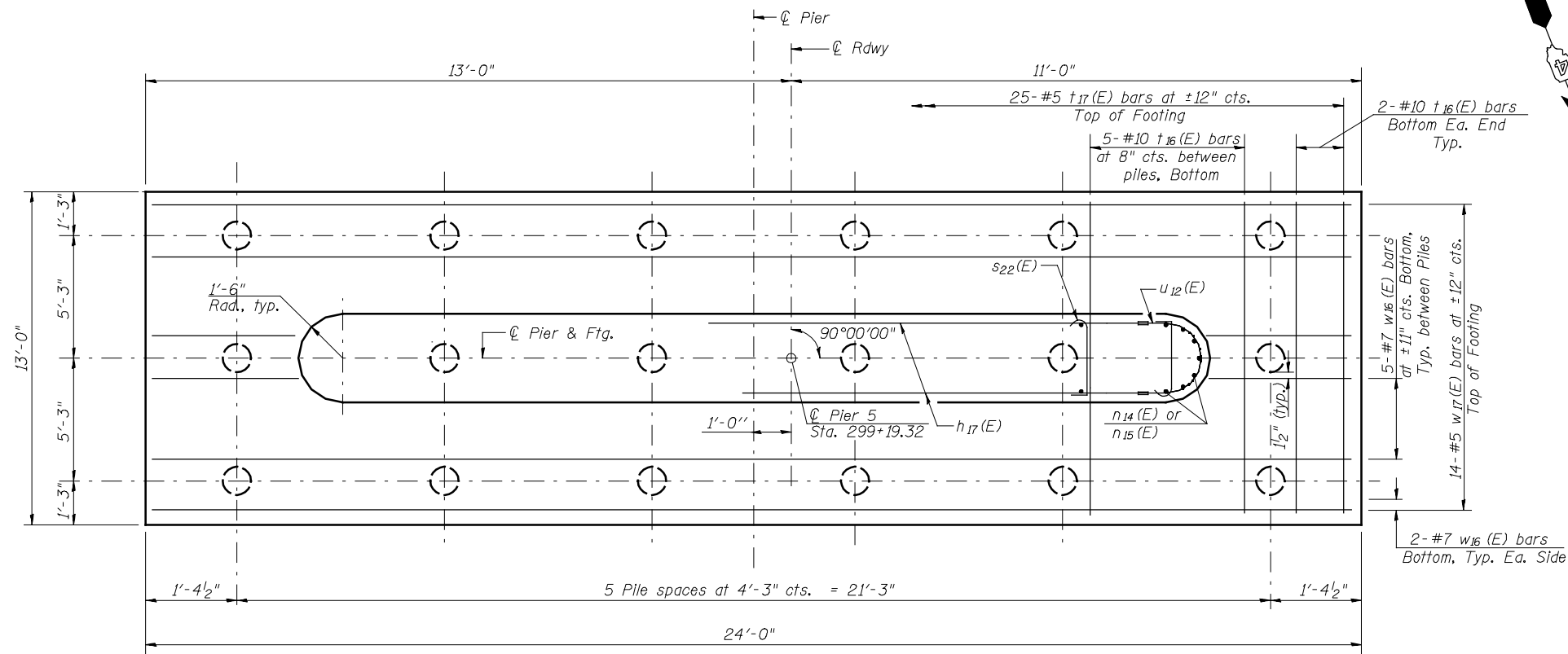
BAR $s_{22}(E)$



BAR $v_{14}(E)$ & $v_{20}(E)$



SECTION B-B



FOOTING PLAN

PIER 5
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{10}(E)$	10	#7	33'-8"	—
$h_{11}(E)$	2	#7	31'-8"	—
$h_{12}(E)$	2	#7	27'-0"	—
$h_{13}(E)$	2	#7	22'-0"	—
$h_{16}(E)$	34	#6	14'-0"	—
$h_{17}(E)$	48	#6	13'-0"	—
$n_{14}(E)$	28	#8	10'-4"	U
$n_{15}(E)$	28	#8	12'-4"	U
$p_{10}(E)$	16	#9	33'-8"	—
$p_{11}(E)$	10	#8	19'-9"	—
$s_{12}(E)$	24	#5	10'-5"	□
$s_{13}(E)$	32	#5	11'-5"	□
$s_{14}(E)$	32	#5	12'-9"	□
$s_{15}(E)$	36	#4	20'-7"	□
$s_{22}(E)$	146	#3	3'-7"	U
$t_{16}(E)$	29	#10	12'-8"	—
$t_{17}(E)$	25	#5	12'-8"	—
$u_{10}(E)$	12	#6	12'-3"	U
$u_{11}(E)$	34	#6	13'-10"	U
$u_{12}(E)$	48	#6	5'-2"	U
$v_{14}(E)$	28	#8	24'-4"	U
$v_{20}(E)$	28	#8	22'-4"	U
$w_{16}(E)$	14	#7	23'-8"	—
$w_{17}(E)$	14	#5	23'-8"	—
Concrete Structures		CU YD	127.6	
Reinforcement Bars, Epoxy Coated		POUND	16,050	
Furnishing Metal Shell Piles 14" x 0.312"		FOOT	493	
Driving Piles		FOOT	493	
Test Pile Metal Shells		EACH	1	
Pile Shoes		EACH	18	
Cofferdam (Type 2) (Location - 1)		EACH	1	
Seal Coat Concrete		CU YD	61.7	
Cofferdam Excavation		CU YD	290	

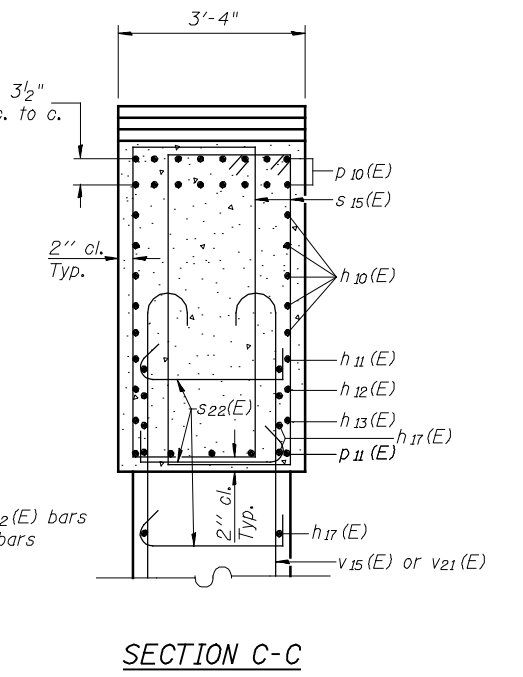
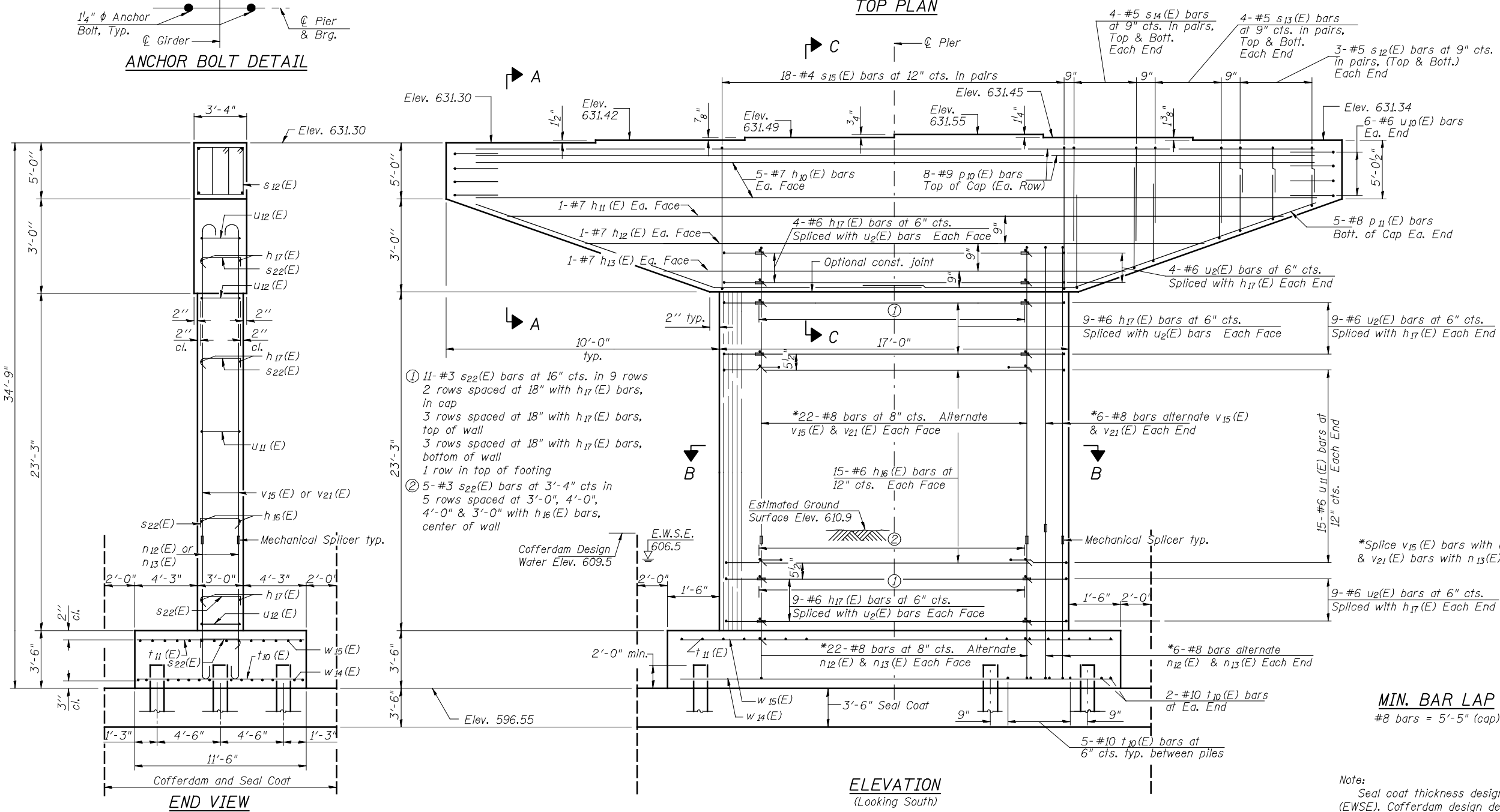
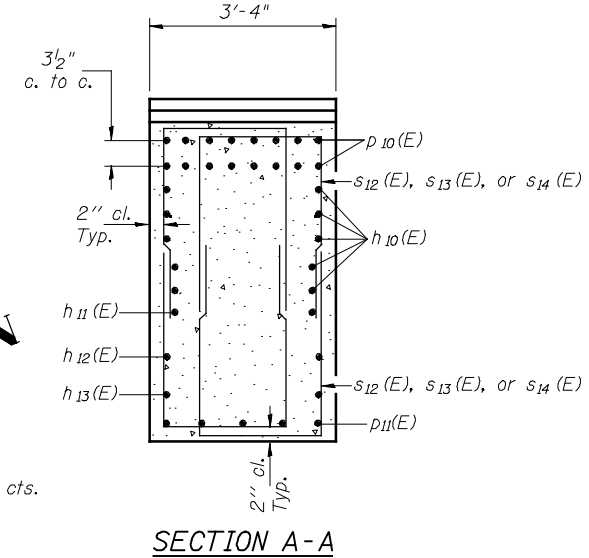
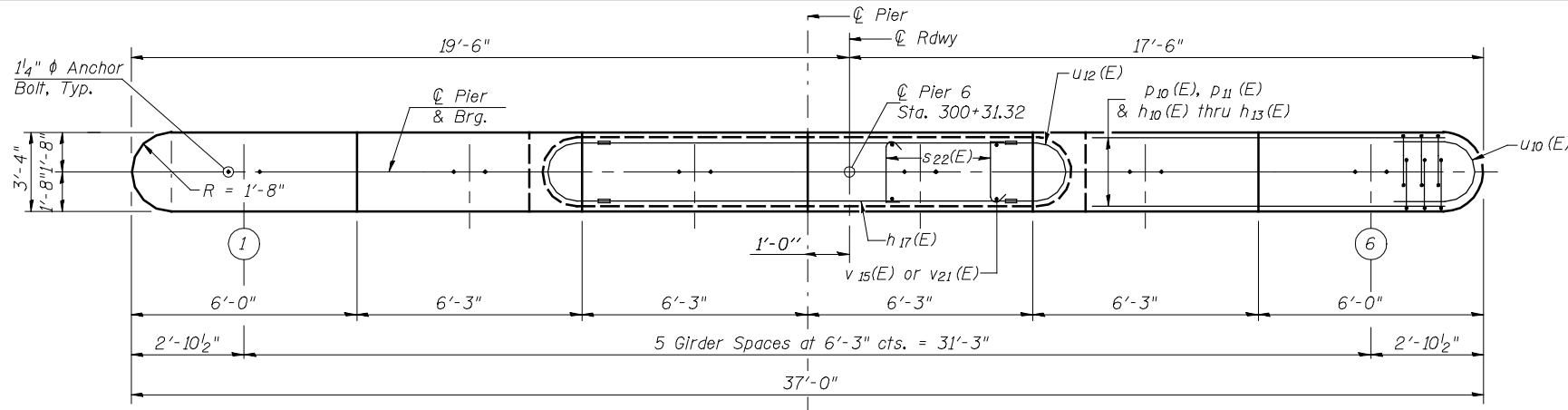
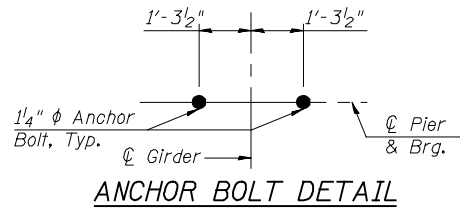


Notes:

Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 53 of 62.

PILE DATA

Type: Metal Shell 14" dia. x 0.312" Walls with Pile Shoes
 Nominal Required Bearing: 497^k
 Factored Resistance Available: 274^k
 Est. Length: 42'
 No. Production Piles: 17
 No. Test Piles: 1



MIN. BAR LAP
 #8 bars = 5'-5" (cap)

Note:
 Seal coat thickness design is based on the Estimated Water Surface Elevation (EWSE). Cofferdam design details and proposed changes in seal coat thickness shall be submitted to the Engineer for approval with the cofferdam design.

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

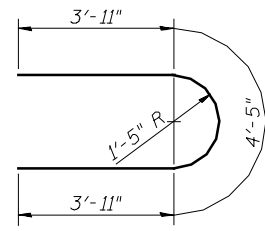
USER NAME = jdean	DESIGNED - JOH	REVISD -
PLOT SCALE = NONE	CHECKED - BAN	REVISD -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISD -
	CHECKED - JOH/BAN	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

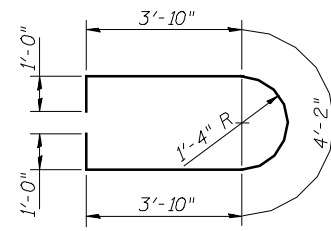
PIER 6 DETAILS
STRUCTURE NO. 062-0086

F.A.P. RTE. 698	SECTION 125(VB)RBR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 76
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				

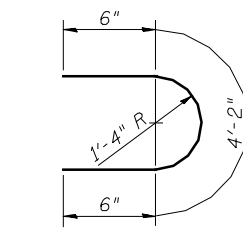
SHEET NO. 51 OF 62 SHEETS



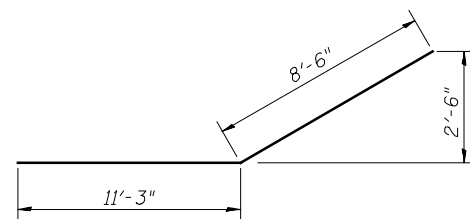
BAR $u_{10}(E)$



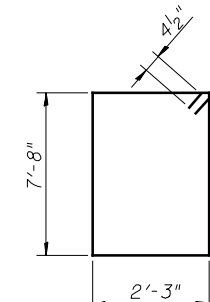
BAR $u_{11}(E)$



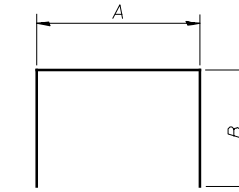
BAR $u_{12}(E)$



BAR $p_{11}(E)$



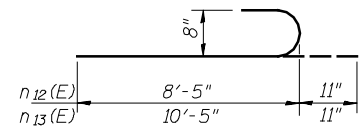
BAR $s_{15}(E)$



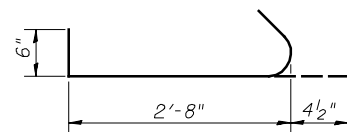
BAR $s_{12}(E)$,
 $s_{13}(E)$, & $s_{14}(E)$

A & B DIMENSIONS

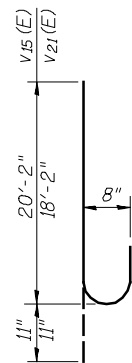
Bar	A	B
$s_{12}(E)$	2'-3"	4'-1"
$s_{13}(E)$	2'-3"	4'-7"
$s_{14}(E)$	2'-3"	5'-3"



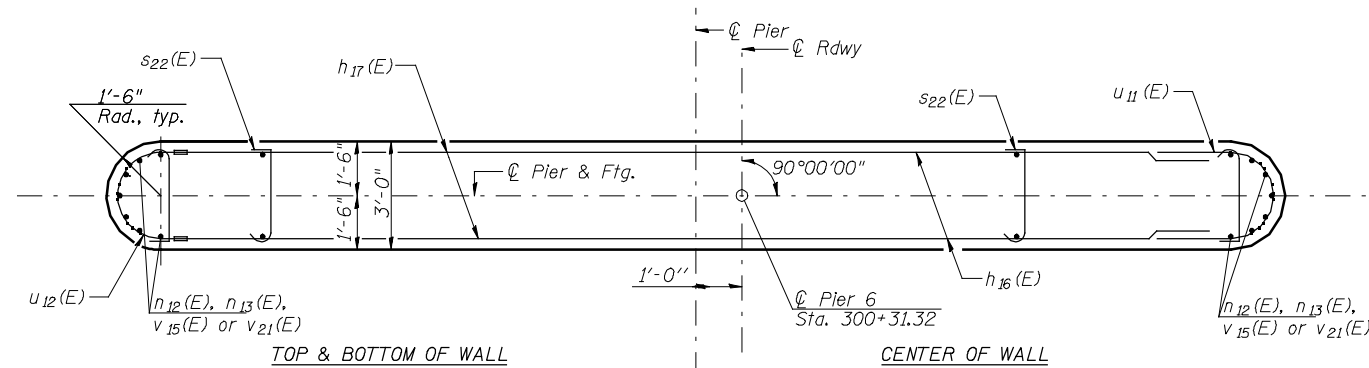
BAR $n_{12}(E)$ & $n_{13}(E)$



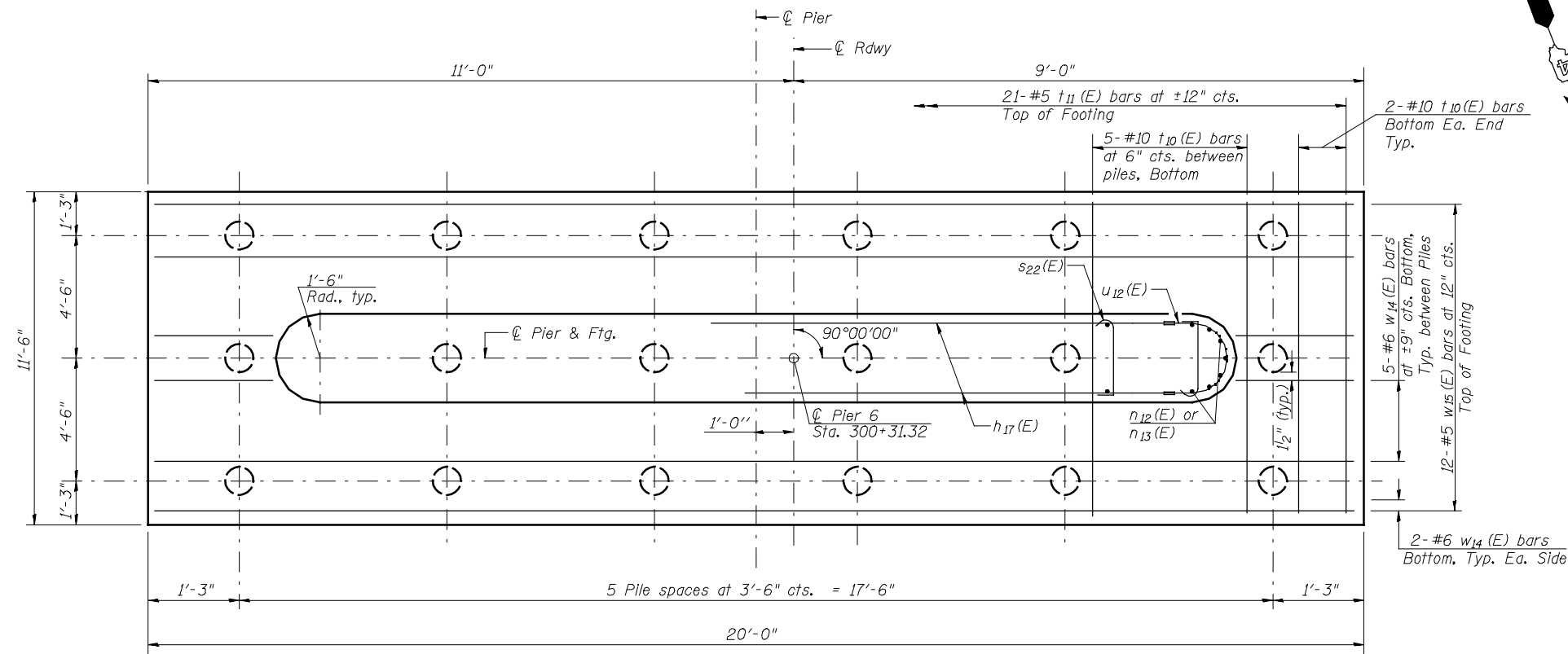
BAR $s_{22}(E)$



BAR $v_{15}(E)$ & $v_{21}(E)$



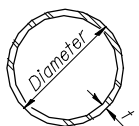
SECTION B-B



FOOTING PLAN

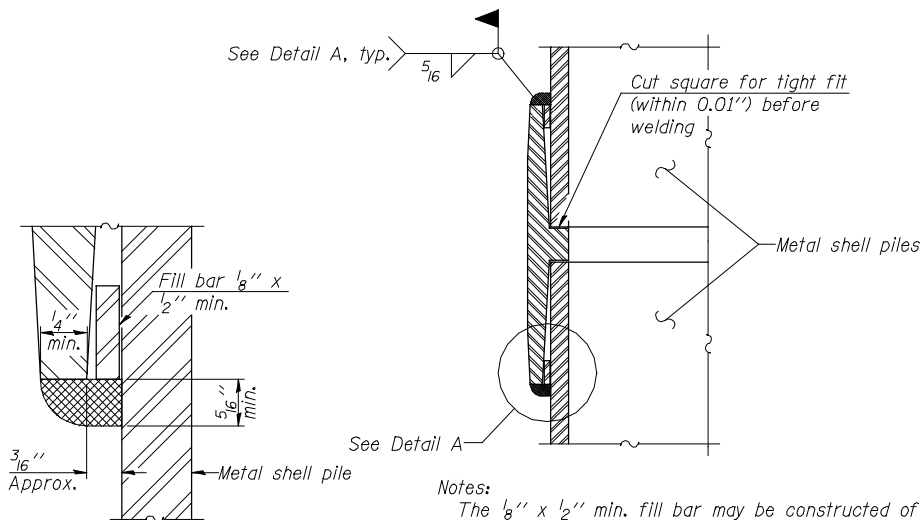
PIER 6
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_{10}(E)$	10	#7	33'-8"	—
$h_{11}(E)$	2	#7	31'-8"	—
$h_{12}(E)$	2	#7	27'-0"	—
$h_{13}(E)$	2	#7	22'-0"	—
$h_{16}(E)$	30	#6	14'-0"	—
$h_{17}(E)$	44	#6	13'-0"	—
$n_{12}(E)$	28	#8	9'-4"	U
$n_{13}(E)$	28	#8	11'-4"	U
$p_{10}(E)$	16	#9	33'-8"	—
$p_{11}(E)$	10	#8	19'-9"	—
$s_{12}(E)$	24	#5	10'-5"	□
$s_{13}(E)$	32	#5	11'-5"	□
$s_{14}(E)$	32	#5	12'-9"	□
$s_{15}(E)$	36	#4	20'-7"	□
$s_{22}(E)$	124	#3	3'-7"	U
$t_{10}(E)$	29	#10	11'-2"	—
$t_{11}(E)$	21	#5	11'-2"	—
$u_{10}(E)$	12	#6	12'-3"	U
$u_{11}(E)$	30	#6	13'-10"	U
$u_{12}(E)$	44	#6	5'-2"	U
$v_{15}(E)$	28	#8	21'-1"	U
$v_{21}(E)$	28	#8	19'-1"	U
$w_{14}(E)$	14	#6	19'-8"	—
$w_{15}(E)$	12	#5	19'-8"	—
Concrete Structures		CU YD	104.4	
Reinforcement Bars, Epoxy Coated		POUND	14,740	
Furnishing Metal Shell Piles 14" x 0.312"		FOOT	714	
Driving Piles		FOOT	714	
Test Pile Metal Shells		EACH	1	
Pile Shoes		EACH	18	
Cofferdam (Type 2) (Location 2)		EACH	1	
Seal Coat Concrete		CU YD	48.2	
Cofferdam Excavation		CU YD	246	



METAL SHELL PILE TABLE

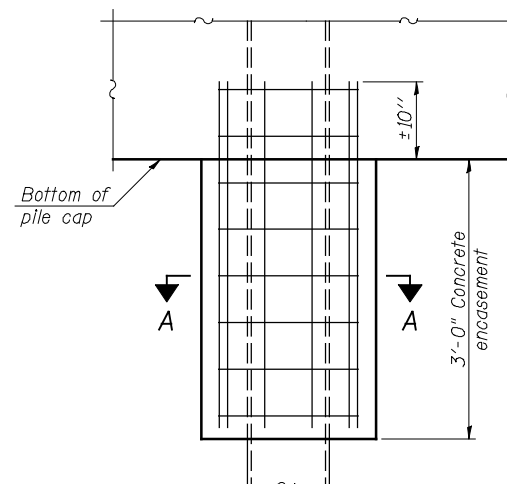
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



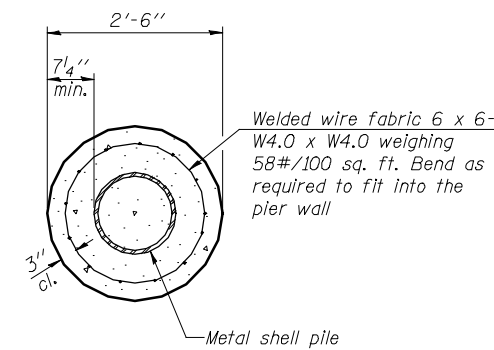
DETAIL A

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

WELDED COMMERCIAL SPLICE



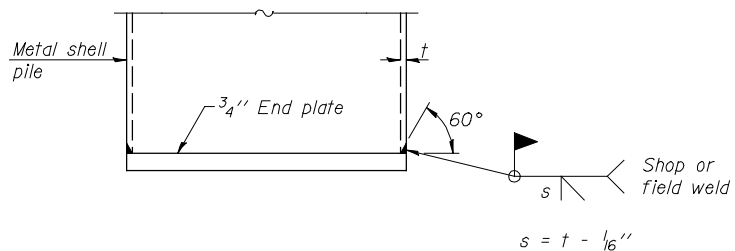
ELEVATION



SECTION A-A

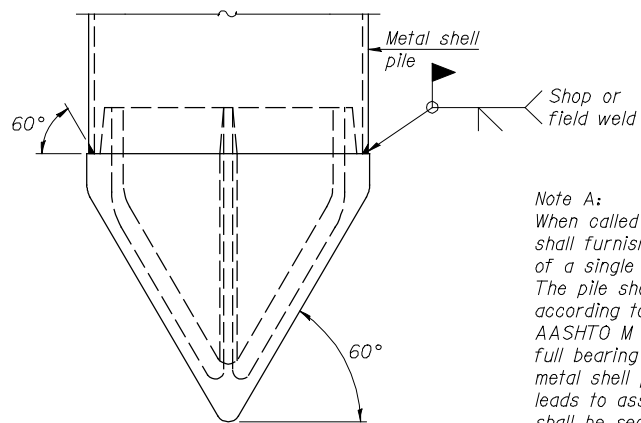
Note:
 Forms for encasement may be omitted when soil conditions permit.

CONCRETE ENCASEMENT AT ABUTMENTS



END PLATE ATTACHMENT

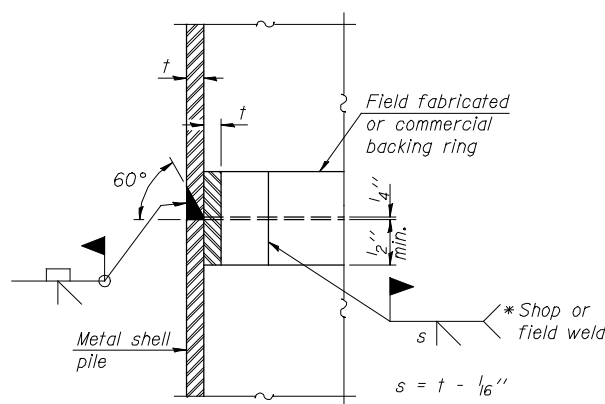
$s = t - 1/16"$



METAL SHELL PILE SHOE ATTACHMENT

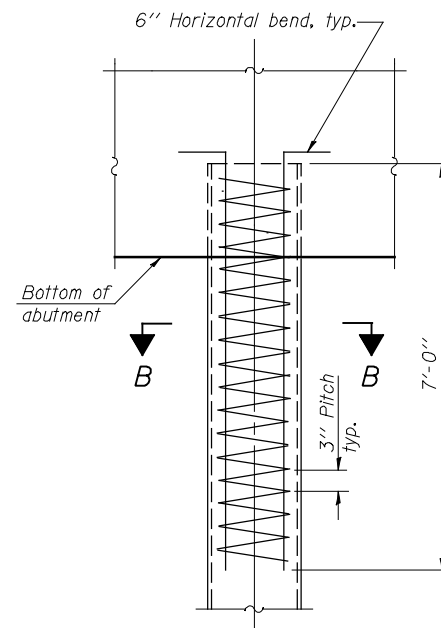
(See Note A)

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

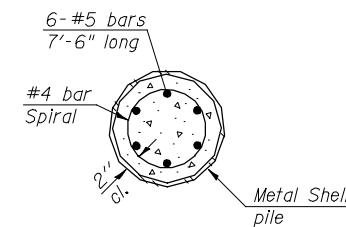


COMPLETE PENETRATION WELD SPLICE

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



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS & PIERS

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

F-MS

1-27-12

Hutchison Engineering, Inc.
 Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdeen	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

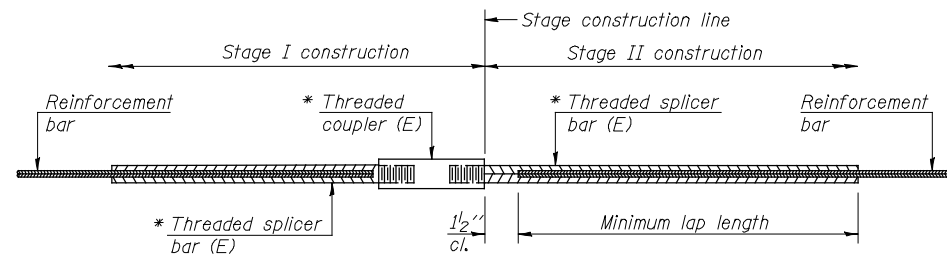
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS
 STRUCTURE NO. 062-0086**

SHEET NO. 53 OF 62 SHEETS

F.A.P. RTE. 698	SECTION 125(VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 78
			CONTRACT NO. 68580	

ILLINOIS FED. AID PROJECT



STANDARD BAR SPLICER ASSEMBLY

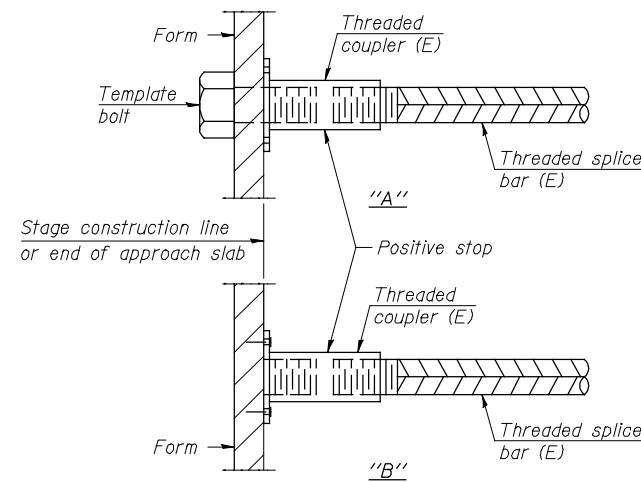
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

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

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

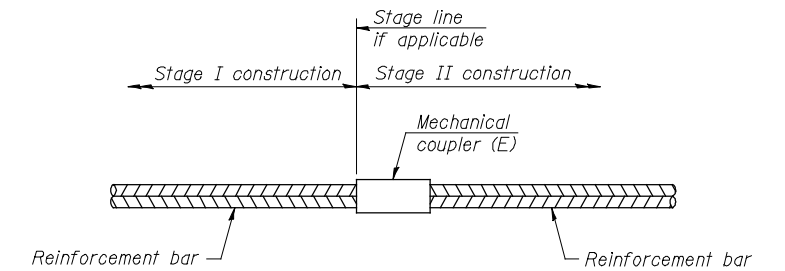
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



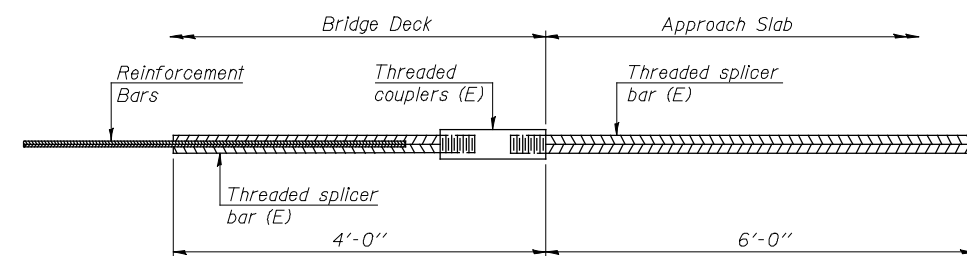
INSTALLATION AND SETTING METHODS

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



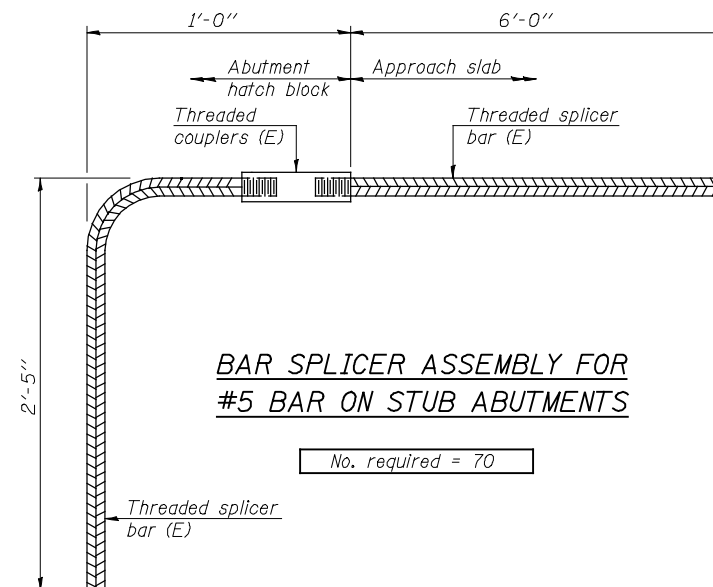
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1	6	80
Pier 1	8	56
Pier 2	6	80
Pier 2	8	56
Pier 3	6	88
Pier 3	8	56
Pier 4	6	80
Pier 4	8	56
Pier 5	6	96
Pier 5	8	56
Pier 6	6	88
Pier 6	8	56



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

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 70

NOTES

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

BSD-1 1-27-12

Hutchison Engineering, Inc.
 Jacksonville, Peoria, &
 Shorewood, Illinois

USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - JCW	REVISED -
	CHECKED - JOH/BAN	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 062-0086**

F.A.P. RTE. 698	SECTION (I25VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 79
CONTRACT NO. 68580				
ILLINOIS FED. AID PROJECT				

SHEET NO. 54 OF 62 SHEETS



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

SOIL BORING LOG

Page 1 of 3

Date 04/15/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY SCI

SECTION 125VBR/BR LOCATION Approx. 4.8 miles south of IL Rt 17, NW 1/4, SEC. 20, TWP. 29N, RNG. 1W

COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	D E P T H S	B L O W S	U C S	M O I S T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	D E P T H S	B L O W S	U C S	M O I S T
BORING NO. B-1 Station 294+40 Offset 14 ft LT Ground Surface Elev. 647.3 ft									
ASPHALT - 18 inches					625.8				
FILL: Brown, silty clay (A-6)	3	2	1.8	20	625.6	3	0.8	29	
With brown, silt	3								
	1	0.6	16		623.1	1	1.9	20	
FILL: Brown, silty loam (A-4)	3					5	S/15		
	2	0.6	20		621.1	5	2.3	19	
FILL: Brown, clay loam (A-7)	3					8	B		
	2	0.3	20		619.3	4	0.8	21	
FILL: Brown and gray, silty loam (A-4) and clay loam (A-7) mixture	2					5	S/10		
	2					9			
FILL: Brown, silty clay loam, trace gravel (A-7)	1	0.5	18		614.3	5	1.5	20	
	2					7	S/15		
	2					9			
FILL: Greenish gray, gray, and brown, silty clay loam (A-6)	1	0.5	25		611.8	3	0.7	22	
With dark brown, silty loam	2					3	B		
	3					5	B		
FILL: Brown, silty clay loam and silty clay, trace gravel (A-7)	3	0.7	19		611.8	3	0.7	23	
	2					3	B		
	3	1.8	20			5	B		
	5					3	B		

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



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

SOIL BORING LOG

Page 2 of 3

Date 04/15/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY SCI

SECTION 125VBR/BR LOCATION Approx. 4.8 miles south of IL Rt 17, NW 1/4, SEC. 20, TWP. 29N, RNG. 1W

COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	D E P T H S	B L O W S	U C S	M O I S T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	D E P T H S	B L O W S	U C S	M O I S T
BORING NO. B-1 Station 294+40 Offset 14 ft LT Ground Surface Elev. 647.3 ft									
FILL: Dark brown to black, sandy clay loam, trace organics (A-6) (continued)					605.3				
Driller indicated easier to drill from 40 to 43.5 feet. Water level is estimated - sand blow in prior to sampling at 43.5 feet requiring water to be used to wash the fines.									
SAND: Gray, fine to coarse, trace to some clay, fine gravel, and trace coarse gravel (A-1) (continued)									
Gravel encountered during augering from 63.5 to 73.5 feet.									
	8					11			
	11					8			
	10					11			
	8					10			
	7					13			
	7					15			
	6					12			
	7					11			
	9					11			
Augers difficult to remove after drilling was completed (upon removal of augers from boring - red head extension broke, due to skin friction around augers).					569.8				
CLAY LOAM: Grayish brown, trace fine gravel (A-7)	10					25			
Qu (tsf) results of samples exceed the limit of the Rimac apparatus from 76.5 to 90 feet.	9					32	10.9	10	
	9					52	B/10		

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



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

SOIL BORING LOG

Page 3 of 3

Date 04/15/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY SCI

SECTION 125VBR/BR LOCATION Approx. 4.8 miles south of IL Rt 17, NW 1/4, SEC. 20, TWP. 29N, RNG. 1W

COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	D E P T H S	B L O W S	U C S	M O I S T	Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	D E P T H S	B L O W S	U C S	M O I S T
BORING NO. B-1 Station 294+40 Offset 14 ft LT Ground Surface Elev. 647.3 ft									
CLAY LOAM: Grayish brown, trace fine gravel (A-7) (continued)									
Driller indicated softer drilling at approximately 101 feet with intermittent soft zones to 103.5 feet.									
CLAYEY SHALE: Reddish brown and gray					544.3				
	17					27			
	24	10.9	11			42	5.9	13	
	37	B/10				62	S/10		
	24					38	6.0	14	
	38					77	S/10		
	17					50			
	26	10.9	14			50/4"	4.5	15	
	30	B/10					P		
Becomes greenish gray Boring terminated at 109.5 ft.					537.8				
SILTY LOAM: Grayish brown (A-4)					555.3				
Driller indicated very hard drilling from 92 to 92.5 feet (500 psi down pressure), then became easier to drill.									
	35					40	8.0	14	
	40					46	B		
	39					46			
	28					48	3.4	19	
	48					41	S/15		

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

Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = jdean	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 062-0086

SHEET NO. 55 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	125(VBR)BR	MARSHALL	148	80
CONTRACT NO. 68580				

ILLINOIS FED. AID PROJECT



Illinois Department of Transportation
Division of Highways
Soil Engineering

SOIL BORING LOG

Page 1 of 3

Date 08/20/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY KEG
SECTION (125VBR)BR LOCATION Approx. 4.8 miles south of IL Rt 17; NW 1/4, SEC. 20, TWP. 29N, RNG. 1W
COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	BORING NO. B-3 Station 296+52 Offset 19 ft LL Ground Surface Elev. 612.2 ft	DEPTWHS				Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter 603.7 ft Upon Completion _____ ft After _____ Hrs.	DEPTWHS											
		(ft)	(/6")	(tsf)	(%)			(ft)	(/6")	(tsf)	(%)								
GRASS & TOPSOIL - 12 inches																			
FILL: Dark brown, sandy clay loam, trace, fine gravel, roots (A-6)	611.2	5																	
FILL: Gray, sandy clay (A-6) and Grayish brown and brown sandy clay (A-6)	609.2	2	0.5		22														
SANDY LOAM: Brown, fine to medium, trace to some fine gravel (A-2)	606.7	5			13														
SAND: Brown, fine to medium, trace fine gravel (A-3)	604.2	1																	
Wash rotary drilling started at 11 feet		3																	
SAND: Gray, fine to coarse, some fine gravel (A-1)	599.2	4																	
		5																	
		3																	
		6																	
		4																	
		5																	
		7																	

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



Illinois Department of Transportation
Division of Highways
Soil Engineering

SOIL BORING LOG

Page 2 of 3

Date 08/20/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY KEG
SECTION (125VBR)BR LOCATION Approx. 4.8 miles south of IL Rt 17; NW 1/4, SEC. 20, TWP. 29N, RNG. 1W
COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	BORING NO. B-3 Station 296+52 Offset 19 ft LL Ground Surface Elev. 612.2 ft	DEPTWHS				Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter 603.7 ft Upon Completion _____ ft After _____ Hrs.	DEPTWHS											
		(ft)	(/6")	(tsf)	(%)			(ft)	(/6")	(tsf)	(%)								
SAND: Grayish brown, fine to coarse and GRAVEL: Fine (A-1) (continued)																			
No recovery																			
CLAY LOAM: Grayish brown, trace fine gravel, trace organics (A-7) Hard drilling observed from about 46 to 47.5 feet	596.2	13			11														
		24	8.5																
		35	B																
		14																	
		30	7.4		10														
		43	B																

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



Illinois Department of Transportation
Division of Highways
Soil Engineering

SOIL BORING LOG

Page 3 of 3

Date 08/20/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY KEG
SECTION (125VBR)BR LOCATION Approx. 4.8 miles south of IL Rt 17; NW 1/4, SEC. 20, TWP. 29N, RNG. 1W
COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	BORING NO. B-3 Station 296+52 Offset 19 ft LL Ground Surface Elev. 612.2 ft	DEPTWHS				Surface Water Elev. _____ ft Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter 603.7 ft Upon Completion _____ ft After _____ Hrs.	DEPTWHS											
		(ft)	(/6")	(tsf)	(%)			(ft)	(/6")	(tsf)	(%)								
SILT: Grayish brown, trace organics (A-4) (continued)																			
CLAYEY SHALE: Gray Weathered - non-fissile.	509.2	20			29														
		34	1.4																
		50	S/15																
Becomes gray		32			21														
		40	4.1																
		50	S/15																
Becomes grayish brown and brown		29			22														
		37	2.6																
		38	S/10																
Becomes brown		23			21														
		32	3.8																
		35	S/15																

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

Hutchison Engineering, Inc.
Jacksonville, Peoria, & Shorewood, Illinois

USER NAME = Jdeen	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 062-0086

F.A.P. RTE. 698	SECTION 125(VBR)BR	COUNTY MARSHALL	TOTAL SHEETS 148	SHEET NO. 82
			CONTRACT NO. 68580	
ILLINOIS FED. AID PROJECT				

SHEET NO. 57 OF 62 SHEETS



Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 1 of 3

Date 08/19/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY KEG
SECTION (125VBR)BR LOCATION Approx. 4.8 miles south of IL Rt 17; NW 1/4, SEC. 20, TWP. 29N, RNG. 1W
COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	D E P T H	B L O W S	U C S Qu	M O I S T
BORING NO. B-4 Station 297+10 Offset 20 ft RI Ground Surface Elev. 609.9 ft					603.9 ft					
GRASS & TOPSOIL - 12 inches										
FILL: Brown, sandy clay loam (A-4) and Brown, sandy loam (A-2)	3	0.3	17							
FILL: Grayish brown and Dark brown, sandy clay loam (A-4) and Brown, sandy loam (A-2)	2	0.8	16							
GRAVEL: Fine (A-1) Poor recovery	4									
SAND: Gray, fine to medium, trace to some clay, trace fine gravel (A-2)	4									
SAND: Gray, fine to coarse, some fine gravel (A-1) Wash rotary drilling started at 13.5 feet.	3									
Poor recovery	4									
SAND: Gray, fine to coarse and GRAVEL, fine (A-1)	4									

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



Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 2 of 3

Date 08/19/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY KEG
SECTION (125VBR)BR LOCATION Approx. 4.8 miles south of IL Rt 17; NW 1/4, SEC. 20, TWP. 29N, RNG. 1W
COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	D E P T H	B L O W S	U C S Qu	M O I S T
BORING NO. B-4 Station 297+10 Offset 20 ft RI Ground Surface Elev. 609.9 ft					603.9 ft					
SAND: Gray, fine to coarse and GRAVEL, fine (A-1) (continued)										
SILT CLAY LOAM: Grayish brown, trace fine gravel, organics (A-6) Mud rotary drilling started at 43.5 feet.	12									
CLAY LOAM: Grayish brown, trace fine gravel, organics (A-7)	16									
Trace coal	11									
SILT: Brown (A-4)	17									

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



Illinois Department of Transportation
Division of Highways
SCI Engineering

SOIL BORING LOG

Page 3 of 3

Date 08/19/09

ROUTE FAP 698 (IL 89) DESCRIPTION Bridge Replacement (proposed SN 062-0086) over AT&SF Railroad and Crow Creek LOGGED BY KEG
SECTION (125VBR)BR LOCATION Approx. 4.8 miles south of IL Rt 17; NW 1/4, SEC. 20, TWP. 29N, RNG. 1W
COUNTY Marshall DRILLING METHOD CME 550/HSA HAMMER TYPE Automatic

STRUCT. NO. 062-0031 (existing) Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	D E P T H	B L O W S	U C S Qu	M O I S T
BORING NO. B-4 Station 297+10 Offset 20 ft RI Ground Surface Elev. 609.9 ft					603.9 ft					
SILT: Brown (A-4) (continued)										
Becomes grayish brown	15									
Becomes gray and brown	16									
	19									

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

Hutchison Engineering, Inc.
Jacksonville, Peoria, &
Shorewood, Illinois

USER NAME = Jdeen	DESIGNED - JOH	REVISED -
PLOT SCALE = NONE	CHECKED - BAN	REVISED -
PLOT DATE = 7/25/2013	DRAWN - TAC	REVISED -
	CHECKED - JOH/BAN	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 062-0086

SHEET NO. 58 OF 62 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	125(VBR)BR	MARSHALL	148	83
			CONTRACT NO. 68580	

ILLINOIS FED. AID PROJECT

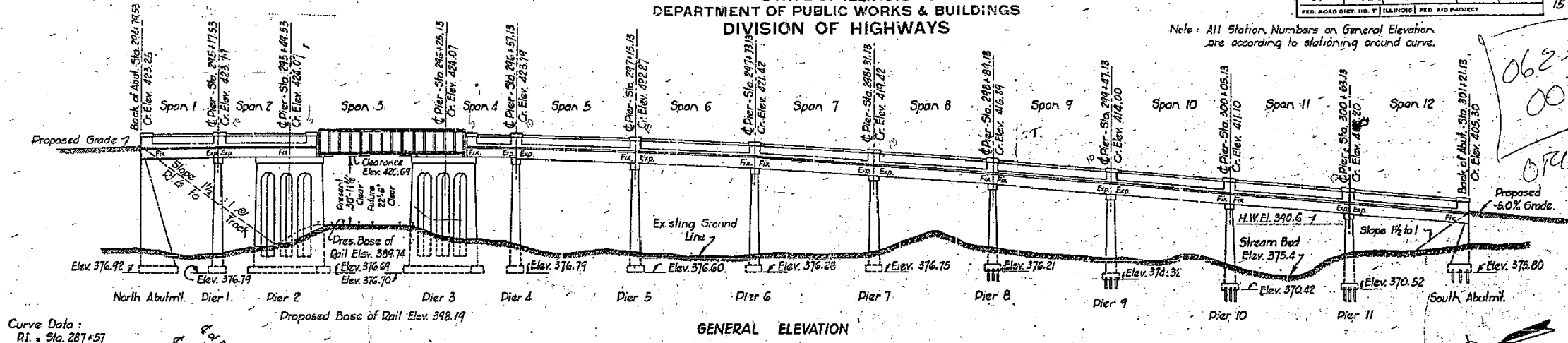
B.M. #44 - S. W. in roof of 21" willow - 75 Ft. L. Sta. 298 + 75. Elev. 380.68.
No existing structure.

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

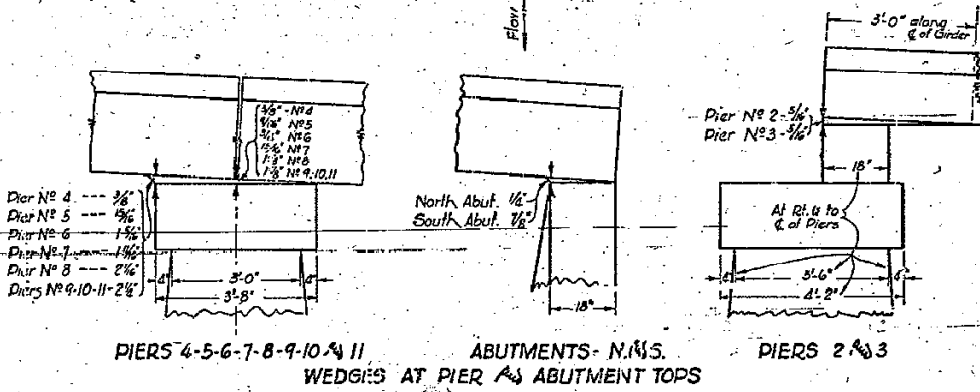
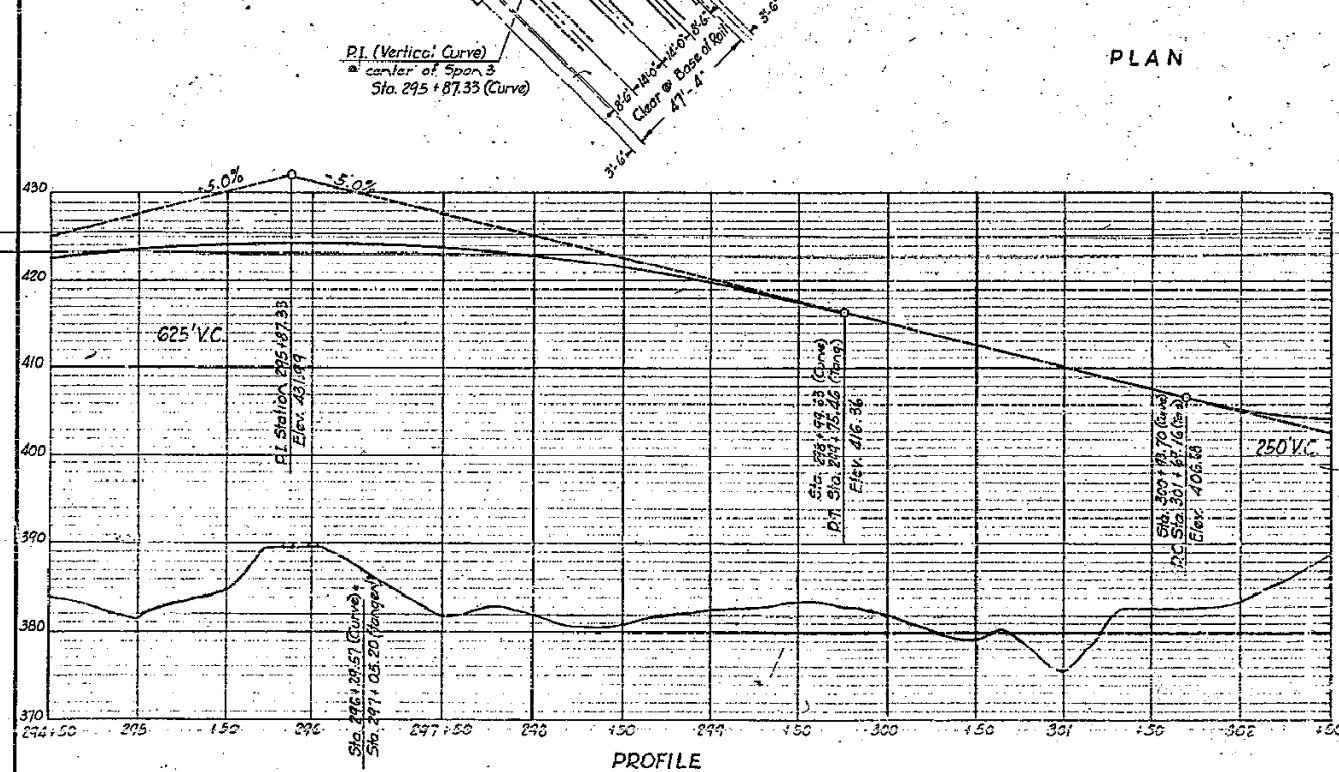
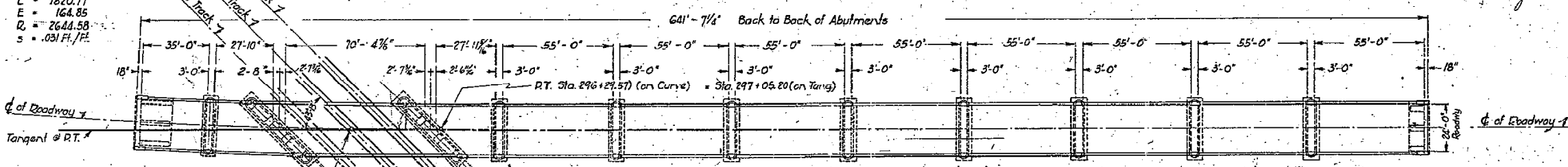
ROAD DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
89	125VB-1	Marshall	18	3

SHEET NO. 1
15 SHEETS

Note: All Station Numbers on General Elevation are according to stationing around curve.



Curve Data:
R.I. = Sta. 287 + 57
L = 140' - 33"
Δ = 39° - 27'
D = 2° - 10'
T = 988.20
L = 1820.77
E = 164.85
R = 2644.58
S = .031 Ft./Ft.



TOTAL BILL OF MATERIAL

Items	Steel Super	Conc Super	Piers	Abutments	Totals - Sec. 125VB	Totals - Sec. 125VC
Class X Concrete	Cu. Yds. 36.4	855.2	1450.4	317.3	2622.9	36.4
Reinforcing Steel	Pounds 5480	244960	67820	11670	32450	5480
Structural Steel	Pounds 77740					77740
Structural Steel (Exp)	Pounds	6050			6050	
Rockers & Plates	Pounds 1340	14550			14550	
C.I. Rockers & Bolsters	Pounds 1340					1340
Name Plate	Each 1				1	
4" RCC Pavement	Sq. Yds. 1424.8				1424.8	
Untreated Piles - 20' long	Lin. Ft. 2240		400		3140	
Corrugated S.S. Deck Plates	Pounds 3490					3490

COMPUTED BY: J.M.R. [Signature]
CHECKED BY: R.A.M.
DRAWN BY: J.M. Mackay
CHECKED BY: R.A.M.
SPECIAL ASSEMBLED BY: [Signature]
CHECKED BY: [Signature]

EXAMINED BY: [Signature] JUL 2, 1930
PASSED BY: [Signature]
APPROVED BY: [Signature] CHIEF HIGHWAY ENGINEER

FILE NAME =	USER NAME = jdeen	DESIGNED -	REVISED -
v:\transportation\3013\cadd\sheet\06220086-68580-106-EXISTING PLANS.dgn		DRAWN -	REVISED -
PLOT SCALE = 20.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY
SCALE: SHEET NO. 1 OF 27 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VB)BR	MARSHALL	148	88

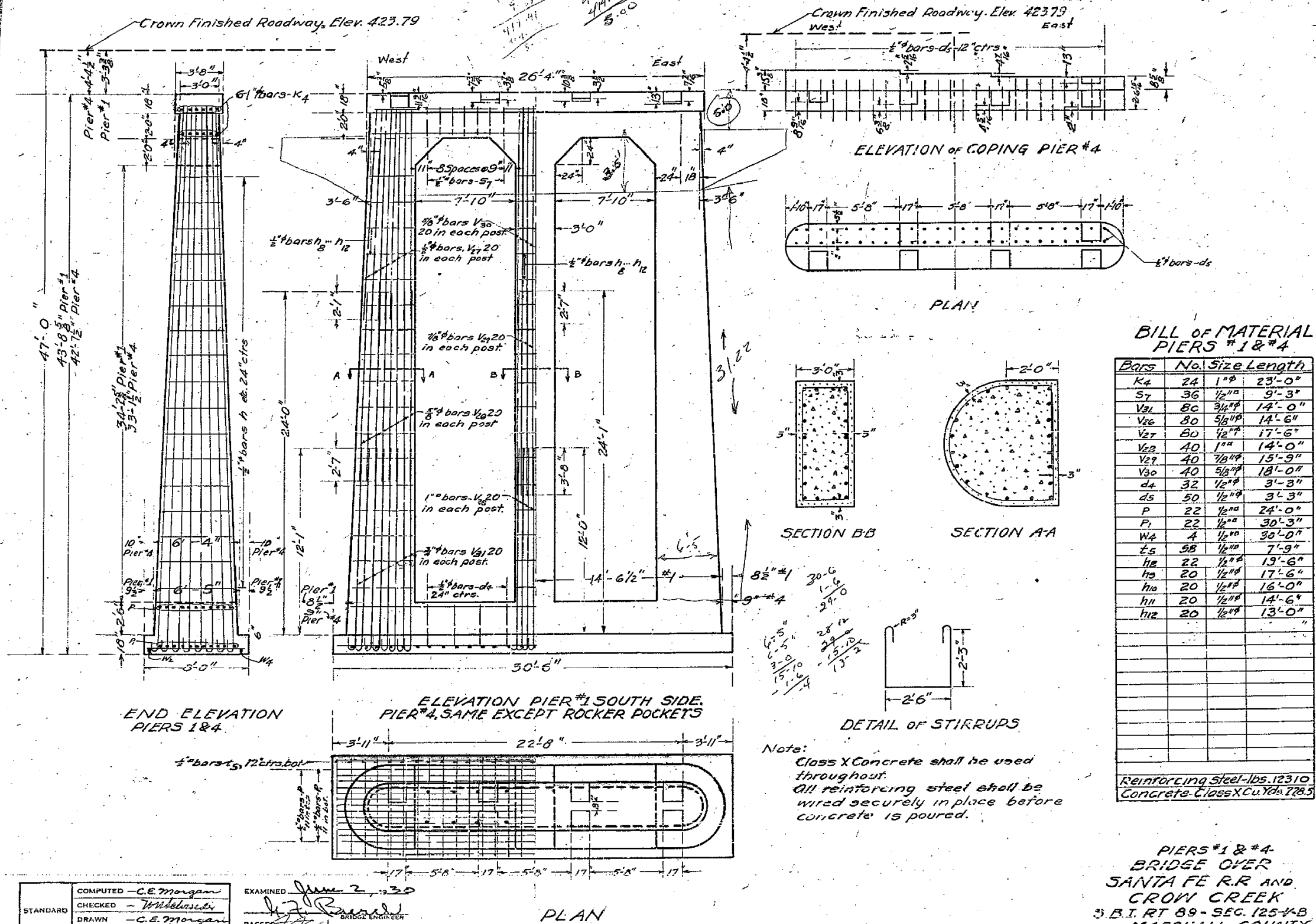
CONTRACT NO. 68580
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

B.M. #44 S&W in root of 24" Willow
75' Lt. Sta. 296+75. Elev. 380.68.

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

ROAD DISTRICT	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
89	125V-B	Marshall	12	13

SHEET NO. 11
15 SHEETS

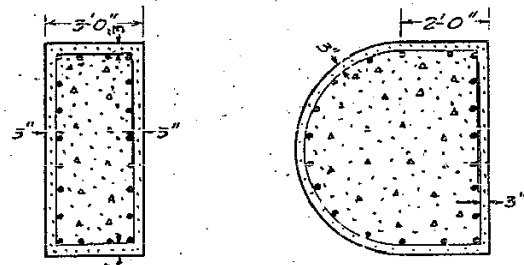


ELEVATION OF COPING PIER #4

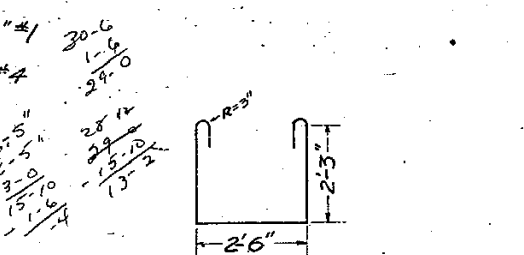
PLAN

BILL OF MATERIAL
PIERS #1 & #4

Bars	No.	Size	Length
K4	24	1"φ	23'-0"
S7	36	1/2"φ	9'-3"
V31	80	3/4"φ	14'-0"
V26	80	5/8"φ	14'-6"
V27	80	1/2"φ	17'-6"
V22	40	1"φ	14'-0"
V29	40	7/8"φ	15'-9"
V30	40	5/8"φ	18'-0"
d4	32	1/2"φ	3'-3"
d5	50	1/2"φ	3'-3"
P	22	1/2"φ	24'-0"
P1	22	1/2"φ	30'-3"
W2	4	1/2"φ	30'-0"
L5	58	1/2"φ	7'-9"
h2	22	1/2"φ	19'-6"
h3	20	1/2"φ	17'-6"
h4	20	1/2"φ	16'-0"
h11	20	1/2"φ	14'-6"
h12	20	1/2"φ	13'-0"



SECTION B-B SECTION A-A



DETAIL OF STIRRUPS

Note:
Class X Concrete shall be used throughout.
All reinforcing steel shall be wired securely in place before concrete is poured.

Reinforcing Steel - lbs. 12310
Concrete - Class X Cu. Yds. 728.5

PIERS #1 & #4
BRIDGE OVER
SANTA FE R.R. AND
CROW CREEK
S.B.I. RT 89 - SEC. 125-V-B
MARSHALL COUNTY
STA. 301+00

COMPUTED	- C.E. Morgan	EXAMINED	June 2, 1930
CHECKED	- W. H. B. S. S.	DRAWN	- C.E. Morgan
DRAWN	- C.E. Morgan	PASSED	- [Signature]
CHECKED	- W. H. B. S. S.	APPROVED	- [Signature]
SPECIAL	ASSEMBLED		
	CHECKED		

FILE NAME =	USER NAME = jdeen	DESIGNED -	REVISED -
v:\transportation\3013\cadd\sheet\06220086-68580-106-EXISTING PLANS.dgn		DRAWN -	REVISED -
PLOT SCALE = 20.0000 / IN.		CHECKED -	REVISED -
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -

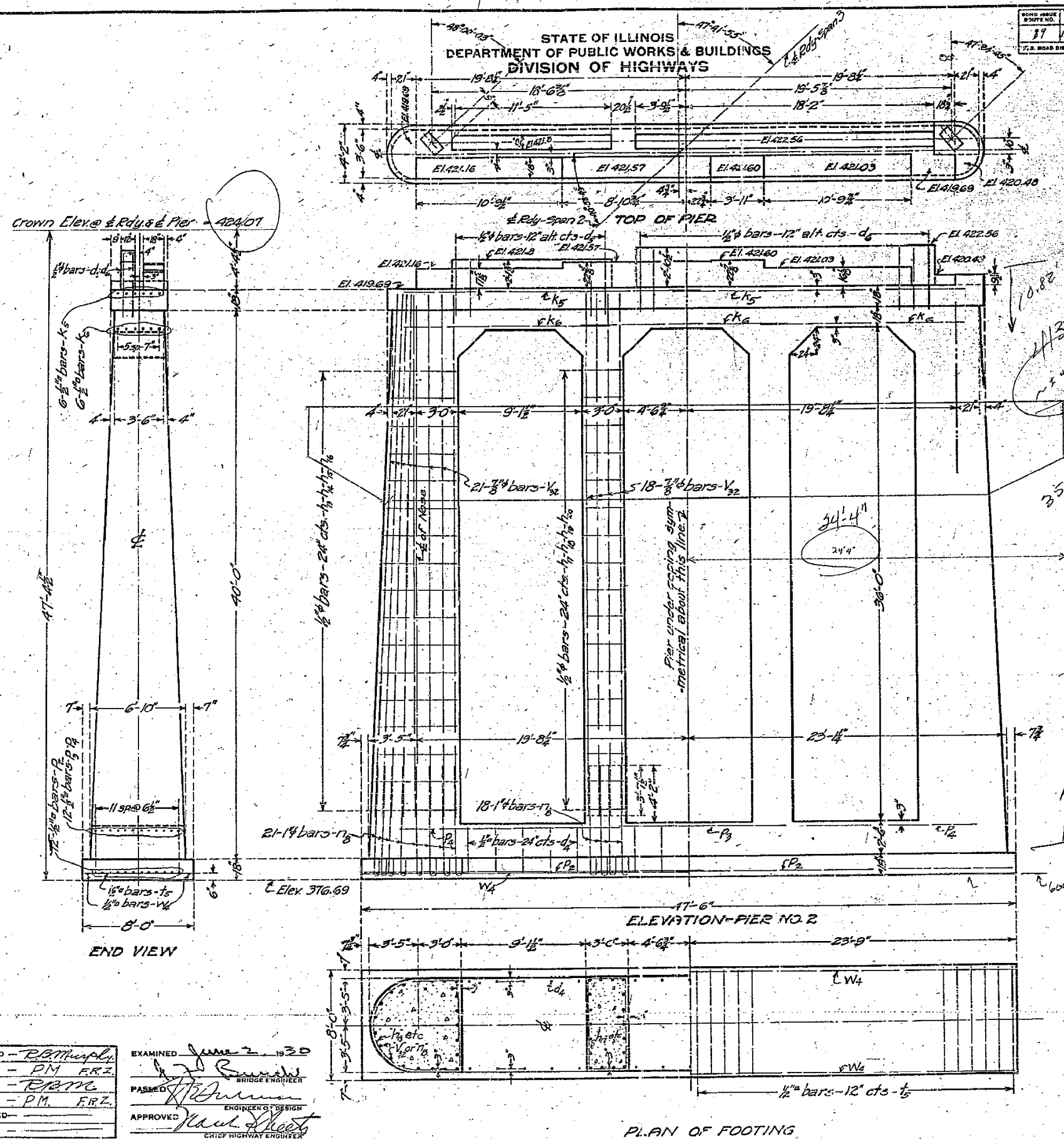
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS FOR INFORMATION ONLY		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE:	SHEET NO. 4 OF 27 SHEETS	698	(125VBR)BR	MARSHALL	148	91
	STA. TO STA.	CONTRACT NO. 68580		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

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

ROAD DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
89	125V-B	Marshall	18	14
F.R.D. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 14
15 SHEETS



PIER NO. 2
BILL OF MATERIAL

Bar	No.	Size	Length
d ₅	12	1/2"	4'-0"
d ₆	22	1/2"	4'-6"
d ₄	30	1/2"	3'-9"
h ₁₂	8	1/2"	23'-0"
h ₁₁	8	"	21'-3"
h ₁₀	8	"	19'-6"
h ₉	10	"	17'-6"
h ₈	8	"	19'-0"
h ₇	8	"	18'-0"
h ₆	8	"	16'-3"
h ₅	10	"	14'-3"
k ₅	12	1/2"	21'-6"
k ₆	18	"	15'-0"
n ₈	78	1 1/2"	8'-6"
p ₂	24	1/2"	24'-6"
p ₃	12	"	14'-0"
p ₄	24	"	16'-0"
t ₅	48	"	7'-9"
w ₂	78	3/4"	38'-0"
w ₄	4	1/2"	24'-6"

Class X Concrete - Cuyds 185.9
Reinforcing Steel - Lbs. 10860.

Class X Concrete to be used throughout
All reinforcing steel to be wired securely in place before pouring concrete.

PIER NO. 2
BRIDGE OVER
SANTA FE RAILROAD
AND
CROW CREEK
S.B.I. ROUTE 89-SECTION 126
MARSHALL COUNTY

COMPUTED	- R.M. Murphy	EXAMINED	June 2 1930
CHECKED	- P.M. FRZ.	DESIGNED	Paul Sheets
DRAWN	- R.M.C.	BRIDGE ENGINEER	
CHECKED	- P.M. FRZ.	APPROVED	Paul Sheets
SPECIAL	ASSEMBLED	ENGINEER OF DESIGN	
	CHECKED	CHIEF HIGHWAY ENGINEER	

FILE NAME =	USER NAME = jdeen	DESIGNED -	REVISED -
v:\transportation\3013\cadd\sheet\06220086-68580-106-EXISTING PLANS.dgn		DRAWN -	REVISED -
PLOT SCALE = 20.0000 / IN.		CHECKED -	REVISED -
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS FOR INFORMATION ONLY	
SCALE:	SHEET NO. 5 OF 27 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	92
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
		CONTRACT NO. 68580		

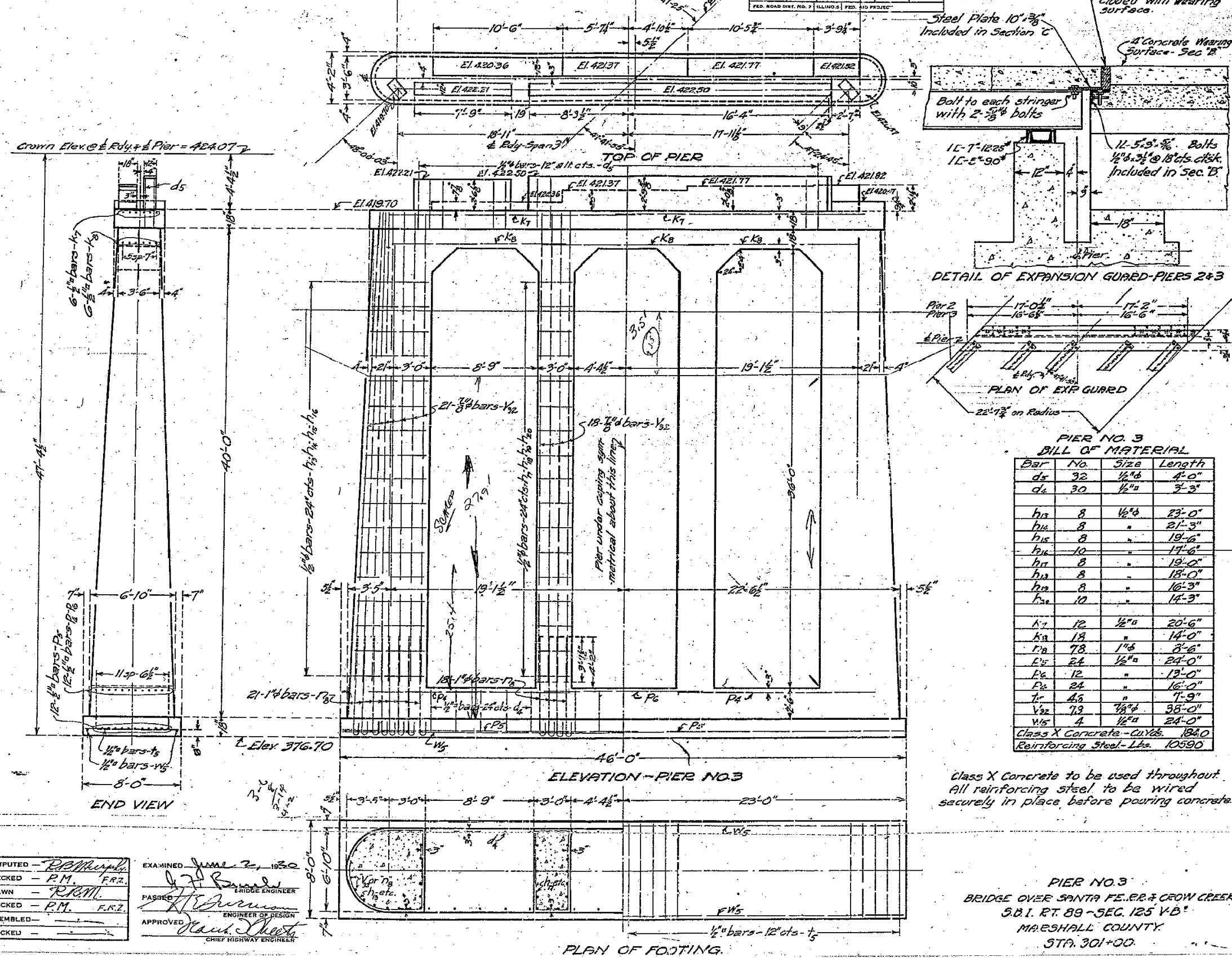
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
125 V-B	Marshall	15	13

Wt. of Exp. Guards @ Piers 2 & 3
Sec. 125 V-B = 580 Lbs.
Sec. 125 V-C = 880 Lbs.

SHEET NO. 13
15 SHEETS

1/2" Bit felt joint included with wearing surface.



PIER NO. 3
BILL OF MATERIAL

Bar No.	Size	Length
ds	32 1/2" x 6"	4'-0"
dl	30 1/2" x 6"	3'-3"
h13	8 1/2" x 6"	23'-0"
h14	8 "	21'-3"
h15	8 "	19'-6"
h16	10 "	17'-6"
h17	8 "	19'-0"
h18	8 "	18'-0"
h19	8 "	16'-3"
h20	10 "	14'-3"
k7	12 1/2" x 6"	20'-6"
k8	18 "	14'-0"
l1	78 1" x 6"	8'-6"
l2	24 1/2" x 6"	24'-0"
l3	12 "	13'-0"
l4	24 "	16'-0"
l5	46 "	7'-9"
v22	79 1/2" x 6"	38'-0"
w5	4 1/2" x 6"	24'-0"

Class X Concrete - CuYds. 184.0
Reinforcing Steel - Lbs. 10590

Class X Concrete to be used throughout.
All reinforcing steel to be wired
securely in place before pouring concrete.

PIER NO. 3
BRIDGE OVER SANTA FE RR. & CROW CREEK
S.D.I. RT. 89 - SEC. 125 V-B
MARSHALL COUNTY
STA. 301+00.

COMPUTED - R.M.	EXAMINED - JUNE 2, 1930
CHECKED - P.M. F.R.Z.	DESIGNED - J. J. [Signature]
DRAWN - R.M.	PASSED - [Signature]
CHECKED - P.M. F.R.Z.	ENGINEER OF DESIGN
ASSEMBLED -	APPROVED - [Signature]
CHECKED -	CHIEF HIGHWAY ENGINEER

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

BOND ISSUE	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
89	125V-B	Marshall	18	16

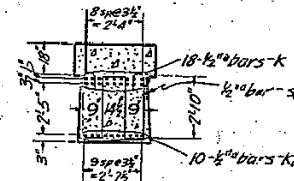
SHRIT NC
15 SHEETS

Crown of Roadway

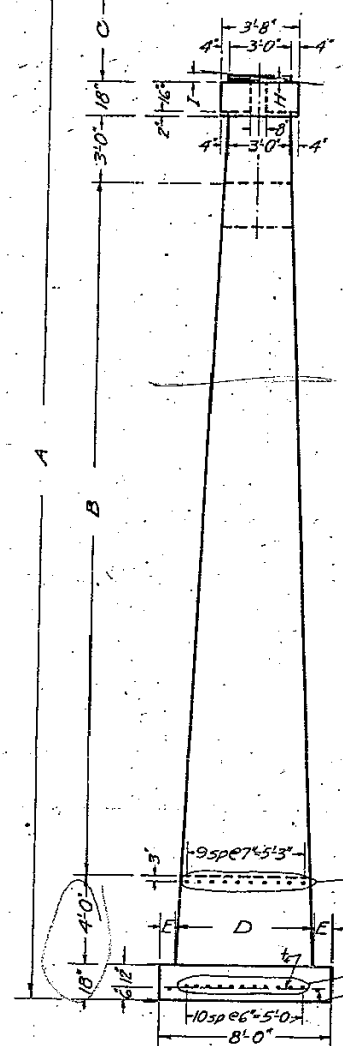
Note:-
Super-elevation on Pier #5 only.
Omit pockets on North side of Pier #5
Omit all pockets on Pier #6.

ELEVATIONS

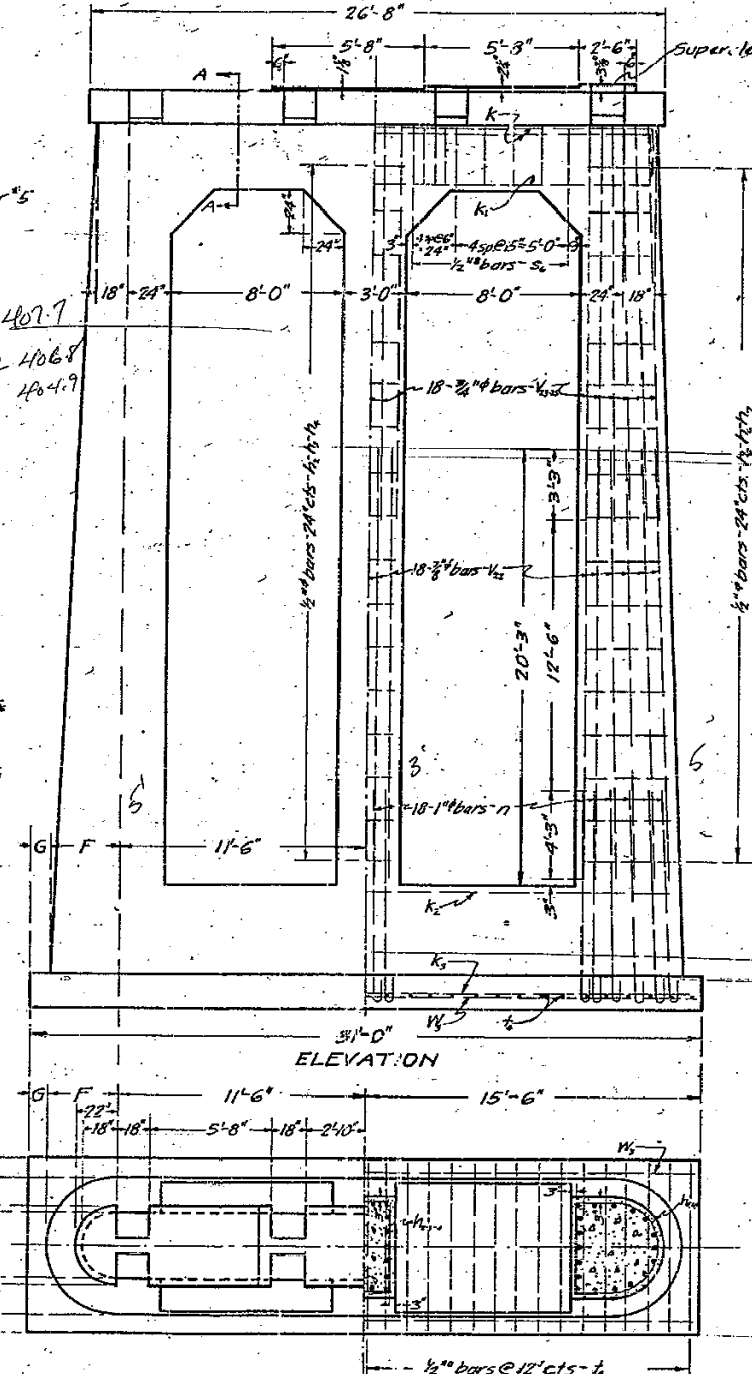
	Cr. of Rd.	Top of Pier	Bottom of Pier
Pier #5	432.87	418.50	376.60
Pier #6	421.42	417.28	376.28
Pier #7	419.42	415.25	376.75



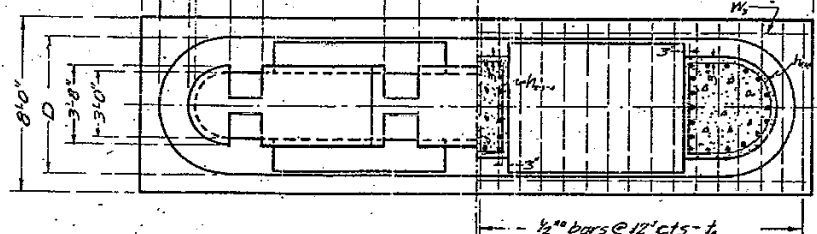
SECTION A-A



END ELEVATION



ELEVATION



PLAN

DIMENSIONS

	Pier 5	Pier 6	Pier 7
A	46'-3/4"	45'-1/2"	42'-8"
B	32'-0"	31'-0"	28'-6"
C	4'-3/4"	4'-1/2"	4'-2"
D	6'-3/4"	6'-2"	5'-11/8"
E	10"	11"	12"
F	3'-1/2"	3'-1"	2'-11/8"
G	10"	11"	12"
H	1/2"	3/8"	1/2"
I	1/8"	1/4"	1/8"

BILLS OF MATERIAL
PIER 5

Bar	No.	Size	Length
K	18	1/2"	29'-0"
K1	10	"	26'-0"
K2	10	"	28'-0"
K3	11	"	30'-0"
V1	54	3/8"	20'-0"
V2	54	3/8"	18'-0"
N	54	1/2"	11'-0"
W	31	1/2"	7'-9"
W1	4	1/2"	16'-6"
H1	6	1/2"	13'-6"
H2	6	"	15'-6"
H3	5	"	17'-0"
H4	12	"	14'-0"
H5	12	"	16'-0"
H6	10	"	18'-6"
S	18	1/2"	17'-9"

Reinforcing Steel-Lbs. 7910
Class X Conc.-Cu.Yds. 111.1

PIER 6

Bar	No.	Size	Length
K	18	1/2"	29'-0"
K1	10	"	26'-0"
K2	10	"	28'-0"
K3	11	"	30'-0"
V1	54	3/8"	20'-0"
V2	54	3/8"	17'-0"
N	54	1/2"	11'-0"
W	31	1/2"	7'-9"
W1	4	1/2"	16'-6"
H1	6	1/2"	13'-6"
H2	6	"	15'-6"
H3	5	"	17'-0"
H4	12	"	14'-0"
H5	12	"	16'-0"
H6	10	"	18'-6"
S	18	1/2"	17'-9"

Reinforcing Steel-Lbs. 7420
Class X Conc.-Cu.Yds. 107.0

PIER 7

Bar	No.	Size	Length
K	18	1/2"	29'-0"
K1	10	"	26'-0"
K2	10	"	28'-0"
K3	11	"	30'-0"
V1	54	3/8"	20'-0"
V2	54	3/8"	14'-6"
N	54	1/2"	11'-0"
W	31	1/2"	7'-9"
W1	4	1/2"	16'-6"
H1	6	1/2"	13'-6"
H2	6	"	15'-6"
H3	5	"	17'-0"
H4	12	"	14'-0"
H5	12	"	16'-0"
H6	10	"	18'-6"
S	18	1/2"	17'-9"

Reinforcing Steel-Lbs. 7150
Class X Conc.-Cu.Yds. 98.9

Super-elevation Blocks on Pier #5 only.
Bottom of New
CAP ELEV
P-5 = 407.7
P-6 = 406.8
P-7 = 405.5

Column Heights
P-5 = 28.6
P-6 = 28.02
P-7 = 26.25

Use Class X Concrete throughout.
All reinforcing steel shall be wired securely
in place before pouring concrete.

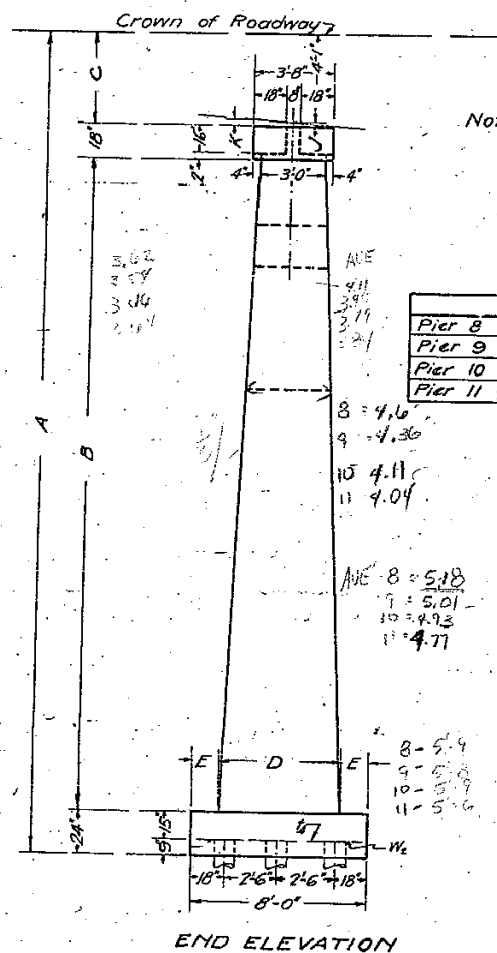
PIERS 5, 6 & 7
BRIDGE OVER
SANTA FE RAILROAD
AND CROW CREEK
S.B.I. RT. 89 SEC. 125V-B
STA. 301+00

COMPUTED	- M. J. Pitzer	EXAMINED	June 2, 1930
CHECKED	- E. J. Styles	BRIDGE ENGINEER	
DRAWN	- M. J. Pitzer	PASSED	
CHECKED	- E. J. Styles	ENGINEER OF DESIGN	
SPECIAL	ASSEMBLED	APPROVED	Paul Sheets
	CHECKED	CHIEF HIGHWAY ENGINEER	

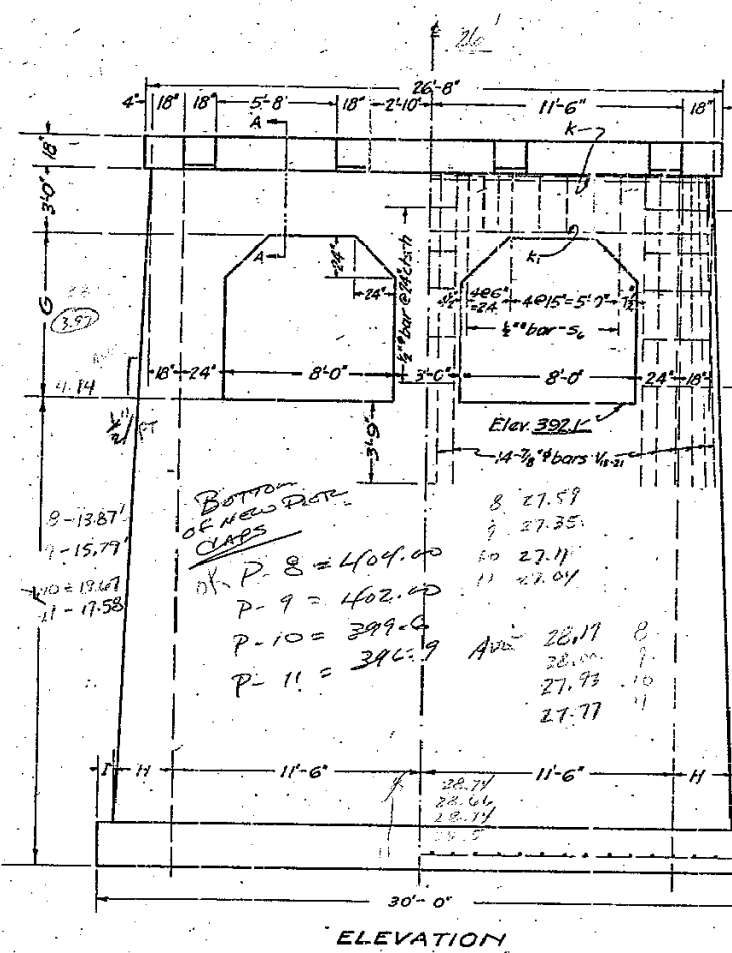
B.M. #44-S & W. root of 24" willow-75' Lt.
Sta. 296+75- Elev. 380.68.

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

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
89	1254-B	Marshall	16	17
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				



Note: Omit Pockets in Piers 8 & 10

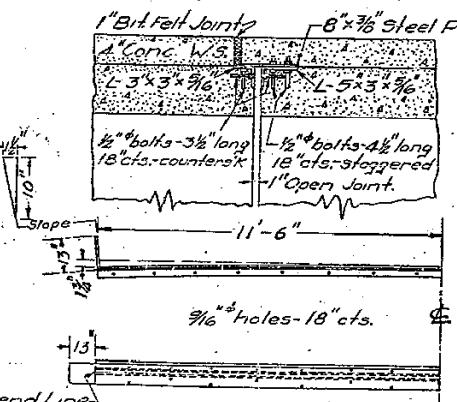


Notes:
Class A concrete to be used throughout.
All reinforcing steel to be securely in place before concrete poured.

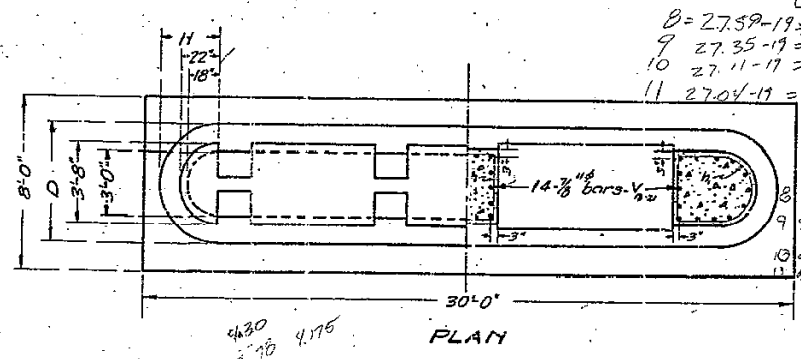
Pier 8
8' U

P-8 = 25.29
P-9 = 25.18
P-10 = 26.68
P-11 = 23.88

19 Top Untreated Piles - 20' Long
8" Tip - 12" Butt - 28 Required
in each of Piers 8, 9, 10 & 11.
Total No. Req'd - 112 - Est. Length - 2240 Lin. Ft.



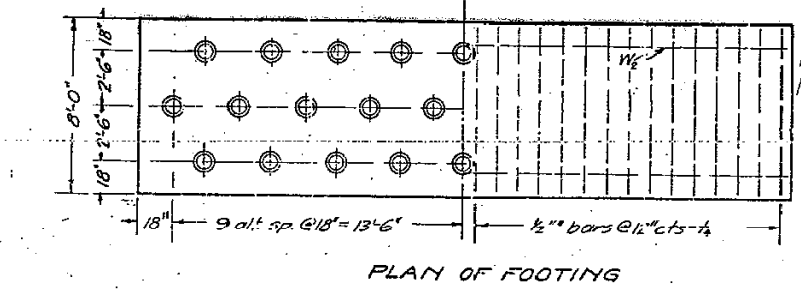
Wt. of Exp. Guard for piers 1, 4, 5, 6, 7, 8, 9, 10 & 11 = 3470# Structural Steel (Exp) included in Sec. 1254-B. For piers 1 & 2, see sheet #13



OUTSIDE COLUMN WIDTH
8 = 27.59 - 19 = 8.59 / 2 = 4.3
9 = 27.35 - 19 = 8.35 / 2 = 4.18
10 = 27.11 - 17 = 8.11 / 2 = 4.06
11 = 27.01 - 19 = 8.01 / 2 = 4.02

OUTSIDE COLUMN TOP
8 = 4.3 - (11.91 x 0.11) = 3.82
9 = 4.18 - (9.91 x 0.11) = 3.78
10 = 4.06 - (7.51 x 0.11) = 3.76
11 = 4.02 - (4.81 x 0.11) = 3.83

AVERAGE WIDTH
8 = 4.3 + 3.82 / 2 = 4.06
9 = 4.18 + 3.78 / 2 = 3.98
10 = 4.06 + 3.76 / 2 = 3.91
11 = 4.02 + 3.83 / 2 = 3.93



PIERS 8-9-10-11
BRIDGE OVER
SANTA FE R.R. & CROW C.
S.B.I. ROUTE 89 SECTION
MARSHALL COUNTY
STATION 301+00

COMPUTED	- M. J. O'Brien	EXAMINED	- June 2, 1939
CHECKED	- M. J. O'Brien	PASSED	- M. J. O'Brien
DRAWN	- M. J. O'Brien	ENGINEER OF DESIGN	- M. J. O'Brien
CHECKED	- M. J. O'Brien	APPROVED	- M. J. O'Brien
ASSEMBLED	- M. J. O'Brien	CHIEF HIGHWAY ENGINEER	- M. J. O'Brien
CHECKED	- M. J. O'Brien		

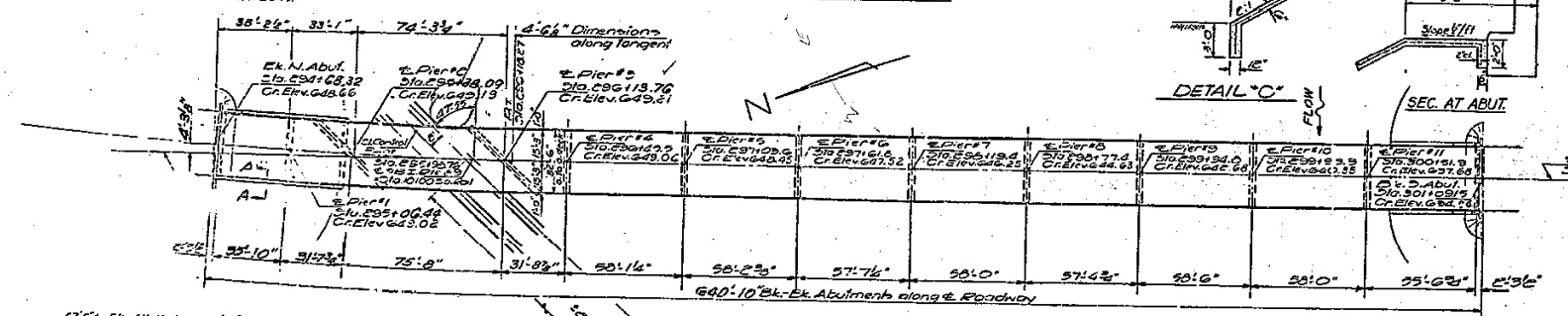
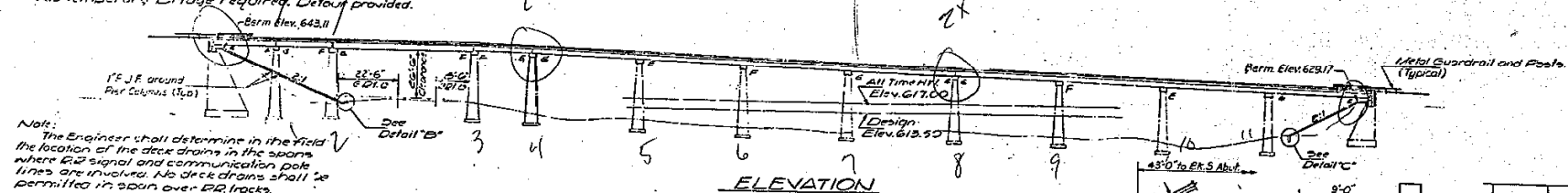
1 EDD 290
 Open JTS @
 N. Abut
 S. Abut
 P-1, 2, 3, 4, 8
 062
 0031
 GAS
 I-17

211.50 Elev. 257.39 Bent Spike
 and water in line 2061.50, 2065+45
 Existing structure station 201+00 Built in
 1923 by the State of Illinois
 Superstructure - 12'5" V.C. deck girder
 Substructure - 20' piers and spill way abutments.
 The Bridge Contractor is to remove the existing
 superstructure and portions of the existing substructure.
 No maintenance for salvaged.
 No Temporary Bridge required. Detour provided.

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

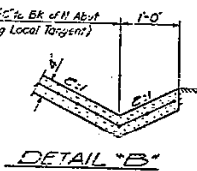
DATE	BY	NO.	REVISION
08/25/09	MARSHALL	41	7A

SHEET NO. 9
 18 SHEETS



PROFILE
 SOUTH RAIL - NORTH TRACKS

Sta. 8+00.00	Elev. 616.75
Sta. 9+00.00	Elev. 616.32
Sta. 10+00.00	Elev. 616.09
Sta. 11+00.00	Elev. 616.04
Sta. 12+00.00	Elev. 616.24



PROFILE
 SOUTH RAIL SOUTH TRACKS

Sta. 100+00.00	Elev. 617.50
Sta. 110+00.00	Elev. 617.30
Sta. 120+00.00	Elev. 617.10
Sta. 130+00.00	Elev. 616.90
Sta. 140+00.00	Elev. 616.70

WATERWAY INFORMATION
 Drainage Area ----- 63,974 Acres
 Character ----- level, rolling, cultivated
 Required Opening ----- 1060 CFS
 Present Opening ----- 2160 CFS
 Capacity ----- 7500 CFS

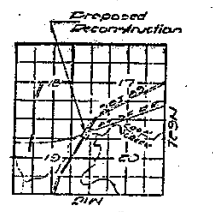
CURVE DATA
 P.I. 210.237144.88
 Δ = 59° 08' 30"
 D = 61.10'
 T = 209.50'
 E = 102.56'
 L = 1025.69'
 S.E. = 0.04 ft
 Transition Sta. 205+46.8
 to Sta. 211+8

GENERAL NOTES
 All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
 Fasteners shall be high strength bolts. Bolts 3/4", open holes 1/2", unless otherwise noted.
 Calculated weight of Structural Steel = 519,280 LBS.
 Diaphragm connections may be adopted to shop welding subject to approval by the Engineer.
 The Basic Lead Zinc Chromate paint system shall be used for shop and field painting of structural steel.
 Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.
 Anchor bolts shall be set before bolting diaphragms over supports.
 Slope walls shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft.
 Layout of slope walls may be varied in the field to suit ground conditions as directed by the Engineer.
 It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
 Class A and B Excavation for structures shall be incidental.
 Additional concrete repair for the two outside columns of Piers 6, 7 and 8 as directed by the Engineer.
 Protective Coat shall not be applied to surfaces to which Cool Tor Interlayer Protective Coat is applied.

DESIGN STRESSES
 f_c = 4000 psi - 5.0
 f_s = 50,000 psi - Reinfr.
 f_s = 20,000 psi - Struc'l
 γ_c = 150
 γ_s = 75
 n = 10
 E_c = 4.03 x 10⁶ psi - non-comp
 E_s = 29,000,000 psi - comp

TOTAL BILL OF MATERIAL

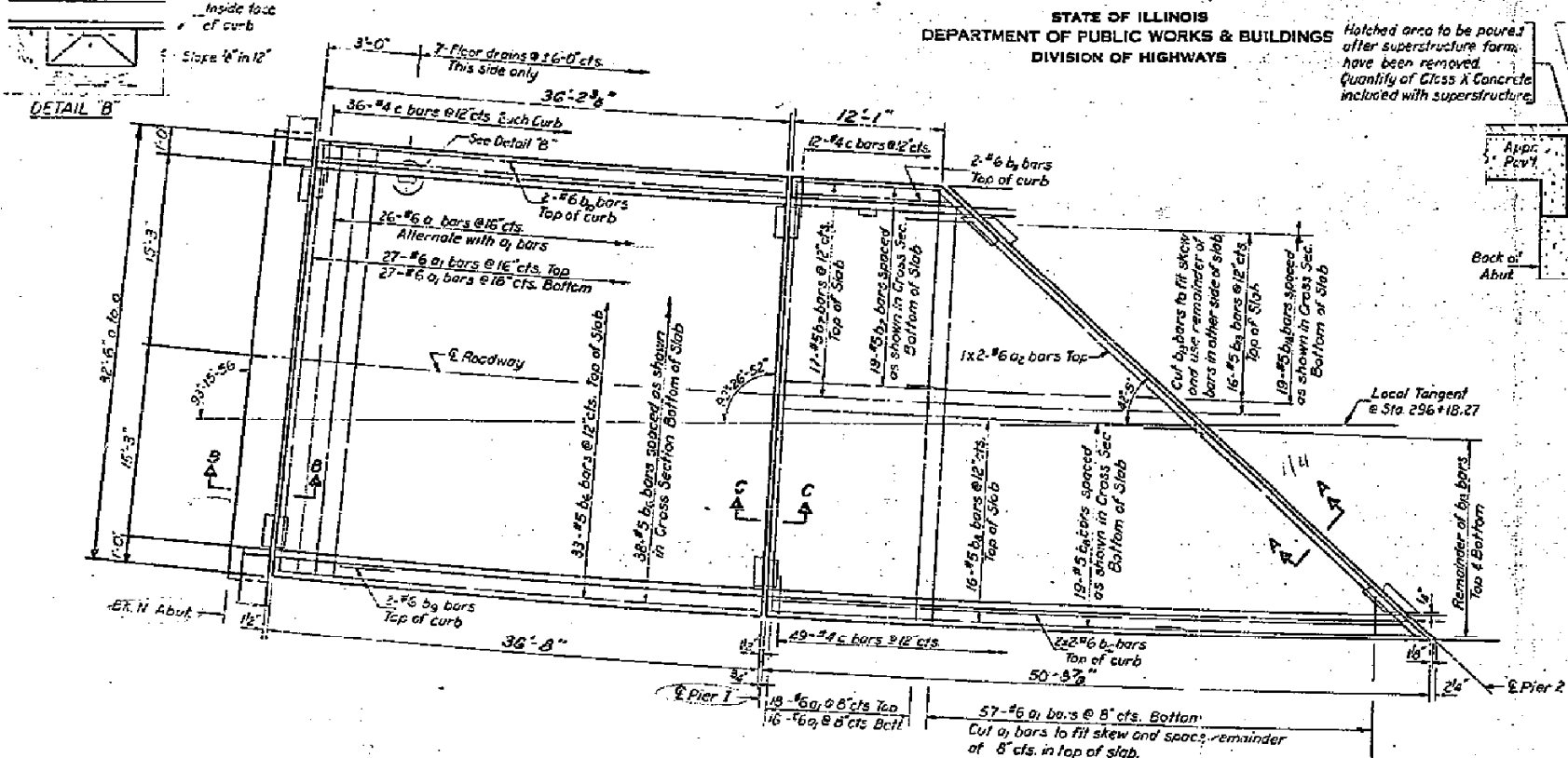
Item	Unit	Super.	Sub.	Total
Removal of Existing Superstructures	Each	1	1	1
Concrete Removal	Cu. Yds.	253	253	253
Protective Coat	Sq. Yds.	249	249	249
Class X Concrete	Cu. Yds.	253	253	253
Structural Steel	Lump Sum	L.S.	252.0	252.0
Stud Shear Connectors	Each	765	765	765
Steel Rolling (Type N)	Lin. Ft.	281	281	281
Reinforcement Bars	Lbs.	136,710	26,630	163,340
Name Plates	Each	1	1	1
Slope Wall (6")	Sq. Yds.	330	330	330
Slope Wall (6")	Sq. Yds.	220	220	220
Preformed Joint Sealer	Lin. Ft.	65	65	65
Bridge Seal Sealer	Lump Sum	L.S.	L.S.	L.S.
Cool Tor Interlayer Protective Coat	Sq. Yds.	2175	2175	2175
Class X Concrete Surf. Cse. Class 2	Sq. Yds.	176	176	176
Facilities and Equipment for Pier Repair	Lump Sum	L.S.	L.S.	L.S.



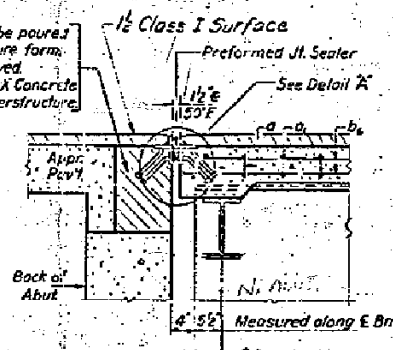
DESIGNED: Wei, H. June 3, 1970
 CHECKED: [Signature] EXAMINED: [Signature]
 DRAWN: J.F. APPROVED: [Signature]
 CHECKED: K.F.

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

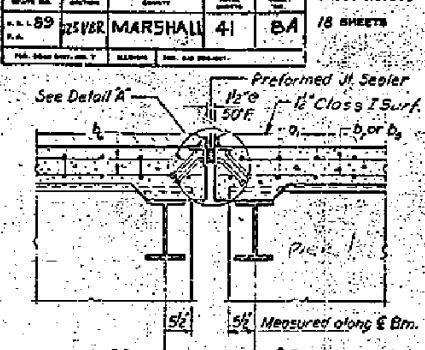
SHEET NO. 2 A			
89	25VBR	MARSHALL	41 BA
			18 SHEETS



Hatched area to be poured after superstructure form have been removed. Quantity of Class X Concrete included with superstructure.

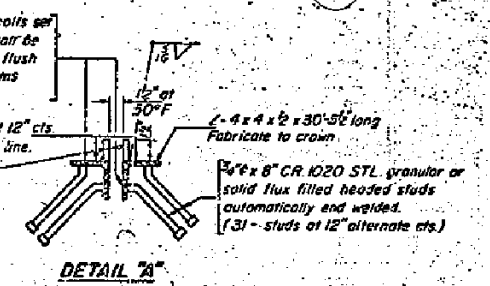


SECTION B-B



SECTION C-C

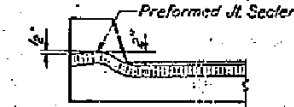
7/8" holes at 12" cts for 3/4" bolts set on 2" gage line. All bolts shall be burned, sawed or clipped off flush with back of angles after forms are removed.



DETAIL 7a

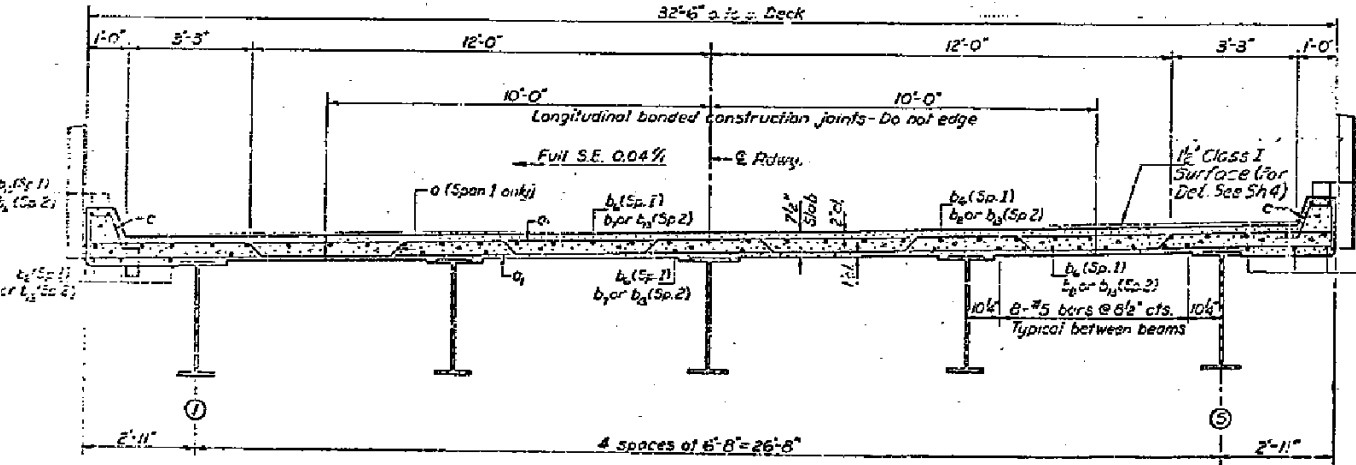
PLAN - SPANS 1 & 2

NOTE: See Sheet #3 for Section A-A



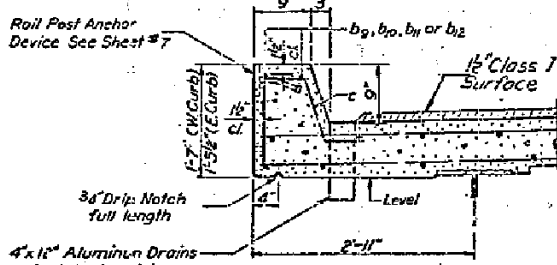
TYPICAL END OF SEALER TREATMENT

NOTE: The 4x4x2 angle with 7/8" bolt holes in the vertical leg shall be placed on the span where the concrete slab is to be poured first.



CROSS SECTION

Note: All horizontal dimensions are radial.

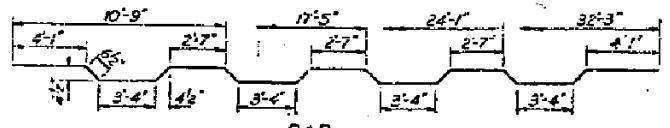


CURB SECTION

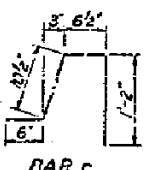
Slope Cl. I Surf. for drainage @ drain locations only.

DESIGNED	EXAMINED
CHECKED	PASSED
DRAWN	APPROVED
CHECKED	

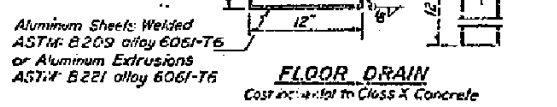
DATE	7/25/2013
DESIGNED	
REVISION	
REVISION	
REVISION	
REVISION	



BAR a



BAR c



FLOOR DRAIN

Aluminum Sheets: Welded ASTM: B 209 alloy 6061-T6 or Aluminum Extrusions ASTM: B 221 alloy 6061-T6

BILL OF MATERIAL			
Bar	No.	Size	Length/Shape
a	26	#6	33'-7"
a1	147	#6	32'-3"
a2	2	#6	26'-9"
b6	71	#5	35'-6"
b7	36	#5	11'-3"
b8	35	#5	30'-9"
b9	2	#6	36'-0"
b10	2	#6	35'-6"
b11	2	#6	11'-3"
b12	4	#6	25'-9"
b13	35	#5	22'-0"
c	133	#4	3'-1" J
Class X Concrete		Cu Yr/s	587
Reinforcement Bars		Lbs	14170

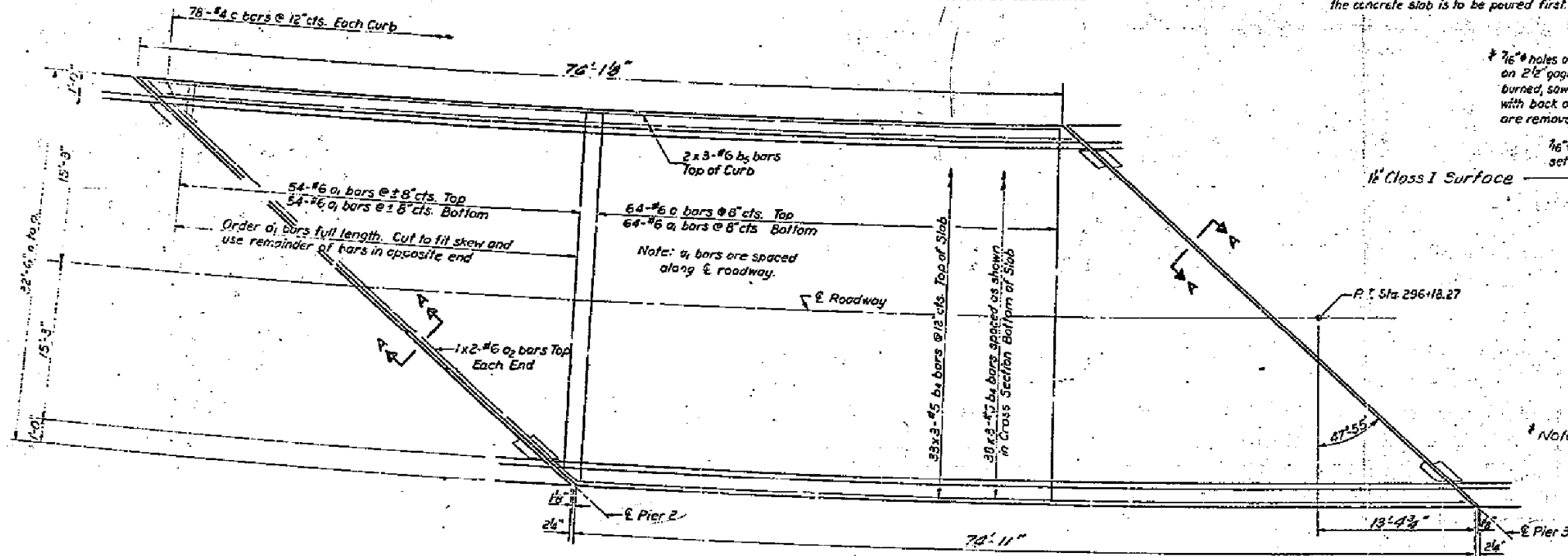
AS REV. G-1-71 W.H.
SPANS 1 & 2
SUPERSTRUCTURE
S.B.I. 89 SEC. 125 VBR
MARSHALL COUNTY
STA. 295+98.76

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

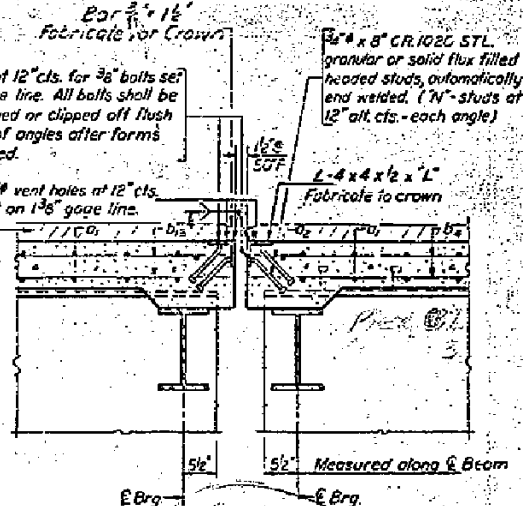
PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
25768	MARSHALL 41	9A	16

NOTE: The 4x4x1/2 angle with 7/8" bolt holes in the vertical leg shall be placed on the span where the concrete slab is to be poured first.

NOTE: Size indicated thus 20x3-#8 etc. indicates 20 lines of bars with 3 lengths per line. Min. surface = 14 dia



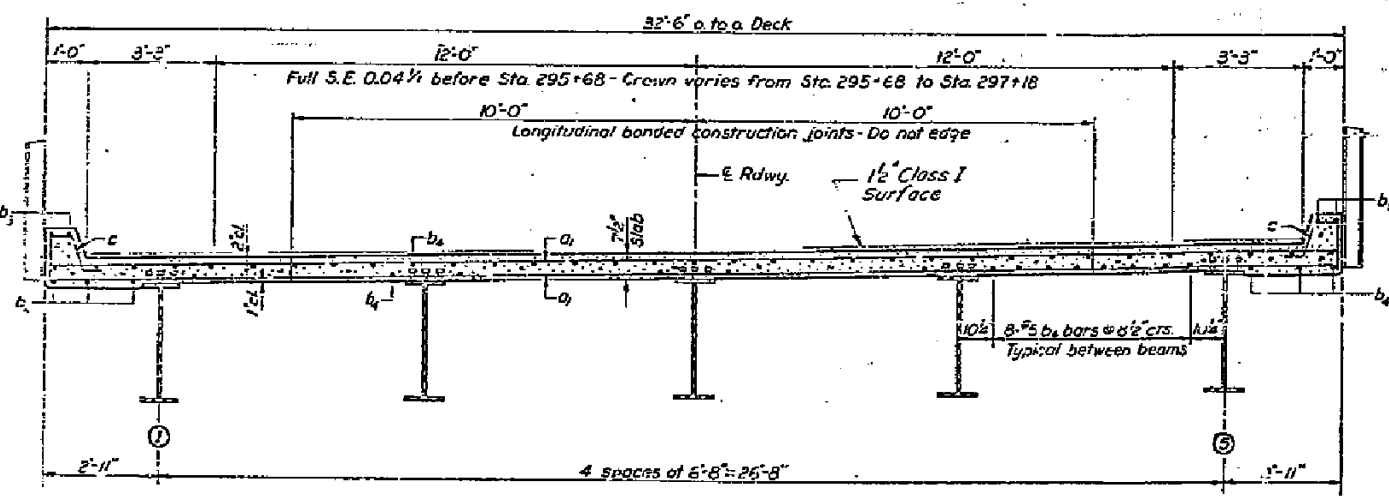
PLAN - SPAN 3



SECTION A-A

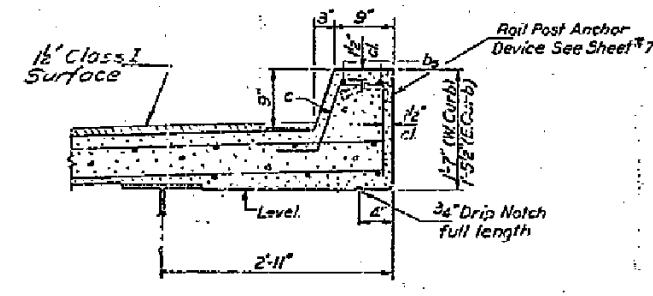
Note: The 4x4x1/2 angle with 7/8" bolt holes in the vertical leg shall be placed on the span where the concrete slab is to be poured first.

	VALUE OF "I" IN	
	"C"	"N"
Pier 2	48'-10 1/4"	49
Pier 3	45'-6 1/4"	46
Pier 4	30'-5 1/2"	31
Pier 8	30'-5 1/2"	31
So. Abut.	30'-5 1/2"	31



CROSS SECTION

Note: All horizontal dimensions are radial



CURB SECTION

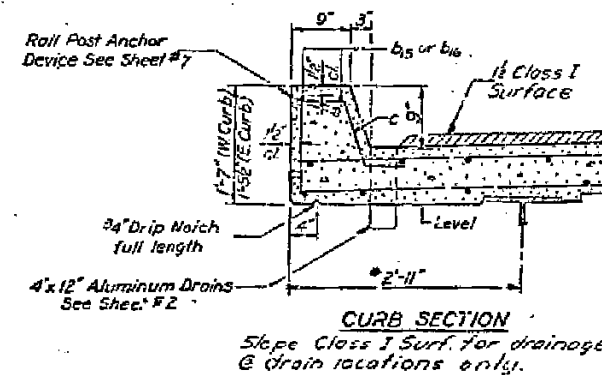
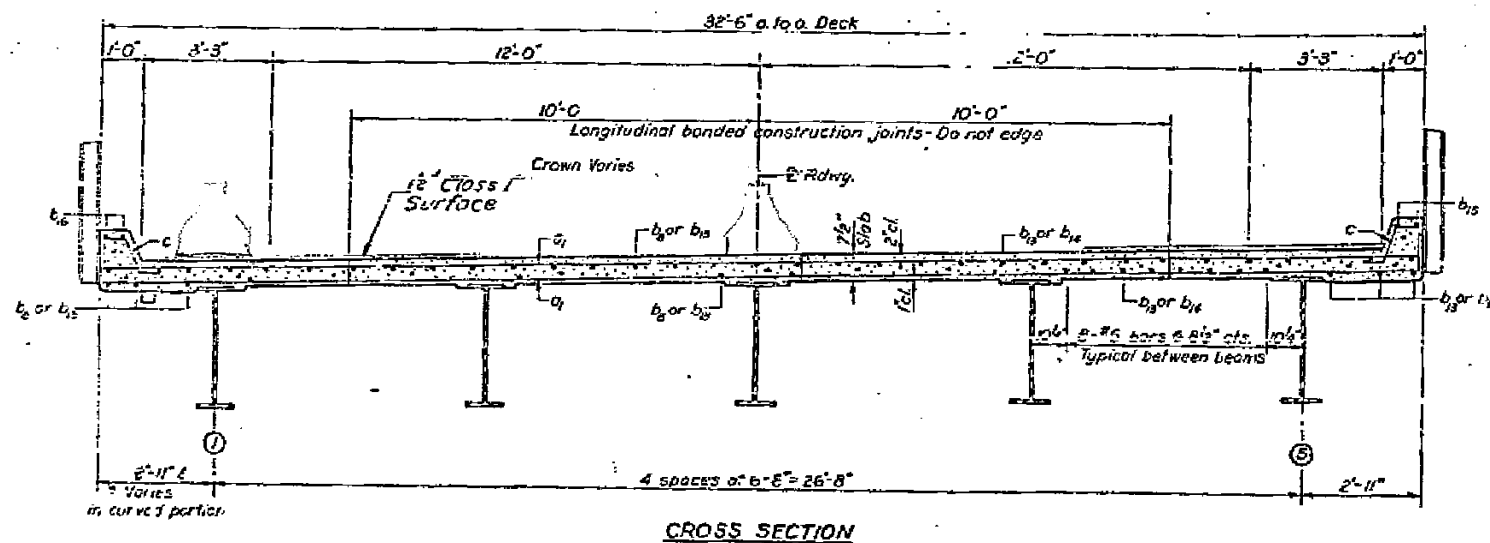
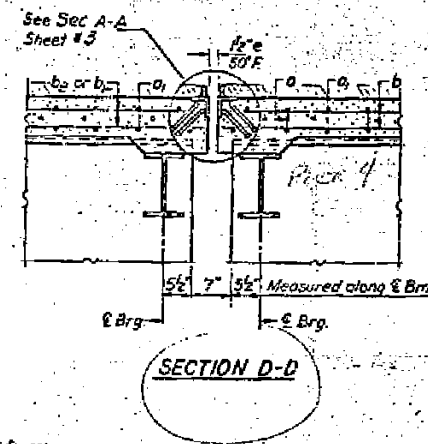
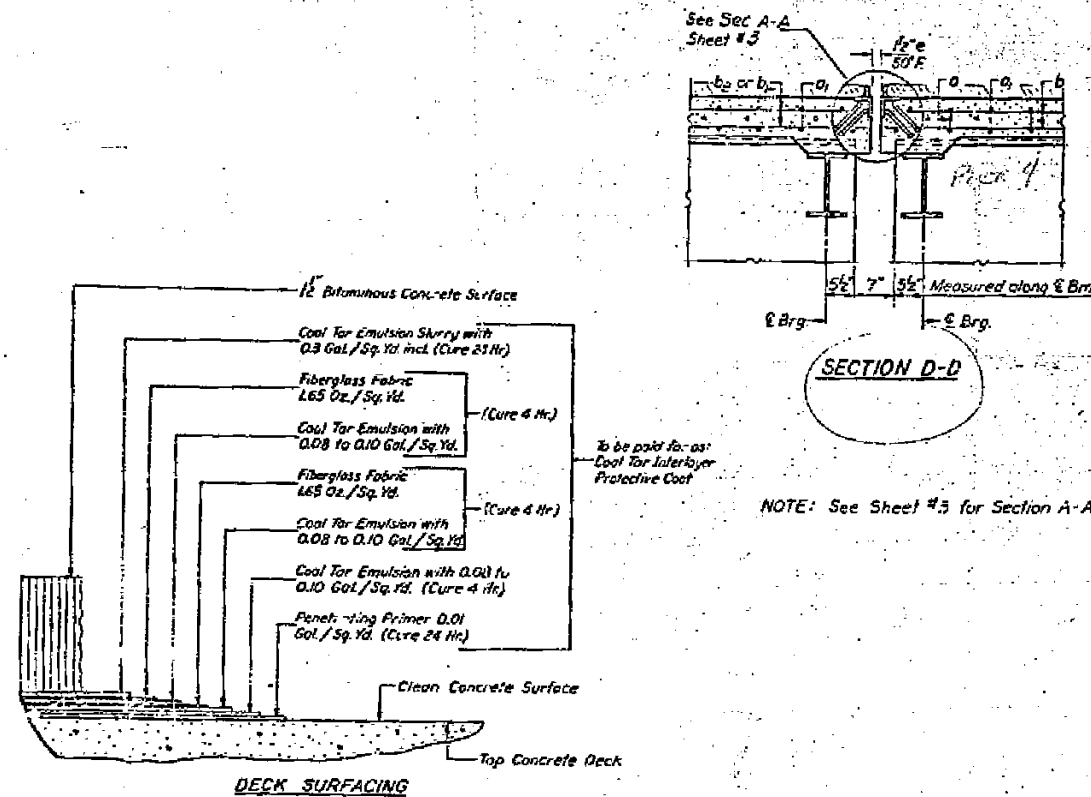
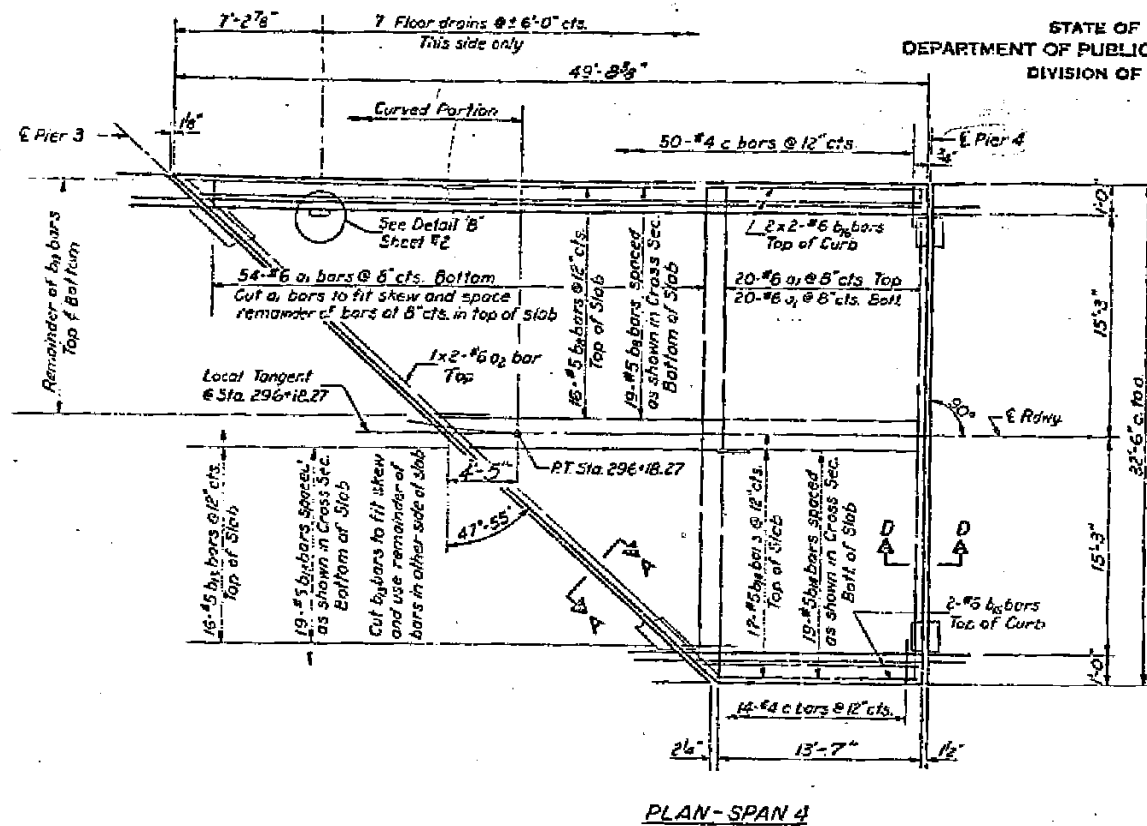
BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
a1	296	#6	32'-3"	
a2	4	#6	26'-9"	
b1	213	#5	26'-3"	
b2	12	#6	26'-6"	
c	156	#4	3'-1"	
Class I Concrete			Cu Yds.	66.1
Reinforcement Bars			Lbs.	16280

DESIGNED	John H. ...	EXAMINED	June 3 1970
DRAWN	J.L. ...	PASSED	
CHECKED	L.F.	APPROVED	

AS REV. 6-1-71 WH
SPAN 3
SUPERSTRUCTURE
S.B.I. RT. 89 SEC. 125 VBR
MARSHALL COUNTY
STA. 295+98.76

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

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
125VBR	41	IOA	18	4A



BILL OF MATERIAL

Bar	No.	Size	Length	Shape	
a1	94	#6	32'-3"		
a2	2	#6	26'-0"		
b1	35	#5	30'-9"		
b2	35	#5	22'-0"		
b3	36	#5	12'-9"		
b4	2	#6	12'-9"		
b5	4	#6	25'-3"		
c	64	#4	3'-1"	J	
Class X Concrete				Cu. Yds.	25.6
Reinforcement Bars				Lbs.	7360

AS REV. 6-1-71 W.H.
SPAN 4
SUPERSTRUCTURE
S.B.I. RT. 89 SEC. 125 VBR
MARSHALL COUNTY
STA. 295+98.76

DESIGNED	<i>J. L. Krueger</i>	EXAMINED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>	PASSED	
DRAWN	<i>J. L. Krueger</i>	APPROVED	
CHECKED	<i>L. F.</i>		

* 2'-11" min. \pm 3'-0" @ E Brg. Pier 3

FILE NAME =	USER NAME = jdeen	DESIGNED -	REVISED -
v:\transportation\3013\cadd\sheet\06220086-68580-106-EXISTING PLANS.dgn		DRAWN -	REVISED -
PLOT SCALE = 20.0000 / / IN.		CHECKED -	REVISED -
PLOT DATE = 7/25/2013		DATE - JULY 24, 2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS
FOR INFORMATION ONLY

SCALE: SHEET NO. 13 OF 27 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
698	(125VBR)BR	MARSHALL	148	100
CONTRACT NO. 68580				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				