

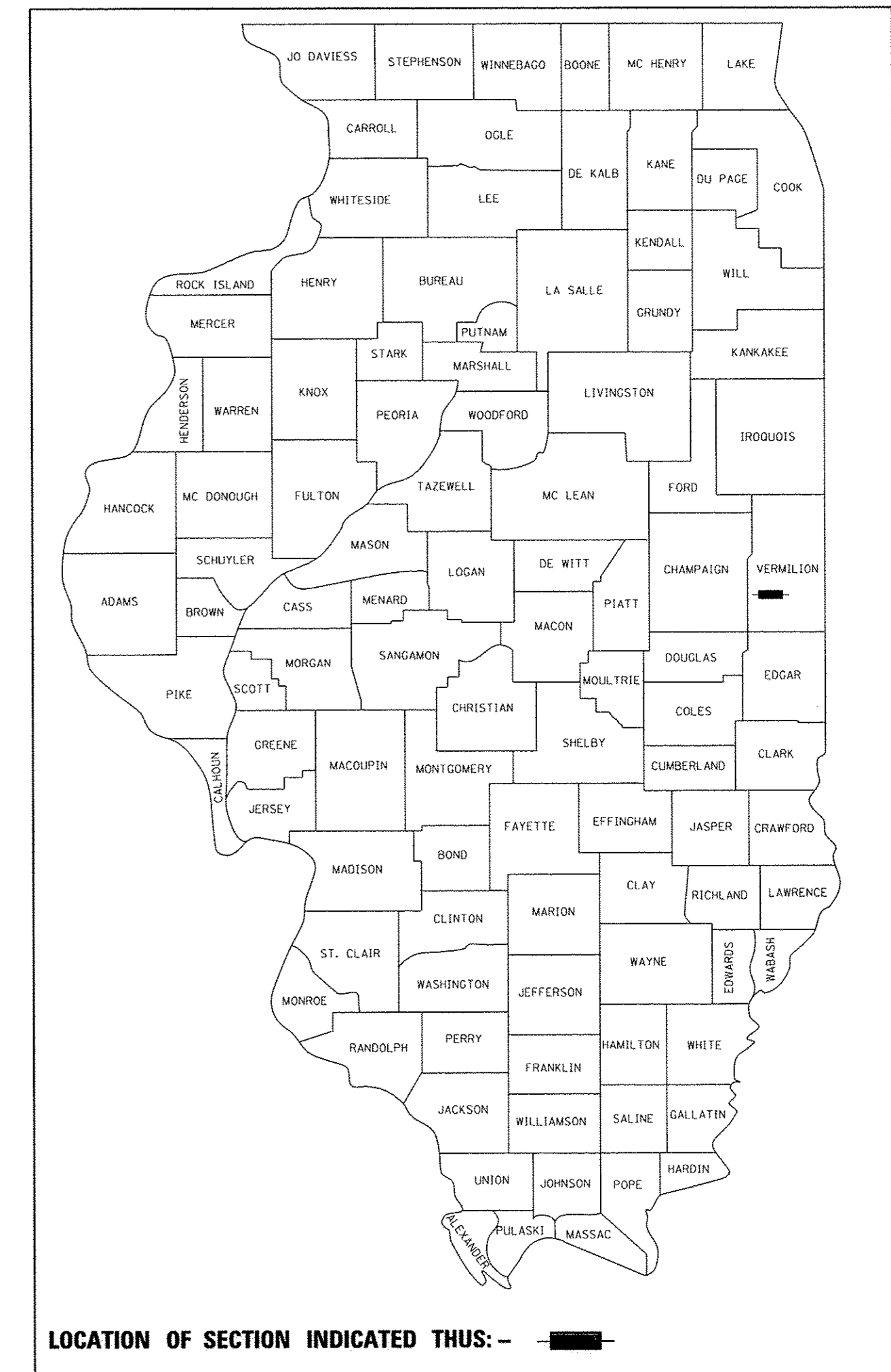
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 512	10-00174-00-BR	VERMILION	57	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91547		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PLANS FOR PROPOSED  
SURFACE TRANSPORTATION PROGRAM – BRIDGE**

**PROJECT BRS-0512(111)  
SECTION 10-00174-00-BR  
VERMILION COUNTY  
F.A.S. 512 / C.H. 8  
EXISTING STRUCTURE NO. 092-0091  
C-95-303-17**

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES AND HIGHWAY STANDARDS
3.	SUMMARY OF QUANTITIES
4.	TYPICAL CROSS SECTIONS
5.-6.	SCHEDULE OF QUANTITIES
7.	PLAN AND PROFILE
8.	STAGE 1 PLAN
9.	STAGE 2 PLAN
10.	SHOULDER AND GUARDRAIL PLAN
11.	PAVEMENT MARKING PLAN
12.	ROADWAY DETAILS
13.-41.	BRIDGE PLANS
42.-57.	STATION CROSS SECTIONS



**UTILITIES**

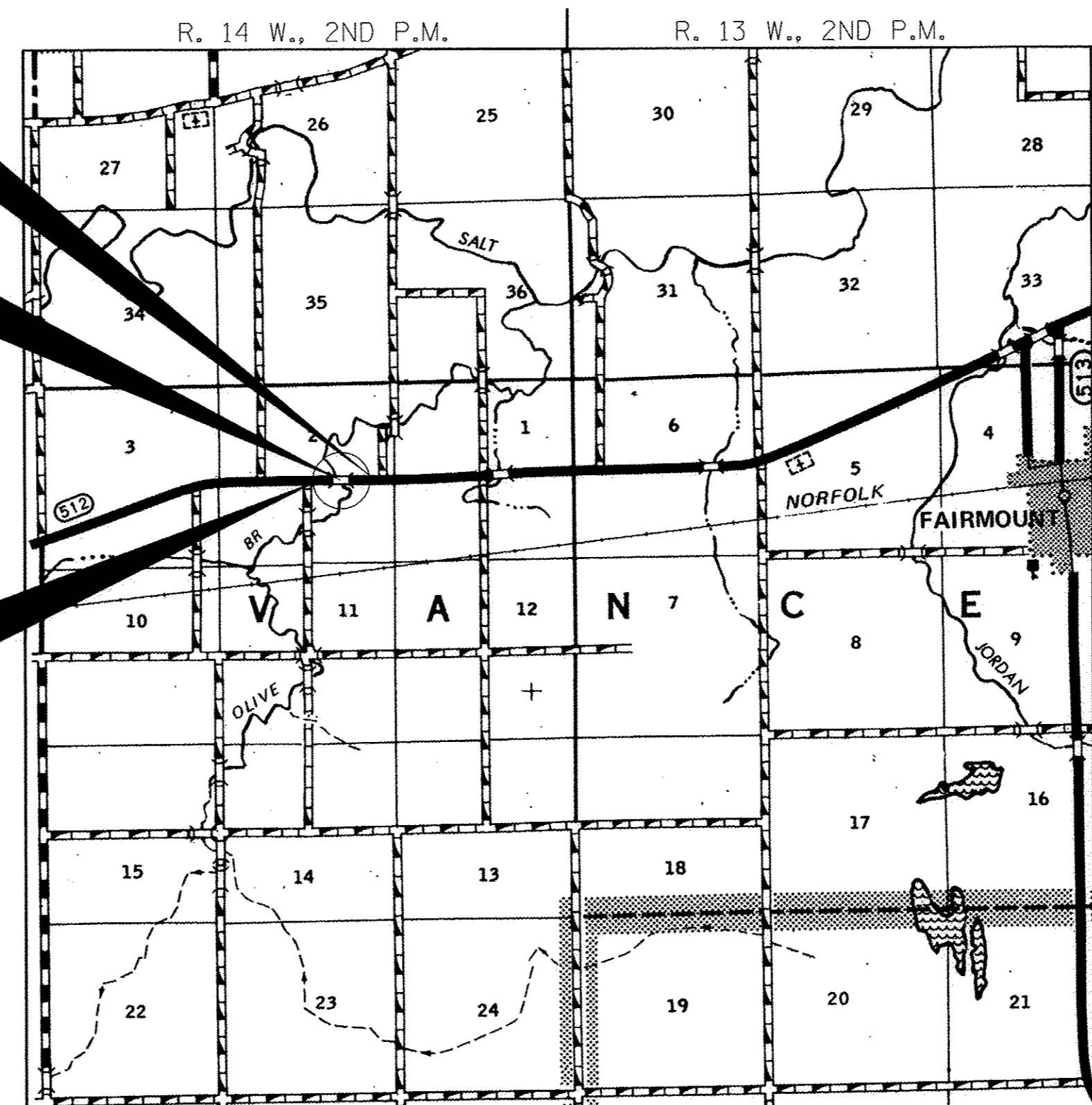
AMEREN ILLINOIS  
1155 E VOORHEES ST  
DANVILLE, IL 61832  
ATTN: TYLER RODEFER  
217-431-9726

FRONTIER COMMUNICATIONS  
109 E. MARKET STREET, 2ND FLOOR NORTH  
BLOOMINGTON, IL 61701  
ATTN: GREGORY CURTIS  
309-557-1377

STA. 96+18  
SUPERSTRUCTURE REPLACEMENT. STEEL WIDE  
FLANGE BEAMS WITH REINFORCED CONCRETE DECK  
THREE SPANS @ 37'-3", 43'-6", 37'-3"  
32'-0" RDWY.; SKEW = 25°  
EXISTING STRUCTURE NO. 092-0091

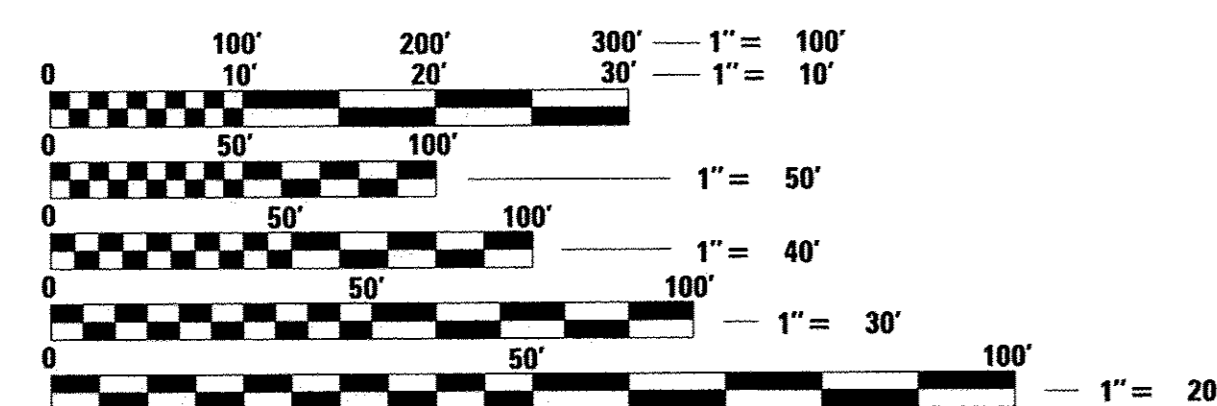
IMPROVEMENT ENDS  
STATION 98+50

IMPROVEMENT BEGINS  
STATION 93+50



**LOCATION MAP**

APPROXIMATE SCALE: 0 1 MILE  
NET LENGTH OF SECTION = 500 FEET = 0.095 MILES



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.

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (NON-URBAN)  
DESIGN SPEED: 50 MPH  
DESIGN TRAFFIC: 1450 ADT (2017)

**CONTRACT NO. 91547 PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS**



**WARNING**

**CALL 811  
BEFORE YOU DIG  
DIG NO: X3071555**

**ILLINOIS DEPARTMENT OF TRANSPORTATION**

APPROVED *January 4, 2017*  
*Douglas R. Stamba*  
COUNTY ENGINEER

---

PASSED *January 6, 2017*  
*B. K. Z...*  
DISTRICT FIVE ENGINEER OF  
LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review *January 6, 2017*  
*Douglas R. Stamba*  
REGION THREE ENGINEER

DATE: 12/15/2016

EXPIRES: 11/30/2017

**HAMPTON, LENZINI AND RENWICK, INC.**  
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
217.546.3400 www.hlrengineering.com

184.000959  
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

PROJECT NUMBER: 16.0489.130 DATE: 12/15/16

**GENERAL NOTES**

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED APRIL 1, 2016," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
2. THE REVISION NUMBERS OF THE STANDARDS LISTED IN THE PLANS ARE TO BE USED FOR CONSTRUCTING OF THIS SECTION.
3. THE LOCATION OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
4. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
5. THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:
 

HOT MIX ASPHALT	112 LBS/SQ.YD./INCH OF THICKNESS
ALL AGGREGATE	2.05 TONS/CU.YD.
BITUMINOUS MATERIALS:	
ON PAVEMENT (TACK COAT)	0.05 LB./SQ.FT.
INTERMEDIATE LIFTS (TACK COAT)	0.025 LB./SQ.FT.
ON AGGREGATE BASE (PRIME COAT)	0.25 LB./SQ.FT.
6. WHEN WIDENING FLEXIBLE BASE PAVEMENT, THE CONTRACTOR SHALL TRIM EXISTING SURFACE AND BASE TO A FIRM, NEAR VERTICAL PLANE BEFORE CONSTRUCTING THE WIDENING. THE COST OF THIS REQUIREMENT IS INCLUDED IN THE UNIT PRICE BID FOR THE BASE COURSE WIDENING.
7. ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OFF OR COVERED.
8. THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY OR AS DIRECTED BY THE ENGINEER.
 

**SEEDING, CLASS 2 (SPECIAL) = 0.25 ACRES**
9. NO IN-STREAM WORK IS PERMITTED DURING THE CONSTRUCTION.
10. COMMITMENTS:
 

NONE AS OF 12/5/16

**HIGHWAY STANDARDS**

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-03 NAME PLATE FOR BRIDGES
- 630001-11 STEEL PLATE BEAM GUARDRAIL
- 630201-07 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-07 SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
- 631032-09 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5M) AWAY
- 701006-05 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5M) TO 24" (600 MM) FROM PAVEMENT EDGE
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701306-03 LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS > 45 MPH
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
- 701321-16 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701326-04 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
- 701901-06 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 725001-01 OBJECT AND TERMINAL MARKERS
- 780001-05 TYPICAL PAVEMENT MARKINGS
- 781001-04 TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
- 782006 GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
- BLR 21-9 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

FILE NAME = 160489-sht-notes.dgn	USER NAME = #USER#	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>GENERAL NOTES AND HIGHWAY STANDARDS</b>	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> <small>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000958</small>	PLOT SCALE = #SCALE#	DRAWN - R.D.H.	REVISED -			512	10-00174-00-BR	VERMILION	57	2	
PLOT DATE = 1/4/2017	DATE - 12/15/16	CHECKED - S.W.M.	REVISED -			HOMER-CATLIN ROAD		CONTRACT NO. 91547			
SCALE:						SHEET NO. 1 OF 1 SHEETS		STA.		TO STA.	
<small>ILLINOIS FED. AID PROJECT BRS-0512(111)</small>											

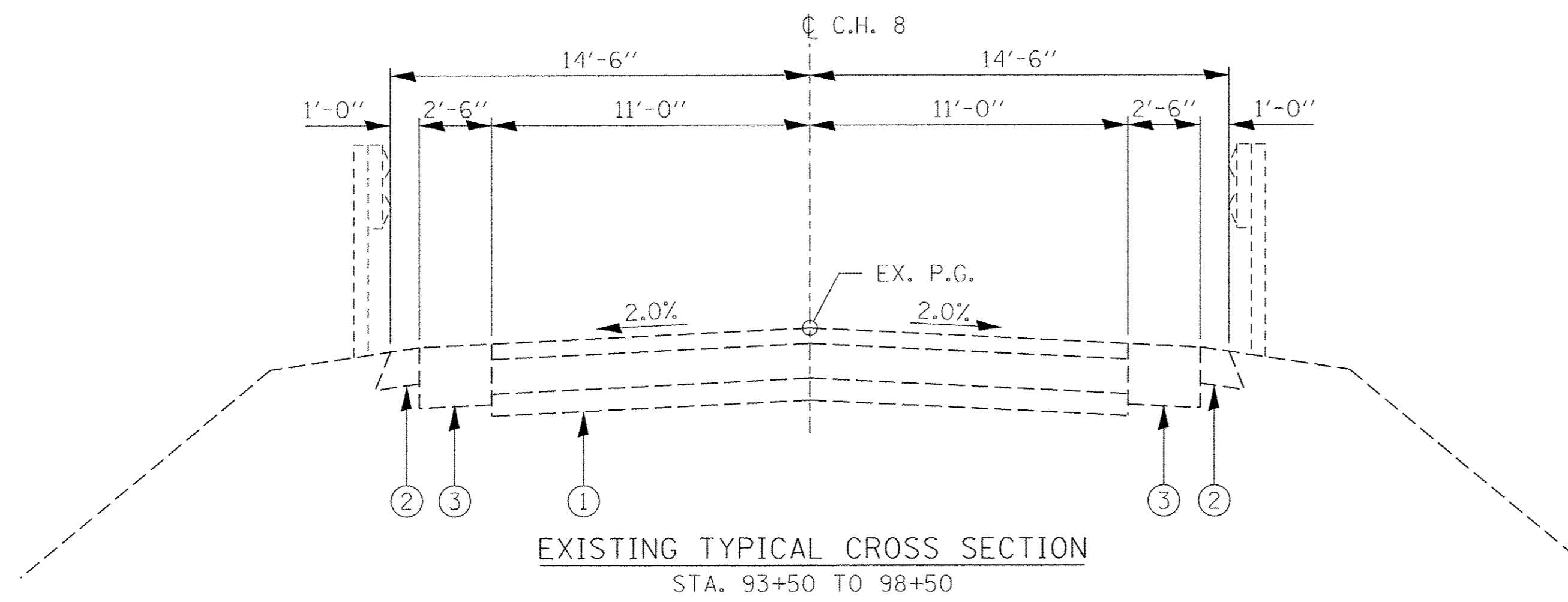
SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0014	
		UNIT	FUNDING STP 80% FEDERAL 20% STATE
A	20200100 EARTH EXCAVATION	CU YD	114
	20400800 FURNISHED EXCAVATION	CU YD	58
	25100630 EROSION CONTROL BLANKET	SQ YD	915
	28000400 PERIMETER EROSION BARRIER	FOOT	732
	31100910 SUBBASE GRANULAR MATERIAL, TYPE A 12"	SQ YD	172
	35101400 AGGREGATE BASE COURSE, TYPE B	TON	41
	35600702 HOT-MIX ASPHALT BASE COURSE WIDENING, 6 1/2"	SQ YD	77
	40600275 BITUMINOUS MATERIALS (PRIME COAT)	POUND	623
	40600290 BITUMINOUS MATERIALS (TACK COAT)	POUND	879
A	40600627 LEVELING BINDER (MACHINE METHOD), IL-9.5FG, N50	TON	76
	40600982 HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	358
	40600990 TEMPORARY RAMP	SQ YD	167
	40603310 HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	78
	40800050 INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	16
	48203029 HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	227
A	50101500 REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
	50102400 CONCRETE REMOVAL	CU YD	5.6
	50300225 CONCRETE STRUCTURES	CU YD	10.3
	50300255 CONCRETE SUPERSTRUCTURE	CU YD	107.4
	50300260 BRIDGE DECK GROOVING	SQ YD	399
	50300300 PROTECTIVE COAT	SQ YD	471
	50500105 FURNISHING AND ERECTING STRUCTURAL STEEL	LSUM	1
	50500505 STUD SHEAR CONNECTORS	EACH	3,942
	50800205 REINFORCEMENT BARS, EPOXY COATED	POUND	29,390
	50800515 BAR SPLICERS	EACH	374
*	50901050 STEEL RAILING, TYPE SM	FOOT	241
	51500100 NAME PLATES	EACH	1
	52000110 PREFORMED JOINT STRIP SEAL	FOOT	72
	52100010 ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18
	52100520 ANCHOR BOLTS, 1"	EACH	48
A	SEE SPECIAL PROVISIONS		

SUMMARY OF QUANTITIES			
CODE NO.	ITEM	CONSTRUCTION TYPE CODE 0014	
		UNIT	FUNDING STP 80% FEDERAL 20% STATE
	58700300 CONCRETE SEALER	SQ FT	168
*	63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	50
*	63100045 TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2
*	63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
*	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3
*	63200310 GUARDRAIL REMOVAL	FOOT	308
	67100100 MOBILIZATION	LSUM	1
	70100405 TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
	70100450 TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1
	70100460 TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1
	70100500 TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LSUM	1
*	70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
A	70106800 CHANGEABLE MESSAGE SIGN	CAL MO	2
	70300100 SHORT TERM PAVEMENT MARKING	FOOT	112
	70300150 SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	37
	70300220 TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1,588
	70400100 TEMPORARY CONCRETE BARRIER	FOOT	375
	70400200 RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	325
	70600250 IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
	70600350 IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
*	72501000 TERMINAL MARKER - DIRECT APPLIED	EACH	4
*	78001110 PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,588
*	78100100 RAISED REFLECTIVE PAVEMENT MARKER	EACH	7
*	78200005 GUARDRAIL REFLECTORS, TYPE A	EACH	4
*	78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	7
*	86200300 UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
	X0327980 PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1,013
A	X2501000 SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25
* A	X6330725 STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	12.5
A	Z0012754 STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	198
A	Z0013798 CONSTRUCTION LAYOUT	LSUM	1
A	SEE SPECIAL PROVISIONS		
*	SPECIALTY ITEMS		

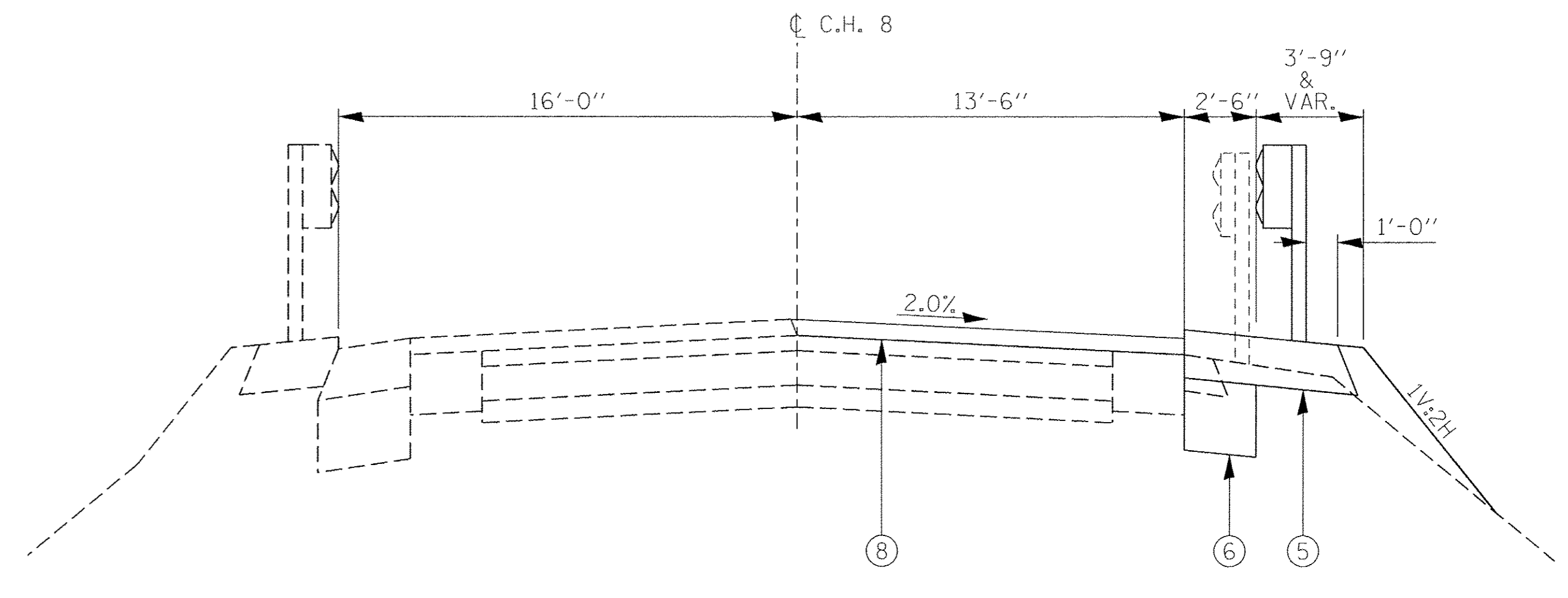
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HAMPTON, LENZINI AND RENWICK, INC. 3055 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 194-000959	PLOT SCALE = #SCALE#	DRAWN - R.D.H.	REVISED -
	PLOT DATE = 1/4/2017	CHECKED - S.W.M.	REVISED -
		DATE - 12/15/16	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

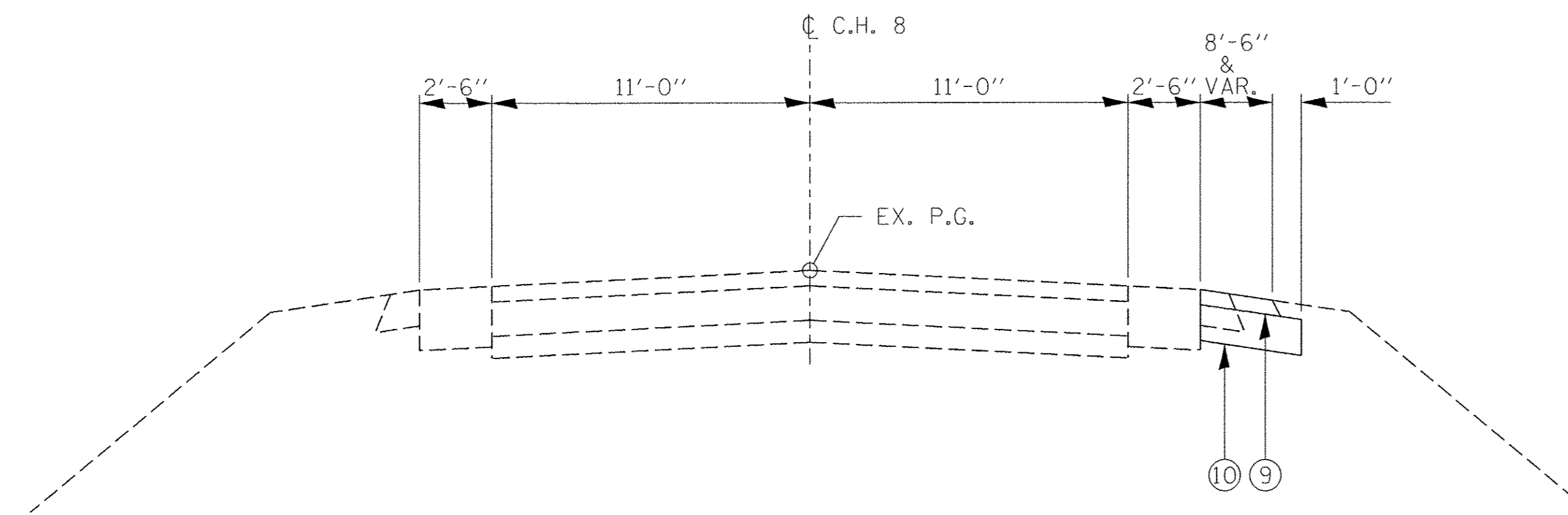
SCALE:		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		SUMMARY OF QUANTITIES		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
								512	10-00174-00-BR	VERMILION	57	3
								HOMER-CATLIN ROAD		CONTRACT NO. 91547		
								ILLINOIS		FED. AID PROJECT BRS-0512(111)		



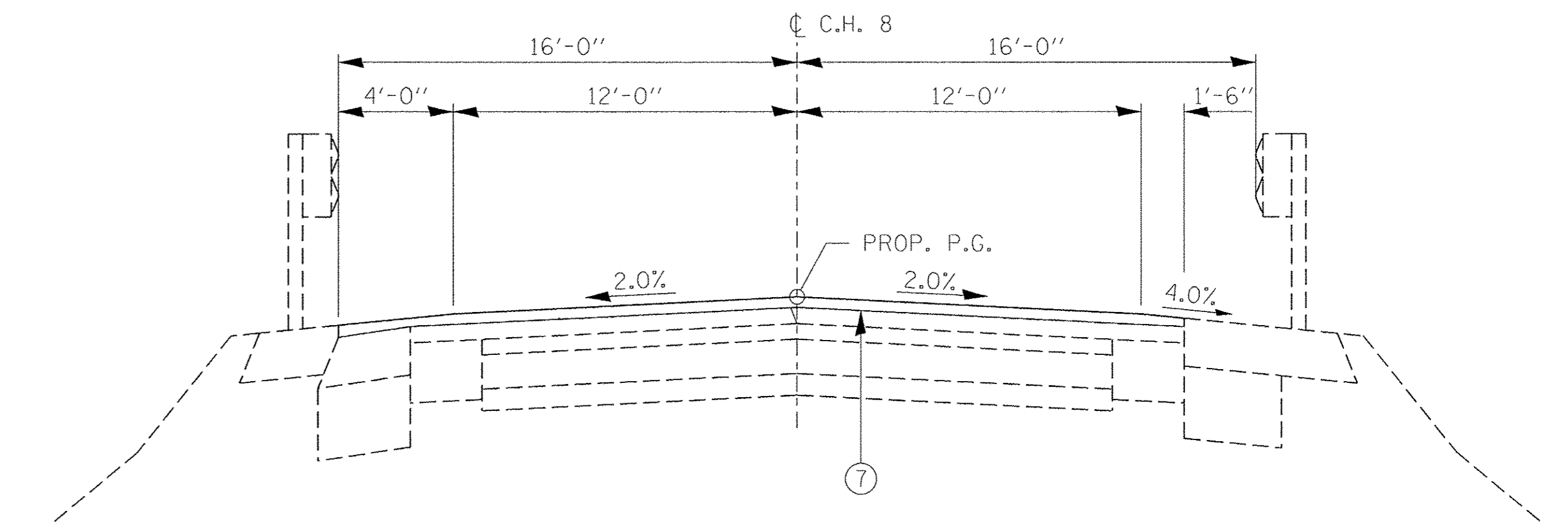
EXISTING TYPICAL CROSS SECTION  
STA. 93+50 TO 98+50



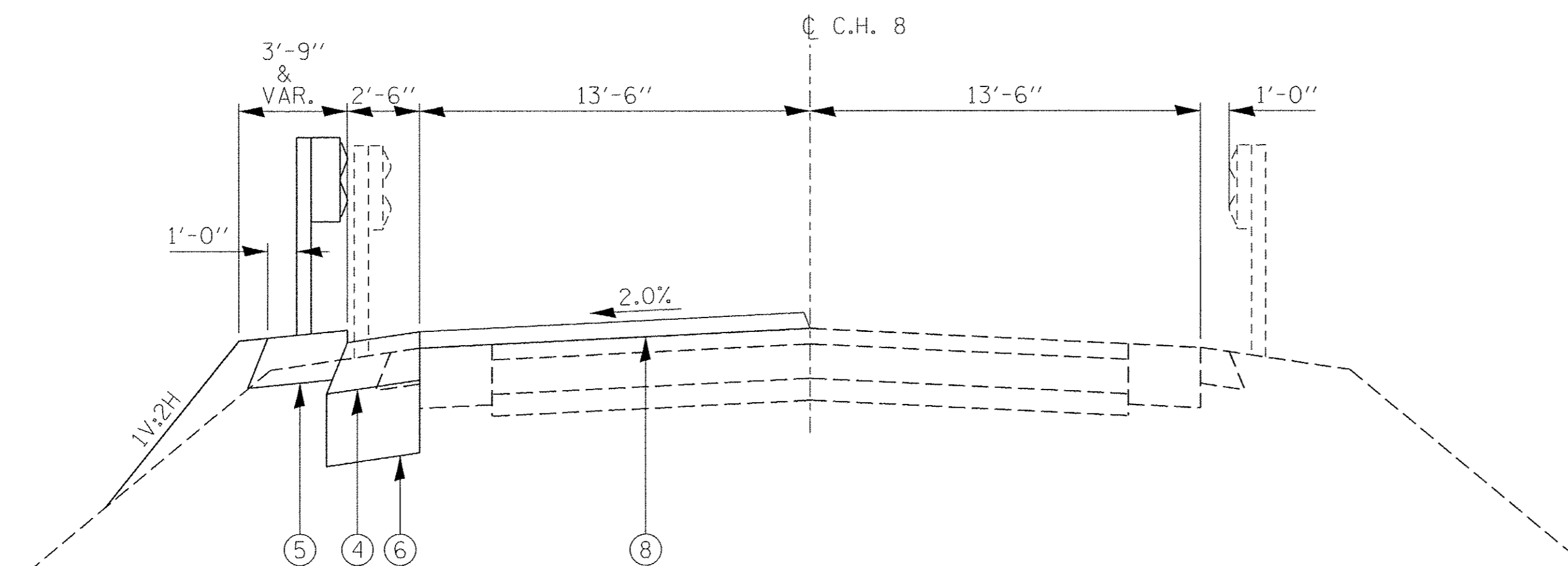
STAGE 2 PROPOSED TYPICAL CROSS SECTION  
STA. 94+50 TO 95+56.92  
STA. 96+79.08 TO 98+50



STAGE 1 PROPOSED TYPICAL CROSS SECTION  
STA. 93+50 TO 94+75



FINAL PROPOSED TYPICAL CROSS SECTION  
STA. 94+50 TO 95+56.92  
STA. 96+79.08 TO 98+50



STAGE 1 PROPOSED TYPICAL CROSS SECTION  
STA. 94+50 TO 95+56.92 &  
STA. 96+79.08 TO 98+50

HMA MIXTURE REQUIREMENTS

MIXTURE USE(S):	HMA BASE COURSE WIDENING	HMA SURFACE COURSE MIX "C", N50	LEVELING BINDER (MACHINE METHOD) IL-9.5FG,N50	HMA SHOULDERS (LOWER LIFT)	HMA SHOULDERS (TOP LIFT)
PG:	PG 64-22	PG 64-22	PG 64-22	PG 64-22	PG 64-22
DESIGN AIR VOIDS:	4% @ Ndes 50	4% @ Ndes 50	4% @ Ndes 50	4% @ Ndes 50	4% @ Ndes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 19.0	IL 9.5	IL 9.5 F.G.	IL 19.0	IL 9.5
FRICTION AGGREGATE:	NONE	MIXTURE C	MIXTURE C	NONE	MIXTURE C
MIXTURE WEIGHTS:	112 LBS\SY\INCH THICKNESS	112 LBS\SY\INCH THICKNESS	112 LBS\SY\INCH THICKNESS	112 LBS\SY\INCH THICKNESS	112 LBS\SY\INCH THICKNESS
QUALITY CONTROL PROGRAM:	QC/QA	QC/QA	QC/QA	QC/QA	QC/QA

LEGEND

- ① EXISTING PCC PAVEMENT (8") WITH AGG. BASE (4") AND HMA OVERLAY ( $\pm 2\frac{1}{2}$ ")
- ② EXISTING AGGREGATE SHOULDER
- ③ EXISTING HMA WIDENING (8")
- ④ HMA BASE COURSE WIDENING, ( $6\frac{1}{2}$ ")
- ⑤ PROPOSED HMA SHOULDER (8")
- ⑥ SUBBASE GRANULAR MATERIAL, TYPE A (12")
- ⑦ HMA SURFACE COURSE, MIX "C", N50 ( $1\frac{1}{2}$ ")
- ⑧ HMA LEVELING BINDER (MACHINE METHOD), IL-19.5 FG, N50 ( $\frac{3}{4}$ " MIN.)
- ⑨ INCIDENTAL HMA SURFACING ( $2\frac{1}{2}$ ")
- ⑩ AGGREGATE BASE COURSE, TYPE B (6")

FILE NAME = 160489-sh1-tpsections.dgn	USER NAME = #USER#	DESIGNED - L.A.P.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62709 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000999		DRAWN - T.W.K.	REVISED -
	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -
	PLOT DATE = 12/20/2016	DATE - 12/15/16	REVISED -

STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT

TYPICAL CROSS SECTIONS	
SCALE:	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	4
HOMER-CATLIN ROAD			CONTRACT NO. 91547	
[ILLINOIS] FED. AID PROJECT BRS-0512(111)				

ROADWAY SCHEDULE											
LOCATION	SUBBASE GRANULAR MATERIAL TYPE A, 12"	AGGREGATE BASE COURSE TYPE B (6")	HOT-MIX ASPHALT BASE COURSE WIDENING 6 1/2"	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (TACK COAT)	LEVELING BINDER (MACHINE METHOD) IL-9.5FG, N50 (3/4" MIN)	HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT	TEMPORARY RAMP	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50 (1 1/2")	INCIDENTAL HOT-MIX ASPHALT SURFACING	HOT-MIX ASPHALT SHOULDERS 8"
	31100910	35101400	35600702	40600275	40600290	40600627	40600982	40600990	40603310	40800050	48203029
	SQ YD	TON	SQ YD	POUND	POUND	TON	SQ YD	SQ YD	TON	TON	SQ YD
STAGE 1											
LT. STA 94+50 TO STA 95+56.83	34		28	77	87	11		42			32
LT. STA 96+79.08 TO STA 98+50	60		49	135	142	27		42			61
RT. STA 93+50 TO STA 94+75		35		203						12	
STAGE 2											
LT. STA 94+50 TO STA 95+56.83					86		68		16		
LT. STA 96+79.08 TO STA 98+50					137		90		26		
RT. STA 94+50 TO STA 95+56.83	32			85	178	11	110	47	14		57
RT. STA 96+79.08 TO STA 98+50	46			123	249	27	90	36	22		77
ENTRANCE RT. STA 94+79		6								4	
TOTAL	172	41	77	623	879	76	358	167	78	16	227

SEEDING SCHEDULE		
LOCATION	EROSION CONTROL BLANKET	SEEDING CLASS 2 SPECIAL
	25100630	X2501000
	SQ YD	ACRE
LT. STA 94+50 TO STA 95+56.92	145	0.03
LT. STA 96+79.08 TO STA 98+50	593	0.12
RT. STA 93+50 TO STA 95+56.92	89	0.02
RT. STA 96+79.08 TO STA 98+50	88	0.02
TOTAL	915	0.19
USE	915	0.25

EARTHWORK SUMMARY						
LOCATION	EARTH EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	20200100					
	CU YD			CU YD	CU YD	CU YD
STA 93+50 TO STA 95+56.92	45	25.00%	100.00%	34	29	5
STA 96+79.08 TO STA 98+50	69	25.00%	100.00%	52	115	-63
TOTAL	114			86	144	-58

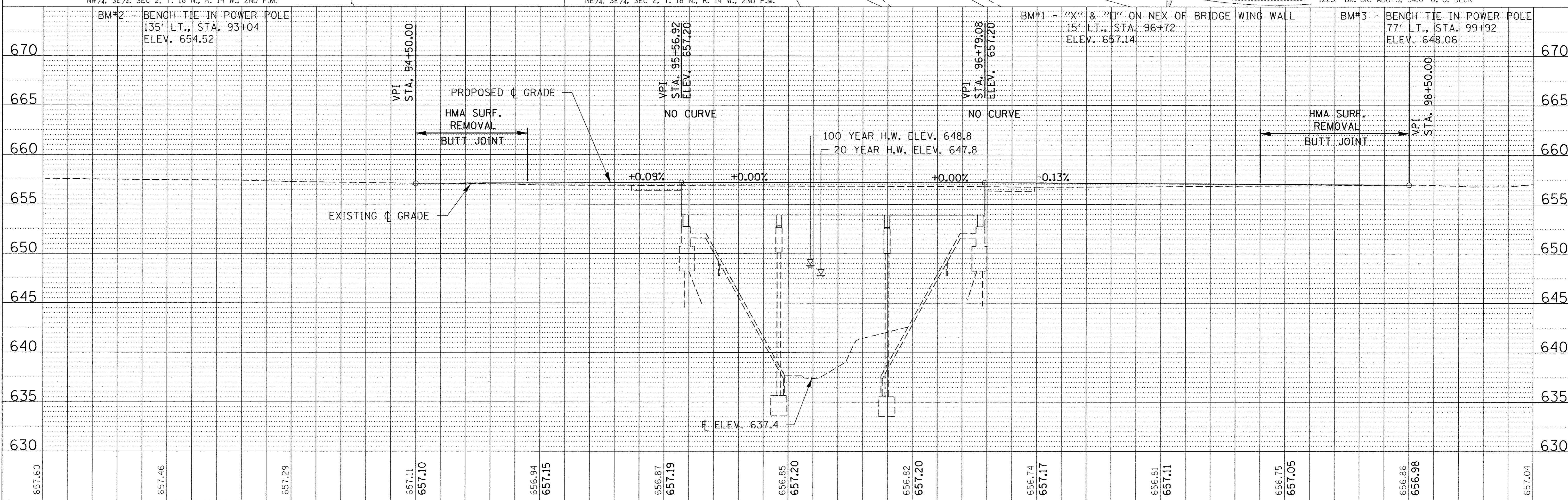
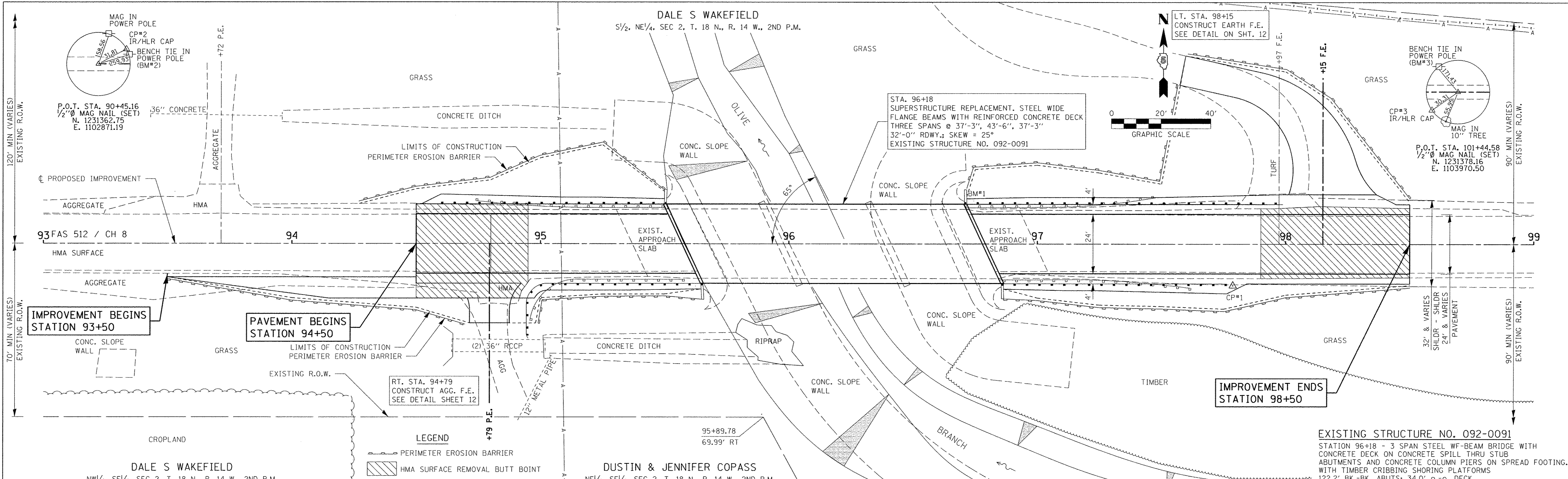
FURNISHED 58 CU YD

STAGING SCHEDULE				
LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	IMPACT ATTENUATORS RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3
	70400100	70400200	70600250	70600350
	FOOT	FOOT	EACH	EACH
STAGE I				
LT. STA 94+20 TO STA 98+05	325		2	
STAGE II				
RT. STA 94+05 TO STA 98+40	50	325		2
TOTAL	375	325	2	2

GUARDRAIL SCHEDULE								
LOCATION	STEEL PLATE BEAM GUARD RAIL TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL TYPE 2	TRAFFIC BARRIER TERMINAL TYPE 6A	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	GUARDRAIL REMOVAL	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REFLECTORS TYPE A	STEEL PLATE BEAM GUARD RAIL (SHORT RADIUS)
	63000001	63100045	63100087	63100167	63200310	72501000	78200005	X6330725
	FOOT	EACH	EACH	EACH	FOOT	EACH	EACH	EACH
LT. STA 94+60.07 TO STA 95+50.50			1	1	77	1	1	
LT. STA 96+70.58 TO STA 97+98.86	37.5		1	1	77	1	1	
RT. STA 94+94.31 TO STA 95+65.41	12.5	2	1		77	1	1	12.5
RT. STA 96+85.50 TO STA 97+78.28			1	1	77	1	1	
TOTAL	50	2	4	3	308	4	4	12.5

PERIMETER EROSION BARRIER	
LOCATION	28000400 FOOT
LT. STA 94+50 TO STA 95+56.92	134
LT. STA 96+79.08 TO STA 98+50	235
RT. STA 93+50 TO STA 95+56.92	198
RT. STA 96+79.08 TO STA 98+50	165
TOTAL	732
USE	732

PAVEMENT MARKING SCHEDULE										
LOCATION	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT LINE 4"		PAINT PAVEMENT MARKING LINE 4"		RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	PAVEMENT MARKING REMOVAL - WATER BLASTING	
			SOLID WHITE EDGE LINE	SKIP-DASH YELLOW CENTERLINE	SOLID WHITE EDGE LINE	SKIP-DASH YELLOW CENTERLINE				
			70300100	70300150	70300220	78001110				78100100
	FOOT	SQ FT	FOOT	FOOT	FOOT	FOOT	EACH	EACH	SQ FT	
STAGE I										
LT. STA 104+58 TO STA 112+94										195
CL. STA 104+58 TO STA 112+94								7		53
RT. STA 104+58 TO STA 112+94										236
STAGE II										
LT. STA 92+71 TO STA 99+80			709		709					236
CL. STA 92+71 TO STA 99+80	112	37		170		170	7			57
RT. STA 92+71 TO STA 99+80			709		709					236
SUBTOTAL	112	37	1418	170	1418	170	7	7		1013
TOTAL	112	37	1588		1588		7	7		1013



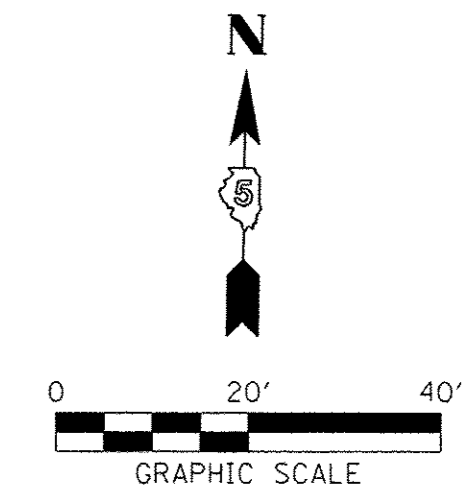
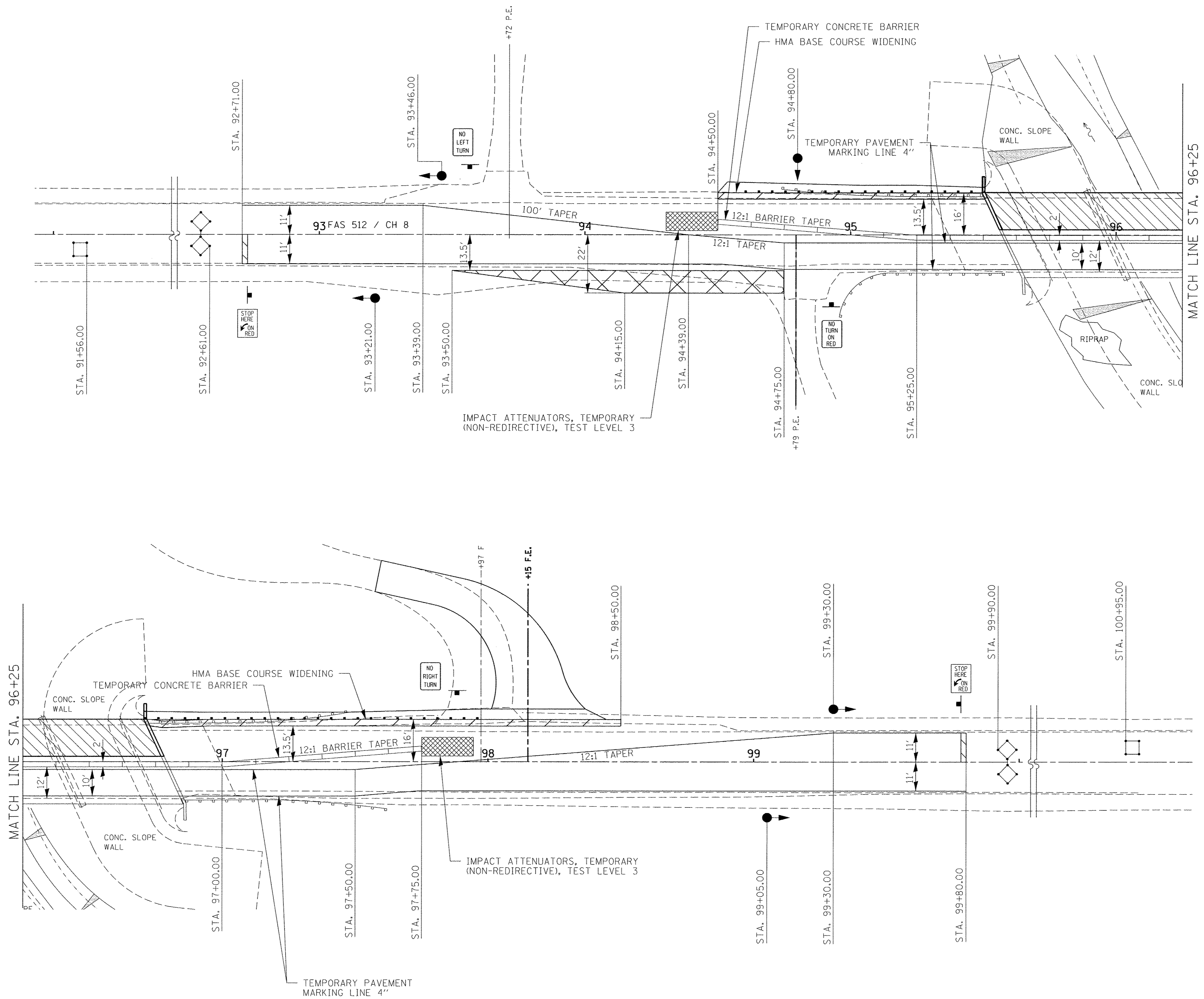
**PLAN**

BY	DATE
SURVEYED	
PLOTTED	
CHECKED	
NO. OF WAY CHECKED	
NOTE BOOK NO.	
CADD FILE NAME	

**PROFILE**

BY	DATE
SURVEYED	
PLOTTED	
CHECKED	
BLM. NOTED	
STRUCTURE NOTATIONS OK'D	
NOTE BOOK NO.	

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HAMPTON, LENZINI AND RENWICK, INC. 3065 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = \$SCALE*	DRAWN - L.G.C.	REVISED -			512	10-00174-00-BR	VERMILION	57	7
ILR ILLINOIS PROFESSIONAL DESIGN FIRM 157 PEBBLE CORP. 184-000959	PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -			HOMER-CATLIN ROAD		ILLINOIS		
	DATE = 12/15/16	DATE = 12/15/16	REVISED -			CONTRACT NO. 91547		FED. AID PROJECT BRS-0512(111)		
SCALE: 20H:5V						SHEET NO. 1 OF 1 SHEETS		STA. 93+00.00 TO STA. 99+00.00		



- LEGEND
- EXISTING STRUCTURE REMOVAL
  - BASE COURSE WIDENING
  - INCIDENTAL HMA SURFACING, 2 1/2"

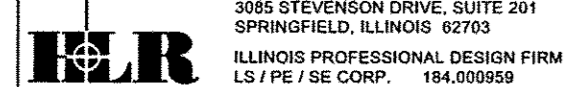
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 USER NAME = #USER#  
 DESIGNED - L.A.P.  
 DRAWN - T.W.K.  
 CHECKED - S.W.M.  
 DATE - 12/15/16

DESIGNED - L.A.P.  
 DRAWN - T.W.K.  
 CHECKED - S.W.M.  
 DATE - 12/15/16

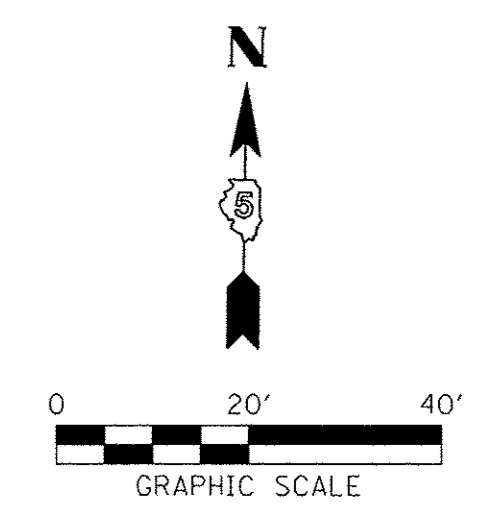
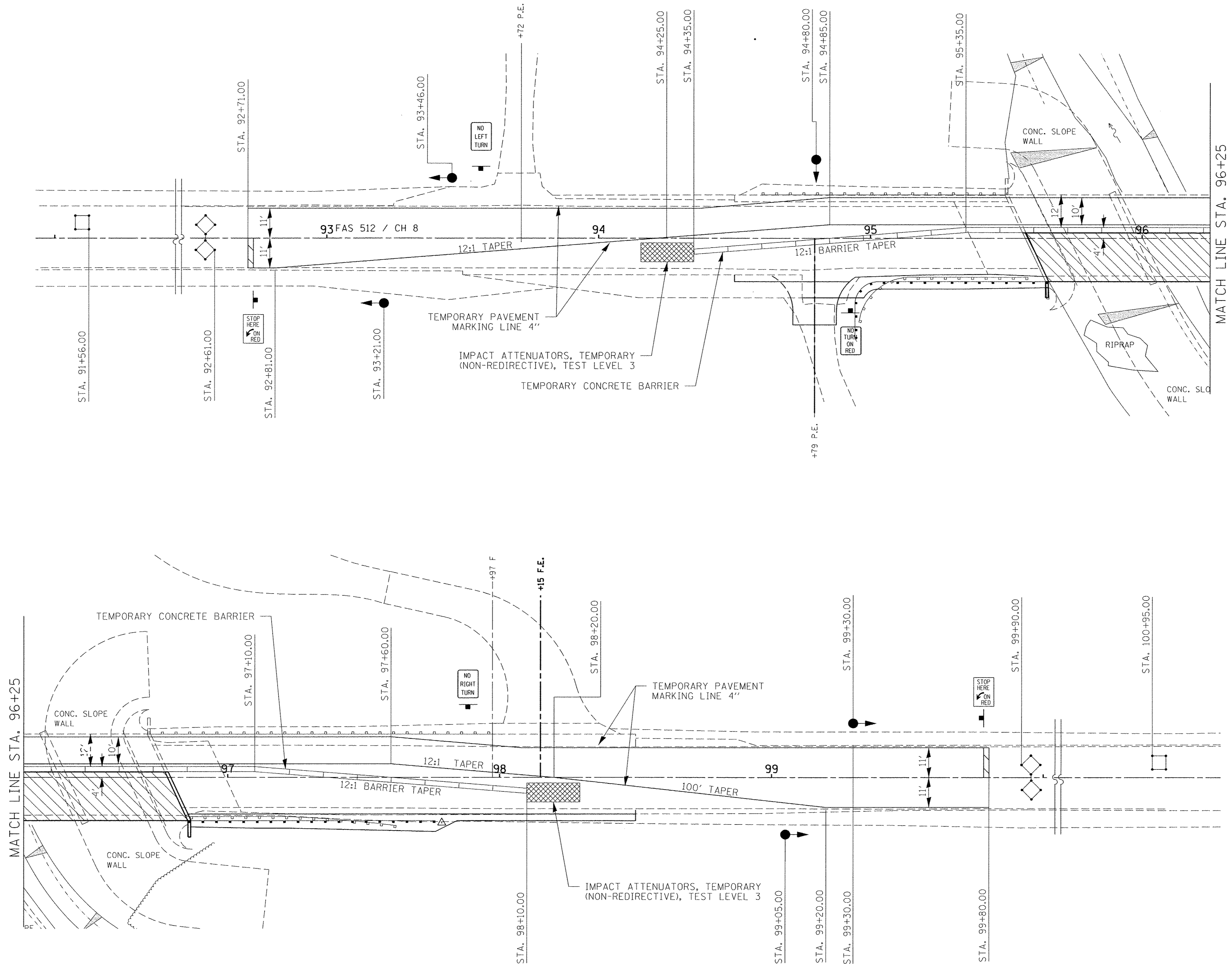
STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

STAGE 1 PLAN  
 SCALE: SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	8
HOMER-CATLIN ROAD			CONTRACT NO. 91547	
ILLINOIS FED. AID PROJECT BR5-0512(111)				







LEGEND

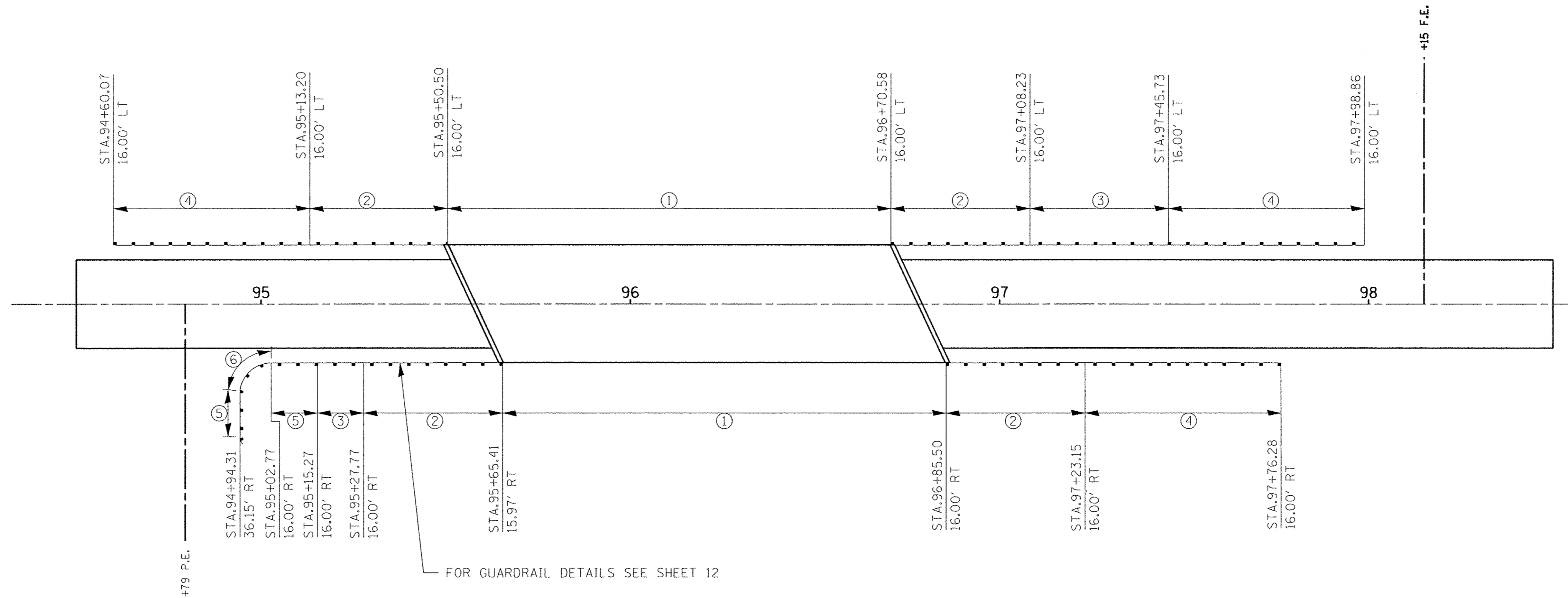
	EXISTING STRUCTURE REMOVAL
	BASE COURSE WIDENING
	INCIDENTAL HMA SURFACING, 2 1/2"

FILE NAME = 160489-sht-stages.dgn	USER NAME = \$USER\$	DESIGNED - L.A.P.	REVISED -
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CONF. 184-00959	PLOT SCALE = \$SCALE\$	DRAWN - T.W.K.	REVISED -
	PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -
		DATE - 12/15/16	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

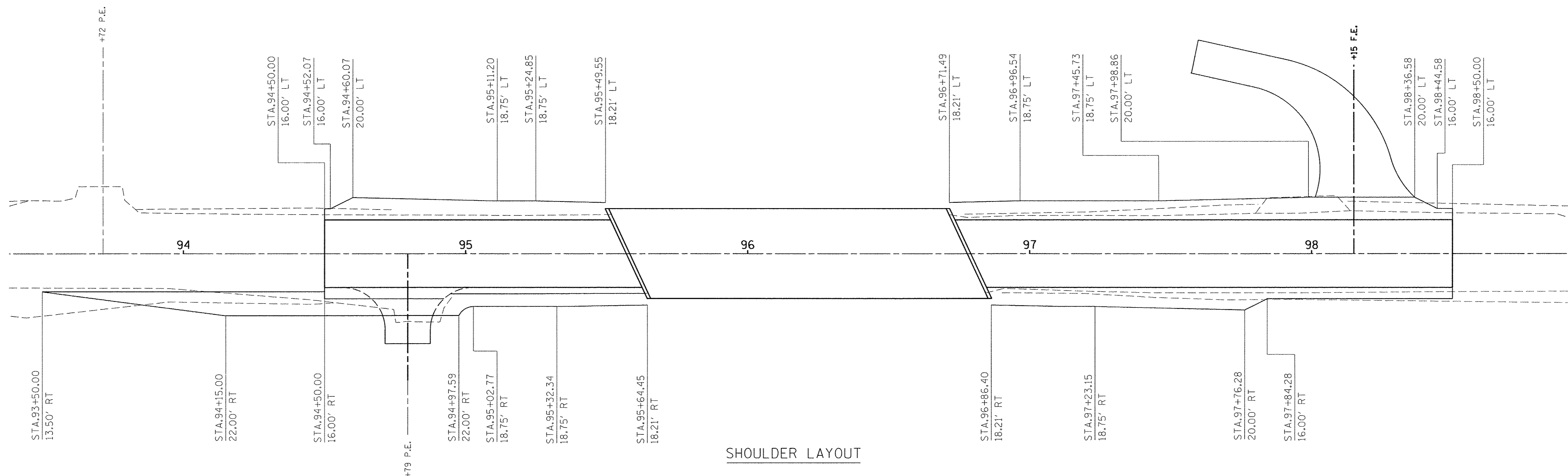
<b>STAGE 2 PLAN</b>	
SCALE:	SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	9
HOMER-CATLIN ROAD			CONTRACT NO. 91547	
ILLINOIS FED. AID PROJECT BR5-0512(11)				



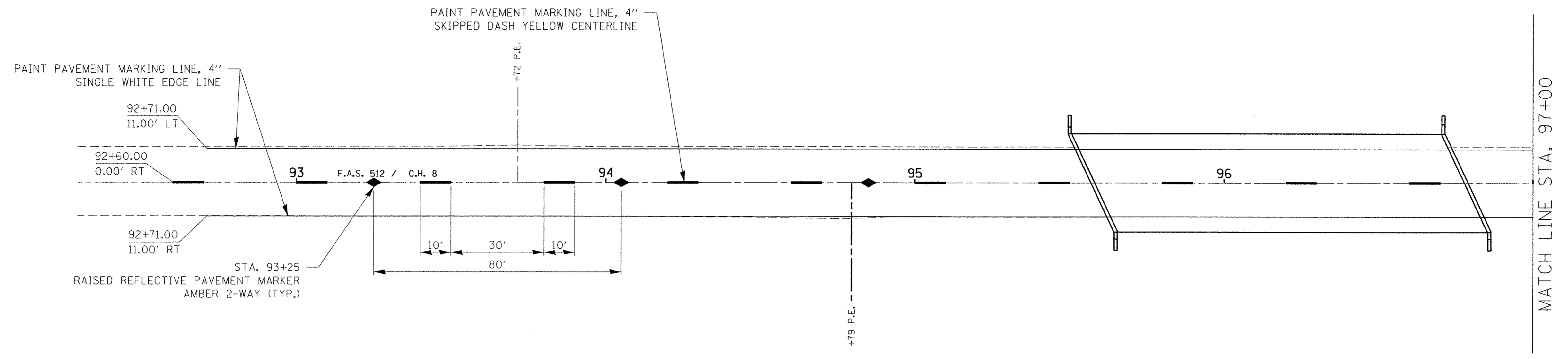
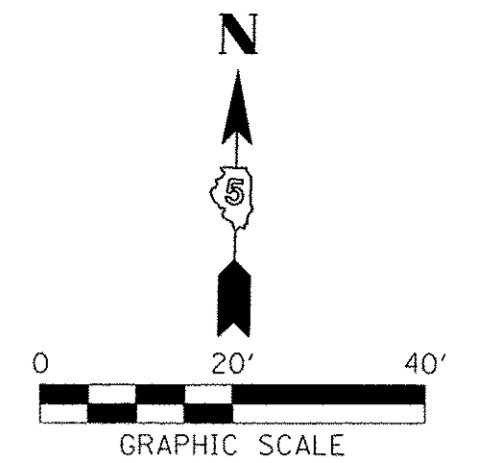
GUARDRAIL LAYOUT

- LEGEND**
- ① STEEL RAILING, TYPE SM
  - ② TBT TY 6A
  - ③ SPBGR TYPE A, 6 FT POSTS
  - ④ TBT TY 1 SPL TAN
  - ⑤ TBT TY2
  - ⑥ SPBGR (SHORT RADIUS)

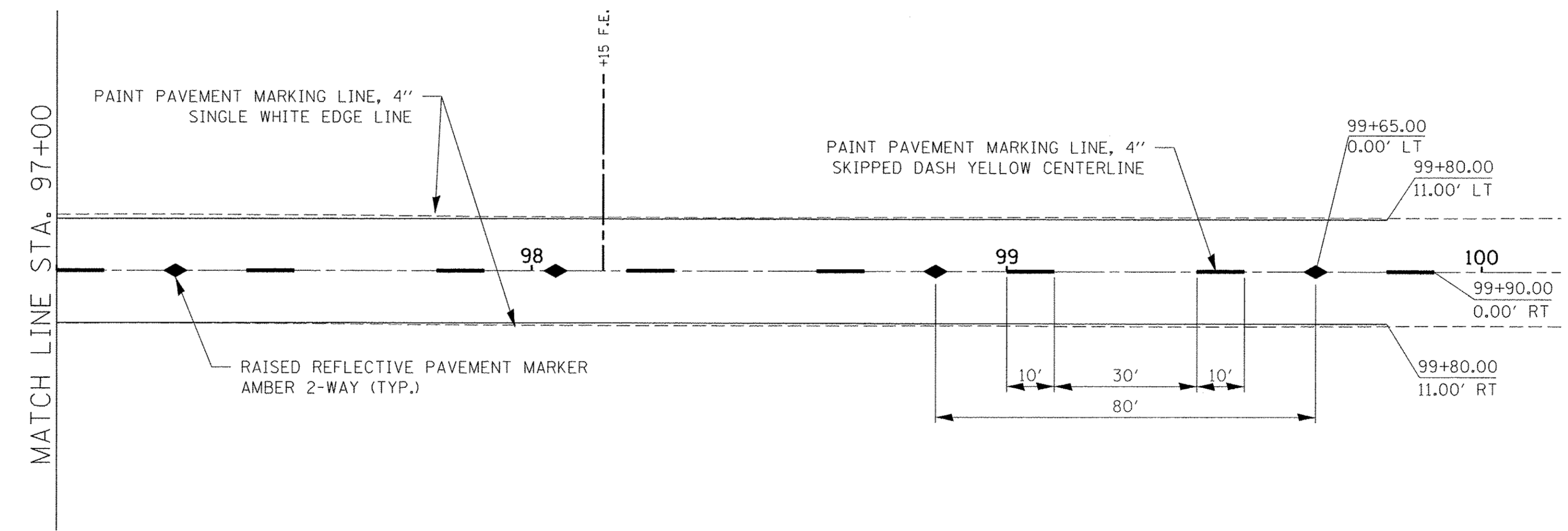


SHOULDER LAYOUT

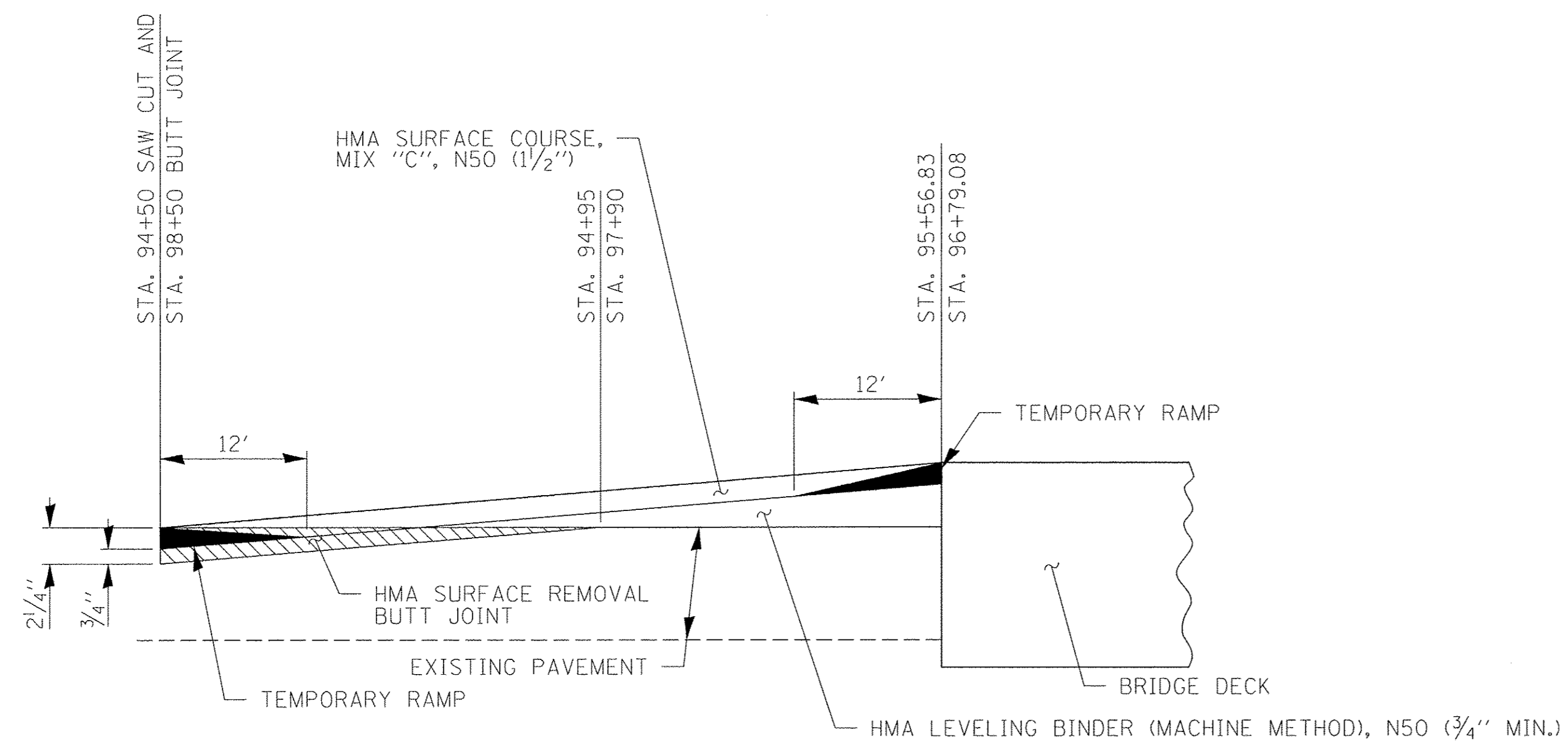
FILE NAME = 160489-sht-shldgr-1.dgn	USER NAME = #USER#	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>GUARDRAIL &amp; SHOULDER LAYOUT</b>	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3095 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = #SCALE#	DRAWN - R.D.H.	REVISED -			512	10-00174-00-BR	VERMILION	57	10	
<b>ILR</b> ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.00969	PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -			HOMER-CATLIN ROAD					
		DATE - 12/15/16	REVISED -			CONTRACT NO. 91547					
SCALE:						SHEET NO. 1 OF 1 SHEETS		STA.		TO STA.	
						ILLINOIS FED. AID PROJECT BRS-0512(111)					



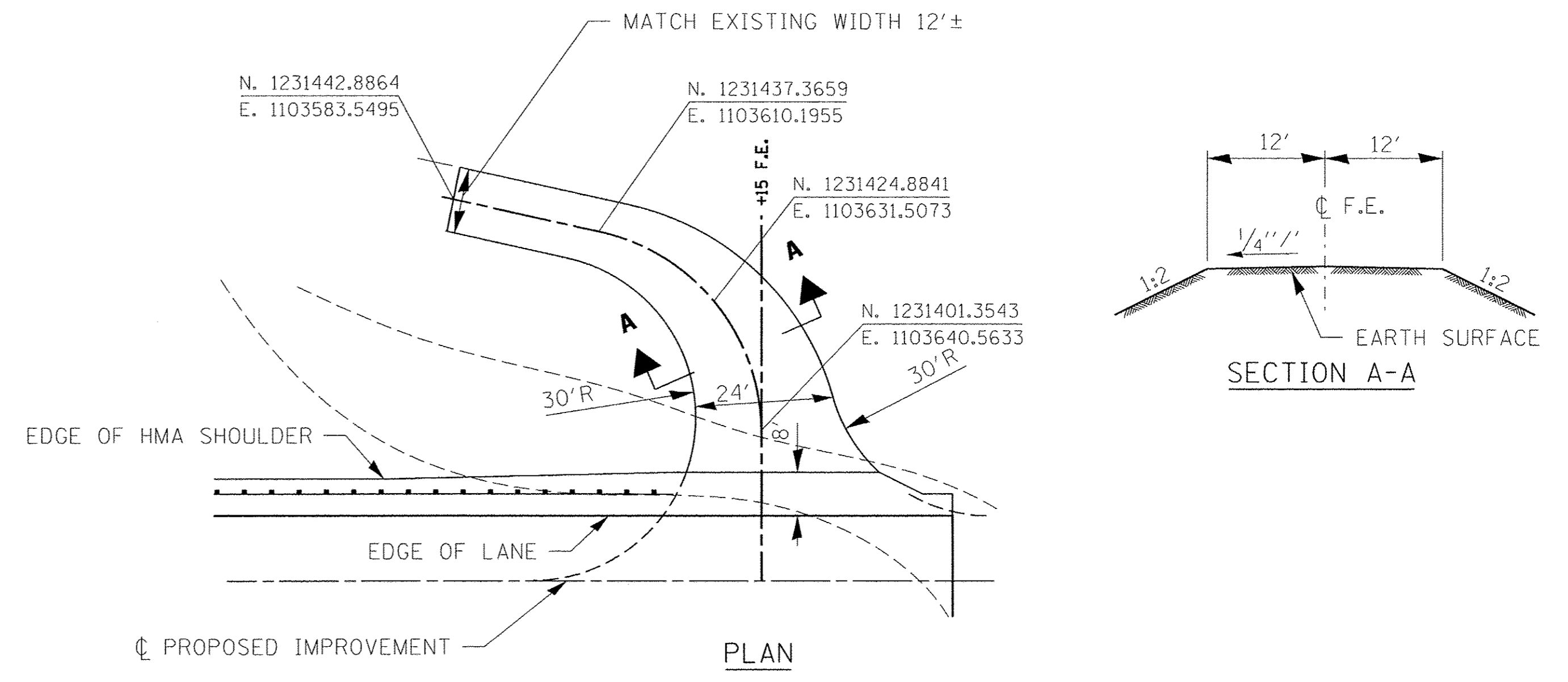
NOTE: NO REFLECTIVE PAVEMENT MARKERS ARE TO BE INSTALLED ON THE BRIDGE DECK.



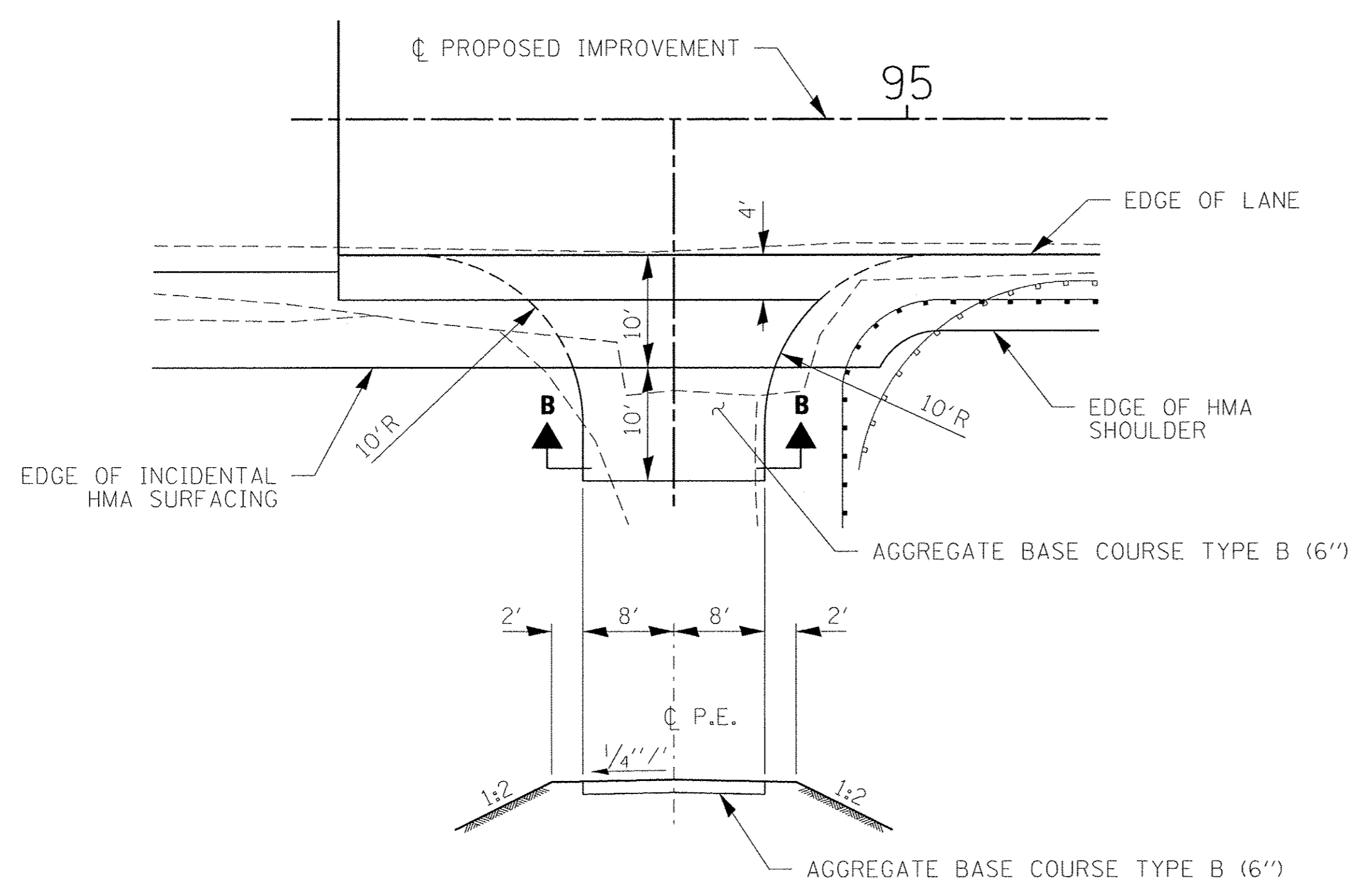
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	PLOT SCALE = \$SCALE\$	DRAWN - T.W.K.	REVISED -			512	10-00174-00-BR	VERMILION	57	11
PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -	REVISED -	SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	HOMER-CATLIN ROAD CONTRACT NO. 91547		
	DATE - 12/15/16	REVISED -	REVISED -	ILLINOIS FED. AID PROJECT BR5-0512(111)						



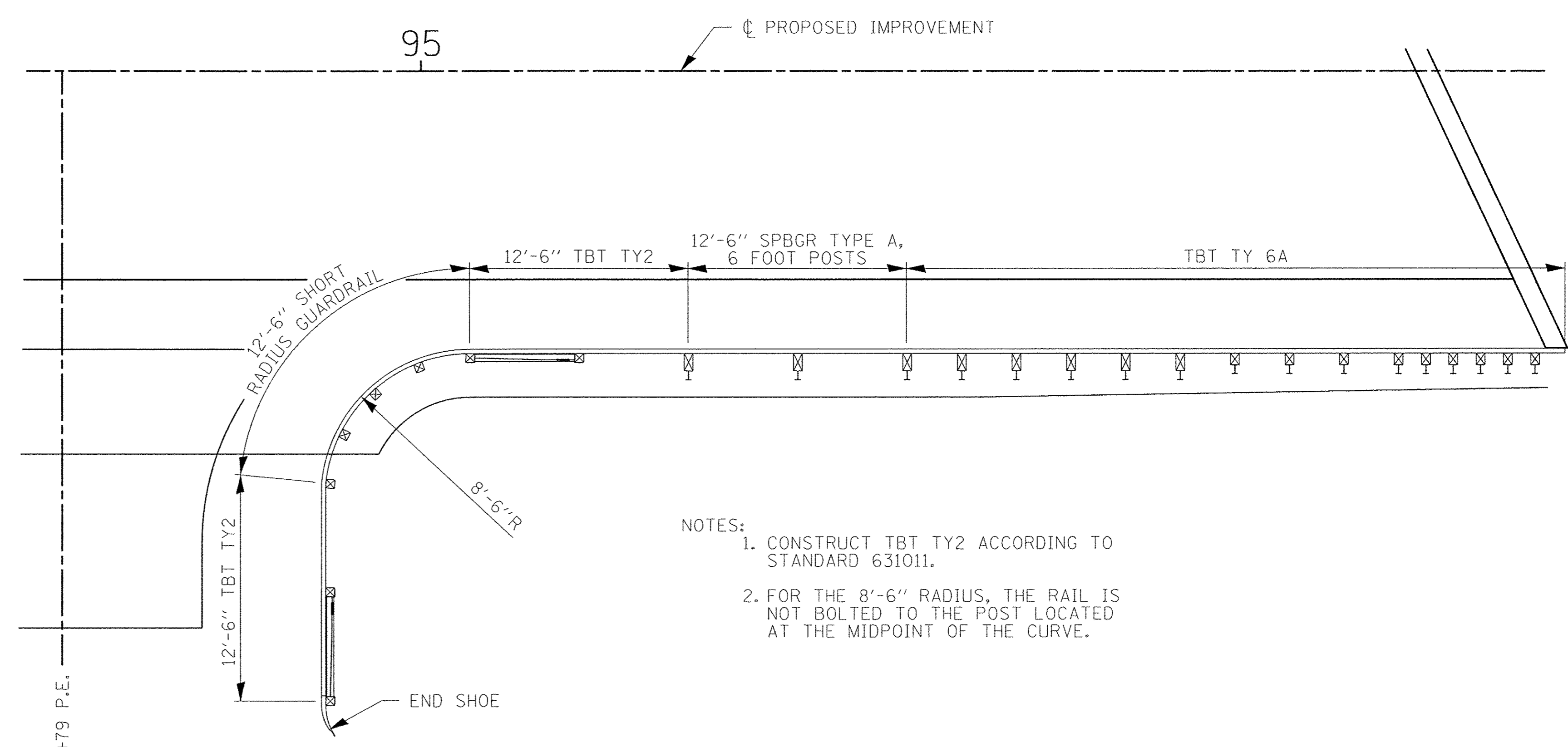
**BUTT JOINT DETAIL**  
NO SCALE



**FIELD ENTRANCE DETAIL**  
NO SCALE  
L.T. STA. 98+15



**SECTION B-B**  
**FIELD ENTRANCE DETAIL**  
NO SCALE  
RT. STA. 94+79



- NOTES:
1. CONSTRUCT TBT TY2 ACCORDING TO STANDARD 631011.
  2. FOR THE 8'-6" RADIUS, THE RAIL IS NOT BOLTED TO THE POST LOCATED AT THE MIDPOINT OF THE CURVE.

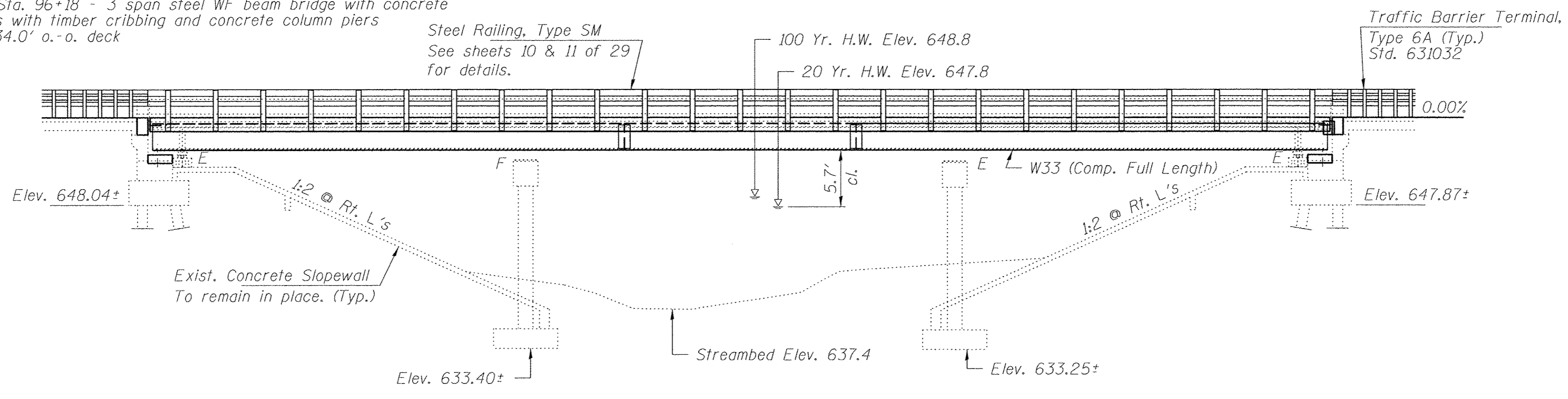
**GUARDRAIL DETAIL**  
NO SCALE  
WEST BRIDGE APPROACH

FILE NAME = 160489-sht-miscdet.dgn	USER NAME = #USER#	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY DETAILS</b>			F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE = #SCALE#	DRAWN - T.W.K.	REVISED -					512	10-00174-00-BR	VERMILION	57	12
PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISOR -	REVISOR -		HOMER-CATLIN ROAD			CONTRACT NO. 91547				
DATE = 12/15/16	REVISOR -	REVISOR -	REVISOR -		SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT BRS-0512(111)				

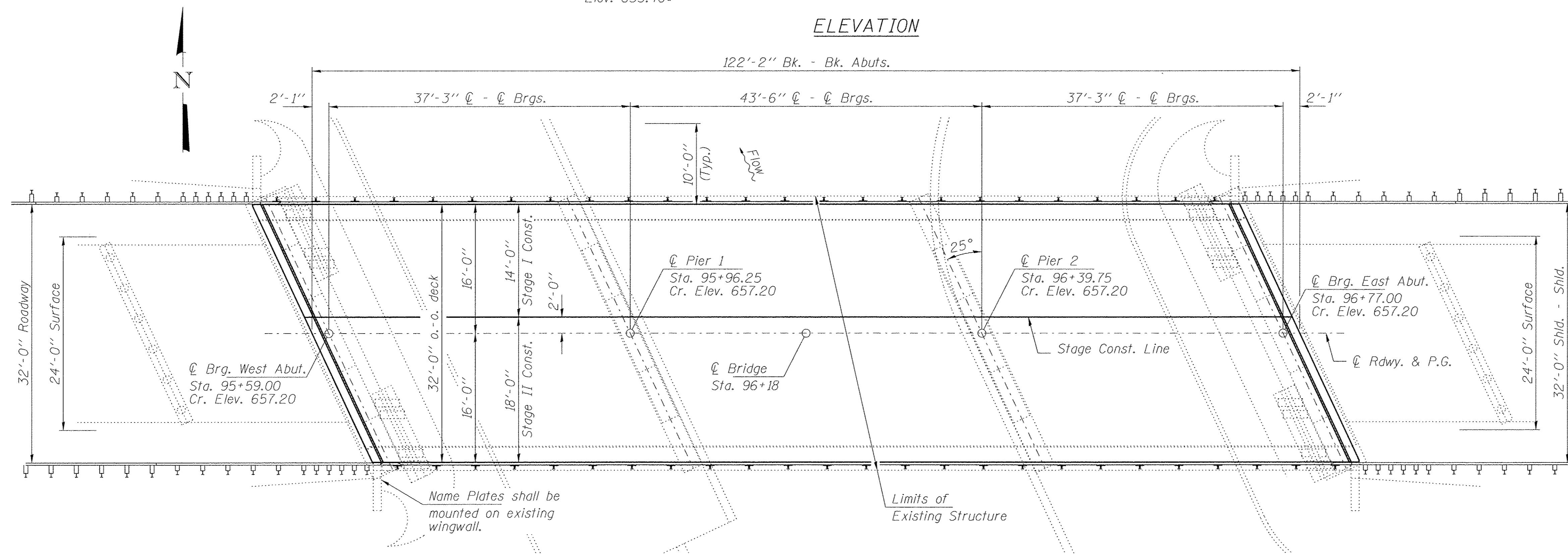
BENCHMARK: Chiseled "X" & "□" on NE corner of bridge wingwall. 15' Lt., Sta. 96+72, Elev. 657.14

EXISTING STRUCTURE: SN 092-0091 - Sta. 96+18 - 3 span steel WF beam bridge with concrete deck on concrete spill thru stub abutments with timber cribbing and concrete column piers on spread footings. 115.5' fc.-fc. abuts; 34.0' o.-o. deck

Salvage: None



ELEVATION



PLAN

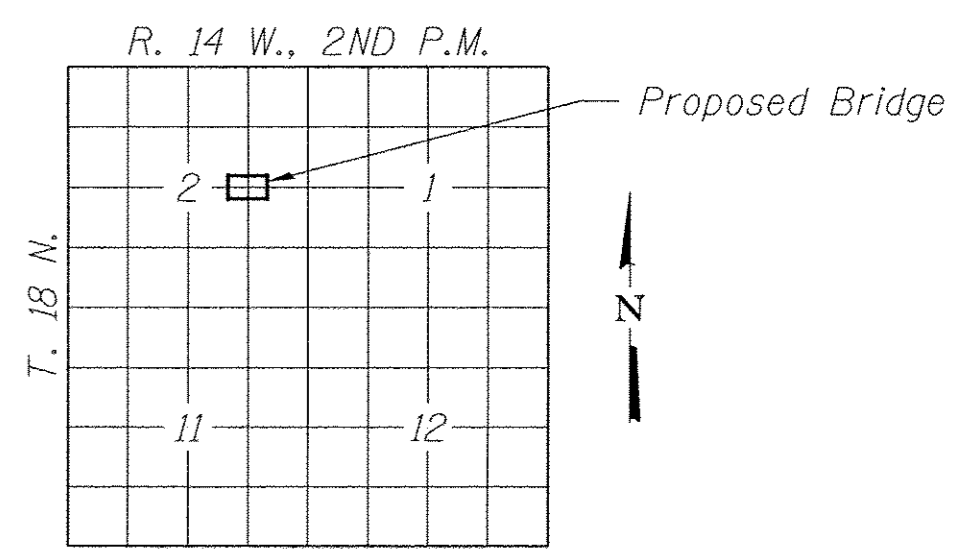
**INDEX OF STRUCTURE SHEETS**

1. General Plan & Elevation
2. General Details
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
- 5-8. Top of Slab Elevations
9. Superstructure
10. Superstructure Details
11. Steel Railing, Type SM
12. Preformed Joint Strip Seal
13. Structural Steel
- 14-15. Structural Steel Details
- 16-17. Bearing Details
18. Abutment Removal Details
19. West Abutment Details
20. East Abutment Details
21. Pier Details
22. Bar Splicer Assembly and Mechanical Splicer Details
23. Cantilever Forming Brackets for Superstructures with W27 Beams and Smaller
- 24-29. Existing Plans

OLIVE BRANCH  
RE-BUILT 2011 BY  
VERMILION COUNTY  
SEC. 10-00174-00-BR  
F.A.S. RTE. 512 / C.H. 8  
STR. NO. 092-0091  
LOADING HL-93

**NAME PLATE**  
See Std. 515001

Existing Name Plate shall be salvaged, anchored and relocated adjacent to the proposed name plate at Southwest wingwall. Cost included with Name Plates.



LOCATION SKETCH

**DESIGN SPECIFICATIONS (NEW CONST.)**

2014 AASHTO LRFD Bridge Design Specification, 7th Edition with 2016 Interims.

**LOADING HL-93 (NEW CONST.)**

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

**LOADING H20-S16-44 (EXIST. CONST.)**

**DESIGN STRESSES**

FIELD UNITS - (NEW CONSTRUCTION)

$f_c = 5,000$  psi  
 $f_y = 60,000$  psi (Reinf.)  
 $f_y = 50,000$  psi (Structural Steel) (M270 Gr. 50W)

FIELD UNITS - (EXIST. CONSTRUCTION)

$f_c = 1,400$  psi  
 $f_s = 20,000$  psi (Reinforcement)  
 $f_s = 18,000$  psi (Structural Steel)  
 $v = 75$  psi (Footings)

**DESIGN SCOUR ELEVATION TABLE**

Event / Limit State	Design Scour Elevations (ft.)				Item 113
	W. Abut.	Pier 1	Pier 2	E. Abut.	
Q100	648.2	633.6	633.5	648.1	5
Q200	648.2	633.6	633.5	648.1	
Design	648.2	633.6	633.5	648.1	
Check	648.2	633.6	633.5	648.1	

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.137g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.241g  
Soil Site Class = D

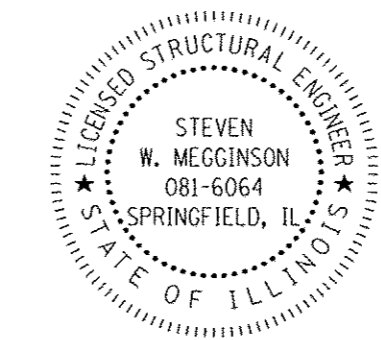
**WATERWAY INFORMATION**

Drainage Area = 24.3 Sq. Mi.		Existing Low Grade Elev. 656.6 @ Sta. 97+00 Proposed Low Grade Elev. 656.6 @ Sta. 97+00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E.	Head - Ft. Exist.	Prop.	Exist.	Prop.
Design	20	1920	422	422	647.8	0.00	0.00	647.80	647.80
Base	100	2790	546	546	648.8	0.50	0.50	649.30	649.30
Max. Calc.	200	3150	596	596					

20 Year Velocity through Existing Bridge = 4.6 fps      20 Year Velocity through Proposed Bridge = 4.6 fps

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

*Steven W. Mezzanin* 12/20/2016  
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



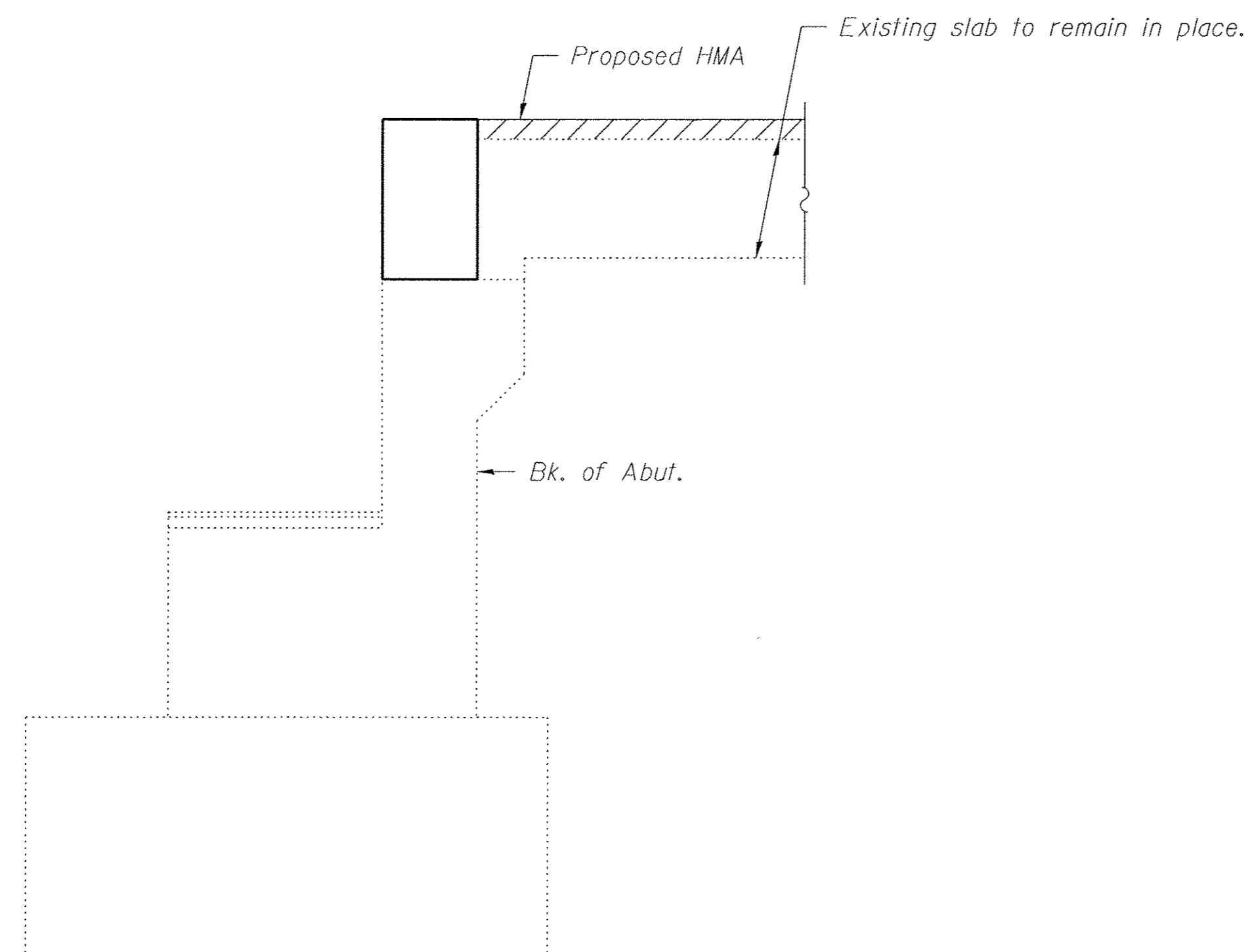
Expires 11-30-2018

**GENERAL NOTES**

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts  $\frac{7}{8}$ " $\phi$ , holes  $\frac{15}{16}$ " $\phi$ , unless otherwise noted.  
 Calculated weight of Structural Steel = 100,350 lbs.  
 All structural steel shall be AASHTO M 270 Grade 50W except expansion joints which shall be AASHTO M 270 Grade 36.  
 No field welding is permitted except as specified in the contract documents.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.  
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
 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.  
 All structural steel and exposed surfaces of bearings within a distance of 9 ft. each way from the deck joints shall be painted as specified in Section 506 of the Standard Specifications.

**SPECIAL NOTE FOR EXISTING LEAD PAINT**

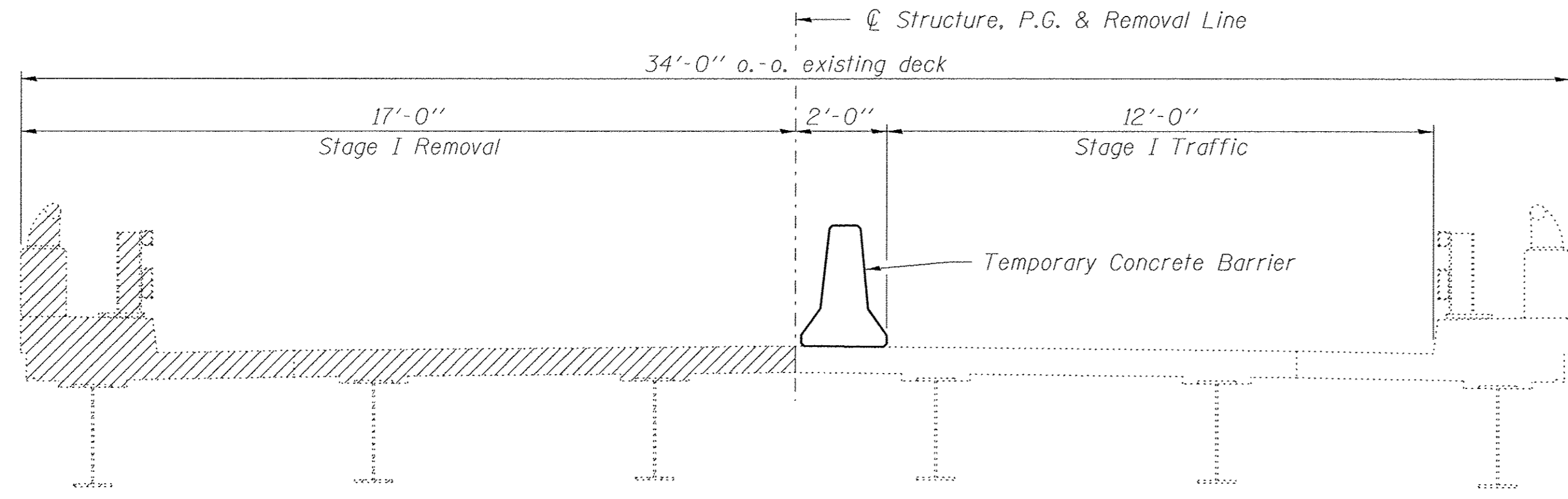
The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.



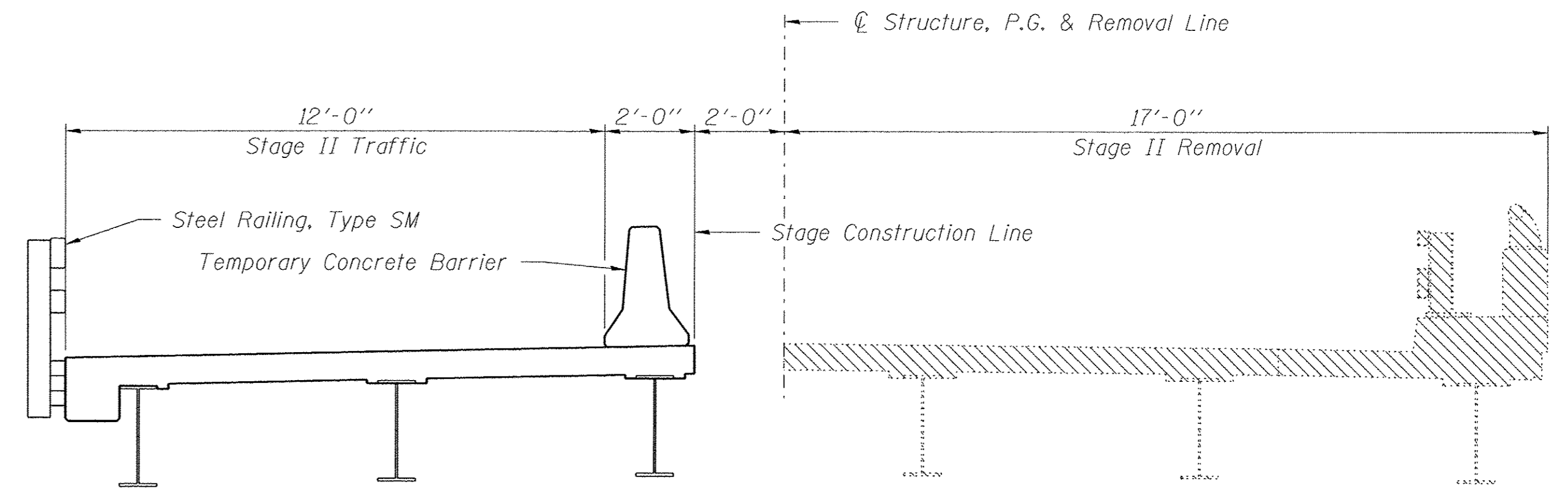
**SECTION THRU ABUTMENT**  
 (Horiz. dim. @ Rt. L's)

**TOTAL BILL OF MATERIAL**

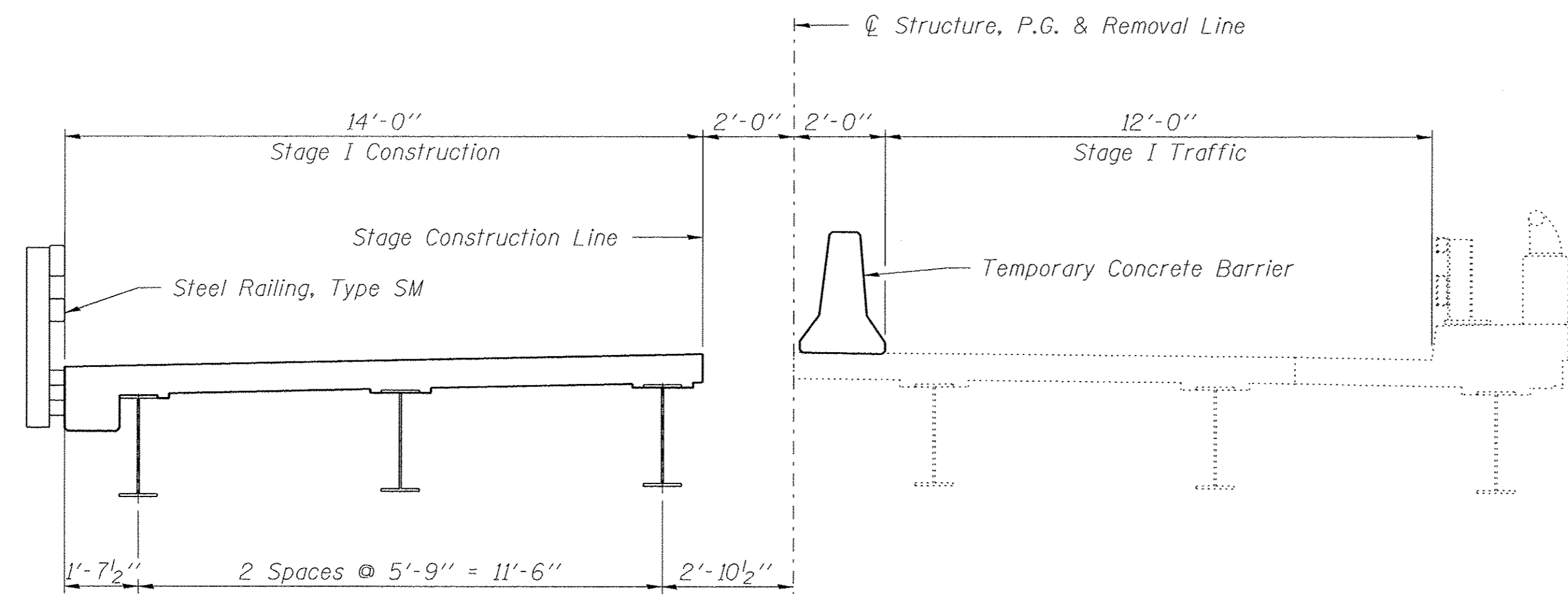
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each			1
Concrete Removal	Cu. Yd.		5.6	5.6
Concrete Structures	Cu. Yd.		10.3	10.3
Concrete Superstructure	Cu. Yd.	107.4		107.4
Bridge Deck Grooving	Sq. Yd.	399		399
Protective Coat	Sq. Yd.	471		471
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	3,942		3,942
Reinforcement Bars, Epoxy Coated	Pound	28,720	670	29,390
Bar Splicers	Each	362	12	374
Steel Railing, Type SM	Foot	241		241
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	72		72
Elastomeric Bearing Assembly, Type I	Each	18		18
Anchor Bolts, 1"	Each		48	48
Concrete Sealer	Sq. Ft.		168	168
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.		198	198



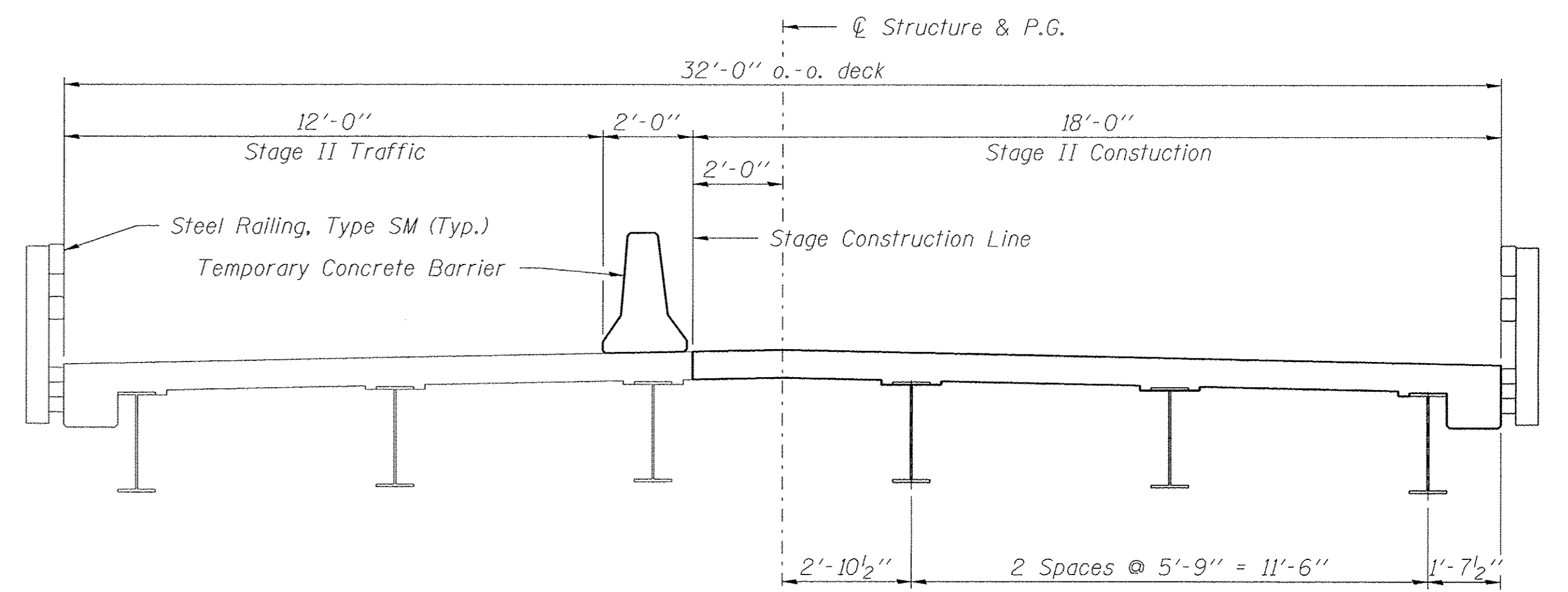
STAGE I REMOVAL



STAGE II REMOVAL



STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

Notes:  
 All sections are looking East.  
 Hatched areas indicate removal.  
 See Roadway Plans for quantity of Temporary Concrete Barrier.

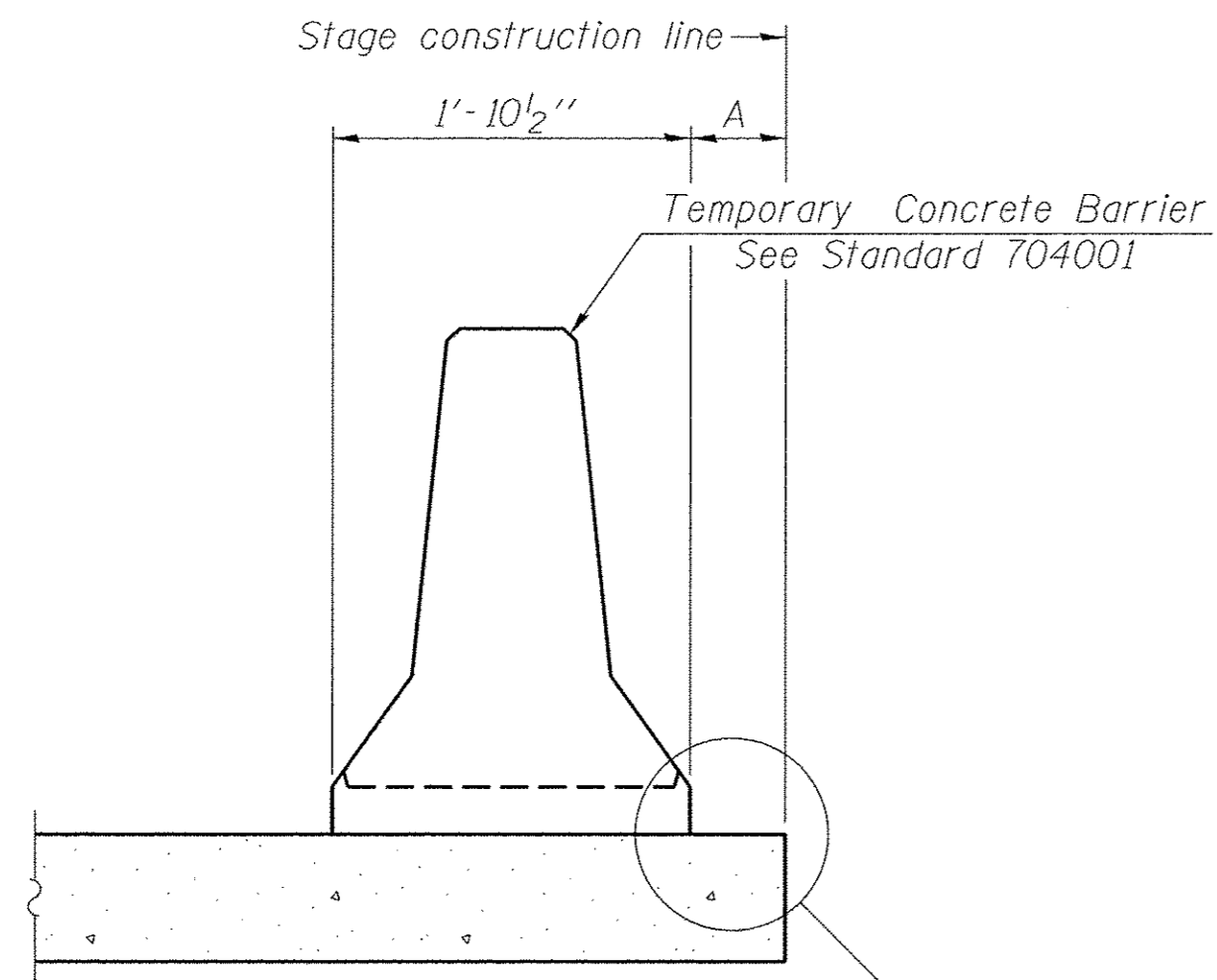
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3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.246.3400 www.ttrengineering.com	PLDT SCALE =	CHECKED - S.M.S.	REVISED -
184.000959 ILLINOIS PROFESSIONAL DESIGN FIRM L2 / P.E. / S.E. CORPORATION	PLDT DATE = 12/20/2016	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

STAGE CONSTRUCTION DETAILS  
 STRUCTURE NO. 092-0091

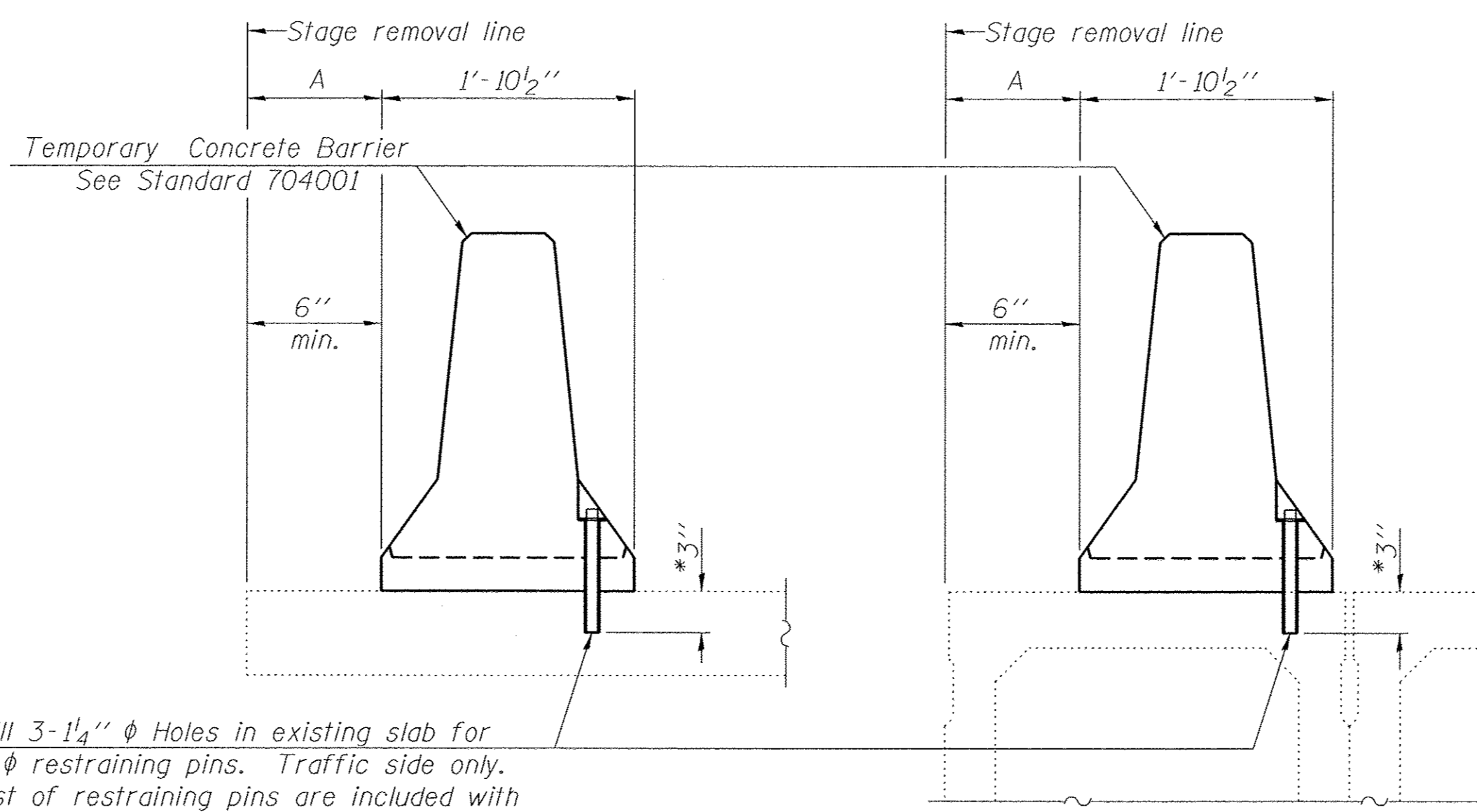
SHEET NO. 3 OF 29 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	15
HOMER-CATLIN ROAD		CONTRACT NO. 91547		
ILLINOIS		FED. AID PROJECT BRS-0512(111)		



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



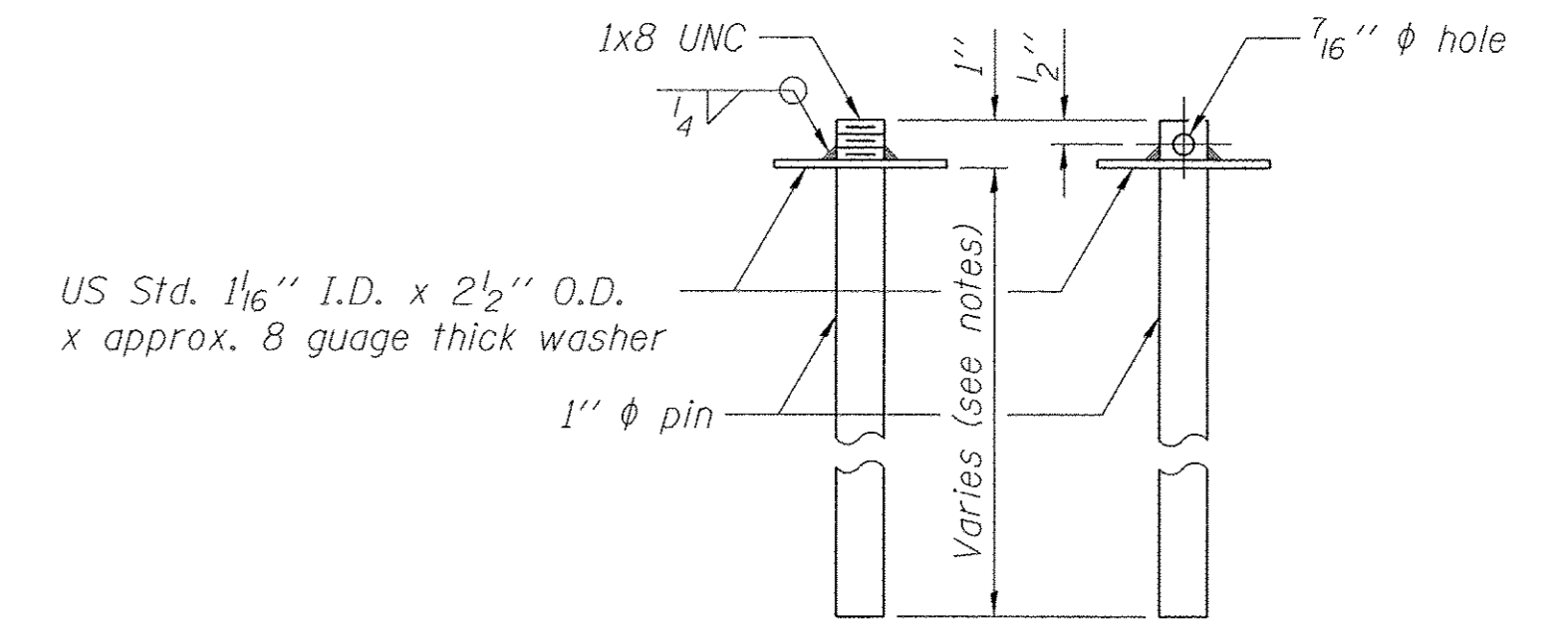
Drill 3-1 1/4"  $\phi$  Holes in existing slab for 1"  $\phi$  restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

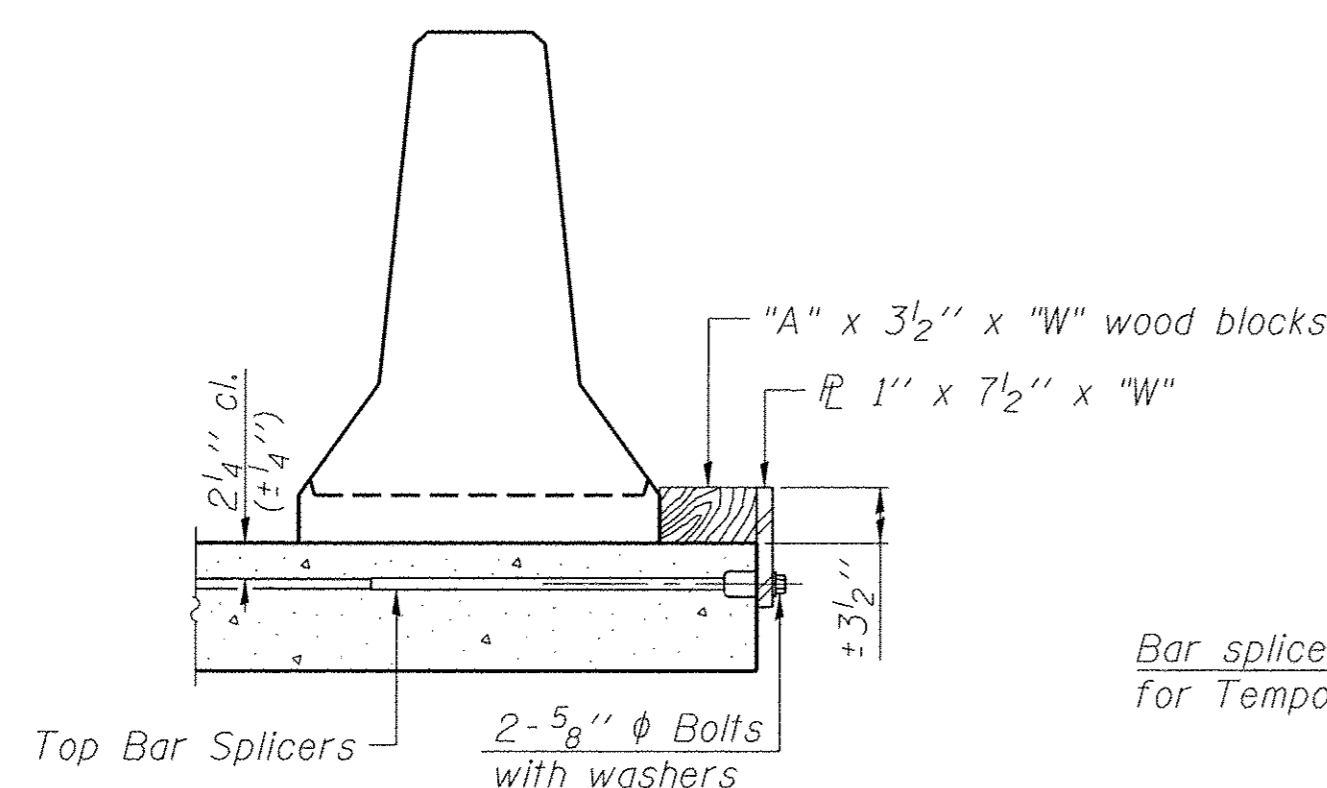
EXISTING SLAB

EXISTING DECK BEAM

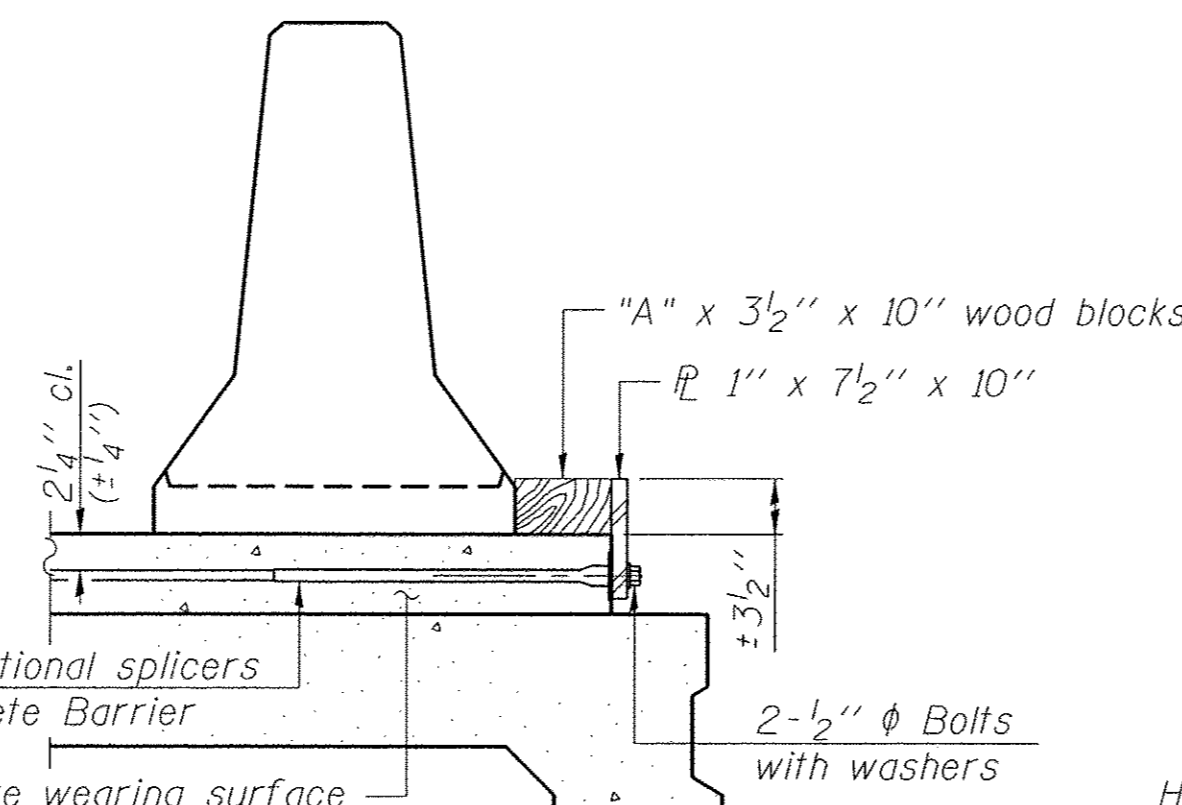
SECTIONS THRU SLAB OR DECK BEAM



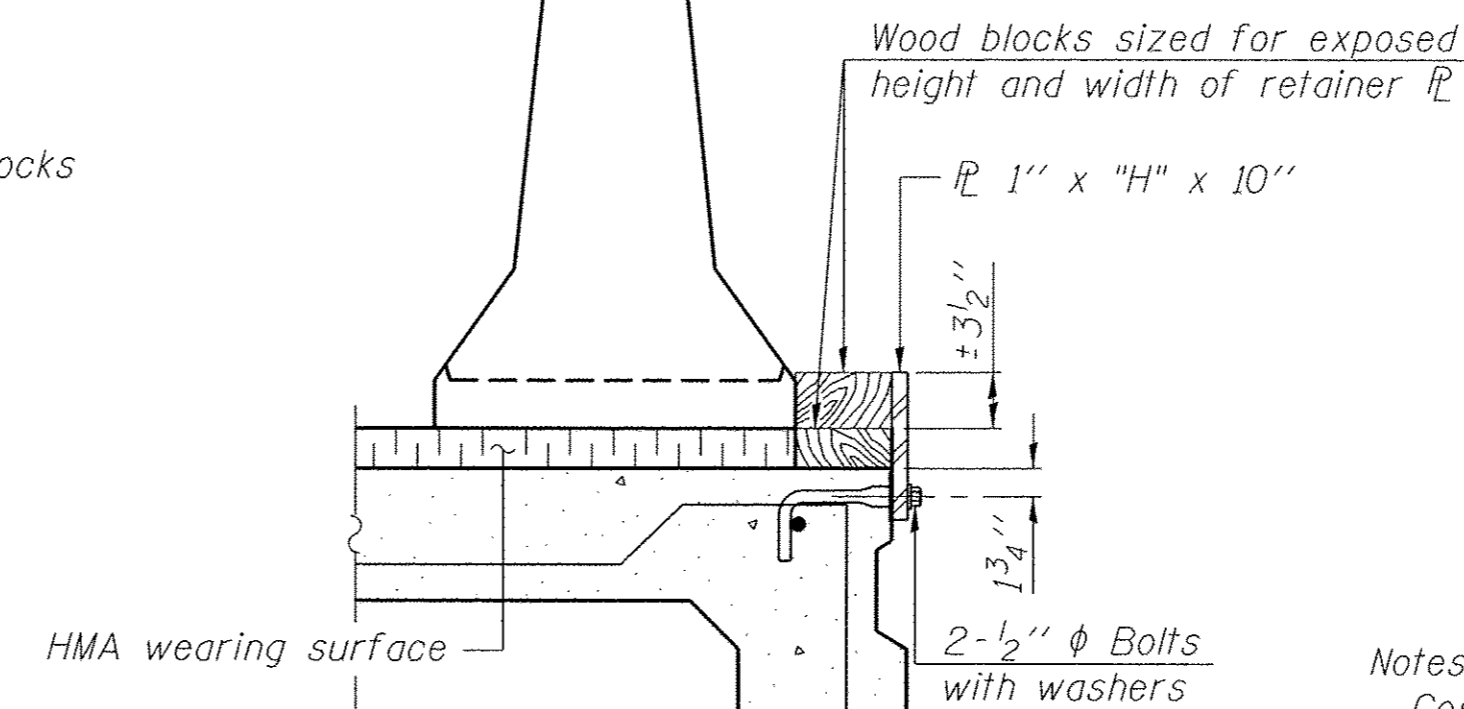
RESTRAINING PIN



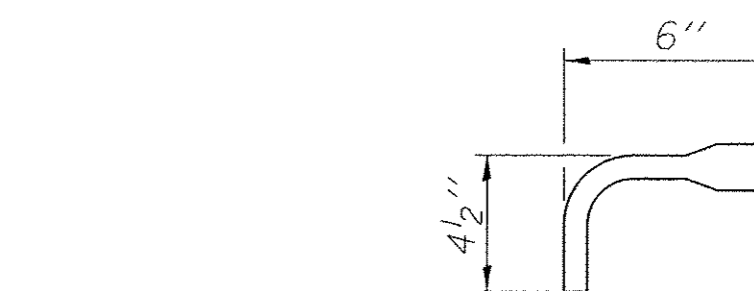
DETAIL I



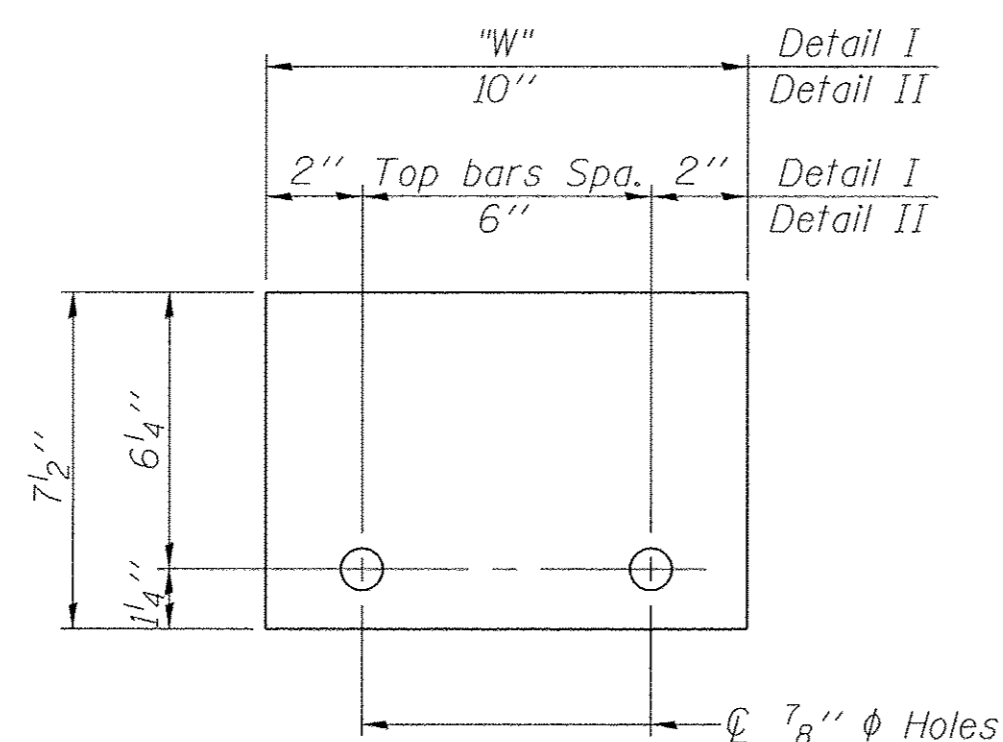
DETAIL II



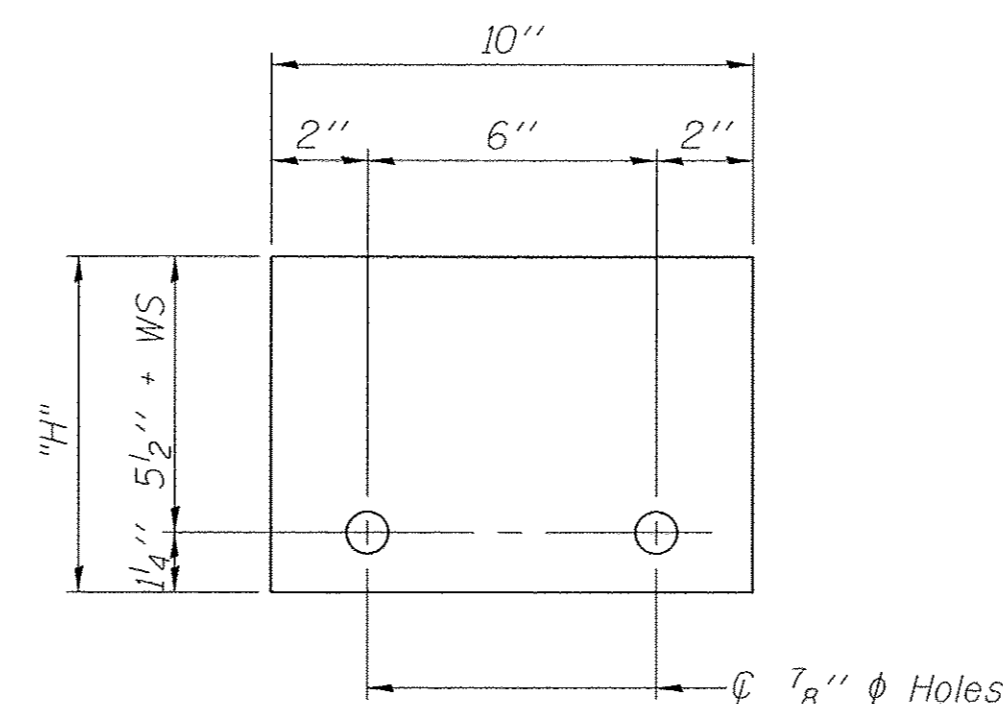
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER 1" x 7 1/2" x "W"  
(Detail I and II)



STEEL RETAINER 1" x "H" x 10"  
(Detail III)

Notes:  
 Cost of retainer assembly is included with Temporary Concrete Barrier.  
 A retainer assembly shall be located at the approximate  $\bar{C}$  of each temporary concrete barrier.  
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.  
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate.  
 For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

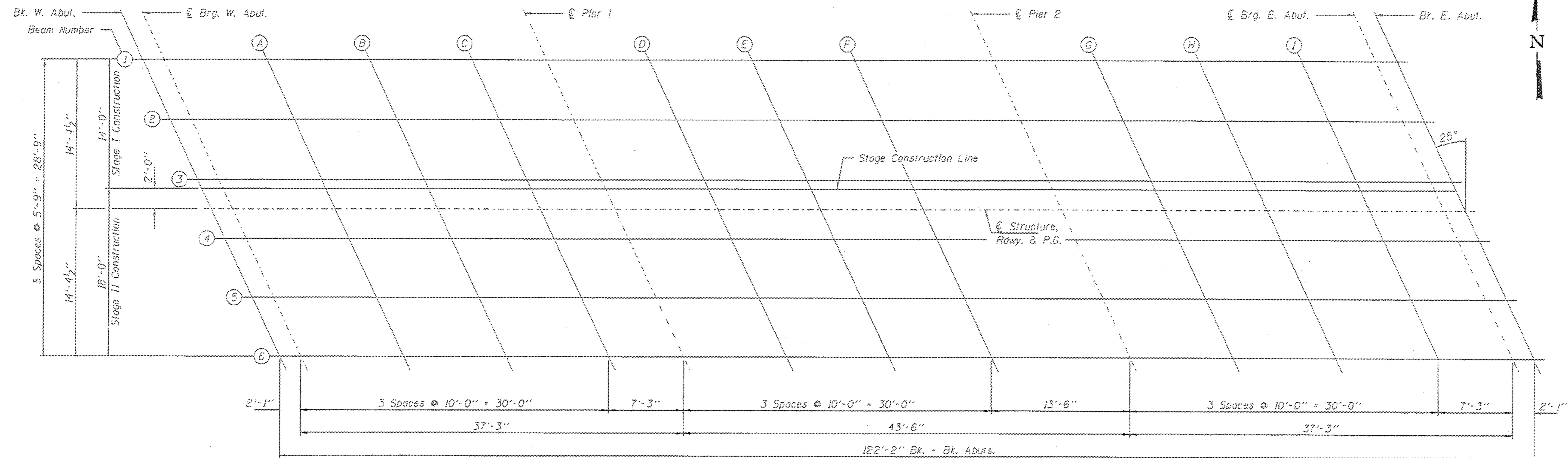
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27

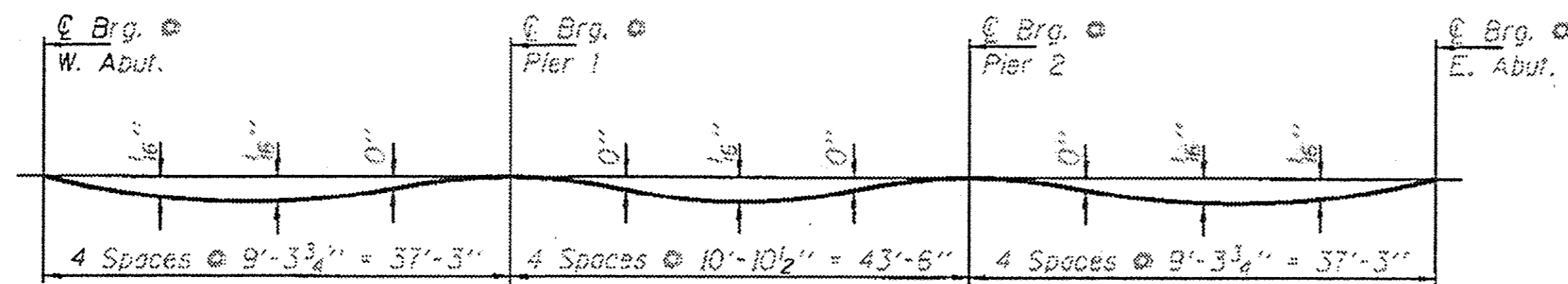
11-22-2016

FILE NAME = 160489-sht-bridge.DGN	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 092-0091</b>	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.546.3400 www.hlrengineering.com	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			512	10-00174-00-BR	VERMILION	57	16	
184.000959 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORPORATION	PLOT DATE = 12/20/2016	DRAWN - D.A.B.	REVISED -			HOMER-CATLIN ROAD CONTRACT NO. 91547					
						SHEET NO. 4 OF 29 SHEETS					





PLAN

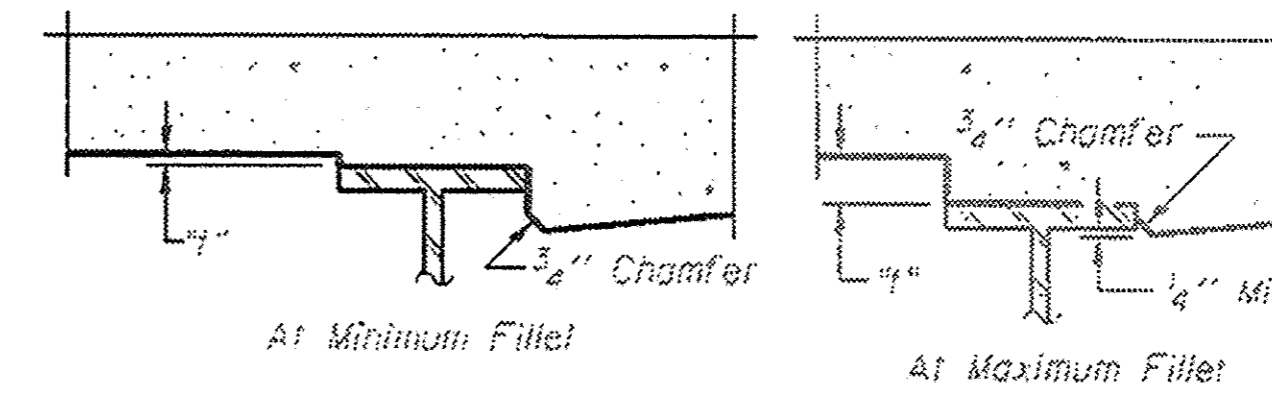


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only.)

Note:

The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 6 thru 8 of 29.



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 6 thru 8 of 29, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

FILE NAME = 16B469-sh1-bridge.DGN	USER NAME =	DESIGNED - L.A.P.	REVISED -	STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT	TOP OF SLAB ELEVATIONS STRUCTURE NO. 092-0091 SHEET NO. 5 OF 29 SHEETS	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.541.3400 www.hlsengineering.com	PL01 SCALE =	CHECKED - S.M.S.	REVISED -			512	10-00174-00-BR	VERMILION	57	17
114.000000 ILLINOIS PROFESSIONAL DESIGN FIRM L.P. / P.E. CORPORATION	PL01 DATE = 1/4/2017	DRAWN - D.A.B.	REVISED -			HOMER-CATLIN ROAD		CONTRACT NO. 91547		
		CHECKED - S.W.M.	REVISED -			[ILLINOIS] FED. AID PROJECT BR5-05121111				

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+50.21	-14.38	656.90	656.90
☉ Brg. W. Abut.	95+52.30	-14.38	656.90	656.90
A	95+62.30	-14.38	656.90	656.91
B	95+72.30	-14.38	656.90	656.91
C	95+82.30	-14.38	656.90	656.90
☉ Pier 1	95+89.55	-14.38	656.90	656.90
D	95+99.55	-14.38	656.90	656.90
E	96+09.55	-14.38	656.90	656.91
F	96+19.55	-14.38	656.90	656.90
☉ Pier 2	96+33.05	-14.38	656.90	656.90
G	96+43.05	-14.38	656.90	656.90
H	96+53.05	-14.38	656.90	656.91
I	96+63.05	-14.38	656.90	656.91
☉ Brg. E. Abut.	96+70.30	-14.38	656.90	656.90
Bk. E. Abut.	96+72.38	-14.38	656.90	656.90

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+52.89	-8.63	657.02	657.02
☉ Brg. W. Abut.	95+54.98	-8.63	657.02	657.02
A	95+64.98	-8.63	657.02	657.03
B	95+74.98	-8.63	657.02	657.03
C	95+84.98	-8.63	657.02	657.02
☉ Pier 1	95+92.23	-8.63	657.02	657.02
D	96+02.23	-8.63	657.02	657.02
E	96+12.23	-8.63	657.02	657.03
F	96+22.23	-8.63	657.02	657.02
☉ Pier 2	96+35.73	-8.63	657.02	657.02
G	96+45.73	-8.63	657.02	657.02
H	96+55.73	-8.63	657.02	657.03
I	96+65.73	-8.63	657.02	657.03
☉ Brg. E. Abut.	96+72.98	-8.63	657.02	657.02
Bk. E. Abut.	96+75.06	-8.63	657.02	657.02

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+55.58	-2.88	657.14	657.14
☉ Brg. W. Abut.	95+57.66	-2.88	657.14	657.14
A	95+67.66	-2.88	657.14	657.15
B	95+77.66	-2.88	657.14	657.15
C	95+87.66	-2.88	657.14	657.14
☉ Pier 1	95+94.91	-2.88	657.14	657.14
D	96+04.91	-2.88	657.14	657.14
E	96+14.91	-2.88	657.14	657.15
F	96+24.91	-2.88	657.14	657.14
☉ Pier 2	96+38.41	-2.88	657.14	657.14
G	96+48.41	-2.88	657.14	657.14
H	96+58.41	-2.88	657.14	657.15
I	96+68.41	-2.88	657.14	657.15
☉ Brg. E. Abut.	96+75.66	-2.88	657.14	657.14
Bk. E. Abut.	96+77.74	-2.88	657.14	657.14

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+55.98	-2.00	657.16	657.16
☉ Brg. W. Abut.	95+58.07	-2.00	657.16	657.16
A	95+68.07	-2.00	657.16	657.16
B	95+78.07	-2.00	657.16	657.16
C	95+88.07	-2.00	657.16	657.16
☉ Pier 1	95+95.32	-2.00	657.16	657.16
D	96+05.32	-2.00	657.16	657.16
E	96+15.32	-2.00	657.16	657.16
F	96+25.32	-2.00	657.16	657.16
☉ Pier 2	96+38.82	-2.00	657.16	657.16
G	96+48.82	-2.00	657.16	657.16
H	96+58.82	-2.00	657.16	657.17
I	96+68.82	-2.00	657.16	657.16
☉ Brg. E. Abut.	96+76.07	-2.00	657.16	657.16
Bk. E. Abut.	96+78.15	-2.00	657.16	657.16

☉ STRUCTURE, RDWY. & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+56.92	0.00	657.20	657.20
☉ Brg. W. Abut.	95+59.00	0.00	657.20	657.20
A	95+69.00	0.00	657.20	657.21
B	95+79.00	0.00	657.20	657.21
C	95+89.00	0.00	657.20	657.20
☉ Pier 1	95+96.25	0.00	657.20	657.20
D	96+06.25	0.00	657.20	657.20
E	96+16.25	0.00	657.20	657.21
F	96+26.25	0.00	657.20	657.20
☉ Pier 2	96+39.75	0.00	657.20	657.20
G	96+49.75	0.00	657.20	657.20
H	96+59.75	0.00	657.20	657.21
I	96+69.75	0.00	657.20	657.21
☉ Brg. E. Abut.	96+77.00	0.00	657.20	657.20
Bk. E. Abut.	96+79.08	0.00	657.20	657.20

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+58.26	2.88	657.14	657.14
☉ Brg. W. Abut.	95+60.34	2.88	657.14	657.14
A	95+70.34	2.88	657.14	657.15
B	95+80.34	2.88	657.14	657.15
C	95+90.34	2.88	657.14	657.14
☉ Pier 1	95+97.59	2.88	657.14	657.14
D	96+07.59	2.88	657.14	657.14
E	96+17.59	2.88	657.14	657.15
F	96+27.59	2.88	657.14	657.14
☉ Pier 2	96+41.09	2.88	657.14	657.14
G	96+51.09	2.88	657.14	657.14
H	96+61.09	2.88	657.14	657.15
I	96+71.09	2.88	657.14	657.15
☉ Brg. E. Abut.	96+78.34	2.88	657.14	657.14
Bk. E. Abut.	96+80.42	2.88	657.14	657.14

FILE NAME = 160489-sht-bridge.DGN	USER NAME =	DESIGNED - L.A.P.	REVISED -
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.246.3400 www.hlr.com		CHECKED - S.M.S.	REVISED -
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT

TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 092-0091

SHEET NO. 7 OF 29 SHEETS

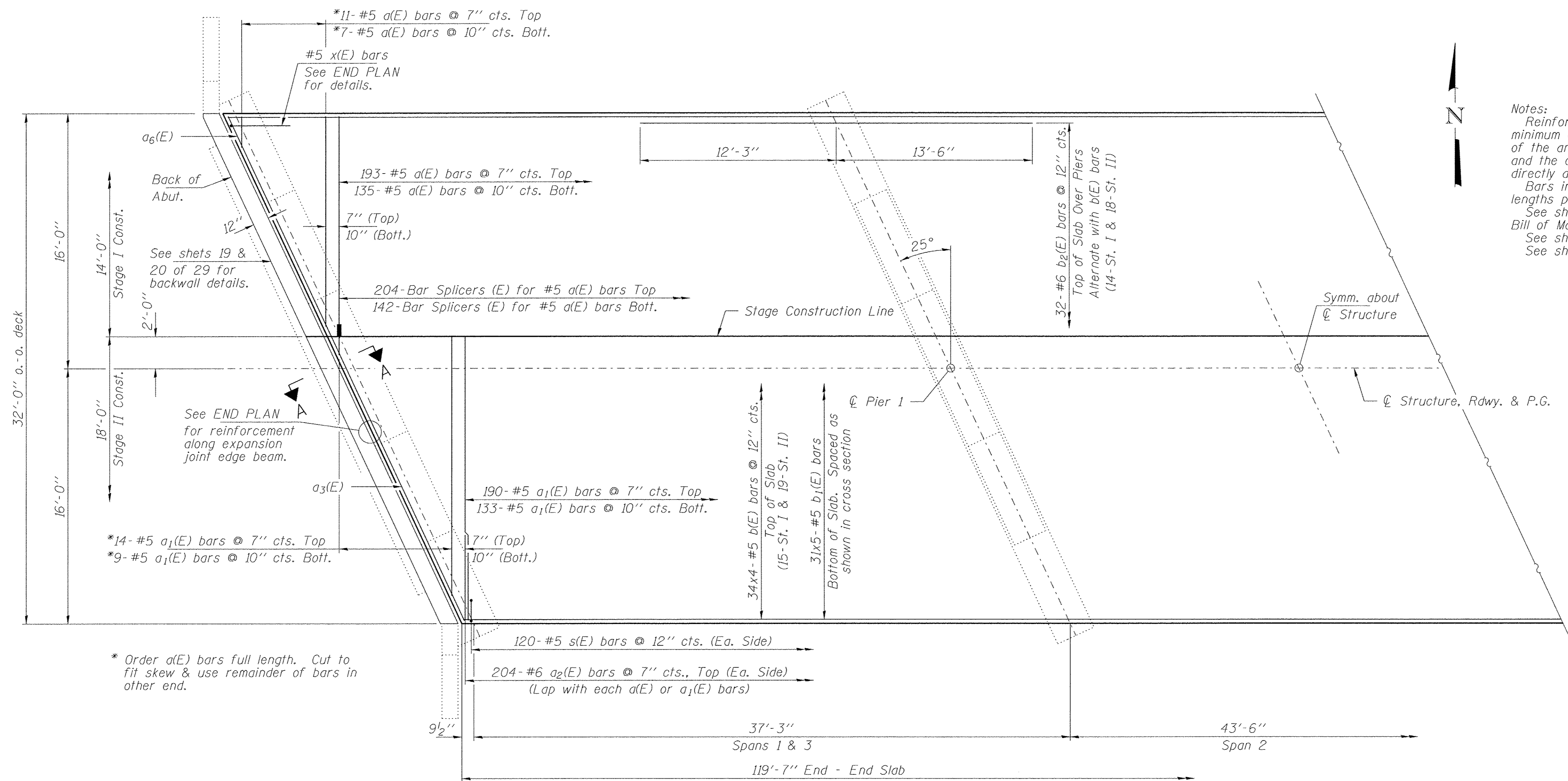
F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	19
HOMER-CATLIN ROAD		CONTRACT NO. 91547		
ILLINOIS		FED. AID PROJECT BRS-0512(111)		

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+60.94	8.63	657.02	657.02
☉ Brg. W. Abut.	95+63.02	8.63	657.02	657.02
A	95+73.02	8.63	657.02	657.03
B	95+83.02	8.63	657.02	657.03
C	95+93.02	8.63	657.02	657.02
☉ Pier 1	96+00.27	8.63	657.02	657.02
D	96+10.27	8.63	657.02	657.02
E	96+20.27	8.63	657.02	657.03
F	96+30.27	8.63	657.02	657.02
☉ Pier 2	96+43.77	8.63	657.02	657.02
G	96+53.77	8.63	657.02	657.02
H	96+63.77	8.63	657.02	657.03
I	96+73.77	8.63	657.02	657.03
☉ Brg. E. Abut.	96+81.02	8.63	657.02	657.02
Bk. E. Abut.	96+83.11	8.63	657.02	657.02

**BEAM 6**

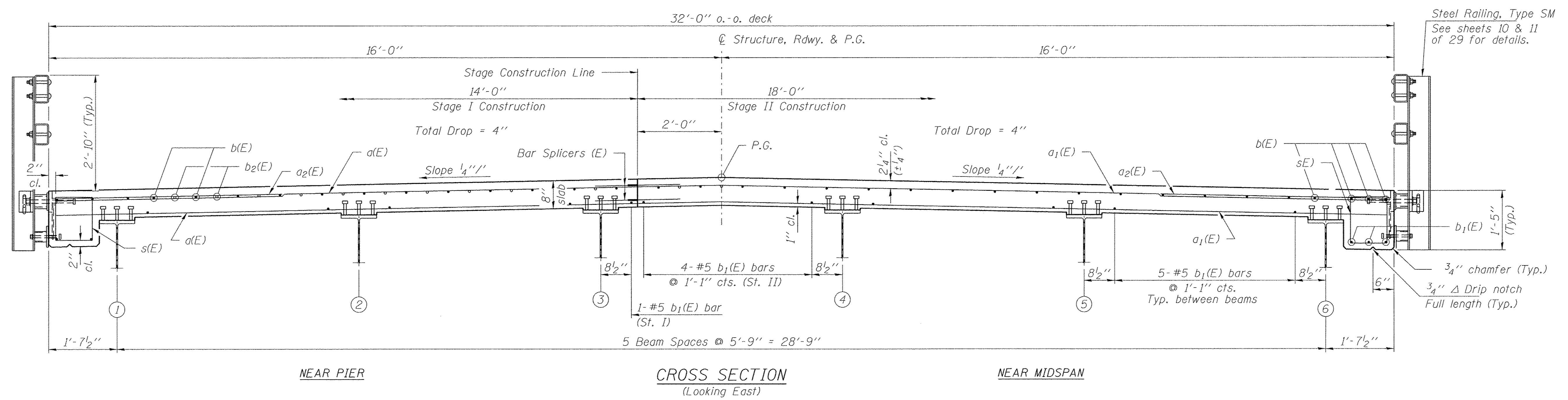
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	95+63.62	14.38	656.90	656.90
☉ Brg. W. Abut.	95+65.70	14.38	656.90	656.90
A	95+75.70	14.38	656.90	656.91
B	95+85.70	14.38	656.90	656.91
C	95+95.70	14.38	656.90	656.90
☉ Pier 1	96+02.95	14.38	656.90	656.90
D	96+12.95	14.38	656.90	656.90
E	96+22.95	14.38	656.90	656.91
F	96+32.95	14.38	656.90	656.90
☉ Pier 2	96+46.45	14.38	656.90	656.90
G	96+56.45	14.38	656.90	656.90
H	96+66.45	14.38	656.90	656.91
I	96+76.45	14.38	656.90	656.91
☉ Brg. E. Abut.	96+83.70	14.38	656.90	656.90
Bk. E. Abut.	96+85.79	14.38	656.90	656.90



**Notes:**  
 Reinforcement bars in the top of the deck may be placed with a 1/2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.  
 Bars indicated thus 34x4- #5 etc. indicates 34 lines of bars with 4 lengths per line.  
 See sheet 10 of 29 for Superstructure Details, END PLAN and Bill of Material.  
 See sheet 10 of 29 for Section A-A.  
 See sheet 22 of 29 for Bar Splicer details.

**MIN. BAR LAPS**  
 #5 bars = 3'-6"

\* Order a(E) bars full length. Cut to fit skew & use remainder of bars in other end.

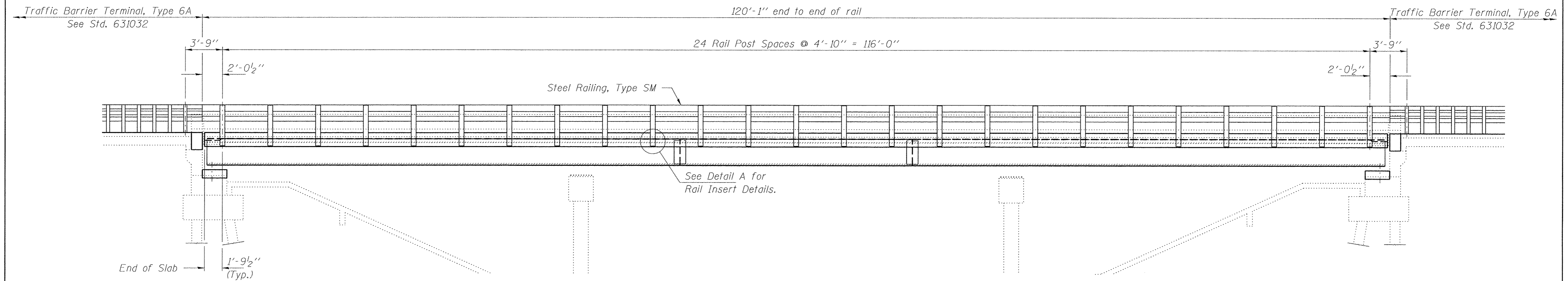


NEAR PIER

CROSS SECTION  
(Looking East)

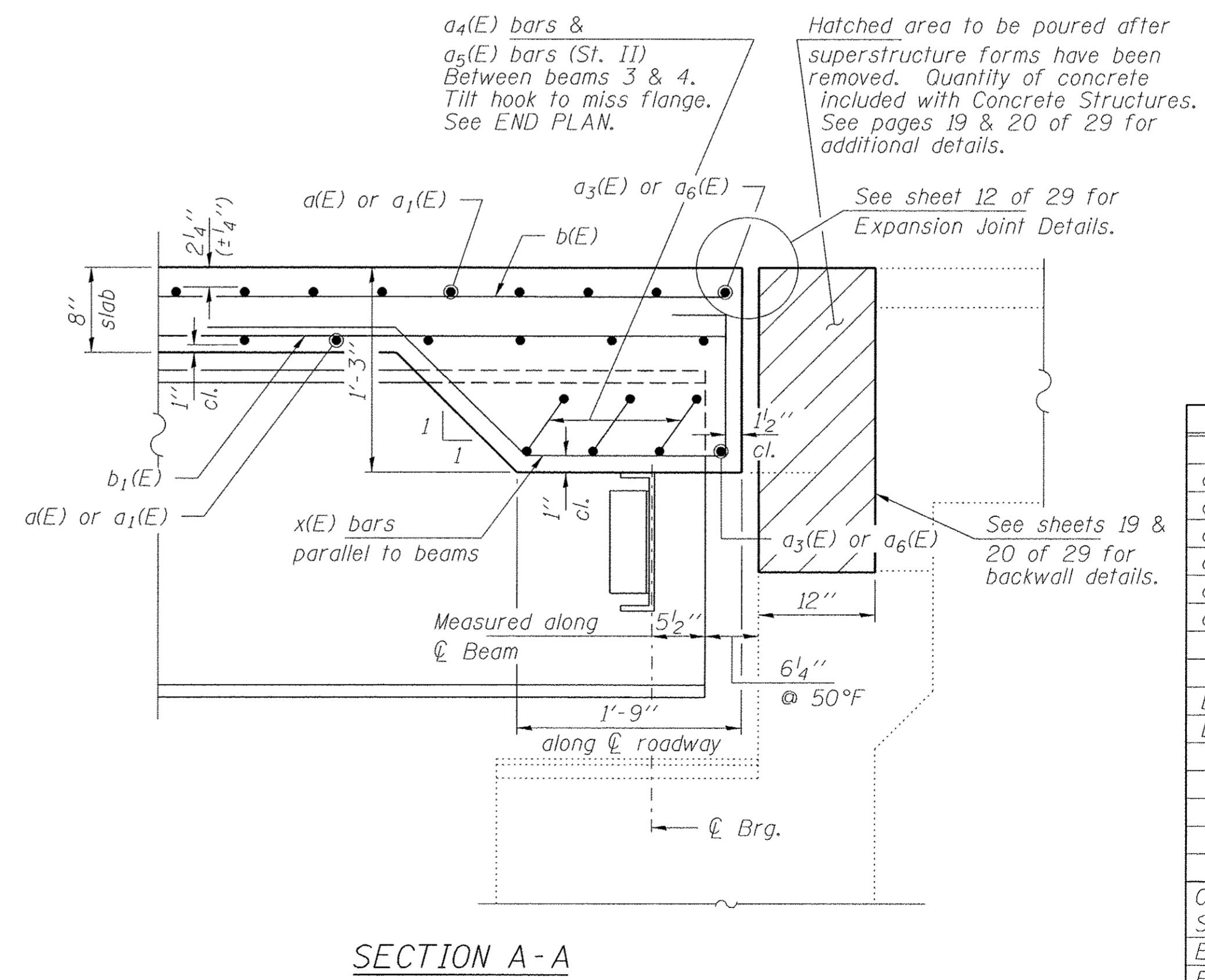
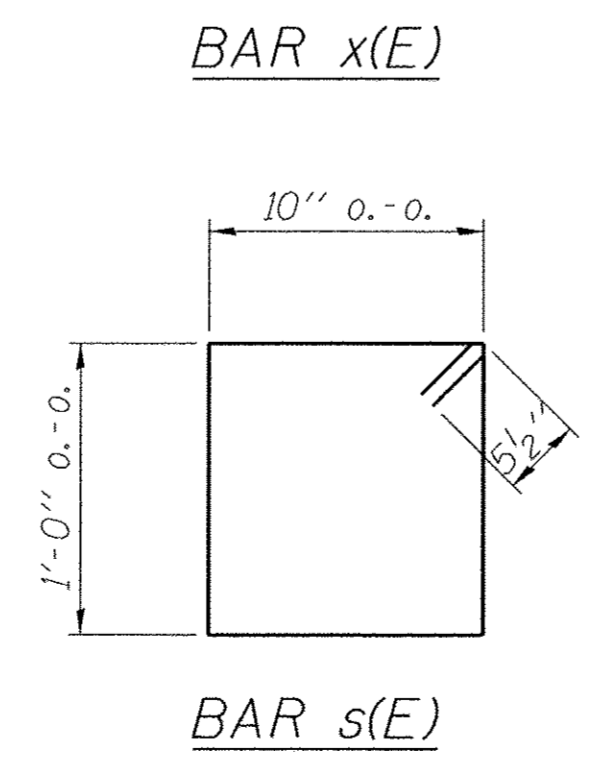
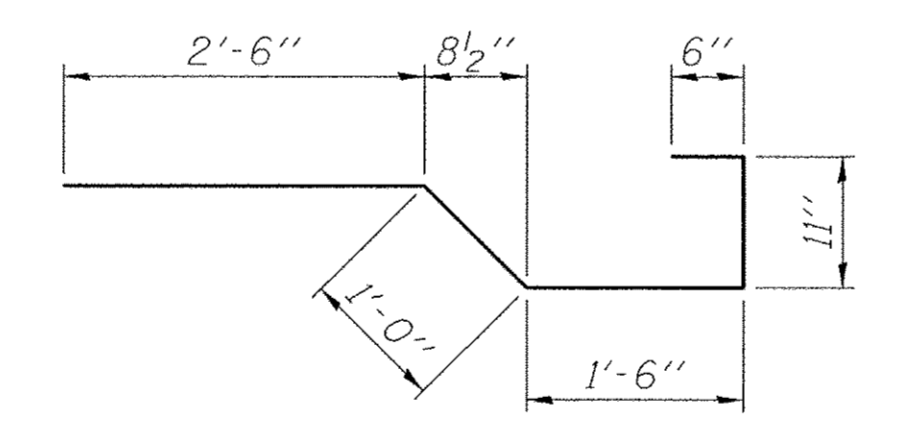
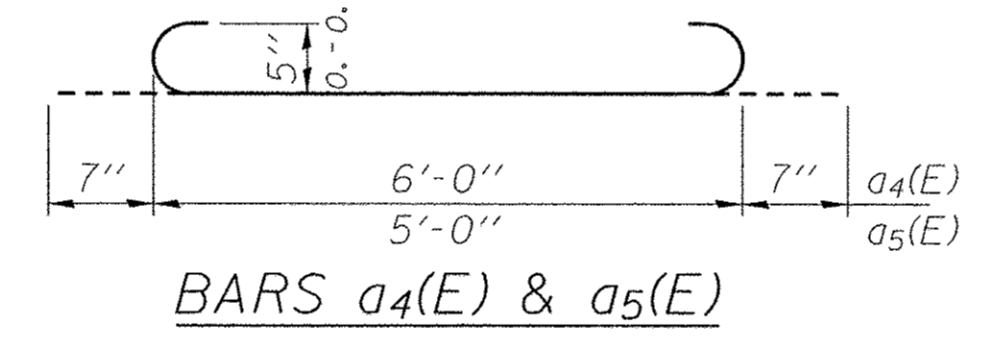
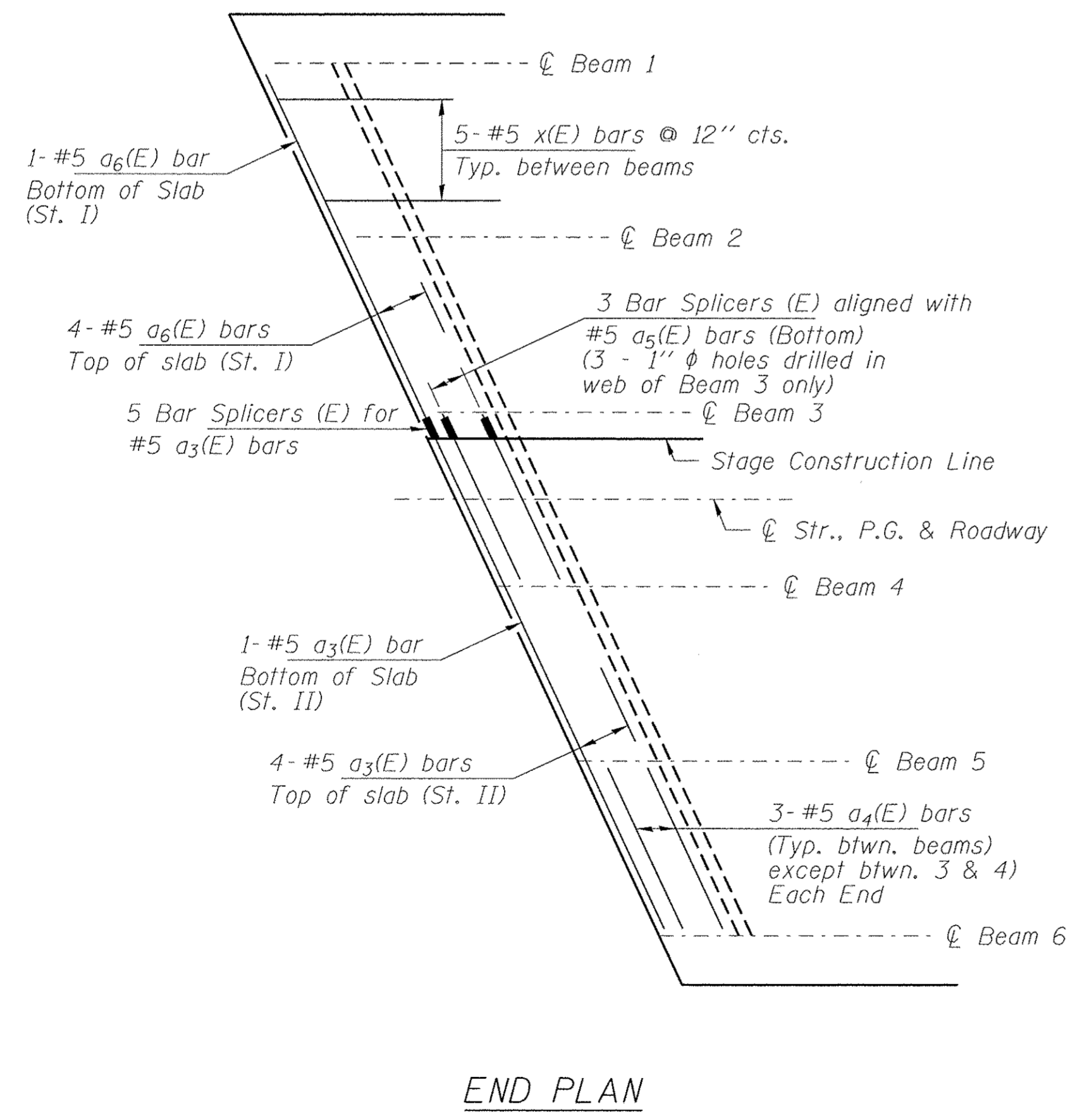
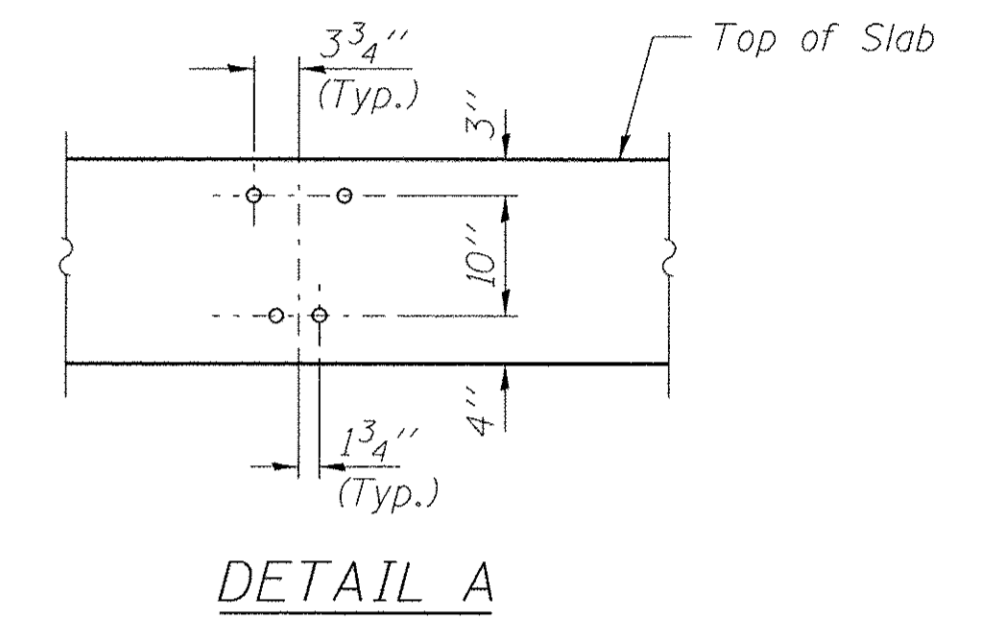
NEAR MIDSPAN

FILE NAME = 160489-sht-bridge.DGN	USER NAME =	DESIGNED - L.A.P.	REVISD -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>SUPERSTRUCTURE STRUCTURE NO. 092-0091</b>	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.540.3400 www.lrlengineering.com	PLOT SCALE =	CHECKED - S.M.S.	REVISD -			512	10-00174-00-BR	VERMILION	57	21	
184.000289 ILLINOIS PROFESSIONAL DESIGN FIRM LS/PE/SE CORPORATION	PLOT DATE = 12/20/2016	DRAWN - D.A.B.	REVISD -			HOMER-CATLIN ROAD CONTRACT NO. 91547					
		CHECKED - S.W.M.	REVISD -			ILLINOIS FED. AID PROJECT BRS-0512(111)					



**RAILING ELEVATION**

Showing Rail Post Spaces  
See sheet 11 of 29 for Railing Details.



**SUPERSTRUCTURE BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	346	#5	13'-8"	—
a1(E)	346	#5	17'-8"	—
a2(E)	408	#6	6'-6"	—
a3(E)	10	#5	17'-8"	—
a4(E)	24	#5	7'-2"	—
a5(E)	6	#5	6'-2"	—
a6(E)	10	#5	13'-3"	—
b(E)	136	#5	32'-6"	—
b1(E)	155	#5	26'-9"	—
b2(E)	64	#6	25'-9"	—
s(E)	240	#5	4'-7"	□
x(E)	50	#5	6'-5"	∩
Concrete Superstructure			Cu. Yd.	107.4
Bridge Deck Grooving			Sq. Yd.	399
Protective Coat			Sq. Yd.	471
Reinforcement Bars, Epoxy Coated			Pound	28,720
Bar Splicers			Each	362

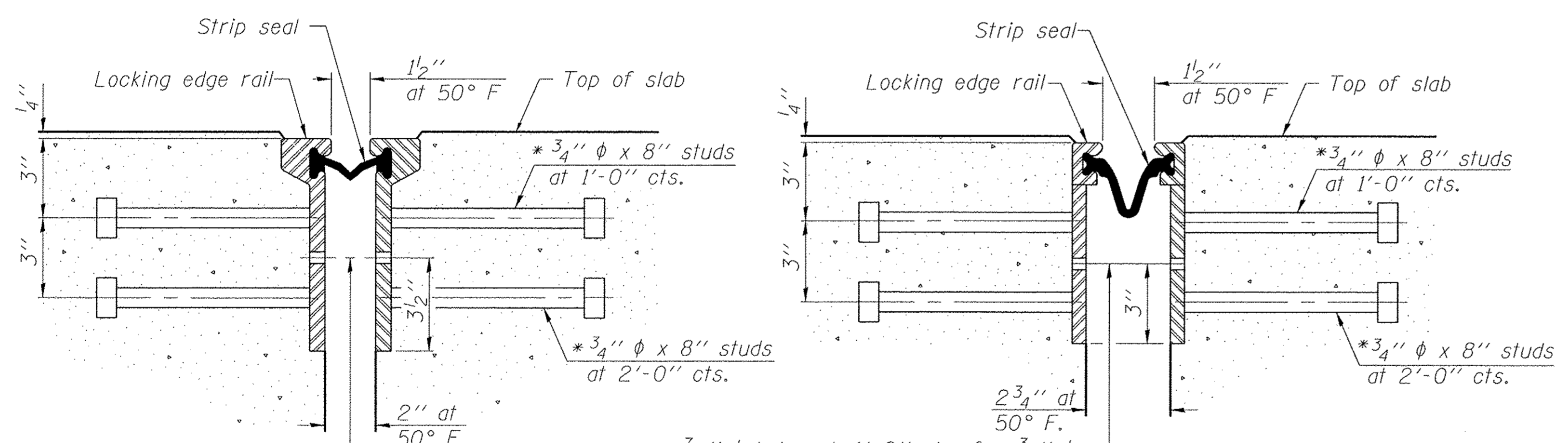
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3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.246.3400 www.tlring.com	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
194.000959 ILLINOIS PROFESSIONAL DESIGN FIRM L5 / FE / SE CORPORATION	PLOT DATE = 12/20/2016	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 092-0091**  
SHEET NO. 10 OF 29 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	22
HOMER-CATLIN ROAD		CONTRACT NO. 91547		
ILLINOIS		FED. AID PROJECT BRS-0512111D		





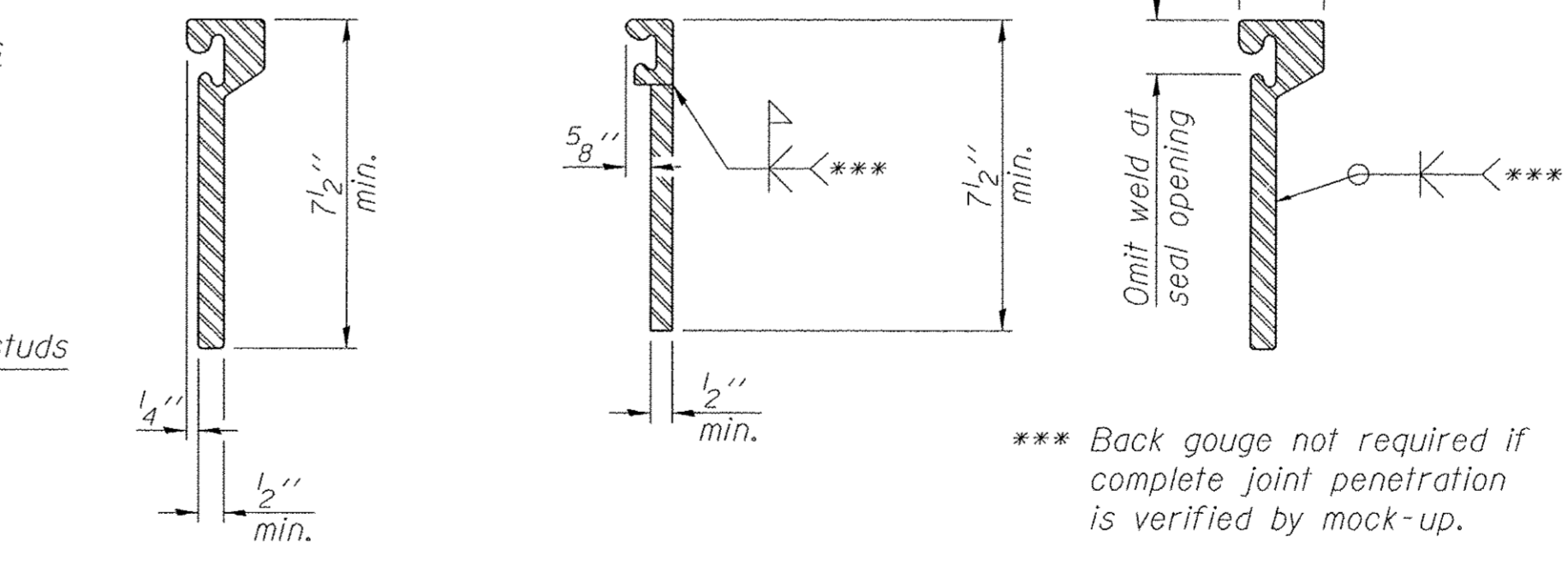
7/16" φ holes at 4'-0" cts. for 3/8" φ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

**SECTION THRU ROLLED RAIL JOINT**

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

**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**

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

**LOCKING EDGE RAIL SPLICE**

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

**LOCKING EDGE RAILS**

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

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

The manufacturer's recommended installation methods shall be followed.

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

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

Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.

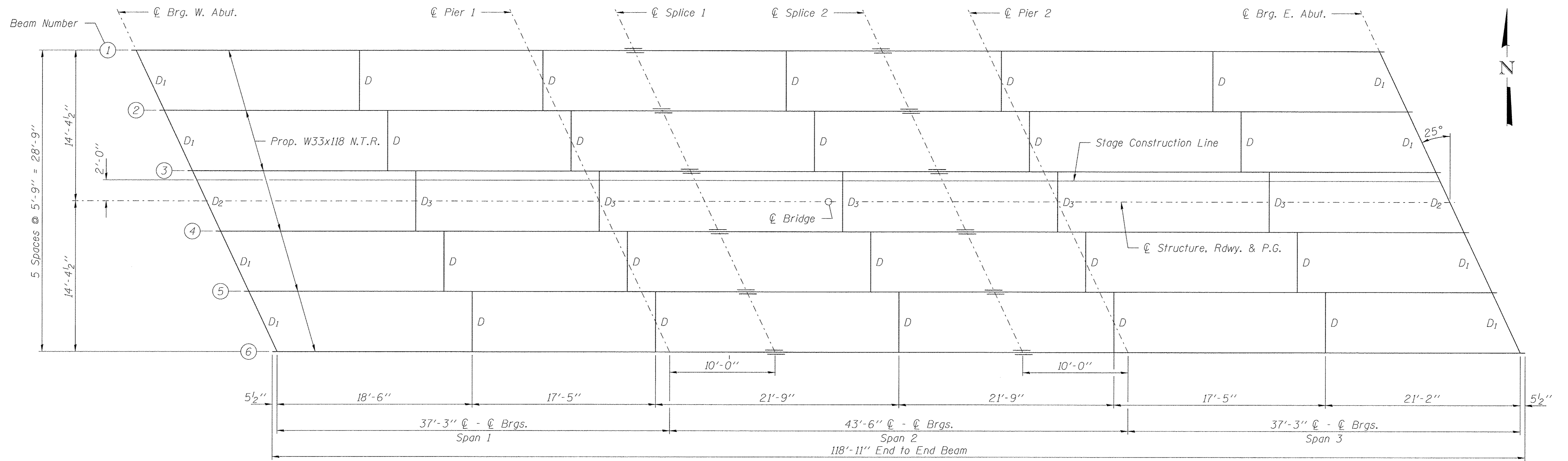
**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	72

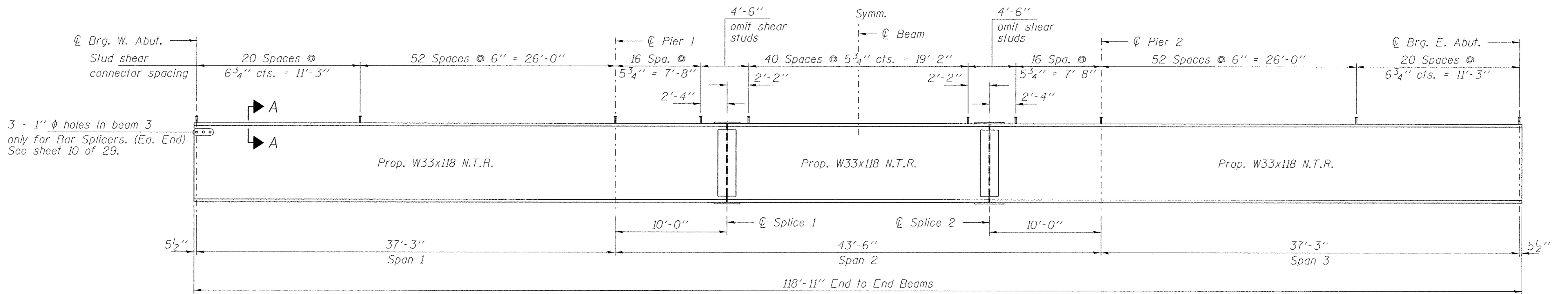
EJ-SSJ      11-22-2016

FILE NAME = 160489-sht-bridge.DGN 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 217.246.3400 www.nlrengineering.com 184.00959 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P.E. / S.E. CORPORATION	USER NAME =	DESIGNED - L.A.P. CHECKED - S.M.S.	REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>PREFORMED JOINT STRIP SEAL</b> <b>STRUCTURE NO. 092-0091</b>	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN - D.A.B. CHECKED - S.W.M.	REVISED - REVISED -			512	10-00174-00-BR	VERMILION	57	24





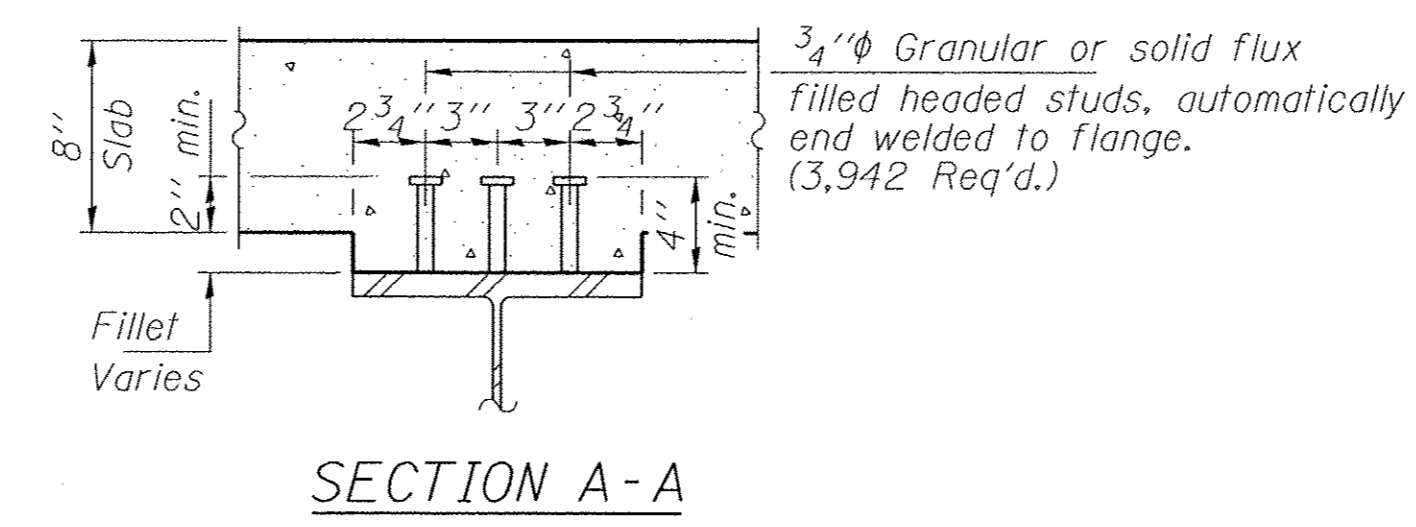
PLAN



BEAM ELEVATION

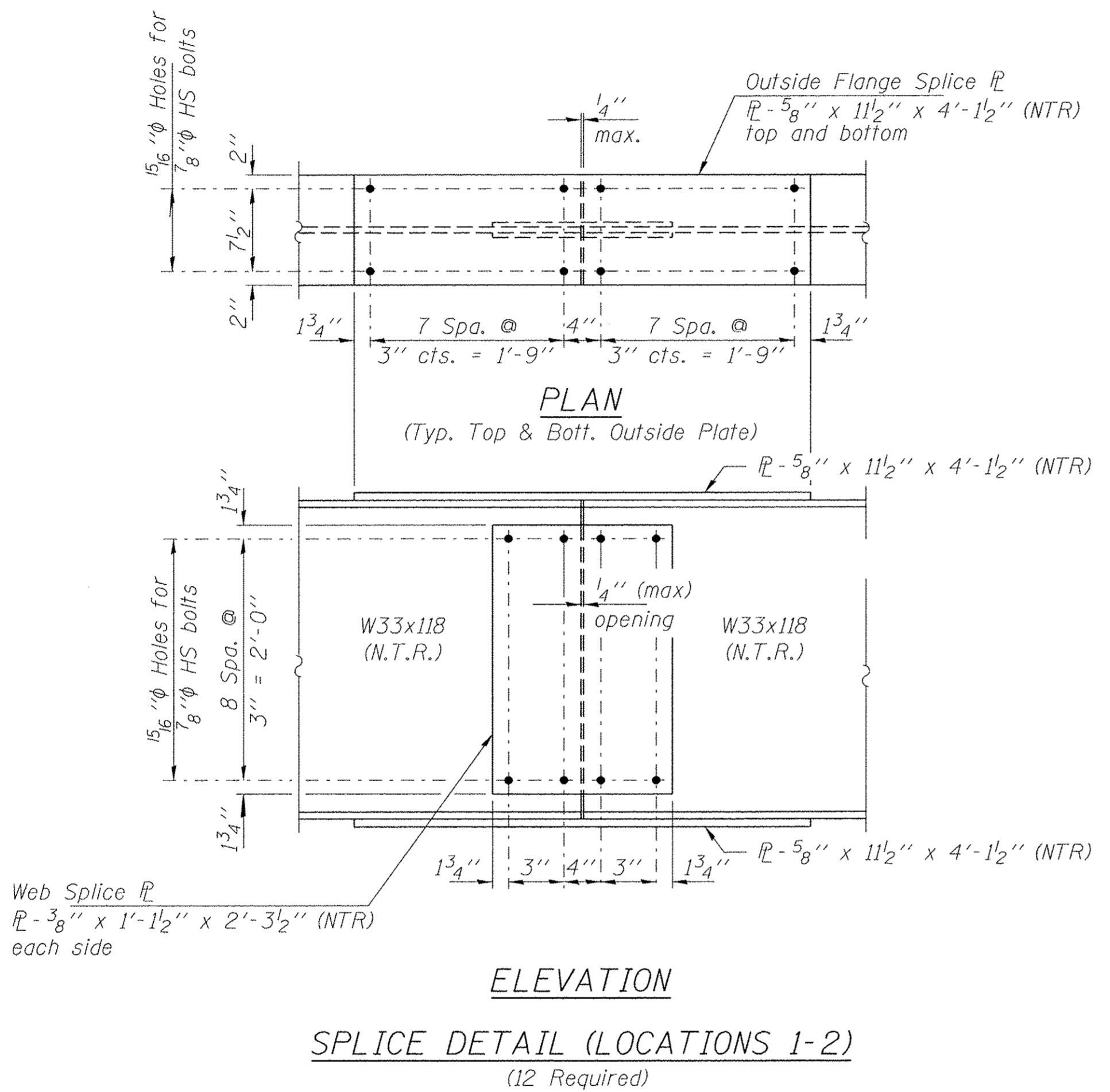
Location	℄ Brg. W. Abut.	℄ Brg. Pier 1	℄ Splice 1	℄ Splice 2	℄ Pier 2	℄ Brg. E. Abut.
BEAM 1	656.14	656.14	656.14	656.14	656.14	656.14
BEAM 2	656.26	656.26	656.26	656.26	656.26	656.26
BEAM 3	656.38	656.38	656.38	656.38	656.38	656.38
BEAM 4	656.38	656.38	656.38	656.38	656.38	656.38
BEAM 5	656.26	656.26	656.26	656.26	656.26	656.26
BEAM 6	656.14	656.14	656.14	656.14	656.14	656.14

TOP OF BEAM ELEVATIONS  
(For fabrication only)  
(Does not include Dead Load Deflections)



SECTION A-A

Notes:  
 All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.  
 All beams, diaphragms, connection plates and splices shall be AASHTO M270 Grade 50W.  
 For Structural Steel details see sheet 14 & 15 of 29.



Web Splice PL  
 PL-3/8" x 1'-1 1/2" x 2'-3 1/2" (NTR)  
 each side

**ELEVATION**  
**SPLICE DETAIL (LOCATIONS 1-2)**  
 (12 Required)

Notes:  
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.  
 All beams, diaphragms, connection plates and splices shall be M270 Grade 50W.

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
$I_s$	(in <sup>4</sup> )	5,900	5,900	5,900
$I_c(n)$	(in <sup>4</sup> )	16,991	16,991	16,991
$I_c(3n)$	(in <sup>4</sup> )	12,705	12,705	12,705
$I_c(cr)$	(in <sup>4</sup> )	7,078	8,032	7,078
$S_s$	(in <sup>3</sup> )	358	358	358
$S_c(n)$	(in <sup>3</sup> )	546	546	546
$S_c(3n)$	(in <sup>3</sup> )	496	496	496
$S_c(cr)$	(in <sup>3</sup> )	352	414	352
DC1	(k/')	0.75	0.75	0.75
M <sub>DC1</sub>	(k)	75	122	55
DC2	(k/')	0.15	0.15	0.15
M <sub>DC2</sub>	(k)	15	25	11
DW	(k/')	0.29	0.29	0.29
M <sub>DW</sub>	(k)	30	48	22
LLDF		0.595	0.587	0.579
$M_L + IM$	(k)	324	268	301
$M_u$ (Strength I)	(k)	725	725	642
$\phi_r M_n$	(k)	2,885	-	2,905
$f_s$ DC1	(ksi)	2.5	4.1	1.8
$f_s$ DC2	(ksi)	0.4	0.6	0.3
$f_s$ DW	(ksi)	0.7	1.2	0.5
$f_s$ ( $L + IM$ )	(ksi)	7.1	5.9	6.6
$f_s$ (Service II)	(ksi)	12.9	13.5	11.2
$0.95R_n F_{yf}$	(ksi)	47.5	47.5	47.5
$f_s$ (Total)(Strength I)	(ksi)	-	17.9	-
$\phi_r F_n$	(ksi)	-	-	-
$V_r$	(k)	22.3	45.8	23.2

INTERIOR GIRDER REACTION TABLE				
	Abut.		Pier	
	Interior	Exterior	Interior	Exterior
LLDF	0.653	0.713	0.653	0.653
OCF	-	1.093	-	-
R <sub>DC1</sub>	9.7	10.6	33.2	33.2
R <sub>DC2</sub>	2.1	2.2	6.8	6.8
R <sub>DW</sub>	3.9	4.2	12.9	12.9
$R_L + IM$	51.3	56.0	77.5	77.5
R <sub>Total</sub>	67.0	73.0	130.4	130.4

$I_s, S_s$ : 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).

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

M<sub>DC1</sub>: 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<sub>DC2</sub>: 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<sub>DW</sub>: 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 load plus impact loads as calculated below (ksi).  
 $M_L + IM / S_c(n)$  or  $M_{DW} / S_c(cr)$  as applicable.

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

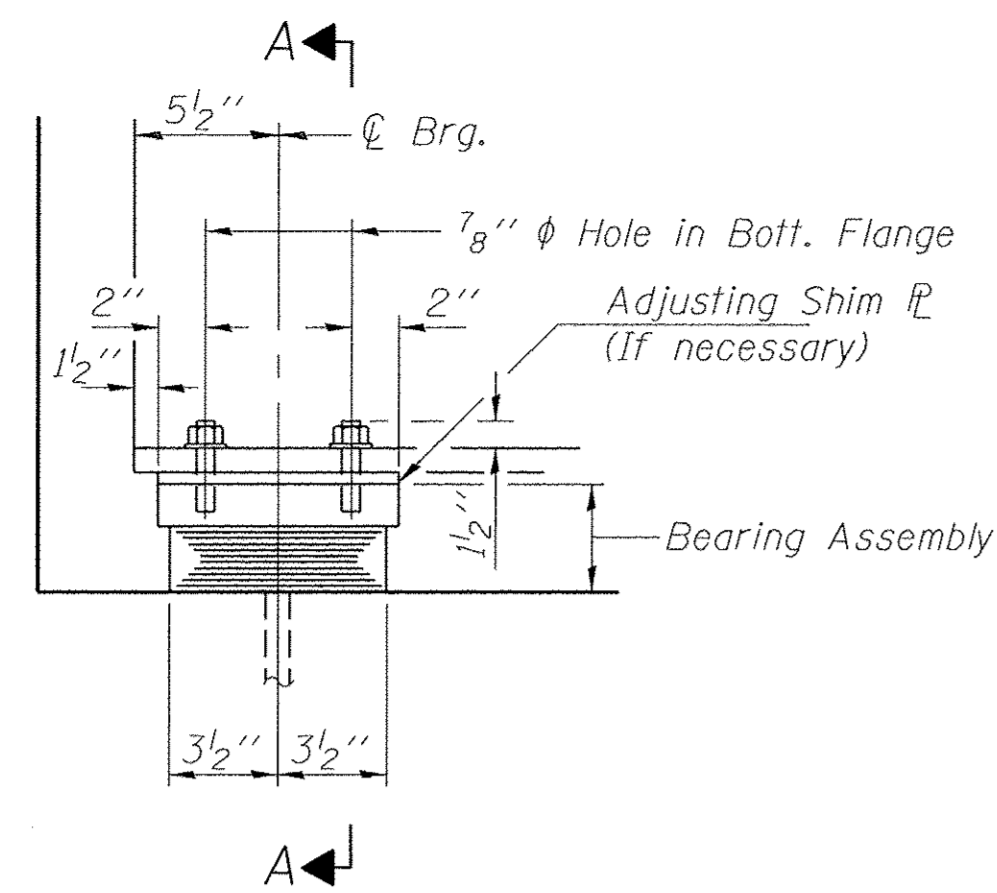
$0.95R_n F_{yf}$ : Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

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

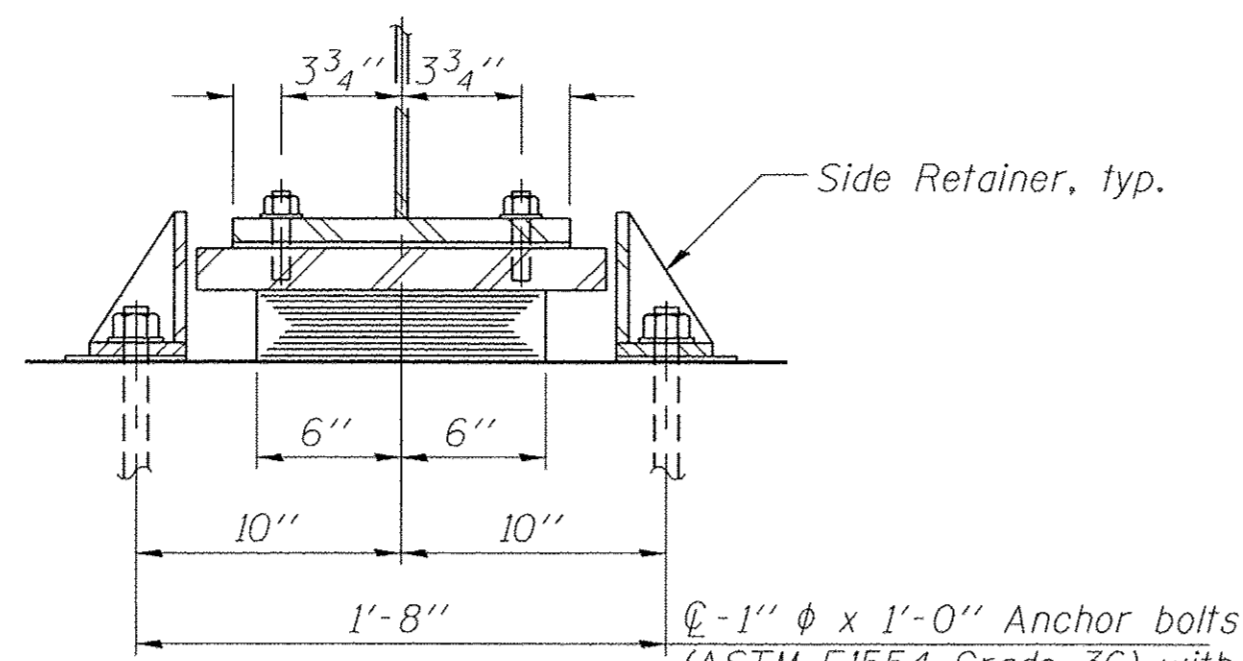
$\phi_r F_n$ : Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

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



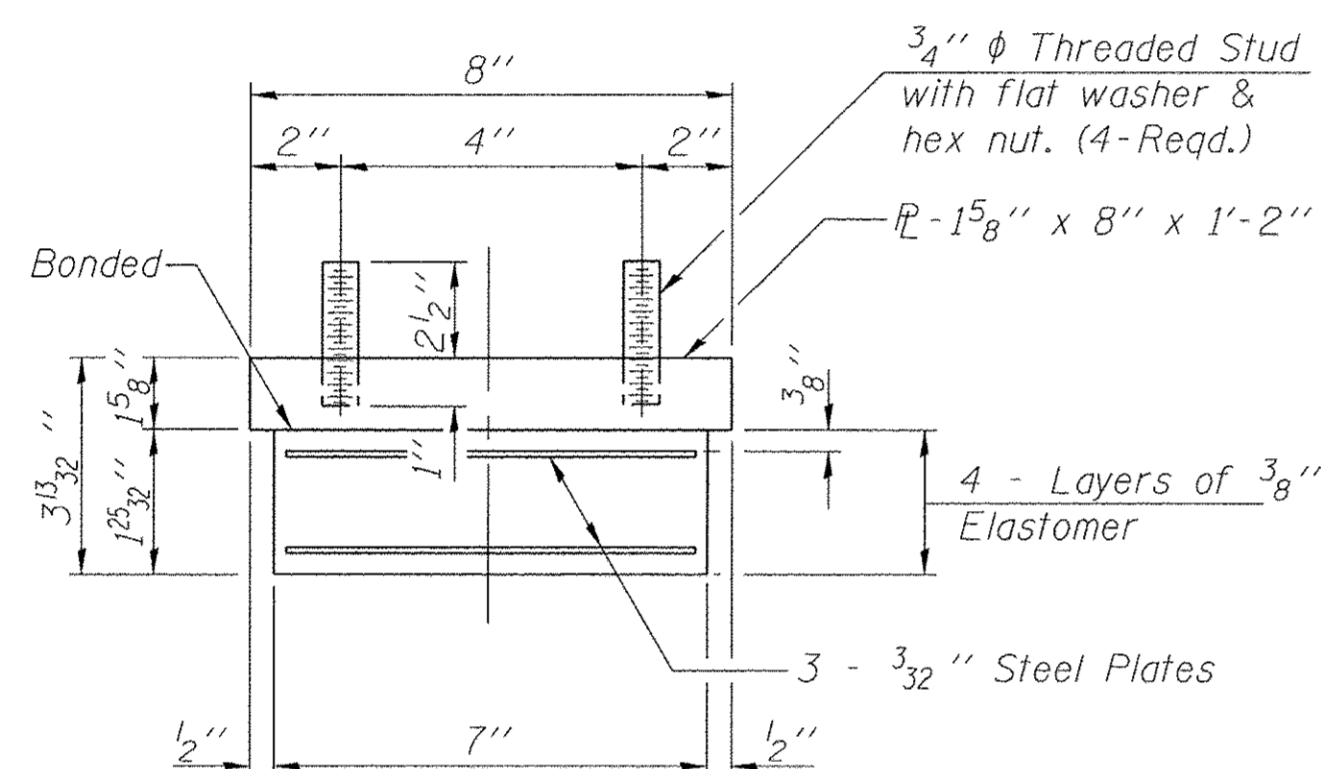


ELEVATION AT ABUT.



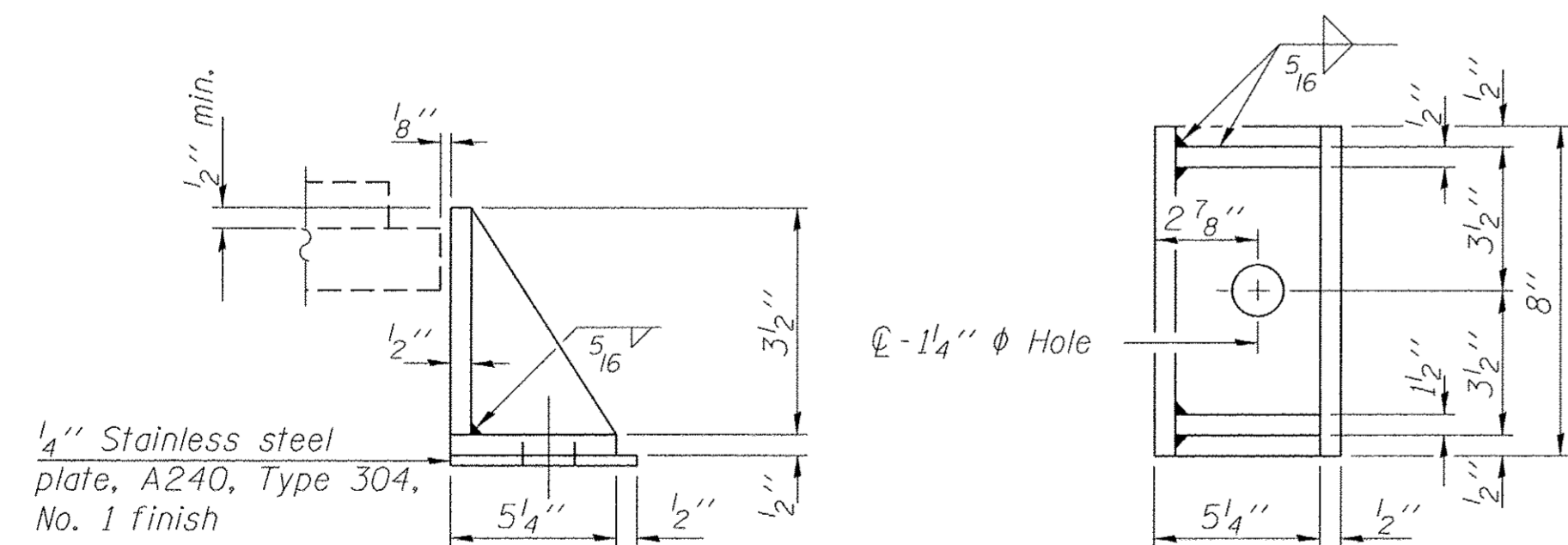
SECTION A-A

**TYPE I ELASTOMERIC EXP. BRG.**



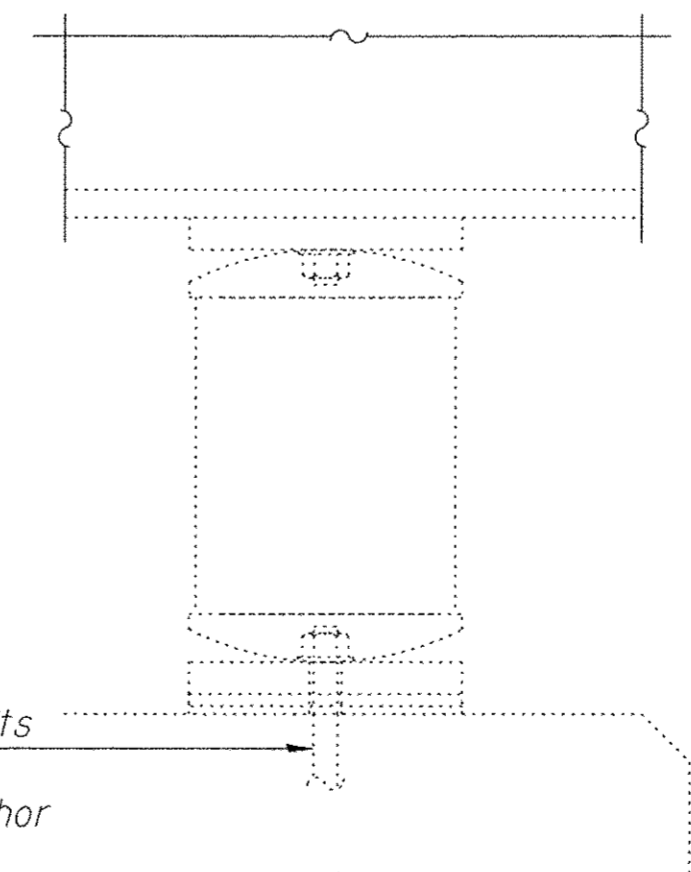
BEARING ASSEMBLY

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:  
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 if required.  
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.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.  
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.



Burn the existing anchor bolts flush with existing concrete surface. Grind existing anchor bolts smooth and seal with epoxy.  
**EXISTING BEARING REMOVAL DETAIL**  
Cost is included with Removal of Existing Superstructures.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 1"	Each	24

I-2E-1

11-22-2016

FILE NAME = 160489-sht-bridge.DGN  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
217.246.3409 WWW.IRENGINEERING.COM  
184.002955  
ILLINOIS PROFESSIONAL DESIGN FIRM  
L.S. PFEISER CORPORATION

USER NAME =  
DESIGNED - L.A.P.  
CHECKED - S.M.S.  
DRAWN - D.A.B.  
CHECKED - S.W.M.  
PLOT SCALE =  
PLOT DATE = 12/20/2016

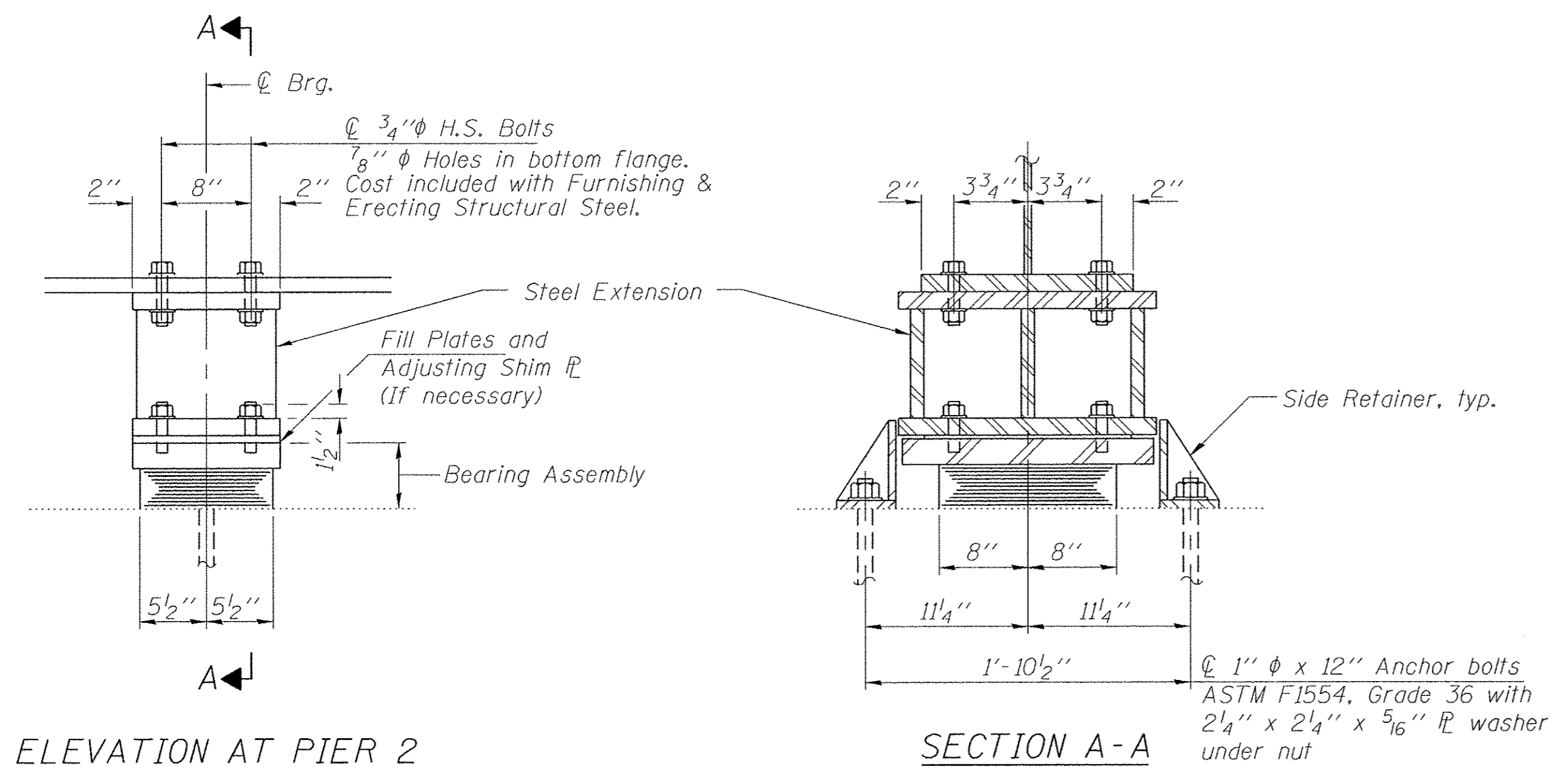
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DRAWN - D.A.B.  
CHECKED - S.W.M.  
REVISIONS -  
REVISIONS -  
REVISIONS -  
REVISIONS -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**BEARING DETAILS  
STRUCTURE NO. 092-0091**

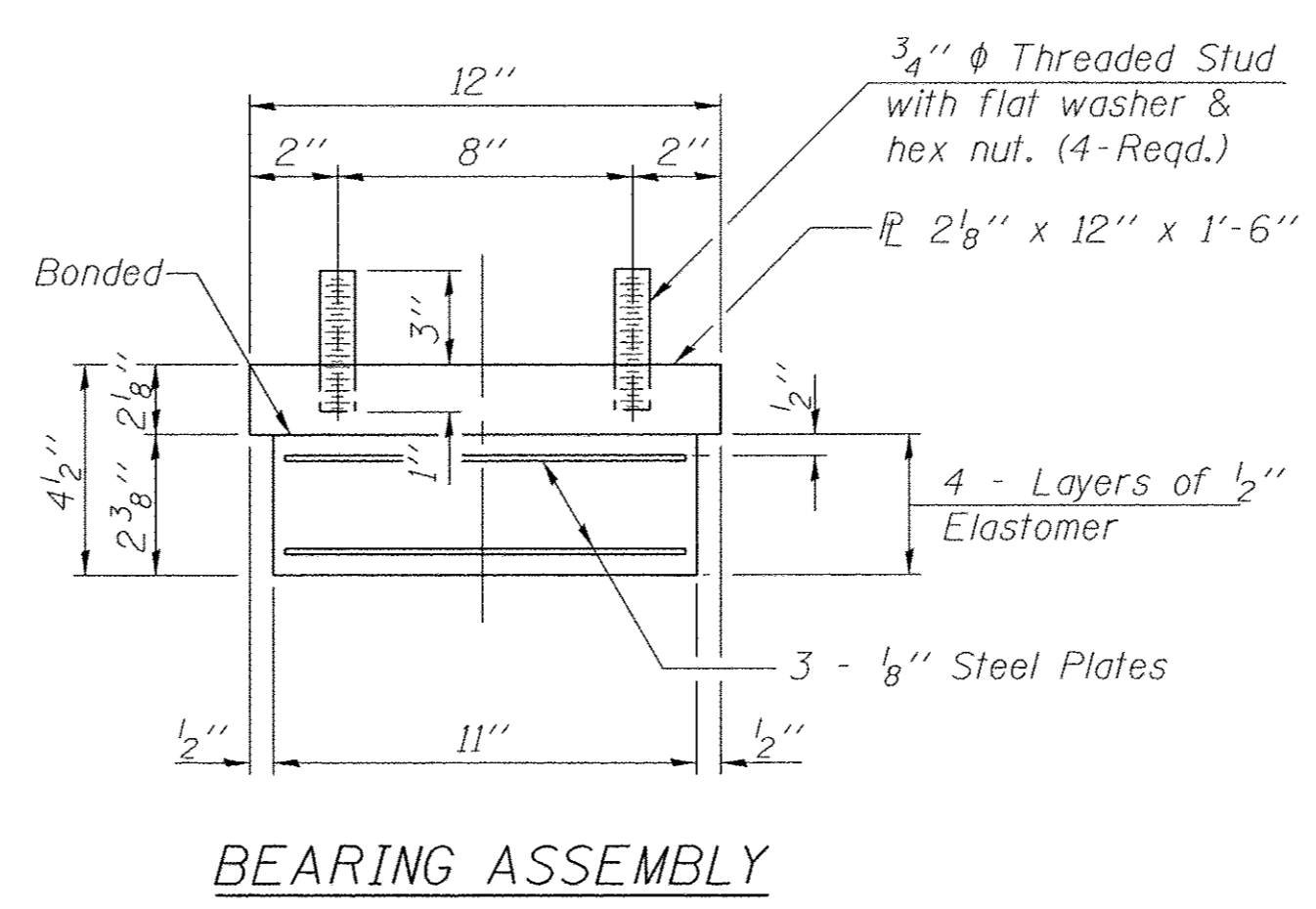
SHEET NO. 16 OF 29 SHEETS

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	28
HOMER-CATLIN ROAD		CONTRACT NO. 91547		
ILLINOIS FED. AID PROJECT BRS-0512(111)				

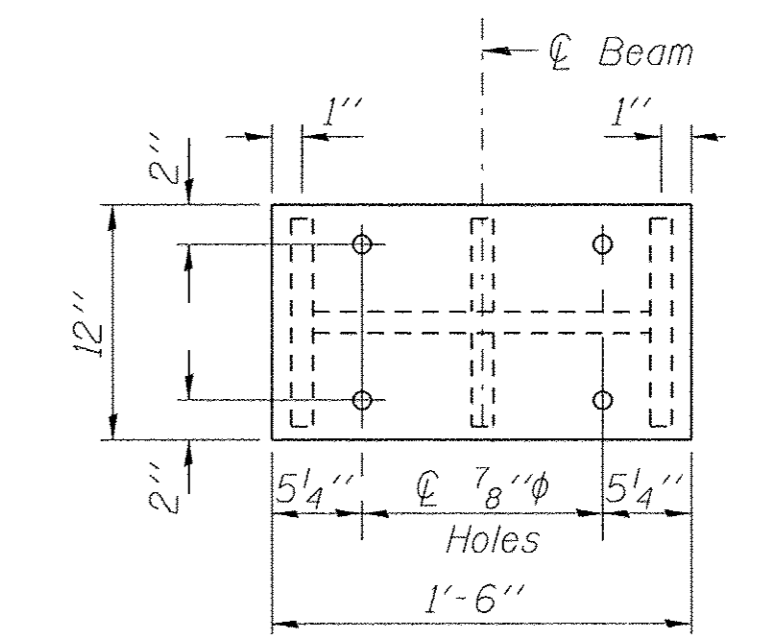


**ELEVATION AT PIER 2**

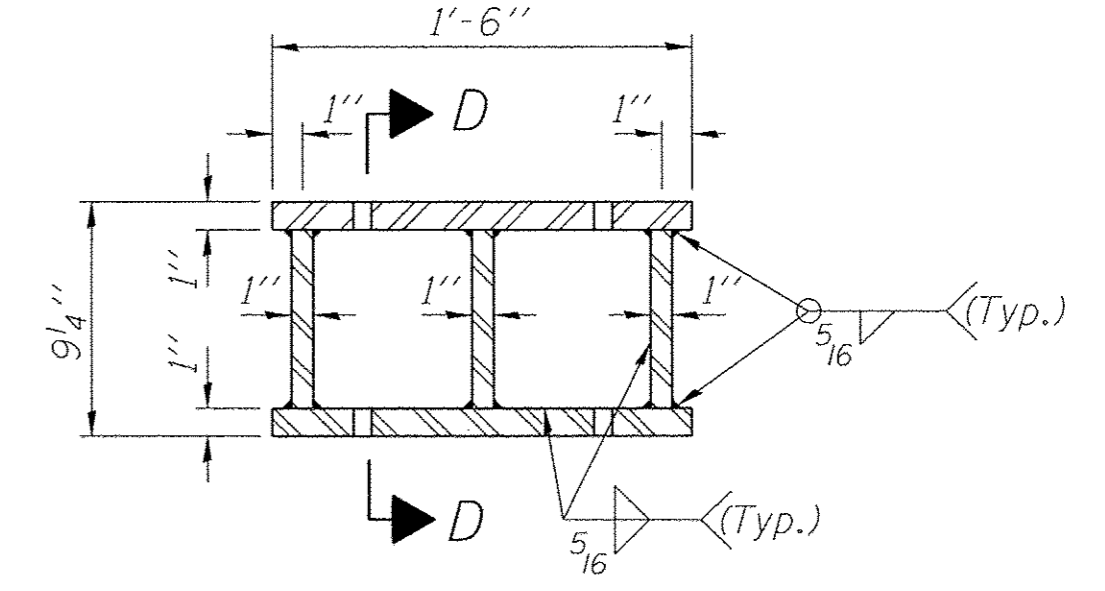
**TYPE I ELASTOMERIC EXP. BRG. AT PIER 2**  
(6 Required)



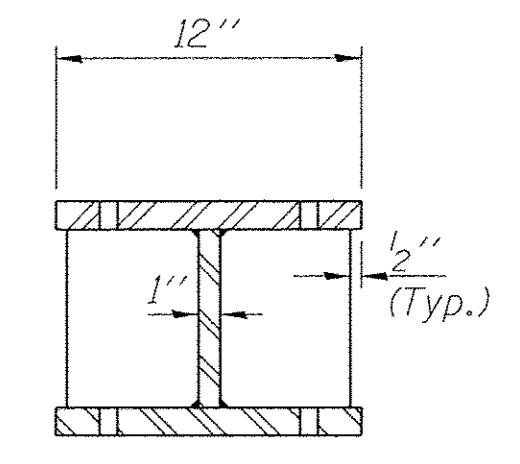
Note:  
Shim plates shall not be placed under Bearing Assembly.



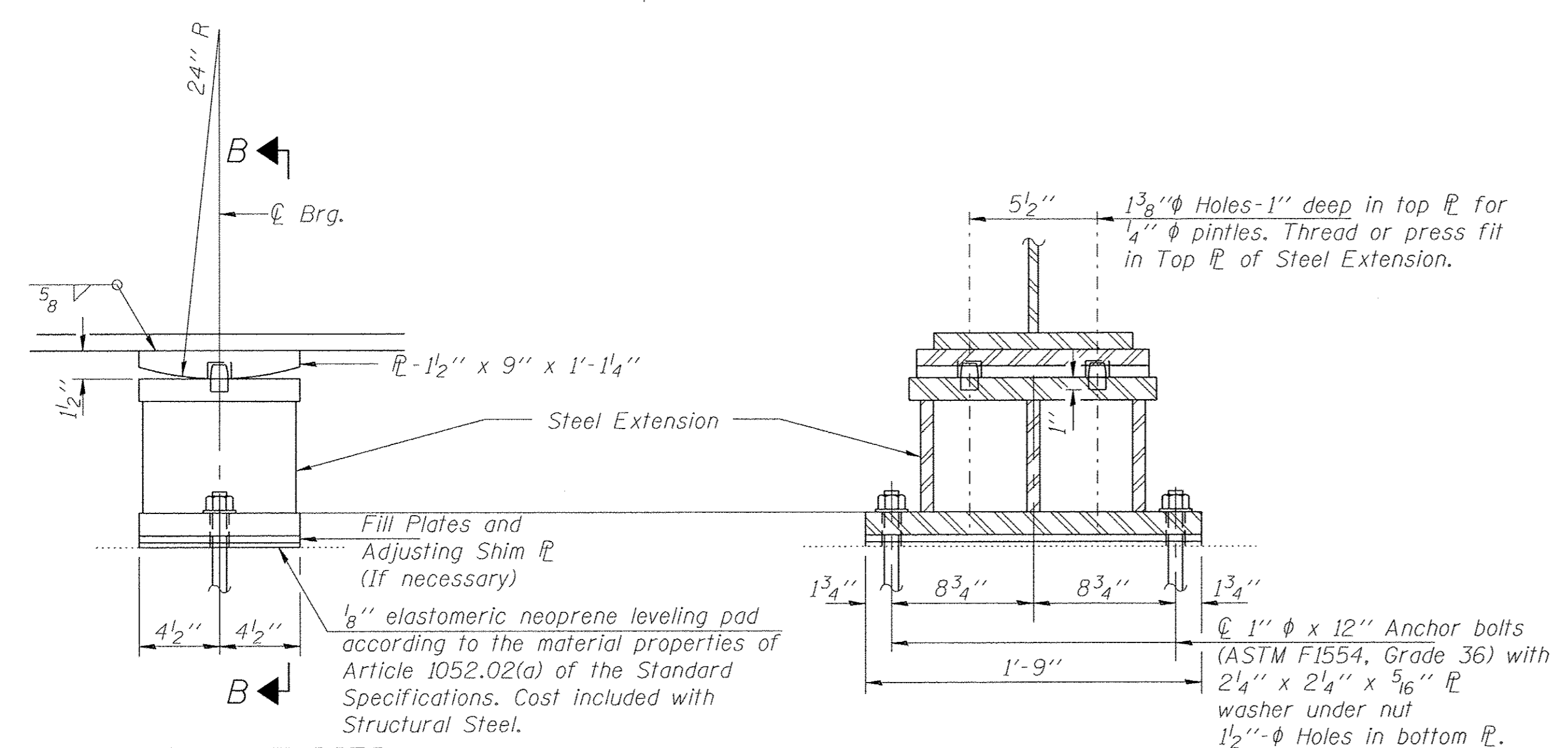
**PLAN STEEL EXTENSION**



**ELEVATION STEEL EXTENSION**  
Pier 2

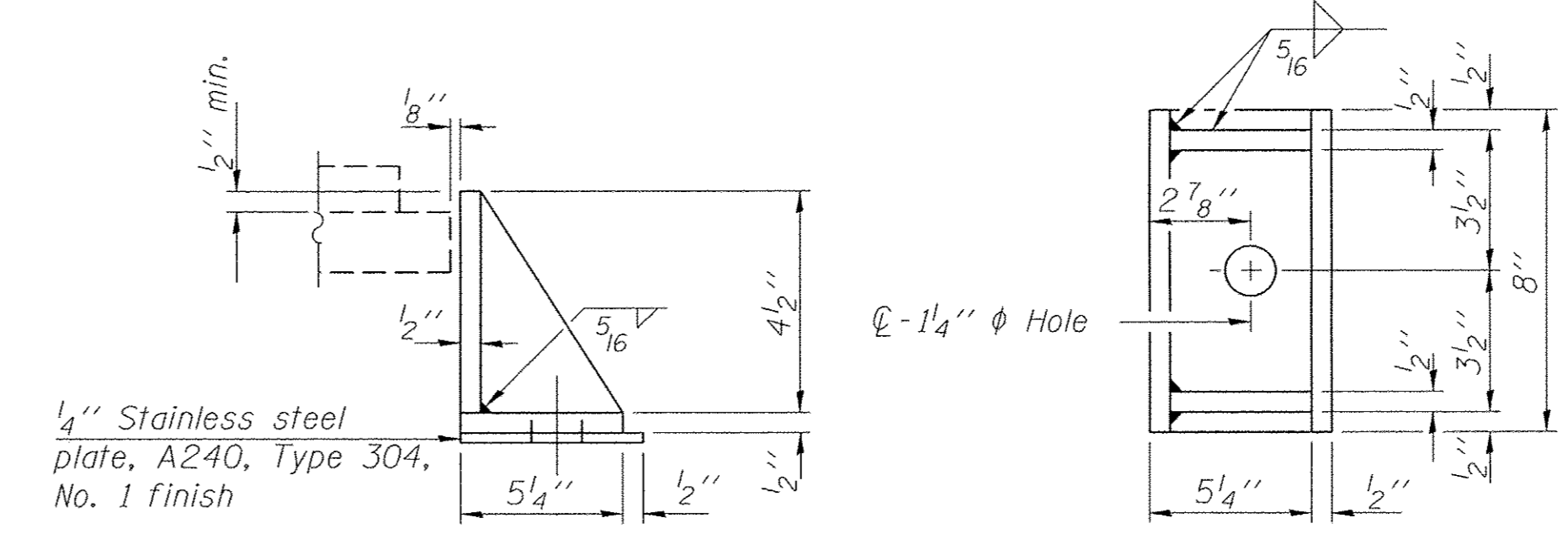


**SECTION D-D**

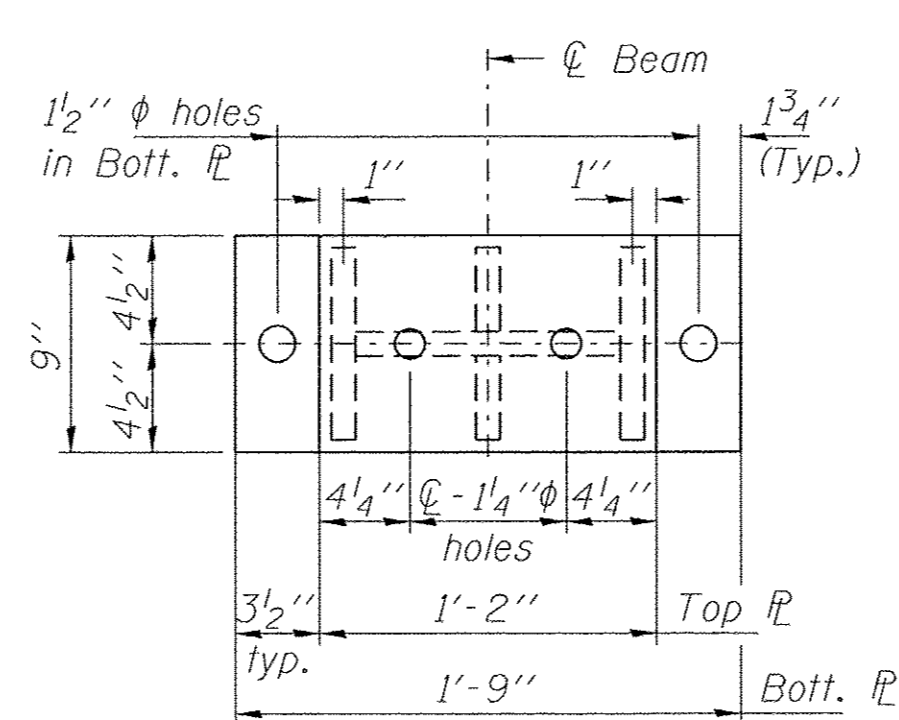


**ELEVATION AT PIER 1**

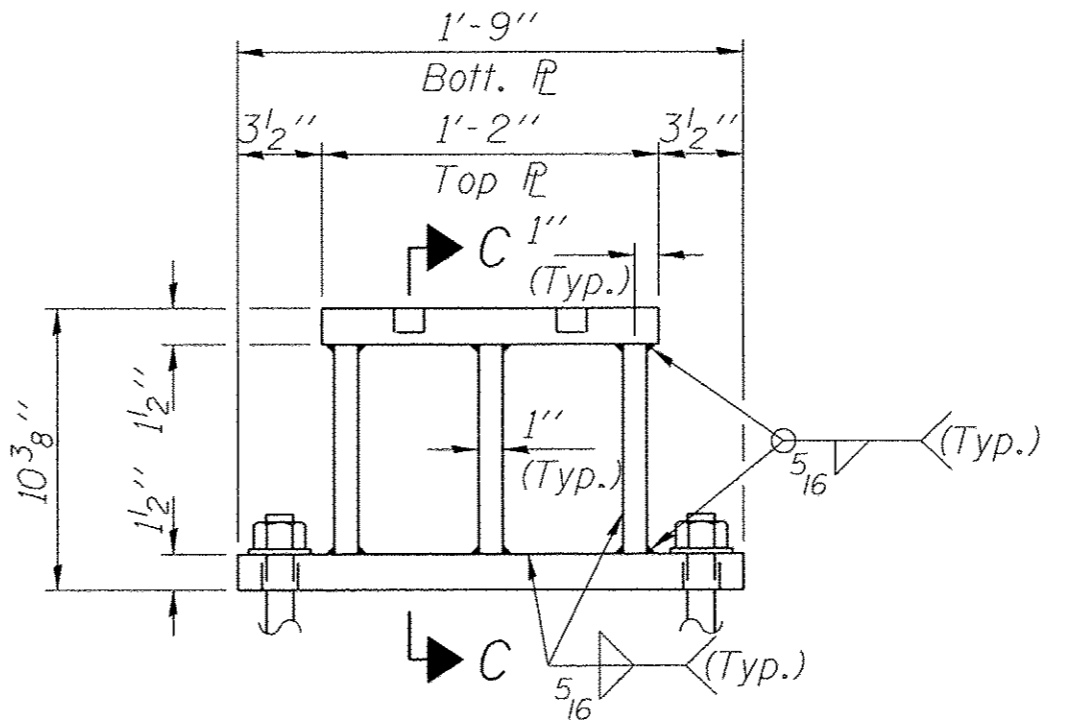
**FIXED BEARING AT PIER 1**  
(6 Required)



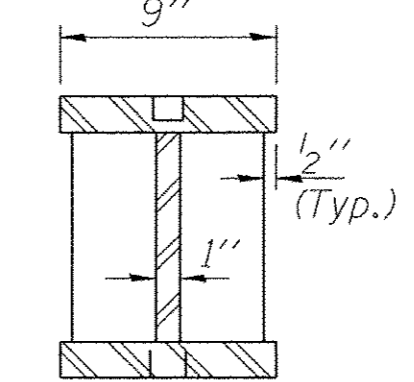
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**PLAN STEEL EXTENSION**  
Pier 1



**ELEVATION STEEL EXTENSION**  
(Fixed Bearing - Pier 1)



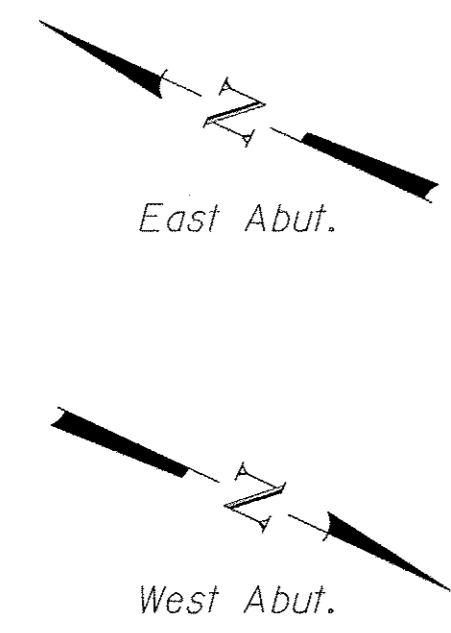
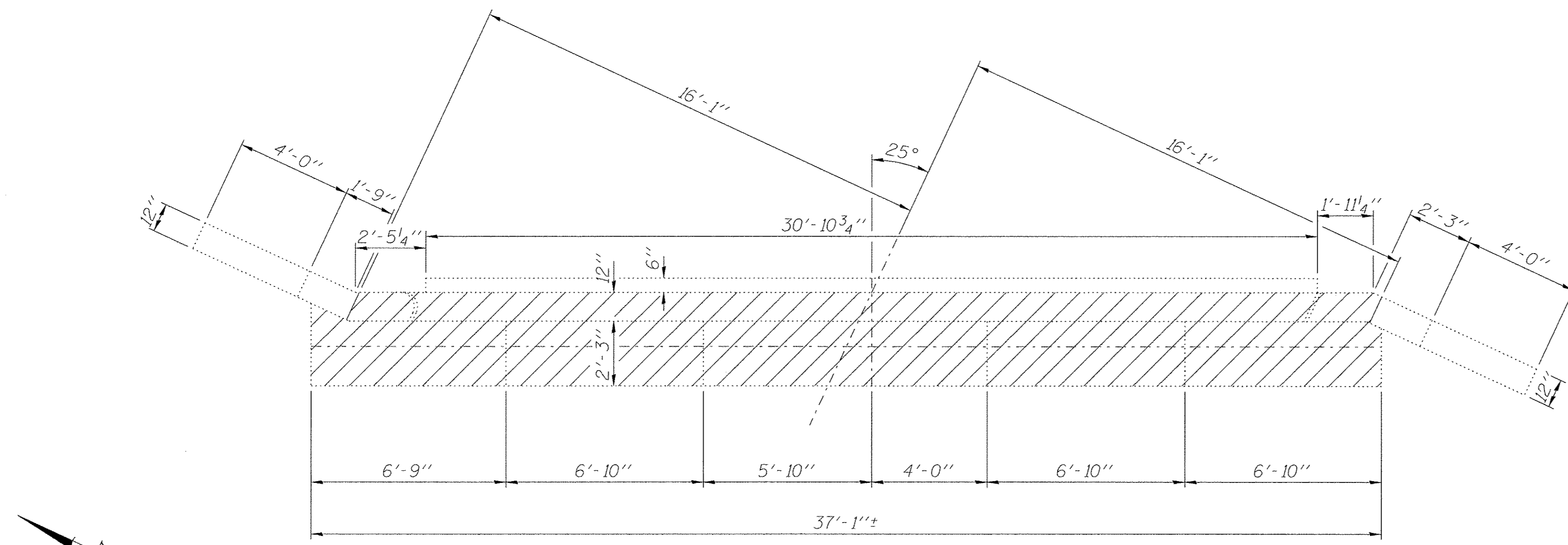
**SECTION C-C**

FILL PLATES		
Beam	Pier 1	Pier 2
1	-	-
2	1/16"	1/16"
3	5/8"	5/8"
4	5/8"	5/8"
5	1/16"	1/16"
6	-	-

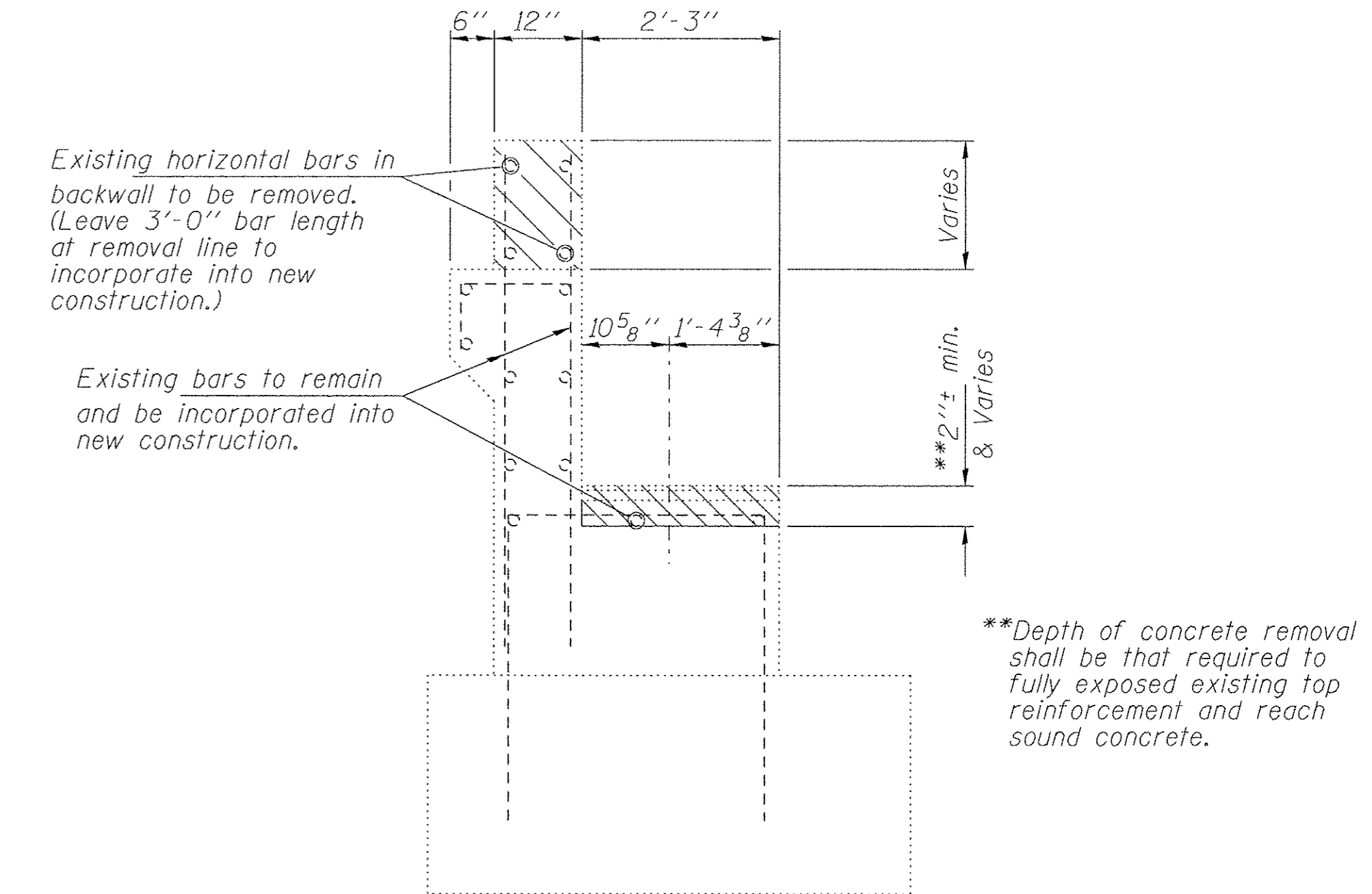
Notes:  
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.  
Two 3/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
New steel extensions, fixed bearing plates, connection bolts, Fill  $\phi$ 's and Shim  $\phi$ 's are included in "Furnishing and Erecting Structural Steel".  
All structural steel for the fixed bearings, including plate materials and pintles shall be AASHTO M270 Grade 50W.  
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
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.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.  
Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

**BILL OF MATERIAL**

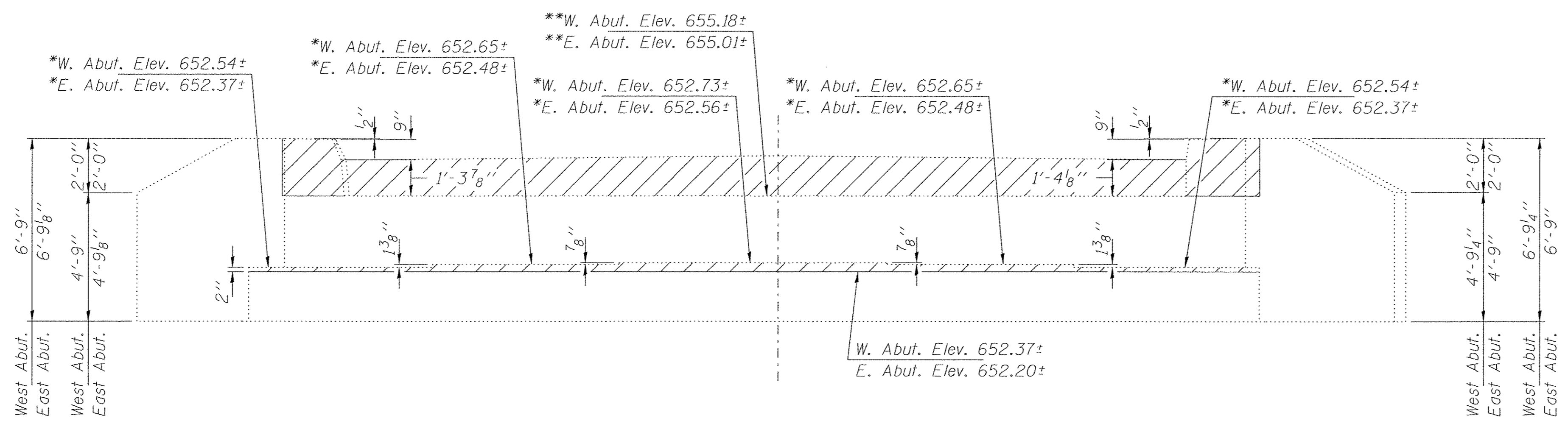
Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Anchor Bolts, 1"	Each	24



PLAN



SECTION THRU ABUTMENT



ELEVATION  
(West Abutment Looking West)  
(East Abutment Looking East)

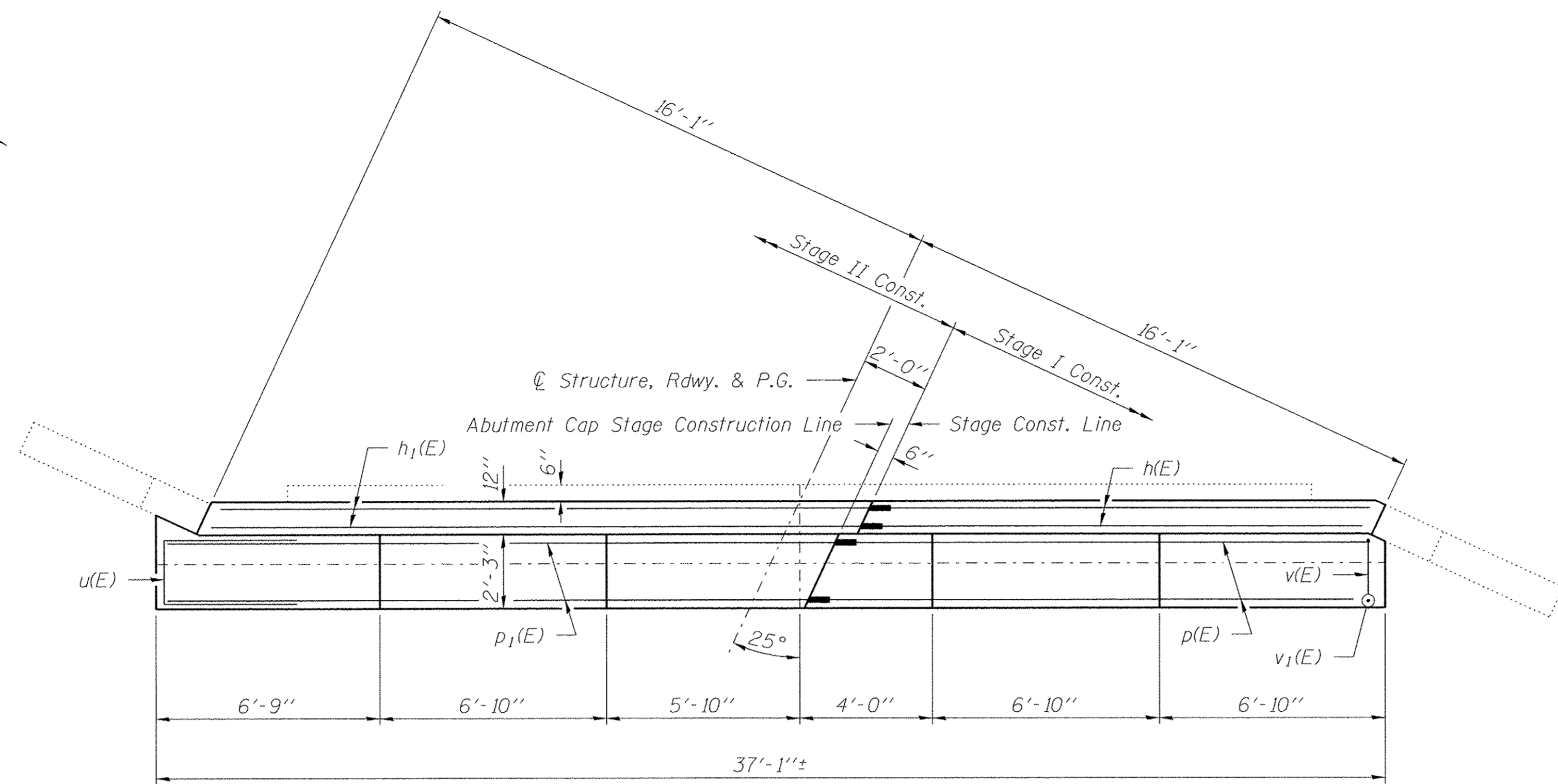
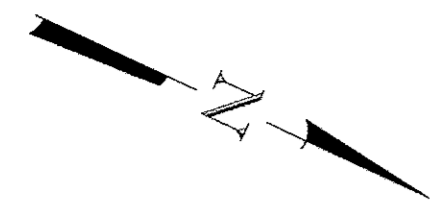
Remove bearing seat concrete to top mat of reinforcement in Cap or sound concrete.

\*Assumed field elevations.

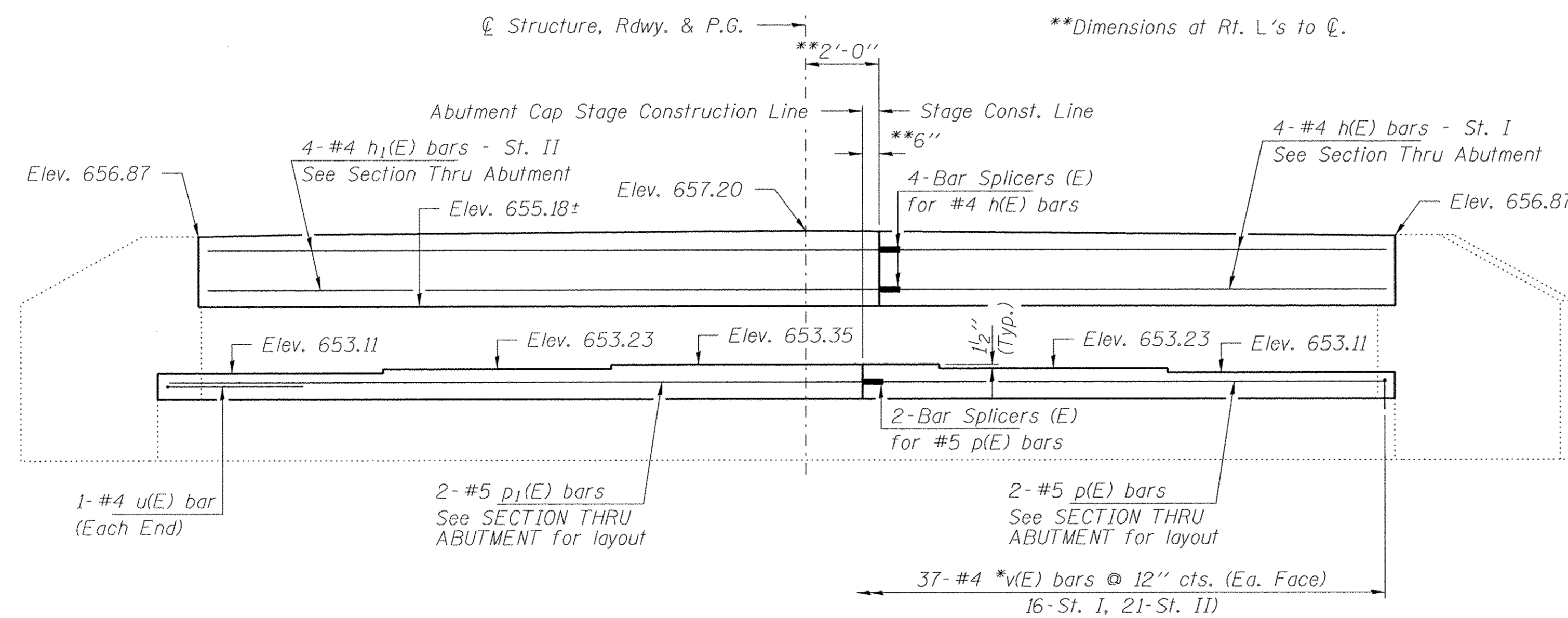
Notes:  
Hatched areas indicate Concrete Removal.  
Concrete damaged during the Removal of Existing Superstructures shall be repaired at the expense of the Contractor.  
Structural Repair of Concrete shall be used to repair existing deterioration to all vertical areas of the abutment cap and backwalls as directed by the Engineer after Removal of the Existing Superstructure.  
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.  
Existing reinforcement not used in new construction shall be cut off, ground smooth and sealed with epoxy. Cost is included in Concrete Removal.

BILL OF MATERIAL

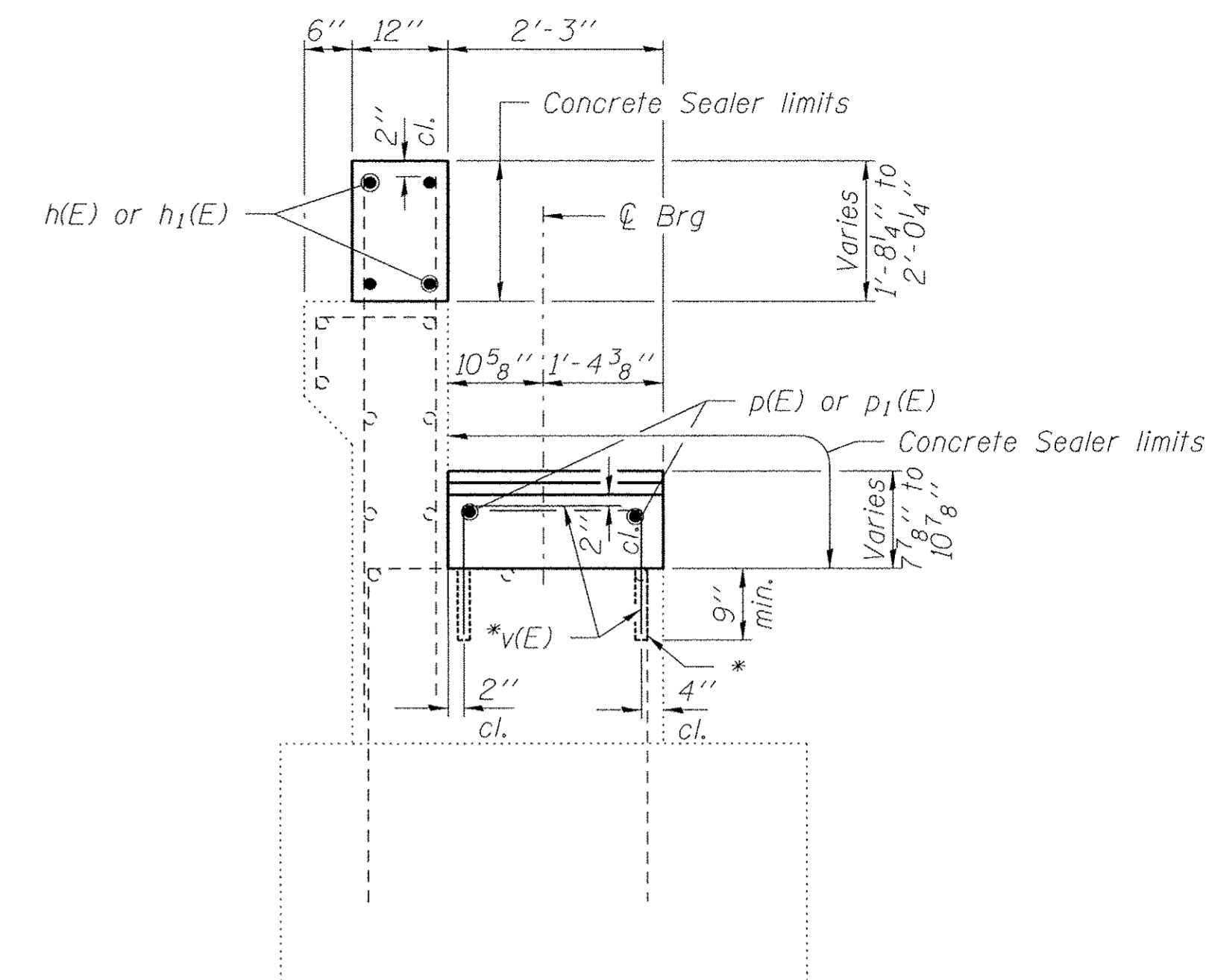
Item	Unit	Quantity
Concrete Removal	Cu. Yd.	5.6
Structural Repair of Concrete (Depth ≈ 5')	Sq. Ft.	148



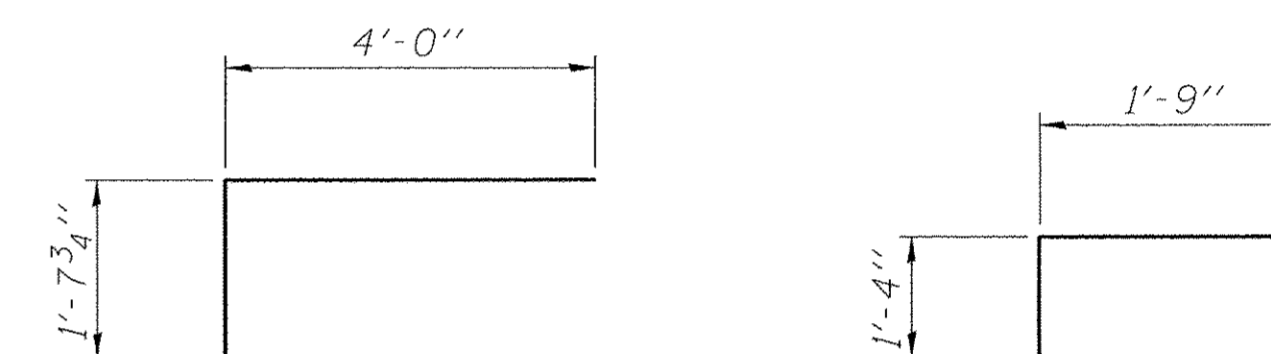
PLAN



ELEVATION  
(Looking West)



SECTION THRU ABUTMENT



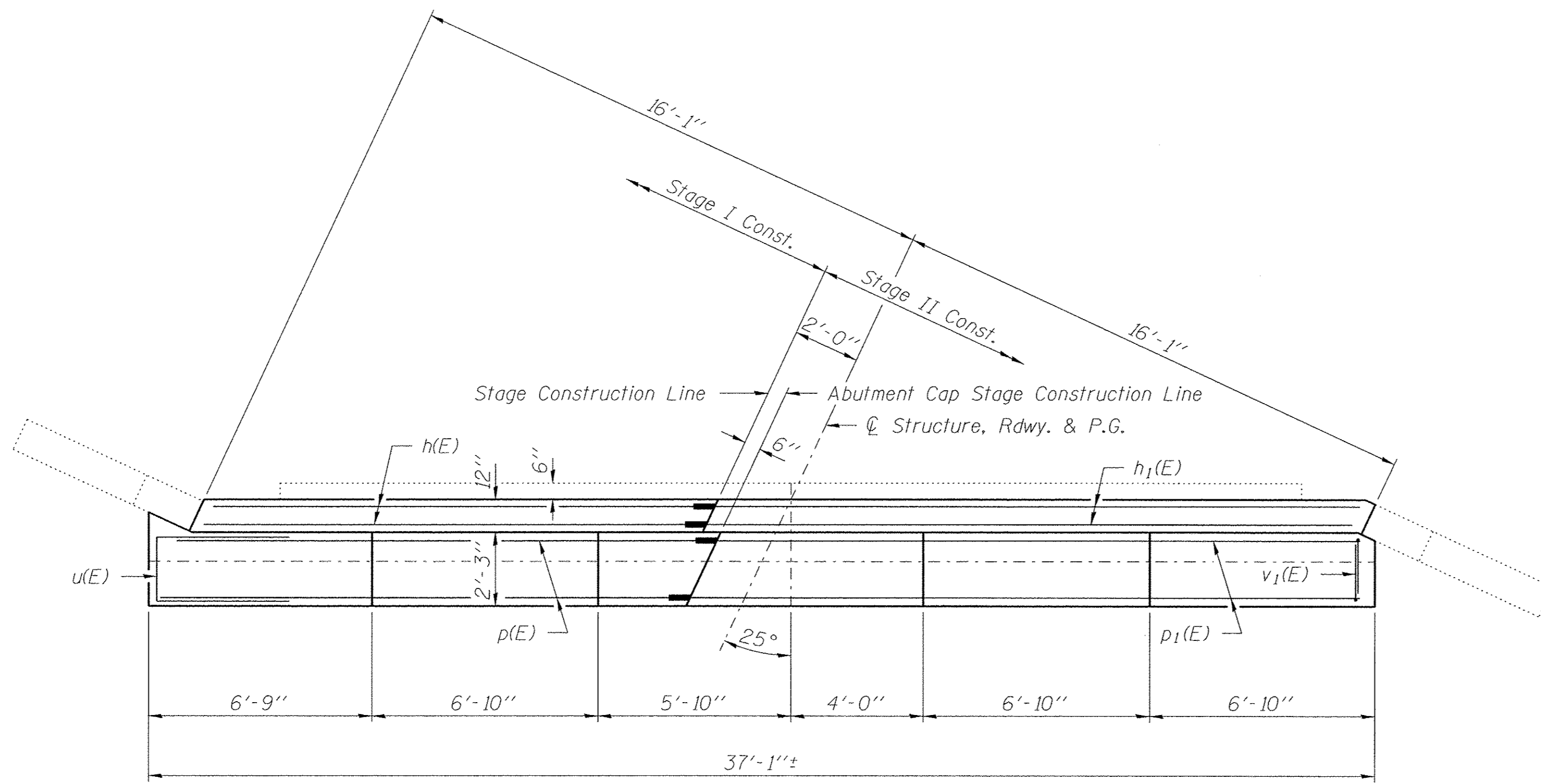
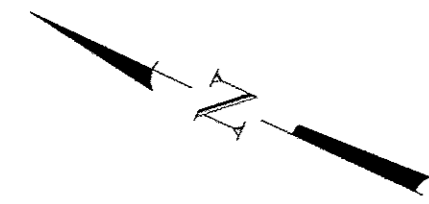
BAR u(E)

BAR \*v(E)

Notes:  
 Concrete damaged during the Removal of Existing Superstructures shall be repaired at the expense of the Contractor.  
 Structural Repair of Concrete shall be used to repair existing deterioration to the abutment backwalls and bearing seats as directed by the Engineer after Removal of Existing Superstructure.  
 Cost of drilling and grouting reinforcing bars included in cost for Concrete Structures.  
 The backwall shall be poured after the deck.  
 See sheet 12 of 29 for expansion joint details.  
 \*v(E) bars shall be drilled and set according to Article 509.06 of the Standard Specifications. Bars shall have a 9" minimum embedment depth, be set in 1"  $\phi$  holes and filled with approved epoxy grout.

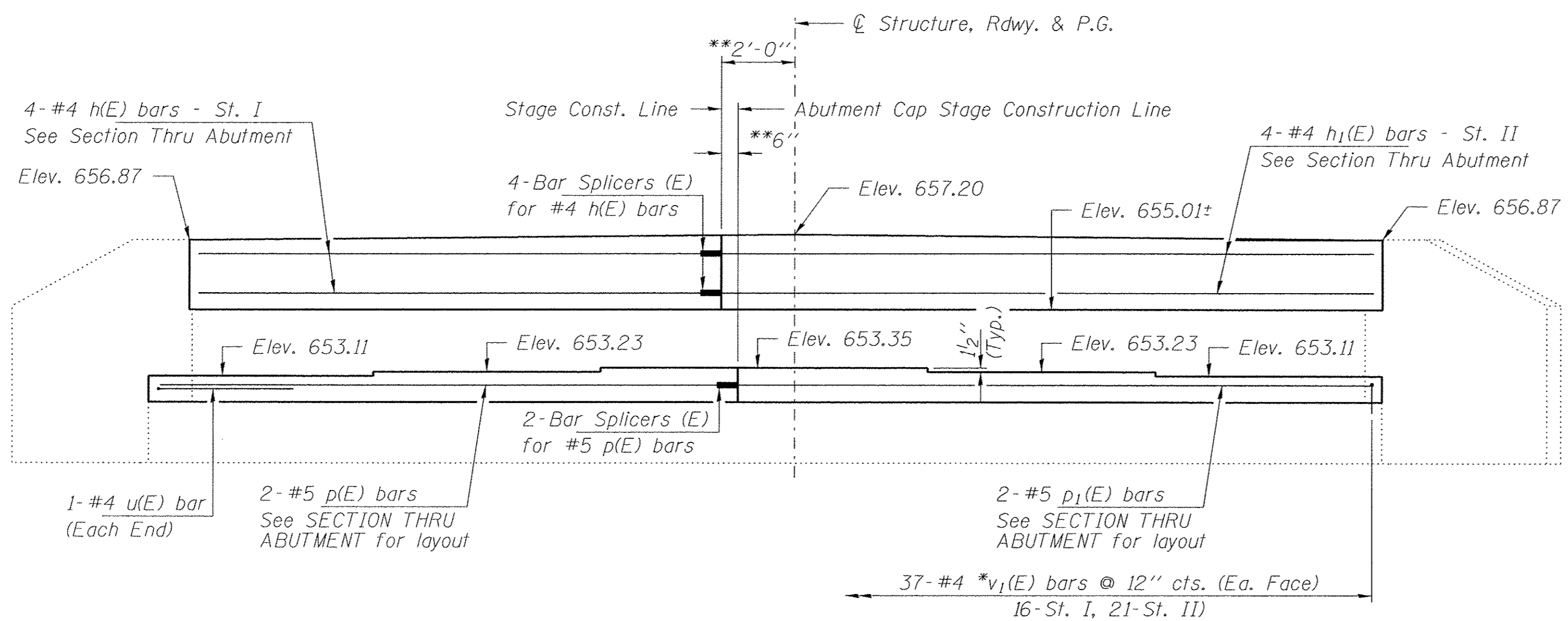
BILL OF MATERIAL - WEST ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	4	#4	15'-2"	—
h1(E)	4	#4	19'-7"	—
p(E)	2	#5	16'-0"	—
p1(E)	2	#5	19'-0"	—
u(E)	2	#4	9'-8"	┌
v(E)	74	#4	3'-1"	┌
Concrete Structures			Cu. Yd.	4.5
Reinforcement Bars, Epoxy Coated			Pound	330
Bar Splicers			Each	6
Concrete Sealer			Sq. Ft.	84

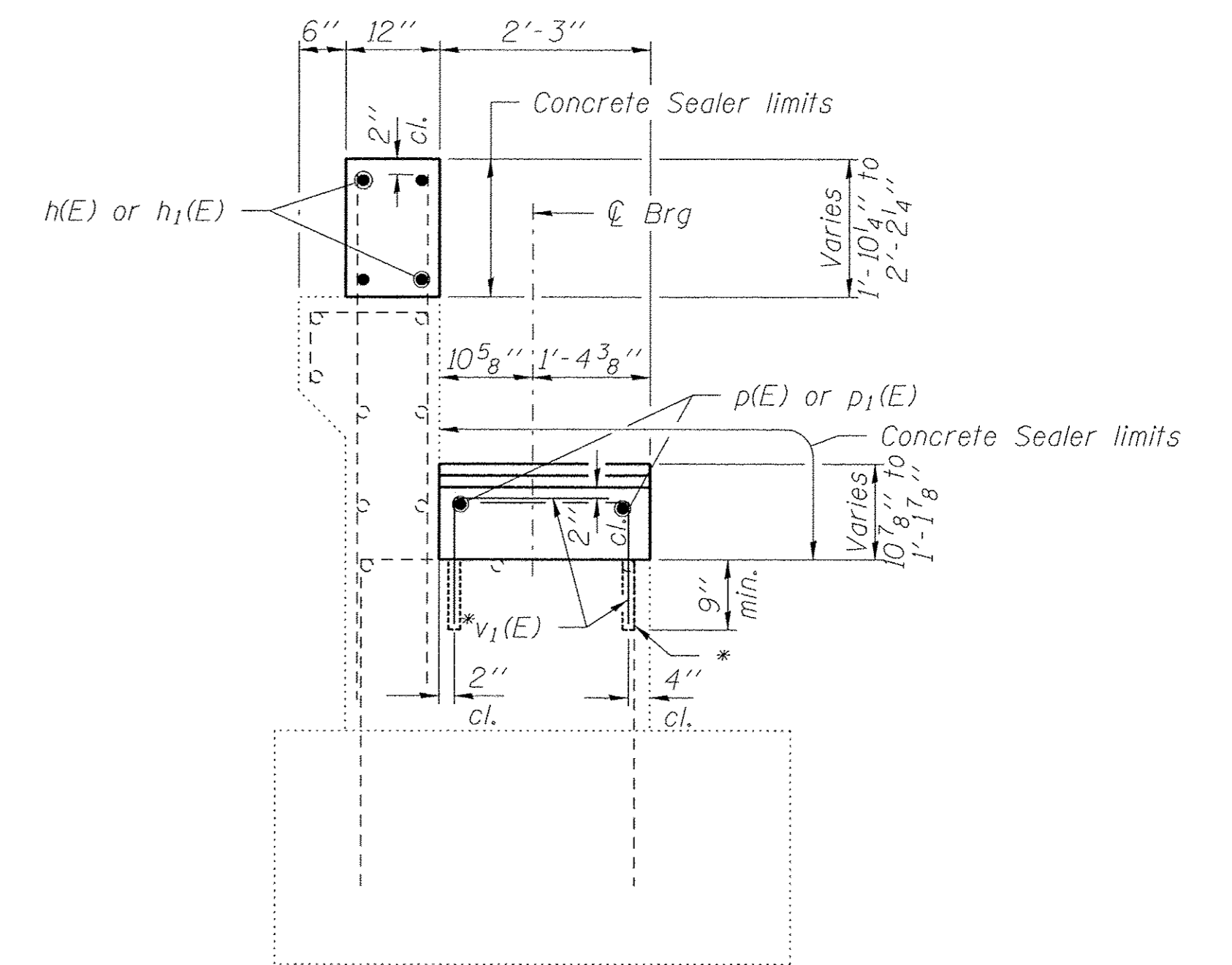


PLAN

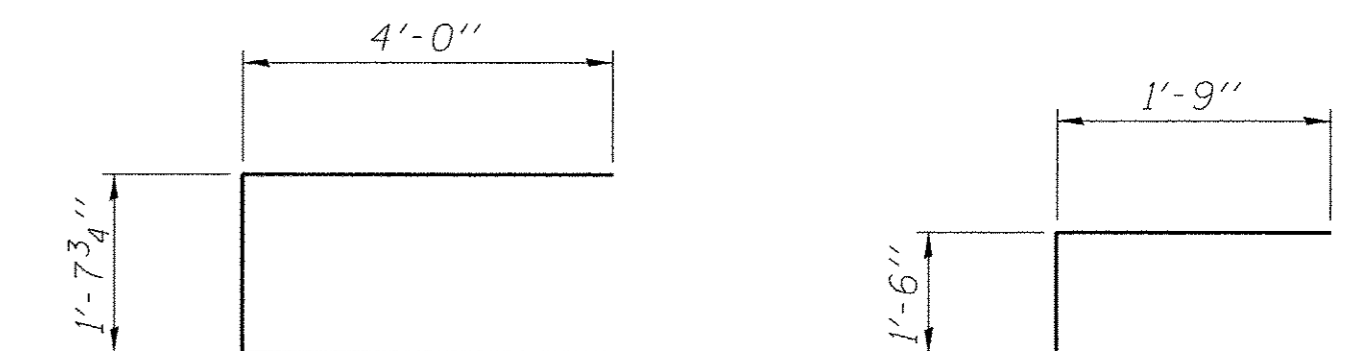
\*\*Dimensions at Rt. L's to C.L.



ELEVATION  
(Looking East)



SECTION THRU ABUTMENT



BAR u(E)

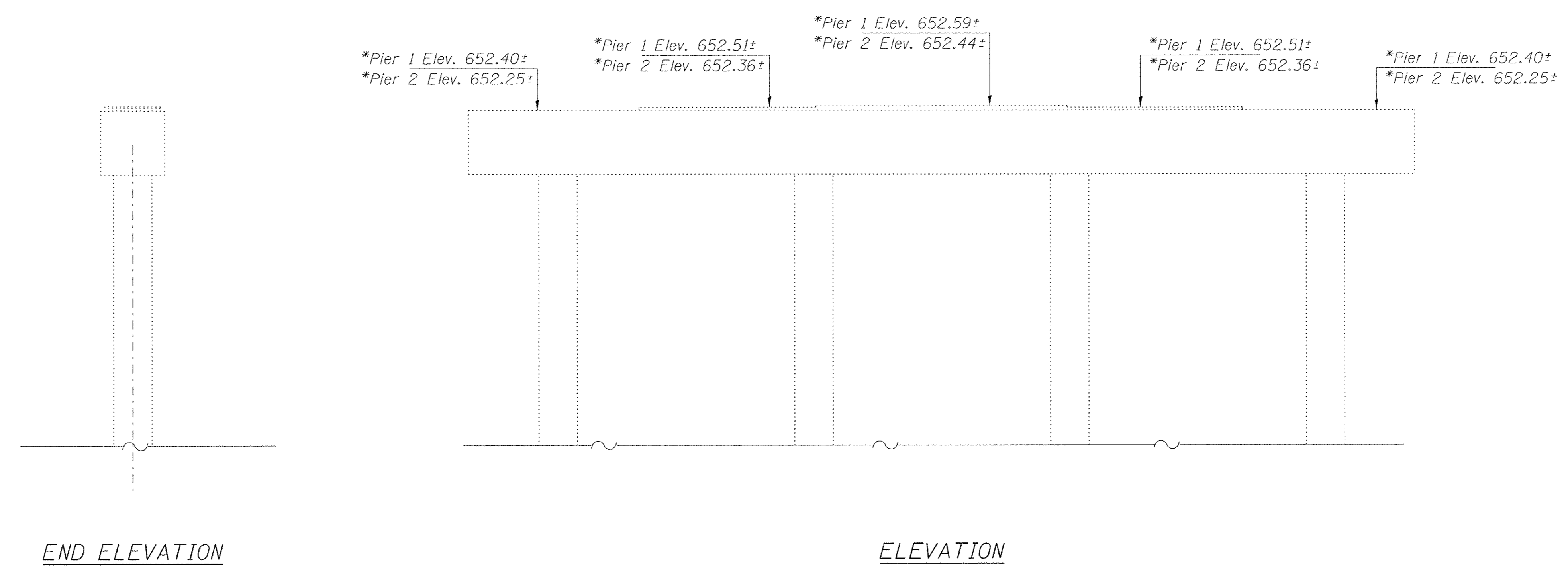
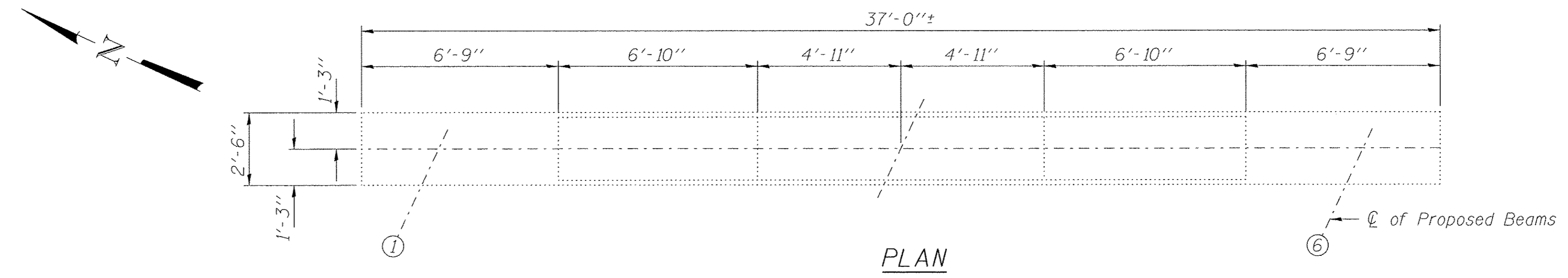
BAR \*v1(E)

Notes:  
Concrete damaged during the Removal of Existing Superstructures shall be repaired at the expense of the Contractor.  
Structural Repair of Concrete shall be used to repair existing deterioration to the abutment backwalls and bearing seals as directed by the Engineer after Removal of Existing Superstructure.  
Cost of drilling and grouting reinforcing bars included in cost for Concrete Structures.  
The backwall shall be poured after the deck.  
See sheet 12 of 29 for expansion joint details.  
\*v1(E) bars shall be drilled and set according to Article 509.06 of the Standard Specifications. Bars shall have a 9" minimum embedment depth, be set in 1"  $\phi$  holes and filled with approved epoxy grout.

BILL OF MATERIAL - EAST ABUT.

BAR	NO.	SIZE	LENGTH	SHAPE	
h(E)	4	#4	15'-2"	—	
h1(E)	4	#4	19'-7"	—	
p(E)	2	#5	16'-0"	—	
p1(E)	2	#5	19'-0"	—	
u(E)	2	#4	9'-8"	⊔	
v1(E)	74	#4	3'-3"	└	
Concrete Structures				Cu. Yd.	5.8
Reinforcement Bars, Epoxy Coated				Pound	340
Bar Splicers				Each	6
Concrete Sealer				Sq. Ft.	84



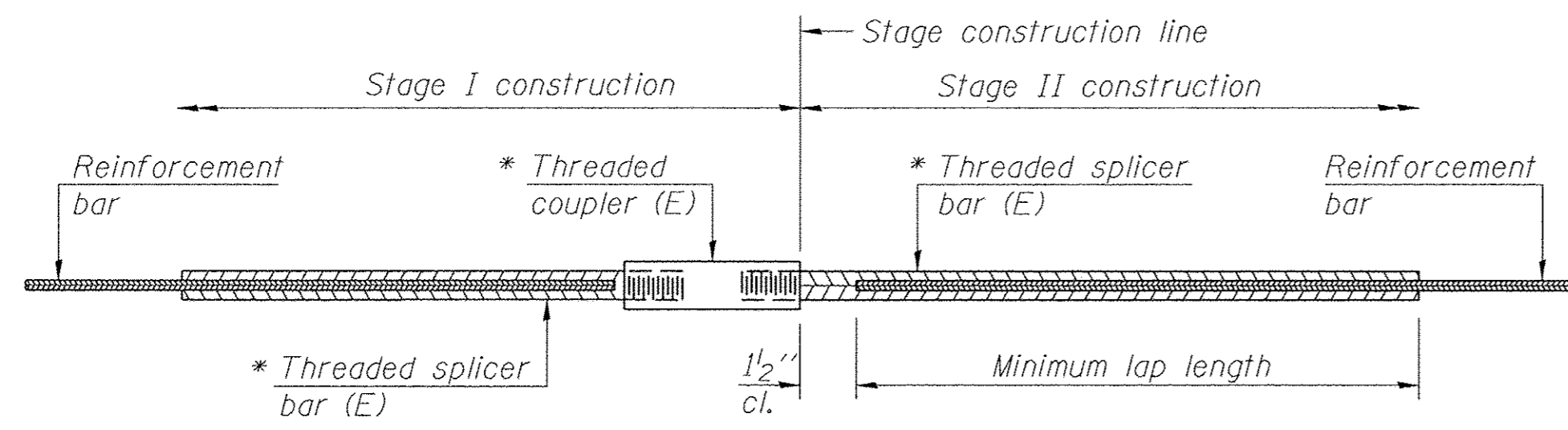


\*Assumed field elevations used for bearing heights.

Notes:  
Concrete damaged during the Removal of Existing Superstructures shall be repaired at the expense of the Contractor.  
Structural Repair of Concrete shall be used to repair existing deterioration to the pier faces and bearing seats as directed by the Engineer.  
Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Structural Repair of Concrete.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Repair of Concrete Depth ≈ 5"	Sq. Ft.	50

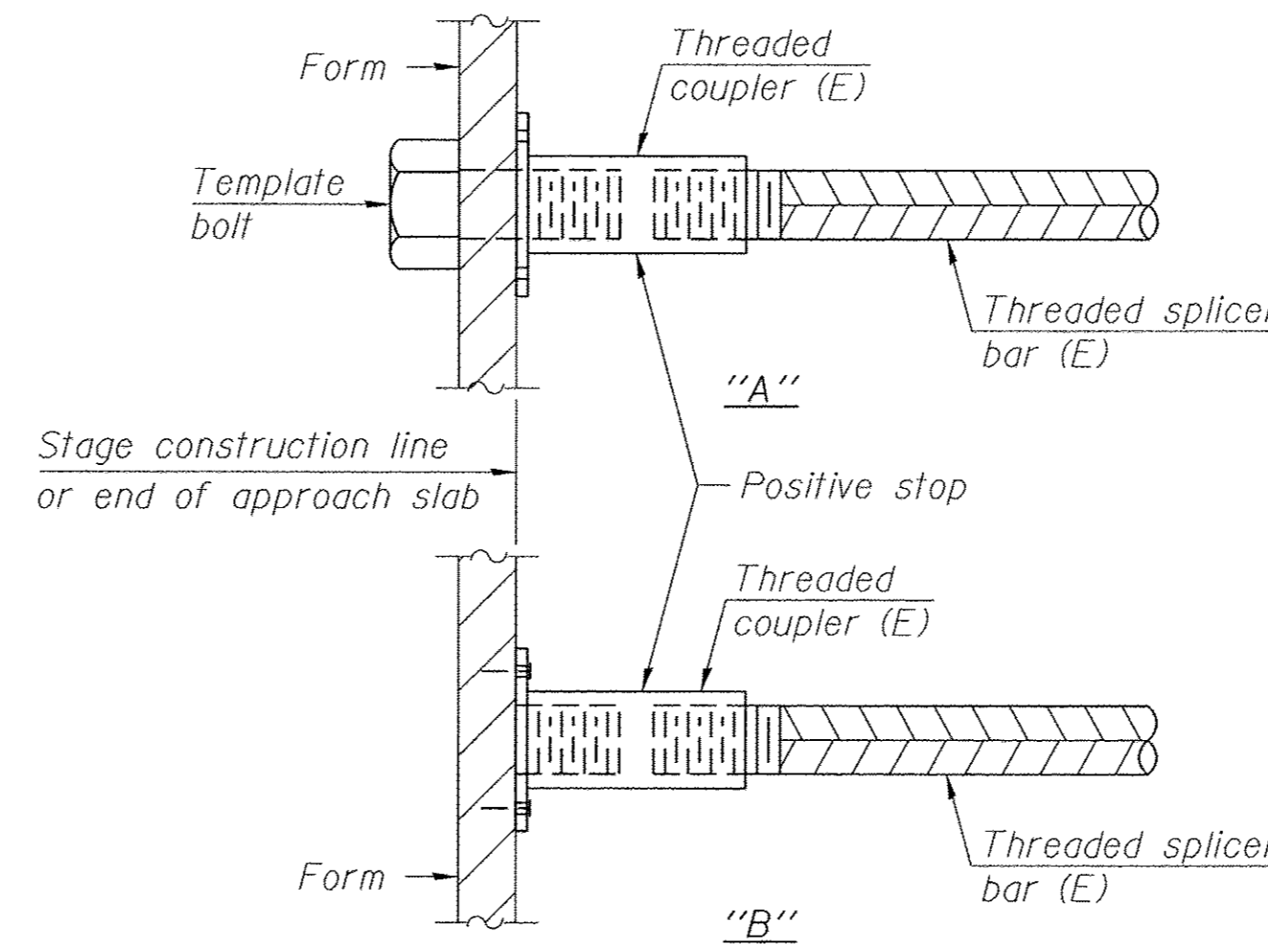


**STANDARD BAR SPLICER ASSEMBLY**

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

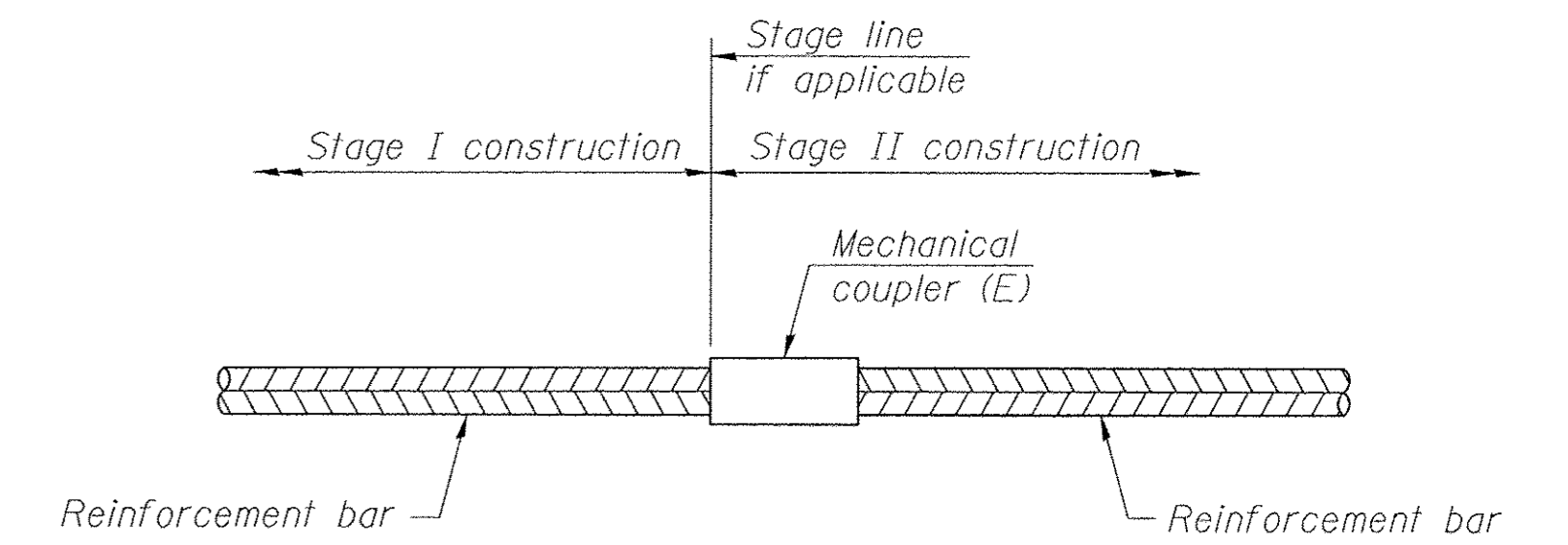
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Slab	#5	346	3'-6"
Slab End Beam	#5	16	3'-6"
West Abutment	#4	4	2'-5"
West Abutment	#5	2	3'-1"
East Abutment	#4	4	2'-5"
East Abutment	#5	2	3'-1"



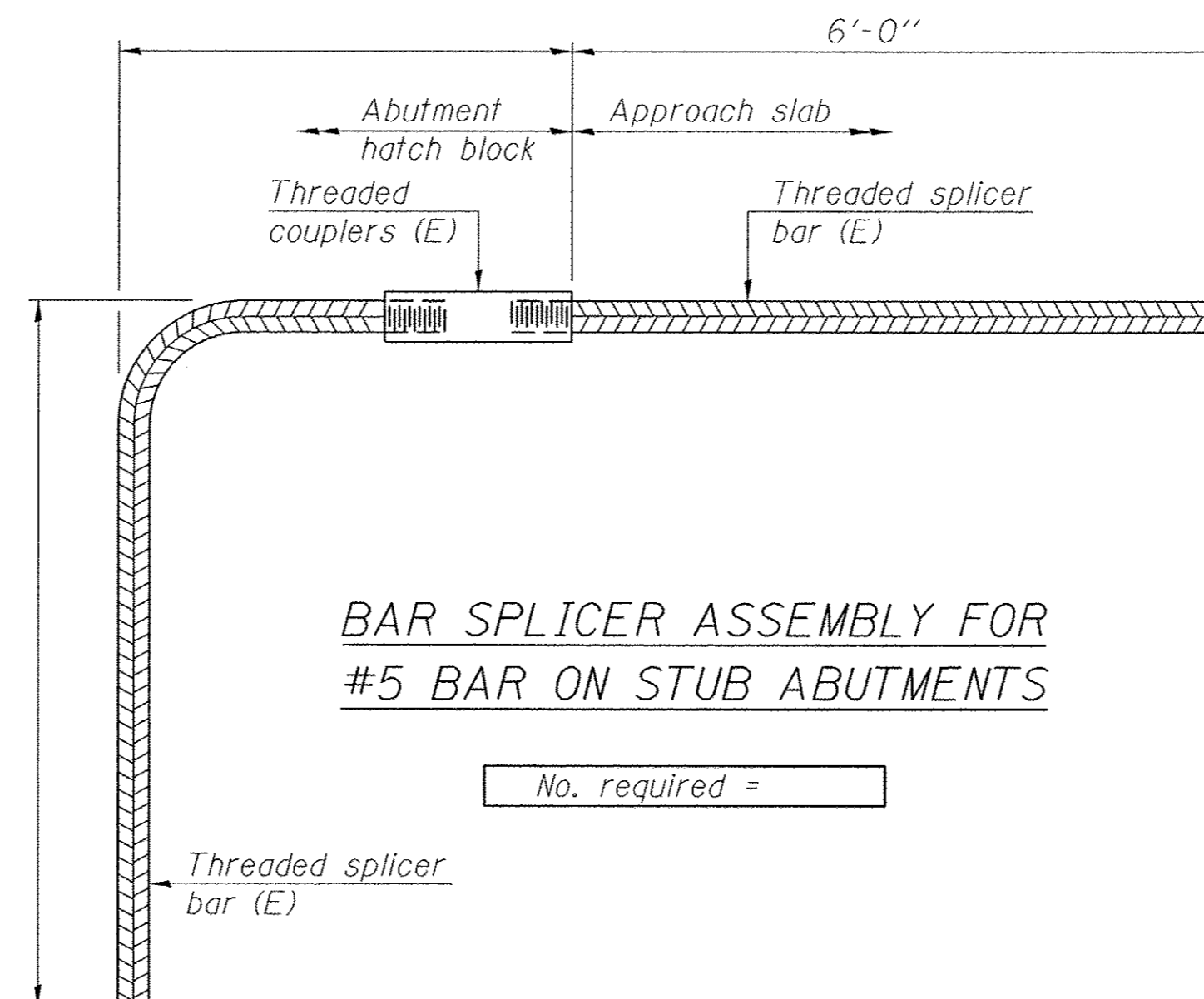
**INSTALLATION AND SETTING METHODS**

"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



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**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

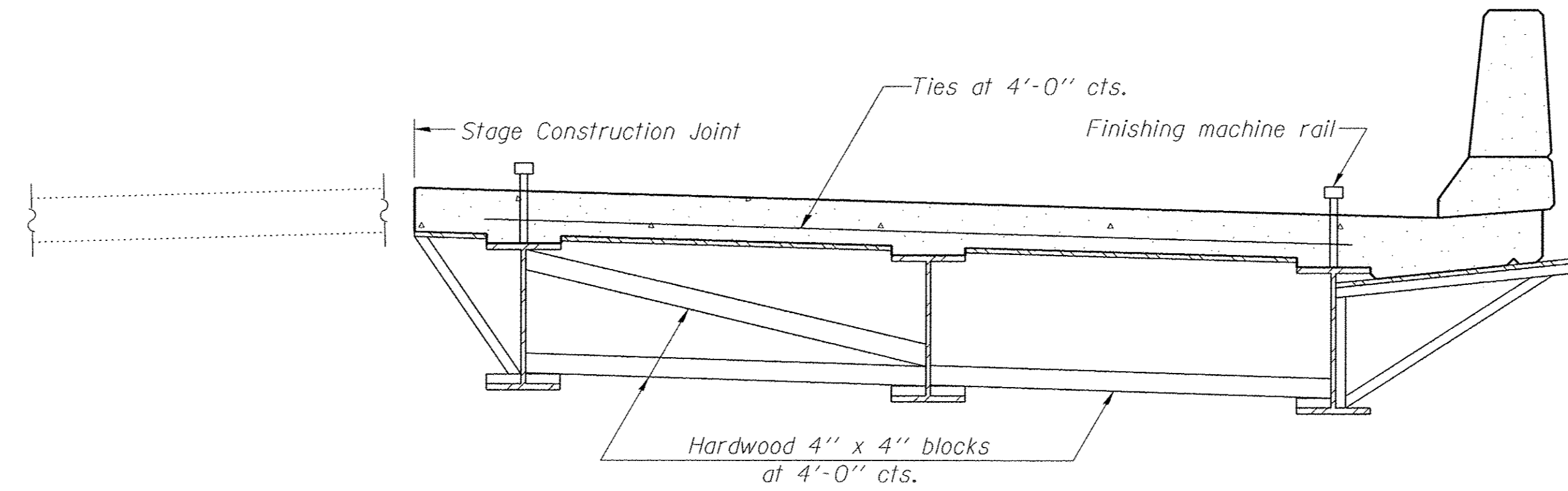
11-22-2016

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.  
The finishing machine rails shall be placed on the top flange of the exterior beams.

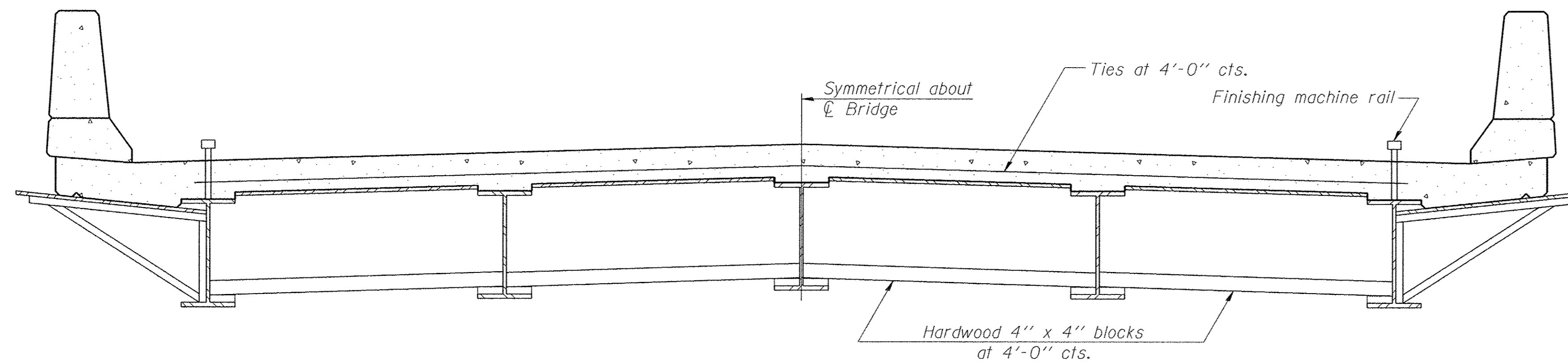
The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

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

Contractor shall modify cantilever forming brackets as per proposed design.



FORM BRACES FOR  
STAGE CONSTRUCTION



FORM BRACES FOR  
STANDARD CONSTRUCTION

SB-1

11-22-2016

FILE NAME = 160489-sht-bridge.DGN  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
217.546.3400 WWW.HLRENGINEERING.COM  
**HLR**  
184.000959  
ILLINOIS PROFESSIONAL DESIGN FIRM  
LS/P/E/SE CORPORATION

USER NAME =  
PLOT SCALE =  
PLOT DATE = 12/20/2016

DESIGNED - L.A.P.  
CHECKED - S.M.S.  
DRAWN - D.A.B.  
CHECKED - S.W.M.

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES  
WITH W27 BEAMS AND SMALLER STRUCTURE NO. 092-0091**

SHEET NO. 23 OF 29 SHEETS

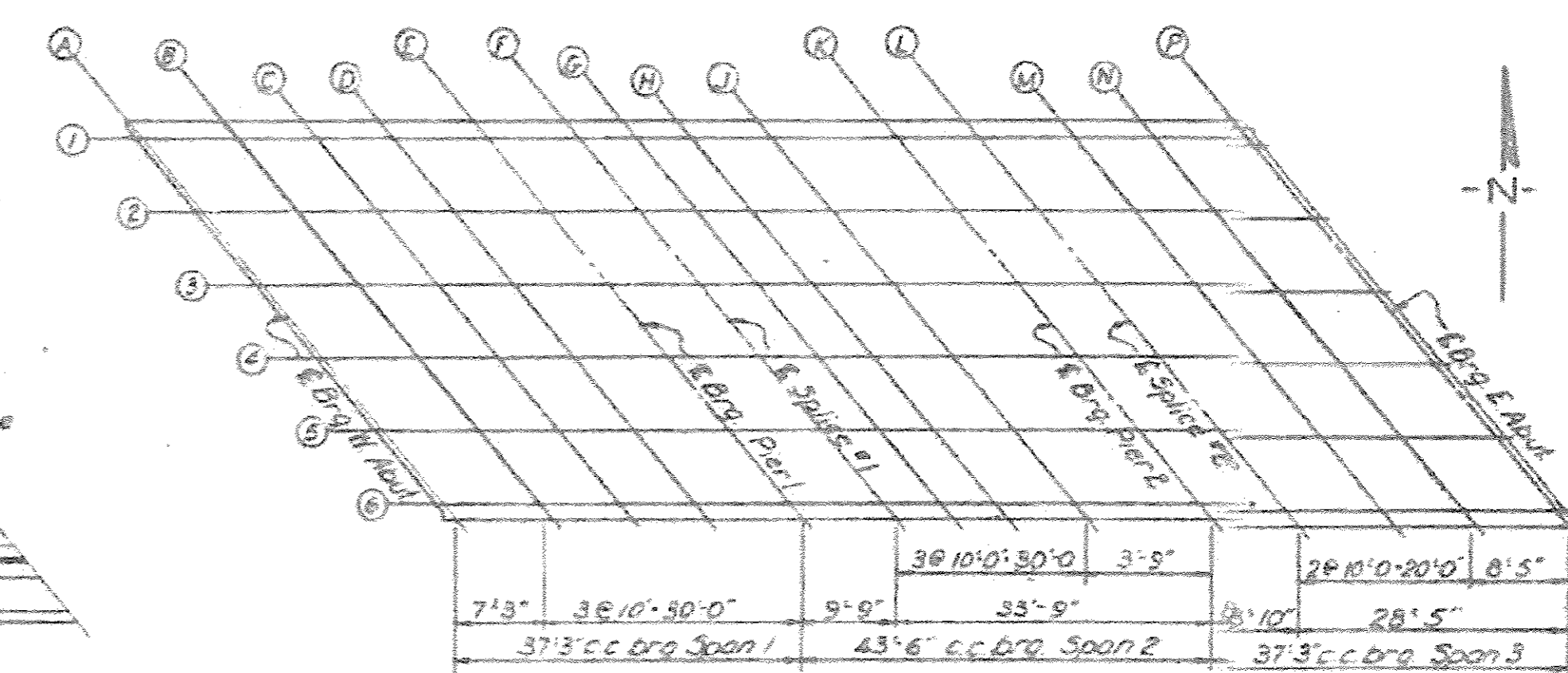
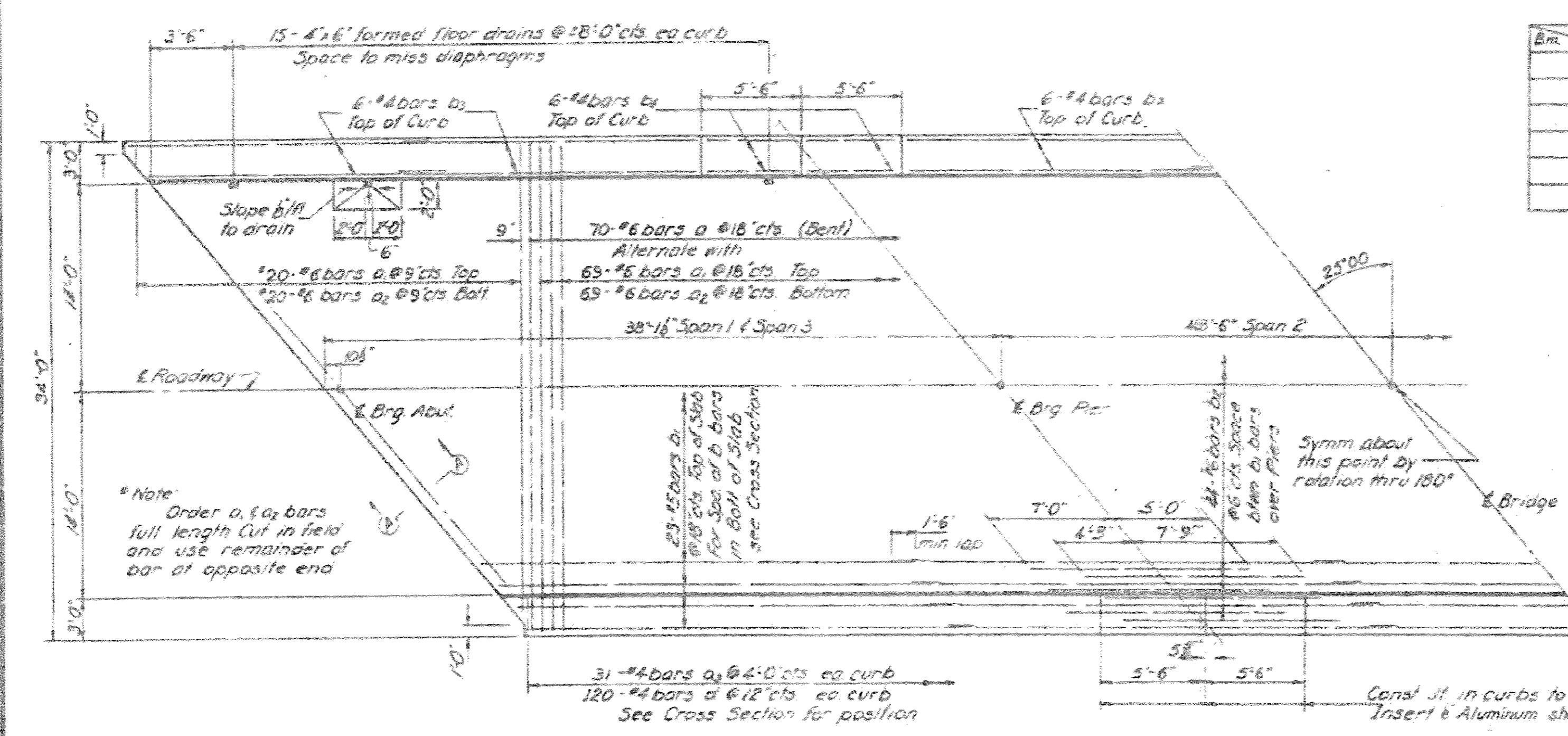
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HOMER-CATLIN ROAD			CONTRACT NO. 91547	
[ILLINOIS]		FED. AID PROJECT BR5-0512(11)		



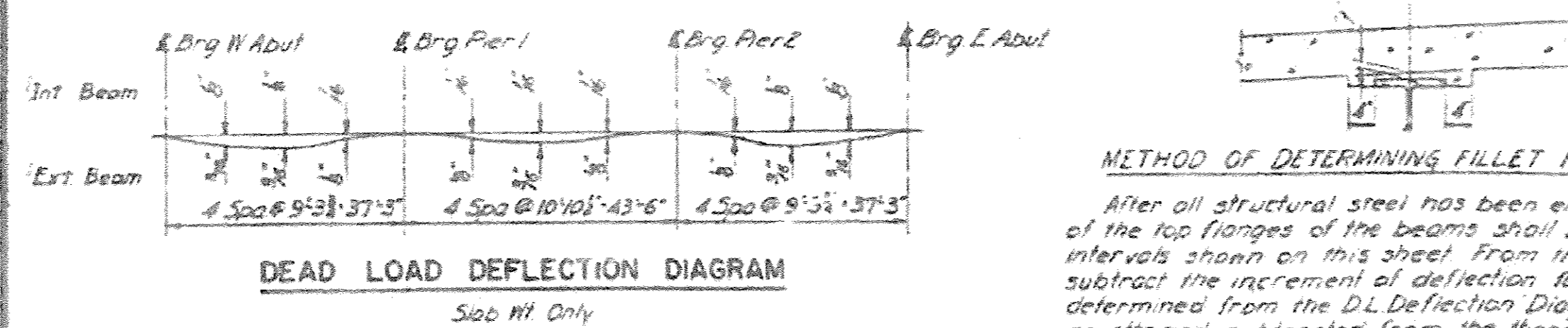
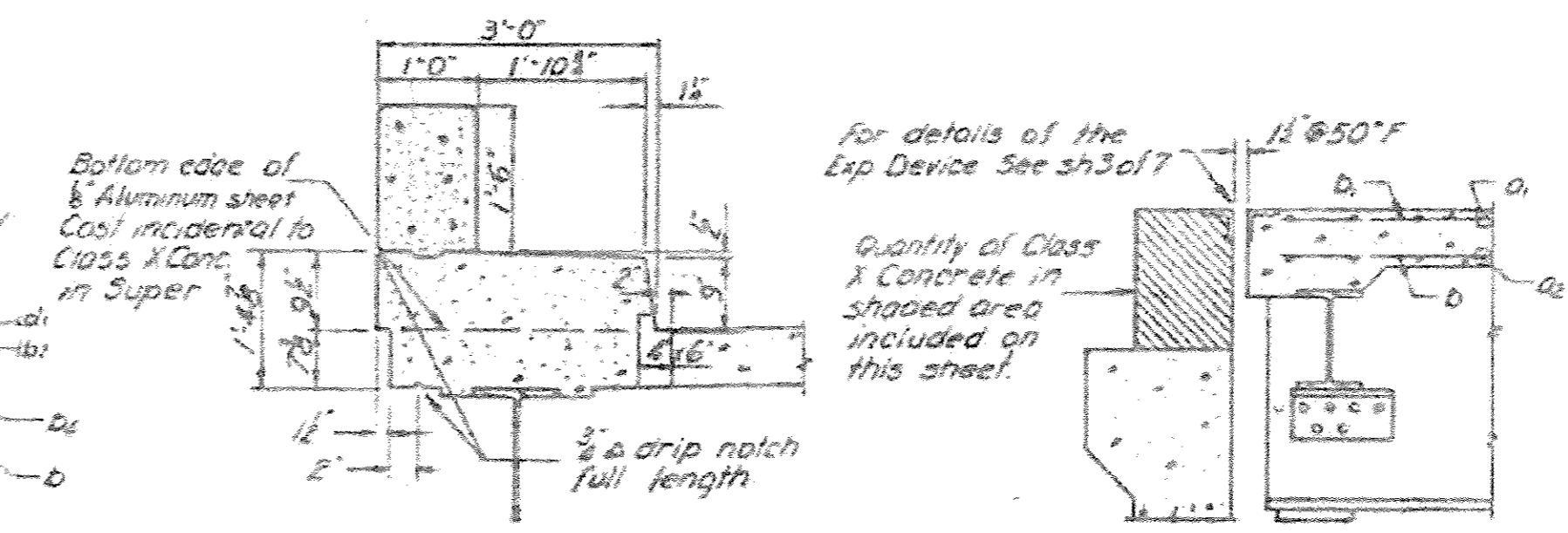
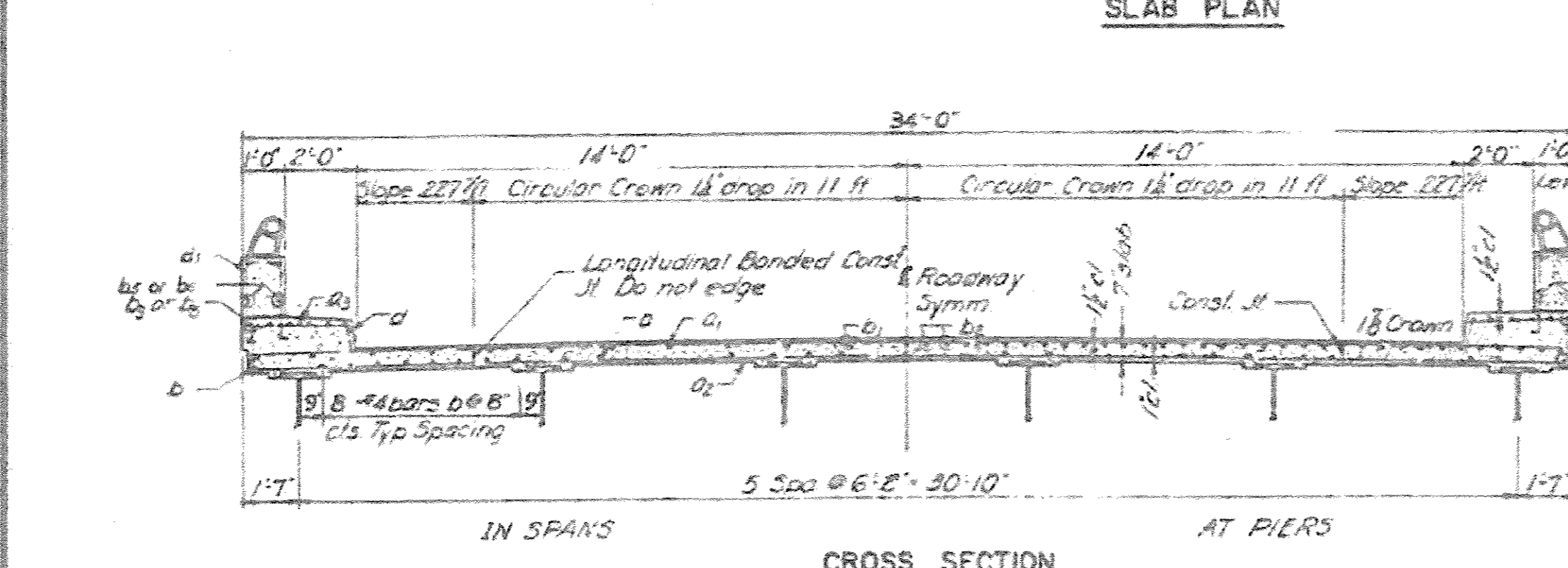
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DATE	PROJECT	SHEET 2 OF 7		
5-2-11	5-512-101			

TABLE OF ELEVATIONS

Bm.	PT	A	B	C	D	E	F	G	H	J	K	L	M	N	P
1		656.65	656.64	656.62	656.61	656.59	656.58	656.57	656.56	656.55	656.54	656.53	656.52	656.52	656.52
2		656.76	656.75	656.73	656.72	656.70	656.69	656.68	656.67	656.66	656.65	656.65	656.64	656.63	656.63
3		656.82	656.81	656.79	656.77	656.76	656.75	656.74	656.73	656.72	656.71	656.71	656.70	656.69	656.69
4		656.81	656.80	656.79	656.77	656.76	656.75	656.74	656.73	656.72	656.71	656.71	656.70	656.69	656.69
5		656.75	656.73	656.72	656.70	656.69	656.68	656.67	656.66	656.65	656.65	656.64	656.63	656.63	656.63
6		656.63	656.61	656.60	656.59	656.57	656.56	656.55	656.54	656.53	656.53	656.52	656.51	656.51	656.51

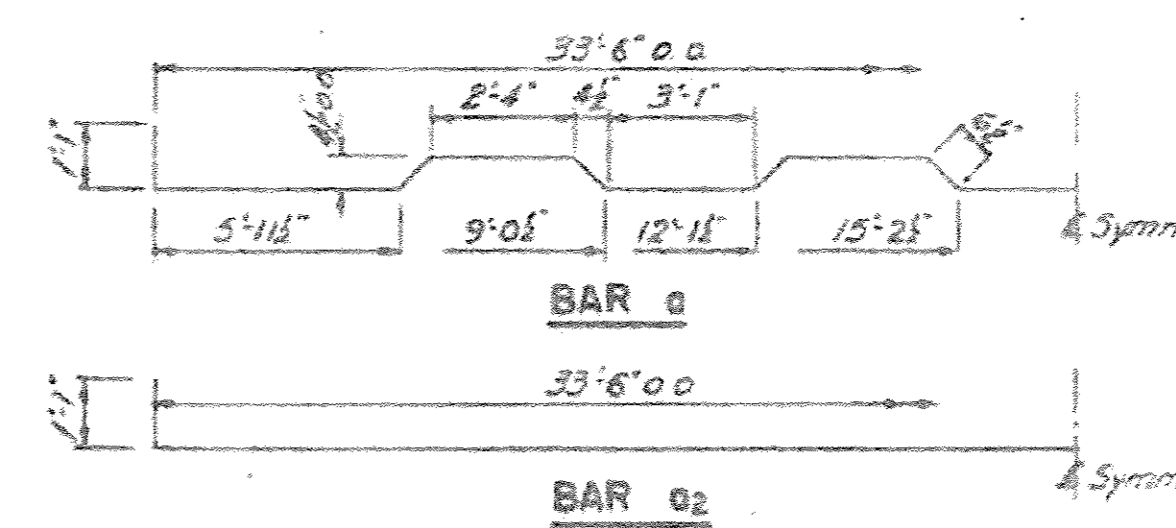


Note: Elevations given above are theoretical top of slab at the points indicated on the sketch.



**METHOD OF DETERMINING FILLET HEIGHTS 'Y'**

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the intervals shown on this sheet. From these elevations subtract the increment of deflection for these points, determined from the D.L. Deflection Diagram. The elevations so obtained subtracted from the theoretical grade elevations given on this sheet, minus 7" equals the fillet height 'Y' above top of beam.



**BILL OF MATERIAL - SUPER**

BAR NO.	SIZE	LENGTH	SHAPE
a	#6	37'-0"	U
a1	#6	33'-6"	U
a2	#6	35'-8"	U
a3	#6	2'-8"	U
b	#4	25'-1"	U
b1	#4	25'-1"	U
b2	#6	12'-0"	U
b3	#4	17'-0"	U
b4	#4	5'-3"	U
d	#4	1'-1"	U

Class X Concrete Cu Yds. 114.3  
Reinforcement Bars Lbs. 22,520  
Structural Steel Lbs. 88,750

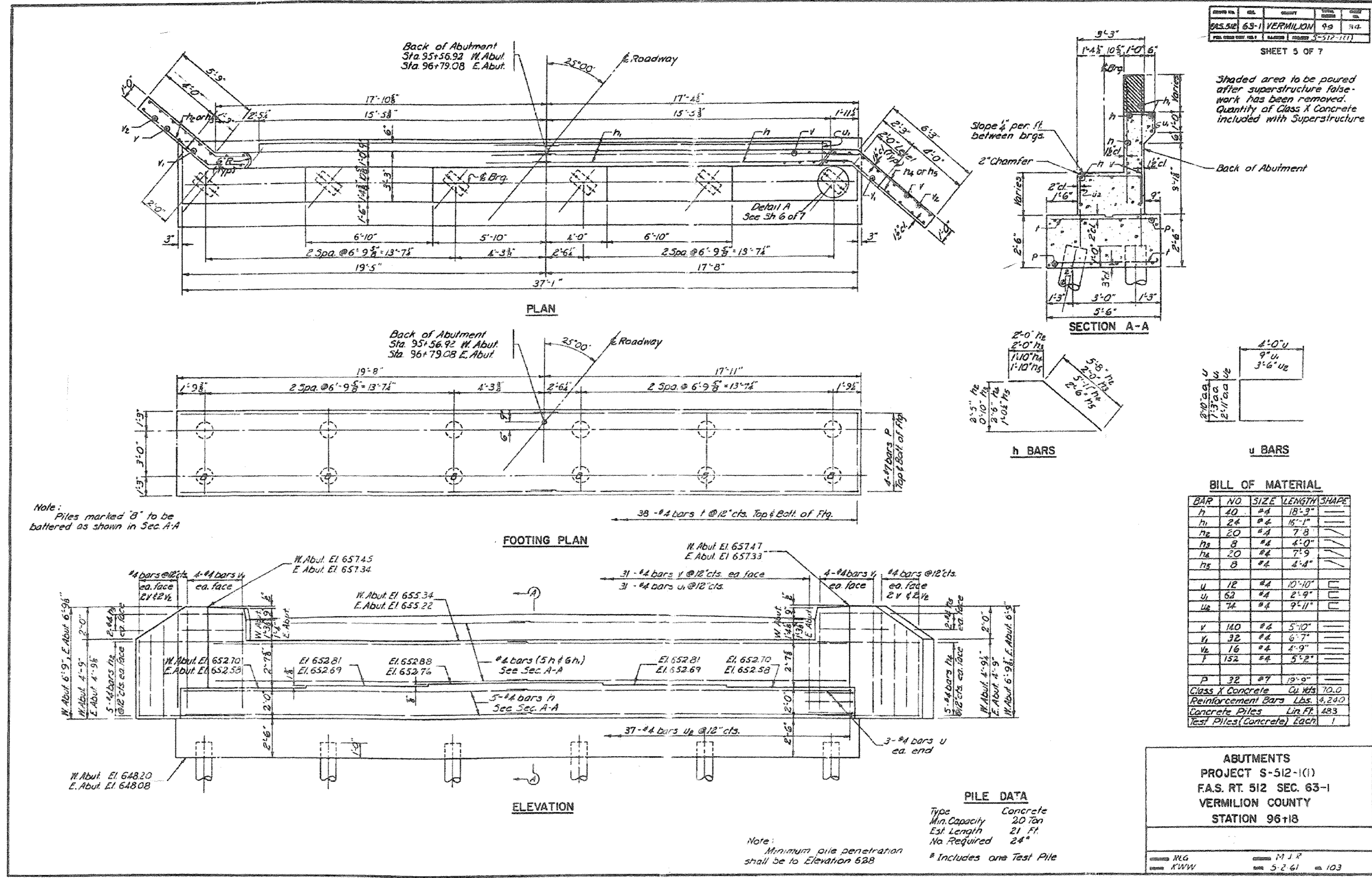
Work this sheet with sheet 3 of 7

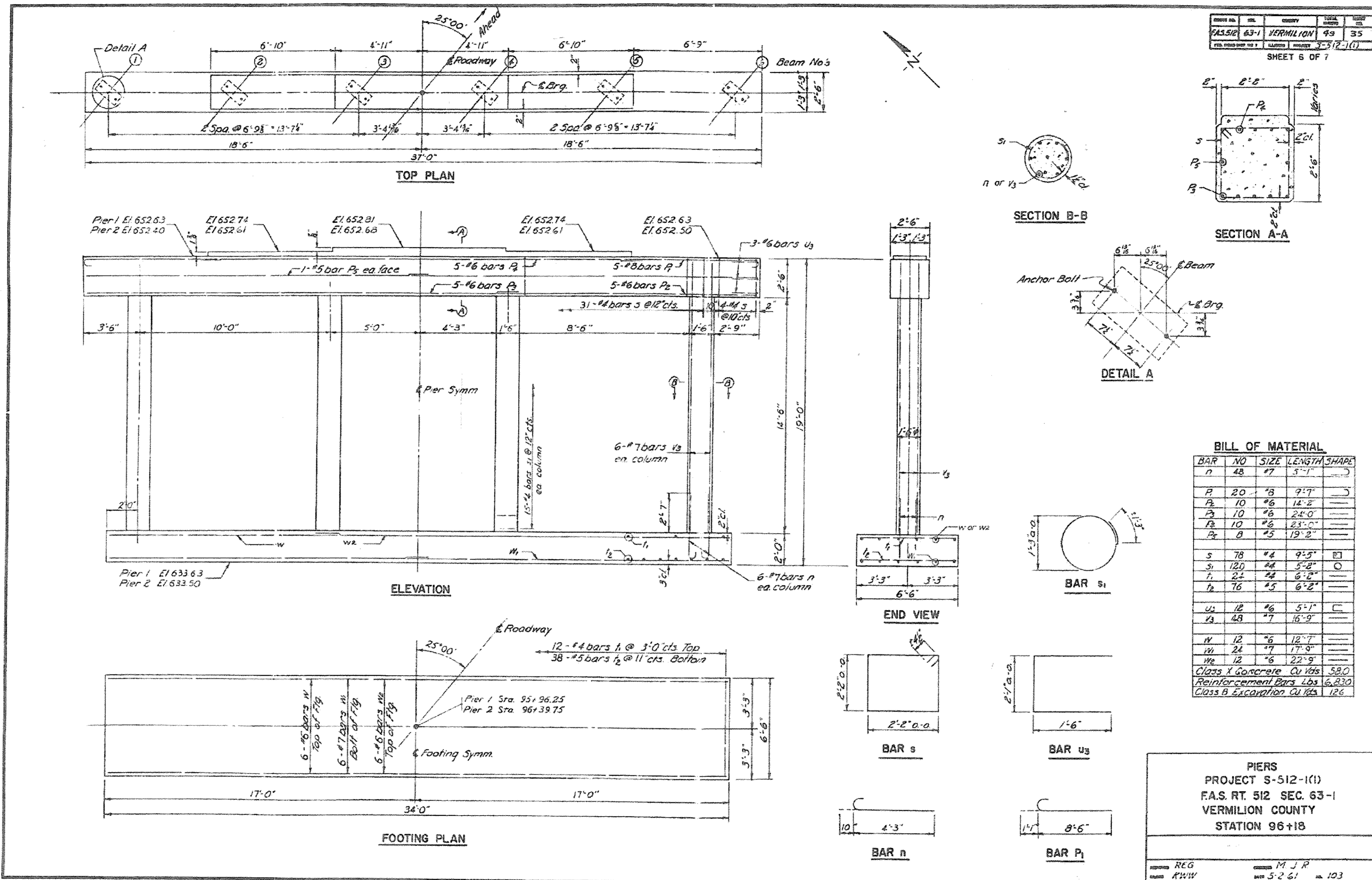
**SLAB**  
PROJECT S-512-101  
FAS RT. 512 SEC 63-1  
VERMILION COUNTY  
STATION 96+18

COLLINS AND RICE  
CONSULTING ENGINEERS

REG. M J R  
KWW 5-2-11 103





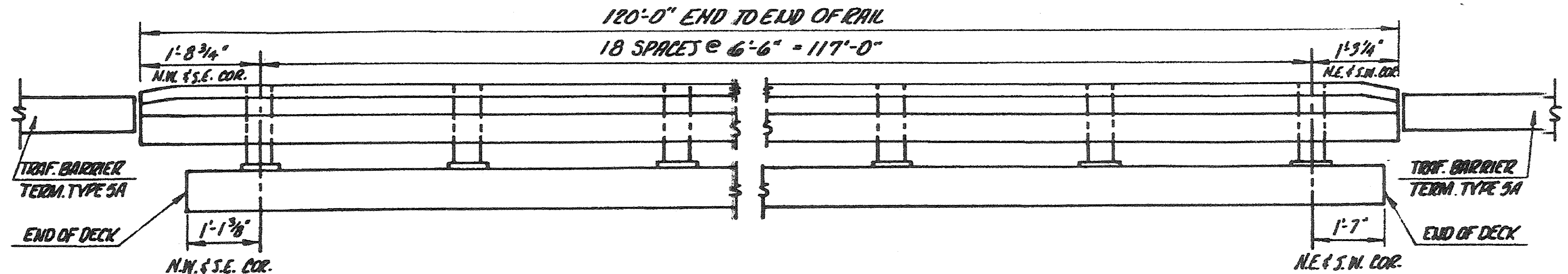




*DETAIL OF POST SPACING FOR STEEL RAIL RETROFIT  
STRUCTURE: 092-0091*

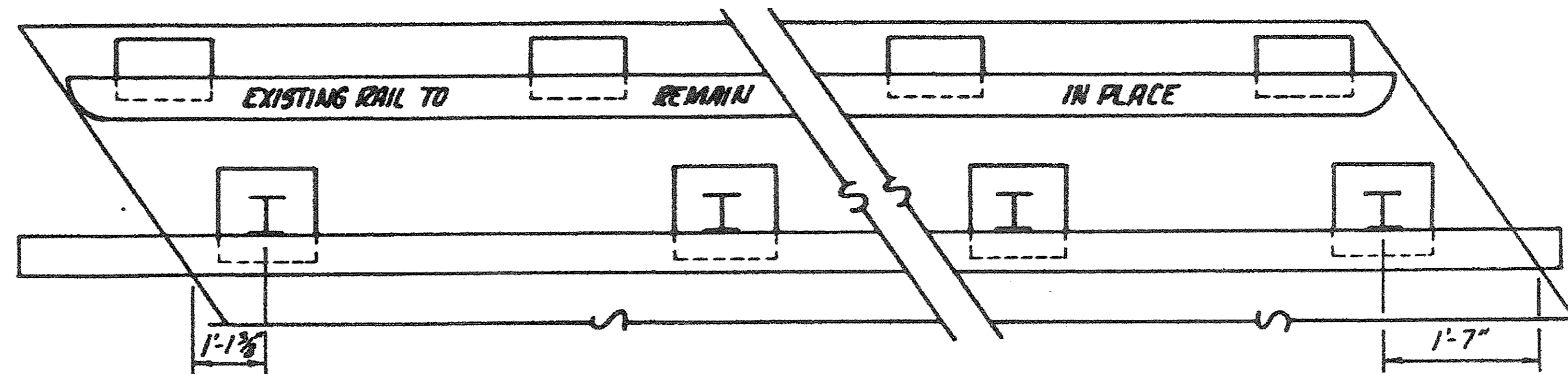
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
VARIOUS	*	VERMILION	22	12

*\*DISTRICT 5 BRIDGE DECK REPAIR 1986-87*



**ELEVATION**

*FACE OF PROPOSED RAIL TO BE PLACED FLUSH WITH FACE OF EXISTING CURB.*

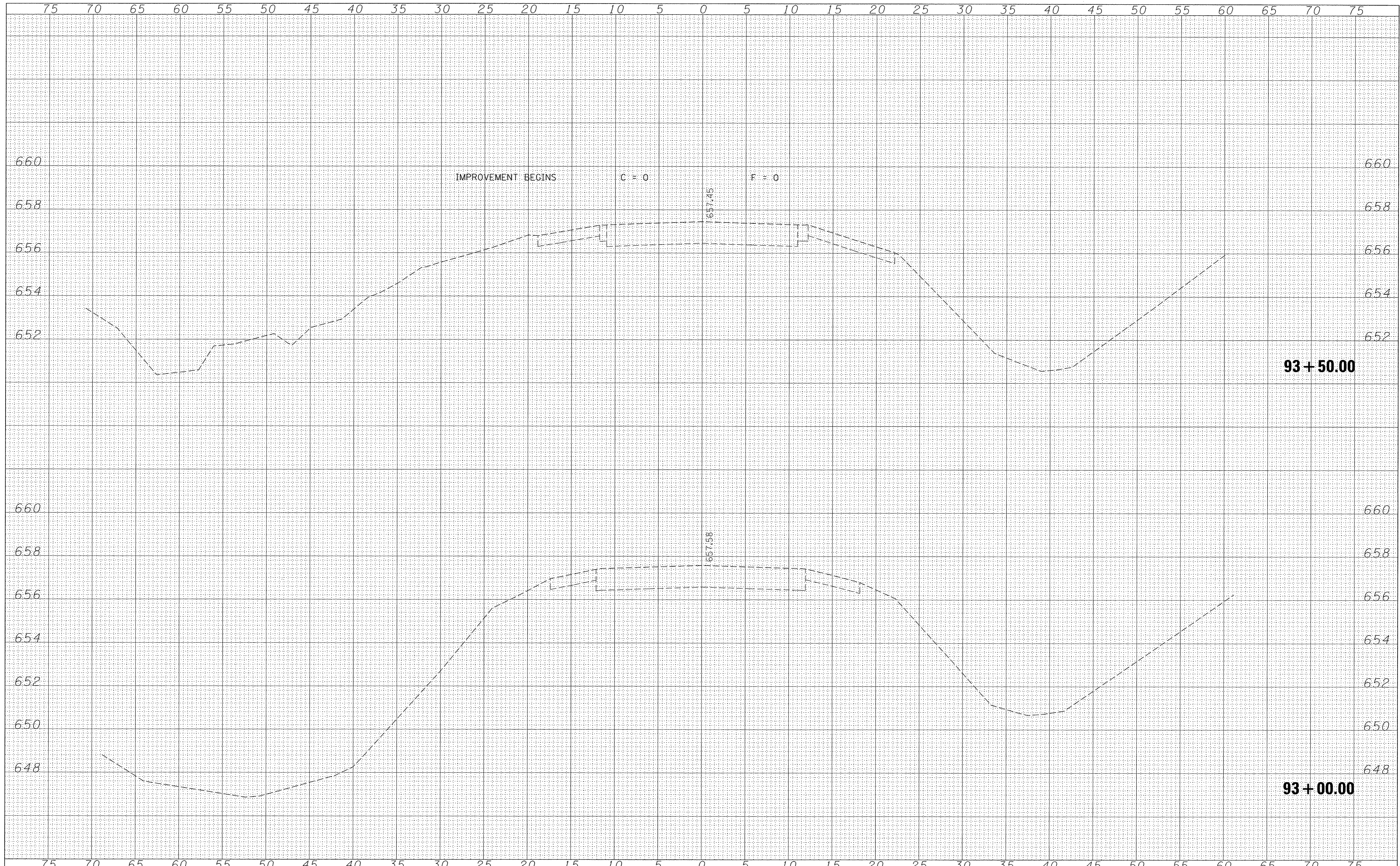


**PLAN**

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CHECKED	DGH 3-85

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 DRAWN - T.W.K.  
 CHECKED - S.W.M.  
 DATE - 12/15/16

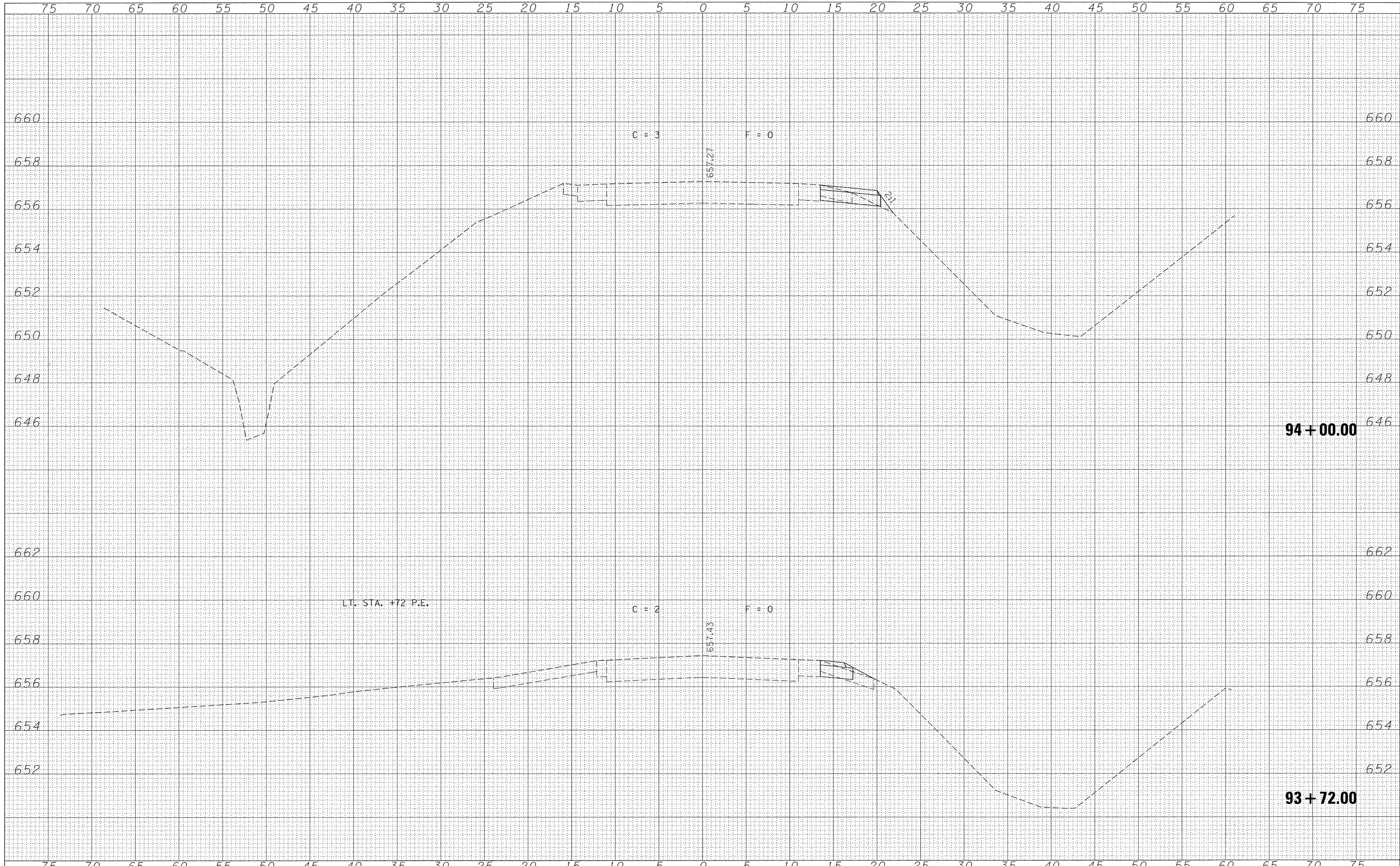
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 PLOT DATE = 12/20/2016

REVISOR  
 REVISION  
 REVISION  
 REVISION

**STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT**

**STATION CROSS SECTIONS**  
 SCALE: 5H:2V  
 SHEET NO. OF SHEETS STA. 93+00.00 TO STA. 93+50.00

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ILLINOIS FED. AID PROJECT BRS-0512(111)				

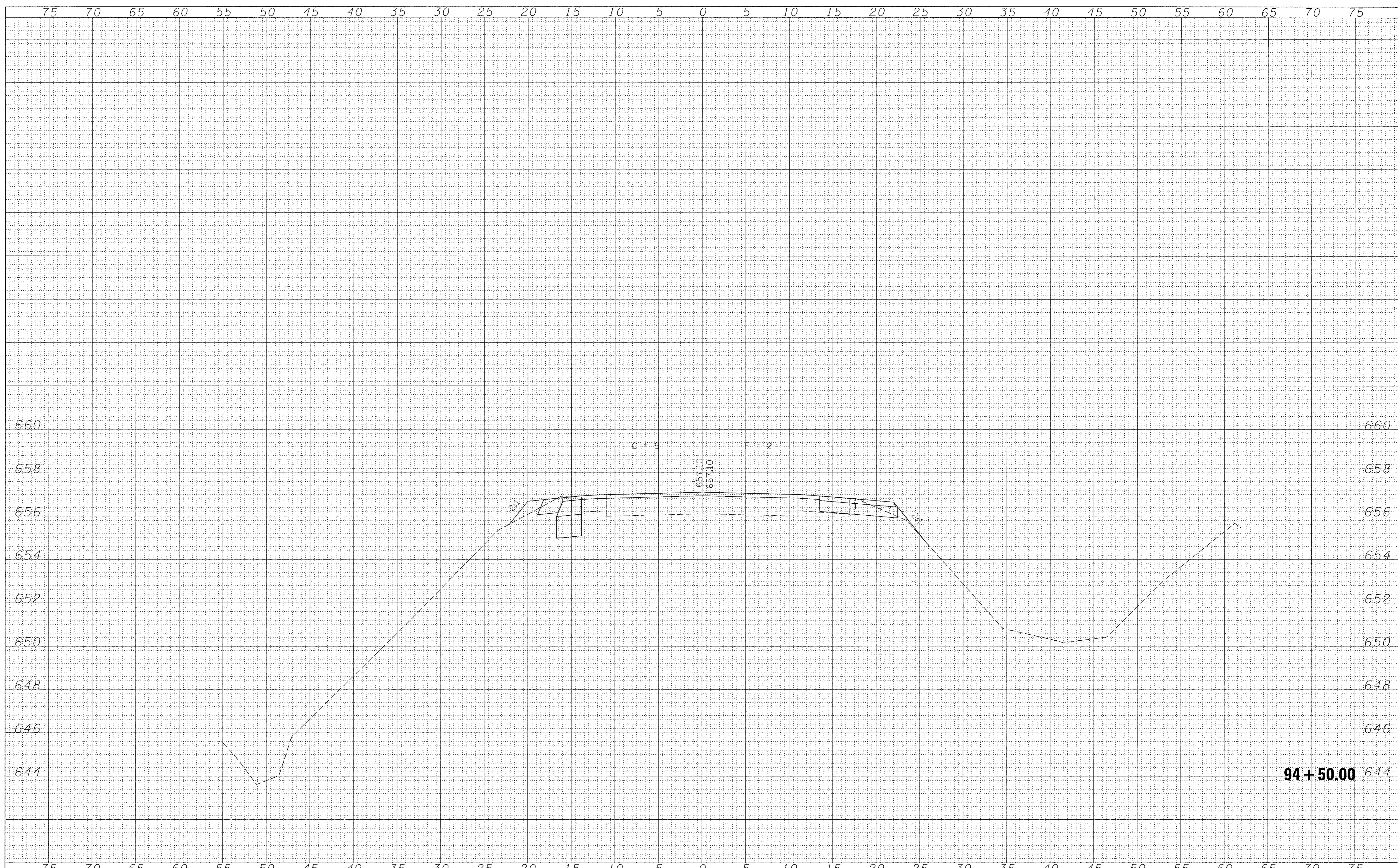


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NOTE BOOK	PLOTTED
NO.	TEMPLATE
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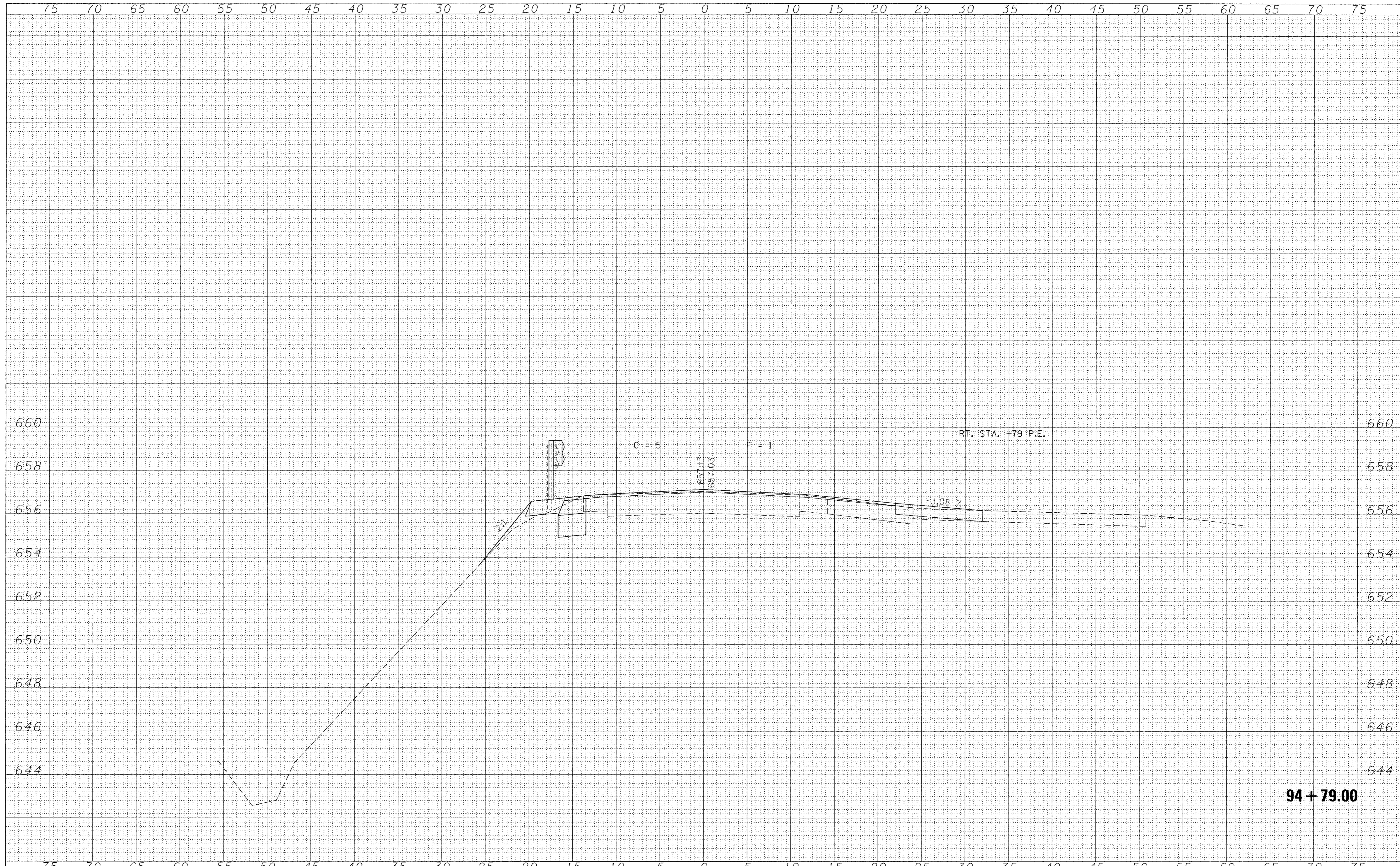
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62791 ILLINOIS PROFESSIONAL DESIGN FIRM LS/PE/SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	44			
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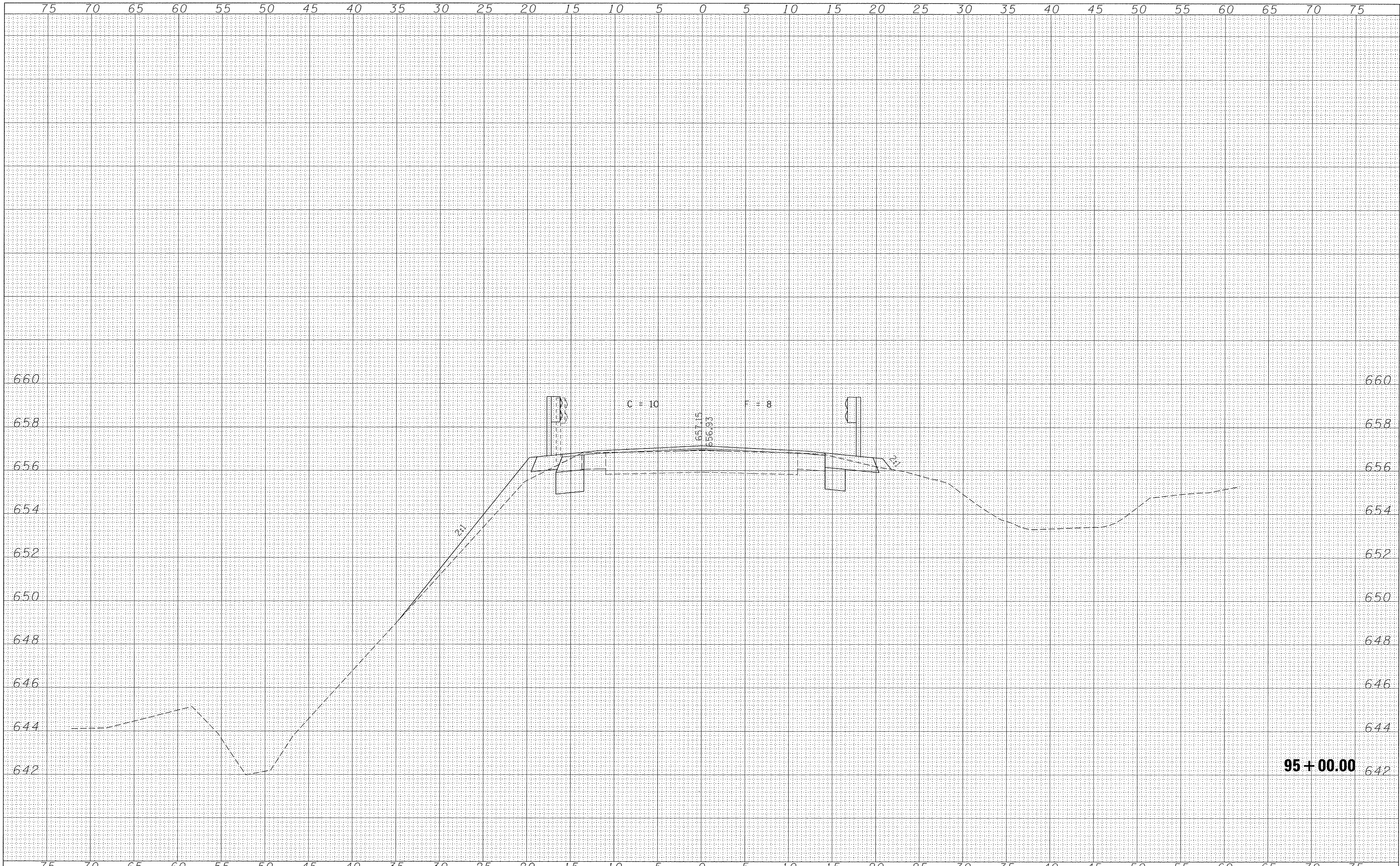


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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS/P/E/SE CORP. 184.000688	PLOT SCALE = #SCALE#	DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	45				
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									[ILLINOIS] FED. AID PROJECT BR5-0512(11)				

**94 + 79.00**



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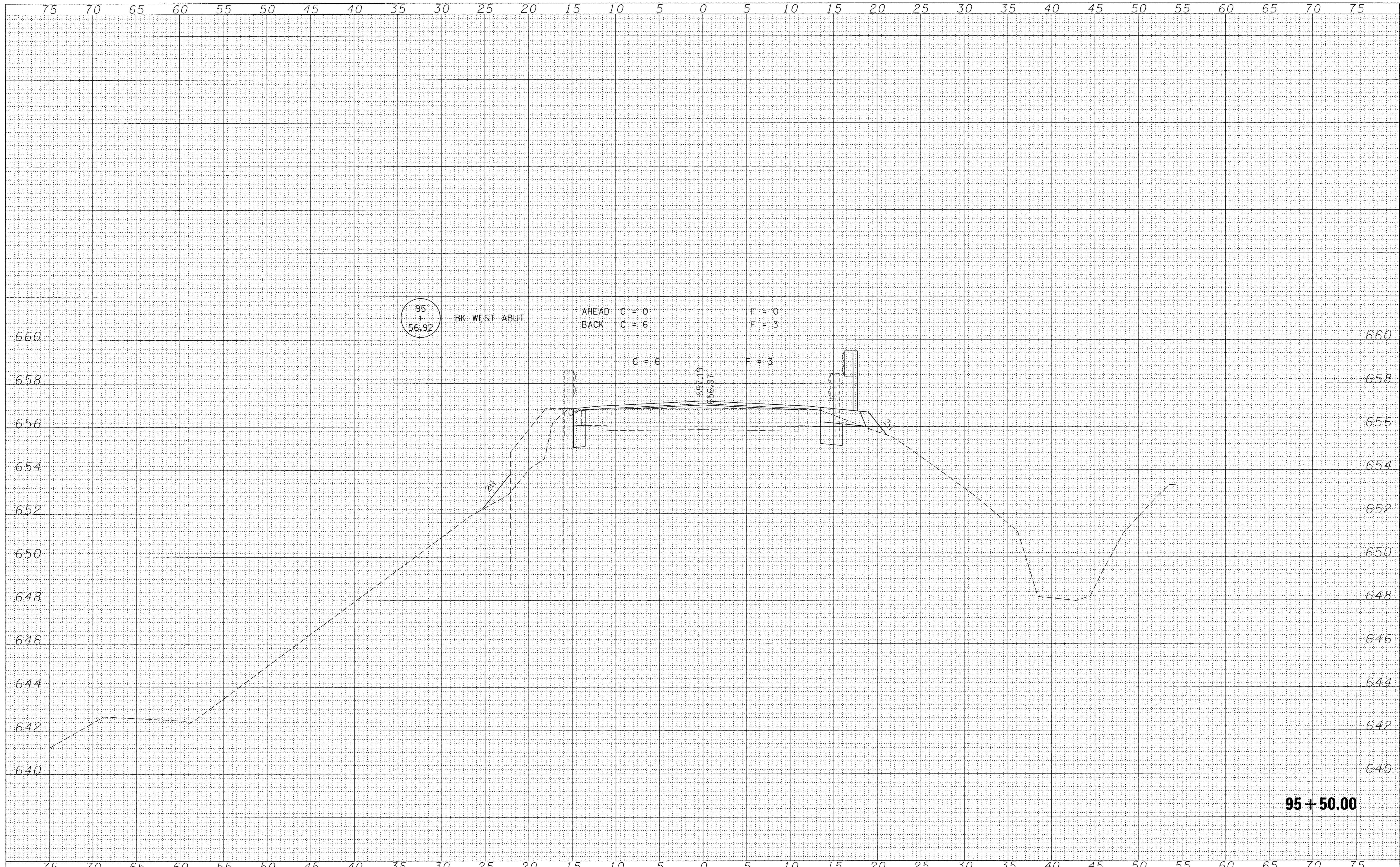
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-00089		DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	46				
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**95 + 00.00**



DATE	
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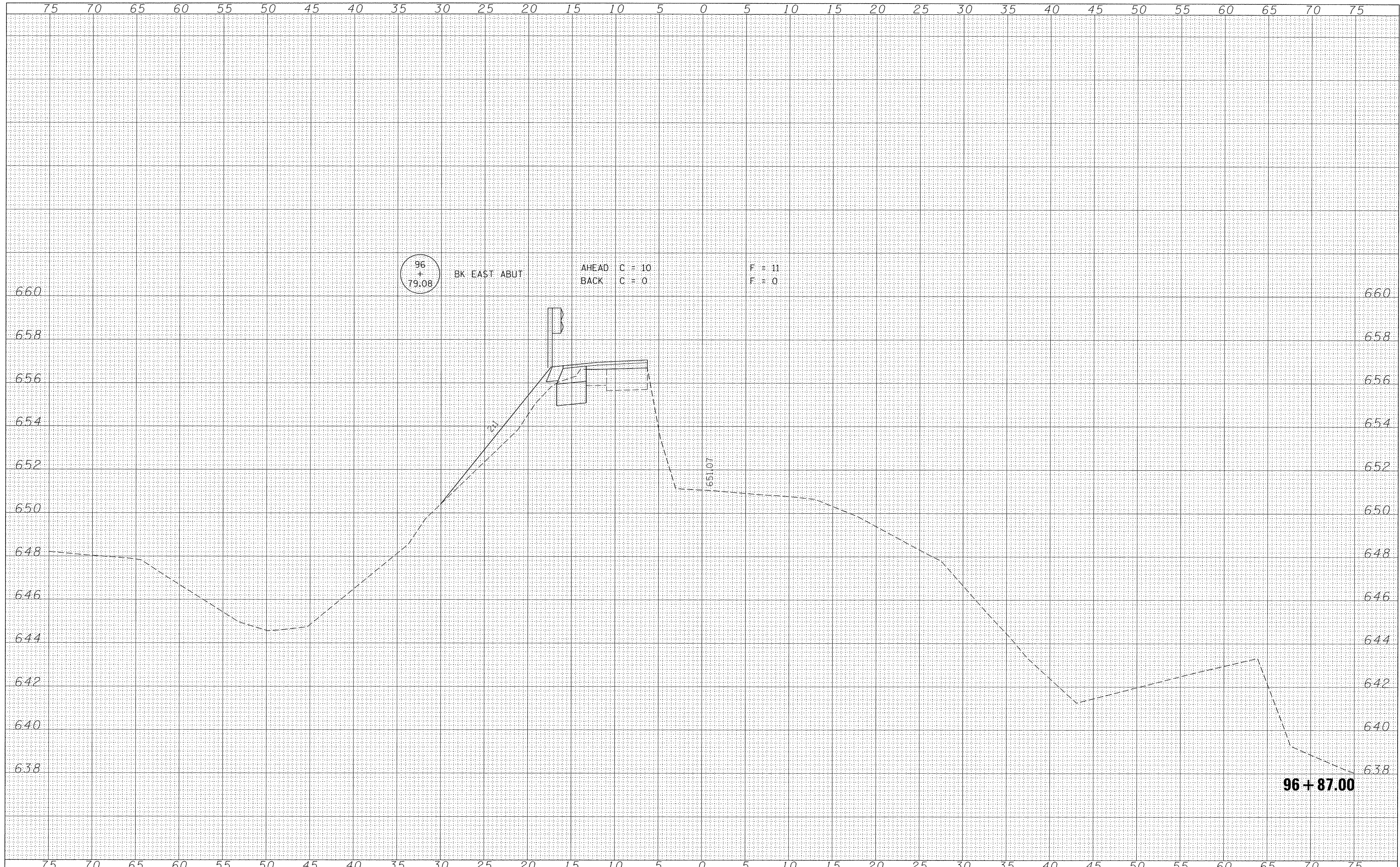
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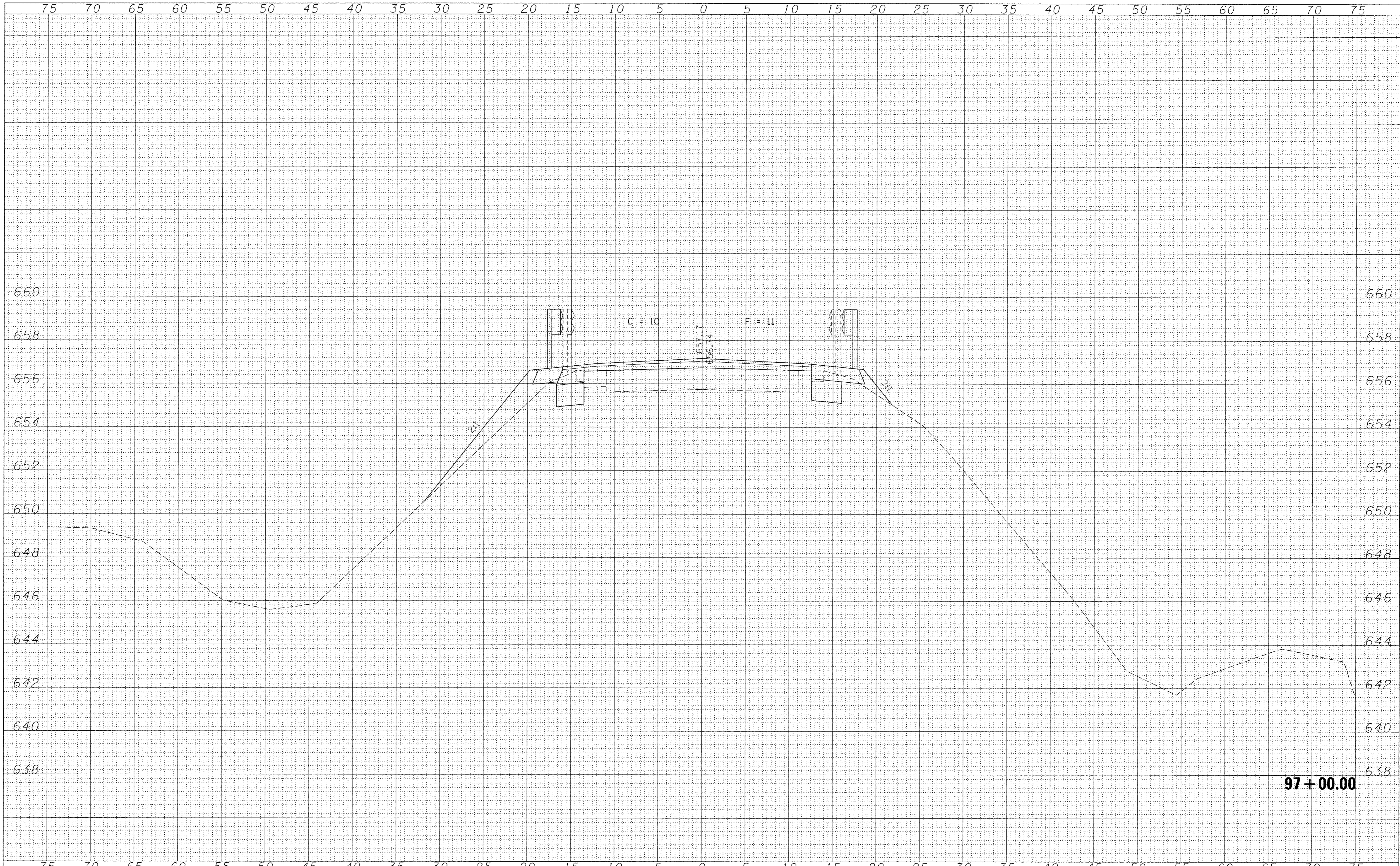
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.009959	PLOT SCALE = *SCALE*	DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	49				
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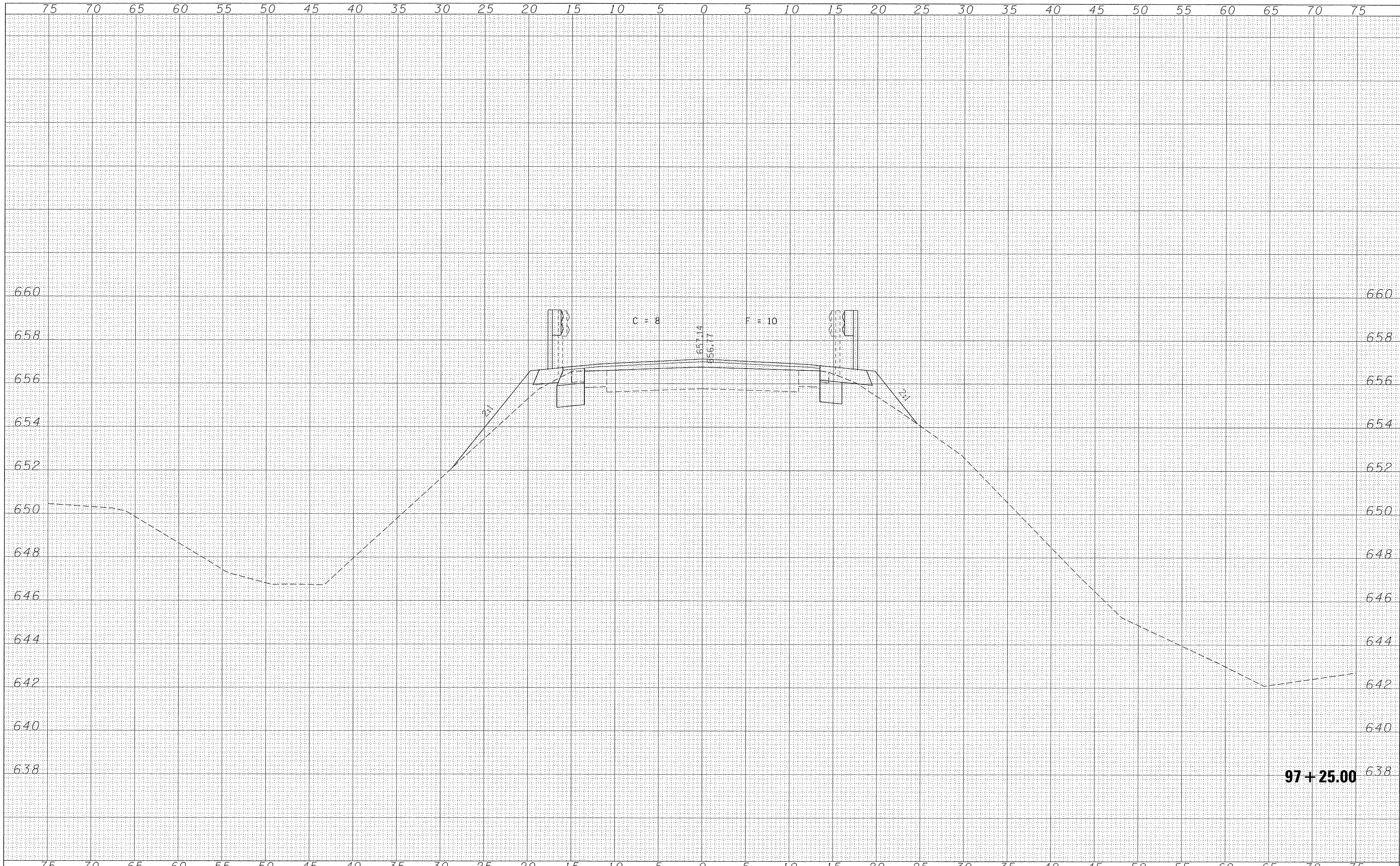
**96 + 87.00**



DATE	
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DATE	
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-008959		DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	50				
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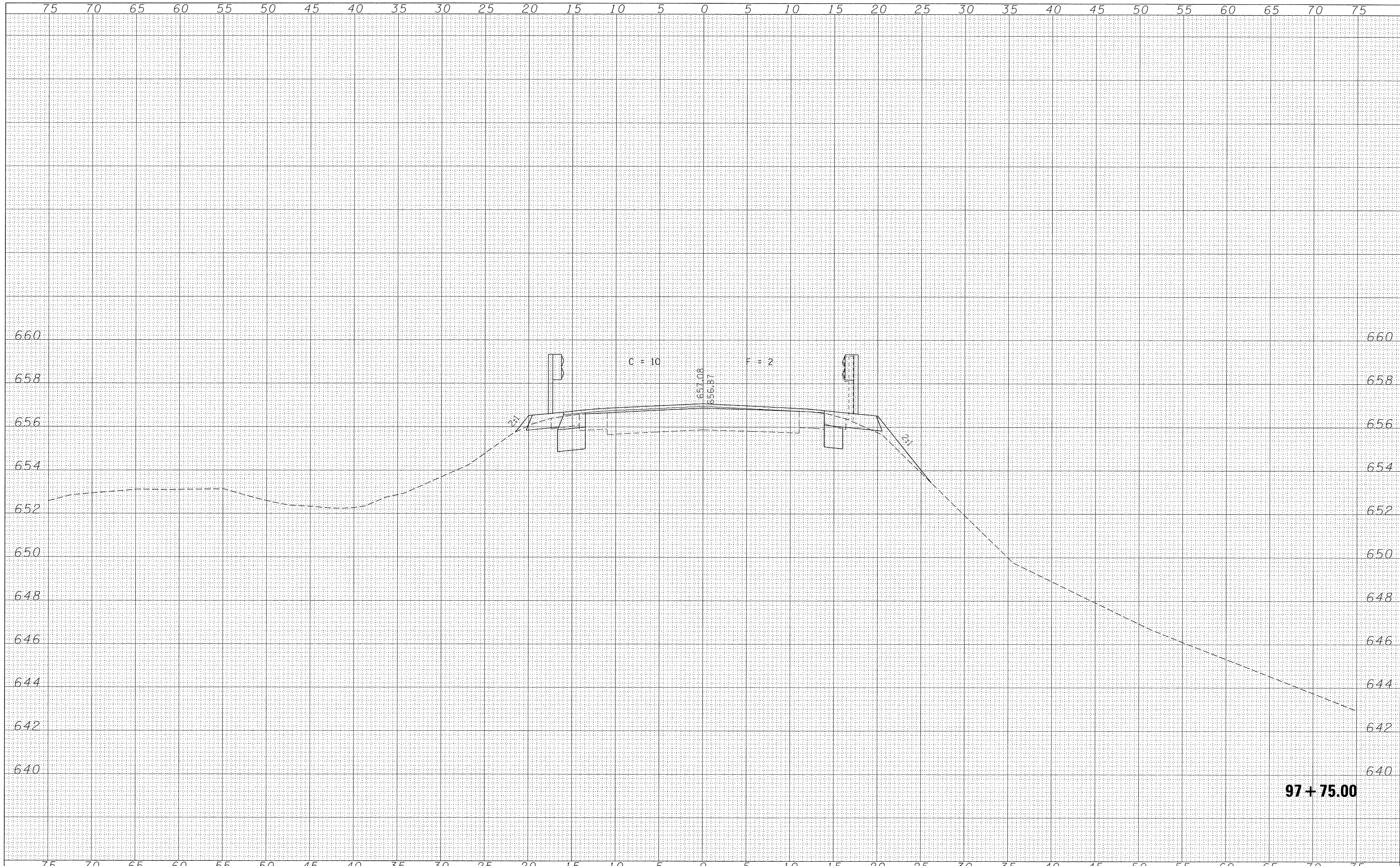
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3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62705 ILLINOIS PROFESSIONAL DESIGN FIRM L8 / PE / SE CORP. 184.000959		CHECKED - S.W.M.	REVISED -		HOMER-CATLIN ROAD				CONTRACT NO. 91457				
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**97 + 25.00**



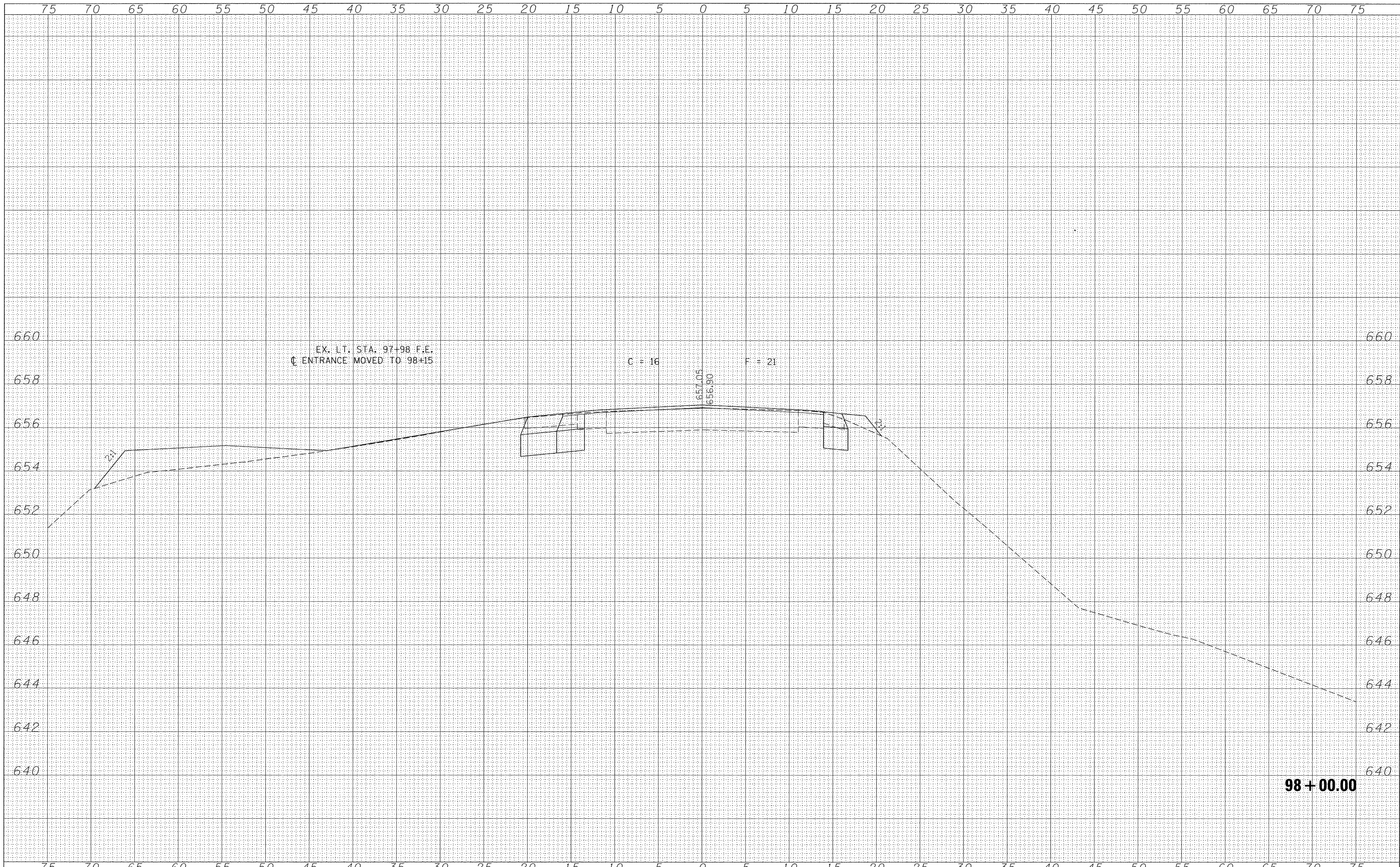


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NOTE BOOK	PLOTTED
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BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

FILE NAME = 162489-sht-xxsht.dgn	USER NAME = #USER#	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>STATION CROSS SECTIONS</b>				F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000989	PLOT SCALE = #SCALE#	CHECKED - S.W.M.	REVISED -		512	10-00174-00-BR	VERMILION	57	53				
	PLOT DATE = 12/20/2016	DATE - 12/15/16	REVISED -		HOMER-CATLIN ROAD				CONTRACT NO. 91457				
					SCALE: 5H:2V	SHEET NO. OF SHEETS	STA. 97+75.00 TO STA. 97+75.00	ILLINOIS FED. AID PROJECT BR5-0512(11)					

**97 + 75.00**

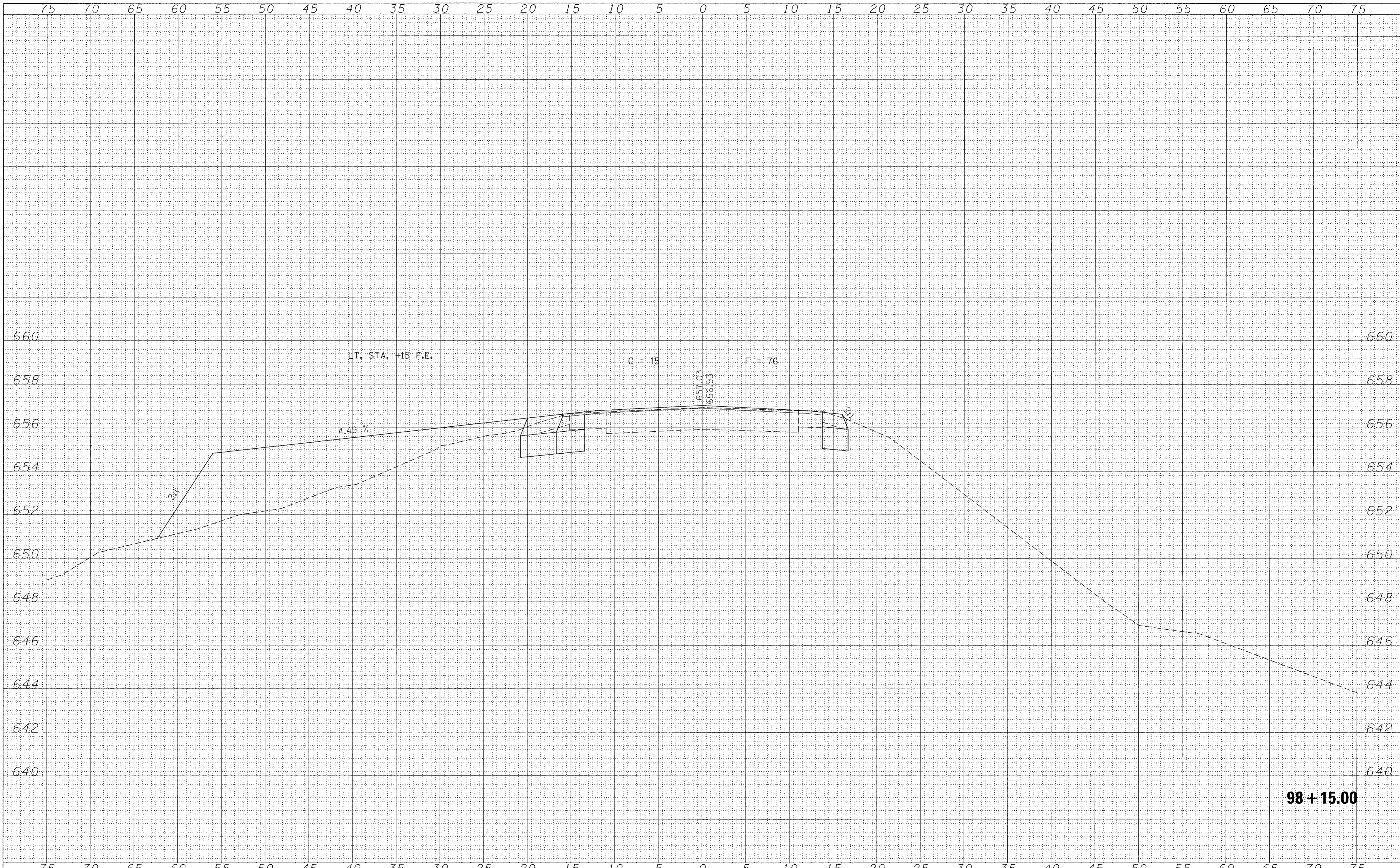


FINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS	TEMPLATE	
CHECKED		

ORIGINAL SURVEY NO.	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
AREAS	TEMPLATE	
CHECKED		

FILE NAME = 160489-sht-ssht.dgn	USER NAME = #USER*	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>STATION CROSS SECTIONS</b>				F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-00999	PLOT SCALE = #SCALE*	DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	54				
	PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -		HOMER-CATLIN ROAD				CONTRACT NO. 91457				
		DATE - 12/15/16	REVISED -		SCALE: 5H:2V				SHEET NO. OF SHEETS	STA. 98+00.00 TO STA. 98+00.00	ILLINOIS FED. AID PROJECT BR5-0512(111)		

**98 + 00.00**



FINAL SURVEY	DATE
SURVEYED	BY
NOTE BOOK	
NO.	

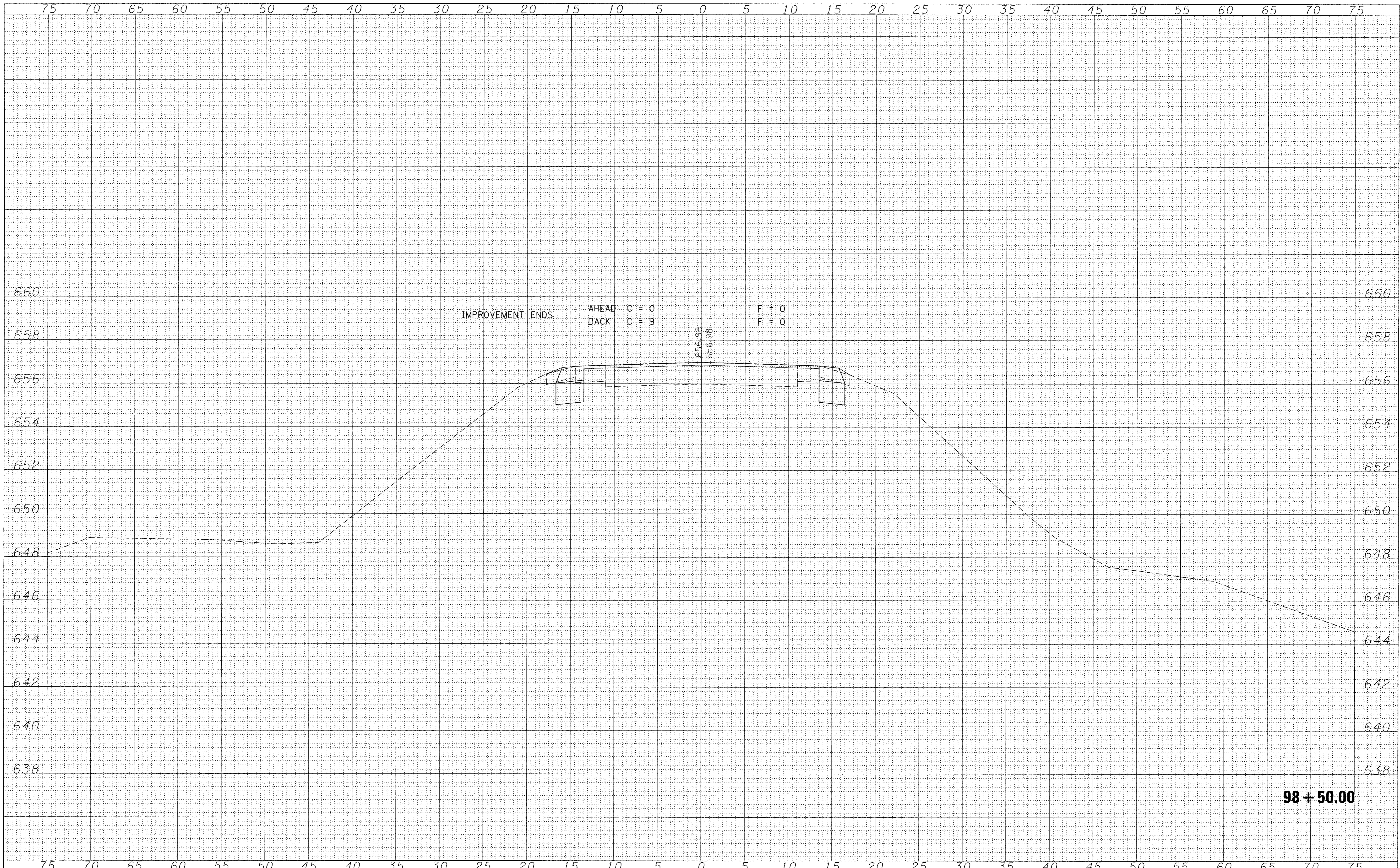
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SURVEYED	BY
NOTE BOOK	
NO.	

FILE NAME = 160489-sht-xssht.dgn	USER NAME = #USER#	DESIGNED - J.W.F.	REVISED -
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE = #SCALE#	DRAWN - T.W.K.	REVISED -
<b>ILR</b> ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000959	PLOT DATE = 12/20/2016	CHECKED - S.W.M.	REVISED -
		DATE - 12/15/16	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

<b>STATION CROSS SECTIONS</b>			
SCALE: 5H:2V	SHEET NO.	OF SHEETS	STA. 98+15.00 TO STA. 98+15.00

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
512	10-00174-00-BR	VERMILION	57	55
HOMER-CATLIN ROAD			CONTRACT NO.	91457
ILLINOIS FED. AID PROJECT BRS-0512(111)				



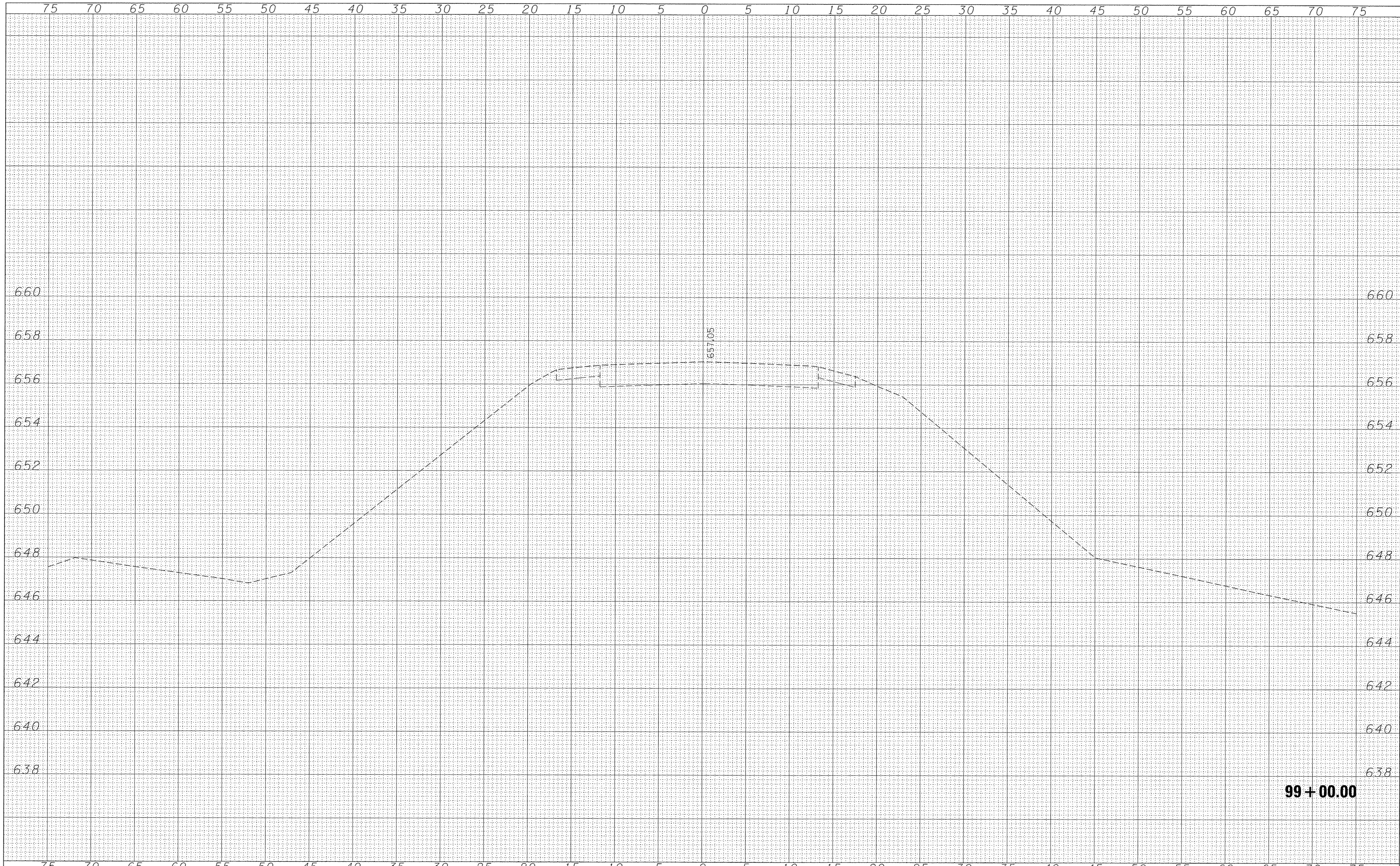
DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
AREAS CHECKED	

FILE NAME = 160489-sht-xshd.dgn	USER NAME = *USER*	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>STATION CROSS SECTIONS</b>				F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS/PE/SE CORP. 194.000959	PLOT SCALE = #SCALE#	DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	56				
PLOT DATE = 12/20/2016	CHECKED - S.W.M.	DATE - 12/15/16	REVISED -		SCALE: 5H:2V				SHEET NO.	OF	SHEETS	STA. 98+50.00	TO STA. 98+50.00
									CONTRACT NO. 91457				

ILLINOIS FED. AID PROJECT BRS-0512(111)





DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	AREAS CHECKED

FILE NAME = 160489-sht-xssht.dgn	USER NAME = #USER*	DESIGNED - J.W.F.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>STATION CROSS SECTIONS</b>				F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959		DRAWN - T.W.K.	REVISED -		512	10-00174-00-BR	VERMILION	57	57				
	PLOT SCALE = #SCALE*	CHECKED - S.W.M.	REVISED -		HOMER-CATLIN ROAD				CONTRACT NO. 91457				
	PLOT DATE = 12/20/2016	DATE - 12/15/16	REVISED -		SCALE: 5H:2V				SHEET NO. OF SHEETS STA. 99+00.00 TO STA. 99+00.00				