

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS
C.H. 55 - (WOODBURN ROAD)
SECTION 12-00134-01-BR
PROJECT NO. BROS-0119(073)
C-98-309-13
GVILLO BRIDGE REPLACEMENT
MADISON COUNTY

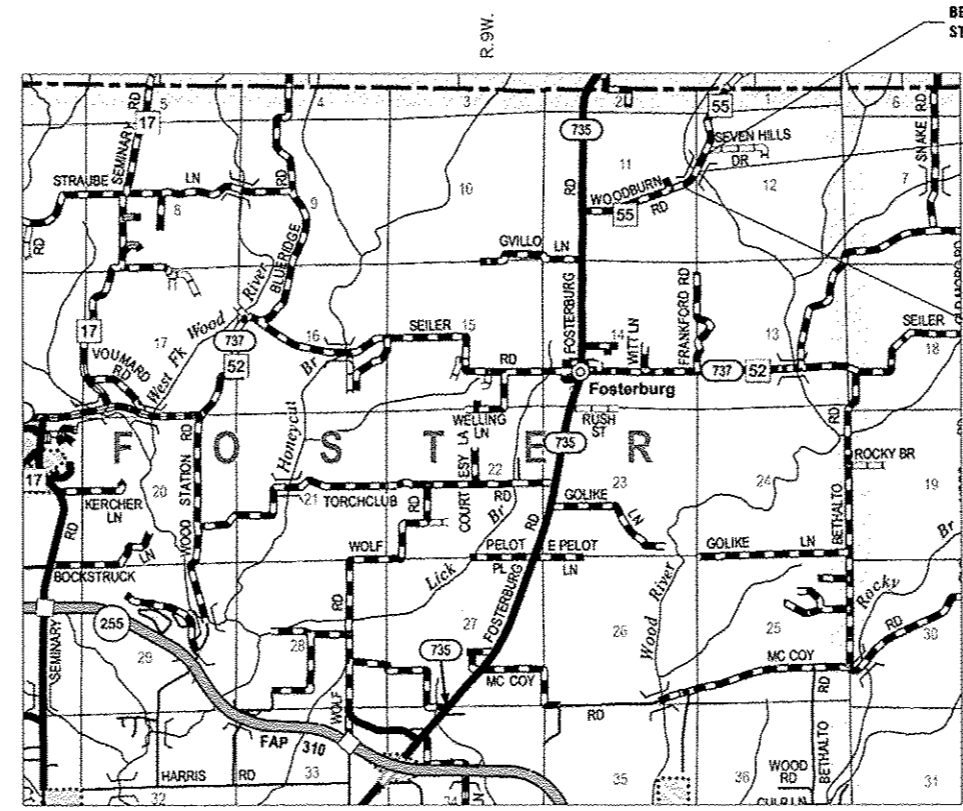
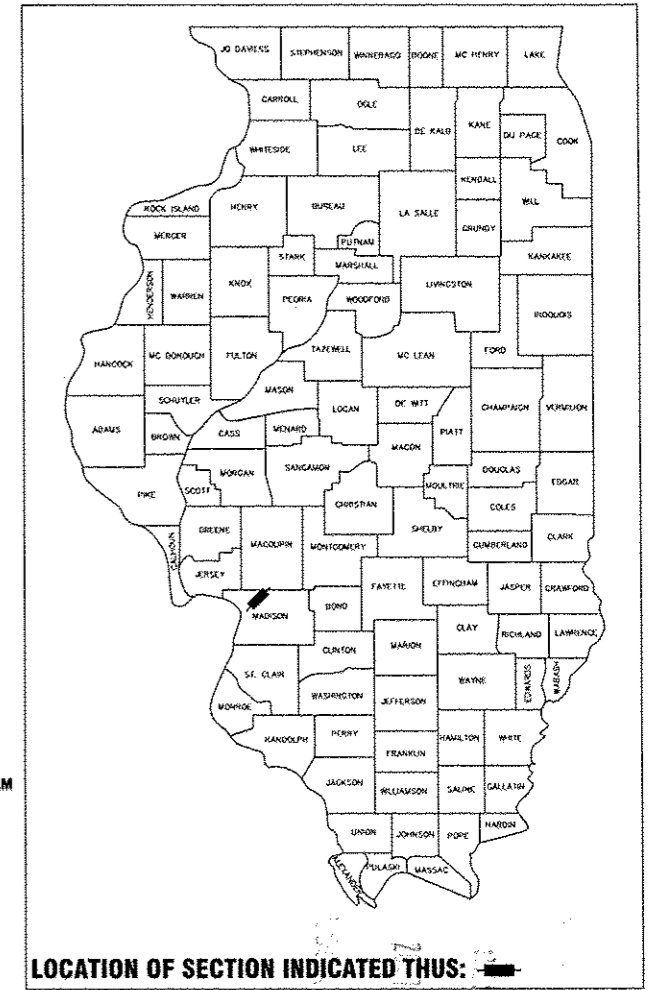
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	1
FEDERAL AID PROJECT		ILLINOIS	CONTRACT NO. 97646	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES AND COMMITMENTS
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- 13-34 STRUCTURAL SHEETS
- 35-45 CROSS SECTIONS

IDOT STANDARDS

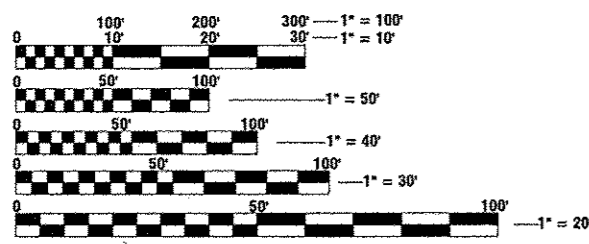
000001-06	631032-09
001001-02	701321-16
001006	701326-04
280001-07	701901-06
420406	704001-08
515001-03	725001-01
630001-11	782006
630301-07	



BEGIN IMPROVEMENT
 STA 47+28.00

STRUCTURE IS A PRESTRESSED CONCRETE DECK BEAM BRIDGE ON PILE BENTS CARRYING WOODBURN ROAD(CH 55) OVER A BRANCH OF EAST FORK WOOD RIVER CREEK
 STATION 50+30
 EXIST SN 060-3238
 PROP SN 060-3363

END IMPROVEMENT
 STA 53+10.50



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

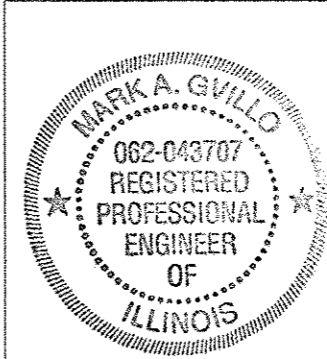
J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

LOCATION MAP
 NOT TO SCALE

GROSS LENGTH = 582.50 FT. (0.110 MI)
 NET LENGTH = 582.50 FT. (0.110 MI)

FUNCTIONAL CLASSIFICATION
 MINOR COLLECTOR
 2016 ADT = 1150
 DESIGN SPEED = 40 mph

THESE PLANS WERE PREPARED BY ME OR A FULL-TIME MEMBER OF MY STAFF WORKING UNDER MY PERSONAL SUPERVISION



Mark A. Gvillo
 11-30-2017
 LICENSE EXPIRES

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
APPROVED	2-21-17 <i>Mark A. Gvillo</i> MADISON COUNTY ENGINEER
PASSED	<i>John L. Keim</i> 2/22/17 acting DISTRICT 8 ENGINEER OF LOCAL ROADS AND STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	2/22/17 <i>John L. Keim</i> REGION 5 ENGINEER

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 OF THE STATE OF ILLINOIS**

GENERAL NOTES

COMMITMENTS: NONE

1. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE. IT IS POSSIBLE THERE MAY BE OTHERS. THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. ILLINOIS LAW REQUIRES A MINIMUM 48-HOUR NOTICE TO ALL UTILITY COMPANIES BEFORE DIGGING. FIELD LOCATION OF UNDERGROUND FACILITIES MAY BE OBTAINED BY CALLING THE J.U.L.I.E. SYSTEM AT 800-892-0123 AND PROVIDING 48 HOURS ADVANCE NOTICE. NON-J.U.L.I.E. MEMBERS MUST BE NOTIFIED INDIVIDUALLY. AGENCIES KNOWN TO HAVE FACILITIES WITHIN THE PROJECT LIMITS ARE LISTED BELOW.
2. ANY FACILITY OR APPURTENANCES WHICH ARE THE PROPERTY OF ANY PUBLIC UTILITY LOCATED WITHIN THE LIMITS OF CONSTRUCTION, SHALL BE LOCATED OR ADJUSTED BY THEIR RESPECTIVE OWNERS. THE CONTRACTOR SHALL NOTIFY AND COOPERATE WITH OWNERS OF ANY SUCH FACILITY IN THEIR REMOVAL AND REARRANGEMENT OPERATIONS IN ORDER THAT THESE OPERATIONS AND THE CONSTRUCTION OF THIS PROJECT MAY PROGRESS IN A REASONABLE MANNER.
3. THE FOLLOWING UTILITY COMPANIES MAY HAVE FACILITIES LOCATED WITHIN THE LIMITS OF CONSTRUCTION WHICH MAY REQUIRE ADJUSTMENT, RELOCATION, OR REMOVAL. ALL ARE MEMBERS OF J.U.L.I.E. UNLESS NOTED OTHERWISE.

FOSTERBURG WATER COMPANY
3216 MAIN STREET
ALTON, IL 62002

AMEREN IP
2600 NORTH CENTER STREET
P.O. BOX 378, MC Q-10
MARYVILLE, IL 62062-0378

4. THE ABOVE INFORMATION REPRESENTS THE BEST INFORMATION AVAILABLE TO THE LOCAL AGENCY AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS TAKEN THE FOREGOING INTO CONSIDERATION IN PREPARING HIS/HER BID, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS OR INCONVENIENCE CAUSED BY SAME.
5. THE CONTRACTOR SHALL BE REQUIRED TO COMPLY WITH THE PROVISIONS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT AND IMPLEMENT THE EROSION CONTROL PLAN INCLUDED IN THESE PLANS, AS SPECIFIED IN ARTICLE 107.23, THE ENGINEER MUST GIVE PRIOR APPROVAL BEFORE DISTURBANCE OF ANY AREA CAN BEGIN.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATION, THE J.U.L.I.E. NUMBER IS 1-800-892-0123. THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND ARE INTENDED TO BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS. ALL UTILITY FACILITIES THAT REQUIRE RELOCATION WITHIN COUNTY R.O.W. SHALL BE COMPLETED BY THE UTILITY COMPANY UNLESS OTHERWISE SHOWN ON THE PLANS.
7. IN ADDITION TO FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
8. ALL STATION AND OFFSET REFERENCES ARE TO PROPOSED ROADWAY CENTERLINE, UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.
9. ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1985(NAVD 88)
10. ANY REFERENCE WITHIN THESE PLANS TO A STANDARD SHALL BE INTERPRETED TO MEAN THE EDITION INDICATED BY THE SUB-NUMBER LISTED ON THE COVER SHEET OR THE COPY INCLUDED IN THESE PLANS.
11. CONTRACTOR SHALL ENSURE THAT POSITIVE DRAINAGE IS MAINTAINED FROM THE ROADWAY DITCHES TO THE CHANNEL. ANY EXTRA REQUIRED GRADING SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
12. GRADING SHALL BE DONE BY HAND AROUND LIGHT POLES, UTILITY POLES, SIGN POSTS, SHRUBS, TREES OR OTHER NATURAL OR MAN-MADE OBJECTS WHERE SHALLOW FILLS OR CUTS ARE ADJACENT TO THE ITEMS. IT IS THE INTENT THAT THE LIMITS OF CONSTRUCTION BE SUCH AS TO PRESERVE, IN THE ORIGINAL STATE, AS MUCH AREA AS POSSIBLE. THE DECISION AS TO ITEMS TO REMAIN IN PLACE SHALL BE DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
13. REMOVAL OF AGGREGATE MATERIAL AND OIL & CHIP BITUMINOUS MATERIAL SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
14. THE CONTRACTOR SHALL FERTILIZE, SEED AND MULCH ALL AREAS THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS AS DIRECTED BY THE ENGINEER. SEEDING SHALL BE PAID FOR ONLY WITHIN THE PROPOSED RIGHT-OF-WAY OR EASEMENT LIMITS. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE. SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION.
15. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

112 LBS / SQ YD / IN	HOT-MIX ASPHALT SURFACE COURSE
2.05 TONS / CU YD	ALL AGGREGATE
1.5 TONS / CU YD	RIPRAP
0.05 LBS / SQ FT	BITUMINOUS MATERIALS (TACK COAT)
90:90:90 LBS / ACRE	SEEDING FERTILIZER RATIO (NIT:PHOS:POT)
2 TONS / ACRE	MULCH
100 LBS / ACRE	TEMPORARY EROSION CONTROL SEEDING
16. ONLY THOSE TREES APPROVED FOR REMOVAL BY THE ENGINEER SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES, PLANTS, AND WETLANDS FROM DAMAGE. ALL TREES AND STUMPS INDICATED ON THE PLANS FOR REMOVAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
17. ONLY PRECOATED GALVANIZED CORRUGATED STEEL CULVERT PIPE WILL BE ALLOWED FOR CLASS C PIPE CULVERTS.
18. CHANNEL EXCAVATION WILL BE MEASURED AND PAID FOR AS EARTH EXCAVATION.

INTERNAL PROJECT NUMBER: A-244-00	USER NAME Greg A. Schuette	DESIGNED G.A.S.	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	GENERAL NOTES	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILE NAME: W:\Civil 30 Projects\A-244-00 GVILLO BRIDGE\A-244-00 GN, SoQ, Sch.dwg	PLOT SCALE 0.5:1	DRAWN G.A.S.	REVISED -			55	12-00134-01-BR	MADISON	45	2	
	PLOT DATE 22-Feb-17	CHECKED -	REVISED -			PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97645			
			REVISED - - - -			FOSTER TOWNSHIP		ILLINOIS	FEDERAL AID PROJECT		
				SCALE: - SHEET NO. 1 OF 1 SHEETS STA. - TO STA. -							

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	391
20400800	FURNISHED EXCAVATION	CU YD	1029
20800150	TRENCH BACKFILL	CU YD	10
25000200	SEEDING, CLASS 2	ACRE	0.9
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	80
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	80
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	80
25100115	MULCH, METHOD 2	ACRE	1.8
25100630	EROSION CONTROL BLANKET	SQ YD	56
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	176
28000305	TEMPORARY DITCH CHECKS	FOOT	70
28000400	PERIMETER EROSION BARRIER	FOOT	808
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	482
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	31

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	198
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	126
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	202
44004250	PAVED SHOULDER REMOVAL	SQ YD	136
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	10
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	517
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	42
50200100	STRUCTURE EXCAVATION	CU YD	182
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	93.6
50300280	CONCRETE ENCASEMENT	CU YD	56.2
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	105.2

* SPECIAL PROVISION
** SPECIALTY ITEM

INTERNAL PROJECT NUMBER: A-244-00	USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED --	MADISON COUNTY HIGHWAY DEPARTMENT	SUMMARY OF QUANTITIES	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 GN, SoQ, Sch.dwg	PLOT SCALE 0.5:1	DRAWN G.A.S.	REVISED --			55	12-00134-01-BR	MADISON	45	3
	PLOT DATE 17-Feb-17	CHECKED --	REVISED --			PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
			REVISED ----			SCALE: --	SHEET NO. 1 OF 3 SHEETS	STA. --	TO STA. --	FOSTER TOWNSHIP

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	5868
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	47770
50800515	BAR SPLICERS	EACH	364
* * 50901050	STEEL RAILING, TYPE SM	FOOT	331
51201600	FURNISHING STEEL PILES HP12X53	FOOT	350
51201900	FURNISHING STEEL PILES HP14X89	FOOT	294
51202000	FURNISHING STEEL PILES HP14X102	FOOT	287
51202305	DRIVING PILES	FOOT	644
51203600	TEST PILE STEEL HP12X53	EACH	2
51203900	TEST PILE STEEL HP14X89	EACH	1
51204650	PILE SHOES	EACH	19
51500100	NAME PLATES	EACH	1
542C1069	PIPE CULVERTS, CLASS C, TYPE 2 24"	FOOT	60
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	653

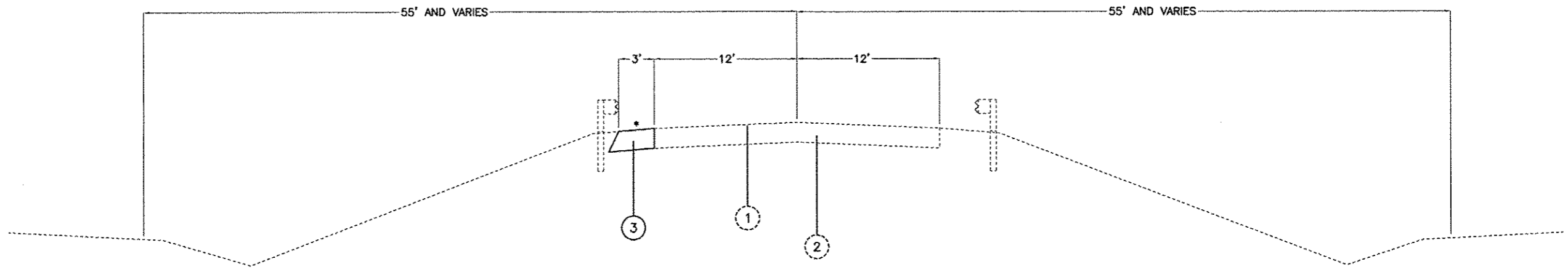
CODE NO.	ITEM	UNIT	TOTAL QUANTITY
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	1793
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	61
** 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4
** 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
* * 63200310	GUARDRAIL REMOVAL	FOOT	493
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6
67100100	MOBILIZATION	LSUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LSUM	1
** * 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6
70400100	TEMPORARY CONCRETE BARRIER	FOOT	562.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	562.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2

* SPECIAL PROVISION
 ** SPECIALTY ITEM

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2
** 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
** 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4
** 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	4
* X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	89
* X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	12
* Z0001900	ASBESTOS BEARING PAD REMOVAL	EACH	40
* Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	150
* Z0065000	SETTING PILES IN ROCK	EACH	7

* SPECIAL PROVISION
 ** SPECIALTY ITEM

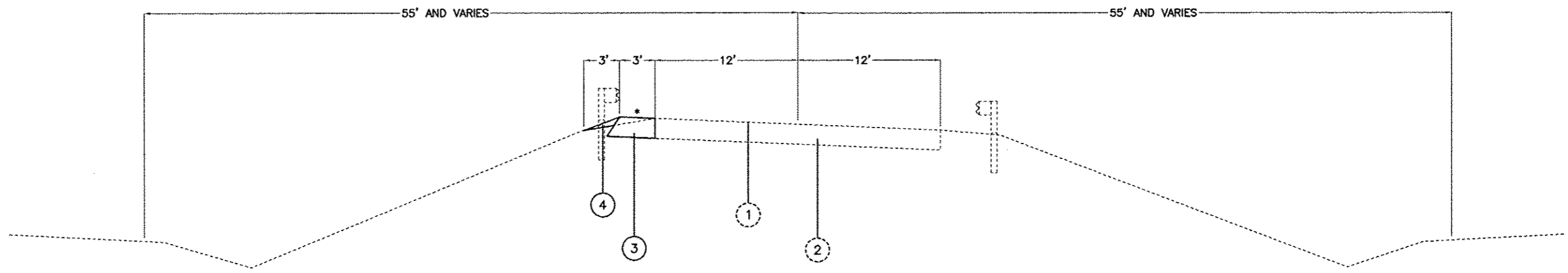


TEMPORARY SHOULDER TYPICAL SECTION
 WOODBURN ROAD: STA. 47+28.00 TO STA. 49+38.40

LEGEND

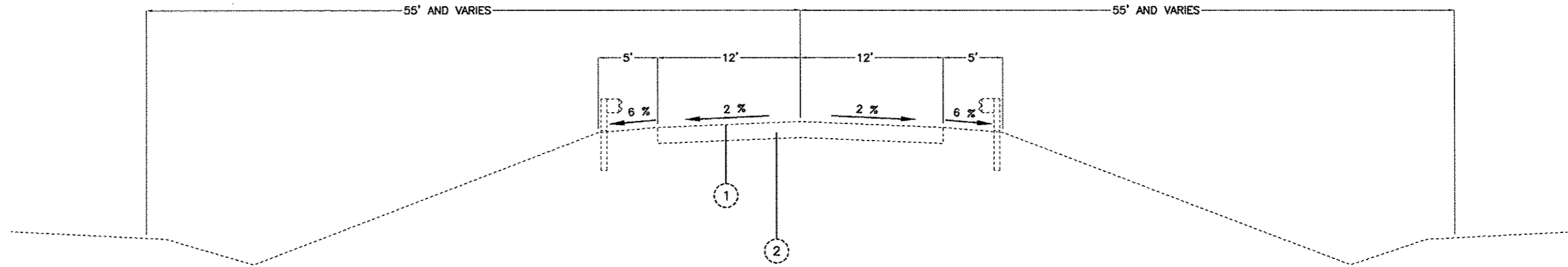
- ① EXISTING OIL AND CHIP SURFACE
- ② EXISTING ROCK BASE
- ③ PROPOSED HOT-MIX ASPHALT SHOULDERS, 10"
- ④ AGGREGATE WEDGE SHOULDER, TYPE B

* MATCH EXISTING ROADWAY CROSS SLOPE



TEMPORARY SHOULDER TYPICAL SECTION
 WOODBURN ROAD: STA. 51+13.57 TO STA. 53+10.50

INTERNAL PROJECT NUMBER: A-244-00	USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	TYPICAL SECTIONS		C.H. 55	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 6	
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Typical Sections.dwg	PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED -				PROJECT NAME: GVILLO BRIDGE	CONTRACT NO. 97646				
	PLOT DATE 17-Feb-17	CHECKED -	REVISED -		SCALE: 1:5	SHEET NO. 1	OF 2	SHEETS STA. 47+28	TO STA. 53+10.5	FOSTER TOWNSHIP	ILLINOIS	FEDERAL AID PROJECT
			REVISED ----									

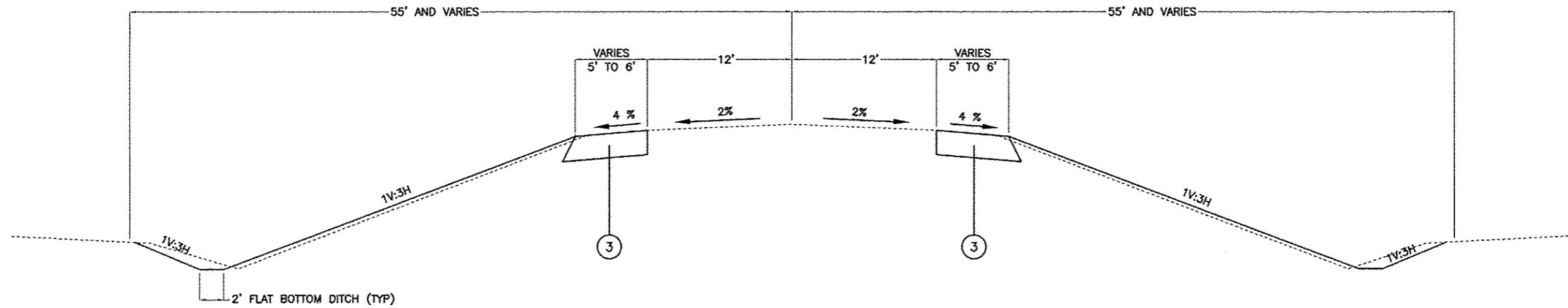


EXISTING TYPICAL SECTION

WOODBURN ROAD: STA. 47+28.00 TO STA. 49+38.40
 STA. 51+13.57 TO STA. 53+10.50
 BRIDGE OMISSION: STA. 49+38.40 TO STA. 51+13.57

LEGEND

- ① EXISTING OIL AND CHIP SURFACE
- ② EXISTING ROCK BASE
- ③ PROPOSED HOT-MIX ASPHALT SHOULDERS, 10"



PROPOSED TYPICAL SECTION

WOODBURN ROAD: STA. 47+28.00 TO STA. 48+84.40
 STA. 51+57.57 TO STA. 53+10.50
 BRIDGE APPROACH PAVEMENT CONNECTOR OMISSION: STA. 48+84.40 TO STA. 49+14.40
 STA. 51+37.57 TO STA. 51+57.57
 BRIDGE APPROACH PAVEMENT OMISSION: STA. 49+14.40 TO STA. 49+43.40
 STA. 51+08.57 TO STA. 51+37.57
 BRIDGE OMISSION: STA. 49+43.40 TO STA. 51+08.57

SUPERELEVATED EXIST. "e" = 5.5% PROP. "e" = 5.5%
 STA. 52+70.24 TO 59+00

*** - TRANSITION SUPERELEVATION STA. 51+15.44 TO 52+70.24

INTERNAL PROJECT NUMBER: A-244-00	USER NAME Jonathon Fuller	DESIGNED G.A.S.	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	TYPICAL SECTIONS	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Typical Sections.dwg	PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED -			55	12-00134-01-BR	MADISON	45	7
	PLOT DATE 17-Feb-17	CHECKED -	REVISED -			PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
			REVISED ----			SCALE: 1:5	SHEET NO. 2 OF 2 SHEETS	STA. 47+28 TO STA. 53+10.5	FOSTER TOWNSHIP ILLINOIS FEDERAL AID PROJECT	

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION (CU YD)	* EARTH EXCAVATION TO BE USED AS EMBANKMENT (ADJUSTED FOR SHRINKAGE) 25% (CU YD)	EMBANKMENT (CU YD)	** EARTHWORK BALANCE EXCESS (+) SHORTAGE (-) (CU YD)
WOODBURN ROAD				
STA 47+28 TO STA 53+10.5	391	293	1322	-1029
TOTALS	391	293	1322	-1029

ASSUMED SHRINKAGE FACTOR OF 25%

* EARTH EXCAVATION TO BE USED AS EMBANKMENT = EARTH EXCAVATION x 0.75

** EARTHWORK BALANCE = (EMBANKMENT - (EARTH EXCAVATION x 0.75))

REMOVAL SCHEDULE			
LOCATION	PIPE CULVERT REMOVAL (FOOT)	GUARDRAIL REMOVAL (FOOT)	PAVED SHOULDER REMOVAL (SQ YD)
WOODBURN ROAD			
STA 47+28 LT TO STA 49+38.4 LT			70.1
STA 47+76 RT TO STA 49+37 RT		161.0	
STA 48+26 LT TO STA 49+37 LT		111.3	
STA 51+15 RT TO STA 51+75 RT		59.9	
STA 51+15 LT TO STA 52+76 LT		161.1	
STA 51+13.6 LT TO STA 53+10.5 LT			65.6
STA 51+76 RT TO STA 52+18 RT	42		
TOTALS	42	493	136

GUARDRAIL AND MARKER SCHEDULE					
LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, (TANGENT) (EACH)	TRAFFIC BARRIER TERMINAL, TYPE 6A (EACH)	TERMINAL MARKER -- DIRECT APPLIED (EACH)	GUARDRAIL REFLECTORS, TYPE A (EACH)	BARRIER WALL REFLECTORS, TYPE C (EACH)
WOODBURN ROAD					
STA 48+49.5 LT TO STA 49+43.4 LT	1	1	1	1	
STA 48+49.5 RT TO STA 49+43.4 RT	1	1	1	1	
STA 49+86 LT TO STA 50+66 LT					2
STA 49+86 RT TO STA 50+66 RT					2
STA 51+08.6 LT TO STA 52+02.5 LT	1	1	1	1	
STA 51+08.6 RT TO STA 52+02.5 RT	1	1	1	1	
TOTALS	4	4	4	4	4

TEMPORARY EROSION CONTROL SCHEDULE				
LOCATION	PERIMETER EROSION BARRIER (FOOT)	TEMPORARY DITCH CHECK (FOOT)	* TEMPORARY EROSION CONTROL SEEDING (POUND)	MULCH METHOD 2 (ACRE)
WOODBURN ROAD				
STA 48+00 LT TO STA 50+00 LT	200		40	0.20
STA 48+00 RT TO STA 50+00 RT	202		46	0.23
STA 49+75 LT		10		
STA 49+75 RT		10		
STA 50+92 RT		10		
STA 51+15 RT		10		
STA 51+39 RT		10		
STA 51+62 RT		10		
STA 51+95 LT		10		
STA 50+50 LT TO STA 52+50.5 LT	210		44	0.22
STA 50+50 RT TO STA 52+50.5 RT	196		46	0.23
TOTALS	808	70	176	0.9

* TEMPORARY EROSION CONTROL SEEDING QUANTITY ASSUMES TWO SEPARATE APPLICATIONS AT A RATE OF 100 LBS/ACRE/APPLICATION.

SEEDING SCHEDULE						
LOCATION	SEEDING CLASS 2 (ACRE)	NITROGEN FERTILIZER NUTRIENT (POUND)	PHOSPHORUS FERTILIZER NUTRIENT (POUND)	POTASSIUM FERTILIZER NUTRIENT (POUND)	EROSION CONTROL BLANKET (SQ YD)	MULCH METHOD 2 (ACRE)
WOODBURN ROAD						
STA 48+00 LT TO STA 50+00 LT	0.20	18	18	18		0.20
STA 48+00 RT TO STA 50+00 RT	0.23	21	21	21		0.23
STA 50+50 LT TO STA 52+50.5 LT	0.22	20	20	20		0.22
STA 50+50 RT TO STA 52+50.5 RT	0.23	21	21	21		0.23
STA 50+92 RT TO STA 51+70 RT					56	
TOTALS	0.9	80	80	80	56	0.9

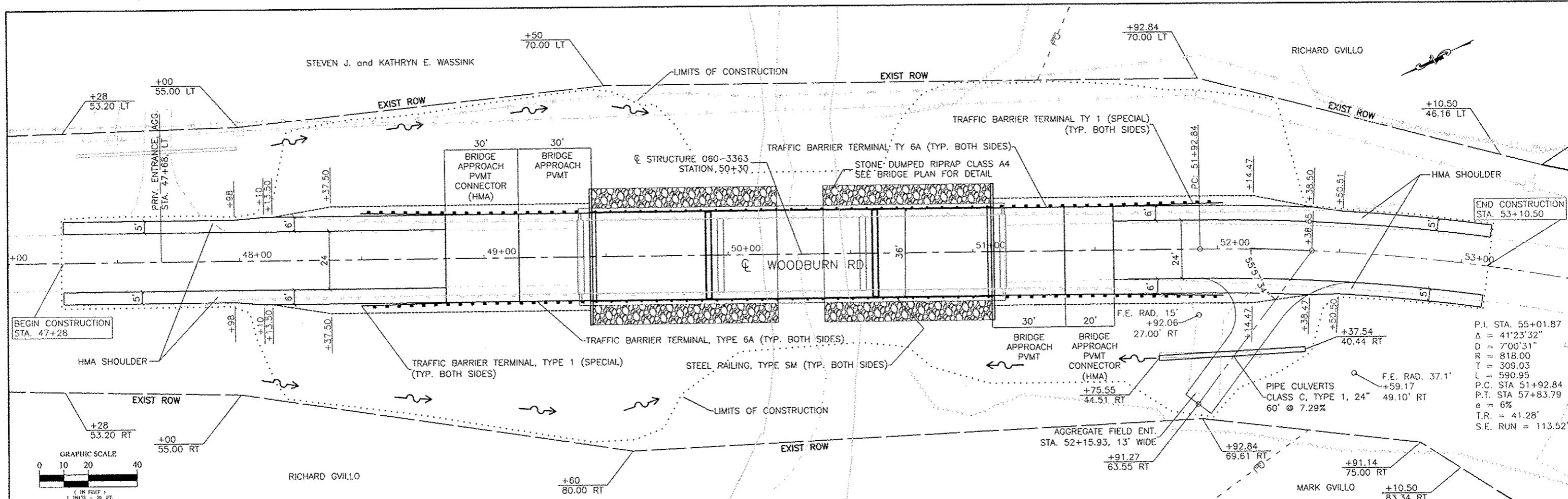
INTERNAL PROJECT NUMBER: A-244-00	USER NAME Greg A. Schuette	DESIGNED G.A.S.	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	SCHEDULE OF QUANTITIES	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 GN, SoQ, Sch.dwg	PLOT SCALE 0.5:1	DRAWN G.A.S.	REVISED -			SS	12-00134-01-BR	MADISON	45	8				
	PLOT DATE 21-Feb-17	CHECKED -	REVISED -			PROJECT NAME:	GVILLO BRIDGE	CONTRACT NO.	97646					
			REVISED -			SCALE:	-	SHEET NO.	1 OF 2 SHEETS	STA	-	TO STA	-	FOSTER TOWNSHIP

WORK ZONE TRAFFIC CONTROL AND PROTECTION SCHEDULE									
LOCATION	TEMPORARY RUMBLE STRIPS (EACH)	* TEMPORARY PAVEMENT MARKING -- LINE 4" (FOOT)	* TEMPORARY PAVEMENT MARKING -- LINE 24" (FOOT)	* WORK ZONE PAVEMENT MARKING REMOVAL (SQ FT)	TEMPORARY CONCRETE BARRIER (FOOT)	RELOCATE TEMPORARY CONCRETE BARRIER (FOOT)	PINNING TEMPORARY CONCRETE BARRIER (EACH)	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)
WOODBURN ROAD (STAGE 1)									
SB APPROACH	3								
STA 45+77 RT			12						
STA 45+87 RT TO STA 54+04.5 RT		817.5							
STA 45+87 TO STA 48+84.4				99.1					
STA 47+28 LT TO STA 53+07.5 LT		579.5							
STA 47+40								1	
STA 47+40 TO STA 53+02.5					562.5				
STA 49+13.4 TO STA 49+38.4							3		
STA 51+13.57 TO STA 51+38.57							3		
STA 51+57.6 TO STA 54+04.5				82.3					
STA 53+02.5								1	
STA 54+64.5 LT			12						
NB APPROACH	3								
WOODBURN ROAD (STAGE 2)									
STA 45+78				24.0					
STA 46+38 LT TO STA 54+54.5 LT		816.5							
STA 46+38 TO STA 54+54.5				272.2					
STA 47+38 RT TO STA 53+10.5 RT		572.5							
STA 47+38 TO STA 53+10.5				190.8					
STA 47+40									1
STA 47+40 TO STA 53+02.5						562.5			
STA 48+89.4 TO STA 49+14.4							3		
STA 51+37.57 TO STA 51+62.57							3		
STA 53+02.5									1
STA 54+64.5				24.0					
TOTALS	6	2786	24	692	562.5	562.5	12	2	2

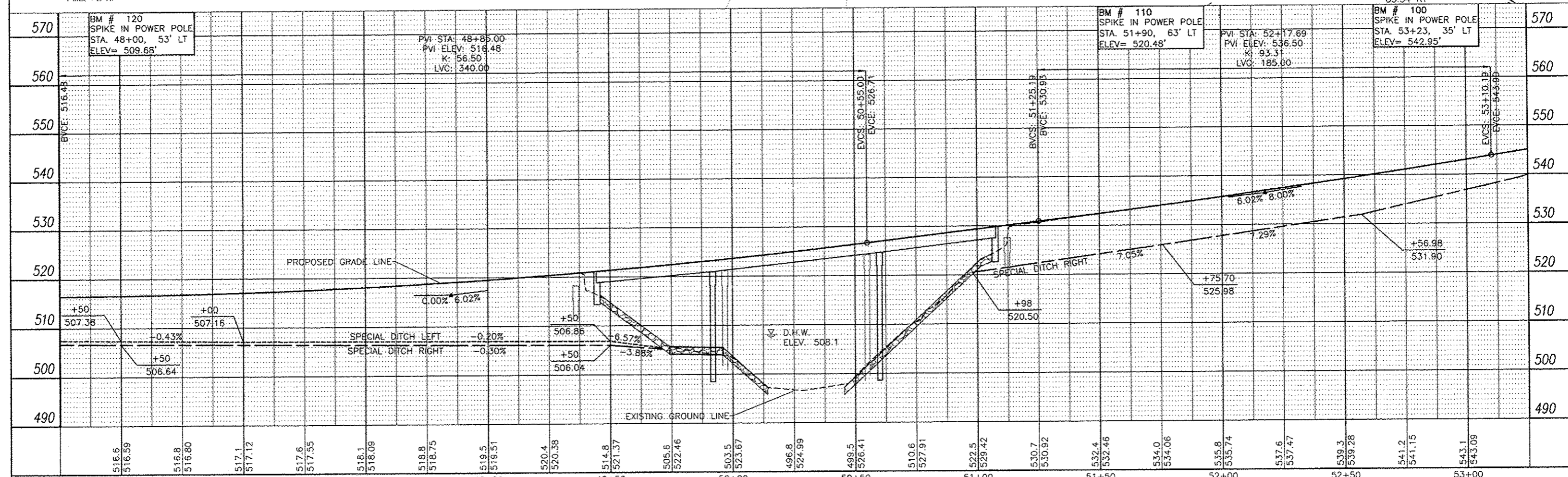
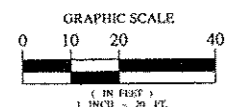
* QUANTITY FOR INFORMATION ONLY. IN ACCORDANCE WITH ARTICLE 703.07 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, WHEN TEMPORARY PAVEMENT MARKING IS SHOWN ON A STANDARD (SEE 701321), THE COST OF THE TEMPORARY PAVEMENT MARKING (INCLUDING REMOVAL) WILL BE INCLUDED IN THE COST OF THE STANDARD AND WILL NOT BE PAID FOR SEPARATELY.

PIPE CULVERT SCHEDULE									
LOCATION	UPSTREAM STATION	UPSTREAM OFFSET	UPSTREAM INVERT	DOWNSTREAM STATION	DOWNSTREAM OFFSET	DOWNSTREAM INVERT	GRADE (FT/FT)	PIPE CULVERTS, CLASS C, TYPE 2, 24" (FOOT)	TRENCH BACKFILL (CU YD)
WOODBURN ROAD	52+37.54	40.44' RT	530.34	51+75.55	44.51' RT	525.97	0.0729	60	10
TOTALS								60	10

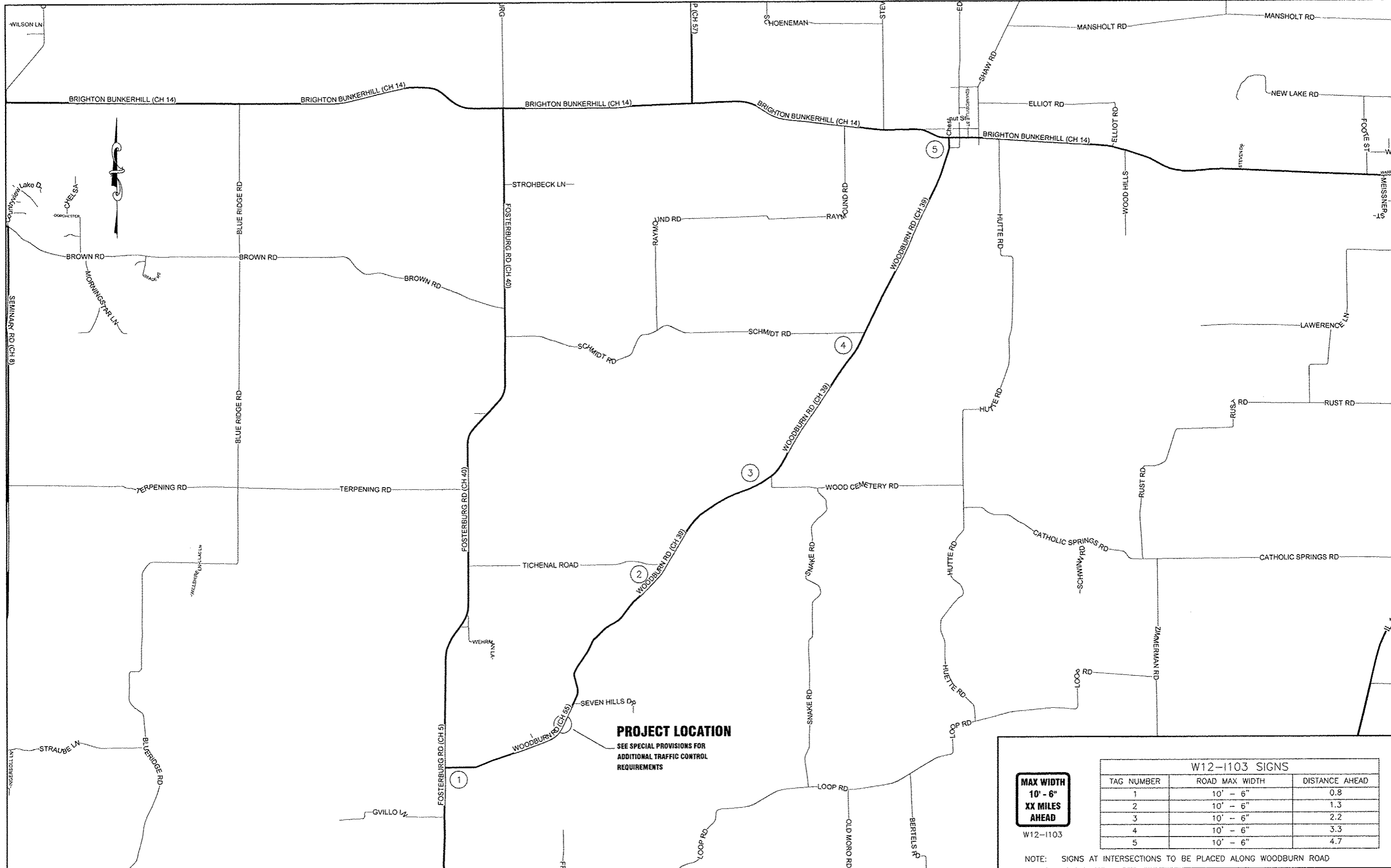
PAVEMENT AND SHOULDER SCHEDULE					
LOCATION	AGGREGATE SURFACE COURSE, TYPE A (TON)	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (TON)	BITUMINOUS MATERIALS (TACK COAT) (POUND)	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB (SQ YD)	HOT-MIX ASPHALT SHOULDERS, 10" (SQ YD)
WOODBURN ROAD					
STA 47+28 LT TO STA 53+10.5 LT					135.8
STA 47+28 RT TO STA 53+10.5 RT					190.4
STA 47+28 LT TO STA 53+10.5 LT					190.4
STA 48+84.4 TO STA 49+14.4		6.7	54	121.1	
STA 51+37.57 TO STA 51+57.57		4.5	36	80.7	
STA 52+38.65 RT	31.3				
TOTALS	31	11	90	202	517



P.I. STA. 55+01.87
 $\Delta = 41'23'32''$
 $D = 7'00'31''$
 $R = 818.00$
 $T = 309.03$
 $L = 590.95$
 $P.C. STA 51+92.84$
 $P.T. STA 57+83.79$
 $e = 6\%$
 $T.R. = 41.28'$
 $S.E. RUN = 113.52'$



INTERNAL PROJECT NUMBER: A-244-00	USER NAME: Jonathan Fuller	DESIGNED: G.A.S.	REVISED: -	MADISON COUNTY HIGHWAY DEPARTMENT	PLAN & PROFILE	C.H.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg	PLOT SCALE: 0.5:1	DRAWN: J.J.F.	REVISED: -			55	12-00134-01-BR	MADISON	45	10
	PLOT DATE: 21-Feb-17	CHECKED: -	REVISED: -			PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
			REVISED: -			FOSTER TOWNSHIP		ILLINOIS		FEDERAL AID PROJECT



PROJECT LOCATION
 SEE SPECIAL PROVISIONS FOR
 ADDITIONAL TRAFFIC CONTROL
 REQUIREMENTS

W12-1103 SIGNS		
TAG NUMBER	ROAD MAX WIDTH	DISTANCE AHEAD
1	10' - 6"	0.8
2	10' - 6"	1.3
3	10' - 6"	2.2
4	10' - 6"	3.3
5	10' - 6"	4.7

MAX WIDTH
 10' - 6"
 XX MILES
 AHEAD

W12-1103

NOTE: SIGNS AT INTERSECTIONS TO BE PLACED ALONG WOODBURN ROAD

INTERNAL PROJECT NUMBER:
 A-244-00
 FILE NAME:
 W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Traffic Advance Warning.dwg

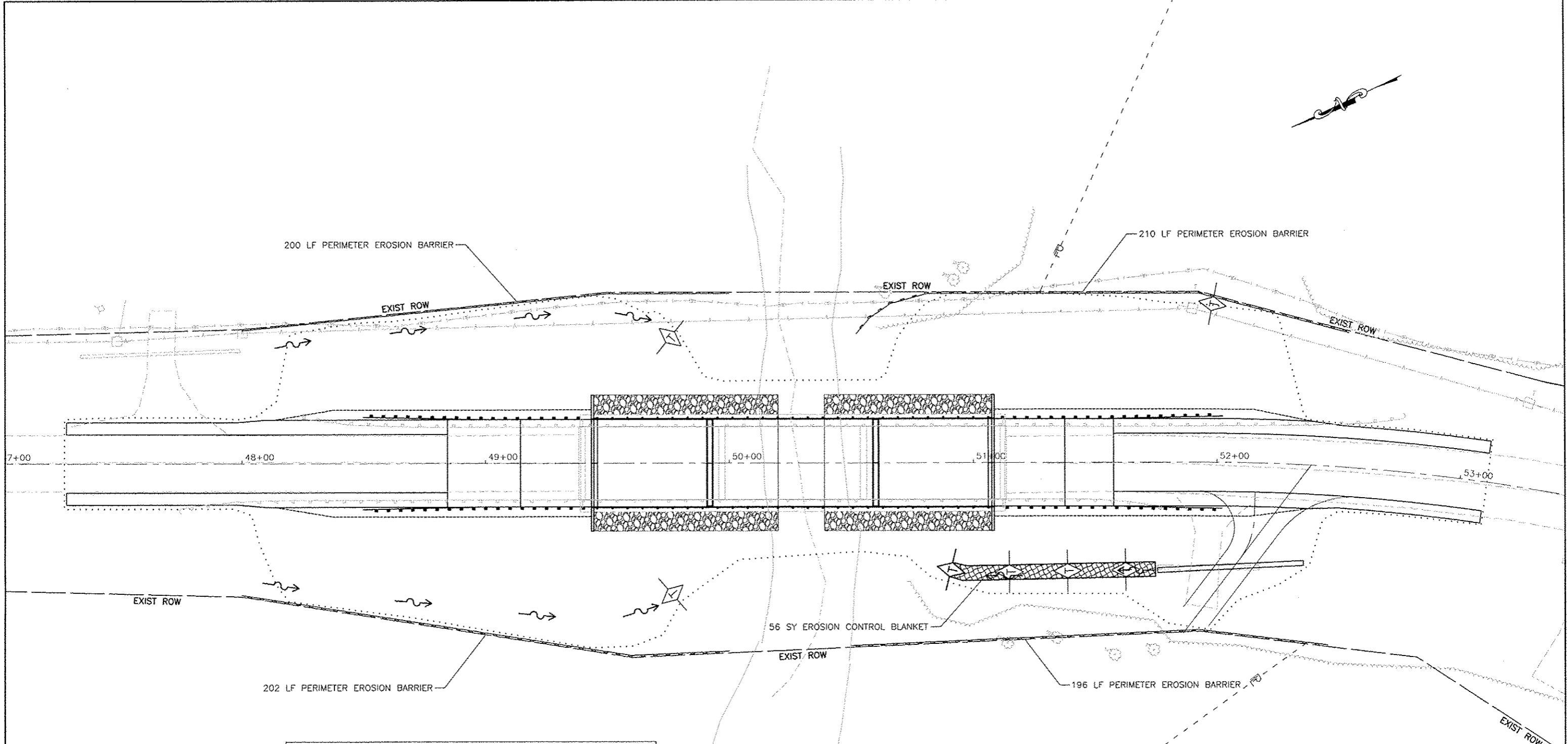
USER NAME	Jonathan Fuller	DESIGNED	G.A.S.
PLOT SCALE	0.5:1	DRAWN	J.J.F.
PLOT DATE	17-Feb-17	CHECKED	-

REVISED	-
REVISED	-
REVISED	-
REVISED	----

**MADISON COUNTY
 HIGHWAY DEPARTMENT**

TRAFFIC CONTROL
 SCALE: 1:1500 SHEET NO. 1 OF 1 SHEETS STA. -- TO STA. --

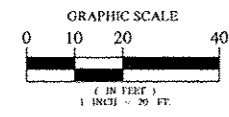
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	11
PROJECT NAME:		CONTRACT NO.		
FOSTER TOWNSHIP		97646		
		ILLINOIS	FEDERAL AID PROJECT	



EROSION CONTROL LEGEND

- LIMITS OF CONSTRUCTION
- PERIMETER EROSION BARRIER SILT FILTER FENCE OR OTHER AS APPROVED BY THE ENGINEER
- ◇ T ◇ TEMPORARY DITCH CHECKS
- ▒ EROSION CONTROL BLANKET
- ▒ STONE DUMPED RIPRAP

NOTE: ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER



INTERNAL PROJECT NUMBER:
A-244-00

FILE NAME:
W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Erosion Control.dwg

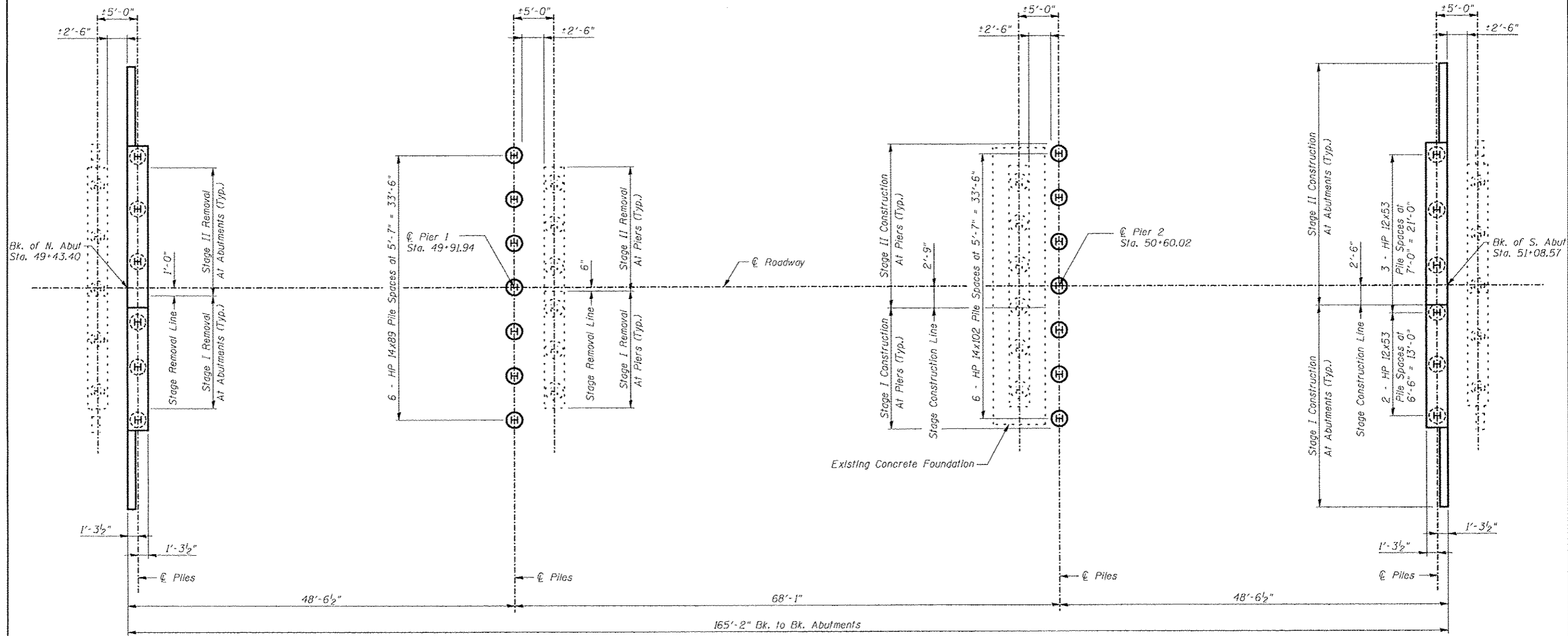
USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED --
PLOT SCALE 0.5:1	DRAWN G.A.S.	REVISED --
PLOT DATE 17-Feb-17	CHECKED --	REVISED --
		REVISED ----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

EROSION AND SEDIMENT CONTROL DETAILS

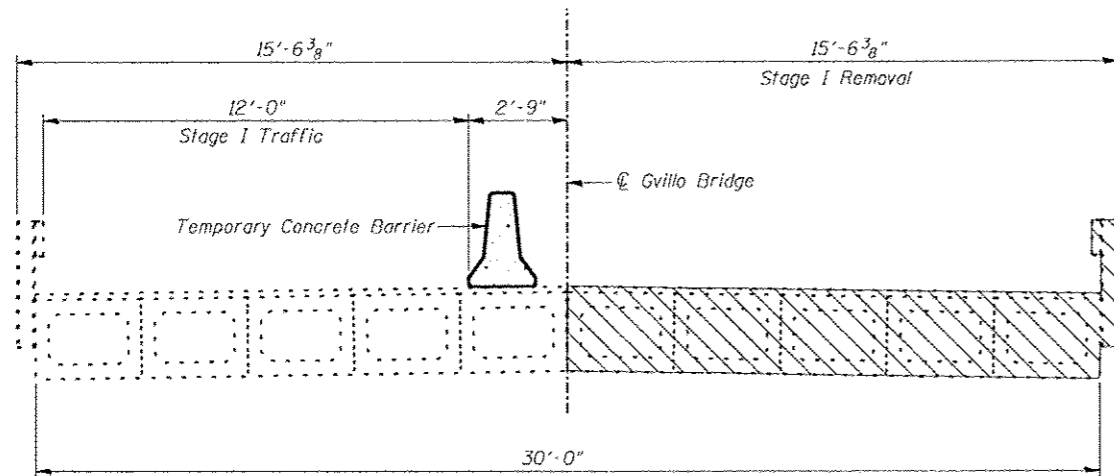
SCALE: 1:20 SHEET NO. 1 OF 1 SHEETS STA. 47+00 TO STA. 53+40

C.H. 55	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 12
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS FEDERAL AID PROJECT		

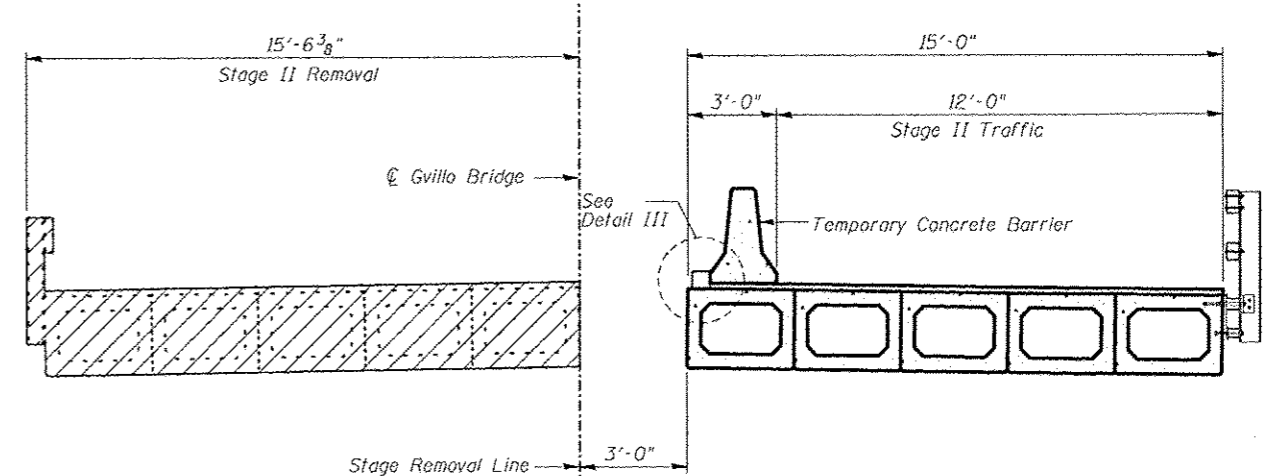


SUBSTRUCTURE LAYOUT

FILE NAME 1031 Substructure Layout.dgn	USER NAME enath	DESIGNED - DB	01/27/2017	REVISED -	GVILO BRIDGE MADISON COUNTY, ILLINOIS	SUBSTRUCTURE LAYOUT STRUCTURE NO. 060-3363	SHEET NO. 3 OF 22 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE 1:12.4	CHECKED - NK	01/27/2017	REVISED -				12-00134-01-BR	MADISON	45	15	
	PLOT DATE 2/17/2017	DRAWN - EER	01/27/2017	REVISED -				CONTRACT NO. 97646				
	CHECKED - WWH	01/27/2017	REVISED -	ILLINOIS FED. AID PROJECT								



Stage I Removal
(Looking South)



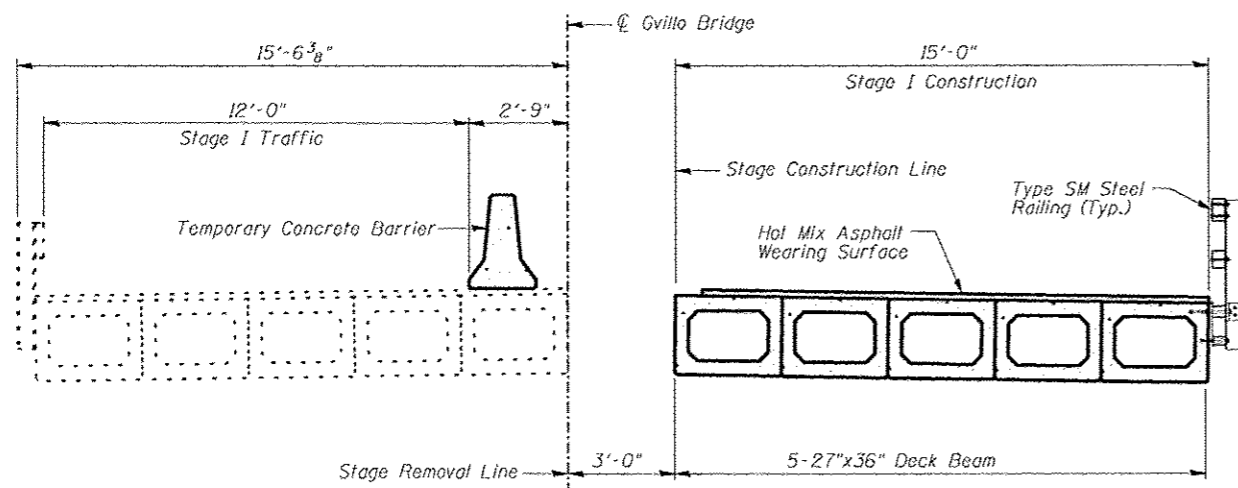
Stage II Removal
(Looking South)

Notes:

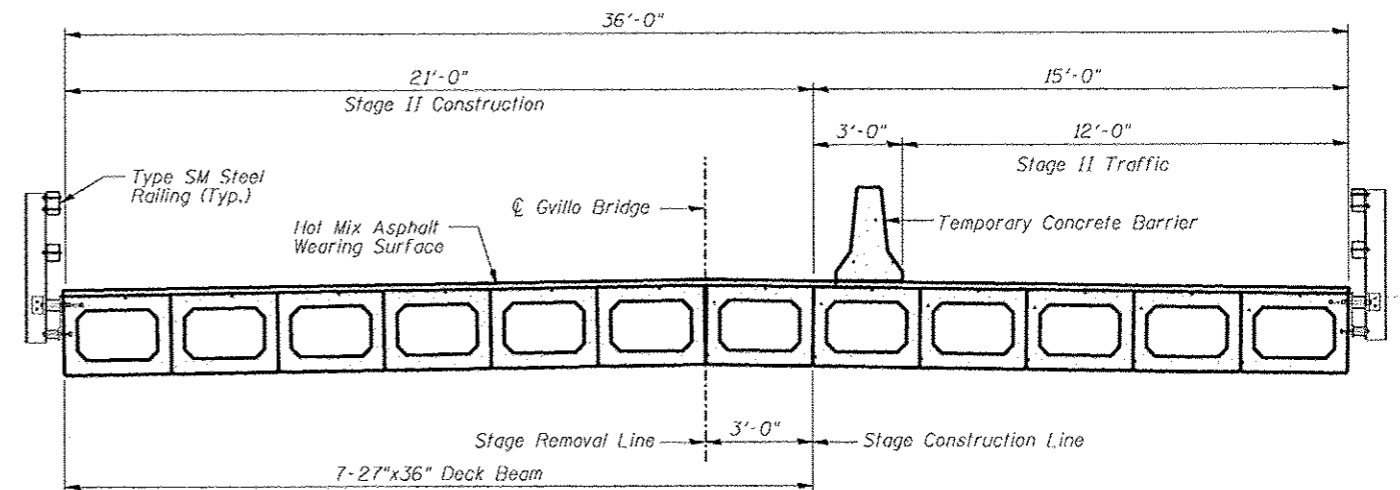
Hatched area indicates "Removal of Existing Structures".

For Quantity of Temporary Concrete Barrier, see Roadway Plans.

For Detail III, see Sheet No. 6 of 22



Stage I Construction
(Looking South)



Stage II Construction
(Looking South)

FILE NAME 1041 Stage Construction.dgn	USER NAME eeroth	DESIGNED - OB 01/27/2017	REVISED - -
		CHECKED - NK 01/27/2017	REVISED - -
		DRAWN - EER 01/27/2017	REVISED - -
		CHECKED - WWH 01/27/2017	REVISED - -

**GVILLO BRIDGE
MADISON COUNTY, ILLINOIS**

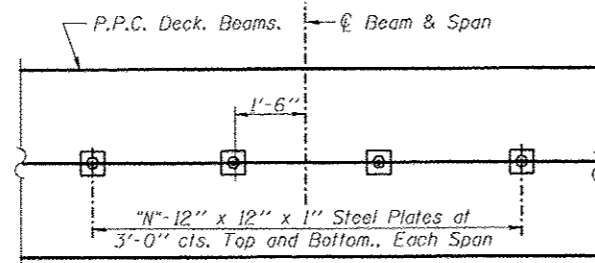
**STAGE CONSTRUCTION
STRUCTURE NO. 060-3363**

SHEET NO. 4 OF 22 SHEETS

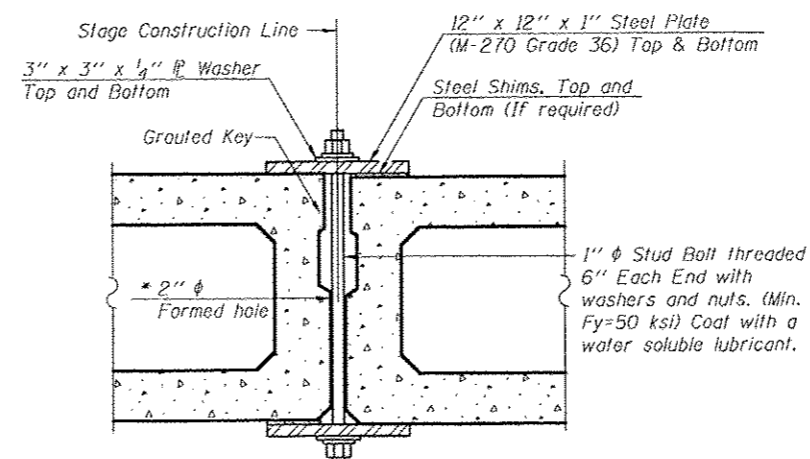
F.A.S. RTE.	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 16
CONTRACT NO. 97646			ILLINOIS FED. AID PROJECT	

N	Span
6	1 & 3
10	2

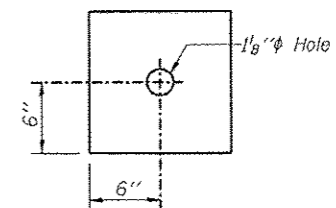
* Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.



PLAN



SECTION



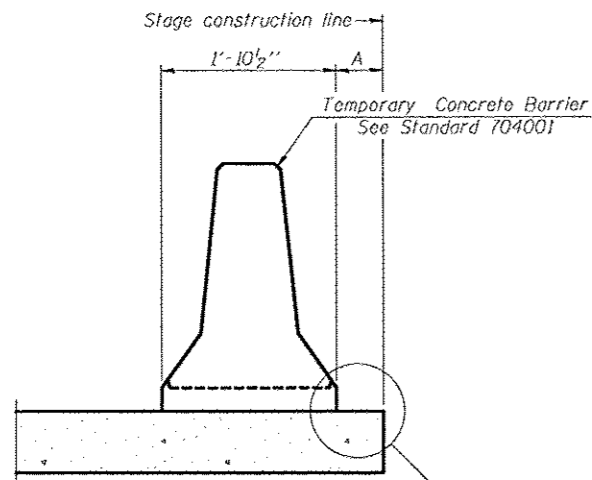
CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams.

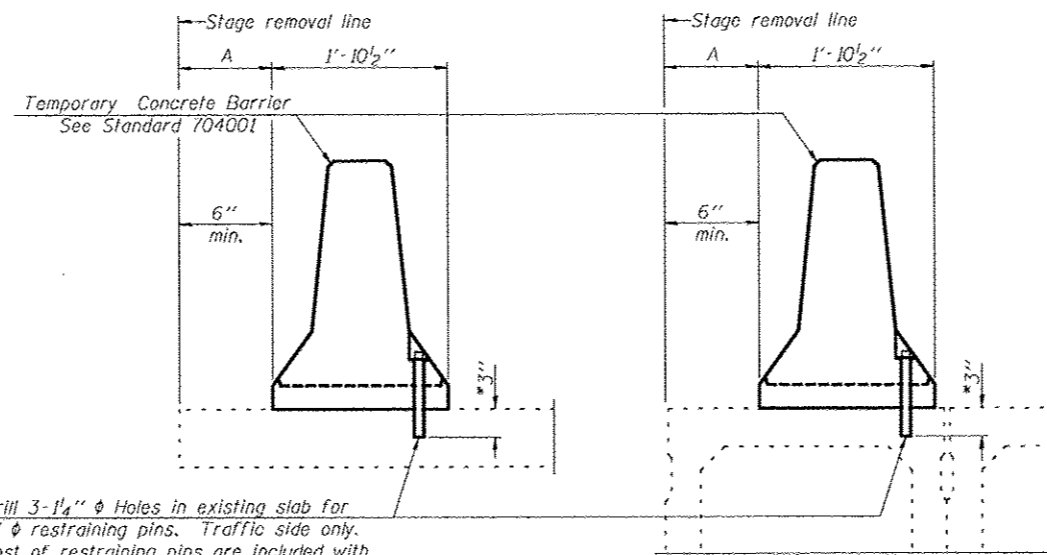
See Stage Construction Details for traffic lanes.

FILE NAME 1851 Stage Construction Details.dgn	USER NAME aroth	DESIGNED - DB 01/27/2017	REVISED - -	GVILLO BRIDGE MADISON COUNTY, ILLINOIS	STAGE CONSTRUCTION DETAILS STRUCTURE NO. 060-3363	F.A.S. RY.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE 1/8"=1'-0"	CHECKED - NK 01/27/2017	REVISED - -			12-00134-01-BR	MADISON	45	17	
PLOT DATE 2/17/2017	DRAWN - EER 01/27/2017	REVISED - -		SHEET NO. 5 OF 22 SHEETS		ILLINOIS FED. AID PROJECT				
	CHECKED - WWH 01/27/2017	REVISED - -				CONTRACT NO. 97646				



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".

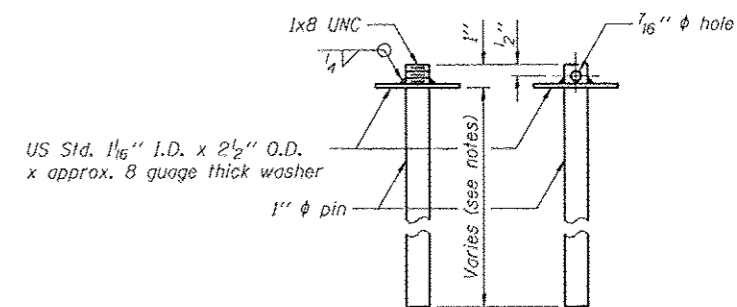
NEW SLAB OR NEW DECK BEAM



Drill 3-1 1/4" ϕ Holes in existing slab for 1" ϕ 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".

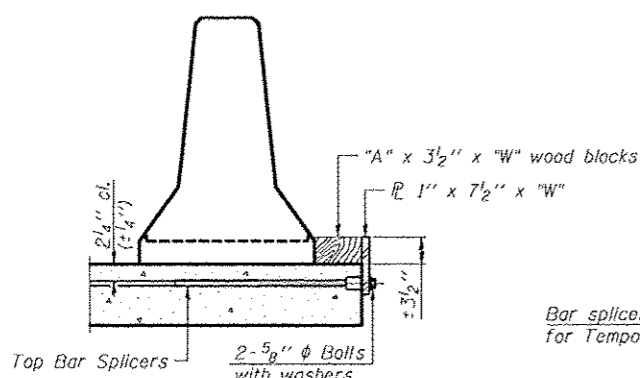
EXISTING SLAB

EXISTING DECK BEAM

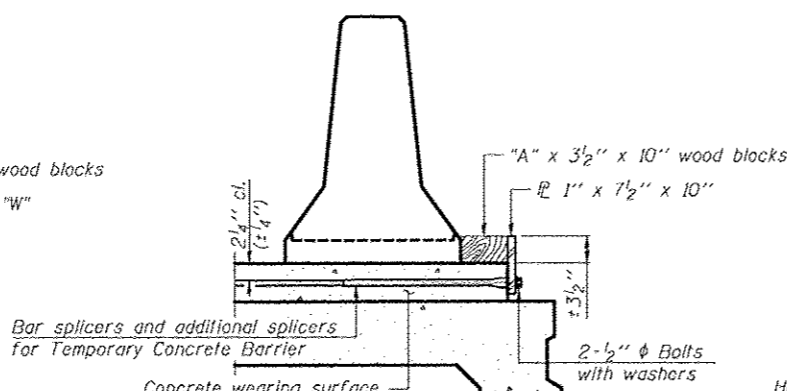


RESTRAINING PIN

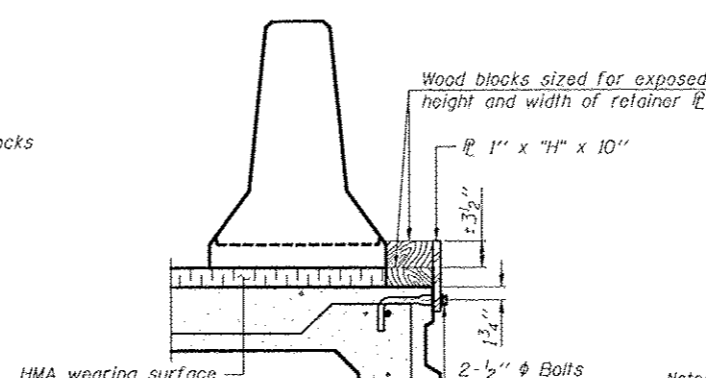
SECTIONS THRU SLAB OR DECK BEAM



DETAIL I

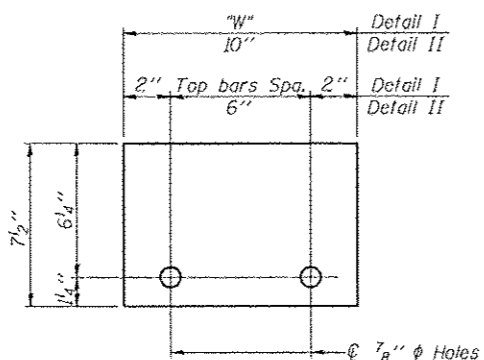


DETAIL II

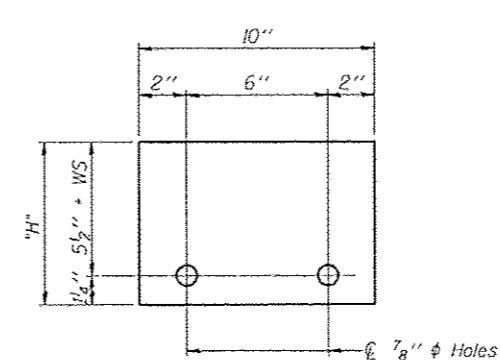


DETAIL III

BAR SPLICER FOR #4 BAR - DETAIL III



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

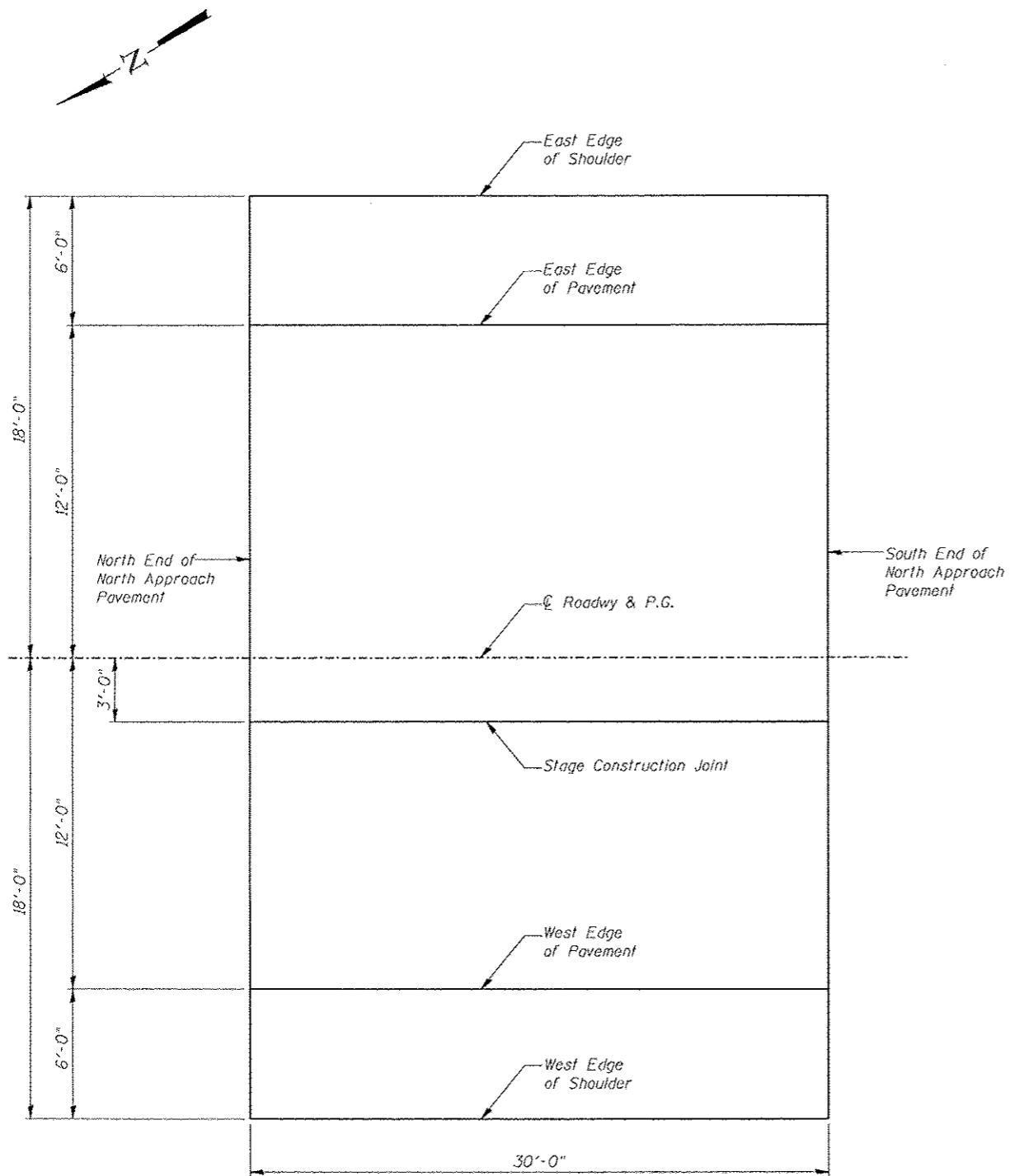


STEEL RETAINER 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate $\frac{1}{2}$ 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.

FILE NAME + (R6) Temporary Barrier.dgn	USER NAME + eproh	DESIGNED - DB	01/27/2017	REVISED -	GVILLO BRIDGE MADISON COUNTY, ILLINOIS	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 060-3363	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1:2	CHECKED - NK	01/27/2017	REVISED -			12-00134-01-BR	MADISON	45	18	
	PLOT DATE = 2/17/2017	DRAWN - EER	01/27/2017	REVISED -			CONTRACT NO. 97646				
						SHEET NO. 6 OF 22 SHEETS		ILLINOIS FED. AID PROJECT			



PLAN
(North Approach)

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	-18.00	519.64
S. End of N. Appr. Pav't.	49+44.40	-18.00	520.78

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	-12.00	519.76
S. End of N. Appr. Pav't.	49+44.40	-12.00	520.90

☉ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	0.00	520.00
S. End of N. Appr. Pav't.	49+44.40	0.00	521.14

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	3.00	519.94
S. End of N. Appr. Pav't.	49+44.40	3.00	521.08

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	12.00	519.76
S. End of N. Appr. Pav't.	49+44.40	12.00	520.90

WEST EDGE OF SHOULDER

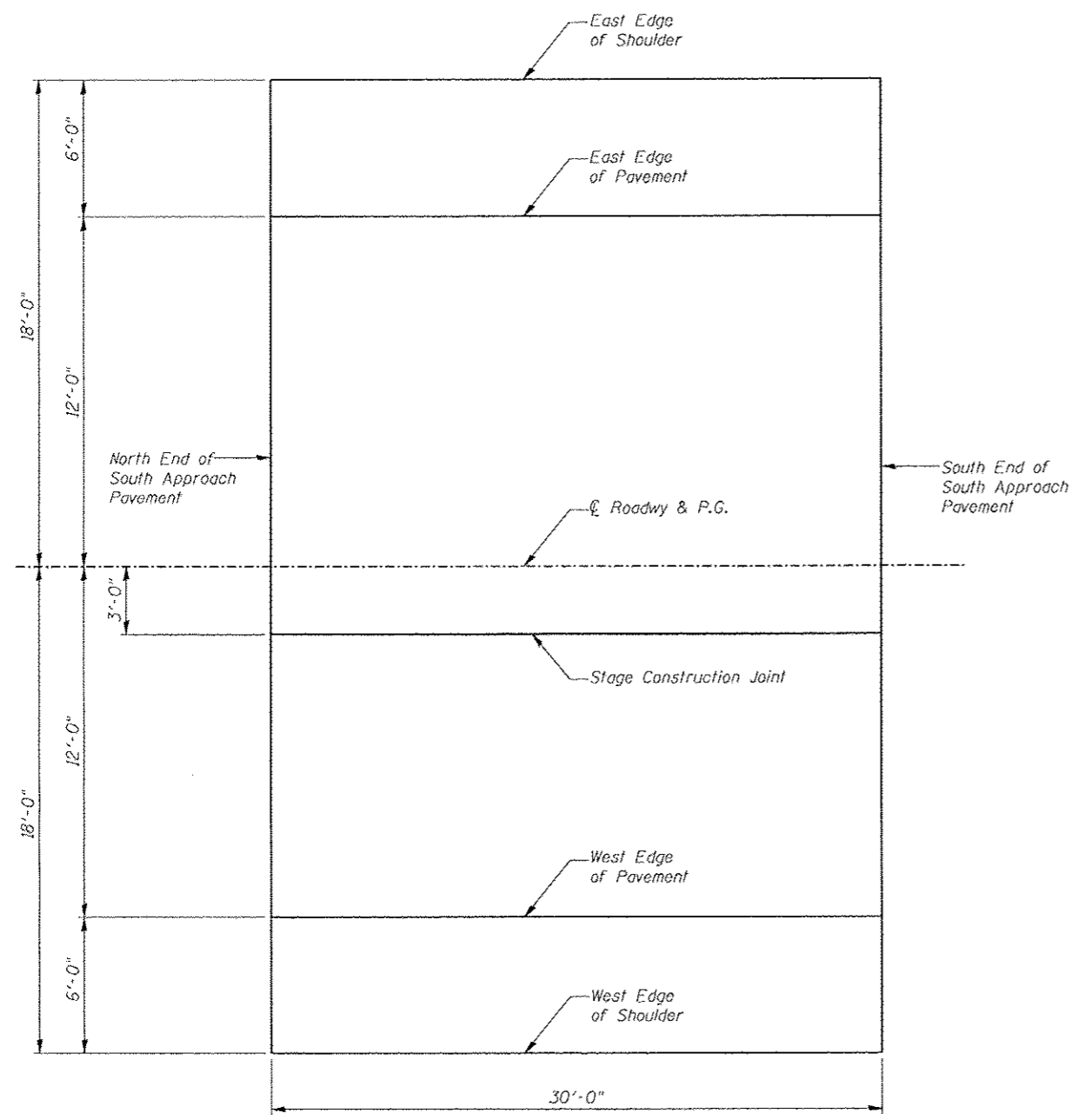
Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	18.00	519.64
S. End of N. Appr. Pav't.	49+44.40	18.00	520.78

Notes:

Elevations are at top of asphalt.

All stations and offsets are given with respect to centerline of the profile grade.

FILE NAME = (07) North Approach Slab Elevations.dgn	USER NAME = erath	DESIGNED - DB 01/27/2017	REVISED - -	GVILLO BRIDGE MADISON COUNTY, ILLINOIS	TOP OF NORTH APPROACH SLAB ELEVATIONS STRUCTURE NO. 060-3363	SHEET NO. 7 OF 22 SHEETS	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/2	CHECKED - NK 01/27/2017	REVISED - -				12-00134-01-BR	MADISON	45	19	
	PLOT DATE = 2/17/2017	DRAWN - EER 01/27/2017	REVISED - -				CONTRACT NO. 97646				
		CHECKED - WWH 01/27/2017	REVISED - -				ILLINOIS FED. AID PROJECT				



PLAN
(South Approach)

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	51+07.57	-18.00	529.52
S. End of S. Appr. Pav't.	51+37.57	-18.00	531.52

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	51+07.57	-12.00	529.64
S. End of S. Appr. Pav't.	51+37.57	-12.00	531.57

Centerline ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	51+07.57	0.00	529.88
S. End of S. Appr. Pav't.	51+37.57	0.00	531.68

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Pav't.	49+14.40	3.00	519.94
S. End of N. Appr. Pav't.	49+44.40	3.00	521.08

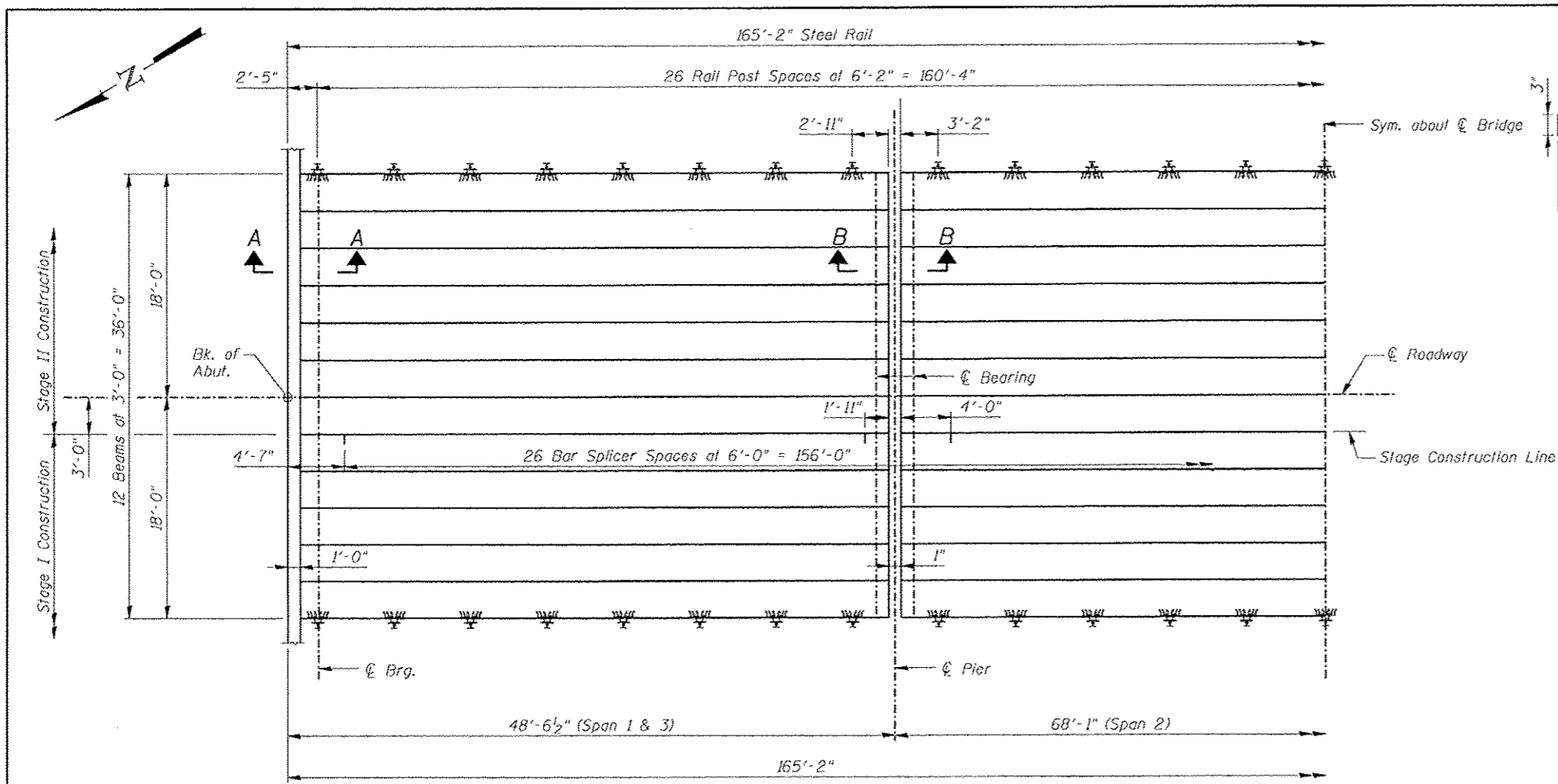
WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	51+07.57	12.00	529.64
S. End of S. Appr. Pav't.	51+37.57	12.00	531.44

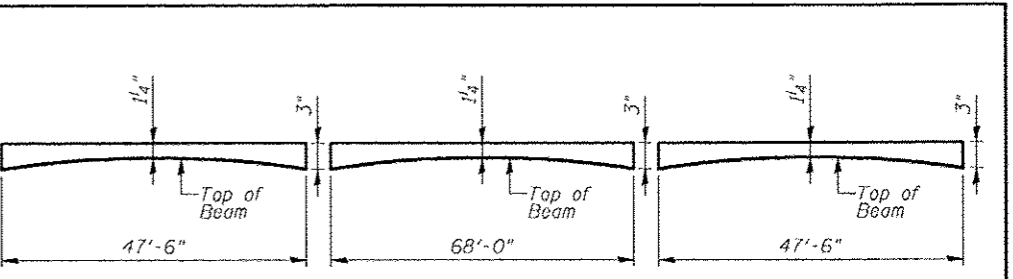
WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Pav't.	51+07.57	18.00	529.52
S. End of S. Appr. Pav't.	51+37.57	18.00	531.32

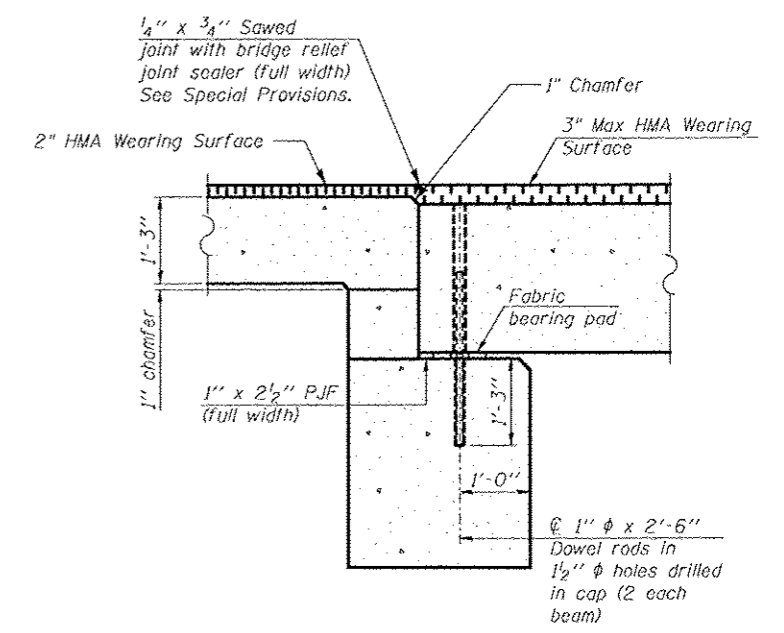
Notes:
Elevations are at top of asphalt.
All stations and offsets are given with respect to centerline of the profile grade.



PARTIAL PLAN



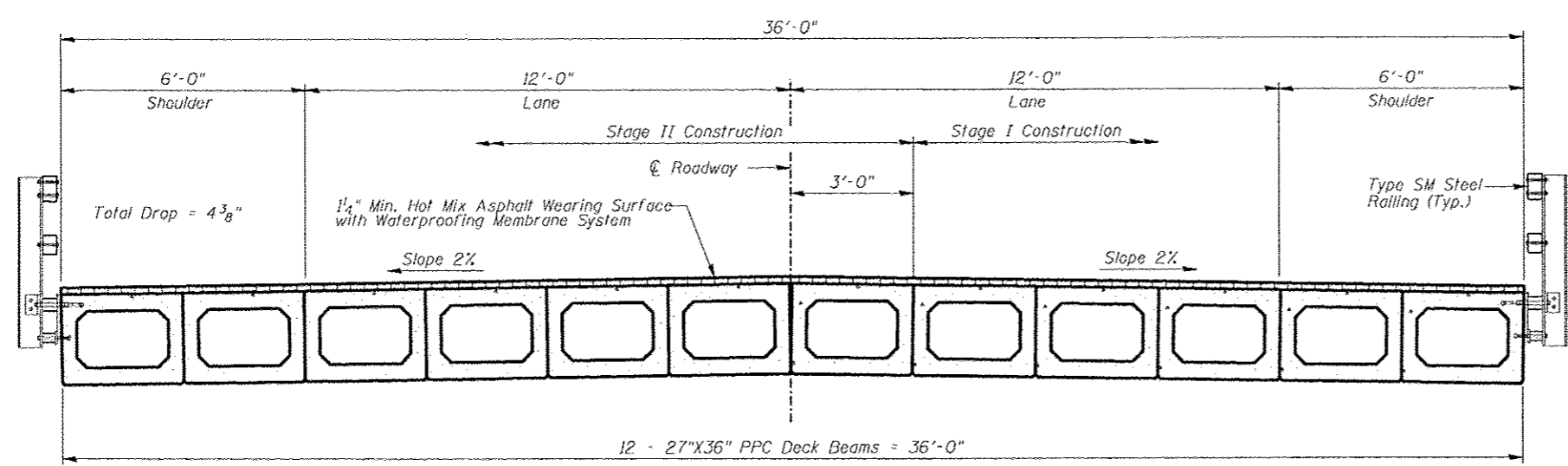
ANTICIPATED HMA WEARING SURFACE PROFILE
(For information only)



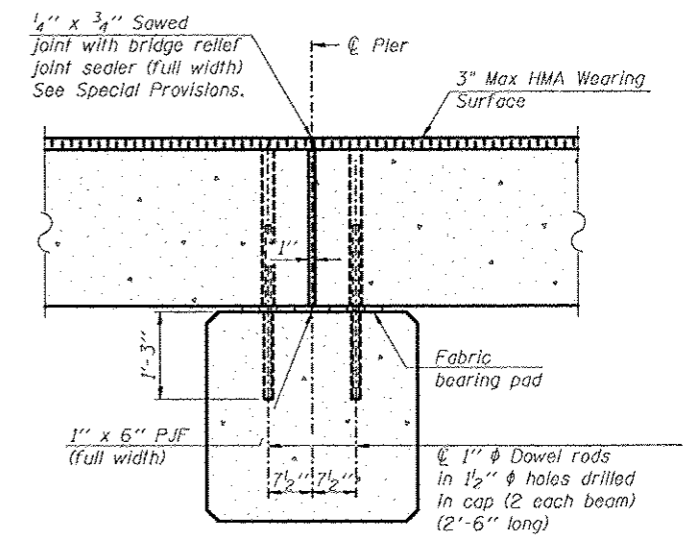
SECTION A-A
See sheet 11 of 22 for fabric bearing pad details.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
HMA Wearing Surface	Tons	88



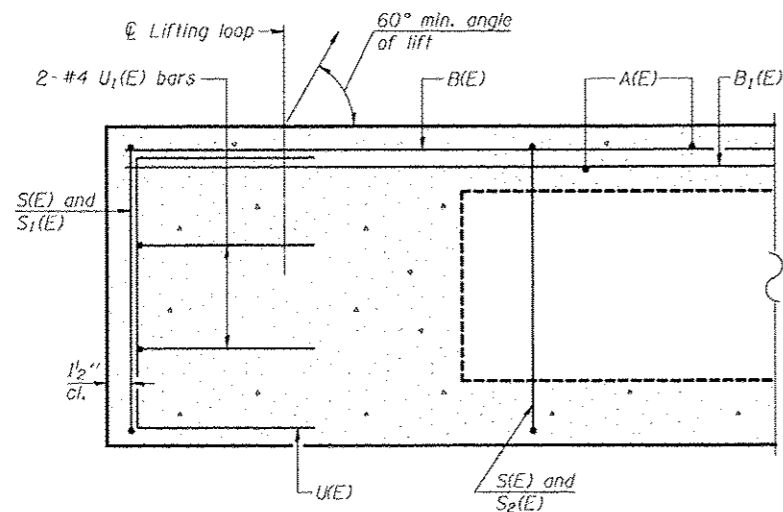
CROSS SECTION
(Looking South)



SECTION B-B

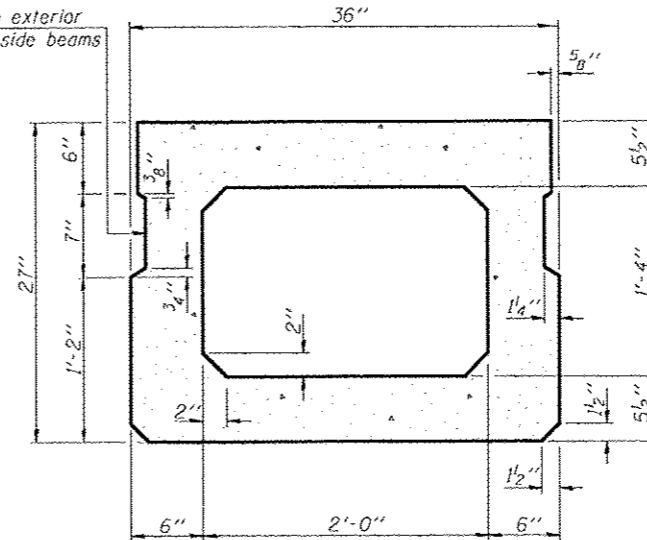
Notes:
For Type SM Steel Bridge Rail Details, See Sheet 14 of 22.
For Bar Splicer Details, See Sheet 6 of 22.

* 1" joint shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

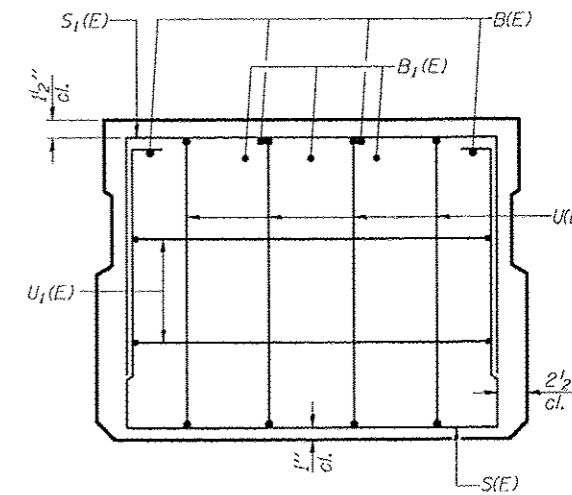


SECTION A-A

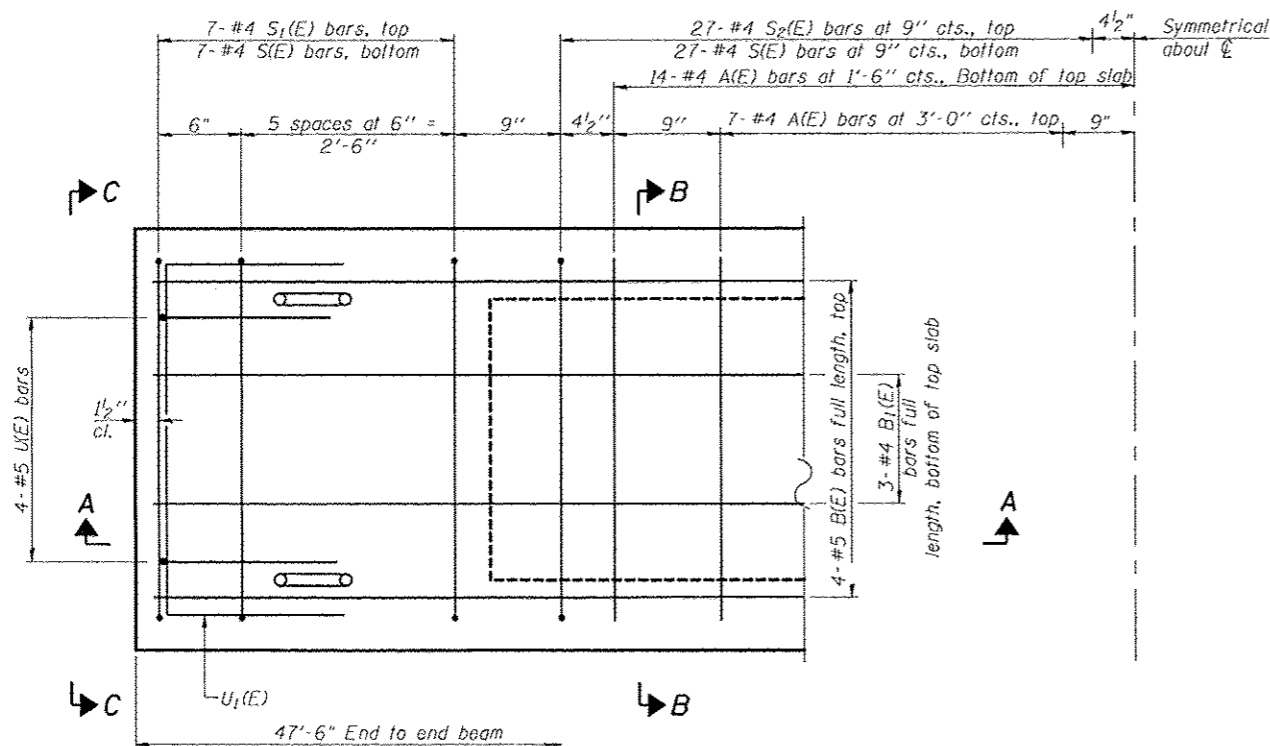
Omit key on exterior face of outside beams



SECTION B-B
(Showing dimensions)

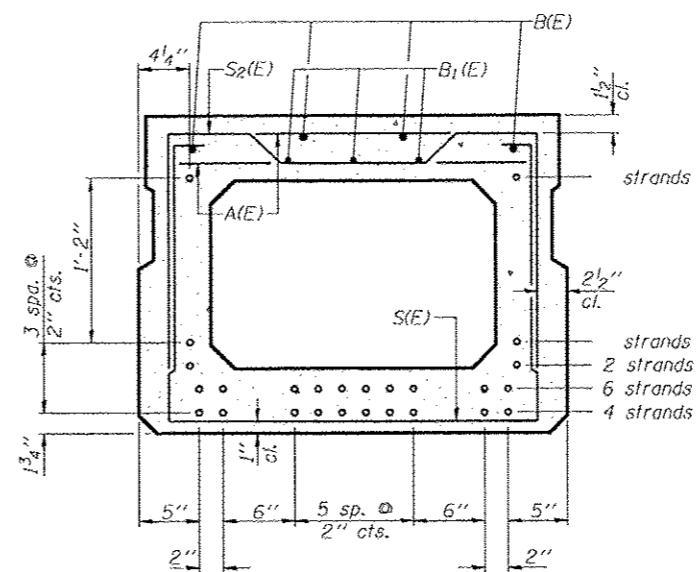


VIEW C-C



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



SECTION B-B

(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

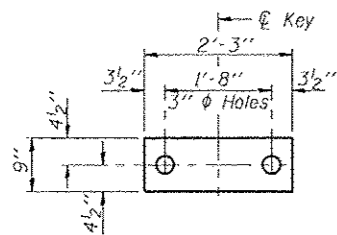
BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	41	#4	2'-7"	—
B(E)	4	#5	47'-3"	—
B1(E)	3	#4	47'-3"	—
S(E)	68	#4	7'-5"	U
S1(E)	14	#4	5'-11"	U
S2(E)	54	#4	6'-2"	U
U(E)	8	#5	4'-6"	U
U1(E)	4	#4	5'-0"	U

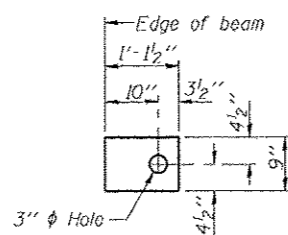
Note: See sheet 11 of 22 for additional details and Bill of Material.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"



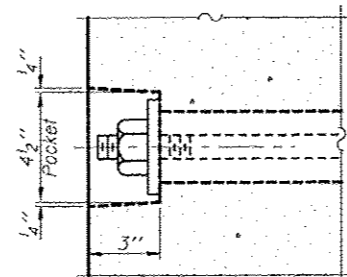
FABRIC BEARING PAD
(Interior)



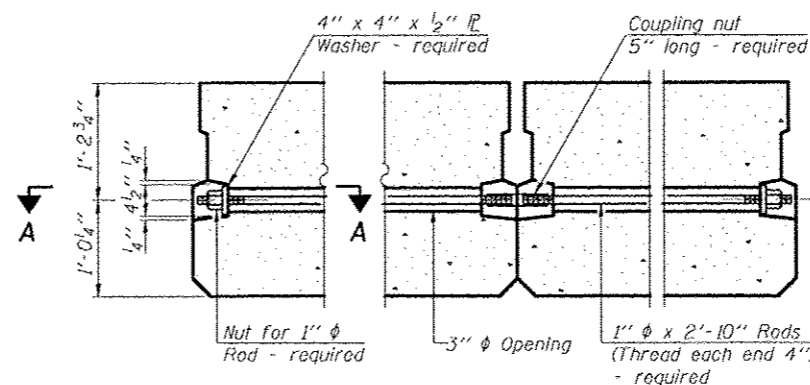
FABRIC BEARING PAD
(Exterior)

FIXED

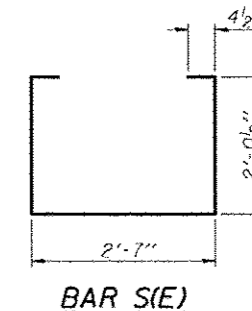
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



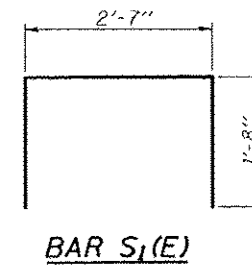
SECTION A-A



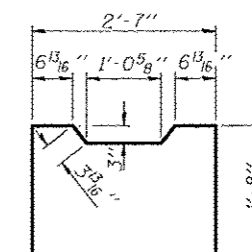
TYPICAL TRANSVERSE TIE ASSEMBLY



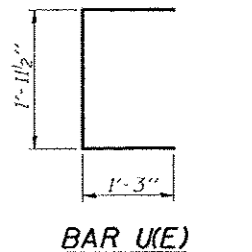
BAR S1(E)



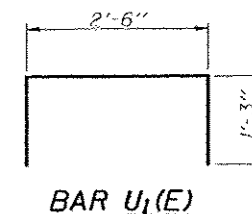
BAR S2(E)



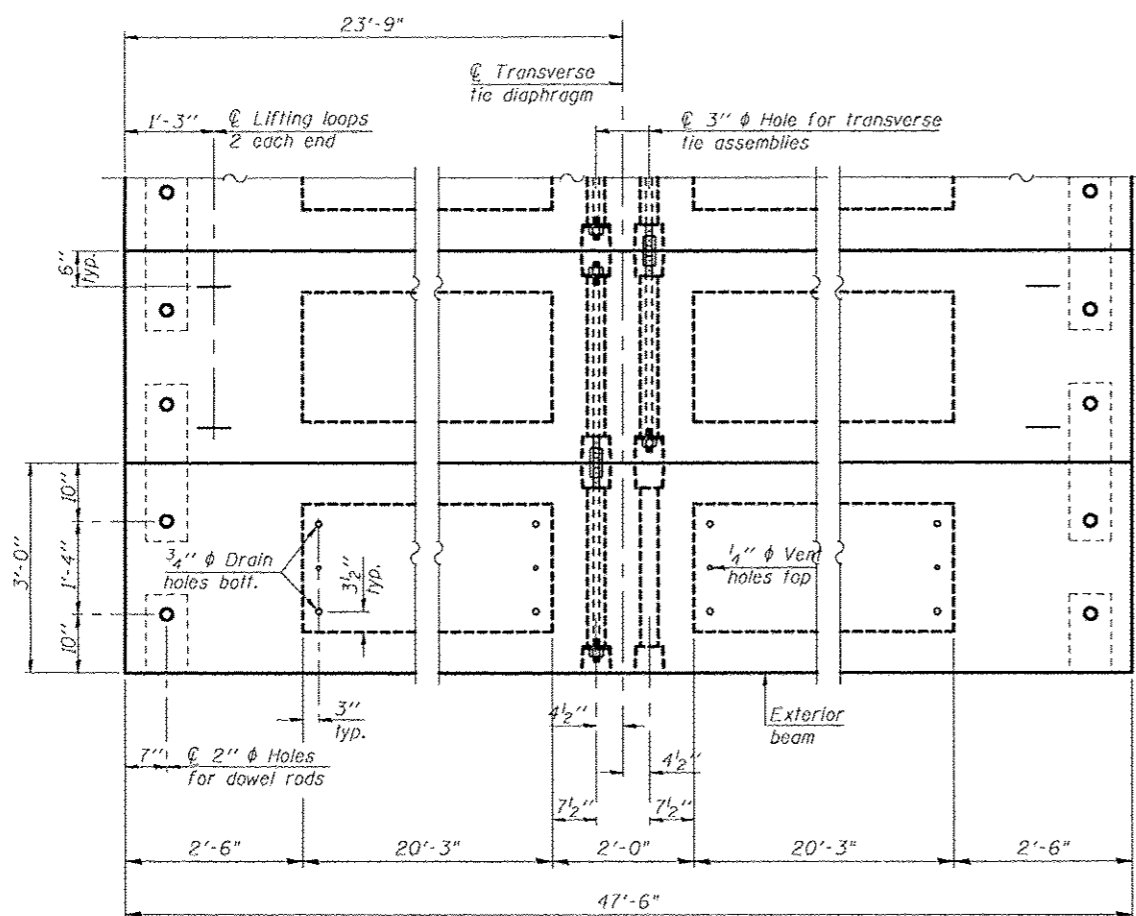
BAR U1(E)



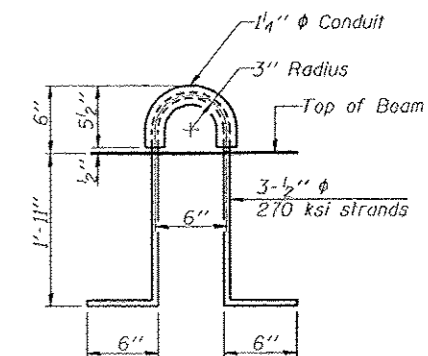
BAR U2(E)



BAR U3(E)



PLAN VIEW



LIFTING LOOP DETAIL

NOTES

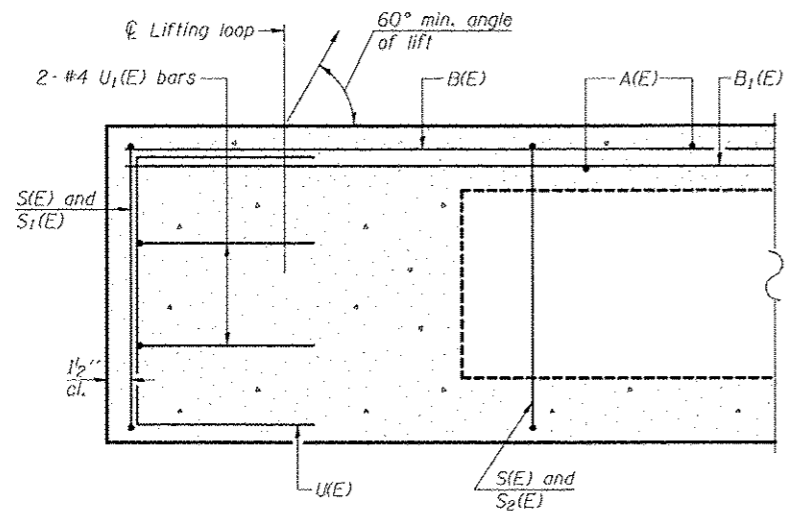
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" lifting pin shall be used to engage the lifting loops during handling.
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	3420
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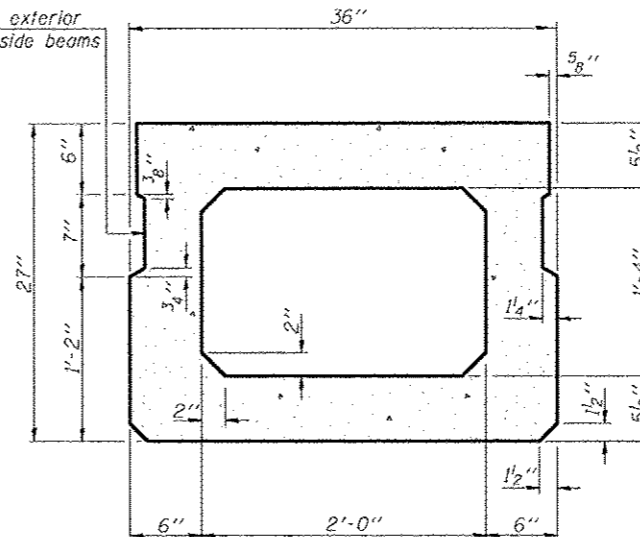
Note: Connect beams in pairs with the transverse tie configuration shown.

FILE NAME 111 PPC Deck Beam 2 (Span 1 & 3).dwg	USER NAME gwh	DESIGNED - DB 01/21/2017	REVISED -	GIULLO BRIDGE MADISON COUNTY, ILLINOIS	27" x 36" PPC DECK BEAM DETAILS (SPAN 1 & 3) STRUCTURE NO. 060-3363	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE 1:1,31785	DRAWN - EER 01/21/2017	REVISED -	12-00134-01-0R			MADISON	45	23		
PLOT DATE 2/17/2017	CHECKED - WWW 01/21/2017	REVISED -	CONTRACT NO. 97646							
SHEET NO. 11 OF 22 SHEETS						ILLINOIS FED. AID PROJECT				

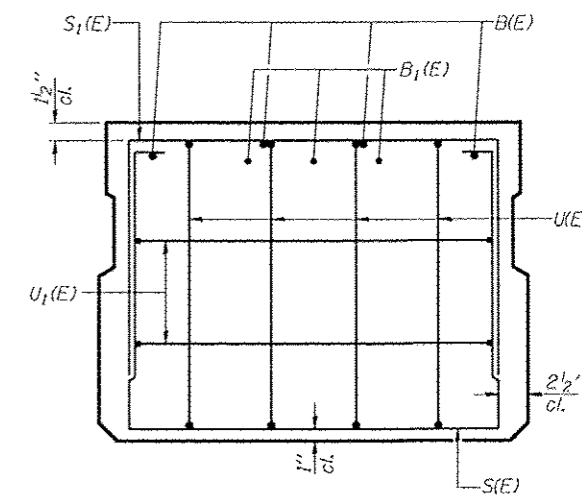


SECTION A-A

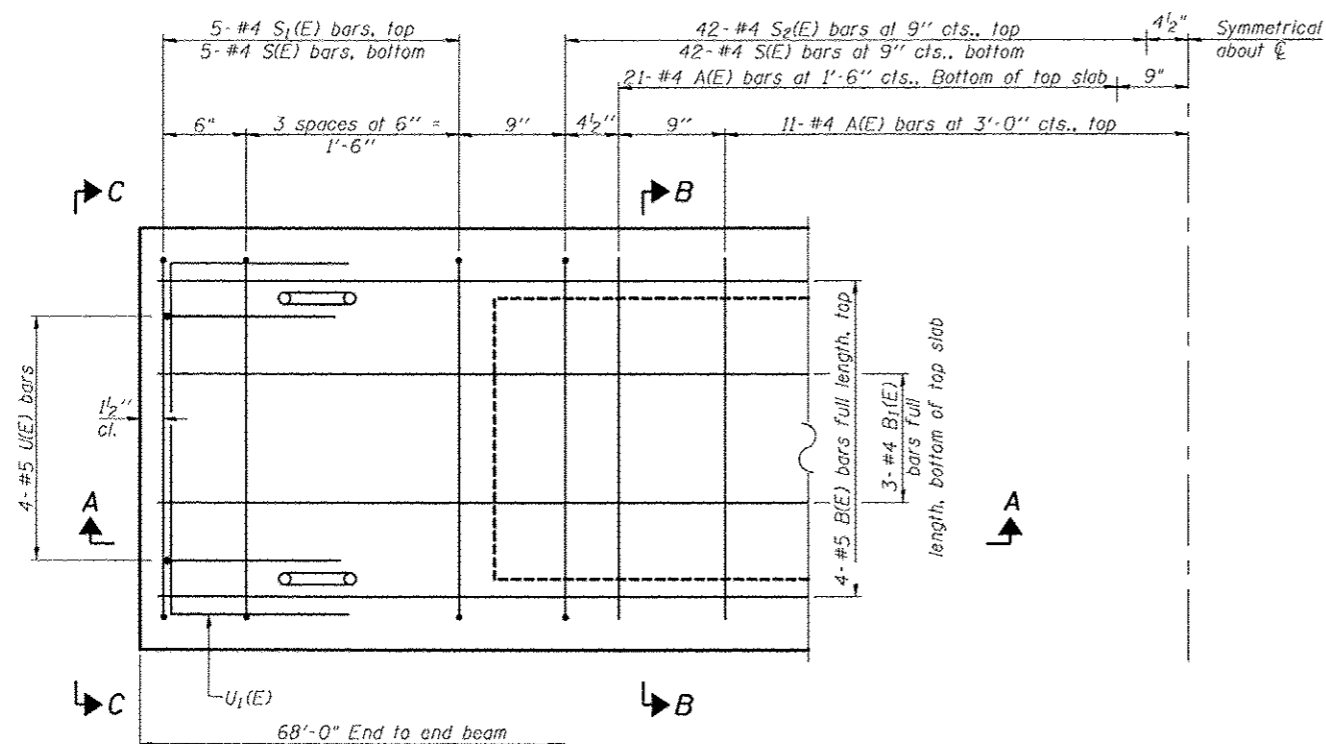
Omit key on exterior face of outside beams



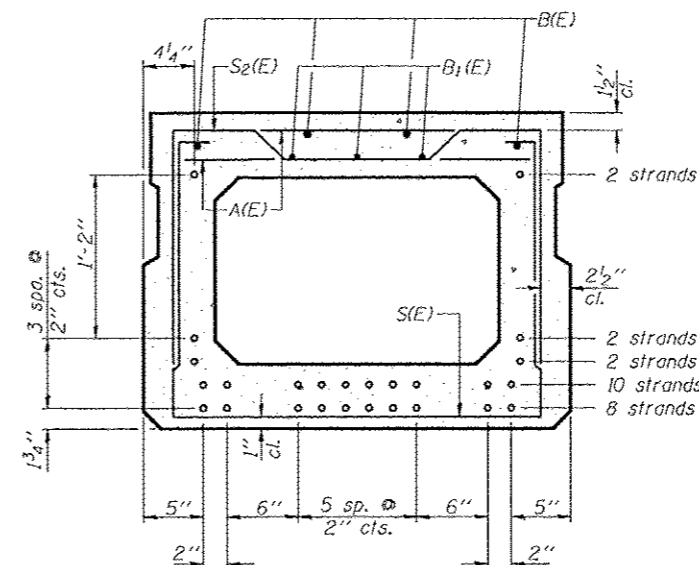
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



SECTION B-B

(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	63	#4	2'-7"	—
B(E)	8	#5	35'-3"	—
B1(E)	6	#4	35'-0"	—
S(E)	94	#4	7'-5"	⌊
S1(E)	10	#4	5'-11"	⌊
S2(E)	84	#4	6'-2"	⌊
U(E)	8	#5	4'-6"	⌊
U1(E)	4	#4	5'-0"	⌊

Note: See sheet 13 of 22 for additional details and Bill of Material.

MINIMUM BAR LAP

#4 bar = 1'-11"
#5 bar = 2'-6"

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

FILE NAME : 021 PPC Deck Beam 1 (Span 2).dgn

USER NAME : orath

DESIGNED - DB 01/27/2017

REVISD - -

CHECKED - NK 01/27/2017

REVISD - -

PLOT SCALE : 1/8"=1'-0"

DRAWN - EER 01/27/2017

REVISD - -

PLOT DATE : 2/17/2017

CHECKED - WWH 01/27/2017

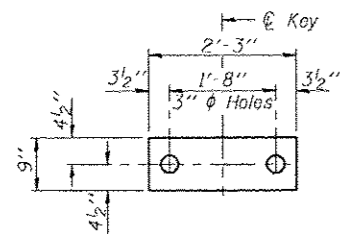
REVISD - -

GIULLO BRIDGE
MADISON COUNTY, ILLINOIS

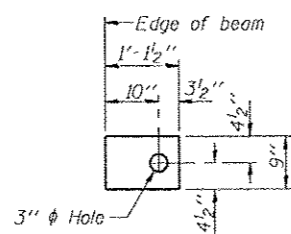
27" x 36" PPC DECK BEAM (SPAN 2)
STRUCTURE NO. 060-3363

SHEET NO. 12 OF 22 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	12-00134-01-BR	MADISON	45	24
CONTRACT NO. 97646				
ILLINOIS FED. AID PROJECT				



FABRIC BEARING PAD
(Interior)

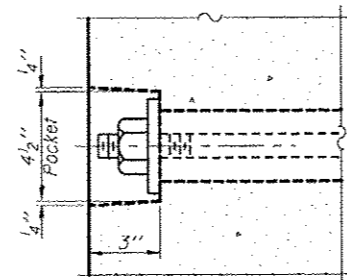


FABRIC BEARING PAD
(Exterior)

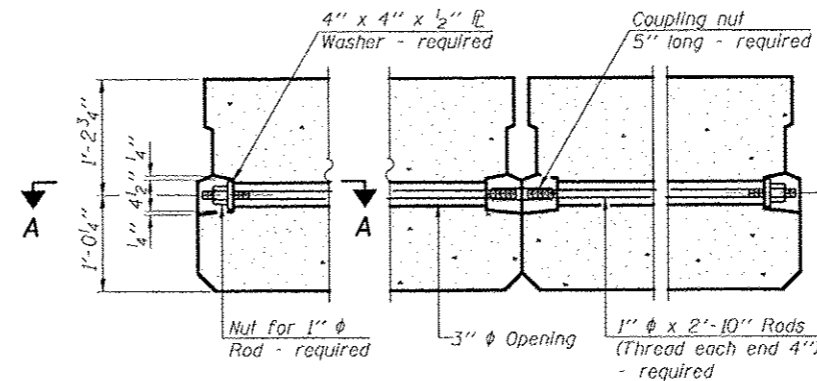
FIXED

Notes:

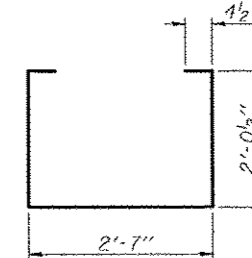
- All bearing pads shall be 1" thick.
- Omit holes when using expansion bearings.
- Expansion bearing pad shall be bonded to the substructure.



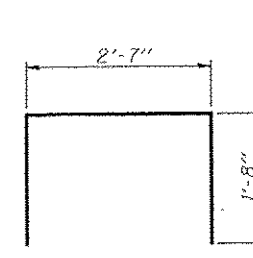
SECTION A-A



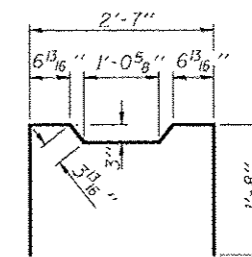
TYPICAL TRANSVERSE TIE ASSEMBLY



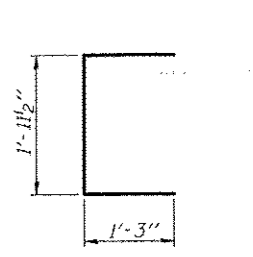
BAR S(E)



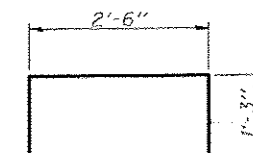
BAR S1(E)



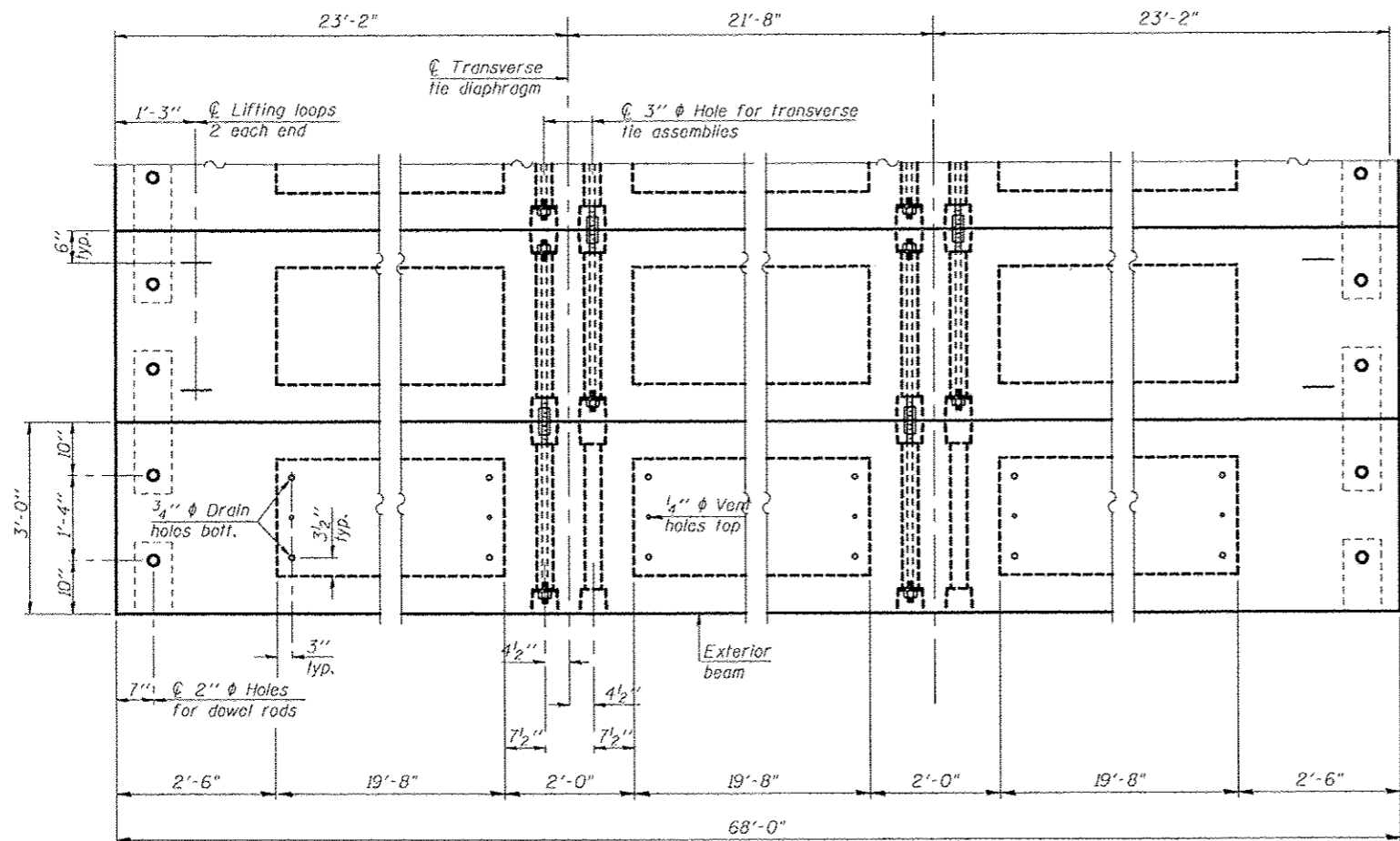
BAR S2(E)



BAR U(E)



BAR U1(E)

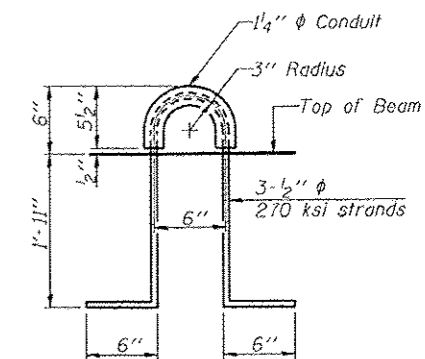


PLAN VIEW

NOTES

Note: Connect beams in pairs with the transverse tie configuration shown.

- Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
- The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
- Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
- Two 1/2" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
- A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.
- Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
- Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
- Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

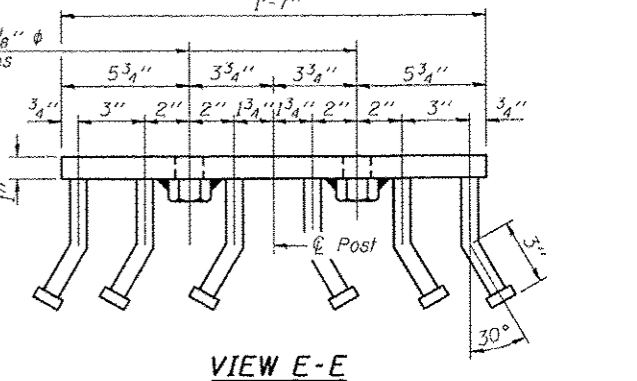
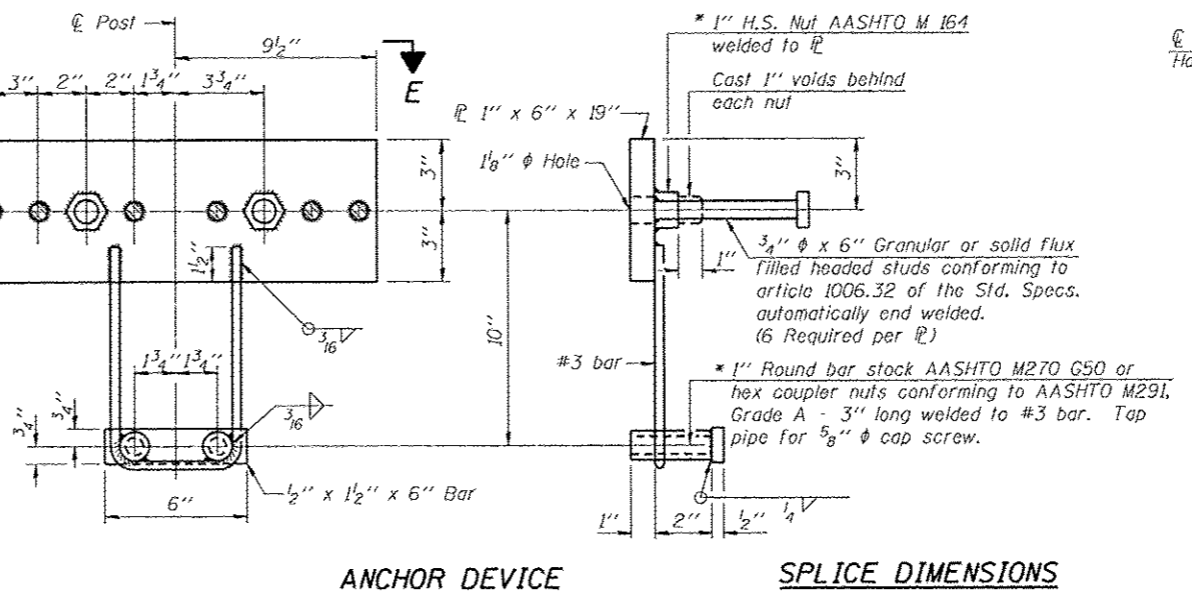
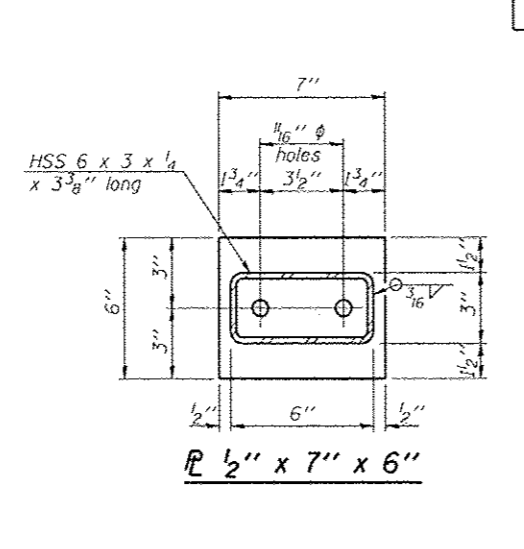
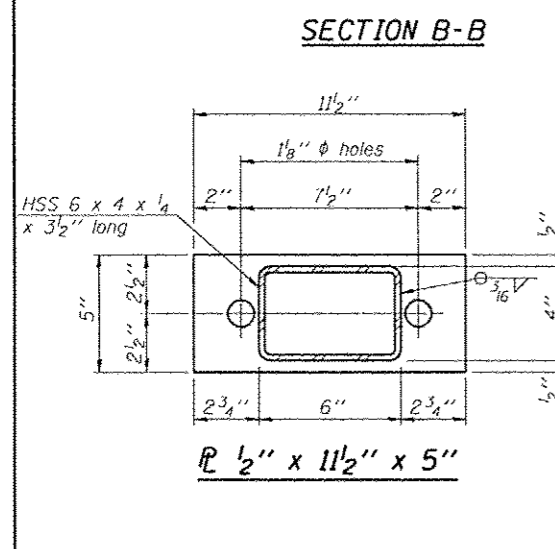
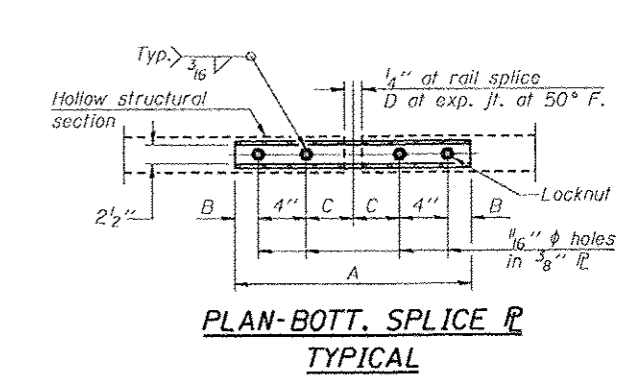
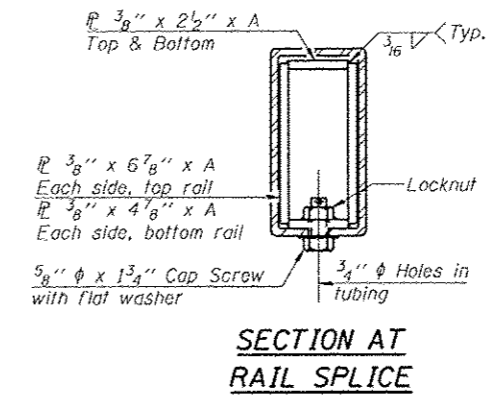
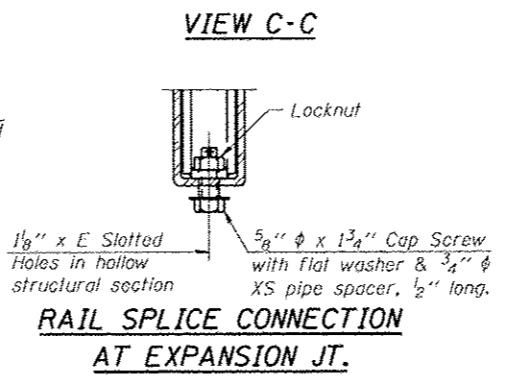
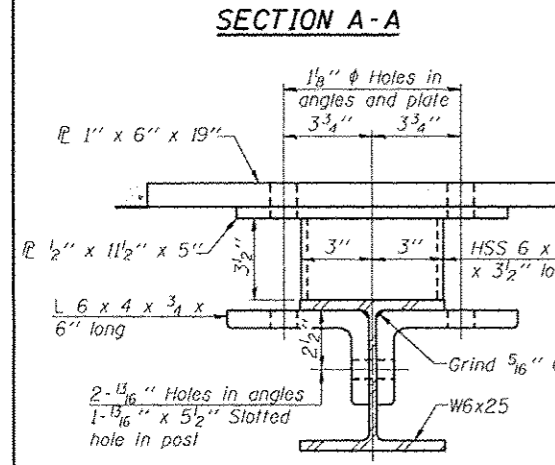
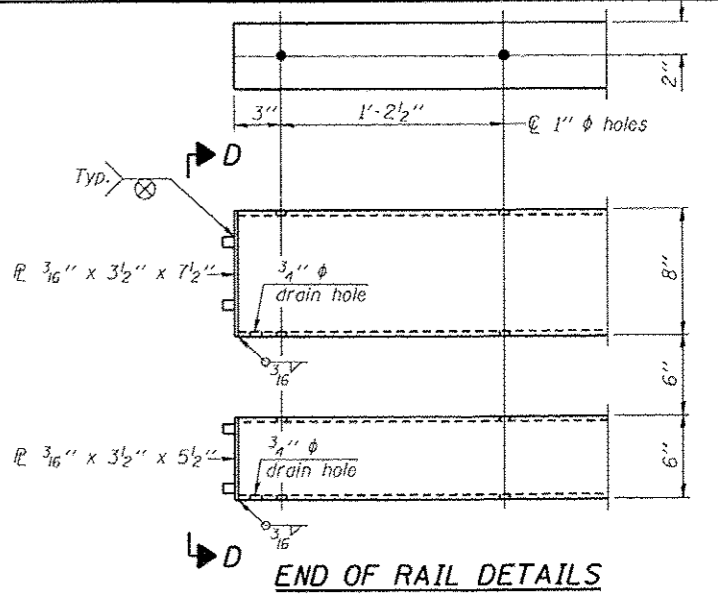
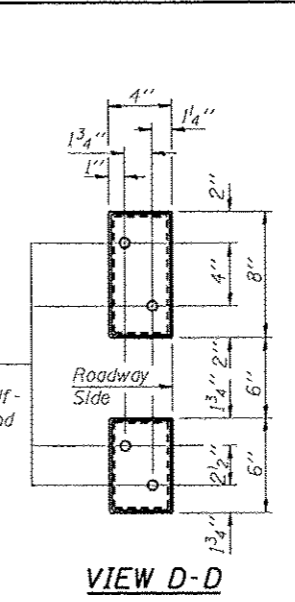
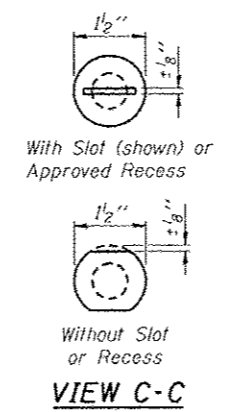
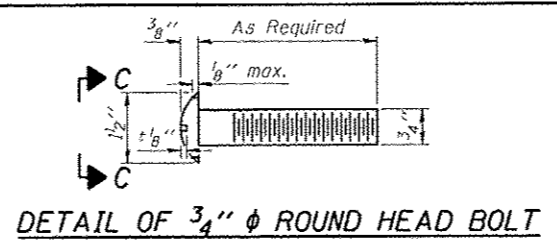
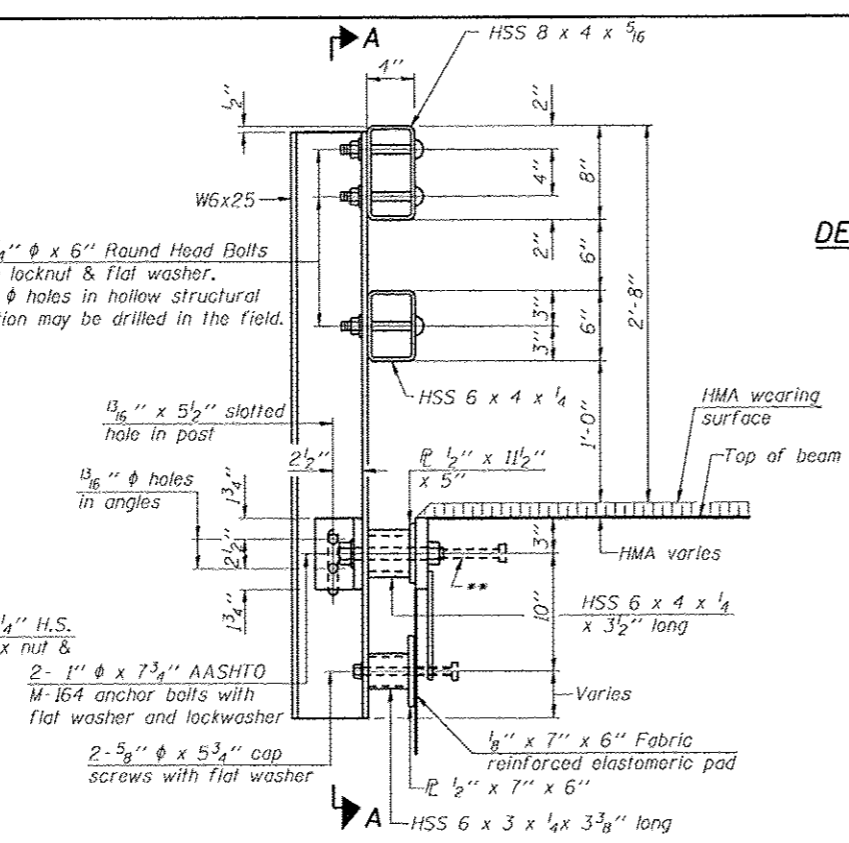
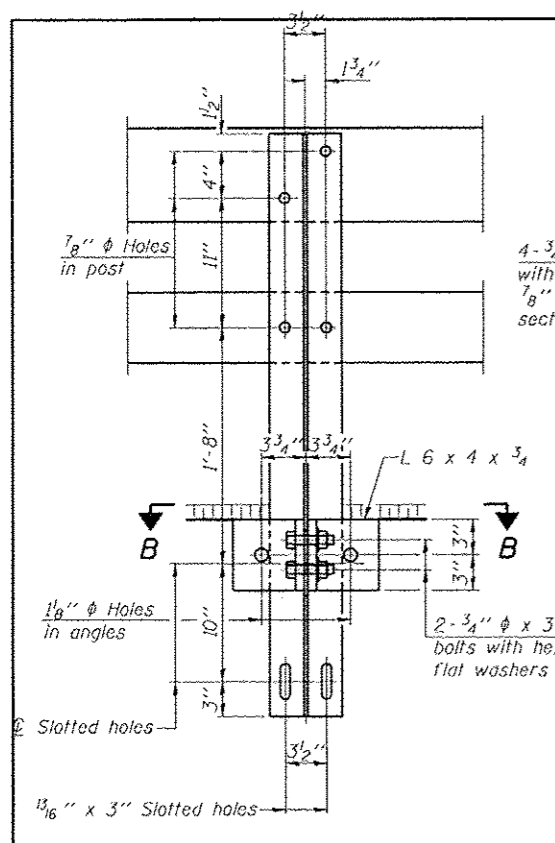


LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	2448
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FILE NAME = H31 PPC Deck Beam 2 (Span 2).dgn	USER NAME = orath	DESIGNED - DB 01/27/2017	REVISED - -	GIULLO BRIDGE MADISON COUNTY, ILLINOIS	27" x 36" PPC DECK BEAM DETAILS (SPAN 2) STRUCTURE NO. 060-3363	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 1/4"=1'-0"	DRAWN - EER 01/27/2017	REVISED - -	12-00134-01-BR			MADISON	45	25		
PLOT DATE = 2/17/2017	CHECKED - WWH 01/27/2017	REVISED - -								
SHEET NO. 13 OF 22 SHEETS						ILLINOIS FED. AID PROJECT				



T	D	A	B	C	E
$\leq 4"$	$2\frac{1}{2}"$	$1'-8"$	$2"$	$4"$	$2\frac{1}{2}"$
$> 4" \leq 6\frac{1}{2}"$	$3\frac{1}{2}"$	$2'-0"$	$2\frac{1}{2}"$	$5\frac{1}{2}"$	$3\frac{1}{2}"$
$> 6\frac{1}{2}" \leq 9"$	$5"$	$2'-4"$	$3\frac{1}{2}"$	$6\frac{1}{2}"$	$9"$
$> 9" \leq 13"$	$7"$	$2'-10"$	$4\frac{1}{2}"$	$8\frac{1}{2}"$	$11"$
Rail Splice	$\frac{1}{4}"$	$1'-8"$	$2"$	$4"$	

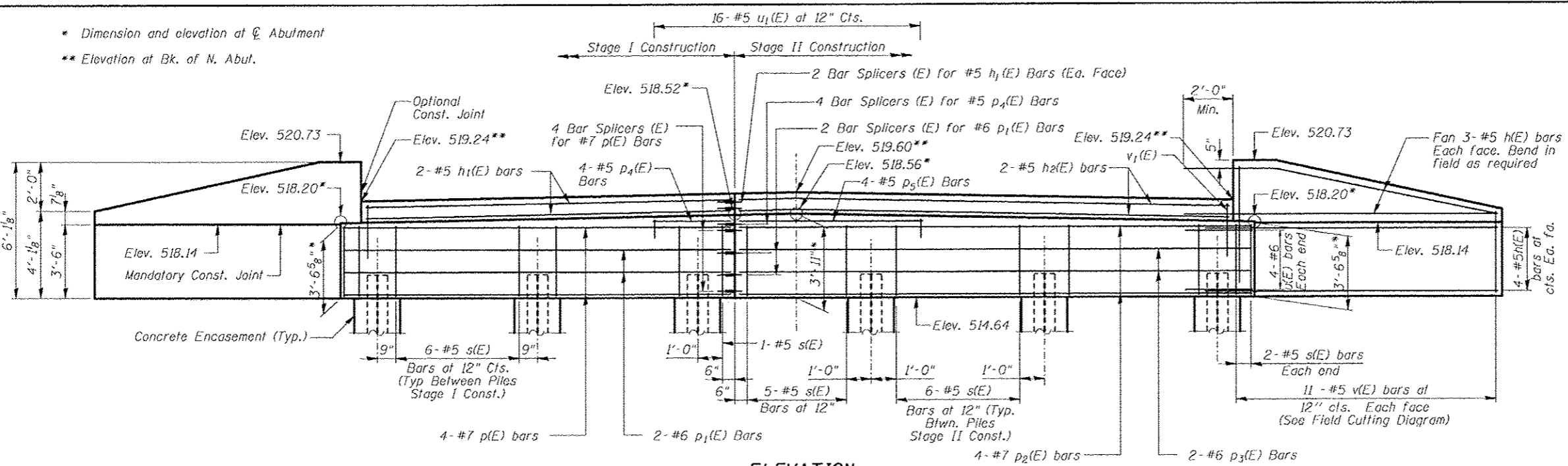
T = Total movement of expansion joint as shown on the design plans.

Notes:
 For multi-span bridges, sufficient $\frac{1}{4}" \times 6" \times 1'-2"$ galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.
 * 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.

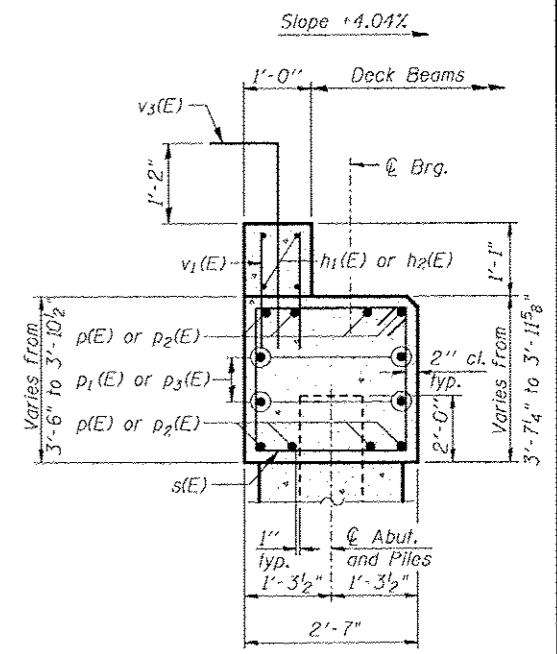
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	331

* Dimension and elevation at \bar{C} Abutment
 ** Elevation at Bk. of N. Abut.



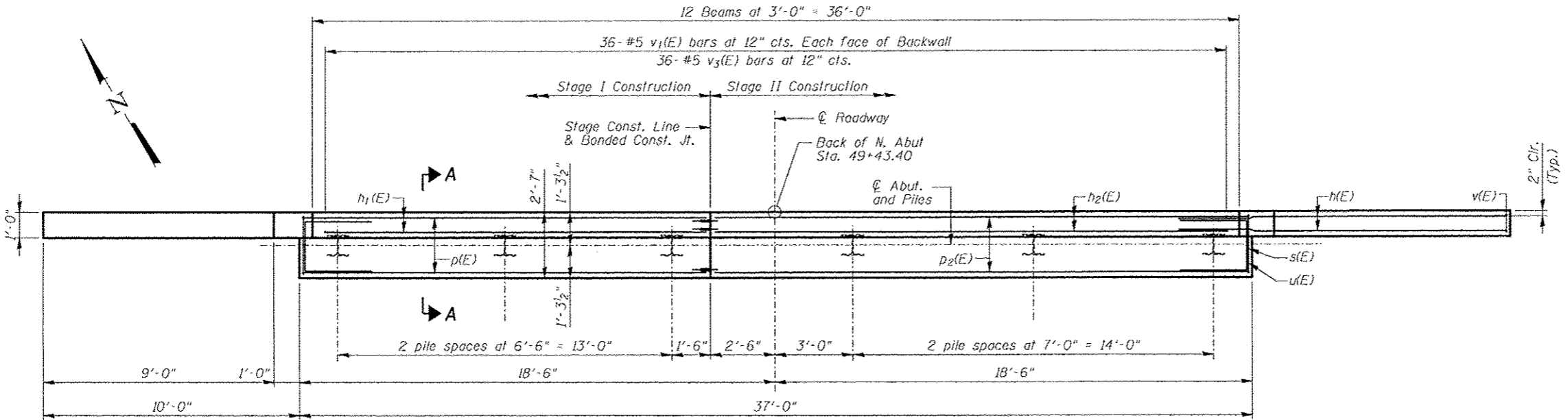
ELEVATION



SECTION A-A

**NORTH ABUTMENT
BILL OF MATERIAL**

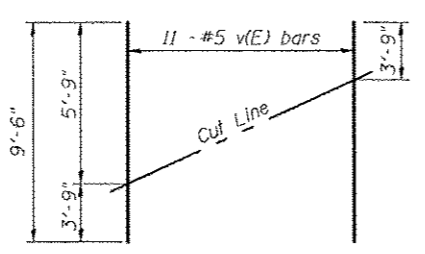
Bar No.	Size	Length	Shape
h(E)	28 #5	12'-6"	—
h1(E)	4 #5	15'-3"	—
h2(E)	4 #5	20'-3"	—
p(E)	8 #7	15'-9"	—
p1(E)	4 #6	15'-9"	—
p2(E)	8 #7	20'-9"	—
p3(E)	4 #6	20'-9"	—
p4(E)	4 #5	5'-6"	—
p5(E)	4 #5	10'-6"	—
s(E)	31 #5	11'-9"	□
u(E)	8 #6	9'-2"	—
u1(E)	16 #5	4'-3"	—
v(E)	22 #5	9'-6"	—
v1(E)	72 #5	2'-6"	—
v3(E)	36 #5	5'-4"	—
Structure Excavation	Cu. Yd.	28	
Concrete Structures	Cu. Yd.	18.7	
Reinforcement Bars, Epoxy Coated	Pound	2600	
Furnishing Steel Piles, HP 12x53	Foot	225	
Driving Piles, Steel HP 12x53	Foot	225	
Test Pile, Steel HP 12x53	Each	1	
Pile Shoes	Each	6	
Concrete Encasement	Cu. Yd.	2.1	
Bar Splicers	Each	20	



PLAN

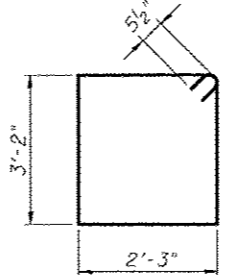
PILE DATA

Type: Steel HP 12x53 with Pile Shoes
 Nominal Required Bearing: 403 Kips
 Factored Resistance Available: 222 Kips
 Est. Length: 45 Ft.
 No. Production Piles: 5
 No. Test Piles: 1

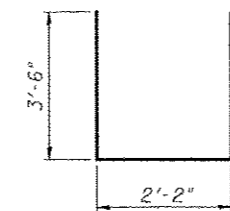


FIELD CUTTING DIAGRAM

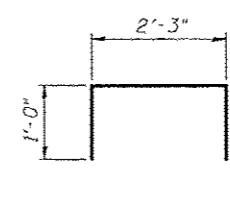
Order v(E) bars full length. Cut as shown and use remainder of bars in opposite face.



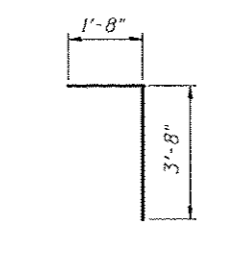
BAR s(E)



BAR u(E)



BAR u1(E)



BAR v3(E)

Notes:

For details of piles and Concrete Encasement, see sheet 19 of 22.

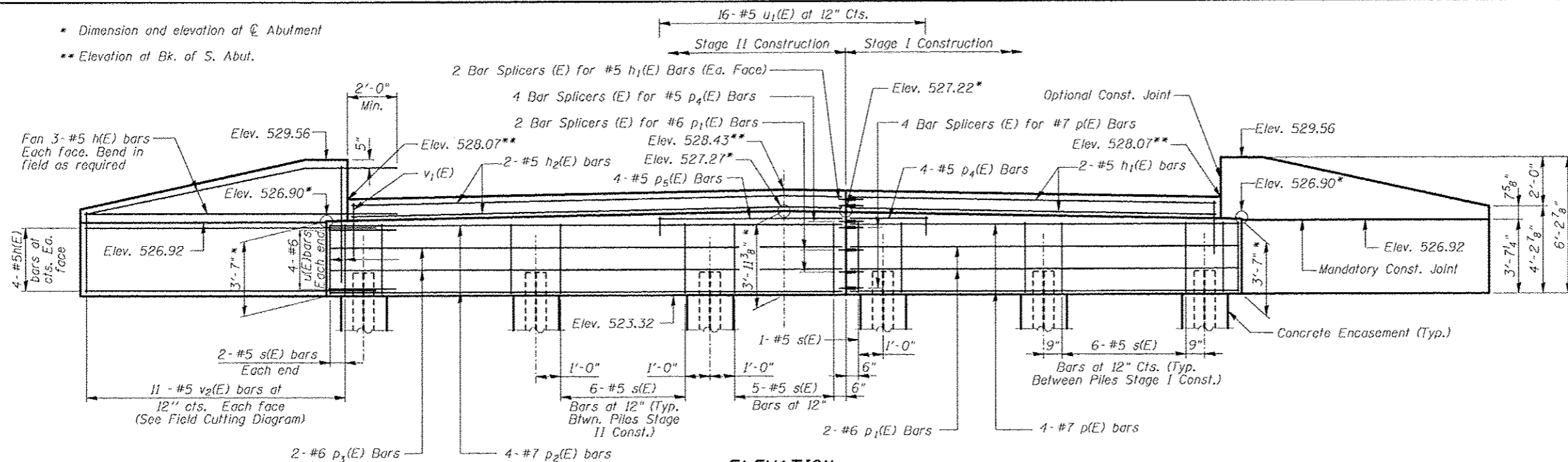
Cast top of wingwall and backwall after beams and HMA wearing surface, have been erected.

Corrosion Inhibitor per Article 1020.05(b) and Section 1021 of the Standard Specification, shall be used in the concrete for the abutment cap and wingwalls. Cast included with Concrete Structures.

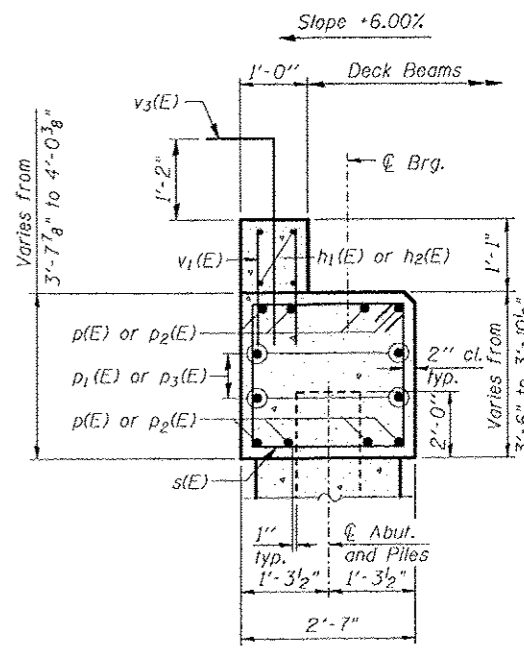
FILE NAME : 151 North Abutment.dgn	USER NAME : erath	DESIGNED - DB 01/27/2017	REVISED - -	GIVILLO BRIDGE MADISON COUNTY, ILLINOIS	NORTH ABUTMENT STRUCTURE NO. 060-3363	F.A.S. R.T.E.	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 27
PLOT SCALE : 1/4"	DRAWN - EER 01/27/2017	REVISED - -	CONTRACT NO. 97646							
PLOT DATE : 2/17/2017	CHECKED - WWH 01/27/2017	REVISED - -	ILLINOIS FED. AID PROJECT							
SHEET NO. 15 OF 22 SHEETS										

* Dimension and elevation at \odot Abutment

** Elevation at Bk. of S. Abut.



ELEVATION



SECTION A-A

**SOUTH ABUTMENT
BILL OF MATERIAL**

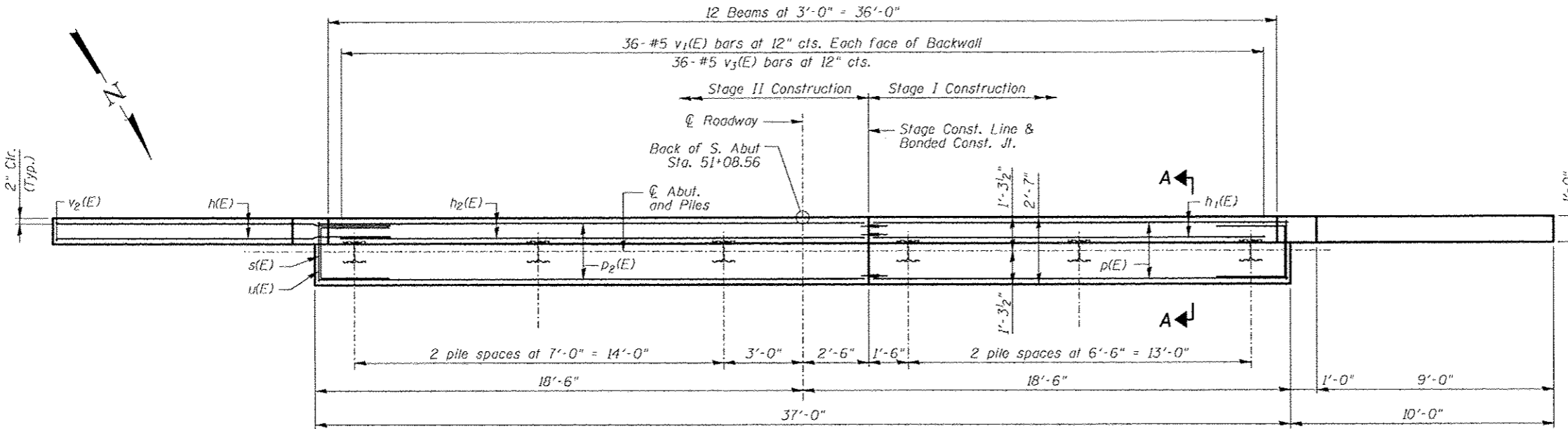
Bar	No.	Size	Length	Shape
$h(E)$	28	#5	12'-6"	—
$h_1(E)$	4	#5	15'-3"	—
$h_2(E)$	4	#5	20'-3"	—
$p(E)$	8	#7	15'-9"	—
$p_1(E)$	4	#6	15'-9"	—
$p_2(E)$	8	#7	20'-9"	—
$p_3(E)$	4	#6	20'-9"	—
$p_4(E)$	4	#5	5'-6"	—
$p_5(E)$	4	#5	10'-6"	—
$s(E)$	34	#5	11'-9"	□
$u(E)$	8	#6	9'-2"	—
$u_1(E)$	16	#5	4'-3"	—
$v_1(E)$	72	#5	2'-6"	—
$v_2(E)$	22	#5	9'-8"	—
$v_3(E)$	36	#5	5'-4"	—
Structure Excavation			Cu. Yd.	28
Concrete Structures			Cu. Yd.	18.9
Reinforcement Bars, Epoxy Coated			Pound	2610
Furnishing Steel Piles, HP 12x53			Foot	125
Driving Piles			Foot	125
Test Pile, Steel HP 12x53			Each	1
Pile Shoes			Each	6
Concrete Encasement			Cu. Yd.	2.1
Bar Splicers			Each	20

Notes:

For details of piles and Concrete Encasement, see sheet 19 of 22.

Cast top of wingwall and backwall after beams and HMA wearing surface, have been erected.

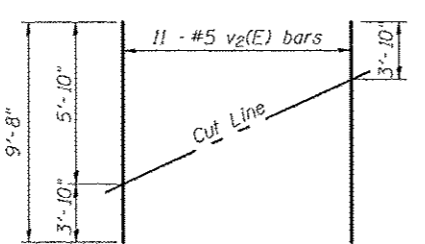
Corrosion inhibitor per Article 1020.05(b) and Section 1021 of the Standard Specification, shall be used in the concrete for the abutment cap and wingwalls. Cost included with Concrete Structures.



PLAN

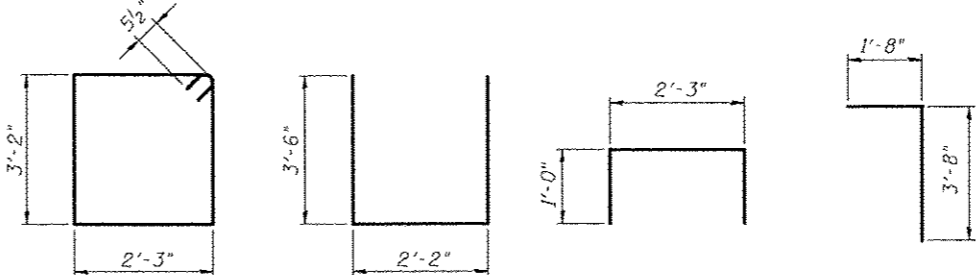
PILE DATA

Type: Steel HP 12x53 with Pile Shoes
 Nominal Required Bearing: 418 Kips
 Factored Resistance Available: 230 Kips
 Est. Length: 25 Ft.
 No. Production Piles: 5
 No. Test Piles: 1



FIELD CUTTING DIAGRAM

Order $v_2(E)$ bars full length. Cut as shown and use remainder of bars in opposite face.

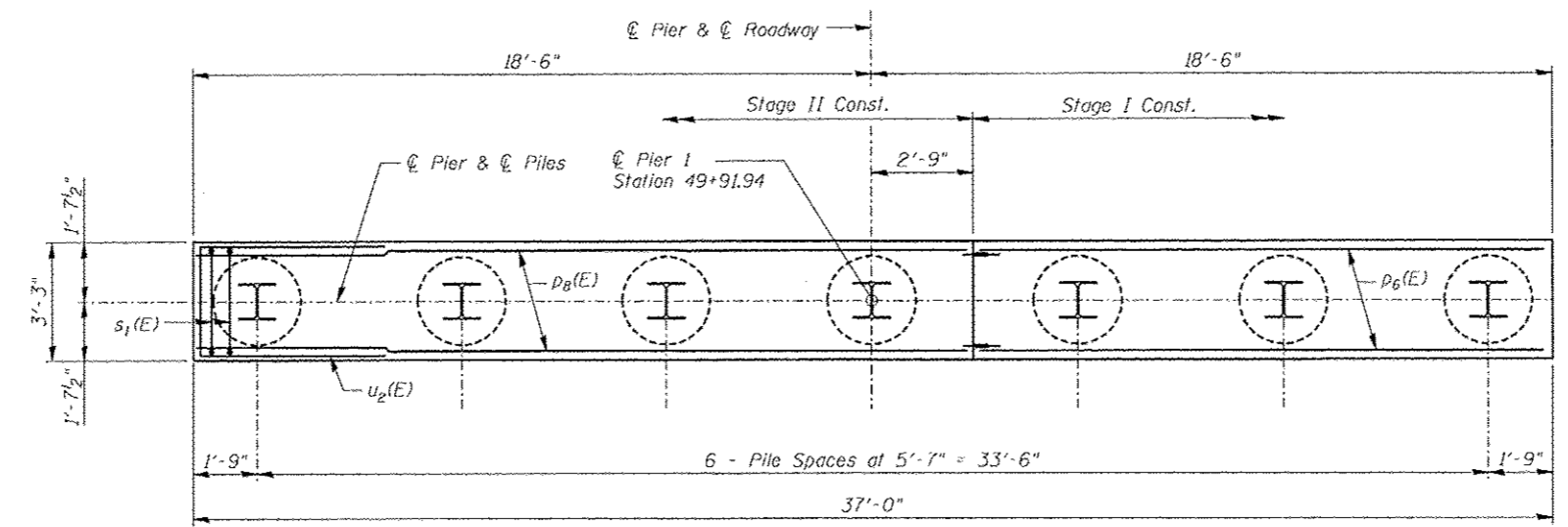


BAR s(E)

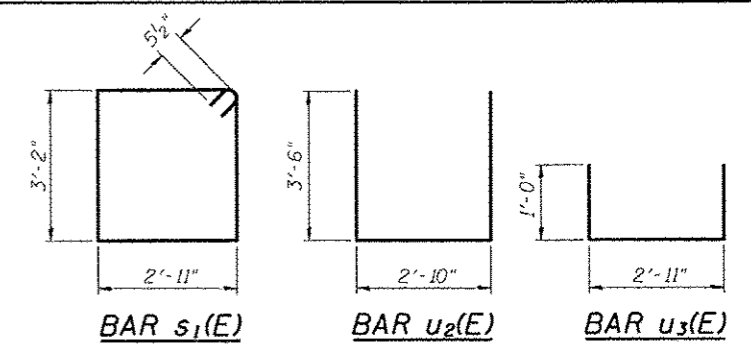
BAR u(E)

BAR u₁(E)

BAR v₃(E)



PLAN



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Reinforcement is incidental to the cost of Class SI Concrete Encasement. Forms for Encasement may be omitted when soil conditions will permit.

HP 14x89

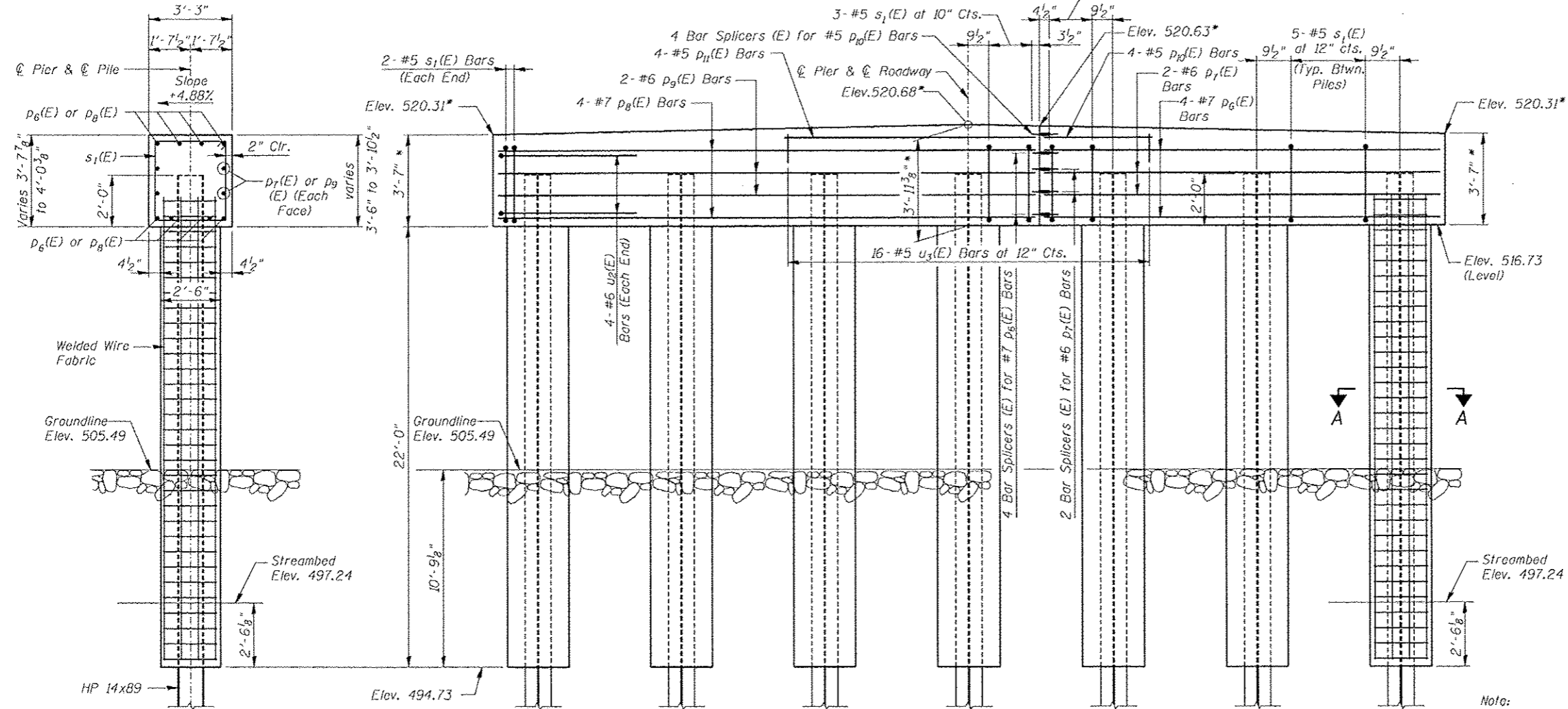
**SECTION A-A
PILE ENCASEMENT DETAIL**

PILE DATA

Type: Steel HP 14x89 with Pile Shoes
 Nominal Required Bearing: 670 Kips
 Factored Resistance Available: 368 Kips
 Est. Length: 49 Ft.
 No. Production Piles: 6
 No. Test Piles: 1

**PIER 1
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
p6(E)	8	#7	15'-6"	—
p7(E)	4	#6	15'-6"	—
p8(E)	8	#7	21'-0"	—
p9(E)	4	#6	21'-0"	—
p10(E)	4	#5	5'-3"	—
p11(E)	4	#5	10'-9"	—
s1(E)	35	#5	13'-1"	□
u2(E)	8	#6	9'-10"	□
u3(E)	16	#5	4'-11"	□
Structure Excavation		Cu. Yd.	104	
Concrete Structures		Cu. Yd.	16.8	
Reinforcement Bars, Epoxy Coated		Pound	1570	
Furnishing Steel Piles, HP 14x89		Foot	294	
Driving Piles		Foot	294	
Test Pile, Steel HP 14x89		Each	1	
Pile Shoes		Each	7	
Concrete Encasement		Cu. Yd.	28.0	
Bar Splicers		Each	16	



**ELEVATION
(Looking South)**

END VIEW

Note:

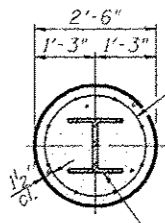
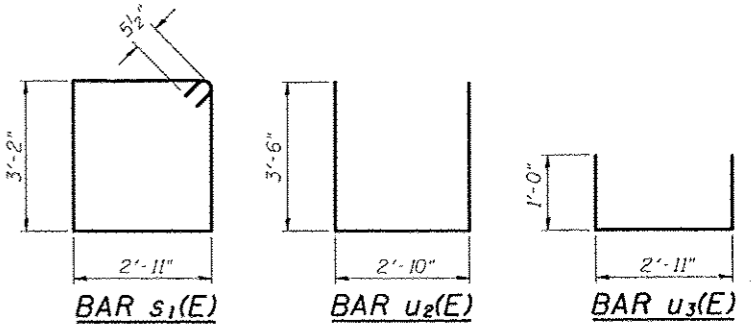
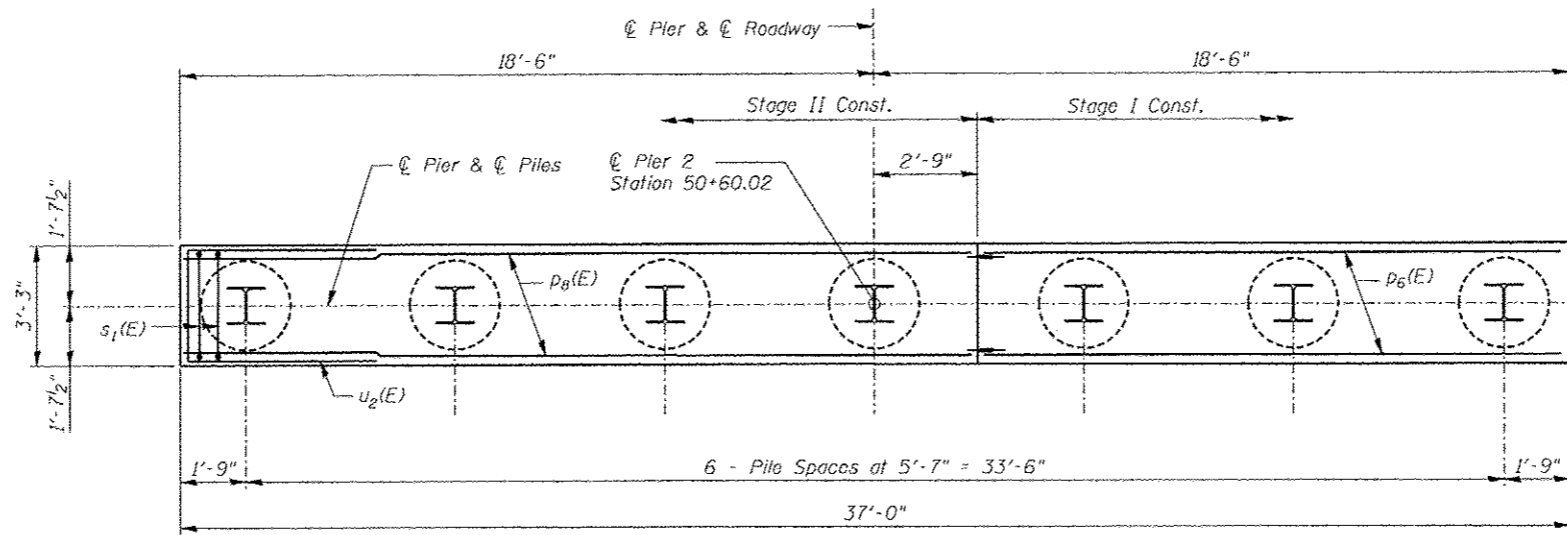
For details of Piles and Concrete Encasement, see Sheet No. 19 of 22.

Corrosion Inhibitor per Article 1020.05(b) and Section 1021 of the Standard Specification, shall be used in the concrete for the pier cap. Cost included with Concrete Structures.

Point of Fixity is assumed to be located 28 Ft. from the top of the Pile based on the revised SCT Geotechnical Report.

* Dimensions and Elevations are at @ Pier

FILE NAME * 071 Pier 1.dgn	USER NAME * er0th	DESIGNED - DB 01/27/2017	REVISIONS -	GIULLO BRIDGE MADISON COUNTY, ILLINOIS	PIER 1 STRUCTURE NO. 060-3363	F.A.S. R.T.E.	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 29
PLOT SCALE * 1/8"=1'-0"	DRAWN - EER 01/27/2017	REVISIONS -	CONTRACT NO. 97646							
PLOT DATE * 2/17/2017	CHECKED - WWH 01/27/2017	REVISIONS -	ILLINOIS FED. AID PROJECT							
SHEET NO. 17 OF 22 SHEETS										



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Reinforcement is incidental to the cost of Class SI Concrete Encasement. Forms for Encasement may be omitted when soil conditions will permit.

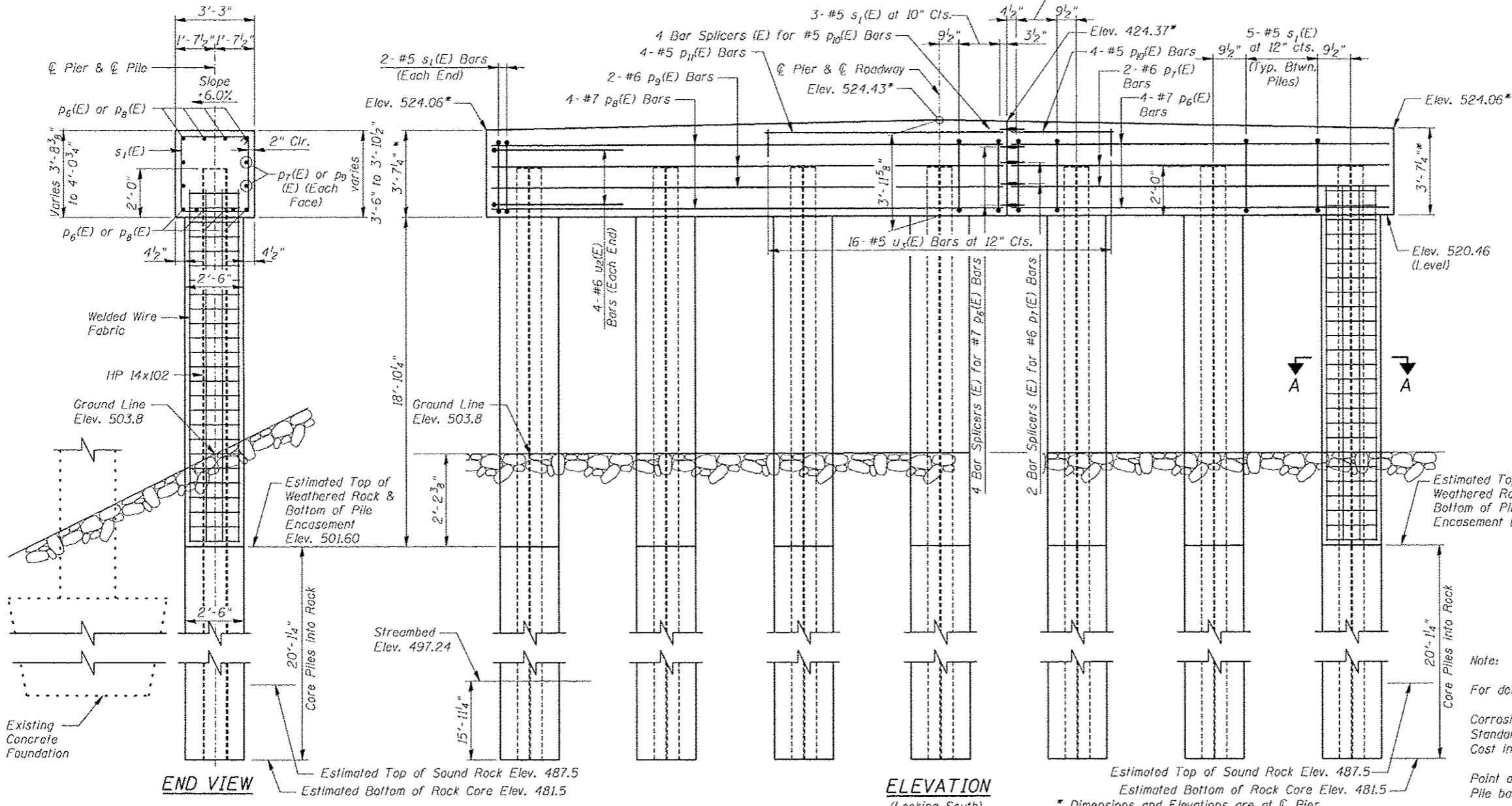
SECTION A-A
PILE ENCASEMENT DETAIL

PILE DATA

Type: Steel HP 14x102
 Nominal Required Bearing: 755 Kips
 Factored Resistance Available: 415 Kips
 Est. Length: 41 Ft.
 No. Production Piles: 7

PIER 2
BILL OF MATERIAL

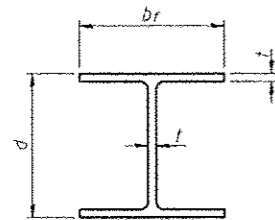
Bar	No.	Size	Length	Shape
$p_6(E)$	8	#7	15'-6"	—
$p_7(E)$	4	#6	15'-6"	—
$p_8(E)$	8	#7	21'-0"	—
$p_9(E)$	4	#6	21'-0"	—
$p_{10}(E)$	4	#5	5'-3"	—
$p_{11}(E)$	4	#5	10'-9"	—
$s_1(E)$	35	#5	13'-1"	□
$u_2(E)$	8	#6	9'-10"	—
$u_3(E)$	16	#5	4'-11"	—
Structure Excavation		Cu. Yd.	22	
Concrete Structures		Cu. Yd.	16.9	
Reinforcement Bars, Epoxy Coated		Pound	1570	
Furnishing Steel Piles, HP 14x102		Foot	287	
Concrete Encasement		Cu. Yd.	24.0	
Bar Splicers		Each	16	
Setting Piles in Rock		Each	7	



END VIEW

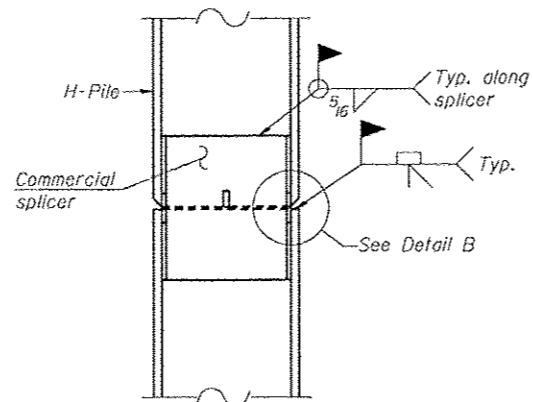
ELEVATION
(Looking South)

Note:
 For details of Piles and Concrete Encasement, see Sheet No. 19 of 22.
 Corrosion Inhibitor per Article 1020.05(b) and Section 1021 of the Standard Specification, shall be used in the concrete for the pier cap. Cost included with Concrete Structures.
 Point of Fixity is assumed to be located 28 Ft. from the top of the Pile based on the revised SCI Geotechnical Report.

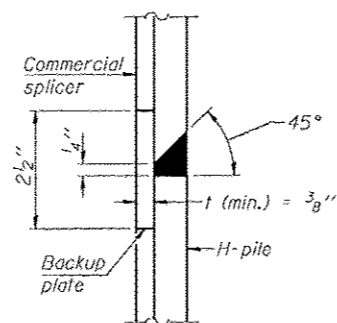


STEEL PILE TABLE

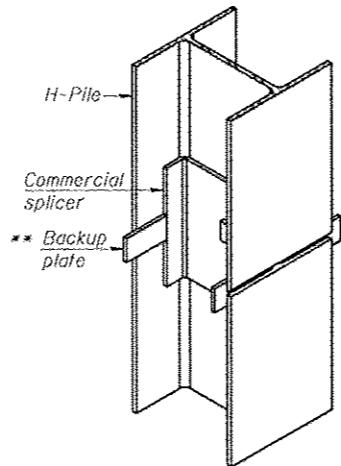
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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



ELEVATION

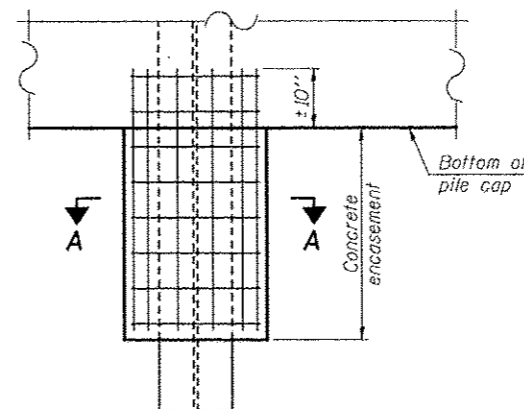


DETAIL "B"



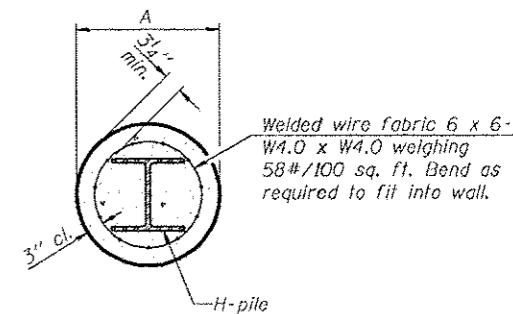
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



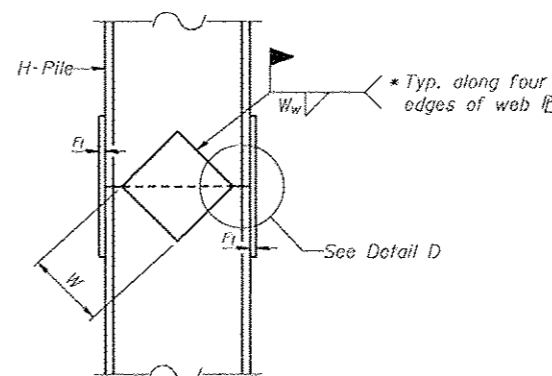
ELEVATION

PILE ENCASEMENT

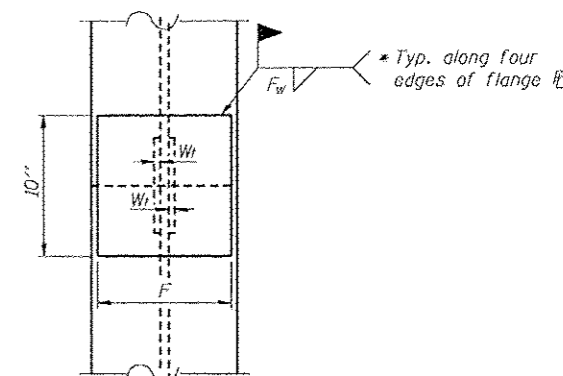


SECTION A-A

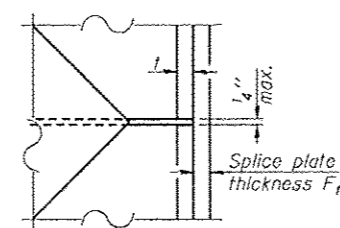
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



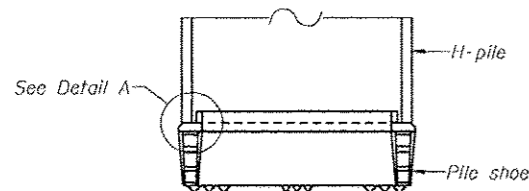
END VIEW



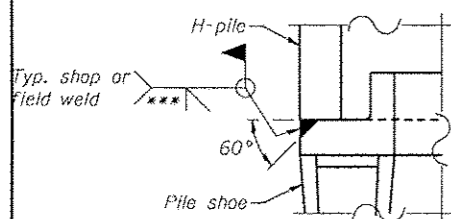
DETAIL D

WELDED PLATE FIELD SPLICE

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

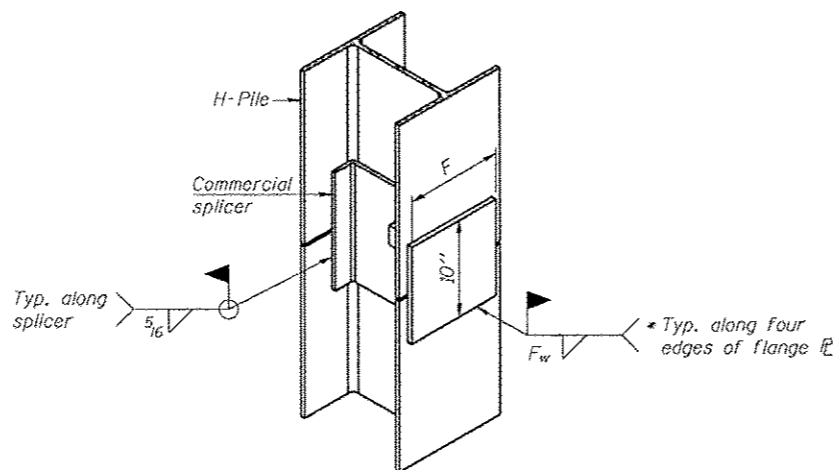


ELEVATION



DETAIL A

H-PILE SHOE ATTACHMENT

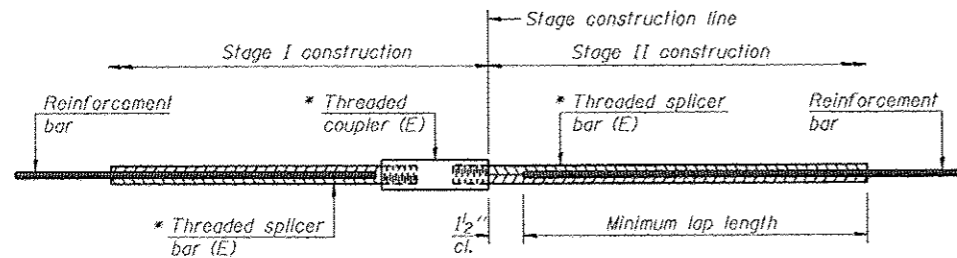


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

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

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

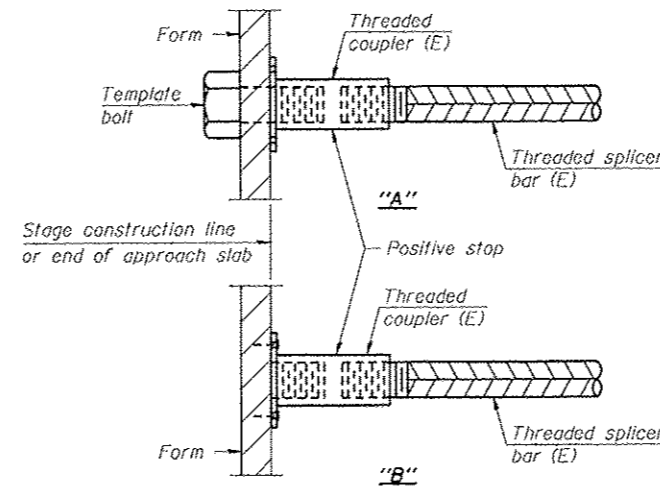


STANDARD BAR SPLICER ASSEMBLY

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

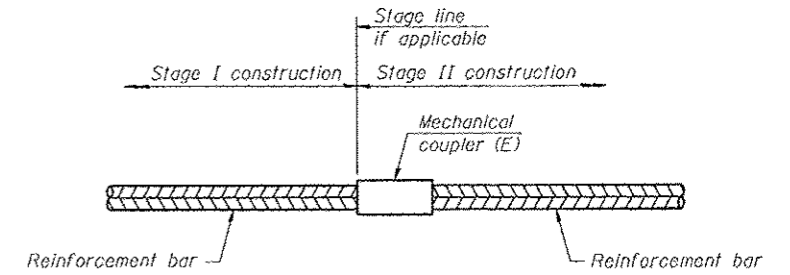
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
N. Approach Slab	#5	46	2'-7"
S. Approach Slab	#5	46	2'-7"
N. Approach Slab Footing	#5	40	2'-7"
S. Approach Slab Footing	#5	40	2'-7"
N. Abutment	#5	8	2'-7"
S. Abutment	#5	8	2'-7"
Pier 1	#5	4	2'-7"
Pier 2	#5	4	2'-7"
N. Abutment	#6	4	3'-1"
S. Abutment	#6	4	3'-1"
Pier 1	#6	4	3'-1"
Pier 2	#6	4	3'-1"
N. Abutment	#7	8	4'-2"
S. Abutment	#7	8	4'-2"
Pier 1	#7	8	4'-2"
Pier 2	#7	8	4'-2"
N. Approach Slab	#8	60	5'-5"
S. Approach Slab	#8	60	5'-5"



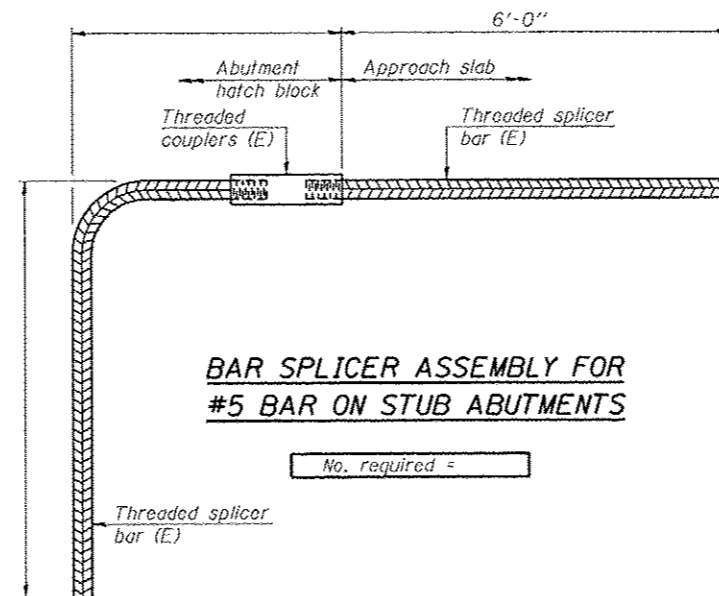
INSTALLATION AND SETTING METHODS

"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

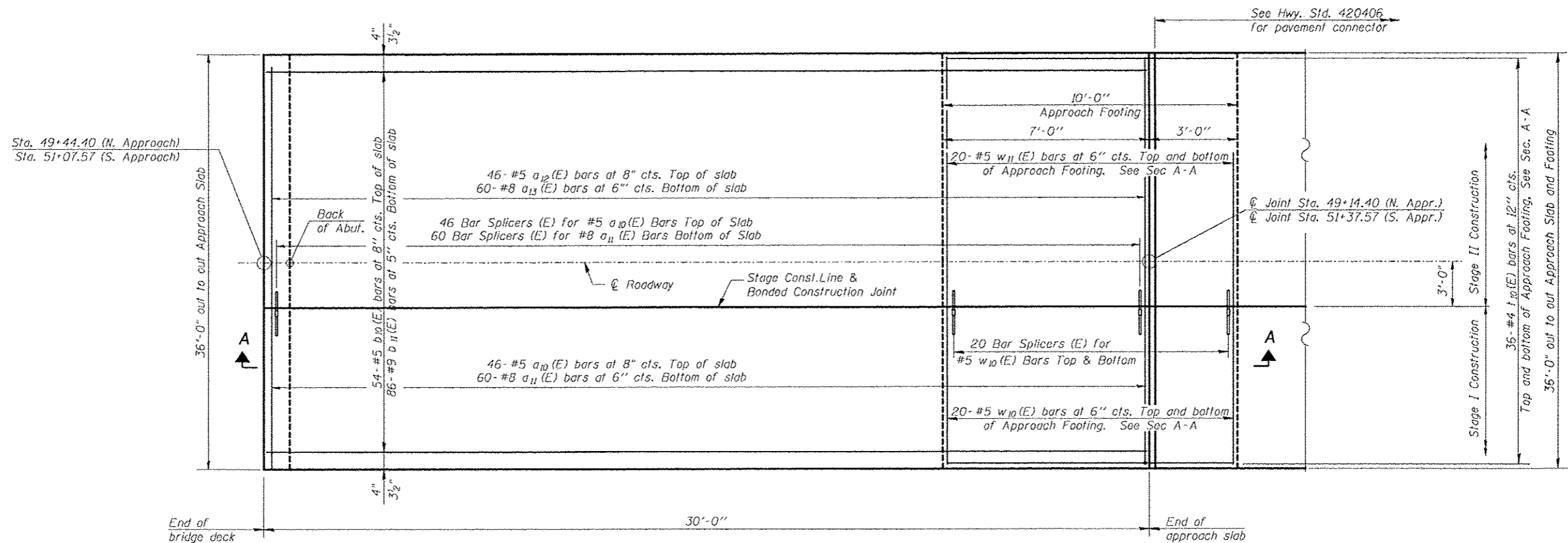
Location	Bar size	No. assemblies required



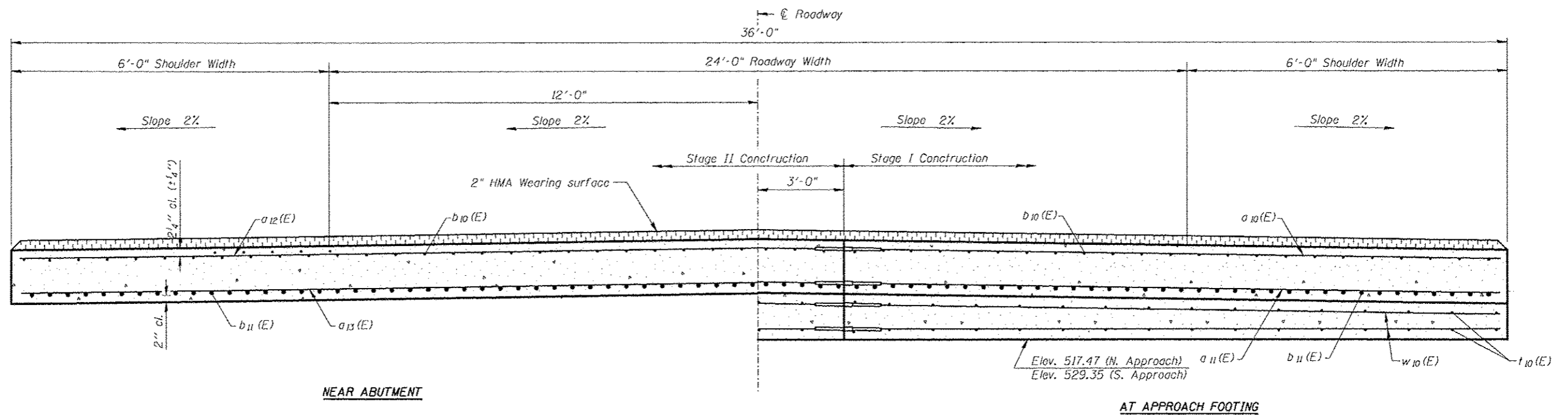
BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

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.

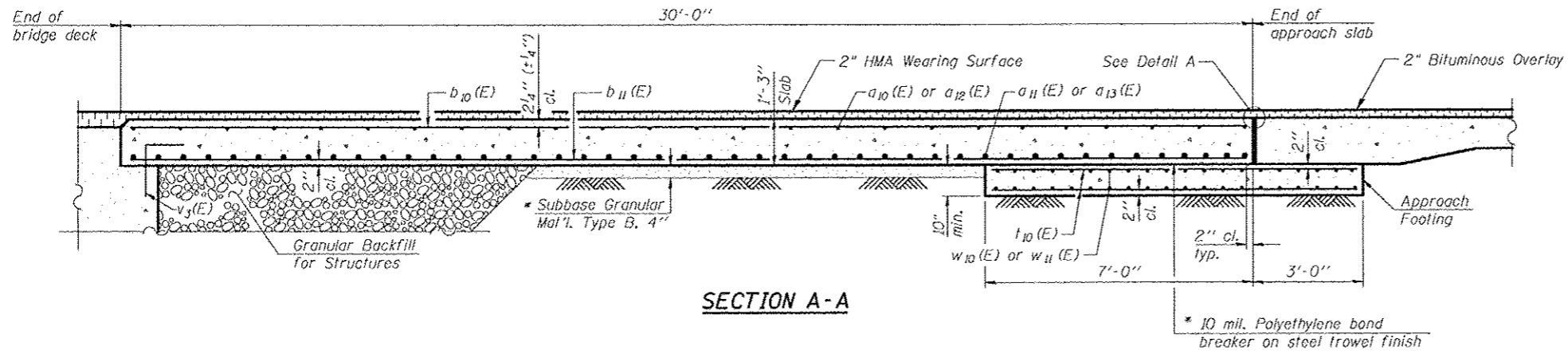


PLAN

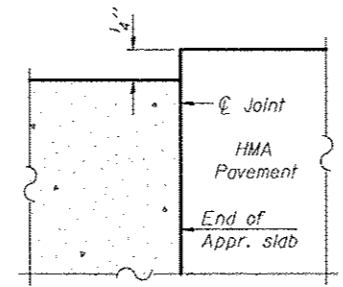


CROSS SECTION
(Looking South)

FILE NAME = (21) Bridge Approach Slab Details.dgn	USER NAME = mroth	DESIGNED - DB	01/27/2017	REVISED - -	GVILLO BRIDGE MADISON COUNTY, ILLINOIS	BRIDGE APPROACH SLAB DETAILS STRUCTURE NO. 060-3363	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1/2	CHECKED - NK	01/27/2017	REVISED - -				12-00134-01-BR	MADISON	45	33
	PLOT DATE = 2/17/2017	DRAWN - EER	01/27/2017	REVISED - -				CONTRACT NO. 97646			
		CHECKED - WWH	01/27/2017	REVISED - -				ILLINOIS FED. AID PROJECT			
SHEET NO. 21 OF 22 SHEETS											



SECTION A-A



DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).

Notes:

Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.

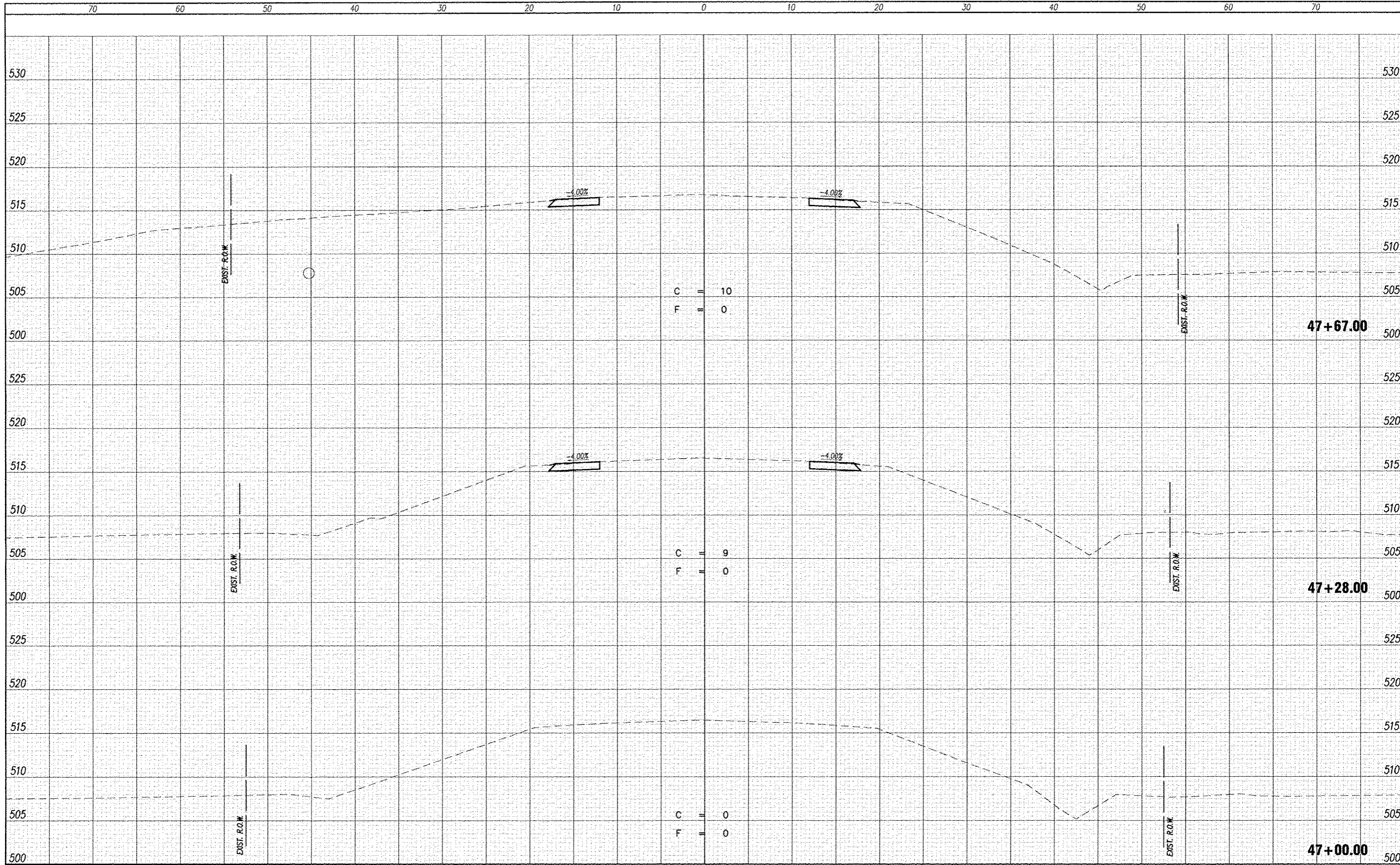
Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 22.

For v₃(E) Bar Details, see sheet 15 & 16 of 22.

**TWO APPROACHES
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
a ₁₀ (E)	92	#5	14'-10"	————	
a ₁₁ (E)	120	#8	14'-10"	————	
a ₁₂ (E)	92	#5	20'-9"	————	
a ₁₃ (E)	120	#8	20'-9"	————	
b ₁₀ (E)	108	#5	29'-8"	————	
b ₁₁ (E)	172	#9	29'-8"	————	
t ₁₀ (E)	144	#4	9'-8"	————	
w ₁₀ (E)	80	#5	14'-10"	————	
w ₁₁ (E)	80	#5	20'-9"	————	
Concrete Superstructure (Approach Slab)				Cu. Yd.	105.2
Concrete Structures				Cu. Yd.	22.3
Reinforcement Bars, Epoxy Coated				Pound	39420
Bar Splicers				Each	292



INTERNAL PROJECT NUMBER:
A-244-00
FILE NAME:
W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg

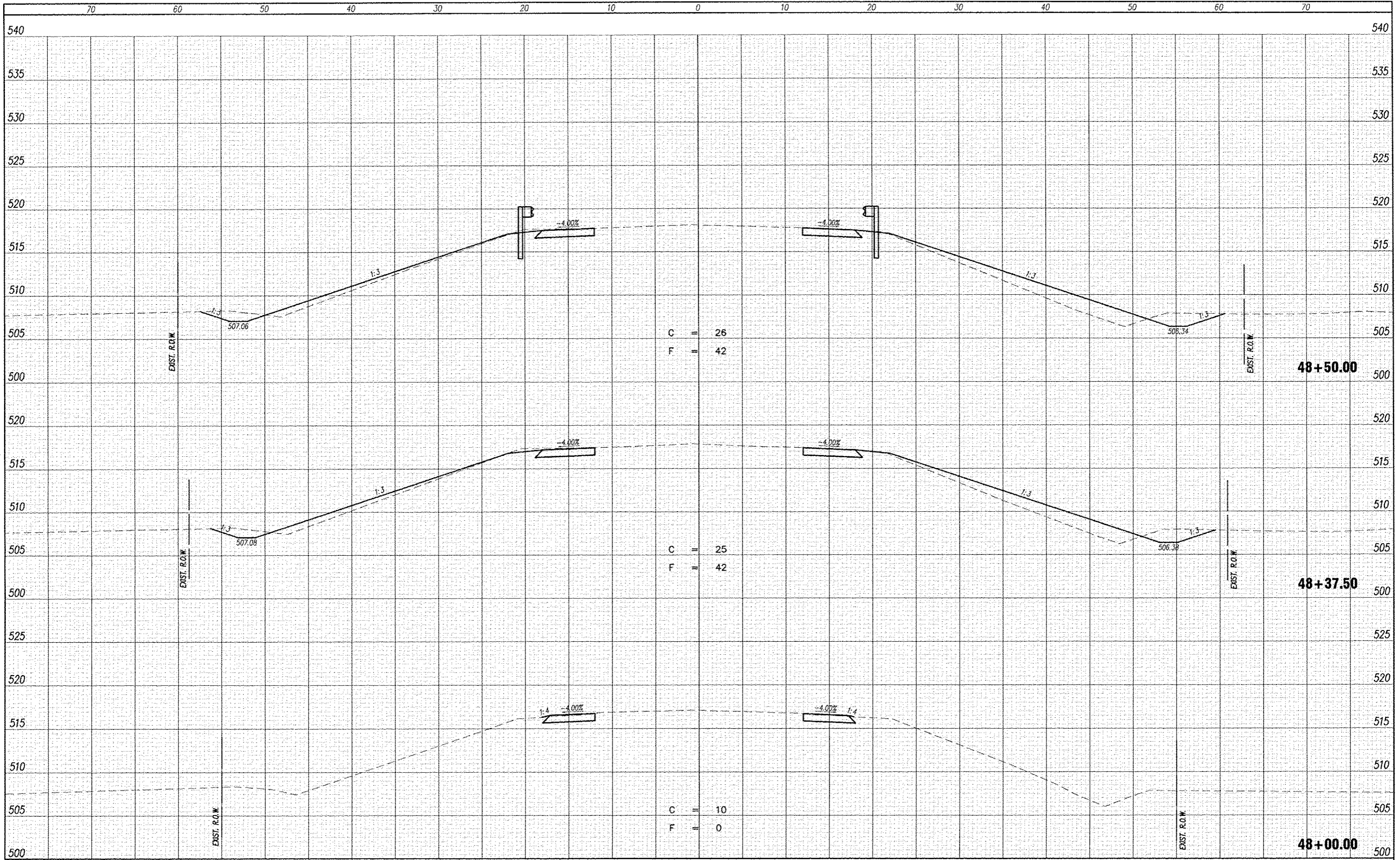
USER NAME Jonathon Fuller	DESIGNED G.A.S.
PLOT SCALE 0.5:1	DRAWN J.J.F.
PLOT DATE 17-Feb-17	CHECKED -

REVISED --
REVISED --
REVISED --
REVISED ----

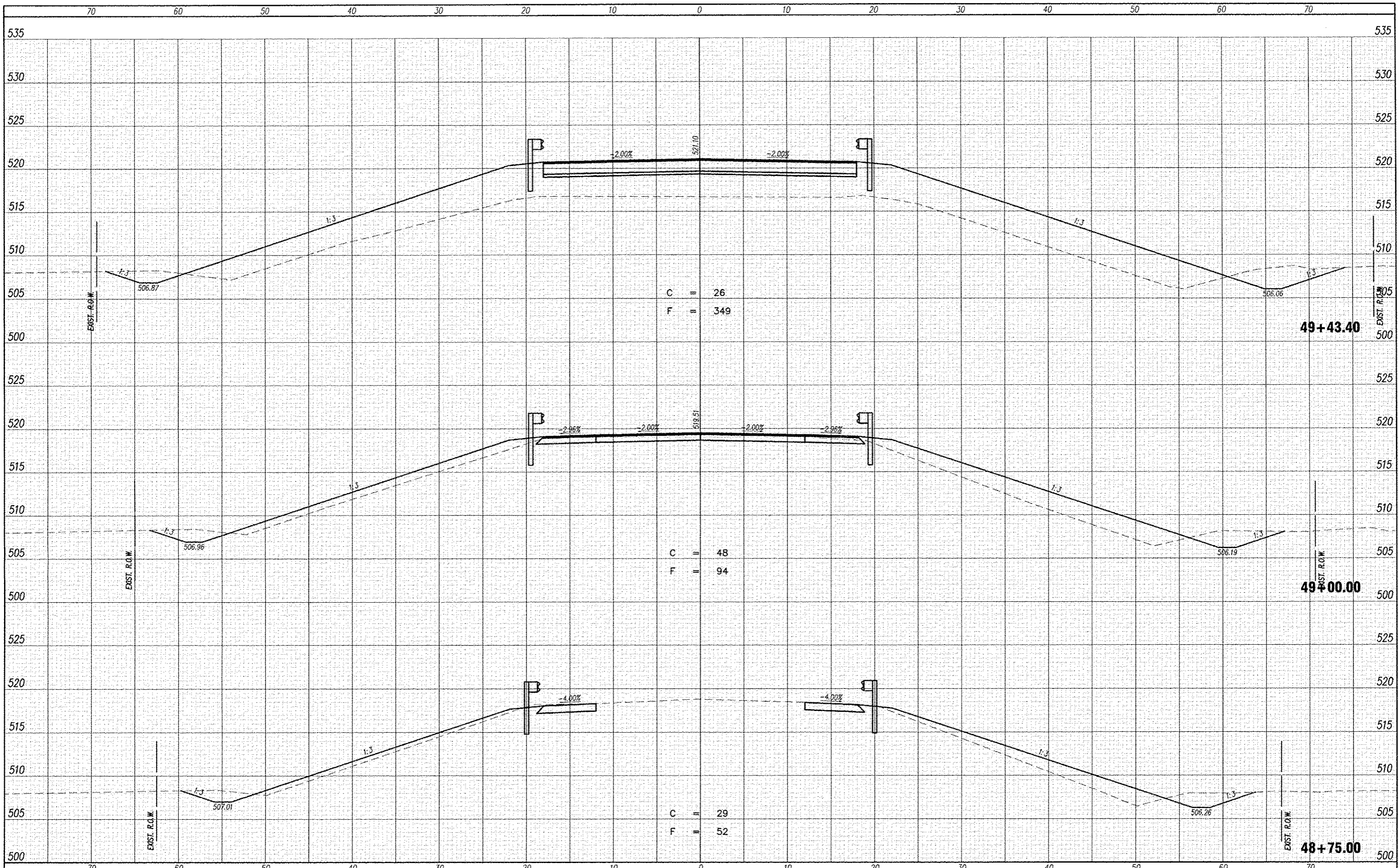
**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS
SCALE: 1:5 SHEET NO. 1 OF 11 SHEETS STA. 47+00 TO STA. 47+67

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	35
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS	FEDERAL AID PROJECT	



INTERNAL PROJECT NUMBER: A-244-00	USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED --	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg	PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED --			55	12-00134-01-BR	MADISON	45	36
	PLOT DATE 17-Feb-17	CHECKED --	REVISED --			PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
			REVISED ----			FOSTER TOWNSHIP		ILLINOIS		FEDERAL AID PROJECT



INTERNAL PROJECT NUMBER:
A-244-00

FILE NAME:
W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg

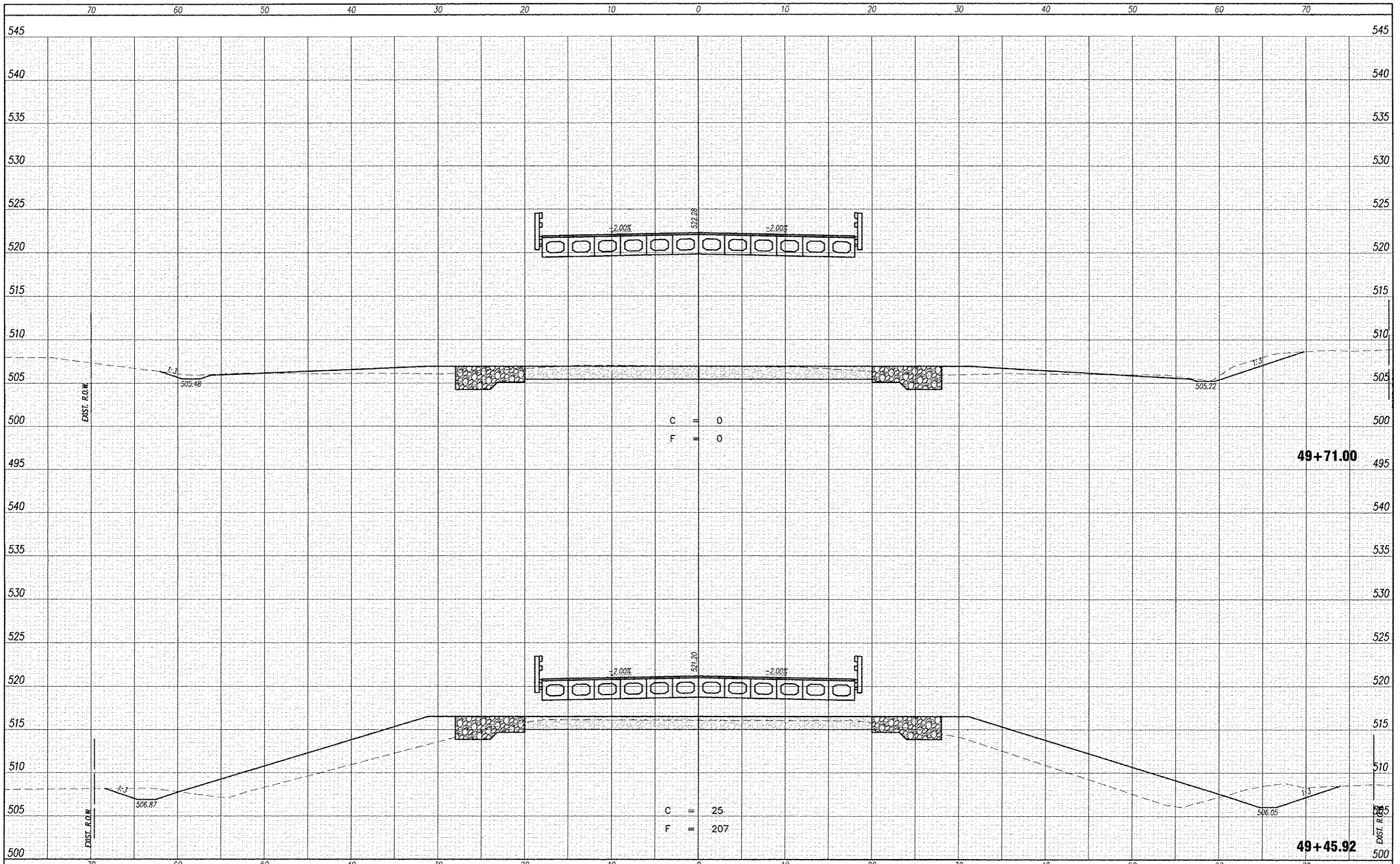
USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED --
PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED --
PLOT DATE 17-Feb-17	CHECKED --	REVISED --
		REVISED ----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS

SCALE: 1:5 SHEET NO. 3 OF 11 SHEETS STA. 48+75 TO STA. 49+43.40

C.H. 55	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 37
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS FEDERAL AID PROJECT		



INTERNAL PROJECT NUMBER:
 A-244-00
 FILE NAME:
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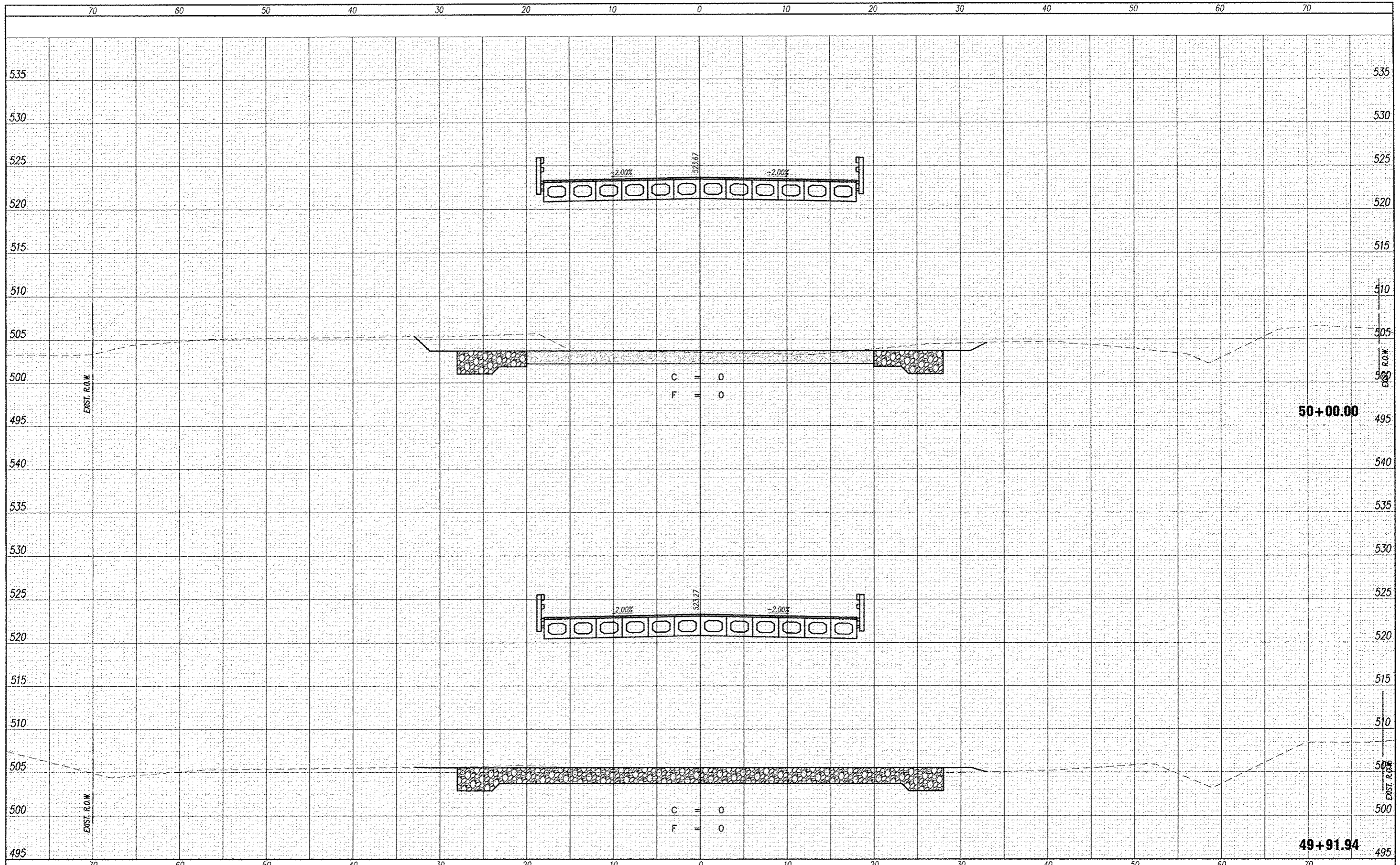
USER NAME Jonathan Fuller
 PLOT SCALE 0.5:1
 PLOT DATE 17-Feb-17
 DESIGNED G.A.S.
 DRAWN J.J.F.
 CHECKED -

REVISED --
 REVISED --
 REVISED --
 REVISED ----

**MADISON COUNTY
 HIGHWAY DEPARTMENT**

CROSS SECTIONS
 SCALE: 1:5 SHEET NO. 4 OF 11 SHEETS STA. 49+45.92 TO STA. 49+71

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	38
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS	FEDERAL AID PROJECT	



INTERNAL PROJECT NUMBER:
A-244-00

FILE NAME:
W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg

USER NAME Jonathon Fuller	DESIGNED G.A.S.	REVISED -
PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED -
PLOT DATE 17-Feb-17	CHECKED -	REVISED -
		REVISED -

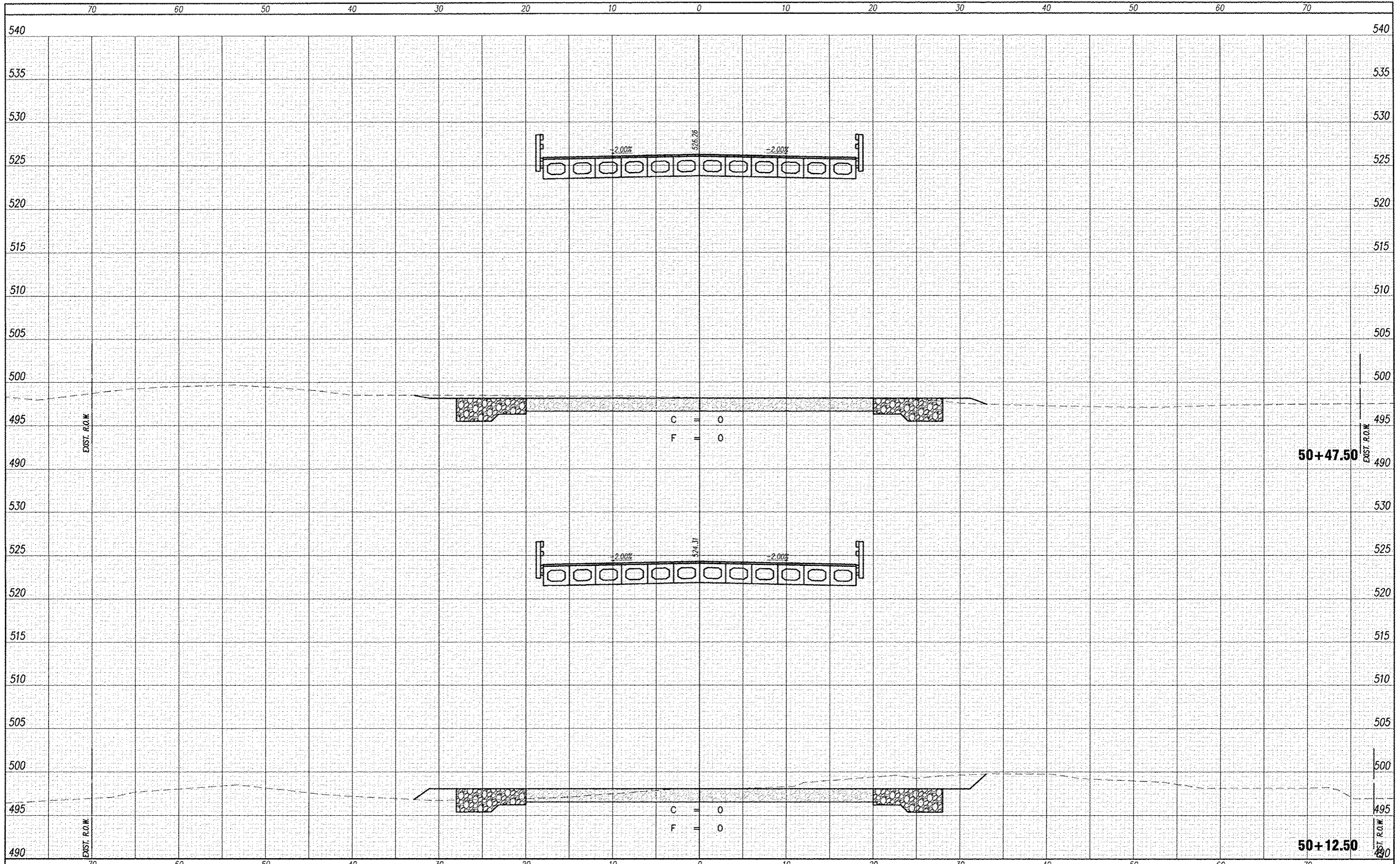
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**MADISON COUNTY
HIGHWAY DEPARTMENT**

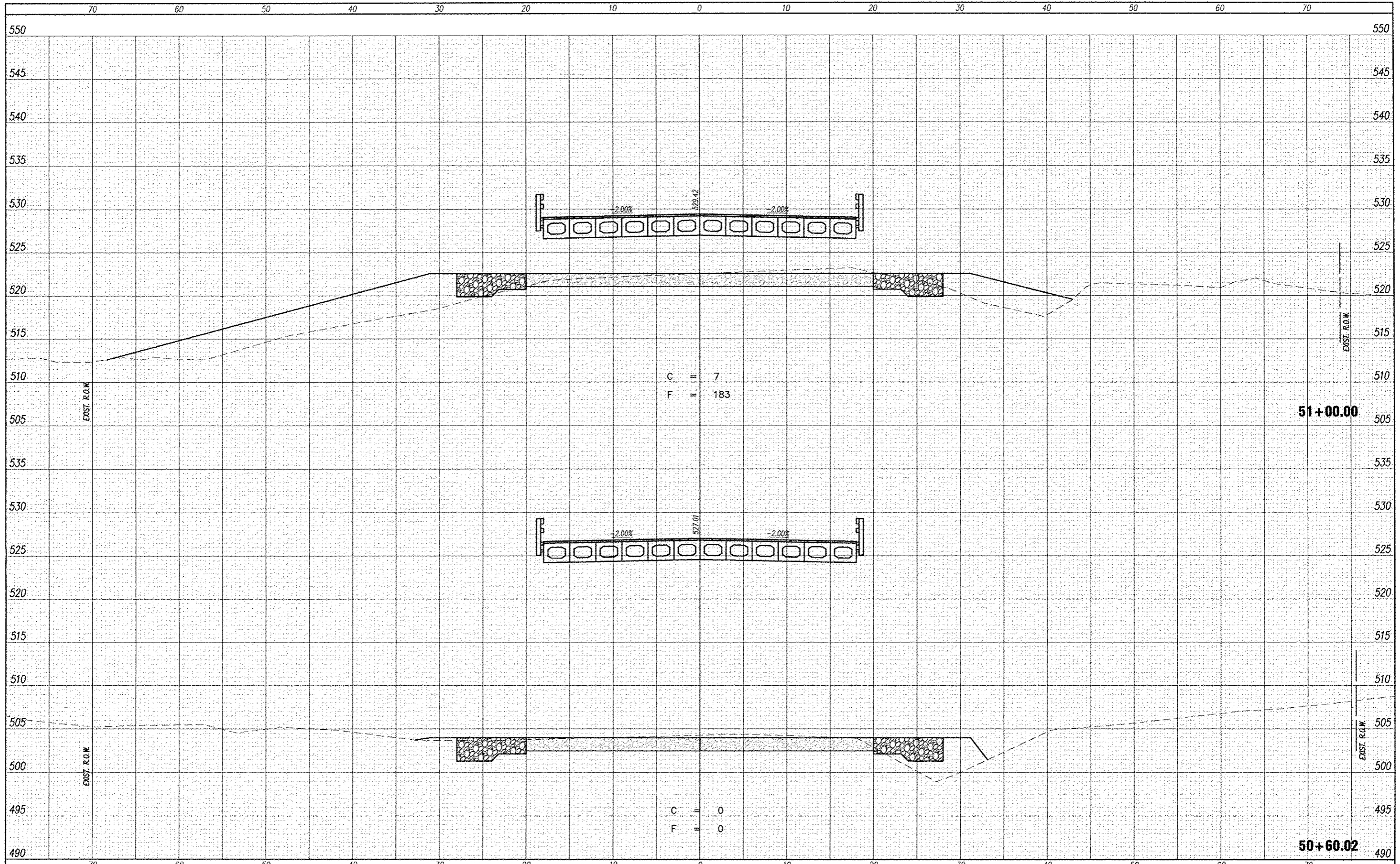
CROSS SECTIONS

SCALE: 1:5 SHEET NO. 5 OF 11 SHEETS STA. 49+71 TO STA. 50+00

C.H. 55	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 39
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS	FEDERAL AID PROJECT	



INTERNAL PROJECT NUMBER: A-244-00	USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS	C.H. 55	SECTION 12-00134-01-BR	COUNTY MADISON	TOTAL SHEETS 45	SHEET NO. 40			
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg	PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED -			SCALE: 1:5	SHEET NO. 6	OF 11	SHEETS	STA. 50+12.50	TO STA. 50+47.50	PROJECT NAME: GVILLO BRIDGE	CONTRACT NO. 97646
	PLOT DATE 17-Feb-17	CHECKED -	REVISED -			FOSTER TOWNSHIP ILLINOIS FEDERAL AID PROJECT							
			REVISED ----										



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INTERNAL PROJECT NUMBER:
A-244-00
FILE NAME:
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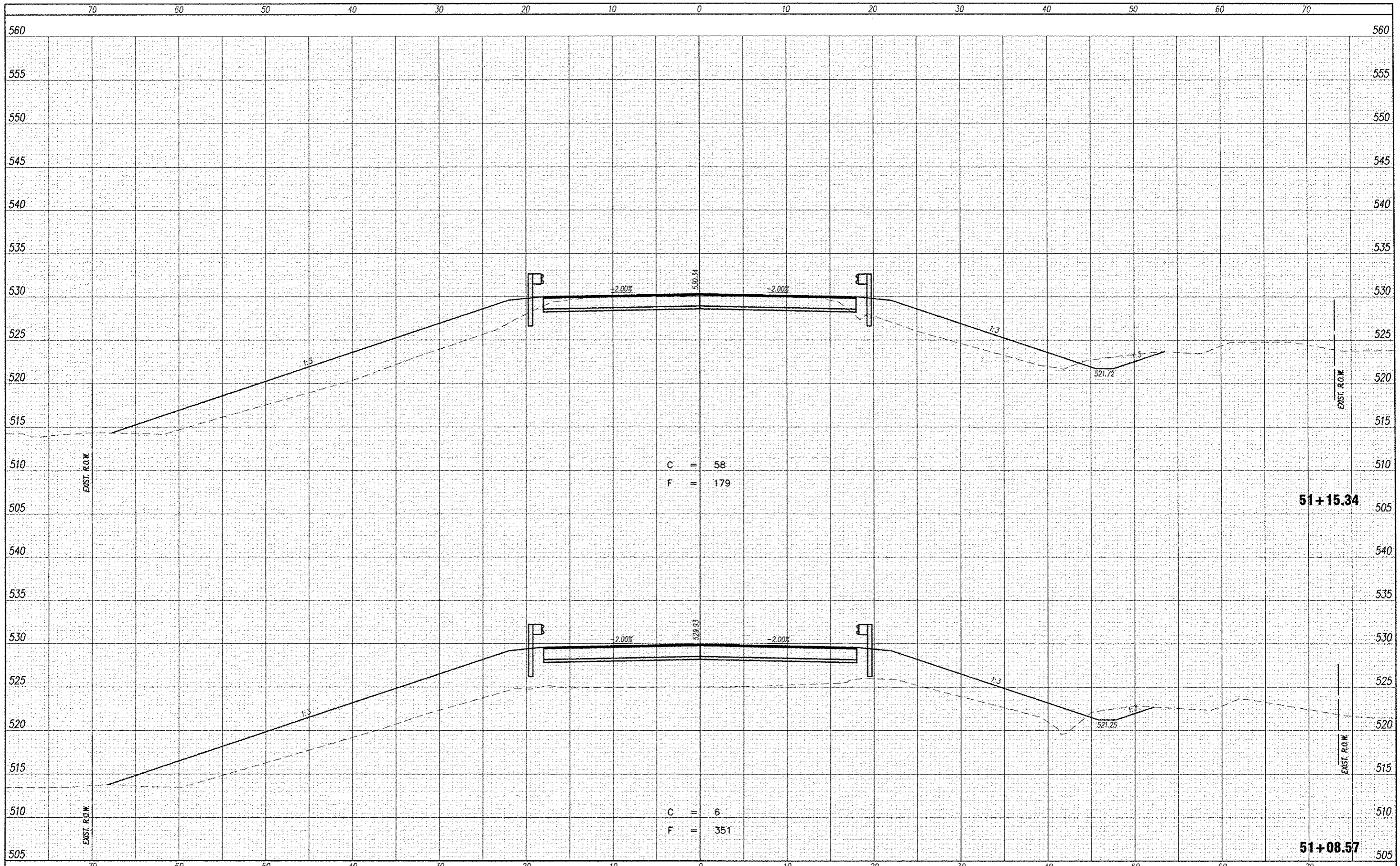
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PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED --
PLOT DATE 17-Feb-17	CHECKED --	REVISED --
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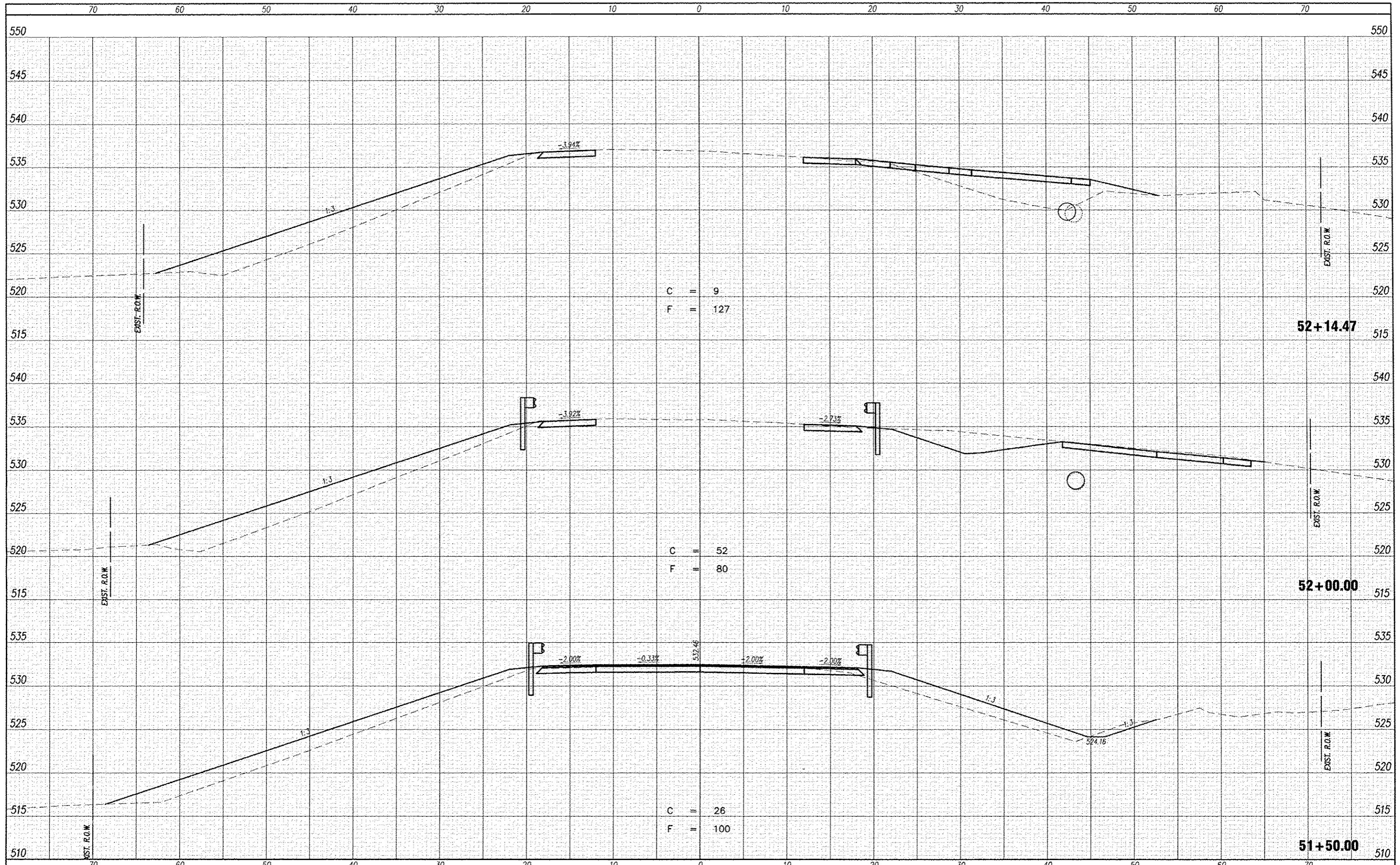
**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS
SCALE: 1:5 SHEET NO. 7 OF 11 SHEETS STA. 50+60.02 TO STA. 51+00

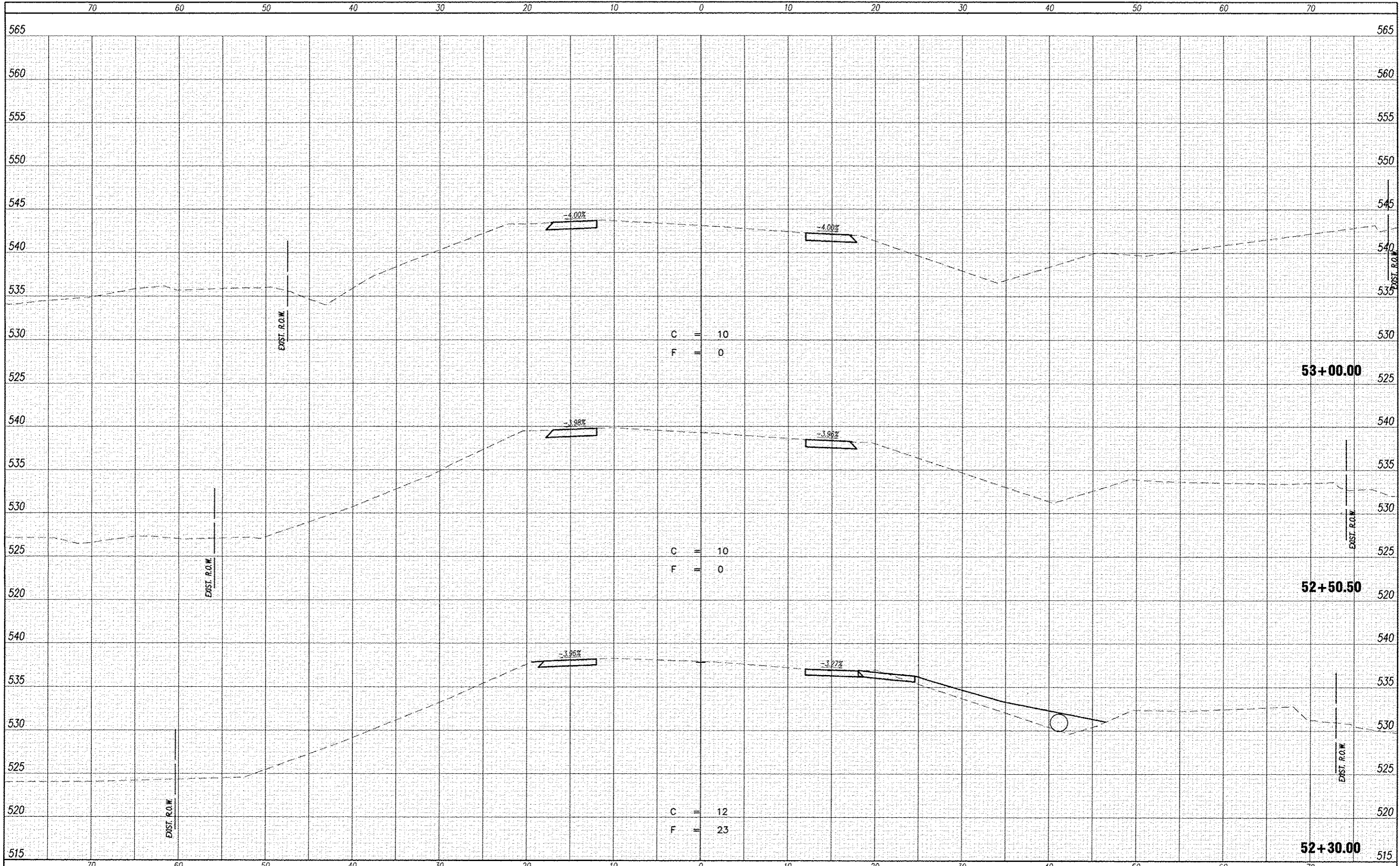
C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	41
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS FEDERAL AID PROJECT		



INTERNAL PROJECT NUMBER: A-244-00	USER NAME: Jonathon Fuller	DESIGNED: G.A.S.	REVISED: -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS	C.H.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:
FILE NAME: W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg	PLOT SCALE: 0.5:1	DRAWN: J.J.F.	REVISED: -			55	12-00134-01-BR	MADISON	45	42
	PLOT DATE: 17-Feb-17	CHECKED: -	REVISED: -			PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
			REVISED: -			FOSTER TOWNSHIP		ILLINOIS		FEDERAL AID PROJECT
				SCALE: 1:5		SHEET NO. 8 OF 11 SHEETS		STA. 51+08.57 TO STA. 51+15.34		



INTERNAL PROJECT NUMBER: A-244-00	USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS	C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-244-00 GILLO BRIDGE\A-244-00 Design.dwg	PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED -			55	12-00134-01-BR	MADISON	45	43
	PLOT DATE 17-Feb-17	CHECKED -	REVISED -			PROJECT NAME: GILLO BRIDGE		CONTRACT NO. 97646		
			REVISED -			SCALE: 1:5	SHEET NO. 9 OF 11 SHEETS	STA. 51+50 TO STA. 52+14.47	FOSTER TOWNSHIP ILLINOIS FEDERAL AID PROJECT	



INTERNAL PROJECT NUMBER:
A-244-00

FILE NAME:
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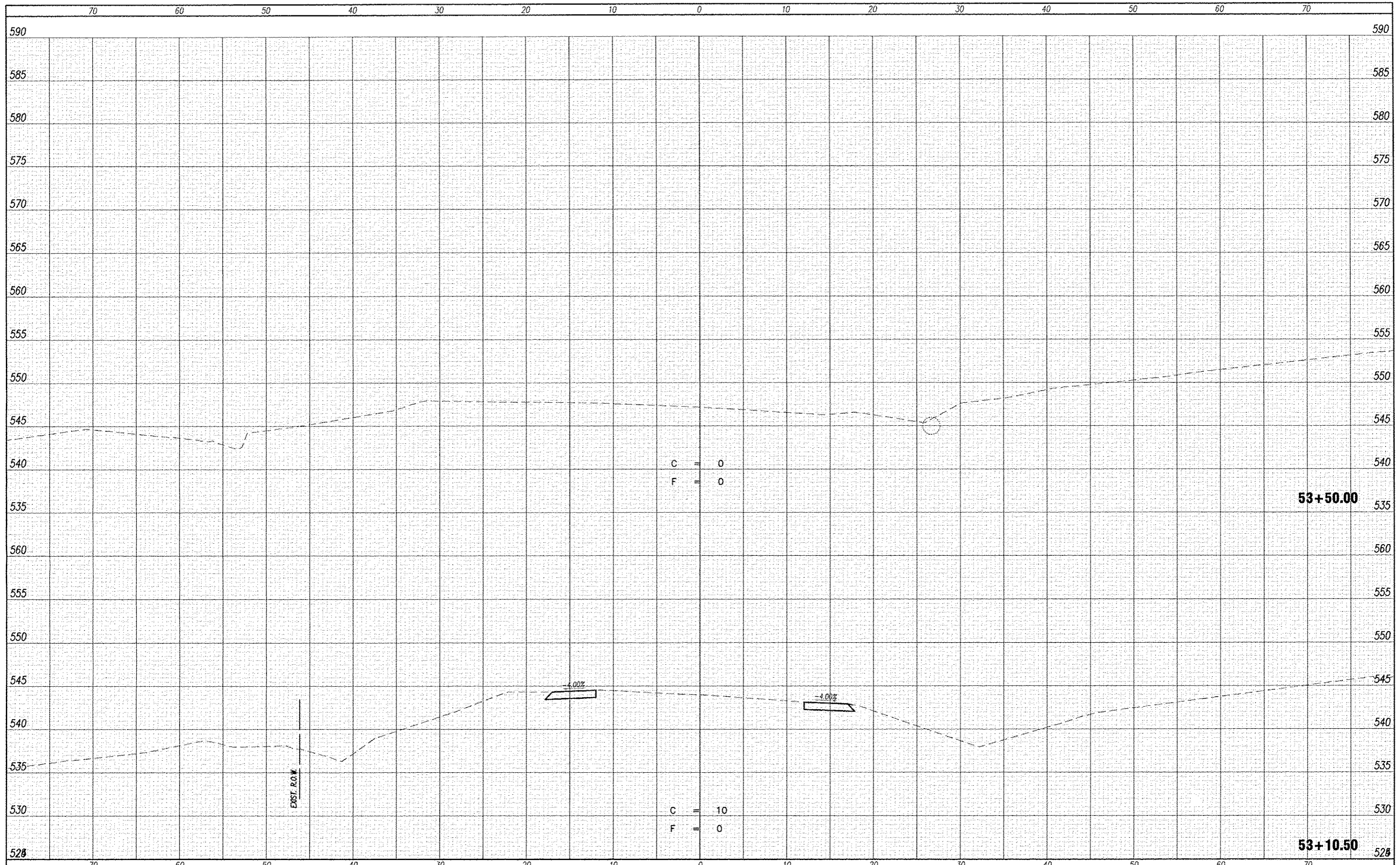
USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED --
PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED --
PLOT DATE 17-Feb-17	CHECKED --	REVISED --
		REVISED ----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS

SCALE: 1:5 SHEET NO. 10 OF 11 SHEETS STA. 52+30 TO STA. 53+00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	44
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS	FEDERAL AID PROJECT	



INTERNAL PROJECT NUMBER:
A-244-00

FILE NAME:
W:\Civil 3D Projects\A-244-00 GVILLO BRIDGE\A-244-00 Design.dwg

USER NAME Jonathan Fuller	DESIGNED G.A.S.	REVISED --
PLOT SCALE 0.5:1	DRAWN J.J.F.	REVISED --
PLOT DATE 17-Feb-17	CHECKED --	REVISED --
		REVISED ----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS

SCALE: 1:5 SHEET NO. 11 OF 11 SHEETS STA. 53+10.50 TO STA. 53+50

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	12-00134-01-BR	MADISON	45	45
PROJECT NAME: GVILLO BRIDGE		CONTRACT NO. 97646		
FOSTER TOWNSHIP		ILLINOIS	FEDERAL AID PROJECT	