

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	1
FEDERAL AID PROJECT		ILLINOIS	CONTRACT NO. 97722	

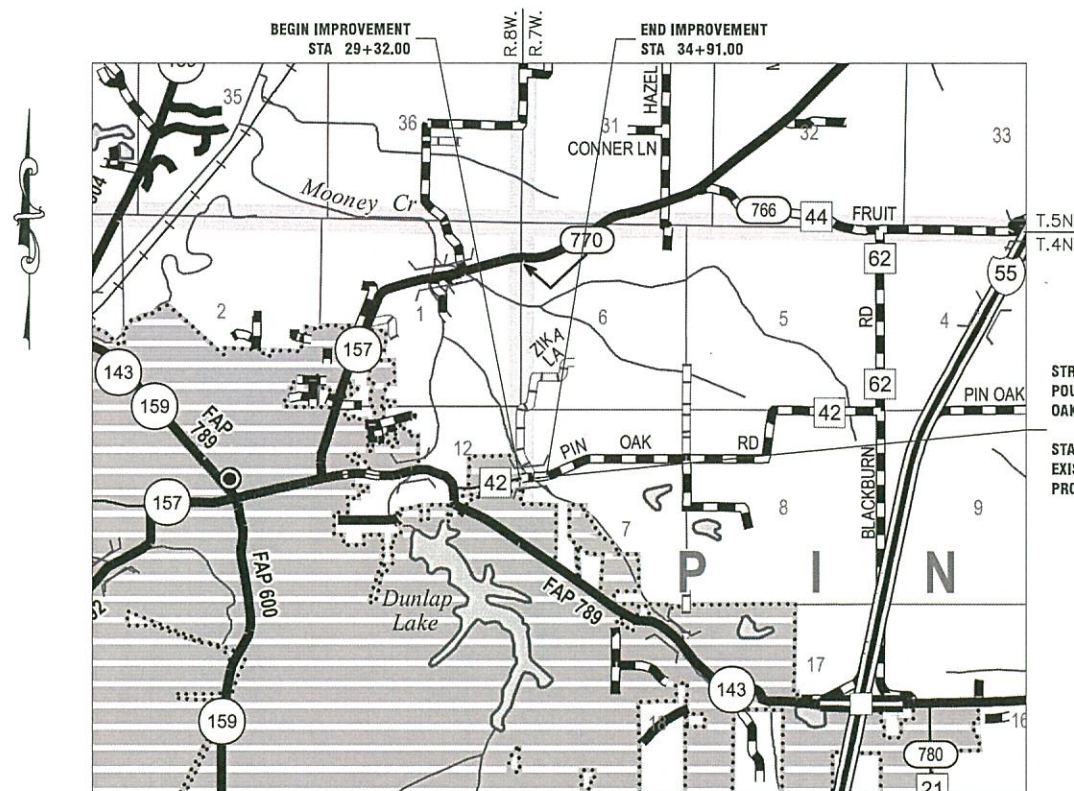
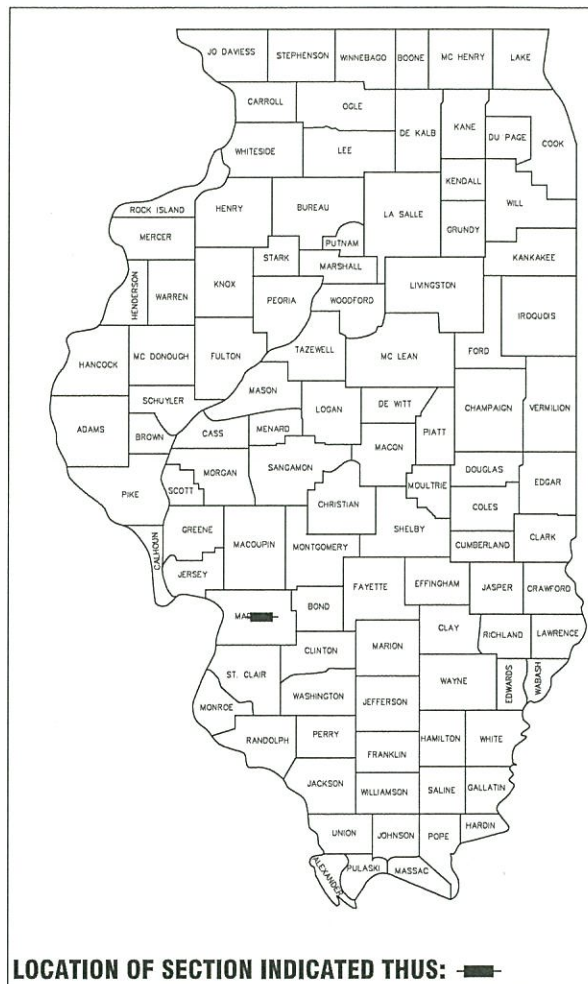
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PROPOSED
HIGHWAY PLANS
C.H. 42 (PIN OAK ROAD)
SECTION 16-00183-00-BR
STPBR FUNDS
PROJECT NO. LYCT(586)
C-98-352-16
COUNTY YARD BRIDGE
MADISON COUNTY

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES AND COMMITMENTS
- 3-4 SUMMARY OF QUANTITIES
- 5-7 TYPICAL SECTIONS
- 8-9 SCHEDULE OF QUANTITIES
- 10 PLAN AND PROFILE
- 11 STAGE CONSTRUCTION PLAN
- 12 EROSION CONTROL PLAN
- 13 DETAILS
- 14-36 STRUCTURAL SHEETS
- 37-45 CROSS SECTIONS - PIN OAK ROAD
- 46-47 CROSS SECTIONS - ZIKA LANE

HIGHWAY STANDARDS

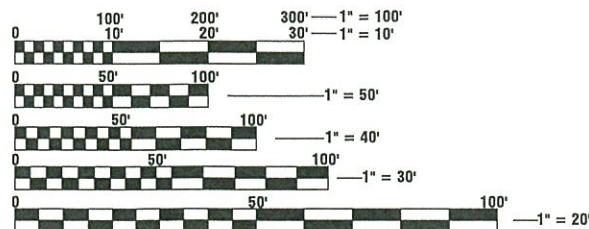
000001-07	630301-09
001001-02	631011-10
001006	631032-09
280001-07	701321-18
420406	701901-08
515001-04	704001-08
601101-02	725001-01
630001-12	782006-01



STRUCTURE IS A WIDE FLANGE STEEL BEAM BRIDGE WITH A Poured CONCRETE DECK ON PILE BENTS CARRYING PIN OAK ROAD(CH 42) OVER LITTLE MOONEY CREEK

STATION 31+70.00
 EXIST SN 060-3043
 PROP SN 060-3368

FUNCTIONAL CLASSIFICATION
RURAL LOCAL
2018 ADT = 500
DESIGN SPEED = 40 mph



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 = 559 FT. (0.106 MI)
 NET LENGTH = 559 FT. (0.106 MI)

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



Mark A. Gvillo
 12-11-19
 LICENSE EXPIRES 11-30-2021

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	12-11-19 <i>Mark A. Gvillo</i> MADISON COUNTY ENGINEER
PASSED	December 19, 2019 <i>John A. Adams</i> DISTRICT 8 ENGINEER OF LOCAL ROADS AND STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	December 19, 2019 <i>Keith Roberts</i> REGION 5 ENGINEER

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

GENERAL NOTES

1. 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.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATION, THE J.U.L.I.E. NUMBER IS 1-800-892-0123.

THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES NEAR OR WITHIN THE PROJECT LIMITS:

AMEREN IP	618-346-1245
AT&T	618-346-6426
CHARTER COMMUNICATIONS	314-713-0974
CITY OF EDWARDSVILLE	618-692-7535

3. 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.
4. 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.
5. 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.
6. ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
7. 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.
8. 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.
9. 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.
10. 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.
11. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

AGGREGATE SURFACE COURSE, TYPE A	2.05 TONS/CU YD
SEEDING FERTILIZER RATIO (NIT:PHOS:POT)	90:90:90 LBS/ACRE
TEMPORARY EROSION CONTROL SEEDING	100 LBS/ACRE
STONE RIPARP, CLASS A4	0.6667 TONS/SQ YD
HOT-MIX ASPHALT	112 LBS/SQ YD/IN

12. 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.
13. CHANNEL EXCAVATION WILL BE MEASURED AND PAID FOR AS EARTH EXCAVATION.
14. ALL GUARDRAIL AND BRIDGE RAIL REFLECTORS SHALL BE BIDIRECTIONAL.

COMMITMENTS:

1. TREES THREE (3) INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT SHALL NOT BE REMOVED FROM APRIL 1 THROUGH SEPTEMBER 30.
2. ZIKA LANE WILL BE TREATED WITH A SEAL COAT SURFACE DONE BY OTHERS UPON COMPLETION OF THE PROJECT.
3. THE BRIDGE BAT ASSESSMENT EXPIRES 01/18/2021. A VALID ASSESSMENT IS REQUIRED PRIOR TO CONDUCTING ANY WORK BELOW THE EXISTING BRIDGE DECK SURFACE.

HMA MIXTURE REQUIREMENTS

ROUTE	CH 42
SECTION	16-00183-00-BR
COUNTY	Madison
CONTRACT	

DESCRIPTION:	Bridge Replacement Pin Oak Road over Little Mooney Creek
--------------	--

ADT (Construction Yr):	500
MU%	3
SU%	9
20 YR. ESAL'S:	0.12

MIXTURE USE	SURFACE	BINDER	SHOULDERS
AC/PG	PG 64-22	PG 64-22	PG 64-22
RAP % (MAX)	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION	SEE SPECIAL PROVISION
DESIGN AIR VOIDS	4.0% @ Ndes=30	4.0% @ Ndes=30	4.0% @ Ndes=30
MIX COMPOSITION (GRADATION MIXTURE)	IL-9.5	IL-19.0	IL-19.0L
FRICTION AGG	MIXTURE "C"		

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY
20200100	EARTH EXCAVATION	CU YD	562
25000210	SEEDING, CLASS 2A	ACRE	0.50
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45
25100115	MULCH, METHOD 2	ACRE	1.25
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	79
28000305	TEMPORARY DITCH CHECKS	FOOT	210
28000400	PERIMETER EROSION BARRIER	FOOT	471
28000500	INLET AND PIPE PROTECTION	EACH	3
28100107	STONE RIPRAP, CLASS A4	SQ YD	425
28200200	FILTER FABRIC	SQ YD	1038
28300400	AGGREGATE DITCH	TON	30
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	141
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	178

CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	329
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	312
48203033	HOT-MIX ASPHALT SHOULDERS, 9"	SQ YD	415
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	67
50200100	STRUCTURE EXCAVATION	CU YD	406
* 50300225	CONCRETE STRUCTURES	CU YD	79.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	97.9
50300260	BRIDGE DECK GROOVING	SQ YD	506
50300300	PROTECTIVE COAT	SQ YD	550
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	111.2
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	1278
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	74460
50800515	BAR SPLICERS	EACH	512

* SPECIAL PROVISION
** SPECIALTY ITEM

INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	SUMMARY OF QUANTITIES	CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 3
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 GN, SoQ, Sch, Details.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE	CONTRACT NO. 97722			
	PLOT DATE 18-Dec-19	CHECKED -	REVISED -			MADISON COUNTY	ILLINOIS	FED. AID PROJECT		
			REVISED ----			SCALE: -	SHEET NO. 1 OF 2 SHEETS STA. - TO STA. -			

SUMMARY OF QUANTITIES

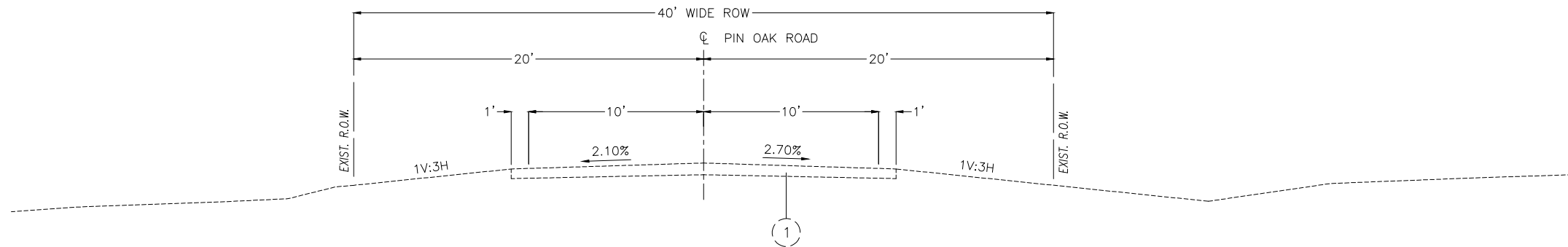
CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY
** 50901050	STEEL RAILING, TYPE SM	FOOT	121
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1140
51202305	DRIVING PILES	FOOT	1140
51203610	TEST PILE STEEL HP12X63	EACH	2
51204650	PILE SHOES	EACH	14
51500100	NAME PLATES	EACH	1
52100520	ANCHOR BOLTS, 1"	EACH	24
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	680
5421D018	PIPE CULVERTS, CLASS D, TYPE 1 18" (TEMPORARY)	FOOT	24
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	26
542D1063	PIPE CULVERTS, CLASS D, TYPE 2 18"	FOOT	68
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	154
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	86
** 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
** 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3

CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY
** 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2
** 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
* ** 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	514
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	303
70600240	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2
70600340	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 2	EACH	2
** 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
** 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	4
** 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	4
* ** X6310188	TRAFFIC BARRIER TERMINAL, TYPE 6A (MODIFIED)	EACH	1
* Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	178

* SPECIAL PROVISION
** SPECIALTY ITEM

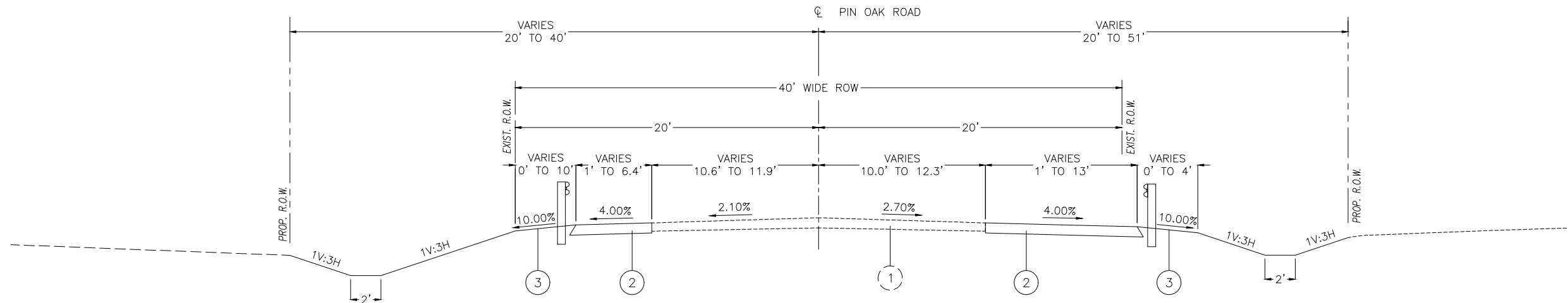
INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	SUMMARY OF QUANTITIES	CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 GN, SoQ, Sch, Details.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			42	16-00183-00-BR	MADISON	47	4
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
			REVISED -			MADISON COUNTY		ILLINOIS	FED. AID PROJECT	

SCALE: - SHEET NO. 2 OF 2 SHEETS STA. - TO STA. -



EXISTING TYPICAL SECTION

PIN OAK ROAD: STA. 29+32.00 TO STA. 31+57.53
 STA. 31+89.36 TO STA. 34+91.00
 BRIDGE OMISSION: STA. 31+57.53 TO STA. 31+89.36



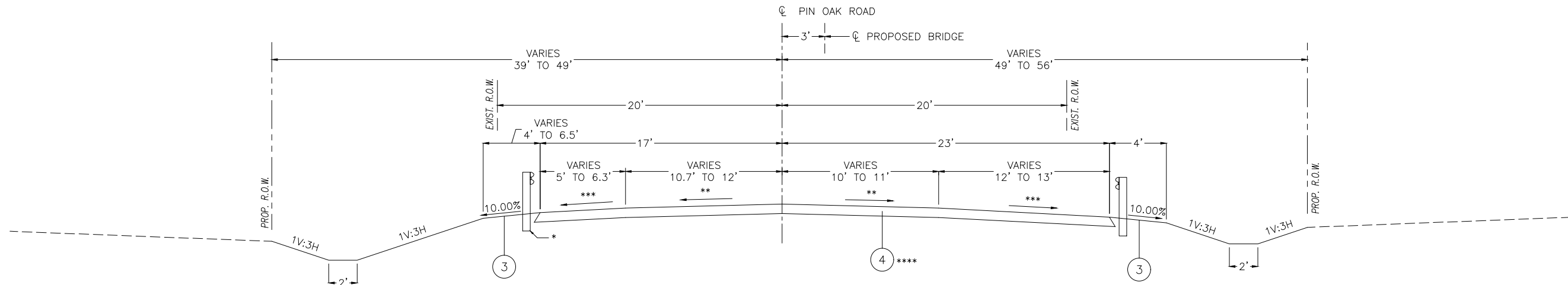
PROPOSED SHOULDER WIDENING SECTION

RIGHT SHOULDER: STA. 29+32.00 TO STA. 30+85.00
 STA. 32+75.00 TO STA. 34+91.00
 RIGHT GUARDRAIL: STA. 30+59.83 TO STA. 30+85.00
 STA. 32+75.00 TO STA. 32+97.02
 LEFT SHOULDER: STA. 30+13.00 TO STA. 30+85.00
 STA. 32+75.00 TO STA. 33+17.00
 LEFT GUARDRAIL: STA. 30+57.77 TO STA. 30+85.00

TYPICAL SECTION LEGEND

- ① EXISTING OIL & CHIP SURFACE
- ② PROPOSED HOT-MIX ASPHALT SHOULDERS, 9"
- ③ PROPOSED TURF SHOULDER
- ④ PROPOSED PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB, 9" TO 15"
- ⑤ PROPOSED CONCRETE SUPERSTRUCTURE (APPROACH SLAB), 15"
- ⑥ PROPOSED AGGREGATE SURFACE COURSE, TYPE A, 8"
- ⑦ PROPOSED A-2 BITUMINOUS SURFACE TREATMENT (BY OTHERS)

INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	TYPICAL SECTIONS		CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Typical Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -				42	16-00183-00-BR	MADISON	47	5
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -		SCALE: NTS SHEET NO. 1 OF 3 SHEETS STA. N/A TO STA. N/A		PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
			REVISED ----				MADISON COUNTY		ILLINOIS	FED. AID PROJECT	



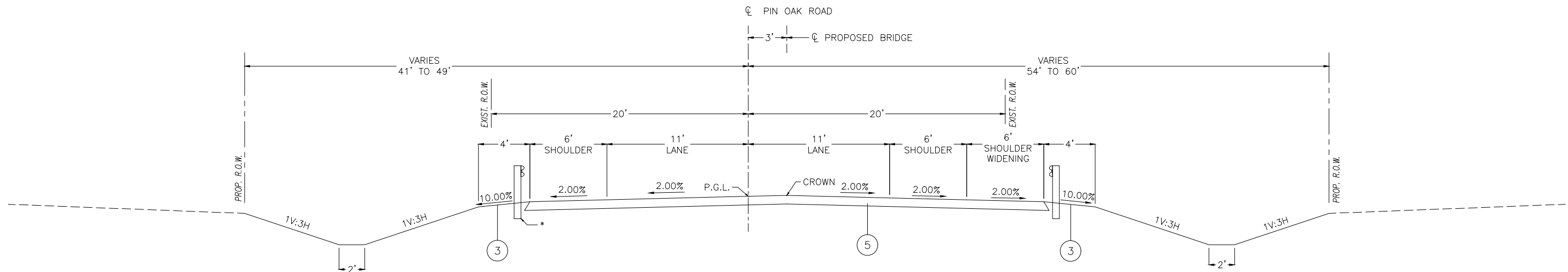
PROPOSED PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB SECTION

PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB : STA. 30+85.00 TO STA. 31+10.17
 STA. 32+29.94 TO STA. 32+75.00
 *LEFT GUARDRAIL: STA. 30+85.00 TO STA. 31+32.92

**SLOPE VARIES 2.00% TO 2.70%

***SLOPE VARIES 2.00% TO 4.00%

****2" HMA SURFACE COURSE & 7" TO 13" HMA BINDER COURSE
 TO BE PAID FOR AS PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB



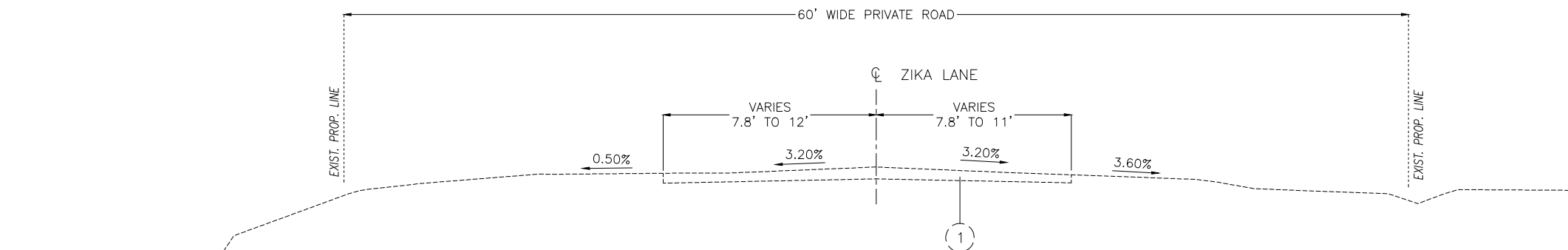
PROPOSED CONCRETE SUPERSTRUCTURE (APPROACH SLAB) SECTION

BRIDGE APPROACH SLAB: STA. 31+10.17 TO STA. 31+39.11
 STA. 32+01.01 TO STA. 32+29.94
 BRIDGE OMISSION: STA. 31+39.11 TO STA. 32+01.01
 *LEFT GUARDRAIL: STA. 30+85.00 TO STA. 31+32.92

TYPICAL SECTION LEGEND

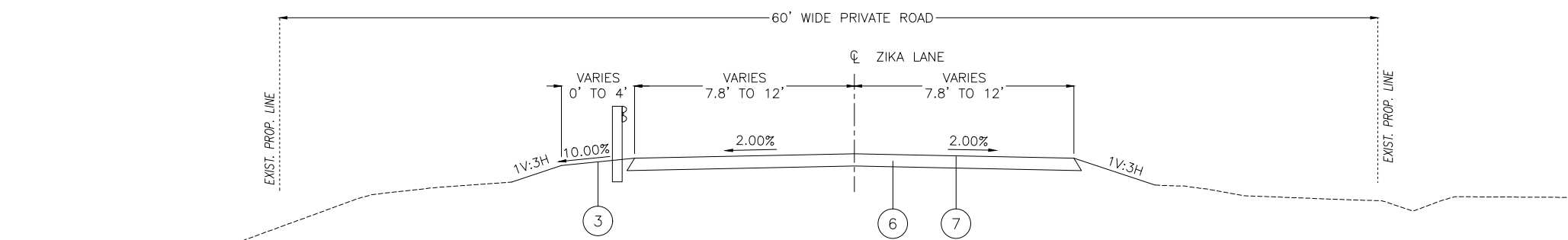
- ① EXISTING OIL & CHIP SURFACE
- ② PROPOSED HOT-MIX ASPHALT SHOULDERS, 9"
- ③ PROPOSED TURF SHOULDER
- ④ PROPOSED PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB, 9" TO 15"
- ⑤ PROPOSED CONCRETE SUPERSTRUCTURE (APPROACH SLAB), 15"
- ⑥ PROPOSED AGGREGATE SURFACE COURSE, TYPE A, 8"
- ⑦ PROPOSED A-2 BITUMINOUS SURFACE TREATMENT (BY OTHERS)

INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	TYPICAL SECTIONS		CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE 0.5:1	DRAWN NEL	REVISED -	42				16-00183-00-BR	MADISON	47	6	
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Typical Sections.dwg	PLOT DATE 10-Dec-19	CHECKED -	REVISED -				PROJECT NAME: COUNTY YARD BRIDGE			CONTRACT NO. 97722	
			REVISED -				SCALE: NTS	SHEET NO. 2 OF 3 SHEETS	STA. N/A TO STA. N/A	MADISON COUNTY ILLINOIS FED. AID PROJECT	



EXISTING TYPICAL SECTION

ZIKA LANE: STA. 200+18.09 TO STA. 201+40.00



PROPOSED TYPICAL SECTION

ZIKA LANE: STA. 200+18.09 TO STA. 201+40.00
 GUARDRAIL: STA. 200+26.32 TO STA. 200+57.45

TYPICAL SECTION LEGEND

- ① EXISTING OIL & CHIP SURFACE
- ② PROPOSED HOT-MIX ASPHALT SHOULDERS, 9"
- ③ PROPOSED TURF SHOULDER
- ④ PROPOSED PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB, 9"
- ⑤ PROPOSED CONCRETE SUPERSTRUCTURE (APPROACH SLAB), 15"
- ⑥ PROPOSED AGGREGATE SURFACE COURSE, TYPE A, 8"
- ⑦ PROPOSED A-2 BITUMINOUS SURFACE TREATMENT (BY OTHERS)

INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	TYPICAL SECTIONS	CH	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Typical Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			42	16-00183-00-BR	MADISON	47	7
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
			REVISED ----			SCALE: NTS	SHEET NO. 3 OF 3 SHEETS	STA. N/A TO STA. N/A	MADISON COUNTY	ILLINOIS

EARTHWORK SCHEDULE						
LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	STRUCTURE EXCAVATION	STRUCTURE EXCAVATION ADJUSTED FOR SHRINKAGE	EARTHWORK BALANCE WASTE(+), SHORTAGE (-)
	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)	(CU YD)
STA. 29+32 TO STA. 31+40	211	158	116			42
STA. 31+40 TO STA. 32+02	152	114	47	406	305	372
STA. 32+02 TO STA. 34+91	168	126	230			-104
STA. 200+18 TO STA. 201+40	31	23	40			-17
TOTAL	562	421	433	406	305	293

EARTHWORK NOTES:

1. ESTIMATED SHRINKAGE FACTOR = 25%.
2. APPROXIMATE EMBANKMENT QUANTITY IS SHOWN FOR INFORMATION ONLY.
3. APPROXIMATE EARTHWORK BALANCE IS SHOWN FOR INFORMATION ONLY. EARTHWORK BALANCE INCLUDES CHANNEL EXCAVATION AND STRUCTURE EXCAVATION QUANTITIES.
4. QUANTITIES SHOWN FROM STATION 31+40 TO STATION 32+02 ARE CHANNEL EXCAVATION QUANTITIES TO BE MEASURED AND PAID FOR AS EARTH EXCAVATION.

ENTRANCE SCHEDULE							
LOCATION	AGGREGATE SURFACE COURSE, TYPE A	AGGREGATE FOR TEMPORARY ACCESS	FILTER FABRIC	"W" WIDTH	"Y" DISTANCE	"R1" RADIUS 1	"R2" RADIUS 2
	(TON)	(TON)	(SQ YD)	(FOOT)	(FOOT)	(FOOT)	(FOOT)
STA. 33+54.00 RT P.E.	8			14	15	10	10
ZIKA LANE	133						
TEMP. RUNAROUND		178	553				
TOTAL	141	178	553				

ENTRANCE NOTES:

1. PLEASE REFER TO ENTRANCE DETAILS ON SHEET 13 TO SEE APPLICATION OF THESE DIMENSIONS.

GUARDRAIL AND MARKER SCHEDULE								
LOCATION	TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) TANGENT	TRAFFIC BARRIER TERMINAL, TYPE 1, (SPECIAL) FLARED	TRAFFIC BARRIER TERMINAL, TYPE 2	TRAFFIC BARRIER TERMINAL, TYPE 6A	TRAFFIC BARRIER TERMINAL, TYPE 6A, MODIFIED	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL REFLECTORS, TYPE A	BARRIER WALL REFLECTORS, TYPE C
	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)	(EACH)
STA. 30+57.8 LT TO STA. 30+95.3 LT		1				1		
STA. 30+59.8 RT TO STA. 31+09.8 RT	1					1		
STA. 30+95.3 LT TO STA. 31+32.9 LT				1			1	
STA. 31+09.8 RT TO STA. 31+47.5 RT				1			1	
STA. 31+32.9 LT TO STA. 31+94.8 LT								2
STA. 31+47.5 RT TO STA. 32+09.4 RT								2
STA. 31+94.8 LT TO STA. 31+98.8 LT					1		1	
STA. 31+98.8 LT TO STA. 31+94.6 LT			1			1		
STA. 32+09.4 RT TO STA. 32+47.0 RT				1			1	
STA. 32+47.0 RT TO STA. 32+97.0 RT	1					1		
TOTAL	2	1	1	3	1	4	4	4

TEMPORARY EROSION CONTROL SCHEDULE					
LOCATION	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	TEMPORARY DITCH CHECK	*TEMPORARY EROSION CONTROL SEEDING	MULCH METHOD 2
	(FOOT)	(EACH)	(FOOT)	(POUND)	(ACRE)
29+32 RT TO 33+47 RT				34	0.34
29+84 RT			10		
29+94 LT TO 32+02 LT				14	0.14
30+28 RT			10		
30+28 LT			10		
30+47 LT			10		
30+66 LT			10		
30+71 RT			10		
30+85 LT			10		
31+05 RT			10		
31+20 RT			10		
31+35 RT			10		
31+35 LT			10		
31+50 RT			10		
31+59 LT TO 31+87 LT	83				
31+75 LT TO 35+09 LT				25	0.24
31+79 LT TO 35+10 LT	388				
32+16 RT			10		
32+24 RT			10		
32+32 RT			10		
32+40 RT			10		
32+42 LT		1			
32+47 LT			10		
32+49 RT			10		
32+80 LT			10		
33+61 RT TO 34+91 RT				6	0.06
33+67 RT		1			
33+75 RT			10		
34+04 RT			10		
35+03 LT		1			
TOTAL	471	3	210	79	0.75

TEMPORARY EROSION CONTROL NOTES:

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

PAVING SCHEDULE			
LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	PAVEMENT CONNECTOR HMA BR APP SL	HMA SHOULDERS 9"
	(POUNDS)	(SQ YD)	(SQ YD)
STA. 29+32 RT TO STA. 30+85 RT	70		155
STA. 30+13 LT TO STA. 30+85 LT	18		39
STA. 30+85 TO STA. 31+19	53	117	
STA. 32+24 TO STA. 32+75	88	195	
STA. 32+75 LT TO STA. 33+17 LT	8		17
STA. 32+75 RT TO STA. 34+91 RT	92		204
TOTAL	329	312	415

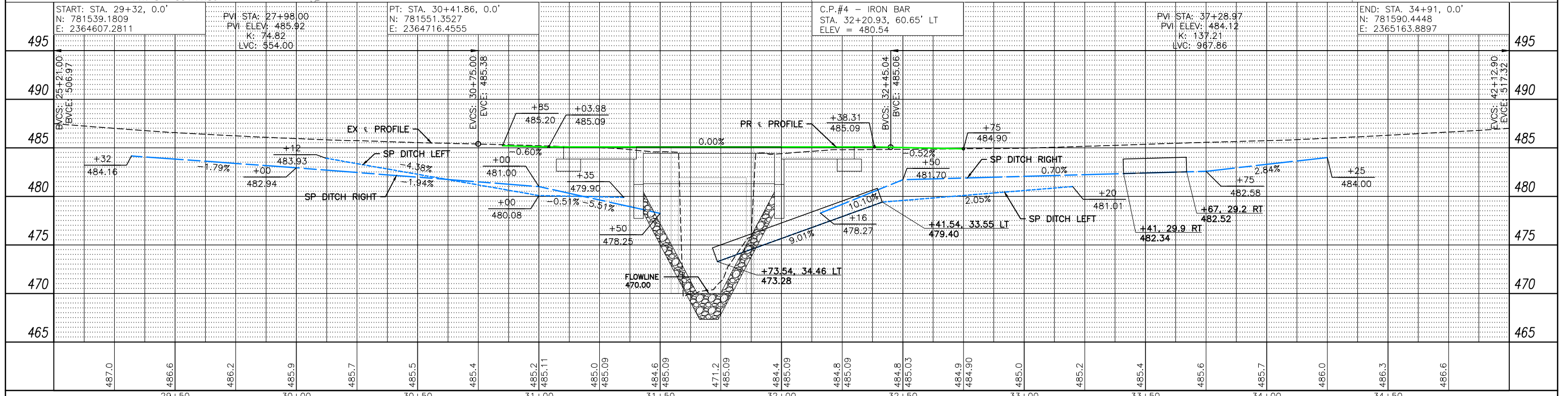
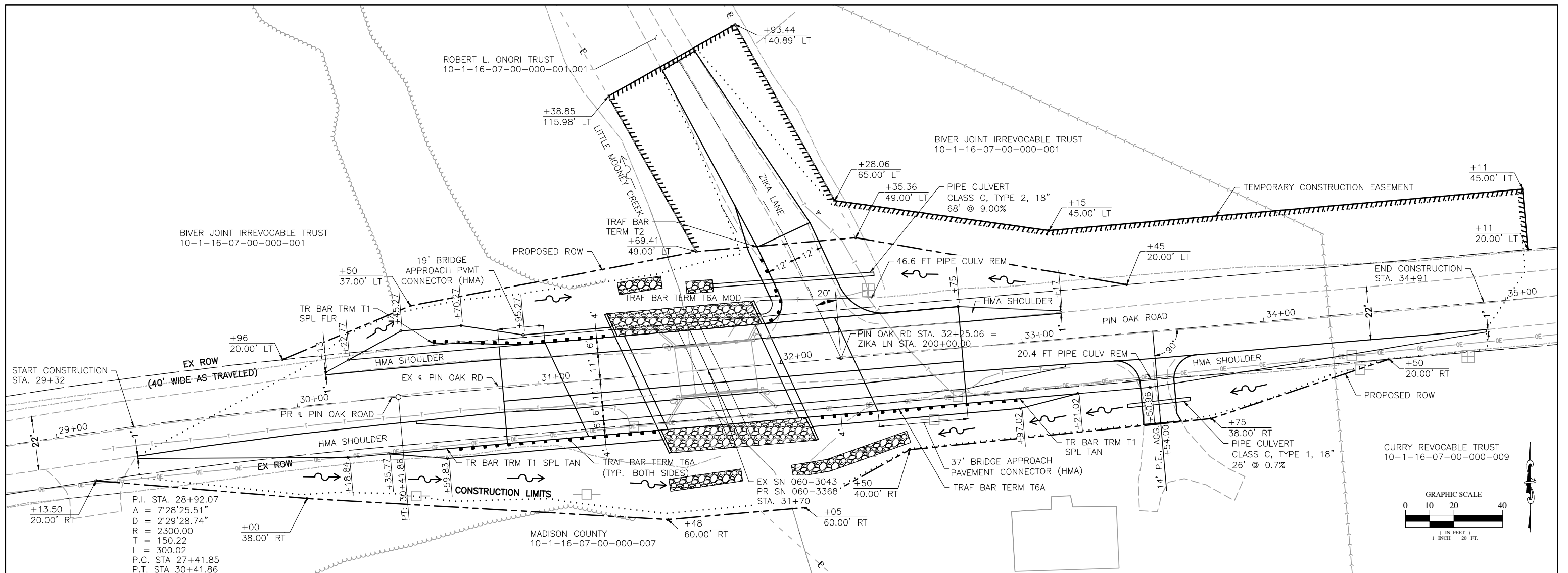
WORK ZONE TRAFFIC CONTROL AND PROTECTION SCHEDULE						
LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 2	IMPACT ATTENUATORS, RELOCATED (NON-REDIRECTIVE), TEST LEVEL 2	* TEMPORARY PAVEMENT MARKING - LINE 4"	* TEMPORARY PAVEMENT MARKING - LINE 24"
	(FOOT)	(FOOT)	(EACH)	(EACH)	(FOOT)	(FOOT)
STAGE 1						
27+45 RT						12
28+34 RT TO 34+86 RT					653	
29+71 LT TO 33+77 LT					406	
30+33 RT TO 33+36 RT	303					
30+33 RT			1			
33+36 RT			1			
36+17 LT						12
STAGE 2						
28+13 LT TO 36+07 LT					795	
29+32 RT TO 34+91 RT					559	
29+43 TO 34+56	211	303				
29+43 LT				1		
34+56 LT				1		
TOTAL	514	303	2	2	2,413	24

WORK ZONE TRAFFIC CONTROL AND PROTECTION SCHEDULE:
 *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 STANDARD 701.321), 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.

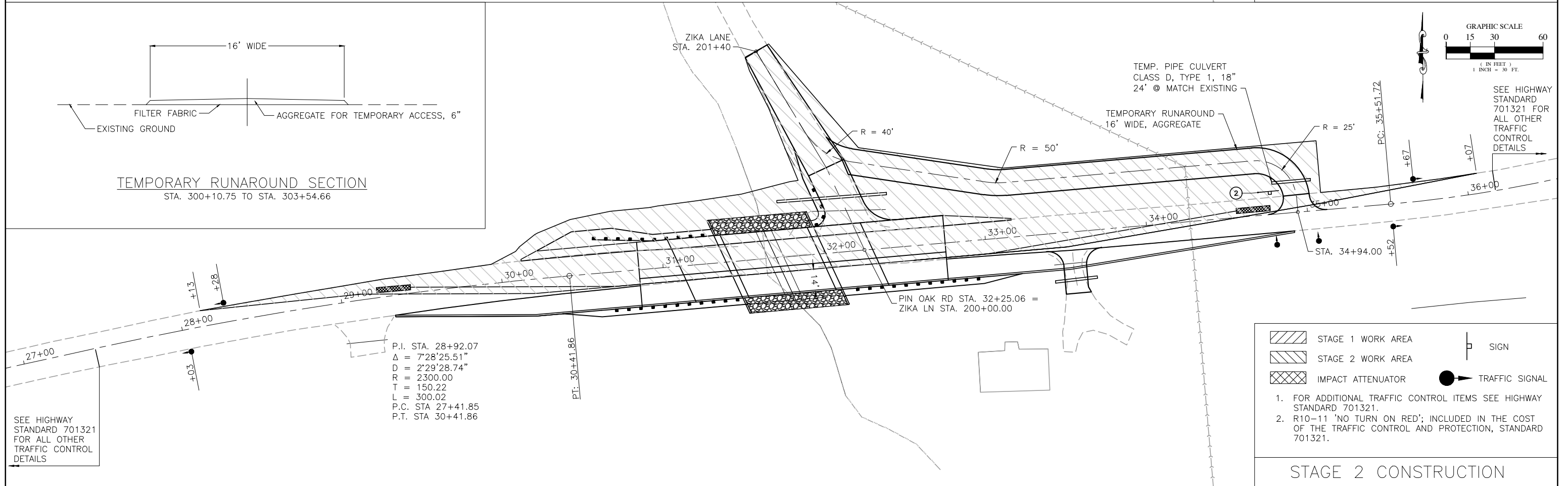
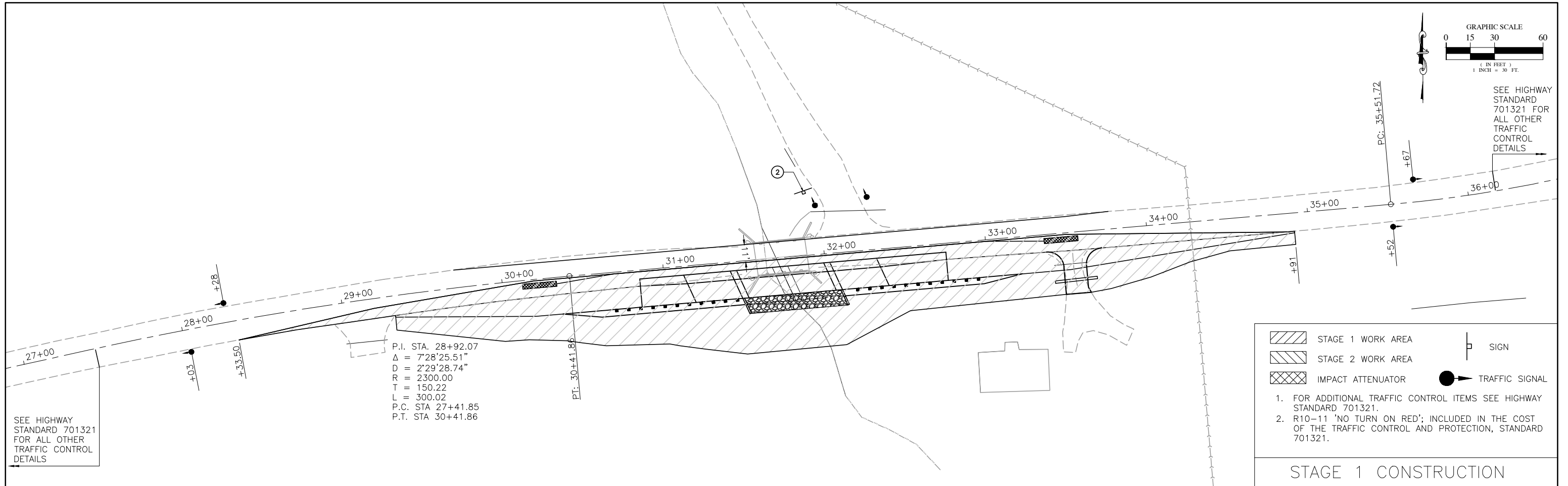
PIPE CULVERT SCHEDULE				
LOCATION	PIPE CULVERTS CLASS D, TYPE 1	PIPE CULVERTS CLASS D, TYPE 2	PIPE CULVERTS CLASS D, TYPE 1, TEMPORARY	PIPE CULVERT REMOVAL
	18"	18"	18"	
	(FOOT)	(FOOT)	(FOOT)	(FOOT)
STA. 31+74' LT TO STA. 32+42' LT		68		
STA. 31+94' LT TO STA. 32+40' LT				46.5
STA. 33+41' RT TO STA. 33+62' RT				20.4
STA. 33+41' RT TO STA. 33+67' RT	26			
STA. 34+79' LT TO STA. 35+03' LT			24	
TOTAL	26	68	24	67

AGGREGATE DITCH SCHEDULE		
LOCATION	AGGREGATE DITCH	FILTER FABRIC
	(TON)	(SQ YD)
STA. 31+36 LT TO STA 31+54 LT	5	10
STA. 31+50 RT TO STA 31+80 RT	8	17
STA. 31+64 LT TO STA 31+75 LT	3	6
STA. 32+01 RT TO STA 32+50 RT	14	27
TOTAL	30	60

SEEDING SCHEDULE					
LOCATION	SEEDING, CLASS 2A	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2
	(ACRE)	(POUND)	(POUND)	(POUND)	(ACRE)
29+32 RT TO 33+47 RT	0.17	15	15	15	0.17
29+94 LT TO 32+02 LT	0.07	6	6	6	0.07
31+75 LT TO 35+09 LT	0.23	21	21	21	0.23
33+61 RT TO 34+91 RT	0.03	3	3	3	0.03
TOTAL	0.5	45	45	45	0.5







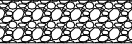
INTERNAL PROJECT NUMBER: ---	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE	CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 10
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Design - Stage Construction.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE	CONTRACT NO. 97722			
	PLOT DATE 10-Dec-19	CHECKED --	REVISED --			MADISON COUNTY	ILLINOIS	FED. AID PROJECT		



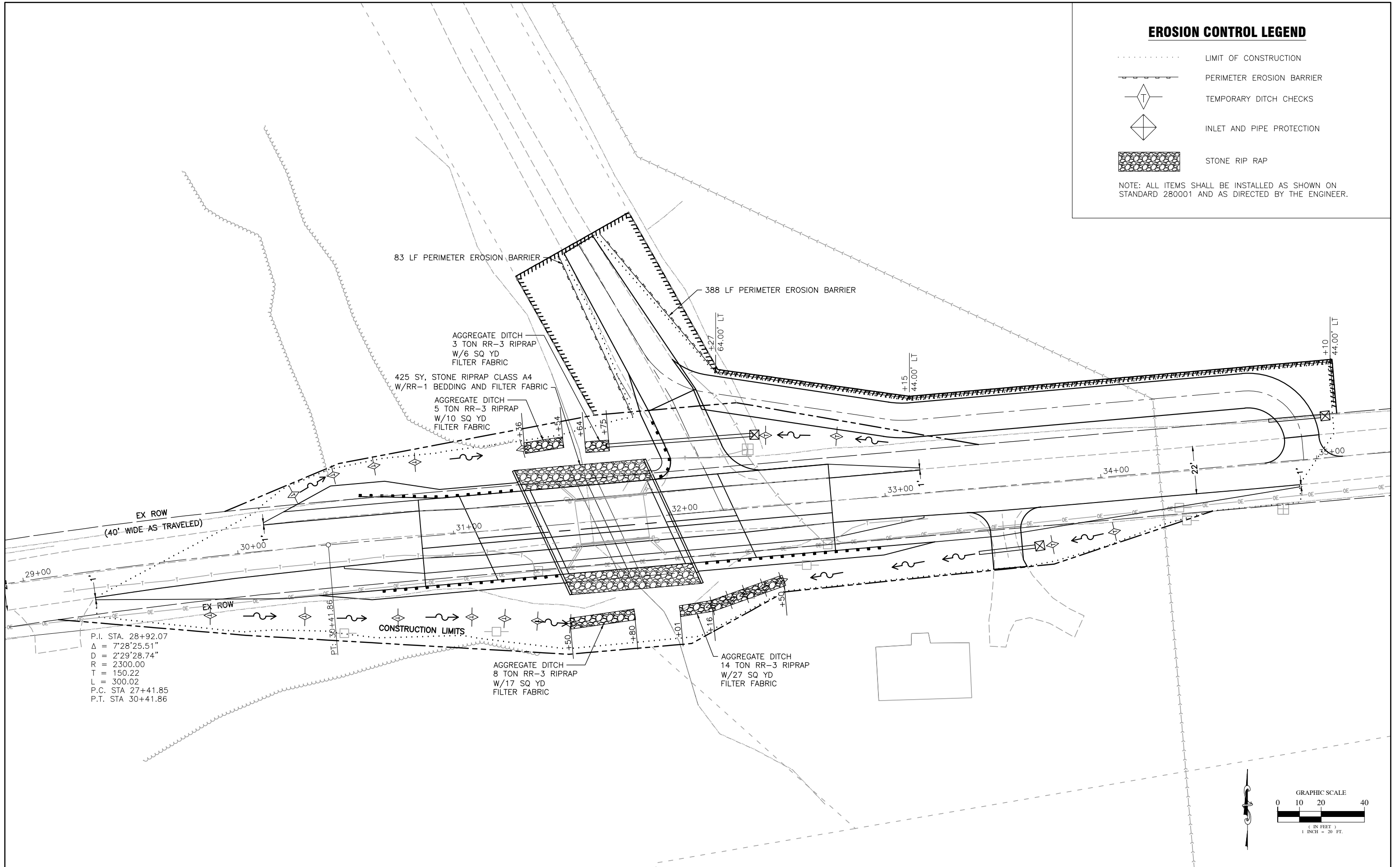
INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	STAGE CONSTRUCTION PLAN	CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Design - Stage Construction.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			42	16-00183-00-BR	MADISON	47	11
	PLOT DATE 10-Dec-19	CHECKED ---	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
			REVISED -			MADISON COUNTY		ILLINOIS	FED. AID PROJECT	

SCALE: 1" = 30' SHEET NO. 1 OF 1 SHEETS STA. - TO STA. -

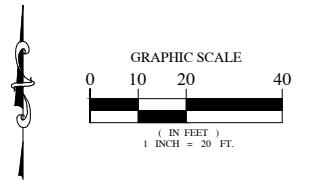
EROSION CONTROL LEGEND

-  LIMIT OF CONSTRUCTION
-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECKS
-  INLET AND PIPE PROTECTION
-  STONE RIP RAP

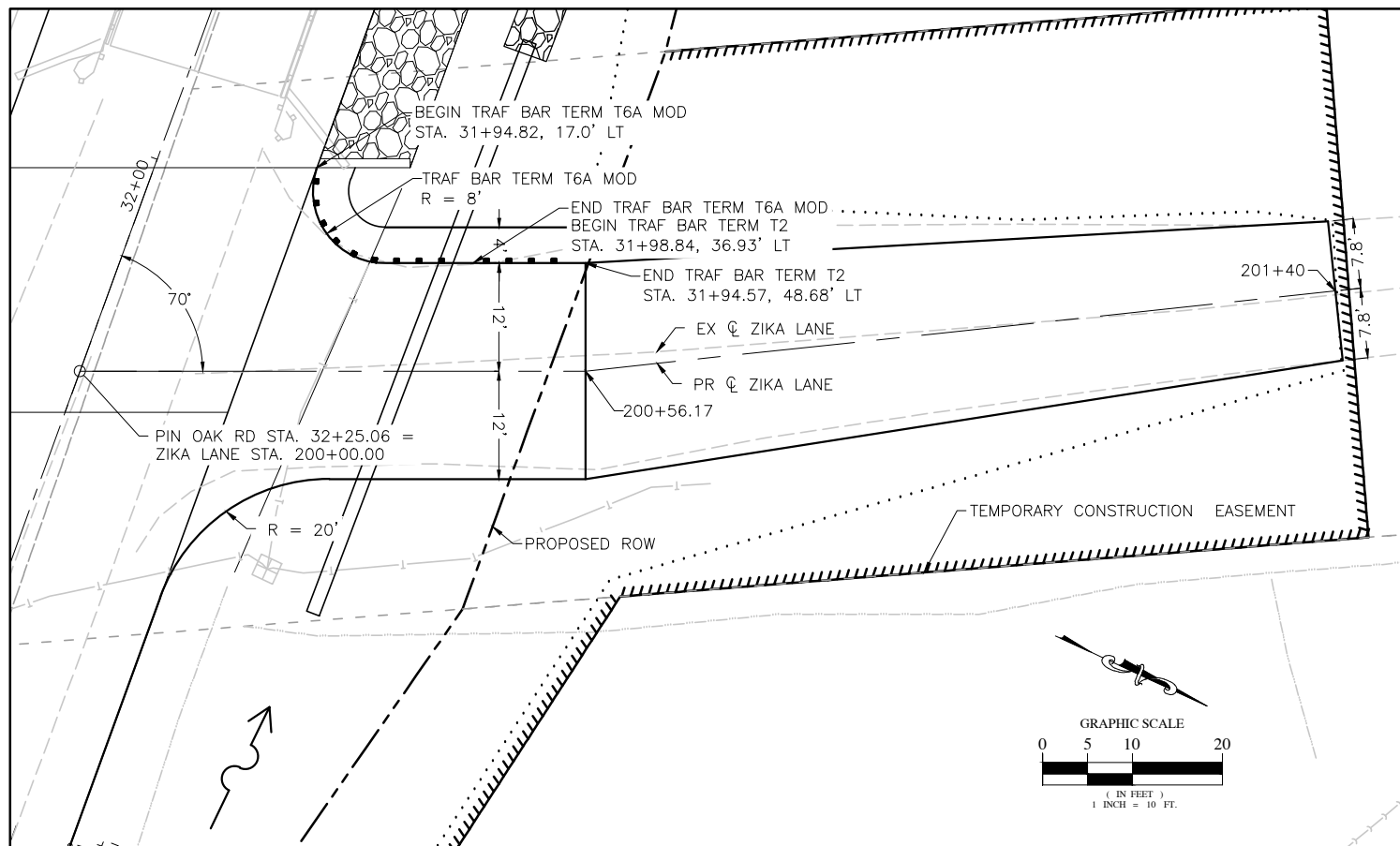
NOTE: ALL ITEMS SHALL BE INSTALLED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER.



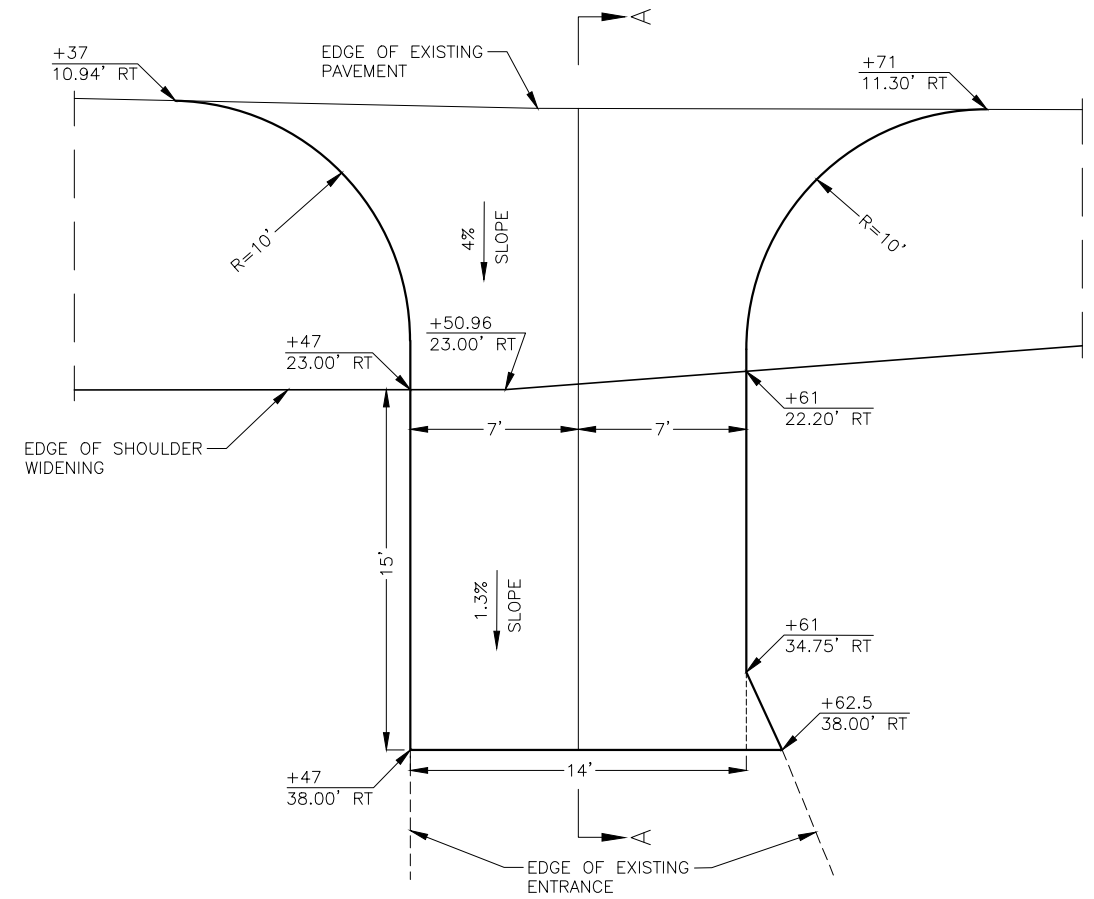
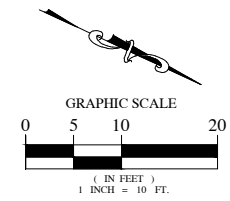
P.I. STA. 28+92.07
 $\Delta = 7^{\circ}28'25.51''$
 $D = 2^{\circ}29'28.74''$
 $R = 2300.00$
 $T = 150.22$
 $L = 300.02$
 P.C. STA 27+41.85
 P.T. STA 30+41.86



INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED --	MADISON COUNTY HIGHWAY DEPARTMENT	EROSION CONTROL PLAN	CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 12	
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Design - Stage Construction.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED --			PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722			
	PLOT DATE 10-Dec-19	CHECKED ---	REVISED --			MADISON COUNTY		ILLINOIS	FED. AID PROJECT		
			REVISED ####			SCALE: 1" = 20'		SHEET NO. 1 OF 1 SHEETS STA. -- TO STA. --			

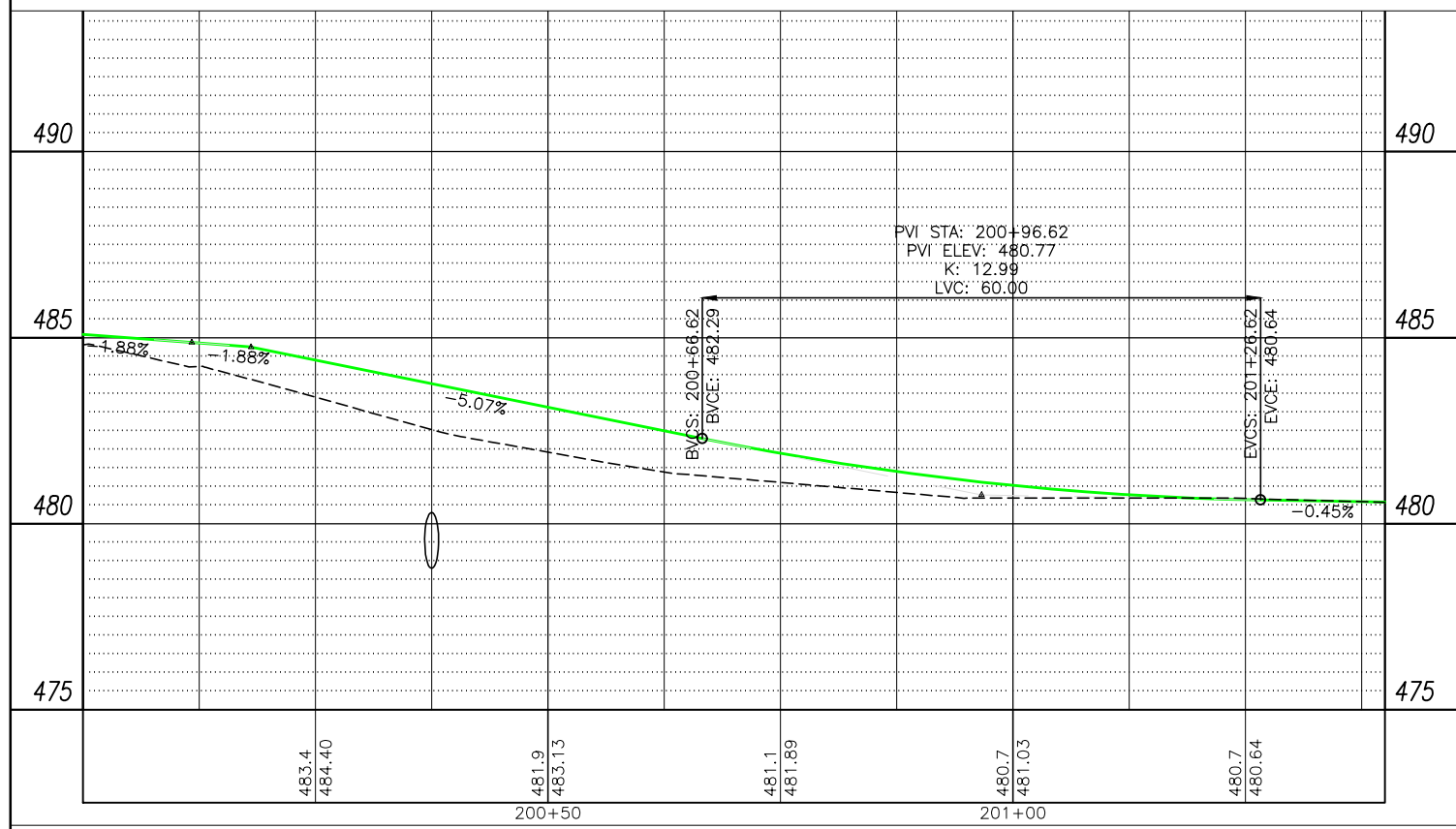


ZIKA LANE PLAN VIEW

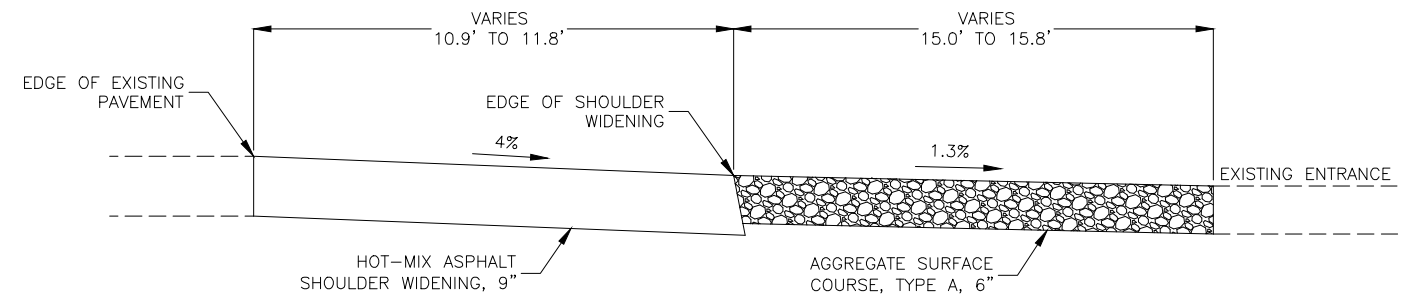


STA. 33+54 - ENTRANCE DETAIL

N.T.S.

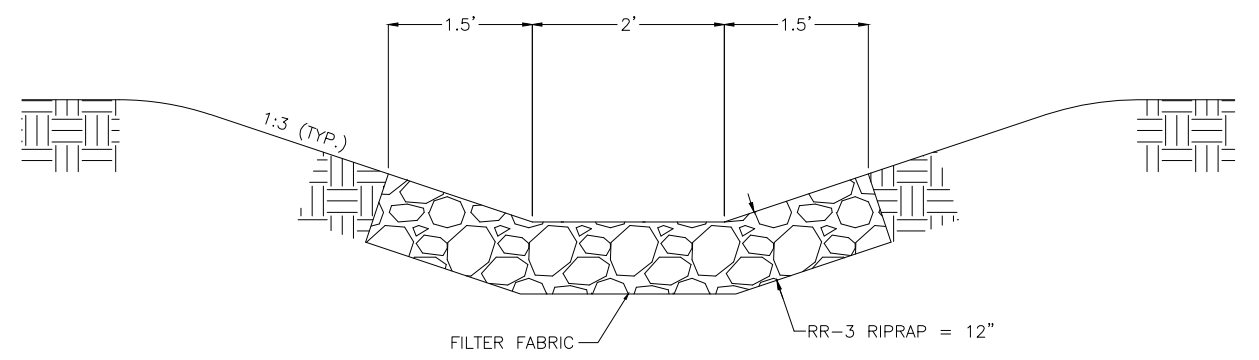


ZIKA LANE PROFILE VIEW



SECTION A-A

N.T.S.



AGGREGATE DITCH

N.T.S.

INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 GN, SoQ, Sch, Details.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -
			REVISED ----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

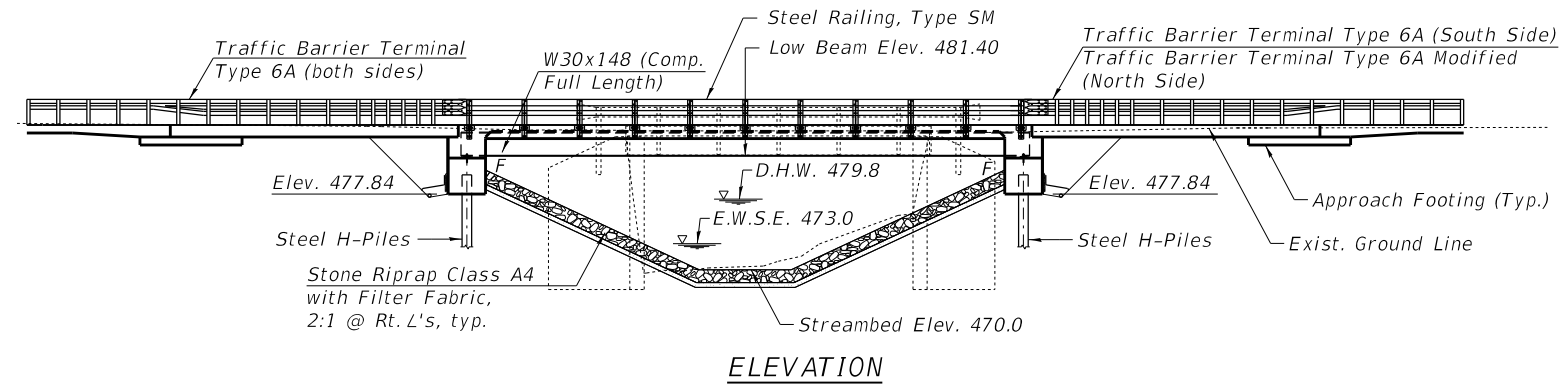
DETAILS	
SCALE: N.T.S.	SHEET NO. 1 OF 1 SHEETS STA. - TO STA. -

CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 13
PROJECT NAME: MADISON COUNTY COUNTY YARD BRIDGE		CONTRACT NO. 97722		
MADISON COUNTY		ILLINOIS	FEDERAL AID PROJECT	

Benchmark: CP #4 Iron Bar Sta. 32+20.93, 60.65' Lt., Elev. 480.54

Existing Structure: S.N. 060-3043 over Little Mooney Creek at Sta. 31+71.09 was originally constructed in 1901 and underwent a superstructure replacement in 1958. Structure consists of a single-span steel WF bridge on closed abutments with a back-to-back abutment dimension of 31'-0" and a 21'-0" out-to-out width. The existing structure is to be removed and replaced. Traffic to be maintained using stage construction as shown.

Salvage: None



INDEX OF SHEETS

Sheet No.	Description
1	General Plan and Elevation
2	General Data
3	Stage Construction Details
4	Temporary Concrete Barrier For Stage Construction
5-6	Top of Slab Elevations
7-8	Top of Approach Slab Elevations
9-10	Superstructure Details
11	Integral Abutment Diaphragm
12-13	Bridge Approach Slab Details
14	Steel Railing Type SM
15	Framing Plan
16	Bearing Details
17-18	Abutment Details
19	HP Pile Details
20	Bar Splicer Assembly and Mechanical Splicer Details
21-23	Boring Logs

LOADING HL-93

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

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 8th Edition

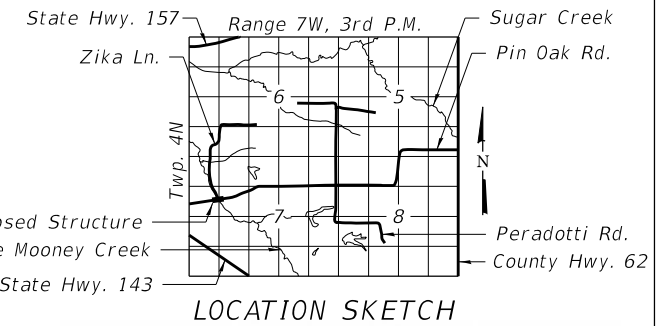
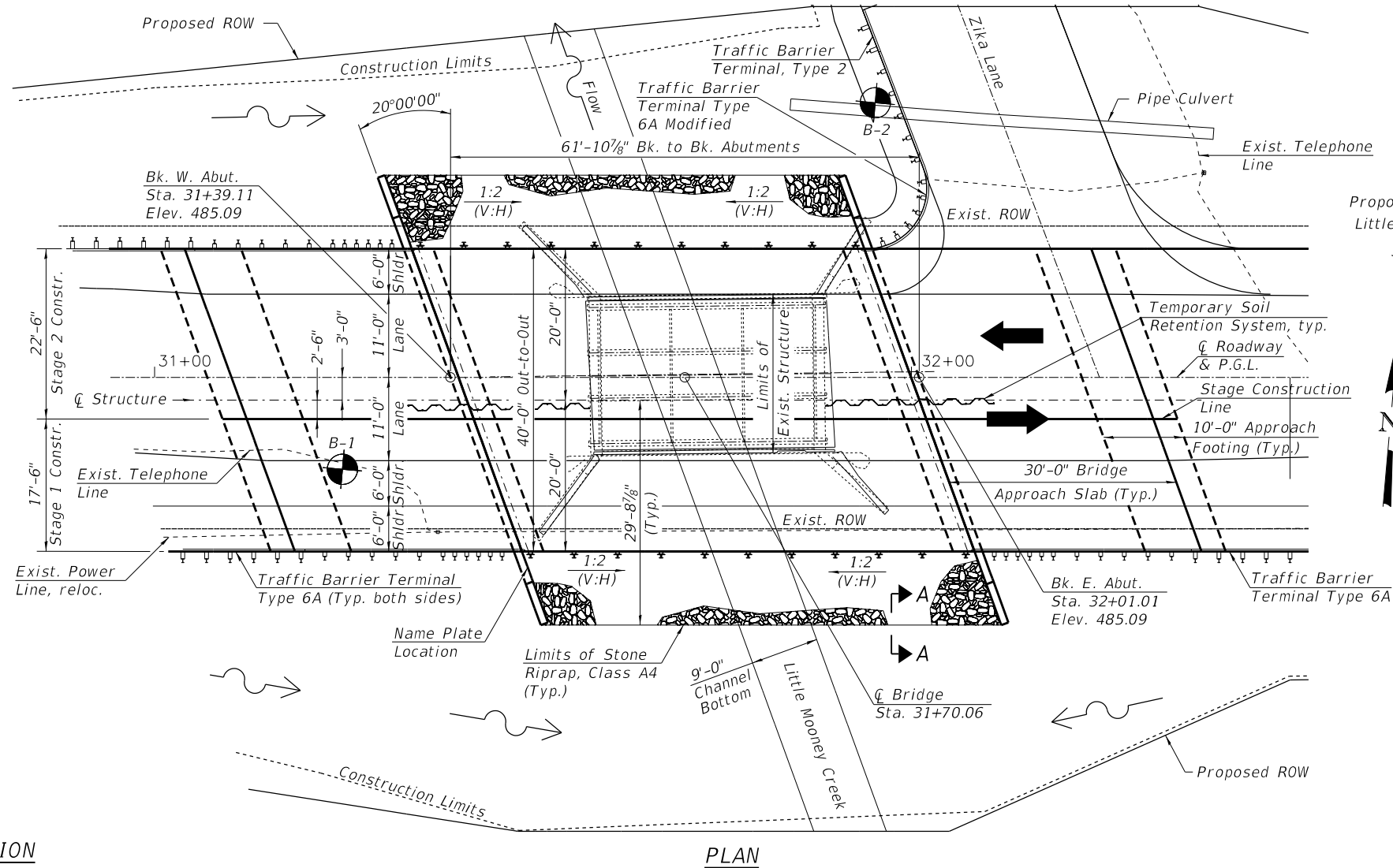
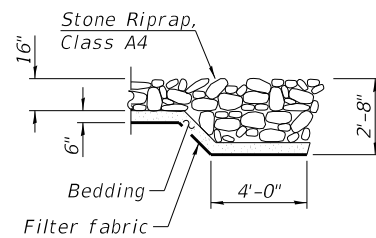
DESIGN STRESSES

FIELD UNITS

f'c = 5,000 psi (Superstructure)
 f'c = 3,500 psi (Substructure)
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.23g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.51g
 Soil Site Class = D



Leonardo Marcatelli

Date: 12/10/2019
 Exp. Date: 11/30/2020

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 Bridge Design Specifications".

WATERWAY INFORMATION

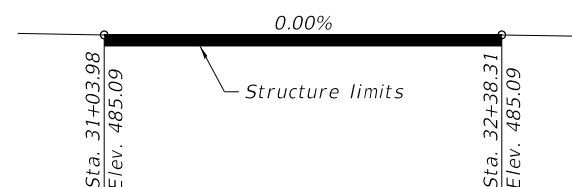
Drainage Area = 2.8 Sq. Mi. Low Grade Elev. 485.09 @ Sta. 31+70.00										
Flood	Freq. Yr.	Q C.F.S.	Opening Ft ²		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	895	185	225	478.6	0.0	0.1	478.6	478.7	
Base	20	1163	218	280	479.8	0.1	0.1	479.9	479.9	
Overtopping	100	1730	257	350	481.2	0.2	0.1	481.4	481.3	
Max. Calc.	500	2390	277	356	481.9	0.5	0.5	482.4	482.4	

10 year velocity through proposed structure = 4.0 ft/s

DESIGN SCOUR ELEVATION TABLE

Event / Limit	Design Scour Elevations (ft.)			
	W. Abut.	E. Abut.	Item 113	
Q100	477.84	477.84	8	
Q200	477.84	477.84		
Design	477.84	477.84		
Check	477.84	477.84		

PROFILE GRADE
(Along Centerline Roadway)



GENERAL PLAN & ELEVATION
PIN OAK ROAD OVER LITTLE MOONEY CREEK
CH 42 - SEC. 16-00183-00-BR
MADISON COUNTY
STATION 31+70.06
STRUCTURE NO. 060-3368

FILE NAME = L:\Madison_Co\1904024-00\01.dwg
 Structures\Sheet\0603368-001-GENERAL_PLAN_AND_ELEVATION.dwg



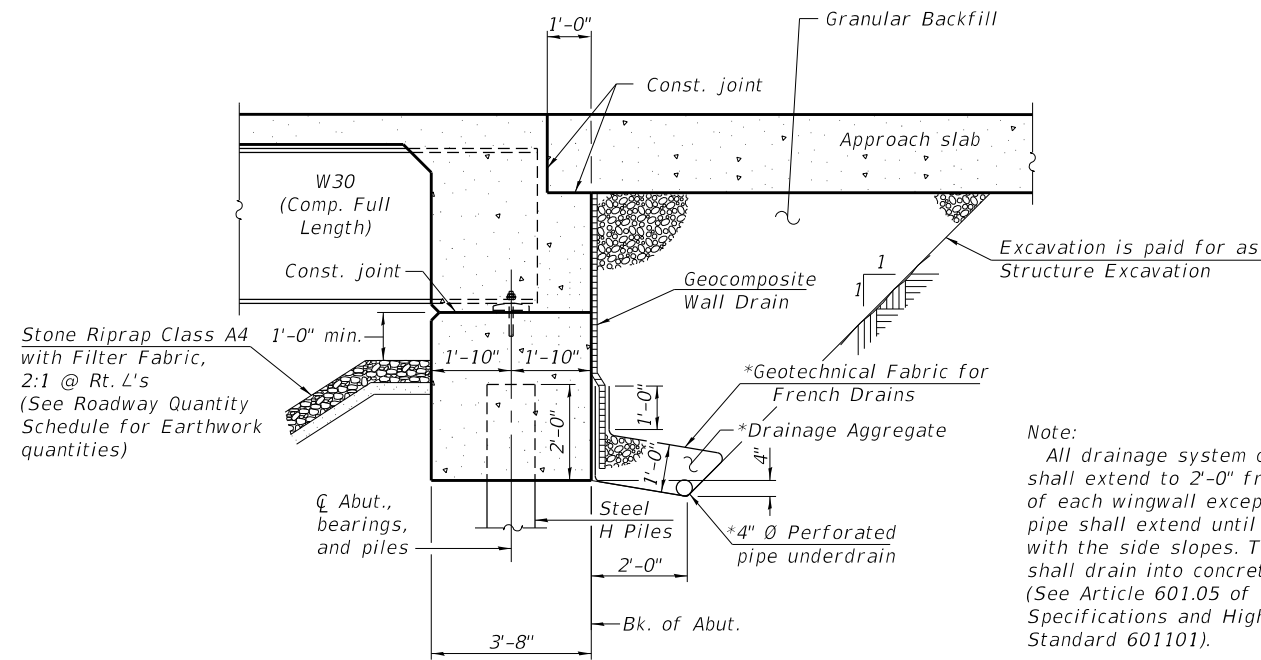
USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISOR -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISION -
PLOT DATE = 12/10/2019 (10:52:50 AM)	DRAWN - JMW	REVISION -
	CHECKED - LM	REVISION -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 060-3368

SHEET NO. 1 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	14
			CONTRACT NO. 97722	
ILLINOIS FED. AID PROJECT				



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. Z's)

*Included in the cost of Pipe Underdrains for Structures.
(See Special Provisions)

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

The concrete headwalls shall be located within the riprap slope protection system between the wingwall and the creek. An Elbow or other fittings will be required at each outlet.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.		425	425
Filter Fabric	Sq. Yd.		425	425
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		406	406
Concrete Structures	Cu. Yd.	26.3	52.8	79.1
Concrete Superstructure	Cu. Yd.	97.9		97.9
Bridge Deck Grooving	Sq. Yd.	506		506
Protective Coat	Sq. Yd.	550		550
Concrete Superstructure (Approach Slab)	Cu. Yd.	111.2		111.2
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	1,278		1,278
Reinforcement Bars, Epoxy Coated	Pound	64,480	9,980	74,460
Bar Splicers	Each	492	20	512
Steel Railing, Type SM	Foot	121		121
Furnishing Steel Piles, HP 12x63	Foot		1,140	1,140
Driving Piles	Foot		1,140	1,140
Test Pile Steel, HP 12x63	Each		2	2
Pile Shoes	Each		14	14
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		24	24
Temporary Soil Retention System	Sq. Ft.		680	680
Granular Backfill for Structures	Cu. Yd.		154	154
Geocomposite Wall Drain	Sq. Yd.		86	86
Pipe Underdrains for Structures 4"	Foot		178	178

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4 in. Ø, holes 15/16 in. Ø, unless otherwise noted.

Calculated weight of Structural Steel =
AASHTO M270 Grade 50 = 52,540 pounds
AASHTO M270 Grade 36 = 4,810 pounds

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8" (0.01'). Adjustment shall be made either by grinding the surface or by shimming the bearings.

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

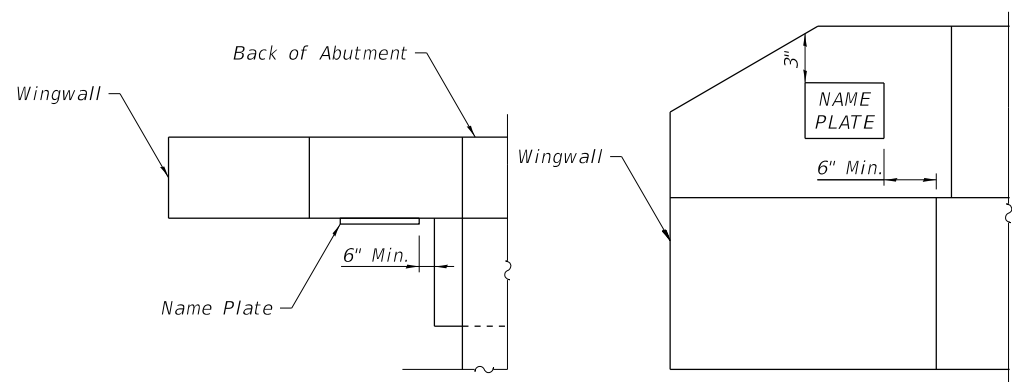
The Inorganic Zinc Rich Primer/Acrylic/Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be gray, Munsell No. 5B 7/1.

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

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage 1 removal to ensure the remaining portion will not be prematurely damaged.

The existing bridge plans are available from Madison County Highway Department.



PLAN

ELEVATION

LOCATION OF NAME PLATE

Note: Name plate shall be located in SW Wingwall at the West Abutment.

LITTLE MOONEY CREEK
BUILT 20__ BY
MADISON COUNTY HIGHWAY DEPT.
SEC 16-00183-00-BR
STATION 31+70
STR. NO. 060-3368 LOADING HL-93

LETTERING FOR NAME PLATE
See Std. 515001

FILE NAME = L:\Madison_Co\19849124-00\0-00-A Structures\Structs\0603368-002-GENERAL.DAT.dgn



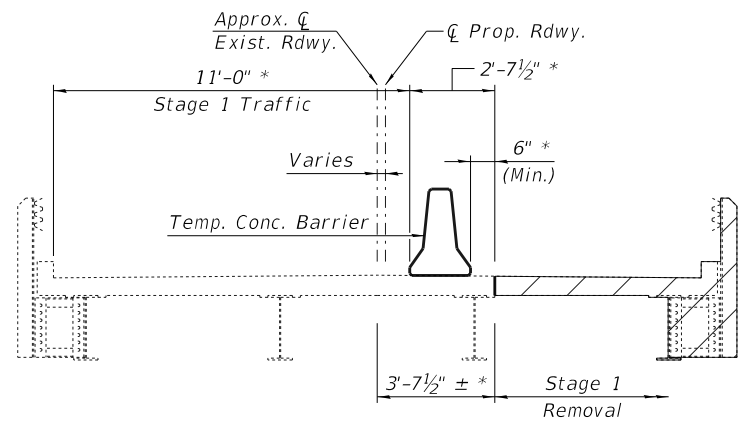
USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:20:20 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

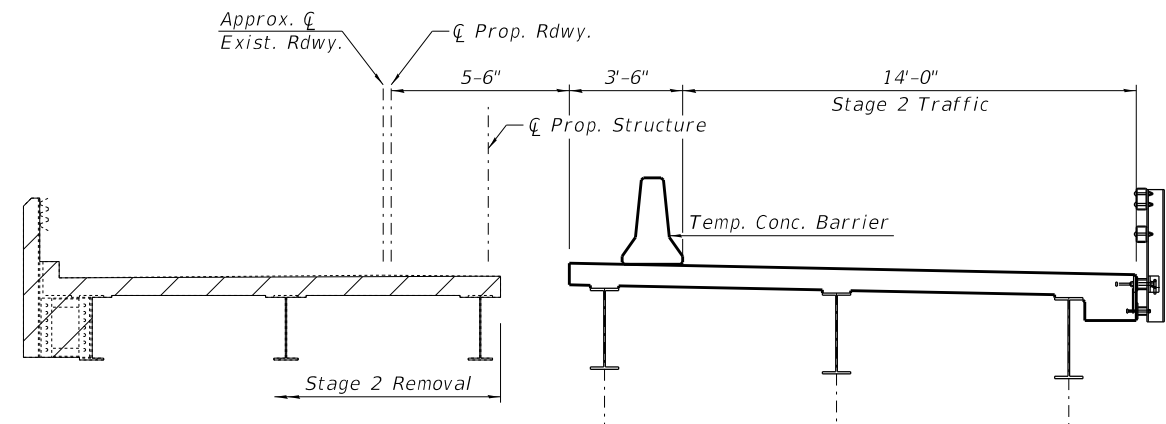
**GENERAL DATA
STRUCTURE NO. 060-3368**

SHEET NO. 2 OF 23 SHEETS

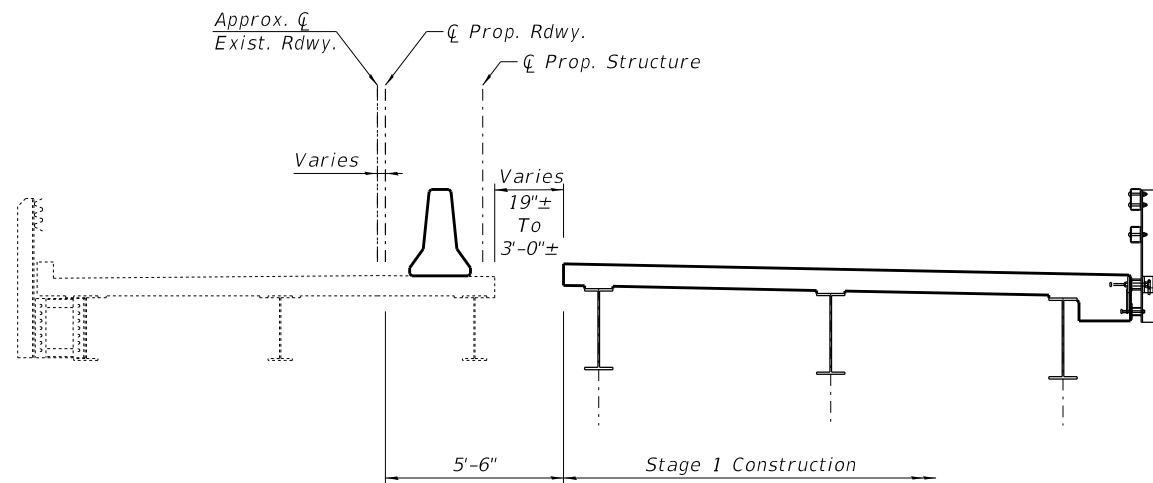
CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	15
			CONTRACT NO. 97722	
ILLINOIS FED. AID PROJECT				



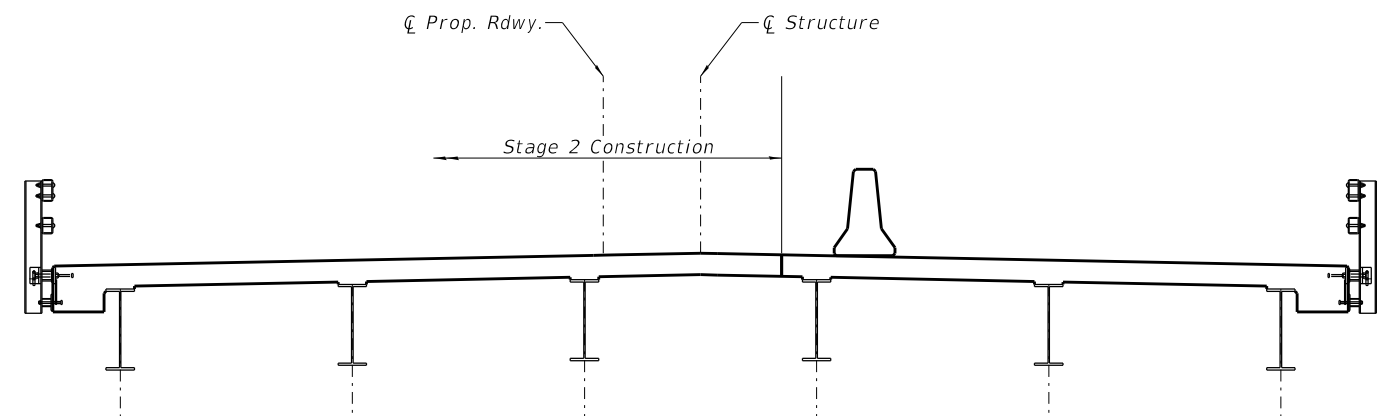
STAGE 1 REMOVAL



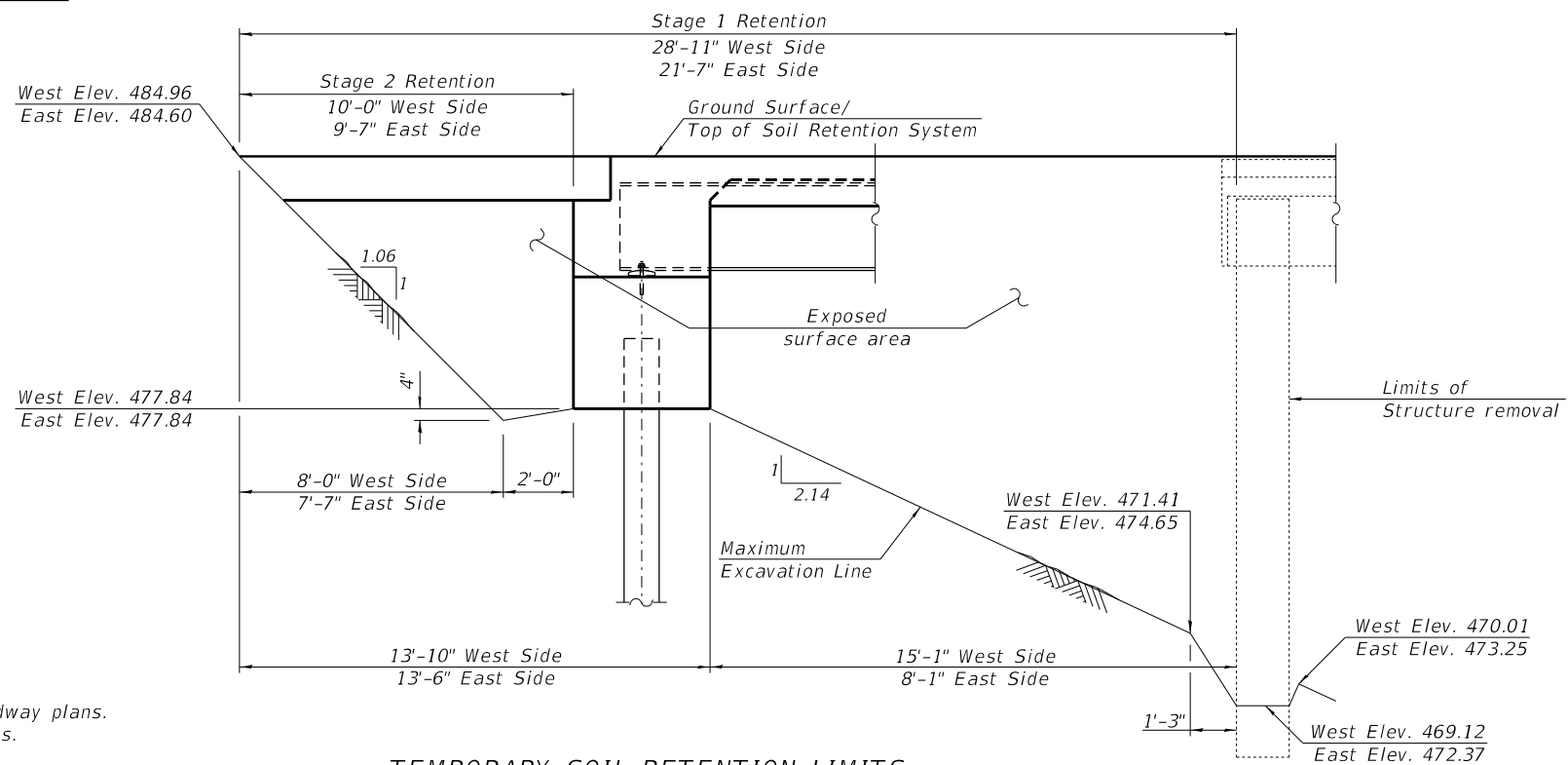
STAGE 2 REMOVAL



STAGE 1 CONSTRUCTION



STAGE 2 CONSTRUCTION



TEMPORARY SOIL RETENTION LIMITS

Notes:

All staging cross sections are looking east.
For quantity of Temporary Concrete Barrier, see roadway plans.
Hatched area indicates Removal of Existing Structures.

* Measured Perpendicular
To Existing Structure

FILE NAME = L:\Medison_Co\19040124-00\01.dwg
Structures\Sheets\06013368-003-STAGE CONSTRUCTION DETAILS.dwg



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:20:21 PM)	CHECKED - LM	REVISED -

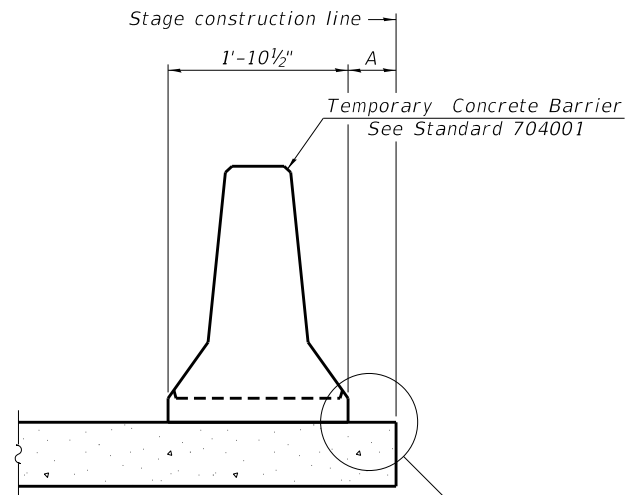
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 060-3368

SHEET NO. 3 OF 23 SHEETS

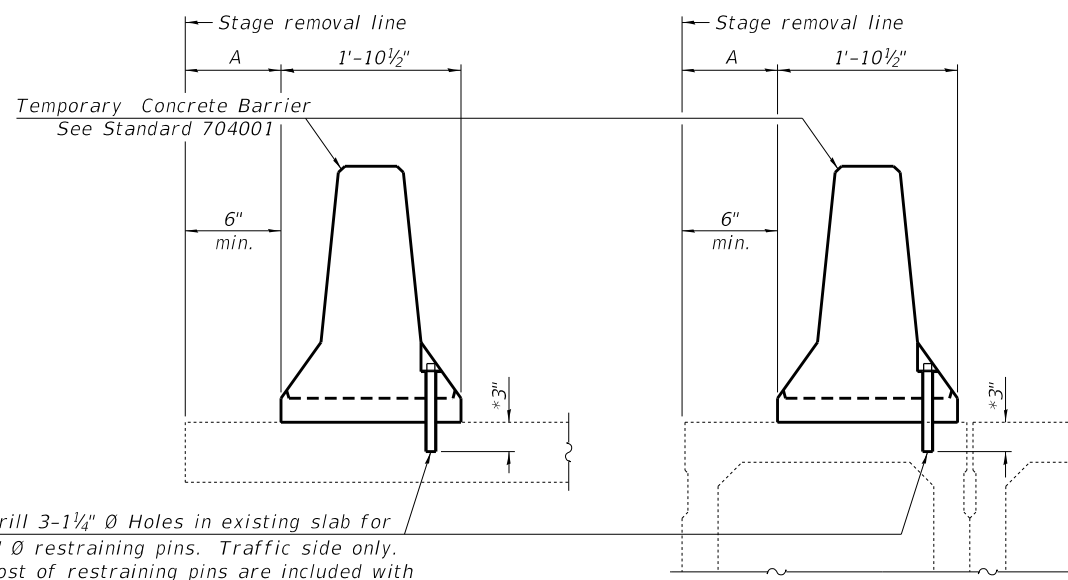
CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	16
CONTRACT NO. 97722				

ILLINOIS FED. AID PROJECT



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

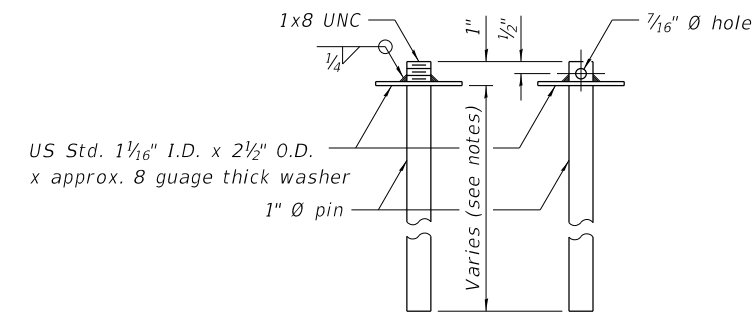


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

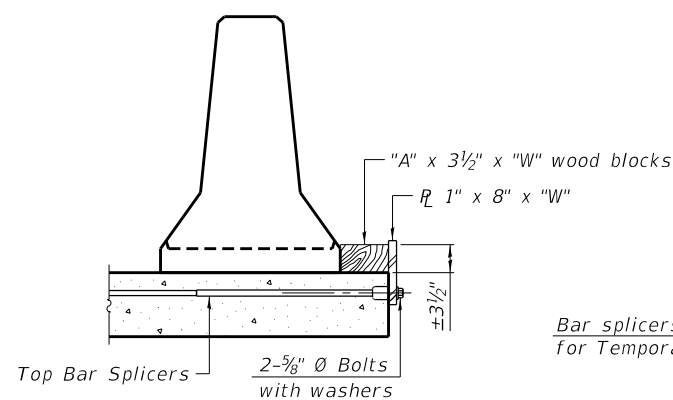
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

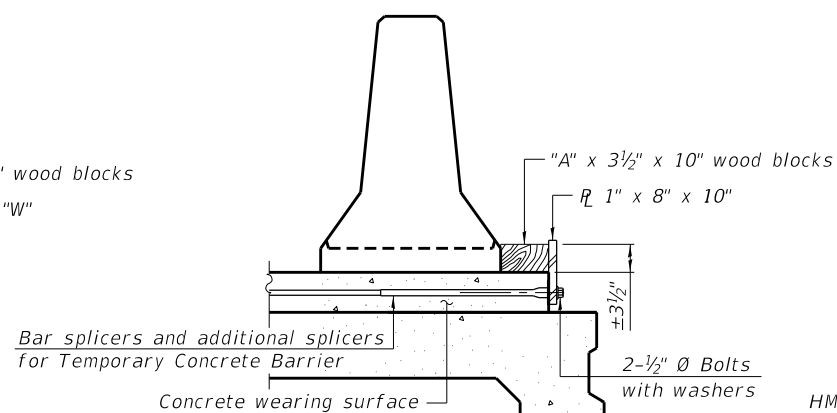


RESTRAINING PIN

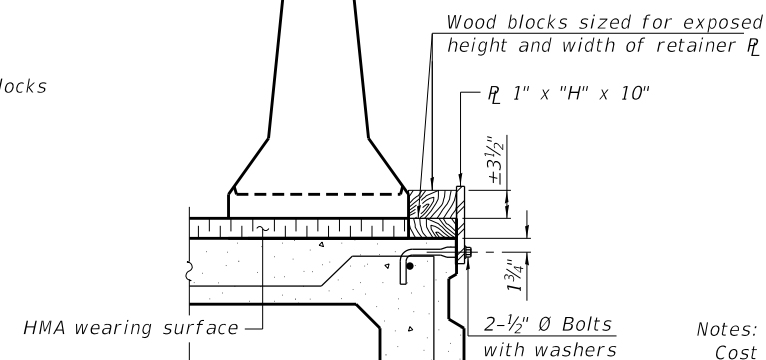
SECTIONS THRU SLAB OR DECK BEAM



DETAIL I



DETAIL II

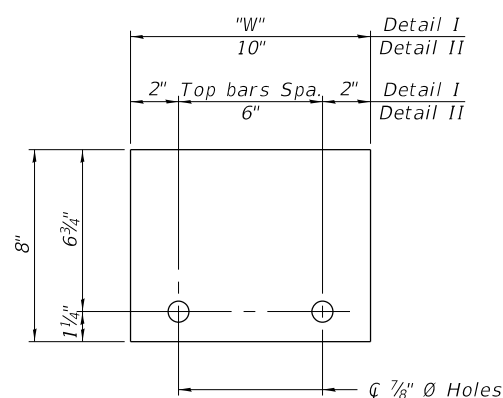


DETAIL III

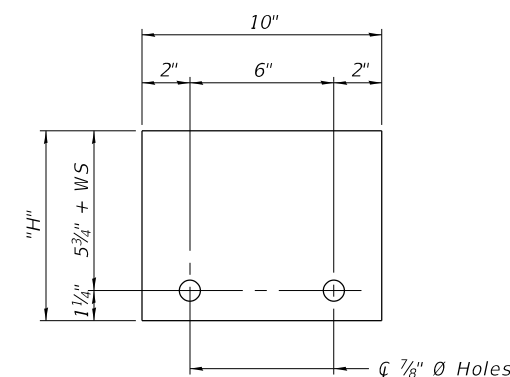
BAR SPLICER FOR #4 BAR - DETAIL III

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.



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



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

FILE NAME = L:\Medison_Co\19040124-00\Drawings\Structures\Sheets\0603368-004-TEMPORARY_BARRIER.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:20:23 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

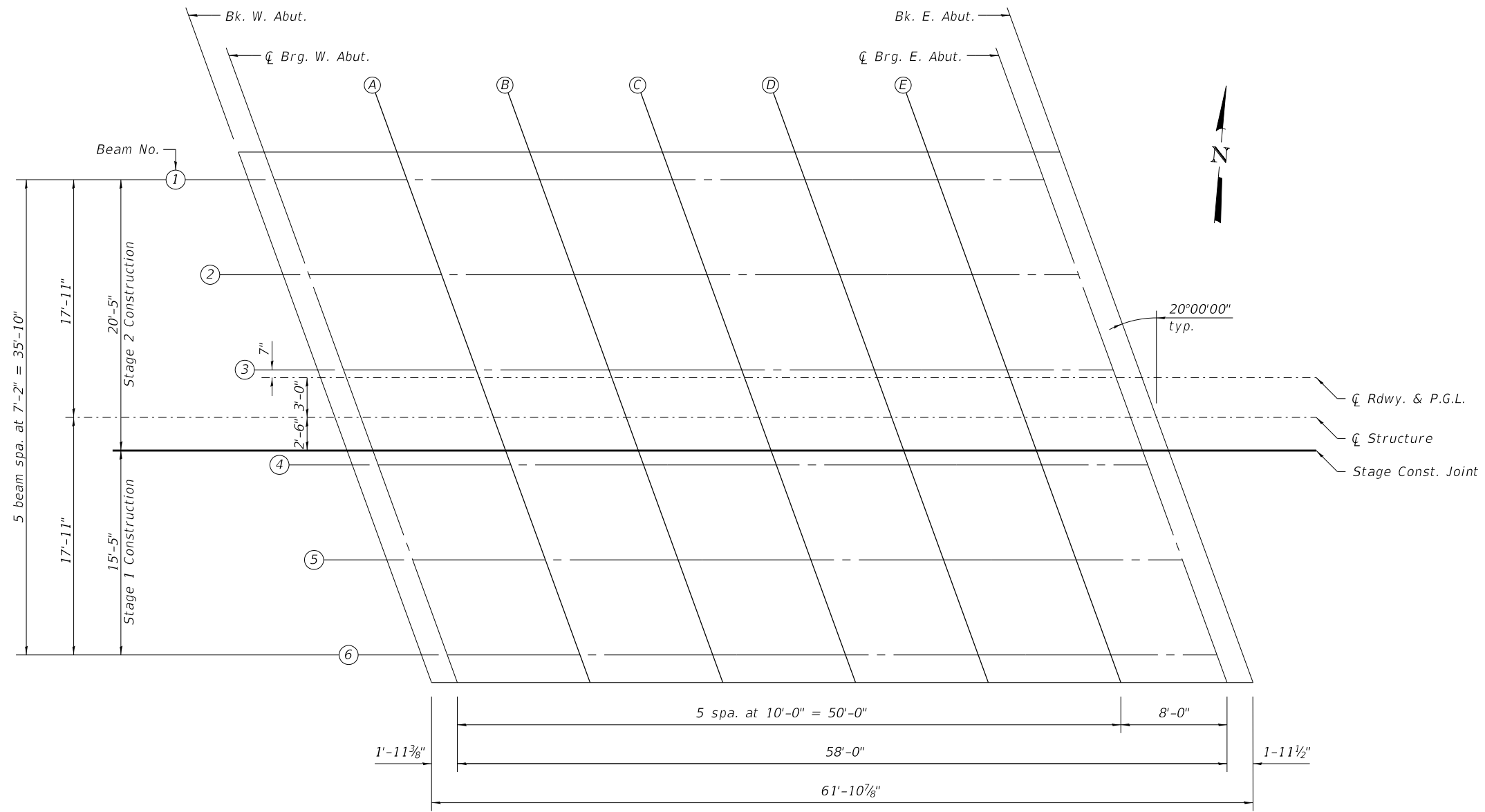
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 060-3368

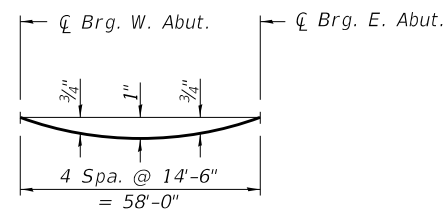
SHEET NO. 4 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	17
			CONTRACT NO. 97722	

ILLINOIS FED. AID PROJECT



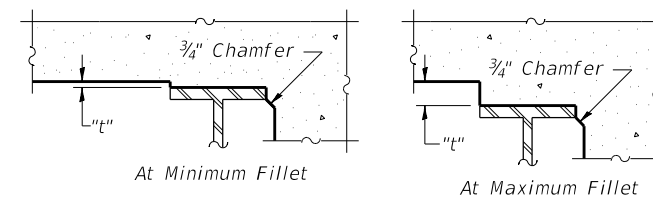
PLAN



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 sheet 6 of 23.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 6 of 23, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS

FILE NAME = L:\Madison_Co\19840124-00\Drawings\Structures\Sheets\060-005-DECK-ELEVATIONS.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:20:25 PM)	CHECKED - LM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 060-3368

SHEET NO. 5 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	18
CONTRACT NO. 97722				

ILLINOIS FED. AID PROJECT

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+33.68	-14.92	484.79	484.79
CL. Brg. W. Abut.	31+35.63	-14.92	484.79	484.79
A	31+45.63	-14.92	484.79	484.84
B	31+55.63	-14.92	484.79	484.87
C	31+65.63	-14.92	484.79	484.88
D	31+75.63	-14.92	484.79	484.86
E	31+85.63	-14.92	484.79	484.82
CL. Brg. E. Abut.	31+93.63	-14.92	484.79	484.79
Bk. E. Abut.	31+95.58	-14.92	484.79	484.79

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+36.28	-7.75	484.94	484.94
CL. Brg. W. Abut.	31+38.24	-7.75	484.94	484.94
A	31+48.24	-7.75	484.94	484.99
B	31+58.24	-7.75	484.94	485.01
C	31+68.24	-7.75	484.94	485.02
D	31+78.24	-7.75	484.94	485.00
E	31+88.24	-7.75	484.94	484.96
CL. Brg. E. Abut.	31+96.24	-7.75	484.94	484.94
Bk. E. Abut.	31+98.19	-7.75	484.94	484.94

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+38.89	-0.58	485.08	485.08
CL. Brg. W. Abut.	31+40.84	-0.58	485.08	485.08
A	31+50.84	-0.58	485.08	485.13
B	31+60.84	-0.58	485.08	485.15
C	31+70.84	-0.58	485.08	485.16
D	31+80.84	-0.58	485.08	485.14
E	31+90.84	-0.58	485.08	485.11
CL. Brg. E. Abut.	31+98.84	-0.58	485.08	485.08
Bk. E. Abut.	32+00.79	-0.58	485.08	485.08

CL ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+39.11	0.00	485.09	485.09
CL. Brg. W. Abut.	31+41.06	0.00	485.09	485.09
A	31+51.06	0.00	485.09	485.14
B	31+61.06	0.00	485.09	485.17
C	31+71.06	0.00	485.09	485.17
D	31+81.06	0.00	485.09	485.15
E	31+91.06	0.00	485.09	485.12
CL. Brg. E. Abut.	31+99.06	0.00	485.09	485.09
Bk. E. Abut.	32+01.01	0.00	485.09	485.09

CL STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+40.20	3.00	485.15	485.15
CL. Brg. W. Abut.	31+42.15	3.00	485.15	485.15
A	31+52.15	3.00	485.15	485.20
B	31+62.15	3.00	485.15	485.23
C	31+72.15	3.00	485.15	485.23
D	31+82.15	3.00	485.15	485.21
E	31+92.15	3.00	485.15	485.18
CL. Brg. E. Abut.	32+00.15	3.00	485.15	485.15
Bk. E. Abut.	32+02.10	3.00	485.15	485.15

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+41.11	5.50	485.10	485.10
CL. Brg. W. Abut.	31+43.06	5.50	485.10	485.10
A	31+53.06	5.50	485.10	485.15
B	31+63.06	5.50	485.10	485.18
C	31+73.06	5.50	485.10	485.18
D	31+83.06	5.50	485.10	485.16
E	31+93.06	5.50	485.10	485.13
CL. Brg. E. Abut.	32+01.06	5.50	485.10	485.10
Bk. E. Abut.	32+03.01	5.50	485.10	485.10

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+41.50	6.58	485.08	485.08
CL. Brg. W. Abut.	31+43.45	6.58	485.08	485.08
A	31+53.45	6.58	485.08	485.13
B	31+63.45	6.58	485.08	485.15
C	31+73.45	6.58	485.08	485.16
D	31+83.45	6.58	485.08	485.14
E	31+93.45	6.58	485.08	485.11
CL. Brg. E. Abut.	32+01.45	6.58	485.08	485.08
Bk. E. Abut.	32+03.40	6.58	485.08	485.08

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+44.11	13.75	484.94	484.94
CL. Brg. W. Abut.	31+46.06	13.75	484.94	484.94
A	31+56.06	13.75	484.94	484.99
B	31+66.06	13.75	484.94	485.01
C	31+76.06	13.75	484.94	485.02
D	31+86.06	13.75	484.94	485.00
E	31+96.06	13.75	484.94	484.96
CL. Brg. E. Abut.	32+04.06	13.75	484.94	484.94
Bk. E. Abut.	32+06.01	13.75	484.94	484.94

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	31+46.72	20.92	484.79	484.79
CL. Brg. W. Abut.	31+48.67	20.92	484.79	484.79
A	31+58.67	20.92	484.79	484.84
B	31+68.67	20.92	484.79	484.87
C	31+78.67	20.92	484.79	484.88
D	31+88.67	20.92	484.79	484.86
E	31+98.67	20.92	484.79	484.82
CL. Brg. E. Abut.	32+06.67	20.92	484.79	484.79
Bk. E. Abut.	32+08.62	20.92	484.79	484.79

FILE NAME = L:\Medison Co\19849124-00\Drawings\Structures\Sheets\0601368-006-DECK-ELEVATIONS.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:20:28 PM)	CHECKED - LM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 060-3368**

SHEET NO. 6 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	19
CONTRACT NO. 97722				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

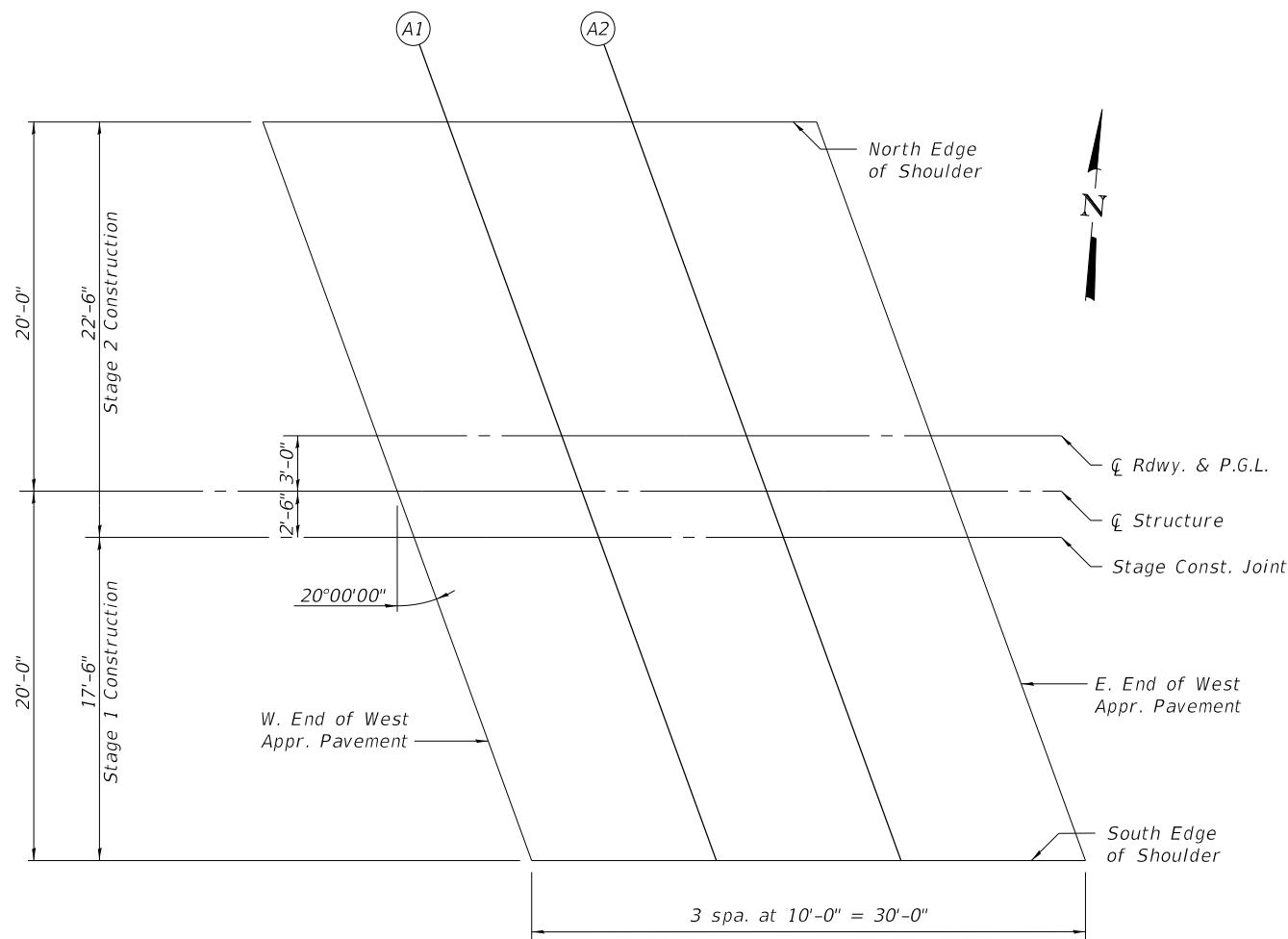
Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	31+03.98	-17.00	484.75
A1	31+13.98	-17.00	484.75
A2	31+23.98	-17.00	484.75
E. End of West Appr. Slab	31+33.98	-17.00	484.75

CL ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	31+10.17	0.00	485.09
A1	31+20.17	0.00	485.09
A2	31+30.17	0.00	485.09
E. End of West Appr. Slab	31+40.17	0.00	485.09

CL STRUCTURE

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	31+11.26	3.00	485.15
A1	31+21.26	3.00	485.15
A2	31+31.26	3.00	485.15
E. End of West Appr. Slab	31+41.26	3.00	485.15



PLAN
West Approach

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	31+12.17	5.50	485.10
A1	31+22.17	5.50	485.10
A2	31+32.17	5.50	485.10
E. End of West Appr. Slab	31+42.17	5.50	485.10

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of West Appr. Slab	31+18.54	23.00	484.75
A1	31+28.54	23.00	484.75
A2	31+38.54	23.00	484.75
E. End of West Appr. Slab	31+48.54	23.00	484.75

FILE NAME = L:\Medison_Co\19840124-00\Drawings\Structures\Sheets\0603368-007-W_APPR_SLAB_ELEV.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:20:30 PM)	CHECKED - LM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 060-3368**

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	20
CONTRACT NO. 97722				

SHEET NO. 7 OF 23 SHEETS

ILLINOIS FED. AID PROJECT

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	31+93.76	-17.00	484.75
A3	32+03.76	-17.00	484.75
A4	32+13.76	-17.00	484.75
E. End of East Appr. Slab	32+23.76	-17.00	484.75

CL ROADWAY & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	31+99.94	0.00	485.09
A3	32+09.94	0.00	485.09
A4	32+19.94	0.00	485.09
E. End of East Appr. Slab	32+29.94	0.00	485.09

CL STRUCTURE

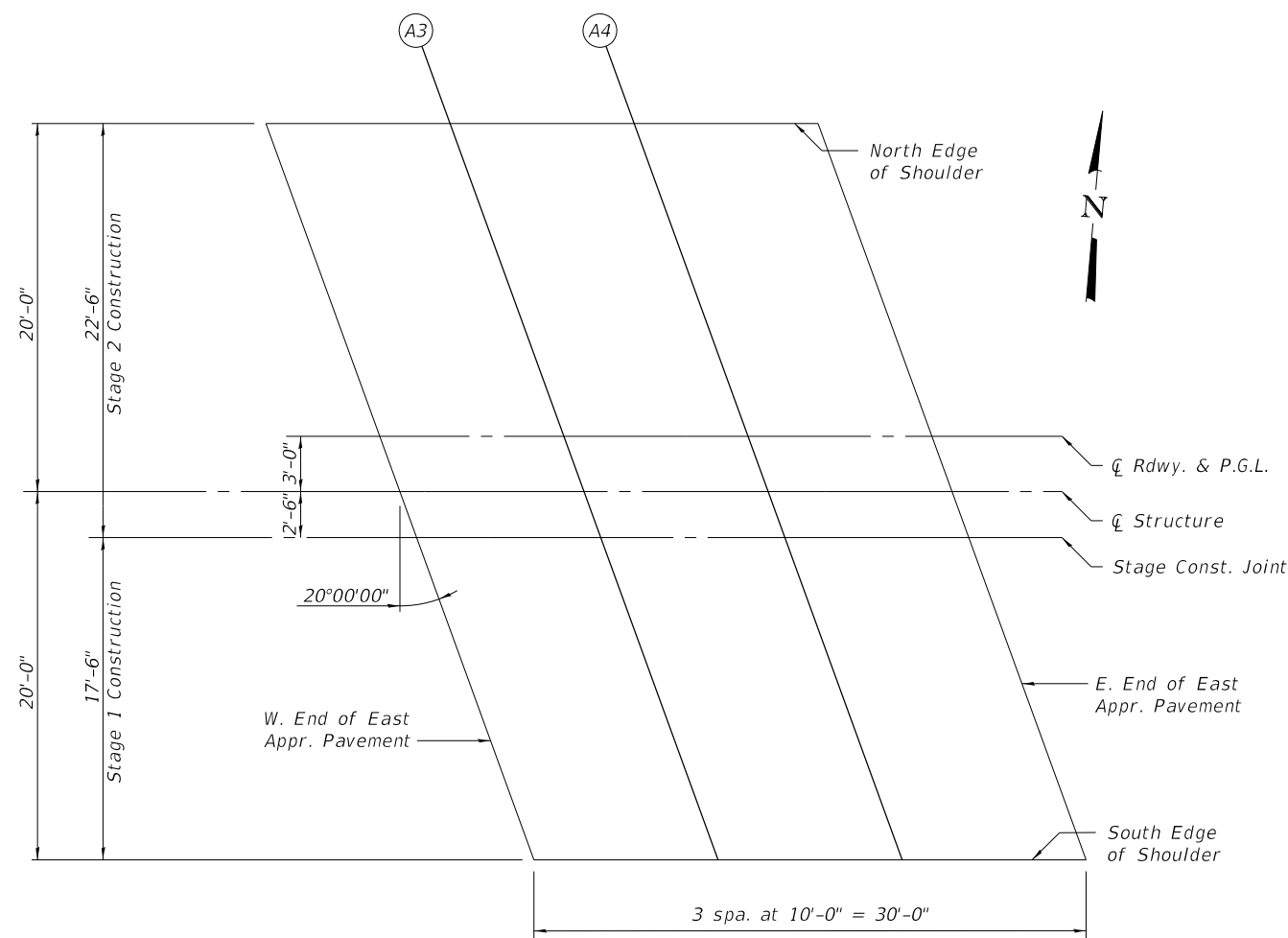
Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	32+01.03	3.00	485.15
A3	32+11.03	3.00	485.15
A4	32+21.03	3.00	485.15
E. End of East Appr. Slab	32+31.03	3.00	485.15

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	32+01.94	5.50	485.10
A3	32+11.94	5.50	485.10
A4	32+21.94	5.50	485.10
E. End of East Appr. Slab	32+31.94	5.50	485.10

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of East Appr. Slab	32+08.31	23.00	484.75
A3	32+18.31	23.00	484.75
A4	32+28.31	23.00	484.75
E. End of East Appr. Slab	32+38.31	23.00	484.75



PLAN
East Approach

FILE NAME = L:\Medison_Co\19849124-00\Draw\Structures\Sheets\0603368-008-E_APPR_SLAB_ELEV.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:20:31 PM)	CHECKED - LM	REVISED -

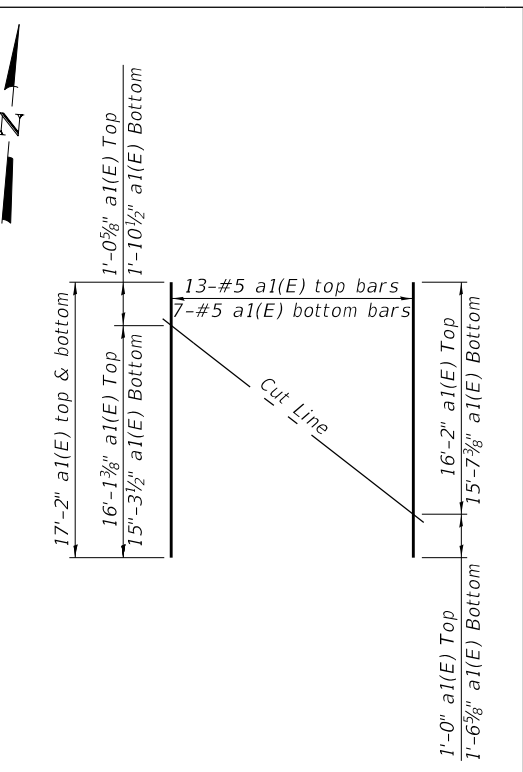
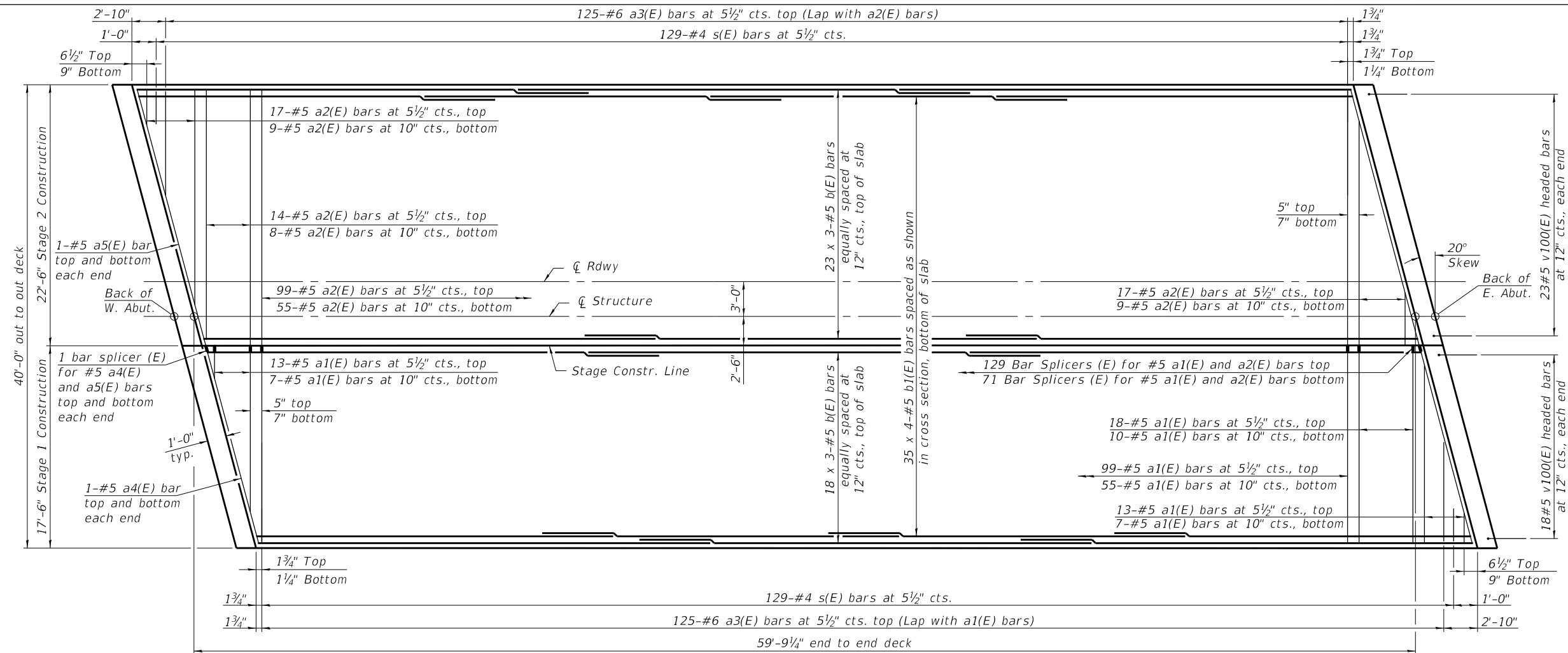
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 060-3368

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	21
CONTRACT NO. 97722				

SHEET NO. 8 OF 23 SHEETS

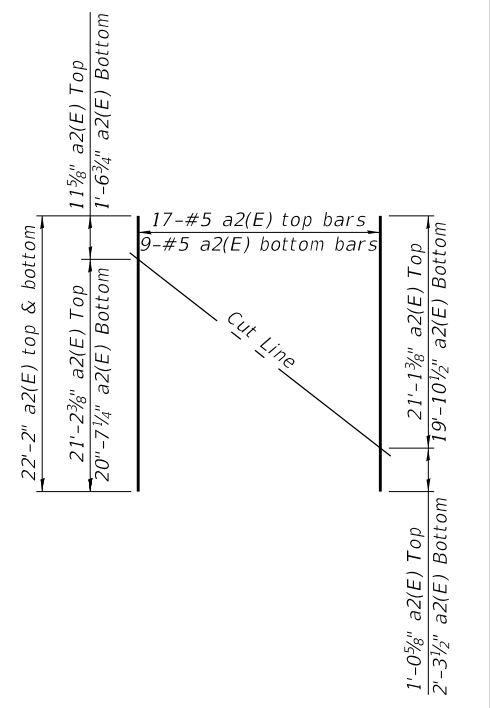
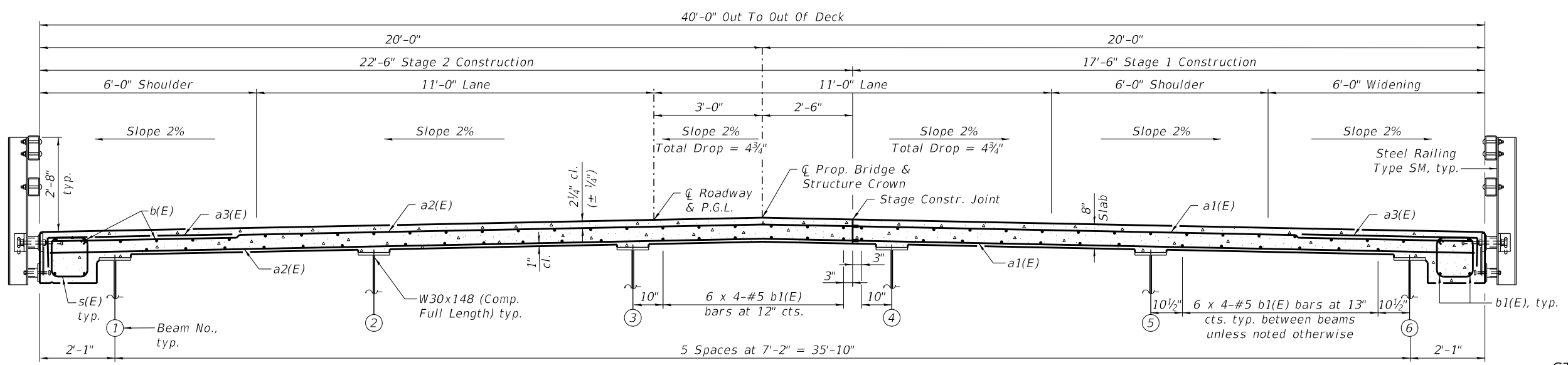
ILLINOIS FED. AID PROJECT



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

PLAN

Notes:
See sheet 10 of 23 for superstructure details and Bill of Material.
Bars indicated thus 18 x 3-#5 etc. indicates 18 lines of bars with 3 lengths per line.
See sheet 14 of 23 for railing details



CROSS SECTION
(Looking East)

STAGE 2 FIELD CUTTING DIAGRAM
Order a2(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.

FILE NAME = L:\Medison Co\19840124-00\Drawings\Structures\Sheet\06013368-009-SUPERSTRUCTURE,DECK,AND,CROSS-SECTION.dgn
License No. 184-000613 Copyright CMT, Inc.

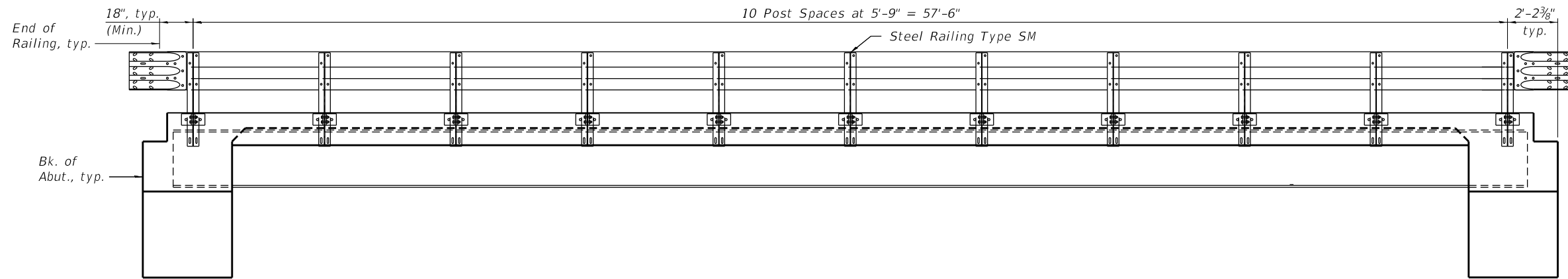


USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:20:33 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

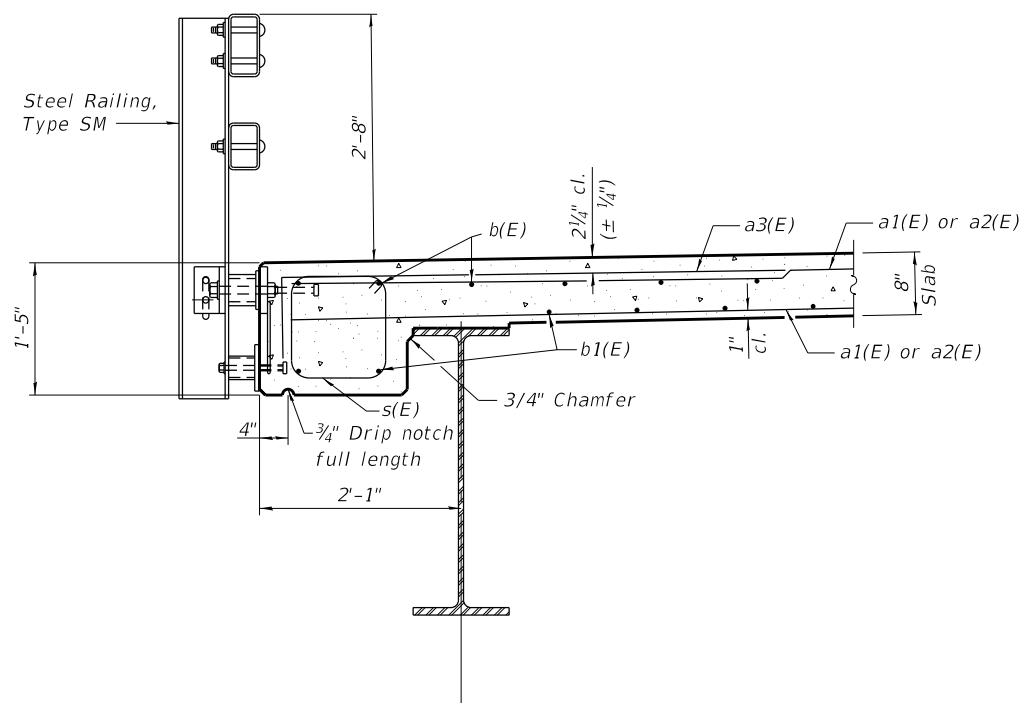
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 060-3368
SHEET NO. 9 OF 23 SHEETS

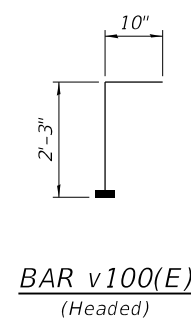
CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	22
CONTRACT NO. 97722				
ILLINOIS FED. AID PROJECT				



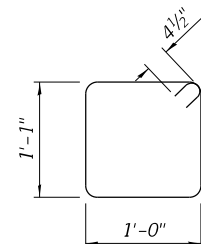
ELEVATION OF BRIDGE RAIL



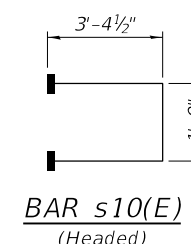
SECTION THRU EDGE BEAM



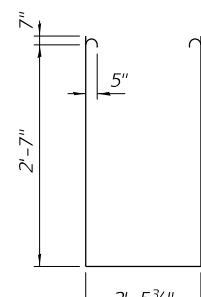
BAR v100(E)
(Headed)



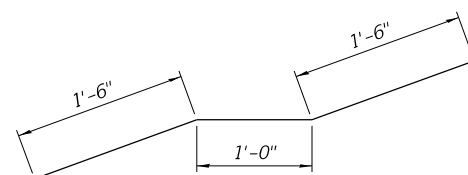
BAR s(E)



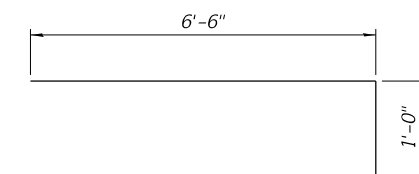
BAR s10(E)
(Headed)



BAR s11(E)



BAR m15(E)



BAR a3(E)

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	202	#5	17'-2"	—
a2(E)	202	#5	22'-2"	—
a3(E)	250	#6	7'-6"	└
a4(E)	4	#5	18'-3"	—
a5(E)	4	#5	23'-8"	—
b(E)	123	#5	22'-4"	—
b1(E)	140	#5	17'-8"	—
m10(E)	8	#6	17'-2"	—
m11(E)	8	#6	22'-3"	—
m12(E)	24	#6	6'-9"	—
m13(E)	6	#6	5'-8"	—
m14(E)	12	#6	1'-9"	—
m15(E)	36	#5	4'-0"	└
s(E)	258	#4	4'-11"	□
s10(E)	78	#5	8'-6"	□
s11(E)	78	#5	8'-9"	□
v100(E)	82	#5	3'-1"	┌
Concrete Superstructure			Cu. Yds.	97.9
Reinforcement Bars, Epoxy Coated			Lbs.	20,190

Notes:
For railing details, see sheet 14 of 23.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

FILE NAME = L:\Medison_Co\19040124-00\Draw\Structures\Sheets\0603368-010-RAIL.MG.dwg



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:20:35 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

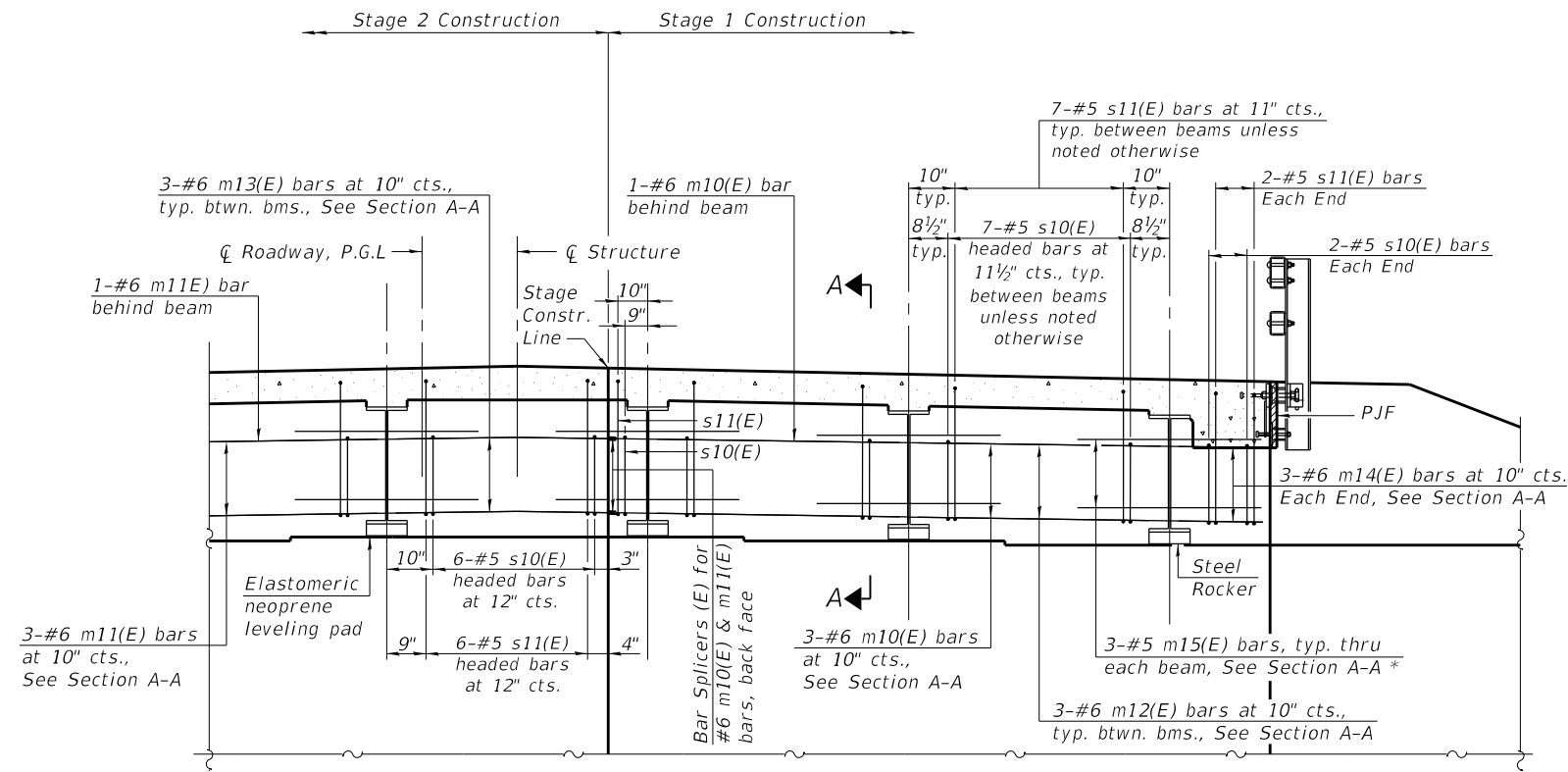
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 060-3368

SHEET NO. 10 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	23
CONTRACT NO. 97722				

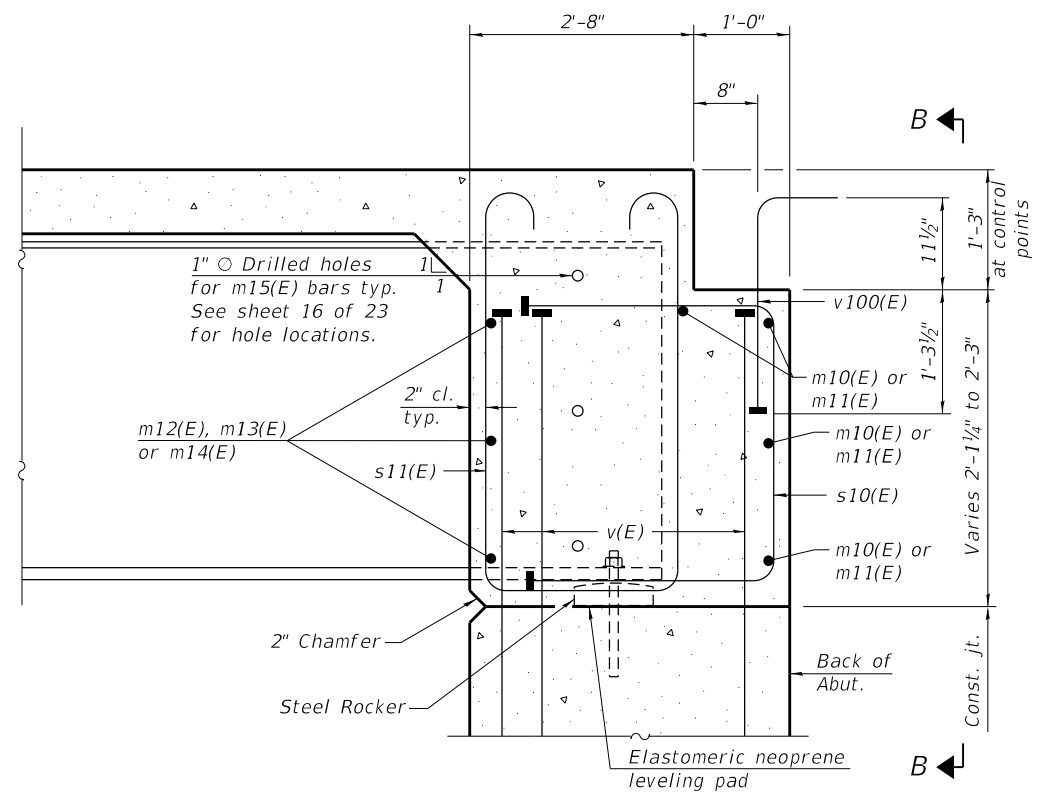
ILLINOIS FED. AID PROJECT



DIAPHRAGM AT ABUTMENT

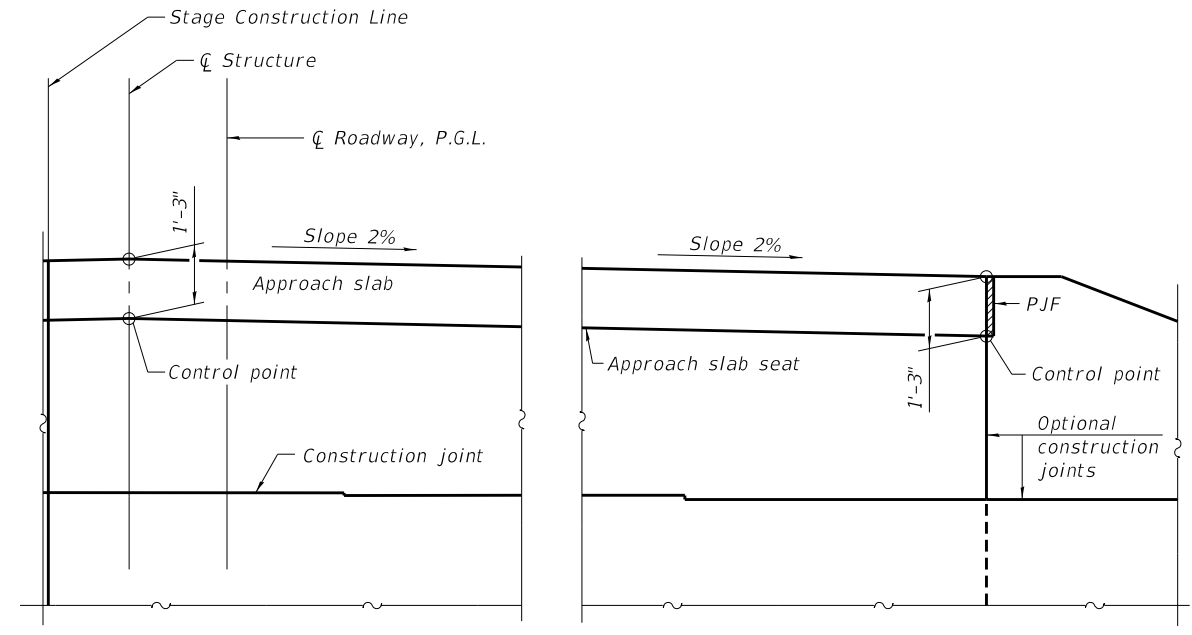
(East Abutment Looking East)

*Bend the 3-#5 m15(E) bars along the Stage Construction Joint along the face of the diaphragm to prevent penetration through the joint.

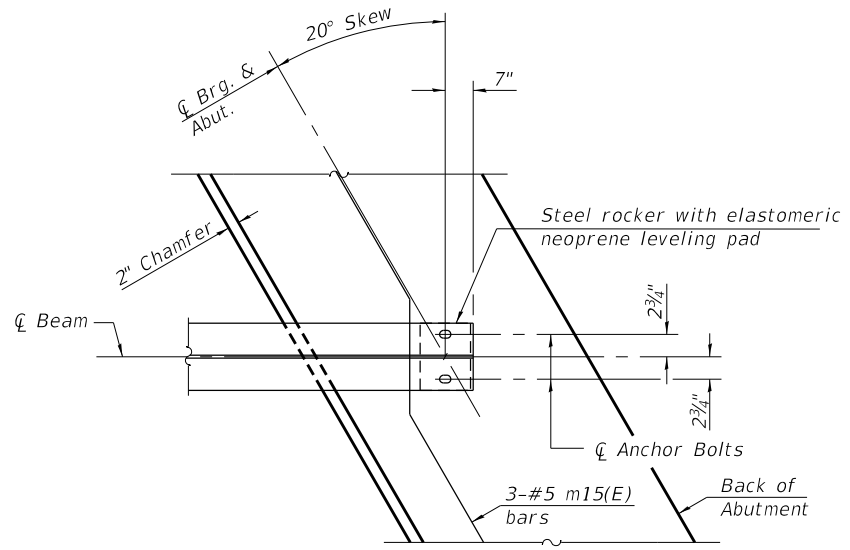


SECTION A-A

(at Rt. L's)



VIEW B-B
(East Abutment Looking West)



PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:
 See sheet 10 of 23 for superstructure details and Bill of Material.
 See sheet 12 of 23 for P.J.F. details.
 The s10(E) and s11(E) bars shall be placed parallel to the beams.
 Spacing for these bars shall be at right angles to the beams.
 The approach slab seat shall have a constant slope determined from the control points shown.
 For bearing details see sheet 16 of 23.
 Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
 East diaphragm shown, west diaphragm similar.
 Use bar splicers in place of m13(E) bars between girder and stage construction joint. Cut Bar Splicers as required to provide adequate clearance to girder web.

FILE NAME = L:\Medison_Co\19840124-00\Drawings\Structures\Sheet\0603368-01-DIAPHRAGM_DETAILED.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:20:37 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

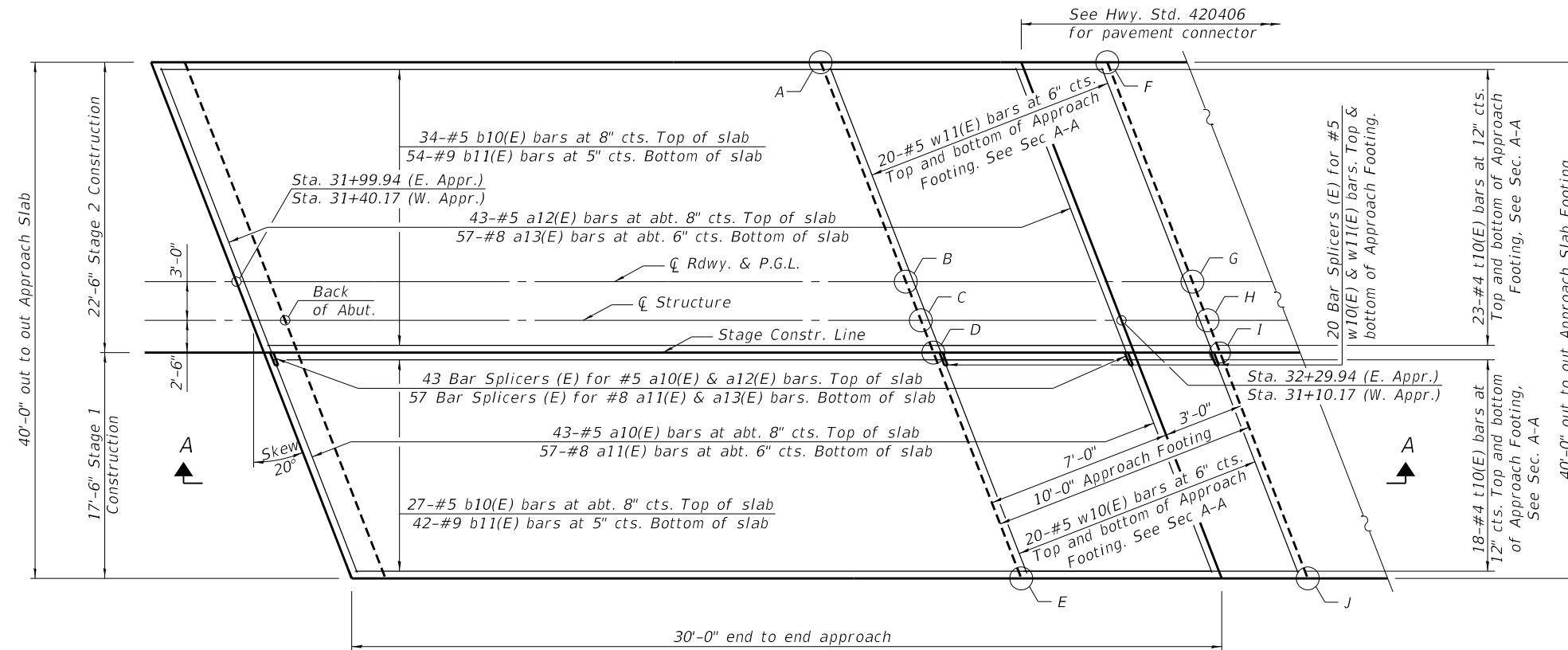
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTEGRAL ABUTMENT DIAPHRAGM
STRUCTURE NO. 060-3368**

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	24
CONTRACT NO. 97722				

SHEET NO. 11 OF 23 SHEETS

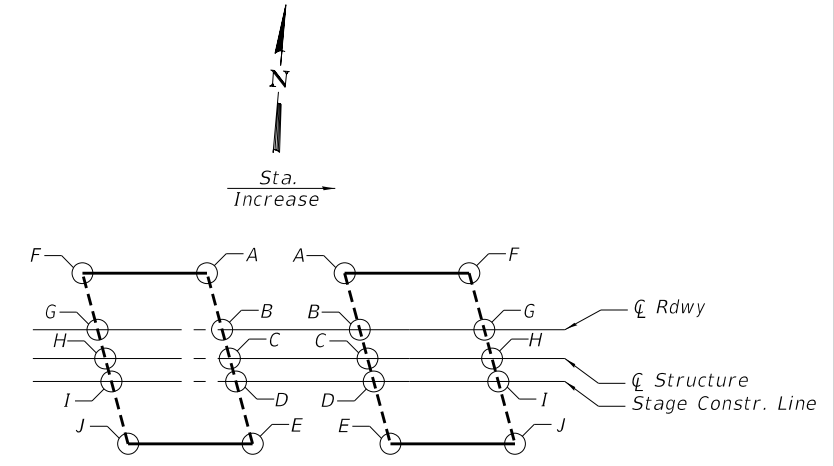
ILLINOIS FED. AID PROJECT



PLAN

(Showing East Approach - West Approach similar)

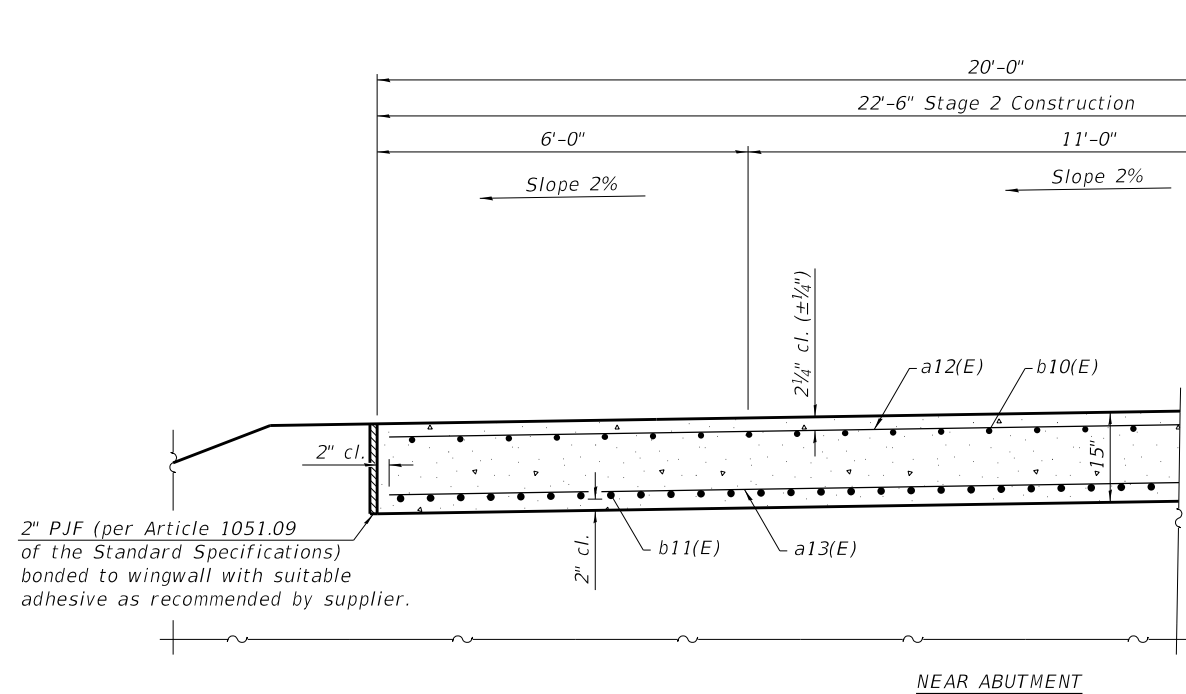
Note:
For Section A-A, see sheet 13 of 23.



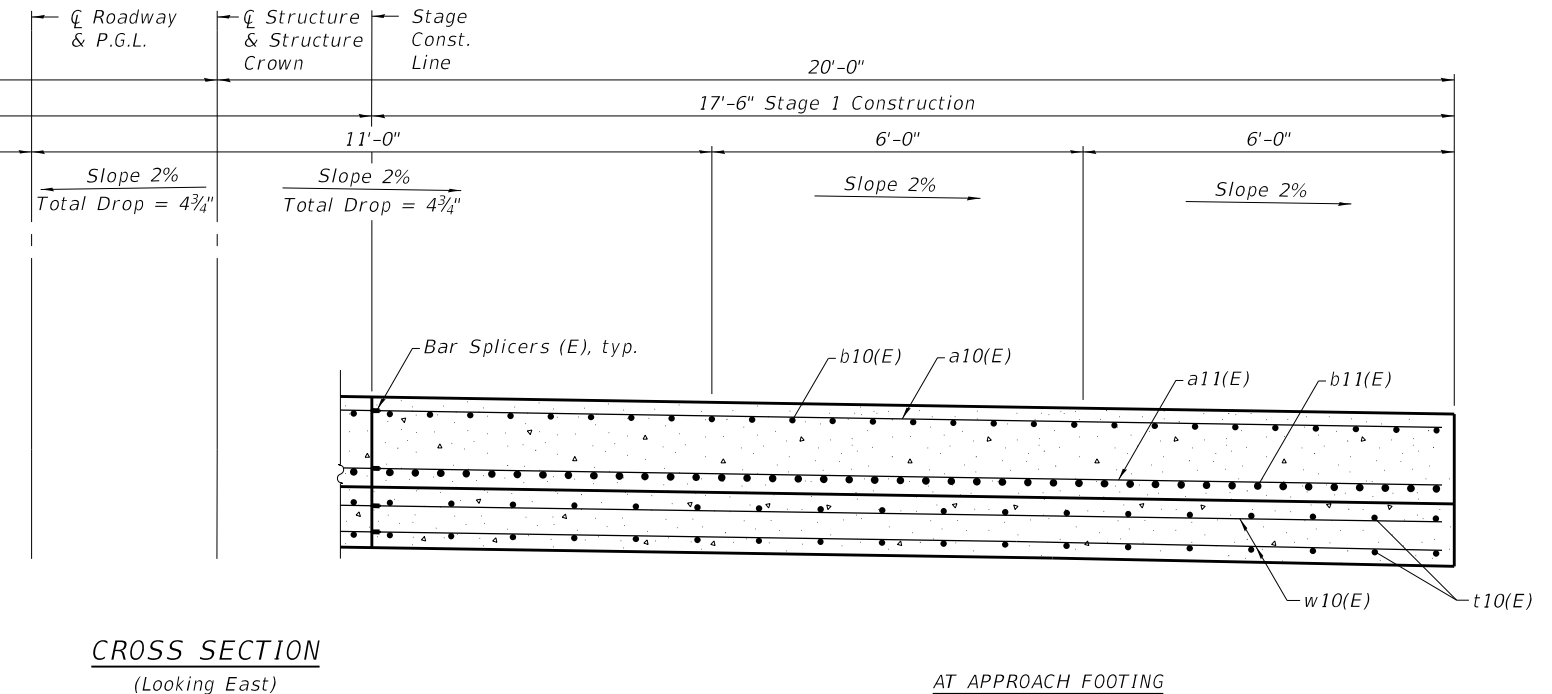
PLAN

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	West Approach		East Approach	
	Top	Bottom	Top	Bottom
A	483.50	482.67	483.50	482.67
B	483.84	483.01	483.84	483.01
C	483.90	483.07	483.90	483.07
D	483.85	483.02	483.85	483.02
E	483.50	482.67	483.50	482.67
F	483.50	482.67	483.50	482.67
G	483.84	483.01	483.84	483.01
H	483.90	483.07	483.90	483.07
I	483.85	483.02	483.85	483.02
J	483.50	482.67	483.50	482.67



NEAR ABUTMENT



CROSS SECTION

(Looking East)

AT APPROACH FOOTING

FILE NAME = L:\Medison_Co\19840124-00\Drawn\Structures\Sheets\06013368-012-APPROACH.SLAB.DETAIL.SLDgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:20:39 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 060-3368**

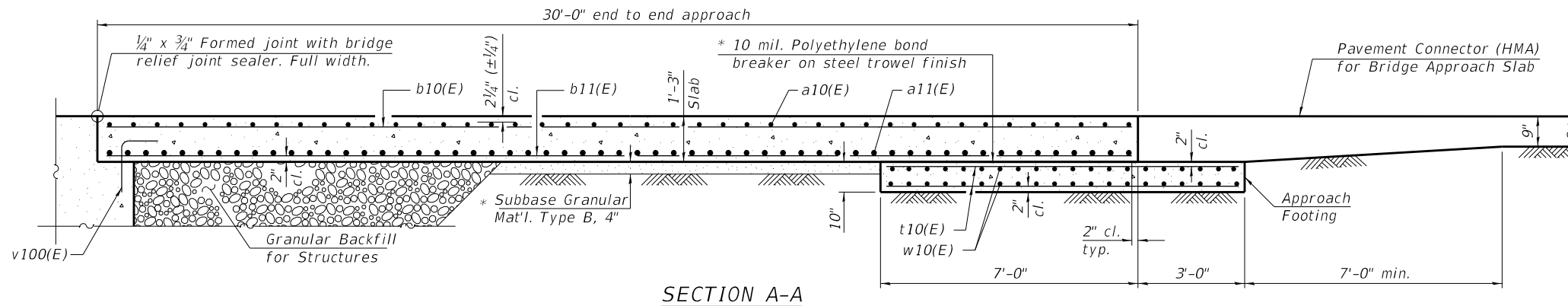
SHEET NO. 12 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	25
CONTRACT NO. 97722				

ILLINOIS FED. AID PROJECT

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 23.



SECTION A-A

TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	86	#5	18'-3"	————
a11(E)	114	#8	18'-3"	————
a12(E)	86	#5	23'-8"	————
a13(E)	114	#8	23'-8"	————
b10(E)	122	#5	29'-8"	————
b11(E)	192	#9	29'-8"	————
t10(E)	164	#4	10'-4"	————
w10(E)	80	#5	18'-3"	————
w11(E)	80	#5	23'-8"	————
Concrete Superstructure (Approach Slab)			Cu. Yd.	111.2
Concrete Structures			Cu. Yd.	26.3
Reinforcement Bars, Epoxy Coated			Pound	44,290

* Cost included with Concrete Superstructure (Approach Slab).

FILE NAME = L:\Madison_Co\19040124-00\Drawings\Structures\Sheets\06013668-013-APPROACH_SLAB_DETAILS.dgn



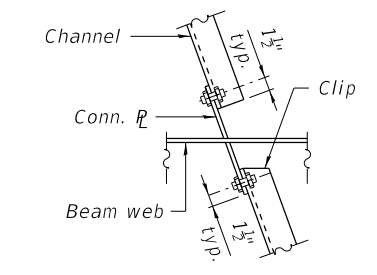
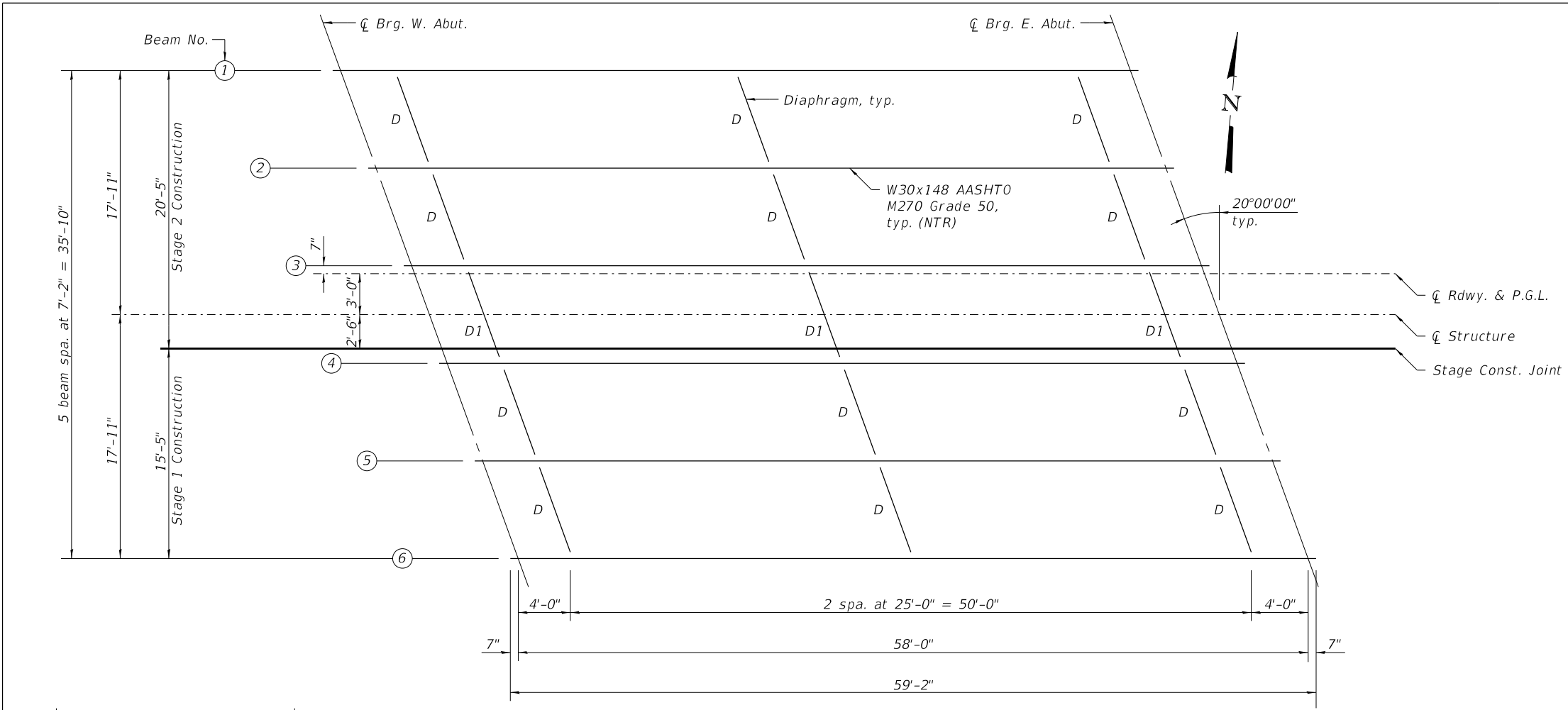
USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:20:42 PM)	CHECKED - LM	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

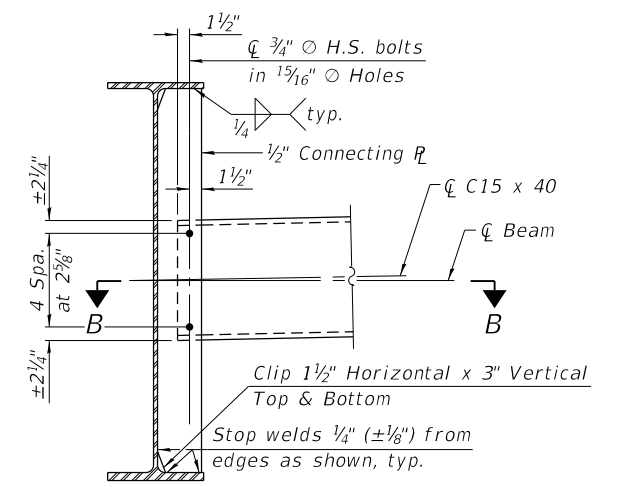
BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 060-3368

SHEET NO. 13 OF 23 SHEETS

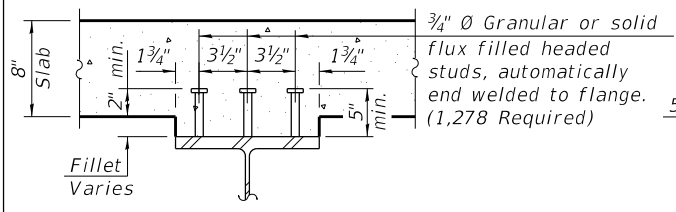
CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	26
CONTRACT NO. 97722				
ILLINOIS FED. AID PROJECT				



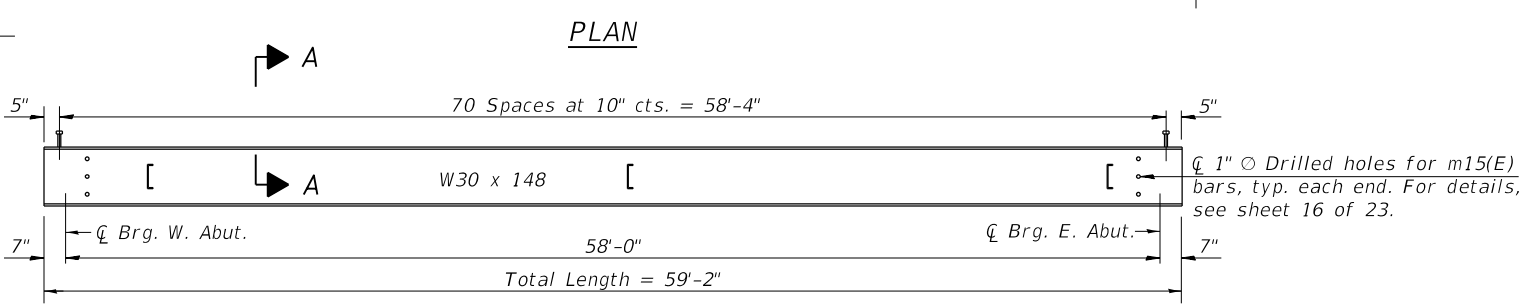
DETAIL B
Clip channel as necessary for ease of installation of diaphragms on skews.



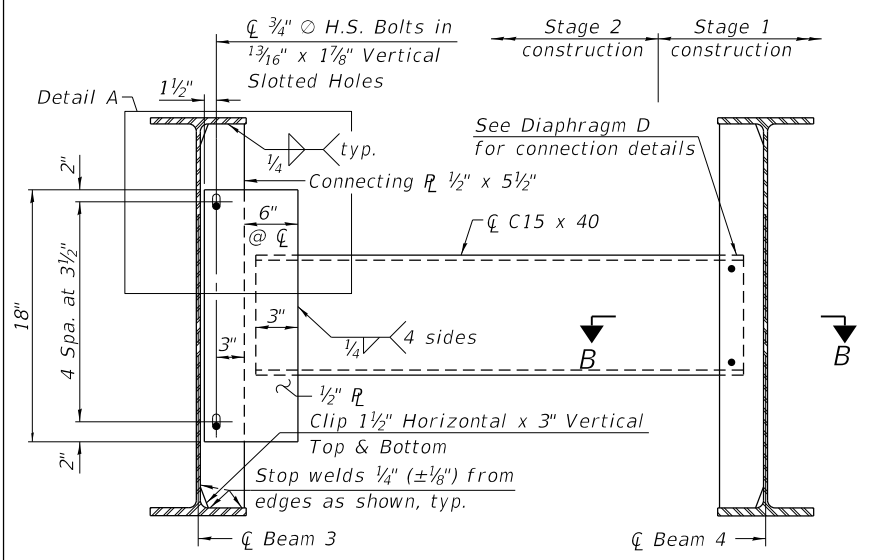
INTERIOR DIAPHRAGM D



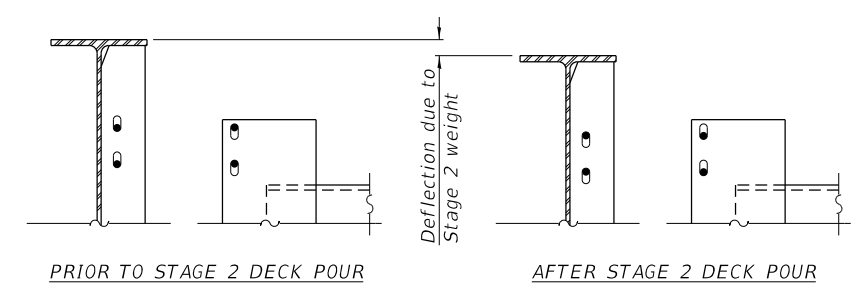
SECTION A-A



BEAM ELEVATION



INTERIOR DIAPHRAGM D1



DETAIL A

The Fabricator shall detail connection plate locations on channel to allow for differential deflection during Stage 2 deck pour. The bolts shall be finger tight until the Stage 2 deck concrete is poured, allowing the Stage 2 girders to deflect vertically without stressing the D1 diaphragms or Stage 1 girders. The bolts shall be fully tightened after the Stage 2 deck concrete is poured. The diaphragm connection shall be detailed so that the centerline of girder web and centerline of diaphragm channel align in their final position.

Notes:

- Two hardened washers required for each set of holes. Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- Do not provide diaphragm connection plate on exterior face of fascia girders.
- All stringers shall be AASHTO M270, Grade 50 Steel (NTR). Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

TOP OF BEAM ELEVATIONS

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6
☐ Brg. W. Abut.	484.07	484.22	484.36	484.38	484.22	484.07
☐ Brg. E. Abut.	484.07	484.22	484.36	484.38	484.22	484.07

For fabrication only

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stud Shear Connectors	Each	1,278

FILE NAME = L:\Madison_Co\19849124-00\Drawings\Structures\Sheet\060336B-015-FRAMING PLAN.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/23/2019 (10:53:29 AM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

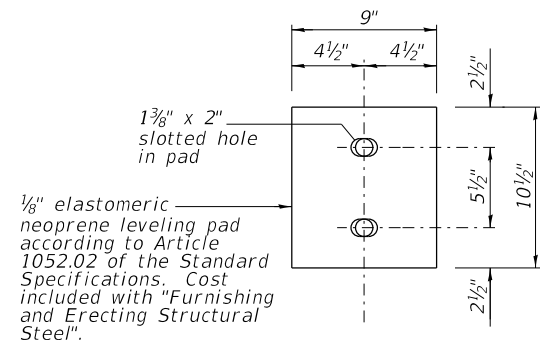
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN
STRUCTURE NO. 060-3368**

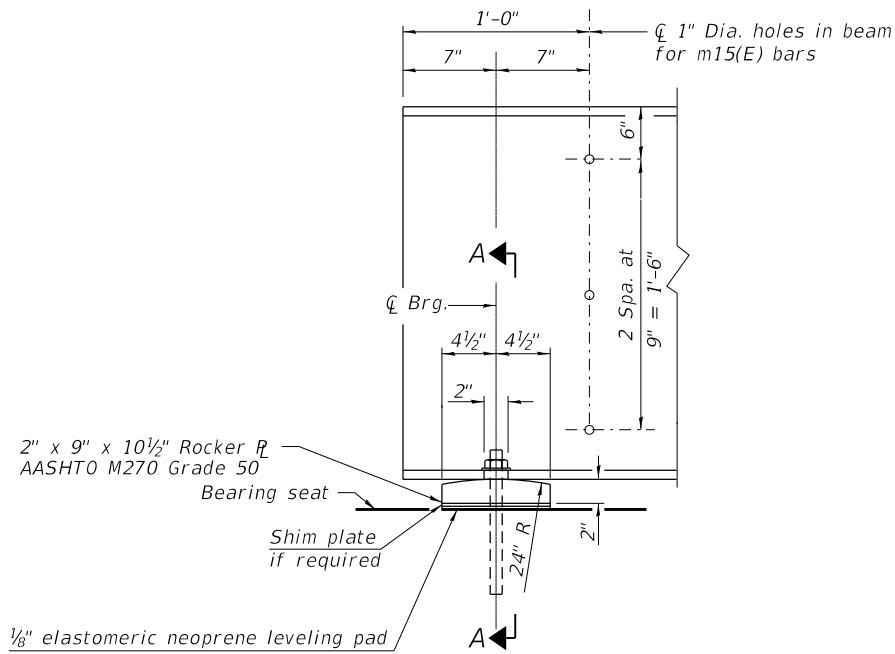
SHEET NO. 15 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	28
CONTRACT NO. 97722				

ILLINOIS FED. AID PROJECT

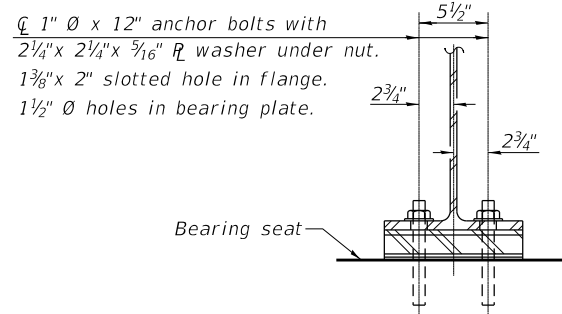


PLAN
ELASTOMERIC NEOPRENE
LEVELING PAD (ABUT.)
(12 Required)



ELEVATION AT ABUTMENT

1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.



SECTION A-A
FIXED BEARING

INTERIOR BEAM MOMENT TABLE		0.5 Span
Is	(in ⁴)	6,680
Ic(n)	(in ⁴)	21,769
Ic(3n)	(in ⁴)	15,957
Ic(cr)	(in ⁴)	—
Ss	(in ³)	435
Sc(n)	(in ³)	710
Sc(3n)	(in ³)	640
Sc(cr)	(in ³)	—
DC1	(k/')	0.96
MDC1	(k)	405
DC2	(k/')	0.04
MDC2	(k)	17
DW	(k/')	0.330
MDW	(k)	139
LLDF		0.596
M _l + IM	(k)	766
Mu (Strength I)	(k)	2076.5
Øf Mn	(k)	3995.9
fs DC1	(ksi)	11.17
fs DC2	(ksi)	0.32
fs DW	(ksi)	2.60
fs (l+IM)	(ksi)	12.94
fs (Service II)	(ksi)	30.92
0.95Rh Fyf	(ksi)	47.50
fs (Total)(Strength I)	(ksi)	40.91
Øf Fn	(ksi)	50
Vf	(k)	23.79

	BEAM REACTION TABLE	
	Abutment	
	Interior	Exterior
LLDF	0.755	0.665
OCF	—	1.09
R _{DC1}	(k) 27.59	28.6
R _{DC2}	(k) 1.16	1.16
R _{DW}	(k) 9.57	9.57
R _l	(k) 64.93	61.18
R _{IM}	(k) 16.39	15.44
R _{Total}	(k) 119.64	115.95

Notes:

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

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

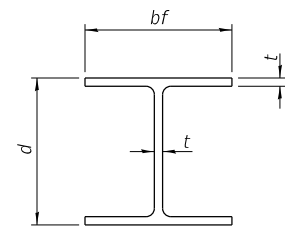
Anchor bolts shall be according to Article 521.06 of the Standard Specifications. Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

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

- Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
- Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).
- Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (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.).
- MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- LLDF: Live load distribution factor
- M_l + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- Mu (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_l + IM
- Øf Mn: 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.).
- fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1 / Snc
- fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2 / Sc(3n) or MDC2 / Sc(cr) as applicable.
- fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW / Sc(3n) or MDW / Sc(cr) as applicable.
- fs (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 / Sc(n) or M_l + IM / Sc(cr) as applicable.
- fs (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 fs(l + IM)
- 0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs(l + IM)
- Øf Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- Vf: Maximum factored shear range in span computed according to Article 6.10.10.
- OCF: Obtuse correction factor

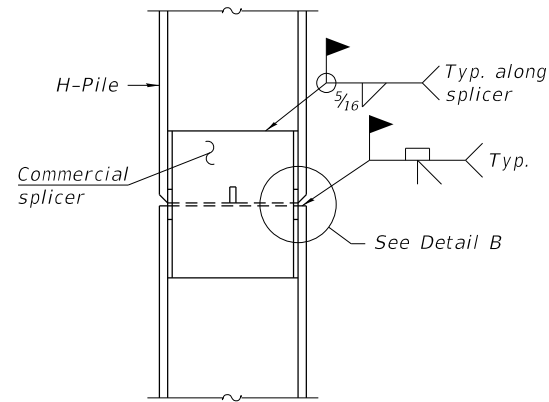
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	Each	24

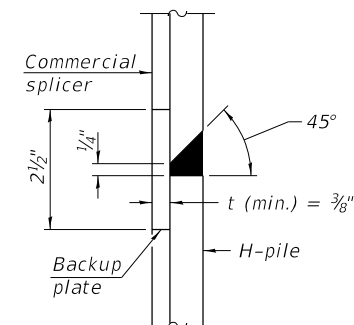


STEEL PILE TABLE

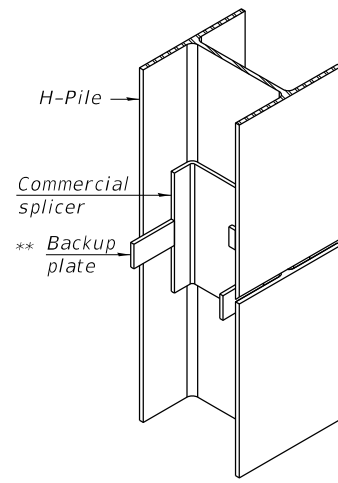
Designation	Depth d	Flange width bf	Web and Flange thickness t
HP 14x117	14 1/4"	14 7/8"	1 3/16"
x102	14"	14 3/4"	1 1/16"
x89	13 7/8"	14 3/4"	5/8"
x73	13 5/8"	14 5/8"	1/2"
HP 12x84	12 1/4"	12 1/4"	1 1/16"
x74	12 1/8"	12 1/4"	5/8"
x63	12"	12 1/8"	1/2"
x53	11 3/4"	12"	7/16"
HP 10x57	10"	10 1/4"	9/16"
x42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



ELEVATION

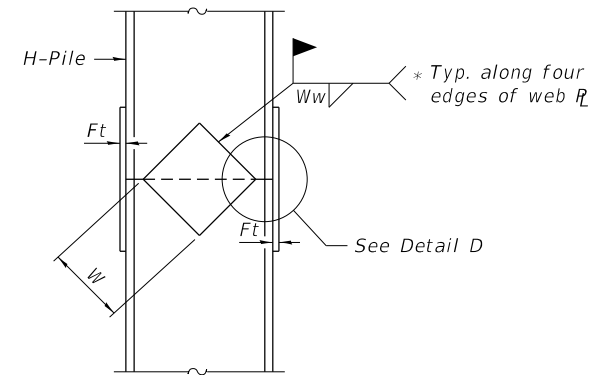


DETAIL "B"

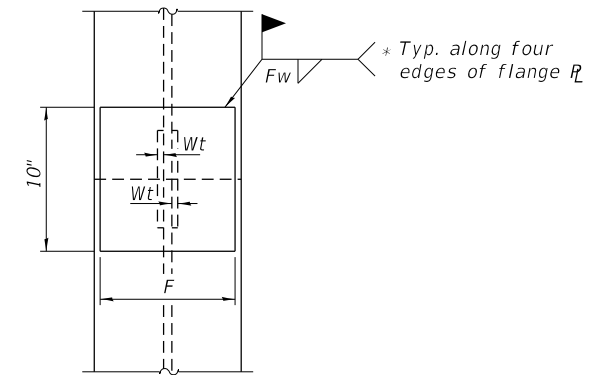


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



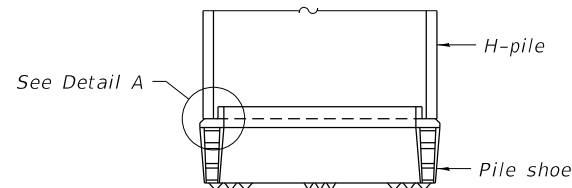
ELEVATION



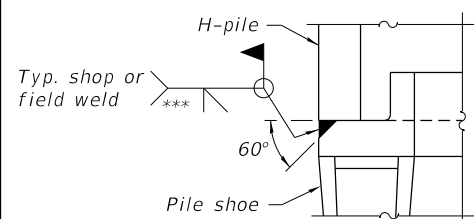
END VIEW

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

WELDED PLATE FIELD SPLICE

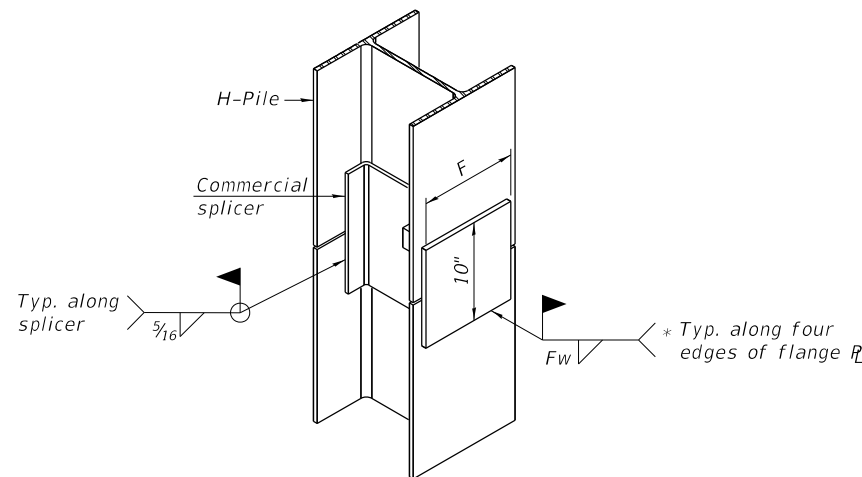


ELEVATION



DETAIL A

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.

FILE NAME = L:\Medison_Co\19840124-00\Drawings\Structures\Sheet\06013368-019-HP_PILE_DETAILS.dgn



USER NAME = Josh Jolliff
 DESIGNED - JDJ
 CHECKED - LM
 PLOT SCALE = 0.1667' / in.
 DRAWN - JMW
 PLOT DATE = 12/5/2019 (3:21:03 PM)
 CHECKED - LM

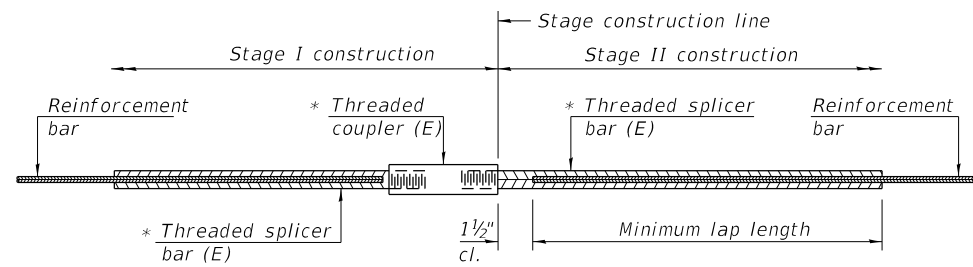
DESIGNED - JDJ
 CHECKED - LM
 REVISIONS
 REVISIONS
 REVISIONS
 REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
 STRUCTURE NO. 060-3368

SHEET NO. 19 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	32
CONTRACT NO. 97722			ILLINOIS FED. AID PROJECT	

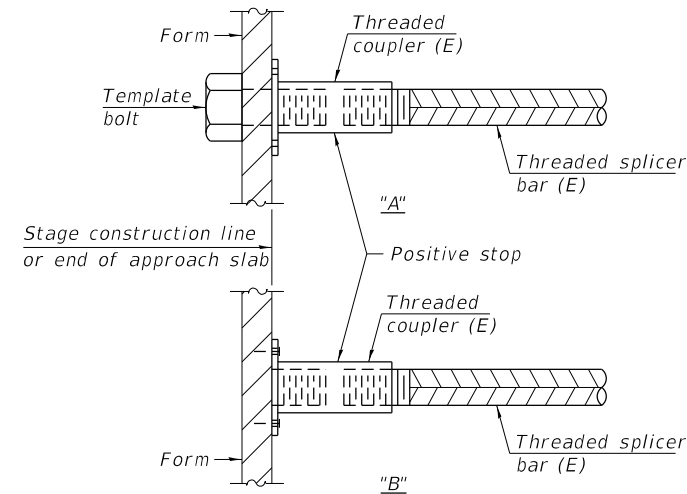


STANDARD BAR SPLICER ASSEMBLY

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
Deck	#5	204	3'-6"
W. Appr. Slab	#5	43	3'-4"
W. Appr. Slab	#8	57	4'-9"
E. Appr. Slab	#5	43	3'-4"
E. Appr. Slab	#8	57	4'-9"
W. Footing	#5	40	3'-0"
E. Footing	#5	40	3'-0"
W. Diaphragm	#6	4	4'-0"
E. Diaphragm	#6	4	4'-0"
W. Abutment	#7	10	4'-8"
E. Abutment	#7	10	4'-8"

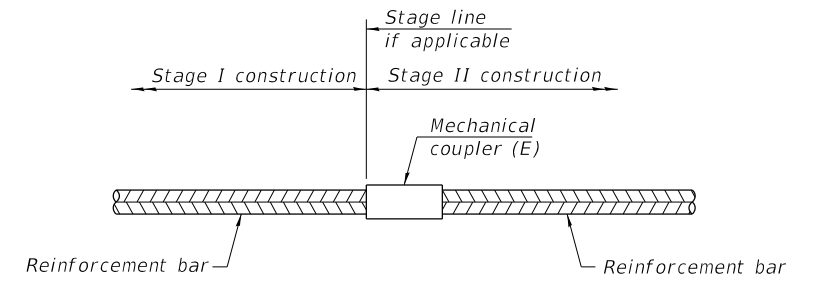


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

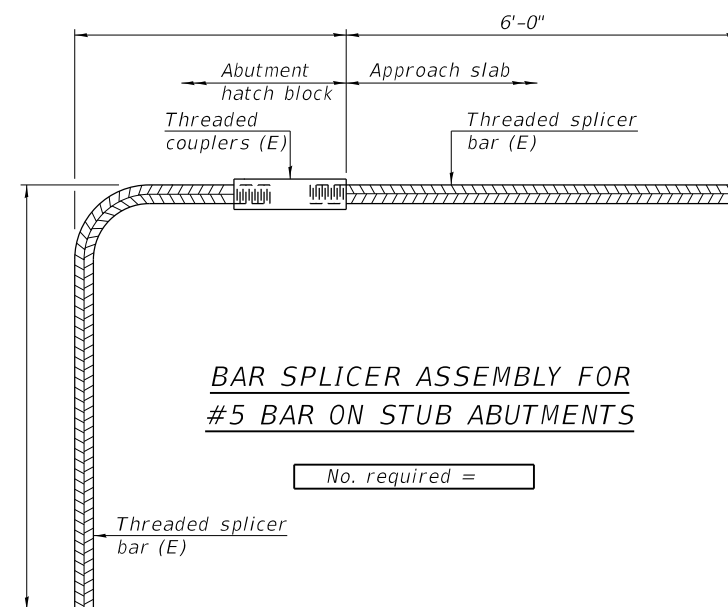
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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.

FILE NAME = L:\Medison_Co\19840124-00\Drawings\Structures\Sheets\0603368-020-BAR SPLICER DETAIL.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
PLOT SCALE = 0.1667' / in.	CHECKED - LM	REVISED -
PLOT DATE = 12/5/2019 (3:21:06 PM)	DRAWN - JMW	REVISED -
	CHECKED - LM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 060-3368**

SHEET NO. 20 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	33
CONTRACT NO. 97722				

ILLINOIS FED. AID PROJECT

SOIL BORING LOG

Date 03/06/19

ROUTE County Highway 42 DESCRIPTION County Yard Bridge over Little Mooney Creek LOGGED BY SCI

SECTION 16-00183-00 BR LOCATION West Abutment

COUNTY Madison DRILLING METHOD CFA HAMMER TYPE Automatic

STRUCT. NO. EX 060-3043; PROP 060-3368
Station _____
BORING NO. B-1
Station 31+22.14
Offset 5 ft RT
Ground Surface Elev. 484.9 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter 474.4 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOISTURE (%)	DESCRIPTION
400.9				CLAY LOAM: M. Stiff, Gray, Moist, Trace Organics (A-7) (continued)
-85				CLAYEY SHALE: Stiff, Greenish-Gray, Moist
-90	10/37	>4.5 P	18	Bluish-Gray
	50/2"		12	
	50/0"			
391.3				Boring terminated at 94.0 ft.
-95	00/0.5"	NC	15	
-100				

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

SOIL BORING LOG

Date 03/05/19

ROUTE County Highway 42 DESCRIPTION County Yard Bridge over Little Mooney Creek LOGGED BY SCI

SECTION 16-00183-00 BR LOCATION East Abutment

COUNTY Madison DRILLING METHOD CFA HAMMER TYPE Automatic

STRUCT. NO. EX 060-3043; PROP 060-3368
Station _____
BORING NO. B-2
Station 31+93.37
Offset 43 ft LT
Ground Surface Elev. 481.1 ft

Surface Water Elev. _____ ft
Stream Bed Elev. _____ ft
Groundwater Elev.:
First Encounter 473.1 ft ▼
Upon Completion _____ ft
After _____ Hrs. _____ ft

DEPTH (ft)	BLOW COUNT (/6")	UCS (tsf)	MOISTURE (%)	DESCRIPTION
				FILL: Soft, Brown, Moist, Silty Loam (A-4)
	1	0.8 P	20	
	2			
	2			
458.1				CLAY LOAM: M. Stiff, Gray, Moist (A-7)
	2	0.8 B/20	26	
	1			
-5	2			
475.1				FILL: Soft, Dark Brown, Moist, Silty Clay Loam (A-6)
	2	0.6 B/20	24	
	1			
473.1 ▼				FILL: V. Soft, Dark Brown, Wet, Clay Loam (A-6)
	1	<0.25 P	20	Brown
471.6				SANDY LOAMV. Loose, Dark Brown, Wet, Fine to Coarse (A-2)
	1			
	0			
	0	NC		
468.1				CLAY LOAM: Soft, Brown, Moist (A-7)
	1	0.6 B/20	26	
	2			
466.1	-15			SILTY CLAY: Soft, Gray, Moist (A-6)
	2	0.5 B/20	26	
	2			
	2			
	2	0.4 B/20	25	Trace Organics
	2			
461.1	-20			

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

FILE NAME = L:\Madison, Co\19849124-00\Drawings\Structures\Sheets\0603368-022-BORING.LOG2.dgn



USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
	CHECKED - LM	REVISED -
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:21:11 PM)	CHECKED - LM	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 060-3368

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	35
CONTRACT NO. 97722				

SHEET NO. 22 OF 23 SHEETS

ILLINOIS FED. AID PROJECT

SOIL BORING LOG

Date 03/05/19

ROUTE County Highway 42 DESCRIPTION County Yard Bridge over Little Mooney Creek LOGGED BY SCI

SECTION 16-00183-00 BR LOCATION East Abutment

COUNTY Madison DRILLING METHOD CFA HAMMER TYPE Automatic

STRUCT. NO. EX 060-3043; PROP 060-3368
 Station _____

BORING NO. B-2
 Station 31+93.37
 Offset 43 ft LT
 Ground Surface Elev. 481.1 ft

DEPTH (ft)	BLOW COUNT (B/20)	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)	DEPTH (ft)	BLOW COUNT (B/20)	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)
Surface Water Elev. _____ ft							
Stream Bed Elev. _____ ft							
Groundwater Elev.: _____ ft							
First Encounter <u>473.1</u> ft ▼							
Upon Completion _____ ft							
After _____ Hrs. _____ ft							
CLAY LOAM: V. Stiff, Brown, Moist (A-4) (continued)							
Stiff, Brown							
3				5	2.0	19	
5	1.5	B/20	19	6	B/20	19	
6				8			
V. Stiff							
4				8			
5	1.7	B/20	20	9	2.1	19	
7				9	B/20	19	
Stiff							
8				4			
9	2.4	S/10	28	4	1.0		
17				5	B/20		
CLAY LOAM: V. Stiff, Brown, Moist (A-4)							
7				3			
8	2.4	B/20	17	7	1.0		
10				9	B/20		

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

SOIL BORING LOG

Date 03/05/19

ROUTE County Highway 42 DESCRIPTION County Yard Bridge over Little Mooney Creek LOGGED BY SCI

SECTION 16-00183-00 BR LOCATION East Abutment

COUNTY Madison DRILLING METHOD CFA HAMMER TYPE Automatic

STRUCT. NO. EX 060-3043; PROP 060-3368
 Station _____

BORING NO. B-2
 Station 31+93.37
 Offset 43 ft LT
 Ground Surface Elev. 481.1 ft

DEPTH (ft)	BLOW COUNT (B/20)	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)	DEPTH (ft)	BLOW COUNT (B/20)	UNIFIED SOIL CLASSIFICATION (tsf)	MOISTURE (%)
Surface Water Elev. _____ ft							
Stream Bed Elev. _____ ft							
Groundwater Elev.: _____ ft							
First Encounter <u>473.1</u> ft ▼							
Upon Completion _____ ft							
After _____ Hrs. _____ ft							
CLAY LOAM: V. Stiff, Brown, Moist (A-4) (Continued)							
399.1							
CLAYEY SHALE: Stiff, Greenish-Gray, Moist							
10				18	>4.5	P	
18				37			
392.5							
Boring terminated at 88.6 ft.							
100/0.5				>4.5	P		

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

FILE NAME = L:\Madison_Co\19849124-00\Drawings\Structural\Sheets\0603368-023-BORING.LOG3.dgn

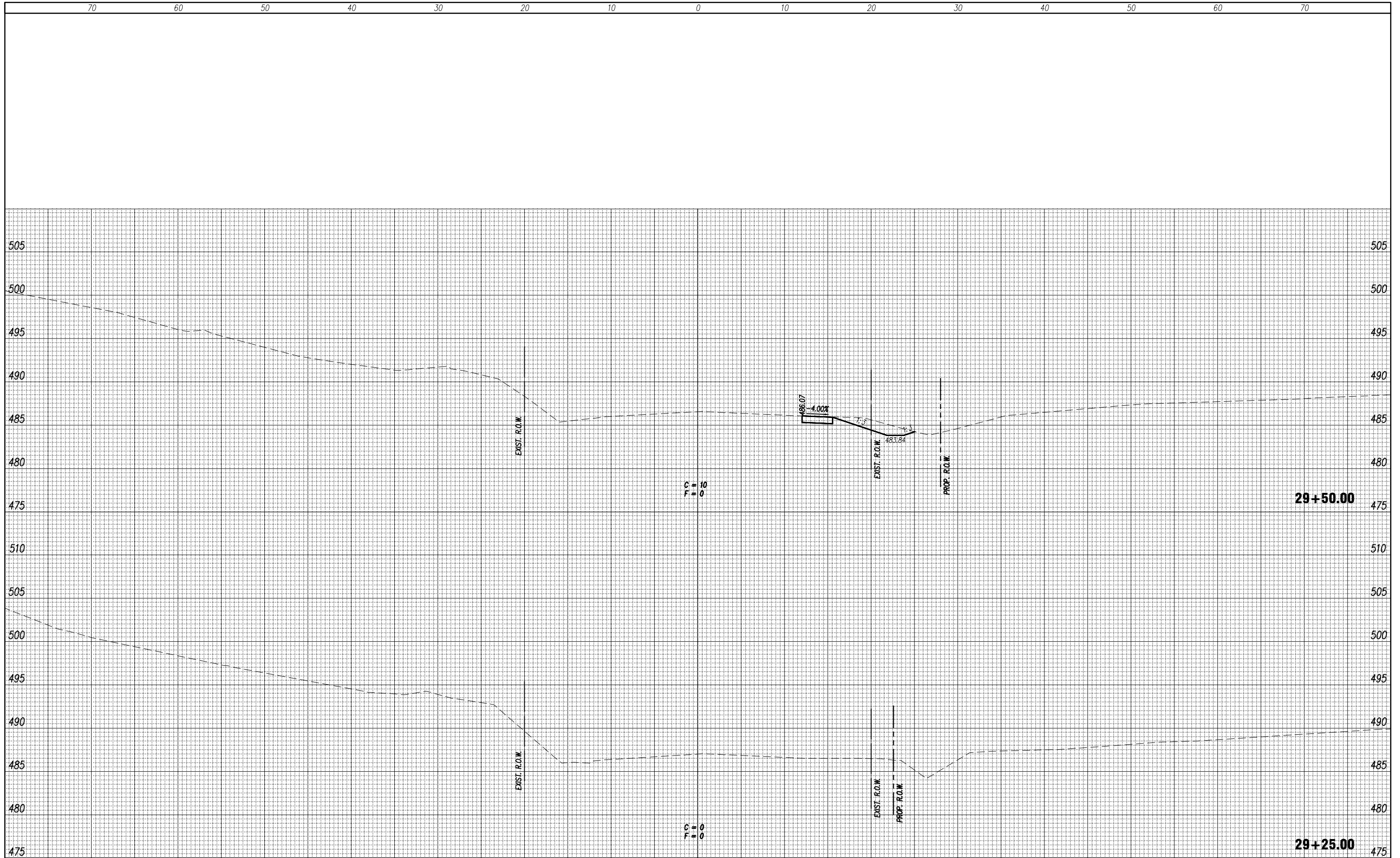


USER NAME = Josh Jolliff	DESIGNED - JDJ	REVISED -
CHECKED - LM	REVISIONS -	
PLOT SCALE = 0.1667' / in.	DRAWN - JMW	REVISED -
PLOT DATE = 12/5/2019 (3:21:16 PM)	CHECKED - LM	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOGS
 STRUCTURE NO. 060-3368
 SHEET NO. 23 OF 23 SHEETS

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	36
CONTRACT NO. 97722				



INTERNAL PROJECT NUMBER:
A-237-00

FILE NAME:
W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg

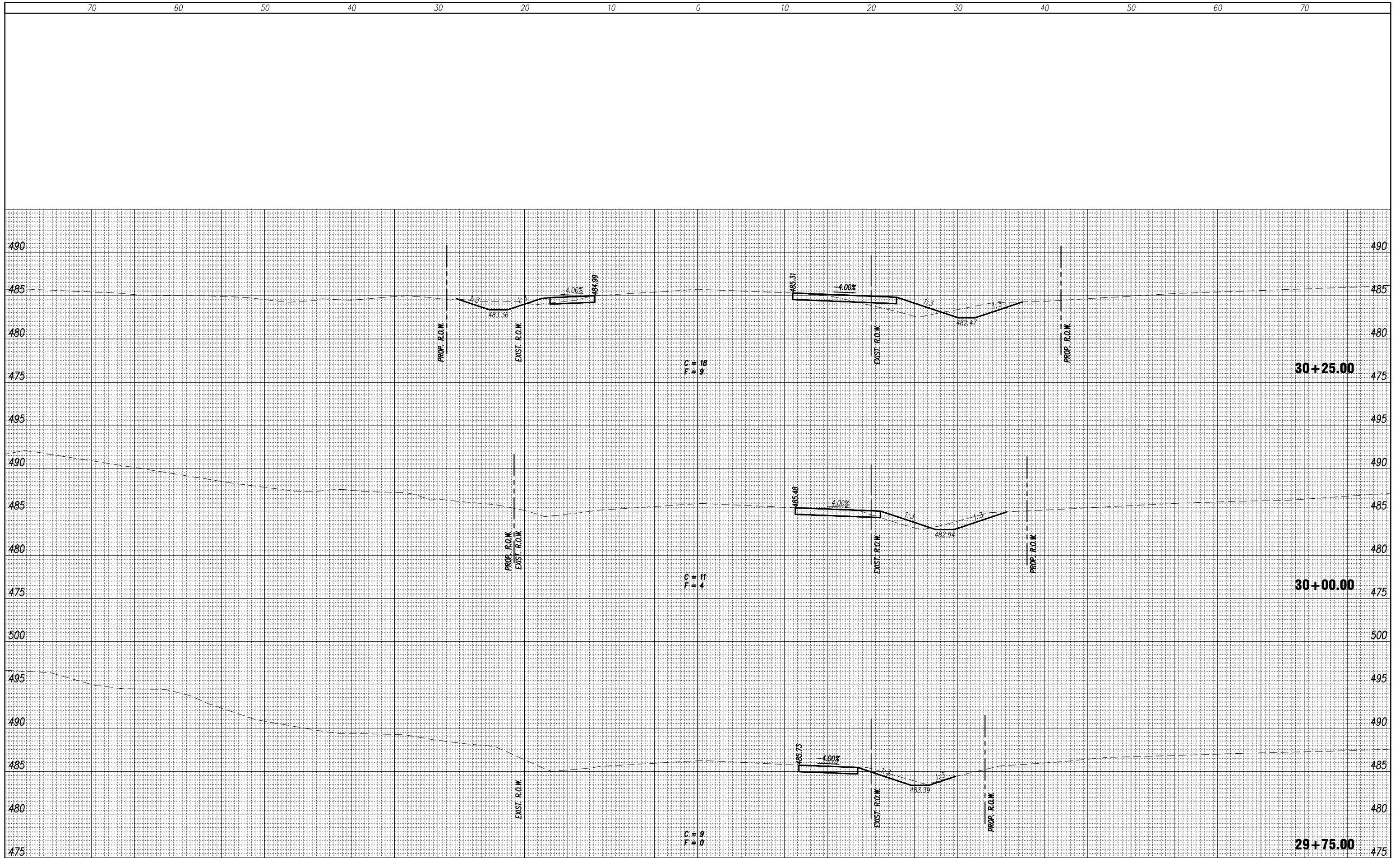
USER NAME	Nathan E. Larson	DESIGNED	NEL	REVISED	-
PLOT SCALE	0.5:1	DRAWN	NEL	REVISED	-
PLOT DATE	10-Dec-19	CHECKED	-	REVISED	-
				REVISED	----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS - PIN OAK ROAD

SCALE: 1" = 5' SHEET NO. 1 OF 11 SHEETS STA. 29+25 TO STA. 29+50

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	37
PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
MADISON COUNTY		ILLINOIS	FED. AID PROJECT	



INTERNAL PROJECT NUMBER:
A-237-00

FILE NAME:
W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg

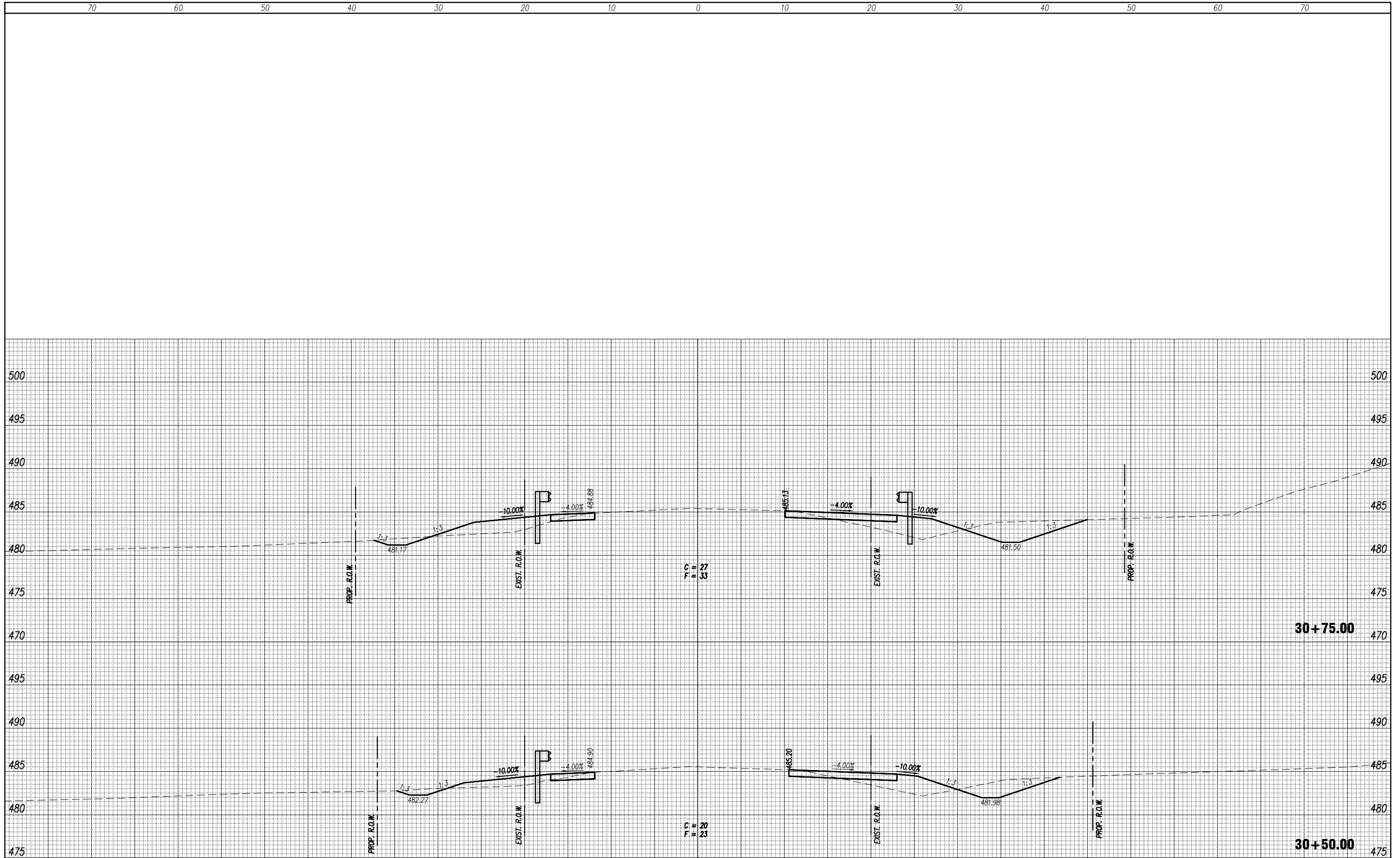
USER NAME	Nathan E. Larson	DESIGNED	NEL	REVISED	-
PLOT SCALE	0.5:1	DRAWN	NEL	REVISED	-
PLOT DATE	10-Dec-19	CHECKED	-	REVISED	-
				REVISED	----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

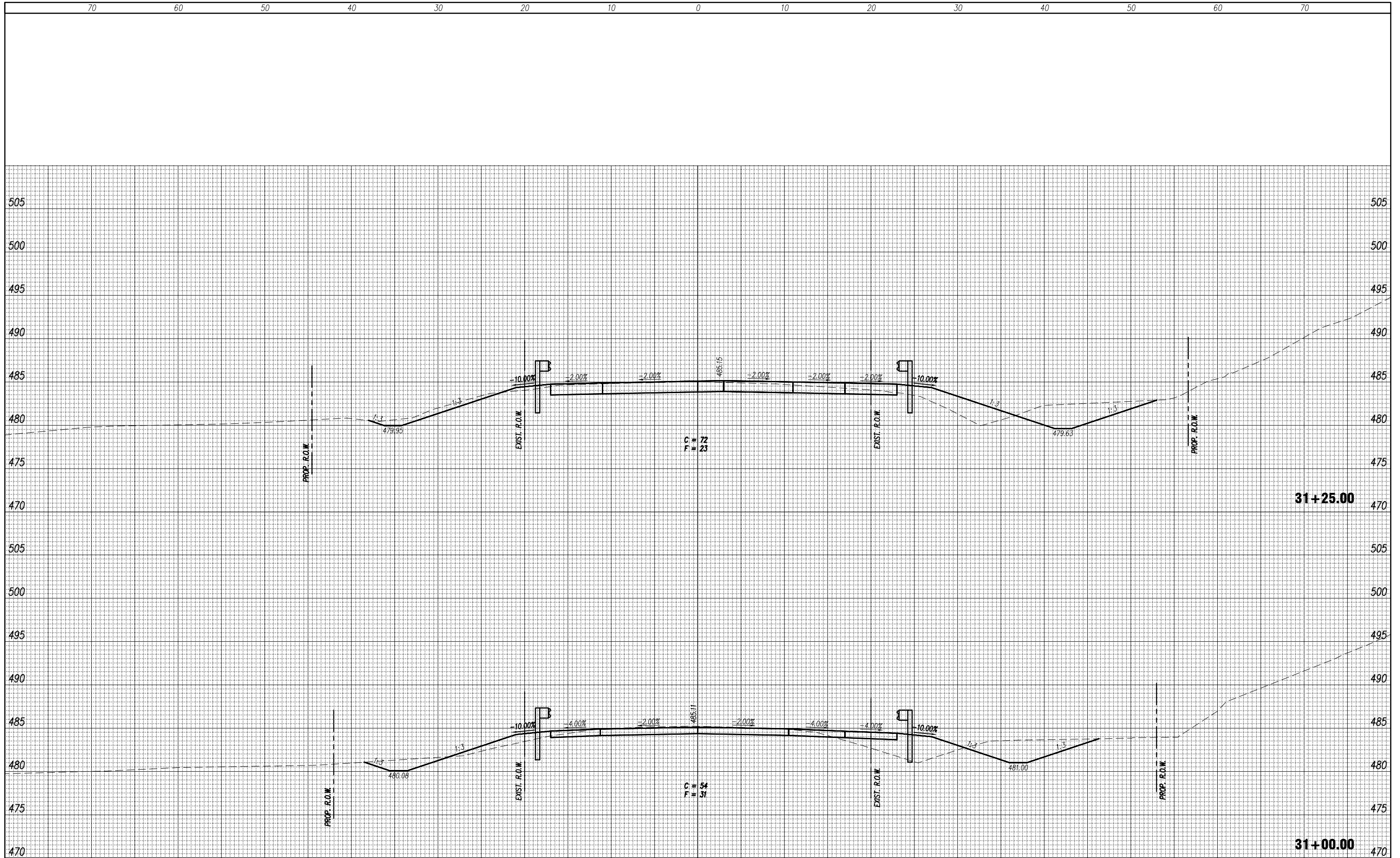
CROSS SECTIONS - PIN OAK ROAD

SCALE: 1" = 5' SHEET NO. 2 OF 11 SHEETS STA. 29+75 TO STA. 30+25

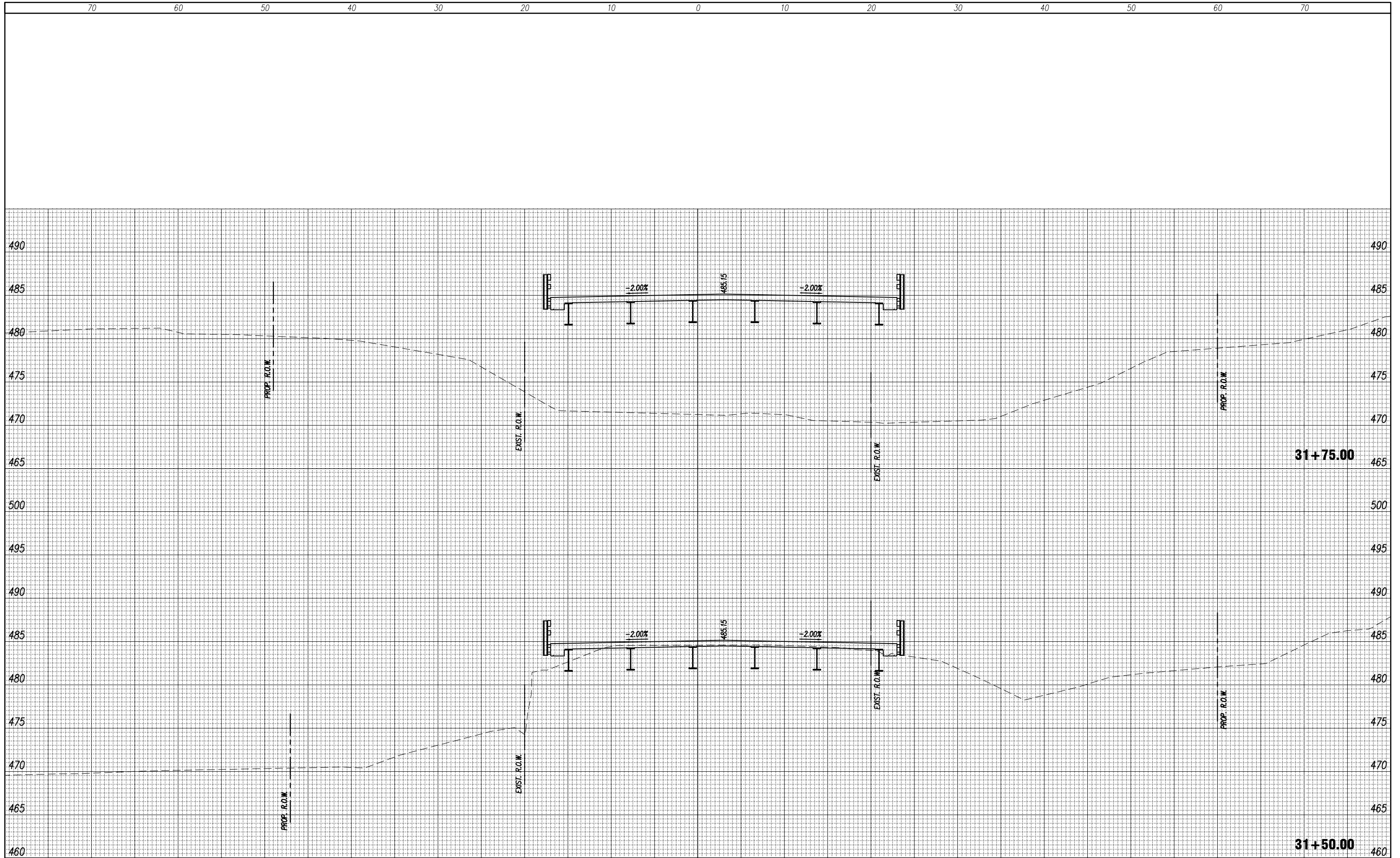
CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	38
PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
MADISON COUNTY		ILLINOIS	FED. AID PROJECT	



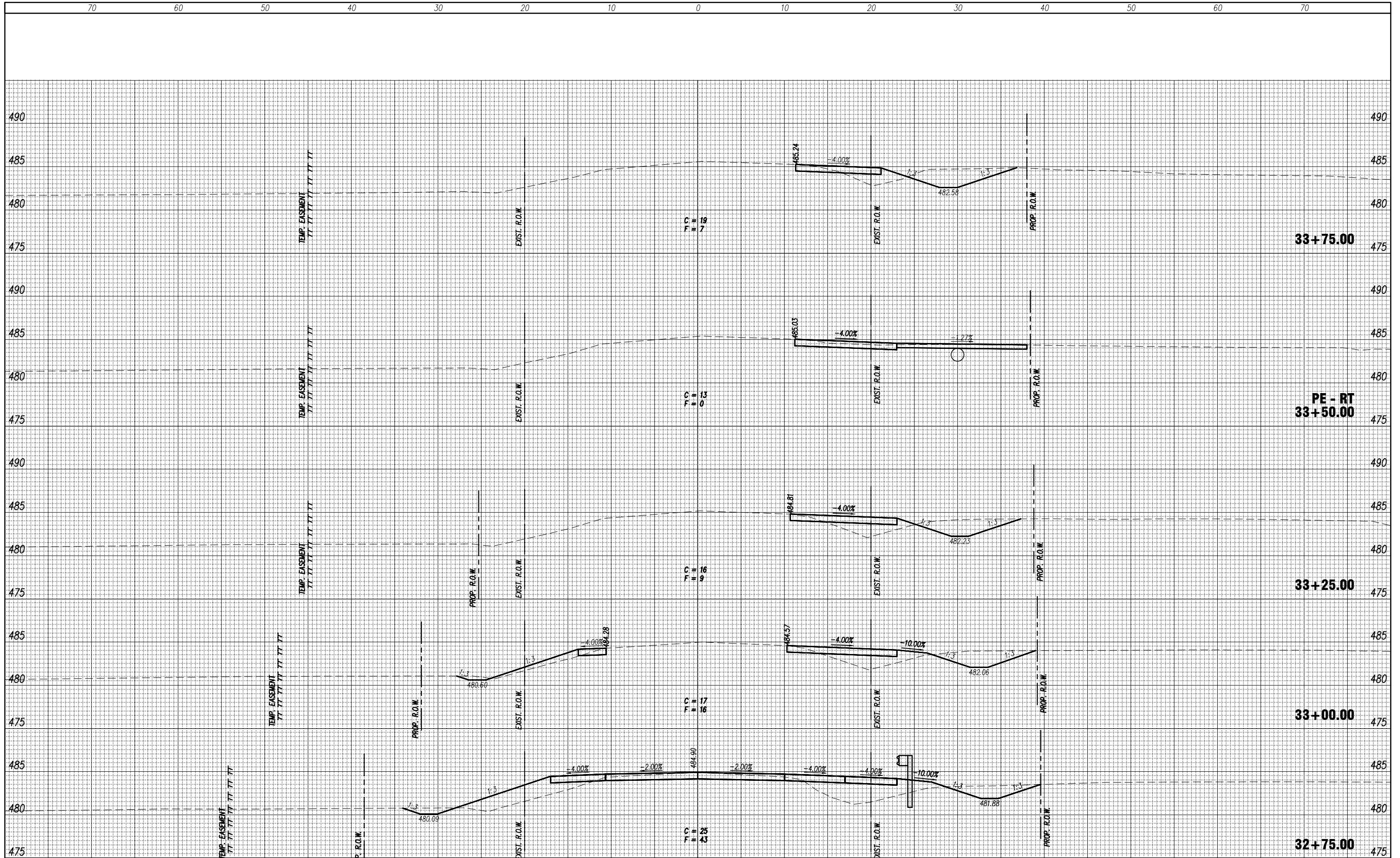
INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS - PIN OAK ROAD			CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 39
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -		SCALE: 1" = 5'	SHEET NO. 3 OF 11 SHEETS	STA. 30+50 TO STA. 30+75	PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -					MADISON COUNTY		ILLINOIS	FED. AID PROJECT	
			REVISED ----									



INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS - PIN OAK ROAD	CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 40
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE	CONTRACT NO. 97722			
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -			MADISON COUNTY	ILLINOIS	FED. AID PROJECT		
			REVISED ----			SCALE: 1" = 5'	SHEET NO. 4 OF 11 SHEETS STA. 31+00 TO STA. 31+25			



INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS - PIN OAK ROAD	CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 41
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE	CONTRACT NO. 97722			
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -			MADISON COUNTY	ILLINOIS	FED. AID PROJECT		
			REVISED ----			SCALE: 1" = 5'	SHEET NO. 5 OF 11 SHEETS STA. 31+50 TO STA. 31+75			



INTERNAL PROJECT NUMBER:
A-237-00

FILE NAME:
W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg

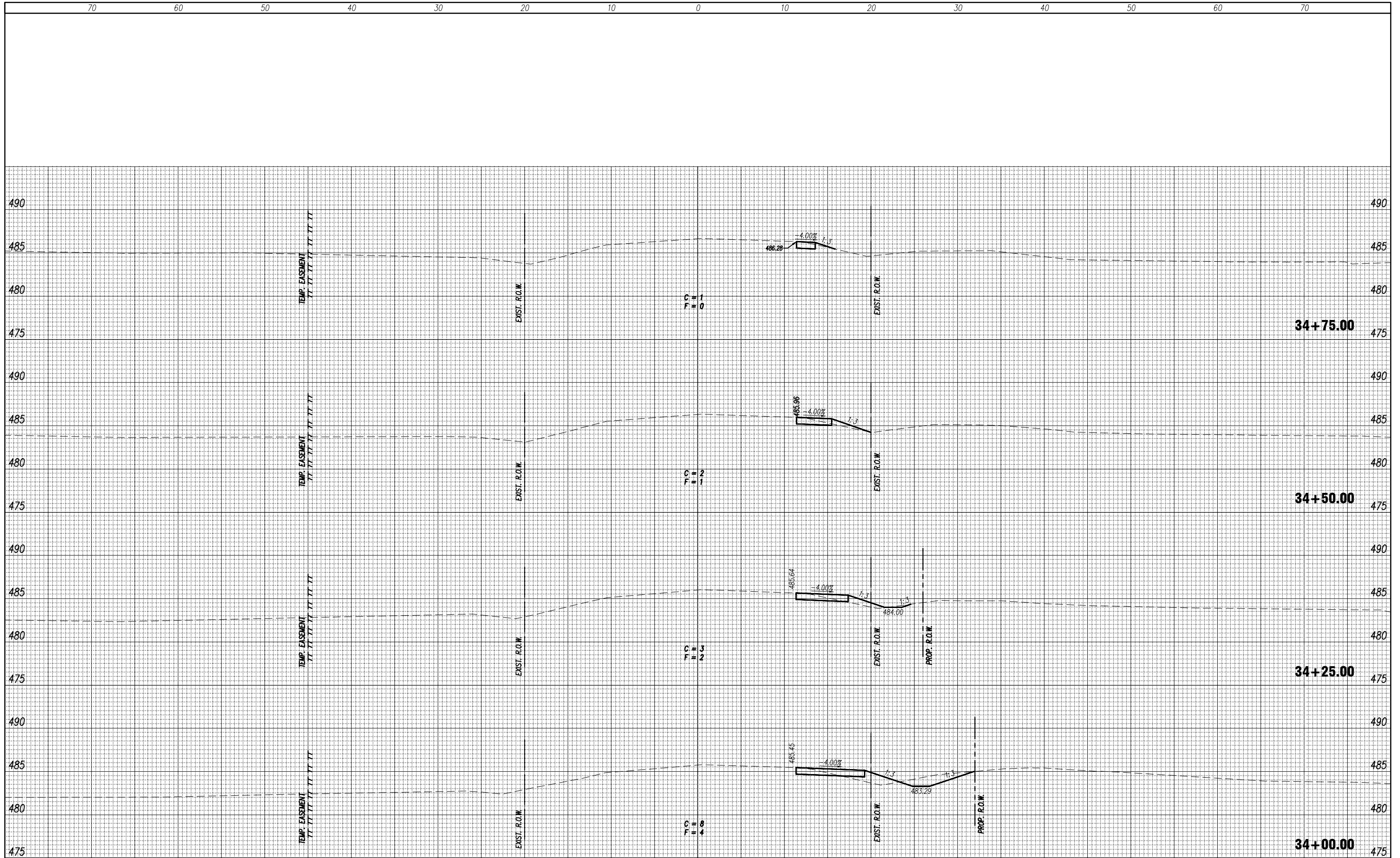
USER NAME	Nathan E. Larson	DESIGNED	NEL	REVISED	-
PLOT SCALE	0.5:1	DRAWN	NEL	REVISED	-
PLOT DATE	10-Dec-19	CHECKED	-	REVISED	-
				REVISED	----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS - PIN OAK ROAD

SCALE: 1" = 5' SHEET NO. 7 OF 11 SHEETS STA. 32+75 TO STA. 33+75

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	43
PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
MADISON COUNTY		ILLINOIS	FED. AID PROJECT	



INTERNAL PROJECT NUMBER:
A-237-00

FILE NAME:
W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg

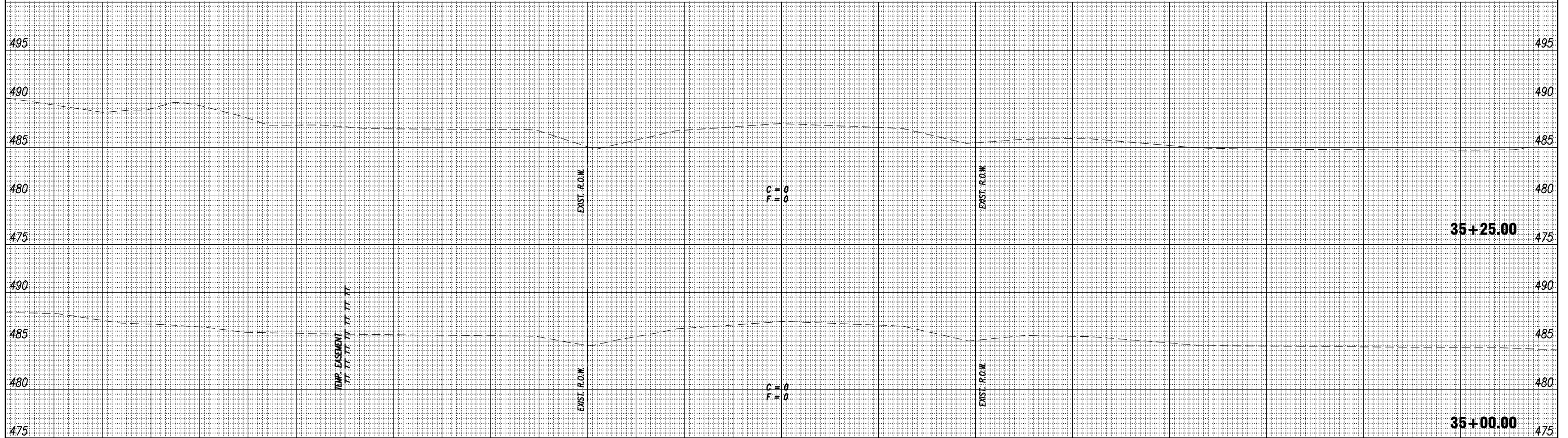
USER NAME	Nathan E. Larson	DESIGNED	NEL	REVISED	-
PLOT SCALE	0.5:1	DRAWN	NEL	REVISED	-
PLOT DATE	10-Dec-19	CHECKED	-	REVISED	-
				REVISED	----

**MADISON COUNTY
HIGHWAY DEPARTMENT**

CROSS SECTIONS - PIN OAK ROAD

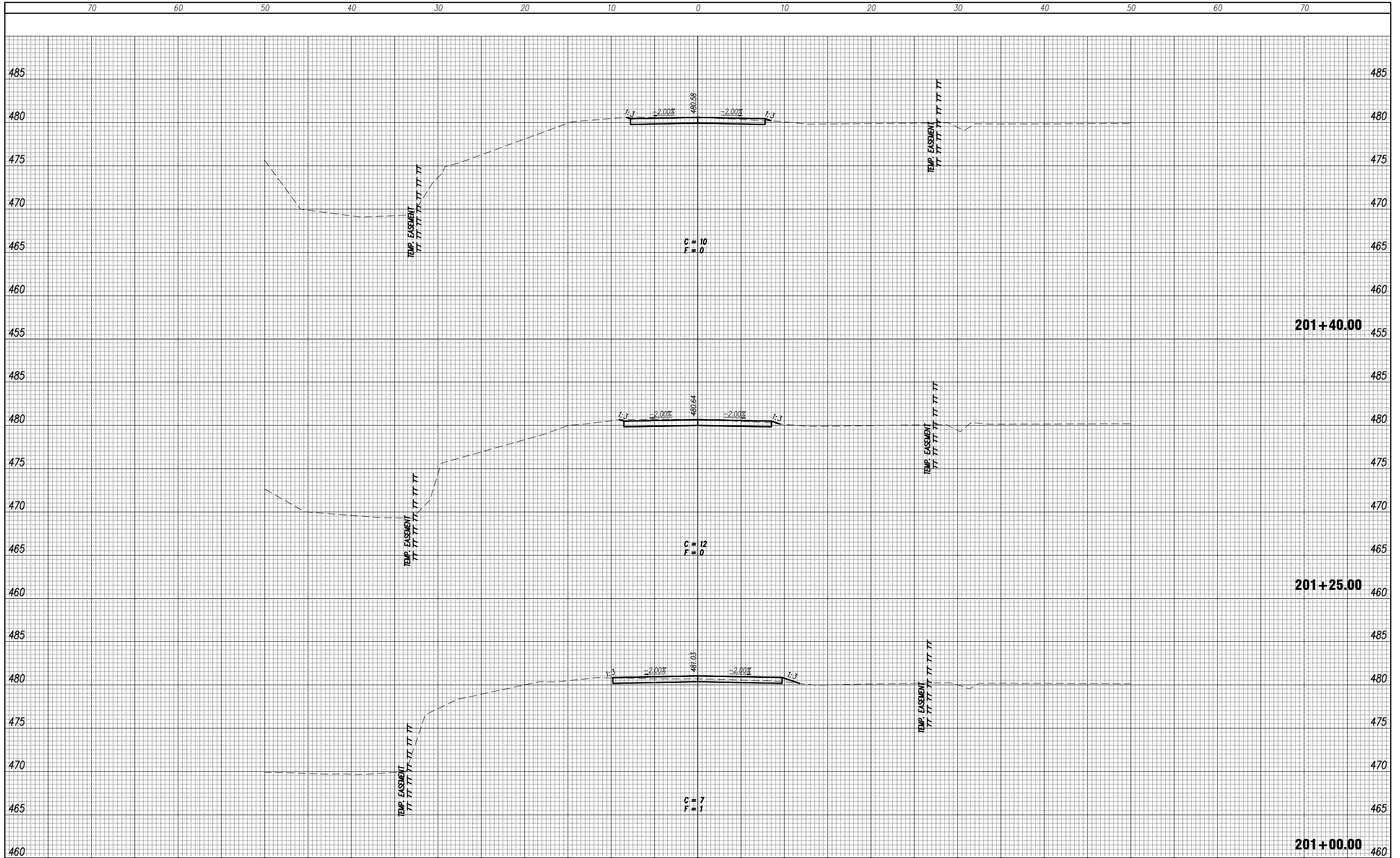
SCALE: 1" = 5' SHEET NO. 8 OF 11 SHEETS STA. 34+00 TO STA. 34+75

CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
42	16-00183-00-BR	MADISON	47	44
PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
MADISON COUNTY		ILLINOIS	FED. AID PROJECT	



INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS - PIN OAK ROAD	CH	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			42	16-00183-00-BR	MADISON	47	45
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE		CONTRACT NO. 97722		
			REVISED ----			MADISON COUNTY		ILLINOIS	FED. AID PROJECT	

SCALE: 1" = 5' SHEET NO. 9 OF 11 SHEETS STA. 35+00 TO STA. 35+25



INTERNAL PROJECT NUMBER: A-237-00	USER NAME Nathan E. Larson	DESIGNED NEL	REVISED -	MADISON COUNTY HIGHWAY DEPARTMENT	CROSS SECTIONS - ZIKA LANE	CH 42	SECTION 16-00183-00-BR	COUNTY MADISON	TOTAL SHEETS 47	SHEET NO. 47
FILE NAME: W:\Civil 3D Projects\A-237-00 County Yard Bridge\A-237-00 Cross Sections.dwg	PLOT SCALE 0.5:1	DRAWN NEL	REVISED -			PROJECT NAME: COUNTY YARD BRIDGE	CONTRACT NO. 97722			
	PLOT DATE 10-Dec-19	CHECKED -	REVISED -			MADISON COUNTY	ILLINOIS	FED. AID PROJECT		
			REVISED ----			SCALE: 1" = 5'	SHEET NO. 11 OF 11 SHEETS STA. 201+00 TO STA. 201+40			