

INDEX OF SHEETS

03-09-12 LETTING ITEM 052

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SN 039-2029

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SN 039-2002

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SN 039-2028

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- 40-41. BOX CULVERT DETAILS
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43. BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
44. TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- 45-46. BORING LOGS

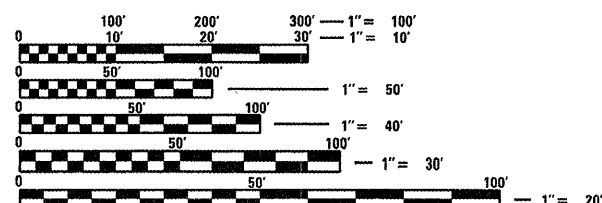
EXISTING STRUCTURE PLANS

SN 039-2001

- 47-48. EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY

CROSS SECTIONS

- 49-58. IL RTE 3 CROSS SECTIONS



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

DISTRICT 9 NO. (618)549-2171
PROJECT ENGINEER: DAVID PICHE
PROJECT MANAGER

CONTRACT NO. 78197

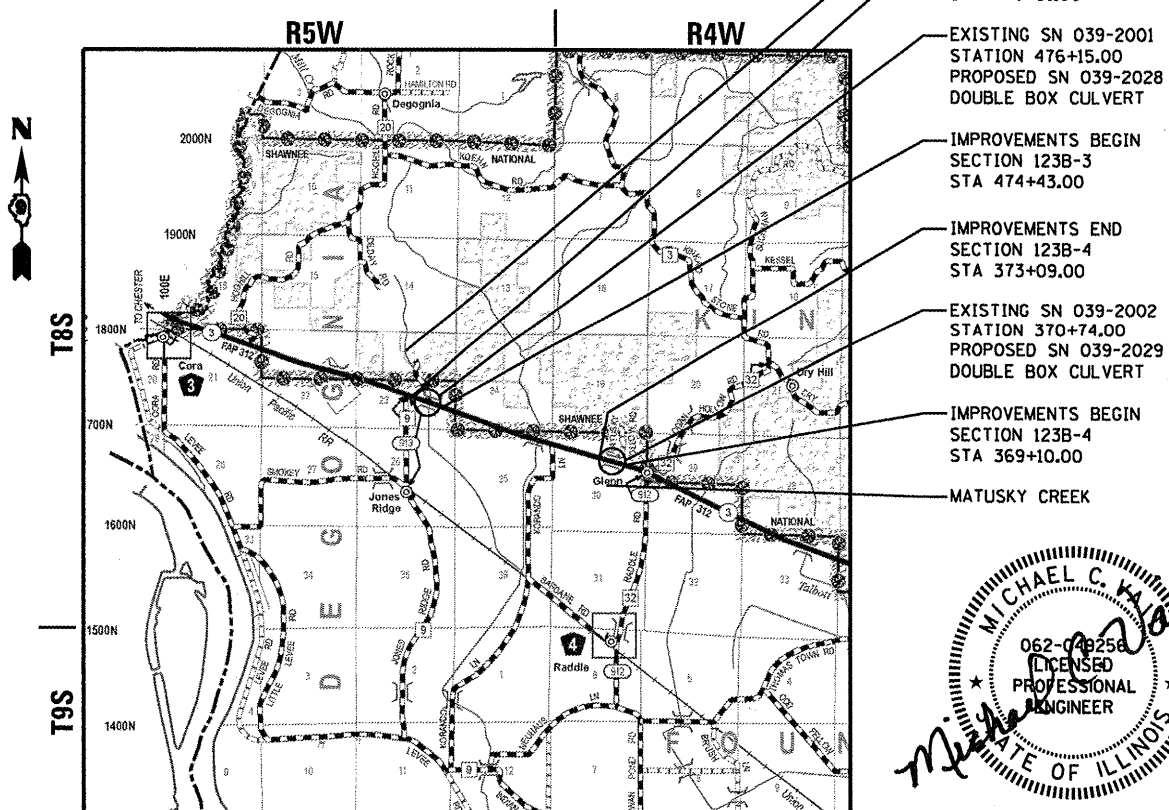
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

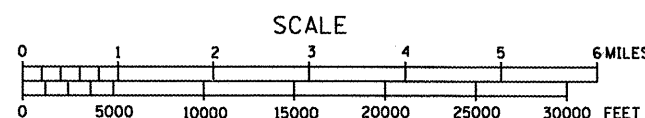
FAP ROUTE 312 (IL 3)
SECTIONS 123B-3 & 123B-4
PROJECT ACBRF-0312(042)
JACKSON COUNTY

C-99-054-10

BOX CULVERT REPLACEMENTS OVER BRANCH OF REEDS CREEK AND MATUSKY CREEK



LOCATION MAP



GROSS LENGTH = 123B-3 408.00 FT. = 0.077 MI.; 123B-4 399.00 FT. = 0.076 MI.
NET LENGTH = 408.00 FT. = 0.077 MI.; 399.00 FT. = 0.076 MI.

MICHAEL C. HALL
062-049258
LICENSED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

SIGNATURE

11-10-11

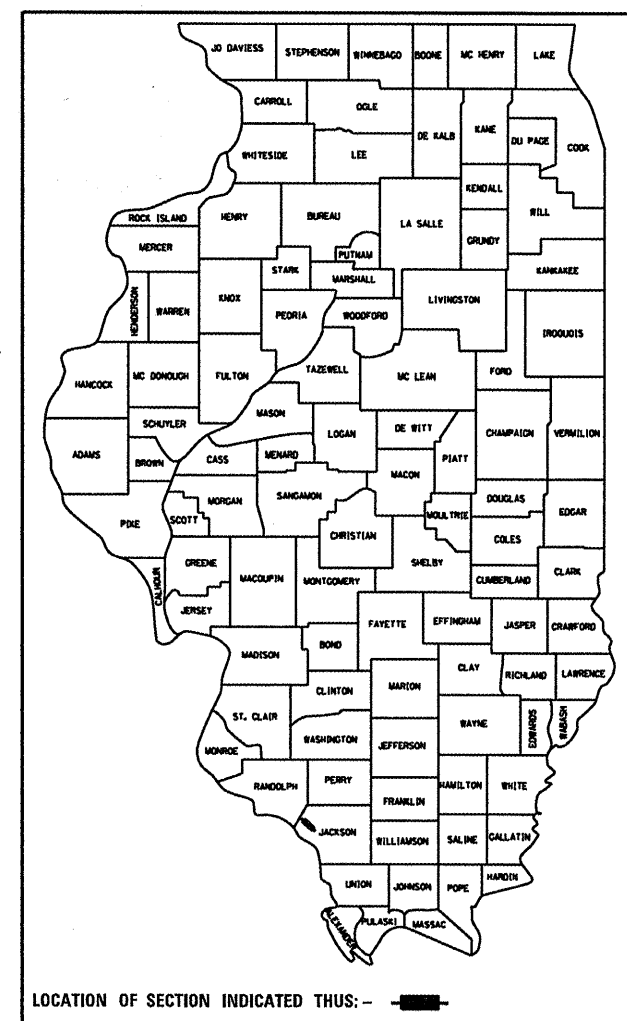
DATE

LIC. EXP. DATE : 11-30-11

QUIGG ENGINEERING INC.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	1
		ILLINOIS	CONTRACT NO. 78197	

D-99-052-10



FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL (NON-URBAN)
DESIGN SPEED: 55 mph
POSTED SPEED: 55 mph
ADT: 2565 (2010)
PV: 80.7%
TRUCKS: 19.3%
TOWNSHIP: DEGOGNIA & KINKAID

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Nov 30 20 11

Omer Osmani
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Feb 3 20 12

John D. Baranzelli, P.E. /br
acting ENGINEER OF DESIGN AND ENVIRONMENT

Feb 3 20 12

William R. Flegler /br
acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-06	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420001-07	PAVEMENT JOINTS
420601-05	24' (7.2 m) PCC PAVEMENT
420701-02	PAVEMENT FABRIC
482006-03	HMA SHOULDER ADJACENT TO RIGID PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-07	TRAFFIC BARRIER TERMINAL, TYPE 6A
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
666001-01	RIGHT-OF-WAY MARKERS
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-03	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS $\geq$ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-12	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS $\geq$ 45 MPH
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-03	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-03	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

1. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
2. EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
3. TRIM EDGES OF EXISTING HOT MIX ASPHALT SURFACE FLUSH WITH EXISTING PAVEMENT PRIOR TO CONSTRUCTING NEW BASE COURSE WIDENING. COST TO BE INCLUDED IN BASE COURSE WIDENING 10".
4. AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
5. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
6. THE THICKNESS OF HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
7. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
8. FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON PAVEMENT	0.09 GAL/SQ YD
INTERMEDIATE LIFTS (FOG COAT)	0.04 GAL/SQ YD
ON AGGREGATE SURFACE	0.32 GAL/SQ YD
RIPRAP	1.50 TONS/SQ YD
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
10. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
11. ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2A ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
12. TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER EXCEPT AS DESCRIBED IN NOTE 13. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
13. ALL OBSTRUCTIONS WHICH ARE WITHIN 18' OF THE EDGE OF THE ROADWAY AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED FROM STATION 369+10 TO 373+09 AND STATION 474+43 TO 478+51. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 IN. OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 4 IN. OR GREATER.
14. THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC, AND ONE ADDITIONAL APPLICATION.
15. EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
16. FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
17. ALL ELEVATIONS REFERRING TO U.S.C.S. MEAN SEA LEVEL DATUM.
18. EARTHWORK COMPACTION SHALL BE TO THE SATISFACTION OF THE ENGINEER.
19. IF THE CONTRACTOR ELECTS TO USE P.C.C. BASE COURSE WIDENING, SUCH WIDENING SHALL BE PRIMED ACCORDING TO ARTICLE 406.02, EXCEPT THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WIDENING.

1. NONE AS OF DECEMBER 16, 2011. REFER TO COMMITMENT FILE FOR ANY COMMITMENTS AFTER THIS DATE.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREPARED BY: *Joe Zlaniewicz*
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *Joe Zlaniewicz*
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: *Connie Nelson*
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: *Robert Kelly*
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: *Douglas J. Weisfeld*
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: *Bruce W. Pablos*
DISTRICT MATERIALS ENGINEER

APPROVED BY: Amir Usmanov
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
DATE November 30 2011

FILE NAME = S:\Projects\2009 Jobs\08-22 ESCA PTB 151 51 Phase 1 11 09\Work Order 8\CADD\CADD Sheets\General Sheets\0978197.sht-500.dgn
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SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE TOTAL	CONSTRUCTION TYPE CODE	
				0011	0011
				SN 039 -2029	SN 039 -2028
20100500	TREE REMOVAL, ACRES	ACRE	0.25	0.25	
20200100	EARTH EXCAVATION	CU YD	1151	606	545
20700220	POROUS GRANULAR EMBANKMENT	CU YD	885	474	411
20800150	TRENCH BACKFILL	CU YD	6		6
* 25000210	SEEDING, CLASS 2A	ACRE	0.25	0.125	0.125
* 25000350	SEEDING, CLASS 7	ACRE	0.25	0.125	0.125
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	36	16	20
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	25	11	14
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	25	11	14
* 25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.50	0.25	0.25
* 25100115	MULCH, METHOD 2	ACRE	0.50	0.20	0.30
* 25100630	EROSION CONTROL BLANKET	SQ YD	43		43
* 25100900	TURF REINFORCEMENT MAT	SQ YD	17		17
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	48	22	26
28000400	PERIMETER EROSION BARRIER	FOOT	1346	672	674
28000500	INLET AND PIPE PROTECTION	EACH	5	3	2
28100109	STONE RIPRAP, CLASS A5	SQ YD	285	148	137
28200200	FILTER FABRIC	SQ YD	285	148	137
35100700	AGGREGATE BASE COURSE, TYPE A 8"	SQ YD	47		47
35650500	BASE COURSE WIDENING 10"	SQ YD	661	329	332
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	83	43	40
40800010	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	16		16
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	8		8
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	399	214	185
42001200	PAVEMENT FABRIC	SQ YD	399	214	185
44000100	PAVEMENT REMOVAL	SQ YD	647	328	319
48100500	AGGREGATE SHOULDERS, TYPE A 6"	SQ YD	6	6	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	768	391	377
50100300	REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1		1

SUMMARY OF QUANTITIES

CODE NUMBER	PAY ITEM	UNIT	HBP FUNDING 80% FEDERAL 20% STATE TOTAL	CONSTRUCTION TYPE CODE	
				0011	0011
				SN 039 -2029	SN 039 -2028
50100400	REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1	1	
50104400	CONCRETE HEADWALL REMOVAL	EACH	2		2
50105220	PIPE CULVERT REMOVAL	FOOT	48	48	
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	214	111	103
50800105	REINFORCEMENT BARS	POUND	360	360	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	61320	33140	28180
50800515	BAR SPLICERS	EACH	321	167	154
* 50900200	STEEL RAILING, TYPE 2399	FOOT	115	59	56
51500100	NAME PLATES	EACH	2	1	1
54003000	CONCRETE BOX CULVERTS	CU YD	368.7	195.0	173.7
54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	43		43
54200229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	48	48	
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2		2
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	2	2	
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	250	137.5	112.5
* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3	2	1
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	2	1
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1		1
63200310	GUARDRAIL REMOVAL	FOOT	656	310	346
* 63300725	STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	FOOT	62.5	25	37.5
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	12	4	8
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	2.5	2.5
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	2	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	12	6	6
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	1	1

*SPECIALTY ITEM



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PLOT DATE = 12/6/2011	CHECKED - MTM	REVISED -
	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	1238-3 & 1238-4	JACKSON	58	3
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

[illegible]

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SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	4
		CONTRACT NO. 78197		
ILLINOIS FED. AID PROJECT				

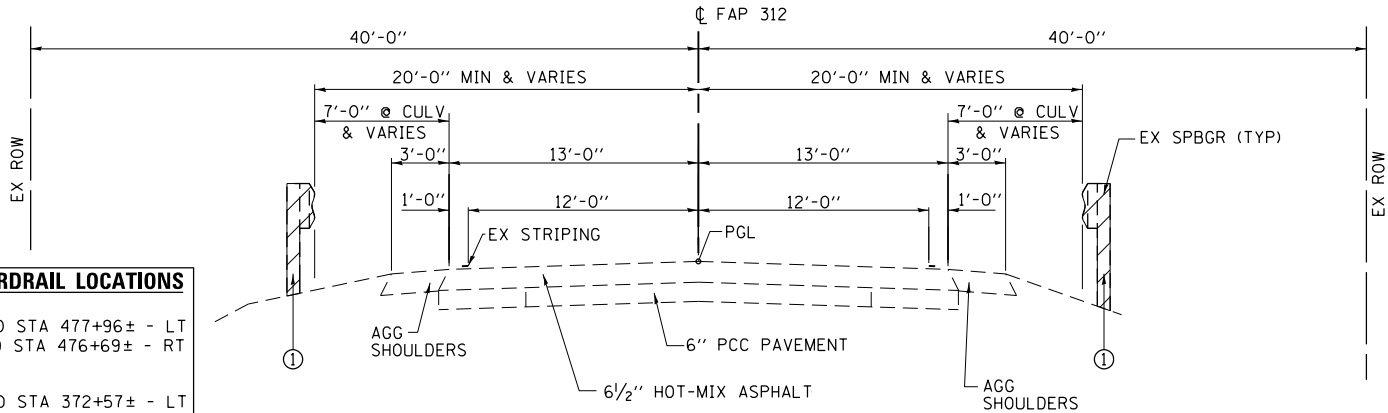
HMA MIXTURES REQUIREMENTS

LOCATION(S):	INCIDENTAL HMA SURFACING	BASE COURSE WIDENING	HMA SHOULDERS
MIXTURE USE(S):	HMA SURFACE CSE, MIX C, N90	HMA BINDER CSE, N90, IL-19.0	HMA SHOULDERS
AC/PG GRADE:	PG64-22	PG64-22	PG58-22
RAP % (MAX): ***	10	10	50
DESIGN AIR Voids	4.0%, 90 GYRATION DESIGN	4.0%, 90 GYRATION DESIGN	2.0%, 30 GYRATION DESIGN
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5 OR IL-12.5	IL-19.0	HMA SHOULDERS
FRICTION AGGREGATE:	C SURFACE	NONE	NONE

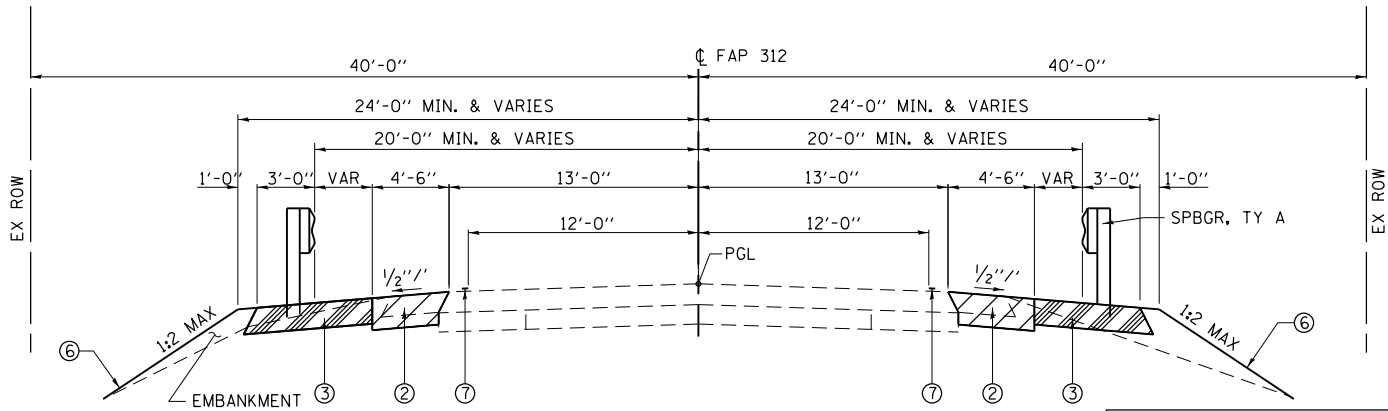
*** IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED AS DETERMINED BY THE ENGINEER.

EXISTING GUARDRAIL LOCATIONS
SECTION 123B-3
STA 475+83± TO STA 477+96± - LT
STA 475+41± TO STA 476+69± - RT

SECTION 123B-4
STA 370+29± TO STA 372+57± - LT
STA 370+30± TO STA 371+04± - RT



EXISTING TYPICAL ROADWAY SECTION
STA 365+00 TO STA 376+00
STA 471+00 TO STA 482+00



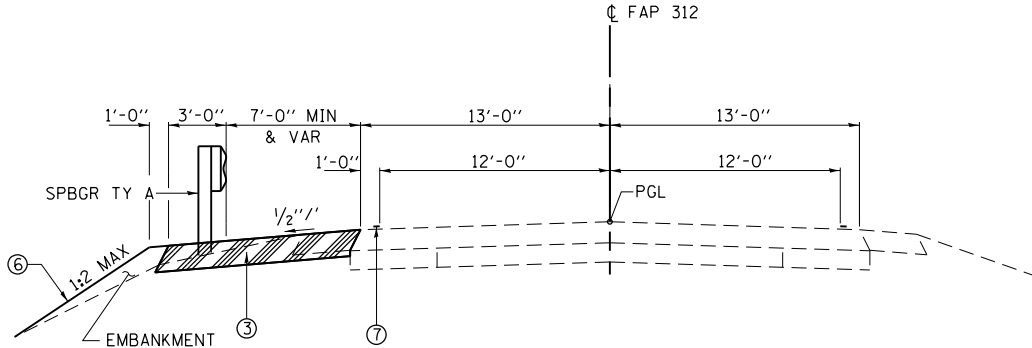
BASE COURSE WIDENING:
STA 369+10.00 TO STA 372+49.00 - LT
STA 474+43.00 TO STA 477+87.00 - LT

HMA SHOULDERS:
STA 370+20.73 TO STA 373+09.00 - LT
STA 475+67.00 TO STA 478+51.00 - LT

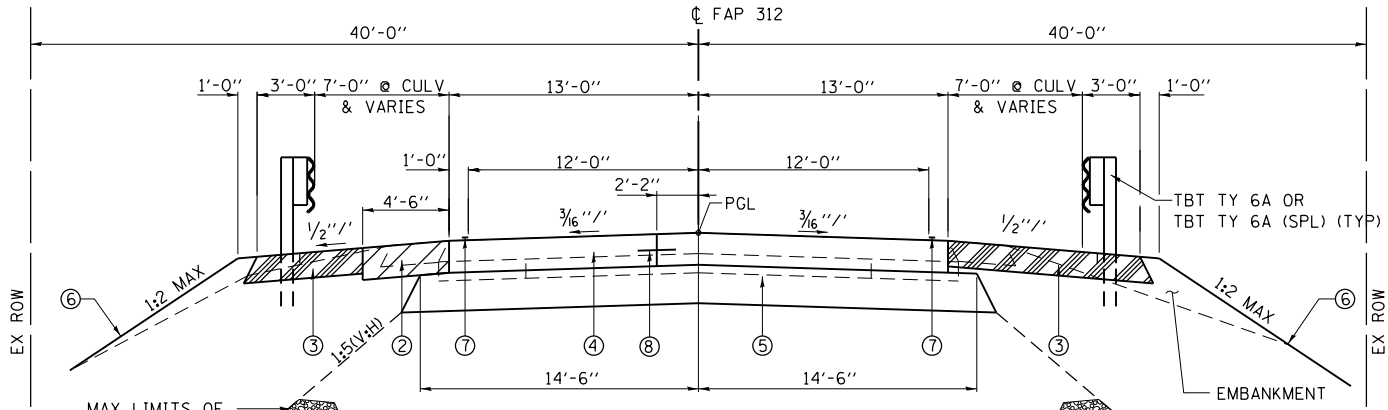
PROPOSED TYPICAL ROADWAY SECTION
STA 369+10.00 TO STA 370+37.00
STA 371+11.00 TO STA 372+49.00
STA 474+43.00 TO STA 475+83.00
STA 476+47.00 TO STA 477+87.00

BASE COURSE WIDENING:
STA 369+10.00 TO STA 372+27.00 - RT
STA 474+55.00 TO STA 477+75.00 - RT

HMA SHOULDERS:
STA 369+92.21 TO STA 372+22.00 - RT
STA 474+85.00 TO STA 476+75.44 - RT



PROPOSED TYPICAL ROADWAY SECTION
STA 372+49.00 TO STA 373+09.00
STA 477+87.00 TO STA 478+51.00



PROPOSED TYPICAL ROADWAY SECTION
STA 370+37.00 TO STA 371+11.00
STA 475+83.00 TO STA 476+47.00

(SEE STRUCTURE PLANS FOR SECTION OVER CULVERTS)

LEGEND

- ① GUARDRAIL REMOVAL
- ② BASE COURSE WIDENING 10" - FOR TRAFFIC STAGING. TO REMAIN IN PLACE AS PAVED SHOULDER AFTER CONSTRUCTION. SEE STAGING PLANS FOR LIMITS.
- ③ HMA SHOULDERS, 8"
- ④ PCC PAVEMENT 10"
- ⑤ 12" OF CA6 OR CA10 - THICKNESS VARIES OVER CULVERTS. QUANTITY INCLUDED IN POROUS GRANULAR EMBANKMENT.
- ⑥ SEEDING, CLASS 2A WITH MULCH, METHOD 2
- ⑦ PAINT PAVEMENT MARKING - LINE 4"
- ⑧ LONGITUDINAL CONSTRUCTION JOINT TIE BAR - *6 AT 24" CTS GROUTED IN PLACE (SEE HIGHWAY STANDARD 420001)

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PLOT DATE = 11/9/2011	CHECKED - MTM	REVISED -
	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	5
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

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PLOT DRIVER = V8i,PDF,11x17,pltf9

EARTHWORK SCHEDULE						
	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
LOCATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NW & SW QUADRANT CUTS & FILLS	37	28			32	-4
NE & SE QUADRANT CUTS & FILLS	64	48			9	+39
EXCAVATION FOR PGE & CAPPING	380	285				+285
EXCAVATION FOR RIPRAP	125•	0				0
EXCAVATION FOR CULVERT			100	75		+75
TOTALS	606	361	100	75	41	+395

NOTES:
1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)*0.75
• NOT SUITABLE AS EMBANKMENT

EROSION CONTROL SCHEDULE			
	TEMPORARY EROSION CONTROL SEEDING (2 APPS)	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION
LOCATION	POUND	FOOT	EACH
NW QUADRANT CUTS & FILLS	10	164	
NE QUADRANT CUTS & FILLS	2	143	3
SW QUADRANT CUTS & FILLS	6	212	
SE QUADRANT CUTS & FILLS	4	153	
TOTALS	22	672	3

SEEDING SCHEDULE							
	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHOROUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURE GROUND LIMESTONE	MULCH, METHOD 2
LOCATION	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
NW QUADRANT CUTS & FILLS	0.054	0.054	5	5	5	0.11	
NE QUADRANT CUTS & FILLS	0.014	0.014	1	1	1	0.03	0.06
SW QUADRANT CUTS & FILLS	0.034	0.034	3	3	3	0.06	0.07
SE QUADRANT CUTS & FILLS	0.023	0.023	2	2	2	0.05	0.07
TOTALS	0.125	0.125	11	11	11	0.25	0.20

GUARDRAIL REMOVAL SCHEDULE	
	FOOT
LOCATION	
SN 039-2029 - (IL 3) RT	80
SN 039-2029 - (IL 3) LT	230
TOTAL	310

TREE REMOVAL SCHEDULE	
	TREE REMOVAL, ACRES
LOCATION	ACRE
STA 369+68, 43' RT TO 370+01, 48' RT	0.125
STA 370+21 TO 370+92, 40' RT	0.125
TOTAL	0.25

F & E ROW MARKERS SCHEDULE	
	F&E ROW MARKERS
LOCATION	EACH
STA 371+50.00, 40' RT	1
STA 371+50.00, 50' RT	1
STA 372+00.00, 40' LT	1
STA 372+00.00, 45' LT	1
TOTAL	4

REMOVAL SCHEDULE	
	PAVEMENT REMOVAL
LOCATION	SQ YD
STA 370+37.00 TO 371+11.00 (EX RDWY)	219
STA 370+37.00 TO 371+11.00 (STG 1 WIDEN-RT)	37
STA 369+18.06 TO 370+30.99 - RT	51
STA 369+89.78 TO 370+26.62 - LT	21
TOTAL	328

PAVEMENT MARKING SCHEDULE				
	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE 4"	TEMP PAVEMENT MARKING - LINE 4"
LOCATION		FOOT	FOOT	FOOT
STA 367+49.50 TO 374+10.50, CL	YELLOW SKIP-DASH	136	166	166
STA 369+23.30 TO 372+21.17, RT	WHITE EDGE	24•	298	298
STA 369+20.14 TO 372+38.95, LT	WHITE EDGE	32•	319	319
TOTALS		192	783	783

① INCLUDES 1 ADDITIONAL APPLICATION
• 4' WHITE STRIPES @ 45° ANGLE @ 100' CTS

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE			
	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
LOCATION		SQ FT	SQ FT
STA 367+49.50 TO 374+10.50, CL	YELLOW SKIP-DASH	55	39
STA 369+23.30 TO 372+21.17, RT	WHITE EDGE	100	100
STA 369+20.14 TO 372+38.95, LT	WHITE EDGE	107	
STA 369+20.14 TO 370+37.00, LT	WHITE EDGE		39
STA 371+11.00 TO 372+38.95, LT	WHITE EDGE		43
TOTALS		262	221

PIPE CULVERT SCHEDULE			
	PIPE CUL, CL D, TY 1 24"	PIPE CUL REMOVAL	PRECAST REINF CONC FLARED END SEC 24"
LOCATION	FT	FT	EACH
STA 369+22.00 TO 369+69.00, 38' RT	48		2
STA 369+55.00, 35' RT		48	
TOTALS	48	48	2

BASE COURSE SCHEDULE	
	BASE COURSE WIDENING, 10"
LOCATION	SQ YD
STA 369+10.00 to 372+27.00, RT	159
STA 369+10.00 TO 372+49.00, LT	170
TOTAL	329

SHOULDER SCHEDULE		
	HMA SHOULDERS, 8"	AGG SHLD TYPE A, 6"
LOCATION	SQ YD	TON
STA 369+92.21 TO 372+22.00, RT	187	
STA 370+20.73 TO 373+09.00, LT	204	
STA 369+61.24 TO 369+96.08, RT		6
TOTAL	391	6

RAISED REFLECTIVE PAVEMENT MARKER SCHEDULE			
	RRPM	REPLACEMENT REFLECTOR	RRPM, REFLECTOR REMOVAL
LOCATION	EACH	EACH	EACH
STA 368+35.00		1	1
STA 369+15.00		1	1
STA 369+95.00		1	1
STA 370+75.00	1		
STA 371+55.00		1	1
STA 372+35.00		1	1
STA 373+15.00		1	1
STA 373+95.00		1	1
TOTALS	1	7	7

PCC PAVEMENT SCHEDULE		
	PCC PAVEMENT 10"	PAVEMENT FABRIC
LOCATION	SQ YD	SQ YD
STA 370+37.00 TO 371+11.00	214	214
TOTALS	214	214

GUARDRAIL SCHEDULE									
	SPBGR, TYPE A, 6 FOOT POSTS	SPBGR, (SHORT RADIUS)	TRAFFIC BARRIER TERMINAL			GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	TERMINAL MARKER, DIRECT APPLIED	STEEL RAILING, TYPE 2399
LOCATION	FOOT	FOOT	TYPE 6A	TYPE 6A (SPECIAL)	TYPE 1 (SPECIAL) TANGENT	EACH	EACH	EACH	FOOT
STRUCTURE NO. 039-2029 - NW	37.5		1		1	3		1	
STRUCTURE NO. 039-2029 - NE		12.5		1		1			
STRUCTURE NO. 039-2029 - SW	100		1		1	3		1	
STRUCTURE NO. 039-2029 - SE		12.5		1		1			
STRUCTURE NO. 039-2029 - HEADWALLS							2		58
TOTALS	137.5	25	2	2	2	8	2	2	58

 QUIGG ENGINEERING INC	USER NAME = mmann	DESIGNED - MCV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES STRUCTURE NO. 039-2029			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - CMM	REVISED -					312	123B-4	JACKSON	58	6
	PLOT SCALE = 40.0000 ' / in.	CHECKED - MTM	REVISED -		SCALE: N.T.S.			SHEET NO. 1 OF 1 SHEETS			CONTRACT NO. 78197	
	PLOT DATE = 12/6/2011	DATE - 11/10/11	REVISED -		STA. TO STA.			ILLINOIS FED. AID PROJECT				

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PLOT DRIVER = V8i,PDF, .ltx17,plotcfg

EARTHWORK SCHEDULE						
	SUITABLE EARTH EXCAVATION	SUITABLE EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SUITABLE INCIDENTAL EXCAVATION MATERIAL	SUITABLE INCIDENTAL EXC. MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT (NOT A PAY ITEM)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
LOCATION	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
NW & SW QUADRANT CUTS & FILLS	53	40			88	-48
NE & SE QUADRANT CUTS & FILLS	47	35			38	-3
EXCAVATION FOR PGE & CAPPING	330	247				+247
EXCAVATION FOR RIPRAP	115•	0				0
EXCAVATION FOR CULVERT			80	60		+60
TOTALS	545	322	80	60	126	+256

NOTES:

1. EXCAVATION USED AS EMBANKMENT = (SUITABLE EARTH EXCAVATION + SUITABLE INCIDENTAL EXCAVATION)•0.75
- NOT SUITABLE AS EMBANKMENT

EROSION CONTROL SCHEDULE			
	TEMPORARY EROSION CONTROL SEEDING (2 APPS)	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION
LOCATION	POUND	FOOT	EACH
NW QUADRANT CUTS & FILLS	8	145	2
NE QUADRANT CUTS & FILLS	3	127	
SW QUADRANT CUTS & FILLS	12	240	
SE QUADRANT CUTS & FILLS	3	162	
TOTALS	26	674	2

SEEDING SCHEDULE									
	SEEDING, CLASS 2A	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHOROUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURE GROUND LIMESTONE	MULCH, METHOD 2	EROSION CONTROL BLANKET	TURF REINFORCE MAT
LOCATION	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE	SQ YD	SQ YD
NW QUADRANT CUTS & FILLS	0.040	0.040	4	4	4	0.08	0.08	43	17
NE QUADRANT CUTS & FILLS	0.010	0.010	2	2	2	0.03	0.04		
SW QUADRANT CUTS & FILLS	0.060	0.060	6	6	6	0.12	0.12		
SE QUADRANT CUTS & FILLS	0.015	0.015	2	2	2	0.02	0.06		
TOTALS	0.125	0.125	14	14	14	0.25	0.30	43	17

GUARDRAIL REMOVAL SCHEDULE	
	FOOT
SN 039-2028 - (IL 3) RT	130
SN 039-2028 - (IL 3) LT	216
TOTALS	346

REMOVAL SCHEDULE	
	PAVEMENT REMOVAL
LOCATION	SQ YD
STA 475+83.00 TO 476+47.00 (EX RDWY)	190
STA 475+83.00 TO 476+47.00 (STG 1 WIDEN-RT)	32
STA 476+81.00-SIDEROAD RT	47
STA 474+82.58 TO 475+61.79 - RT	31
STA 475+47.66 TO 475+95.03 - LT	19
TOTALS	319

F & E ROW MARKERS SCHEDULE	
	F&E ROW MARKERS
LOCATION	EACH
STA 474+56.67, 45' RT	1
STA 474+64.13, 40' RT	1
STA 475+00.00, 40' LT	1
STA 475+00.00, 45' LT	1
STA 477+00.00, 40' LT	1
STA 477+00.00, 45' LT	1
STA 477+50.00, 40' RT	1
STA 477+50.00, 45' RT	1
TOTALS	8

PAVEMENT MARKING SCHEDULE				
	DESCRIPTION	SHORT-TERM PAVEMENT MARKING ①	PAINT PAVEMENT MARKING - LINE 4"	TEMP PAVEMENT MARKING - LINE 4"
LOCATION		FOOT	FOOT	FOOT
STA 472+90.00 TO 479+32.00, CL	YELLOW SKIP-DASH	136	161	161
STA 474+77.48 TO 477+60.10, RT	WHITE EDGE	24•	283	283
STA 474+54.66 TO 477+56.80, LT	WHITE EDGE	32•	303	303
TOTALS		192	747	747

- ① INCLUDES 1 ADDITIONAL APPLICATION
- 4' WHITE STRIPES @ 45° ANGLE @ 100' CTS

WORK ZONE AND PAVEMENT MARKING REMOVAL SCHEDULE			
	PAVEMENT MARKING DESCRIPTION	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
LOCATION		SQ FT	SQ FT
STA 472+90.00 TO 479+32.00, CL	YELLOW SKIP-DASH	54	39
STA 474+77.48 TO 477+60.10, RT	WHITE EDGE	95	95
STA 474+54.66 TO 477+56.80, LT	WHITE EDGE	101	
STA 474+54.66 TO 475+83.00, LT	WHITE EDGE		43
STA 476+47.00 TO 477+56.80, LT	WHITE EDGE		37
TOTALS		250	214

BASE COURSE SCHEDULE	
	BASE COURSE WIDENING, 10"
LOCATION	SQ YD
STA 474+55.00 TO 477+75.00, RT	160
STA 474+43.00 TO 477+87.00, LT	172
TOTAL	332

SHOULDER SCHEDULE	
	HMA SHOULDERS, 8"
LOCATION	SQ YD
STA 474+85.00 TO 476+75.44, RT	173
STA 475+51.18 TO 478+51.00, LT	204
TOTAL	377

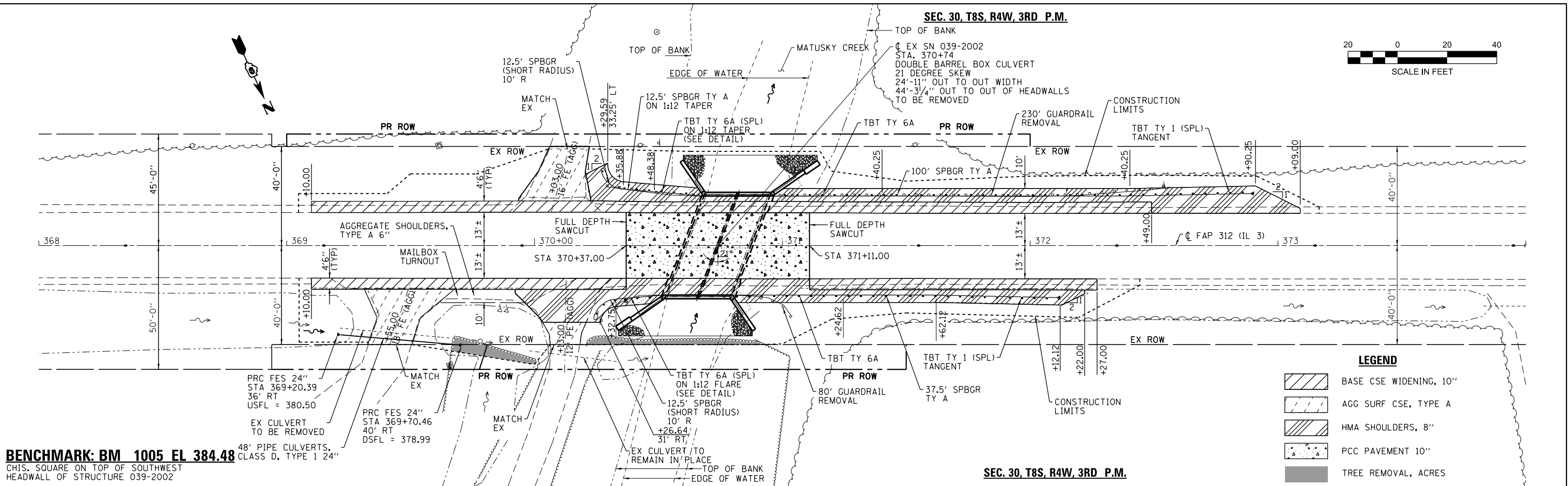
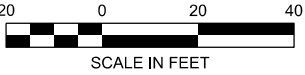
PCC PAVEMENT SCHEDULE		
	PCC PAVEMENT 10"	PAVEMENT FABRIC
LOCATION	SQ YD	SQ YD
STA 475+83.00 TO 476+47.00	185	185
TOTALS	185	185

RAISED REFLECTIVE PAVEMENT MARKER SCHEDULE			
	RRPM	REPLACEMENT REFLECTOR	RRPM, REFLECTOR REMOVAL
LOCATION	EACH	EACH	EACH
STA 473+43.00		1	1
STA 474+23.00		1	1
STA 475+03.00		1	1
STA 475+83.00	1		
STA 476+63.00		1	1
STA 477+43.00		1	1
STA 478+23.00		1	1
STA 479+03.00		1	1
TOTALS	1	7	7

GUARDRAIL SCHEDULE										
	SPBGR, TYPE A, 6 FOOT POSTS	SPBGR, (SHORT RADIUS)	TRAFFIC BARRIER TERMINAL				GUARDRAIL MARKERS, TYPE A	BARRIER WALL MARKERS, TYPE B	TERMINAL MARKER, DIRECT APPLIED	STEEL RAILING, TYPE 2399
LOCATION	FOOT	FOOT	TYPE 6A	TYPE 6A (SPECIAL)	TYPE 1 (SPECIAL) TANGENT	TYPE 1 (SPECIAL) FLARED	EACH	EACH	EACH	FOOT
STRUCTURE NO. 039-2028 - NW		25		1			2			
STRUCTURE NO. 039-2028 - NE				1		1	2		1	
STRUCTURE NO. 039-2028 - SW	112.5		1		1		3		1	
STRUCTURE NO. 039-2028 - SE		12.5		1			1			
STRUCTURE NO. 039-2028 - HEADWALLS								2		56
TOTALS	112.5	37.5	1	3	1	1	8	2	2	56

 QUIGG ENGINEERING INC	USER NAME = mmann	DESIGNED - MCV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES STRUCTURE NO. 039-2028			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / in.	DRAWN - CMM	REVISED -					312	123B-3	JACKSON	58	7
	PLOT DATE = 12/6/2011	CHECKED - MTM	REVISED -					CONTRACT NO. 78197				
		DATE - 11/10/11	REVISED -					ILLINOIS FED. AID PROJECT				
SCALE: N.T.S.		SHEET NO. 1 OF 1 SHEETS		STA.		TO STA.						

SEC. 30, T8S, R4W, 3RD P.M.

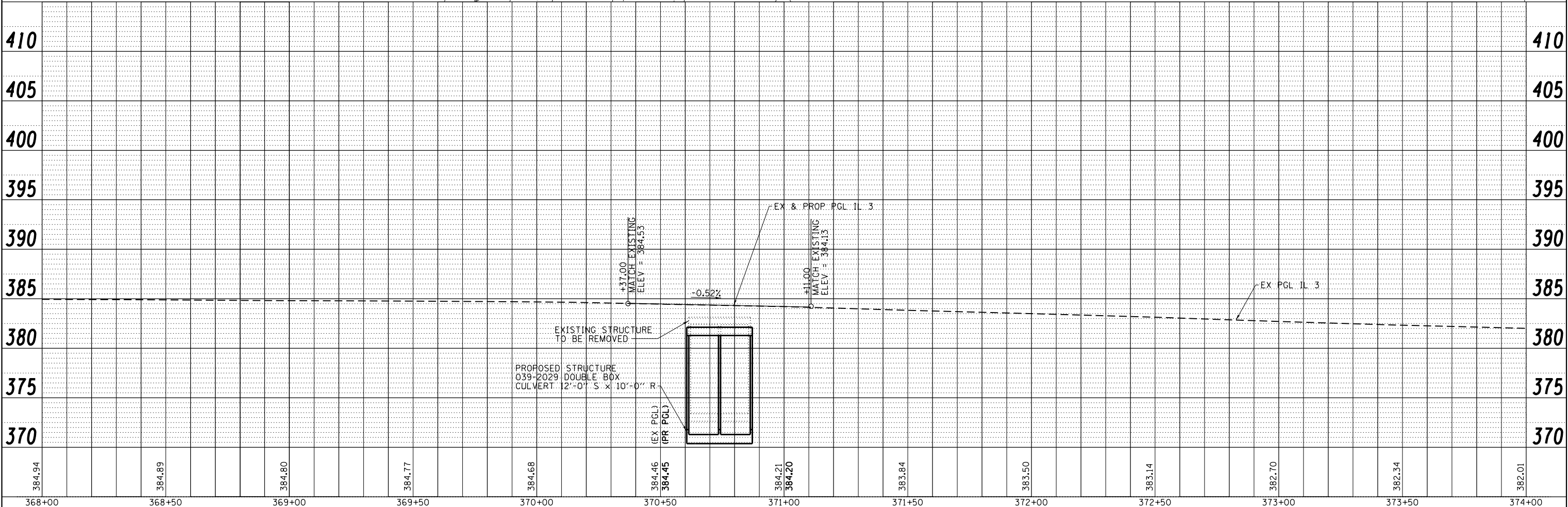


BENCHMARK: BM 1005 EL 384.48
CHIS. SQUARE ON TOP OF SOUTHWEST
HEADWALL OF STRUCTURE 039-2002

LEGEND

- BASE CSE WIDENING, 10"
- AGG SURF CSE, TYPE A
- HMA SHOULDERS, 8"
- PCC PAVEMENT 10"
- TREE REMOVAL, ACRES

SEC. 30, T8S, R4W, 3RD P.M.



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MODEL =
PLOT DRIVER = V8i,PDF,11x17,plc1g

 QUIGG ENGINEERING INC	USER NAME = mmann	DESIGNED - MCV	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL RTE 3 PLAN AND PROFILE STRUCTURE NO. 039-2029			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = 40.0000' / in.	CHECKED - MTM	REVISED -					CONTRACT NO. 78197				
	PLOT DATE = 11/10/2011	DATE - 11/10/11	REVISED -					ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

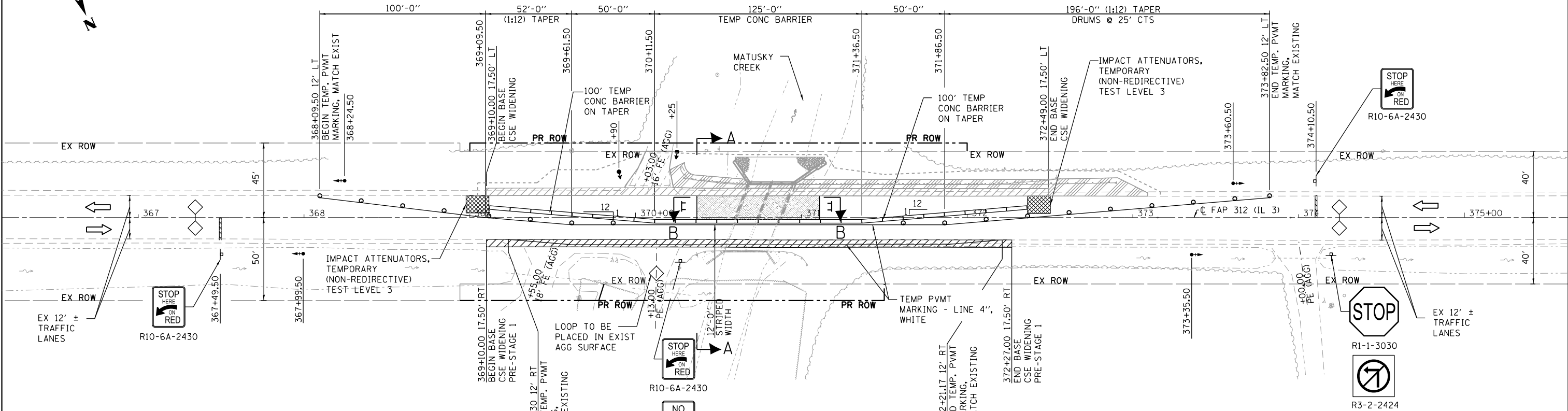
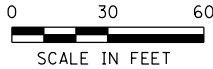
TEMPORARY CONCRETE BARRIER		
STATION TO	STATION	FEET
369+11.50	372+36.50	325.0'
TOTAL		- 325.0'
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH		
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH		

LEGEND

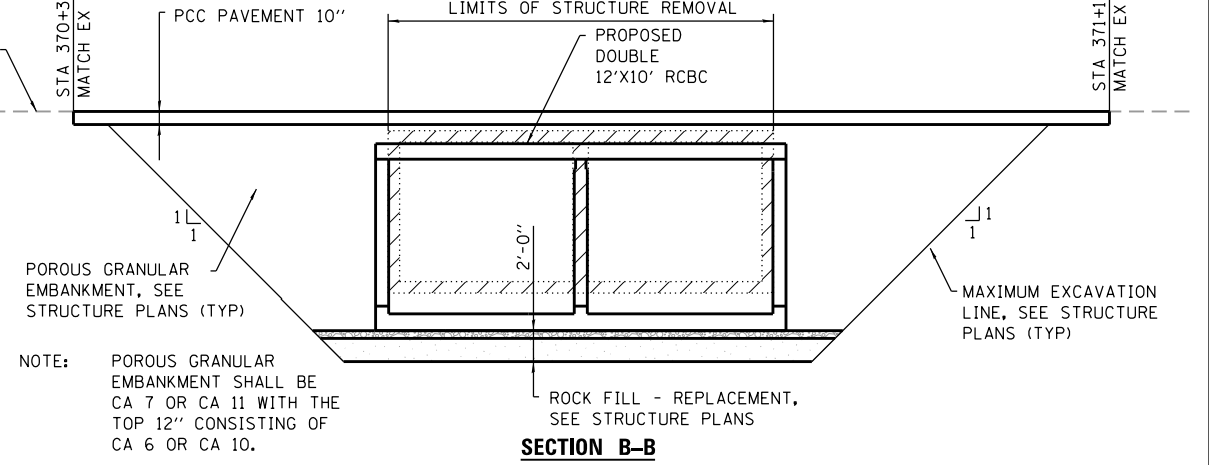
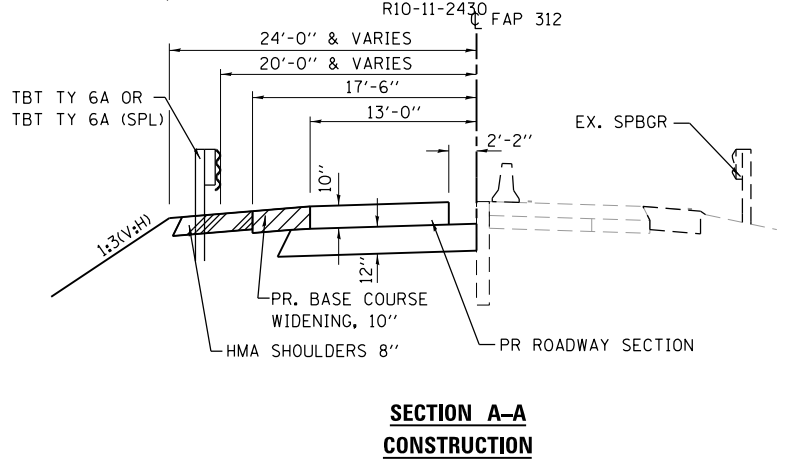
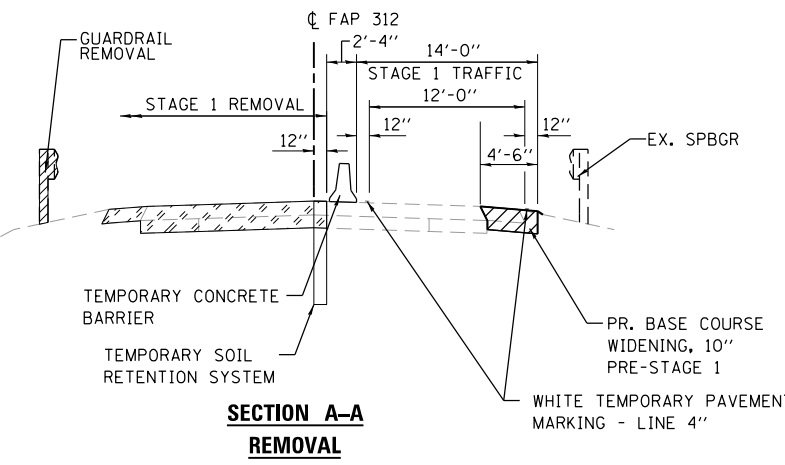
- ◇ DETECTOR LOOP
- ➔ TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- ▨ PAVEMENT REMOVAL
- ▨ BASE COURSE WIDENING, 10"
- ▨ HMA SHOULDERS, 8"
- ▨ AGGREGATE SURFACE COURSE, TYPE A
- ⌚ TYPE III BARRICADE
- ➔ TRAFFIC SIGNAL, SIGNAL DIRECTION INDICATED. (10' MINIMUM TO BOTTOM OF SIGNAL)

GENERAL NOTES

- TRAFFIC CONTROL SHALL BE ERCTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- ADDITIONAL SIGNAGE FOR ENTRANCES AND ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
- THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-I102(O)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-I103) SHOWN ON THE STAGE 2 PLAN SHEET FOR THIS STRUCTURE SHALL BE 12'-6" FOR STAGE 1 CONSTRUCTION.
- SEE STD 701321 FOR COMPLETION OF STAGE CONSTRUCTION SIGNING AND ADVANCE DETECTOR LOOP PLACEMENT NOT SHOWN.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE 2 NEW BRIDGE RAIL. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS BE TURNED OFF OR COVERED.
- ALL TRAFFIC SIGNALS SHOWN ARE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.
- THE ADDITIONAL DETECTOR LOOPS AT THE ENTRANCE ARE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.
- TEMPORARY BRIDGE TRAFFIC SIGNALS SHALL BE A 3-PHASE SIGNAL WITH ACTUATION FOR THE PRIVATE ENTRANCE AT STATION 370+13.



STAGE 1 PLAN



FILE NAME : S:\Projects\2009\J039-09-22 ESCA P1B 151 51 Phase 1\1 D9\Work Order 8\CA00\CA00 Sheets\SN 039-2029\0978197.sht-staging.dgn
MODEL : Default
PLOT DRIVER : V8i,PDF,11x17,pltf



USER NAME : mmann	DESIGNED - MCV	REVISED -
PLOT SCALE : 60.0000' / in.	DRAWN - CMM	REVISED -
PLOT DATE : 12/6/2011	CHECKED - MTM	REVISED -
	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 1 CONSTRUCTION PLAN AND DETAILS
STRUCTURE NO. 039-2029

SCALE: 1"=30' SHEET NO. 1 OF 2 SHEETS STA. 367+00 TO STA. 375+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	10
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES

RELOCATE TEMPORARY CONCRETE BARRIER	STATION TO STATION	FEET
	370+24.00 TO 372+36.50	212.5'
	TOTAL	212.5'

IMPACT ATTENUATORS, RELOCATE
(NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

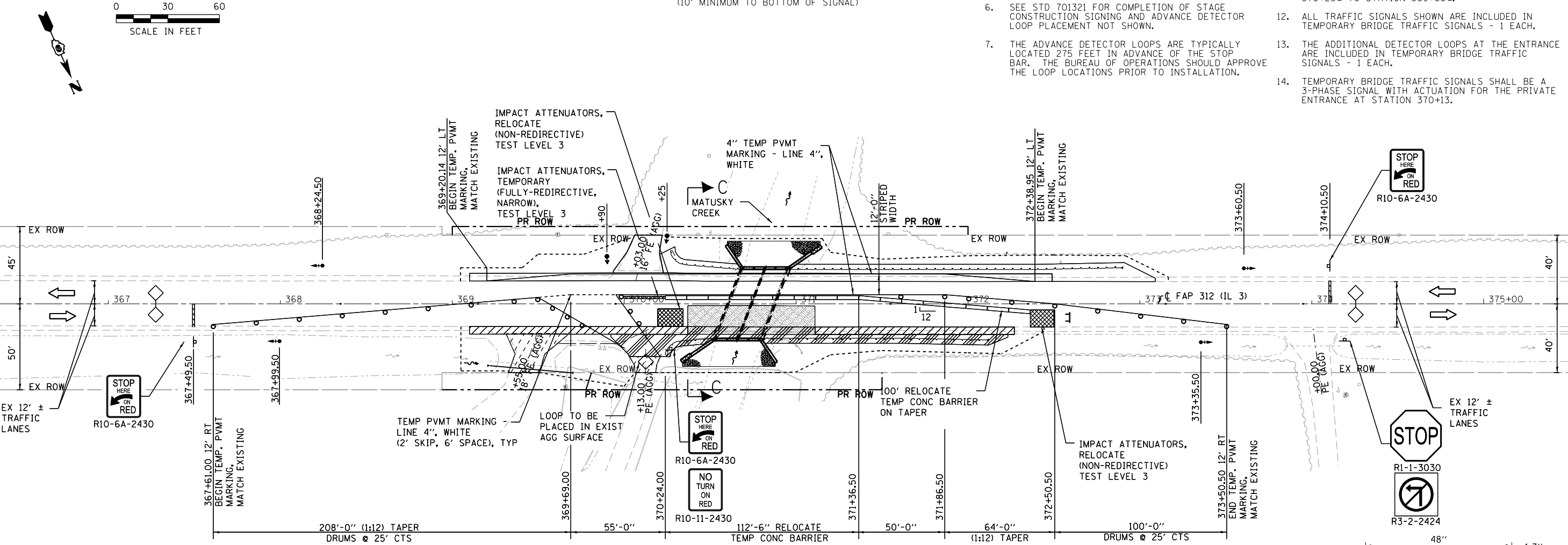
IMPACT ATTENUATORS, TEMPORARY
(FULLY-REDIRECTIVE, NARROW),
TEST LEVEL 3 - 1 EACH

LEGEND

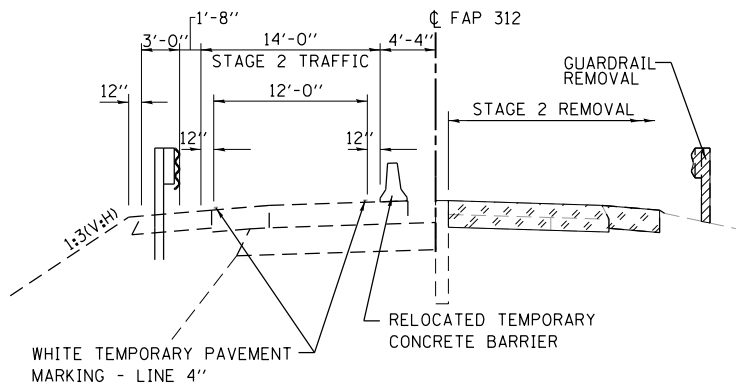
- DETECTOR LOOP
- TRAFFIC SIGNAL WITH BACKPLATE,
SIGNAL DIRECTION INDICATED
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- PAVEMENT REMOVAL
- BASE COURSE WIDENING, 10"
- HMA SHOULDERS, 8"
- AGGREGATE SURFACE COURSE, TYPE A
- TYPE III BARRICADE
- TRAFFIC SIGNAL, SIGNAL DIRECTION INDICATED
(10' MINIMUM TO BOTTOM OF SIGNAL)

GENERAL NOTES

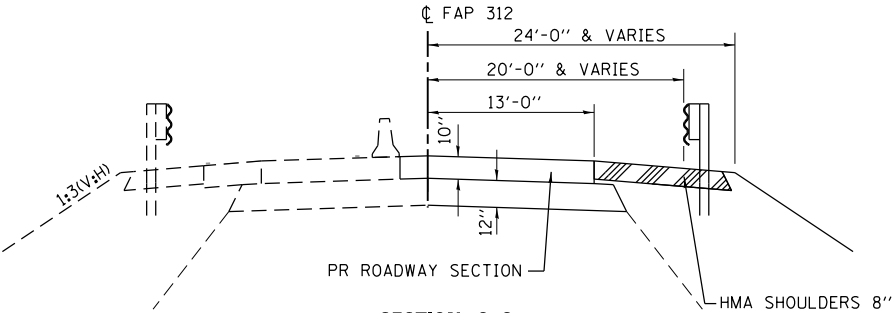
- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- ADDITIONAL SIGNAGE FOR ENTRANCES AND ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
- THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-I102(0)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-I103) SHOWN ON THIS SHEET SHALL BE 12'-6" FOR STAGE 2 CONSTRUCTION.
- SEE STD 701321 FOR COMPLETION OF STAGE CONSTRUCTION SIGNING AND ADVANCE DETECTOR LOOP PLACEMENT NOT SHOWN.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.
- THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE 2 NEW BRIDGE RAIL. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS BE TURNED OFF OR COVERED.
- RELOCATE STAGE 1 TRAFFIC SIGNAL FROM STATION 370+25± TO STATION 369+60±.
- ALL TRAFFIC SIGNALS SHOWN ARE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.
- THE ADDITIONAL DETECTOR LOOPS AT THE ENTRANCE ARE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.
- TEMPORARY BRIDGE TRAFFIC SIGNALS SHALL BE A 3-PHASE SIGNAL WITH ACTUATION FOR THE PRIVATE ENTRANCE AT STATION 370+13.



STAGE 2 PLAN



SECTION C-C
REMOVAL

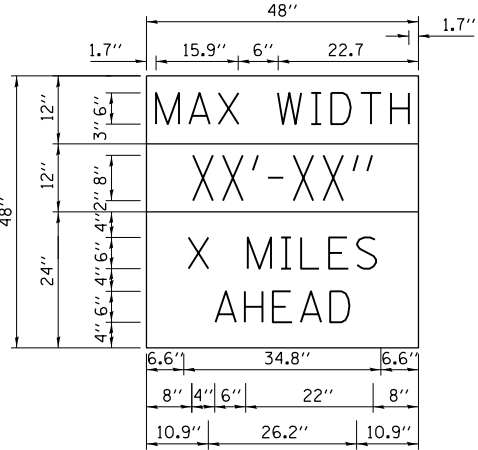


SECTION C-C
CONSTRUCTION

NOTE: THIS SIGN SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. ONE SIGN SHALL BE PROVIDED FOR EACH APPROACH TO THE SITE.

W12-I103

W12-I103 (WIDTH IS 8D);
NO BORDER, BLOCK ON WHITE;
"MAX WIDTH" D;
NO BORDER, BLACK ON ORANGE;
"XX'-XX'" D;
NO BORDER, BLACK ON WHITE;
"X MILES" D; "AHEAD" D



FILE NAME : S:\Projects\2009_0085\09-22 ESCA P1B 151 51 Phase 1 I1 D9\Work Order 8\CADD\CADD Sheets\SN 039-2029\0978197-sh2-staging.dgn
MODEL :
PLOT DRIVER : V8i,PDF,11x17,plc,f9



USER NAME : mmann	DESIGNED - MCV	REVISED -
PLOT SCALE = 60.0000' / in.	DRAWN - CMM	REVISED -
PLOT DATE = 12/6/2011	CHECKED - MTM	REVISED -
	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE 2 CONSTRUCTION PLAN AND DETAILS
STRUCTURE NO. 039-2029

SCALE: 1"=30' SHEET NO. 2 OF 2 SHEETS STA. 367+00 TO STA. 375+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	11
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

<u>TEMPORARY CONCRETE BARRIER</u>			
<u>STATION</u>	<u>TO</u>	<u>STATION</u>	<u>FEET</u>
474+58.75		477+71.25	<u>312.5'</u>
		TOTAL	- 312.5'
<u>TEMPORARY BRIDGE TRAFFIC SIGNALS</u> - 1 EACH			
<u>IMPACT ATTENUATORS, TEMPORARY</u> - 2 EACH			
<u>(NON-REDIRECTIVE), TEST LEVEL 3</u>			

	DETECTOR LOOP
	TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
	DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
	PAVEMENT REMOVAL
	BASE COURSE WIDENING, 10'
	HMA SHOULDER, 8'
	AGGREGATE SURFACE COURSE, TYPE A
	TYPE III BARRICADE
	TRAFFIC SIGNAL, SIGNAL DIRECTION INDICATED (10' MINIMUM TO BOTTOM OF SIGNAL)

112'-6"

50'-0"

196'-0" (1:12) TAPER

TEMP. CONC. BARRIER

476+71.25

0.17.5' LT

CSE WIDENING

1

12' LT

PVMT MARKING

EXISTING

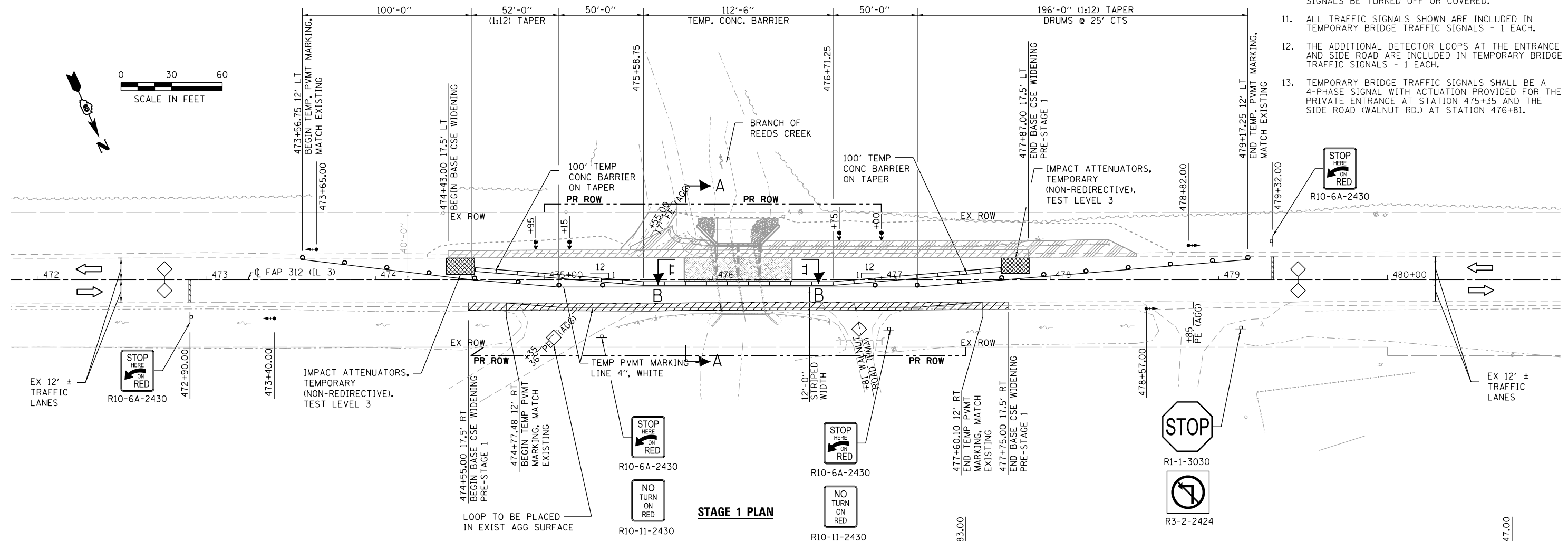


Diagram illustrating the cross-section of a road shoulder and base course widening. The diagram shows a 10" wide PR. BASE COURSE WIDENING, 10" wide HMA SHOULDERS, and a 12" thick PR. ROADWAY SECTION. The diagram also shows a 2'-2" wide EX. SPBGR (Existing Shoulder Base Course) and a 13'-0" wide TBT TY 6A OR TBT TY 6A (SPL) section. The diagram is labeled with dimensions and materials, and includes a note "LOOP TO BE PLACED IN EXIST AGG SURFACE" and "RED" in a box.

R3-2-2424

STA 475+83.00 MATCH EX

PCC PAVEMENT 10"

LIMITS OF STRUCTURE REMOVAL

PROPOSED DOUBLE 12'X9' RCBC

2'-0"

10'-0"

1:1

POROUS GRANULAR EMBANKMENT, SEE STRUCTURE PLANS (TYP)

MAXIMUM EXCAVATION LINE, SEE STRUCTURE PLANS (TYP)

STA 476+47.00 MATCH EX

NOTE: POROUS GRANULAR EMBANKMENT SHALL BE USED

ROCK FILL - REPLACEMENT, SEE STRUCTURE PLANS

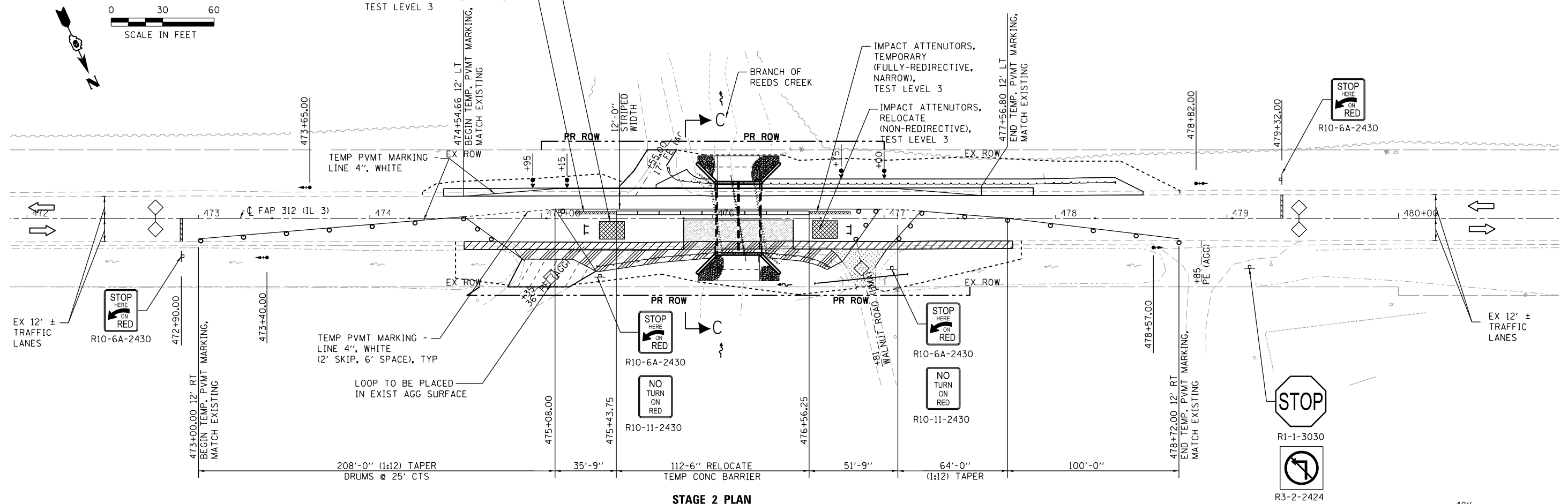
Diagram illustrating the Stage 1 Construction for FAP 312. The diagram shows a cross-section of the road with various lanes and construction elements. Key dimensions and labels include:

- CL FAP 312**: Centerline of the existing road.
- STAGE 1 TRAFFIC**: A 12'-0" wide lane for traffic during Stage 1.
- STAGE 1 REMOVAL**: A 12'-0" wide area to be removed during Stage 1.
- GUARDRAIL REMOVAL**: Indicated on the left side of the diagram.
- EX. SPBGR**: Existing Shoulder Pavement Grade, shown on the right side.
- TEMPORARY CONCRETE BARRIER**: A barrier structure shown in the center.
- TEMPORARY SOIL RETENTION SYSTEM**: A system shown on the left side.
- PR. BASE COURSE WIDENING, 10" PRE-STAGE 1**: A 10" wide area for pre-stage 1 widening.
- WHITE TEMPORARY PAVEMENT**: A 4'-6" wide area of temporary pavement.
- Dimensions**: Various widths are specified, including 2'-4", 14'-0", 12", and 12'-0".

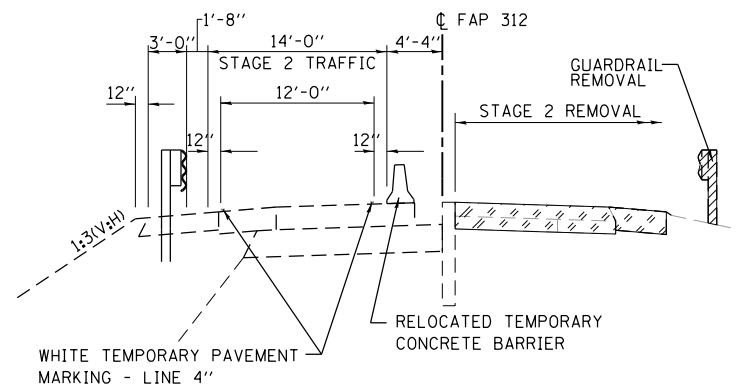
<u>RELOCATE</u>			
<u>TEMPORARY</u>	<u>CONCRETE</u>	<u>BARRIER</u>	
<u>STATION</u>	<u>TO</u>	<u>STATION</u>	<u>FEET</u>
475+43.75		476+56.25	112.5'
		TOTAL	- 112.5'
<u>IMPACT ATTENUATORS, RELOCATE</u>			
<u>(NON-REDIRECTIVE), TEST LEVEL 3</u>			
			- 2 EACH
<u>IMPACT ATTENUATORS, TEMPORARY</u>			
<u>(FULLY-REDIRECTIVE, NARROW),</u>			
<u>TEST LEVEL 3</u>			
			- 2 EACH

	DETECTOR LOOP
	TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
	DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
	PAVEMENT REMOVAL
	BASE COURSE WIDENING, 10"
	HMA SHOULDER, 8"
	AGGREGATE SURFACE COURSE, TYPE A
	INCIDENTAL HMA SURFACING
	TYPE III BARRICADE
	TRAFFIC SIGNAL, SIGNAL DIRECTION INDICATED (10" MINIMUM TO BOTTOM OF SIGNAL)

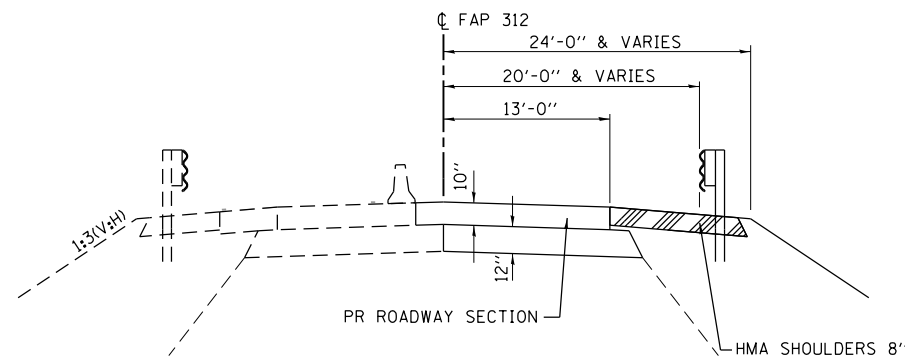
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO "TRAFFIC CONTROL AND PROTECTION, STANDARD 701321."	7. THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.	11. RELOCATE STAGE 1 TRAFFIC SIGNALS FROM STATIONS 475+15 AND 475+40 TO STATIONS 474+75 AND 475+00 AND FROM STATION 476+75 TO STATION 474+15.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.	8. THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.	12. ALL TRAFFIC SIGNALS SHOWN ARE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.
3. COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.	9. VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE 2 NEW BRIDGE RAIL. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.	13. THE ADDITIONAL DETECTOR LOOPS AT THE ENTRANCE AND SIDE ROAD ARE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH.
4. ADDITIONAL SIGNAGE FOR ENTRANCES AND ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.	10. ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS BE TURNED OFF OR COVERED.	14. TEMPORARY BRIDGE TRAFFIC SIGNALS SHALL BE A 4-PHASE SIGNAL WITH ACTUATION PROVIDED FOR THE PRIVATE ENTRANCE AT STATION 475+35 AND THE SIDE ROAD (WALNUT RD.) AT STATION 476+81.
5. THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-1102(0)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-1103) SHOWN ON THIS SHEET SHALL BE 12'-6" FOR STAGE 2 CONSTRUCTION.		
6. SEE STD 701321 FOR COMPLETION OF STAGE CONSTRUCTION SIGNING AND ADVANCE DETECTOR LOOP PLACEMENT NOT SHOWN.		



STAGE 2 PLAN



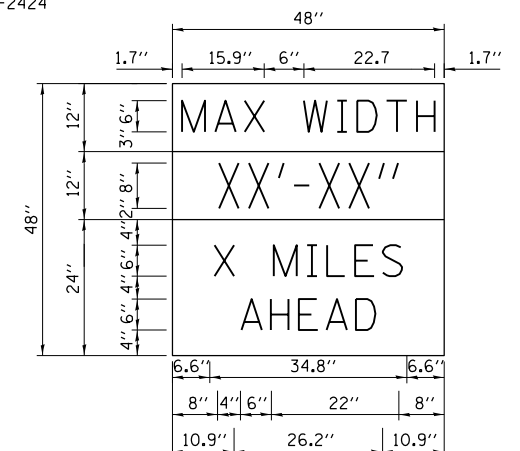
SECTION C-C
REMOVAL



SECTION C-C
CONSTRUCTION

NOTE: THIS SIGN SHALL BE LOCATED
AS DIRECTED BY THE ENGINEER.
ONE SIGN SHALL BE PROVIDED
FOR EACH APPROACH TO THE SITE.

W12-I103 (WIDTH IS 8D);
NO BORDER, BLOCK ON WHITE;
"MAX WIDTH" D;
NO BORDER, BLACK ON ORANGE;
"XX"-XX"" D;
NO BORDER, BLACK ON WHITE;
"X MILES" D; "AHEAD" D



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PLOT DRIVER = V8i_PDF...11x17.plt



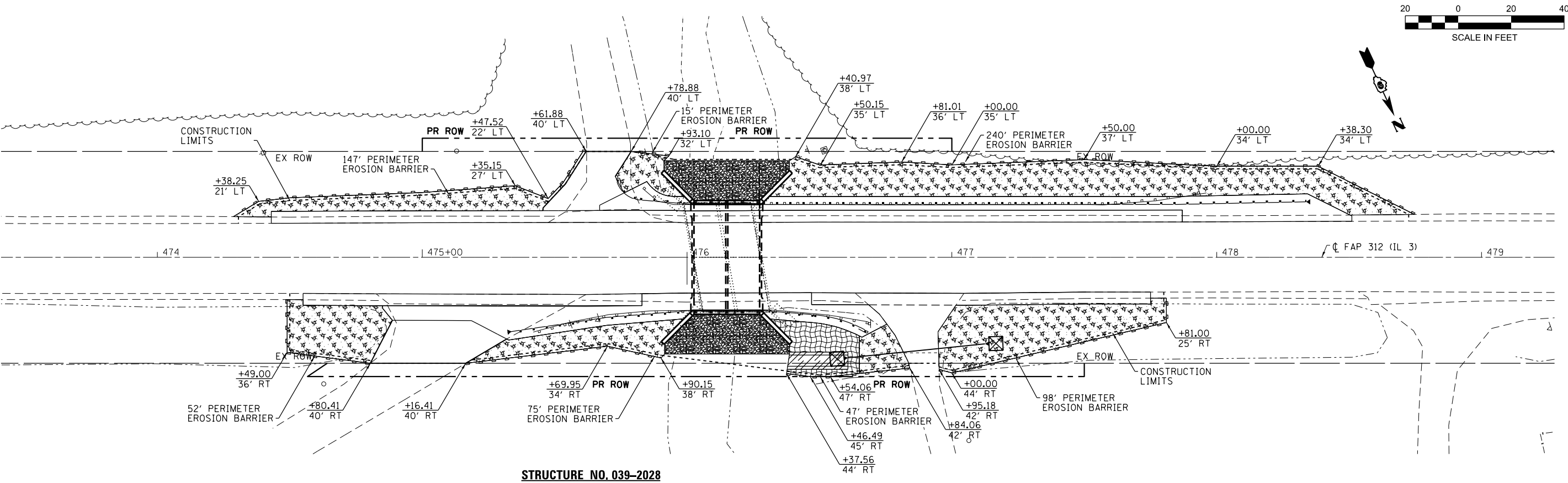
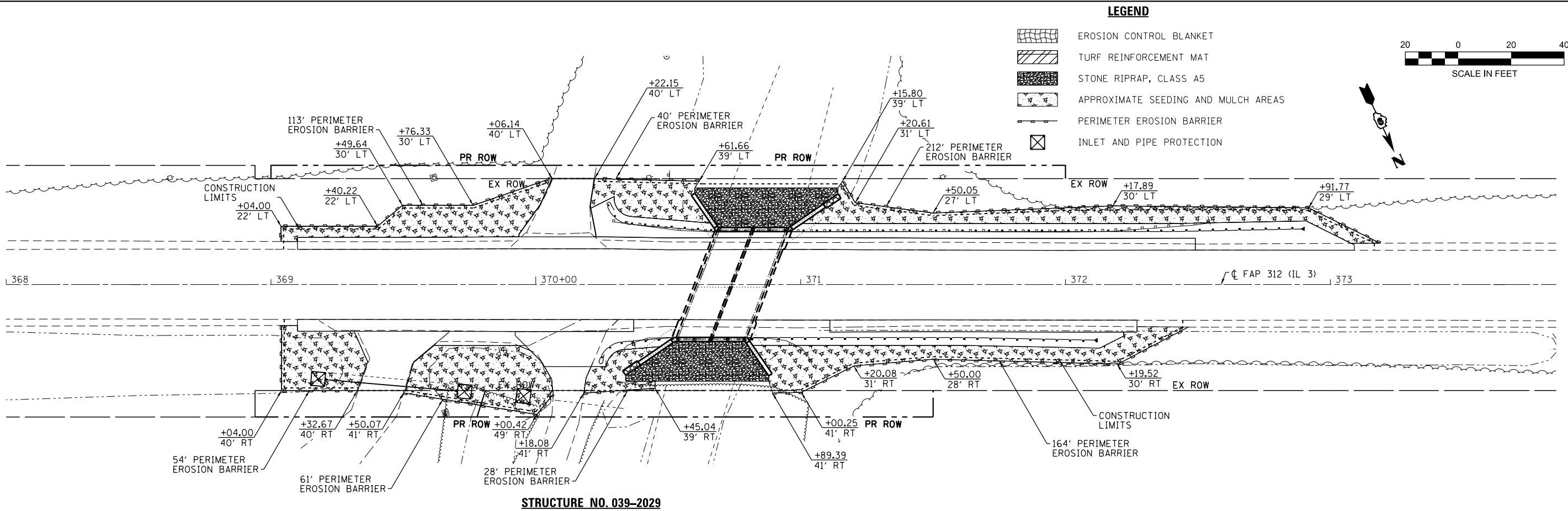
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	DRAWN - CHW	REVISED -
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PLOT DATE = 11/9/2011	DATE - !!!/!!/!!	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

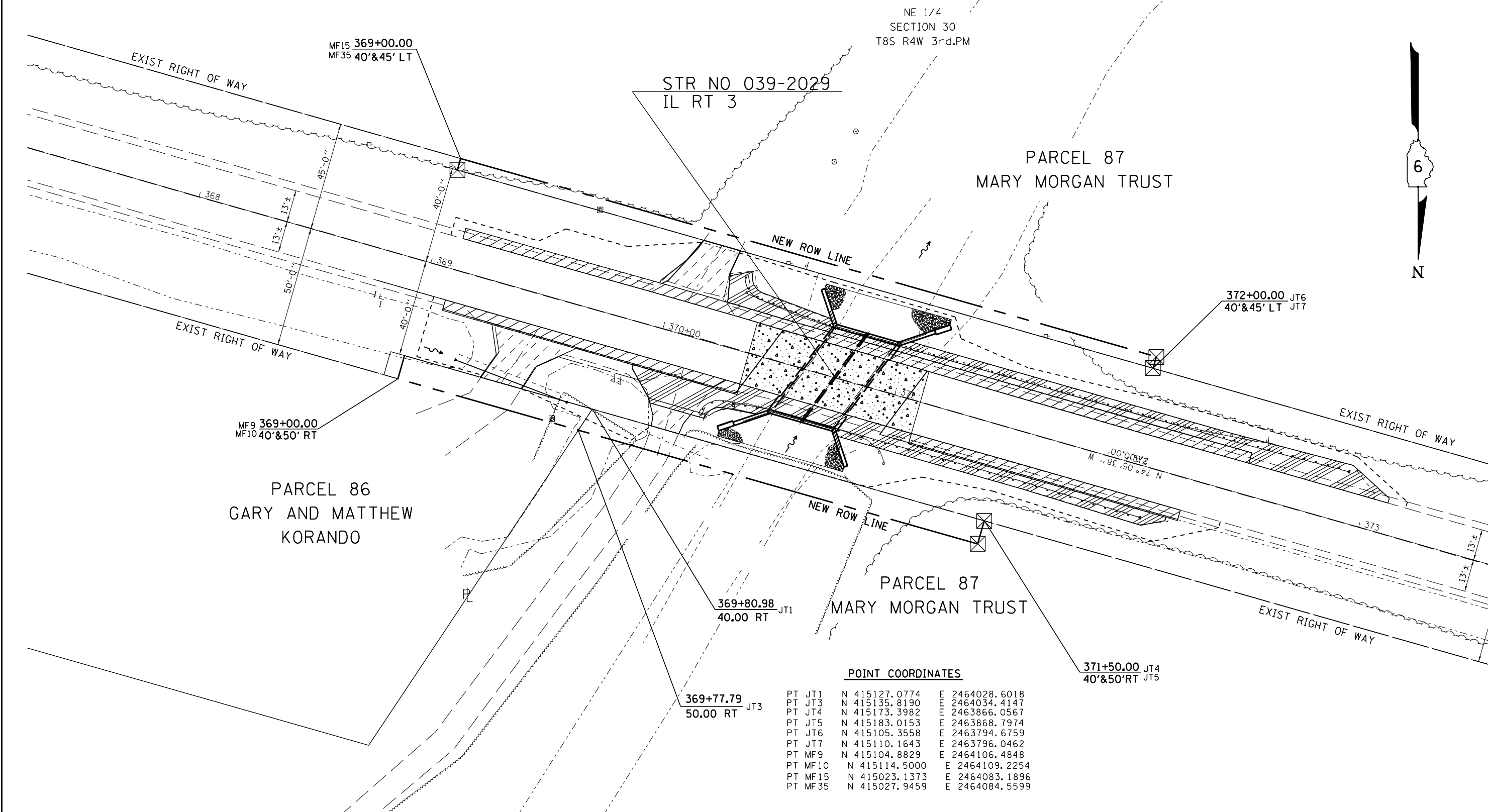
EROSION CONTROL AND DRAINAGE PLANS

SCALE: 1"=20'-0" SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	14
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				



PARCEL #	PROPERTY OWNER	PURPOSE	ACRES
86	GARY AND MATTHEW KORANDO	NEW ROW	0.018±
87	MARY MORGAN TRUST	NEW ROW	0.073±



POINT COORDINATES

PT JT1	N 415127.0774	E 2464028.6018
PT JT3	N 415135.8190	E 2464034.4147
PT JT4	N 415173.3982	E 2463866.0567
PT JT5	N 415183.0153	E 2463868.7974
PT JT6	N 415105.3558	E 2463794.6759
PT JT7	N 415110.1643	E 2463796.0462
PT MF9	N 415104.8829	E 2464106.4848
PT MF10	N 415114.5000	E 2464109.2254
PT MF15	N 415023.1373	E 2464083.1896
PT MF35	N 415027.9459	E 2464084.5599

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MODEL = \$MODEL\$
PLOT DRIVER = \$PLTDVRS\$

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QUIGG ENGINEERING INC		DRAWN -	REVISED -
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	PLOT DATE = 12/9/2011	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RIGHT OF WAY PLANS

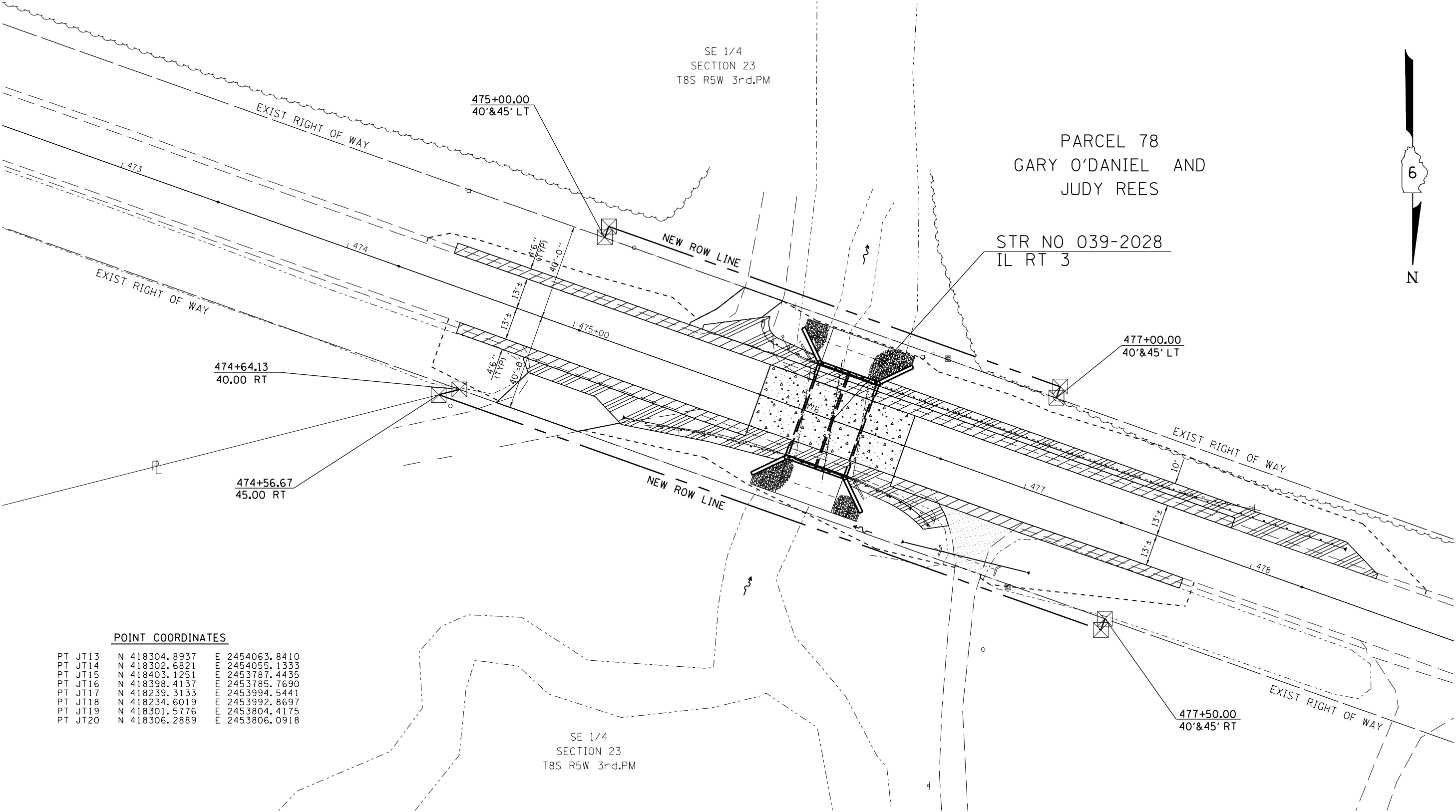
PROJECT D905210	JOB NO. R-99-012-09
SCALE: 20	SHEET 1 OF 2 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-#	JACKSON	58	15
CONTRACT NO. 78197				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PARCEL #	PROPERTY OWNER	PURPOSE	ACRES
78	GARY O'DANIEL AND JUDY REES	NEW ROW	0.056±

PARCEL 78
GARY O'DANIEL AND
JUDY REES

STR NO 039-2028
IL RT 3



POINT COORDINATES

PT JT13	N	418304.8937	E	2454063.8410
PT JT14	N	418302.6821	E	2454055.1333
PT JT15	N	418403.1251	E	2453787.4435
PT JT16	N	418398.4137	E	2453785.7690
PT JT17	N	418239.3133	E	2453994.5441
PT JT18	N	418234.6019	E	2453992.8697
PT JT19	N	418301.5776	E	2453804.4175
PT JT20	N	418306.2889	E	2453806.0918

SE 1/4
SECTION 23
T8S R5W 3rd.PM

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MODEL = \$MODEL\$
PLOT DRIVER = \$PLTDVRS\$

QUIGG ENGINEERING INC	USER NAME = lavenderba	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	DRAWN - CNH	REVISED -		PROJECT D905210	JOB NO. R-99-012-09	312	123B-3	JACKSON	58	16
	PLOT DATE = 12/9/2011	CHECKED -	REVISED -		SCALE: 20	SHEET 2 OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 78197		
		DATE - 11/10/11	REVISED -				FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

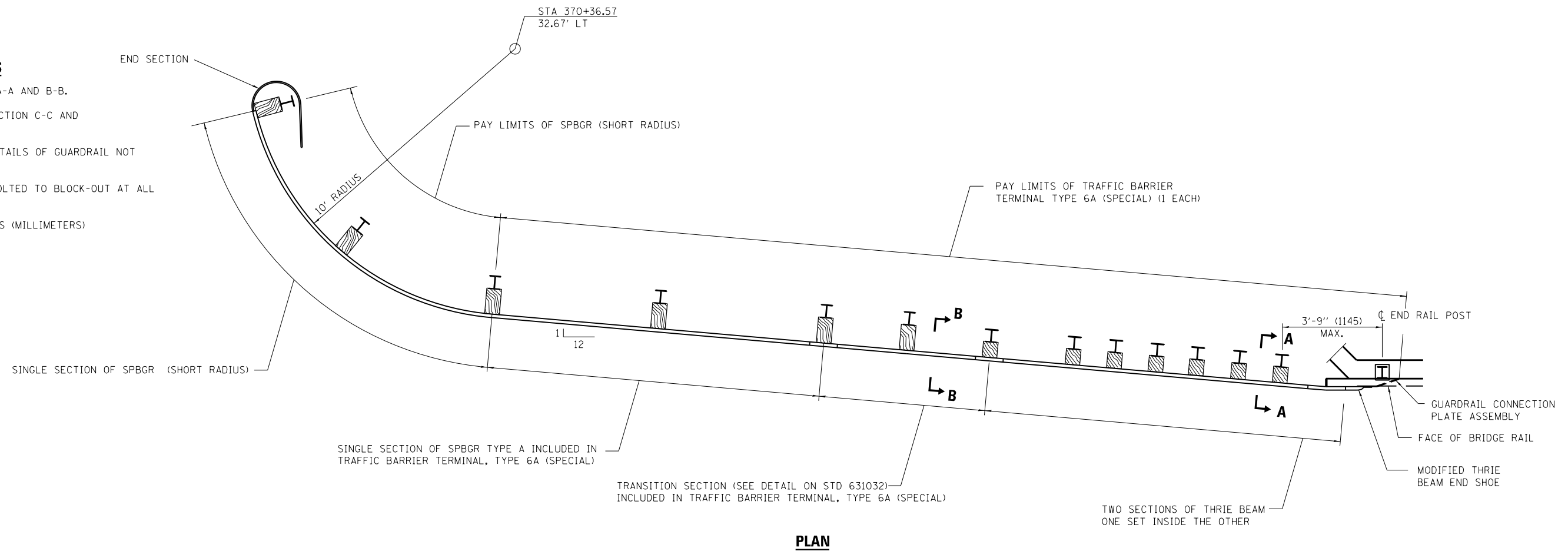
SEE SHEET 18 FOR SECTIONS A-A AND B-B.

SEE STANDARD 631032 FOR SECTION C-C AND
ADDITIONAL DETAILS.

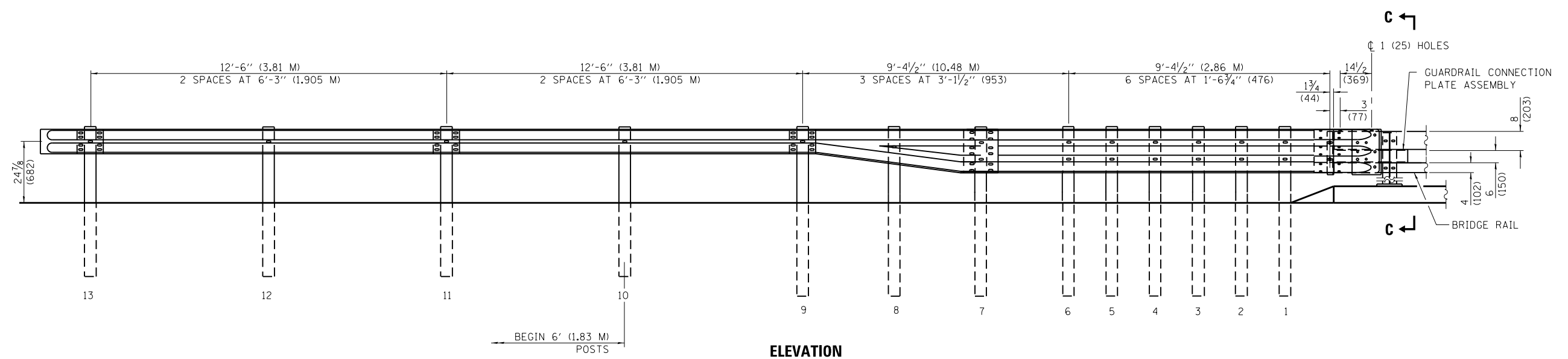
SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT SHOWN.

THREE BEAM RAIL SHALL BE BOLTED TO BLOCK-OUT AT ALL POSTS.

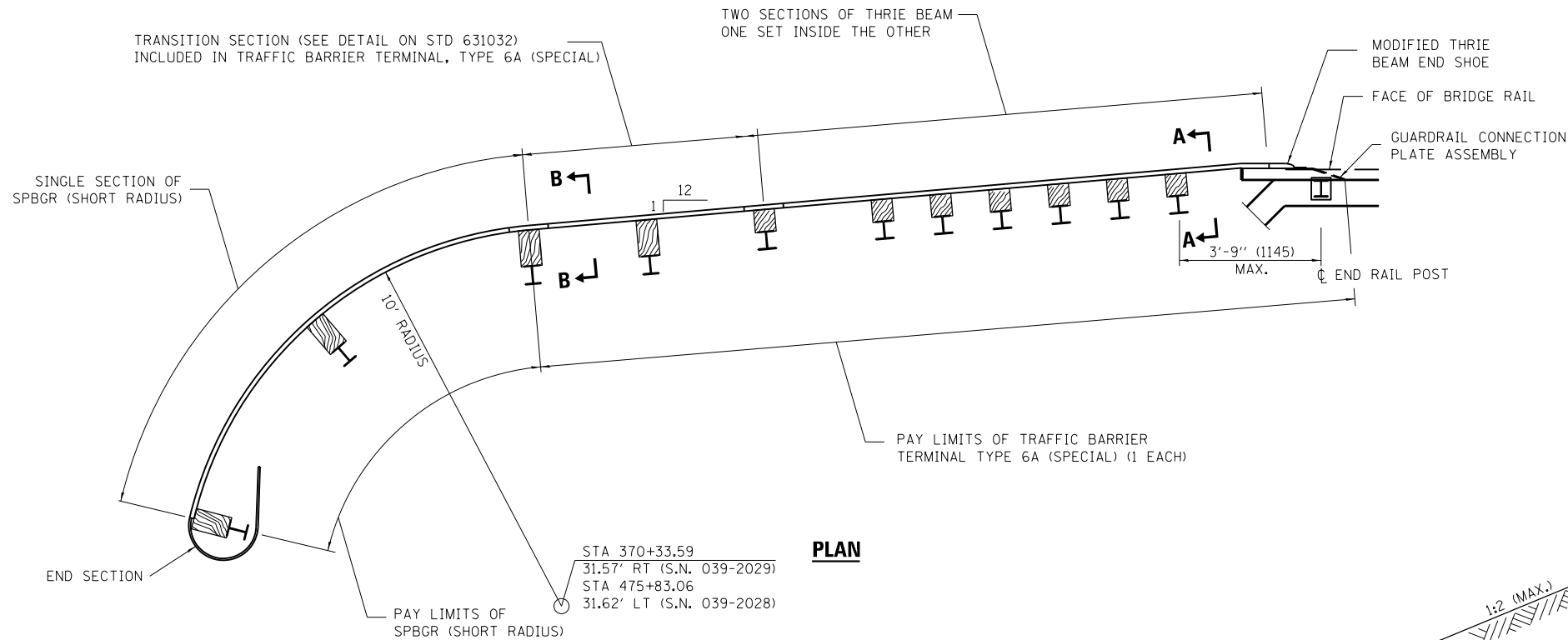
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.



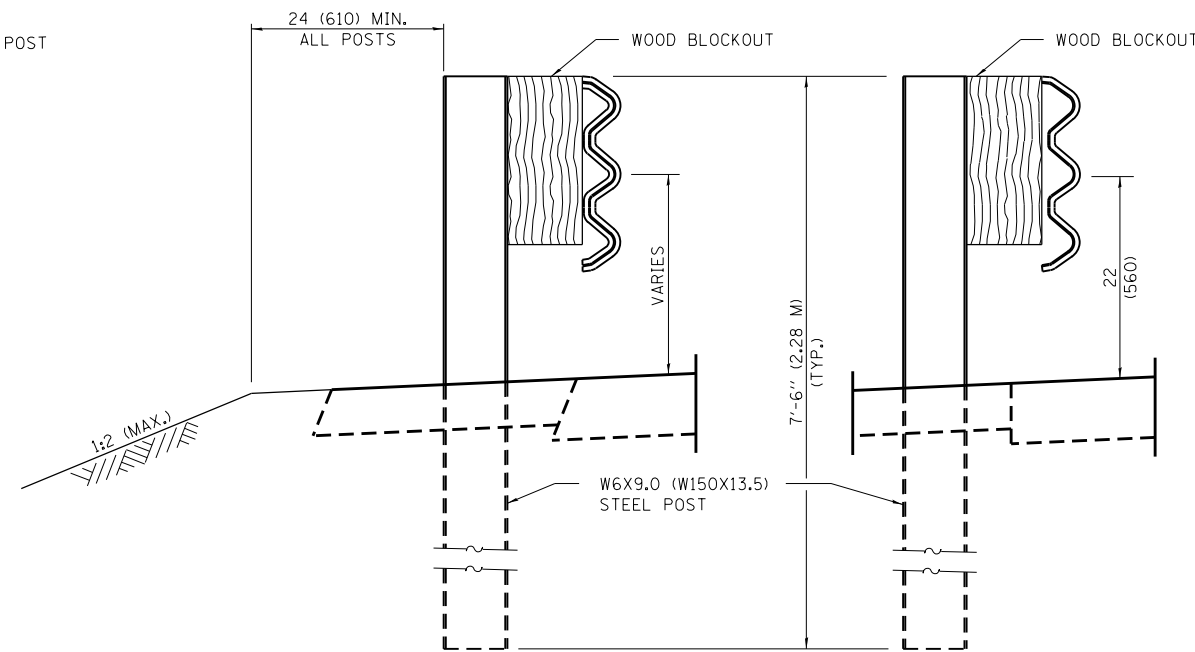
PLAN



ELEVATION

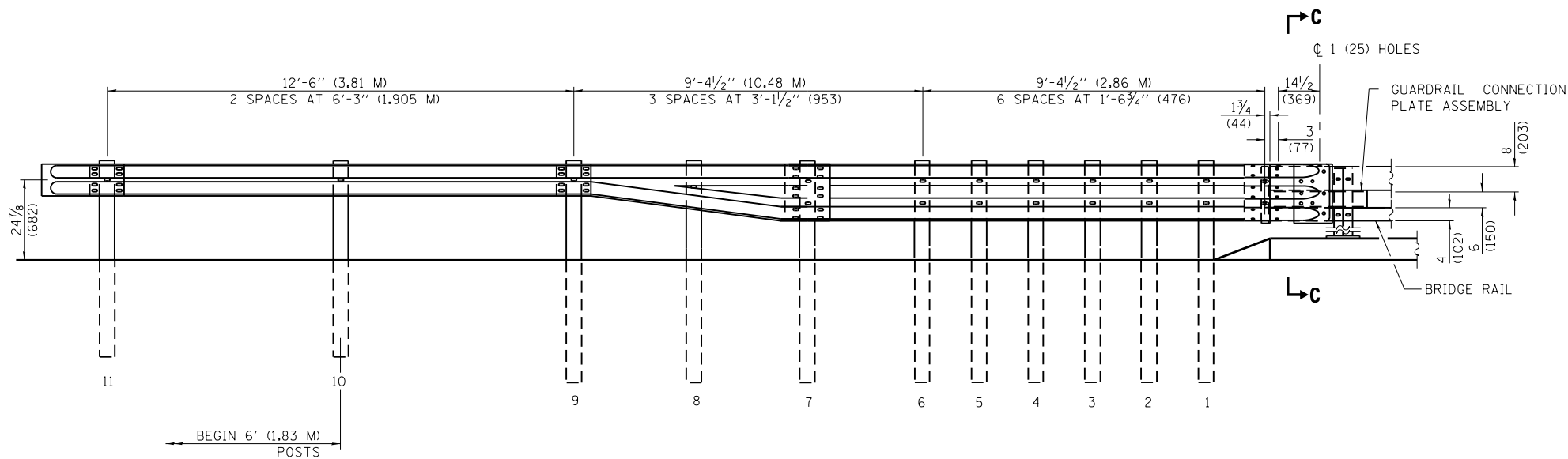


PLAN



SECTION A-A

SECTION B-B



ELEVATION

GENERAL NOTES

- SEE STANDARD 631032 FOR SECTION C-C AND ADDITIONAL DETAILS.
- SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT SHOWN.
- THRIE BEAM RAIL SHALL BE BOLTED TO BLOCK-OUT AT ALL POSTS.
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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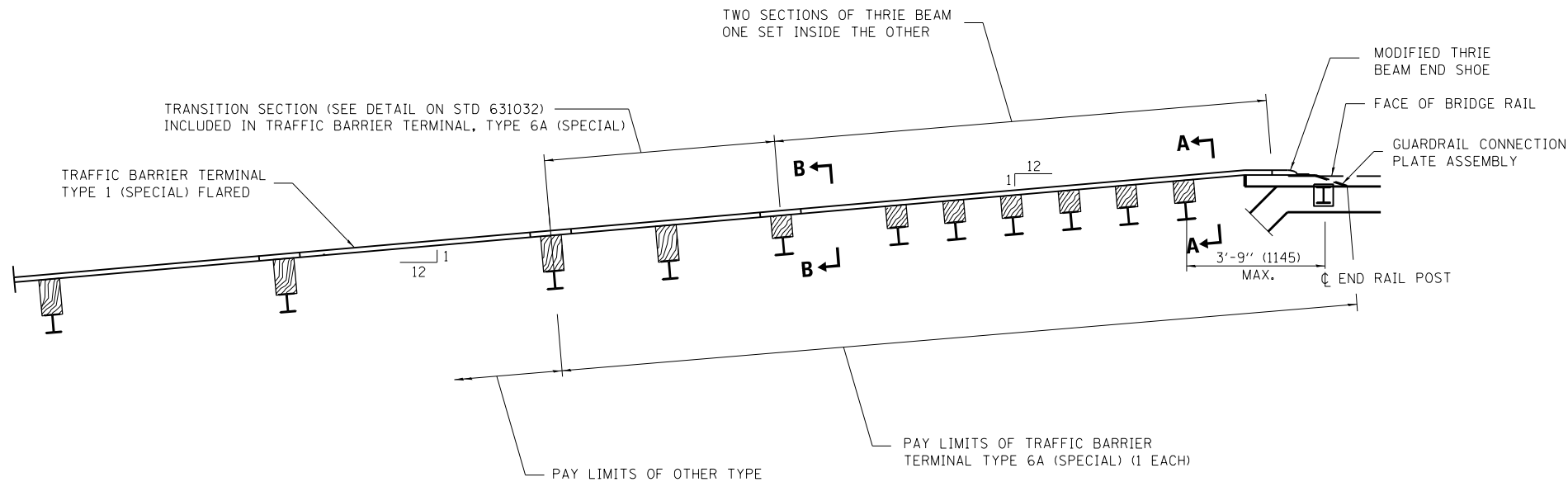
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	DRAWN - CMM	REVISED -
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PLOT DATE = 11/10/2011	DATE - 11/10/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

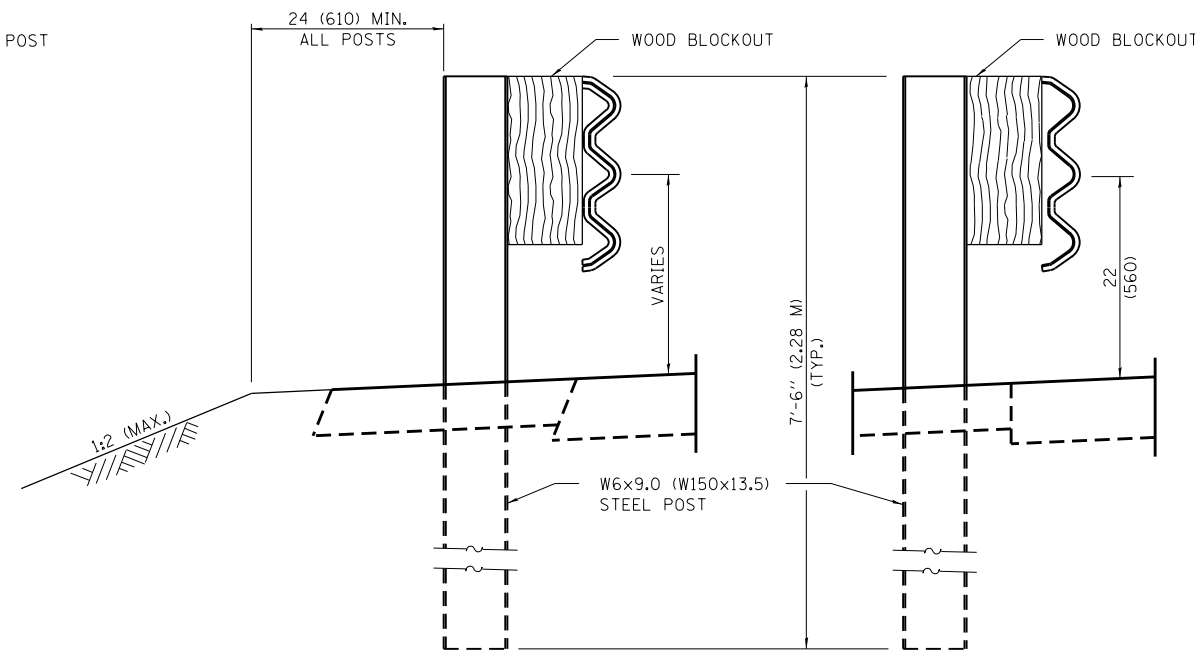
**TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL)
STRUCTURE NO. 039-2029 NE CORNER &
STRUCTURE NO. 039-2028 SE CORNER**

SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	18
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

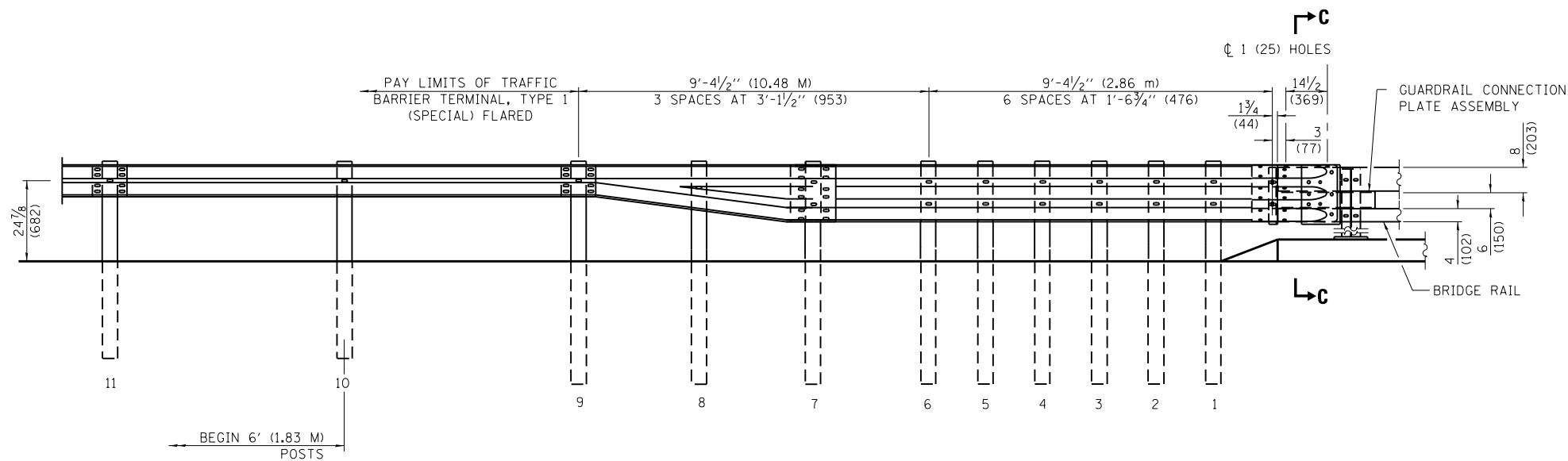


PLAN
SDFSDFD



SECTION A-A

SECTION B-B



ELEVATION

GENERAL NOTES

SEE STANDARD 631032 FOR SECTION C-C AND ADDITIONAL DETAILS.

SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT SHOWN.

THRIE BEAM RAIL SHALL BE BOLTED TO BLOCK-OUT AT ALL POSTS.

ALL SLOPE RATIOS ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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PLOT DRIVER = V8i,PDF,11x17,pltf



USER NAME = mmann	DESIGNED - MCV	REVISED -
	DRAWN - CMM	REVISED -
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PLOT DATE = 11/9/2011	DATE - 11/10/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL)
STRUCTURE NO. 039-2028 NE CORNER**

SCALE: N.T.S. SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	19
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

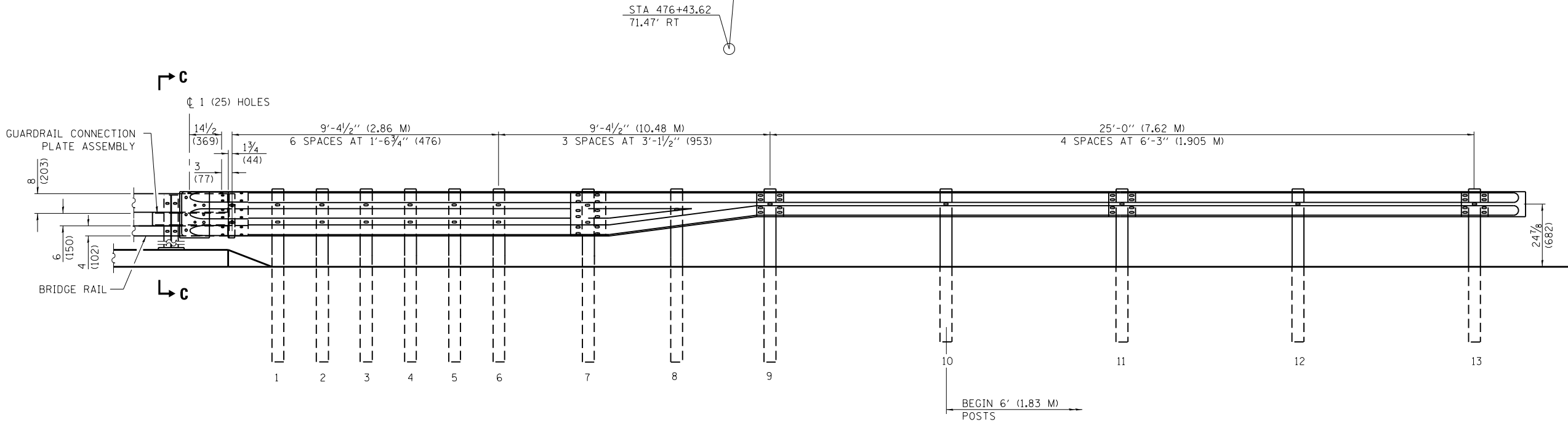
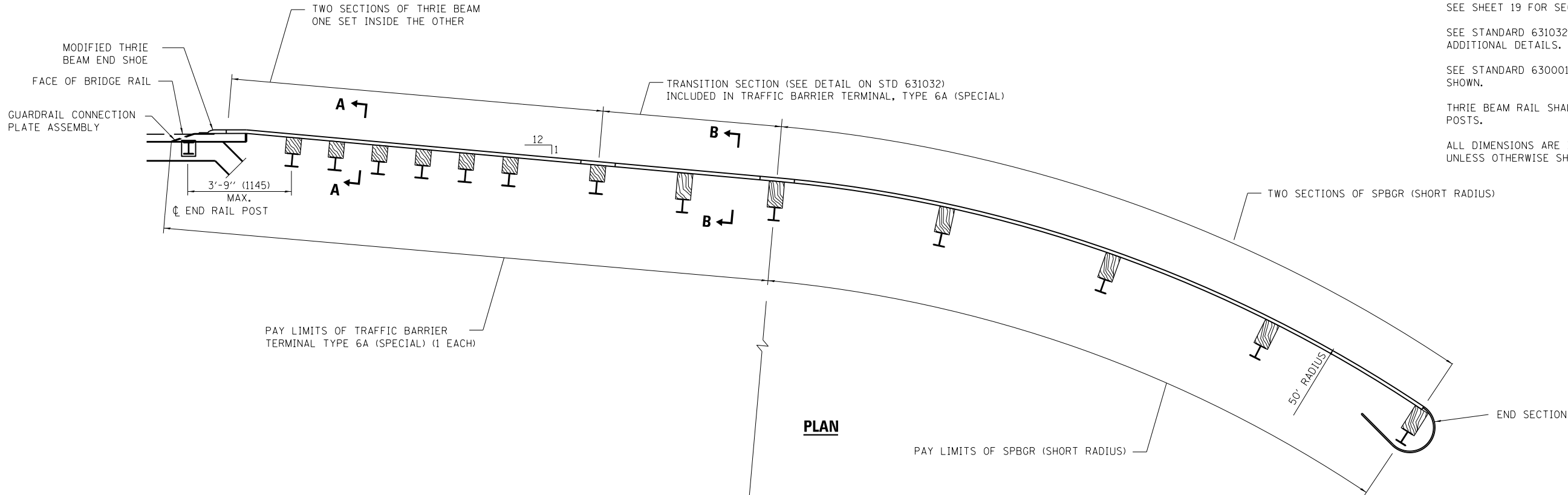
SEE SHEET 19 FOR SECTIONS A-A AND B-B.

SEE STANDARD 631032 FOR SECTION C-C AND
ADDITIONAL DETAILS.

SEE STANDARD 630001 FOR DETAILS OF GUARDRAIL NOT
SHOWN.

THRIE BEAM RAIL SHALL BE BOLTED TO BLOCK-OUT AT ALL
POSTS.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.



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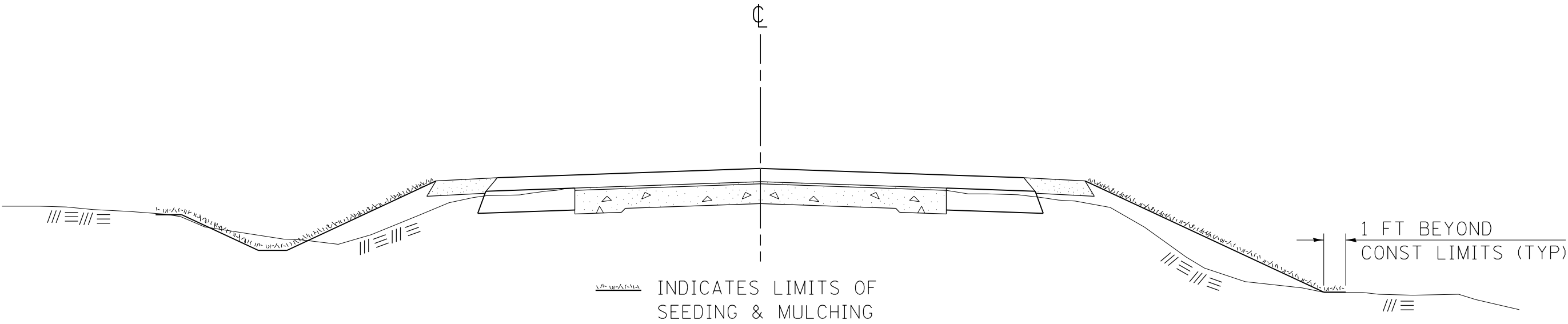
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC BARRIER TERMINAL, TYPE 6A (SPECIAL)
STRUCTURE NO. 039-2028 NW CORNER

SCALE: N.T.S. SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	20
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

SEEDING & MULCHING



GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS

REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	3-27-08

STD. 9-12

FILE NAME : D978197-shr-detailed.dgn
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PLOT DRIVER : V8i_PDF_Plotter17.plt



QUIGG ENGINEERING INC

USER NAME : mmann	DESIGNED - MCV	REVISED -
	DRAWN - CMM	REVISED -
PLOT SCALE : 50.000' / in.	CHECKED - MTM	REVISED -
PLOT DATE : 11/9/2011	DATE - 11/10/11	REVISED -

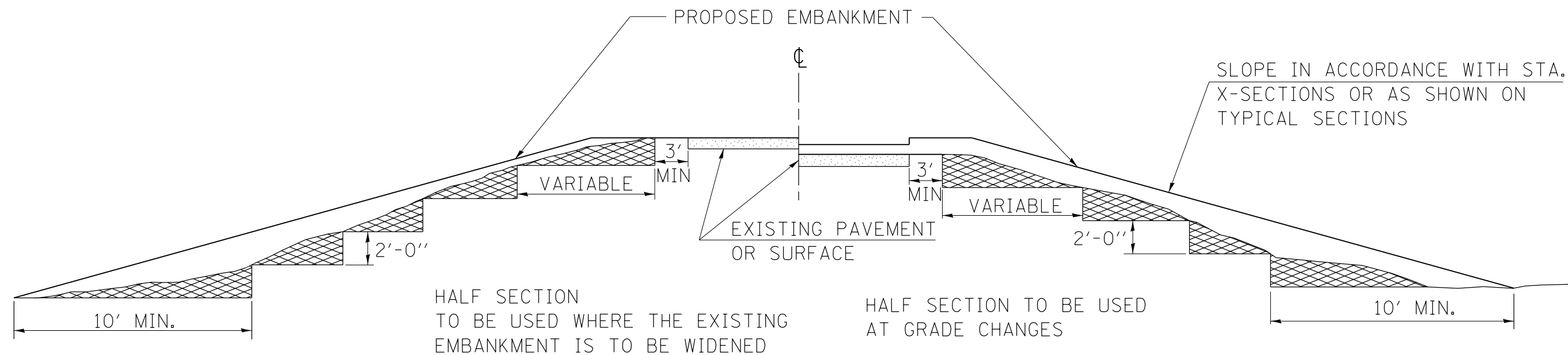
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SEEDING AND MULCHING DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	21
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

**TYPICAL CROSS SECTION SHOWING
STEP CONSTRUCTION ON EXISTING FILL**



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
RESIZED	5-7-08

STD. 9-16

FILE NAME : D978197-shr-details.dgn
MODEL : Default
PLOT DRIVER : V8i,PDF,11x17,plc,fg



USER NAME : mmann	DESIGNED - MCV	REVISED -
	DRAWN - CMM	REVISED -
PLOT SCALE : 50.000' / in.	CHECKED - MTM	REVISED -
PLOT DATE : 11/9/2011	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEP CONSTRUCTION ON EXISTING FILL DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	22
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

RURAL SIDE APPROACH DETAILS

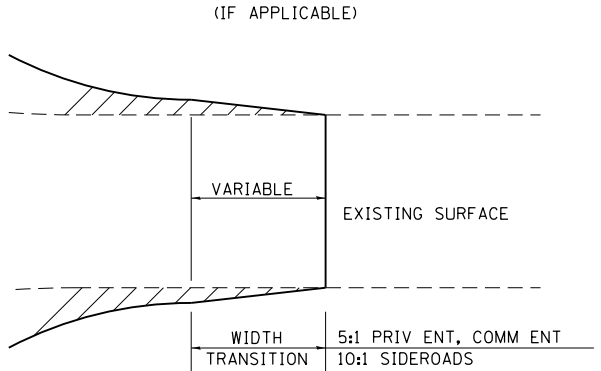
PRIVATE AND COMMERCIAL ENTRANCES

SIDEROADS

SIDEROAD DIMENSIONS (MIN.)

ADT	A (FT)	B (FT)
0 TO 250	18'	2'
250 TO 400	20'	2'
GREATER THAN 400	22'	4'

WIDTH TRANSITION DETAIL TO EXISTING

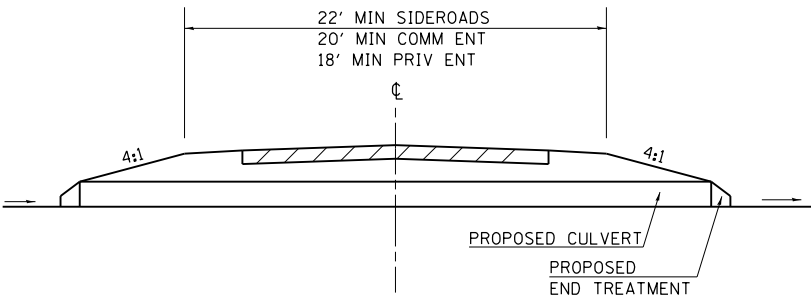


FIELD ENTRANCE TREATMENT

CONSTRUCT MAINLINE HOT-MIX ASPHALT AND AGGREGATE SHOULDERS THROUGH FIELD ENTRANCES.

IF A PIPE IS REQUIRED, PROVIDE A 22' WIDE EARTH EMBANKMENT WITH 15' RADII AT THE INTERSECTION.

DETAIL FOR CALCULATING CULVERT LENGTH



PRIVATE AND COMMERCIAL ENTRANCES
(PROPOSED CULVERT)

SIDEROADS
(PROPOSED CULVERT)

LEGEND

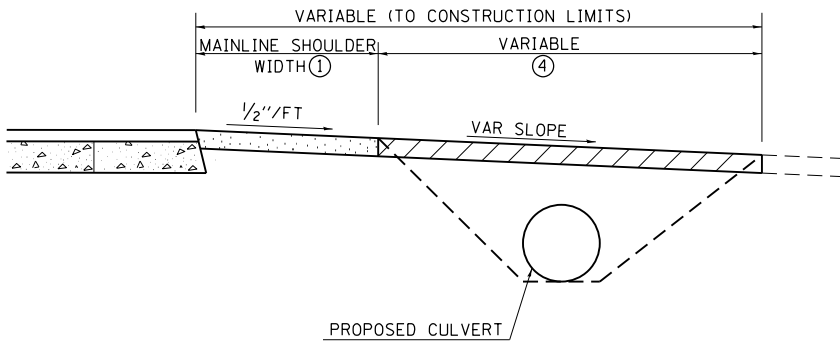
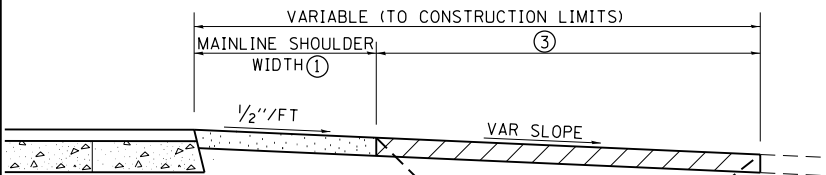
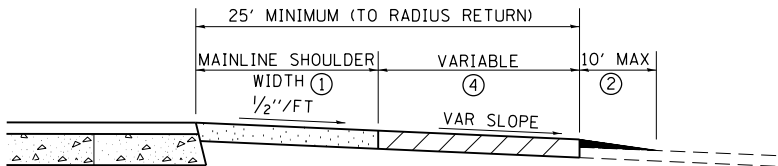
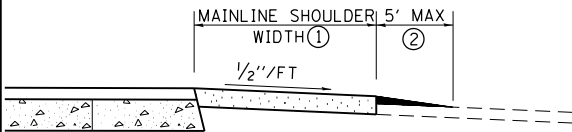
- ① CONSTRUCT HOT-MIX ASPHALT SHOULDER "FULL SHOULDER WIDTH" THROUGH ENTRANCE/INTERSECTION UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ② IF REQUIRED, AGGREGATE TAPER FOR EXISTING GRAVEL SURFACE; HOT-MIX ASPHALT TAPER FOR EXISTING HIGHER TYPE SURFACES.
- ③ 6" AGGREGATE SURFACE COURSE FOR EXISTING GRAVEL SURFACE; 2" HOT-MIX ASPHALT RESURFACING ON 4" AGGREGATE BASE COURSE FOR EXISTING HOT-MIX ASPHALT SURFACE; PCC DRIVEWAY PAVEMENT (6" - PE; 7" - CE) FOR EXISTING CONCRETE SURFACE.
- ④ 3" MINIMUM HOT-MIX ASPHALT RESURFACING ON 8" MINIMUM AGGREGATE BASE COURSE FOR EXISTING GRAVEL SURFACE OR OIL & CHIP SURFACE; MATCH EXISTING FOR EXISTING HIGHER TYPE SURFACES.

GENERAL NOTES

- 1. ENTRANCE LOCATIONS ARE TO COMPLY WITH IDOT'S POLICY "ACCESS TO STATE HIGHWAYS".
- 2. IN GENERAL, RELOCATED PRIVATE ENTRANCES ARE TO HAVE A 16' WIDE SURFACE WITH 3' WIDE SHOULDERS (22' WIDE EMBANKMENT).
- 3. SEE PLANS FOR PROPOSED PROFILE GRADES AT ENTRANCES/SIDEROADS. THE DESIRABLE MAXIMUM PROFILE GRADE FOR ENTRANCES ARE 12% FOR PE; 10% FOR CE.
- 4. ENTRANCE PIPE CULVERTS ARE TO BE A MINIMUM 15" DIAMETER AND NORMALLY REPLACED IN KIND; SIDEROAD PIPE CULVERTS ARE GENERALLY TO BE CONCRETE (18" MINIMUM DIAMETER).

PRIVATE AND COMMERCIAL ENTRANCES

SIDEROADS



STD. 9-83

REVISIONS	
DRAWN	3-15-91
REVISED	10-02-91
REVISED	5-15-92
REVISED	1-20-00
REVISED	01-11-07
RESIZED	5-7-08

FILE NAME = D978197-shr-details.dgn
MODEL = Default
PLOT DRIVER = V8i_PDF...11x17.plt



USER NAME = mmann	DESIGNED - MCV	REVISED -
PLOT SCALE = 50.000' / in.	DRAWN - CMM	REVISED -
PLOT DATE = 11/9/2011	CHECKED - MTM	REVISED -
	DATE = 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RURAL SIDE APPROACH DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3 & 123B-4	JACKSON	58	23
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				



BENCHMARK: BM 1005 -
Chiseled square on top of
the southwest headwall
of SN 039-2002.
Elev. 384.48

EXISTING STRUCTURE:
SN 039-2002 was originally built
in 1933 as Route 150, Section 123.
It is a double barrel 11'-2 1/2" S
by 9'-0" R reinforced concrete box
culvert with L-Type wing walls and
side mounted steel railing. The
barrel length is 44'-3" o. to o.
headwalls. There is a 21° skew.
Traffic shall be maintained
utilizing stage construction.

No salvage.

Permanent Steel
Sheet Piling
D.S. Invert
Elev. 371.28

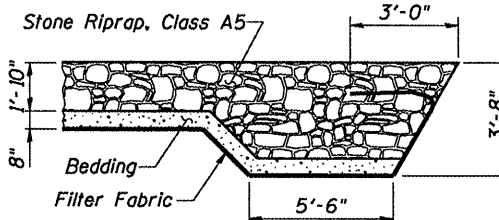
Varies to parallel
profile grade
(Typ. each side)
D.S. Flowline
Elev. 371.53

Concrete
cap

LONGITUDINAL SECTION

(Looking West)
(Dimensions at rt. angle to $\angle$ FAP 312)

Limits of Removal and Disposal
of Unsuitable Material and Rock Fill-Replacement



SECTION A-A

STATION 370+74
BUILT 20__ BY
STATE OF ILLINOIS
F.A. RT. 312 SEC. 123B-4
LOADING HS20-44
STR. NO. 039-2029

NAME PLATE
(See Hwy. Std. 515001)

- GENERAL NOTES**
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
 - Reinforcement bars designated (E) shall be epoxy coated.
 - Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 - For backfilling and embankment, see Standard Specifications. Backfill culvert excavation with Porous Granular Embankment, except the outer 3' at each end of the culvert shall be backfilled with impervious material. See sheet 2 of 11 for limits of PGE.
 - Precast alternate is not allowed.
 - The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
 - The Rock Fill shall be capped with 6 in. of CA 7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for Rock Fill - Replacement. Rock Fill shall be composed of Stone Riprap, Class A1.
 - Modify existing channel to match culvert at each end as directed by the Engineer, cost included in the pay item for Stone Riprap, Class A5.

TOTAL BILL OF MATERIAL

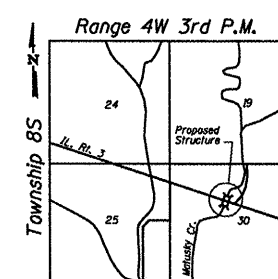
ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu. Yd.	474
Stone Riprap, Class A5	Sq. Yd.	148
Filter Fabric	Sq. Yd.	148
Removal of Existing Structures No. 2	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	111
Reinforcement Bars, Epoxy Coated	Pound	33,140
Reinforcement Bars	Pound	360
Bar Splicers	Each	167
Steel Railing, Type 2399	Foot	59
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	195.0
Temporary Soil Retention System, (Location 2)	Sq. Ft.	525
Temporary Support System, Location 2	Each	1
Rock Fill - Replacement	Ton	228
Permanent Steel Sheet Piling	Sq. Ft.	286

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth
Excavation, and Pavement Removal.

IL 3 OVER MATUSKY CREEK
FAP ROUTE 312 - SECTION 123B-4
JACKSON COUNTY
STATION 370+74



EXPIRES 11-30-2012
SIGNATURE
DATE



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO
LOADING HS20-44
Allow 50 psf for future wearing surface.

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinf.)

WATERWAY INFORMATION

Drainage Area = 2.25 Sq. Mi.		Exist. Low Grade Elev. = 384.10 Ft. @ Sta. 371+00		Prop. Low Grade Elev. = 384.10 Ft. @ Sta. 371+00	
Flood	Freq. Yr.	0	Opening-Sq. Ft.	Mat.	Head-Ft.
	100	121	180	378.8	1.6
Design	50	1860	164	226	380.7
Base	100	2220	182	240	381.5
Overtopping	100	2200	182	-	381.5
Max. Calc.	500	3120	-	240	382.6

10 year velocity through existing culvert = 9.6 ft/s
10 year velocity through proposed culvert = 6.6 ft/s

PROFILE GRADE

(Along $\angle$ FAP 312)

SCOUR INFORMATION

Design Scour Elevation (Ft.)	Downstream	Upstream
	368.28	368.52



USER NAME = HAS
ESCA PROJECT NO. 988.08
PLOT SCALE = 8.17' / IN.
PLOT DATE = 11/9/2011

DESIGNED - RDP 09/11
CHECKED - JAF 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

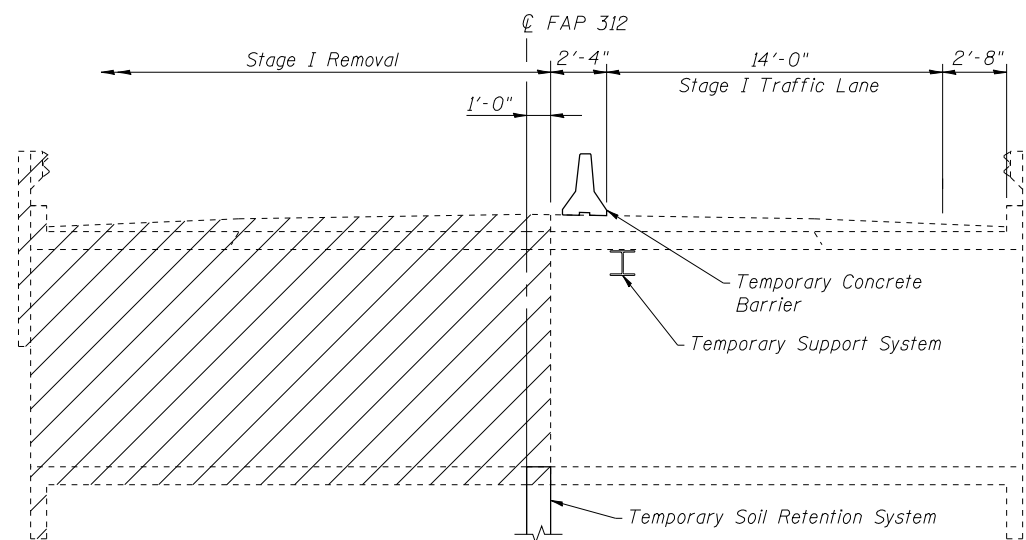
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REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

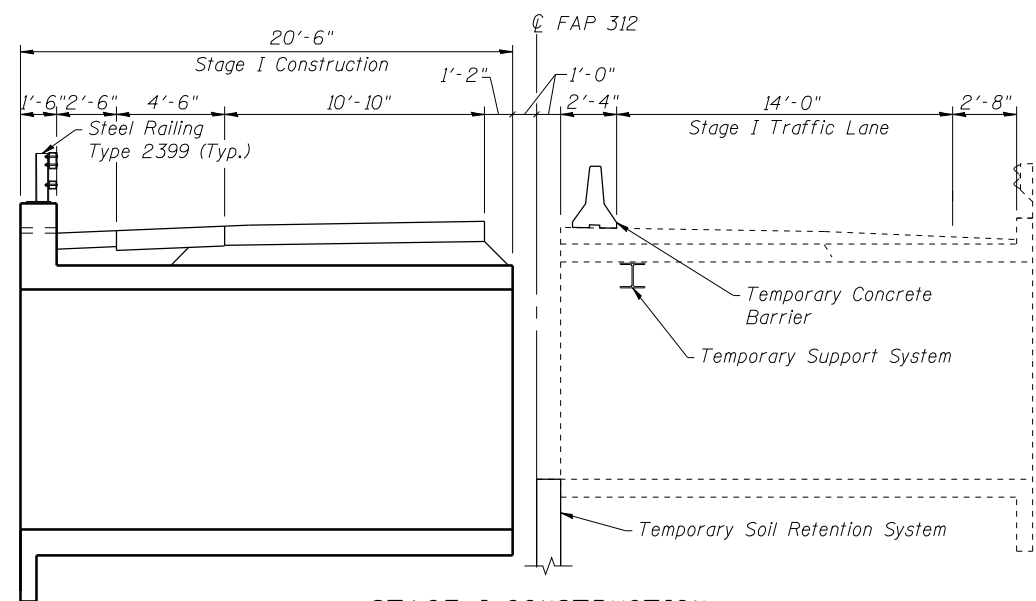
GENERAL PLAN
STRUCTURE NO. 039-2029

SHEET NO. 1 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	24
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				



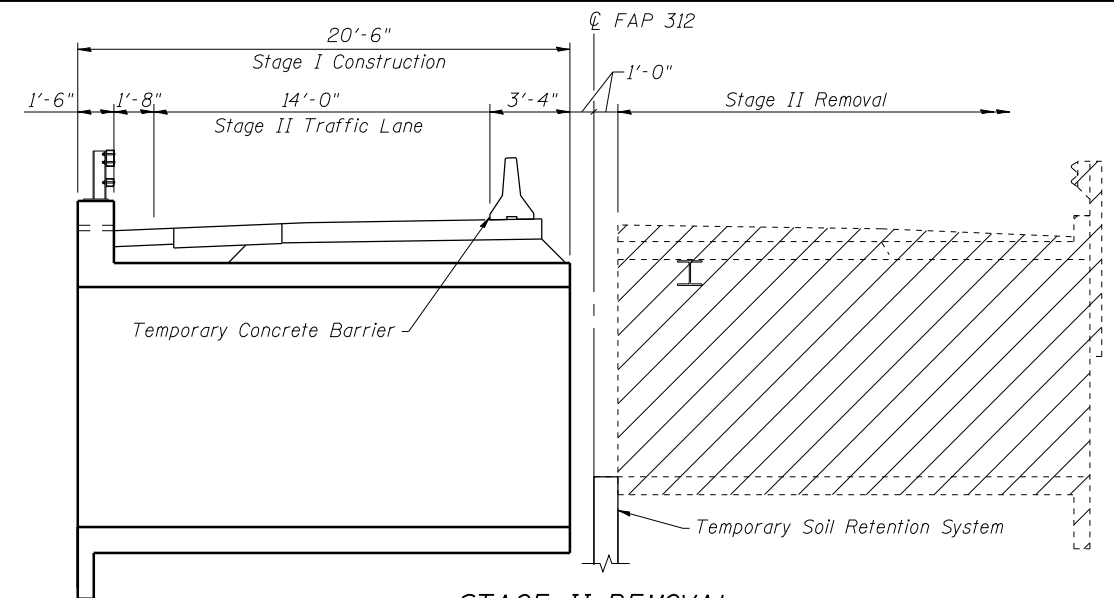
STAGE I REMOVAL



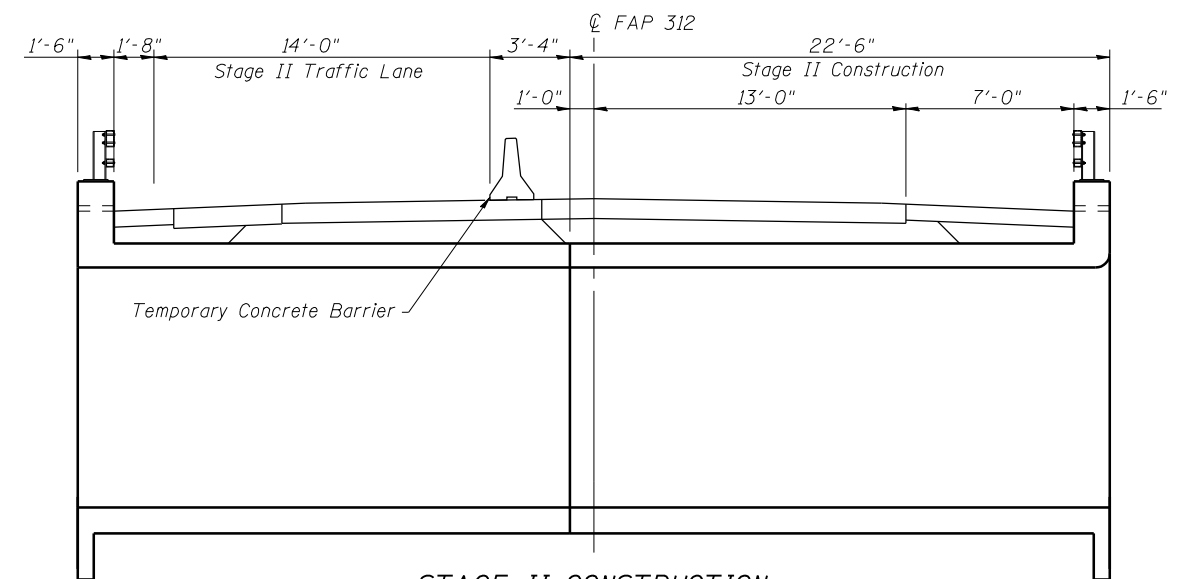
STAGE I CONSTRUCTION

STAGE CONSTRUCTION NOTES

1. All staging sections are looking in the direction of increasing stations.
2. Hatched areas indicate removal.
3. Removal of existing side mounted steel railing is included with Removal of Existing Structures No. 1.
4. See Roadway Plans for quantity of Temporary Concrete Barrier.



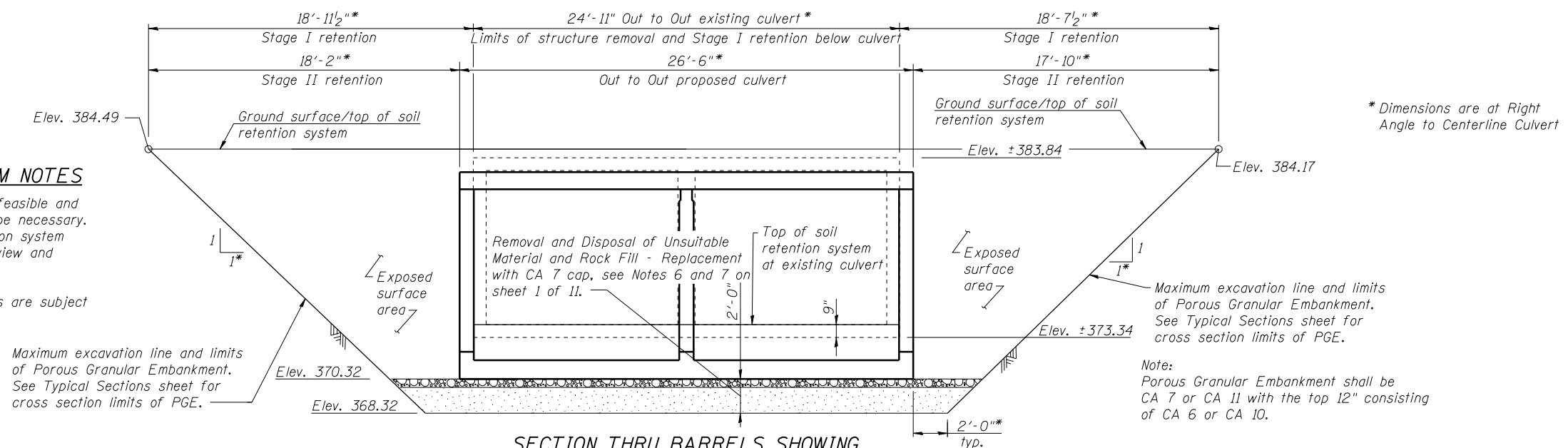
STAGE II REMOVAL



STAGE II CONSTRUCTION

TEMPORARY SOIL RETENTION SYSTEM NOTES

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Plan dimensions and details relative to existing plans are subject to nominal construction variations.



**SECTION THRU BARRELS SHOWING
TEMPORARY SOIL RETENTION SYSTEM LIMITS**



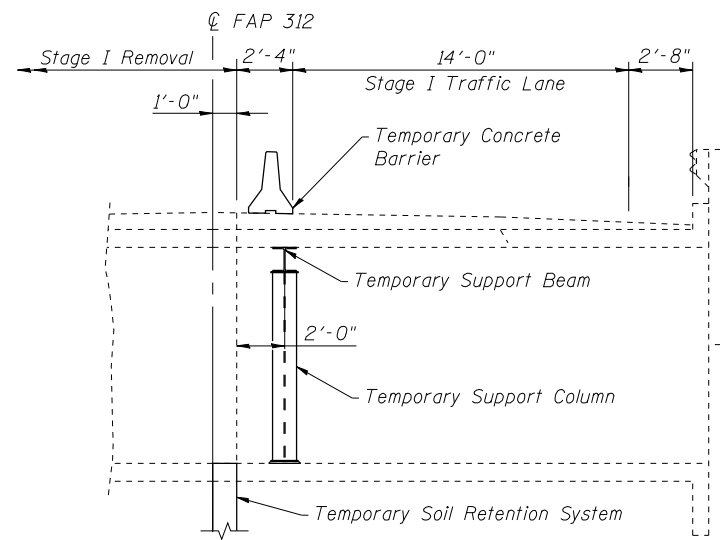
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ESCA PROJECT NO. 988.08	CHECKED - JAF 09/11	REVISED -
PLOT SCALE = 1/4" = 1'-0"	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/16/2011 9:46:38 AM	CHECKED - RDP 11/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

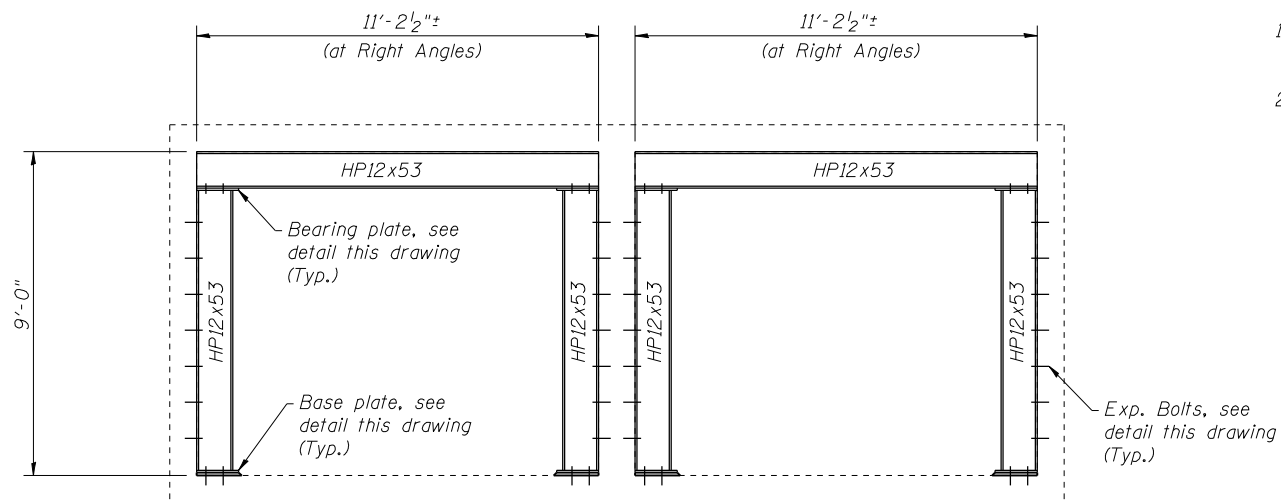
**STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 039-2029**

SHEET NO. 2 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	25
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				



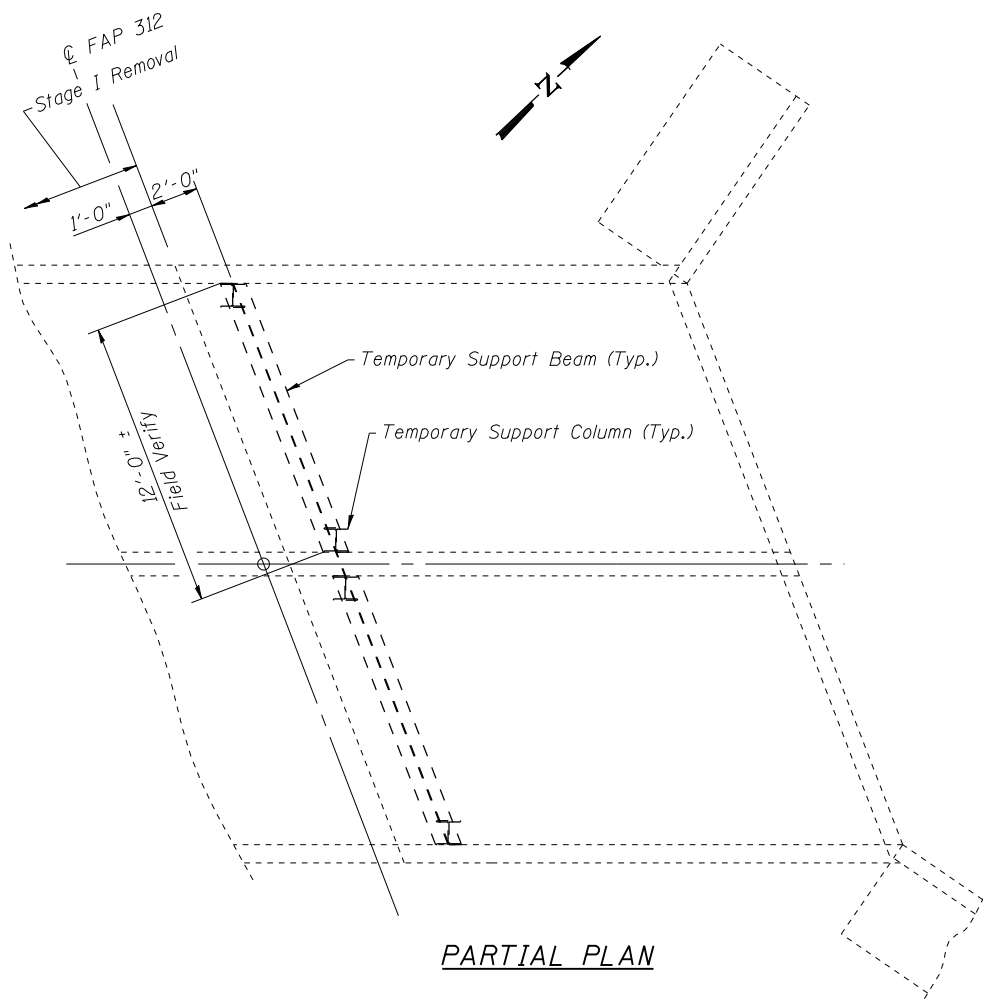
PARTIAL LONGITUDINAL SECTION



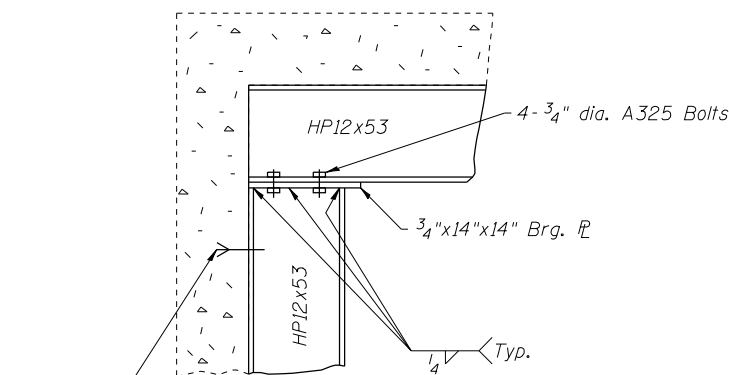
TRANSVERSE SECTION

TEMPORARY SUPPORT SYSTEM NOTES

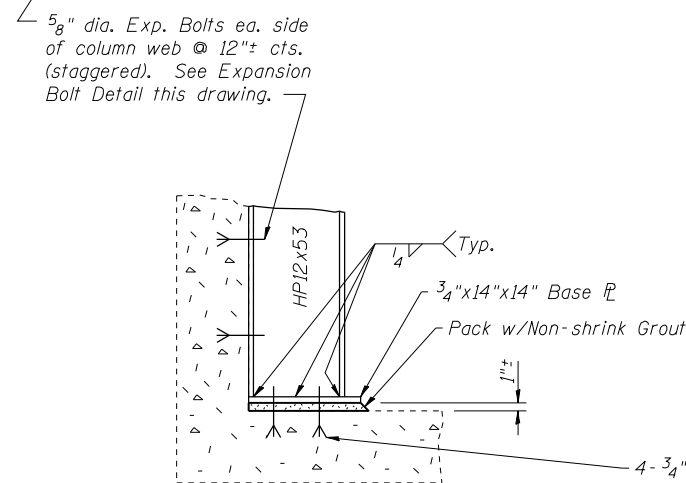
1. Complete Temporary Support System must be installed/approved prior to commencing any concrete removal.
2. Furnishing, installing, and subsequent removal of beams, connections, etc. required for the Temporary Support System will be paid for at the Contract Unit Price per each for Temporary Support System at the locations specified in the plans. After removal, all Temporary Support System materials shall be the property of the Contractor.



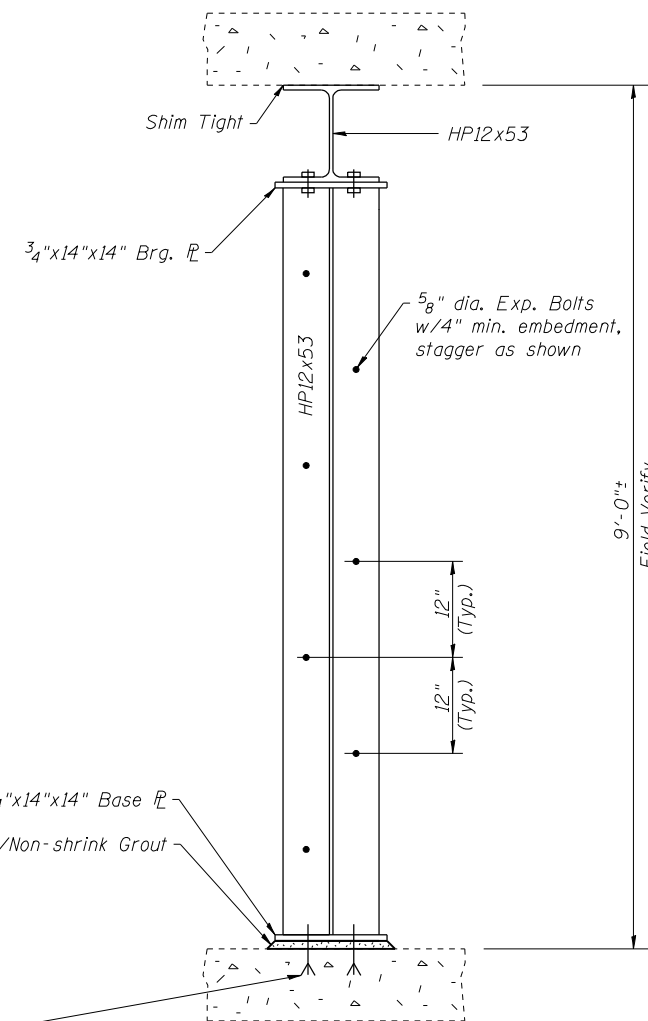
PARTIAL PLAN



BEARING PLATE DETAIL



BASE PLATE DETAIL



EXPANSION BOLT DETAIL



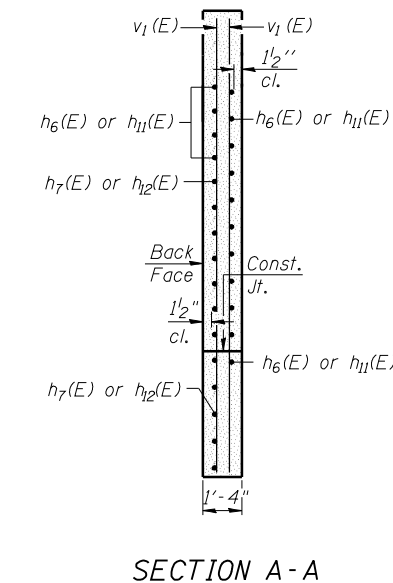
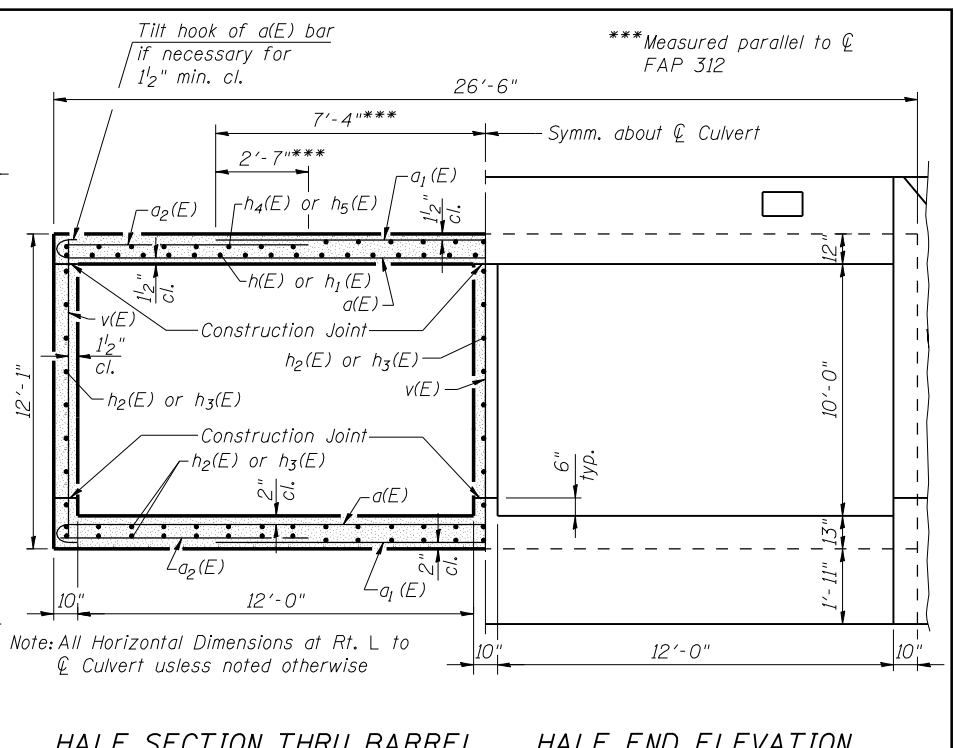
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PLOT DATE = 11/16/2011 9:48:31 AM	CHECKED - RDP 11/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SUPPORT SYSTEM DETAILS
STRUCTURE NO. 039-2029**

SHEET NO. 3 OF 11 SHEETS

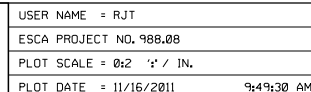
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	26
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				



**See Headwall Details on
sheet 5 of 11.

(Sheet 1 of 2)

*** See Sheet 1 of 11 for NE & SW
Wing Dimensions



DESIGNED	-	RDP	09/11
CHECKED	-	JAF	09/11
DRAWN	-	DWH	11/11
CHECKED	-	RDP	11/11

REVISED	-
REVISED	-
REVISED	-
REVISED	-

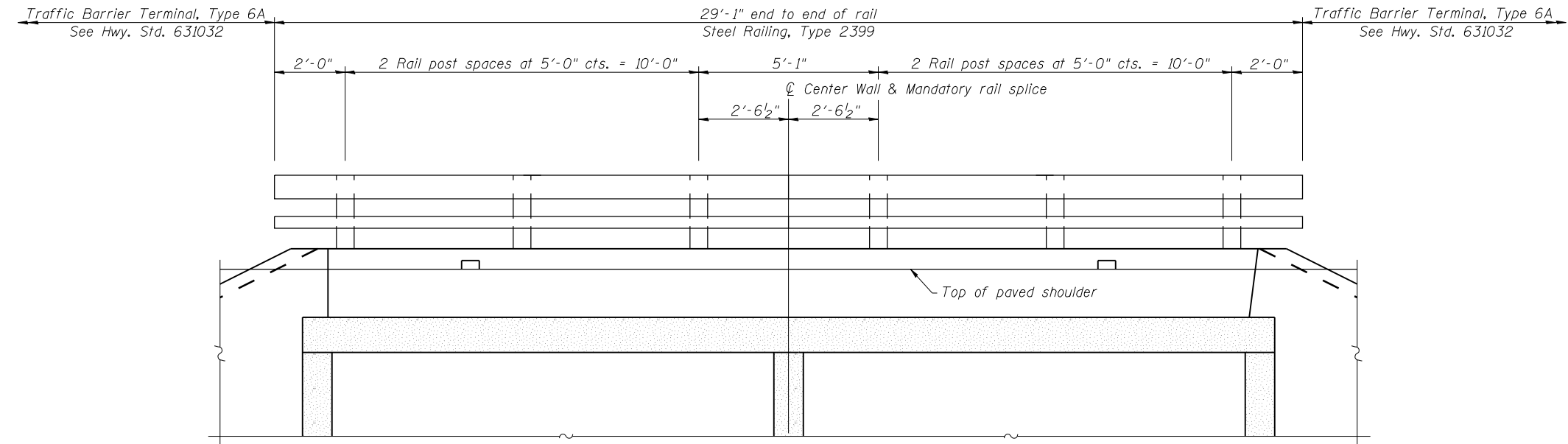
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BOX CULVERT DETAILS STRUCTURE NO. 039-2029

SHEET NO. 4 OF 11 SHEETS

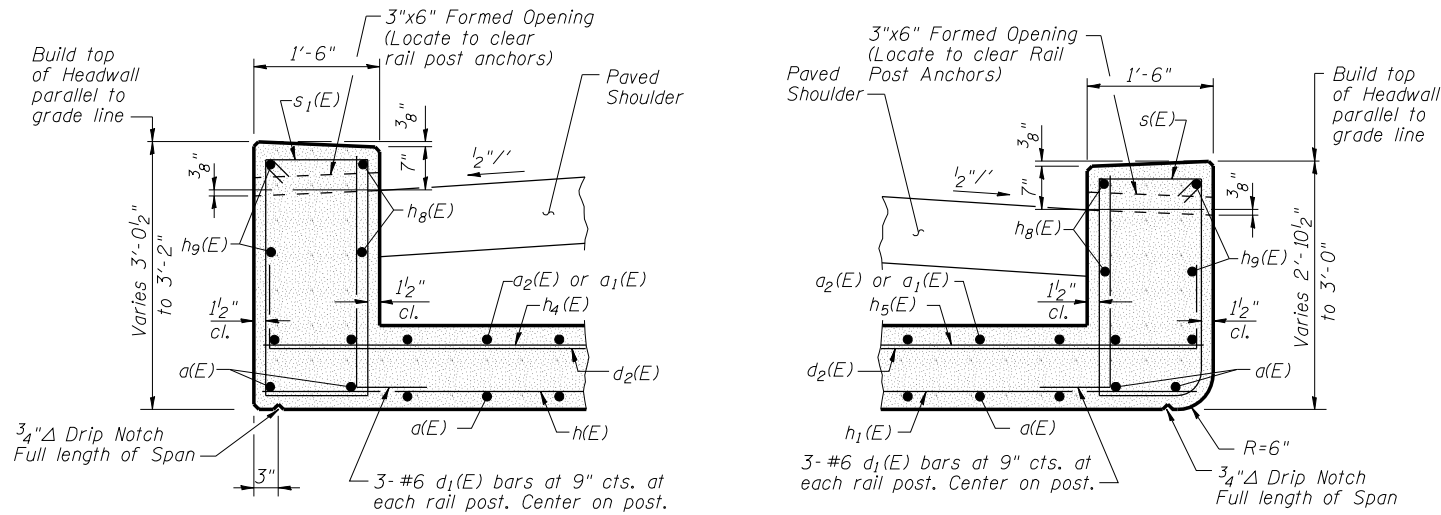
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	27
		CONTRACT NO. 78197		
ILLINOIS FED. AID PROJECT				

ILLINOIS	FED. AID PROJECT
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INSIDE ELEVATION OF RAILING

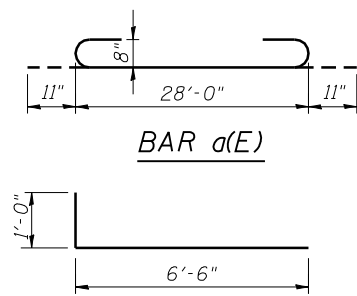
Note:
See sheet 7 of 11 for railing details.



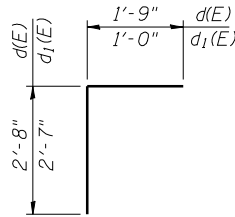
AT DOWNSTREAM END

AT UPSTREAM END

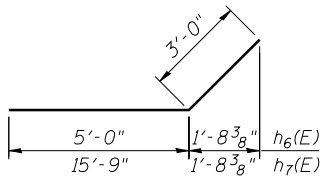
HEADWALL DETAILS



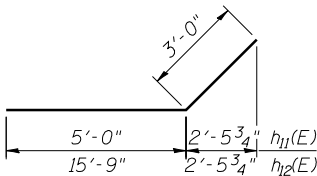
BAR $d_2(E)$



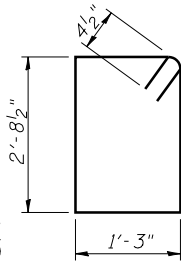
BARS $d(E)$ & $d_1(E)$



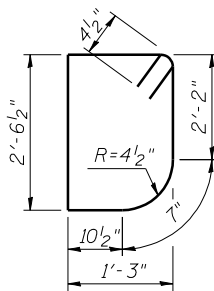
BARS $h_6(E)$ & $h_7(E)$



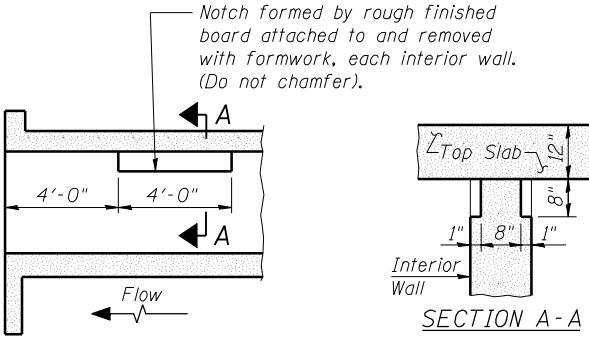
BARS $h_{11}(E)$ & $h_{12}(E)$



BAR $s_1(E)$



BAR $s(E)$



LONGITUDINAL SECTION

**PHOEBE NESTING
SITE DETAILS**
(Downstream End Only)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$d(E)$	110	#8	29'-10"	
$d_1(E)$	110	#8	14'-8"	
$a_2(E)$	116	#5	9'-3"	
$d(E)$	50	#4	4'-5"	
$d_1(E)$	36	#6	3'-7"	
$d_2(E)$	48	#6	7'-6"	
$h(E)$	35	#6	21'-9"	
$h_1(E)$	35	#6	23'-9"	
$h_2(E)$	104	#5	21'-9"	
$h_3(E)$	104	#5	23'-9"	
$h_4(E)$	28	#4	21'-9"	
$h_5(E)$	28	#4	23'-9"	
$h_6(E)$	50	#8	8'-0"	
$h_7(E)$	40	#8	18'-9"	
$h_8(E)$	4	#6	26'-0"	
$h_9(E)$	4	#6	28'-0"	
$h_{10}(E)$	14	#6	27'-3"	
$h_{11}(E)$	50	#8	8'-0"	
$h_{12}(E)$	40	#8	18'-9"	
$s(E)$	27	#4	8'-2"	
$s_1(E)$	27	#4	8'-8"	
$v(E)$	136	#6	11'-8"	
$v_1(E)$	16	#4	15'-7"	
Concrete Box Culverts				Cu. Yd. 190.8
Reinforcement Bars, Epoxy Coated				Pound 33,140

(Sheet 2 of 2)



USER NAME = RJT
ESCA PROJECT NO. 988.08
PLOT SCALE = 0.25" = 1' / IN.
PLOT DATE = 11/16/2011 9:52:22 AM

DESIGNED - RDP 09/11
CHECKED - JAF 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

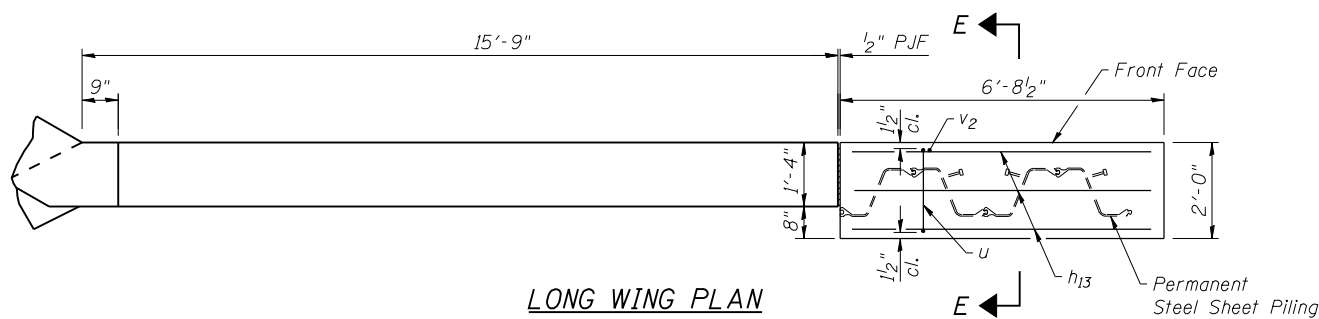
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

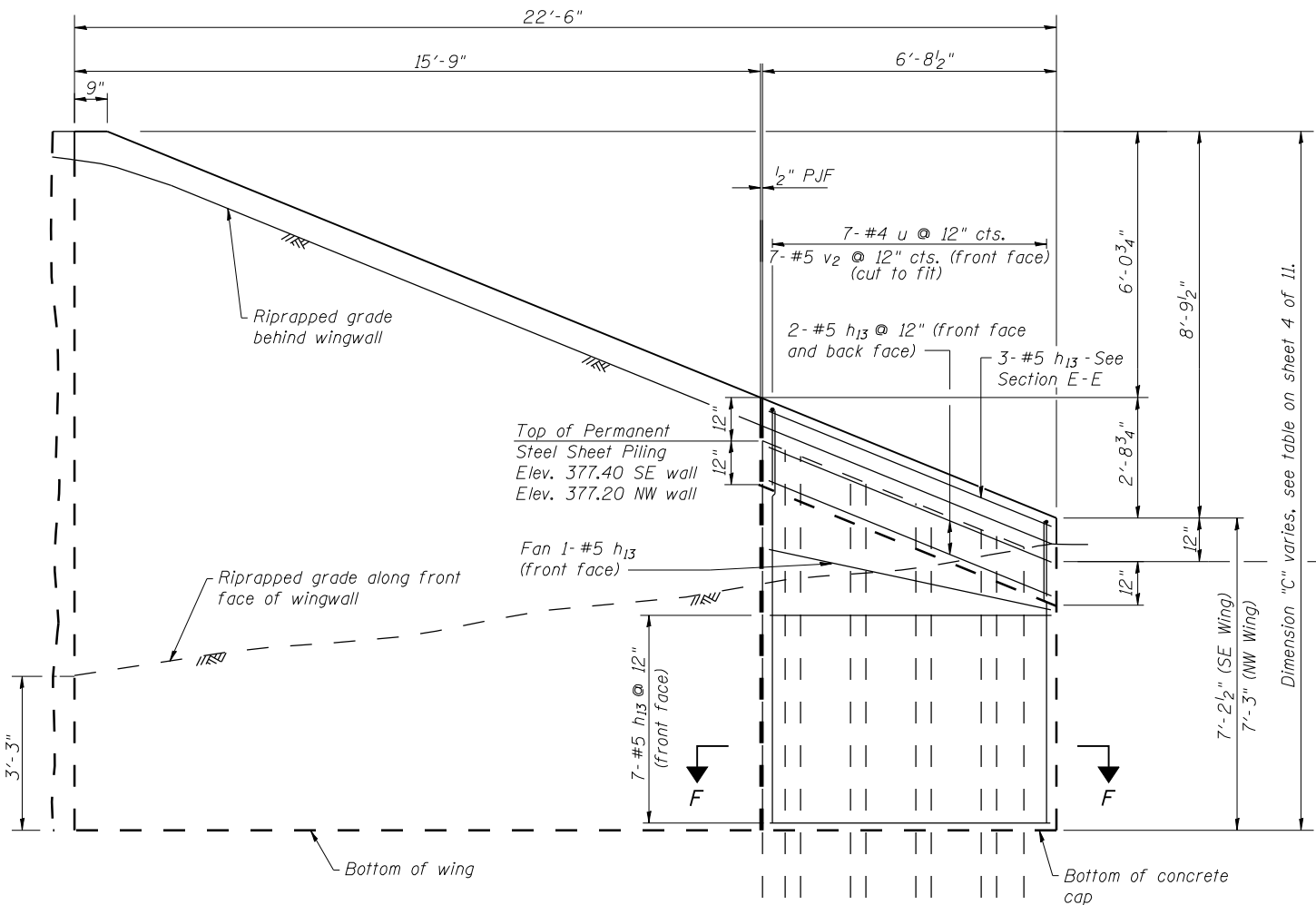
**BOX CULVERT DETAILS
STRUCTURE NO. 039-2029**

SHEET NO. 5 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	28
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT AID				



LONG WING PLAN



LONG WING ELEVATION
(Looking at Back Face)

CONSTRUCTION SEQUENCE

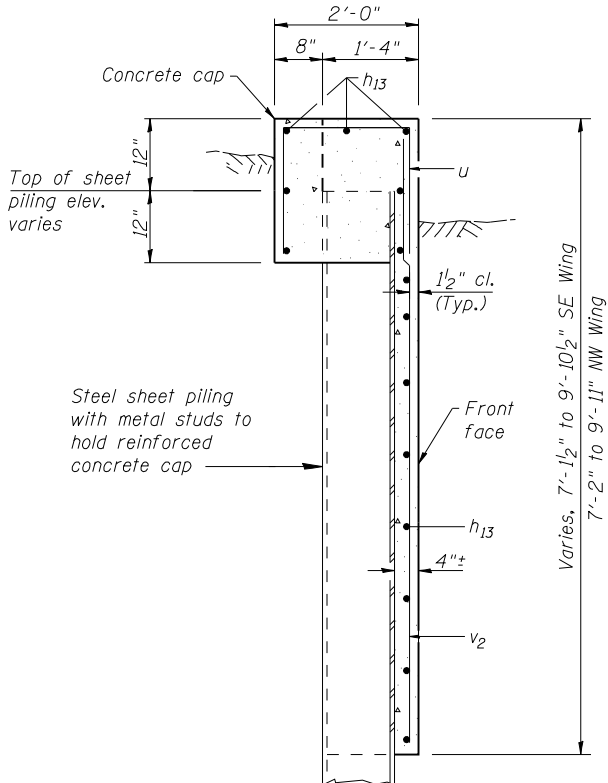
1. Excavate site for box culvert wingwall and steel sheet piling wall.
2. Backfill with rock fill as shown on the plans.
3. Construct box culvert wingwall and include water seal in concrete pour.
4. Install 1/2" PJF with concrete nails.
5. Install Permanent Steel Sheet Piling.
6. Backfill behind box culvert wingwall and Permanent Steel Sheet Piling.
7. Construct concrete cap.
8. Complete backfill in front of and behind walls.

BILL OF MATERIAL

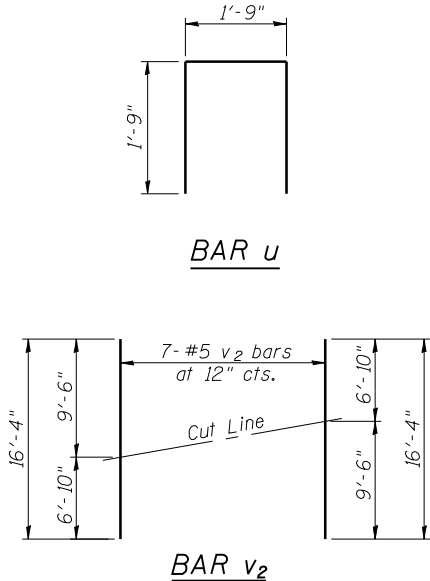
Bar	No.	Size	Length	Shape
h13	30	#5	6'-2"	
u	14	#4	5'-3"	□
v2	7	#5	16'-4"	
Concrete Box Culverts			Cu. Yd.	4.2
Reinforcement Bars			Pound	360
Permanent Steel Sheet Piling			Sq. Ft.	286

NOTES

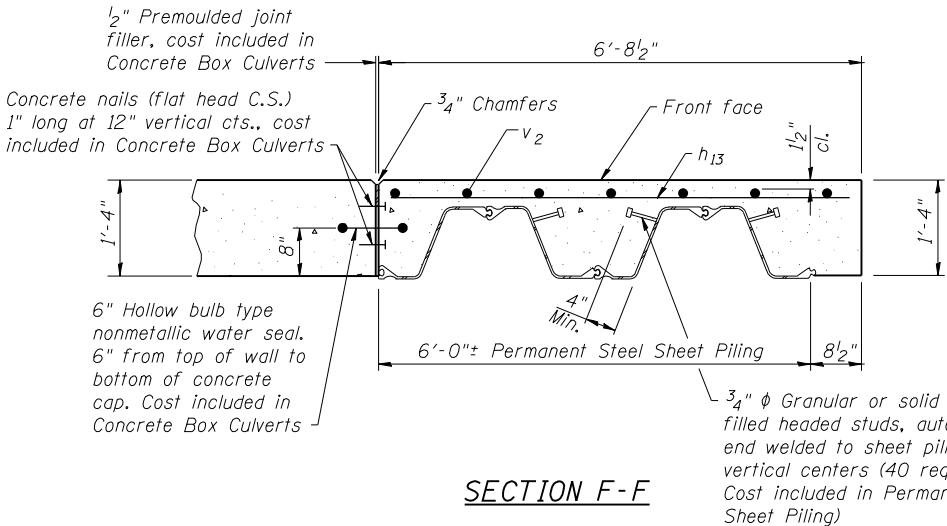
1. The quantity of concrete for the sheet piling cap is included in Concrete Box Culverts.
2. The cost of supplying and installing the shear studs is included in Permanent Steel Sheet Piling.



SECTION E-E



FIELD CUTTING DIAGRAM
Order v2 full length. Cut as shown and use remainder of bars in opposite wall.



SECTION F-F



USER NAME = RJT	DESIGNED - RDP 09/11	REVISED -
ESCA PROJECT NO. 988.08	CHECKED - JAF 09/11	REVISED -
PLOT SCALE = 0.2" = 1' / IN.	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/16/2011 9:53:27 AM	CHECKED - RDP 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

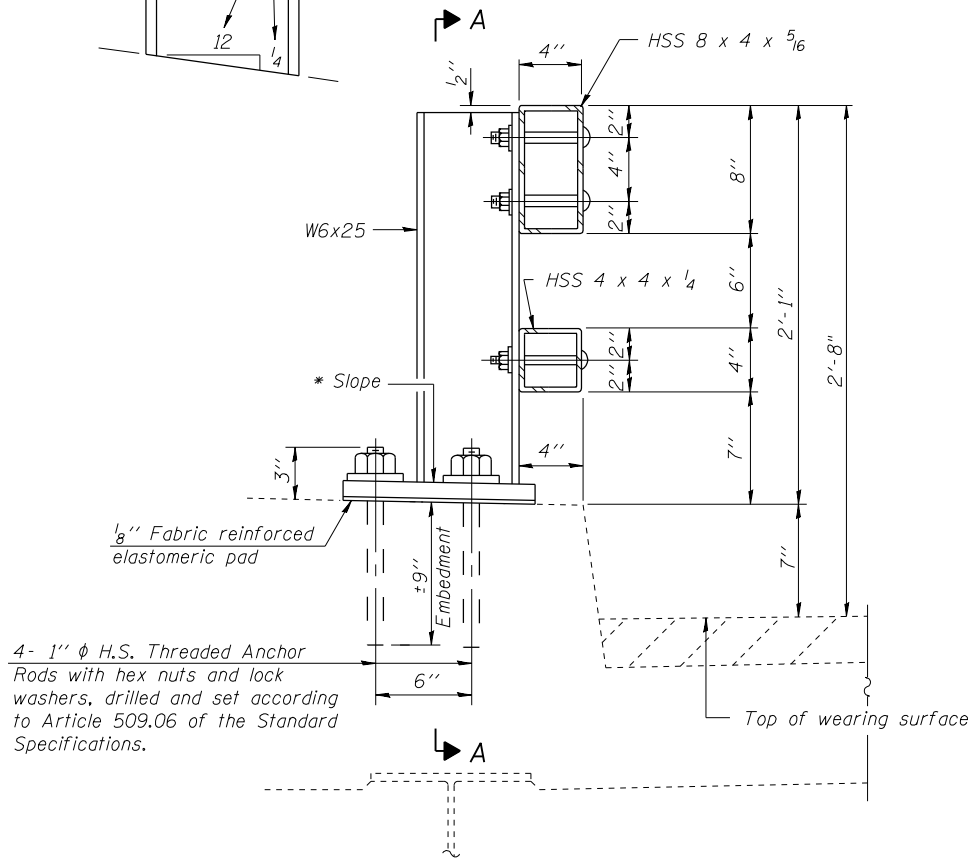
STEEL SHEET PILING WALL DETAILS
STRUCTURE NO. 039-2029

SHEET NO. 6 OF 11 SHEETS

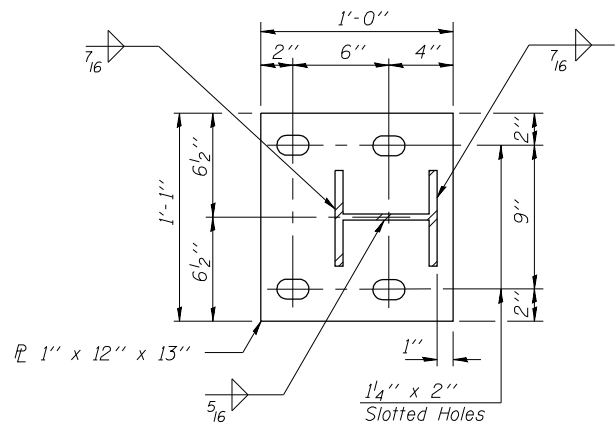
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	29
CONTRACT NO. 78197				

ILLINOIS FED. AID PROJECT

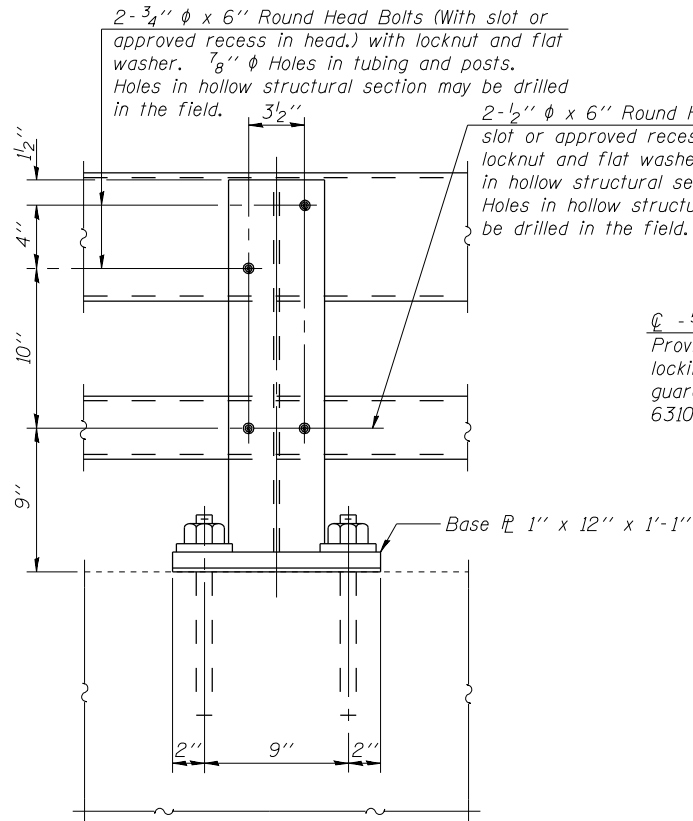
* Cut bottom end of post to curb slope.



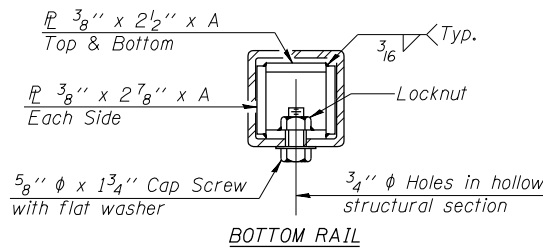
SECTION AT RAIL POST



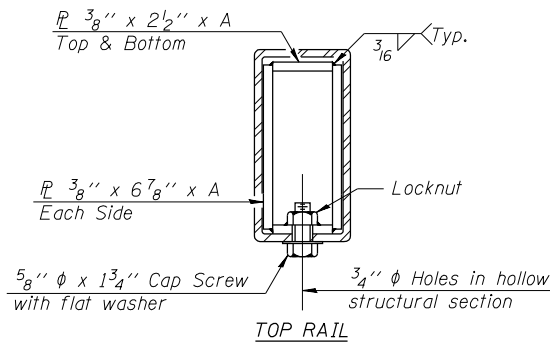
BASE PLATE DETAIL



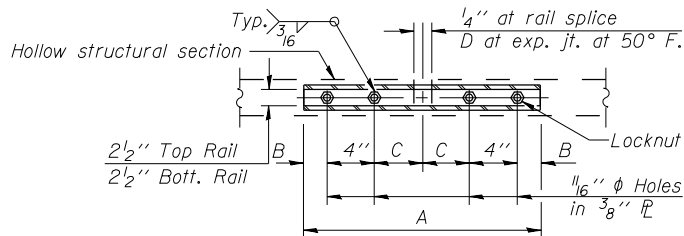
SECTION A-A



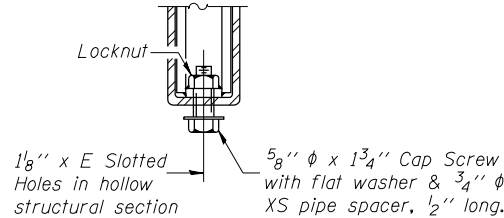
BOTTOM RAIL



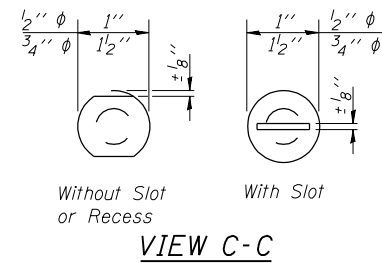
TOP RAIL



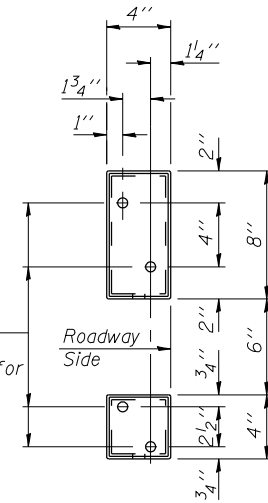
PLAN-BOTT. SPLICE TYPICAL



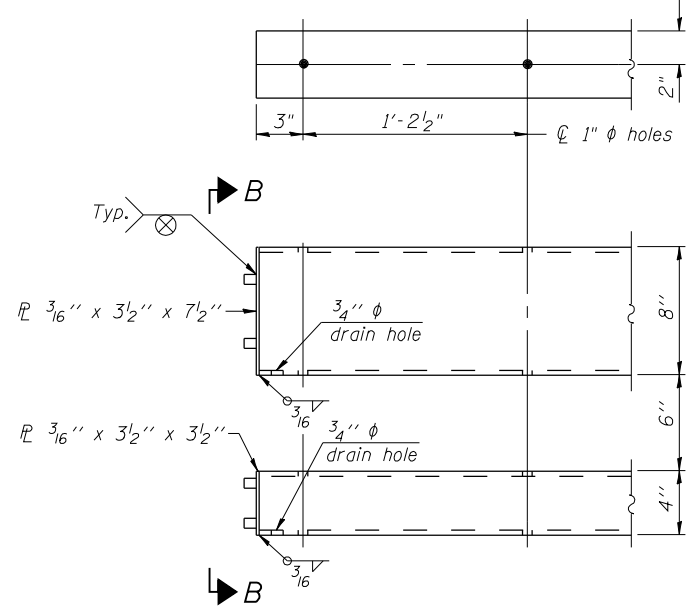
RAIL SPLICE CONNECTION AT EXPANSION JT.



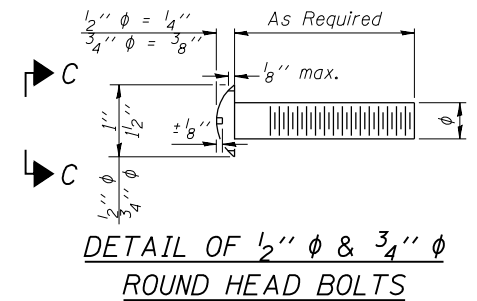
VIEW C-C



VIEW B-B



END OF RAIL DETAILS



DETAIL OF 1/2' & 3/4' ROUND HEAD BOLTS

Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.
Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.
Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤4"	2 1/2"	1'-8"	2"	4"	2 1/2"
>4"≤6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
>6 1/2"≤9"	5"	2'-4"	3 1/2"	6 1/2"	9"
>9"≤13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	—

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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	59

R-31

7-1-10

(6'-3" Maximum Post Spacing)



USER NAME = RJT
ESCA PROJECT NO. 988.08
PLOT SCALE = 1/4" = 1' / IN.
PLOT DATE = 11/16/2011 9:54:23 AM

DESIGNED - RDP 09/11
CHECKED - JAF 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

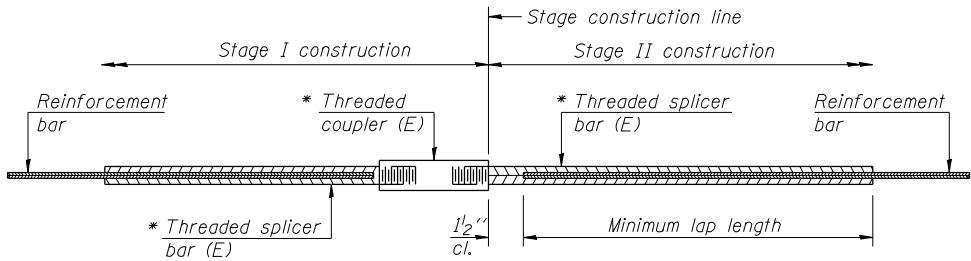
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE 2399
STRUCTURE NO. 039-2029

SHEET NO. 7 OF 11 SHEETS

F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
312 123B-4 JACKSON 58 30
ILLINOIS FED. AID PROJECT CONTRACT NO. 78197



STANDARD BAR SPLICER ASSEMBLY

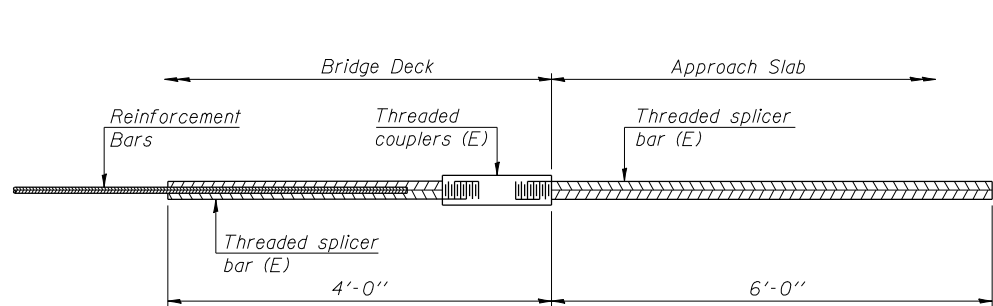
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

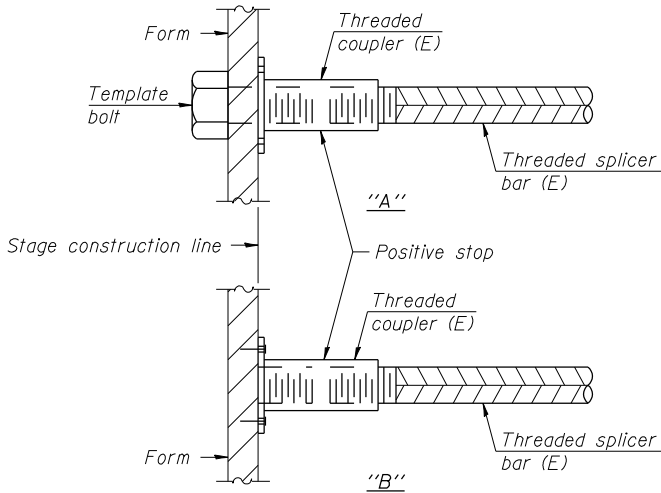
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab, Top	#4	28	4
Top Slab, Bottom	#6	35	3
Bottom Slab, Top	#5	28	4
Bottom Slab, Bottom	#5	28	3
Walls	#5	48	4



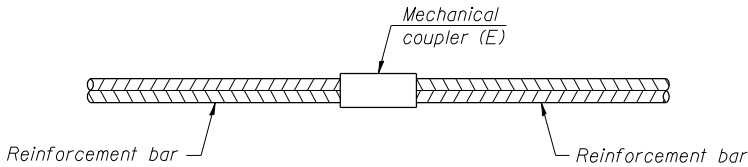
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



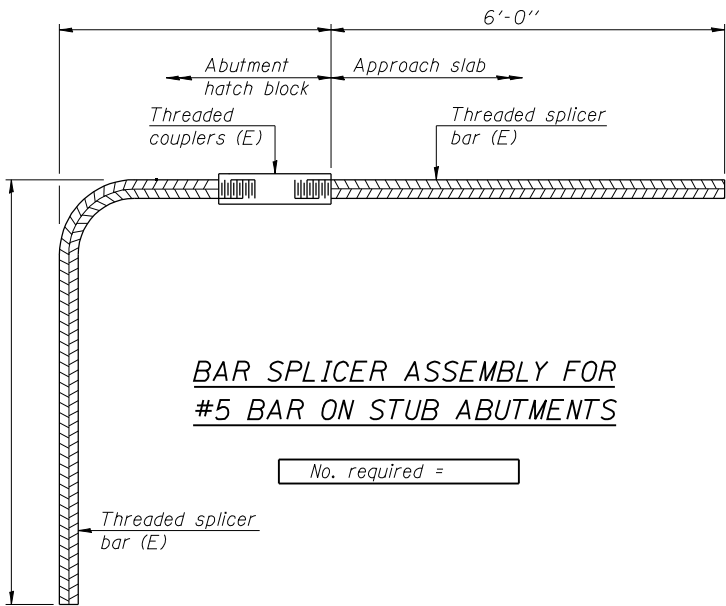
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

BSD-1

7-1-10



USER NAME = RJT
ESCA PROJECT NO. 988.08
PLOT SCALE = 0.25" = 1' / IN.
PLOT DATE = 11/16/2011 9:55:12 AM

DESIGNED - RDP 09/11
CHECKED - JAF 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

REVISED -
REVISED -
REVISED -
REVISED -

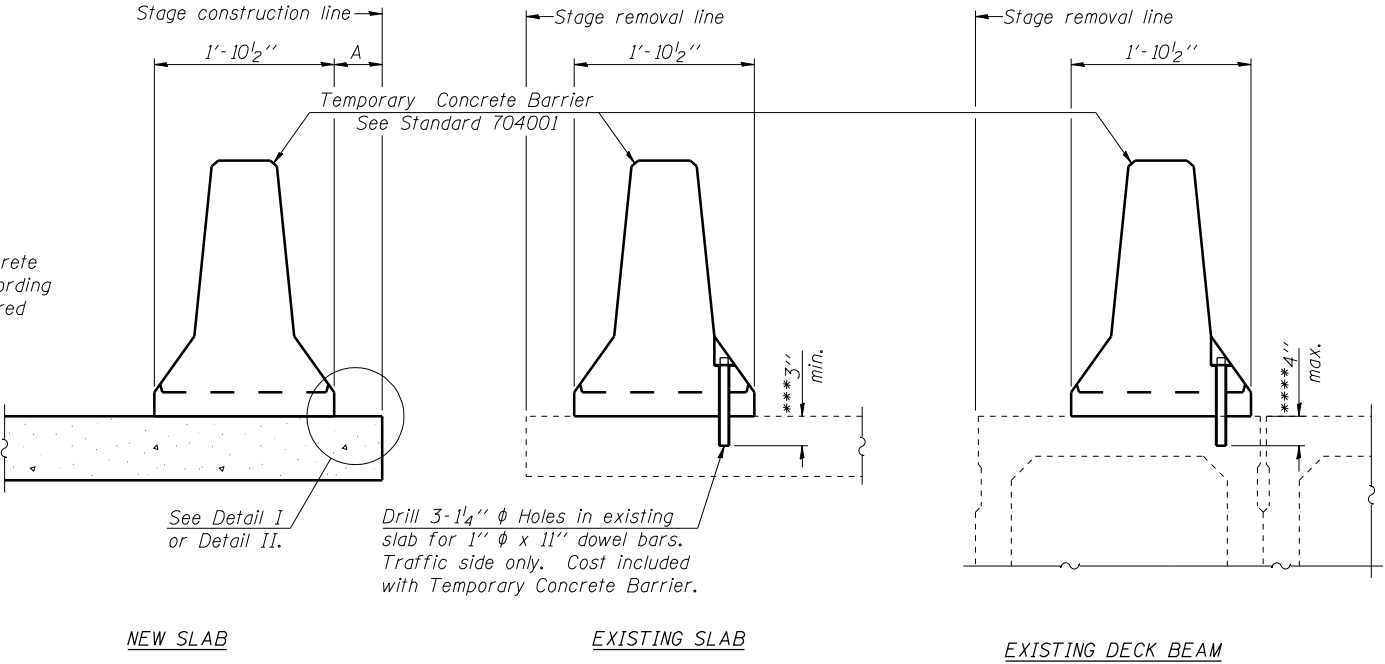
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 039-2029

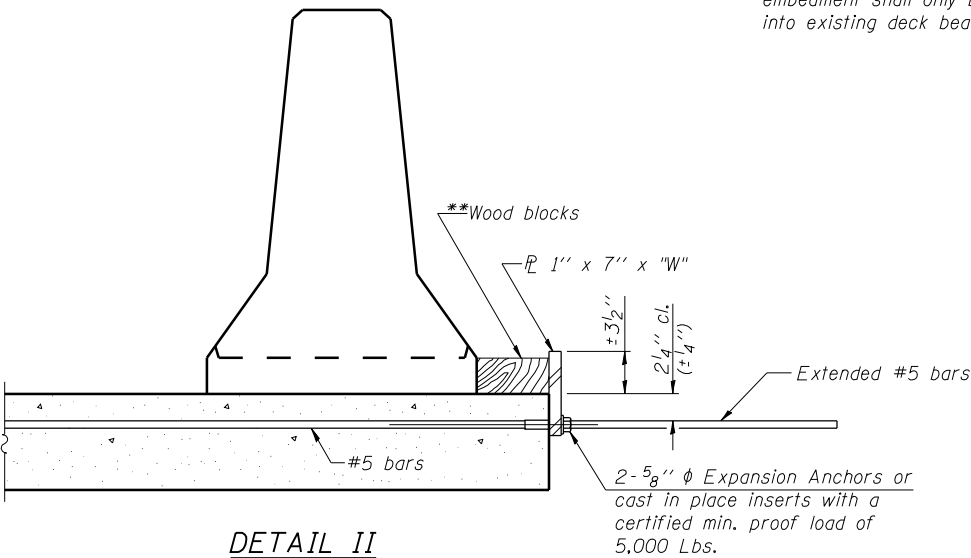
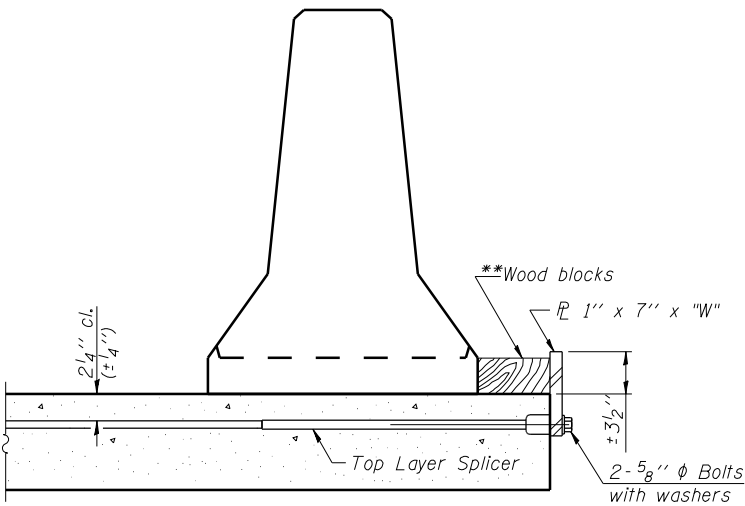
SHEET NO. 8 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	31
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM



NOTES

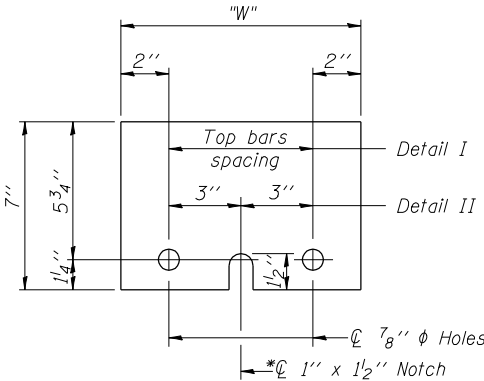
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel $\bar{P}$ to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate $\bar{C}$ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel $\bar{P}$ to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate $\bar{C}$ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete.
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10



USER NAME = RJT	DESIGNED - RDP 09/11	REVISED -
ESCA PROJECT NO. 988.08	CHECKED - JAF 09/11	REVISED -
PLOT SCALE = 0.2" = 1' / IN.	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/16/2011 9:56:05 AM	CHECKED - RDP 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 039-2029

SHEET NO. 9 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	32
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log
Sheet 1 of 2

FAP 312 (IL Route 3) Over Matusky Creek
Route: FAP 312 (IL Rte Structure Number: 039-2002 Date: 6/21/2010
Section 123 Bored By: R Moberly
County: Jackson Location: 4.8 mi South of Randolph County Checked By: R Graeff

Boring No 2-S
Station 370+40
Offset 14' Lt CL
Ground Surface 384.3 Ft

DEPT
H

BLOS
S

Qu
tsf

W%

Surf Wat Elev: 375.7
Ground Water Elevation when Drilling 364.8
At Completion
At: Hrs:

DEPT
H

BLOS
S

Qu
tsf

W%

Crushed aggregate					Soft, very moist, brown mottled grey, Silty Clay Loam A-6		1	0.4B	28
383.3							1		
Stiff, moist, brown, Silty Clay Loam A-4									
	2						WH		
	5	1.2S	18				WH	0.3B	28
	6						1		
379.8					354.8				
Medium to soft, moist to v moist, brown, Silt Loam A-4	5.0	1			Very soft, very moist, brown mottled grey, Silty Clay Loam A-6	30.0	WH		
	2	0.5S	21				WH	0.1B	32
	1						WH		
	WH						WH		
	1	0.4S	19				WH	0.1E	28
	WH						WH		
					349.8				
	10.0	1			Very soft, very moist, brown mottled grey, Silty Clay Loam A-6 with sand layers	35.0	WH		
	1	0.3S	17				2	0.1B	28
	1						1		
372.3					347.3				
Medium, very moist, brown, Silty Clay Loam A-6		1			Loose, wet, brown, Sand with Gravel and Clay		2		
	2	0.7B	21				4		21
	3						2		
					64% Sand				
					6% Silt				
	15.0	1			4% Clay	40.0	1		
	2	0.6B	24		26% Gravel		3		
	3						1		
367.3									
Very soft, wet, brown and grey, Silty Clay Loam A-6 with Sand seams		WH							
		WH	0.1B	26					
	1								
					339.8				
	20.0	WH			Medium to soft, very moist, grey, Silt Loam A-4 with Clay layers	45.0	1		
		WH	0.1E	27			4	0.5B	28
		WH					4		
362.3									
Stiff to medium, very moist, brown, Silty Clay Loam A-6		WH							
		2	1.0B	24					
		2							
359.8									
	25.0	WH				50.0	1		

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2
Date: 6/21/2010

Route: FAP 312 (IL Rte 3)
Section: 123
County: Jackson

Boring No: 2-S
Station: 370+40
Offset: 14' Lt CL
Ground Surface: 384.3 Ft

DEPT
H

BLOS
S

Qu
tsf

W%

DEPT
H

BLOS
S

Qu
tsf

W%

Medium to soft, very moist, grey, Silt Loam A-4 with Clay layers		3	0.9B	30					
		3							
					Bottom of hole = 72.5 feet				
331.8					Free water observed at 19.5 feet				
Stiff, moist, grey, Clay A7-6					Elevation referenced to BM @ SW headwall; Elev. = 384.5 feet				
	55.0	7			To convert "N" values to "N60" multiply by 1.25	80.0			
		16	1.5B	28					
		25							
327.3									
Stiff, moist, grey, Silty Clay to Clay A7-6									
	60.0	2				85.0			
		4	1.6B	30					
		6							
319.8									
Dense, moist, grey and brown, broken Sandstone with some Clay	65.0	8				90.0			
		20							
		20							
317.3									
Stiff, moist, grey, Clay to Clay Loam A7-6									
	70.0	1				95.0			
		3	1.2B	22					
		3							
312.3									
Hard, dry, grey, Limestone (Refusal)	311.3	100/0.5"							
Bottom of hole = 72.5 feet									
	75.0					100.0			

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)



USER NAME = RJT	DESIGNED - RDP 09/11	REVISED -
ESCA PROJECT NO. 988.08	CHECKED - JAF 09/11	REVISED -
PLOT SCALE = 0.2" = 1' / IN.	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/16/2011 9:58:08 AM	CHECKED - RDP 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (2 OF 2)
STRUCTURE NO. 039-2029

SHEET NO. 11 OF 11 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	34
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

SCHEDULE OF CULVERTS

STA.	TYPE	SIZE	SKW	CONC.	STEEL
94+97	AD	2'x2'x22'-0"	18'LH	11.1	1120
95+29	AD	15'x15'x22'-0"	18'LH	67	220
103+03	AD	10'x5'x40'-10"	18'LH	50.6	7020
113+03	AD	3'x2'x46'-6"		12.6	1350
120+10	AD	8'x3'x22'-0"	18'LH	30.7	3000
123+10	AD	10'x4'x34'-6"	43'LH	60.3	6630
137+23	AD	7'x6'x46'-2 1/2"	30'LH	40.3	6000
131+41	AD	2'x2'x22'-0"	18'LH	11.3	1130
136+07	AD	2'x2'x46'-0"		10.6	1150
193+19	AD	3'x4'x40'-0"		22.4	2750
170+33	AD	4'x2'x40'-0"		14.8	1560
179+30	AD	10'x3'x44'-6"	26'LH	30.1	6710
107+00	REL	15'x15'x20'-0"			
107+00	REL	15'x15'x20'-0"			
194+03	AD	10'x3'x44'-6"	26'LH	30.1	6710
195+30	3DD	12'x12'x20'-0"		3.0	600
196+00	REL	12'x12'x20'-0"			
211+03	REL	12'x12'x20'-0"			
213+40	AD	3'x3'x37'-6"		20.1	2550
221+27	AD	18'x18'x40'-0"		7.1	220
227+23	AD	3'x2'x46'-3"	30'DH	18.1	2460
234+19	AD	2'x2'x34'-10"	30'DH	13.6	1410
237+19	AD	2'x2'x46'-0"		11.0	1000
240+02	AD	2'x2'x32'-6"		12.8	1230
241+23	AD	18'x18'x40'-0"		7.4	220
247+56	AD	2'x2'x33'-0"		12.9	1230
252+73	AD	Double 10'x10'x40'-0"		130.1	15430
270+90	AD	3'x2'x60'-7 1/2"	26'LH	17.1	2150
275+19	AD	2'x2'x40'-0"		11.2	1070
276+00	REL	15'x15'x20'-0"		30.6	7030
290+10	AD	18'x18'x40'-0"		67	230
293+79	AD	2'x2'x43'-9 1/2"	24'LH	11.1	1220
304+00	REL	12'x12'x20'-0"			
317+47	AD	10'x9'x40'-0"		70.1	7830
320+00	REL	12'x12'x20'-0"			
323+43	AD	2'x2'x47'-0"		12.4	1190
333+17	AD	2'x2'x40'-0"		10.9	1070
340+00	AD	2'x2'x40'-0"		10.0	1050
342+00	REL	12'x12'x20'-0"			
345+42	AD	Double 9'x7'x43'-7 1/2"	23'LH	0.33	12750
351+29	AD	18'x18'x40'-0"		7.2	230
351+39	3DD	18'x18'x40'-0"		4.9	230
351+39	3DD	18'x18'x40'-0"		4.9	230
350+23	AD	2'x2'x49'-0"		11.1	1220
369+03	AD	3'x3'x50'-6"		12.2	1230
370+74	AD	Double 11'x7'x43'-10"	21'DH	120.1	16900
379+20	REL	12'x12'x20'-0"			
379+37	AD	18'x18'x40'-0"		6.5	220
383+07	AD	2'x2'x41'-2 1/2"	16'LH	10.3	1100
383+24	REL	12'x12'x20'-0"			
389+24	REL	12'x12'x20'-0"			
392+45	AD	2'x2'x42'-3 1/2"	19'LH	22.8	3630
392+63	REL	12'x12'x20'-0"			
401+00	AD	2'x2'x40'-0"		10.0	1050
402+15	AD	15'x15'x20'-0"			
403+09	AD	2'x2'x41'-2 1/2"	14'LH	10.9	1120
409+30	REL	12'x12'x20'-0"			
413+60	AD	10'x3'x44'-6"	26'LH	30.1	6710
424+22	AD	3'x2'x46'-6"		14.4	1410
431+00	REL	12'x12'x20'-0"			
433+17	AD	3'x2'x32'-6"	20'LH	13.2	1240
436+00	AD	3'x2'x40'-0"		12.5	1250
446+00	AD	18'x18'x40'-0"		6.7	230
447+16	REL	12'x12'x20'-0"			

SCHEDULE OF CULVERTS

STA	TYPE	SIZE	SKW	CONC. CY Yds	STEEL LBS.
450+02	AD	3'x2'x40'-0"		11.7	1220
457+36	AD	3'x2'x46'-2 1/2"	30'L.H	13.1	1470
457+73	REL	2'x2'x40'-0"			
464+22	REL	15'x15'x22'-0"			
476+13	AD	Double 12'x8'x40'-0"		127.6	14000
476+69	3DD	16'Tile x 24'-0"		4.9	230
478+73	REL	12'x12'x20'-0"			
485+29	AD	2'x2'x40'-0"		11.7	1150
489+27	AD	2'x2'x53'-2 1/2"	23'L.H	12.3	1350
495+34	AD	2'x2'x40'-0"		11.2	1000
500+50	AD	4'x3'x59'-0 1/2"	33'D.H	23.6	2650
504+73	AD	18'Tile x 44'-6"		6.7	220
508+37	AD	18'Tile x 44'-6"		6.7	220
513+66	AD	18'Tile x 32'-0"		7.3	220
523+00	AD	3'x2'x40'-0"		12.0	1060
523+00	REL	18'x12'x22'-0"			
530+10	AD	Double 10'x10'x40'-1 1/2"	30'L.H	95.1	12410
533+36	AD	18'Tile x 43'-6"		6.6	220
539+00	AD	2'x2'x40'-0"		10.1	1050
549+00	REL	12'x12'x22'-0"			
550+43	AD	2'x2'x40'-0"		9.8	1040
557+63	AD	2'x2'x42'-3 1/2"	19'L.H	10.6	1100
572+22	AD	18'Tile x 42'-6 1/2"	20'L.H	7.1	220
573+06	AD	12'x7'x42'-6 1/2"	20'L.H	7.29	9610
582+00	AD	2'x2'x42'-0"		10.3	1080
585+00	REL	12'x12'x24'-0"			
594+45	AD	18'Tile x 22'-6 1/2"	20'L.H	6.1	270
602+30	AD	18'Tile x 40'-0"		6.3	220
607+00	AD	18'Tile x 40'-0"		6.3	220
612+00	REL	15'x12'x22'-0"			
TOTALS				2105.2	257800
CORR METAL PIPE					
Diameter		12"	15"	18"	24"
LIN. FEET		272	122	66	26

SCHEDULE OF GUTTER AND GUTTER OUTLETS

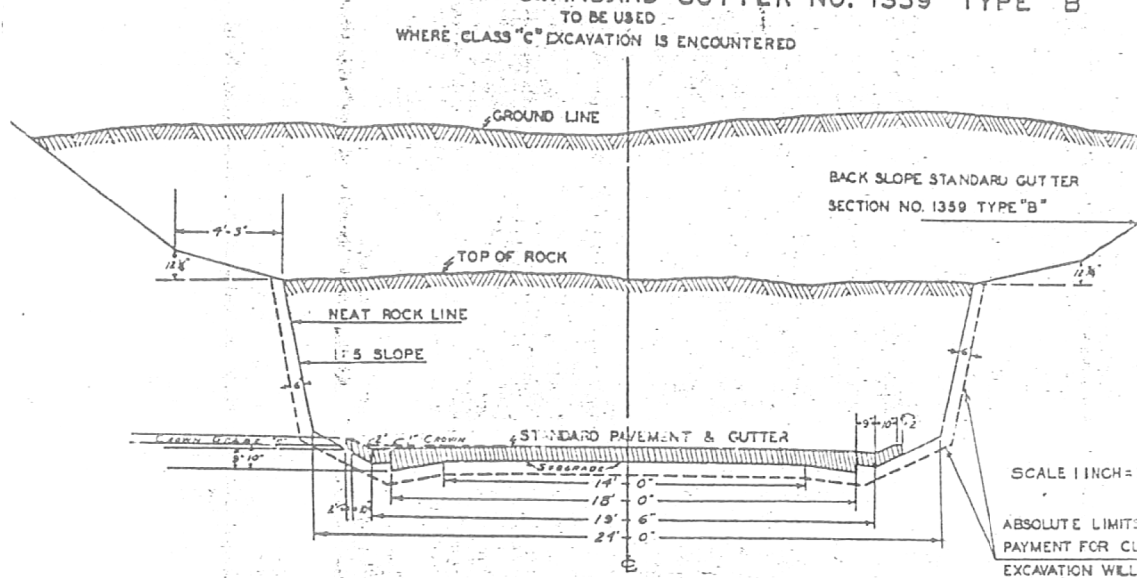
TYPE	LOCATION	STA. TO	STA.	LIN. FT.	OUTLETS
'C'	Q1+L1	97+00	101+00	600	D4+L1 97+00
'C'	"	109+00	112+00	600	" " 109+00
'C'	"	114+00	117+00	600	" " 117+00
'C'	"	130+00	140+00	400	" " 130+00
'C'	"	142+25	145+30	650	" " 145+30
'C'	"	157+30	161+30	800	" " 157+30
'C'	"	164+00	169+30	1100	" " 169+30
'C'	"	173+25	179+25	600	" " 175+25
'C'	"	181+00	185+30	450	" " 185+30
'C'	Q1+L1	194+50	203+30	1400	D4+L1 194+50
'C'	"	214+30	221+20	1340	" " 221+20
'C'	"	221+27	227+16	1102	" " 227+16
'C'	"	234+00	237+60	720	" " 237+60
'C'	"	234+00	278+70	4940	" " 234+00
'C'	"	237+30	294+25	1350	" " 294+25
'C'	"	323+23	334+92	644	D4+L1 323+23
'C'	"	352+00	360+00	1600	" " 352+00
'C'	"	414+50	418+00	700	" " 414+50
'C'	"	420+00	423+75	750	" " 423+75
'C'	"	495+45	498+00	510	" " 495+45
'C'	"	505+50	520+00	2900	" " 505+50
'C'	"	575+00	578+50	700	" " 575+00

Foreman ends to be constructed in accordance with Standard No. 1470 at Stations 94+30 and 613+00. Additional Cost to be included in unit bid price for pavement.

Standard No. 1471 to be used over the following Culverts:
Sta. 103+03, 125+10, 137+43, 163+19, 240+02, 252+73, 273+19, 286+07, 317+47, 345+42, 369+03, 370+74, 392+43, 433+17, 476+69, 493+34, 500+50, 508+37, 530+10 and 573+06

PROJECT NO.	SECTION	COUNTY
150	C-123	Jackson

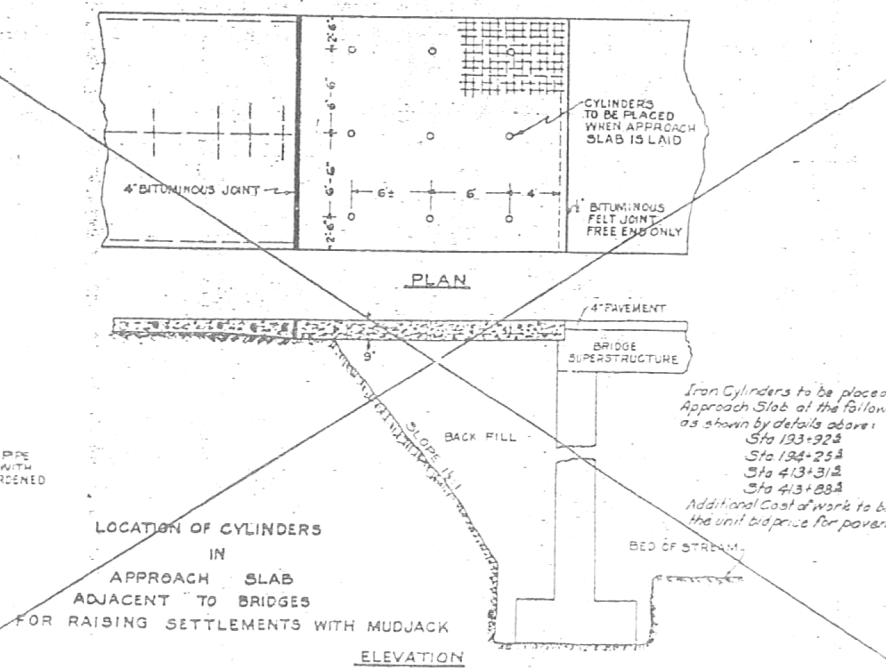
SPECIAL ROCK SECTION FOR STANDARD GUTTER NO. 1359 TYPE "B"

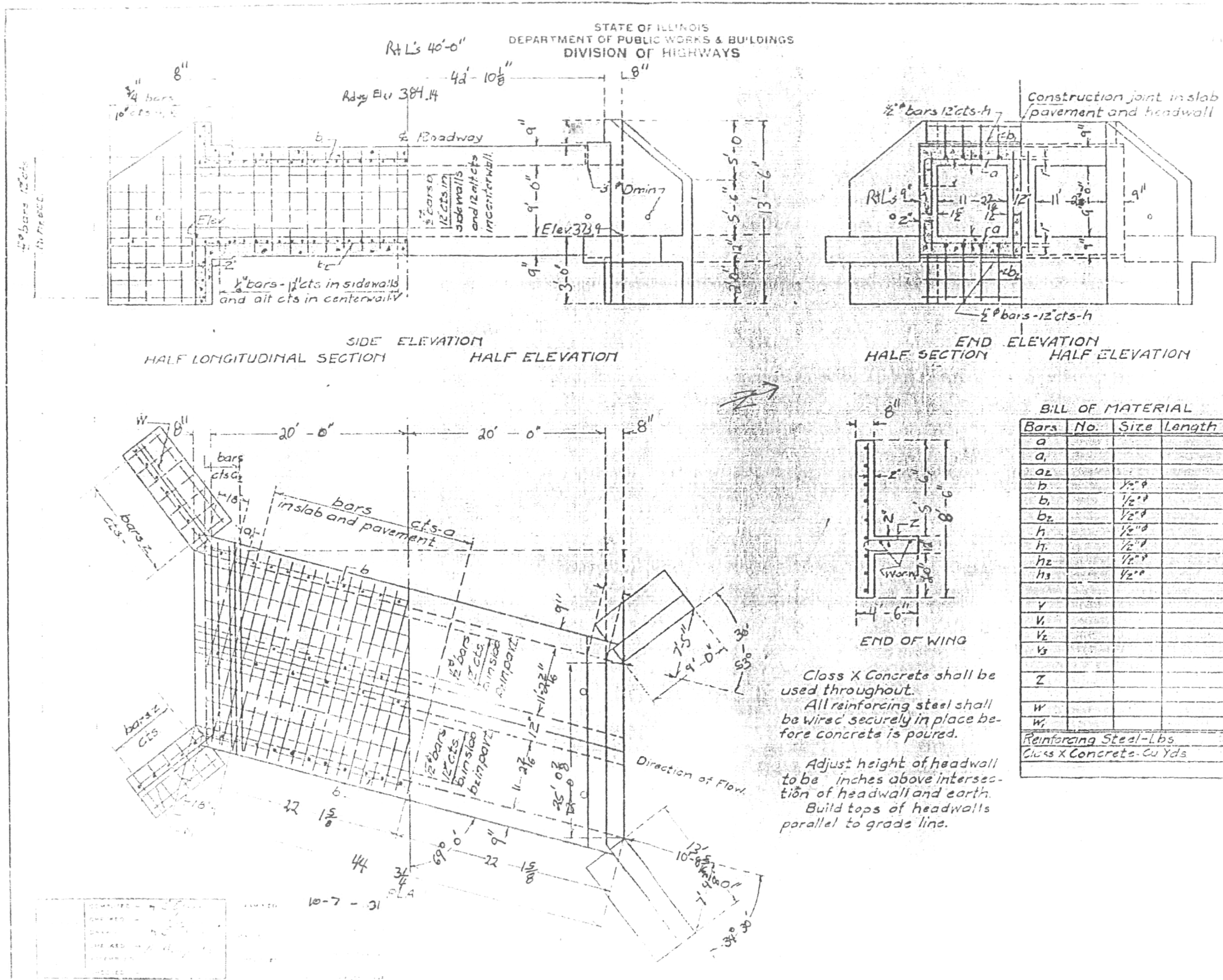


DETAIL OF CYLINDER



STANDARD BLACK IRON PIPE CYLINDER TO BE FILLED WITH CLAY TAMPED AND HARDENED





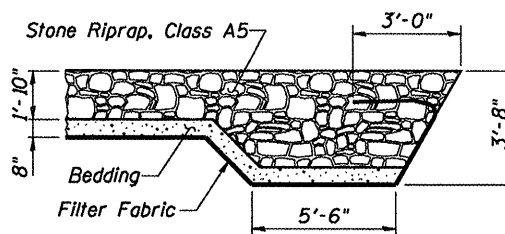
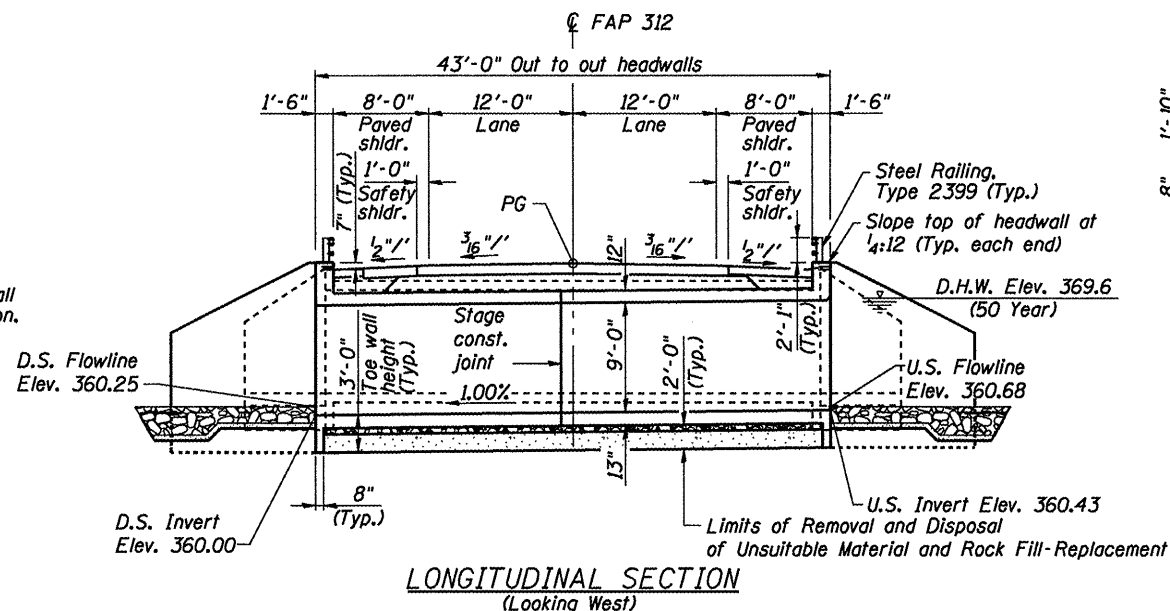
BILL OF MATERIAL			
Bars	No.	Size	Length
a			
a ₁			
a ₂			
b		1/2" φ	
b ₁		1/2" φ	
b ₂		1/2" φ	
h		1/2" φ	
h ₁		1/2" φ	
h ₂		1/2" φ	
h ₃		1/2" φ	
y			
y ₁			
y ₂			
y ₃			
z			
w			
w ₁			
Reinforcing Steel-Lbs			
C/Css X Concrete-Cu Yds			



BENCHMARK: BM 1010 -
Top of exposed rebar on
the northwest corner of
headwall of SN 039-2001,
Elev. 371.48

EXISTING STRUCTURE:
SN 039-2001 was originally built
in 1933 as Route 150, Section 123.
It is a double barrel 12'-5" by 8'-6" R
reinforced concrete box culvert with
L-Type wing walls and side mounted
steel railing. The barrel length is
41'-4" o. to o. headwalls. The length
along centerline roadway is 26'-6".
There is a 10 degree skew. Traffic shall
be maintained utilizing stage construction.

No salvage.

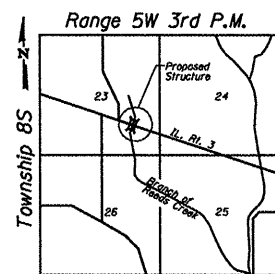


SECTION A-A

STATION 476+15
BUILT 20__ BY
STATE OF ILLINOIS
F.A. RT. 312 SEC. 123B-3
LOADING HS20-44
STR. NO. 039-2028

NAME PLATE
(See Hwy. Std. 515001)

APPROVED
For Structural Adequacy Only
J. Carl Pigg
Engineer of Bridges & Structures



LOCATION SKETCH

STRUCTURE INDEX OF SHEETS

General Plan	Sheet No. 1 of 10
Stage Construction Details	Sheet No. 2 of 10
Temporary Support System Details	Sheet No. 3 of 10
Box Culvert Details (1 of 2)	Sheet No. 4 of 10
Box Culvert Details (2 of 2)	Sheet No. 5 of 10
Steel Railing, Type 2399	Sheet No. 6 of 10
Bar Splicer Assembly and Mechanical Splicer Details	Sheet No. 7 of 10
Temporary Concrete Barrier For Stage Construction	Sheet No. 8 of 10
Boring Logs (1 of 2)	Sheet No. 9 of 10
Boring Logs (2 of 2)	Sheet No. 10 of 10

GENERAL NOTES

- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- For backfilling and embankment, see Standard Specifications. Backfill culvert excavation with Porous Granular Embankment, except the outer 3' at each end of the culvert shall be backfilled with impervious material. See sheet 2 of 10 for limits of PGE.
- Precast alternate is not allowed.
- The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
- The Rock Fill shall be capped with 6 in. of CA 7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the pay item for Rock Fill - Replacement. Rock fill shall be composed of Stone Riprap, Class A1.
- Modify existing channel to match culvert at each end as directed by the Engineer, cost included in the pay item for Stone Riprap, Class A5.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Embankment	Cu. Yd.	411
Stone Riprap, Class A5	Sq. Yd.	137
Filter Fabric	Sq. Yd.	137
Removal of Existing Structures No. 1	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	103
Reinforcement Bars, Epoxy Coated	Pound	28,180
Bar Splicers	Each	154
Steel Railing, Type 2399	Foot	56
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	173.7
Temporary Soil Retention System, (Location 1)	Sq. Ft.	415
Temporary Support System, Location 1	Each	1
Rock Fill - Replacement	Ton	212

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Pavement Removal.

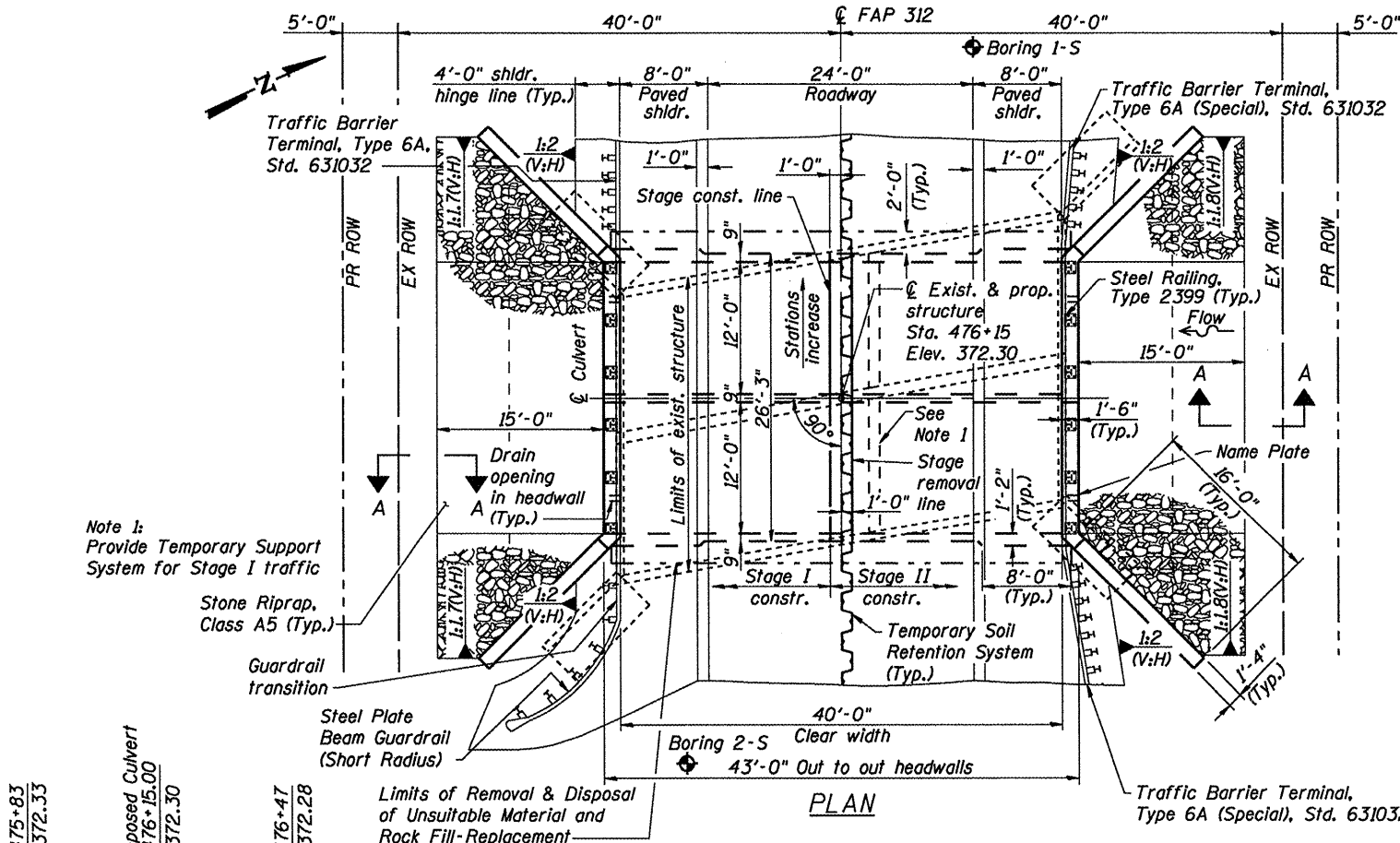


EXPIRES 11-30-2012

J. Carl Pigg
SIGNATURE

08-15-2011
DATE

IL 3 OVER BRANCH OF REEDS CREEK
FAP ROUTE 312 - SECTION 123B-3
JACKSON COUNTY
STATION 476+15



WATERWAY INFORMATION

Drainage Area = 1.12 Sq. Mi.		Exist. Low Grade Elev. = 371.69 Ft. @ Sta. 479+00 Prop. Low Grade Elev. = 371.69 Ft. @ Sta. 479+00							
Flood	Freq.	Q	Opening-Sq. Ft.		Nat.	Head-Ft.		Headwater El.	
	Yr.	C.F.S.	Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	10	772	149	192	368.0	0.2	0.1	368.2	368.1
Base	50	1310	187	216	369.6	0.7	0.3	370.3	369.9
Overtopping	100	1570	199	216	370.1	1.2	1.0	371.3	371.1
Overtopping	140	1720	202	-	370.2	1.5	-	371.7	-
Overtopping	150	1745	-	216	370.2	-	1.5	-	371.7

10 year velocity through existing culvert = 5.6 ft/s
10 year velocity through proposed culvert = 4.7 ft/s

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44
Allow 50 psf for future wearing surface.

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
STRUCTURE NO. 039-2028

SHEET NO. 1 OF 10 SHEETS

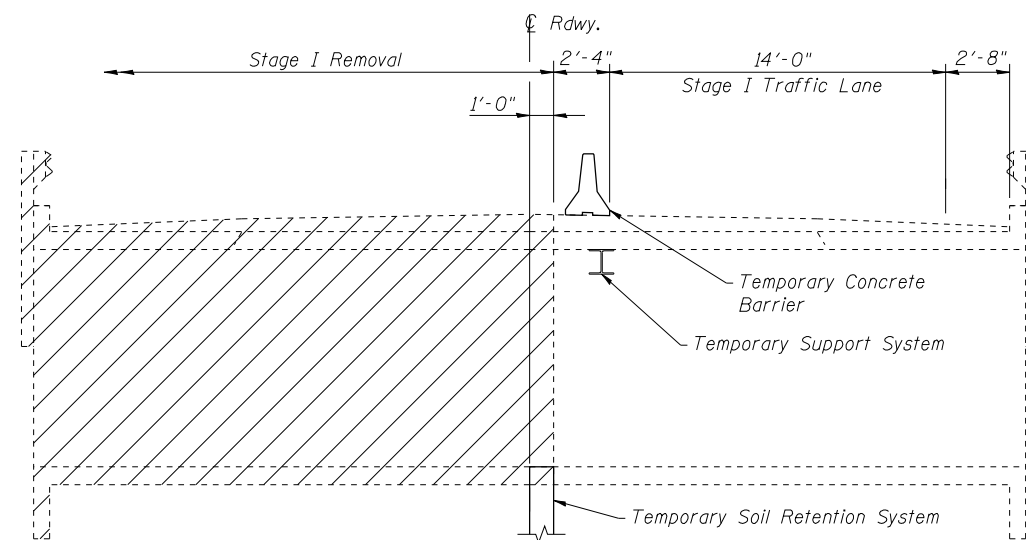
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	37
CONTRACT NO. 78197			[ILLINOIS] FED. AID PROJECT	



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ESCA PROJECT NO. 988.88
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PLOT DATE = 11/9/2011

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CHECKED - JTS 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

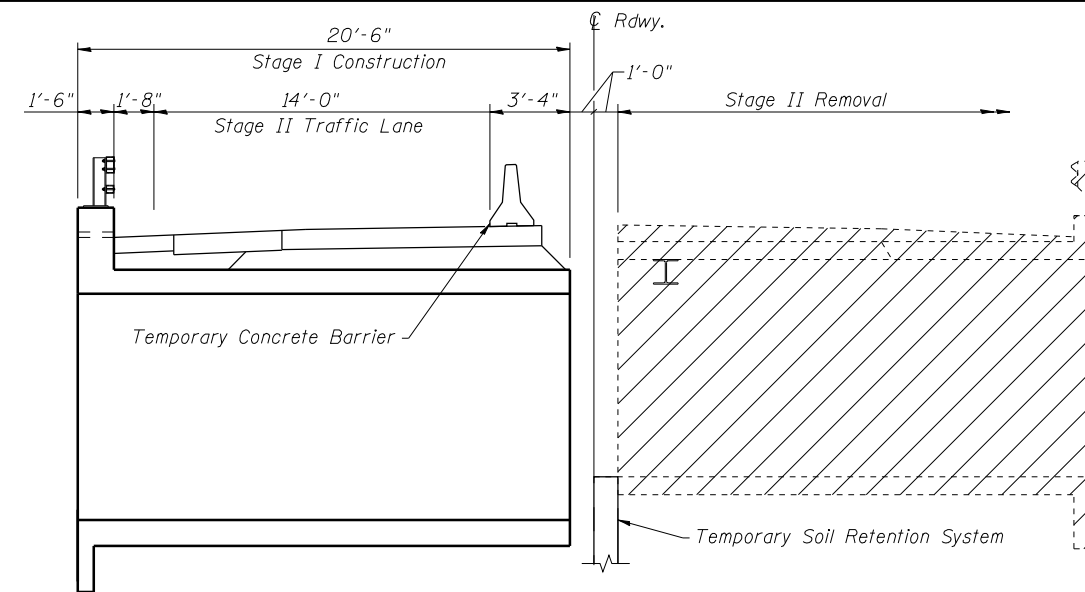
REVISED -
REVISED -
REVISED -
REVISED -



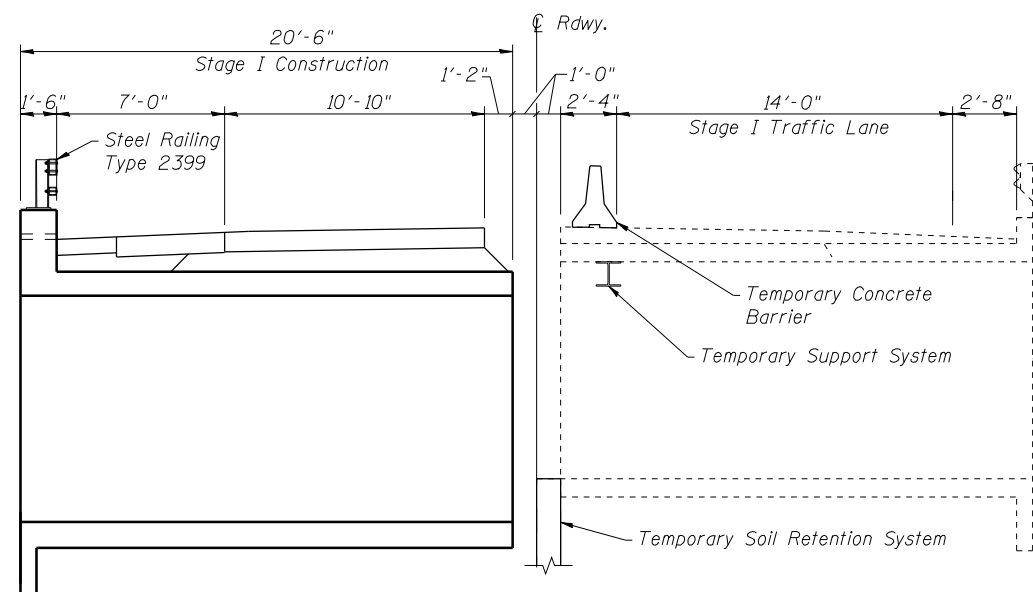
STAGE I REMOVAL

STAGE CONSTRUCTION NOTES

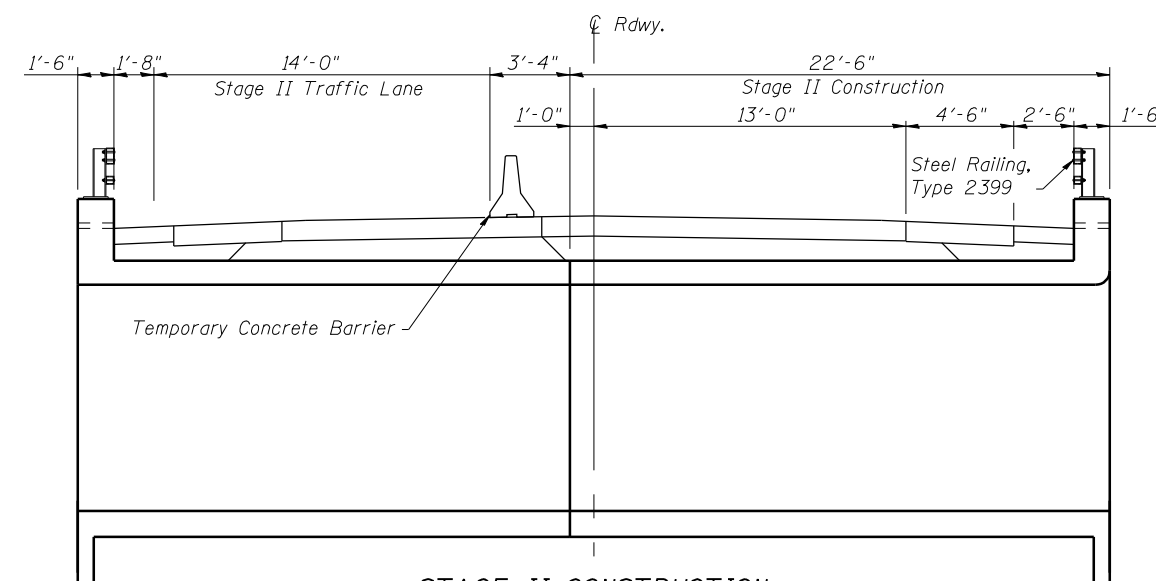
1. All staging sections are looking in the direction of increasing stations.
2. Hatched areas indicate removal.
3. Removal of existing side mounted steel railing is included with Removal of Existing Structures No. 1.
4. See Roadway Plans for quantity of Temporary Concrete Barrier.



STAGE II REMOVAL



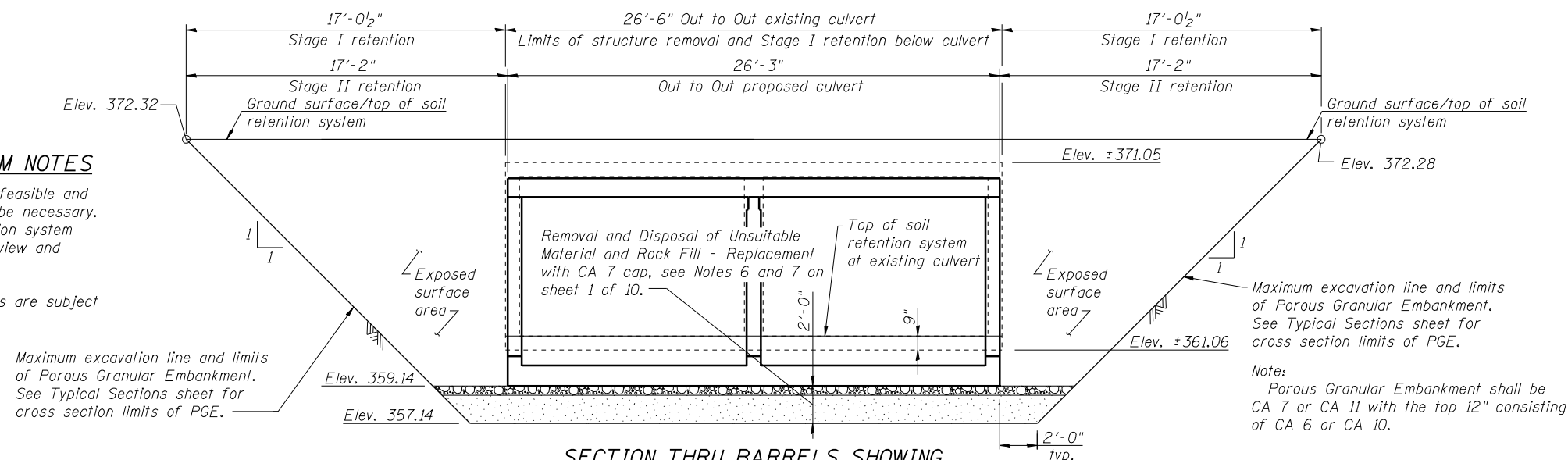
STAGE I CONSTRUCTION



STAGE II CONSTRUCTION

TEMPORARY SOIL RETENTION SYSTEM NOTES

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Plan dimensions and details relative to existing plans are subject to nominal construction variations.



**SECTION THRU BARRELS SHOWING
TEMPORARY SOIL RETENTION SYSTEM LIMITS**



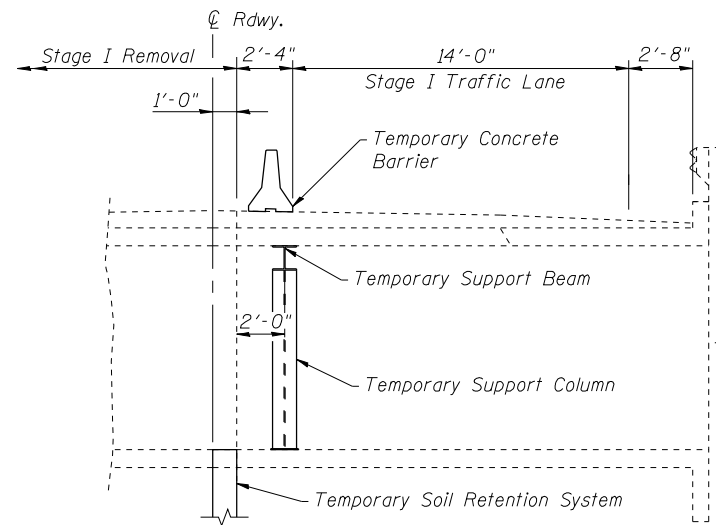
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PLOT DATE = 11/16/2011 10:00:18 AM	CHECKED - RDP 11/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

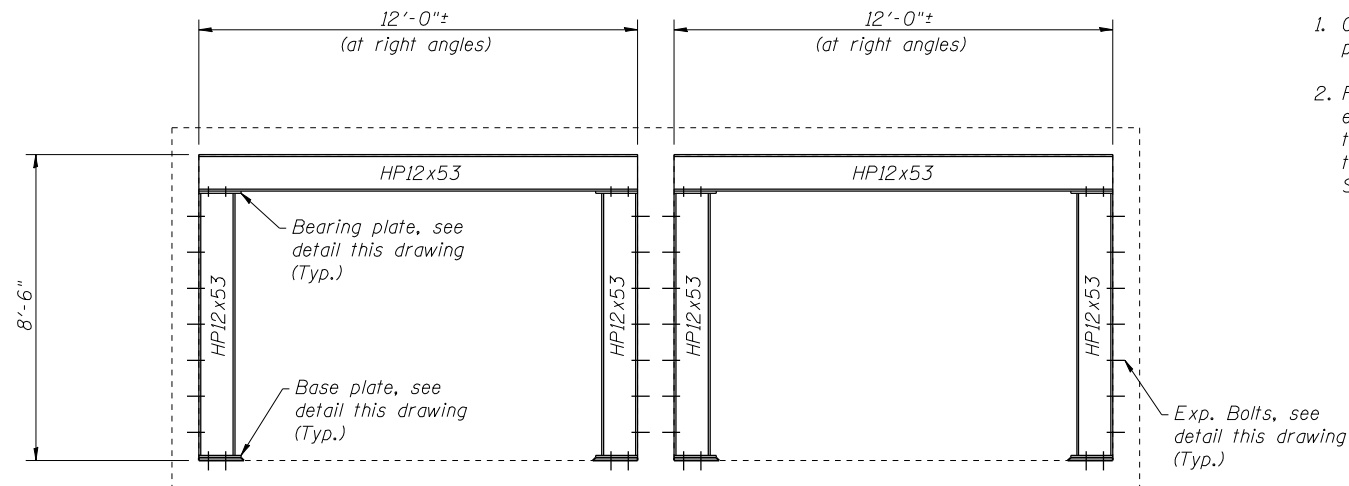
**STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 039-2028**

SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	38
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

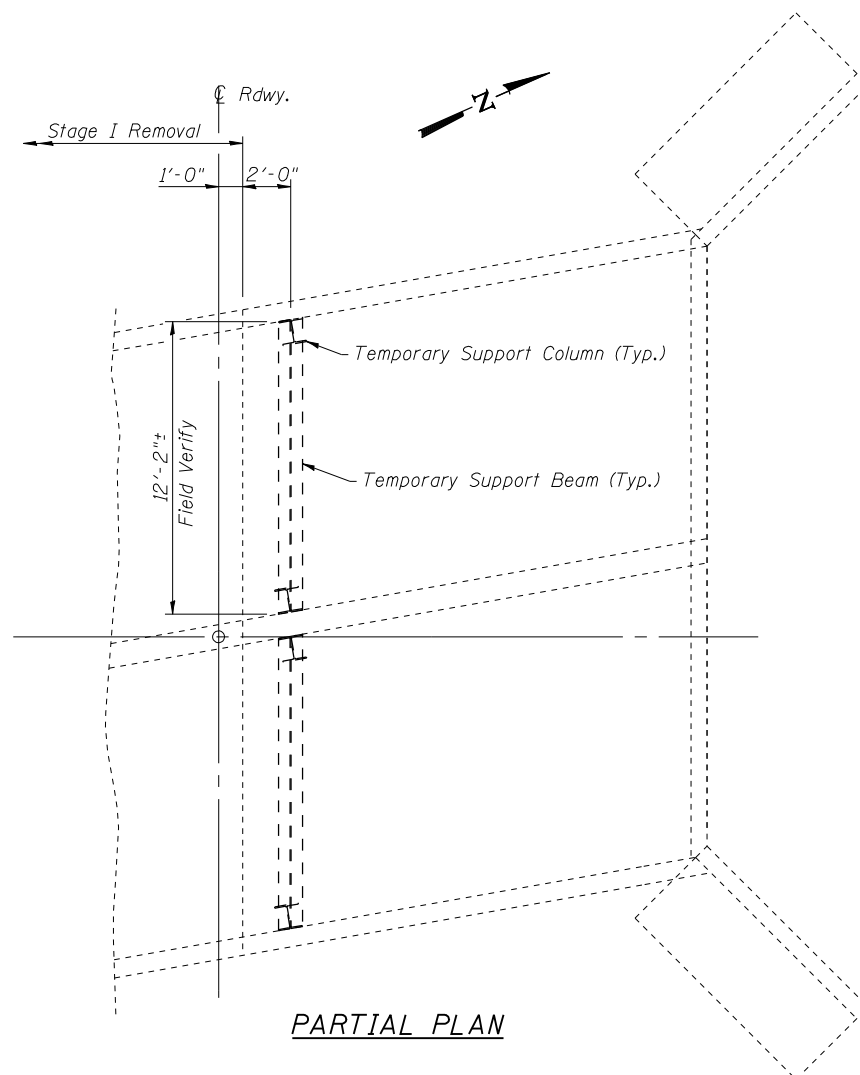


PARTIAL LONGITUDINAL SECTION

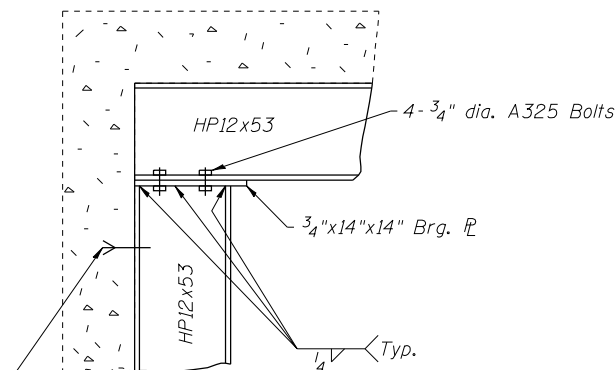


TRANSVERSE SECTION

- TEMPORARY SUPPORT SYSTEM NOTES**
1. Complete Temporary Support System must be installed/approved prior to commencing any concrete removal.
 2. Furnishing, installing, and subsequent removal of beams, connections, etc. required for the Temporary Support System will be paid for at the Contract Unit Price per each for Temporary Support System at the locations specified in the plans. After removal, all Temporary Support System materials shall be the property of the Contractor.

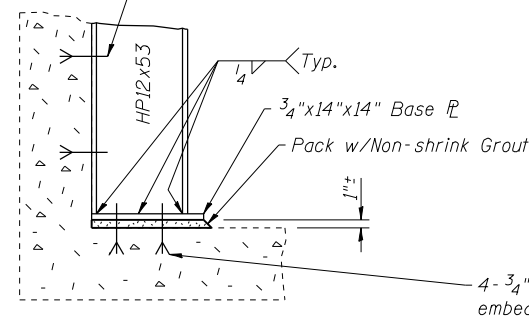


PARTIAL PLAN

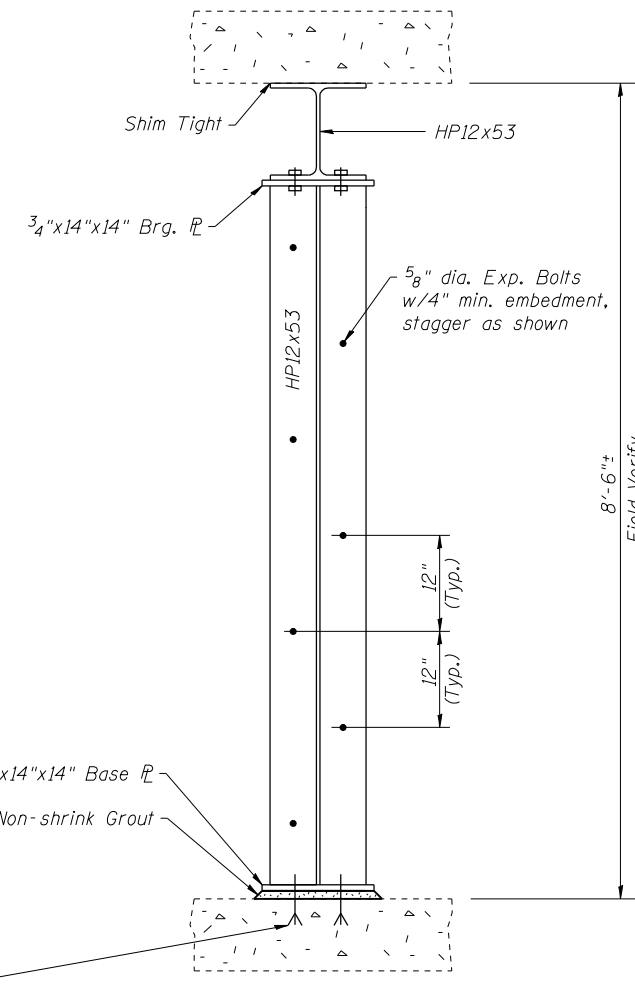


BEARING PLATE DETAIL

5/8" dia. Exp. Bolts ea. side of column web @ 12"± cts. (staggered). See Expansion Bolt Detail this drawing.



BASE PLATE DETAIL



EXPANSION BOLT DETAIL



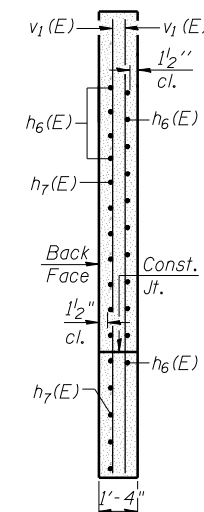
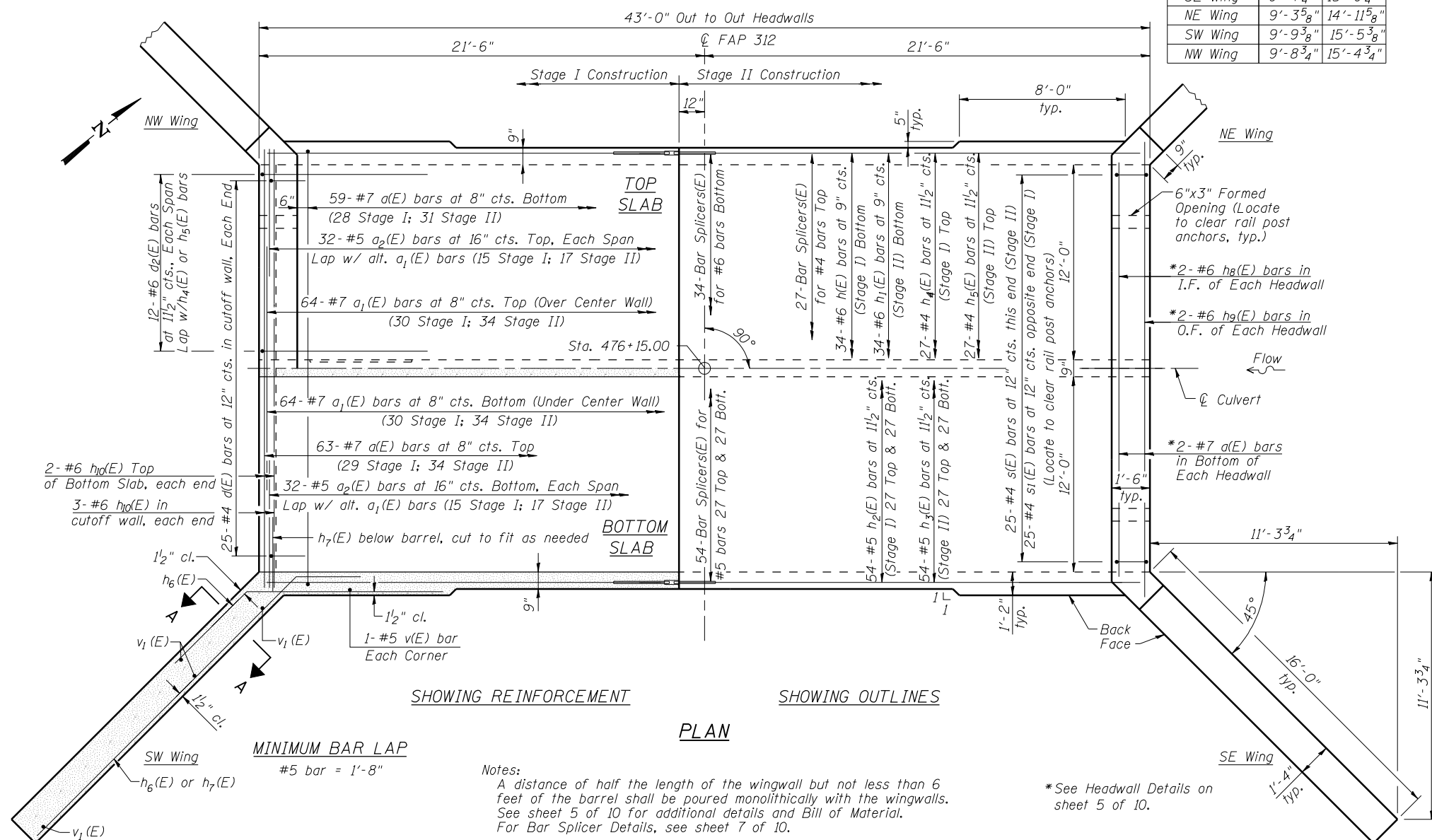
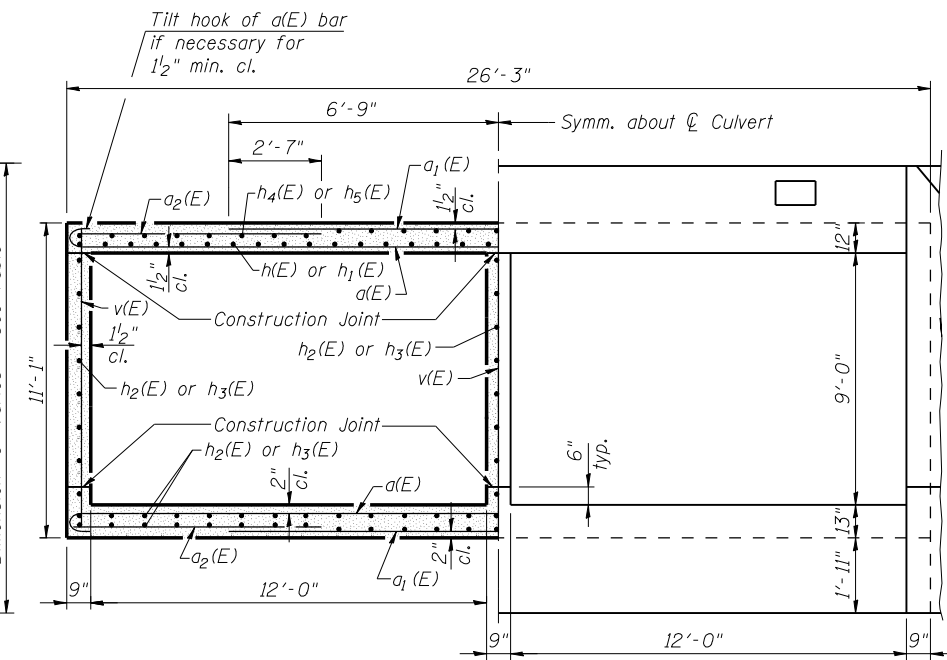
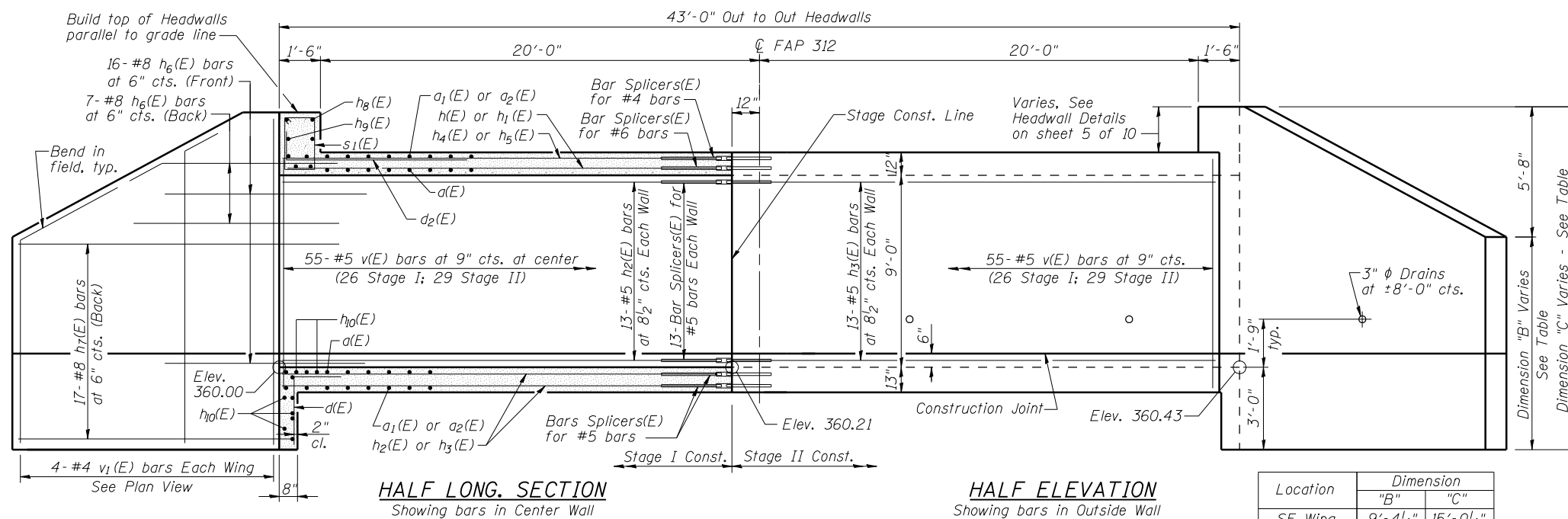
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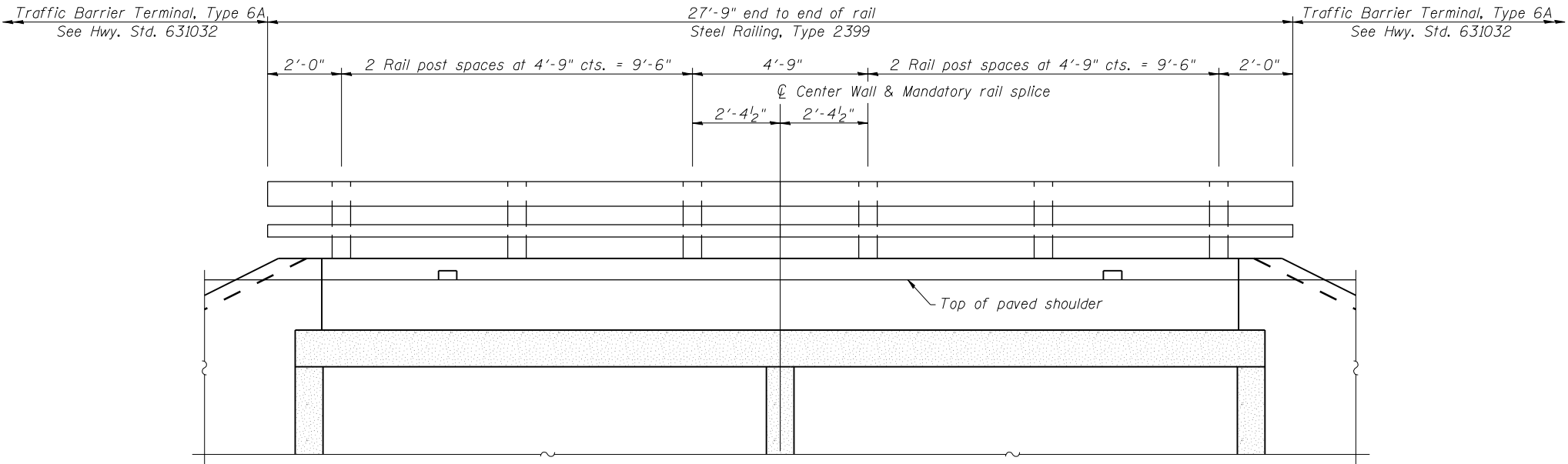
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SUPPORT SYSTEM DETAILS
STRUCTURE NO. 039-2028**

SHEET NO. 3 OF 10 SHEETS

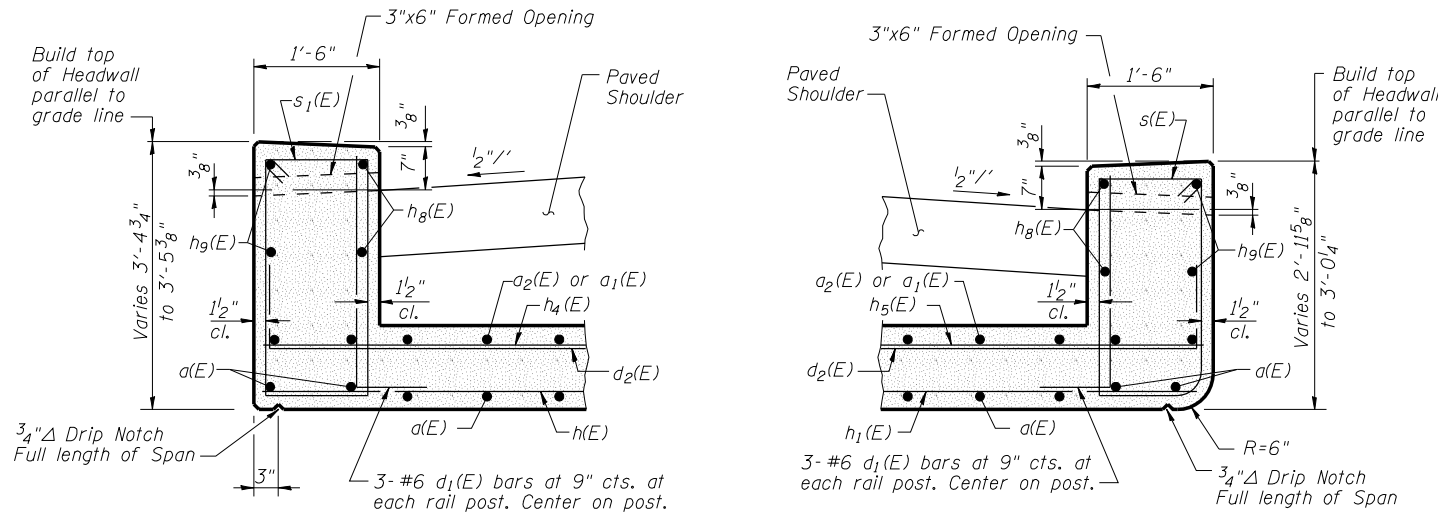
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	39
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				





INSIDE ELEVATION OF RAILING

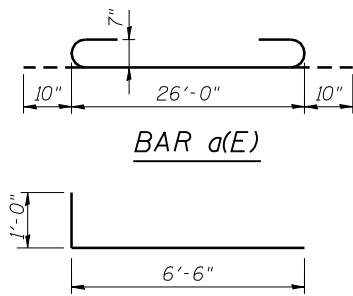
Note:
See sheet 6 of 10 for railing details.



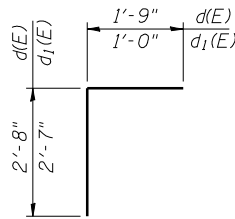
AT DOWNSTREAM END

AT UPSTREAM END

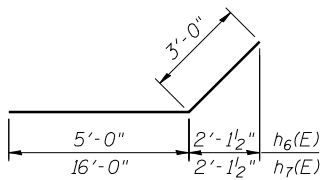
HEADWALL DETAILS



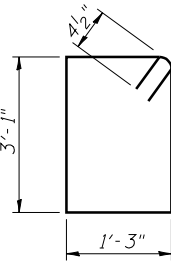
BAR d₂(E)



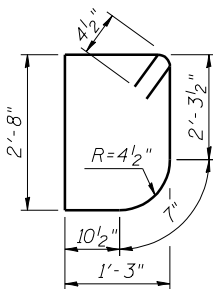
BARS d(E) & d₁(E)



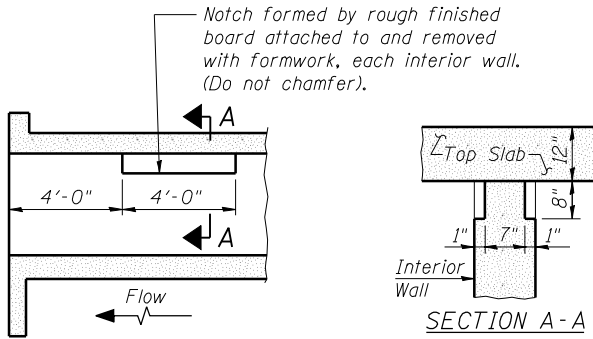
BARS h₆(E) & h₇(E)



BAR s₁(E)



BAR s(E)



LONGITUDINAL SECTION

**PHOEBE NESTING
SITE DETAILS**
(Downstream End Only)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	126	#7	27'-8"	
d ₁ (E)	128	#7	13'-6"	
a ₂ (E)	128	#5	8'-9"	
d(E)	50	#4	4'-5"	
d ₁ (E)	36	#6	3'-7"	
d ₂ (E)	48	#6	7'-6"	
h(E)	34	#6	20'-2"	
h ₁ (E)	34	#6	22'-2"	
h ₂ (E)	93	#5	20'-2"	
h ₃ (E)	93	#5	22'-2"	
h ₄ (E)	27	#4	20'-2"	
h ₅ (E)	27	#4	22'-2"	
h ₆ (E)	92	#8	8'-0"	
h ₇ (E)	68	#8	19'-0"	
h ₈ (E)	4	#6	24'-7"	
h ₉ (E)	4	#6	26'-7"	
h ₁₀ (E)	10	#6	25'-5"	
s(E)	25	#4	8'-5"	
s ₁ (E)	25	#4	9'-5"	
v(E)	169	#5	10'-8"	
v ₁ (E)	16	#4	14'-8"	
Concrete Box Culverts	Cu. Yd.		173.7	
Reinforcement Bars, Epoxy Coated	Pound		28,180	

(Sheet 2 of 2)



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ESCA PROJECT NO. 988.08
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CHECKED - JTS 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

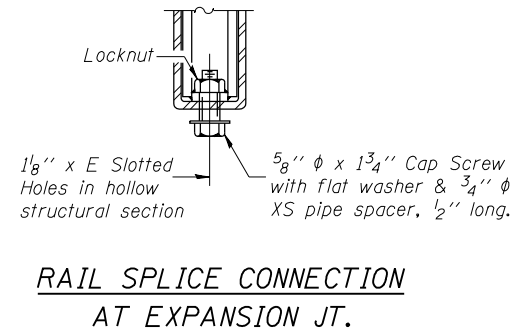
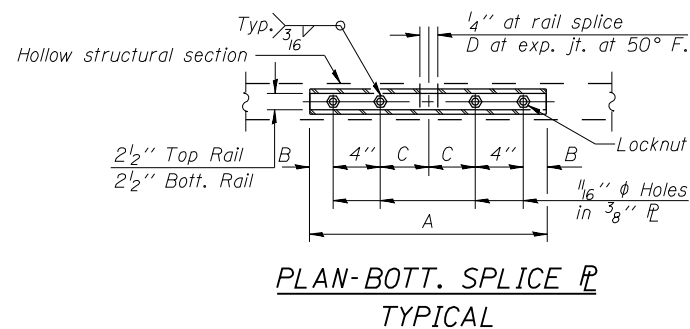
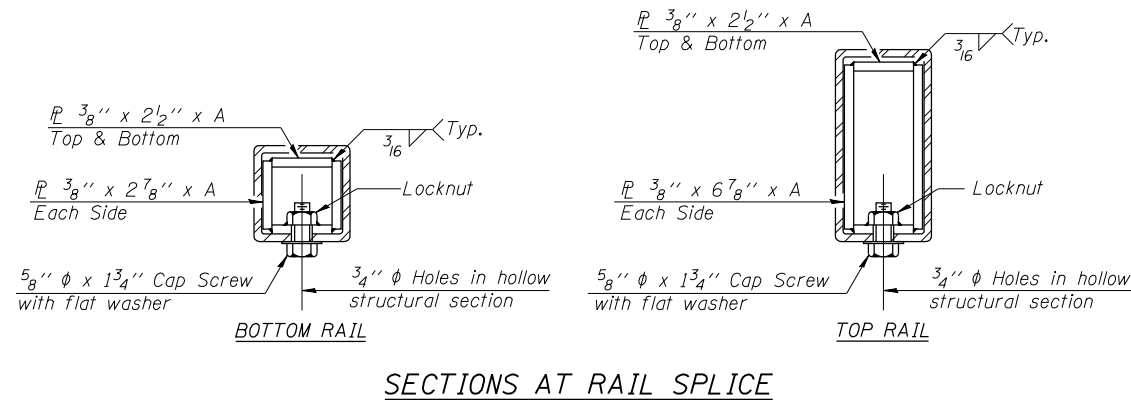
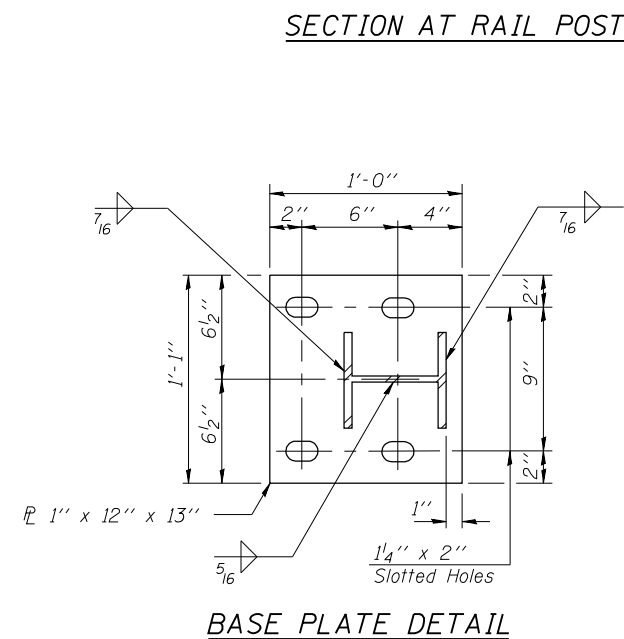
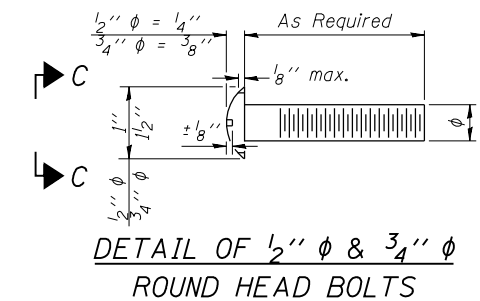
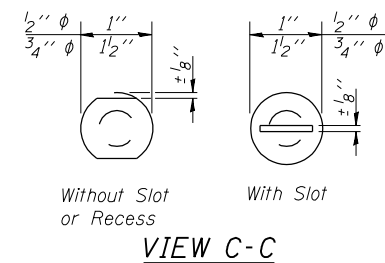
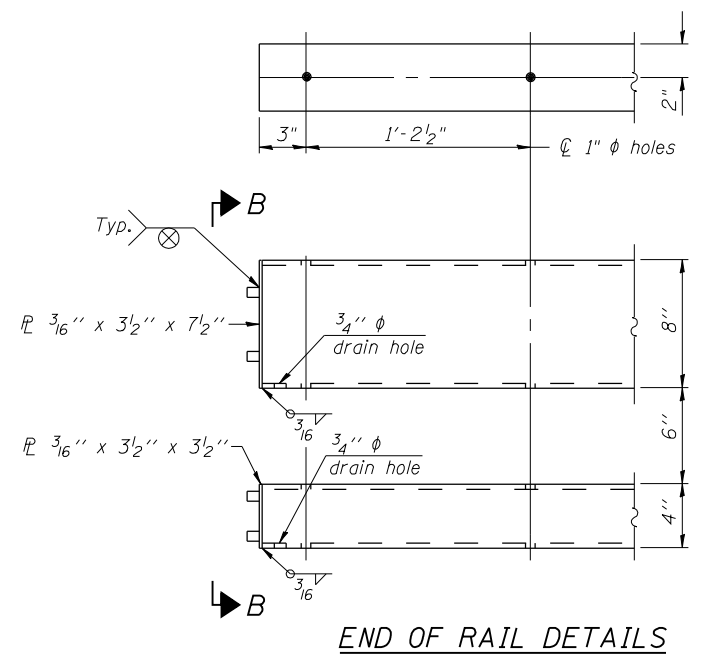
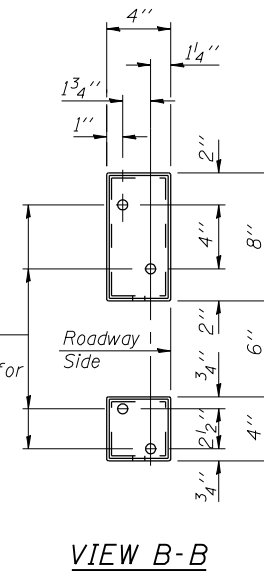
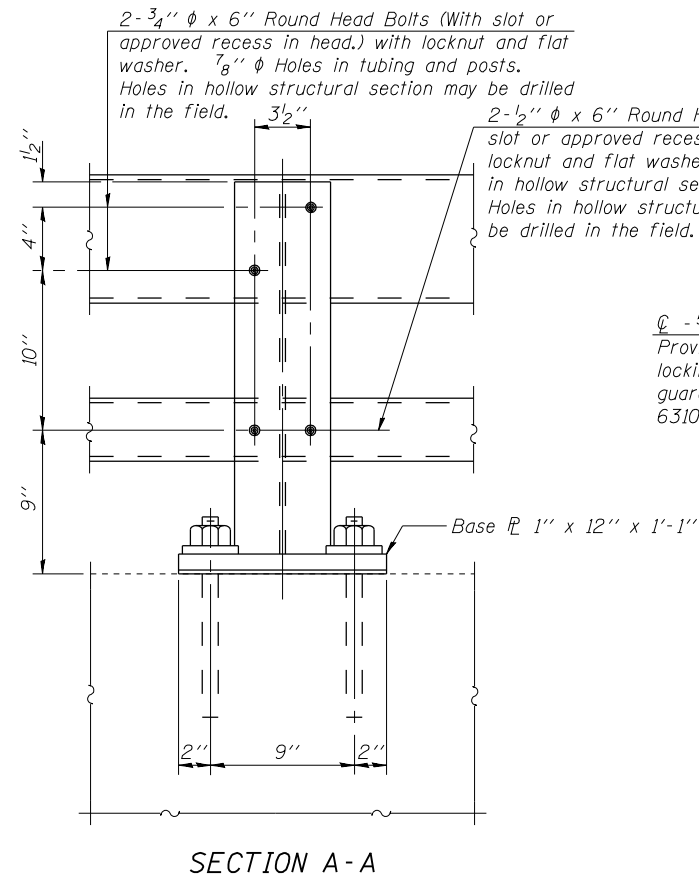
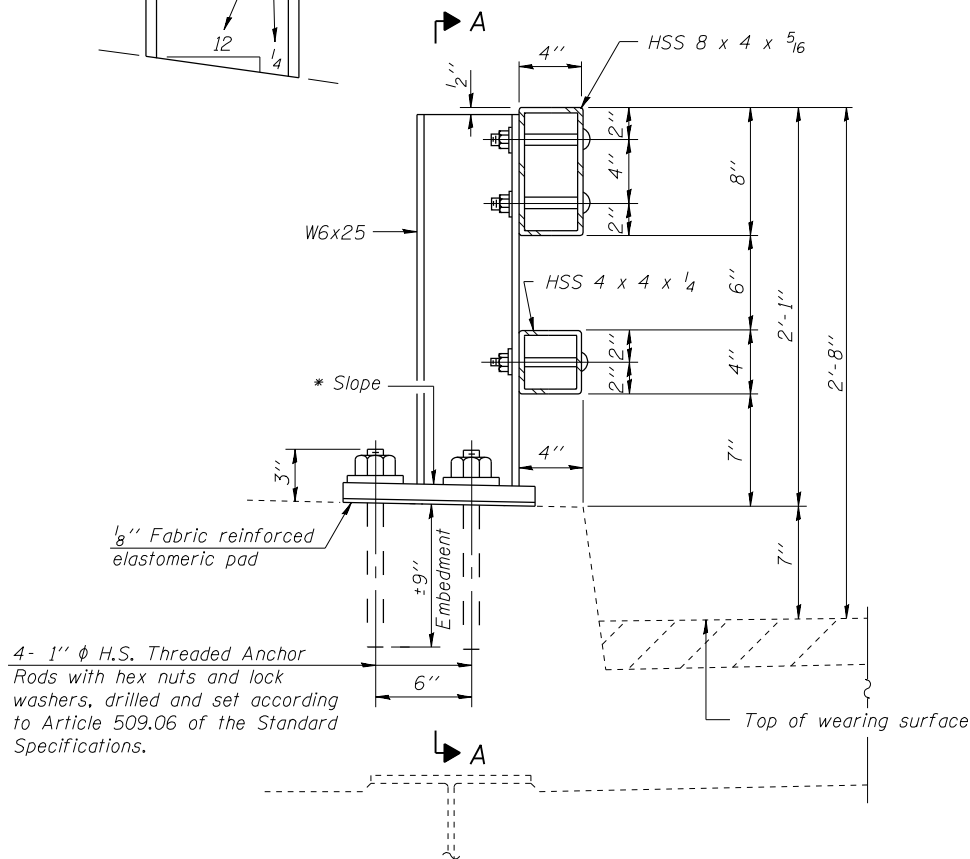
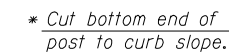
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT DETAILS
STRUCTURE NO. 039-2028**

SHEET NO. 5 OF 10 SHEETS

F.A.P. RTE. 312 SECTION 123B-3 COUNTY JACKSON TOTAL SHEETS 58 SHEET NO. 41
CONTRACT NO. 78197
ILLINOIS FED. AID PROJECT AID



Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.

Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.

Provide one $\frac{1}{8}$ " and two $\frac{1}{16}$ " steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

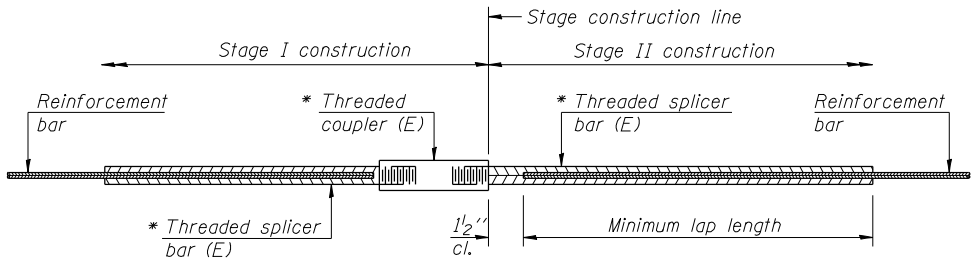
SPLICE DIMENSIONS

<i>T</i>	<i>D</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>E</i>
≤4"	2½"	1'-8"	2"	4"	2½"
>4"≤6½"	3¾"	2'-0"	2½"	5"	3½"
>6½"≤9"	5"	2'-4"	3½"	6½"	9"
>9"≤13"	7"	2'-10"	4½"	8½"	11"
<i>Rail Splice</i>	1"	1'-8"	2"	4"	—

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

BILL OF MATERIAL

<i>Item</i>	<i>Unit</i>	<i>Quantity</i>
Steel Railing, Type 2399	Foot	56



STANDARD BAR SPLICER ASSEMBLY

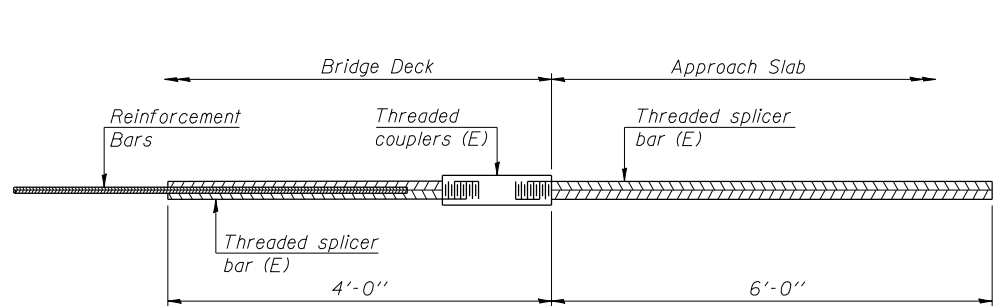
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

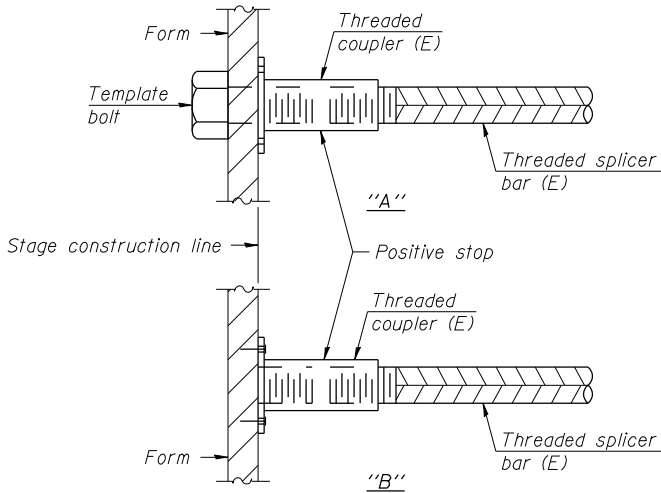
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab, Top	#4	27	4
Top Slab, Bottom	#6	34	3
Bottom Slab, Top	#5	27	4
Bottom Slab, Bottom	#5	27	3
Walls	#5	39	4



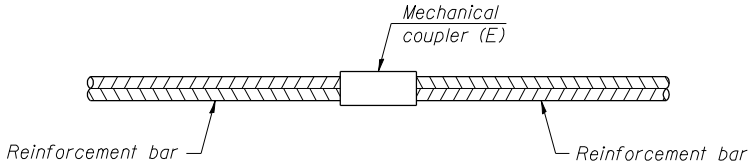
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



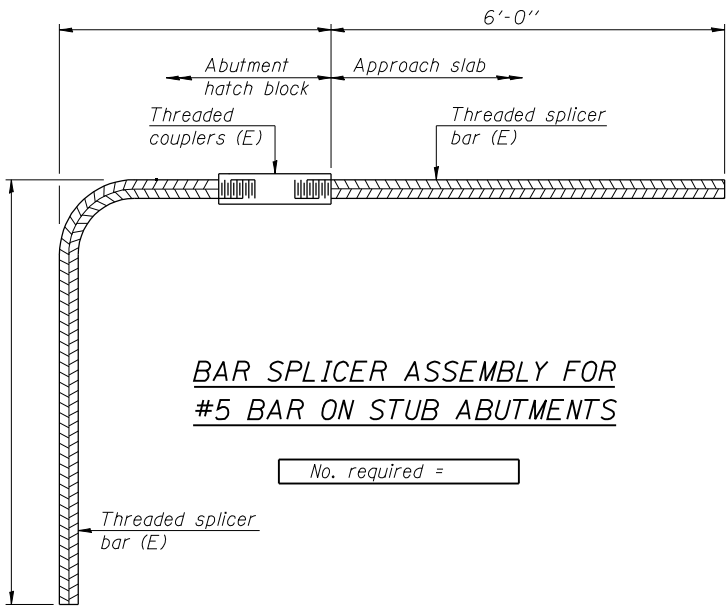
INSTALLATION AND SETTING METHODS

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



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

BSD-1

7-1-10



USER NAME = RJT
ESCA PROJECT NO. 988.08
PLOT SCALE = 0.25" = 1' / IN.
PLOT DATE = 11/16/2011 10:04:40 AM

DESIGNED - RDP 09/11
CHECKED - JTS 09/11
DRAWN - DWH 11/11
CHECKED - RDP 11/11

REVISED -
REVISED -
REVISED -
REVISED -

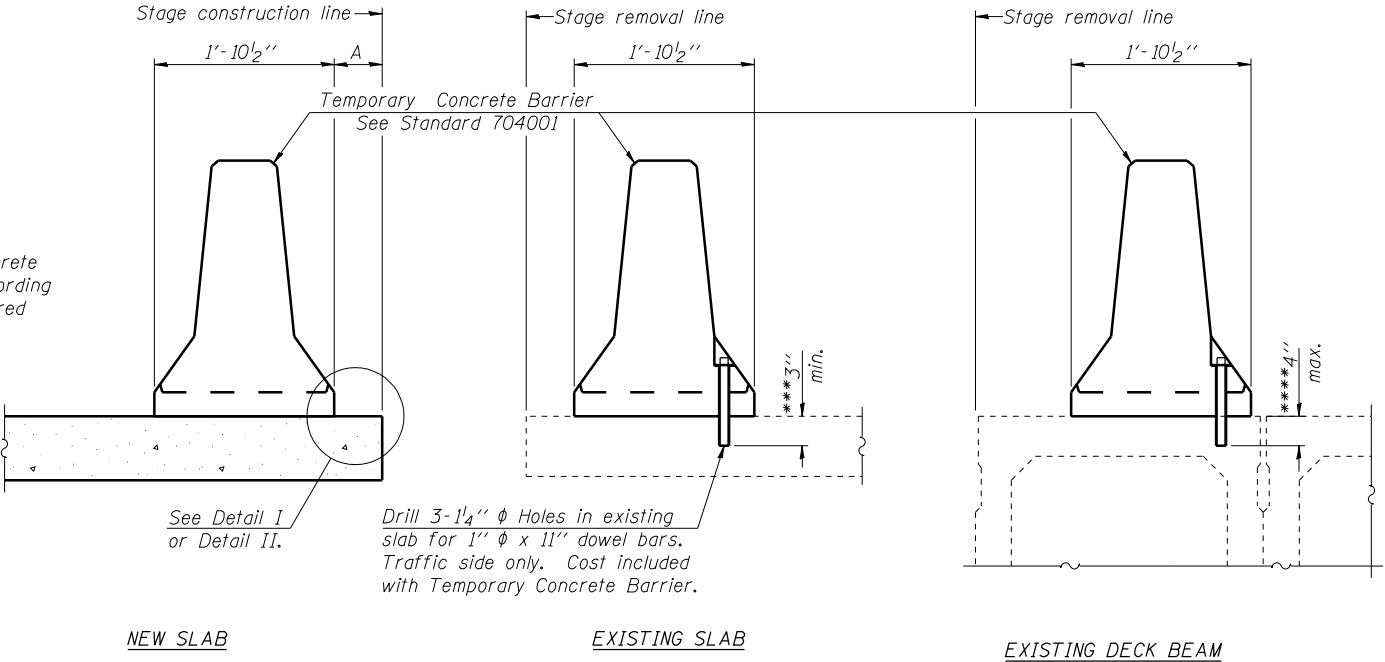
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 039-2028

SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	43
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

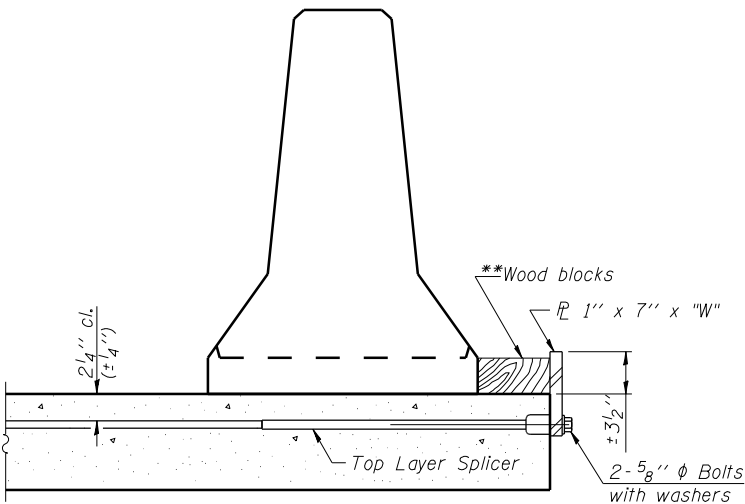


NOTES

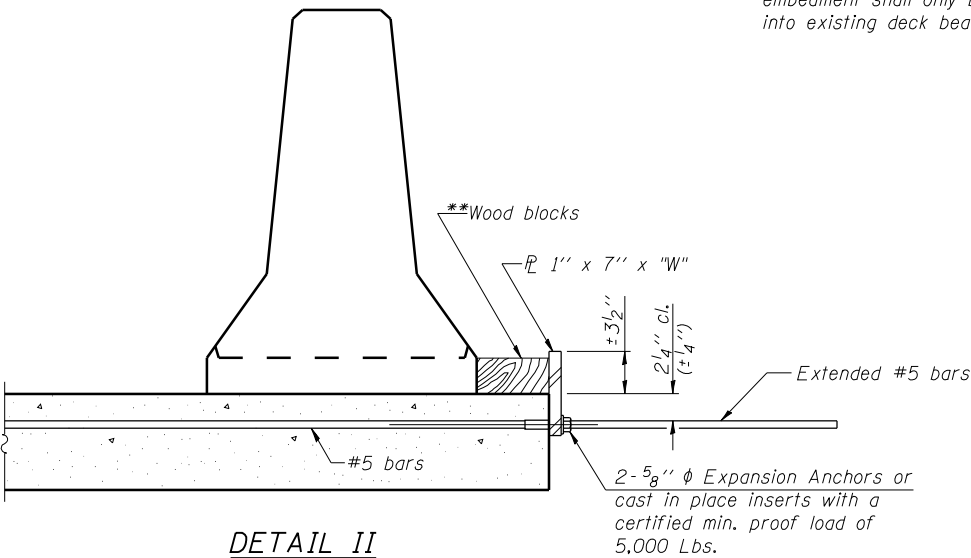
- Detail I - With Bar Splicer or Couplers:
Connect one (1) 1'' x 7'' x 'W'' steel $\bar{L}$ to the top layer of couplers with 2- $\frac{5}{8}$ '' ϕ bolts screwed to coupler at approximate $\bar{C}$ of each barrier panel.
- Detail II - With Extended Reinforcement Bars:
Connect one (1) 1'' x 7'' x 'W'' steel $\bar{L}$ to the concrete slab or concrete wearing surface with 2- $\frac{5}{8}$ '' ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate $\bar{C}$ of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier. The 1'' x 7'' x 'W'' plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

SECTIONS THRU SLAB OR DECK BEAM

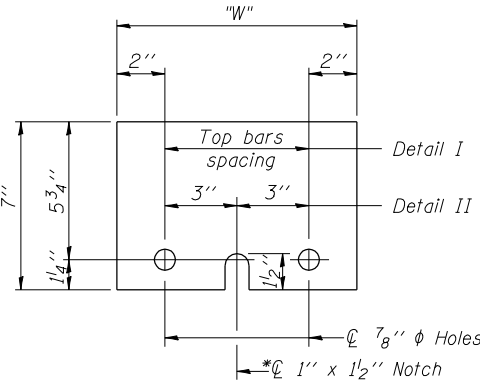
- *** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.
- **** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER $\bar{L}$ 1'' x 7'' x 'W''

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

'W' = Top bars spacing + 4''

R-27

7-1-10



USER NAME = RJT	DESIGNED - RDP 09/11	REVISED -
ESCA PROJECT NO. 988.08	CHECKED - JTS 09/11	REVISED -
PLOT SCALE = 0.2' = 1" IN.	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/16/2011 10:05:32 AM	CHECKED - RDP 11/11	REVISED -

DESIGNED - RDP 09/11	REVISED -
CHECKED - JTS 09/11	REVISED -
DRAWN - DWH 11/11	REVISED -
CHECKED - RDP 11/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 039-2028**

SHEET NO. 8 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	44
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log
Sheet 1 of 2

FAP 312 (IL Route 3) Over Branch of Reeds Creek

Route: FAP 312 (IL Rte) Structure Number: 039-2001

Section 123

County: Jackson

Location: 2.8 mi South of Randolph County

Date: 6/15/2010

Bored By: R Moberly

Checked By: R Graeff

Boring No 1-S
Station 476+47
Offset 12' Rt CL
Ground Surface 372.1 Ft

D
E
P
T
H

B
L
O
W
S

Qu
tsf

W%

Surf Wat Elev: 361.9
Ground Water Elevation
when Drilling 355.1
At Completion
At: Hrs:

D
E
P
T
H

B
L
O
W
S

Qu
tsf

W%

Asphalt & Concrete over crushed
aggregate
370.6

Very soft, very moist, brown,
Silty Clay Loam A-6

WH 0.2B 34

Medium to stiff, moist to v moist,
brown, Silty Clay Loam A-4

2 0.8B 23

345.1

Very soft, very moist, grey, Silty
Clay Loam to Silt Loam A-4

WH 0.2B 34

5.0 1 0.9S 20

342.6

Medium, very moist, grey mottled
brown, Clay A7-6

30.0 WH 0.7B 37

2 1.0B 21

340.1

Medium, very moist, grey, Silty
Clay A-6

WH 0.9B 32

362.6

Very soft, very moist, brown, Silty
Clay Loam A-4

10.0 1 0.1B 27

337.6

Very loose, wet, brown, Sand
and Gravel with Clay seams

35.0 WH 1 16

357.6

54% Sand
6% Silt
3% Clay
37% Gravel

Washed

332.6

Washed

15.0 WH 0.3B 27

355.1

Soft, very moist, brown mottled
grey, Silty Clay Loam A-6

40.0 3 8 12

1 0.3B 33

352.6

Soft, very moist, brown mottled
grey, Clay to Silty Clay A7-6

45.0 9 4 1.3B 23

20.0 WH 0.6B 28

347.6

Medium, very moist, grey mottled
brown, Clay to Silty Clay A7-6

50.0 2

25.0 WH

322.6

Stiff, moist, grey, Clay to Silty Clay
A7-6

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2

Date: 6/15/2010

Route: FAP 312 (IL Rte 3)

Section: 123

County: Jackson

Boring No: 1-S
Station: 476+47
Offset: 12' Rt CL
Ground Surface: 372.1 Ft

D
E
P
T
H

E
L
O
W
S

Qu
tsf

W%

D
E
P
T
H

B
L
O
W
S

Qu
tsf

W%

Very stiff, moist, grey, Clay A7-6

5 2.1B 31

Hard, dry, grey Limestone with
Clay layers

295.1

Bottom of hole = 77.0 feet

Free water observed at 17.0 feet

317.6

Stiff, moist, grey, Clay A7-6

55.0 1 2 1.1B 23

Elevation referenced to BM @
NW corner of culvert; Elev.=
371.5 feet

312.6

Medium dense, moist, grey and
brown, Clay A-6 with Sand
and Gravel
(insufficient sample for grain size)

60.0 3 9 7

To convert "N" values to "N60"
multiply by 1.25

307.6

Stiff, moist, grey, Clay A7-6

65.0 1 4 1.2B 22

306.6

Hard, dry, grey, Limestone

50/0.5"

305.1

Cored 67.0 to 72.0

63% Recovery; 40% RQD

70.0

Hard, dry, grey Limestone with
Clay layers

95.0

300.1

Cored 72.0 to 77.0 feet

92% Recovery; 52% RQD

75.0

100.0

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

USER NAME = RJT	DESIGNED - RDP 09/11	REVISED -
ESCA PROJECT NO. 988.08	CHECKED - JTS 09/11	REVISED -
PLOT SCALE = 0.2" = 1' / IN.	DRAWN - DWH 11/11	REVISED -
PLOT DATE = 11/16/2011 10:06:38 AM	CHECKED - RDP 11/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS (1 OF 2)
STRUCTURE NO. 039-2028

SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	45
ILLINOIS FED. AID PROJECT				CONTRACT NO. 78197

SCHEDULE OF CULVERTS

STA	TYPE	SIZE	S&W	CONC. CU YDS	STEEL LBS
341+97	A.D.	5'x5'x42'-0"	10' L.H.	11.1	1120
351+29	A.D.	10' T.I.L. x 42'-0"	10' L.H.	6.7	220
103+03	A.D.	10'x5'x40'-10"	10' L.H.	50.6	7020
113+05	A.D.	3'x2'x46'-0"	10' L.H.	10.9	1350
120+10	A.D.	6'x3'x42'-0"	10' L.H.	30.7	3400
123+10	A.D.	10'x4'x34'-0"	63' L.H.	60.3	6430
137+43	A.D.	7'x6'x46'-0"	30' L.H.	40.3	6080
151+41	A.D.	2'x2'x42'-0"	10' L.H.	11.3	1130
156+07	A.D.	2'x2'x46'-0"	10' L.H.	10.9	1150
163+19	A.D.	3'x4'x40'-0"		28.4	2750
170+83	A.D.	2'x2'x40'-0"		14.3	1560
179+30	A.D.	10'x3'x44'-0"	20' L.H.	30.1	6710
187+00	R.E.D.	15' C.M.P. x 20'-0"			
187+00	R.E.L.	15' C.M.P. x 20'-0"			
194+09	A.D.	10' C.M.P. x 30' span		26.6	3120
195+20	S.D.	12' T.I.L. x 20'-0"		3.6	200
196+00	R.E.L.	15' C.M.P. x 20'-0"			
211+89	R.E.D.	15' C.M.P. x 22'-0"			
215+40	A.D.	3'x3'x37'-6"		20.1	2350
221+27	A.D.	10' T.I.L. x 46'-0"		7.1	220
227+23	A.D.	3'x2'x35'-3"	30' L.H.	10.1	2480
234+19	A.D.	2'x2'x34'-10"	30' L.H.	10.6	1410
237+29	A.D.	2'x2'x40'-0"		11.0	1000
240+00	A.D.	2'x2'x32'-0"		10.3	1030
241+09	A.D.	10' T.I.L. x 31'-0"		7.4	220
247+66	A.D.	2'x2'x33'-0"		10.9	1020
252+73	A.D.	Double 10'x10'x40'-0"		130.1	15430
270+96	A.D.	3'x2'x40'-7"	20' L.H.	17.1	2130
282+49	A.D.	2'x2'x40'-0"		11.2	1000
286+07	A.D.	10'x3'x43'-9"	24' L.H.	30.6	7030
288+00	R.E.D.	15' C.M.P. x 20'-0"			
290+10	A.D.	10' T.I.L. x 40'-0"		6.7	230
293+79	A.D.	2'x2'x43'-9"	24' L.H.	11.1	1220
304+00	R.E.D.	15' C.M.P. x 22'-0"			
317+47	A.D.	10'x9'x40'-0"		70.1	7830
320+00	R.E.D.	15' C.M.P. x 22'-0"			
323+43	A.D.	2'x2'x47'-0"		10.4	1100
333+17	A.D.	2'x2'x40'-0"		10.0	1070
340+00	A.D.	2'x2'x40'-0"		10.0	1050
342+00	R.E.D.	15' C.M.P. x 20'-0"			
345+42	A.D.	Double 9'x7'x45'-7"	25' L.H.	65.3	12750
351+29	A.D.	10' T.I.L. x 47'-0"	24' L.H.	7.2	230
351+39	S.D.	10' T.I.L. x 24'-0"		4.9	230
360+25	A.D.	2'x2'x49'-0"		11.1	1220
369+03	A.D.	3'x3'x30'-0"		10.2	1690
370+74	A.D.	Double 11'x7'x49'-10"	21' L.H.	120.1	16900
379+20	R.E.D.	15' C.M.P. x 22'-0"			
379+37	A.D.	10' T.I.L. x 41'-7"	10' L.H.	6.5	220
383+07	A.D.	2'x2'x41'-2"	14' L.H.	10.3	1100
385+24	R.E.D.	15' C.M.P. x 20'-0"			
389+24	R.E.L.	15' C.M.P. x 23'-0"			
392+45	A.D.	6'x4'x42'-3"	19' L.H.	20.6	3630
392+63	R.E.L.	15' C.M.P. x 20'-0"			
401+00	A.D.	2'x2'x40'-0"		10.0	1050
402+15	I.D.	15' C.M.P. x 20'-0"			
403+00	A.D.	2'x2'x41'-2"	14' L.H.	10.9	1100
409+30	R.E.L.	15' C.M.P. x 20'-0"			
413+60	A.D.	10' C.M.P. x 30' span	22' L.H.	22.4	33000
424+22	A.D.	3'x2'x46'-0"		14.4	1410
431+00	R.E.D.	15' C.M.P. x 20'-0"			
433+17	A.D.	3'x2'x35'-0"	20' L.H.	10.5	1740
435+00	A.D.	3'x2'x45'-0"		10.5	1250
446+00	A.D.	10' T.I.L. x 40'-0"		6.7	230
447+16	R.E.D.	15' C.M.P. x 22'-0"			

SCHEDULE OF CULVERTS

STA	TYPE	SIZE	S&W	CONC. CU. Yds	STEEL LBS.
450+02	A.D.	3'x2'x40'-0"		11.7	1220
457+54	A.D.	3'x2'x40'-2 1/4"	30' L.H.	15.1	1470
457+75	R.E.D.	24' C.M.P. x 26'-0"			
464+22	R.E.D.	15' C.M.P. x 22'-0"			
476+15	A.D.	Double 12'x12'x40'-0"		127.6	18080
476+49	S.D.R.	10' Tile x 24'-0"		4.9	230
478+75	R.E.D.	15' C.M.P. x 22'-0"			
485+29	A.D.	2'x2'x40'-0"		11.7	1150
488+27	A.Q.	2'x2'x39'-2 1/8"	23' L.H.	12.5	1350
495+34	A.D.	2'x2'x40'-0"		11.2	1000
500+33	A.Q.	4'x3'x39'-0 1/8"	33' D.H.	23.6	2650
504+73	A.Q.	10' Tile x 44'-6"		6.7	220
505+37	A.D.	10' Tile x 44'-6"		6.7	220
513+66	A.Q.	10' Tile x 32'-0"		7.5	220
523+00	A.D.	3'x2'x40'-0"		12.0	1060
524+00	R.E.D.	16' C.M.P. x 22'-0"			
530+10	A.D.	Double 10'x10'x40'-1 1/8"	30' L.H.	95.1	15410
533+43	A.D.	10' Tile x 43'-6"		6.6	220
539+00	A.D.	2'x2'x40'-0"		10.1	1050
549+00	R.E.D.	15' C.M.P. x 22'-0"			
550+45	A.D.	2'x2'x40'-0"		9.8	1040
557+45	A.Q.	2'x2'x45'-3 1/4"	19' L.H.	10.6	1160
572+42	A.Q.	10' Tile x 42'-6 1/4"	20' L.H.	7.1	220
573+06	A.D.	12'x7'-6" x 42'-0 3/8"	20' L.H.	73.9	9610
582+00	A.D.	2'x2'x42'-0"		10.3	1050
583+00	R.E.D.	15' C.M.P. x 24'-0"			
594+45	A.Q.	10' Tile x 42'-0 3/8"	20' L.H.	6.1	270
602+30	A.D.	10' Tile x 40'-0"		6.3	220
607+00	A.Q.	10' Tile x 40'-0"		6.3	220
612+00	R.E.D.	15' C.M.P. x 20'-0"			
TOTALS				2105.2	257800
CORR. METAL PIPE					
Diameter		12"	15"	18"	24"
LIN. FEET		272	122	66	26

SCHEDULE OF GUTTER AND GUTTER OUTLETS

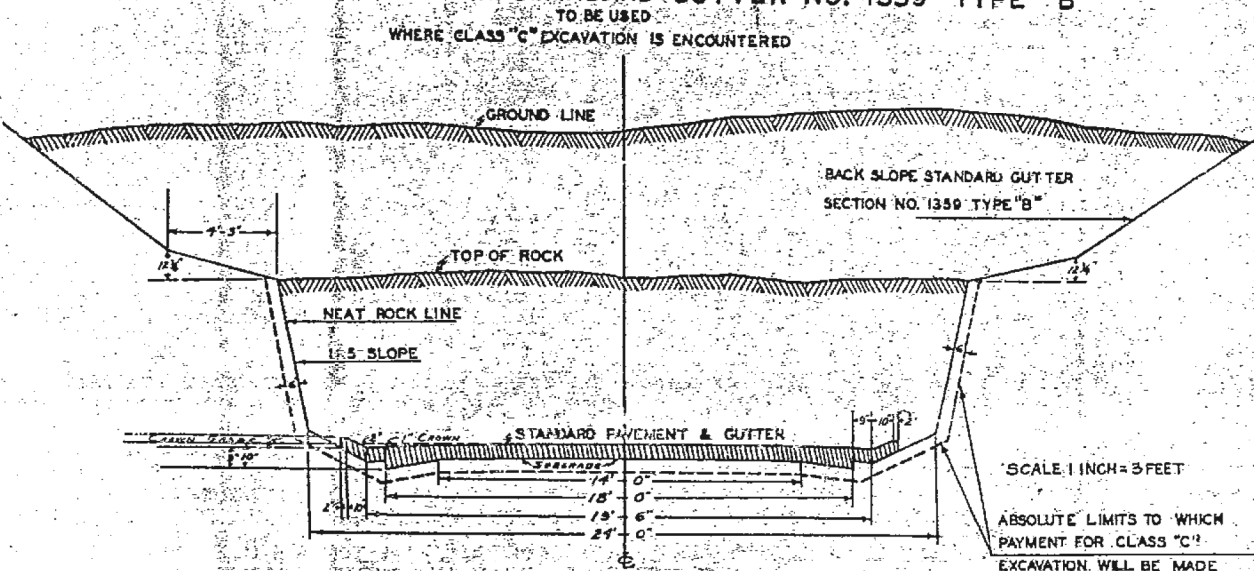
TYPE	LOCATION	STA. TO	STA.	LIN. FR.	OUTLETS
C	DI+L	97+00	101+00	600	DI+L 97+00
C	"	109+00	112+00	600	" " 109+00
C	"	114+00	117+00	600	" " 117+00
C	"	124+00	140+00	400	" " 136+00
C	"	142+25	145+30	650	" " 145+30
C	"	157+50	161+20	800	" " 157+50
C	"	164+00	169+20	1100	" " 169+20
C	"	175+25	179+25	600	" " 175+25
C	"	181+00	185+30	450	" " 185+30
C	DI+L	196+50	203+90	1400	DI+L 196+50
C	"	214+30	221+20	1340	" " 221+20
C	"	221+27	227+15	1102	" " 227+15
C	"	234+00	237+60	720	" " 237+60
C	"	234+00	278+70	4940	" " 278+70
C	"	287+50	294+25	1350	" " 294+25
C	DI	323+43	334+92	644	DI 323+43
C	DI+L	352+00	360+00	1600	DI+L 352+00
C	"	414+50	418+00	700	" " 414+50
C	"	420+00	423+75	750	" " 423+75
C	"	495+45	498+00	510	" " 495+45
C	"	505+30	520+00	2900	" " 520+00
C	"	575+00	578+30	700	" " 575+00

Pavement ends to be constructed in accordance with Standard No. 1470 at Stations 341+90 and 612+00. Additional Cost to be included in unit bid price for pavement.

Standard No. 1471 to be used for the following Culverts:
Sta 103+03, 125+10, 137+43, 163+19, 240+10, 252+73, 278+96, 286+07, 317+27, 345+43, 369+03, 370+74, 392+45, 433+17, 476+49, 495+34, 500+33, 508+37, 530+10 and 573+06

NO.	SECTION	COUNTY	DATE	SHEET
150	C-123	Jackson	193	4

SPECIAL ROCK SECTION FOR STANDARD GUTTER NO. 1359 TYPE "B"

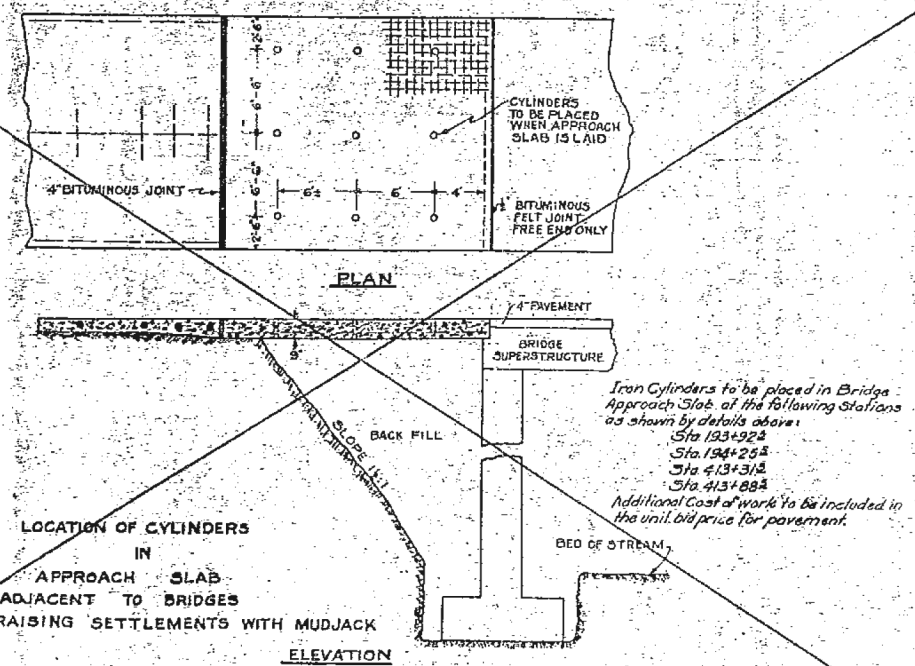


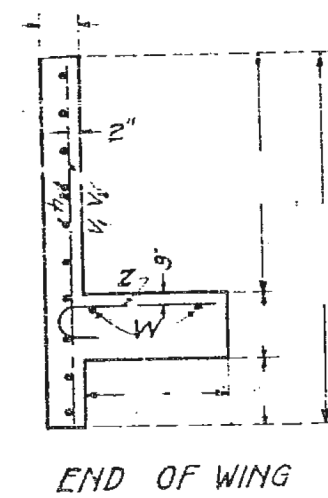
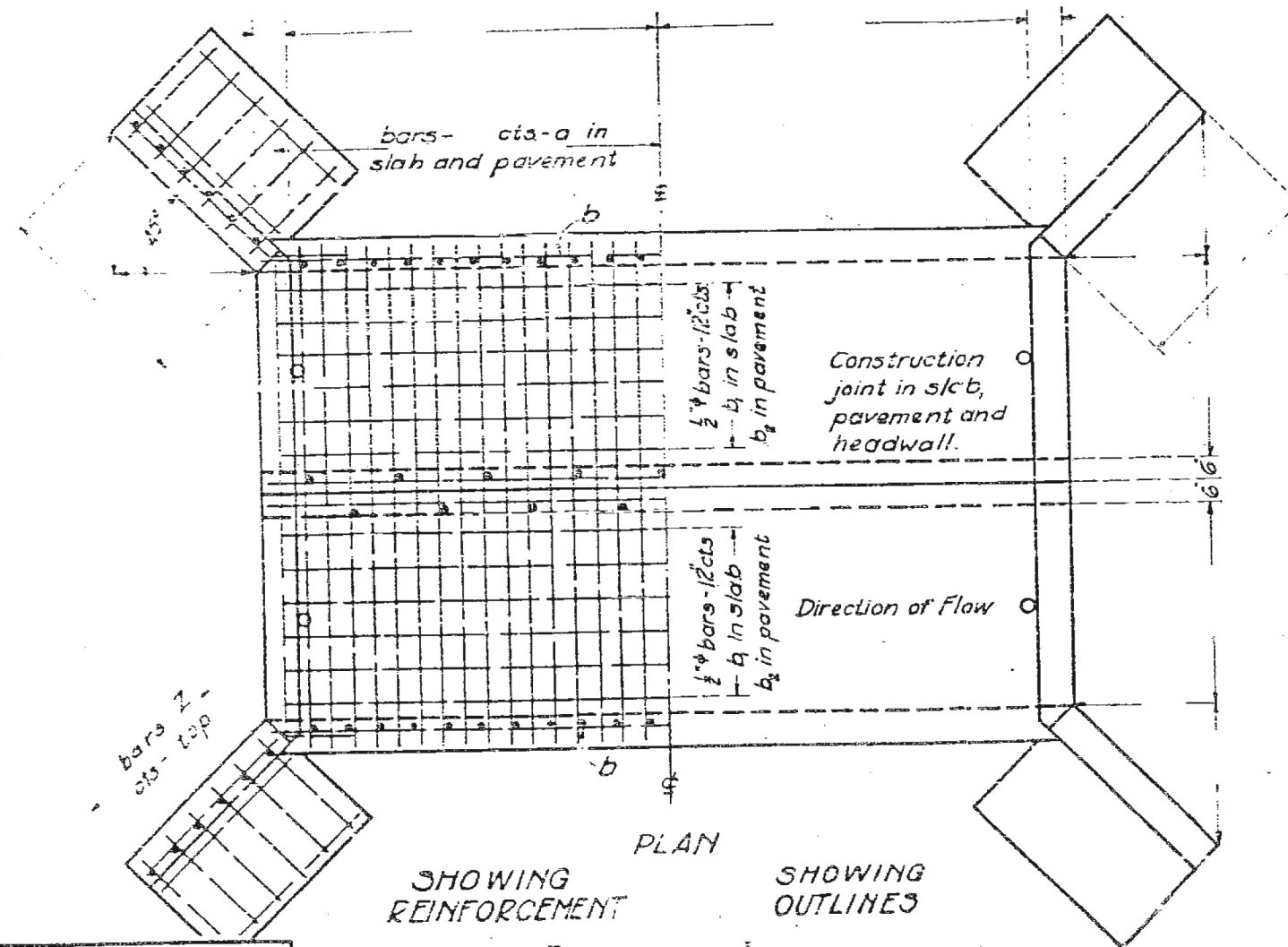
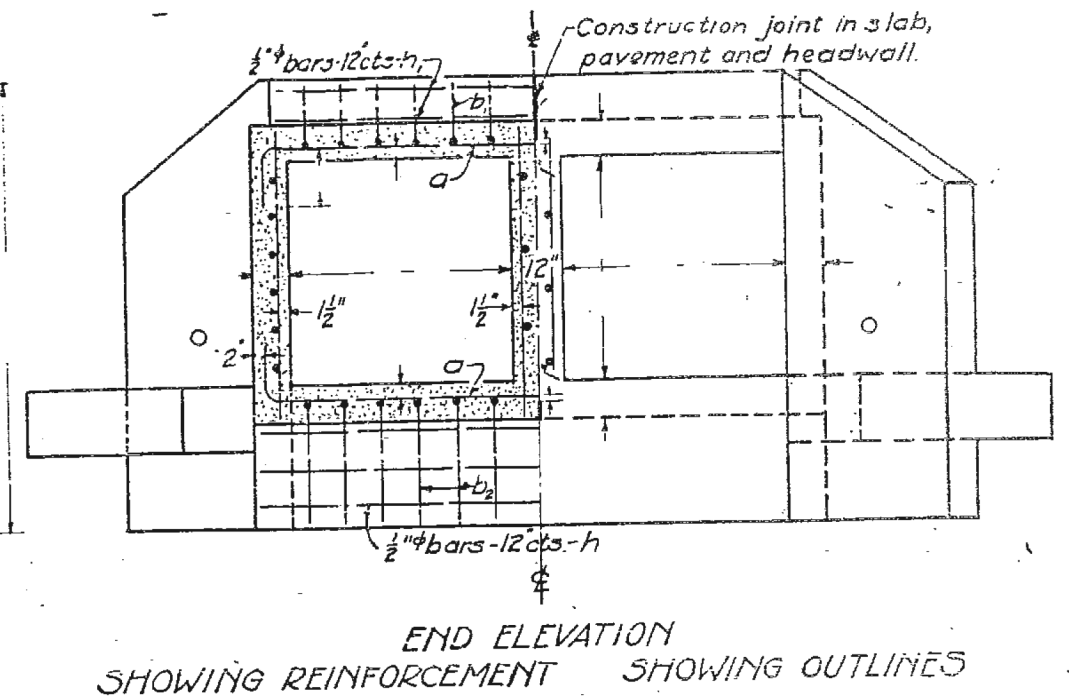
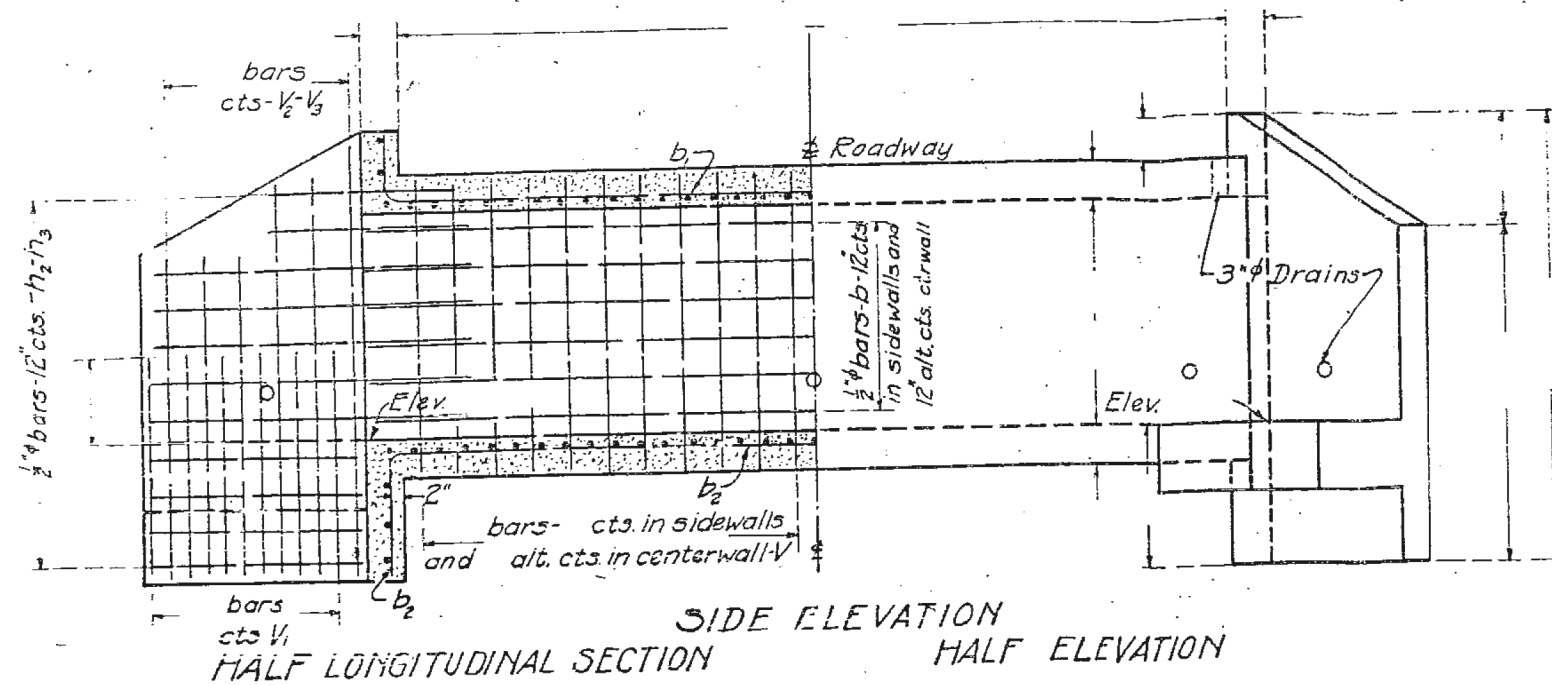
DETAIL OF CYLINDER



STANDARD BLACK IRON PIPE CYLINDER TO BE FILLED WITH CLAY TAMPED AND HARDENED

LOCATION OF CYLINDERS IN APPROACH SLAB ADJACENT TO BRIDGES FOR RAISING SETTLEMENTS WITH MUDJACK





Class X Concrete shall be used thruout.
All reinforcing steel shall be wired securely in place before concrete is poured.
Adjust height of headwall to be 6 inches above intersection of headwall and earth
Build tops of headwalls parallel to grade line.

BILL OF MATERIAL

Bars	No.	Size	Length
a			
b		1/2" ϕ	
b ₁		1/2" ϕ	
b ₂		1/2" ϕ	
h		1/2" ϕ	
h ₁		1/2" ϕ	
h ₂		1/2" ϕ	
h ₃		1/2" ϕ	
v			
v ₁			
v ₂			
z			
w			
Reinforcing Steel-Lbs.			
Class X Concrete-Cu.Yds			

COMPUTED	- H.S. MANN
DRAWN	- J. MICHAEL
CHECKED	- H.S.M.
APPROVED	- J.V.

DESIGNED	- MCV
DRAWN	- CMV
CHECKED	- MTM
DATE	- 11/10/11

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

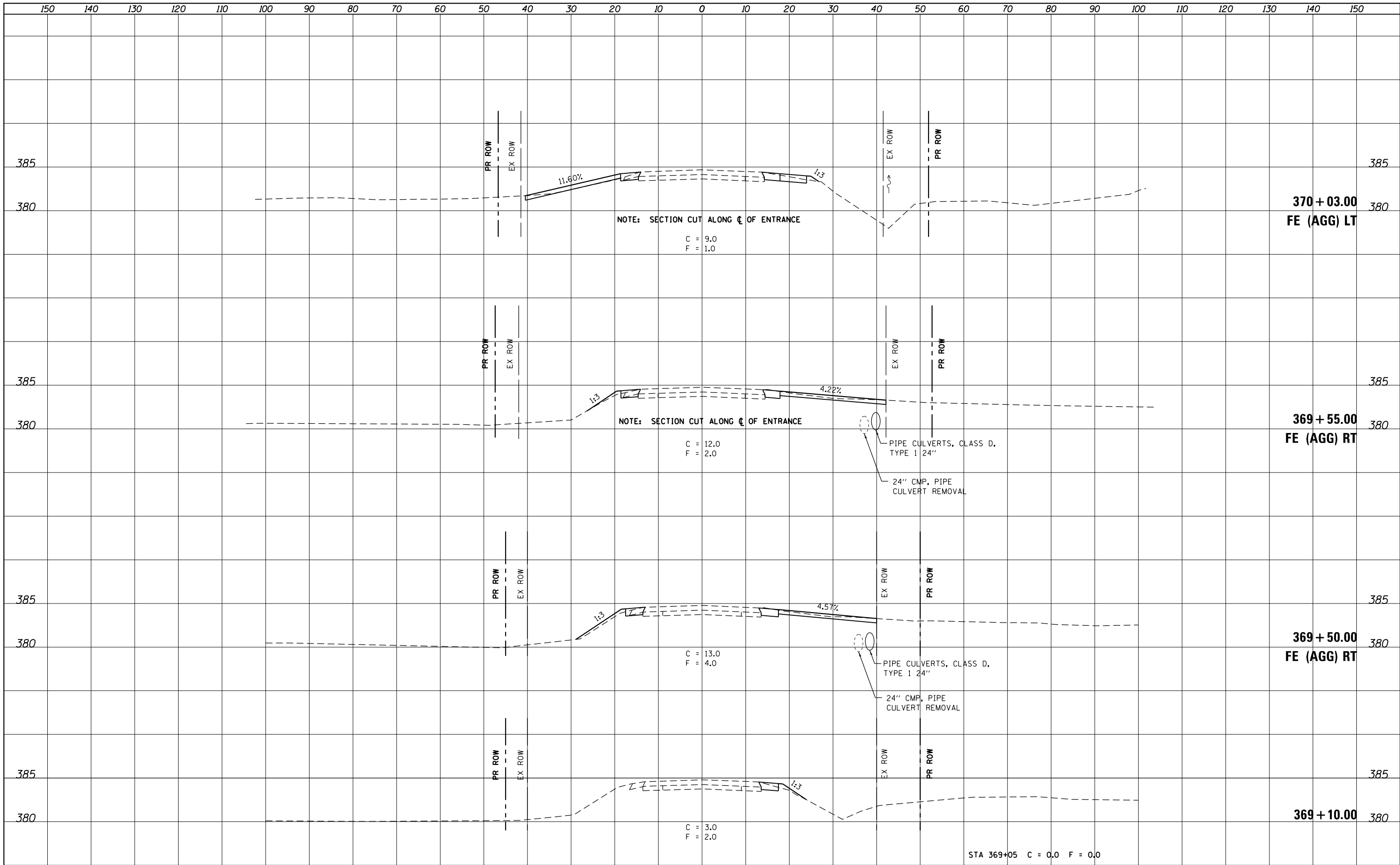
**EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY
STRUCTURE NO. 039-2001**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	48
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

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

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

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QUIGG ENGINEERING INC

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	DRAWN - CMM	REVISED -
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PLOT DATE = 11/10/2011	DATE - 11/10/11	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2029**

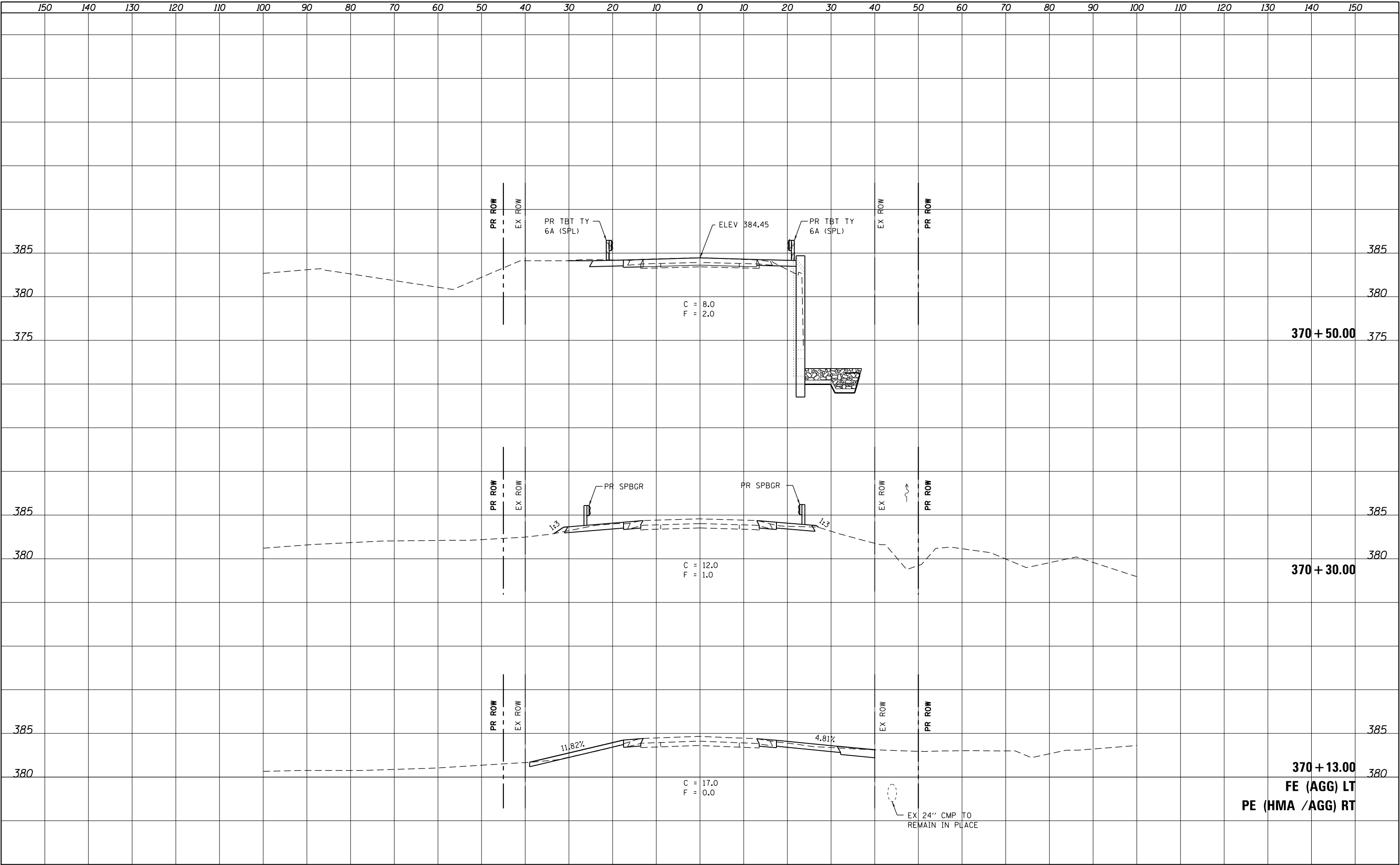
SCALE: AS SHOWN	SHEET NO. 1 OF 5 SHEETS	STA. 369+10.00 TO STA. 370+03.00
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	49
CONTRACT NO.			78197	
ILLINOIS		FED. AID PROJECT		

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

ORIGINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
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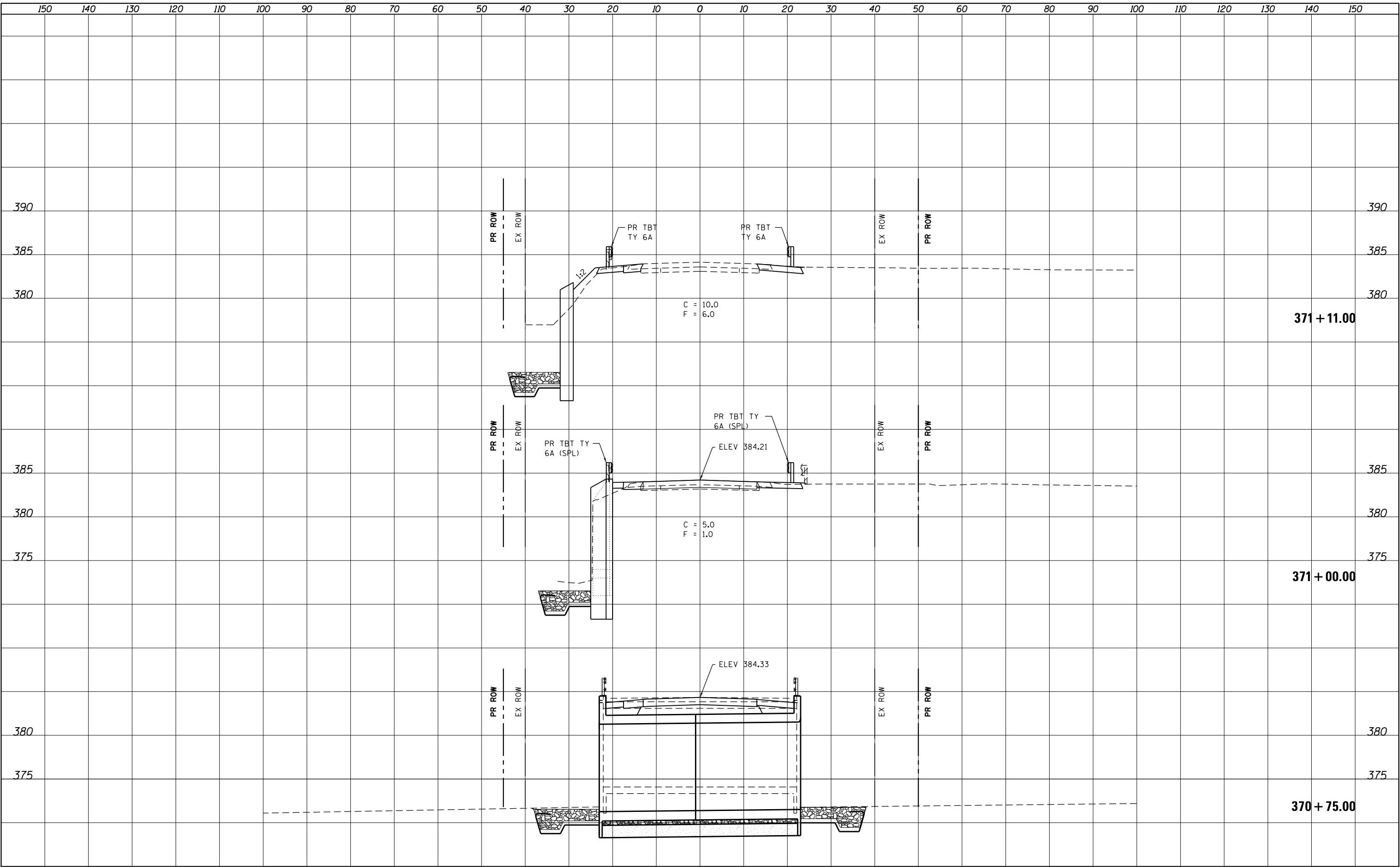


 QUIGG ENGINEERING INC				DESIGNED - MCV DRAWN - CMM CHECKED - MTM DATE - 11/10/11				REVISED - REVISED - REVISED - REVISED -				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				IL RTE 3 CROSS SECTIONS STRUCTURE NO. 039-2029				SCALE: AS SHOWN SHEET NO. 2 OF 5 SHEETS STA. 370+13.00 TO STA. 370+50.00				F.A.P. RTE. 312 SECTION 123B-4 COUNTY JACKSON TOTAL SHEETS 58 SHEET NO. 50 CONTRACT NO. 78197 ILLINOIS FED. AID PROJECT			
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FINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

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SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

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QUIGG ENGINEERING INC

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PLOT DATE = 11/10/2011

DESIGNED - MCV
DRAWN - CMM
CHECKED - MTM
DATE - 11/10/11

REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2029

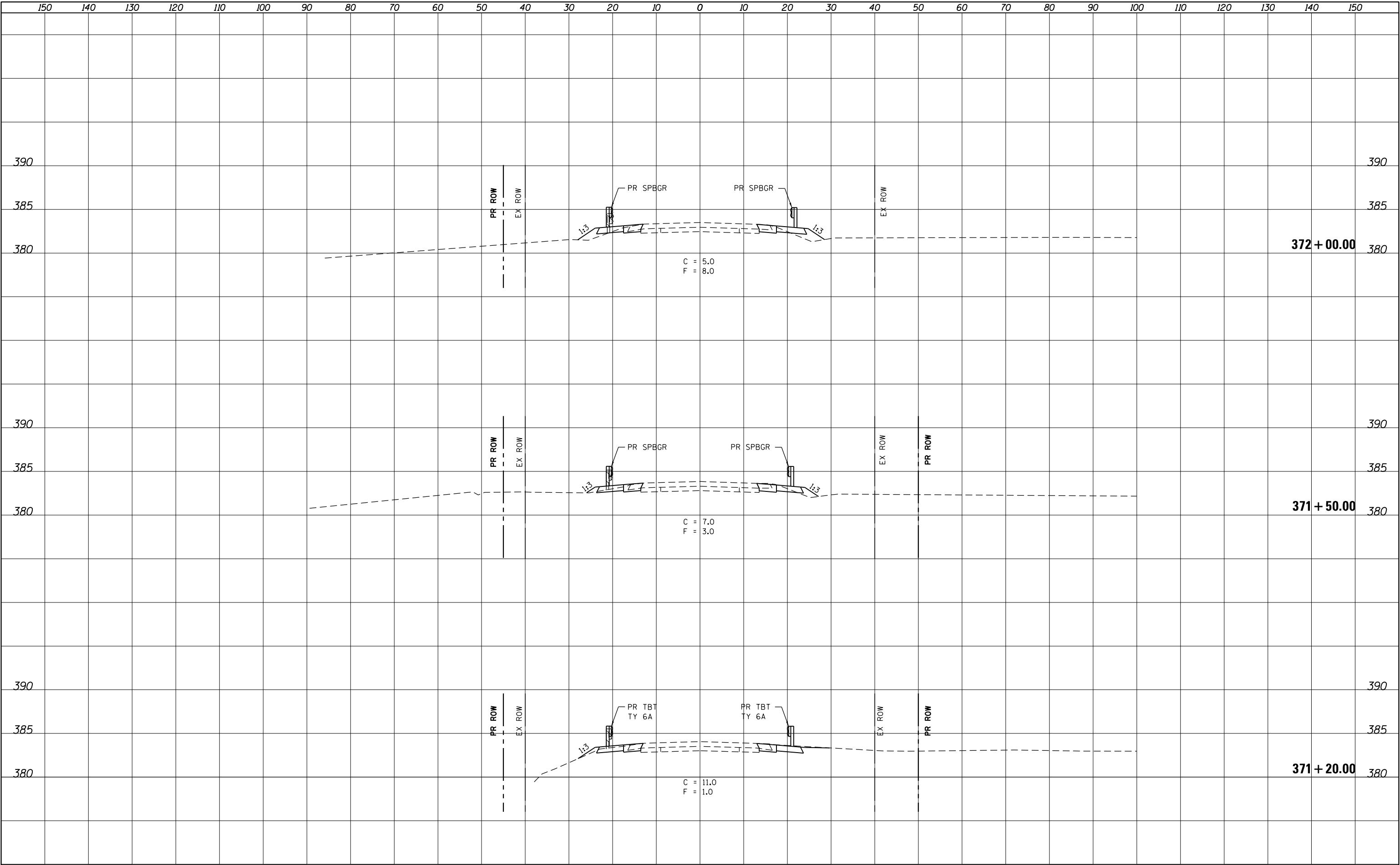
SCALE: AS SHOWN SHEET NO. 3 OF 5 SHEETS STA. 370+75.00 TO STA. 371+11.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	51
CONTRACT NO. 78197				ILLINOIS FED. AID PROJECT

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

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QUIGG ENGINEERING INC

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PLOT DATE = 11/10/2011

DESIGNED - MCV
DRAWN - CMM
CHECKED - MTM
DATE - 11/10/11

REVISED -
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2029

SCALE: AS SHOWN SHEET NO. 4 OF 5 SHEETS STA. 371+20.00 TO STA. 372+00.00

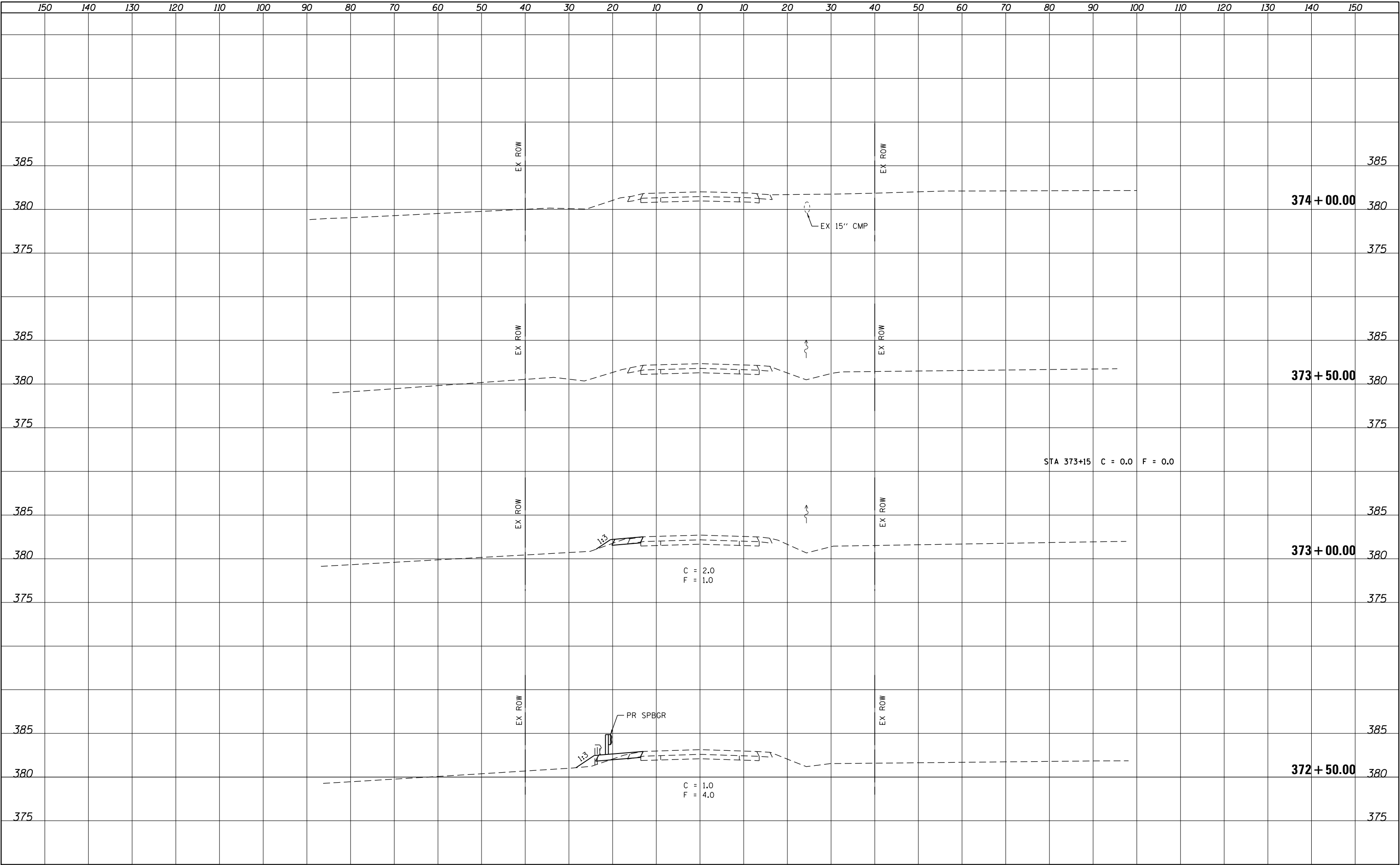
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	52
CONTRACT NO. 78197				

ILLINOIS FED. AID PROJECT

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

ORIGINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
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QUIGG ENGINEERING INC

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PLOT DATE = 11/10/2011	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2029

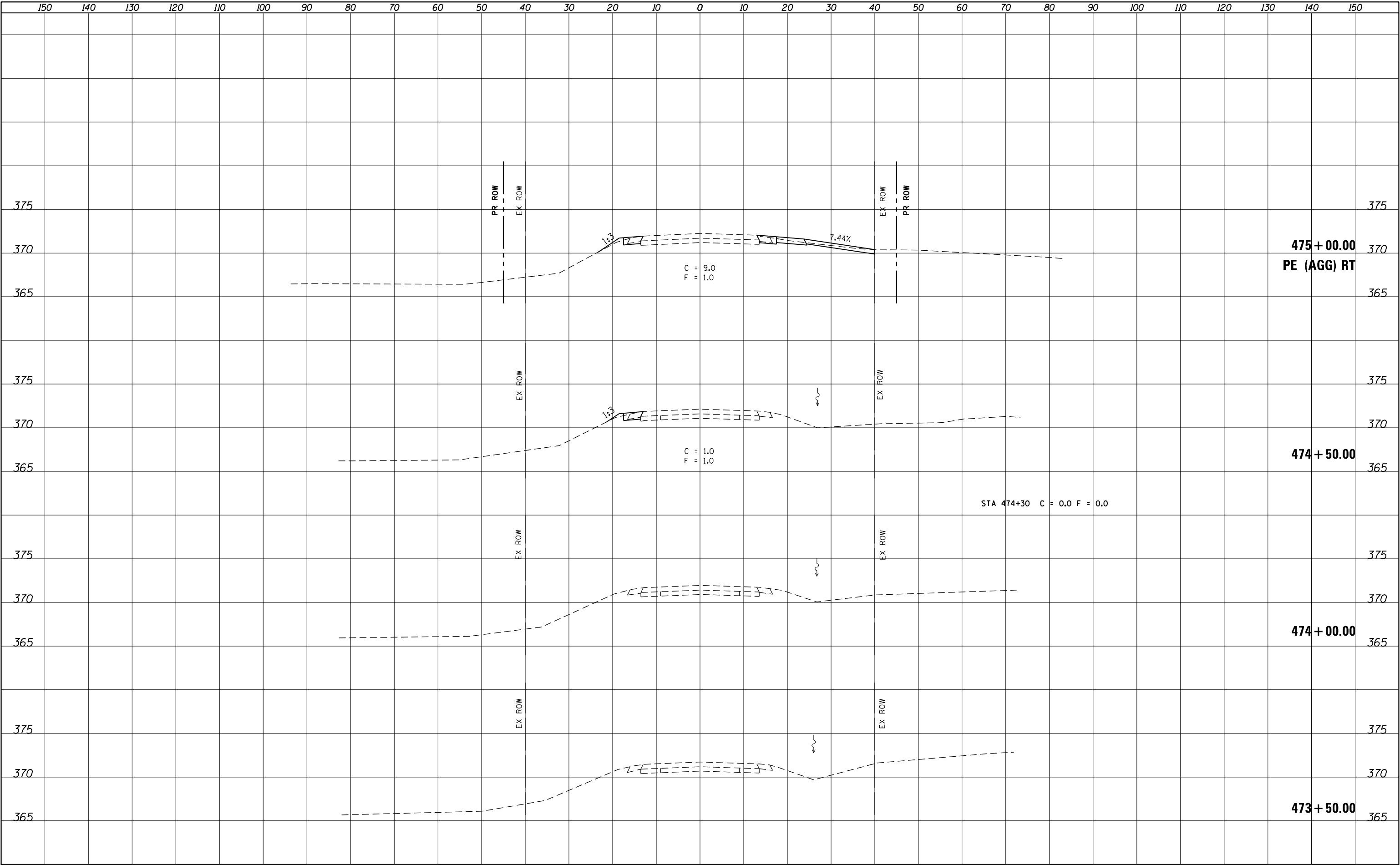
SCALE: AS SHOWN SHEET NO. 5 OF 5 SHEETS STA. 372+50.00 TO STA. 374+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-4	JACKSON	58	53
CONTRACT NO. 78197			ILLINOIS FED. AID PROJECT	

FINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
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SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
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QUIGG ENGINEERING INC

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2028

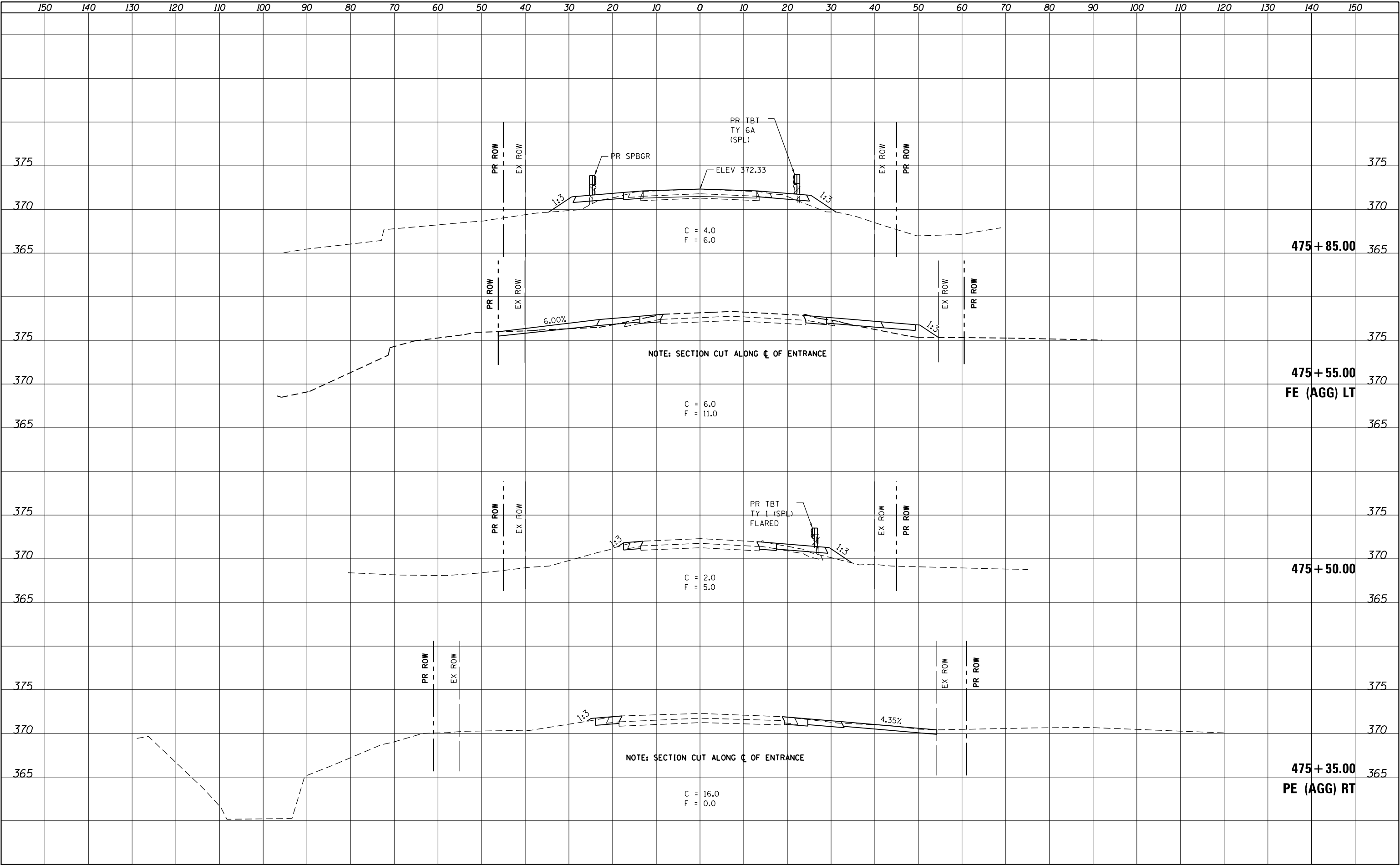
SCALE: AS SHOWN SHEET NO. 1 OF 5 SHEETS STA. 473+50.00 TO STA. 475+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	54
ILLINOIS FED. AID PROJECT			CONTRACT NO. 78197	

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

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS	CHECKED
ORIGINAL						
SURVEY						
NOTE BOOK						
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QUIGG ENGINEERING INC

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	DRAWN - CMM	REVISED -
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PLOT DATE = 11/10/2011	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2028

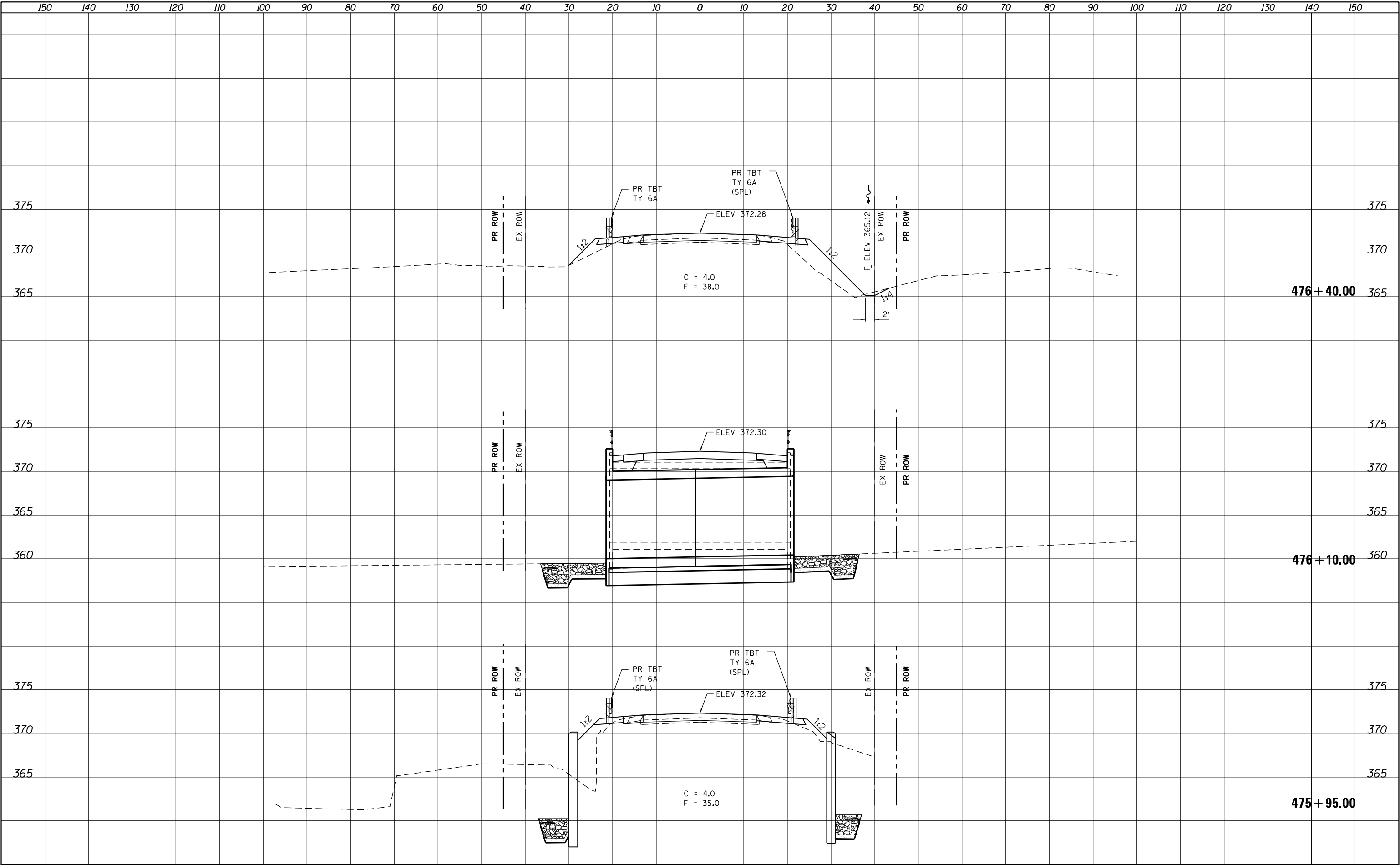
SCALE: AS SHOWN SHEET NO. 2 OF 5 SHEETS STA. 475+35.00 TO STA. 475+85.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	55
CONTRACT NO. 78197				
ILLINOIS FED. AID PROJECT				

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

ORIGINAL	SURVEYED	BY	DATE
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NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		

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QUIGG ENGINEERING INC

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PLOT DATE = 11/10/2011

DESIGNED - MCV
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DATE - 11/10/11

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2028

SCALE: AS SHOWN SHEET NO. 3 OF 5 SHEETS STA. 475+95.00 TO STA. 476+40.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	56
CONTRACT NO. 78197				ILLINOIS FED. AID PROJECT

ORIGINAL		BY	DATE
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NO.	AREAS CHECKED		



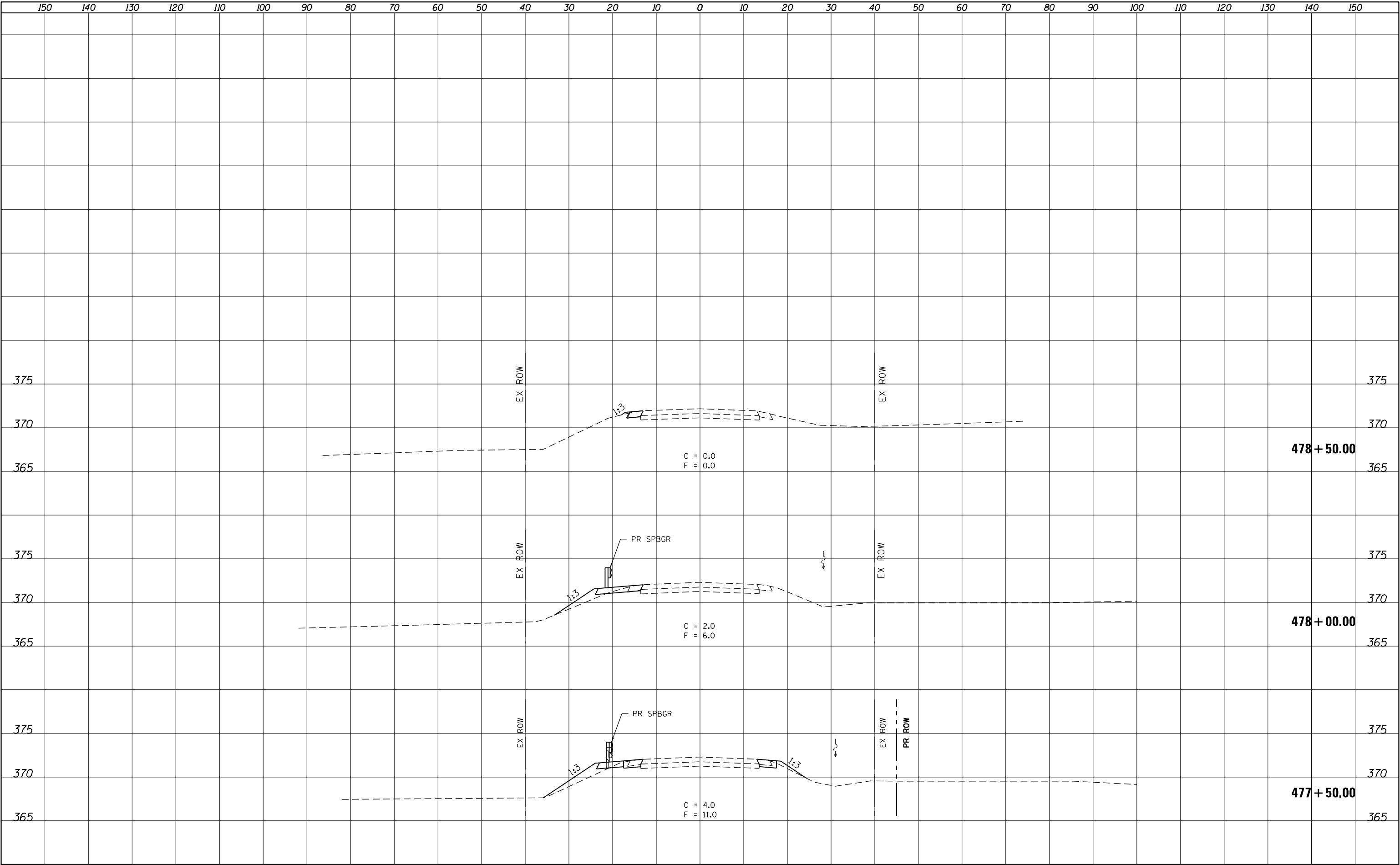
REVISED	-
REVISED	-
REVISED	-
REVISED	-

ILLINOIS	FED. AID PROJECT
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FINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS		
	CHECKED		

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

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QUIGG ENGINEERING INC

USER NAME = mmann	DESIGNED - MCV	REVISED -
	DRAWN - CMM	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MTM	REVISED -
PLOT DATE = 11/10/2011	DATE - 11/10/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL RTE 3 CROSS SECTIONS
STRUCTURE NO. 039-2028

SCALE: AS SHOWN SHEET NO. 5 OF 5 SHEETS STA. 477+50.00 TO STA. 478+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	123B-3	JACKSON	58	58
ILLINOIS FED. AID PROJECT			CONTRACT NO.	78197