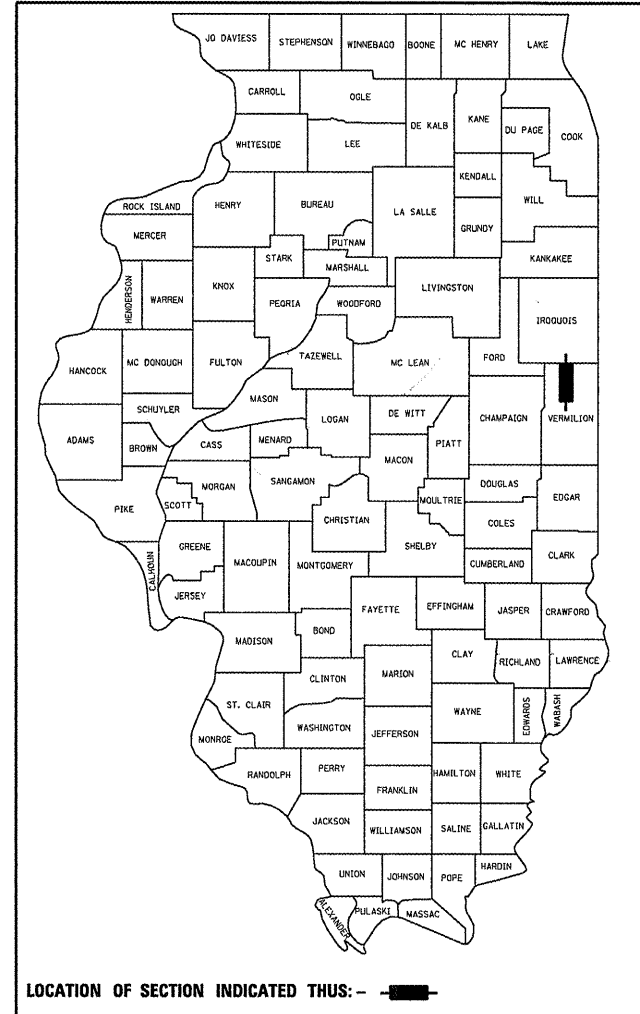


F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	1
		ILLINOIS	CONTRACT NO. 70434	

D-95-074-04



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PROPOSED
HIGHWAY PLANS**
FAS ROUTE 331 (C.H. 10)
SECTION (79-102)BR
PROJECT ACBRS-0331(119)
STRUCTURE REPLACEMENT
FOUNTAIN CREEK 0.3 MILES N OF EAST LYNN
VERMILION COUNTY
C-95-078-04

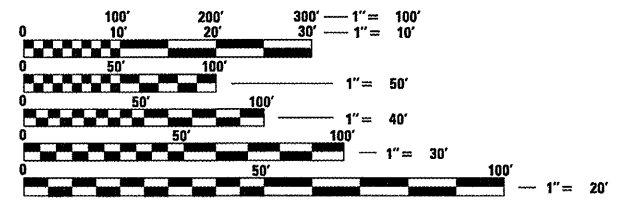
FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

PROPOSED STRUCTURE NO. 092-2044
STA. 69 + 64.00
TRIPLE 13x13 BOX CULVERT.
SKEW 35° RT FWD

**REMOVAL OF EXISTING
STRUCTURE NO. 092-0176**
STA. 69 + 61.63 SINGLE SPAN
P.P.C. DECK BEAM STRUCTURE
SKEW 30° RT. FWD.

BEGIN IMPROVEMENT
STA. 68 + 88.00

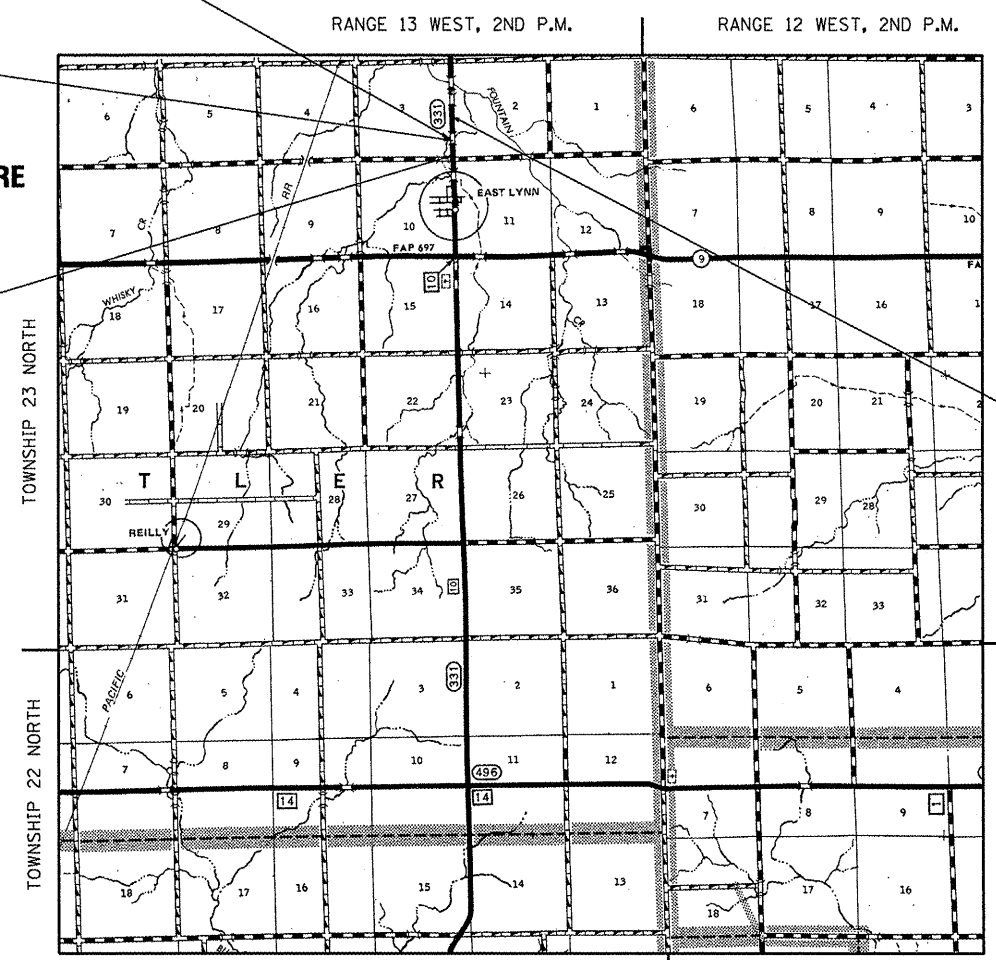
DESIGN DESIGNATION
HIGHWAY CLASSIFICATION
MAJOR COLLECTOR - RURAL
SPEED LIMIT: 55 MPH
ADT: 325 (2010) ; 350 (2020)
PV: 68%
SU: 14%
MU: 18%



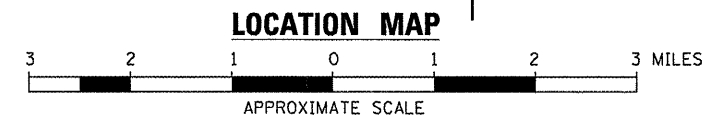
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

SURVEY BOOK NUMBER 4799
PROJECT ENGINEER: JASON STULTS
CONSULTANT LIAISON: RUSTIN KEYS
DISTRICT 5 NO. 217-465-4181
CONTRACT NO. 70434



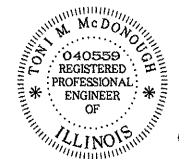
END IMPROVEMENT
STA. 70 + 40.00



GROSS LENGTH = 152.00 FT. = 0.029 MILE
NET LENGTH = 152.00 FT. = 0.029 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 8/13 20 11
Joseph E. Craven
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Oct 14 20 11
Scott E. Stitt, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 14 20 11
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



Thomas M. McDonough 8/12/2011
Signature Date

11/30/11
Expires

McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN No. 184-022754

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SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	FAS 331 (CH 10) VERMILION COUNTY RURAL (80% FED 20% STATE) S.N. 092-2044 0011
			TOTAL QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	6
20200100	EARTH EXCAVATION	CU. YD.	150
20400800	FURNISHED EXCAVATION	CU. YD.	105
20700220	POROUS GRANULAR EMBANKMENT	CU. YD.	721
25000210	SEEDING, CLASS 2A	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	26
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	26
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	26
25100115	MULCH, METHOD 2	ACRE	0.25
25100630	EROSION CONTROL BLANKET	SQ. YD.	405
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	25
28000305	TEMPORARY DITCH CHECKS	FOOT	20
28000400	PERIMETER EROSION BARRIER	FOOT	485
28000500	INLET AND PIPE PROTECTION	EACH	1
28100107	STONE RIPRAP, CLASS A4	SQ. YD.	655
28200200	FILTER FABRIC	SQ. YD.	655
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ. YD.	272
42300200	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6 INCH	SQ. YD.	46
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ. YD.	36
44004250	PAVED SHOULDER REMOVAL	SQ. YD.	29
44200944	CLASS B PATCHES, TYPE IV, 8 INCH	SQ. YD.	372
44201299	DOWEL BARS 1 1/2"	EACH	180
44213100	PAVEMENT FABRIC	SQ. YD.	372
44213200	SAW CUTS	FOOT	148
44213204	TIE BARS 3/4"	EACH	76
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	102
50800105	REINFORCEMENT BARS	POUND	85,020
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,900
50800515	BAR SPLICERS	EACH	344
51500100	NAME PLATES	EACH	1
54003000	CONCRETE BOX CULVERTS	CU. YD.	425.1
542C1063	PIPE CULVERTS, CLASS C, TYPE 2 18"	FOOT	108
54213453	END SECTIONS 18"	EACH	1
61100500	EXPLORATION TRENCH 52" DEPTH	FOOT	20

CODE NO.	ITEM	UNIT	FAS 331 (CH 10) VERMILION COUNTY RURAL (80% FED 20% STATE) S.N. 092-2044 0011
			TOTAL QUANTITY
61133100	FIELD TILE JUNCTION VAULTS, 2' DIA.	EACH	1
61140300	STORM SEWERS, SPECIAL 14"	FOOT	17
* 63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	187.5
* 63000025	STEEL PLATE BEAM GUARD RAIL, ATTACHED TO STRUCTURES	FOOT	119
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	1
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	3
63200310	GUARDRAIL REMOVAL	FOOT	468
* 63300725	STEEL PLATE BEAM GUARDRAIL(SHORT RADIUS)	FOOT	12.5
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	8
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL. MO.	8
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	64
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1877
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ. FT.	647
70400100	TEMPORARY CONCRETE BARRIER	FOOT	400
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	325
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	174
78200410	GUARDRAIL MARKERS, TYPE A	EACH	8
78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ. FT.	46
Z0002900	BASE COURSE (OPTION)	SQ. YD.	364
Z0026407	TEMPORARY SHEET PILING	SQ. FT.	1133
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0030251	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
Z0038700	PERMANENT BENCH MARKS	EACH	1
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1
D2002248	EVERGREEN, PICEA PUNGENS GLAUCA (COLORADO BLUE SPRUCE) 4' HEIGHT, BALLED AND BURLAPPED	EACH	1
A2008116	TREE, TILIA CORDATA GREENSPIRE (GREENSPIRE LITTLE LEAF LINDEN), 2" CALIFER, BALLED AND BURLAPPED	EACH	1

McDonough-Whitlow, P.C.
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 PROFESSIONAL DESIGN No. 184-002754

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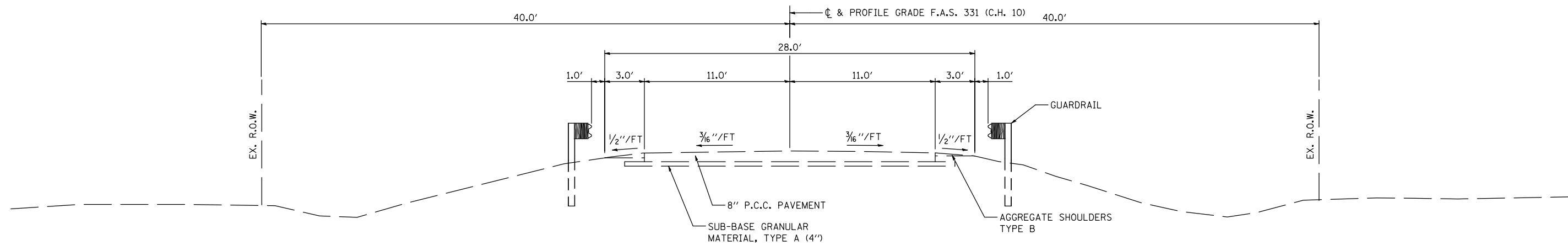
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

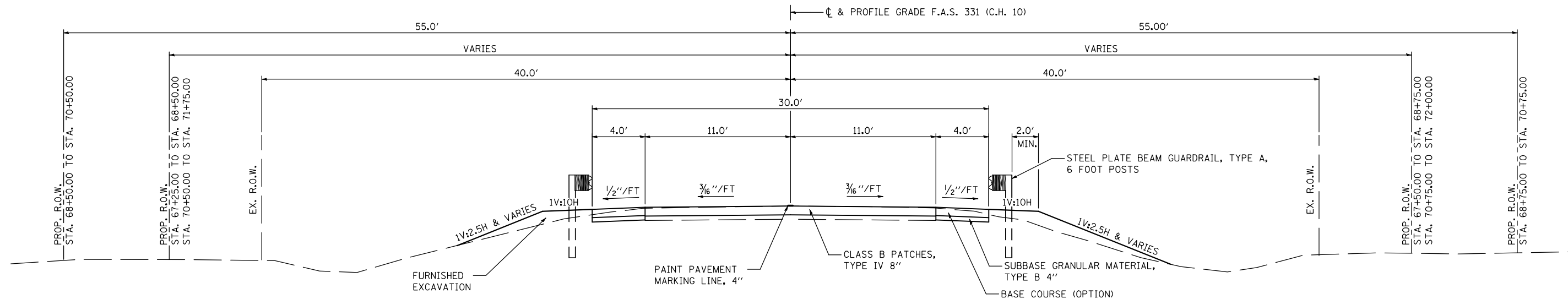
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. _____ TO STA. _____

F.A.S. RTE. 331	SECTION (79-102)BR	COUNTY VERMILION	TOTAL SHEETS 29	SHEET NO. 3
CONTRACT NO. 70434				ILLINOIS FED. AID PROJECT



1 EXISTING TYPICAL SECTION

F.A.S. 331 (C.H. 10)
 STA. 68+88.00 TO STA. 69+38.43
 STA. 69+84.83 TO STA. 70+40.00



1 PROPOSED TYPICAL SECTION

F.A.S. 331 (C.H. 10)
 STA. 68+88.00 TO STA. 69+37.75
 STA. 69+90.25 TO STA. 70+40.00

PAVEMENT JOINTS

SAWED TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED IN ALL CLASS B PATCHES AT A MAXIMUM SPACING OF 20'-0". JOINT SPACING SHALL BE CONSTANT (AS APPLICABLE) AND SYMMETRICAL ABOUT THE CENTER OF THE PATCH. SEE STANDARD 420001.

BASE COURSE (OPTION)

1. PORTLAND CEMENT CONCRETE BASE COURSE, 7 1/2" ON 4" SUBBASE GRANULAR MATERIAL, TYPE B 4"
2. HOT-MIX ASPHALT BASE COURSE, 6" ON 4" SUBBASE GRANULAR MATERIAL, TYPE B 4"

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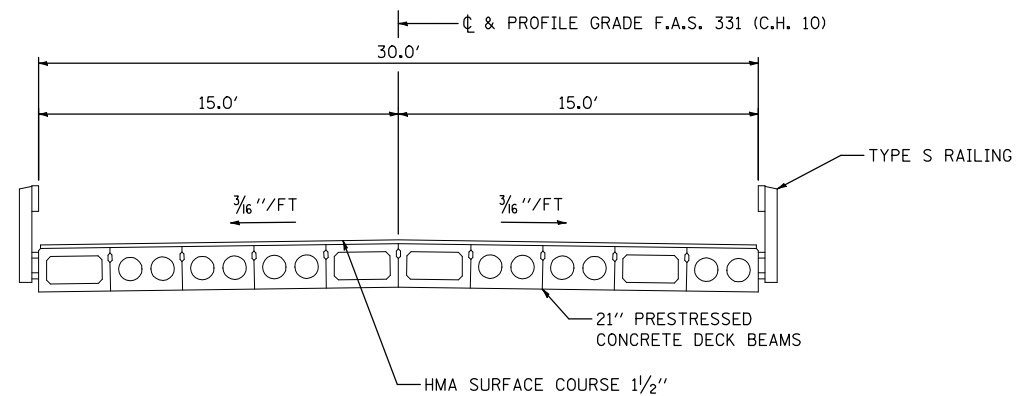
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		DRAWN RNH	REVISED -
		CHECKED TMM	REVISED -
		DATE	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

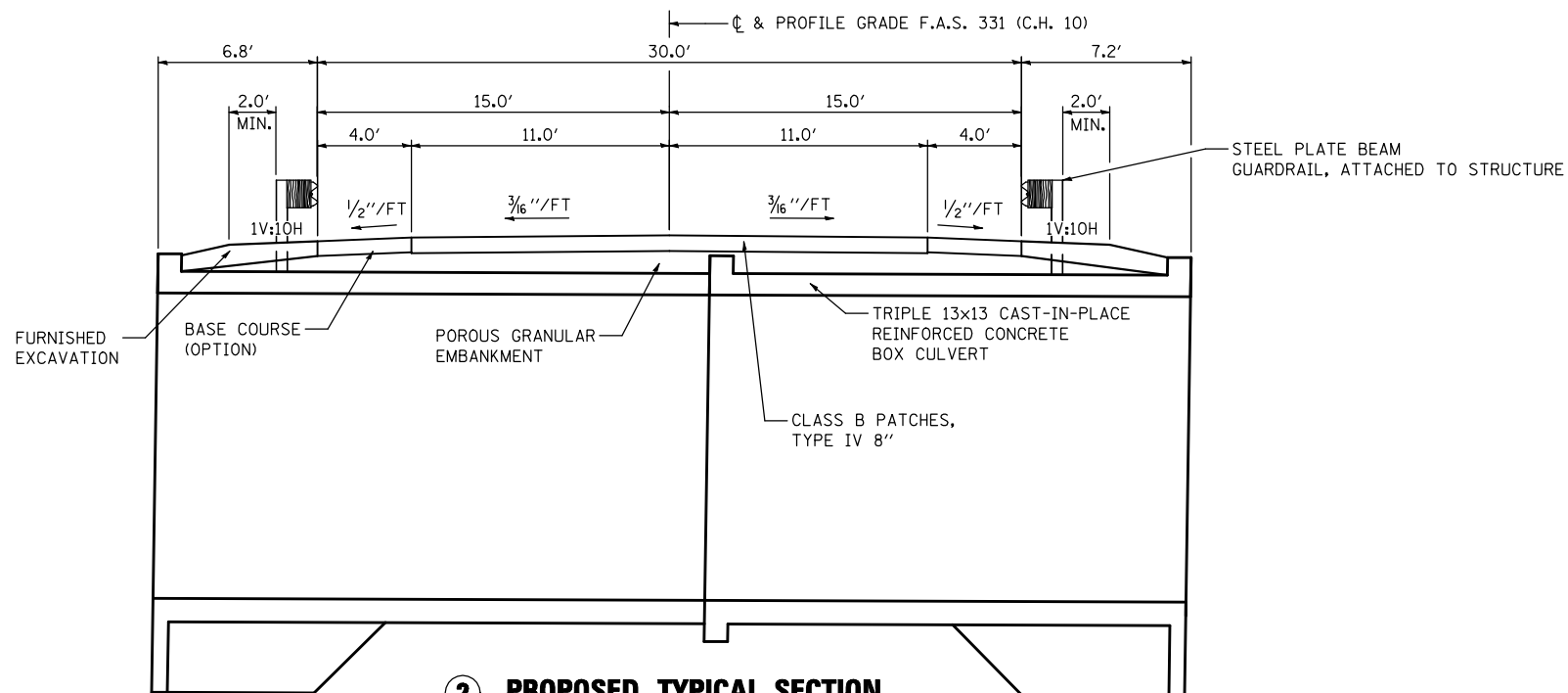
SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	4
			CONTRACT NO. 70434	
ILLINOIS FED. AID PROJECT				



2 EXISTING TYPICAL SECTION

F.A.S. 331 (C.H. 10)
 STA. 69+38.43 TO STA. 69+84.83 (S.N. 092-0176)



2 PROPOSED TYPICAL SECTION

F.A.S. 331 (C.H. 10)
 STA. 69+37.75 TO STA. 69+90.25 (S.N. 092-2044)

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 PROFESSIONAL DESIGN No. 184-002754

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	PLOT SCALE =	CHECKED TMM	REVISED -
	PLOT DATE =	DATE	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. 69+37.75 TO STA. 69+90.25

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	5
			CONTRACT NO. 70434	
ILLINOIS FED. AID PROJECT				

LOCATION	EARTH EXCAVATION		EARTH EXCAVATION ADJUSTED FOR SHRINKAGE		EMBANKMENT		BALANCE WASTE (+) OR SHORTAGE (-)	
	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD	CU YD
STAGE I								
STA 67+65.00 TO STA 69+37.75	22	16	77	-61				
STA 69+90.25 TO STA 71+60.00	21	16	20	-4				
STA 69+37.75 TO STA 69+90.25	0	0	8	-8				
STAGE I TOTAL	43	32	105	-73				
STAGE II								
STA 67+65.00 TO STA 69+37.75	18	14	71	-57				
STA 69+90.25 TO STA 71+60.00	86	65	32	+33				
STA 69+37.75 TO STA 69+90.25	0	0	8	-8				
STAGE II TOTAL	104	79	111	-32				
EARTH EXCAVATION (TOTAL) = 150	147	111	216	-105				
FURNISHED EXCAVATION (TOTAL) = 105								
SHRINKAGE FACTOR = 25%								

PERIMETER EROSION BARRIER	
LOCATION	FOOT
STA 67+65 18' LT TO STA 68+00 18' LT	35
STA 68+00 18' LT TO STA 68+91 55' LT	99
STA 69+74 55' LT TO STA 69+86 45' LT	15
STA 67+65 18' RT TO STA 68+07 32' RT	44
STA 68+07 32' RT TO STA 69+00 26' RT	93
STA 69+00 26' RT TO STA 69+63 55' RT	70
STA 70+48 55' RT TO STA 70+48 31' RT	14
STA 70+48 31' RT TO STA 70+86 31' RT	38
STA 70+86 31' RT TO STA 71+17 18' RT	34
STA 71+17 18' RT TO STA 71+60 18' RT	43
TOTAL	485

SUBBASE GRANULAR MATERIAL, TYPE B 4"		
LOCATION	WIDTH	SQ YD
LT STA 67+65.00 TO STA 69+28.89	4	73
LT STA 69+77.08 TO STA 70+52.71	4	34
LT STA 70+81.15 TO STA 71+60.00	4	35
RT STA 67+65.00 TO STA 69+25.00	4	71
RT STA 70+27.00 TO STA 71+60.00	4	59
TOTAL		272

CLASS B PATCHES, TYPE IV, 8"		
LOCATION	WIDTH	SQ YD
STAGE I		
STA 68+88.00 TO STA 70+40.00	9.5	161
STAGE II		
STA 68+88.00 TO STA 70+40.00	12.5	211
TOTAL		372

DOWEL BARS 1 1/2"	
LOCATION	EACH
STAGE I	
STA 68+88.00	9
STA 69+04.00	9
STA 69+24.00	9
STA 69+44.00	9
STA 69+64.00	9
STA 69+84.00	9
STA 70+04.00	9
STA 70+24.00	9
STA 70+40.00	9
STAGE II	
STA 68+88.00	11
STA 69+04.00	11
STA 69+24.00	11
STA 69+44.00	11
STA 69+64.00	11
STA 69+84.00	11
STA 70+04.00	11
STA 70+24.00	11
STA 70+40.00	11
TOTAL	180

PAVEMENT FABRIC		
LOCATION	WIDTH	SQ YD
STAGE I		
STA 68+88.00 TO STA 70+40.00	9.5	161
STAGE II		
STA 68+88.00 TO STA 70+40.00	12.5	211
TOTAL		372

SAW CUTS	
LOCATION	FOOT
STAGE I	
STA 68+88.00	9.5
STA 70+40.00	9.5
STA 68+88.00 TO STA 69+38.59	51
STA 69+86.77 TO STA 70+40.00	53
STAGE II	
STA 68+88.00	12.5
STA 70+40.00	12.5
TOTAL	148

LOCATION	SEEDING CLASS 2A ACRE	FERTILIZER NUTRIENTS			MULCH METHOD 2 ACRE	EROSION CONTROL	
		NITROGEN POUNDS	PHOSPHORUS POUNDS	POTASSIUM POUNDS		BLANKET SQ YD	BLANKET SQ YD
LT STA 67+65 TO STA 70+64	0.10	10.7	10.7	10.7	0.10		
LT STA 70+74 TO STA 71+60	0.05	5.4	5.4	5.4	0.05		
RT STA 67+65 TO STA 71+60	0.10	9.9	9.9	9.9	0.10		
RT STA 67+65 TO STA 69+25						150	
LT STA 70+83 TO STA 71+60						255	
TOTAL	0.25	26.0	26.0	26.0	0.25	405	

DRIVEWAY PAVEMENT REMOVAL	
LOCATION	SQ YD
LT STA 70+50.88 TO STA 70+82.93	36
TOTAL	36

PCC DRIVEWAY PAVEMENT, 6 INCH	
LOCATION	SQ YD
LT STA 70+49.42 TO STA 70+85.97	46
TOTAL	46

TEMPORARY DITCH CHECKS	
LOCATION	FOOT
STA 70+52 34' RT	10
STA 70+95 22' LT	10
TOTAL	20

TIE BARS 3/4"	
LOCATION	EACH
STAGE LINE STA 68+88.00 TO STA 70+40.00	76
TOTAL	76

PIPE CULVERTS, CLASS C, TYPE 2 18"	
LOCATION	FOOT
LT STA 69+75 25' LT TO STA 70+83 23.5' LT	108
TOTAL	108

END SECTIONS 18"	
LOCATION	EACH
LT STA 70+83	1
TOTAL	1

PIPE CULVERT REMOVAL	
LOCATION	FOOT
LT STA 69+78 TO STA 70+80	102
TOTAL	102

EXPLORATION TRENCH 52" DEPTH	
LOCATION	FOOT
LT STA 69+90	20
TOTAL	20

FIELD TILE JUNCTION VAULTS, 2' DIA.	
LOCATION	EACH
LT STA 69+98	1
TOTAL	1

STORM SEWERS, SPECIAL 14"	
LOCATION	FOOT
LT STA 69+81 TO STA 69+98	17
TOTAL	17

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS		
LOCATION	FOOT	
LT STA 68+97.87 TO STA 69+22.87	25	
LT STA 69+82.24 TO STA 70+44.74	62.5	
RT STA 68+70.76 TO STA 69+45.76	75	
RT STA 70+05.13 TO STA 70+30.13	25	
TOTAL	187.5	

TRAFFIC BARRIER TERMINAL, TYPE 2	
LOCATION	EACH
STA 70+54.72 21.4' LT TO STA 70+59.98 32.7' LT	1
TOTAL	1

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	
LOCATION	EACH
LT STA 68+47.87 TO STA 68+97.87	1
RT STA 68+20.76 TO STA 68+70.76	1
RT STA 70+30.13 TO STA 70+80.13	1
TOTAL	3

GUARDRAIL REMOVAL	
LOCATION	FOOT
LT STA 68+28 TO STA 69+30	102
LT STA 69+77 TO STA 70+38	61
STA 70+38 14' LT TO STA 70+59 29' LT	27
RT STA 67+71 TO STA 69+47	176
RT STA 69+93 TO STA 70+95	102
TOTAL	468

PAVED SHOULDER REMOVAL			
LOCATION	WIDTH	SQ YD	
LT STA 69+03.00 TO STA 69+28.89	4	12	
LT STA 69+77.08 TO STA 70+07.00	4	13	
LT STA 70+49.42 TO STA 70+52.71	4	2	
LT STA 70+81.15 TO STA 70+85.97	4	2	
TOTAL		29	

STEEL PLATE BEAM GUARDRAIL (SHORT RADIUS)	
LOCATION	FOOT
LT STA 70+44.74 TO STA 70+54.72	12.5
TOTAL	12.5

FURNISHING AND ERECTING RIGHT OF WAY MARKERS	
LOCATION	EACH
STA 67+25.00 40.00' LT	1
STA 68+50.00 55.00' LT	1
STA 70+50.00 55.00' LT	1
STA 71+75.00 40.00' LT	1
STA 67+50.00 40.00' RT	1
STA 68+75.00 55.00' RT	1
STA 70+75.00 55.00' RT	1
STA 72+00.00 40.00' RT	1
TOTAL	8

TEMPORARY BRIDGE TRAFFIC SIGNALS	
LOCATION	EACH
STA 66+78.00 STA 72+75.00	1
TOTAL	1

SHORT-TERM PAVEMENT MARKING		
LOCATION	APPLICATIONS	FOOT
CENTERLINE		
STA 66+28.00 TO STA 73+25.00	1	64
TOTAL		64

TEMPORARY PAVEMENT MARKING - LINE 4"	
LOCATION	FOOT
STAGE I	
STA 66+38.00 RT TO STA 68+13.00 LT	176
STA 68+13.00 LT TO STA 71+15.00 LT	302
STA 71+15.00 RT TO STA 72+65.00 RT	151
STA 67+80.25 LT TO STA 70+51.00 LT	271
STA 70+83.00 LT TO STA 71+47.50 LT	65
STAGE II	
STA 66+63.00 LT TO STA 68+13.00 RT	151
STA 68+13.00 RT TO STA 70+60.00 RT	247
STA 70+95.00 RT TO STA 71+15.00 RT	20
STA 71+15.00 RT TO STA 72+82.00 LT	167
STA 68+00.00 RT TO STA 71+27.00 RT	327
TOTAL	1877

WORK ZONE PAVEMENT MARKING REMOVAL	
LOCATION	SQ FT
STAGE I	
STA 66+38.00 RT TO STA 68+13.00 LT	59
STA 68+13.00 LT TO STA 71+15.00 LT	101
STA 71+15.00 RT TO STA 72+65.00 RT	50
STA 67+80.25 LT TO STA 70+51.00 LT	90
STA 70+83.00 LT TO STA 71+47.50 LT	22
STAGE II	
STA 66+63.00 LT TO STA 68+13.00 RT	50
STA 68+13.00 RT TO STA 70+60.00 RT	82
STA 70+95.00 RT TO STA 71+15.00 RT	7
STA 71+15.00 RT TO STA 72+82.00 LT	56
STA 68+00.00 RT TO STA 71+27.00 RT	109
FINAL PHASE	
CENTERLINE	
STA 66+28.00 TO STA 73+25.00	21
TOTAL	647

TEMPORARY CONCRETE BARRIER	
LOCATION	FOOT
STAGE I	
RT STA 67+64.00 TO LT STA 68+63.00 1:12 TAPER	99
LT STA 68+63.00 TO LT STA 70+65.00 TANGENT	202
LT STA 70+65.00 TO RT STA 71+64.00 1:12 TAPER	99
TOTAL	400

POROUS GRANULAR EMBANKMENT	
LOCATION	CU YD
STA 69+19.27 TO STA 70+08.80	721
TOTAL	721

RELOCATE TEMPORARY CONCRETE BARRIER	
LOCATION	FOOT
STAGE II	
LT STA 67+65.00 TO RT STA 68+63.00 1:12 TAPER	98
RT STA 68+63.00 TO RT STA 70+40.00 TANGENT	177
LT STA 71+15.00 TO LT STA 71+65.00 1:12 TAPER	50
TOTAL	325

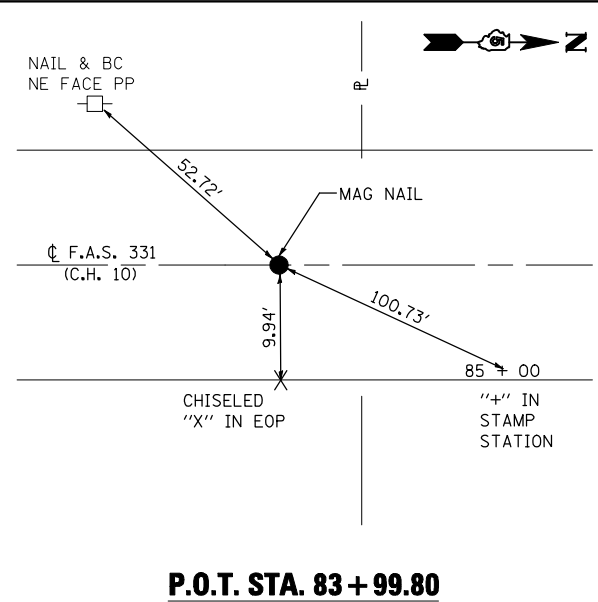
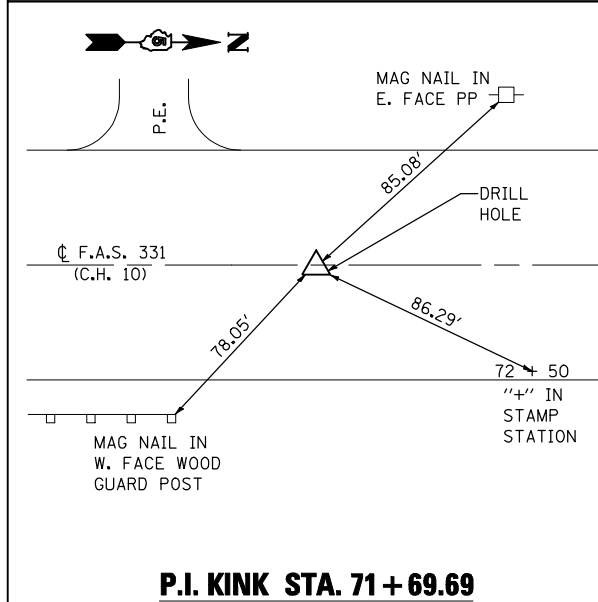
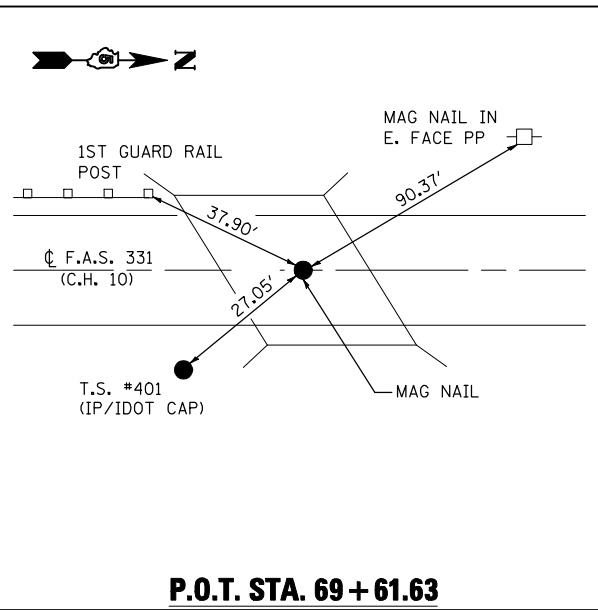
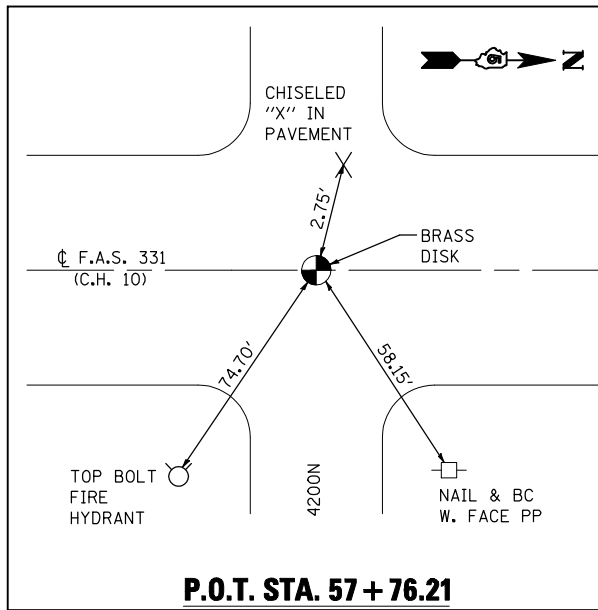
PAINT PAVEMENT MARKING - LINE 4"		
LOCATION	COLOR	FOOT
CENTERLINE		
STA 66+28.00 TO STA 73+25.00	YELLOW DASH	174
TOTAL		174

GUARDRAIL MARKERS, TYPE A	
LOCATION	EACH
LT STA 68+47.87 TO STA 70+59.98	4
RT STA 68+20.76 TO STA 70+80.13	4
TOTAL	8

TERMINAL MARKER - DIRECT APPLIED	
LOCATION	EACH
LT STA 68+47.87	1
LT STA 70+59.98	1
RT STA 68+20.76	1
RT STA 70+80.13	1
TOTAL	4

PAVEMENT MARKING REMOVAL	
LOCATION	SQ FT
CENTERLINE	
STA 66+28.00 TO STA 68+88.00	22
STA 70+40.00 TO STA 73+25.00	24
TOTAL	46

BASE COURSE (OPTION)		
LOCATION	WIDTH	SQ YD
LT STA 67+65.00 TO STA 69+28.89	4	73
LT STA 69+77.08 TO STA 70+52.71	4	34
LT STA 70+81.15 TO STA 71+60.00	4	35
RT STA 67+65.00 TO STA 71+60.00	4	176
LT STA 69+03.00 TO STA 70+07.00	4	46
TOTAL		

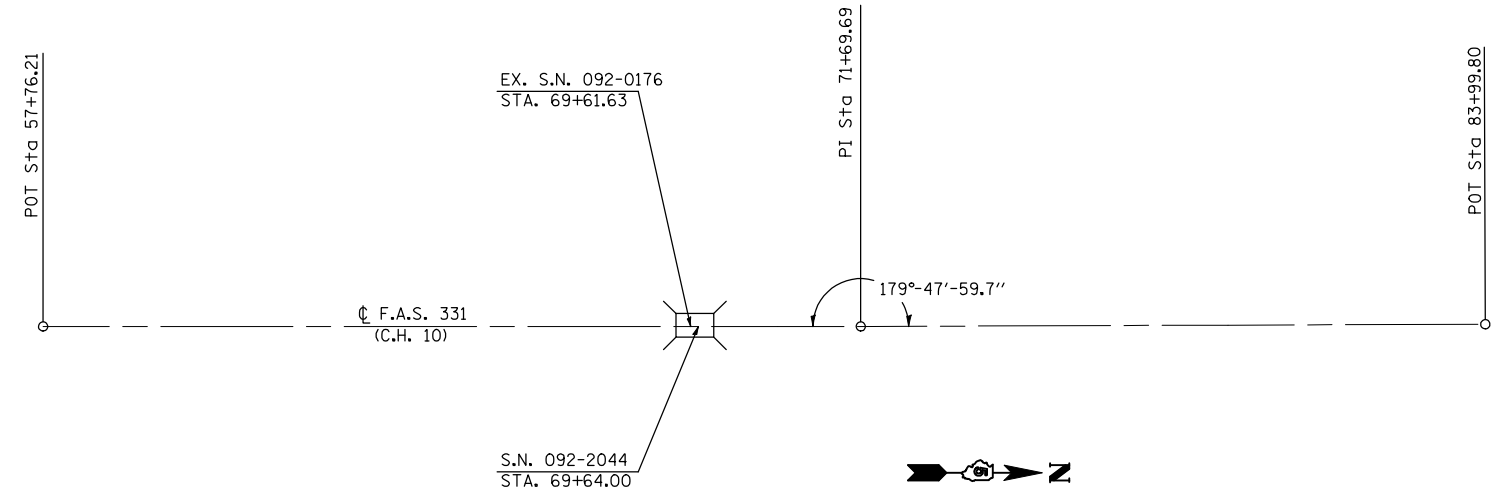


BENCHMARKS

BM #4799-1
CHISELED SQUARE LOCATED ON THE TOP OF THE EAST END OF THE NORTH HUBGUARD OF BRIDGE STRUCTURE
STA 57+87.7, 59.6' LT, EL. 687.251

BM #4799-2
CHISELED SQUARE LOCATED ON THE TOP OF THE SE ABUTMENT OF STR. 092-0176
STA 69+47.5, 18.1' RT, EL. 686.717

ALIGNMENT LAYOUT



POT STA 57+76.21	N 1,386,696.183
	E 1,132,508.433
POT STA 71+69.69	N 1,388,089.111
	E 1,132,469.272
POT STA 83+99.80	N 1,389,318.607
	E 1,132,430.408

FILE NAME = D570434-007-ATB.dgn

USER NAME = RNH

PLOT SCALE =

PLOT DATE =

DESIGNED - JMH

DRAWN - RNH

CHECKED - TMM

DATE -

REVISED -

REVISED -

REVISED -

REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALIGNMENT TIES AND BENCHMARKS

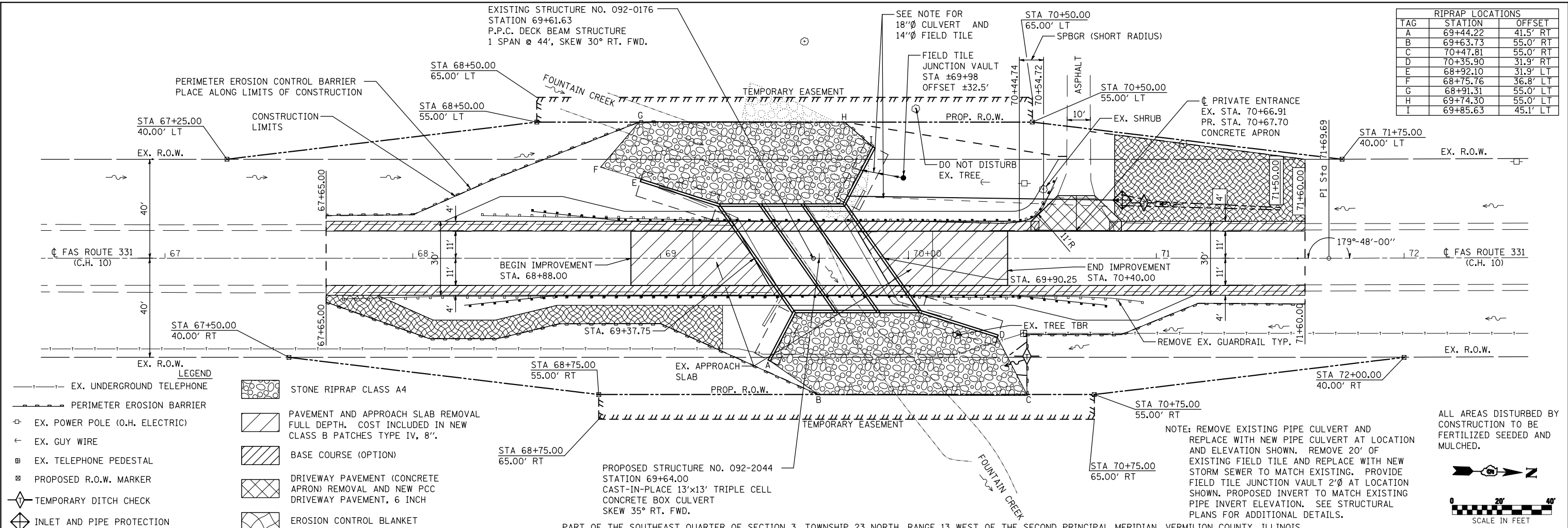
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	7
			CONTRACT NO. 70434	
ILLINOIS FED. AID PROJECT				

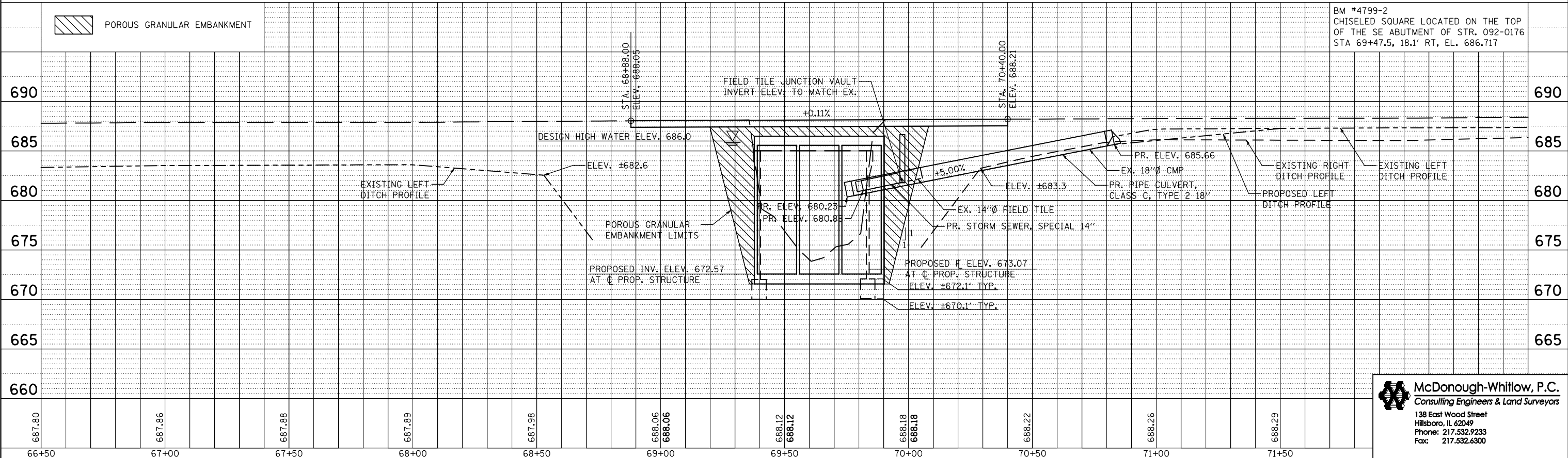
McDonough-Whitlow, P.C.
Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 184-002754

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	ALIGNED		
	FILED		
	NO.		

PROFILE	SURVEYED	BY	DATE
	GRADES		
	CHECKED		
	STRUCTURE		
	NOTATION		
	CHNO		
	NO.		

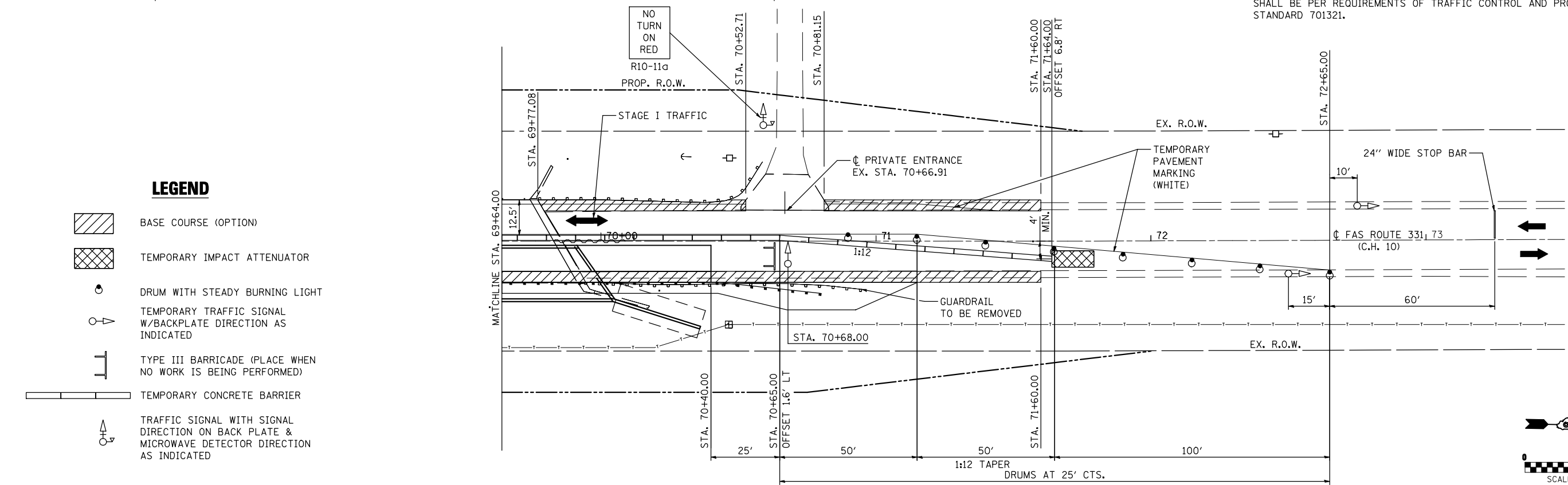
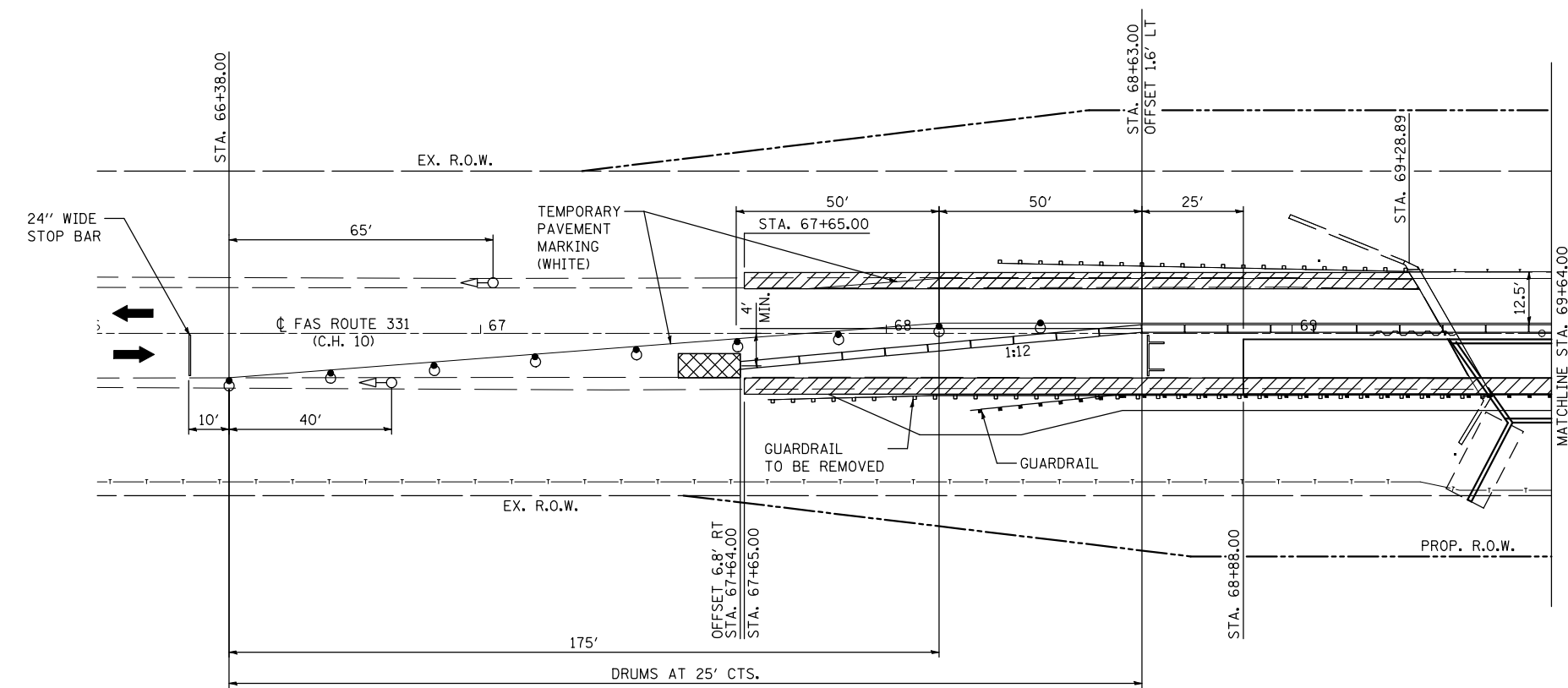


RIPRAP LOCATIONS		
TAG	STATION	OFFSET
A	69+44.22	41.5' RT
B	69+63.73	55.0' RT
C	70+47.81	55.0' RT
D	70+35.90	31.9' RT
E	68+92.10	31.9' LT
F	68+75.76	36.8' LT
G	68+91.31	55.0' LT
H	69+74.30	55.0' LT
I	69+85.63	45.1' LT



FILE NAME = D570434-008-PLNPRF.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS STA. 67+26.00 TO STA. 71+40.00	F.A.S. RTE. 331	SECTION (79-102)BR	COUNTY VERMILION	TOTAL SHEETS 29	SHEET NO. 8
PLOT SCALE =	CHECKED - TMM	REVISIED -	CONTRACT NO. 70434							
PLOT DATE =	DATE -	REVISIED -	ILLINOIS FED. AID PROJECT							

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- LEGEND**
- BASE COURSE (OPTION)
 - TEMPORARY IMPACT ATTENUATOR
 - DRUM WITH STEADY BURNING LIGHT
 - TEMPORARY TRAFFIC SIGNAL W/BACKPLATE DIRECTION AS INDICATED
 - TYPE III BARRICADE (PLACE WHEN NO WORK IS BEING PERFORMED)
 - TEMPORARY CONCRETE BARRIER
 - TRAFFIC SIGNAL WITH SIGNAL DIRECTION ON BACK PLATE & MICROWAVE DETECTOR DIRECTION AS INDICATED

PRE-STAGE I NOTES:

1. CONSTRUCT BASE COURSE (OPTION) STA 67+65.00 TO STA 69+28.89 LT; STA 69+77.08 TO STA 70+52.71 LT AND STA 70+81.15 TO STA 71+60.00 LT. CONCRETE REMOVAL AT PRIVATE ENTRANCE REQUIRED FOR BASE COURSE (OPTION) INSTALLATION TO BE INCLUDED IN CONTRACT UNIT PRICE FOR BASE COURSE (OPTION). PROVIDE EXCAVATION AND EMBANKMENT AS REQUIRED. UTILIZE STANDARD 701201 FOR TRAFFIC CONTROL.

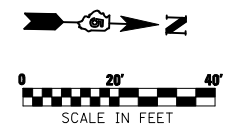
2. PROVIDE TEMPORARY SIGNALS AND TRAFFIC CONTROL DEVICES. SEE STANDARD 701321.
3. INSTALL WIDTH RESTRICTION SIGNING POSTED FOR A MAXIMUM WIDTH OF 11'-0" PER SHEET 21 OF 29 PRIOR TO DIVERTING STAGE I TRAFFIC.

STAGE I NOTES:

1. DIVERT TRAFFIC TO STAGE I TRAFFIC LANES.
2. REMOVE STAGE I PORTION OF BRIDGE INCLUDING APPROACH PAVEMENTS AND GUARDRAIL.
3. CONSTRUCT STAGE I PORTION OF TRIPLE CELL CAST IN PLACE REINFORCED CONCRETE BOX CULVERT, NEW PAVEMENT, BASE COURSE (OPTION), NEW GUARDRAIL, AND EXCAVATION AND EMBANKMENT AS REQUIRED. BASE COURSE (OPTION) STA 67+65.00 TO STA 71+60.00 RT.

GENERAL NOTES:

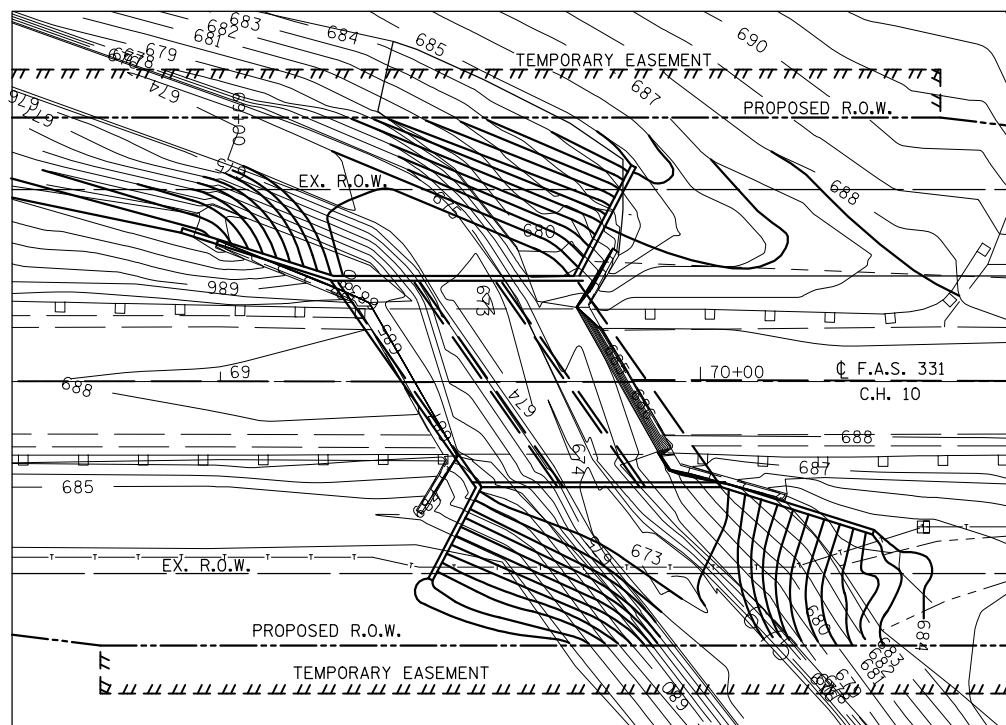
1. BARRIER OFFSETS ARE FROM THE CENTER OF THE BARRIER.
2. ALL SIGNS, TRAFFIC CONTROL EQUIPMENT, AND TEMPORARY PAVEMENT MARKINGS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE EACH FOR TRAFFIC CONTROL AND PROTECTION STANDARD 701321.
3. ALL TEMPORARY BRIDGE TRAFFIC SIGNALS FOR CONSTRUCTION WILL BE MEASURED AS 1 (ONE) UNIT.
4. PRIVATE ENTRANCE AT STA 70+66.91 LT TO REMAIN OPEN AT ALL TIMES.
5. ALL TRAFFIC CONTROL ITEMS NOT SHOWN ON STAGE I & II PLAN VIEW SHALL BE PER REQUIREMENTS OF TRAFFIC CONTROL AND PROTECTION, STANDARD 701321.



STAGE I PLAN VIEW

FILE NAME = D570434-009-STAGING1.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE I TRAFFIC CONTROL			F.A.S. RTE. 331	SECTION (79-102)BR	COUNTY VERMILION	TOTAL SHEETS 29	SHEET NO. 9
PLOT SCALE =	CHECKED - TMM	REVISIED -	REVISIED -		SCALE: 1"=20'	SHEET NO. 1 OF 2 SHEETS	STA. 66+38.00 TO STA. 72+65.00	CONTRACT NO. 70434				
PLOT DATE =	DATE -	REVISIED -	REVISIED -		ILLINOIS FED. AID PROJECT							

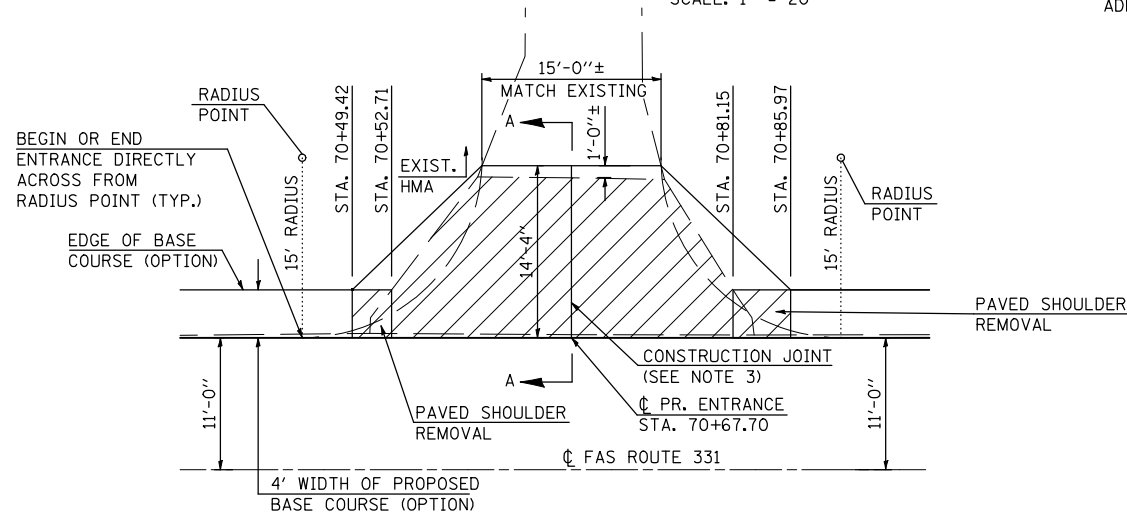
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 Consulting Engineers & Land Surveyors
 138 East Wood Street
 Hillsboro, IL 62049
 Phone: 217.532.9233
 Fax: 217.532.6300



PROPOSED GRADING PLAN

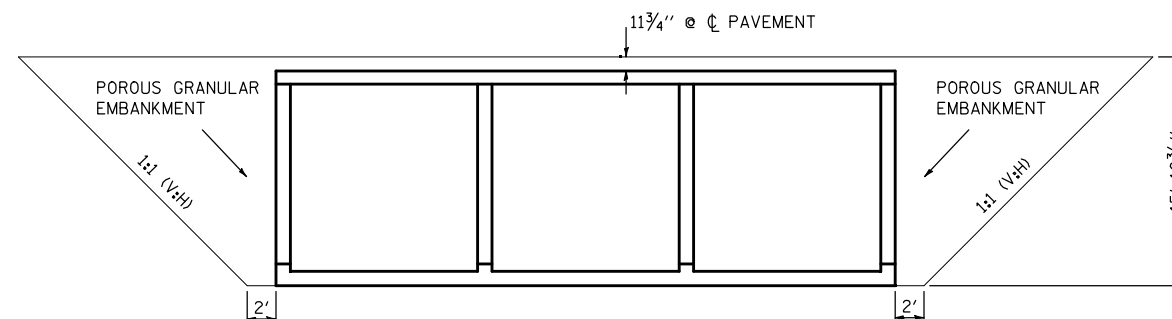
SCALE: 1" = 20'

NOTE: NOT ALL CONTOURS ARE SHOWN. SEE CROSS SECTIONS FOR ADDITIONAL INFORMATION.



PCC ENTRANCE PLAN

1. THE EXISTING SURFACE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 408 OF THE STANDARD SPECIFICATIONS.
2. ANY NECESSARY WORK BEHIND THE BASE COURSE (OPTION) SHALL BE AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.
3. REMOVE EXISTING DRIVEWAY PAVEMENT FOR INSTALLATION OF NEW CULVERT. PROVIDE SUBBASE GRANULAR MATERIAL TYPE A FOR TEMPORARY ENTRANCE. MAINTAIN CONTINUOUS ACCESS TO ENTRANCE. SUBBASE GRANULAR MATERIAL TYPE A TO BE INCLUDED IN COST OF PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6".



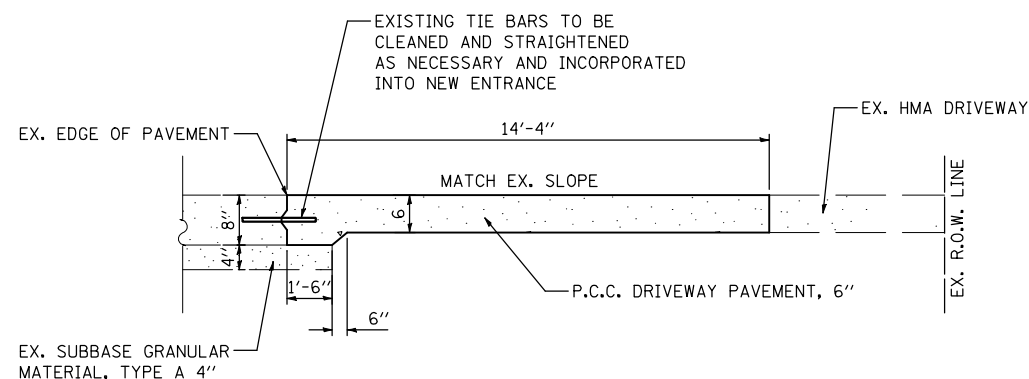
LIMITS OF POROUS GRANULAR EMBANKMENT

THE LIMITS SHALL BE AS SHOWN ABOVE OR AS DIRECTED BY THE ENGINEER.

THE GRANULAR MATERIAL SHALL BE COMPACTED ACCORDING TO ARTICLE 205.06. OR AS DIRECTED BY THE ENGINEER.

THAT PORTION OF THE PGE OUTSIDE THE AGGREGATE SHOULDERS AND BEHIND THE END SECTION WINGWALLS SHALL BE COVERED WITH A MINIMUM OF 1 FOOT OF COHESIVE MATERIAL AS DIRECTED BY THE ENGINEER. COST INCLUDED WITH POROUS GRANULAR EMBANKMENT.

DIMENSIONS AND SLOPE ARE PERPENDICULAR TO BOX CULVERT.



**SECTION A-A
PRIVATE PCC ENTRANCE**

THE COST OF CONSTRUCTING P.C.C. DRIVEWAY PAVEMENT, 8" AND 8" VARYING TO 6" IN THE DISTANCE INDICATED ON THE DETAIL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE BID FOR P.C.C. DRIVEWAY PAVEMENT, 6" AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

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 PROFESSIONAL DESIGN No. 184-002754

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D570434-011-DETAILS.dgn	
PLOT SCALE =	
PLOT DATE =	

DESIGNED - JMH	REVISED -
DRAWN - RNH	REVISED -
CHECKED - TMM	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAILS	
SCALE:	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	11
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70434	

Benchmark: Chiseled square located on the top of the SE abutment of S.N. 092-0176, Sta. 69+47.5, 18.1' Rt., Elev. 686.717.

Existing Structure: S.N. 092-0176 built as F.A.S. Rte. 331 - Sec. Z-1-BR in 1979, is a single span P.P.C. deck beam bridge with bituminous wearing surface and waterproofing membrane system. The structure is 45'-0" back to back of closed abutments on spread footings, and 30'-0" out to out of deck. Skew is 30° Rt. Fwd. In 2009, 4 of 10 P.P.C. deck beams were replaced and H.M.A. wearing surface patches were completed.

Structure to be replaced with a cast-in-place concrete triple cell box culvert with a 35° Rt. Fwd. skew.

Traffic to be maintained utilizing Stage Construction.

No Salvage.

APPROVED

For Structural Adequacy Only

J. Carl Puzey (SEAL)
Engineer of Bridges & Structures

STATION 69+64
BUILT 20__ BY
STATE OF ILLINOIS
F.A.S. RT. 331 SEC. (79-102)BR
LOADING HS20-44
STR. NO. 092-2044

NAME PLATE

(See Std. 515001)

INDEX OF SHEETS

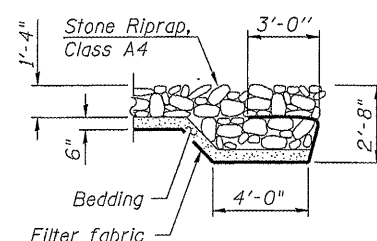
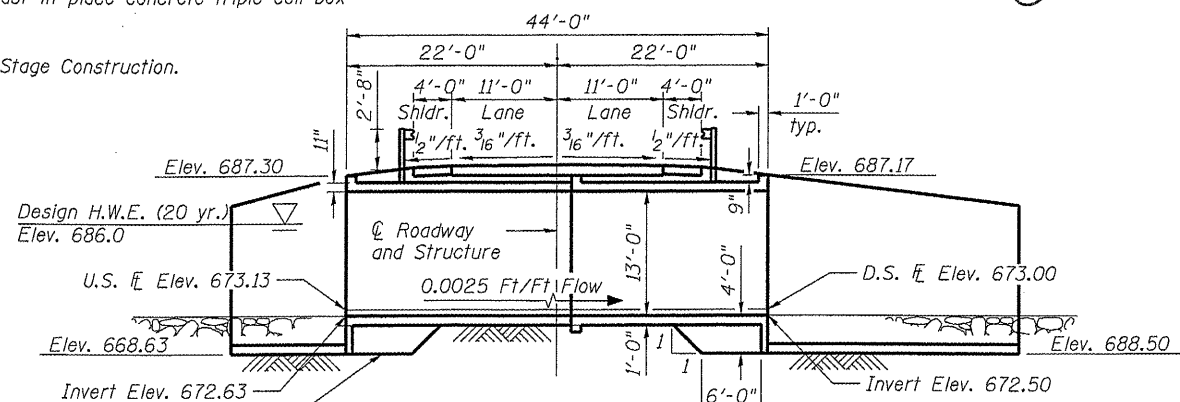
- 1 General Plan & Elevation
- 2 Stage Construction Details
- 3 Temporary Concrete Barrier for Stage Construction
- 4 Top Slab Details
- 5 Bottom Slab Details
- 6 Culvert Details
- 7 Bar Splicer Assembly and Mechanical Splicer Details
- 8 Riprap Details
- 9 Soil Boring Logs

TOTAL BILL OF MATERIAL

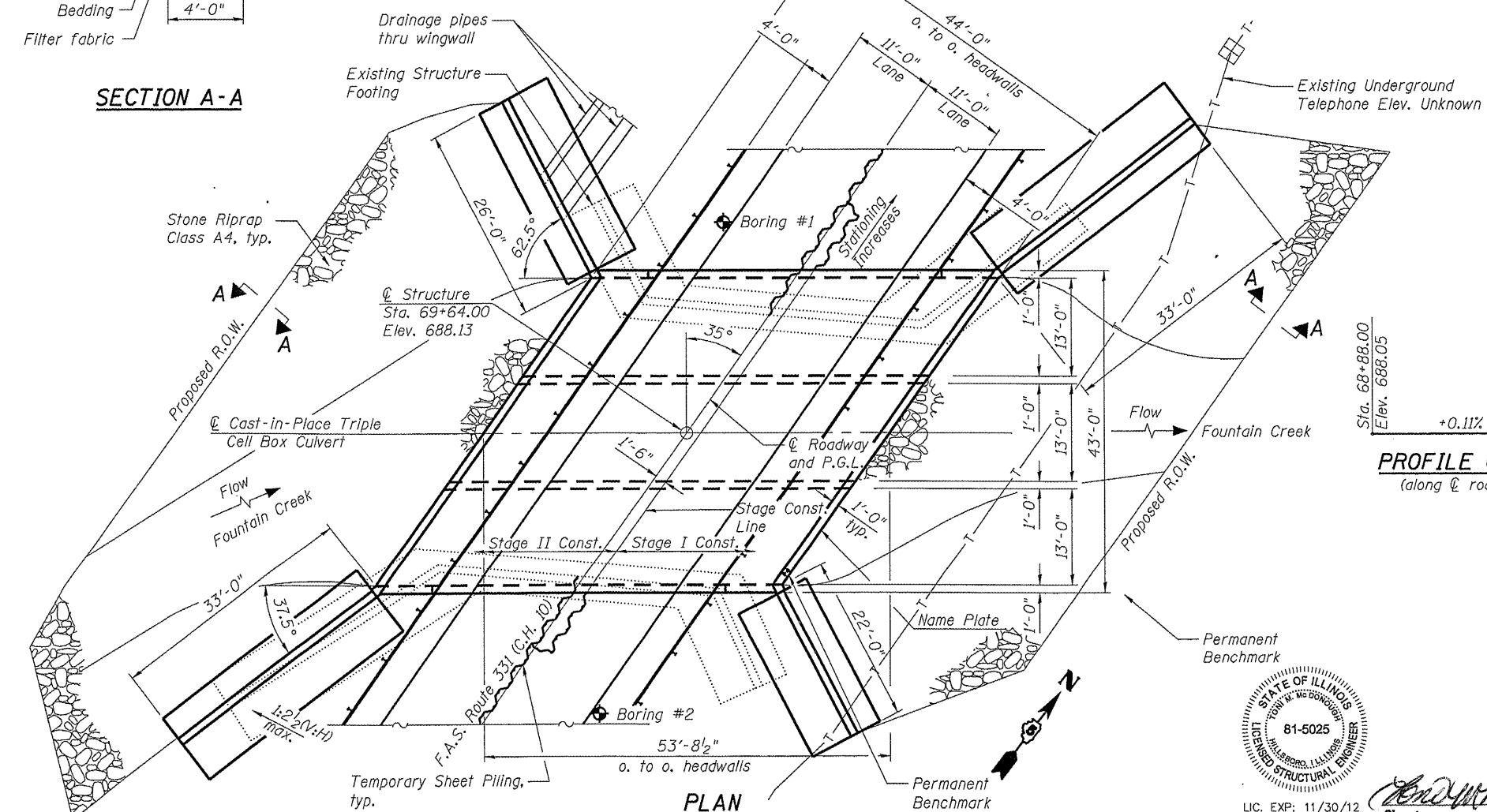
Item	Unit	Total
Stone Riprap, Class A4	Sq. Yd.	655
Filter Fabric	Sq. Yd.	655
Removal of Existing Structures	Each	1
Reinforcement Bars	Pound	85,020
Reinforcement Bars, Epoxy Coated	Pound	3,900
Bar Splicers	Each	344
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	425.1
Steel Plate Beam Guard Rail, Attached to Structures	Foot	119
Temporary Sheet Piling	Sq. Ft.	1,133

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
4. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
5. Precast Alternate is not allowed.
6. Steel Plate Beam Guardrail, Attached to Structures: Attachment shall be according to case IV except that the 1/2" φ holes in the top slab shall be formed (instead of cored) for the threaded rods.
7. For Riprap details see sheet 8 of 9.
8. For drainage pipe thru wingwall location and details see sheet 4 of 9.
9. See Roadway Plans for Porous Granular Embankment details and quantity.
10. For quantity of Temporary Concrete Barrier, see Roadway Plans.



SECTION A-A



WATERWAY INFORMATION

Existing Low Grade Elev. = 687.42 ft @ Sta. 63+00
Proposed Low Grade Elev. = 687.42 ft @ Sta. 63+00
Drainage Area = 15.1 Sq. Mi.

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater EL.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	10	1980	374	487	685.6	0.5	0.3	686.1	685.9
Base	20	2501	374	488	686.0	0.9	0.5	686.9	686.5
Overtopping (Exist.)	100	3730	374	488	686.8	1.8	1.2	688.6	688.0
Overtopping (Prop.)	35	2922	374	-	686.3	1.2	-	687.5	-
Overtopping (Prop.)	60	3330	-	488	686.6	-	0.9	-	687.5

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	668.63	668.5

LOADING HS20-44

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

DESIGN SPECIFICATIONS

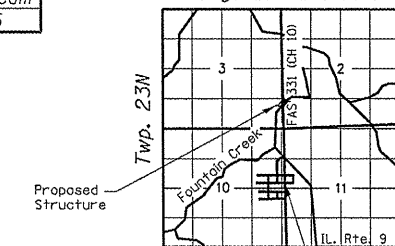
2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS

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

Range 13W 2nd P.M.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION

F.A.S. ROUTE 331 (C.H. 10)

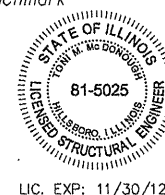
OVER FOUNTAIN CREEK

SECTION (79-102)BR

VERMILION COUNTY

STA. 69+64.00

S.N. 092-2044



Signature: *J. Carl Puzey* Date: 8/12/2011

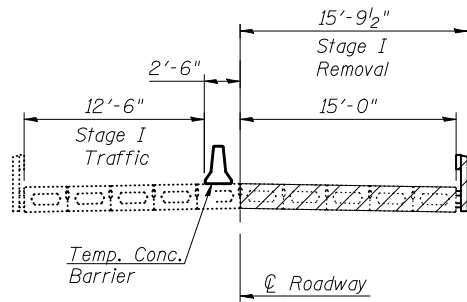
McDonough-Whitlow, P.C.
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Fax: 217.532.6300
PROFESSIONAL DESIGN NO. 184-002754

FILE NAME	USER NAME	DESIGNED	REVISIONS
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		DRAWN	RNH
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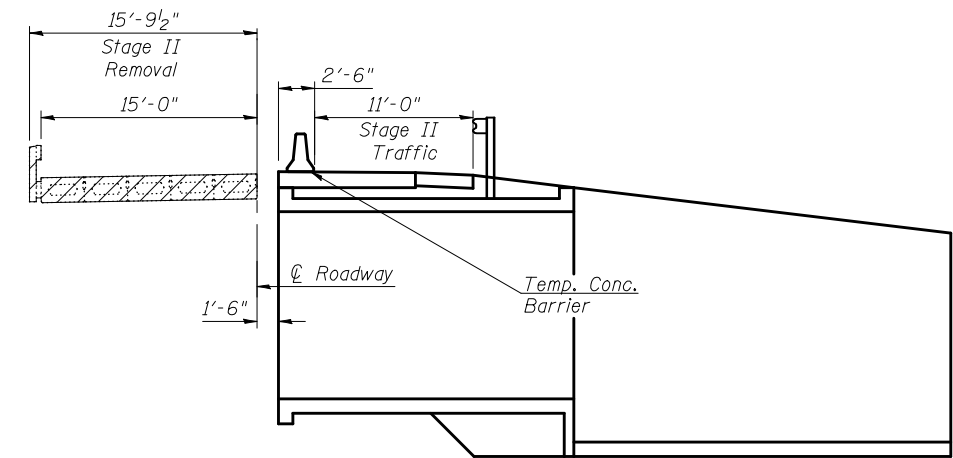
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 092-2044
SHEET NO. 1 OF 9 SHEETS

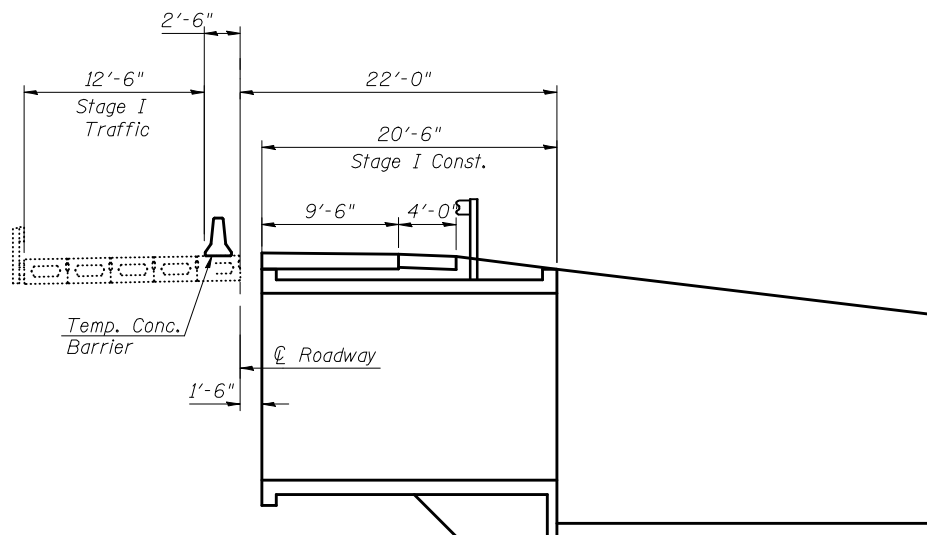
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				CONTRACT NO. 70434
ILLINOIS FED. AID PROJECT				



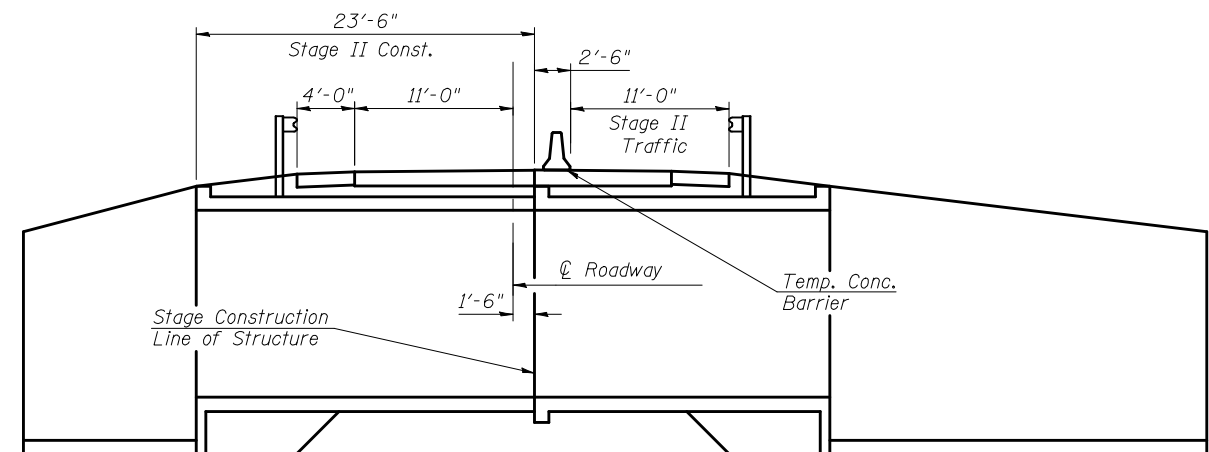
STAGE I REMOVAL



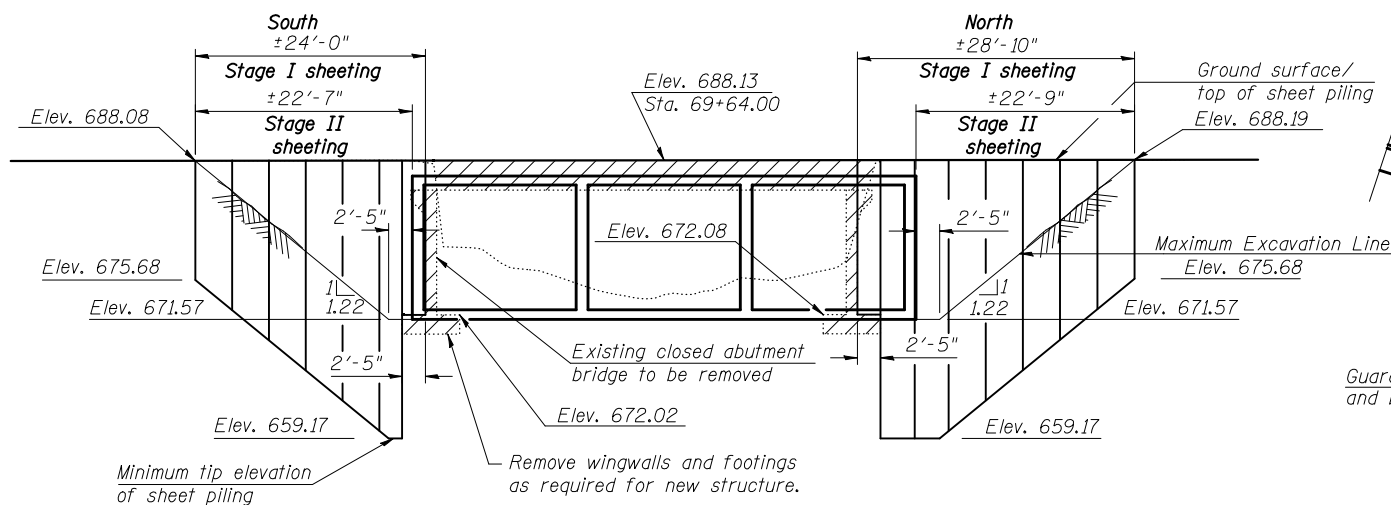
STAGE II REMOVAL



STAGE I CONSTRUCTION

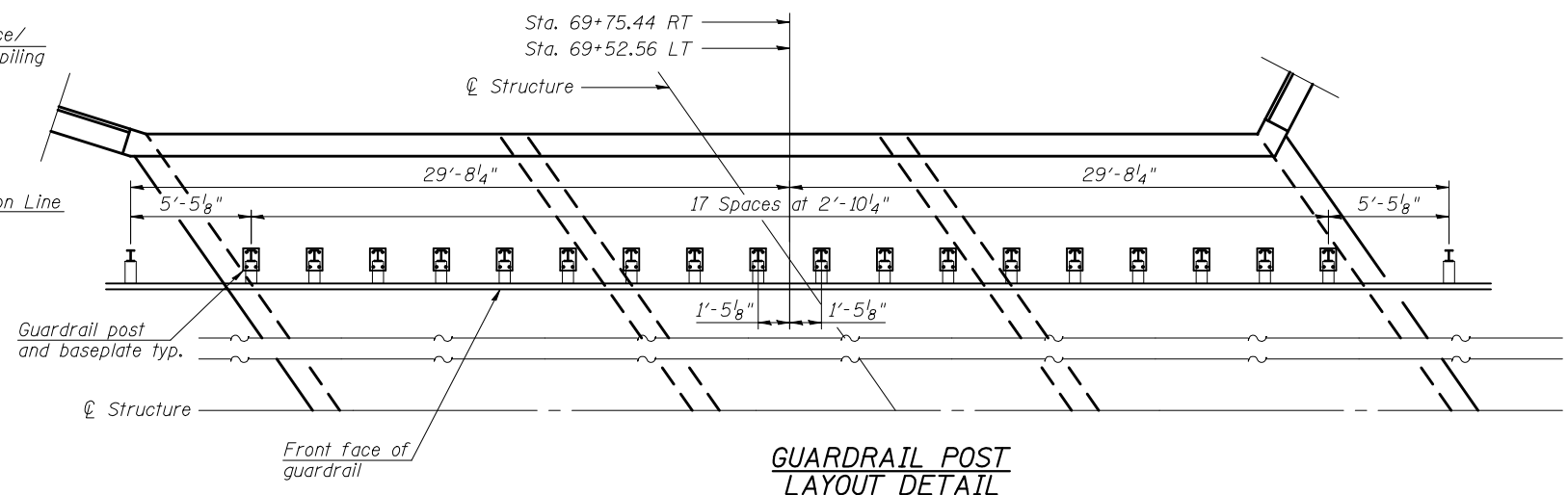


STAGE II CONSTRUCTION



TEMPORARY SHEET PILING DETAIL

Minimum Section Modulus = 25.2 in³/ft.
 The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
 If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.



GUARDRAIL POST LAYOUT DETAIL

Notes:
 Stage Construction cross sections are looking North.
 For details of Temporary Concrete Barrier, see sheet 3 of 9.

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		CHECKED - TMM	REVISED -

**STATE OF ILLINOIS
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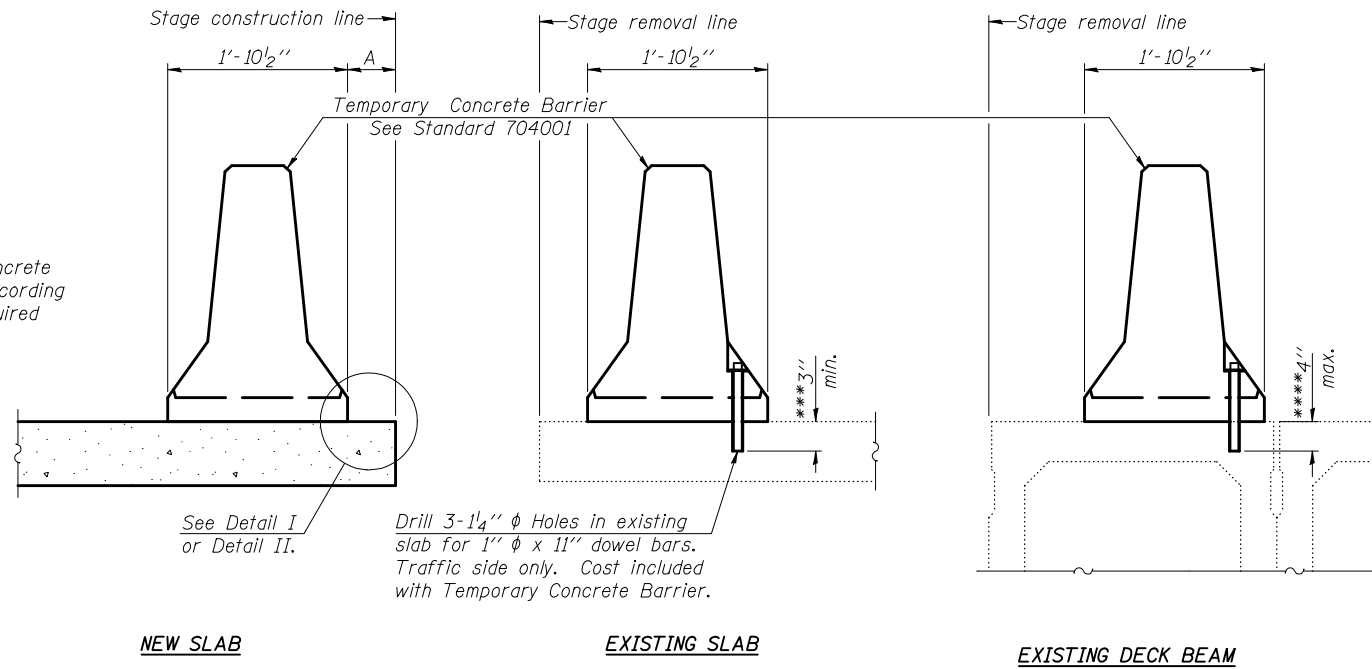
**STAGE CONSTRUCTION DETAILS
 STRUCTURE NO. 092-2044**

SHEET NO. 2 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	13
			CONTRACT NO. 70434	

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

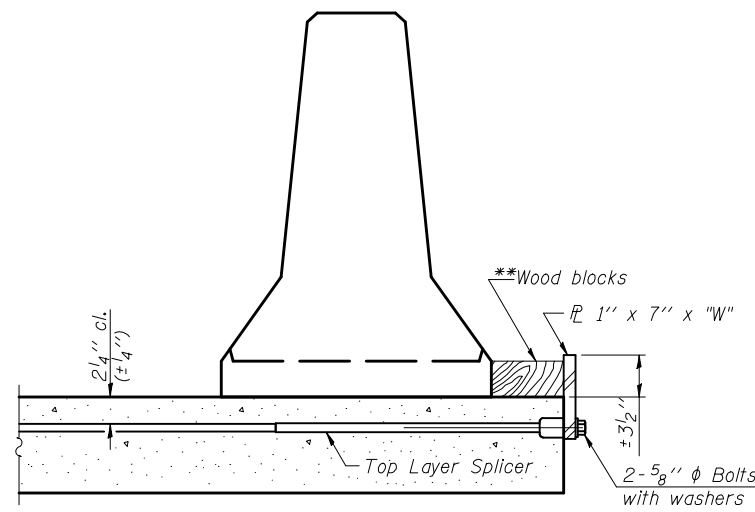
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL 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 C of each barrier panel.

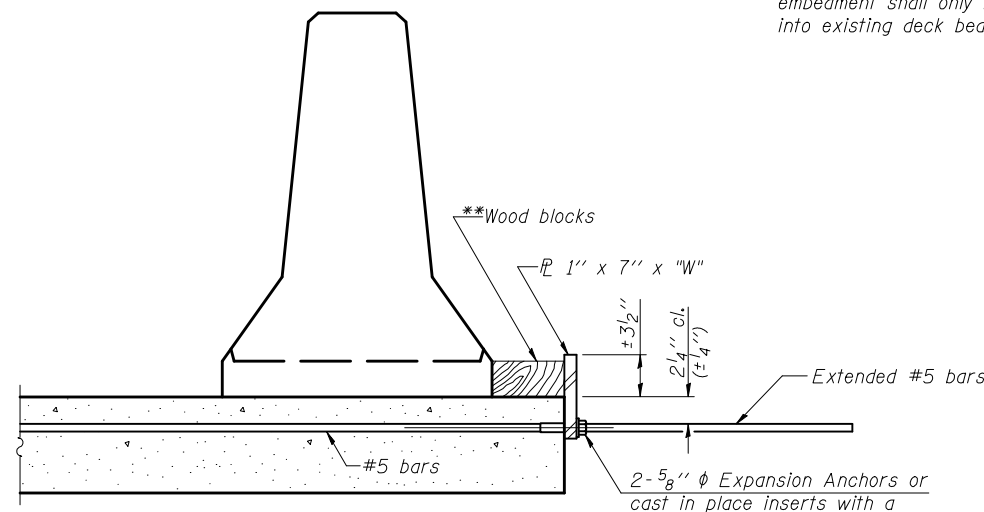
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.

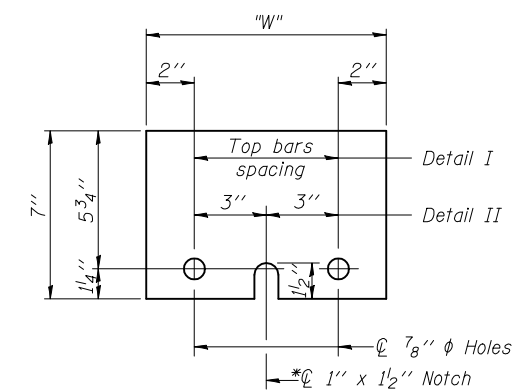
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 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

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		CHECKED - TMM	REVISED -
		DRAWN - RNH	REVISED -
		CHECKED - TMM	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 092-2044**

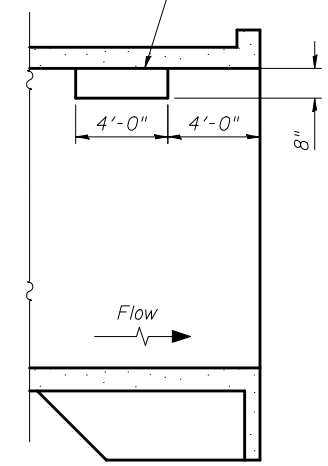
SHEET NO. 3 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	14
			CONTRACT NO. 70434	

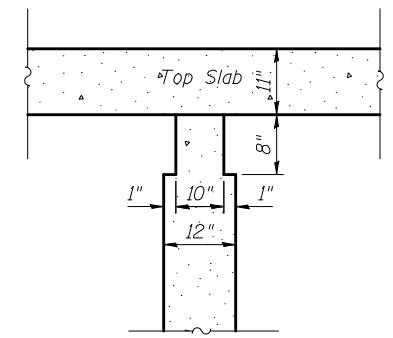
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Consulting Engineers & Land Surveyors
138 East Wood Street
Hillsboro, IL 62049
Phone: 217.532.9233
Fax: 217.532.6300
PROFESSIONAL DESIGN No. 184-002754

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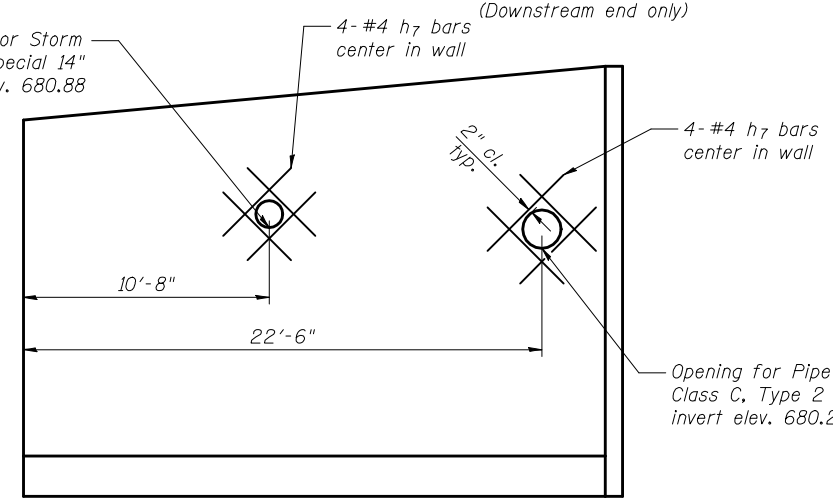
Notch formed by rough finished board attached to and removed with formwork. Each interior wall (do not chamfer).



**PHOEBE NESTING SITE
LONGITUDINAL SECTION**
(Downstream end only)



**PHOEBE NESTING
SITE DETAIL**
(Downstream end only)

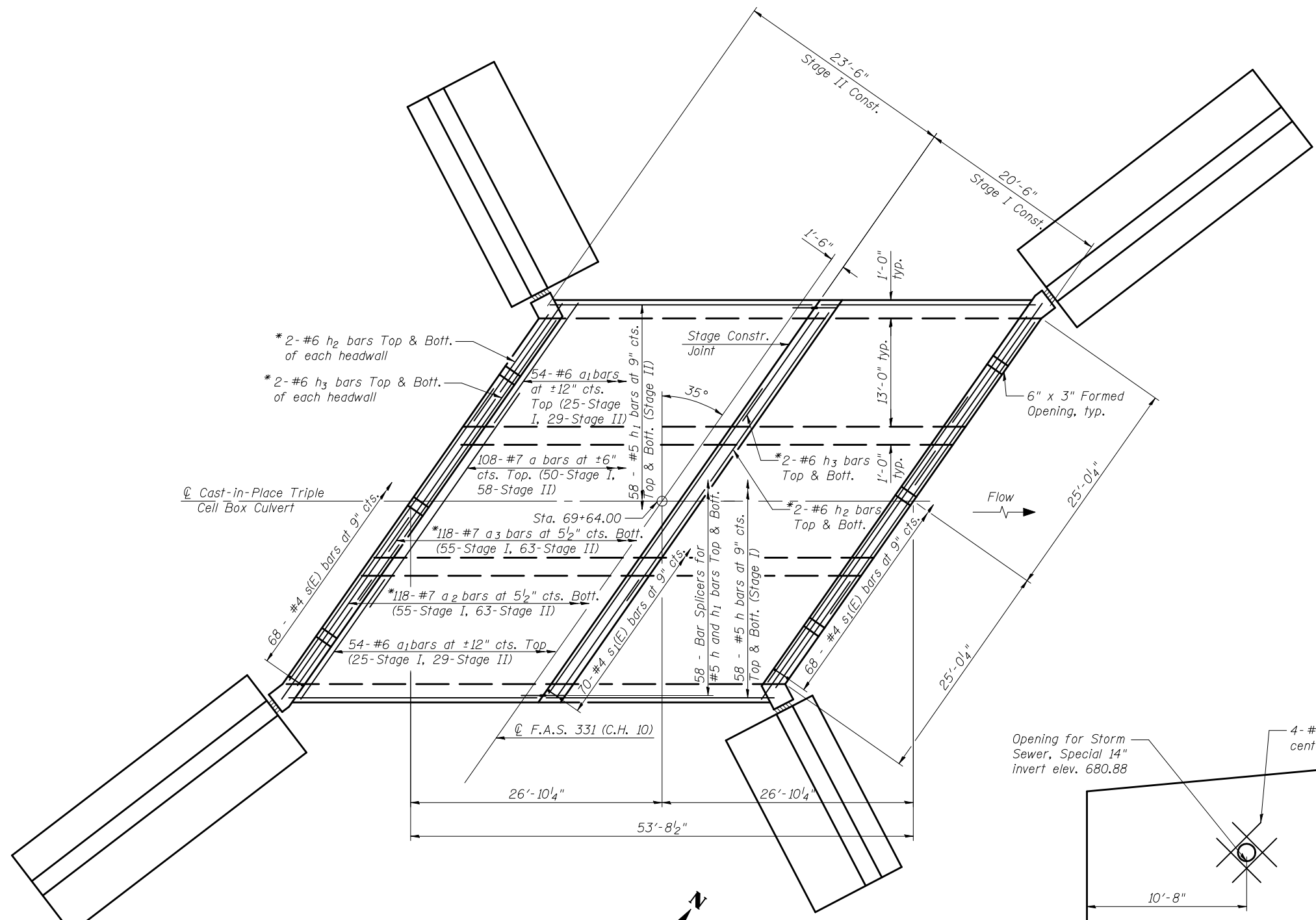


DRAIN PIPE DETAIL
NW Wingwall only. Reinforcement shown is in addition to wingwall reinforcement. See sheet 6 of 9.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	216	#7	26'-3"	—
a ₁	216	#6	16'-1"	—
a ₂	236	#7	23'-6"	C
a ₃	236	#7	34'-3"	C
d	142	#5	5'-3"	—
h	344	#5	24'-8"	—
h ₁	344	#5	28'-4"	—
h ₂	16	#6	36'-0"	—
h ₃	16	#6	18'-4"	—
h ₄	54	#4	32'-0"	—
h ₅	29	#4	25'-0"	—
h ₆	27	#4	21'-0"	—
h ₇	8	#4	4'-8"	—
h ₈	6	#4	30'-0"	—
h ₉	6	#4	23'-4"	—
n(E)	134	#7	7'-9"	U
n ₁ (E)	138	#6	4'-1"	U
s(E)	68	#4	4'-11"	D
s ₁ (E)	208	#4	5'-1"	D
t	266	#6	9'-10"	—
v	112	#5	12'-2"	—
v ₁	146	#6	13'-1"	—
v ₂	224	#5	13'-1"	—
v ₃	146	#6	3'-11"	—
v ₄	224	#5	3'-1"	—
v ₅	138	#5	8'-3"	—
v ₆	35	#4	8'-4"	—
v ₇	34	#4	8'-10"	—
v ₈	35	#4	9'-5"	—
v ₉	34	#4	10'-2"	—
v ₁₀	26	#4	30'-0"	—
v ₁₁	8	#5	13'-11"	—
v ₁₂	8	#5	6'-2"	—
v ₁₃	8	#4	30'-10"	—
w	22	#5	31'-11"	—
w ₁	11	#5	24'-11"	—
w ₂	11	#5	20'-11"	—
Reinforcement Bars		Pound	85,020	
Reinforcement Bars, Epoxy Coated		Pound	3,900	
Concrete Box Culverts		Cu. Yd.	425.1	
Bar Splicers		Each	344	

Notes:
See Sheet 6 of 9 for wing wall reinforcement and details.
See sheet 5 of 9 for bar a₁, d, s(E), and s₁(E) details.



**PLAN
TOP SLAB**

* Stagger laps at adjacent bars in members with only single lap splices.

FILE NAME = 0922044-70434.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED -
		CHECKED - TMM	REVISED -
	PLOT SCALE =	DRAWN - RNH	REVISED -
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DEPARTMENT OF TRANSPORTATION**

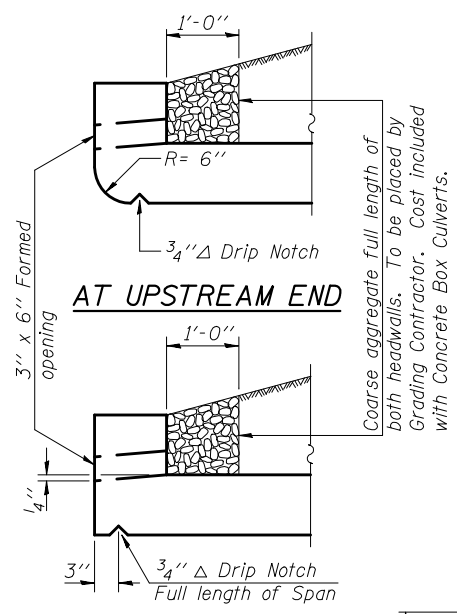
**TOP SLAB DETAILS
STRUCTURE NO. 092-2044**

SHEET NO. 4 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	15
			CONTRACT NO. 70434	

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AT UPSTREAM END
AT DOWNSTREAM END
DRAIN DETAIL

Coarse aggregate full length of both headwalls. To be placed by Grading Contractor. Cost Included with Concrete Box Culverts.

51 - #5 d bars at 12" cts. in toewall. each end

58 - #5 h₁ bars at 9" cts. Top & Bott. (Stage II)

58 - #5 h and h₁ bars Top & Bott.

58 - #5 h bars at 9" cts. Top & Bott. (Stage I)

70 - #4 s_{1(E)} bars at 9" cts.

58 - Bar Splicers for #5 h and h₁ bars Top & Bott.

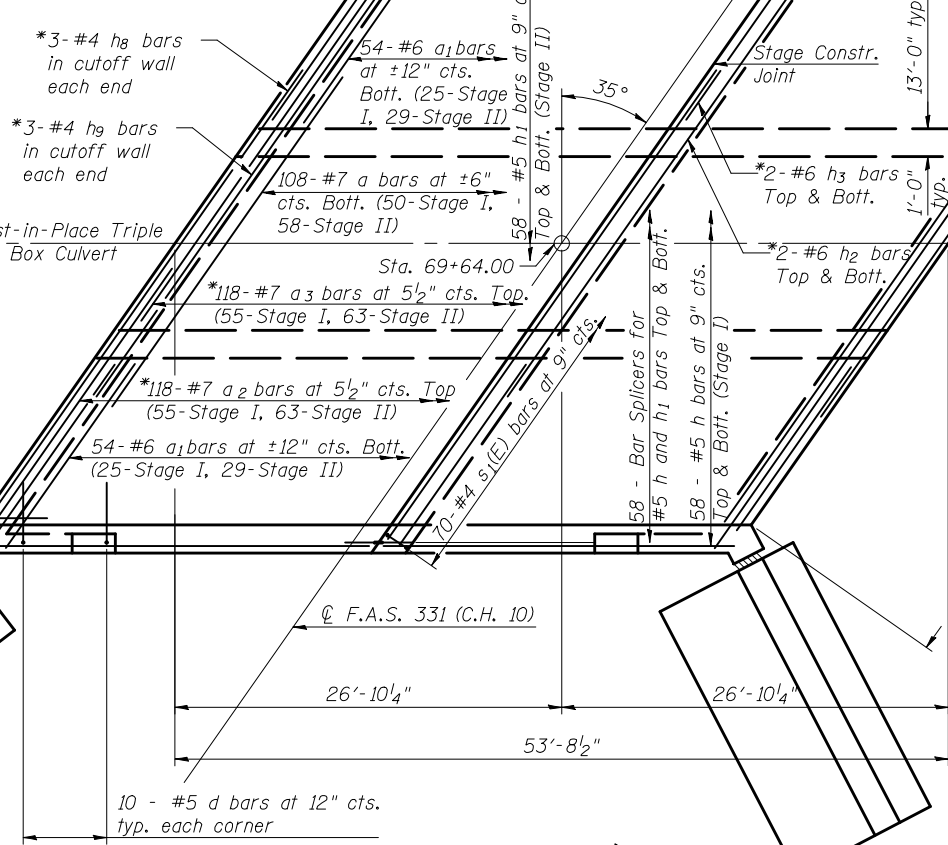
58 - #5 h bars at 9" cts. Top & Bott. (Stage I)

58 - #5 h bars at 9" cts. Top & Bott. (Stage I)

58 - #5 h bars at 9" cts. Top & Bott. (Stage I)

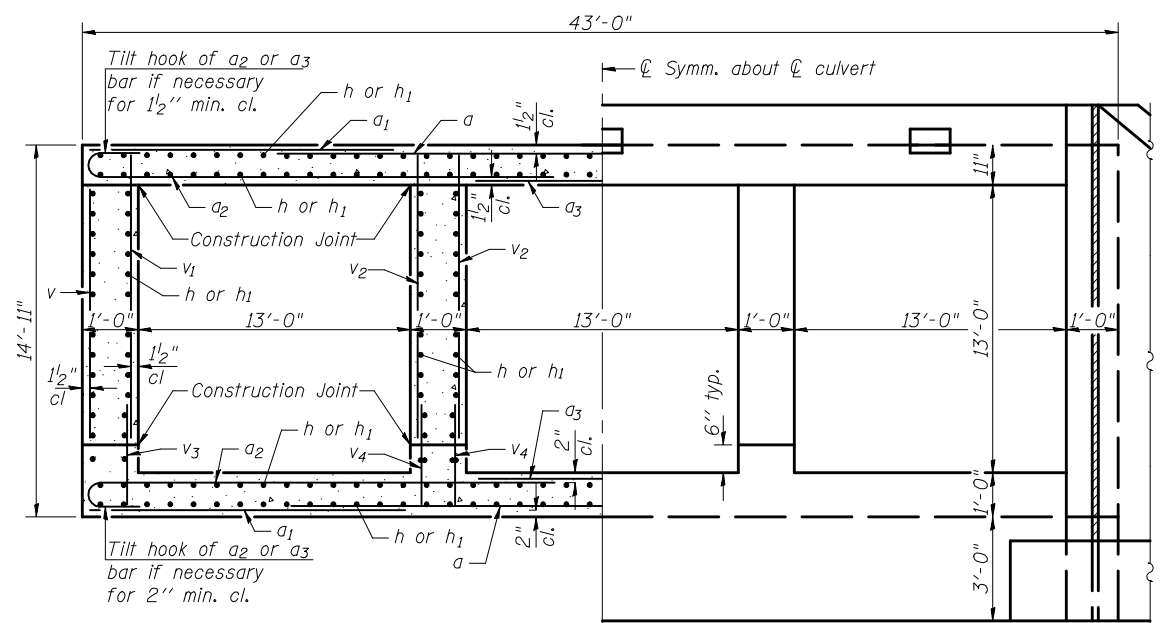
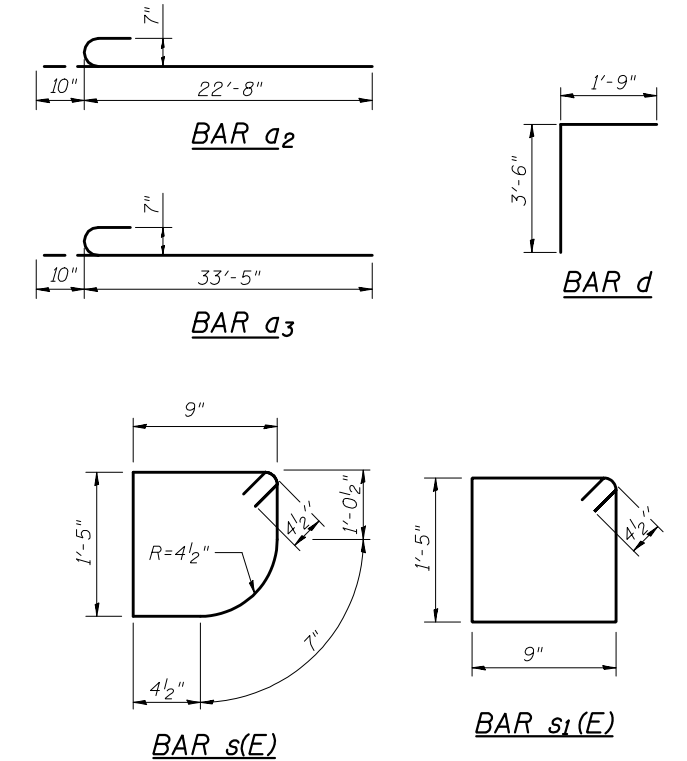
58 - #5 h bars at 9" cts. Top & Bott. (Stage I)

58 - #5 h bars at 9" cts. Top & Bott. (Stage I)



PLAN
BOTTOM SLAB

* Stagger laps at adjacent bars in members with only single lap splices.



HALF SECTION
THRU BARREL

(horiz. dim. @ rt. L's to rdwy.)

HALF END ELEVATION

(horiz. dim. @ rt. L's to rdwy.)

Notes:
See Sheet 6 of 9 for wing wall reinforcement and details.
See Sheet 4 of 9 for Bill of Material.

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FILE NAME = 0922044-70434.dgn
USER NAME = RNH
PLOT SCALE =
PLOT DATE =

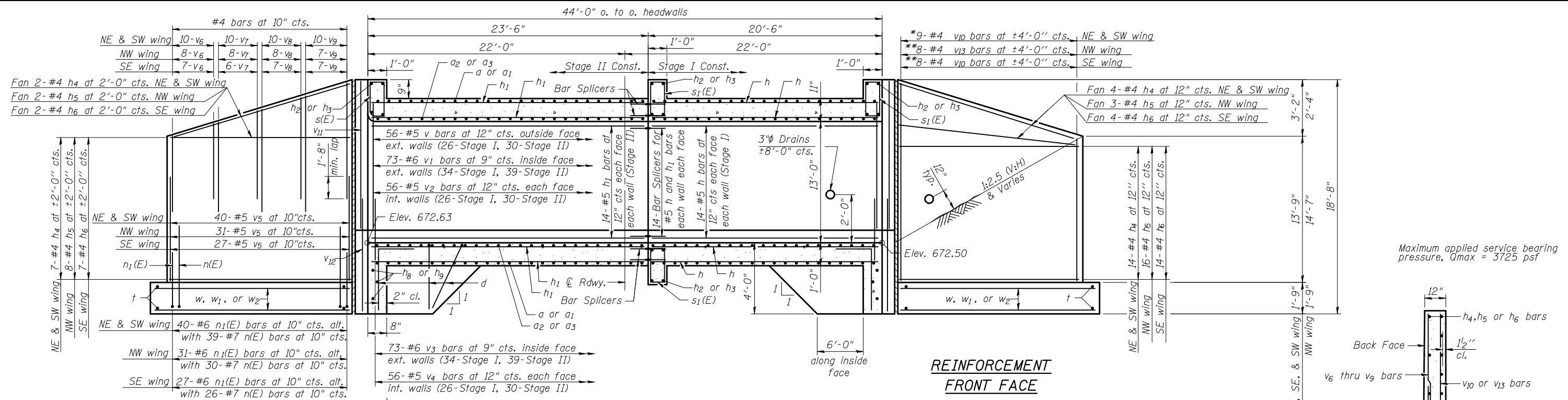
DESIGNED - JMH	REVISD -
CHECKED - TMM	REVISD -
DRAWN - RNH	REVISD -
CHECKED - TMM	REVISD -

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BOTTOM SLAB DETAILS
STRUCTURE NO. 092-2044

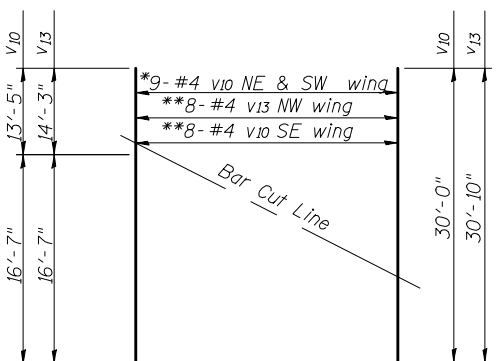
SHEET NO. 5 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	16
CONTRACT NO. 70434			ILLINOIS FED. AID PROJECT	



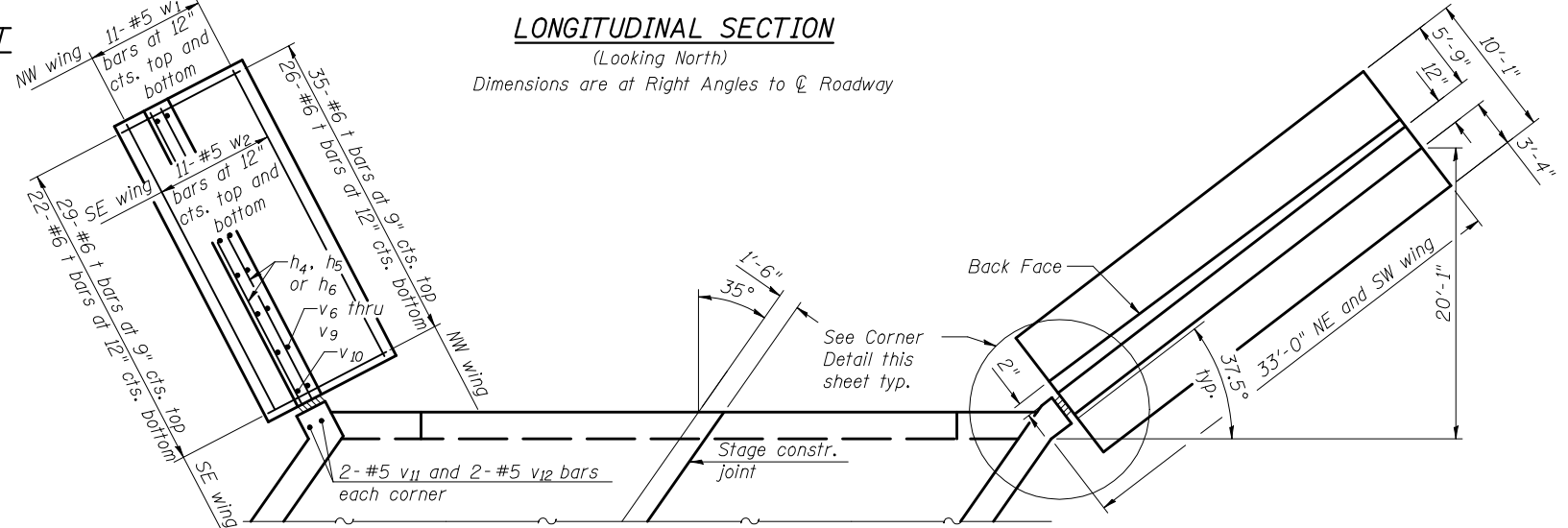
Maximum applied service bearing pressure, $Q_{max} = 3725$ psf

REINFORCEMENT BACK FACE

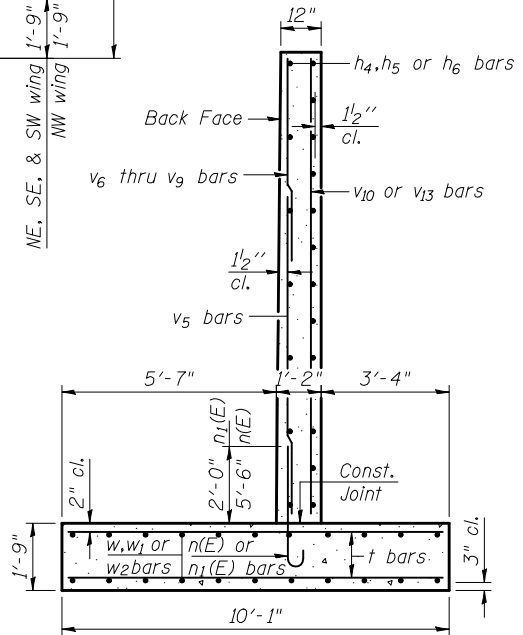


LONGITUDINAL SECTION

(Looking North)
Dimensions are at Right Angles to ϕ Roadway



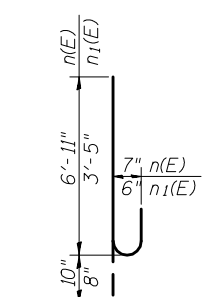
REINFORCEMENT FRONT FACE



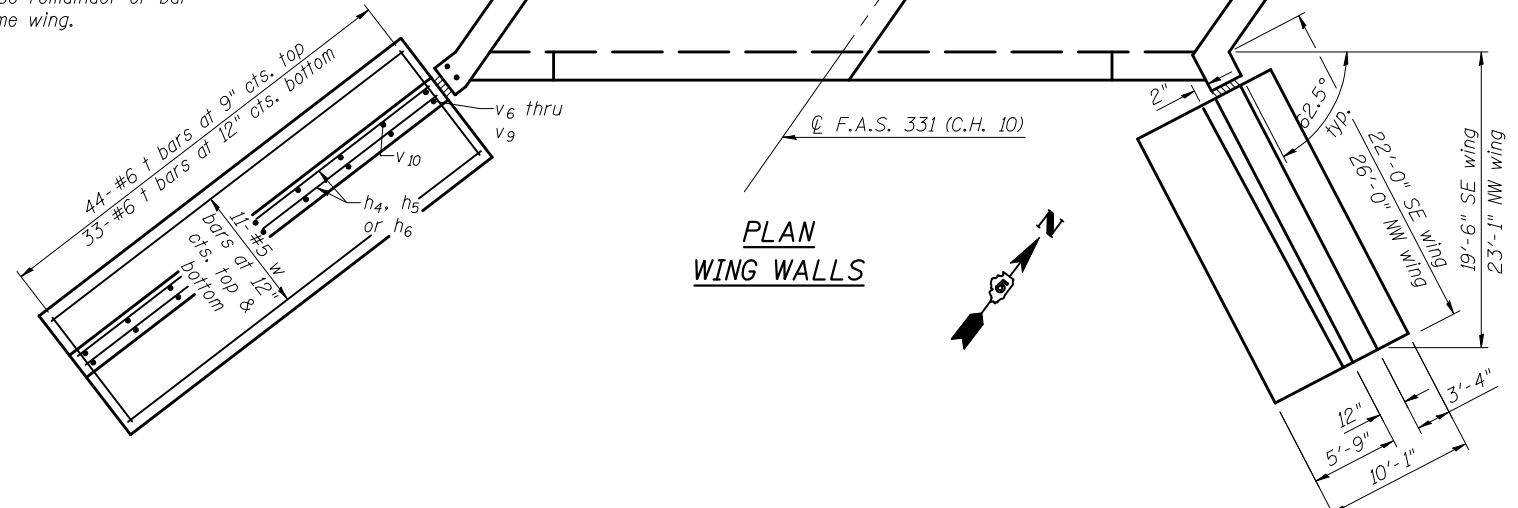
SECTION A-A

BAR CUT DIAGRAM

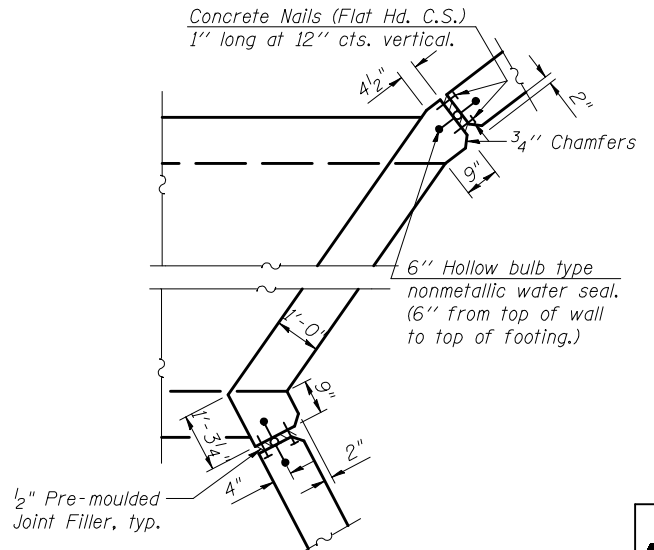
* Order v_{10} bars full length, cut to fit as shown and use remainder of bar in opposite wing.
** Order v_{10} and v_{13} bars full length, cut to fit as shown and use remainder of bar in opposite end of same wing.



BARS $n(E)$ and $n_1(E)$



PLAN WING WALLS

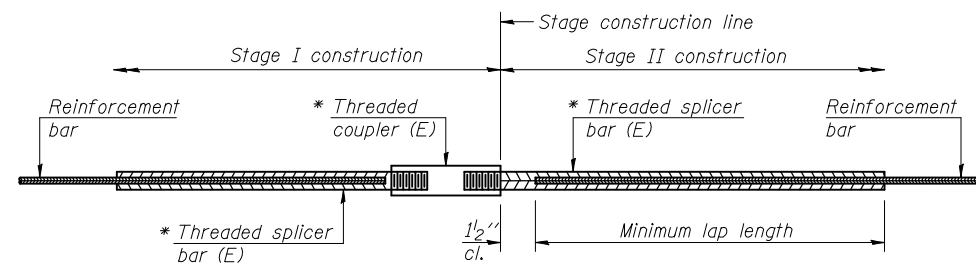


CORNER DETAIL

Notes:
See Sheets 4 and 5 of 9 for top and bottom slab reinforcement.
See Sheet 4 of 9 for Bill of Material.
See Sheet 4 of 9 for drain pipe details.

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FILE NAME = 0922044-70434.dgn	USER NAME = RNH	DESIGNED - JMH	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CULVERT DETAILS STRUCTURE NO. 092-2044	F.A.S. RTE. 331	SECTION (79-102)BR	COUNTY VERMILION	TOTAL SHEETS 29	SHEET NO. 17	
PLOT SCALE =	DRAWN - RNH	CHECKED - TMM	REVISD -			CONTRACT NO. 70434					
PLOT DATE =	CHECKED - TMM	REVISD -	REVISD -			SHEET NO. 6 OF 9 SHEETS					
ILLINOIS FED. AID PROJECT											



STANDARD BAR SPLICER ASSEMBLY

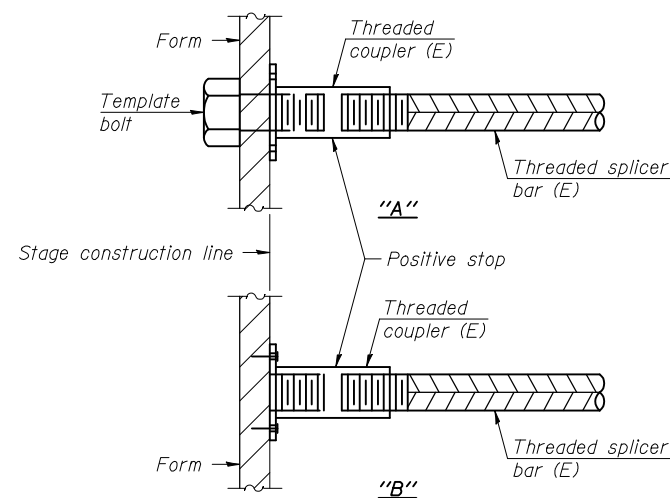
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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

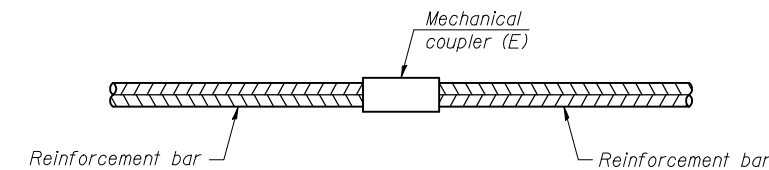
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top Slab	#5	116	Table 1
Bottom Slab	#5	116	Table 1
Int. Walls	#5	56	Table 1
Ext. Walls	#5	56	Table 1



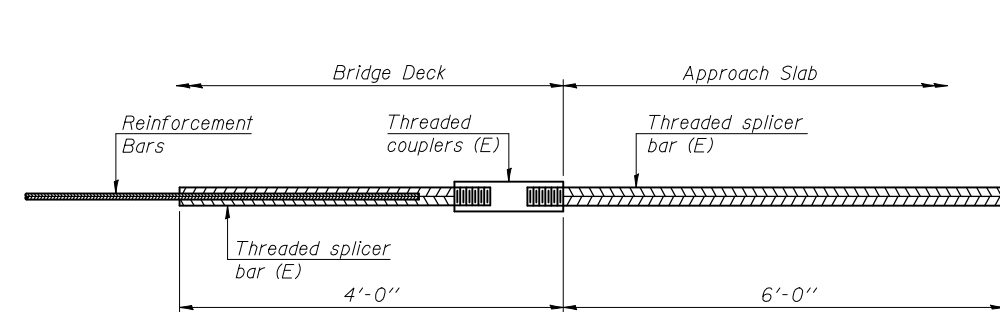
INSTALLATION AND SETTING METHODS

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



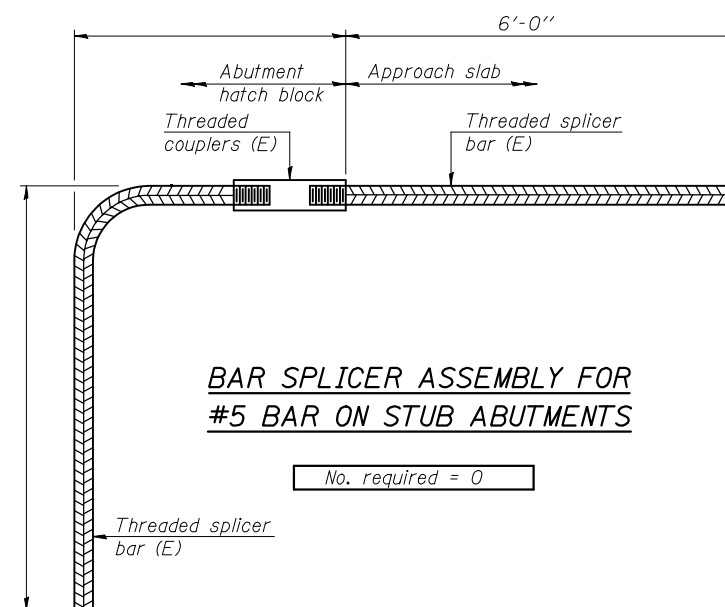
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required = 0



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

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.

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BSD-1

7-1-10

FILE NAME = 0922044-70434.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED -
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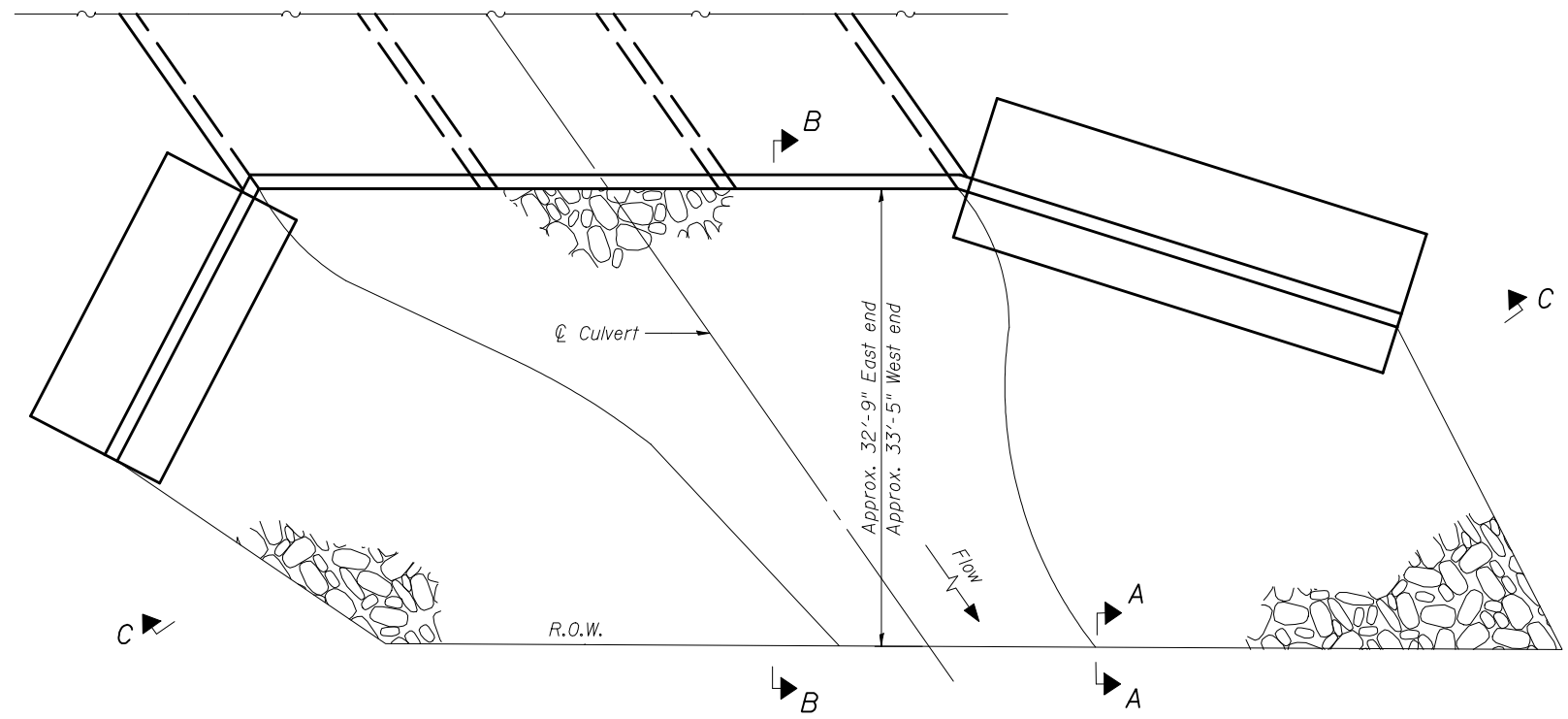
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 092-2044**

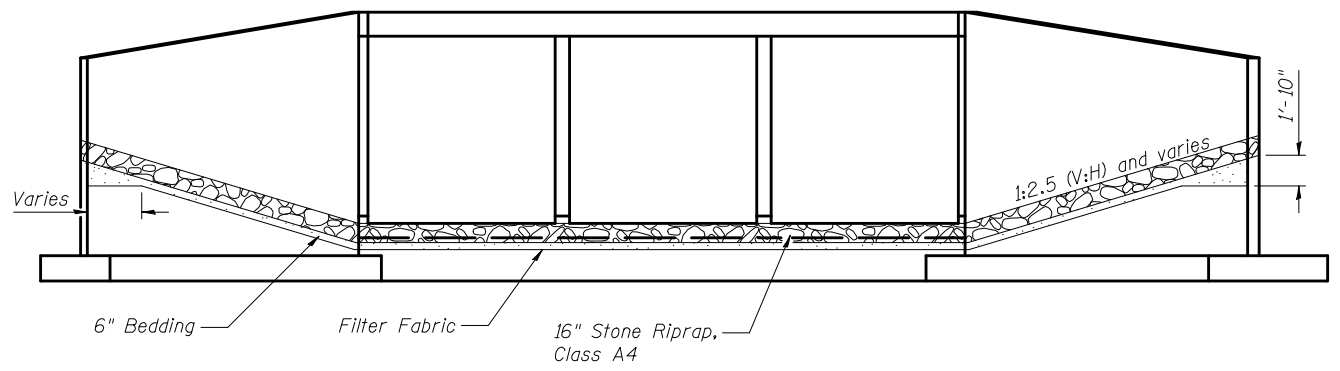
SHEET NO. 7 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	18
			CONTRACT NO. 70434	

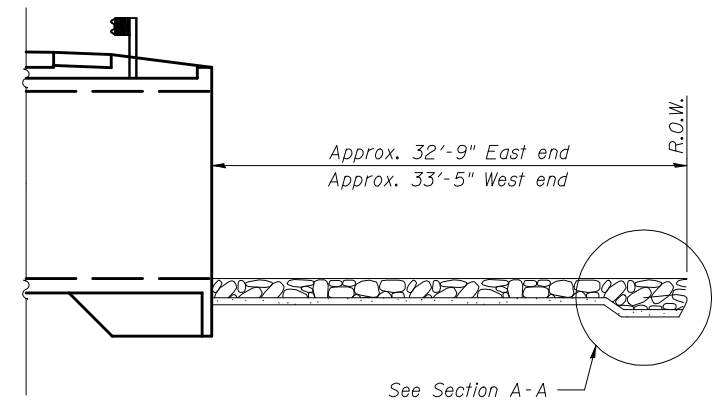
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PLAN
 East end shown, West end similar
 See Sheet 1 of 9 for Section A-A.



SECTION C-C
 Perpendicular to ϕ stream/culvert



SECTION B-B

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RIPRAP DETAILS
STRUCTURE NO. 092-2044

SHEET NO. 8 OF 9 SHEETS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	19
			CONTRACT NO. 70434	

ILLINOIS FED. AID PROJECT



SOIL BORING LOG

Date 4/10/78

ROUTE FAS 331 - CH 10 DESCRIPTION CH 10 over Tributary of Fountain Creek LOGGED BY Baker

SECTION (79-102)BR LOCATION SW, SEC. 2, TWP. 23N, RNG. 13W, 2nd PM GPS:

COUNTY Vermilion DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO.	Station	DEPTH (ft)	BLOW (blows/ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (ft)	Hrs.	Plugged
092-0176 (Exist.)	69+81.63												
1 N. Abut	69+82												
		12.0											
		686.0											
MEDIUM TO STIFF BLACK SILTY CLAY BACKFILL													
VERY STIFF GRAY CLAY LOAM TILL (continued)													
15 3.3 19													
662.9													
HARD GRAY CLAY LOAM TILL													
-25 18 4.3 19													
641.4													
End of Boring													
MEDIUM FINE BROWN SAND LOAM													
-45 10 2.7 22													
677.9													
MEDIUM GRAY BROWN MOTTLED CLAY LOAM													
-10 6 0.6 24													
675.4													
HARD GRAY CLAY LOAM TILL													
14 4.9 14													
-15 12 4.1 15													
670.4													
VERY STIFF GRAY CLAY LOAM TILL													
12 3.3 17													
649.4													
VERY STIFF GRAY SILTY CLAY													
-20 12 3.3 16													
646.9													

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/10/78

ROUTE FAS 331 - CH 10 DESCRIPTION CH 10 over Tributary of Fountain Creek LOGGED BY Baker

SECTION (79-102)BR LOCATION SW, SEC. 2, TWP. 23N, RNG. 13W, 2nd PM GPS:

COUNTY Vermilion DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO.	Station	DEPTH (ft)	BLOW (blows/ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (ft)	Hrs.	Plugged
092-0176 (Exist.)	69+81.63												
1 N. Abut	69+82												
		12.0											
		686.0											
MEDIUM FINE BROWN SAND LOAM													
-45 10 2.7 22													
641.4													
End of Boring													

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 4/10/78

ROUTE FAS 331 - CH 10 DESCRIPTION CH 10 over Tributary of Fountain Creek LOGGED BY Baker

SECTION (79-102)BR LOCATION SW, SEC. 2, TWP. 23N, RNG. 13W, 2nd PM GPS:

COUNTY Vermilion DRILLING METHOD Hollow Stem Auger HAMMER TYPE Manual

STRUCT. NO.	Station	DEPTH (ft)	BLOW (blows/ft)	UCS (tsf)	MOIST (%)	Surface Water Elev. (ft)	Stream Bed Elev. (ft)	Groundwater Elev. (ft)	First Encounter (ft)	Upon Completion (ft)	After (ft)	Hrs.	Plugged
092-0176 (Exist.)	69+81.63												
2 S. Abut	69+17												
		12.0											
		687.2											
STIFF DARK BROWN SANDY CLAY LOAM BACKFILL													
VERY STIFF GRAY CLAY LOAM TILL (continued)													
665.2													
STIFF GRAY CLAY LOAM TILL													
17 3.1 17													
663.2													
HARD GRAY CLAY LOAM TILL													
-25 14 4.1 17													
661.2													
VERY STIFF GRAY CLAY LOAM TILL													
14 3.1 19													
679.2													
SOFT BLACK CLAY LOAM ALLUVIUM													
-10 3 0.3 51													
675.7													
HARD GRAY BROWN MOTTLED CLAY LOAM TILL													
17 6.6 17													
673.2													
VERY STIFF GRAY CLAY LOAM TILL													
-15 11 3.7 15													
649.2													
VERY STIFF GRAY SILTY CLAY													
12 3.3 15													
647.2													
-20 11 2.9 16													
End of Boring													

An assumed centerline elevation of 100.00 and station of 10+00 is used when this information is not available.
 The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N Value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

FILE NAME = 0922044-70434.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED -
		CHECKED - TMM	REVISED -
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	PLOT DATE =	CHECKED - TMM	REVISED -

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DEPARTMENT OF TRANSPORTATION

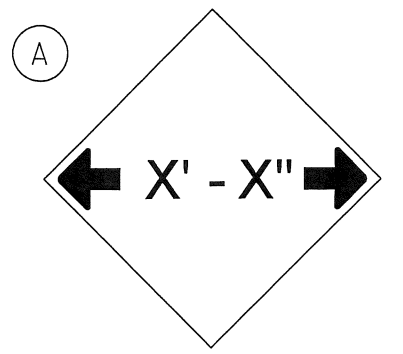
SOIL BORING LOGS
STRUCTURE NO. 092-2044

SHEET NO. 9 OF 9 SHEETS

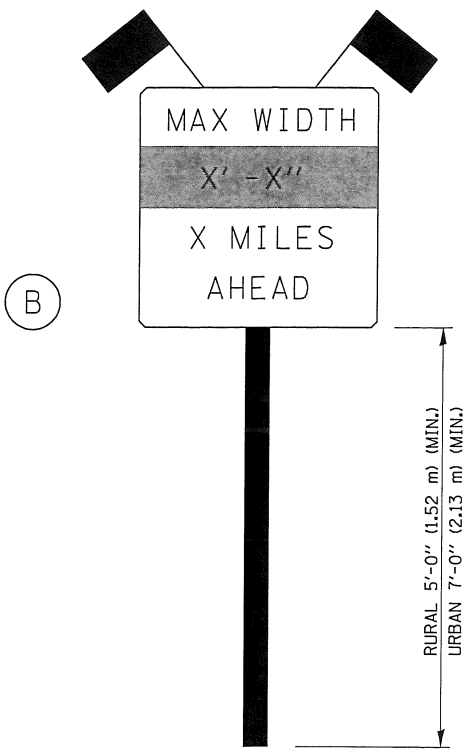
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	20
				CONTRACT NO. 70434

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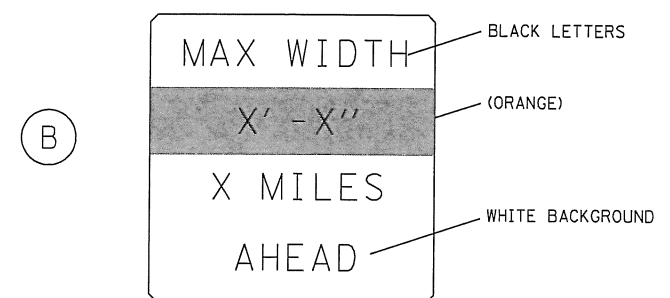


W12-2(0)-48"x48"(1200x1200)



(B)

SIGN PANEL, TYPE II

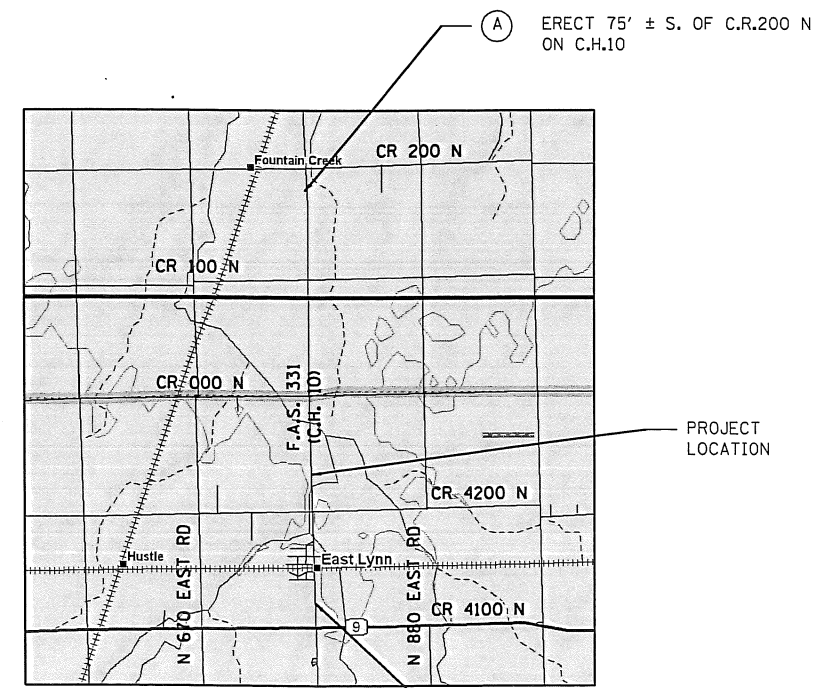


(B)

**W12-1103(0)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS**

SIGN **(A)** 2 SIGNS - W12-2(0)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

SIGN **(B)** 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGNING PLAN

SCALE: NTS

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL **(B)** SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS BOOK.
8. WIDTH RESTRICTIONS:
STAGE I: 11'-0"
STAGE II: 9'-6"

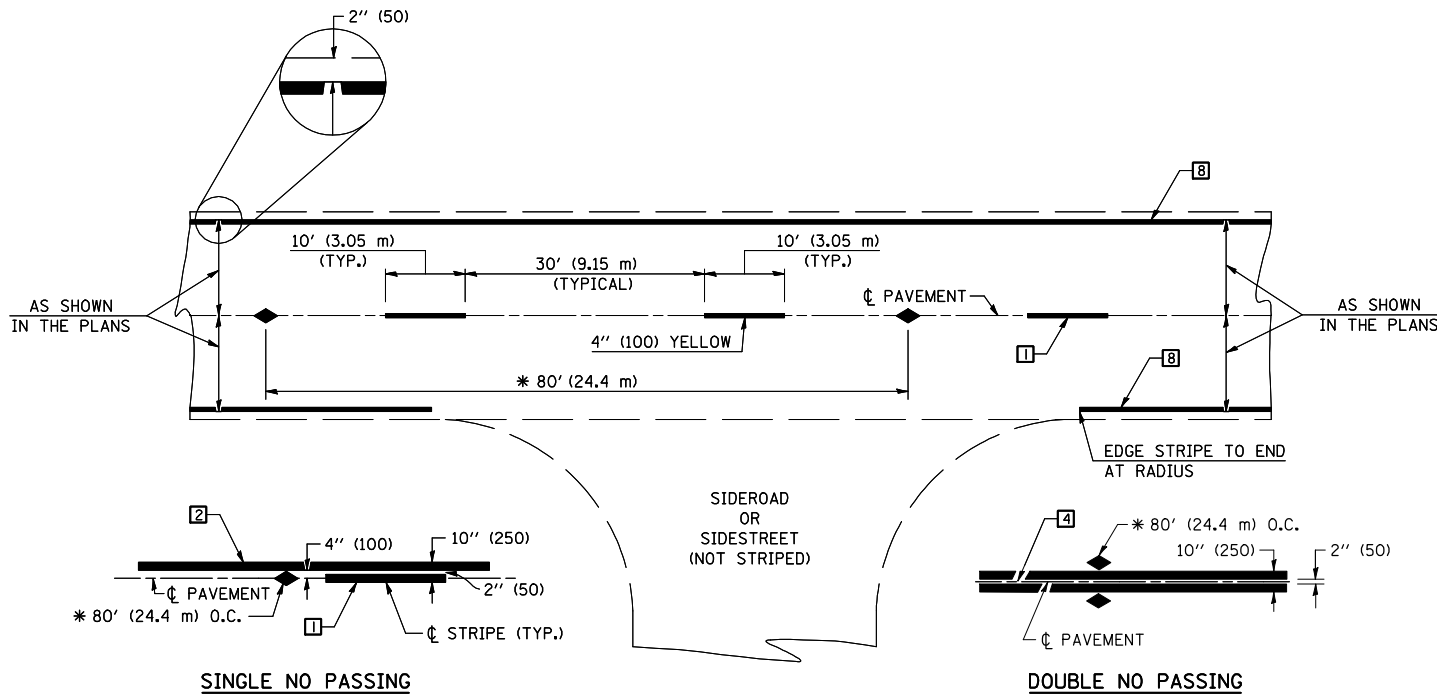
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME = 0570434-021-SIGN.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED - 03/11 -KJT
		DRAWN - RNH	REVISED - 05/08
	PLOT SCALE =	CHECKED - TMM	REVISED - 10/08 - KJT
	PLOT DATE =	DATE -	REVISED - 7/09 - KJT

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

WIDTH RESTRICTION SIGNING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

DISTRICT 5 DETAIL NO. X7200201				
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILLION	29	21
CONTRACT NO. 70434				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

TWO LANE/TWO WAY

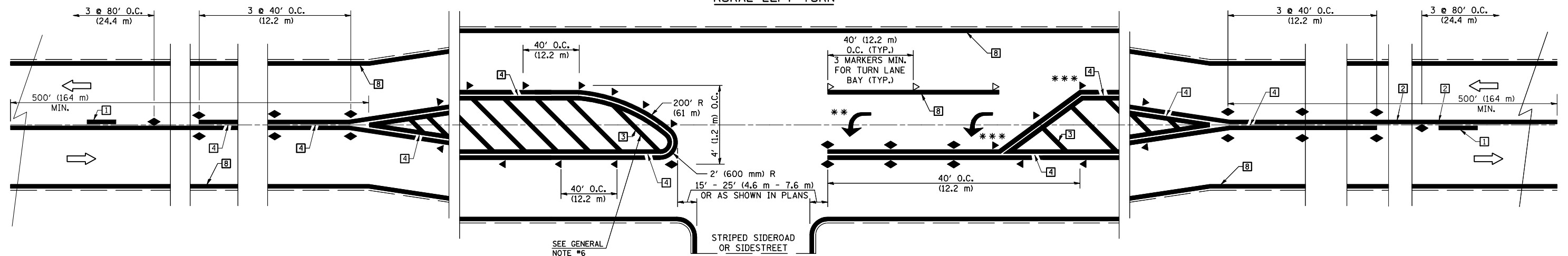
TYPICAL PAVEMENT MARKING LEGEND

- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)
- 12 8" (200) SOLID (WHITE)
- 13 4" (100) LANE LINE EXTENSIONS (WHITE)
- 14 4" (100) PARKING WHITE

TYPICAL PAVEMENT MARKERS LEGEND

- ◆ TWO-WAY AMBER MARKER
- ▶ ONE-WAY AMBER MARKER
- ▷ ONE-WAY CRYSTAL MARKER

RURAL LEFT TURN



*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAA

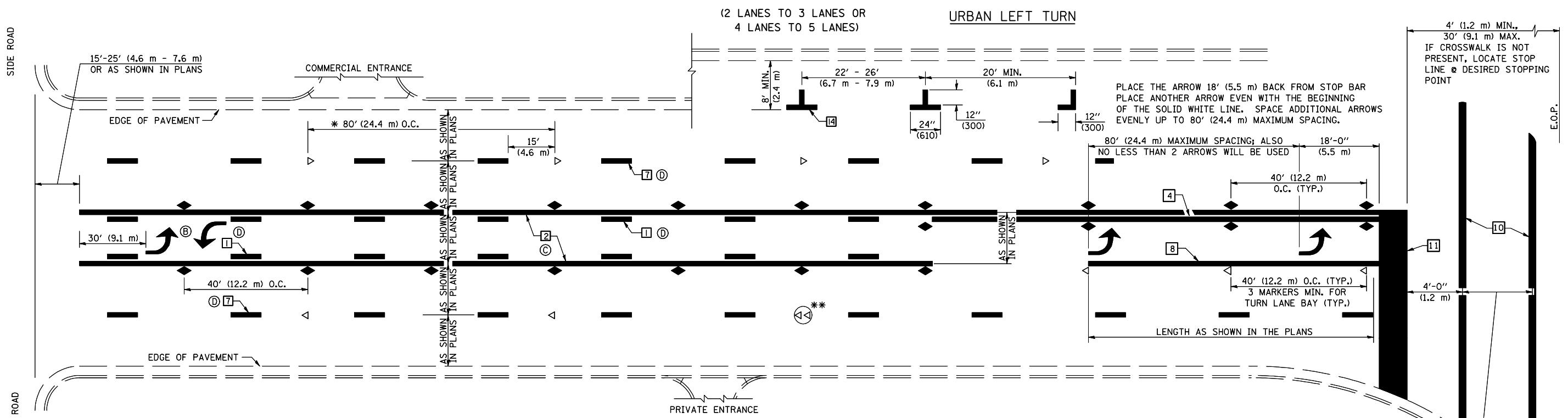
FILE NAME = D570434-022-025-D50DETAILS.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED - 11/06
		DRAWN - RNH	REVISED - 09/2009 - KJT
		CHECKED - TMM	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)**

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	22
CONTRACT NO. 70434				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

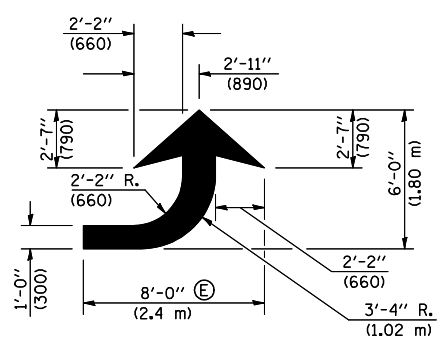


* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

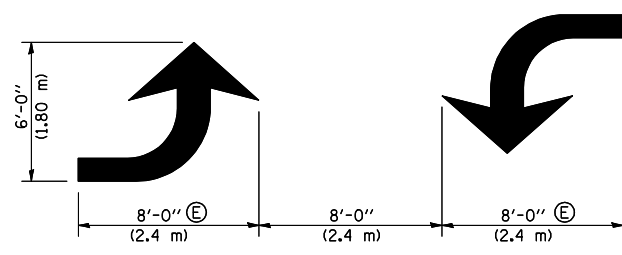
GENERAL NOTES:

- ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.
- ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.
- ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



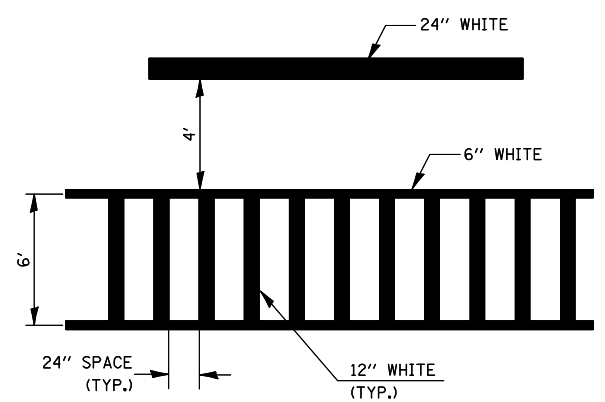
LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²)
(WHITE)

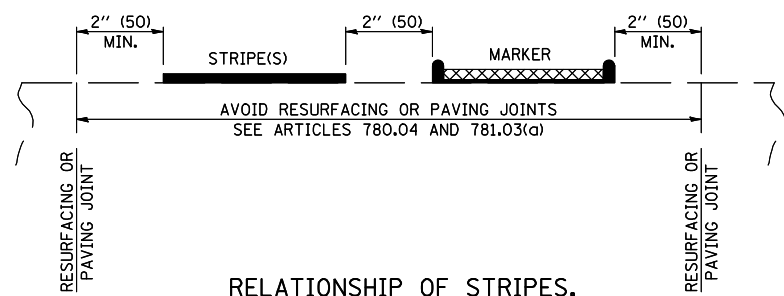


TYPICAL DOUBLE TURN ARROWS (WHITE)

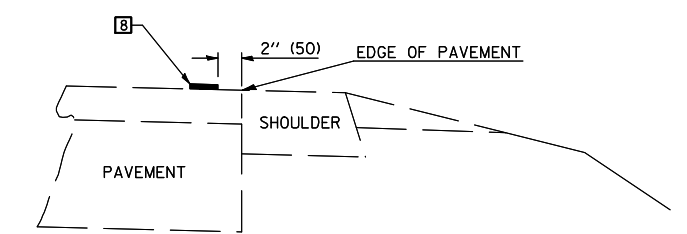
BLOOMINGTON-NORMAL CITY LIMITS ONLY



TYPICAL SPACING FOR CROSSWALKS & STOP BARS



RELATIONSHIP OF STRIPES, MARKERS AND JOINTS



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT (SAFETY SHOULDER OR PAVED SURFACE) SEE ARTICLE 780.04

CROSSWALK WIDTH 6'-0" (1.8 m) OR AS SHOWN IN THE PLANS

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME = D570434-022-025-D50DETAILS.dgn

USER NAME = RNH
PLOT SCALE =
PLOT DATE =

DESIGNED - JMH
DRAWN - RNH
CHECKED - TMM
DATE -

REVISED - 11/06
REVISED - 09/2009 - KJT
REVISED -
REVISED -

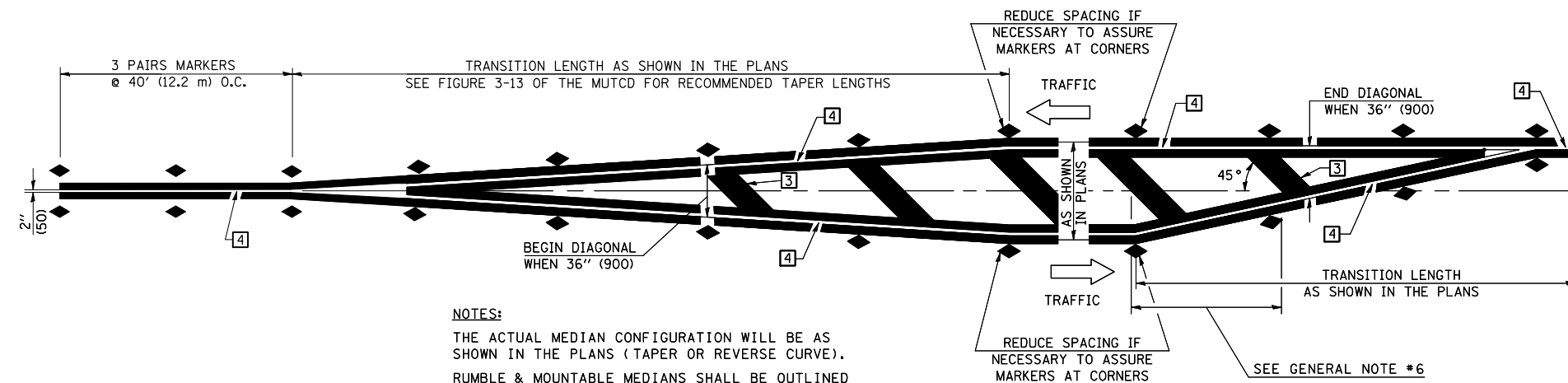
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: SHEET NO. 2 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	23
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70434	

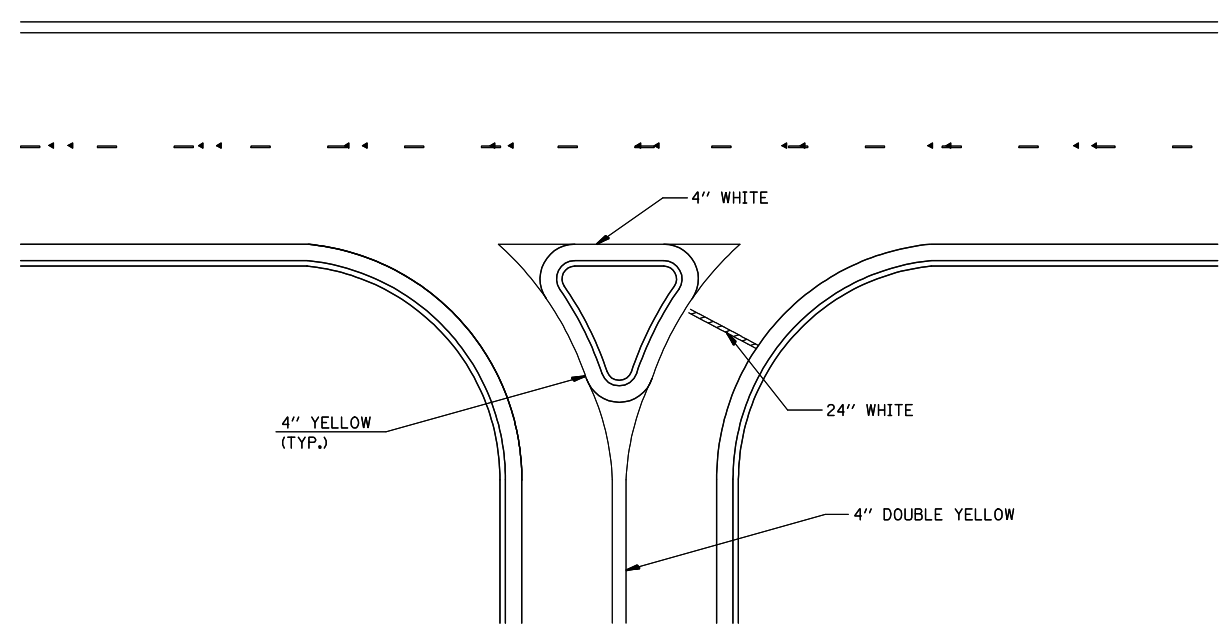


NOTES:
 THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).
 RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

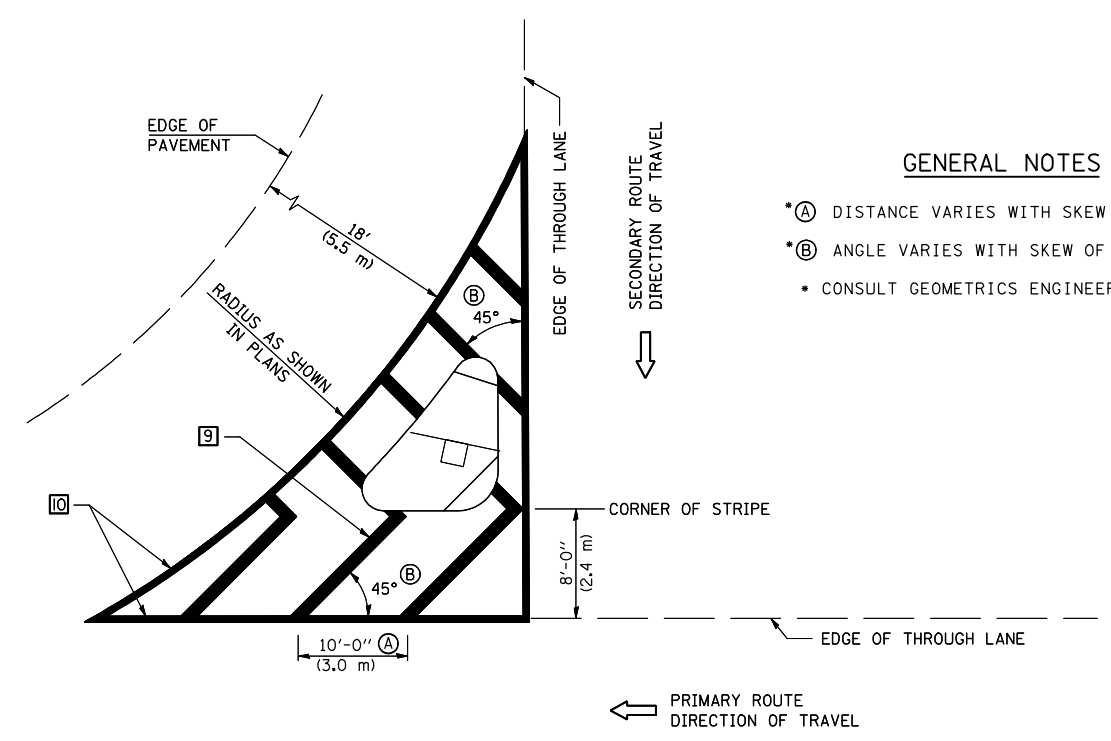
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
 < 30 MPH USE 15' (< 50 km/h USE 4.5 m)
 30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
 > 45 MPH USE 30' (> 75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



ISLAND

GENERAL NOTES

- * (A) DISTANCE VARIES WITH SKEW OF INTERSECTION.
- * (B) ANGLE VARIES WITH SKEW OF INTERSECTION.
- CONSULT GEOMETRICS ENGINEER

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

FILE NAME = D570434-022-025-D50DETAILS.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED - 11/06
		DRAWN - RNH	REVISED - 09/2009 - KJT
		CHECKED - TMM	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING AND MARKERS
 (RURAL & URBAN APPLICATIONS)**

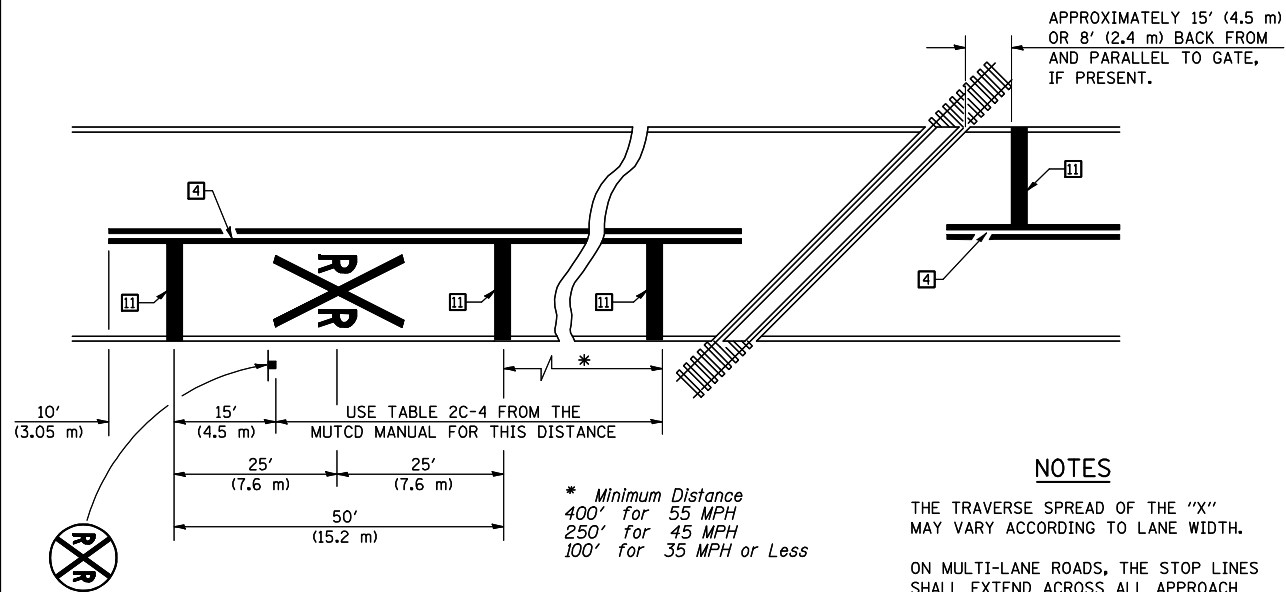
SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.

DISTRICT 5 DETAIL NO. 7800AAAA

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	24
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				CONTRACT NO. 70434

RAILROAD CROSSING WITH INTERCONNECT ONLY

RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

NOTES

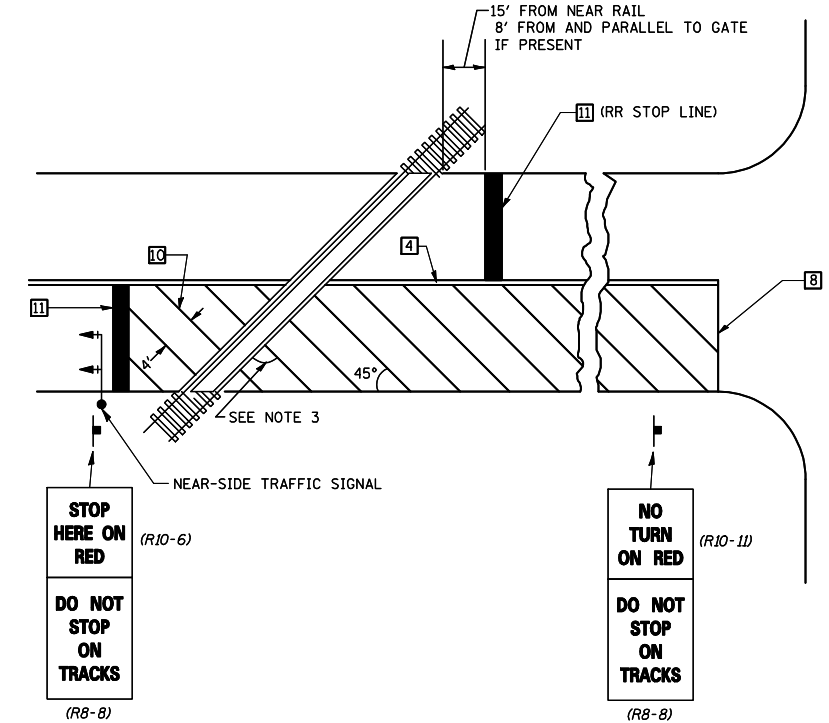
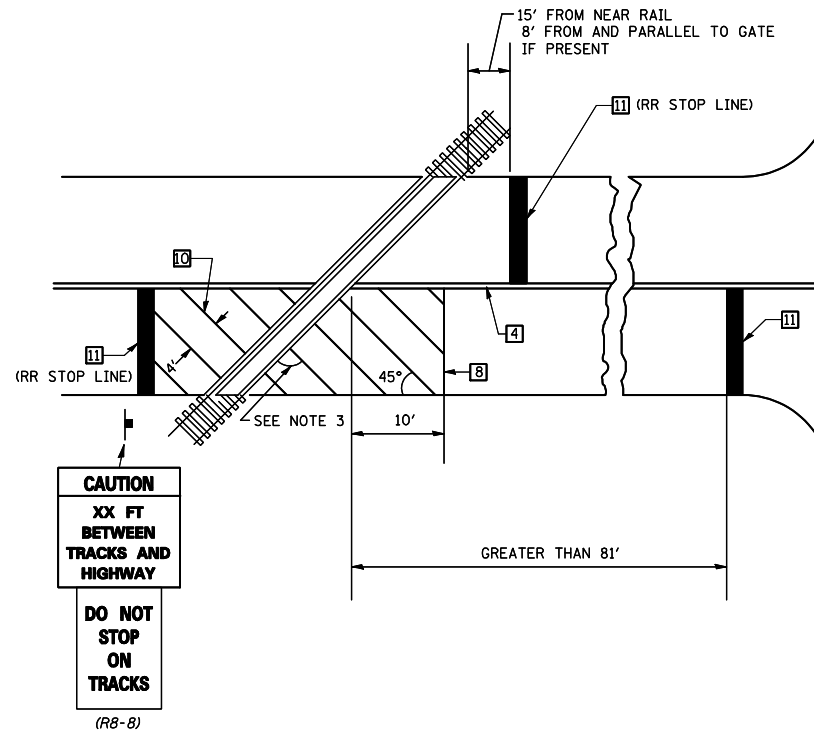
APPROXIMATELY 15' (4.5 m) OR 8' (2.4 m) BACK FROM AND PARALLEL TO GATE, IF PRESENT.

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

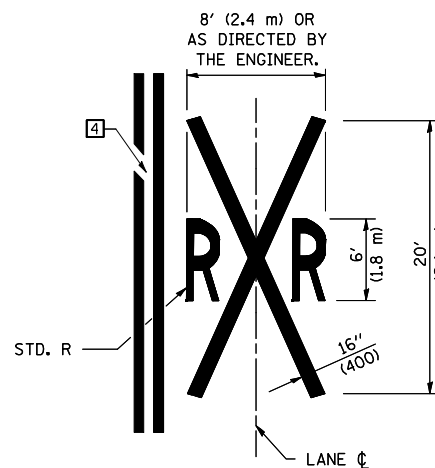
* Minimum Distance
400' for 55 MPH
250' for 45 MPH
100' for 35 MPH or Less



SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING

GENERAL NOTES

- SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
- WHERE THE ANGLE BETWEEN THE DIAGONAL PAVEMENT MARKINGS AND THE TRACK WOULD BE LESS THAN 20°, THE PAVEMENT MARKINGS SHOULD BE PLACED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.



Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

FILE NAME = D570434-022-025-D50DETAILS.dgn	USER NAME = RNH	DESIGNED - JMH	REVISED - 11/06
		DRAWN - RNH	REVISED - 09/2009 - KJT
	PLOT SCALE =	CHECKED - TMM	REVISED -
	PLOT DATE =	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

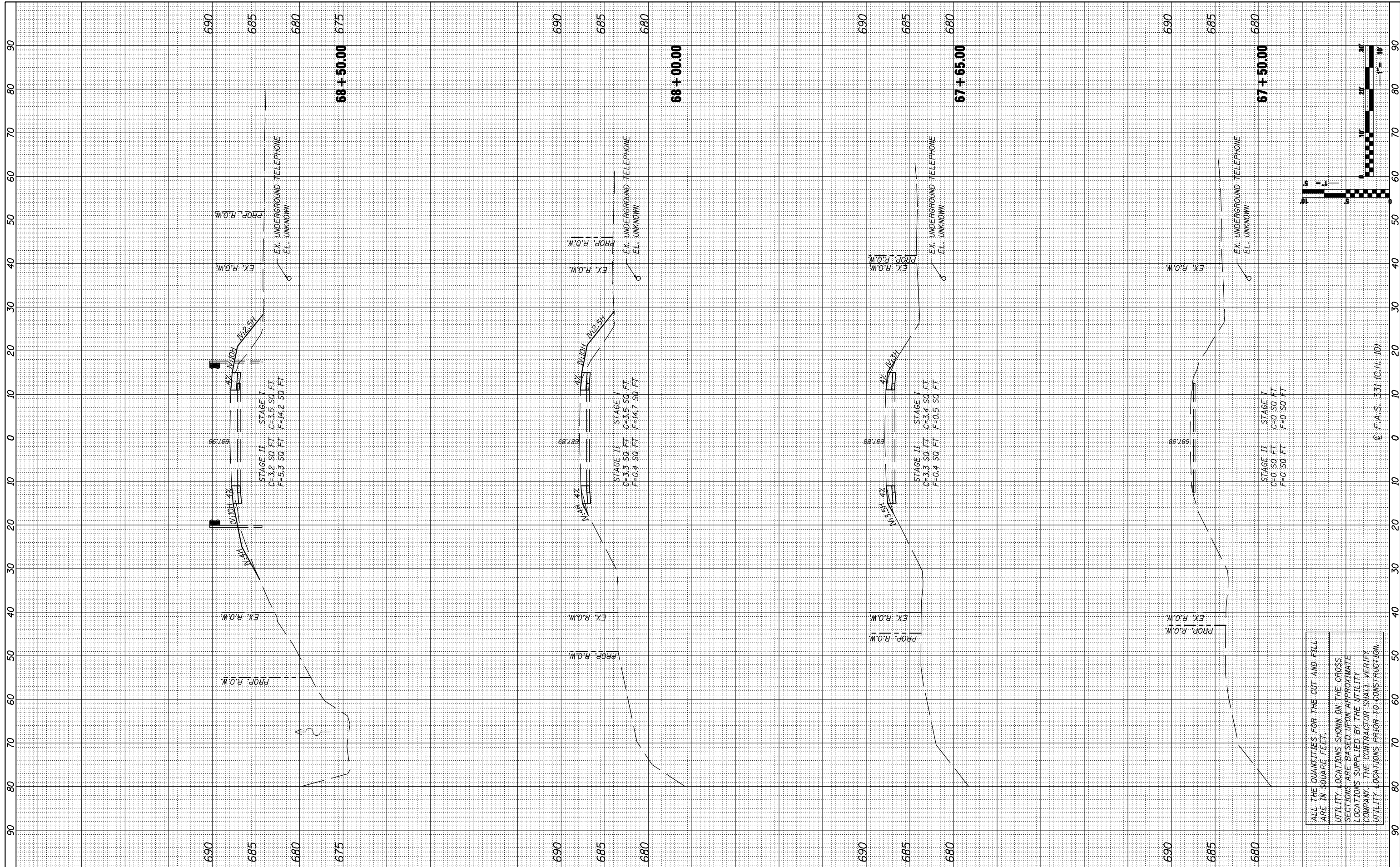
PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: SHEET NO. 4 OF 4 SHEETS STA. TO STA.

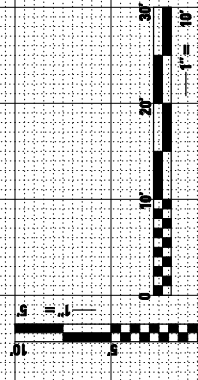
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	25
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 70434	

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



ALL THE QUANTITIES FOR THE CUT AND FILL ARE IN SQUARE FEET.
 UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.



FILE NAME = D570434-026-029-XSC.dgn

USER NAME = RNH
 DESIGNED - JMH
 DRAWN - RNH
 PLOT SCALE =
 CHECKED - TMM
 PLOT DATE =
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

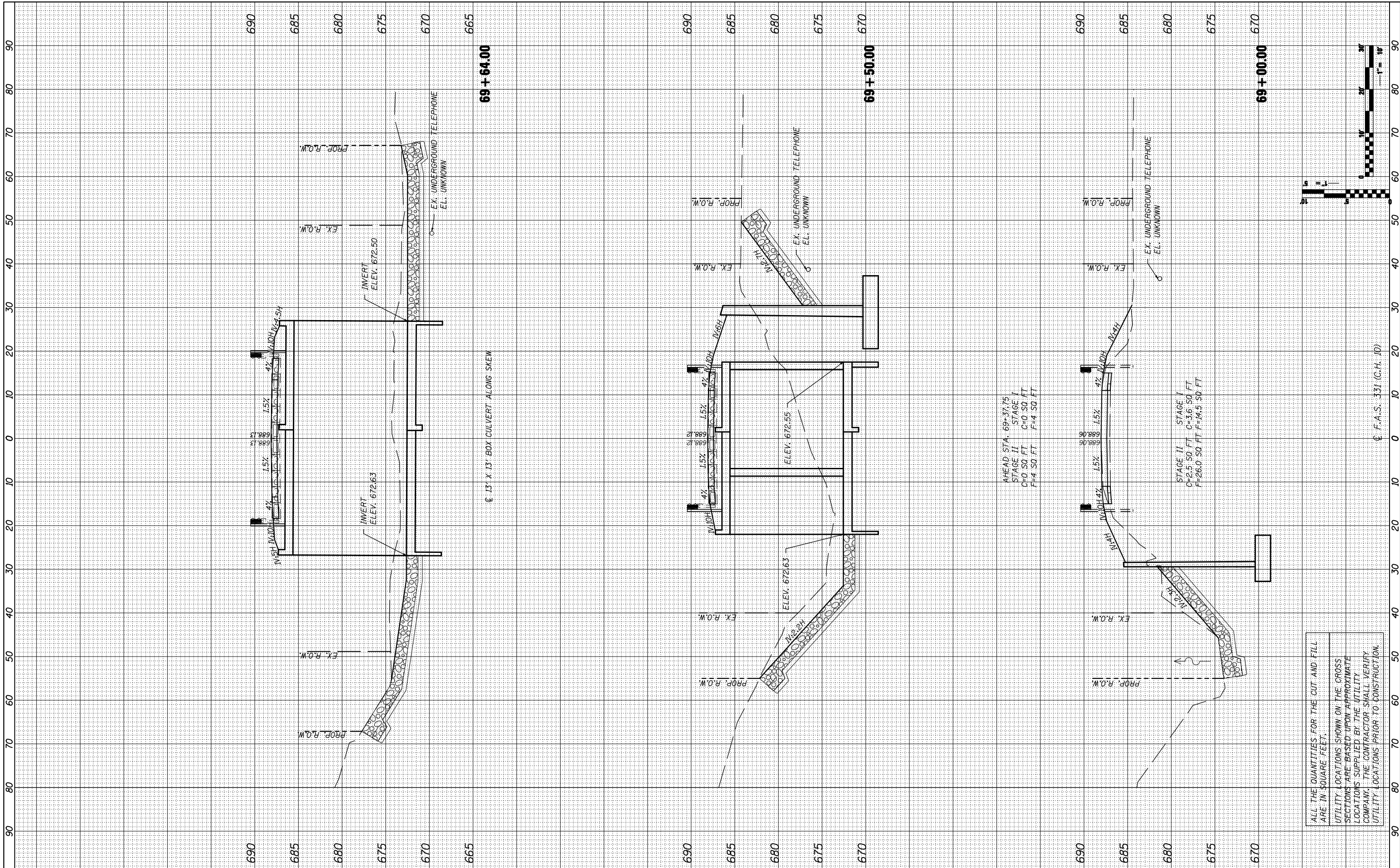
CROSS SECTIONS

SCALE: SHEET NO. 1 OF 4 SHEETS STA. 67+50.00 TO STA. 68+50.00

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	26
CONTRACT NO. 70434				
ILLINOIS FED. AID PROJECT				

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	

BY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
CHECKED	



FILE NAME = D570434-026-029-XSC.dgn

USER NAME = RNH
 DESIGNED - JMH
 DRAWN - RNH
 CHECKED - TMM
 DATE -

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET NO. 2 OF 4 SHEETS STA. 69+00.00 TO STA. 69+64.00

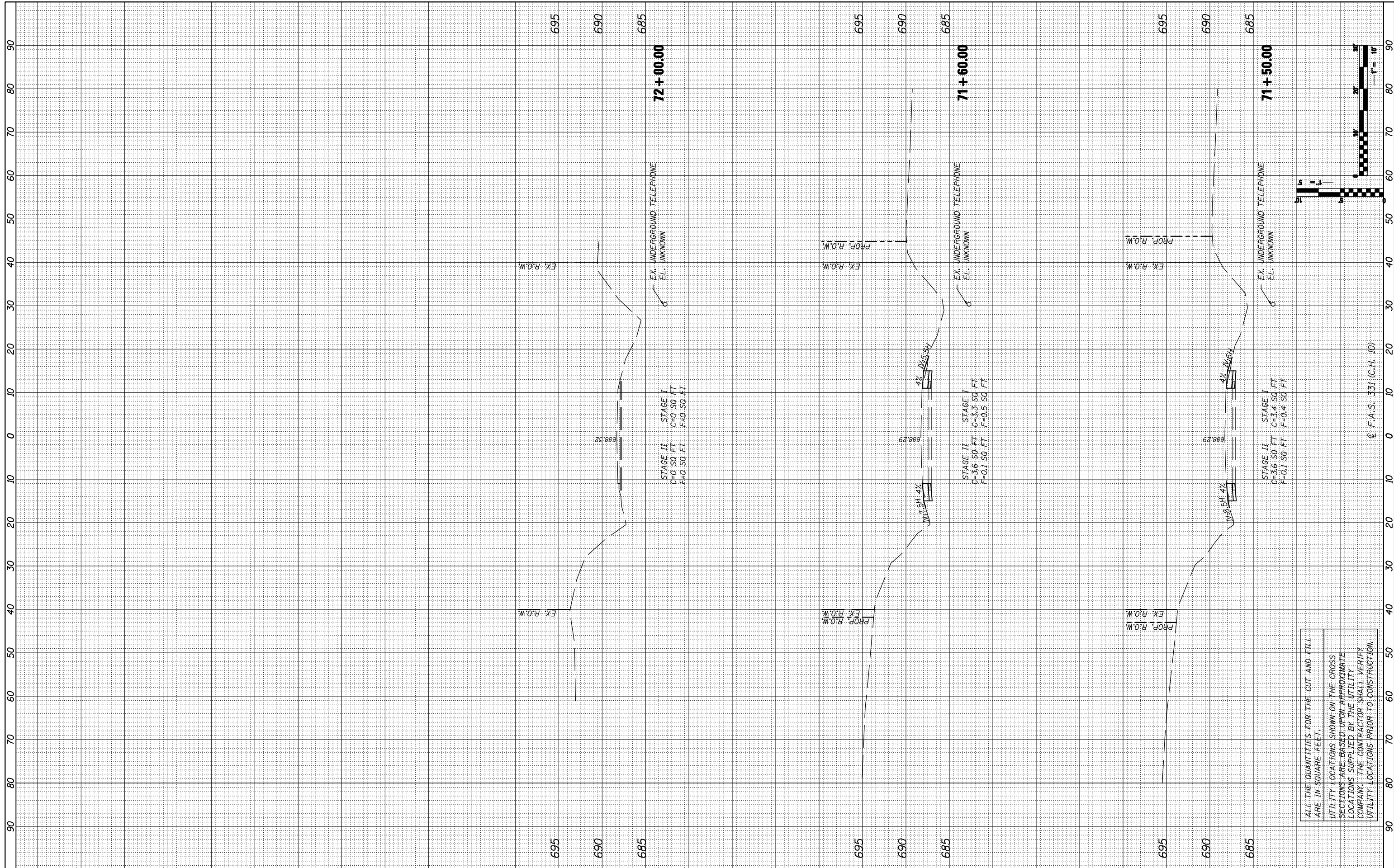
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
331	(79-102)BR	VERMILION	29	27
CONTRACT NO. 70434				
ILLINOIS FED. AID PROJECT				

ALL THE QUANTITIES FOR THE CUT AND FILL ARE IN SQUARE FEET.
 UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

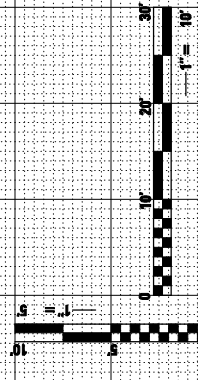
© F.A.S. 331 (C.H. 10)

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

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



ALL THE QUANTITIES FOR THE CUT AND FILL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED UPON APPROXIMATE LOCATIONS SUPPLIED BY THE UTILITY COMPANY. THE CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION.



FILE NAME = D570434-026-029-XSC.dgn

USER NAME = RNH
 DESIGNED - JMH
 DRAWN - RNH
 PLOT SCALE =
 PLOT DATE =

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: SHEET NO. 4 OF 4 SHEETS STA. 71+50.00 TO STA. 72+00.00

F.A.S. RTE. 331	SECTION (79-102)BR	COUNTY VERMILION	TOTAL SHEETS 29	SHEET NO. 29
CONTRACT NO. 70434				

ILLINOIS FED. AID PROJECT