

PROJECT ENGINEER: NANCY FASIG

LIAISON ENGINEER: JASON STULTS (217)465-4181

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10,92-8 HB-4)BR	VERMILION	71	1

CONTRACT NO. 70001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAI ROUTE 74
PROJECT: BRI-074-6(149)200
SECTION (10,92-8 HB-4)BR
VERMILION COUNTY
C-95-032-99
BRIDGE REPLACEMENT

ADT = 24,100 (FAI 74) (2005)
1,050 (FAP 840) (2007)
% SU = 7.1 (FAP 840)
% MU = 5.7 (FAP 840)
TRAFFIC FACTOR = 3.805

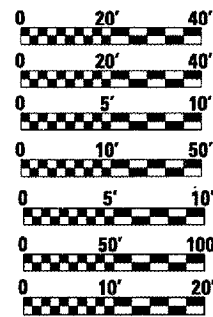
DESIGN DESIGNATION:
140(20)ARTERIAL 3.805 FD-20

HIGHWAY CLASSIFICATION:
RURAL MINOR ARTERIAL - IL 49
INTERSTATE - F.A.I. ROUTE 74

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

SCALES

- PLAN 1" = 20'
- PROFILE HORIZ. 1" = 20'
- PROFILE VERT. 1" = 5'
- CROSS SECTION HORIZ. 1" = 10'
- CROSS SECTION VERT. 1" = 5'
- REMOVAL SHEET 1" = 50'
- INTERSECTION DETAIL 1" = 10'

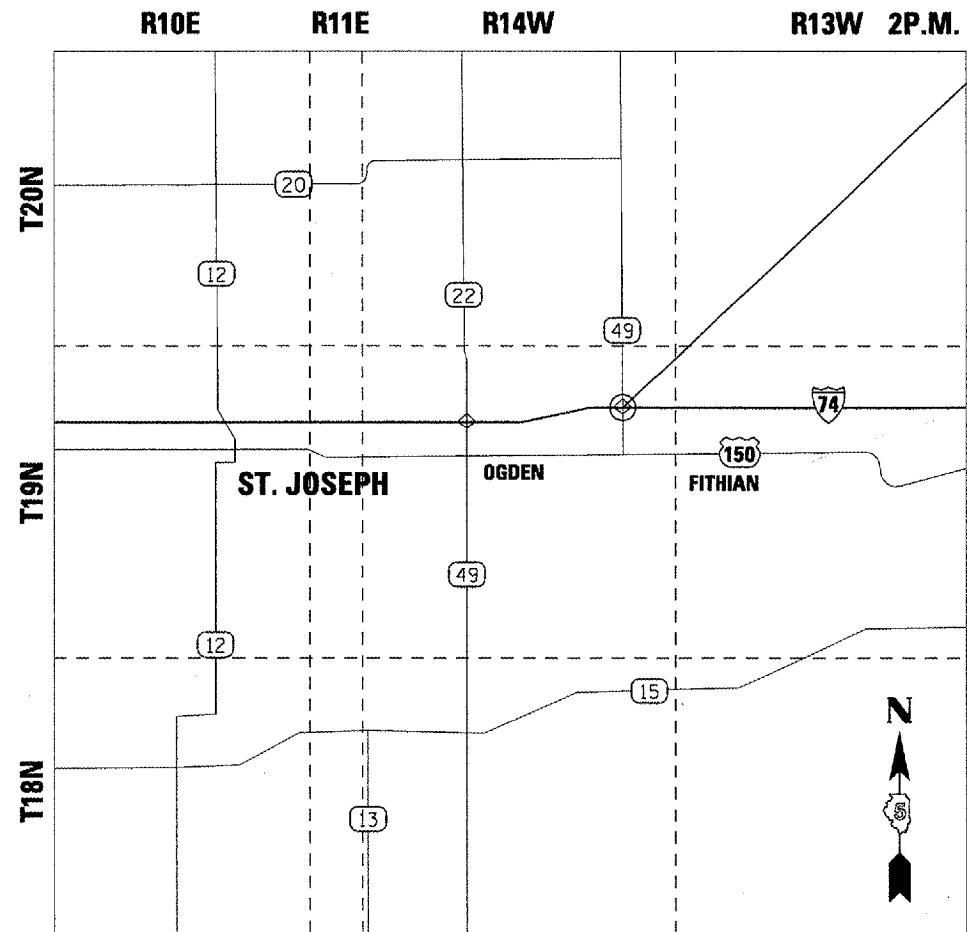


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

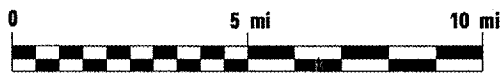
(OAKWOOD TOWNSHIP)

CONTRACT NO. 70001



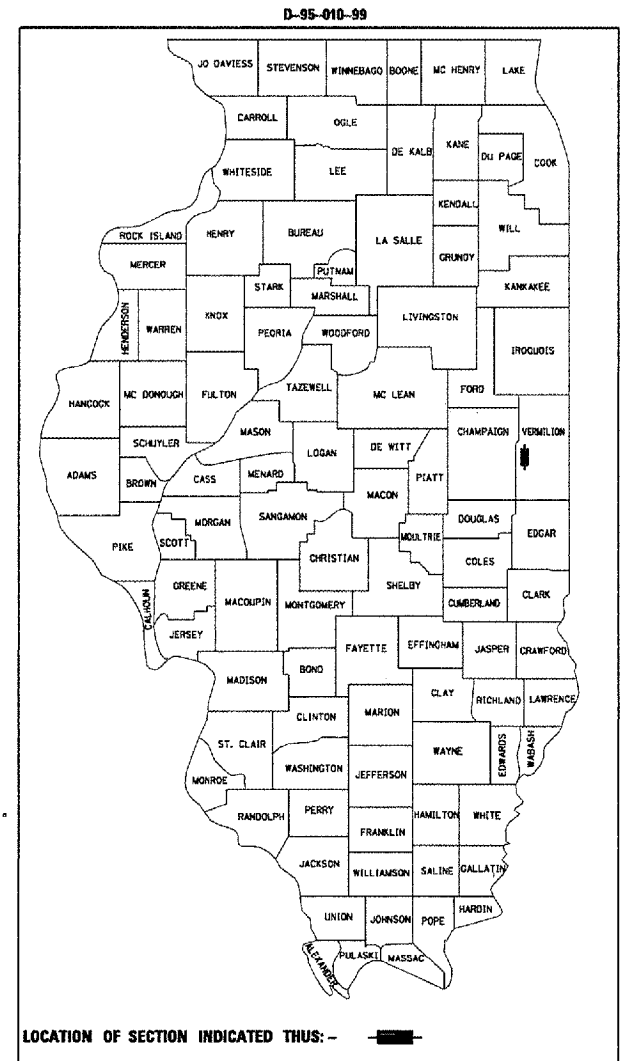
PROPOSED IMPROVEMENT
FAP 840 (IL 49 N):
STA. 41+74.00 TO STA. 58+24.00
FAI 74:
STA. 1157+10.00 TO STA. 1163+10.00

PROPOSED STRUCTURE (S.N. 092-0203)
CONSISTS OF TWO SPANS, 35'-2" O. TO O.
R.C. DECK ON SIX 42" DEEP PLATE
GIRDERS, 0°-42'-14" SKEW, ONE
MULTIPLE-COLUMN GRADE SEPARATION
PIER, AND 220' BK. TO BK. INTEGRAL
ABUTMENTS.



GRAPHIC SCALE IN MILES

GROSS LENGTH OF IMPROVEMENT = 220.00 FT. (0.042 MI.)
NET LENGTH OF IMPROVEMENT = 220.00 FT. (0.042 MI.)



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Feb 5 20 08

DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER
March 11, 20 08
Eric E. Harn/①

ENGINEER OF DESIGN AND ENVIRONMENT
March 21, 20 08
Christine M. Reed/①

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

SUMMARY OF QUANTITIES

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	110,92-8 HB-41BR	VERMILION	71	4

CONTRACT NO. 70001

CODE NO	ITEM	UNIT	TOTAL QUANTITY FAI - RURAL 20% STATE 80% FED X271-2A
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	35.0
20200100	EARTH EXCAVATION	CU YD	785.0
20400800	FURNISHED EXCAVATION	CU YD	3,550.0
20600200	GRANULAR EMBANKMENT, SPECIAL	CU YD	1,060.0
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	89.0
25000200	SEEDING, CLASS 2	ACRE	2.5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	220.0
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	220.0
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	220.0
25100115	MULCH, METHOD 2	ACRE	0.75
25100630	EROSION CONTROL BLANKET	SQ YD	9,163.0
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	244.0
28000300	TEMPORARY DITCH CHECKS	EACH	25.0
28000400	PERIMETER EROSION BARRIER	FOOT	2,620.0
28000500	INLET AND PIPE PROTECTION	EACH	3.0
28100105	STONE RIPRAP, CLASS A3	SQ YD	12.0
31101200	SUB-BASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	444.0
35400500	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 10"	SQ YD	304.0
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	861.0
40600300	AGGREGATE (PRIME COAT)	TON	2.0
40600895	CONSTRUCTING TEST STRIP	EACH	1.0
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	5,664.0
40600990	TEMPORARY RAMP	SQ YD	645.0
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	498.0
40603245	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N105	TON	583.0
40603305	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N30	TON	318.0
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	549.0
40603575	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "E", N105	TON	314.0
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	225.0
42001300	PROTECTIVE COAT	SQ YD	225.0
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	46.0
44000100	PAVEMENT REMOVAL	SQ YD	269.0
44000400	GUTTER REMOVAL	FOOT	529.0
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	913.0
44000700	APPROACH SLAB REMOVAL	SQ YD	275.0
44002805	ISLAND REMOVAL	SQ FT	171.0
44004250	PAVED SHOULDER REMOVAL	SQ YD	301.0
48101200	AGGREGATE SHOULDERS, TYPE B	TON	108.0

CODE NO	ITEM	UNIT	TOTAL QUANTITY FAI - RURAL 20% STATE 80% FED X271-2A
48203023	HOT-MIX ASPHALT SHOULDERS, 6 1/2"	SQ YD	1,571.0
48203100	HOT-MIX ASPHALT SHOULDERS	TON	340.0
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1.0
50104400	CONCRETE HEADWALL REMOVAL	EACH	1.0
50105220	PIPE CULVERT REMOVAL	FOOT	200.0
50157300	PROTECTIVE SHIELD	SQ YD	429.0
50200100	STRUCTURE EXCAVATION	CU YD	122.0
50300225	CONCRETE STRUCTURES	CU YD	64.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	265.2
50300260	BRIDGE DECK GROOVING	SQ YD	734.0
50300300	PROTECTIVE COAT	SQ YD	962.0
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1.0
50500505	STUD SHEAR CONNECTORS	EACH	3,852.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	74,410.0
50800515	BAR SPLICERS	EACH	64.0
51100100	SLOPE WALL 4 INCH	SQ YD	380.0
51200958	FURNISHING METAL SHELL PILES 14"X0.250"	FOOT	1,614.0
51202305	DRIVING PILES	FOOT	1,614.0
51203200	TEST PILE METAL SHELLS	EACH	1.0
51500100	NAME PLATES	EACH	1.0
54215547	METAL END SECTIONS 12"	EACH	12.0
54248510	CONCRETE COLLAR	CU YD	0.35
542A0223	PIPE CULVERTS, CLASS A, TYPE 1 18"	FOOT	6.0
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	3.0
60100915	PIPE DRAINS 6"	FOOT	182.0
60100945	PIPE DRAINS 12"	FOOT	611.0
60107700	PIPE UNDERDRAINS 6"	FOOT	125.0
60236200	INLETS, TYPE A, TYPE B GRATE	EACH	1.0
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	490.0
60622354	CONCRETE MEDIAN, TYPE SM-6 (DOWELLED)	SQ FT	175.0
60900240	TYPE C INLET BOX, STANDARD 609006	EACH	4.0
60900515	CONCRETE THRUST BLOCKS	EACH	12.0
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	8.0
63000005	STEEL PLATE BEAM GUARD RAIL, TYPE B	FOOT	1,650.0
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4.0
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4.0
63200310	GUARDRAIL REMOVAL	FOOT	2,942.0
63400105	GUARD POSTS	EACH	8.0

SUMMARY OF QUANTITIES

F.A.L. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	(10,92-8 HB-4)BR	VERMILION	71	5

CONTRACT NO. 70001

CODE NO	ITEM	UNIT	TOTAL QUANTITY FAI - RURAL 20% STATE 80% FED X271-2A
64200105	SHOULDER RUMBLE STRIP	FOOT	2,400.0
66101150	HOT-MIX ASPHALT SHOULDER CURB	FOOT	1,897.0
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	7.0
67100100	MOBILIZATION	L SUM	1.0
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	4.0
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1.0
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1.0
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1.0
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1.0
70101900	TRAFFIC CONTROL AND PROTECTION (DETOUR 1)	L SUM	1.0
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1.0
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	470.0
70300200	TEMPORARY PAVEMENT MARKING	FOOT	8,353.0
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	2,941.0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,860.0
73700200	REMOVE CONCRETE FOUNDATION - GROUND MOUNT	EACH	4.0
*78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	8,353.0
*78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	444.0
*78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	72.0
*78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1,120.0
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	32.0
*78200200	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	8.0
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	16.0
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4.0
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	32.0
X0323583	SPEED INDICATOR SIGN	CAL DA	336.0
X0932150	CURB AND GUTTER OUTLET, SPECIAL	EACH	12.0
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	364.0
Z0002005	ATTENUATOR BASE	SO YD	102.0
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.0
Z0030150	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2.0
*Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULL REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2.0
Z0037300	PAVEMENT GROOVING	SO YD	200.0
Z0038700	PERMANENT BENCH MARKS	EACH	1.0

*SPECIALTY ITEM

EARTHWORK & FURNISHED EXCAVATION

LOCATION	EARTH EXCAVATION (CUT)	EARTH EXCAV. ADJUSTED FOR SHRINKAGE*	EMBANKMENT (FILL)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STA TO STA	(CU YD)	(CU YD)	(CU YD)	(CU YD)
41+74.0 TO 49+45.2	411.8	308.9	2,703.8	-2,395.0
50+55.2 TO 58+24.0	371.0	278.3	1,432.6	-1,154.4
ACTUAL TOTAL	782.8	587.1	4,136.4	-3,549.3
USED TOTAL	785.0			3,550.0

EARTH EXCAVATION: 785 CU YD

FURNISHED EXCAVATION 3550 CU YD

*BASED ON SHRINKAGE FACTOR OF 25%

LANDSCAPING

LOCATION	SEEDING CLASS 2	MULCH METHOD 2	EROSION CONTROL BLANKET	TEMP. EROSION CONTROL SEEDING	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT
STATION TO STATION	O/S	ACRE	ACRE	SO YD	POUND	POUND	POUND
41+74.0 TO 44+50.0	RT	0.07	0.07	0.0	7.0	6.3	6.3
44+50.0 TO 49+44.0	RT	0.58	0.00	2811.1	58.0	52.2	52.2
41+74.0 TO 44+50.0	LT	0.12	0.12	0.0	12.0	10.8	10.8
44+50.0 TO 49+44.0	LT	0.43	0.00	2059.9	43.0	38.7	38.7
50+55.0 TO 55+96.0	RT	0.42	0.00	2024.7	42.0	37.8	37.8
55+96.0 TO 56+55.4	LT	0.08	0.08	0.0	8.0	7.2	7.2
50+55.0 TO 55+96.0	LT	0.47	0.00	2267.1	47.0	42.3	42.3
55+96.0 TO 58+24.0	RT	0.06	0.06	0.0	6.0	5.4	5.4
I-74							
1157+10.0 TO 1163+10.0		0.21	0.21	0.0	21.0	18.9	18.9
ACTUAL TOTAL		2.44	0.54	9162.80	244.0	219.6	219.6
USED TOTAL		2.50	0.75	9163.0	244.0	220	220

EROSION CONTROL

LOCATION	PERIMETER EROSION BARRIER	TEMPORARY DITCH CHECKS	INLET & PIPE PROTECTION
STATION TO STATION	FOOT	EACH	EACH
IL 49 N	2620		
44+50 TO 48+50 @ 100' LT & RT		10	
52+00 TO 55+00 @ 100' LT & RT		8	
RAMP A			
361+20 LT & RT		2	
RAMP B			
259+60 LT & RT		2	
RAMP C			
360+92 RT		1	
RAMP D			
159+60 LT & RT		2	
42+06			1
RAMP C 460+98.8			1
I-74 1159+58.77			1
ACTUAL TOTAL	2620	25	3
USED TOTAL	2620	25	3

SUB-BASE GRANULAR MATERIAL, TYPE B 4"

LOCATION	AREA (SQ. YD.)
PCC BSE CSE WIDENING	304.0
RAMP A	48.1
RAMP B	21.2
RAMP C	23.2
RAMP D	47.5
ACTUAL TOTAL	444.0
USED TOTAL	444.0

P.C.C. BASE CSE. WIDENING 10"

STATION	SO. YD.
RAMP A	
56+10.5 RT TO 361+15.1 LT	81.2
361+48.4 RT TO 57+72.2 RT	60.5
ISLAND	9.5
RAMP D	
158+71.0 RT TO 159+26.5 RT	75.5
158+221.8 RT TO 159+00 LT	67.8
ISLAND	9.3
ACTUAL TOTAL	303.8
USED TOTAL	304.0

STONE RIPRAP

LOCATION	STONE RIPRAP CLASS A3
STATION	SO. YD.
44+00 LT & RT	2.0
46+50 LT & RT	2.0
48+76 LT & RT	2.0
51+24 LT & RT	2.0
53+50 LT & RT	2.0
55+96 LT & RT	2.0
ACTUAL TOTAL	12.0
USED TOTAL	12.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE
DATE: 06/2003

DRAWN BY: FML
CHECKED BY: YML

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	110,92-8 HB-4IBR	VERMILION	71	7
STA. TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO. -		CONTRACT NO. 70001		

TREE REMOVAL

LOCATION STATION	6 TO 15 UNITS DIAMETER	OVER 15 UNITS DIAMETER
48+59.13; 47.9' RT.	14	-
48+79.91; 56.0' RT.	9	-
48+97.96; 57.3' RT.	12	-
ACTUAL TOTAL	35	-
USED TOTAL	35	-

APPROACH SLAB REMOVAL

STATION TO STATION	SO. YD.
49+07.5 TO 49+43.2	136.9
50+56.0 TO 50+92.0	137.2
ACTUAL TOTAL	274.1
USED TOTAL	275.0

GUARDRAIL REMOVAL

STATION TO STATION	FOOT
IL-49N	
STA. 43+88.4 TO 56+01.4 LT	1,213.0
STA. 43+75.1 TO 56+01.2 RT	1,226.1
I-74	
STA. 1159+07.6 TO 1160+10.9 RT, EB	103.3
STA. 1159+08.4 TO 1160+60.4 LT, EB	152.0
STA. 1159+82.4 TO 1161+33.1 RT, WB	150.7
STA. 1160+35.2 TO 1161+31.2 LT, WB	96.0
ACTUAL TOTAL	2,941.1
USED TOTAL	2,942.0

HMA SURFACE REMOVAL - BUTT JOINT

STATION TO STATION	SO. YD.
IL 49 N	
41+74.00 LT TO 43+83.31 LT	250.0
41+74.00 RT TO 43+66.28 RT	235.0
56+00.00 TO 58+24.00	540.0
I-74	
1157+10.00 TO 1159+10.00	1663.0
1161+10.00 TO 1163+10.00	1168.8
RAMP A	
360+95.00 TO IL 49	426.0
RAMP B	
IL 49 TO 259+55.75	483.0
RAMP C	
460+67.07 TO IL 49	470.0
RAMP D	
IL 49 TO 159+52.00	428.0
ACTUAL TOTAL	5,663.8
USED TOTAL	5,664.0

ISLAND REMOVAL

LOCATION	SO. FT.
RAMP A	87.0
RAMP D	83.4
ACTUAL TOTAL	170.4
USED TOTAL	171.0

RAISED REFLECTIVE PAVEMENT MARKER REMOVAL

STATION TO STATION	EACH
I-74	
1157+10 TO 1163+10 (WB)	16
1157+10 TO 1163+10 (EB)	16
ACTUAL TOTAL	32
USED TOTAL	32

PAVED SHOULDER REMOVAL

STATION TO STATION	SO. YD.
41+80.65 TO 42+47.94 LT	42.6
42+09.09 TO 42+64.16 RT	47.1
43+65.08 TO 44+11.72 LT	36.9
43+59.74 TO 44+09.75 RT	39.9
55+90.16 TO 56+46.75 LT	56.3
55+90.82 TO 50+37.34 RT	33.1
57+45.89 TO 58+20.45 RT	44.6
ACTUAL TOTAL	300.5
USED TOTAL	301.0

PAVEMENT REMOVAL

STATION TO STATION	SO. YD.
STA. 43+16 LT.	16.5
STA. 48+60.0 TO 49+07.5	116.1
STA. 50+92.0 TO 51+40.0	117.3
STA. 56+83 RT.	19.0
ACTUAL TOTAL	268.9
USED TOTAL	269.0

CONCRETE HEADWALL REMOVAL

STATION	EACH
I-74	
1159+58.77	1
ACTUAL TOTAL	1
USED TOTAL	1

CURB & GUTTER REMOVAL

LOCATION	COMBINATION CURB & GUTTER REMOVAL	GUTTER REMOVAL
STATION TO STATION	FOOT	FOOT
RAMP A		
360+95.0 TO 361+75.5 LT & 360+95.0 TO 362+03.3 RT	301.0	
RAMP B		
258+56.6 TO 259+55.9 LT	140.0	
RAMP C		
460+67.1 TO 461+62.5 RT	140.0	
RAMP D		
158+43.1 TO 159+52.0 LT & 158+71.5 TO 159+52.9 RT	332.0	
47+80 TO 49+07.5 (LT & RT)		265.0
50+93.0 TO 52+20 (LT & RT)		264.0
ACTUAL TOTAL	913.0	529.0
USED TOTAL	913.0	529.0

PIPE CULVERT REMOVAL

STATION	FOOT
47+82 LT	47.5
47+82 RT	50.1
52+18 LT	53.0
52+18 RT	49.1
ACTUAL TOTAL	199.7
USED TOTAL	200.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE
DATE: 06/2003

DRAWN BY: IYL
CHECKED BY: JH

HOT-MIX ASPHALT PAVEMENT

LOCATION	HOT-MIX ASPHALT MATERIALS (PRIME COAT)	HOT-MIX ASPHALT SHOULDERS 6 1/2"	HOT-MIX ASPHALT SHOULDERS	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N30	HOT-MIX ASPHALT SURFACE COURSE MIX C, N50	HOT-MIX ASPHALT BINDER COURSE IL-19.0, N50	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE MIX E, N105	POLYMERIZED HOT-MIX ASPHALT BINDER COURSE IL-19.0, N105
STATION TO STATION	GAL.	SO. YD.	TON	TON	TON	TON	TON	TON
41+74.00 TO 43+83.31 LT	15.9			3.2	32.2			
41+74.00 TO 43+66.28 RT	15.9			7.4	26.6			
43+83.31 TO 44+75.00 LT	19.0			5.2	9.4	32.6		
43+66.28 TO 44+75.00 RT	22.2			6.1	11.2	36.6		
44+75.00 TO 48+54.00	114.3			42.5	77.9	186.3		
51+46.00 TO 55+00.00	107.9			42.5	72.7	174.0		
55+00.00 TO 56+00.00	41.3			11.2	20.5	68.4		
56+00.00 TO 58+24.00	28.6			5.8	69.0			
I-74							156.8	291.2
1157+10.00 TO 1163+10.00 WB	196.8		169.9	91.5			156.8	291.2
1157+10.00 TO 1163+10.00 EB	196.8		169.9	91.5				
RAMP A 360+95.00 TO 361+98.54	28.6			4.6	55.9			
RAMP B 258+39.71 TO 259+55.62	22.2			1.2	47.2			
RAMP C 460+66.65 TO 461+82.52	22.2			0.8	57.5			
RAMP D 158+49.10 TO 159+52.00	28.6			4.5	65.2			
41+74.00 TO 42+26.64 LT		37.7						
41+74.12 TO 42+64.16 RT		87.8						
43+83.31 TO 48+54.00 LT		313.8						
43+66.28 TO 48+54.00 RT		325.2						
51+46.00 TO 56+35.72 LT		326.5						
51+46.00 TO 56+11.50 RT		310.3						
57+71.13 TO 58+23.92 RT		37.9						
RAMP A 360+95.00 TO 361+16.17 LT		9.1						
360+95.00 TO 361+49.46 RT		45.0						
RAMP B 259+25.95 TO 259+55.89		14.0						
RAMP C 460+67.10 TO 460+89.74		9.8						
RAMP D 159+00.54 TO 159+52.00 LT		42.3						
159+26.54 TO 159+52.00 RT		11.2						
ACTUAL TOTAL	860.3	1,570.6	339.8	318.0	548.3	497.9	313.6	582.4
USED TOTAL	861.0	1,571.0	340.0	318.0	549.0	498.0	314.0	583.0

AGGREGATE

LOCATION	AGGREGATE (PRIME COAT)	AGGREGATE SHOULDERS TYPE B
STATION TO STATION	TON	TON
44+75.00 TO 48+60.00	0.9	
51+40.00 TO 55+00.00	0.9	
I-74		
1157+10.00 TO 1163+10.00 WB		50.1
1157+10.00 TO 1163+10.00 EB		50.1
RAMP A 360+95.0 TO 361+16.2 LT		0.8
360+95.0 TO 361+49.6 RT		2.0
RAMP B 259+25.9 TO 259+55.8 LT		1.1
RAMP C 460+67.1 TO 460+89.7 RT		0.8
RAMP D 159+00.5 TO 159+52.0 RT		1.9
159+26.5 TO 159+52.0 LT		0.9
ACTUAL TOTAL	1.8	107.7
USED TOTAL	2.0	108.0

GRANULAR EMBANKMENT SPECIAL

STATION		GRANULAR EMBANKMENT SPECIAL (CU. YD.)
44+75 TO 45+00		6.9
45+00 TO 45+50		39.1
45+50 TO 46+00		58.2
46+00 TO 46+50		67.7
46+50 TO 47+00		78.1
47+00 TO 47+50		91.1
47+50 TO 48+00		96.6
48+00 TO 48+60		105.4
51+40 TO 52+00		118.2
52+00 TO 52+50		94.4
52+50 TO 53+00		84.4
53+00 TO 53+50		71.4
53+50 TO 54+00		61.7
54+00 TO 54+50		50.3
54+50 TO 55+00		35.1
ACTUAL TOTAL		1,058.6
USED TOTAL		1,060.0

BRIDGE APPROACH

LOCATION	BRIDGE APPROACH PAVEMENT	PROTECTIVE COAT
STATION TO STATION	SO. YD.	SO. YD.
48+60.0 TO 48+90.0	112.2	112.2
51+10.0 TO 51+40.0	112.2	112.2
ACTUAL TOTAL	224.4	224.4
ACTUAL TOTAL	225.0	225.0

TEMPORARY RAMP

STATION	LOCATION	AREA (SQ YD)
1157+10.0	I-74 EB&WB	281.2
1163+10.0	I-74 EB&WB	281.2
41+74.0	IL 49 N	12.2
58+24.0	IL 49 N	12.2
360+95.0	RAMP A	14.4
259+55.8	RAMP B	14.4
460+67.0	RAMP C	14.4
159+52.0	RAMP D	14.4
ACTUAL TOTAL		644.4
USED TOTAL		645.0

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE
DATE: 06/2003

DRAWN BY: FML
CHECKED BY: YML

PIPE UNDERDRAINS

STATION	CONCRETE HEADWALL FOR PIPE DRAINS	PIPE UNDERDRAINS, 6"	PIPE DRAINS, 6"
STATION	EACH	FOOT	FOOT
45+50	1	25	58.4
46+50	*	25	0.0
47+50	1	25	66.2
52+50	1	25	57.6
53+50	*	25	0.0
ACTUAL TOTAL	3	125	182.0
USED TOTAL	3	125	182.0

* TO BE OUTLET INTO TYPE E SHOULDER INLET

WORK ZONE PAVEMENT MARKINGS

LOCATION	SHORT-TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL
STATION TO STATION	FOOT	FOOT	SO. FT.
IL 49 N			1,501.4
41+74.0 TO 58+24.0		112.5	
41+74.0 TO 44+00.0 & 56+00.0 TO 58+24.0		323.9	
42+46.1 TO 44+00.0 & 56+00.0 TO 57+70.0		1,840.0	
44+00.0 TO 56+00.0		2,180.0	
41+74.0 TO 58+24.0			
41+74.00 TO 43+83.3	23.6		
56+00 TO 58+24.00	24.2		
RAMP A	78.2	322.7	133.6
RAMP B	18.3	285.6	101.3
RAMP C	21.5	267.2	96.2
RAMP D	88.2	320.7	136.3
I-74			
1157+10 TO 1163+10 (WB)	108.0	1,350.0	486.0
1157+10 TO 1163+10 (EB)	108.0	1,350.0	486.0
ACTUAL TOTAL	470.0	8,352.6	2,940.8
USED TOTAL	470.0	8,353	2,941.0

GUARDRAIL

LOCATION	STEEL PLATE BEAM GUARDRAIL TYPE B	TRAFFIC BARRIER TERMINAL	
		TYPE 6	TYPE 1, SPECIAL (TANGENT)
STATION TO STATION	FOOT	EACH	EACH
44+46.85 TO 48+46.85, LT	400.0		
44+21.85 TO 48+46.85, RT	425.0		
51+53.15 TO 55+78.15, LT	425.0		
51+53.15 TO 55+53.15, RT	400.0		
48+46.85 TO 48+92.50, LT		1	
48+46.85 TO 48+92.50, RT		1	
51+07.50 TO 51+53.15, LT		1	
51+07.50 TO 51+53.15, RT		1	
43+96.85 TO 44+46.85, LT			1
43+71.85 TO 44+21.85, RT			1
55+78.15 TO 56+28.15, LT			1
55+53.15 TO 56+03.15, RT			1
ACTUAL TOTAL	1,650	4	4
USED TOTAL	1,650	4	4

CULVERTS & INLETS

LOCATION	PIPE CULVERTS	CONCRETE COLLAR	INLETS TY. A, TY.8 GRATE
	CLASS A TY. 1, 18"		
STATION	FOOT	CU. YD.	EACH
I-74			
1159+58.77	5.6	0.30	1
ACTUAL TOTAL	5.6	0.3	1
USED TOTAL	6.0	0.3	1

PAVEMENT MARKINGS

LOCATION	THERMOPLASTIC PAVEMENT MARKING			EPOXY P.M. LINE 4"	RAISED REFLECTIVE PAVEMENT MARKER
	LINE 4"	LINE 12"	LINE 24"		
STATION TO STATION	FOOT	FOOT	FOOT	FOOT	EACH
IL 49 N					
41+74.0 TO 44+00.0 & 56+00.0 TO 58+24.0	112.5				
42+46.1 TO 44+00.0 & 56+00.0 TO 57+70.0	323.9				
44+00.0 TO 56+00.0	1,840.0				
41+74.0 TO 58+24.0	2,180.0				
48+60.0 TO 51+40.0				1,120.0	
RAMP A	322.7	222.2	36.0		
RAMP B	285.6				
RAMP C	267.2				
RAMP D	320.7	221.6	36.0		
I-74					
1157+10 TO 1163+10 (WB)	1,350.0				16
1157+10 TO 1163+10 (EB)	1,350.0				16
ACTUAL TOTAL	8,352.6	444.0	72.0	1,120.0	32
USED TOTAL	8,353.0	444.0	72.0	1,120.0	32

GUARDRAIL MARKERS

LOCATION	GUARDRAIL MARKERS TYPE A	BIDIRECTIONAL PRISMATIC BARRIER REFLECTOR	TERMINAL MARKER - DIRECT APPLIED
STATION	EACH	EACH	EACH
44+50	2		
45+30 RT	1		
46+10	2		
46+90 RT	1		
47+70	2		
52+30	2		
53+10 LT	1		
53+90	2		
54+70 LT	1		
55+50	2		
48+95		2	
49+65		2	
50+35		2	
51+05		2	
43+90.6 LT			1
43+78.1 RT			1
56+28.2 LT			1
55+96.9 RT			1
ACTUAL TOTAL	16	8	4
USED TOTAL	16	8	4

CURBS & GUTTERS

LOCATION	COMBINATION CONCRETE CURB & GUTTER	HMA SHOULDER CURB	CURB & GUTTER OUTLET SPECIAL
	TY. B-6.24		
	FOOT	FOOT	EACH
RAMP A	168.9		4
RAMP B	73.9		2
RAMP C	80.8		2
RAMP D	165.8		4
43+78.1 RT TO 48+60.0 RT		481.9	
43+90.6 LT TO 48+60.0 LT		469.4	
51+40 LT TO 56+28.2 LT		488.2	
51+40 RT TO 55+96.9 RT		456.9	
ACTUAL TOTAL	489.4	1,896.4	12
USED TOTAL	490.0	1,897.0	12

INLETS & PIPE DRAINS

LOCATION	PIPE DRAINS, 12"	TYPE E INLET BOX, STD. 610001	CONCRETE TRUST BLOCKS	METAL END SECTION 12"	TYPE C INLET BOX, STD. 609006
STATION	FOOT	EACH	EACH	EACH	EACH
44+00 LT & RT	95.0	2	2	2	0
46+50 LT & RT	122.8	2	2	2	0
48+76 LT & RT	117.8	0	2	2	2
51+24 LT & RT	114.6	0	2	2	2
53+50 LT & RT	90.6	2	2	2	0
55+96 LT & RT	69.5	2	2	2	0
ACTUAL TOTAL	610.3	8	12	12	4
USED TOTAL	611.0	8	12	12	4

SHOULDER RUMBLE STRIP

STATION TO STATION	FOOT
I-74	
1157+10 TO 1163+10 (WB)	1200.0
1157+10 TO 1163+10 (EB)	1200.0
ACTUAL TOTAL	2,400.0
USED TOTAL	2,400.0

CONCRETE MEDIAN, TYPE SM-6 (DOWELLED)

STATION	SO. FT.
RAMP D	70.4
RAMP A	104.3
ACTUAL TOTAL	174.7
USED TOTAL	175.0

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	

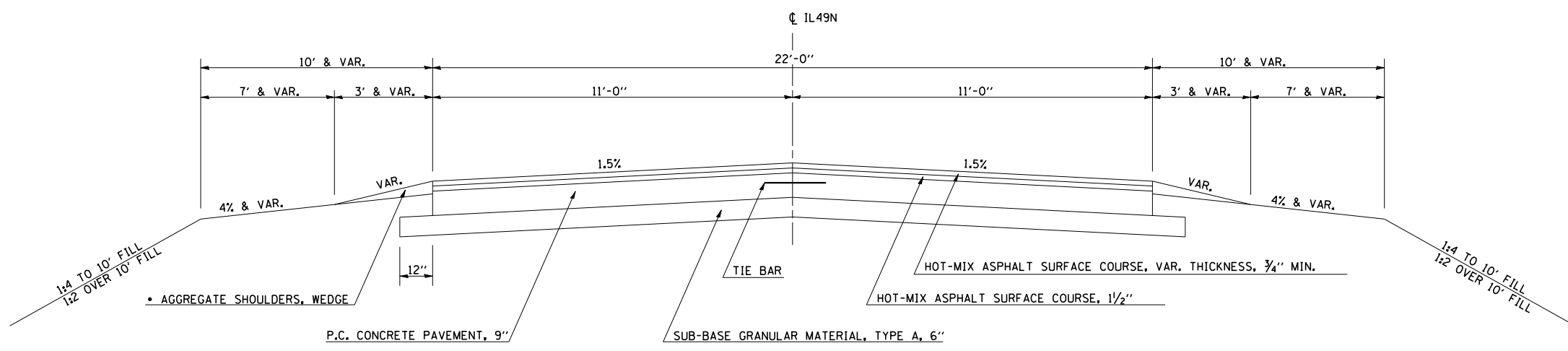
SCHEDULE OF QUANTITIES

SCALE: NONE
DATE: 06/2003

DRAWN BY: FML
CHECKED BY: YML

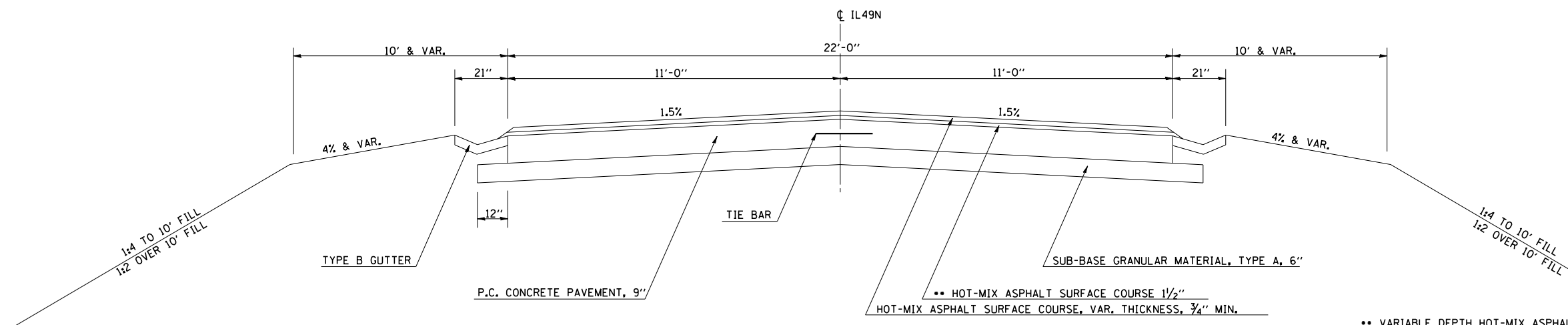
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	10

(10,92-8 HB-4) BR
CONTRACT NO. 70001



EXISTING TYPICAL CROSS SECTION
F.A.P. 840 (IL. RTE. 49 N.)
STATION 41+74.00 TO STATION 47+81.50
STATION 52+18.50 TO STATION 58+24.00

• HOT-MIX ASPHALT SHOULDER, 8", VAR. WIDTH (FROM 2.4' TO 10.6')
STA. 41+80.7 - STA. 44+12.0 (LT)
STA. 55+90.2 - STA. 57+79.2 (LT)
STA. 42+09.1 - STA. 44+09.8 (RT)
STA. 55+90.8 - STA. 58+20.4 (RT)



EXISTING TYPICAL CROSS SECTION
F.A.P. 840 (IL. RTE. 49 N.)
STATION 47+81.50 TO STATION 49+07.25 (EX. BRIDGE)
STATION 50+92.75 (EX. BRIDGE) TO STATION 52+18.50
EX. BRIDGE OMISSION: STATION 49+07.25 TO STATION 50+92.75

•• VARIABLE DEPTH HOT-MIX ASPHALT RUNDOWN
1 1/2" - STA. 47+81.50 - STA. 48+35.25
1 1/2" TO 3/4" - STA. 48+35.25 - STA. 48+69.25
3/4" TO 1 3/4" - STA. 48+69.25 - STA. 48+87.25
1 3/4" - STA. 48+87.25 - STA. 49+07.25 (BRIDGE)
1 3/4" - (BRIDGE) STA. 50+92.75 - STA. 51+12.75
1 3/4" TO 3/4" - STA. 51+12.75 - STA. 51+29.75
3/2" TO 1 1/2" - STA. 51+29.75 - STA. 51+64.75
1 1/2" - STA. 51+64.75 - STA. 52+18.50

REVISIONS	
NAME	DATE

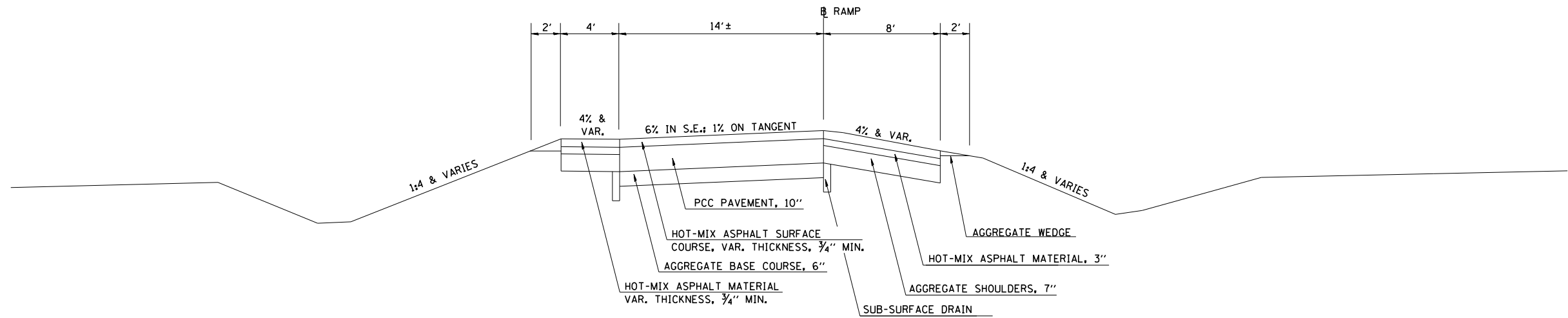
ILLINOIS DEPARTMENT OF TRANSPORTATION
TYPICAL SECTIONS
FAP 840 (IL 49 N)
OVER I-74
VERMILION COUNTY

SCALE: NONE
DATE: 06/2003

DRAWN BY: IYL
CHECKED BY: JH

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	•	VERMILION	71	11

• (10,92-8 HB-4)BR
CONTRACT NO. 70001



EXISTING TYPICAL CROSS SECTION

STATION 360+95.00 TO STATION 362+09.94 (RAMP A)
 STATION 258+28.30 TO STATION 259+55.75 (RAMP B)
 STATION 460+67.07 TO STATION 461+93.90 (RAMP C)
 STATION 158+37.76 TO STATION 159+52.00 (RAMP D)

REVISIONS	
NAME	DATE

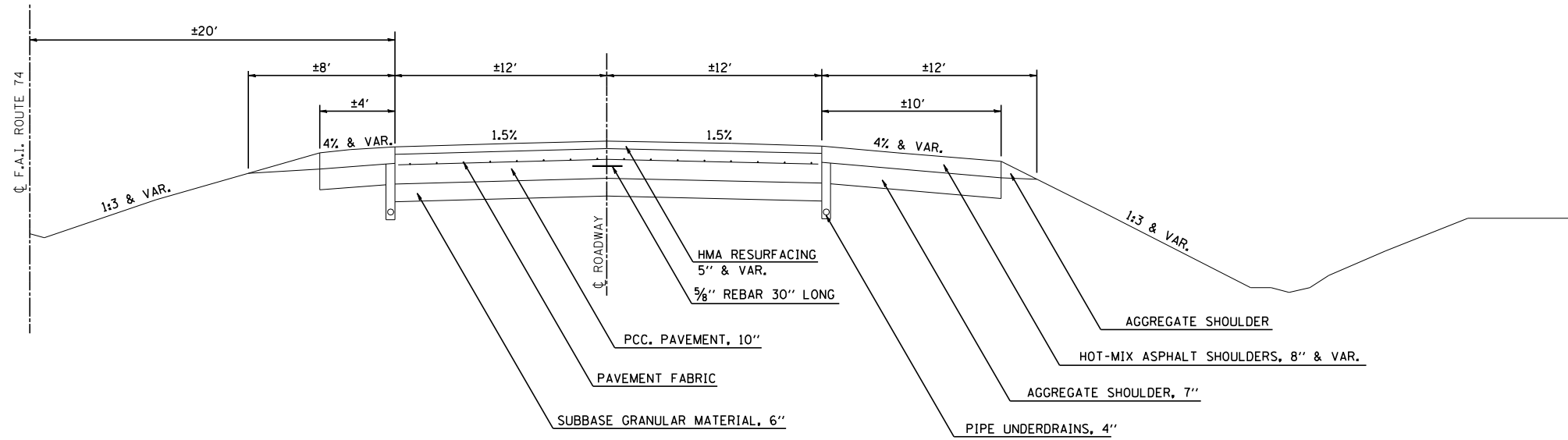
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS
 RAMP A, B, C & D
 FAP 840 (IL 49 N)
 VERMILION
 COUNTY

SCALE: NONE
 DATE: 06/2003

DRAWN BY: IYL
 CHECKED BY: JH

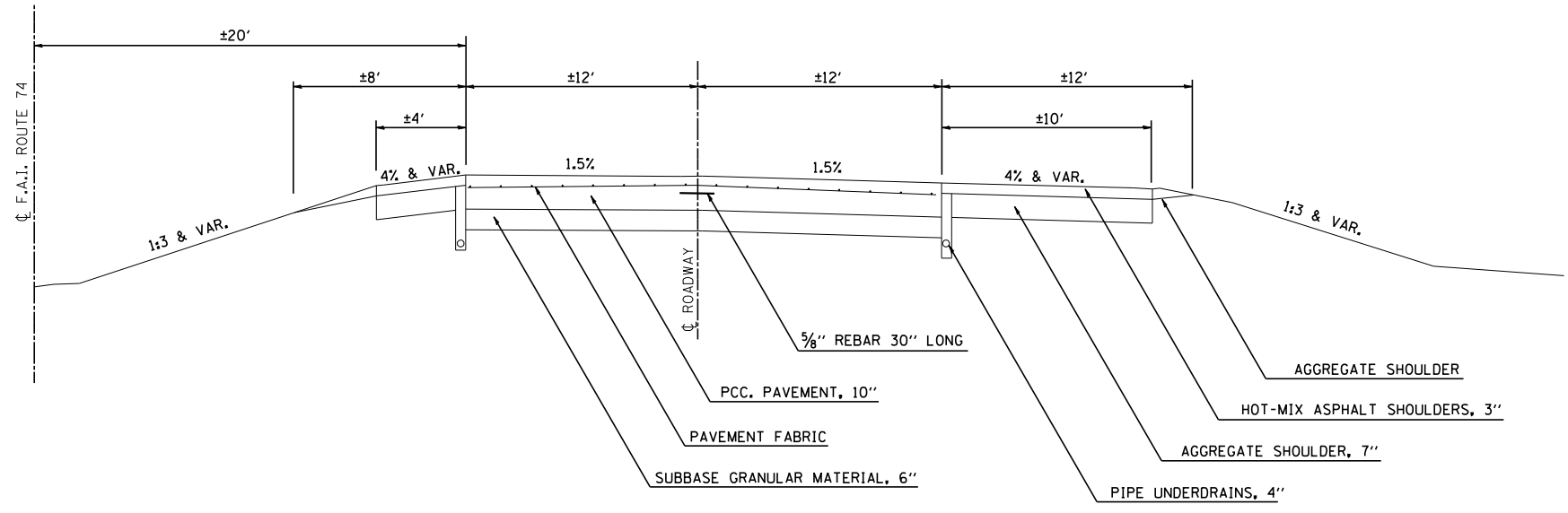
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	12

(10,92-8 HB-4) BR
 CONTRACT NO. 70001



EXISTING TYPICAL CROSS SECTION

F. A. I. - 74
 STA 1157+10.00 TO STA 1159+10.00 & STA. 1161+10.00 TO STA 1163+10.00 (W.B. & E.B.)



EXISTING TYPICAL CROSS SECTION

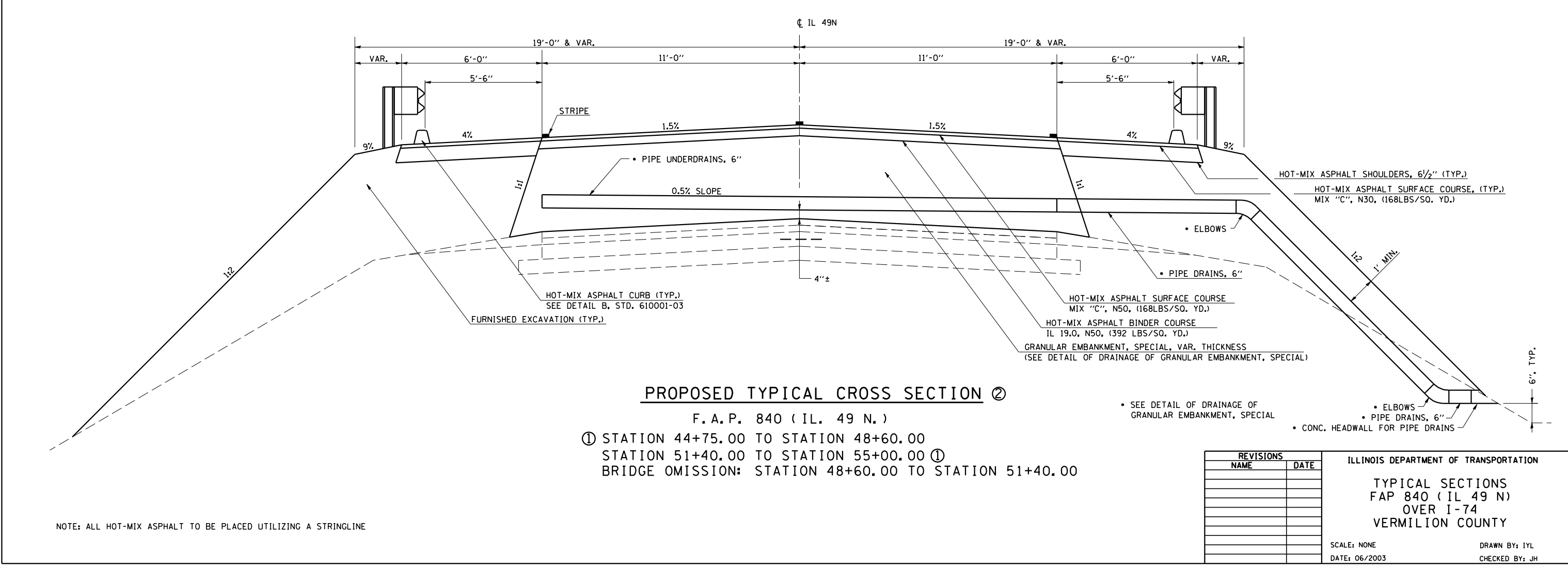
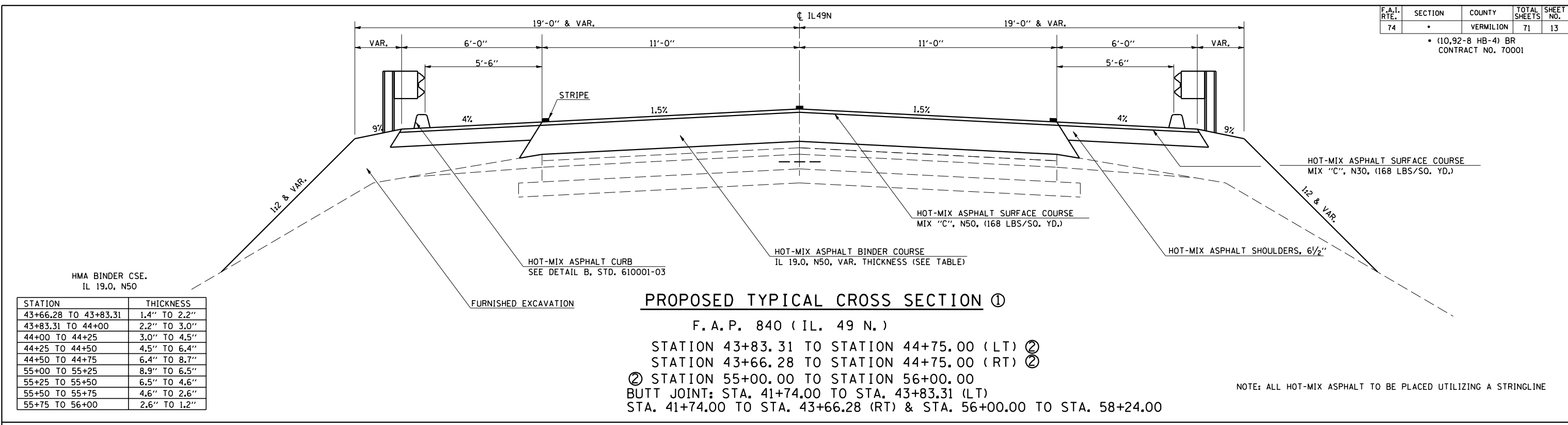
F. A. I. - 74
 STA 1159+10.00 TO STA 1161+10.00 (W.B. & E.B.)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS
 F. A. I. - 74
 VERMILION COUNTY
 SCALE: NONE
 DATE: 06/2003
 DRAWN BY: IYL
 CHECKED BY: JH

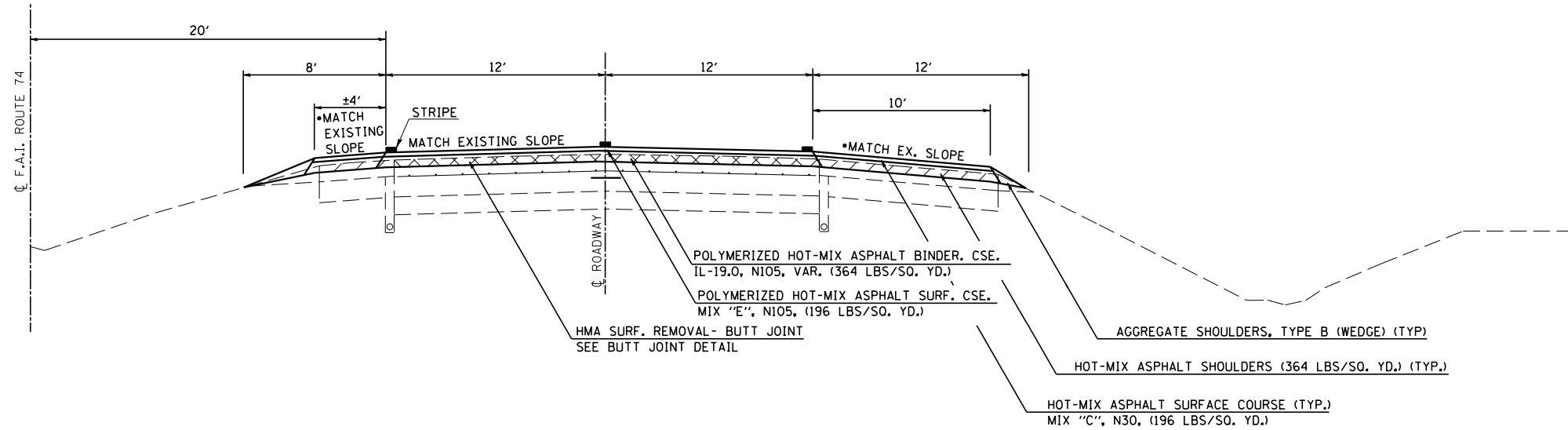
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	71	13

• (10,92-8 HB-4) BR
CONTRACT NO. 70001



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	14

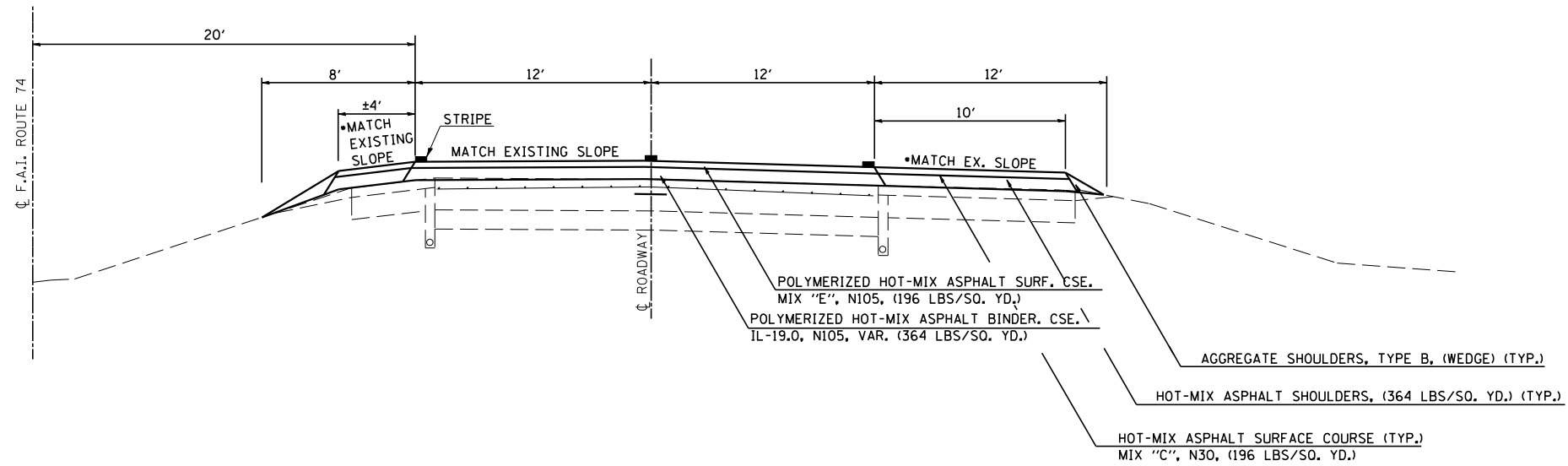
• (10,92-8 HB-4)BR
 CONTRACT NO. 70001



- ALLOWABLE MINIMUM SHOULDER SLOPE = 4.0%
- ALLOWABLE MAXIMUM SHOULDER SLOPE = 6.0%

PROPOSED TYPICAL CROSS SECTION ③

F. A. I. - 74
 STA 1157+10.00 TO STA 1159+10.00 ④ & ④ STA. 1161+10.00 TO STA 1163+10.00 (W.B. & E.B.)



- ALLOWABLE MINIMUM SHOULDER SLOPE = 4.0%
- ALLOWABLE MAXIMUM SHOULDER SLOPE = 6.0%

PROPOSED TYPICAL CROSS SECTION ④

F. A. I. - 74
 ③ STA 1159+10.00 TO STA 1161+10.00 (W.B. & E.B.) ③

REVISIONS	
NAME	DATE

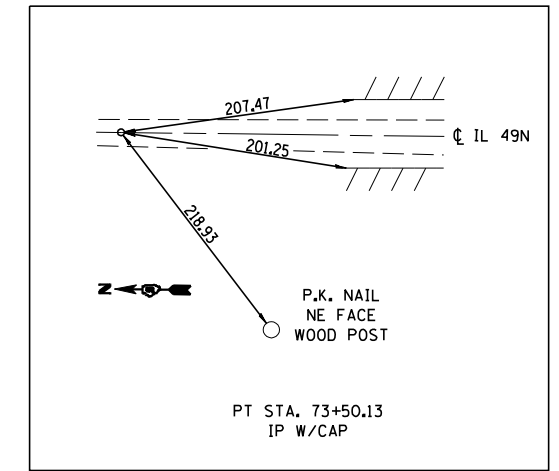
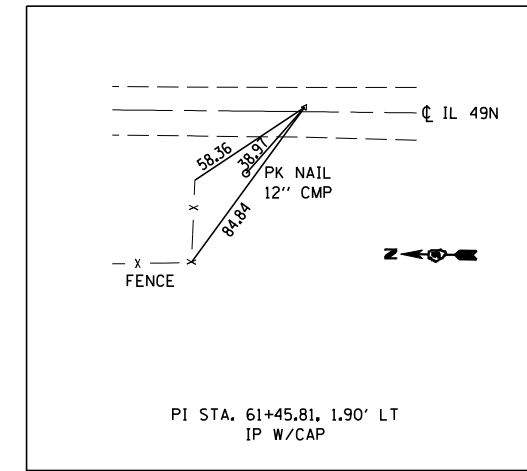
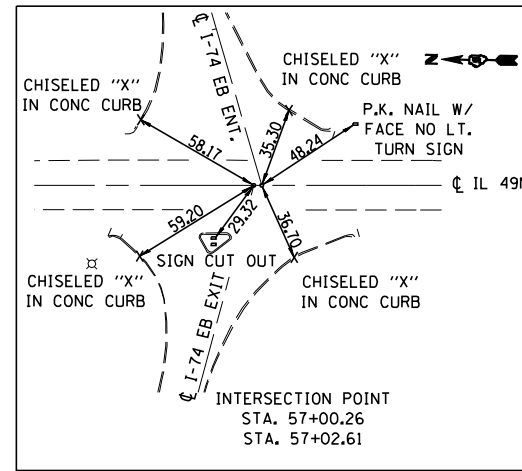
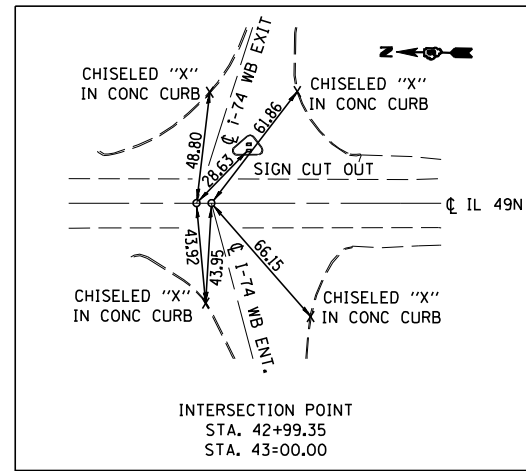
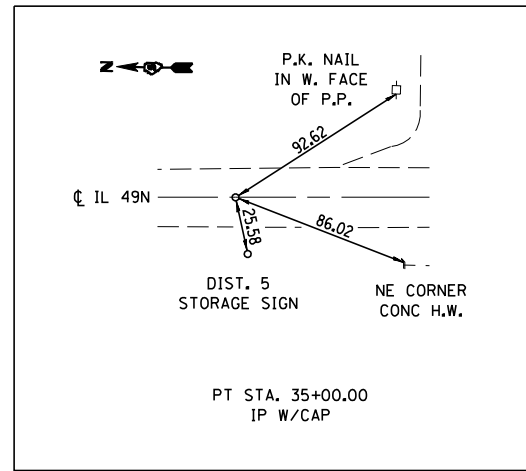
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS
 F. A. I. - 74
 VERMILION COUNTY

SCALE: NONE
 DATE: 06/2003

DRAWN BY: IYL
 CHECKED BY: JH

CONTRACT NO. 70001

LOCAL TIES



BENCH MARKS

BM #1	CHISELED "X" ON E. FOUNDATION OF SIGN FOR SB IL 49 N. OF ENT. RAMP FOR WB I-74, STA. 42+01.867, 32.88' RT, ELEV 670.842
BM #2	CHISELED "X" ON SE. ABUTMENT, STA. 50+97.692, 16.81' RT, ELEV 688.262
BM #3	CHISELED "X" ON W. FOUNDATION OF SIGN FOR NB IL 49 S. OF ENT. RAMP FOR EB I-74, STA. 58+09.877, 33.23' LT, ELEV 671.562

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LOCAL TIES & BENCH MARKS
 F.A.I. - 74
 VERMILION COUNTY

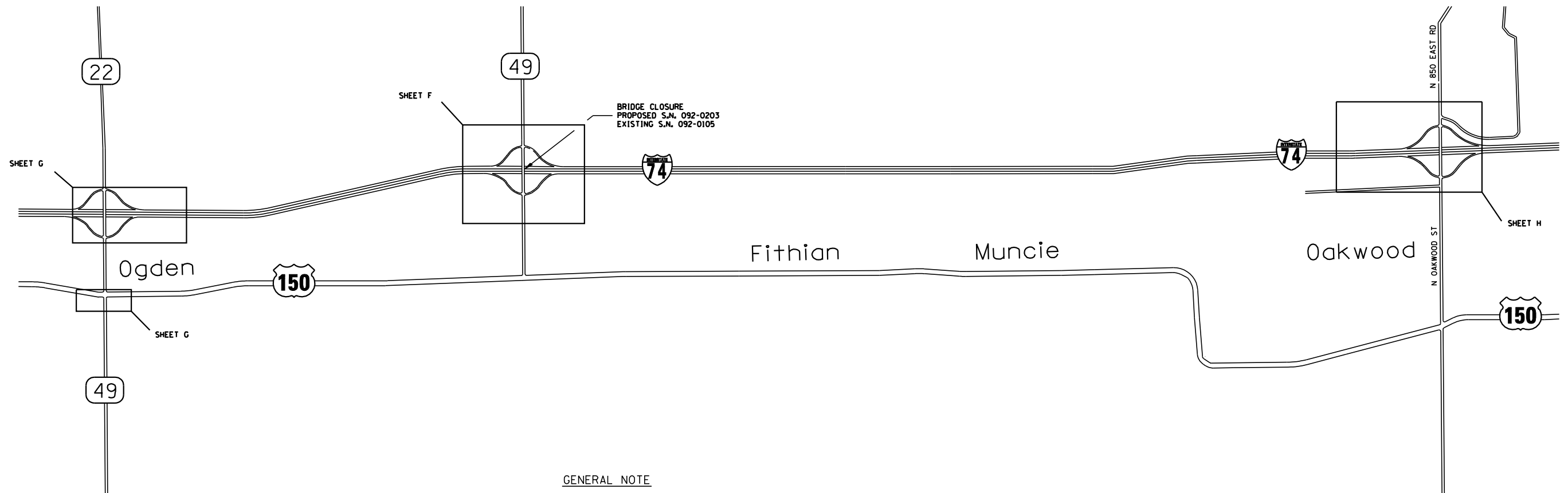
SCALE: NONE
 DATE: 06/2003
 DRAWN BY: IYL
 CHECKED BY: JH

TRAFFIC CONTROL AND PROTECTION (DETOUR 1) SHEET 1 OF 4

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	•	VERMILION	71	16
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		•(10,92-8 HB-4)BR CONTRACT NO. 70001		

KEY MAP 1

COMPLETE BRIDGE CLOSURE OF FAP 840 (IL 49 NORTH) OVER I-74 NEAR FITHIAN

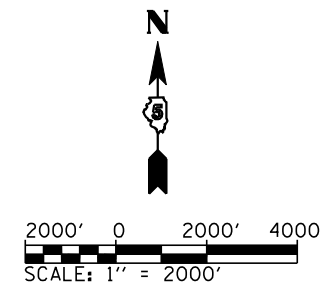


GENERAL NOTE

- THE BRIDGE CARRYING IL ROUTE 49 SOUTH OVER I-74 NEAR OGDEN SHALL BE OPEN.

TRAFFIC CONTROL PLAN

- TRAFFIC FROM S.B. IL 49 (N) TO W.B. I-74 IS TO BE UNRESTRICTED.
- TRAFFIC FROM S.B. IL 49 (N) TO E.B. I-74 IS TO BE ROUTED USING I-74 W.B. TO OGDEN EXIT AT WHICH POINT THEY WILL EXIT AND ENTER I-74 E.B.
- TRAFFIC FROM N.B. IL 49 (S) TO IL 49 (N) IS TO BE ROUTED USING I-74 E.B. TO THE OAKWOOD EXIT AT WHICH POINT THEY WILL EXIT AND ENTER I-74 W.B. AND EXIT AT IL 49 (N).
- TRAFFIC FROM S.B. IL 49 (N) TO E.B. US 150 IS TO BE ROUTED USING I-74 W.B. TO THE OGDEN AT WHICH POINT THEY WILL EXIT AND ENTER I-74 E.B. TRAFFIC WILL EXIT AT IL 49 (N) AND CONTINUE SOUTH TO US 150.
- TRAFFIC FROM N.B. IL 49 (N) TO W.B. I-74 IS TO BE ROUTED USING W.B. US 150 TO OGDEN NORTH ON IL 49 (S) TO W.B. I-74.



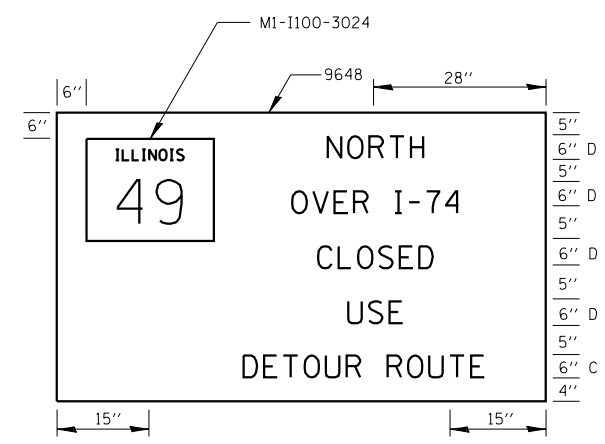
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLANS
BRIDGE REPLACEMENT
FAP 840 (IL 49 N) OVER I-74
VERMILION COUNTY

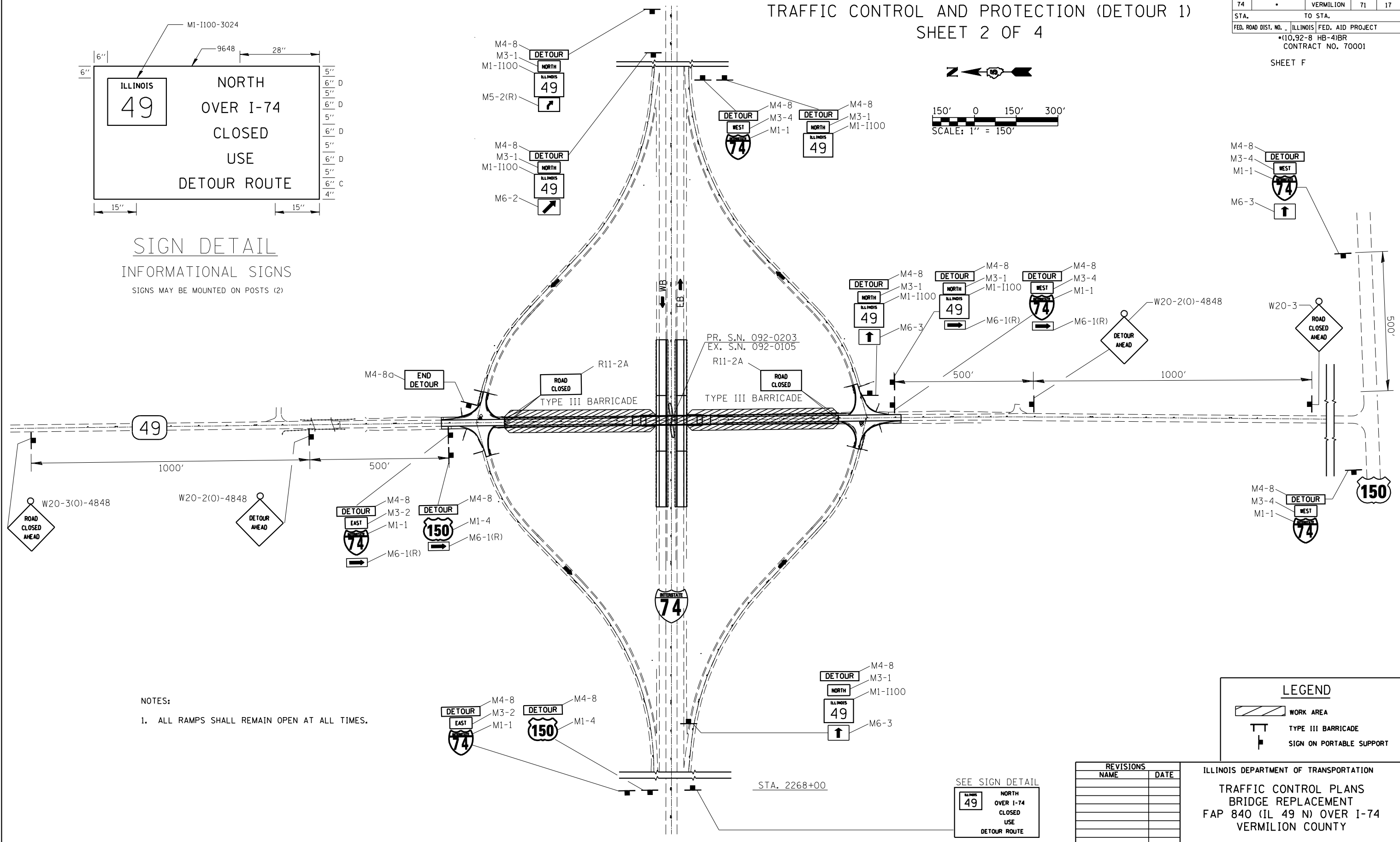
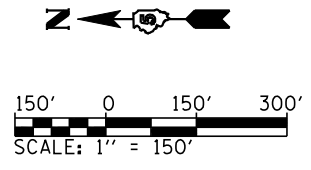
SCALE: 1" = 2000'
DATE: 06/2003
DRAWN BY: WJX
CHECKED BY: JH

TRAFFIC CONTROL AND PROTECTION (DETOUR 1)
SHEET 2 OF 4

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	17
STA.		TO STA.		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
•(10,92-8 HB-4)BR				
CONTRACT NO. 70001				
SHEET F				



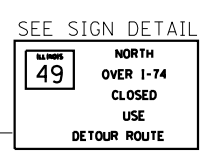
SIGN DETAIL
INFORMATIONAL SIGNS
SIGNS MAY BE MOUNTED ON POSTS (2)



- NOTES:
1. ALL RAMPS SHALL REMAIN OPEN AT ALL TIMES.

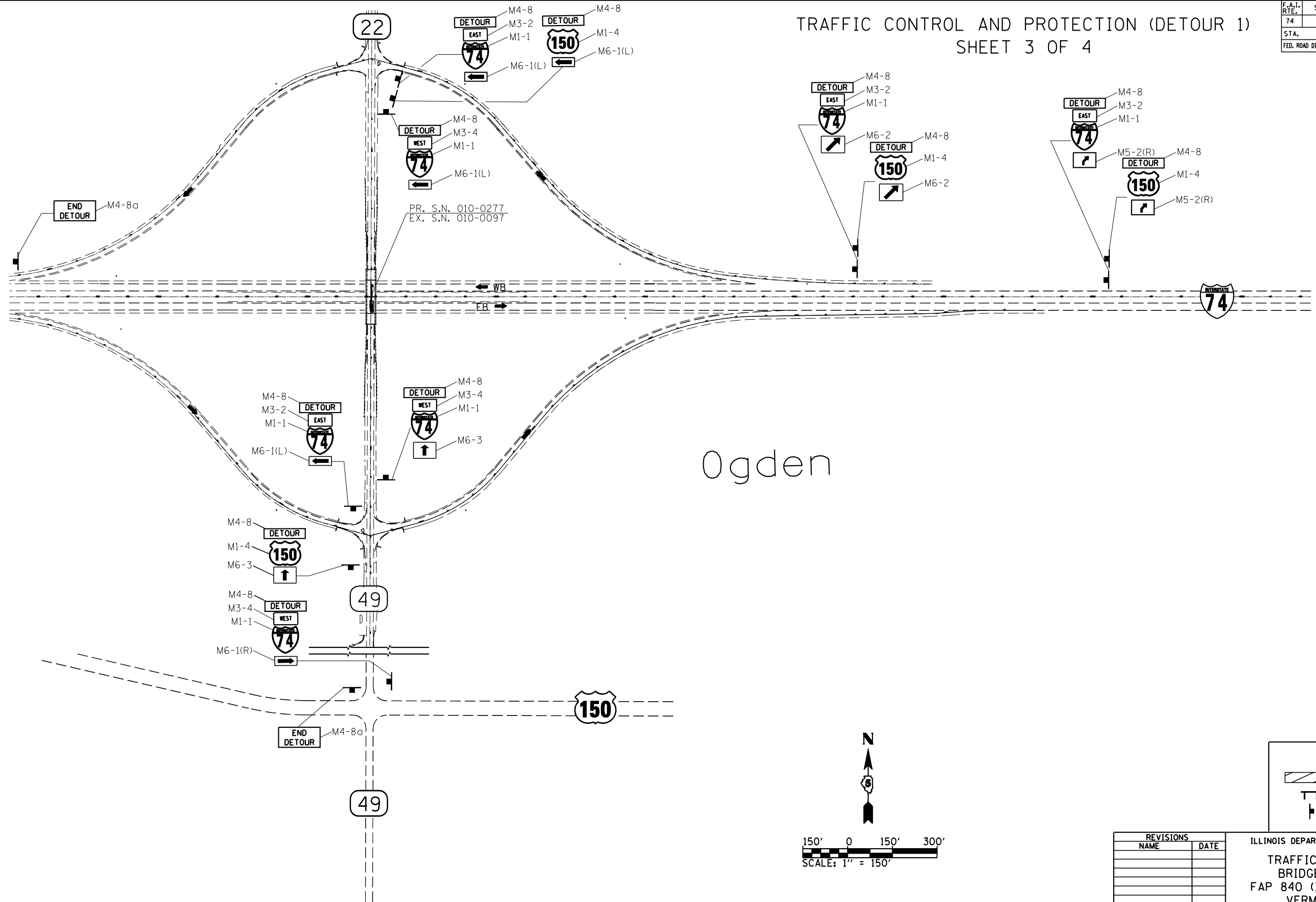
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLANS
BRIDGE REPLACEMENT
FAP 840 (IL 49 N) OVER I-74
VERMILION COUNTY
SCALE: 1" = 150'
DATE: 06/2003
DRAWN BY: WJX
CHECKED BY: JH

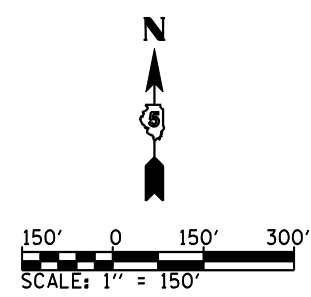


TRAFFIC CONTROL AND PROTECTION (DETOUR 1)
SHEET 3 OF 4

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	•	VERMILION	71	18
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		•(10,92-8 HB-4)BR		
		CONTRACT NO. 70001		
SHEET G				



Ogden



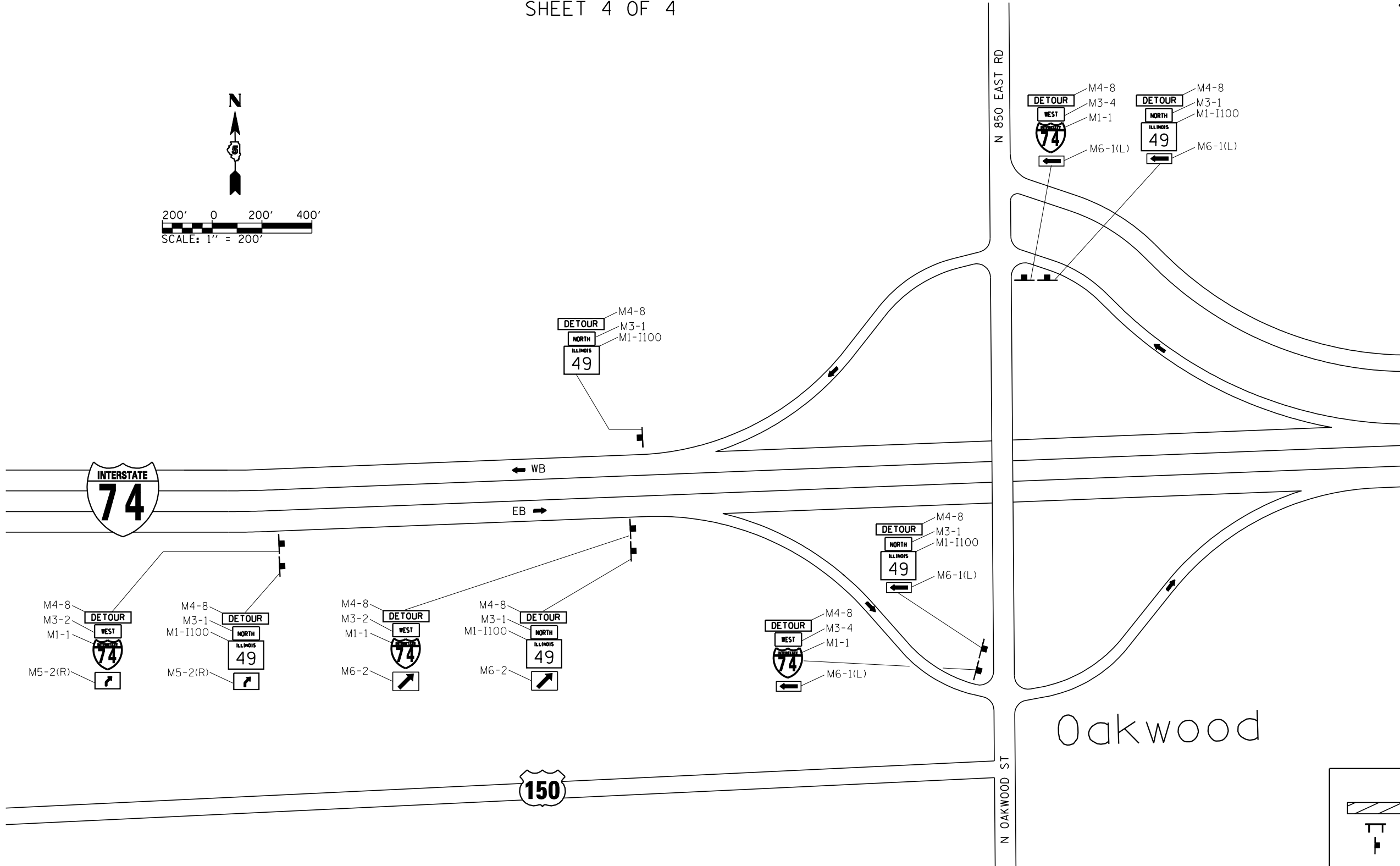
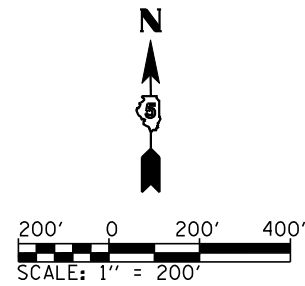
LEGEND	
	WORK AREA
	TYPE III BARRICADE
	SIGN ON PORTABLE SUPPORT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLANS
BRIDGE REPLACEMENT
FAP 840 (IL 49 N) OVER I-74
VERMILION COUNTY
SCALE: 1" = 150'
DATE: 06/2003
DRAWN BY: WJX
CHECKED BY: JH

TRAFFIC CONTROL AND PROTECTION (DETOUR 1)
SHEET 4 OF 4

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	19
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		•(10,92-8 HB-4)BR		
		CONTRACT NO. 70001		
SHEET H				



LEGEND	
	WORK AREA
	TYPE III BARRICADE
	SIGN ON PORTABLE SUPPORT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL PLANS
BRIDGE REPLACEMENT
FAP 840 (IL 49 N) OVER I-74
VERMILION COUNTY

SCALE: 1" = 200'
 DATE: 06/2003

DRAWN BY: WJX
 CHECKED BY: JH

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	•	VERMILION	71	20
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
		•(10,92-8 HB-4)BR		

CONTRACT NO. 70001

TRAFFIC CONTROL AND PROTECTION (SPECIAL)

NOTES:

UTILIZE TRAFFIC CONTROL STANDARD 701406 FOR PLACEMENT OF TEMPORARY CONCRETE BARRIER.

TAPERED PORTIONS OF THE TEMPORARY CONCRETE BARRIER SHALL BE PLACED USING A 12:1 TAPER RATE AS SHOWN ON THE PLANS.

VERTICAL PANELS WITH MONODIRECTIONAL STEADY BURNING TYPE A LIGHTS SHALL BE MOUNTED ON THE TAPERED PORTIONS OF THE TEMPORARY CONCRETE BARRIER AT 20' CENTERS.

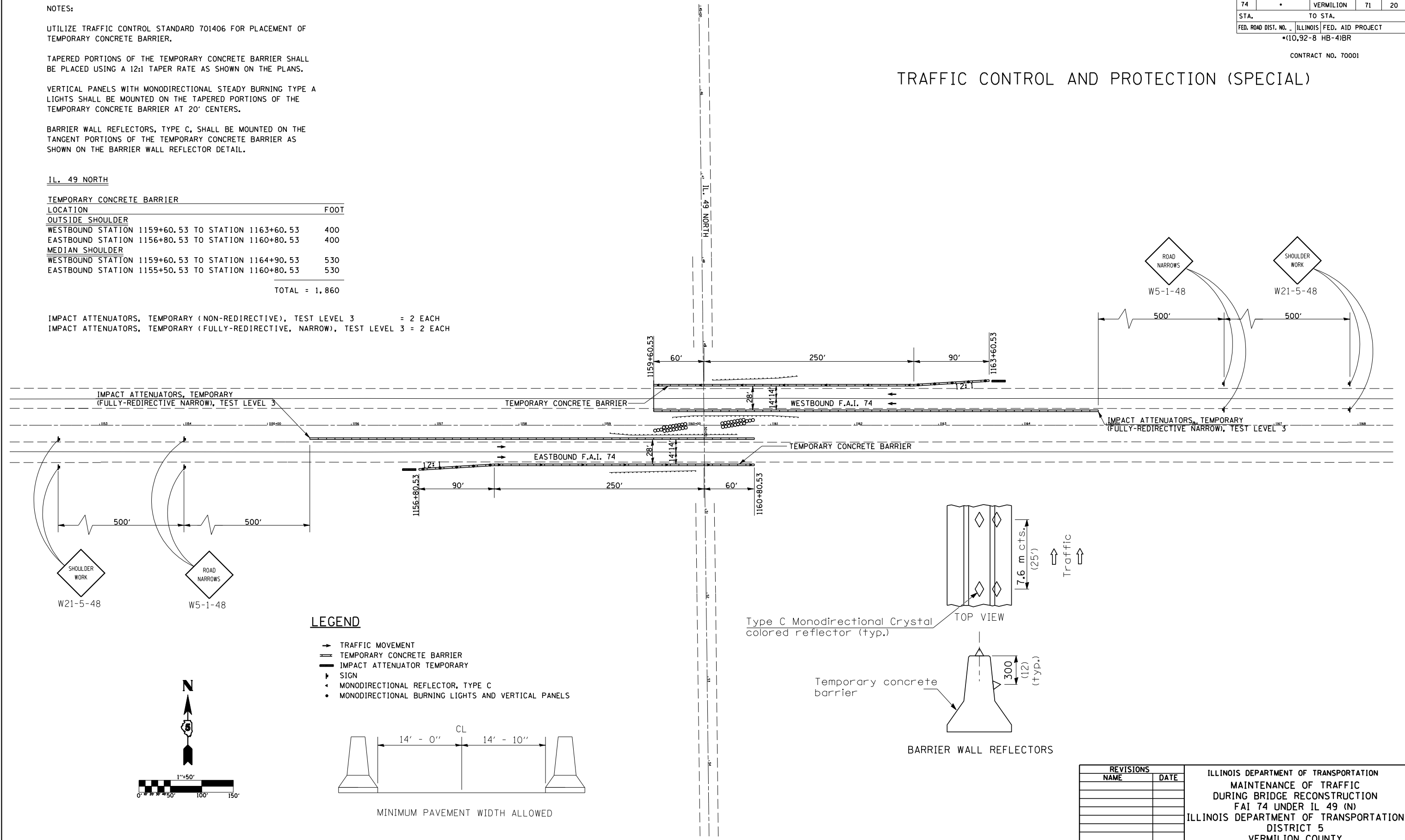
BARRIER WALL REFLECTORS, TYPE C, SHALL BE MOUNTED ON THE TANGENT PORTIONS OF THE TEMPORARY CONCRETE BARRIER AS SHOWN ON THE BARRIER WALL REFLECTOR DETAIL.

IL. 49 NORTH

TEMPORARY CONCRETE BARRIER

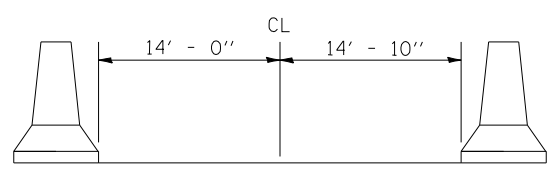
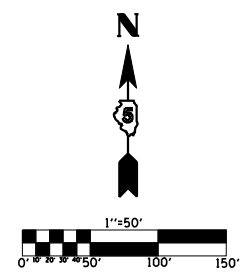
LOCATION	FOOT
<u>OUTSIDE SHOULDER</u>	
WESTBOUND STATION 1159+60.53 TO STATION 1163+60.53	400
EASTBOUND STATION 1156+80.53 TO STATION 1160+80.53	400
<u>MEDIAN SHOULDER</u>	
WESTBOUND STATION 1159+60.53 TO STATION 1164+90.53	530
EASTBOUND STATION 1155+50.53 TO STATION 1160+80.53	530
TOTAL = 1,860	

IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 = 2 EACH
 IMPACT ATTENUATORS, TEMPORARY (FULLY-REDIRECTIVE, NARROW), TEST LEVEL 3 = 2 EACH



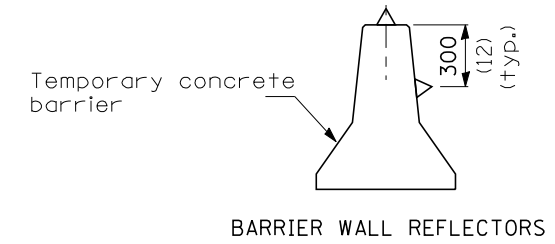
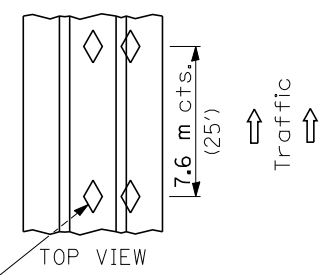
LEGEND

- TRAFFIC MOVEMENT
- ▬ TEMPORARY CONCRETE BARRIER
- ▬ IMPACT ATTENUATOR TEMPORARY
- ▬ SIGN
- MONODIRECTIONAL REFLECTOR, TYPE C
- MONODIRECTIONAL BURNING LIGHTS AND VERTICAL PANELS



MINIMUM PAVEMENT WIDTH ALLOWED

Type C Monodirectional Crystal colored reflector (typ.)

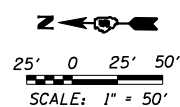
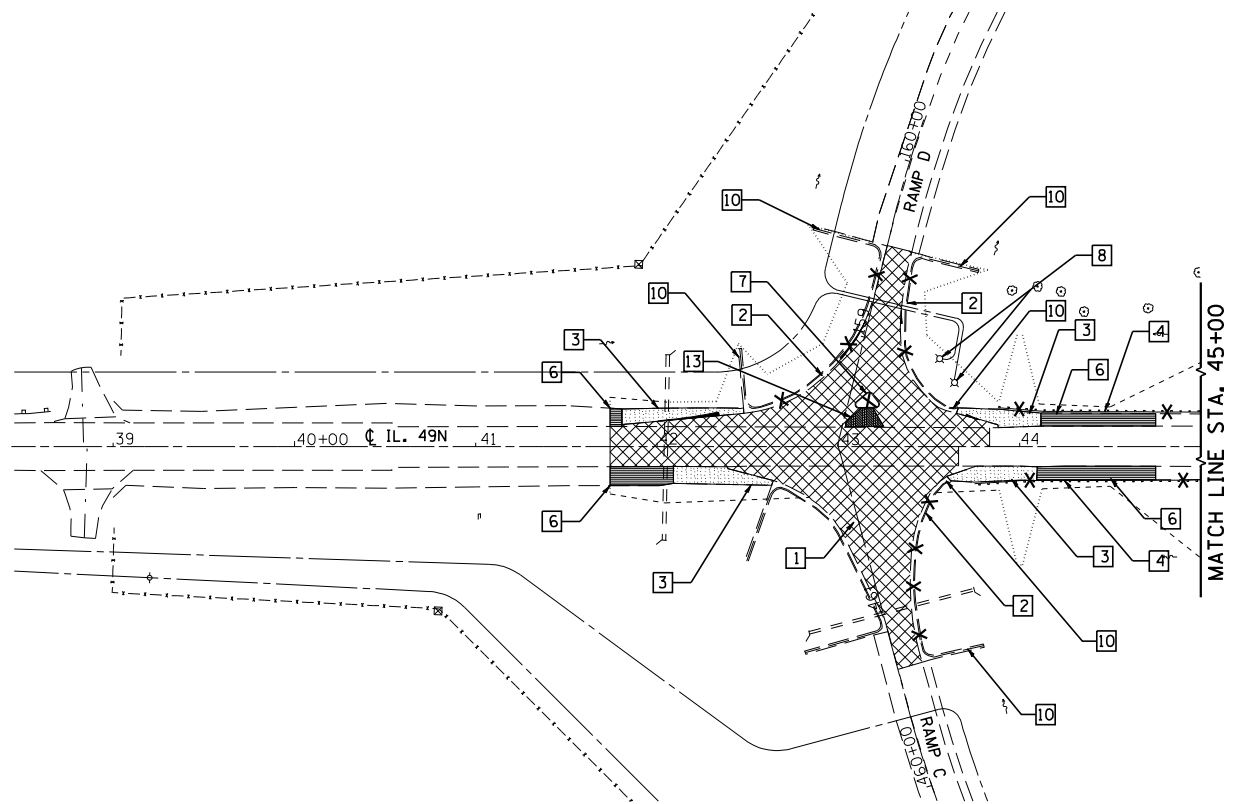
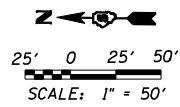
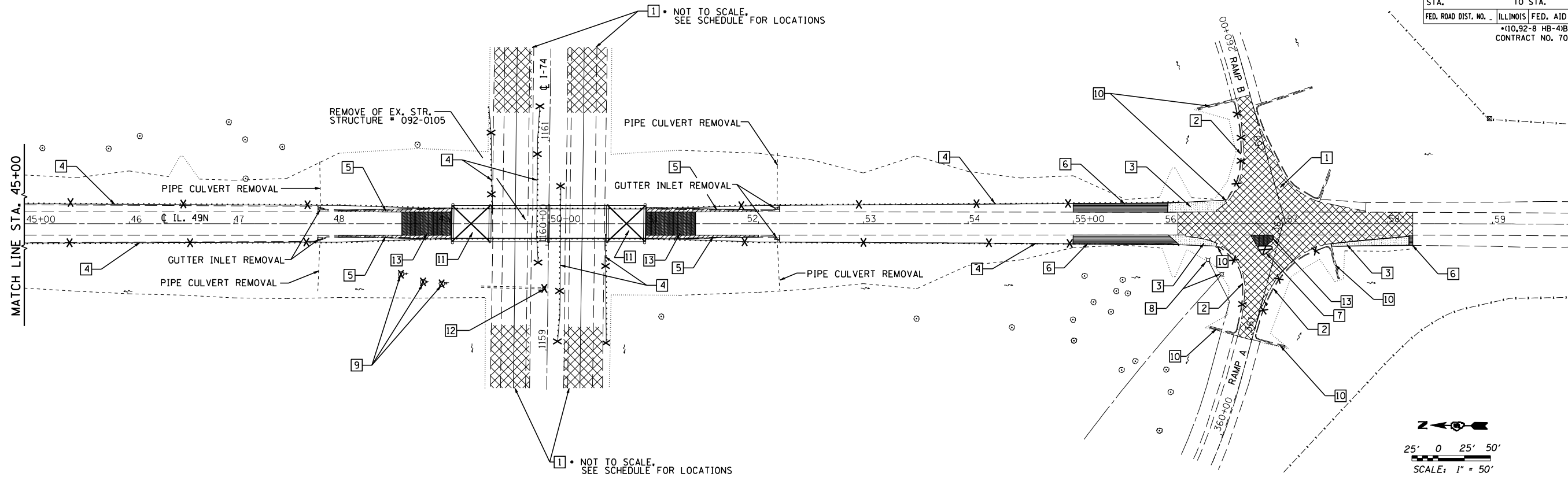


BARRIER WALL REFLECTORS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 MAINTENANCE OF TRAFFIC
 DURING BRIDGE RECONSTRUCTION
 FAI 74 UNDER IL 49 (N)
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 5
 VERMILION COUNTY
 SCALE: 1" = 50'
 DATE: 08/2004
 DRAWN BY:
 CHECKED BY:

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	21
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		*10.92-B HB-41BR		
		CONTRACT NO. 70001		



LEGEND FOR REMOVAL ITEMS:

- 1 [Cross-hatched box] HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- 2 [X symbol] COMBINATION CURB AND GUTTER REMOVAL
- 3 [Dotted box] PAVED SHOULDER REMOVAL
- 4 [X-X symbol] GUARDRAIL REMOVAL
- 5 [Diagonal lines box] GUTTER REMOVAL
- 6 [Solid black box] EARTH EXCAVATION (AGGREGATE SHOULDER REMOVAL)
- 7 [Triangle symbol] ISLAND REMOVAL
- 8 [X symbol] LIGHT POLE FOUNDATION REMOVAL
- 9 [Circle with X symbol] TREE REMOVAL
- 10 [X-X symbol] GUTTER OUTLET REMOVAL
- 11 [X symbol] APPROACH SLAB REMOVAL
- 12 [X symbol] FLARED END SECTION REMOVAL (PAID BY CONCRETE HEADWALL REMOVAL)
- 13 [Solid black box] PAVEMENT REMOVAL

NOTE:

1. CONTRACTOR SHALL SUBMIT REMOVAL PLANS FOR APPROVAL BY THE ENGINEER.
2. EXISTING SPBGR & TRAFFIC BARRIER TERMINALS IN GOOD CONDITION SHALL BE SALVAGED. SEE SPECIAL PROVISIONS.
3. TRAFFIC BARRIER TERMINAL REMOVAL IS PAID FOR AS "GUARDRAIL REMOVAL".
4. GUTTER/INLET & OUTLET REMOVAL IS PAID FOR AS "GUTTER REMOVAL".

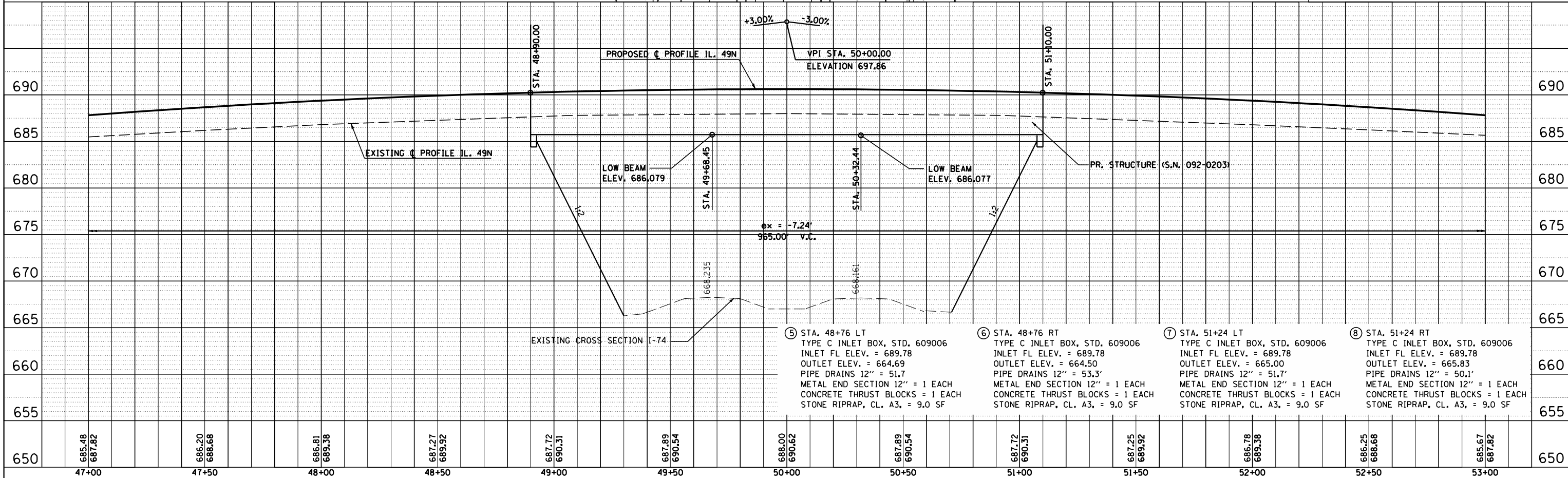
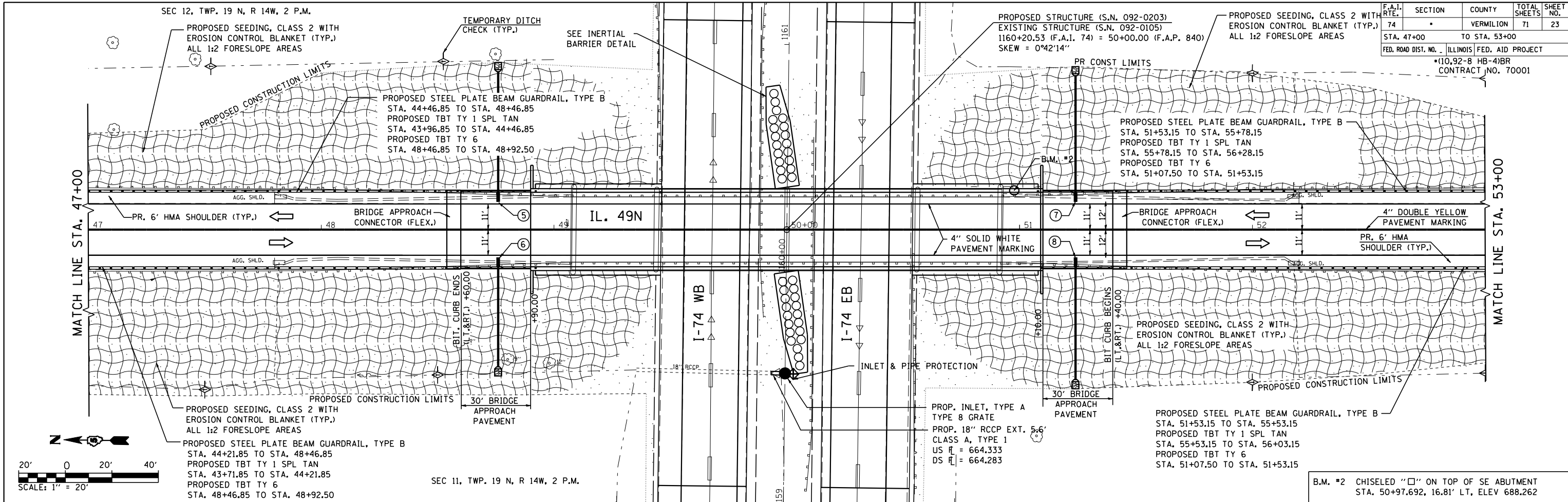
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
REMOVAL ITEMS & EXISTING UTILITIES
FAP 840 (IL 49 N)
OVER I-74
VERMILION COUNTY

SCALE: 1:50
DATE: 06/2003

DRAWN BY: WJX
CHECKED BY: IYL

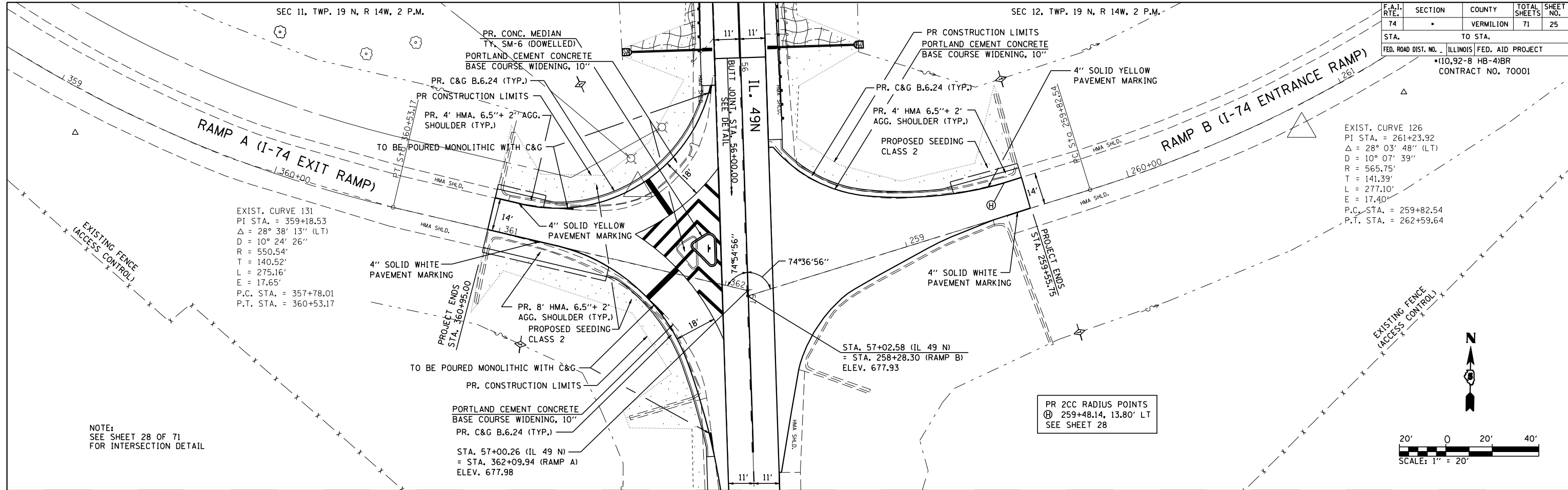
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	71	23
STA. 47+00		TO STA. 53+00		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
*10,92-8 HB-4BR CONTRACT NO. 70001				



IL 49N STA. 47+00 TO STA. 53+00

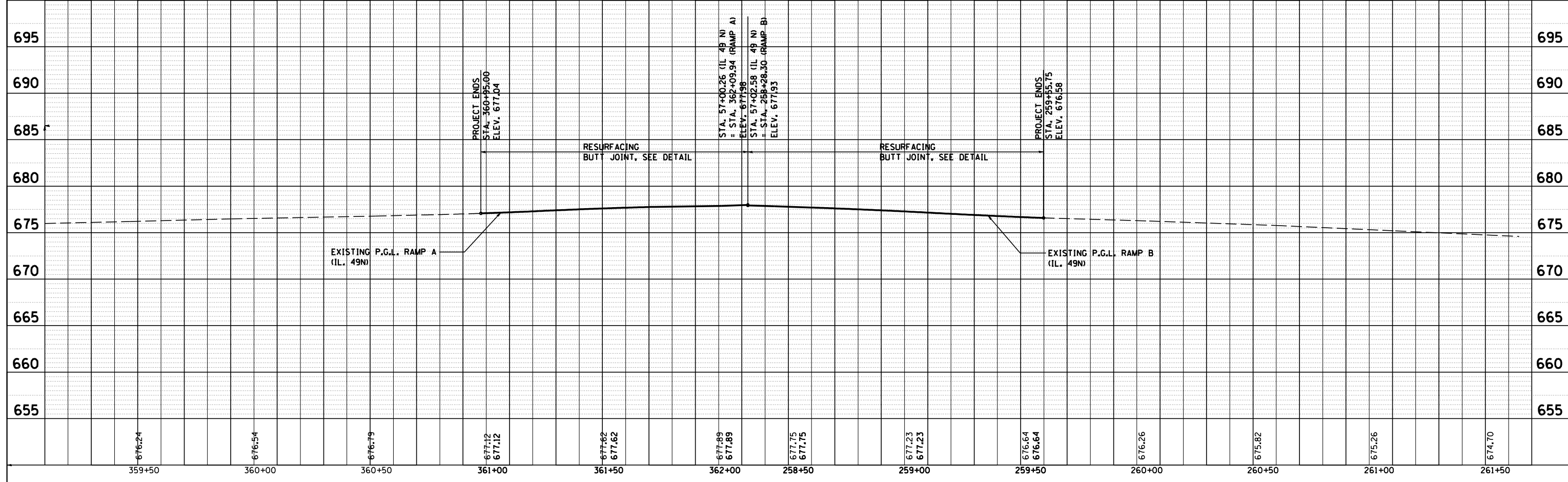
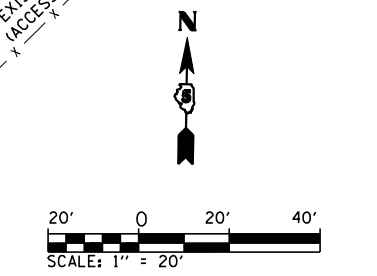
PLAN	SURVEYED	DATE
	PLotted	
	Checked	
	By	
	Of	
	Way	
	Checked	
	By	
	File	
	Name	

PROFILE	SURVEYED	DATE
	Plotted	
	Checked	
	By	
	Of	
	Way	
	Checked	
	By	
	File	
	Name	



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	25
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
•(10,92-8 HB-4)BR				
CONTRACT NO. 70001				

EXIST. CURVE 126
 PI STA. = 261+23.92
 $\Delta = 28^\circ 03' 48''$ (LT)
 $D = 10^\circ 07' 39''$
 $R = 565.75'$
 $T = 141.39'$
 $L = 277.10'$
 $E = 17.40'$
 P.C. STA. = 259+82.54
 P.T. STA. = 262+59.64



IL 49N RAMPS A & B

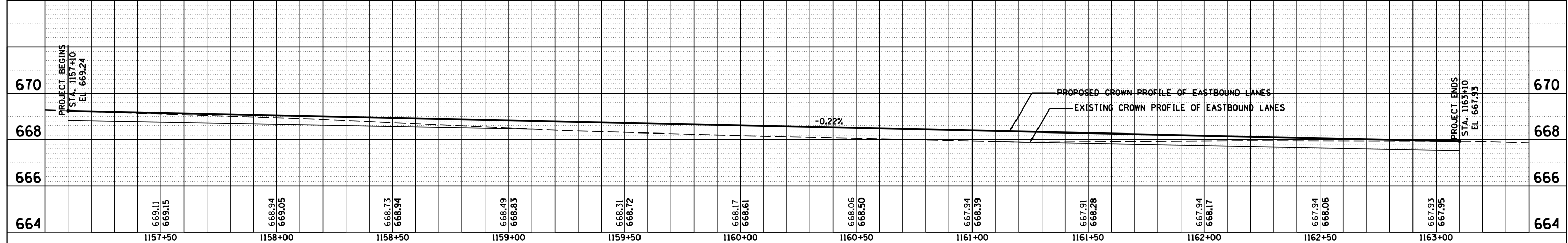
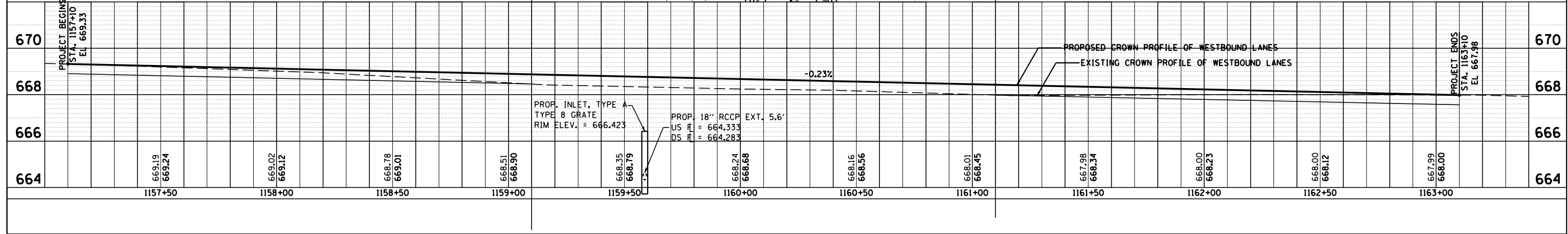
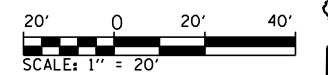
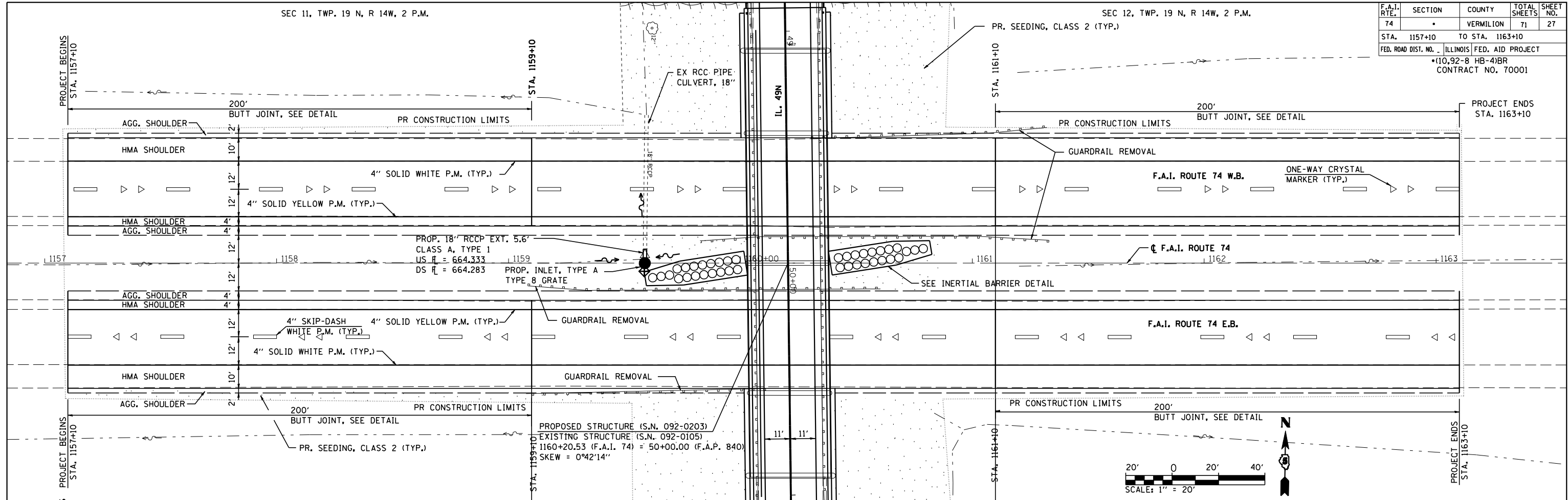
SEC 11, TWP. 19 N, R 14W, 2 P.M.

SEC 12, TWP. 19 N, R 14W, 2 P.M.

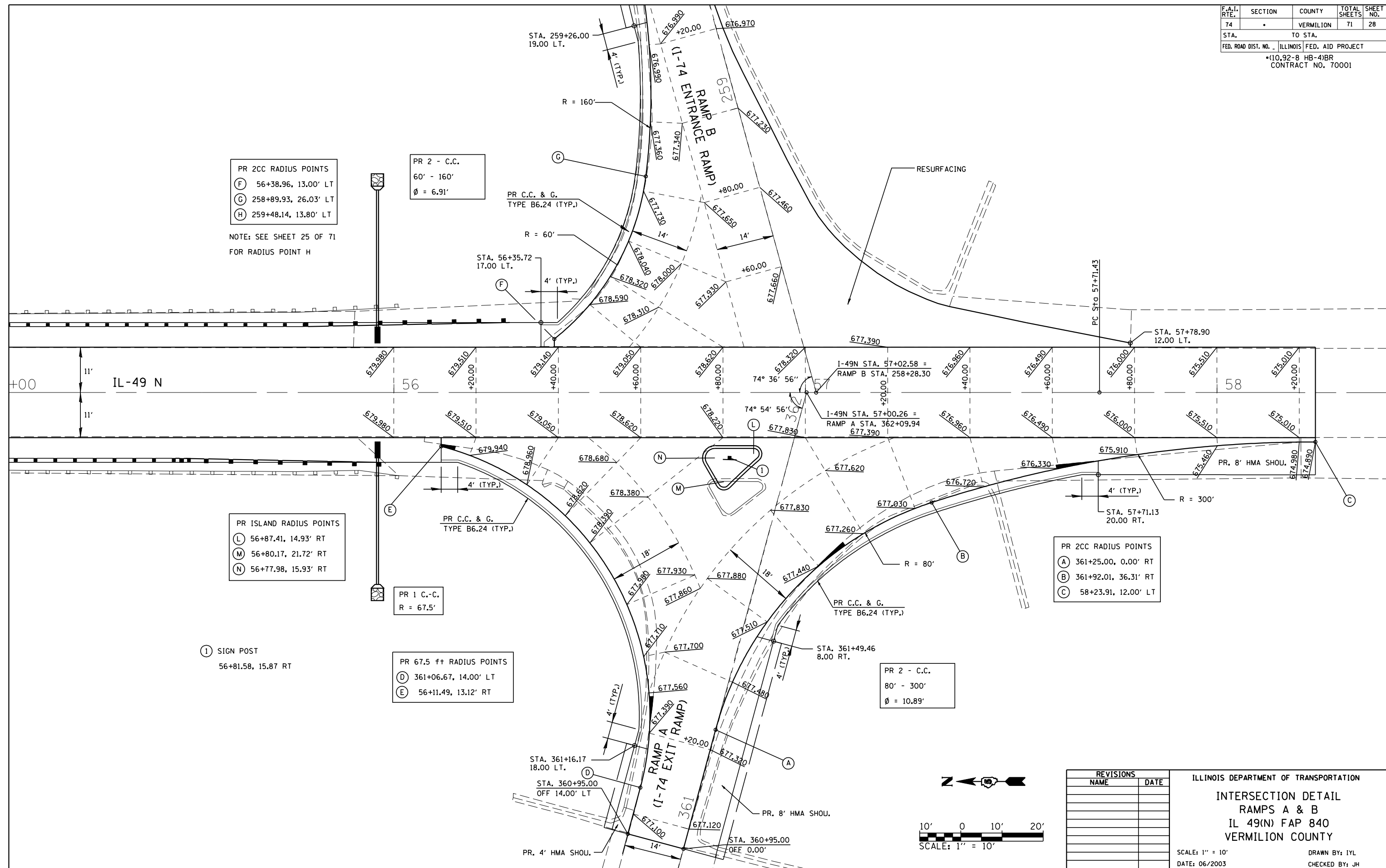
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	71	27
STA. 1157+10 TO STA. 1163+10				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
*10,92-8 HB-4BR				
CONTRACT NO. 70001				

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

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	CHECKED		
	NO. NOTED		
	STRUCTURE NOTATIONS CHKD		



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	28
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*(10,92-8 HB-4)BR CONTRACT NO. 70001				



PR 2CC RADIUS POINTS
 (F) 56+38.96, 13.00' LT
 (G) 258+89.93, 26.03' LT
 (H) 259+48.14, 13.80' LT

NOTE: SEE SHEET 25 OF 71
 FOR RADIUS POINT H

PR 2 - C.C.
 60' - 160'
 $\phi = 6.91'$

PR ISLAND RADIUS POINTS
 (L) 56+87.41, 14.93' RT
 (M) 56+80.17, 21.72' RT
 (N) 56+77.98, 15.93' RT

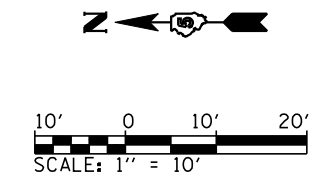
PR 1 C.-C.
 R = 67.5'

PR 7.5 ft RADIUS POINTS
 (D) 361+06.67, 14.00' LT
 (E) 56+11.49, 13.12' RT

PR 2CC RADIUS POINTS
 (A) 361+25.00, 0.00' RT
 (B) 361+92.01, 36.31' RT
 (C) 58+23.91, 12.00' LT

PR 2 - C.C.
 80' - 300'
 $\phi = 10.89'$

(I) SIGN POST
 56+81.58, 15.87 RT



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERSECTION DETAIL
 RAMPS A & B
 IL 49(N) FAP 840
 VERMILION COUNTY
 SCALE: 1" = 10'
 DATE: 06/2003
 DRAWN BY: IYL
 CHECKED BY: JH

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	29
STA.		TO STA.		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
•(10,92-8 HB-4)BR				
CONTRACT NO. 70001				

- PR 2CC RADIUS POINTS
- (A) 41+74.12, 13.00' LT
 - (B) 158+57.30, 37.39' LT
 - (C) 159+25.77, 00.00' LT

PR 2 - C.C.
80' - 300'
Ø = 11.00'

- PR 65 ft RADIUS POINTS
- (D) 43+83.31, 13.10' LT
 - (E) 159+35.83, 14.00' RT

PR 1 - C.C.
R = 65'

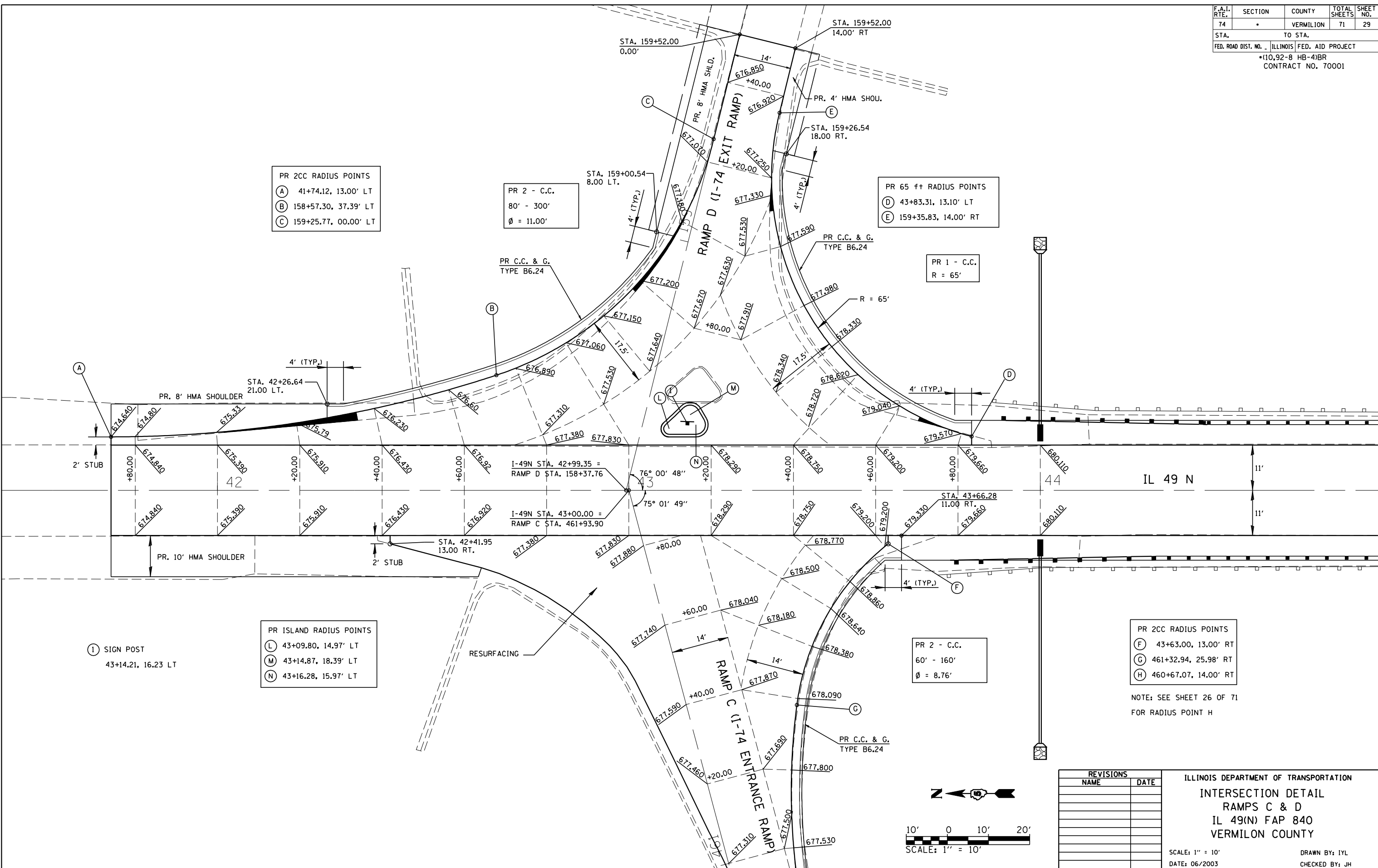
- PR ISLAND RADIUS POINTS
- (L) 43+09.80, 14.97' LT
 - (M) 43+14.87, 18.39' LT
 - (N) 43+16.28, 15.97' LT

PR 2 - C.C.
60' - 160'
Ø = 8.76'

- PR 2CC RADIUS POINTS
- (F) 43+63.00, 13.00' RT
 - (G) 461+32.94, 25.98' RT
 - (H) 460+67.07, 14.00' RT

NOTE: SEE SHEET 26 OF 71 FOR RADIUS POINT H

(I) SIGN POST
43+14.21, 16.23 LT



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERSECTION DETAIL
 RAMP C & D
 IL 49(N) FAP 840
 VERMILION COUNTY

SCALE: 1" = 10'
 DATE: 06/2003

DRAWN BY: IYL
 CHECKED BY: JH

GENERAL NOTES

- Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ " ϕ , holes $\frac{15}{16}$ " ϕ , unless otherwise noted.
- Calculated weight of Structural Steel = 17,800 lbs. (AASHTO M270 Grade 36)
274,060 lbs. (AASHTO M270 Grade 50)
- Field welding of construction accessories will not be permitted to beams or girders.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges, webs and all splice plate material except fill plates.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions
- Slope wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. Per 100 sq. ft.
- The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles..
- Bearing seat surfaces shall be constructed or adjusted to the designed elevations within a tolerance of $\frac{1}{8}$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two $\frac{1}{8}$ " adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.
- Metal Shell Piles at the abutments shall be driven in holes precored to bottom of existing pavement under the embankment according to article 512.09(c) of the Standard Specifications. Precore 18" diam. to EL 662.5, Typ. Cost included in Driving Piles.
- All construction joints shall be bonded.
- The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green (Munsell Color Standard 7.5G 4/8) -. See Special Provision for "Cleaning and Painting New Metal Structures".

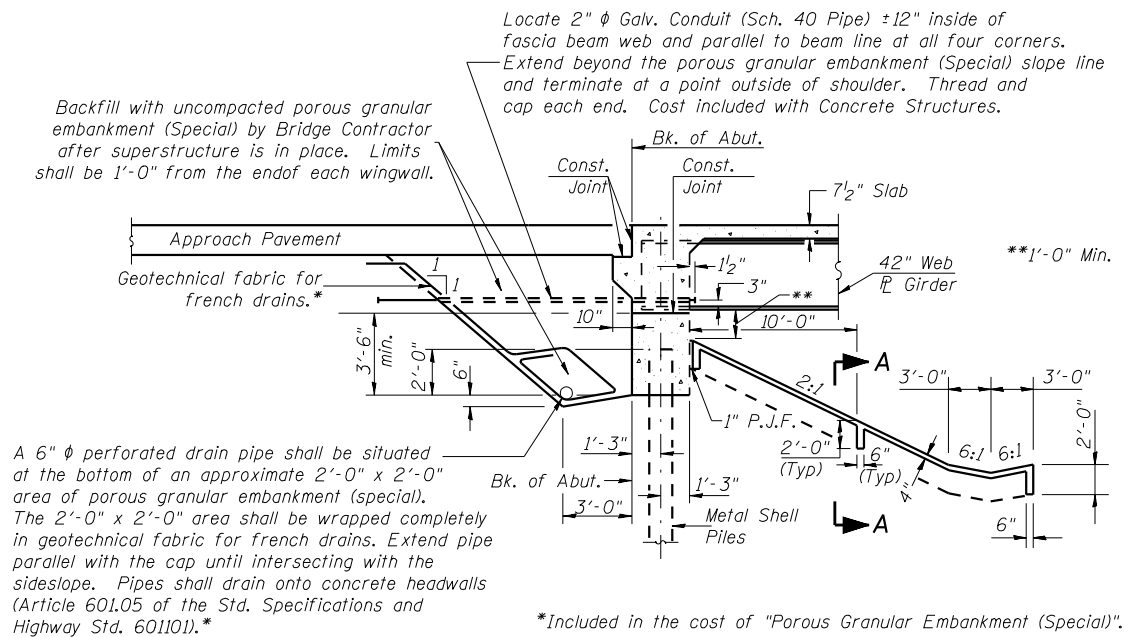
The contractor shall construct the parapets according to the F shape parapet detailed in the special provisions in lieu of the New Jersey parapet detailed in the contract plans.

STATION 1160+20.53
BUILT 200 BY
STATE OF ILLINOIS
F.A.I. RT. 74 SEC. (10-92-8HB-4)BR
LOADING HL93 (HS20)
STR. NO. 092-0203

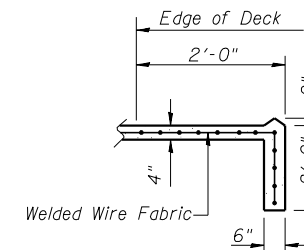
NAME PLATE

See Std. 515001

Note: Excavation for placing PGE (Special) is paid for as Structure Excavation.



INTEGRAL ABUTMENT & SLOPEWALL DETAILS



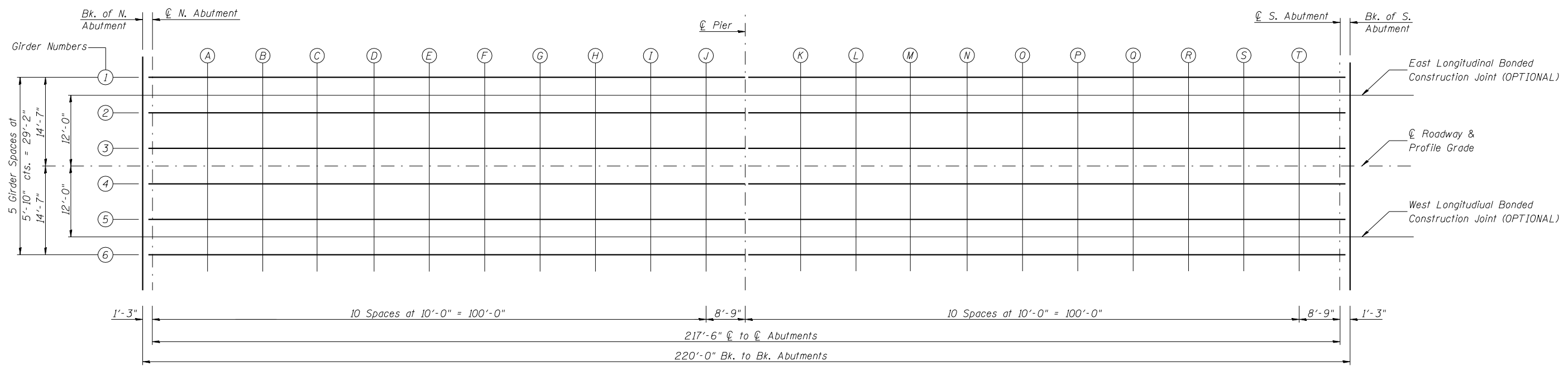
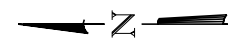
SECTION A-A

LIN ENGINEERING, LTD.

210 N. Chestnut
Chatham, Illinois 62629
(217) 483-4668
FAX (217) 483-4706
Designed By: MTH Checked By: STD Drawn By: JMD
Date: 11/02 File: 0920203.DWG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
FAP ROUTE 840 (IL 49N)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-4) BR
VERMILION COUNTY
STA. 1160+20.53 (I-74)
STA. 50+00.00 (IL 49N)
STRUCTURE NO. 092-0203



PLAN

GIRDER #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N Abut.	48+90.000	-14.583	690.010	690.010
☐ of N Abut.	48+91.250	-14.583	690.019	690.019
A	49+01.250	-14.583	690.083	690.133
B	49+11.250	-14.583	690.141	690.236
C	49+21.250	-14.583	690.193	690.317
D	49+31.250	-14.583	690.239	690.378
E	49+41.250	-14.583	690.279	690.415
F	49+51.250	-14.583	690.312	690.432
G	49+61.250	-14.583	690.340	690.431
H	49+71.250	-14.583	690.360	690.420
I	49+81.250	-14.583	690.375	690.405
J	49+91.250	-14.583	690.384	690.391
☐ Pier	50+00.000	-14.583	690.386	690.386
K	50+10.000	-14.583	690.383	690.393
L	50+20.000	-14.583	690.374	690.407
M	50+30.000	-14.583	690.358	690.422
N	50+40.000	-14.583	690.336	690.432
O	50+50.000	-14.583	690.308	690.431
P	50+60.000	-14.583	690.274	690.412
Q	50+70.000	-14.583	690.234	690.372
R	50+80.000	-14.583	690.187	690.308
S	50+90.000	-14.583	690.134	690.225
T	51+00.000	-14.583	690.075	690.117
☐ of S Abut.	51+08.750	-14.583	690.019	690.019
Bk. of S Abut.	51+10.000	-14.583	690.010	690.010

EAST LONGITUDINAL BONDED CONSTRUCTION JOINT (OPTIONAL)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N Abut.	48+90.000	-12.000	690.064	690.064
☐ of N Abut.	48+91.250	-12.000	690.072	690.072
A	49+01.250	-12.000	690.137	690.181
B	49+11.250	-12.000	690.195	690.280
C	49+21.250	-12.000	690.247	690.359
D	49+31.250	-12.000	690.293	690.418
E	49+41.250	-12.000	690.333	690.455
F	49+51.250	-12.000	690.366	690.474
G	49+61.250	-12.000	690.393	690.476
H	49+71.250	-12.000	690.414	690.468
I	49+81.250	-12.000	690.429	690.456
J	49+91.250	-12.000	690.438	690.444
☐ Pier	50+00.000	-12.000	690.440	690.440
K	50+10.000	-12.000	690.437	690.445
L	50+20.000	-12.000	690.428	690.457
M	50+30.000	-12.000	690.412	690.469
N	50+40.000	-12.000	690.390	690.476
O	50+50.000	-12.000	690.362	690.472
P	50+60.000	-12.000	690.328	690.452
Q	50+70.000	-12.000	690.288	690.411
R	50+80.000	-12.000	690.241	690.349
S	50+90.000	-12.000	690.188	690.269
T	51+00.000	-12.000	690.129	690.166
☐ of S Abut.	51+08.750	-12.000	690.072	690.072
Bk. of S Abut.	51+10.000	-12.000	690.064	690.064

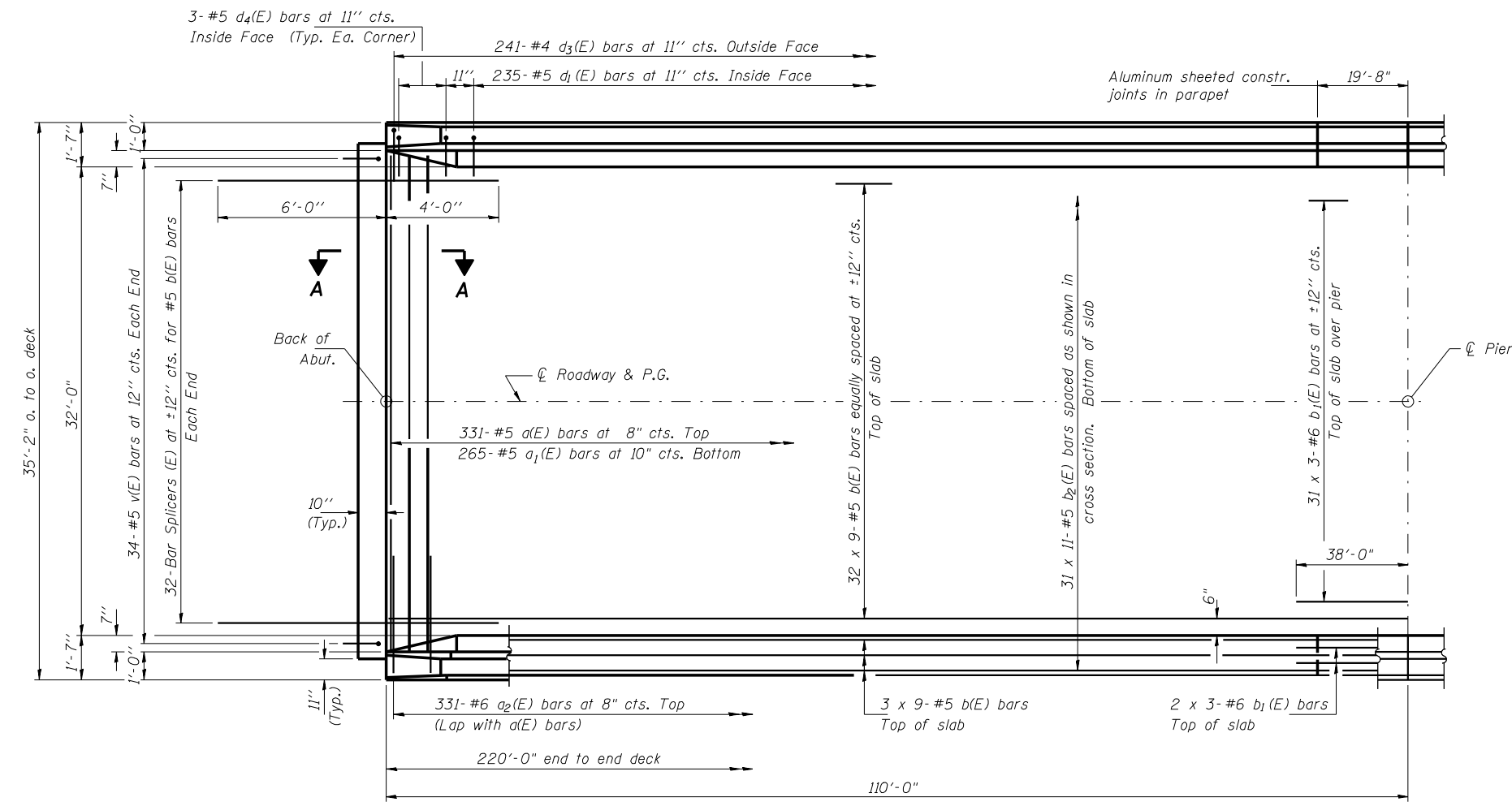
GIRDER #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of N Abut.	48+90.000	-8.750	690.115	690.115
☐ of N Abut.	48+91.250	-8.750	690.123	690.123
A	49+01.250	-8.750	690.188	690.232
B	49+11.250	-8.750	690.246	690.331
C	49+21.250	-8.750	690.298	690.409
D	49+31.250	-8.750	690.344	690.469
E	49+41.250	-8.750	690.383	690.506
F	49+51.250	-8.750	690.417	690.525
G	49+61.250	-8.750	690.444	690.527
H	49+71.250	-8.750	690.465	690.519
I	49+81.250	-8.750	690.480	690.506
J	49+91.250	-8.750	690.488	690.495
☐ Pier	50+00.000	-8.750	690.491	690.491
K	50+10.000	-8.750	690.488	690.496
L	50+20.000	-8.750	690.478	690.508
M	50+30.000	-8.750	690.463	690.520
N	50+40.000	-8.750	690.441	690.527
O	50+50.000	-8.750	690.413	690.523
P	50+60.000	-8.750	690.379	690.502
Q	50+70.000	-8.750	690.338	690.462
R	50+80.000	-8.750	690.292	690.400
S	50+90.000	-8.750	690.239	690.320
T	51+00.000	-8.750	690.180	690.217
☐ of S Abut.	51+08.750	-8.750	690.123	690.123
Bk. of S Abut.	51+10.000	-8.750	690.115	690.115

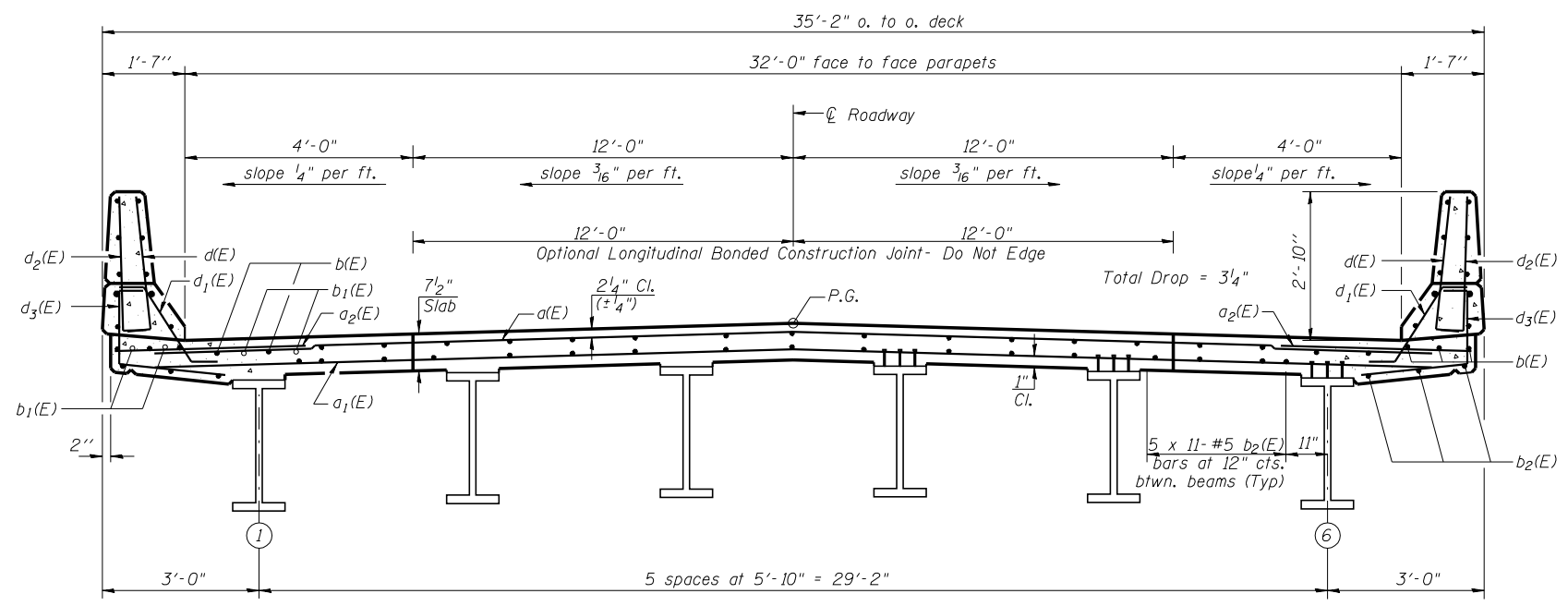
REVISIONS	
NAME	DATE

LIN ENGINEERING, LTD.
 20 N. Chestnut
 Chatham, Illinois 62629
 (217) 483-4668
 Fax (217) 483-4706
 Designed By: MTH
 Checked By: STD
 Drawn By: JMO
 Date: 11/02
 File: 0920203.DGN

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK ELEVATIONS
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203



HALF PLAN



CROSS SECTION
(Looking South)

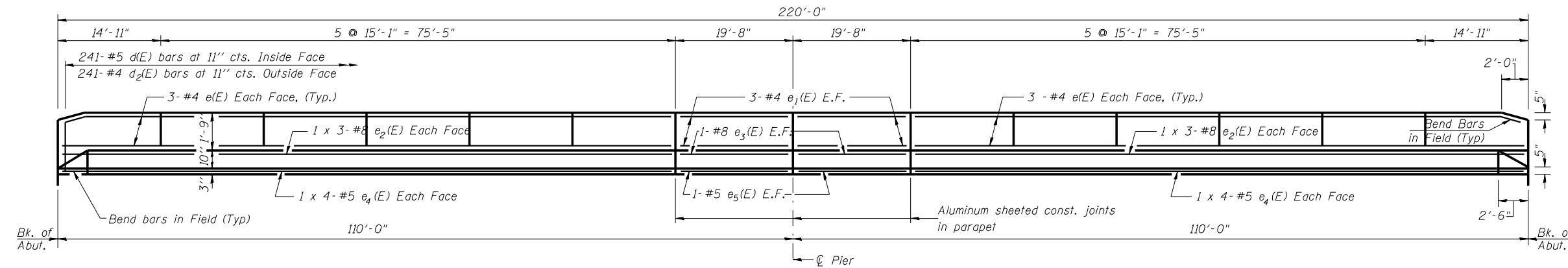
MIN. BAR LAP
 #5 bar = 1'-8"
 #6 bar = 2'-0"

Notes: See Sheet 6 of 17 for superstructure details and Bill of Material.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 See Sheet 6 of 17 for parapet reinforcement.
 See Sheet 9 of 17 for Section A-A.
 See Sheet 13 of 17 for Bar Splicer Details.

LIN ENGINEERING, LTD.
 210 N. Chestnut
 Chatham, Illinois 62629
 (201) 483-4668 FAX (201) 483-4106
 Designed By: MTH Checked By: STD Drawn By: JMD
 Date: 11/02 File: 0920203.DGN

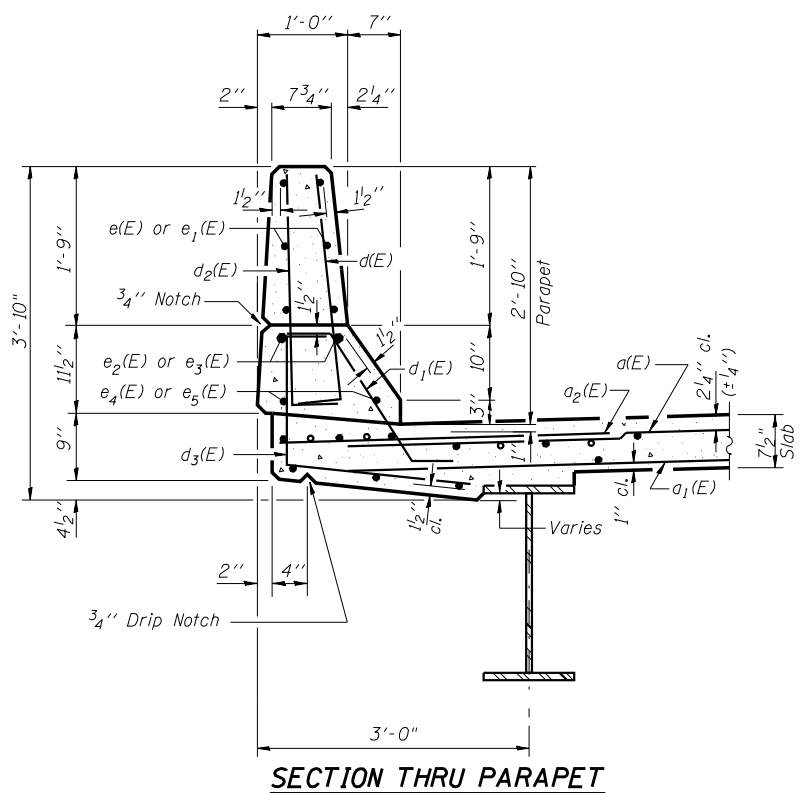
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203



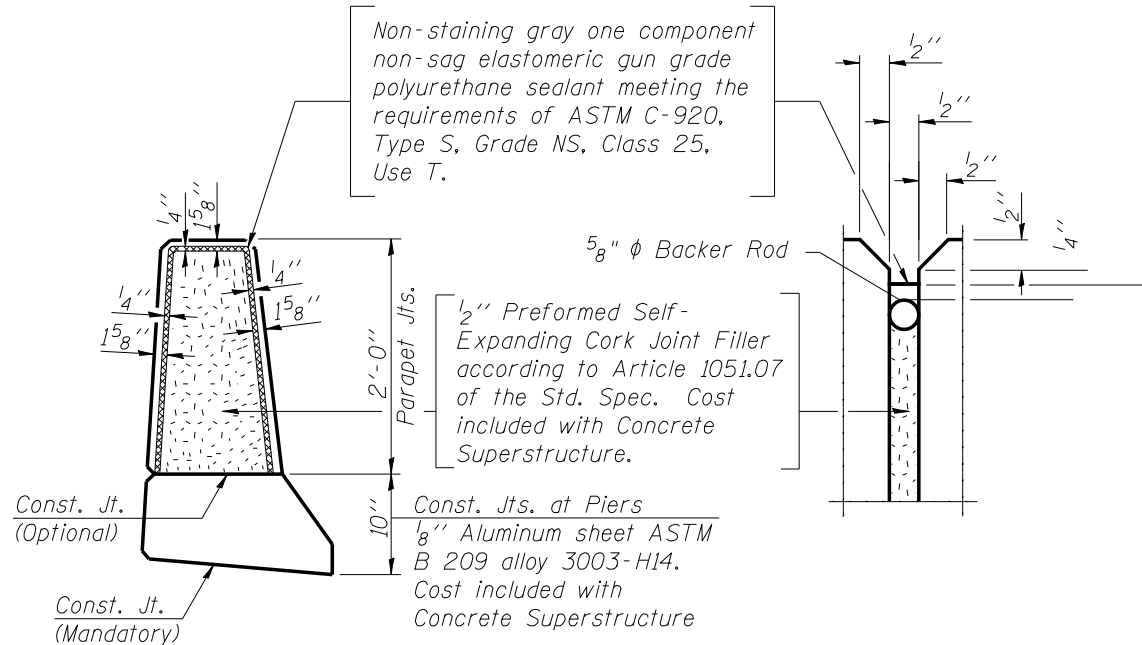
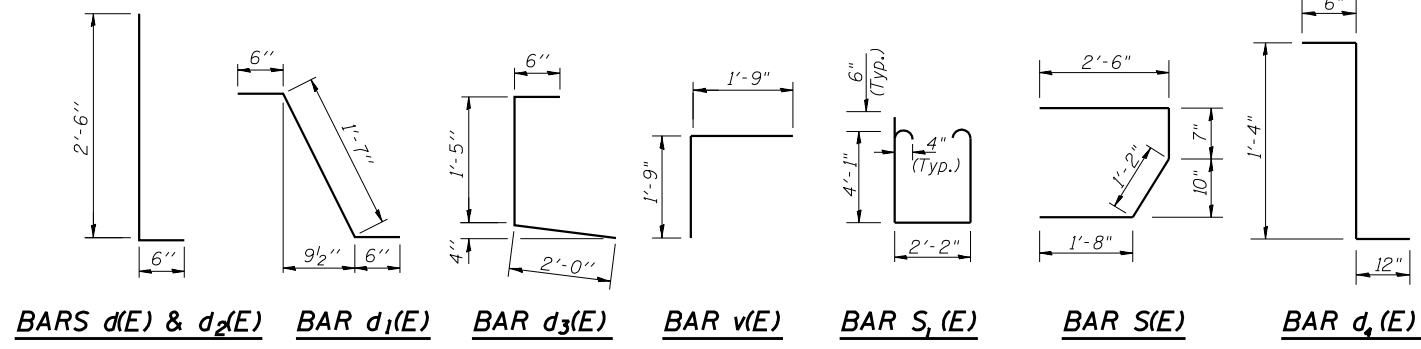
INSIDE ELEVATION OF PARAPET

MIN. BAR LAP
 #4 bars = 1'-4"
 #5 bars = 1'-8"
 #8 bars = 3'-5"



SECTION THRU PARAPET

The contractor shall construct the parapets according to the F shape parapet detailed in the special provisions in lieu of the New Jersey parapet detailed in the contract plans.



PARAPET JOINT DETAILS

**SUPERSTRUCTURE
BILL OF MATERIAL**

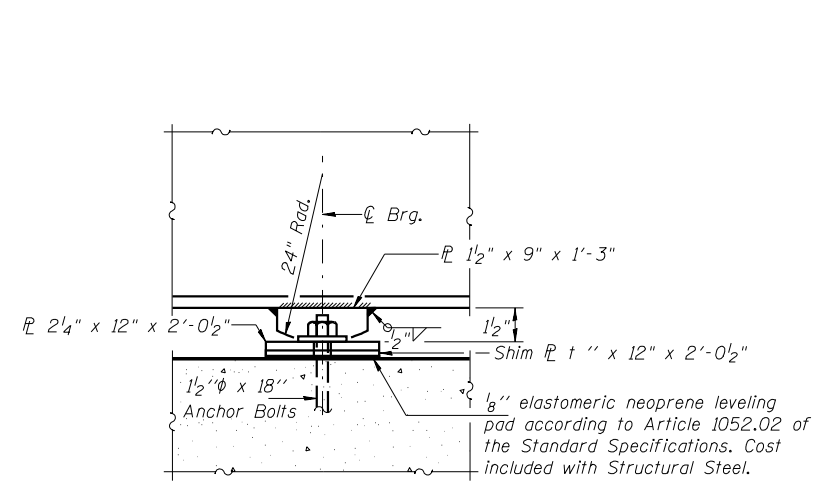
Bar	No.	Size	Length	Shape
d(E)	331	#5	34'-0"	—
d1(E)	265	#5	33'-0"	—
d2(E)	662	#6	6'-0"	—
b(E)	342	#5	26'-0"	—
b1(E)	105	#6	26'-8"	—
b2(E)	341	#5	21'-7"	—
d(E)	482	#5	3'-0"	—
d1(E)	470	#5	2'-7"	—
d2(E)	482	#4	3'-0"	—
d3(E)	482	#4	3'-11"	—
d4(E)	12	#5	2'-10"	—
e(E)	144	#4	14'-8"	—
e1(E)	24	#4	19'-5"	—
e2(E)	24	#8	32'-4"	—
e3(E)	8	#8	19'-5"	—
e4(E)	32	#5	23'-10"	—
e5(E)	8	#5	19'-5"	—
m(E)	4	#6	33'-0"	—
m1(E)	6	#6	34'-11"	—
m2(E)	24	#6	8'-7"	—
m3(E)	10	#6	5'-8"	—
m4(E)	4	#6	2'-10"	—
s(E)	72	#5	5'-11"	—
s1(E)	62	#4	11'-4"	—
v(E)	68	#5	3'-6"	—
Reinforcement Bars, Epoxy Coated	Pound	60270		
Concrete Superstructure	Cu. Yds.	265.2		

Reinforcement bars designated (E) shall be epoxy coated.
 Bars indicated thus 1 x 2 - #5 etc. indicates 1 line of bars with 2 lengths per line.

**ILLINOIS DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS
FAP ROUTE 840 (IL 49N)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-4) BR
VERMILION COUNTY
STA. 1160+20.53 (I-74)
STA. 50+00.00 (IL 49N)
STRUCTURE NO. 092-0203**

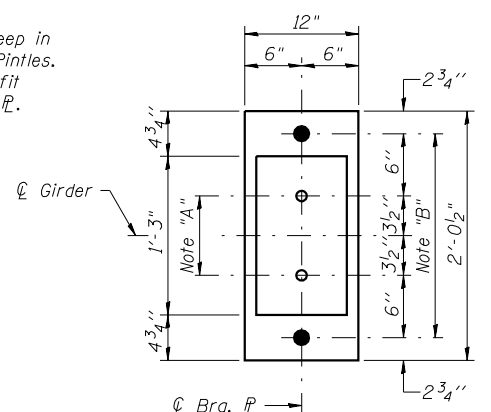
REVISIONS	
NAME	DATE

LIN ENGINEERING, LTD.
 210 N. Chestnut
 Chatham, Illinois 62629
 (217) 483-4668
 Fax: (217) 483-4106
 Designed By: MTH
 Checked By: STD
 Drawn By: JMD
 Date: 11/02
 File: 0920203.DWG



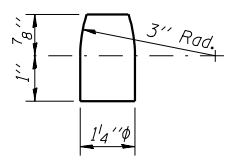
ELEVATION

Note "A"
1 3/8" ϕ Holes-1" deep in top flange for 1 1/4" ϕ Pintles. Thread or press fit pintles in bottom flange.



PLAN AT PIER

Note "B"
2" ϕ Holes for 1 1/2" ϕ Anchor Bolts-3" x 3" x 5/16" ϕ washer under nut.



PINTLE

INTERIOR GIRDER MOMENT TABLE			
		0.4 Sp. 1 & 0.6 Sp. 2	Pier
I_s	(in ⁴)	14929	32071
$I_{c(n)}$	(in ⁴)	37204	
$I_{c(3n)}$	(in ⁴)	26673	
S_s	(in ³)	758	1387
$S_{c(n)}$	(in ³)	1040	
$S_{c(3n)}$	(in ³)	946	
Z	(in ³)		
DC1	(k/ft)	0.760	0.900
M DC1	(k-ft)	595	1587
DC2	(k/ft)	0.137	0.137
M DC2	(k-ft)	109	214
DW	(k/ft)	0.267	0.267
M DW	(k-ft)	212	418
M LL	(k-ft)	1114	1084
M Imp	(k-ft)	367	358
M LL+Imp	(k-ft)	1481	1442
Ma (Strength I)	(k-ft)	3790	5402
Mr	(k-ft)	5371	
f_s DC1	(ksi)	9.4	13.7
f_s DC2	(ksi)	1.4	1.9
f_s DW	(ksi)	2.7	3.6
f_s 1.3(LL+I)	(ksi)	22.2	12.5
f_s (Ser II)	(ksi)	35.7	31.7
f_s (Total) (Strength I)	(ksi)		41.7
V_{sr}	(k)	23.1	

Interior Girder Reaction Table - HL93 Loading			
		Abutment	Pier
R_{DC1}	(k)	32.0	128.7
R_{DC2+DW}	(k)	16.2	55.6
R_{LL}	(k)	55.0	105.1
R_{Imp}	(k)	18.2	34.7
R (Total)	(k)	121.4	324.1

Interior Girder Reaction Table - HS20 Loading			
		Abutment	Pier
R_{DL}	(k)	47.9	184.7
R_{LL}	(k)	34.2	59.6
R_{Imp}	(k)	7.3	8.7
R (Total)	(k)	89.4	253.0

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s due to non-composite loads.

$I_{c(n)}$ and $S_{c(n)}$ are the moment of inertia and section modulus of the composite section used in computing f_s due to short-term composite loads.

$I_{c(3n)}$ and $S_{c(3n)}$ are the moment of inertia and section modulus of the composite section used in computing f_s due to long-term composite loads.

V_{sr} is the maximum of 0.75 (LL+IM) shear range in span.

Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.

Ma (Strength I) = 1.25 (MDC1+DC2) + 1.5 DW + 1.75 (MLL+Imp)

Mr is the Full Plastic Moment Capacity computed in accordance with AASHTO 6.10.3.1.3 and 6.10.4.2.2

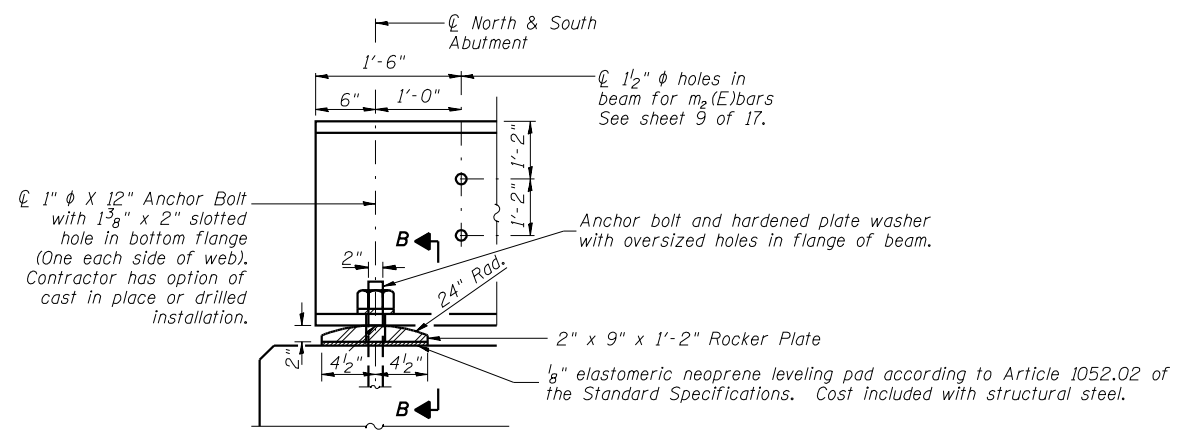
f_s (Service II) is the sum of the stresses due to DC1 + DC2 + DW + 1.3 (LL+Imp).

f_s (Total) (Non-compact section) is the sum of the stresses due to 1.25 (DC1 + DC2) + 1.5 DW + 1.75 (LL+Imp).

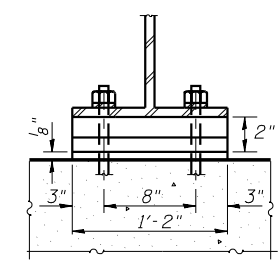
DC1 is the dead load acting on non-composite section.

DC2 is the dead load acting on the long-term composite section.

DW is the dead load acting on long-term composite section due to wearing surface.



ELEVATION



SECTION B-B

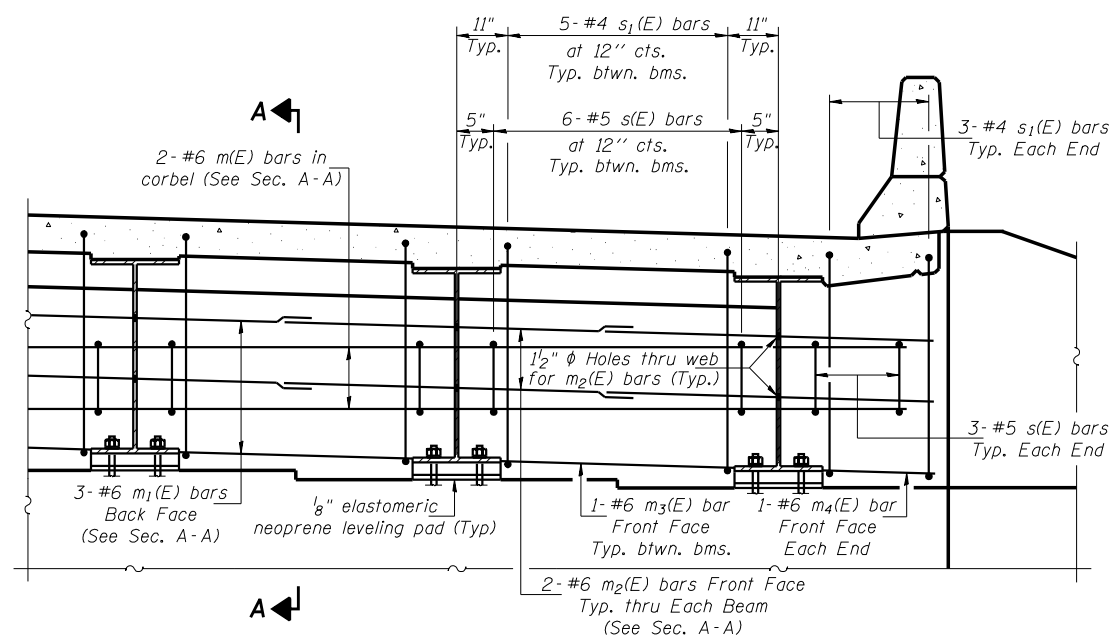
END OF GIRDER AT ABUTMENTS

Note: All Steel plates shown on this sheet shall be AASHTO M270 Grade 50.

LIJ ENGINEERING, LTD.
210 N. Chestnut
Chatham, Illinois 62629
(217) 483-4668
Fax: (217) 483-4106
Designed By: MTH Checked By: STD Drawn By: JMD
Date: 11/02 File: 0920203.DWG

REVISIONS	
NAME	DATE

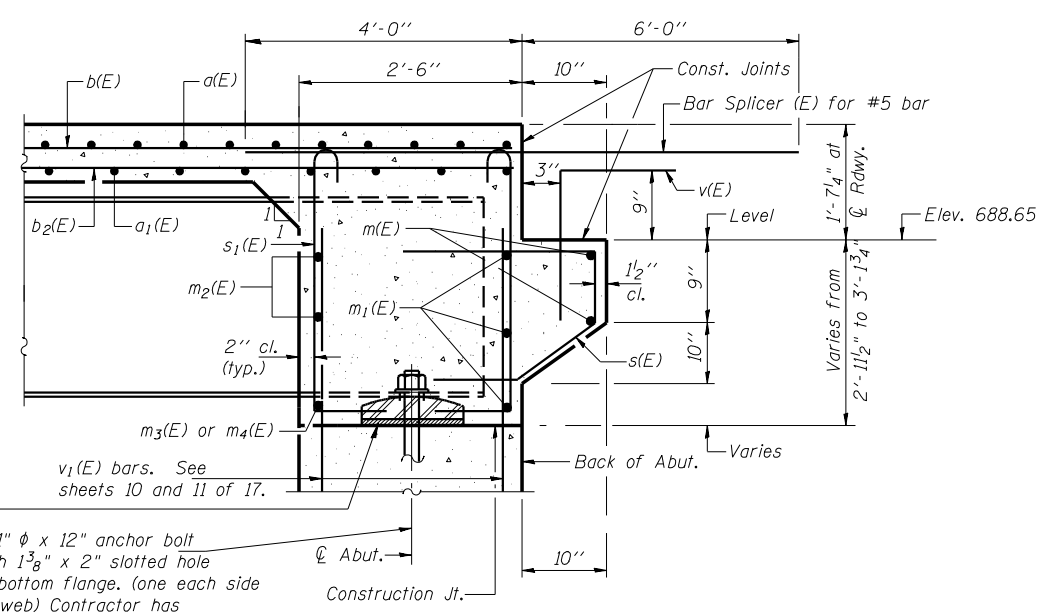
ILLINOIS DEPARTMENT OF TRANSPORTATION
BEARING DETAILS
FAP ROUTE 840 (IL 49N)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-4) BR
VERMILION COUNTY
STA. 1160+20.53 (I-74)
STA. 50+00.00 (IL 49N)
STRUCTURE NO. 092-0203



DIAPHRAGM ELEVATION AT ABUTMENT

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet 6 of 17.
 Concrete in diaphragm is included with Concrete Superstructure on sheet 6 of 17.
 For details of bars s(E) & s1(E) see sheet 6 of 17.
 The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
 For anchor bolt details see sheet 14 of 17.
 For location of holes through web. See Sheet 8 of 17.
 See sheet 13 of 17 for Bar Splicer Details.

MIN. BAR LAP
 #6 bar = 2'-9"



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

1" ϕ x 12" anchor bolt with 1 3/8" x 2" slotted hole in bottom flange. (one each side of web) Contractor has option of cast in place or drilled installation.

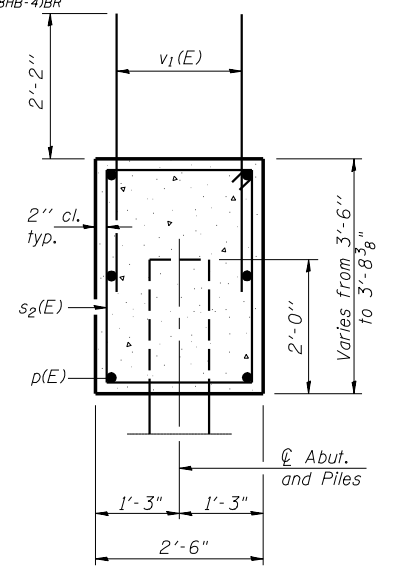
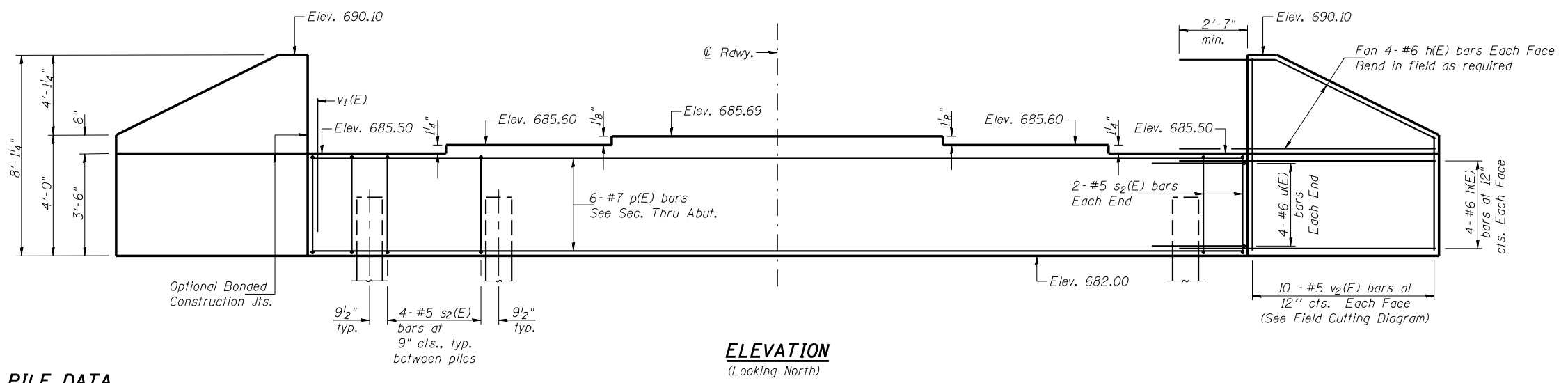
SECTION A-A
 Dimensions at right angles to abutment.
 * Cost included with Concrete Structures.

ILLINOIS DEPARTMENT OF TRANSPORTATION
END DIAPHRAGM DETAILS
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203

REVISIONS	NAME		DATE
	NO.	BY	DATE

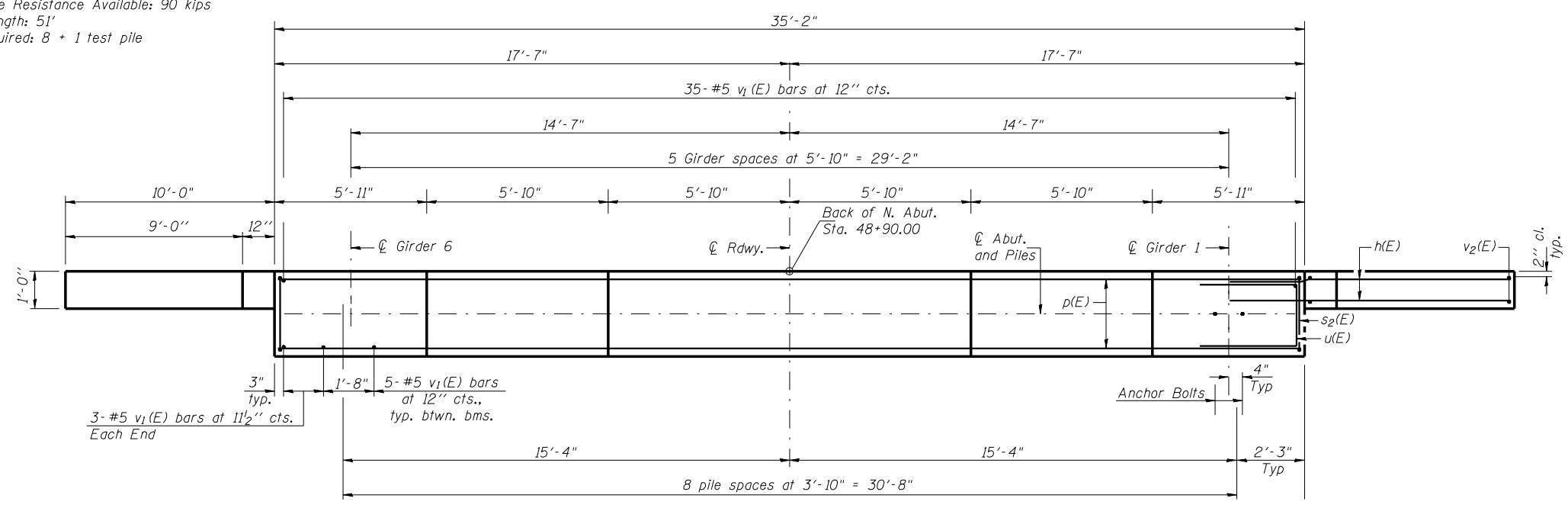
LIN ENGINEERING, LTD.
 210 N. Chestnut | Chatham, Illinois 62629
 (201) 483-4668 | FAX (201) 483-4106
 Designed By: MTH | Checked By: STD | Drawn By: JMD
 Date: 11/02 | File: 0920203.DGN

Notes: Pour steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss anchor bolts.



PILE DATA

Type & Size: Metal Shell - 14" ϕ x 0.25" Walls
Normal Req'd Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 51'
No. Required: 8 + 1 test pile

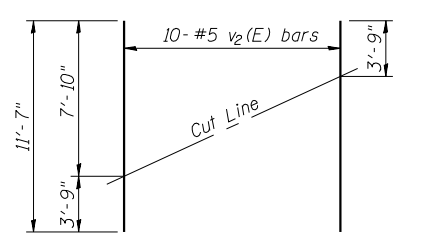


SEC. THRU ABUT.

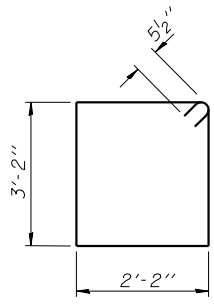
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#6	12'-6"	—
p(E)	6	#7	34'-11"	—
s ₂ (E)	24	#5	11'-7"	□
u(E)	8	#6	10'-1"	—
v ₁ (E)	62	#5	4'-4"	—
v ₂ (E)	20	#5	11'-7"	—
Concrete Structures		Cu. Yd.	15.6	
Reinforcement Bars, Epoxy Coated		Pound	1970	
Structure Excavation		Cu. Yd.	29.5	
Furnishing Metal Shell Piles 14" x 0.25"		Foot	408	
Driving Piles		Foot	408	
Test Pile Metal Shells		Each	1	

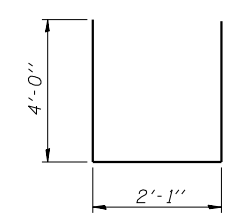
PLAN



FIELD CUTTING DIAGRAM
Order v₂(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR s₂(E)



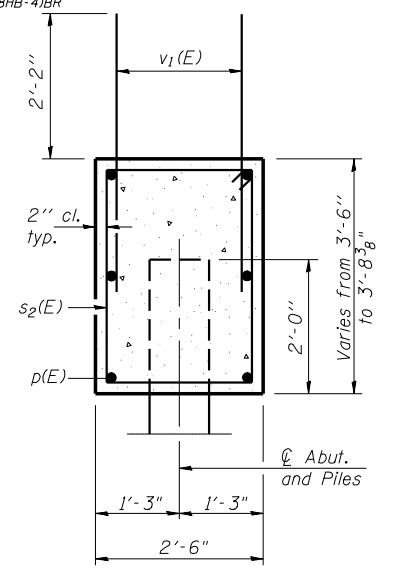
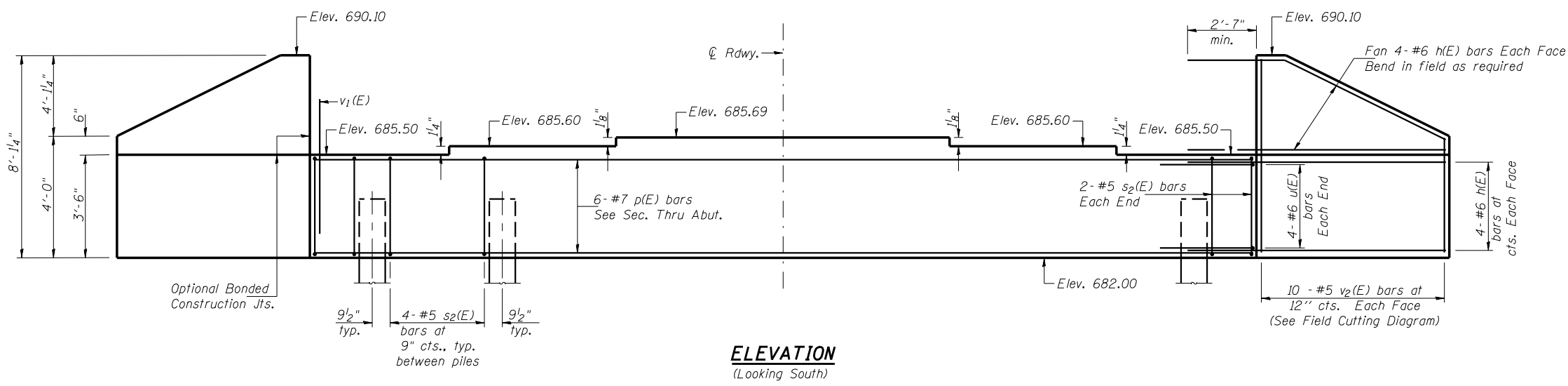
BAR u(E)

LIN ENGINEERING, LTD.
210 N. Chestnut
Chatham, Illinois 62629
(217) 483-4668
Fax: (217) 483-4706
Designed By: MTH Checked By: STD Drawn By: JMD
Date: 11/02 File: 0920203.DWG

REVISIONS	
NAME	DATE

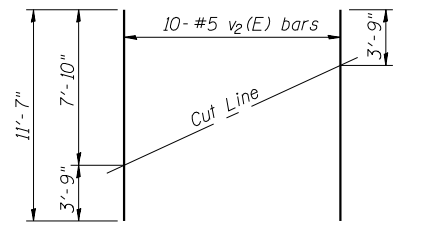
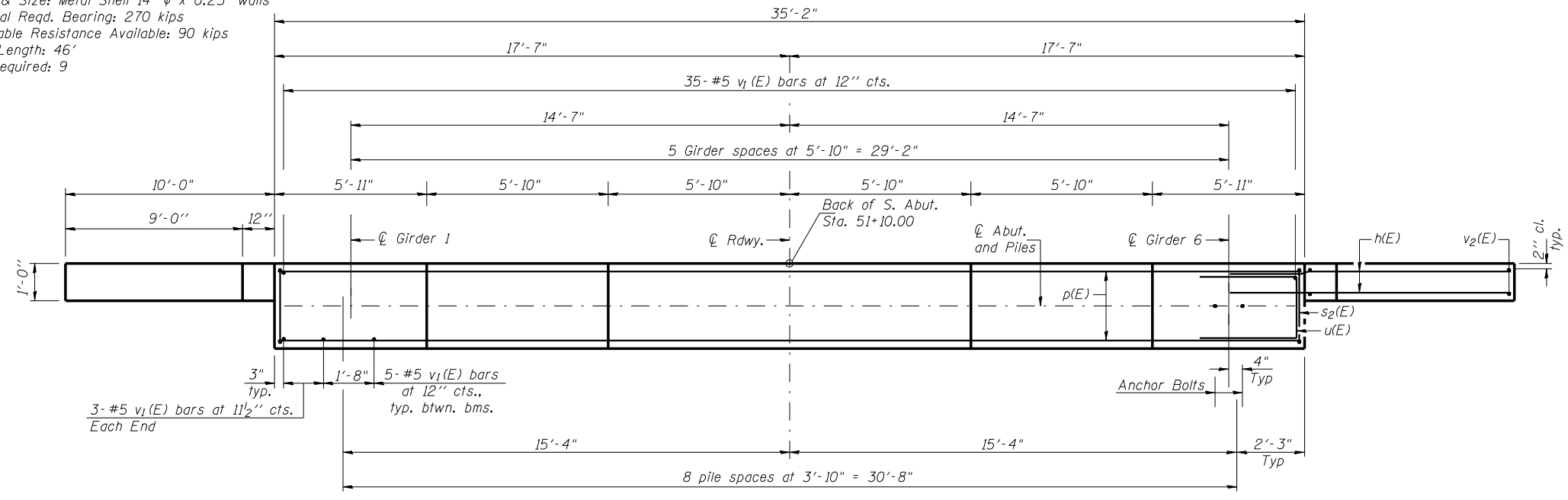
ILLINOIS DEPARTMENT OF TRANSPORTATION
NORTH ABUTMENT
FAP ROUTE 840 (IL 49N)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-4) BR
VERMILION COUNTY
STA. 1160+20.53 (I-74)
STA. 50+00.00 (IL 49N)
STRUCTURE NO. 092-0203

Notes: Four steps monolithically with cap.
Reinforcement bars designated (E) shall be epoxy coated.
Space reinforcement in cap to miss anchor bolts.

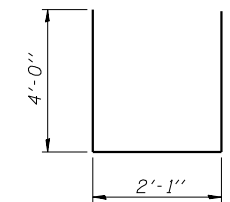
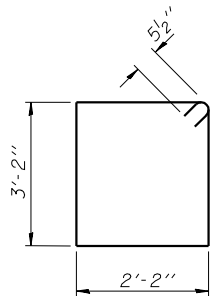


PILE DATA

Type & Size: Metal Shell 14" ϕ x 0.25" walls
Nominal Reqd. Bearing: 270 kips
Allowable Resistance Available: 90 kips
Est. Length: 46'
No. Required: 9



Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#6	12'-6"	—
p(E)	6	#7	34'-11"	—
s2(E)	24	#5	11'-7"	□
u(E)	8	#6	10'-1"	—
v1(E)	62	#5	4'-4"	—
v2(E)	20	#5	11'-7"	—
Concrete Structures		Cu. Yd.	15.6	
Reinforcement Bars, Epoxy Coated		Pound	1970	
Structure Excavation		Cu. Yd.	29.5	
Furnishing Metal Shell Piles 14" x 0.25"		Foot	414	
Driving Piles		Foot	414	

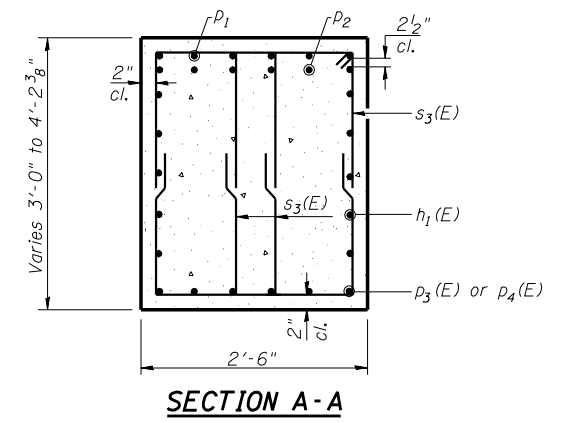
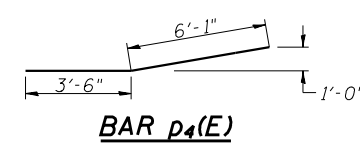
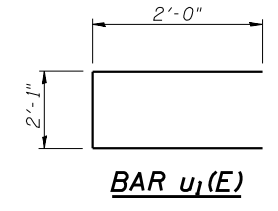
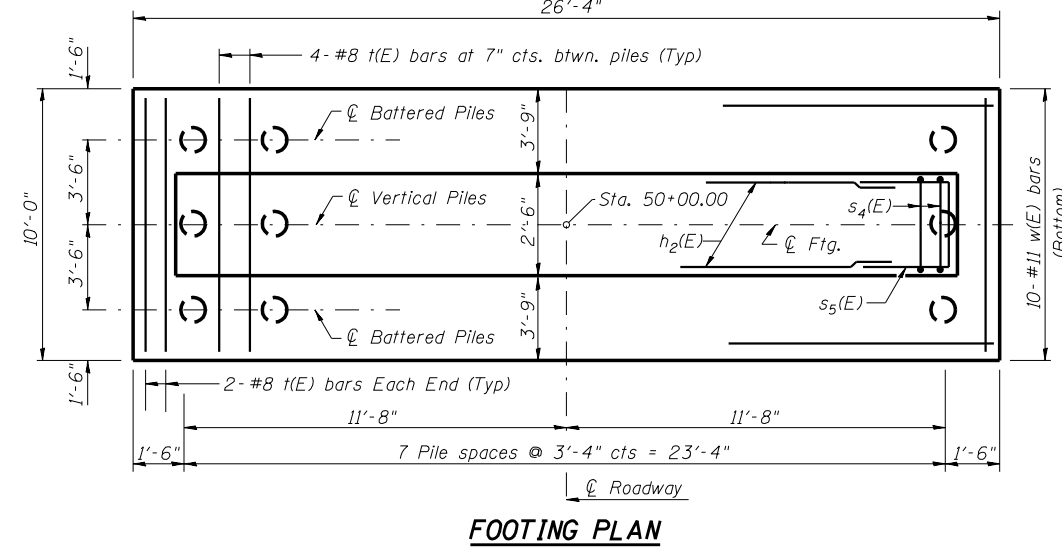
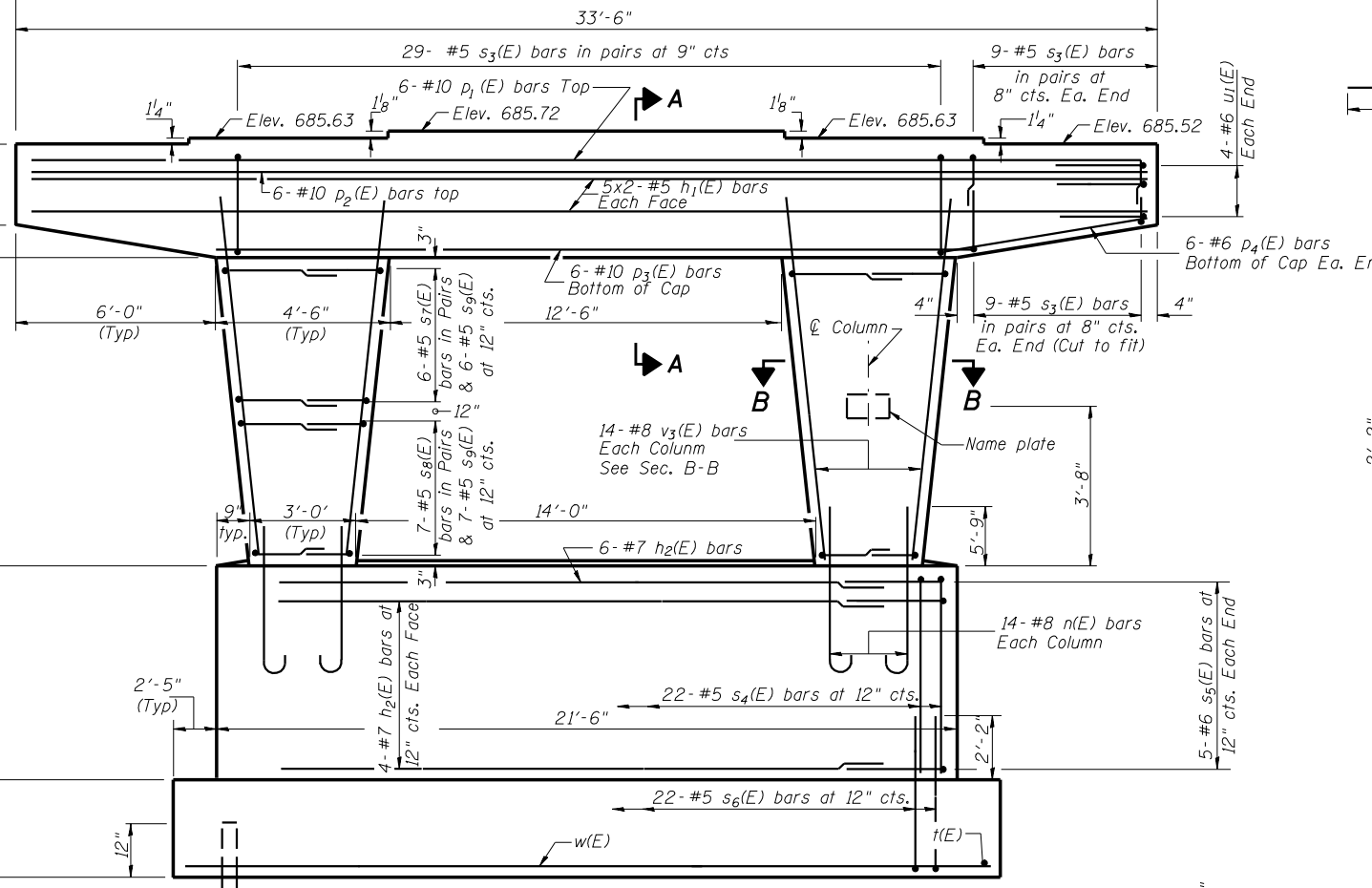
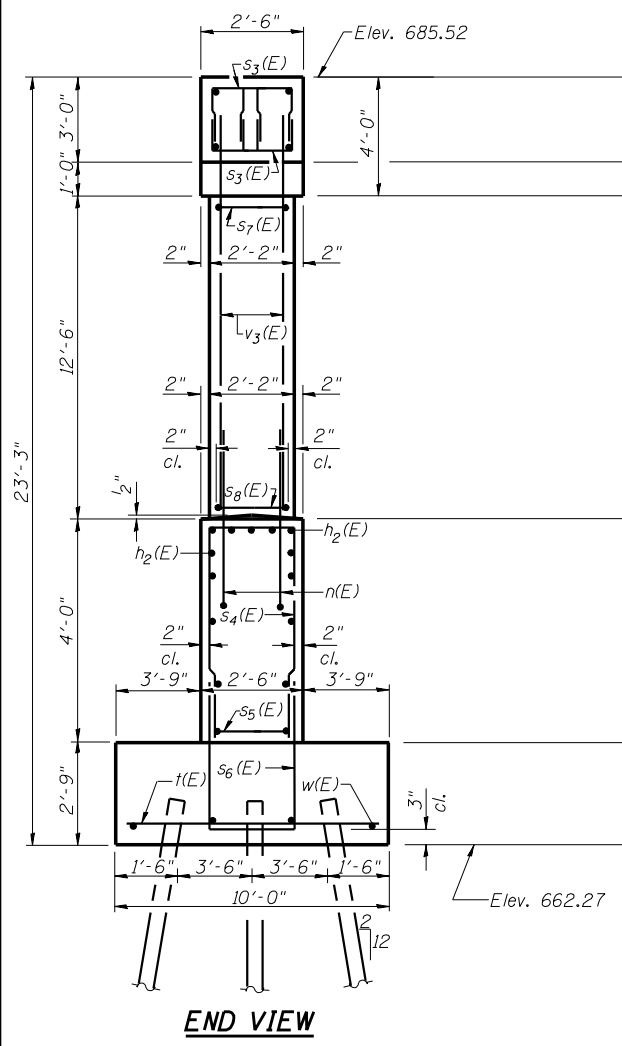
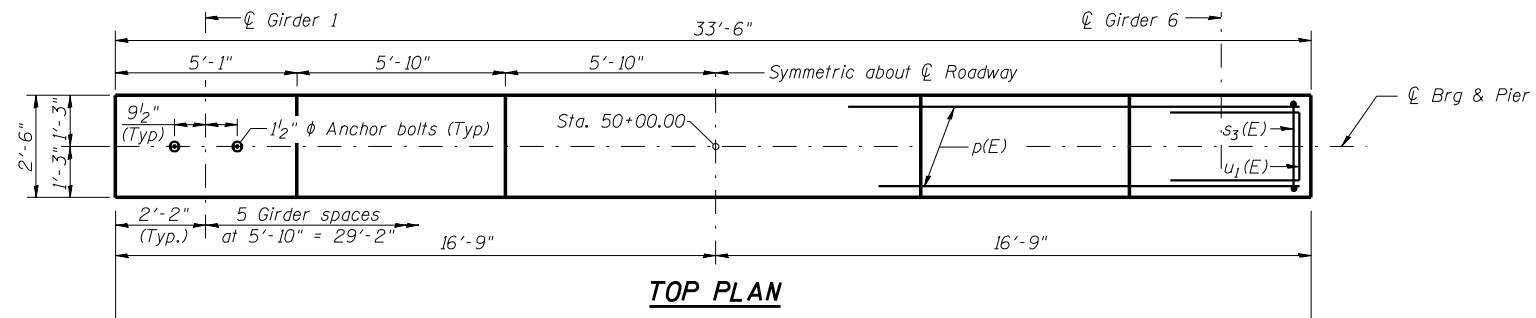
LIN ENGINEERING, LTD.
210 N. Chestnut
Chatham, Illinois 62629
(217) 483-4668
Fax: (217) 483-4106
Designed By: MTH Checked By: STD Drawn By: JMD
Date: 11/02 File: 0920203.DWG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOUTH ABUTMENT
FAP ROUTE 840 (IL 49N)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-4) BR
VERMILION COUNTY
STA. 1160+20.53 (I-74)
STA. 50+00.00 (IL 49N)
STRUCTURE NO. 092-0203

Notes:
 1. Space reinforcement in cap to miss anchor bolts.
 2. Pour steps monolithically with cap.
 3. The existing Piles shall be cut off 1'-0" below the bottom of the new footing.

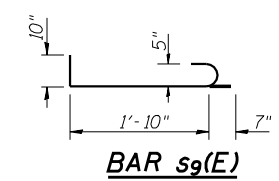
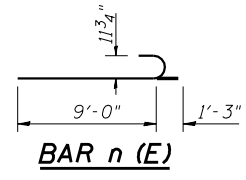
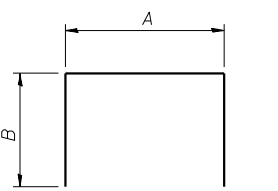
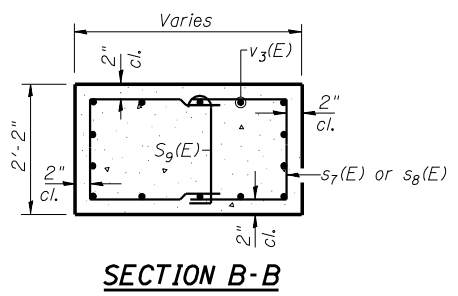
MIN BAR LAP
 #5 = 2'-2"



BILL OF MATERIAL

Bar No.	Size	Length	Shape
h1(E)	20	#5	17'-8"
h2(E)	14	#7	21'-2"
n(E)	28	#8	10'-3"
p1(E)	6	#10	38'-0"
p2(E)	6	#10	33'-0"
p3(E)	6	#10	21'-0"
p4(E)	12	#6	9'-7"
s3(E)	188	#5	7'-4"
s4(E)	22	#5	9'-8"
s5(E)	10	#6	7'-1"
s6(E)	22	#5	11'-6"
s7(E)	24	#5	8'-2"
s8(E)	28	#5	7'-4"
s9(E)	26	#5	3'-3"
t(E)	32	#8	9'-9"
u1(E)	8	#6	6'-1"
v3(E)	28	#8	14'-6"
w(E)	10	#11	26'-0"
Structure Excavation		Cu. Yd.	62.8
Concrete Structures		Cu. Yd.	53.5
Reinforcement Bars, Epoxy Coated		Pound	10200
Furnishing Metal Shell Piles 14" x 0.25"		Foot	792
Driving Piles		Foot	792

Reinforcement Bars designated (E) shall be epoxy coated.



PILE DATA
 Type & Size - Metal shell - 14"φ x 0.25" walls
 Nominal Required Bearing: 300 kips
 Allowable Resistance Available: 100 kips
 Est. Length - 33'
 No. Req'd. - 24

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER DETAILS
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203

REVISIONS

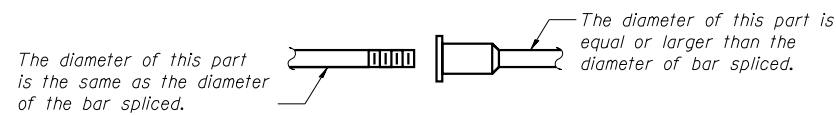
NAME	DATE

LIN ENGINEERING, LTD.
 210 N. Chestnut
 Chatham, Illinois 62629
 (201) 483-4668
 Fax: (201) 483-4106
 Designed By: MTH
 Checked By: STD
 Drawn By: JMD
 Date: 11/02
 File: 0920203.DWG

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_l$
 (Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_l$
 (Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_l = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete



ROLLED THREAD DOWEL BAR



**** ONE PIECE**

Wire Connector

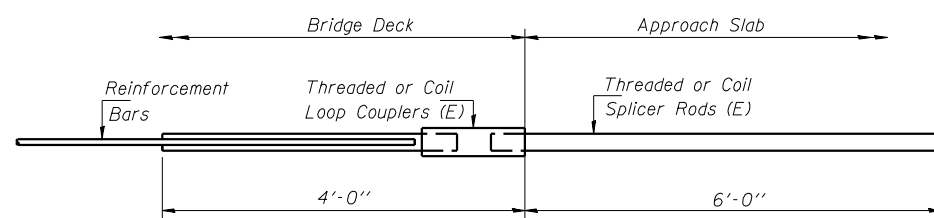


WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

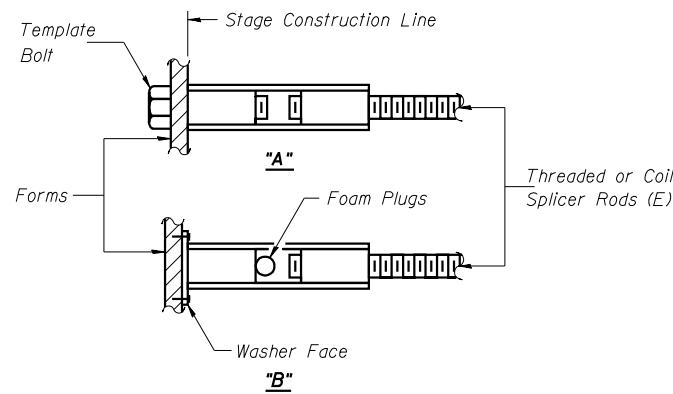
** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



**INTEGRAL ABUTMENT
 BAR SPLICER ASSEMBLY DETAIL
 FOR #5 BAR**

Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 64



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.

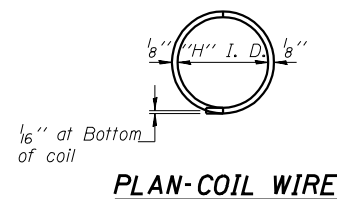
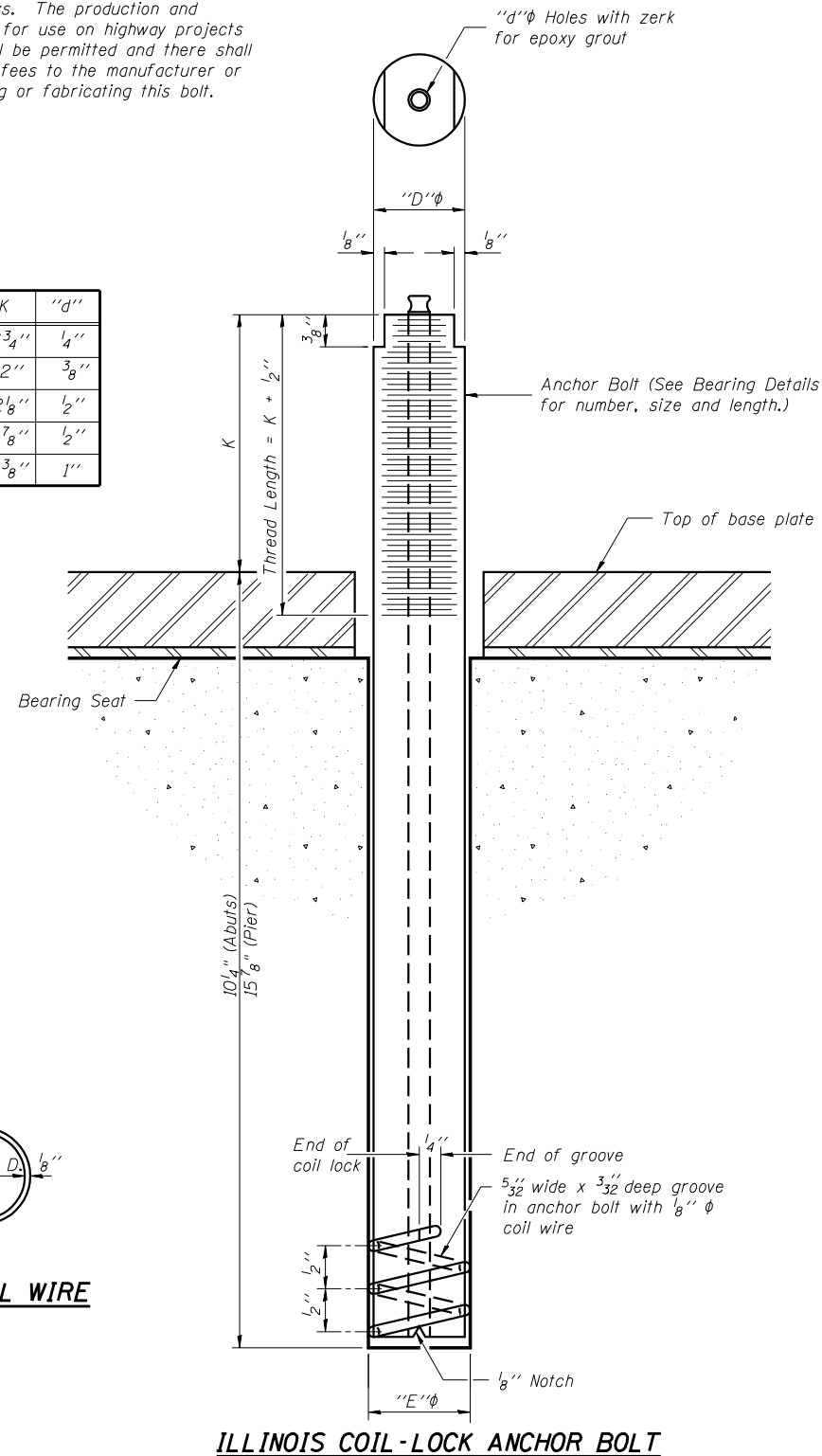
LIJ ENGINEERING, LTD.
 210 N. Chestnut
 Chatham, Illinois 62629
 (217) 483-4668 FAX (217) 483-4706
 Designed By: MTH Checked By: STD Drawn By: JMD
 Date: 11/02 File: 0920203.DWG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER DETAILS
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
 The coil wire shall be made of any suitable soft steel wire.
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
 The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer of the type specified.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abut.	A307
Pier	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

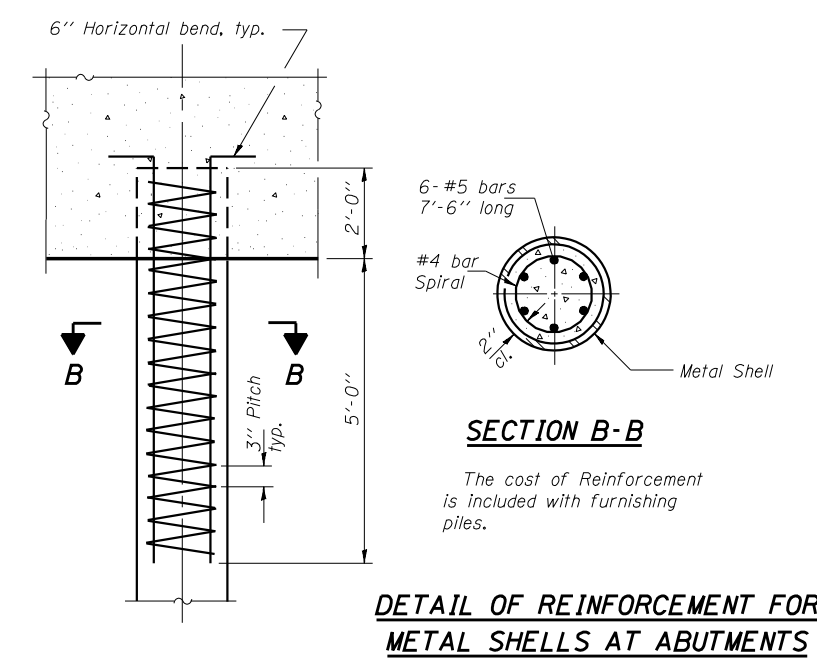
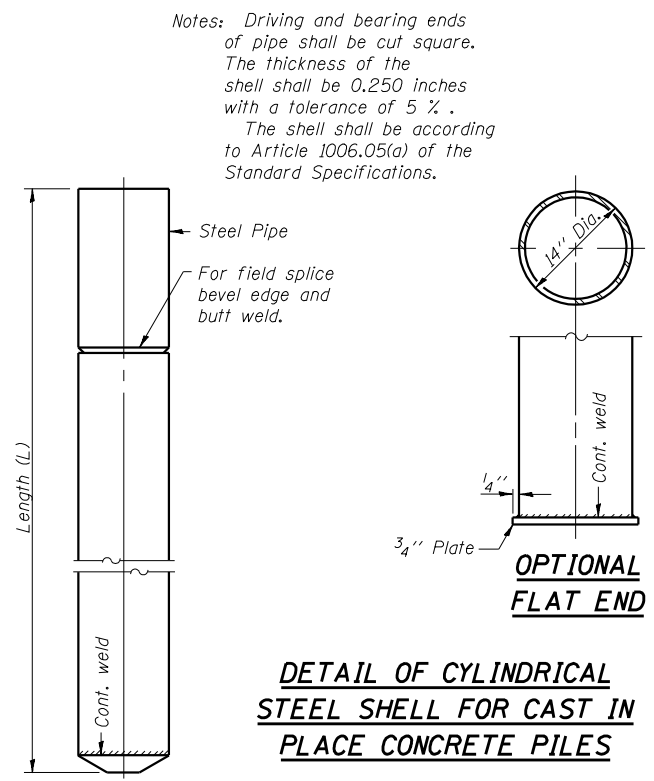
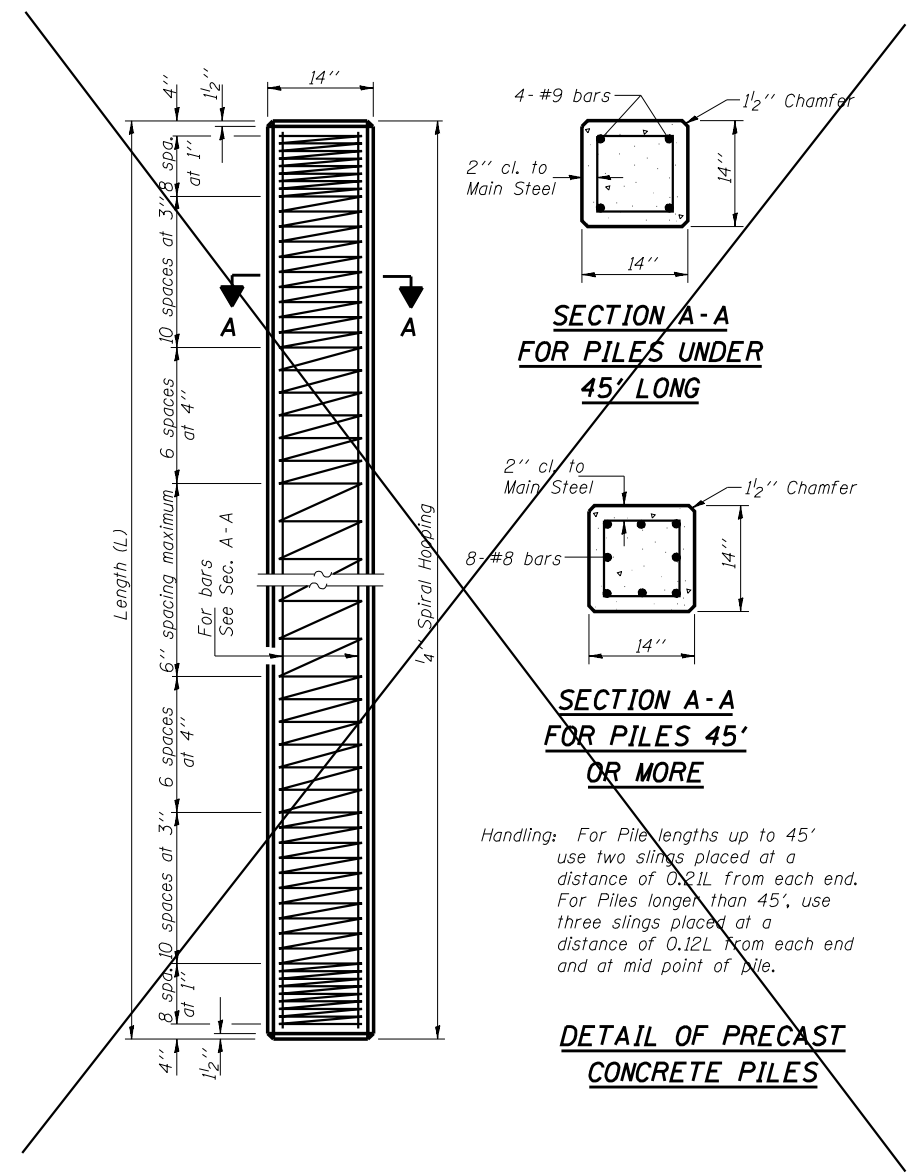
GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
 Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
 The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

ILLINOIS DEPARTMENT OF TRANSPORTATION
ANCHOR BOLT DETAIL
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203

LIJ ENGINEERING, LTD.
 210 N. Chestnut
 Chatham, Illinois 62629
 (217) 483-4668
 Fax: (217) 483-4706
 Designed By: MTH
 Checked By: STD
 Drawn By: JMD
 Date: 11/02
 File: 0920203.DWG

REVISIONS	
NAME	DATE



X-PB 4-30-97

LIJ ENGINEERING, LTD.
 210 N. Chestnut
 Chatham, Illinois 62629
 (217) 483-4668 FAX (217) 483-4706
 Designed By: MTH Checked By: STD Drawn By: JMD
 Date: 11/02 File: 0920203.DWG

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PILE DETAIL
 FAP ROUTE 840 (IL 49N)
 OVER FAI RTE 74 (I-74)
 SECTION (10-92-8HB-4) BR
 VERMILION COUNTY
 STA. 1160+20.53 (I-74)
 STA. 50+00.00 (IL 49N)
 STRUCTURE NO. 092-0203



SOIL BORING LOG

Page 2 of 2

ROUTE FAI Route 74 DESCRIPTION 1.5 Miles West of Fishkin LOGGED BY CNA

SECTION 10.92-8(HB-1, HB-4)BR LOCATION NR. SEC. 11, TWP. 19N, RNG. 14W, 2nd PM

COUNTY Vermilion DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D B U M				Surface Water Elev.	Stream Bed Elev.	D B U M					
						(ft)	(ft)	(ft)	(ft)			(ft)	(ft)	(ft)	(ft)		
092-0203	50+00	3 N. Abut	49+58	6.0 ft Bl.	897.80												
Gray Clay Loam Till (continued)																	
898.10																	
Gray Varved Clay																	
899.00																	
Gray Varved Sil																	
899.80																	
Pink Clay Loam Till																	
899.80																	
BlueGray Clay Loam																	
899.80																	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Duils, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)

BBS, from 137 (Rev. 8-98)



SOIL BORING LOG

Page 1 of 2

ROUTE FAI Route 74 DESCRIPTION 1.5 Miles West of Fishkin LOGGED BY CNA

SECTION 10.92-8(HB-1, HB-4)BR LOCATION NR. SEC. 11, TWP. 19N, RNG. 14W, 2nd PM

COUNTY Vermilion DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D B U M				Surface Water Elev.	Stream Bed Elev.	D B U M					
						(ft)	(ft)	(ft)	(ft)			(ft)	(ft)	(ft)	(ft)		
092-0203	50+00	3 S. Abut	50+38	6.0 ft Bl.	897.70												
Gray Silty Clay Loam (Embankment)																	
898.70																	
Brown Clay Loam (Weathered Till) Drilled Through Old Concrete Pavement (1.5" Thick)																	
898.70																	
Brown Clay Loam Till																	
898.70																	
BrownGray Mottled Silty Clay (Embankment)																	
898.70																	
BrownGray Mottled Silty Clay (Embankment)																	
898.70																	
Pink Clay Loam Till																	
898.70																	
BrownGray Mottled Silty Clay (Embankment)																	
898.70																	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Duils, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)

BBS, from 137 (Rev. 8-98)



SOIL BORING LOG

Page 2 of 2

ROUTE FAI Route 74 DESCRIPTION 1.5 Miles West of Fishkin LOGGED BY CNA

SECTION 10.92-8(HB-1, HB-4)BR LOCATION NR. SEC. 11, TWP. 19N, RNG. 14W, 2nd PM

COUNTY Vermilion DRILLING METHOD Hollow Stem Auger HAMMER TYPE Automatic

STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D B U M				Surface Water Elev.	Stream Bed Elev.	D B U M					
						(ft)	(ft)	(ft)	(ft)			(ft)	(ft)	(ft)	(ft)		
092-0203	50+00	3 S. Abut	50+38	6.0 ft Bl.	897.70												
Gray Clay Loam Till (continued)																	
897.70																	
Gray Poorly Sorted Coarse Sand																	
897.70																	
Pinkish Gray Clay Loam Till																	
897.70																	
Gray Clay Loam Till																	
897.70																	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Duils, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586)

BBS, from 137 (Rev. 8-98)

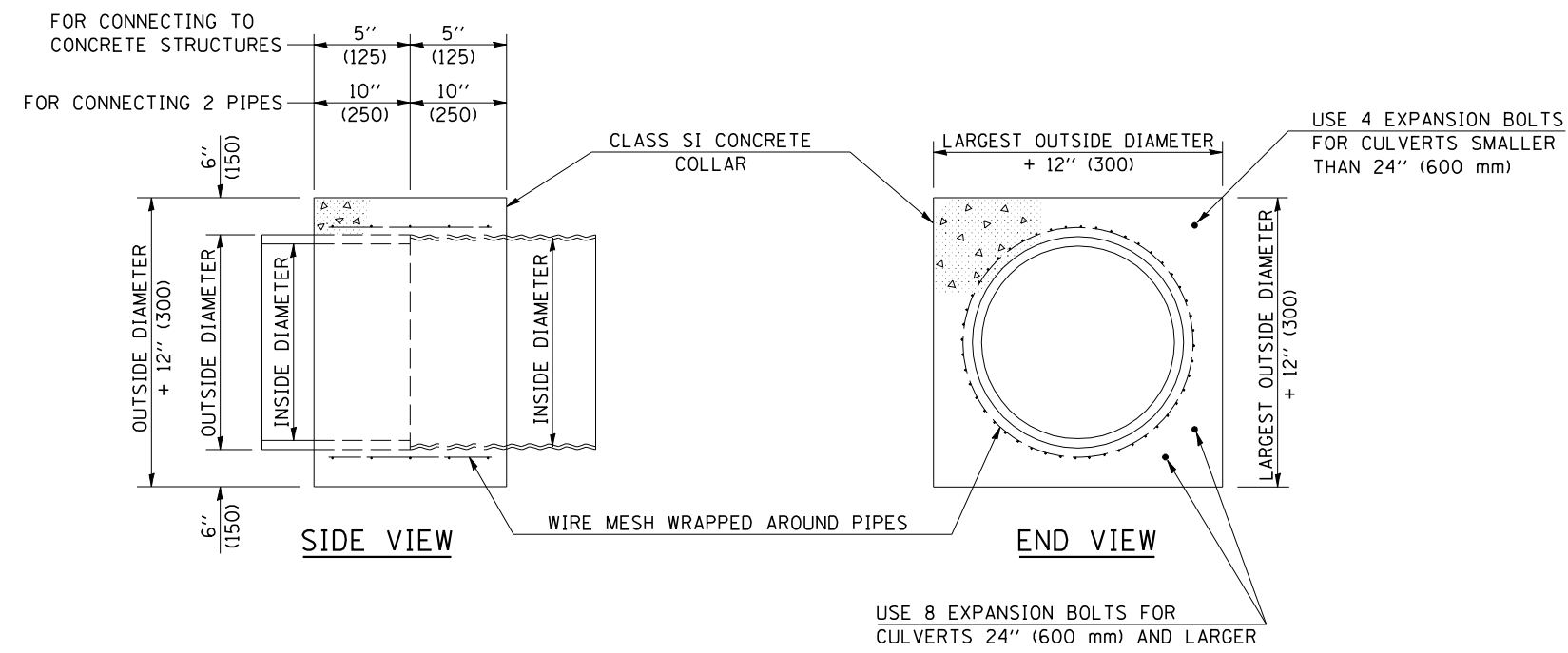
LIJ ENGINEERING, LTD.
210 N. Chestnut
Chatham, Illinois 62629
(217) 483-4668
Fax: (217) 483-4706
Designed By: MTH Checked By: STD Drawn By: JMD
Date: 11/02 File: 0920203.DGN

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING DATA
FAP ROUTE 840 (IL 49N)
OVER FAI RTE 74 (I-74)
SECTION (10-92-8HB-4) BR
VERMILION COUNTY
STA. 1160+20.53 (I-74)
STA. 50+00.00 (IL 49N)
STRUCTURE NO. 092-0203

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	71	48
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

•(10,92-8 HB-4)BR
CONTRACT NO. 70001



GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIAMETERS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIAMETER (SEE END VIEW).
3. THE WIRE MESH SHALL WEIGH NOT LESS THAN 54#/100 SQ. FT. (2.63 kg/m²).
4. WHEN CONCRETE COLLARS ARE CONSTRUCTED ADJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS, SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
5. CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, PER CUBIC YARD (CUBIC METER), FOR CONCRETE COLLARS INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.

QUANTITIES FOR CONCRETE PIPES	
INSIDE DIAMETER OF PIPE	ESTIMATED CLASS SI CONCRETE REQUIRED
INCH (mm)	20" (500 mm) WIDTH CU. YD. (m ³)
4" (100)	0.14 (0.11)
6" (150)	0.16 (0.12)
8" (200)	0.19 (0.14)
10" (250)	0.22 (0.17)
12" (300)	0.25 (0.19)
15" (375)	0.30 (0.23)
18" (450)	0.35 (0.27)
24" (600)	0.45 (0.35)
30" (750)	0.57 (0.43)
36" (900)	0.69 (0.53)
42" (1050)	0.83 (0.63)
48" (1200)	0.97 (0.74)
54" (1350)	1.12 (0.86)
60" (1500)	1.28 (0.98)

QUANTITIES FOR METAL PIPES	
INSIDE DIAMETER OF PIPE	ESTIMATED CLASS SI CONCRETE REQUIRED
INCH (mm)	20" (500 mm) WIDTH CU. YD. (m ³)
4" (100)	0.12 (0.09)
6" (150)	0.14 (0.11)
8" (200)	0.16 (0.12)
10" (250)	0.19 (0.14)
12" (300)	0.21 (0.16)
15" (375)	0.25 (0.19)
18" (450)	0.29 (0.22)
24" (600)	0.38 (0.29)
30" (750)	0.47 (0.36)
36" (900)	0.59 (0.45)
42" (1050)	0.69 (0.53)
48" (1200)	0.81 (0.62)
54" (1350)	0.93 (0.71)
60" (1500)	1.05 (0.81)

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

DATE	REVISIONS	NAME
12/06	REPLACED DETAIL J-5.45	TJB

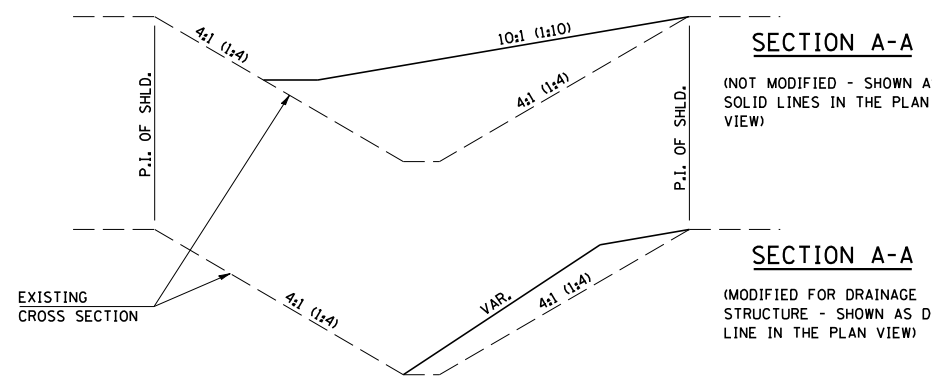
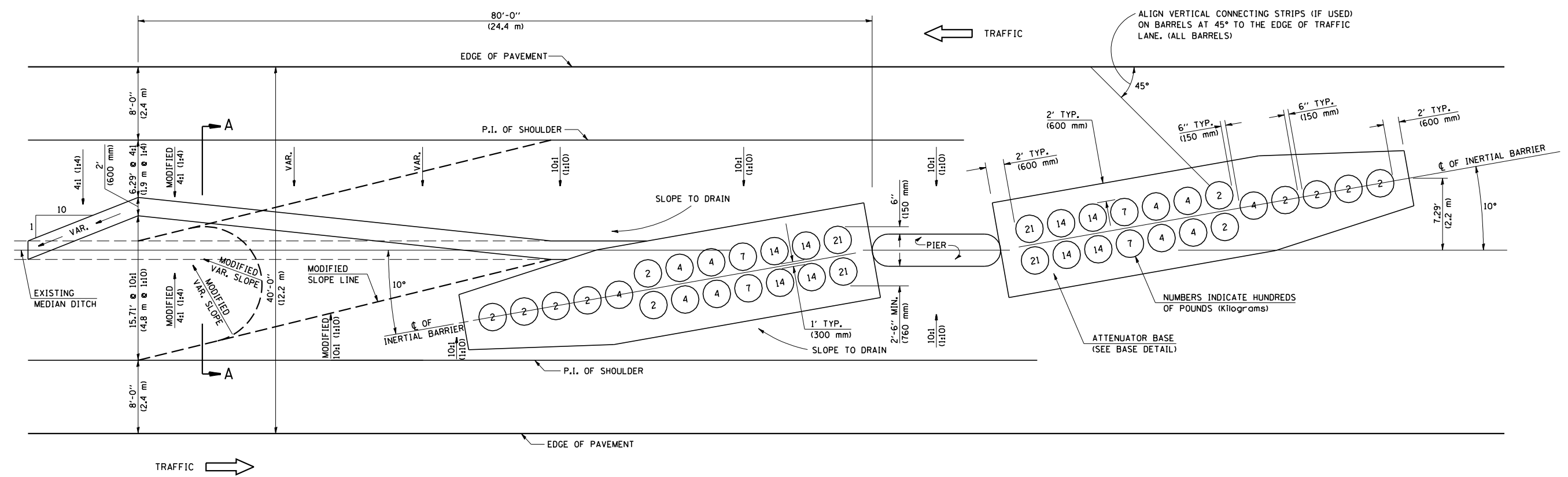
ILLINOIS DEPARTMENT OF TRANSPORTATION
CONCRETE COLLAR
DISTRICT 5 DETAIL NO. 54248510

PLOT DATE : 1/29/2008
FILE NAME : c:\projects\54248510\structure 092-0105\detail2807.dgn
PLOT SCALE : 42.3525 / IN.
USER NAME : collierb

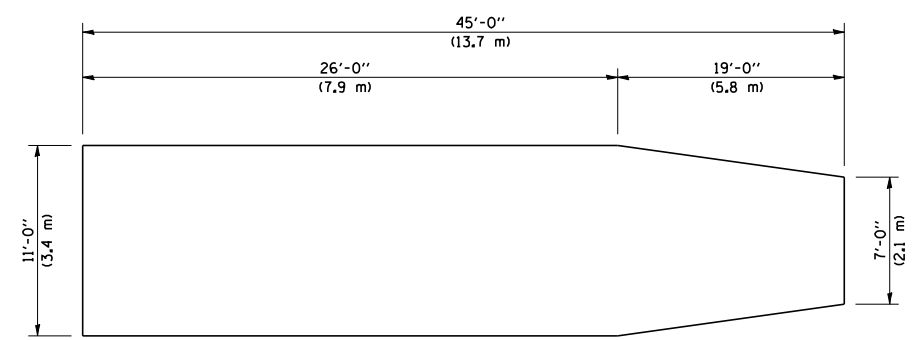
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	49
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		•(10,92-8 HB-4)BR		

CONTRACT NO. 70001

70 MPH (110 km/h) DESIGN - 40' (12 m) MEDIAN



GRADING AND SHAPING DETAIL



BASE DETAIL

GENERAL NOTES

- ALL 10:1 (1:10) SLOPES SHOWN ON THIS DETAIL SHALL BE CONSTRUCTED 10:1 (1:10) OR FLATTER.
- ANY EXISTING DRAINAGE STRUCTURES LOCATED WITHIN THE 80' (24.4 m) WORKING AREA SHALL BE MODIFIED OR LEFT IN PLACE AS SHOWN ON THE PLANS. WHERE THE EXISTING DRAINAGE STRUCTURES ARE TO REMAIN IN PLACE, THE SLOPES ARE TO BE CONSTRUCTED AS SHOWN AS MODIFIED SLOPES ON THIS DETAIL AND AS DIRECTED BY THE ENGINEER.
- THE SLOPES AS SHOWN ON THIS DETAIL SHALL APPLY TO BOTH ENDS OF THE BRIDGE PIERS.
- THE LENGTH X WIDTH OF MODULE LAYOUT IS 41.0' x 7.0' : 19 MODULES - 14,400 LBS. (12.5 m x 2.1 m : 19 MODULES - 6532 kg).
- IN AREAS OF 10:1 (1:10) SLOPES PRECEDING THE ATTENUATOR IN THE MEDIAN INSTALLATION, FOUR WOOD POSTS SHALL BE PLACED AT 5' (1.5 m) INTERVALS IN THE MEDIAN \bar{C} . SEE SPECIAL PROVISIONS.

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

DATE	REVISIONS	NAME
11/06	Replaced Detail F-1.51A	TJB

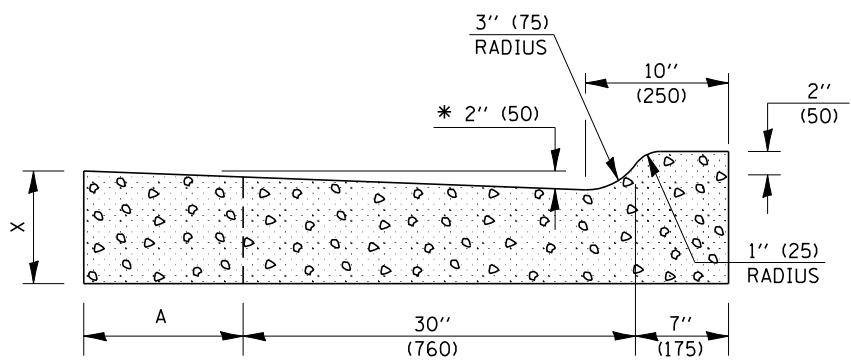
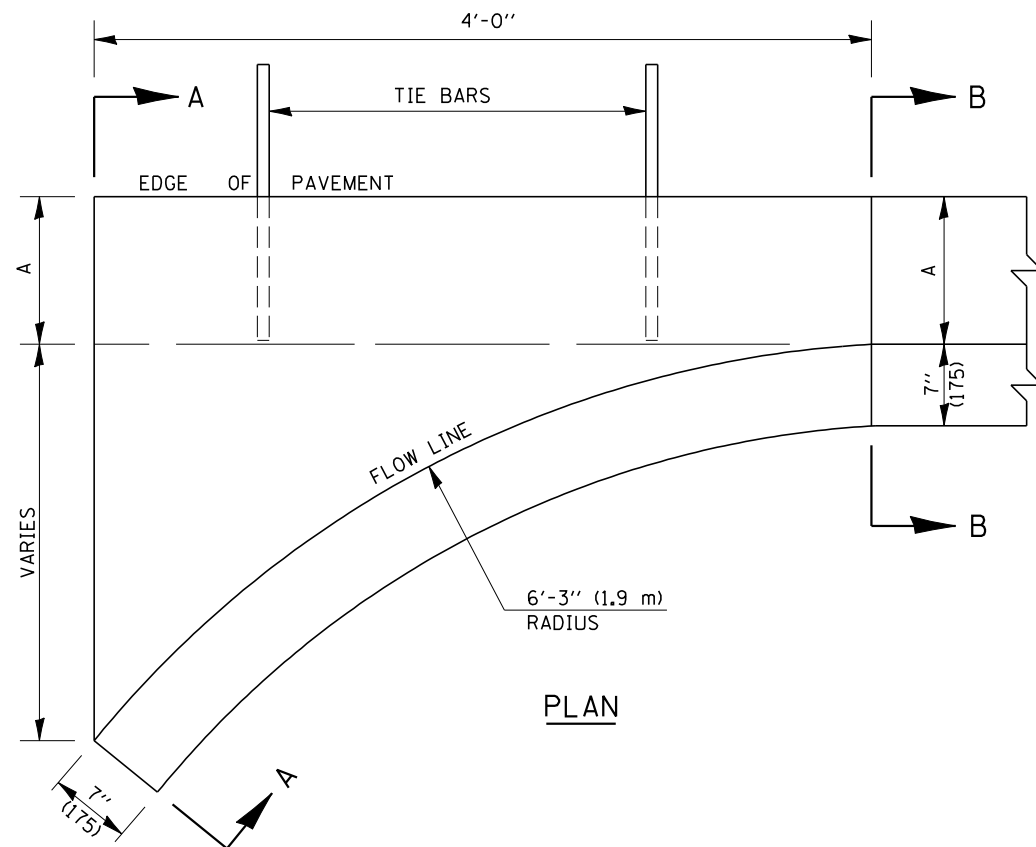
ILLINOIS DEPARTMENT OF TRANSPORTATION
**IMPACT ATTENUATORS
 (NON-REDIRECTIVE)
 TEST LEVEL 3**
DISTRICT 5 DETAIL NO. Z0030150B

PLOT DATE = 12/11/2007
 FILE NAME = c:\projects\0501099\structure 012-0105\detail2007.dgn
 PLOT SCALE = 42.3525" / IN.
 USER NAME = collierb

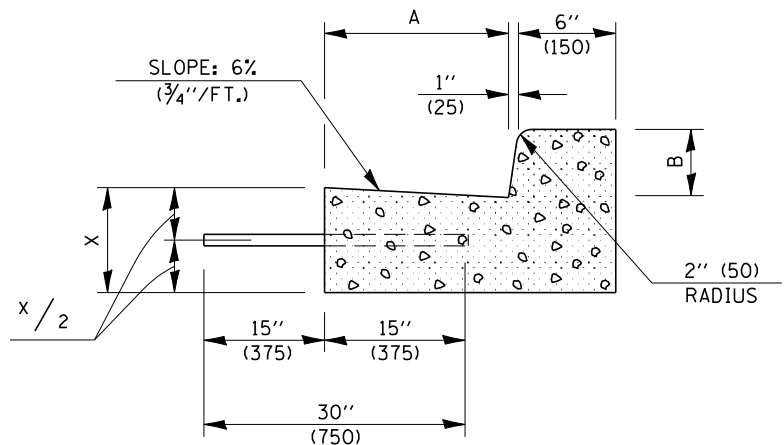
RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	50
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

•(10,92-8 HB-4)BR
CONTRACT NO. 70001

DETAIL OF CURB AND GUTTER OUTLET, SPECIAL



SECTION A-A



SECTION B-B

* INCREASE TO 1" (50 mm) AT LOCATIONS IN THE PLANS WHERE THESE SPECIAL OUTLETS ARE TO BE CONSTRUCTED AS INLETS. ALL INLET LOCATIONS WILL BE CONFIRMED BY THE ENGINEER.

GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. TIE BARS SHALL BE NO. 6 (NO. 20) AT 24" (600 mm) CENTERS UNLESS OTHERWISE SHOWN. SPECIAL INLETS AND OUTLETS SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.
3. TIE BARS SHOWN ABOVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT PRICE (EACH) OF CURB AND GUTTER OUTLET, SPECIAL.
4. WHEN SPECIAL OUTLET IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, THE TIE BARS SHALL BE OMITTED AND ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH A DOWEL BAR CONFORMING TO ARTICLE 1006.11(b).
5. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR CURB AND GUTTER OUTLET, SPECIAL WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

	B-6.12 (B-15.30)	B-9.12 (B-22.30)	B-6.18 (B-15.45)	B-9.18 (B-22.45)	B-6.24 (B-15.60)	B-9.24 (B-22.60)
A	12" (300)	12" (300)	18" (450)	18" (450)	24" (600)	24" (600)
B	6" (150)	6" (150)	9" (225)	9" (225)	6" (150)	9" (225)
X	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)

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

DATE	REVISIONS	NAME

ILLINOIS DEPARTMENT OF TRANSPORTATION

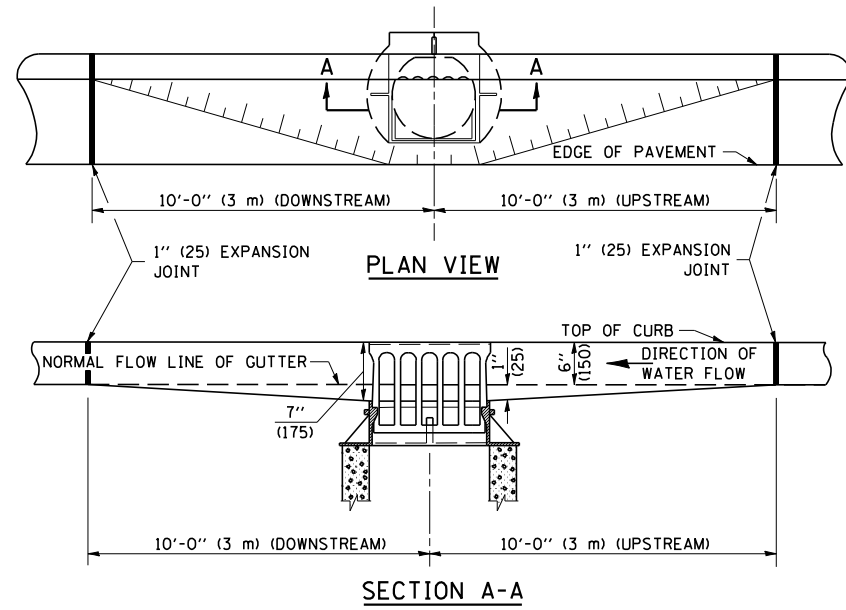
CURB AND GUTTER OUTLET SPECIAL

PLOT DATE = 12/11/2007
 FILE NAME = c:\projects\450\099\structure 092-0105\detail2007.dgn
 PLOT SCALE = 42.3525 / IN.
 USER NAME = collierb

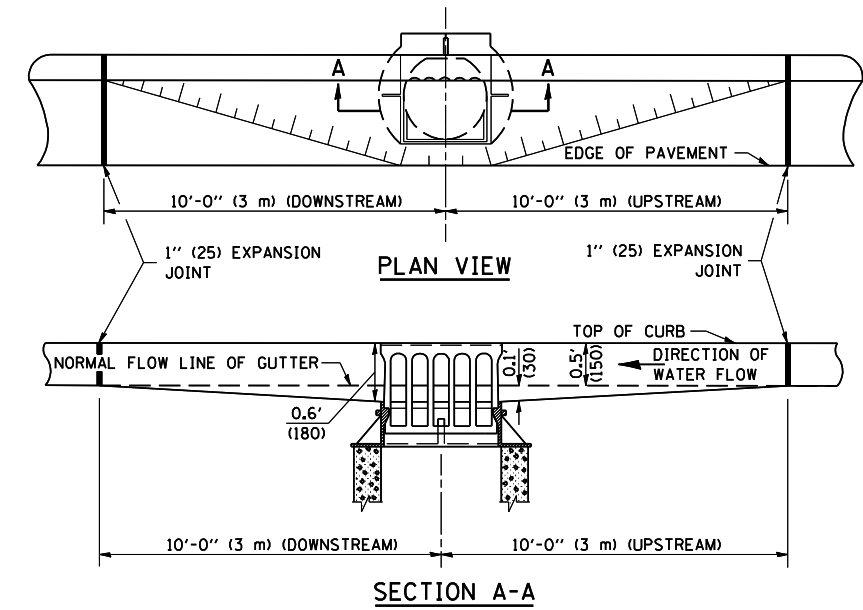
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	51
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	*(10,92-8 HB-4)BR			

CONTRACT NO. 70001

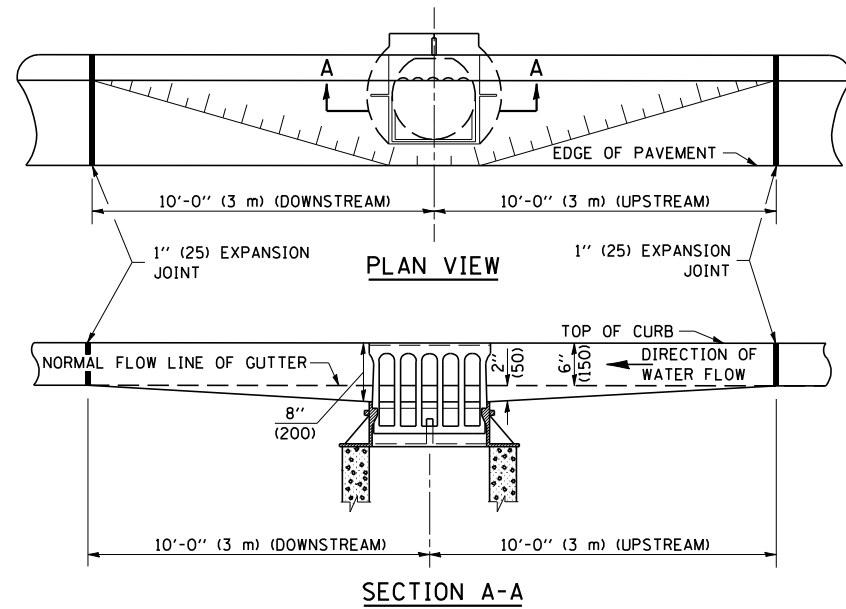
GUTTER DEPRESSION 1" (25mm)



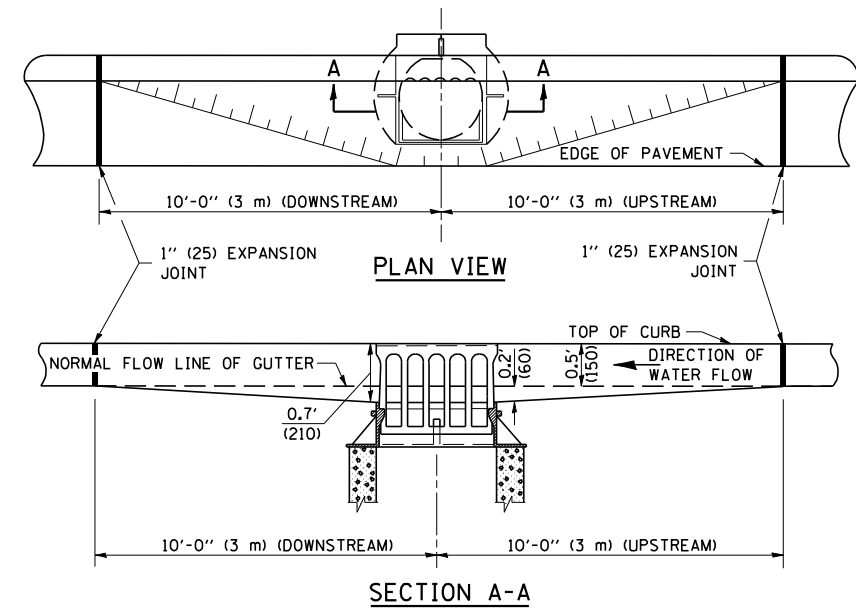
GUTTER DEPRESSION 0.1 FOOT (30mm)



GUTTER DEPRESSION 2" (50mm)



GUTTER DEPRESSION 0.2 FOOT (60mm)



GENERAL NOTES

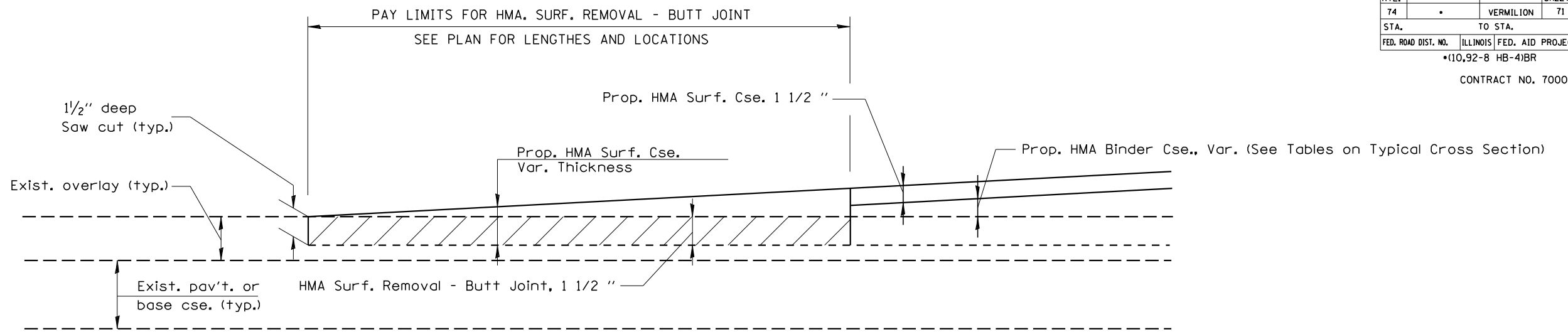
1. THE TWO EXPANSION JOINTS SHALL BE PLACED AS SHOWN IN STANDARD 606001.
2. THE GUTTER GRADE SHALL BE DEPRESSED AT ALL INLETS, CATCH BASINS AND MANHOLES UNLESS OTHERWISE SPECIFIED IN THE PLANS.
3. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE VARIOUS PAY ITEMS OF WORK INVOLVED.

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

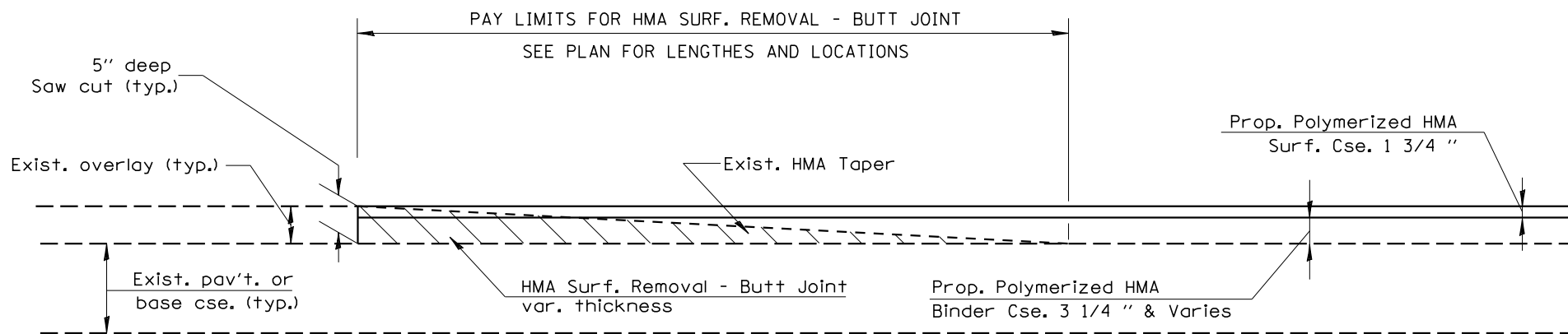
DATE	REVISIONS	NAME
11/06	REPLACED DETAILS A-1.30, A-1.31, A-1.32, A-1.33	TJB

ILLINOIS DEPARTMENT OF TRANSPORTATION
GUTTER DEPRESSION AT INLETS, CATCH BASINS AND MANHOLES
DISTRICT 5 DETAIL NO. 606AAAAA

PLOT DATE = 12/11/2007
FILE NAME = c:\projects\459\099\structure 092-0105\detail2007.dgn
PLOT SCALE = 42.3525 / IN.
USER NAME = collierb



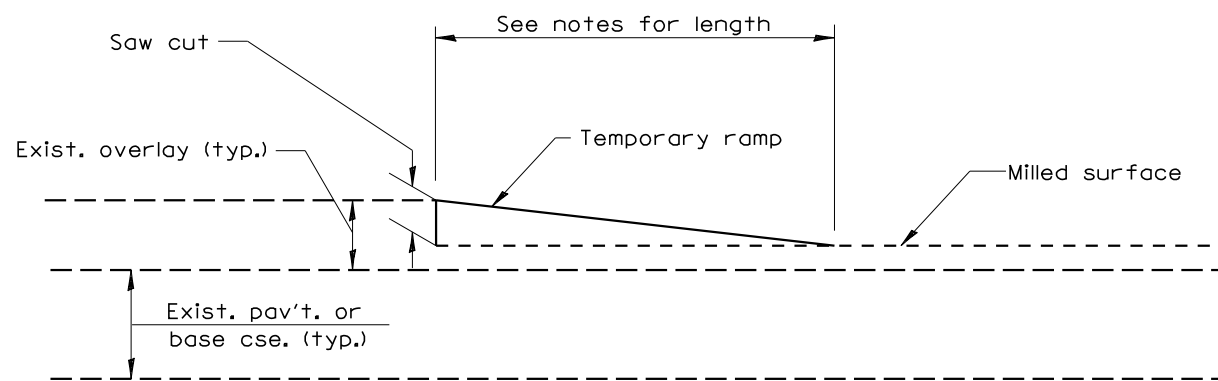
IL ROUTE 49 NORTH & RAMPS



INTERSTATE 74

GENERAL NOTES

1. The work shall be performed in accordance with Article 406.18 and the Special Provisions for Butt Joints.
2. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.06.
3. The HMA Surf. Removal - Butt Joint pay item includes the saw cut.
4. Use a taper rate of 1:80 for temporary ramp on I-74 and 1:40 elsewhere.



TEMPORARY RAMP DETAIL

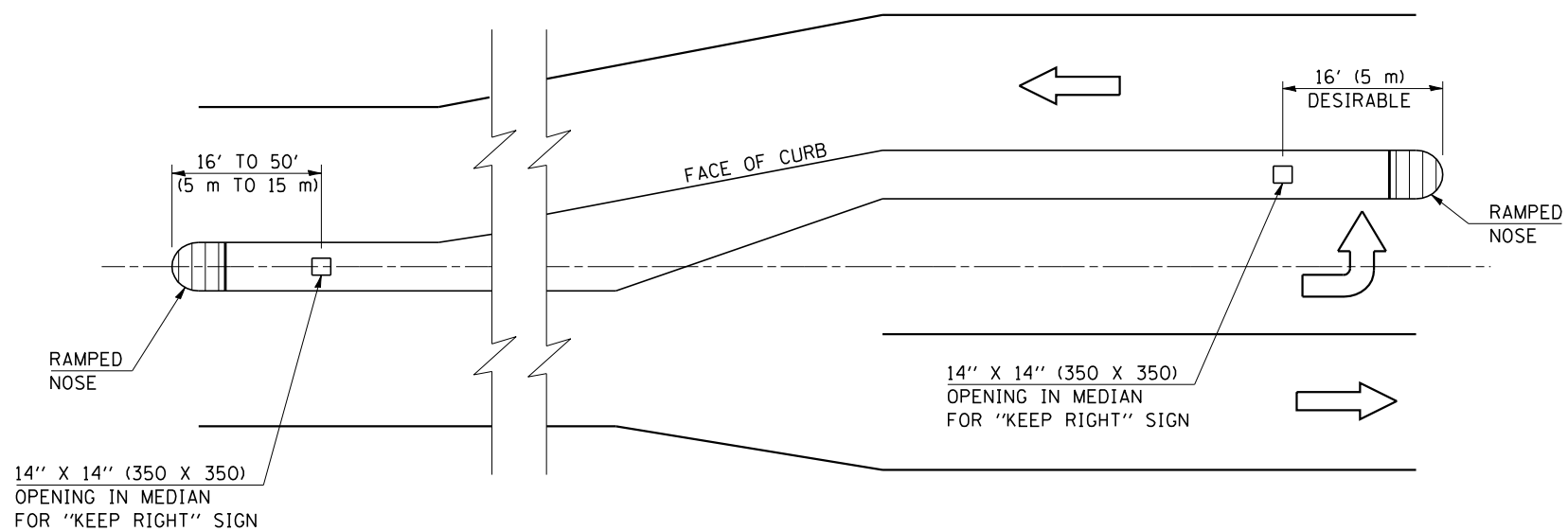
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT DETAIL

SCALE: NONE
DATE: 06/2003

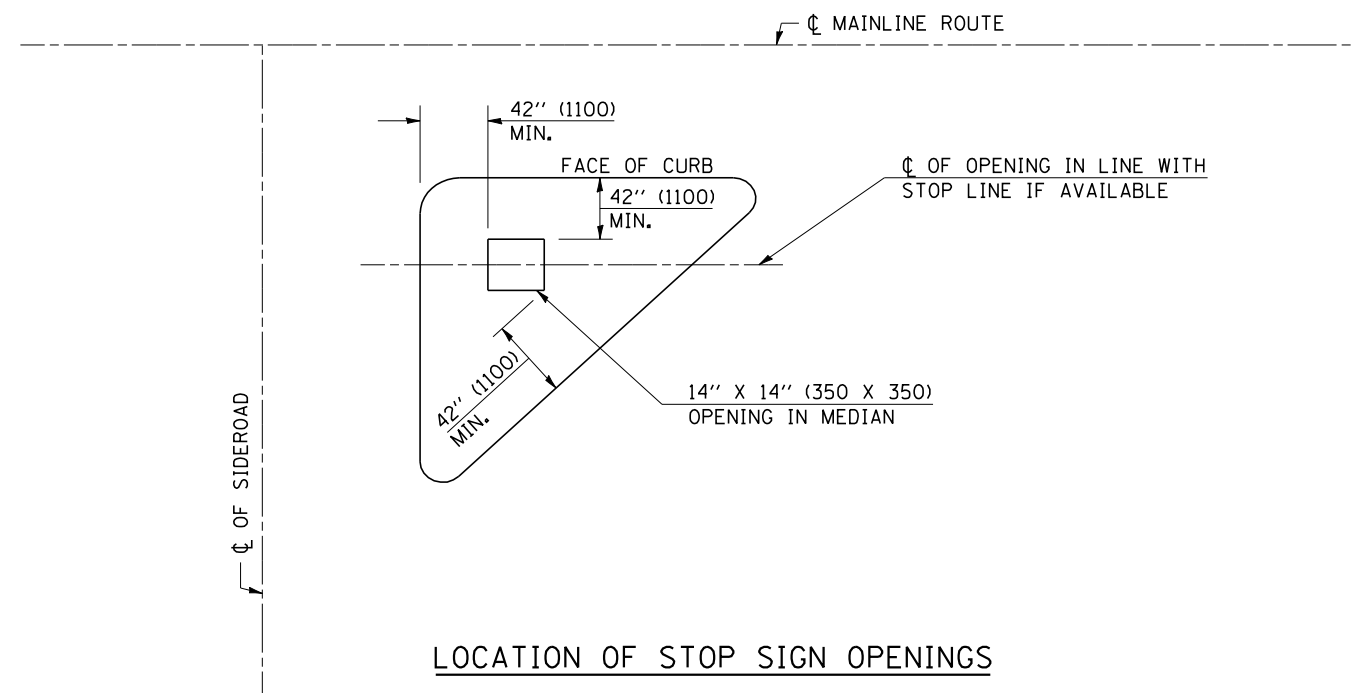
DRAWN BY: WJX
CHECKED BY: JH



LOCATION OF OPENINGS FOR "KEEP RIGHT" SIGNS

GENERAL NOTES

1. ALL SMALL ISLANDS SHALL BE CONSTRUCTED WITH THE STOP SIGN ISLANDS AS SHOWN, UNLESS OTHERWISE SPECIFIED.
2. OPENINGS FOR SIGNS IN MEDIANS SHALL BE AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE TYPE OF MEDIAN SPECIFIED IN THE PLANS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



LOCATION OF STOP SIGN OPENINGS

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

DATE	REVISIONS	NAME
11/06	REPLACED DETAIL A-5.03	TJB

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGN POST BLOCKOUTS

DISTRICT 5 DETAIL NO. 60623711

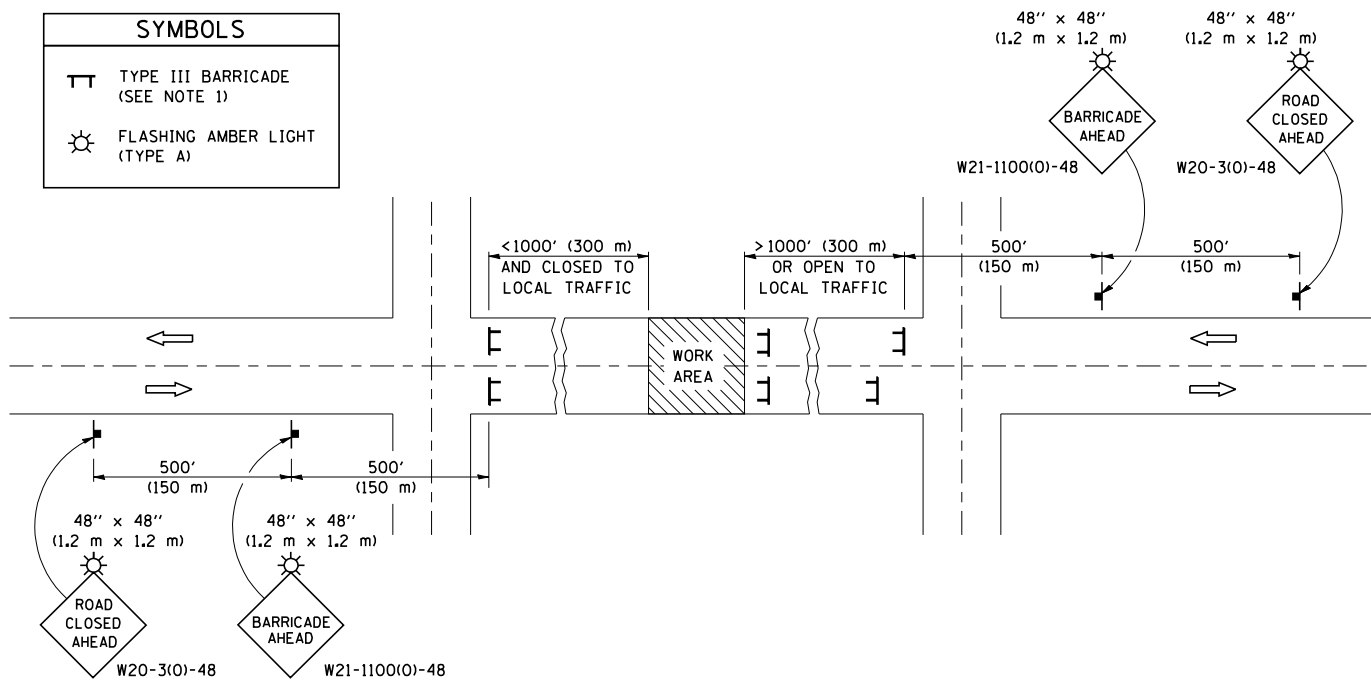
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	54
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(10,92-8 HB-4)BR				

CONTRACT NO. 70001

ROAD CLOSURE

SIDEROAD / STREET CLOSURE

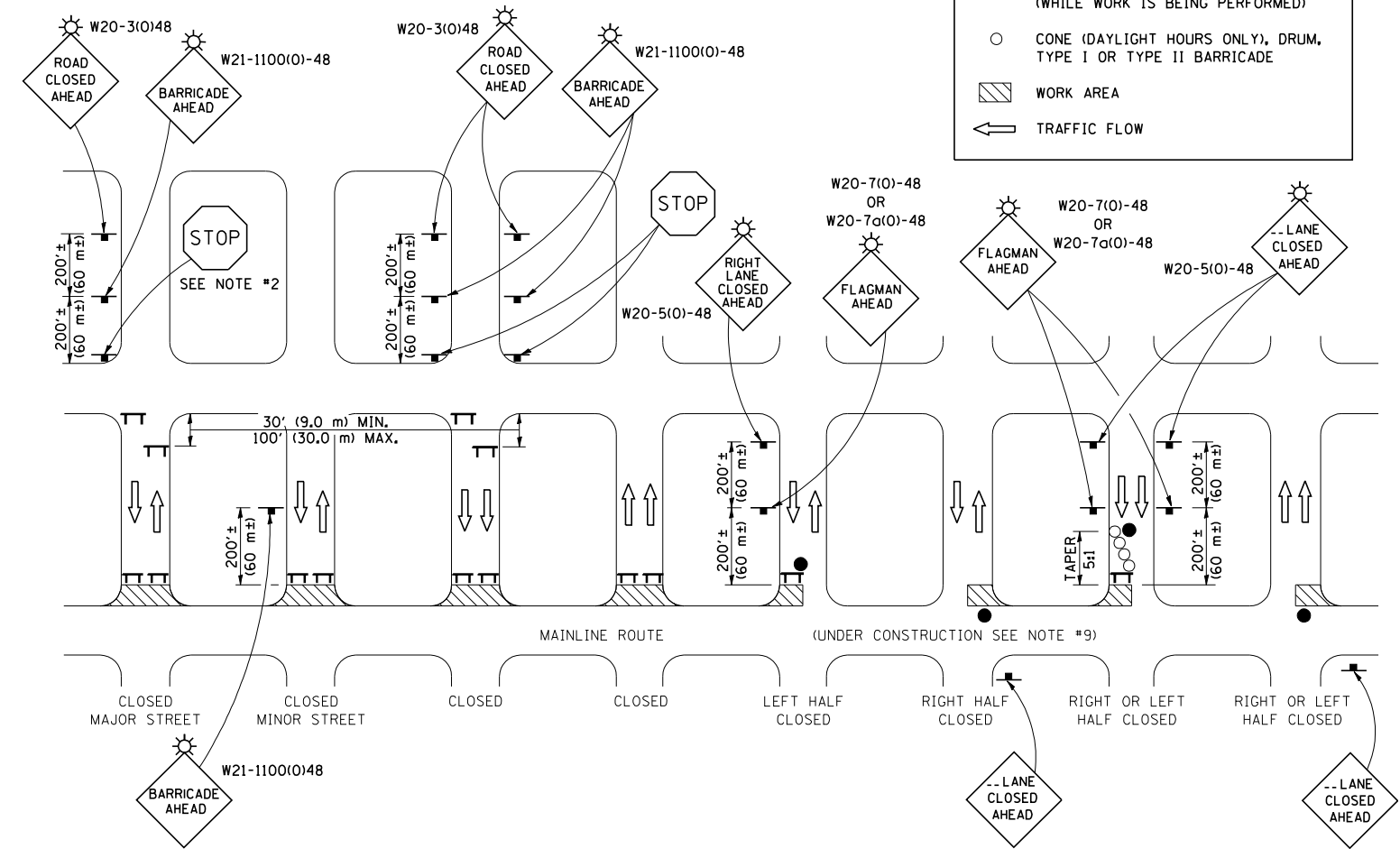
SYMBOLS	
	TYPE III BARRICADE (SEE NOTE 1)
	FLASHING AMBER LIGHT (TYPE A)



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON STANDARD 701901 "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- IF THE ROAD IS OPEN TO LOCAL TRAFFIC OR EXCEEDS 1000' (300 m), ANOTHER SET OF TYPE III BARRICADES, EQUIPPED AS IN NOTE 1 ABOVE, SHALL BE PLACED AT EACH END OF THE WORK AREA.
- WHEN A STOP CONDITION EXISTS, NO SIGNS ARE REQUIRED IN ADVANCE OF THE "STOP" SIGN WHEN THE ROAD IS CLOSED WITHIN 100' (30 m) OF THE INTERSECTION.
- STANDARD 701901 SHALL APPLY FOR THE PLACEMENT & DESIGN OF TYPE III BARRICADES.
- IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON AN NCHRP 350 TEMPORARY SIGN SUPPORT DIRECTLY IN FRONT OF THE BARRICADE.
- REFLECTORIZED STRIPING SHALL APPEAR ON BOTH SIDES OF THE TYPE III BARRICADES IF ROAD IS OPEN TO LOCAL TRAFFIC.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- A MINIMUM OF TWO FLASHING LIGHTS SHALL BE USED AT NIGHT ON EACH APPROACH IN ADVANCE OF THE WORK AREA. FLASHING LIGHTS SHALL BE INSTALLED ABOVE THE FIRST TWO SIGNS IN THE SERIES.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT. 725 AND BT. 726 ARE REQUIRED.
- WHEN A SIDEROAD INTERSECTS THE HIGHWAY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC DEVICES SHALL BE ERECTED AND PROVIDED AS DIRECTED BY THE ENGINEER.
- AN ADDITIONAL SIGN MAY BE REQUIRED AT A MAJOR INTERSECTING ROAD IN ADVANCE OF THE CLOSURE. THE ADDITIONAL SIGN SHALL GIVE THE DISTANCE TO THE BARRICADE IN MILES OR FRACTIONS OF A MILE.

SYMBOLS	
	TYPE III BARRICADE (SEE NOTE)
	FLASHING LIGHT
	FLAGGER WITH TRAFFIC CONTROL SIGN (WHILE WORK IS BEING PERFORMED)
	CONE (DAYLIGHT HOURS ONLY), DRUM, TYPE I OR TYPE II BARRICADE
	WORK AREA
	TRAFFIC FLOW



GENERAL NOTES

- TYPE III BARRICADES SHALL BE AS SHOWN ON "TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD". EACH TYPE III BARRICADE SHALL HAVE TWO FLASHING AMBER LIGHTS MOUNTED ABOVE IT.
- WHERE A STOP CONDITION EXISTS, AS SHOWN ABOVE, WARNING SIGNS MAY BE OMITTED IN ADVANCE OF THE "STOP" SIGN.
- STANDARD 7010901 SHALL APPLY FOR THE PLACEMENT & MANUFACTURE OF TYPE III BARRICADES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ONE FLASHING LIGHT IS REQUIRED ABOVE EACH ADVANCE WARNING SIGN DURING HOURS OF DARKNESS.
- LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
- FORMS BT 725 AND BT 726 ARE REQUIRED.
- THE MAINLINE ROUTE TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS.
- THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE VARIOUS PAY ITEMS INVOLVING THE RECONSTRUCTION OF ALL APPLICABLE SIDE STREETS AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

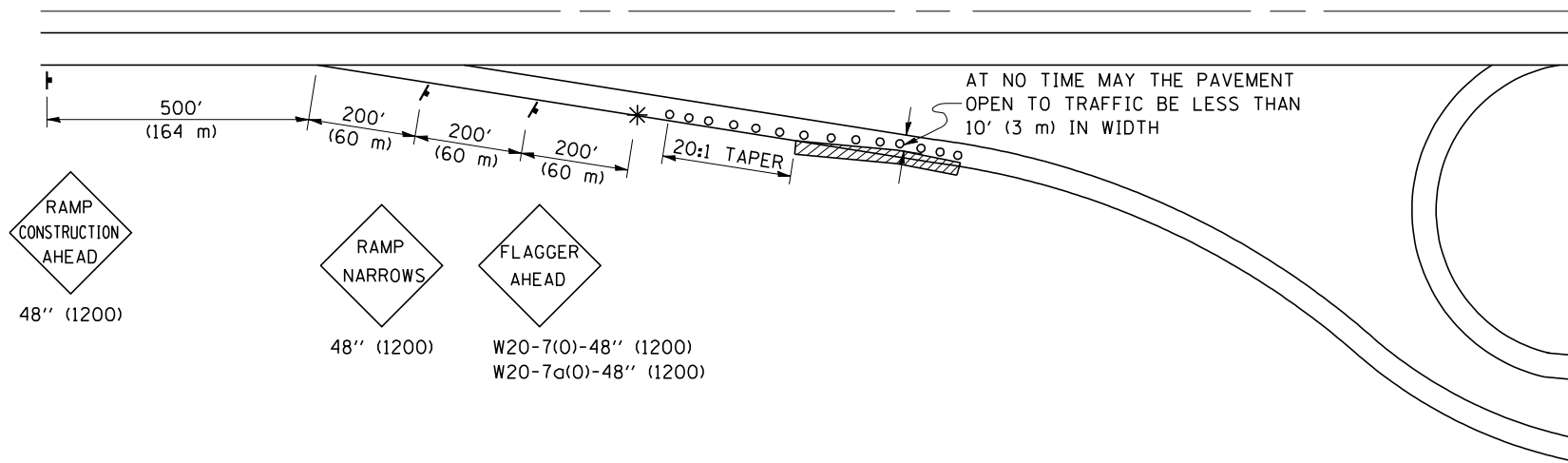
(ROAD & SIDEROAD/STREET CLOSURES)

PLOT DATE = 12/11/2007
 FILE NAME = c:\projects\450\089\structure 012-0105\detail2007.dgn
 PLOT SCALE = 42.3525' / IN.
 USER NAME = collierb

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	55
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

•(10,92-8 HB-4)BR
CONTRACT NO. 70001

**APPLICATION NO. 1
DAY OPERATION ONLY
PARTIAL RAMP CLOSURE**



- 48" (1200)
- 48" (1200)
- W20-7(0)-48" (1200)
W20-7a(0)-48" (1200)

GENERAL NOTES

CONSTRUCTION OPERATIONS SHALL BE CONFINED TO AN AREA NARROW ENOUGH THAT A MINIMUM OF 10' (3 m) OF PAVEMENT SHALL BE OPEN TO TRAFFIC AT ALL TIMES.

FULL WIDTH PAVEMENT ON THE RAMPS SHALL BE OPEN TO TRAFFIC AT NIGHT.

WHEN NO WORK IS BEING PERFORMED, THE FLAGGER WILL NOT BE REQUIRED. IF THE FLAGGER IS NOT PRESENT, THE FLAGGER SIGNS SHALL BE REMOVED OR COVERED.

ALL SIGNS SHALL BE POST MOUNTED IF WORK IN THE AREA EXCEEDS FOUR DAYS OF DAYTIME OPERATIONS.

LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.

ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGER) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE DISTRICT ENGINEER.

SYMBOLS

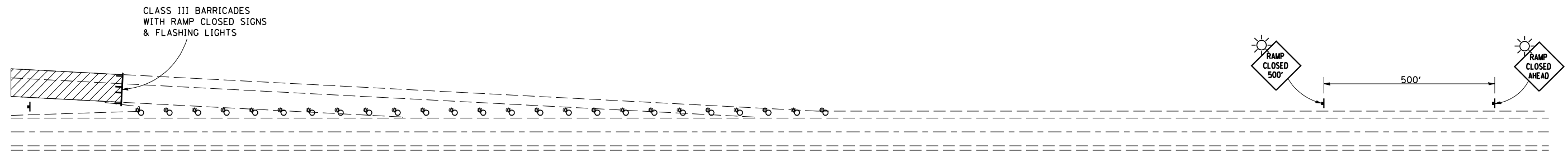
- (APPLICATION NO. 1) TYPE I OR II BARRICADES OR DRUMS @ 50' (15 m) CTS.
- ⦿ (APPLICATION NO. 2) TYPE I OR II BARRICADES OR DRUMS @ 25' (7.5 m) CTS. W/STEADY BURNING LIGHTS
- * (APPLICATION NO. 1) FLAGGER PLACED AS DIRECTED BY THE ENGINEER
- † SIGN ON PORTABLE OR PERMANENT SUPPORT
- ▨ WORK AREA

TYPICAL APPLICATIONS

- PAVEMENT PATCHING
- PIPE UNDERDRAINS
- HMA RESURFACING

Traffic Control for all ramps shall be in accordance with the appropriate application of plan detail TRAFFIC CONTROL FOR RAMPS and will not be paid for separately, but shall be included in the contract lump sum prices for Traffic Control and Protection, Standard 701401 and Traffic Control and Protection, Standard 701406.

**APPLICATION NO. 2
RAMP CLOSURE**



GENERAL NOTES

STEADY BURN LIGHTS ARE NOT REQUIRED FOR DAYTIME OPERATIONS.

CONTACT THE DISTRICT TRAFFIC OPERATIONS ENGINEER AT 217-465-4181, ONE WEEK PRIOR TO CLOSING THE RAMP.

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

DATE	REVISIONS	NAME
11/06	REPLACED DETAIL F-5.01	TJB

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL FOR RAMPS
DISTRICT 5 DETAIL NO. 70103710

PLOT DATE = 12/11/2007
FILE NAME = c:\projects\450\0899\structure 092-0105\detail2007.dgn
PLOT SCALE = 42.3525" / IN.
USER NAME = collierb

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	56
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(10,92-8 HB-4)BR				

CONTRACT NO. 70001

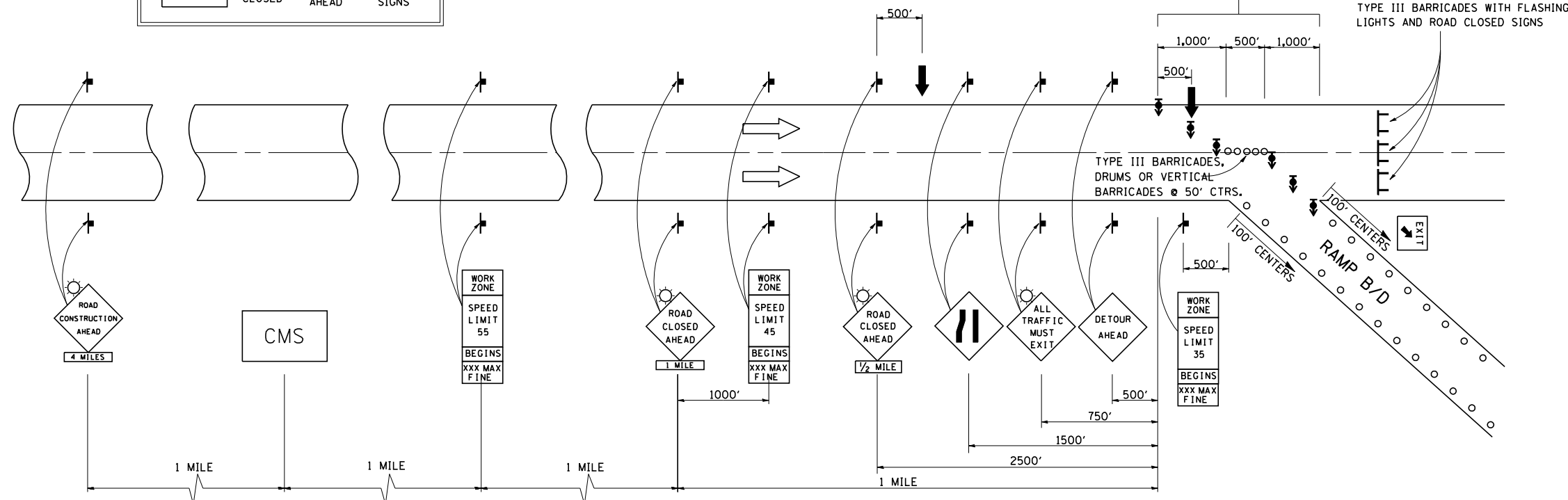
INTERSTATE DETOUR USING ENTRANCE AND EXIT RAMP

DIRECTIONAL BARRICADES WITH STEADY BURNING LIGHTS AT 50' (15 m) CTS. IN TAPER. DRUMS WITH STEADY BURNING LIGHTS IN TANGENT (BETWEEN TAPERS) AT 100' (30 m) CTS.

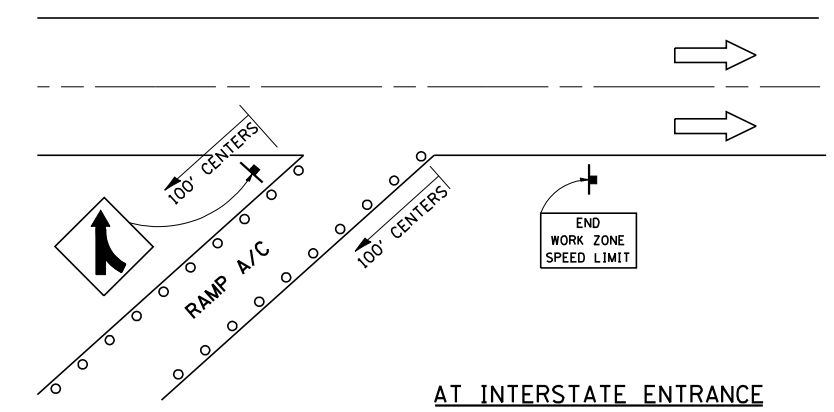
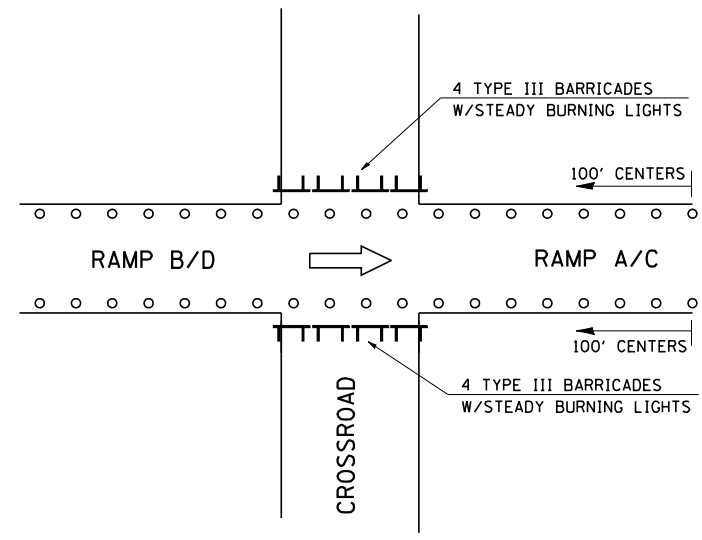
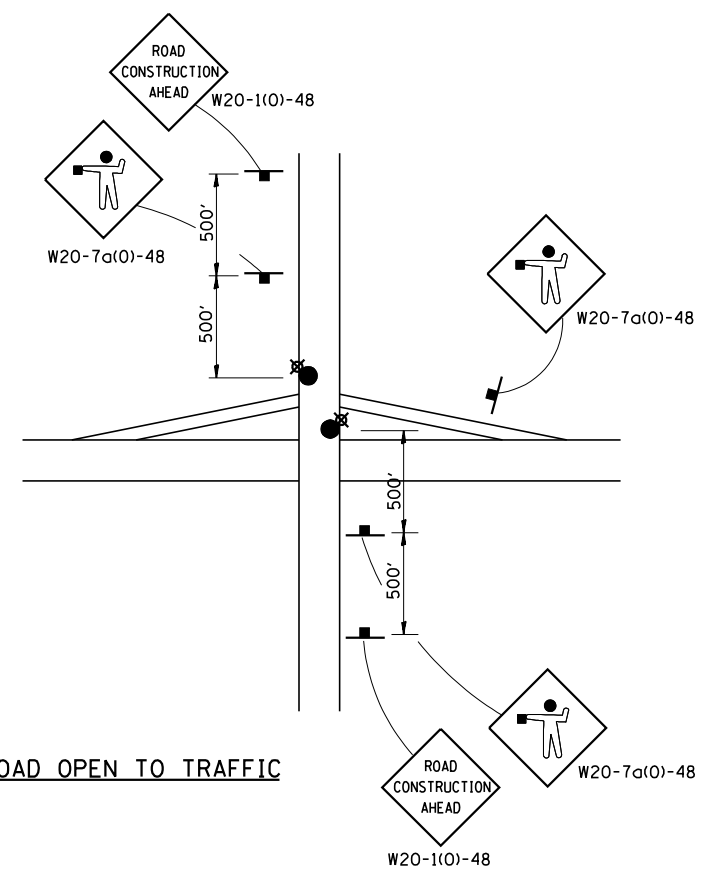
FOR OFF PEAK CLOSURES LESS THAN 24 HOURS, THE TANGENT SECTION MAY BE OMITTED BY APPROVAL OF THE ENGINEER.

A CHANGEABLE MESSAGE SIGN SHALL BE USED IN ADVANCE OF SIGNING TO WARN OF CLOSURE

CMS	ROAD CLOSED	3 MILES AHEAD	FOLLOW DETOUR SIGNS
-----	-------------	---------------	---------------------



SYMBOLS	
	ARROW BOARD
	SIGN
	DRUM W/STEADY BURNING LIGHT
	TYPE III BARRICADE
	DIRECTIONAL BARRICADE W/STEADY BURNING LIGHT
	LIGHTED FLAGGER STATIONS



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

DATE	REVISIONS	NAME

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION FOR TEMPORARY DETOUR

DISTRICT 5 DETAIL NO. X7011005

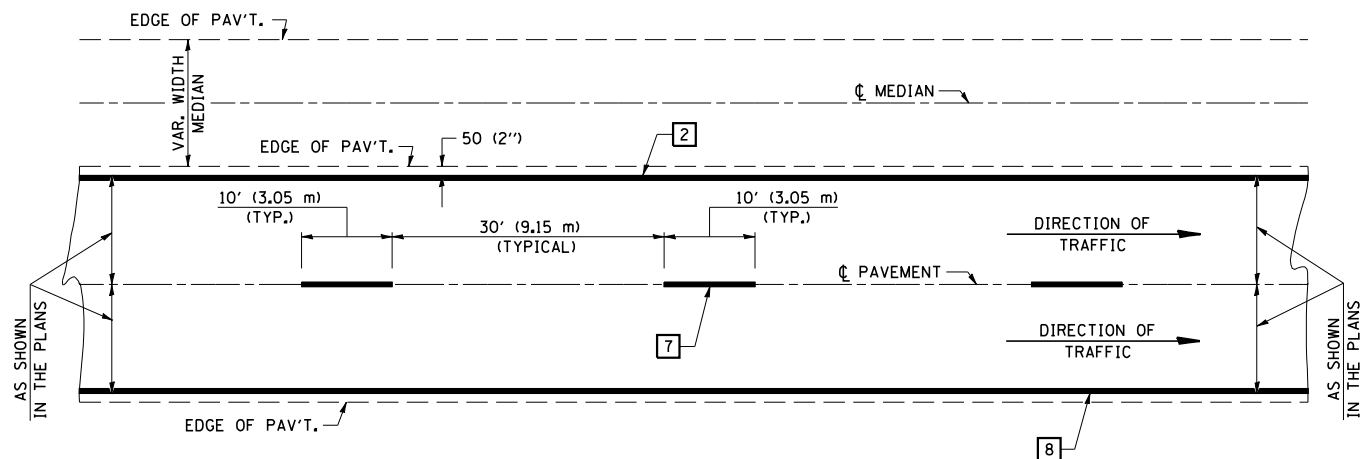
PLOT DATE = 12/11/2007
 FILE NAME = c:\projects\450\0899\structure 082-0105\detail2007.dgn
 PLOT SCALE = 42.3525' / IN.
 USER NAME = collierb

CROSSROAD OPEN TO TRAFFIC

CROSSROAD CLOSED TO TRAFFIC

AT INTERSTATE ENTRANCE

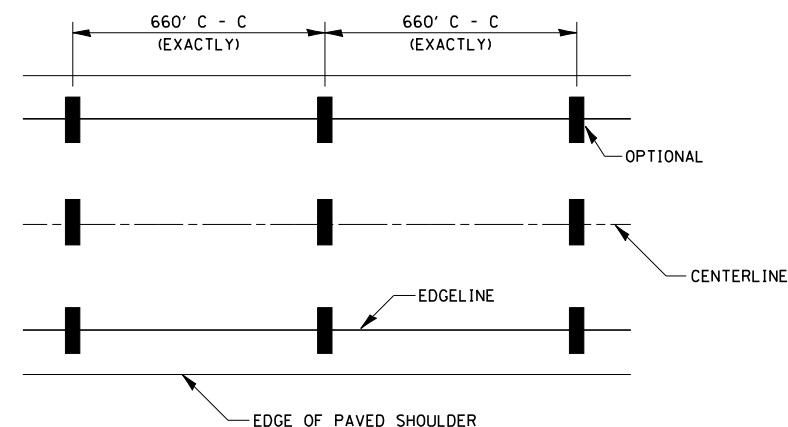
CENTERLINE INTERSTATE OR MULTI-LANE TWO WAY DIVIDED HIGHWAY



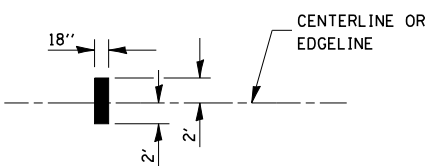
NOTE: PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.

NOTE: SEE ARTICLES 780.04 & 781.03 FOR LOCATION OF STRIPES AND MARKERS RELATIVE TO EDGES OR JOINTS.

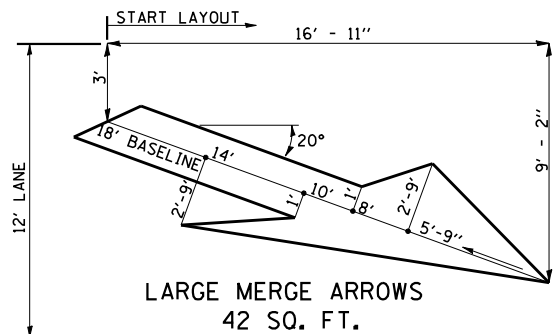
FOR RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO STANDARD 781001.



IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF MEASUREMENT CAN BE ATTESTED TO IN COURT.



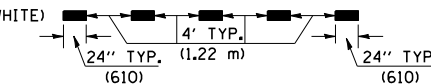
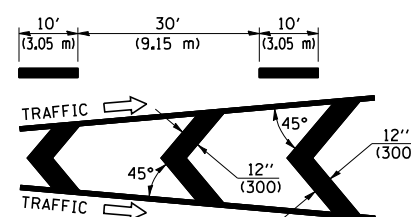
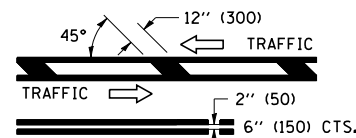
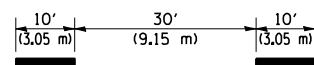
AERIAL SPEED CHECK ZONES



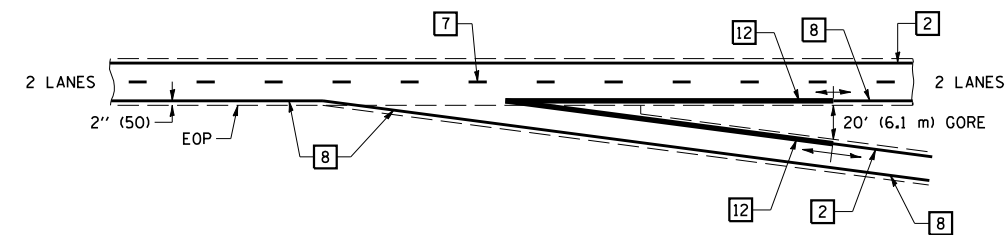
**LARGE MERGE ARROWS
42 SQ. FT.**

TYPICAL PAVEMENT MARKING LEGEND

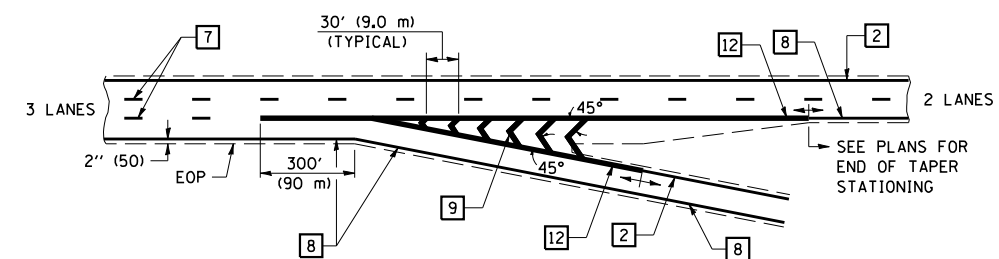
- 1 4" (100) SKIP-DASH (YELLOW)
- 2 4" (100) SOLID (YELLOW)
- 3 12" (300) DIAGONAL (YELLOW)
- 4 4" (100) DOUBLE YELLOW (NARROW)
- 5 RESERVED
- 6 RESERVED
- 7 4" (100) SKIP-DASH (WHITE)
- 8 4" (100) SOLID (WHITE)
- 9 12" (300) DIAGONAL (WHITE)
- 10 6" (150) SOLID (WHITE)
- 11 24" (600) STOP BAR (WHITE)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



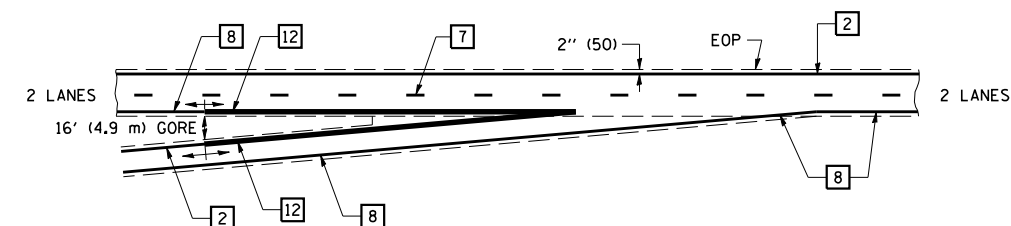
TYPICAL EXIT RAMP TERMINAL



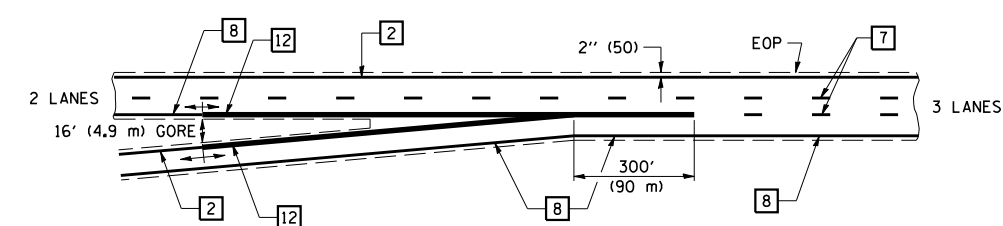
EXIT RAMP TERMINAL with EXCLUSIVE (auxiliary) LANE



TYPICAL ENTRANCE RAMP TERMINAL



ENTRANCE RAMP TERMINAL with EXCLUSIVE LANE

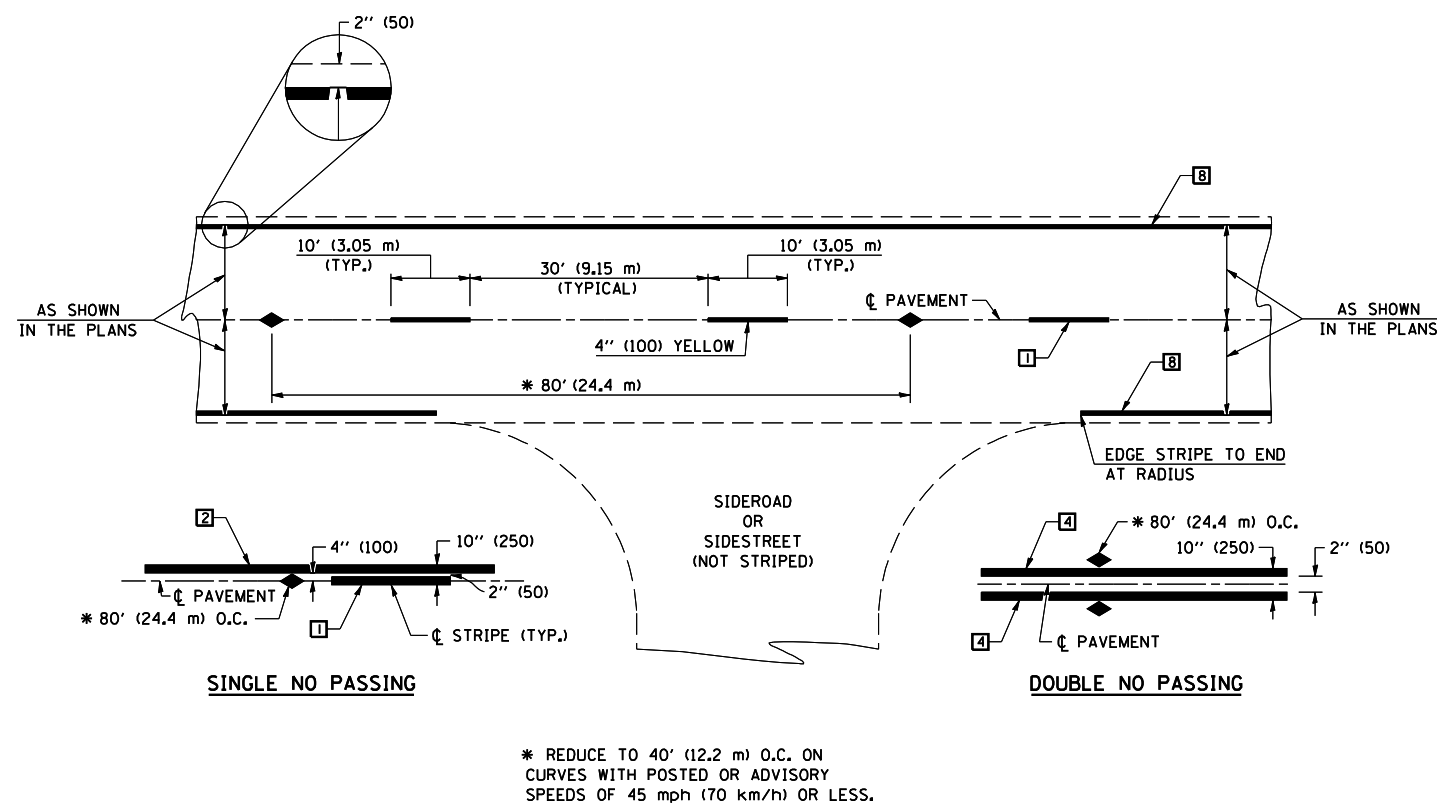


Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DATE	REVISIONS	NAME	ILLINOIS DEPARTMENT OF TRANSPORTATION
11/06	REPLACED DETAIL F-5.22	TJB	<p>PAVEMENT MARKING (INTERSTATE & MULTI-LANE APPLICATIONS)</p> <p>DISTRICT 5 DETAIL NO. 7800BBBB</p>

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	58
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		*(10,92-8 HB-4)BR		

CONTRACT NO. 70001



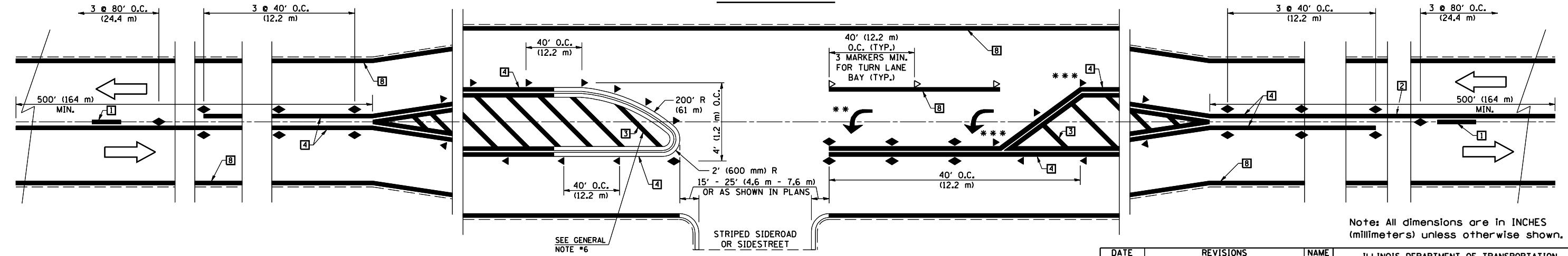
TYPICAL PAVEMENT MARKING LEGEND

- 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

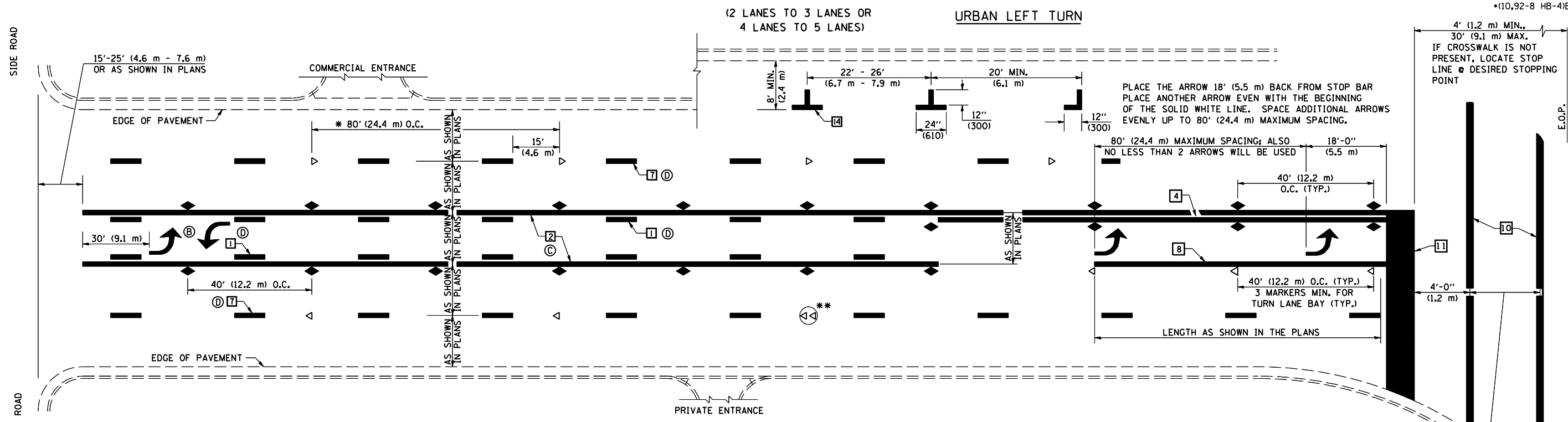


DATE	REVISIONS	NAME
11/06	REPLACED DETAIL F-5.25	TJB

ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)
DISTRICT 5 DETAIL NO. 7800AAAA

*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.
 ** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

PLOT DATE = 12/11/2007
 FILE NAME = c:\p\projects\1000\1000\structure 012-0105\detail_2007.dgn
 PLOT SCALE = 42.3525 / IN.
 USER NAME = collierb

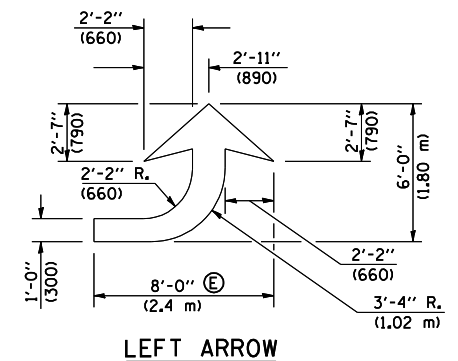


* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

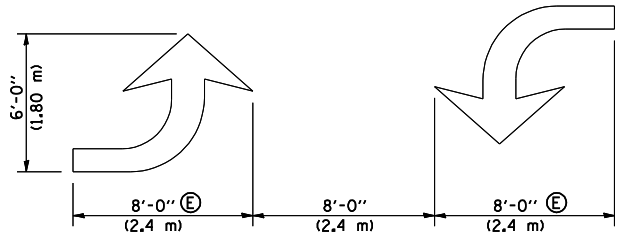
** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

GENERAL NOTES:

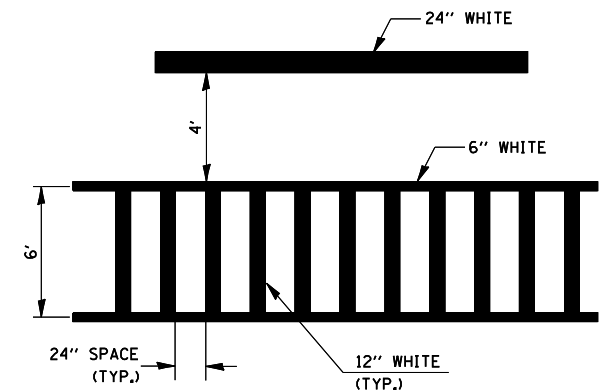
- Ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.
- Ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE 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)



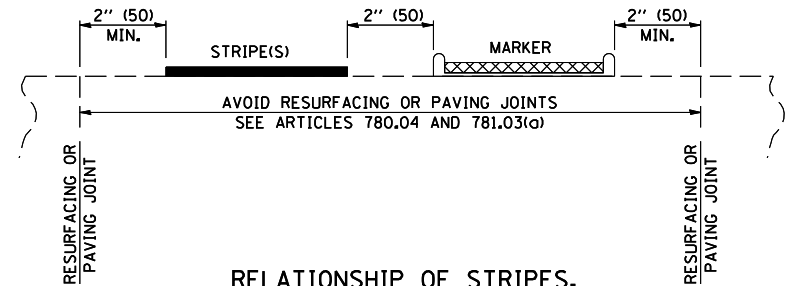
LEFT ARROW
REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m²) (WHITE)



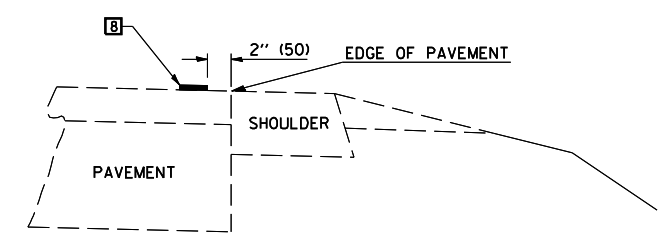
TYPICAL DOUBLE TURN ARROWS (WHITE)



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

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

DATE	REVISIONS	NAME
11/06	REPLACED DETAIL F-5.25	TJB

ILLINOIS DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)
DISTRICT 5 DETAIL NO. 7800AAAA

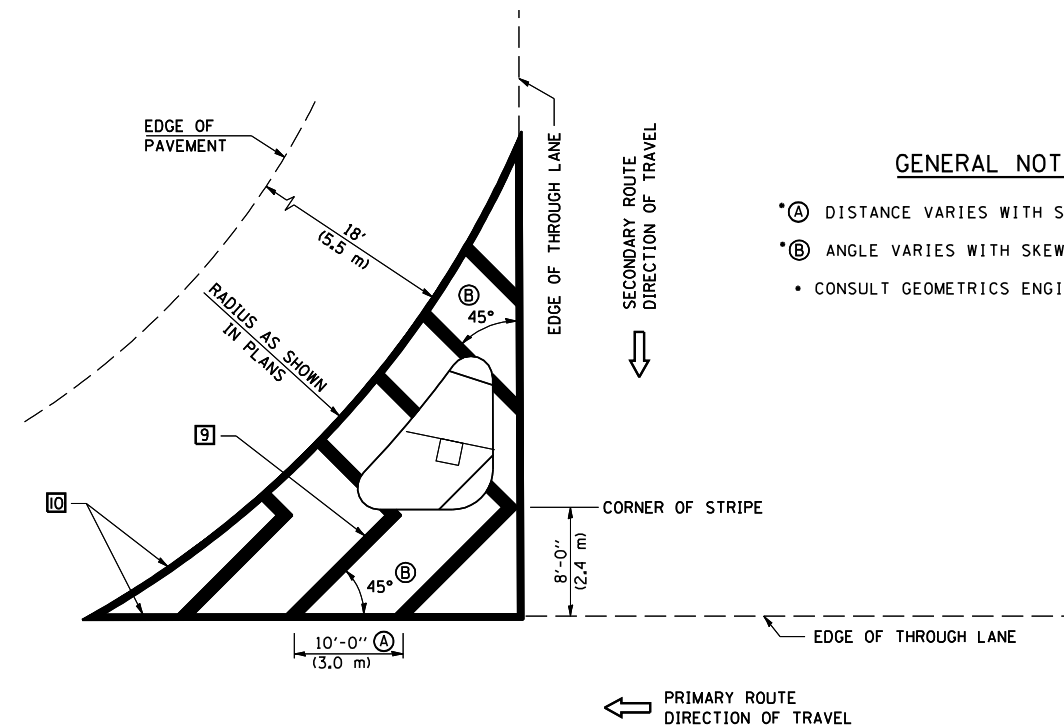
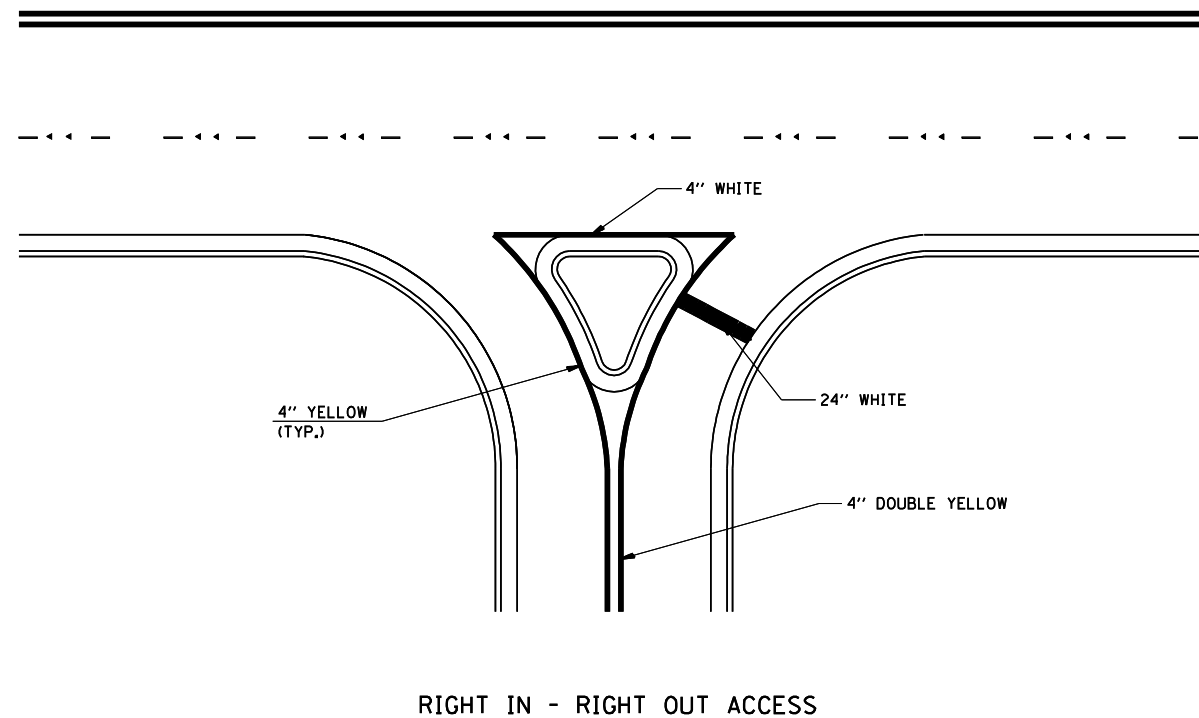
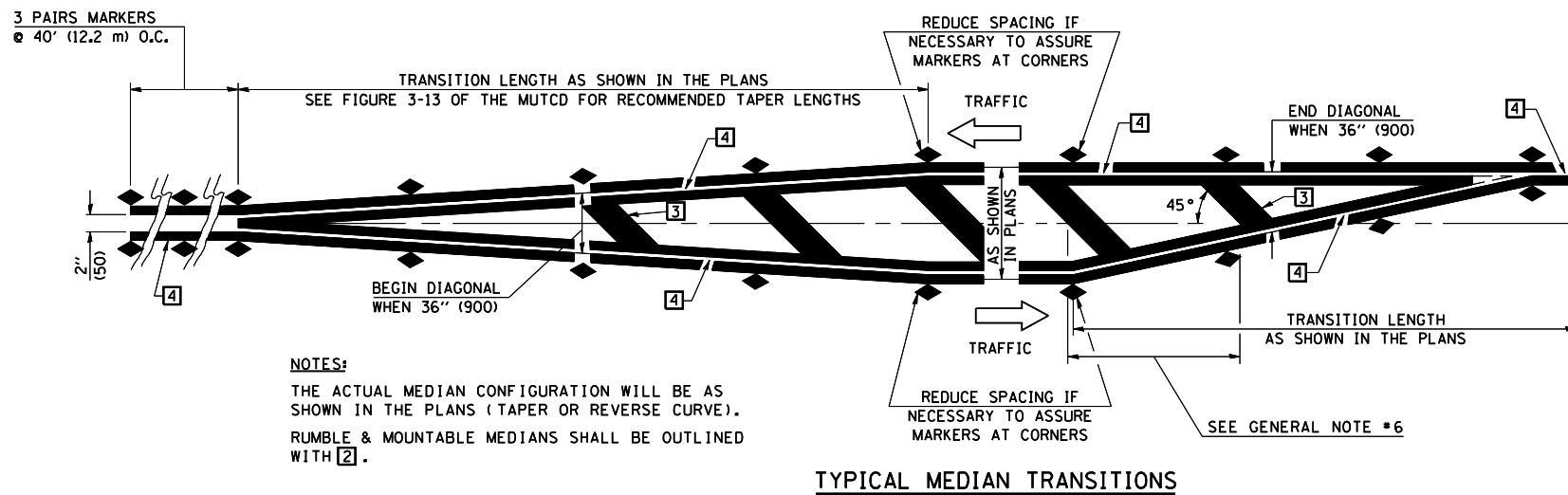
PLOT DATE = 12/11/2007
 FILE NAME = c:\projects\10999\10999\structure 012-0105\detail2007.dgn
 PLOT SCALE = 42.3525 / IN.
 USER NAME = collierb

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	60
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		*10,92-8 HB-41BR		

CONTRACT NO. 70001

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)



GENERAL NOTES

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

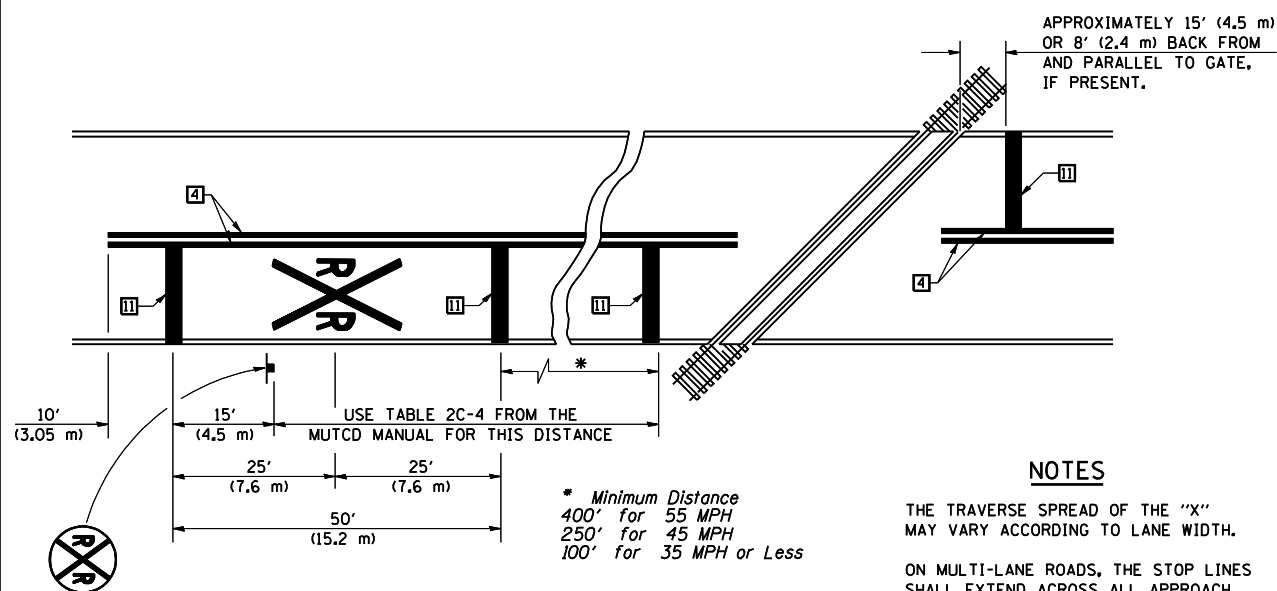
Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DATE	REVISIONS	NAME	ILLINOIS DEPARTMENT OF TRANSPORTATION
11/06	REPLACED DETAIL F-5.25	TJB	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)
			DISTRICT 5 DETAIL NO. 7800AAAA

PLOT DATE = 12/11/2007
FILE NAME = c:\projects\0809\0809\structure 082-0105\detail2007.dgn
PLOT SCALE = 42,352% / IN.
USER NAME = collierb

RAILROAD CROSSING WITH INTERCONNECT ONLY

RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS



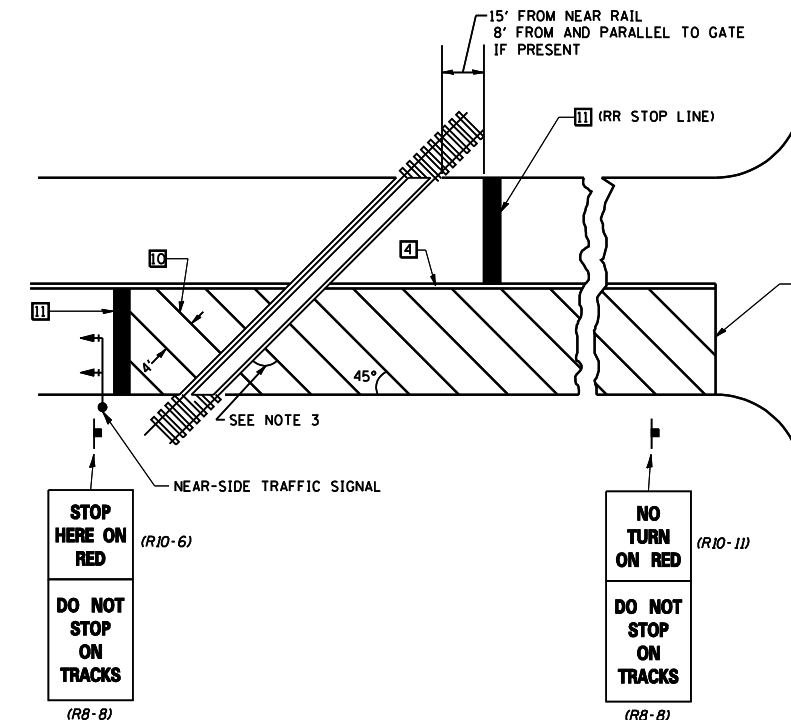
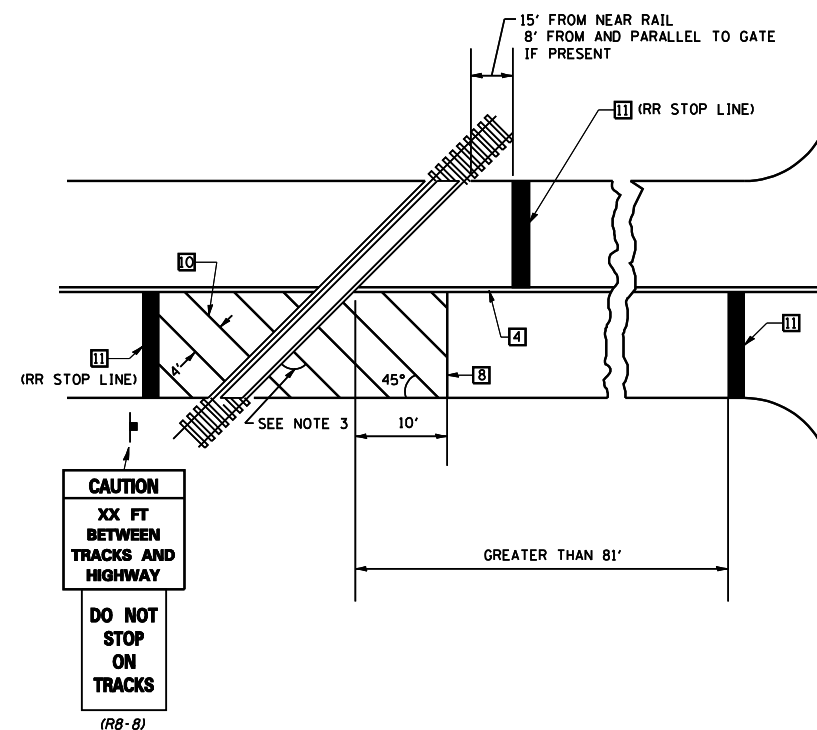
PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

NOTES

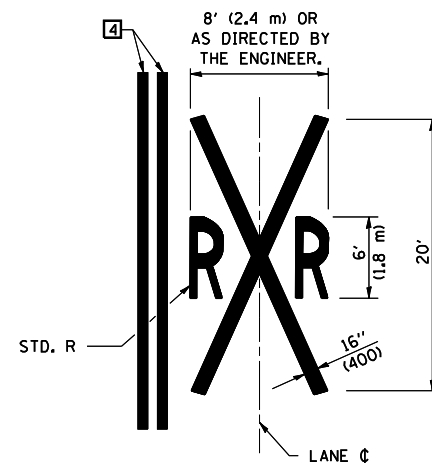
THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

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.



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.

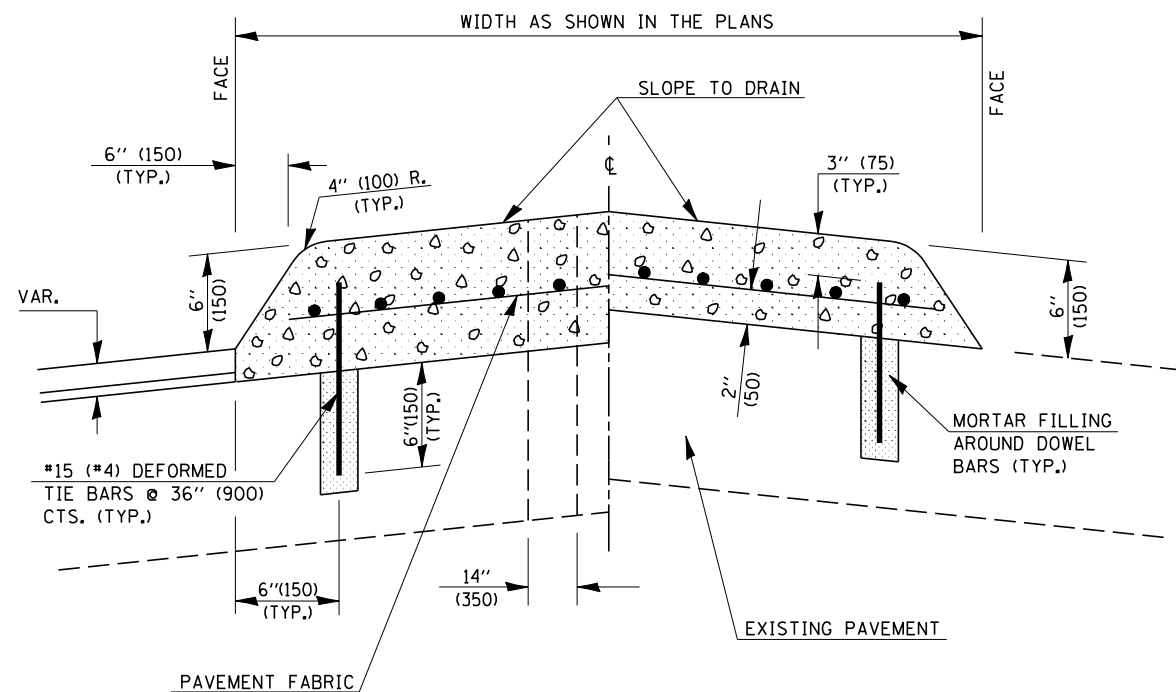
DATE	REVISIONS	NAME	ILLINOIS DEPARTMENT OF TRANSPORTATION
11/06	REPLACED DETAIL F-5.25	TJB	PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)
			DISTRICT 5 DETAIL NO. 7800AAAA

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	62
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		(10,92-8 HB-4)BR		

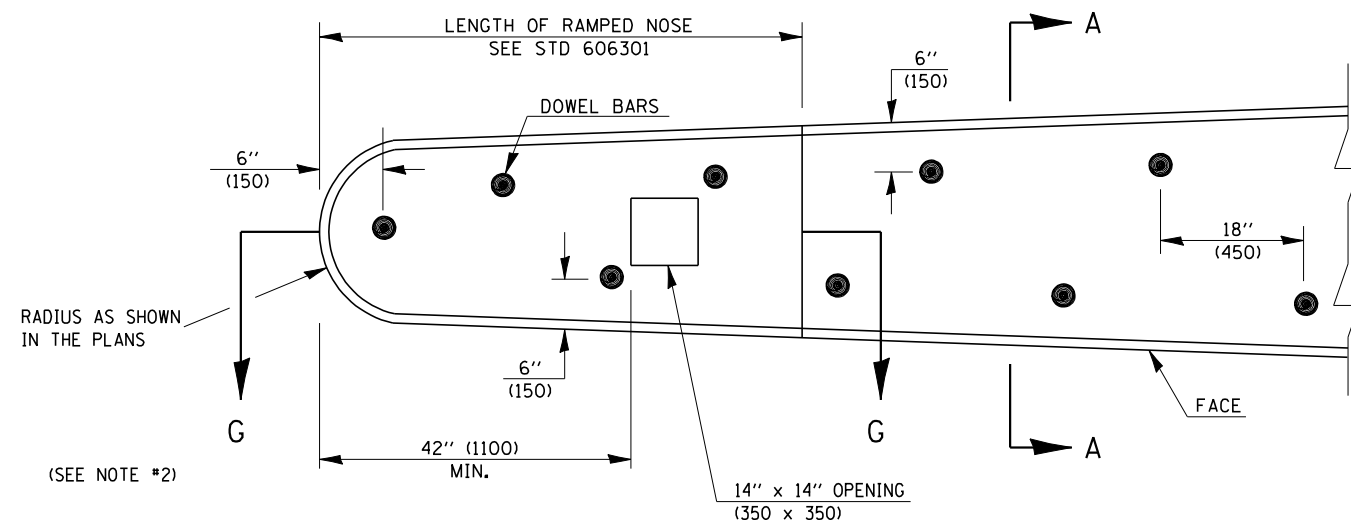
CONTRACT NO. 70001

GENERAL NOTES

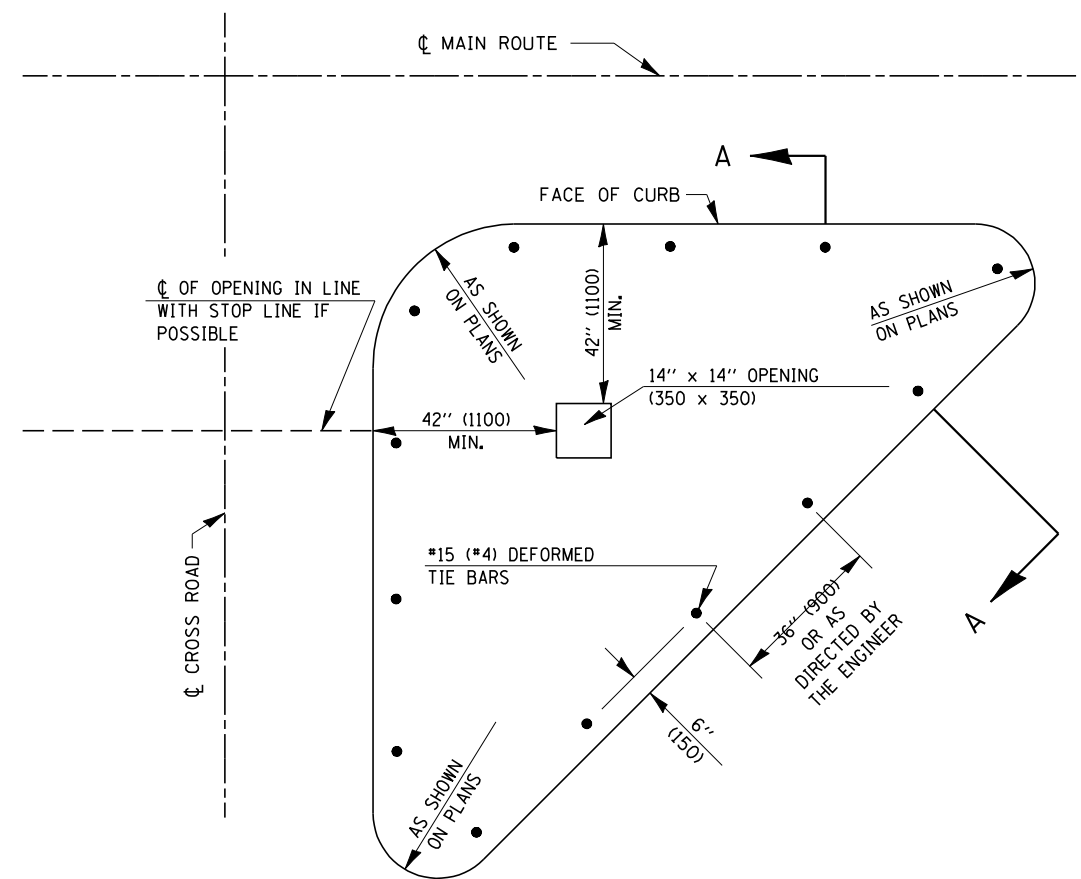
1. THE GENERAL NOTES FOR STANDARD 606301 SHALL APPLY.
2. DOWEL BARS @ 36" (900) CTS. OR AS DIRECTED BY THE ENGINEER.
3. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SO FOOT (m) FOR CONCRETE MEDIAN, TYPE SM-6 (SM-15) (DOWELED), INCLUDING THE COST OF FURNISHING AND INSTALLING THE DOWEL BARS, MORTAR FILLING, PAVEMENT FABRIC AND THE REMOVAL AND DISPOSAL OF THE EXISTING PAVEMENT FOR THE 14" x 14" (350 x 350) OPENING, IF REQUIRED, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



SECTION A-A



PLAN OF MEDIAN



PLAN OF CORNER ISLAND

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

DATE	REVISIONS	NAME
11/06	REPLACED DETAIL A-5.07	TJB

ILLINOIS DEPARTMENT OF TRANSPORTATION

**CONCRETE MEDIAN,
TYPE SM-6 (SM-15)
(DOWELED)**

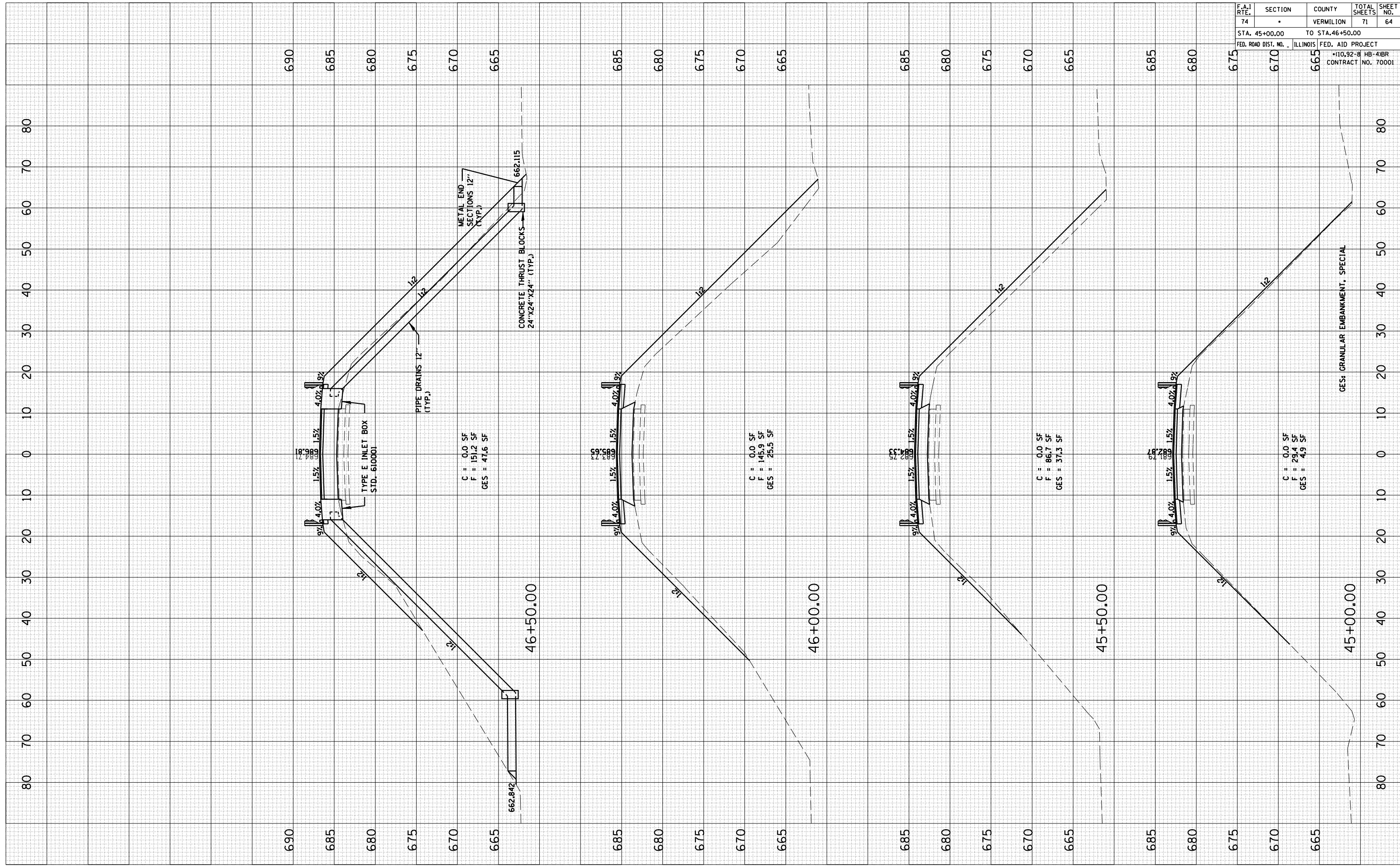
DISTRICT 5 DETAIL NO. 60622354

PLOT DATE = 12/11/2007
 FILE NAME = c:\p\projects\ad810101\structure_012-0105\detao112007.dgn
 PLOT SCALE = 41.5/965 / IN.
 USER NAME = collarba

BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____

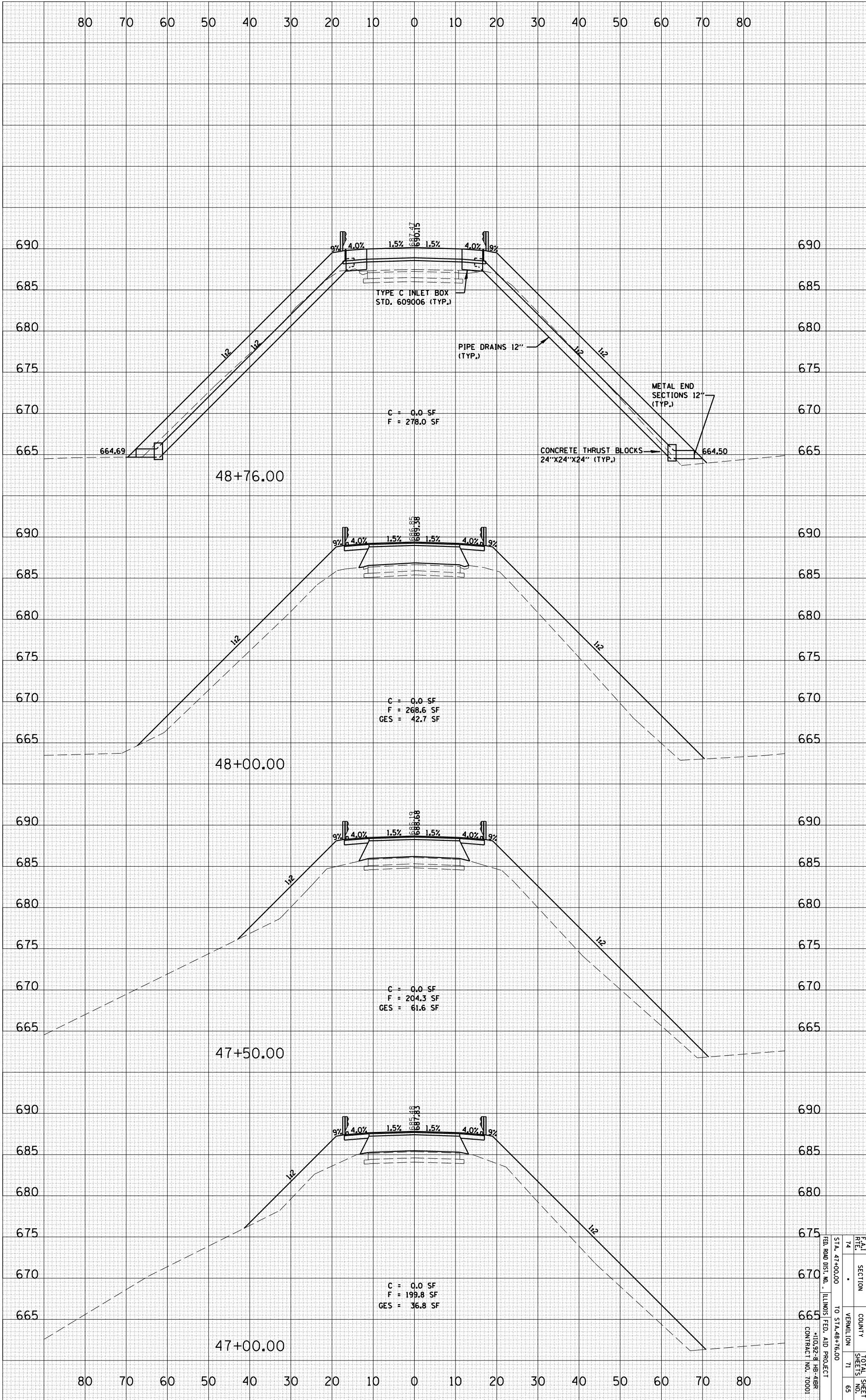
BY: _____ DATE: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 NO. _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	64
STA. 45+00.00		TO STA. 46+50.00		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		
		*10.92-B HB-4/BR		
		CONTRACT NO. 70001		



ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

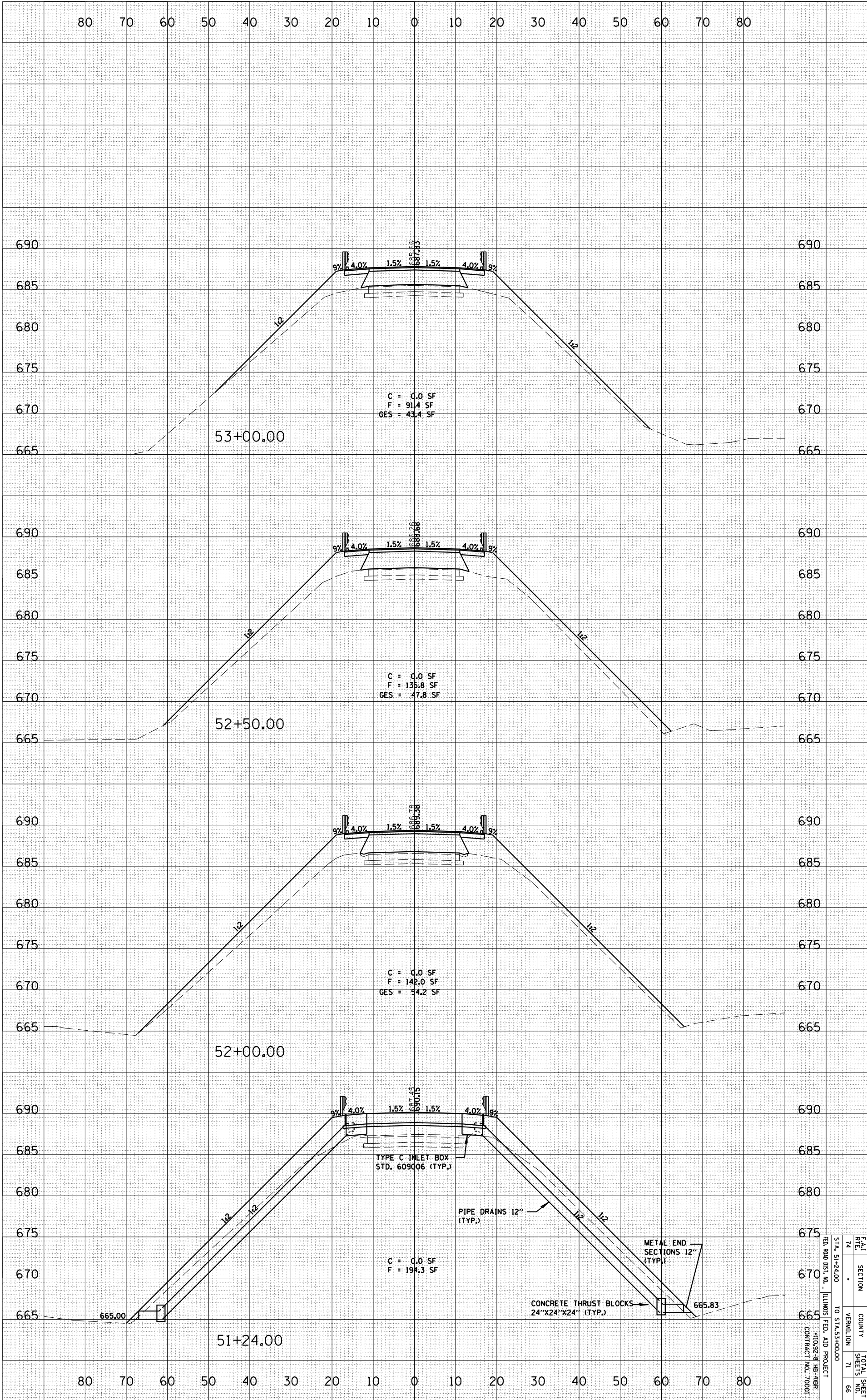


IL 49N

F.A.I.	SECTION	COUNTY	TOTAL SHEET
RTE. 74		VERMILION	SHEETS NO. 65
STA. 47+00.00			
TO STA. 48+76.00			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
CONTRACT NO. 7001			

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		



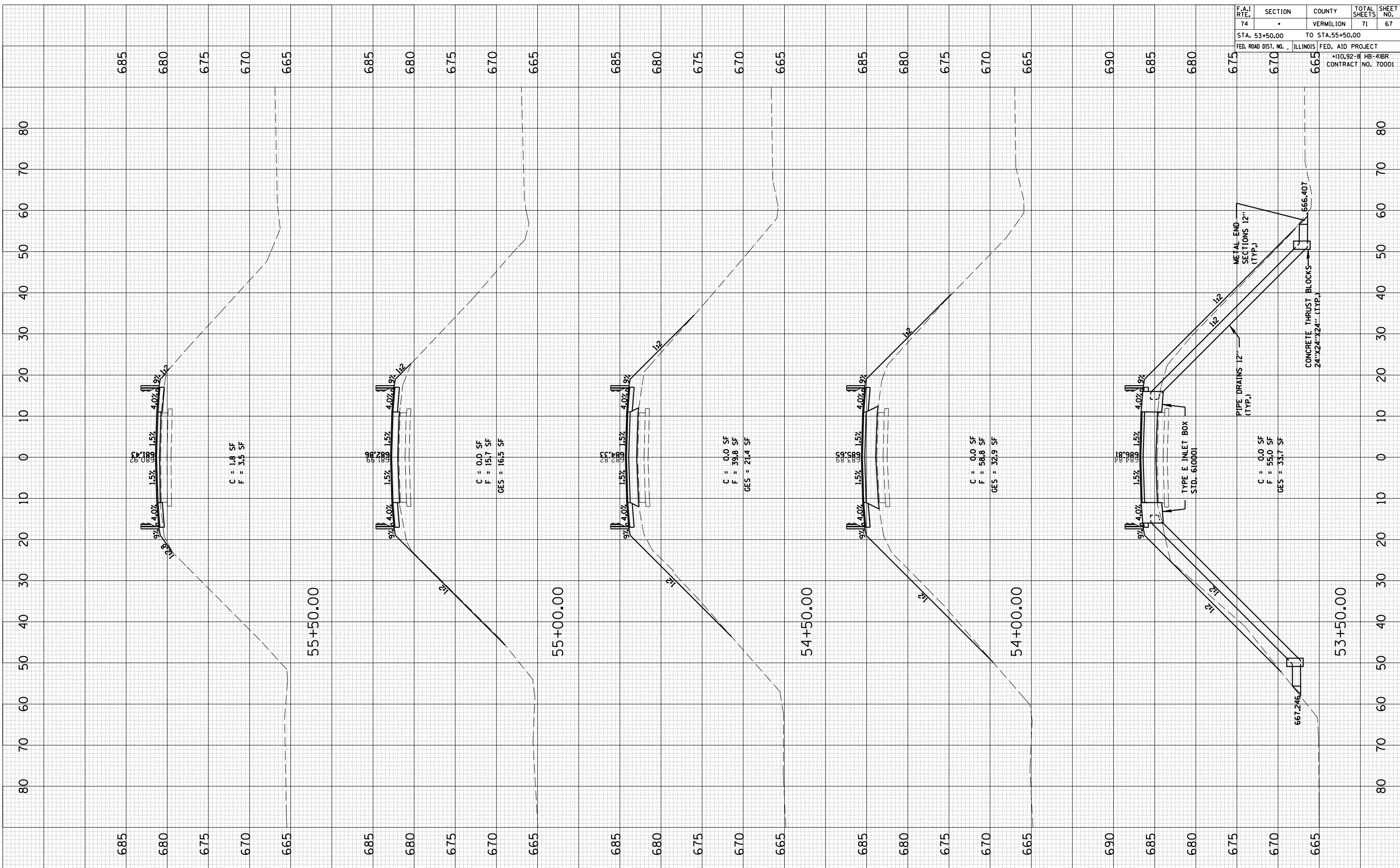
F.A.I.	SECTION	COUNTY	TOTAL SHEETS
RTE. 74		VERMILION	71
STA. 51+24.00	TO STA. 53+00.00		66
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			
+103-92-B-HB-48R			
CONTRACT NO. 70001			

IL 49N

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

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

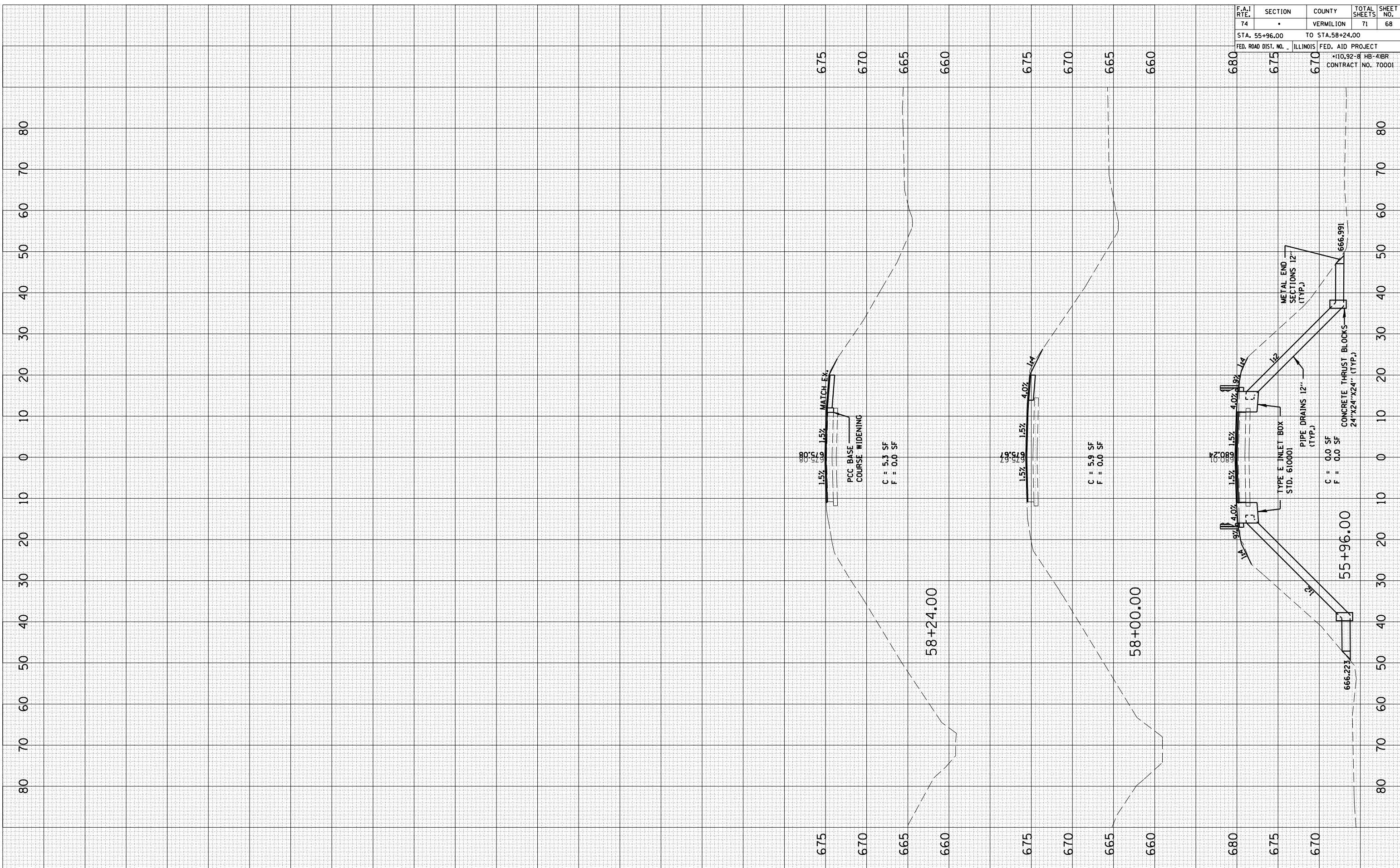
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	67
STA. 53+50.00		TO STA.55+50.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
		+10,92'-8" HB-41BR		
		CONTRACT NO. 70001		



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

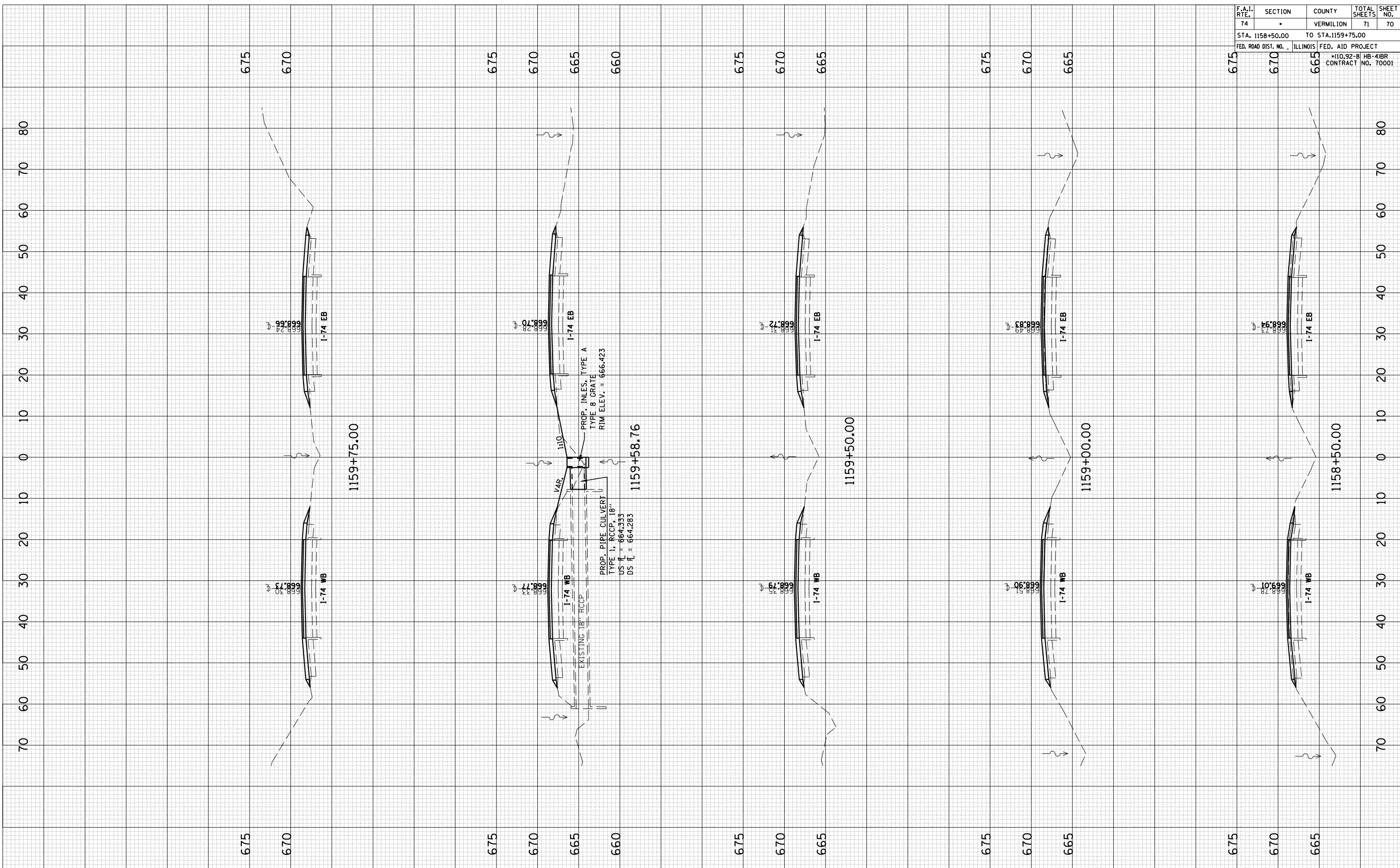
BY _____ DATE _____
 ORIGINAL SURVEY SURVEYED _____
 NOTE BOOK PLOTTED _____
 NO. _____ AREAS CHECKED _____

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	.	VERMILION	71	68
STA. 55+96.00 TO STA. 58+24.00				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
110,92-B HB-41BR CONTRACT NO. 70001				



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

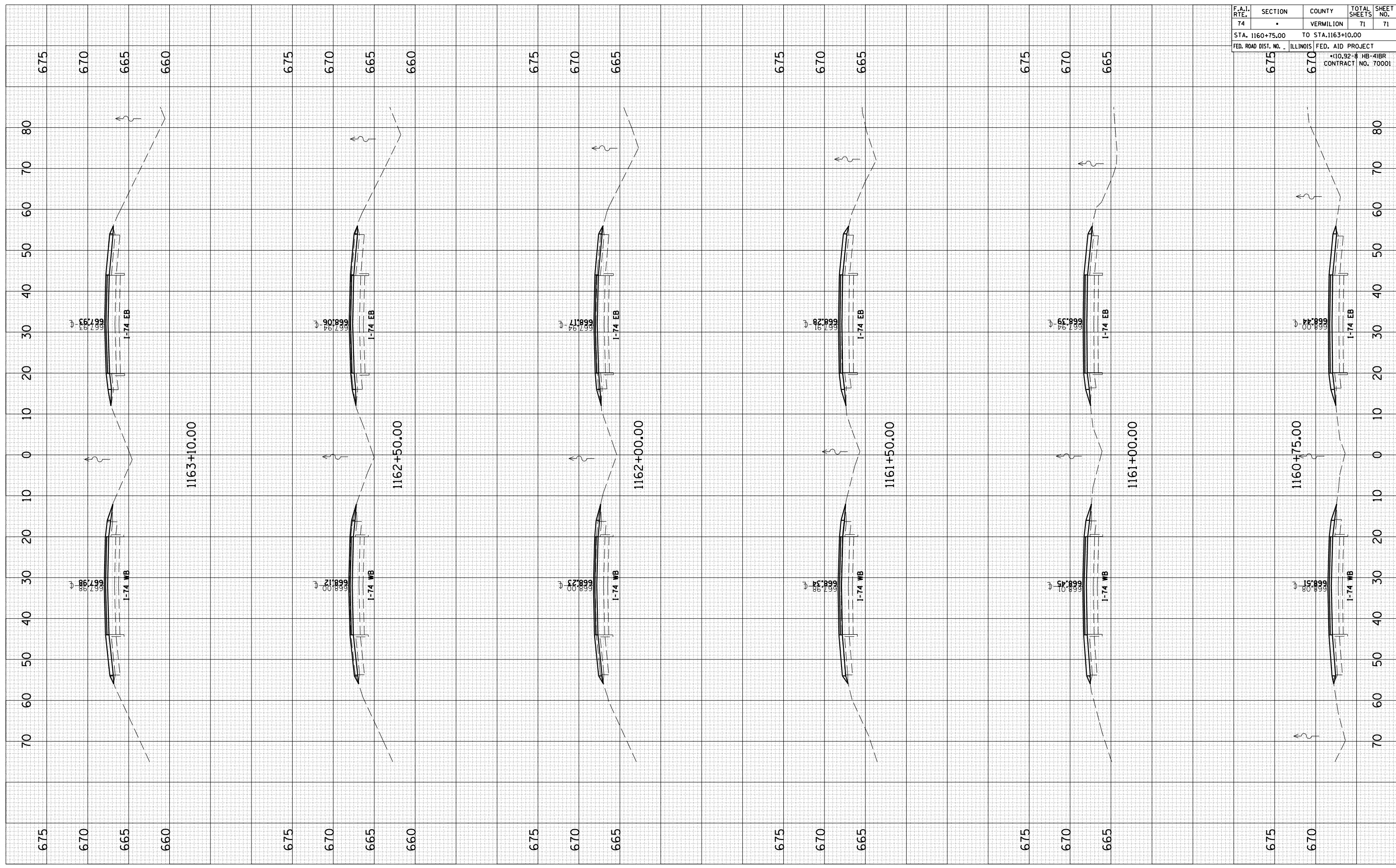
ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	AREAS CHECKED		



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	71	70
STA. 1158+50.00		TO STA. 1159+75.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
		*110.92-B HB-41BR CONTRACT NO. 70001		

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____

BY _____ DATE _____
 SURVEYED _____
 PLOTTED _____
 NOTE BOOK _____
 AREAS CHECKED _____



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	•	VERMILION	71	71
STA. 1160+75.00		TO STA. 1163+10.00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
		*10.92-B HB-41BR		
		CONTRACT NO. 70001		