

FOR INDEX OF SHEETS, SEE SHEET NO. 2

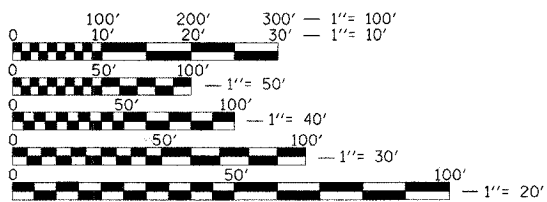
PROJECT IS LOCATED IN THE CITY OF CHICAGO

TRAFFIC DATA

I 90 / 94: 258,300 VEHICLES (2005 ADT)

POSTED SPEED LIMITS

I 90 / 94 45 MPH



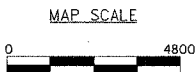
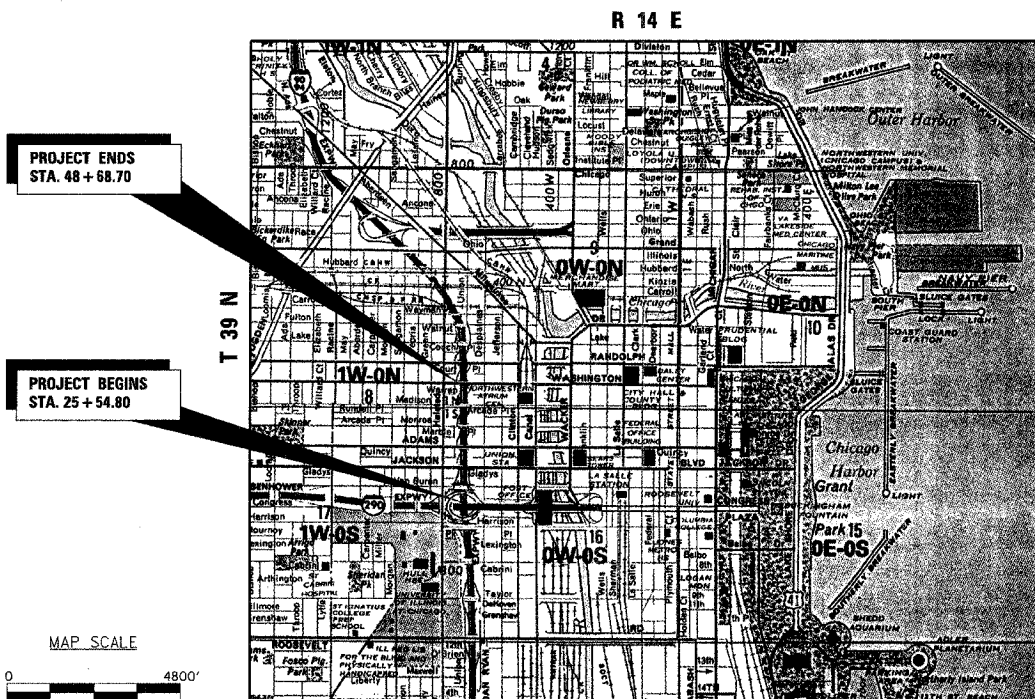
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 C.U.A.N. (312) 744-7000

CONTRACT NO. 60D49

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROPOSED HIGHWAY PLANS

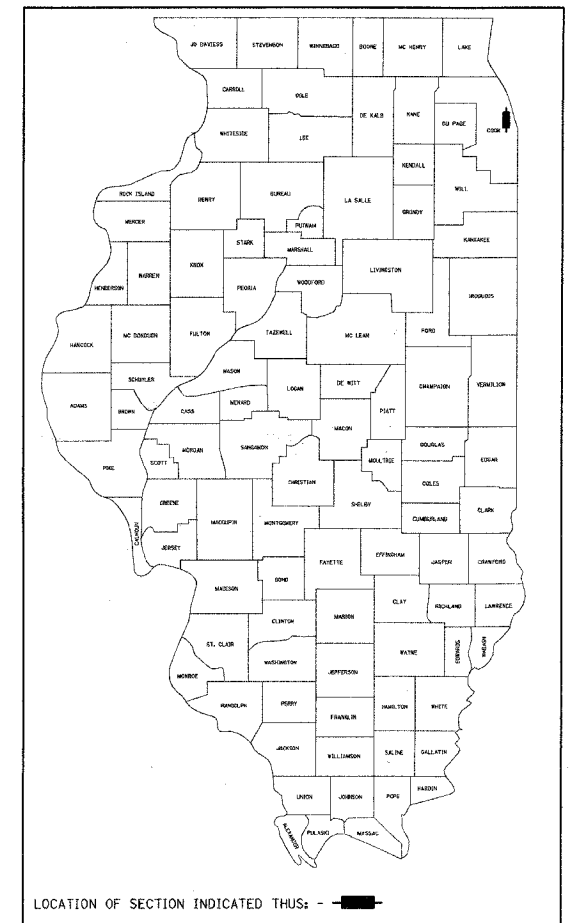
F.A.I. 90/94 (INTERSTATE 90/94) SECTION: 2007-056 SG AT INTERSTATE 290 SIGNING COOK COUNTY C-91-029-08



GROSS LENGTH PROJECT = 2313.90 FEET = 0.44 MILES NET LENGTH PROJECT = 2313.90 FEET = 0.44 MILES

Table with columns: F.A.I. RTE, SECTION, COUNTY, TOTAL SHEETS, SHEET NO. Values: 90/94, 2007-056 SG, COOK, 30, 1.

D-91-029-08



CONSULTANT SERVICES SECTION DISTRICT ONE - DESIGN / KEN ENG (847) 705-4247



ROADWAY & STRUCTURES DESIGNED BY

Professional engineer seals and signatures for Wayne A. Trieb and Gregory R. Brumm, including expiration dates 11-30-08 and 11-30-09.

State of Illinois Department of Transportation submission information, including dates (Nov 1, 2007; Dec 7, 2007) and signatures of Diane O'Keefe and Christine M. Reed.

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80/94	2007-056 SG	COOK	30	2
STA. 28+00		TO STA. 35+00		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, GENERAL NOTES, AND COMMITMENTS
3	SUMMARY OF QUANTITIES
4	SCHEDULE OF QUANTITIES
5	ALIGNMENT, TIES, AND BENCHMARKS
6	REMOVAL PLANS
7	SIGNING FRAME PLAN
8-11	STAGES OF CONSTRUCTION AND TRAFFIC CONTROL SHEETS
12-24	SIGNING PLANS
25-26	ELECTRIC CONNECTION TO SIGN STRUCTURE SPAN TYPE (BE-600)
27	FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAIL (TC-8)
28-29	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS (TC-12)
30	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES (TC-17)

GENERAL NOTES

1. EARTH EXCAVATION, FURNISHED EXCAVATION AND REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE FOR THE ITEM OF WORK FOR WHICH IT IS REQUIRED.
2. TIE BARS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE AS SPECIFIED.
3. OVERHEAD STRUCTURES HAVE NOT BE SHOWN FOR PLAN CLARITY. THE CONTRACTOR SHALL VERIFY THAT ALL EQUIPMENT IS CAPABLE OF OPERATING AT THE SITE PRIOR TO BIDDING.
4. PRIOR TO REMOVAL, CURB AND GUTTER AND PAVEMENT TO BE REMOVED SHALL BE SAW CUT ALONG ANY EDGE WHERE EXISTING PAVEMENT OR CURB AND GUTTER SHALL REMAIN. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE APPROPRIATE ITEM OF REMOVAL.
5. BITUMINOUS AND AGGREGATE PRIME COAT SHALL BE APPLIED IN ACCORDANCE WITH SECTION 406 OF THE STANDARD SPECIFICATIONS. THE COST OF THE PRIME COATS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE OF THE TYPE SPECIFIED.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AC TYPE	AIR VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5mm); 4"	PG 64-22	4% @ 50 Gyr.
HMA SHOULDER (HMA BINDER IL-19mm); 14"	PG 64-22*	4% @ 70 Gyr.
HMA SHOULDER (HMA BINDER IL-19MM); 6"	PG 64-22*	4% @ 70 Gyr.

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-01	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
606001-03	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-07	STEEL PLATE BEAM GUARDRAIL
630301-04	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-06	TRAFFIC BARRIER TERMINAL, TYPE 6
635001	DELINEATORS
635006-02	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701401-04	LANE CLOSURE, FREEWAY/EXPRESSWAY
701402-06	LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
701411-04	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >= 45 MPH
701446	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
701901	TRAFFIC CONTROL DEVICES
704001-04	TEMPORARY CONCRETE BARRIER
780001-01	TYPICAL PAVEMENT MARKINGS
781001-02	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

PLAN	DATE
BY	
SURVEYED	
GRADES CHECKED	
ALTIMETER CHECKED	
NOTE BOOK	
NO.	

PROFILE	DATE
BY	
SURVEYED	
GRADES CHECKED	
ALTIMETER CHECKED	
NOTE BOOK	
NO.	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 INDEX OF SHEETS, LIST OF ILLINOIS
 DOT HIGHWAY STANDARDS, GENERAL
 NOTES, COMMITMENTS
 I-90/94 (KENNEDY EXPRESSWAY)

SCALE: VERT. 1:20
 HORIZ. 1:20
 DATE 10/31/07
 DRAWN BY: DLZ
 CHECKED BY: GB



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SG	COOK	30	3
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

100% STATE

CODE #	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION TYPE CODE	
				SIGNING	Y002-1C
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	203		203
25000210	SEEDING, CLASS 2A	ACRE	0.25	0.25	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	23	23	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	23	23	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	23	23	
25100630	EROSION CONTROL BLANKET	SQ YD	203	203	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	3	3	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	215	215	
44004250	PAVED SHOULDER REMOVAL	SQ YD	146	146	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	51	51	
48203053	HOT-MIX ASPHALT SHOULDERS, 14"	SQ YD	60	60	
60250200	CATCH BASINS TO BE ADJUSTED	EACH	1	1	
* 63000005	STEEL PLATE BEAM GUARD RAIL, TYPE B	FOOT	50	50	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	1	1	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3	
67100100	MOBILIZATION	L SUM	1	1	
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	2668	2668	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	889	889	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	412.5	412.5	
70400210	RELOCATE TEMPORARY CONCRETE BARRIER, SPECIAL	FOOT	20	20	
72000300	SIGN PANEL - TYPE 3	SQ FT	1006.5	1006.5	
73300300	OVERHEAD SIGN STRUCTURE - SPAN, TYPE III-A (5'-0" X 7'-0")	FOOT	100	100	
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	CU YD	49.1	49.1	
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	545	545	
* 78003120	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 5"	FOOT	250	250	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	38	38	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	4	4	
* 78200500	BARRIER WALL MARKERS	EACH	104	104	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	1	1	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	764	764	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	38	38	
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1	
X0325349	TEMPORARY CONCRETE BARRIER (TO REMAIN PERMANENTLY)	FOOT	237.5	237.5	
X6060003	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.18	FOOT	20	20	
X6063600	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24	FOOT	195	195	
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1	
X7330105	OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	FOOT	94.3	94.3	
X8040100	ELECTRIC CONNECTION TO SIGN STRUCTURE	EACH	1	1	
X8210055	FLUORESCENT LUMINAIRE FOR SIGN LIGHTING	EACH	12	12	
Z0001050	AGGREGATE SUBGRADE 12"	SQ YD	144	144	
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	

PLAN

DATE _____ BY _____

SURVEYED _____ ALIGNMENT CHECKED _____

GRADES CHECKED _____

NOTE BOOK NO. _____

PAID FILE NAME _____

PROFILE

DATE _____ BY _____

SURVEYED _____ GRADES CHECKED _____

STRUCTURE NOTATIONS CHECKED _____

NOTE BOOK NO. _____

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

I-90/94 (KENNEDY EXPRESSWAY)

SCALE: VERT. 1:20
 HORIZ. 1:20
 DATE 10/31/07

DRAWN BY: DLZ
 CHECKED BY: GB

* SPECIALTY ITEMS



F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SG	COOK	30	4
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

PLAN	DATE	BY
SAVED		
ALIGNMENT CHECKED		
NOTE BOOK NO.		
CAD FILE NAME		

PROFILE	DATE	BY
SAVED		
REVISIONS CHECKED		
NOTE BOOK NO.		
CAD FILE NAME		

70300520 PAVEMENT MARKING TAPE, TYPE III 4"

FOOT	LOCATION
1087	STA 25+54.8 TO STA 36+42.6
280	STA 36+42.6 TO RAMP E
176	STA 37+45.8 TO RAMP E
912	STA 37+45.8 TO STA 46+57.0
214	STA 46+57.0 TO STA RAMP O
2669	TOTAL

70301000 WORK ZONE PAVEMENT MARKING REMOVAL

SQ FT	LOCATION
363	STA 25+54.8 TO STA 36+42.6 4"
93	STA 36+42.6 TO RAMP E 4"
59	STA 37+45.8 TO RAMP E 4"
304	STA 37+45.8 TO STA 46+57.0 4"
71	STA 46+57.0 TO STA RAMP O 4"
890	TOTAL

78000200 THERMOPLASTIC PAVEMENT MARKING - LINE 4"

FOOT	LOCATION
248	STA 31+65.6 TO STA 34+13.4
29	STA 36+93.2 TO STA 38+10.0 2' DASH/6' SKIP
268	STA 40+92.1 TO STA 43+59.6
545	TOTAL

78003120 PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - LINE 5"

FOOT	LOCATION
250	STA 36+42.7 TO STA 46+57.1 10' DASH/30' SKIP
250	TOTAL

78300100 PAVEMENT MARKING REMOVAL

SQ FT	LOCATION
13	STA 31+65.6 TO STA 33+16.7 2' DASH/6' SKIP 4"
64	STA 33+16.7 TO STA 34+13.4 8"
106	STA 36+42.7 TO STA 46+57.1 10' DASH/30' SKIP 5"
10	STA 36+93.2 TO STA 38+10 2' DASH/6' SKIP 4"
13	STA 40+92.1 TO STA 42+47.4 2' DASH/6' SKIP 4"
75	STA 42+47.4 TO STA 43+59.6 8"
82	STA 31+65.6 TO STA 34+11.8 4"
65	STA 33+16.7 TO STA 34+13.9 8"
3	STA 33+41.2 GORE MARKING 12"
6	STA 33+71.8 GORE MARKING 12"
10	STA 34+02.3 GORE MARKING 12"
81	STA 40+92.1 TO STA 43+33.2 4"
57	STA 42+47.4 TO STA 43+33.4 8"
2	STA 42+61.9 GORE MARKING 12"
6	STA 42+91.7 GORE MARKING 12"
10	STA 43+21.9 GORE MARKING 12"
603	TOTAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF QUANTITIES
 I-90/94 (KENNEDY EXPRESSWAY)

SCALE: VERT. 1:20
 HORIZ. 1:20
 DATE 10/31/07

DRAWN BY: DLZ
 CHECKED BY: GB

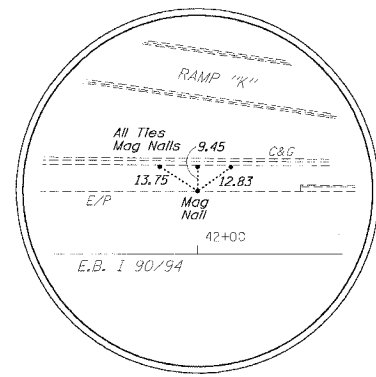


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SC	COOK	30	5
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

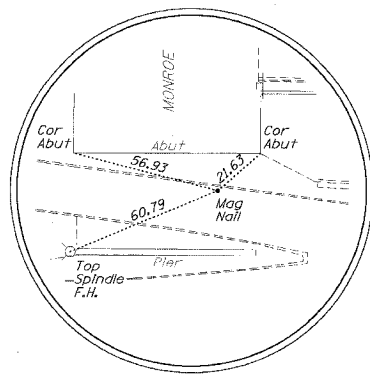


PLAN	REVISED	DATE
NOTE BOOK	ALIGNED	
NO.	FILED	

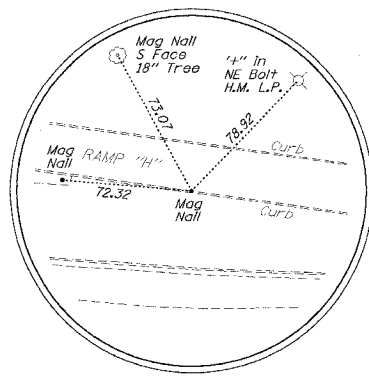
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NOTE BOOK	CHECKED	
NO.	DATE	



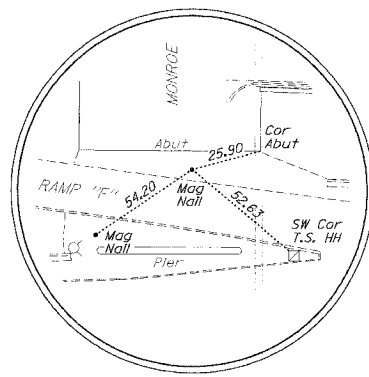
TIE 1



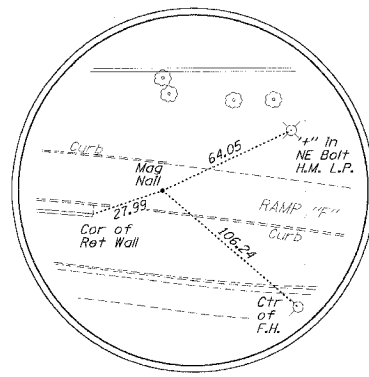
TIE 2



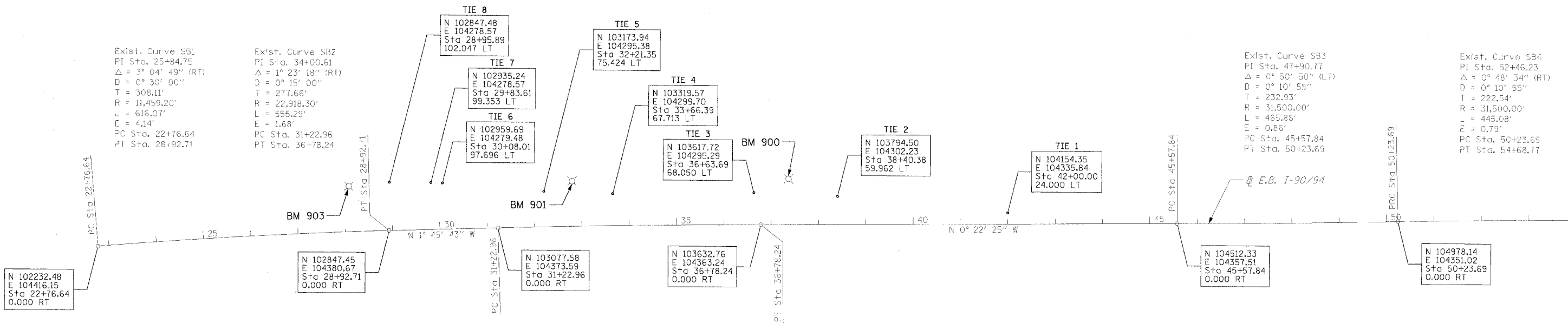
TIE 3



TIE 4



TIE 5



Exist. Curve S81
PI Sta. 25+84.75
Δ = 3° 04' 49" (RT)
D = 0° 30' 00"
T = 308.11'
R = 11,459.20'
L = 616.07'
E = 4.14'
PC Sta. 22+76.64
PT Sta. 28+92.71

Exist. Curve S82
PI Sta. 34+00.61
Δ = 1° 23' 18" (RT)
D = 0° 15' 00"
T = 277.66'
R = 22,918.30'
L = 555.29'
E = 1.68'
PC Sta. 31+22.96
PT Sta. 36+78.24

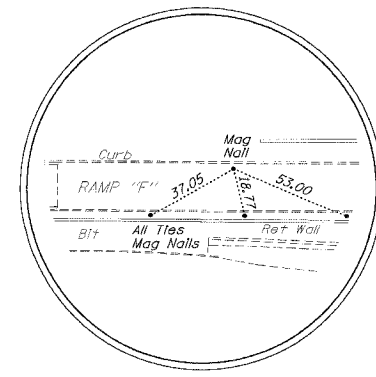
Exist. Curve S83
PI Sta. 47+90.77
Δ = 0° 50' 50" (LT)
D = 0° 10' 55"
T = 232.93'
R = 31,500.00'
L = 465.86'
E = 0.86'
PC Sta. 45+57.84
PT Sta. 50+23.69

Exist. Curve S84
PI Sta. 52+46.23
Δ = 0° 48' 34" (RT)
D = 0° 10' 55"
T = 222.54'
R = 31,500.00'
L = 445.08'
E = 0.79'
PC Sta. 50+23.69
PT Sta. 54+68.77

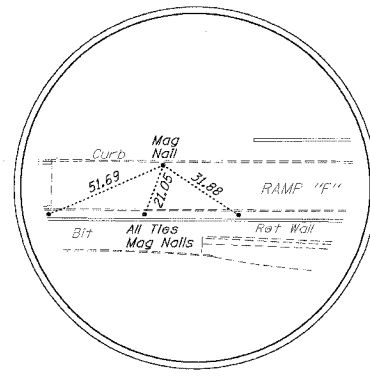
BM 903
N.E. ANCHOR BOLT OF
HIGH MAST LIGHT
28+10 - 96' LT
ELEV. = 583.59

BM 901
N.W. ANCHOR BOLT OF
HIGH MAST LIGHT
32+81 - 96' LT
ELEV. = 587.33

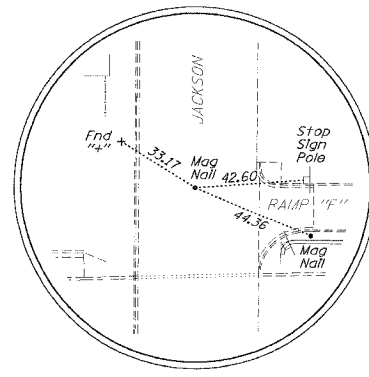
BM 900
N.E. ANCHOR BOLT OF
HIGH MAST LIGHT
37+37 - 97' LT
ELEV. = 587.84



TIE 6



TIE 7



TIE 8

REVISIONS	
NAME	DATE
ADDENDUM 1	8/16/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
ALIGNMENT & TIES
I-90/94 KENNEDY EXPRESSWAY
STA. TO STA.
SCALE : 1" = 100'
DATE : 02/24/06
DRAWN BY : DLZ
CHECKED BY : GB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SG	COOK	30	6
STA. 28+00		TO STA. 35+00		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT

PLAN

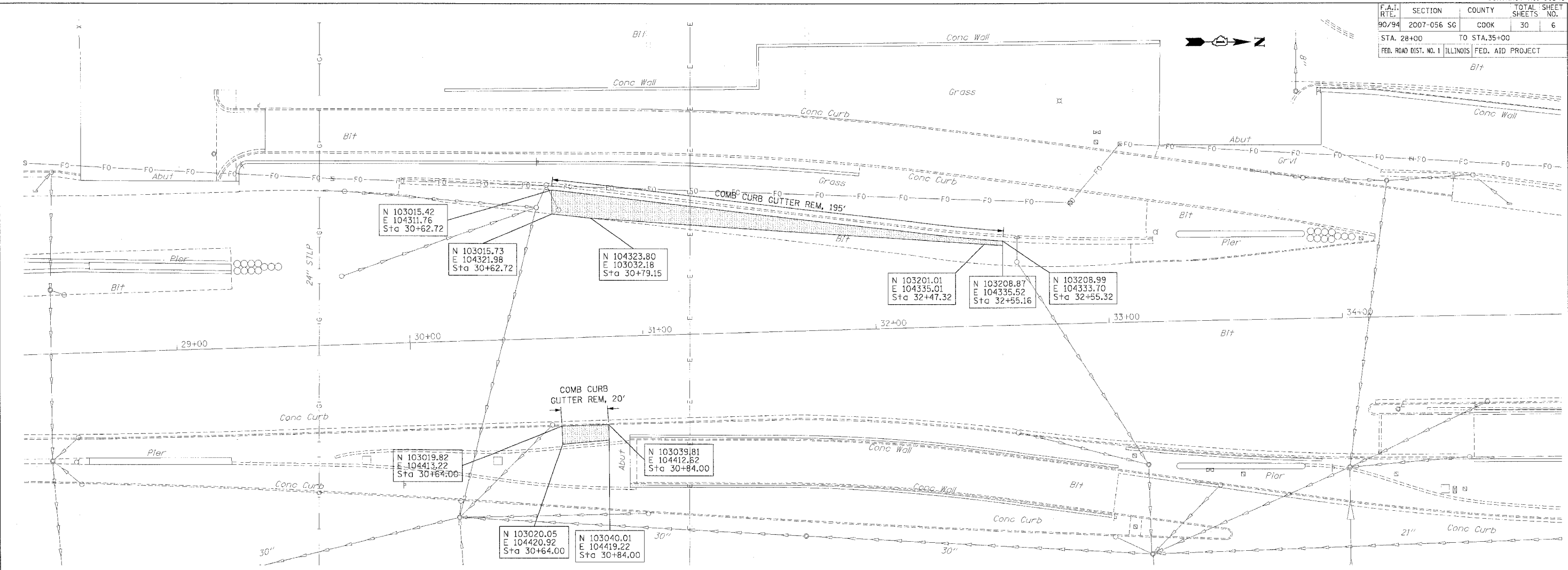
REVISION	DATE

NO. _____

PROFILE

REVISION	DATE

NO. _____

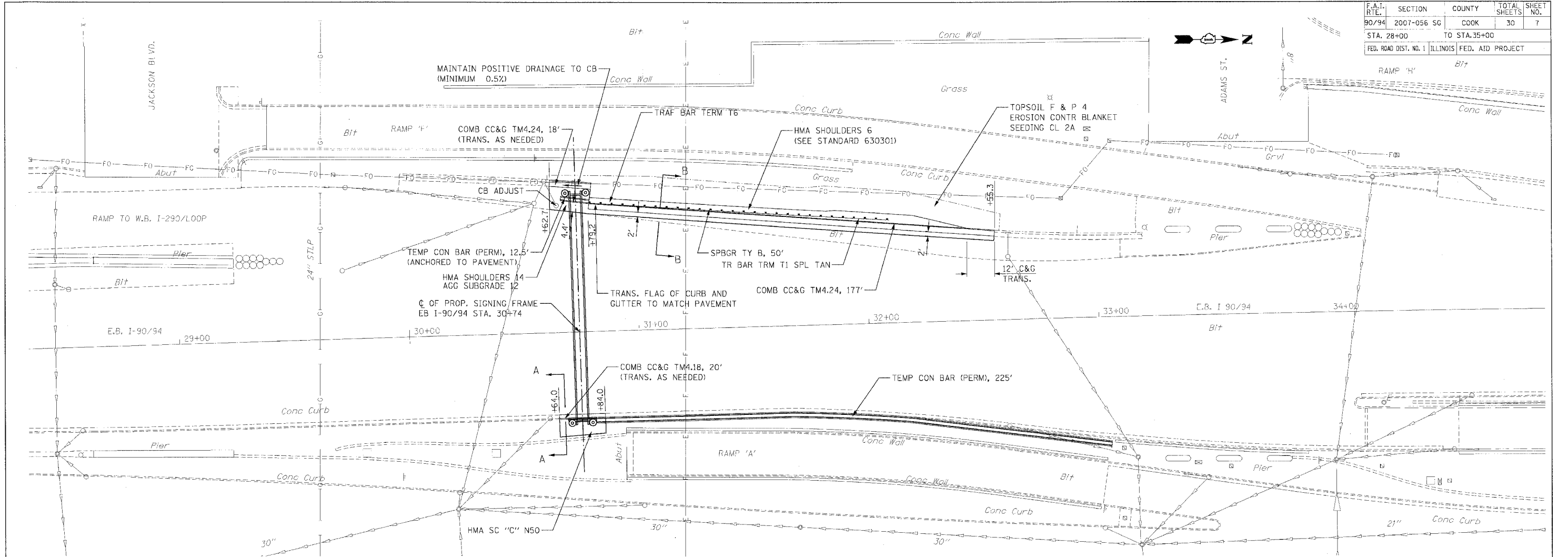


LEGEND
 PAVED SHOULDER REMOVAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SIGNING FRAME REMOVAL
 I-90/94 (KENNEDY EXPRESSWAY)
 SCALE: VERT. 1:20
 HORIZ. 1:20
 DATE 10/31/07
 DRAWN BY: DLZ
 CHECKED BY: GB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SG	COOK	30	7
STA. 28+00		TO STA. 35+00		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT

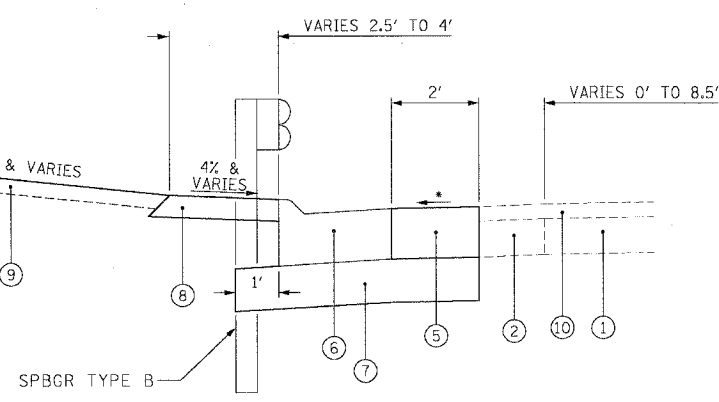


DATE	BY	REVISIONS

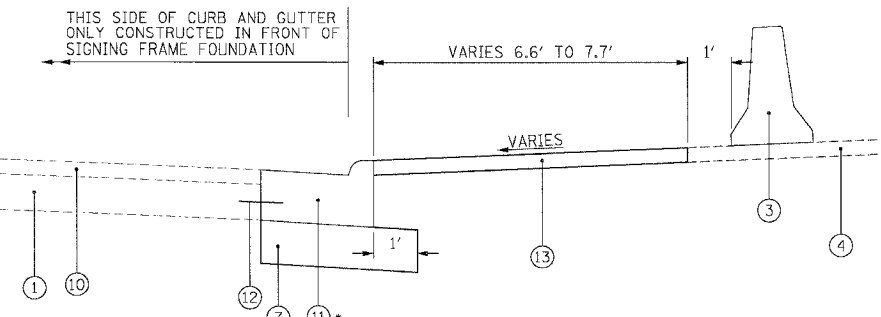
DATE	BY	REVISIONS

DETAIL LEGEND

- ① EXISTING PCC PAVEMENT, 10" WITH PAVEMENT FABRIC
- ② EXISTING HMA SHOULDER
- ③ EXISTING TEMPORARY CONCRETE BARRIER
- ④ EXISTING BITUMINOUS MEDIAN SURFACE
- ⑤ HOT-MIX ASPHALT SHOULDERS, 14"
- ⑥ COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24
- ⑦ AGGREGATE SUBGRADE 12"
- ⑧ HOT-MIX ASPHALT SHOULDERS, 6"
- ⑨ TOPSOIL FURNISH AND PLACE, 4"
- ⑩ EXISTING HMA RESURFACING, ±4"
- ⑪ COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.18
- ⑫ NO. 8 EPOXY COATED TIE BARS, 24" LONG, 24" o-c (SEE GENERAL NOTE 2)
- ⑬ 4" - HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50



LEFT SIDE DETAIL (SECTION B-B)
 • MATCH EXISTING PAVEMENT CROSS SLOPE



RIGHT SIDE DETAIL (SECTION A-A)
 • TRANSITION CURB TO MATCH FACE OF SIGNING FRAME FOUNDATION AND EXISTING CURB AND GUTTER. GUTTER FLAG ONLY WILL BE CONSTRUCTED IN FRONT OF SIGNING FRAME FOUNDATION. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.18

REVISIONS	
NAME	DATE
ADDENDUM 1	8/16/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
SIGNING FRAME PLAN
 I-90/94 (KENNEDY EXPRESSWAY)

SCALE: VERT. 1:20
 HORIZ. 1:20
 DATE: 10/31/07
 DRAWN BY: DLZ
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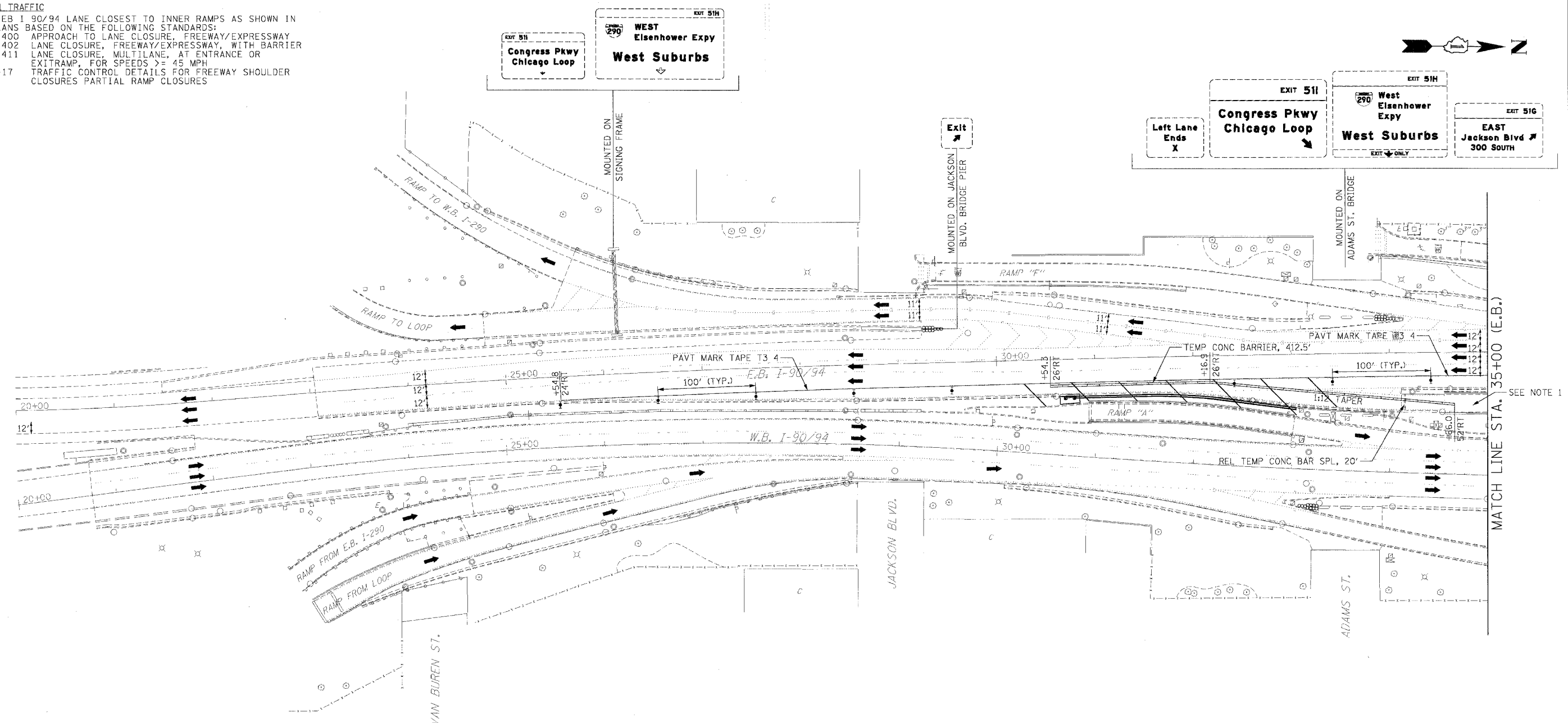
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 5G	COOK	30	8
STA. 20+00		TO STA. 35+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STAGE 1 CONSTRUCTION
 CONSTRUCT SIGNING FRAME FOUNDATION LOCATED IN MEDIAN BETWEEN EASTBOUND I-90/94 AND WESTBOUND I-90/94 AND PLACE TEMPORARY CONCRETE BARRIER.

STAGE 1 TRAFFIC
 CLOSE EB I 90/94 LANE CLOSEST TO INNER RAMPS AS SHOWN IN THE PLANS BASED ON THE FOLLOWING STANDARDS:
 701400 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
 701402 LANE CLOSURE, FREEWAY/EXPRESSWAY, WITH BARRIER
 701411 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXITRAMP, FOR SPEEDS >= 45 MPH
 TC-17 TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES

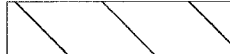



PLAN	DATE	BY
REVISED		
APPROVED		
ALIGNMENT CHECKED		
NOTE BOOK NO.		

PROF II	DATE	BY
REVISED		
APPROVED		
GRAD'S CHECKED		
STRUCTURE NOTATIONS CHECKED		
NOTE BOOK NO.		



SEE NOTE 1

NOTES:
 1. THE ELEVATED PORTION OF RAMP 'C' HAS ALREADY BEEN REMOVED AND THE RETAINED EARTH PORTION IS ALL THAT REMAINS.

-  CONSTRUCTION AREA
-  TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  CONE, DRUM OR BARRICADE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC
 I-90/94 KENNEDY EXPRESSWAY
 STAGE 1
 STA. 20+00 TO STA. 35+00
 SCALE : 1" = 50'
 DATE : 10/31/07
 DRAWN BY : DLZ
 CHECKED BY : GB

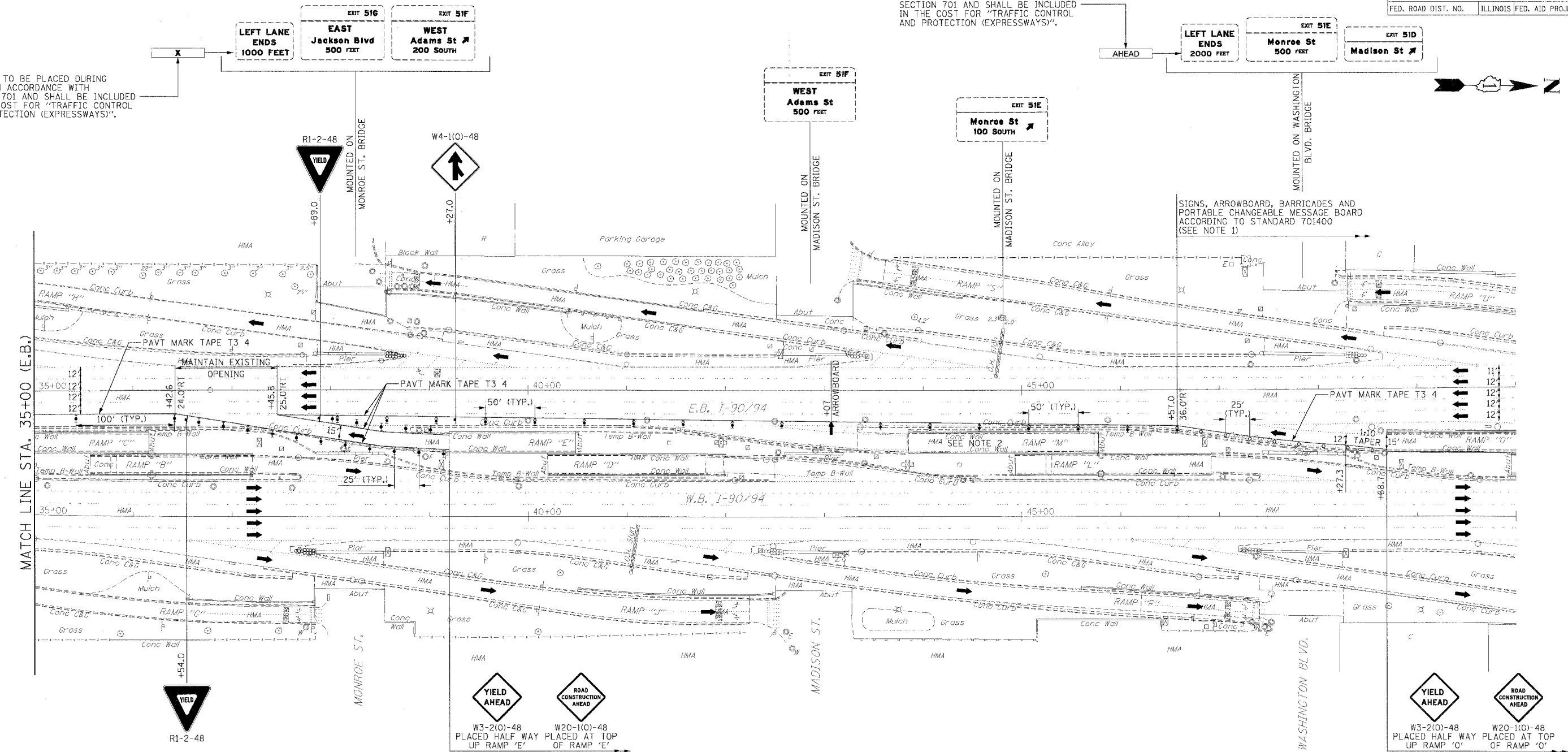
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 5G	COOK	30	9
STA. 35+00		TO STA. 50+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

OVERLAY TO BE PLACED DURING STAGE IN ACCORDANCE WITH SECTION 701 AND SHALL BE INCLUDED IN THE COST FOR "TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)".

OVERLAY TO BE PLACED DURING STAGE IN ACCORDANCE WITH SECTION 701 AND SHALL BE INCLUDED IN THE COST FOR "TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)".

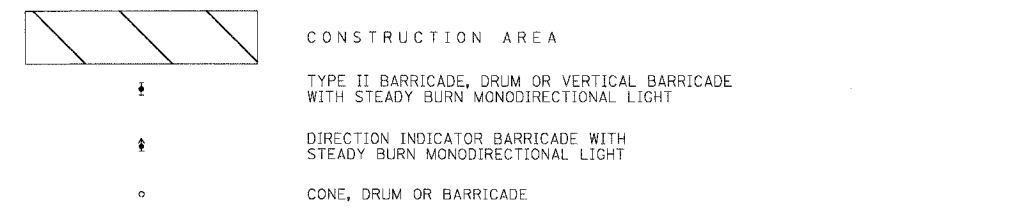
DATE	BY
DATE	BY
DATE	BY

DATE	BY
DATE	BY
DATE	BY



SIGNS, ARROWBOARD, BARRICADES AND PORTABLE CHANGEABLE MESSAGE BOARD ACCORDING TO STANDARD T01400 (SEE NOTE 1)

- NOTES:
1. WORK ZONE SPEED LIMIT SIGN ASSEMBLY, SIGNS W2-1115(0)-3618, R2-1-3648, W2-1113(0)-3612, AND R2-1106-3618, AS SHOWN ON STANDARD T01400 SHALL NOT BE PLACED.
 2. THE ELEVATED PORTION OF RAMP 'M' HAS ALREADY BEEN REMOVED AND THE RETAINED EARTH PORTION IS ALL THAT REMAINS.



ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC
 I-90/94 KENNEDY EXPRESSWAY
 STAGE 1
 STA. 35+00 TO STA. 50+00
 SCALE : 1" = 50'
 DATE : 10/31/07
 DRAWN BY : DLZ
 CHECKED BY : GB

DLZ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SG	COOK	30	10
STA. 20+00		TO STA. 35+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STAGE 2 CONSTRUCTION

CONSTRUCT LEFT SIDE OF SIGNING FRAME FOUNDATION, CURB AND GUTTER AND GUARDRAIL.

STAGE 2 TRAFFIC

USE DISTRICT STANDARD TC-17, TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES TO CONSTRUCT LEFT SIDE OF SIGNING FRAME, CURB AND GUTTER AND GUARDRAIL.

THE ENGINEER SHALL PROVIDE ADDITIONAL TRAFFIC CONTROL FOR THE CLOSING OF ALL LANES OF I-90/94 IN ACCORDANCE WITH THE SPECIAL PROVISION TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) TO INSTALL OVERHEAD PORTION OF SIGNING FRAME.

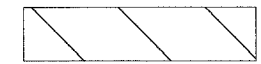
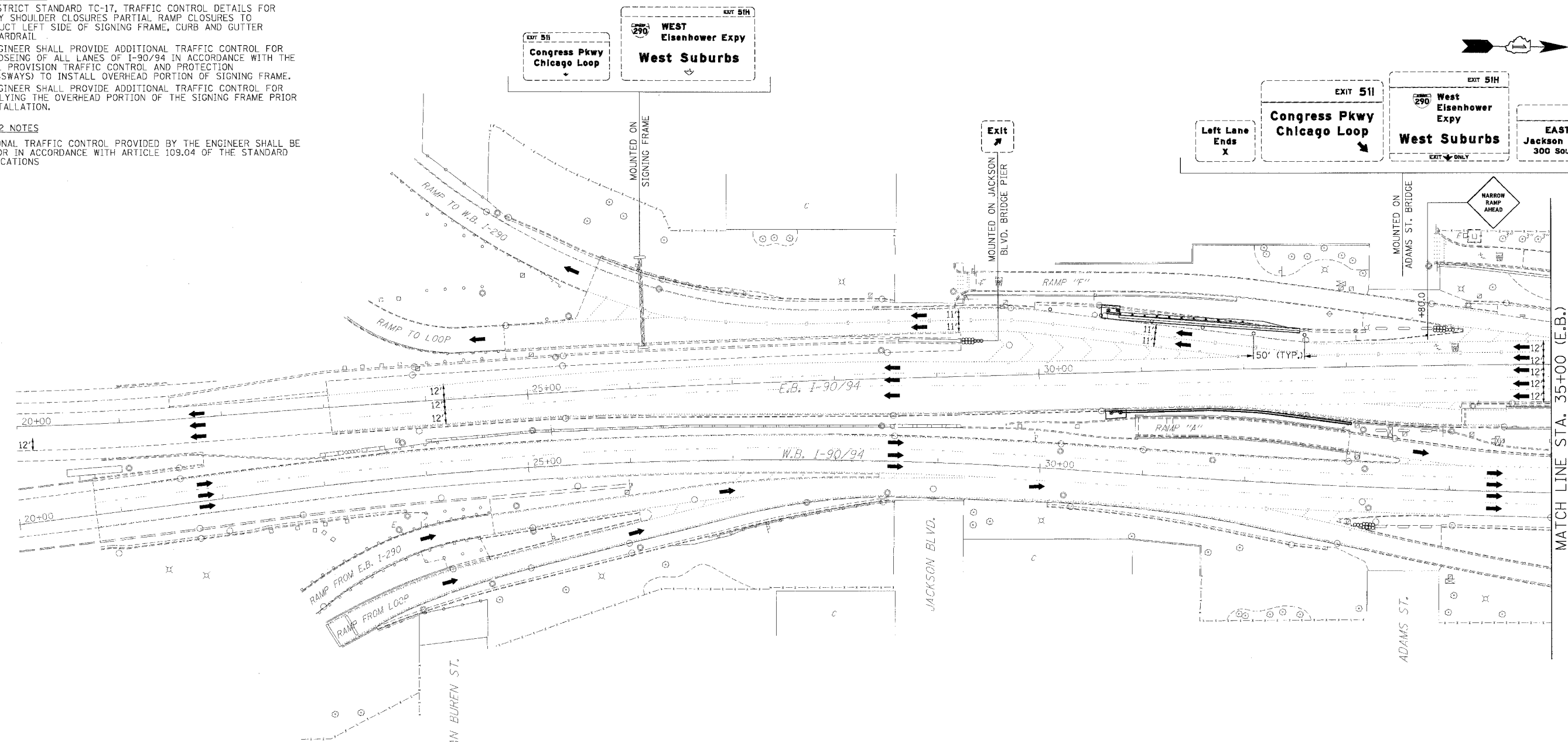
THE ENGINEER SHALL PROVIDE ADDITIONAL TRAFFIC CONTROL FOR ASSEMBLING THE OVERHEAD PORTION OF THE SIGNING FRAME PRIOR TO INSTALLATION.

STAGE 2 NOTES

ADDITIONAL TRAFFIC CONTROL PROVIDED BY THE ENGINEER SHALL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS

DATE	BY	REVISION

DATE	BY	REVISION



CONSTRUCTION AREA



TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT



CONE, DRUM OR BARRICADE

ILLINOIS DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

I-90/94 KENNEDY EXPRESSWAY
STAGE 2
STA. 20+00 TO STA. 35+00

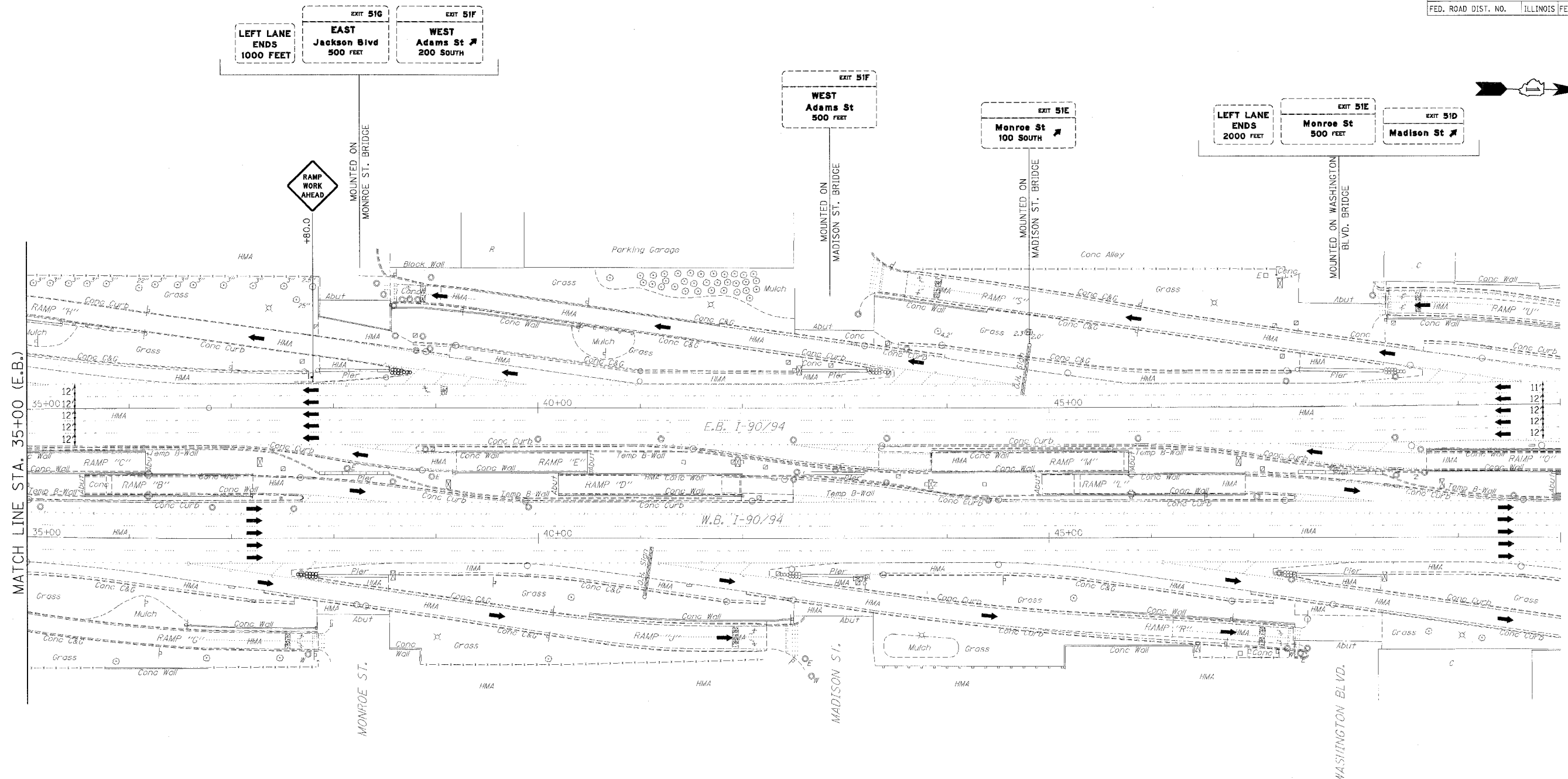
SCALE : 1" = 50'
DATE : 10/31/07





DRAWN BY : DLZ
CHECKED BY : GB

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SG	COOK	30	11
STA. 35+00		TO STA. 50+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE	
BY	
PI AN	
SURVEYED	
ALIGNED	
CHECKED	
NO. 100	
NO. 200	
NO. 300	
NO. 400	
NO. 500	
NO. 600	
NO. 700	
NO. 800	
NO. 900	
NO. 1000	

DATE	
BY	
PROFILL	
SURVEYED	
CHECKED	
NO. 100	
NO. 200	
NO. 300	
NO. 400	
NO. 500	
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NO. 700	
NO. 800	
NO. 900	
NO. 1000	

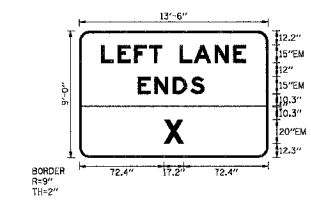


-  CONSTRUCTION AREA
-  TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  CONE, DRUM OR BARRICADE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC
 I-90/94 KENNEDY EXPRESSWAY
 STAGE 2
 STA. 35+00 TO STA. 50+00
 SCALE : 1" = 50'
 DATE : 10/31/07
 DRAWN BY : DLZ
 CHECKED BY : GB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	2007-056 SG	COOK	30	12
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* 90/94				

SIGN DETAIL
100



SIGN NUMBER	Sign # 1
WIDTH x HEIGHT	13'-6" x 9'-0"
BORDER WIDTH	2"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Pure White/Orange
LEGEND/BORDER	TYPE: Reflective
	COLOR: White

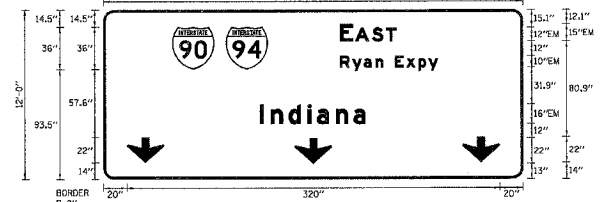
SYMBOL	X	Y	WID	HGT

Dimensions are in inches/centimeters

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SCREEN SIZE
L	E	F	T	L	A	N	E			EM18	EM18
15.0	83	47.1	60.3	71.2	86.2	88.2	116.3	122.1		34.8	
B	N	D	S							EM15	
60.4	64.8	80.3	96.8							37.2	
X										EM10	
72.4										17.2	

SIGN DETAIL
100



SIGN NUMBER	Sign
WIDTH x HEIGHT	30'-0" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black

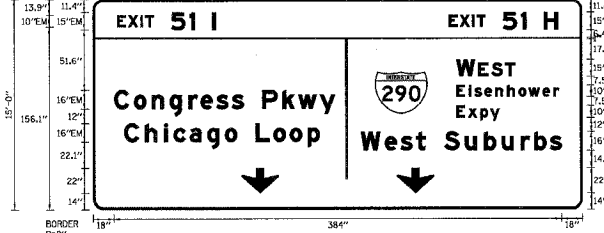
SYMBOL	X	Y	WID	HGT
ABOVE	30	14	28	32
ML 1	59	87.6	26	36
ML 2	105	82.6	26	36
ABOVE	164	33	32	22
ABOVE	308	34	32	22

Dimensions are in inches/centimeters

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SCREEN SIZE
E	A	S	T							EM18	EM18
202.1	275	289.4	343.5							48.3	
E	Y	A	N	E	X	P	Y			EM197.5	
301.1	233.4	233.4	835.6	350	359.9	370.6	379.9			83.9	
I	N	D	I	A	N	A				EM1812	
154.1	148.8	356.9	375.3	149.2	336.5	214.7				91.8	

SIGN DETAIL
100



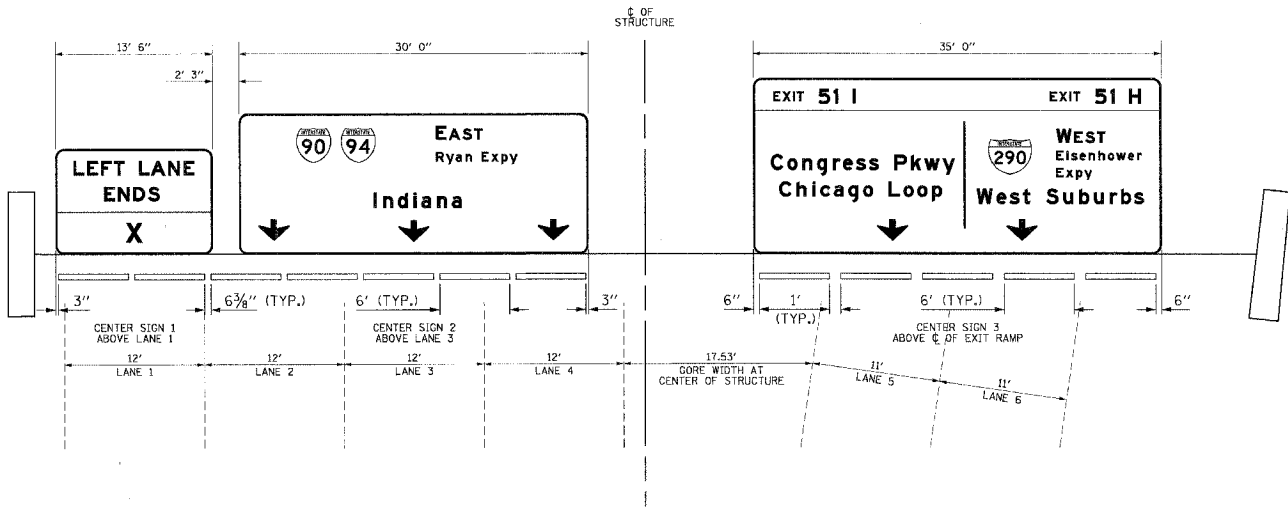
SIGN NUMBER	Sign # 3
WIDTH x HEIGHT	35'-0" x 15'-0"
BORDER WIDTH	2"
CORNER RADIUS	0"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green/White
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black

SYMBOL	X	Y	WID	HGT
ABOVE	127.4	14	28	32
ML 1	241.7	81.5	45	38
ABOVE	390.6	14	28	28

Dimensions are in inches/centimeters

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SCREEN SIZE
E	X	I	T	S	I	H				EM18	EM18
305.4	314.9	335.5	389.6	351.8	387.7	397.2				93.7	
E	X	I	T	S	I	H				EM18	EM18
35.9	33.3	41	43	67.4	82.9	102.6				84.7	
W	E	S	T							EM18	EM18
211.9	230.8	241.7	333.8							55.7	
E	I	S	E	N	H	O	W	E	S	EM197.5	
311.8	322.4	327.2	335.1	346.3	355.6	365	373.7	385.5	395.1	88	
C	O	N	G	R	E	S	P	L	W	EM1812	
18	35	30.6	65.6	82.1	92.2	305.8	331	46.3	162.6	198.6	
E	X	P	Y							EM197.5	
311.9	321.8	322.4	343.8							35.9	
C	H	I	A	N	A					EM1812	
215.6	44.7	189.9	282.9	322.7	373	320.8	346.6	368.8	384.1	167.7	
W	E	S	T							EM1812	
229.8	268.2	281.6	377.2	331.1	353	385.9	426.6	367	278.4	179.3	



NOTE:
SIGN 1, 2 & 3
MOUNTING DETAIL
PROPOSED OVERHEAD SIGN STRUCTURE
STA. 30+74 (EB I-90/94)

NOTE:
LUMINAIRE SPACING IS FOR QUANTITY PURPOSES ONLY.
CENTER-TO-CENTER SPACING OF THE LUMINAIRES WILL BE
DETERMINED BY THE ENGINEER.

REVISIONS	DATE
NAME	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SIGN PANEL MOUNTING DETAIL

I-90/94 (KENNEDY EXPRESSWAY)

SCALE: VERT. N.T.S.
HORIZ. N.T.S.
DATE: 2/24/06

DRAWN BY: DLZ
CHECKED BY: GB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
FAI 90/94	2007-056 50	COOK	30	13	12 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

GENERAL NOTES

Contract # 60D49

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
 $f_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade-B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2) of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

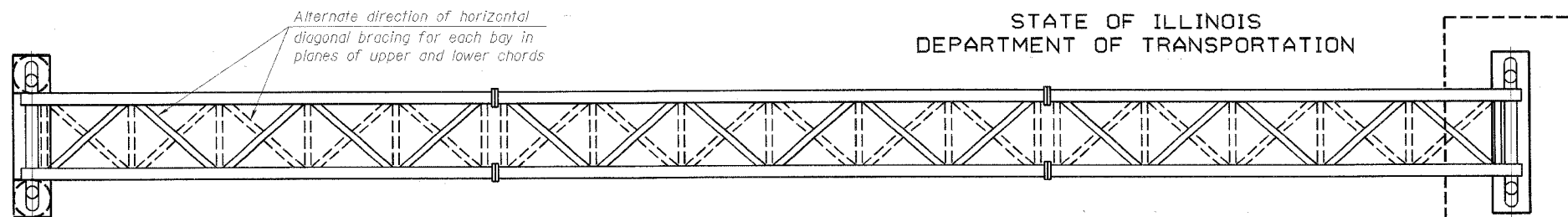
ANCHOR RODS: Shall conform to AASHTO M314 Gr. 36 or 55 with a minimum Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F.

CONCRETE SURFACES: All concrete surfaces above an elevation 5" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seal Sealer in accordance with the Standard Specifications.

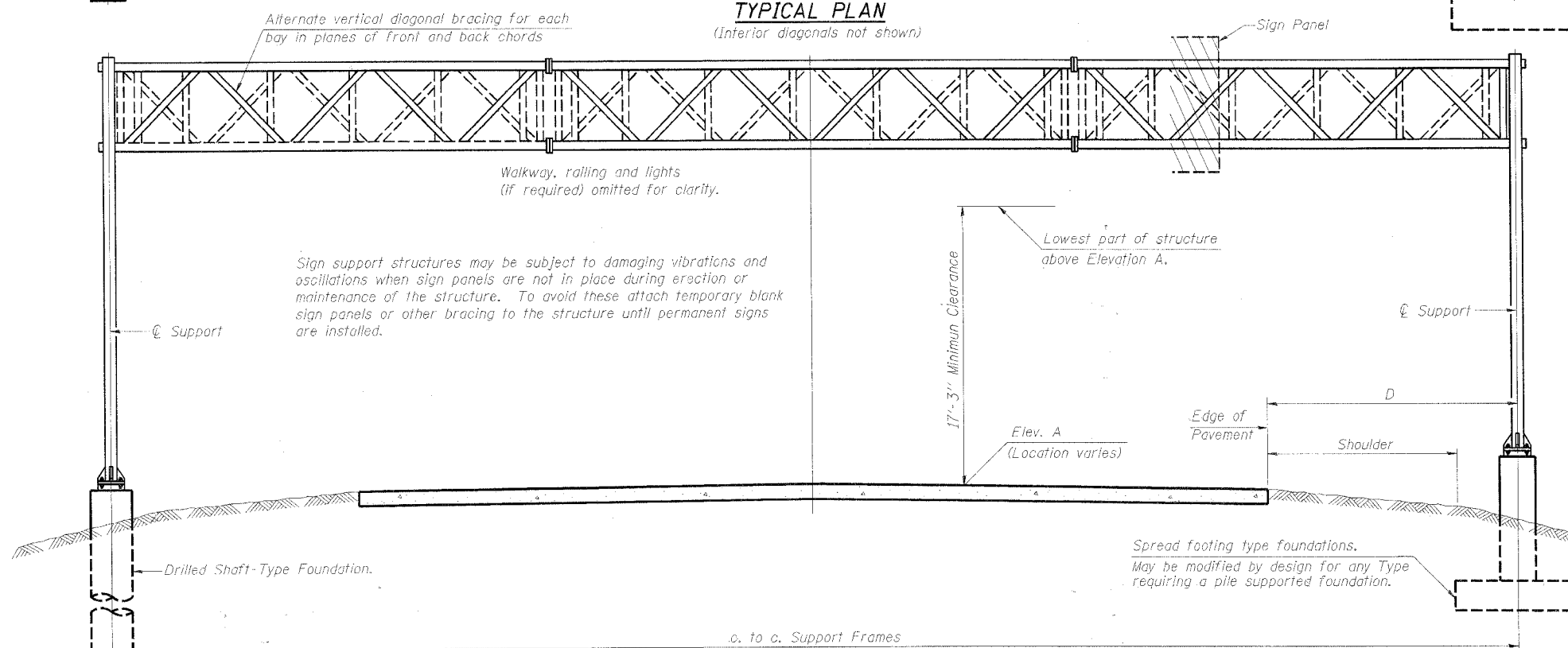
REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Concrete Foundations and Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

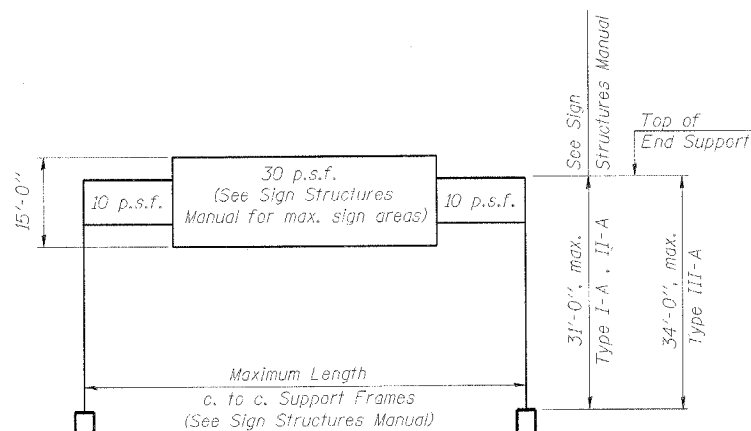


TYPICAL PLAN
(Interior diagonals not shown)



TYPICAL ELEVATION
(Looking at Face of Signs)

Elev. A = Elevation at point of minimum clearance to sign, walkway support or truss.



DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards and Sign Manual Tables. Installations not within dimensional limits shown require special analysis for all components.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
ISO161094L051.5	30+74.00	III-A	100'-0"	577.08	*	15'-0"	1006.5

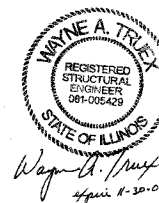
*Dimension D varies from 8'-1/2" to 9'-5" (Measured \perp to ramp shoulder)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE SPAN TYPE I-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE II-A	Foot	
OVERHEAD SIGN STRUCTURE SPAN TYPE III-A	Foot	100.0
OVERHEAD SIGN STRUCTURE WALKWAY TYPE A	Foot	94.3
CONCRETE FOUNDATIONS	Cu. Yds.	
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	49.1

**OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATION
ALUMINUM TRUSS & STEEL SUPPORTS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER ISO161094L051.5



DESIGNED	ASP
CHECKED	RLP
DRAWN	BEM
CHECKED	ASP

EXAMINED	200
PASSED	

NUMBER	REVISION	DATE

OS-A-1

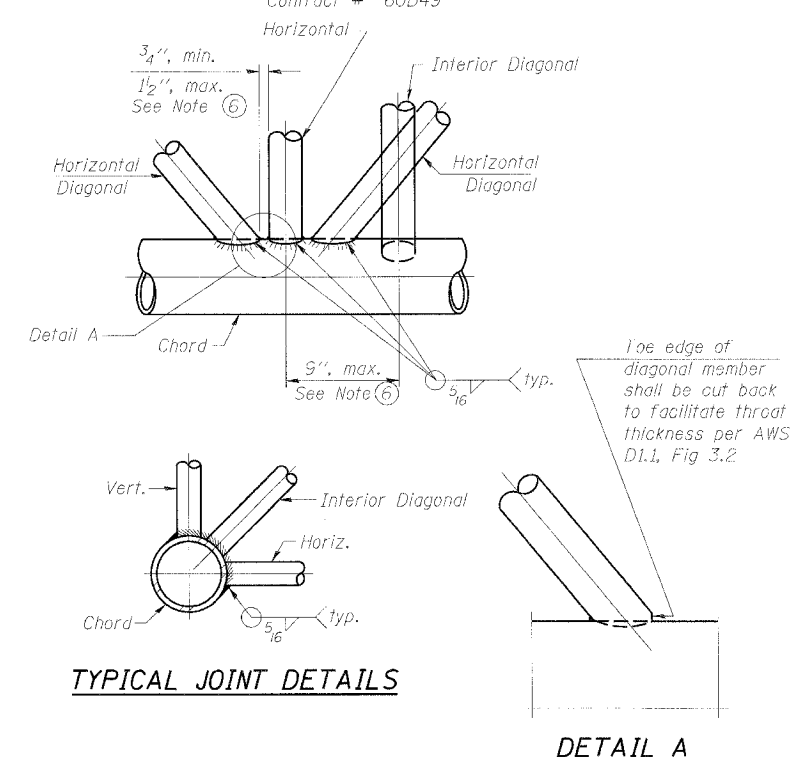
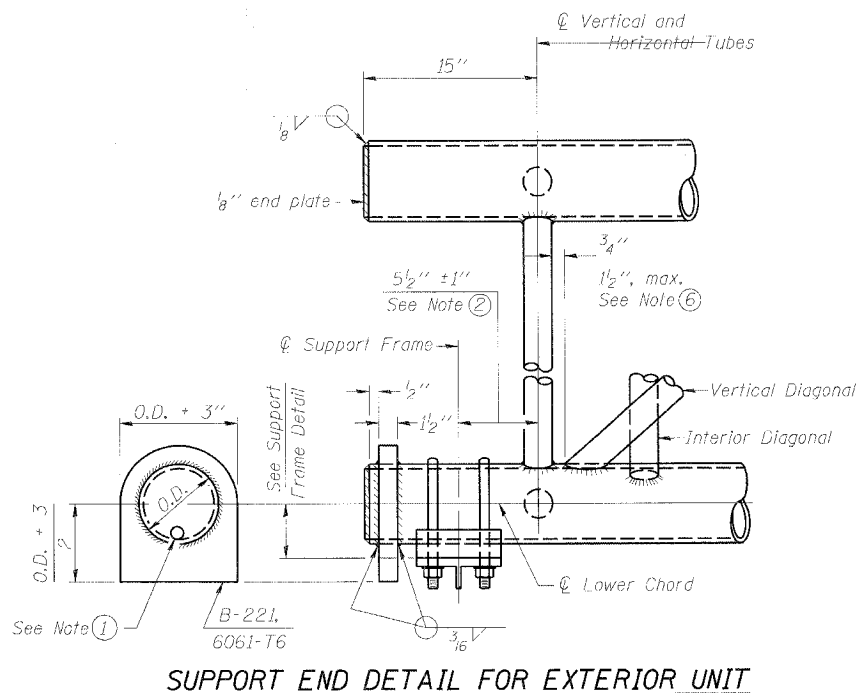
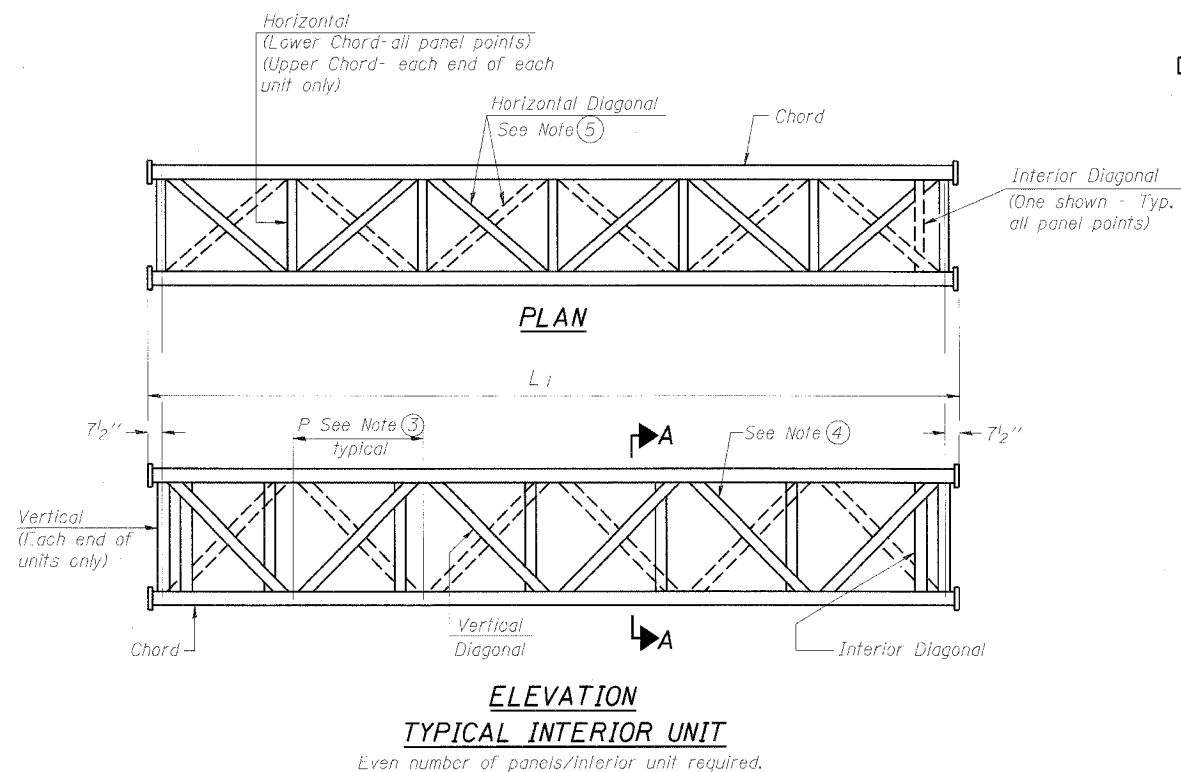
6/01/2007

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

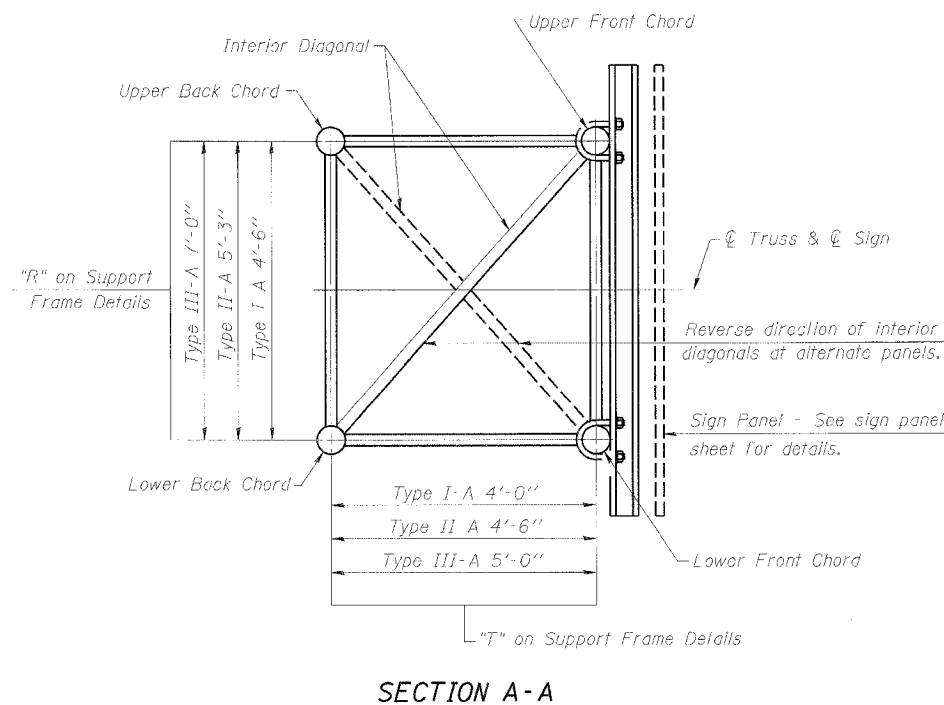
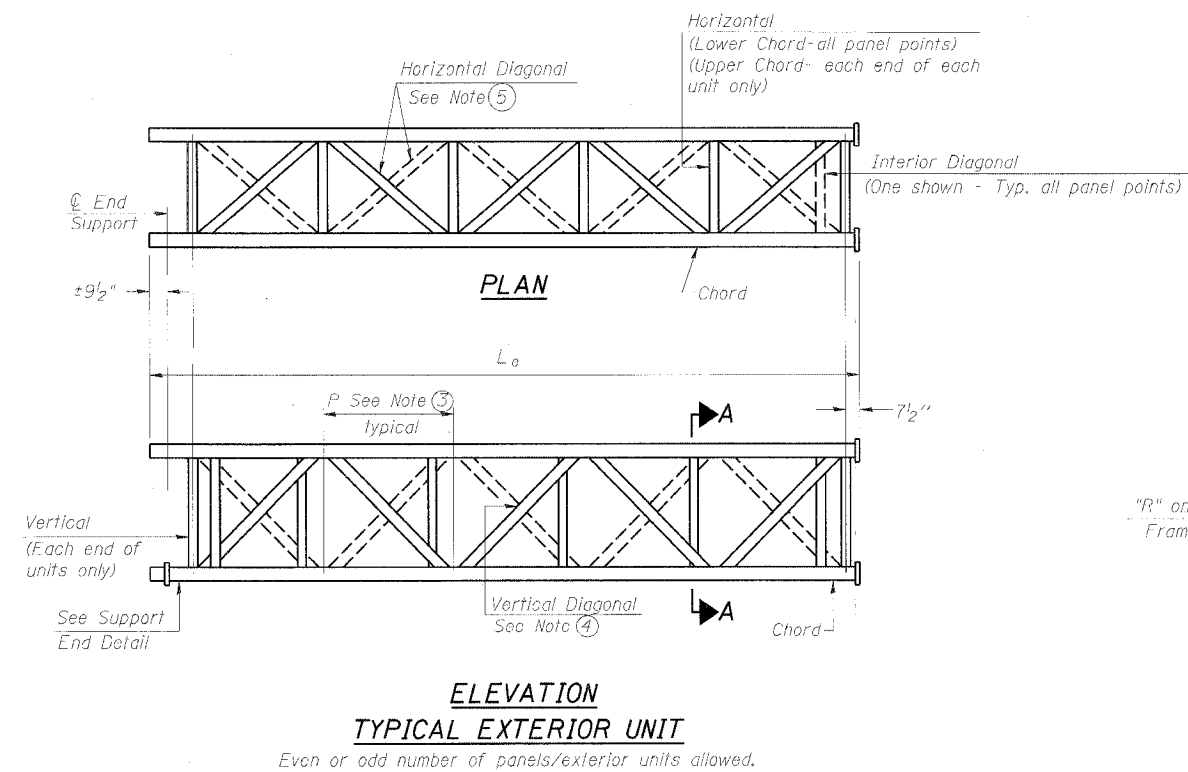
DESIGN NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 90/94	200/056 5G	COOK	30	14
FED. AID PROJ. NO. 1	S. I. NUMBER	FED. AID PROJECT		

SHEET NO. 2
12 SHEETS

Contract # 60D49



- NOTES**
- Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2" φ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
 - 5 1/2" end dimension may vary by ± 1" to provide uniform panel spacing (P).
 - Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
 - Vertical Diagonals in front and back face shall alternate.
 - Hidden lines show wind bracing alternate direction between planes of top and bottom chords.
 - All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4" minimum to 1 1/2" maximum clearance between any diagonal and any horizontal or vertical member, and to provide clearance for U-bolt connections of signs or walkway brackets.



DESIGNED	ASP
CHECKED	RLP
DRAWN	BEM
CHECKED	ASP

EXAMINED	200
PASSED	

NUMBER	REVISION	DATE

OS-A-2 6/01/2007

OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (190/94)
COOK COUNTY
STRUCTURE NUMBER IS016I094L051.5

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
IA1 90/94	2007 -056 SG	COOK	30	15
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

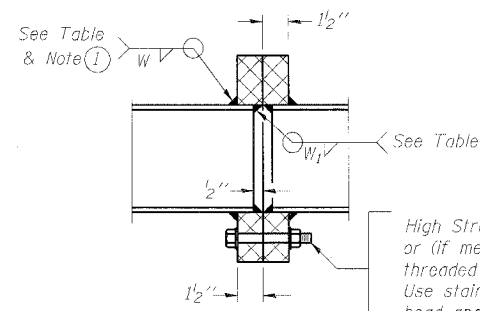
SHEET NO. 3

12 SHEETS

Contract # 60D49

TRUSS UNIT TABLE

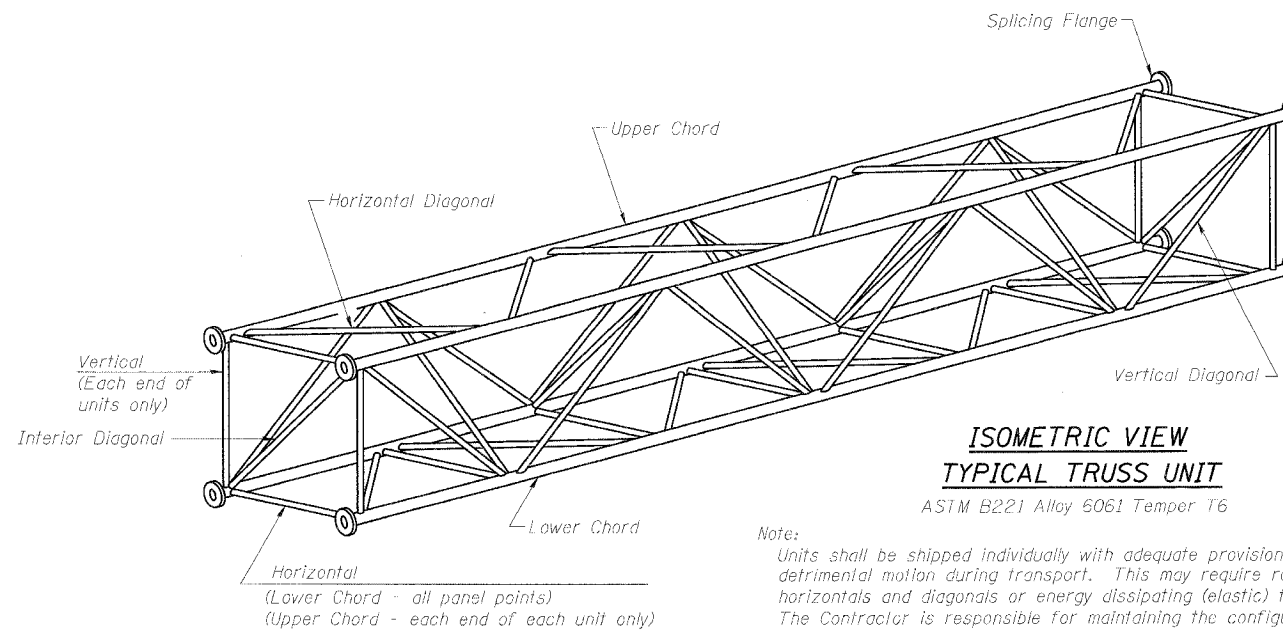
Structure Number	Station	Design Truss Type	Exterior Units (2)			Interior Unit				Upper & Lower Chord		Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals		Camber at Midspan	Splicing Flange					
			No. Panels per Unit	Unit Lgth.(L _u)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L _i)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		No./Splice	Bolts Dia.	Weld Sizes W	W ₁	A	B
IS0161094L051.5	30+74.00	III-A	6	34'-1 1/2"	5'-4 1/2"	1	6	33'-6"	5'-4 1/2"	7"	1/2"	3 1/4"	5/16"	2 3/8"	8	1"	9/16"	1/16"	11 1/2"	15"



SECTION B-B

High Strength bolts with locknuts or (if members interfere) threaded studs with 2 locknuts. Use stainless steel washers under head and nut. See table.

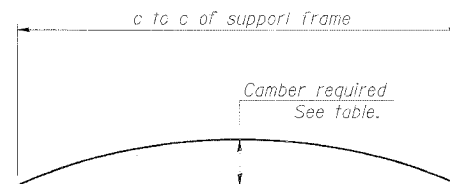
1 Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining welds are made after disassembly. Adjacent flanges shall be "match marked" to insure proper field assembly.



ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

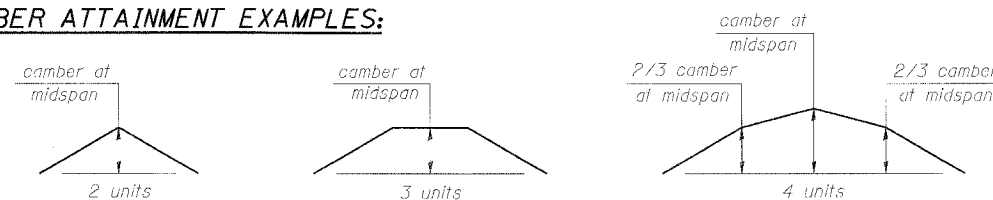
Note: Units shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The Contractor is responsible for maintaining the configuration and protection of the units.



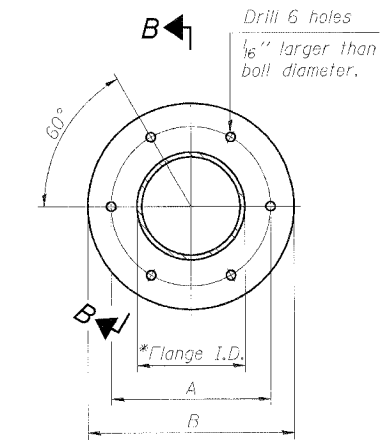
CAMBER DIAGRAM

Camber curve shown is theoretical. Actual camber attained by slope changes at splices between units.

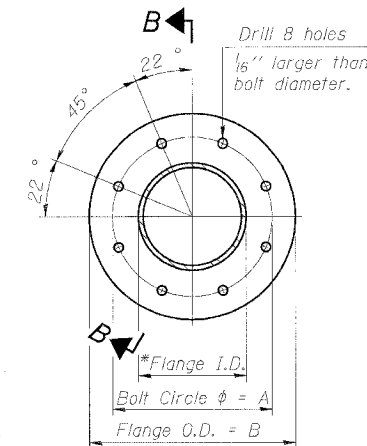
CAMBER ATTAINMENT EXAMPLES:



Camber shown is for fabrication only, measured with truss fully supported. (No load condition)



TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A
SPlicing FLANGES

ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651

*To fit O.D. of Chord with maximum gap of 1/16".

NUMBER	REVISION	DATE

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGES AND STRUCTURES

OS4-A-2

6/01/2007

OVERHEAD SIGN STRUCTURES
ALUMINUM TRUSS DETAILS
FOR TRUSS TYPES I-A, II-A AND III-A

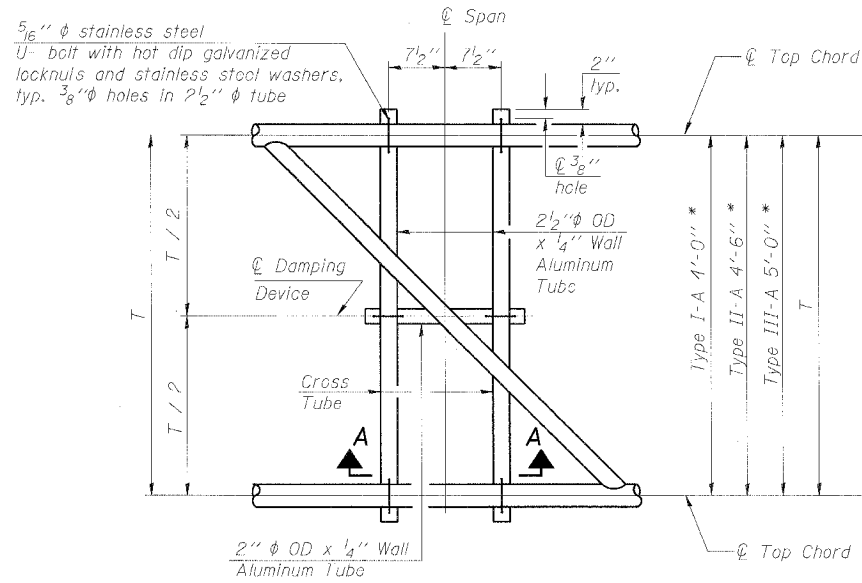
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (190/94)
COOK COUNTY
STRUCTURE NUMBER IS0161094L051.5

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

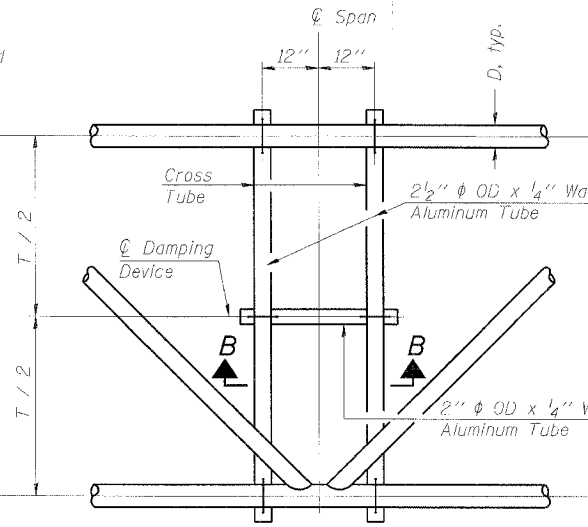
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.

ROUTE NO.	SECTION	COUNTY	POST MILES	SHEET NO.	SHEET TOTAL
FAI 90/94	2007-055 SG	COOK	30	16	12 SHEETS

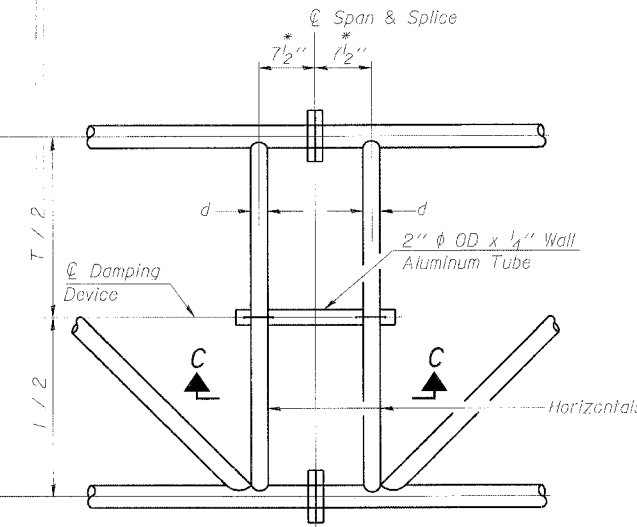
Contract # 60D49



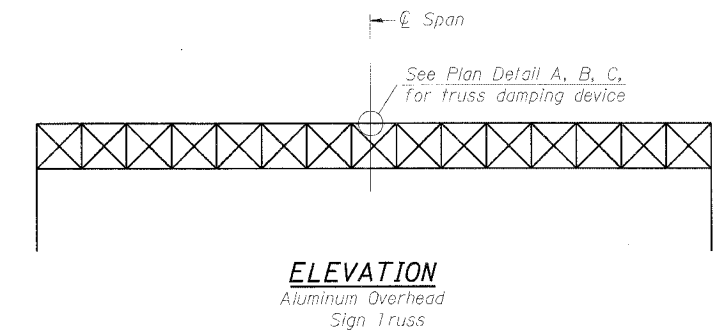
PLAN DETAIL "A"
Span between Panel Points



PLAN DETAIL "B"
Span at Panel Point



PLAN DETAIL "C"
Span at Chord Splice

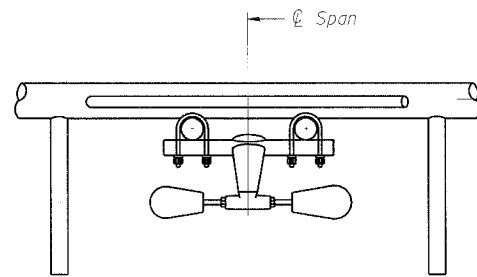


ELEVATION
Aluminum Overhead Sign Truss

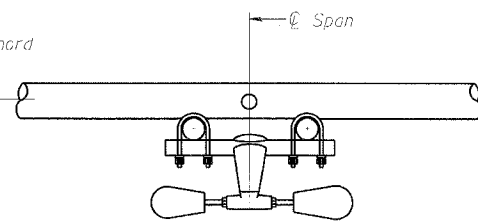
NOTES

Damper: One damper per truss. (31 lbs. minimum Stockbridge-Type Aluminum - 29" minimum between ends of weights) Cost included in Overhead Sign Structure...

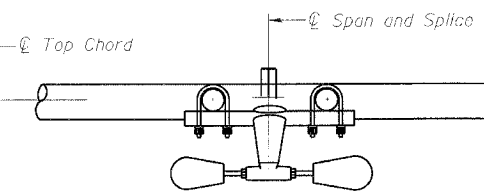
Materials: Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in Overhead Sign Structure...



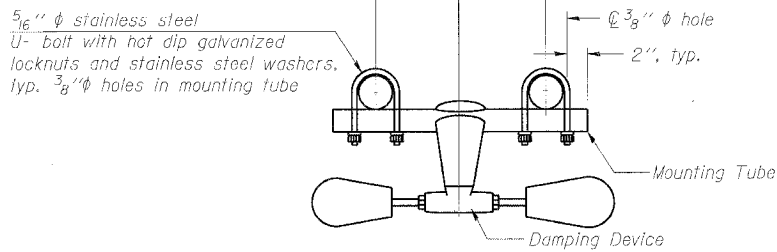
SECTION A-A



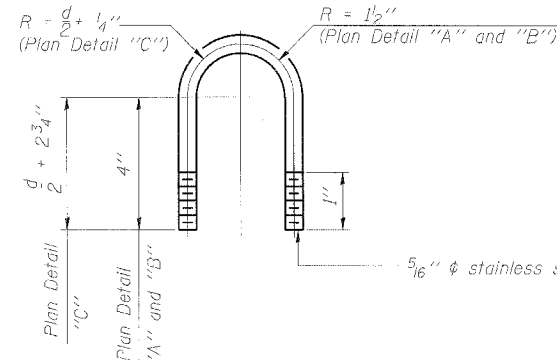
SECTION B-B



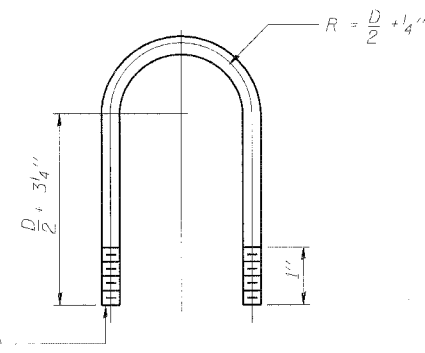
SECTION C-C



TRUSS DAMPING DEVICE CONNECTION DETAIL
(Typical)



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL
(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL
(Typical - Detail "A" and "B")

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

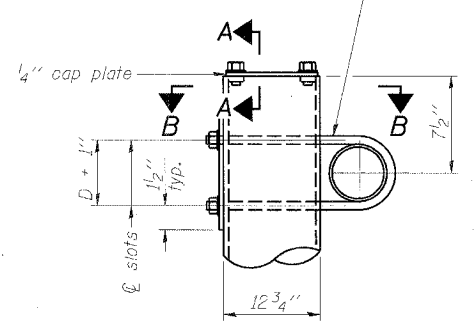
OS-A-D

6/01/2007

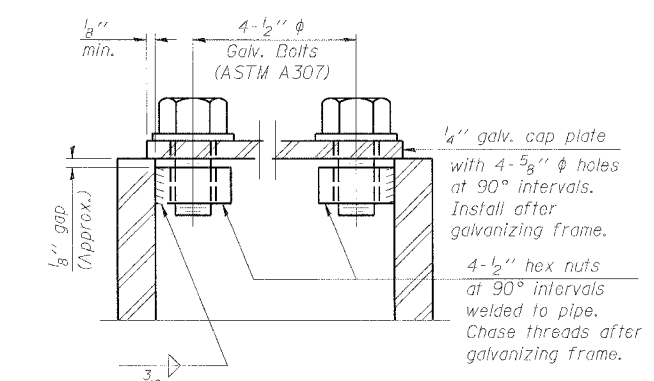
OVERHEAD SIGN STRUCTURE DAMPING DEVICE

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (190/94)
COOK COUNTY
STRUCTURE NUMBER IS0161094L051.5

3/4" ϕ stainless steel U-bolt.
Provide two washers and two hexagon locknuts. (4)
1 1/16" x 2" slots on ϕ 12" ϕ pipe.
(4 slots required per pipe)

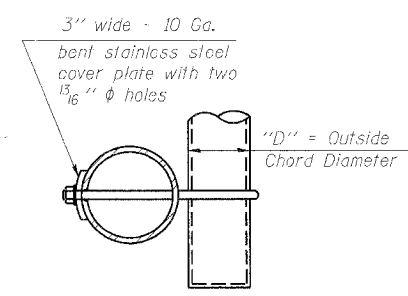


DETAIL A

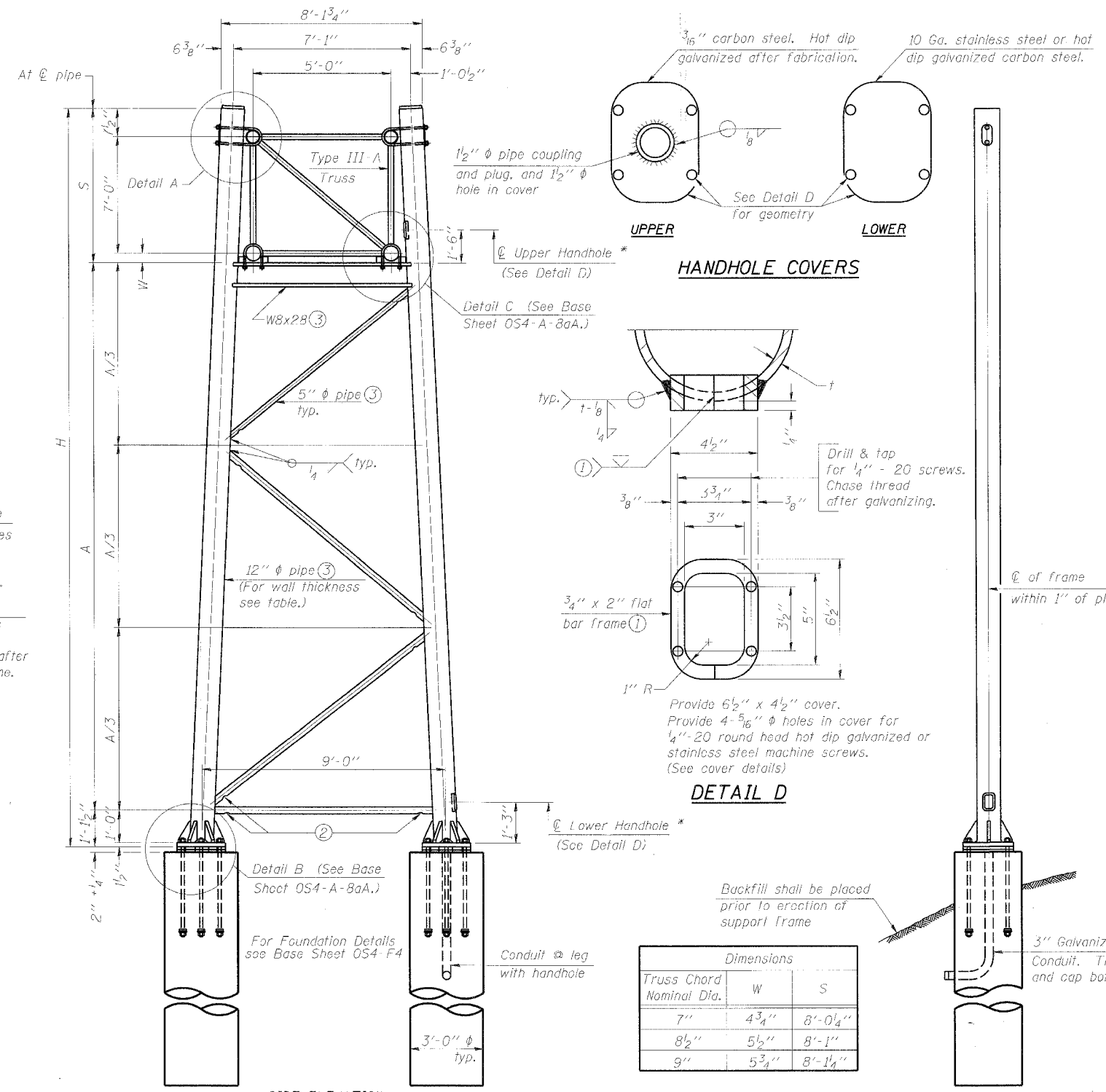


SECTION A-A

As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



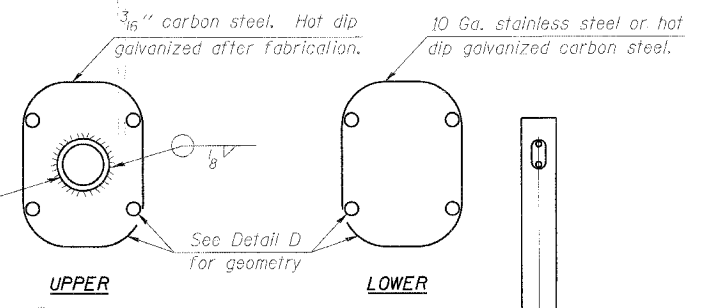
SECTION B-B



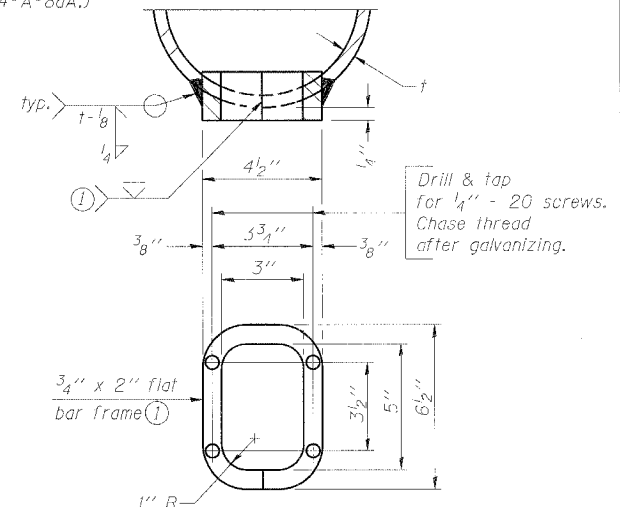
SIDE ELEVATION

TRUSS SUPPORT DETAILS
(12" ϕ Pipe-Type III-A Truss)

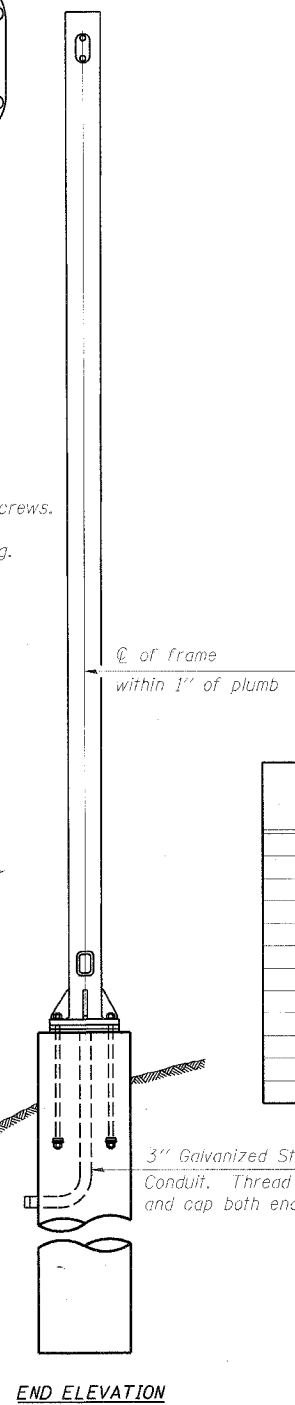
Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4 3/4"	8'-0 1/4"
8 1/2"	5 1/2"	8'-1"
9"	5 3/4"	8'-1 1/4"



HANDHOLE COVERS



DETAIL D



END ELEVATION

Support Design Loads: See Base Sheet OS-A-1 for design and loading criteria.
Load combinations checked include deadload plus:
a) 100% wind normal to sign, 20% parallel to sign
b) 60% wind normal to sign, 30% parallel to sign

- In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 μ in or less.
 - Galvanizing vent holes of adequate size shall be provided on underside of each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred, typ.
 - Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.
 - See General Notes for fasteners.
 - Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.
 - "H" based on 15'-0" or actual sign height, whichever is greater.
- * For dynamic message sign installations, provide upper and lower handholes in both legs of each support frame.

Structure Number	Station	Support		Pipe Wall Thickness	H (6)	A
		Left	Right			
IS0161094L051.5	30+74.00	X		0.375"	27'-5 1/2"	18'-3 3/4"
IS0161094L051.5	30+74.00		X	0.375"	28'-4 1/4"	15'-2 1/8"

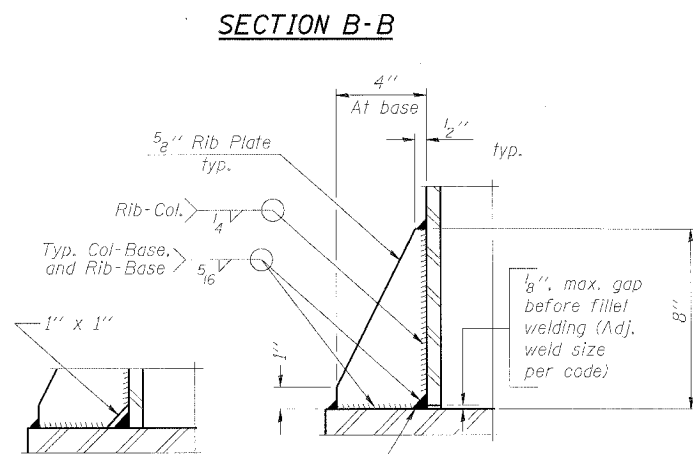
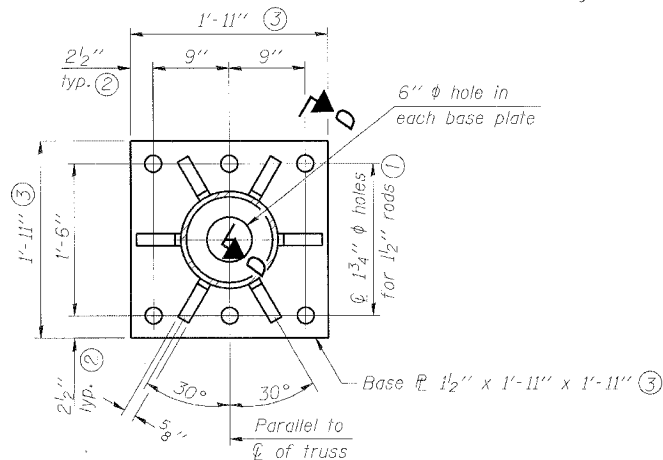
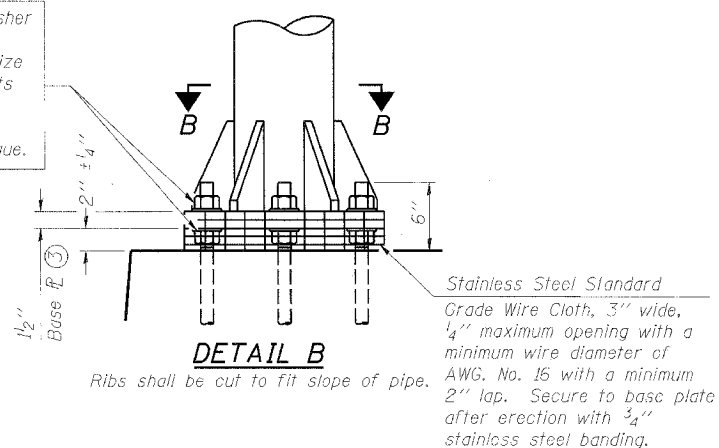
DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

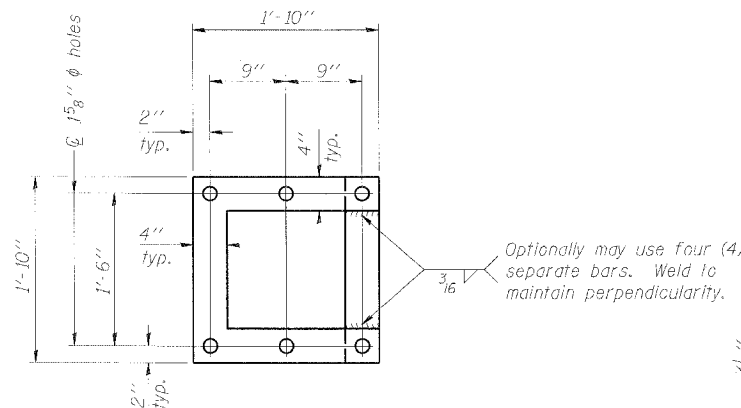
OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR
TYPE III-A ALUMINUM TRUSS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER IS0161094L051.5

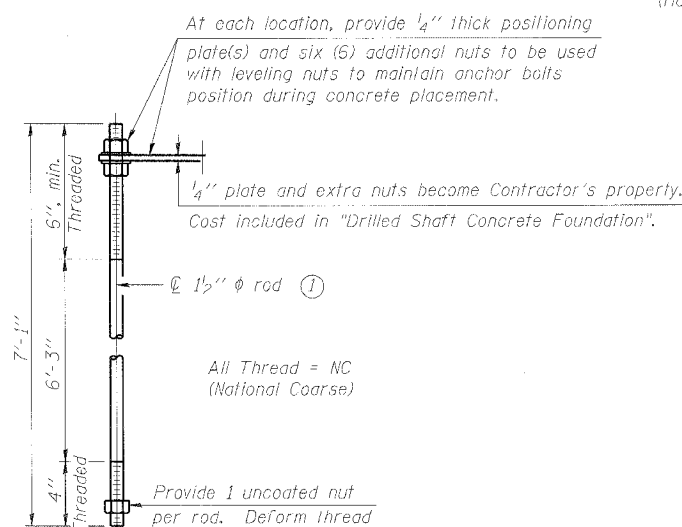
Hexagon locknut and washer (top), leveling nut and washer (bottom). Galvanize per AASHTO M232. Nuts shall each be tightened against base plate with 200 lb.-ft. minimum torque.



** Alternate detail if welding col. to base plate first, then snip inside corner of ribs. Terminate weld on rib 1/4" from snip.



POSITIONING PLATE(S)



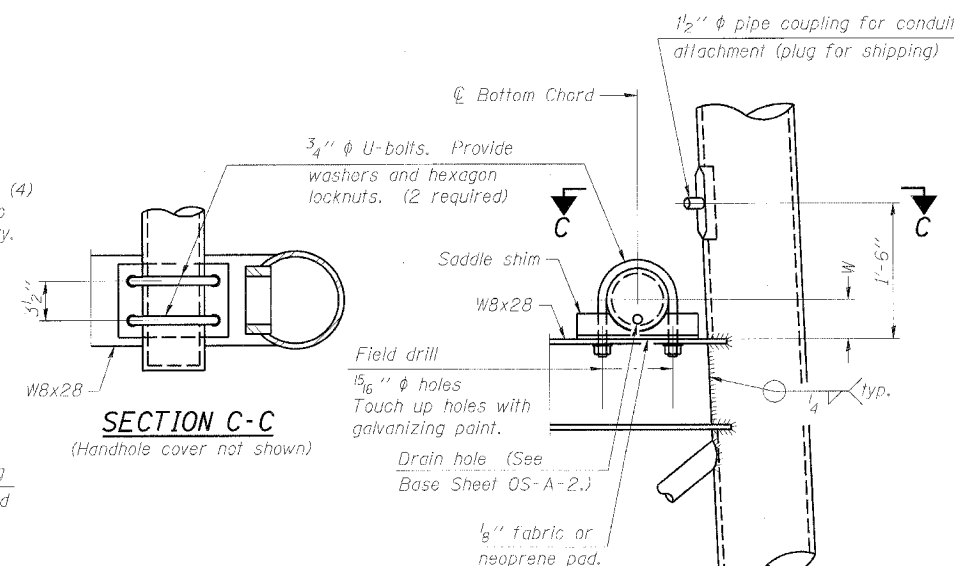
ANCHOR ROD DETAIL

Anchor rods shall conform to AASHTO M314 Grade 36 or 55 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. Galvanize upper 12" per AASHTO M232. No welding shall be permitted on rods.

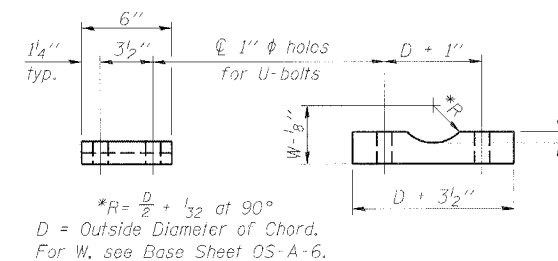
**TYPE III-A TRUSS
12" ϕ PIPE SUPPORT FRAME DETAILS**

Notes:
For Type III-A Truss spans greater than 150 ft. and up to 160 ft.:

- ① 1 3/4" ϕ rod, 2" ϕ holes
- ② 2 3/4" edge distance
- ③ Base Pl. 1 5/8" x 1'-11 1/2" x 1'-11 1/2"



DETAIL C



Truss Chord Nominal Dia.	a
7"	1"
8 1/2"	1 1/4"
9"	1 3/8"

SADDLE SHIM DETAIL
ASTM B26 Alloy 356-F
or
ASTM B209 Alloy 6061-T651
(4 required per sign truss)

DESIGNED	ASP
CHECKED	RLP
DRAWN	BEM
CHECKED	ASP

EXAMINED	200
PASSED	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

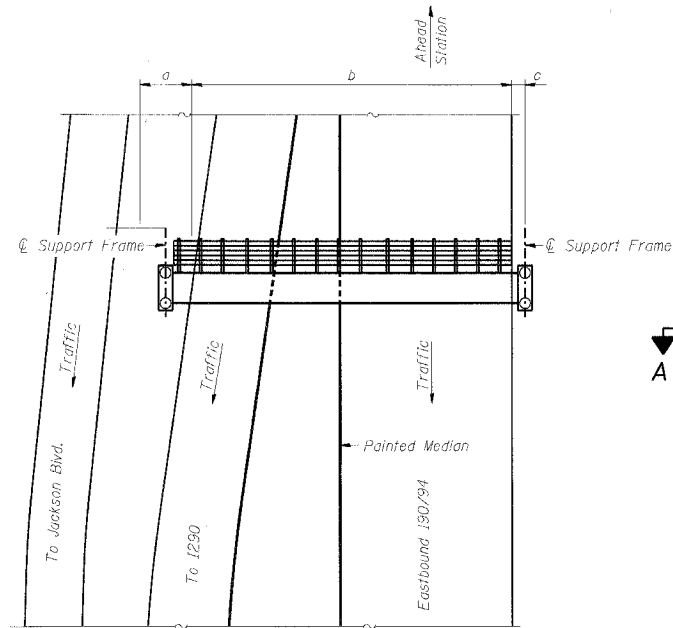
OS4-A-8aA

6/01/2007

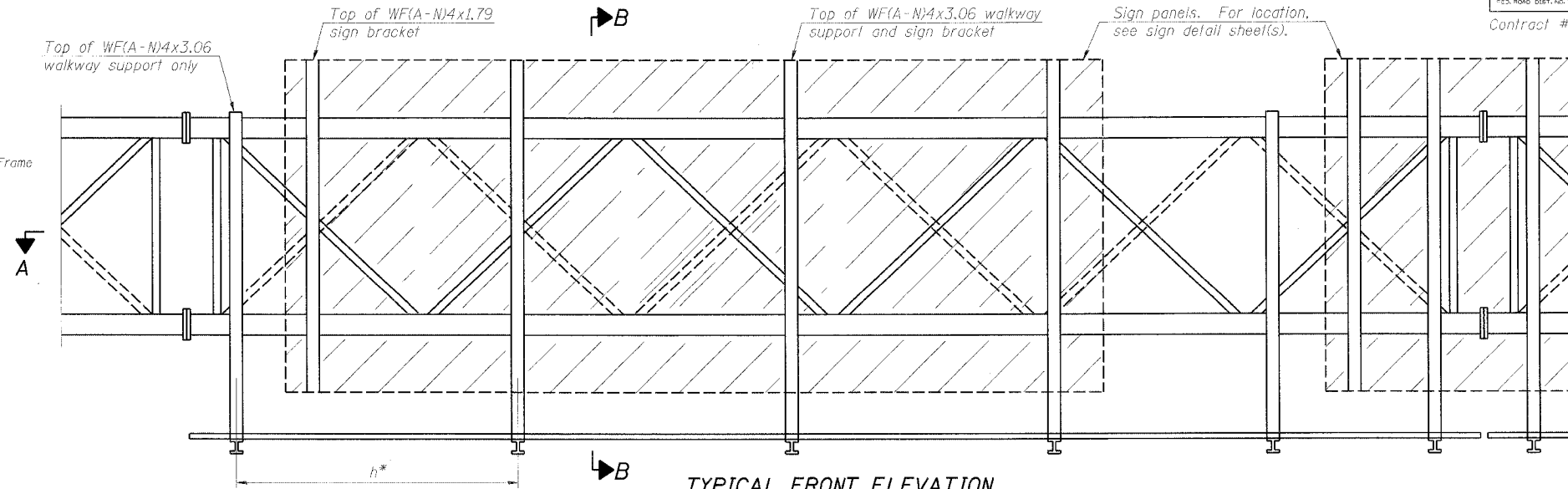
OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR
TYPE III-A ALUMINUM TRUSS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER ISO16I094L051.5

Contract # 60D49

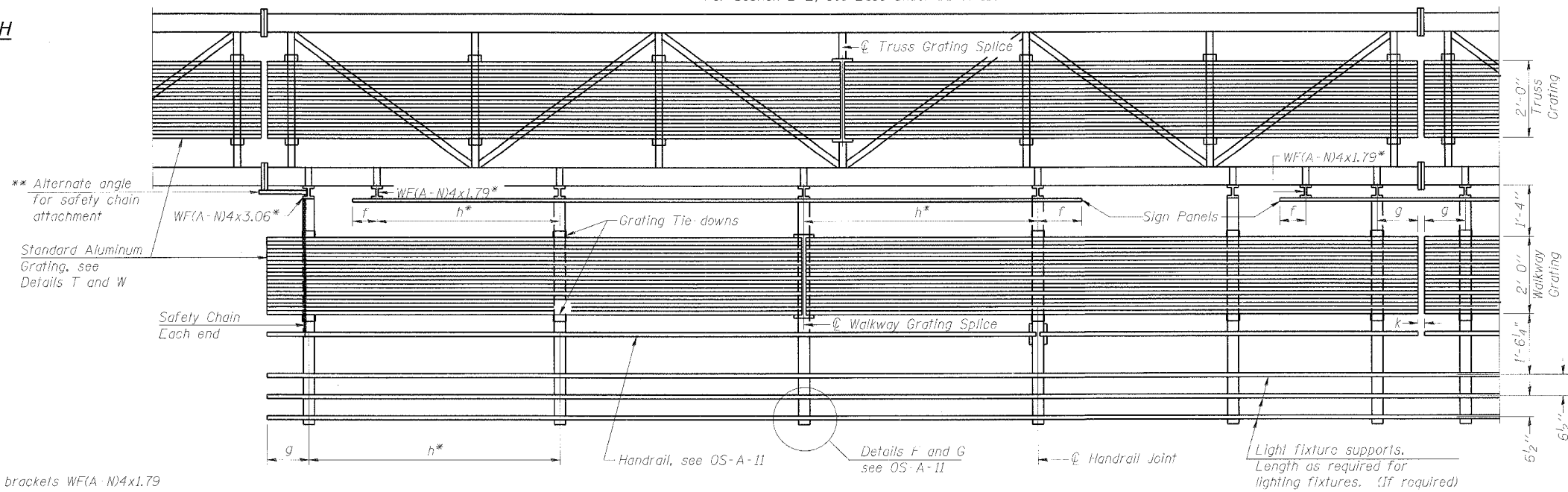


PLAN
WALKWAY AND HANDRAIL SKETCH



TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10.



SECTION A-A

Handrail and walkway shall span a minimum of three brackets between splices and/or gap joints. Place all sign and walkway brackets as close to panel points as practical. Handrail joints, grating, and light support splices placed as needed.

Truss grating to facilitate inspection shall run full length (center to center of support frames) +12" on overhead trusses. Cost of truss grating is included in "Overhead Sign Structure".

BRACKET TABLE

Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

Notes:
* Space walkway brackets WF(A-N)4x3.06 and sign brackets WF(A-N)4x1.79 for efficiency and within limits shown:

f = 12" maximum, 4" minimum (End of sign to center of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to center of nearest support bracket)
h = 6'-0" maximum (center to center of sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
k = 2" maximum gap between adjacent walkway grating sections and handrail ends

** If walkway bracket at safety chain location is behind sign, add angle to bracket, see Alternate Safety Chain Attachment on Base Sheet OS-A-11.

For Details T and W, Section B-B and Grating Splice Details see Base Sheet OS-A-10.
For Handrail Details see Base Sheet OS-A-11.

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-9

6/01/2007

NUMBER	REVISION	DATE

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
IS0161094L051.5	30+74.00	±2'-3"	±94'-3"	±3'-6"	-	-	±94'-3"

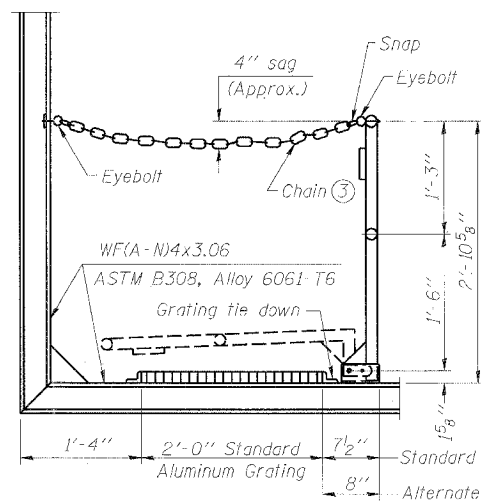
**OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS**

**I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER IS0161094L051.5**

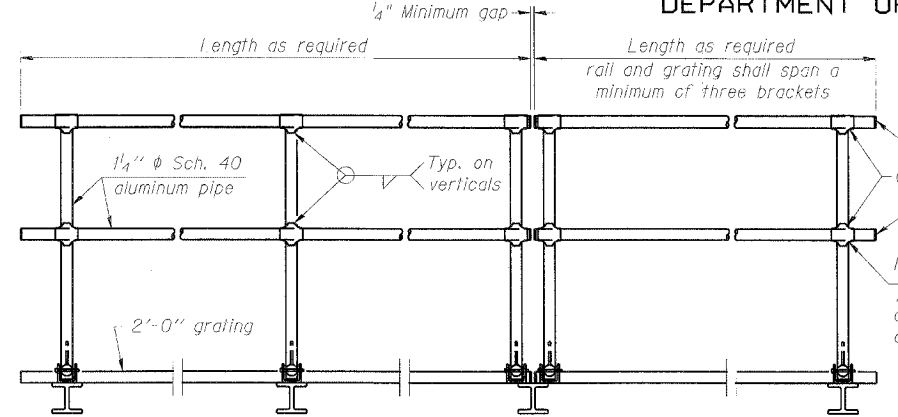
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE NO.	SECTION	QUANTITY	SHEET NO.	SHEET NO.
FAI 90/91	2007-056 SG	COOK	30	21
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
12 SHEETS



SIDE ELEVATION
(Showing safety chain w/o sign)

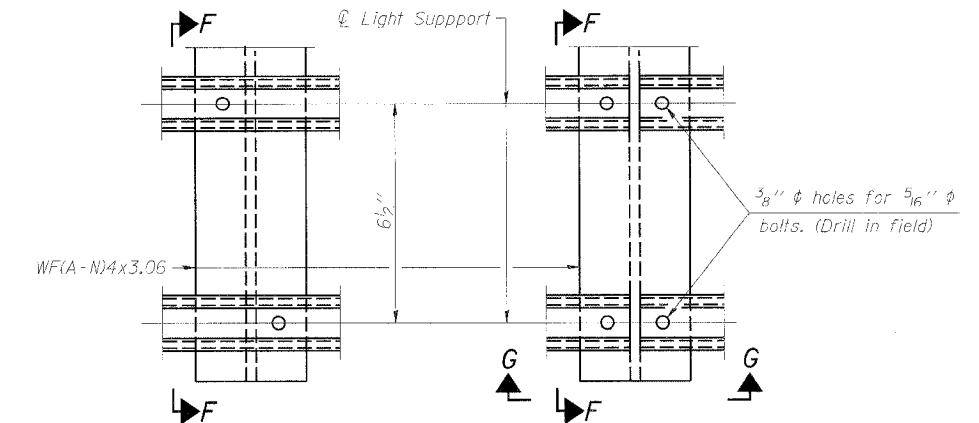


FRONT ELEVATION

HANDRAIL DETAILS

Handrail pipe shall be ASTM B241 or B429, Alloy 6063-T6 or Alloy 6061-T6.

- Install standard force-fit end caps or weld $\frac{1}{8}$ " end plates with $\frac{1}{8}$ " c.f.w. and grind smooth. (All rail ends)
- Horizontal handrail member shall be continuous thru fitting. Provide $\frac{1}{16}$ " ϕ hole in fitting for $\frac{3}{8}$ " ϕ bolt. Field drill $\frac{1}{16}$ " ϕ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use $\frac{5}{16}$ " eyebolts in $\frac{7}{16}$ " ϕ holes on top rail at ends only.)



DETAIL F

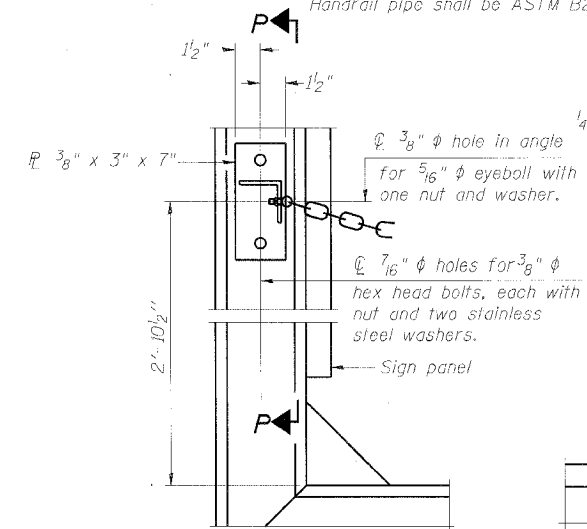
DETAIL G

SECTION F-F

SECTION G-G

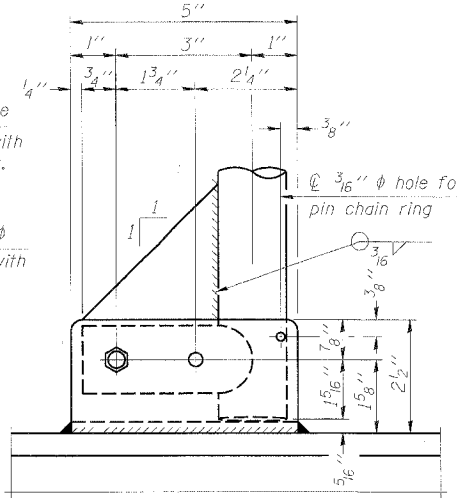
LIGHTING FIXTURE MOUNTS (IF REQUIRED)

- Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

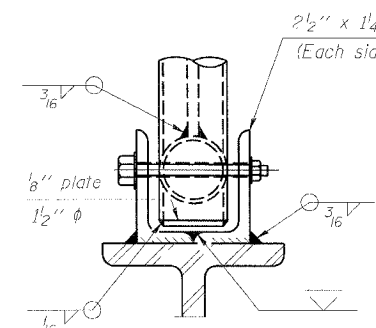


ALTERNATE SAFETY CHAIN ATTACHMENT
(With Sign Present)

Items not shown same as "Side Elevation" of "Handrail Details"

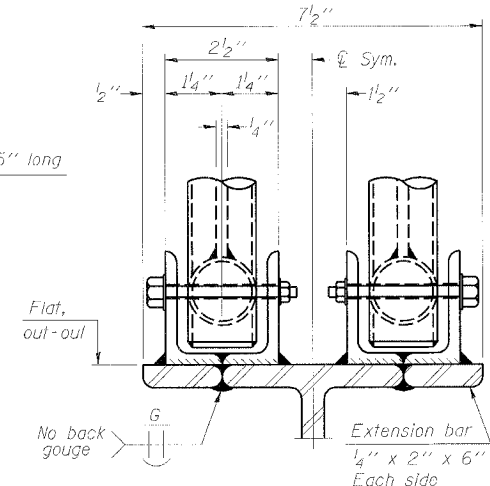


SIDE ELEVATION

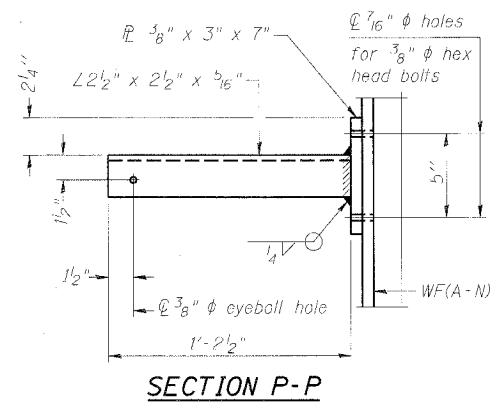


FRONT ELEVATION

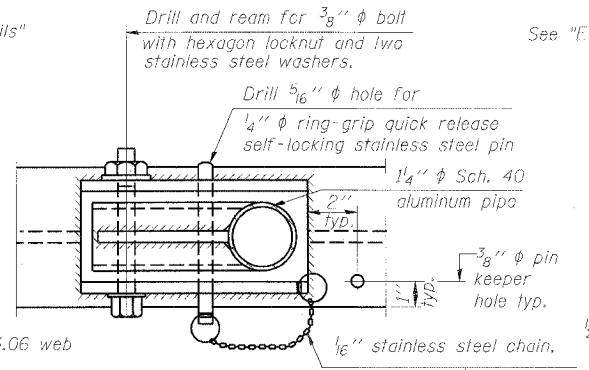
See "Elevation" at right for dimensions.



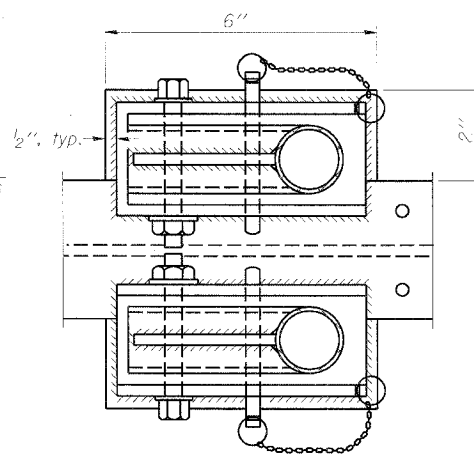
ELEVATION AT HANDRAIL JOINT



SECTION P-P

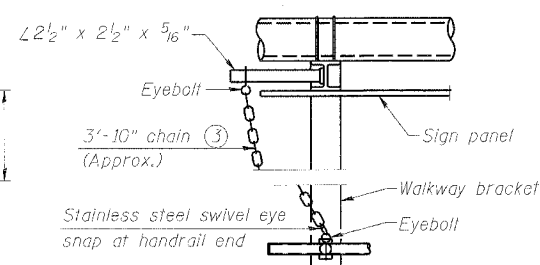


PLAN
DETAIL E HANDRAIL HINGE



PLAN AT HANDRAIL JOINT

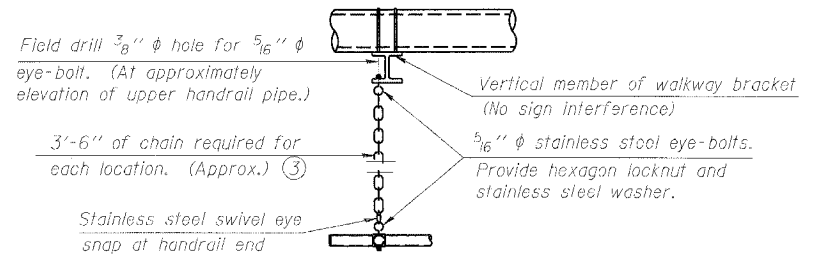
Details not shown same as "PLAN"



ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

- $\frac{3}{16}$ " Type 304L stainless steel chain, approximately 12 links per foot.
- Extrusions may be used in lieu of the details shown, with approval of the Engineer.



SAFETY CHAIN

One required for each end of each walkway.

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGE DESIGN
	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-11 6/01/2007

NUMBER	REVISION	DATE

**OVERHEAD SIGN STRUCTURES
ALUMINUM HANDRAIL DETAILS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER IS016I094L051.5

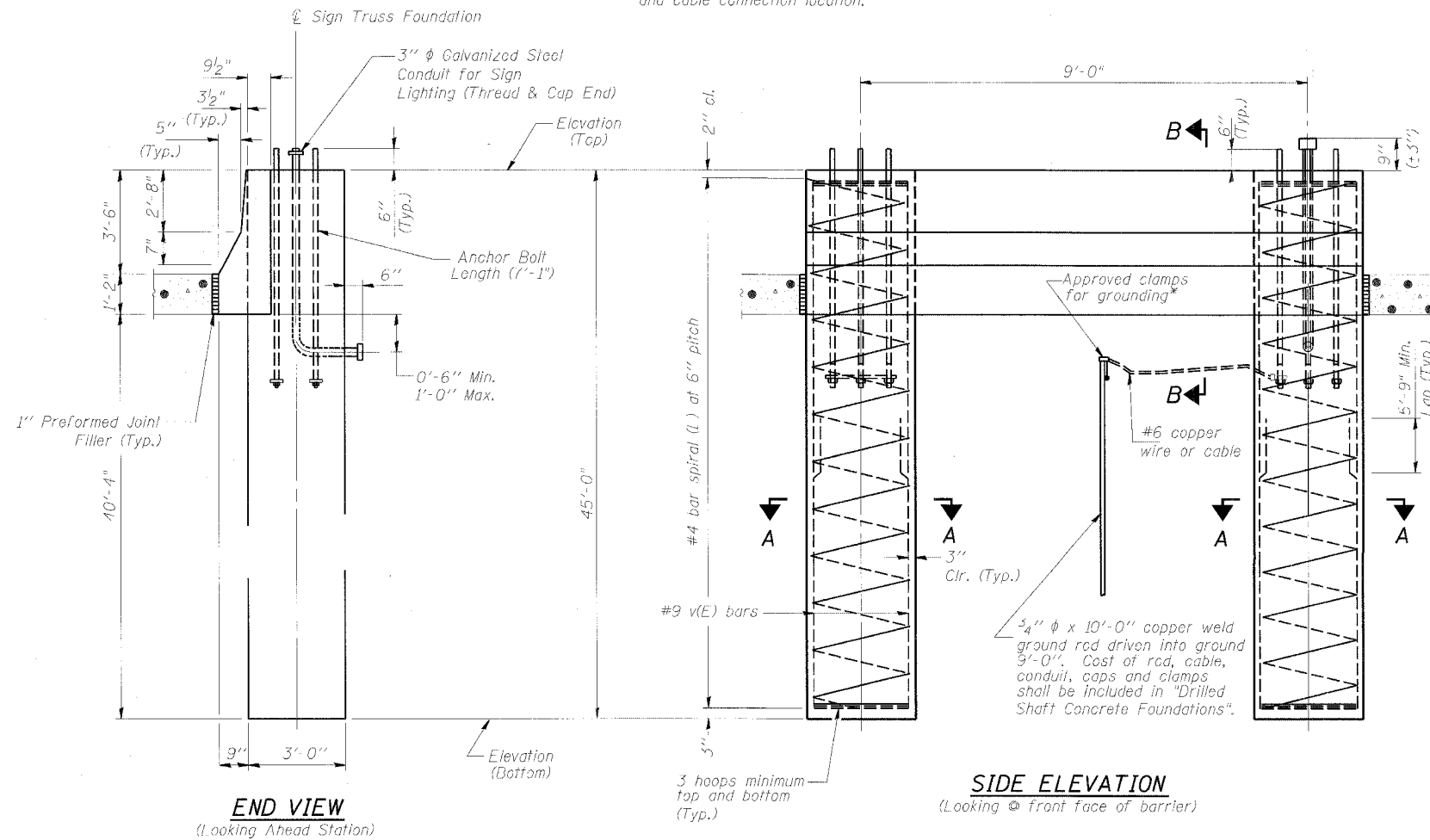
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TITLE SHEETS	SHEET NO.
FA1 50/94	2007-096 SG	COOK	30 22	10
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		12 SHEETS

Contract # 60D49

For anchor rod size and placement, see Support Frame Detail Sheet.

* Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.



BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v(E)	48	#9	25'-2"	
#4 bar spiral (E) - see Side Elevation				

NOTES:

The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Q_u) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.

If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "I" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.

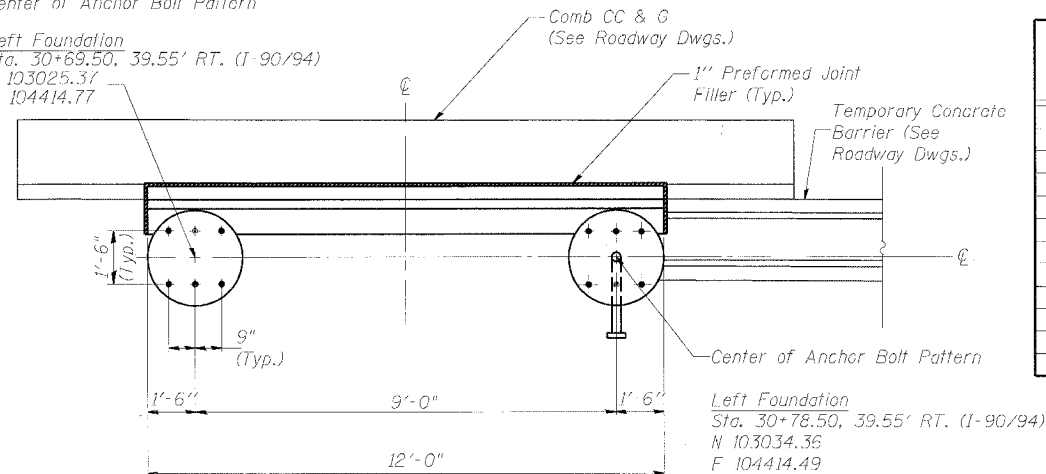
No sonotubes or decomposable forms shall be used below the lower conduit entrance. Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.

Concrete shall be placed monolithically, without construction joints. Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

A normal surface finish followed by a Bridge Seal Sealer application will be required on concrete surfaces above the lowest elevation 5" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.

Center of Anchor Bolt Pattern

Left Foundation
Sta. 30+69.50, 39.55' RT. (I-90/94)
N 103025.37
E 104414.77



Structure Number	Station	Left Foundation			Right Foundation			Class SI Concrete (Cu. Yds.)						
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top		Elevation Bottom	A	B	F		
ISO161094L051.5	30+74.00	580.10	535.10	4'-8"	40'-4"	45'-0"								25.5

**DETAILS FOR 12" Ø SUPPORT FRAME
TYPE III-A TRUSS**

**OVERHEAD SIGN STRUCTURES
LEFT SUPPORT FOUNDATION DETAILS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER ISO161094L051.5

DESIGNED	ASP
CHECKED	RLP
DRAWN	BEM
CHECKED	ASP

EXAMINED	200
PASSED	

NUMBER	REVISION	DATE

OS4-F4

6/01/2007

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
FAI 90/94	2007 +056 SQ	COOK	30	23
FED. ROAD DIST. NO. 1	ALIGNED	FED. AID PROJECT		

SHEET NO. 11

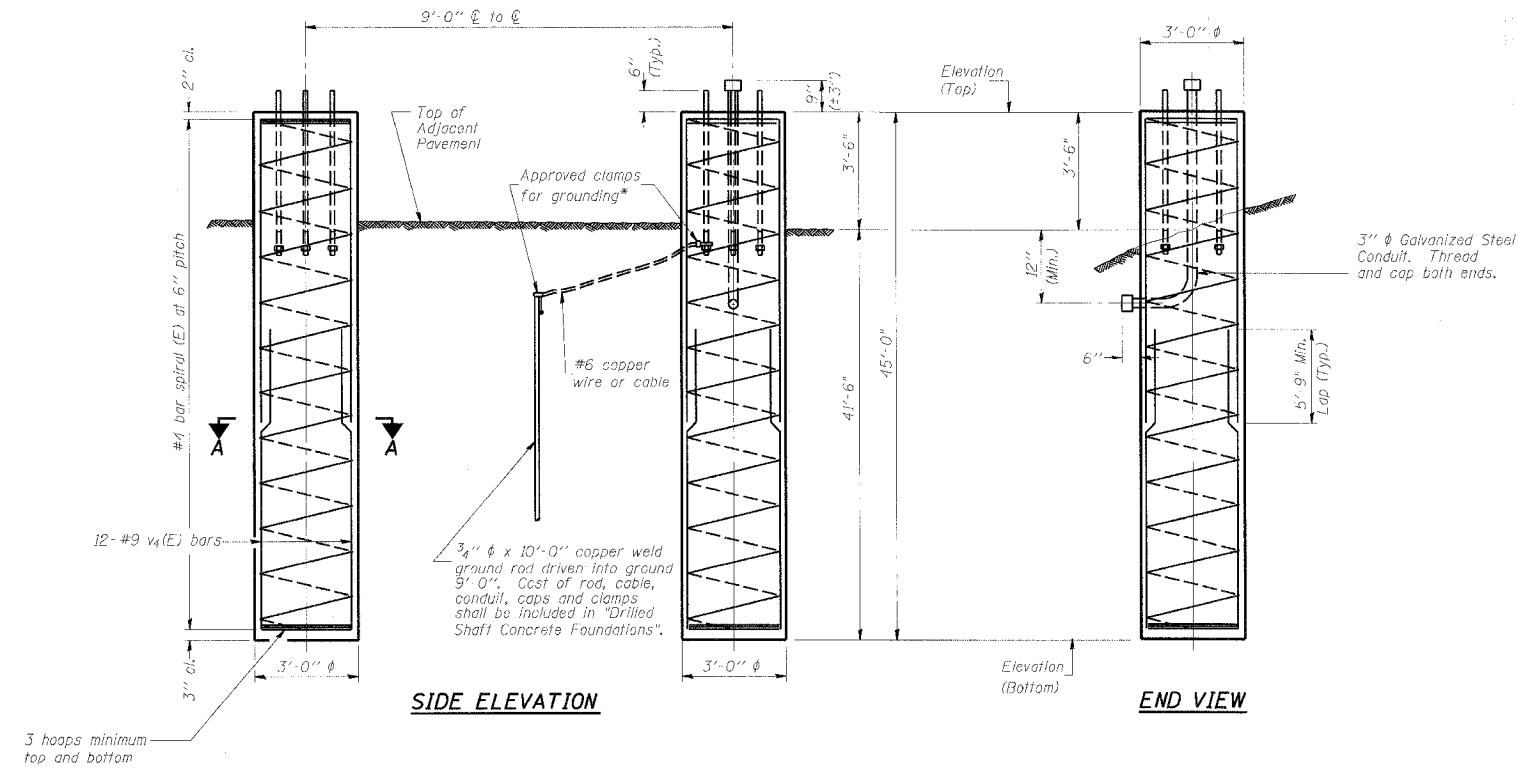
12 SHEETS

Contract # 60D49

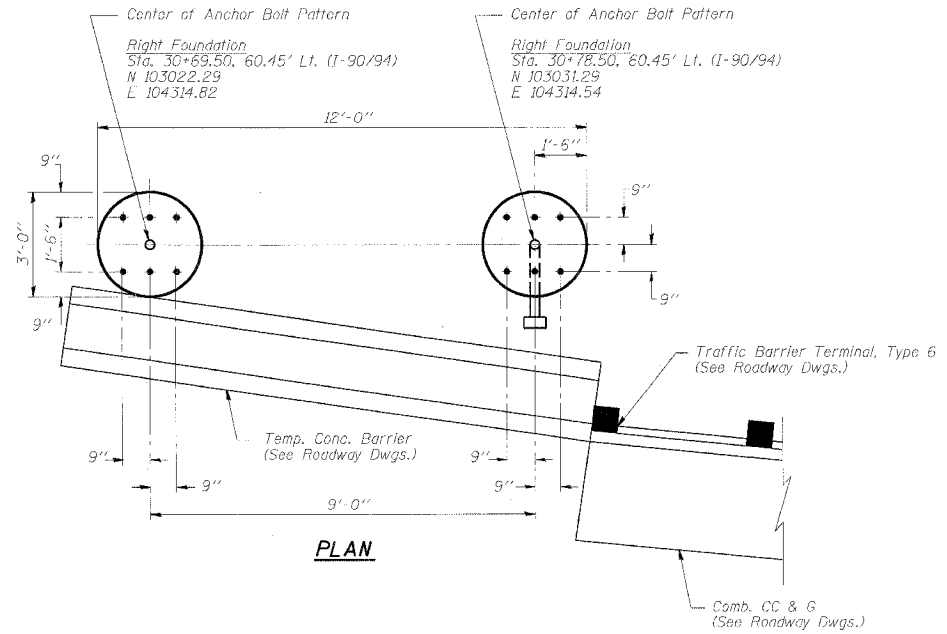
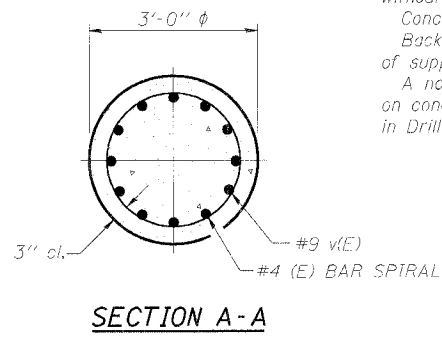
BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v(F)	24	#9	25'-2"	—
#4 bar spiral (E) - see Side Elevation				

For anchor rod size and placement, see Support Frame Detail Sheet.



NOTES:
The foundation dimensions shown are based on the presence of mostly cohesive soils with an average Unconfined Compressive Strength (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown will be the result of site specific designs.
If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified. If dimensions "B" or "F" are revised by more than 12" by the Contractor, "as-built" plans shall be prepared and submitted to the District Bureau of Operations for future reference.
No sonotubes or decomposable forms shall be used below the lower conduit entrance.
Permanent metal forms or other shielding may not be left in place below that elevation without the Engineer's written permission.
Concrete shall be placed monolithically, without construction joints.
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.
A normal surface finish followed by a Bridge Seat Sealer application will be required on concrete surfaces above the lowest elevation 6" below finished ground line. Cost included in Drilled Shaft Concrete Foundation.



Structure Number	Station	Left Foundation			Right Foundation			Class SJ Concrete (Cu. Yds.)				
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top		Elevation Bottom	A	B	F
ISO161094L051.5	30+74.00						579.17	534.17	3'-6"	41'-6"	45'-0"	23.6

DETAILS FOR 12" φ SUPPORT FRAME
TYPE III-A TRUSS

OVERHEAD SIGN STRUCTURES
RIGHT SUPPORT FOUNDATION DETAILS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (190/94)
COOK COUNTY
STRUCTURE NUMBER ISO161094L051.5

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGES AND STRUCTURES

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS4-F4 6/01/2007

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAI 90/94	2007-056 SG	COOK	30	24
FED. ROAD DIST. NO. 1	PLANNO	FED. AID PROJECT		

Contract # 60D49

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 8/30/00

ROUTE FAI 90/94 DESCRIPTION I-90/94 KENNEDY EXPRESSWAY (HUBBARDS CAVE TO I-290)
SECT. 101.6 (1P, 2P) & 202.6 (1P) STRUCT. NO. _____ DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION BETWEEN ADAMS AND JACKSON S. 9, TWP. 39N, RING. 14 EAST

Boring No.	DEPTH	BLOW	Qu	W	Surface Water Elev.	DEPTH	BLOW	Qu	W
F-2					N/A				
Station 11+48					Groundwater Elev.:				
Offset 33.00ft LT					when drilling 508.3				
Surface Elev. 576.34 ft					at Completion 511.3				
					after _____ Hrs.				
Asphalt Pavement									
Medium Dense, Gray									
Crushed Aggregate									
traces - fines									
(FILL)									
Stiff, Gray SILTY CLAY									
traces to little - sand and									
gravel									
Very soft to Medium Stiff,									
Gray CLAY/SILTY CLAY									
traces - sand and gravel									
Stiff to Very Stiff, Gray									
SILTY CLAY									
traces - sand and gravel									

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

Everest Engineering Company
STRUCTURE BORING LOG

Page 2 of 2
Date 8/30/00

STRUCTURE NO. _____
ROUTE FAI 90/94
SECTION 101.6 (1P, 2P) & 202.6 (1P)
COUNTY COOK

Boring No.	DEPTH	BLOW	Qu	W
F-2				
Station 11+48				
Offset 33.00ft LT				
Elevation 526.34 ft				
Medium Dense, Gray				
SILTY LOAM				
traces - sand				
At 54.5 feet - 1 inch sand				
Medium Dense to				
Extremely Dense, Gray				
SANDY LOAM				
BORING COMPLETED				
AT 70.0 FEET				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

DESIGNED - ASP	200
CHECKED - RLP	EXAMINED
DRAWN - BEM	PASSED
CHECKED - ASP	ENGINEER OF BRIDGES AND STRUCTURES

6/6/2007

NUMBER	REVISION	DATE

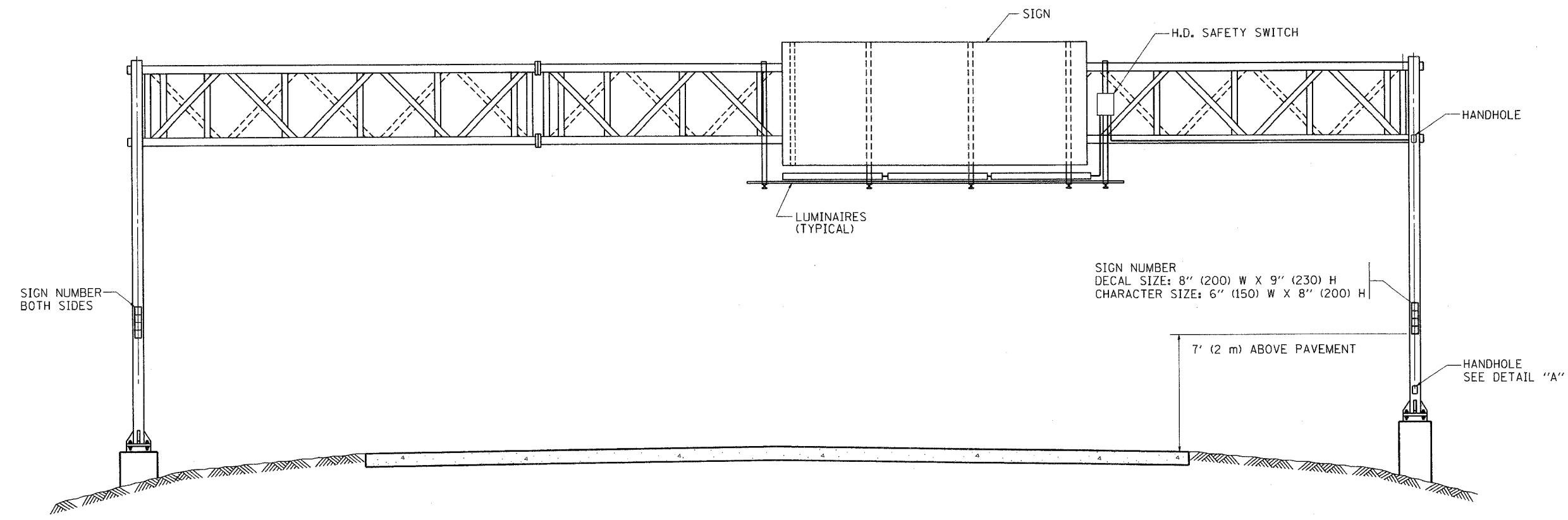
OS4-F4

6/6/2007

OVERHEAD SIGN STRUCTURES
BORING LOGS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
STATION 30+74.00 (I90/94)
COOK COUNTY
STRUCTURE NUMBER IS016I094L051.5

CONTRACT NO. 60D49				
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30/94	Z007-056 90	COOK	30	25
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

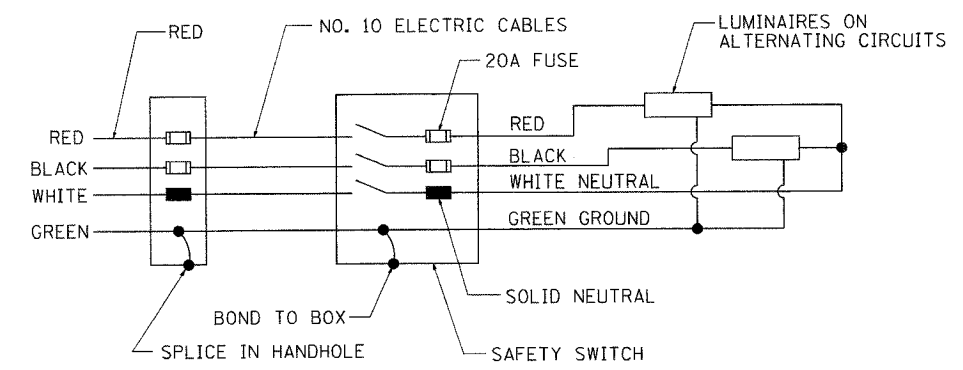


SIGN NUMBER
 DECAL SIZE: 8" (200) W X 9" (230) H
 CHARACTER SIZE: 6" (150) W X 8" (200) H

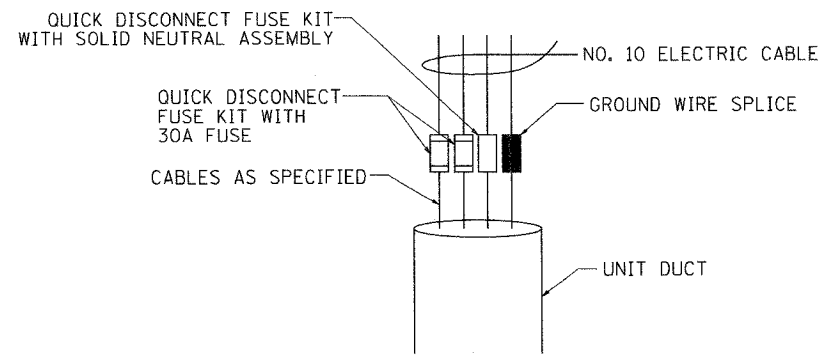
7' (2 m) ABOVE PAVEMENT

NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED RIGID METALIC CONDUIT, PVC COATED (GRMC, PVC)
3. THE USE OF LIQUID TIGHT METAL CONDUIT (TYPE LFMC) SHALL BE LIMITED TO LOCATIONS WHERE MOVEMENT IS ANTICIPATED AND SHALL NOT EXCEED 5' (1.5 m) IN LENGTH
4. ALL WORK INDICATED SHALL BE INCLUDED IN THE PAY ITEM FOR ELECTRIC CONNECTION TO SIGN STRUCTURE
5. THE SAFETY SWITCH SHALL BE LOCATED ON THE SIDE OF THE SIGN STRUCTURE WHICH IS CLOSEST TO THE SHOULDER, OR EDGE OF PAVEMENT.



WIRING DIAGRAM



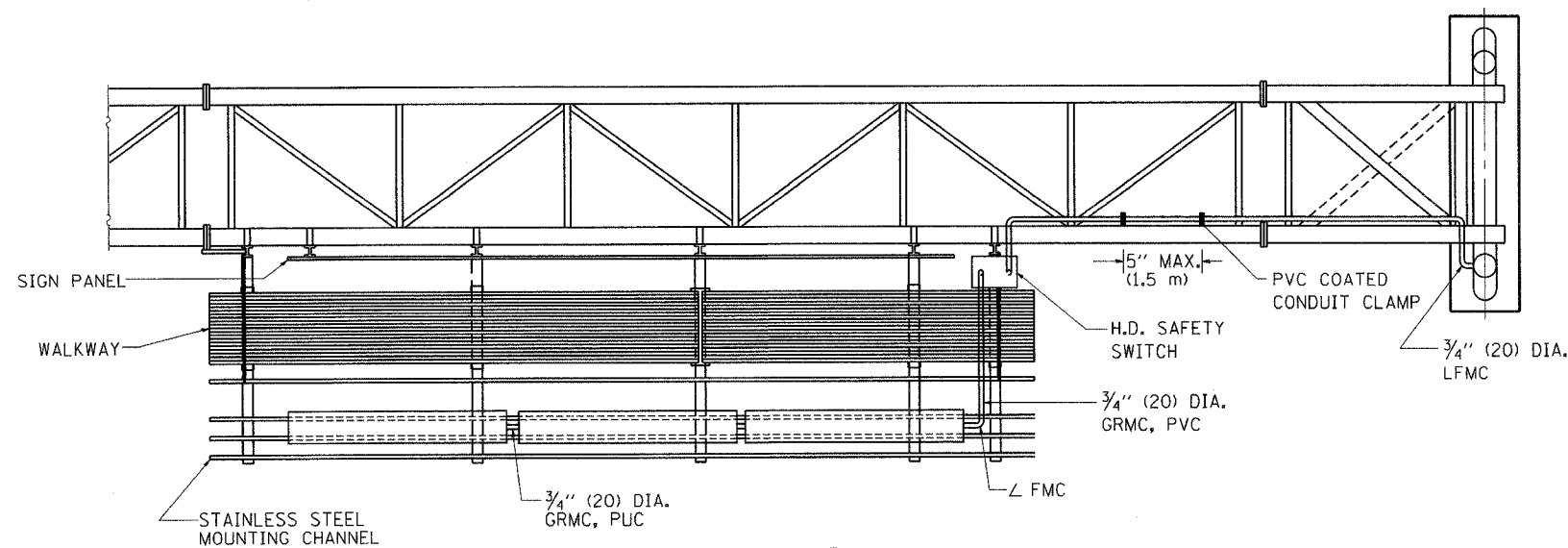
DETAIL A

REVISIONS	
NAME	DATE
	08/19/04

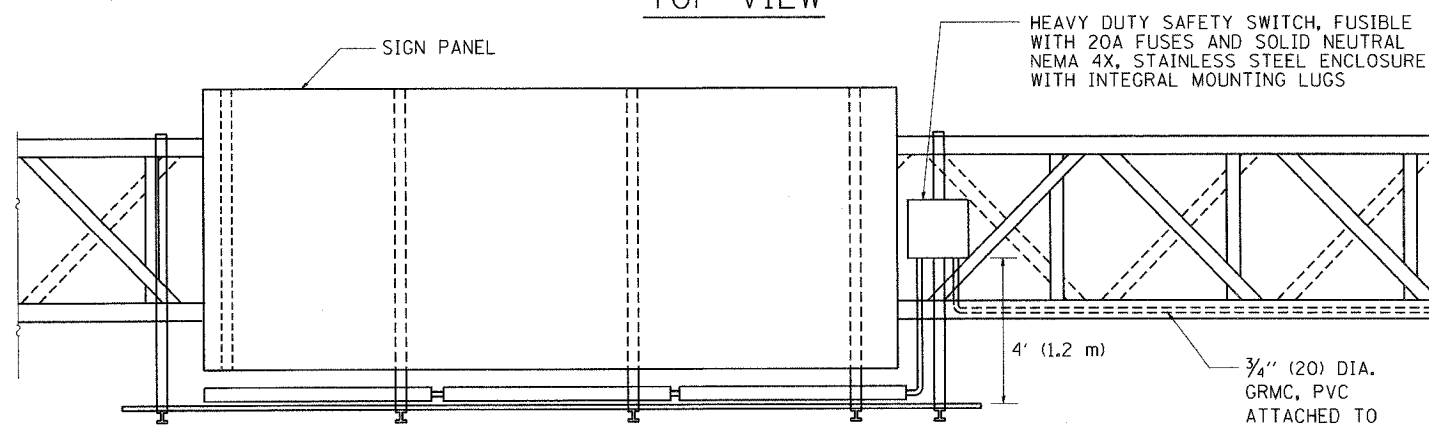
ILLINOIS DEPARTMENT OF TRANSPORTATION
 ELECTRIC CONNECTION
 TO SIGN STRUCTURE
 SPAN TYPE
 1 OF 2
 SCALE: VERT. NONE
 HORIZ.
 DRAWN BY
 CHECKED BY
 BE-600

PLOT DATE = 4/19/2007
 PLOT SCALE = 1/8" = 1'-0"
 USER NAME = bboard1

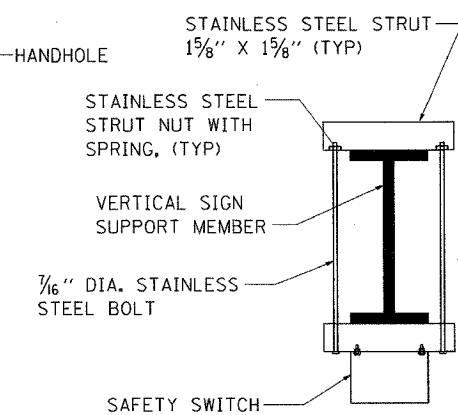
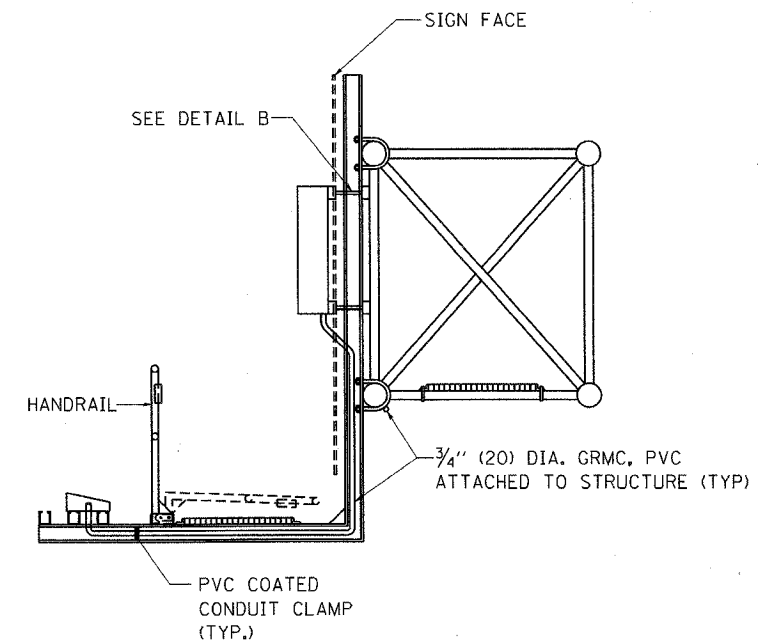
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/99	2007-096 SC	COOK	30	26
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



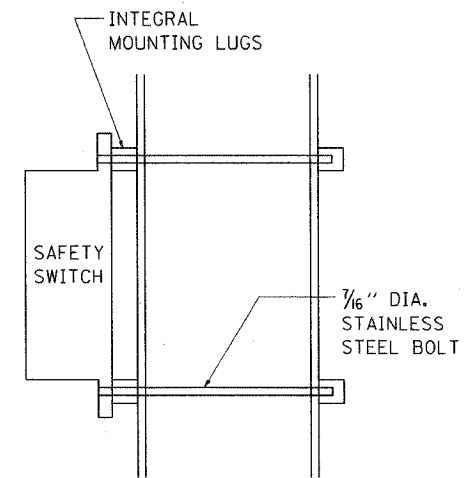
TOP VIEW



ELEVATION VIEW



TOP VIEW



SIDE VIEW

DETAIL B

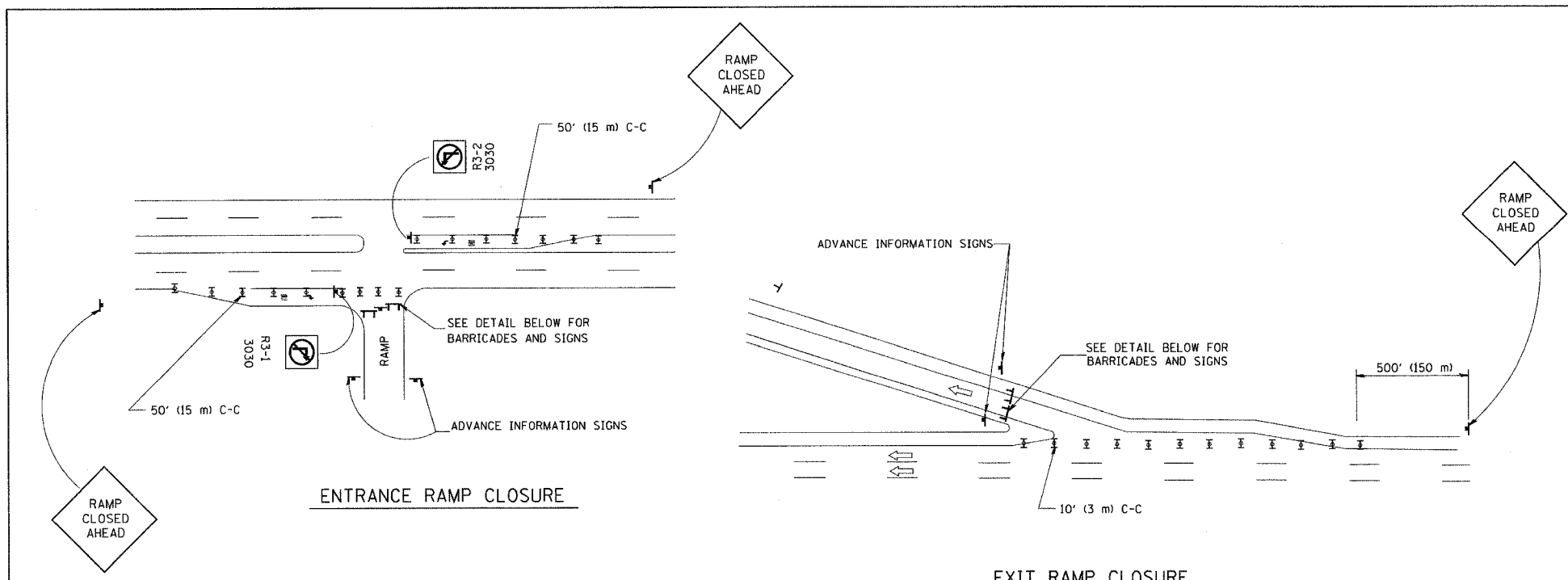
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 USER NAME = bauerd1

REVISIONS	
NAME	DATE
	08/19/04

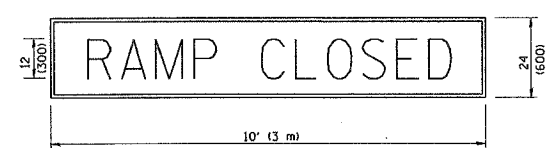
ILLINOIS DEPARTMENT OF TRANSPORTATION
 ELECTRIC CONNECTION
 TO SIGN STRUCTURE
 SPAN TYPE
 2 OF 2
 SCALE: VERT. NONE
 HORIZ. DRAWN BY
 CHECKED BY
 BE-600

CONTRACT NO. 60D49

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
50/94	2007-096 SC	COOK	30	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

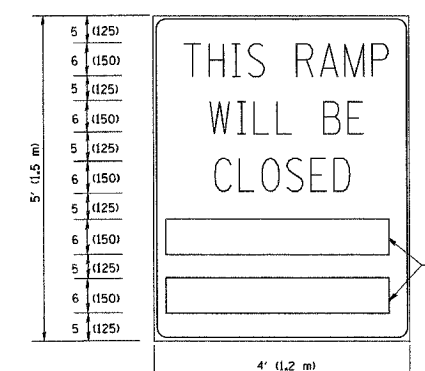


RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMP.

RAMP CLOSURE ADVANCE INFORMATION SIGN

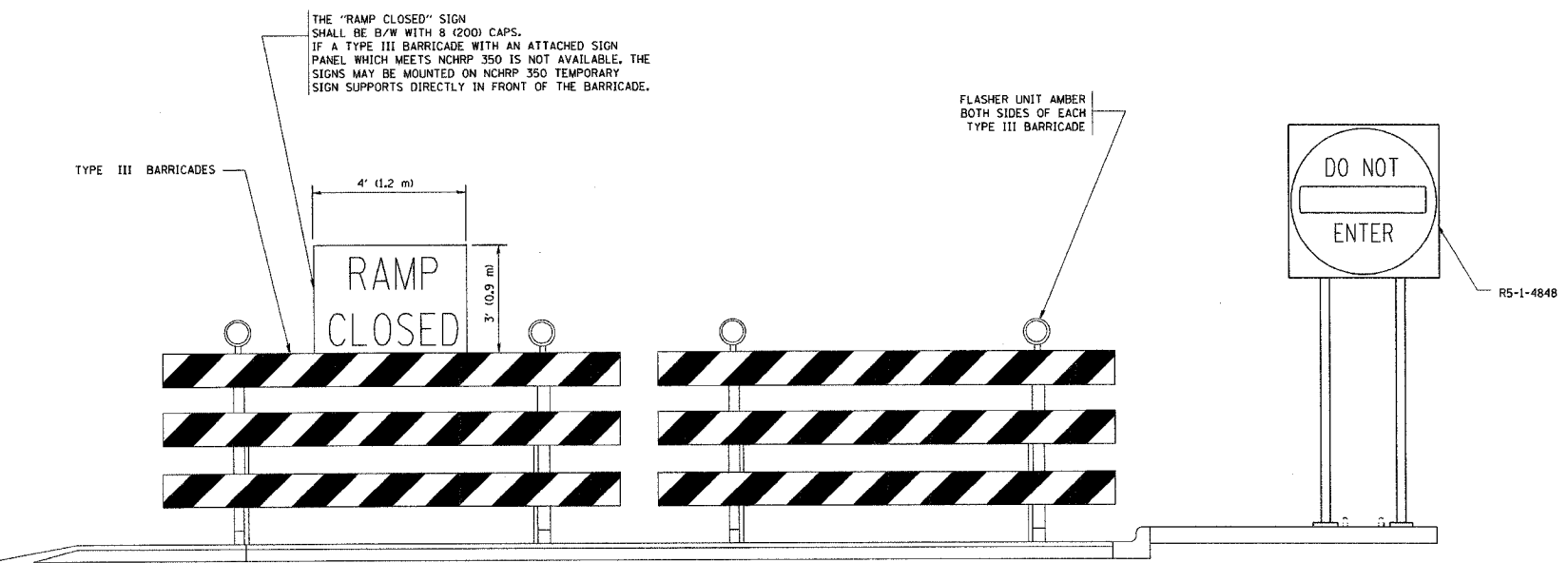


THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.
THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.

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



DETAIL FOR REQUIRED BARRICADES & SIGNS

- SYMBOLS**
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
 - TYPE III BARRICADE WITH FLASHING LIGHT

REVISIONS	
NAME	DATE
DWS	2-83
DWS	1/90
DWS	9/94
DWS	12/94
DWS/JAF	12/02
JAF	2/06
SPB	1/07
Revise devices to meet NCHRP 350	4/03

ILLINOIS DEPARTMENT OF TRANSPORTATION
FREWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS

SCALE: NONE

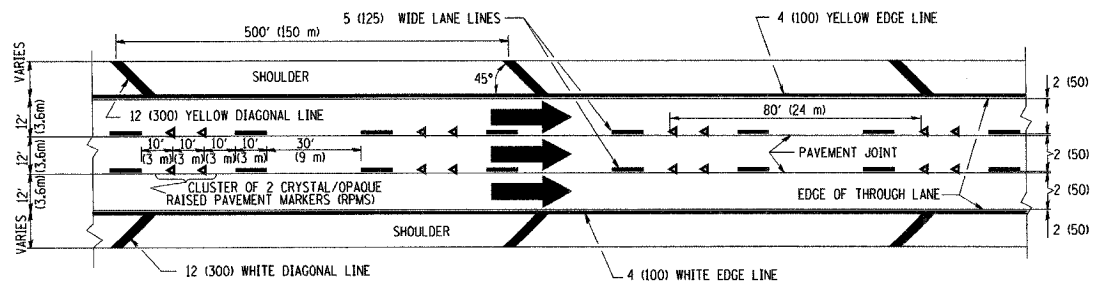
DRAWN BY
CHECKED BY

TC-8

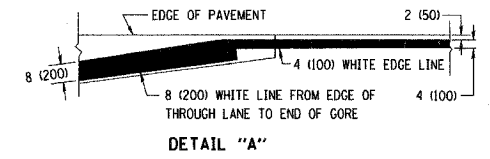
PLOT DATE: 2/16/2007
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PLOT SCALE: 1/8" = 1'-0"
USER NAME: bauerd

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-096 SG	COOK	30	28
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

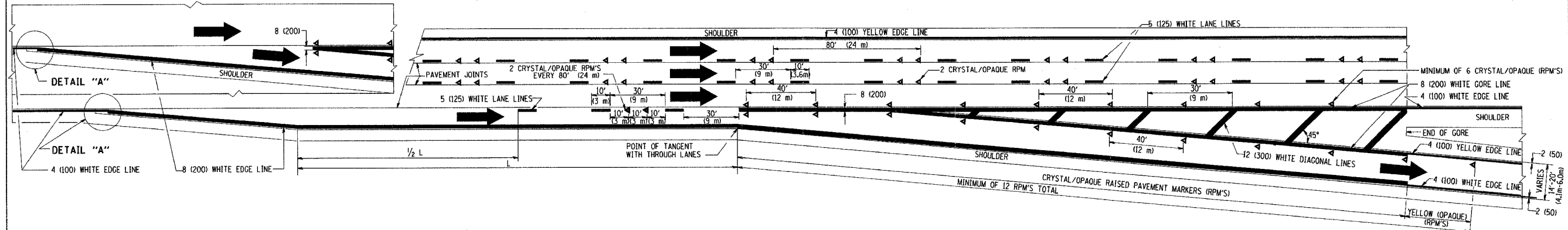
THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS IN LENGTH
 THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS WHICH ARE 6' (1.8 m) OR LESS IN WIDTH



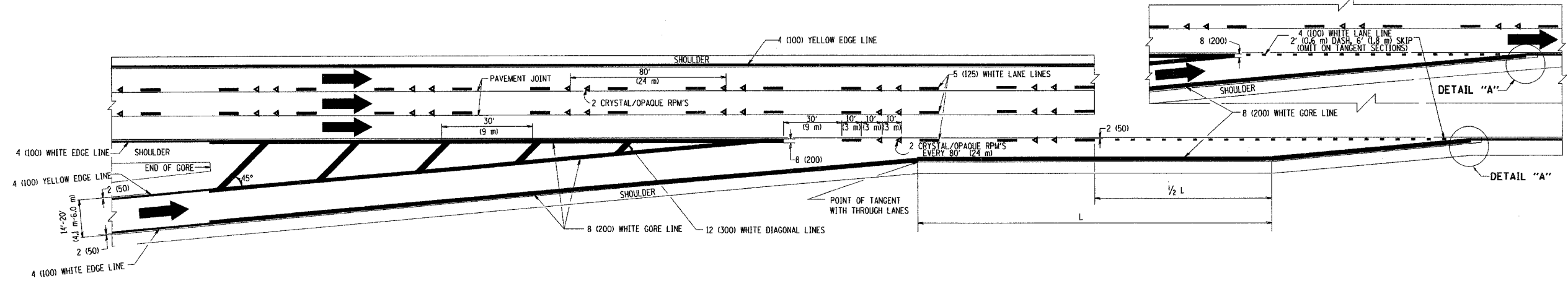
- NOTES:
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
 2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT
 3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL MARKINGS ON PCC



TYPICAL EDGE LINES & LANE LINES



TYPICAL EXIT RAMP PAVEMENT MARKINGS



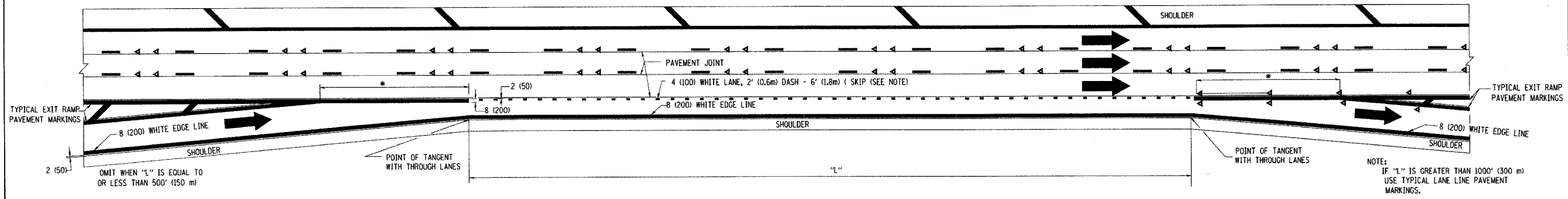
TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91
AH	3/96
DWS	7/96
JAF	2/06
SPB	1/07

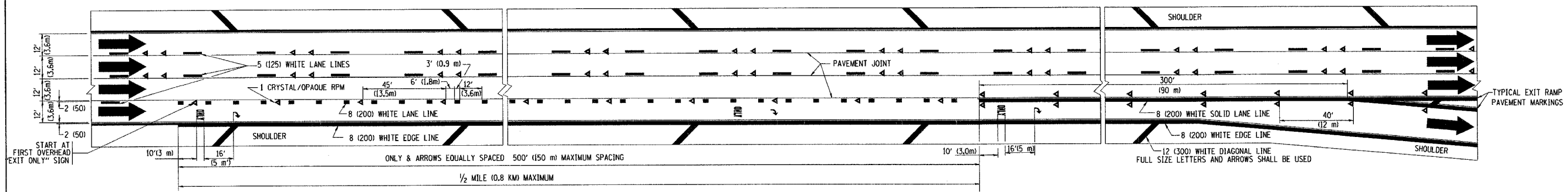
ILLINOIS DEPARTMENT OF TRANSPORTATION
MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS
 SCALE: NONE
 DRAWN BY C.A.D.D.
 CHECKED BY
 TC12 SHEET 1 OF 2

PLOT DATE: 3/6/2007
 FILE NAME: K:\highway\1212.dgn
 PLOT SCALE: 1/8"=1'-0"
 USER NAME: bauerd

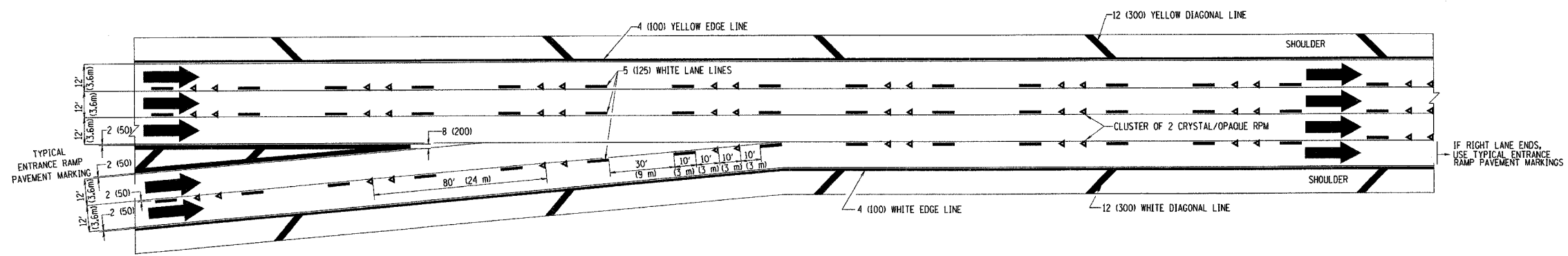
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SC	COOK	30	29
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS



TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

PLOT DATE = 3/6/2007
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 PLOT SCALE = 80.000' / 1" IN.
 USER NAME = bboard1

REVISIONS	
NAME	DATE
DWS	1/90
DWS	5/91
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS

SCALE: NONE

DRAWN BY C.A.D.D.
 CHECKED BY
 TC12 SHEET 2 OF 2

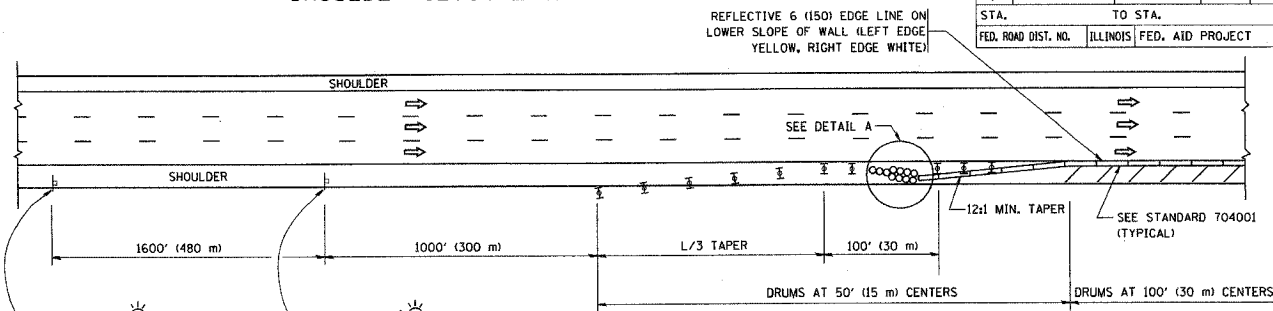
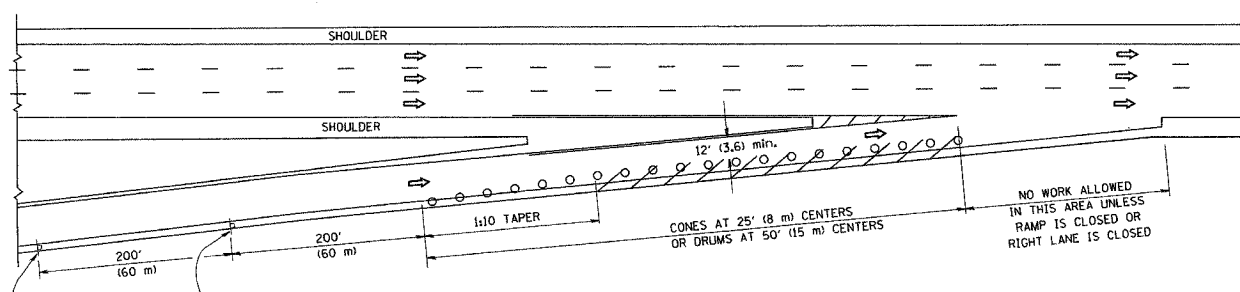
CREATED: 03-23-95

CONTRACT NO. 60D49

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2007-056 SC	COOK	30	30
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

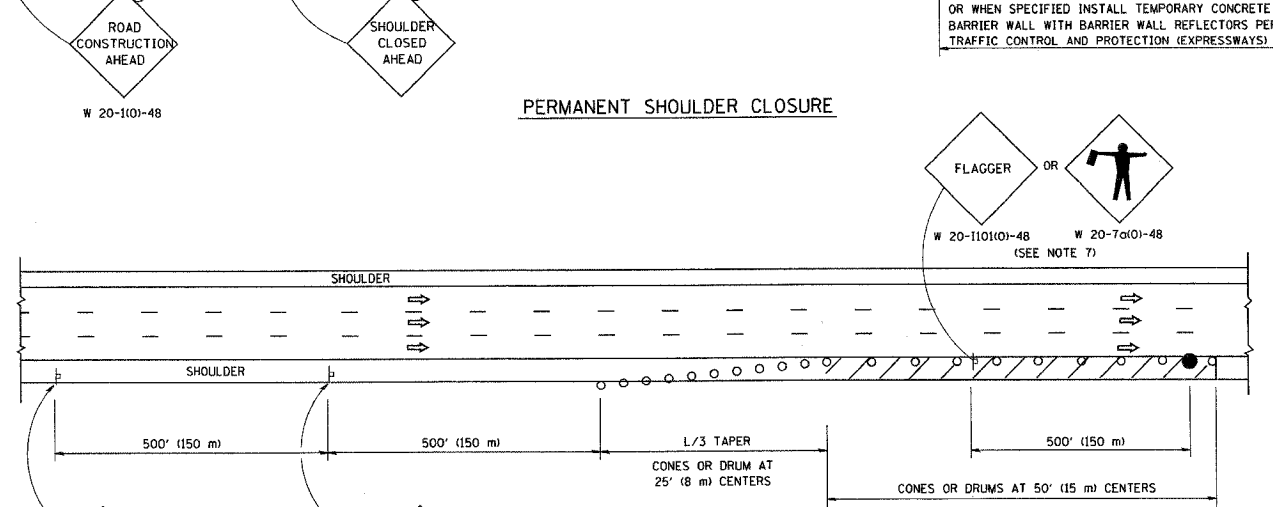
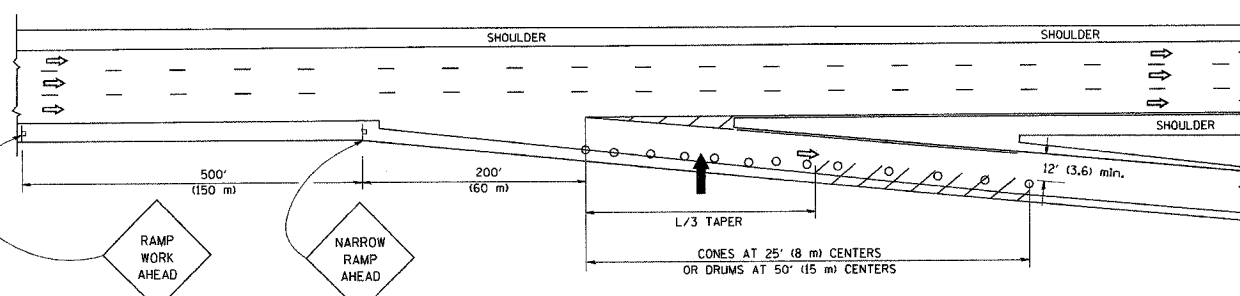
PARTIAL RAMP CLOSURE DETAILS

SHOULDER CLOSURE DETAILS



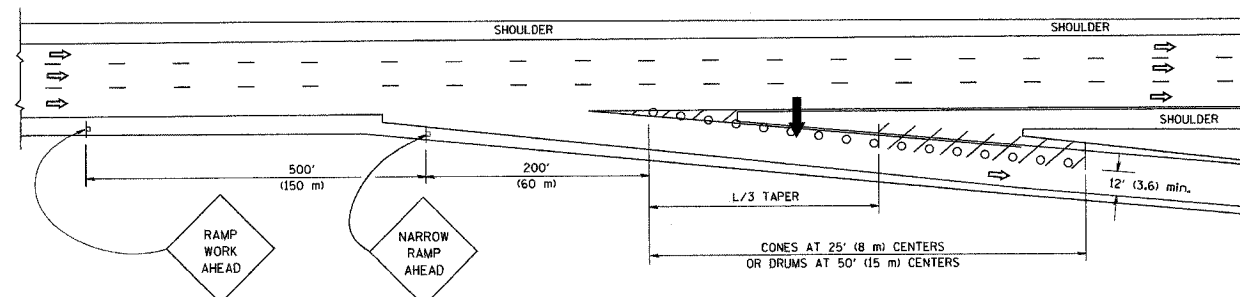
TYPICAL ENTRANCE RAMP

PERMANENT SHOULDER CLOSURE



TYPICAL EXIT RAMP

DAYTIME SHOULDER CLOSURE



TYPICAL EXIT RAMP

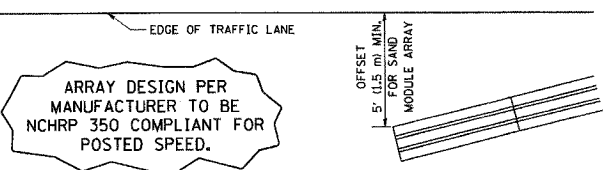
SYMBOLS

- ➔ ARROWBOARD
- ▨ WORK AREA
- ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- ☒ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h) OR GREATER:	METRIC ENGLISH
	$L=0.65(WNS)$ $L=(WNS)$
	W = WIDTH OF OFFSET IN FEET (METERS)
	S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP 350 FOR POSTED SPEED.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.



DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

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

REVISIONS	
NAME	DATE
DWS	11/96
JAF	12/02
NCHRP 350	04/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES PARTIAL RAMP CLOSURES
 DESIGNED BY: DWS
 DRAWN BY:
 CHECKED BY:
 SCALE: NONE

DATE: 3/7/2007
 PLOT SCALE: 1/8"=1'-0"
 USER: bward