

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

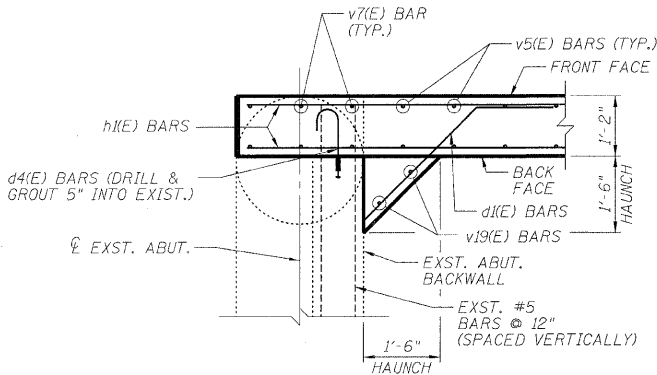
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	201
SHEET NO. 03				
07 SHEETS				

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408

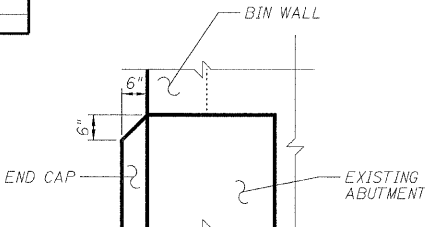
② 3-#5 v9(E) THRU v18(E) BARS @ EQ. SPA. (E.F.)
SEE TABLE FOR LOCATION OF EACH BAR MARK

TIE WALL INTERFACE BARS

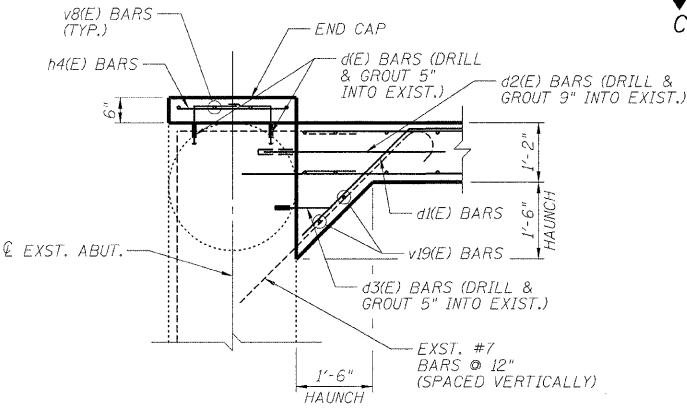
TIE WALL	d5(E) BARS (E.F.)	d6(E) BARS	VERT. BARS
1	13	13	v9(E)
2	13	13	v10(E)
3	0	13	v11(E)
4	12	13	v12(E)
5	12	13	v13(E)
6	11	13	v14(E)
7	11	13	v15(E)
8	10	13	v16(E)
9	10	13	v17(E)
10	9	13	v18(E)



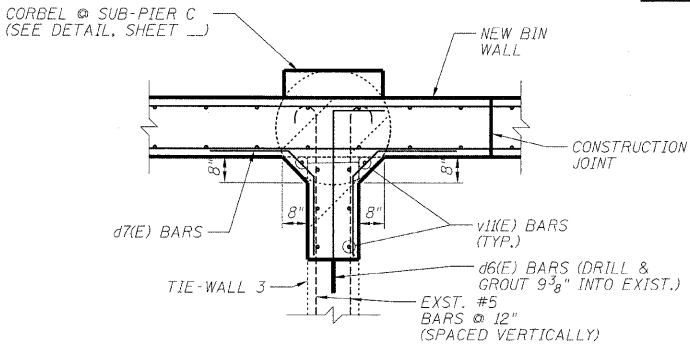
SECTION B-B



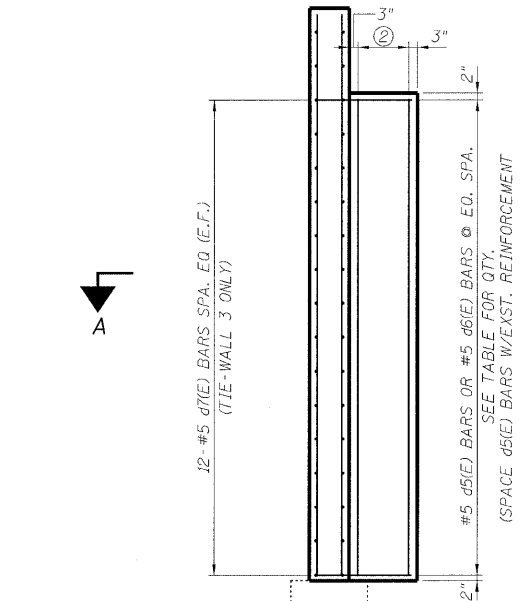
TOP OF END CAP
DETAIL



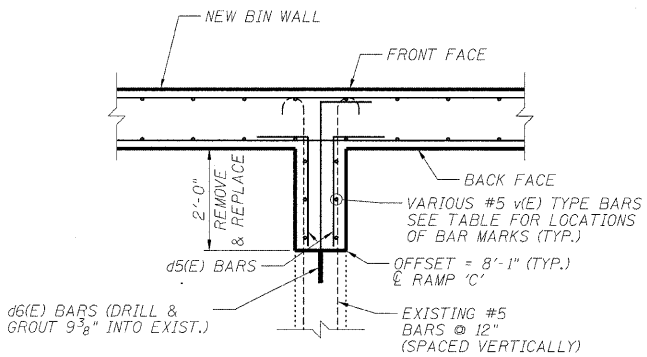
SECTION C-C



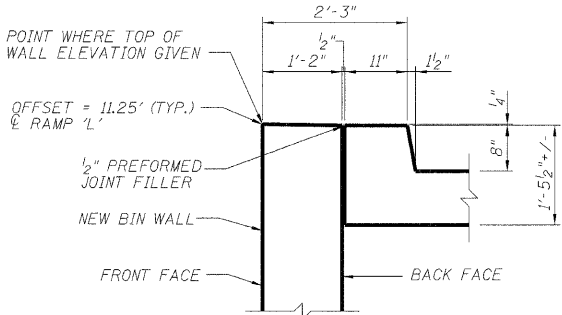
TIE-WALL 3 DETAIL



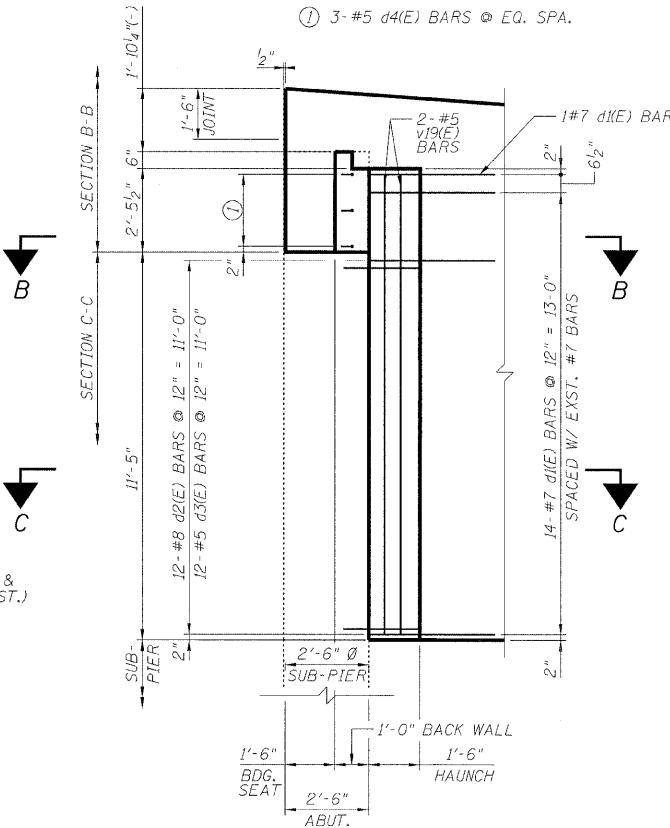
TYPICAL TIE-WALL
INTERFACE ELEVATION



SECTION A-A



TOP OF WALL DETAIL



ABUTMENT INTERFACE ELEVATION
(LOOKING @ BACK FACE OF NEW BIN WALL)

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEW
CHECKED	ASP

NOTE:
BARS d(E), d2(E) - d4(E) & d6(E) SHALL BE
EMBEDDED AND GROUTED INTO EXISTING
CONCRETE USING HIGH STRENGTH EPOXY GROUT.

RAMPS 'L' & 'M' DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W987

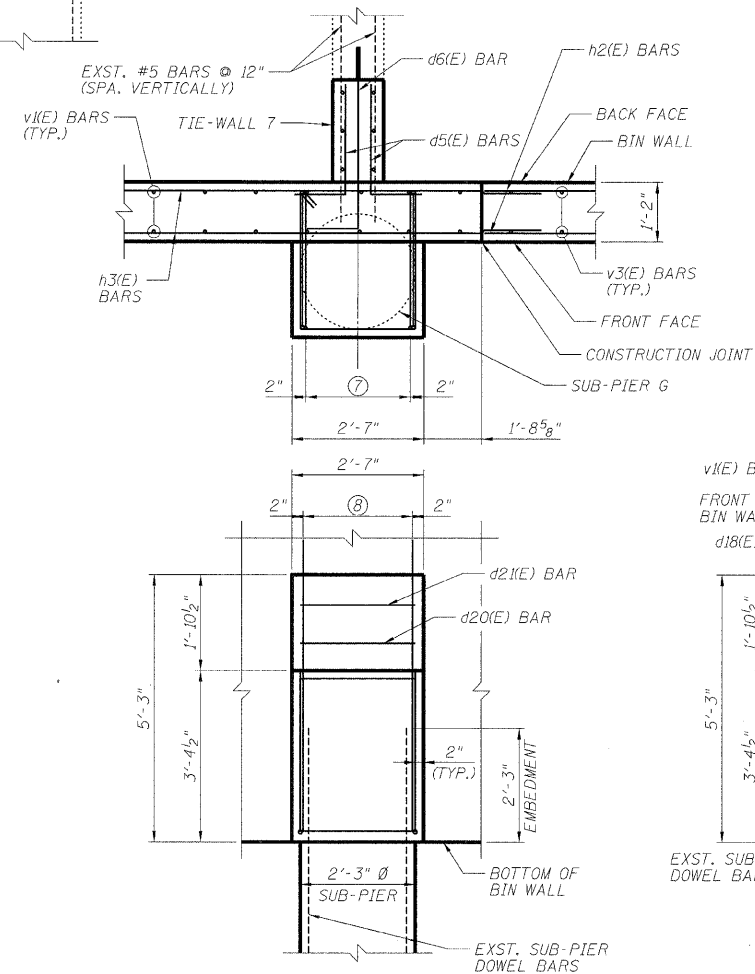
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	202
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 04

07 SHEETS

Diagram showing the elevation view of a pier. Key dimensions and labels include:

- Top width: $1'-10\frac{1}{2}"$
- Top right corner: $8"$ CHAMFER
- Top left corner: $8\frac{1}{2}"$ and $1'-2"$
- Left side height: $3'-3"$ and $2'-6\frac{1}{2}"$
- Right side height: $9"$ and $2'$
- Internal width: $2" \text{ CLR. (TYP.)}$
- Reinforcement labels:
 - $v5(E)$ BARS
 - FRONT FACE BIN WALL
 - $1-\#5 \text{ d}(1E)$ BAR
 - $h(1E)$ BARS
 - BACK FACE BIN WALL
 - $d9(E)$ BAR
 - $d8(E)$ BAR
- Bottom left label: EXST. SUB-PIER DOWEL BARS



EXST. #5 BARS @ 12" (SPA. VERTICALLY)

d6(E) BAR

TIE-WALL 5

BACK FACE

BIN WALL

1'-3"

FRONT FACE

SUB-PIER E

2"

4

2"

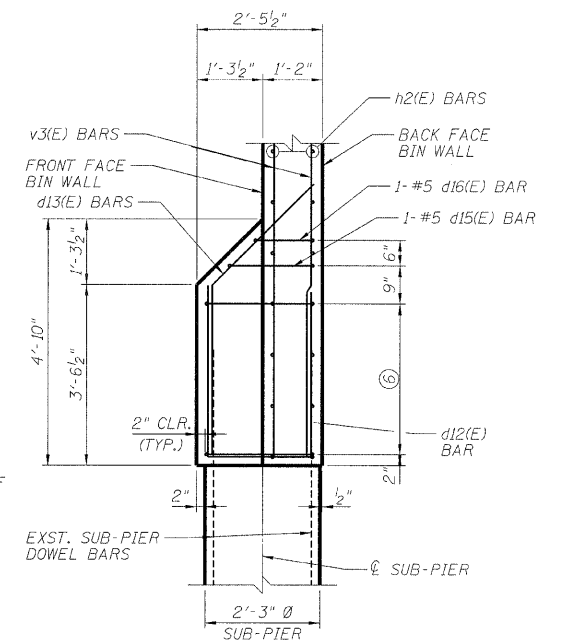
2'-7"

v3(E) BARS (TYP.)

h2(E) BARS

d5(E) BARS

Technical drawing of a bin wall cross-section showing reinforcement details. The drawing includes dimensions for the bin wall (4'-10" high, 2'-7" wide), reinforcement bars (d16(E) BAR, d15(E) BAR), and the sub-pier (2'-3" Ø, 2'-3" high). The sub-pier is shown below the bin wall, with a 2" gap between them. The drawing is labeled "BIN WALL" and "SUB-PIER".



 **DLZ** 85 W. Algonquin Rd. Ste. 220
DLZ Illinois, Inc. Arlington Heights IL 60005

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	203
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT -	

SHEET NO. 05
07 SHEETS

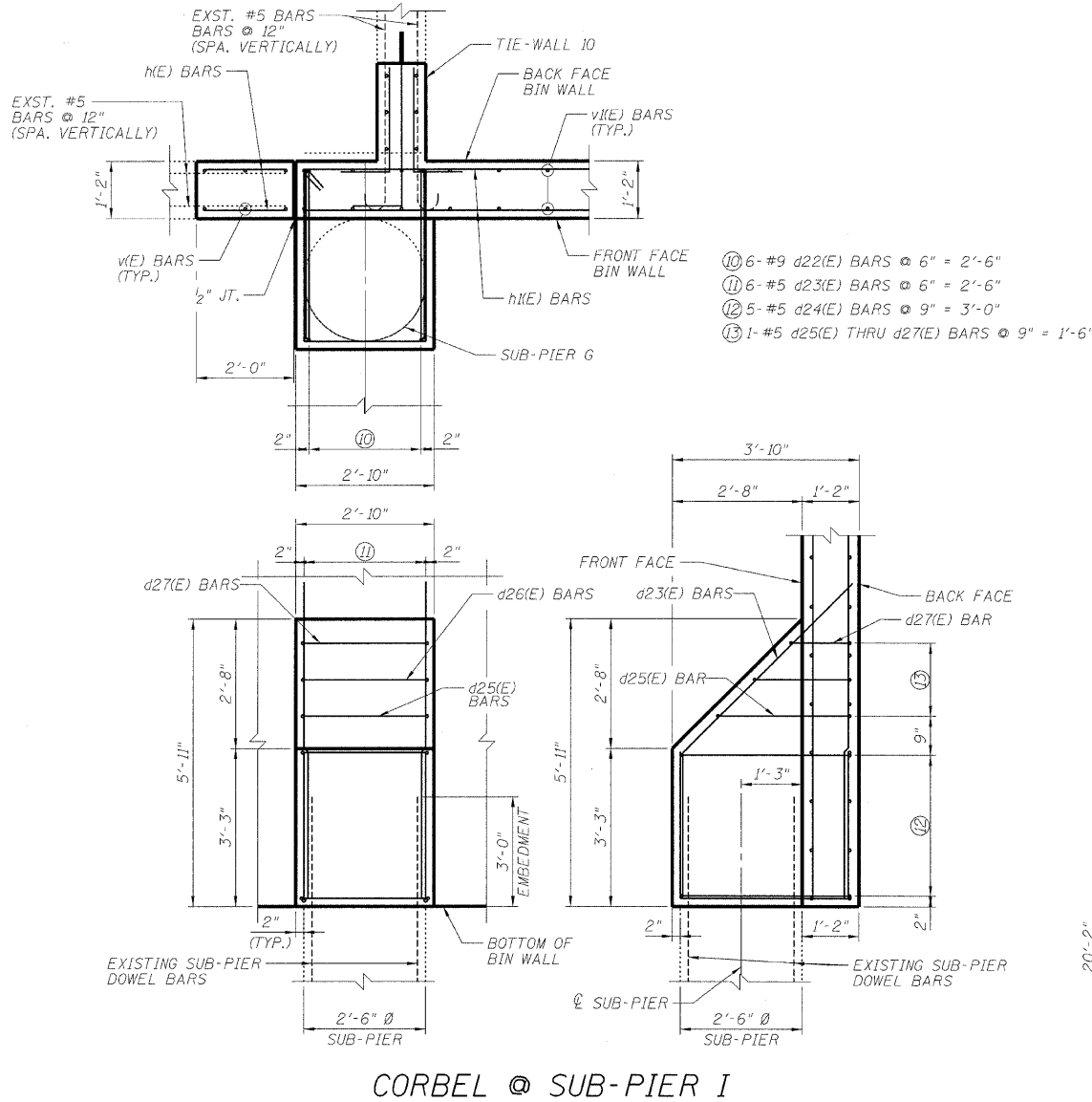
*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1(E)	24	5	1'-7"	
d1(E)	15	7	4'-4"	
d2(E)	12	8	3'-2"	
d3(E)	12	5	1'-8"	
d4(E)	3	5	1'-11"	
d5(E)	202	5	3'-0"	
d6(E)	130	5	4'-9"	
d7(E)	24	5	3'-10"	
d8(E)	5	5	6'-0"	
d9(E)	5	5	4'-2"	
d10(E)	4	5	8'-7"	
d11(E)	1	5	7'-2"	
d12(E)	5	8	8'-9"	
d13(E)	5	5	6'-1"	
d14(E)	5	5	9'-9"	
d15(E)	1	5	8'-10"	
d16(E)	1	5	7'-10"	
d17(E)	5	9	8'-11"	
d18(E)	5	5	6'-9"	
d19(E)	5	5	10'-11"	
d20(E)	1	5	9'-8"	
d21(E)	1	5	8'-2"	
d22(E)	6	9	9'-5"	
d23(E)	6	5	7'-10"	
d24(E)	5	5	13'-0"	
d25(E)	1	5	11'-8"	
d26(E)	1	5	10'-2"	
d27(E)	1	5	8'-8"	
h(E)	22	6	1'-8"	
h1(E)	38	6	32'-1"	
h2(E)	30	6	27'-9"	
h3(E)	24	6	29'-7"	
h4(E)	12	5	2'-2"	
v(E)	3	5	20'-2"	
v1(E)	29	5	22'-2"	
v2(E)	2	5	10'-2"	
v3(E)	28	5	25'-8"	
v4(E)	2	5	11'-11"	
v5(E)	26	5	29'-6"	
v6(E)	2	5	13'-9"	
v7(E)	6	5	4'-3"	
v8(E)	4	5	10'-7"	
v9(E)	6	5	12'-6"	
v10(E)	6	5	11'-11"	
v11(E)	6	5	11'-5"	
v12(E)	6	5	10'-11"	
v13(E)	6	5	10'-3"	
v14(E)	6	5	9'-10"	
v15(E)	6	5	9'-4"	
v16(E)	6	5	8'-10"	
v17(E)	6	5	8'-3"	
v18(E)	6	5	7'-10"	
v19(E)	2	5	13'-6"	
CONCRETE STRUCTURES			CU. YD.	61.1
REINFORCEMENT BARS, EPOXY COATED			POUND	9,910

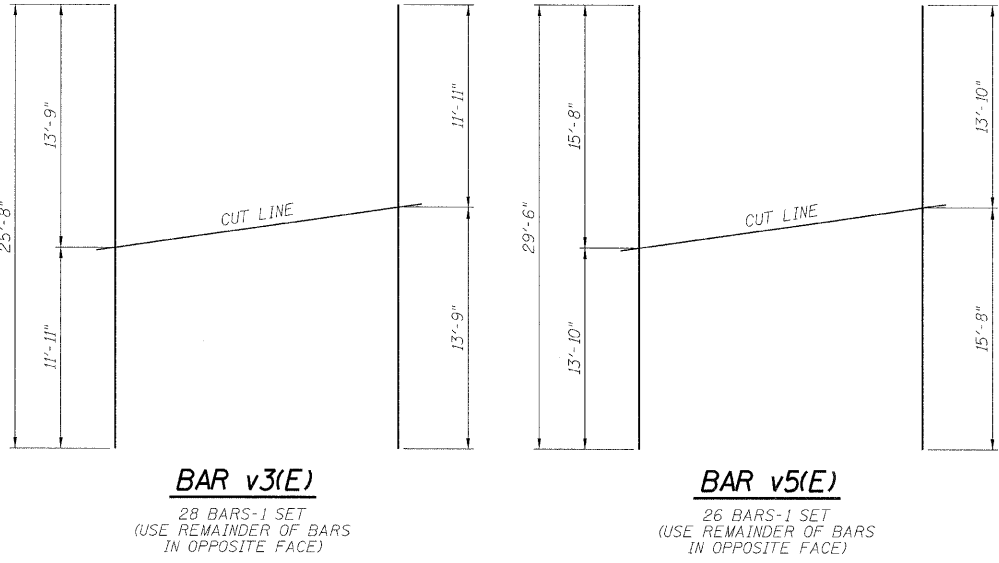
RAMPS 'L' & 'M' BARBILL & DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W987

DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
DLZ Illinois, Inc.



CORBEL @ SUB-PIER I

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP



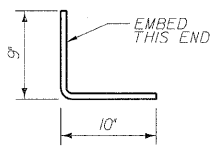
BAR v3(E)

28 BARS-1 SET
(USE REMAINDER OF BARS
IN OPPOSITE FACE)

BAR v5(E)

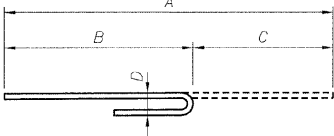
26 BARS-1 SET
(USE REMAINDER OF BARS
IN OPPOSITE FACE)

BAR CUTTING DIAGRAMS

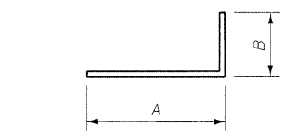


BAR d1(E)

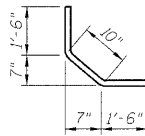
BARS d1(E), d9(E), d13(E), d18 OR d23(E)



BARS d2(E) THRU d4(E)

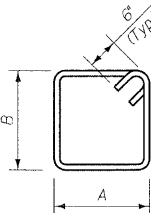


BARS d5(E) OR d6(E)



BAR d7(E)

BARS d8(E), d12(E), d17(E) OR d22(E)



**BARS d10(E), d11(E), d14(E) THRU d16(E),
d19(E) THRU d21(E), OR d24(E) THRU d27(E)**

BAR BENDING DIAGRAMS

Bar	A		B		C		D	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
d1(E)	2	10	1	6	1	0 3/4	1	0 3/4
d2(E)	3	2	2	3	0	11	0	8
d3(E)	1	8	1	1	0	7	0	5
d4(E)	1	11	1	4	0	7	0	5
d5(E)	2	0	1	0				
d6(E)	3	9	1	0				
d8(E)	1	6	2	3				
d9(E)	2	3	1	11	1	4	1	4
d10(E)	2	3	1	6 1/2				
d11(E)	2	3	0	10				
d12(E)	2	1	3	4				
d13(E)	3	4	2	9	2	0	2	0
d14(E)	2	3	2	1 1/2				
d15(E)	2	3	1	8				
d16(E)	2	3	1	2				
d17(E)	2	7	3	2				
d18(E)	3	7	3	2	2	2	2	2
d19(E)	2	3	2	8 1/2				
d20(E)	2	3	2	1				
d21(E)	2	3	1	4				
d22(E)	3	5	3	0				
d23(E)	4	10	3	0	2	1 1/2	2	1 1/2
d24(E)	2	6	3	6				
d25(E)	2	6	2	10				
d26(E)	2	6	2	1				
d27(E)	2	6	1	4				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 06 07 SHEETS
F.A.P. 90/94	*	COOK	246	204	
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-		

Diagram illustrating the sleeve repair process. The sleeve is shown with a 12" length. The sleeve is to be fixed by welding both sides. The sleeve is to be eased to sharp corners (typical).

FED. ROAD DIST. NO. 1 S.L. NO. 15 FED. AID PROJ. SECT. 7

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408

Technical drawing of a concrete wall cross-section, showing reinforcement details and dimensions. The drawing includes a central vertical line labeled "LINE OF EXPANSION JOINT".

Dimensions (Horizontal):

- Overall width: 1'-4"
- Left side segments: 1" (outer), 5" (inner), 5" (inner), 5" (inner), 5" (inner), 5" (inner), 1" (outer).
- Right side segments: 1" (outer), 5" (inner), 5" (inner), 5" (inner), 5" (inner), 5" (inner), 1" (outer).

Dimensions (Vertical):

- Overall height: 1'-2"
- Left side segments: 1" (top), 2" (top), 4" (middle), 4" (middle), 3" (bottom), 9 1/8" (bottom).
- Right side segments: 1" (top), 2" (top), 4" (middle), 4" (middle), 3" (bottom), 9 1/8" (bottom).

Reinforcement Details:

- EMBEDDED PLATE: 3/8" X 1'-0" X 1'-4" (TYP.)
- 3/4" X 5" STEEL STUD (TYP.)
- BASE PLATE: 1" X 6 3/4" X 9/8" (TYP.)
- 1/8" UPRIGHT (TYP.)
- CAULK ALL CONCRETE JOINTS (TYP.) CAULK COLOR TO MATCH ENGINEERS SAMPLE

Other Notes:

- LINE OF EPOXY FILL AROUND GUARDRAIL UPRIGHT (TYP.) EPOXY COLOR TO MATCH ENGINEERS SAMPLE
- 1/2" (TYP. 3 SIDES BOTH PLATES)
- 1/4" (TYP. BOTH UPRIGHTS)

SEE EXPANSION
 JOINT PIPE RAILING
 DETAIL, THIS SHEET

BEND AT END
 CONDITION

C OF PIPE

5" NOM. DIA.
 (5.563" ACTUAL)
 STEEL PIPE

15°

5°

1'-2"

1'-7 1/8"

C OF PIPE

1/8" THICK STEEL
 UPRIGHT (TYP.)

4 1/4"

EPOXY FILL AT
 BASE PLATE

1'-4 1/8"

ALL GUARDRAIL AND FASCIA
 ELEMENTS SANDBLASTED,
 PRIMED AND PAINTED STEEL,
 FINISH COLOR TO MATCH
 ENGINEERS SAMPLE

4" NOM.
 EXT.

R 7"

1'-2"

3 3/8"

3"

FRONT FACE
 OF WALL

10"

3/16" PLATE
 (TYP.)

1'-2"

3/4" DIA. STUD

BASE PLATE

EMBEDDED PLATE

BACK FACE
 OF WALL

4"

3/4" NUT
 AND WASHER

10"

1'-2"

5" NOM. DIA. (5.563" ACTUAL)
 EXTRA STRONG PIPE

3/4" X 4" STAINLESS STEEL
 BOLT TWO ANCHORS PER
 PANEL (TYP.)

LIMITS OF DECORATIVE
 STEEL FASCIA

4" NOM. DIA. (4.500" ACTUAL)
EXTRA STRONG PIPE

1/2" Ø
68°

5" NOM. DIA. (5.563" ACTUAL)
EXTRA STRONG PIPE

4"

4"

5" NOM. DIA. (5.563" ACTUAL)
EXTRA STRONG PIPE

3/16"

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 07
F.A.P. 90/94	#	COOK	246	205	07 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-			

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

INSTALLATION NOTES

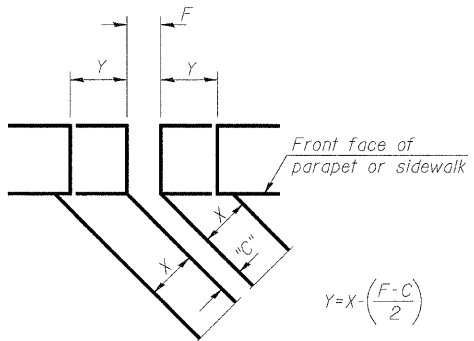
- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

Note A:
Maximum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

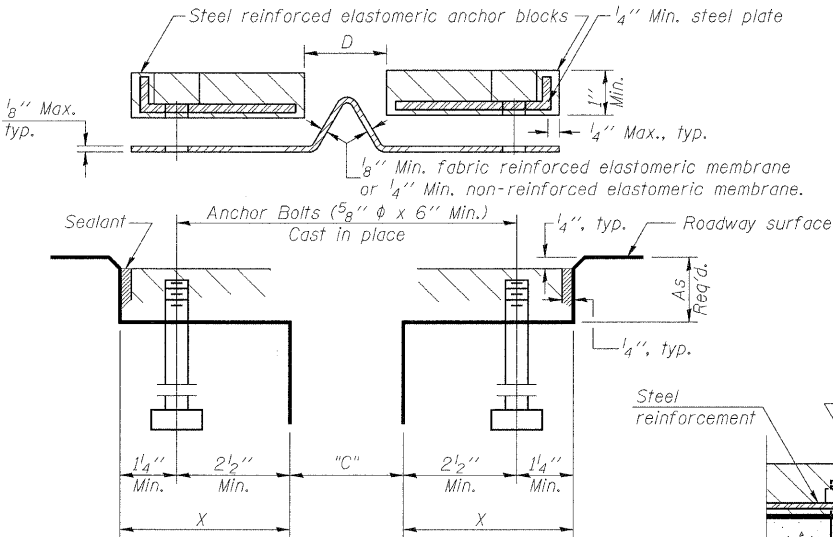
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



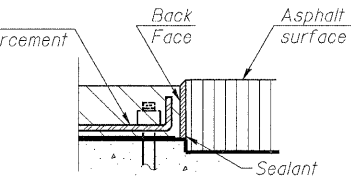
$$Y = X \left(\frac{F - C}{2} \right)$$

For dimension "F" see sheet #

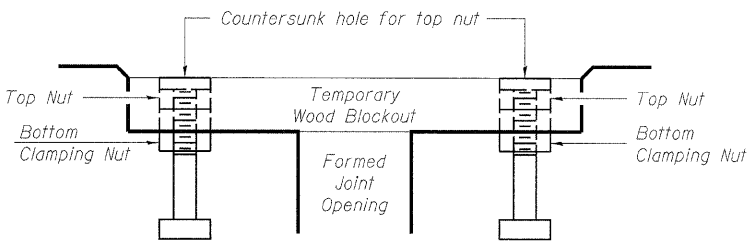
FORMING BLOCKOUT SKETCH



CROSS SECTION

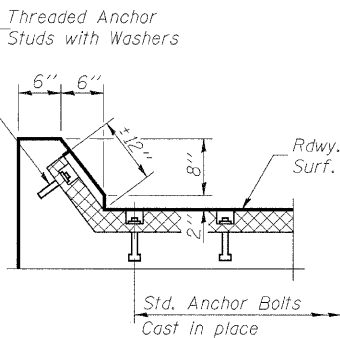


ANCHOR BLOCK WITH ASPHALT SURFACE

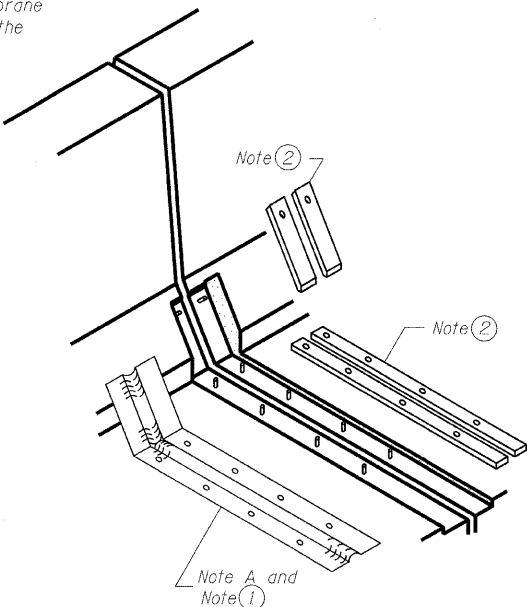


Note:
Stud needs to be threaded lower to allow for use of clamping nut.

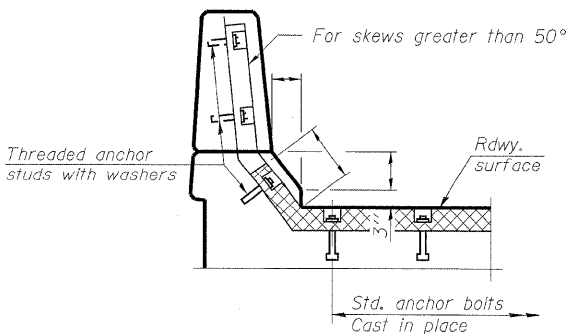
RECOMMENDED BLOCKOUT DETAIL



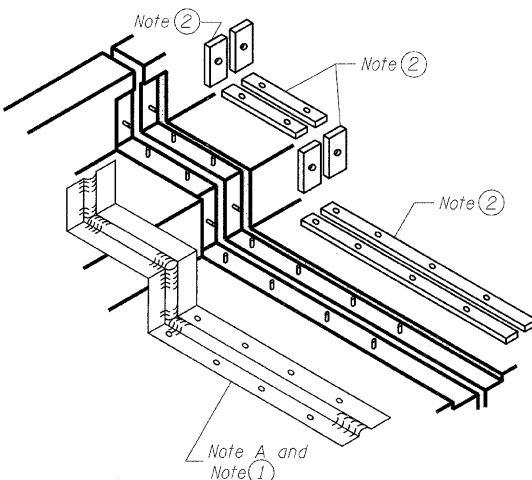
AT CURB



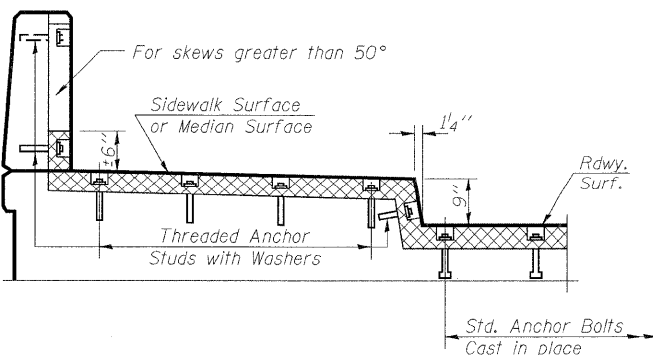
AT PARAPET



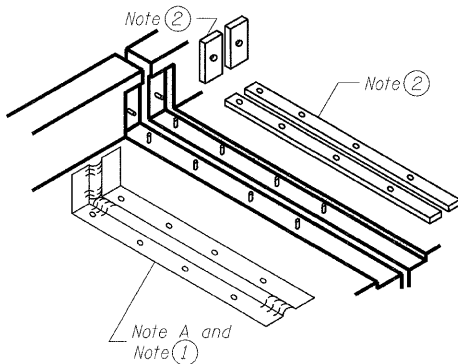
AT PARAPET



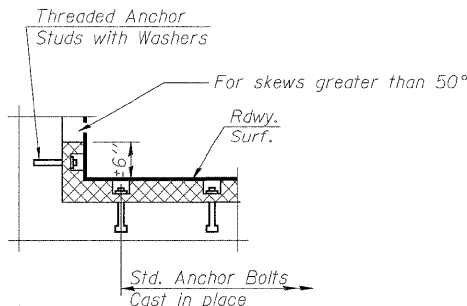
AT SIDEWALK OR MEDIAN



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL



AT WALL

DESIGNED	ASP
CHECKED	ASP
DRAWN	BEM
CHECKED	ASP

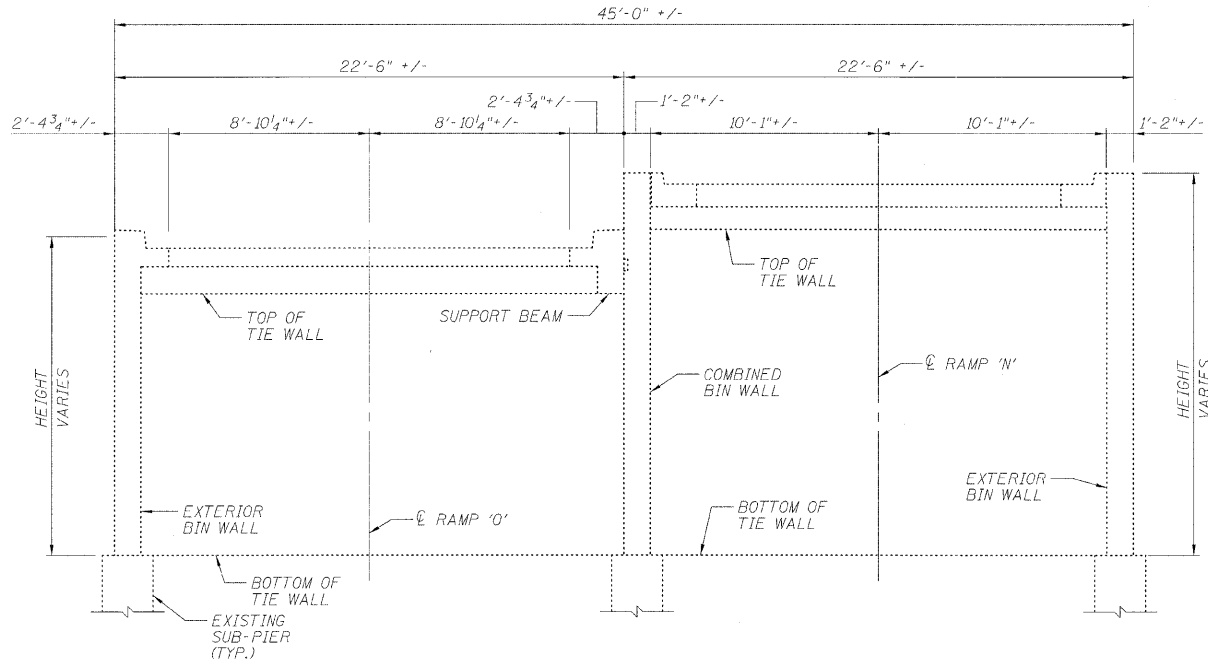
**CONTINUOUS SEAL TYPE
NEOPRENE EXPANSION JOINTS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)**

**SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W987**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

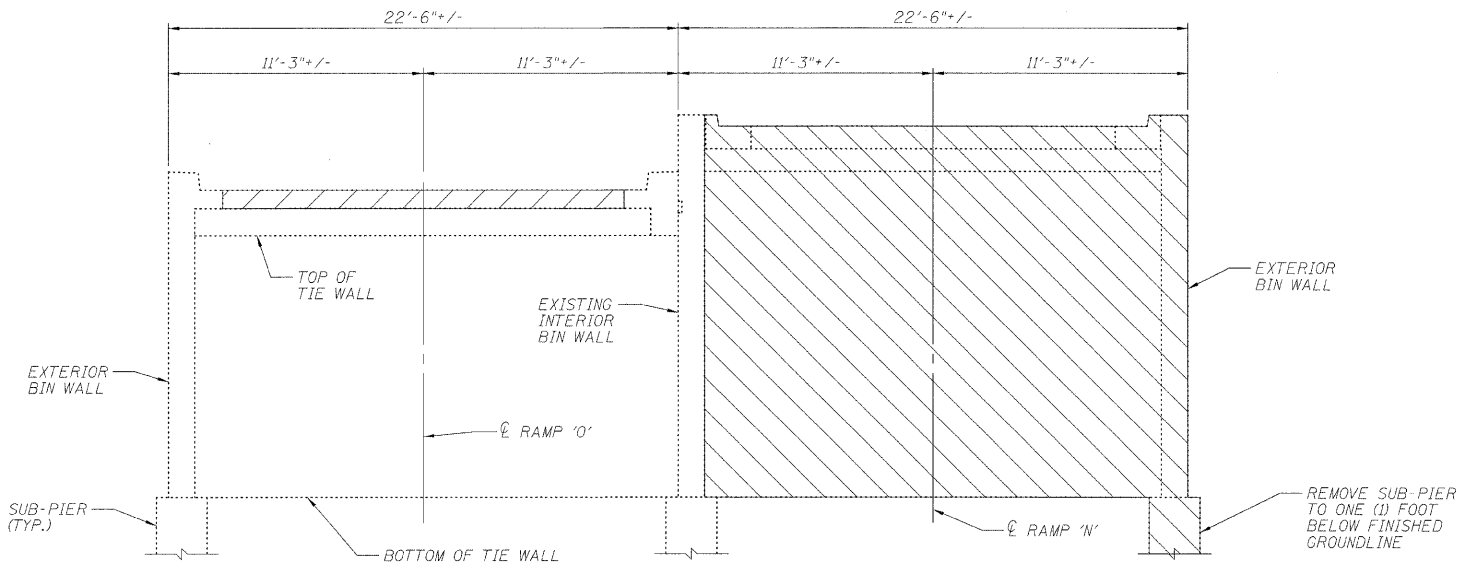
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 02
F.A.P. 90/94	*	COOK	246	207	08 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408



EXISTING TYPICAL SECTION
(LOOKING NORTH)

INDICATES AREA OF REMOVAL



STAGE 1
(LOOKING NORTH)

PROPOSED STAGE PLANNING

STAGE 1

1. CLOSE RAMP 'O' TO TRAFFIC.
2. REMOVE, SALVAGE AND STORE RAILING FROM RAMP 'O' CENTER WALL.
3. REMOVE RAMP 'O' PAVEMENT.
4. REMOVE RAMP 'N' IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. NO WORK SHALL BE PERFORMED FROM ON TOP OF RAMP 'O' UPON COMMENCEMENT OF RAMP 'N' REMOVAL FOR THE DURATION OF CENTER WALL REPLACEMENT.

STAGE 2

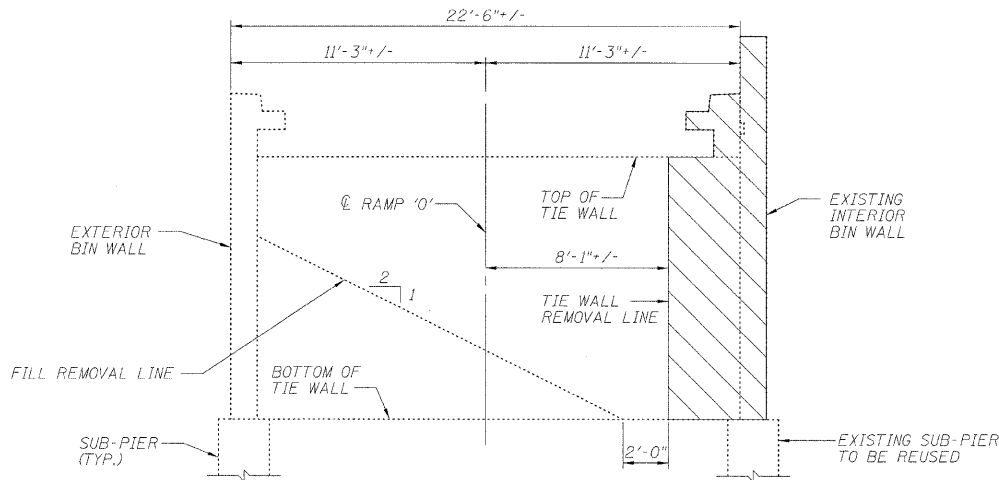
5. REMOVE INTERIOR BIN WALL, FILL MATERIAL, AND RAMP 'O' TIE WALLS. TIE WALLS TO BE REMOVED FROM EXST. INTERIOR BIN WALL TO AN OFFSET OF 8'-1" RIGHT OF RAMP 'O' CENTERLINE.

FINAL

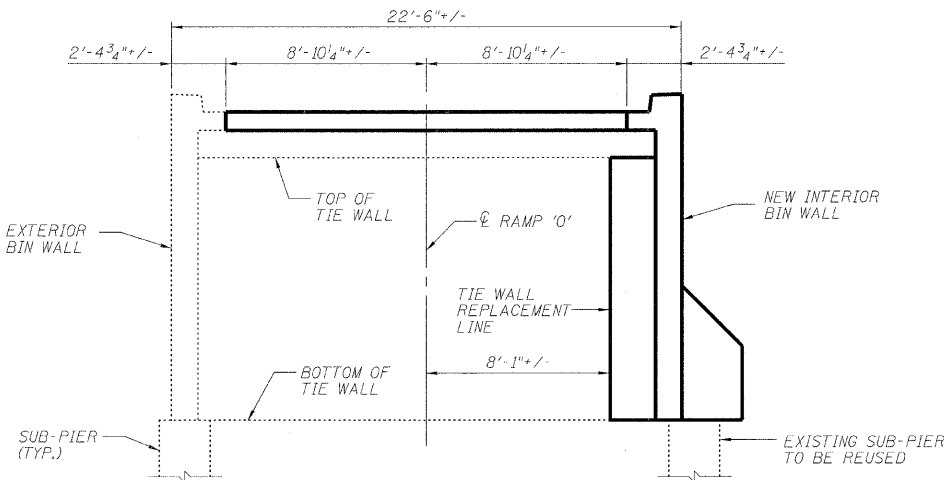
6. CONSTRUCT PROPOSED CENTER WALL, CORBELS AND TIE WALL PORTIONS AS SPECIFIED IN THE PLANS AND SPECIFICATIONS. INTERIOR BIN WALL TO BE CONSTRUCTED UP TO MANDATORY CONSTRUCTION JOINT PRIOR TO BACKFILLING OPERATIONS.
7. FILL BIN WITH POROUS GRANULAR EMBANKMENT IN ACCORDANCE WITH SECTION 207.00 OF THE STANDARD SPECIFICATIONS.
8. UPON COMPLETION OF BACKFILLING OPERATIONS, CONSTRUCT CURB PORTION OF INTERIOR BIN WALL THEN CONSTRUCT ROADWAY PAVEMENT.
9. REPLACE GUARDRAIL ON NEWLY CONSTRUCTED WALL.
10. RE-OPEN RAMP 'O' TO TRAFFIC.

RAMPS 'N' & 'O' PROPOSED STAGE PLANNING

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W988



STAGE 2
(LOOKING NORTH)



FINAL
(LOOKING NORTH)

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

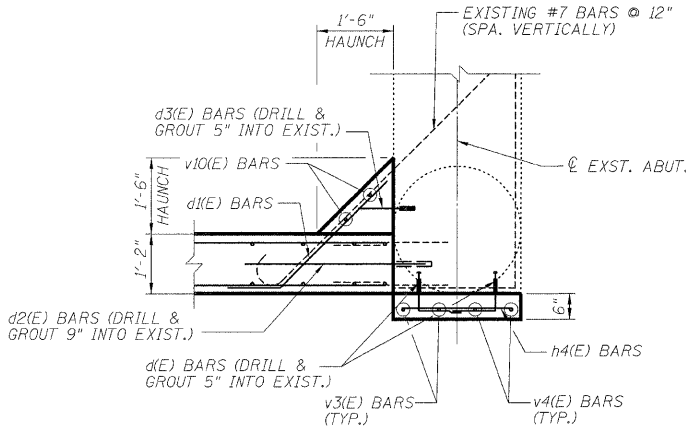
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 90/94	*	COOK	246	208	08 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408

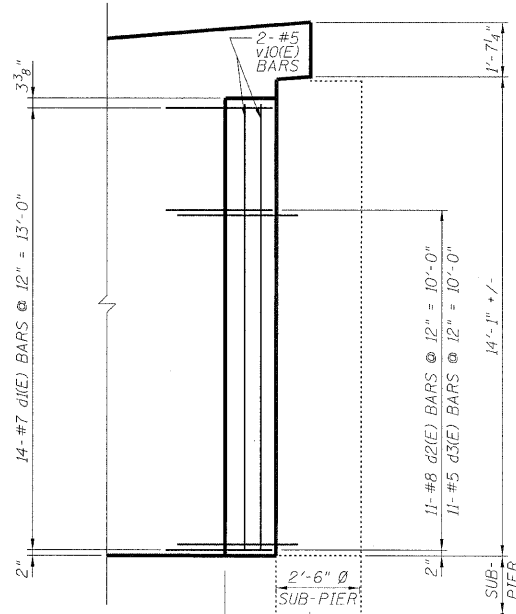
② 3-#5 v5(E) THRU v9(E) BARS @ EQ. SPA. (E.F.)
SEE TABLE FOR LOCATION OF EACH BAR MARK

TIE WALL INTERFACE BARS

TIE WALL	d5(E) BARS (E.F.)	d6(E) BARS VERT. BARS	
1	11	11	v5(E)
2	11	11	v6(E)
3	12	12	v7(E)
4	13	13	v8(E)
5	13	13	v9(E)

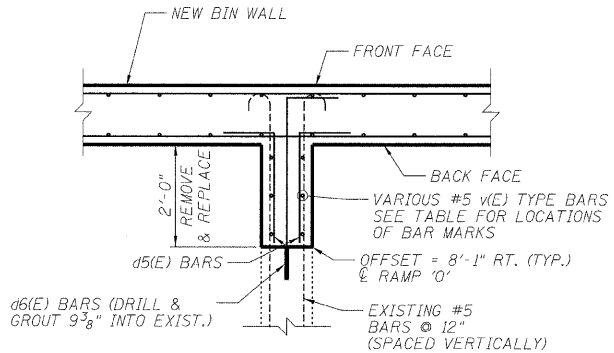


SECTION B-B

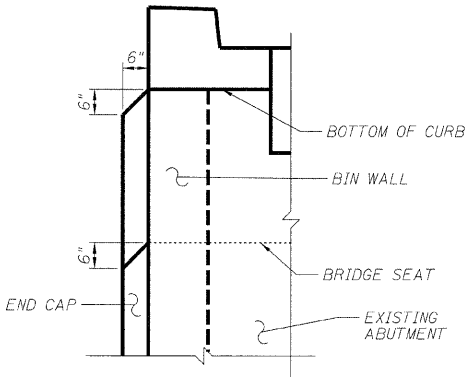


ABUTMENT INTERFACE
ELEVATION
(LOOKING @ BACKFACE)

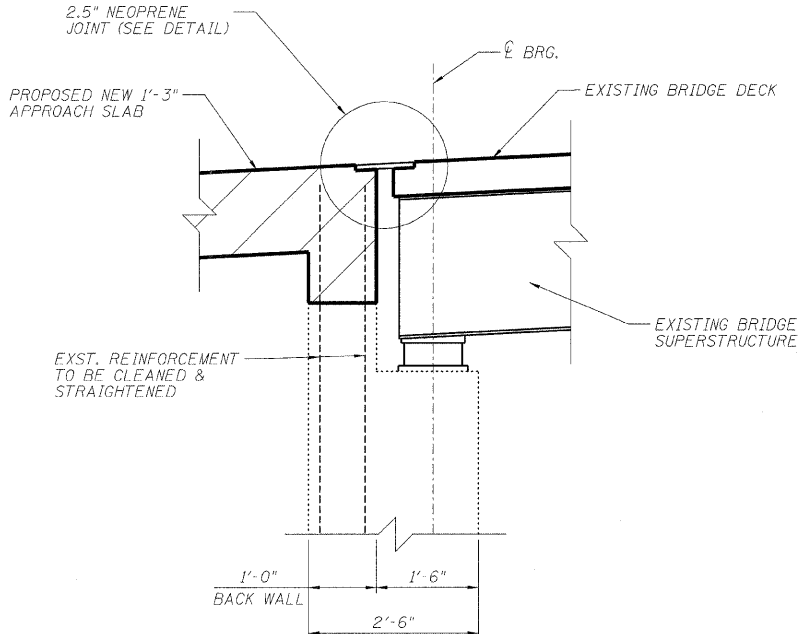
TYPICAL TIE-WALL
INTERFACE ELEVATION



SECTION A-A



TOP OF END CAP
DETAIL



SECTION THRU ABUTMENT
@ APPROACH SLAB

NOTE:
BARS d(E), d2(E)-d4(E) & d6(E)
SHALL BE EMBEDDED AND GROUTED
INTO EXISTING CONCRETE USING
HIGH STRENGTH EPOXY GROUT.

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

CONCRETE REMOVAL
AND REPLACEMENT

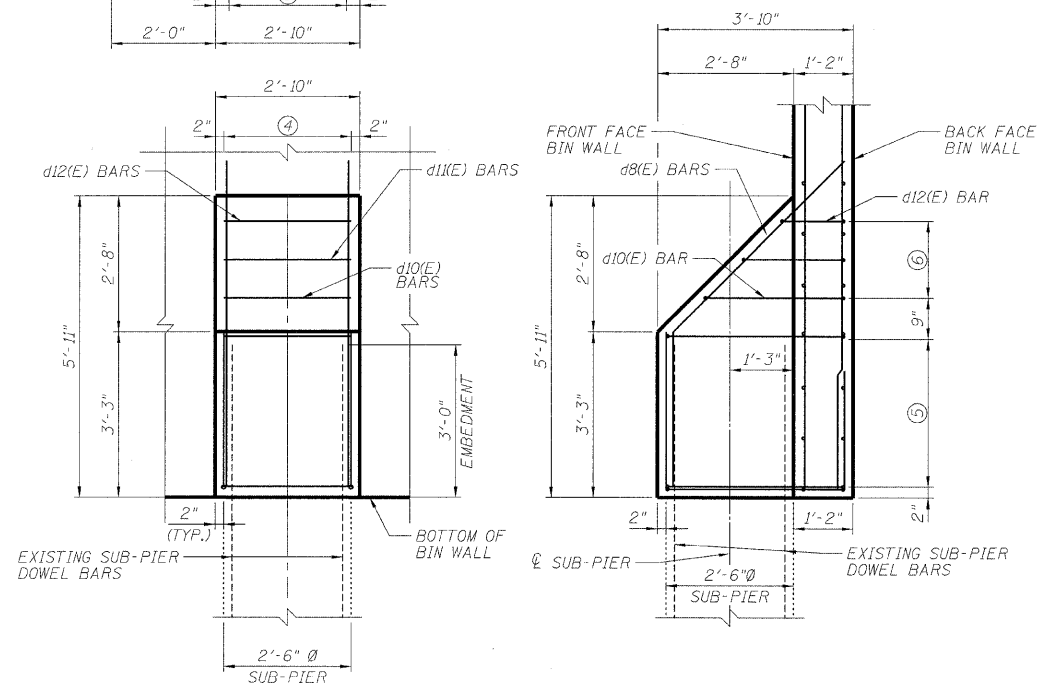
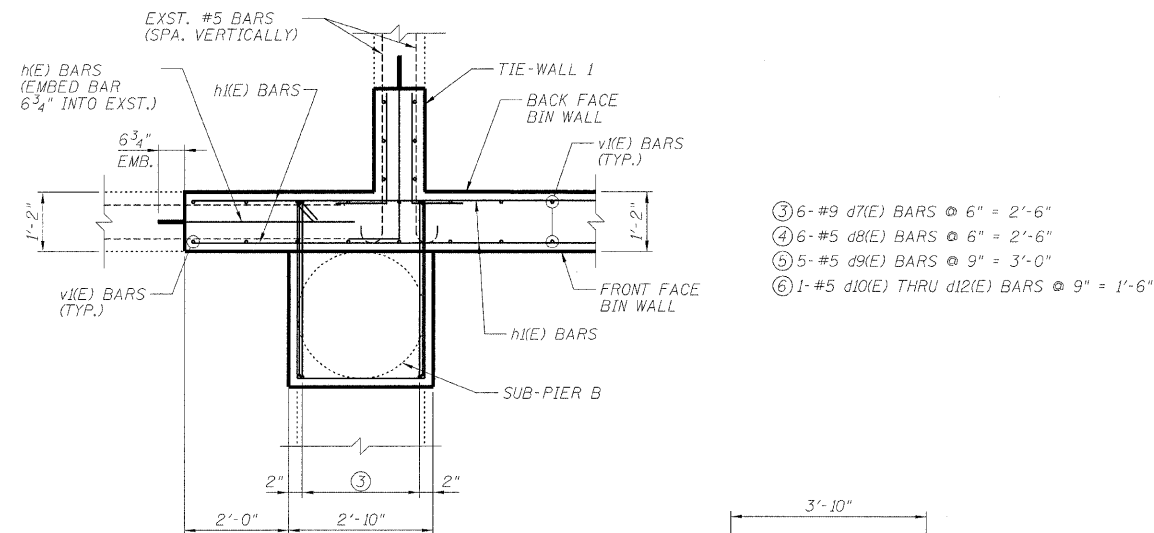
RAMPS 'N' & 'O' DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W988

DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
DLZ Illinois, Inc.

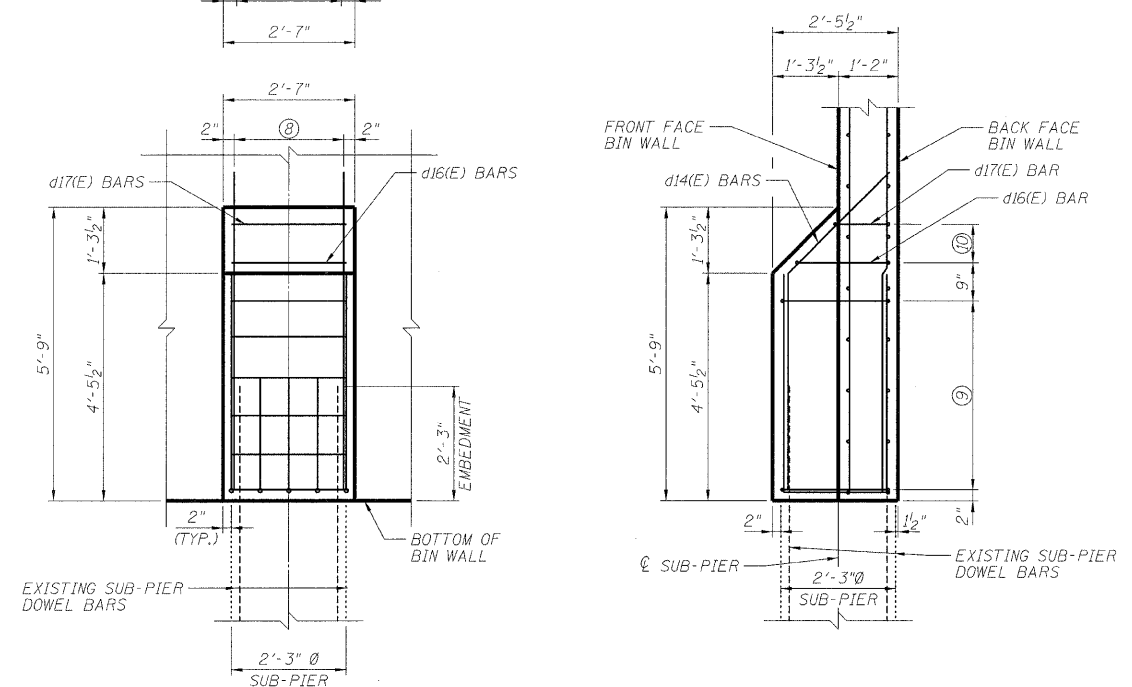
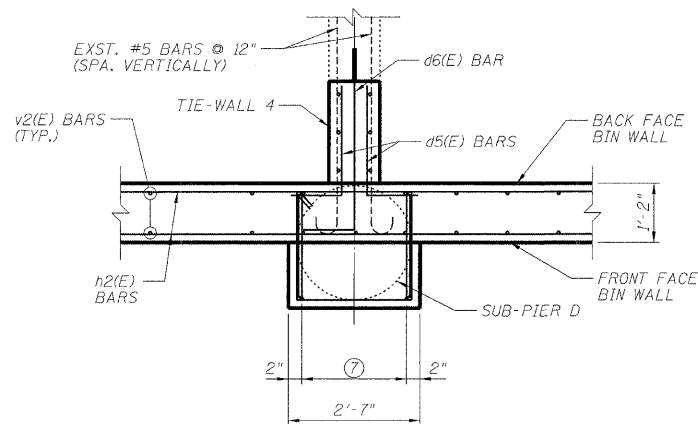
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 90/94	*	COOK	246	209	04
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408



CORBEL @ SUB-PIER B



CORBEL @ SUB-PIER D

NOTE:
BAR h(E) SHALL BE EMBEDDED AND GROUTED
INTO EXISTING CONCRETE USING HIGH STRENGTH
EPOXY GROUT.

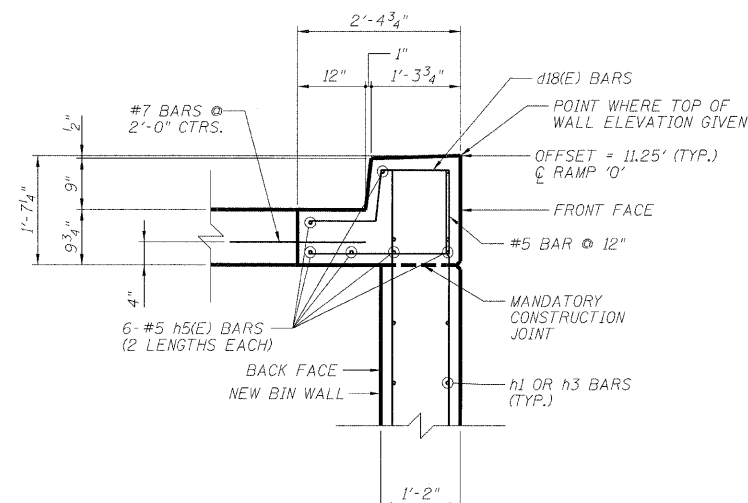
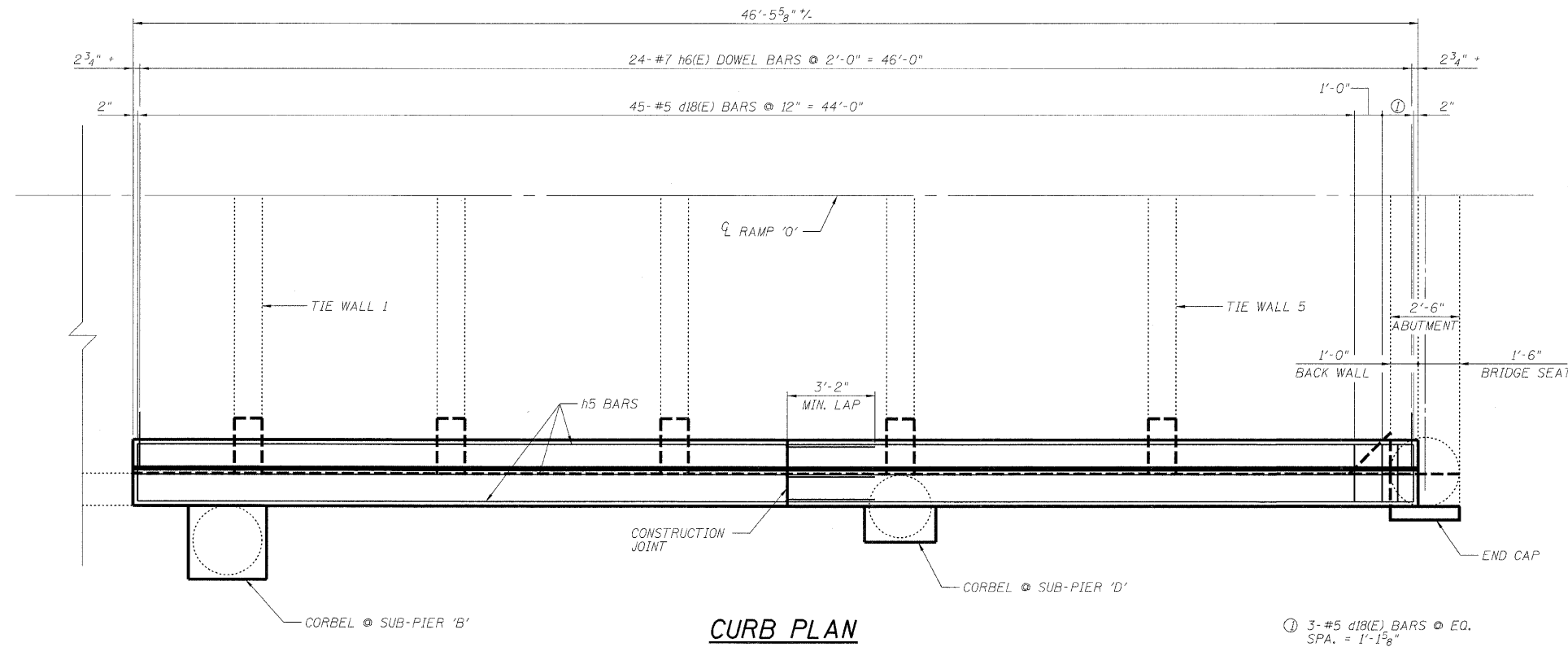
DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

RAMPS 'N' & 'O' CORBEL DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W988

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 90/94	*	COOK	246	210	05
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT -		

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408



RAMPS 'N' & 'O' CURB DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W988

DESIGNED	ASP
CHECKED	LNB
DRAWN	BGC
CHECKED	ASP

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	211
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 06

08 SHEETS

Diagram illustrating a road cross-section with a total width of 24'-11". The left side is 11'-6" wide, and the right side is 13'-5" wide. A diagonal line labeled "CUT LINE" is shown across the center.

A schematic diagram of a bent pipe. The pipe has a vertical section of diameter D and a horizontal section of length A . The bend is defined by a radius B . The distance from the vertical section to the start of the horizontal section is labeled C .

Diagram illustrating a roof cut line. The diagram shows a vertical line on the left and a vertical line on the right. A horizontal line segment connects the two vertical lines, labeled "CUT LINE". The dimensions are as follows:

- Left vertical line: 28'-8" (total height), 15'-2" (height from cut line to top), 13'-6" (height from cut line to bottom).
- Right vertical line: 17'-6" (total height), 15'-2" (height from cut line to bottom).

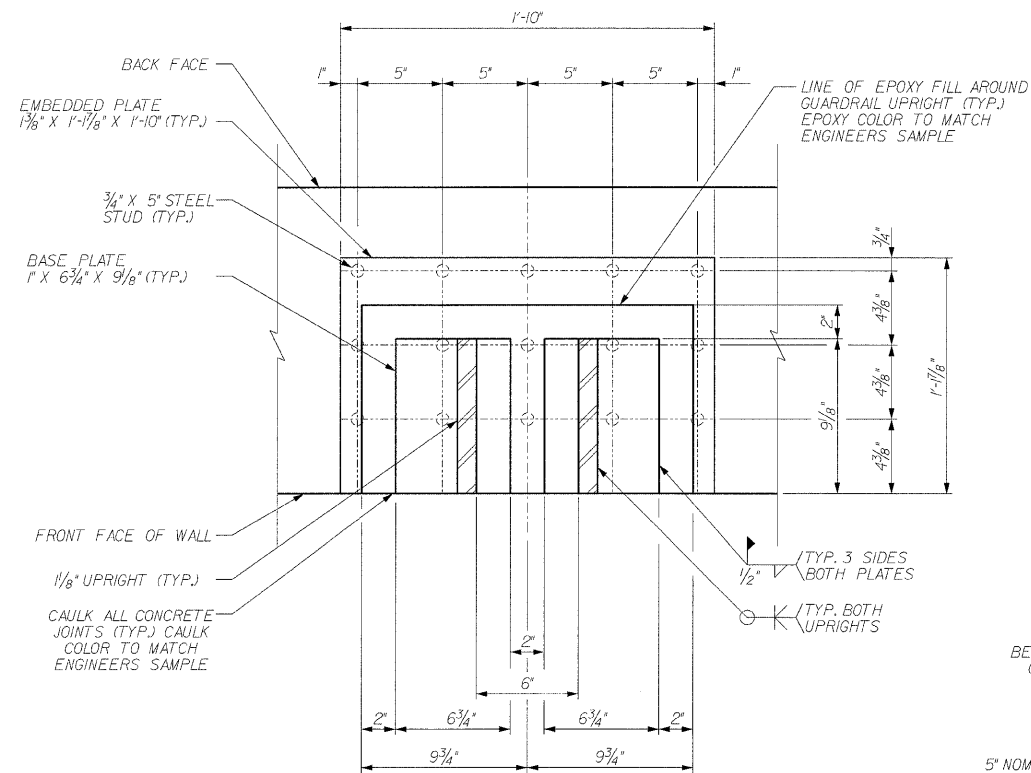
The diagram shows an L-shaped cross-section. The vertical leg has a height labeled B , and the horizontal leg has a width labeled A . The corner is rounded with a fillet.

Technical drawing of a square profile. The width is labeled A and the height is labeled B . A chamfer with a 6° angle is shown on the top-right corner.

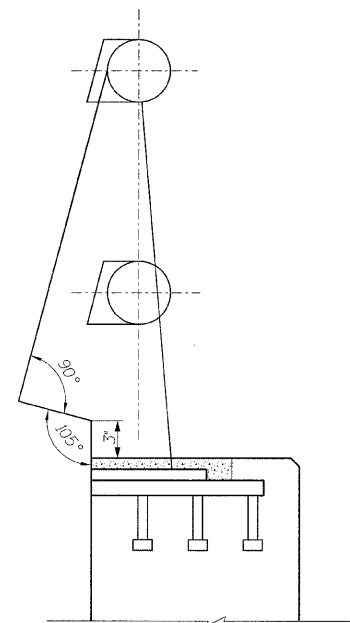
Bar	A		B		C		D	
	Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
d1(E)	2	10	1	6	1	0 3/4	1	0
d2(E)	3	2	2	3	0	11	0	8
d3(E)	1	8	1	1	0	7	0	5
d4(E)	INTENTIONALLY BLANK							
d5(E)	2	0	1	0				
d6(E)	3	9	1	0				
d7(E)	3	6	3	0				
d8(E)	4	10	3	0	2	1 1/2	2	1 1/2
d9(E)	2	6	3	6				
d10(E)	2	6	2	9				
d11(E)	2	6	2	0				
d12(E)	2	6	1	3				
d13(E)	2	1	4	3				
d14(E)	4	3	2	9	2	0	2	0
d15(E)	2	3	2	1 1/2				
d16(E)	2	3	1	10				
d17(E)	2	3	1	L				

Bar	No.	Size	Length	Shape
d(E)	25	5	1'-7"	
d1(E)	14	7	4'-4"	
d2(E)	11	8	3'-2"	
d3(E)	11	5	1'-8"	
INTENTIONALLY BLANK				
d5(E)	120	5	3'-0"	
d6(E)	60	5	4'-9"	
d7(E)	6	9	9'-6"	
d8(E)	6	5	7'-10"	
d9(E)	5	5	13'-0"	
d10(E)	1	5	11'-6"	
d11(E)	1	5	10'-0"	
d12(E)	1	5	8'-6"	
d13(E)	5	9	10'-7"	
d14(E)	5	5	7'-0"	
d15(E)	6	5	9'-9"	
d16(E)	1	5	9'-2"	
d17(E)	1	5	7'-8"	
d18(E)	48	5	5'-11"	
h(E)	11	6	3'-11"	
h1(E)	30	6	26'-11"	
h2(E)	28	6	21'-5"	
h3(E)	4	6	22'-6"	
h4(E)	11	5	2'-2"	
h5(E)	12	5	24'-8"	
h6(E)	24	7	2'-0"	
INTENTIONALLY BLANK				
v(E)	24	5	24'-11"	
v1(E)	22	5	28'-8"	
v3(E)	2	5	13'-2"	
v4(E)	2	5	10'-1"	
v5(E)	6	5	9'-4"	
v6(E)	6	5	9'-11"	
v7(E)	6	5	10'-6"	
v8(E)	6	5	11'-4"	
v9(E)	6	5	11'-10"	
v10(E)	2	5	13'-1"	
v11(E)	2	5	15'-3"	
CONCRETE STRUCTURES			CU. YD.	37.8
REINFORCEMENT BARS,EPOXY COATED			POUND	6,350

 **DLZ** 85 W. Algonquin Rd. Ste. 220
DLZ Illinois, Inc. Arlington Heights IL 60005

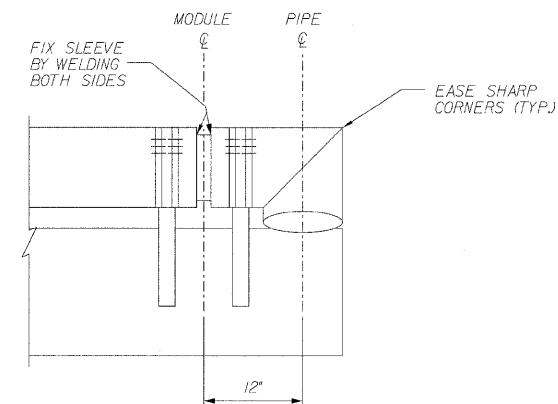


EMBEDDED PLATE, GUARDRAIL UPRIGHT
(AT TOP OF PLATE)

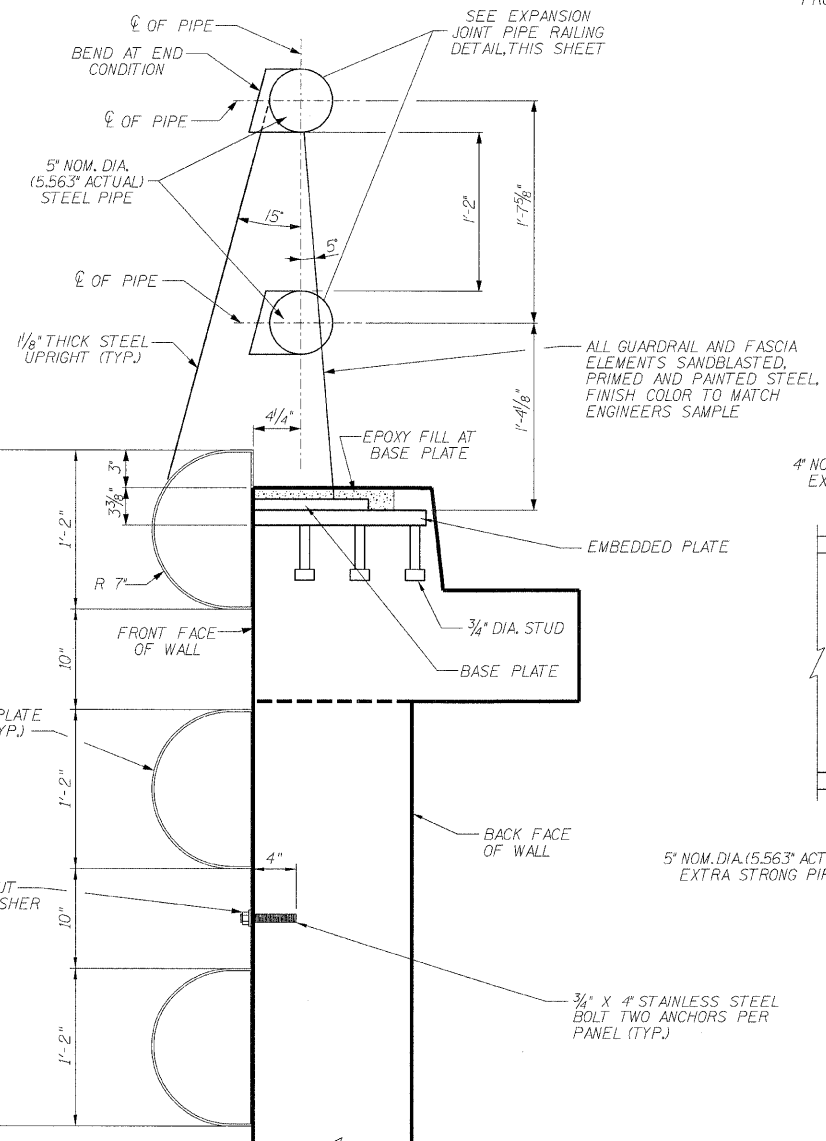


ELEVATION W/OUT DECORATIVE FASCIA
(SEE ELEVATION W/DECORATIVE FASCIA FOR DIMENSIONS)

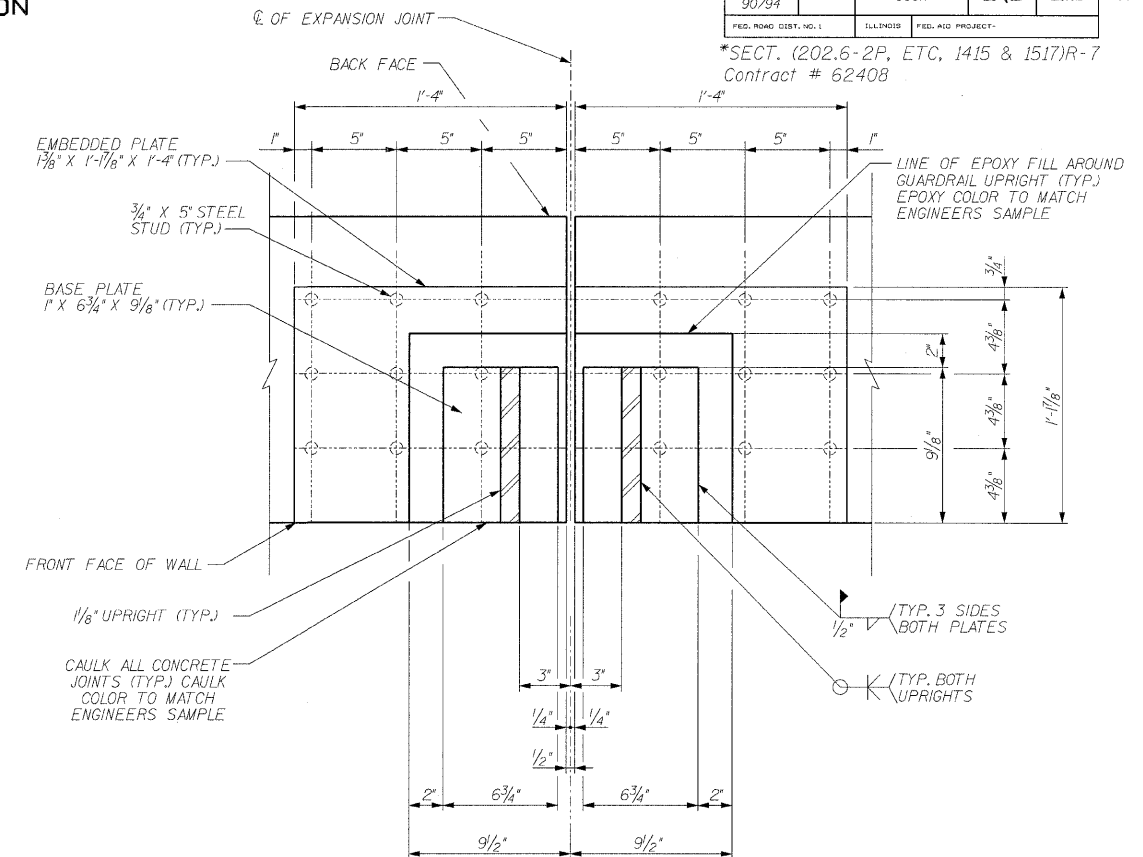
DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP



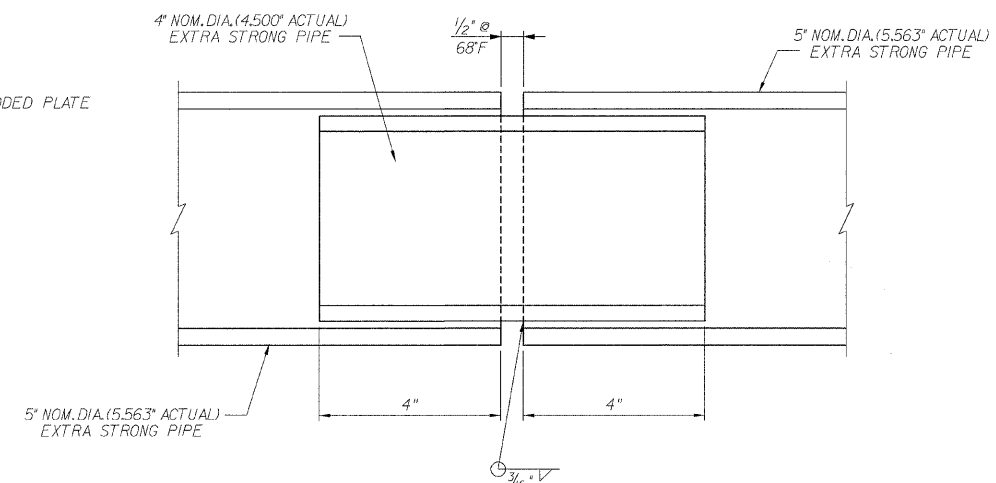
GUARDRAIL END
CONDITION PLAN



ELEVATION W/DECORATIVE FASCIA



EMBEDDED PLATE, GUARDRAIL
UPRIGHT AT EXPANSION JOINT
(AT TOP OF PLATE)



EXPANSION JOINT PIPE RAILING
(SHOWN ALONG C. OF PIPE)

RAMPS 'N' & 'O' RAILING SYSTEM DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC. 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W988

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
F.A.P. 90/94	*	COOK	246	213
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 09

08 SHEETS

*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

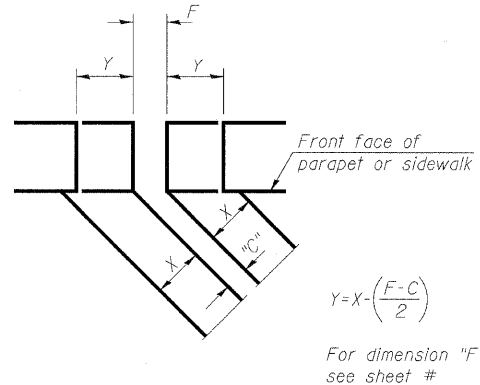
Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

INSTALLATION NOTES

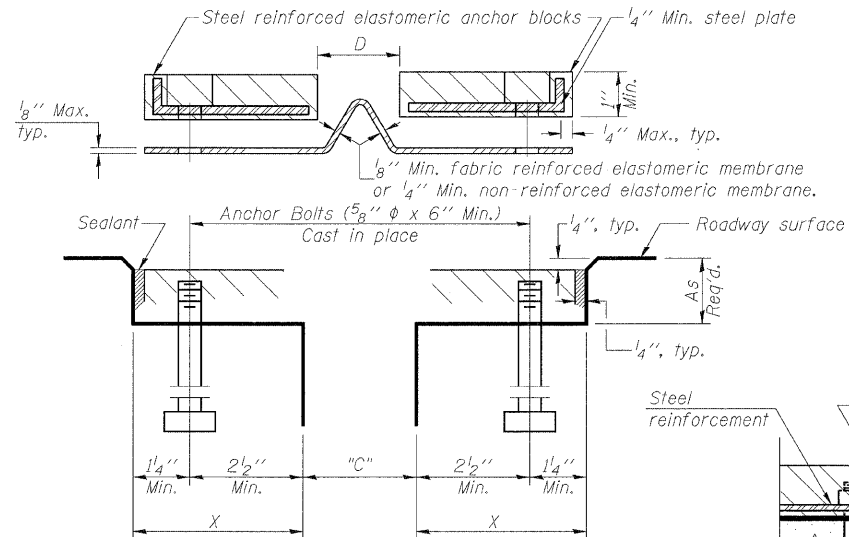
① Install continuous seal in roadway, parapet, curb, and sidewalk.

② Install anchor blocks as indicated.

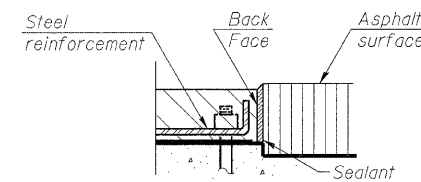
Note A:
Maximum spacing of anchor bolts shall be 12" centers.



**FORMING BLOCKOUT
SKETCH**



CROSS SECTION

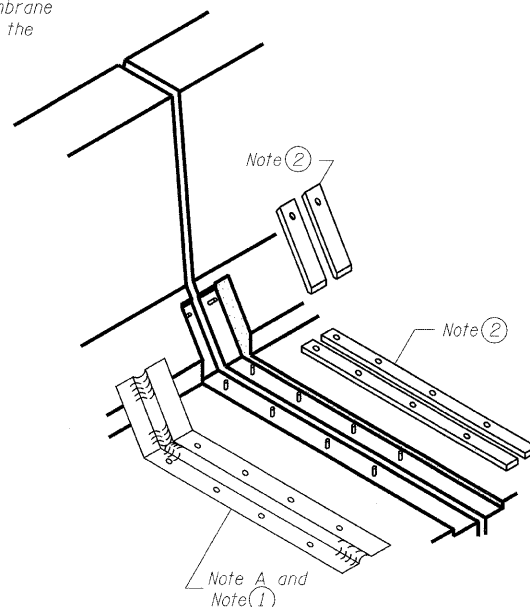


**ANCHOR BLOCK
WITH ASPHALT SURFACE**

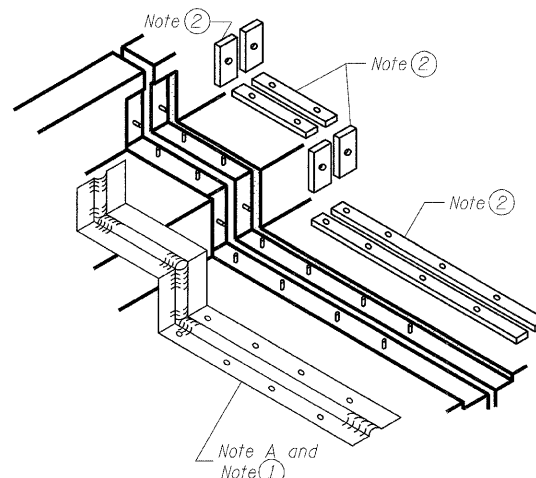
SKREW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

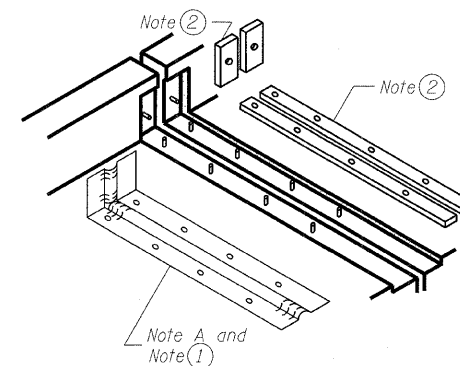
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



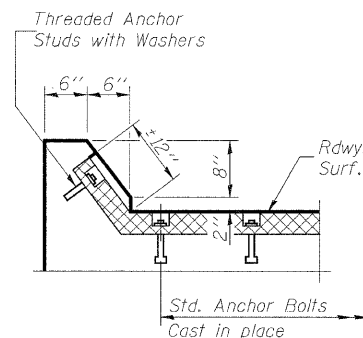
AT PARAPET



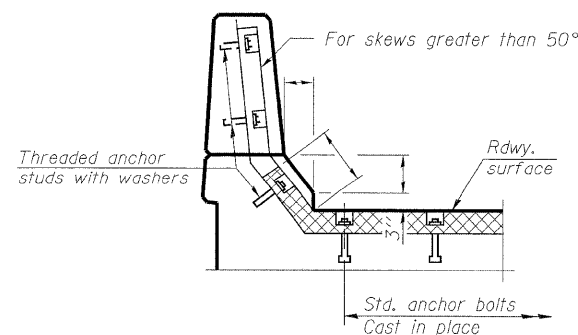
AT SIDEWALK OR MEDIAN



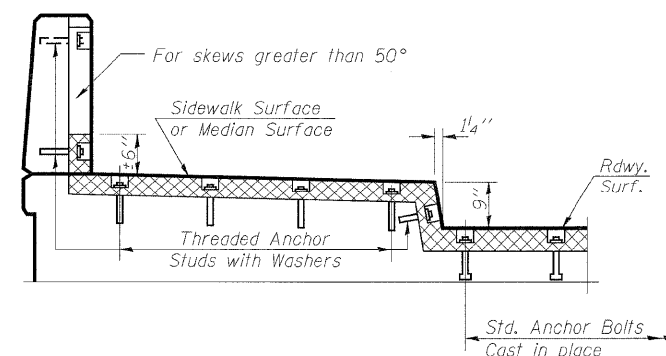
AT WALL



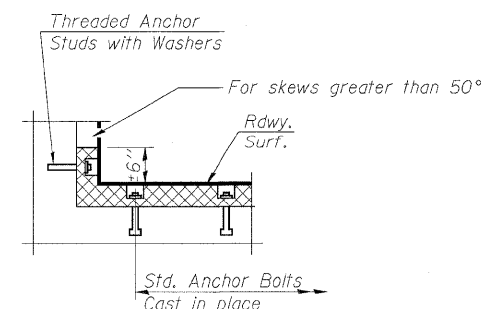
AT CURB



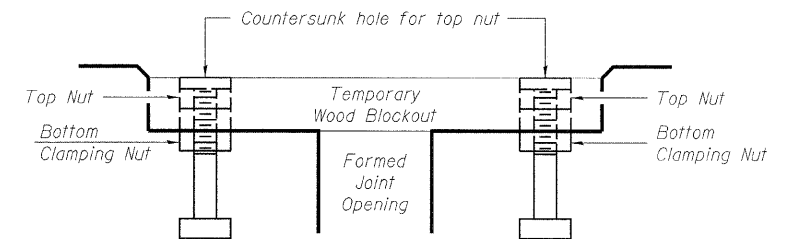
AT PARAPET



**AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS**



AT WALL



RECOMMENDED BLOCKOUT DETAIL

**CONTINUOUS SEAL TYPE
NEOPRENE EXPANSION JOINTS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W988**

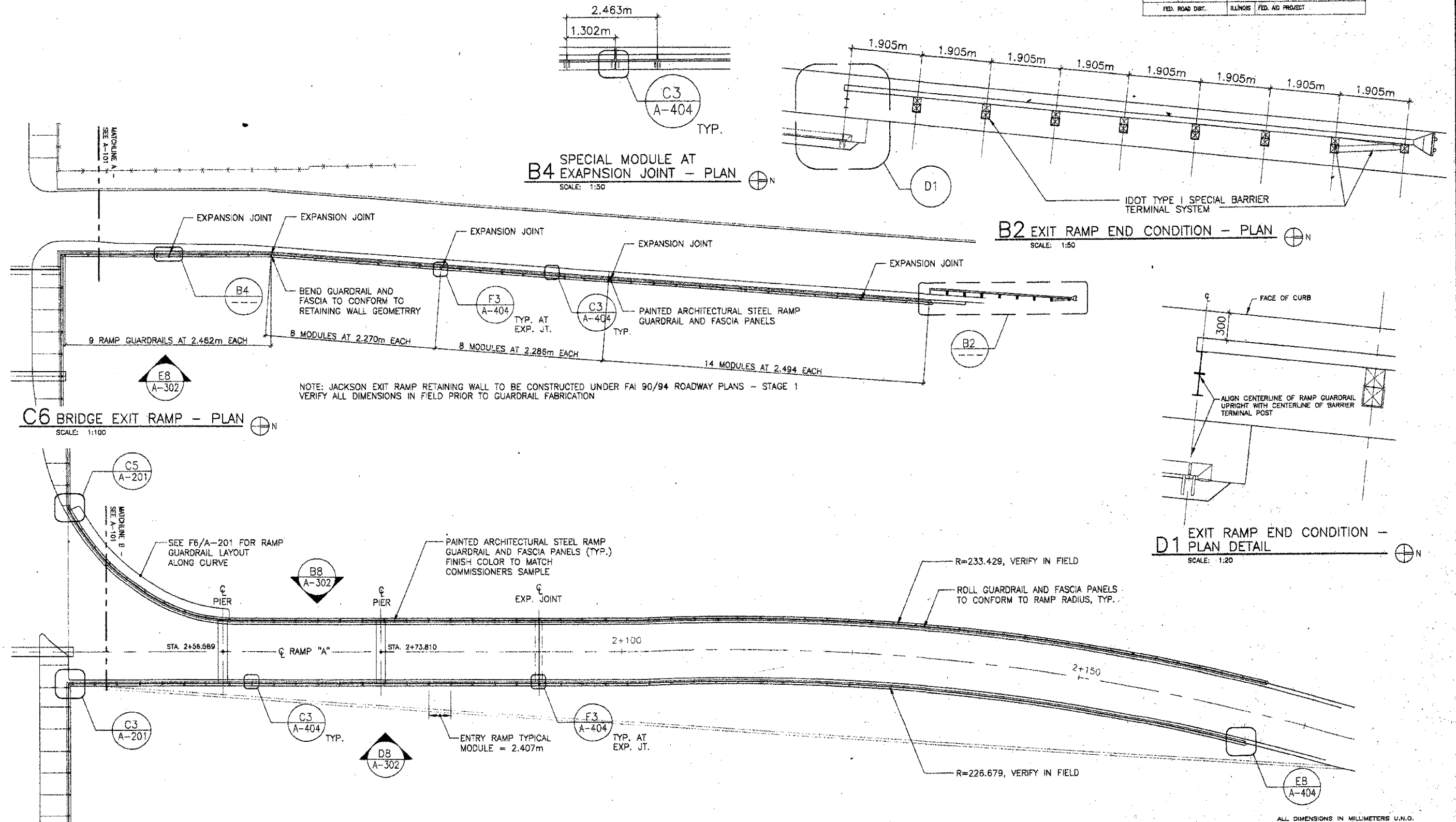
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
DLZ Illinois, Inc.

DESIGNED	ASP
CHECKED	ASP
DRAWN	BEM
CHECKED	ASP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. A-102
90/94	0101-2-1B-R-1	COOK	246	214	
FED. ROAD DIST.		ILLINOIS	FED. AID PROJECT		

SHEET NO. A-102
SHEETS



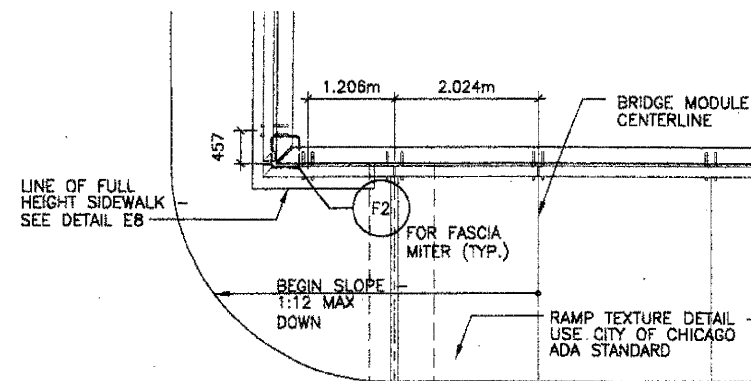
BRIDGE ENTRY AND EXIT
RAMP PLANS

JACKSON BOULEVARD
OVER I-90/94, F.A. RTE. 90/94
SEC. 0101-2-1B-R-1
COOK COUNTY
STA. 1+350.230
STR. NUM. 016-0588

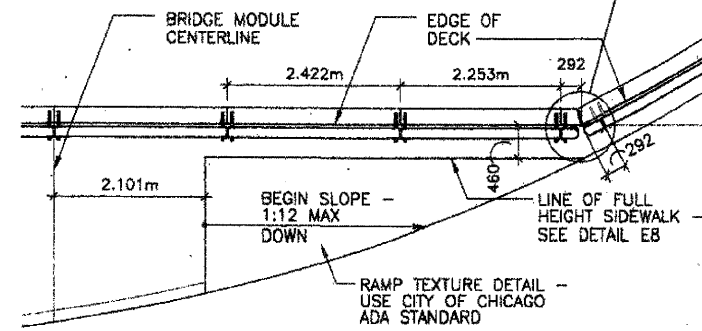
Scale: AS NOTED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

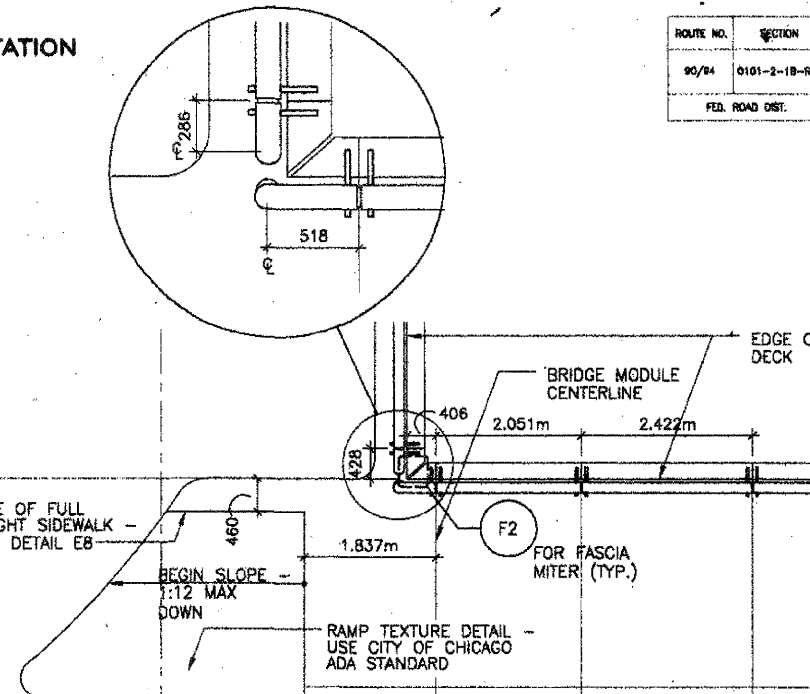
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. A-201
90/94	0101-2-18-R-1	COOK	246	215	
FED. ROAD DIST.		ILLINOIS	FED. AID PROJECT		



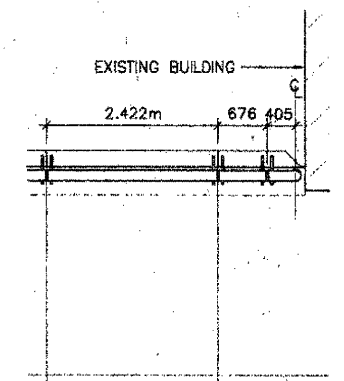
**C8 NORTHWEST CORNER
GUARDRAIL TERMINUS-PLAN**
SCALE: 1:50



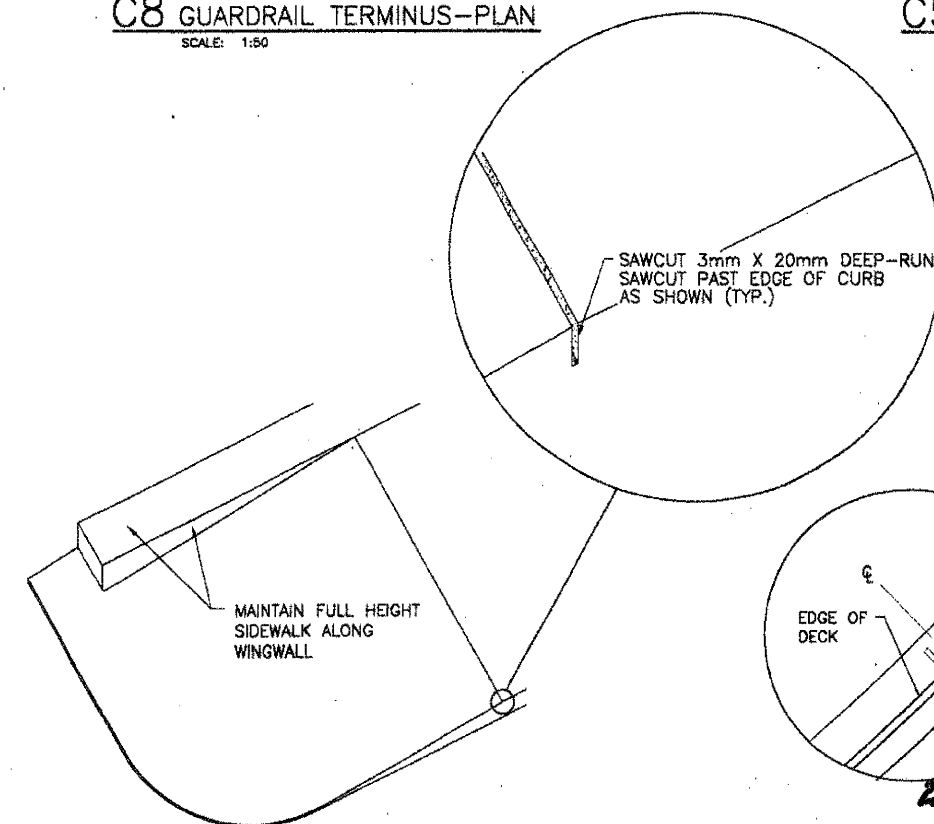
C5 ENTRY RAMP-PARTIAL PLAN
SCALE: 1:50



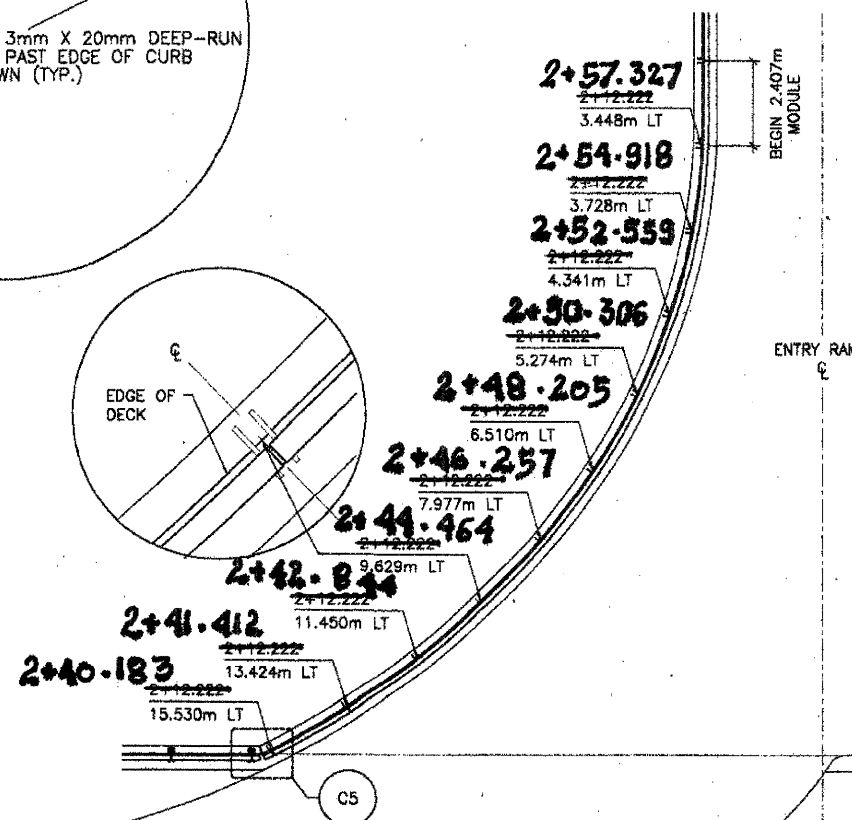
C3 ENTRY RAMP-PARTIAL PLAN
SCALE: 1:50



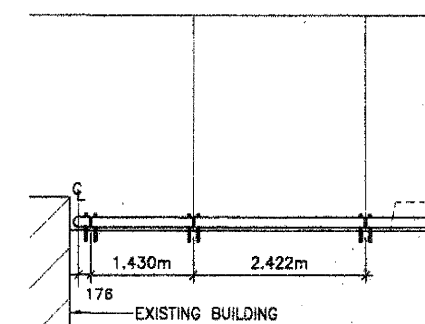
**C1 NORTHEAST CORNER
GUARDRAIL TERMINUS-PLAN**
SCALE: 1:50



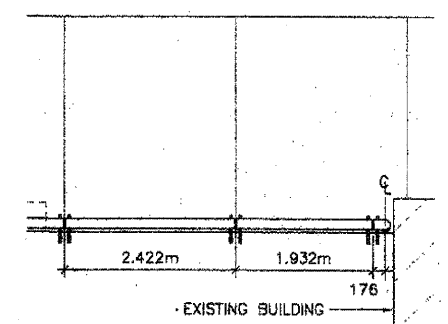
**E8 HANDICAPPED SIDEWALK RAMP -
SCHEMATIC VIEW**
SCALE: NTS



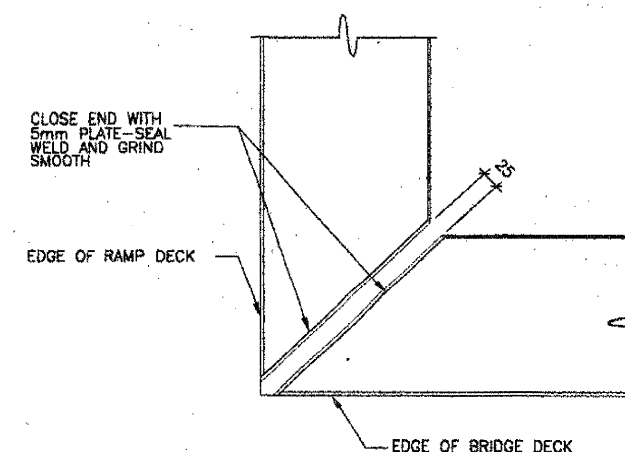
F5 GUARDRAIL SPACING ALONG ENTRY RAMP CURVE
SCALE: 1:100



**D3 SOUTHWEST CORNER
GUARDRAIL TERMINUS-PLAN**
SCALE: 1:50



**D1 SOUTHEAST CORNER
GUARDRAIL TERMINUS-PLAN**
SCALE: 1:50



F2 FASCIA MITER-DETAIL (TYP.)
SCALE: 1:5

ALL DIMENSIONS IN MILLIMETERS U.N.O.	
PLAN DETAILS	
JACKSON BOULEVARD OVER I-90/94, F.A. RTE. 90/94 SEC. 0101-2-18-R-1	
COOK COUNTY STA. 1+350.230 STR. NUM. 016-0588	
Scale: AS NOTED	

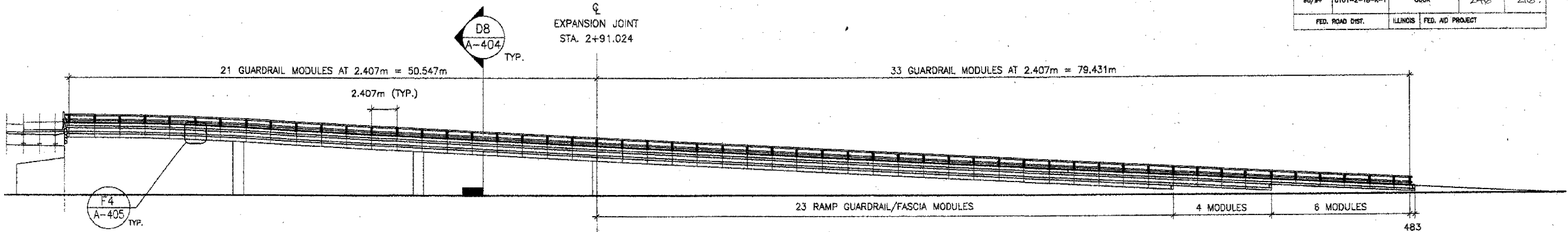
DE STEFANO - PARTNERS
Design and Planning, Inc.
444 East Lake Street
Chicago, Illinois 60601
Tel: (312) 329-1000
Fax: (312) 329-1001

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	0101-2-1B-R-1	COOK	246	216
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

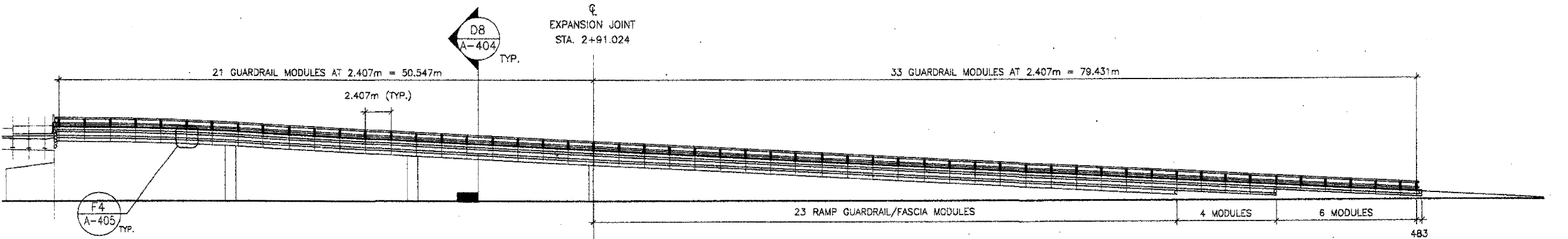
SHEET NO. A-302

SHEETS



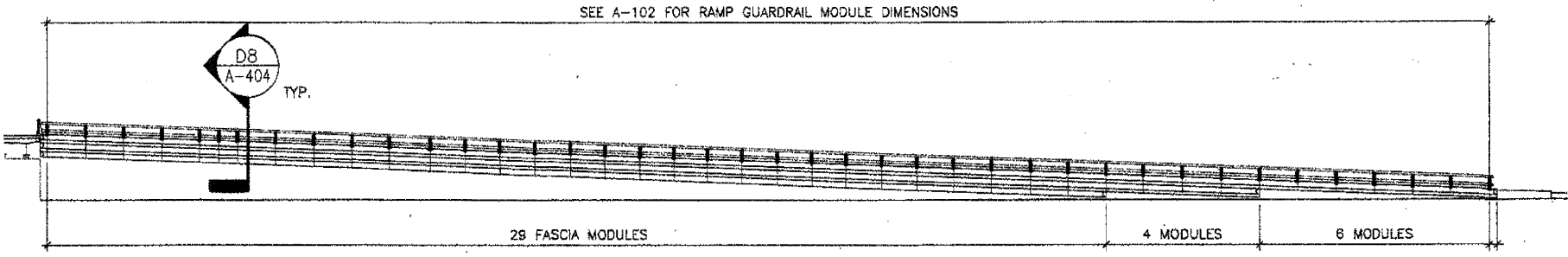
B8 ENTRANCE RAMP - WEST ELEVATION

SCALE: 1:200



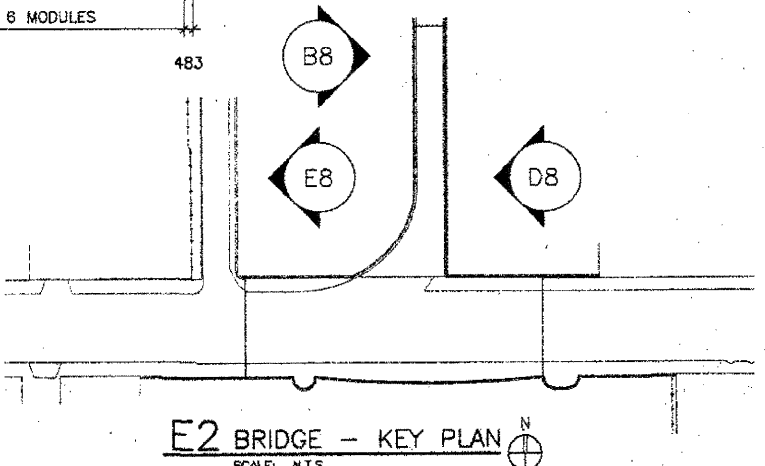
D8 ENTRANCE RAMP - EAST ELEVATION

SCALE: 1:200



E8 EXIT RAMP - EAST ELEVATION

SCALE: 1:200



E2 BRIDGE - KEY PLAN

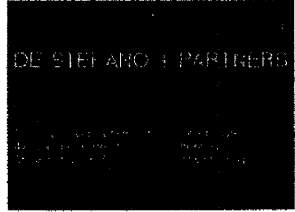
SCALE: N.T.S.

ALL DIMENSIONS IN MILLIMETERS U.N.O.

**BRIDGE ENTRY AND EXIT
RAMP ELEVATIONS**

JACKSON BOULEVARD
OVER I-90/94, F.A. RTE. 90/94
SEC. 0101-2-1B-R-1
COOK COUNTY
STA. 1+350.230
STR. NUM. 016-0588

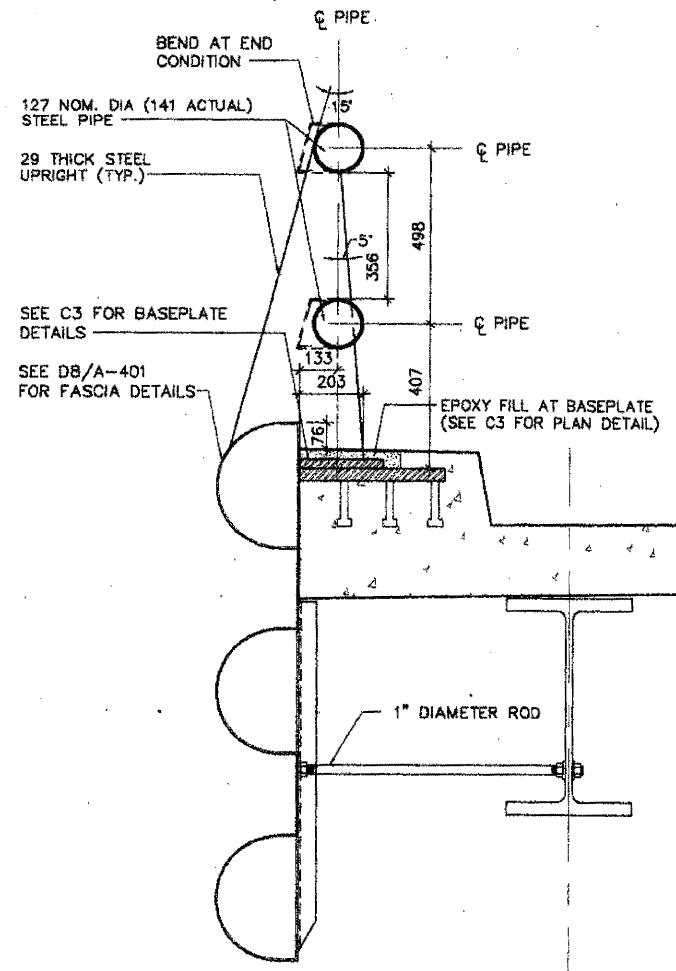
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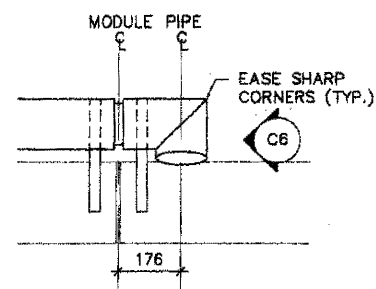
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	0101-2-1B-R-1	COOK	246	217
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT		

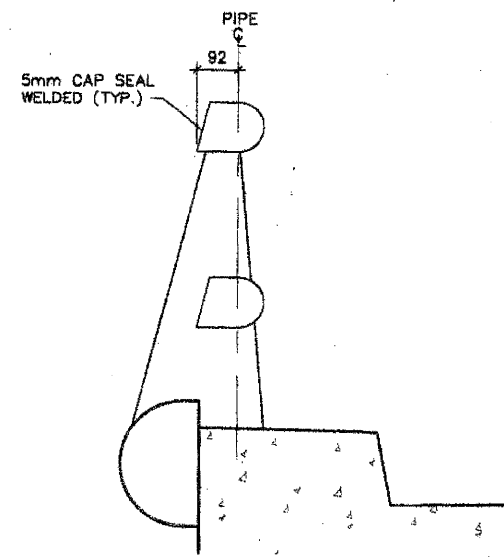
SHEET NO. A-404
SHEETS



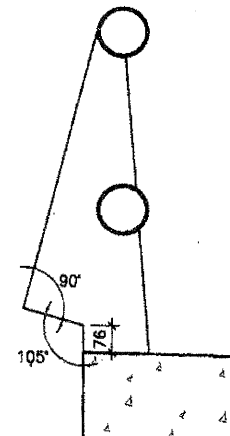
D8 RAMP GUARDRAIL/FASCIA SECTION
SCALE: 1:10



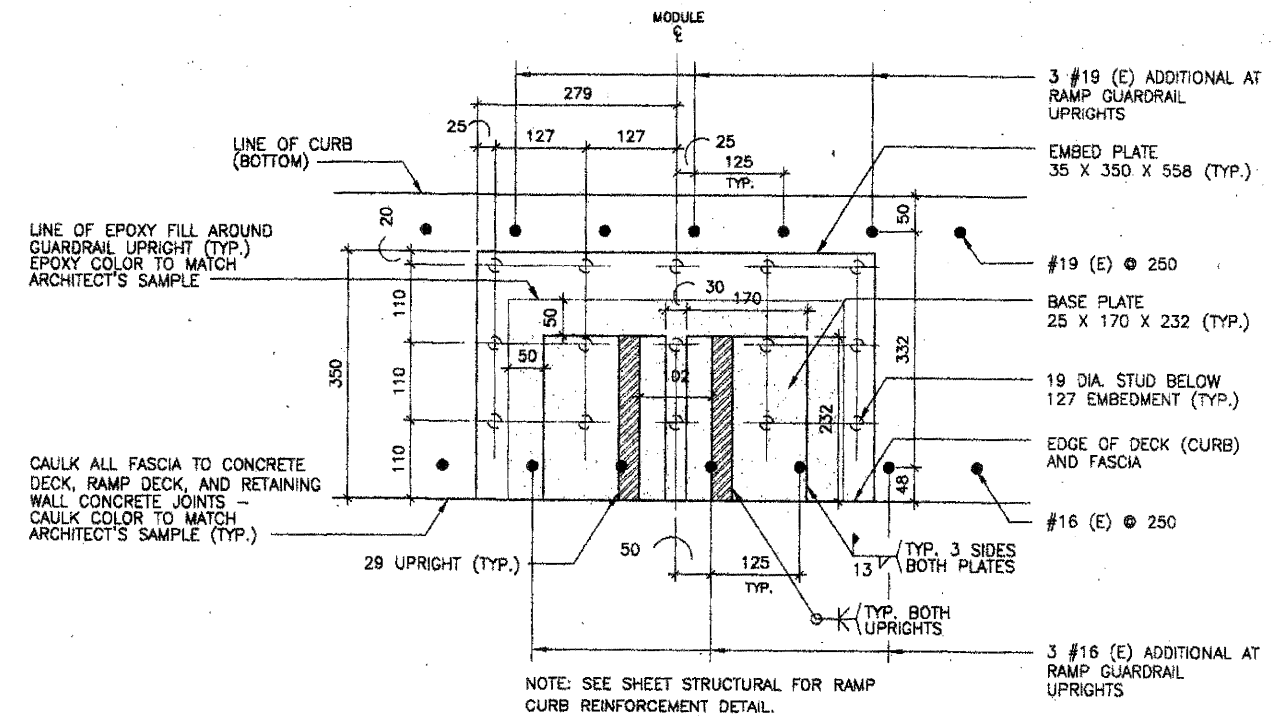
E8 RAMP GUARDRAIL END CONDITION-PLAN
SCALE: 1:10



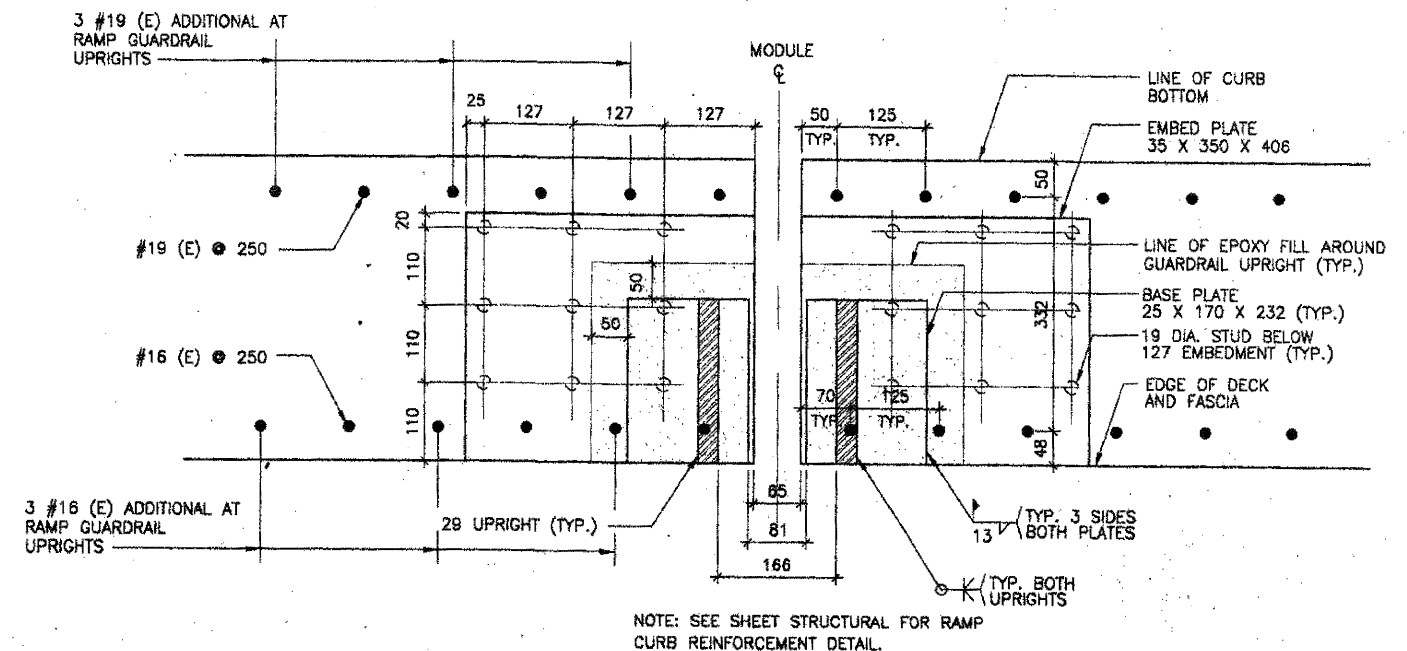
C6 RAMP GUARDRAIL END CONDITION-ELEVATION
SCALE: 1:10



D6 RAMP GUARDRAIL TYPE "A"-ELEVATION
SCALE: 1:10



C3 RAMP GUARDRAIL UPRIGHT-PLAN
SCALE: 1:5



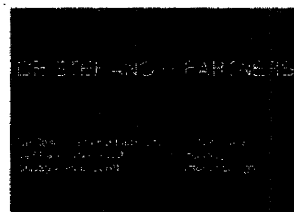
F3 RAMP GUARDRAIL UPRIGHT-PLAN AT RAMP EXPANSION JOINT
SCALE: 1:5

ALL DIMENSIONS IN MILLIMETERS U.N.O.

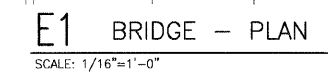
RAMP GUARDRAIL AND FASCIA DETAILS

JACKSON BOULEVARD
OVER I-90/94, F.A. RTE. 90/94
SEC. 0101-2-1B-R-1
COOK COUNTY
STA. 1+350.230
STR. NUM. 016-0588

Scale: AS NOTED



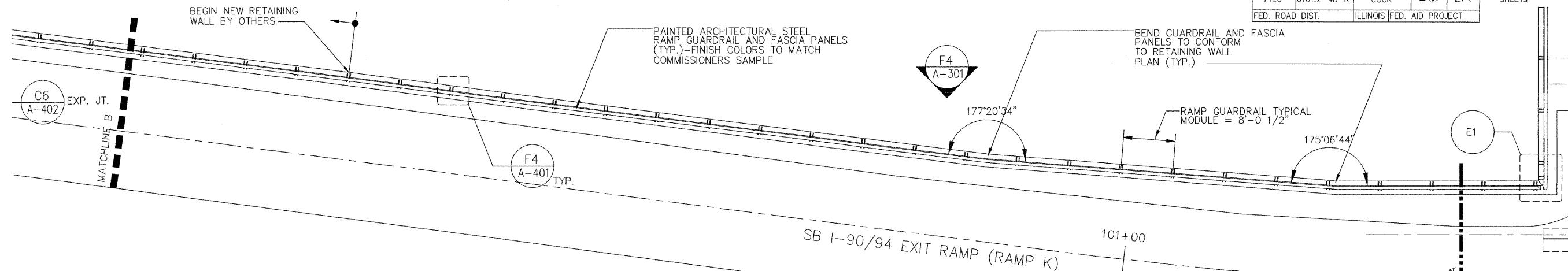
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1420	0101.2-4B-R	COOK	246	218	
FED. ROAD DIST.		ILLINOIS FED. AID PROJECT			



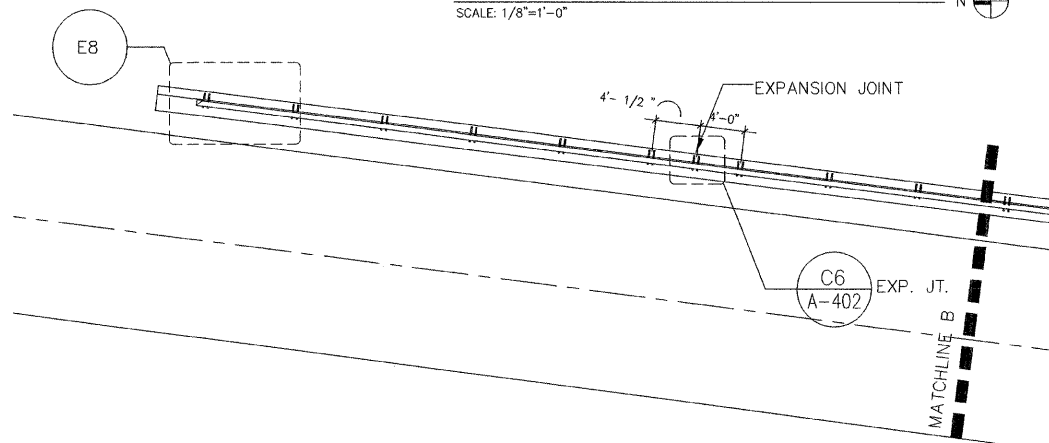
BRIDGE PLAN	
MONROE STREET OVER I-90/94 KENNEDY EXPRESSWAY F.A.U. RTE. 1420, SEC. 0101.2-4B-R COOK COUNTY STA. 4+03.26 STR. NUM. 016-2054	
Scale: AS NOTED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

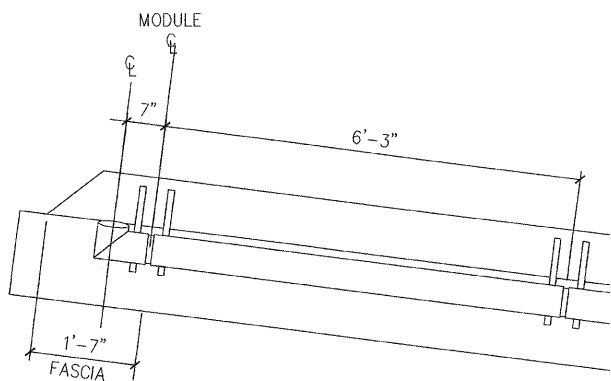
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. A-102
1420	0101.2-4B-R	COOK	246	219	
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT			



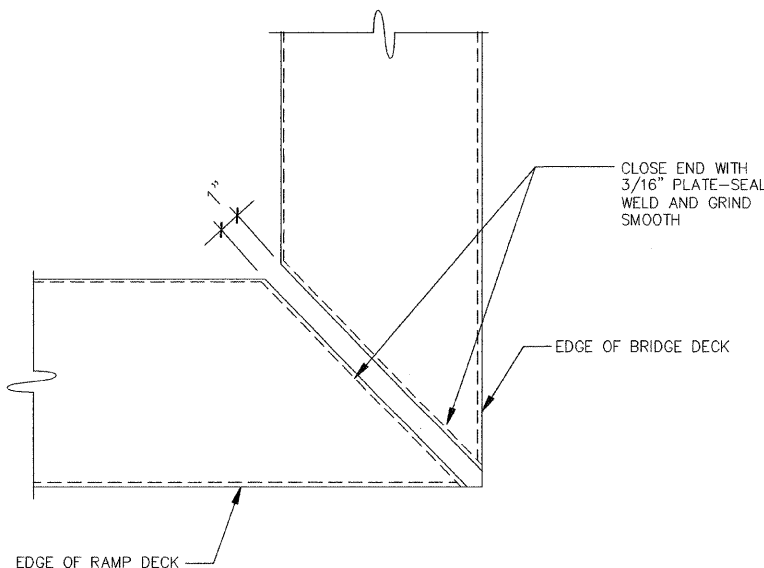
D1 SOUTHBOUND EXIT RAMP — PLAN
SCALE: 1/8"=1'-0"



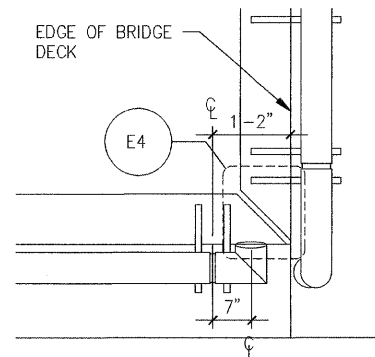
D2 SOUTHBOUND EXIT RAMP — PLAN
SCALE: 1/8"=1'-0"



E8 EXIT RAMP — PLAN DETAIL
SCALE: 3/4"=1'-0"



E4 FASCIA MITER — DETAIL
SCALE: 3"=1'-0"



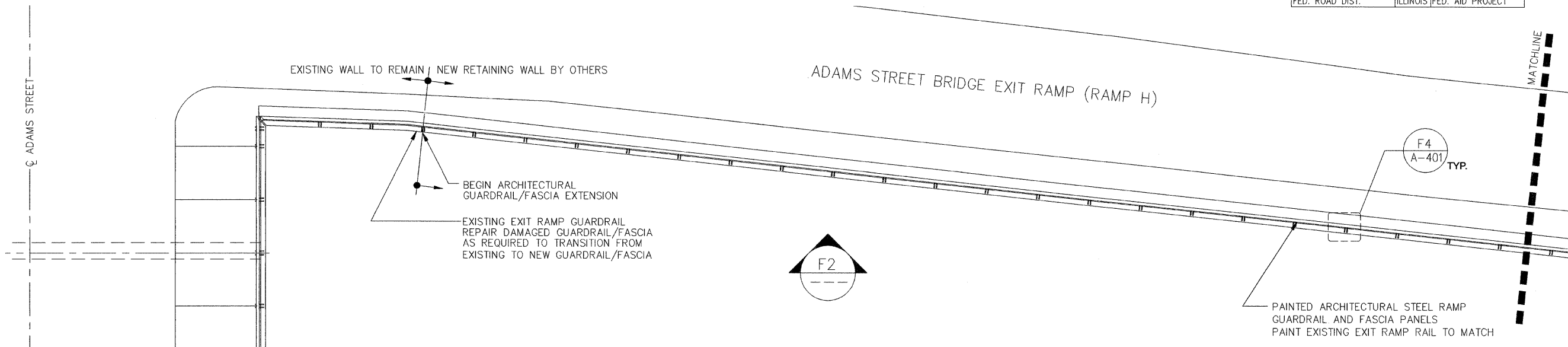
E1 EXIT RAMP — PLAN DETAIL
SCALE: 3/4"=1'-0"

BRIDGE EXIT RAMP PLAN	
MONROE STREET OVER I-90/94 KENNEDY EXPRESSWAY	
F.A.U. RTE. 1420, SEC. 0101.2-4B-R	
COOK COUNTY	
STA. 4+03.26	
STR. NUM. 016-2054	
Scale: AS NOTED	

DESTEFANO | KEATING
partners limited
Architecture
445 East Illinois Street
Chicago, Illinois

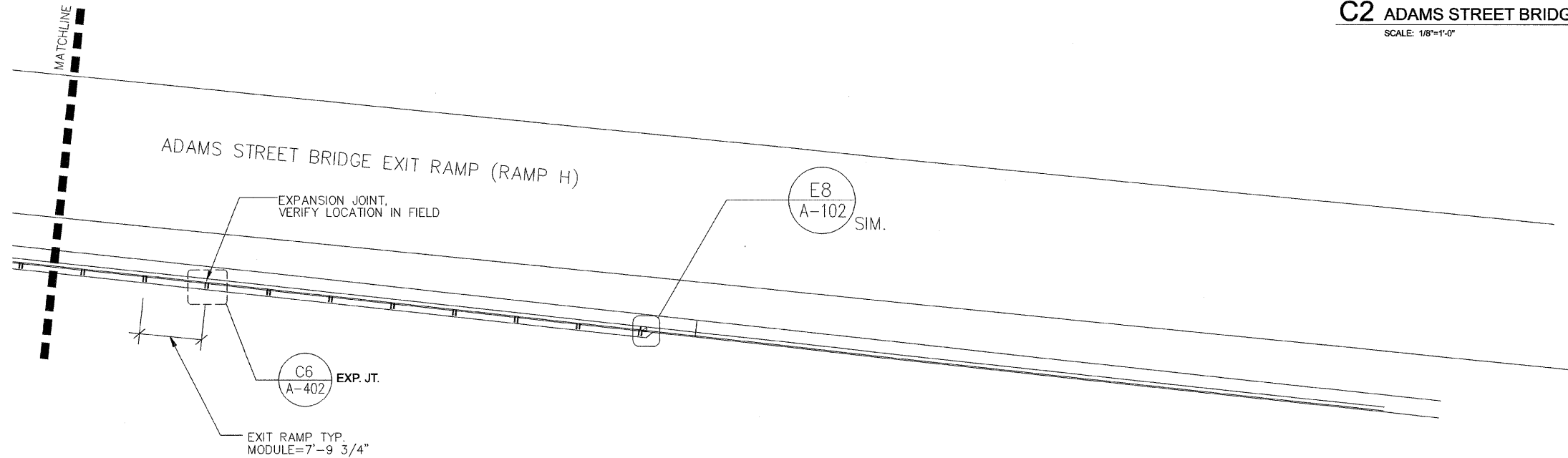
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
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FED. ROAD DIST.		ILLINOIS FED. AID PROJECT			



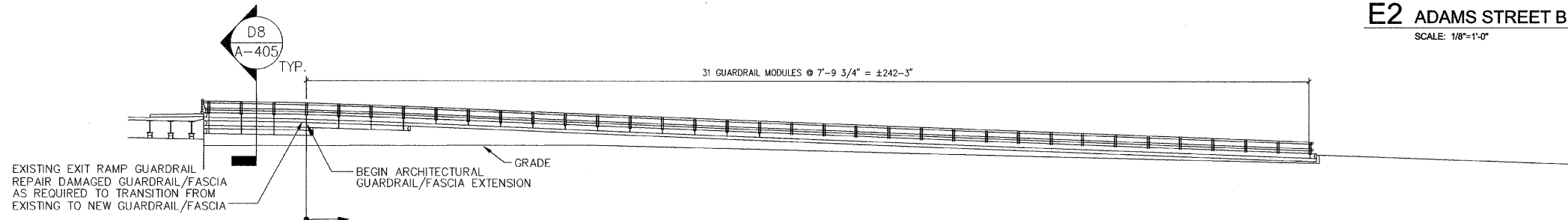
C2 ADAMS STREET BRIDGE EXIT RAMP-PLAN

SCALE: 1/8"=1'-0"



E2 ADAMS STREET BRIDGE EXIT RAMP-PLAN

SCALE: 1/8"=1'-0"



F2 ADAMS STREET BRIDGE EXIT RAMP-ELEVATION

SCALE: 1/16"=1'-0"



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partners limited

Architecture
445 East Illinois Street
Chicago, Illinois

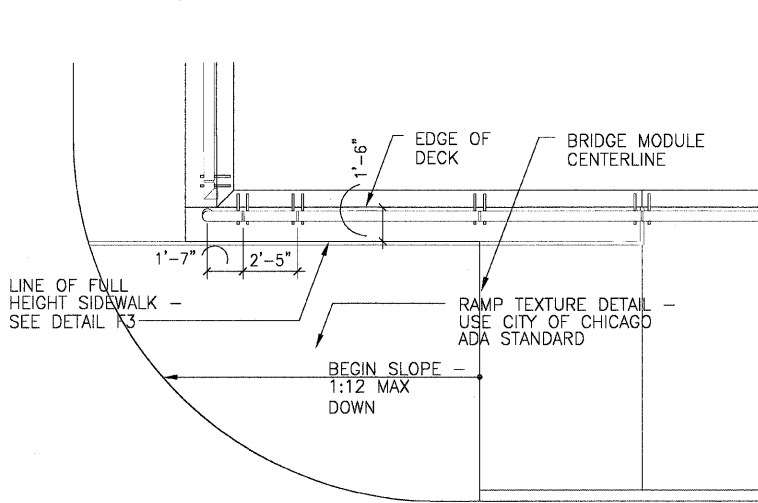
ADAMS STREET BRIDGE
RAMP GUARDRAIL MODIFICATIONS

MONROE STREET OVER I-90/94
KENNEDY EXPRESSWAY
F.A.U. RTE. 1420, SEC. 0101.2-4B-R
COOK COUNTY
STA. 4+03.26
STR. NUM. 016-2054

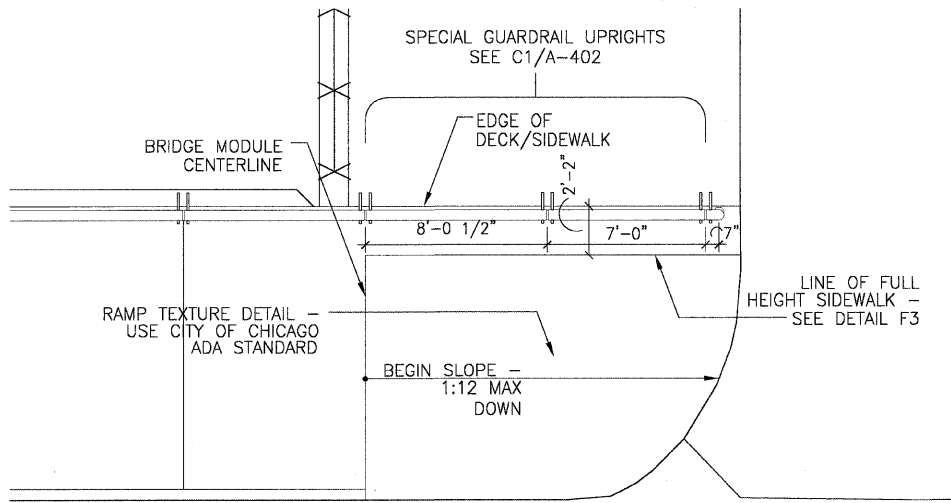
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

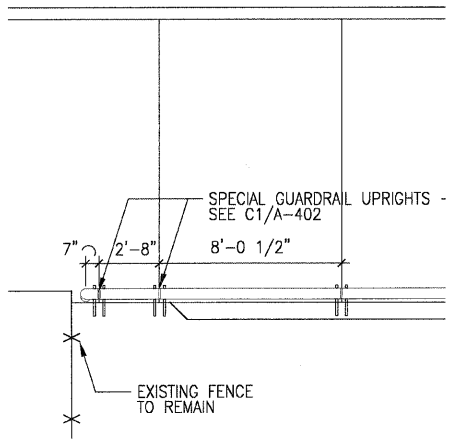
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. A-201
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FED. ROAD DIST.		ILLINOIS FED. AID PROJECT			



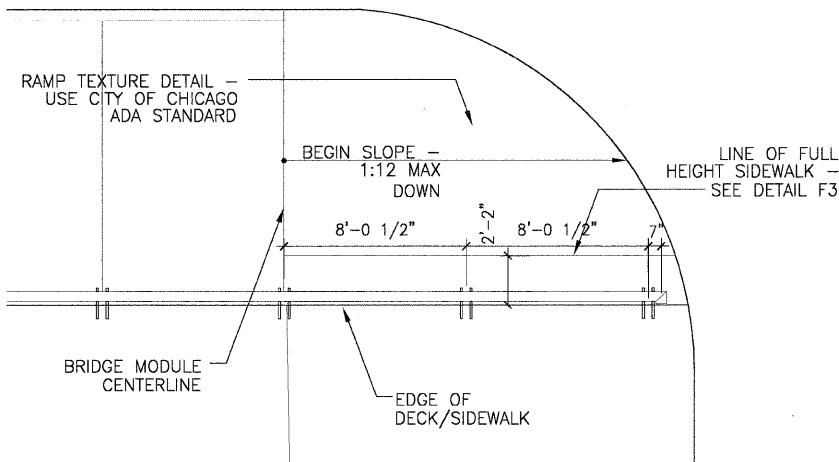
C7 NORTHWEST GUARDRAIL
TERMINUS - PLAN
SCALE: 1/4"=1'-0"



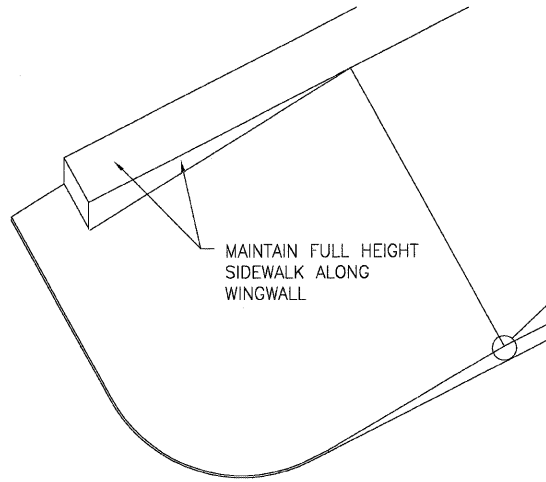
C3 NORTHEAST GUARDRAIL
TERMINUS - PLAN
SCALE: 1/4"=1'-0"



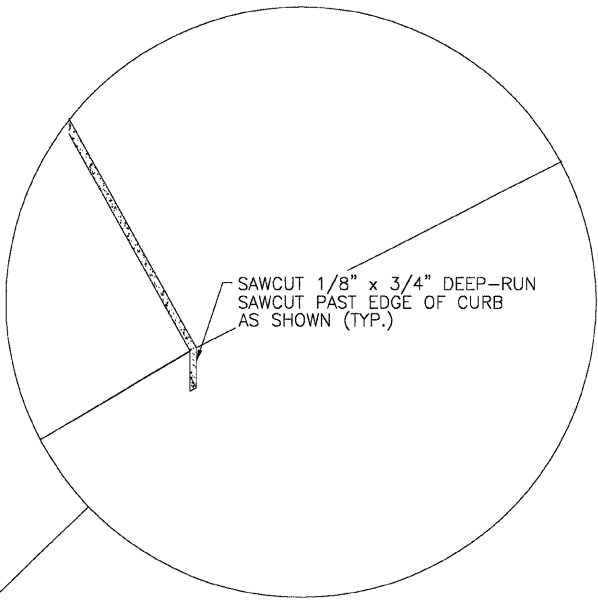
E8 SOUTHWEST GUARDRAIL
TERMINUS - PLAN
SCALE: 1/4"=1'-0"



F6 SOUTHEAST GUARDRAIL
TERMINUS - PLAN
SCALE: 1/4"=1'-0"



F3 HANDICAPPED SIDEWALK
RAMP - SCHEMATIC VIEW
SCALE: NTS



**PLAN
DETAILS**

MONROE STREET OVER I-90/94
KENNEDY EXPRESSWAY
F.A.U. RTE. 1420, SEC. 0101.2-4B-R
COOK COUNTY
STA. 4+03.26
STR. NUM. 016-2054

Scale: AS NOTED

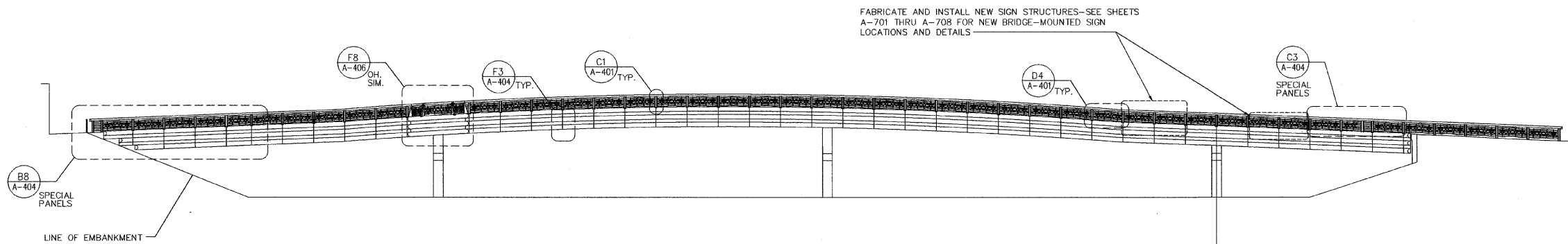
DESTEFANO | KEATING
partners limited

Architecture

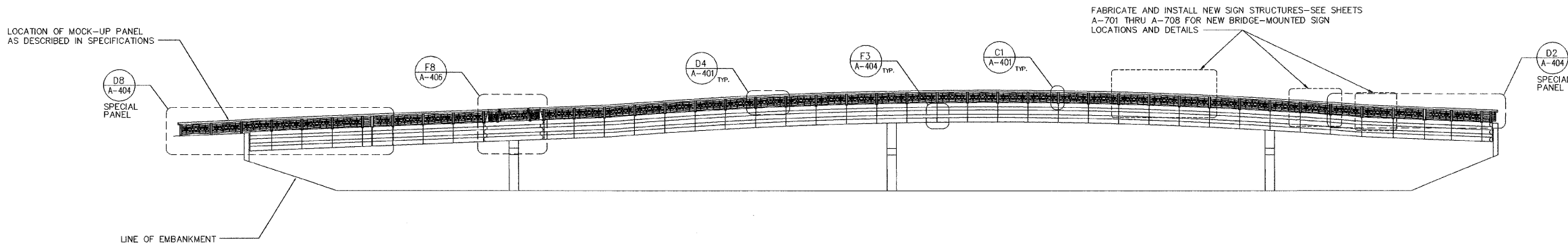
445 East Illinois Street
Chicago, Illinois

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

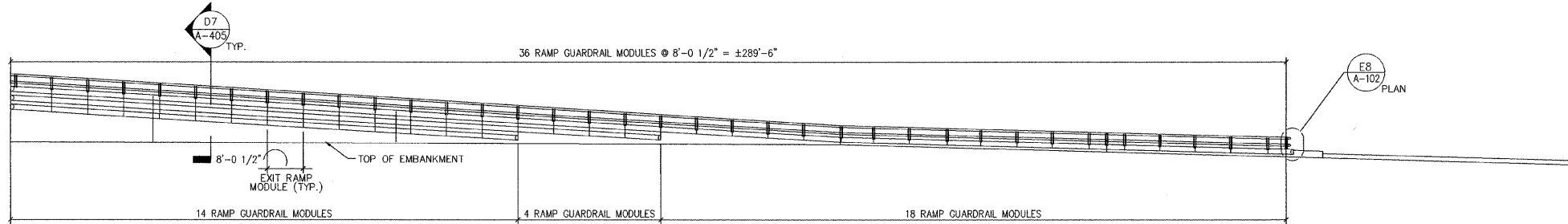
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. A-301
1420	0101.2-4B-R	COOK	246	222	
FED. ROAD DIST.	ILLINOIS	FED. AID PROJECT			



C1 BRIDGE - SOUTH ELEVATION (LOOKING NORTHBOUND)
SCALE: 1/16"=1'-0"



E1 BRIDGE - NORTH ELEVATION (LOOKING SOUTHBOUND)
SCALE: 1/16"=1'-0"



F4 SB I-90/94 EXIT RAMP (RAMP K) - ELEVATION
SCALE: 1/16"=1'-0"

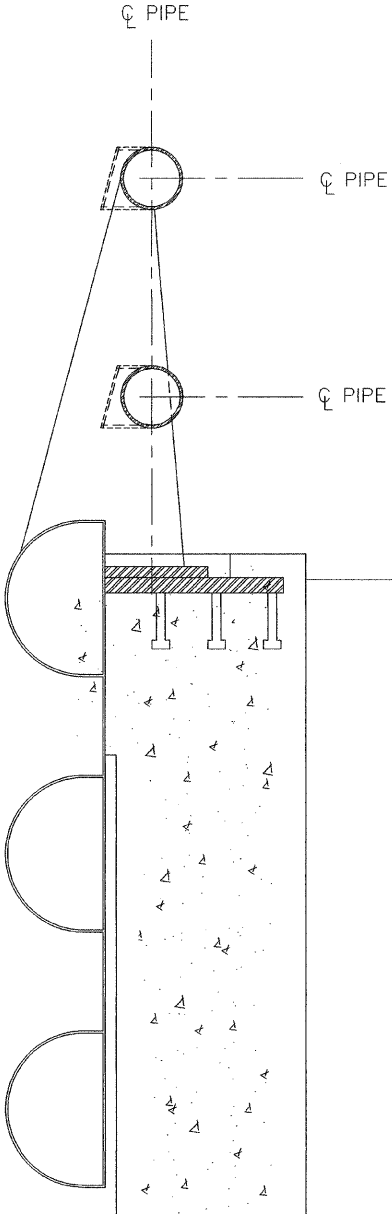
DESTEFANO | KEATING
partners limited
Architecture
445 East Illinois Street
Chicago, Illinois

BRIDGE AND EXIT
RAMP ELEVATIONS
MONROE STREET OVER I-90/94
KENNEDY EXPRESSWAY
F.A.U. RTE. 1420, SEC. 0101.2-4B-R
COOK COUNTY
STA. 4+03.26
STR. NUM. 016-2054
Scale: AS NOTED

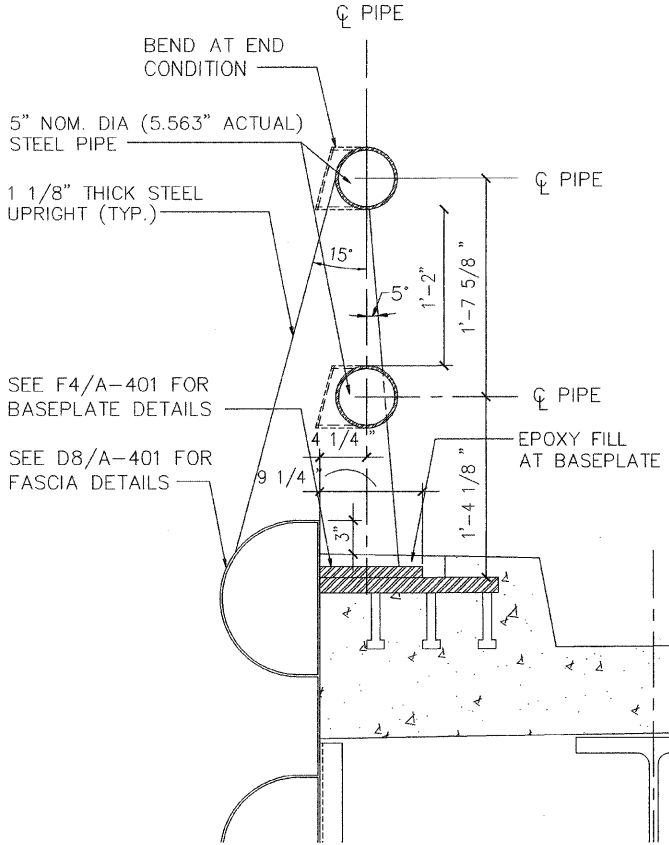
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. A-405
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FED. ROAD DIST.		ILLINOIS FED. AID PROJECT		SHEETS	

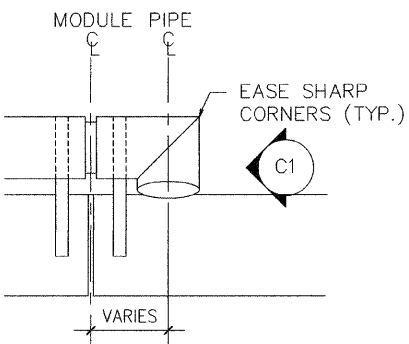
SEE D8 FOR TYPICAL NOTES AND DIMENSIONS



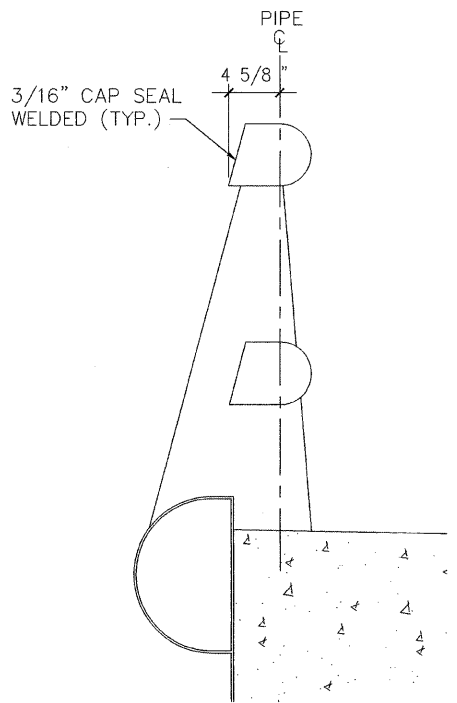
D7 RAMP GUARDRAIL/FASCIA AT EXIT
RAMP RETAINING WALL - SECTION
SCALE: 1-1/2"=1'-0"



D8 RAMP GUARDRAIL/FASCIA SECTION
SCALE: 1-1/2"=1'-0"



E8 RAMP GUARDRAIL END CONDITION-
PLAN
SCALE: 1-1/2"=1'-0"



C1 RAMP GUARDRAIL END
CONDITION-ELEVATION
SCALE: 1-1/2"=1'-0"

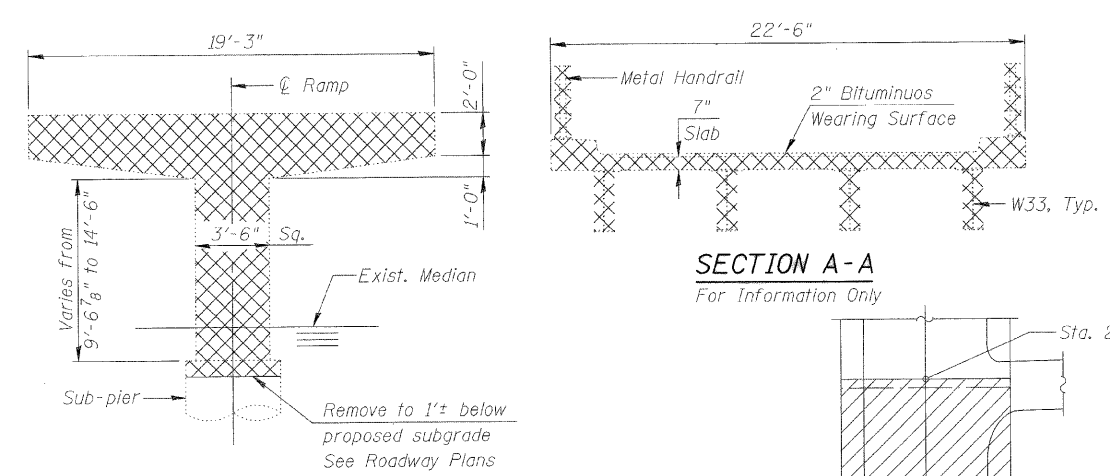
DESTEFANO | KEATING
partners limited
Architecture
245 East Illinois Street
Chicago, Illinois

RAMP GUARDRAIL	
MONROE STREET OVER I-90/94 KENNEDY EXPRESSWAY F.A.U. RTE. 1420, SEC. 0101.2-4B-R COOK COUNTY STA. 4+03.26 STR. NUM. 016-2054	
Scale: AS NOTED	

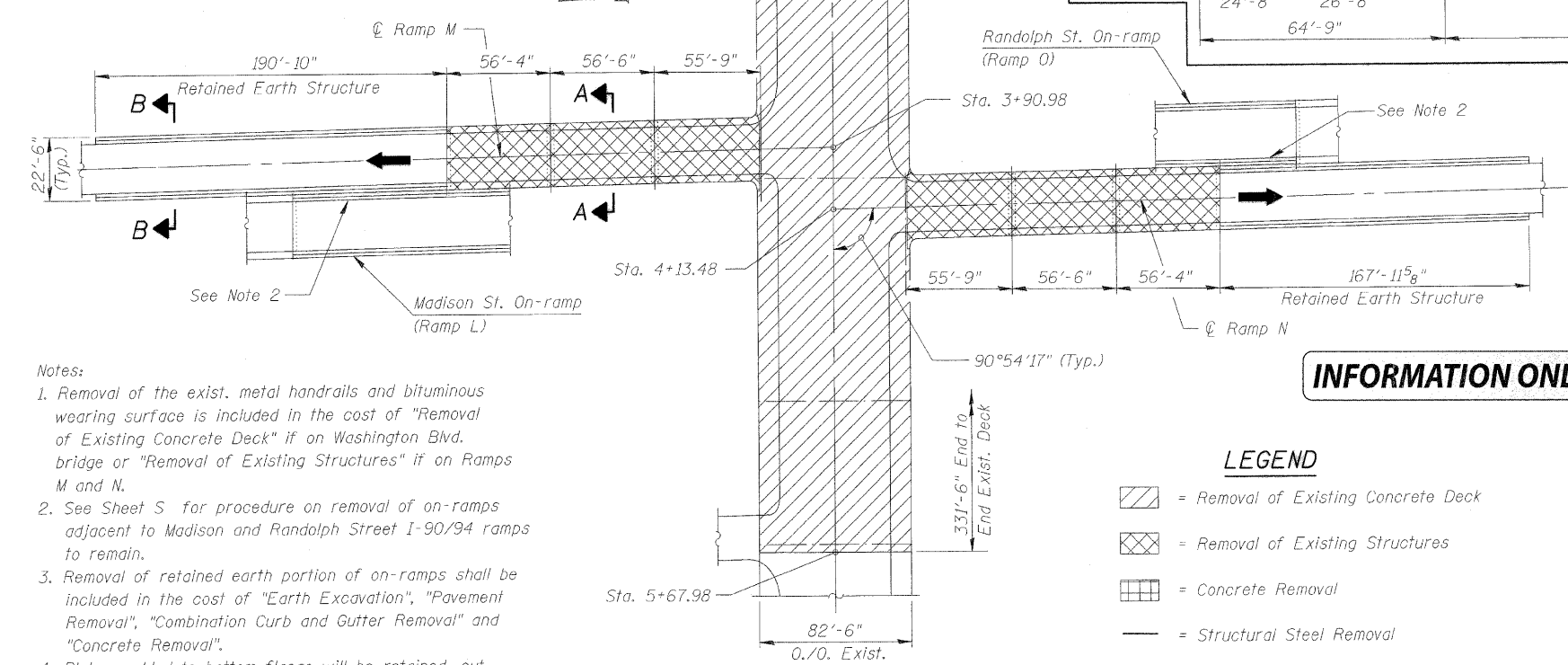
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Removal of exist. on-ramp
beams included with "Removal
of Exist. Structures". (Typ.)

ROUTE NO.	SECTION	COUNTY	DATE	SHEET NO.	SHEET NO. S OF
F.A.U. 1414	0202.2-2B-R	COOK	11/15	115	S SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



RAMP PIER ELEVATION
For Information Only



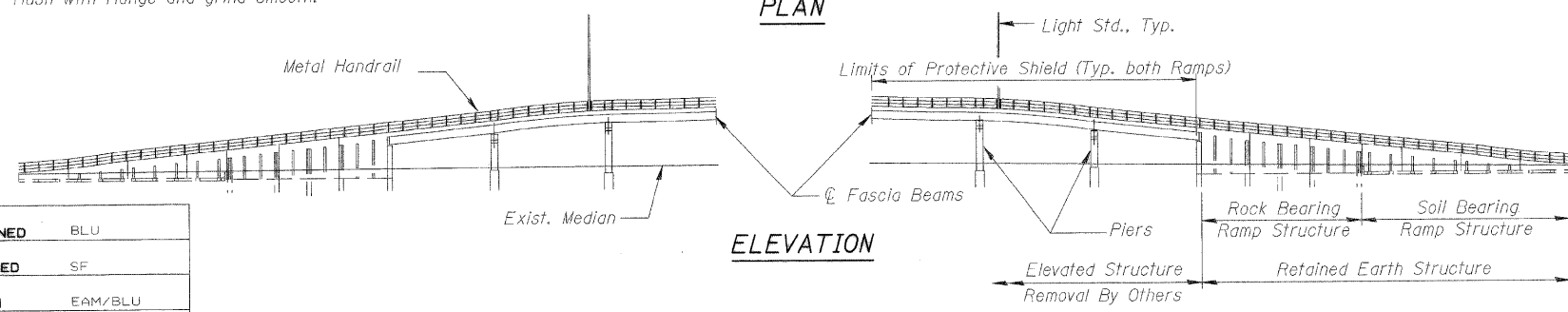
Notes:

1. Removal of the exist. metal handrails and bituminous wearing surface is included in the cost of "Removal of Existing Concrete Deck" if on Washington Blvd. bridge or "Removal of Existing Structures" if on Ramps M and N.
2. See Sheet S for procedure on removal of on-ramps adjacent to Madison and Randolph Street I-90/94 ramps to remain.
3. Removal of retained earth portion of on-ramps shall be included in the cost of "Earth Excavation", "Pavement Removal", "Combination Curb and Gutter Removal" and "Concrete Removal".
4. Plates welded to bottom flange will be retained, cut off flush with flange and grind smooth.

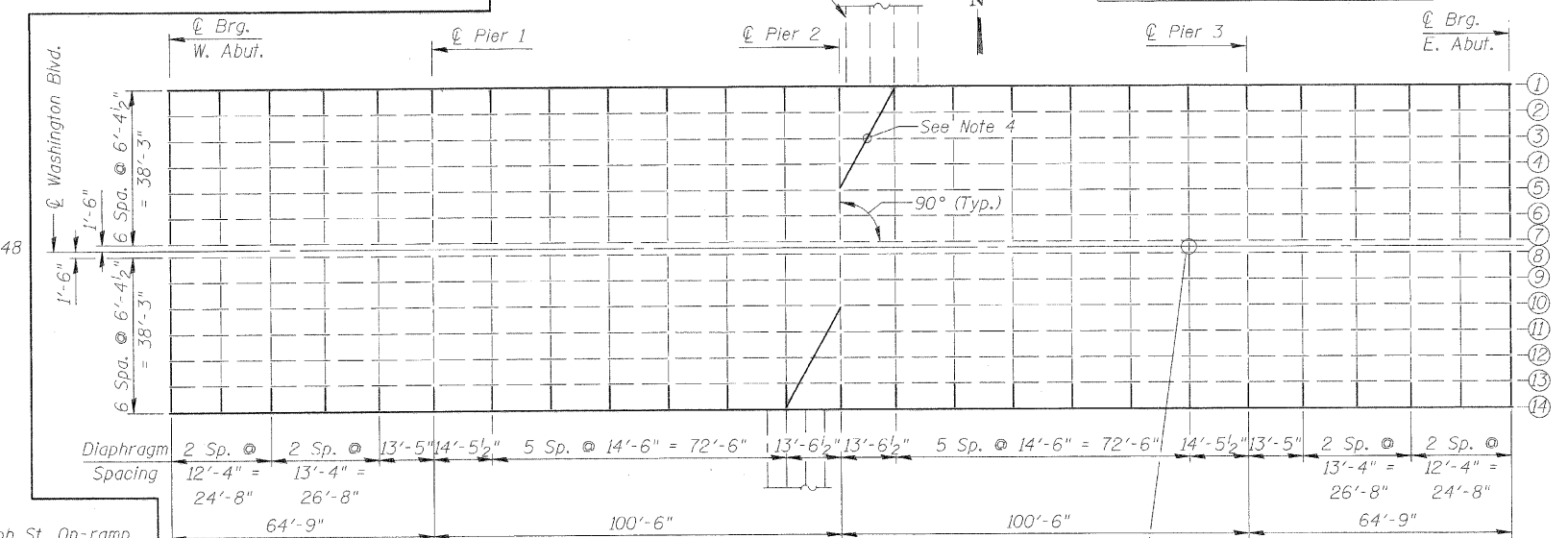
LEGEND

- [Hatched Box] = Removal of Existing Concrete Deck
- [Cross-hatched Box] = Removal of Existing Structures
- [Grid Box] = Concrete Removal
- [Solid Line] = Structural Steel Removal

PLAN



ELEVATION

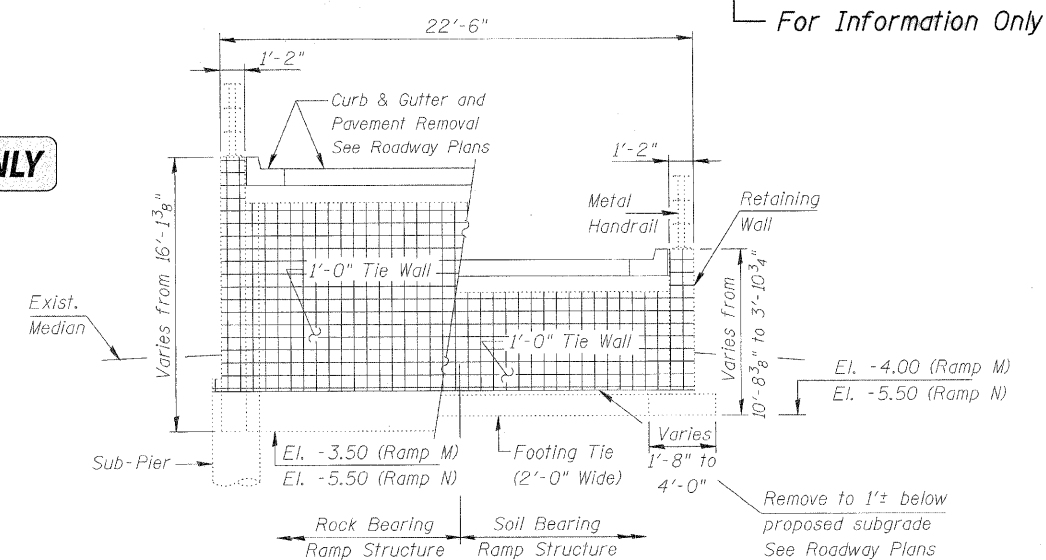


EXISTING FRAMING PLAN

(Showing Structural Steel Removal)
Remove all abandoned beam clamps,
pipe hangers and appurtenances bolted
to the steel beams. Cost included with
"Structural Steel Removal".

Remove existing plates between
beams 7 and 8 and any angles that
interfere with new diaphragms,
see Sheet S.
Cost included with "Structural Steel
Removal".

For Information Only



SECTION B-B

REMOVAL DETAILS 1
WASHINGTON BLVD. (F.A.U. 1414)
OVER I-90/94 KENNEDY EXPWY.
SECTION 0202.2-2B-R
COOK COUNTY
STATION 4+02.23
S.N. 016-0601

**BOWMAN, BARRETT
& ASSOCIATES INC.**
CONSULTING ENGINEERS
130 E. RANDOLPH STREET
CHICAGO, ILLINOIS 60601
JOB NO. 475



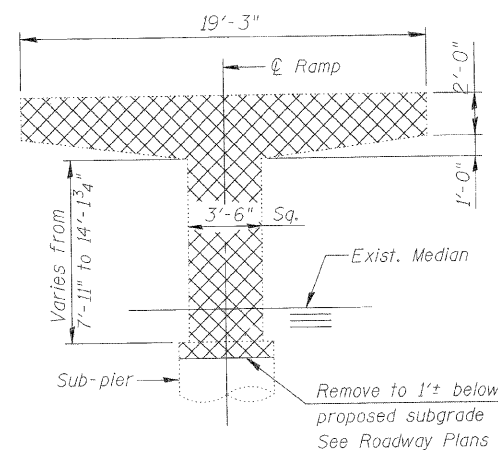
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CHECKED	SF
DRAWN	EAM/BLU
CHECKED	SF

DATE: 08-31-00

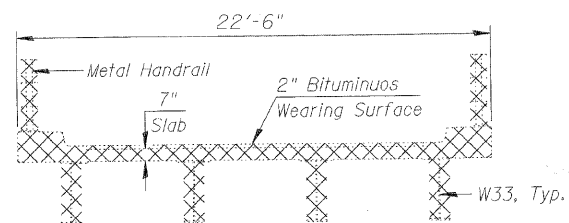
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	S OF
F.A.U. 1420	0101.2-4B-R	COOK	246	225
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

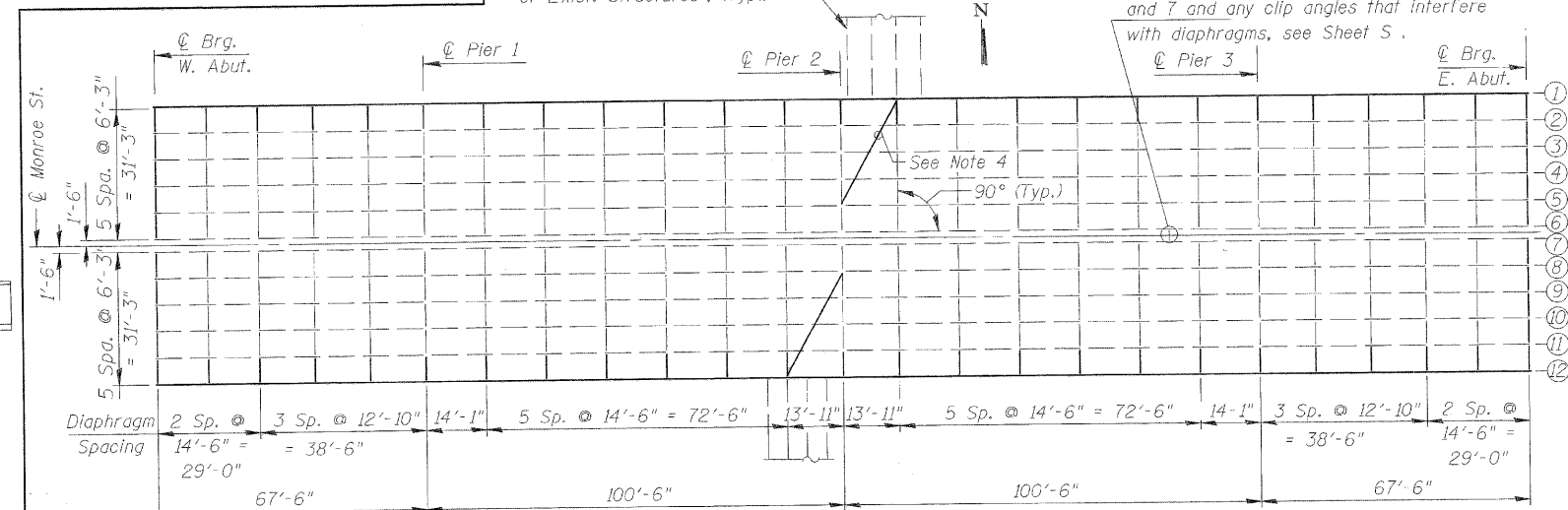
SHEETS

**RAMP PIER ELEVATION**

For Information Only

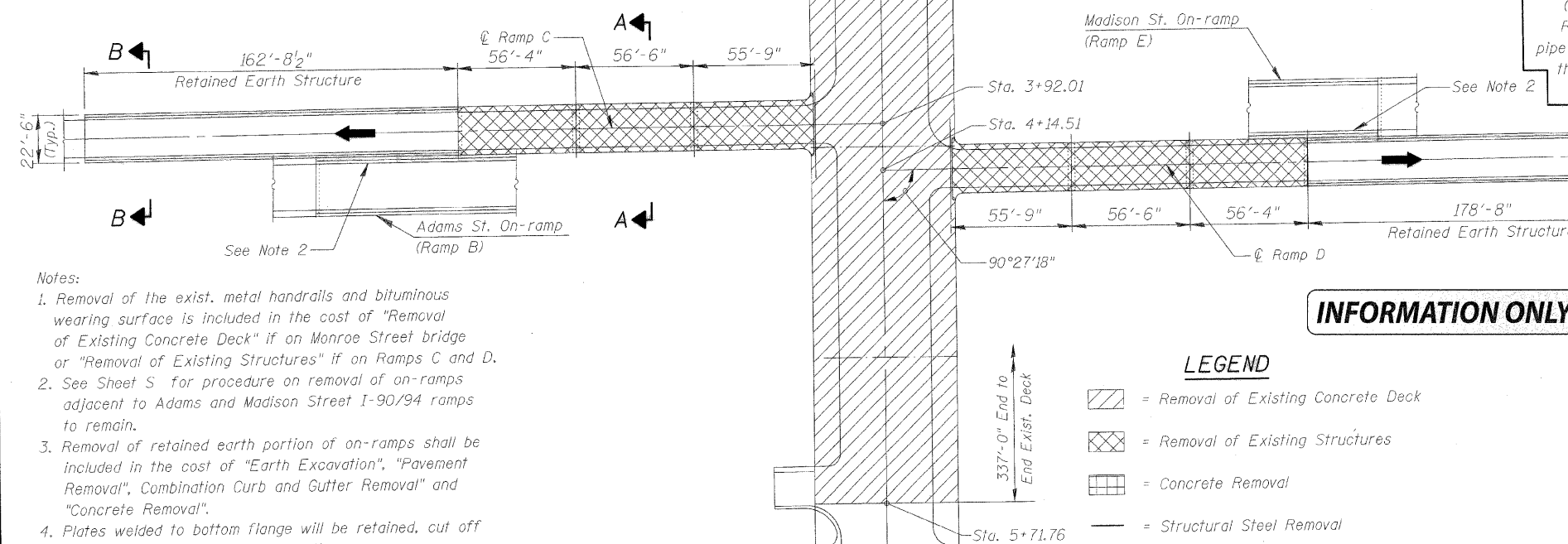
**SECTION A-A**

For Information Only

**EXISTING FRAMING PLAN**

(Showing Structural Steel Removal)
Remove all abandoned beam clamps, pipe hangers and appurtenances bolted to the steel beams. Cost included with "Structural Steel Removal".

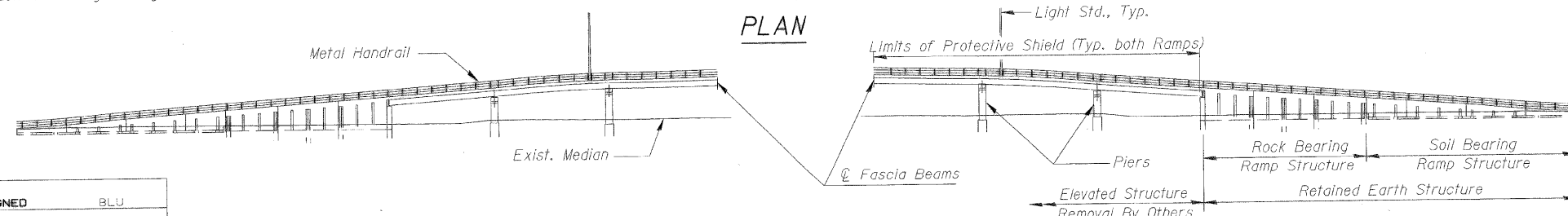
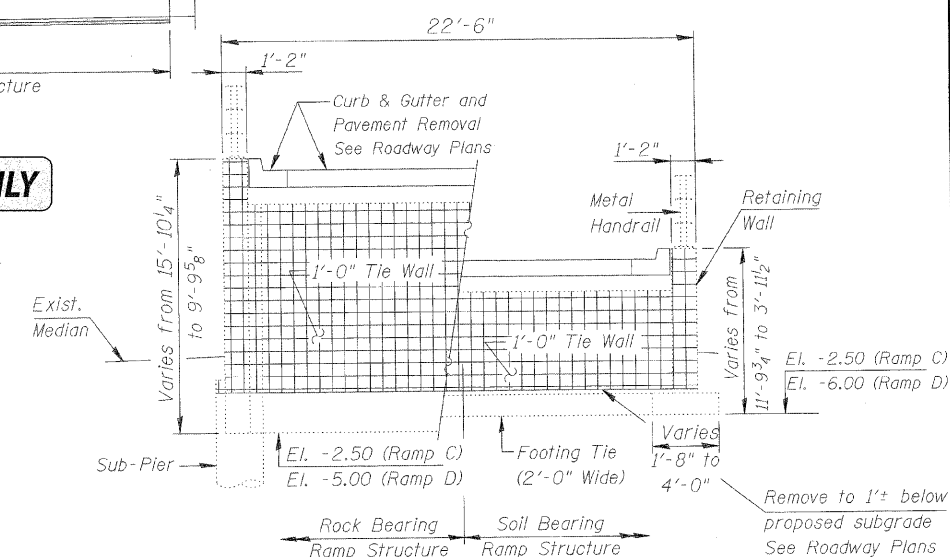
For Information Only

**INFORMATION ONLY****LEGEND**

- = Removal of Existing Concrete Deck
- = Removal of Existing Structures
- = Concrete Removal
- = Structural Steel Removal

Notes:

1. Removal of the exist. metal handrails and bituminous wearing surface is included in the cost of "Removal of Existing Concrete Deck" if on Monroe Street bridge or "Removal of Existing Structures" if on Ramps C and D.
2. See Sheet S for procedure on removal of on-ramps adjacent to Adams and Madison Street I-90/94 ramps to remain.
3. Removal of retained earth portion of on-ramps shall be included in the cost of "Earth Excavation", "Pavement Removal", "Combination Curb and Gutter Removal" and "Concrete Removal".
4. Plates welded to bottom flange will be retained, cut off flush with flange and grind smooth.

**ELEVATION****SECTION B-B**

REMOVAL DETAILS 1
MONROE STREET (F.A.U. 1420)
OVER I-90/94 KENNEDY EXPWY.
SECTION 0101.2-4B-R

COOK COUNTY
STATION 4+03.26
S.N. 016-2054

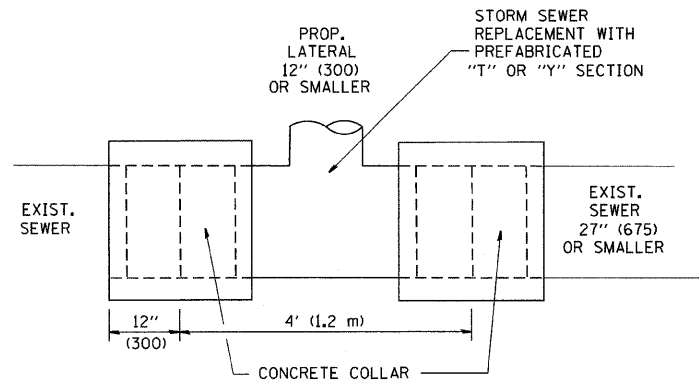
BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
130 E. RANDOLPH STREET
CHICAGO, ILLINOIS 60601
JOB NO. 475



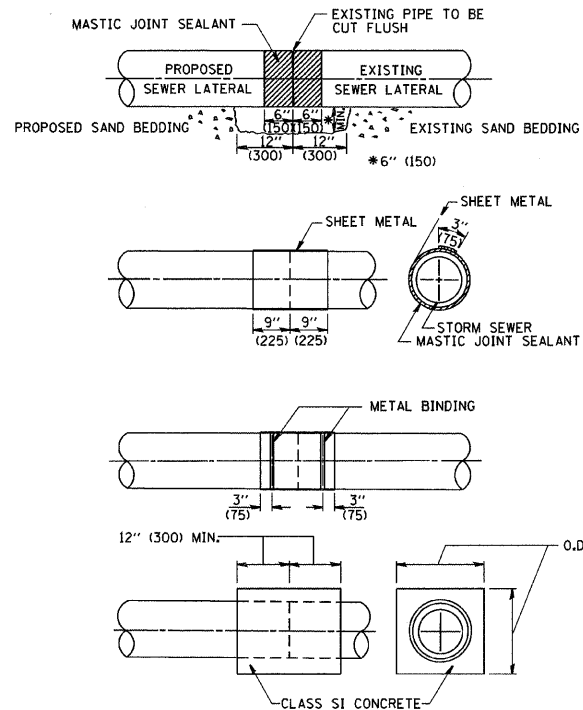
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CHECKED	SF
DRAWN	EAM/BLU
CHECKED	SF

DATE: 08-31-00

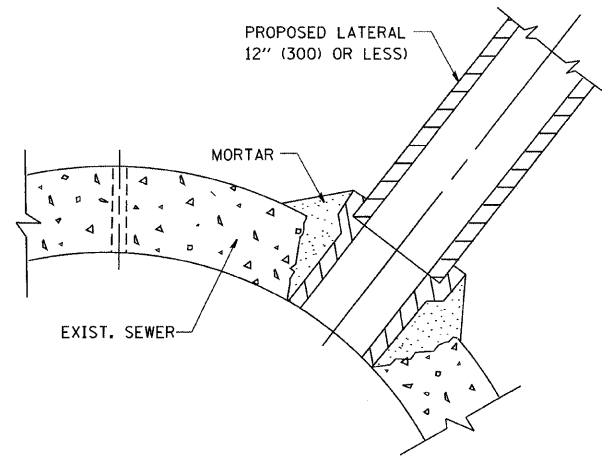
CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			246	226
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



DETAIL "A"
LATERAL CONNECTION TO EXISTING SEWER
OF 27" (675) OR SMALLER



DETAIL "B"
CLASS SI CONCRETE COLLAR



DETAIL "C"
PROPOSED LATERAL
CONNECTION TO EXISTING SEWER
OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

REVISIONS	
NAME	DATE
M. DE YONG	07/25/90
M. DE YONG	02/05/92
M. DE YONG	05/08/92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	06/12/96

ILLINOIS DEPARTMENT OF TRANSPORTATION

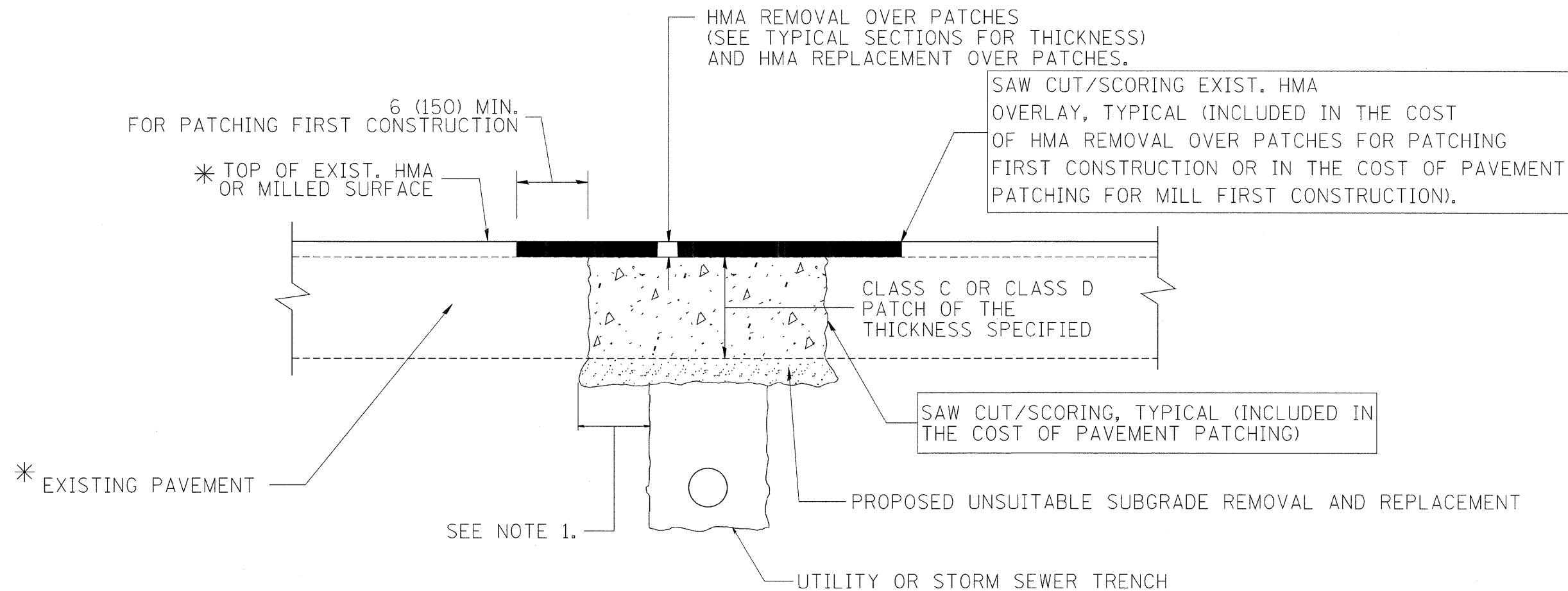
DETAIL OF STORM SEWER
CONNECTION TO EXISTING SEWER

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

BD500-01 (BD-7)

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			246	227
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4½ INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

REVISIONS	
NAME	DATE
R. SHAH	01/14/95
R. SHAH	03/23/95
R. SHAH	04/24/95
A. HOUSEH	03/15/96
A. ABBAS	03/21/97
A. ABBAS	01/20/98
ART ABBAS	04/27/98
R. BORO	01/01/07
R. BORO	09/04/07
K. ENG	10/27/08

ILLINOIS DEPARTMENT OF TRANSPORTATION

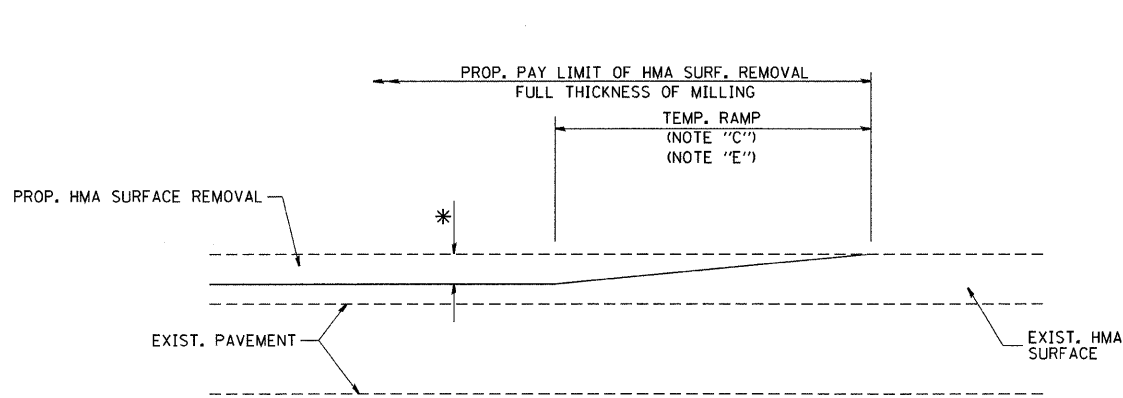
PAVEMENT PATCHING FOR
HMA SURFACED
PAVEMENT

SCALE: VERT. NONE
HORIZ. NONE

DRAWN BY

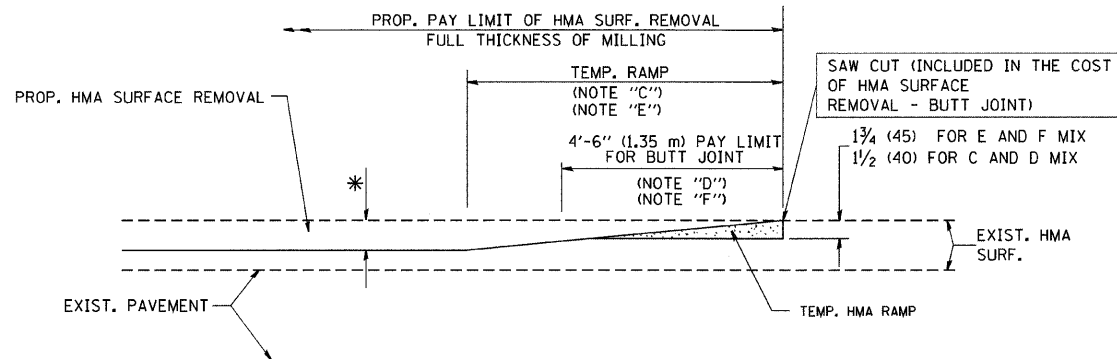
CHECKED BY

BD400-04 (BD-22)



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

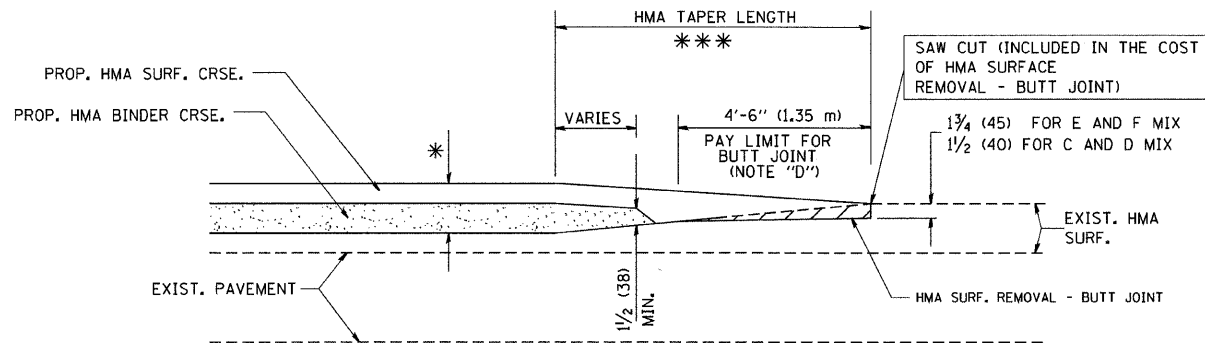
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

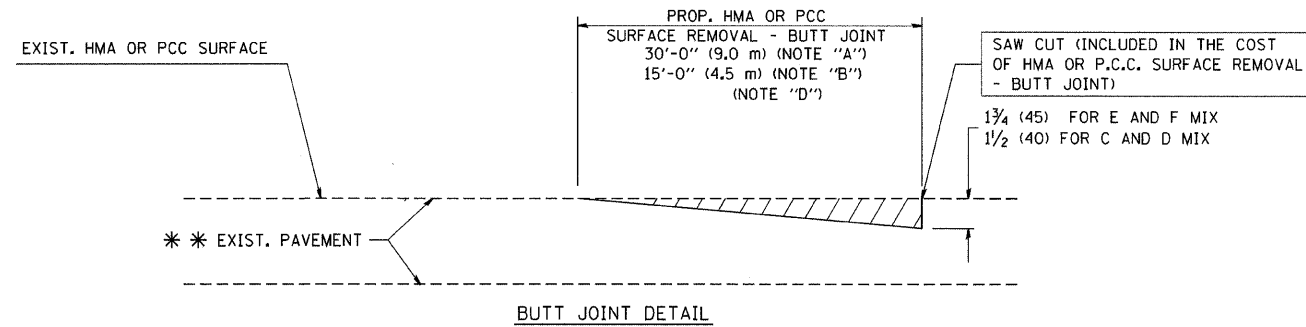
OPTION 2

TYPICAL TEMPORARY RAMP

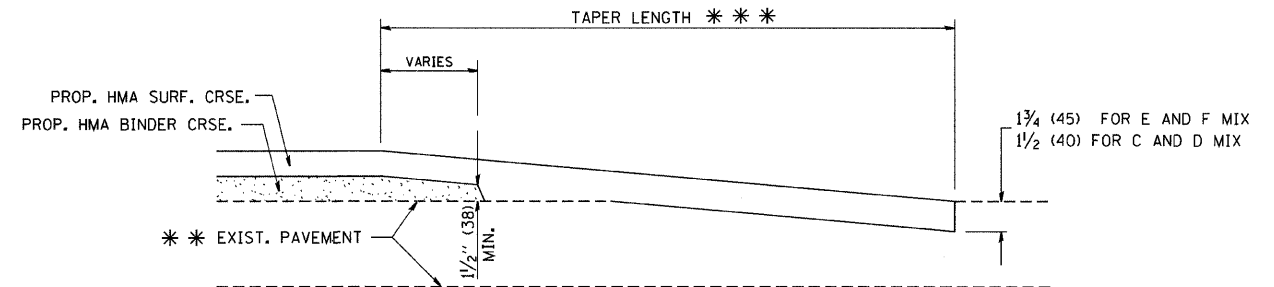


BUTT JOINT AND
HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

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

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER
DETAILS

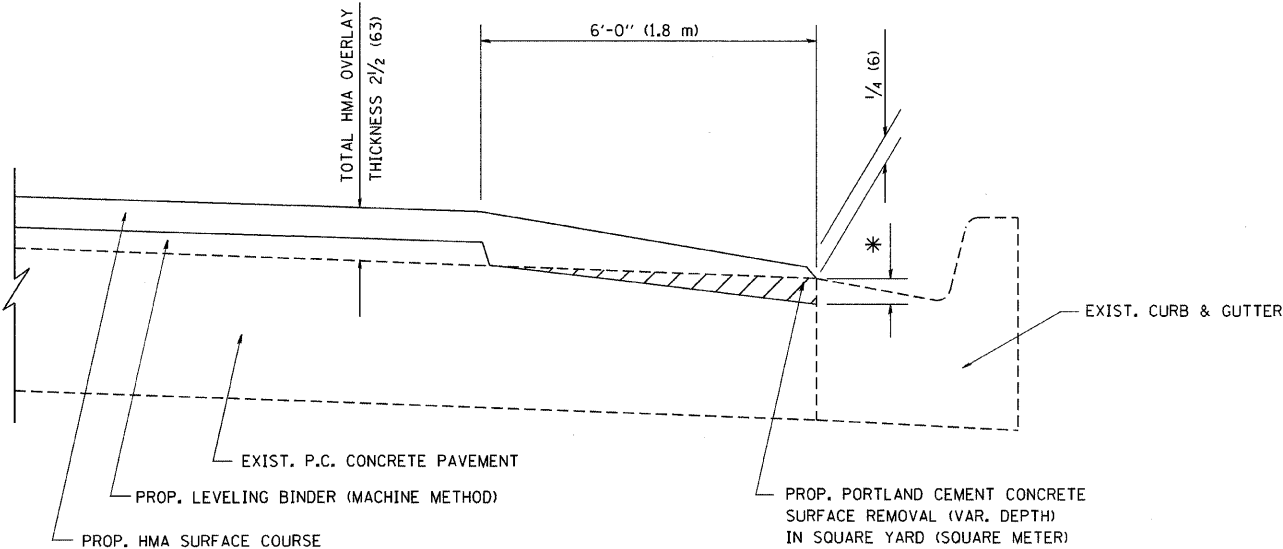
SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

BD400-05 (VI-BD32)

PLOT DATE = 3/5/2007
FILE NAME = K:\dstated\bd33.dgn
PLOT SCALE = 80.0000 / IN.
USER NAME = bboardi

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			246	229
STA.			TO STA.	
FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT	



HMA TAPER AT
EDGE OF P.C.C PAVEMENT

HMA SURFACE		LEVELING BINDER	
MIX	THICKNESS	THICKNESS	* MILLING AT GUTTER FLAG
C OR D	1 1/2 (38)	1 (25)	1/4 (33)
F	1 3/4 (44)	3/4 (19)	1/2 (38)

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

REVISIONS	
NAME	DATE
R. SHAH	09/10/94
R. SHAH	10/25/94
A. ABBAS	05/05/99
E. GOMEZ	12/21/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

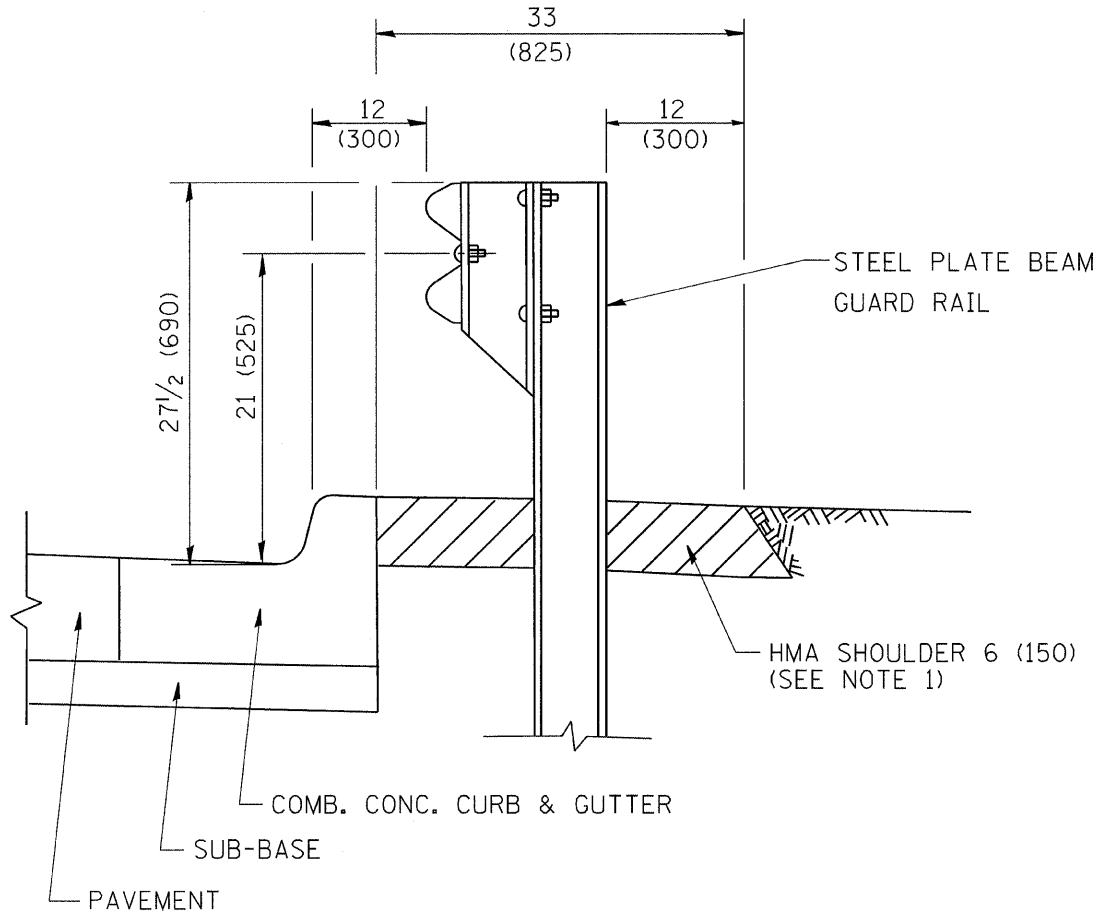
HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

SCALE: VERT. NONE
HORIZ. NONE

DRAWN BY jls
CHECKED BY A. ABBAS

BD400-06 (BD33)

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			246	230
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

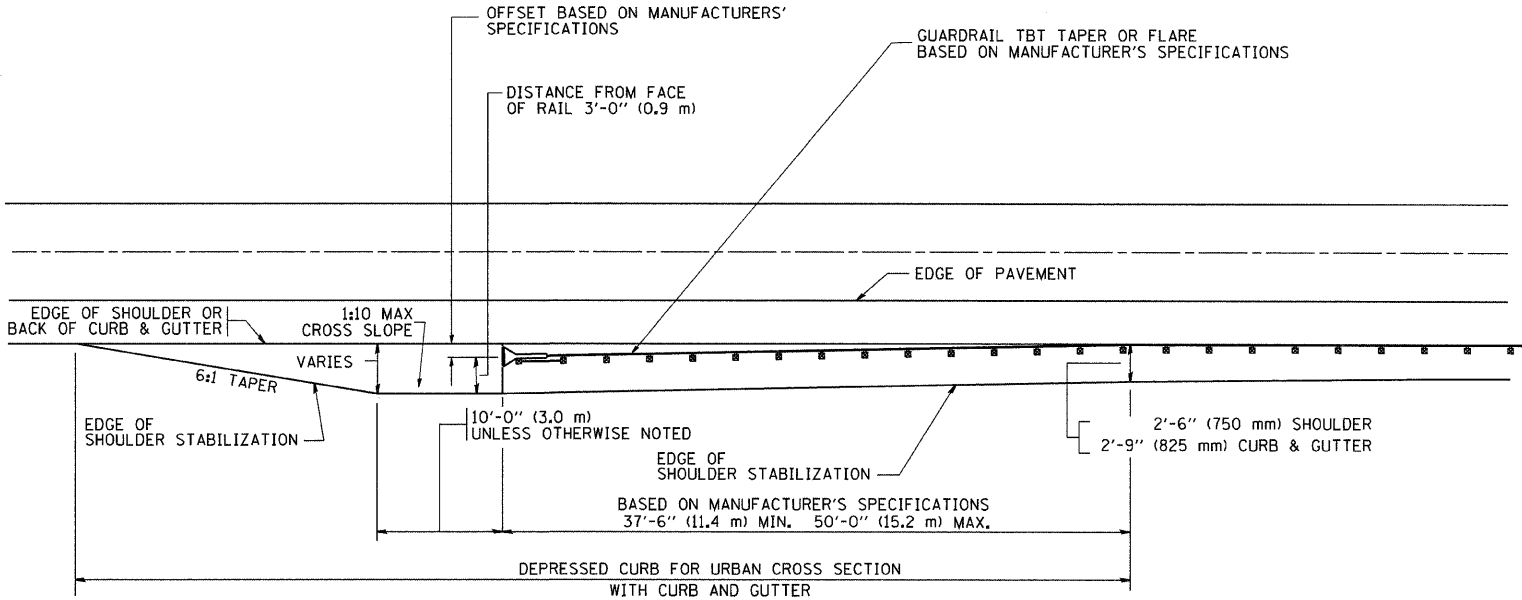


- NOTES: 1. THE HMA SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL
2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

BASIS OF PAYMENT: HMA SHOULDER 6 (150) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDER 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



STABILIZATION AT TBT TY. 1 SPL.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

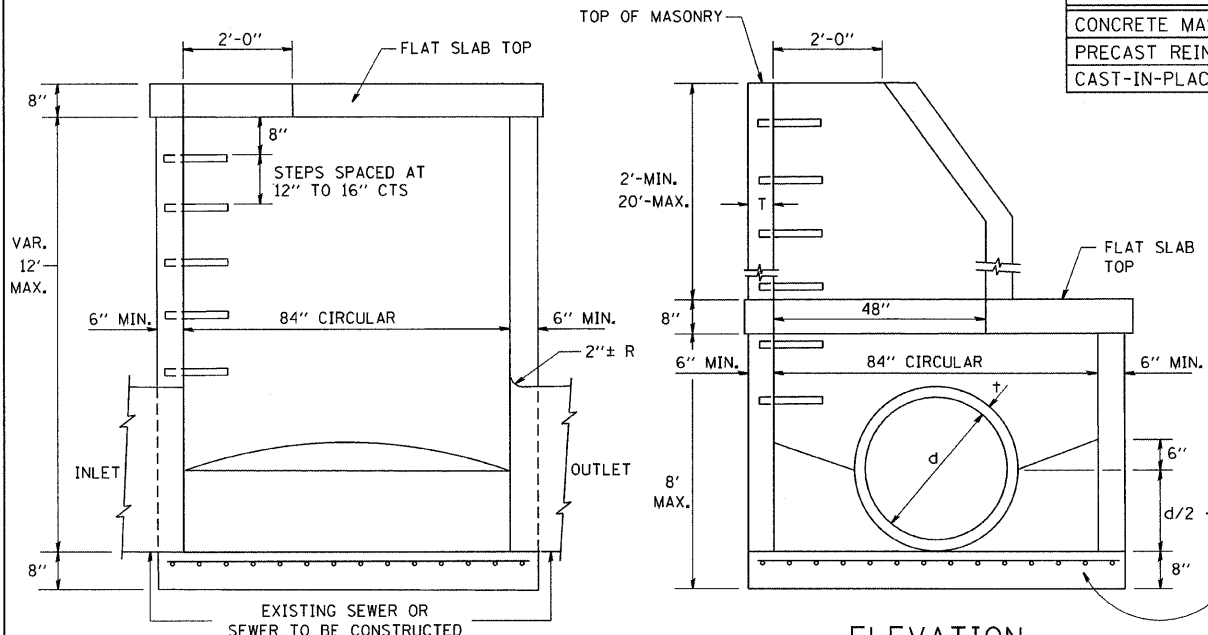
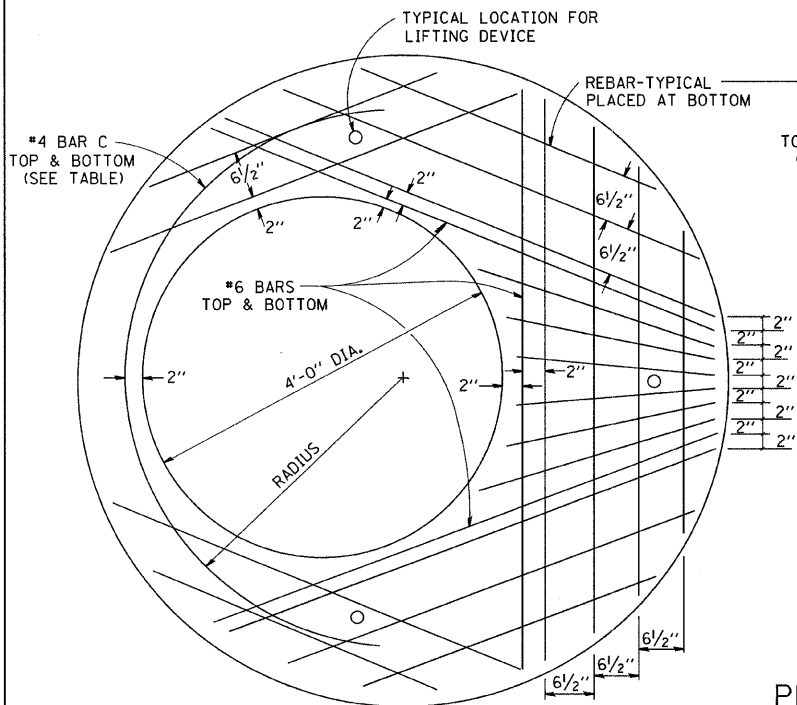
REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/95
A. ABBAS	03/21/97
E. GOMEZ	08/28/00
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR
STEEL PLATE BEAM GUARD RAIL
ADJACENT TO CURB AND GUTTER
STABILIZATION AT TBT TY 1 SPL.
SCALE: VERT. NONE
HORIZ. NONE
DRAWN BY jls
CHECKED BY

[illegible]

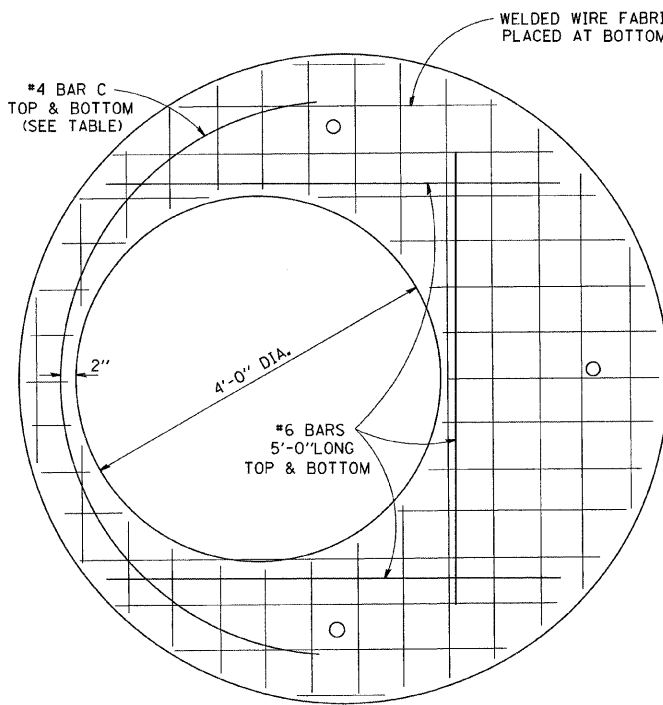
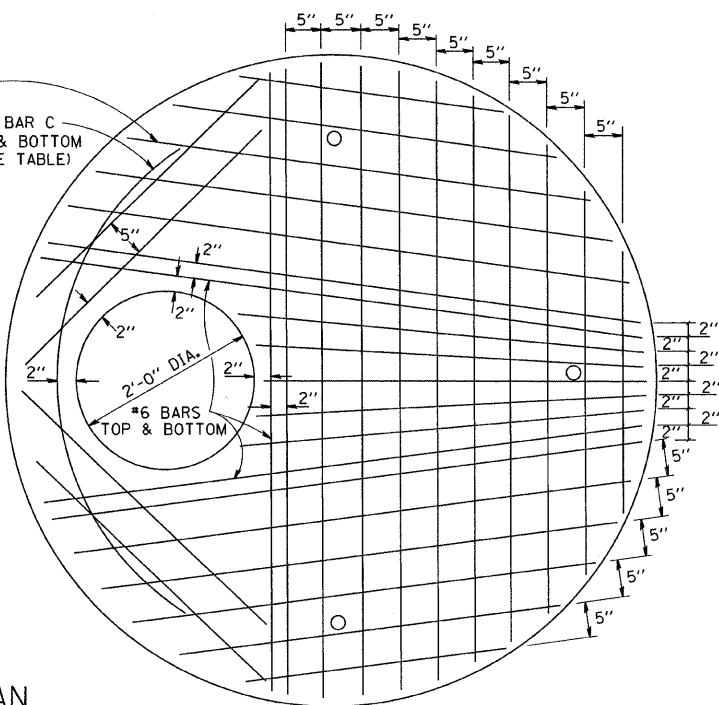
CAST IRON STEPS

LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.

ELEVATIONELEVATION

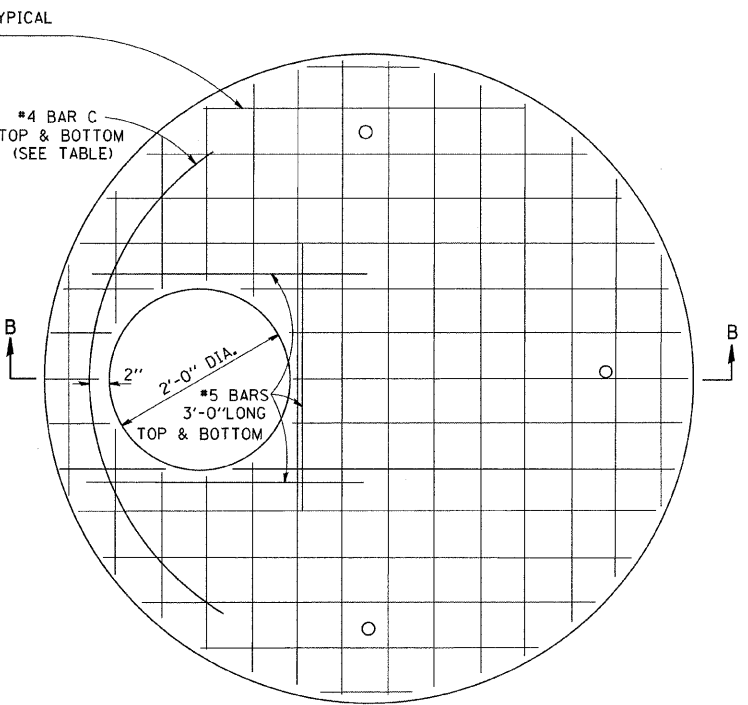
PLAN

SHOWING REBAR REINFORCEMENT



PLAN

SHOWING WELDED WIRE FABRIC REINFORCEMENT

[illegible]

MANHOLE TYPE A
7 FOOT DIAMETER

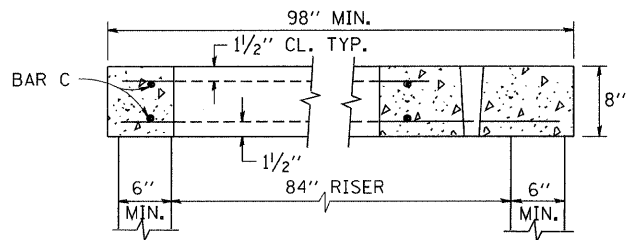
SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

BD600-11 (BD-37)

TABLE

DIAMETER OF OPENING	REINFORCEMENT "A" S ₁ WWF EACH DIRECTION	OR BAR SIZE	BAR C		
			SIZE	LENGTH	RADIUS
2'-0"	1.06 SQ.IN./LIN.FT.	#6	#4	6'-0"	38"
4'-0"	0.82 SQ.IN./LIN.FT.	#6	#4	9'-0"	38"

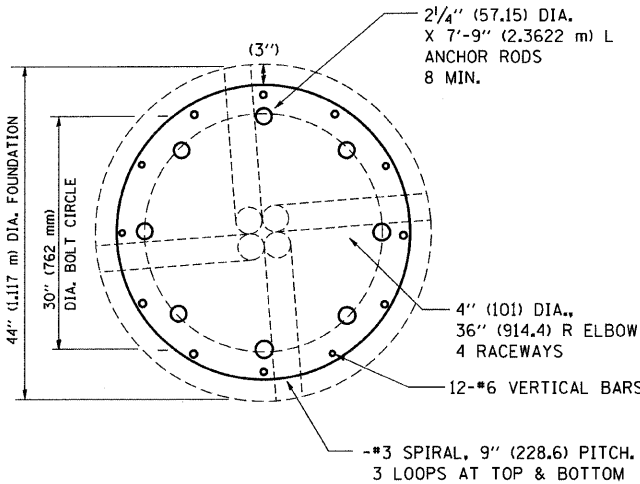


SECTION B-B

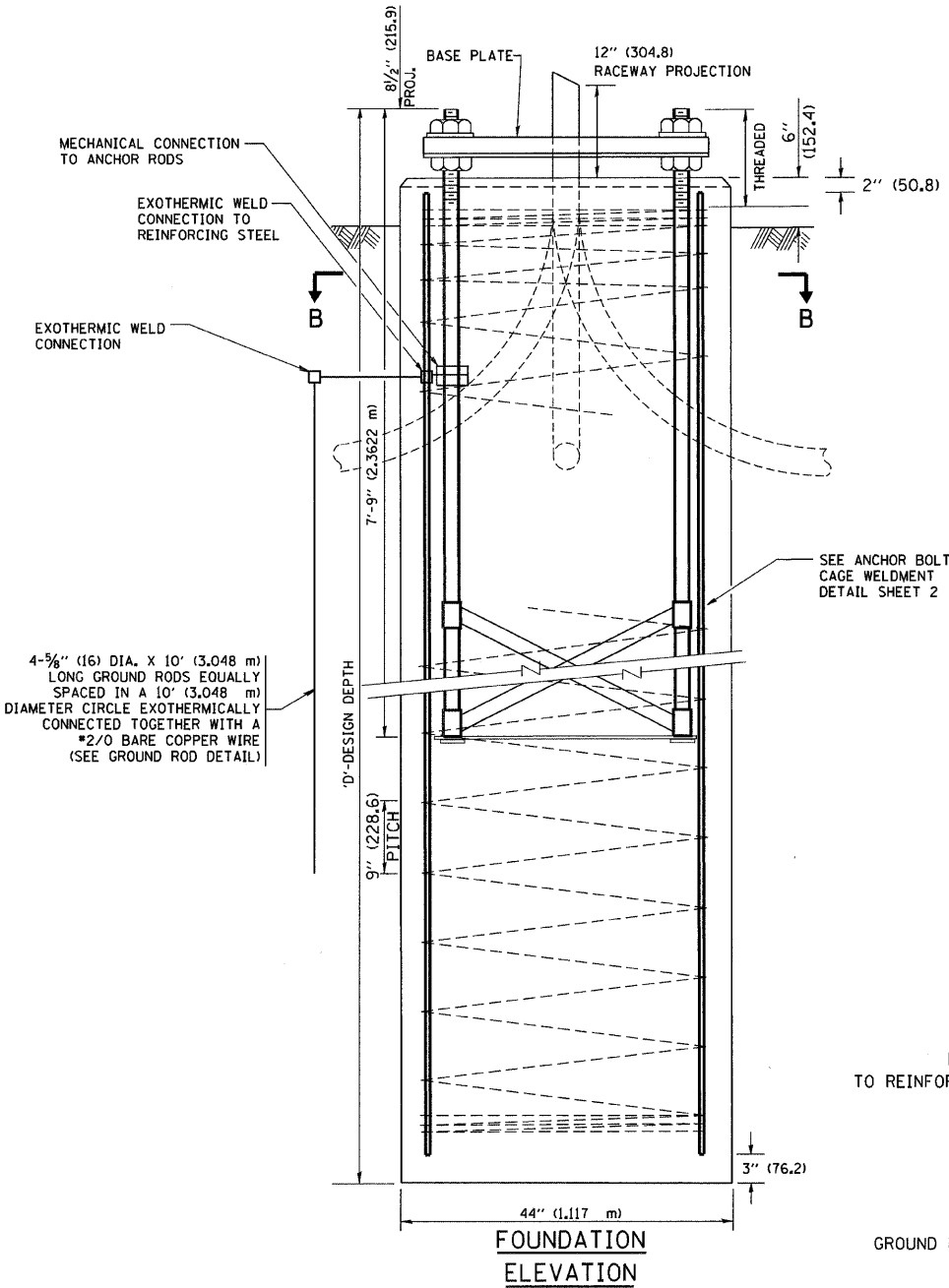
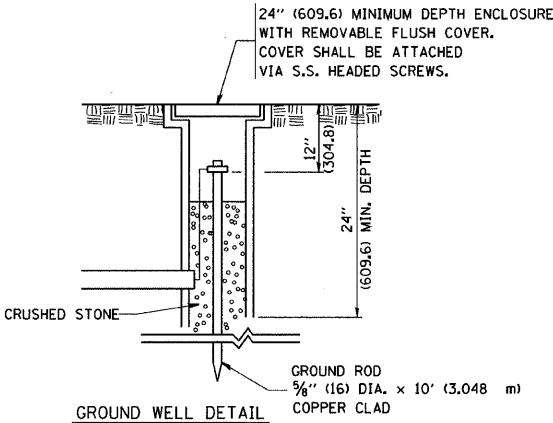
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PLOT DATE      = 3/5/2007
FILE NAME      = K:\diststd\bd37.dgn
PLOT SCALE     = 50.0000' / IN,
USER NAME      = bouwerd!
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LIGHT TOWER FOUNDATION DEPTH "D"

MOUNTING HEIGHT	SOIL CONDITIONS					
	SOFT CLAY Qu = 0.375 TON/SQ. FT	MEDIUM CLAY Qu = 0.75 TON/SQ. FT	STIFF CLAY Qu = 1.50 TON/SQ. FT	LOOSE SAND Ø = 34°	MEDIUM SAND Ø = 37.5°	DENSE SAND Ø = 40°
90 FT (27 m)	29 FT (8.779 m)	20 FT (6.035 m)	15 FT (4.389 m)	15 FT (4.389 m)	13 FT (3.840 m)	12 FT (3.429 m)
100 FT (30 m)	32 FT (9.754 m)	22 FT (6.706 m)	16 FT (4.877 m)	16 FT (4.877 m)	14 FT (4.267 m)	13 FT (3.81 m)
110 FT (33 m)	35 FT (10.719 m)	24 FT (7.377 m)	18 FT (5.365 m)	18 FT (5.365 m)	15 FT (4.694 m)	14 FT (4.191 m)
120 FT (36 m)	38 FT (11.705 m)	26 FT (8.046 m)	19 FT (5.652 m)	19 FT (5.652 m)	17 FT (5.120 m)	16 FT (4.572 m)

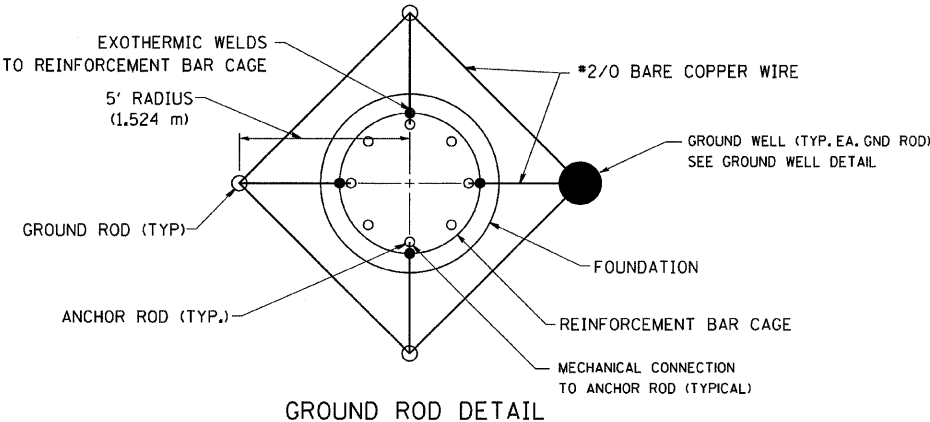


SECTION-B-B

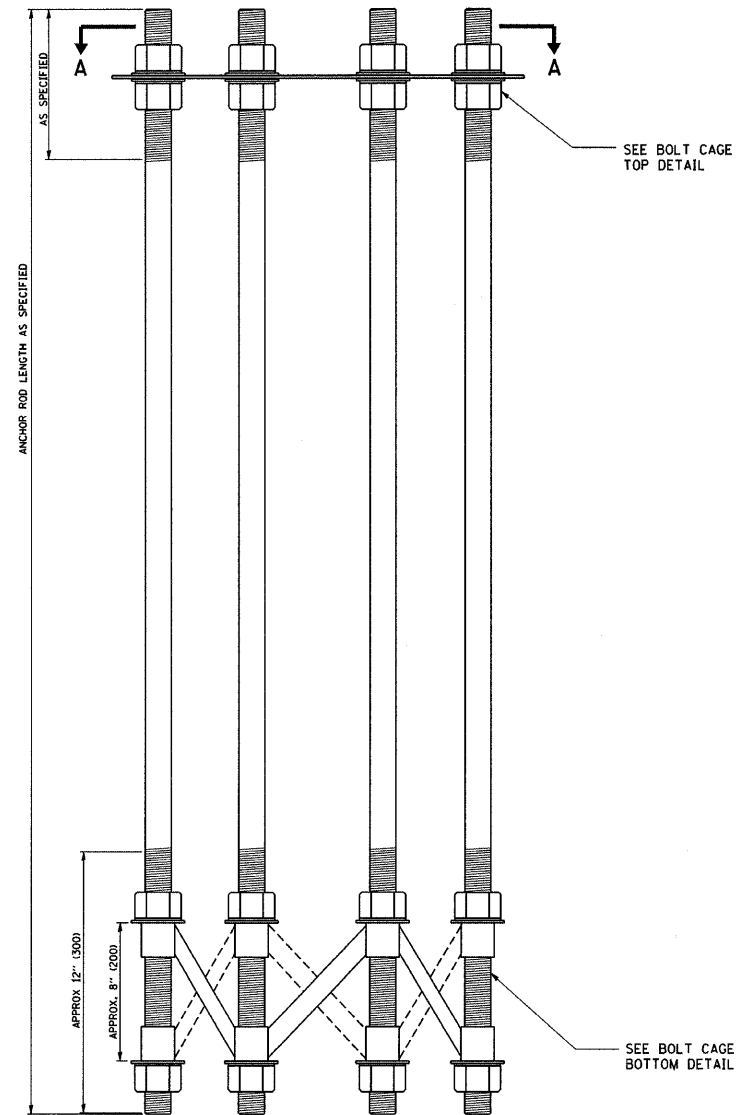


DESIGN NOTES

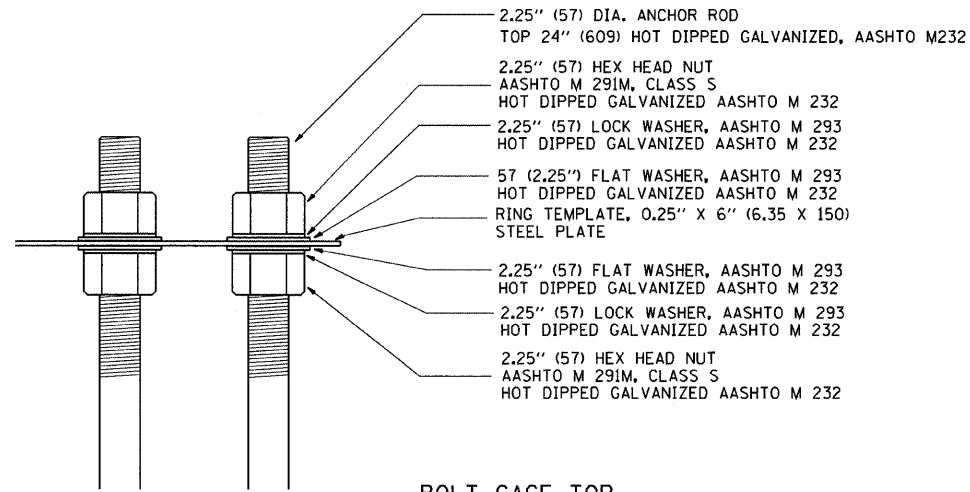
- (1) ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- (2) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (3) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (4) THE TOP OF THE FOUNDATION TO 18" (450) BELOW GRADE SHALL BE FORMED.
- (5) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (6) THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (7) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (8) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (9) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (10) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.



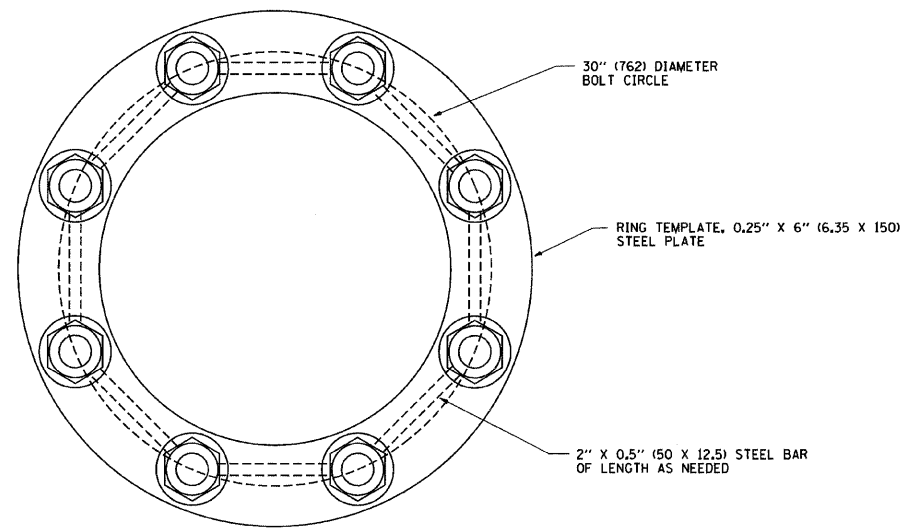
GROUND ROD DETAIL



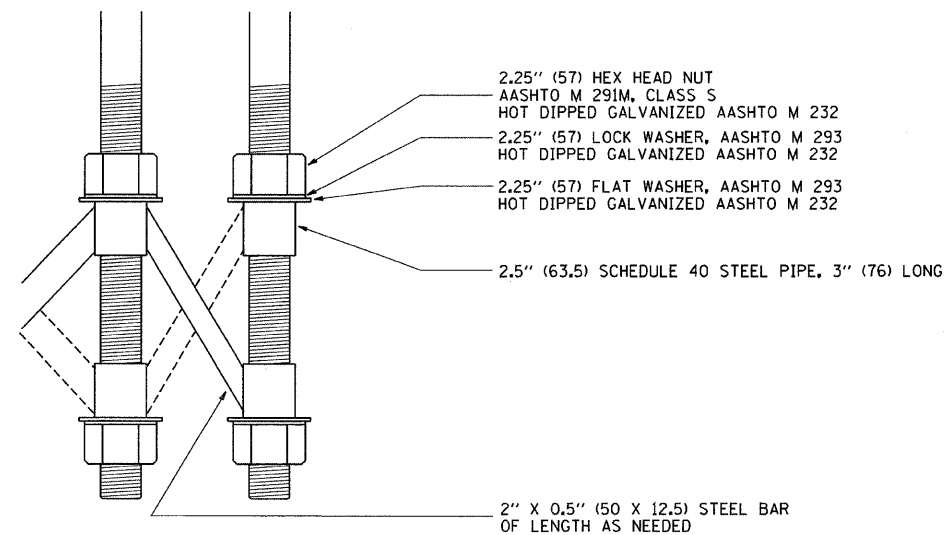
ANCHOR BOLT CAGE



BOLT CAGE TOP



SECTION A-A



BOLT CAGE BOTTOM

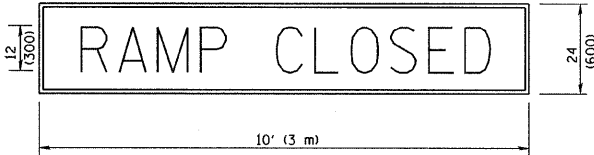
NOTES

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.09.
3. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS.

FILE NAME = W:\diststd\22x34\be501.dgn	USER NAME = geglienobt	DESIGNED -	REVISED - R. TOMSONS 04-22-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGH MAST LIGHT TOWER 90 FT TO 120 FT (27 mTO 36 m) FOUNDATION DETAIL			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -								246	233
	PLOT SCALE = 50,000 ' / IN.	CHECKED -	REVISED -					BE-501 CONTRACT NO.				
	PLOT DATE = 1/4/2008	DATE -	REVISED -					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
SCALE: NONE			SHEET NO. 2 OF 2 SHEETS		STA. TO STA.							

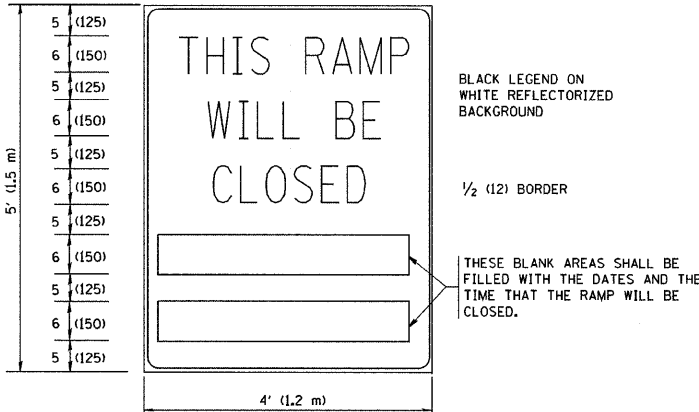
CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			246	234
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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 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.

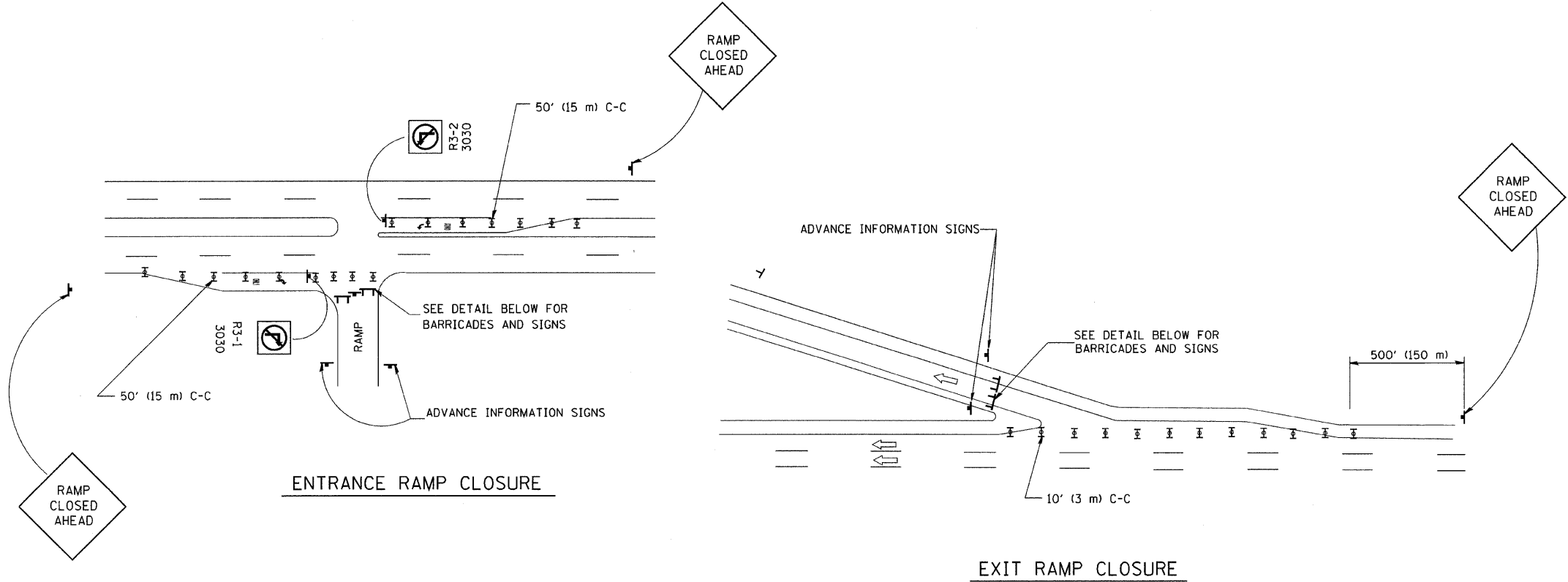
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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



THE "RAMP CLOSED" SIGN SHALL BE B/W WITH 8 (200) CAPS. IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.

FLASHER UNIT AMBER BOTH SIDES OF EACH TYPE III BARRICADE

R5-1-4848

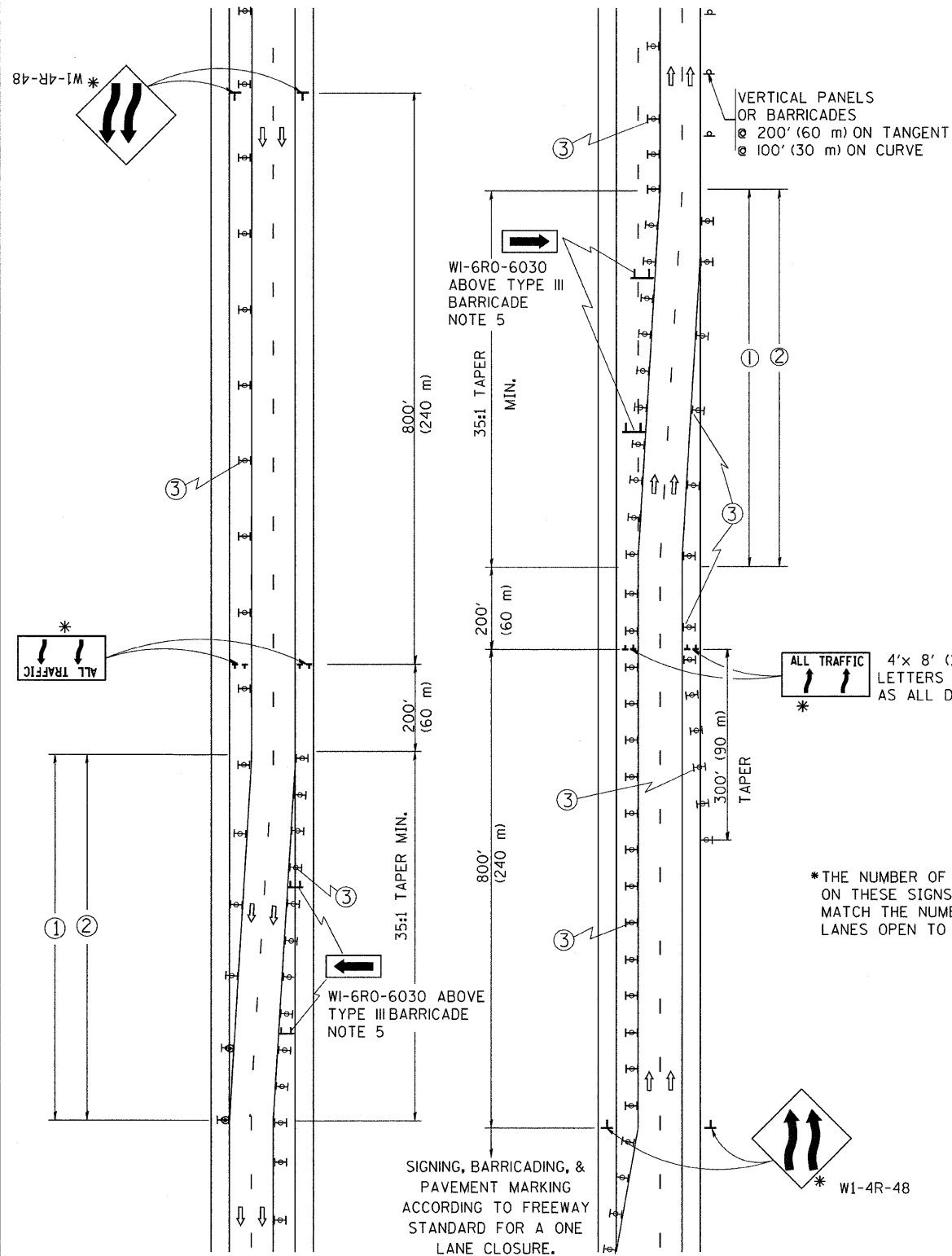
DETAIL FOR REQUIRED BARRICADES & SIGNS

SYMBOLS

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

PLOT DATE = 3/6/2007
FILE NAME = K:\diststd\cd88.dgn
PLOT SCALE = 50.000 / IN.
USER NAME = bauerd

MULTI-LANE WEAVE



- ① EXISTING CONTRASTING PAVEMENT MARKING LINES SHALL BE REMOVED OR COVERED WITH BLACK TAPE. PAVEMENT MARKING REMOVAL OR BLACK TAPE SHALL NOT BE REQUIRED FOR LANE CLOSURES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVE LANE LINES SHALL BE 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS DIRECTLY IN FRONT OF THE BARRICADE.
- ⑥ IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.

↑
DIRECTION OF TRAFFIC

 WORK AREA

1 SIGN ON PORTABLE OR PERMANENT SUPPORT

TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE
WITH MONO-DIRECTIONAL STEADY BURNING LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	2/87
DWS	1/90
DWS	12/27/91
DWS	11/96
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE

SCALE: NONE

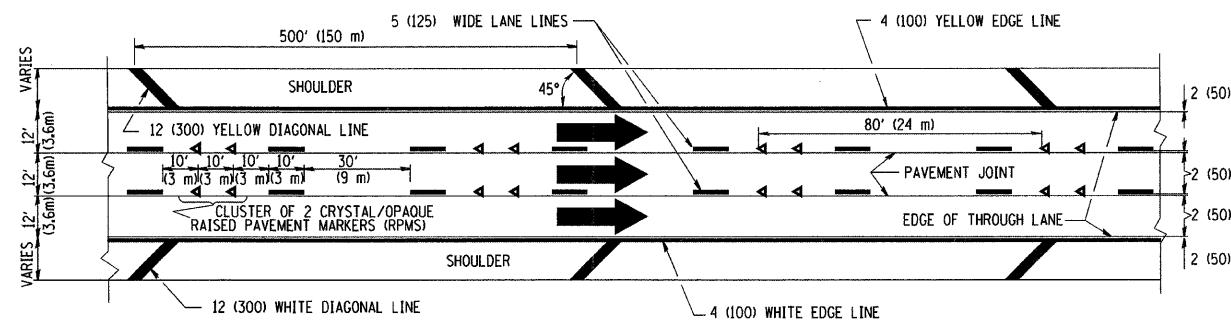
DRAWN BY R.H.

CHECKED BY

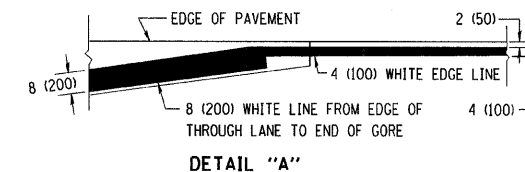
TC-9

CONTRACT NO.				
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			246	23
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

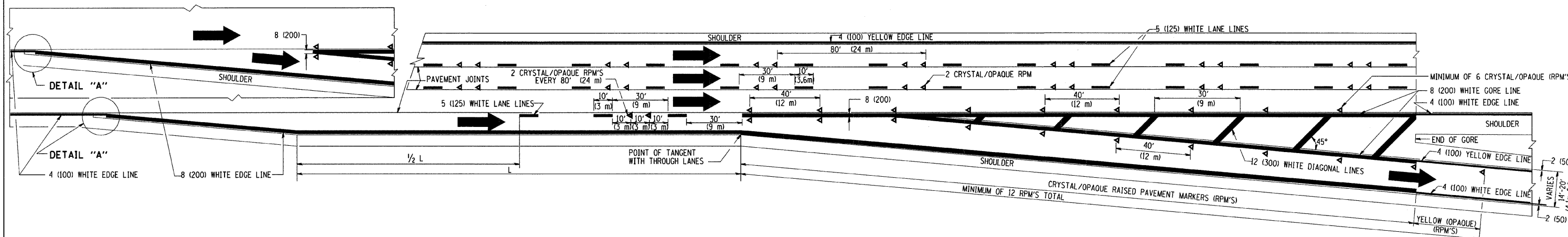
THE DIAGONAL LINES SHALL BE SPACED AT 40' (12 m) C-C
ACROSS ALL STRUCTURES WHICH ARE 500' (150 m) OR LESS
IN LENGTH
THE DIAGONAL LINES ARE NOT REQUIRED ON SHOULDERS
WHICH ARE 6' (1.8 m) OR LESS IN WIDTH



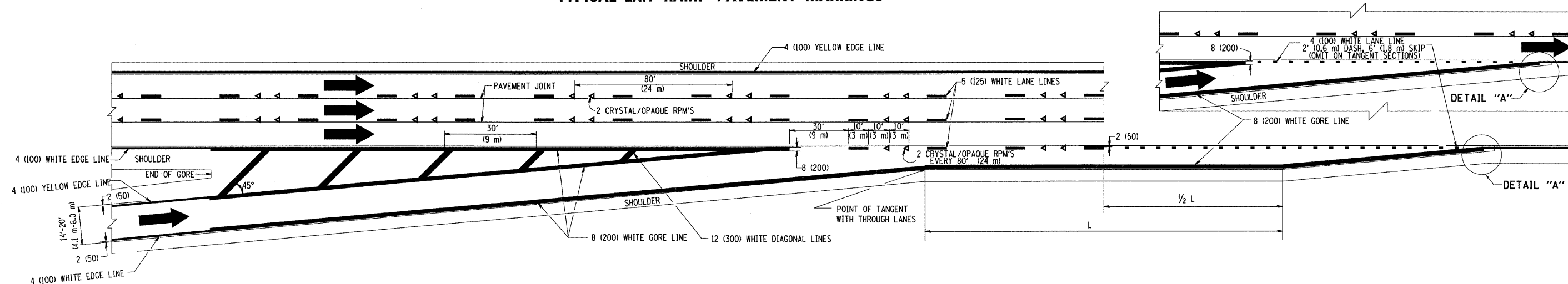
- NOTES:
1. THERMO PLASTIC PAVEMENT MARKING LINE SHALL BE USED FOR THE EDGE LINES, GORE LINES, AND DIAGONAL LINES ON BITUMINOUS PAVEMENT ONLY.
 2. PREFORMED PLASTIC TYPE B PAVEMENT MARKING LINE SHALL BE USED FOR ALL LANE LINES ON BITUMINOUS PAVEMENT
 3. POLYUREA PAVEMENT MARKING SHALL BE USED FOR ALL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



TYPICAL EDGE LINES & LANE LINES



TYPICAL EXIT RAMP PAVEMENT MARKINGS



TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS

REVISONS	
NAME	DATE
DWS	1/9
DWS	5/9
AH	3/9
DWS	7/9
JAF	2/0
SPB	1/0

ILLINOIS DEPARTMENT OF TRANSPORTATION

MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS

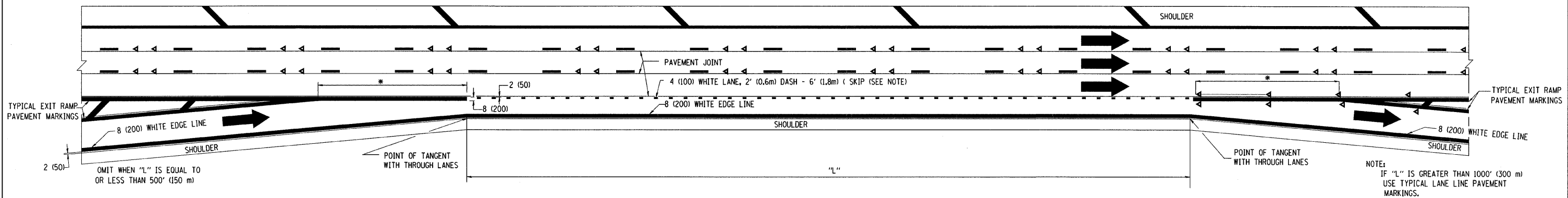
SCALE: NONE

DRAWN BY C.A.D.D.

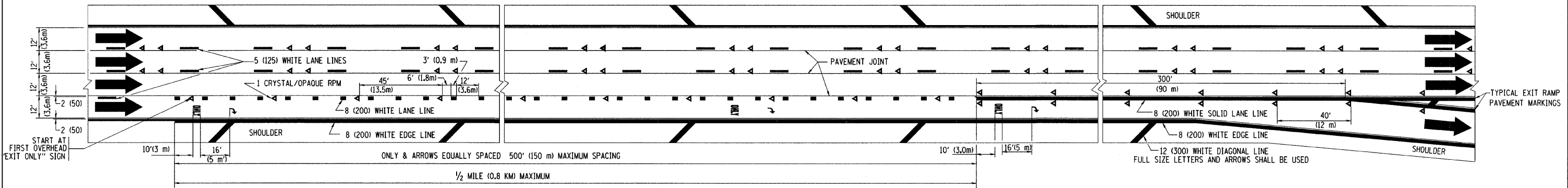
CHECKED BY

TC12 SHEET 1 OF 2

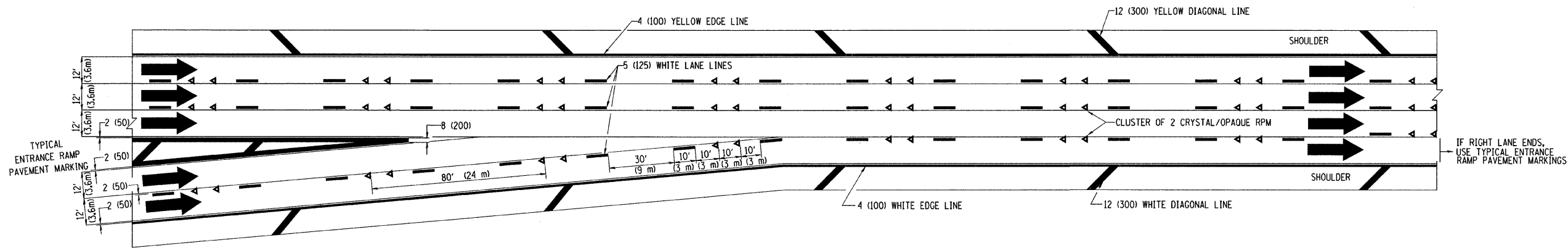
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PLOT SCALE = 50.000' / IN.
USER NAME = bouwerd
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TYPICAL ENTRANCE/EXIT RAMP COMBINATION PAVEMENT MARKINGS



TYPICAL EXIT ONLY LANE PAVEMENT MARKINGS

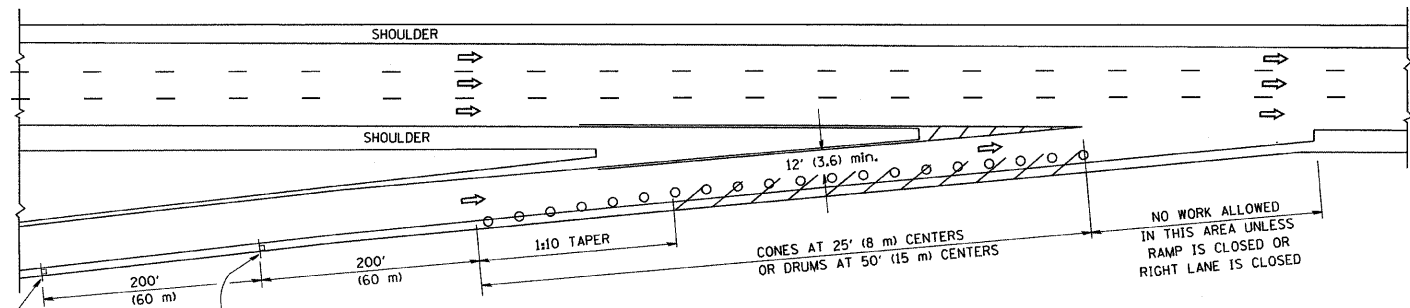


TYPICAL TWO LANE ENTRANCE RAMP PAVEMENT MARKINGS

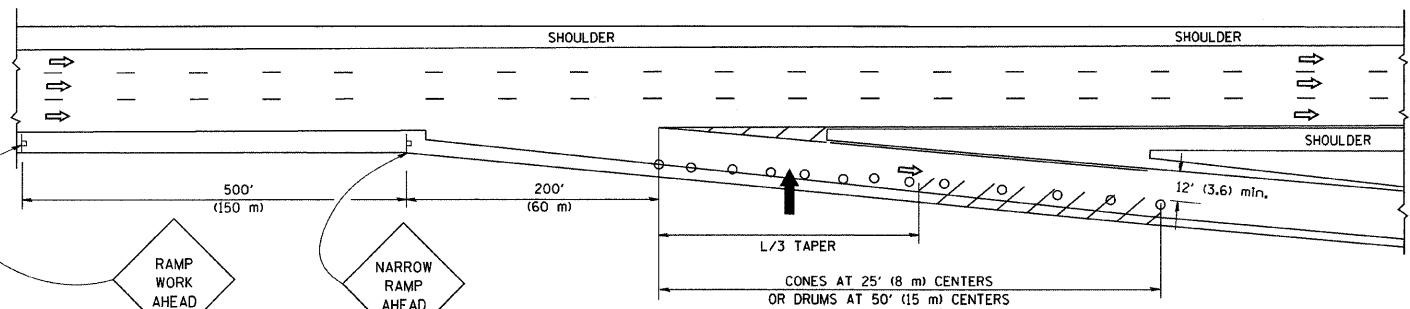
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
DWS	1/90	MULTI-LANE FREEWAY PAVEMENT MARKING DETAILS	
DWS	5/91		
SPB	1/07		
		SCALE: NONE	
		DRAWN BY C.A.D.D.	
		CHECKED BY	
		TC12 SHEET 2 OF 2	

PLOT DATE = 3/6/2007
FILE NAME = K:\distsd\td12.dgn
PLOT SCALE = 86000 / 1 IN.
USER NAME = bauerd

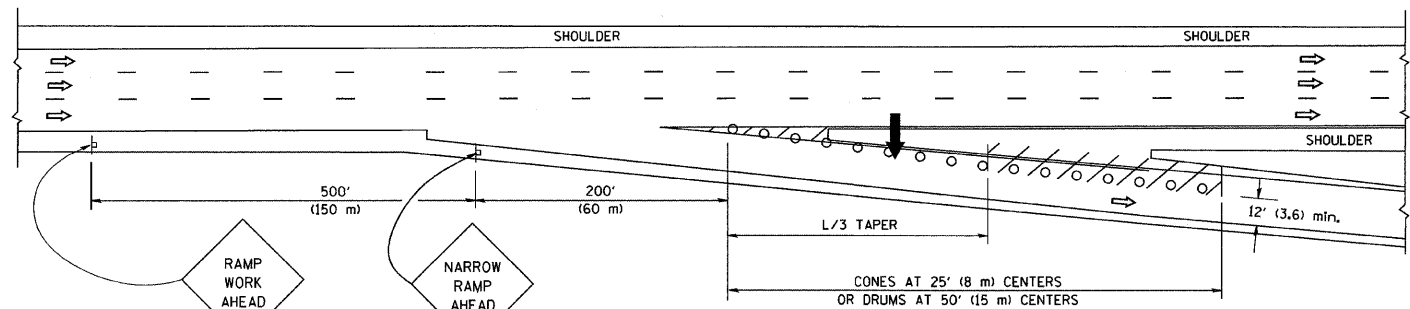
PARTIAL RAMP CLOSURE DETAILS



TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



TYPICAL EXIT RAMP

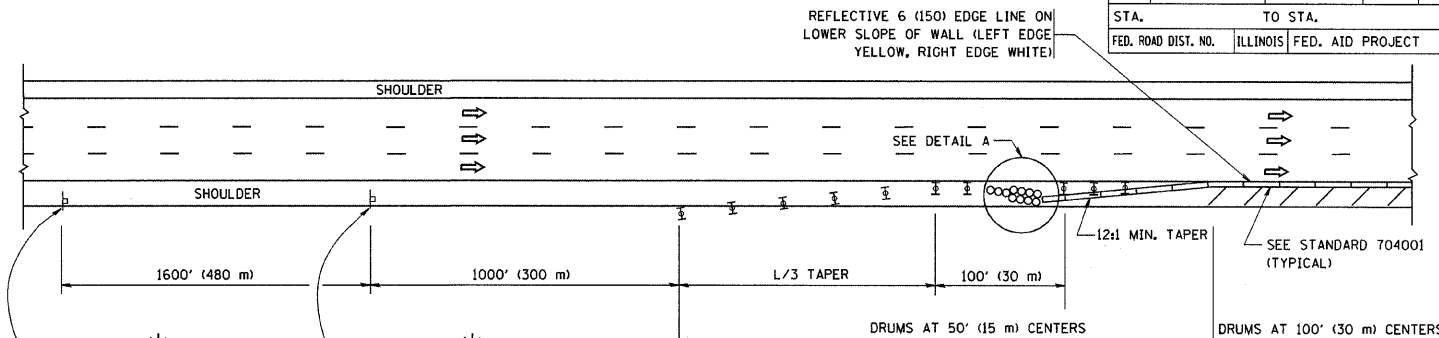
SYMBOLS

- 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

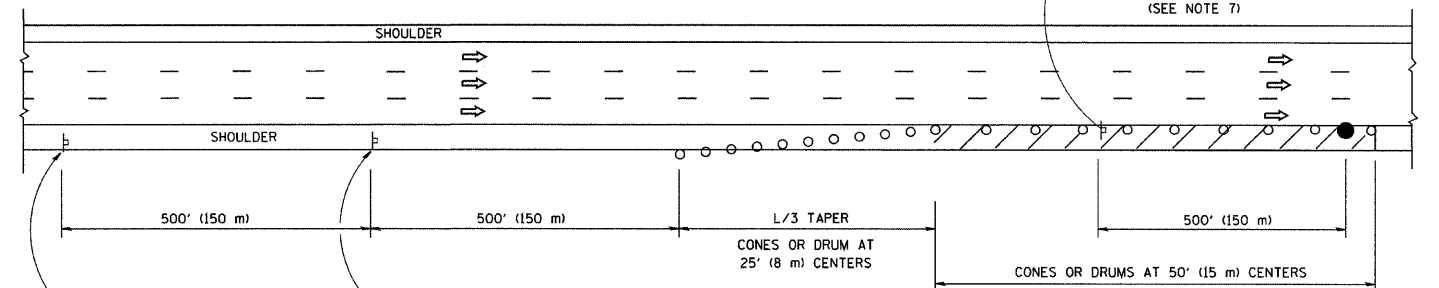
GENERAL NOTES

- THE "L" DISTANCE EQUALS:
SPEED LIMIT FORMULAS
45 mph (80 km/h) METRIC ENGLISH
OR GREATER: $L = 0.65(W)(S)$ $L = (W)(S)$
W = WIDTH OF OFFSET IN FEET (METERS)
S = NORMAL POSTED SPEED MPH (KM/H)
- PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

SHOULDER CLOSURE DETAILS

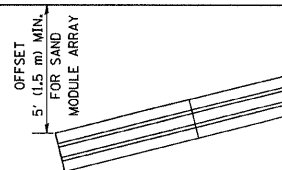


PERMANENT SHOULDER CLOSURE



DAYTIME SHOULDER CLOSURE

ARRAY DESIGN PER MANUFACTURER TO BE NCHRP 350 COMPLIANT FOR POSTED SPEED.



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

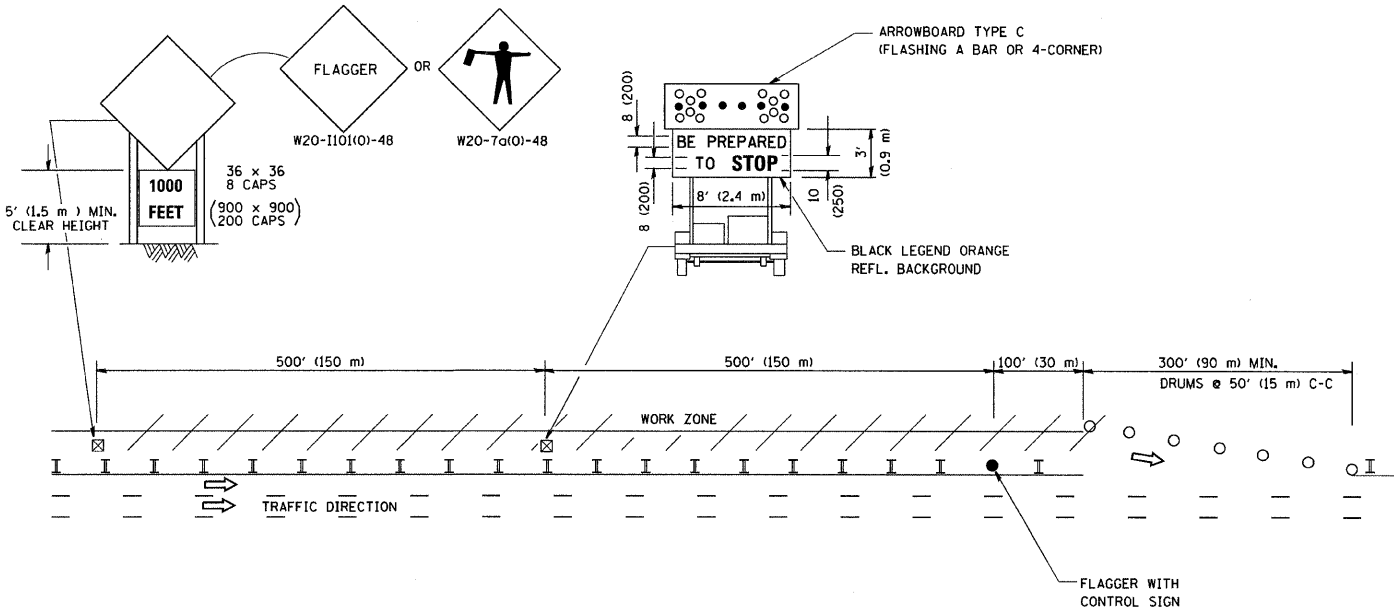
SCALE: NONE

DESIGNED BY: DWS
DRAWN BY
CHECKED BY
TC-17

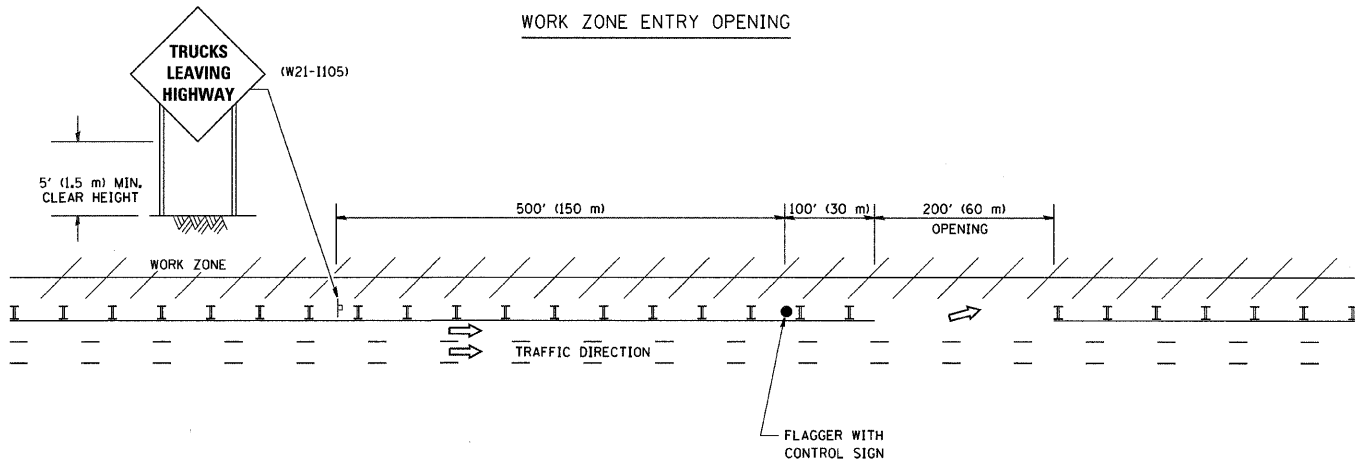
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PLOT SCALE = 50.000' / IN.
USER NAME = cboard

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

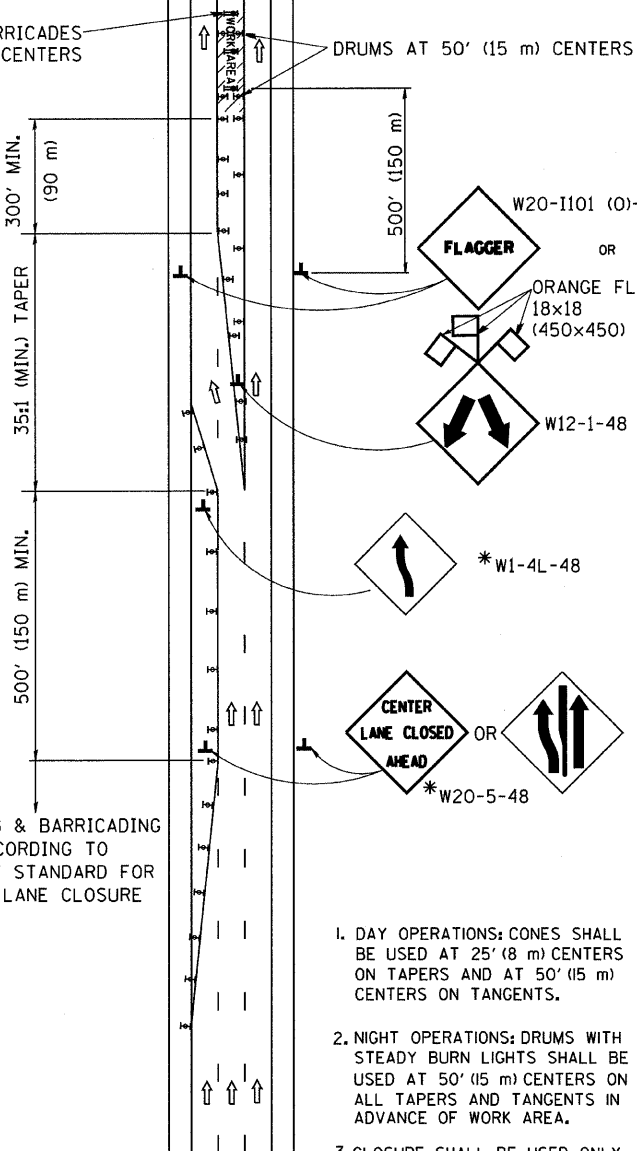
SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

SCALE: NONE

DRAWN BY CADD
CHECKED BY
TC-18

CENTER LANE CLOSURE

TYPE I CHECK BARRICADES
AT 100' (30 m) CENTERS



1. DAY OPERATIONS: CONES SHALL BE USED AT 25' (8 m) CENTERS ON TAPERS AND AT 50' (15 m) CENTERS ON TANGENTS.
2. NIGHT OPERATIONS: DRUMS WITH STEADY BURN LIGHTS SHALL BE USED AT 50' (15 m) CENTERS ON ALL TAPERS AND TANGENTS IN ADVANCE OF WORK AREA.
3. CLOSURE SHALL BE USED ONLY FOR OPERATIONS LASTING 72 HOURS OR LESS.

INSTALLATION SEQUENCE

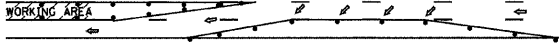
1. CLOSE LANES 1&2



2. ERECT INSIDE LANE 2 TAPER



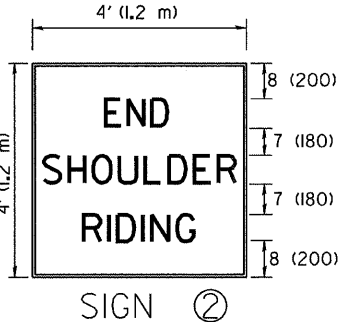
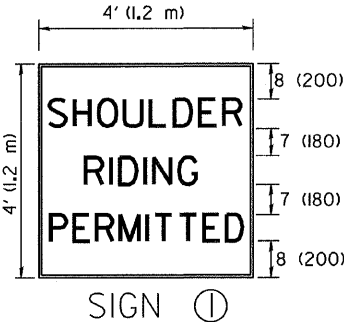
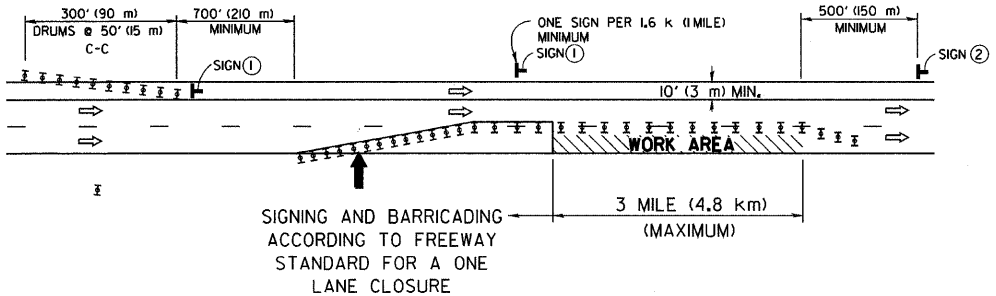
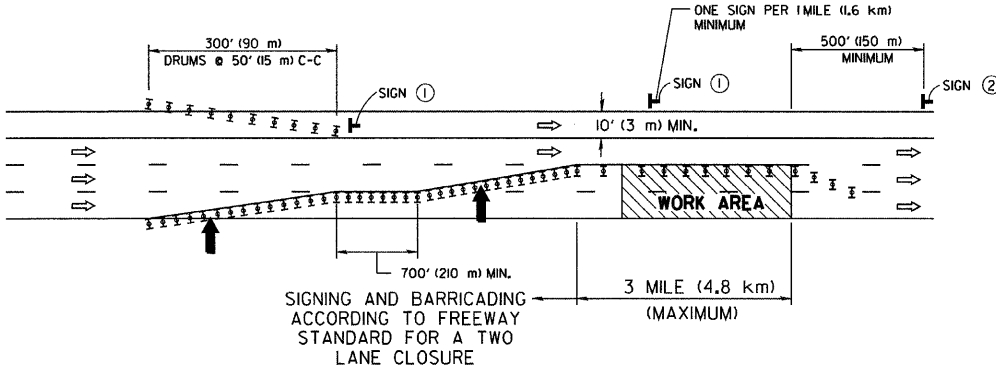
3. OPEN LANE 2 BY RELOCATING FIRST TAPER



4. REMOVE CLOSURE IN REVERSE ORDER

SHOULDER LANE

NOTE: CLOSURE SHALL BE USED
ONLY FOR OPERATIONS LASTING
72 HOURS OR LESS.



6 (150) SERIES "C" LEGEND
BLACK LEGEND
WHITE REFLECT. BACKGROUND
1 (25) BORDER

SYMBOLS

- ↑ DIRECTION OF TRAFFIC
- ➡ ARROWBOARD
- ▨ WORK AREA
- ◇ SIGN WITH 18x18 (450x450) ORANGE FLAGS ATTACHED *
- ┐ SIGN ON PORTABLE OR PERMANENT SUPPORT *
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH MONO-DIRECTIONAL STEADY BURN LIGHT

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN

* ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).

REVISIONS	
NAME	DATE
PRIOR DETAILS ON TC-9 - JAF	4/03
SPB	1/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL DETAILS
FOR FREEWAY
CENTER LANE CLOSURE
SHOULDER LANE**

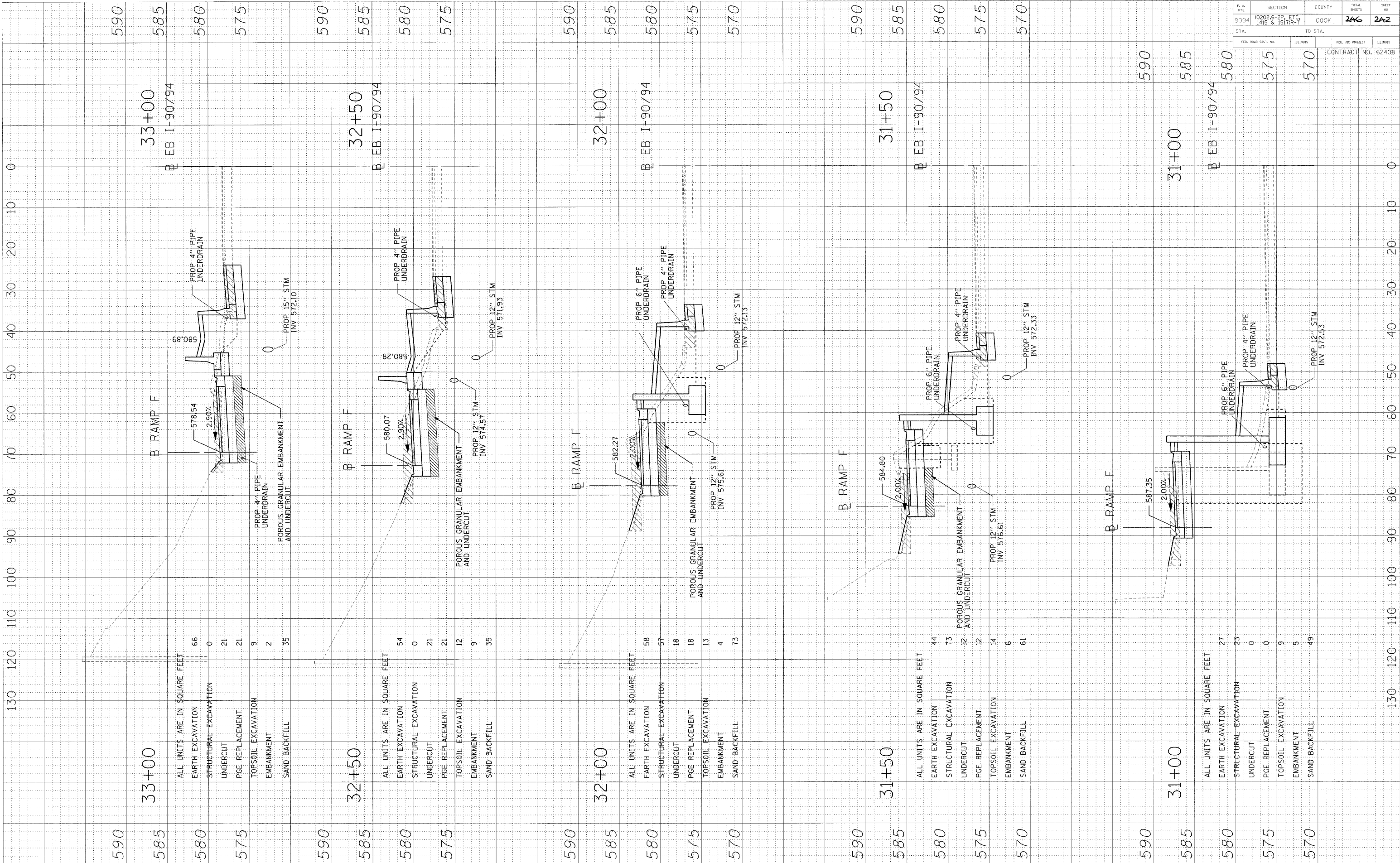
SCALE: NONE
DATE
DRAWN BY R.H.
CHECKED BY
TC-25

F. A. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
9094	(0202.6-2P, ETC. 1415 & 1517)R-7	COOK	246	241
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	ILLINOIS
15		CONTRACT NO. 62408		



FINAL SURVEY	DATE	BY	NO.
SURVEYED			
NOTED			
NO. OF AREAS CHECKED			

ORIGINAL SURVEY	DATE	BY	NO.
SURVEYED			
NOTED			
NO. OF AREAS CHECKED			



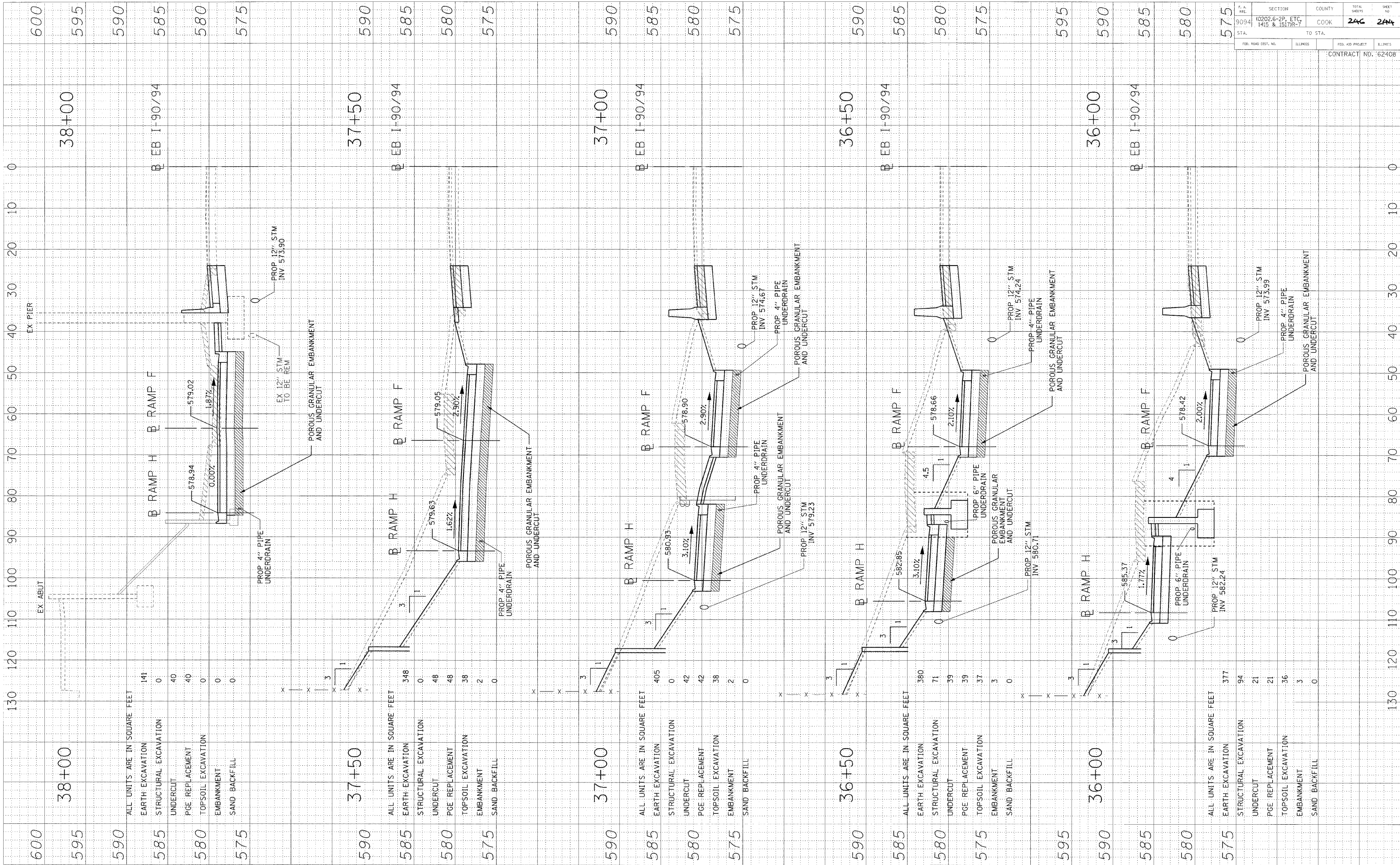
F. & A. R.T.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	10202-6-2P, ETC 145 & 1517R-7	COOK	246	242
STA.	FO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT
CONTRACT NO. 62408				

STA. 31+00 TO 33+00

03/25/04

FINAL	SUPERVED	BY	DATE
SURVEY	DATE		
NOTE BOOK	TEMPLATE		
AREAS			
AREAS CHECKED			

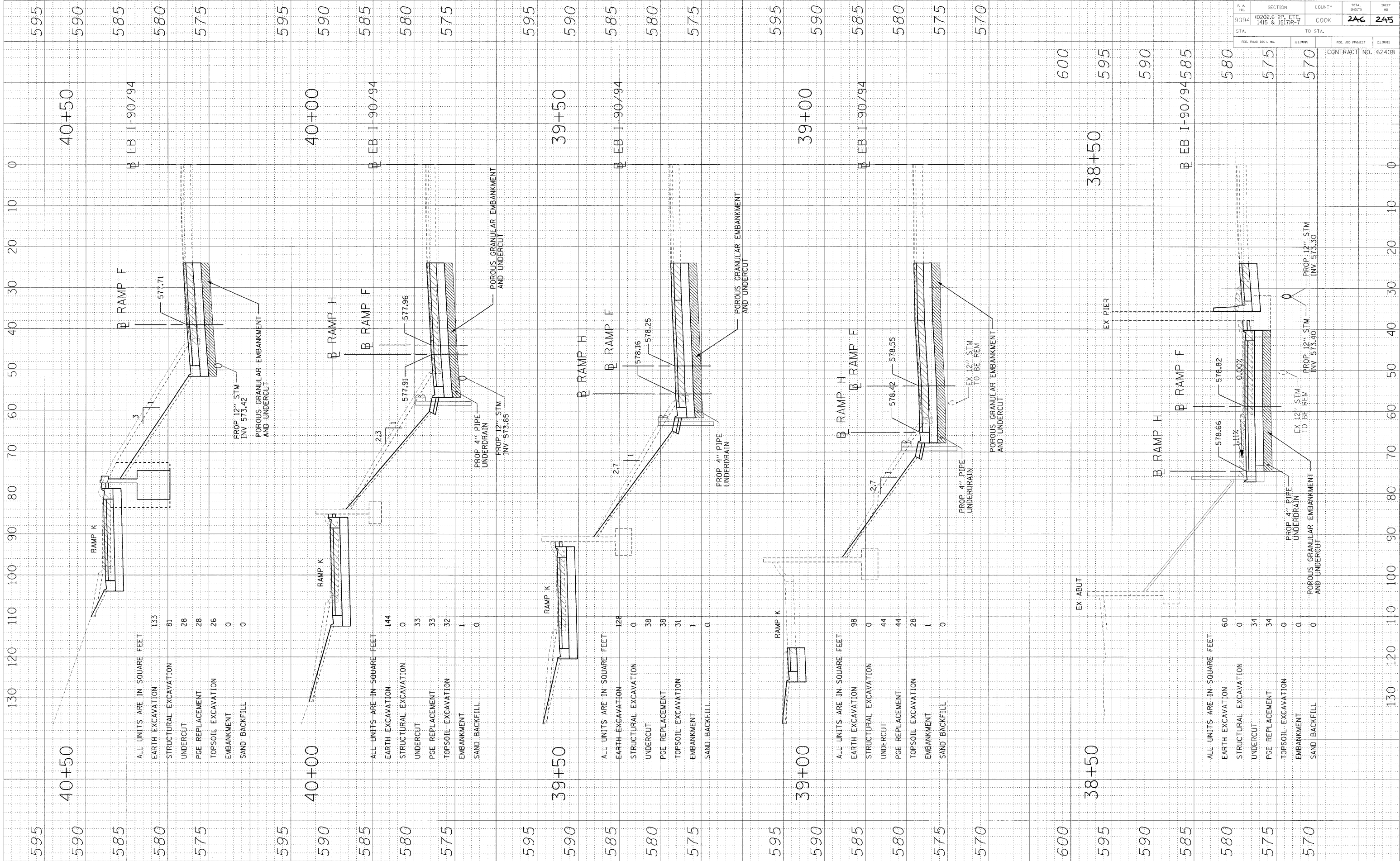
ORIGINAL	SUPERVED	BY	DATE
SURVEY	DATE		
NOTE BOOK	TEMPLATE		
AREAS			
AREAS CHECKED			



F. A. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	10202-6-2P, ETC, 1415 & 1517R-7	COOK	246	244
STA.	TO STA.	FED. AID PROJECT	ILLINOIS	CONTRACT NO. 62408

FINAL	SURVEYED	BY	DATE
NOTE BOOK	TEMPLATE		
AREAS	CHECKED		
NO.			

ORIGINAL	SURVEYED	BY	DATE
NOTE BOOK	TEMPLATE		
AREAS	CHECKED		
NO.			



F. A. REL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9094	10202-6-25, ETC 1415 & 1517R-7	COOK	246	245
STA.	TO STA.	FED. AID PROJECT	ILLINOIS	CONTRACT NO. 62408
FED. ROAD DIST. NO.	ILLINOIS			

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

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

