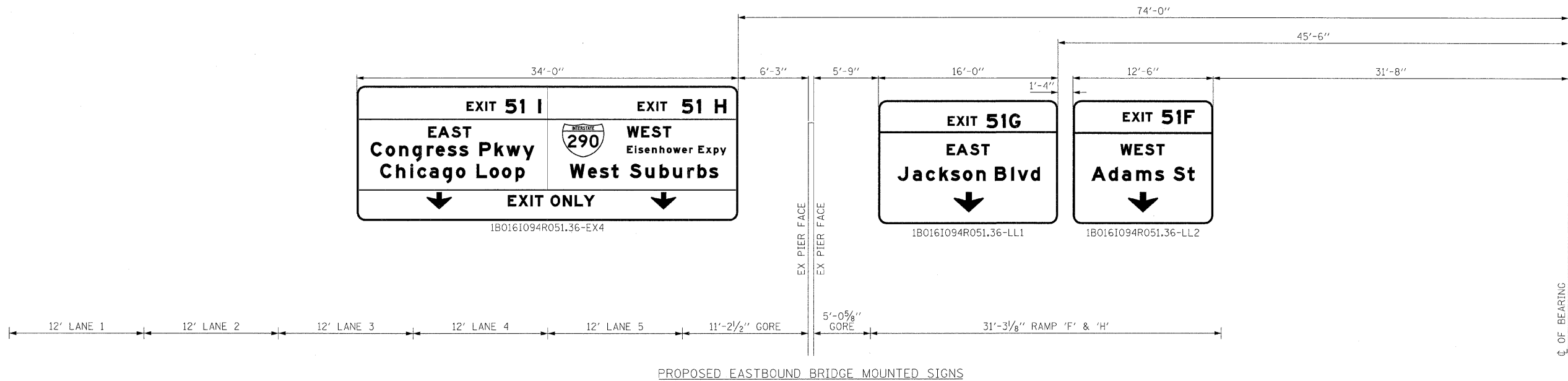
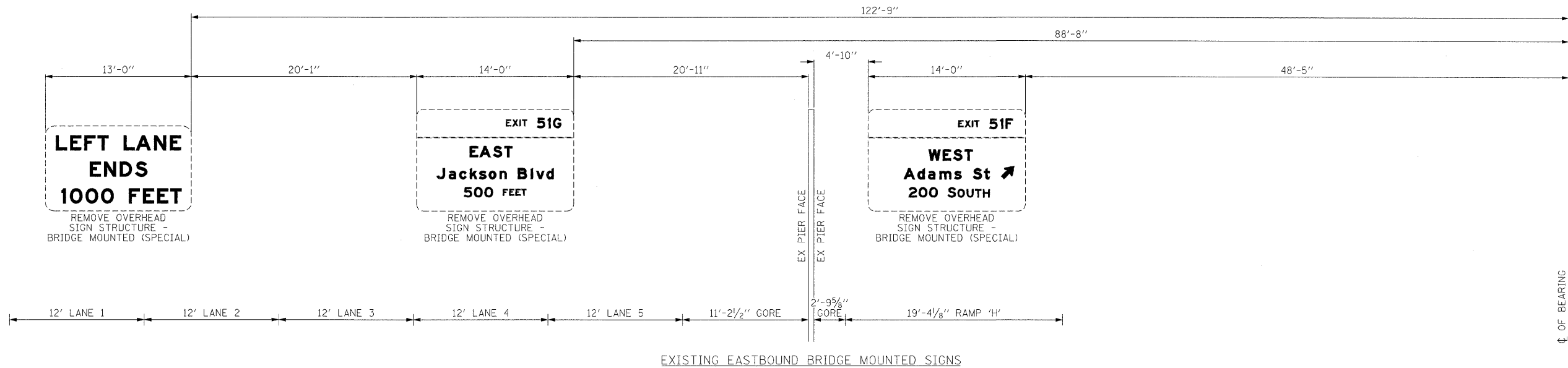
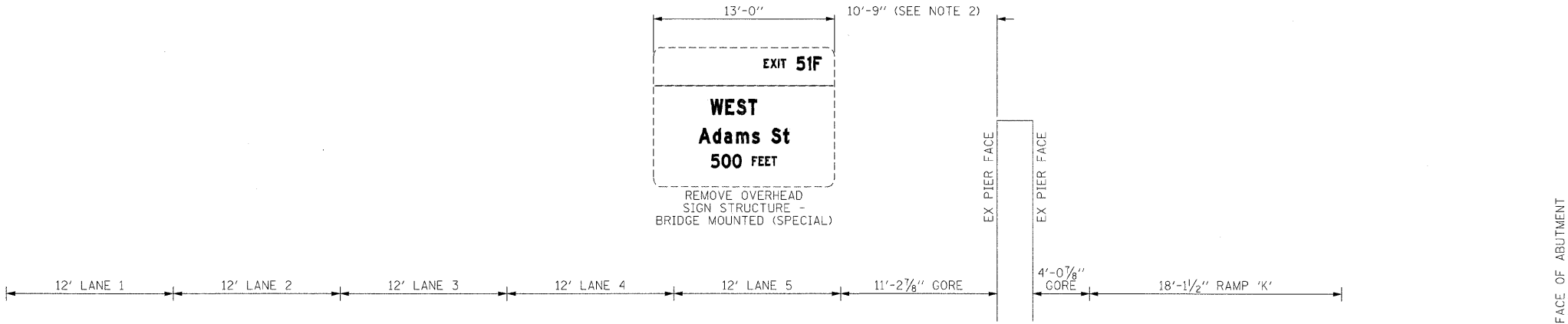




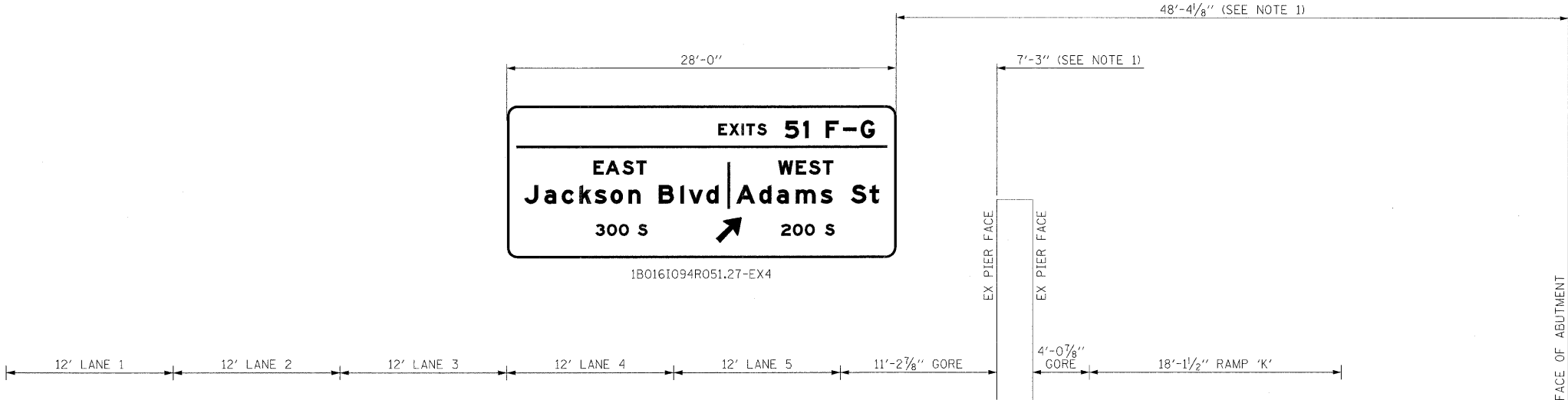
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MONROE ST. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS
DATE : 02/06/09
DRAWN BY : BEC
CHECKED BY : GB



EXISTING EASTBOUND BRIDGE MOUNTED SIGNS



PROPOSED EASTBOUND BRIDGE MOUNTED SIGNS

NOTES:

1. DIMENSION TO BE VERIFIED BY THE CONTRACTOR PRIOR TO MANUFACTURING REQUIRED PARTS OR BEGINNING INSTALLATION.
2. EXACT LOCATION TO BE DETERMINED IN THE FIELD.

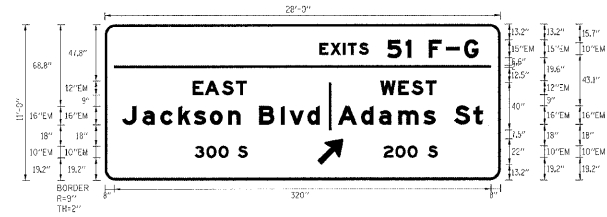
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
MADISON ST. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS
DATE : 02/06/09
DRAWN BY : BEC
CHECKED BY : GB

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
90/94	10202.6-2P, ETC. 1415 & 1517R-7	COOK	246	104
STA. TO STA.				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62408				

SIGN DETAIL



SIGN NUMBER	180161094R01.27-EX4	
WIDTH x HGT.	28'-0" x 11'-0"	
BORDER WIDTH	2"	
CORNER RADII	9"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL	X	Y	WD	HT
ARMED	180.4	15.2	18	26.4

Dimensions are in inches, tenths

Letter locations are panel edge to lower left corner

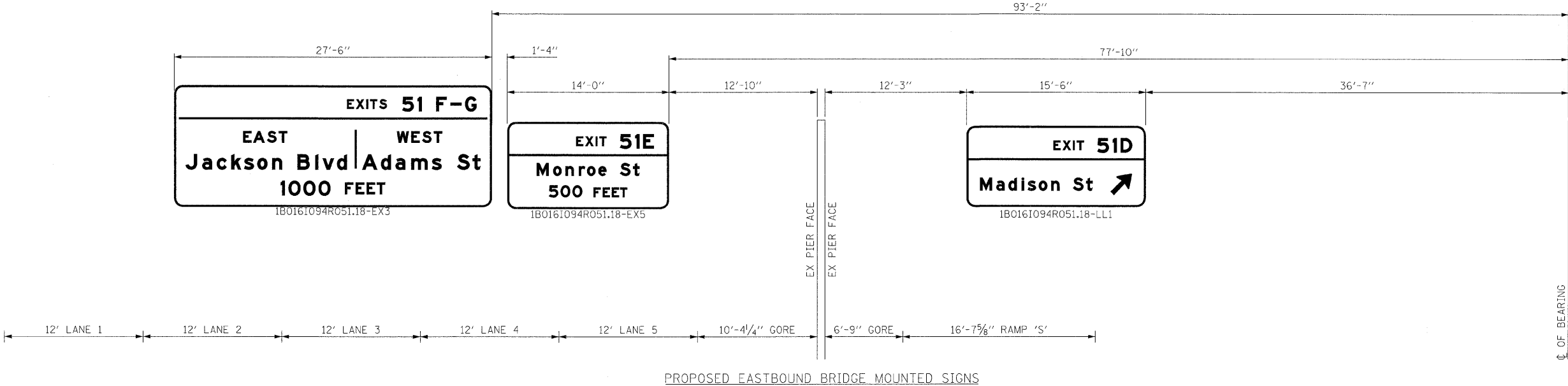
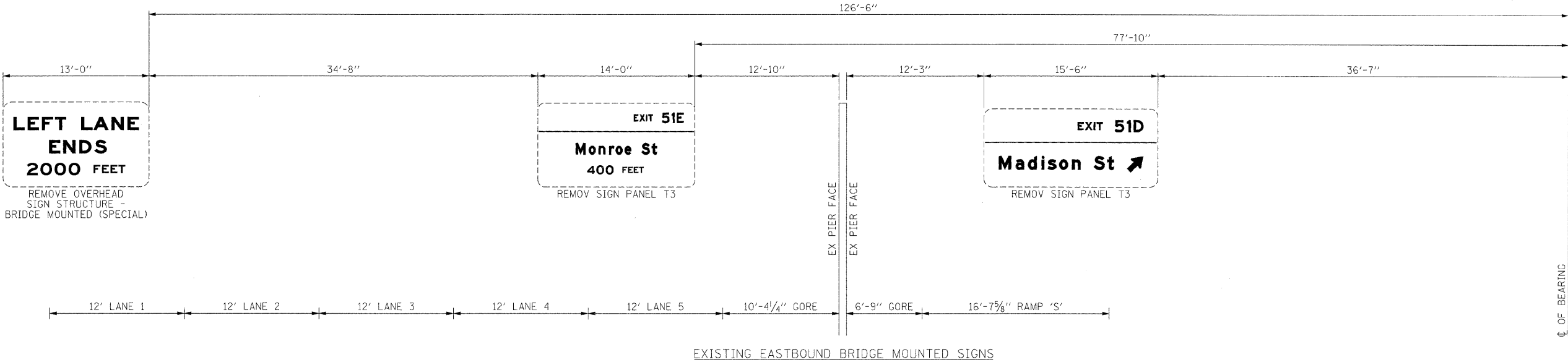
[illegible]

NOTE: ALL SIGNS SHALL BE FABRICATED USING TYPE ZZ SHEETING AND CLEARVIEW FONT

[illegible]

ILLINOIS DEPARTMENT OF TRANSPORTATION
MADISON ST. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS DRAWN BY : BEC
DATE : 02/06/09 CHECKED BY : GB



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WASHINGTON ST. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS
DATE : 02/06/09
DRAWN BY : BEC
CHECKED BY : GB

CONTRACT NO. 62408

[illegible][illegible]

Letter locations are panel edge to lower left corner

[illegible]

The diagram shows a rectangular street sign with the following specifications:

- Overall Dimensions:** 14'-0" wide by 42.3" high.
- Text Content:**
 - Top section: EXIT 51E
 - Bottom section: Monroe St 500 FEET
- Internal Dimensions and Spacing:**
 - Top section height: 12.3"
 - Section separator height: 1.5"
 - Bottom section height: 28.5"
 - Text height in bottom section: 14.1" (for "Monroe St") and 14.2" (for "500 FEET")
 - Text spacing in bottom section: 10" (between "Monroe St" and "500 FEET")
 - Text width in bottom section: 10" (for "Monroe St") and 12.3" (for "500 FEET")
- Material and Finish:**
 - Material: BORDRFR
 - Color: R-05
 - Finish: T-42
- Mounting Dimensions:**
 - Top mounting hole spacing: 14'-0"
 - Bottom mounting hole spacing: 16'-4"
 - Side mounting hole spacing: 10" (from centerline)

[illegible]

Letter locations are panel edge to lower left corner

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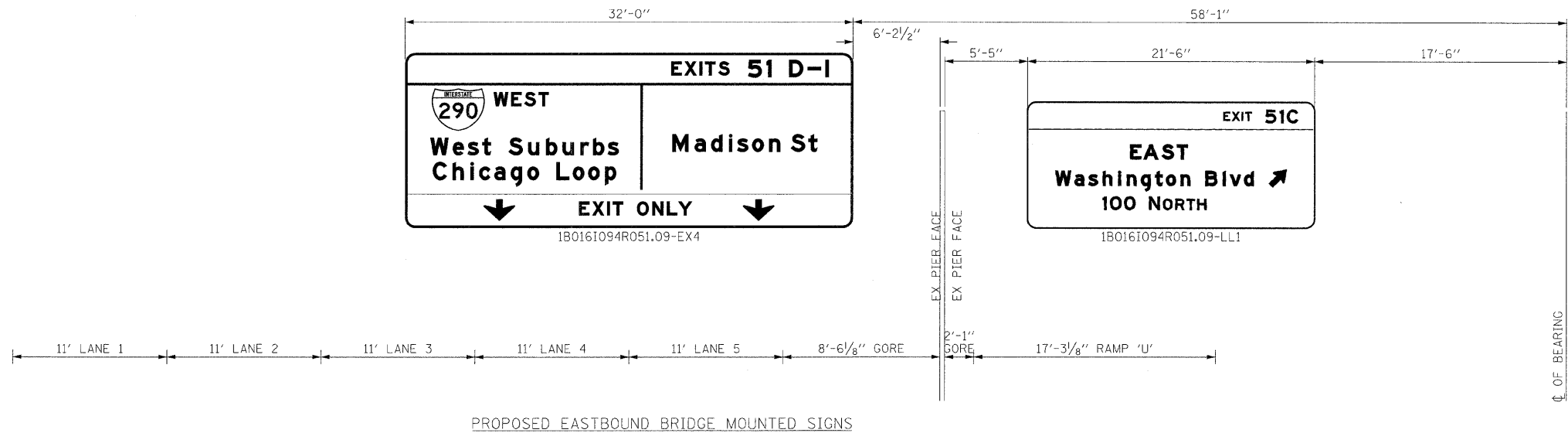
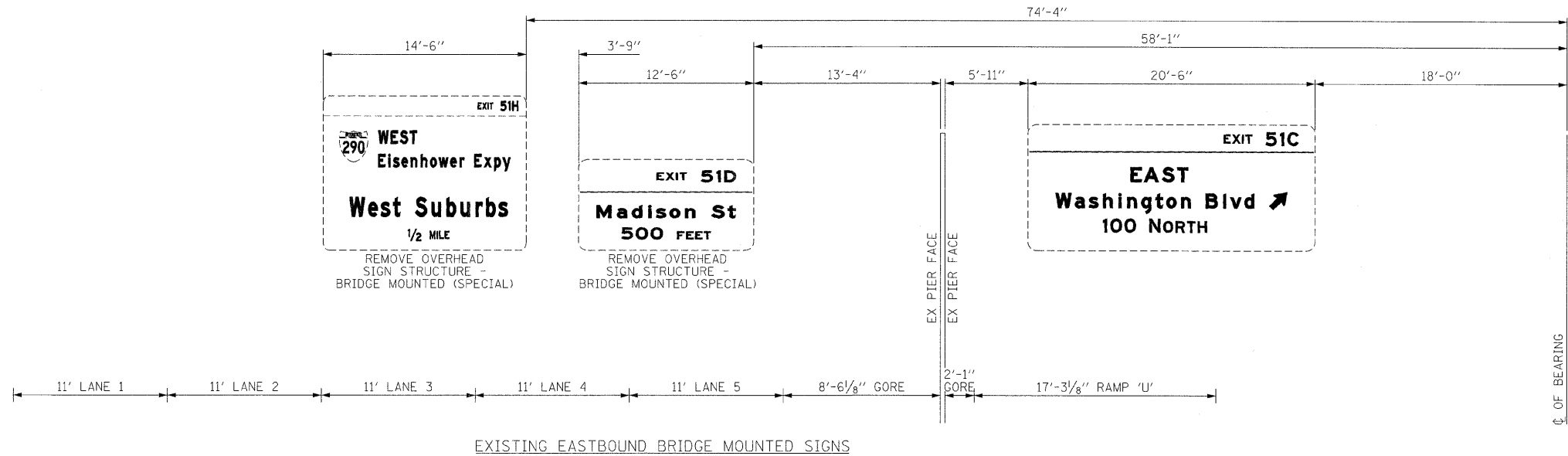
SYMBOL	X	Y	WTD	HT
ARMED	149.7	12.5	18	28.4

Letter locations are panel edge to lower left corner

1. The first part of the document is a title page. It contains the title "The Role of the State in the Development of the Economy" and the author's name "John Maynard Keynes".

ILLINOIS DEPARTMENT OF TRANSPORTATION
WASHINGTON ST. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS DRAWN BY : BEC
DATE : 02/06/09 CHECKED BY : GB

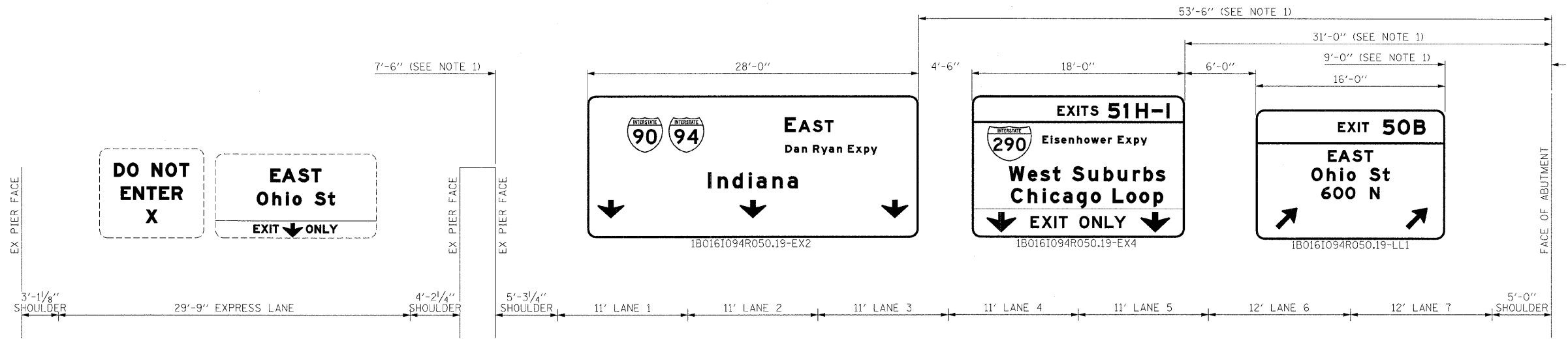
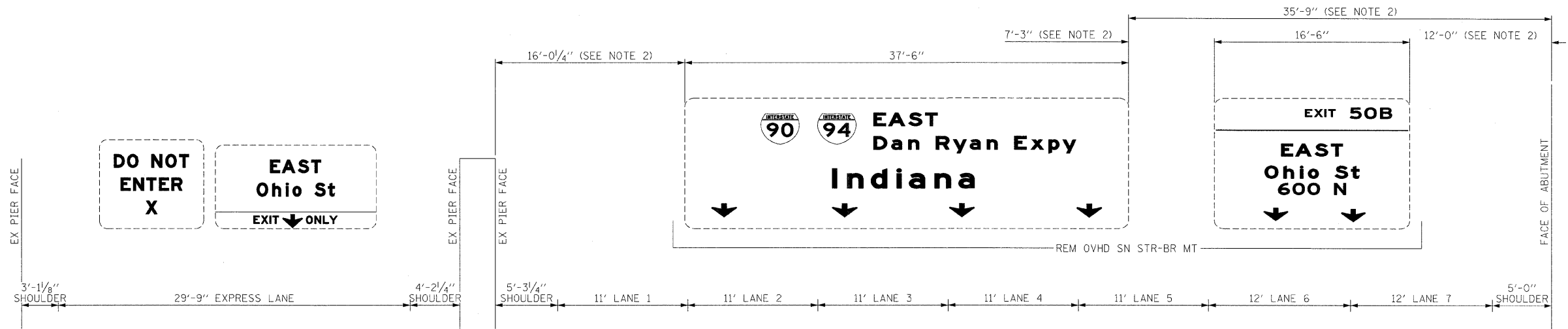


REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
RANDOLPH ST. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS
DATE : 02/06/09
DRAWN BY : BEC
CHECKED BY : GB

CONTRACT NO. 62408



NOTES:

- DIMENSION TO BE VERIFIED BY THE CONTRACTOR PRIOR TO MANUFACTURING REQUIRED PARTS OR BEGINNING INSTALLATION.
- EXACT LOCATION TO BE DETERMINED IN THE FIELD.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
OGDEN AVE. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS
DATE : 02/06/09
DRAWN BY : BEC
CHECKED BY : GB

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
90/94	020245-2P, ETC, 1415 & 1517R-7	COOK	246	110
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62408				

SIGN DETAIL



SIGN NUMBER	100161094R050.19-1X2
WIDTH x HGT.	28'-0" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	9"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
COLORS	Green
LEGEND/BORDER	TYPE: Reflective
COLORS	White/White

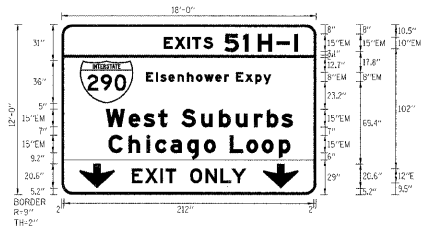
SYMBOL	X	Y	W.D.	H.T.
ML1	40.5	85	36	36
ML1	82.5	85	36	36
AROWN	10.5	15.6	21	18.5
AROWN	154.5	15.6	21	18.5
AROWN	298.5	15.6	21	18.5

Dimensions are in inches, tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
E	A	S	T							49.3	EM15/EM12
290.3	214.3	228.8	240.9								
D	O	N	R	Y	E	X	P	Y		92.8	EM8/6
208.2	209.6	217.8	228.9	237.1	245.2	253.3	264.4	272.3	280.8		
I	N	D	I	A						90.7	EM16/12
122.6	132.3	141.4	151.7	161.7	188	203.2					

SIGN DETAIL



SIGN NUMBER	180161094R050.19-EX4
WIDTH x HGT.	18'-0" x 12'-0"
BORDER WIDTH	2"
CORNER RADIUS	9"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
COLORS	Green
LEGEND/BORDER	TYPE: Reflective
COLORS	White/White

SYMBOL	X	Y	W.D.	H.T.
ML1	15.8	77	45	36
AROWN	15	5.2	30	20.6
AROWN	171	5.2	30	20.6

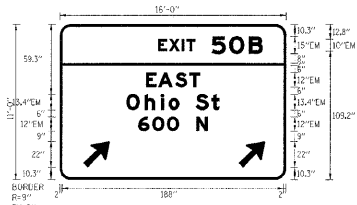
Dimensions are in inches, tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
E	X	I	T	S	S	I	N	-	I	11.7	EM10/EM5
86.7	96.1	106.8	110.8	120.2	130.2	154	166.4	182.3	197.5		
E	L	S	O	N	H	O	V	E	R	106	EM8/6
71.6	80.1	83.9	90.7	98.3	106.5	114.1	121	130.5	136.1		
W	E	S	T	S	U	B	U	R	S	58.6	EM15/11.3
37.6	56.8	69.6	82.1	101.6	118.4	133.8	148	163.3	174.1		
C	H	I	C	O	O	L	O	O	P	54.2	EM15/11.3
39.8	56.7	71.9	78.5	92.5	106.6	120.8	142.7	156.8	189.9		
E	X	I	T	O	N	L	Y			90.7	ET12
95.8	100.9	83.7	88.3	91.3	109.1	122.1	134.7	144.4			

NOTE: ALL SIGNS SHALL BE FABRICATED USING TYPE ZZ SHEETING AND CLEARVIEW FONT

SIGN DETAIL



SIGN NUMBER	180161094R050.19-LL1
WIDTH x HGT.	16'-0" x 11'-0"
BORDER WIDTH	2"
CORNER RADIUS	9"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
COLORS	Green
LEGEND/BORDER	TYPE: Reflective
COLORS	White/White

SYMBOL	X	Y	W.D.	H.T.
ARMED	20.2	10.3	18	28.4
ARMED	152.2	10.3	18	28.4

Dimensions are in inches, tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)										LENGTH	SERIES/SIZE
E	X	I	T	S	O	B				88.3	EM10/EM5
85.4	92.9	103.5	107.5	128.8	143.9	160.2					
E	A	S	T							45.8	EM12
71.1	85.6	98	110.1								
O	H	I	O	S	I					79	EM13.4/10.1
56.5	72.	85.7	90.4	115.3	128.8						
S	O	N								59	EM12
66.5	78.6	91	115.9								

REVISIONS	
NAME	DATE

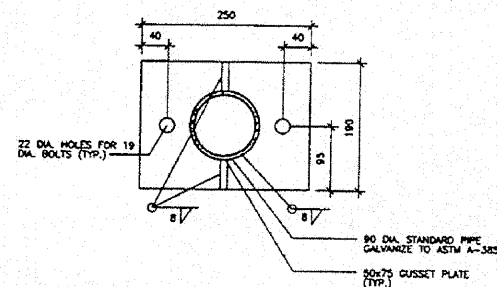
ILLINOIS DEPARTMENT OF TRANSPORTATION
OGDEN AVE. SIGN PANEL
MOUNTING DETAIL
I-90/94 KENNEDY EXPRESSWAY

SCALE : 1" = NTS
DATE : 02/06/09
DRAWN BY : BEC
CHECKED BY : GB

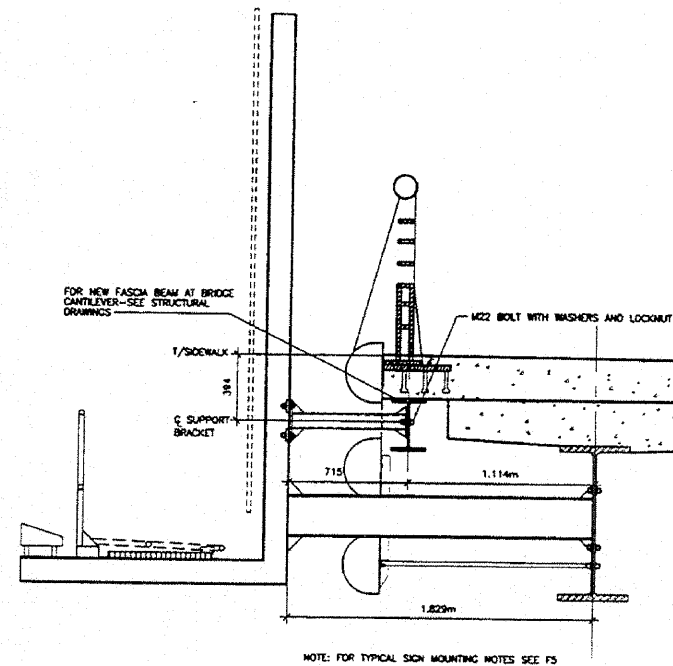
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REV.	DATE	BY	CHKD.	APP.
1	11/3/97	246	111	

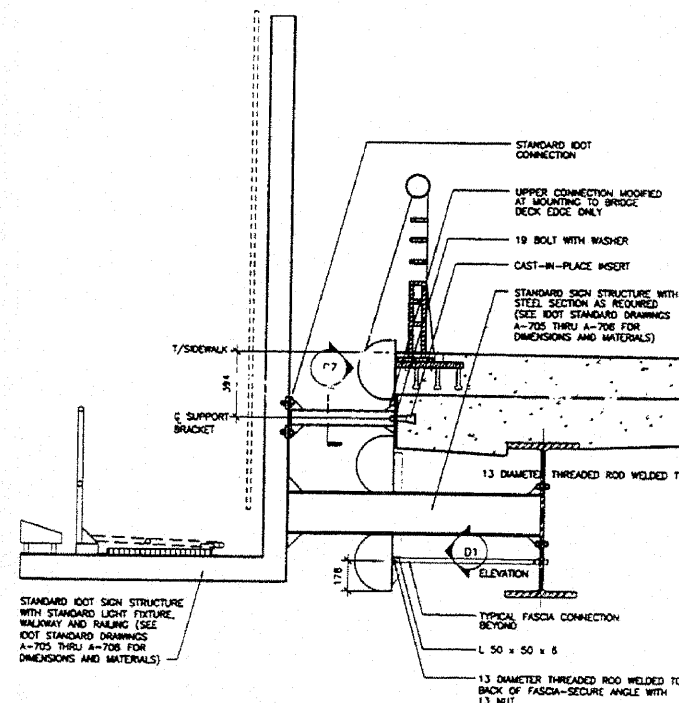
SHEET NO. A-704
SHEETS



C7 SUPPORT BRACKET DETAIL
SCALE: 1:5

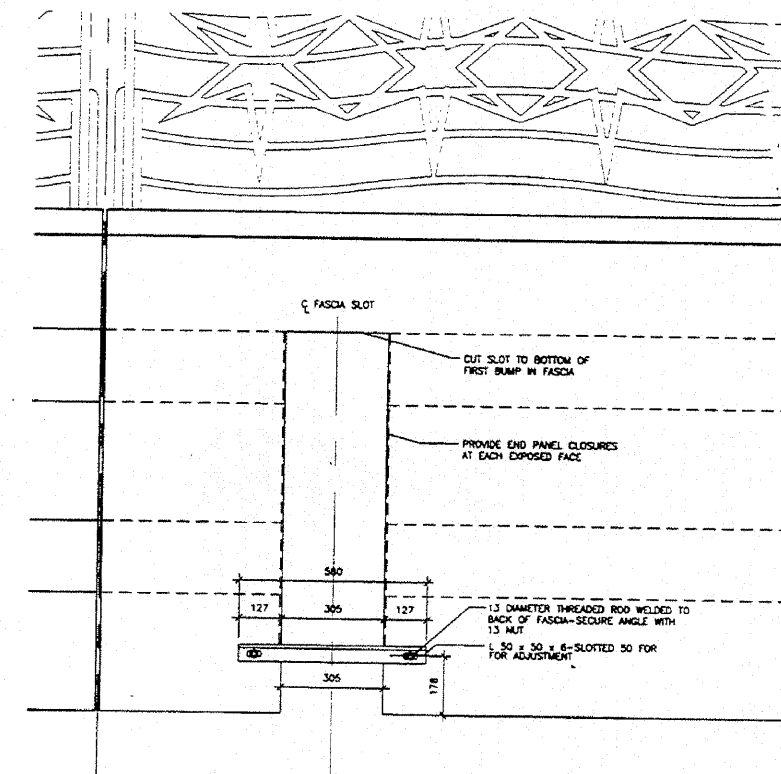


C5 SPECIAL SIGN BRACKET AT SIDEWALK CANTILEVER-DETAIL
SCALE: 1:20

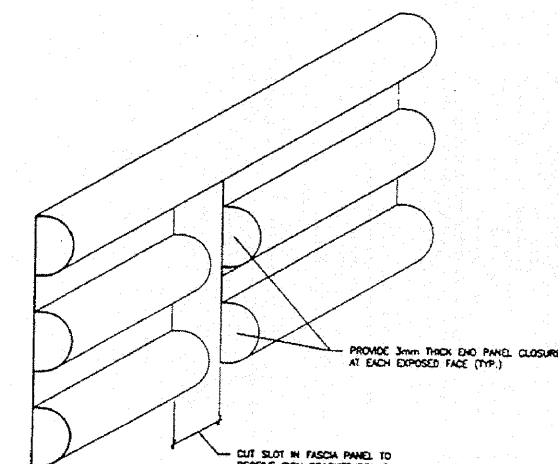


NOTE: ALL THREADED ROD CONFORMING TO ASTM A307A, M20 X 305mm LONG EACH WITH ONE PLATE WASHER AND LOCKWASHER AND BE HOT DIP GALVANIZED PER AASHTO M252. THEY SHALL BE EITHER CAST INTO THE CONCRETE OR EPOXY GROUTED IN ACCORDANCE WITH SECTION 504 OF THE STANDARD SPECIFICATIONS. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 230mm.

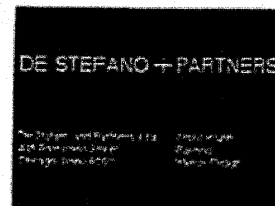
F5 BRIDGE MOUNTED SIGN-SECTION (TYP.)
SCALE: 1:20



D1 FASCIA SLOT DETAIL
SCALE: 1:10



F3 FASCIA PANEL AT SIGN BRACKET-SCHEMATIC VIEW (TYP.)
SCALE: NONE



HNTB HNTB CORPORATION

ALL DIMENSIONS IN MILLIMETERS U.N.D.

BRIDGE MOUNTED SIGNS-DETAILS

ADAMS STREET OVER I-90/94
F.A.U. RTE. 1421, SEC.
COOK COUNTY
STA. 1+350.04
STR. NUM. 016-0589

Scale: AS NOTED Date: NOV. 3, 1997

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

SPECIFICATIONS:

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.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. *All Obstructions*

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code *Steel* and the Standard Specifications.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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 *M183, M223 Gr. 50.*

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 *A325*, ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

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: All-threaded rod conforming to ASTM A307, 3/4" * x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- Bracket spacing $g \leq 6'-0"$, max. Spacing shall be uniform if possible but may vary $\pm 6"$ to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

NUMBER	REVISION	DATE

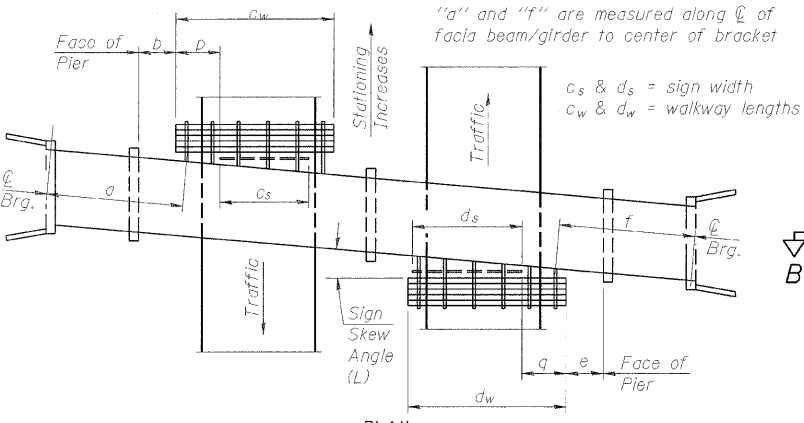
TOTAL BILL OF MATERIAL

③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	205.5
(SPECIAL)		

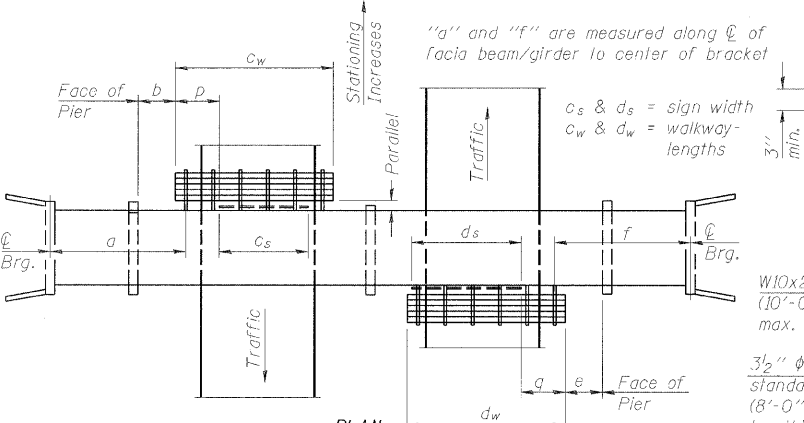
BRIDGE MOUNT SIGN STRUCTURES
GENERAL PLAN AND ELEVATION

ADAM ST., MONROE ST., MADISON ST., WASHINGTON ST., & RANDOLPH ST.

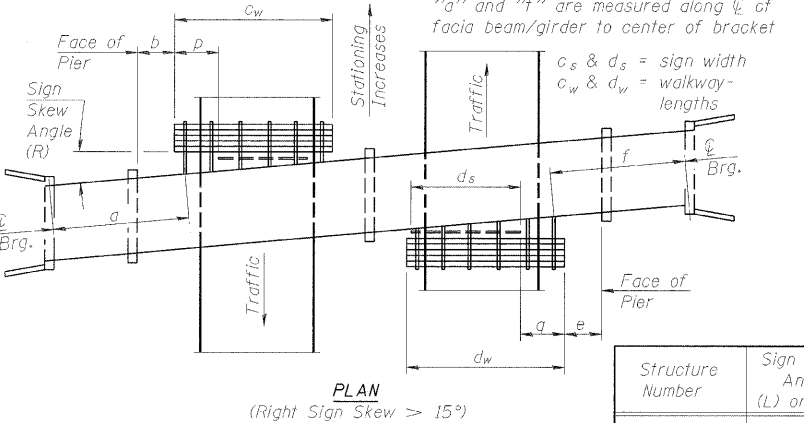
SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	90/94	10202.6-2P, ETC., 1415 & 1517/R-7	COOK	246	112
SHEETS			CONTRACT NO.	62408	
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



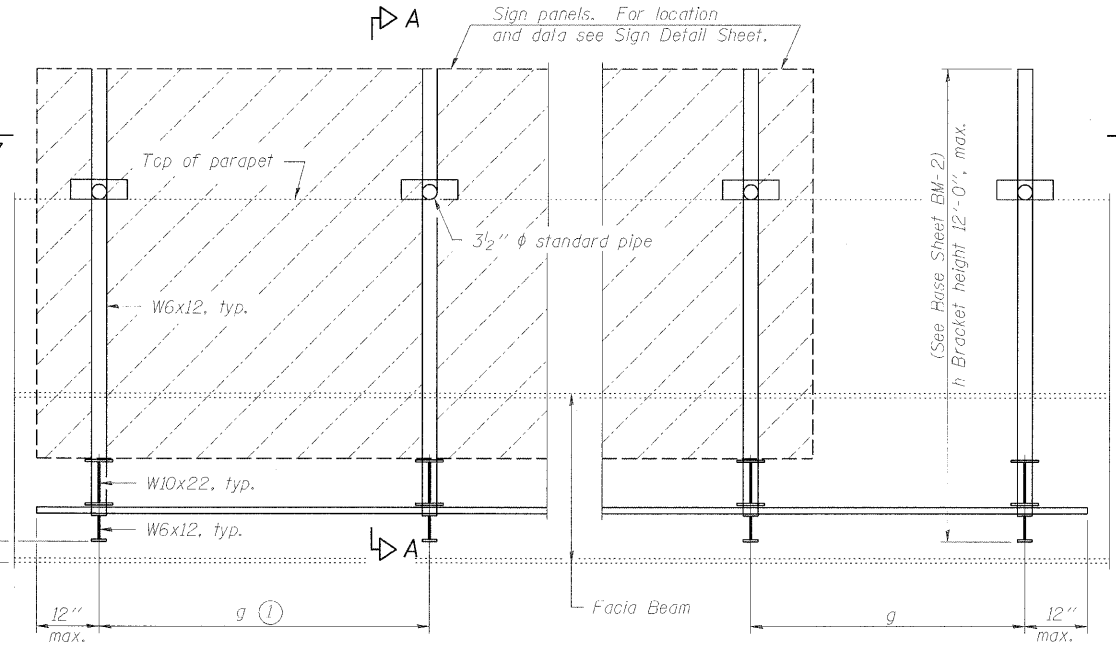
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



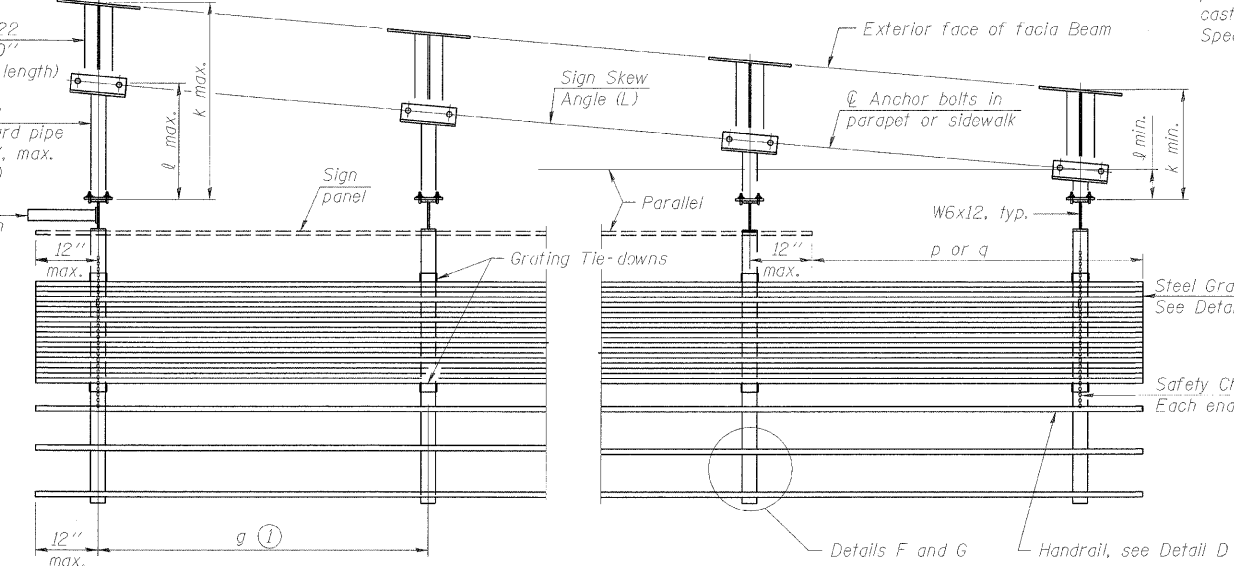
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION
(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B
(Shown: Left Sign Skew > 15°)

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c _s	c _w	d _s	d _w	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Handrl. Lengths (c _w + d _w)
1B0161094R051.45-EX4	0		016-0589	FAI 90/94	46'-11"	5'-7"	34'-0"	34'-0"					5'-4"	7	0		34'-0"
1B0161094R051.36-EX4	0		016-2054	FAI 90/94	75'-0"	6'-3"	34'-0"	34'-0"					5'-4"	7	0		34'-0"
1B0161094R051.36-LL1	0		016-2054	FAI 90/94	46'-6"	5'-9"	16'-0"	16'-0"					4'-8"	4	0		16'-0"
1B0161094R051.36-LL2	0		016-2054	FAI 90/94	32'-5"	23'-1"	12'-6"	12'-6"					5'-6"	3	0		12'-6"
1B0161094R051.27-EX4	0		016-2053	FAI 90/94	48'-7"	7'-3"	28'-0"	28'-0"					5'-6"	6	0		28'-0"
1B0161094R051.18-EX3	0		016-0601	FAI 90/94	93'-8"	27'-10"	27'-6"	27'-6"					5'-2"	6	0		27'-6"
1B0161094R051.09-EX4	0		016-0608	FAI 90/94	59'-1"	6'-2"	32'-0"	32'-0"					6'-0"	6	0		32'-0"
1B0161094R051.09-LL1	0		016-0608	FAI 90/94	18'-3"	5'-5"	21'-6"	21'-6"					4'-0"	6	0		21'-6"

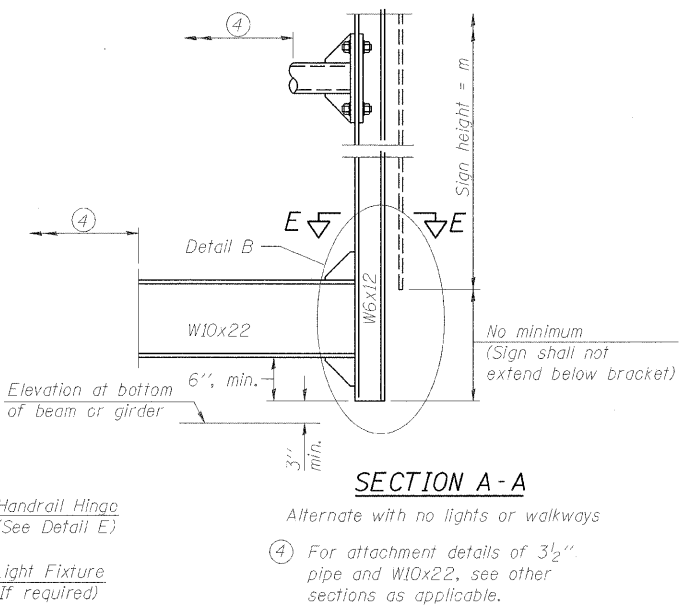
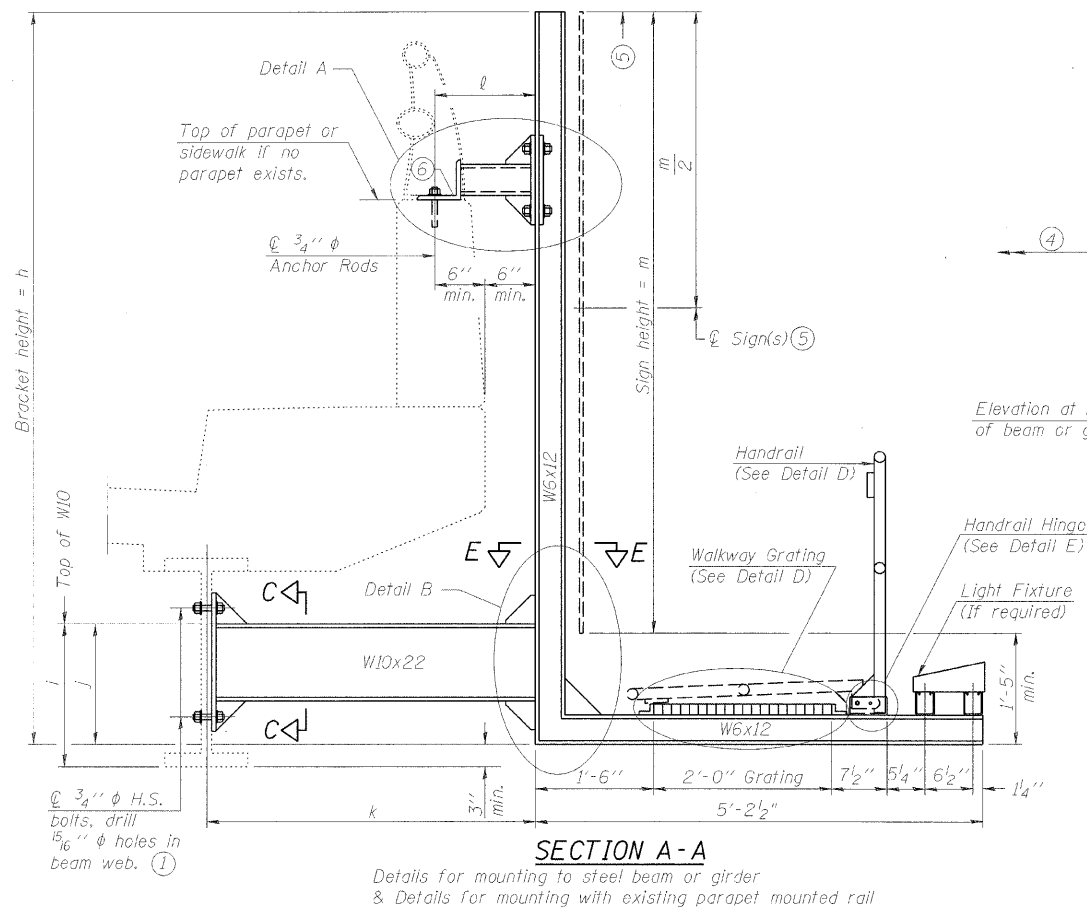
Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.
When $c_w < c_s$ and/or $d_w < d_s$, use alternate brackets without walkway supports where applicable, see ③.

* DIMENSION MEASURED FROM FACE OF ABUTMENT.

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

BM-1 12-1-08

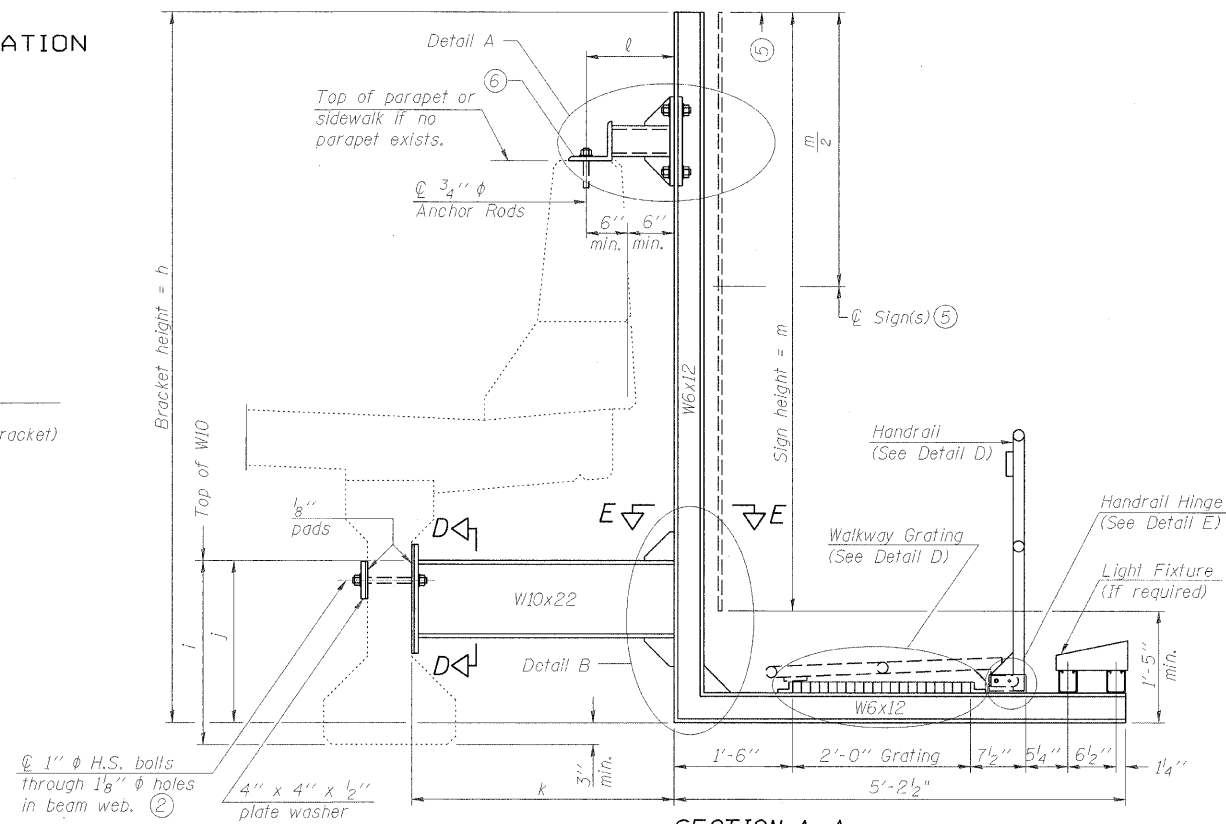
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A - A

Alternate with no lights or walkways

- ④ For attachment details of 3½" pipe and W10x22, see other sections as applicable.



SECTION A - A

Details for mounting to PPC I Beam or Bulb "T"
& Details for mounting to parapet w/o rail

Notes:

Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.

Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.

All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.

The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

- ⑤ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑥ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation.
- For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h	i	j	k max. (10'-0'' max.)	ℓ max.* (8'-0'' max.)	m (15'-0'' max.)
IB016I094R051.45-EX4		12'-0''	2'-2''	1'-11''	8'-2''	VARIES **	12'-0''
IB016I094R051.36-EX4		12'-0''	2'-2''	1'-11''	8'-2''	VARIES **	12'-0''
IB016I094R051.36-LL1		12'-0''	2'-2''	1'-11''	5'-0''	2'-0''	11'-0''
IB016I094R051.36-LL2		12'-0''	2'-2''	1'-11''	5'-0''	2'-0''	11'-0''
IB016I094R051.27-EX4		12'-0''	TBD	TBD	8'-2''	VARIES **	11'-0''
IB016I094R051.18-EX3		11'-6''	2'-2''	1'-11''	8'-2''	VARIES **	10'-6''
IB016I094R051.09-EX4		12'-0''	2'-2''	1'-11''	8'-2''	VARIES **	12'-6''
IB016I094R051.09-LL1		12'-0''	2'-2''	1'-11''	8'-2''	VARIES **	9'-0''

* SEE DETAILS D6, C7, C2 & F3 FOR ALTERNATE MOUNTING DETAILS.

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.
For Details D & E, see Base Sheet BM-4.

** DISTANCE VARIES WITH THE PLAN CURVATURE OF THE DECK CANTILEVER. CONTRACTOR SHALL VERIFY THESE LENGTHS BASED ON FIELD MEASUREMENTS.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.

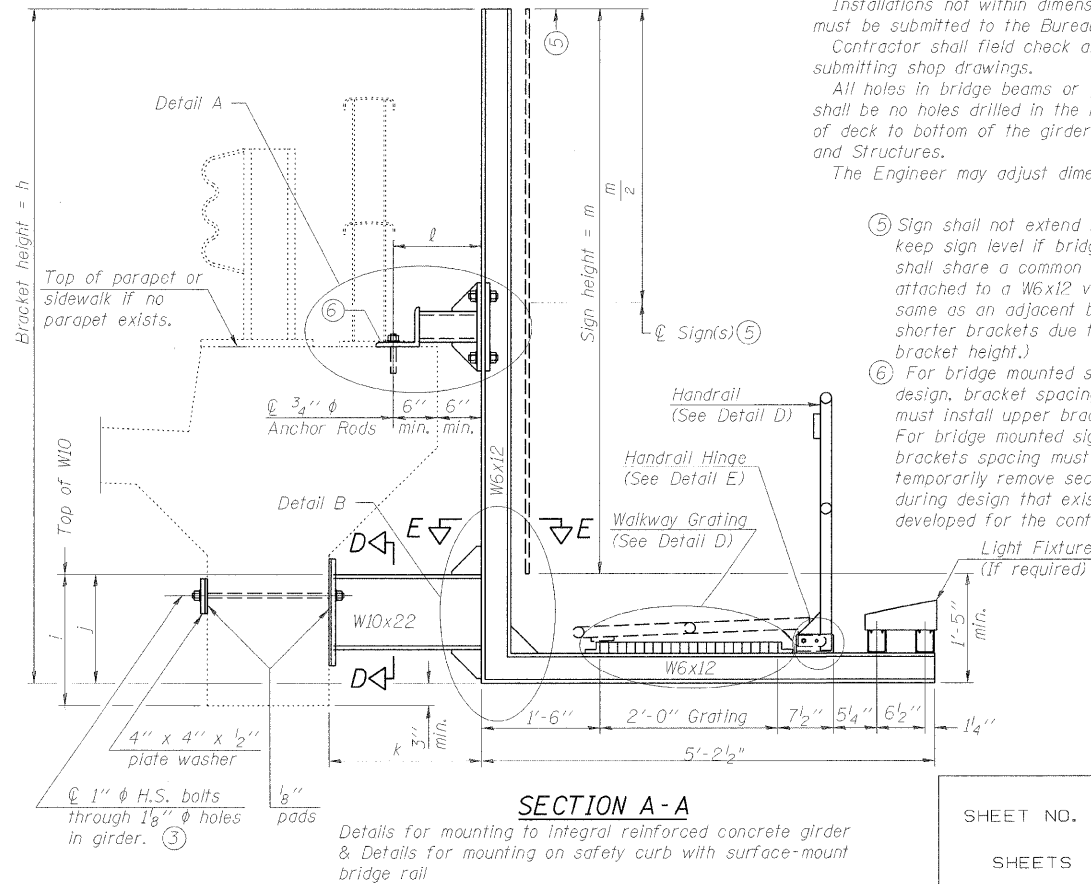
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.

- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing* damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.

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

BM-2

12-1-08

[illegible]

SECTION A - A

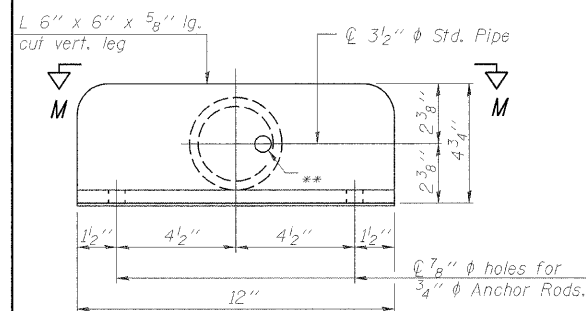
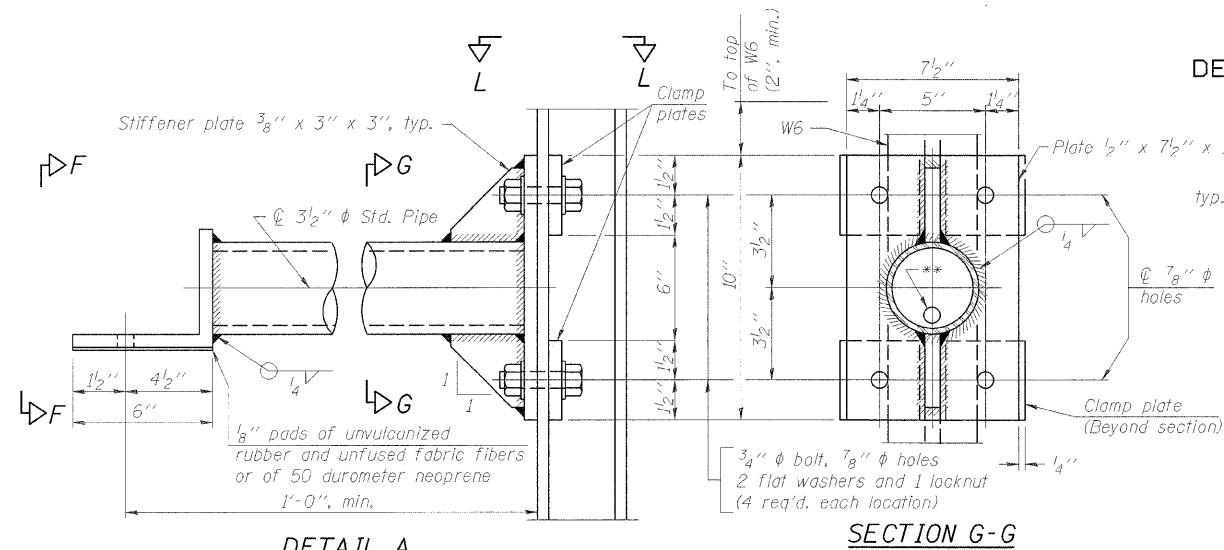
*Details for mounting to integral reinforced concrete girder
& Details for mounting on safety curb with surface-mount
bridge rail*

BRIDGE MOUNT SIGN STRUCTURES
WALKWAY AND CONNECTION DETAILS

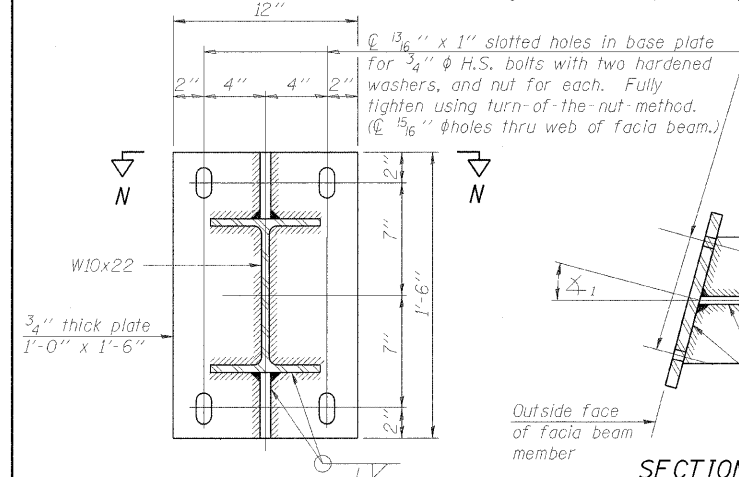
ADAM ST., MONROE ST., MADISON ST., WASHINGTON ST., & RANDOLPH ST.

SHEET NO.	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	90/94	(0202.6-2P, ETC., 1415 & 1517)R-7	COOK	246	113
	SHEETS			CONTRACT NO. 62405	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

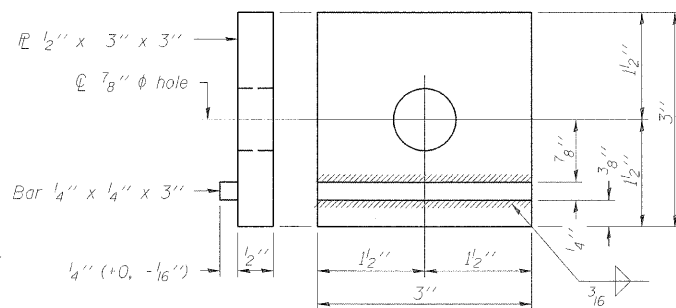


VIEW F-F ** $\frac{13}{16}$ " ϕ holes for galvanizing. After galvanizing, install $\frac{7}{8}$ " ϕ A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in $\frac{1}{2}$ " plate.)

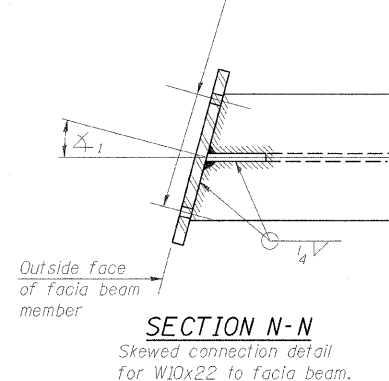


SECTION C-C
Steel beam or girder connection plate details

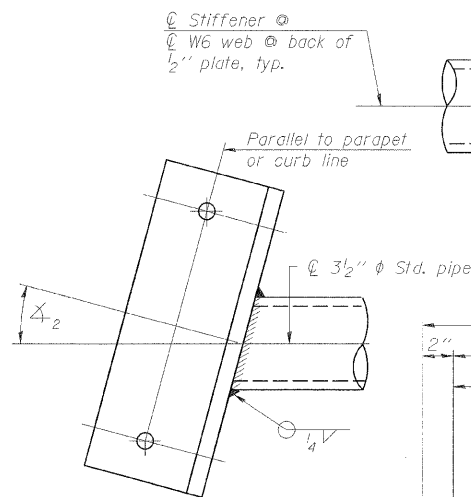
Note: For constant slab overhang at fascia beam, $\Delta_1 = \Delta_2 =$ sign angle. For flared beams or other special cases where $\Delta_1 \neq \Delta_2$, $\Delta_1 =$ sign angle.



CLAMP PLATE DETAILS

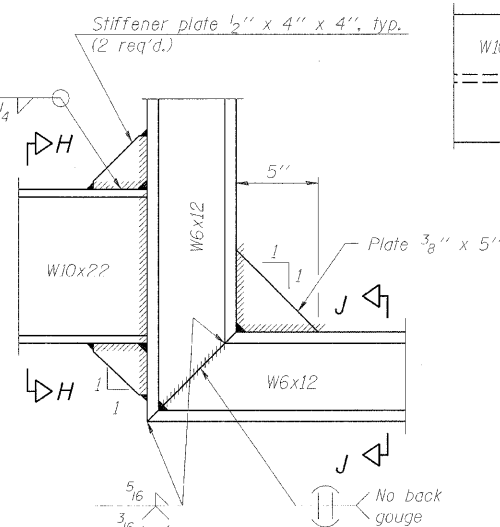


SECTION N-N
Skewed connection detail for W10x22 to fascia beam.

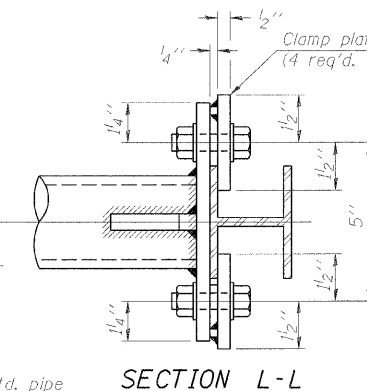


SECTION M-M
Skewed connection detail for $\frac{3}{2}$ " pipe to parapet.

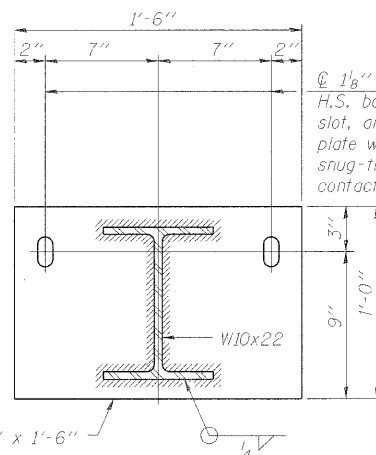
SECTION G-G



DETAIL B - WELDED W10x22 TO W6x12 CONNECTION

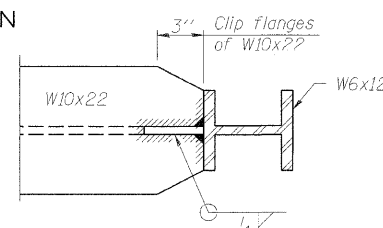


SECTION L-L

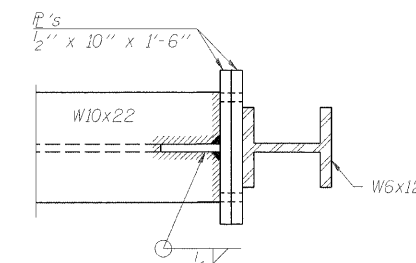


SECTION D-D

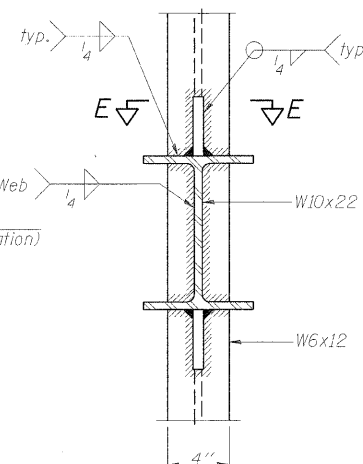
Concrete beam or girder connection plate details.



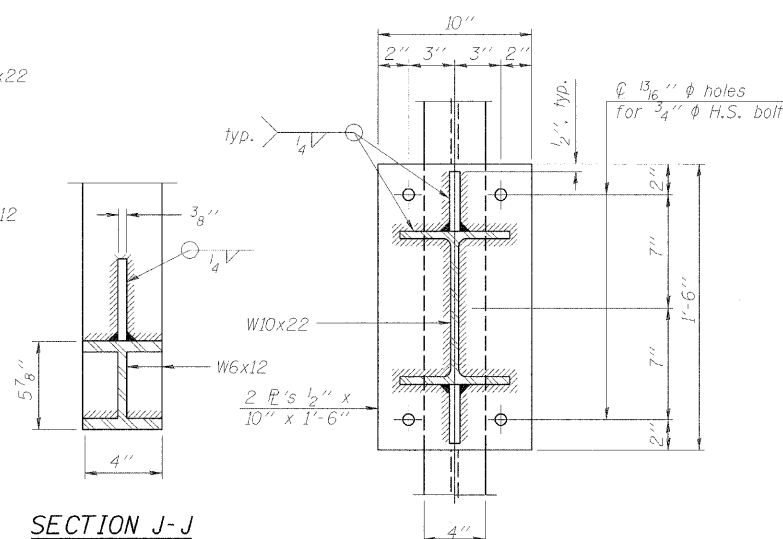
SECTION E-E



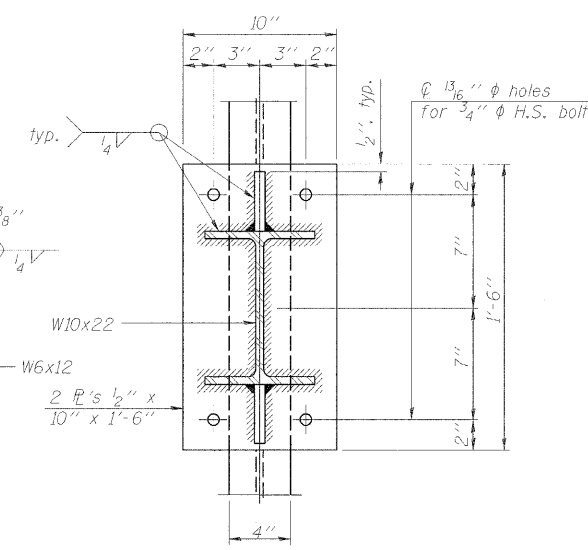
SECTION K-K



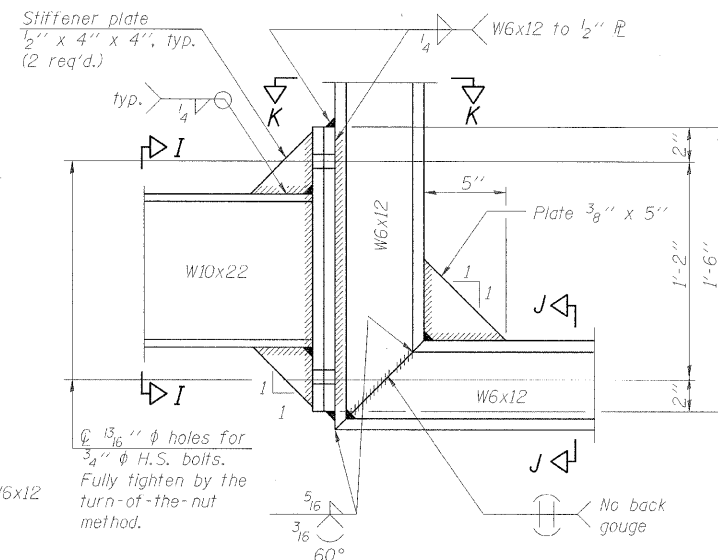
SECTION H-H



SECTION J-J



SECTION I-I



DETAIL B - ALTERNATE BOLTED W10x22 TO W6x12 CONNECTION

Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.

**BRIDGE MOUNT SIGN STRUCTURES
CONNECTION DETAILS**

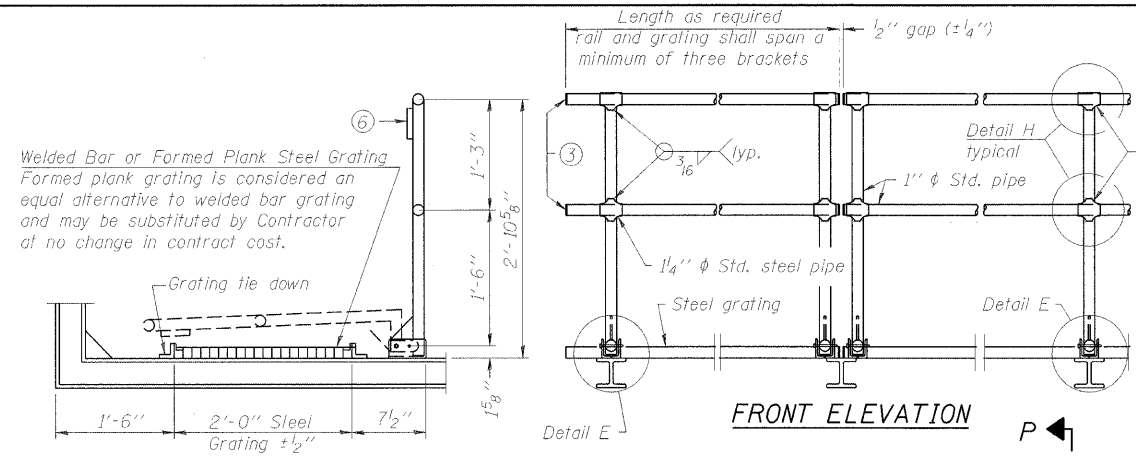
ADAM ST., MONROE ST., MADISON ST., WASHINGTON ST., & RANDOLPH ST.

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BM-3	90/94	10202.6-2P, ETC., 1415 & 1517R-7	COOK	246	114
SHEETS			CONTRACT NO. 62408		
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT		

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

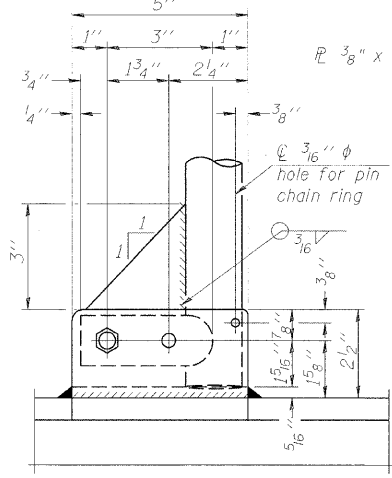
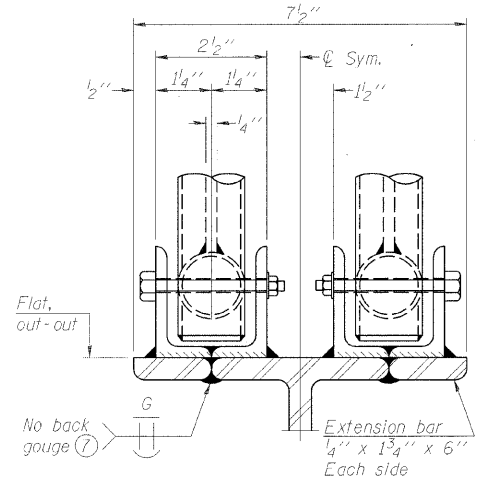
12-1-08

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



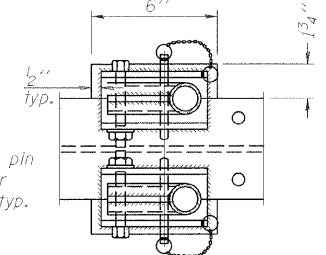
SIDE ELEVATION

DETAIL D HANDRAIL

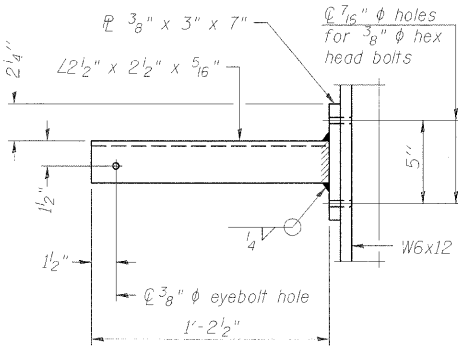
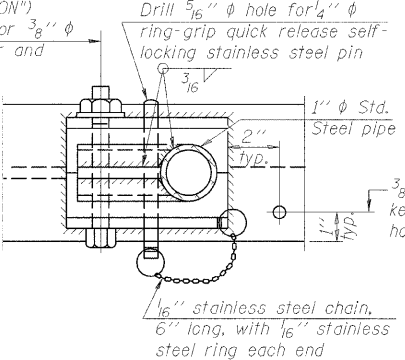


SAFETY CHAIN ATTACHMENT

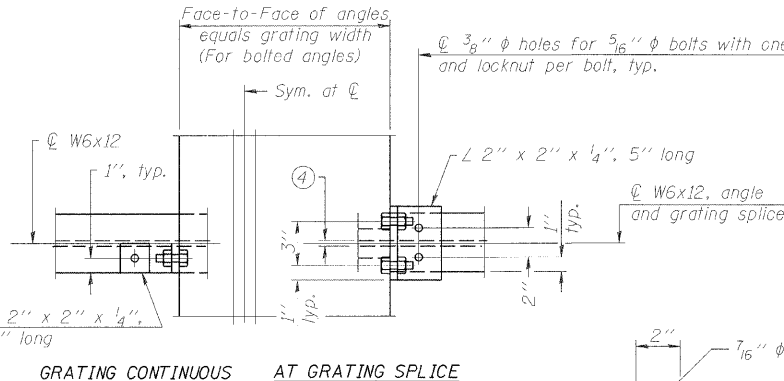
(With Sign Present)
Items not shown same as "SIDE
ELEVATION" and "SAFETY CHAIN"



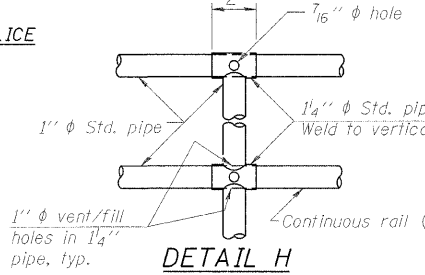
PLAN AT SINGLE HANDRAIL HINGE
DETAIL E



SECTION P-P



VIEW W-W

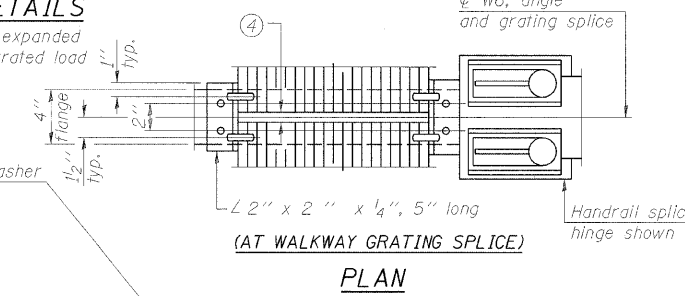
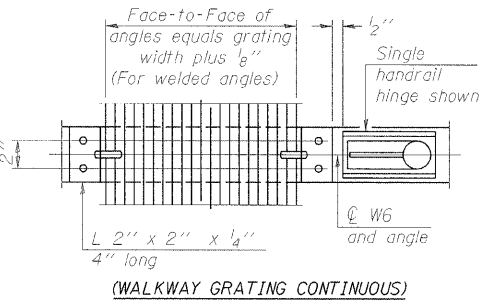
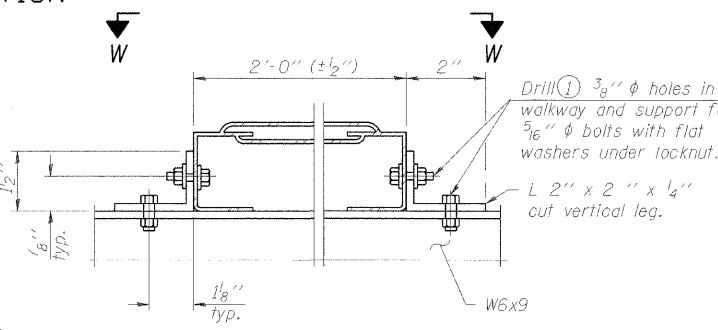


SAFETY CHAIN

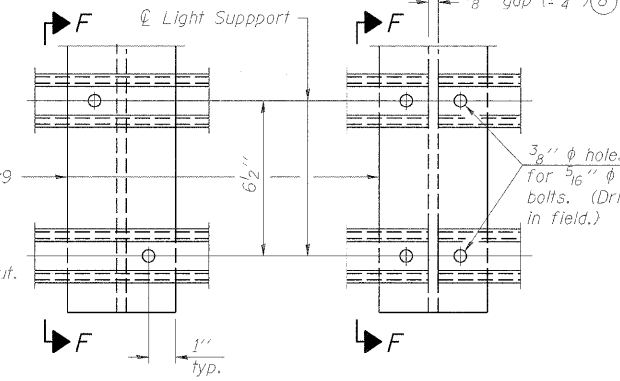
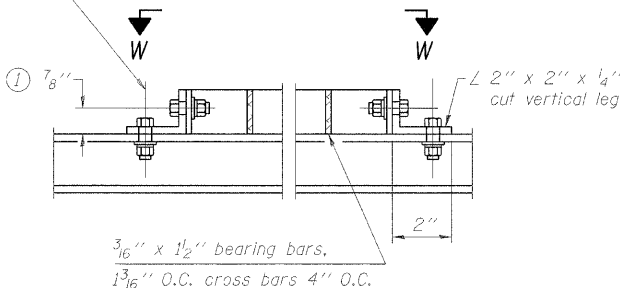
One (1) required for each end of each walkway.

ALTERNATE FORMED PLANK GRATING DETAILS

Plank Grating: nominal depth = 2 1/2" (±1/2"); perforated or expanded
steel sheet with a non-skid surface (non-serrated) concentrated load
capacity = 500 lbs. with 6'-0" clear span.



WELDED BAR GRATING DETAILS



BRIDGE MOUNT SIGN STRUCTURES
WALKWAY DETAILS

ADAM ST., MONROE ST., MADISON ST., WASHINGTON ST., & RANDOLPH ST.

SHEET NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SHEETS	90/94	(0202.6-2P, ETC., 1415 & 1517)R-7	COOK	246	115
CONTRACT NO.					62408
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

NOTES

- ① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment. Field drilled holes must be touched up with galvanized paint.
- ② Horizontal rail member shall be continuous thru 1 1/4" Ø pipe. Provide 7/16" Ø hole in 1 1/4" Ø pipe for 3/8" Ø bolt. Field drill 7/16" Ø hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" Ø holes on top rail at ends only.)
- ③ Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends.)
- ④ 3/8" (±1/4") gap between grating panels at splice.
- ⑤ Chain to be type 304L stainless steel suitable for prolonged exterior exposure. Approximately 3'-6" long chain per location. Maximum sag with handrail erected = 4".
- ⑥ Ø 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- ⑦ Extrusions may be used in lieu of details shown, with approval by Engineer.
- ⑧ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

NUMBER	REVISION	DATE

DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
BM-4	ENGINEER OF BRIDGES AND STRUCTURES

12-1-08

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. *"AASHTO Specifications"* 2

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.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. *All Obstructions*

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 Structural Welding Code *Steel* and the Standard Specifications.

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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
M183, M223 Gr. 50,.

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 *A325*, ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

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: All-threaded rod conforming to ASTM A307, 3/4" x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

- ① Bracket spacing $g \leq 6'-0"$, max. Spacing shall be uniform if possible but may vary $\pm 6"$ to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- ② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- ③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- ④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

NUMBER	REVISION	DATE

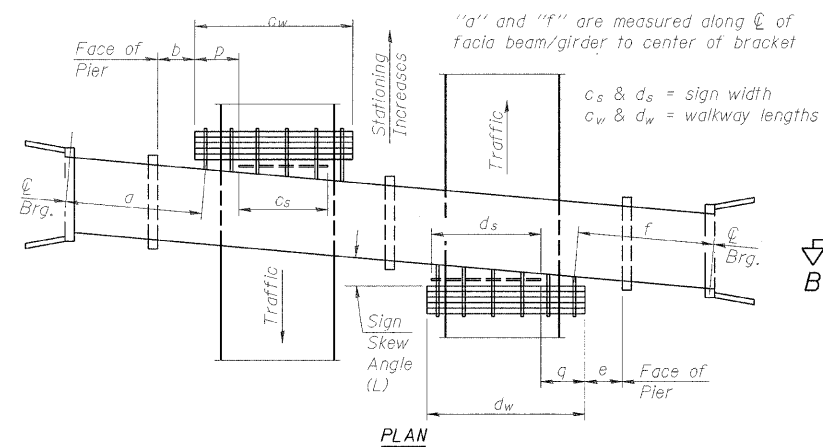
TOTAL BILL OF MATERIAL

③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	62

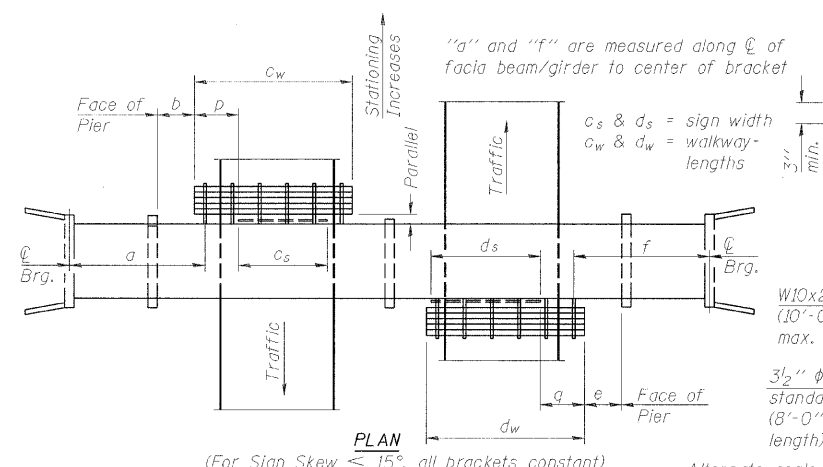
BRIDGE MOUNT SIGN STRUCTURES
GENERAL PLAN AND ELEVATION

OGDEN AVE.

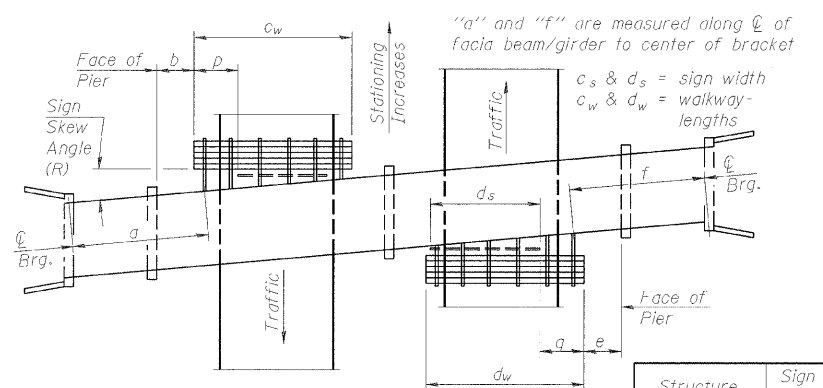
SHEET NO.	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	90/94	(0202.6-2P, ETC., 1415 & 1517)R-T	COOK	246	116
	SHEETS			CONTRACT NO. 62408	
FFD. ROAD DIST. NO.		ILLINOIS	FFD. AID PROJECT		



WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



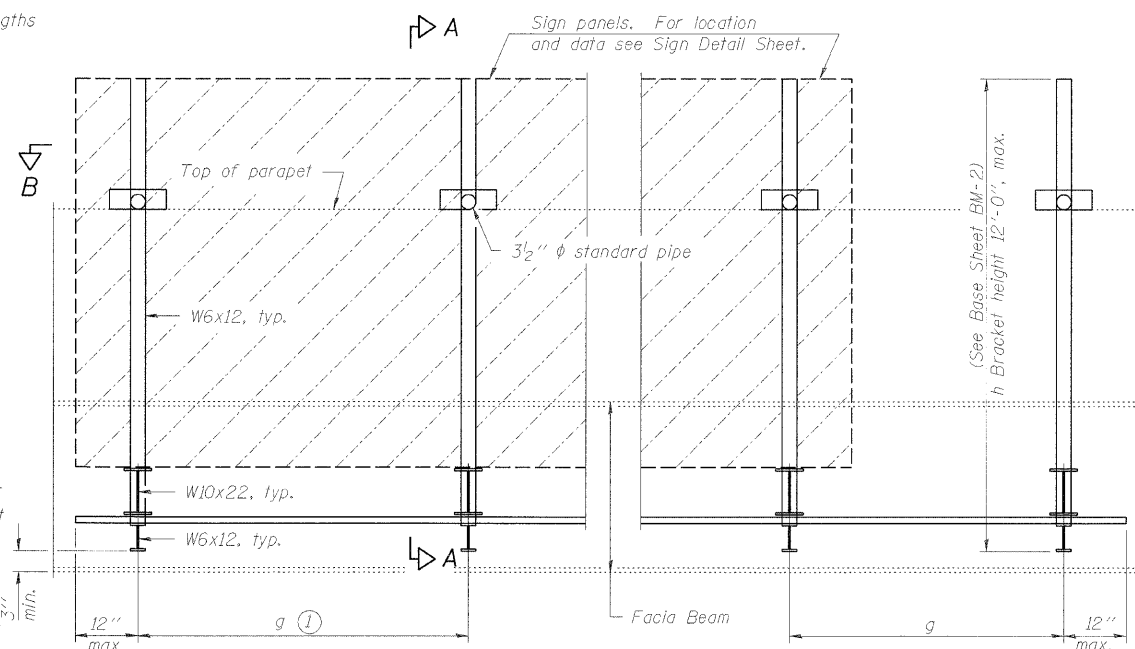
PLAN
(Right Sign Skew > 15°)

WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)

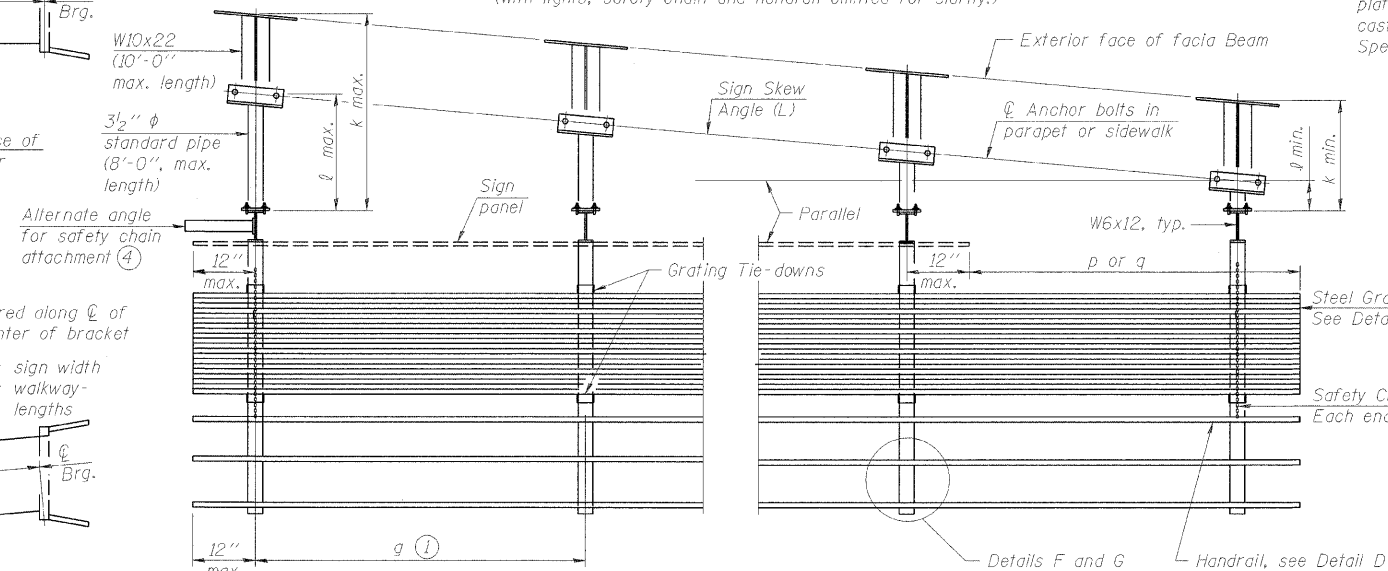
DESIGNED	-	200
CHECKED	-	EXAMINED
DRAWN	-	ENGINEER OF BRIDGE DESIGN
CHECKED	-	PASSED
		ENGINEER OF BRIDGES AND STRUCTURES

BM-1

12-1-08



TYPICAL FRONT ELEVATION
(With lights, safety chain and handrail omitted for clarity.)



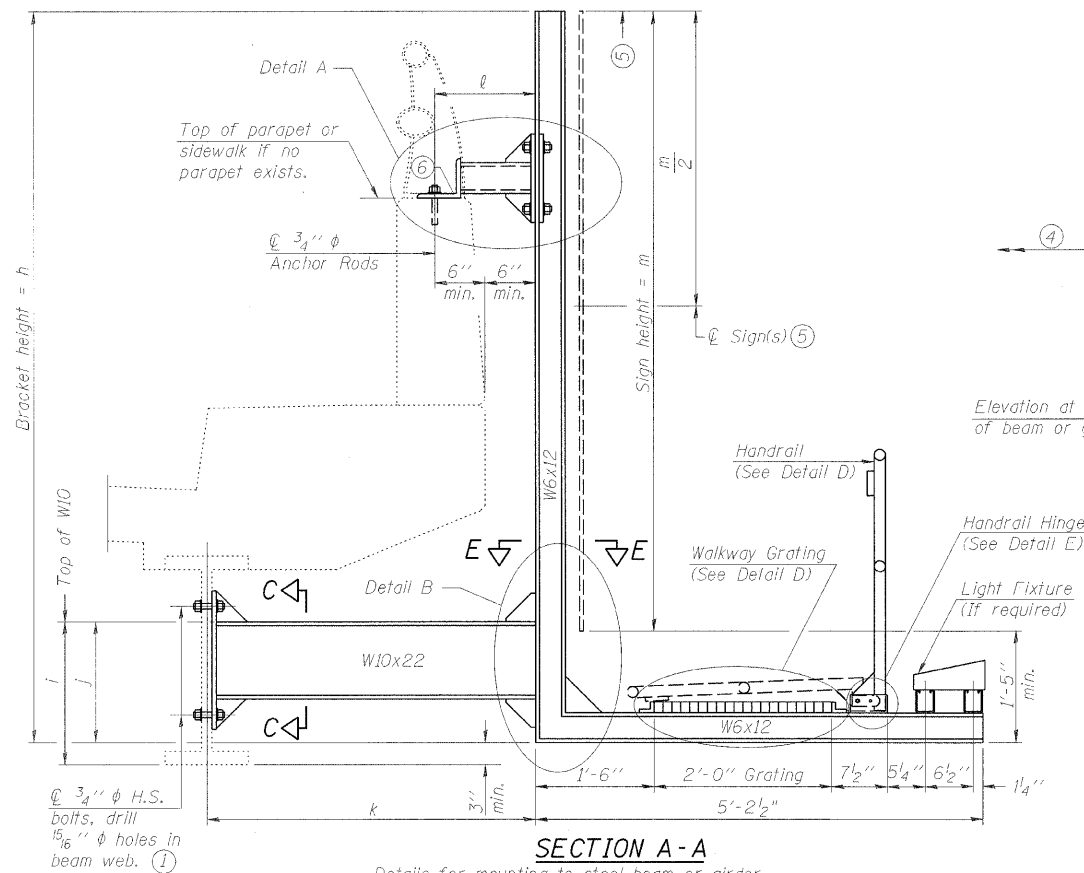
SECTION B-B
(Shown: Left Sign Skew > 15°)

[illegible]

Dimensions a , b , e , f & g may vary as approved by the Engineer, see (1).
When $c_w < c_s$ and/or $d_w < d_s$, use alternate brackets without walkway supports where applicable, see (3).

* DISTANCE MEASURED FROM FACE OF ABUTMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A
Details for mounting to steel beam or girder
& Details for mounting with existing parapet mounted rail

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
1B0161034R050.19-FX2		12'-0"	TBD	TBD	TBD	TBD	12'-0"
1B0161034R050.19-EX4		12'-0"	TBD	TBD	TBD	TBD	12'-0"
1B0161034R050.19-LL1		12'-0"	TBD	TBD	TBD	TBD	11'-0"

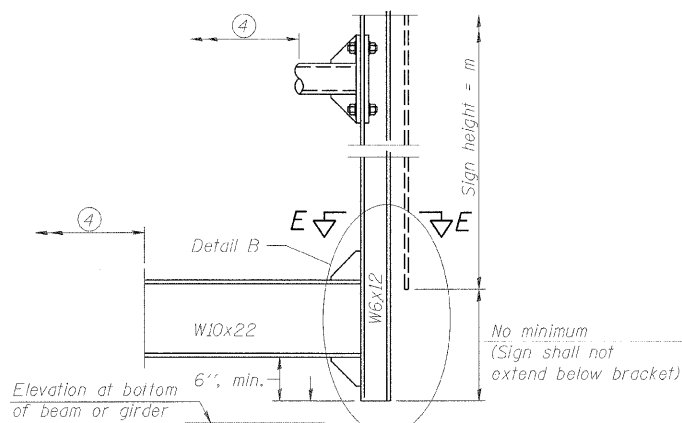
For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.
For Details D & E, see Base Sheet BM-4.

- Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing* damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.

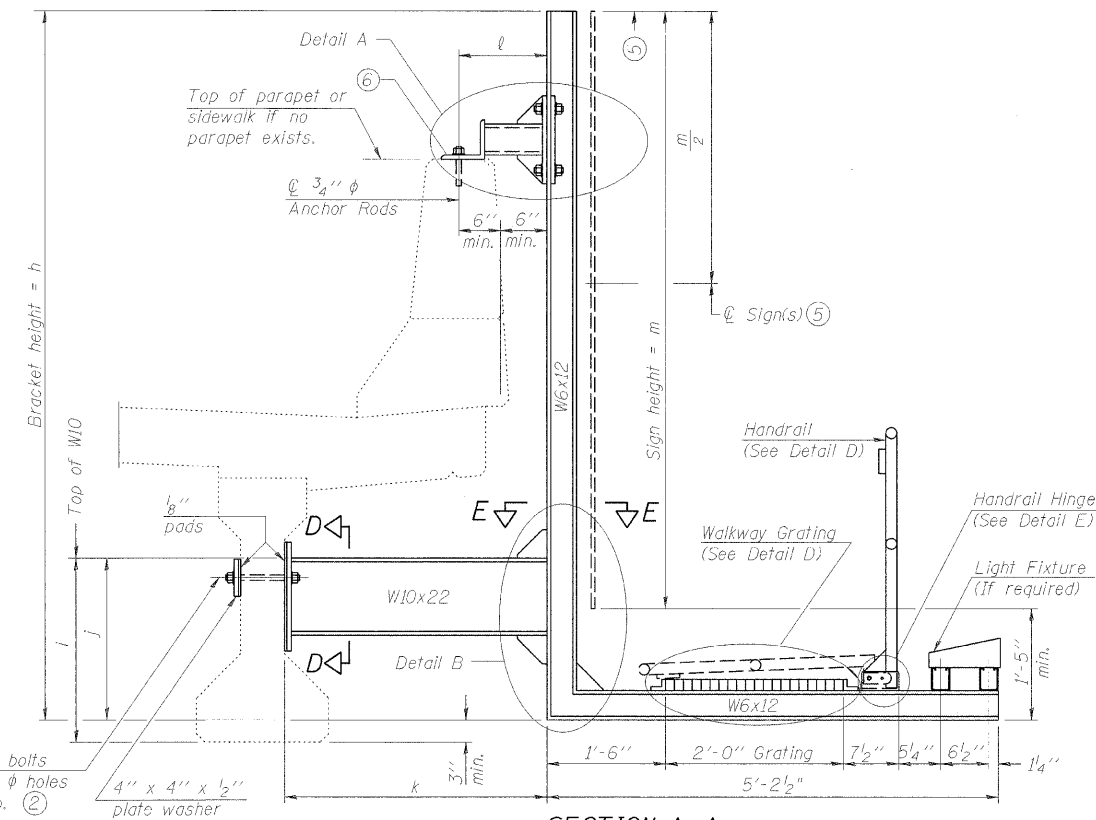
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

BM-2 12-1-08

NUMBER	REVISION	DATE

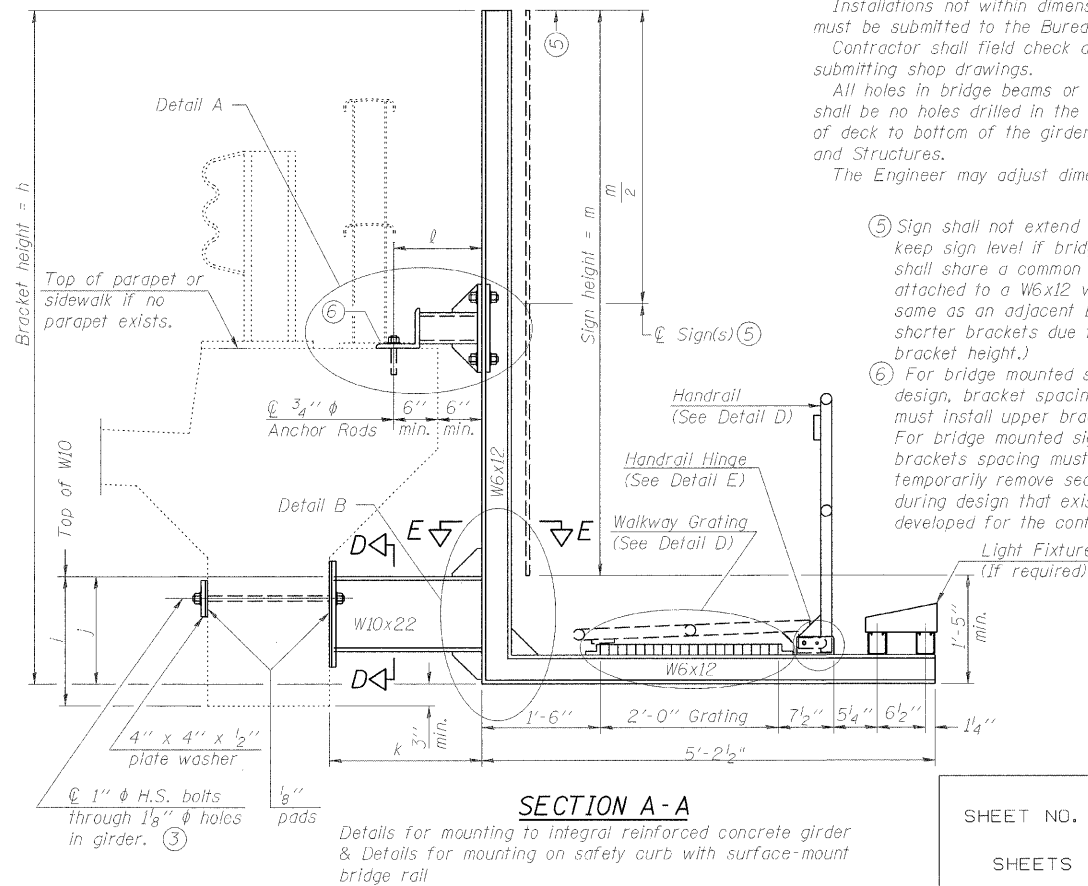


SECTION A-A
Alternate with no lights or walkways
(4) For attachment details of 3/2" pipe and W10x22, see other sections as applicable.



SECTION A-A
Details for mounting to PPC I Beam or Bulb "T"
& Details for mounting to parapet w/o rail

- Notes:
- Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings. All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures. The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.
 - Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
 - For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.



SECTION A-A
Details for mounting to integral reinforced concrete girder
& Details for mounting on safety curb with surface-mount bridge rail

BRIDGE MOUNT SIGN STRUCTURES
WALKWAY AND CONNECTION DETAILS

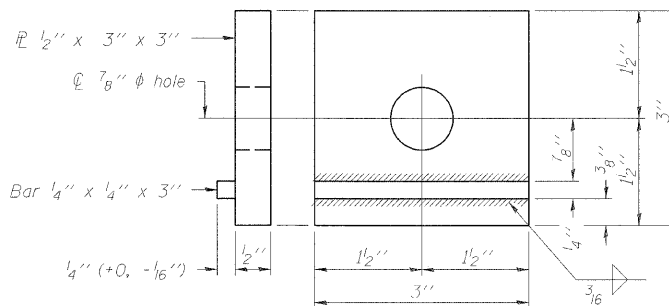
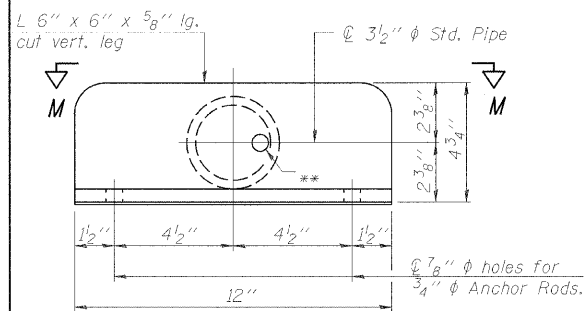
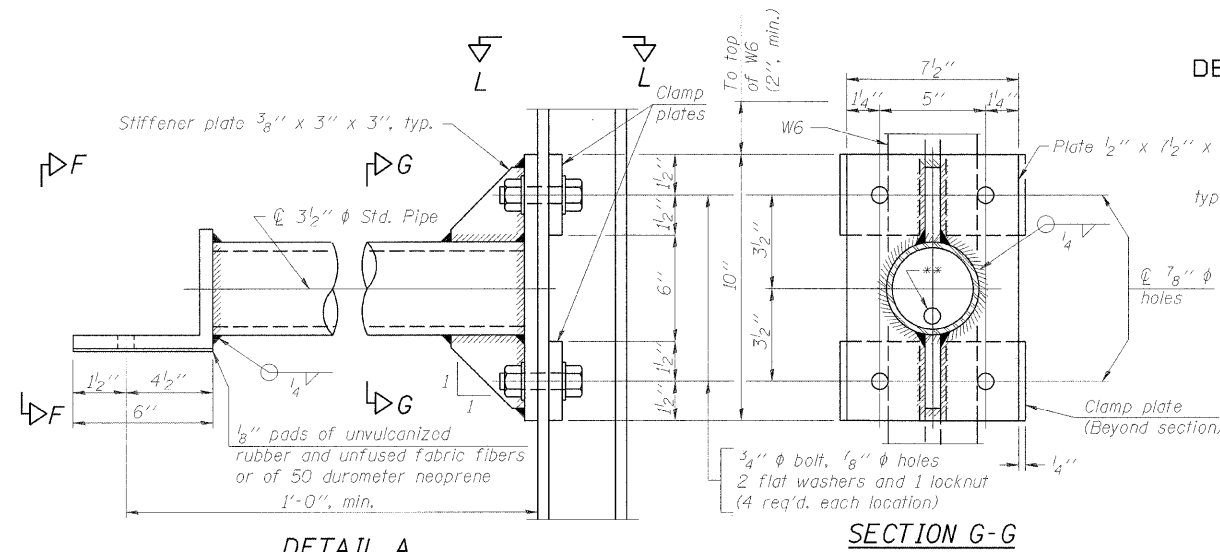
OGDEN AVE.

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	90/34	0202.6-2P, ETC., 1415 & 1517R-7	COOK	246	117
SHEETS					

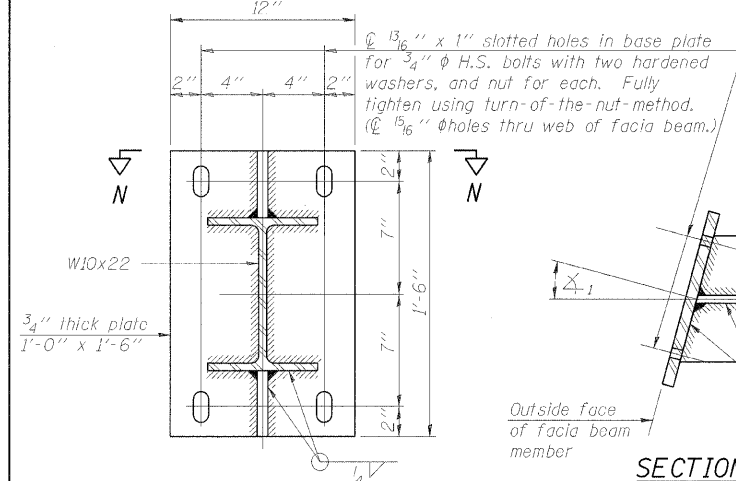
CONTRACT NO. 62408

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



** 13/16" holes for galvanizing. After galvanizing, install 7/8" A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2" plate.)

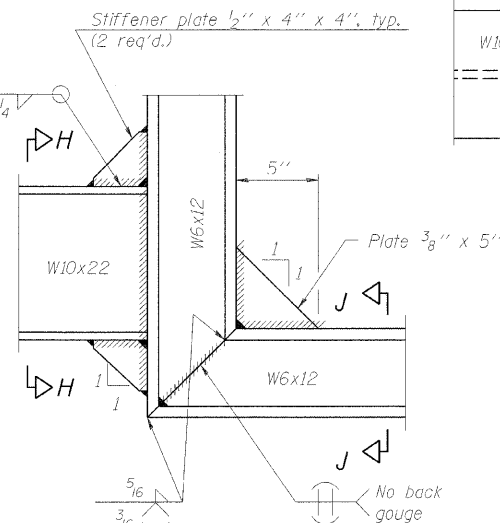


SECTION C-C
Steel beam or girder connection plate details

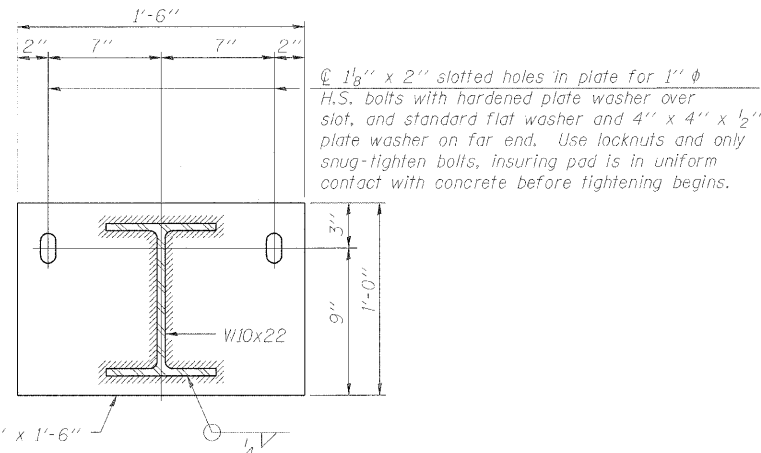
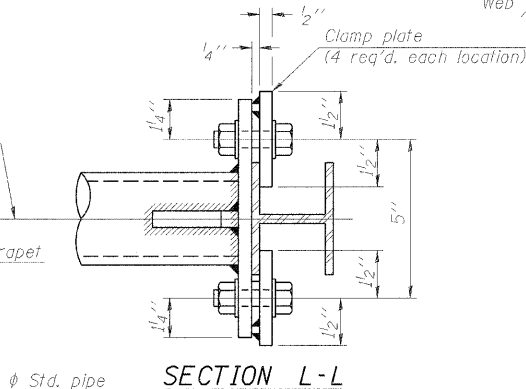
Note: For constant slab overhang of fascia beam, $\Delta_1 = \Delta_2 =$ sign angle. For flared beams or other special cases where $\Delta_1 \neq \Delta_2$, $\Delta_1 =$ sign angle.

SECTION N-N
Skewed connection detail for W10x22 to fascia beam.

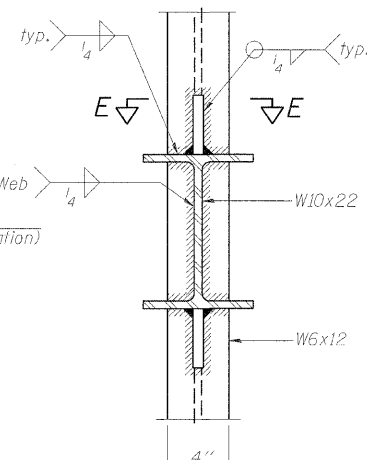
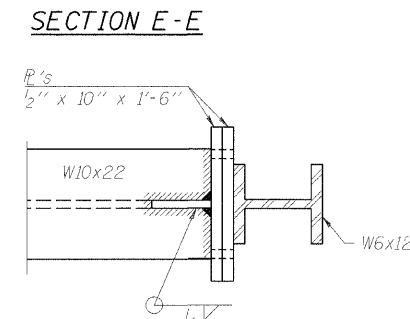
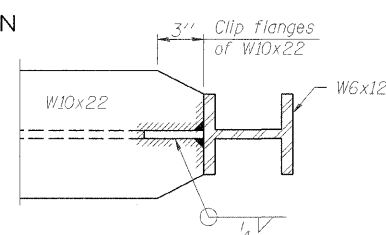
SECTION M-M
Skewed connection detail for 3 1/2" pipe to parapet.



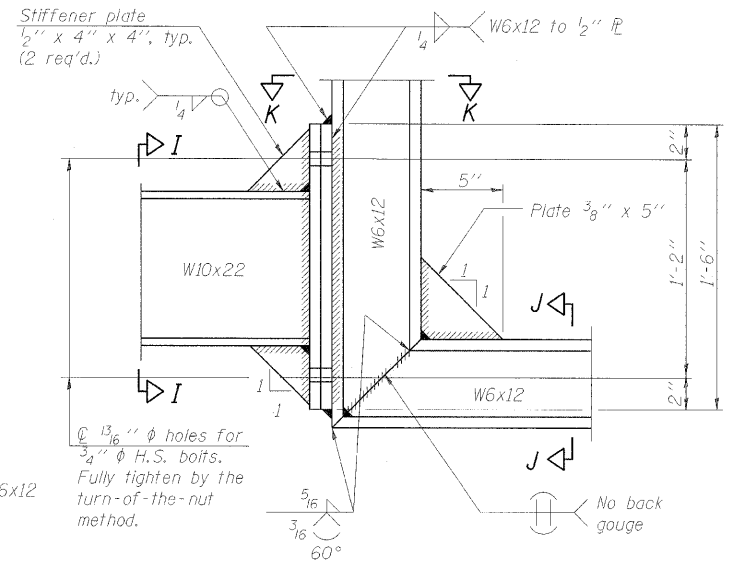
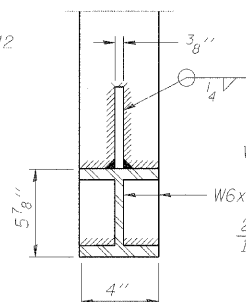
DETAIL B - WELDED W10x22 TO W6x12 CONNECTION



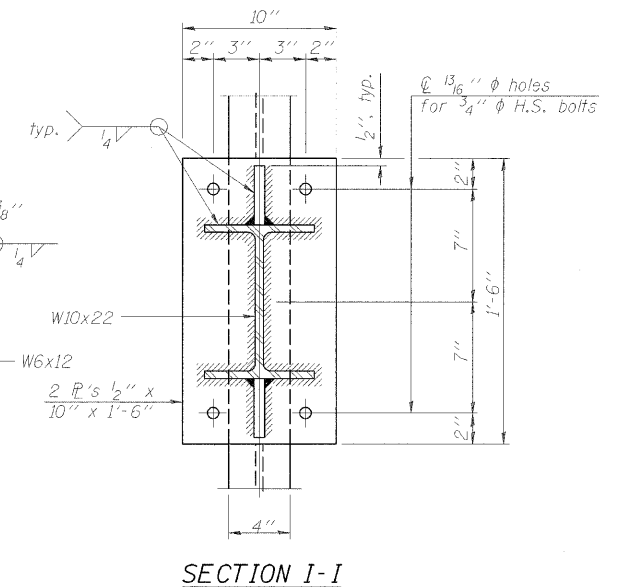
Concrete beam or girder connection plate details.



SECTION J-J



Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.



BRIDGE MOUNT SIGN STRUCTURES
CONNECTION DETAILS

OGDEN AVE.

SHEET NO.	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BM-3	90/94	10202.6-2P, ETC., 1415 & 1517R-7	COOK	246	118
CONTRACT NO.					62405
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

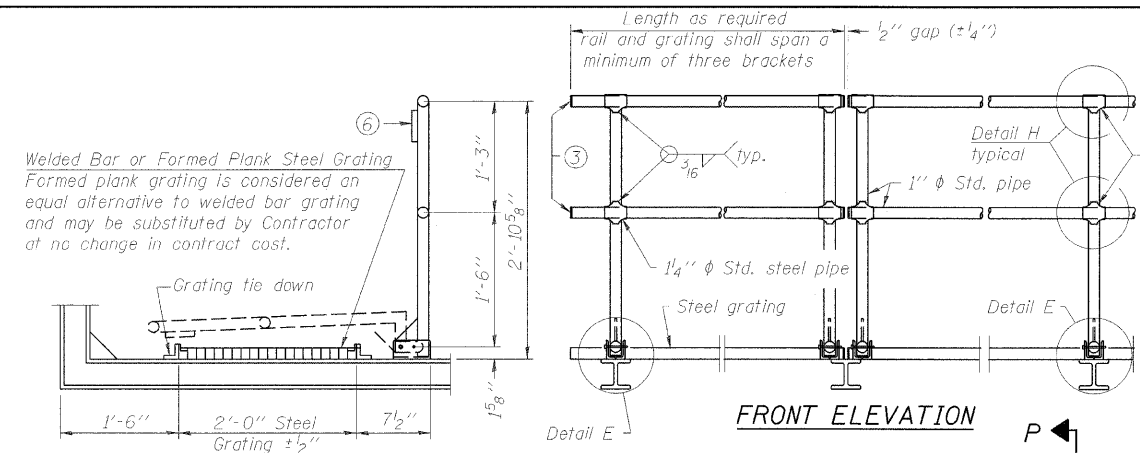
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

BM-3

12-1-08

NUMBER	REVISION	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



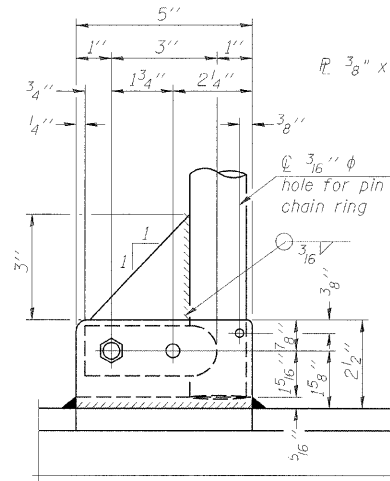
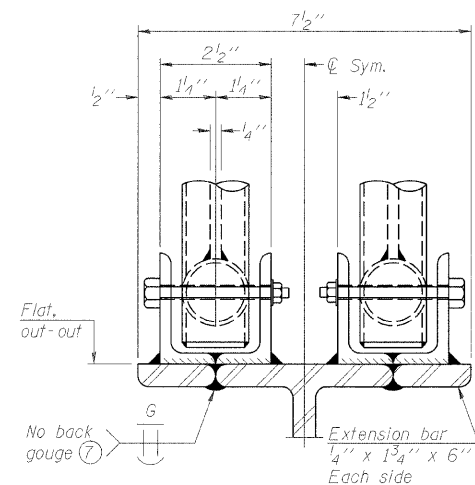
SIDE ELEVATION

DETAIL D HANDRAIL

SECTION P-P

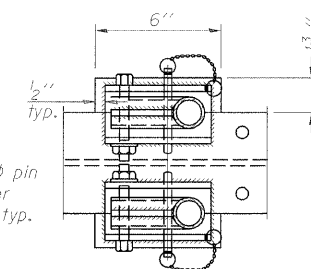
ALTERNATE FORMED PLANK GRATING DETAILS

Plank Grating: nominal depth = 2 1/2" (±1/2"); perforated or expanded
steel sheet with a non-skid surface (non-serrated) concentrated load
capacity = 500 lbs. with 6'-0" clear span.



SAFETY CHAIN ATTACHMENT

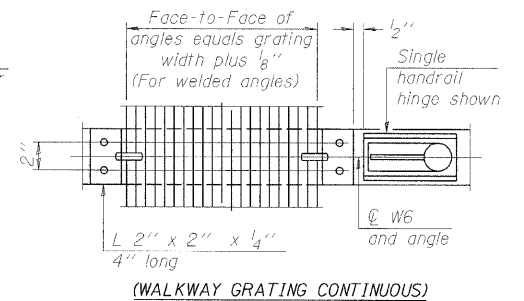
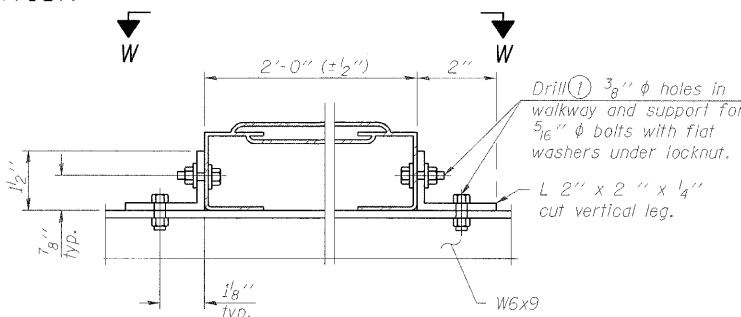
(With Sign Present)
Items not shown same as "SIDE
ELEVATION" and "SAFETY CHAIN"



SECTION F-F
LIGHTING FIXTURE MOUNTS
(If required)

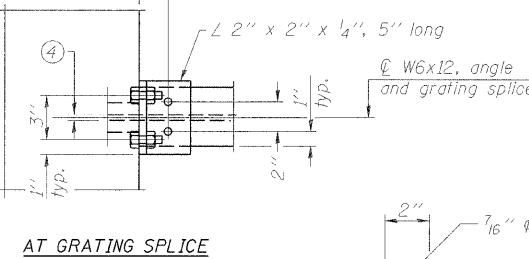
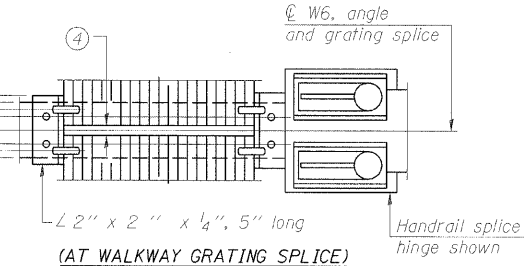
NOTES

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment. Field drilled holes must be touched up with galvanized paint.
- Horizontal rail member shall be continuous thru 1 1/4" pipe. Provide 7/16" hole in 1 1/4" pipe for 3/8" bolt. Field drill 7/16" hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" holes on top rail at ends only.)
- Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends.)
- 3/8" (±1/4") gap between grating panels at splice.
- Chain to be type 304L stainless steel suitable for prolonged exterior exposure. Approximately 3'-6" long chain per location. Maximum sag with handrail erected - 4".
- 1/8" x 1/2" x 2" welded to handrail posts to protect locations that contact grating.
- Extrusions may be used in lieu of details shown, with approval by Engineer.
- Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

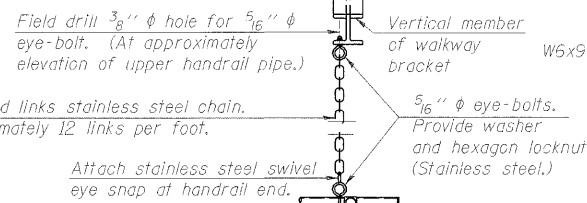
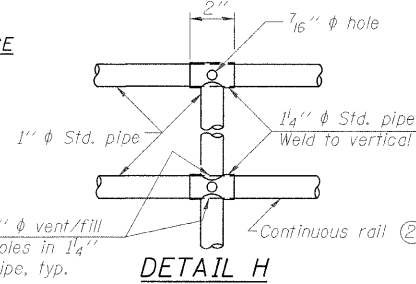


ALTERNATE FORMED PLANK GRATING DETAILS

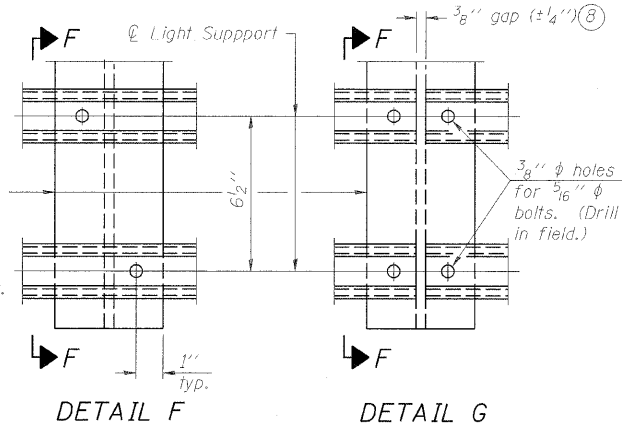
Plank Grating: nominal depth = 2 1/2" (±1/2"); perforated or expanded
steel sheet with a non-skid surface (non-serrated) concentrated load
capacity = 500 lbs. with 6'-0" clear span.



VIEW W-W



WELDED BAR GRATING DETAILS



BRIDGE MOUNT SIGN STRUCTURES
WALKWAY DETAILS

OGDEN AVE.

NUMBER	REVISION	DATE

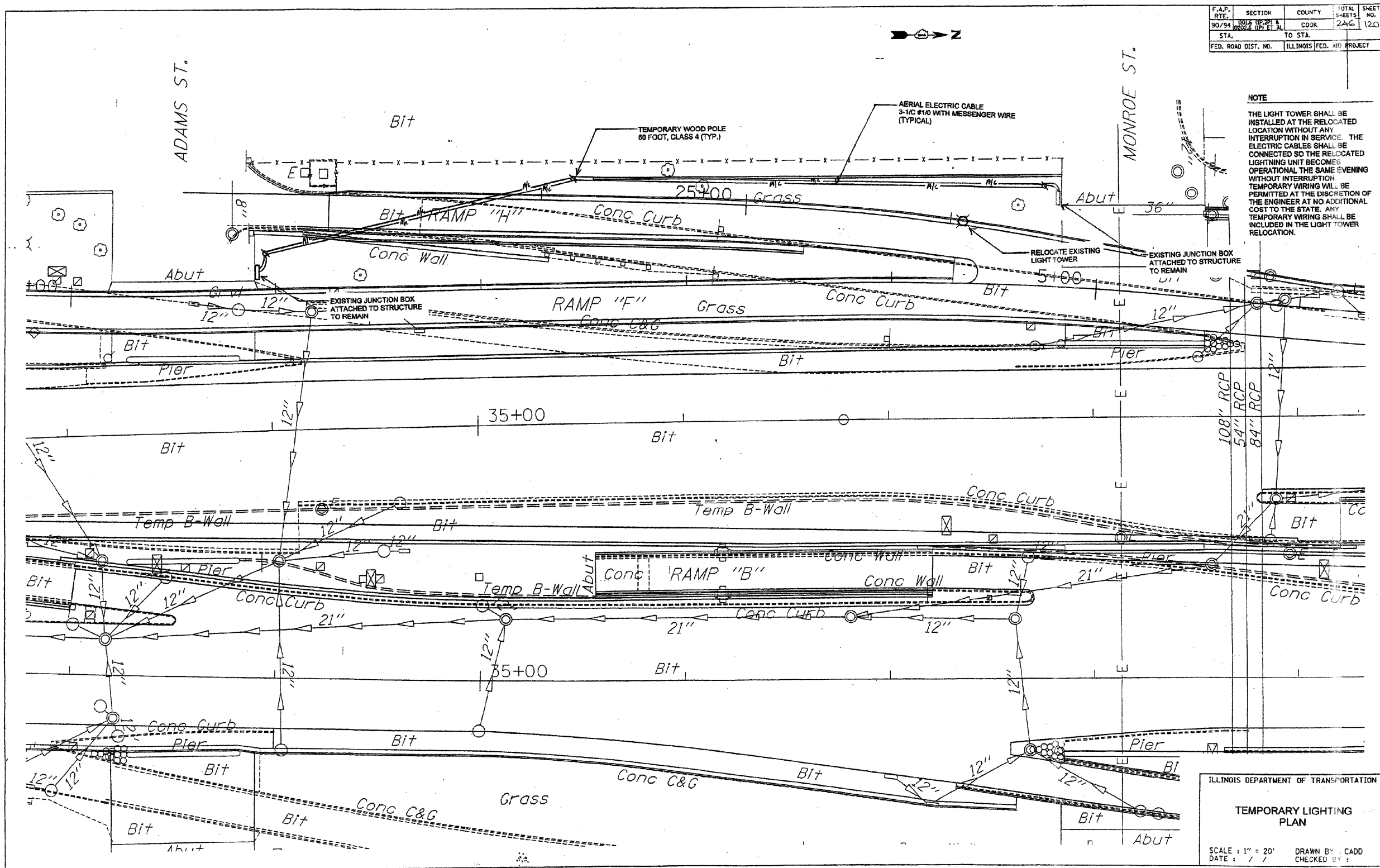
DESIGNED -	200
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGE DESIGN
BM-4	ENGINEER OF BRIDGES AND STRUCTURES

12-1-08

SHEET NO.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS	SHEET NO.
	90/94	(0202,6-2P, ETC., 1415 & 1517)R-7	COOK	246	119
CONTRACT NO.					62408
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	

DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	
DATE	
BY	
REVISION	
NO.	

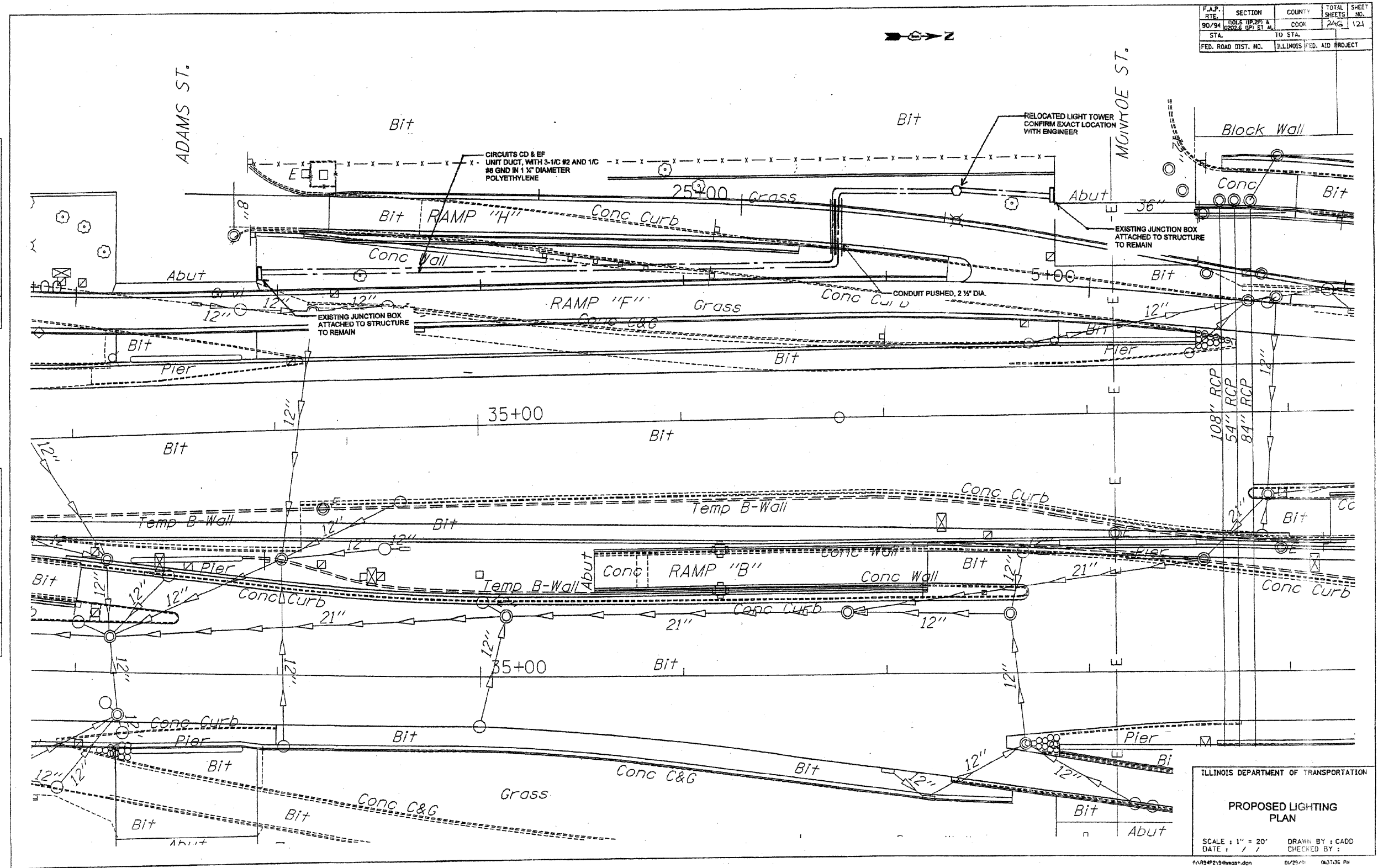


BRIGHTON ENGINEERING COMPANY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	100'S UP 20' A	COOK	246	121
STA.	TO STA.	ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.				

PLAN	DATE
REVISED	
NOTE BOOK	
STRUCTURE	
ADJUTING CORD	

PROFILE	DATE
REVISED	
NOTE BOOK	
STRUCTURE	
ADJUTING CORD	



ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLAN

SCALE : 1" = 20'

DATE : / /

DRAWN BY : CADD

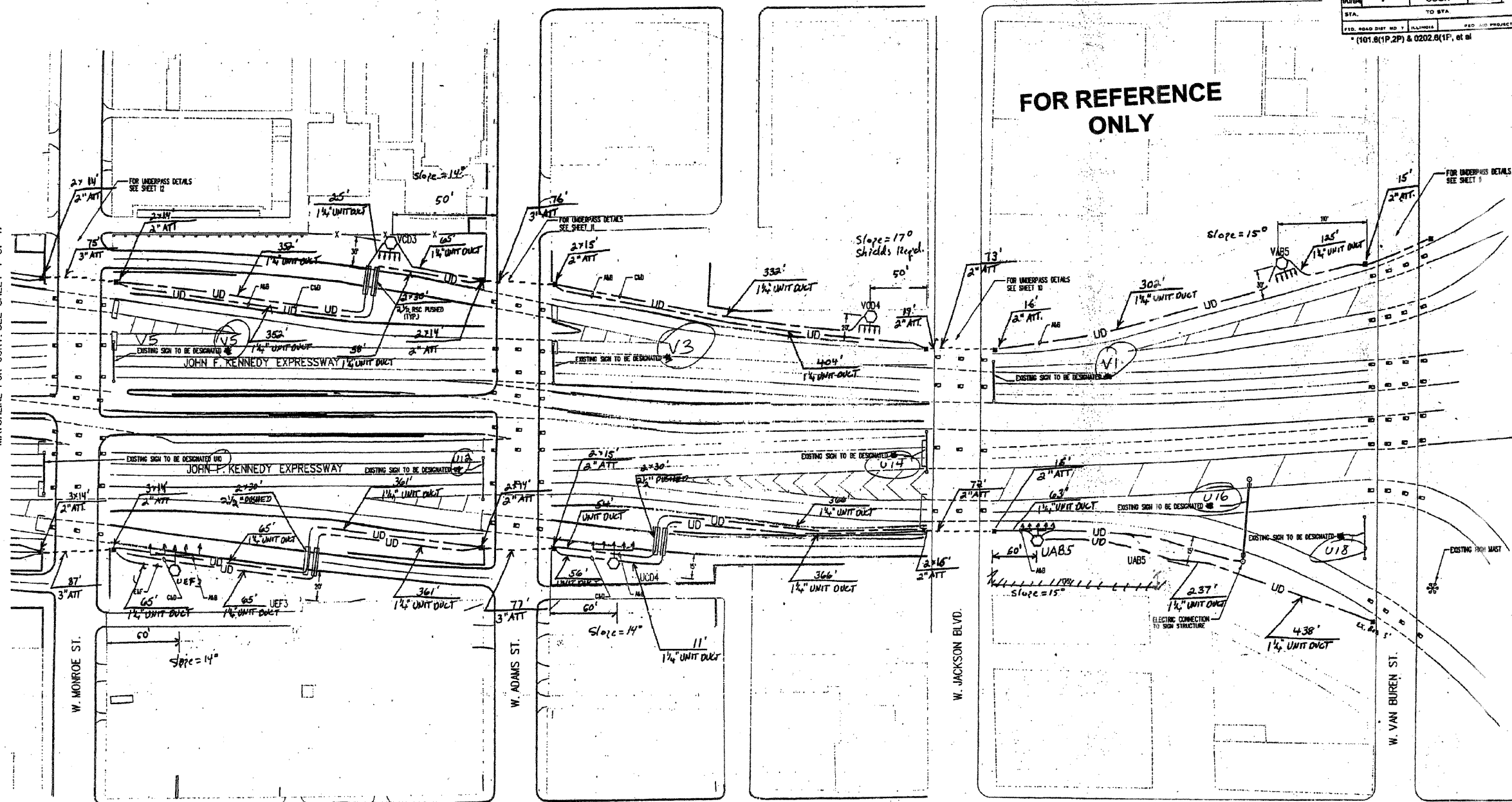
CHECKED BY :

11/18/21/10/2021.dgn 01/25/21 06:37:36 PM

BRIGHTON ENGINEERING COMPANY

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
9004	COOK	246	122
STA.	TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT	
		(101.8(1P.2P) & 0202.8(1P, et al	

MATCHLINE FOR CONT. SEE SHEET 4 OF 17



DATE	BY	REVISION

NOTES

THE EXISTING LIGHTING SYSTEMS DEPICTED ON THE PLANS ARE INTENDED ONLY TO INDICATE THE GENERAL EQUIPMENT INSTALLATION OF THE SYSTEMS INVOLVED AND SHALL NOT BE CONSTRUED AS AN EXACT REPRESENTATION OF THE FIELD CONDITIONS.

IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO CONFIRM AND ASCERTAIN THE EXACT EXTENT OF THE ELECTRICAL EQUIPMENT AND SYSTEMS TO BE MAINTAINED.

PRIOR TO THE START OF ACTIVITIES AT THE SITE, ELECTRICAL OR OTHER, THE CONTRACTOR MUST SCHEDULE A FORMAL TRANSFER OF MAINTENANCE VIA THE ENGINEER AS SPECIFIED.

Record Drawing
Contracting & Material Company.
By *John Burns* Date *6-18-96*
Authorization # *LN-7-97A LN-6-97A*
Location # *10896-10898*



Burns & McDonnell

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

ILLINOIS DEPARTMENT OF TRANSPORTATION
**J. F. KENNEDY EXPRESSWAY
LIGHTING PLAN
AREA A**

DESIGNED BY	SCALE	APP'D
DRAWN BY	DATE	BY
CHECKED BY	DATE	BY
IN CHARGE	DATE	BY

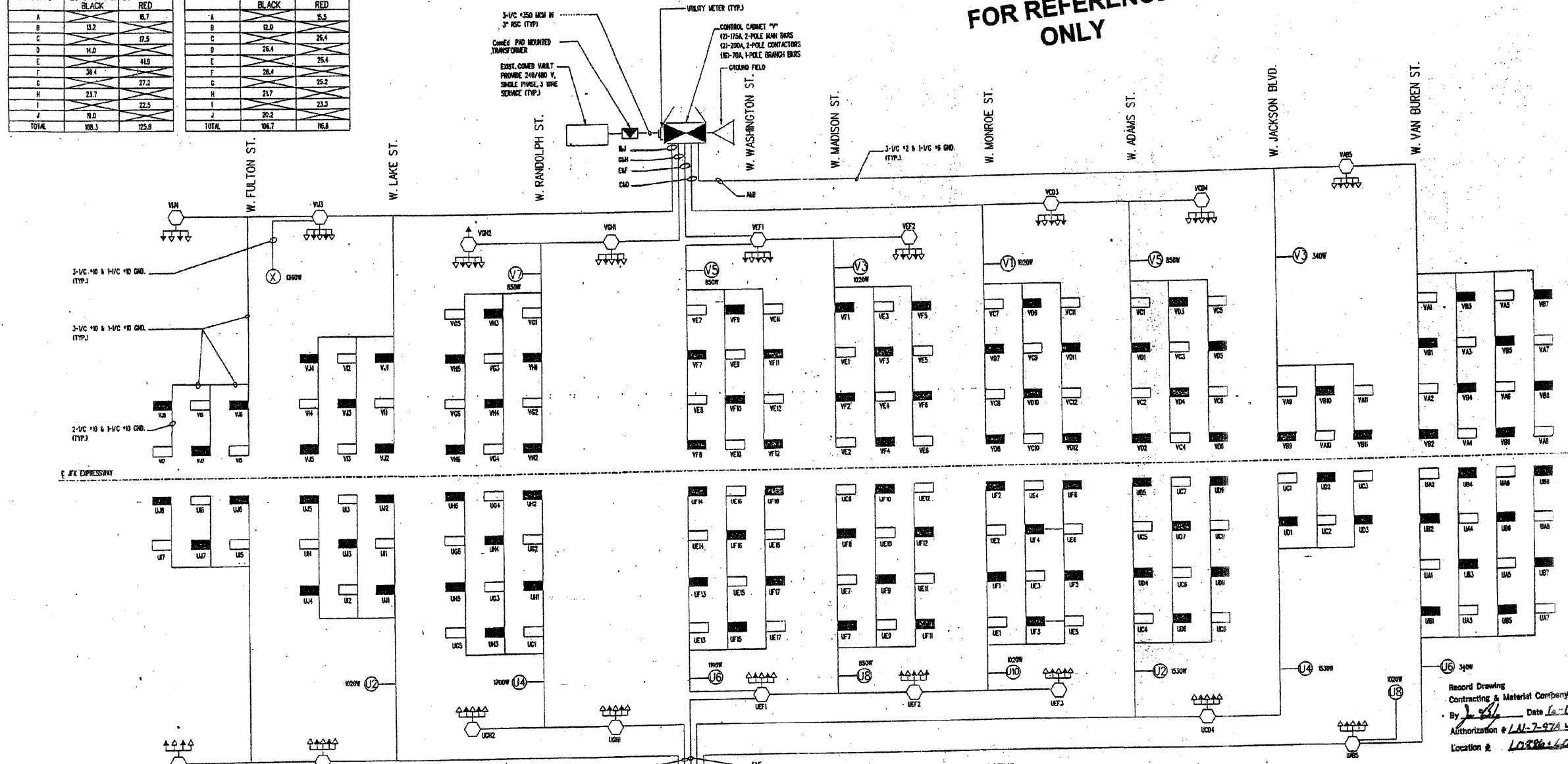
100TKE01.DGN/24-JAN-96 09:45/BRC

LOAD TABULATION FOR LIGHTING CONTROLLER "U"			LOAD TABULATION FOR LIGHTING CONTROLLER "V"		
CIRCUITS	PHASE 1 LOAD (AMPS) BLACK	PHASE 2 LOAD (AMPS) RED	CIRCUITS	PHASE 1 LOAD (AMPS) BLACK	PHASE 2 LOAD (AMPS) RED
A	0.2	0.7	A	0.2	0.5
B	0.2	0.5	B	0.2	0.5
C	0.2	0.5	C	0.2	0.5
D	0.2	0.5	D	0.2	0.5
E	0.2	0.5	E	0.2	0.5
F	0.2	0.5	F	0.2	0.5
G	0.2	0.5	G	0.2	0.5
H	0.2	0.5	H	0.2	0.5
I	0.2	0.5	I	0.2	0.5
J	0.2	0.5	J	0.2	0.5
TOTAL	108.3	125.8	TOTAL	108.3	125.8

SECTION	COUNTY	TOTAL SHEET NO.	SHEET NO.
00064	COOK	246	123
TO STA.		FROM STA.	
FED. ROAD DIST. NO. 1		ILLINOIS	
FED. AID PROJECT		FED. AID PROJECT	

FOR REFERENCE ONLY

DATE	BY	DATE	BY	DATE	BY
1/18/96	J. J. J.	1/18/96	J. J. J.	1/18/96	J. J. J.
1/18/96	J. J. J.	1/18/96	J. J. J.	1/18/96	J. J. J.
1/18/96	J. J. J.	1/18/96	J. J. J.	1/18/96	J. J. J.
1/18/96	J. J. J.	1/18/96	J. J. J.	1/18/96	J. J. J.



NOTES

THE EXISTING LIGHTING SYSTEMS DEPICTED ON THE PLANS ARE INTENDED ONLY TO INDICATE THE GENERAL EQUIPMENT INSTALLATION OF THE SYSTEMS INVOLVED AND SHALL NOT BE CONSTRUED AS AN EXACT REPRESENTATION OF THE FIELD CONDITIONS.

IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO CONFIRM AND ASCERTAIN THE EXACT EXTENT OF THE ELECTRICAL EQUIPMENT AND SYSTEMS TO BE MAINTAINED.

PRIOR TO THE START OF ACTIVITIES AT THE SITE, ELECTRICAL OR OTHER, THE CONTRACTOR MUST SCHEDULE A FORMAL TRANSFER OF MAINTENANCE VIA THE ENGINEER AS SPECIFIED.

- LEGEND
- HIGH MAST LIGHTING 750W LPS
 - LOW MAST LIGHTING 750W LPS ON BLACK WIRE
 - LOW MAST LIGHTING 750W LPS ON RED WIRE
 - EXISTING LIGHTING 750W LPS ON RED WIRE
 - EXISTING LIGHTING 750W LPS ON BLACK WIRE
 - 50W LPS CONNECTED TO RED WIRE
 - 50W LPS CONNECTED TO BLACK WIRE



SHEET 2 OF 17

NO.	DATE	REVISIONS	BY	APPD.
1				
2				
3				

ILLINOIS DEPARTMENT OF TRANSPORTATION

J. F. KENNEDY EXPRESSWAY

LIGHTING PLAN

SINGLE LINE DIAGRAM

DESIGNED BY: J. J. J. DATE: 1/18/96

CHECKED BY: J. J. J. DATE: 1/18/96

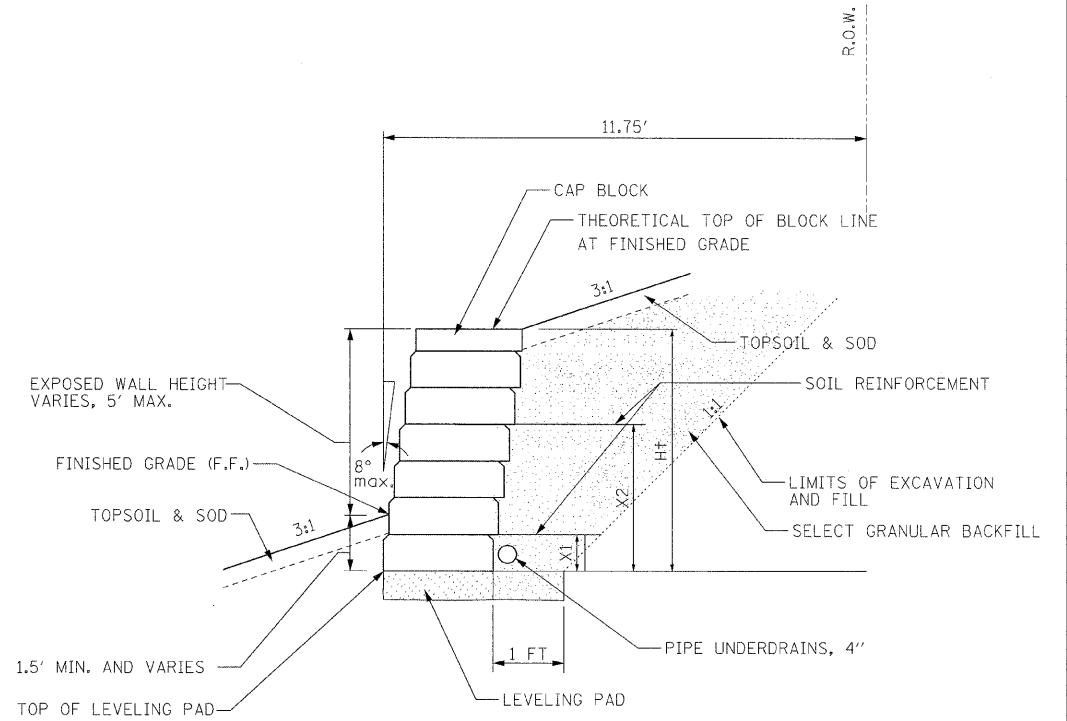
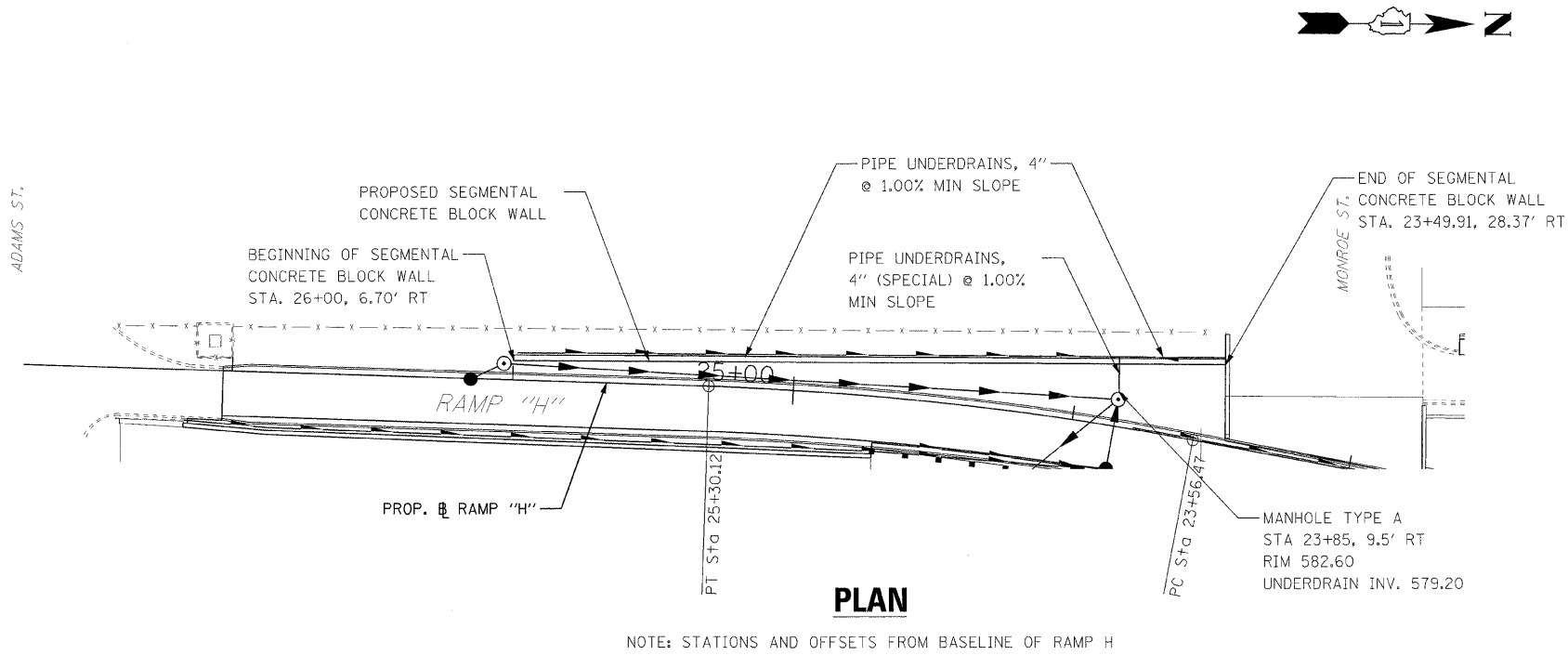
APPROVED BY: J. J. J. DATE: 1/18/96

McDonnell

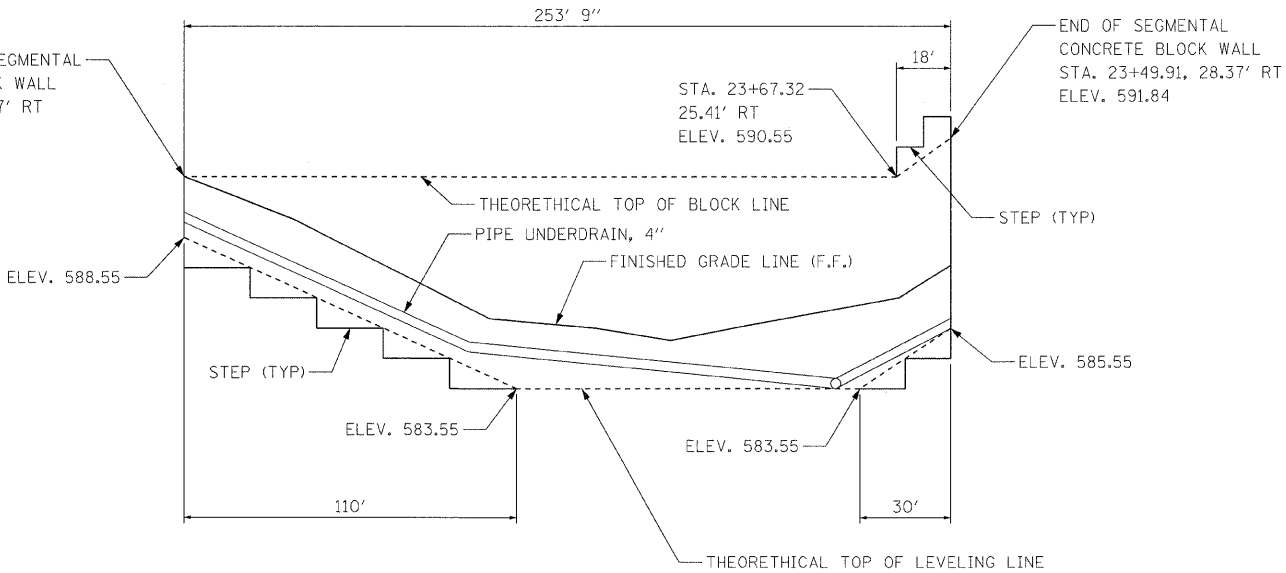
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	10202.6-2P, ETC, 1415 & 1517R-7	COOK	246	124
STA. 35+00		TO STA. 50+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62408				

PLAN	BY	DATE
SURVEYED		
NOTED		
AT TOWN/PT. CHECKED		
BY FILE NAME		
NO.		

PROFILE	BY	DATE
SURVEYED		
NOTED		
AT TOWN/PT. CHECKED		
BY FILE NAME		
NO.		



TYPICAL SECTION



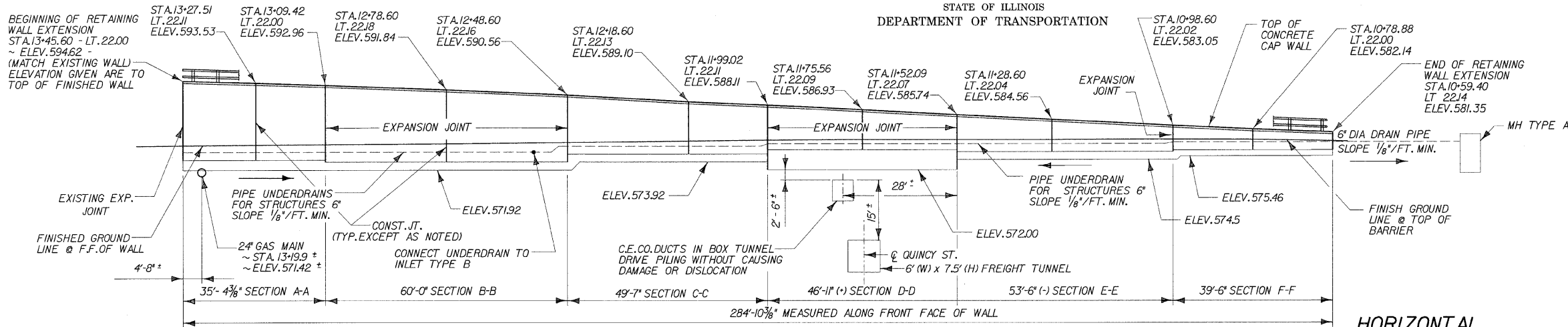
ELEVATION

NOTES:
ACTUAL LENGTH, LOCATION AND HEIGHT OF STEPS TO BE SHOWN ON SHOP DRAWINGS.

NO STEPS WILL BE ALLOWED BELOW THE THEORETICAL TOP OF BLOCK LINE OR ABOVE THE THEORETICAL TOP OF LEVELING LINE.

ALL ELEVATIONS ARE GIVEN TO THE FRONT FACE (F.F.) OF THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
SEGMENTAL CONCRETE BLOCK WALL	
I-90/94 KENNEDY EXPRESSWAY	
STA. 34+00	TO STA. 38+00
SCALE : 1" = NTS	DRAWN BY : MS
DATE : 02/06/09	CHECKED BY : GB



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	125
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

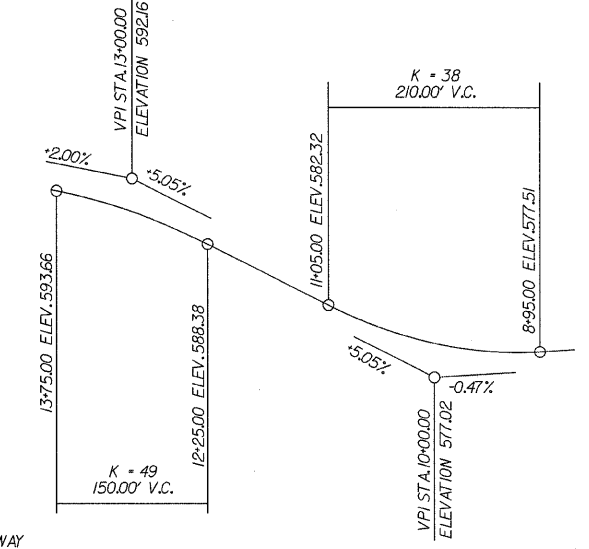
* SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
CONTRACT NUMBER 62408

BENCH MARK
BM 903 - N.E. ANCHOR BOLT OF HIGH MAST LIGHT POLE
LOCATED FROM MAINLINE STATION EBL AT
STA. 28+10 - 96 FT. LEFT: ELEV. 583.59
EXISTING STRUCTURE NO. 016-W807
I-90/94 RAMP F - JACKSON BLVD. EXIT RAMP
BUILT IN 1957, CONSISTS OF CAST-IN-PLACE CONCRETE
RETAINING WALL SUPPORTED ON CONCRETE PILING.
PROPOSED IMPROVEMENTS
EXISTING STRUCTURE TO BE PARTIALLY REMOVED AND
REPLACED WITH A CAST-IN-PLACE CONCRETE T-TYPE
RETAINING WALL SUPPORTED ON 14" DIAMETER METAL
SHELL PILES. NO SALVAGE.

HORIZONTAL CURVE DATA

RAMP F
PI STA. 10+09.52
I = 5' 05.33" (RT)
D = 3' 29.37"
T = 72.92'
R = 1640.00'
L = 1457.5'
E = 162'
PC STA. 9+36.60
PT STA. 10+82.34

RAMP F
PI STA. 13+09.42
I = 4' 14.53" (LT)
D = 17' 21.44"
T = 12.24'
R = 330.00'
L = 24.47'
E = 0.23'
PC STA. 12+97.18
PT STA. 13+21.65



PROFILE GRADE RAMP F (@ BASELINE SURVEY RAMP F)

DESIGN SPECIFICATIONS

2002 AASHTO SPECIFICATIONS FOR
HIGHWAY BRIDGES

DESIGN STRESSES

LOADINGS
EQUIVALENT FLUID SOIL PRESSURE = 40 pcf
TRAFFIC SURCHARGE PRESSURE = 240 pcf
F'C = 3,500 PSI (CONCRETE)
FY = 60,000 PSI (REINFORCEMENT)

APPROVED FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

DLZ ILLINOIS, LLC
ARLINGTON HEIGHTS, ILLINOIS

Signed: *Peter B. Lombardi*
Date: 02-25-2009
Expiration Date: 11/30/10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
6519

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

RETAINING WALL RAMP F GENERAL PLAN & ELEVATION

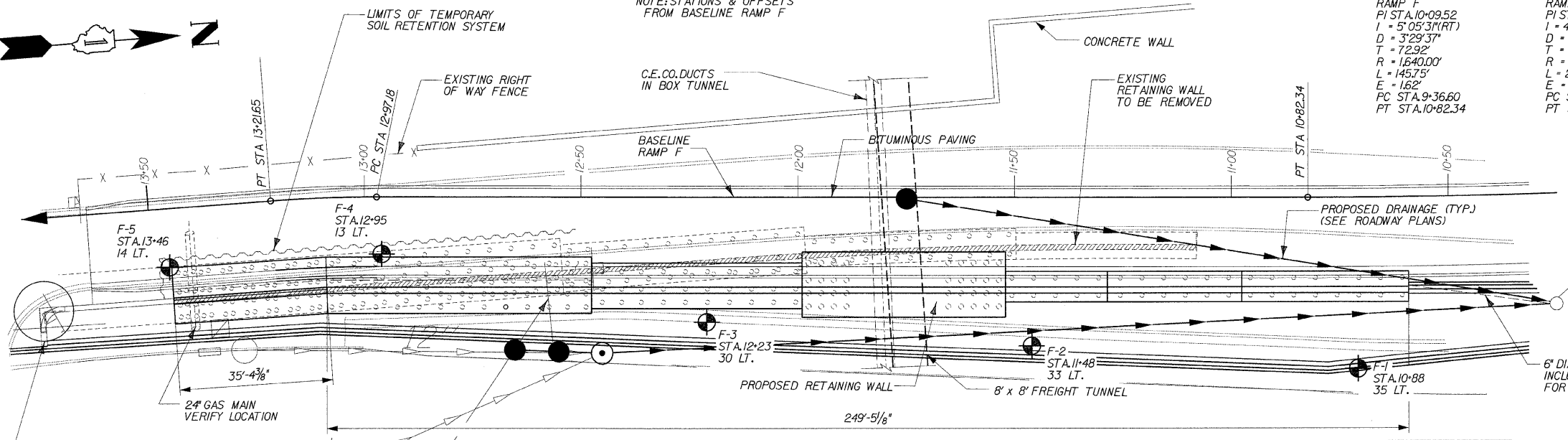
I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

ELEVATION

NOTE: STATIONS & OFFSETS
FROM BASELINE RAMP F

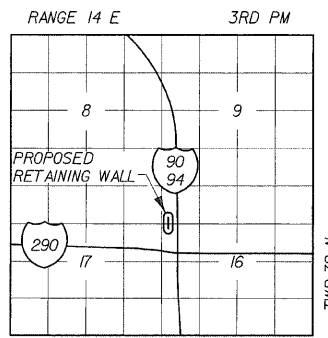
F.F. - FRONT FACE



PLAN

GENERAL NOTES

- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60. SEE SPECIAL PROVISIONS.
- REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.
- REMOVAL OF THE EXISTING RAMP F RETAINING WALL, INCLUDING EXISTING PILE TOPS AND BACKFILLING WITH GRANULAR MATERIAL TO EL. 571.92, TO BE INCLUDED IN REMOVAL OF EXISTING STRUCTURES.
- THE CONTRACTOR SHALL DRIVE TWO METAL SHELL PILES 14" DIAMETER TEST PILES IN A PERMANENT LOCATION NEAR BORINGS F-5 AND F-3 AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
- A CANTILEVERED SHEET PILING DESIGN DOES NOT APPEAR FEASIBLE AND ADDITIONAL MEMBERS OR OTHER RETENTION SYSTEMS MAY BE NECESSARY. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SOIL RETENTION SYSTEM DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.
- PRIOR TO INSTALLING THE PILING, THE CONTRACTOR SHALL VERIFY THE LOCATION AND DIMENSIONS SHOWN IN THE PLANS FOR THE GAS LINE AND BOX TUNNELS. FOR THE GAS LINE AND THE C.E. DUCT, PILING SHALL BE INSTALLED WITH A MINIMUM OF TWO (2) FEET CLEARANCE. FOR THE FREIGHT TUNNEL, THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO DEPARTMENT OF ENGINEERING, J.J. MADIA AT 312-744-3920 FOR APPROVED INSTALLATION TECHNIQUES. AT A MINIMUM THE PILES WITHIN TEN (10) FEET OF THE FREIGHT TUNNEL SHALL BE PRE-DRILLED. COST OF PREDRILLING PILES AND ANY PERMITTING REQUIREMENTS FOR THE CITY OF CHICAGO SHALL BE INCLUDED IN THE UNIT PRICE BID FOR DRIVING PILES. ANY DAMAGE TO THE TUNNELS OR GAS LINE AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED TO "LIKE NEW" CONDITIONS, BY THE CONTRACTOR, AT NO COST TO THE DEPARTMENT. "LIKE NEW" CONDITIONS OF THE REPAIRS MUST BE ACCEPTED BY THE ENGINEER.
- ALL CONSTRUCTION JOINTS SHALL BE BONDED.

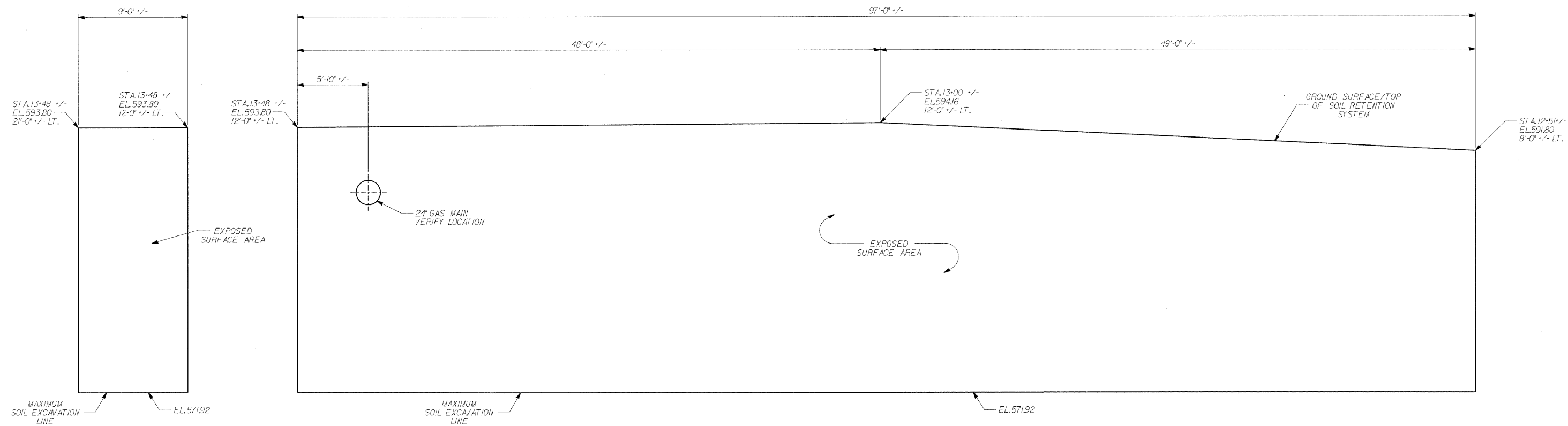


LOCATION SKETCH

DESIGNED	DPW
CHECKED	JMM
DRAWN	PH
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 8084	*	COOK	246	126
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

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



TEMPORARY SOIL RETENTION SYSTEM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

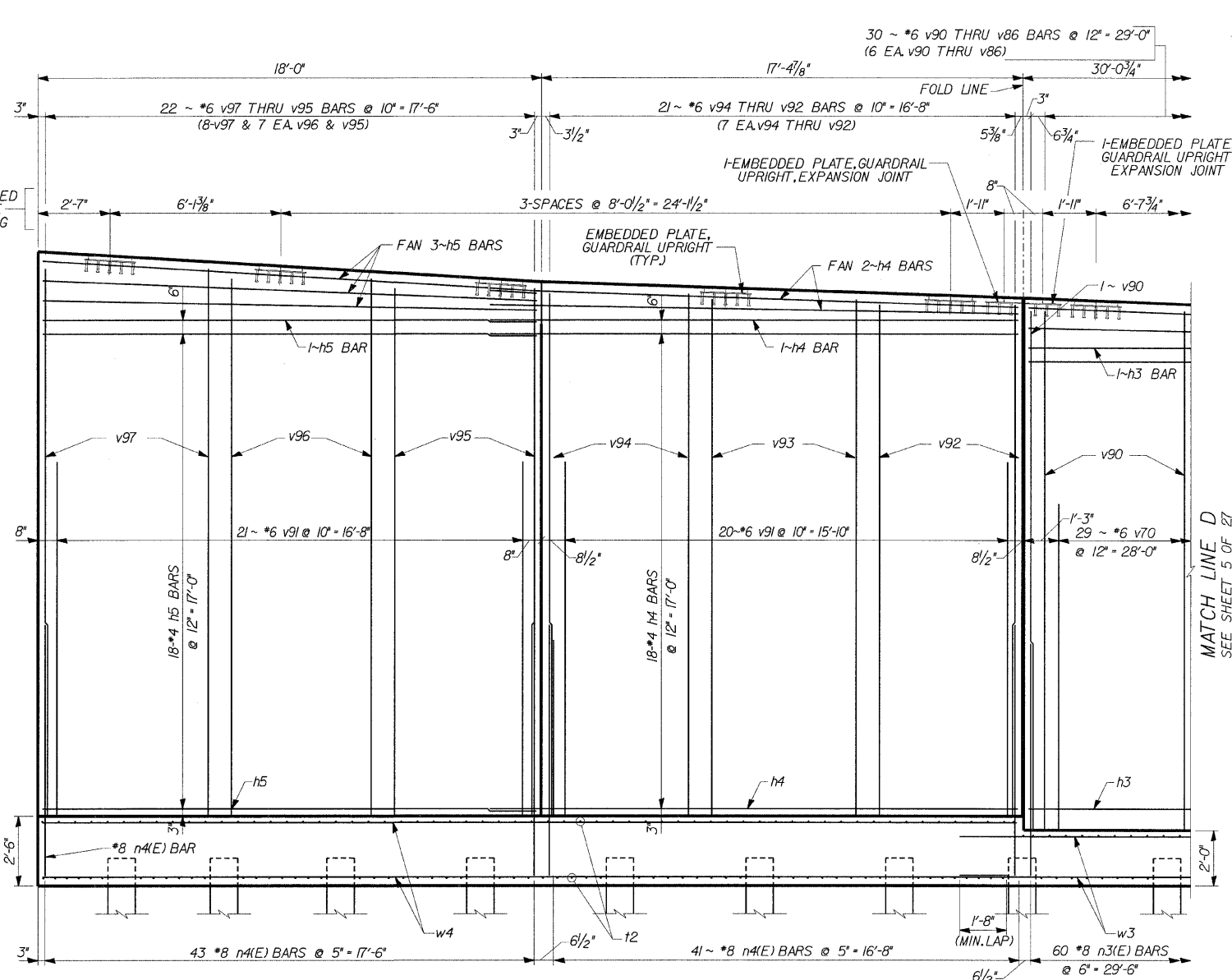
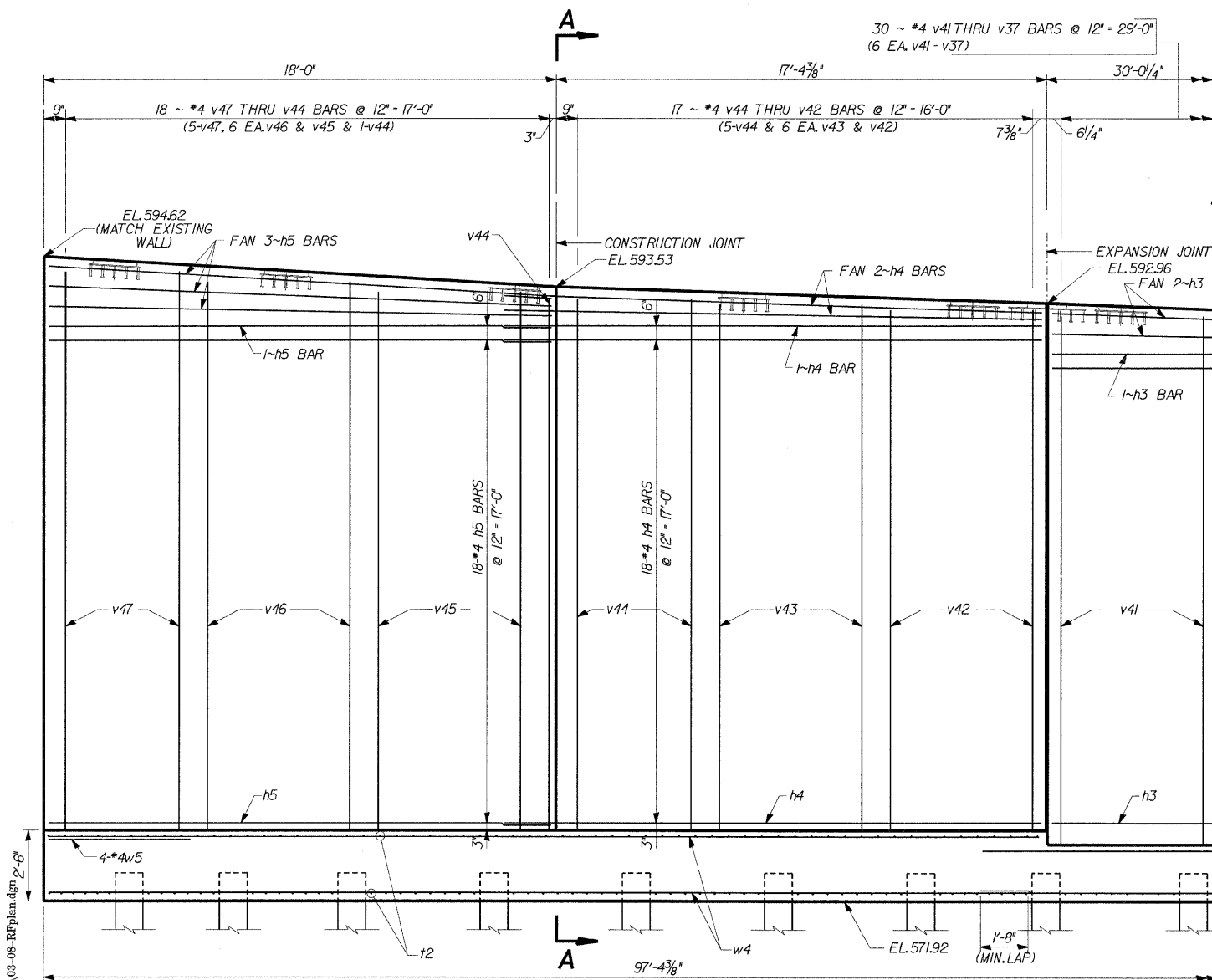
RETAINING WALL RAMP F
TEMPORARY SOIL RETENTION SYSTEM
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

DESIGNED	ASP
CHECKED	MBJ
DRAWN	BEM
CHECKED	ASP

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9994	*	COOK	246	127
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

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



ELEVATION
(SHOWING FRONT FACE REINFORCEMENT)

ELEVATION
(SHOWING BACK FACE REINFORCEMENT)

MINIMUM BAR LAPS

*4 BARS = 1'-8"
*8 BARS = 8'-4"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**

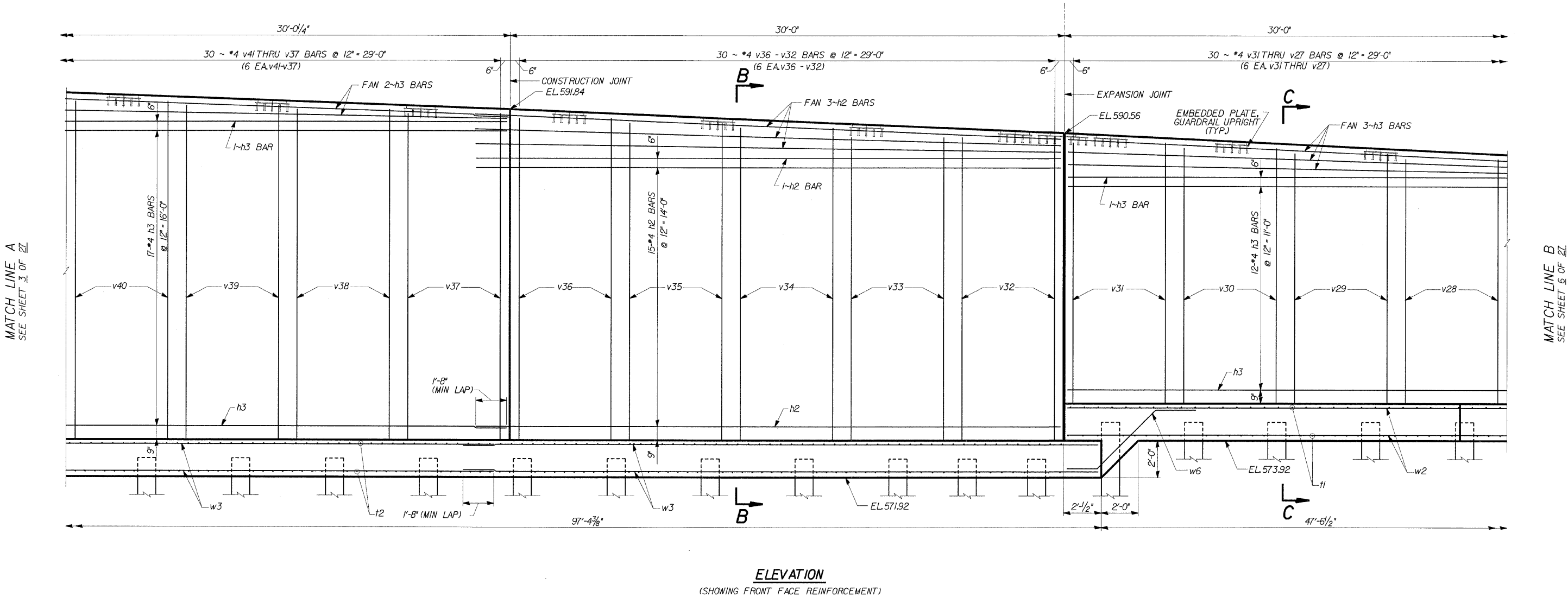
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	128
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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



ELEVATION
(SHOWING FRONT FACE REINFORCEMENT)

MINIMUM BAR LAPS
#4 BARS - 1'-8"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**

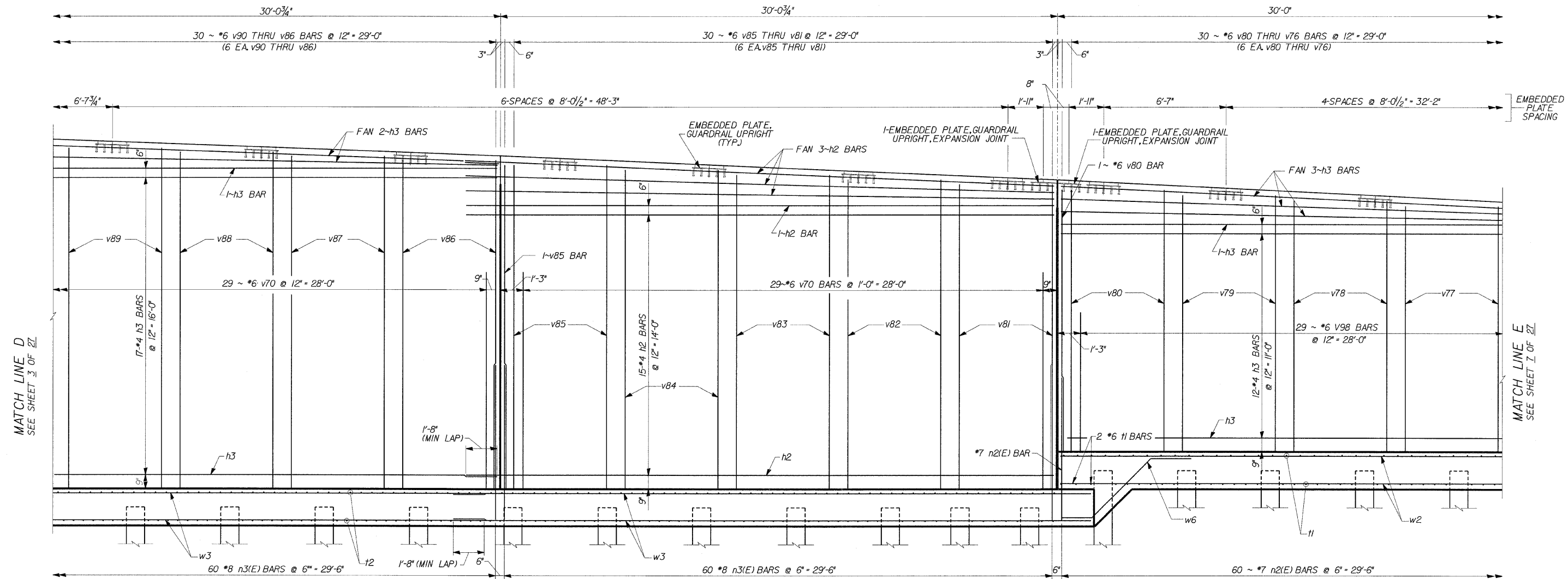
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(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	129
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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



ELEVATION
(SHOWING BACK FACE REINFORCEMENT)

MINIMUM BAR LAPS

*4 BARS - 1'-8"
*7 BARS - 4'-6"
*8 BARS - 7'-8"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**

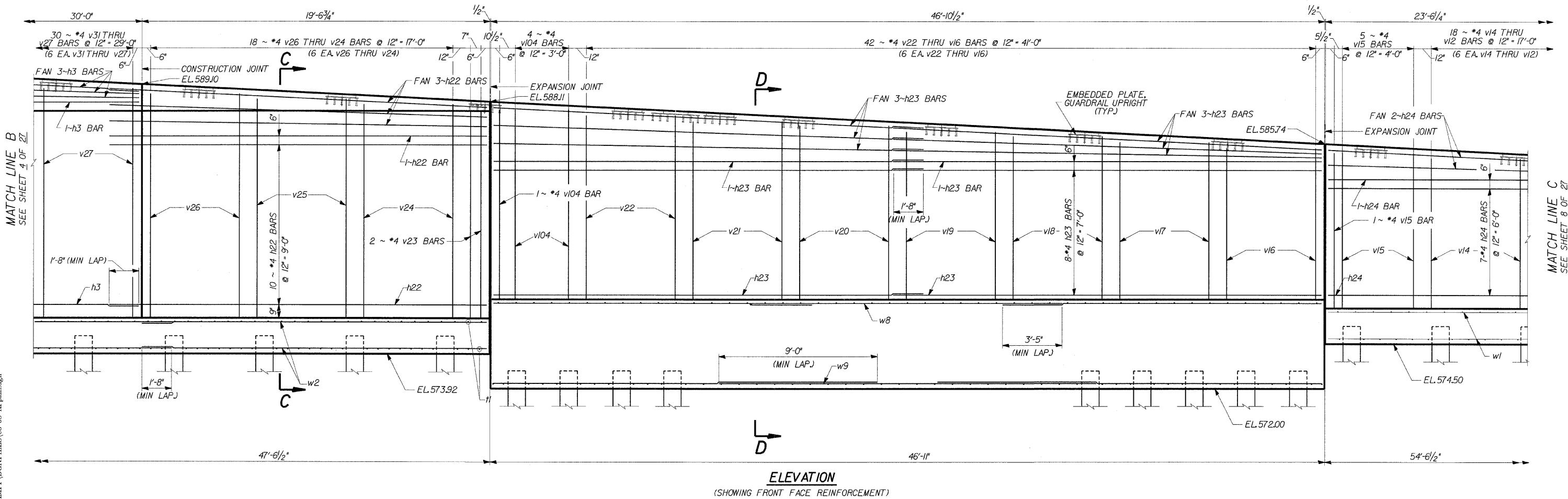
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	130
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

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



MINIMUM BAR LAPS

- *4 BARS = 1'-8"
- *6 BARS = 4'-0"
- *7 BARS = 4'-6"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

RETAINING WALL RAMP F
DETAILS

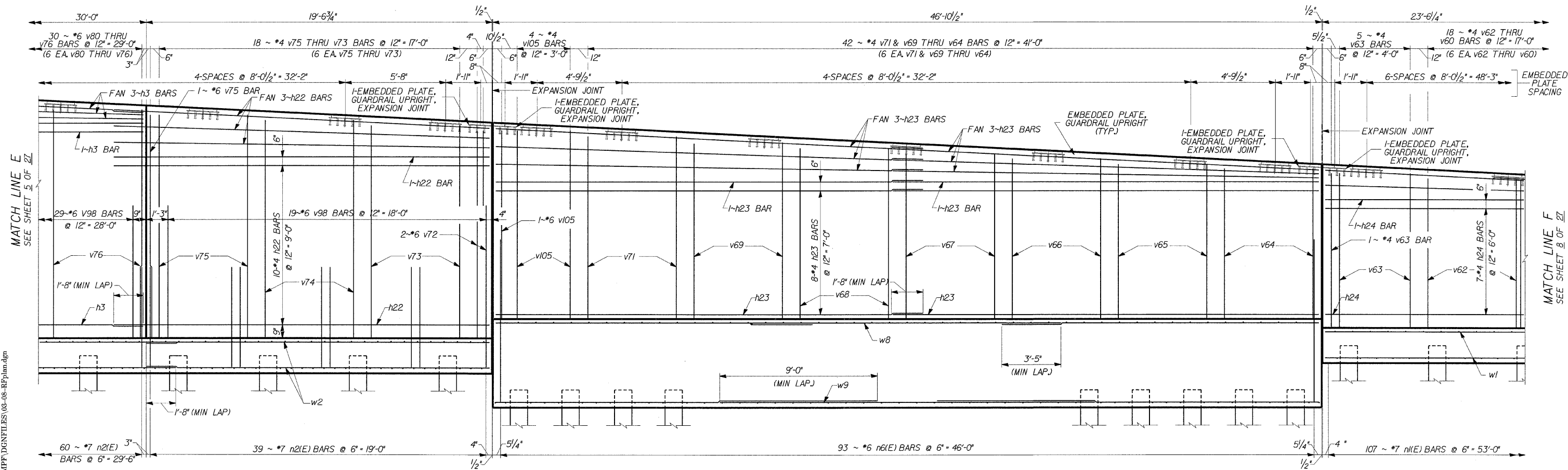
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(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PAP 9084	*	COOK	246	131
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

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



ELEVATION
(SHOWING BACK FACE REINFORCEMENT)

MINIMUM BAR LAPS

*4 BARS	= 1'-8"
*6 BARS	= 4'-0"
*7 BARS	= 4'-6"

DLZ 85 W. ALGONQUIN RD. STE. 220
ARLINGTON HEIGHTS, IL 60005

**RETAINING WALL RAMP F
DETAILS**

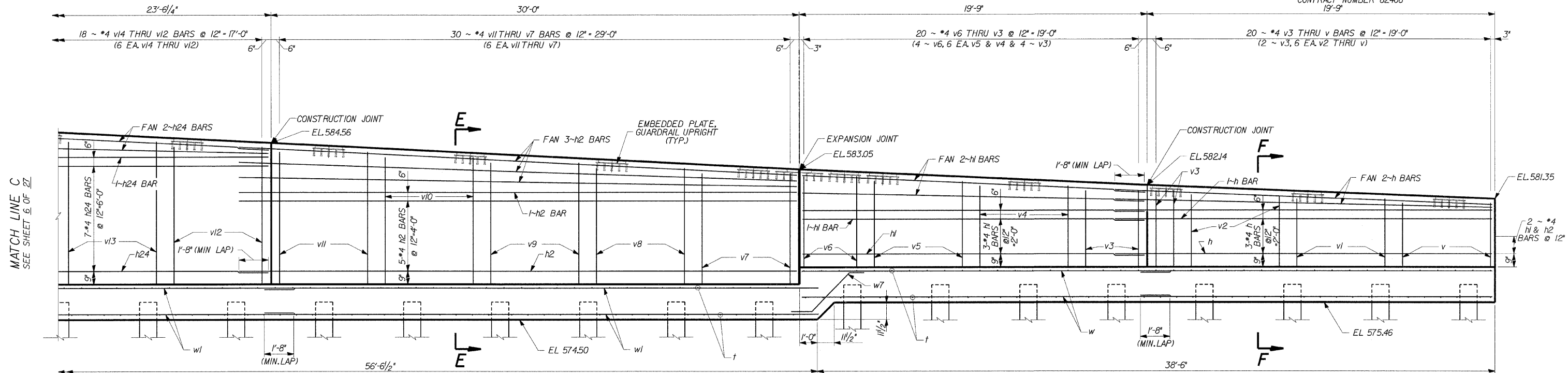
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(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

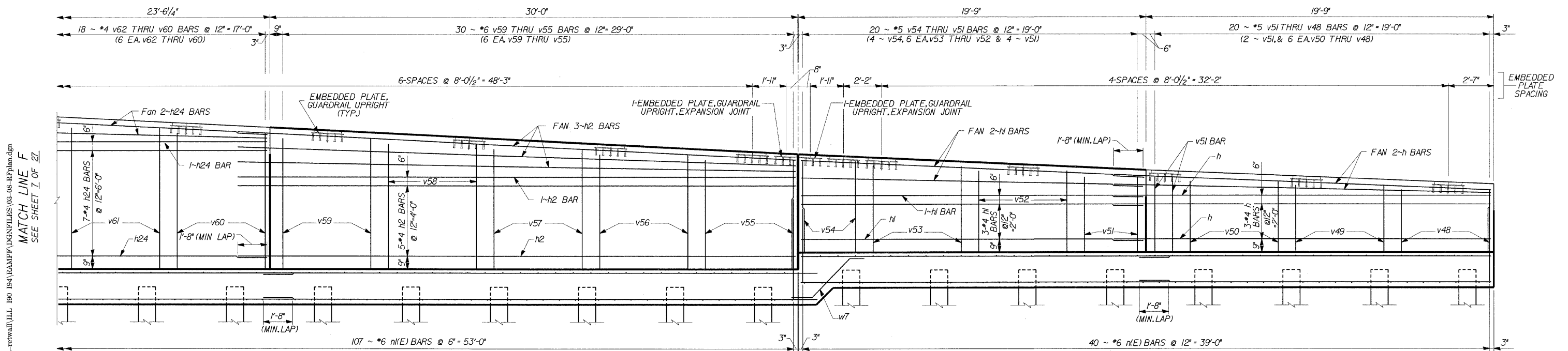
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CHECKED	JMM

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04-Feb-2009 09:28

*SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
CONTRACT NUMBER 62408
19'-9"



ELEVATION
(SHOWING FRONT FACE REINFORCEMENT)



ELEVATION
(SHOWING BACK FACE REINFORCEMENT)

MINIMUM BAR LAPS

*4 BARS - 1'-8"
*6 BARS - 4'-0", SECTION E-E
*6 BARS - 2'-6", SECTION F-F



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
X**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

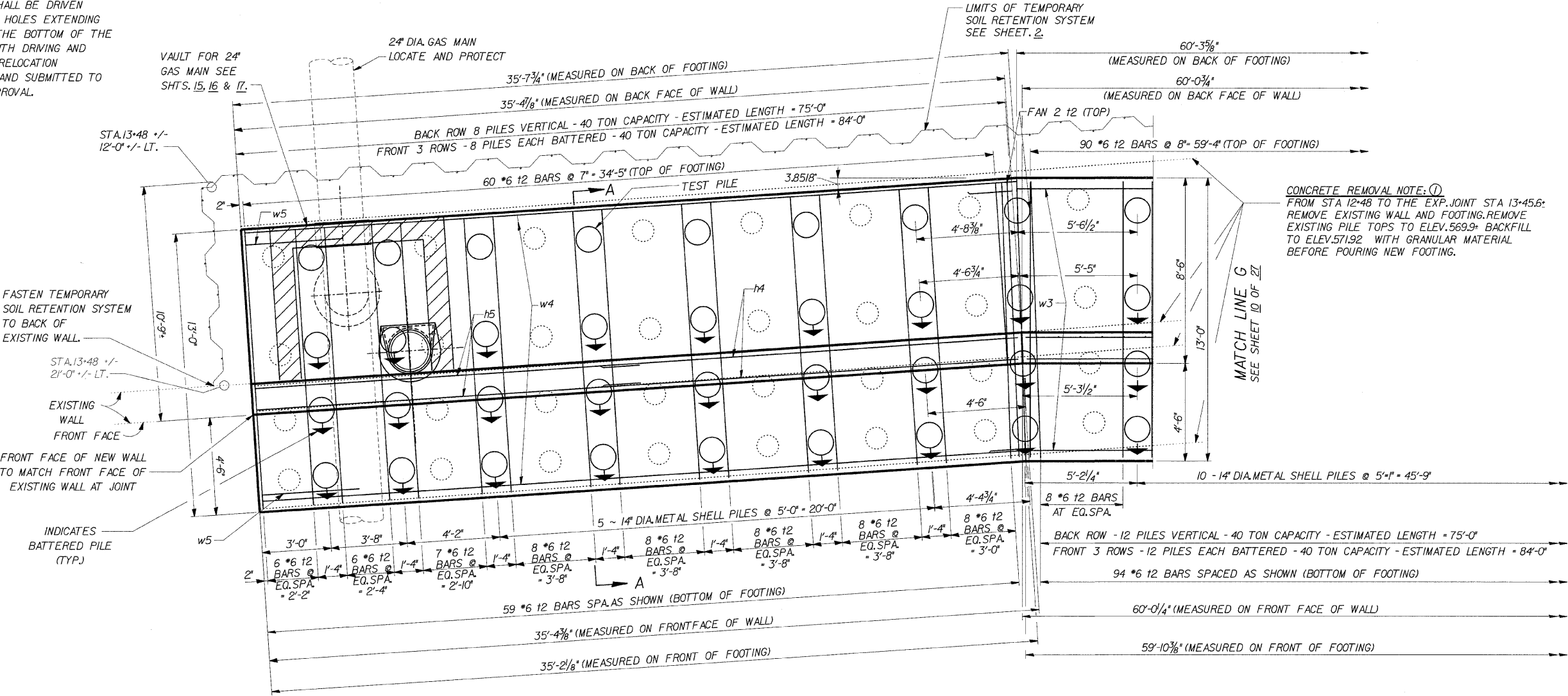
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CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	133
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

*SHEET (202.6 - 2P, ETC, 1415 & 1517) R-7
CONTRACT NUMBER 62408

NOTE:

THE LOCATION OF THE 24" DIA. GAS MAIN IS APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION AND ADJUSTING PILE LOCATIONS AND DRIVING TECHNIQUES TO PROVIDE PROTECTION NEEDED TO THE SATISFACTION OF THE GAS COMPANY. THE PILES ADJACENT TO THE 24" DIA. GAS MAIN SHALL BE DRIVEN THROUGH 14" DIA. PRE-CORED HOLES EXTENDING TO A DEPTH OF 5' BELOW THE BOTTOM OF THE GAS MAIN. COST INCLUDED WITH DRIVING AND FILLING SHELLS. ANY MAJOR RELOCATION OF PILES TO BE PLANNED AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL.



PLAN

NOTE:
FOR SECTION A-A
SEE SHEET 13

LEGEND

VAULT FOR 24" GAS MAIN
SEE SHEETS 15, 16 & 17.



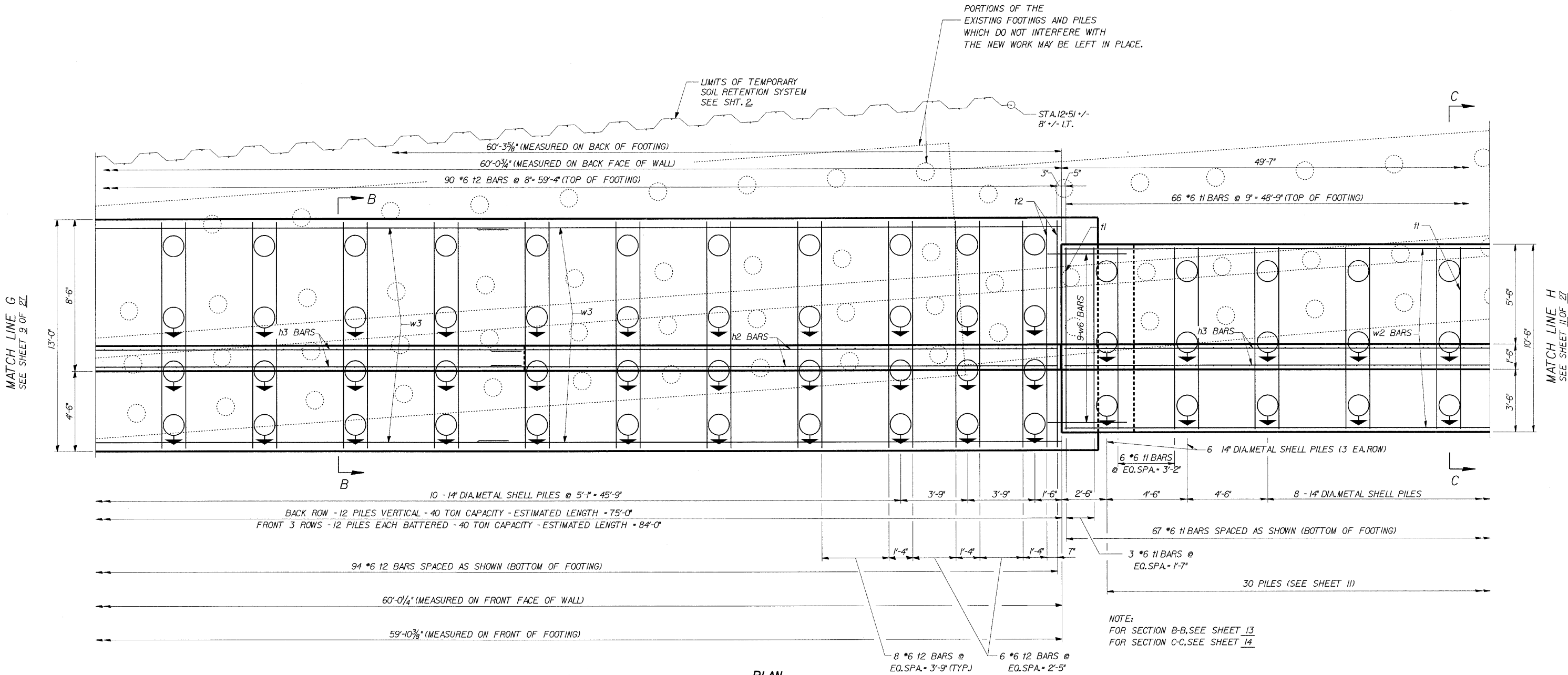
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
DETAILS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



MINIMUM BAR LAPS
*4 BARS = 1'-8"

T.F. = TOP OF FOOTING
B.F. = BOTTOM OF FOOTING

REVISIONS	
NAME	DATE

DLZ 85 W. ALGONQUIN RD. STE. 220
ARLINGTON HEIGHTS, IL 60005

**RETAINING WALL RAMP F
DETAILS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC. 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

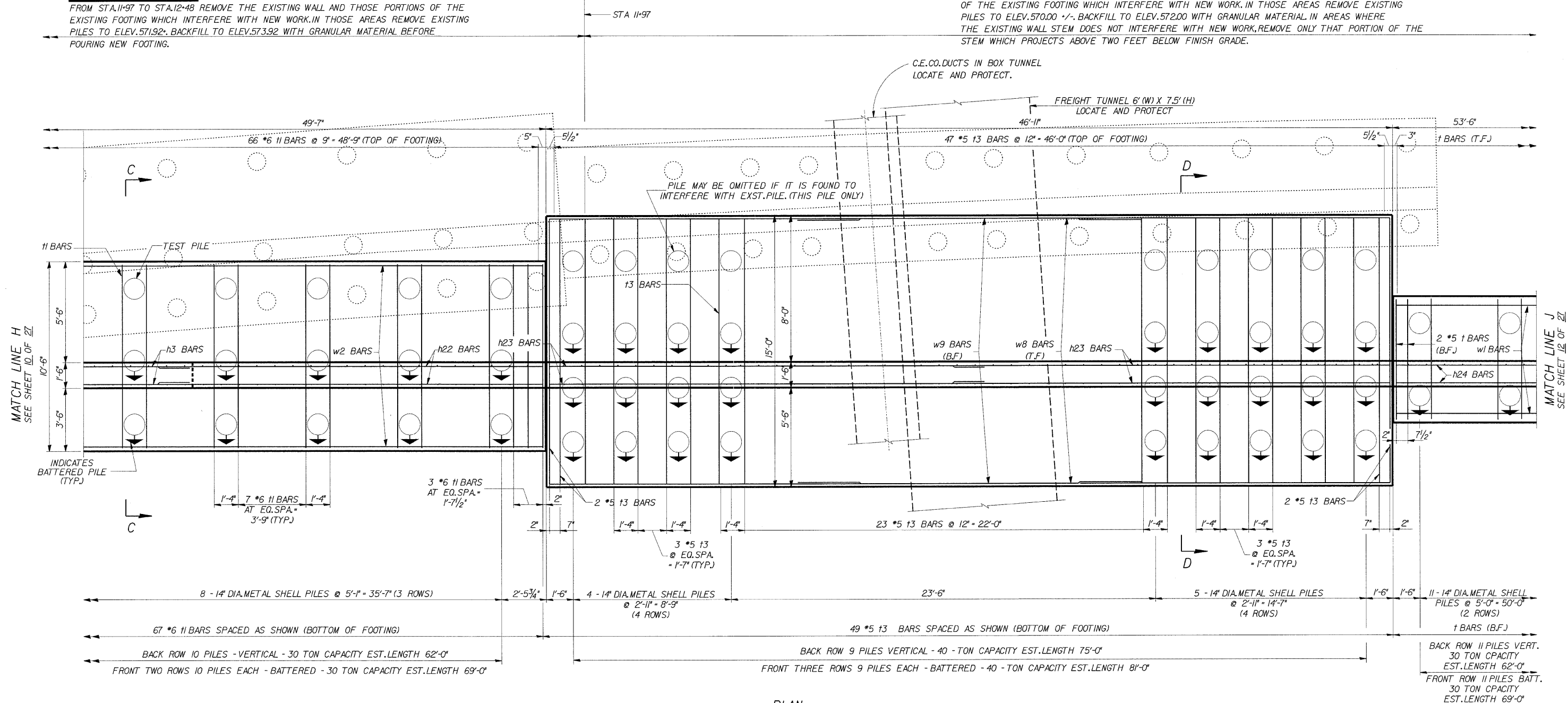
DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

CONCRETE REMOVAL NOTE: ②

FROM STA. 11+97 TO STA. 12+48 REMOVE THE EXISTING WALL AND THOSE PORTIONS OF THE EXISTING FOOTING WHICH INTERFERE WITH NEW WORK. IN THOSE AREAS REMOVE EXISTING PILES TO ELEV. 571.92. BACKFILL TO ELEV. 573.92 WITH GRANULAR MATERIAL BEFORE POURING NEW FOOTING.

CONCRETE REMOVAL NOTE: ③

FROM STA. 11+97 TO THE END OF THE EXISTING WALL REMOVE THE EXISTING WALL AND THOSE PORTIONS OF THE EXISTING FOOTING WHICH INTERFERE WITH NEW WORK. IN THOSE AREAS REMOVE EXISTING PILES TO ELEV. 570.00 +/- BACKFILL TO ELEV. 572.00 WITH GRANULAR MATERIAL IN AREAS WHERE THE EXISTING WALL STEM DOES NOT INTERFERE WITH NEW WORK, REMOVE ONLY THAT PORTION OF THE STEM WHICH PROJECTS ABOVE TWO FEET BELOW FINISH GRADE.



MINIMUM BAR LAPS

*4 BARS = 1'-8"
*7 BARS = 3'-5"
*11 BARS = 9'-0"

NOTE:
FOR SECTIONS C-C AND D-D,
SEE SHEET 14

T.F. = TOP OF FOOTING
B.F. = BOTTOM OF FOOTING

REVISIONS	
NAME	DATE



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

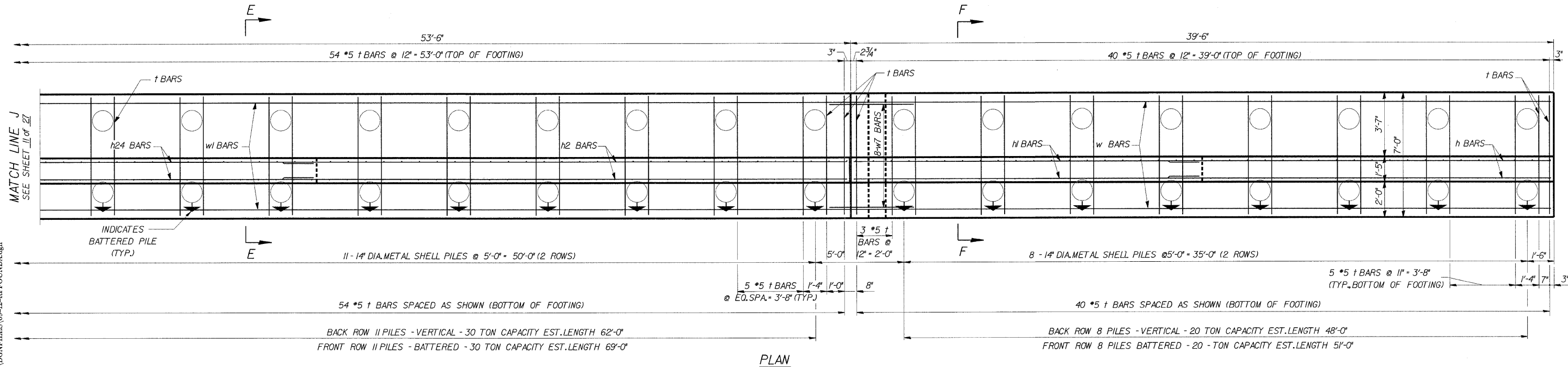
**RETAINING WALL RAMP F
DETAILS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 8084	*	COOK	246	136
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

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



MINIMUM BAR LAPS

*4 BARS = 1'-8"

NOTE:
FOR SECTIONS E-E AND
F-F, SEE SHEET 14

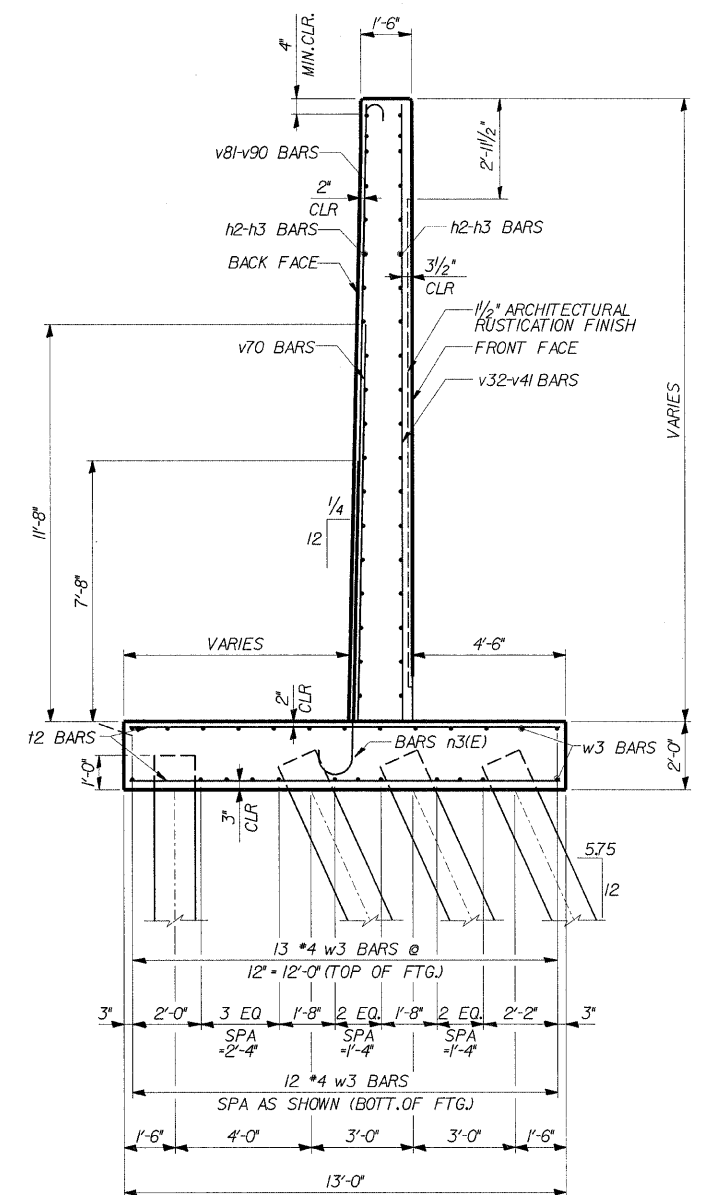
REVISIONS	
NAME	DATE

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

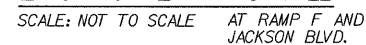
RETAINING WALL RAMP F
DETAILS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

DESIGNED	ECF
CHECKED	JMM
DRAWN	X
CHECKED	JMM

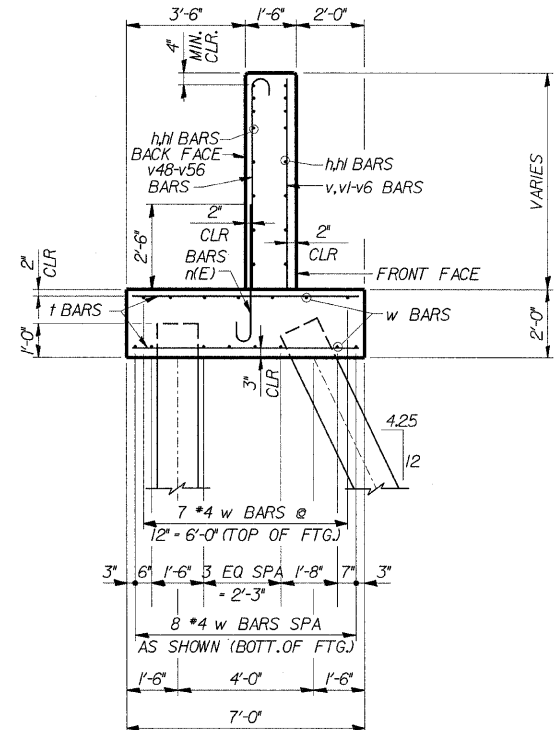
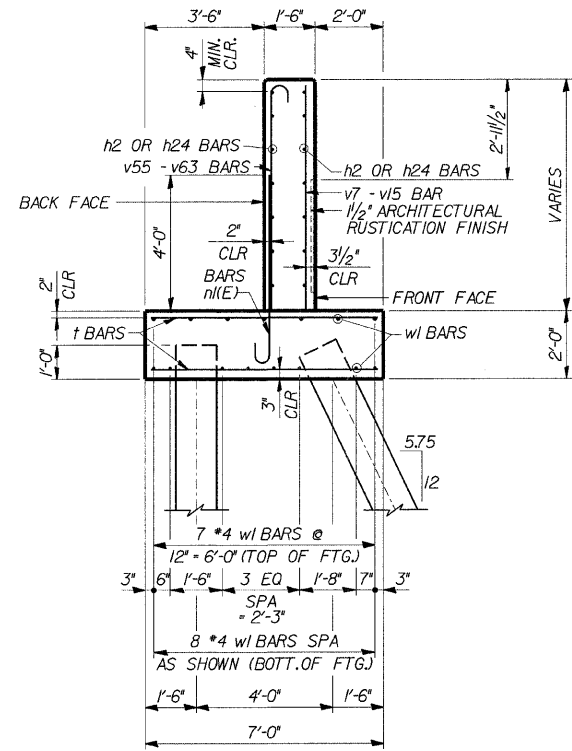
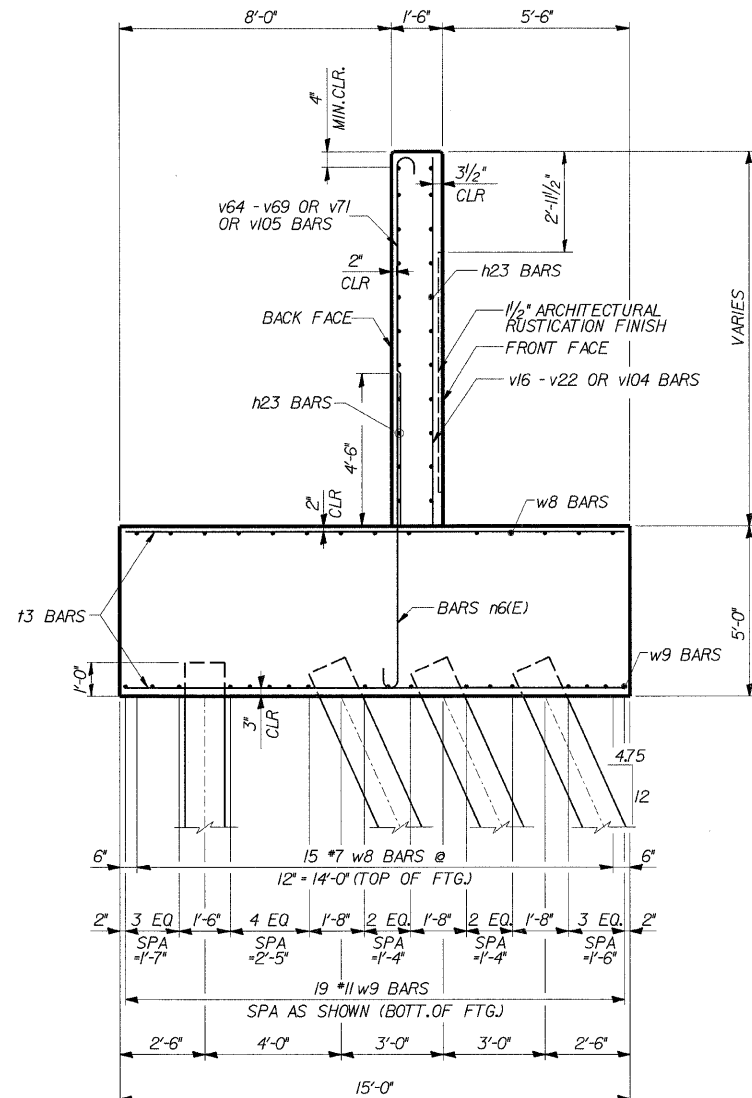
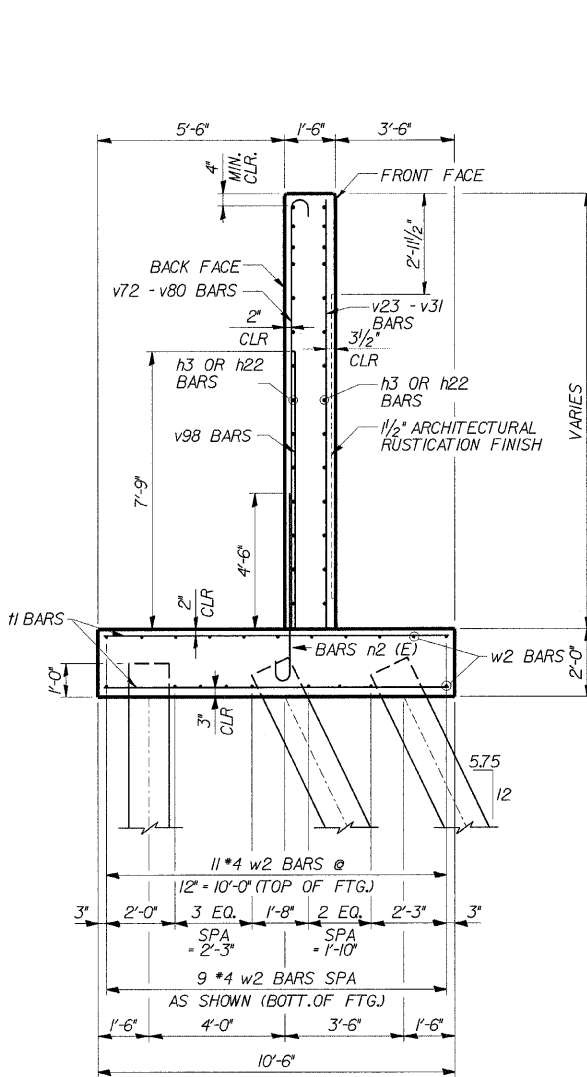


85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005



REVISIONS	
NAME	DATE

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807



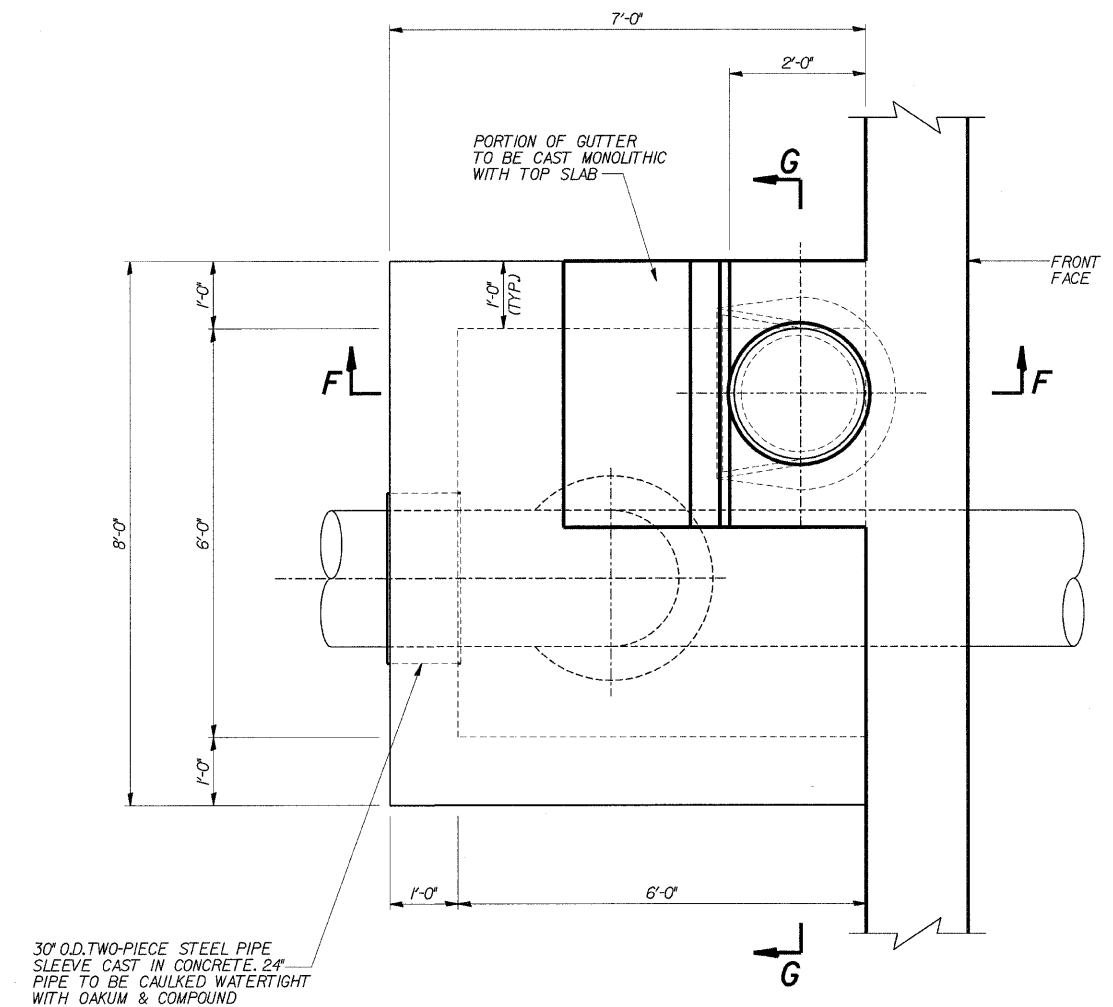
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DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

REVISIONS	
NAME	DATE

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

**RETAINING WALL RAMP F
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807



PLAN

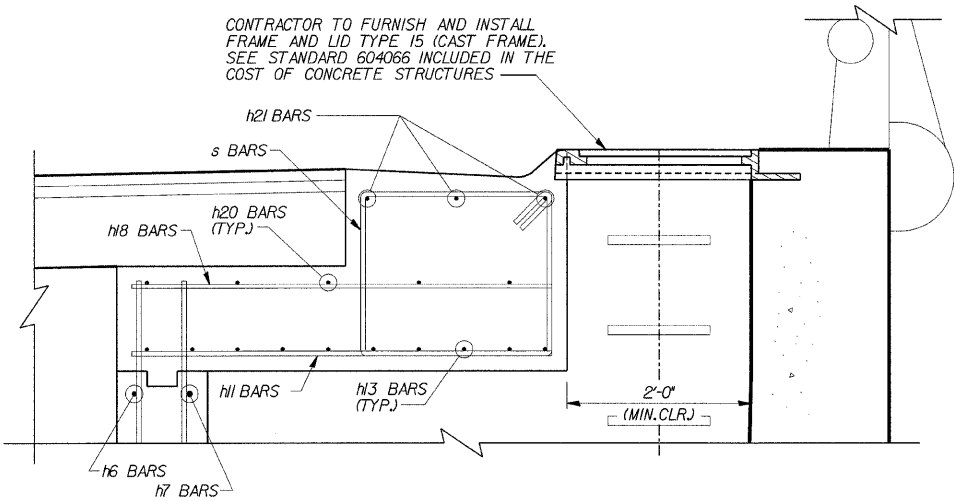


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DRAWN	EvH
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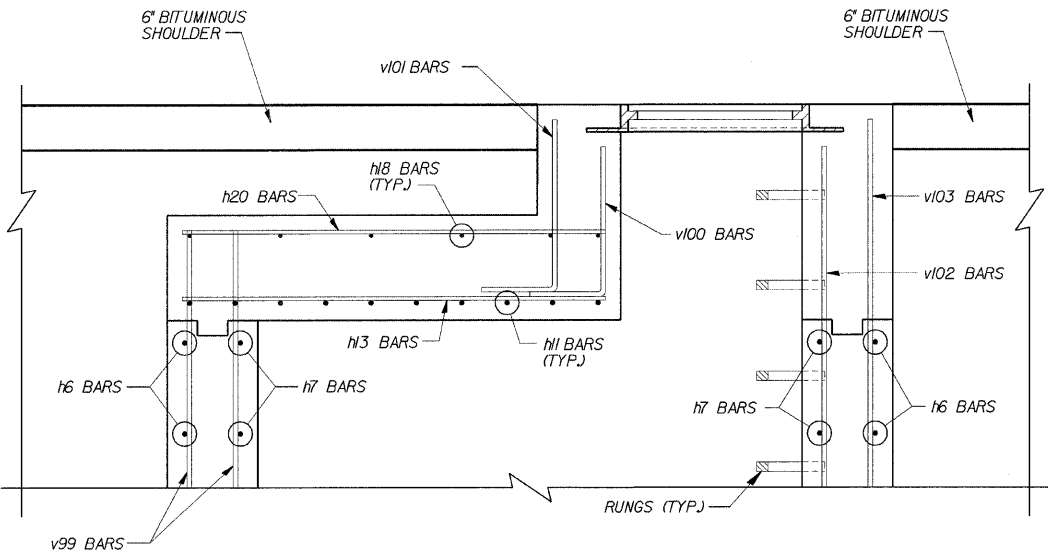
REVISIONS	
NAME	DATE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	140
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

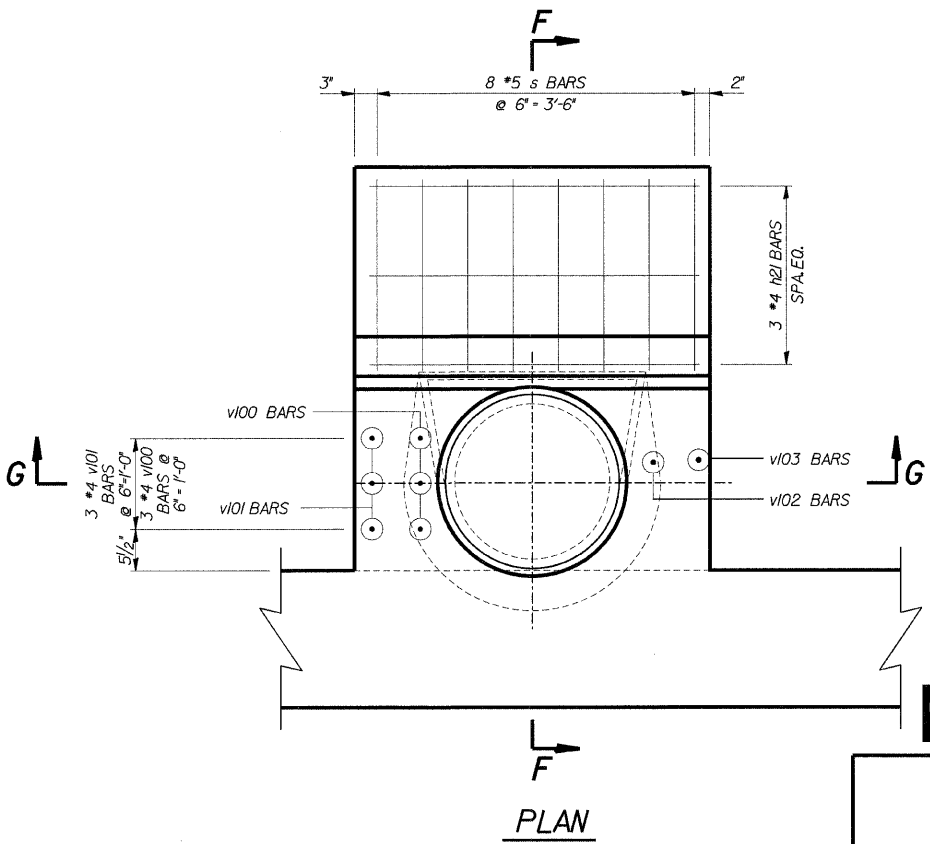
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CONTRACT NUMBER 62408



SECTION F-F



SECTION G-G



PLAN



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
GAS LINE VAULT**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)

SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7

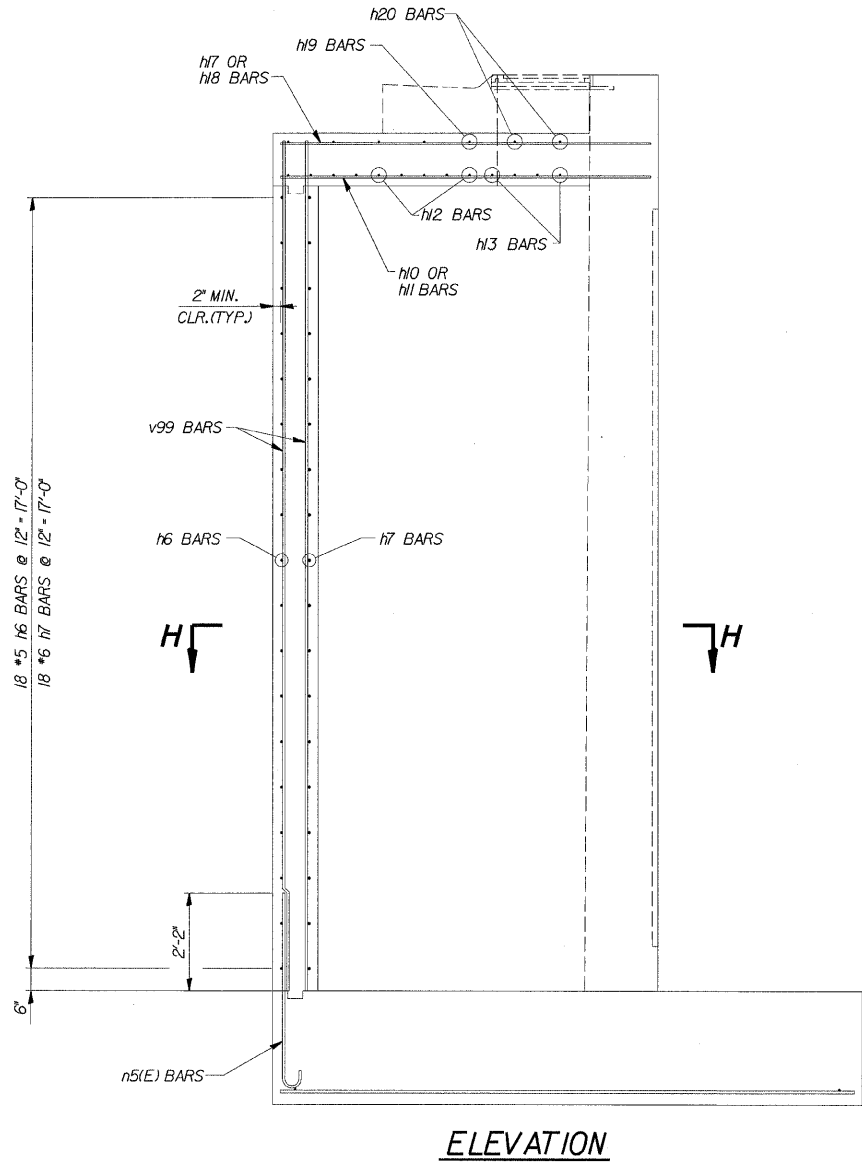
STATION 13+45 LT 22' TO 10+59 LT 22'

COOK COUNTY

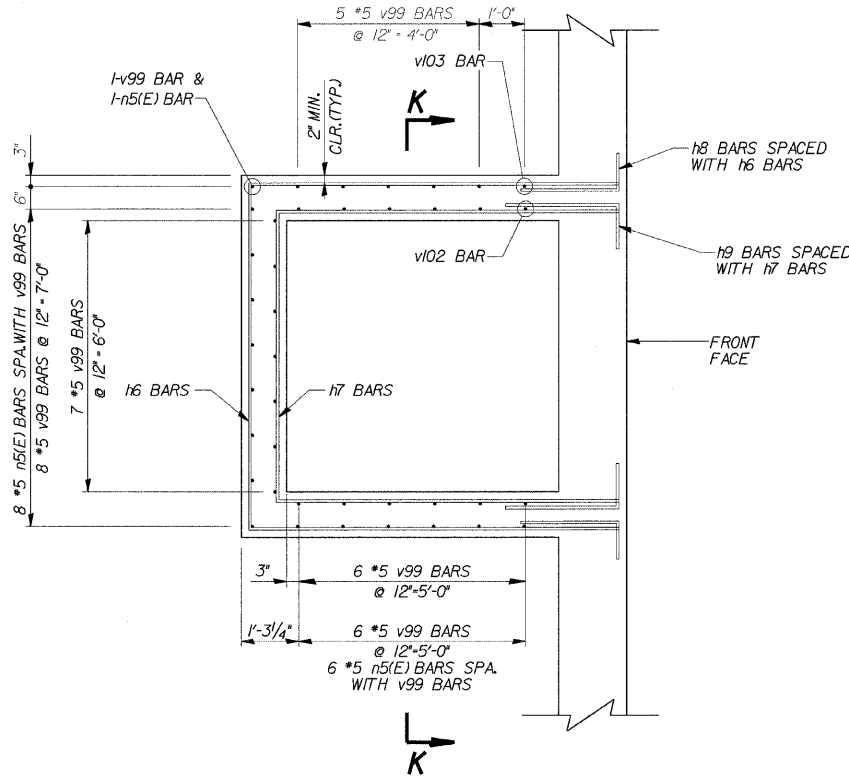
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REVISIONS	
NAME	DATE

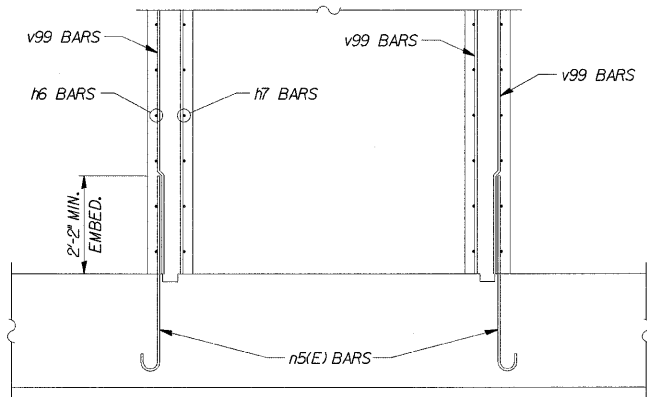
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CHECKED	ASP
DRAWN	EvH
CHECKED	DPW



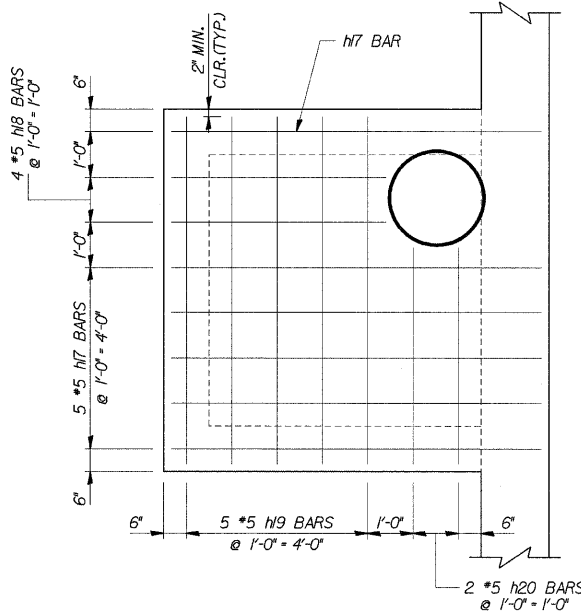
ELEVATION



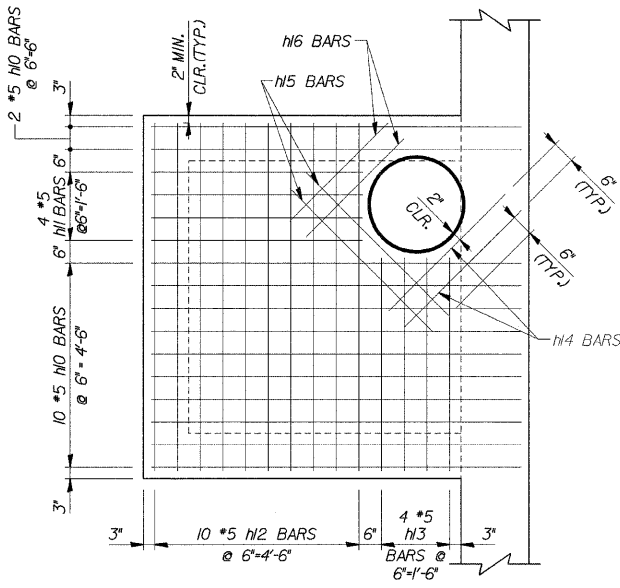
SECTION H-H



SECTION K-K



TOP OF TOP SLAB



BOTTOM OF TOP SLAB

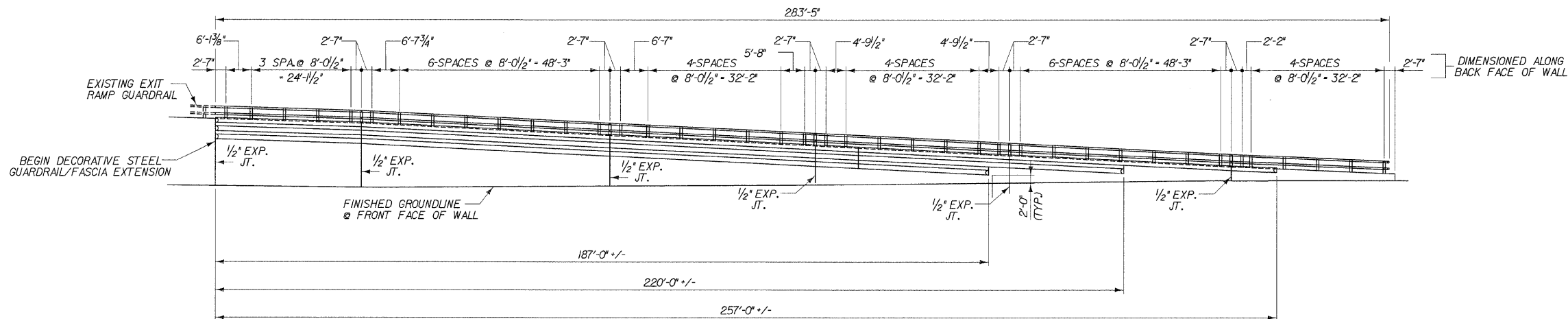
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

RETAINING WALL RAMP F
GAS LINE VALT
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC. 1415 & 1517) R-7
STATION 13+75 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

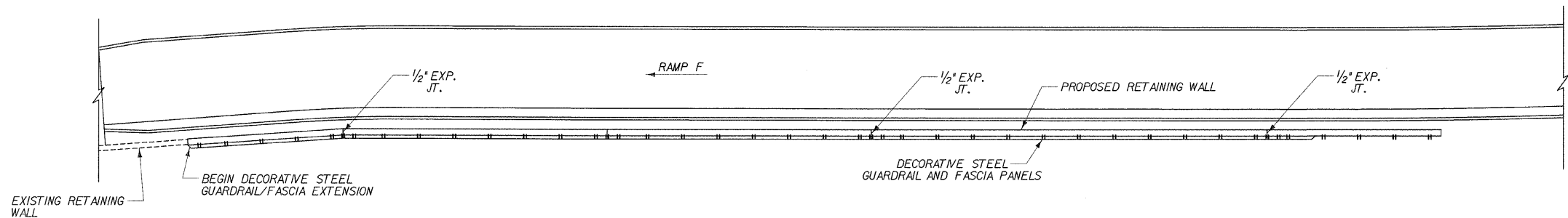
REVISIONS	
NAME	DATE

DESIGNED	DPW
CHECKED	ASP
DRAWN	EvH
CHECKED	ASP

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



ELEVATION
(SHOWING FRONT FACE OF WALL)



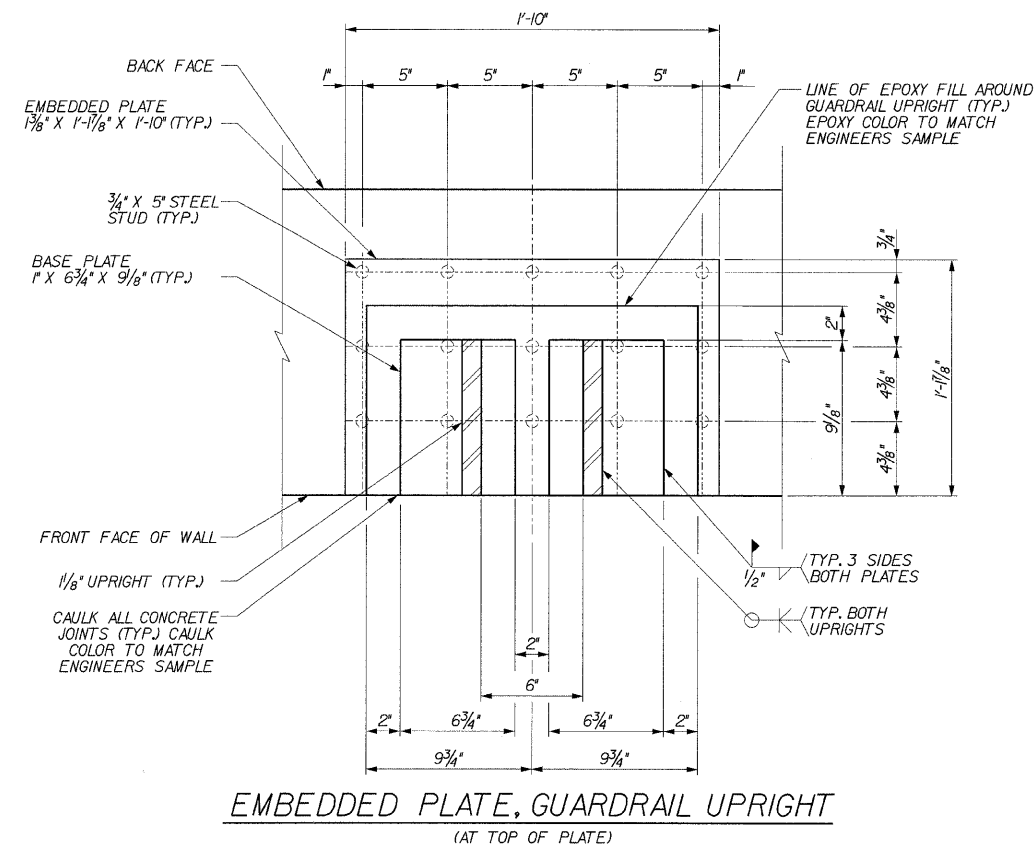
PLAN

DESIGNED	DPW
CHECKED	ASP
DRAWN	BEM
CHECKED	ASP

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

**RETAINING WALL RAMP F
RAILING PLAN AND ELEVATION**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

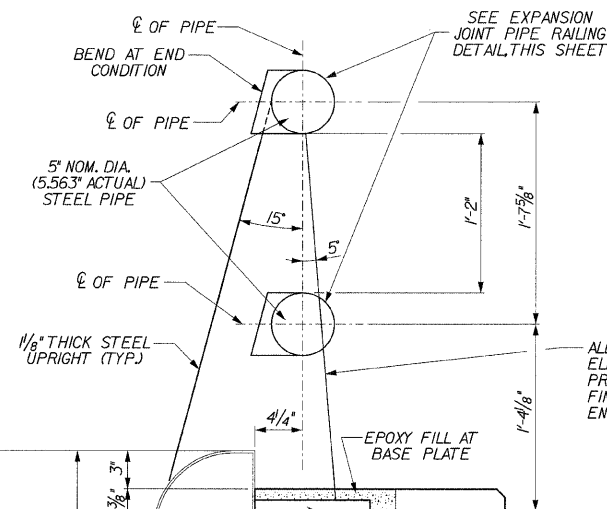
REVISIONS	
NAME	DATE



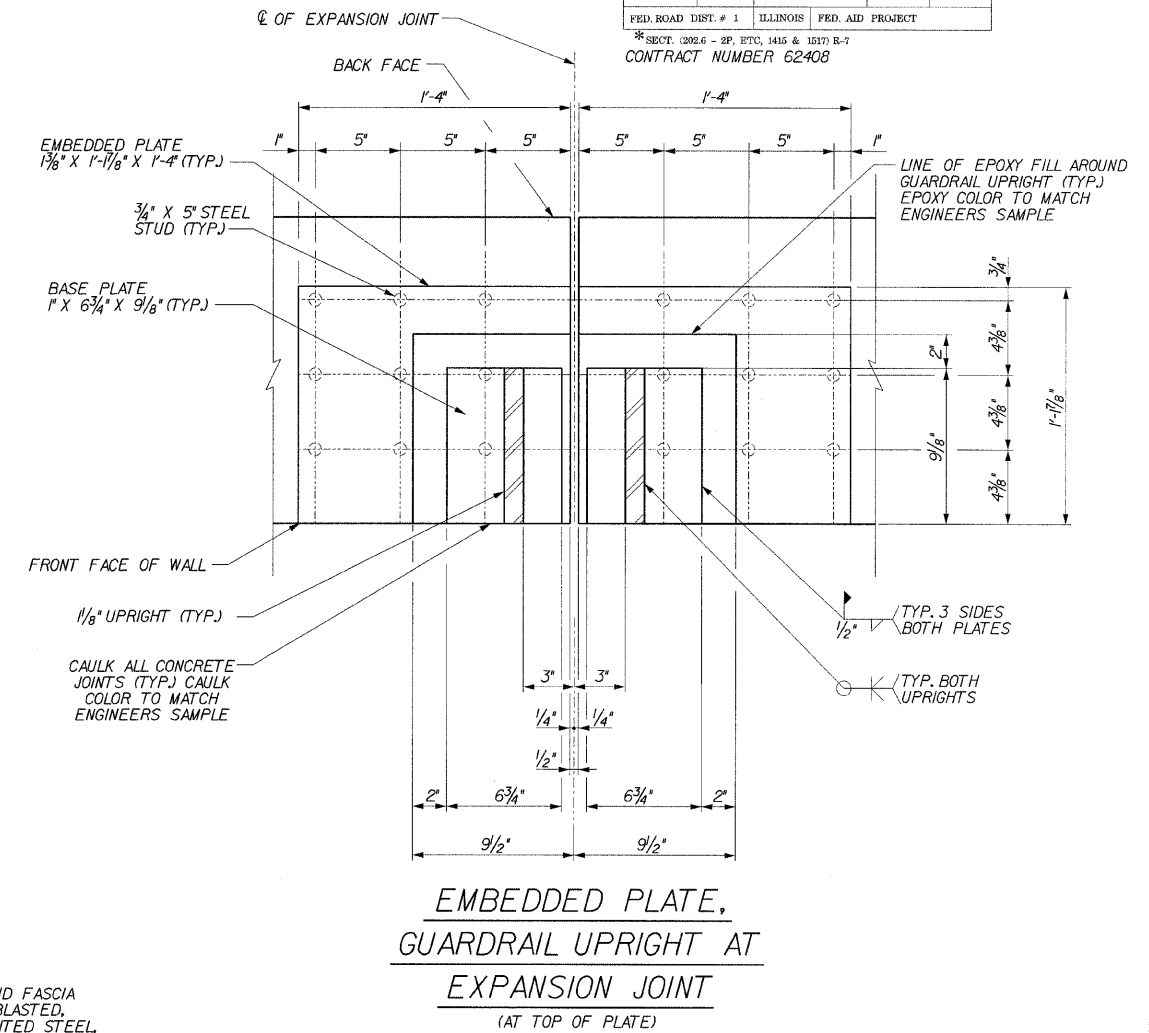
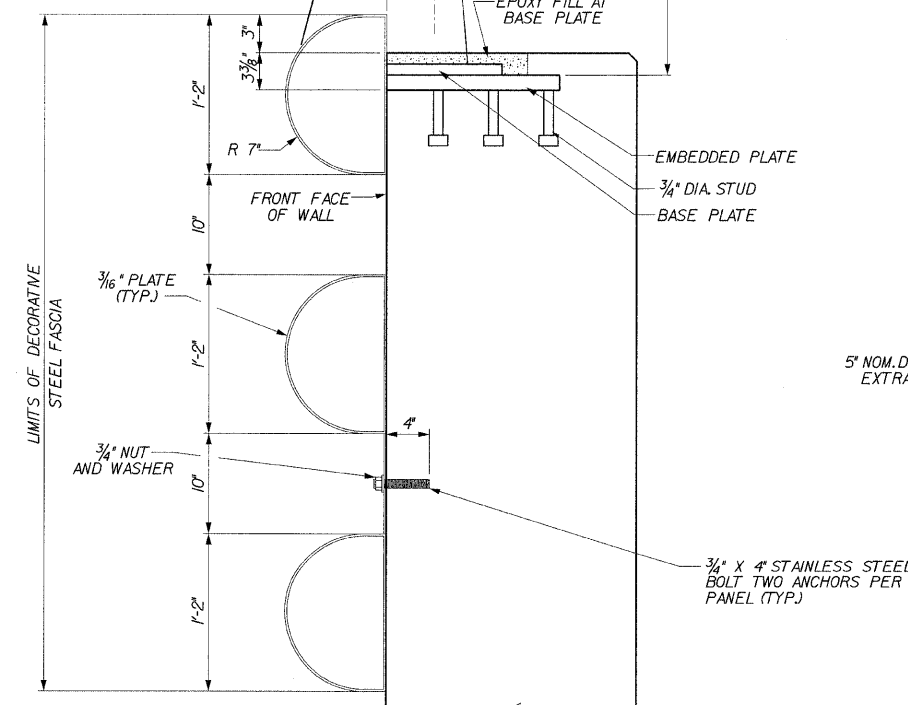
NOTE:
THE CONTRACTOR IS TO FURNISH MATERIAL, FABRICATE AND INSTALL EMBEDDED PLATES. THE DECORATIVE STEEL GUARDRAIL AND FASCIA IS TO BE SUPPLIED BY OTHERS AND INSTALLED BY THE CONTRACTOR.

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

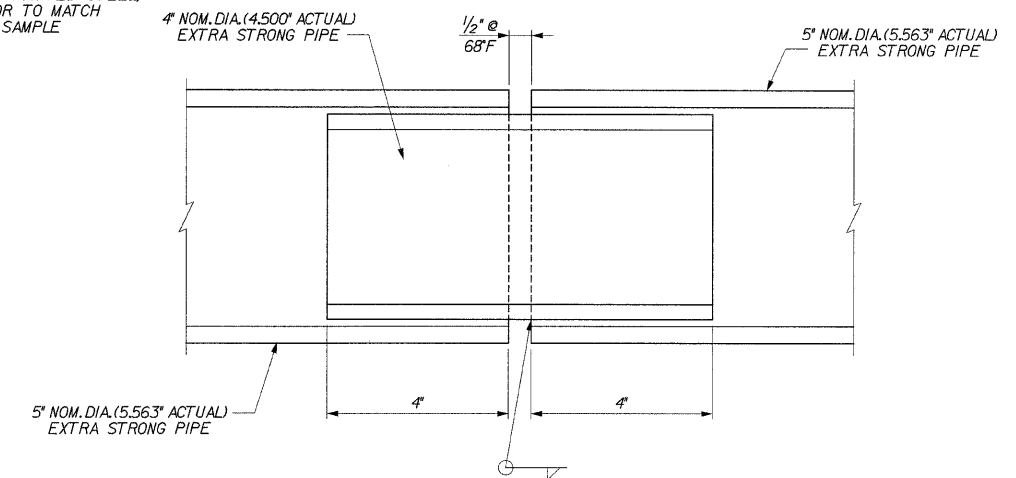
GUARDRAIL END CONDITION PLAN



ELEVATION W/DECORATIVE FASCIA



EXPANSION JOINT PIPE RAILING
(SHOWN ALONG Q OF PIPE)



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

RETAINING WALL RAMP F RAILING SYSTEM DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	
NAME	DATE

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DESIGNED	DPW
CHECKED	ASP
DRAWN	MJS
CHECKED	MBJ

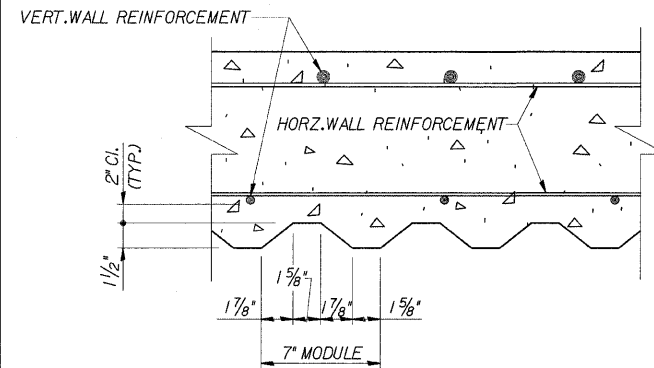
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE	BAR	NO.	SIZE	LENGTH	SHAPE	BAR	NO.	SIZE	LENGTH	SHAPE
v	6	#4	3'-7"		v54	4	#5	5'-9"		h	12	#4	2'-5"	
v1	6	#4	3'-10"		v55	6	#6	6'-11"		h1	12	#4	19'-5"	
v2	6	#4	4'-1"		v56	6	#6	7'-3"		h2	56	#4	3'-9"	
v3	6	#4	4'-4"		v57	6	#6	7'-6"		h3	48	#4	29'-8"	
v4	6	#4	4'-7"		v58	6	#6	8'-10"		h4	42	#4	19'-1"	
v5	6	#4	4'-11"		v59	6	#6	8'-2"		h5	44	#4	17'-8"	
v6	4	#4	5'-2"		v60	6	#6	8'-5"		h6	18	#5	23'-10"	
v7	6	#4	6'-4"		v61	6	#6	8'-9"		h7	18	#6	2'-7"	
v8	6	#4	6'-7"		v62	6	#6	9'-1"		h8	36	#5	3'-0"	
v9	6	#4	6'-11"		v63	6	#6	9'-4"		h9	36	#6	3'-6"	
v10	6	#4	7'-2"		v64	6	#6	9'-2"		h10	12	#5	8'-2"	
v11	6	#4	7'-6"		v65	6	#6	9'-5"		h11	4	#5	4'-7"	
v12	6	#4	7'-10"		v66	6	#6	9'-9"		h12	10	#5	7'-8"	
v13	6	#4	8'-1"		v67	6	#6	10'-0"		h13	4	#5	4'-8"	
v14	6	#4	8'-5"		v68	6	#6	10'-4"		h14	2	#5	3'-7"	
v15	6	#4	8'-8"		v69	6	#6	10'-8"		h15	2	#5	4'-5"	
v16	6	#4	8'-6"		v70	58	#6	11'-8"		h16	2	#5	3'-0"	
v17	6	#4	8'-10"		v71	6	#6	11'-0"		h17	6	#4	8'-2"	
v18	6	#4	9'-2"		v72	2	#6	12'-4"		h18	4	#4	4'-7"	
v19	6	#4	9'-5"		v73	6	#6	12'-8"		h19	5	#4	7'-8"	
v20	6	#4	9'-9"		v74	6	#6	13'-0"		h20	2	#4	4'-8"	
v21	6	#4	10'-0"		v75	7	#6	13'-3"		h21	3	#4	3'-7"	
v22	6	#4	10'-4"		v76	6	#6	13'-7"		h22	28	#4	2'-3"	
v23	2	#4	11'-8"		v77	6	#6	13'-10"		h23	48	#4	24'-2"	
v24	6	#4	12'-0"		v78	6	#6	14'-2"		h24	20	#4	25'-2"	
v25	6	#4	12'-4"		v79	6	#6	14'-5"						
v26	6	#4	12'-7"		v80	7	#6	14'-9"		n(E)	40	#6	4'-10"	
v27	6	#4	12'-11"		v81	6	#6	17'-0"		n(E)	107	#6	6'-4"	
v28	6	#4	13'-2"		v82	6	#6	17'-3"		n2(E)	99	#7	7'-0"	
v29	6	#4	13'-6"		v83	6	#6	17'-7"		n3(E)	120	#8	10'-3"	
v30	6	#4	13'-9"		v84	6	#6	17'-10"		n4(E)	85	#8	11'-5"	
v31	6	#4	14'-1"		v85	7	#6	18'-1"		n5(E)	21	#5	5'-0"	
v32	6	#4	16'-4"		v86	6	#6	18'-4"		n6(E)	93	#6	9'-11"	
v33	6	#4	16'-8"		v87	6	#6	18'-6"						
v34	6	#4	16'-11"		v88	6	#6	18'-9"		s	8	#4	8'-8"	
v35	6	#4	17'-2"		v89	6	#6	19'-0"						
v36	6	#4	17'-5"		v90	7	#6	19'-2"		t	188	#5	6'-8"	
v37	6	#4	17'-8"		v91	41	#6	12'-2"		t1	133	#6	10'-2"	
v38	6	#4	17'-10"		v92	7	#6	18'-11"		t2	303	#6	12'-8"	
v39	6	#4	18'-1"		v93	7	#6	19'-1"		t3	96	#5	14'-8"	
v40	6	#4	18'-4"		v94	7	#6	19'-4"						
v41	6	#4	18'-7"		v95	7	#6	19'-6"		w	30	#4	20'-5"	
v42	6	#4	18'-3"		v96	7	#6	19'-10"		w1	30	#4	27'-5"	
v43	6	#4	18'-6"		v97	8	#6	20'-2"		w2	40	#4	25'-6"	
v44	6	#4	18'-8"		v98	48	#6	7'-9"		w3	50	#4	33'-10"	
v45	6	#4	18'-11"		v99	38	#5	18'-7"		w4	50	#4	18'-8"	
v46	6	#4	19'-3"		v100	3	#4	2'-6"		w5	4	#4	5'-0"	
v47	5	#4	19'-7"		v101	3	#4	2'-8"		w6	9	#4	8'-10"	
v48	6	#5	4'-2"		v102	1	#4	19'-6"		w7	8	#4	7'-4"	
v49	6	#5	4'-5"		v103	1	#4	19'-9"		w8	45	#7	17'-11"	
v50	6	#5	4'-8"		v104	5	#4	10'-8"		w9	57	#11	2'-7"	
v51	6	#5	4'-11"		v105	5	#6	11'-4"						
v52	6	#5	5'-2"							x1	5	#4	10'-0"	
v53	6	#5	5'-6"							x2	6	#4	11'-0"	
										y1	10	#4	6'-0"	
										y2	11	#4	6'-6"	

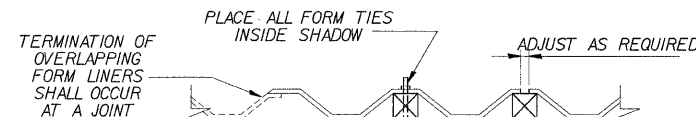
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

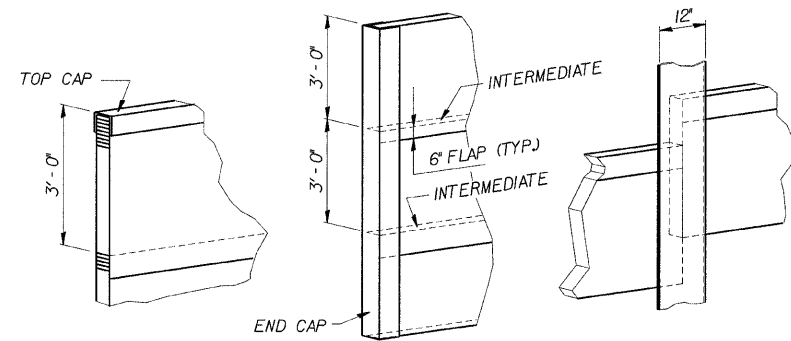
BAR	A	B	C
	FT.	IN.	FT.
h6	8	2	7
h7	7	6	6
h8	2	2	0
h9	2	6	1
n(E)	4	2	0
n(E)	5	8	0
n2(E)	6	2	0
n3(E)	9	4	0
n4(E)	10	6	0
n5(E)	4	4	0
n6(E)	9	3	0
w6	3	5	3
w7	2	4 1/2	2 1/2
x1	5	0	5
x2	5	6	5
y1	5	0	1
y2	5	6	1
v48	3	7	0
v49	3	10	0
v50	4	1	0
v51	4	4	0
v52	4	7	0
v53	4	11	0
v54	5	2	0
v55	6	3	0
v56	6	7	0
v57	6	10	0
v58	7	2	0
v59	7	6	0
v60	7	9	0
v61	8	1	0
v62	8	5	0
v63	8	8	0
v64	8	9	0
v65	8	6	0
v66	9	1	0
v67	9	4	0
v68	9	8	0
v69	10	0	0
v71	10	4	0
v72	11	8	0
v73	12	0	0
v74	12	4	0
v75	12	7	0
v76	12	11	0
v77	13	2	0
v78	13	6	0
v79	13	9	0
v80	14	1	0
v81	16	4	0
v82	16	7	0
v83	16	11	0
v84	17	2	0
v85	17	5	0
v86	17	8	0
v87	17	10	0
v88	18	1	0
v89	18	4	0
v90	18	6	0
v92	18	3	0
v93	18	5	0
v94	18	8	0
v95	18	10	0
v96	19	2	0
v97	19	6	0
v100	1	8	0
v101	1	10	0
v105	10	8	0



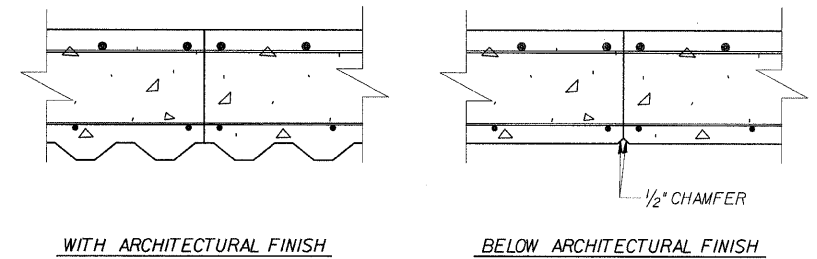
SECTION THRU ARCHITECTURAL FINISH



SUGGESTED FORMWORK DETAIL

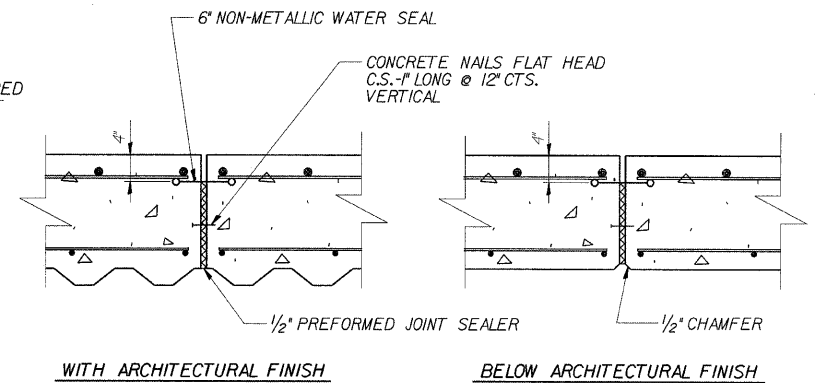


GEOCOMPOSITE WALL DRAIN DETAILS



CONSTRUCTION JOINT DETAIL

NOTE: 6" NON-METALLIC WATER SEAL AND PREFORMED JOINT SEALER SHALL BE INCLUDED IN THE COST OF CONCRETE STRUCTURES

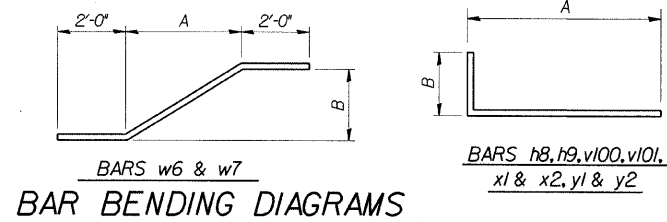


EXPANSION JOINT DETAIL

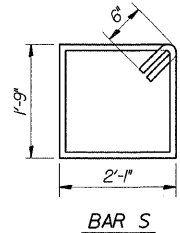
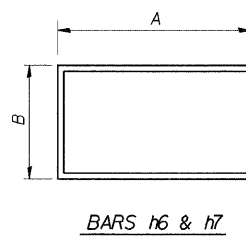
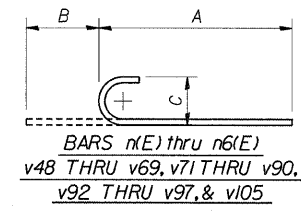
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

RETAINING WALL RAMP F DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+45 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

REVISIONS	NAME	DATE



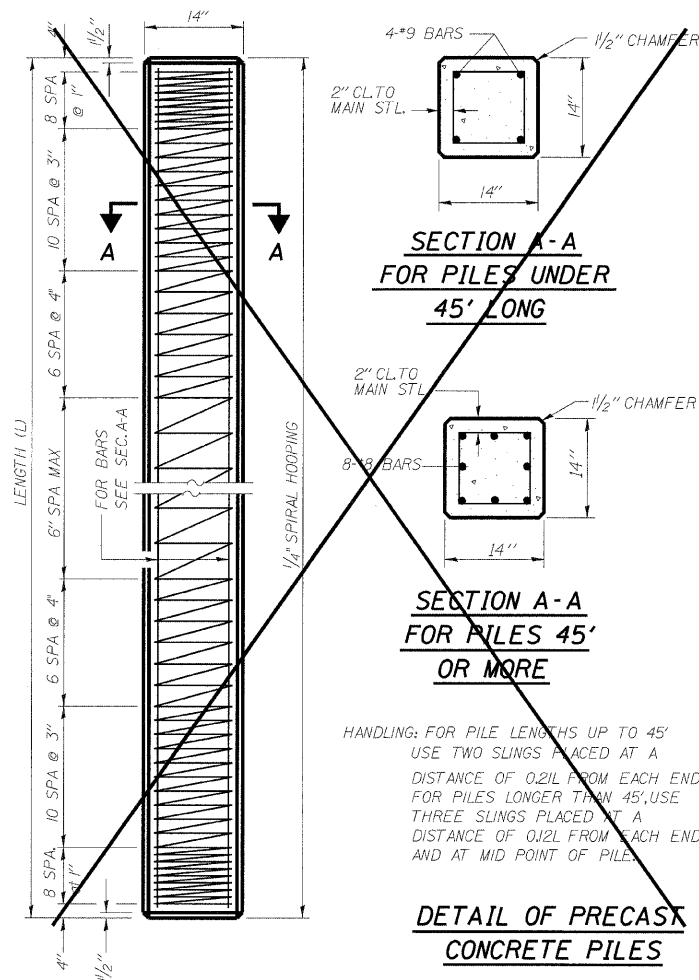
BAR BENDING DIAGRAMS



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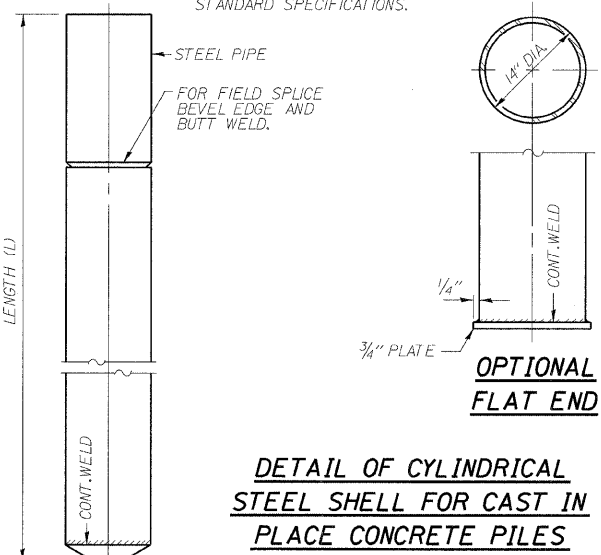
DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

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

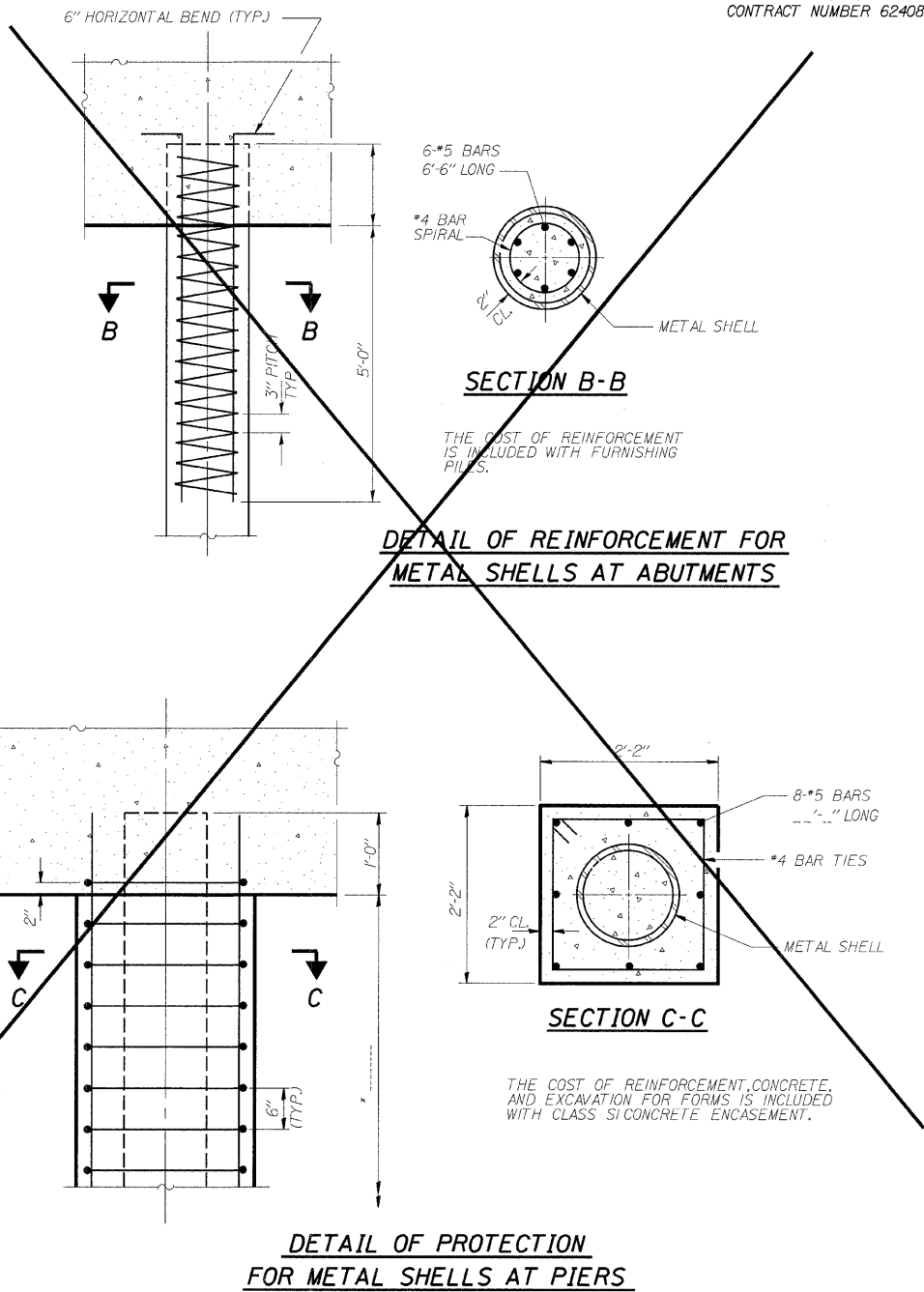


NOTES:

DRIVING AND BEARING ENDS OF PIPE SHALL BE CUT SQUARE. THE THICKNESS OF THE SHELL SHALL BE 0.250 INCHES WITH A TOLERANCE OF 5%. THE SHELL SHALL BE ACCORDING TO ARTICLE 1006.05(A) OF THE STANDARD SPECIFICATIONS.



* IF A PORTION OF THE PILE ENCASEMENT IS UNDER WATER, CLASS SI CONCRETE ENCASEMENT SHALL BE TREMMED UNDER WATER INTO FORMS AS NECESSARY.



CONCRETE PILE DETAILS



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

**RETAINING WALL RAMP F
14" DIA METAL SHELL PILE**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)

SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7

STATION 13+45 LT 22' TO 10+59 LT 22'

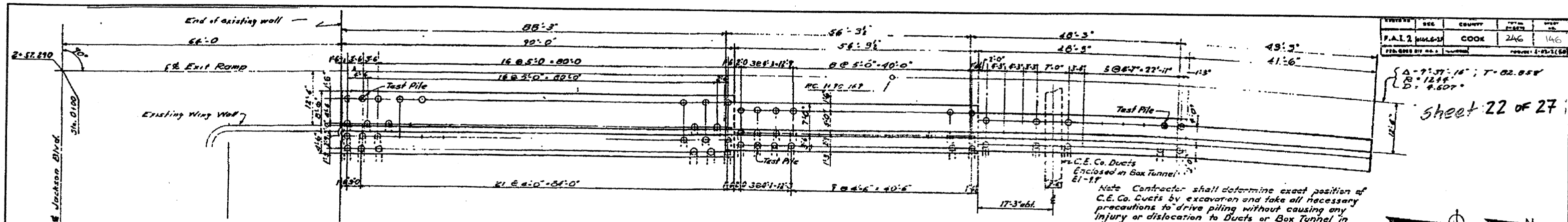
COOK COUNTY

STRUCTURE NUMBER 016-W807

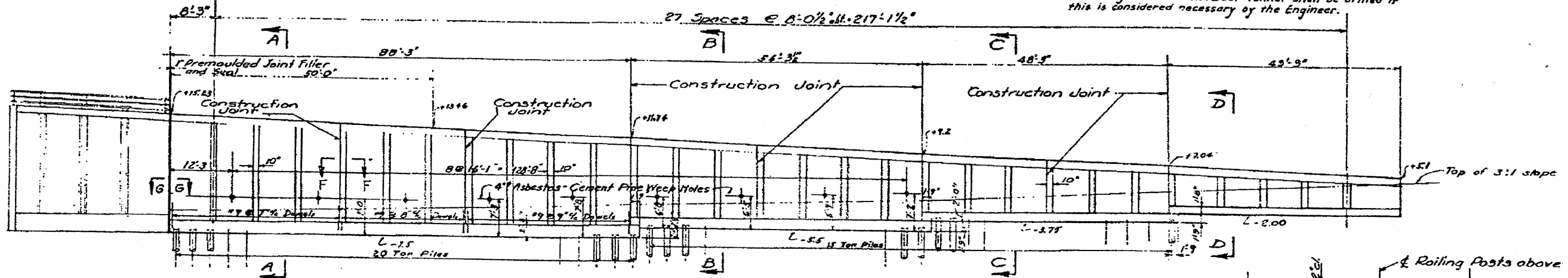
REVISIONS	
NAME	DATE

SHEET NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.L. 2	146-31	COOK	246	146
FEB. 28, 1957 BY A.C. L. L. L.				

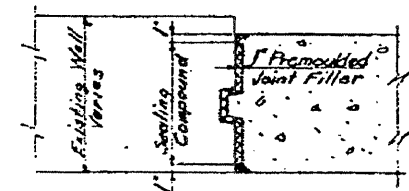
Sheet 22 of 27



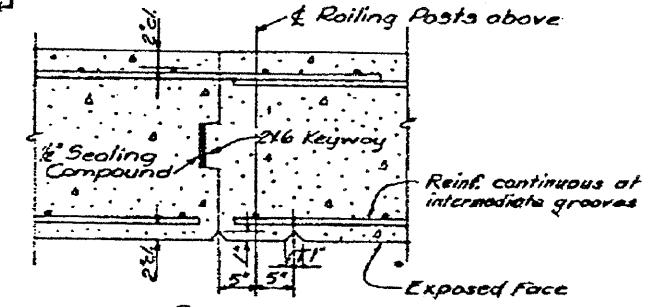
PLAN
Scale 1/8"=1'-0"



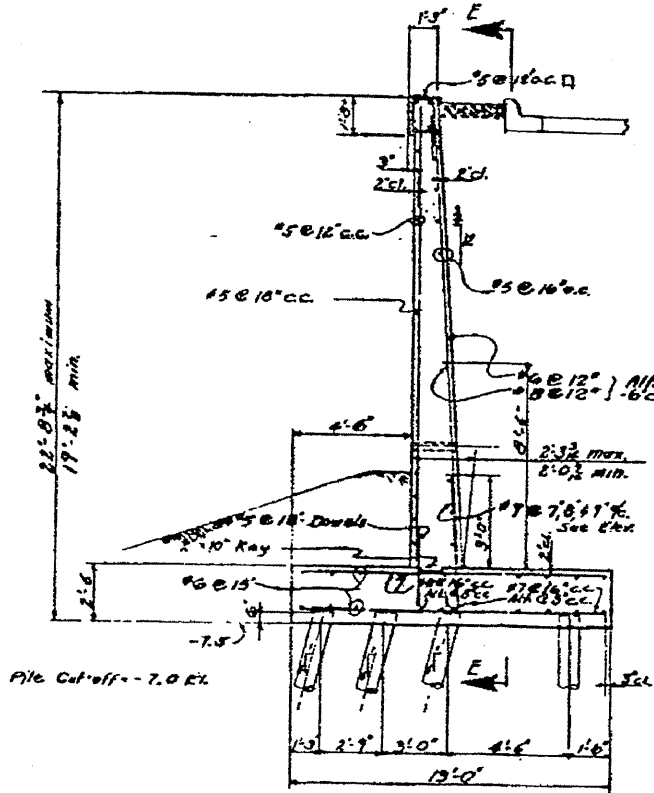
ELEVATION
Scale 3/8"=1'-0"



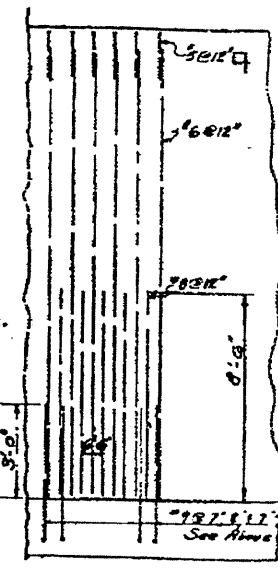
SECTION G-G
SIMILAR AT JUNCTION OF ALL NEW WALLS WITH EXISTING WALLS
SCALE 1"=1'-0"



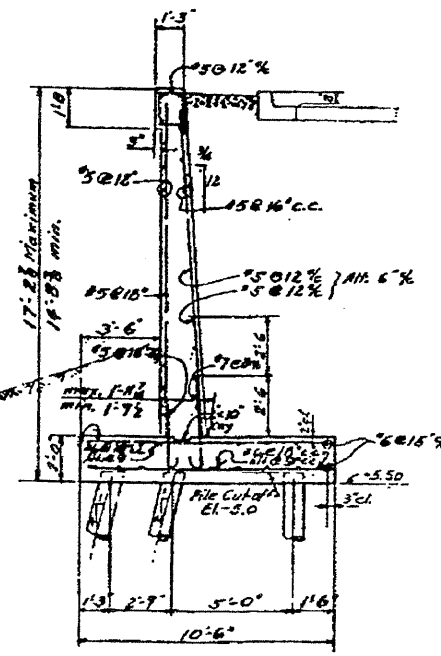
SECTION F-F
SHOWING TYPICAL CONSTRUCTION JOINT
SCALE 1"=1'-0"



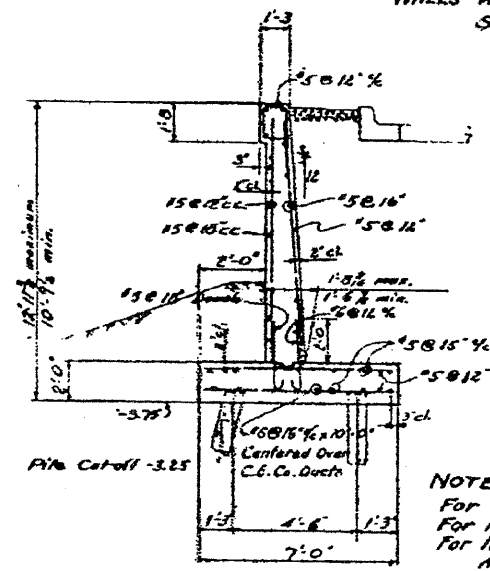
SECTION A-A
Scale 1/2"=1'-0"



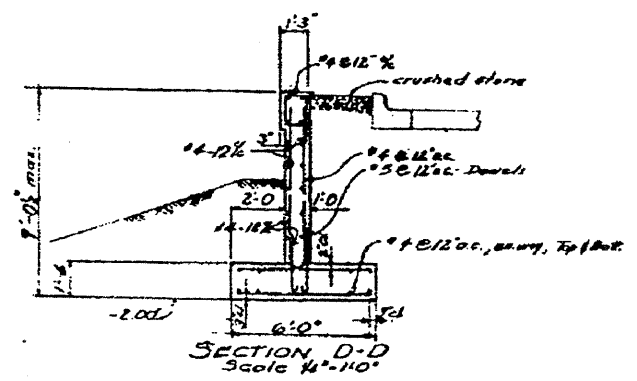
SECTION E-E
Scale 1/2"=1'-0"



SECTION B-B
Scale 1/2"=1'-0"



SECTION C-C
Scale 1/2"=1'-0"



SECTION D-D
Scale 1/2"=1'-0"

NOTES:
For General Notes see sheet G-36
For location of walls see sheet G-4
For location of steel Handrail Anchor Bolts see Sheet A-2

DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
SECTION 0101.6-2P

RETAINING WALL
EXIT RAMP "F"

FOR INFORMATION ONLY

SCALE: AS NOTED

SHEET NO. G-32 OF

APRIL 1957
SHEET 13

Drawn By: E.H. Pratscher
Traced By: Reproduction
Checked By: [Signature]
App. [Signature]

RETAININGWALL RAMP F
BORING LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+75 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PAP 9994	*	COOK	246	148
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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

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, RNG. 14 EAST

Boring No. <u>F-2</u>	D	B			Surface Water Elev. <u>N/A</u>	D	B		
Station <u>11+48</u>	E	L			Groundwater Elev.: <u>508.3</u>	E	L		
Offset <u>33.00R LT</u>	P	O			when drilling <u>511.3</u>	P	O		
	T	W	Qu	W	at Completion	T	W	Qu	W
Surface Elev. <u>578.34</u> ft	H	S	tsf	%	after _____ Hrs.	H	S	tsf	%
<u>Asphalt Pavement</u> <u>578.04</u>									
<u>Medium Dense, Gray</u>									
<u>Crushed Aggregate</u>									
<u>traces - fines</u> <u>574.34</u>									
<u>(FILL)</u>									
<u>Stiff, Gray SILTY CLAY</u>									
<u>traces to little - sand and</u>									
<u>gravel</u>									
<u>571.34</u>									
<u>Very soft to Medium Stiff,</u>									
<u>Gray CLAY/SILTY CLAY</u>									
<u>traces - sand and gravel</u>									
<u>539.34</u>									
<u>Stiff to Very Stiff, Gray</u>									
<u>SILTY CLAY</u>									
<u>traces - sand and gravel</u>									
<u>506.34</u>									
<u>BORING COMPLETED</u>									
<u>AT 70.0 FEET</u>									

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. <u>F-2</u>	D	B		
Station <u>11+48</u>	E	L		
Offset <u>33.00R LT</u>	P	O		
	T	W	Qu	W
Elevation <u>528.34</u> ft	H	S	tsf	%
<u>524.34</u>				
<u>Medium Dense, Gray</u>				
<u>SILTY LOAM</u>				
<u>traces - sand</u>				
<u>At 54.5 feet - 1 inch sand</u>				
<u>520.34</u>				
<u>Medium Dense to</u>				
<u>Extremely Dense, Gray</u>				
<u>SANDY LOAM</u>				
<u>506.34</u>				
<u>BORING COMPLETED</u>				
<u>AT 70.0 FEET</u>				

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

s:\Dept\Structures\301099 190 94-retwall\11L 190 194\RAMPF\DCNFILES\23-27-RF-Boring Logs.dgn
04-Feb-2009 10:18

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAININGWALL RAMP F
BORING LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+75 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

RETAININGWALL RAMP F
BORING LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+75 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807

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. 101.8 (1P, 2P) & 202.6 (1P) STRUCT. NO. _____ DRILLED BY PATRICK DRILLING INC.
COUNTY COOK LOCATION BETWEEN ADAMS AND JACKSON S. 9, TWP. 39N, RNG. 14 EAST

Boring No.	Station	Offset	Surface Elev.	DEPTH	BLOW S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev.	when drilling	at Completion	after	Hrs.
F-4	12+95	13.00R LT	592.18 ft					N/A		Dry	Dry		
Asphalt Pavement 592.08													
Concrete Pavement 591.48													
Very Loose to Dense.					3	-	3						
Gray Crushed Aggregate					26	-							
traces - fines					17								
					4	-	3						
					7	-							
					8								
					3	-	4						
					5	-							
					5								
					4	-	5						
					4	-							
					4								
(FILL) 579.18					0	-	-						
Very soft to Soft, Gray					0	0.29	24						
CLAY/SILTY CLAY					0	B							
traces - sand and gravel					2								
					0	0.33	23						
					1	B							
					2								
					0	0.25	23						
					2	B							
					1	0.37	23						
					1	B							
					2								
					2	0.25	24						
					1	B							
					2								
					1	0.37	22						
					1	B							
					2								
					0	0.25	25						
					1	B							
					2								

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 101.8 (1P, 2P) & 202.6 (1P)
COUNTY COOK

Boring No.	Station	Offset	Elevation	DEPTH	BLOW S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev.	when drilling	at Completion	after	Hrs.
F-4	12+95	13.00R LT	542.18 ft										
540.18													
Stiff to Very Stiff, Gray													
SILTY CLAY													
traces - sand and gravel													
					2	1.73	18						
					8	B							
					8								
					3	3.75	11						
					10	P							
					14								
					3	3.07	17						
					7	B							
					11								
					3	2.47	22						
					7	B							
					8								
520.18													
Medium Dense, Gray													
SILTY LOAM													
traces - sand													
					6	-	21						
					8	-							
					8								
517.18													

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

REVISIONS	
NAME	DATE

RETAININGWALL RAMP F
BORING LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 13+75 LT 22' TO 10+59 LT 22'
COOK COUNTY
STRUCTURE NUMBER 016-W807



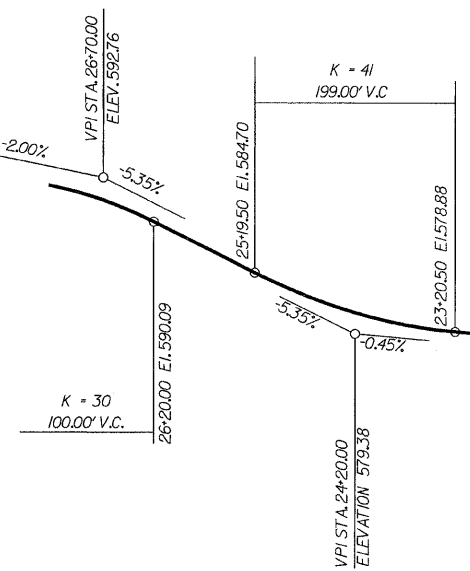
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

BENCH MARK
BM 901-NW ANCHOR BOLT OF HIGH MAST LIGHT POLE
STA.32+81 - 96 FT. LEFT - ELEV. + 587.33

EXISTING STRUCTURE NO.016-W808
190/194 RAMP H - ADAMS ST. EXIT RAMP
BUILT IN 1957, CONSISTS OF CAST-IN-PLACE CONCRETE
RETAINING WALL SUPPORTED ON CONCRETE PILING

PROPOSED IMPROVEMENTS
EXISTING STRUCTURE TO BE REMOVED AND REPLACED
WITH A CAST-IN-PLACE CONCRETE T-TYPE RETAINING
WALL SUPPORTED ON CONCRETE FILLED METAL SHELL
PILES. NO SALVAGE.



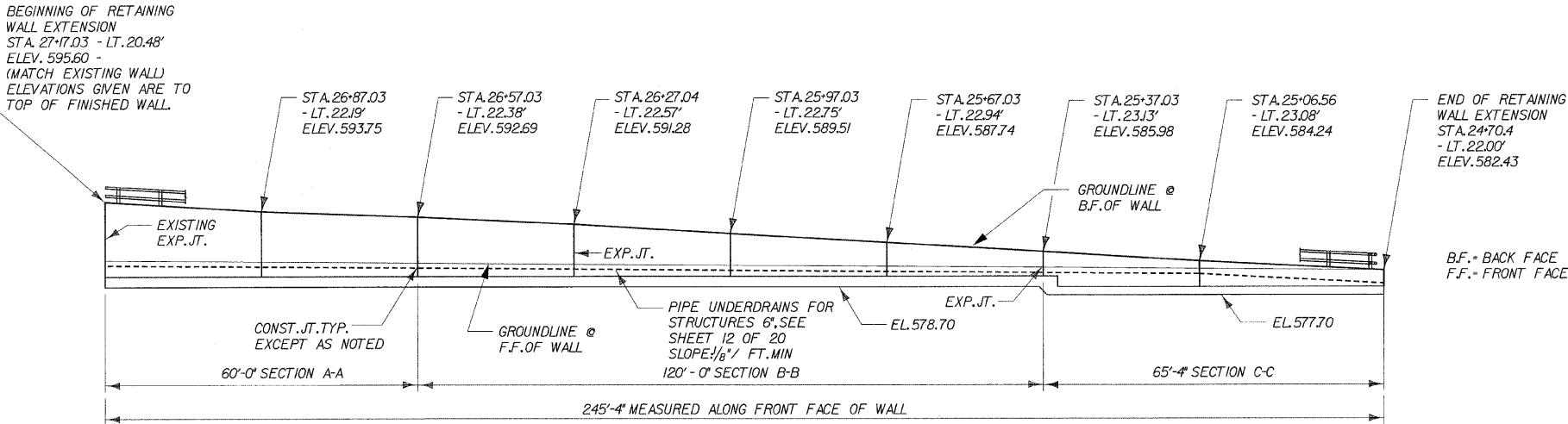
**HORIZONTAL
CURVE DATA**

RAMP H
PI STA.24+43.47
I = 8'48" 18' (LT)
D = 5'04" 14'
T = 87.00'
R = 1130.00'
L = 173.66'
E = 3.34'
PC STA.23+56.47
PT STA.25+30.12

PROFILE GRADE RAMP H
(@ BASELINE SURVEY RAMP H)

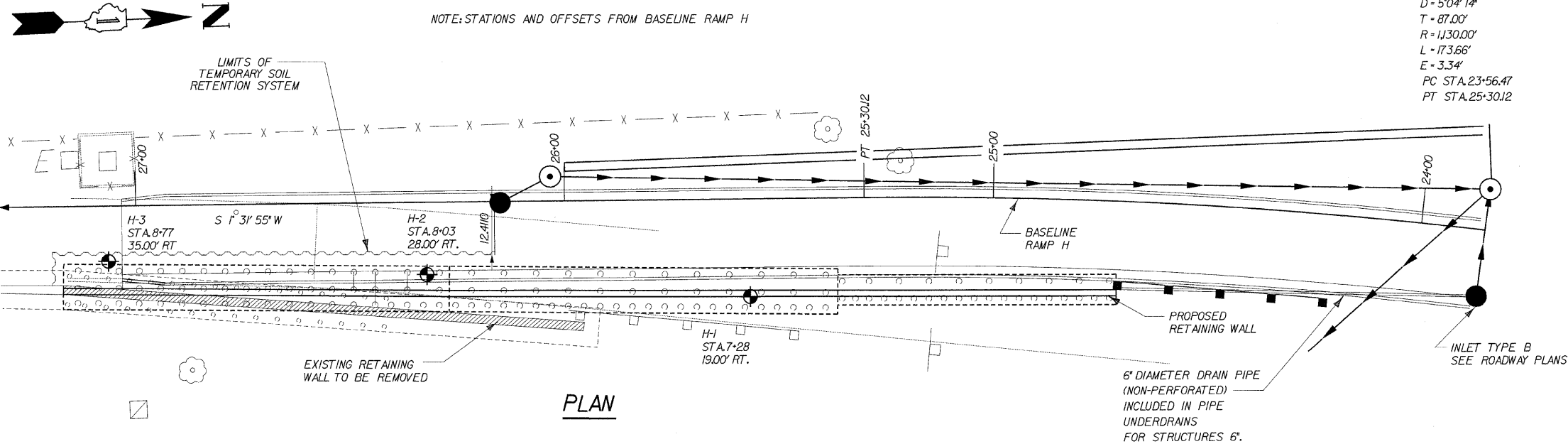
TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	293.5
TEMPORARY SOIL RETENTION SYSTEM	SQ FT	1,000
CONCRETE REMOVAL	CU YD	95
REINFORCEMENT BARS	POUND	19,000
REINFORCEMENT BARS, EPOXY COATED	POUND	4,920
STRUCTURE EXCAVATION	CU YD	1,090
FURNISHING METAL SHELL PILES 14" x 0.250"	FOOT	7,683
DRIVING PILES	FOOT	7,683
TEST PILE METAL SHELLS	EACH	1
GEOCOMPOSITE WALL DRAIN	SQ YD	197
PIPE UNDERDRAINS FOR STRUCTURES 6"	FOOT	246
RUSTICATION FINISH	SQ FT	1,420
INSTALL DECORATIVE STEEL GUARDRAIL	FOOT	245
INSTALL DECORATIVE STEEL FASCIA	FOOT	182
EMBEDDED PLATE, GUARDRAIL UPRIGHT, EXPANSION JOINT	EACH	4
EMBEDDED PLATE, GUARDRAIL UPRIGHT	EACH	33
REPAIR OF FASCIA PANELS, EXIT RAMP H	LS	1



ELEVATION

NOTE: STATIONS AND OFFSETS FROM BASELINE RAMP H



PLAN

GENERAL NOTES

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR60, SEE SPECIAL PROVISIONS.
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.
4. REMOVAL OF THE EXISTING RAMP H RETAINING WALL, INCLUDING EXISTING PILE TOPS AND BACKFILLING WITH GRANULAR MATERIAL TO EL 578.70, TO BE INCLUDED IN REMOVAL OF EXISTING STRUCTURES.
5. THE CONTRACTOR SHALL DRIVE ONE METAL SHELL PILE 14" DIAMETER TEST PILE IN A PERMANENT LOCATION NEAR BORING H-2 AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
6. A CANTILEVERED SHEET PILING DESIGN DOES NOT APPEAR FEASIBLE AND ADDITIONAL MEMBERS OR OTHER RETENTION SYSTEMS MAY BE NECESSARY. THE CONTRACTOR SHALL SUBMIT A TEMPORARY SOIL RETENTION SYSTEM DESIGN INCLUDING PLAN DETAILS AND CALCULATIONS FOR REVIEW AND ACCEPTANCE BY THE ENGINEER.
7. ALL CONSTRUCTION JOINTS SHALL BE BONDED.

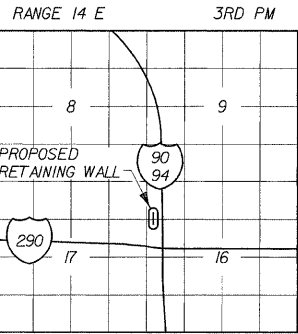
DESIGN SPECIFICATIONS

2002 AASHTO SPECIFICATIONS FOR
HIGHWAY BRIDGES

DESIGN STRESSES

LOADINGS
EQUIVALENT FLUID SOIL PRESSURE = 40 pcf
TRAFFIC SURCHARGE PRESSURE = 240 pcf
F'C = 3,500 PSI (CONCRETE)
FY = 60,000 PSI (REINFORCEMENT)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

DESIGNED	ECF
CHECKED	JMM
DRAWN	ECF & DPW
CHECKED	JMM

DLZ ILLINOIS, LLC.
ARLINGTON HEIGHTS, ILLINOIS
Signed: *Ralph E. Anderson*
Date: 02-25-2009
Expiration Date: 11/30/10



REVISIONS	
NAME	DATE

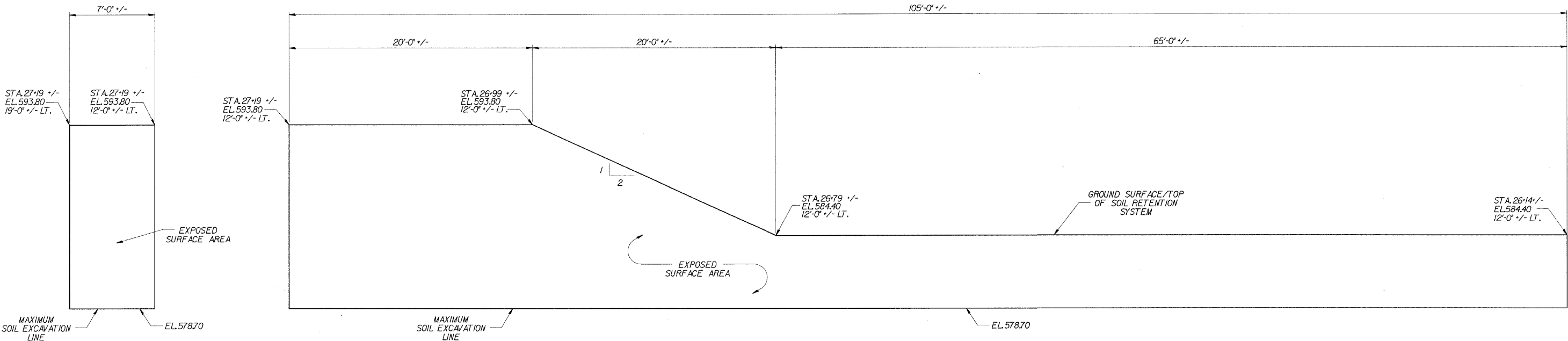


85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

RETAINING WALL RAMP H
GENERAL PLAN & ELEVATION
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC. 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	153
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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



TEMPORARY SOIL RETENTION SYSTEM

s:\Dept\Structures\201009 190 94-retwall\111 190 194\RAMP\DGFILES\2-TEMPSOILRETSYSTEM.dgn
04-Feb-2009 09:33

DESIGNED	DPW
CHECKED	ASP
DRAWN	BEM
CHECKED	ASP



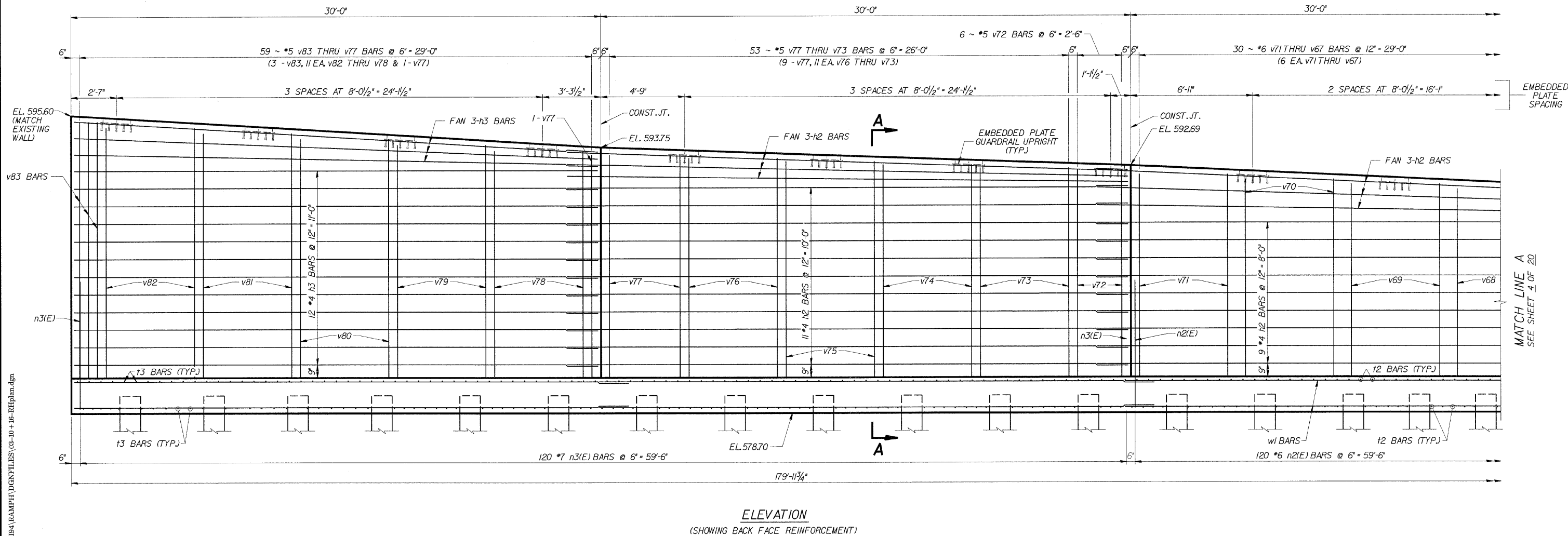
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

**RETAINING WALL RAMP H
TEMPORARY SOIL RETENTION SYSTEM**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PAP 9094	*	COOK	246	154
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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



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04-Feb-2009 09:34

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

MINIMUM BAR LAPS
*4 BARS = 1'-8"
*6 BARS = 5'-6"
*7 BARS = 5'-6"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

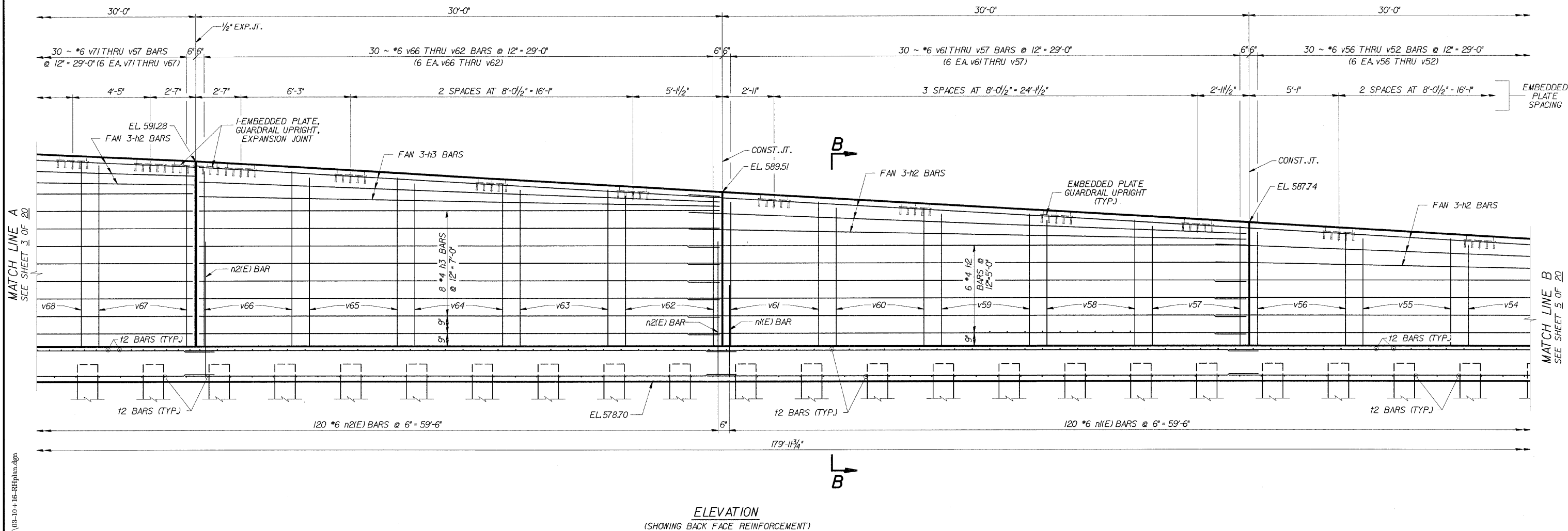
REVISIONS	
NAME	DATE

RETAINING WALL RAMP H
DETAILS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	155
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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



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DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

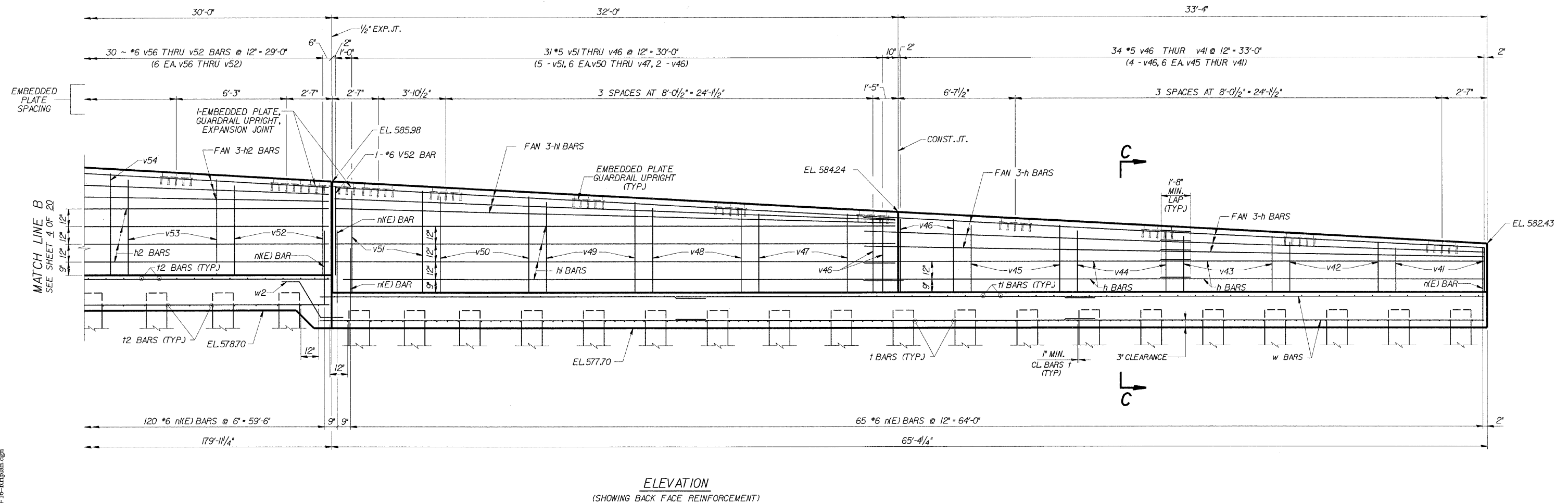
MINIMUM BAR LAPS
*4 BARS = 1'-8"
*6 BARS = 5'-6"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP H
DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808



MINIMUM BAR LAPS
 *4 BARS = 1'-8"
 *6 BARS = 2'-6" n(E)
 *6 BARS = 2'-10" n(E)

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



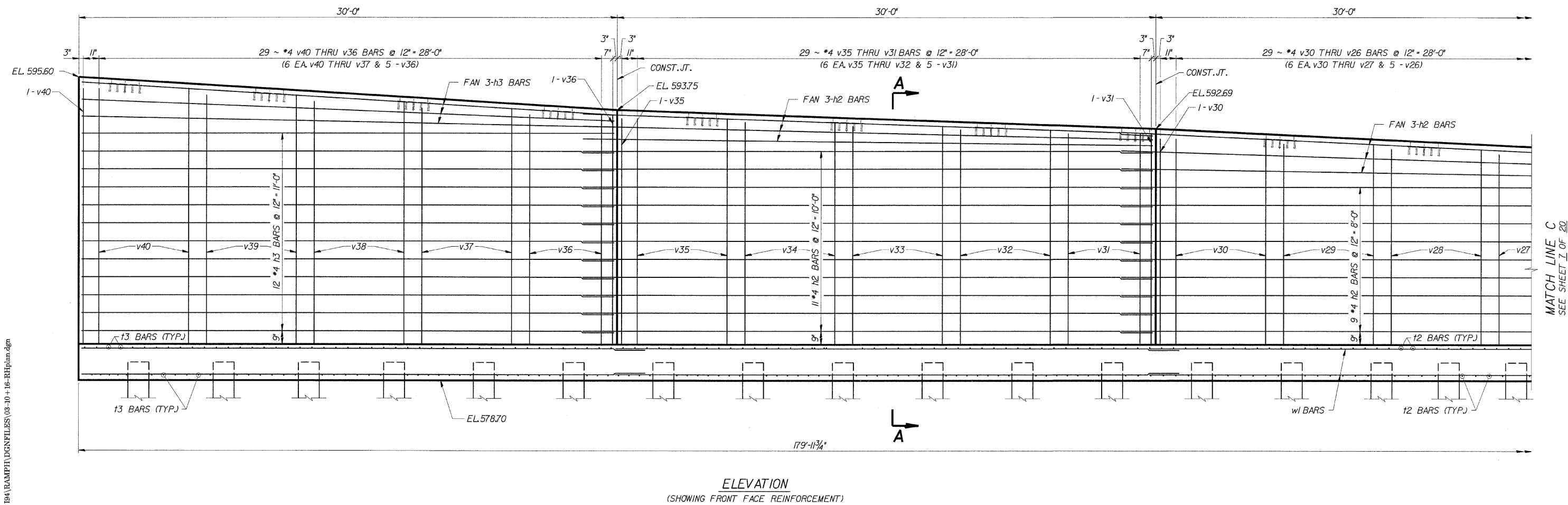
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

**RETAINING WALL RAMP H
DETAILS**
 I-90/94 KENNEDY EXPRESSWAY
 (HUBBARDS CAVE TO I-290)
 SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
 STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
 (RAMP F BASELINE)
 COOK COUNTY
 STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	157
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

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



MINIMUM BAR LAPS
*4 BARS = 1'-8"

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



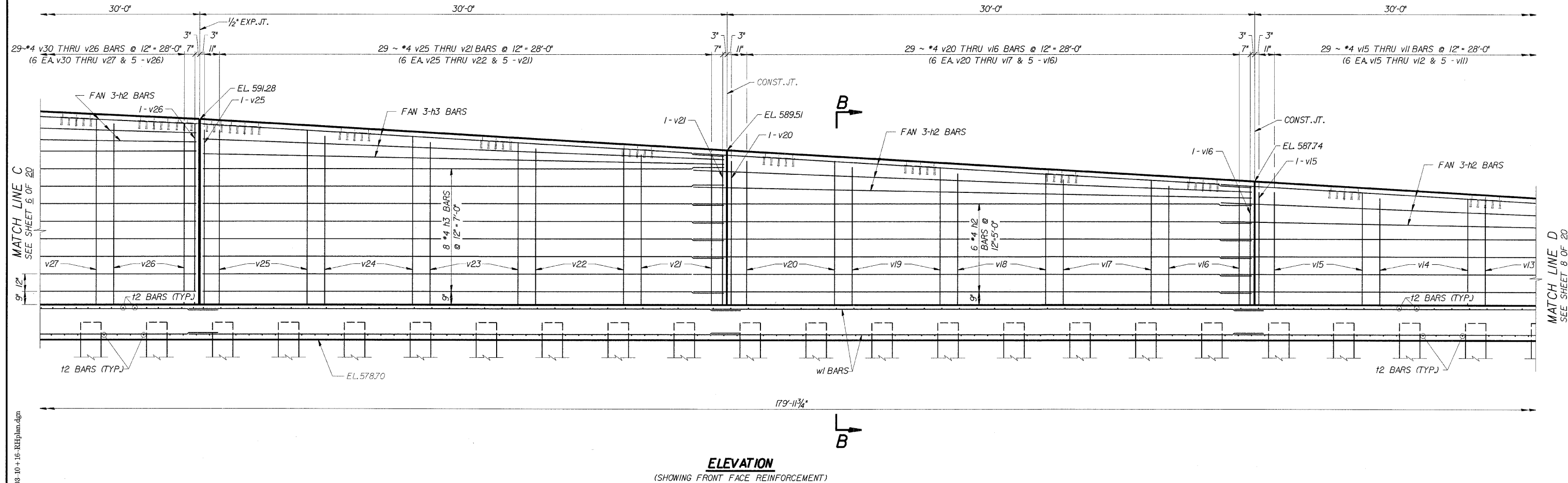
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP H
DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	158
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

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



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04-Feb-2009 09:34

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

MINIMUM BAR LAPS
*4 BARS *1'-8"



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

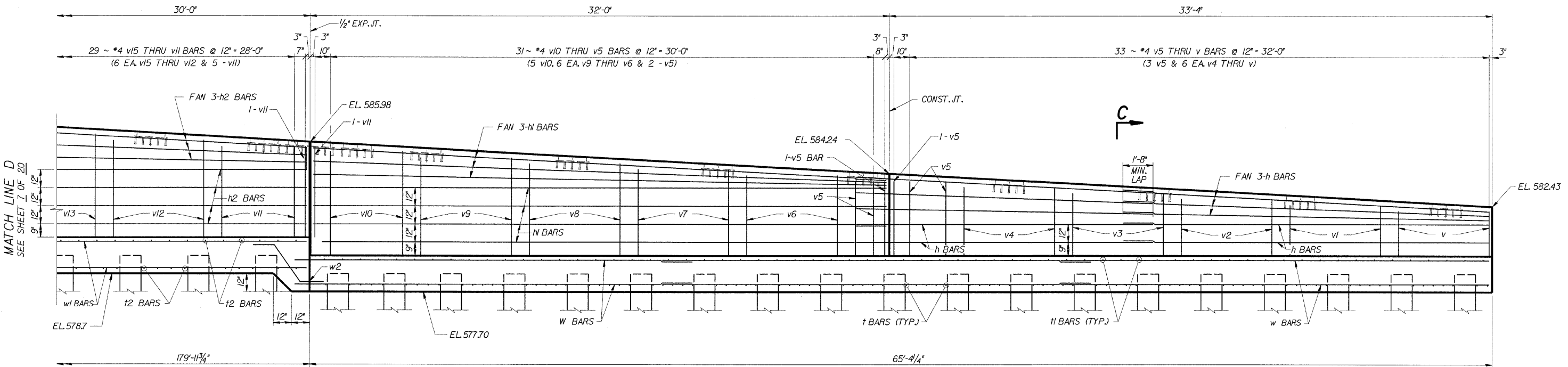
REVISIONS	
NAME	DATE

**RETAINING WALL RAMP H
DETAILS**

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	159
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

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



ELEVATION
(SHOWING FRONT FACE REINFORCEMENT)

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DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

MINIMUM BAR LAPS
*4 BARS - 1'-8"



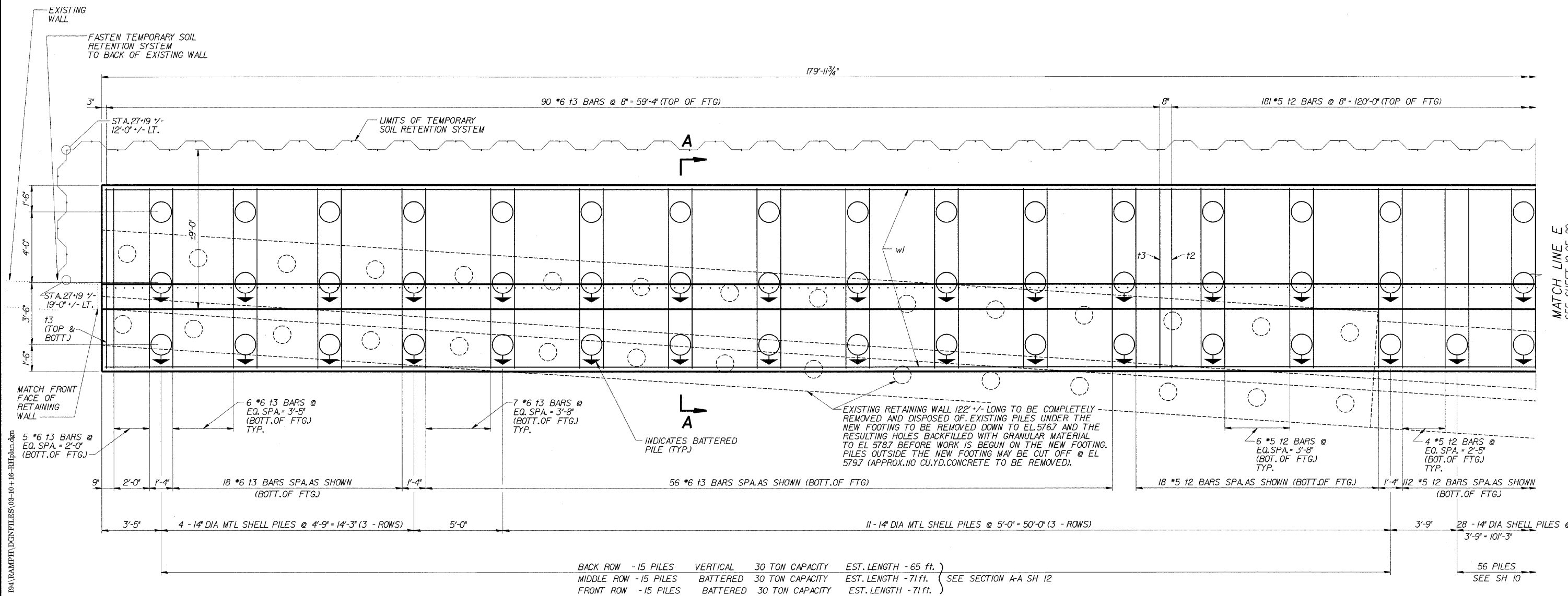
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

**RETAINING WALL RAMP H
DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	160
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

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



PLAN

MINIMUM BAR LAPS

*4 BARS = 1'-8"
*6 BARS = 6'-6"

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP H
DETAILS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808



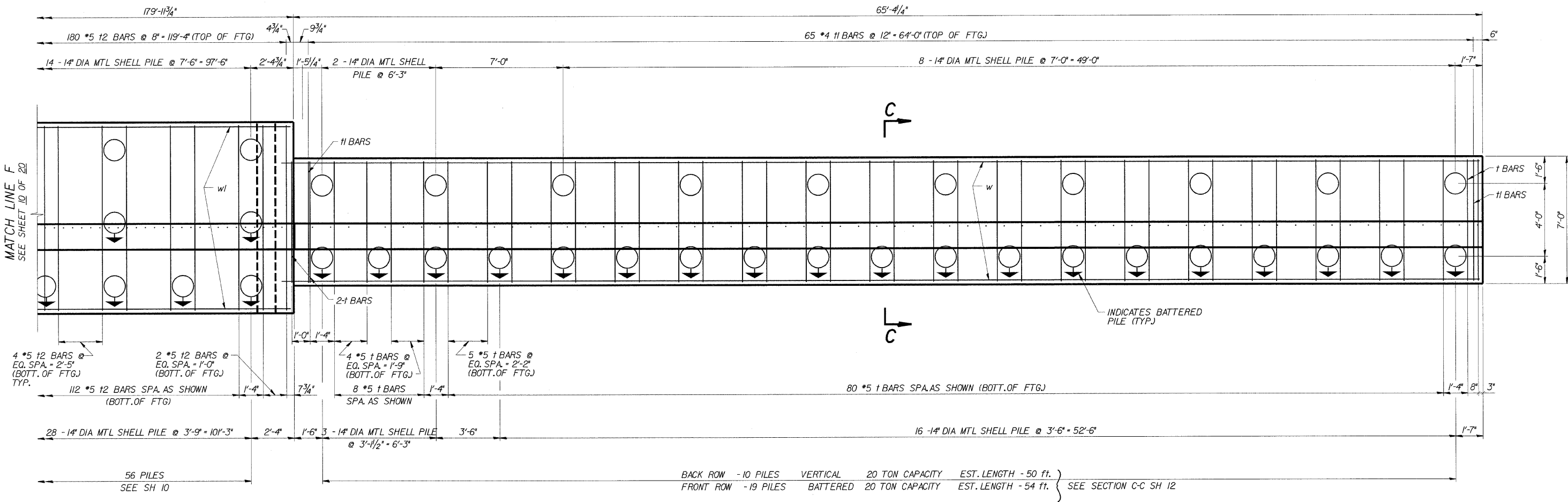
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CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



RETAINING WALL RAMP H
DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC,1415 & 1517) R-7
STATION 27+17, LT.20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	162
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

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



PLAN

MINIMUM BAR LAPS
*4 BARS = 1'-8"

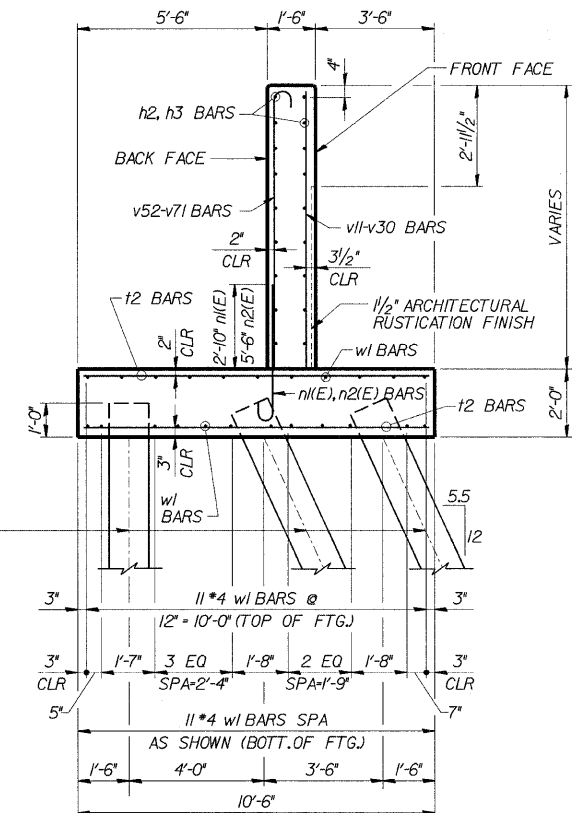
DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP H
DETAILS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808



STA.25+37.03 THRU STA.26+57.03
(FOR DETAILS NOT SHOWN SEE TYPICAL SECTION)

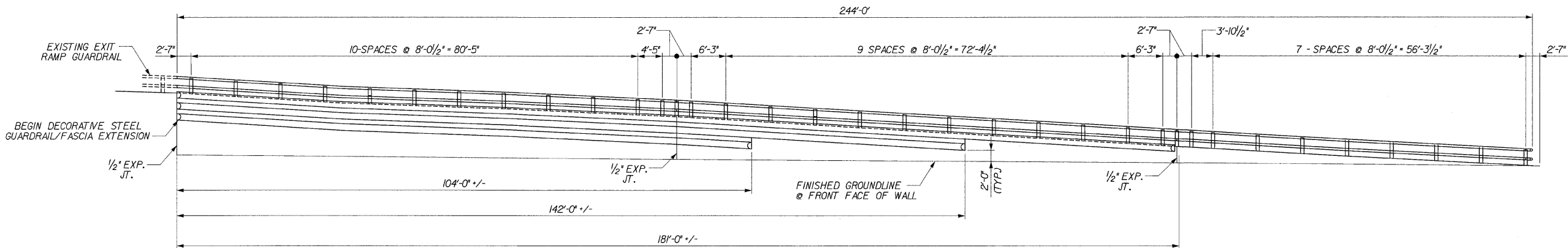
STA.24+70.40 THRU STA.25+37.03
(FOR DETAILS NOT SHOWN SEE TYPICAL SECTION)

REVISIONS	
NAME	DATE

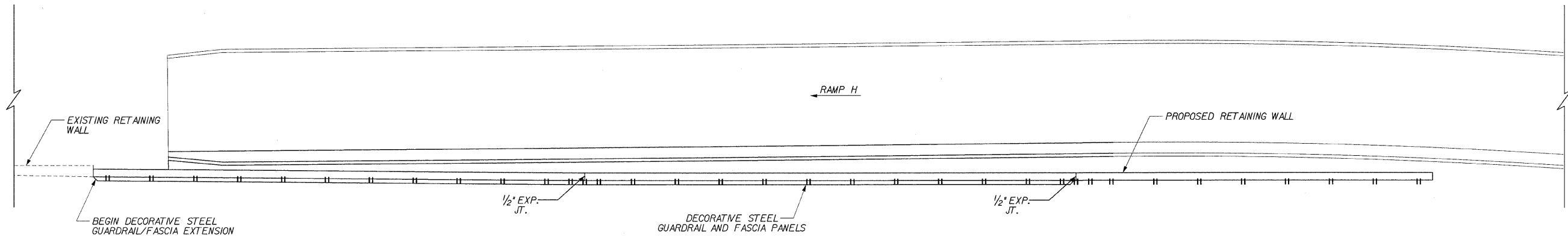
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9994	*	COOK	246	164
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

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



ELEVATION
(SHOWING FRONT FACE OF WALL)



PLAN

DESIGNED	DPW
CHECKED	ASP
DRAWN	BEM
CHECKED	ASP

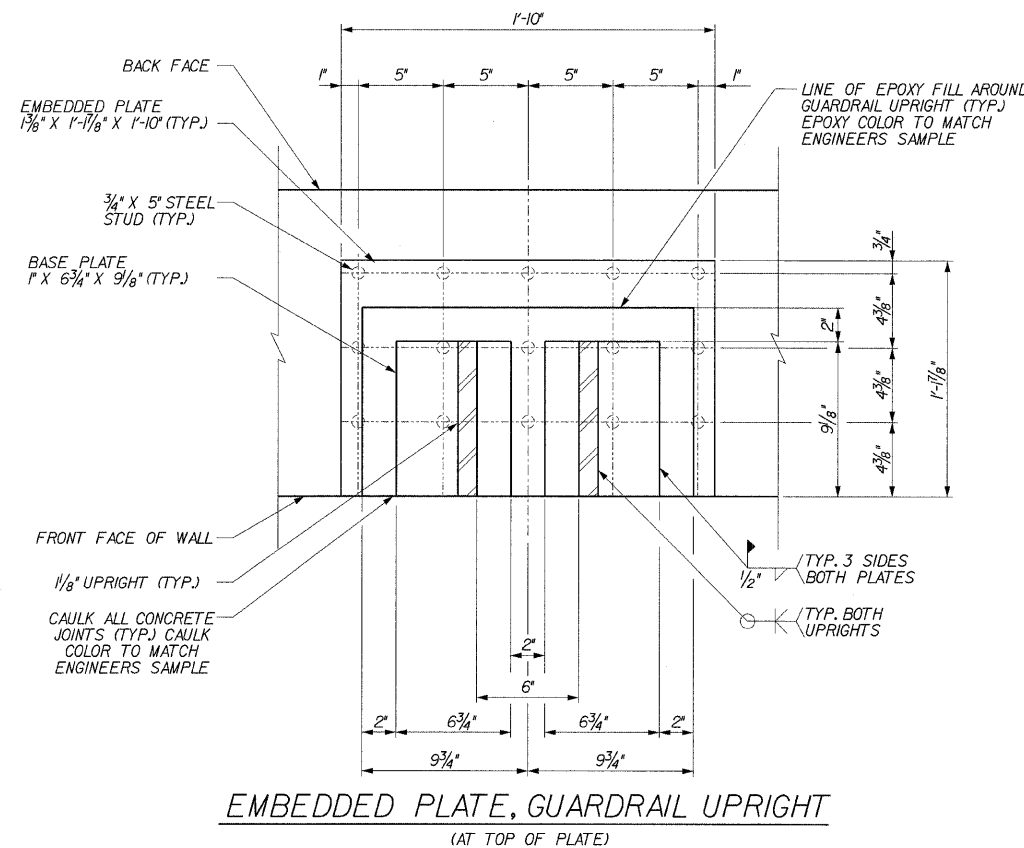


85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

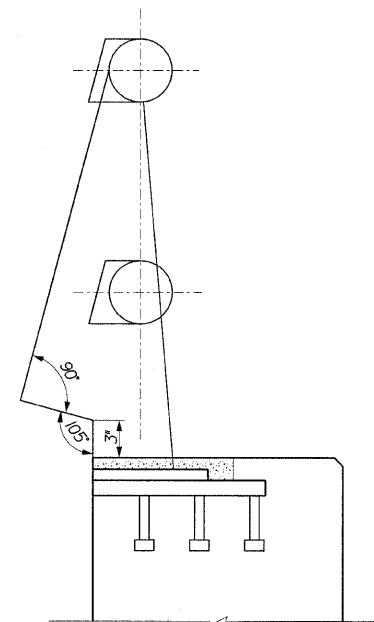
**RETAINING WALL RAMP H
RAILING PLAN & ELEVATION**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

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

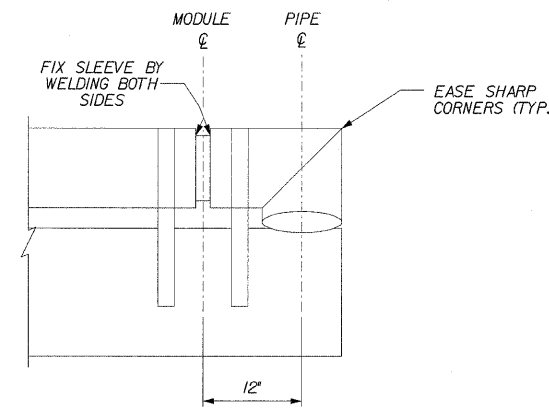


EMBEDDED PLATE, GUARDRAIL UPRIGHT
(AT TOP OF PLATE)

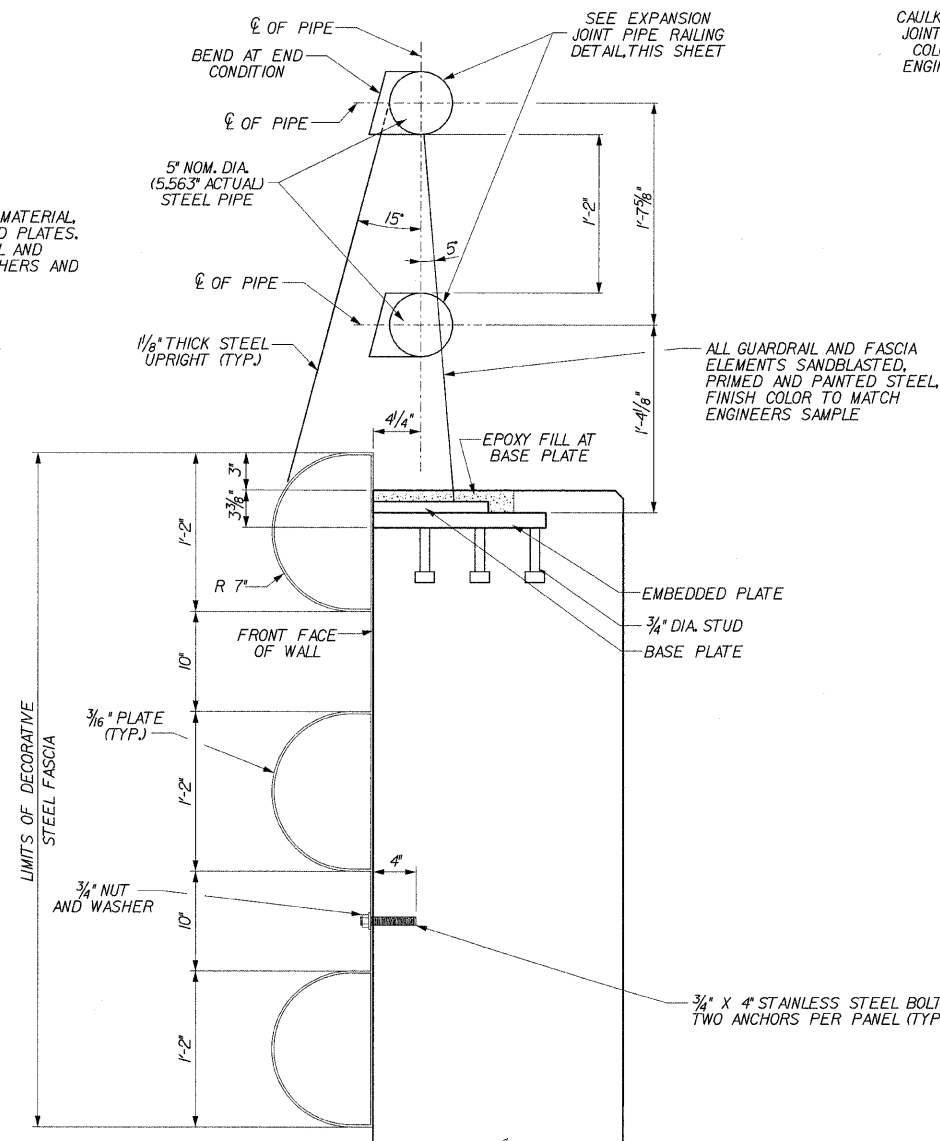
NOTE:
THE CONTRACTOR IS TO FURNISH MATERIAL,
FABRICATE AND INSTALL EMBEDDED PLATES.
THE DECORATIVE STEEL GUARDRAIL AND
FASCIA IS TO BE SUPPLIED BY OTHERS AND
INSTALLED BY THE CONTRACTOR.



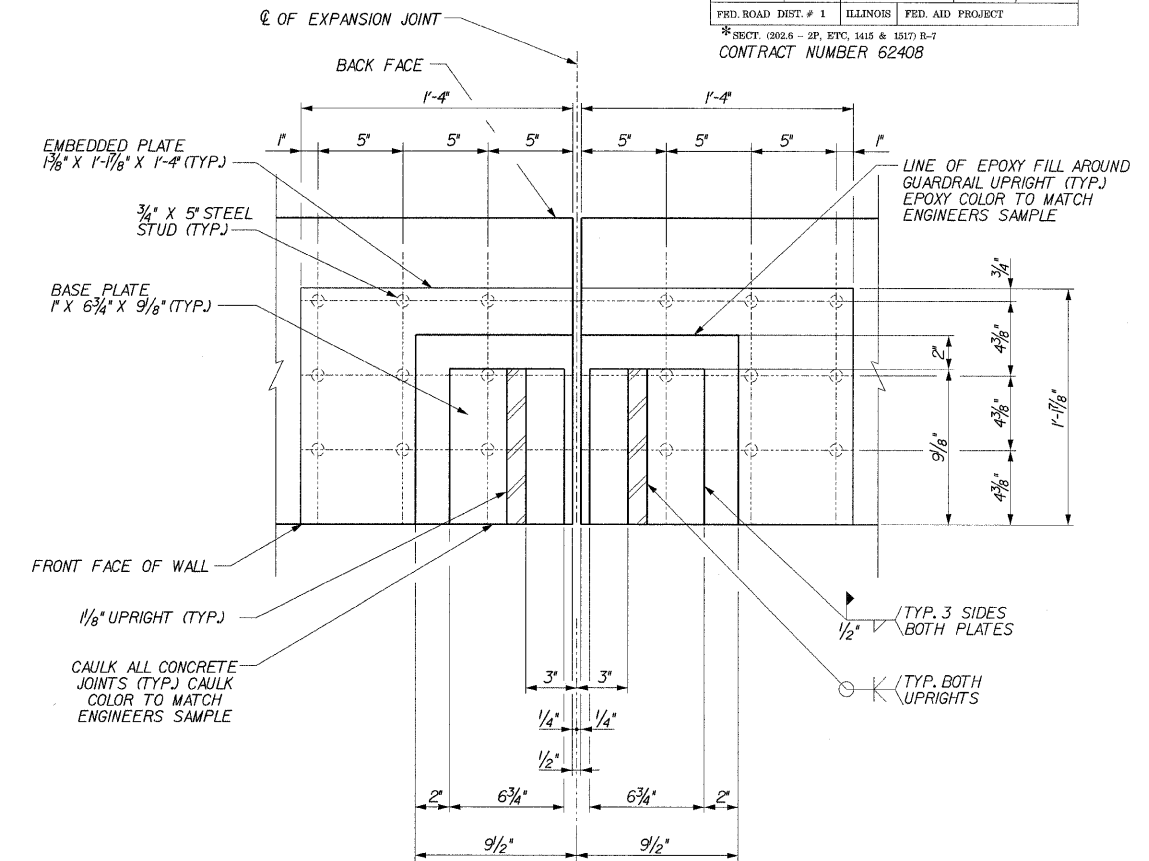
ELEVATION W/OUT DECORATIVE FASCIA
(SEE ELEVATION W/DECORATIVE FASCIA FOR DIMENSIONS)



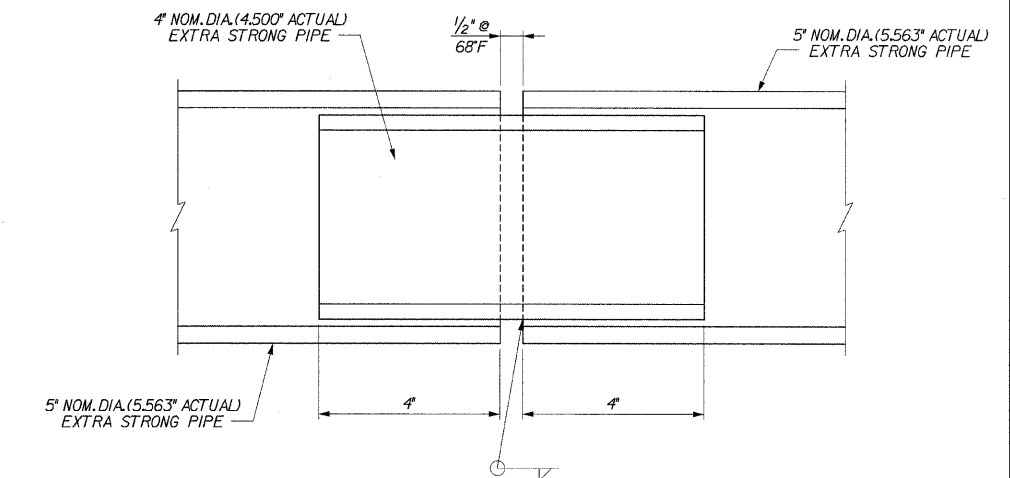
GUARDRAIL END
CONDITION PLAN



ELEVATION W/DECORATIVE FASCIA



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



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

RETAINING WALL RAMP H
RAILING SYSTEM DETAIL
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

s:\Dep't Structures\2010099 190 94-retwall\ILL 190 194\RAMPH\DETAILS\14-RailingDetails.dgn
04-Feb-2009 09:36

DESIGNED	DPW
CHECKED	ASP
DRAWN	MJS
CHECKED	MBJ



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

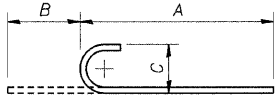
REVISIONS	
NAME	DATE

REINFORCEMENT SCHEDULE

BAR	NO.	SIZE	LENGTH	SHAPE	BAR	NO.	SIZE	LENGTH	SHAPE
v	6	#4	2' - 5"		v56	6	#6	7' - 1"	
v1	6	#4	2' - 9"		v57	6	#6	7' - 5"	
v2	6	#4	3' - 1"		v58	6	#6	7' - 10"	
v3	6	#4	3' - 5"		v59	6	#6	8' - 2"	
v4	6	#4	3' - 9"		v60	6	#6	8' - 6"	
v5	7	#4	4' - 1"		v61	6	#6	8' - 10"	
v6	6	#4	4' - 5"		v62	6	#6	9' - 3"	
v7	6	#4	4' - 9"		v63	6	#6	9' - 7"	
v8	6	#4	5' - 1"		v64	6	#6	9' - 11"	
v9	6	#4	5' - 5"		v65	6	#6	10' - 3"	
v10	5	#4	5' - 9"		v66	6	#6	10' - 8"	
v11	7	#4	5' - 0"		v67	6	#6	11' - 0"	
v12	6	#4	5' - 4"		v68	6	#6	11' - 3"	
v13	6	#4	5' - 8"		v69	6	#6	11' - 7"	
v14	6	#4	6' - 0"		v70	6	#6	11' - 10"	
v15	7	#4	6' - 5"		v71	6	#6	12' - 1"	
v16	6	#4	6' - 9"		v72	6	#5	12' - 4"	
v17	6	#4	7' - 1"		v73	11	#5	12' - 5"	
v18	6	#4	7' - 5"		v74	11	#5	12' - 7"	
v19	6	#4	7' - 10"		v75	11	#5	12' - 10"	
v20	7	#4	8' - 2"		v76	11	#5	13' - 0"	
v21	6	#4	8' - 6"		v77	10	#5	13' - 2"	
v22	6	#4	8' - 10"		v78	11	#5	13' - 5"	
v23	6	#4	9' - 3"		v79	11	#5	13' - 9"	
v24	6	#4	9' - 7"		v80	11	#5	14' - 1"	
v25	7	#4	9' - 11"		v81	11	#5	14' - 5"	
v26	6	#4	10' - 4"		v82	11	#5	14' - 9"	
v27	6	#4	10' - 7"		v83	3	#5	15' - 1"	
v28	6	#4	10' - 10"						
v29	6	#4	11' - 2"		h	20	#4	17' - 5"	
v30	7	#4	11' - 5"		h1	14	#4	31' - 8"	
v31	6	#4	11' - 9"		h2	84	#4	31' - 9"	
v32	6	#4	11' - 11"		h3	52	#4	29' - 8"	
v33	6	#4	12' - 1"						
v34	6	#4	12' - 4"		n(E)	65	#6	4' - 9"	
v35	7	#4	12' - 7"		n(E)	120	#6	5' - 2"	
v36	6	#4	12' - 9"		n2(E)	120	#6	8' - 2"	
v37	6	#4	13' - 1"		n3(E)	120	#7	8' - 4"	
v38	6	#4	13' - 6"						
v39	6	#4	13' - 10"		t	92	#5	6' - 8"	
v40	7	#4	14' - 3"		t1	65	#4	6' - 8"	
v41	6	#5	3' - 0"		t2	342	#5	10' - 2"	
v42	6	#5	3' - 4"		t3	170	#6	10' - 2"	
v43	6	#5	3' - 8"						
v44	6	#5	4' - 0"		w	45	#4	23' - 1"	
v45	6	#5	4' - 4"		w1	132	#4	31' - 5"	
v46	6	#5	4' - 8"		w2	8	#4	7' - 5"	
v47	6	#5	5' - 0"						
v48	6	#5	5' - 4"						
v49	6	#5	5' - 8"						
v50	6	#5	6' - 0"						
v51	5	#5	6' - 3"						
v52	7	#6	5' - 8"						
v53	6	#6	6' - 0"						
v54	6	#6	6' - 5"						
v55	6	#6	6' - 9"						

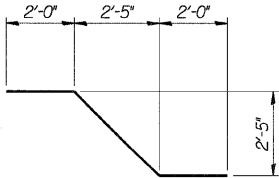
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED

BAR BENDING DIAGRAMS

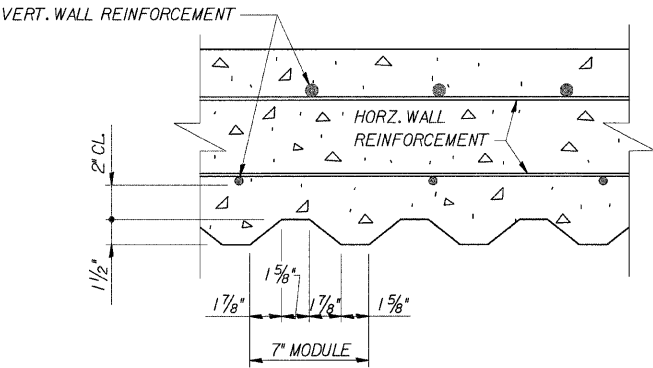


Bars n(E)

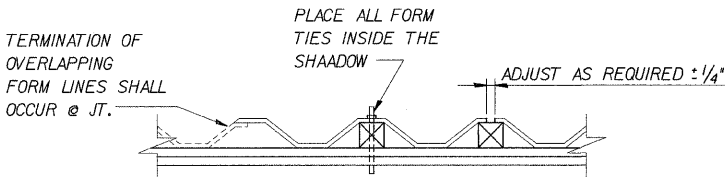
Bar	A		B		C	
	Ft.	In.	Ft.	In.	Ft.	In.
n(E)	4	1	0	8	0	6
n(E)	4	6	0	8	0	6
n2(E)	7	6	0	8	0	6
n3(E)	7	6	0	10	0	7
v41	2	5	0	7	0	5
v42	2	9	0	7	0	5
v43	3	1	0	7	0	5
v44	3	5	0	7	0	5
v45	3	9	0	7	0	5
v46	4	1	0	7	0	5
v47	4	5	0	7	0	5
v48	4	9	0	7	0	5
v49	5	1	0	7	0	5
v50	5	5	0	7	0	5
v51	5	8	0	7	0	5
v52	5	0	0	8	0	6
v53	5	4	0	8	0	6
v54	5	9	0	8	0	6
v55	6	1	0	8	0	6
v56	6	5	0	8	0	6
v57	6	9	0	8	0	6
v58	7	2	0	8	0	6
v59	7	6	0	8	0	6
v60	7	10	0	8	0	6
v61	8	2	0	8	0	6
v62	8	7	0	8	0	6
v63	8	11	0	8	0	6
v64	9	3	0	8	0	6
v65	9	7	0	8	0	6
v66	10	0	0	8	0	6
v67	10	4	0	8	0	6
v68	10	7	0	8	0	6
v69	10	11	0	8	0	6
v70	11	2	0	8	0	6
v71	11	5	0	8	0	6
v72	11	9	0	7	0	5
v73	11	10	0	7	0	5
v74	12	0	0	7	0	5
v75	12	3	0	7	0	5
v76	12	5	0	7	0	5
v77	12	7	0	7	0	5
v78	12	10	0	7	0	5
v79	13	2	0	7	0	5
v80	13	6	0	7	0	5
v81	13	10	0	7	0	5
v82	14	2	0	7	0	5
v83	14	6	0	7	0	5



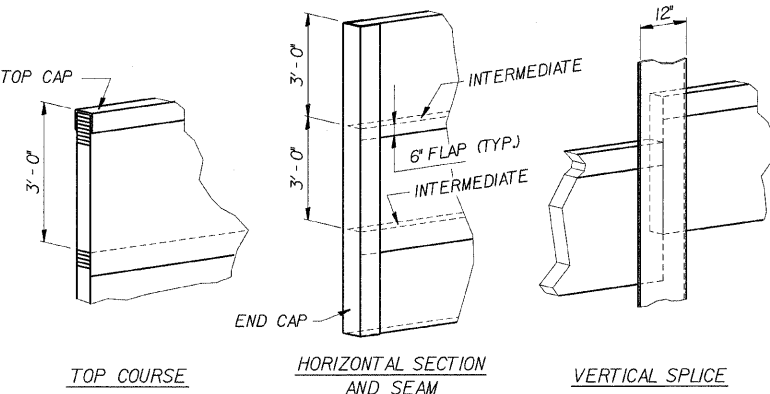
Bars w2



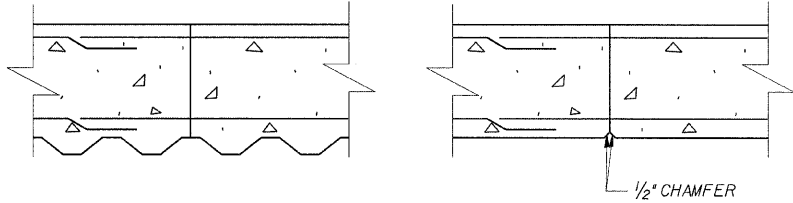
SECTION THRU ARCHITECTURAL FINISH



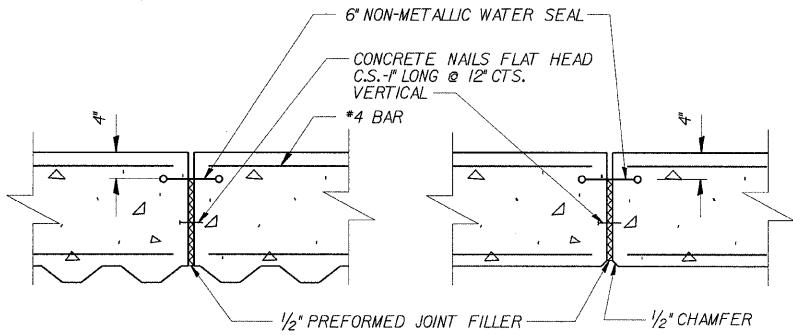
SUGGESTED FORMWORK DETAIL



GEOCOMPOSITE WALL DRAIN DETAILS



CONSTRUCTION JOINT DETAIL



NOTE: 6" NON-METALLIC WATER SEAL AND PREFORMED JOINT SEALER SHALL BE INCLUDED IN THE COST OF CONCRETE STRUCTURES

EXPANSION JOINT DETAIL

RETAINING WALL RAMP H
DETAILS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT.20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

REVISIONS	
NAME	DATE

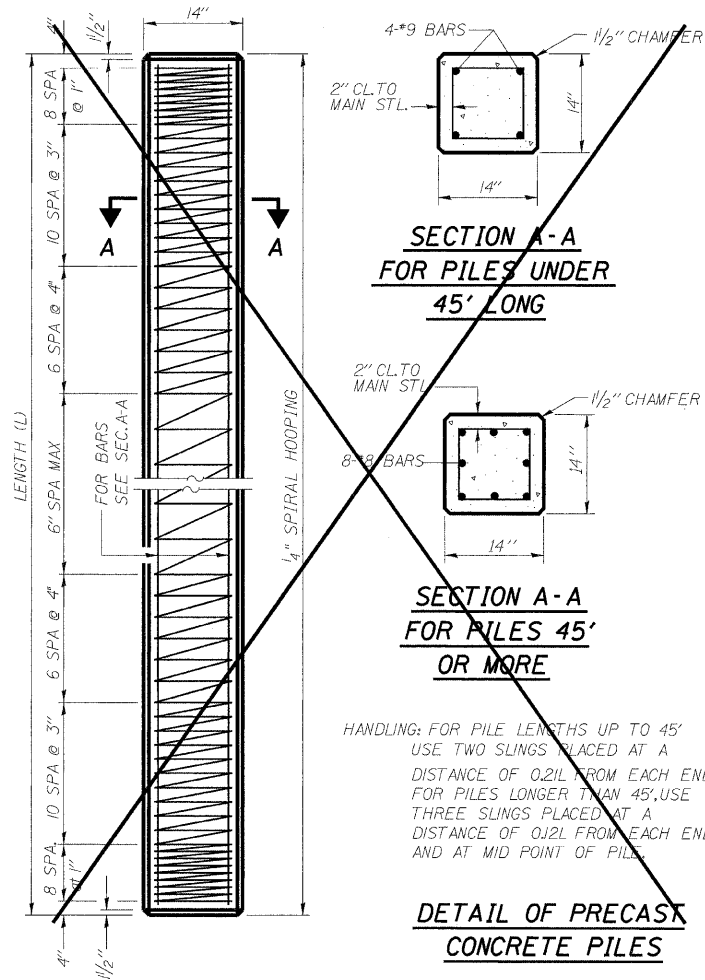


85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	167
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

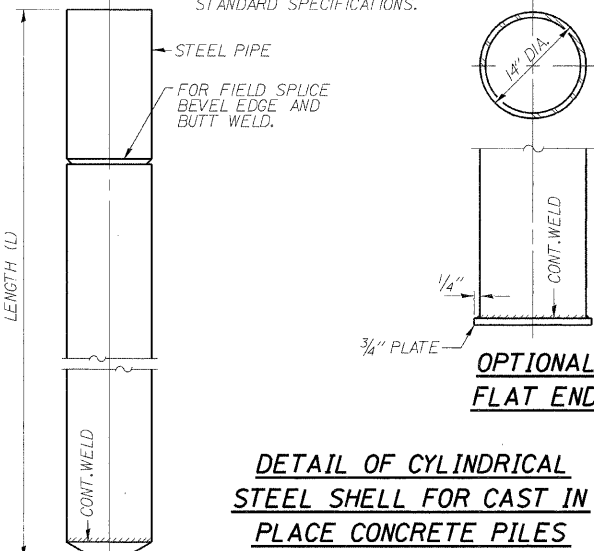
*SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
CONTRACT NUMBER 62408



HANDLING: FOR PILE LENGTHS UP TO 45'
USE TWO SLINGS PLACED AT A
DISTANCE OF 0.21L FROM EACH END.
FOR PILES LONGER THAN 45', USE
THREE SLINGS PLACED AT A
DISTANCE OF 0.12L FROM EACH END
AND AT MID POINT OF PILE.

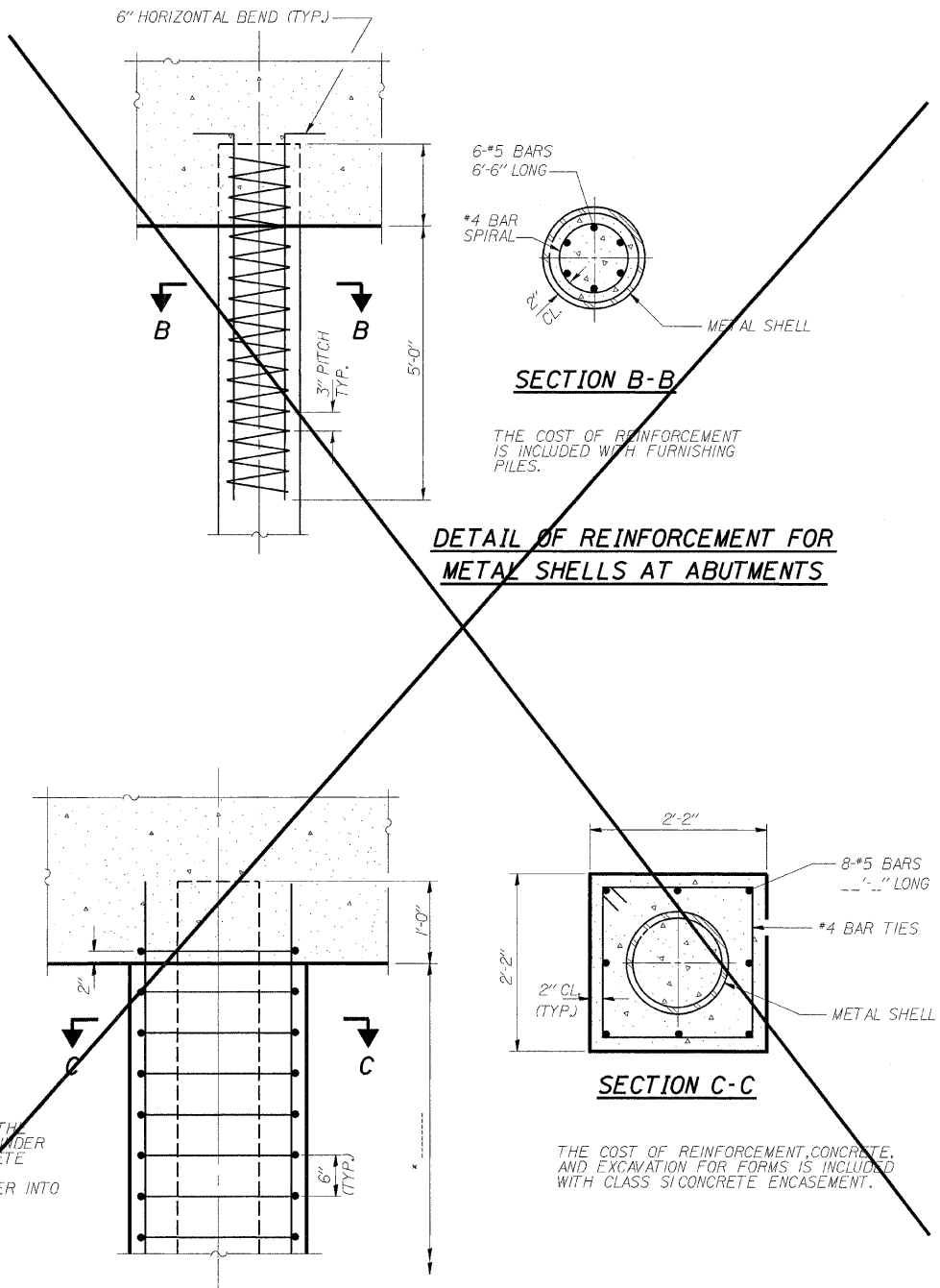
**DETAIL OF PRECAST
CONCRETE PILES**

NOTES:
DRIVING AND BEARING ENDS
OF PIPE SHALL BE CUT SQUARE.
THE THICKNESS OF THE SHELL
SHALL BE 0.250 INCHES WITH
A TOLERANCE OF 5%.
THE SHELL SHALL BE, ACCORDING
TO ARTICLE 1006.05(A) OF THE
STANDARD SPECIFICATIONS.



**DETAIL OF CYLINDRICAL
STEEL SHELL FOR CAST IN
PLACE CONCRETE PILES**

* IF A PORTION OF THE
PILE ENCASEMENT IS UNDER
WATER, CLASS 'SI' CONCRETE
ENCASEMENT SHALL BE
TREMIED UNDER WATER INTO
FORMS AS NECESSARY.



SECTION B-B

THE COST OF REINFORCEMENT
IS INCLUDED WITH FURNISHING
PILES.

**DETAIL OF REINFORCEMENT FOR
METAL SHELLS AT ABUTMENTS**

SECTION C-C

THE COST OF REINFORCEMENT, CONCRETE,
AND EXCAVATION FOR FORMS IS INCLUDED
WITH CLASS 'SI' CONCRETE ENCASEMENT.

**DETAIL OF PROTECTION
FOR METAL SHELLS AT PIERS**

CONCRETE PILE DETAILS

RETAININGWALL RAMP H
14" DIA METAL SHELL PILES
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

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04-Feb-2009 09:35

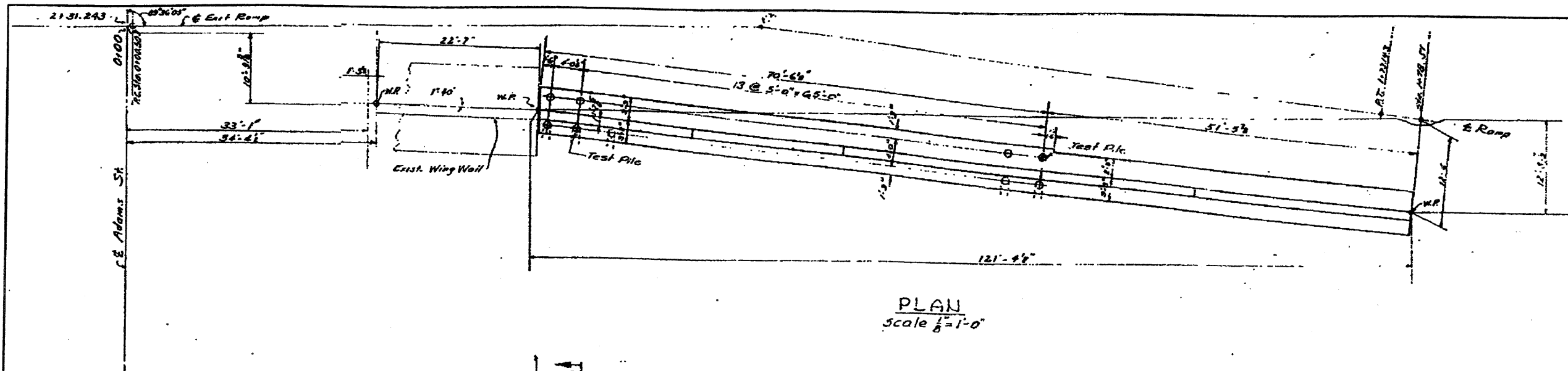


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Arlington Heights IL 60005

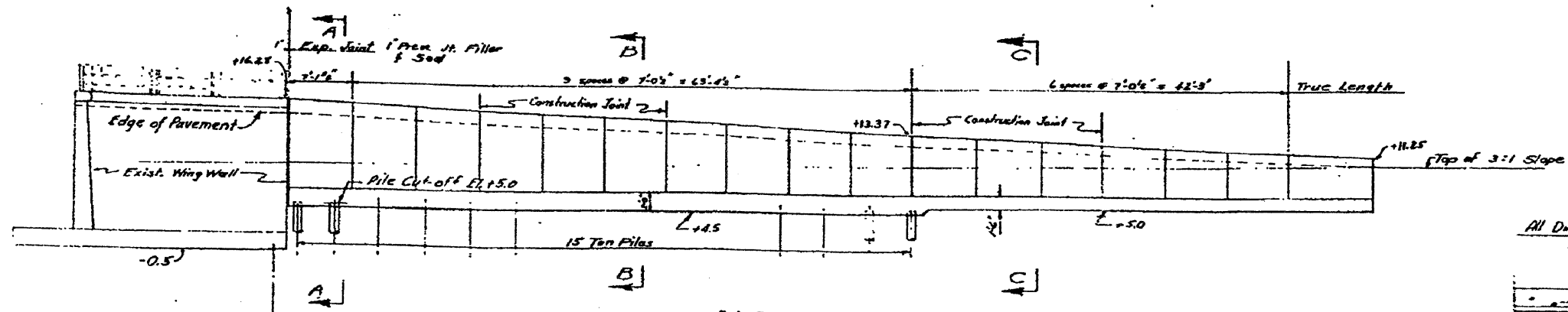
REVISIONS	
NAME	DATE

DATE	BY	CHECKED	IN CHARGE	NO.
F.A. 1.2	MOLES	COOK	246	168
FOR OFFICE USE ONLY - IN CHARGE				

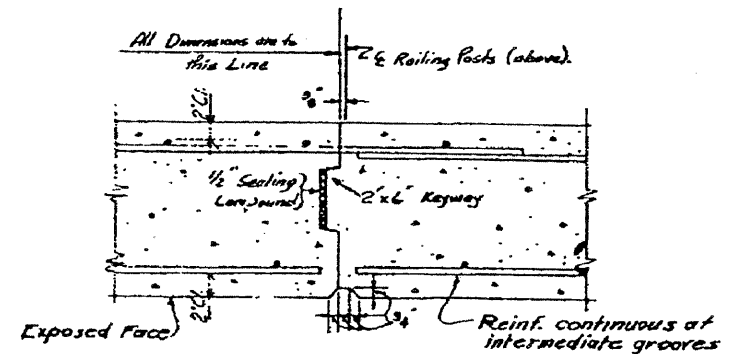
Sheet No. 17
sheets 20



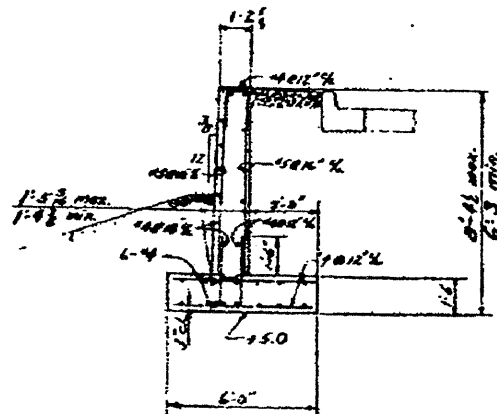
PLAN
Scale $\frac{1}{8}'' = 1'-0''$



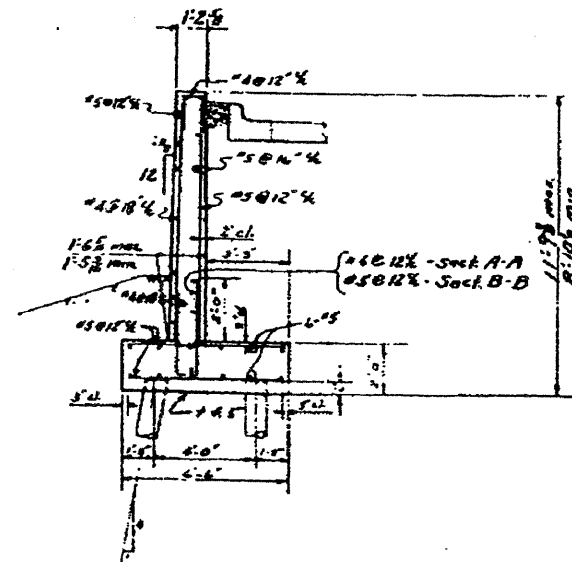
ELEVATION
Scale $\frac{1}{8}'' = 1'-0''$



Detail of Construction Joint
Scale: 1" = 1'-0"



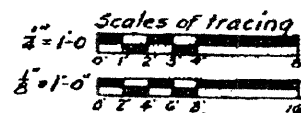
SECTION C-C
Scale $\frac{1}{8}'' = 1'-0''$



SECTION A-A
SECTION B-B
Scale $\frac{1}{8}'' = 1'-0''$

NOTES:
For General Notes see sheet G-36
For detail of existing wing wall see sheet G-32
For location of Aluminum Rail Anchor Bolts see sheet A-1

Drawn By E.H. Pratscher
Traced By Reproduction
Checked By R. J. Zischale
Approved By



FOR INFORMATION ONLY

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
SECTION 0101.6-2P

RETAINING WALL
EXIT RAMP "H"

SCALE: AS NOTED
SHEET NO. G-35 OF
APRIL 1987
SHEETS

RETAININGWALL RAMP H
BORINGS LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

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

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 8/28/00

ROUTE 1A190/94 DESCRIPTION 1-90/94, 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 MONROE AND ADAMS S. 9, TWP. 39N, RNG. 14 EAST

[illegible]

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	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAININGWALL RAMP H
BORINGS LOGS

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 27+17, LT. 20.5' TO 24+70, LT. 22'
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W808

EXISTING STRUCTURE NO.016-W809
I-90/94 RAMP K - MONROE ST.EXIT RAMP
EASTBOUND.BUILT IN 1957 CONSISTS OF
CAST-IN-PLACE CONCRETE RETAINING
WALL SUPPORTED ON CONCRETE
PILING

PROPOSED IMPROVEMENTS
EXISTING STRUCTURE TO BE EXTENDED
108'-9" WITH A CAST-IN-PLACE T-TYPE CONCRETE
RETAINING WALL SUPPORTED ON 14"
DIAMETER METAL SHELL PILES.

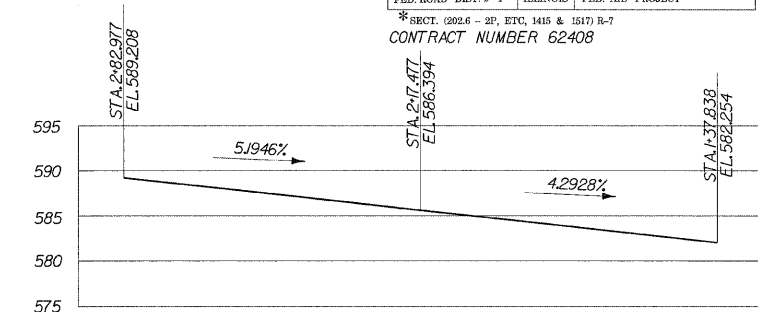
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9084	*	COOK	246	172
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

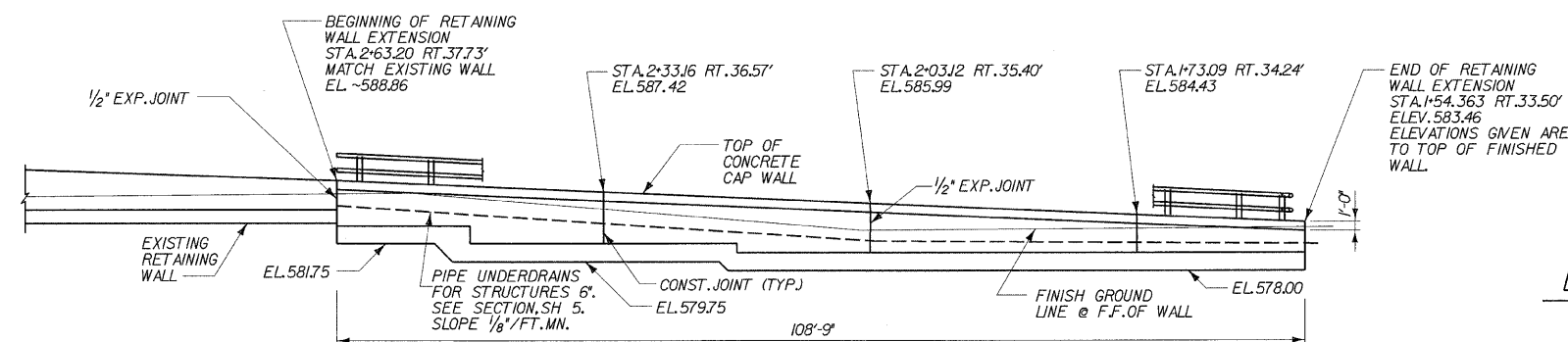
SHEET NO. 1

11 SHEETS

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



PROFILE OF RAMP K

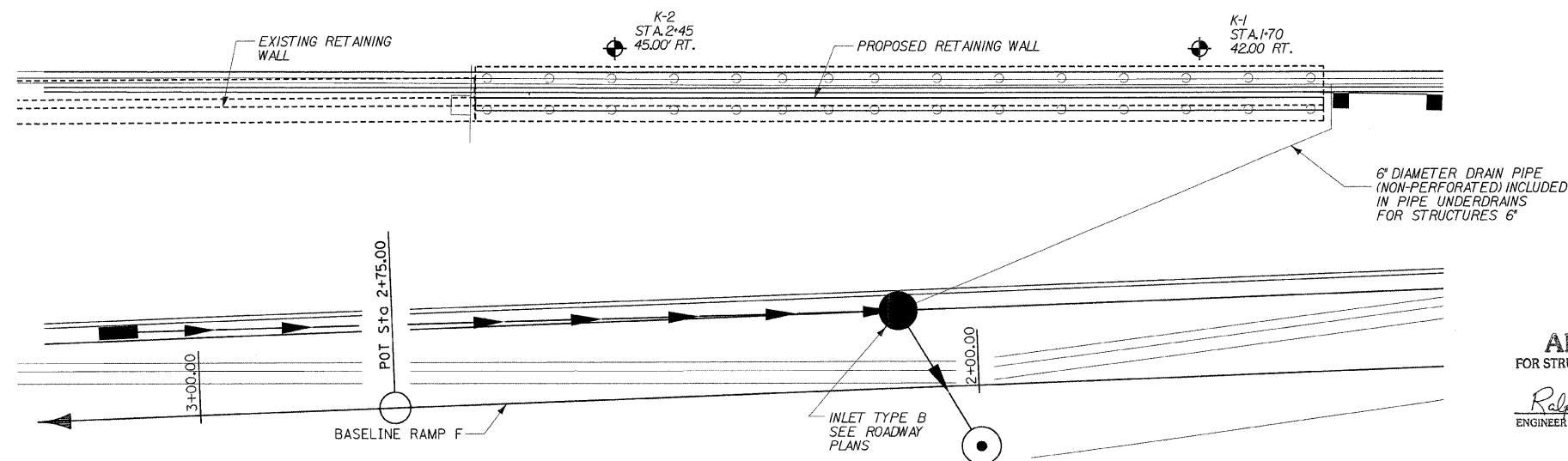
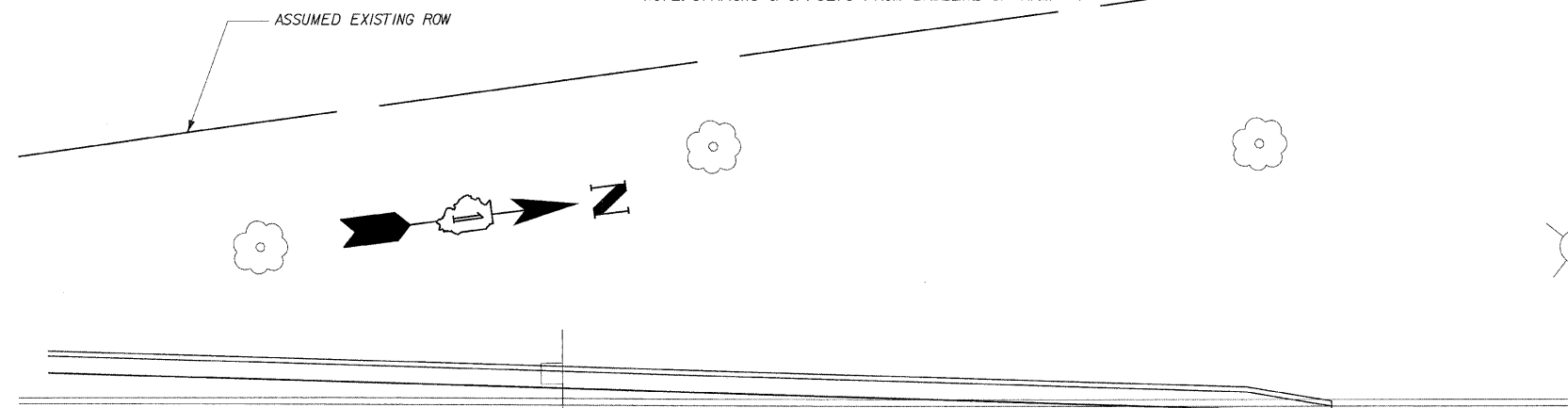


NOTE: STATIONS & OFFSETS FROM BASELINE OF RAMP F

F.F. = FRONT FACE

ELEVATION

NOTE: STATIONS & OFFSETS FROM BASELINE OF RAMP



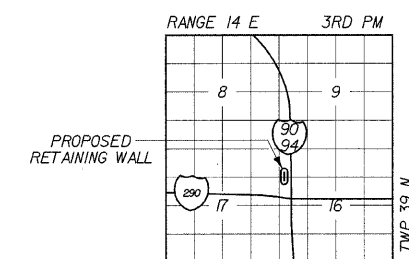
PLAN

DESIGN SPECIFICATIONS

2002 AASHTO SPECIFICATIONS
FOR HIGHWAY BRIDGES

DESIGN STRESSES

LOADINGS:
EQUIVALENT FLUID SOIL PRESSURE = 40 PCF
TRAFFIC SURCHARGE PRESSURE 240 PCF
F'C = 3,500 PSI (CONCRETE)
FY = 60,000 PSI (REINFORCEMENT)



LOCATION SKETCH

GENERAL NOTES

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR60. SEE SPECIAL PROVISIONS.
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURES HAVE BEEN TAKEN FROM FIELD MEASUREMENTS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE FOR THE WORK.
4. THE CONTRACTOR SHALL DRIVE TWO METAL SHELL PILES 14" DIAMETER TEST PILES IN A PERMANENT LOCATION NEAR BORINGS K-1 AND K-2 AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF PILES.
5. ALL CONSTRUCTION JOINTS SHALL BE BONDED.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	82.4
REINFORCEMENT BARS	POUND	4,940
REINFORCEMENT BARS, EPOXY COATED	POUND	1,130
STRUCTURE EXCAVATION	CU YD	295
FURNISHING METAL SHELL PILES 14" x 0.250"	FOOT	2,055
DRIVING PILES	FOOT	2,055
TEST PILE METAL SHELLS	EACH	1
GEOCOMPOSITE WALL DRAIN	SQ YD	65
PIPE UNDERDRAINS FOR STRUCTURES 6"	FOOT	109
INSTALL DECORATIVE STEEL GUARDRAIL	FOOT	108
INSTALL DECORATIVE STEEL FASCIA	FOOT	87
EMBEDDED PLATE GUARDRAIL UPRIGHT, EXPANSION JOINT	EACH	2
EMBEDDED PLATE GUARDRAIL UPRIGHT	EACH	15
REPAIR OF FASCIA PANELS, EXIT RAMP K	LS	1

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURE

DLZ ILLINOIS, L.L.C.
ARLINGTON HEIGHTS, ILLINOIS

Signed: Peter K. Dombrowski

Date : 02-25-2006

Expiration Date : 11/30/10



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

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NAME	DATE

RETAINING WALL RAMP K
GENERAL PLAN AND ELEVATION

I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)

SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)

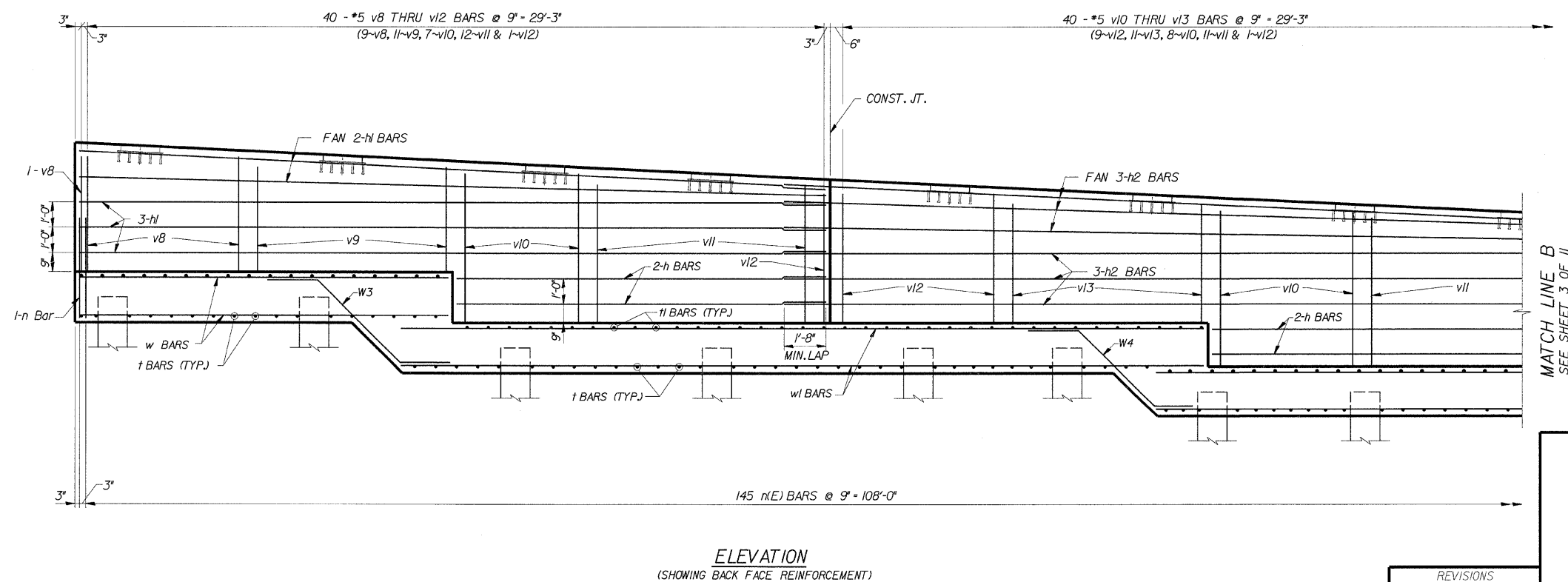
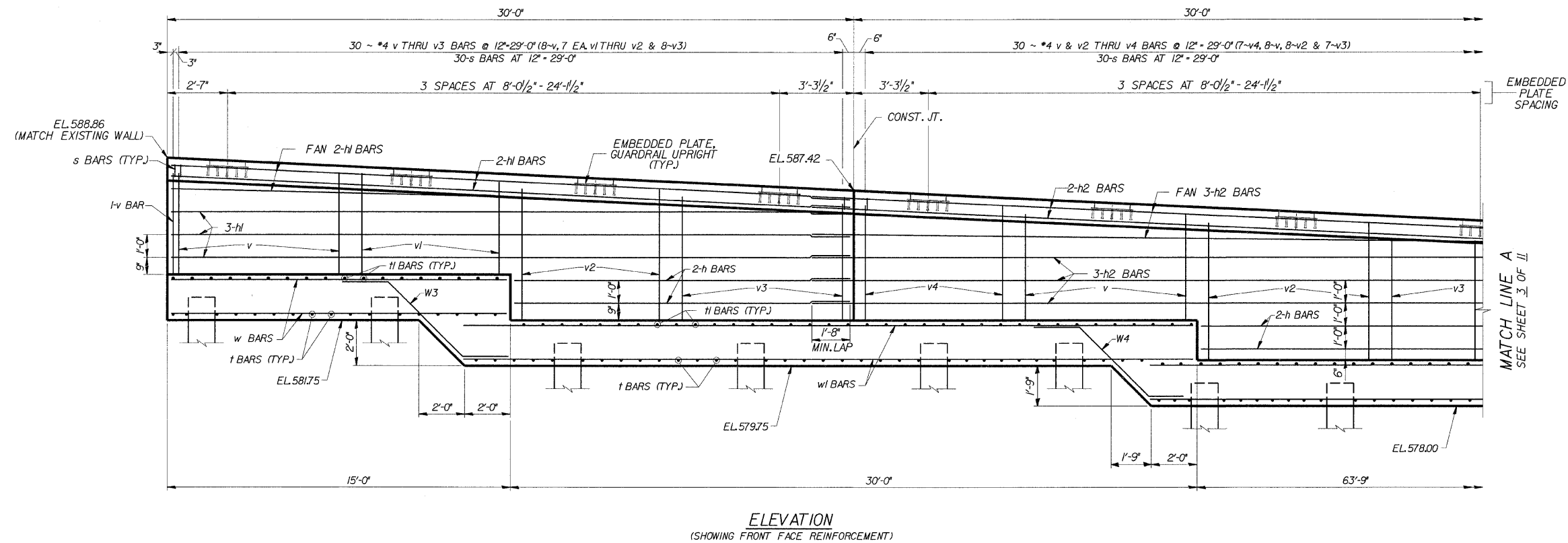
COOK COUNTY

STRUCTURE NUMBER 016-W809

\\Dept\Structures\301099 I90 94-retwall\ILL I90 I94\RAMPK\DG\NFILES\01-I_Javout\RampK2-16.dgn

25-Feb-2009 11:12

DESIGNED	ECF
CHECKED	JMM
DRAWN	ECF & DPW
CHECKED	JMM



MINIMUM BAR LAPS
*4 BARS - 1'-8"

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04-Feb-2009 09:37

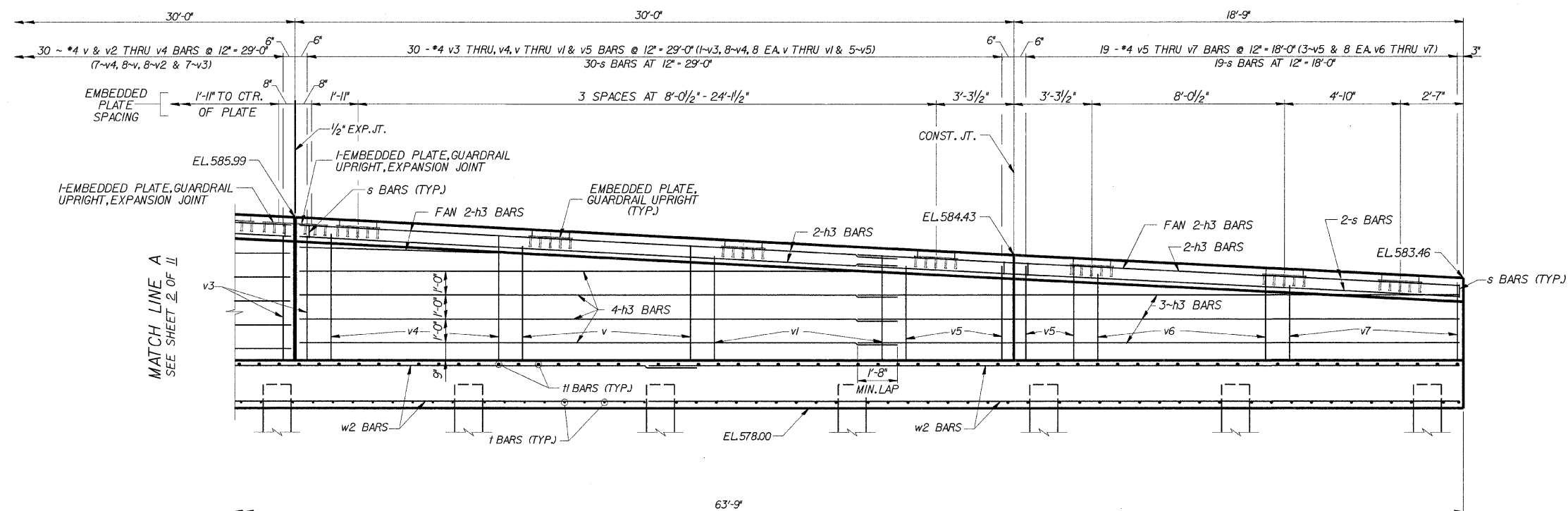
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CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



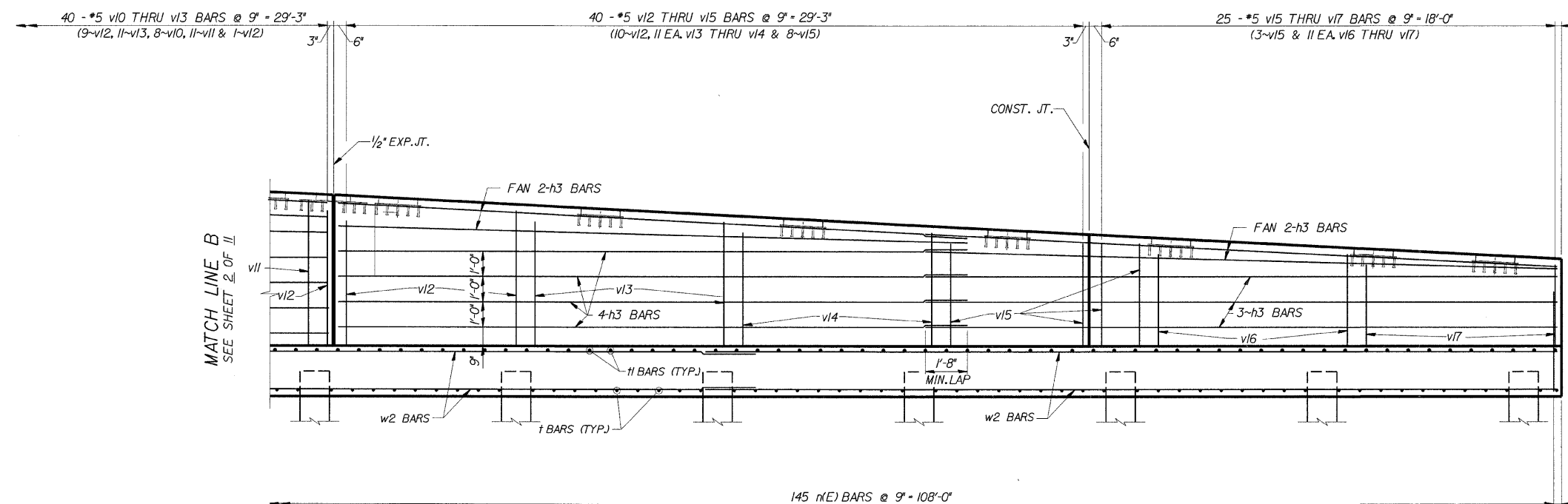
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP K
ELEVATION (REINF)
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809



ELEVATION
(SHOWING FRONT FACE REINFORCEMENT)



ELEVATION
(SHOWING BACK FACE REINFORCEMENT)

MINIMUM BAR LAPS
#4 BARS - 1'-8"

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

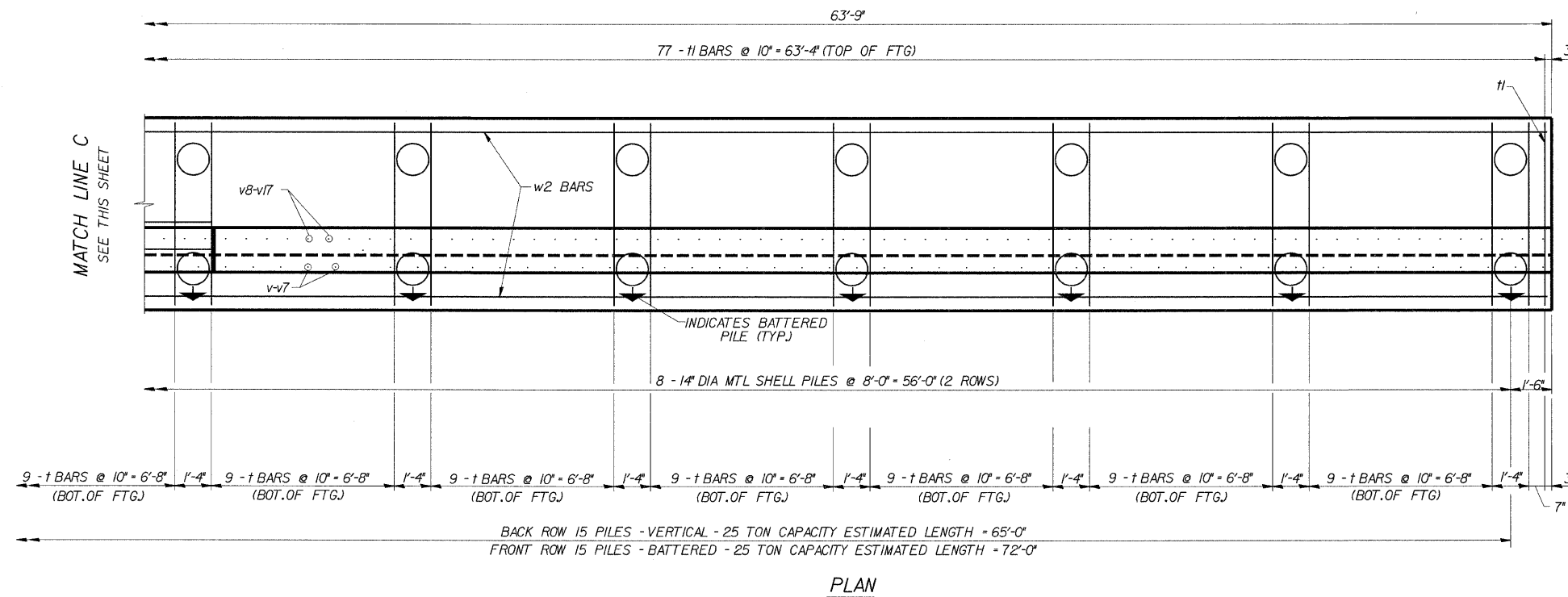
RETAINING WALL RAMP K
ELEVATION (REINF)
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	175
FED. ROAD DIST. # 1		ILLINOIS	FED. AID PROJECT	

* SECT. (202.6 - 2F, ETC. 1415 & 1517)-R-7

CONTRACT NUMBER 62408

SHEETS



RETAINING WALL RAMP K
ELEVATION (REINF)
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
ATION 1-54.36, 33.5' RT TO 2-63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

REVISIONS	
NAME	DATE



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

04-Feb-2009 09:37 s:\Dept\Structures\301099 I90 94-retwall\ILL I90 I94\RAMPK\DGFILES\02-06-RKplan.dgn

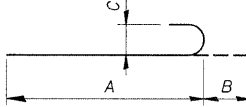
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	176
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

*SHEET (202.6 - 2P, ETC, 1415 & 1517) R-7
CONTRACT NUMBER 62408

REINFORCEMENT SCHEDULE

BAR	NO.	SIZE	LENGTH	SHAPE
v	25	#4	4'-6"	
v1	15	#4	4'-1"	
v2	15	#4	5'-9"	
v3	16	#4	5'-5"	
v4	15	#4	5'-0"	
v5	8	#4	3'-9"	
v6	8	#4	3'-4"	
v7	8	#4	2'-11"	
v8	10	#5	5'-1"	
v9	11	#5	4'-8"	
v10	15	#5	6'-5"	
v11	23	#5	6'-0"	
v12	21	#5	5'-7"	
v13	22	#5	5'-2"	
v14	11	#5	4'-10"	
v15	11	#5	4'-4"	
v16	11	#5	3'-11"	
v17	11	#5	3'-4"	
h	8	#4	14'-8"	
h1	12	#4	29'-8"	
h2	14	#4	31'-8"	
h3	28	#4	25'-9"	
n(E)	146	#5	4'-6"	
s(E)	146	#4	4'-6"	
t	128	#4	6'-8"	
t1	132	#5	6'-8"	
w	15	#4	14'-8"	
w1	15	#4	31'-11"	
w2	30	#4	33'-10"	
w3	8	#4	8'-10"	
w4	8	#4	8'-6"	

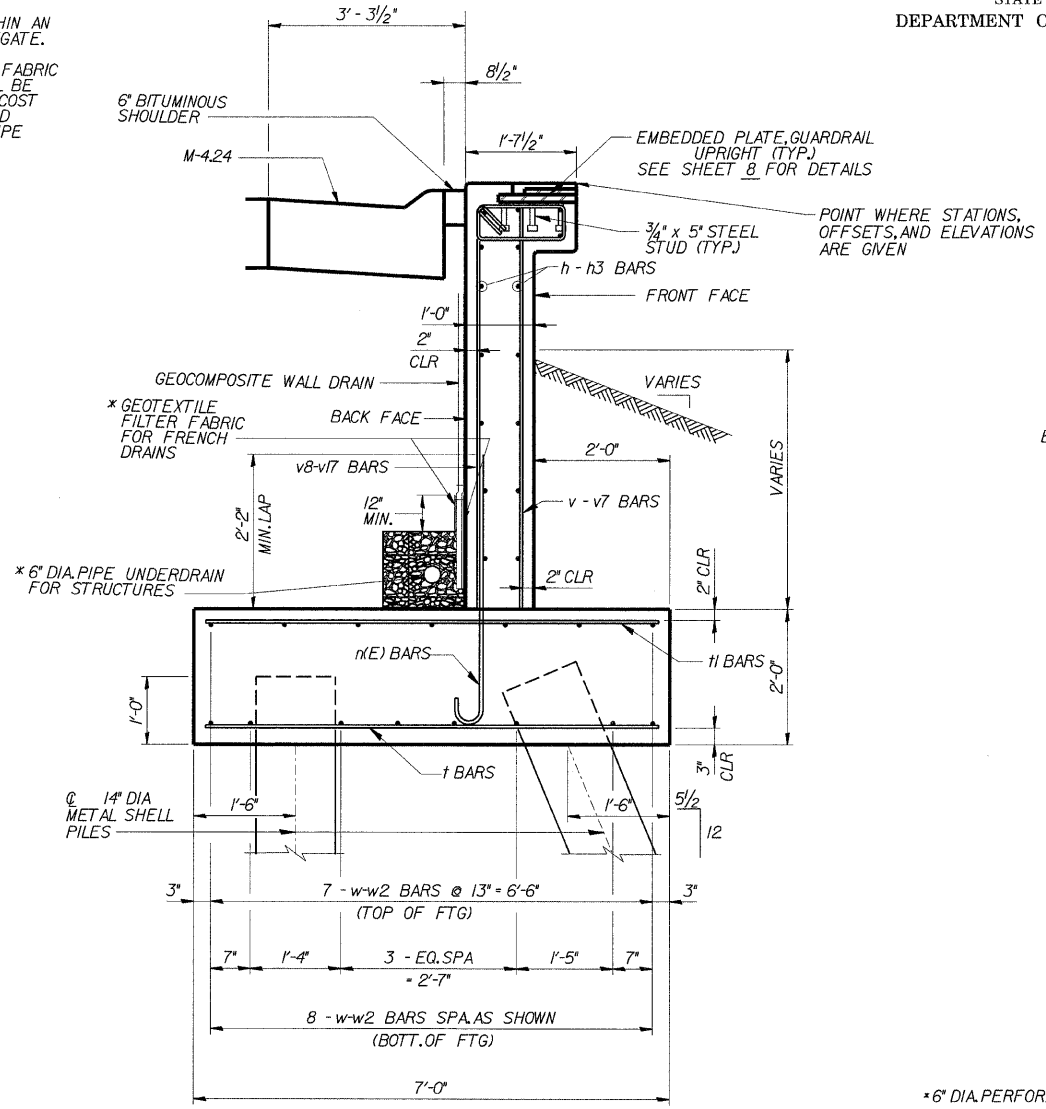
REINFORCEMENT BARS DESIGNATED (E)
SHALL BE EPOXY COATED



BAR	A	B	C
v8	4'-6"	7"	5"
v9	4'-1"	7"	5"
v10	5'-10"	7"	5"
v11	5'-5"	7"	5"
v12	5'-0"	7"	5"
v13	4'-7"	7"	5"
v14	4'-3"	7"	5"
v15	3'-9"	7"	5"
v16	3'-4"	7"	5"
v17	2'-11"	7"	5"
n(E)	3'-9"	7"	5"

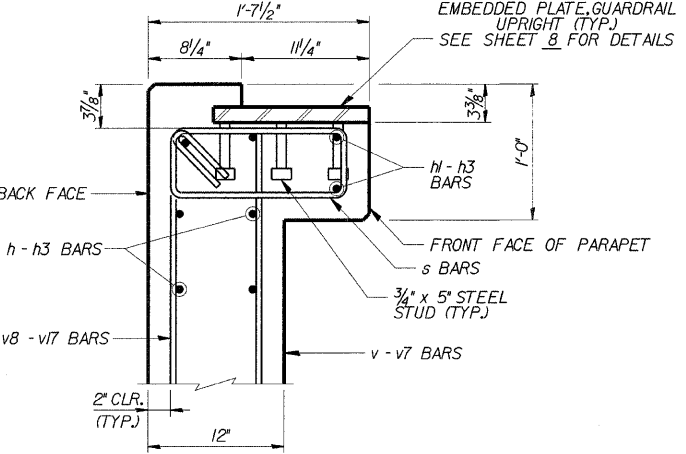
v9 - v17 & n(E) BARS

* 6" PERFORATED PIPE SHALL BE SITUATED WITHIN AN APPROXIMATE 2' X 2' BLOCK OF COARSE AGGREGATE. THE BLOCK OF COARSE AGGREGATE SHALL BE WRAPPED COMPLETELY IN GEOTEXTILE FILTER FABRIC FOR FRENCH DRAINS. A 1' 6" MINIMUM LAP SHALL BE USED WHERE THE FABRIC MUST BE LAPPED. COST OF PERFORATED PIPE, COARSE AGGREGATE AND GEOTEXTILE FILTER FABRIC IS INCLUDED IN PIPE UNDERDRAINS FOR STRUCTURES 6'.

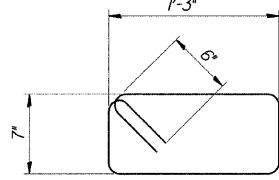


TYPICAL SECTION

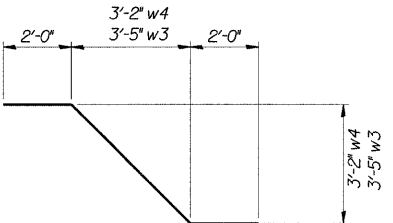
* 6" DIA. PERFORATED PIPE SHALL BE SITUATED WITHIN AN APPROXIMATED 2' X 2' BLOCK OF COARSE AGGREGATE. THE BLOCK OF COARSE AGGREGATE SHALL BE WRAPPED COMPLETELY IN GEOTEXTILE FILTER FABRIC FOR FRENCH DRAINS. A 1'-6" MINIMUM LAP SHOULD BE USED WHERE THE FABRIC MUST BE LAPPED. COST OF PERFORATED PIPE, COARSE AGGREGATE, AND GEOTEXTILE FILTER FABRIC IS INCLUDED IN PIPE UNDERDRAINS FOR STRUCTURES 6'.



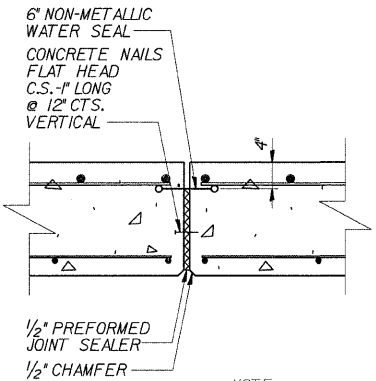
PARAPET DETAIL



s BARS

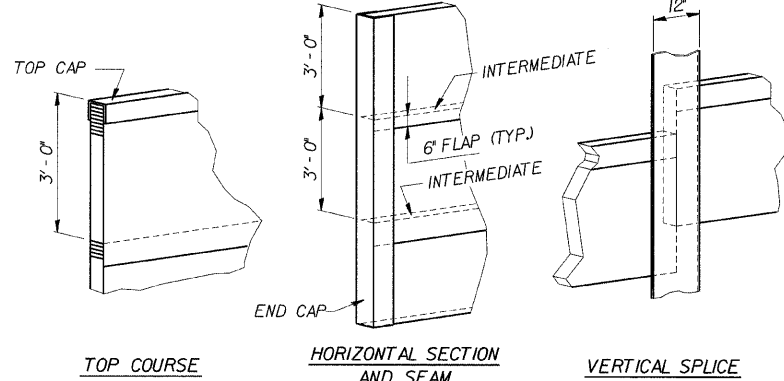


BARS w3, w4

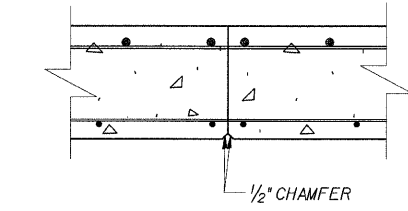


EXPANSION JOINT DETAIL

NOTE:
6" NON-METALLIC WATER SEAL
AND PREFORMED JOINT SEALER
SHALL BE INCLUDED IN THE COST
OF CONCRETE STRUCTURES.



GEOCOMPOSITE WALL
DRAIN DETAILS



CONSTRUCTION JOINT DETAIL

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



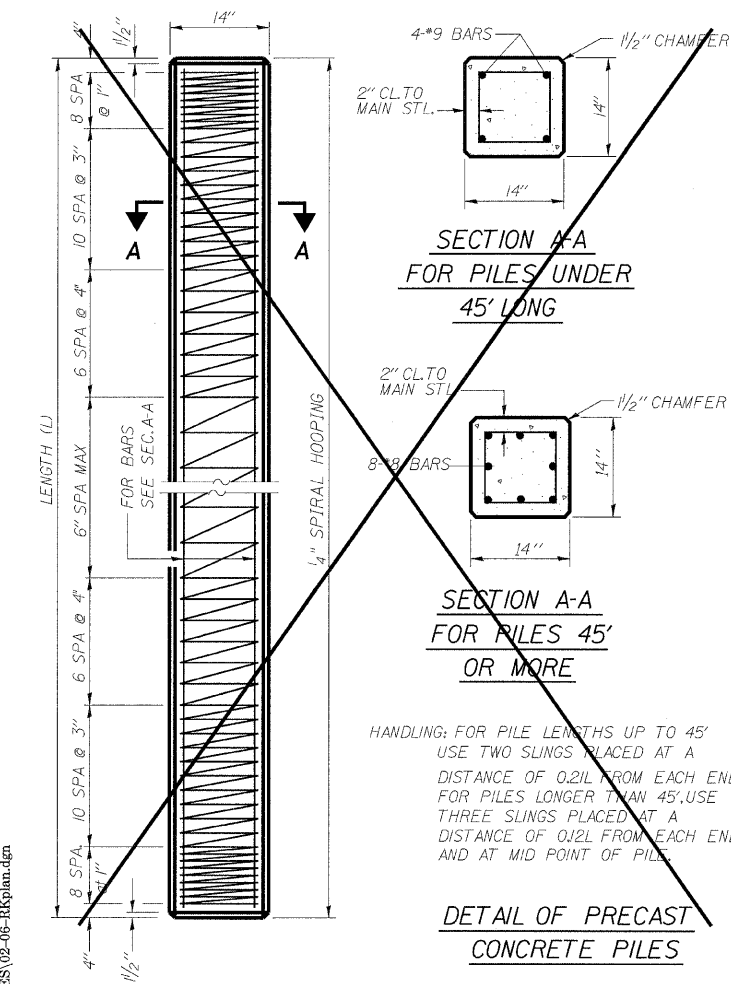
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP K
ELEVATION (REINF)
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	177
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

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



SECTION A-A
FOR PILES UNDER
45' LONG

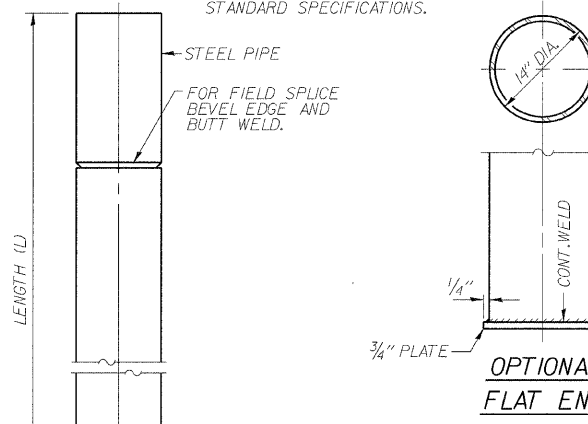
SECTION A-A
FOR PILES 45'
OR MORE

HANDLING: FOR PILE LENGTHS UP TO 45'
USE TWO SLINGS PLACED AT A
DISTANCE OF 0.21L FROM EACH END.
FOR PILES LONGER THAN 45', USE
THREE SLINGS PLACED AT A
DISTANCE OF 0.12L FROM EACH END
AND AT MID POINT OF PILE.

DETAIL OF PRECAST
CONCRETE PILES

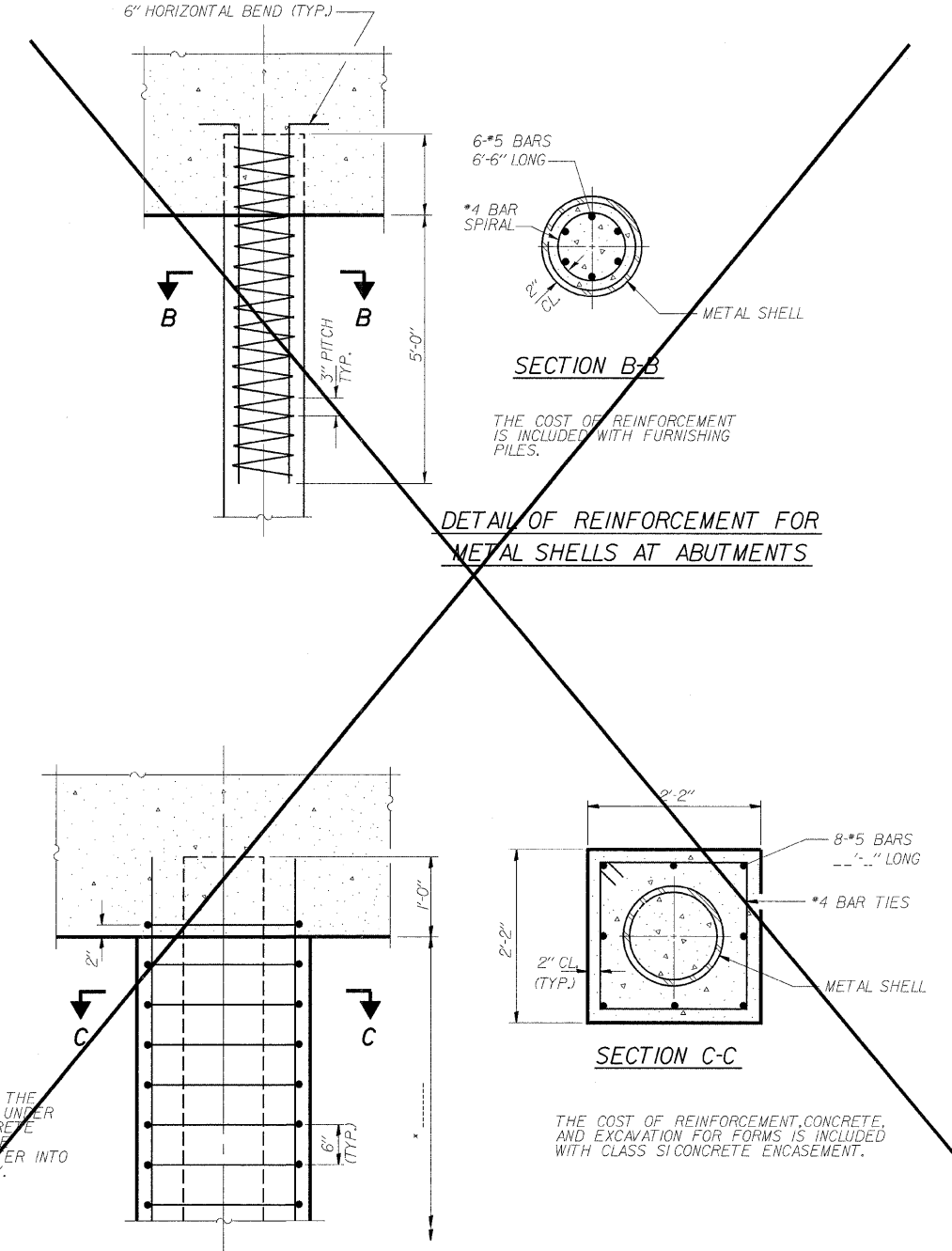
NOTES:

DRIVING AND BEARING ENDS
OF PIPE SHALL BE CUT SQUARE.
THE THICKNESS OF THE SHELL
SHALL BE 0.250 INCHES WITH
A TOLERANCE OF 5%.
THE SHELL SHALL BE ACCORDING
TO ARTICLE 1006.05(A) OF THE
STANDARD SPECIFICATIONS.



DETAIL OF CYLINDRICAL
STEEL SHELL FOR CAST IN
PLACE CONCRETE PILES

*IF A PORTION OF THE
PILE ENCASEMENT IS UNDER
WATER, CLASS SI CONCRETE
ENCASEMENT SHALL BE
TREMIED UNDER WATER INTO
FORMS AS NECESSARY.



SECTION B-B

DETAIL OF REINFORCEMENT FOR
METAL SHELLS AT ABUTMENTS

SECTION C-C

THE COST OF REINFORCEMENT, CONCRETE,
AND EXCAVATION FOR FORMS IS INCLUDED
WITH CLASS SI CONCRETE ENCASEMENT.

DETAIL OF PROTECTION
FOR METAL SHELLS AT PIERS

CONCRETE PILE DETAILS

a:\Dept\Structures\301099 100 94-retwall\ILL 100 194\RAMPK(DGNFILES)02-06-BKplan.dgn

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DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



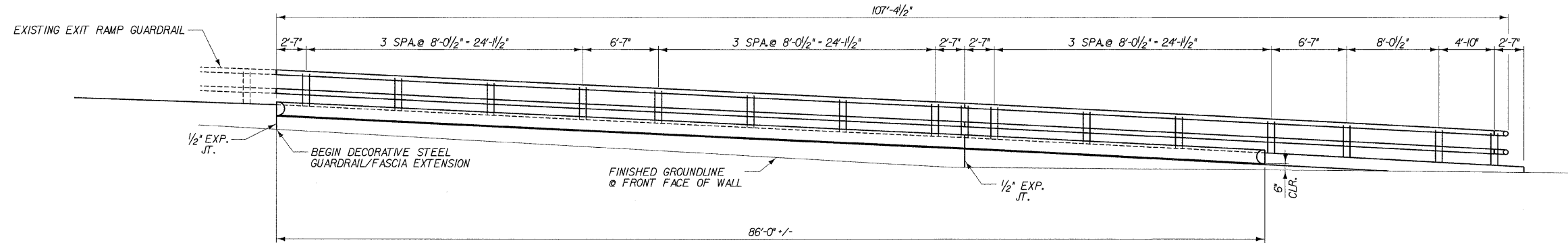
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

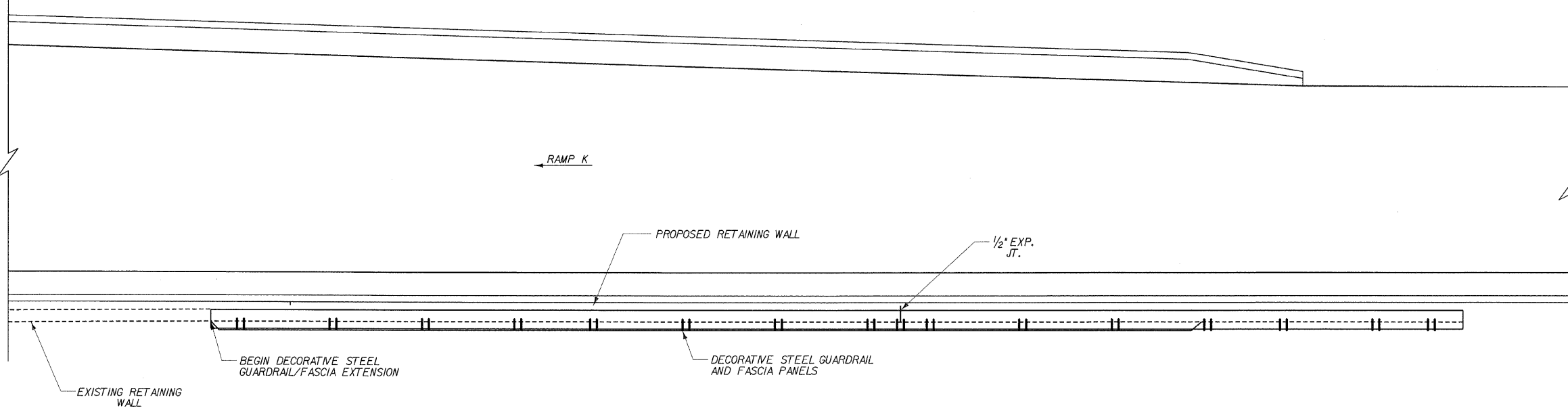
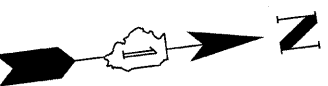
RETAINING WALL RAMP K
ELEVATION (REINF)
I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	178
FED. ROAD DIST. # 1	ILLINOIS	FED. AID PROJECT		

* SHUT (202.6 - 2P, ETC, 1415 & 1517) R-7
CONTRACT NUMBER 62408



ELEVATION
(SHOWING FRONT FACE OF WALL)



PLAN

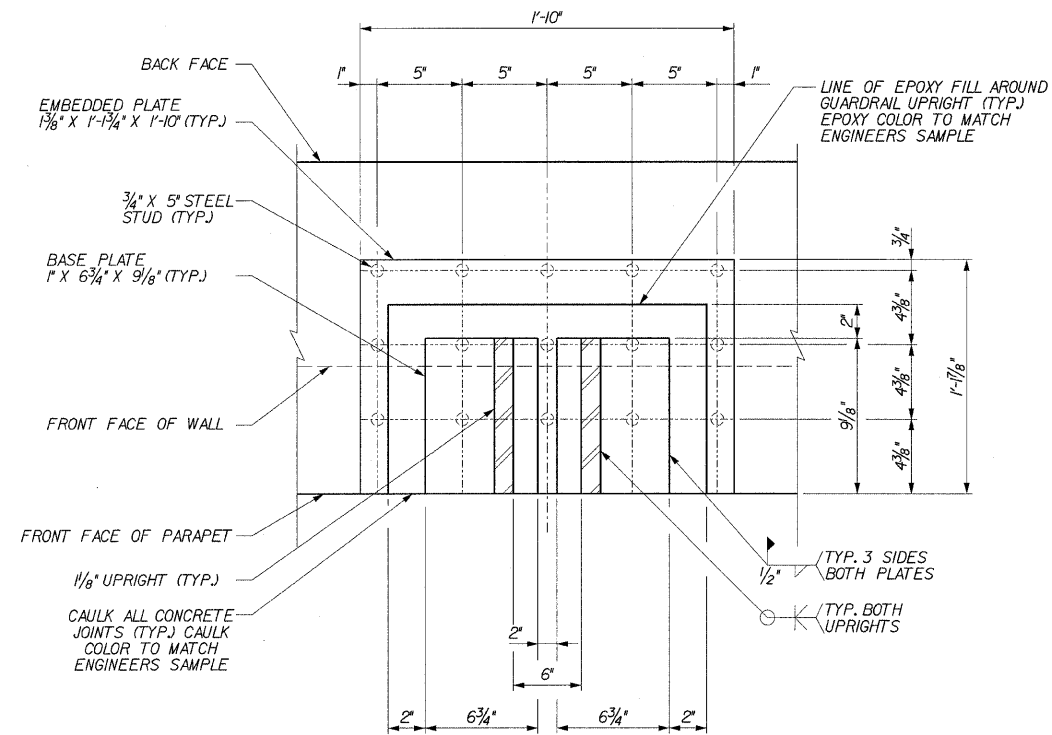
DESIGNED	DPW
CHECKED	ASP
DRAWN	BEM
CHECKED	ASP



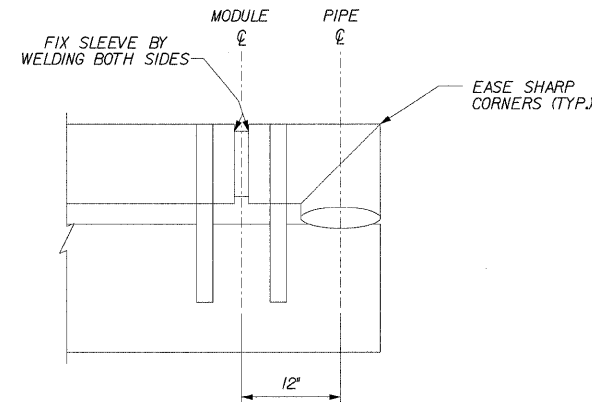
85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP K
RAILING PLAN AND ELEVATION
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT.(202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

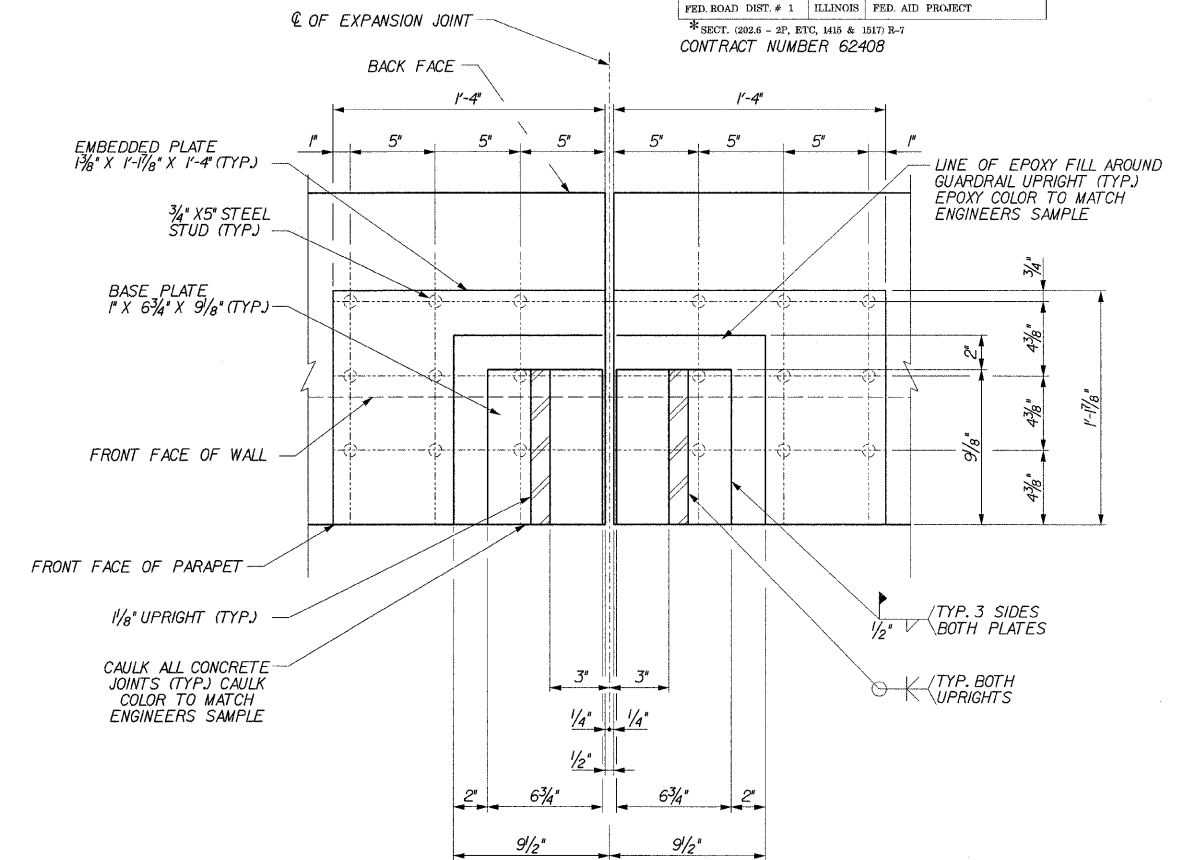


EMBEDDED PLATE, GUARDRAIL UPRIGHT
(AT TOP OF PLATE)

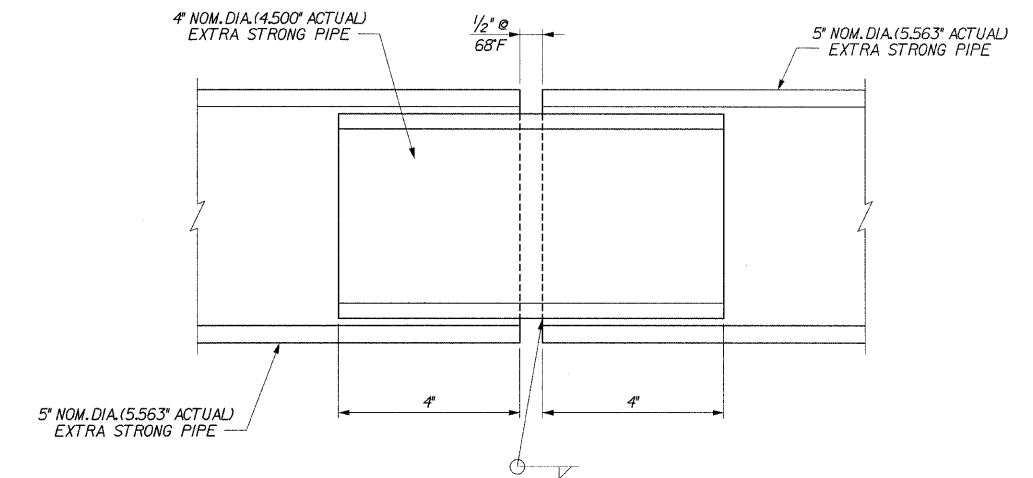


**GUARDRAIL END
CONDITION PLAN**

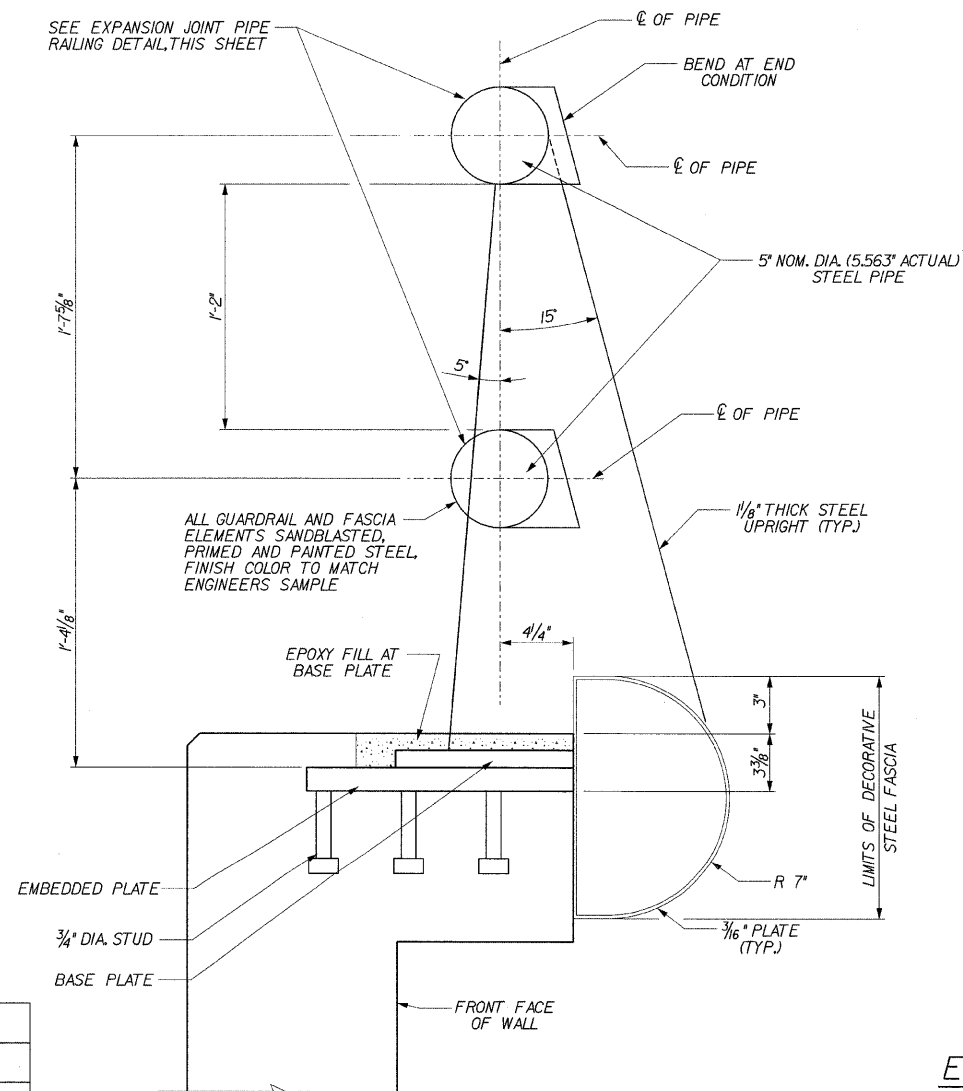
NOTE:
THE CONTRACTOR IS TO FURNISH
MATERIAL, FABRICATE AND INSTALL
EMBEDDED PLATES. THE DECORATIVE
STEEL GUARDRAIL AND FASCIA IS TO BE
SUPPLIED BY OTHERS AND INSTALLED BY
THE CONTRACTOR.



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

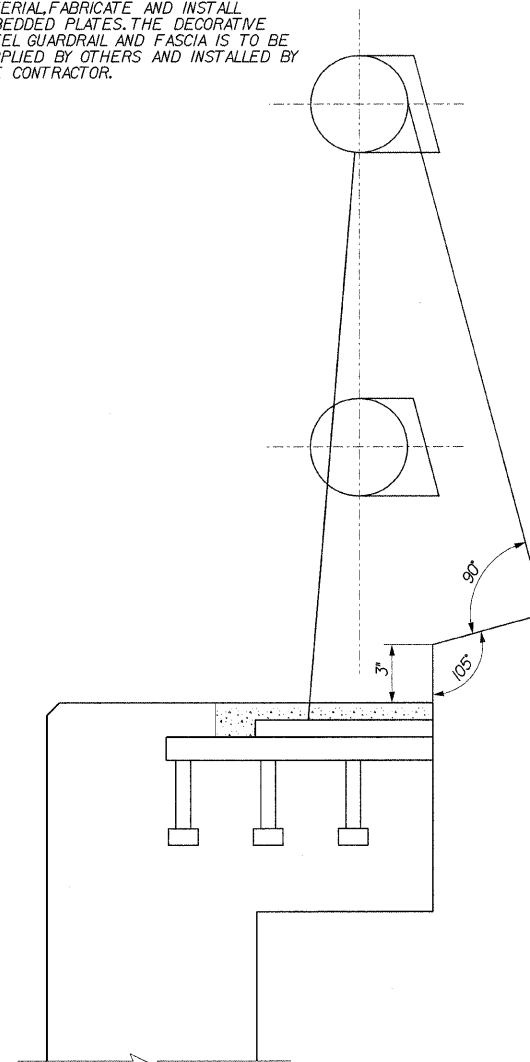


EXPANSION JOINT PIPE RAILING
(SHOWN ALONG C OF PIPE)



ELEVATION W/DECORATIVE FASCIA

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



DESIGNED	DPW
CHECKED	ASP
DRAWN	MJS
CHECKED	MBJ

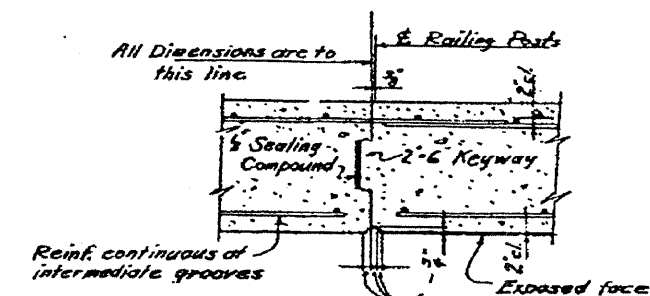
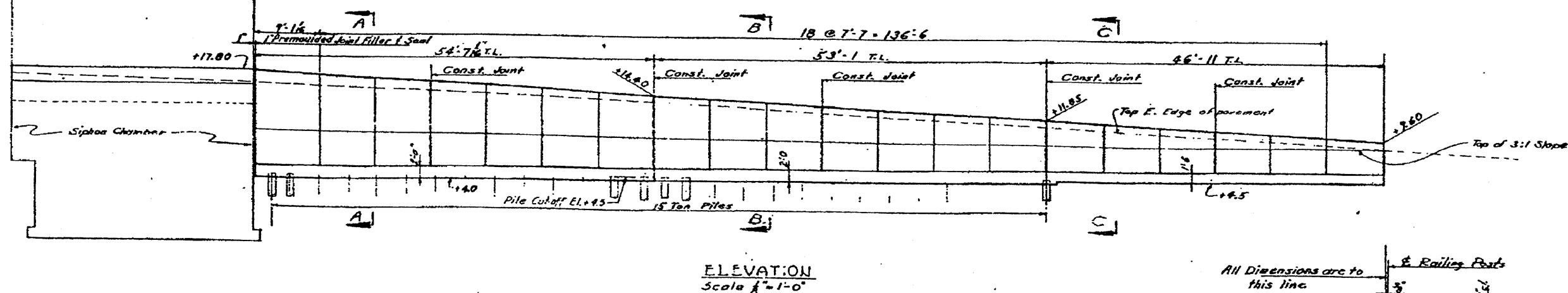
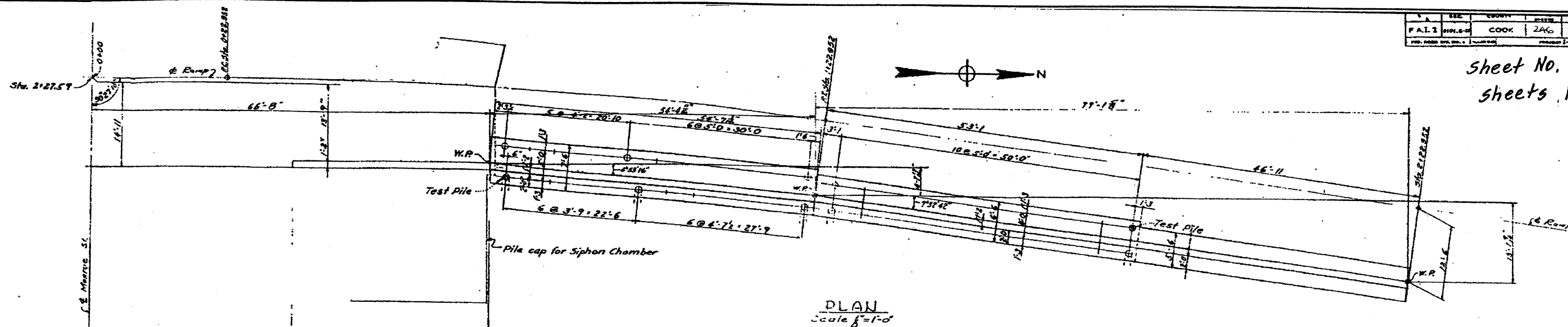
REVISIONS	
NAME	DATE

**RETAINING WALL RAMP K
RAILING SYSTEM DETAILS**
I-90/94 KENNEDY EXPRESSWAY
(HUBBARD'S CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

Sheet No. 9
sheets 11



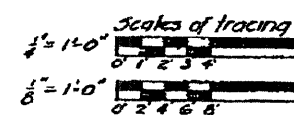
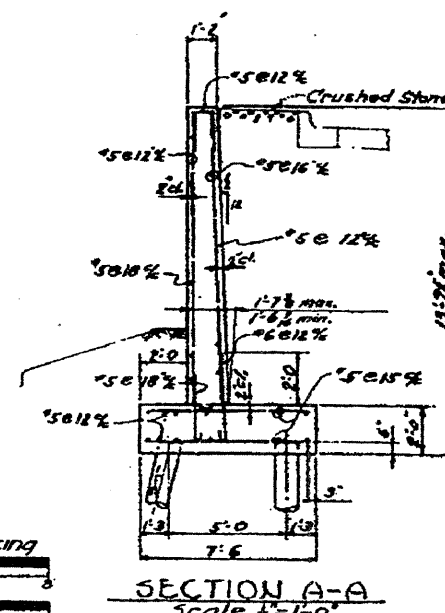
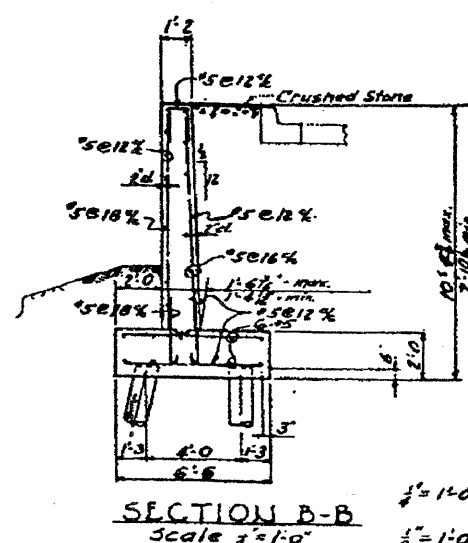
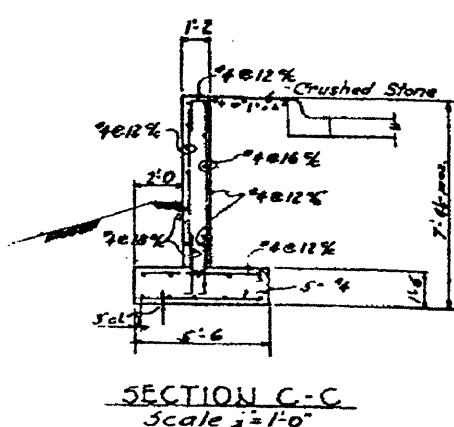
FOR INFORMATION ONLY

NOTES:
For General Notes see sheet G-36
For detail of Siphon Chamber see G-32
For location of Steel Handrail Anchor Bolts, See Sheet A-1.

CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
NORTHWEST ROUTE SUPERHIGHWAY
SECTION 0101.6-2P

RETAINING WALL
EXIT RAMP "K"

SCALE: AS NOTED
SHEET NO. G-36 OF
APRIL 1937
SHEETS



E. H. Pratscher
Reproduction
4/27/37

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 9094	*	COOK	246	181
FED. ROAD DIST. # 1 ILLINOIS FED. AID PROJECT				

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

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 8/21/00

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 MADISON AND MONROE S. 9, TWP. 39N, RNG. 14 EAST

Boring No. <u>K-1</u>	D	B			Surface Water Elev. <u>N/A</u>	D	B		
Station <u>1+70</u>	E	L			Groundwater Elev.: _____	E	L		
Offset <u>42.00ft RT</u>	P	O			when drilling _____	P	O		
	T	W	Qu	W	at Completion _____	T	W	Qu	W
Surface Elev. <u>583.99</u> ft	H	S	tsf	%	after _____ Hrs.	H	S	tsf	%
Asphalt Pavement / 583.79									
Concrete Pavement / 583.19									
Loose to Very Dense, Gray Crushed Aggregate traces - fines		7	-	3			0	0.26	23
		22	-				0	B	
		33					2		
(FILL) 579.49		3	0.5	16			0	0.45	26
		5	P				0	B	
Medium Stiff, Black SILTY CLAY LOAM		3					2		
little - topsoil									
traces - sand, gravel and organics		1	0.21	24					
(FILL)		2	B						
Very Soft to Medium Stiff, Gray CLAY/SILTY CLAY traces - sand and gravel		2					0	0.66	24
		1	B				2	B	
		2					2		
		0	0.37	22					
		2	B						
		4							
		0	0.33	23			0	0.49	21
		1	B				1	B	
		1					2		
		0	0.33	26	Stiff, Gray SILTY CLAY traces - sand and gravel				
		1	B						
		1							
		0	0.37	26			3	1.57	21
		2	B				4	B	
		2					6		
		0	0.29	26					
		0	B						
		1							
		0	0.18	25	BORING COMPLETED AT 50.0 FEET		3	1.32	18
		1	B				5	B	
		2					5		

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

DESIGNED	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM



85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

REVISIONS	
NAME	DATE

RETAINING WALL RAMP K
BORING LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC. 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

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

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 2
Date 8/22/00

ROUTE FA190/94 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 MADISON AND MONROE, 9, TWP. 39N, RNG. 14 EAST

Boring No.	Station	Offset	Surface Elev.	DEPT H	BLOWS	Qu tsf	W %	Surface Water Elev.	Groundwater Elev.:	when drilling	at Completion	after	Hrs.
K-2	2+45	45.00R RT	587.87 R					N/A					
Asphalt Pavement / 587.47													
Concrete Pavement 586.87													
Medium Dense, Gray Crushed Aggregate traces - fines 585.67													
(FILL)													
Very Stiff, Gray and Black SILTY CLAY LOAM traces - topsoil, sand, gravel and organics 584.17													
(FILL)													
Medium Stiff, Brownish Gray SILTY CLAY traces to little - sand and gravel													
(FILL) 579.67													
Very soft to Soft, Gray CLAY/SILTY CLAY traces - sand and gravel													
Shelby tube sample - 16' to 18'													
Stiff to Very Stiff, Gray SILTY CLAY traces - sand and gravel 541.67													
Very Dense, Gray SANDY LOAM little - gravel 515.67													

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 8/22/00

STRUCTURE NO.
ROUTE FA190/94
SECTION 101.6 (1P, 2P) & 202.6 (1P)
COUNTY COOK

Boring No.	Station	Offset	Elevation	DEPT H	BLOWS	Qu tsf	W %	BORING COMPLETED AT 75.0 FEET
K-2	2+45	45.00R RT	537.87 R					
Dense, Gray SANDY LOAM little - gravel 528.17								
Soft, Gray SILTY CLAY traces - sand and gravel 526.67								
Very Dense, Gray SANDY LOAM little - gravel 515.67								

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	CMF
CHECKED	LTX
DRAWN	DPW
CHECKED	JMM

REVISIONS	
NAME	DATE

RETAINING WALL RAMP K
BORING LOGS
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECT. (202.6 - 2P, ETC, 1415 & 1517) R-7
STATION 1+54.36, 33.5' RT TO 2+63.20, 37.7' RT
(RAMP F BASELINE)
COOK COUNTY
STRUCTURE NUMBER 016-W809

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 01
F.A.P. 90/94	*	COOK	246	183	09 SHEETS
FED. ROAD DIST. NO. 7					
ILLINOIS					
FED. AID PROJECT					

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

GENERAL NOTES

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. EXPOSED EDGES SHALL HAVE A $\frac{3}{4}$ " CHAMFER.
4. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.
5. EXISTING REINFORCEMENT, THAT IS TO BE REUSED IN THE PROPOSED, SHALL BE CLEANED AND STRAIGHTENED.
6. EMBEDDED BARS SHALL BE EPOXY GROUTED, TO THE DEPTH SPECIFIED, IN ACCORDANCE WITH SECTION 584 OF THE STANDARD SPECIFICATIONS.

DESIGN SPECIFICATIONS

AASHTO 2002 SPECIFICATIONS W/ CURRENT INTERIMS

DESIGN STRESSES

$f'_c = 3,500$ psi (CONCRETE)
 $f_y = 60,000$ psi (REINFORCEMENT)

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	51.0
REMOVAL OF EXISTING STRUCTURES NO. 1	EACH	1
CONCRETE REMOVAL	CU YD	54
REINFORCEMENT BARS, EPOXY COATED	POUND	8,560
POROUS GRANULAR EMBANKMENT	TON	526
REMOVE, SALVAGE, STORE AND INSTALL DECORATIVE STEEL GUARDRAIL, RAMP B	LS	1
FABRICATION AND INSTALLATION OF EMBEDDED PLATES, RAMP B	LS	1
$\frac{1}{2}$ " NEOPRENE EXPANSION JOINT	FOOT	24

① 3-#5 v(E) BARS @ 2 EQ. SPA. = 1'-8" (E.F.)
SEE CORBEL @ SUB-PIER 'G' DETAIL, SHEET 04.

DLZ ILLINOIS, LLC.
ARLINGTON HEIGHTS, ILLINOIS

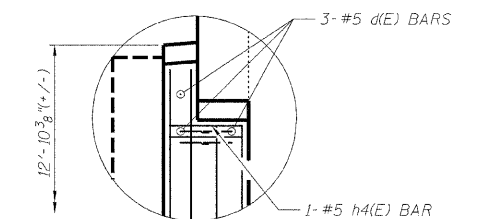
Signed: *Ralph E. Anderson*

Date: 02-29-2009

Expiration Date: 11/30/10

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

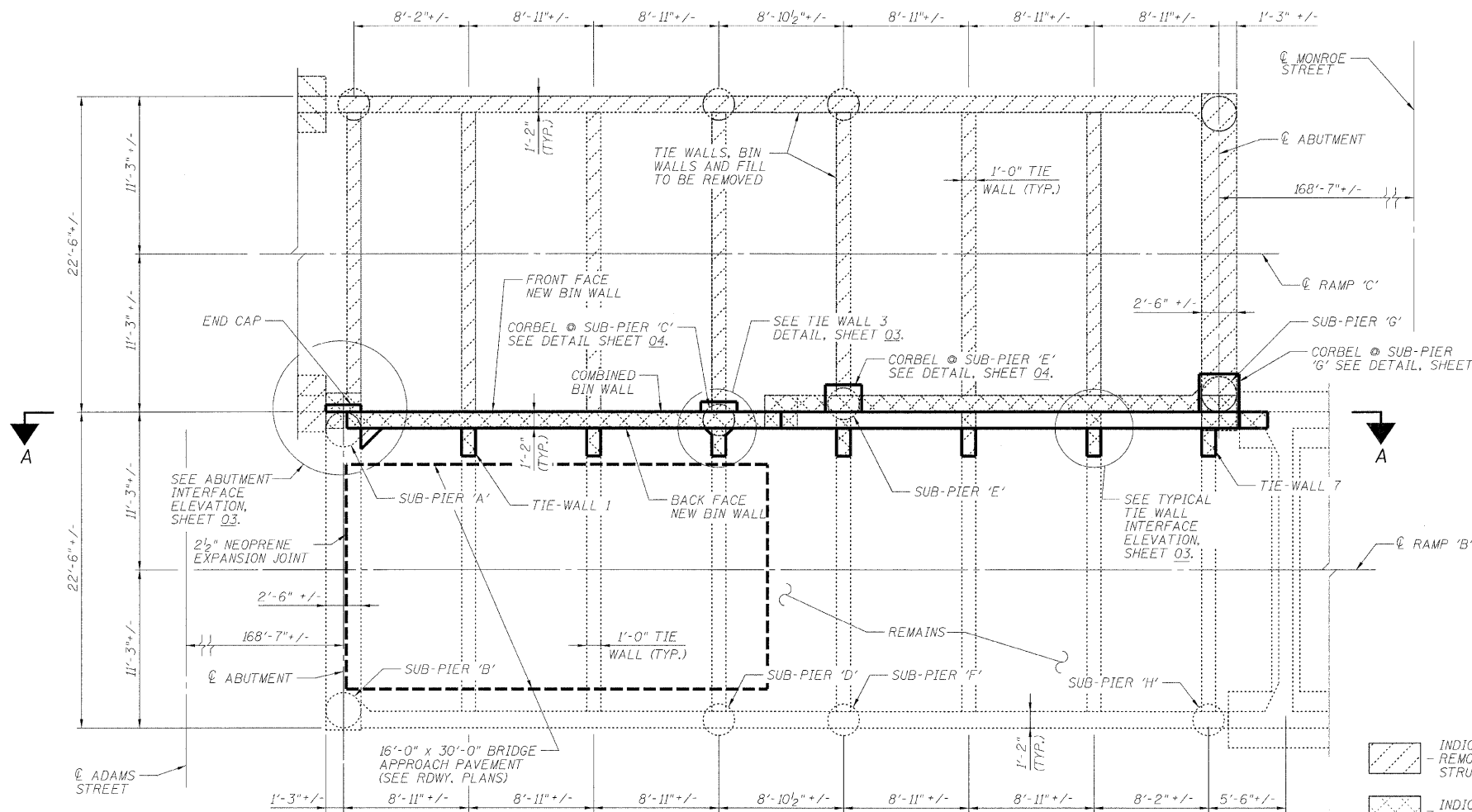


DETAIL A

RAMPS 'B' & 'C' GENERAL PLAN
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7

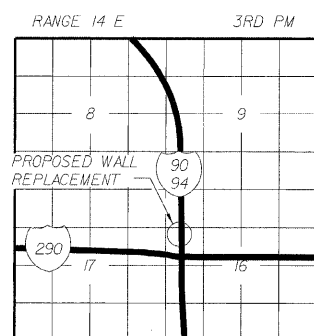
COOK COUNTY
STRUCTURE NO. 016-W985

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



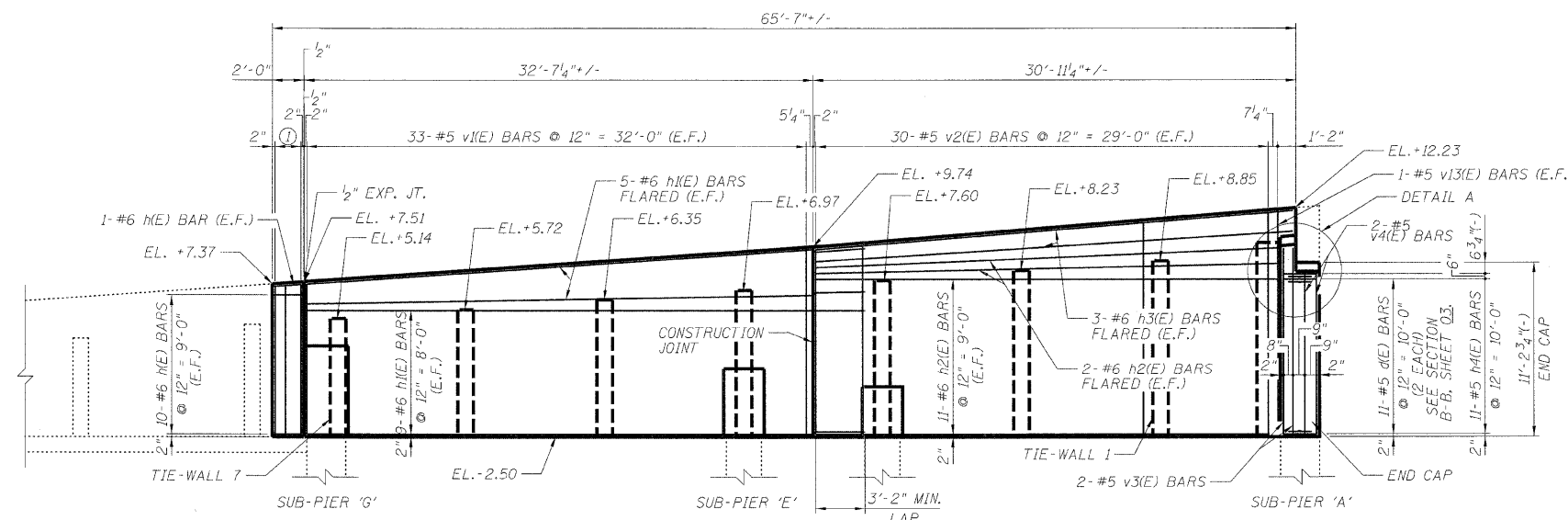
PARTIAL PLAN

PAVEMENT & CURB REMOVED FOR CLARITY
RAMP C TO BE REMOVED



LOCATION SKETCH

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP



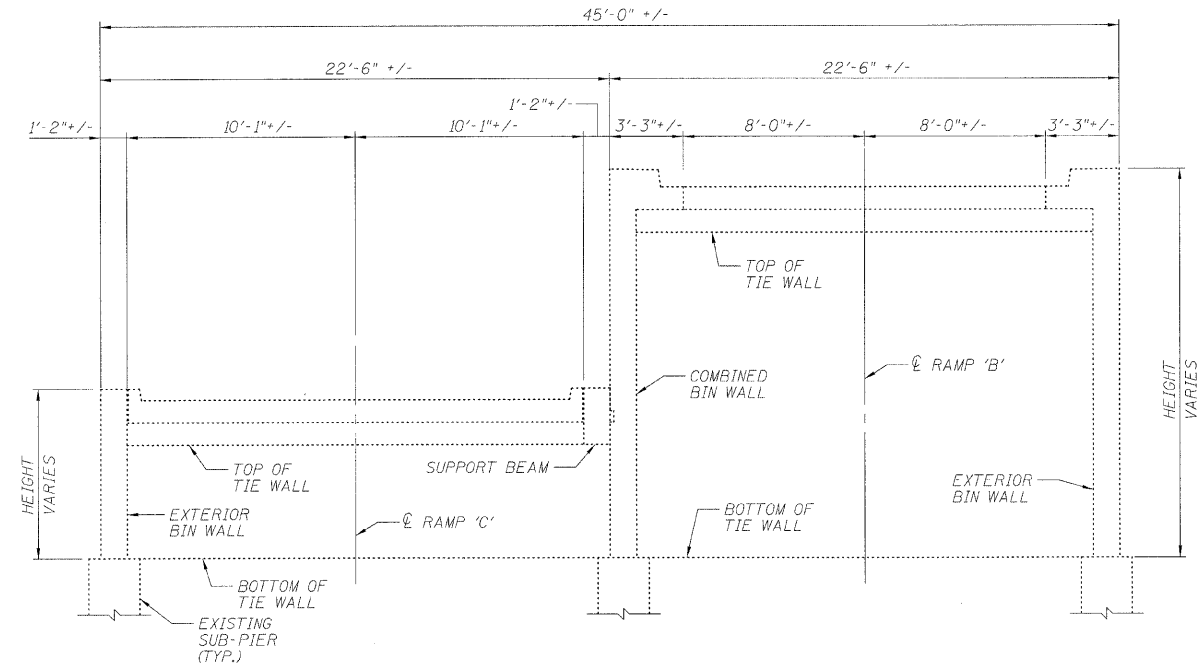
VIEW A-A

E.F. = EACH FACE

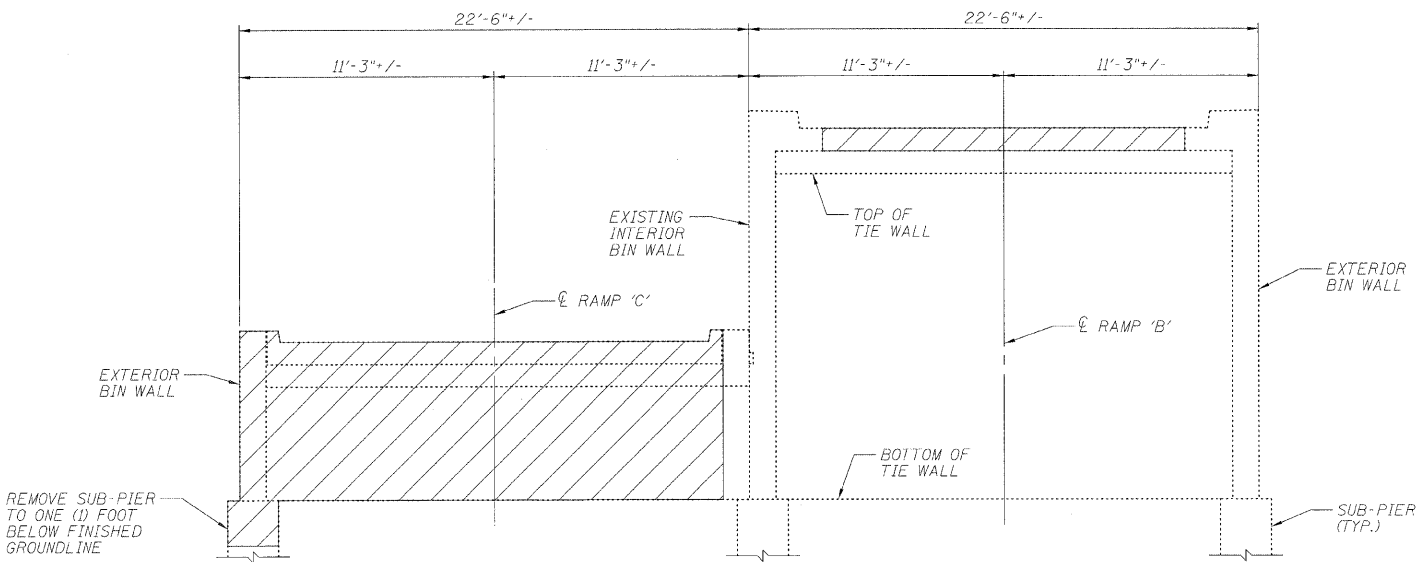
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 90/94	*	COOK	246	184	02
09 SHEETS					
FED. ROAD DIST. NO. 7					
SHEET NO. PROJECT					

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



EXISTING TYPICAL SECTION
(LOOKING NORTH)



STAGE 1
(LOOKING NORTH)



PROPOSED STAGE PLANNING

STAGE 1

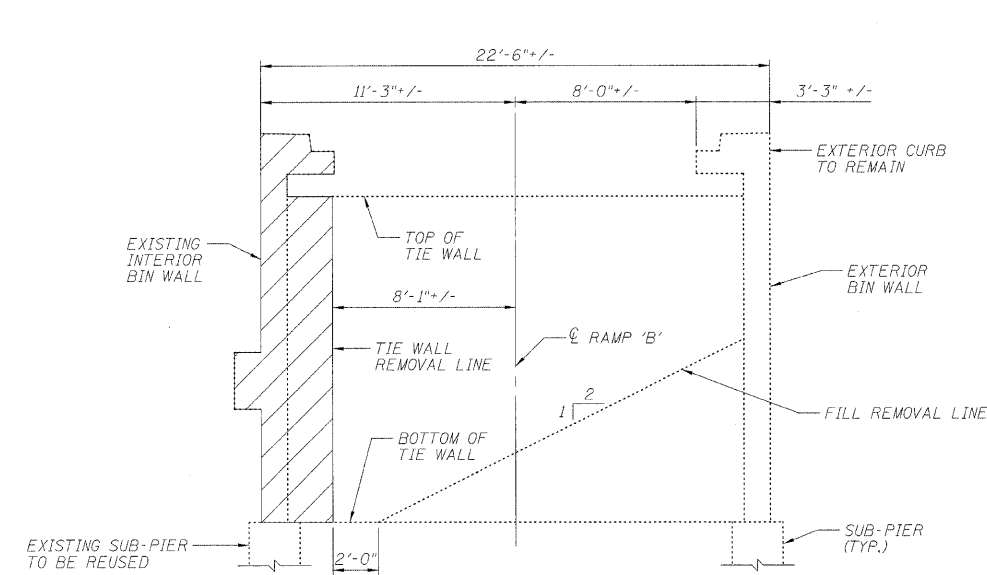
1. CLOSE RAMP 'B' TO TRAFFIC.
 2. REMOVE, SALVAGE AND STORE RAILING FROM RAMP 'B' CENTER WALL.
 3. REMOVE RAMP 'B' PAVEMENT.
 4. REMOVE RAMP 'C' IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- NO WORK SHALL BE PERFORMED FROM ON TOP OF RAMP 'B' UPON COMMENCEMENT OF RAMP 'C' REMOVAL FOR THE DURATION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

STAGE 2

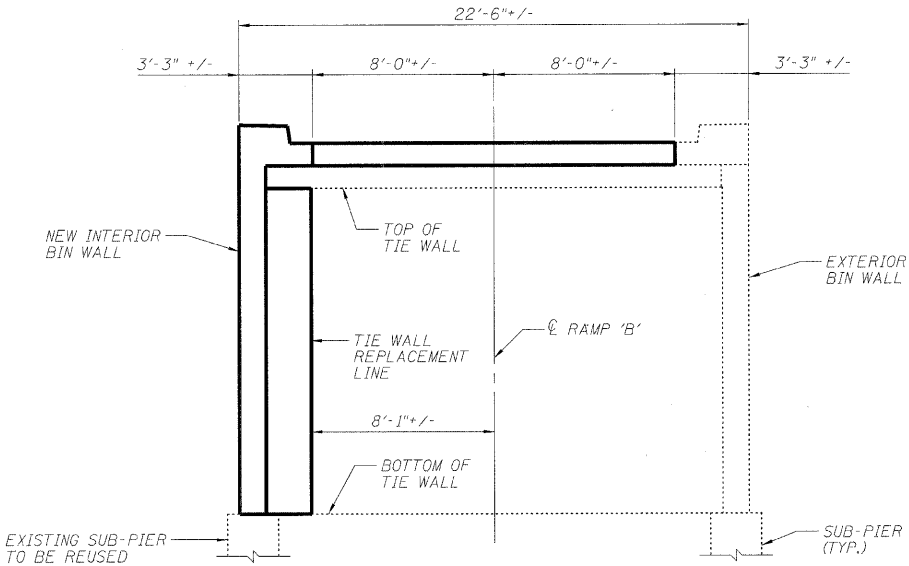
5. REMOVE INTERIOR BIN WALL, FILL MATERIAL, AND RAMP 'B' TIE WALLS. TIE WALLS TO BE REMOVED FROM EXISTING INTERIOR BIN WALL TO AN OFFSET OF 8'-1" LEFT OF RAMP 'B' CENTERLINE.

FINAL

6. CONSTRUCT PROPOSED INTERIOR BIN 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 'B' TO TRAFFIC.



STAGE 2
(LOOKING NORTH)



FINAL
(LOOKING NORTH)

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

RAMPS 'B' & 'C' 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-W985

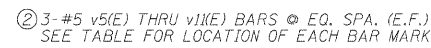
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	185
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 03

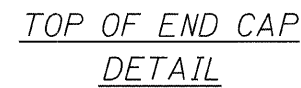
09 SHEETS

SHEET NO. 03

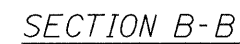
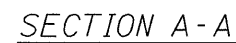
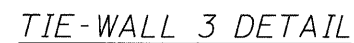
19 SHEETS



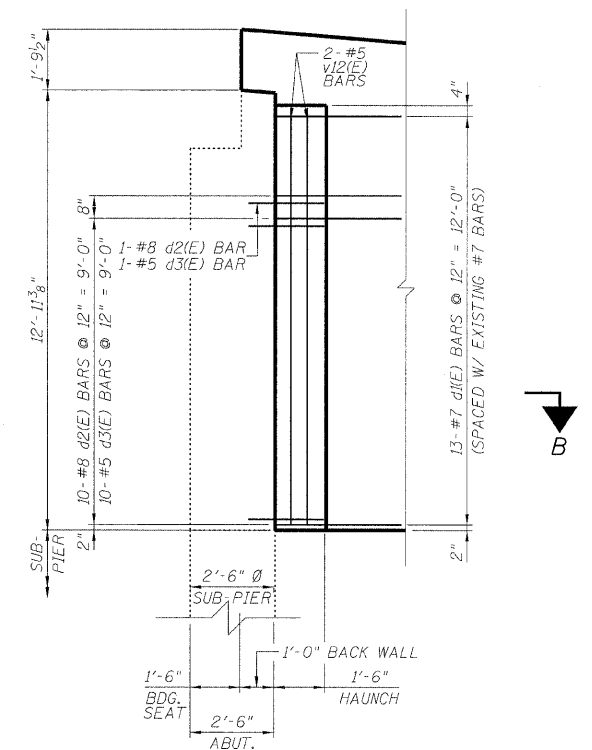
TIE WALL	d5(E) BARS (E.F.)	d6(E) BARS	VERT. BARS
1	12	11	v5(E)
2	12	11	v6(E)
3	0	11	v7(E)
4	11	11	v8(E)
5	10	11	v9(E)
6	9	11	v10(E)
7	9	11	v11(E)



CORBEL @ SUB-PIER C
(SEE DETAIL, SHEET 04.)



(LOOKING @ BACKFACE OF NEW BIN WALL)



SECTION (202.6-2P, ETC, 1415 & 1517)R-7

 **DLZ**
DLZ Illinois, Inc.

85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
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.

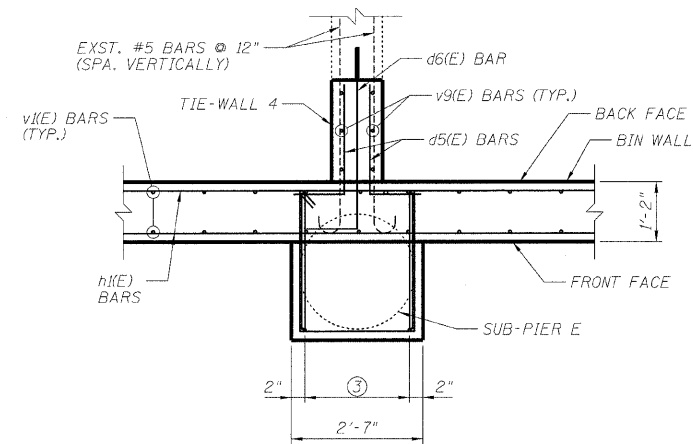
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	186
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

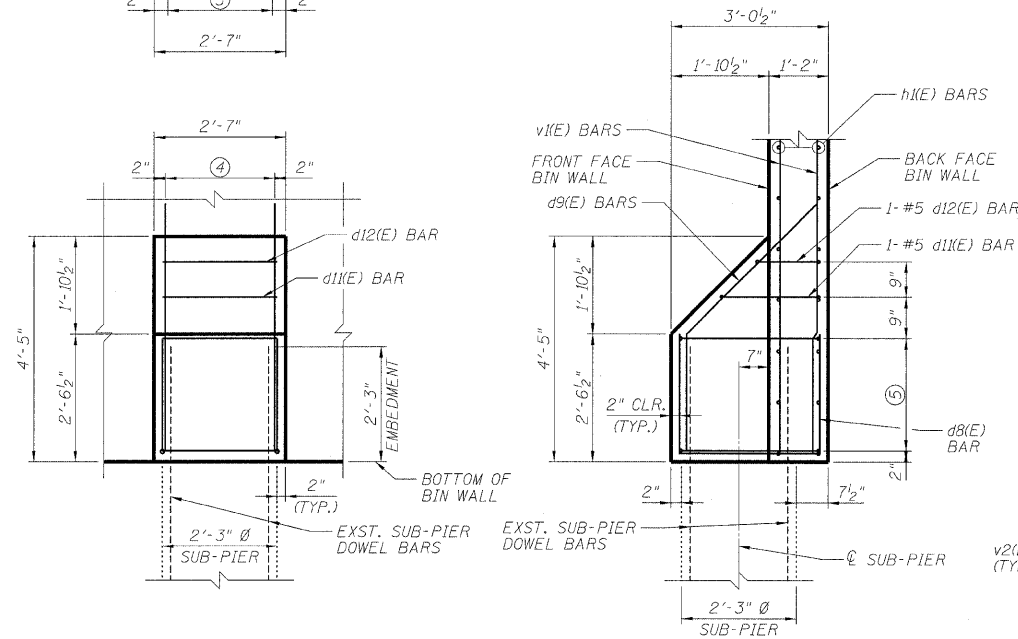
SHEET NO. 04

09 SHEETS

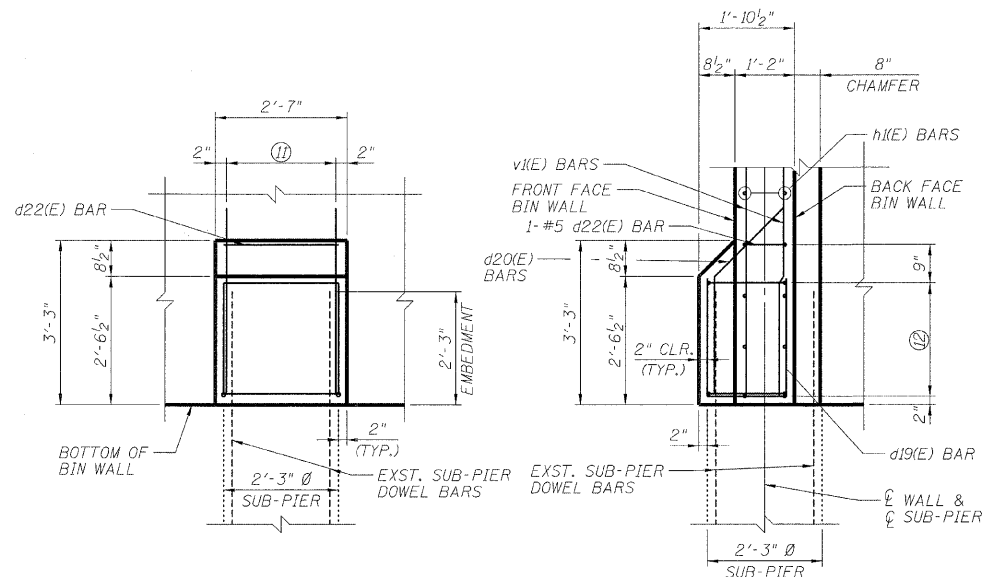
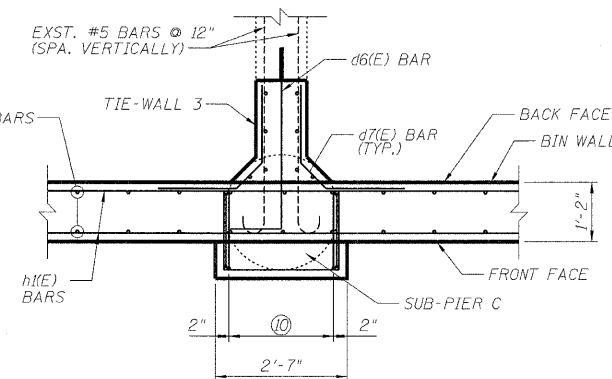
*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408



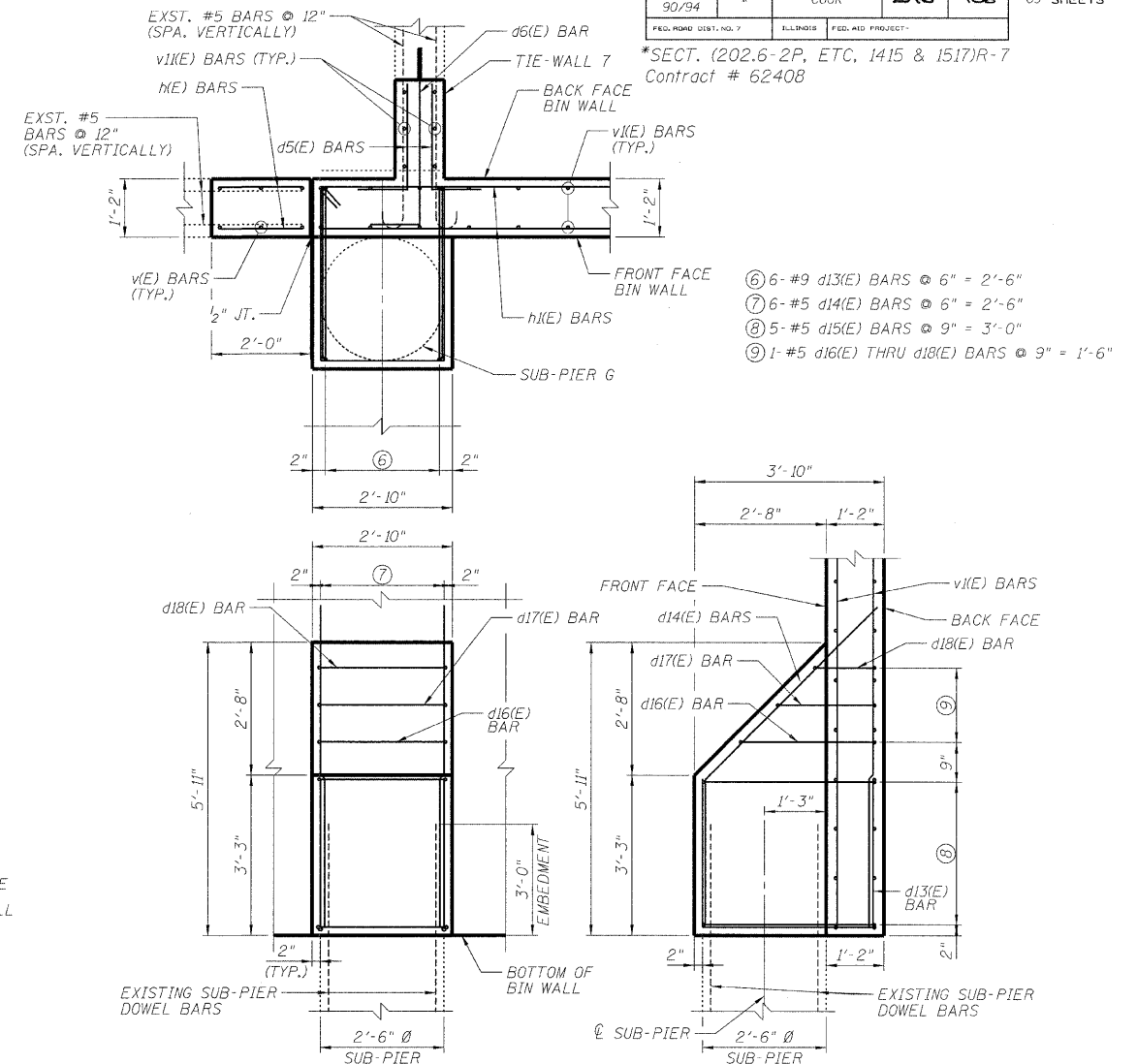
- ③ 5-#8 d8(E) BARS @ EQ. SPA. = 2'-3"
- ④ 5-#5 d9(E) BARS @ EQ. SPA. = 2'-3"
- ⑤ 4-#5 d10(E) BARS @ 9" = 2'-3"



CORBEL @ SUB-PIER E



CORBEL @ SUB-PIER C



- ⑥ 6-#9 d13(E) BARS @ 6" = 2'-6"
- ⑦ 6-#5 d14(E) BARS @ 6" = 2'-6"
- ⑧ 5-#5 d15(E) BARS @ 9" = 3'-0"
- ⑨ 1-#5 d16(E) THRU d18(E) BARS @ 9" = 1'-6"

CORBEL @ SUB-PIER G

- ⑩ 5-#5 d19(E) BARS @ EQ. SPA. = 2'-3"
- ⑪ 5-#5 d20(E) BARS @ EQ. SPA. = 2'-3"
- ⑫ 4-#5 d21(E) BARS @ 9" = 2'-3"

RAMP 'B' & 'C' 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-W985

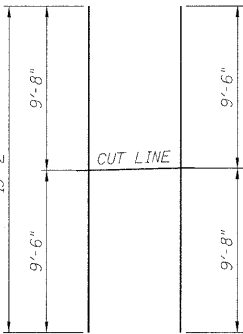
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
DLZ Illinois, Inc.

DESIGNED	ASP
CHECKED	LMB
DRAWN	BEM
CHECKED	ASP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

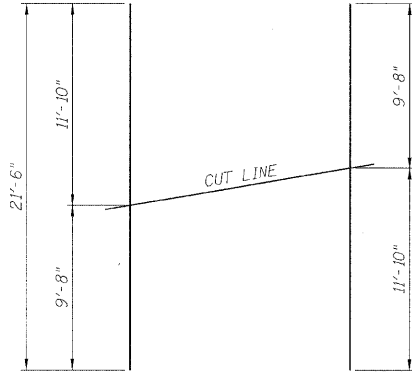
ROUTE NO.	SECTION	COUNTY	FEET ELEV.	SHEET NO.	SHEET NO. 05
F.A.P. 90/94	*	COOK	246	181	09 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

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



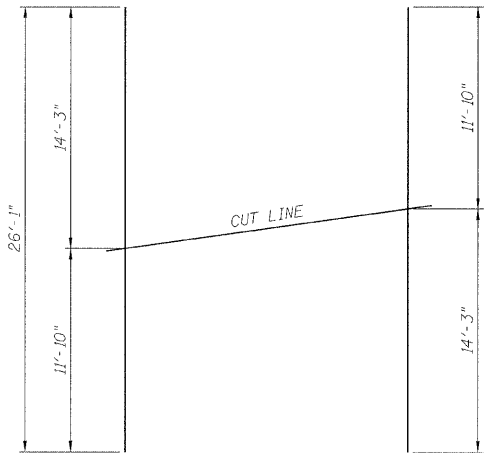
BAR v(E)

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



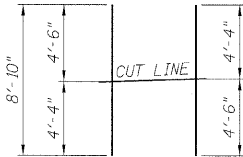
BAR v(E)

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



BAR v2(E)

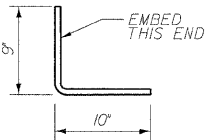
30 BARS-1 SET
(USE REMAINDER OF BARS
IN OPPOSITE FACE)



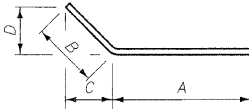
BAR v3(E)

3 BARS-1 SET

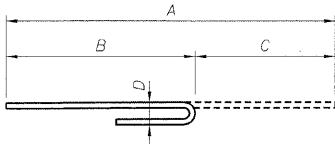
BAR CUTTING DIAGRAMS



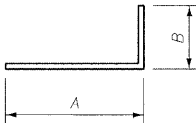
BAR d(E)



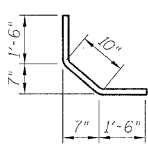
BARS d1(E), d9(E), d14(E) OR d20(E)



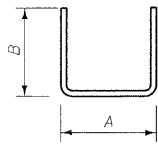
BARS d2(E) THRU d3(E)



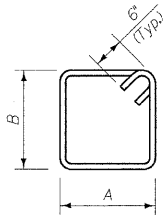
BARS d5(E) OR d6(E)



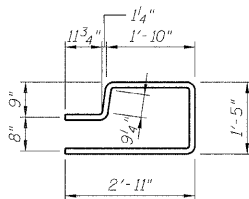
BAR d7(E)



BARS d8(E), d13(E) OR d19(E)



**BARS d10(E) THRU d12(E)
OR d15(E) THRU d18(E)
OR d21(E) THRU d22(E)**



BAR d23(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 1/4	1	0 1/4
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				
d8(E)	2	8	2	3				
d9(E)	3	9	2	4	1	7	1	7
d10(E)	2	3	2	8 1/2				
d11(E)	2	3	2	0				
d12(E)	2	3	1	3				
d13(E)	3	5	3	0				
d14(E)	4	10	3	0	2	1 1/2	2	1 1/2
d15(E)	2	6	3	6				
d16(E)	2	6	2	9				
d17(E)	2	6	2	0				
d18(E)	2	6	1	3				
d19(E)	1	6	2	3				
d20(E)	2	3	1	11	1	4	1	4
d21(E)	2	3	1	6 1/2				
d22(E)	2	3	0	10				

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	25	5	1'-7"	
d1(E)	13	7	4'-4"	
d2(E)	11	8	3'-2"	
d3(E)	11	5	1'-8"	
d4(E)	INTENTIONALLY BLANK			
d5(E)	126	5	3'-0"	
d6(E)	77	5	4'-9"	
d7(E)	22	5	3'-10"	
d8(E)	5	8	7'-2"	
d9(E)	5	5	6'-1"	
d10(E)	4	5	10'-11"	
d11(E)	1	5	9'-6"	
d12(E)	1	5	8'-0"	
d13(E)	6	9	9'-5"	
d14(E)	6	5	7'-10"	
d15(E)	5	5	13'-0"	
d16(E)	1	5	11'-6"	
d17(E)	1	5	10'-0"	
d18(E)	1	5	8'-6"	
d19(E)	5	5	6'-0"	
d20(E)	5	5	4'-2"	
d21(E)	4	5	8'-7"	
d22(E)	1	5	7'-2"	
d23(E)	133	5	7'-11"	
h(E)	22	6	1'-8"	
h1(E)	28	6	35'-11"	
h2(E)	26	6	29'-7"	
h3(E)	6	6	30'-7"	
h4(E)	12	5	2'-2"	
h5(E)	12	5	33'-3"	
h6(E)	6	5	1'-8"	
h7(E)	33	7	2'-0"	
v(E)	3	5	19'-2"	
v1(E)	33	5	21'-6"	
v2(E)	30	5	26'-1"	
v3(E)	2	5	11'-11"	
v4(E)	2	5	10'-4"	
v5(E)	6	5	11'-0"	
v6(E)	6	5	10'-4"	
v7(E)	6	5	9'-9"	
v8(E)	6	5	9'-1"	
v9(E)	6	5	8'-6"	
v10(E)	6	5	7'-10"	
v11(E)	6	5	7'-3"	
v12(E)	2	5	12'-2"	
v13(E)	2	5	14'-3"	
CONCRETE STRUCTURES			CU. YD.	51.0
REINFORCEMENT BARS, EPOXY COATED			POUND	8,560

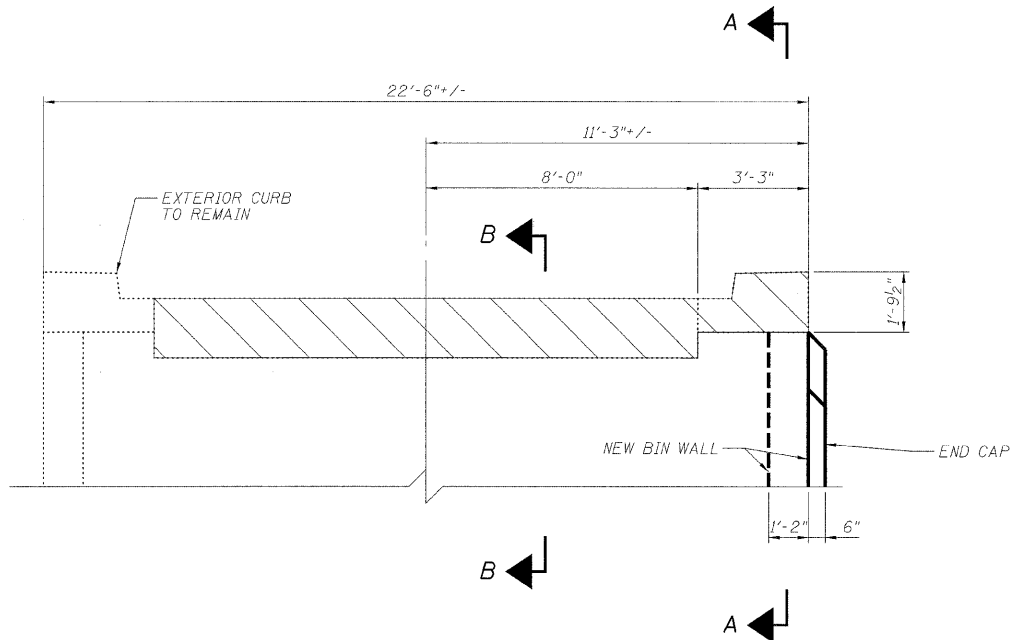
DESIGNED	ASP
CHECKED	LMB
DRAWN	BEM
CHECKED	ASP

RAMPS 'B' & 'C' 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-W985

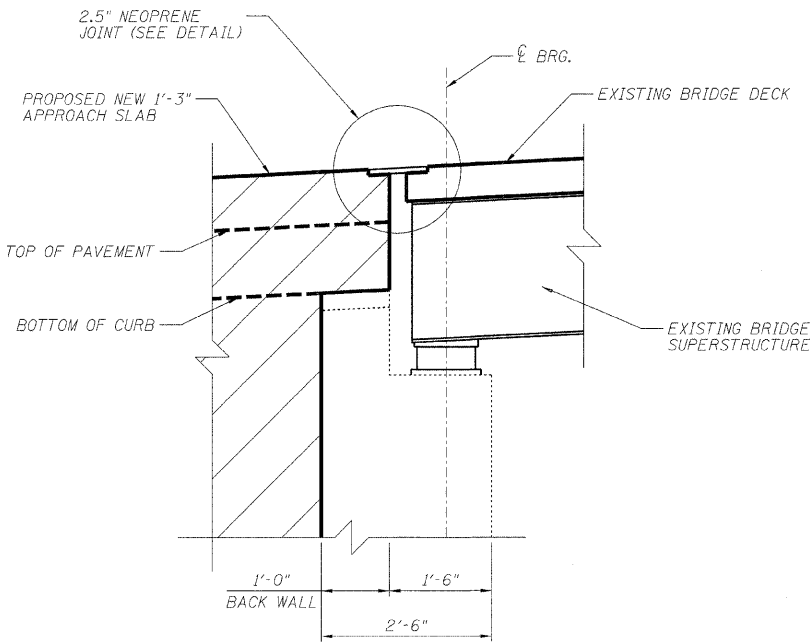
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 06
F.A.P. 90/94	*	COOK	246	188	09 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

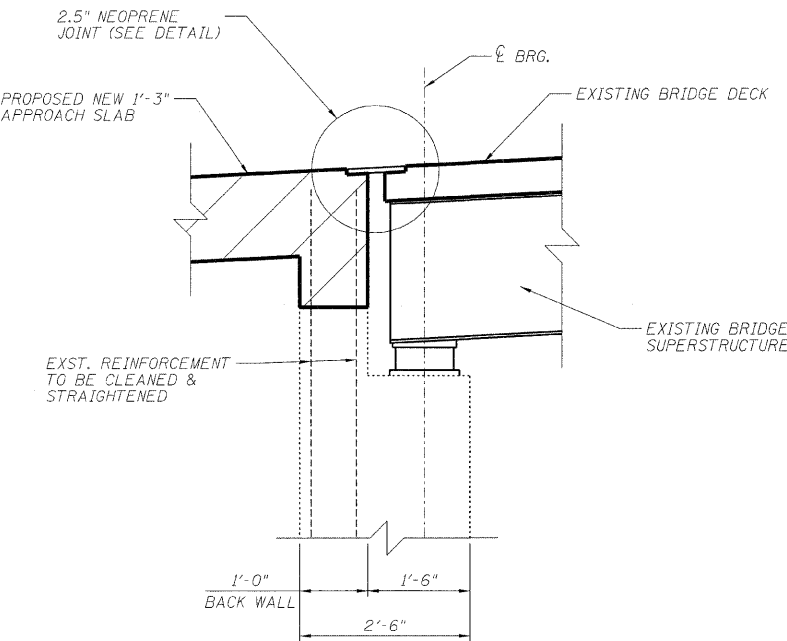
*SECT. (202.6-2P, ETC. 1415 & 1517)R-7
Contract # 62408



EXISTING ABUTMENT ELEVATION
(LOOKING @ BACKFACE)



SECTION A-A



SECTION B-B

 CONCRETE REMOVAL
AND REPLACEMENT

DESIGNED	ASP
CHECKED	WSP
DRAWN	BEM
CHECKED	ASP

EXISTING ABUTMENT 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-W985

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	189
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 07

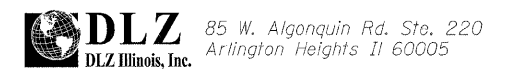
09 SHEETS

CURB PLAN

-
- Technical drawing of a wall cross-section showing reinforcement details. The drawing includes dimensions and labels for various components:
- Dimensions:**
 - Overall width: 3'-3"
 - Offset from left face: 2'-1 $\frac{3}{4}$ "
 - Offset from right face: 1'-0"
 - Vertical dimension from top of wall to centerline of bars: 6"
 - Vertical dimension from centerline of bars to bottom of wall: 9"
 - Total vertical dimension: 1'-0"
 - Horizontal dimension from front face to back face: 1'-0"
 - Labels and Notes:**
 - POINT WHERE TOP OF WALL ELEVATION GIVEN
 - OFFSET = 11.25' (TYP.) @ RAMP 'B'
 - d23(E) BARS
 - 6- #5 h5(E) BARS (2 LENGTHS EACH) OR 6- #5 h6(E) BARS
 - FRONT FACE
 - MANDATORY CONSTRUCTION JOINT
 - NEW BIN WALL
 - BACK FACE
 - h1(E) OR h3(E) BARS (TYP.)
 - h7(E) BAR

DESIGNED	ASP
CHECKED	WSP
DRAWN	BEM
CHECKED	ASP

RAMPS 'B' & 'C' CURB PLAN & 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-W985



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 08 09 SHEETS
F.A.P. 90/94	*	COOK	246	190	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

BACK FACE

EMBEDDED PLATE
1 1/8" X 1'-17 1/8" X 1'-10" (TYP.)

3/4" X 5" STEEL STUD (TYP.)

BASE PLATE
1" X 6 3/4" X 9 9/16" (TYP.)

FRONT FACE OF WALL

1/8" UPRIGHT (TYP.)

CAULK ALL CONCRETE JOINTS (TYP.) CAULK COLOR TO MATCH ENGINEERS SAMPLE

1'-10"

5"

5"

5"

5"

1"

LINE OF EPOXY FILL AROUND GUARDRAIL UPRIGHT (TYP.) EPOXY COLOR TO MATCH ENGINEERS SAMPLE

3/4"

4 3/8"

2"

9 1/8"

4 3/8"

1'-17 1/8"

1/2" (TYP. 3 SIDES BOTH PLATES)

1" (TYP. BOTH UPRIGHTS)

2"

6"

6 3/4"

6 3/4"

2"

9 3/4"

9 3/4"

TITLE

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT -

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

CENTERLINE OF EXPANSION JOINT

BACK FACE

EMBEDDED PLATE
 $\frac{1}{8}'' \times 1'-1\frac{1}{8}'' \times 1'-4''$ (TYP.)

$\frac{3}{4}'' \times 5''$ STEEL STUD (TYP.)

BASE PLATE
 $1' \times 6\frac{3}{4}' \times 9\frac{9}{16}''$ (TYP.)

FRONT FACE OF WALL

$\frac{1}{8}''$ UPRIGHT (TYP.)

CAULK ALL CONCRETE JOINTS (TYP.) CAULK COLOR TO MATCH ENGINEERS SAMPLE

LINE OF EPOXY FILL AROUND GUARDRAIL UPRIGHT (TYP.)
EPOXY COLOR TO MATCH ENGINEERS SAMPLE

(TYP. 3 SIDES BOTH PLATES)

(TYP. BOTH UPRIGHTS)

Detailed technical drawing showing the cross-section of a concrete wall assembly at an expansion joint. The diagram includes dimensions for various components: Embedded Plate ($\frac{1}{8}'' \times 1'-1\frac{1}{8}'' \times 1'-4''$), Base Plate ($1' \times 6\frac{3}{4}' \times 9\frac{9}{16}''$), Steel Stud ($\frac{3}{4}'' \times 5''$), and Expansion Joint Uprights ($\frac{1}{8}''$). It also shows the location of epoxy fill around guardrail uprights and caulked joints.

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

EMBEDDED PLATE

3/4" DIA. STUD

BASE PLATE

R 7"

3 3/8"

3"

1'-2"

10"

FRONT FACE
 OF WALL

3/16" PLATE
 (TYP.)

1'-2"

4"

10"

3/4" NUT
 AND WASHER

1'-2"

BACK FACE
 OF WALL

5" NOM. DIA.
 EXTRA S

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" ϕ
68°F

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

4"

4"

3/16" V

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-W985

 **DLZ**
DLZ Illinois, Inc.

85 W. Algonquin Rd. Ste. 220
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.	SHEET NO.
F.A.P. 90/94	*	COOK	246	192	07 SHEETS
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT		

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

GENERAL NOTES

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 706 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. EXPOSED EDGES SHALL HAVE A $\frac{3}{4}$ " CHAMFER.
4. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.
5. EXISTING REINFORCEMENT, THAT IS TO BE REUSED IN THE PROPOSED, SHALL BE CLEANED AND STRAIGHTENED.
6. EMBEDDED BARS SHALL BE EPOXY GROUTED, TO THE DEPTH SPECIFIED, IN ACCORDANCE WITH SECTION 584 OF THE STANDARD SPECIFICATIONS.

DESIGN SPECIFICATIONS

AASHTO 2002 SPECIFICATIONS W/ CURRENT INTERIMS

DESIGN STRESSES

$f'_c = 3,500$ psi (CONCRETE)
 $f_y = 60,000$ psi (REINFORCEMENT)

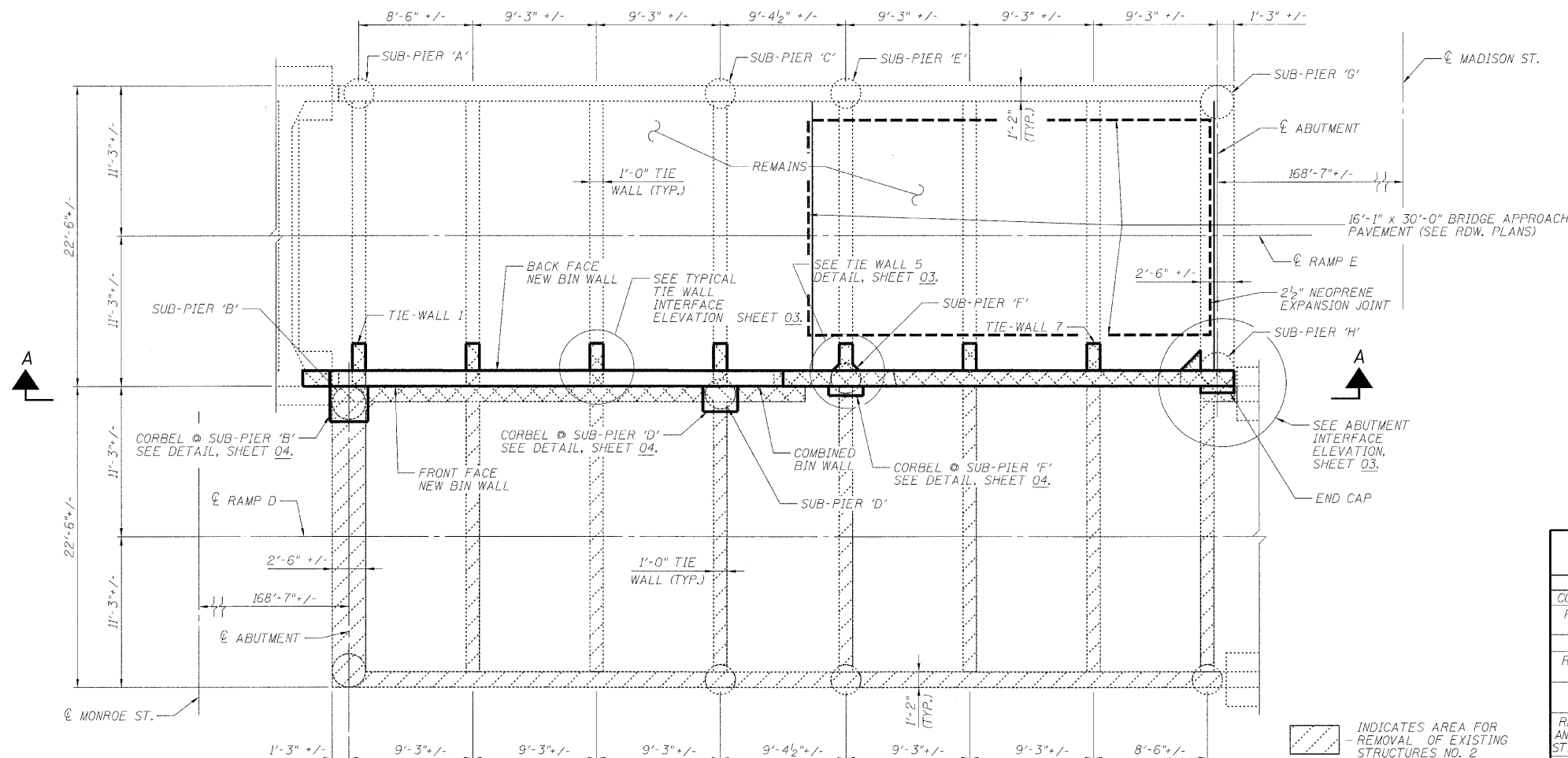
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

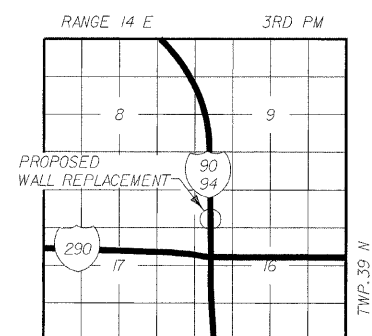
BILL OF MATERIALS

ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	50.2
REMOVAL OF EXISTING STRUCTURES NO. 2	EACH	1
CONCRETE REMOVAL	CU YD	61
REINFORCEMENT BARS, EPOXY COATED	POUND	7,780
POROUS GRANULAR EMBANKMENT	TON	652
REMOVE, SALVAGE, STORE, AND INSTALL DECORATIVE STEEL GUARDRAIL, RAMP E	LS	1
FABRICATION AND INSTALLATION OF EMBEDDED PLATES, RAMP E	LS	1
$\frac{2}{16}$ " NEOPRENE EXPANSION JOINT	FOOT	24

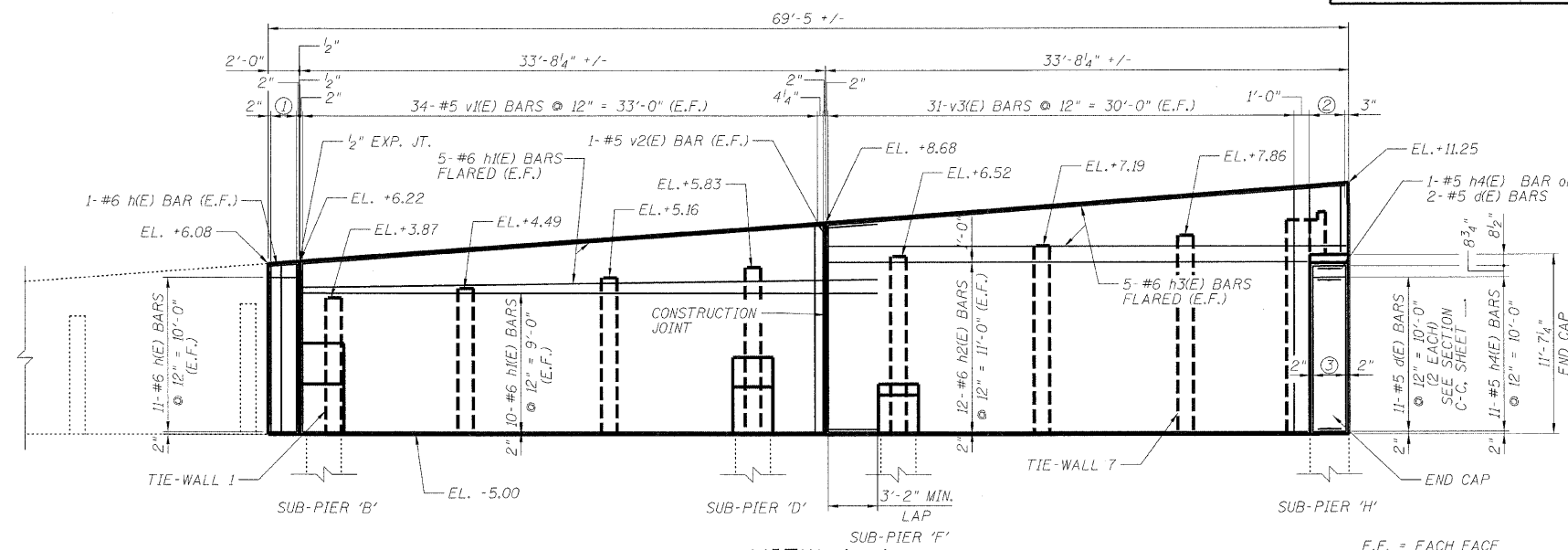
DLZ ILLINOIS, LLC
ARLINGTON HEIGHTS, ILLINOIS
Signed: *Ralph E. Anderson*
Date: 02-25-2009
Expiration Date: 11/30/10



PARTIAL PLAN
PAVEMENT REMOVED FOR CLARITY
RAMP D TO BE REMOVED



LOCATION SKETCH



VIEW A-A

E.F. = EACH FACE

- ① 3-#5 v(E) BARS @ 2 EQ. SPA. = 1'-8" (E.F.)
SEE CORBEL @ SUB-PIER 'B' DETAIL, SHEET 04.
- ② 4-#5 v4(E) BARS @ EQ. SPA. = 2'-3 1/4" (E.F.)
SEE SECTION B-B SHEET 03.
- ③ 4-#5 v5(E) BARS @ EQ. SPACES
SEE SECTION C-C, SHEET 03.

RAMPS 'D' & 'E' GENERAL PLAN
I-90/94 KENNEDY EXPRESSWAY
(HUBBARDS CAVE TO I-290)
SECTION (202.6-2P, ETC, 1415 & 1517)R-7
COOK COUNTY
STRUCTURE NO. 016-W986

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

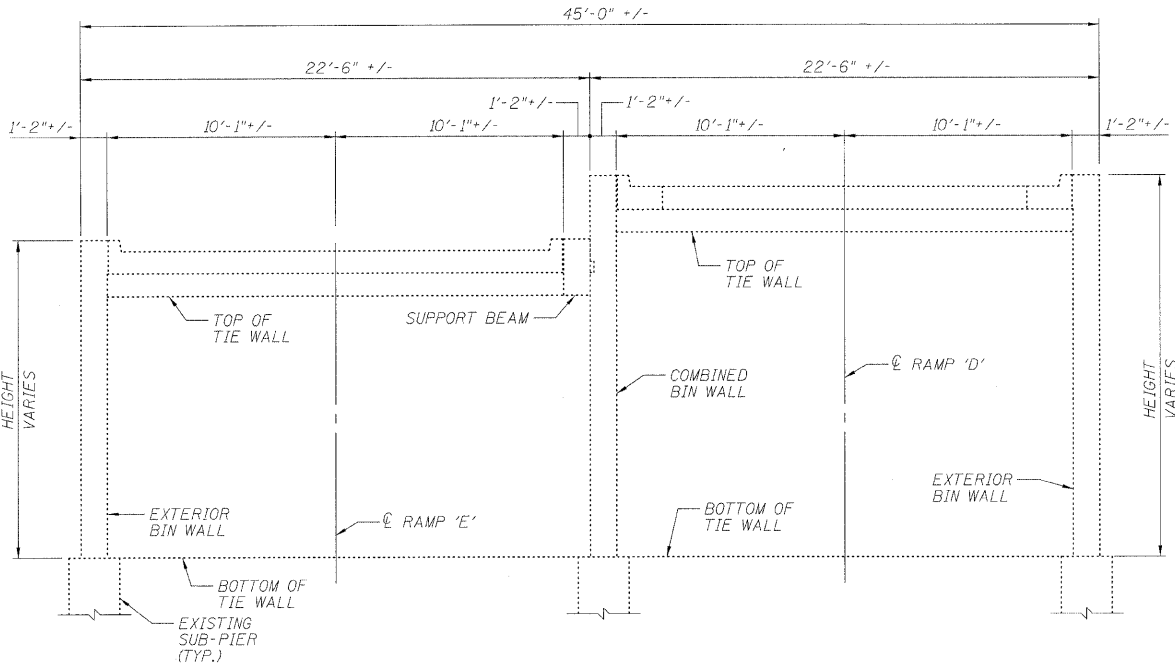
DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET TOTAL
F.A.P. 90/94	*	COOK	246	193
*SECT. (202.6-2P, ETC, 1415 & 1517)R-7				
Contract # 62408				

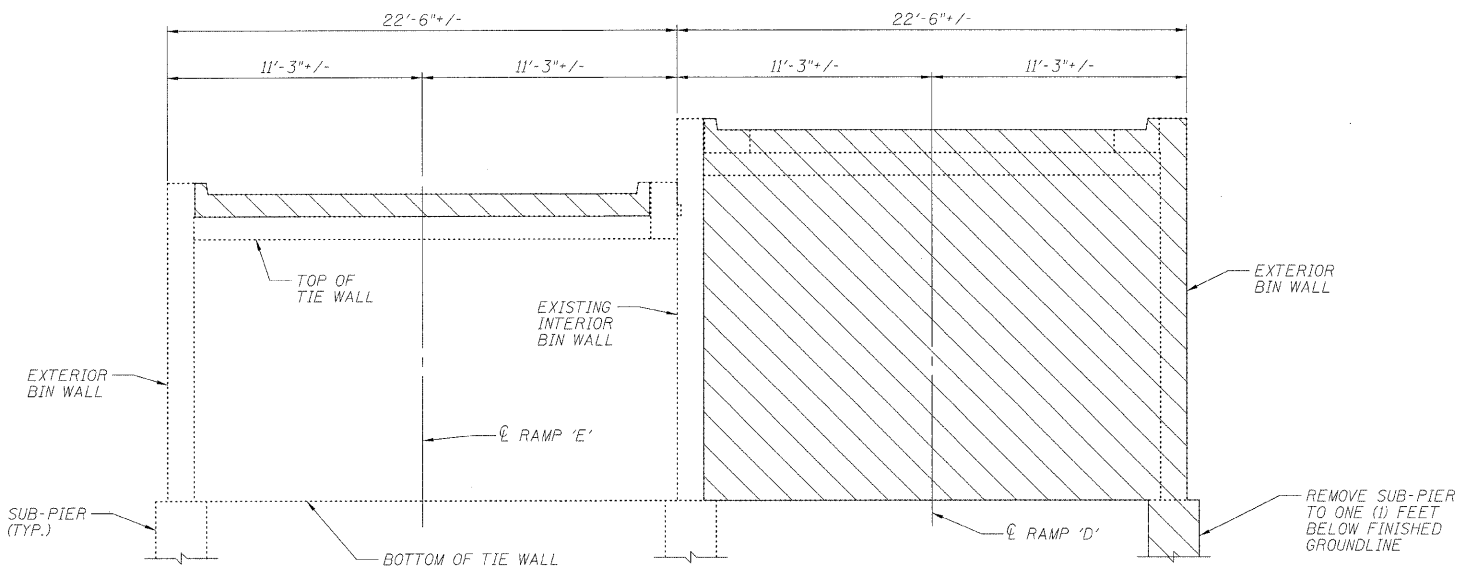
SHEET NO. 02

07 SHEETS



EXISTING TYPICAL SECTION
(LOOKING NORTH)

INDICATES AREA OF REMOVAL



STAGE 1
(LOOKING NORTH)

PROPOSED STAGE PLANNING

STAGE 1

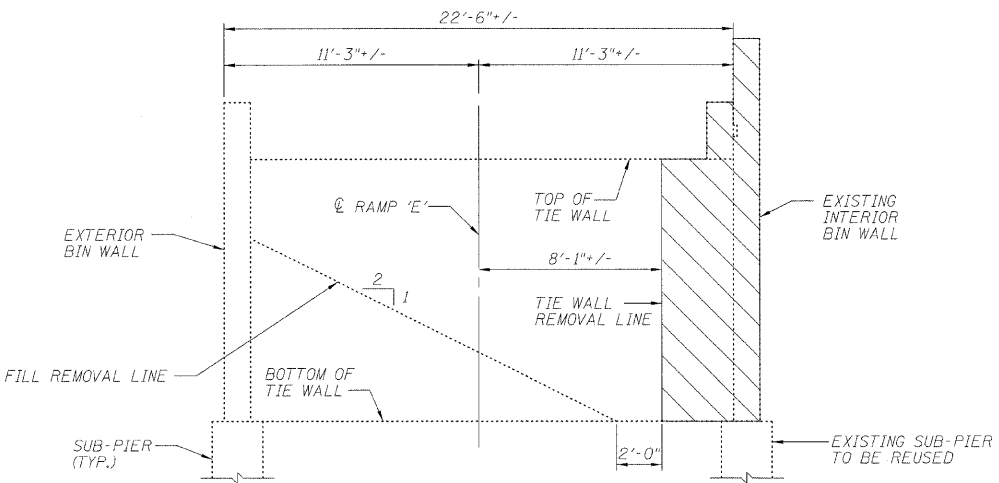
1. CLOSE RAMP 'E' TO TRAFFIC.
2. REMOVE, SALVAGE AND STORE RAILING FROM RAMP 'E' CENTER WALL.
3. REMOVE RAMP 'E' CURBS & PAVEMENT.
4. REMOVE RAMP 'D' IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. NO WORK SHALL BE PERFORMED FROM ON TOP OF RAMP 'E' UPON COMMENCEMENT OF RAMP 'D' REMOVAL FOR THE DURATION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

STAGE 2

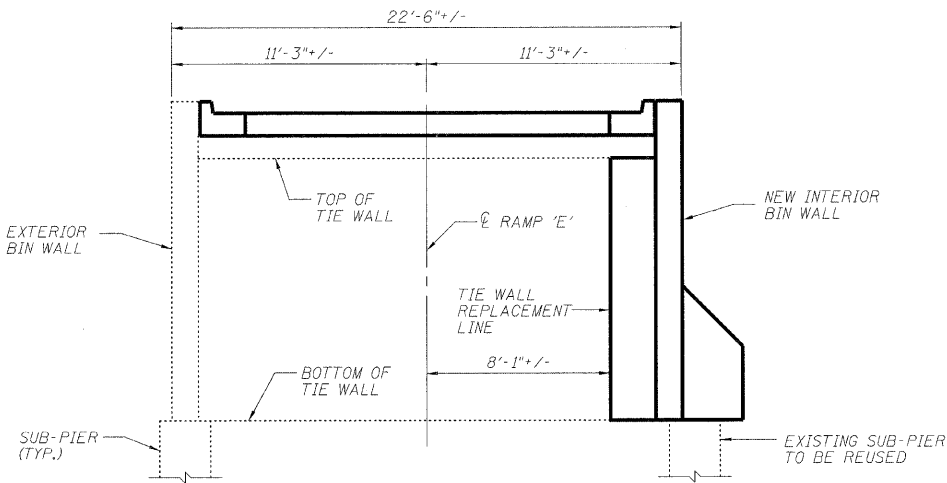
5. REMOVE CENTER WALL, FILL MATERIAL, AND RAMP 'E' TIE WALLS. TIE WALLS TO BE REMOVED FROM EXST. INTERIOR BIN WALL TO AN OFFSET OF 8'-1" RIGHT OF RAMP 'E' CENTERLINE.

FINAL

6. CONSTRUCT PROPOSED CENTER WALL, CORBELS AND TIE WALL PORTIONS AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.
7. FILL BIN WITH POROUS GRANULAR EMBANKMENT IN ACCORDANCE WITH SECTION 207.00 OF THE STANDARD SPECIFICATIONS.
8. UPON COMPLETION OF BACKFILLING OPERATIONS, CONSTRUCT PAVEMENT AND CURBS FOR RAMP 'E'.
9. REPLACE GUARDRAIL ON NEWLY CONSTRUCTED WALL.
10. RE-OPEN RAMP 'E' TO TRAFFIC.



STAGE 2
(LOOKING NORTH)



FINAL
(LOOKING NORTH)

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

RAMPS 'D' & 'E' 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-W986

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

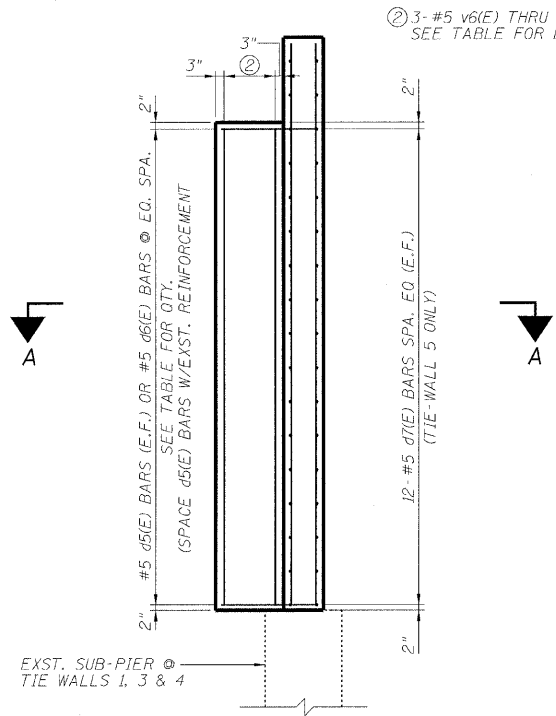
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	194
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

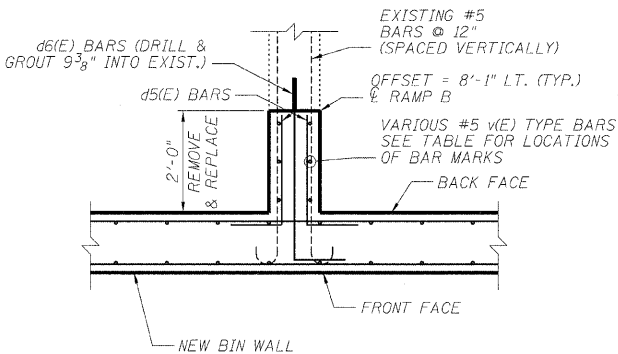
SHEET NO. 03

07 SHEETS

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

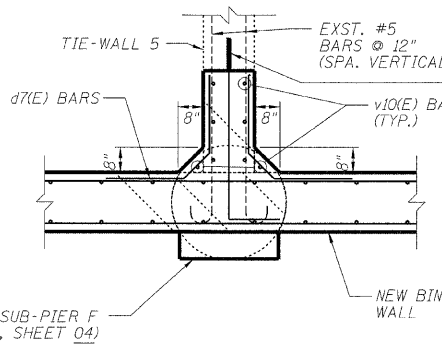


TYPICAL TIE-WALL
INTERFACE ELEVATION

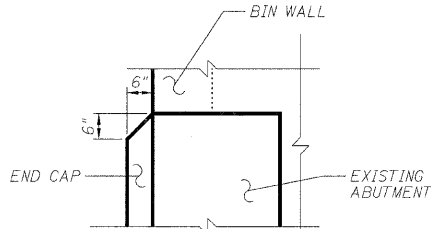


SECTION A-A

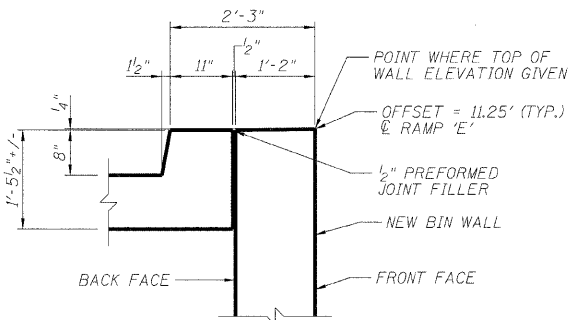
TIE WALL	d5(E) BARS (E.F.)	d6(E) BARS VERT. BARS
1	9	13
2	10	13
3	10	13
4	11	13
5	0	13
6	12	13
7	13	13



TIE-WALL 5 DETAIL



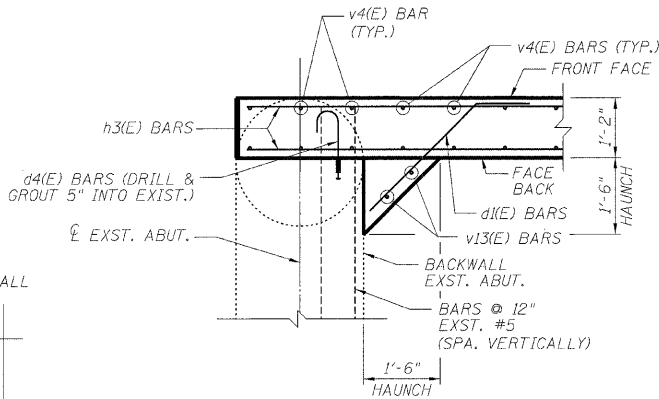
TOP OF END CAP
DETAIL



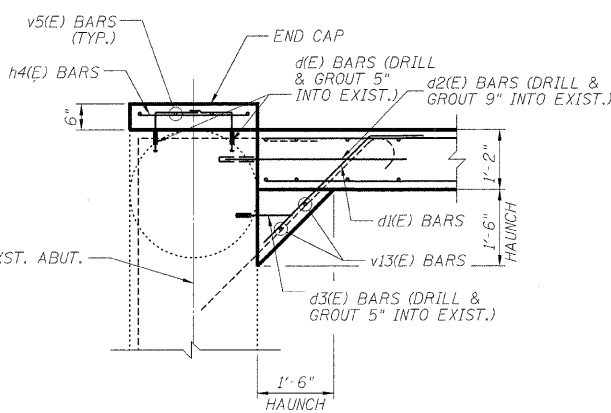
TOP OF WALL DETAIL

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

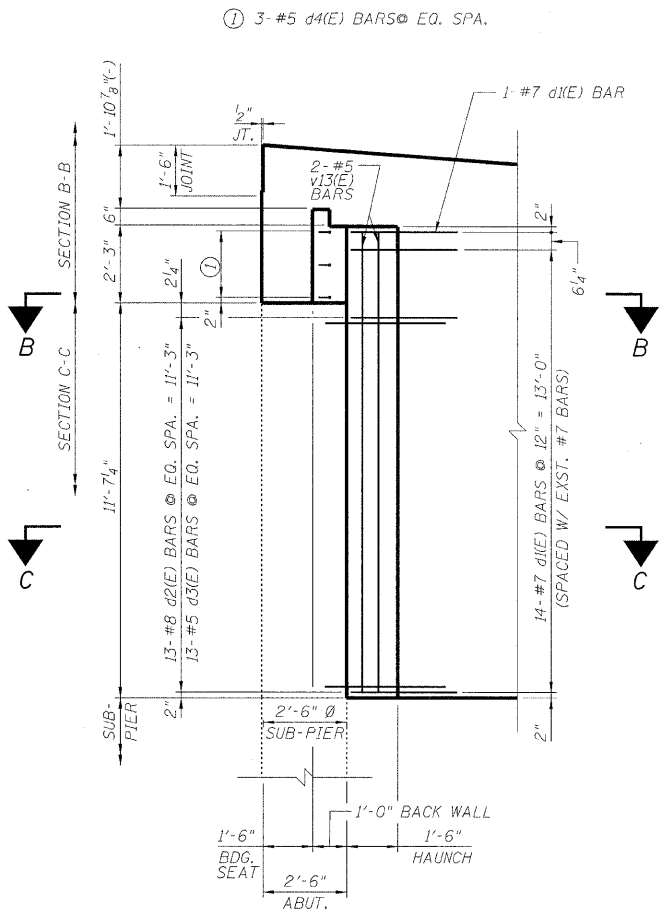
NOTE:
BARS d(E), d2(E) - d4(E) & d6(E) SHALL
BE EMBEDDED AND GROUTED USING
HIGH STRENGTH EPOXY GROUT.



SECTION B-B



SECTION C-C



ABUTMENT INTERFACE
ELEVATION
(LOOKING @ BACKFACE)

RAMPS 'D' & 'E' 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-W986

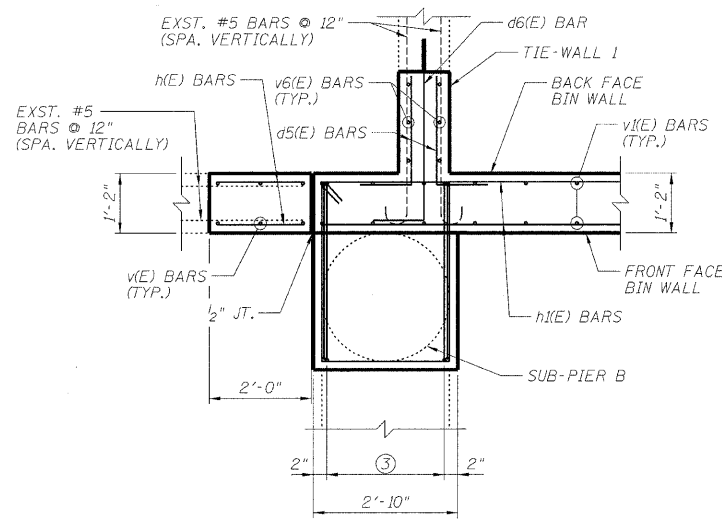
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005
DLZ Illinois, Inc.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

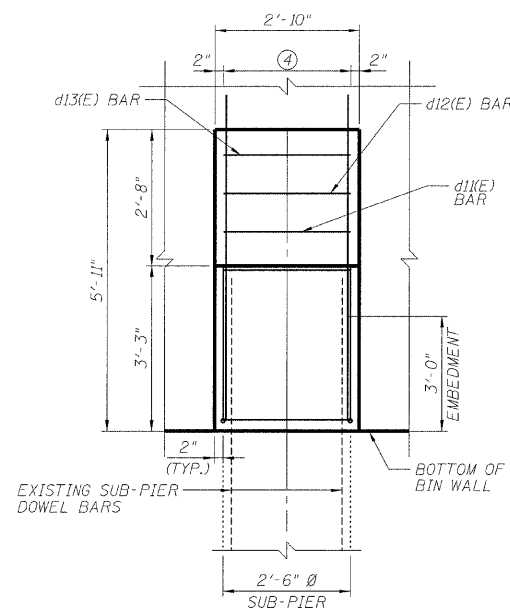
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	195
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 04
07 SHEETS

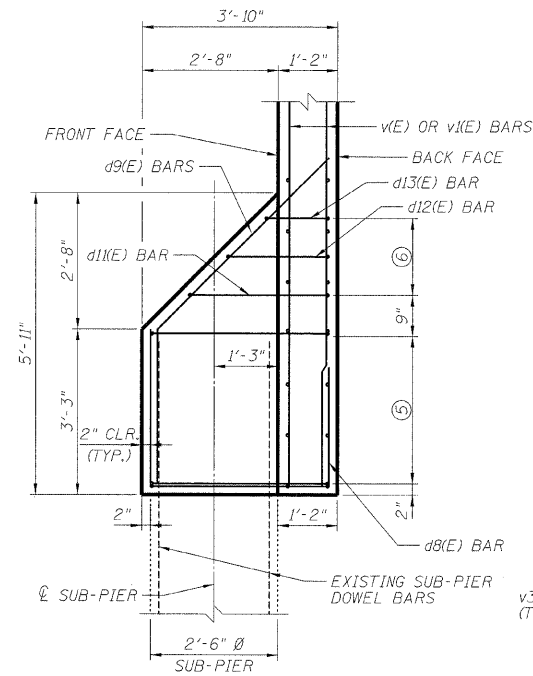
*SECT. (202.6-2P, ETC, 1415 & 1517)R-7
Contract # 62408



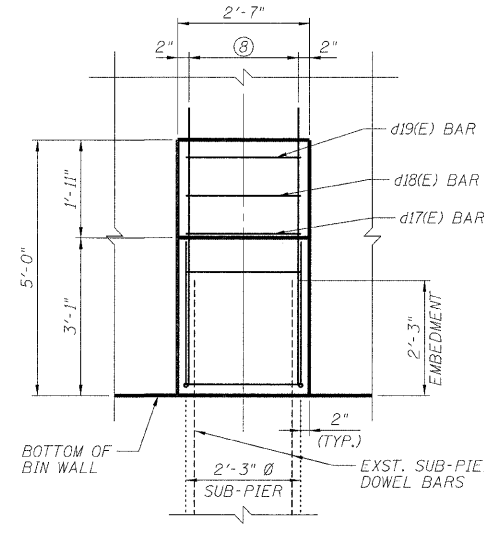
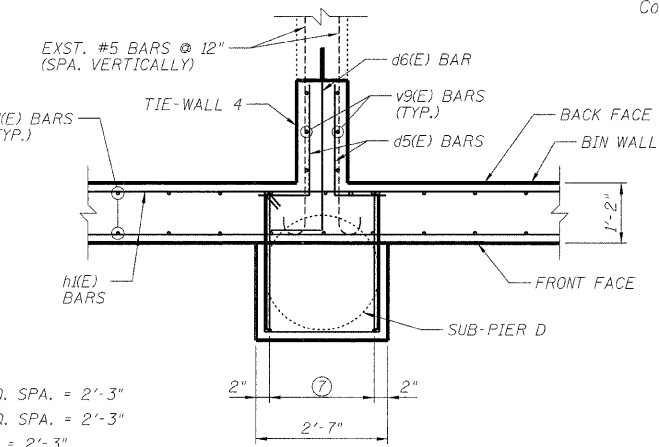
- ③ 6-#9 d8(E) BARS @ 6" = 2'-6"
- ④ 6-#5 d9(E) BARS @ 6" = 2'-6"
- ⑤ 5-#5 d10(E) BARS @ 9" = 3'-0"
- ⑥ 1-#5 d11(E) THRU d13(E) BARS @ 9" = 1'-6"



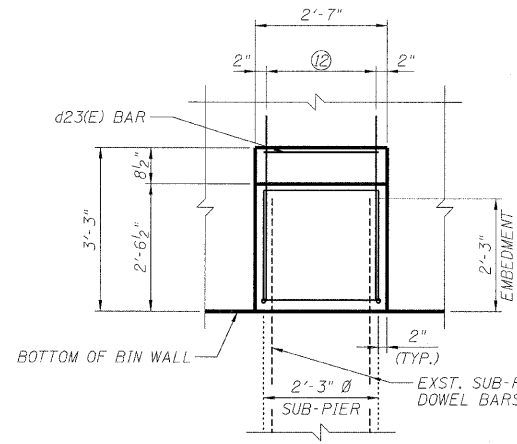
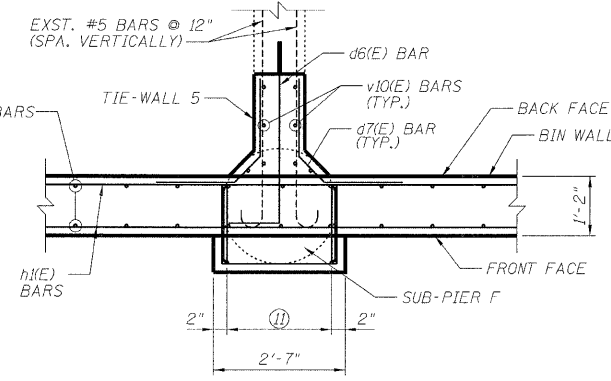
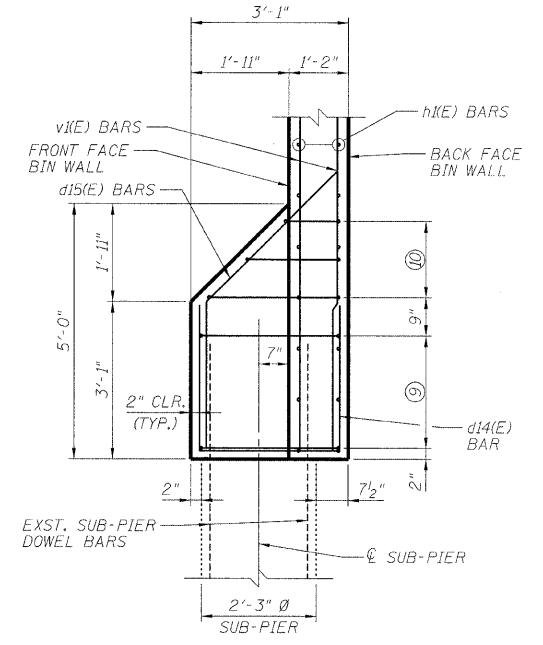
CORBEL @ SUB-PIER B



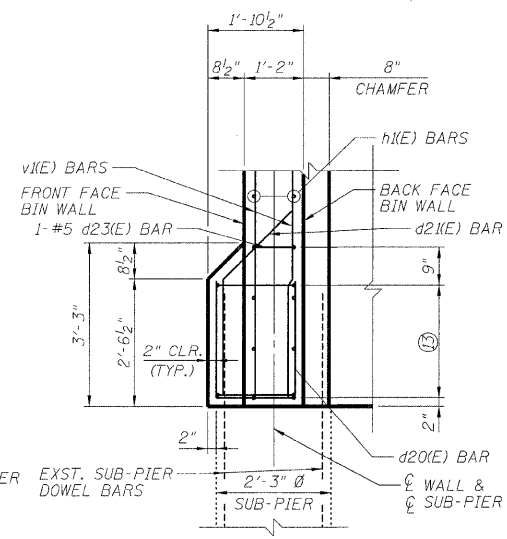
- ⑦ 5-#9 d14(E) BARS @ EQ. SPA. = 2'-3"
- ⑧ 5-#5 d15(E) BARS @ EQ. SPA. = 2'-3"
- ⑨ 4-#5 d16(E) BARS @ 9" = 2'-3"
- ⑩ 1-#5 d17(E) THRU d19(E) BARS @ 9" = 1'-6"



CORBEL @ SUB-PIER D



CORBEL @ SUB-PIER F



- ⑪ 5-#5 d20(E) BARS @ EQ. SPA. = 2'-3"
- ⑫ 5-#5 d21(E) BARS @ EQ. SPA. = 2'-3"
- ⑬ 4-#5 d22(E) BARS @ 9" = 2'-3"

RAMPS 'D' & 'E' 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-W986

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

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

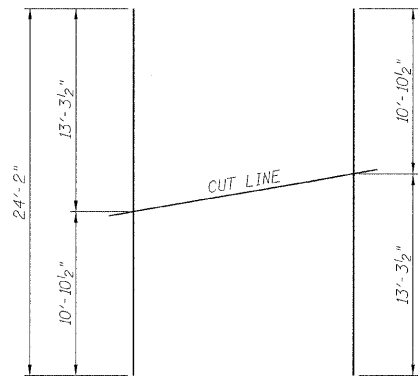
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	LISTED SHEETS	SHEET NO.
F.A.P. 90/94	*	COOK	246	196
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT -	

SHEET NO. 05

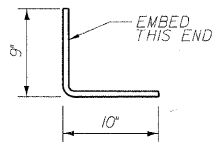
07 SHEETS

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

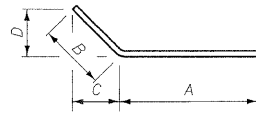


BAR v1(E)

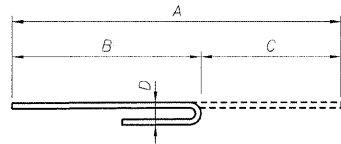
34 BARS-1 SET
(USE REMAINDER OF BARS
IN OPPOSITE FACE)



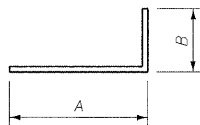
BAR d1(E)



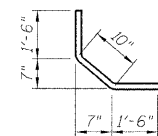
BARS d1(E), d9(E), d15(E) OR d21(E)



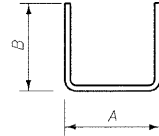
BARS d2(E) THRU d4(E)



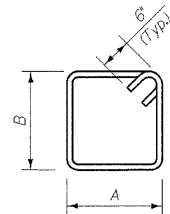
BARS d5(E) OR d6(E)



BAR d7(E)



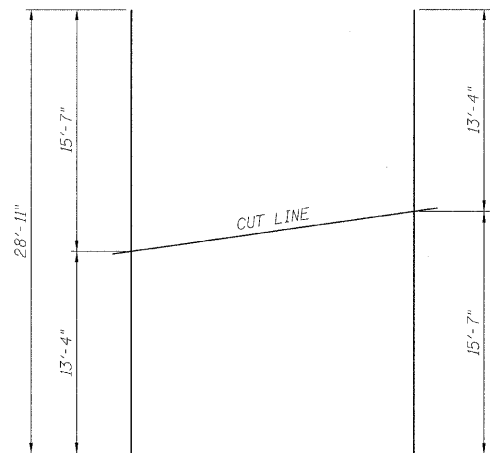
BARS d8(E), d14(E) or d20(E)



**BARS d10(E) THRU d13(E)
OR d16(E) THRU d19(E)
OR d22(E) THRU d23(E)**

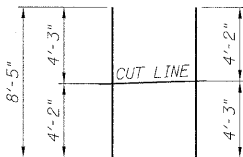
BAR BENDING DIAGRAMS

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)	3	6	3	0				
d9(E)	4	10	3	0	2	1 1/2	2	1 1/2
d10(E)	2	6	3	6				
d11(E)	2	6	2	9				
d12(E)	2	6	2	0				
d13(E)	2	6	1	3				
d14(E)	2	9	2	10				
d15(E)	3	8	2	10	2	0 1/4	2	0 1/4
d16(E)	2	3	2	9				
d17(E)	2	3	2	8				
d18(E)	2	3	1	11				
d19(E)	2	3	1	2				
d20(E)	1	6	2	3				
d21(E)	2	3	1	11	1	4	1	4
d22(E)	2	3	1	6 1/2				
d23(E)	2	3	0	10				



BAR v3(E)

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



BAR v4(E)

4 BARS-1 SET

BAR CUTTING DIAGRAMS

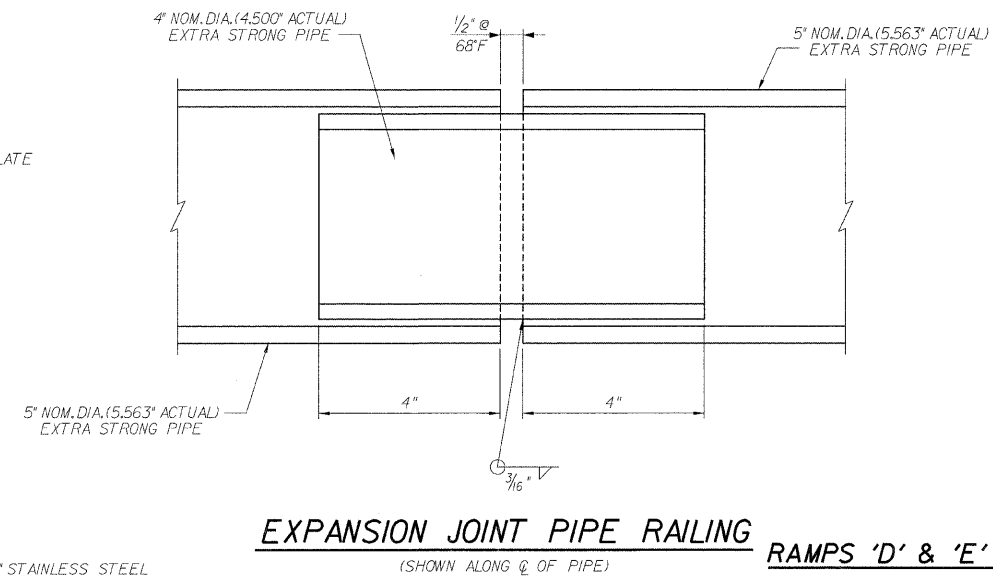
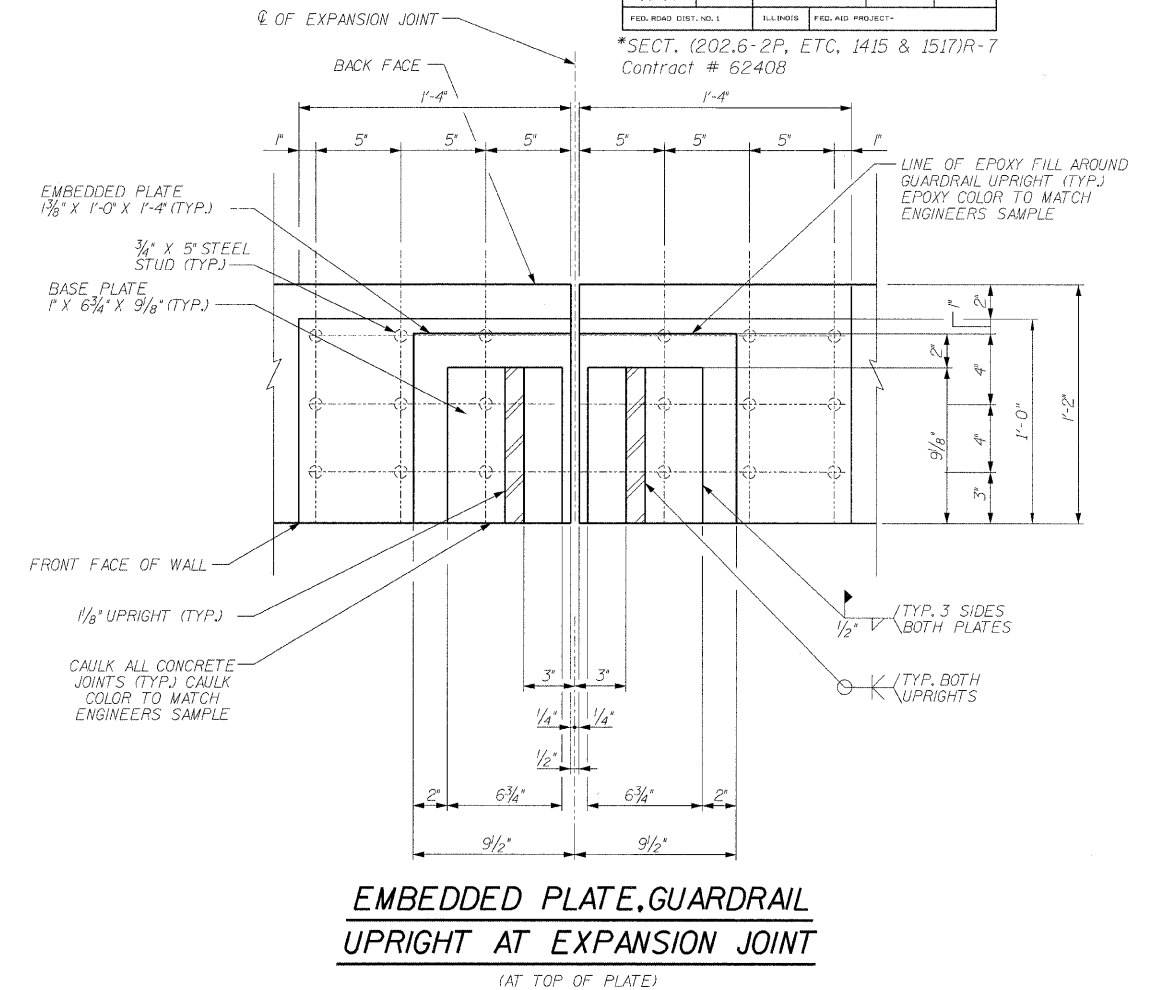
DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d1(E)	24	5	1'-7"	
d1(E)	15	7	4'-4"	
d2(E)	13	8	3'-2"	
d3(E)	13	5	1'-8"	
d4(E)	3	5	1'-11"	
d5(E)	130	5	3'-0"	
d6(E)	91	5	4'-9"	
d7(E)	24	5	3'-10"	
d8(E)	6	9	9'-6"	
d9(E)	6	5	7'-10"	
d10(E)	5	5	13'-0"	
d11(E)	1	5	11'-6"	
d12(E)	1	5	10'-0"	
d13(E)	1	5	8'-6"	
d14(E)	5	9	8'-5"	
d15(E)	5	5	6'-6"	
d16(E)	4	5	11'-0"	
d17(E)	1	5	10'-10"	
d18(E)	1	5	9'-4"	
d19(E)	1	5	7'-10"	
d20(E)	5	5	6'-0"	
d21(E)	5	5	4'-2"	
d22(E)	4	5	8'-7"	
d23(E)	1	5	7'-2"	
h(E)	24	6	1'-8"	
h1(E)	30	6	37'-0"	
h2(E)	24	6	30'-10"	
h3(E)	10	6	33'-4"	
h4(E)	12	5	2'-2"	
v(E)	6	5	10'-9"	
v1(E)	34	5	24'-2"	
v2(E)	2	5	13'-4"	
v3(E)	31	5	28'-11"	
v4(E)	4	5	8'-5"	
v5(E)	4	5	10'-9"	
v6(E)	6	5	8'-6"	
v7(E)	6	5	9'-1"	
v8(E)	6	5	9'-9"	
v9(E)	6	5	10'-6"	
v10(E)	6	5	11'-2"	
v11(E)	6	5	11'-10"	
v12(E)	6	5	12'-6"	
v13(E)	2	5	13'-6"	
CONCRETE STRUCTURES			CU. YD.	50.2
REINFORCEMENT BARS, EPOXY COATED			POUND	7,780

RAMPS 'D' & 'E' 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-W986

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



EXPANSION JOINT PIPE RAILING
(SHOWN ALONG ϕ OF PIPE)

RAMPS 'D' & 'E' 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-W986

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	198	07
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

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

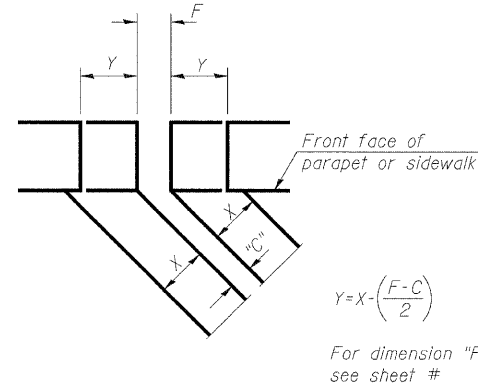
② Install anchor blocks as indicated.

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

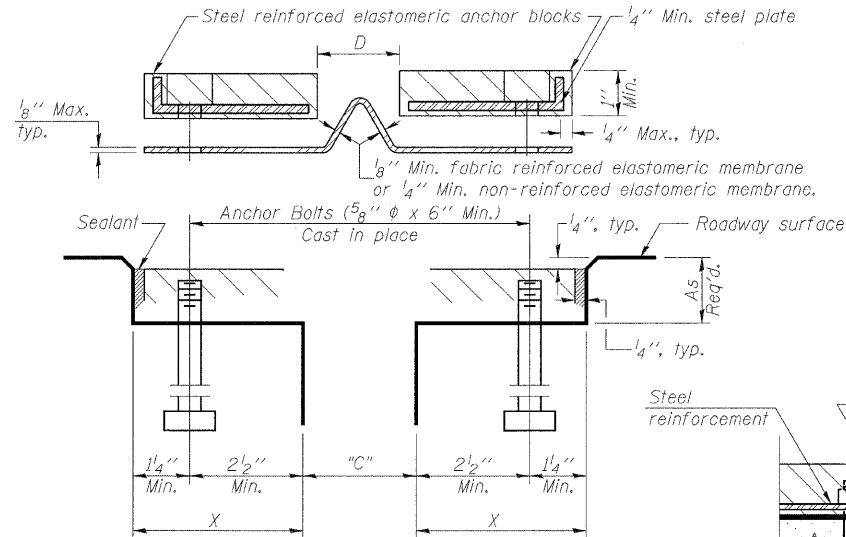
SKREW LIMITATIONS

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

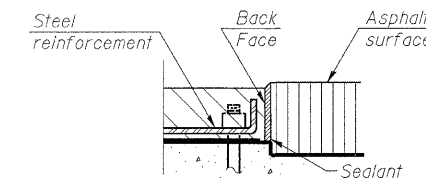
For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be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



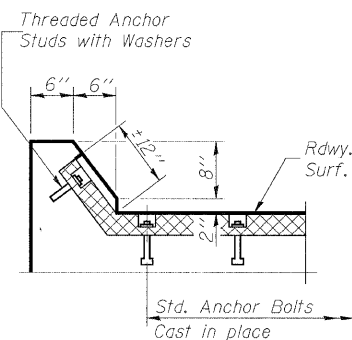
**FORMING BLOCKOUT
SKETCH**



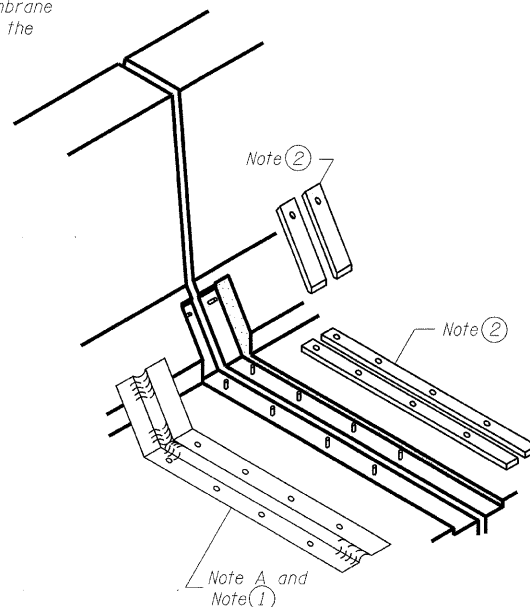
CROSS SECTION



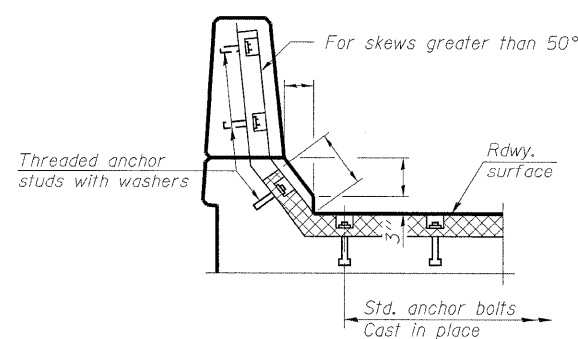
**ANCHOR BLOCK
WITH ASPHALT SURFACE**



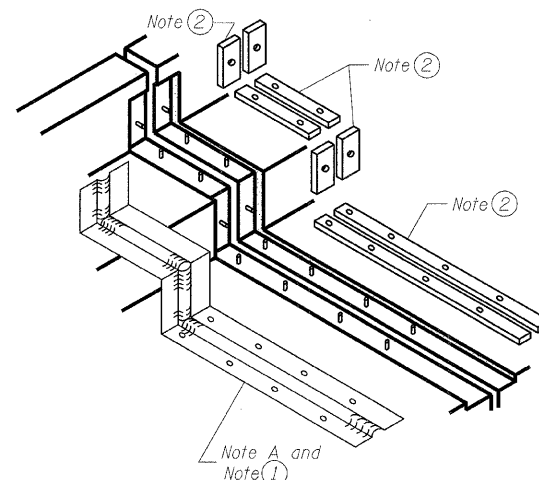
AT CURB



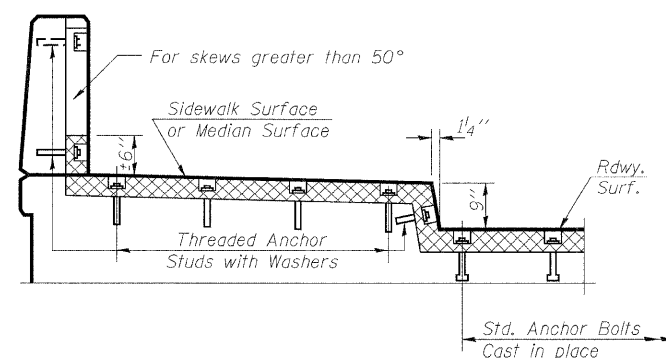
AT PARAPET



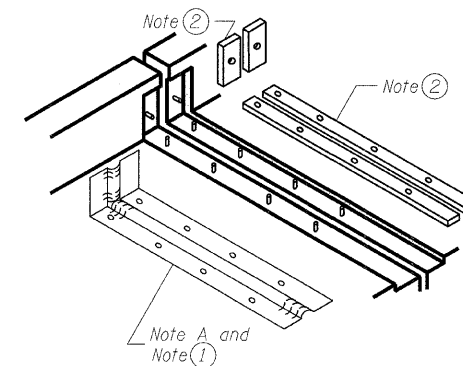
AT PARAPET



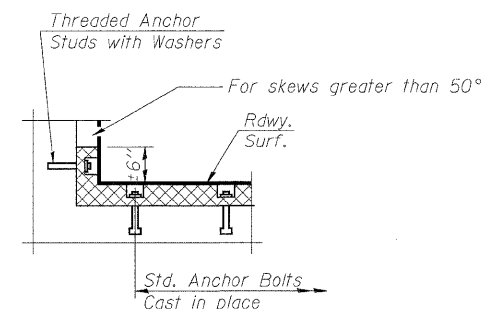
AT SIDEWALK OR MEDIAN



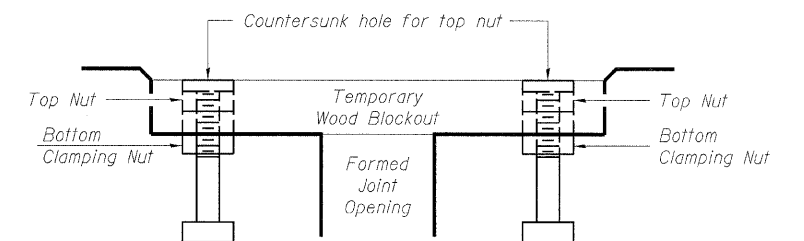
**AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS**



AT WALL



AT WALL



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

Anchor studs should be stainless

RECOMMENDED BLOCKOUT DETAIL

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-W986**

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. OF
F.A.P. 90/94	*	COOK	246	199	07 SHEETS
FED. ROAD DIST. NO. 1					
SHEETS					

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

GENERAL NOTES

1. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 106 GR 60 (IL MODIFIED). SEE SPECIAL PROVISIONS.
2. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
3. EXPOSED EDGES SHALL HAVE A $\frac{3}{4}$ " CHAMFER.
4. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED UPON THE UNIT PRICE BID FOR THE WORK.
5. EXISTING REINFORCEMENT THAT IS TO BE REUSED IN THE PROPOSED, SHALL BE CLEANED AND STRAIGHTENED.
6. EMBEDDED BARS SHALL BE EPOXY GROUTED, TO THE DEPTH SPECIFIED, IN ACCORDANCE WITH SECTION 584 OF THE STANDARD SPECIFICATIONS.

DESIGN SPECIFICATIONS

AASHTO 2002 SPECIFICATIONS W/ CURRENT INTERIMS

DESIGN STRESSES

$f'_c = 3,500$ psi (CONCRETE)
 $f_y = 60,000$ psi (REINFORCEMENT)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

BILL OF MATERIALS

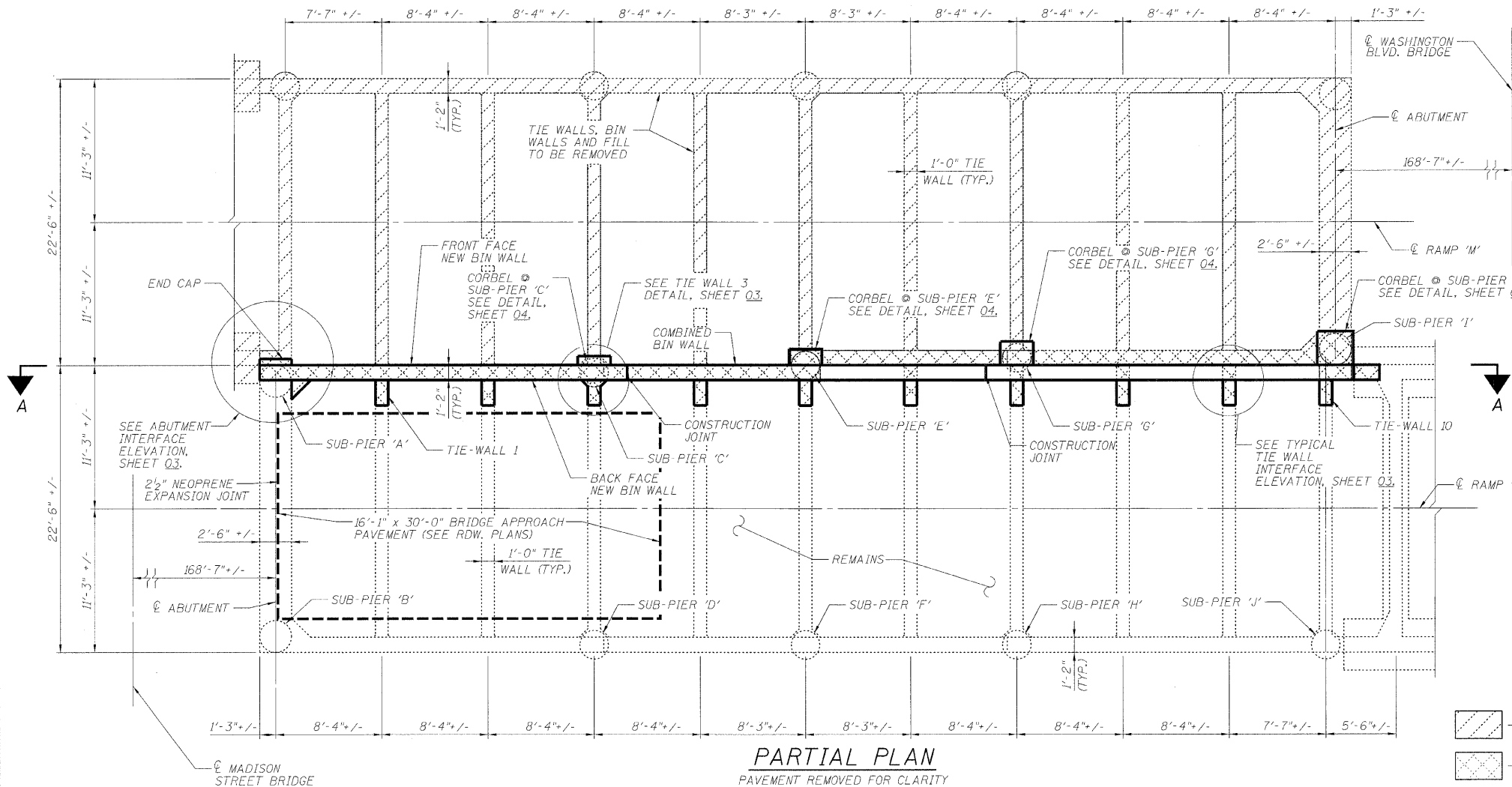
ITEM	UNIT	QUANTITY
CONCRETE STRUCTURES	CU YD	611
REMOVAL OF EXISTING STRUCTURES NO. 3	EACH	1
CONCRETE REMOVAL	CU YD	78
REINFORCEMENT BARS, EPOXY COATED	POUND	9,910
POROUS GRANULAR EMBANKMENT	TON	779
REMOVE, SLAVAGE, STORE AND INSTALL DECORATIVE STEEL GUARDRAIL RAMP L	LS	1
FABRICATION AND INSTALLATION OF EMBEDDED PLATES, RAMP L	LS	1
$\frac{1}{2}$ " NEOPRENE EXPANSION JOINT	FOOT	24

DLZ ILLINOIS, LLC
ARLINGTON HEIGHTS, ILLINOIS

Signed: *[Signature]*

Date: 02-25-2009

Expiration Date: 11/30/10

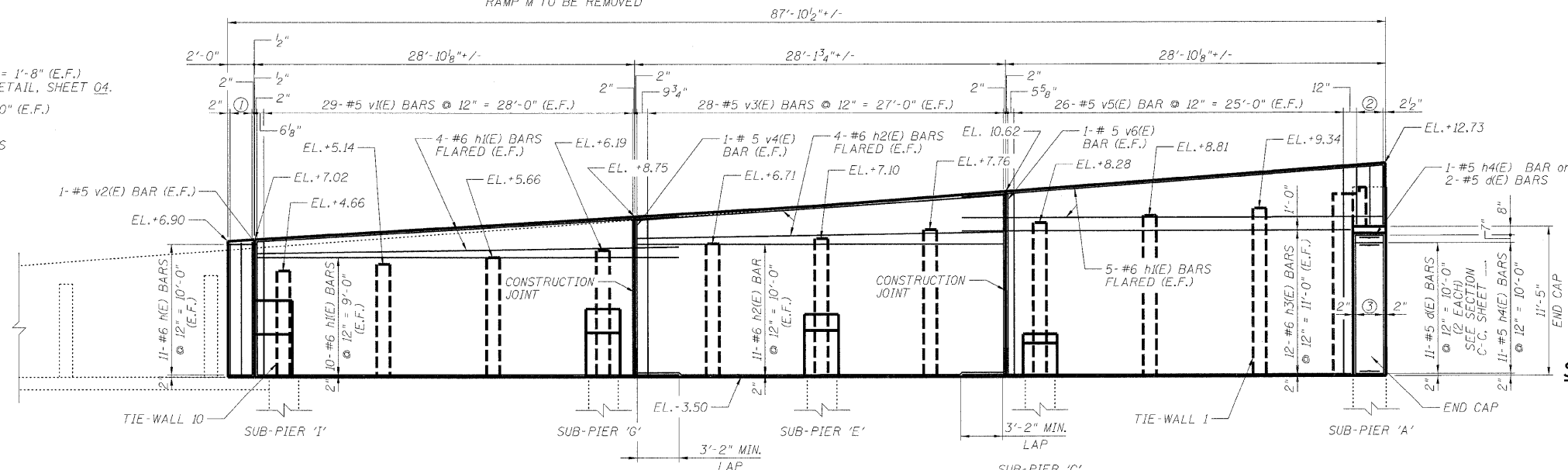


PARTIAL PLAN

PAVEMENT REMOVED FOR CLARITY
RAMP M TO BE REMOVED

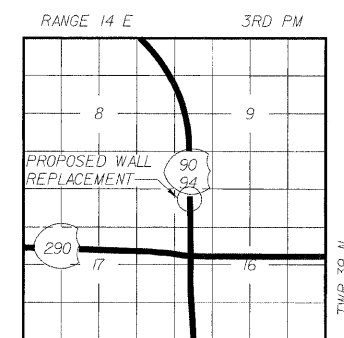
- INDICATES AREA FOR REMOVAL OF EXISTING STRUCTURE NO. 3
- INDICATES AREA FOR CONCRETE REMOVAL

- ① 3-#5 v(E) BARS @ 2 EQ. SPA. = 1'-8" (E.F.)
SEE CORBEL @ SUB-PIER 'I' DETAIL, SHEET 04.
- ② 3-#5 v(E) BARS @ 1'-0" = 2'-0" (E.F.)
SEE SECTION B-B, SHEET 03.
- ③ 4-#5 v(E) BARS @ EQ. SPACES
SEE SECTION C-C, SHEET 03.



VIEW A-A

E.F. = EACH FACE



LOCATION SKETCH

RAMPS 'L' & 'M' GENERAL PLAN
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

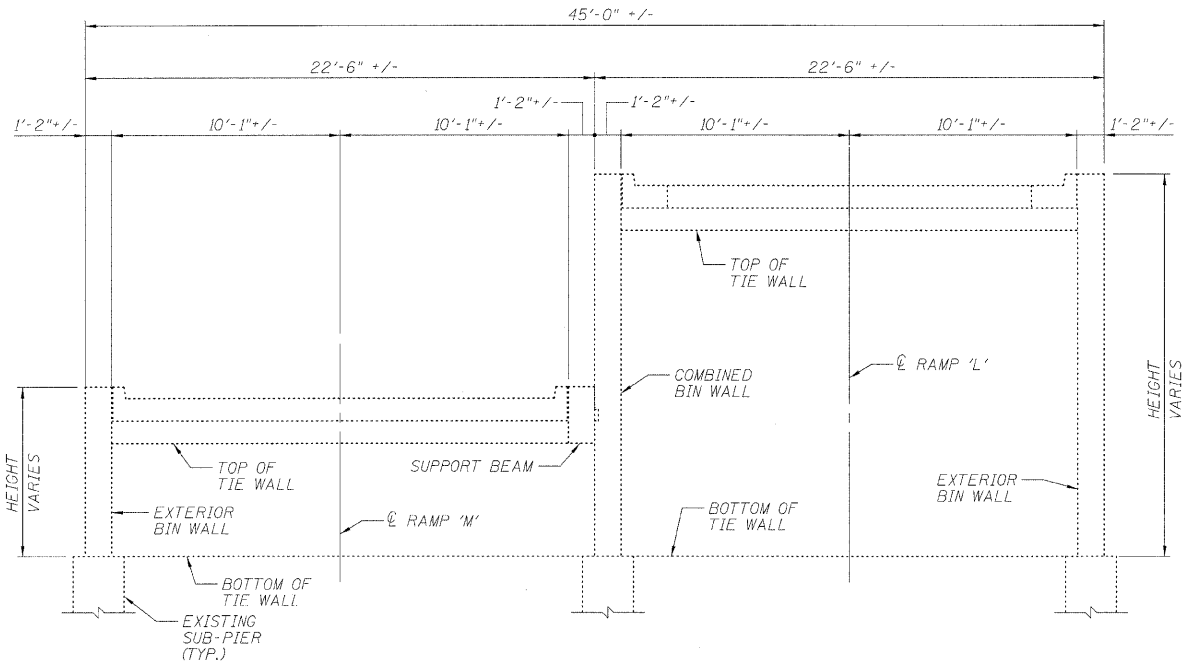
DLZ 85 W. Algonquin Rd. Ste. 220
Arlington Heights IL 60005

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

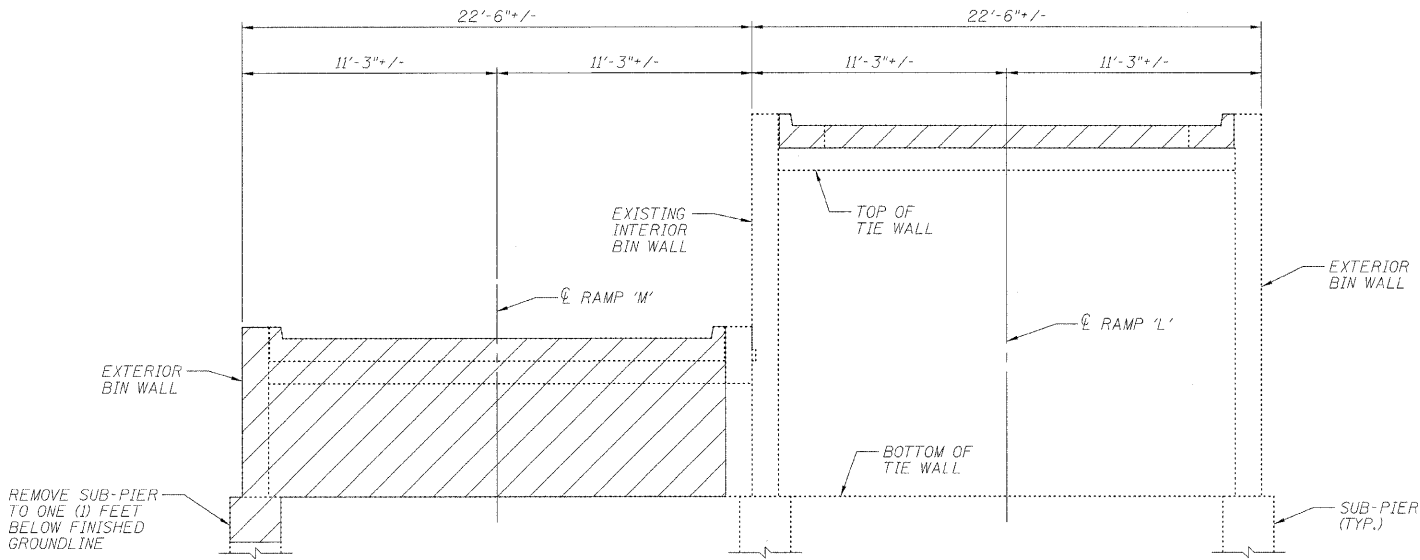
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.P. 90/94	#	COOK	246	200	02
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT			07 SHEETS

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



EXISTING TYPICAL SECTION
(LOOKING NORTH)



STAGE 1
(LOOKING NORTH)

PROPOSED STAGE PLANNING

STAGE 1

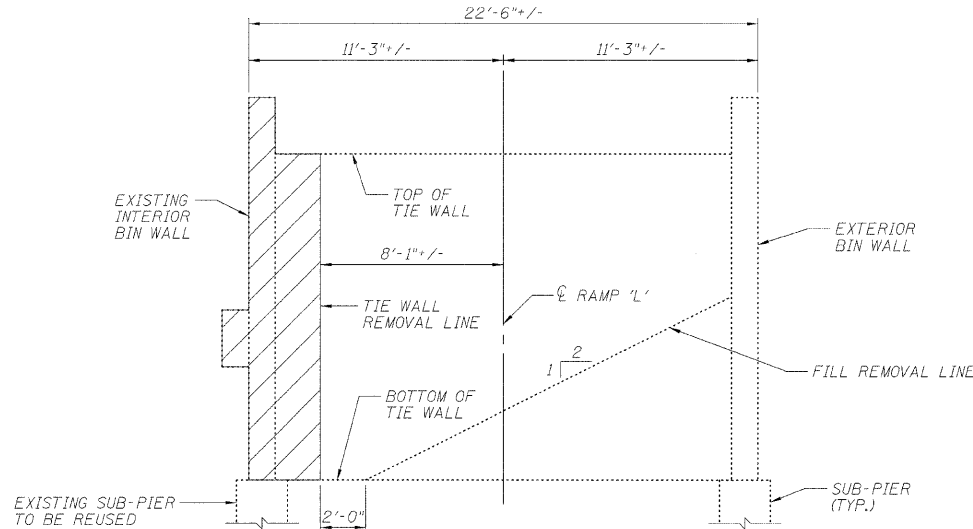
1. CLOSE RAMP 'L' TO TRAFFIC.
2. REMOVE, SALVAGE AND STORE RAILING FROM RAMP 'L' CENTER WALL.
3. REMOVE RAMP 'L' CURBS & PAVEMENT
4. REMOVE RAMP 'M' IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. NO WORK SHALL BE PERFORMED FROM ON TOP OF RAMP 'L' UPON COMMENCEMENT OF RAMP 'M' REMOVAL FOR THE DURATION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

STAGE 2

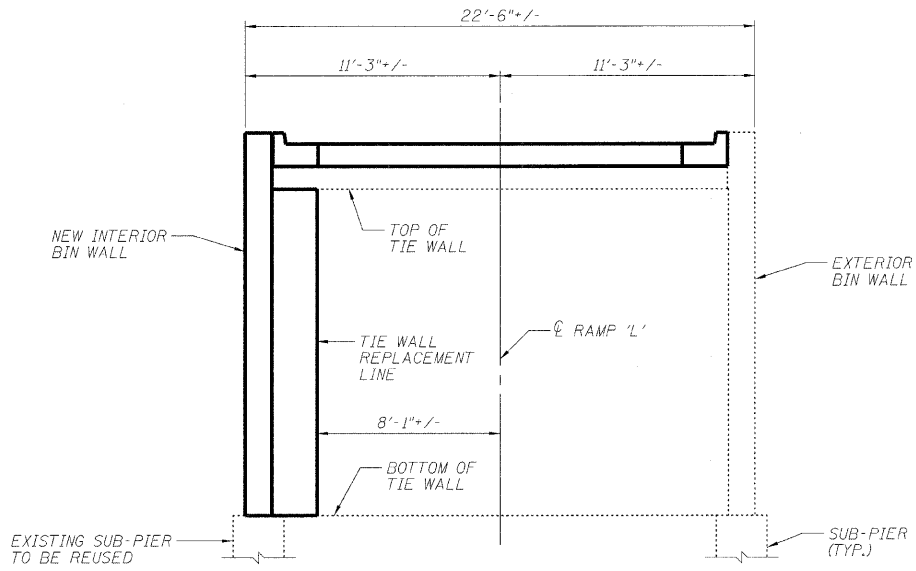
5. REMOVE CENTER WALL, FILL MATERIAL, AND RAMP 'L' TIE WALLS. TIE WALLS TO BE REMOVED TO AN OFFSET OF 8'-1" LEFT OF RAMP 'L' CENTERLINE.

FINAL

6. CONSTRUCT PROPOSED CENTER WALL, CORBELS AND TIE WALL PORTIONS AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.
7. FILL BIN WITH POROUS GRANULAR EMBANKMENT IN ACCORDANCE WITH SECTION 207.00 OF THE STANDARD SPECIFICATIONS.
8. UPON COMPLETION OF BACKFILLING OPERATIONS, CONSTRUCT PAVEMENT AND CURBS FOR RAMP 'L'.
9. REPLACE GUARDRAIL ON NEWLY CONSTRUCTED WALL.
10. RE-OPEN RAMP 'L' TO TRAFFIC.



STAGE 2
(LOOKING NORTH)



FINAL
(LOOKING NORTH)

DESIGNED	ASP
CHECKED	LNB
DRAWN	BEM
CHECKED	ASP

RAMPS 'L' & 'M' 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-W987