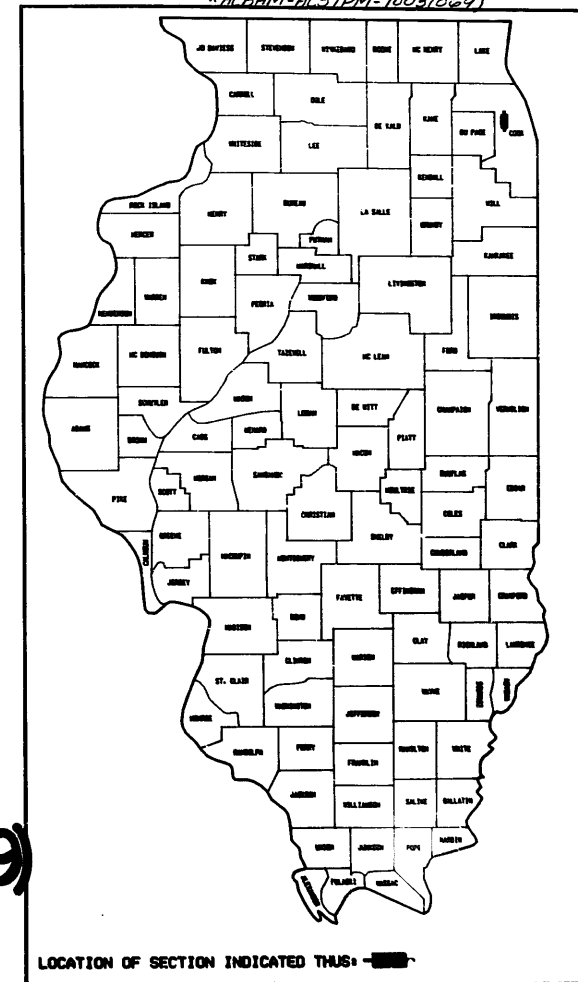


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2714	1010.2R	COOK	89	1
F.H.W.A. REG.		ILLINOIS PROJECT NO.		

D-91-038-91
*ACBHM-ACSTPM-7003(069)



INDEX OF SHEETS

FOR INDEX OF SHEETS SEE SHEET NO. 4

INDEX OF STANDARDS

FOR INDEX OF STANDARDS SEE SHEET NO. 4

MUNICIPALITIES INVOLVED

Village of Franklin Park
Village of Melrose Park

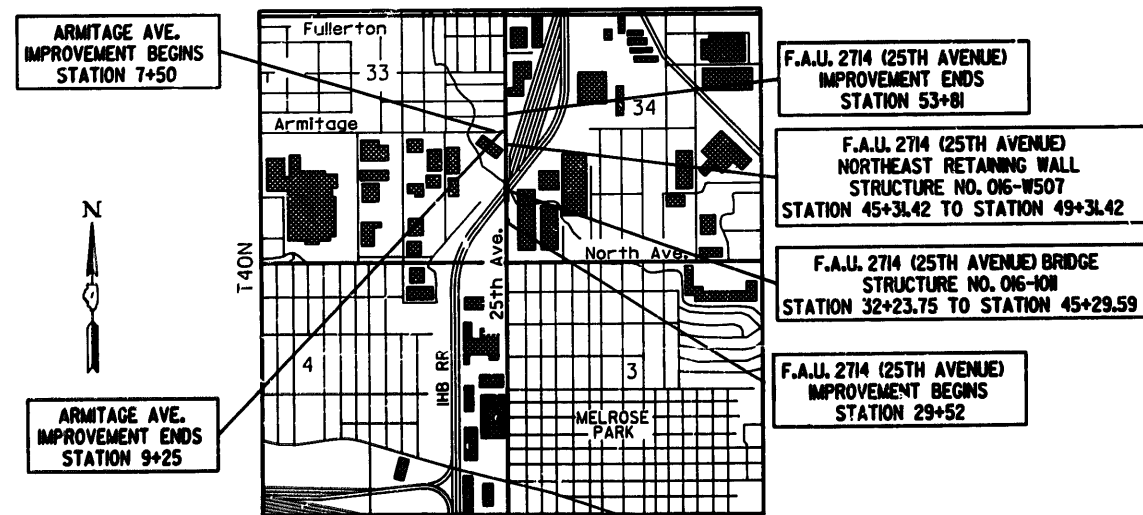
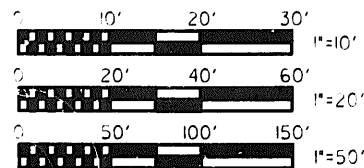
SCALES { PLAN 1" = 50'
 { PROFILE H: 1" = 50'
 { V: 1" = 5'
 { CROSS SECTIONS H: 1" = 10'
 { V: 1" = 5'

F.A.U. 2714 (25TH AVENUE) OVER IHB RAILROAD AND AT ARMITAGE AVENUE SECTION 1010.2R COOK COUNTY PROJECT NO. ACBHM-ACSTPM-7003(069) C-91-038-91

PROPOSED IMPROVEMENT
REMOVAL AND RECONSTRUCTION OF BRIDGE DECK AND NORTHEAST RETAINING WALL AT 25TH AVENUE OVER THE IHB RAILROAD, AND RESURFACING AND WIDENING OF SECTIONS OF 25TH AVENUE AND ARMITAGE AVENUE



Signed *Richard L. Thompson*
Richard L. Thompson, P.E., Ill. Lic. No. 062-C-40100
Expires 11-30-1994
Date 11-23-93



LOCATION MAP

Scale: 1" = 2000'

25th Avenue Length of Improvement = 2,429 feet = 0.46 miles
Armitage Avenue Length of Improvement = 175 feet = 0.03 miles

FOR UNDERGROUND UTILITY LOCATIONS CALL

J.U.L.I.E.

AT 1-800-892-0123

LEYDEN TOWNSHIP SECTIONS 33 AND 34

DESIGN DESIGNATION

25TH AVENUE
2200(10) URBAN MINOR ARTERIAL I52 (BIT-20)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 27, 1993 19 93 DISTRICT ENGINEER

EXAMINED _____ 19 _____ ENGINEER OF PLANS AND CONTRACTS

PASSED SEPT. 30, 1993 *Raymond Gault* ENGINEER OF DESIGN

APPROVED SEPT. 2, 1993 *Ralph C. Walker* DIRECTOR, DIVISION OF HIGHWAYS

CONTRACT NO. 80943

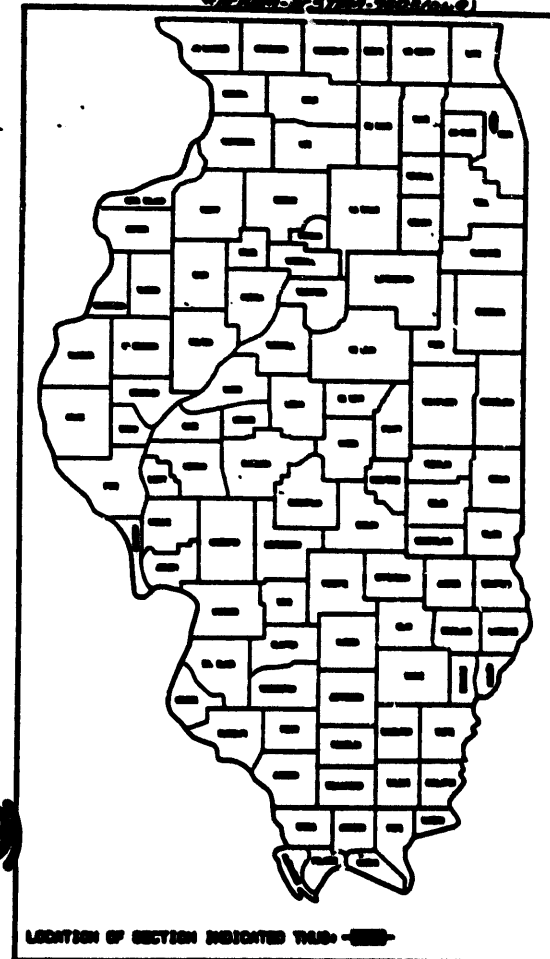
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A. RTE.	SECTION	COUNTY	DATE	BY
274	1010.2R	COOK	09	1

D-91-038-91



INDEX OF SHEETS

FOR INDEX OF SHEETS SEE SHEET NO. 4

INDEX OF STANDARDS

FOR INDEX OF STANDARDS SEE SHEET NO. 4

MUNICIPALITIES INVOLVED

Village of Franklin Park
Village of Melrose Park

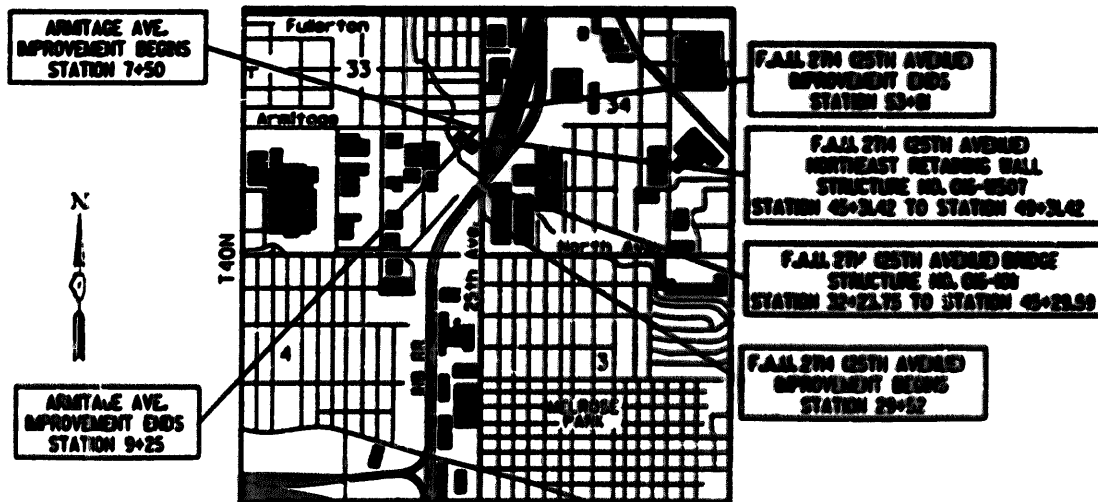
SCALES { PLAN 1" = 50'
 PROFILE H: 1" = 50'
 V: 1" = 5'
 CROSS SECTIONS H: 1" = 10'
 V: 1" = 5'

F.A.U. 2714 (25TH AVENUE) OVER IHB RAILROAD AND AT ARMITAGE AVENUE SECTION 1010.2R COOK COUNTY PROJECT NO. ACBHM-ACSTPM-7003(069) C-91-038-91

PROPOSED IMPROVEMENT
 REMOVAL AND RECONSTRUCTION OF BRIDGE
 DECK AND NORTHEAST RETAINING WALL AT
 25TH AVENUE OVER THE IHB RAILROAD, AND
 RESURFACING AND WIDENING OF SECTIONS OF
 25TH AVENUE AND ARMITAGE AVENUE



Signed *Richard L. Thompson*
 Richard L. Thompson, P.E., E. Lic. No. 062-040100
 Expires 11-30-1994
 Date *July 23, 1993*



LOCATION MAP

Scale: 1" = 2000'

25th Avenue Length of Improvement = 2,429 feet = 0.46 miles
 Armitage Avenue Length of Improvement = 175 feet = 0.03 miles

FOR UNDERGROUND UTILITY LOCATIONS CALL
J.U.L.I.E.

AT 1-800-892-0123

LEYDEN TOWNSHIP SECTIONS 33 AND 34

DESIGN DESIGNATION

25TH AVENUE
 2200(10) URBAN MINOR ARTERIAL 152 (BIT-20)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED *[Signature]* 10 22 1993

EXAMINED _____ 10 _____

PASSED *SEPT. 30, 1993* *[Signature]*

APPROVED *SEPT. 23, 1993* *[Signature]*



CONTRACT NO. 80943

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

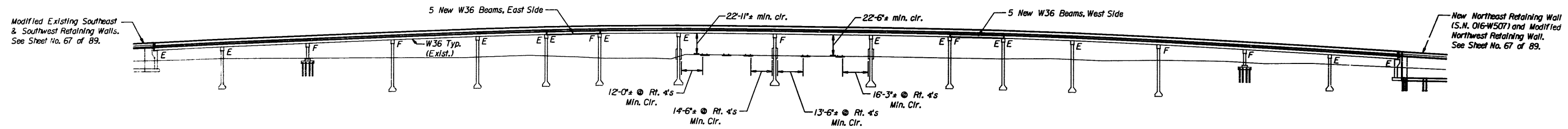
I.D.O.T. CONSULTANT SERVICES PROJECT ENGINEER:
 PREM SURI / HASMUKH THAKKAR, (708) 705-4555

T.B.M.: Railroad spike in light pole in northeast quadrant of 25th Avenue and Armitage Ave. Elev. 637.23

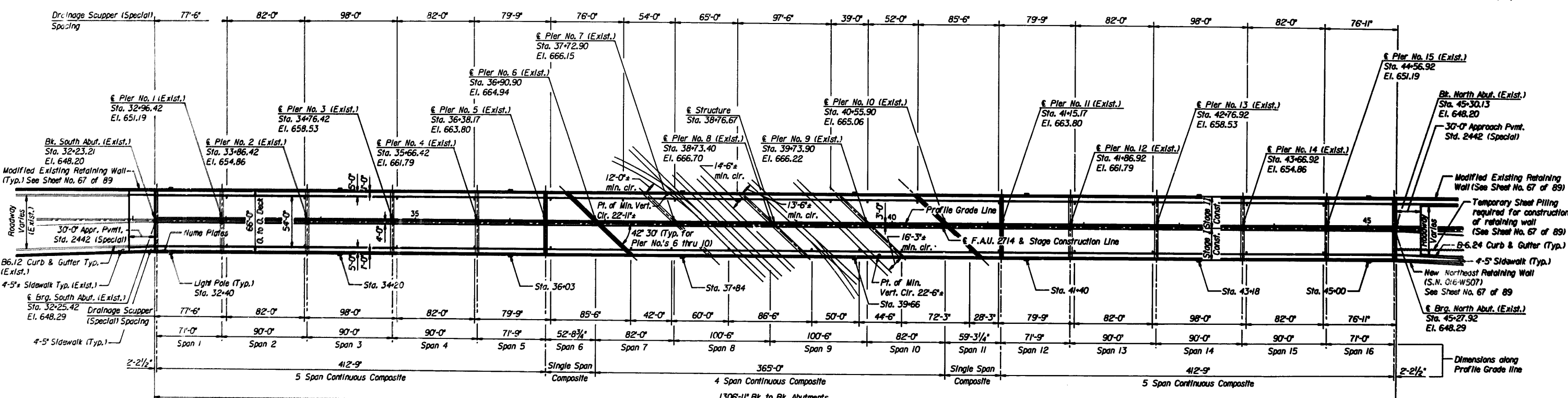
Existing Structure: Structure No. 016-1011, built as 25th Avenue, Section D20-1010.2MFT in 1965 is 66'-0" wide by 1302'-6" long. The existing sixteen span reinforced concrete deck and steel wide flange beams are supported on multiple column piers and closed abutments. The existing concrete deck shall be removed. Five beams in Span 6 and five beams in Span 11 shall be replaced with new W36 steel beams. Existing expansion bearings below deck joints shall be replaced. Existing abutments and piers shall be repaired. A new 66'-0" wide composite concrete deck shall be constructed. Existing abutments, piers, and steel beams shall be incorporated into new construction. Traffic shall be staged during construction.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 SHEETS 41
F.A.U. 2714	1010.2R	COOK	89	26	
FED. ROAD DIST. NO. 7	ILLINDIS	PROJECT			



ELEVATION



PLAN

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
Engineer of Bridges and Structures



Signed *Gary S. Powell*
Gary S. Powell, S.E. Ill. Lic. No. 081-004711
Expires 11-30-1994
Date 7-23-1993

Bascor, Inc.
consulting engineers and planners

DESIGNED	DAZ
CHECKED	GSP
DRAWN	SAW
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

DESIGN STRESSES

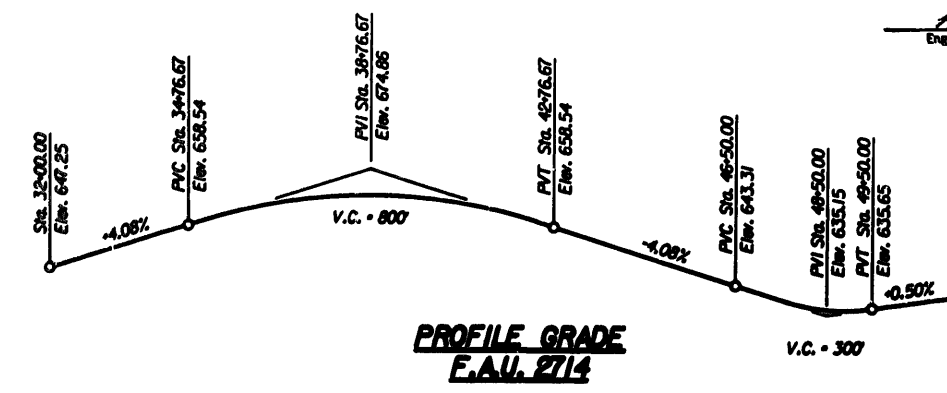
CAST-IN-PLACE CONCRETE
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)
STRUCTURAL STEEL
fy = 36,000 psi (AASHTO M270 Gr. 35)

LOADING

HS20-44
25 psi Future Wearing Surface

SPECIFICATIONS

Standard Specifications for Highway Bridges,
AASHTO 1992.



PROFILE GRADE
F.A.U. 2714



LOCATION PLAN

GENERAL PLAN
& ELEVATION

25TH AVENUE OVER MB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	27
FED. ROAD DIST. NO.	ILLINOIS PROJECT			

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " open holes $\frac{1}{16}$ " unless otherwise noted.
Calculated weight of Structural Steel = 242,000 lbs.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all cover plates except fill plates.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans 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 variation shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor shall use extreme care during removal of the existing concrete deck so as not to nick, cut or damage any of the structural steel or shear studs to be incorporated into the new structure.

The Contractor shall clean the top of all piers and abutments between bearings. Cost incidental to Class X Concrete Superstructure.

The Contractor will be required to mark on the top of the concrete deck the locations of the top flange of all the steel beams prior to any removal of the bridge concrete deck. Saw cutting directly over the top of any beam flanges is not permitted.

The Inorganic Zinc Silicate/Acrylic/Acrylic paint system shall be used for shop and field painting of New Structural Steel. The color of the final coat on fascia girders shall be Munsell Standard 2.5YR $\frac{3}{4}$ " Reddish Brown. The color of the final coat on interior girders shall be Munsell Standard 10Y 7/1 "Light Grey." Cost incidental to F&E Structural Steel in accordance with Art. 503.08

All contact surface areas of new and existing structural steel shall be free of paint or lacquer.

Existing structural steel designated on the plans to be cleaned and painted shall be cleaned using Partial Removal (Modified SSPC SP3) Surface Preparation method. See Special Provisions for "Cleaning and Painting Existing Steel Structures."

Estimated area of existing structural steel to be cleaned and painted = 16,600 sq.ft. (for information only)

Protective Shield shall be installed in deck removal areas over Spans 1 thru 10. Estimated area of Protective Shield is 5,721 sq.yd. See Special Provisions.

Existing Name Plates on the southeast and northwest retaining walls shall be cleaned and relocated adjacent to the new Name Plate on the the southeast corner of the new bridge parapet. Cost incidental to "Name Plates."

The concrete for bridge floors finished in accordance with Article 503.15 of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The finishing machine, when required, shall be set parallel to the skew for striking off and screeding the concrete.

STATION 38+76.67
REBUILT 199_ BY
STATE OF ILLINOIS
F.A.U. RT. 2714 SEC. 1010.2R
F.A. PROJECT NO. _____
LOADING HS20
STR. NO. 016-1011

ACBHM-ALSTPM-1003(069)

NAME PLATE

(See Std. 2113)

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Removal of Existing Concrete Deck	L.Sum	1	-	1
Neoprene Expansion Joint 2 1/2"	Lin.Ft.	335	-	335
Neoprene Expansion Joint 4"	Lin.Ft.	135	-	135
Class X Concrete Superstructure	Cu.Yd.	2,859.4	-	2,859.4
Protective Coat	Sq.Yd.	3,145.3	-	3,145.3
Elastomeric Bearing Assembly, Type I	Each	24	-	24
Elastomeric Bearing Assembly, Type II	Each	72	-	72
Formed Concrete Repair (Depth equal to or less than 5")	Sq.Ft.	-	276.0	276.0
Furnishing & Erecting Structural Steel	L.Sum	1	-	1
Stud Shear Connectors	Each	2,544	-	2,544
Jack and Remove Existing Bearings	Each	86	-	86
Jack and Reposition Bearings	Each	72	-	72
Structural Steel Removal	L.Sum	1	-	1
Handrail Removal	Lin.Ft.	2,614	-	2,614
Cleaning and Painting Steel Bridges	L.Sum	1	-	1
Reinforcement Bars, Epoxy Coated	Pound	609,260	-	609,260
Name Plates	Each	1	-	1
Drainage Sappers (Special)	Each	33	-	33
Drainage System	L.Sum	1	-	1
Bar Splicers	Each	3,659	-	3,659
Pedestrian Rolling	Lin.Ft.	2,614	-	2,614
Bridge Deck Grooving	Sq.Yd.	7,238	-	7,238
Epoxy Crack Sealing	Lin.Ft.	41.0	-	41.0
Power Tool Cleaning Residue Containment & Disposal	L.Sum	1	-	1
Junction Box Non-Metallic Embedded In Structure	Each	4	-	4
Removal of Existing Light Unit & Salvage	Each	10	-	10

* See Special Provisions
**Protective Coat shall be applied to top & inside face of parapets, sidewalk and median.

Bascor, Inc.
consulting engineers and planners

DESIGNED	DAZ
CHECKED	GSP
DRAWN	SAW
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

**GENERAL NOTES
BILL OF MATERIAL**

25TH AVENUE OVER IRR RAILROAD
F.A.U. PROJECT: SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 27	SHEET NO. 2
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					SHEETS 41

GENERAL NOTES

Fasteners shall be high strength bolts. Bolts 3/4" dia, open holes 15/16" dia, unless otherwise noted.
Calculated weight of Structural Steel - 242,000 lbs.

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Anchor bolts shall be set before bolting diaphragms over supports.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all cover plates except fill plates.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans 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 variation shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor shall use extreme care during removal of the existing concrete deck so as not to nick, cut or damage any of the structural steel or shear studs to be incorporated into the new structure.

The Contractor shall clean the top of all piers and abutments between bearings. Cost incidental to Class X Concrete Superstructure.

The Contractor will be required to mark on the top of the concrete deck the locations of the top flange of all the steel beams prior to any removal of the bridge concrete deck. Saw cutting directly over the top of any beam flanges is not permitted.

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All contact surface areas of new and existing structural steel shall be free of paint or lacquer.

Existing structural steel designated on the plans to be cleaned and painted shall be cleaned using Partial Removal (Modified SSPC SP3) Surface Preparation method. See Special Provisions for "Cleaning and Painting Existing Steel Structures."

Estimated area of existing structural steel to be cleaned and painted - 16,600 sq.ft. (for information only)

Protective Shield shall be installed in deck removal areas over Spans 1 thru 10. Estimated area of Protective Shield is 5,721 sq.yd. See Special Provisions.

Existing Name Plates on the southeast and northwest retaining walls shall be cleaned and relocated adjacent to the new Name Plate on the the southeast corner of the new bridge parapet. Cost incidental to "Name Plates."

The concrete for bridge floors finished in accordance with Article 503.15 of the Standard Specifications shall be placed and compacted parallel to the skew in uniform increments along centerline of bridge. The finishing machine, when required, shall be set parallel to the skew for striking off and screeding the concrete.

STATION 38+76.67
REBUILT 199_ BY
STATE OF ILLINOIS
F.A.U. RT. 2714 SEC. 1010.2R
F.A. PROJECT NO. _____
LOADING HS20
STR. NO. 016-1011

ACBHM-AC5TPM-1003(069)

NAME PLATE
(See Std. 2113)

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Removal of Existing Concrete Deck	L.Sum	1	-	1
Neoprene Expansion Joint 2 1/2"	Lin.Ft.	335	-	335
Neoprene Expansion Joint 4"	Lin.Ft.	135	-	135
Class X Concrete Superstructure	Cu.Yd.	2,859.4	-	2,859.4
Protective Coat	Sq.Yd.	3,145.3	-	3,145.3
Elastomeric Bearing Assembly, Type I	Each	24	-	24
Elastomeric Bearing Assembly, Type II	Each	72	-	72
Formed Concrete Repair (Depth equal to or less than 5")	Sq.Ft.	-	276.0	276.0
Furnishing & Erecting Structural Steel	L.Sum	1	-	1
Stud Shear Connectors	Each	2,544	-	2,544
Jack and Remove Existing Bearings	Each	86	-	86
Jack and Reposition Bearings	Each	72	-	72
Structural Steel Removal	L.Sum	1	-	1
Handrail Removal	Lin.Ft.	2,614	-	2,614
Cleaning and Painting Steel Bridges SP3	L.Sum	1	-	1
Reinforcement Bars, Epoxy Coated	Pound	609,260	-	609,260
Name Plates	Each	1	-	1
Drainage Scuppers (Special)	Each	33	-	33
Drainage System	L.Sum	1	-	1
Bar Splitters	Each	3,659	-	3,659
Pedestrian Rolling	Lin.Ft.	2,614	-	2,614
Bridge Deck Grooving	Sq.Yd.	7,238	-	7,238
Epoxy Crack Sealing	Lin.Ft.	41.0	-	41.0
Power Tool Cleaning Residue Containment & Disposal	L.Sum	1	-	1
Junction Box Non-Metallic Embedded in Structure	Each	4	-	4
Removal of Existing Light Unit & Salvage	Each	10	-	10

* See Special Provisions
**Protective Coat shall be applied to top & inside face of parapets, sidewalk and median.

Bascor, Inc.
consulting engineers and planners

DESIGNED	DAZ
CHECKED	GSP
DRAWN	SAW
CHECKED	GSP

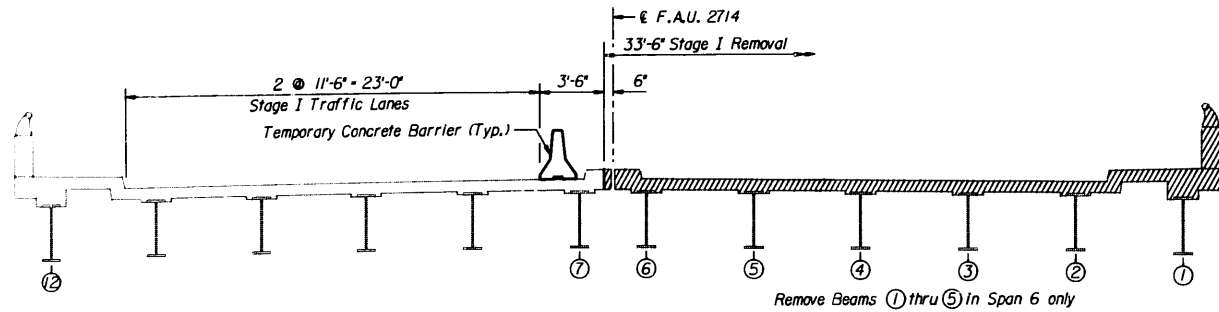
DATE 4-30-1993
rev. 7-26-1993

**GENERAL NOTES
BILL OF MATERIAL**

25TH AVENUE OVER I95 RAILROAD
F.A.U. RT. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.A. 05-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

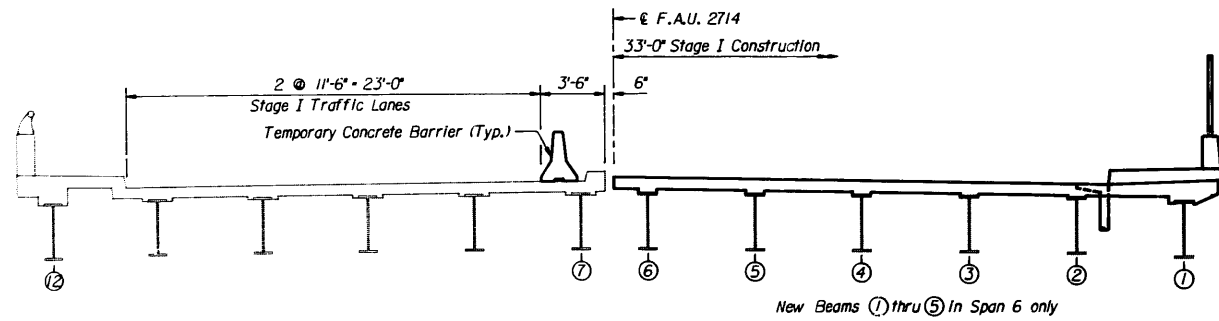
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
FAU 2714	1010.2R	COOK	89	28	
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT			SHEETS 41



STAGE I REMOVAL

STAGE I REMOVAL

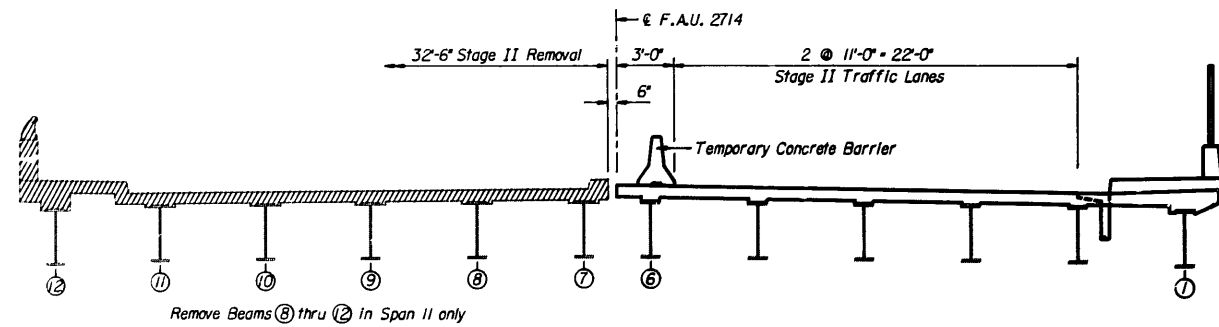
1. Install Temporary Concrete Barrier as shown to locate traffic in two 11'-6" lanes on west half of existing bridge.
2. Remove existing bridge deck to the limits shown. Remove the existing bridge drainage system in the east half of bridge.
3. Remove Beams 1 thru 5 in Span 6 only.



STAGE I CONSTRUCTION

STAGE I CONSTRUCTION

1. Remove existing rocker and roller bearings below the deck joints at pier no.'s 5,6,10 & 11 and both abutments within the limits of the existing deck removed. Replace with new elastomeric bearings. Also, reposition the existing rocker bearings at the piers below the continuous deck at pier no.'s 1,4,7,9,12 & 15 within the limits of the existing deck removed.
2. Erect new steel beams 1 thru 5 in Span 6 only.
3. Construct new concrete deck to the limits shown. Construct new sidewalk, parapet and handrail and install new bridge drainage system in the east half of bridge.
4. Install deck expansion joints at abutments and pier no.'s 5,6, 10 & 11 within the limits of the new deck constructed.



STAGE II REMOVAL

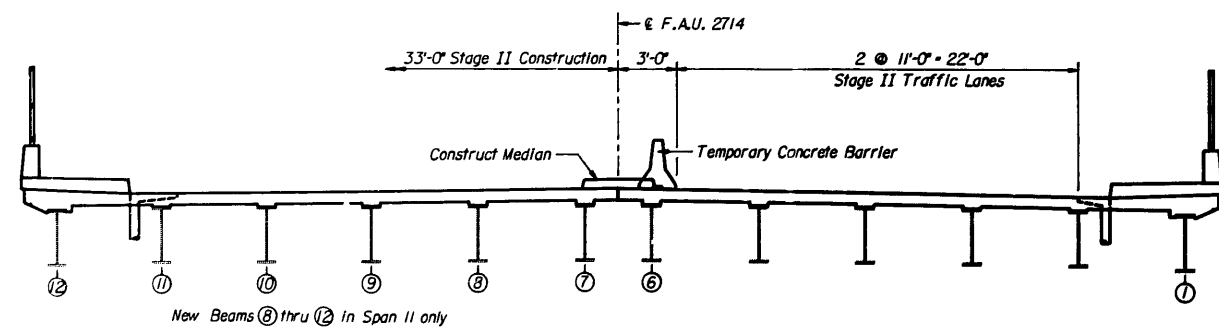
STAGE II REMOVAL

1. Relocate Temporary Concrete Barrier as shown to locate traffic in two 11'-0" lanes on east half of new bridge deck.
2. Remove remainder of existing bridge deck and bridge drainage system.
3. Remove Beams 8 thru 12 in Span 11 only.

STAGE II CONSTRUCTION

1. Remove the remainder of existing rocker and roller bearings below the deck joints at pier no.'s 5,6,10 & 11 and both abutments. Replace with new elastomeric bearings. Also, reposition the remainder of existing rocker bearings below the continuous deck at pier no.'s 1,4,7,9,12 & 15.
2. Erect new steel beams 8 thru 12 in Span 11 only.
3. Construct new concrete deck to the limits shown. Construct new sidewalk, parapet and handrail and install new bridge drainage system in the west half of bridge.
4. Construct new median along center of bridge per the following construction sequence:
 - a. Replace the Temporary Concrete Barrier with Type I Barricades w/Steady Burn Light
 - b. Place the median reinforcement
 - c. Pour the concrete median utilizing Standard Traffic Control Case U-2
5. Complete installation of deck expansion joints at both abutments and pier no.'s 5,6,10 & 11.

Indicates Removal



STAGE II CONSTRUCTION

Bascor, Inc.
consulting engineers and planners

DESIGNED	DAZ
CHECKED	GSP
DRAWN	SAW
CHECKED	GSP

NOTES:
For details of the Temporary Concrete Barrier, see Sheet No. 4 of 41. For quantity of Temporary Concrete Barrier, see Roadway Plans.

Cross-Sections are looking north.

For Type I Barricade and Traffic Control Case U-2 details, see Roadway Plans.

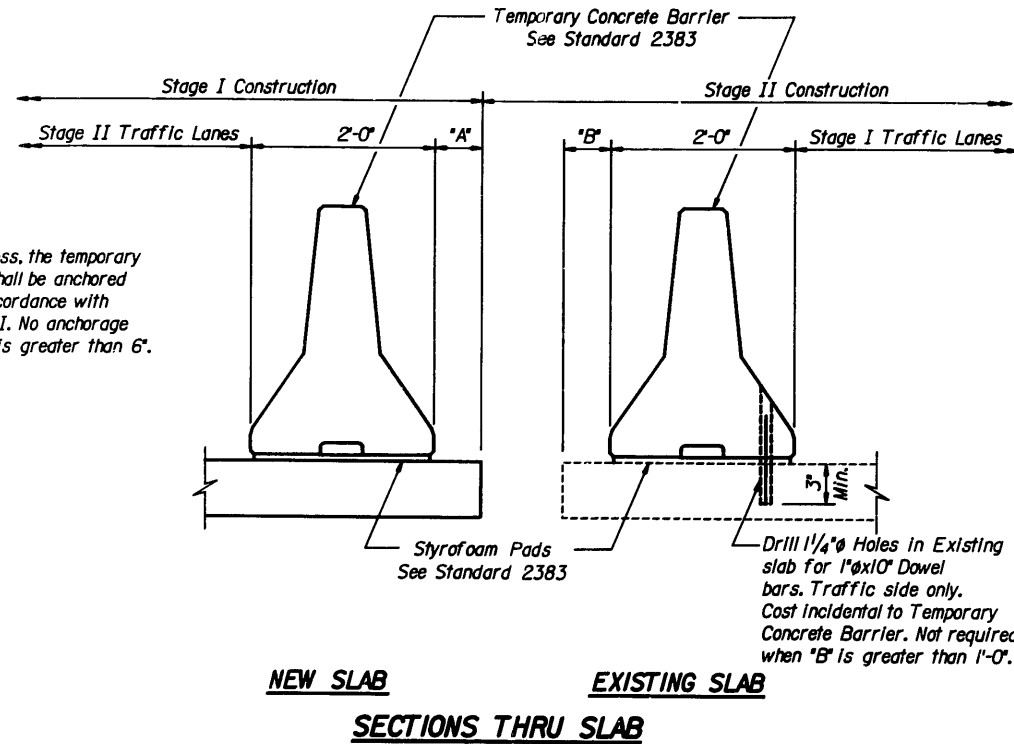
DATE 4-30-1993
rev. 7-26-1993

STAGE CONSTRUCTION

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

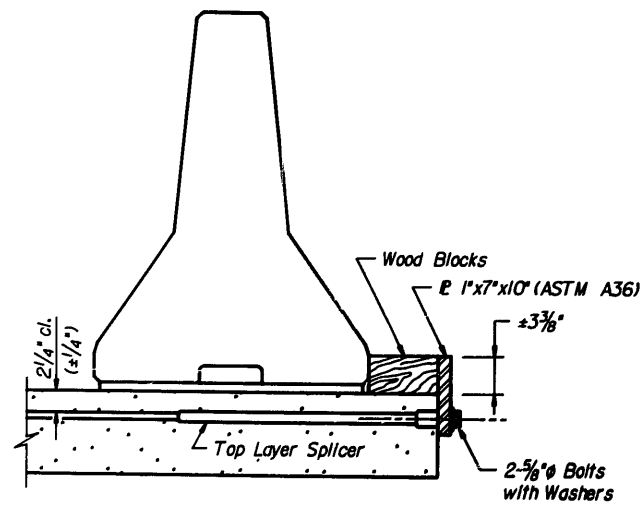
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FAU 2714	1010.2R	COOK	89	29	4
FED. ROAD DIST. NO.	ILLINOIS PROJECT				SHEETS 41



When "A" is 6' or less, the temporary concrete barrier shall be anchored to new slab in accordance with Detail I or Detail II. No anchorage required when "A" is greater than 6'.

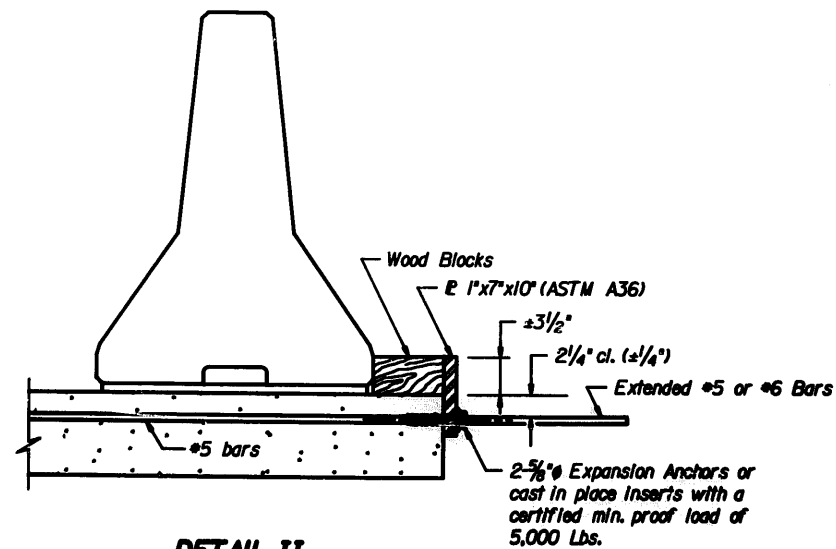
NOTES

- Detail I - With Bar Splicer or Couplers:**
Connect one (1) 1"x7"x10" steel \bar{E} to the top layer of couplers with 2-5/8" bolts screwed to coupler at approximate \bar{E} of each 10'-0" barrier panel.
- Detail II - With Extended Reinforcement Bars:**
Connect one (1) 1"x7"x10" steel \bar{E} to the concrete slab with 2-5/8" Expansion Anchors or cast in place Inserts spaced between the top layer of reinforcement at approximate \bar{E} of each 10'-0" barrier panel.
- Cost of anchorage is incidental to Temporary Concrete Barrier.



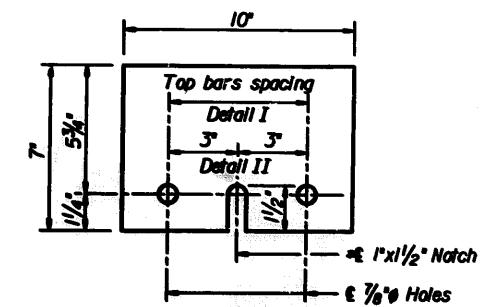
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



\bar{E} 1"x7"x10"

*Required only with Detail II

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

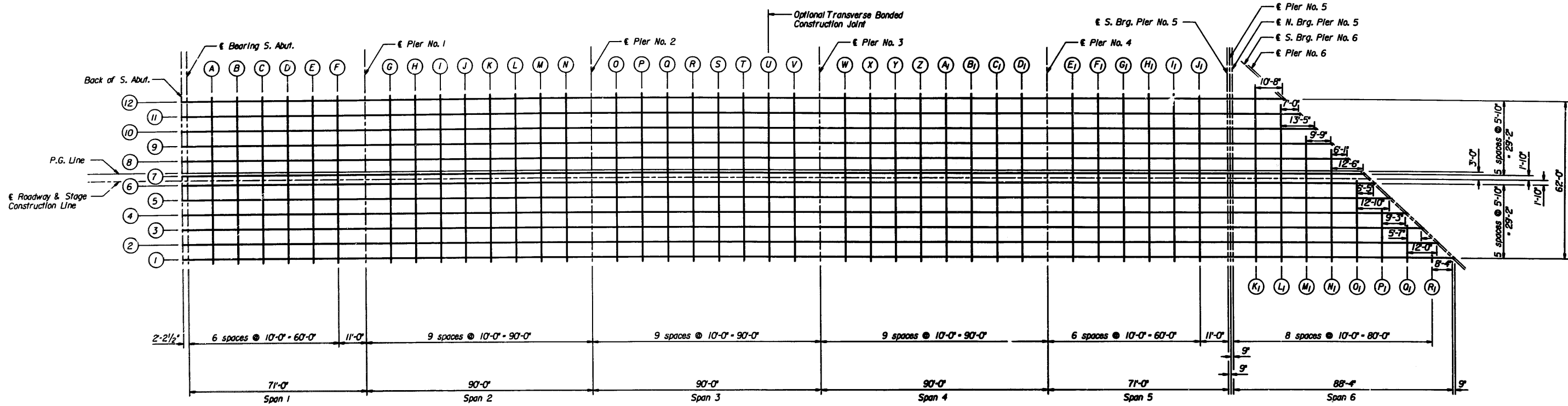
DATE 4-30-1993
rev. 7-26-1993

**TEMPORARY
CONCRETE BARRIER**

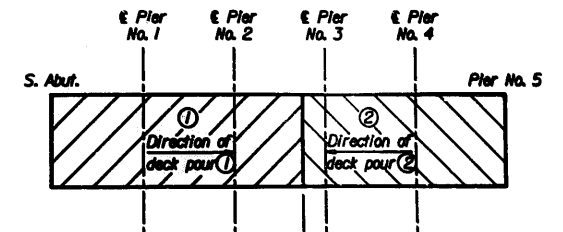
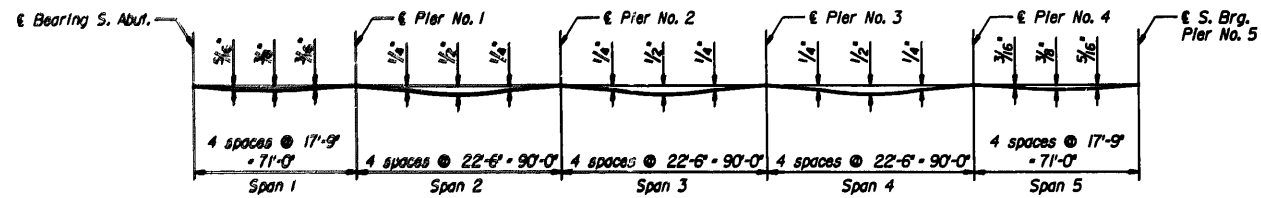
25TH AVENUE OVER NB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.J.L. 08-108

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 SHEETS 41
FAU 2714	1010.2R	COOK	89	30	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					

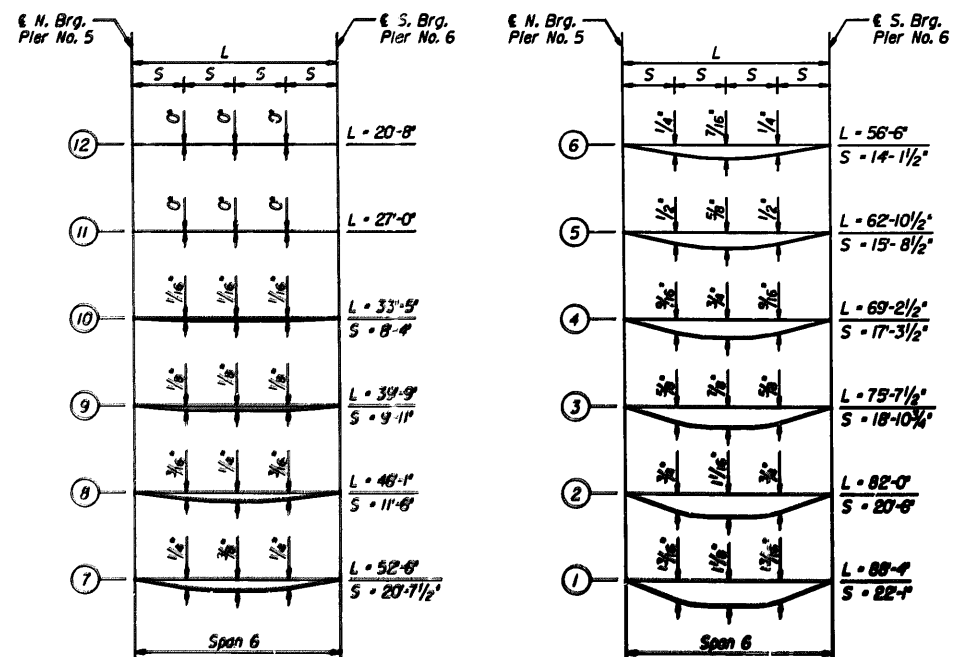


ELEVATION LOCATION PLAN



POURING SEQUENCE

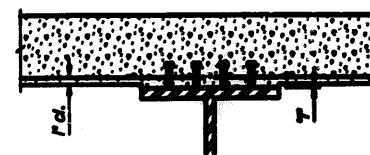
Note: After deck pour (1) is made, at least three days shall have elapsed since the time it was placed and its concrete strength has attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi before deck pour (2) will be permitted. Extra test beams or cylinders in addition to those required by the Project Procedures Guide shall be made, cured and protected alongside and in similar manner to the deck and tested for the minimum required strength.



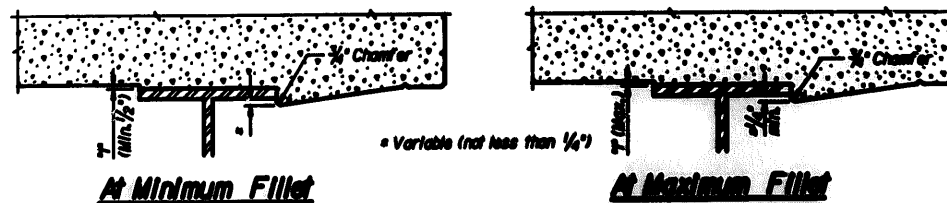
DEAD LOAD DEFLECTION DIAGRAMS

(Includes weight of concrete slab only)

NOTE: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the tables.



INTERIOR BEAMS



EXTERIOR BEAMS

STANDARD FILLET DETAILS

To determine 'r' After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals along the Elevation Location Plan. These elevations subtracted from the 'Theoretical Grade Elevations Adjusted for Dead Load Deflection' shown on Sheet No. 6 will give r, minus and maximum, equals the total height 'r' above the top flange of beams.

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

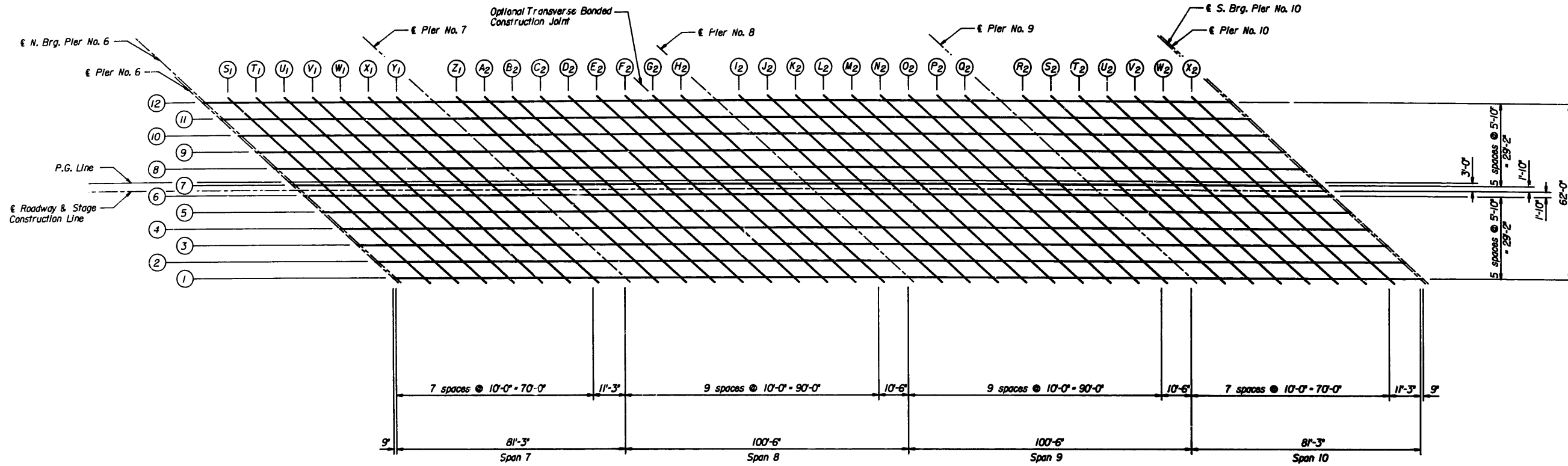
DATE 4-30-1993
rev. 7-26-1993

TOP OF SLAB
ELEVATIONS LAYOUT
SPANS 1 TO 6

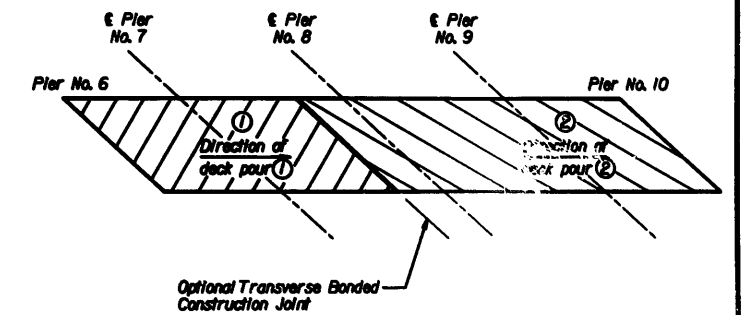
25TH AVENUE OVER MB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 39+76.67
S.N. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10
FAU 2714	1010.2R	COOK	89	35	SHEETS 41
FED. ROAD DIST. NO. 1 ILLINOIS PROJECT					

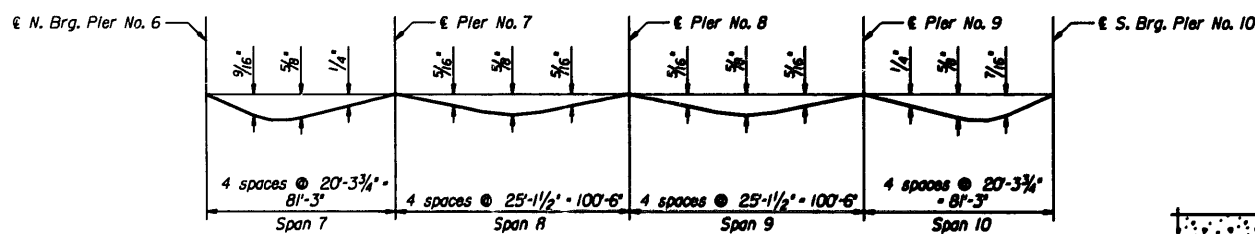


ELEVATION LOCATION PLAN



POURING SEQUENCE

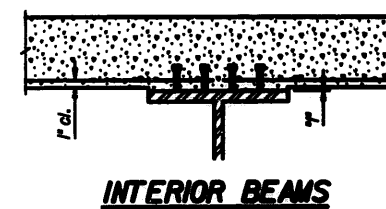
Note: After deck pour ① is made, at least three days shall have elapsed since the time it was placed and its concrete strength has attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi before deck pour ② will be permitted. Extra test beams or cylinders in addition to those required by the Project Procedures Guide shall be made, cured and protected alongside and in similar manner to the deck and tested for the minimum required strength.



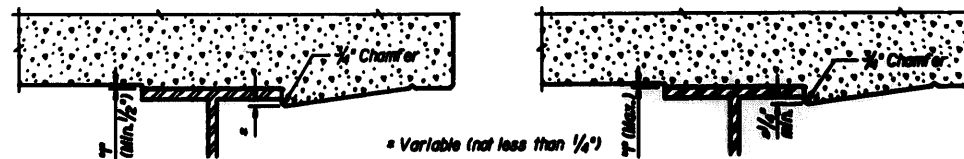
DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab only)

NOTE: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the tables.



INTERIOR BEAMS



At Minimum Fillet

At Maximum Fillet

EXTERIOR BEAMS

STANDARD FILLET DETAILS

To determine T_1 after all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the Elevation Location Plan. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet Nos. 11 and 12, minus slab thickness, equals the fillet height T_1 above the top flange of beams.

Bascor, Inc.
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DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

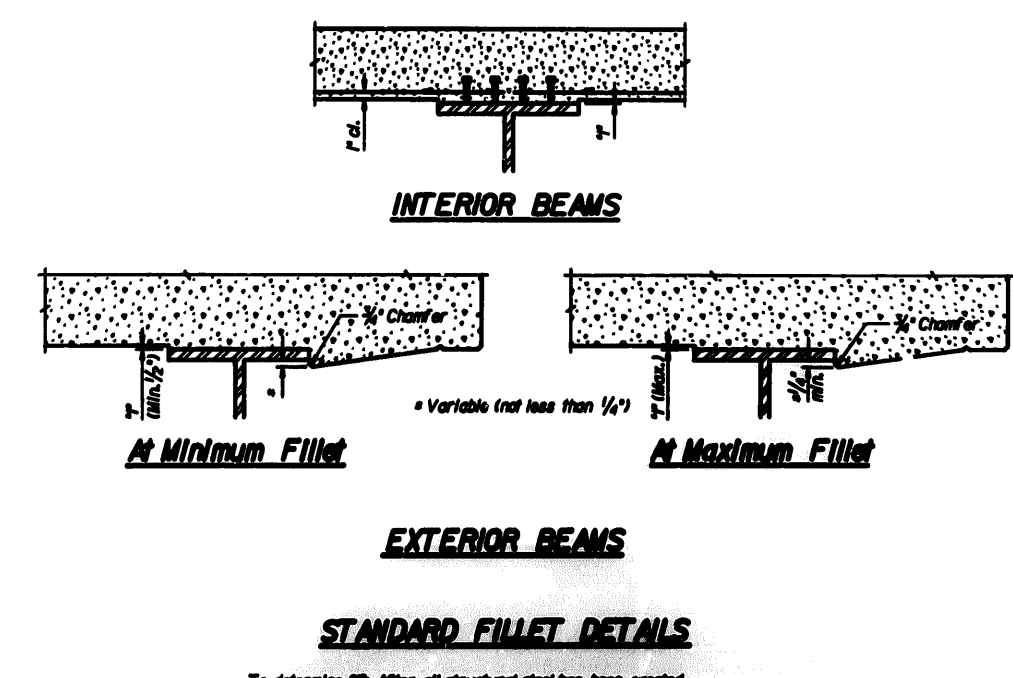
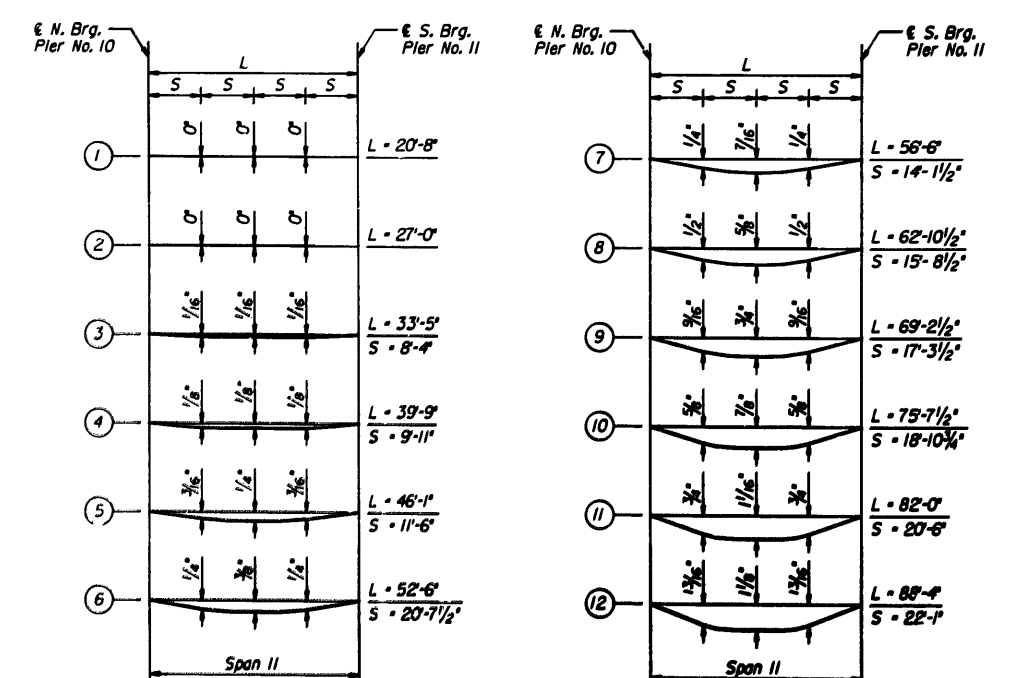
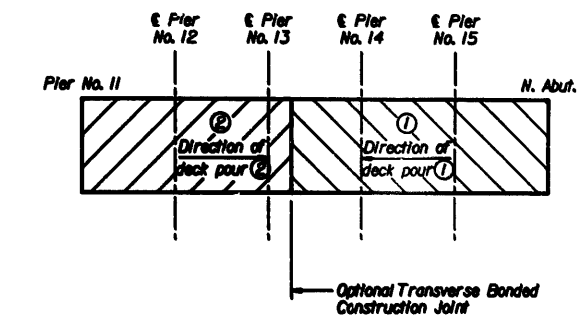
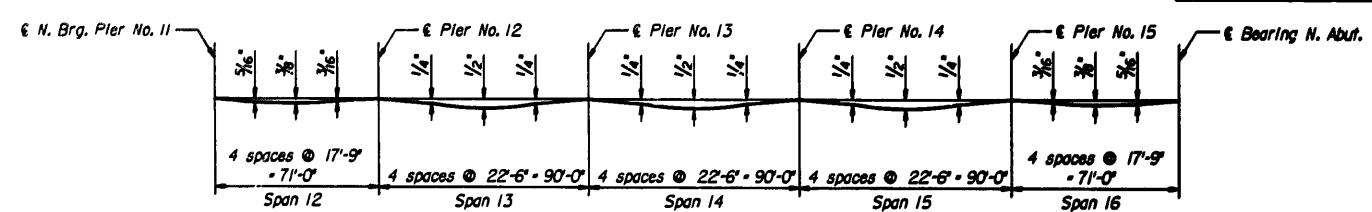
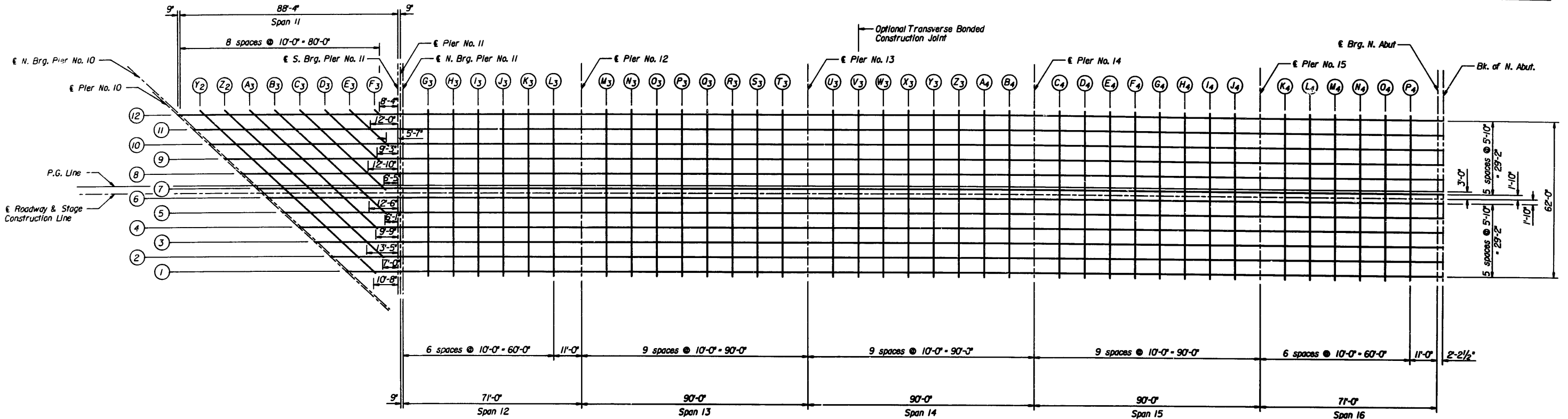
DATE 4-30-1993
rev. 7-26-1993

TOP OF SLAB
ELEVATIONS LAYOUT
SPANS 7 TO 10

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 38	SHEET NO. 13
FEB. ROAD DIST. NO. 7		ILLINOIS PROJECT		SHEETS 41	



POURING SEQUENCE

Note: After deck pour (1) is made, at least three days shall have elapsed since the time it was placed and its concrete strength has attained a minimum modulus of rupture of 650 psi or a minimum compressive strength of 3500 psi before deck pour (2) will be permitted. Extra test beams or cylinders in addition to those required by the Project Procedures Guide shall be made, cured and protected alongside and in similar manner to the deck and tested for the minimum required strength.

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

NOTE: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in the tables.

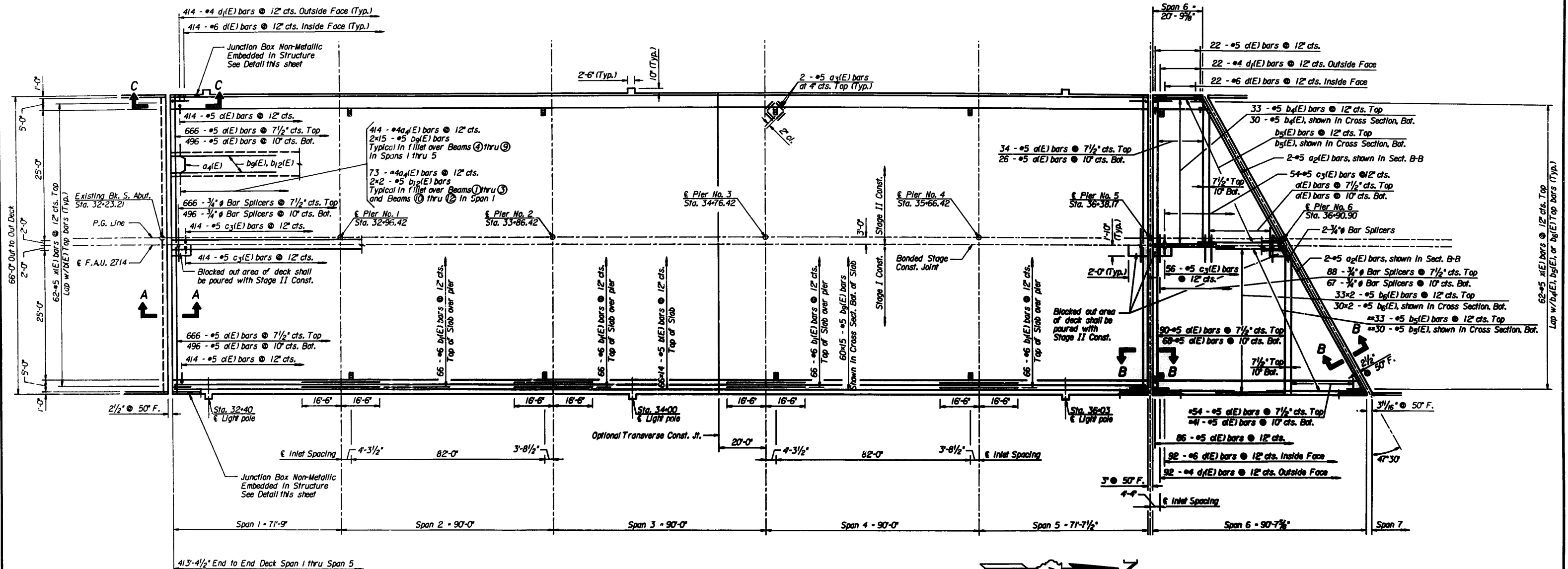
To determine "r" After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on the Elevation Location Plan. These elevations subtracted from the Theoretical Grade Elevations Adjusted for Dead Load Deflection shown on Sheet Nos. 14 thru 17, minus slab thickness, equals the fillet height "r" above the top flange of beams.

TOP OF SLAB ELEVATIONS LAYOUT SPANS 11 TO 16

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.A. 38+76.67
S.X. 05-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	43
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT		SHEET NO. 18 SHEETS 41		



PLAN
Minimum Bar Laps #5 bars - 2'-2"

Notes:

Reinforcement bars designated (E) shall be epoxy coated.

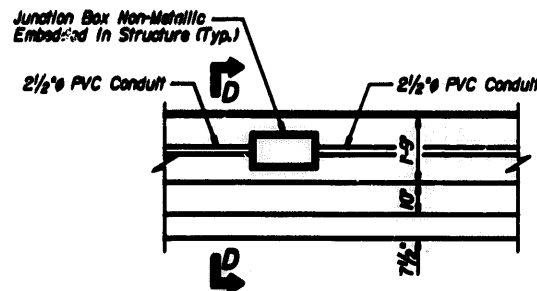
Bars indicated thus: 3x2 - #5 etc. indicates 3 lines of bars with 2 lengths per line.

See Sheet Nos. 21 thru 25 for Superstructure Details and Cross-Sections, Parapet Elevations, and Sections A-A, B-B, & C-C.

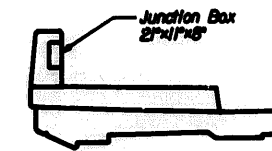
See Sheet No. 25 for Superstructure Bill of Material and Light Pole Support Details.

See Sheet No. 30 for Bar Splicer (Coupler) Details.

Bar Splicers shall be tied with double the number of ties normally used for lap splices.



JUNCTION BOX DETAIL



SECTION D-D

* Order d(E) bars full length. Cut to fit skew and use remainder of bars in same end, Stage II.

** Order b_g(E) bars full length. Cut to fit skew and use remainder of bars in Stage II.

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DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

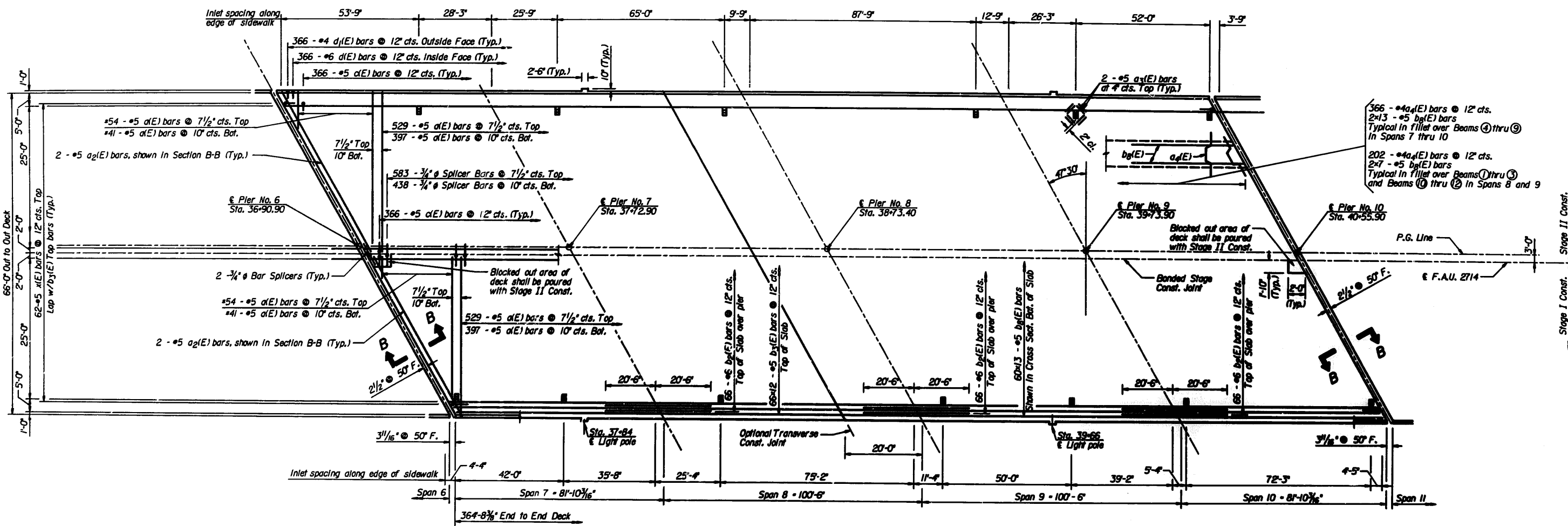
DATE 4-30-1993
rev. 7-26-1993

**SUPERSTRUCTURE
SPANS 1 TO 6**

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19 SHEETS 41
FAU 2714	1010.2R	COOK	89	44	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



PLAN
Minimum Bar Laps #5 bars - 2'-2"

* Order d(E) bars full length. Cut to fit skew and use remainder of bars in same stage, opposite end.

- Notes:
- Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus: 3#2 - #5 etc. Indloc's 3 lines of bars with 2 lengths per line.
 - See Sheet Nos. 21 thru 25 for Superstructure Details and Cross-Sections, Parapet Elevations, and Section B-B.
 - See Sheet No. 25 for Superstructure Bill of Material and Light Pole Support Details.
 - See Sheet No. 30 for Bar Splicer (Coupler) Details.
 - Bar Splacers shall be tied with double the number of ties normally used for lap splices.

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consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

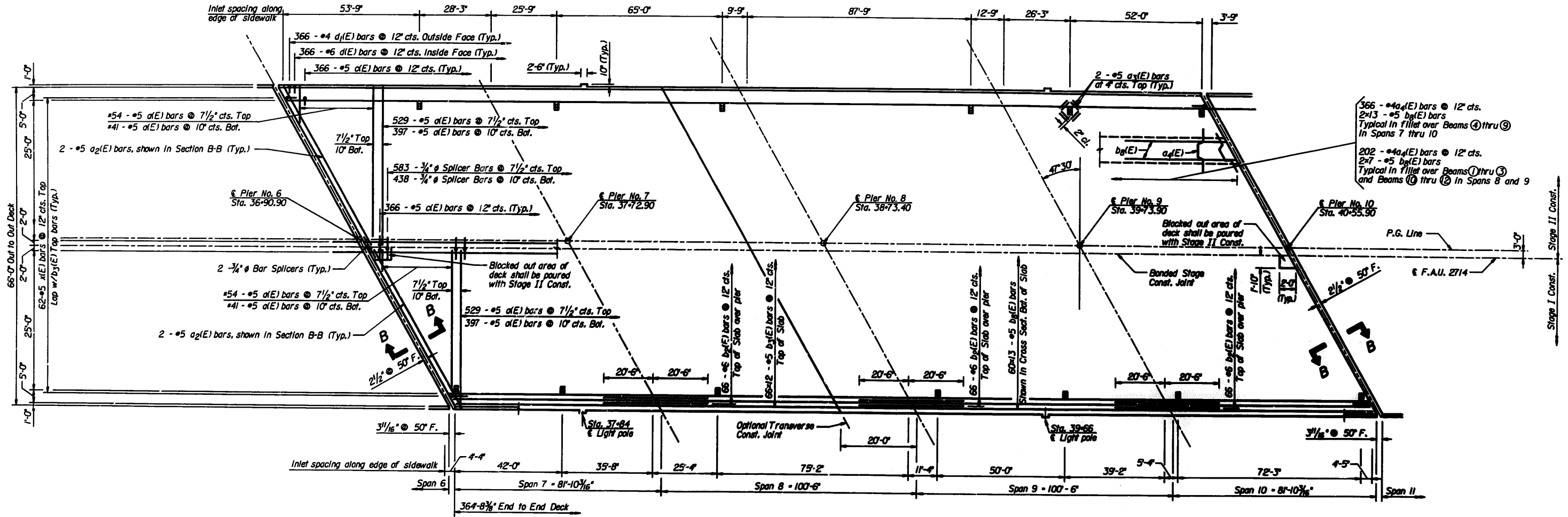
DATE 4-30-1993
rev. 7-26-1993

SUPERSTRUCTURE SPANS 7 TO 10

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19 SHEETS 41
FAU 2714	1010.2R	COOK	89	44	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



PLAN
Minimum Bar Laps #5 bars - 2'-2"

* Order a(E) bars full length. Cut to fit skew and use remainder of bars in same stage, opposite end.

- Notes:
- Reinforcement bars designated (E) shall be epoxy coated.
 - Bars indicated thus: 3x2 - #5 etc. Indloc's 3 lines of bars with 2 lengths per line.
 - See Sheet Nos. 21 thru 25 for Superstructure Details and Cross-Sections, Parapet Elevations, and Section B-B.
 - See Sheet No. 25 for Superstructure Bill of Material and Light Pole Support Details.
 - See Sheet No. 30 for Bar Splicer (Coupler) Details.
 - Bar Splicers shall be tied with double the number of ties normally used for lap splices.

B Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

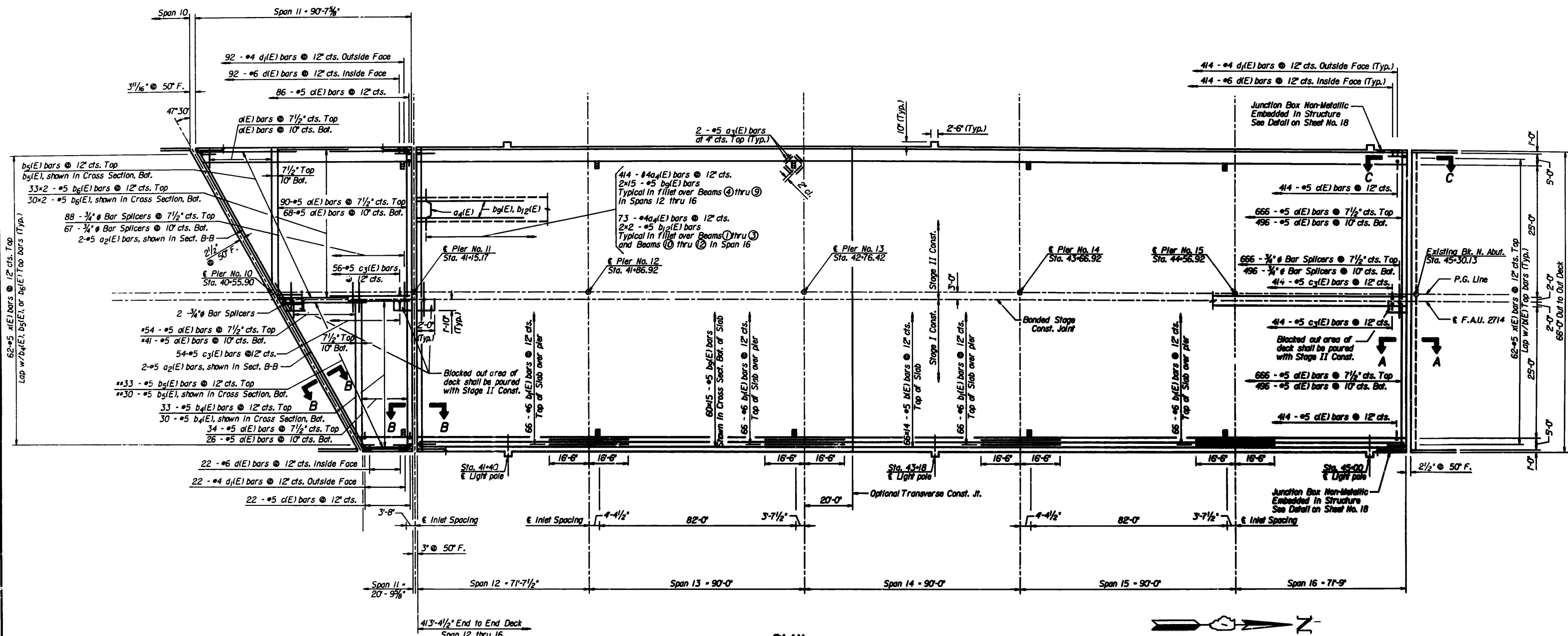
DATE 4-30-1993
rev. 7-26-1993

SUPERSTRUCTURE SPANS 7 TO 10

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 45	SHEET NO. 20
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT			SHEETS 41		



PLAN
Minimum Bar Laps #5 bars - 2'-2"

* Order a(E) bars full length. Cut to fit skew and use remainder of bars in same end, Stage II.
** Order b₅(E) bars full length. Cut to fit skew and use remainder of bars in Stage II.

Notes:
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus: 3x2 - #5 etc. Indicates 3 lines of bars with 2 lengths per line.
See Sheet Nos. 21 thru 25 for Superstructure Details and Cross-Sections, Parapet Elevations, and Sections A-A, B-B, & C-C.
See Sheet No. 25 for Superstructure Bill of Material and Light Pole Support Details.
See Sheet No. 30 for Bar Splicer (Coupler) Details.
Bar Splicers shall be tied with double the number of ties normally used for lap splices.

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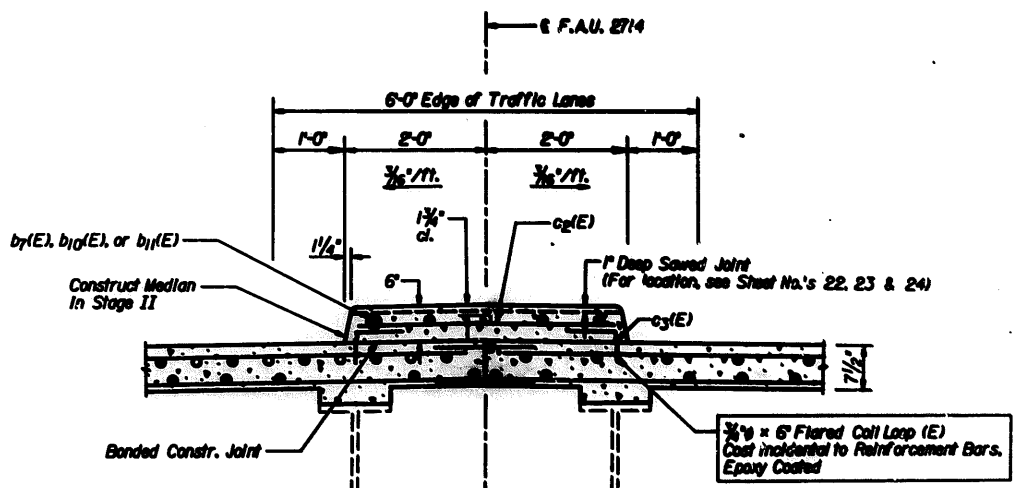
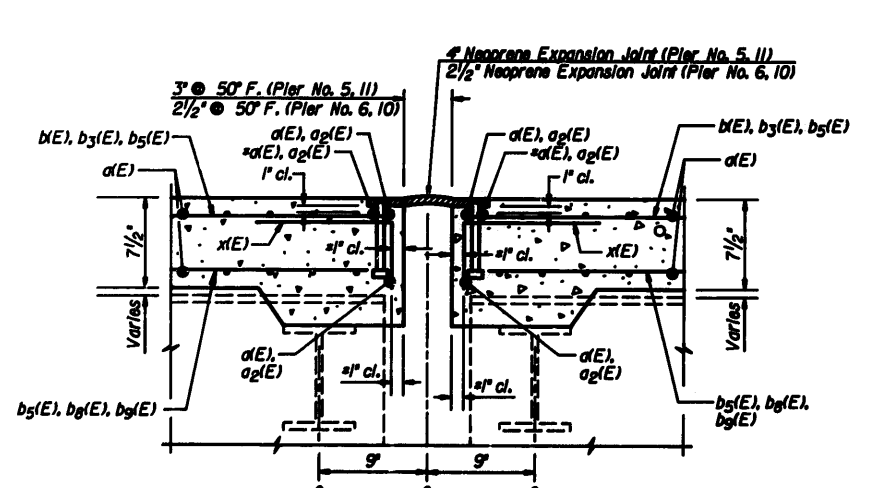
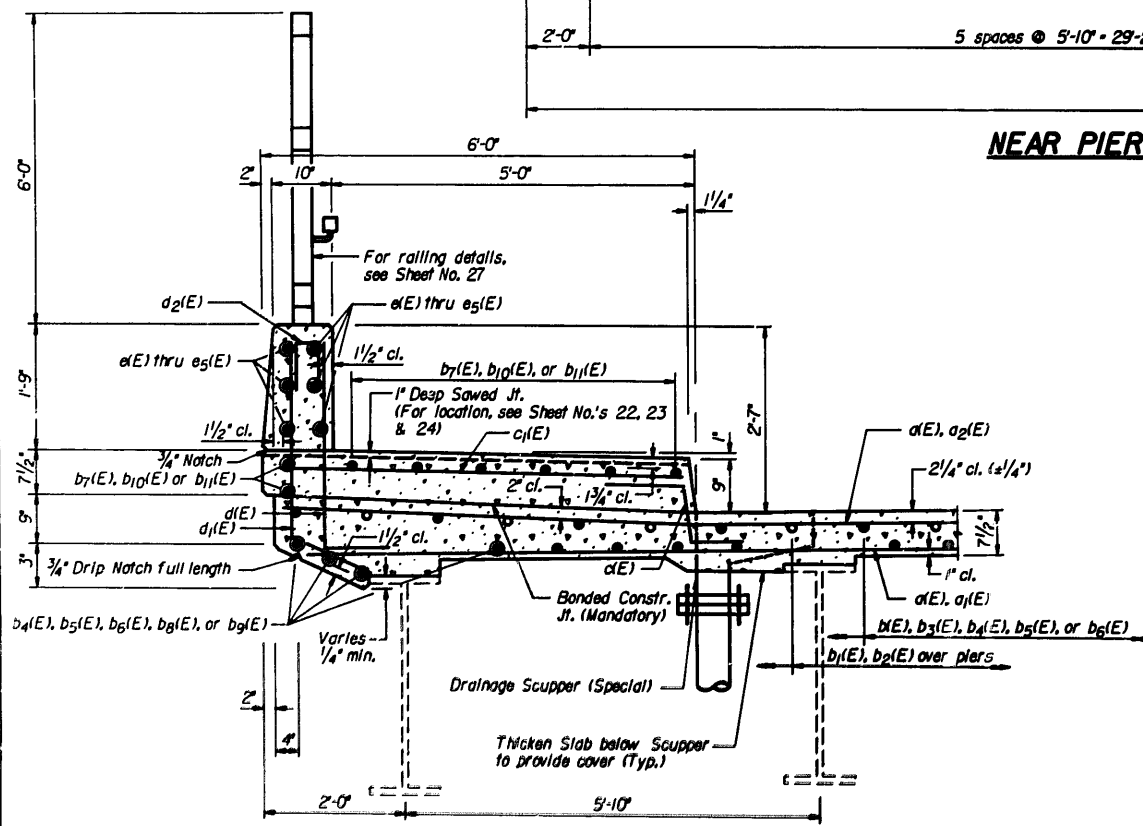
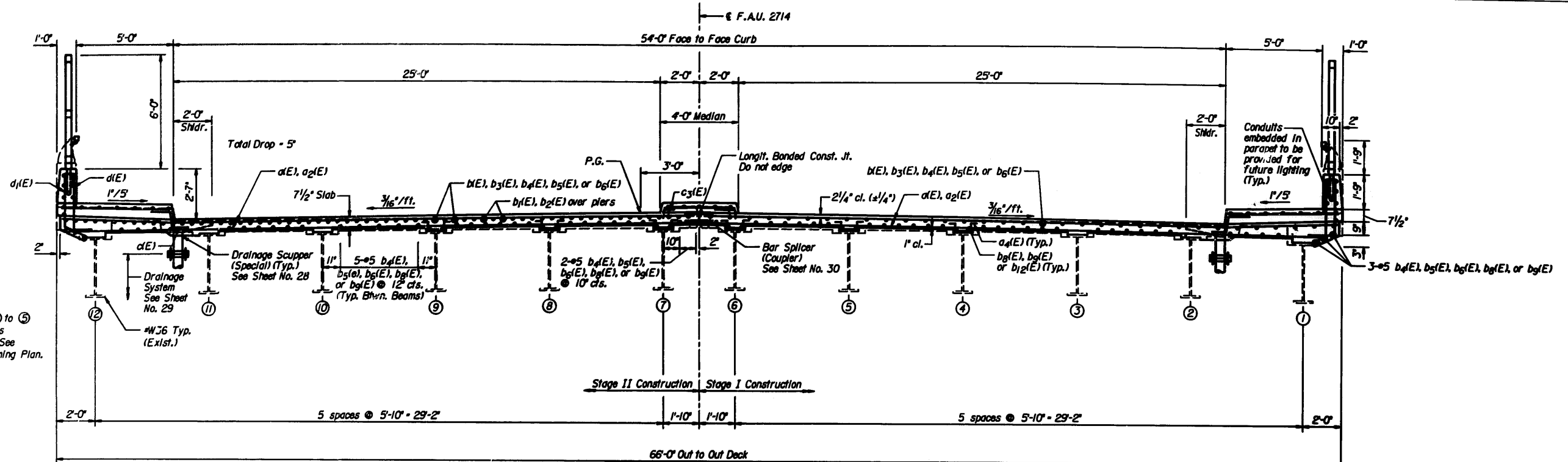
DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

SUPERSTRUCTURE SPANS 11 TO 16
25TH AVENUE OVER IHD RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 21 SHEETS 41
FAU 2714	1010.2R	COOK	89	46	
FED. ROAD DIST. NO. ILLINOIS PROJECT					



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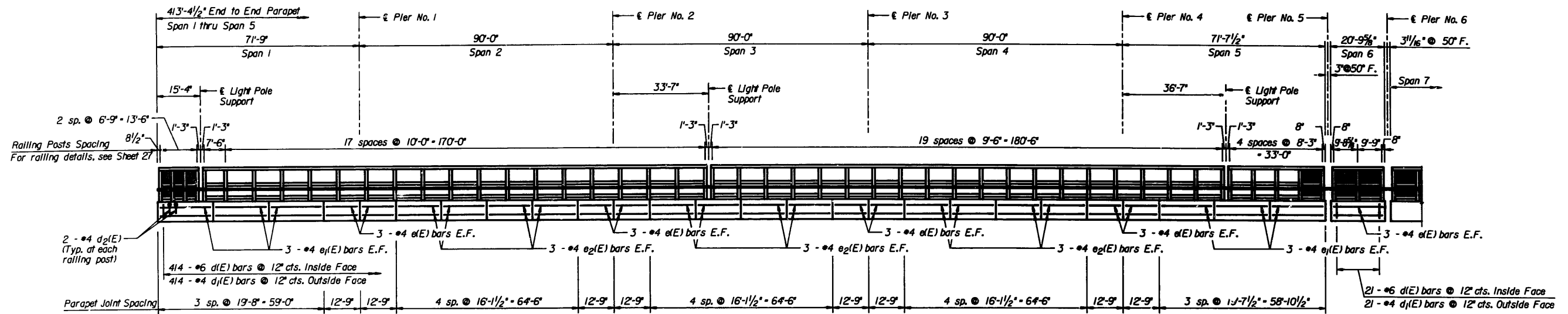
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DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

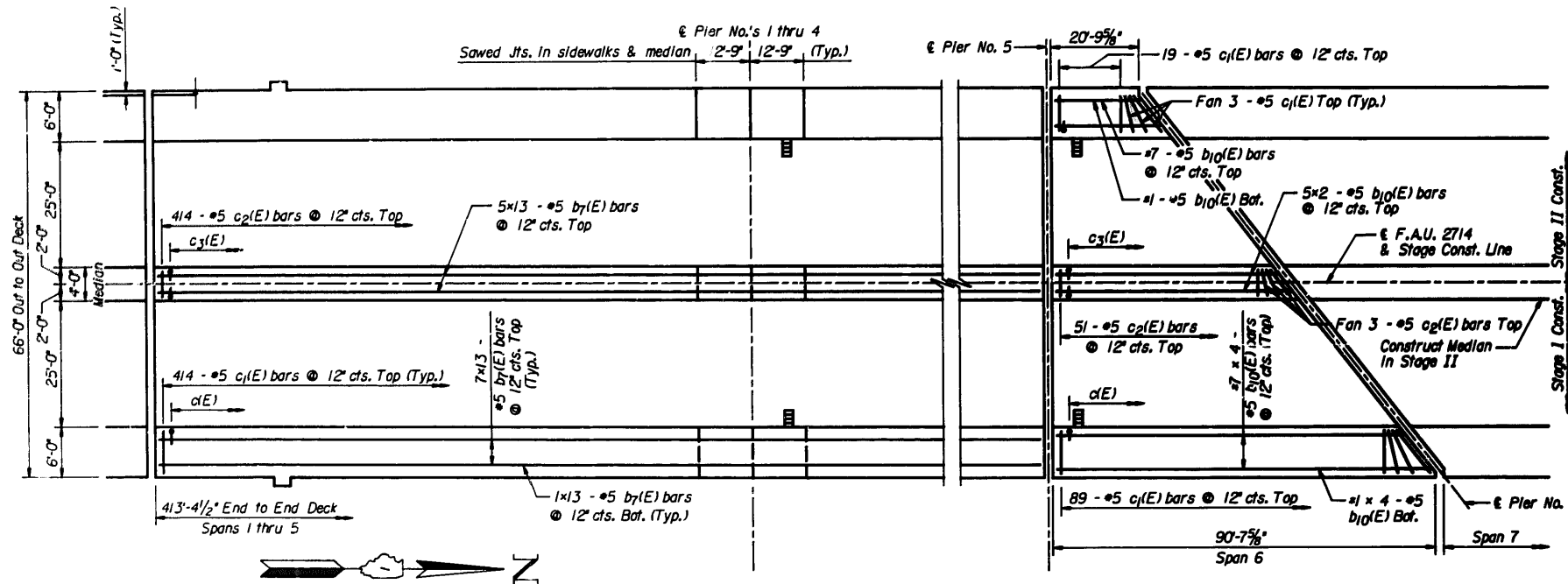
**SUPERSTRUCTURE
DETAILS 1**
25TH AVENUE OVER MB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

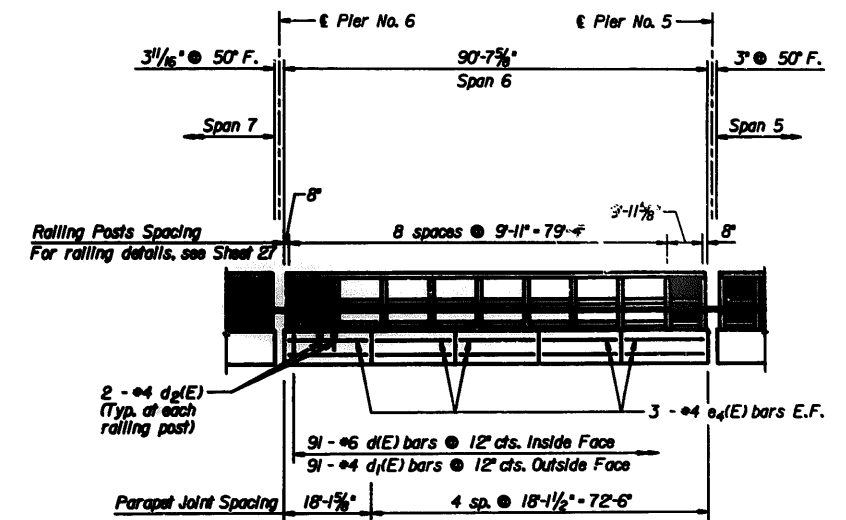
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FED. ROAD DIST. NO. ILLINOIS PROJECT			SHEETS 41		



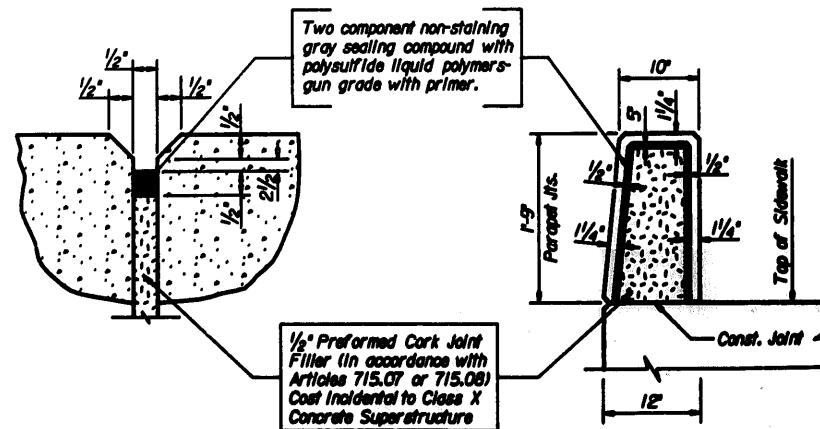
INSIDE ELEVATION OF WEST PARAPET
(East Parapet similar for Spans 1 thru 5)



PLAN - SIDEWALKS AND MEDIAN
(Spans 1 thru 6)
Minimum Bar Laps #5 bars = 2'-2"



INSIDE ELEVATION OF EAST PARAPET
(Span 6)



PARAPET JOINT DETAIL

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DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

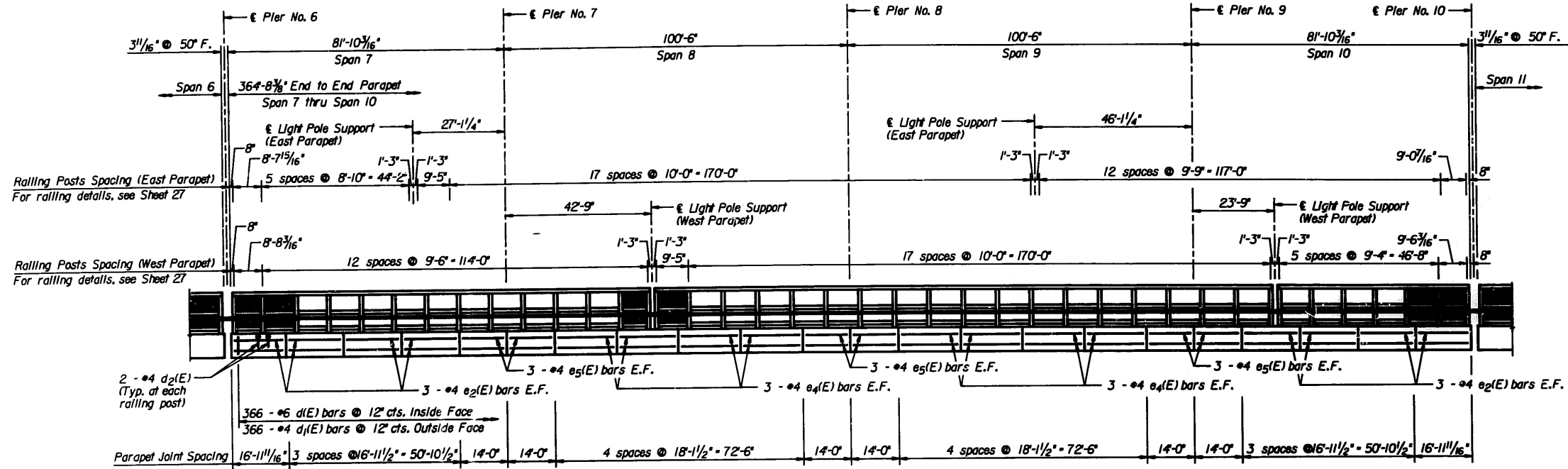
Notes: See Sheet No. 25 for Bill of Material and Light Pole Support Details.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet No. 21 for Sections thru Sidewalk and Median.
Bars indicated thus: 3 x 2 - #5 etc. Indicates 3 lines of bars with 2 lengths per line.

**SUPERSTRUCTURE
DETAILS 2**

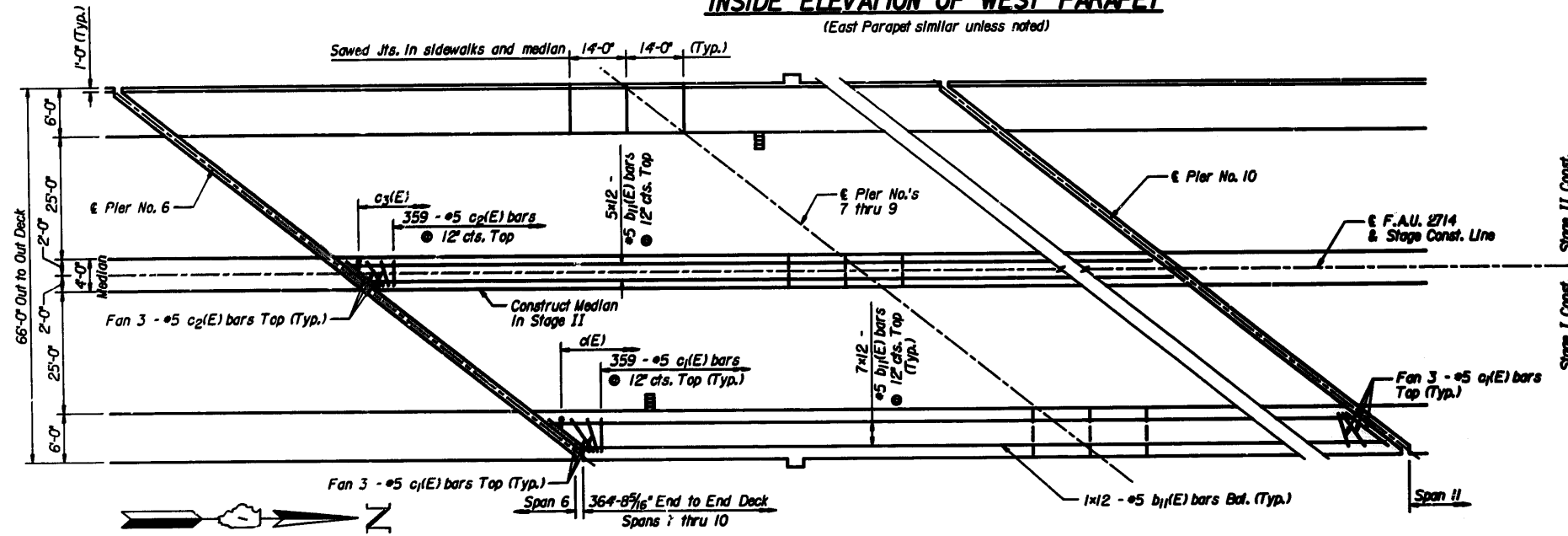
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

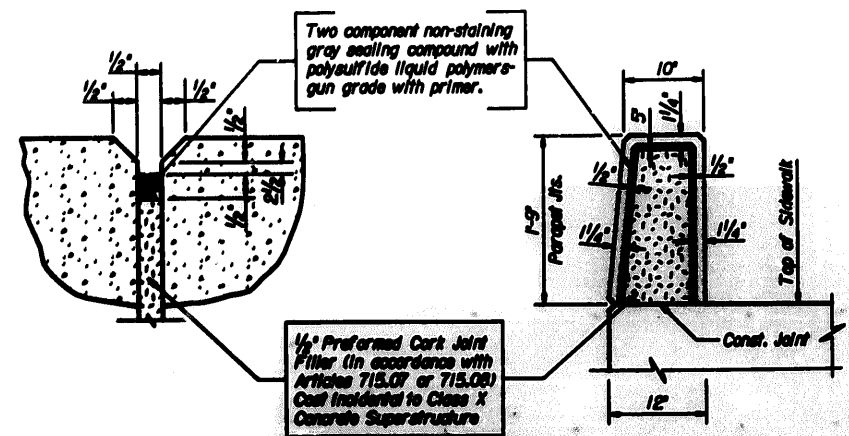
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 23
FAU 2714	1010.2R	COOK	89	48	
FED. ROAD DIST. NO. 1	ILLINOIS PROJECT				SHEETS 41



INSIDE ELEVATION OF WEST PARAPET
(East Parapet similar unless noted)



PLAN - SIDEWALKS AND MEDIAN
(Spans 7 thru 10)
Minimum Bar Laps #5 bars - 2'-2"



PARAPET JOINT DETAIL

Notes: See Sheet No. 25 for Bill of Material and Light Pole Support Details.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet No. 21 for Sections thru Sidewalk and Median.
Bars indicated thus: 3 x 2 - #5 etc. indicates 3 lines of bars with 2 lengths per line.

Bascor, Inc.
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DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

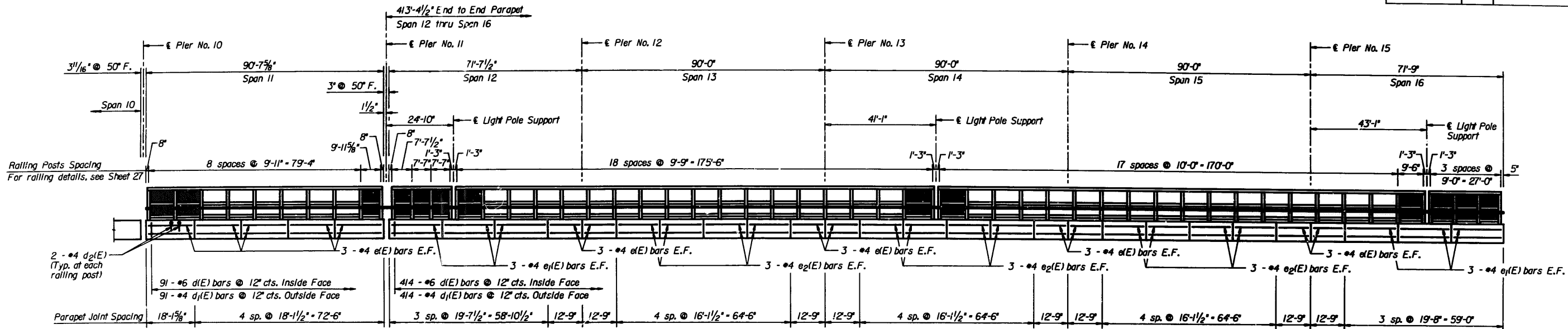
DATE 4-30-1993
rev. 7-26-1993

**SUPERSTRUCTURE
DETAILS 3**

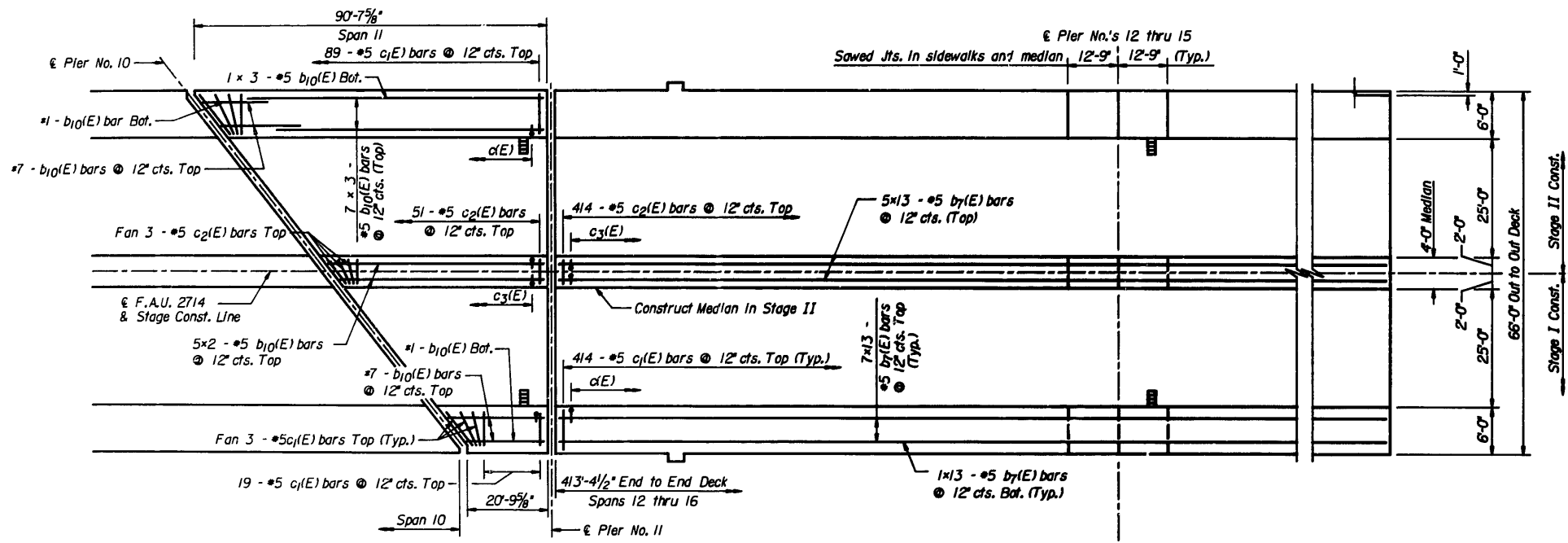
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 76.67
S.N. 101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

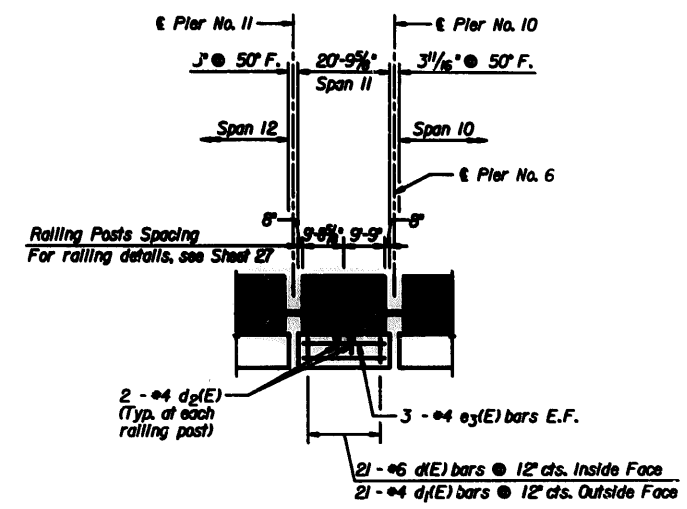
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 24 SHEETS 41
FAU 2714	1010.2R	COOK	89	49	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



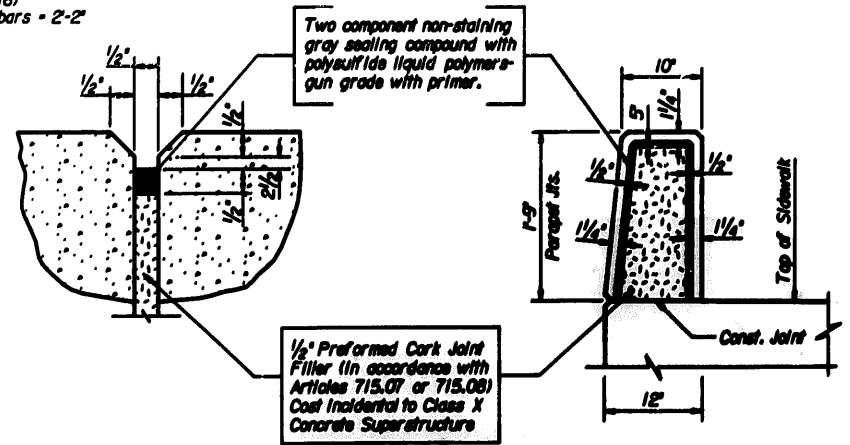
INSIDE ELEVATION OF WEST PARAPET
(East Parapet similar for Spans 12 thru 16)



PLAN - SIDEWALKS AND MEDIAN
(Spans 11 thru 16)
Minimum Bar Laps #5 bars = 2'-2"



INSIDE ELEVATION OF EAST PARAPET
(Span 11)



PARAPET JOINT DETAIL

Notes: See Sheet No. 25 for Bill of Material and Light Pole Support Details.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet No. 21 for Sections thru Sidewalk and Median.
Bars indicated thus: 3 x 2 - #5 etc. indicates 3 lines of bars with 2 lengths per line.

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

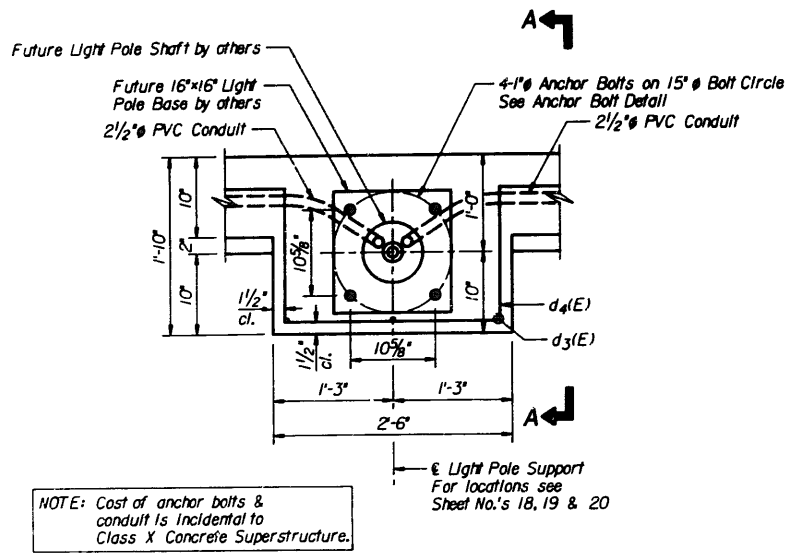
DATE 4-30-1993
rev. 7-26-1993

**SUPERSTRUCTURE
DETAILS 4**

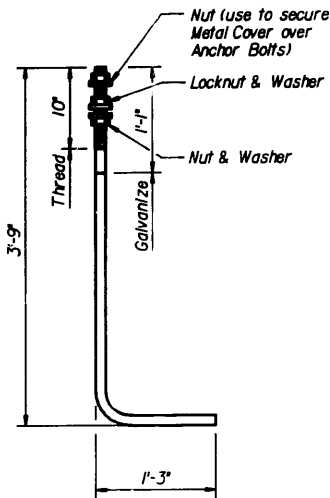
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

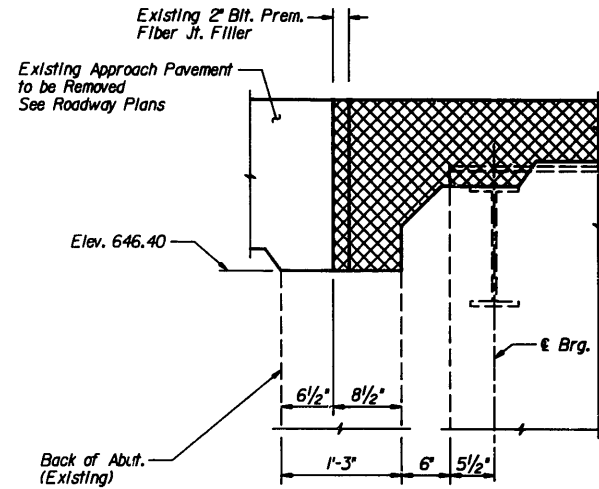
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 25 SHEETS 41
F.A.U. 2714	1010.2R	COOK	89	50	
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				



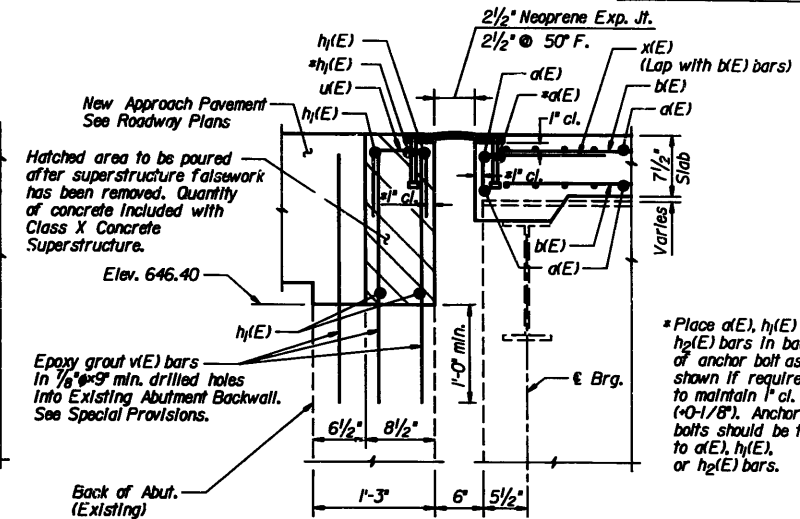
PLAN - LIGHT POLE SUPPORT



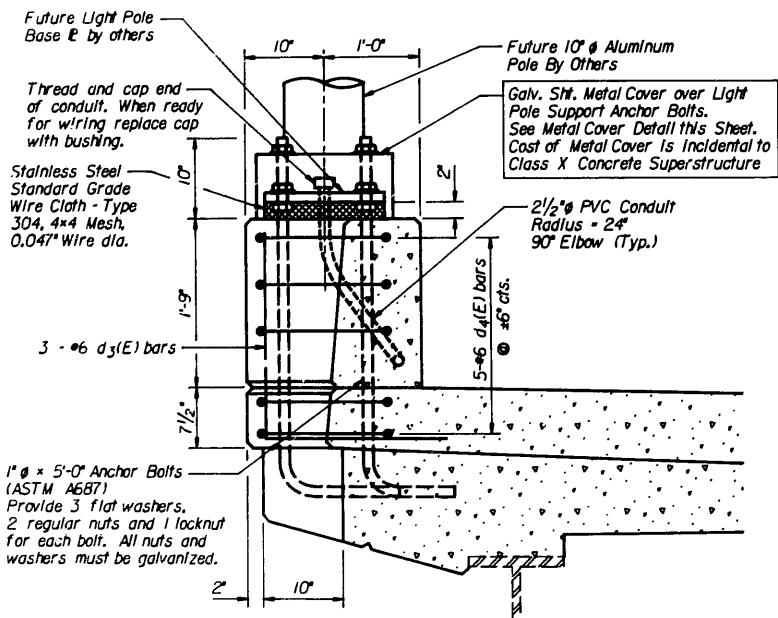
1" ANCHOR BOLT



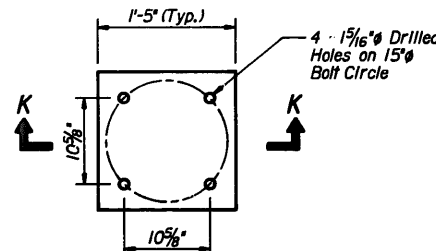
EXISTING ROADWAY SECTION THRU ABUTMENT



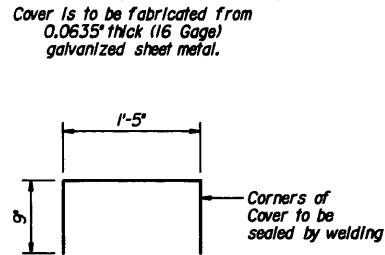
ROADWAY SECTION A-A THRU ABUTMENT



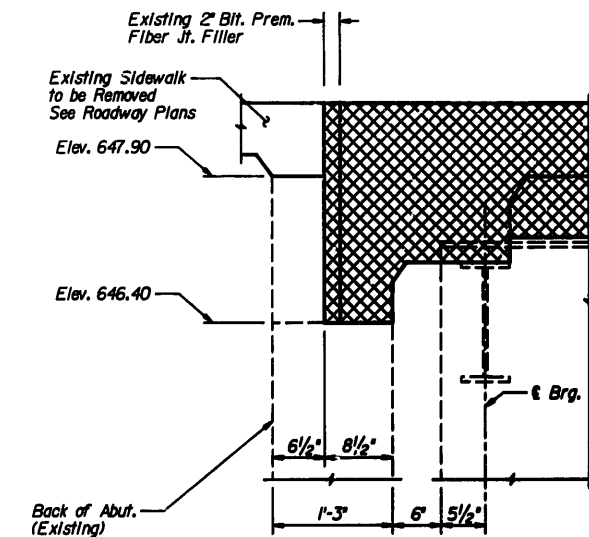
SECTION A-A



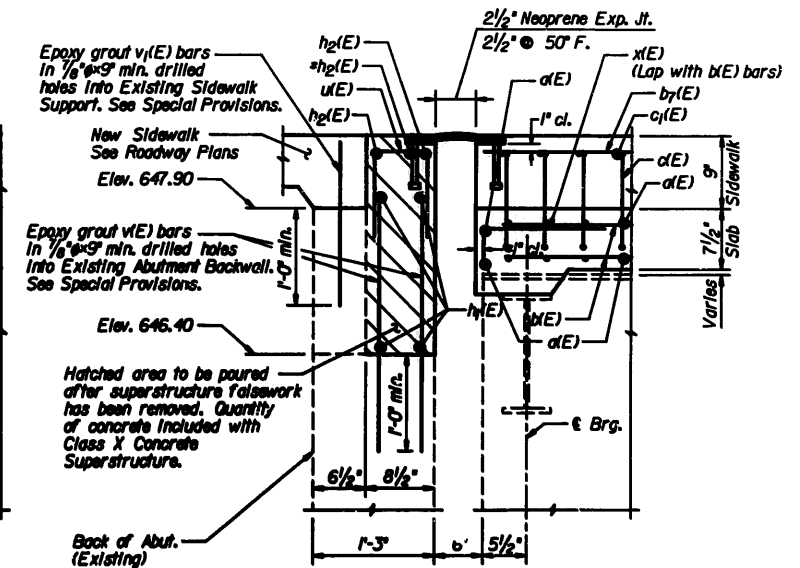
METAL COVER DETAIL



SECTION K-K

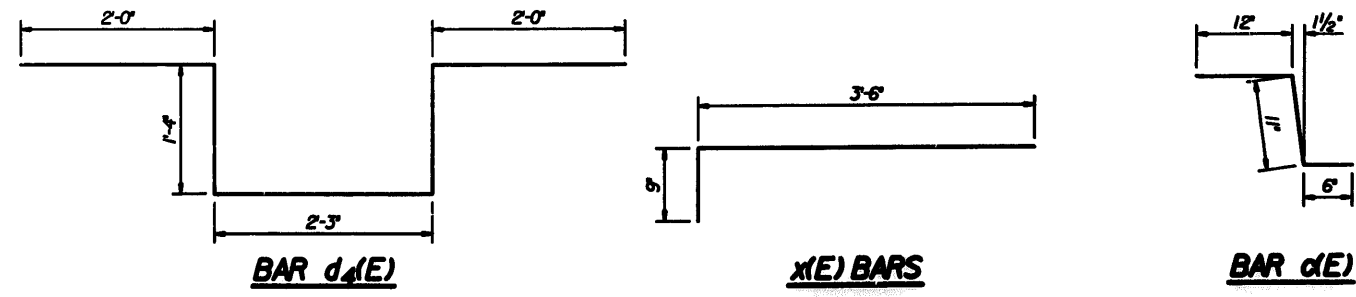


EXISTING SIDEWALK SECTION THRU ABUTMENT



SIDEWALK SECTION C-C THRU ABUTMENT

Indicates Removal



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	7126	#5	32'-6"	—
a2(E)	16	#5	47'-6"	—
a3(E)	256	#5	2'-0"	—
a4(E)	9252	#4	3'-10"	—
b(E)	1848	#5	31'-9"	—
b1(E)	528	#6	33'-0"	—
b2(E)	198	#6	41'-0"	—
b3(E)	792	#5	32'-6"	—
b4(E)	126	#5	20'-6"	—
b5(E)	126	#5	40'-0"	—
b6(E)	252	#5	29'-0"	—
b7(E)	546	#5	33'-10"	—
b8(E)	1020	#5	30'-1"	—
b9(E)	2160	#5	29'-9"	—
b10(E)	84	#5	29'-6"	—
b11(E)	252	#5	32'-6"	—
b12(E)	48	#5	37'-3"	—
c(E)	2604	#5	2'-5"	—
c1(E)	2614	#5	5'-7"	—
c2(E)	1301	#5	3'-6"	—
c3(E)	2608	#5	1'-6"	—
d(E)	2616	#6	3'-9"	—
d1(E)	2616	#4	3'-10"	—
d2(E)	640	#4	2'-1/2"	—
d3(E)	48	#6	4'-1"	—
d4(E)	80	#6	8'-11"	—
e(E)	192	#4	12'-6"	—
e1(E)	144	#4	19'-5"	—
e2(E)	384	#4	16'-10"	—
e3(E)	12	#4	20'-7"	—
e4(E)	156	#4	17'-10"	—
e5(E)	72	#4	13'-9"	—
f(E)	16	#5	31'-9"	—
f1(E)	8	#5	4'-9"	—
g(E)	130	#5	2'-11 1/2"	—
h(E)	374	#5	2'-6"	—
h1(E)	20	#5	1'-6"	—
i(E)	630	#5	4'-1"	—
ITEM UNIT QUANTITY				
Class X Concrete Superstructure	Cu. Yd.	2859.4		
Protective Coat	Sq. Yd.	3145.3		
Neoprene Expansion Joint, 2 1/2"	Lin. Ft.	335		
Neoprene Expansion Joint, 4"	Lin. Ft.	135		
Reinforcement Bars, Epoxy Coated	Lbs.	609,260		

SUPERSTRUCTURE
DETAILS 5

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

Joint Size	*C* @ 50° F	*D* @ 50° F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	-	2 1/2" Min.

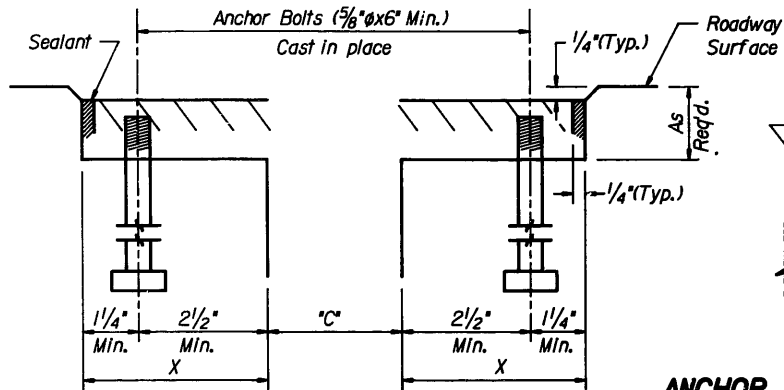
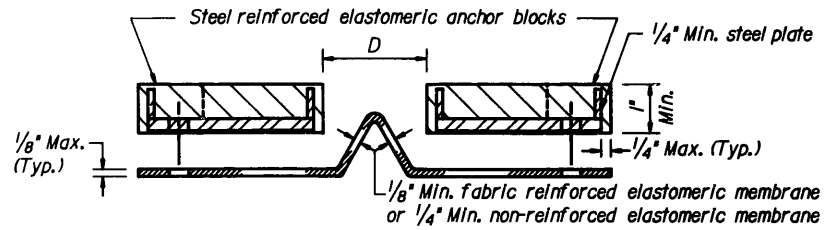
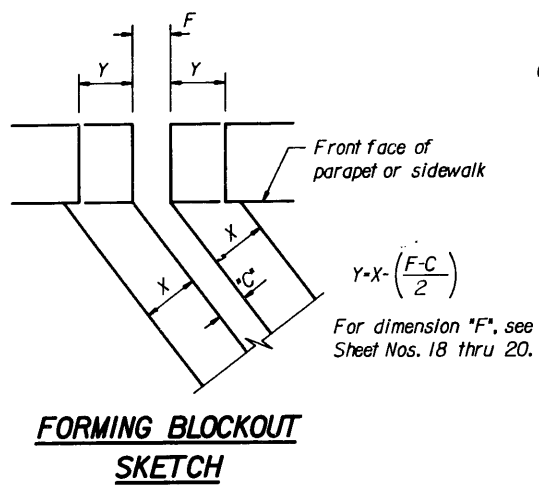
INSTALLATION NOTES

- ① Install sponge mandrels into positions shown to form flap convolution.
- ② Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
- ③ Install continuous seal in roadway.
- ④ Install anchor blocks as indicated.

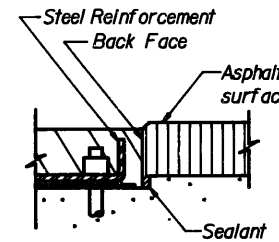
Note A: Maximum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with 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 placed at ±12" centers.



ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE



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. See Special Provisions.

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 steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

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.

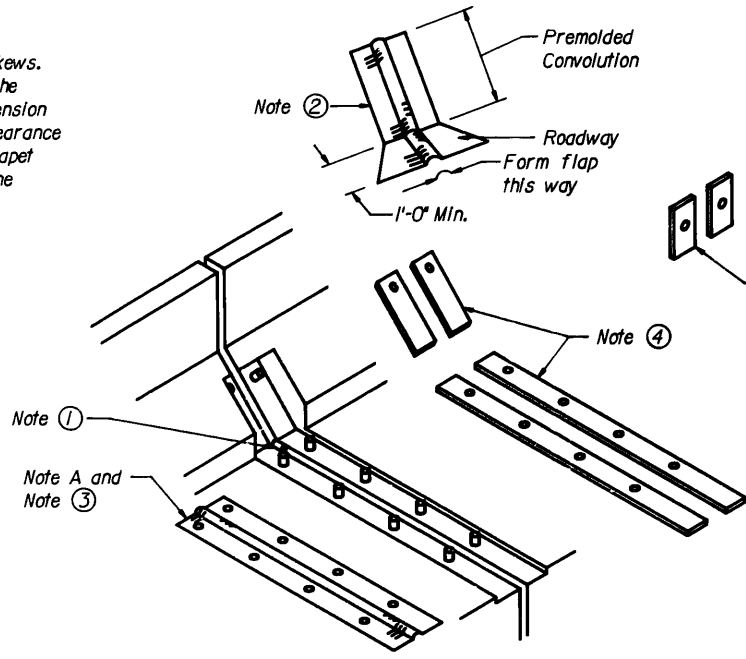
Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.

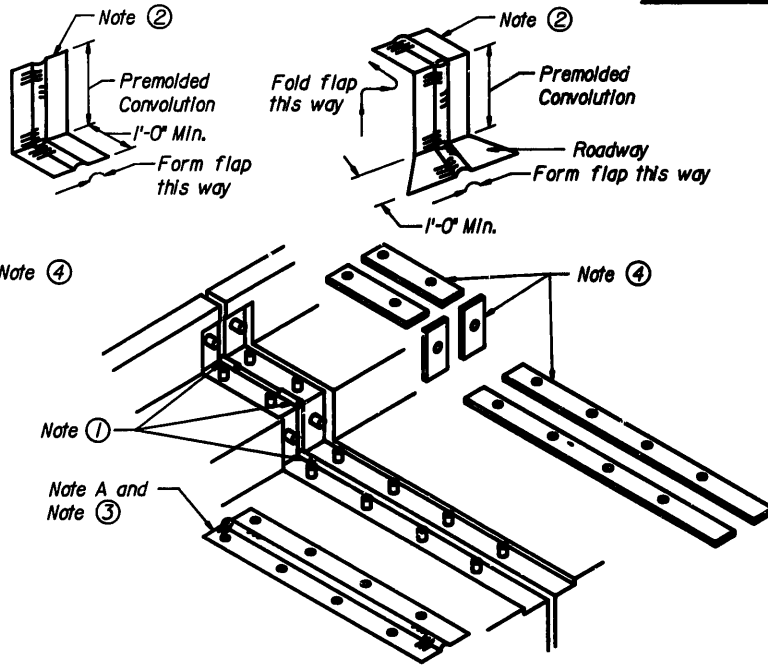
FORMING BLOCKOUT SKETCH

CROSS SECTION

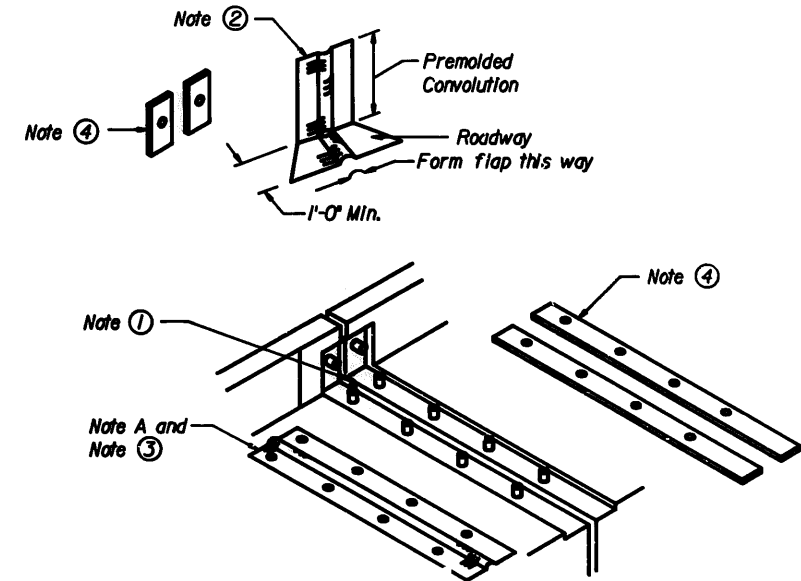
ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE



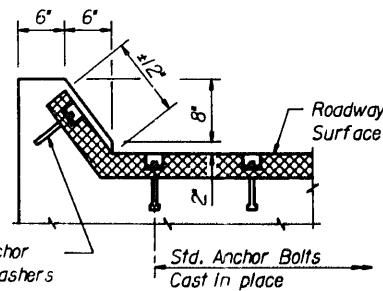
AT PARAPET



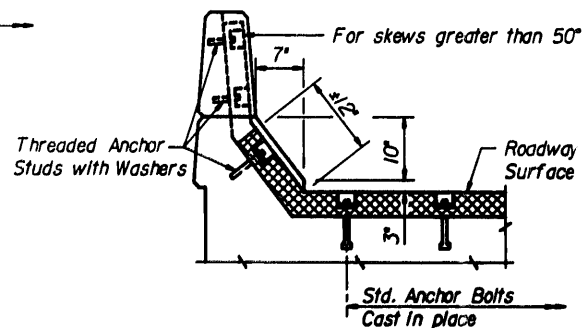
AT SIDEWALK OR MEDIAN



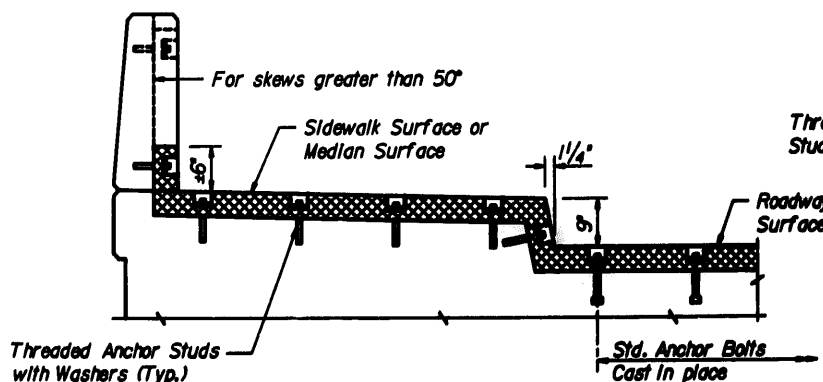
AT WALL



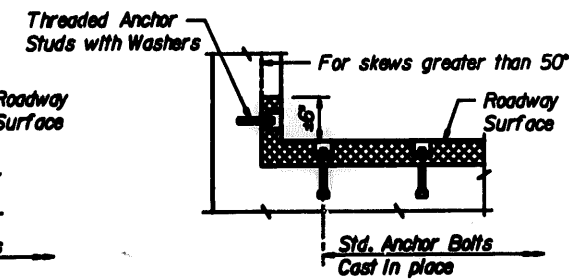
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN



AT WALL

TYPICAL END TREATMENTS

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINT FOR 2", 2 1/2" AND 4" MOVEMENT

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

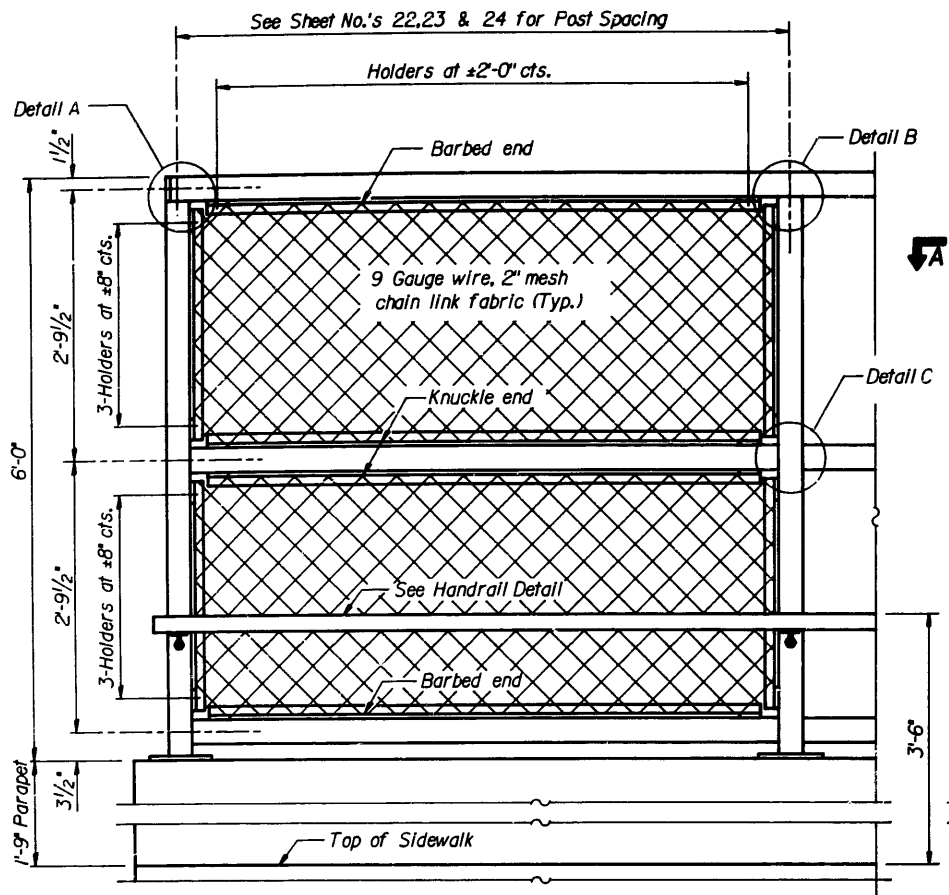
DATE 4-30-1993
rev. 7-25-1993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

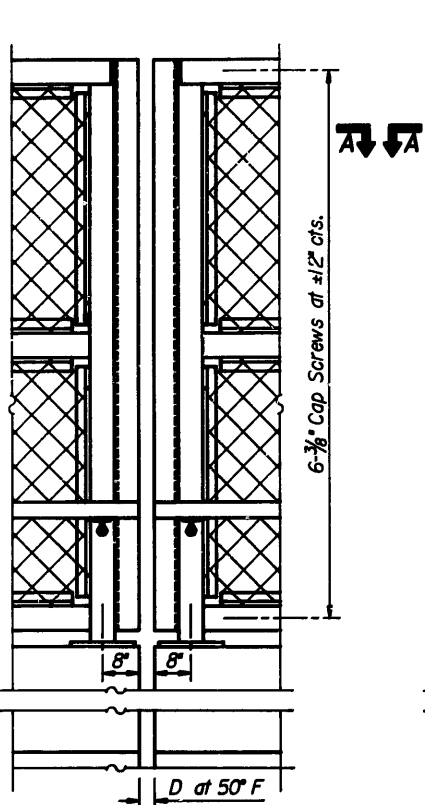
ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 52	SHEET NO. 27
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					SHEETS 41

NOTES

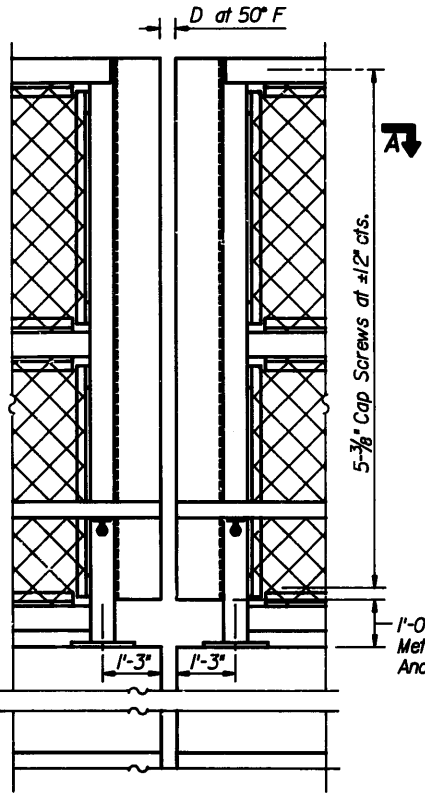
Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price for Pedestrian Railing.
The 9 gauge fabric ties shall be in accordance with Article 710.33(f) of the Standard Specifications.
Installation of the chain link fabric shall be in accordance with Section 629 of the Standard Specifications.
Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
All other steel shapes and plates shall conform to the requirements of AASHTO M-270 Grade 36.
The chain link fabric shall be placed along Pedestrian Side as shown on Section A-A.
Stretcher bars shall be used at all four sides of each panel.
All post, railing, splices, anchor devices, and bent plates shall be painted using the zinc-silicate and vinyl paint system.
The chain link fabric shall conform to the requirements of Article 710.33(a)(4) of the Standard Specifications.



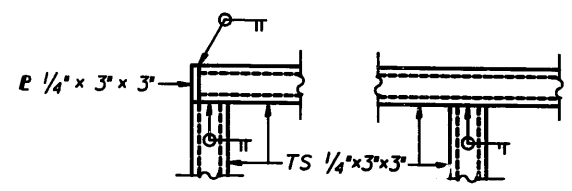
ELEVATION
(Inside Face)



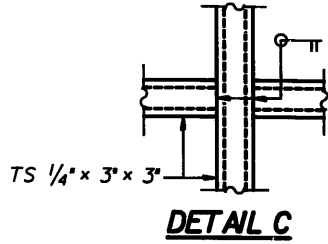
ELEVATION
(At Expansion Joint)



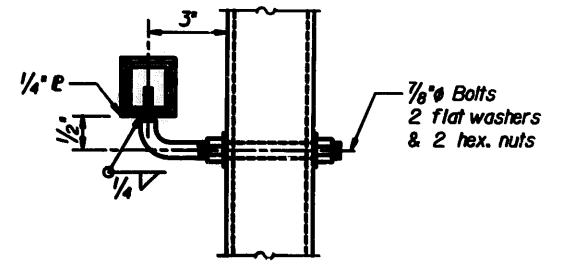
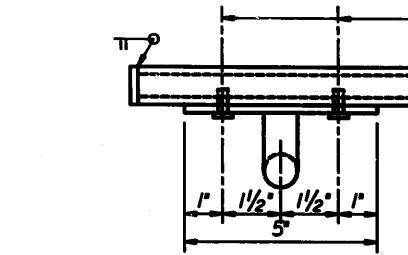
ELEVATION
(At Future Light Pole)



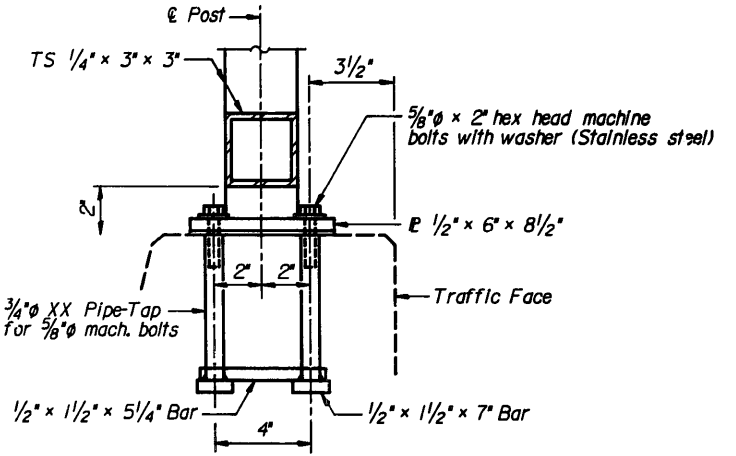
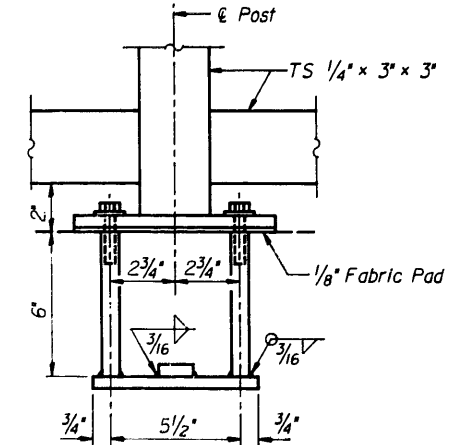
DETAIL A **DETAIL B**



DETAIL C

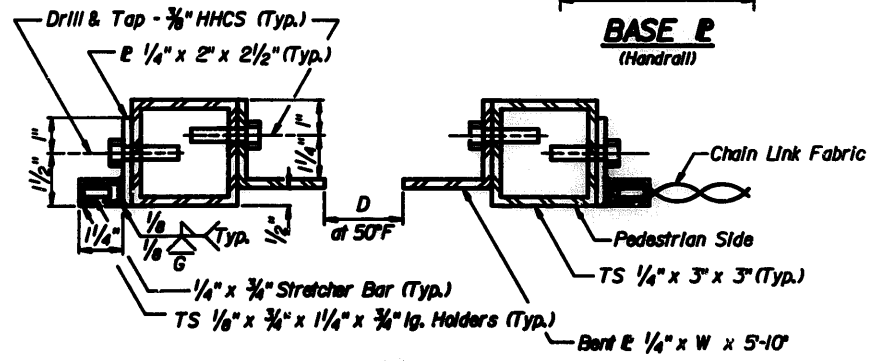


HANDRAIL DETAIL

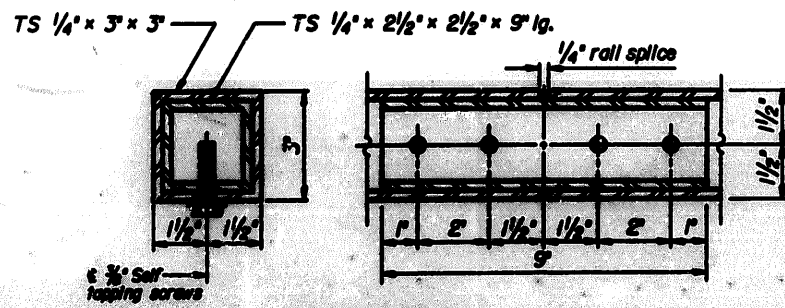


ANCHOR BOLT DETAILS

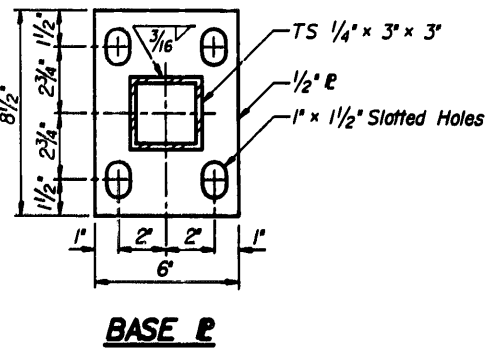
Location	D	W
Expansion Joint @ Pler No.'s 5 & 11	3"	7"
Expansion Joint @ Pler No.'s 6 & 10	3 1/16"	6 5/8"
Future Light Pole	5"	1'-2"



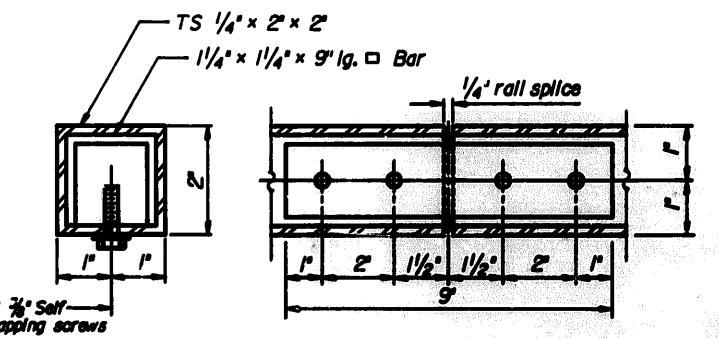
SECTION A-A



RAIL SPLICE



BASE P



HANDRAIL SPLICE

BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Railing	Lin. Ft.	2,606

PEDESTRIAN RAILING
25TH AVENUE OVER IHB RAILROAD
AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-10H

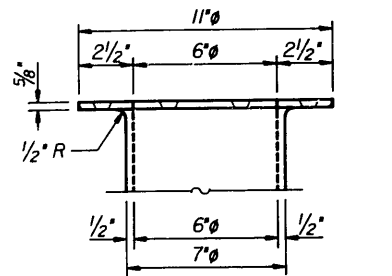
Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

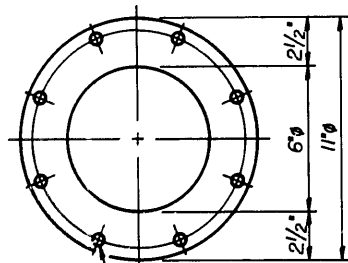
DATE 4-30-1993
rev. 7-26-1993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 28
FAU 2714	1010.2R	COOK	89	53	SHEETS 41
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					

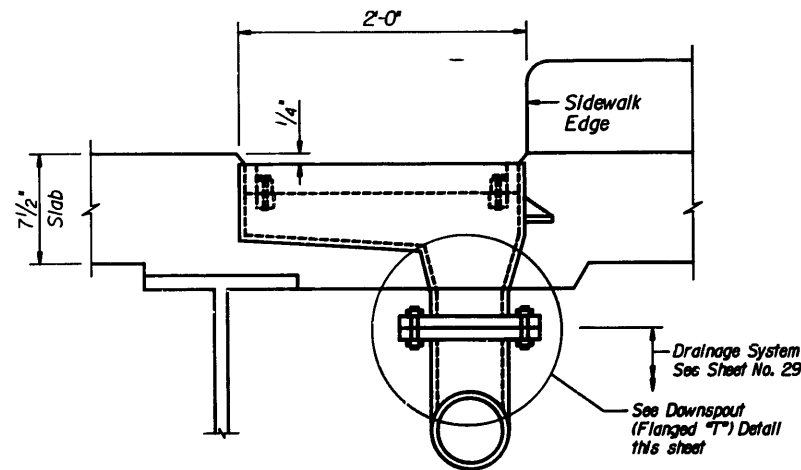


DOWNSPOUT (FLANGED T)

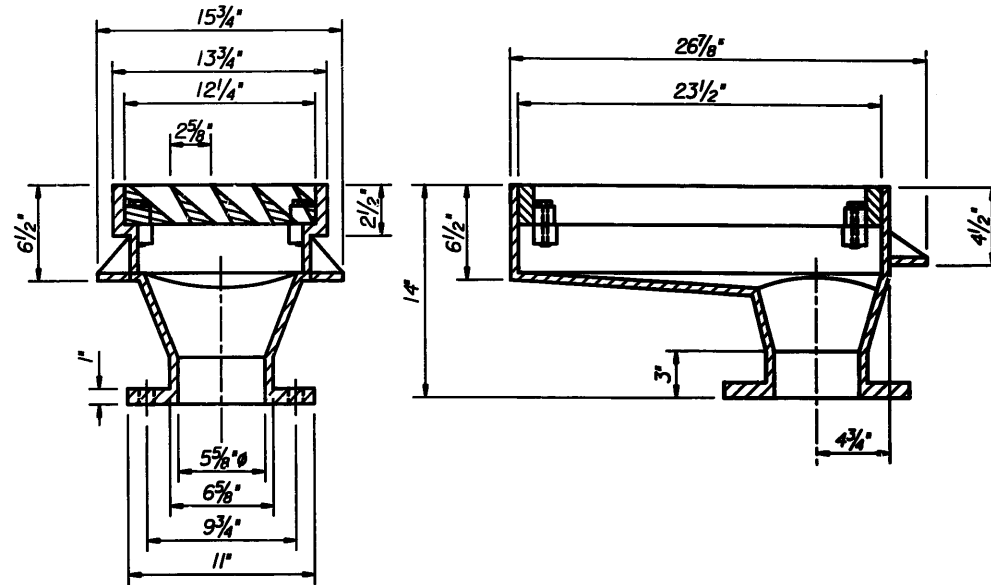


Drill & Tap 8 Holes for 3/4" Bolts on 9 3/4" Bolt Circle.

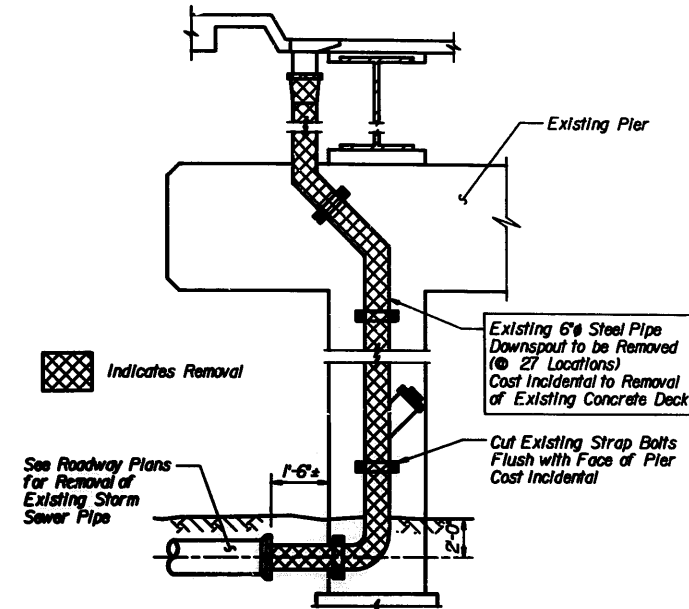
TOP VIEW OF FLANGE ONLY



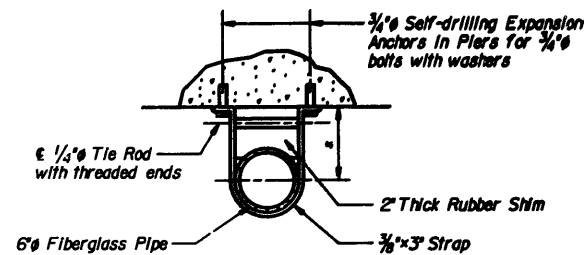
DRAINAGE SCUPPER



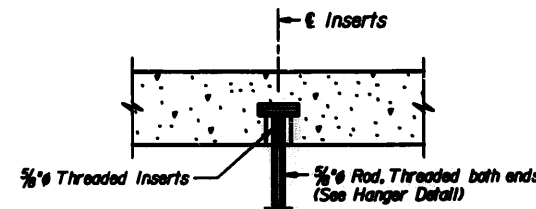
SECTIONS THRU DRAINAGE SCUPPER



REMOVAL OF EXISTING DRAINAGE SYSTEM



SECTION D-D

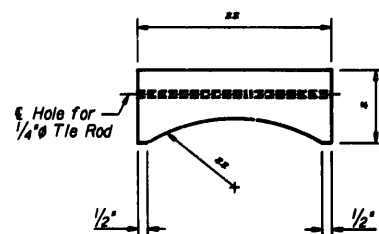


SLAB INSERT

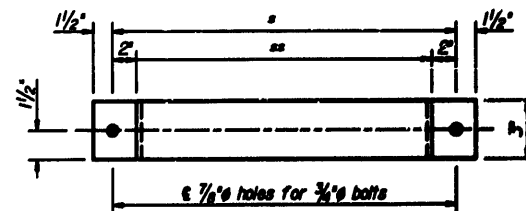
Notes:

Bolts, studs, washers and nuts shall conform to the requirements of ASTM A307. The Grate, Frame and Downspout shall be galvanized after shop fabrication in accordance with AASHTO M111 & ASTM A385.

All bolts, washers and nuts shall be galvanized in accordance with AASTHO M232. Cost of the Grate, Frame, Bolts, Washers and nuts including complete installation of Scupper will be paid for at the unit bid price each for "DRAINAGE SCUPPER (SPECIAL)".



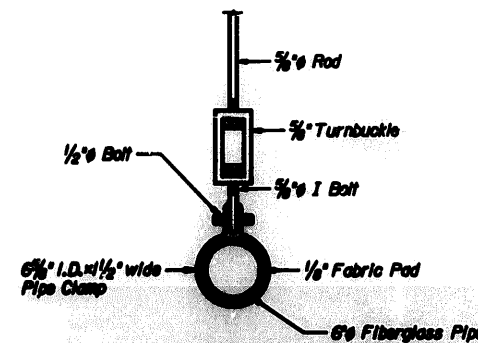
RUBBER SHIM



3/8" x 3" STRAP

* Dimensions as required by the pipe strap
** Dimensions as required by the pipe

DRAINAGE SYSTEM DETAILS



HANGER

BILL OF MATERIAL

Item	Unit	Total
Drainage Scupper (Special)	Each	33

DRAINAGE SCUPPER (SPECIAL)

25TH AVENUE OVER IHB RAILROAD
AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-1011

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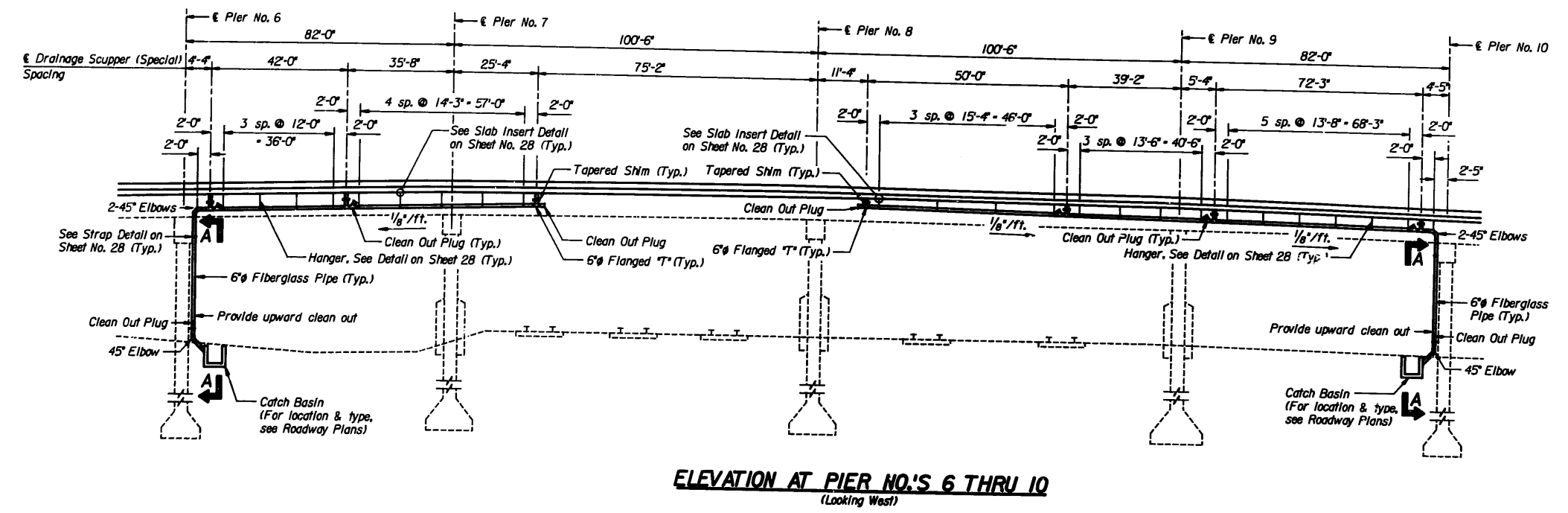
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CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

DATE 4-30-1993
rev. 7-26-1993

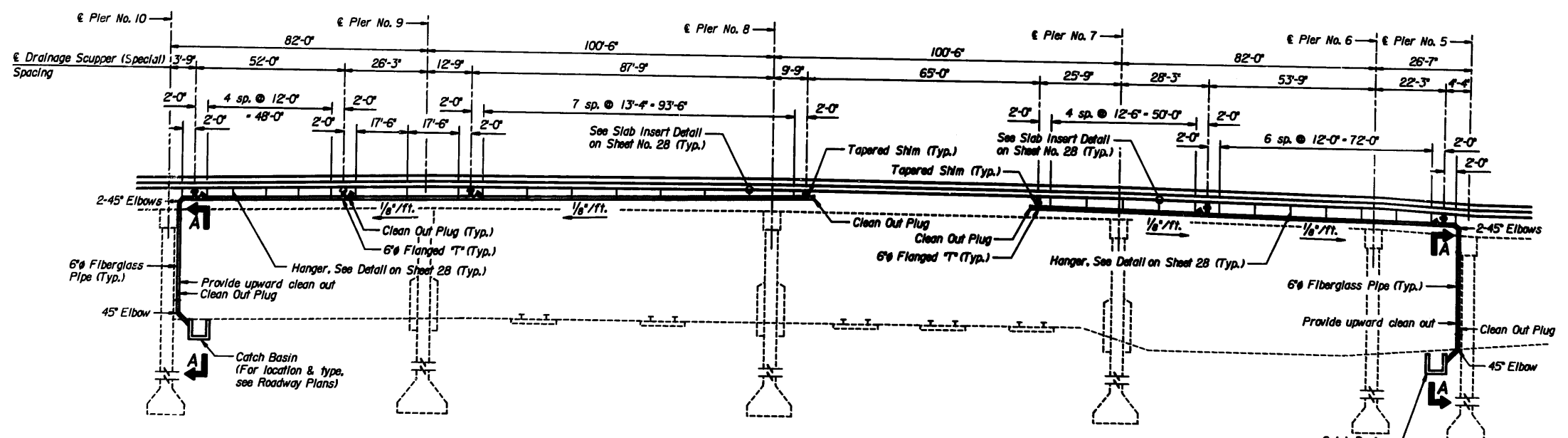
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 29 SHEETS 41
FAU 2714	1010.2R	COOK	89	54	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					

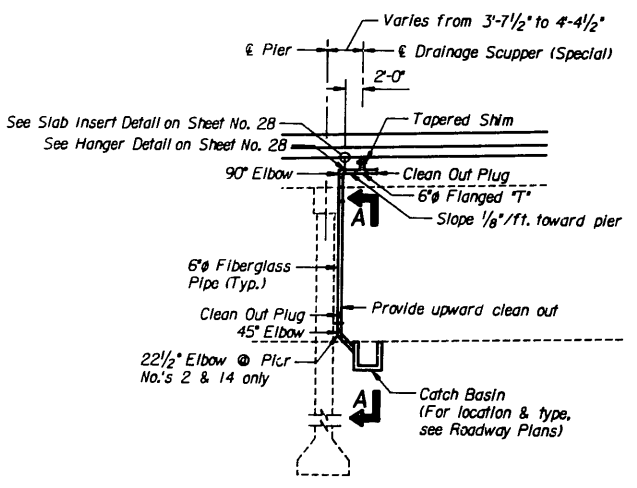
Notes:
The surface of the fiberglass pipe shall be free of bond inhibiting agents.
Bolts, washers and nuts for "Drainage System" shall conform to the requirements of ASTM A-307.
The fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The pay item "Drainage System" shall include providing and installing 6" pipe, 6" T's, elbows, clean outs, inserts, straps, hangers, steel pipe ballards and all other necessary items to complete the underdeck drainage system. See Special Provisions.
The "Drainage System" shall be painted with the Zinc-Silicate and Vinyl Paint System specified for new structural steel.
For Drainage System Details (Slab Insert, Hanger, Section D-D), see Sheet No. 28.
For Drainage Scupper (Special) locations, see Sheet Nos. 18 thru 20.



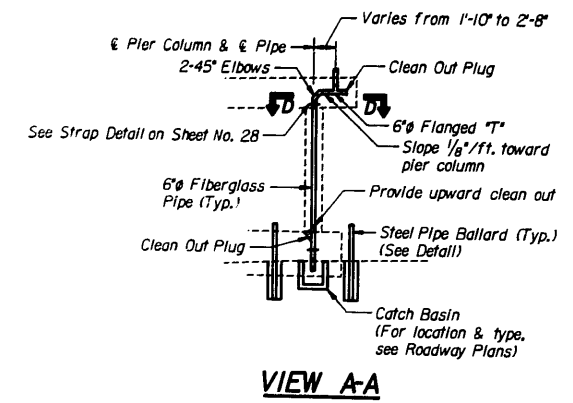
ELEVATION AT PIER NO'S 6 THRU 10
(Looking West)



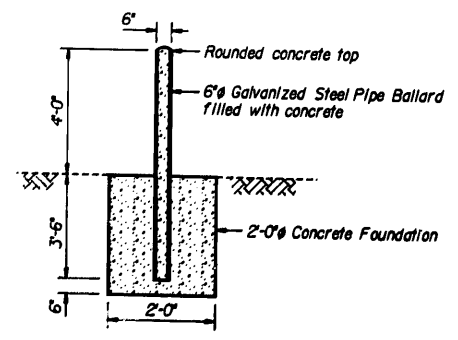
ELEVATION AT PIER NO'S 5 THRU 10
(Looking East)



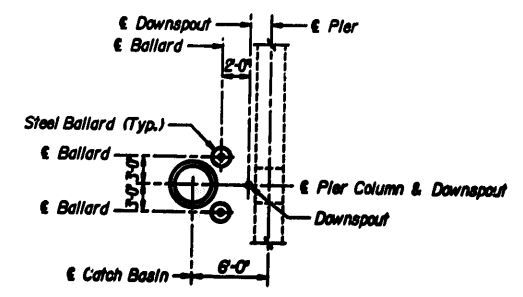
ELEVATION AT PIER NO'S 1 THRU 5 AND 11 THRU 15
(Total - 17)



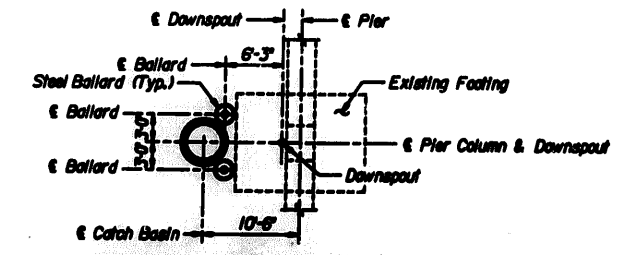
VIEW A-A



STEEL PIPE BALLARD



STEEL PIPE BALLARD PLAN LOCATION
(For Pier No's 1, 3, 4, 12, 13 & 15)



STEEL PIPE BALLARD PLAN LOCATION
(For Pier No's 2 & 14)

DRAINAGE SYSTEM
25TH AVENUE OVER IHB RAILROAD
AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-1011

Bascor, Inc.
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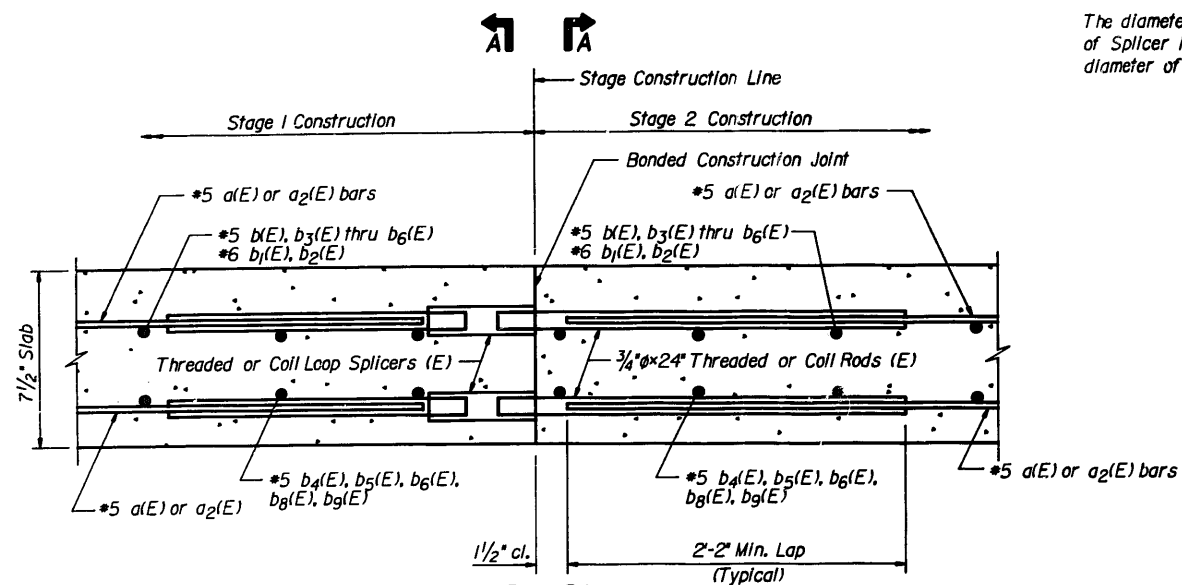
DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

DATE 4-30-1993
rev. 7-26-1993

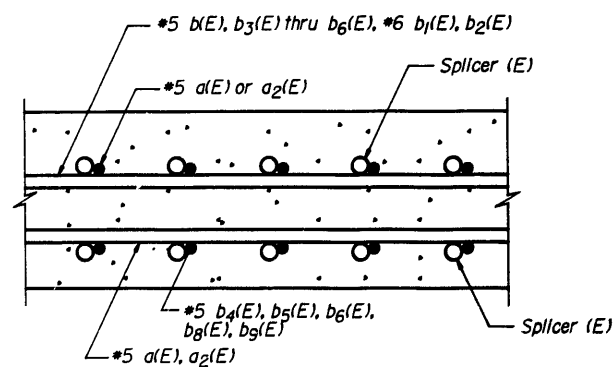
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	55
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT			

SHEET NO. 30
SHEETS 41



SECTION THRU SLAB



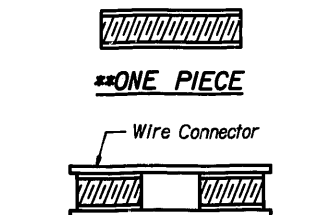
SECTION A-A

SPLICER DETAILS

The diameter of this part of Splicer is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

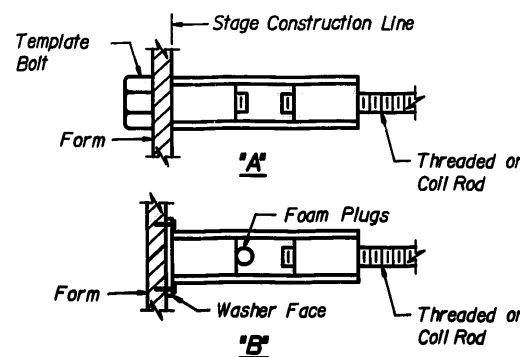
ROLLED THREAD DOWEL BAR



WELDED SECTIONS

SPICER ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or colled full length and have effective tensile stress area equal to or greater than that of the lapped reinforcement bars.
All reinforcement bars shall be lapped and tied to the splicer rods.
Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) $= 1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) $= 1.25 \times f_{s \text{ allow}} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s \text{ allow}}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load).
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Typical Splicer (Coupler) Assembly Sizes:

In Slabs — #5 bar lap with 3/4" Splicer (Coupler) x 2-0" Splicer Rods — Minimum Capacity = 23.0 kips-tension
Minimum Pull-out Strength = 9.2 kips-tension

Bar splicers shall be in accordance with Section 512 of the Standard Specifications, except as noted, and will be paid for at the contract unit price each for "Bar Splicers."

BILL OF MATERIAL

Item	Unit	Total
Bar Splicers	Each	3659

BAR SPICER
(COUPLER) DETAILS

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

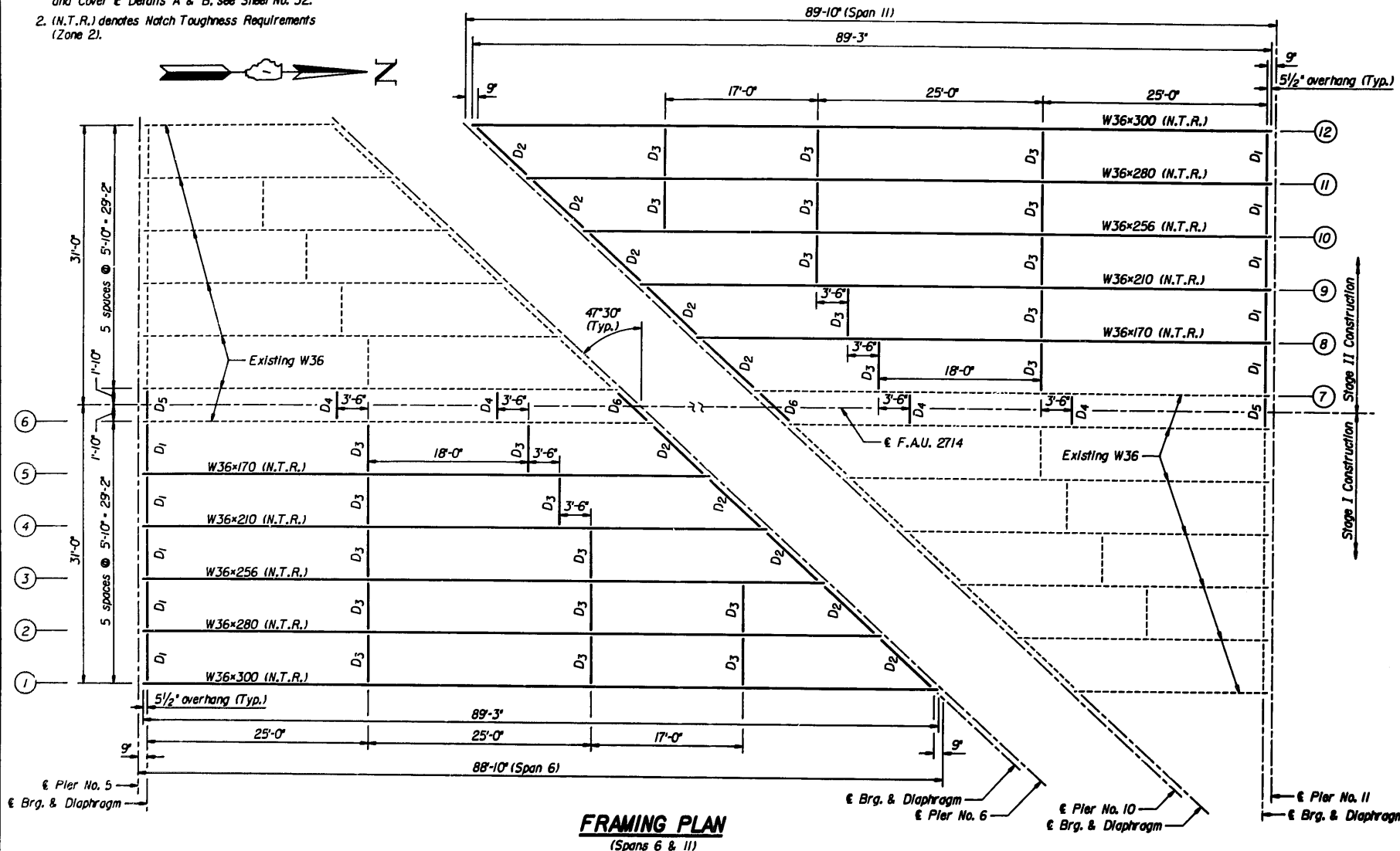
DATE 4-30-1993
rev. 7-26-1993

NOTES

- For Diaphragm Details, Beam Design Tables, and Cover E Details A & B, see Sheet No. 32.
- (N.T.R.) denotes Notch Toughness Requirements (Zone 2).

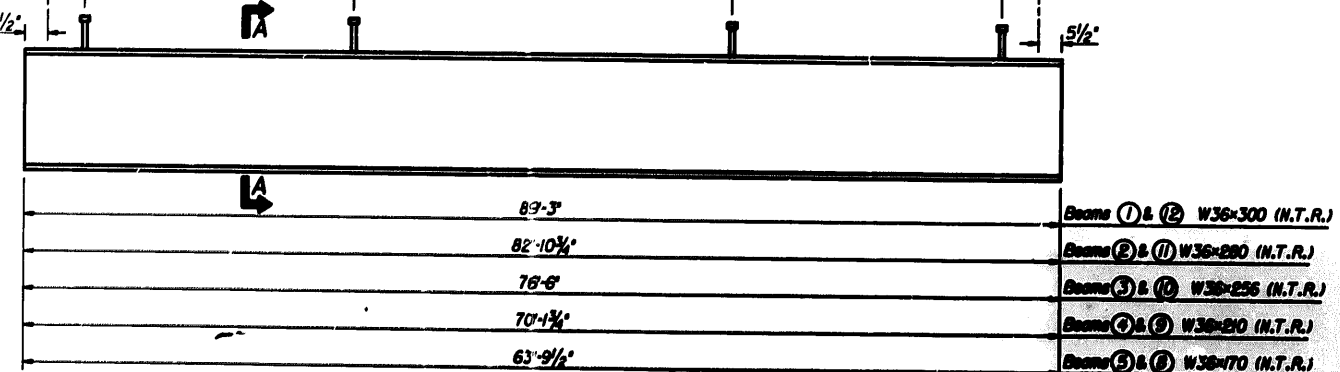
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 56	SHEET NO. 31
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					SHEETS 41

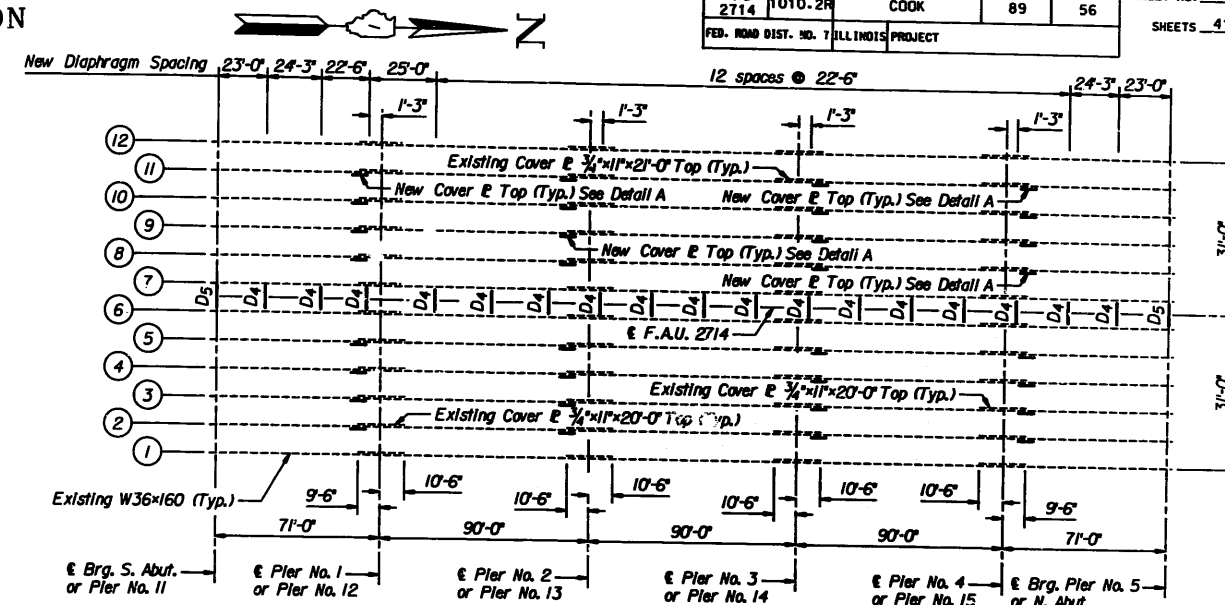


FRAMING PLAN
(Spans 6 & 11)

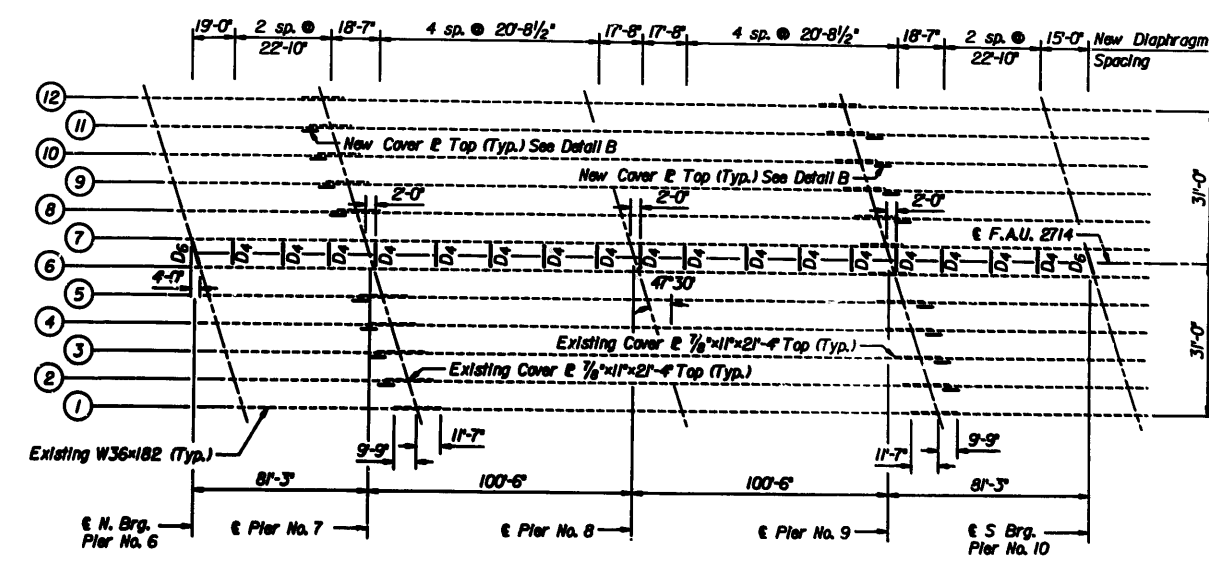
Shear Stud Spacing	Beams (5) & (8)	Beams (4) & (9)	Beams (3) & (10)	Beams (2) & (11)	Beams (1) & (12)
8 1/4"	18 sp. @ 12'-18"0"	17 sp. @ 18'-25"6"	18 sp. @ 12'-18"0"	8 1/4" Number of studs required - 216	
4 3/8"	17 sp. @ 12'-17"0"	23 sp. @ 18'-34"6"	17 sp. @ 12'-17"0"	4 3/8" Number of studs required - 232	
1/2"	19 sp. @ 12'-19"0"	25 sp. @ 18'-37"6"	19 sp. @ 12'-19"0"	1/2" Number of studs required - 256	
8 7/8"	20 sp. @ 12'-20"0"	27 sp. @ 18'-40"6"	20 sp. @ 12'-20"0"	8 7/8" Number of studs required - 272	
5"	22 sp. @ 12'-22"0"	29 sp. @ 18'-43"6"	22 sp. @ 12'-22"0"	5" Number of studs required - 296	



**ELEVATION BEAMS (1) THRU (5), (SPAN 6)
AND BEAMS (6) THRU (12), (SPAN 11)**



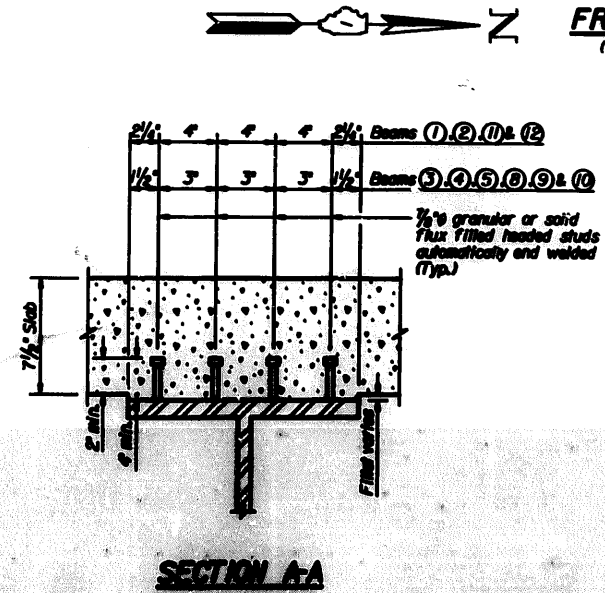
FRAMING PLAN
(Spans 1 thru 5 & 12 thru 16)



FRAMING PLAN
(Spans 7 thru 10)

TOP OF FLANGE ELEVATIONS

Beam No.	€ Brg. Pier 5	€ Brg. Pier 6
1	662.71	664.46
2	662.80	664.45
3	662.90	664.44
4	662.99	664.42
5	663.10	664.40
€ Brg. Pier 10 & Brg. Pier 11		
6	664.40	663.10
7	664.42	662.99
8	664.44	662.90
9	664.45	662.80
10	664.46	662.71



SECTION A-A

FRAMING PLAN

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-108

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 32
FAU 2714	1010.2R	COOK	89	57	41
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT			

BEAM MOMENT TABLE

Location	Beam (1)	Beam (2)	Beam (3)	Beam (4)	Beam (5)
Location @ .5 Span 6	20300	18900	16800	13200	10500
Location @ .5 Span 11	37761	35719	33672	28123	23610
I_c (in ⁴)	28188	26612	24692	20512	17266
S_x (in ³)	1110	1030	895	719	580
S_c (in ³)	1390	1304	1181	967	791
S_c (3n)	1261	1185	1059	868	714
e (k/ft.)	0.917	0.893	0.864	0.809	0.761
M_E (K)	895	750	617	485	376
f_s (non-comp) (ksi)	9.7	8.7	8.3	8.1	7.8
S_E (k/ft.)	0.346	0.346	0.346	0.346	0.346
M_{SE} (K)	338	291	247	207	171
f_s (comp) (ksi)	3.2	2.9	2.8	2.9	2.9
M (K)	696	636	593	512	451
M_{max} (K)	163	154	148	132	122
f_s (k/IMP) (ksi)	7.4	7.3	7.5	8.0	8.7
f_s (Total) (ksi)	20.3	19.0	18.6	18.9	19.3
VR (k)	46.6	46.6	46.3	46.0	45.9

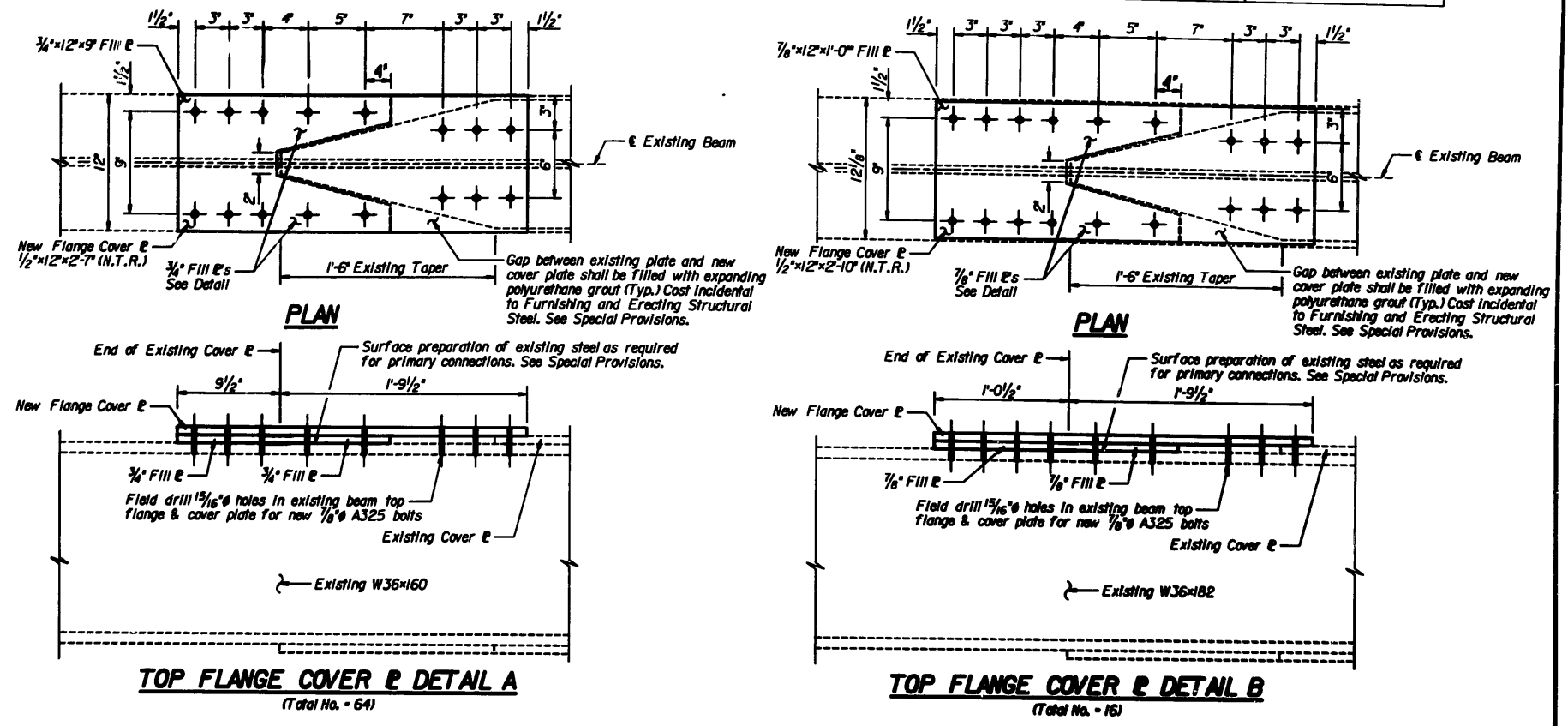
BEAM REACTION TABLE

Location @ Pier 5 & 6	Beam (1)	Beam (2)	Beam (3)	Beam (4)	Beam (5)
Location @ Pier 10 & 11	55.8	50.8	44.6	40.0	34.8
R_E (k)	37.8	37.5	37.1	36.6	36.1
Imp. (k)	8.8	9.1	9.2	9.4	9.8
R_{max} (k)	102.4	97.4	90.9	86.0	80.7

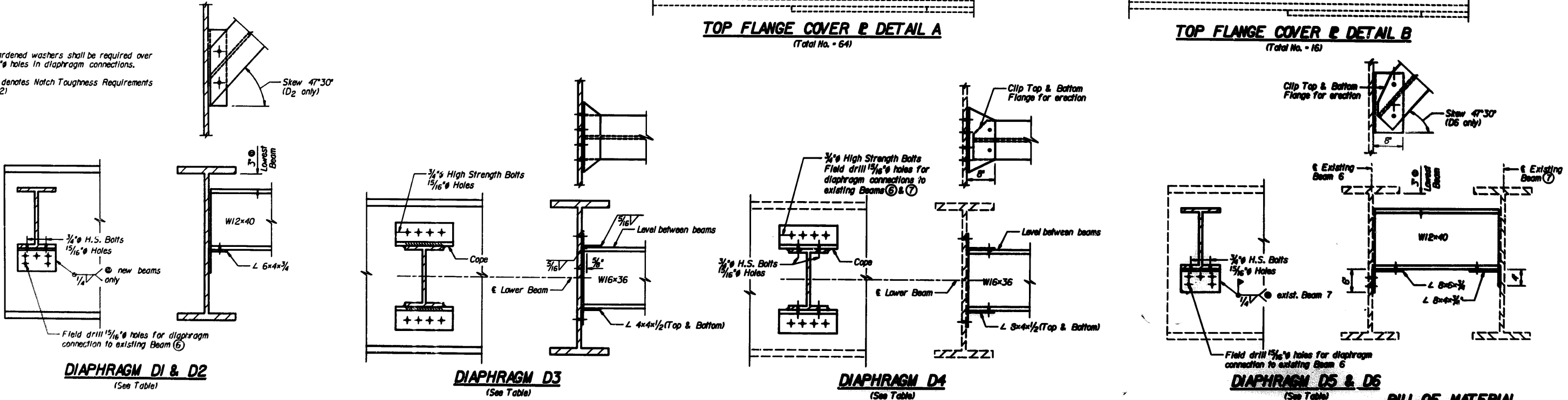
DIAPHRAGM TABLE

Diaphragm	No. Req'd.	e to e Beam Spacing
D1	10	5'-10"
D2	10	8'-7 1/2" (along skew)
D3	24	5'-10"
D4	55	3'-8"
D5	6	3'-8"
D6	4	5'-5 1/2" (along skew)

I_s and S_x are the moment of inertia and section modulus of the steel section used in computing f_s (Total).
 $I_c(n)$, $I_c(3n)$, $S_c(n)$ and $S_c(3n)$ are the moment of inertia and section modulus of the composite section used in computing f_s (Total).
 VR is the maximum k + impact shear range in span.



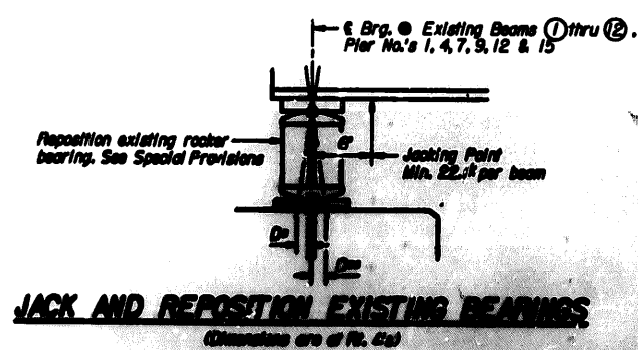
Notes:
 Two hardened washers shall be required over all 15/16" holes in diaphragm connections.
 N.T.R. denotes Notch Toughness Requirements (Zone 2)



Bascor, Inc.
 consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
 rev. 7-26-1993



NOTES:
 Jacking, cribbing and bearing repositioning shall occur under Stage Construction with a maximum lift of 1" between adjacent supports. Maximum differential between adjacent beams to be 1/8".
 The maximum dead load reaction with deck removed (per bearing) of each pier is 22.1 kips.
 Bearing repositioning shall be completed before new deck is poured.
 D₁ (Side of bearing away from fixed bearing)
 D₁ = 1/2" per each 100' of expansion for every 15' fall below the normal temperature of 50° F.
 D₂ (Side of bearing toward fixed bearing)
 D₂ = 1/2" per each 100' of expansion for every 15' rise above the normal temperature of 50° F.
 After beams have been jacked and dimensions D₁ & D₂ determined, remove the necessary plate, and the existing center line holes and re-drill the plate in the correct position for the temperature of the time of reinstallation.

BILL OF MATERIAL

Item	Unit	Total
Jack and Reposition Bearings	Each	72

FRAMING DETAILS

25TH AVENUE OVER MB RAILROAD
 F.A.U. RTE. 2714 SECTION 100.2R
 COOK COUNTY
 STA. 38+76.67
 S.N. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	57A
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				

SHEET NO. 32
SHEETS 41

BEAM MOMENT TABLE

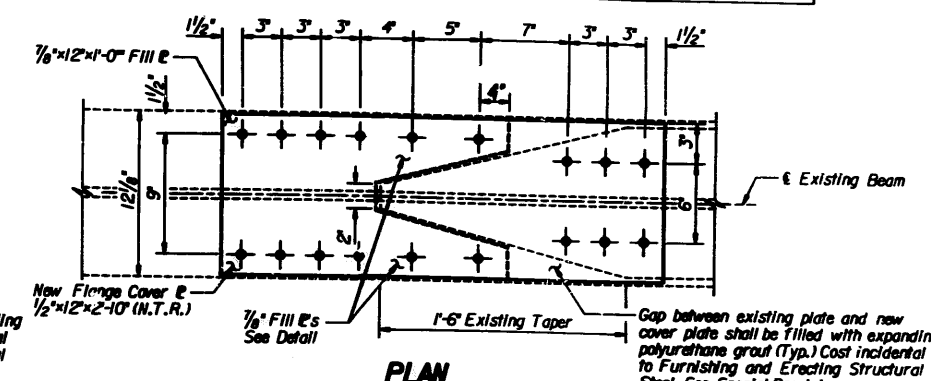
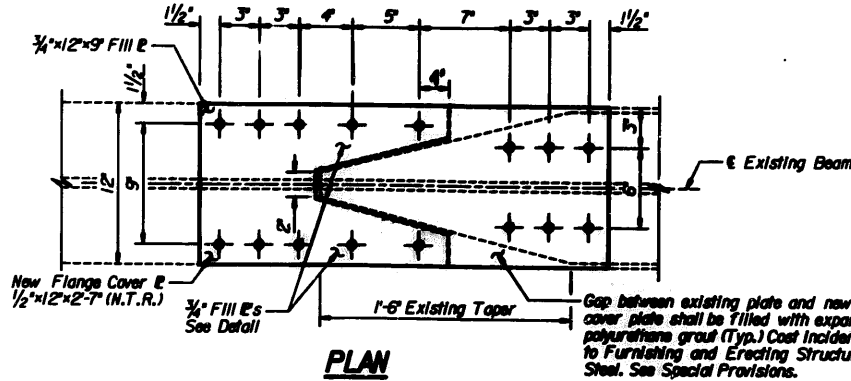
Location	.5 Span 6	Beam (1)	Beam (2)	Beam (3)	Beam (4)	Beam (5)
Location	.5 Span 11	Beam (12)	Beam (11)	Beam (10)	Beam (9)	Beam (8)
I_s	(in ⁴)	20300	18900	16800	13200	10500
I_c (n)	(in ⁴)	37761	35719	33672	28123	23610
I_c (3n)	(in ⁴)	28188	26612	24692	20512	17266
S_s	(in ³)	1110	1030	895	719	580
S_c (n)	(in ³)	1390	1304	1181	967	791
S_c (3n)	(in ³)	1261	1185	1059	868	714
R	(k/ft.)	0.917	0.893	0.864	0.809	0.761
M_E	(K)	895	750	617	485	376
$f_s E$ (non-comp)	(ksf)	9.7	8.7	8.3	8.1	7.8
S_E	(k/ft.)	0.346	0.346	0.346	0.346	0.346
$M_s E$	(K)	338	291	247	207	171
$f_s E$ (comp)	(ksf)	3.2	2.9	2.8	2.9	2.9
M	(K)	696	636	593	512	451
M_{imp}	(K)	163	154	148	132	122
f_s (IMP)	(ksf)	7.4	7.3	7.5	8.0	8.7
f_s (Total)	(ksf)	20.3	19.0	18.6	18.9	19.3
VR	(k)	46.6	46.6	46.3	46.0	45.9

BEAM REACTION TABLE

Location	Pier 5 & 6	Beam (1)	Beam (2)	Beam (3)	Beam (4)	Beam (5)
Location	Pier 10 & 11	Beam (12)	Beam (11)	Beam (10)	Beam (9)	Beam (8)
RE	(k)	55.8	50.8	44.6	40.0	34.8
RL	(k)	37.8	37.5	37.1	36.6	36.1
Imp.	(k)	8.8	9.1	9.2	9.4	9.8
R_{max}	(k)	102.4	97.4	90.9	86.0	80.7

DIAPHRAGM TABLE

Diaphragm	No. Req'd.	E to E Beam Spacing
D1	10	5'-10"
D2	10	8'-7 1/2" (along skew)
D3	24	5'-10"
D4	55	3'-8"
D5	6	3'-8"
D6	4	5'-5 1/2" (along skew)

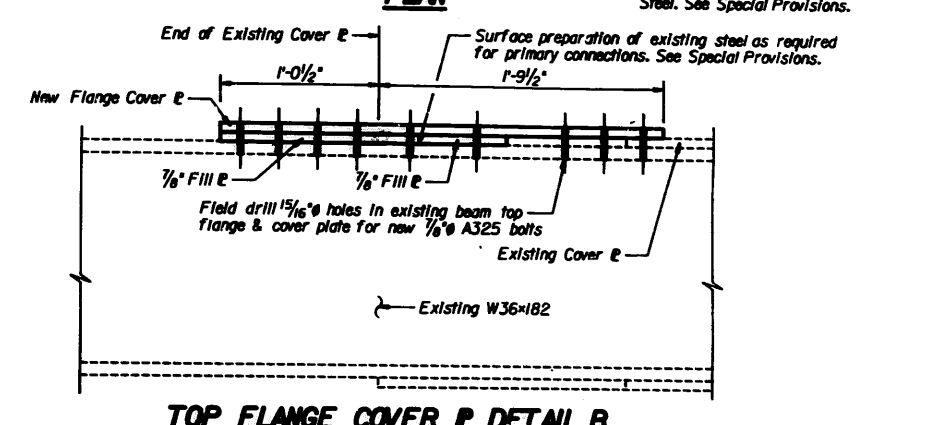
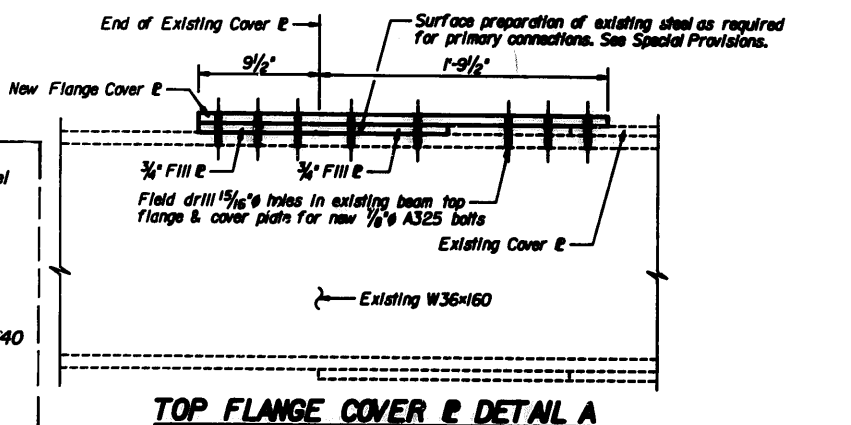
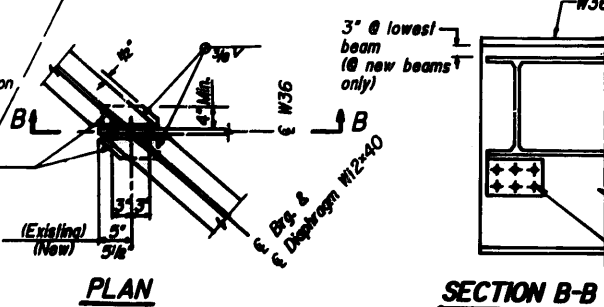


I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total).

I_c (n), I_c (3n), S_c (n) and S_c (3n) are the moment of inertia and section modulus of the composite section used in computing f_s (Total).

VR is the maximum k & impact shear range in span.

Provide minimum angle size 6x4x3/4. Welded plates are allowed in lieu of rolled angle.

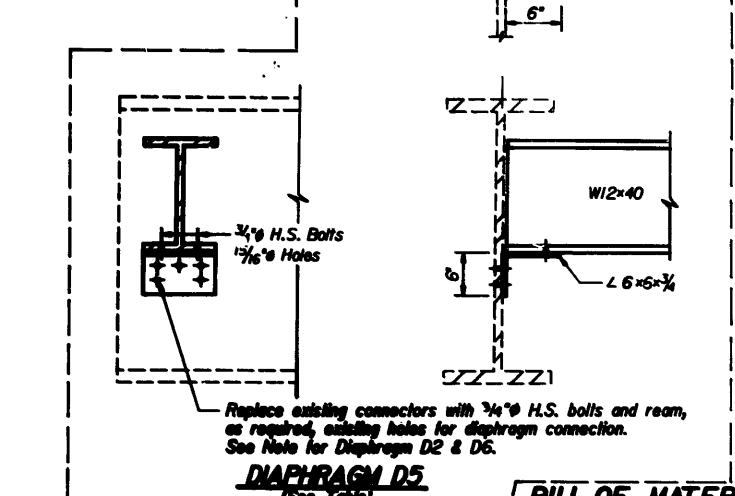
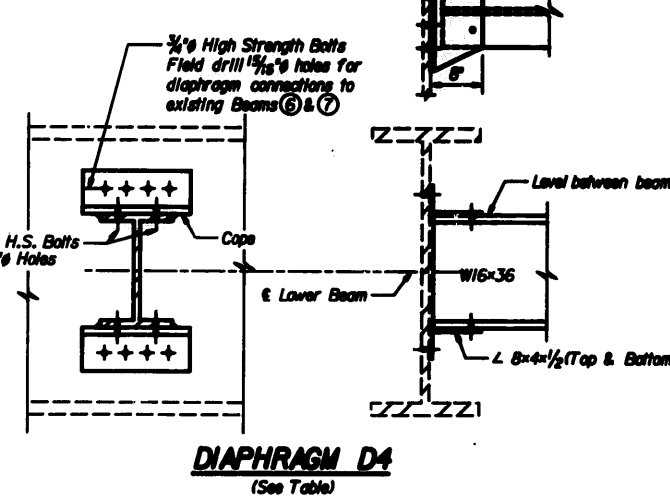
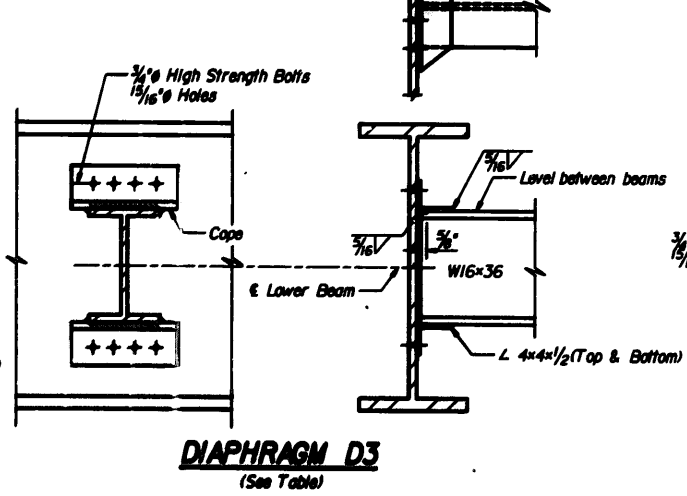
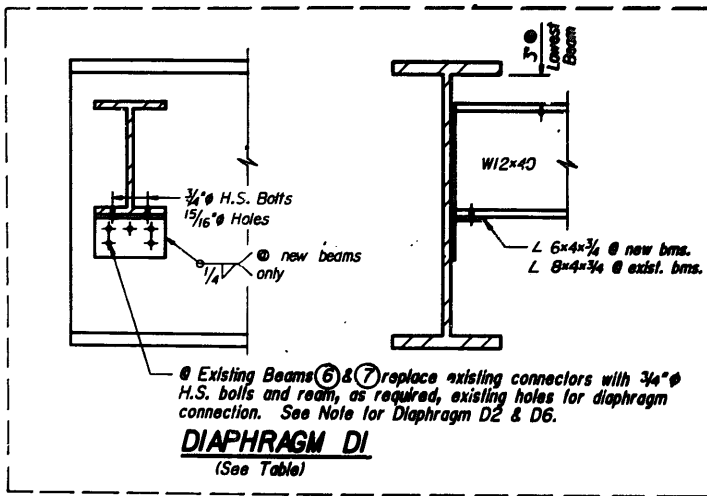


Notes:
Two hardened washers shall be required over all 15/16" holes in diaphragm connections.

N.T.R. denotes Notch Toughness Requirements (Zone 2)

Note: Holes in angles for end diaphragms at existing beams shall be field drilled using existing holes in web as a template.

3/4" H.S. Bolts with 15/16" holes. All existing beams (6) & (7) reuse existing bolt holes in beam web for new connection. See Note. If existing bolt holes cannot be reused, field drill new 15/16" holes in beam web to complete the new diaphragm connection.



BILL OF MATERIAL

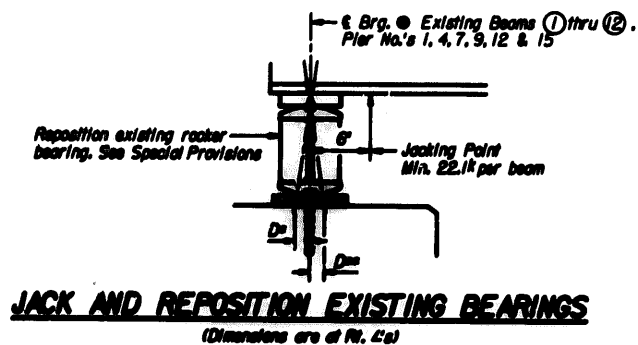
Item	Unit	Total
Jack and Reposition Bearings	Each	72

FRAMING DETAILS

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-10H

AS REVISED

REV. 1-24-84



NOTES:

Jacking, cribbing and bearing repositioning shall occur under Stage Construction with a maximum lift of F between adjacent supports. Maximum differential between adjacent beams to be 1/8".

The maximum dead load reaction with deck removed (per bearing) of each pier is 22.1 kips.

Bearing repositioning shall be completed before new deck is poured.

D_1 (Side of bearing away from fixed bearing)

$D_1 = 1/8"$ per each 100' of expansion for every 15' rise above the normal temperature of 50° F.

D_2 (Side of bearing toward fixed bearing)

$D_2 = 1/8"$ per each 100' of expansion for every 15' rise above the normal temperature of 50° F.

After beams have been jacked and dimensions D_1 & D_2 determined, remove the masonry plate, set the existing anchor bolt holes and re-install the plate in the correct position for the temperature of the time of reinstallation.

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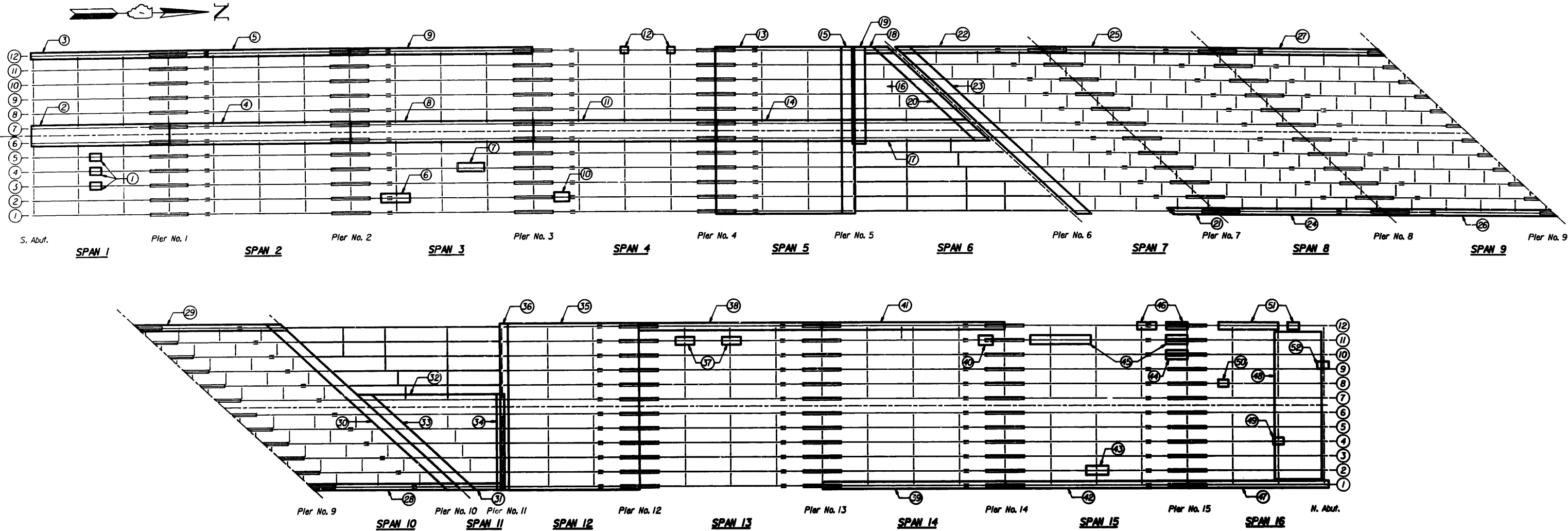
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CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
REV. 7-26-1993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	58
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		

SHEET NO. 33
SHEETS 41



CLEANING AND PAINTING EXISTING STEEL STRUCTURES*
PARTIAL REMOVAL (MODIFIED SSPC SP3) SURFACE PREPARATION

Item	Span	Beams	Description	Area (Sq.Ft.)
1	1	3, 4 & 5	local spots on bottom of bottom flanges	6
2	1	6 & 7	inside faces of webs, bottom of top flanges, top & bottom of bottom flanges	604
3	1	12	outside fascia web, top & bottom of bottom flange	320
4	2	6 & 7	inside faces of webs, bottom of top flanges, top & bottom of bottom flanges	765
5	2	12	outside fascia web from Pier 1 to splice, top of bottom flange from splice to Pier 2	125
6	3	2	bottom of top flange for 25'	25
7	3	4	bottom of top flange for 15'	15
8	3	6 & 7	inside faces of webs, bottom of top flanges, top & bottom of bottom flanges	765
9	3	12	bottom of bottom flange, local spots on outside fascia web	96
10	4	2	bottom of top flange for 10'	10
11	4	6 & 7	inside faces of webs, bottom of top flanges, top & bottom of bottom flanges	765
12	4	12	local spots on outside fascia web	6
13	5	1 thru 5 & 8 thru 12	top & bottom of bottom flange	1,420
14	5	6 & 7	inside faces of webs, bottom of top flanges, top & bottom of bottom flanges	604
15	5	1 thru 12	end 5' of webs & bottom of top flanges, diaphragm steel	712
16	6	8 thru 11	top & bottom of bottom flange	584
17	6	6 & 7	inside faces of webs, bottom of top flanges, top & bottom of bottom flanges	468
18	6	12	top & bottom of bottom flange	43
19	6	6 thru 12	end 5' of webs & bottom of top flanges, diaphragm steel	391
20	6	6 thru 12	end 5' of webs & bottom of top flanges, diaphragm steel	461
21	7	1	top & bottom of bottom flange for 15'	30
22	7	12	top & bottom of bottom flange	164
23	7	1 thru 12	end 5' of webs & bottom of top flanges, diaphragm steel	852
24	8	1	top & bottom of bottom flange, local spots on outside fascia web	203
25	8	12	top & bottom of bottom flange	201
26	9	1	top & bottom of bottom flange	201

Item	Span	Beams	Description	Area (Sq.Ft.)
27	9	12	top & bottom of bottom flange	201
28	10	1	top & bottom of bottom flange, local spots on outside fascia web	207
29	10	12	top & bottom of bottom flange	201
30	10	1 thru 12	end 5' of webs & bottom of top flanges, diaphragm steel	852
31	11	1	top & bottom of bottom flange	43
32	11	2 thru 7	top & bottom of bottom flange	540
33	11	1 thru 7	end 5' of webs & bottom of top flanges, diaphragm steel	461
34	11	1 thru 7	end 5' of webs & bottom of top flanges, diaphragm steel	391
35	12	1 thru 12	top & bottom of bottom flange	1,704
36	12	1 thru 12	end 5' of webs & bottom of top flanges, diaphragm steel	712
37	13	11	bottom of bottom flange for 15' & 10'	25
38	13	12	top & bottom of bottom flange, outside fascia web @ splice plate	210
39	14	1	top & bottom of bottom flange, local spots on outside fascia web	210
40	14	11	local spots on bottom of bottom flange	2
41	14	12	top & bottom of bottom flange, local spots on outside fascia web	204
42	15	1	top & bottom of bottom flange, local spots on outside fascia web	210
43	15	2	bottom of bottom flange for 25'	25
44	15	10	bottom of bottom flange for 10'	10
45	15	11	bottom of bottom flange for 25' & 10'	35
46	15	12	outside fascia web @ diaphragm connection & splice plate	45
47	16	1	top & bottom of bottom flange, local spots on outside fascia web	167
48	16	2 thru 11	bottom of top flanges for 25'	250
49	16	4	local spots on bottom of bottom flange	2
50	16	8	local spots on bottom of bottom flange	2
51	16	12	local spots outside fascia web, local spot on bottom of bottom flange	32
52	16	9	local spot at diaphragm end connection	2

* FOR INFORMATION ONLY.

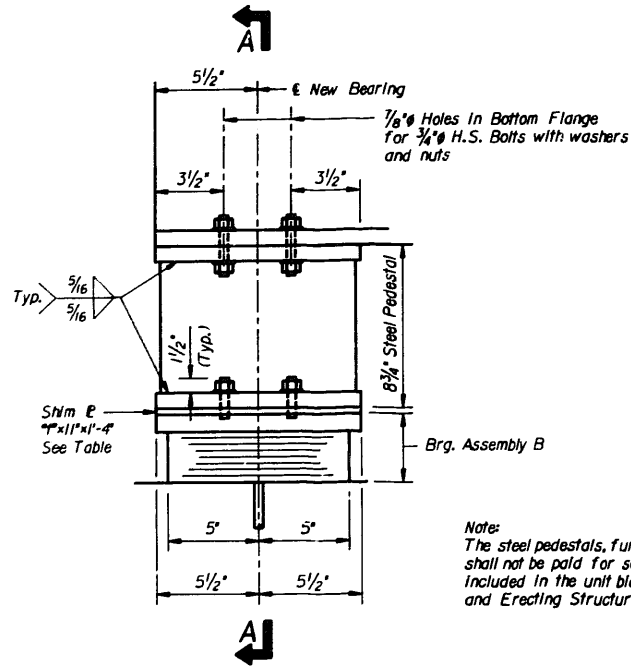
Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

DATE 4-30-1993
rev. 7-26-1993

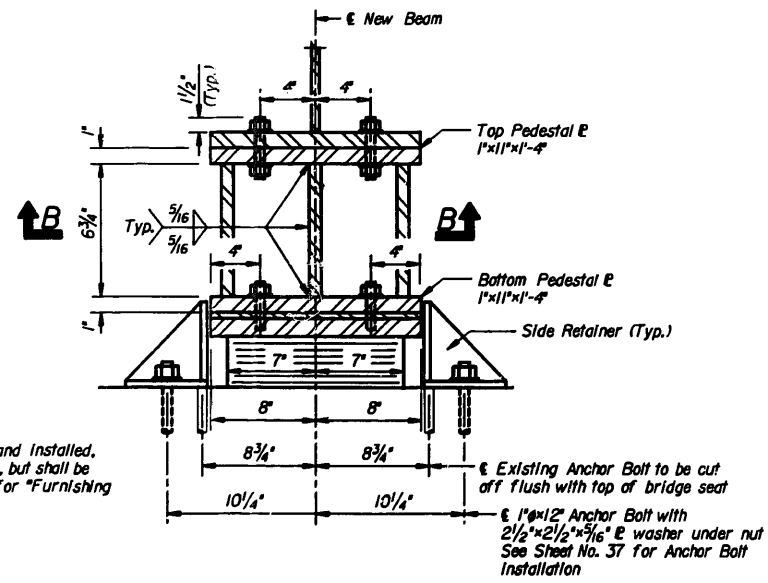
**CLEANING AND PAINTING
EXISTING STEEL**

25TH AVENUE OVER IHB RAILROAD
AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-1011

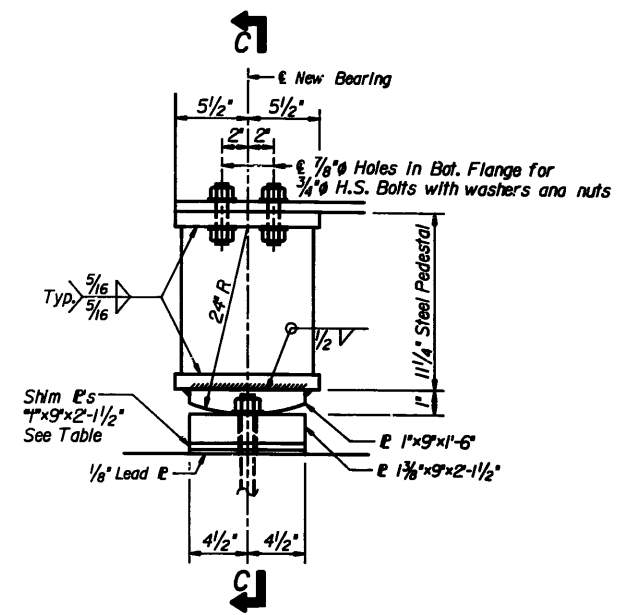


ELEVATION AT PIER

TYPE I ELASTOMERIC EXP. BEARING
AT NEW BEAMS ① THRU ⑤, SPAN 6, PIER 5
AT NEW BEAMS ⑧ THRU ⑫, SPAN 11, PIER 11

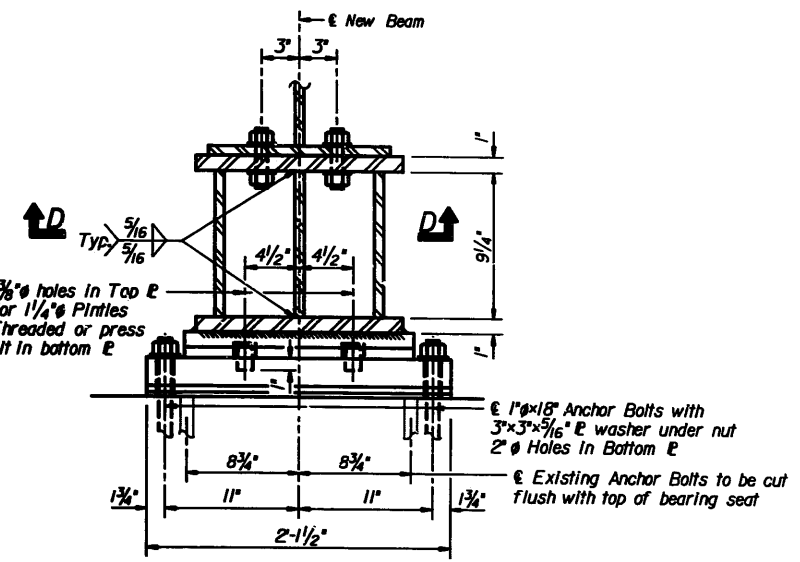


SECTION A-A



ELEVATION AT PIER

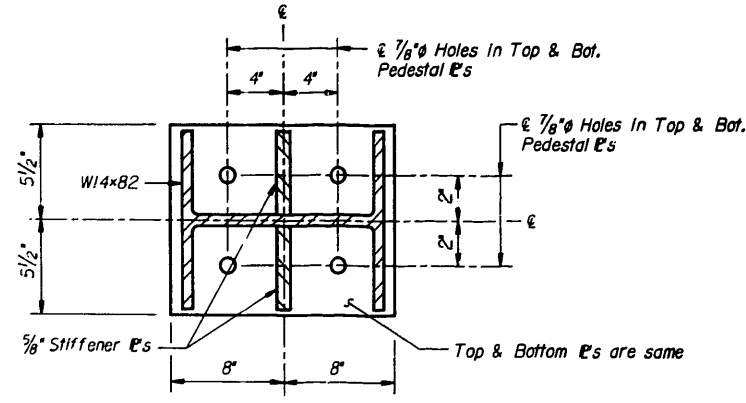
FIXED BEARING
AT NEW BEAMS ① THRU ⑤, SPAN 6, PIER 6
AT NEW BEAMS ⑧ THRU ⑫, SPAN 11, PIER 10
Weight of Fixed Bearings & Steel Pedestals Included with Structural Steel



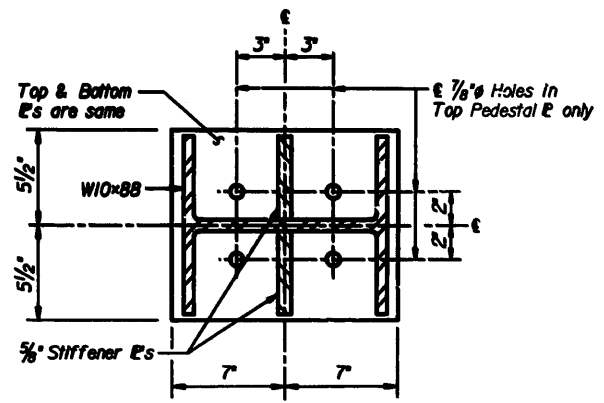
SECTION C-C

REQUIRED SHIM PLATE TABLE

Beam No.	Plate Thickness "P"	
	Pier 5, Span 6	Pier 6, Span 6
①	0"	0"
②	3/8"	5/8"
③	1/8"	1/8"
④	1 1/8"	1"
⑤	2 3/8"	1 5/16"
	Pier 10, Span 11	Pier 11, Span 11
⑥	1 5/16"	2 3/8"
⑨	1"	1 1/8"
⑩	1/8"	1/8"
⑪	5/8"	5/8"
⑫	0"	0"



SECTION B-B



SECTION D-D

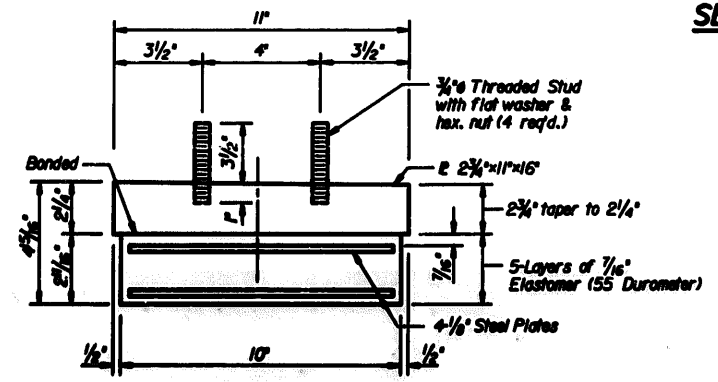
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	10

Note For Anchor Bolt Locations, see Sheet No. 38.

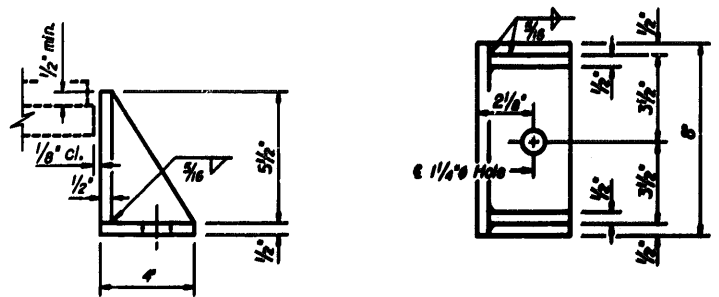
ELASTOMERIC BEARING ASSEMBLY, TYPE I AT NEW BEAMS

25TH AVENUE OVER IHB RAILROAD
AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-1011



BEARING ASSEMBLY B

Note: Shim plates shall not be placed under Bearing Assembly.



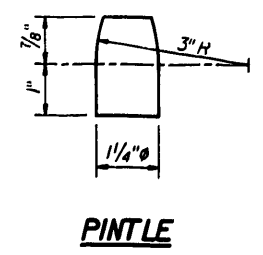
SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

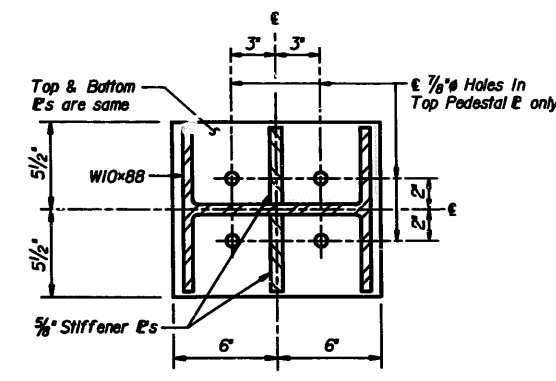
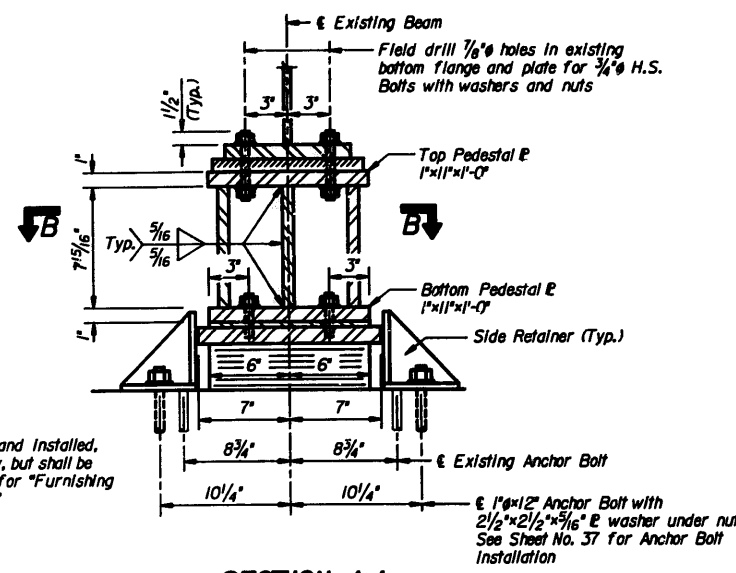
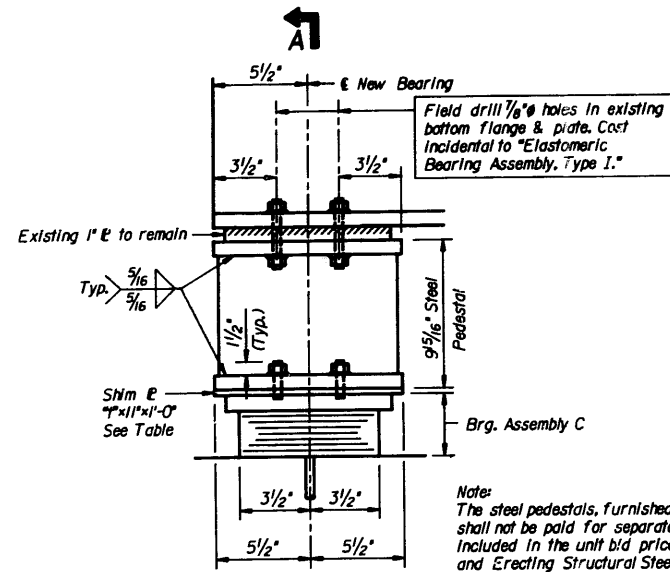
DATE 4-30-1993
rev. 7-26-1993



PINTLE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 35 SHEETS 41
FAU 2714	1010.2R	COOK	89	60	
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT			



ELEVATION AT PIER

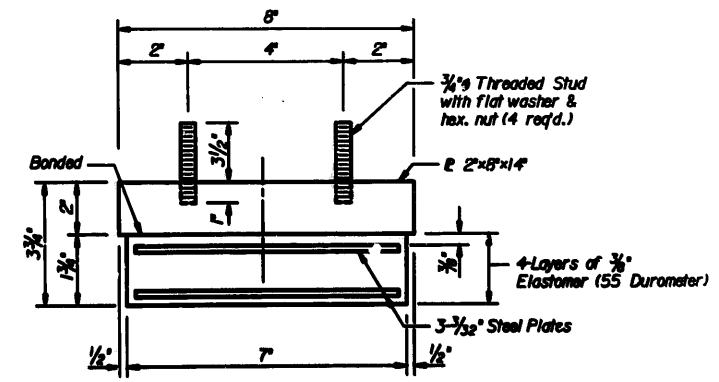
SECTION A-A

SECTION B-B

TYPE I ELASTOMERIC EXP. BEARING
AT EXISTING BEAMS ⑥ THRU ⑫, SPAN 6, PIER 5
AT EXISTING BEAMS ① THRU ⑦, SPAN 11, PIER 11

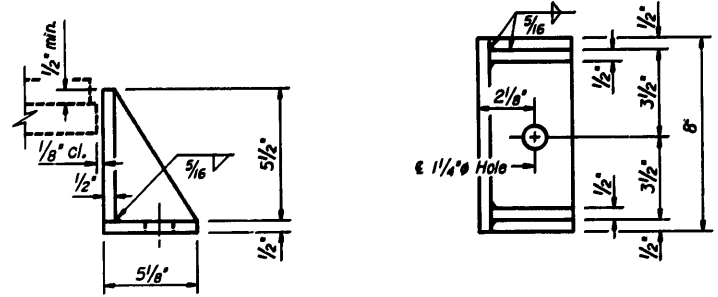
REQUIRED SHIM PLATE TABLE

Beam No.	Plate Thickness *"	
	Pier 5, Span 6	Pier 11, Span 11
①	0	$7/16"$
②	0	$7/16"$
③	0	$7/16"$
④	0	$7/16"$
⑤	0	$7/16"$
⑥	0	$7/16"$
⑦	$7/16"$	0
⑧	$7/16"$	0
⑨	$7/16"$	0
⑩	$7/16"$	0
⑪	$7/16"$	0
⑫	$7/16"$	0



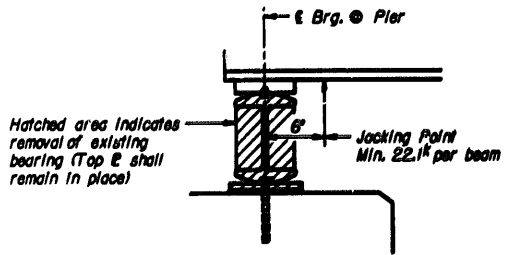
BEARING ASSEMBLY C

Note: Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

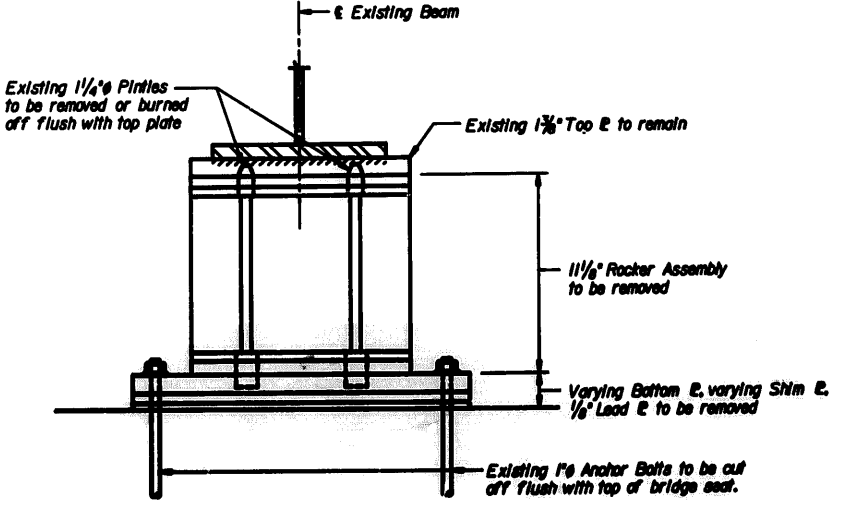
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel



JACK AND REMOVE EXISTING BEARINGS

(Dimensions are at Rt. 4's)

NOTES:
Jacking, cribbing and bearing replacement shall occur under Stage Construction with a maximum lift of 1" between adjacent supports. Maximum differential between adjacent beams to be $1/8"$.
The maximum dead load reaction with deck removed (per bearing) at each pier is 22.1 kips.
Bearing removal and replacement shall be completed before new deck is poured.



EXISTING ROCKER BEARING

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	14
Jack and Remove Existing Bearings	Each	14

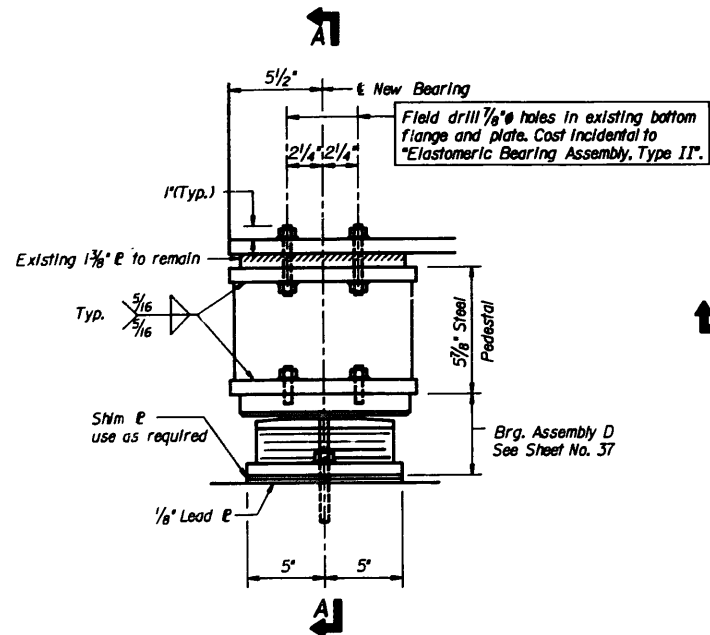
Note: For Anchor Bolt locations, see Sheet No. 38.

ELASTOMERIC BEARING ASSEMBLY, TYPE I AT EXISTING BEAMS
25TH AVENUE OVER IHB RAILROAD AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-1011

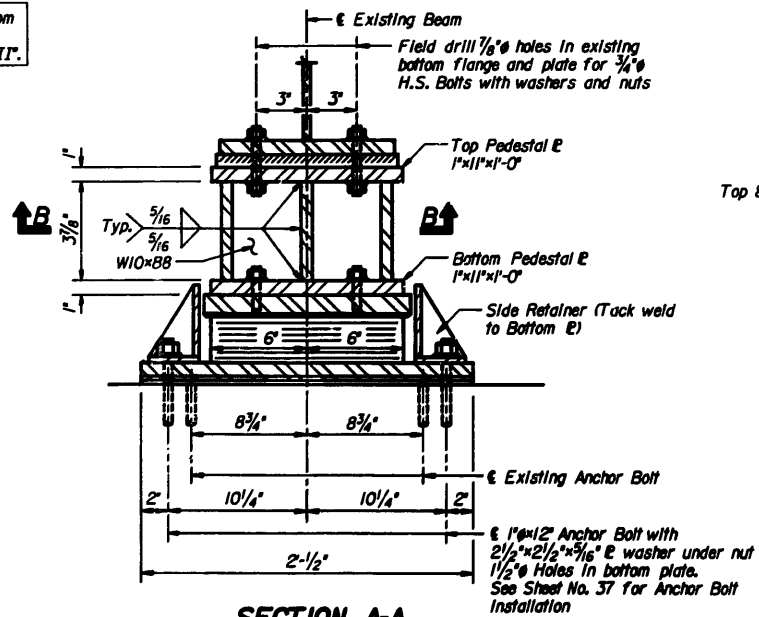
Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

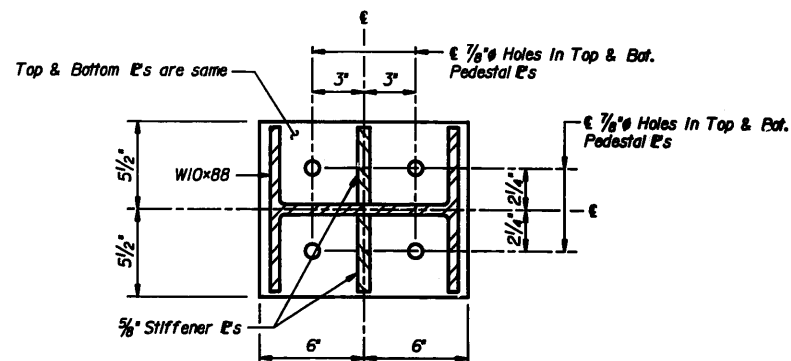
DATE 4-30-1993
rev. 7-26-1993



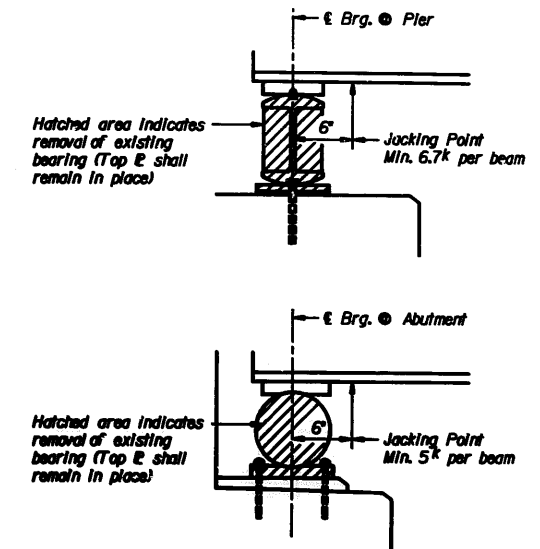
ELEVATION AT PIER



SECTION A-A



SECTION B-B

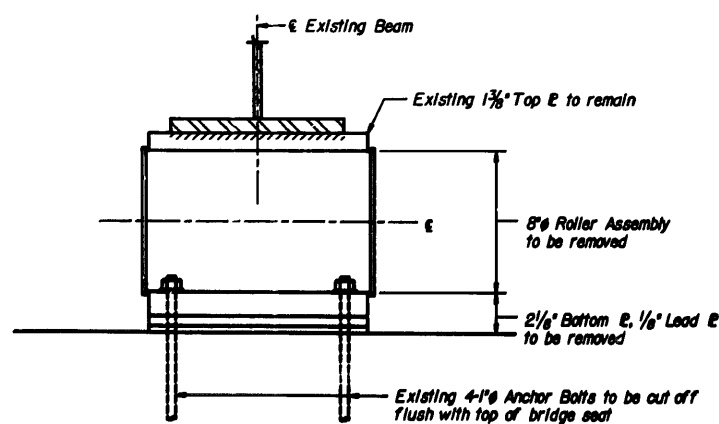


JACK AND REMOVE EXISTING BEARINGS

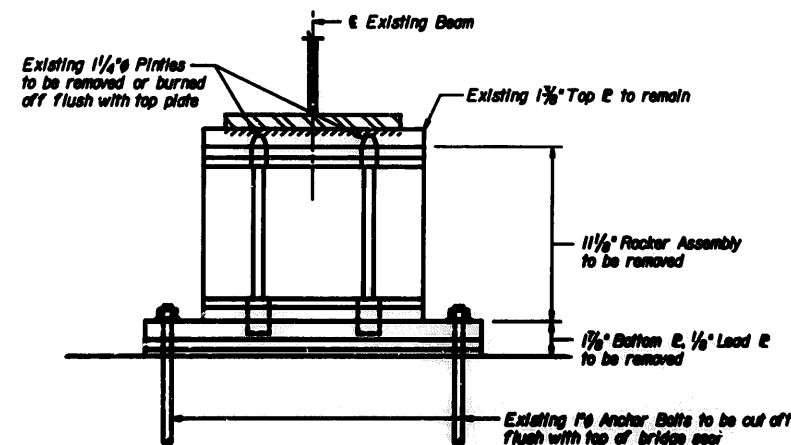
(Dimensions are in Ft., L's)

TYPE II TFE ELASTOMERIC EXP. BRG.
 AT EXISTING BEAMS ① THRU ⑫, SPAN 5, PIER 5
 AT EXISTING BEAMS ① THRU ⑫, SPAN 7, PIER 6
 AT EXISTING BEAMS ① THRU ⑫, SPAN 10, PIER 10
 AT EXISTING BEAMS ① THRU ⑫, SPAN 12, PIER 11

NOTES:
 Jacking, cribbing and bearing replacement shall occur under Stage Construction with a maximum lift of 1" between adjacent supports. Maximum differential between adjacent beams to be 1/8".
 The maximum dead load reaction with deck removed (per bearing) at each abutment or pier is 6.7 kips.
 Bearing removal and replacement shall be completed before new deck is poured.



EXISTING ROLLER BEARING



EXISTING ROCKER BEARING

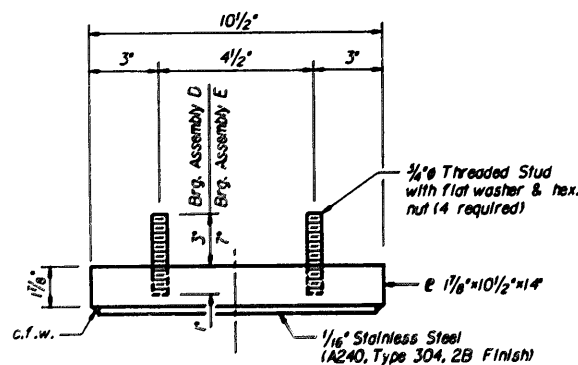
NOTES:
 1. For Elastomeric Bearing Assembly, Type II, details and Bill of Material, see Sheet No. 37.
 2. The steel pedestals, furnished and installed, shall not be paid for separately, but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel."
 3. For Anchor Bolt locations, see Sheet No. 38.

Bascor, Inc.
consulting engineers and planners

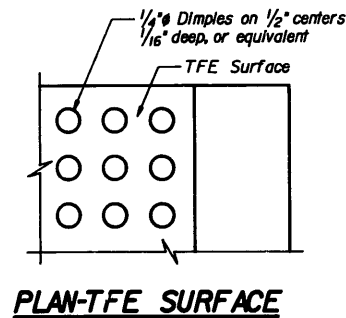
DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

DATE 4-30-1993
rev. 7-26-1993

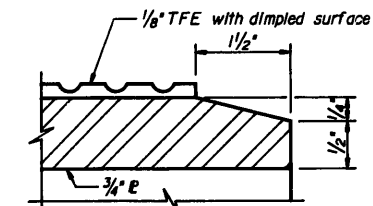
ELASTOMERIC BEARING ASSEMBLY TYPE II AT EXISTING BEAMS
 25TH AVENUE OVER MB RAILROAD
 AND AT ARMITAGE AVENUE
 F.A.U. RTE. 2714 SECTION 1010.2R
 COOK COUNTY
 S.N. 016-101



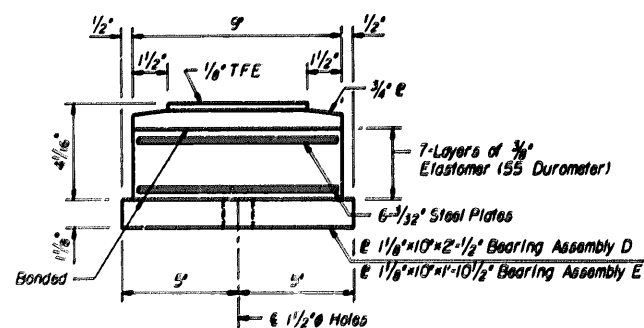
TOP BEARING ASSEMBLY D & E



PLAN-TFE SURFACE

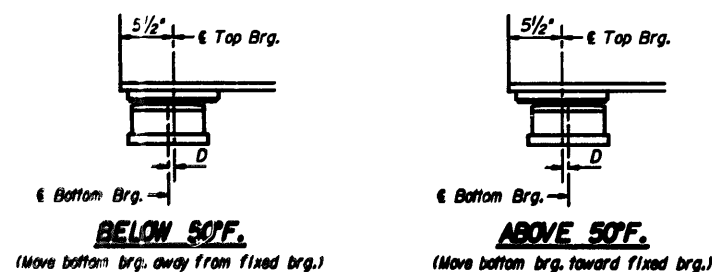


SECTION THRU TFE



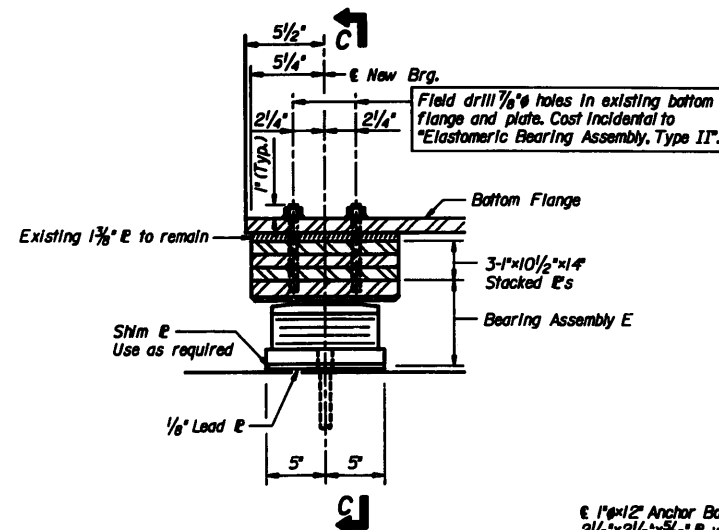
BOTTOM BEARING ASSEMBLY D & E

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component medium viscosity epoxy resin, conforming to the requirements of the Federal specification MMM-A-134, Type I. The bond agent shall be applied to the full area of the contact surfaces. Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

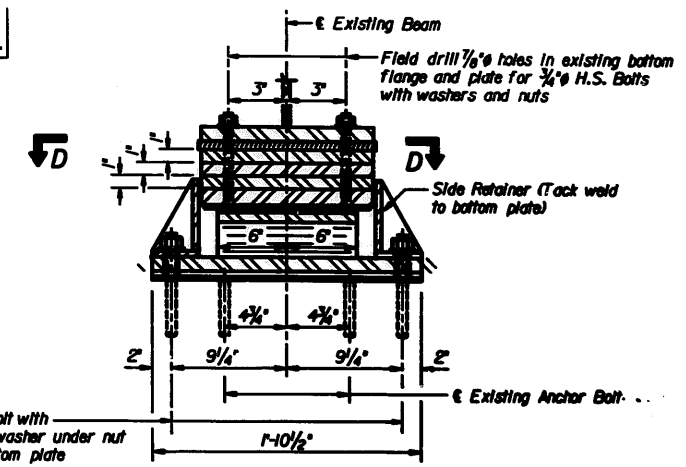


SETTING ANCHOR BOLTS AT EXP. BRG.

D=1/8" per each 100 of expansion for every 15° temp. change from the normal temp. of 50°F.

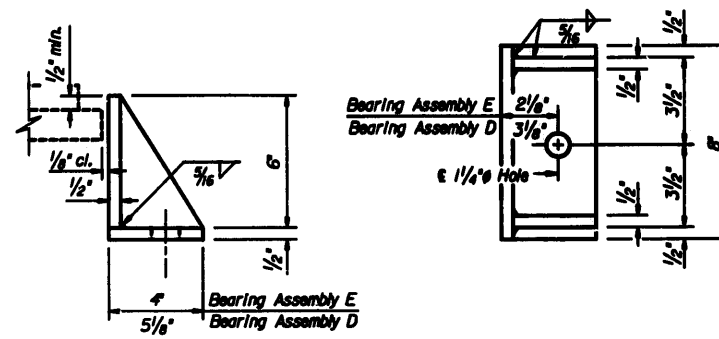


ELEVATION AT ABUTMENTS



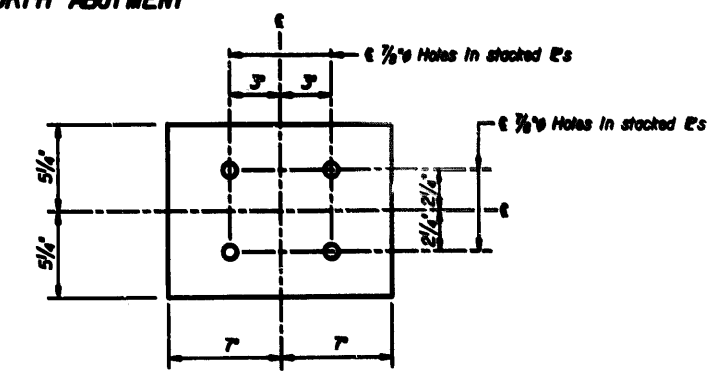
SECTION C-C

TYPE II TFE ELASTOMERIC EXP. BRG.
AT EXISTING BEAMS ① THRU ⑫, SPAN 1, SOUTH ABUTMENT
AT EXISTING BEAMS ① THRU ⑫, SPAN 16, NORTH ABUTMENT



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.



SECTION D-D

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	72
Jack and Remove Existing Bearings	Each	72

Note: For Anchor Bolt locations, see Sheet No. 38.

ELASTOMERIC BEARING ASSEMBLY, TYPE II AT EXISTING BEAMS
25TH AVENUE OVER NB RAILROAD AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-101

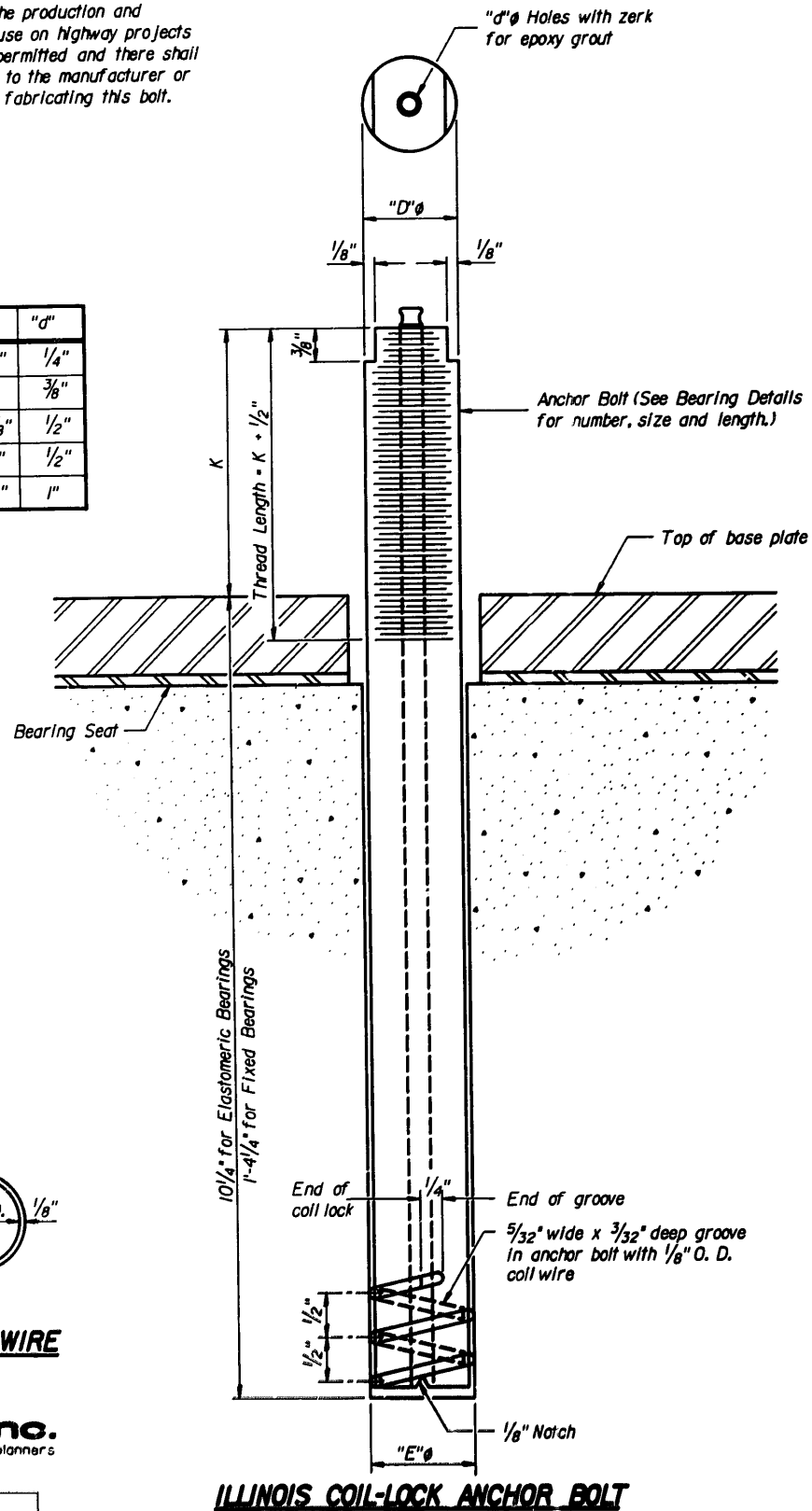
Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

DATE 4-30-1993
rev. 7-26-1993

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

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



ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.
The coil wire shall be made of any suitable soft steel wire.
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C881, Type I, Grade I and of a Class suitable for the temperature at installation.

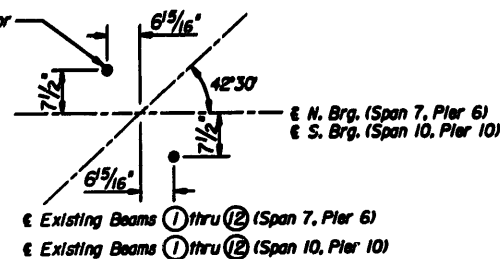
INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

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

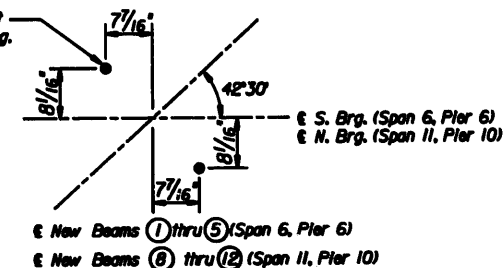
ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.
The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

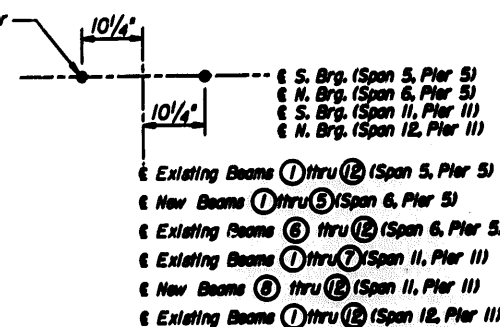
1 1/2" x 12" Anchor Bolt for Type II Elastomeric Bearing. See Sheet No. 36 (Typ.)



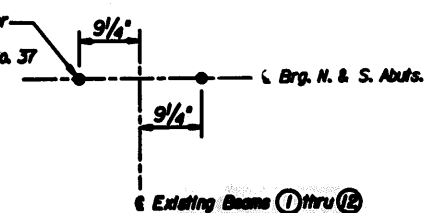
1 1/2" x 18" Anchor Bolt for Fixed Bearing. See Sheet No. 34 (Typ.)



1 1/2" x 12" Anchor Bolt for Type I or Type II Elastomeric Bearing. See Sheet Nos. 34 thru 36. (Typ.)



1 1/2" x 12" Anchor Bolt for Type II Elastomeric Bearing. See Sheet No. 37 (Typ.)



LOCATION PLANS FOR ANCHOR BOLTS

GENERAL NOTES

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

ANCHOR BOLT DETAILS FOR BEARINGS

25TH AVENUE OVER IHB RAILROAD
AND AT ARMITAGE AVENUE
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
S.N. 016-1011

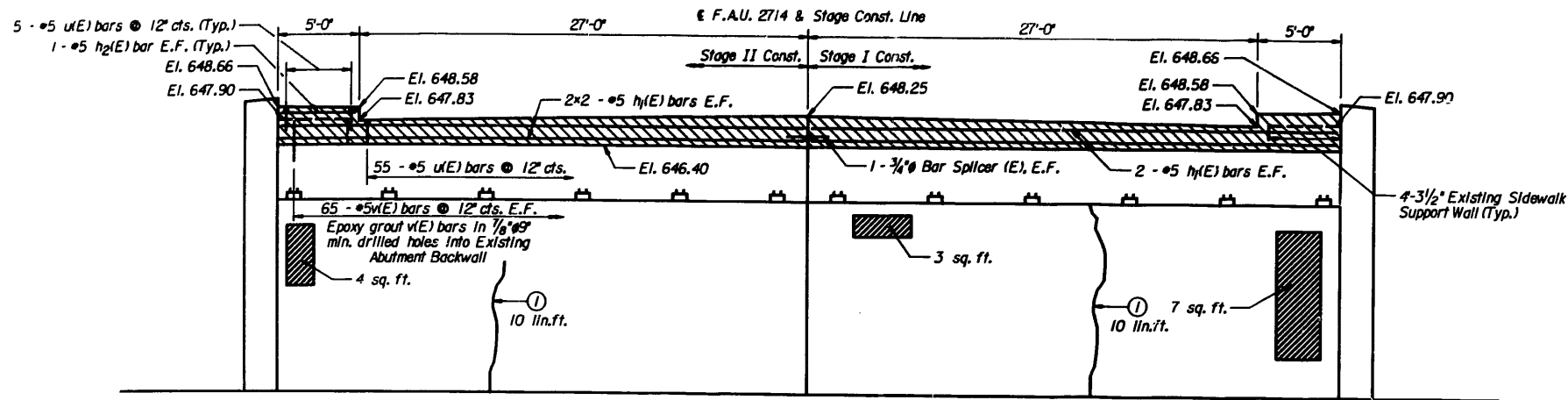
Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	SAW
CHECKED	JLT

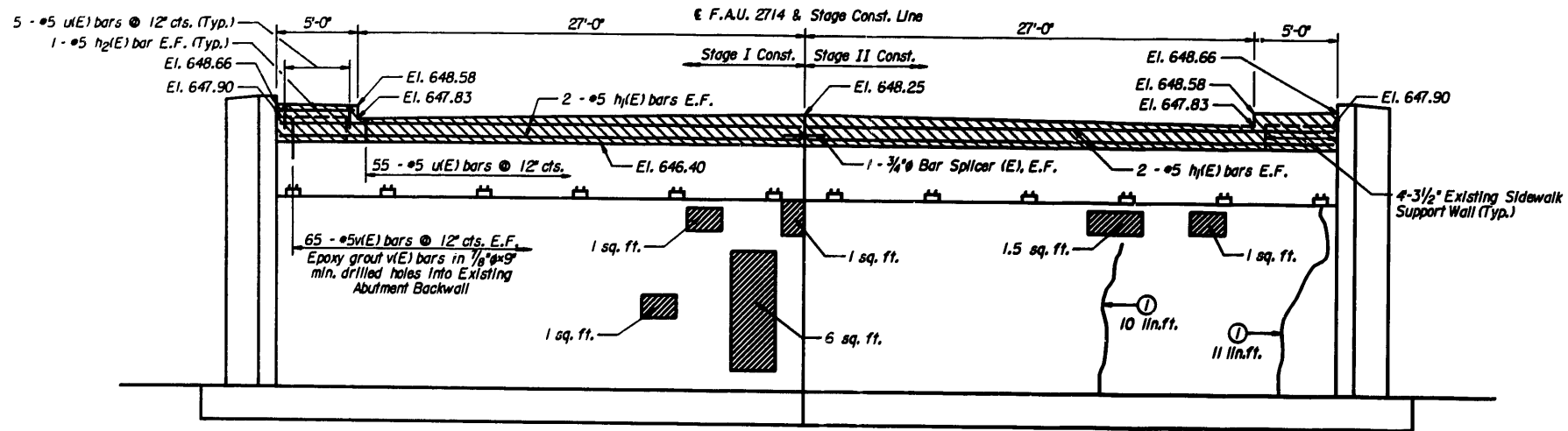
ABB-1 7-1-91

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 64	SHEET NO. 39 SHEETS 41
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



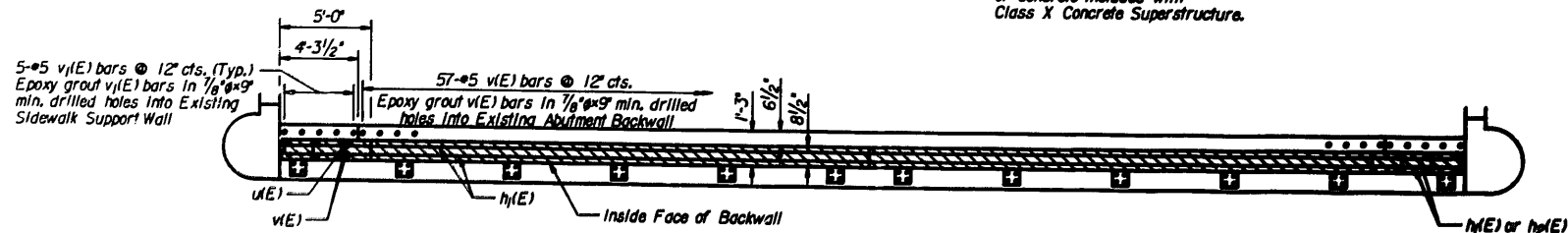
NORTH ABUTMENT



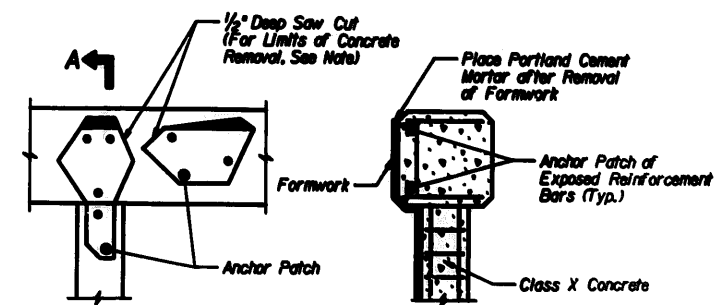
SOUTH ABUTMENT

Note: Elevations given are at the inside face of backwall.

- Formed Concrete Repair (Depth Equal to or Less Than 5')
- Hatched area to be poured after superstructure falsework has been removed. Quantity of concrete included with Class X Concrete Superstructure.
- Epoxy Crack Sealing



PLAN - ABUTMENTS



ELEVATION SECTION A-A
FORMED CONCRETE REPAIR
(DEPTH EQUAL TO OR LESS THAN 5')

B Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

Note: Quantities listed on elevations and in Bill of Material for Formed Concrete Repair and Epoxy Crack Sealing were derived from field notes and are given as a basis for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.

BILL OF MATERIAL

Item	Unit	Quantity
Formed Concrete Repair (Depth Equal to or Less Than 5')	Sq. Ft.	25.5
Epoxy Crack Sealing	Lin. Ft.	41.0

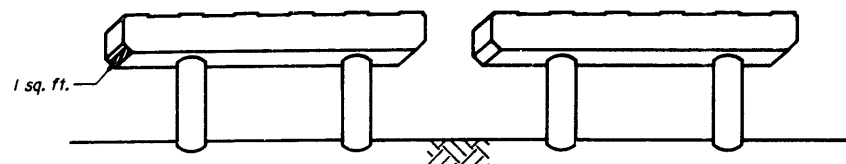
ABUTMENT REPAIRS

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-1011

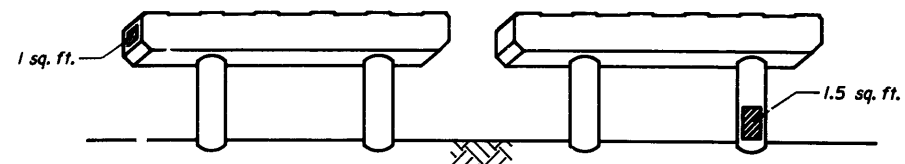
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	65
FEB. ROAD DIST. NO. 7 ILLINOIS PROJECT				

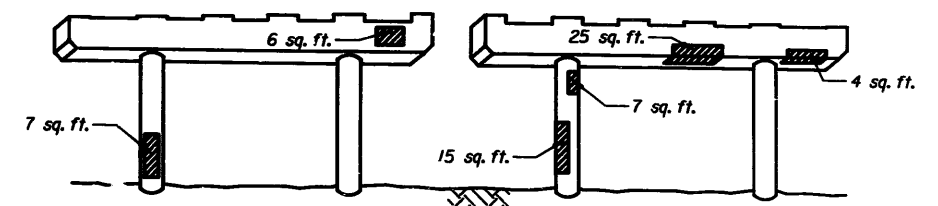
SHEET NO. 40
SHEETS 41



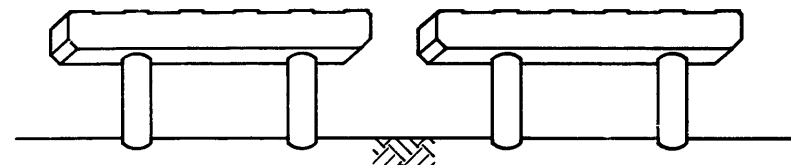
PIER 1
(Looking North)



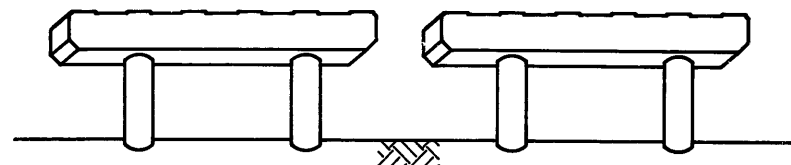
PIER 4
(Looking North)



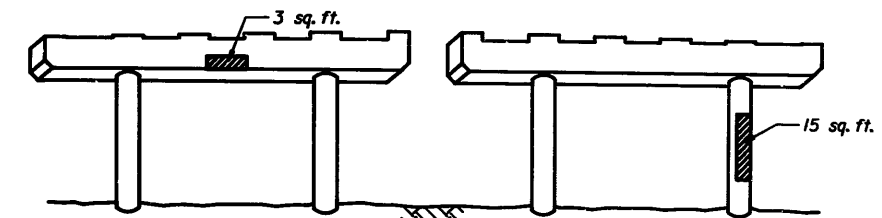
PIER 6
(Looking North)



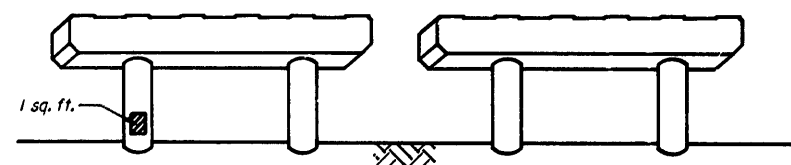
PIER 1
(Looking South)



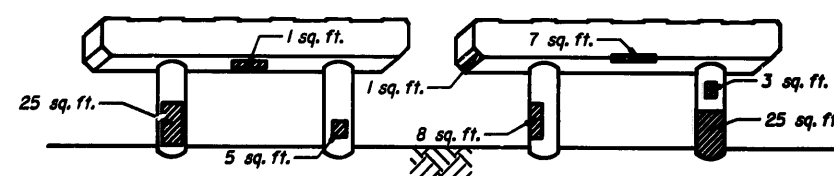
PIER 4
(Looking South)



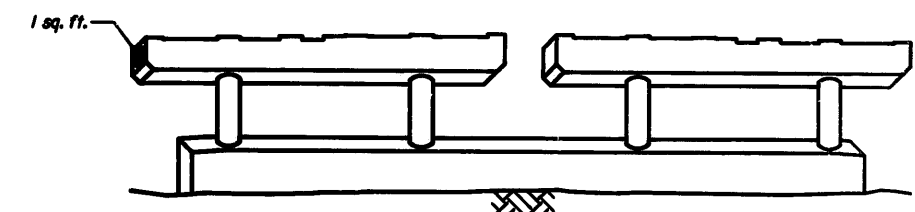
PIER 6
(Looking South)



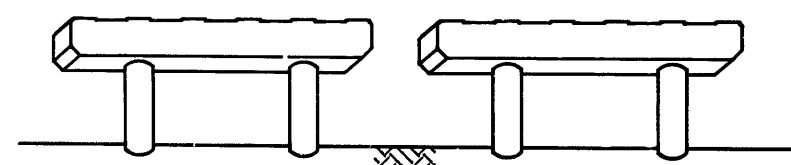
PIER 2
(Looking North)



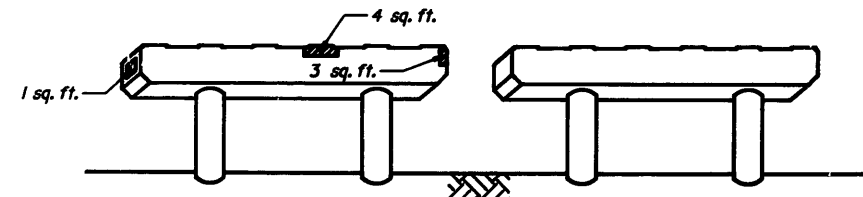
PIER 5
(Looking North)



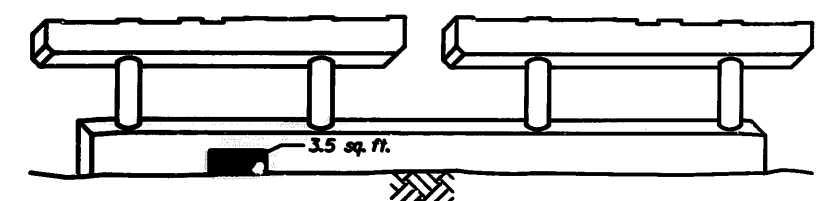
PIER 7
(Looking North)



PIER 2
(Looking South)



PIER 5
(Looking South)



PIER 7
(Looking South)

PIER 3
No repairs required

LEGEND
 Formed Concrete Repair (Depth Equal to or Less Than 5")

Notes:
Quantities listed on elevations and in Bill of Material for Formed Concrete Repairs were derived from field notes and are given as a base for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.
For Detail of Formed Concrete Repair (Depth Equal to or Less Than 5"), See Sheet 39.

BILL OF MATERIAL

Item	Unit	Quantity
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq. Ft.	174

SUBSTRUCTURE REPAIRS 1

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
ST. NO. 38-76.67
S. & L. 016-10H

Bascor, Inc.
consulting engineers and planners

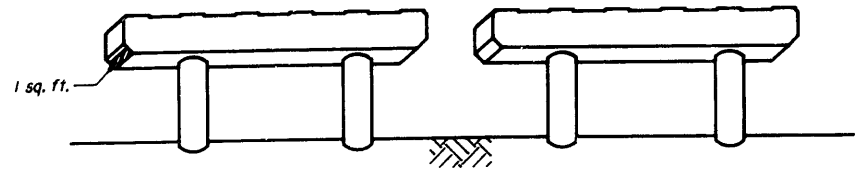
DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

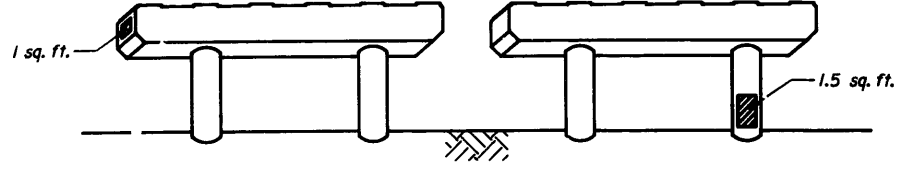
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	65
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				

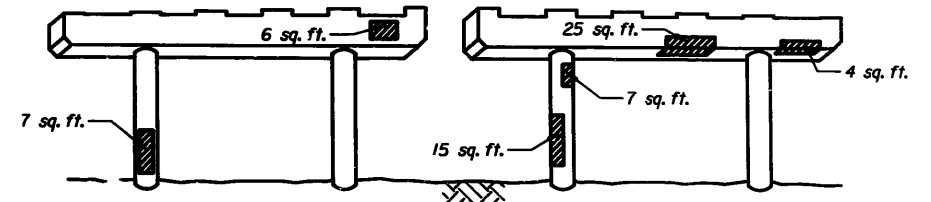
SHEET NO. 40
SHEETS 41



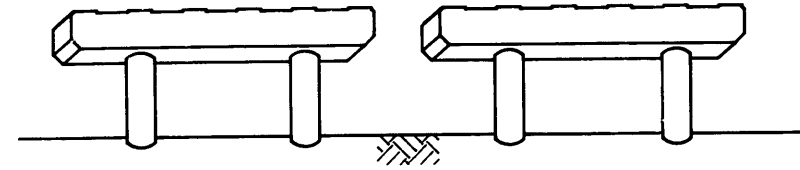
PIER 1
(Looking North)



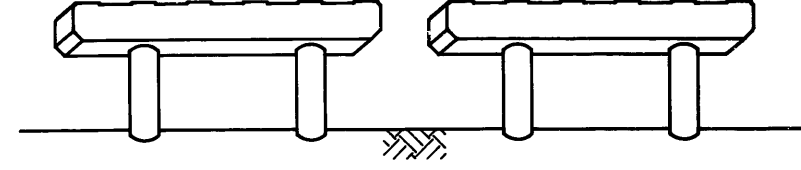
PIER 4
(Looking North)



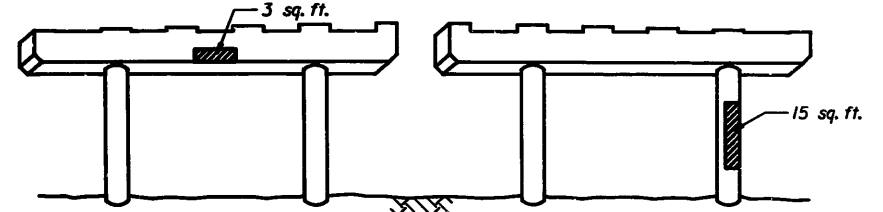
PIER 6
(Looking North)



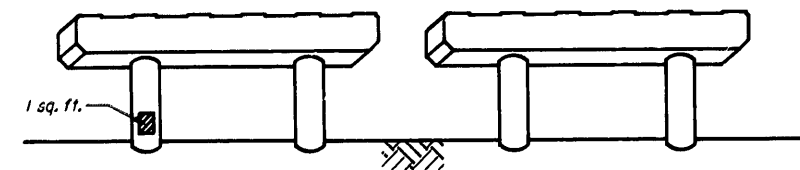
PIER 1
(Looking South)



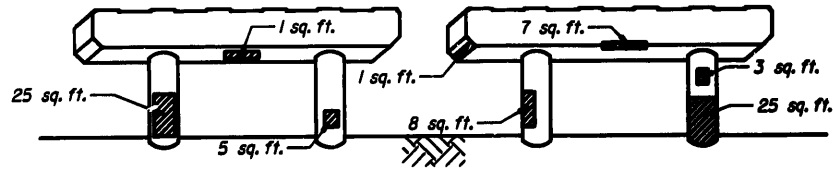
PIER 4
(Looking South)



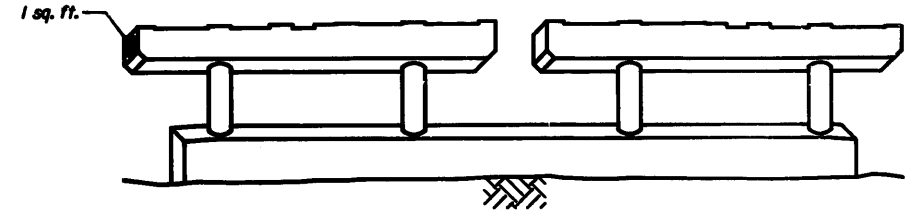
PIER 6
(Looking South)



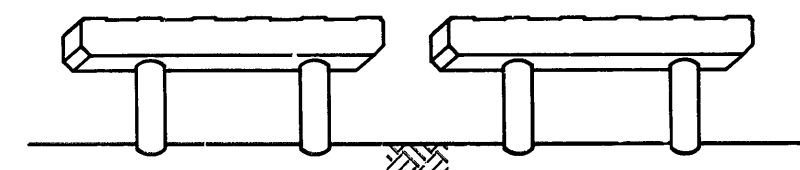
PIER 2
(Looking North)



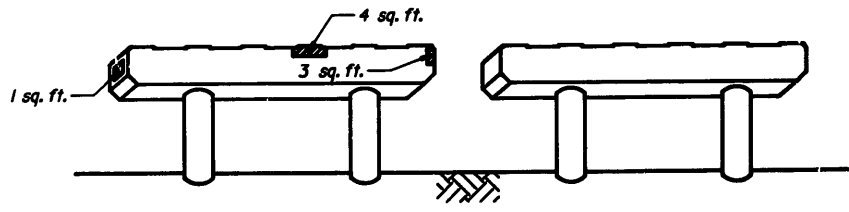
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(Looking North)



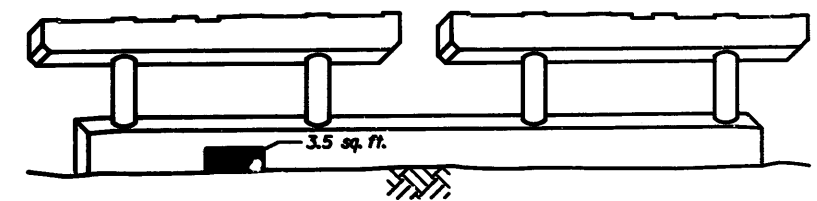
PIER 7
(Looking North)



PIER 2
(Looking South)



PIER 5
(Looking South)



PIER 7
(Looking South)

PIER 3
No repairs required

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

Notes:
Quantities listed on elevations and in Bill of Material for Formed Concrete Repairs were derived from field notes and are given as a base for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.

For Detail of Formed Concrete Repair (Depth Equal to or Less Than 5"), See Sheet 39.

LEGEND
Formed Concrete Repair (Depth Equal to or Less Than 5")

BILL OF MATERIAL

Item	Unit	Quantity
Formed Concrete Repair (Depth Equal to or Less Than 5")	Sq. Ft.	174

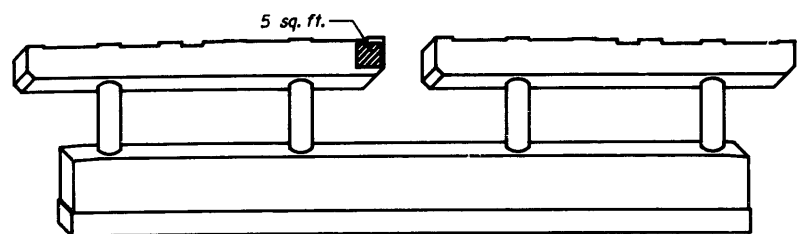
SUBSTRUCTURE REPAIRS 1

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
ST. 38+76.67
S.N. 016-10H

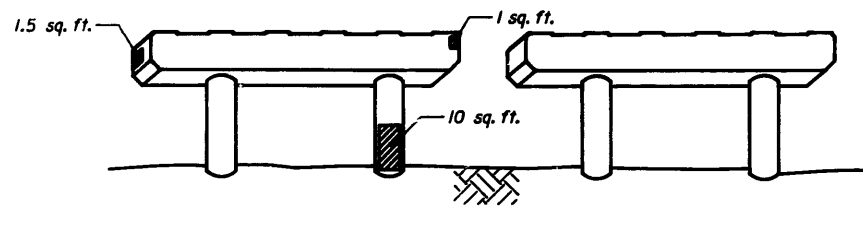
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAU 2714	1010.2R	COOK	89	66
FEB. ROAD DIST. NO. 7 ILLINOIS PROJECT				

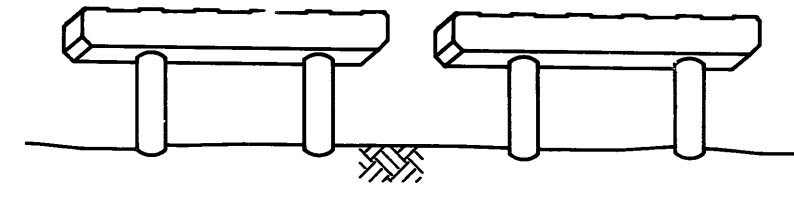
SHEET NO. 41
SHEETS 41



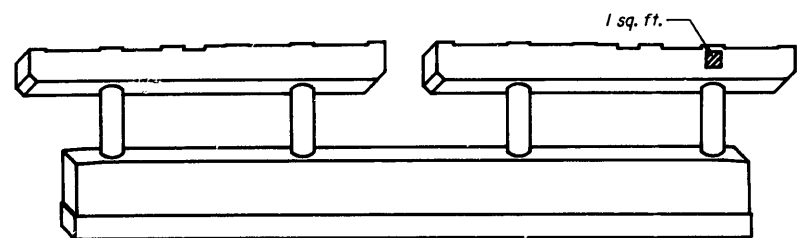
PIER 9
(Looking North)



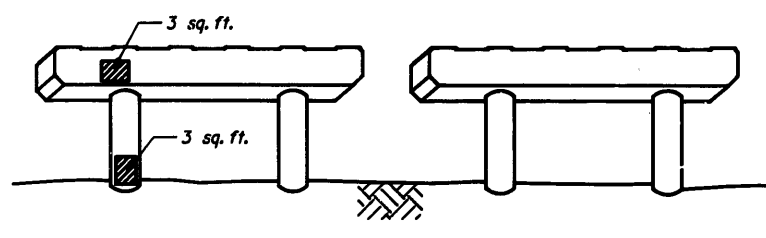
PIER 11
(Looking North)



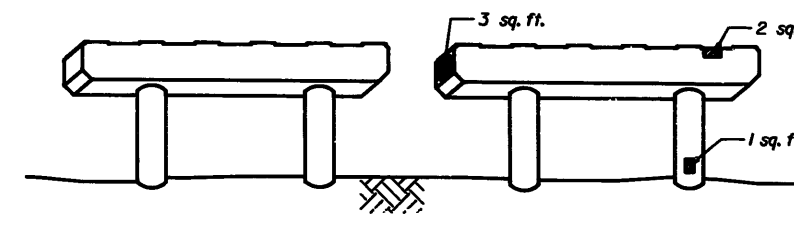
PIER 14
(Looking North)



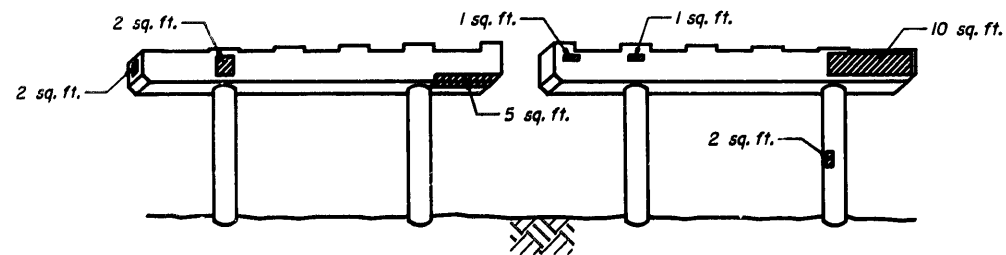
PIER 9
(Looking South)



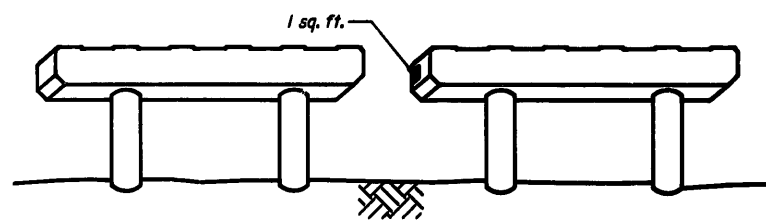
PIER 11
(Looking South)



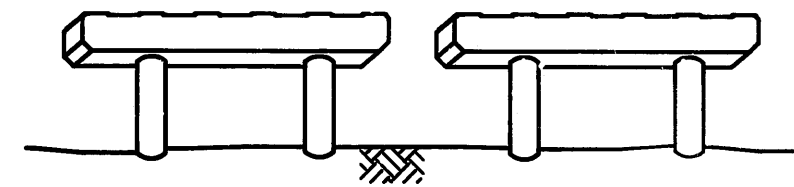
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(Looking South)



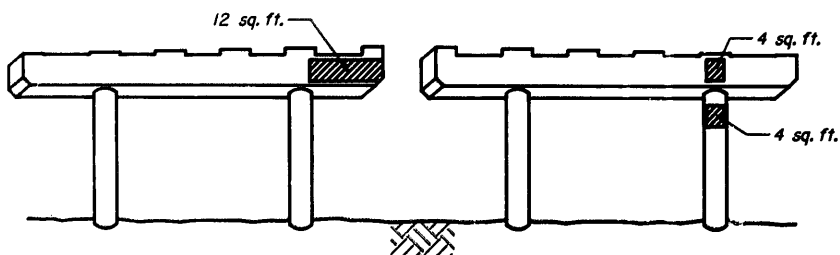
PIER 10
(Looking North)



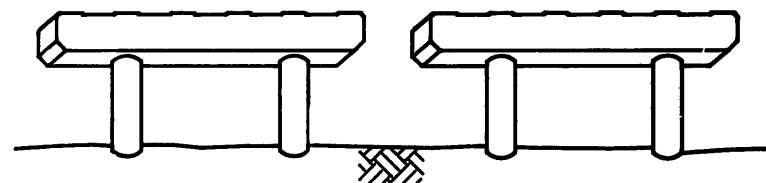
PIER 12
(Looking North)



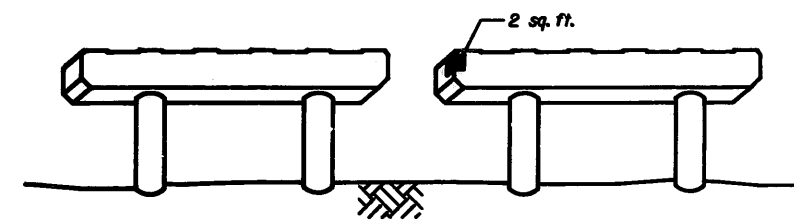
PIER 15
(Looking North)



PIER 10
(Looking South)



PIER 12
(Looking South)



PIER 15
(Looking South)

PIER 8
ADD REPAIRS
FOR STRUCTURAL REPAIRS COMPANY
PIER 13
No repairs required

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 4-30-1993
rev. 7-26-1993

Notes:
Quantities listed on elevations and in Bill of Material for Formed Concrete Repairs were derived from field notes and are given as a base for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.

For Detail of Formed Concrete Repair (Depth Equal to or Less Than 5'), See Sheet 39.

LEGEND

Formed Concrete Repair (Depth Equal to or Less Than 5')

BILL OF MATERIAL

Item	Unit	Quantity
Formed Concrete Repair (Depth Equal to or Less Than 5')	Sq. Ft.	78.5

SUBSTRUCTURE REPAIRS 2

25TH AVENUE OVER IHS RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-101

T.B.M.: Railroad spike in light pole in northeast quadrant of 25th Avenue and Armitage Ave. Elev. 637.23

Existing Structures: Structure No. 016-W507 (Northeast Wall) is a cantilevered reinforced concrete retaining wall supported on timber piles and is 325'-9" long. A new cantilevered reinforced concrete retaining wall supported on a pile foundation and spread footings shall be constructed. The south portion of the existing wall shall be removed. The north portion of the existing wall shall be removed to an elevation 2'-0" below proposed grade lines. No salvage.

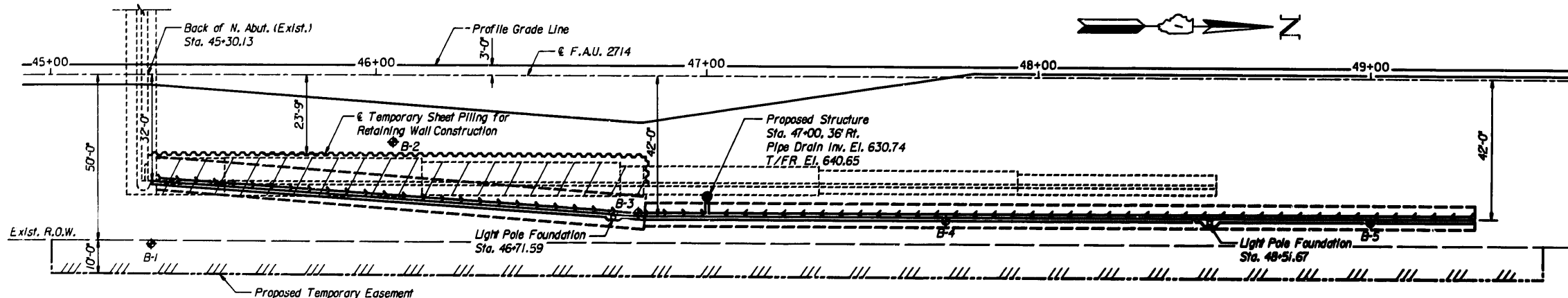
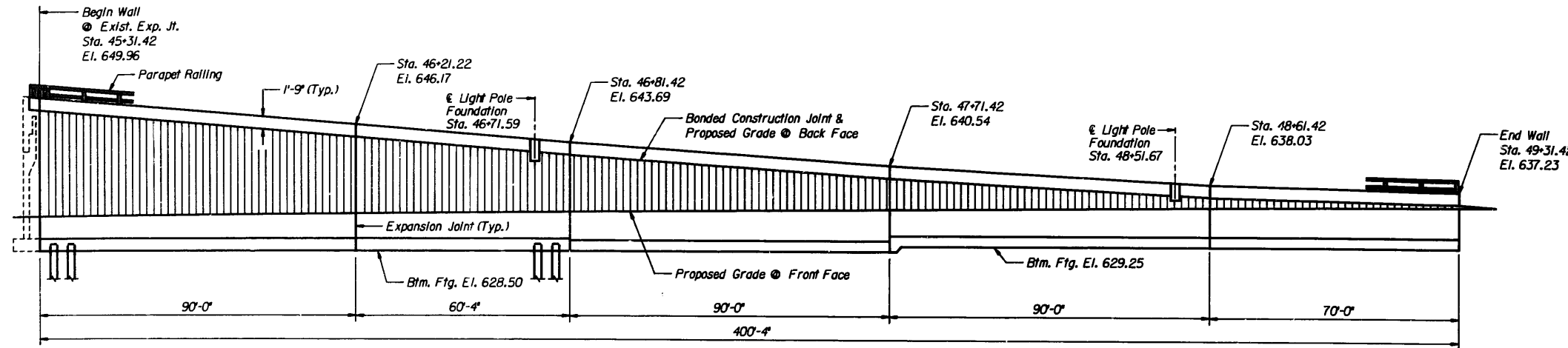
At the northwest, southeast and southwest existing retaining walls, the existing aluminum handrail and the top 2'-0" of the wall shall be removed and replaced with a new 1'-9" high concrete parapet and new parapet railing.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 SHEETS 17
FAU 2714	1010.2R	COOK	89	67	
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				

GENERAL NOTES

- Reinforcement Bars shall conform to the requirements of A.A.S.H.T.O. M-31, M-42 or M-53, Grade 60.
- The Contractor shall obtain all necessary permits as required prior to commencing construction.
- Non-metallic water seal used at the expansion joints shall extend from the top of the upper footing to within 6" of the top of wall.
- For Construction Sequence and Temporary Sheet Piling, see Sheet No. 3.
- For Rustication Finish Details and Limits, see Sheet No. 12.
- For Construction Joint, Expansion Joint and Replaced Expansion Joint Details see Sheet No. 12.
- Protective Coat shall be applied to the top and inside surfaces of all barrier walls.
- See Sheets No. 16 & No. 17 for Boring Logs.
- Dimensions and details relative to existing structure have been taken from existing plans 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 bid for the work.
- The Contractor shall drive one HPI0x42 steel test pile in a permanent location as directed by the Engineer before ordering the remainder of piling.



LOCATION OF CONSTRUCTION & EXPANSION JOINTS
@ F.A.U. 2714
(Northeast Wall Only)

STATION	OFFSET TO BACK FACE OF WALL	TYPE OF JOINT
45+31.42	32.00 Rt.	Begin Wall
45+61.35	34.00 Rt.	Construction
45+91.29	35.99 Rt.	Construction
46+21.22	37.99 Rt.	Expansion
46+51.32	39.99 Rt.	Construction
46+81.42	42.00 Rt.	Expansion
47+11.42	42.00 Rt.	Construction
47+41.42	42.00 Rt.	Construction
47+71.42	42.00 Rt.	Expansion
48+01.42	42.00 Rt.	Construction
48+31.42	42.00 Rt.	Construction
48+61.42	42.00 Rt.	Expansion
48+94.75	42.00 Rt.	Construction
49+08.09	42.00 Rt.	Construction
49+31.42	42.00 Rt.	End Wall

DESIGN STRESSES

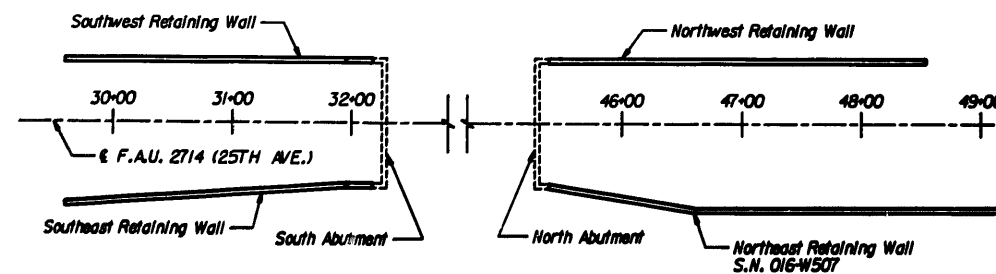
CAST-IN-PLACE CONCRETE
f'c = 3,500 psi
fy = 60,000 psi (Reinf.)

LEGEND

- Soil Boring
- Proposed Pipe Underdrain
- Indicates Complete Removal

SPECIFICATIONS

Standard Specifications for Highway Bridges,
AASHTO 1992.



Signed: Gary S. Powell
Date: 7-23-1993

TOTAL BILL OF MATERIAL

Item	Unit	Total
Porous Granular Embankment	Cu.Yd.	877.3
Structure Excavation	Cu.Yd.	1,932.4
Protective Coat	Sq.Yd.	361.5
Class X Concrete	Cu.Yd.	480.6
Rustication Finish	Sq.Ft.	3,289.2
Removal of Existing Light Unit & Salvage	Ea.	4
Formed Concrete Repair (Depth Equal to or Less than 5")	Sq.Ft.	25.5
Handrail Removal	Ln.Ft.	1,183
Reinforcement Bars	Lbs.	23,470
Reinforcement Bars, Epoxy Coated	Lbs.	32,680
Temporary Sheet Piling	Sq.Ft.	8,908
Pipe Drains 6"	Ln.Ft.	12
Pipe Underdrain for Structures 6"	Ln.Ft.	401
Concrete Retaining Wall Removal	Cu.Yd.	365.2
Geocomposite Wall Drain	Sq.Yd.	388.9
Parapet Railing	Ln.Ft.	1,259
Steel Piles, HPI0x42	Ln.Ft.	2,700
Test Pile, HPI0x42	Ea.	1

See Special Provisions

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
Engineer of Bridges and Structures

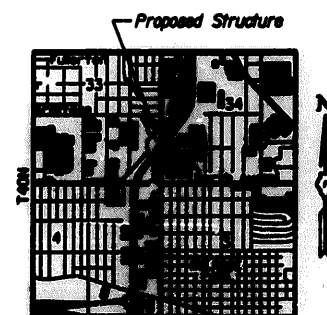
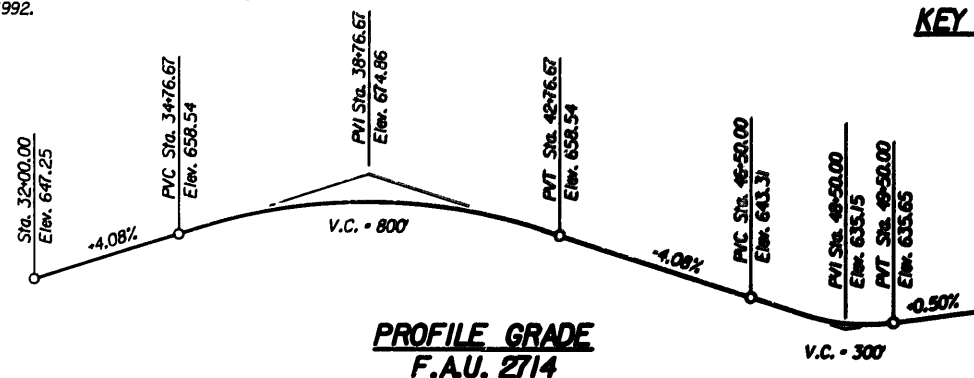
GENERAL PLAN & ELEVATION

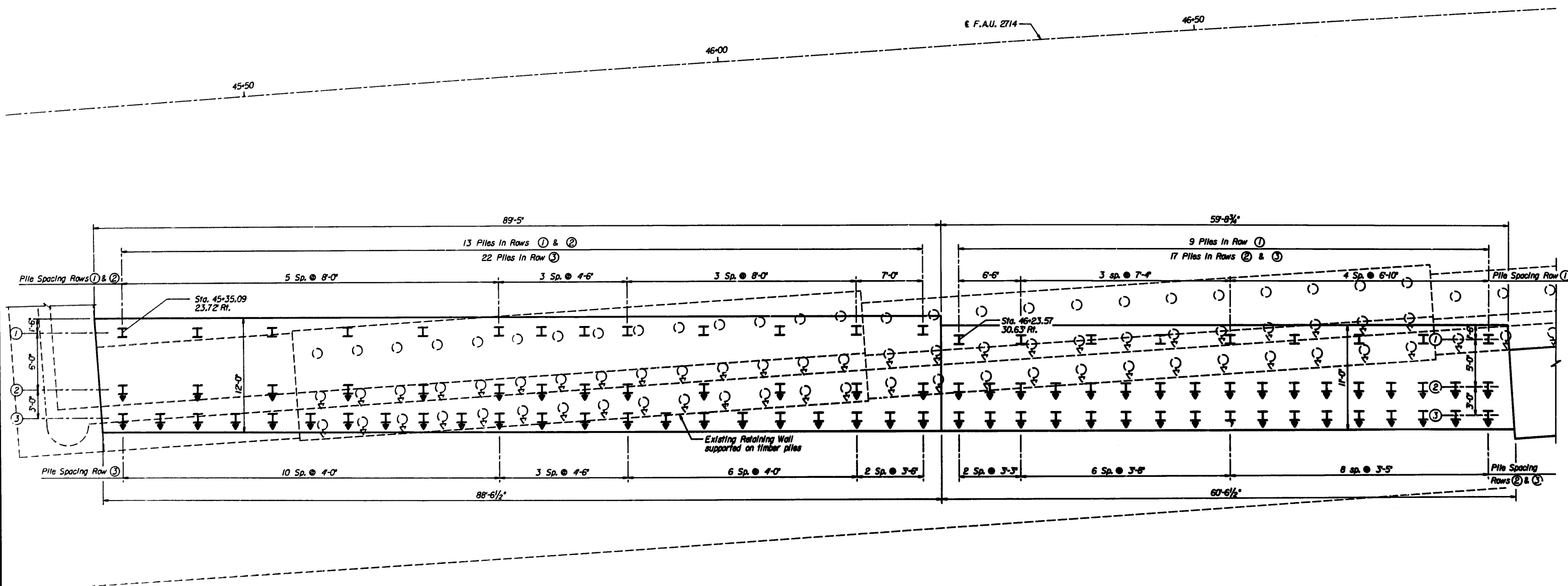
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE: 5-13-1993
rev. 7-26-1993





PLAN



B **Bascor, Inc.**
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

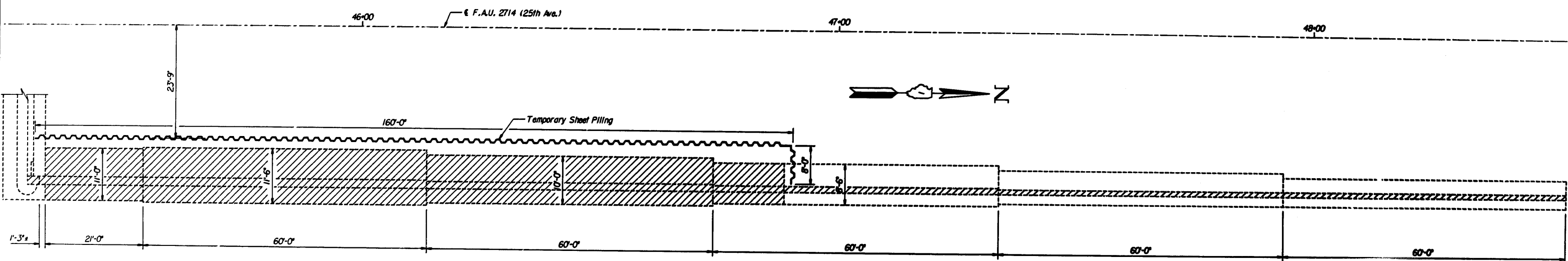
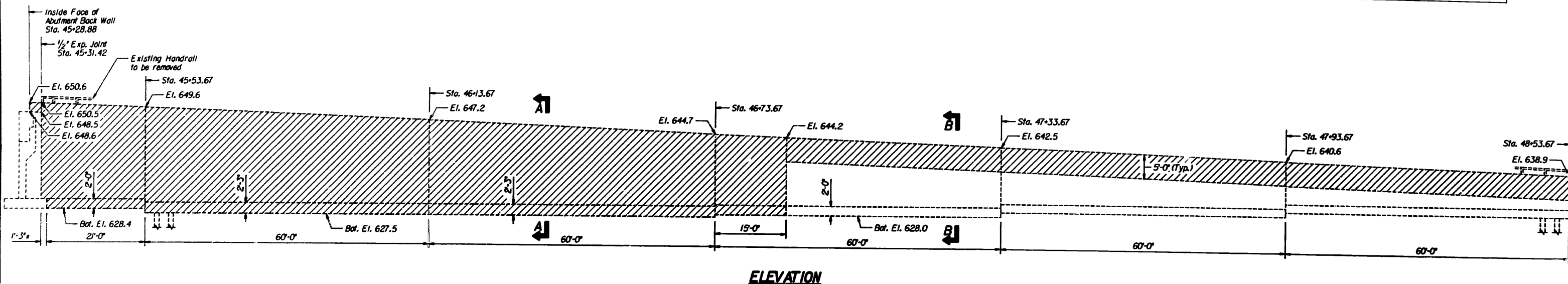
DATE 5-13-1993
rev. 7-26-1993

**NORTHEAST RETAINING WALL
PILE LAYOUT**

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
FAU 2714	1010.2R	COOK	89	69	SHEETS 17
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				



Existing piles shall be cut off 1 ft. below bottom of proposed footing. Backfill hole with Porous Granular Embankment. Cost incidental to Concrete Retaining Wall Removal. See Special Provisions.

PLAN

Concrete Retaining Wall Removal

NOTES:
The information shown for the Temporary Sheet Piling is estimated. It is the Contractor's responsibility to provide a design of the Temporary Sheet Piling and associated members, if required, subject to the approval of the Engineer.
Contractor to anchor sheeting to back of existing abutment & retaining wall. Connection to be approved by the Engineer. Cost is incidental to "Temporary Sheet Piling." Sheet piling within limits of existing footings shall have their tip elevations at the top of the footings.

BILL OF MATERIAL

Item	Unit	Total
Handrail Removal	Lin.Ft.	325
Concrete Retaining Wall Removal	Cu.Yd.	298.4
Temporary Sheet Piling	Sq.Ft.	8,908

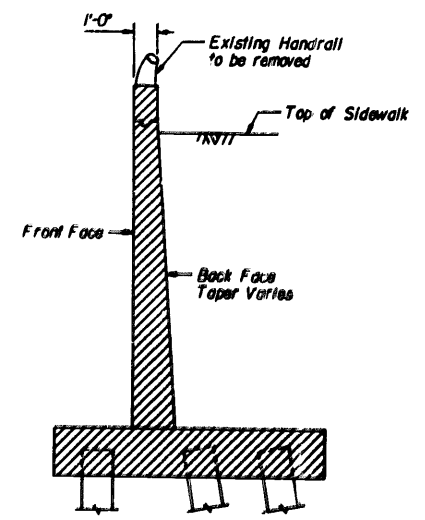
CONSTRUCTION SEQUENCE

1. Install temporary sheet piling as required for excavation.
2. Remove handrail and concrete of existing retaining wall to the shown limits.
3. Construct new retaining wall.
4. Backfill behind completed portions of new retaining wall.

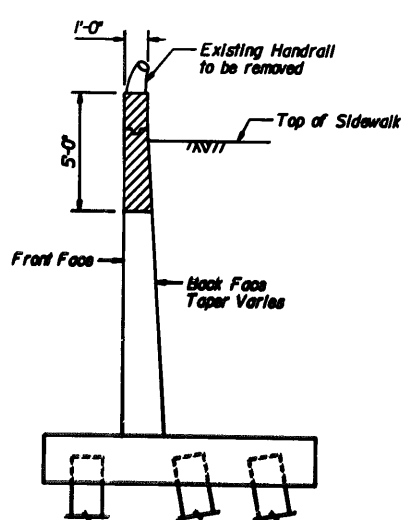
Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

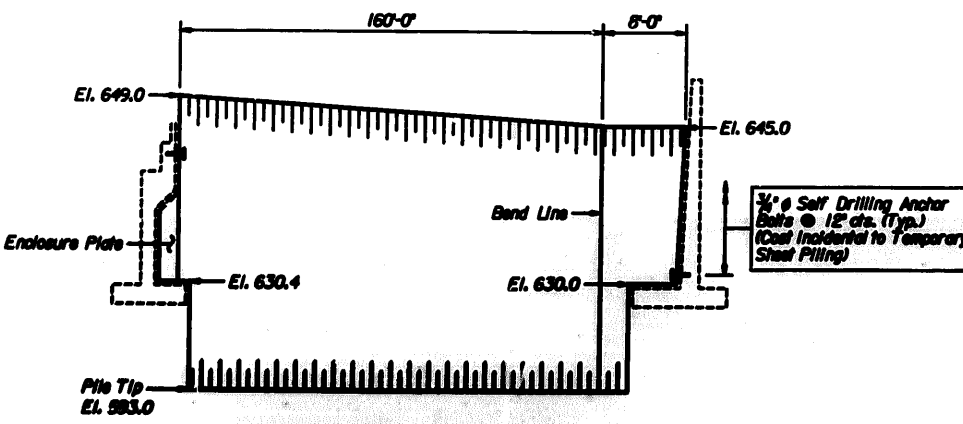
DATE 5-13-1993
rev. 7-26-1993



SECTION A-A



SECTION B-B



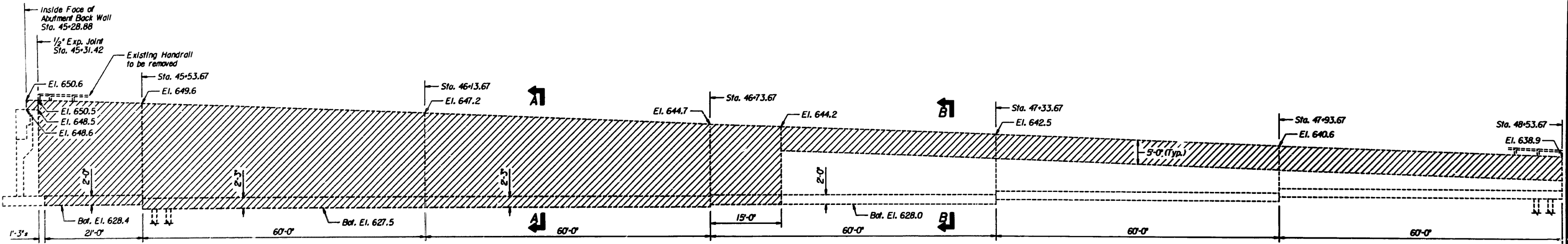
TEMPORARY SHEET PILING ELEVATION

**NORTHEAST RETAINING WALL
TEMPORARY SHEET PILING
& CONCRETE REMOVAL**

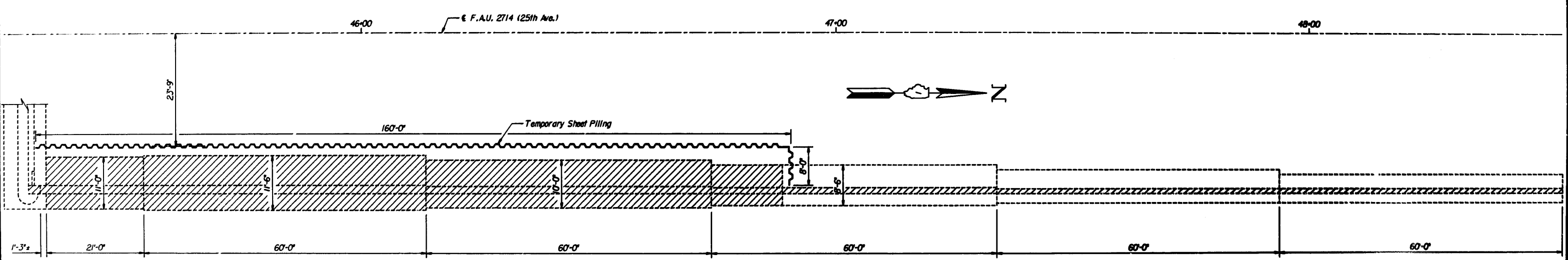
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3 SHEETS 17
FAU 2714	1010.2R	COOK	89	69	
FEB. ROAD DIST. NO. 7 ILLINOIS PROJECT					



ELEVATION



PLAN

Existing piles shall be cut off 1 ft. below bottom of proposed footing. Backfill hole with Porous Granular Embankment. Cost incidental to Concrete Retaining Wall Removal. See Special Provisions.

Concrete Retaining Wall Removal

NOTES:
The information shown for the Temporary Sheet Piling is estimated. It is the Contractor's responsibility to provide a design of the Temporary Sheet Piling and associated members, if required, subject to the approval of the Engineer.
Contractor to anchor sheeting to back of existing abutment & retaining wall. Connection to be approved by the Engineer. Cost is incidental to Temporary Sheet Piling. Sheeting within limits of existing footings shall have their tip elevations at the top of the footings.

BILL OF MATERIAL

Item	Unit	Total
Handrall Removal	Lin.Ft.	325
Concrete Retaining Wall Removal	Cu.Yd.	298.4
Temporary Sheet Piling	Sq.Ft.	8,908

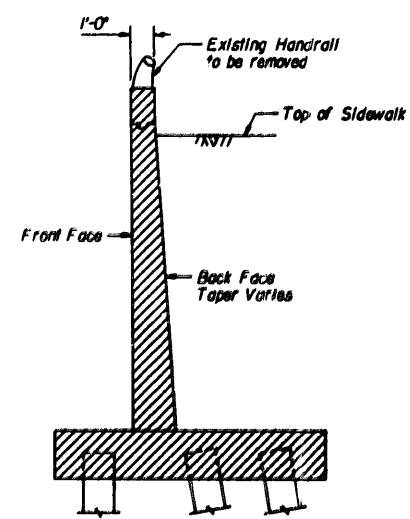
CONSTRUCTION SEQUENCE

1. Install temporary sheet piling as required for excavation.
2. Remove handrall and concrete of existing retaining wall to the shown limits.
3. Construct new retaining wall.
4. Backfill behind completed portions of new retaining wall.

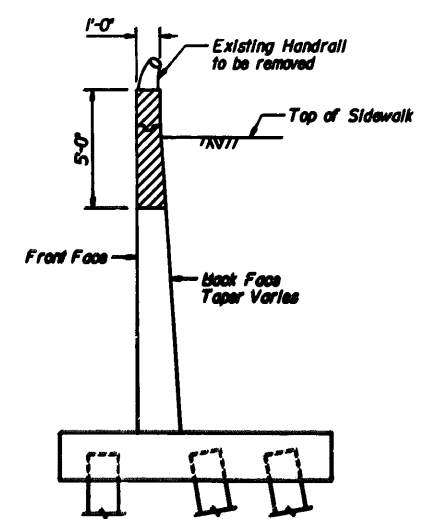
Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

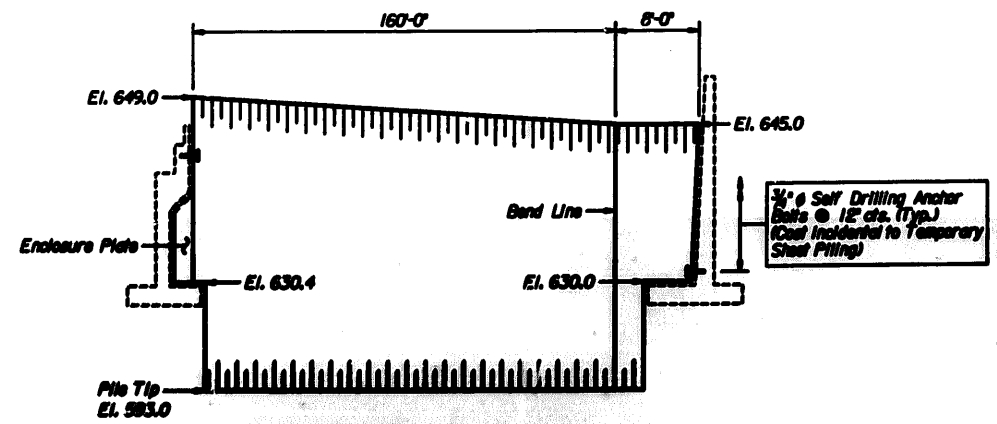
DATE 5-13-1993
rev. 7-26-1993



SECTION A-A



SECTION B-B



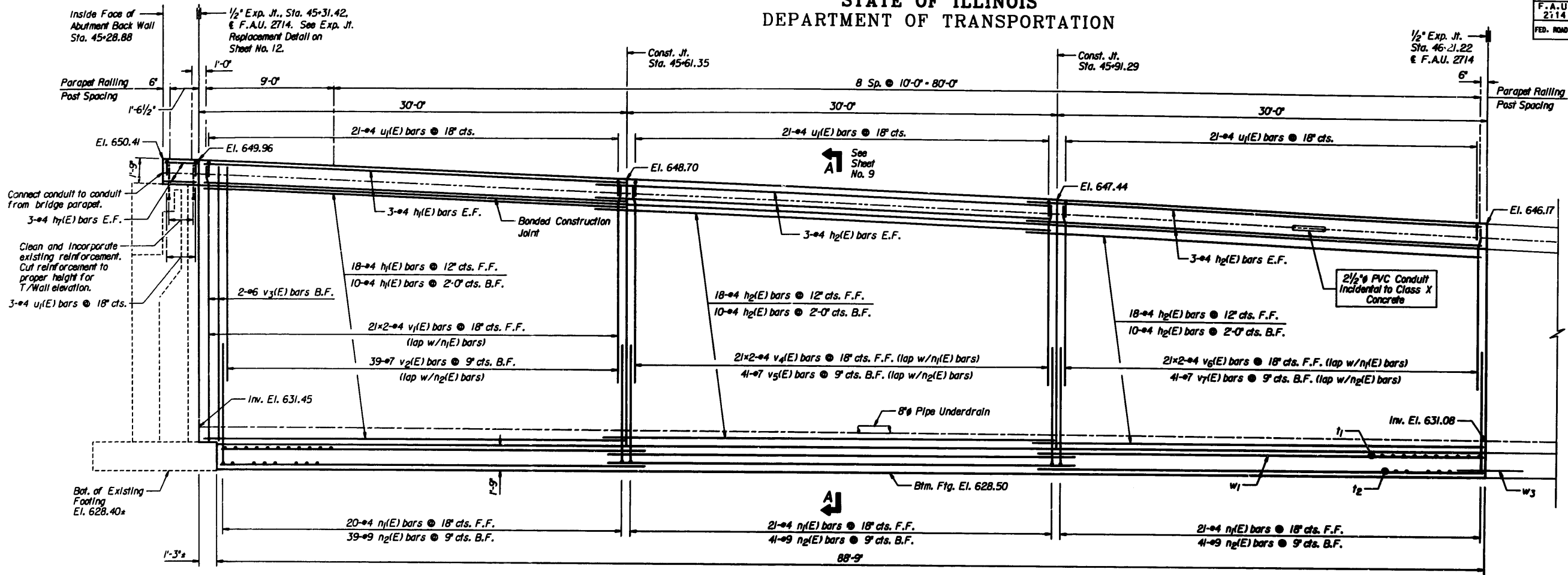
TEMPORARY SHEET PILING ELEVATION

**NORTHEAST RETAINING WALL
TEMPORARY SHEET PILING
& CONCRETE REMOVAL**

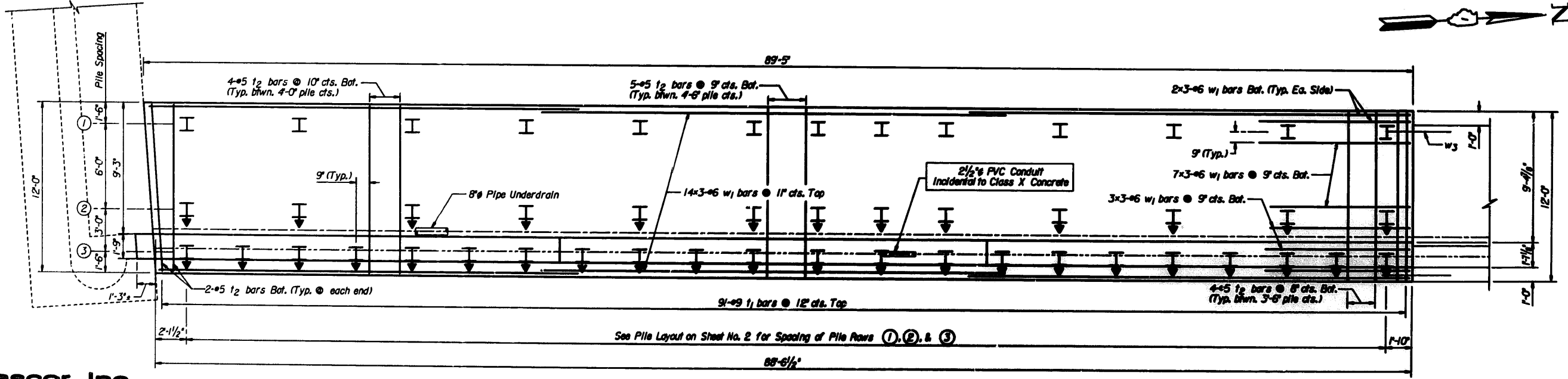
25TH AVENUE OVER MB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 4
F.A.U. 2114	1010.2R	COOK	89	70	SHEETS 17
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



ELEVATION



PLAN

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

Min. Bar Lap	
Size	Length
#4	1'-8"
#6	2'-7"
#7	3'-6"

See Notes on Sheet No. 5

B.F. - Back Face
F.F. - Front Face
E.F. - Each Face

PILE DATA

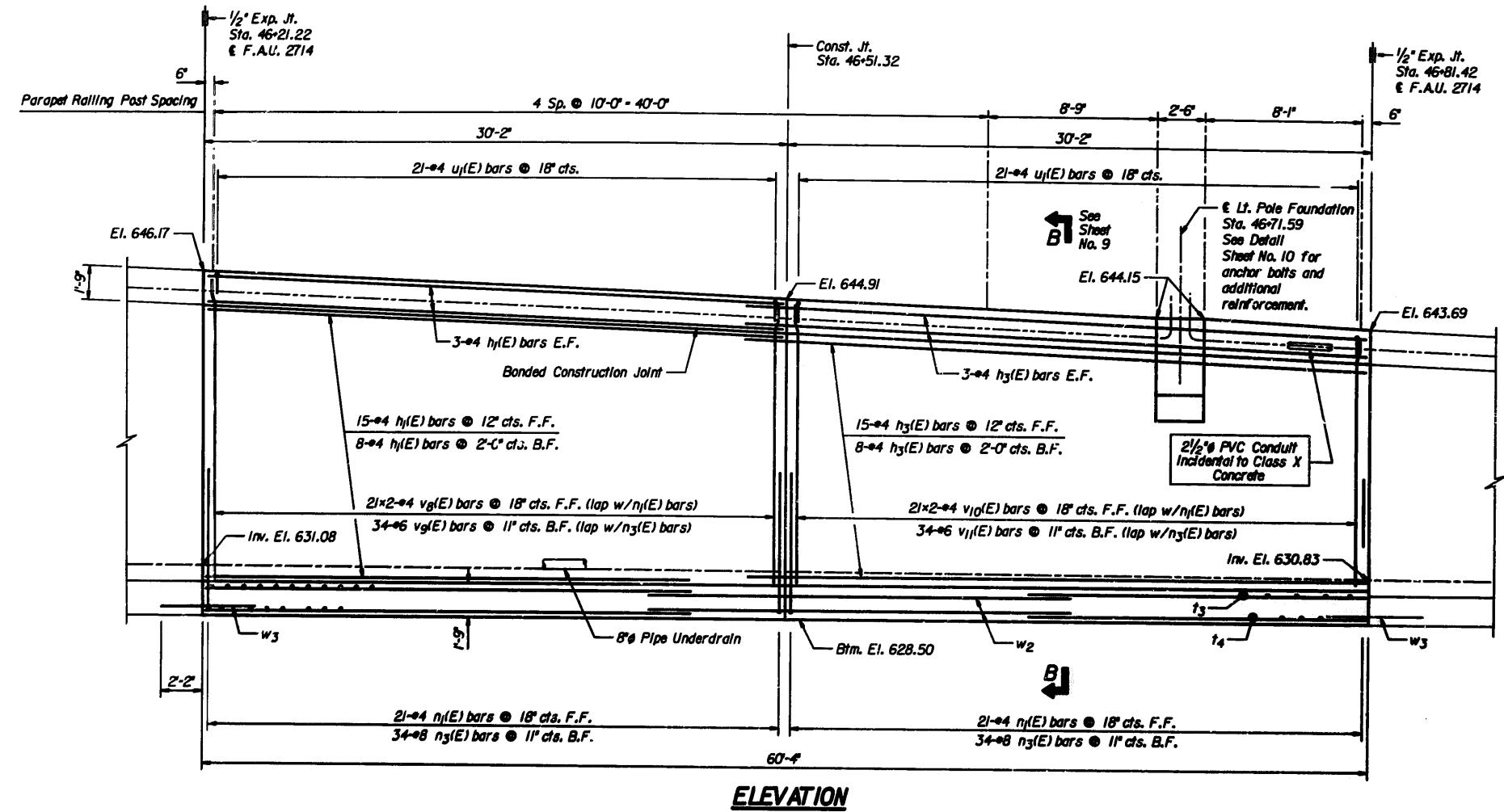
Location Sta. 45+31.42 to Sta. 46+21.22
Type HP 10x42
Capacity 35 tons design capacity driven to 53 tons bearing
Est. Length 30'
No. Required 47 plus 1 Test Pile
The pile symbol indicates a battered pile 4' per foot.
*Drive Test Pile to 62 tons bearing

**NORTHEAST RETAINING WALL
PLAN & ELEVATION
STA. 45+31.42 TO STA. 46+21.22**

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

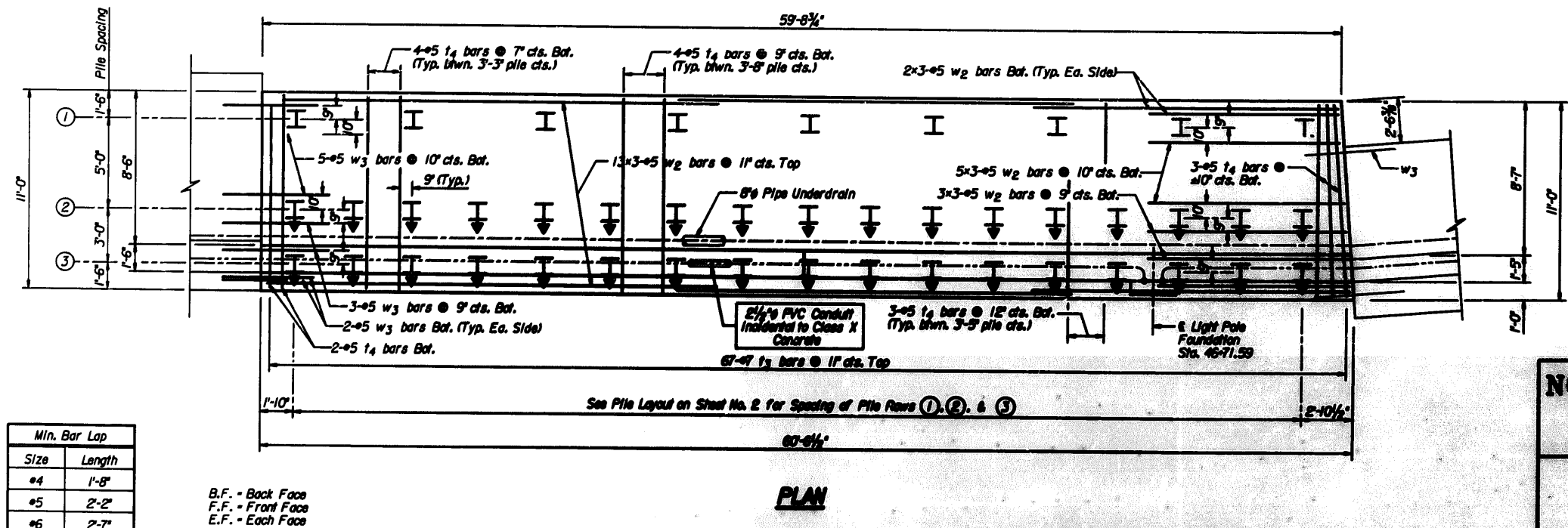
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5 SHEETS 17
F.A.U. 2714	1010.2R	COOK	89	71	
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT			



- NOTES:**
- Bars designated (E) shall be epoxy coated.
 - A "9x3-05 . . ." bar designation indicates 9 lines of bars with 3 lengths per line.
 - Longitudinal dimensions shown are measured along the Back Face of the wall.
 - For joint details, architectural finish details and elevations, underdrains and backfill details, see Sheet No. 12.

PILE DATA
 Location Sta. 46+21.22 to Sta. 46+81.42
 Type: HP 10x42
 Capacity: 35 tons design capacity driven to 53 tons bearing
 Est. Length: 30'
 No. Required: 43
 The pile symbol ∇ indicates a battered pile 4' per foot.



Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

Min. Bar Lap	
Size	Length
#4	1'-8"
#5	2'-2"
#6	2'-7"

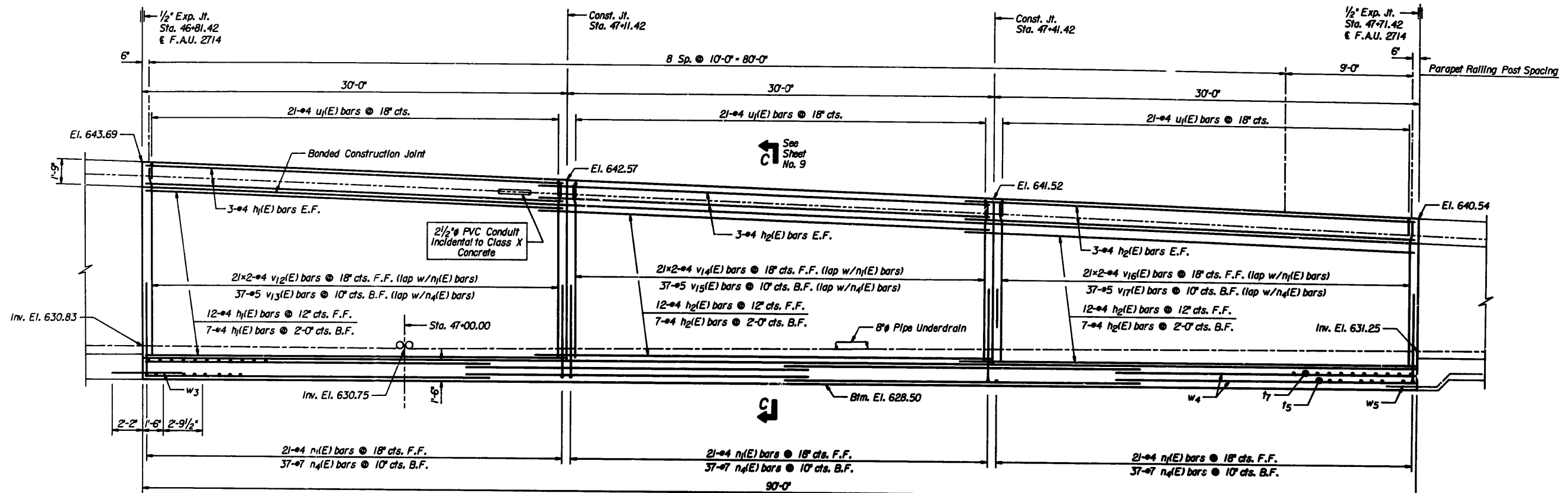
B.F. - Back Face
F.F. - Front Face
E.F. - Each Face

**NORTHEAST RETAINING WALL
PLAN & ELEVATION
STA. 46+21.22 TO STA. 46+81.42**

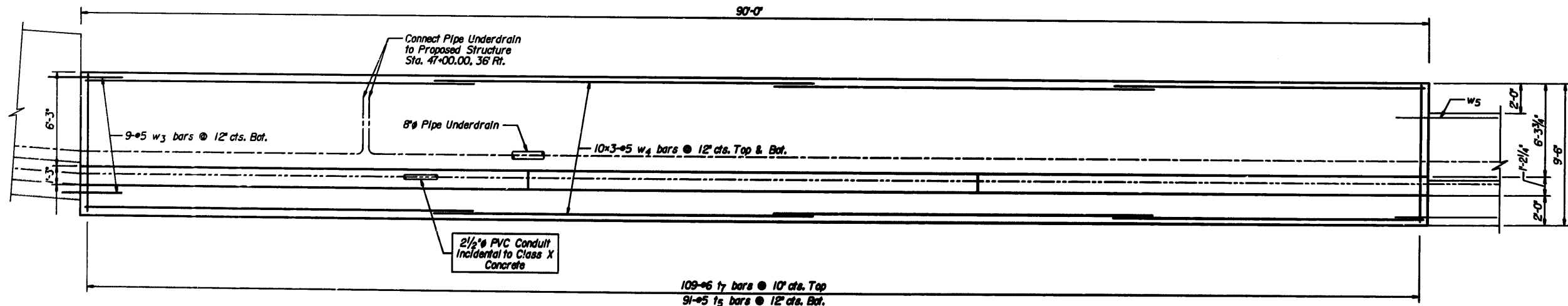
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 SHEETS 17
F.A.U. 2714	1010.2R	COOK	89	72	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



ELEVATION



PLAN

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consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

Min. Bar Lap	
Size	Length
#4	1'-8"
#5	2'-2"

See Notes on
Sheet No. 5

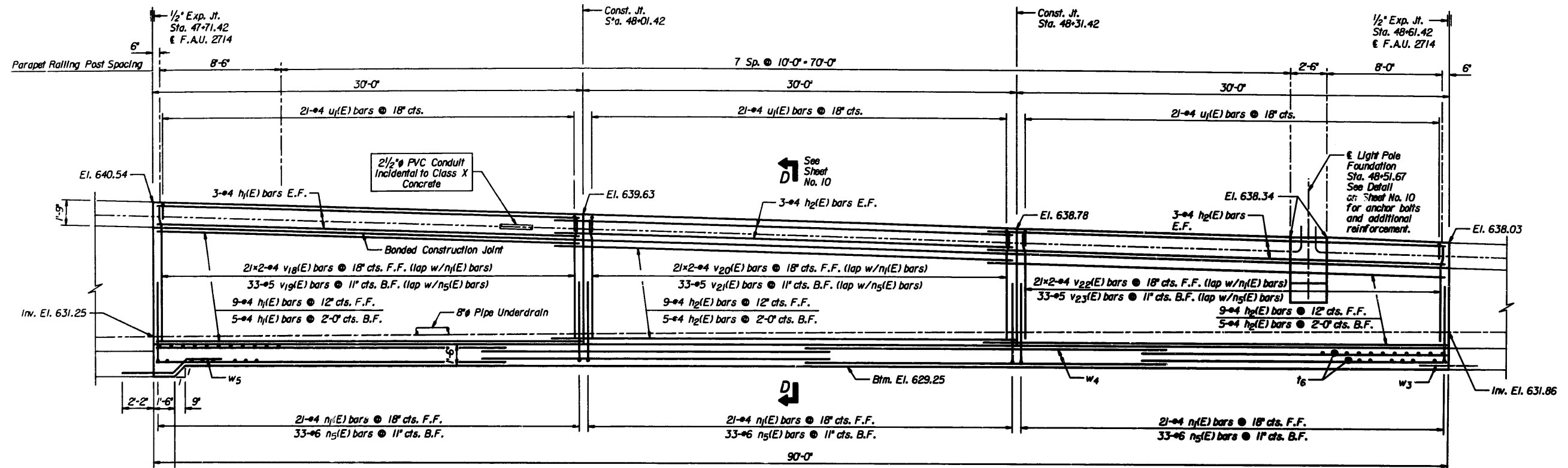
B.F. - Back Face
F.F. - Front Face
E.F. - Each Face

**NORTHEAST RETAINING WALL
PLAN & ELEVATION
STA. 46+81.42 TO STA. 47+71.42**

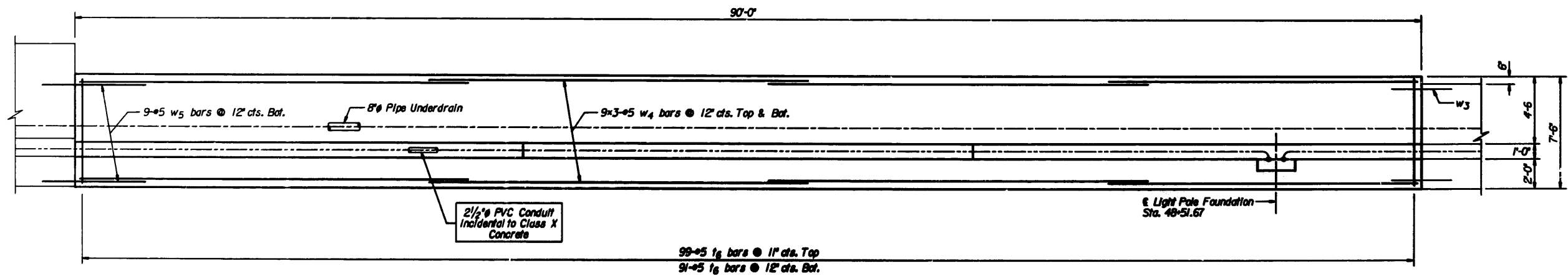
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 7 SHEETS 17
F.A.U. 2714	1010.2R	COOK	89	73	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



ELEVATION



PLAN

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

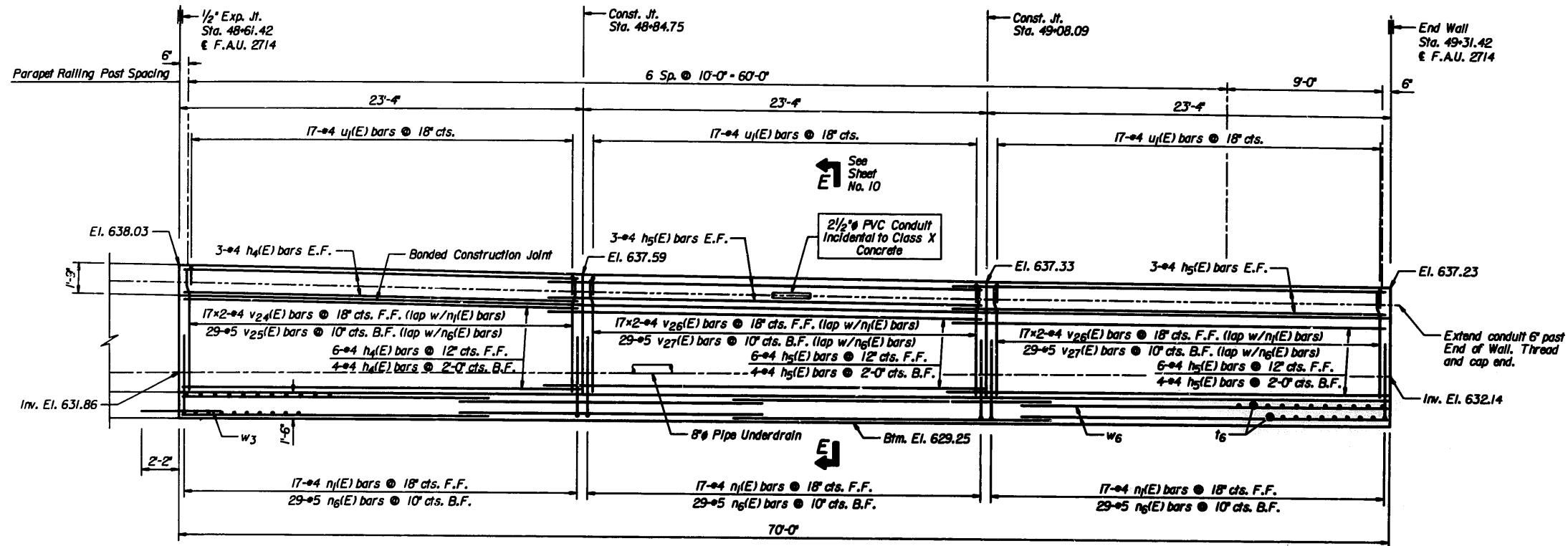
Min. Bar Lap	
Size	Length
#4	1'-8"
#5	2'-2"

See Notes on Sheet No. 5
B.F. = Back Face
F.F. = Front Face
E.F. = Each Face

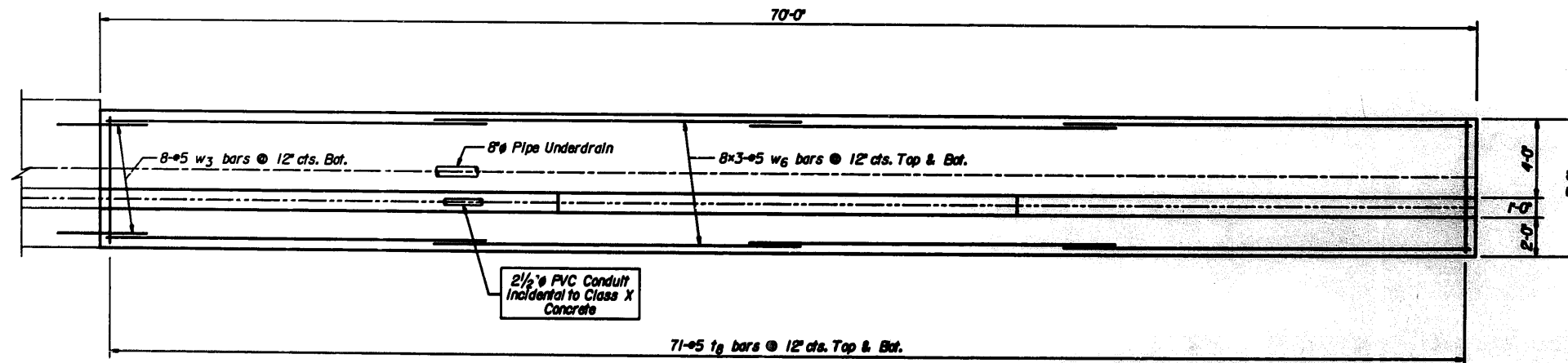
**NORTHEAST RETAINING WALL
PLAN & ELEVATION
STA. 47+71.42 TO STA. 48+61.42**
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8 SHEETS 17
F.A.U. 2714	1010.2R	COOK	89	74	
FEB. ROAD DIST. NO. 7	ILLINOIS PROJECT				



ELEVATION



PLAN

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

Min. Bar Lap	
Size	Length
#4	1'-8"
#5	2'-2"

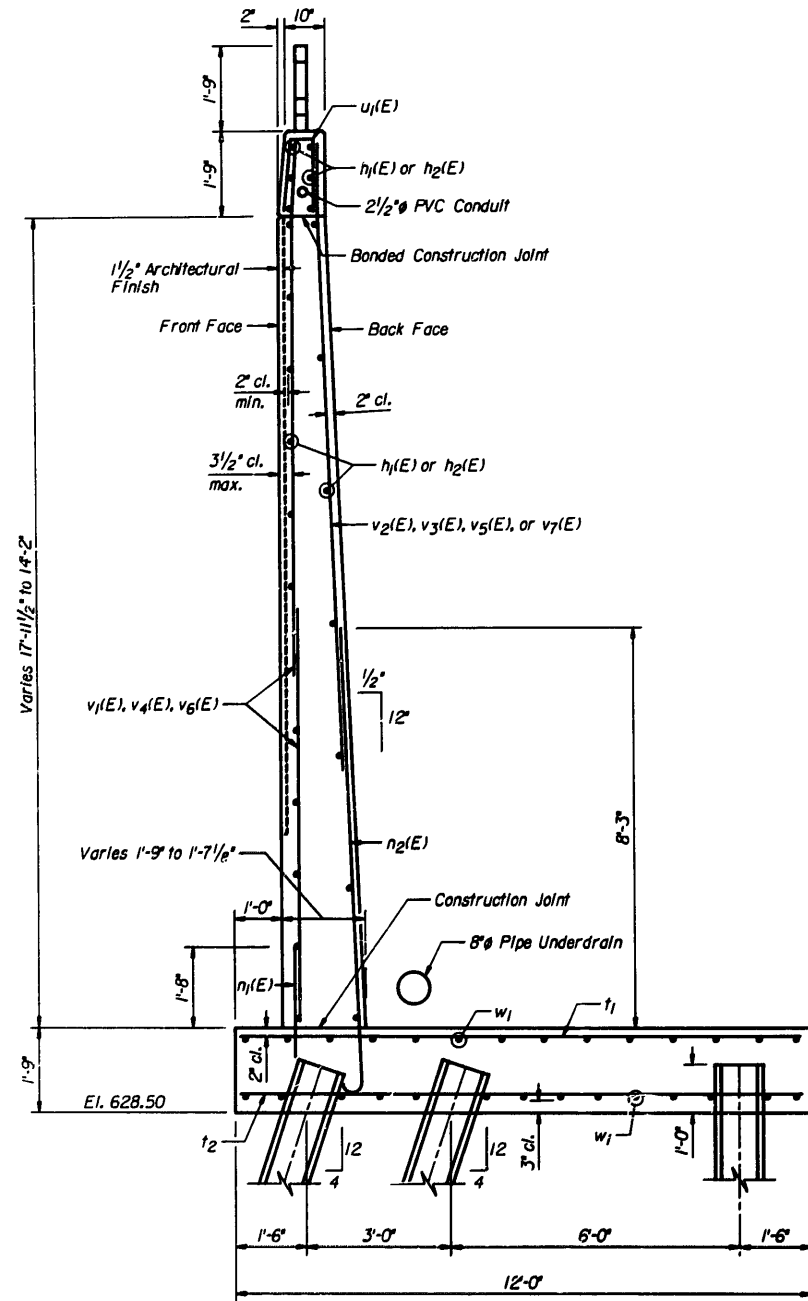
See Notes on Sheet No. 5

B.F. = Back Face
F.F. = Front Face
E.F. = Each Face

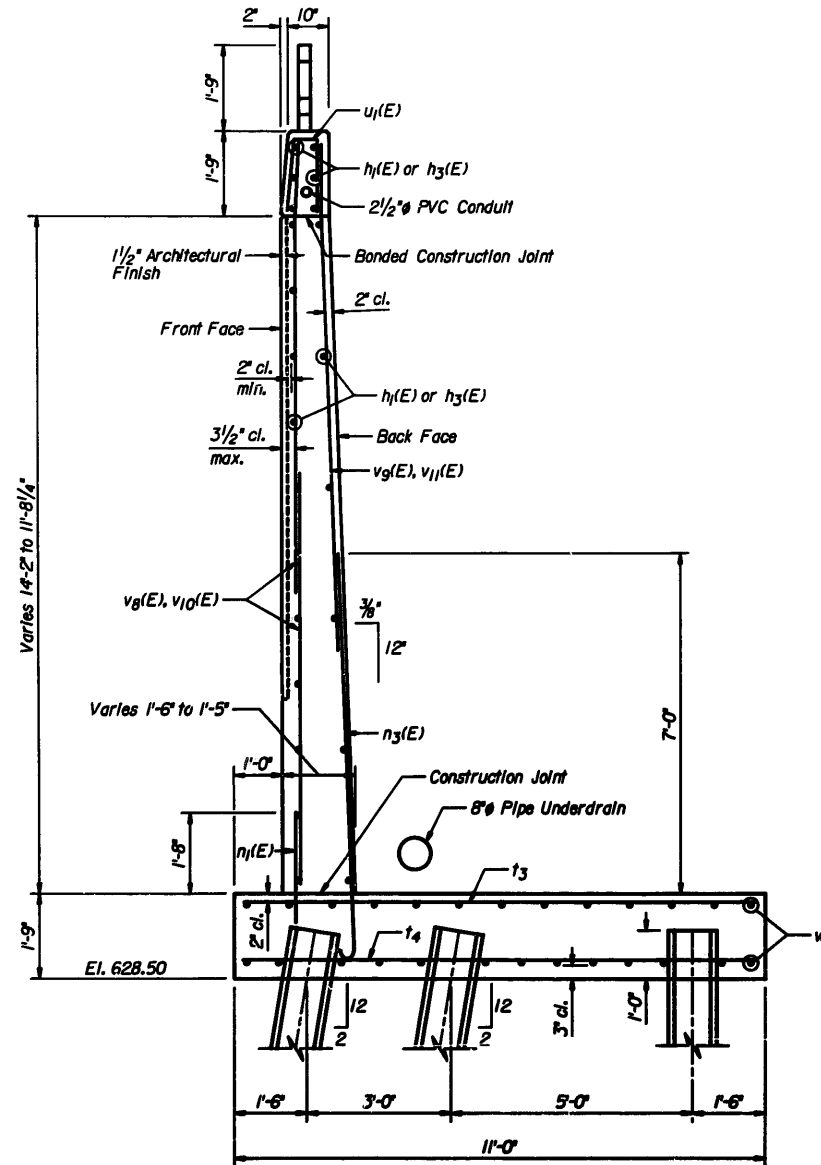
**NORTHEAST RETAINING WALL
PLAN & ELEVATION**
STA. 48+31.42 TO STA. 49+31.42
25TH AVENUE OVER THE RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 06-8507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

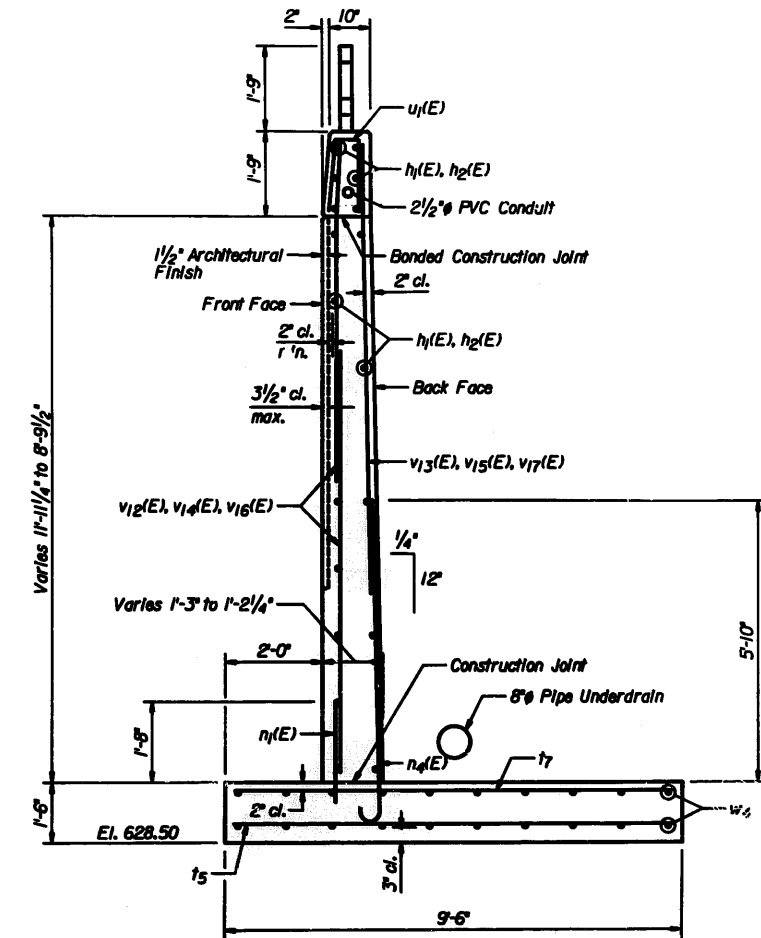
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
FAU 2714	1010.2R	COOK	89	75	9
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					SHEETS 17



SECTION A-A
STA. 45+31.42 TO STA. 46+21.22



SECTION B-B
STA. 46+21.22 TO STA. 46+81.42



SECTION C-C
STA. 46+81.42 TO STA. 47+71.42
Maximum Calculated Soil Pressure - 2,990 psf

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

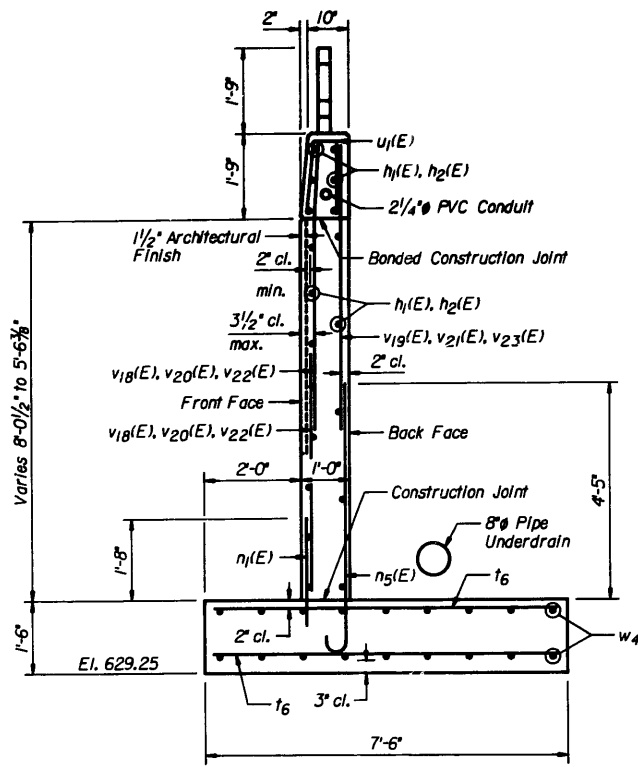
DATE 5-13-1993
rev. 7-26-1993

**NORTHEAST RETAINING
WALL CROSS SECTIONS**

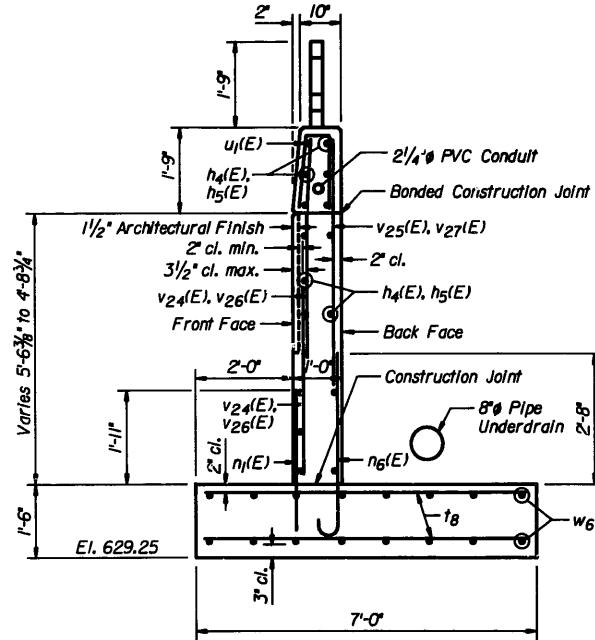
25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

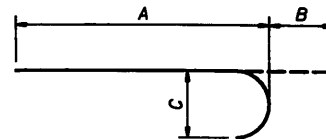
ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 76	SHEET NO. 10
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					SHEETS 17



SECTION D-D
STA. 47+71.42 TO STA. 48+61.42
Maximum Calculated Soil Pressure = 2,390 psf.



SECTION E-E
STA. 48+61.42 TO STA. 49+31.42
Maximum Calculated Soil Pressure = 1,960 psf.



BARS n₂(E) thru n₆(E)

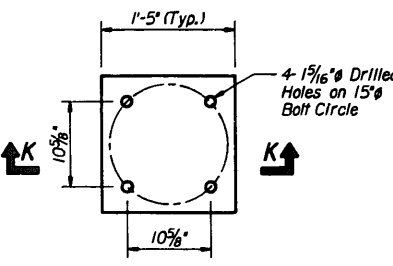
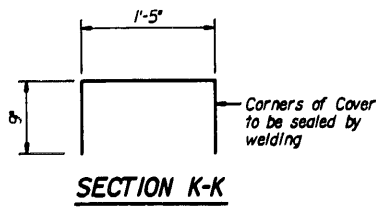
Bar	Size	A	B	C
n ₂ (E)	#9	9'-9"	1'-3"	11/4"
n ₃ (E)	#8	8'-6"	11"	8"
n ₄ (E)	#7	7'-1"	10"	7"
n ₅ (E)	#6	5'-8"	8"	6"
n ₆ (E)	#5	3'-11"	7"	5"

BILL OF MATERIAL

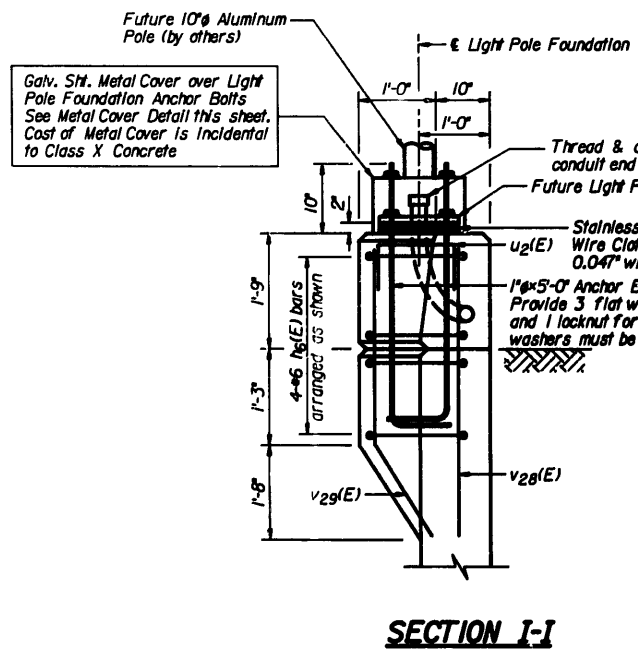
Bar	No.	Size	Length	Shape
h ₁ (E)	108	#4	29'-9"	—
h ₂ (E)	158	#4	31'-8"	—
h ₃ (E)	29	#4	31'-11"	—
h ₄ (E)	16	#4	23'-1"	—
h ₅ (E)	32	#4	24'-0"	—
h ₆ (E)	8	#5	9'-5"	—
h ₇ (E)	6	#4	2'-3"	—
n ₁ (E)	281	#4	3'-2"	—
n ₂ (E)	121	#9	11'-0"	—
n ₃ (E)	68	#8	9'-5"	—
n ₄ (E)	111	#7	7'-11"	—
n ₅ (E)	99	#6	6'-4"	—
n ₆ (E)	87	#5	4'-6"	—
t ₁	91	#9	11'-9"	—
t ₂	91	#5	11'-9"	—
t ₃	67	#7	10'-9"	—
t ₄	61	#5	10'-9"	—
t ₅	91	#5	9'-3"	—
t ₆	190	#5	7'-3"	—
t ₇	109	#6	9'-3"	—
t ₈	142	#5	6'-9"	—
u ₁ (E)	282	#4	3'-7"	Π
u ₂ (E)	6	#4	4'-0"	Π

BILL OF MATERIAL

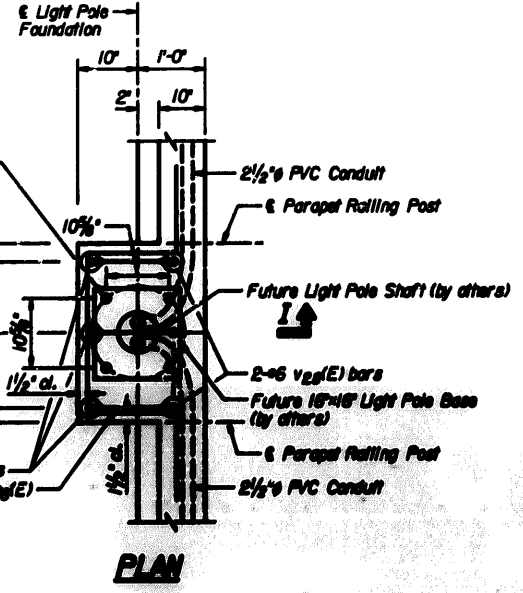
Bar	No.	Size	Length	Shape
v ₁ (E)	42	#4	10'-9"	—
v ₂ (E)	39	#7	15'-0"	—
v ₃ (E)	2	#6	19'-6"	—
v ₄ (E)	42	#4	10'-1"	—
v ₅ (E)	41	#7	13'-9"	—
v ₆ (E)	42	#4	9'-6"	—
v ₇ (E)	41	#7	12'-6"	—
v ₈ (E)	42	#4	9'-9"	—
v ₉ (E)	34	#6	11'-7"	—
v ₁₀ (E)	42	#4	8'-2"	—
v ₁₁ (E)	34	#6	10'-3"	—
v ₁₂ (E)	42	#4	7'-9"	—
v ₁₃ (E)	37	#5	10'-1"	—
v ₁₄ (E)	42	#4	7'-2"	—
v ₁₅ (E)	37	#5	8'-11"	—
v ₁₆ (E)	42	#4	6'-8"	—
v ₁₇ (E)	37	#5	7'-11"	—
v ₁₈ (E)	42	#4	5'-10"	—
v ₁₉ (E)	33	#5	7'-7"	—
v ₂₀ (E)	42	#4	5'-4"	—
v ₂₁ (E)	33	#5	6'-8"	—
v ₂₂ (E)	42	#4	4'-11"	—
v ₂₃ (E)	33	#5	5'-10"	—
v ₂₄ (E)	34	#4	4'-6"	—
v ₂₅ (E)	29	#5	6'-8"	—
v ₂₆ (E)	68	#4	4'-3"	—
v ₂₇ (E)	58	#5	6'-3"	—
v ₂₈ (E)	4	#6	4'-6"	—
v ₂₉ (E)	6	#6	4'-8"	—
w ₁	84	#6	31'-7"	—
w ₂	75	#5	21'-8"	—
w ₃	27	#5	4'-4"	—
w ₄	114	#5	31'-6"	—
w ₅	9	#5	6'-11"	—
w ₆	48	#5	24'-10"	—



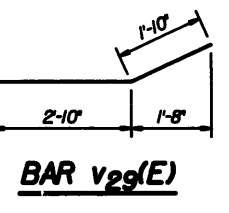
METAL COVER DETAIL
Cover is to be fabricated from 0.0635" thick (16 Gage) galvanized sheet metal.



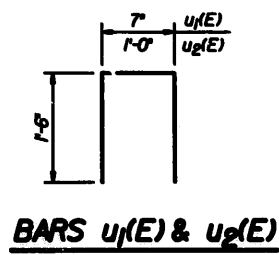
LIGHT POLE FOUNDATION



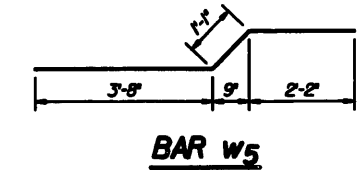
PLAN



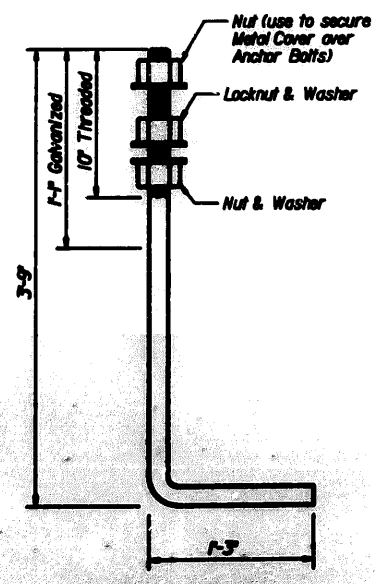
BAR v₂₉(E)



BARS u₁(E) & u₂(E)



BAR w₅



1" ANCHOR BOLT

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

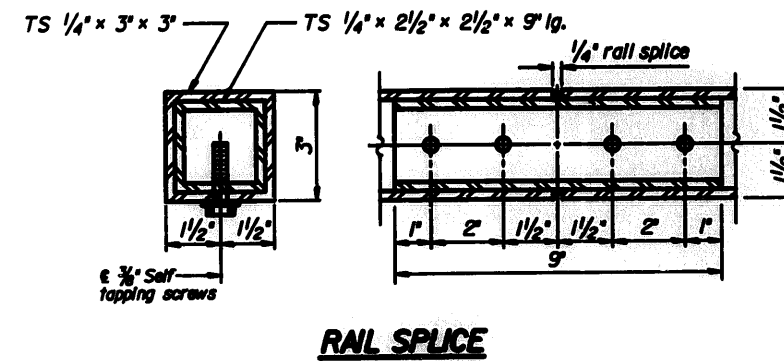
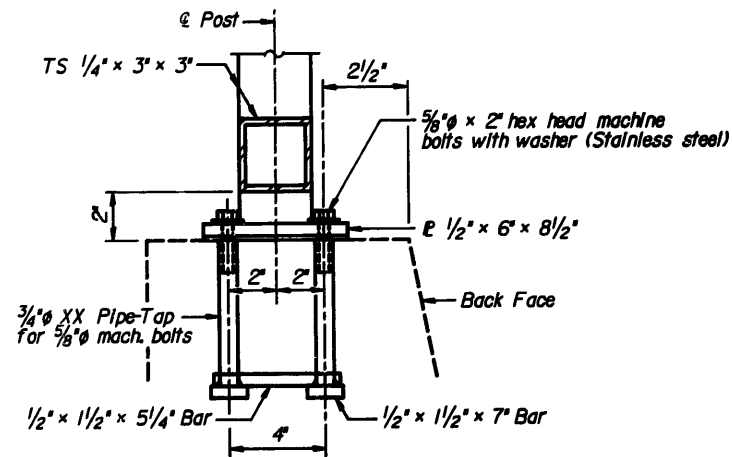
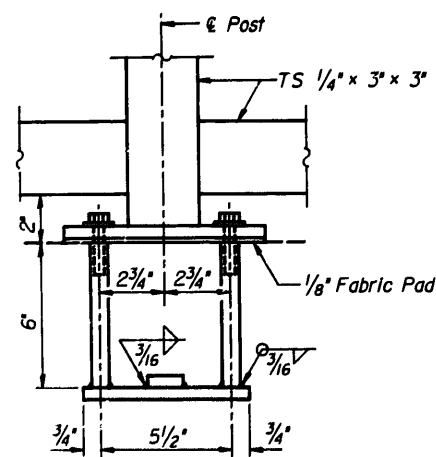
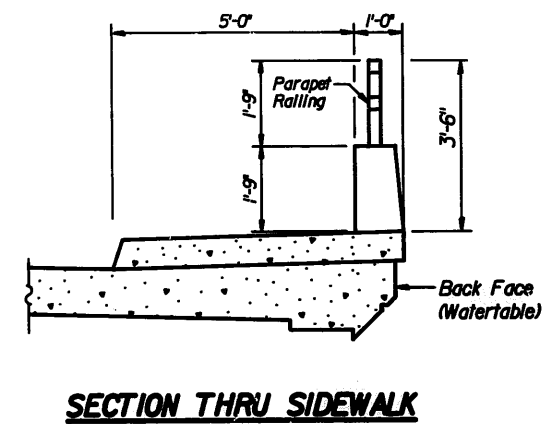
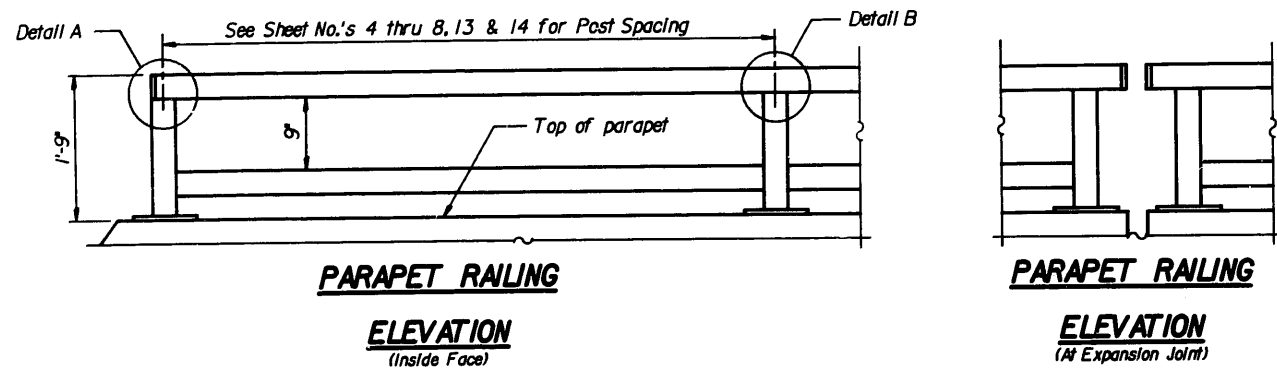
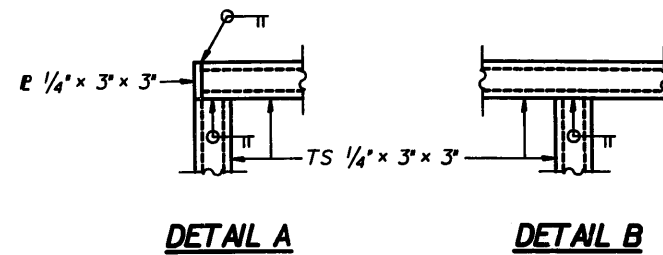
NORTHEAST RETAINING WALL CROSS SECTIONS & DETAILS
25TH AVENUE OVER HB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 015-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

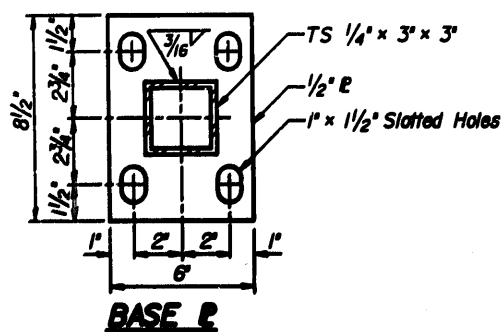
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 11 SHEETS 17
F.A.U. 2714	1010.2R	COOK	89	77	
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				

NOTES

Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per linear foot for Parapet Railing.
Hollow structural steel tubing shall conform to the requirements of ASTM designation A 500, Grade B, structural steel tubing.
All other steel shapes and plates shall conform to the requirements of AASHTO M-270 Grade 36.
All post, railing, splices, anchor devices, and bent plates shall be painted using the zinc-silicate and vinyl paint system.



ANCHOR BOLT DETAILS
(Typical)



BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing	Ln. Ft.	2,606

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

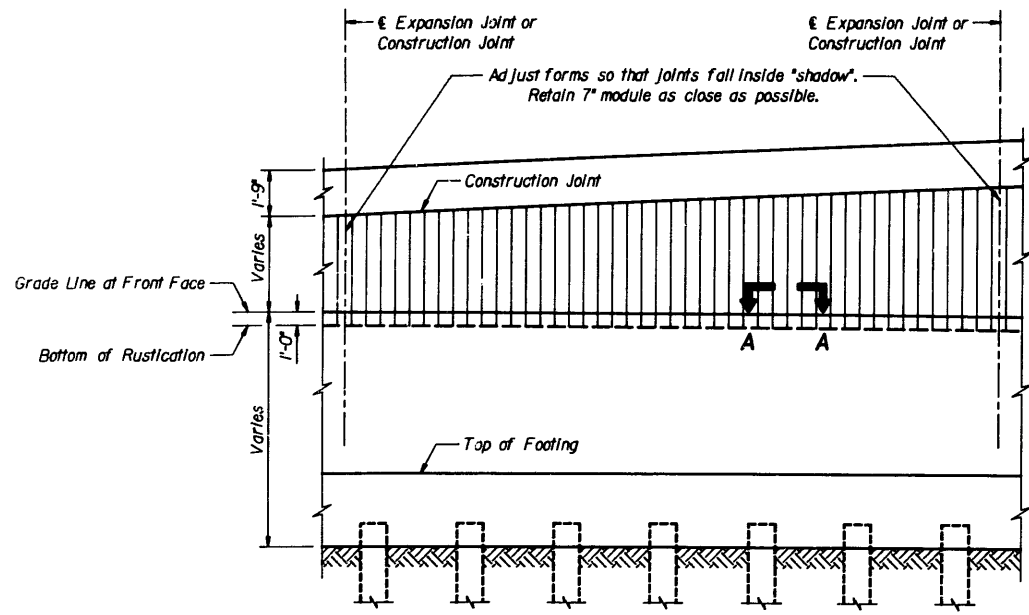
DATE 4-30-1993
rev. 7-26-1993

PARAPET RAILING

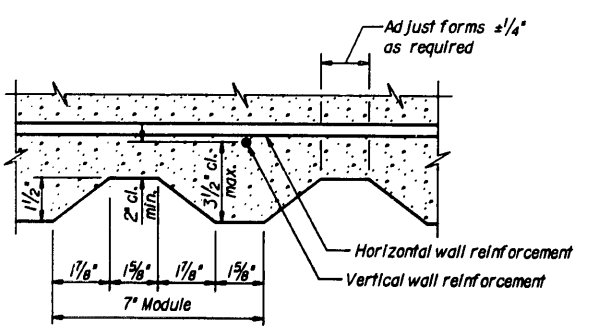
25TH AVENUE OVER IHD RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.H. 016-101

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

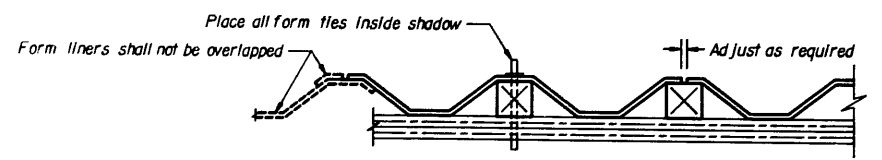
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 12 SHEETS 17
F.A.U. 2714	1010.2R	COOK	89	78	
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				



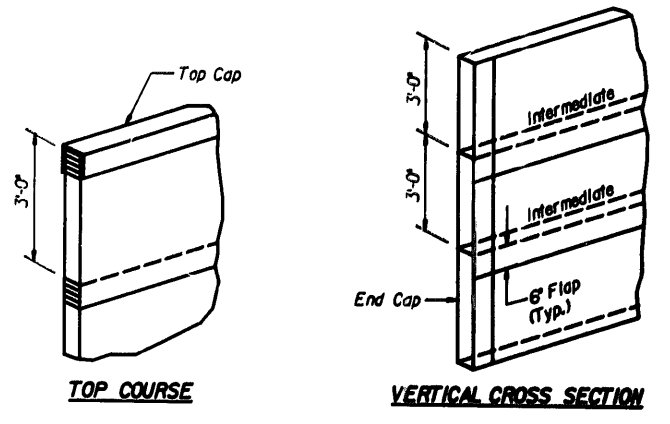
ELEVATION - TYPICAL ARCHITECTURAL FINISH AT NORTHEAST RETAINING WALL



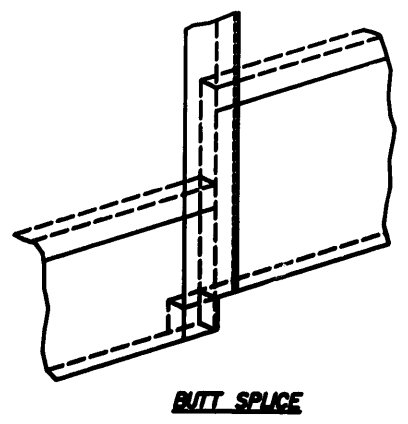
SECTION A-A



SUGGESTED FORMWORK DETAIL

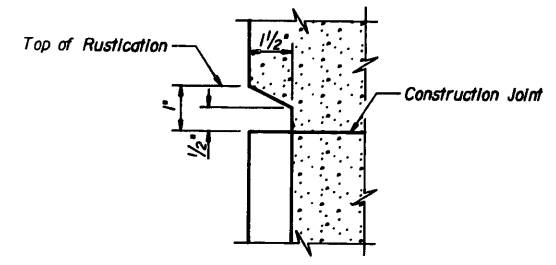


TOP COURSE VERTICAL CROSS SECTION

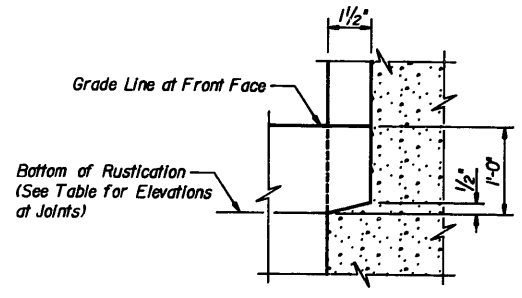


BUTT SPLICE

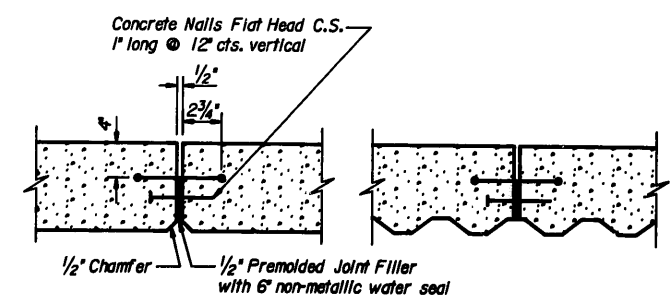
GEOCOMPOSITE WALL DRAIN DETAILS



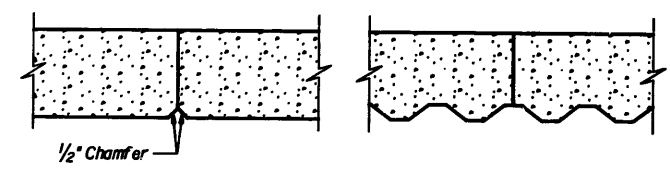
DETAIL A



DETAIL B



EXPANSION JOINT DETAIL



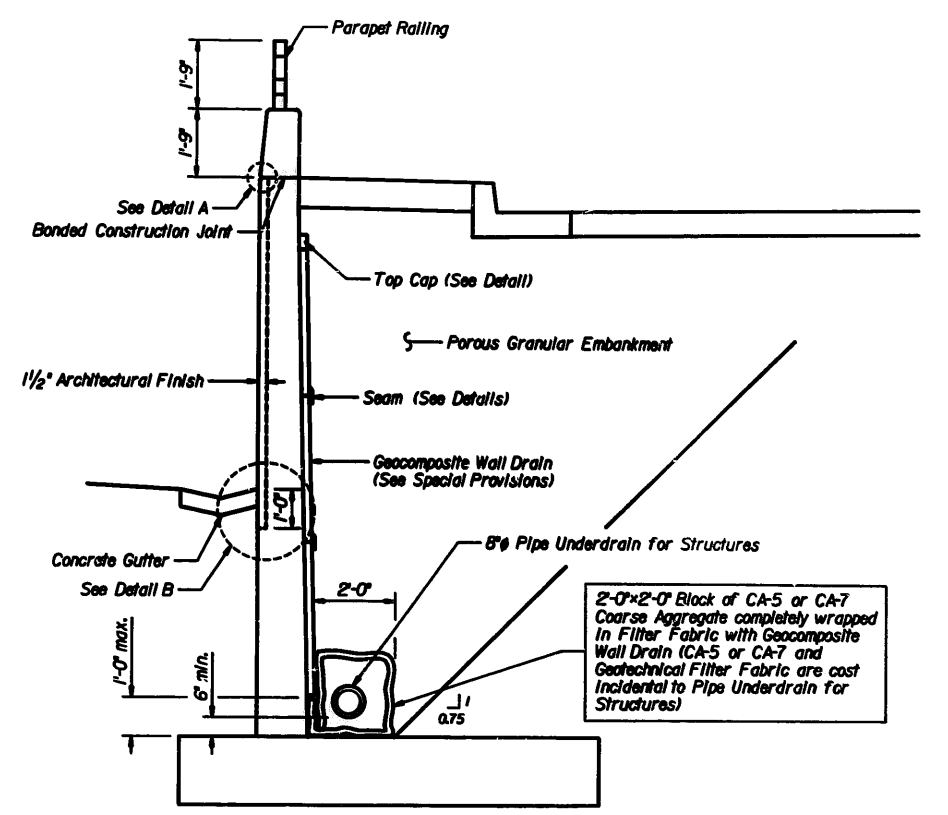
CONSTRUCTION JOINT DETAIL

NOTES:

- BOTTOM OF RUSTICATION:** Rustication shall end 1'-0" below the proposed grade line at the front face of the retaining wall.
- PIPE DRAIN SLOPE:** Prior to the placement of the pipe drain, the Engineer shall determine the slope required for the pipe drain to enter below the drainage structure lid at or below the minimum distance shown on the details for the structure.
- PIPE DRAIN:** The pipe drain shall terminate at a drainage structure.

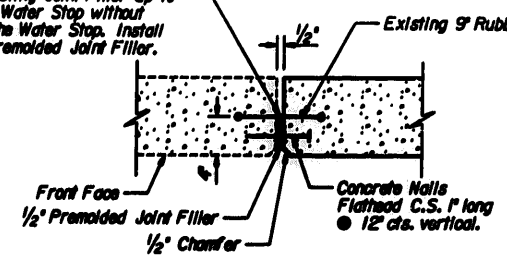
NORTHEAST RETAINING WALL

STATION	TYPE OF JOINT	BOTTOM OF RUSTICATION ELEVATION
45+31.42	Begin Wall	631.9
45+61.35	Construction	632.0
45+91.29	Construction	632.1
46+21.22	Expansion	632.2
46+51.32	Construction	632.3
46+81.42	Expansion	632.3
47+11.42	Construction	632.4
47+41.42	Construction	632.5
47+71.42	Expansion	632.6
48+01.42	Construction	632.7
48+31.42	Construction	632.8
48+61.42	Expansion	632.9
48+84.75	Construction	633.0
49+08.09	Construction	633.0
49+31.42	End Wall	633.1



TYPICAL SECTION THRU NORTHEAST RETAINING WALL

Remove Existing Joint Filler up to the Rubber Water Stop without damaging the Water Stop. Install new 1/2" Premolded Joint Filler.



REPLACED EXPANSION JOINT DETAIL

RUSTICATION FINISH AND GEOCOMPOSITE DRAIN FOR RETAINING WALL

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

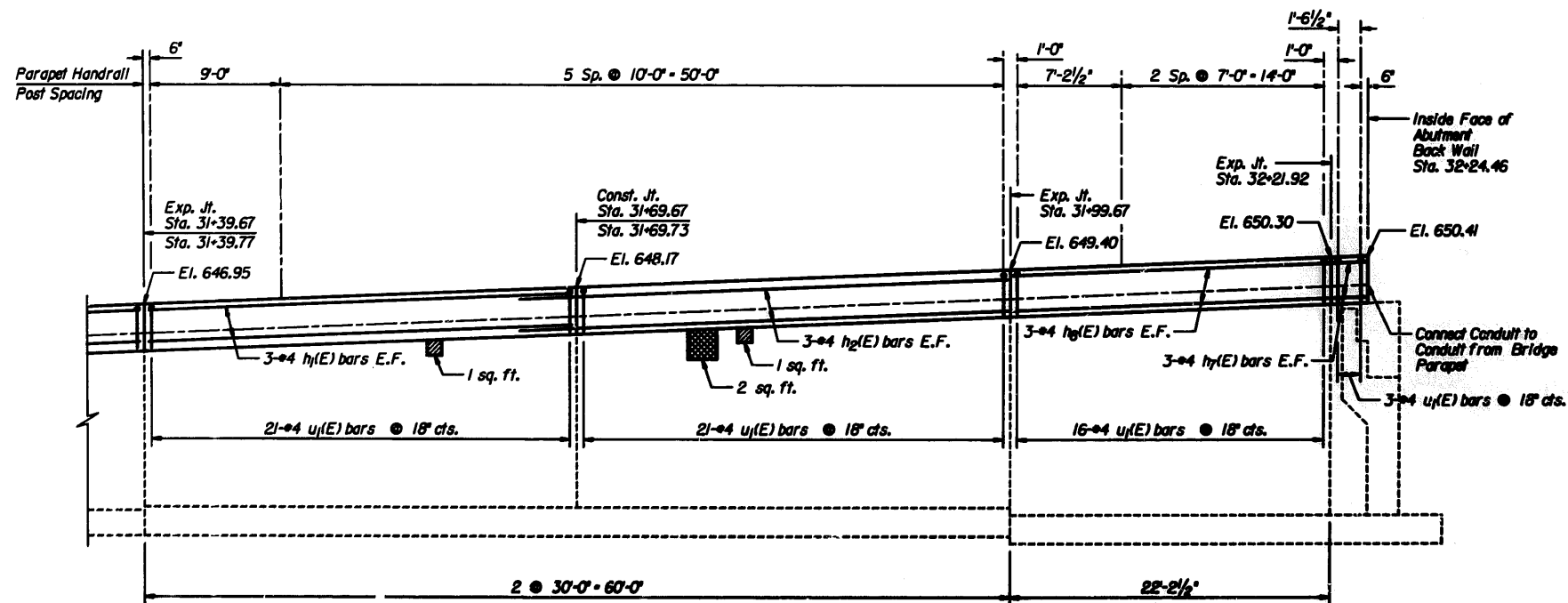
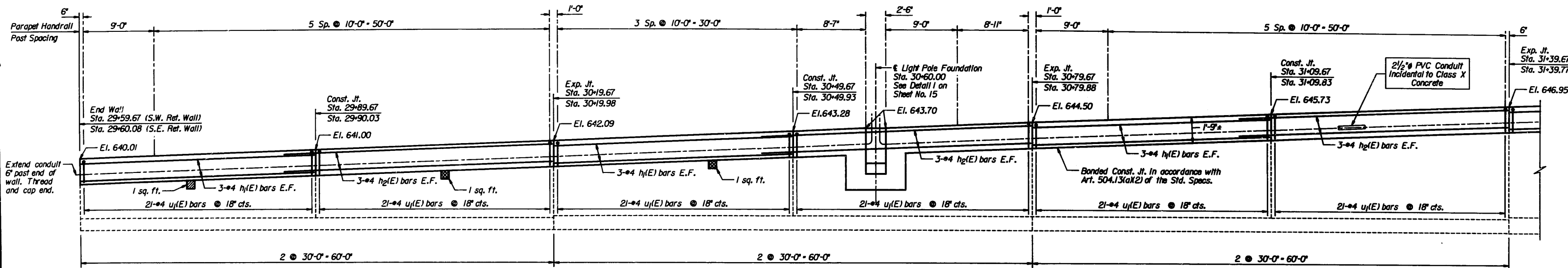
Bascor, Inc.
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DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13
FAU 2714	1010.2R	COOK	89	79	SHEETS 17
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				





Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

LEGEND

-  Formed Concrete Repair (Depth Equal to or Less Than 5") (Southwest Wall)
-  Formed Concrete Repair (Depth Equal to or Less Than 5") (Southeast Wall)

ELEVATION

Southeast Wall Shown.
Use Opposite Hand for Southwest Wall.

NOTES

Quantities listed on Elevation for Formed Concrete Repairs were derived from field notes and are given as a basis for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.

See Sheet No. 15 for Formed Concrete Repair Details.

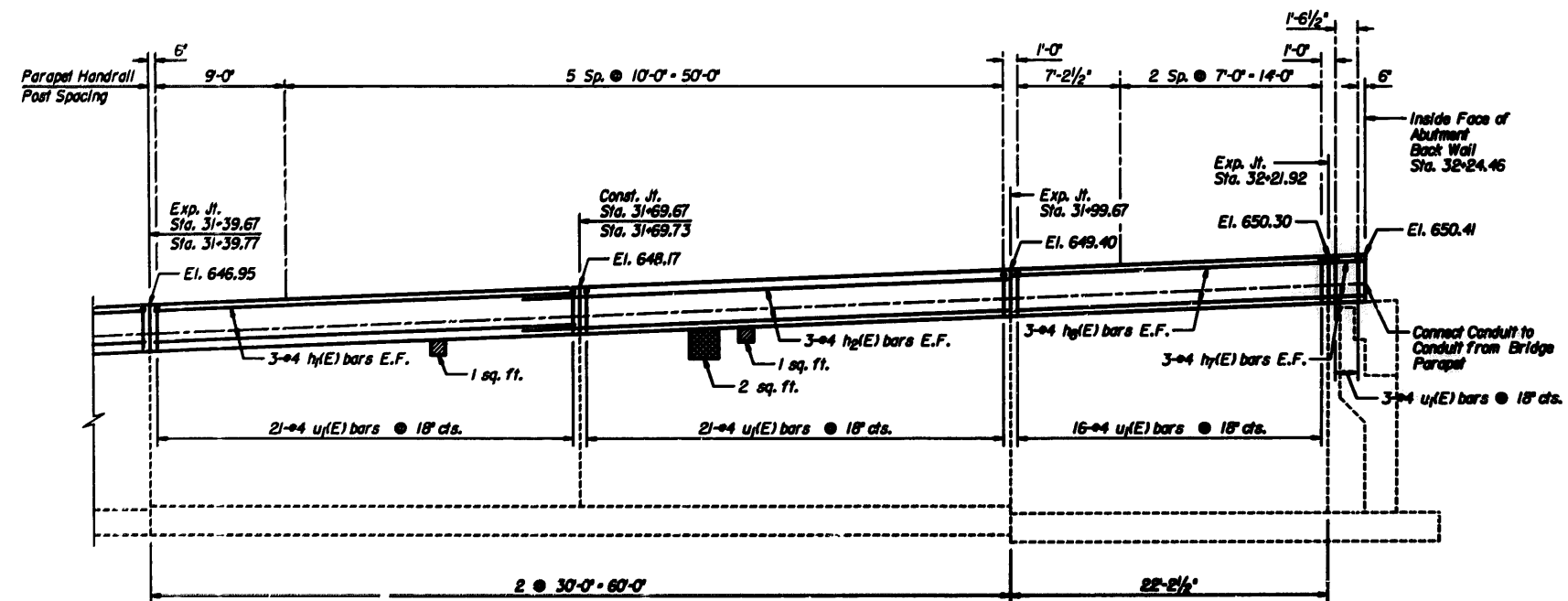
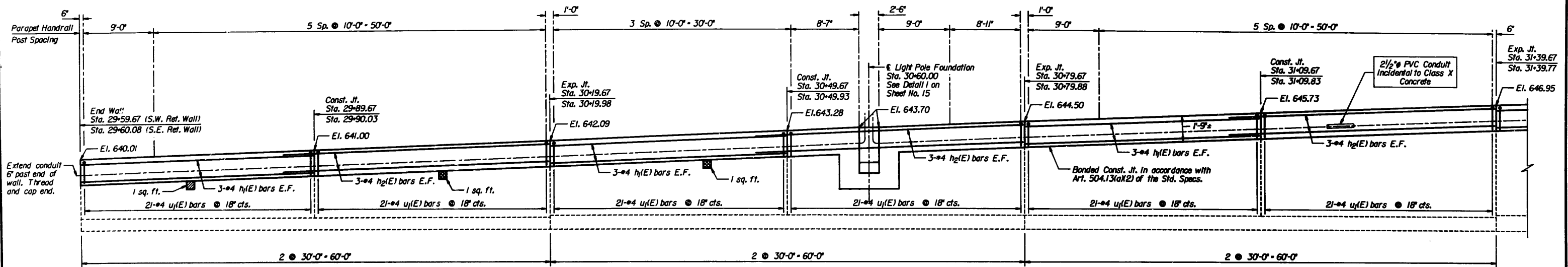
See Sheet No. 15 for Units of Concrete Removal and Typical Cross Section.

EXISTING SOUTHEAST & SOUTHWEST RETAINING WALL MODIFICATIONS

25TH AVENUE OVER MB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 13 SHEETS 17
FAU 2714	1010.2R	COOK	89	79	
FEB. ROAD DIST. NO. 7 ILLINOIS PROJECT					



Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

LEGEND

Formed Concrete Repair (Depth Equal to or Less Than 5') (Southwest Wall)

Formed Concrete Repair (Depth Equal to or Less Than 5') (Southeast Wall)

ELEVATION
Southeast Wall Shown.
Use Opposite Hand for Southwest Wall.

NOTES

Quantities listed on Elevation for Formed Concrete Repairs were derived from field notes and are given as a basis for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.

See Sheet No. 15 for Formed Concrete Repair Details.

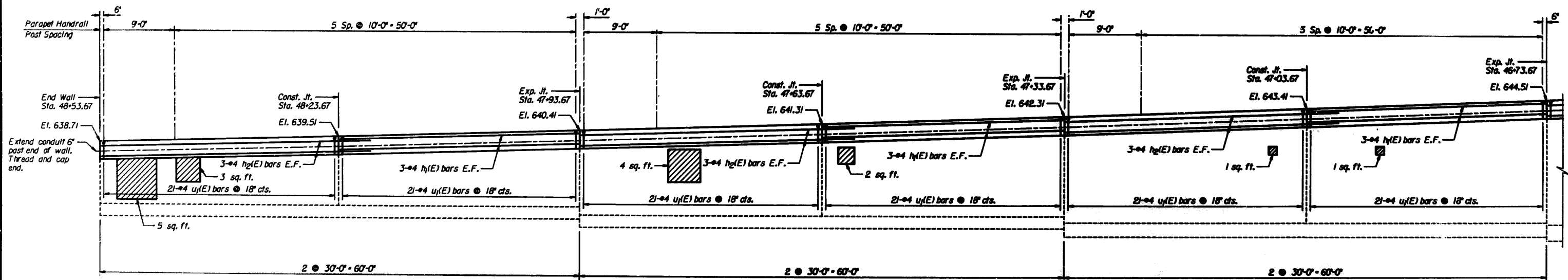
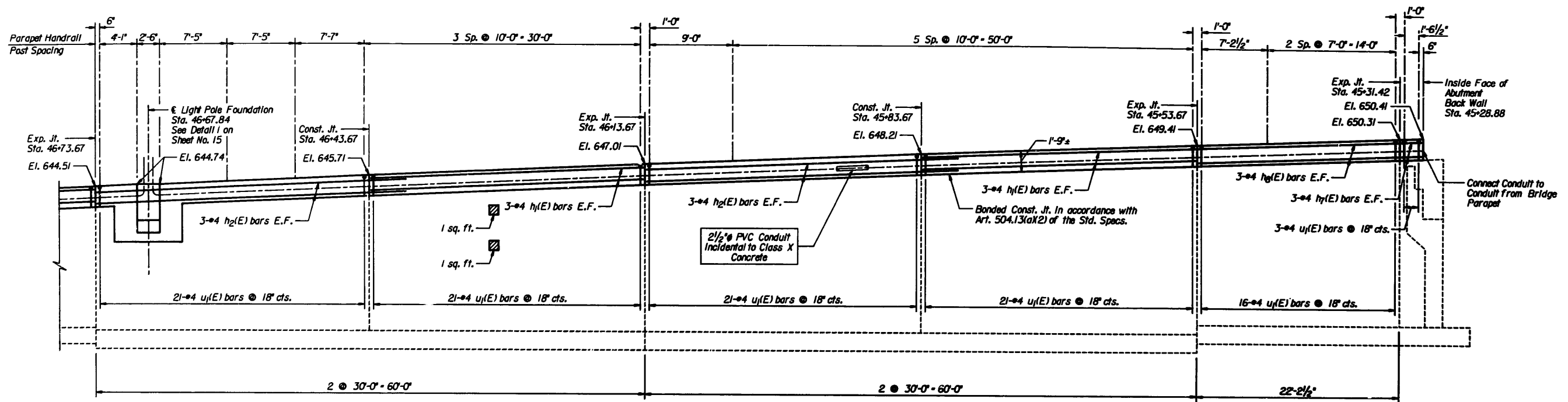
See Sheet No. 15 for Limits of Concrete Removal and Typical Cross Section.

EXISTING SOUTHEAST & SOUTHWEST RETAINING WALL MODIFICATIONS

25TH AVENUE OVER NB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+75.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 14 SHEETS 17
FAU 2714	1010.2R	COOK	89	80	
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT					



B Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

LEGEND

Formed Concrete Repair
(Depth Equal to or Less Than 3')

ELEVATION

NOTES:

Quantities listed on Elevation for Formed Concrete Repairs were derived from field notes and are given as a basis for pricing. Exact quantities will be determined in the field and approved by the Engineer.

See Sheet No. 15 for Formed Concrete Repair Details.

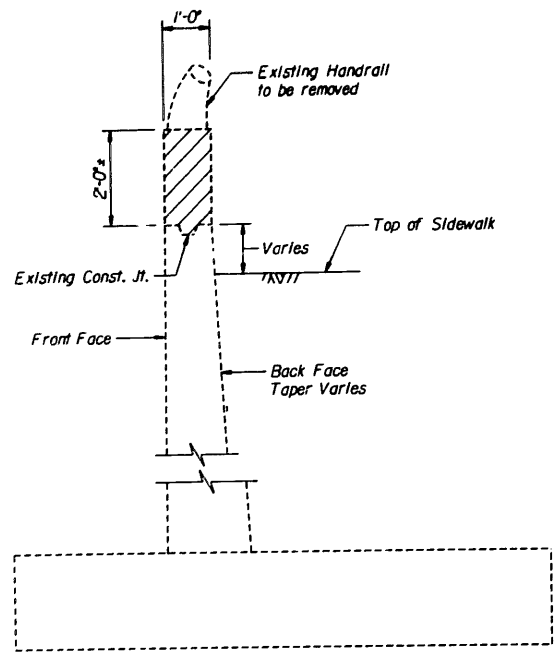
See Sheet No. 15 for Details of Concrete Formed and Typical Cross Section.

**EXISTING NORTHWEST
RETAINING WALL
MODIFICATIONS**

25TH AVENUE OVER NB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 08-8507

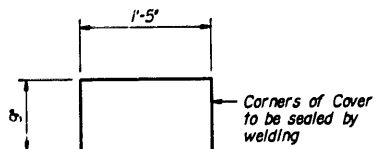
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 15
FAU 2714	1010.2R	COOK	89	81	
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT				SHEETS 17

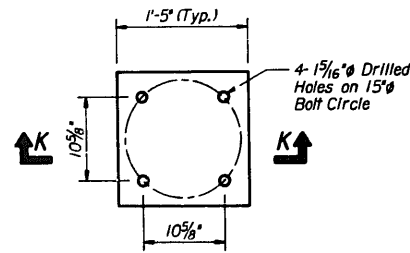


TYPICAL LIMITS OF CONCRETE RETAINING WALL REMOVAL

Excavation required for the removal portions of the existing retaining walls shall be cast incidental to concrete retaining wall removal.

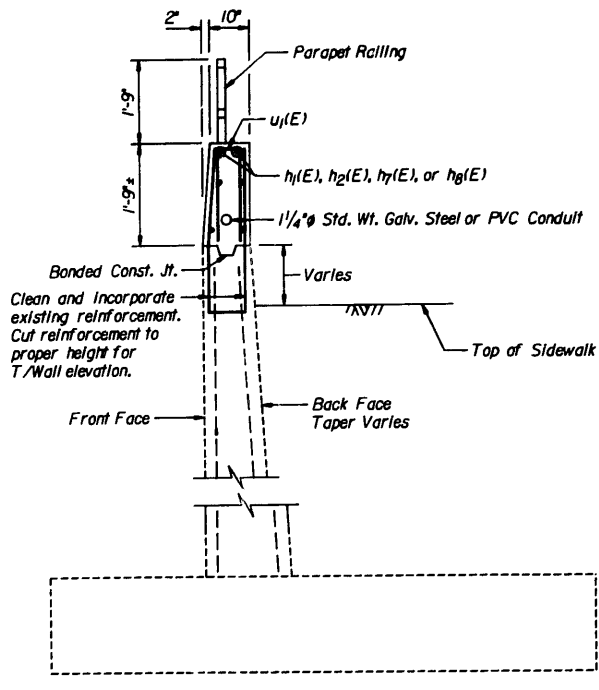


SECTION K-K

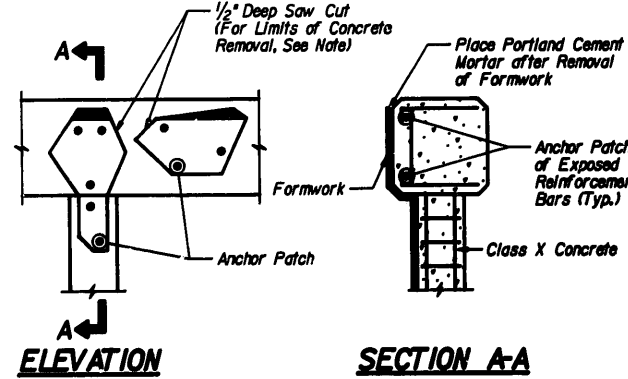


METAL COVER DETAIL

Cover is to be fabricated from 0.0635" thick (16 Gage) galvanized sheet metal.

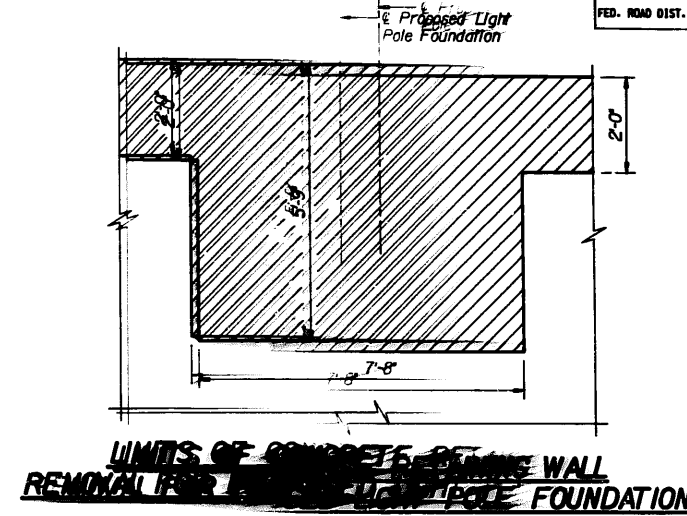


TYPICAL CROSS SECTION

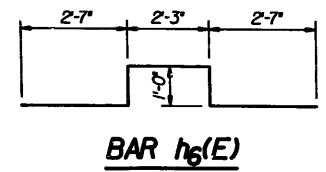


FORMED CONCRETE REPAIR (DEPTH EQUAL TO OR LESS THAN 5')

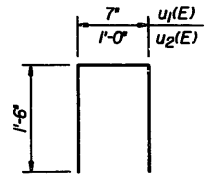
Notes: Quantities listed on Elevations and in Bill of Material for Formed Concrete Repairs were derived from field notes and are given as a base for unit pricing. Exact quantities will be determined in the field and approved by the Engineer.



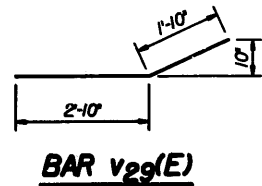
LIMITS OF CONCRETE RETAINING WALL REMOVAL FOR LIGHT POLE FOUNDATION



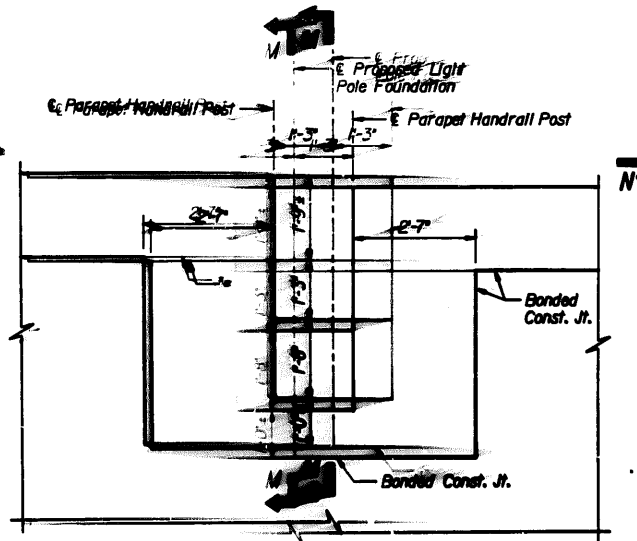
BAR h3(E)



BARS u1(E), u2(E)



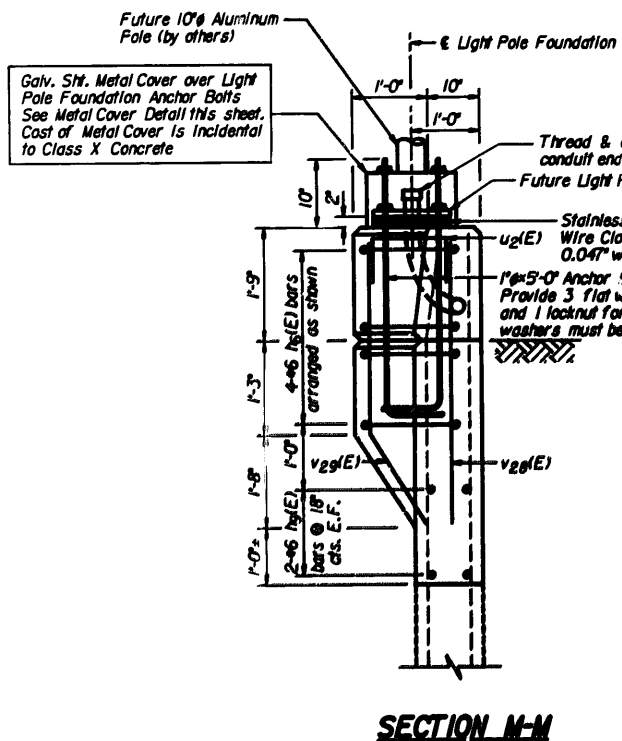
BAR v2g(E)



The appearance of a continuous construction joint should be provided.

BILL OF MATERIAL

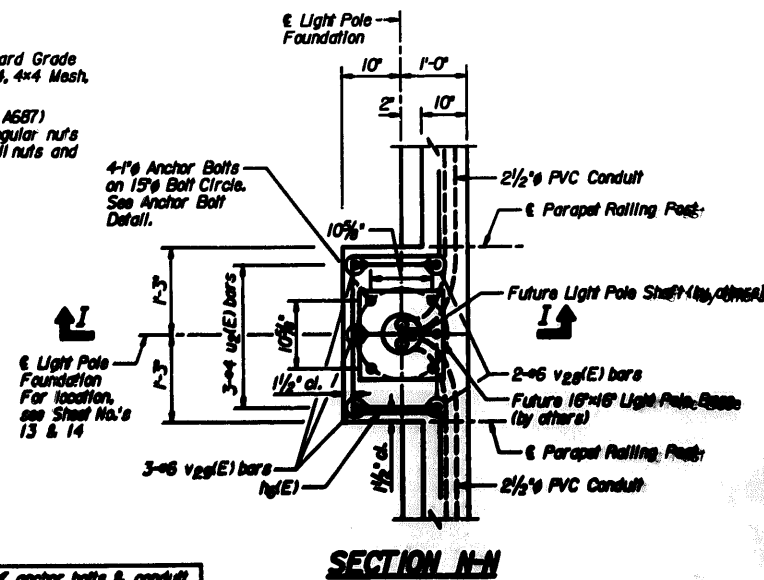
Bar	No.	Size	Length	Shape
h1(E)	78	#4	29'-9"	—
h2(E)	78	#4	31'-8"	—
h3(E)	12	#6	9'-5"	—
h4(E)	18	#4	2'-3"	—
h5(E)	18	#4	21'-11"	—
h6(E)	12	#6	7'-5"	—
u1(E)	603	#4	3'-7"	□
u2(E)	9	#4	4'-0"	□
v2g(E)	6	#6	4'-6"	—
v2g(E)	9	#6	4'-8"	—
Item			Unit	Quantity
Protective Coat			Sq.Yd.	246.0
Class X Concrete			Cu.Yd.	55.2
Formed Concrete Repair (Depth Equal to or Less than 5')			Sq.Ft.	25.5
Handrail Removal			Lin.Ft.	858
Reinforcement Bars (Epoxy Coated)			Pound	5,370
Concrete Retaining Wall Removal			Cu.Yd.	66.8
Parapet Railing			Lin.Ft.	858



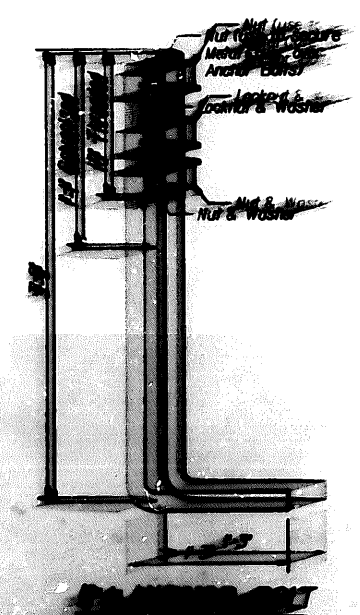
SECTION M-M

Cost of anchor bolts & conduit is incidental to Class X Concrete.

LIGHT POLE FOUNDATION



SECTION N-N



EXISTING RETAINING WALLS MODIFICATIONS DETAILS

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

Bascor, Inc.
consulting engineers and planners

DESIGNED	RRB
CHECKED	GSP
DRAWN	FCS
CHECKED	GSP

DATE 5-13-1993
rev. 7-26-1993

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 16 SHEETS 17
FAU 2714	1010.2R	COOK	89	82	
FEB. ROAD DIST. NO. 7 ILLINOIS PROJECT					

TROW MIRZA CONSULTING ENGINEERS
BORING LOG
JOB NO. TM167 CLIENT BASCOR, INC. BORING NO. 1
PROJECT 25th Avenue over IHB RR DATE Feb. 5, 1992
LOCATION Melrose Park, Illinois STATION 45+31
BORING RIG & METHOD CME-550(ATV) w/Hollow Stem Augers OFFSET 51' Rt
GROUND WATER OBSERVATIONS CORE SIZE IN. DRILLER Groff
16.0 FT. ELEV. 619.4 DURING DRILLING CASING LENGTH FT. INSPECTOR Chang
5.5 FT. ELEV. 629.9 AFTER 24 HRS. CASING DIAMETER IN. SURF. ELEV. 635.4

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION AND REMARKS	N	Q (in)	WATER CONTENT %
	0.0-1.0		2 1/2" Bituminous Concrete	Auger		14
		633.1	FILL: Dark Br Clay Loam A-6; brick fragments & cinders noted	5		20
	1.5-2.5			11-11 (4.0)		17
				9		
5	4.0-5.0		Probable FILL: Stiff to Very Stiff Gr-Br Clay Loam A-6, Sand seam noted @ 9.0'	10-10	1.5	25
				5-4-4	1.4	24
	6.5-7.5			10		
10	9.0-10.0	625.9		10-8	3.5	13
				5-8-8	4.0	18
15	11.5-12.5		Very Stiff to Hard Gr Clay A-6	9-5-9	2.7	18
	14.0-15.0			8		
	16.5-17.5			11-14	5.0	18
	19.0-20.0			5-7-11	3.5	20
20	21.5-22.5			7-8-11	3.7	19
		611.4		10		
25	24.0-25.0			28-40		16
				22		
	26.5-27.5		Very Dense Gr Silty Loam A-4, Cobble noted @ 29.25', Sand Gravel content increasing w/depth	22-25		17
	29.0-30.0			33		
				45-50		17
30	31.5-32.5			13		
				17-21		11
	34.0-35.0	600.4		20		
				36-15		11
35	36.5-37.5	597.9	Very Hard Gr Clay Loam A-6	9		
				14-13	9.5	15
40			*Pieces insufficient length for test			

() = Estimate

TROW MIRZA CONSULTING ENGINEERS
BORING LOG
JOB NO. TM167 CLIENT BASCOR, INC. BORING NO. 2
PROJECT 25th Avenue over IHB RR DATE Feb. 6, 1992
LOCATION Melrose Park, Illinois STATION 46+05
BORING RIG & METHOD CME-550(ATV) w/Hollow Stem Augers OFFSET 20' Rt
GROUND WATER OBSERVATIONS CORE SIZE IN. DRILLER Groff
37.0 FT. ELEV. 607.7 DURING DRILLING CASING LENGTH FT. INSPECTOR Chang
37.0 FT. ELEV. 607.7 AFTER 24 HRS. CASING DIAMETER IN. SURF. ELEV. 644.7

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION AND REMARKS	N	Q (in)	WATER CONTENT %
	0.0-1.0		10" P. C. Concrete	Auger		
				16		
	1.5-2.5			10-23		6
				15		
5	4.0-5.0			22-21		6
				11		
	6.5-7.5		FILL: Intermixed Dark Br Clay Loam and Gr Sand A-1-b	14-16		8
				25		
10	9.0-10.0			32-31		7
				21		
	11.5-12.5	631.7		19-12		17
15	14.0-15.0		Stiff Gr & Br Clay Loam A-6, Organic inclusions noted	3-4-6 (1.5)		24
				3-4-4 (1.0)		27
	16.5-17.5	625.7	Gravel noted @ 16'			
20	19.0-20.0			3-6-7	4.7	17
				5-7-10	2.7	18
	21.5-22.5		Hard to Very Stiff Gr Clay A-6, Sand seam noted @ 21'. Shale fragment noted @ 24.7'			
25	24.0-25.0	618.7		3-5-7	2.3	16
				7-9-10	7.1	17
30	26.5-27.5		Hard to Very Stiff Gr Clay A-6			
				4-5-7	2.3	21
	29.0-30.0	613.2		4		
				16-27	3.0	11
35	31.5-32.5		Dense to Medium Dense Gr Silty Loam A-4	23		
				24-27		14
	34.0-35.0	606.7	Sand layer noted @ 36.4 37.5'	14		
				14-16		13
40	36.5-37.5	604.2	Hard Gr Loam A-4	16		
				17-19 (4.5+)		11
	41.5-42.5	601.7	Dense Gr Silty Loam A-4	16		
				28-29		13
	44.0-45.0			9		
45			Hard to Very Hard Gr Loam A-4	11-17	6.8	14
				10		
	46.5-47.5	596.7		12-14	8.7	13
				15		
50	49.0-50.0		Rock fragment noted @ 48.9' Hard Gr Clay Loam A-6	20-22 (4.0P)		15

() = Estimate

TROW MIRZA CONSULTING ENGINEERS
BORING LOG
JOB NO. TM167 CLIENT BASCOR, INC. BORING NO. 2 (cont.)
PROJECT 25th Avenue over IHB RR DATE Feb. 6, 1992
LOCATION Melrose Park, Illinois STATION 46+05
BORING RIG & METHOD CME-550(ATV) w/Hollow Stem Augers OFFSET 20' Rt
GROUND WATER OBSERVATIONS CORE SIZE IN. DRILLER Groff
37.0 FT. ELEV. 607.7 DURING DRILLING CASING LENGTH FT. INSPECTOR Chang
37.0 FT. ELEV. 607.7 AFTER 24 HRS. CASING DIAMETER IN. SURF. ELEV. 644.7

DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION AND REMARKS	N	Q (in)	WATER CONTENT %
		593.7	Hard Gr Clay Loam A-6			
				13		
	51.5-52.5		Hard Gr Silty Loam A-4, Sand & Gravel	23-24 (4.5+)		16
				13		
55	54.0-55.0	589.7	Seams noted	20-28 (4.5+)		9
			*Pieces insufficient length for test			

() = Estimate

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 5-13-1993

BORING LOGS

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO. FAU 2714	SECTION 1010.2R	COUNTY COOK	TOTAL SHEETS 89	SHEET NO. 83	SHEET NO. 17
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		SHEETS 17	

TROW MIRZA CONSULTING ENGINEERS		BORING LOG		BASCOR, INC.		BORING NO. 3	
JOB NO. TM167		CLIENT		DATE		Feb. 6, 1992	
PROJECT		25th Avenue over IHB RR		STATION		46+79	
LOCATION		Melrose Park, Illinois		OFFSET		41' Rt	
BORING RIG & METHOD		CME-550(ATV) w/Hollow Stem Augers		DRILLER		Groff	
GROUND WATER OBSERVATIONS		CORE SIZE		IN. DRILLER		Groff	
16 FT. ELEV. 618.2 DURING DRILLING		CASING LENGTH		FT. INSPECTOR		Chang	
15.5 FT. ELEV. 618.7 AFTER 1/4 HRS.		CASING DIAMETER		IN. SURF. ELEV.		634.2	
DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION AND REMARKS	N	WATER CONTENT %		
	0.0-1.0	632.2	2" Bituminous Concrete FILL: Dark Gr Clay Loam A-6; Bricks, Cinders & trace organic matter noted	Auger	15		
	1.5-2.5	629.7	Probable FILL: Br-Gr Clay Loam A-6	4-5-6	2.1	27	
	4.0-5.0			3-3-5	4.1	27	
	6.5-7.5		Hard to Very Stiff Br to Gr Clay A-6; Silt seams noted	12-13	5.0	25	
	9.0-10.0			6-9-8	2.7	18	
	11.5-12.5	621.2		5-7-9	2.6	19	
	14.0-15.0		Hard to Very Stiff Gr Clay A-6	5-8-10	6.4	16	
	16.5-17.5			7-9-11	4.7	18	
	19.0-20.0	612.7		4-8-9	3.3	19	
	21.5-22.5		Very Dense to Dense Gr Silty Loam A-4	10	3.9	19	
	24.0-25.0	608.2	Rock fragment noted @ 27'	31-32	13	14	
	26.5-27.5			24-22	16	16	
	29.0-30.0		Hard to Very Hard Gr Loam A-4(6); numerous Silt seams noted	38-42 (4.5+)	12	11	
	31.5-32.5			24-35 (4.5+)	12	11	
	34.0-35.0		Gravel content increasing w/depth	12-18	10.1	13	
	36.5-37.5			14-18 (4.5+)	13	13	
	39.0-40.0	594.2		15-23	8.5	11	
*Pieces insufficient length for test							

TROW MIRZA CONSULTING ENGINEERS		BORING LOG		BASCOR, INC.		BORING NO. 4	
JOB NO. TM167		CLIENT		DATE		Feb. 7, 1992	
PROJECT		25th Avenue over IHB RR		STATION		47+72	
LOCATION		Melrose Park, Illinois		OFFSET		43' Rt	
BORING RIG & METHOD		CME-550(ATV) w/Hollow Stem Augers		DRILLER		Groff	
GROUND WATER OBSERVATIONS		CORE SIZE		IN. DRILLER		Groff	
18 FT. ELEV. 616.2 DURING DRILLING		CASING LENGTH		FT. INSPECTOR		Chang	
19 FT. ELEV. 615.2 AFTER 1/4 HRS.		CASING DIAMETER		IN. SURF. ELEV.		634.2	
DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION AND REMARKS	N	WATER CONTENT %		
	0.0-1.0	632.0	2" Bituminous Concrete FILL: Black Organic Silty Clay A-7-6; bricks and cinders noted	Auger	17	34	
	1.5-2.5			4-5-8 (2.5)	2.3	23	
	4.0-5.0		Stiff to Very Stiff Gr-Br Clay A-6	3-4-4	1.4	28	
	6.5-7.5	626.9	Sand and Gravel seam noted @ 6.8'	4-4-5 (2.5)	3.9	39	
	9.0-10.0		Hard to Very Stiff Gr-Br to Gr Clay A-6; Silt seams noted	13-14	5.4	19	
	11.5-12.5			6-7-8	2.7	18	
	14.0-15.0	620.1	Medium Dense Gr Sandy Loam A-4	5-8-8	3.3	19	
	16.5-17.5	617.2	Very Stiff Gr Clay A-6	8-8-9 (2.5)	16	21	
	19.0-20.0	613.2	Medium Dense Gr Sandy Loam A-2-4	17-7-9	13	13	
	21.5-22.5	611.2	Hard Gr Clay A-6	5-9-10	7.0	17	
	24.0-25.0		Dense to Medium Dense Gr Silty Loam A-4	17-22	14	14	
	26.5-27.5	606.2	Sand seam noted @ 27.2'	11-13	9	23	
	29.0-30.0			22-22 (4.5+)	11	11	
	31.5-32.5		Hard to Very Hard Gr Loam A-4; numerous Silt seams noted	50-57 (4.5+)	10	10	
	34.0-35.0			18-18	9.5	12	
	36.5-37.5			21-27	8.8	14	
	39.0-40.0	593.7		12	12	12	
	41.5-42.5		Hard Gr Clay Loam A-6; numerous Silt lenses noted	23-21 (4.5+)	15	15	
	44.0-45.0	589.2	Gravel noted @ 44'	29-30 (4.5+)	11	11	
*Pieces insufficient length for test							

TROW AIRZA CONSULTING ENGINEERS		BORING LOG		BASCOR, INC.		BORING NO. 5	
JOB NO. TM167		CLIENT		DATE		Feb. 5, 1992	
PROJECT		25th Avenue over IHB RR		STATION		49+00	
LOCATION		Melrose Park, Illinois		OFFSET		43' Rt	
BORING RIG & METHOD		CME-550(ATV) w/Hollow Stem Augers		DRILLER		Groff	
GROUND WATER OBSERVATIONS		CORE SIZE		IN. DRILLER		Groff	
18.0 FT. ELEV. 617.6 DURING DRILLING		CASING LENGTH		FT. INSPECTOR		Chang	
16.3 FT. ELEV. 619.3 AFTER 24 HRS.		CASING DIAMETER		IN. SURF. ELEV.		635.6	
DEPTH	SAMPLE FROM - TO	ELEV.	SOIL DESCRIPTION AND REMARKS	N	WATER CONTENT %		
	0.0-1.0	634.6	FILL: Br Sand A-1-a	Auger	12	12	
	1.5-2.5	632.6	Very Stiff Br & Gr Clay A-6; trace Organic matter noted	10-7-9	2.7	25	
	4.0-5.0		Very Stiff to Hard Br to Gr Clay A-6	6-6-5	2.9	20	
	6.5-7.5			6-7-8	3.8	21	
	9.0-10.0	624.6		5-9-13	6.0	17	
	11.5-12.5		Very Stiff Gr Clay A-6	6-7-11	3.5	19	
	14.0-15.0	619.6		4-5-7	2.3	19	
	16.5-17.5	616.1	Medium Dense to Loose Gr Sandy Loam A-4	4-7-8	11	11	
	19.0-20.0	612.6	Very Stiff Gr Clay A-6	5-6-3	19	19	
	21.5-22.5	612.6		5-5-9	2.3	16	
	24.0-25.0	610.1	Medium Dense to Dense Gr Silty Loam A-4	15-19	18	18	
	26.5-27.5			9	14-23 (4.5+)	17	
	29.0-30.0		Hard Gr Loam A-4; numerous Silt seams noted	20-18 (4.5+)	12	12	
	31.5-32.5	602.6		10	20-21 (4.5+)	13	
	34.0-35.0		Hard Gr Clay Loam A-6, Gravel noted @ 38.9'	16-13 (4.5+)	14	14	
	36.5-37.5			8	12-12	5.3 16	
	39.0-40.0	595.6		10	14-18 (4.0)	14	
*Pieces insufficient length for test							

Bascor, Inc.
consulting engineers and planners

DESIGNED	JLT
CHECKED	GSP
DRAWN	KSR
CHECKED	GSP

DATE 5-13-1993

BORING LOGS

25TH AVENUE OVER IHB RAILROAD
F.A.U. RTE. 2714 SECTION 1010.2R
COOK COUNTY
STA. 38+76.67
S.N. 016-W507