

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FOR INDEX
 SEE SHEET NO. 3

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 474	72-3HB-2	PEORIA	41	1
FED. ROAD DIV NO. 7		ILLINOIS	PROJECT I-474-7(98)	

P-94-017-00

SCALES
 PLAN 1 INCH = 100 FT.
 PROFILE, HOR. 1 INCH = 100 FT.
 PROFILE, VERT. 1 INCH = 10 FT.
 CROSS-SECTIONS AS SHOWN

F.A.I. ROUTE 474
 SECTION 72-3HB-2
 PROJECT I-474-7(48)91
 PEORIA COUNTY
 C-94-007-71
 R.T.E.



LOCATION OF SECTION INDICATED THUS:

SUBMITTED July 16, 1971
Elio Suau DIST. DESIGN ENGR.
 EXAMINED July 19, 1971
C. J. [unclear] DIST. CONST. ENGR.
 EXAMINED July 7, 1971
H.C. Bankie DIST. MAINT. ENGR.
 EXAMINED 7/16/71
[unclear] DIST. TRAFFIC ENGR.
 Entire section inspected and approved as to policy.
 DATE 7-19-71 *[unclear]* DISTRICT ENGINEER

APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
Carl E. [unclear]
 Engineer of Bridge & Traffic Structures

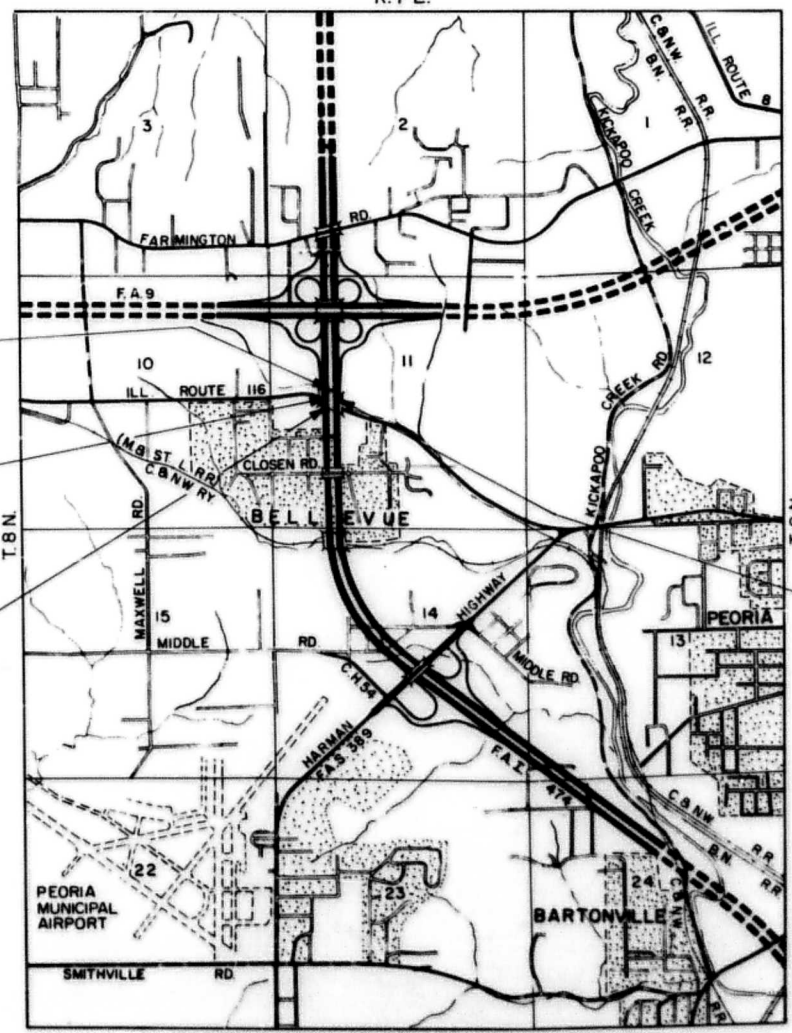
STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 DIVISION OF HIGHWAYS
 SUBMITTED 7-19-71
[unclear]
 EXAMINED 8-3-71
William [unclear]
 PASSED 8-3-71
[unclear]
 APPROVED 8-3-71
[unclear]
 APPROVED 8-3-71
[unclear]

BEGIN PROJECT
 STA. 222 + 92.88 N.B.
 STA. 222 + 61.25 S.B.

F.A.I. ROUTE 474
 SECTION 72-3HB-2
 STA. 223 + 71.15 @ F.A.I. 474
 = STA. 20 + 00.00 @ ILL. RTE. 116

END PROJECT
 STA. 225 + 11.04 N.B.
 STA. 224 + 49.41 S.B.

DESIGN DESIGNATION
 F.A.I. 474 3190 (92) • TRUNK • 10.77 (P.C.C.-20)



SECTION 72-3HB-2 INCLUDES
 TWO (2) PARALLEL 1 SPAN (124'-0")
 CONTINUOUS WELDED STEEL PLATE GIRDER
 STRUCTURES (CARRYING F.A.I. RTE. 474 OVER
 ILL. RTE. 116) ON P.C.C. VAULTED ABUTMENTS.

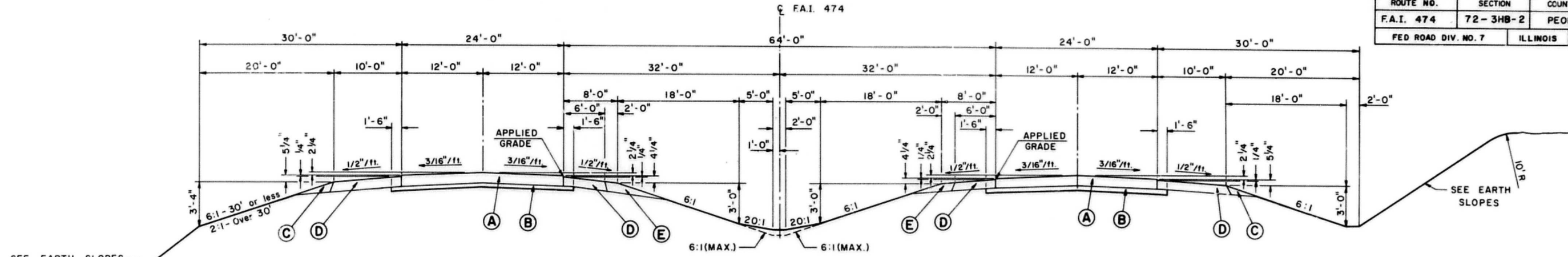
THIS SECTION ALSO INCLUDES THE
 CONSTRUCTION OF THE STRUCTURE
 CONES AND ALL APPURTENANT WORK
 AS SHOWN ON THE PLANS.

LENGTH OF PROPOSED PROJECT
 = 218.16 N.B. FEET = 0.041 N.B. MILES
 188.16 S.B. FEET = 0.036 S.B. MILES

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
APPROVED
 DIVISION ENGINEER DATE

CONTRACT NO. 28718

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 474	72-3HB-2	PEORIA	41	2
FED ROAD DIV. NO. 7		ILLINOIS	PROJECT	

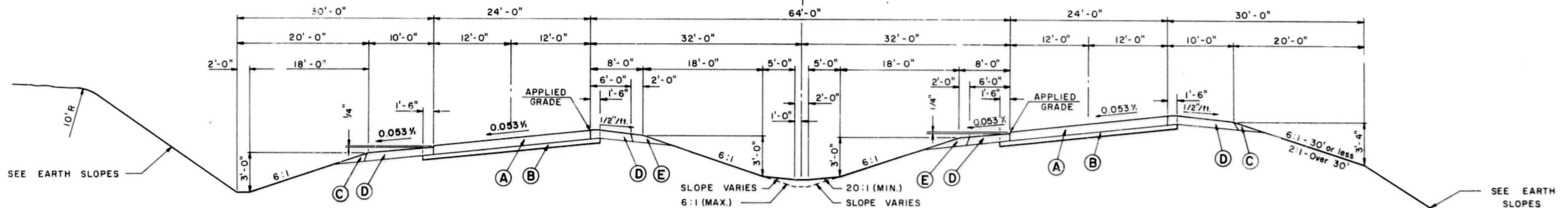


F.A.I. ROUTE 474 TANGENT SECTION - 64' MEDIAN

STA. 173 + 00 TO STA. 248 + 99.73
 STA. 282 + 85.94 TO STA. 348 + 55.79 W.B.
 STA. 350 + 43.13 E.B.

F.A.I. ROUTE 9 TANGENT SECTION - 64' MEDIAN

STA. 112 + 73.76 TO STA. 160 + 90.18
 F.A.I. 474



F.A.I. ROUTE 474 SUPERELEVATED SECTION - 64' MEDIAN

ROTATED AROUND MEDIAN EDGE OF PAVEMENT
 STA. 248 + 98.96 TO STA. 282 + 85.94

PAVEMENT DESIGN
 F.A.I. RTE 474 SECTION 72-3
 STA. 173+00 TO STA. 223 + 71.15

Class I
 Design Year 1982
 P.C. = 16,226 U_p = 32%
 S.U. = 2,562 U_s = 45%
 M.U. = 2,562 U_m = 45%
 C.B.R. = 3.0
 T.F. = 10.77

STA. 223 + 71.15 TO STA. 348 + 55.79 W.B.
 350 + 43.13 E.B.

Class I
 Design Year 1982
 P.C. = 19,456 U_p = 32%
 S.U. = 3,072 U_s = 45%
 M.U. = 3,072 U_m = 45%
 C.B.R. = 3.0
 T.F. = 12.92

PAVEMENT DESIGN
 F.A. RTE. 9 SECTION 12K

Class I
 Design Year 1982
 P.C. = 11,832 U_p = 32%
 S.U. = 1,360 U_s = 45%
 M.U. = 408 U_m = 45%
 C.B.R. = 3.0
 T.F. = 2.10

- * 8" CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT - STA. 173 + 00 TO STA. 223 + 71.15 F.A.I. 474
- * 9" CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT - STA. 112 + 73.76 TO STA. 160 + 90.18 F.A.I. 9
- * 9" CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT - STA. 223 + 71.15 TO STA. 348 + 55.79 W.B. F.A.I. 474
- * 9" CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT - STA. 350 + 43.13 E.B. F.A.I. 474
- (A) 4" STABILIZED SUB-BASE (BAM)
- (B) EARTH
- (C) 8" STABILIZED SHOULDERS (BAM)
- (D) AGGREGATE SHOULDER TYPE A

SEE STANDARD 2237
 FOR SHOULDER DETAILS.

EARTH SLOPES

CUT	FILL
10' OR LESS - 4:1	10' OR LESS - 6:1
10' TO 20' - 3:1	10' TO 30' - 4:1
OVER 20' - 2:1	OVER 30' - 2:1

* SEE STANDARDS 2224 & 2225
 FOR CONSTRUCTION DETAILS.

FOR INFORMATION ONLY

THE NOMINAL THICKNESS FOR SUB-BASE GRANULAR MATERIAL, BASE AND SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESS OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PER CENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

F.A.I. ROUTE 474
 SECTION 72 - 3

TYPICAL CROSS SECTIONS

NOT TO SCALE

FEDERAL-AID ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
F.A.I. 474	72-3HB-2	PEORIA	41	3
FED. ROAD DIV. No. 4 ILLINOIS PROJECT				

SUMMARY OF QUANTITIES

SECTION		72-3HB-2	
LOCATION STATION		BRIDGE	
CONSTRUCTION TYPE CODE		X 2 7 I Y005	
CODE NO.	ITEM	UNIT	TOTAL QUANTITY
201005	TREE REMOVAL, ACRES	ACRES	10.9
202001	EARTH EXCAVATION	CU YD	120,246
202002	ROCK EXCAVATION	CU YD	10,000
X21602	TOP SOIL PLACEMENT	SG YD	13,501
406008	BITUMINOUS CONCRETE SURFACE COURSE, CLASS I	TON	153
501026	EXPANSION BOLTS 3/4 INCH	EACH	4
X50001	STRUCTURE EXCAVATION	CU YD	50
503004	PROTECTIVE COAT	SG YD	318
504003	CLASS X CONCRETE	CU YD	1,140.6
505008	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	LIN FT	588
507030	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
507025	STUD SHEAR CONNECTORS	EACH	2,271
508005	ALUMINUM RAILING	LIN FT	791
511004	PIPE CULVERTS, TYPE I CSCP 24"	LIN FT	238
511044	PIPE CULVERTS, TYPE 7 CSCP 36"	LIN FT	70
511788	METAL END SECTIONS 24"	EACH	1
512001	REINFORCEMENT BARS	POUND	187,005
513005	FURNISHING CREOSOTED PILES 20x1 TO 38 FEET	LIN FT	432
513006	FURNISHING CREOSOTED PILES OVER 38 FEET	LIN FT	405
513013	FURNISHING STEEL PILES 10BP42	LIN FT	4,357
513022	DRIVING TIMBER PILES	LIN FT	837
513026	DRIVING STEEL PILES	LIN FT	4,357
513033	TEST PILE STEEL 10BP42	EACH	5
514001	NAME PLATES	EACH	2
612009	CORRUGATED STEEL PLATE PIPE CULVERTS 108"	LIN FT	465
616225	PAVED DITCH, TYPE A-6	LIN FT	408
616229	PAVED DITCH, TYPE A-12	LIN FT	76
618001	SLOPE WALL 4 INCH	SG YD	1,546
629003	CHAIN LINK FENCE, 6'	LIN FT	1,305
630029	BARBED WIRE FENCE, TWO STRAND	LIN FT	260
639001	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	9
642001	SEEDING, CLASS I	ACRES	4.8
642003	SEEDING, CLASS III	ACRES	2.8
646001	ENGINEER'S FIELD OFFICE, TYPE A	EACH	1
Z10037	BUILDING REMOVAL NO. 1	L SUM	1
Z10178	COAL TAR INTERLAYER PROTECTIVE COAT	SG YD	1,811
Z10294	PREFORMED JOINT SEALER	LIN FT	199
XZ1100	TRAINEES	3,000 **	3,000 **

* CONSTRUCTION TYPE CODE CE58
** CONSTRUCTION TYPE CODE Y080

SEEDING CLASS I AND CLASS III

ITEM	RATE
NITROGEN FERTILIZER NUTRIENT	120#/ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	72#/ACRE
POTASSIUM FERTILIZER NUTRIENT	48#/ACRE
AGRICULTURE GROUND LIMESTONE	2 TON/ACRE
ASPHALT COATED MULCH	2 TON/ACRE
EMULSIFIED ASPHALT	100 GAL/TON MULCH

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	TYPICAL CROSS SECTIONS F.A.I. 474 SECTION 72-3
3	INDEX OF SHEETS, SUMMARY OF QUANTITIES, GENERAL NOTES
4	PLAN AND PROFILE F.A.I. ROUTE 474 STATION 190+00 TO STATION 220+00
5	PLAN AND PROFILE F.A.I. ROUTE 474 STATION 220+00 TO STATION 250+00
6-28	BRIDGE PLANS
29	DETAIL OF EXTENSION COLLAR, DITCH CHECK AND OUTLET 223+30
30-41	CROSS SECTIONS, F.A.I. ROUTE 474 STATION 213+98 TO STATION 229+00

GENERAL NOTES

ALL ELEVATIONS REFER TO U.S.C. & G.S. MEAN SEA LEVEL DATUM.

THE PROFILE GRADE LINE REFERS TO THE GRADE ELEVATION AT THE POINT SHOWN ON THE TYPICAL SECTION AND PLANS.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE STANDARDS WITH THE REVISION NUMBERS LISTED IN THE INDEX OF SHEETS, SHALL APPLY TO THIS SECTION.

TWO SIGNS CONFORMING TO STANDARD 2153 SHALL BE ERECTED AT LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES WITHIN THE LIMITS OF CONSTRUCTION:

CENTRAL ILLINOIS LIGHT COMPANY
300 LIBERTY
PEORIA, ILLINOIS 61602

ILLINOIS BELL TELEPHONE COMPANY
411 HAMILTON BOULEVARD
PEORIA, ILLINOIS 61602

STANDARD 1686-3,
STANDARD 1744-2
STANDARD 2113-1
STANDARD 2138-8
STANDARD 2153-8
STANDARD 2168-5
STANDARD 2228-1
STANDARD 2258-1
STANDARD 2300
STANDARD 2303-3
STANDARD 2298-3
STANDARD 2299-3

SCHEDULE OF CLASS X CONCRETE AND REINFORCEMENT BARS

LOCATION	CLASS X CONCRETE CU. YDS.	REINFORCEMENT BARS LBS.	ITEM
F.A.I. 474 STA. 223+71.15	1,138.2	186,920	BRIDGE
ILLINOIS ROUTE 116 STA. 18+23	0.4	25	CULVERT EXTENSION COLLAR
TOTAL	1,138.6	186,945	

F.A.I. ROUTE 474
SECTION 72-3HB-2
INDEX OF SHEETS
SUMMARY OF QUANTITIES
GENERAL NOTES

STA. 222+10.44 @
1-Inlet Box Std. 2240
(By Others)
54'-24" C.S.C.P. Type 1
(12 Gage) Connected to
Cross 108" C.S.P.P.C.

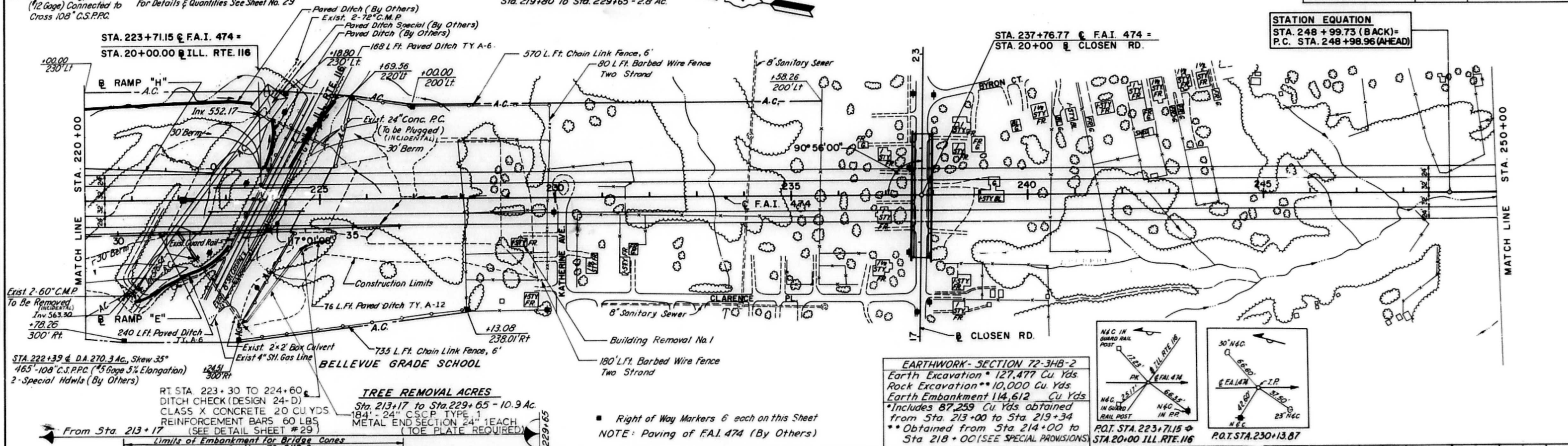
STA. 18+23 @ ILL. RTE. 116 Lt.
70'-36" C.S.C.P. Type 7 (#8 Gage) Connected
To Cross 108" C.S.P.P.C.
1-Culvert Extension Collar
For Details & Quantities See Sheet No. 29

CLASS I SEEDING
Sta. 213+17 To Sta. 229+65 - 4.8 Ac.

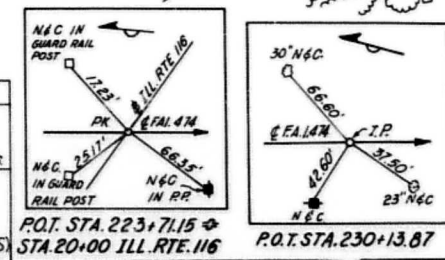
CLASS III SEEDING
Sta. 219+80 To Sta. 229+65 - 2.8 Ac.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 474	72-3HB-2	PEORIA	41	5
STA. 220 + 00		TO STA. 250 + 00		
FED. ROAD DIV. NO. 7		ILLINOIS	PROJECT	

STATION EQUATION
STA. 248 + 99.73 (BACK) =
P.C. STA. 248 + 98.96 (AHEAD)



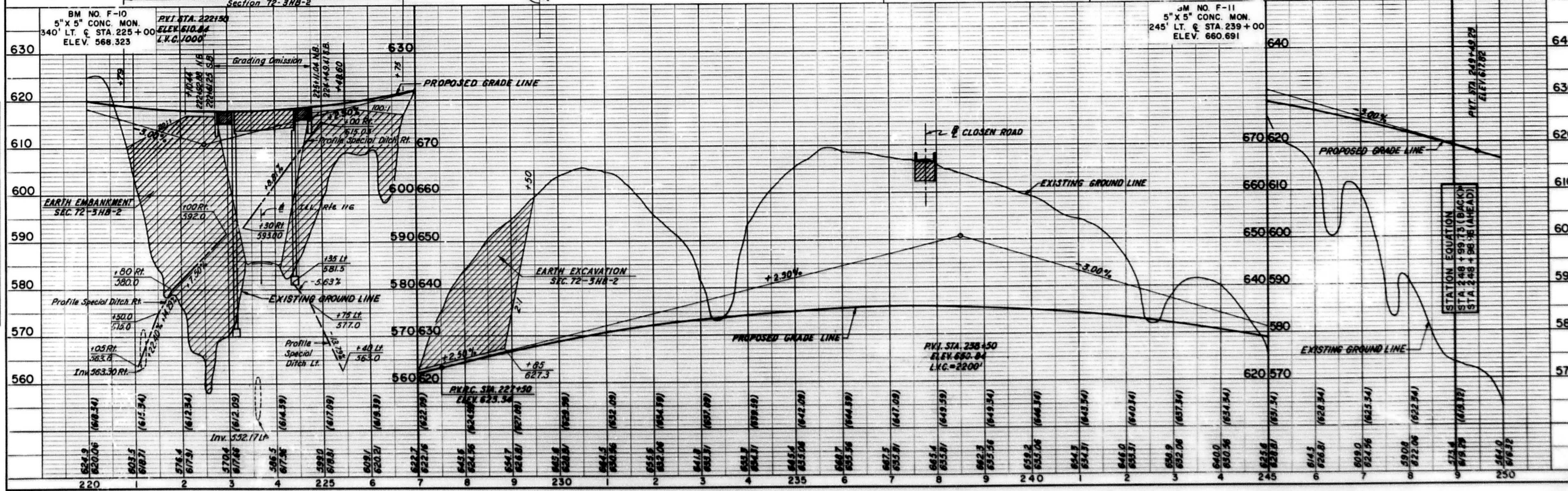
EARTHWORK - SECTION 72-3HB-2
Earth Excavation * 127,477 Cu. Yds
Rock Excavation ** 10,000 Cu. Yds
Earth Embankment 114,612 Cu. Yds
* Includes 87,259 Cu. Yds obtained
from Sta. 213+00 to Sta. 219+34
** Obtained from Sta. 214+00 to
Sta. 218+00 (SEE SPECIAL PROVISIONS)



RT STA. 223+30 TO 224+60
DITCH CHECK (DESIGN 24-D)
CLASS X CONCRETE 20 CU YDS
REINFORCEMENT BARS 60 LBS
(SEE DETAIL SHEET # 29)

TREE REMOVAL ACRES
Sta. 213+17 to Sta. 229+65 - 10.9 Ac.
184'-24" C.S.C.P. TYPE 1
METAL END SECTION 24" 1 EACH
(TOE PLATE REQUIRED)

Right of Way Markers 6 each on this Sheet
NOTE: Paving of F.A.I. 474 (By Others)

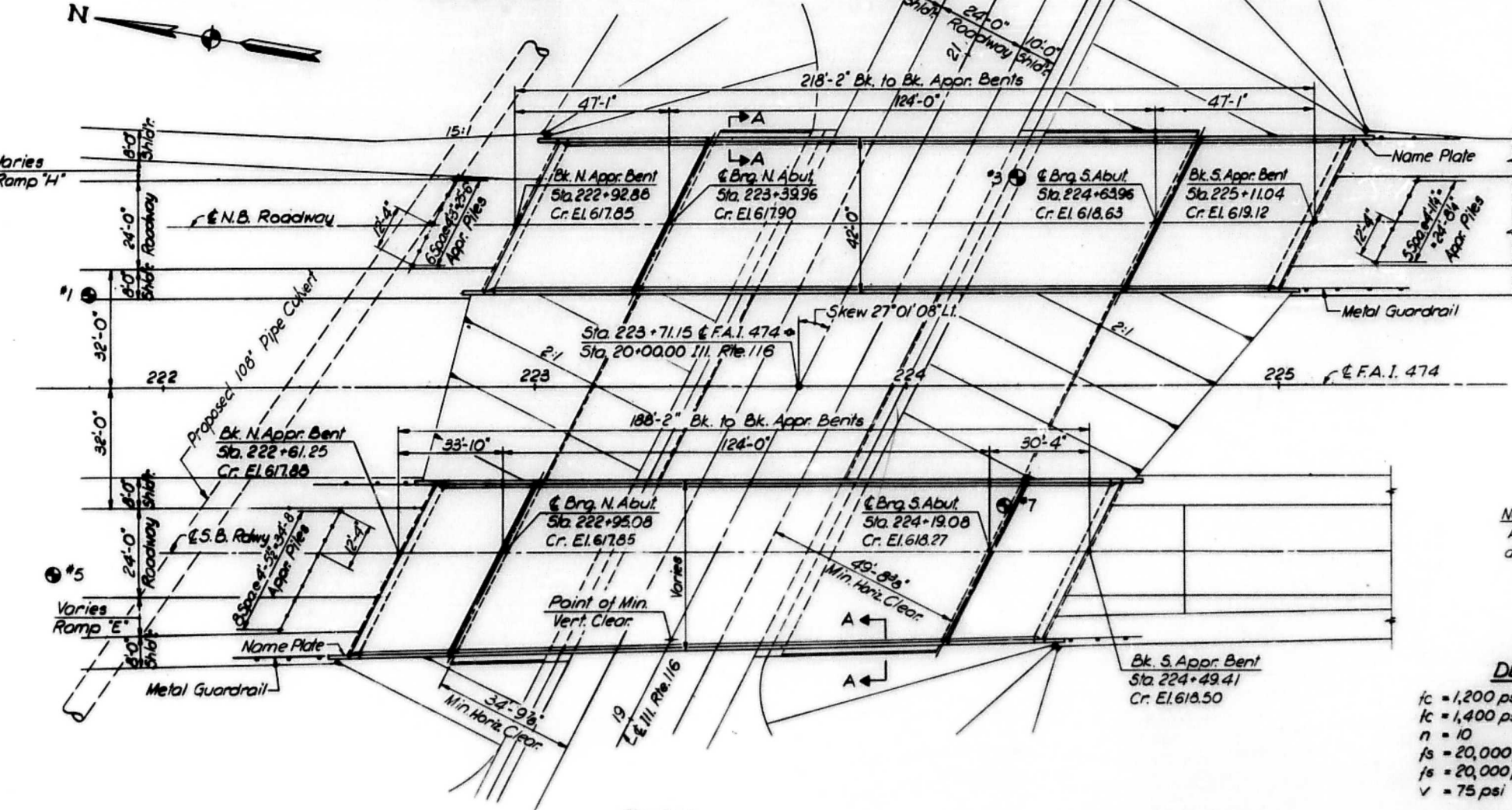
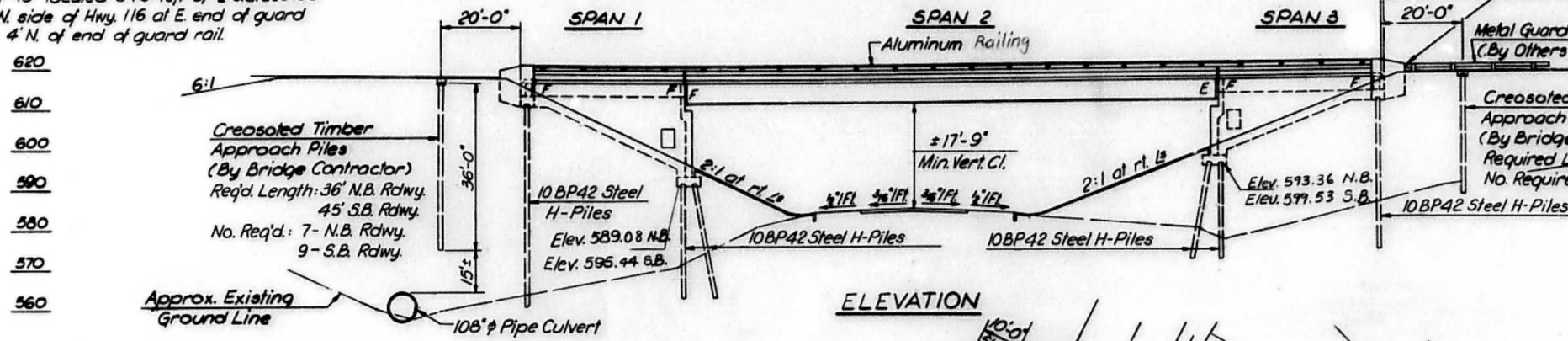


STATION EQUATION
STA. 248 + 99.73 (BACK) =
P.C. STA. 248 + 98.96 (AHEAD)

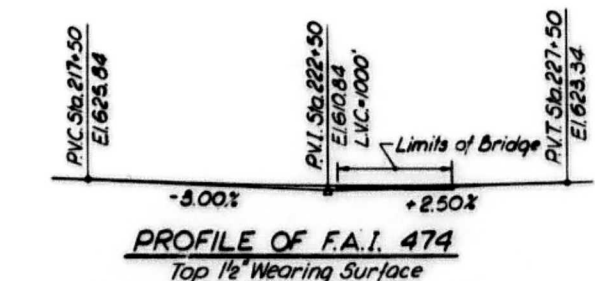
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ALIGNMENT CHECKED
BY: []
DATE: []
NO. []

PLOTTED
GRADES CHECKED
BY: []
DATE: []
NO. []

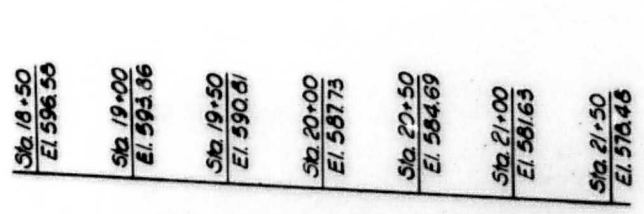
B.M. F-10-EI 568.325; A 5'-5" concrete monument with copperweld disc stamped "F-10" located 340' left of & Sta. 225+00 on N. side of Hwy. 116 at E. end of guard rail 4' N. of end of guard rail.



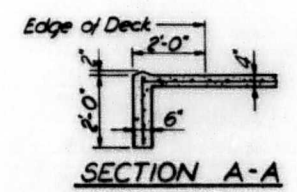
PLAN
Scale: 1"=20'



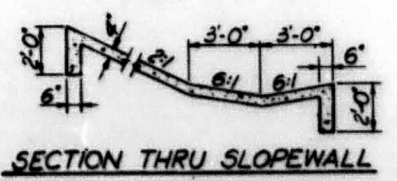
PROFILE OF F.A.I. 474
Top 1/2" Wearing Surface



PROFILE OF ILL. RTE. 116



SECTION A-A



SECTION THRU SLOPEWALL

STATION 223+71.15
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 474 SEC. 72-3HB-2
F.A. PROJ. I-474-7(49)W
LOADING HS20 & ALT.

NAME PLATE
See Std. 2113-1

Note:
All Elevations shown on Plan are
at top of 1/2" Wearing Surface.

DESIGN STRESSES

- $f_c = 1,200$ psi Deck Slab
- $f_c = 1,400$ psi Substructure, Curb & Parapet
- $n = 10$
- $f_s = 20,000$ psi Structural Steel
- $f_s = 20,000$ psi Reinforcement
- $v = 75$ psi Footings

L.L. Deflection: $\frac{L}{1,440}$

Precast Prestressed Concrete I-Beams

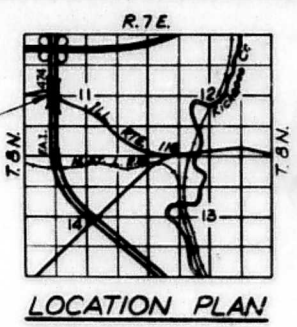
- $f_c = 5,000$ psi
- $f_{ci} = 4,000$ psi
- $f'_s = 248,000$ psi (Strands)
- $f_{si} = 173,600$ psi (Strands)

LOADING

HS20-44 and Alternate
25' Future Wearing Surface

DESIGN SPECIFICATIONS
1969 A.A.S.H.O. as applicable

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-474	72-3HB-2	PEORIA	41	6
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT		



LOCATION PLAN

GENERAL NOTES

- All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
- Fasteners shall be high strength bolts. Bolts 3/4 #; open holes 13/16 #, unless otherwise noted.
- Calculated weight of Structural Steel = 469,050 Lbs.
- The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.
- SLOPEWALL EXCAVATION IN EXISTING GROUND AND EMBANKMENT AREAS SHALL BE INCIDENTAL TO STRUCTURE EXCAVATION
- Anchor bolts shall be set before bolting cross frames over supports.
- Slope wall shall be reinforced with welded wire fabric 6" X 6" mesh, weighting 50# per 100 sq. ft..
- The Contractor shall drive one Steel Test Pile in a permanent location at the N.4 S. Appr. Bents, S. Abut. of the N.B. Roadway, N. Abut. and S. Appr. Bent of the S.E. Roadway as directed by the Engineer before ordering the remainder of piles

An alternate strand pattern using K.cra High Strength Prestressing strand (270 K.S.I.) is permitted.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is applied.

FIELD WELDING OF CONSTRUCTION ACCESSORIES TO THE BOTTOM FLANGES OR FOR A DISTANCE OF 1/4 OF THE SPAN EACH WAY FROM PIER SUPPORTS ON THE TOP FLANGES OF BEAMS OR GIRDERS WILL NOT BE PERMITTED. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

TOTAL BILL OF MATERIAL

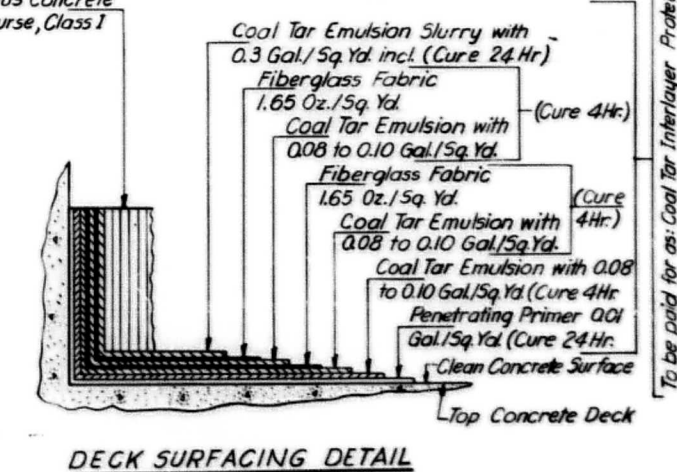
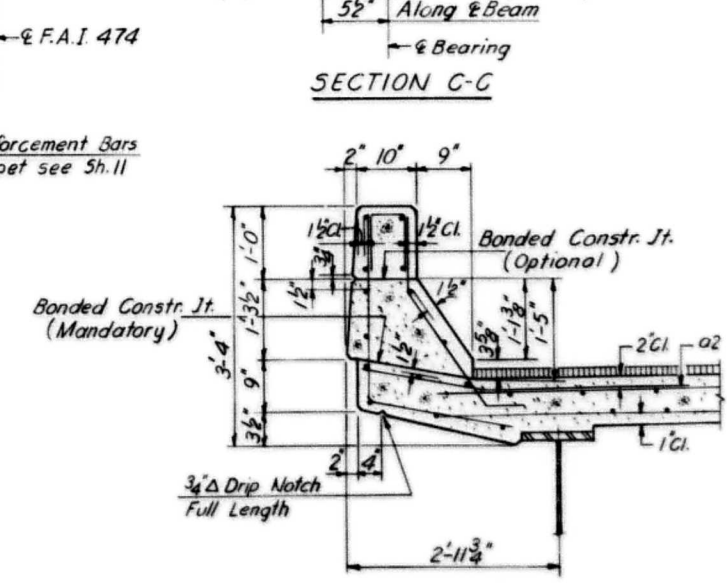
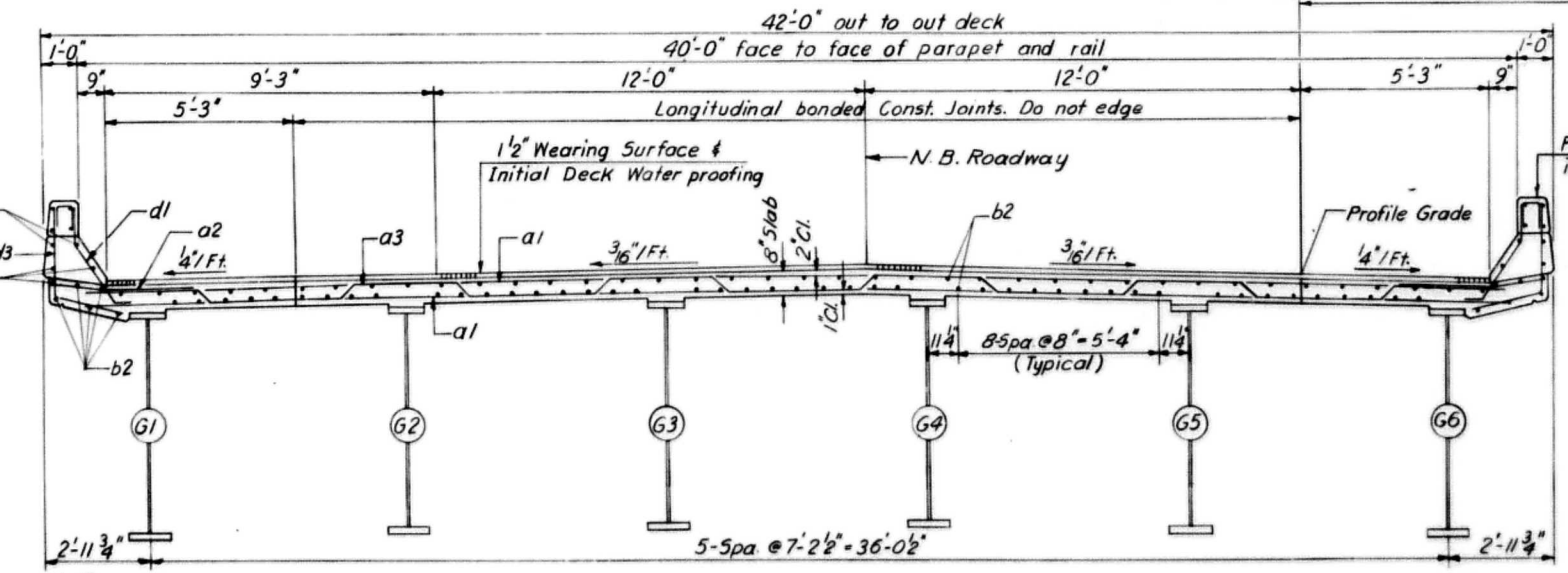
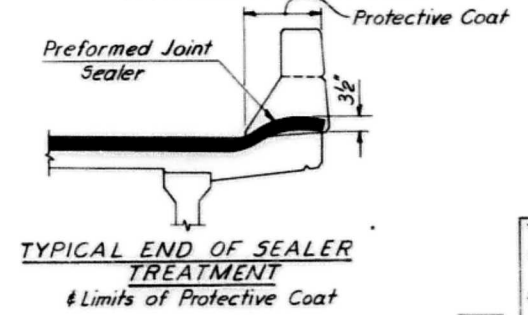
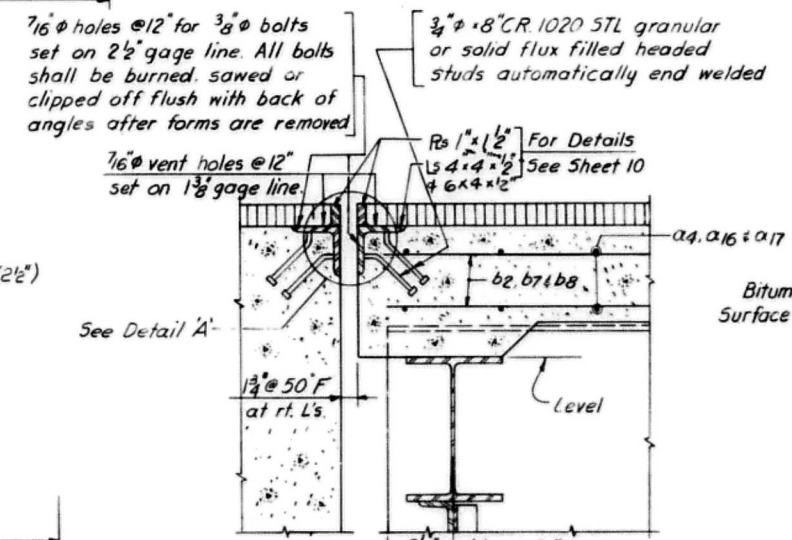
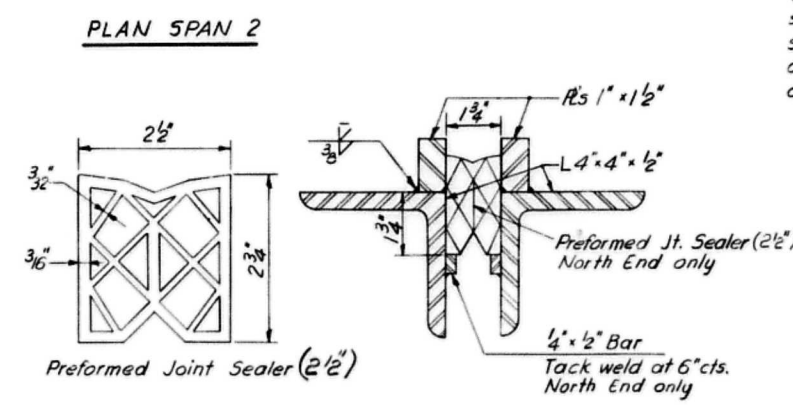
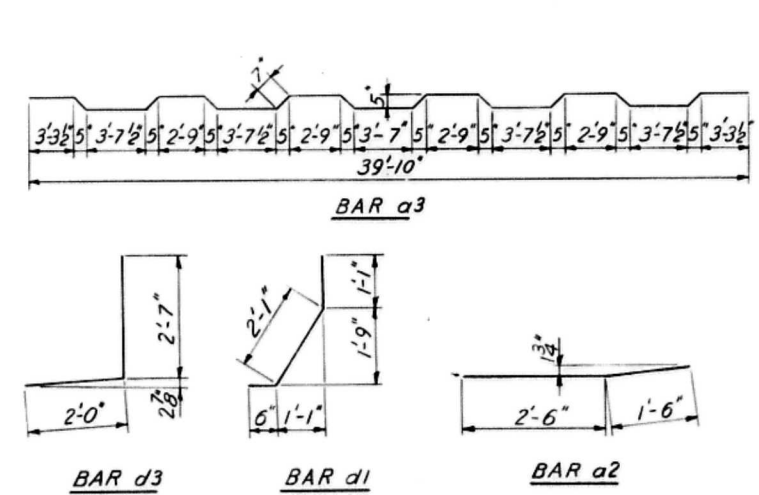
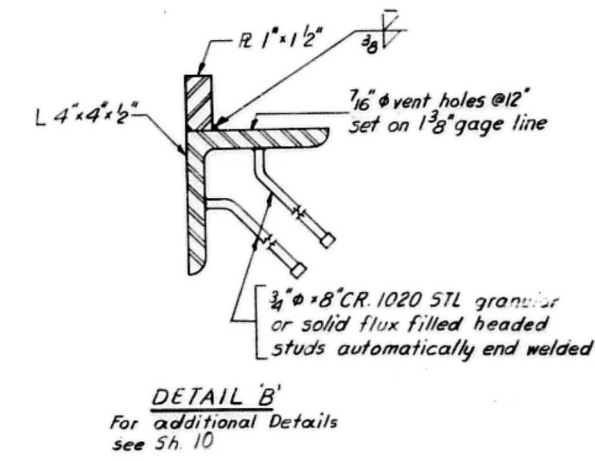
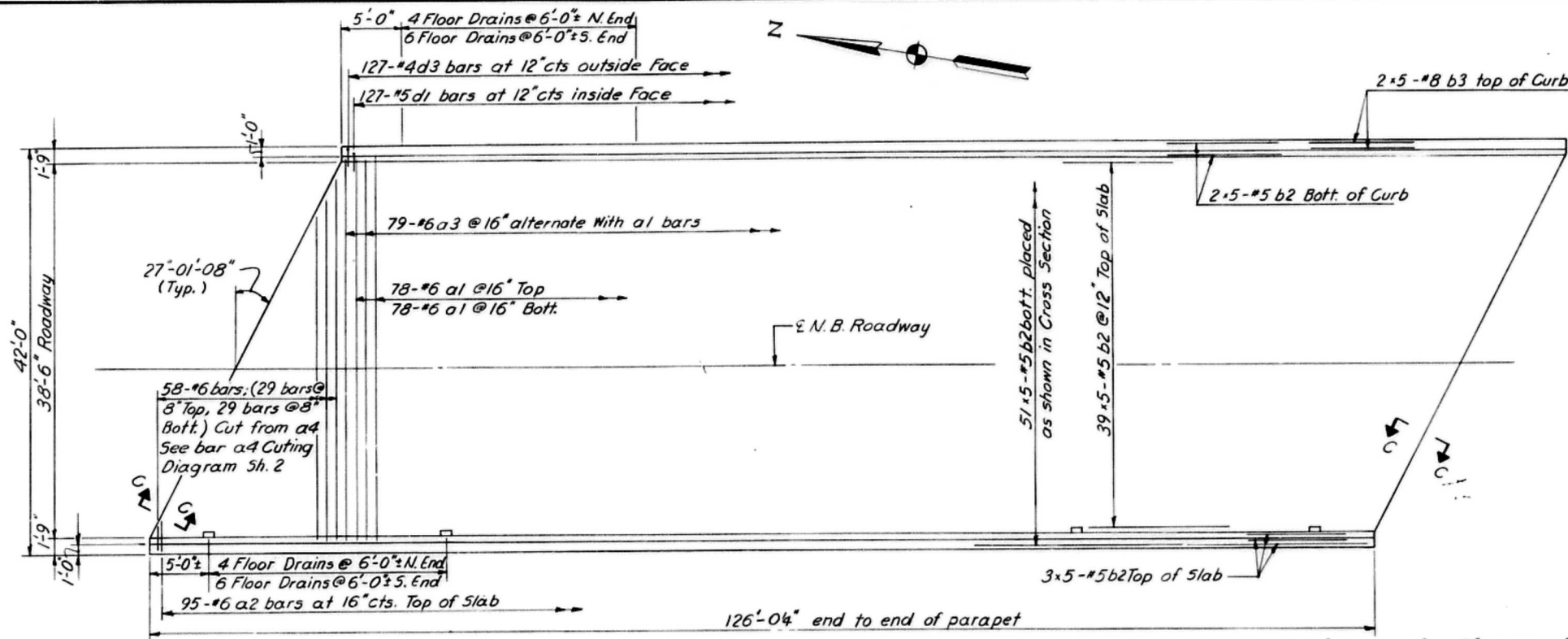
Item	Unit	Superstr.	Substr.	Total
Coal Tar Interlayer Protective Coat	Sq. Yd.	1,811	—	1,811
Preformed Joint Sealer	Lin. Ft.	199	—	199
Bituminous Conc. Surface Course, Class I	Ton	153	—	153
Structure Excavation	Cu. Yd.	—	50	50
Class X Concrete	Cu. Yd.	608.3	529.9	1,138.2
F. & E. PP. Concrete I-36	Lin. Ft.	588	—	588
F. & E. Structural Steel	Lump Sum	1	—	1
Stud Shear Connectors 3/4"	Each	2,271	—	2,271
Aluminum Railing	Lin. Ft.	791	—	791
Reinforcement Bars	Lb.	135,620	51,300	186,920
Creosoted Piles 20' to 38 Ft.	Lin. Ft.	—	432	432
Creosoted Piles over 38 Ft.	Lin. Ft.	—	405	405
Steel Piles 10BP42	Lin. Ft.	—	4,357	4,357
Test Pile Steel 10BP42	Each	—	5	5
Name Plate	Each	—	2	2
Slope Wall 4"	Sq. Yd.	—	1,546	1,546
Protective Coat	Sq. Yd.	290	28	318

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
GENERAL PLAN
F.A.I. ROUTE 474
OVER
ILLINOIS ROUTE 116
STA. 223+71.15
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-474	72-3HB-2	PEORIA	41	8
FED. ROAD DIV. NO. 7	ILLINOIS PROJECT			

BILL OF MATERIAL

Bar No.	Size	Length	Shape
a1	156 #6	39'-5"	
a2	190 #6	4'-0"	
a3	79 #6	41'-6"	
a4	58 #6	38'-8"	
b2	500 #5	26'-3"	
b3	20 #8	26'-10"	
d1	254 #5	3'-8"	
d3	254 #4	4'-7"	
Pref Joint Sealer	Lin. Ft.	96	
Protective Coat	Sq. Yd.	92	
Reinforcement Bars	Lb.	35540	
Class X Concrete	Cu. Yd.	156.0	
Coal Tar Interlayer Prot Coat	Sq. Yd.	543	
Structural Steel	Lb.	226760	
Stud Shear Connectors	Ea.	1134	
Bit. Concr. Surface Course Class I	Ton	46.0	



DESIGNED BY A.T.
 DRAWN BY J.V.
 CHECKED BY A.T.

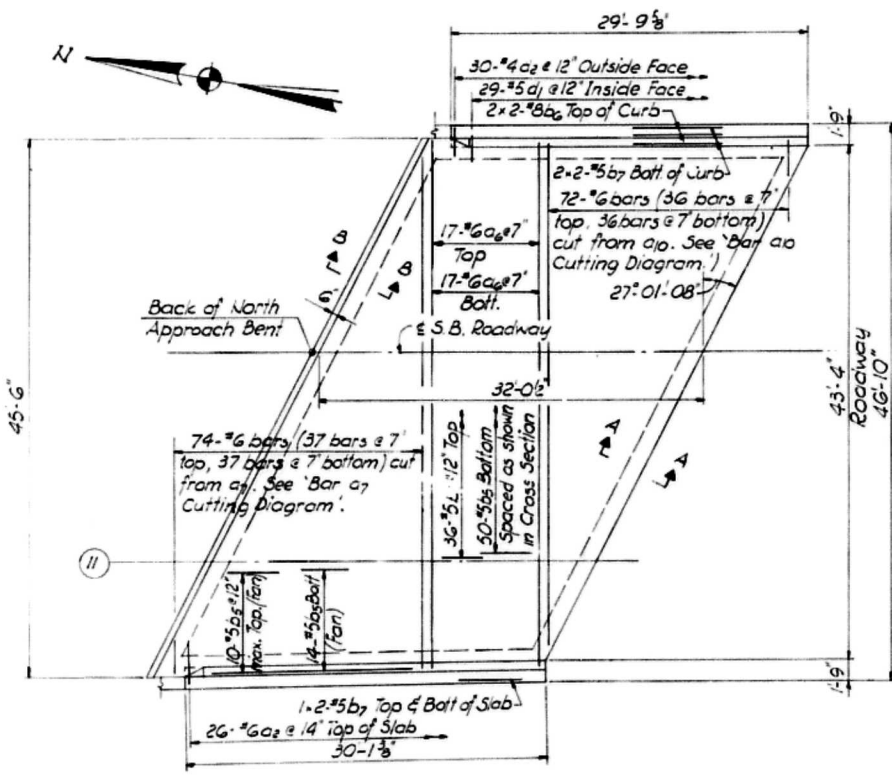
CROSS SECTION
Looking South

CURB SECTION

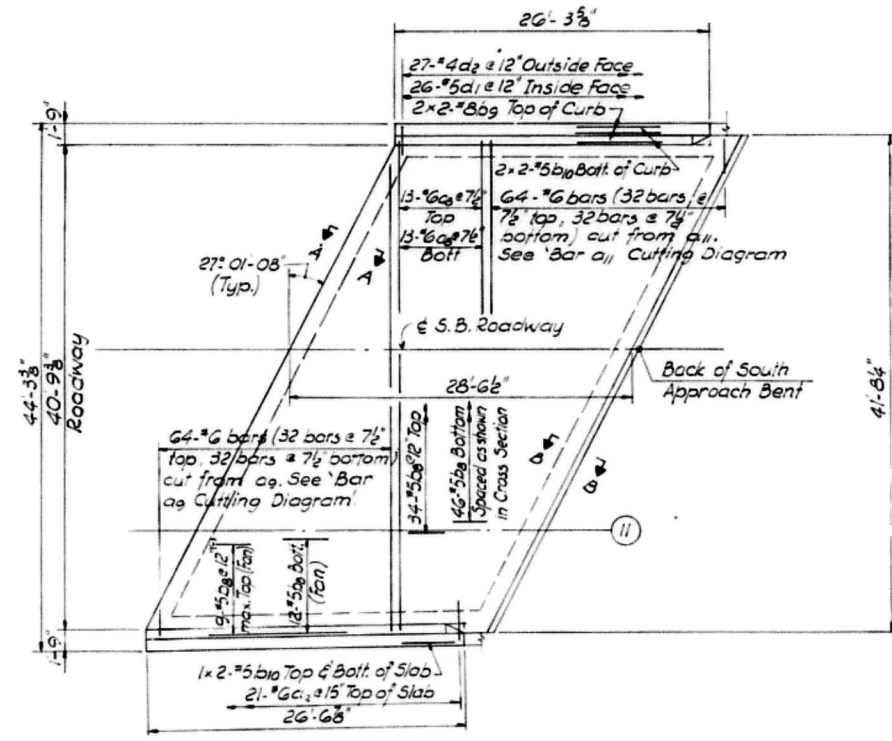
STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 SUPERSTRUCTURE SPAN 2
 NORTHBOUND ROADWAY
 F.A.I. ROUTE 474 OVER
 ILLINOIS ROUTE 116
 STA. 223 + 71.15
 F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

SHEET
3 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 474	72-3HB-2	PEORIA	41	9
FED. ROAD DIV. NO. 7		ILLINOIS PROJECT		



PLAN SPAN 1 -



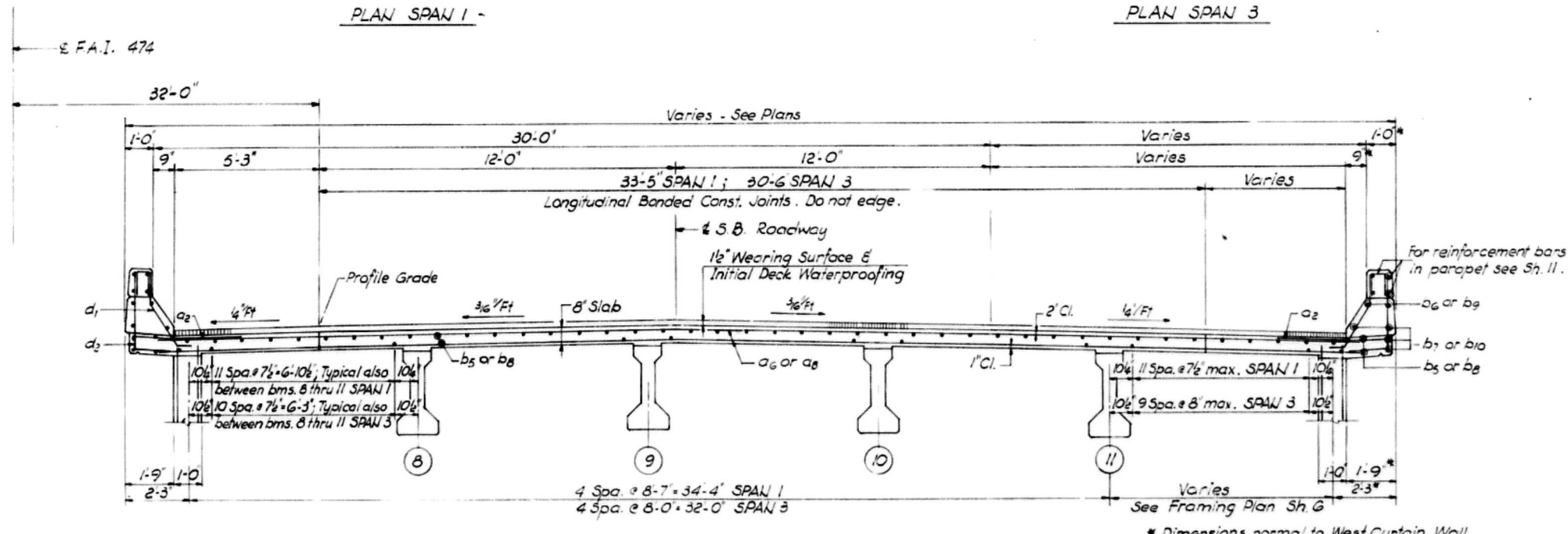
PLAN SPAN 3

BILL OF MATERIAL, SPAN 1

Bar	Number	Size	Length	Shape
a2	52	#6	4'-0"	
a6	34	#6	44'-6"	
a7	37	#6	46'-10"	
a10	36	#6	46'-0"	
b5	110	#5	31'-9"	
b6	8	#8	15'-11"	
b7	16	#5	15'-7"	
d1	58	#5	3'-8"	L
d2	60	#4	4'-0"	L
m4	6	#5	24'-2"	
m5	10	#4	7'-3"	
m6	10	#4	6'-10"	
m7	18	#4	8'-8"	
m9	10	#5	7'-6"	
m11	6	#5	26'-9"	
m12	2	#4	8'-0"	
s	35	#4	7'-9"	U
s1	35	#4	8'-11"	U
s2	30	#4	7'-0"	U
Class 'X' Concrete			Cu Yds	63.0
Reinforcement Bars			Lbs	13,440
Coal Tar Interlayer Prot. Coat			Sq Yds	156
Bituminous Concrete Surface Course Class 1			Tons	13
Protective Coat			Sq Yds	23

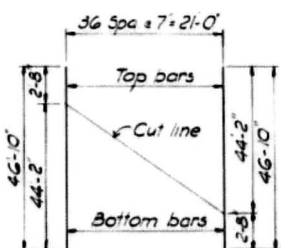
BILL OF MATERIAL, SPAN 3

Bar	Number	Size	Length	Shape
a2	42	#6	4'-0"	
a8	26	#6	41'-1"	
a9	32	#6	42'-7"	
a11	32	#6	44'-1"	
b8	101	#5	28'-3"	
b9	8	#8	14'-2"	
b10	16	#5	13'-10"	
d1	52	#5	3'-8"	L
d2	54	#4	4'-0"	L
m2	6	#5	24'-2"	
m8	18	#4	8'-1"	
m10	9	#5	7'-0"	
m11	6	#5	26'-9"	
m1	2	#4	6'-7"	
m2	1	#5	6'-5"	
s	30	#4	7'-9"	U
s1	30	#4	8'-11"	U
Class 'X' Concrete			Cu Yds	51.9
Reinforcement Bars			Lbs	10,680
Coal Tar Interlayer Prot. Coat			Sq Yds	129
Bituminous Concrete Surface Course Class 1			Tons	11
Protective Coat			Sq Yds	21

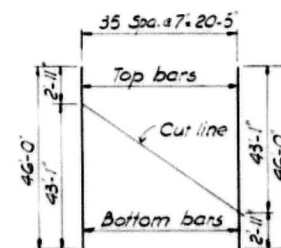


DECK CROSS SECTION Looking South

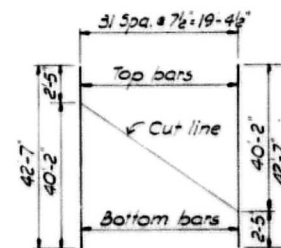
Notes:
For Section A-A, Section B-B, Curb Section and details of bars d1, d2 and a2 see Sh. 2.
For details of expansion guards see Section C-C Sh. 3.
For placement and details of bars m1 thru m12 and s thru s2 see Sh. 6.
For Deck Surfacing Detail see Sh. 3.



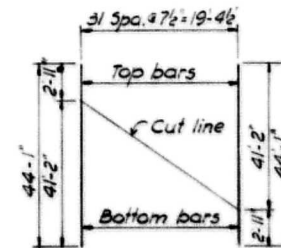
BAR a7 Cutting Diagram



BAR a10 Cutting Diagram



BAR a9 Cutting Diagram



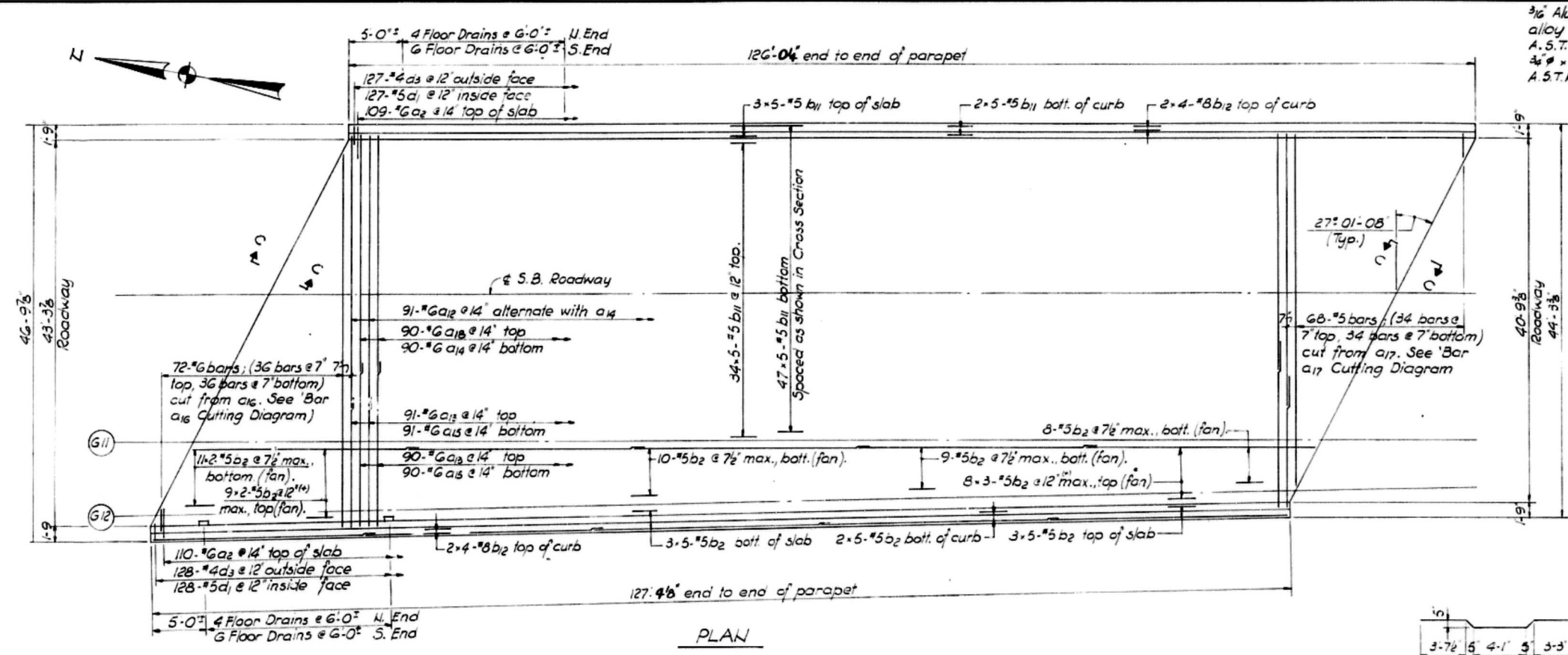
BAR a11 Cutting Diagram

DESIGNED BY A.T.
DRAWN BY E.C.
CHECKED BY S.K.

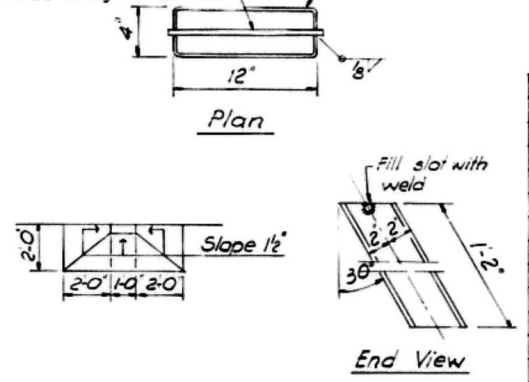
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
SUPERSTRUCTURE SPANS 1 & 3
SOUTHBOUND ROADWAY
F.A.I. ROUTE 474 OVER
ILLINOIS ROUTE 116
STA. 223+71.15
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
4 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-474	72-3HB-2	PEORIA	41	10
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT		



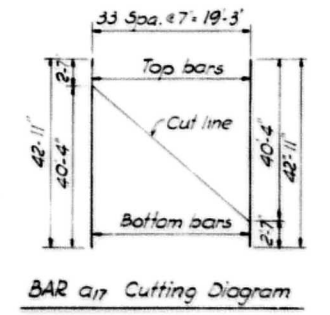
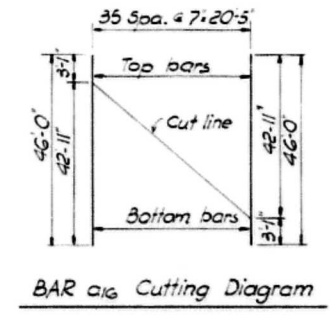
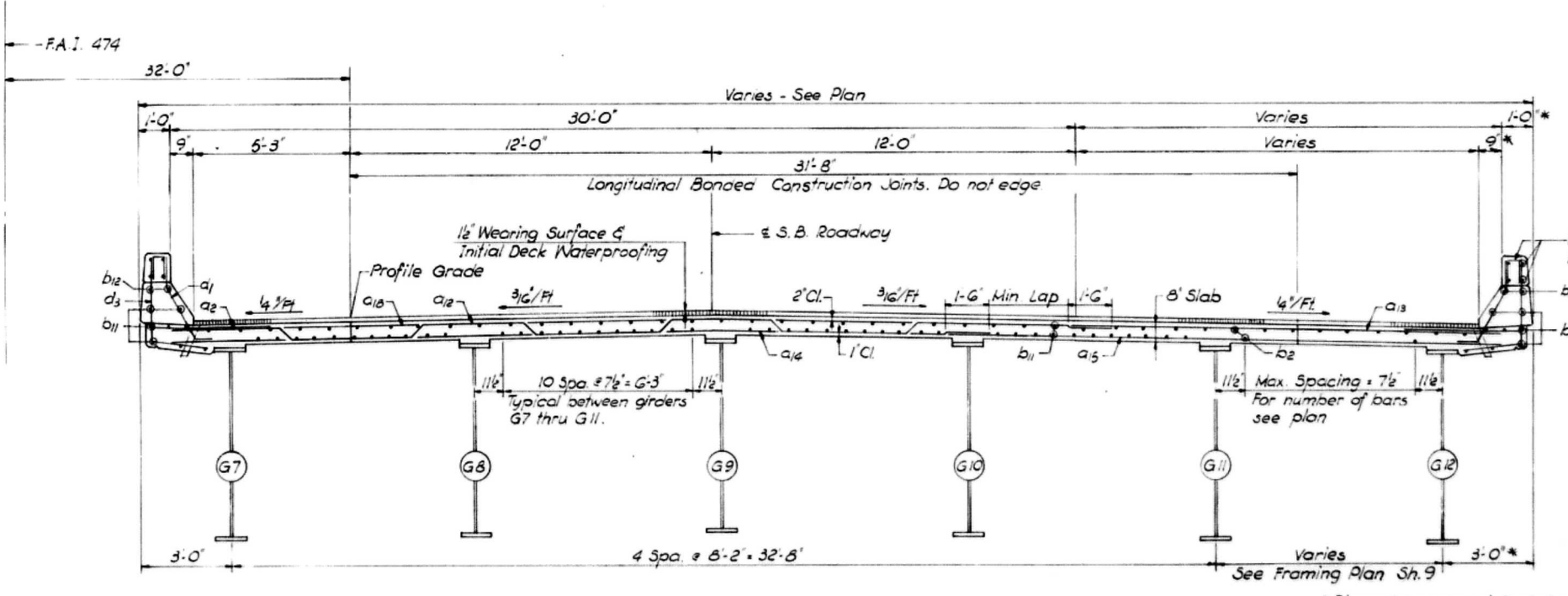
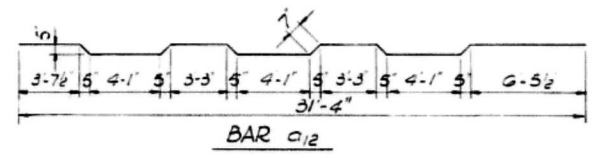
3/16" Aluminum Sheets Welded A.S.T.M. B209- alloy 6061-T6 or Aluminum Extrusions A.S.T.M. B221 alloy 6061-T6.
3/8" x 1-1/2" Aluminum Bar
A.S.T.M. B211 alloy 6061-T6



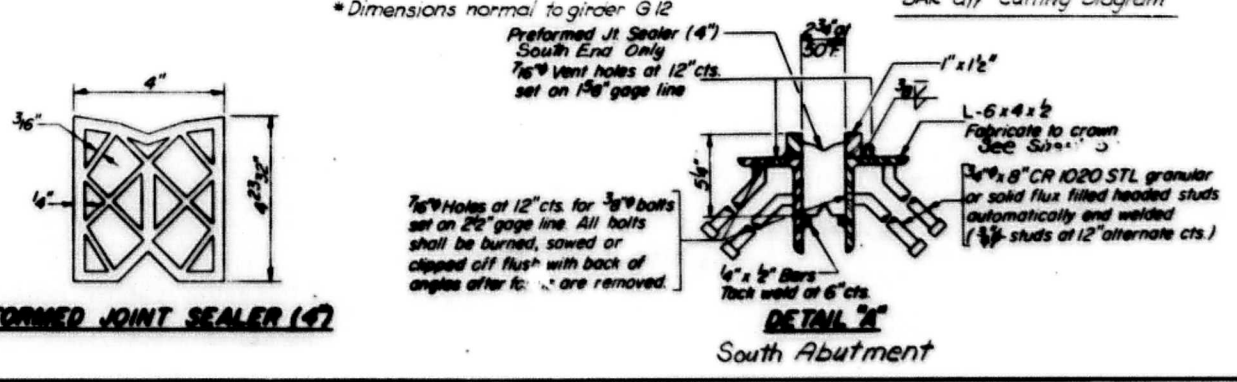
BILL OF MATERIAL

Bar	Number	Size	Length	Shape
a2	219	#6	4'-0"	—
a12	91	#6	32'-4"	—
a13	181	#6	18'-6"	—
a14	90	#6	27'-3"	—
a15	181	#6	18'-7"	—
a16	36	#6	46'-0"	—
a17	34	#6	42'-11"	—
a18	90	#6	31'-4"	—
b2	151	#5	26'-3"	—
b11	430	#5	26'-2"	—
b12	16	#8	33'-4"	—
d1	255	#5	3'-8"	L
d3	255	#4	4'-7"	L

Reinforcement Bars	Lbs.	45,860
Class X Concrete	Cu Yds	167.2
Pref Joint Sealer	Lin. Ft.	103
Coal Tar Interlayer Prot. Coat.	Sq Yds	593
Structural Steel	Lbs.	242,990
Shear Stud Connectors	Ea.	1,137
Bituminous Concrete Surface Course, Class I	Tons	51
Protective Coat	Sq Yds	92



Notes:
For Section C-C, Curb Section, Deck Surfacing Detail, and details of bars a2, d1 and d3 see Sh. 3.

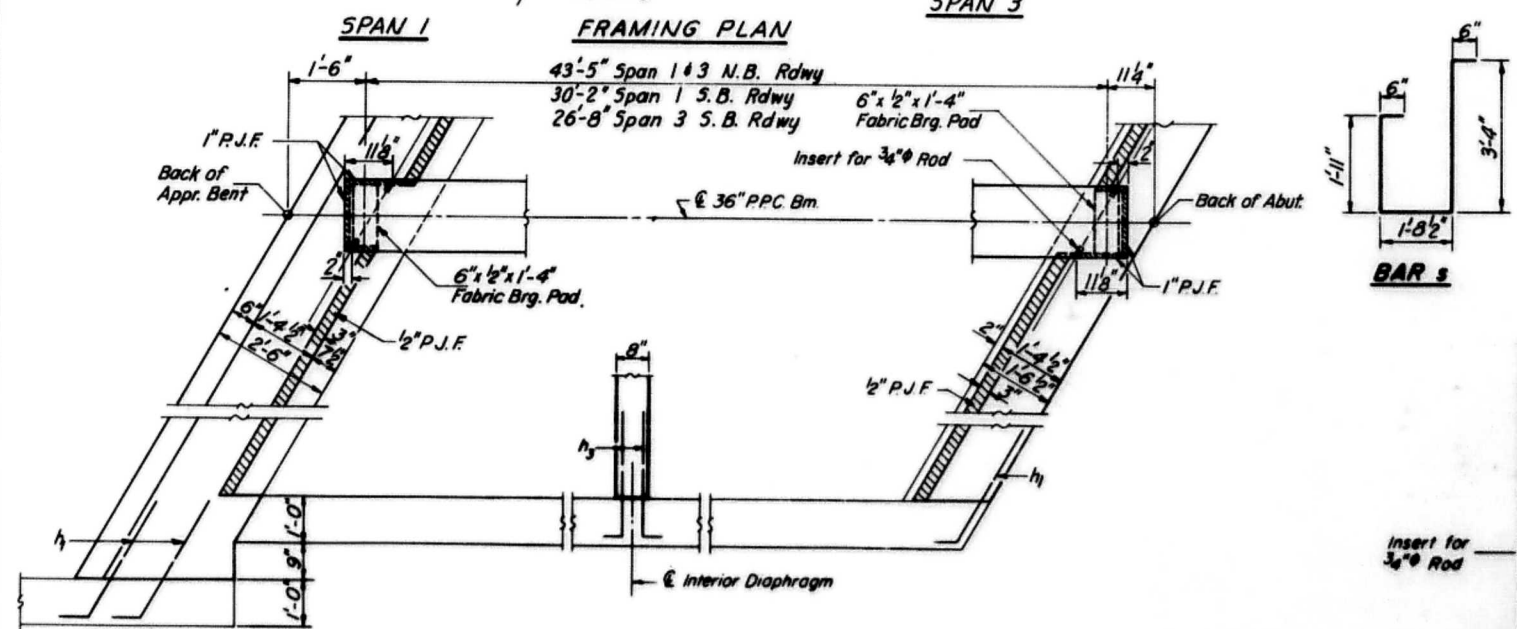
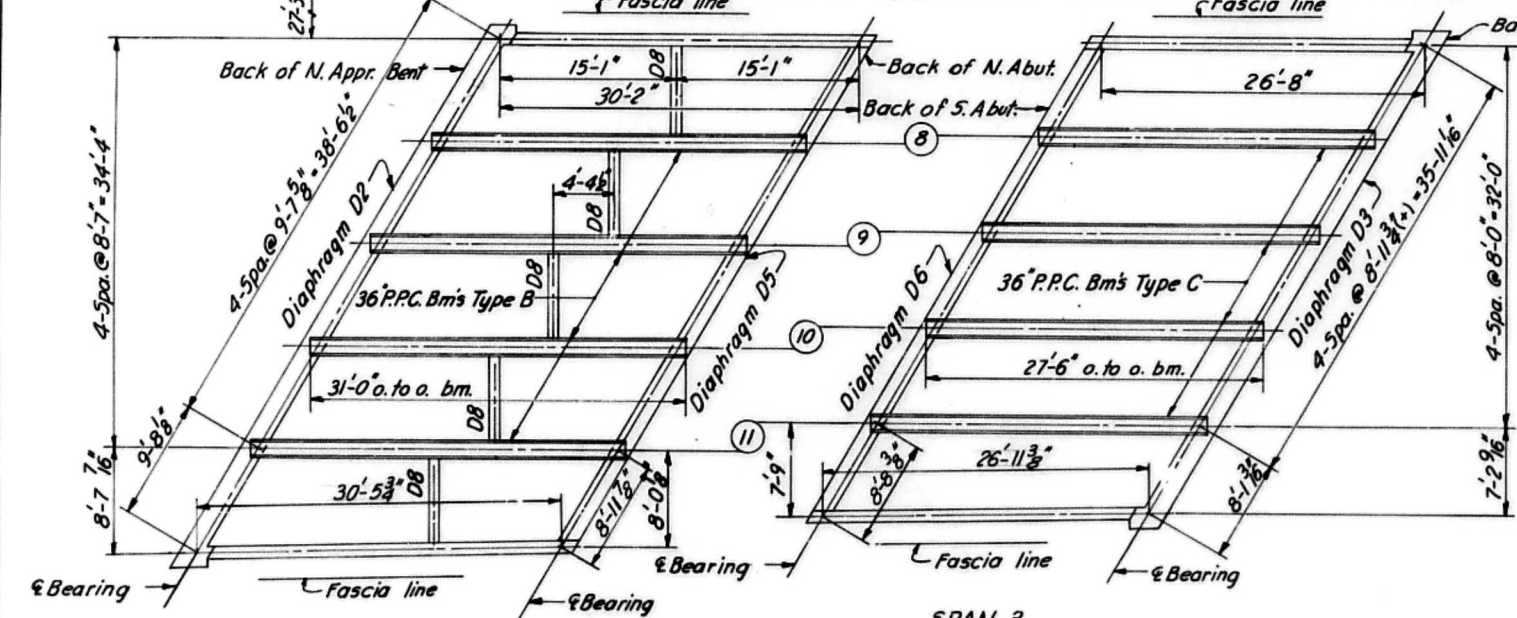
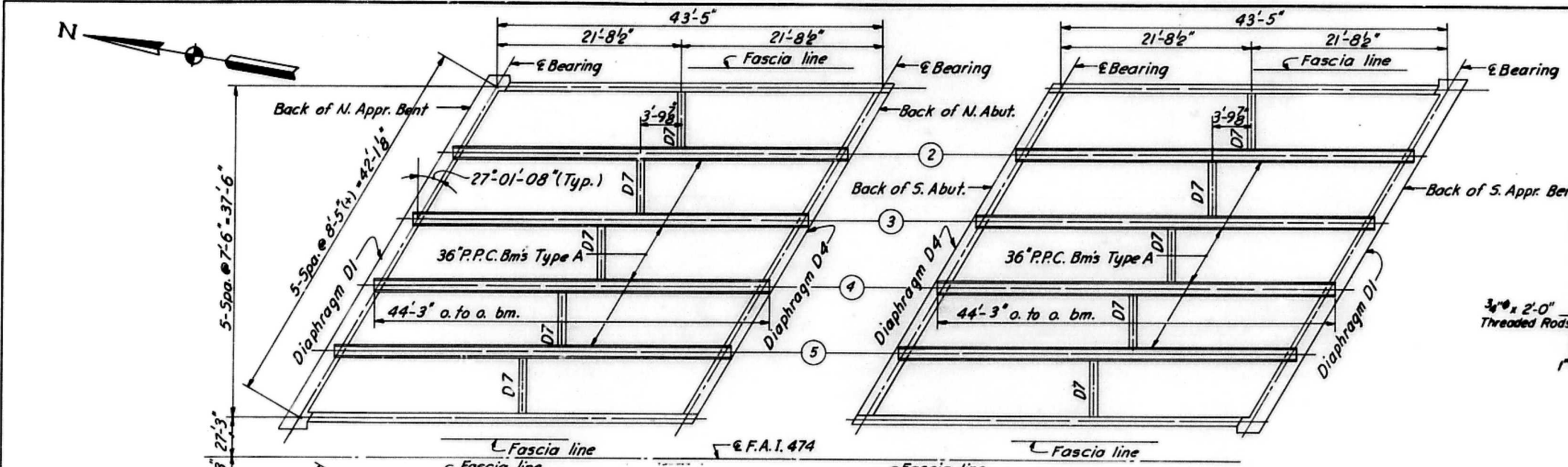


DESIGNED BY: A.T.
DRAWN BY: E.C.
CHECKED BY: S.K.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
SUPERSTRUCTURE SPAN 2
SOUTHBOUND ROADWAY
F.A.I. ROUTE 474 OVER
ILLINOIS ROUTE 116
STA. 225 + 71.15
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
5 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 474	72-3HB-2	PEORIA	41	11
FED ROAD DIV NO 7		ILLINOIS	PROJECT	

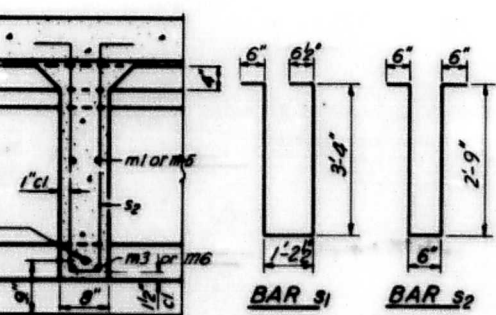
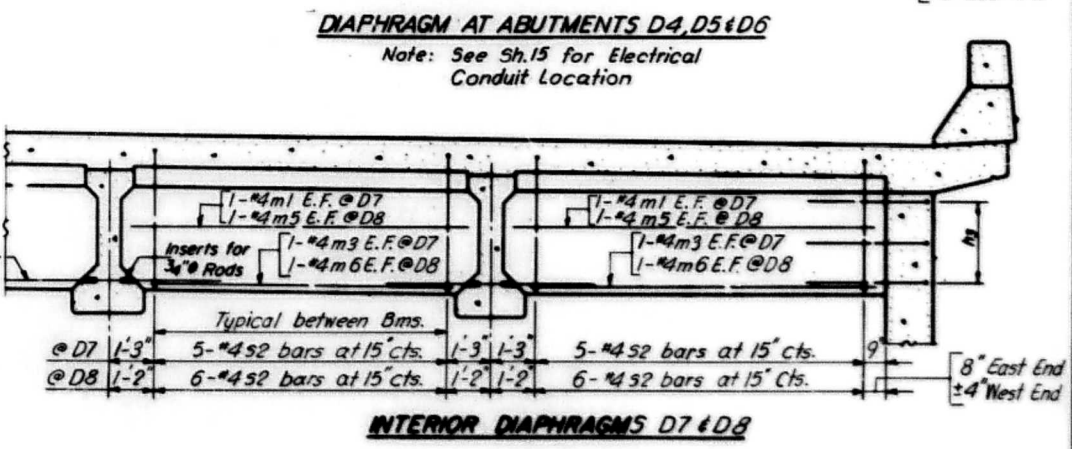
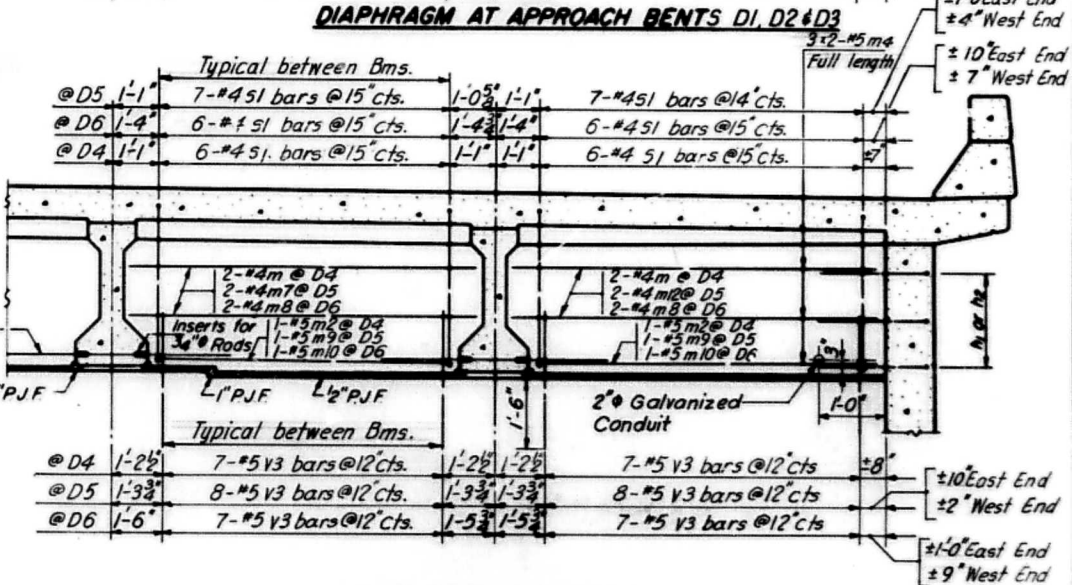
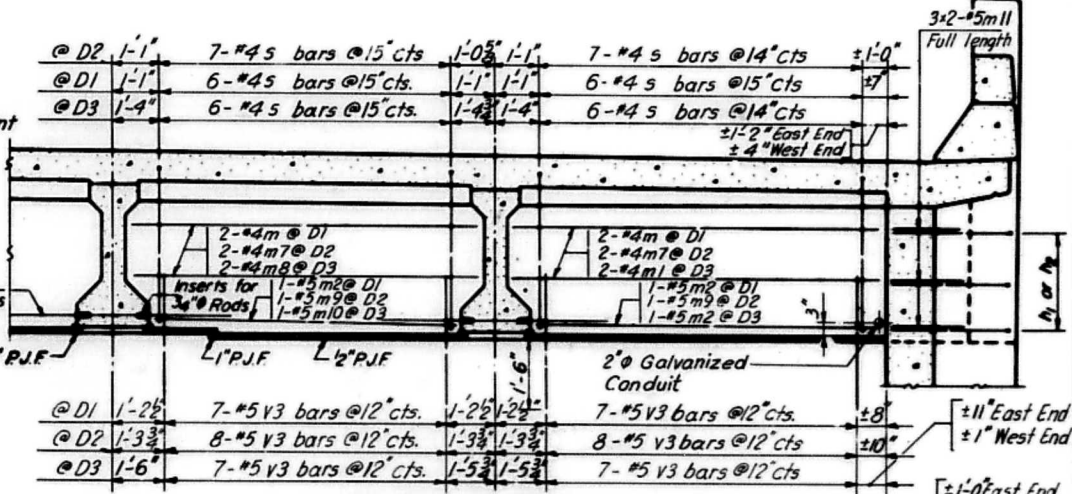


TOP OF BEAM ELEVATIONS

Beam	Brq. N. App. Bent	Brq. N. Abutment	Brq. S. Abutment	Brq. S. App. Bent
2	616.74	616.80	617.60	618.08
3	616.86	616.92	617.69	618.16
4	616.92	616.92	617.69	618.16
5	616.81	616.84	617.56	618.01
8	616.89	616.86	617.32	617.53
9	617.02	616.99	617.42	617.62
10	616.89	616.85	617.29	617.49
11	616.74	616.69	617.12	617.31

TABLE OF MOMENTS & SHEARS

unit	Span 1			
	N.B. Rdwy	S.B. Rdwy	S.B. Rdwy	
D.L.	k/ft	1.14	1.26	1.12
Diaph.	k	1.8	2.1	—
M.a.L.	ik	288.7	160.0	107.0
S.d.L.	k/ft	.420	.462	.432
M.s.d.L.	ik	100.0	53.0	39.0
M.L.L.	ik	350.0	248.0	201.0
M Imp.	ik	93.0	75.0	60.0
R.d.L.	k	24.8	19.0	16.1
R.s.d.L.	k	9.1	6.9	5.8
R.L.L.	k	38.6	39.2	34.2
R Imp.	k	10.5	11.7	10.3

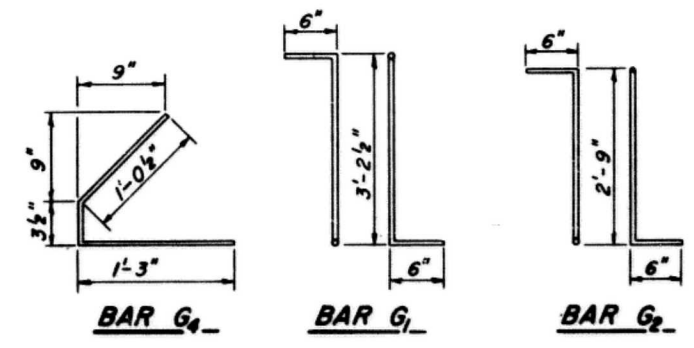
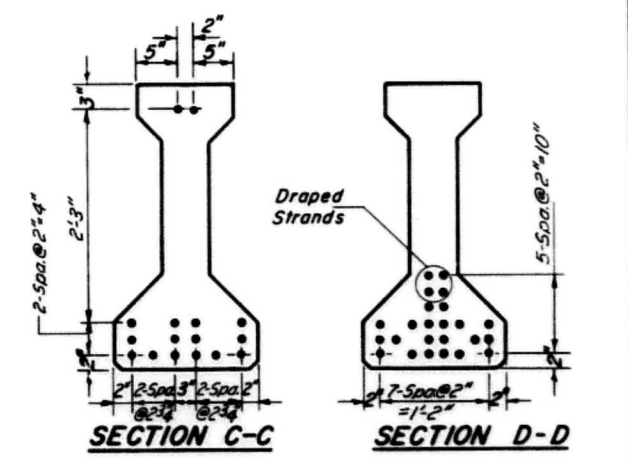
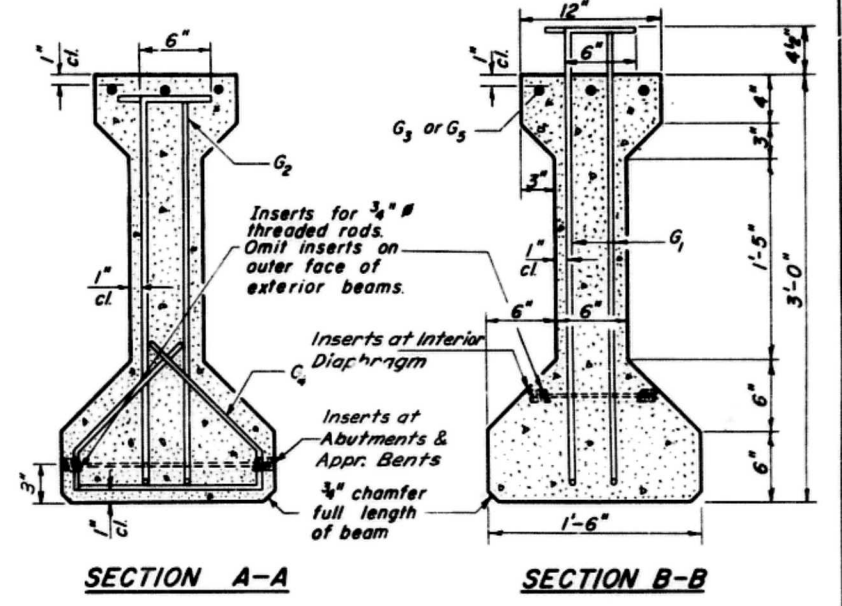
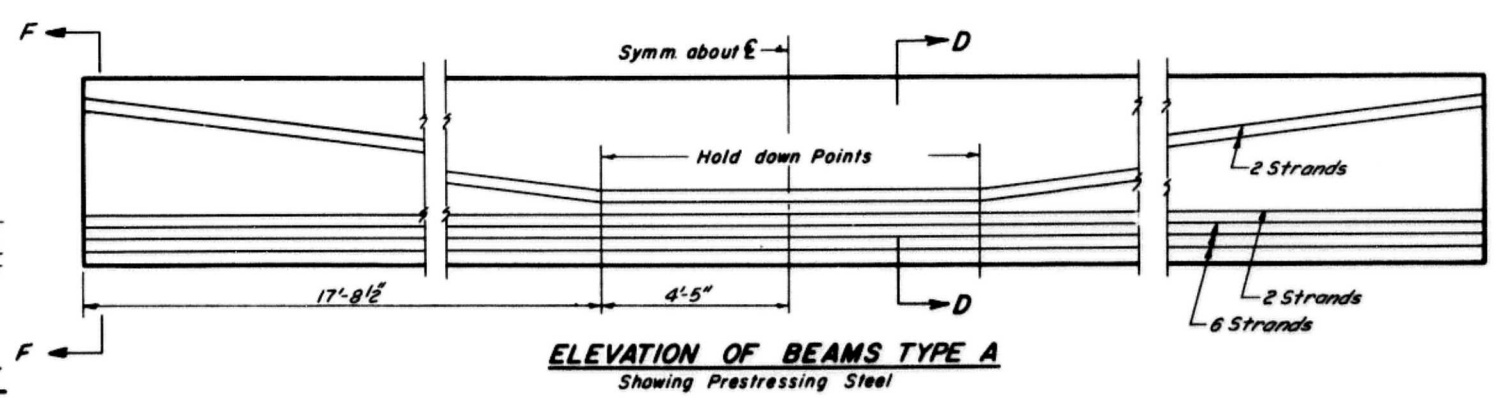
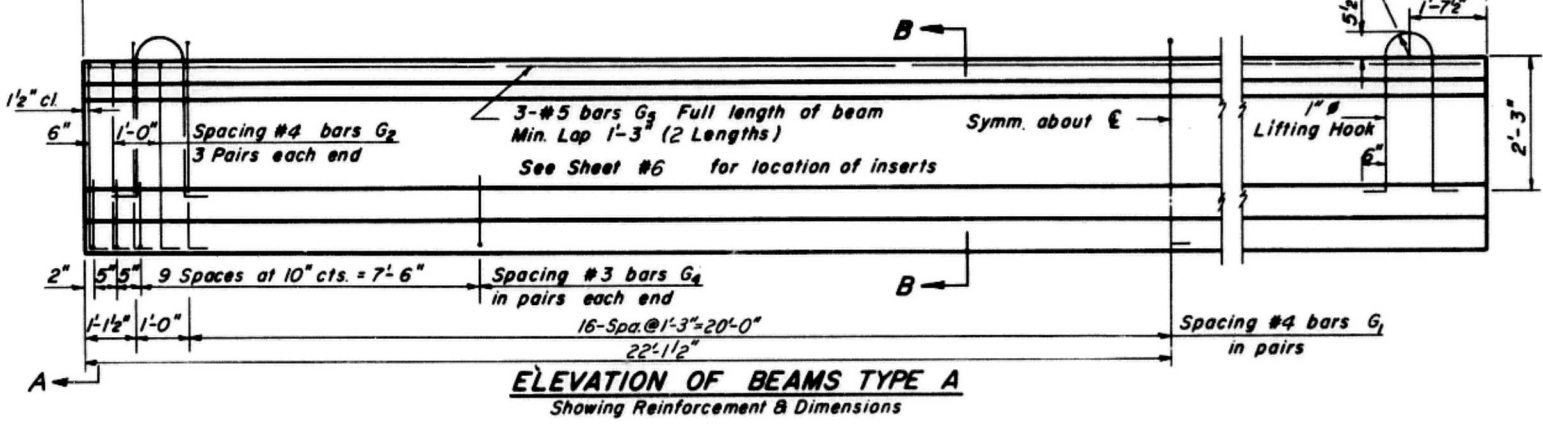
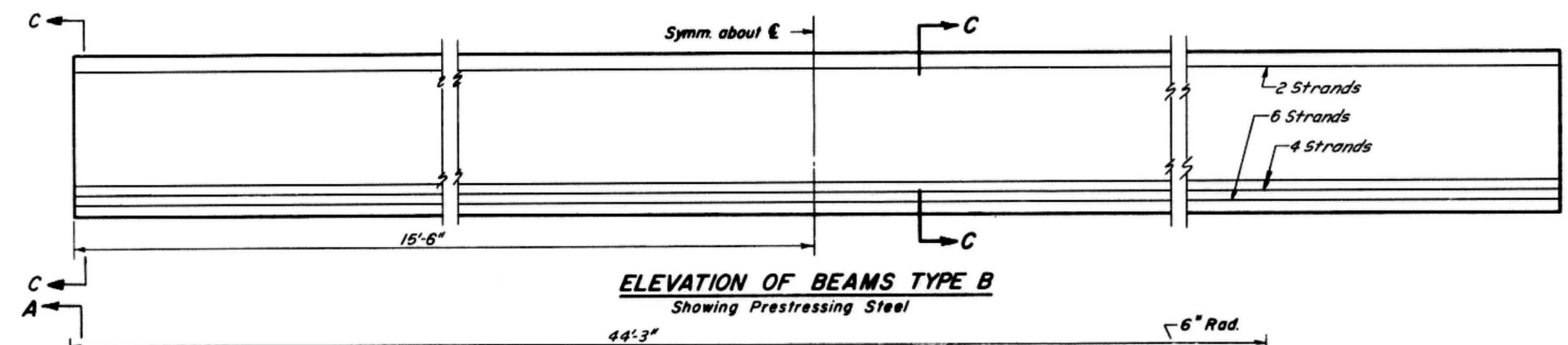
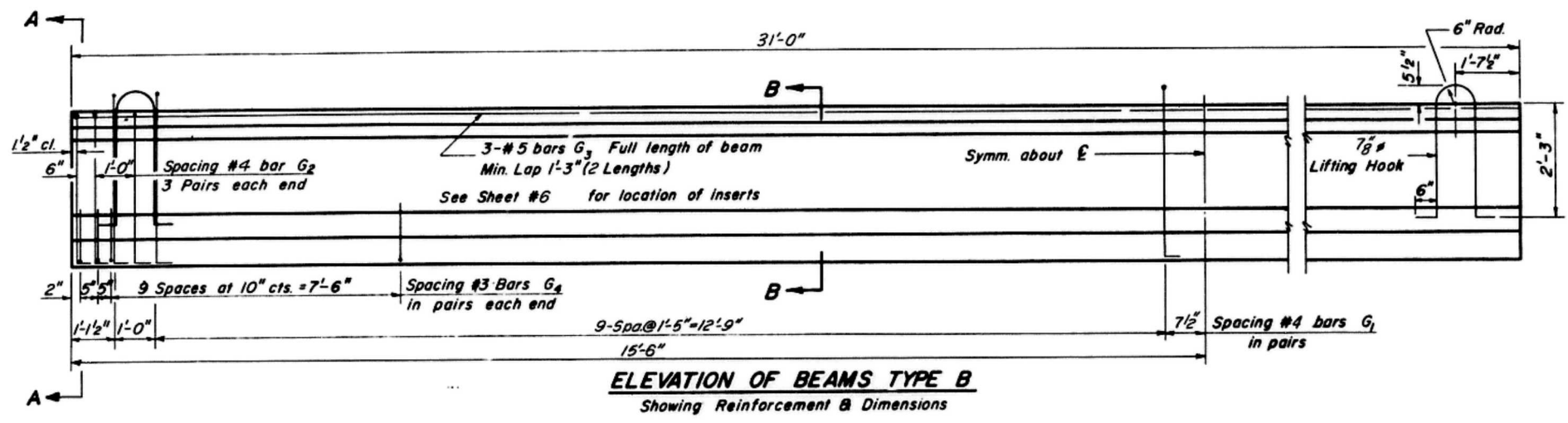


NOTES:
 Bars s through s₂ and m through m₂ are billed with Approach Slab Bill of Material on sheet # 2 & 4
 Bars h₁, h₂, h₃ & v₃ are billed with Abutment Bill of Material on sheet # 14, 16, 18 & 20
 See sheet # 14, 16, 18 & 20 for sections thru abutment and approach bent diaphragms.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 APPROACH SPANS DETAILS
 F.A.I. ROUTE 474
 OVER
 ILLINOIS ROUTE 116
 STA. 223 + 71.15
 F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

DESIGNED BY A.T.
 DRAWN BY J.J.
 CHECKED BY A.T.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 474	72-3HB-2	PEORIA	41	12
FED ROAD DIV NO 7		ILLINOIS	PROJECT	



***BAR LIST**

Bar	No.	Size	Length	Shape
G1	72	#4	4'-2 1/2"	7L
G2	12	#4	3'-9"	7L
G3	6	#5	16'-1"	—
G4	48	#3	2'-7"	L
G5	6	#5	22'-8"	—

* For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 36"	Lin. Ft.	478

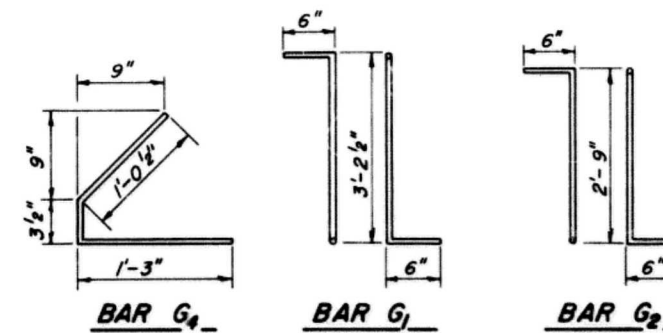
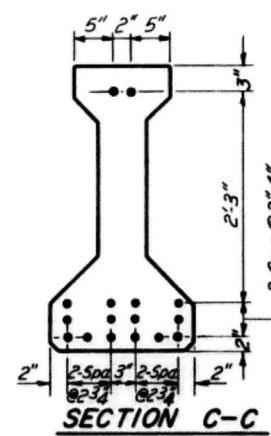
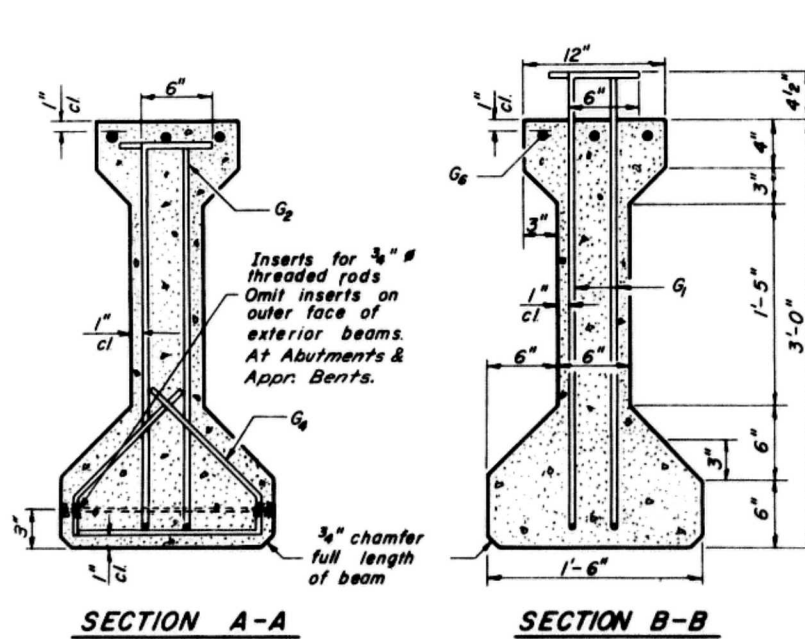
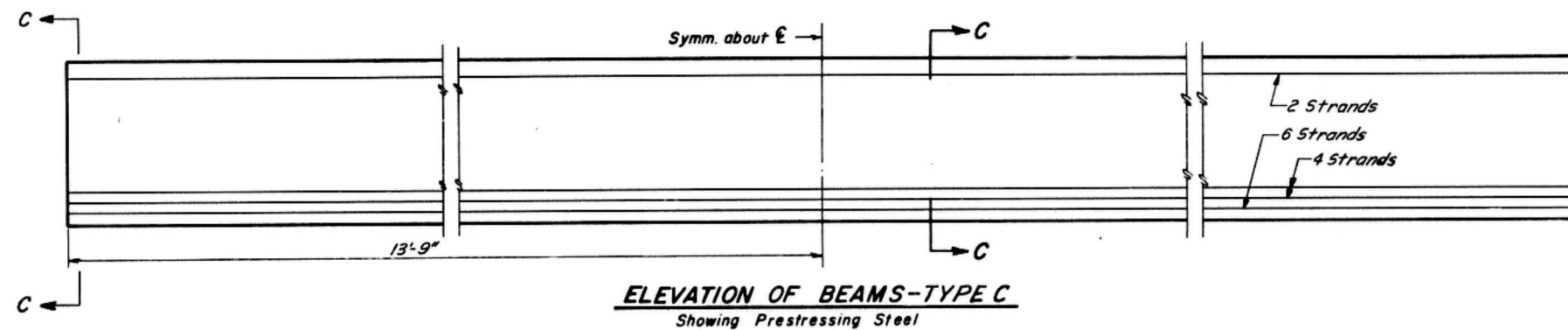
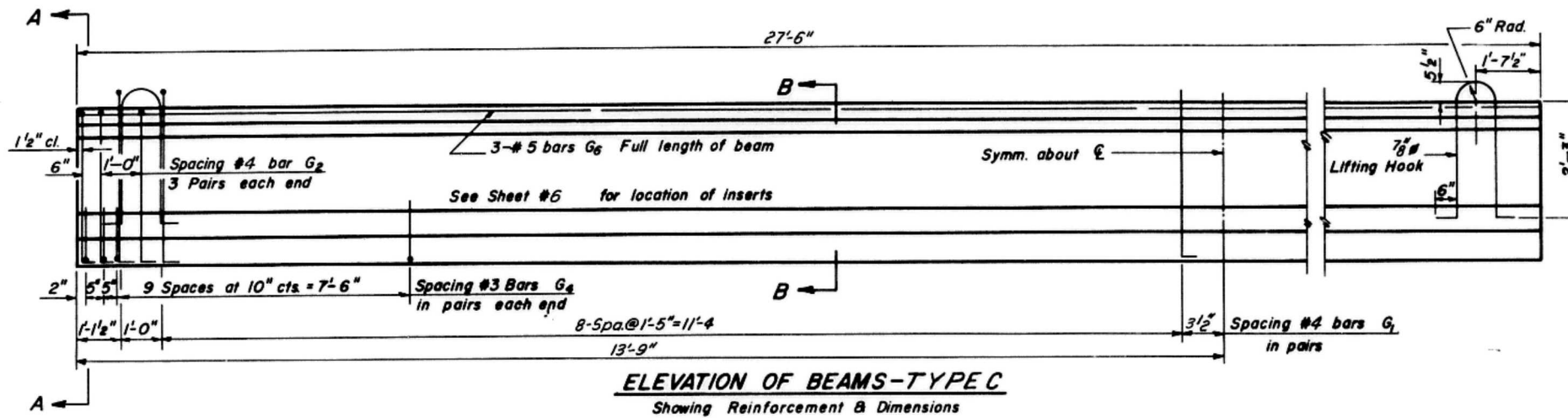
NOTES

All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressed Concrete I-Beams, 36 in." Prestressing Steel shall have a nominal diameter of 1/8". Inserts for 3/4" # threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams. Steel for lifting hooks shall be A.S.T.M. A-306 Grade 70-80. Ends of beams to be encased with cast in place concrete shall not be coated with asphalt paint.

DESIGNED BY A.T.
DRAWN BY W.E.
CHECKED BY A.T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
PRESTRESSED BEAM DETAILS
F.A.I. ROUTE 474
OVER
ILLINOIS ROUTE 116
STA. 223 + 71.15
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I - 474	72-3HB-2	PEORIA	41	13
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT		



*** BAR LIST**

Bar	No.	Size	Length	Shape
G ₁	40	#4	4'-2 1/2"	7L
G ₂	12	#4	3'-9"	7L
G ₄	48	#3	2'-7"	L
G ₆	3	#5	27'-4"	—

* For one beam only

BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 36"	Lin Ft	110

NOTES

All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressed Concrete I-Beams, 36 In."

Prestressing Steel shall have a nominal diameter of 1/16"

Inserts for 3/4" threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

Steel for lifting hooks shall be A.S.T.M. A-306 Grade 70-80.

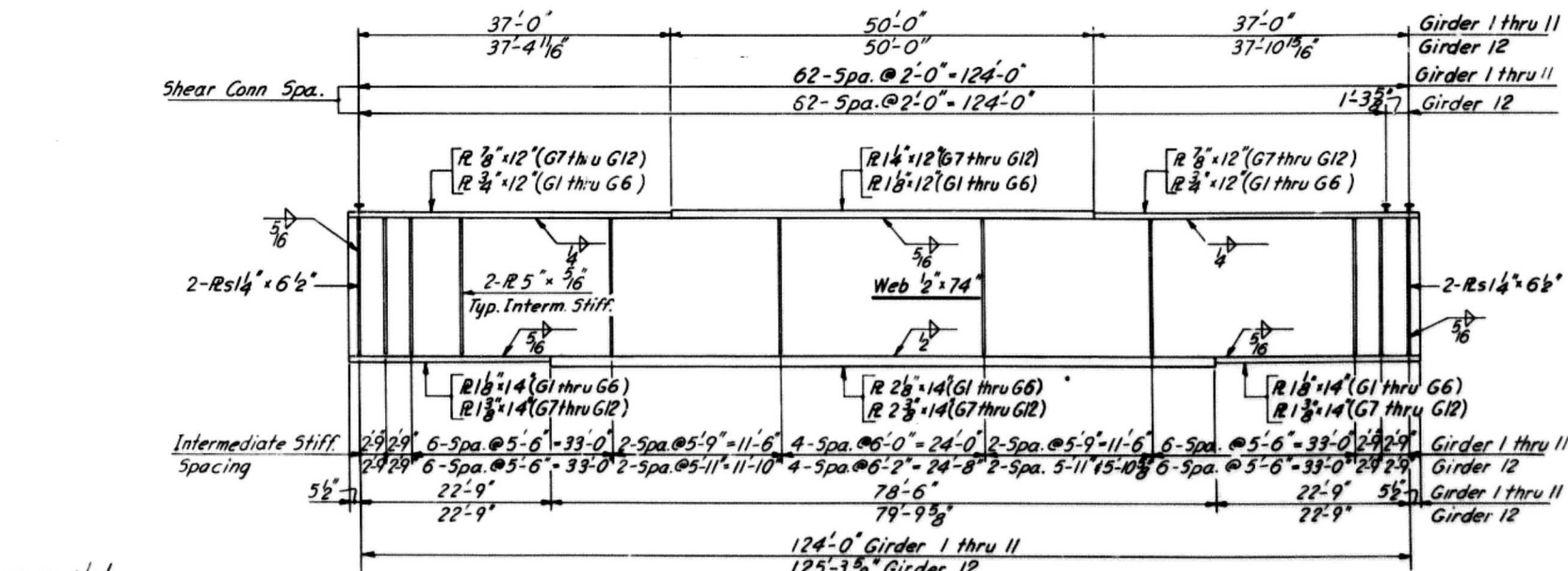
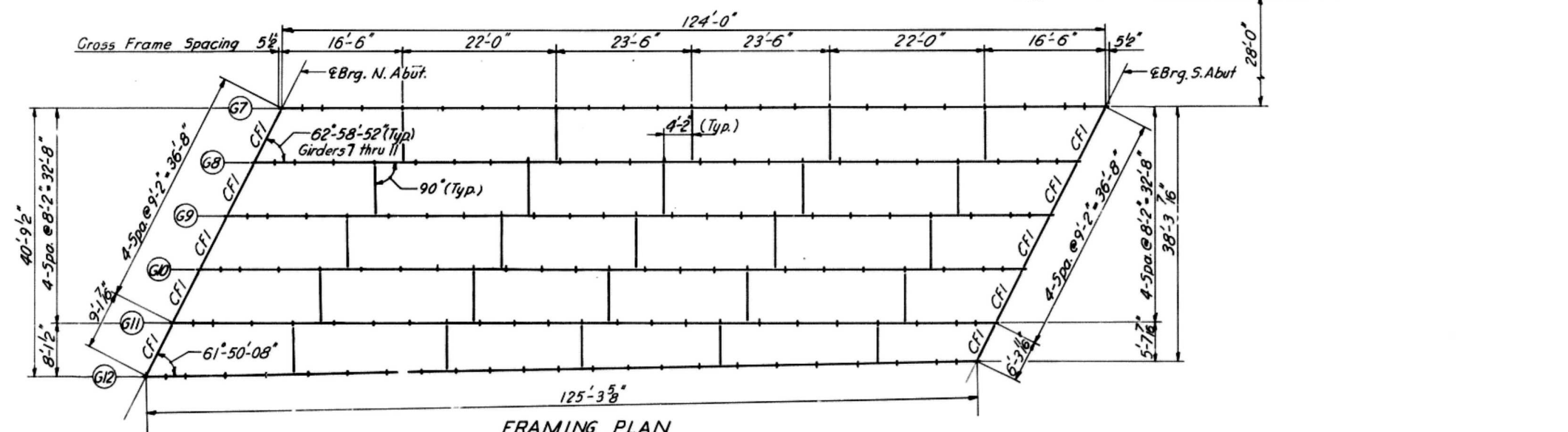
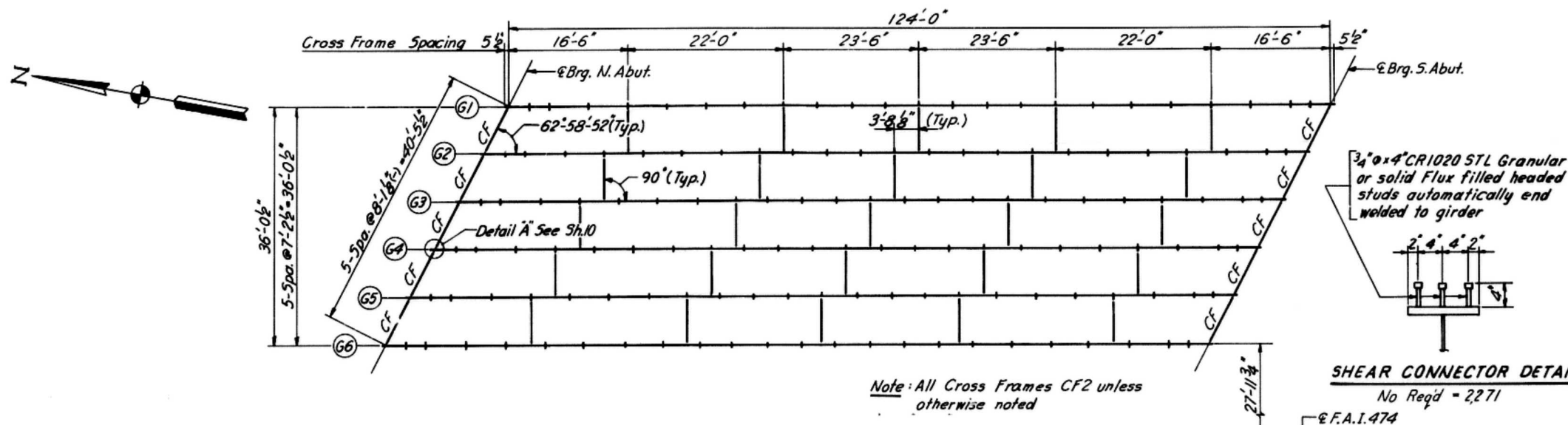
Ends of beams to be encased with cast in place concrete shall not be coated with asphalt paint.

DESIGNED BY A.T.
BY W.E.
A.T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
PRESTRESSED BEAM DETAILS
F.A.I. ROUTE 474
OVER
ILLINOIS ROUTE 116
STA. 223+71.15
F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
8 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. - 474	72-3HB-2	PEORIA	41	14
FED. ROAD DIV. NO. 7		ILLINOIS PROJECT		



DESIGNED BY: J.J.
 DRAWN BY: J.J.
 CHECKED BY: A.T.

GIRDER ELEVATION

INTERIOR GIRDER MOMENT TABLE

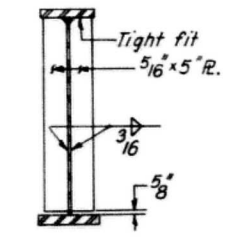
	.5 Span S. B.	.5 Span N. B.
I_s (in ⁴)	80788	74173
I_c (in ⁴)	183160	166598
S_s (in ³)	2630	2370
S_c (in ³)	3370	3064
Q (k/ft)	1.177	1.083
M_e (k)	2262.1	2081.4
$f_s @$ (ksi)	10.4	10.5
S_e (k/ft)	-445	-419
$M_{s@}$ (k)	855.2	805.3
$M_{e@}$ (k)	1443.0	1275.0
M_{imp} (k)	296.2	260.2
$Total$ (k)	2594.4	2340.5
$f_s @ S_{sp}$ (ksi)	9.2	9.2
$f_s total$ (ksi)	19.6	19.7
VR (k)	59.3	52.3

INTERIOR GIRDER REACTION TABLE

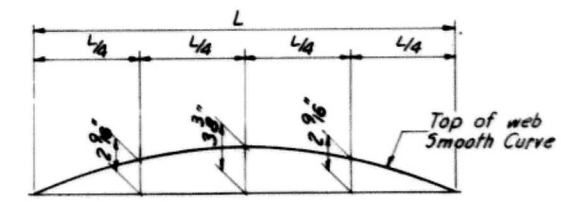
	N.S. Abut. S.B. Rdwy	N.S. Abut. N.B. Rdwy
$R @$ (k)	100.4	93.0
$R @$ (k)	51.7	45.6
imp (k)	10.4	9.3
$R total$	162.5	147.9

TOP OF WEB ELEVATIONS FOR FABRICATION

Girder	Brig. N. Abut.	Brig. S. Abut.
G1	616.65	617.32
G2	616.79	617.46
G3	616.90	617.57
G4	616.95	617.62
G5	616.83	617.50
G6	616.69	617.36
G7	616.65	617.01
G8	616.79	617.15
G9	616.91	617.27
G10	616.78	617.14
G11	616.63	616.99
G12	616.47	616.83



INTERMEDIATE STIFFENERS DETAIL

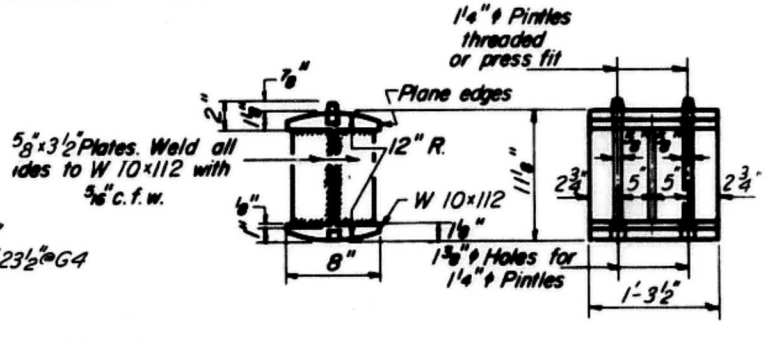
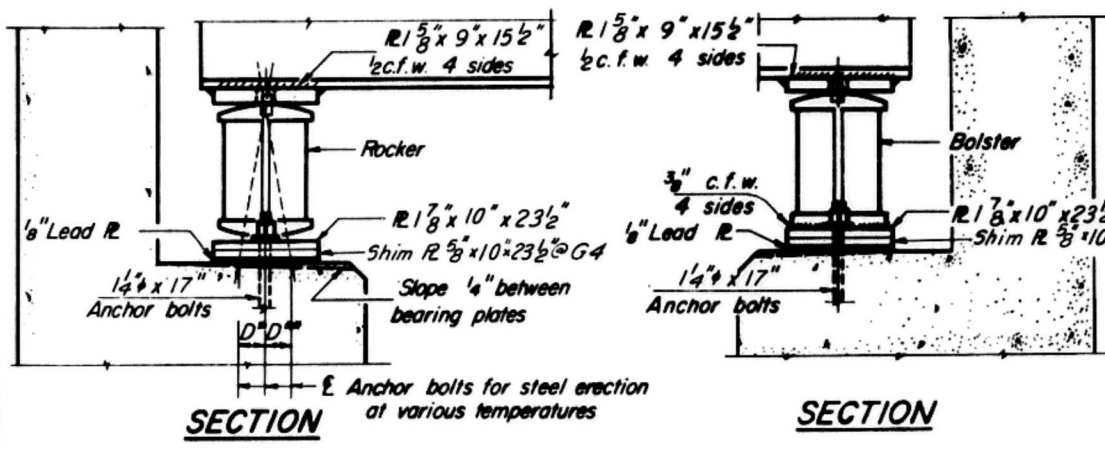


CAMBERING DIAGRAM
 For fabrication of structural steel. Includes allowance for deflection due to weight of concrete.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 STRUCTURAL STEEL
 F.A.I. ROUTE 474
 OVER
 ILLINOIS ROUTE 116
 STA. 223+71.15
 F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

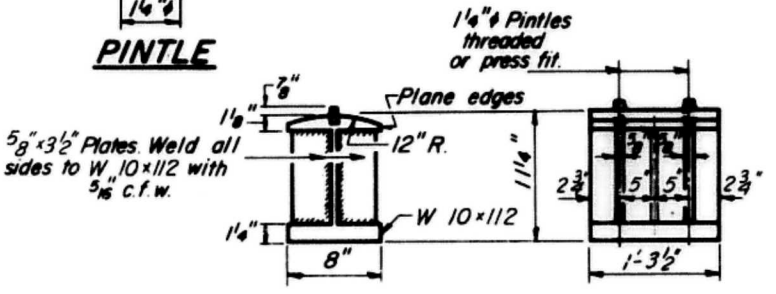
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 1-474	72-3HB-2	PEORIA	41	15
FED ROAD DIV NO 7	ILLINOIS	PROJECT		

Note: All elevation shown are at top of wearing surface



ROCKER

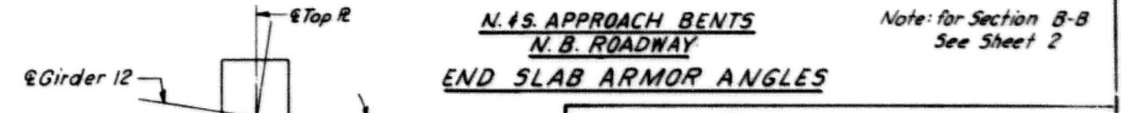
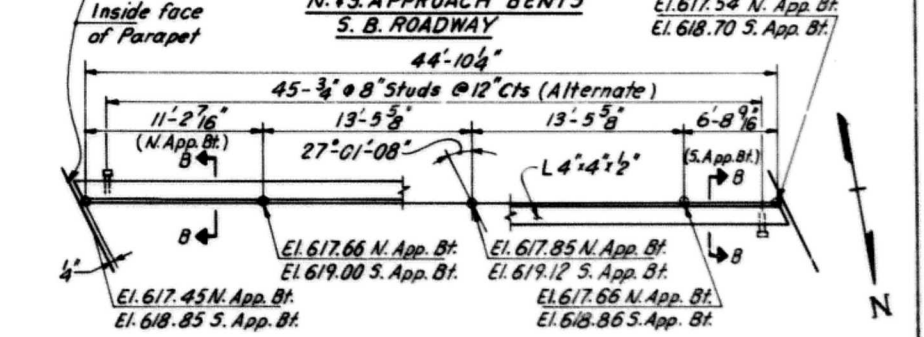
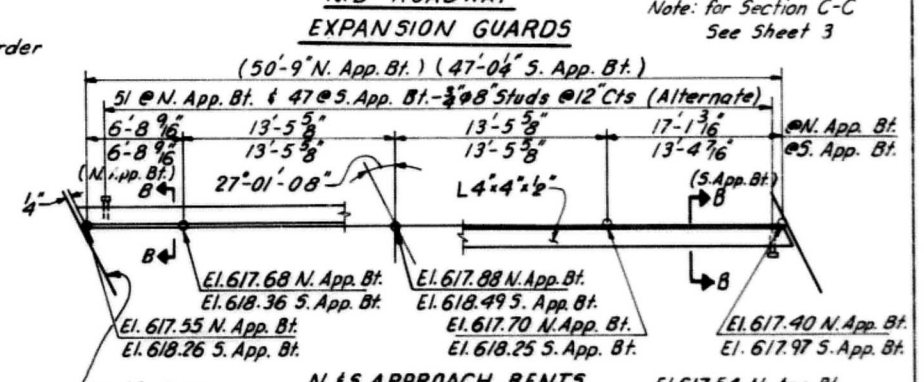
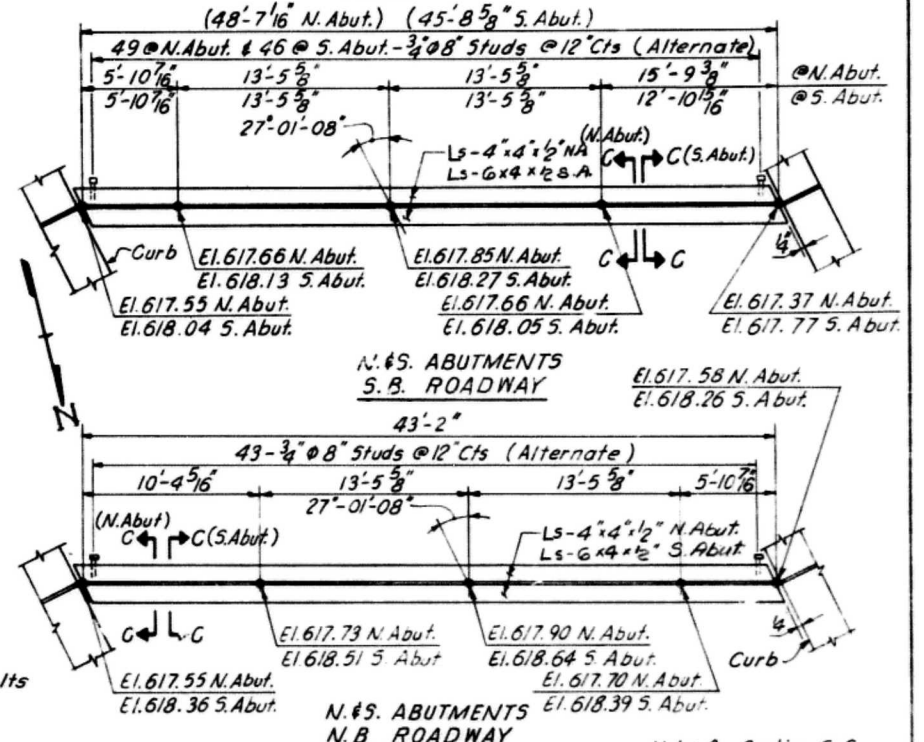
PINTLE



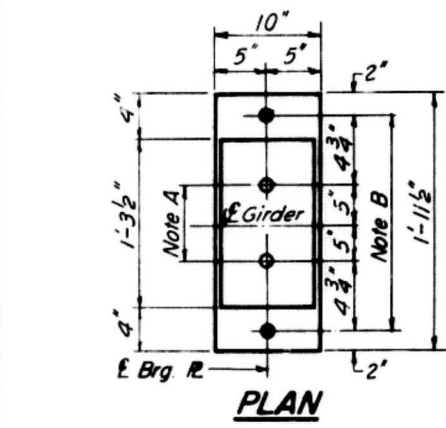
BOLSTER

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

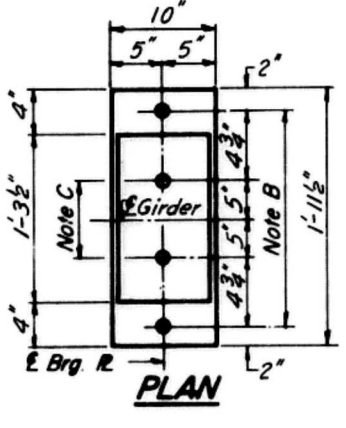
- a) D* (Side of brg. away from fixed brg.)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F.
- D** (Side of brg. toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F.
- b) After Girders have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.



DETAIL OF TOP BEARING PLATE TO GIRDER 12 CONNECTION



AT S. ABUTMENT



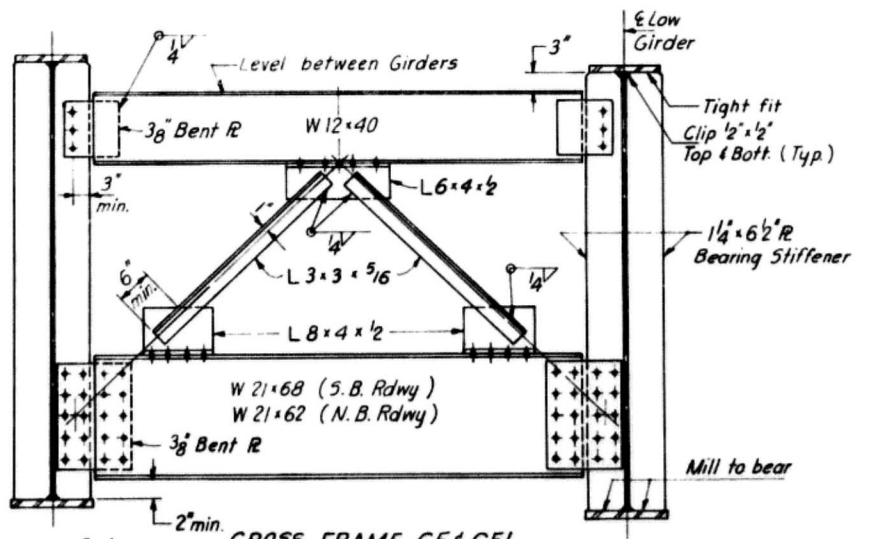
AT N. ABUTMENT

NOTE A
1 3/8" Holes - 1" deep in top R. for pintles Thread or press fit pintles into bottom R.

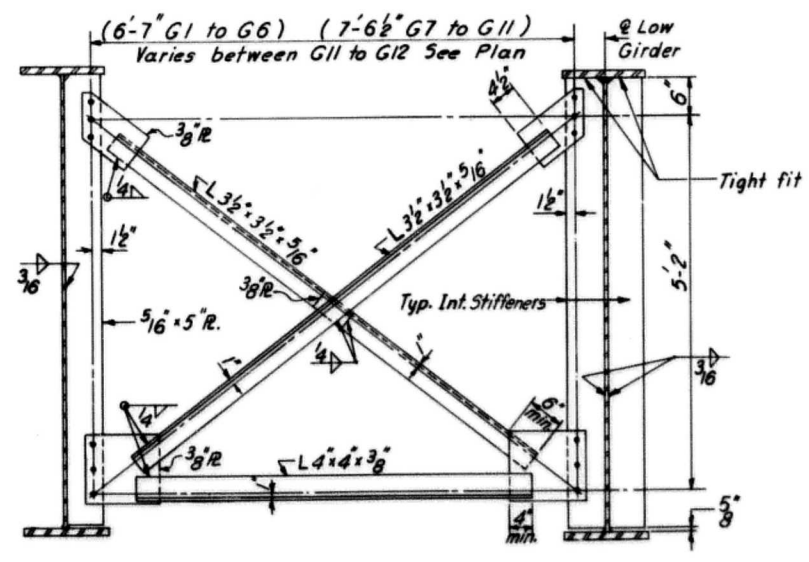
NOTE B
1 3/4" Holes for 1 1/4" anchor bolts. 5/16" x 2 1/2" x 2 1/2" R. Washers under nut.

NOTE C
1 3/8" Holes 1" deep in top R. only for 1 1/4" pintles

BEARING ASSEMBLY DETAILS



CROSS FRAME CF1

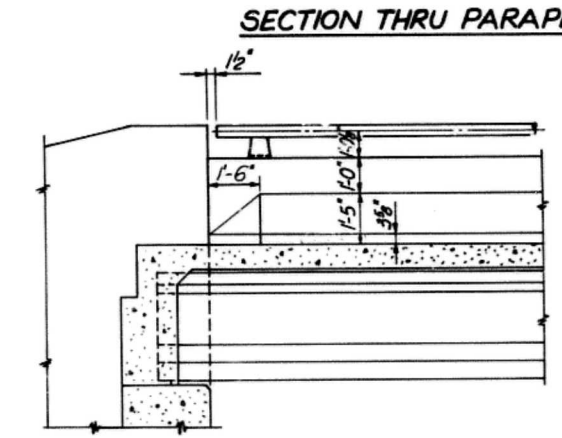
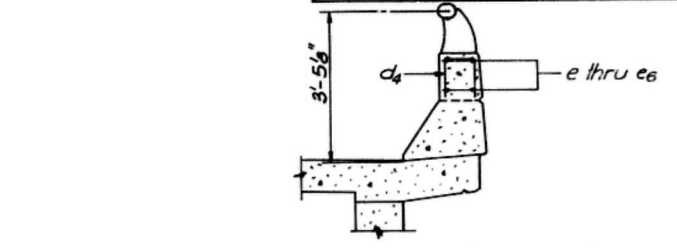
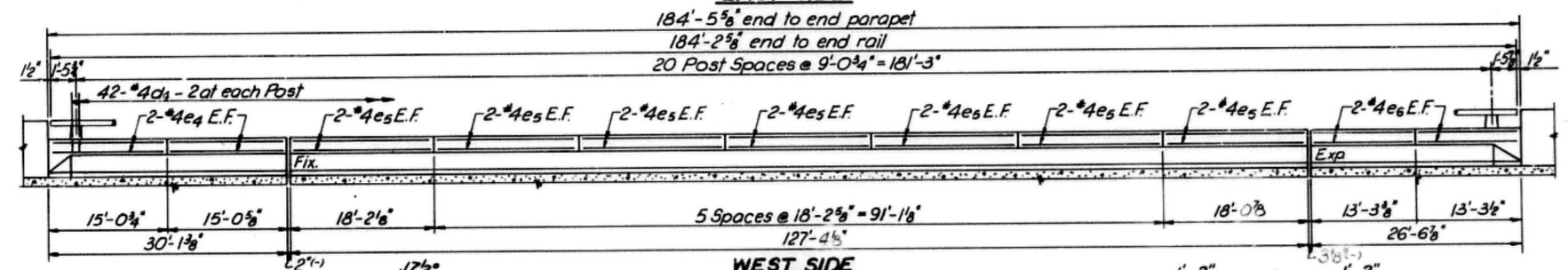
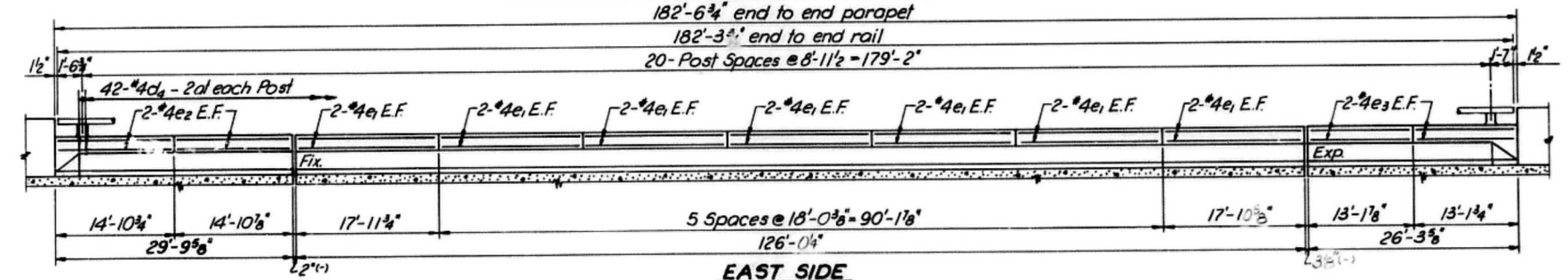
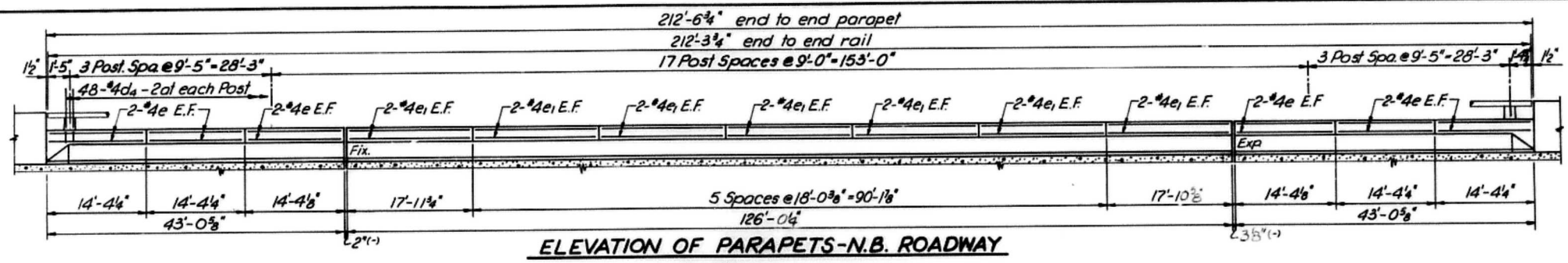


CROSS FRAME CF2

DESIGNED BY J.J.
DRAWN BY J.J.
CHECKED BY A.T.
All Bearing Stiffener to be vertical

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
STRUCTURAL STEEL
FA.I. ROUTE 474
OVER
ILLINOIS ROUTE 116
STA. 223+71.15
FAI RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

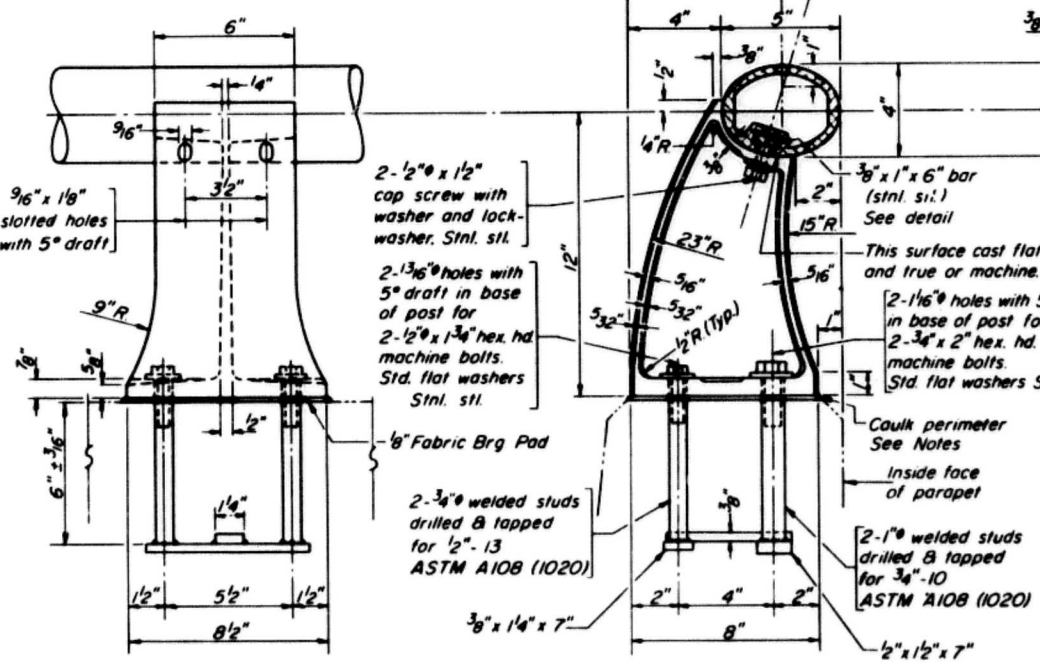
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI - 474	72-3HB-2	PEORIA	41	15
FED ROAD DIV NO 7		ILLINOIS PROJECT		



INSIDE VIEW AT APPROACH BENT

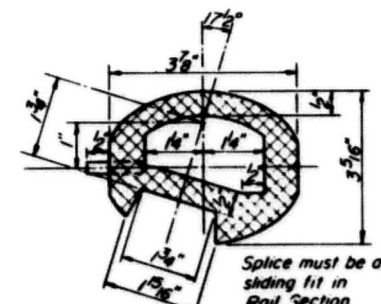
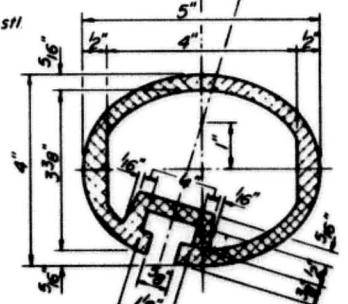
PARAPET & RAILS BILL OF MATERIAL TWO STRUCTURES

Bar	No	No	Size	Length	Shape	
e	48		#4	14'-0"		
e ₁	56	28	#4	17'-8"		
e ₂		8	#4	14'-7"		
e ₃		8	#4	12'-10"		
e ₄		8	#4	14'-9"		
e ₅		28	#4	17'-11"		
e ₆		8	#4	13'-0"		
d ₄	96	84	#4	2'-1"	□	
Reinforcement Bars					Lbs	2320
Class X Concrete					Cu Yds	25.4
Aluminum Railing					Lin Ft	791



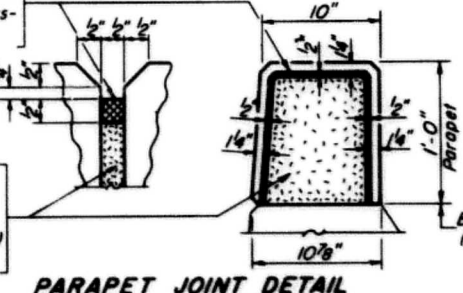
CAST END CAP DRIVE FIT TYPE B Required

RAIL SPLICE



Two component non-staining gray sealing compound with polysulfide liquid polymer-gun grade with primer.

1/2" Preformed Cork Asphalt Joint Filler. (meets qualifications for ASTM: Designation D 1751) Cost incidental.



NOTES:

All Aluminum Alloy Extruded Rail shall be supplied in modular lengths of 30 feet, except at the end of bridge or over open joints in bridge deck where the rail shall be attached to a minimum of 2 posts. If the rail is on a horizontal curve of 2300 foot radius or less, the modular lengths may be reduced but shall be attached to a minimum of 2 posts.

All joints in rail shall be spliced per detail.

Provide 1-1/8" and 2-1/8" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

Seal perimeter of base of post to parapet with two component non-staining gray sealing compound with polysulfide liquid polymer, gun grade with primer. Fabric Bearing Pad shall have same dimensions as base of post.

Aluminum alloy rail shall conform to ASTM B 221 alloy 6061-T6 or 6351-T5 with min yield 35 ksi, min tensile 38 ksi, and elongation of 10% in 2 inches.

DESIGNED BY: A.T.
DRAWN BY: E.F.
CHECKED BY: T.T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
ALUMINUM RAILING
F.A.I. ROUTE 474
OVER
ILLINOIS ROUTE 116
STA. 223+71.15
FAI RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
11 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI - 474	72-3MB-2	PEORIA	41	17
FED ROAD DIV NO 7		ILLINOIS	PROJECT	

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection	LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22303+661	-20.750	617.477	617.477	BK N APP	22299+636	-13.250	617.632	617.632
Q BRG N APP	22304+961	-20.750	617.553	617.553	Q BRG N APP	22301+136	-13.250	617.508	617.508
A	22314+961	-20.750	617.361	617.361	A	22311+136	-13.250	617.513	617.528
B	22324+961	-20.750	617.375	617.375	B	22321+136	-13.250	617.525	617.549
C	22334+961	-20.750	617.394	617.394	C	22331+136	-13.250	617.542	617.560
D	22344+961	-20.750	617.418	617.418	D	22341+136	-13.250	617.564	617.569
Q N BRG N A	22348+377	-20.750	617.428	617.428	Q N BRG N A	22344+553	-13.250	617.573	617.573
Q S BRG N A	22350+169	-20.020	617.448	617.448	Q S BRG N A	22346+493	-12.812	617.587	617.587
E	22360+169	-20.020	617.481	617.521	E	22356+493	-12.812	617.618	617.659
F	22370+169	-20.020	617.519	617.600	F	22366+493	-12.812	617.655	617.735
G	22380+169	-20.020	617.563	617.684	G	22376+493	-12.812	617.696	617.817
H	22390+169	-20.020	617.613	617.750	H	22386+493	-12.812	617.744	617.881
J	22400+169	-20.020	617.667	617.818	J	22396+493	-12.812	617.797	617.947
K	22410+169	-20.020	617.728	617.892	K	22406+493	-12.812	617.855	618.019
L	22420+169	-20.020	617.794	617.949	L	22416+493	-12.812	617.919	618.075
M	22430+169	-20.020	617.865	618.007	M	22426+493	-12.812	617.988	618.130
N	22440+169	-20.020	617.942	618.071	N	22436+493	-12.812	618.053	618.192
O	22450+169	-20.020	618.026	618.141	O	22446+493	-12.812	618.143	618.240
P	22460+169	-20.020	618.112	618.213	P	22456+493	-12.812	618.229	618.285
Q	22470+169	-20.020	618.205	618.291	Q	22466+493	-12.812	618.320	618.336
Q N BRG S A	22474+169	-70.020	618.244	618.244	Q N BRG S A	22470+493	-12.812	618.358	618.358
Q S BRG S A	22476+711	-20.750	618.254	618.254	Q S BRG S A	22472+886	-13.250	618.372	618.372
R	22486+711	-20.750	618.357	618.357	R	22482+886	-13.250	618.473	618.437
S	22496+711	-20.750	618.465	618.465	S	22492+886	-13.250	618.579	618.603
T	22506+711	-20.750	618.578	618.578	T	22502+886	-13.250	618.690	618.708
U	22516+711	-20.750	618.697	618.697	U	22512+886	-13.250	618.807	618.812
Q BRG S APP	22520+128	-20.750	618.739	618.739	Q BRG S APP	22516+303	-13.250	618.848	618.848
BK S APP	22521+628	-20.750	618.882	618.882	BK S APP	22517+803	-13.250	618.991	618.991

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection	LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22295+812	-5.750	617.755	617.755	BK N APP	22292+880	0.000	617.845	617.845
Q BRG N APP	22297+312	-5.750	617.630	617.630	Q BRG N APP	22294+380	0.000	617.720	617.720
A	22307+312	-5.750	617.634	617.649	A	22304+380	0.000	617.722	617.737
B	22317+312	-5.750	617.643	617.668	B	22314+380	0.000	617.730	617.754
C	22327+312	-5.750	617.658	617.676	C	22324+380	0.000	617.743	617.761
D	22337+312	-5.750	617.679	617.683	D	22334+380	0.000	617.762	617.767
Q N BRG N A	22340+728	-5.750	617.687	617.687	Q N BRG N A	22337+796	0.000	617.769	617.769
Q S BRG N A	22342+817	-5.604	617.694	617.694	Q S BRG N A	22339+960	-0.000	617.775	617.775
E	22352+817	-5.604	617.723	617.763	E	22349+960	-0.000	617.802	617.842
F	22362+817	-5.604	617.757	617.838	F	22359+960	-0.000	617.835	617.875
G	22372+817	-5.604	617.797	617.918	G	22369+960	-0.000	617.873	617.994
H	22382+817	-5.604	617.843	617.980	H	22379+960	-0.000	617.917	618.054
J	22392+817	-5.604	617.893	618.044	J	22389+960	-0.000	617.956	618.116
K	22402+817	-5.604	617.950	618.114	K	22399+960	-0.000	618.021	618.184
L	22412+817	-5.604	618.011	618.167	L	22409+960	-0.000	618.081	618.237
M	22422+817	-5.604	618.075	618.221	M	22419+960	-0.000	618.146	618.289
N	22432+817	-5.604	618.152	618.281	N	22429+960	-0.000	618.218	618.347
O	22442+817	-5.604	618.230	618.327	O	22439+960	-0.000	618.294	618.391
P	22452+817	-5.604	618.314	618.370	P	22449+960	-0.000	618.377	618.433
Q	22462+817	-5.604	618.403	618.419	Q	22459+960	-0.000	618.464	618.481
Q N BRG S A	22466+817	-5.604	618.440	618.440	Q N BRG S A	22463+980	-0.000	618.501	618.501
Q S BRG S A	22469+062	-5.750	618.459	618.459	Q S BRG S A	22466+130	0.000	618.521	618.521
R	22479+062	-5.750	618.557	618.572	R	22476+130	0.000	618.618	618.632
S	22489+062	-5.750	618.661	618.686	S	22486+130	0.000	618.720	618.744
T	22499+062	-5.750	618.770	618.789	T	22496+130	0.000	618.828	618.846
U	22509+062	-5.750	618.885	618.890	U	22506+130	0.000	618.941	618.946
Q BRG S APP	22512+478	-5.750	618.926	618.926	Q BRG S APP	22509+546	0.000	618.981	618.981
BK S APP	22513+978	-5.750	619.069	619.069	BK S APP	22511+046	0.000	619.123	619.123

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection	LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22291+987	1.750	617.818	617.818	BK N APP	22291+987	1.750	617.818	617.818
Q BRG N APP	22293+487	1.750	617.693	617.693	Q BRG N APP	22293+487	1.750	617.693	617.693
A	22303+487	1.750	617.695	617.709	A	22303+487	1.750	617.695	617.709
B	22313+487	1.750	617.702	617.726	B	22313+487	1.750	617.702	617.726
C	22323+487	1.750	617.714	617.733	C	22323+487	1.750	617.714	617.733
D	22333+487	1.750	617.733	617.738	D	22333+487	1.750	617.733	617.738
Q N BRG N A	22336+004	1.750	617.740	617.740	Q N BRG N A	22336+004	1.750	617.740	617.740
Q S BRG N A	22339+141	1.604	617.740	617.740	Q S BRG N A	22339+141	1.604	617.740	617.740
E	22349+141	1.604	617.774	617.815	E	22349+141	1.604	617.774	617.815
F	22359+141	1.604	617.807	617.887	F	22359+141	1.604	617.807	617.887
G	22369+141	1.604	617.844	617.965	G	22369+141	1.604	617.844	617.965
H	22379+141	1.604	617.883	618.025	H	22379+141	1.604	617.883	618.025
J	22389+141	1.604	617.936	618.087	J	22389+141	1.604	617.936	618.087
K	22399+141	1.604	617.991	618.159	K	22399+141	1.604	617.991	618.159
L	22409+141	1.604	618.051	618.206	L	22409+141	1.604	618.051	618.206
M	22419+141	1.604	618.116	618.258	M	22419+141	1.604	618.116	618.258
N	22429+141	1.604	618.187	618.316	N	22429+141	1.604	618.187	618.316
O	22439+141	1.604	618.263	618.360	O	22439+141	1.604	618.263	618.360
P	22449+141	1.604	618.345	618.401	P	22449+141	1.604	618.345	618.401
Q	22459+141	1.604	618.432	618.448	Q	22459+141	1.604	618.432	618.448
Q N BRG S A	22463+141	1.604	618.468	618.468	Q N BRG S A	22463+141	1.604	618.468	618.468
Q S BRG S A	22465+237	1.750	618.486	618.486	Q S BRG S A	22465+237	1.750	618.486	618.486
R	22475+237	1.750	618.582	618.596	R	22475+237	1.750	618.582	618.596
S	22485+237	1.750	618.683	618.708	S	22485+237	1.750	618.683	618.708
T	22495+237	1.750	618.790	618.809	T	22495+237	1.750	618.790	618.809
U	22505+237	1.750	618.903	618.908	U	22505+237	1.750	618.903	618.908
Q BRG S APP	22508+644	1.750	618.943	618.943	Q BRG S APP	22508+644	1.750	618.943	618.943
BK S APP	22510+154	1.750	619.085	619.085	BK S APP	22510+154	1.750	619.085	619.085

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection	LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22288+163	9.250	617.702	617.702	BK N APP	22284+338	16.750	617.562	617.562
Q BRG N APP	22289+663	9.250	617.577	617.577	Q BRG N APP	22285+838	16.750	617.436	617.436
A	22299+663	9.250	617.576	617.591	A	22295+838	16.750	617.434	617.434
B	22309+663	9.250	617.581	617.606	B	22305+838	16.750	617.437	617.437
C	22319+663	9.250	617.592	617.610	C	22315+838	16.750	617.445	617.445
D	22329+663	9.250	617.608	617.613	D	22325+838	16.750	617.459	617.459
Q N BRG N A	22333+079	9.250	617.615	617.615	Q N BRG N A	22329+255	16.750	617.465	617.465
Q S BRG N A	22335+466</								

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F. A. I. - 474	72-3HB-2	PEORIA	41	18
FED. ROAD DIV. NO. 7		ILLINOIS	PROJECT	

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22269.791	-16.750	617.577	617.577
€ BRG N APP	22271.291	-16.750	617.450	617.450
A	22281.291	-16.750	617.439	617.439
B	22291.291	-16.750	617.434	617.434
€ N BRG N A	22301.438	-16.750	617.435	617.435
€ S BRG N A	22305.239	-16.000	617.451	617.451
C	22315.239	-16.000	617.458	617.459
D	22325.239	-16.000	617.471	617.551
E	22335.239	-16.000	617.489	617.610
F	22345.239	-16.000	617.512	617.651
G	22355.239	-16.000	617.541	617.695
H	22365.239	-16.000	617.576	617.745
I	22375.239	-16.000	617.616	617.776
J	22385.239	-16.000	617.661	617.806
K	22395.239	-16.000	617.712	617.842
L	22405.239	-16.000	617.769	617.886
M	22415.239	-16.000	617.831	617.887
N	22425.239	-16.000	617.899	617.915
€ N BRG S A	22427.239	-16.000	617.927	617.927
Q S BRG S A	22429.791	-16.750	617.930	617.930
P	22439.791	-16.750	618.007	618.007
Q	22449.791	-16.750	618.089	618.089
Q BRG S APP	22456.458	-16.750	618.147	618.147
BK S APP	22457.958	-16.750	618.285	618.285

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22265.414	-8.166	617.742	617.742
€ BRG N APP	22266.914	-8.166	617.615	617.615
A	22276.914	-8.166	617.602	617.607
B	22286.914	-8.166	617.595	617.600
€ N BRG N A	22297.081	-8.166	617.593	617.593
€ S BRG N A	22299.074	-7.833	617.598	617.598
C	22309.074	-7.833	617.603	617.643
D	22319.074	-7.833	617.613	617.694
E	22329.074	-7.833	617.629	617.750
F	22339.074	-7.833	617.650	617.789
G	22349.074	-7.833	617.677	617.831
H	22359.074	-7.833	617.709	617.878
I	22369.074	-7.833	617.747	617.907
J	22379.074	-7.833	617.790	617.935
K	22389.074	-7.833	617.839	617.968
L	22399.074	-7.833	617.893	617.999
M	22409.074	-7.833	617.953	618.000
N	22419.074	-7.833	618.018	618.034
€ N BRG S A	22423.074	-7.833	618.046	618.046
Q S BRG S A	22425.712	-8.750	618.050	618.050
P	22435.712	-8.750	618.124	618.130
Q	22445.712	-8.750	618.204	618.210
Q BRG S APP	22452.378	-8.750	618.261	618.261
BK S APP	22453.878	-8.750	618.399	618.399

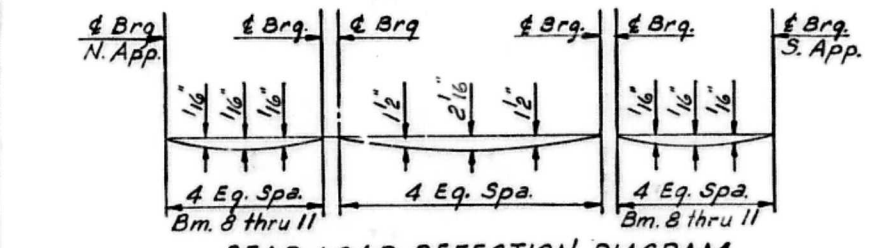
LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22261.250	-0.000	617.877	617.877
€ BRG N APP	22262.750	-0.000	617.750	617.750
A	22272.750	-0.000	617.734	617.740
B	22282.750	-0.000	617.725	617.730
€ N BRG N A	22292.916	-0.000	617.720	617.720
€ S BRG N A	22295.080	-0.000	617.720	617.720
C	22305.080	-0.000	617.723	617.763
D	22315.080	-0.000	617.731	617.811
E	22325.080	-0.000	617.744	617.865
F	22335.080	-0.000	617.763	617.902
G	22345.080	-0.000	617.788	617.942
H	22355.080	-0.000	617.818	617.987
I	22365.080	-0.000	617.853	618.013
J	22375.080	-0.000	617.895	618.039
K	22385.080	-0.000	617.941	618.071
L	22395.080	-0.000	617.993	618.090
M	22405.080	-0.000	618.051	618.107
N	22415.080	-0.000	618.114	618.130
€ N BRG S A	22419.080	-0.000	618.140	618.140
Q S BRG S A	22421.250	0.000	618.155	618.155
P	22431.250	0.000	618.227	618.233
Q	22441.250	0.000	618.305	618.310
Q BRG S APP	22447.916	0.000	618.359	618.359
BK S APP	22449.416	0.000	618.497	618.497

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22261.037	0.416	617.871	617.871
€ BRG N APP	22262.537	0.416	617.743	617.743
A	22272.537	0.416	617.728	617.733
B	22282.537	0.416	617.718	617.724
€ N BRG N A	22292.704	0.416	617.714	617.714
€ S BRG N A	22294.909	0.333	617.715	617.715
C	22304.909	0.333	617.717	617.758
D	22314.909	0.333	617.725	617.806
E	22324.909	0.333	617.739	617.860
F	22334.909	0.333	617.758	617.896
G	22344.909	0.333	617.782	617.936
H	22354.909	0.333	617.812	617.981
I	22364.909	0.333	617.848	618.007
J	22374.909	0.333	617.889	618.033
K	22384.909	0.333	617.935	618.065
L	22394.909	0.333	617.987	618.084
M	22404.909	0.333	618.044	618.101
N	22414.909	0.333	618.107	618.124
€ N BRG S A	22418.909	0.333	618.134	618.134
Q S BRG S A	22421.632	-0.750	618.146	618.146
P	22431.632	-0.750	618.218	618.224
Q	22441.632	-0.750	618.296	618.301
Q BRG S APP	22448.299	-0.750	618.351	618.351
BK S APP	22449.799	-0.750	618.489	618.489

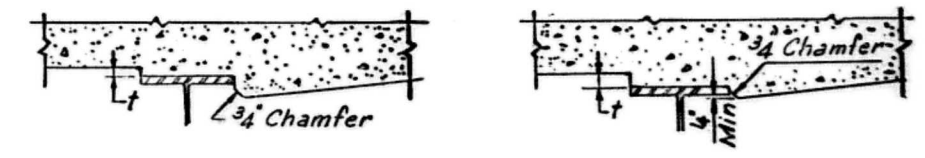
LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22256.660	8.999	617.746	617.746
€ BRG N APP	22258.160	8.999	617.618	617.618
A	22268.160	8.999	617.600	617.605
B	22278.160	8.999	617.588	617.593
€ N BRG N A	22288.327	8.999	617.581	617.581
€ S BRG N A	22290.745	8.500	617.588	617.588
C	22300.745	8.500	617.588	617.628
D	22310.745	8.500	617.594	617.674
E	22320.745	8.500	617.605	617.724
F	22330.745	8.500	617.622	617.760
G	22340.745	8.500	617.644	617.798
H	22350.745	8.500	617.671	617.840
I	22360.745	8.500	617.705	617.884
J	22370.745	8.500	617.743	617.888
K	22380.745	8.500	617.787	617.917
L	22390.745	8.500	617.837	617.934
M	22400.745	8.500	617.892	617.949
N	22410.745	8.500	617.953	617.969
€ N BRG S A	22414.745	8.500	617.979	617.979
Q S BRG S A	22417.553	7.250	618.017	618.017
P	22427.553	7.250	618.087	618.092
Q	22437.553	7.250	618.162	618.167
Q BRG S APP	22444.219	7.250	618.216	618.216
BK S APP	22445.719	7.250	618.353	618.353

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22252.283	17.582	617.593	617.593
€ BRG N APP	22253.783	17.582	617.464	617.464
A	22263.783	17.582	617.444	617.449
B	22273.783	17.582	617.429	617.433
€ N BRG N A	22283.950	17.582	617.420	617.420
€ S BRG N A	22286.581	16.666	617.438	617.438
C	22296.581	16.666	617.436	617.476
D	22306.581	16.666	617.439	617.520
E	22316.581	16.666	617.448	617.569
F	22326.581	16.666	617.462	617.601
G	22336.581	16.666	617.482	617.636
H	22346.581	16.666	617.508	617.676
I	22356.581	16.666	617.538	617.698
J	22366.581	16.666	617.575	617.719
K	22376.581	16.666	617.617	617.746
L	22386.581	16.666	617.664	617.761
M	22396.581	16.666	617.717	617.773
N	22406.581	16.666	617.775	617.791
€ N BRG S A	22410.581	16.666	617.800	617.800
Q S BRG S A	22413.473	15.250	617.848	617.848
P	22423.473	15.250	617.916	617.921
Q	22433.473	15.250	617.989	617.994
Q BRG S APP	22440.140	15.250	618.041	618.041
BK S APP	22441.640	15.250	618.178	618.178

LOCATION	STATION	OFFSET	Theoretical Grade Elevations	Theo. Grade Elev. Adj. For Dead Load Deflection
BK N APP	22247.872	26.233	617.424	617.424
€ BRG N APP	22249.388	26.203	617.296	617.296
A	22259.491	26.000	617.277	617.277
B	22269.594	25.797	617.264	617.264
€ N BRG N A	22279.866	25.592	617.257	617.257
€ S BRG N A	22282.437	24.791	617.271	617.271
C	22292.541	24.588	617.271	617.311
D	22302.644	24.386	617.276	617.357
E	22312.747	24.183	617.287	617.403
F	22322.851	23.981	617.304	617.443
G	22332.954	23.778	617.326	617.480
H	22343.057	23.575	617.354	617.523
I	22353.161	23.373	617.388	617.548
J	22363.264	23.170	617.427	617.571
K	22373.367	22.968	617.471	617.601
L	22383.471	22.765	617.522	617.619
M	22393.574	22.562	617.578	617.635
N	22403.677	22.360	617.639	617.655
€ N BRG S A	22407.715	22.286	617.665	617.665
Q S BRG S A	22409.519	23.002	617.662	617.662
P	22419.623	22.800	617.732	617.732
Q	22429.726	22.597	617.808	617.808
Q BRG S APP	22436.462	22.461	617.862	617.862
BK S APP	22437.978	22.430	617.999	617.999



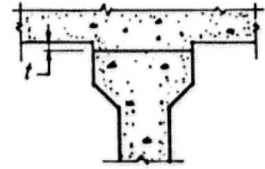
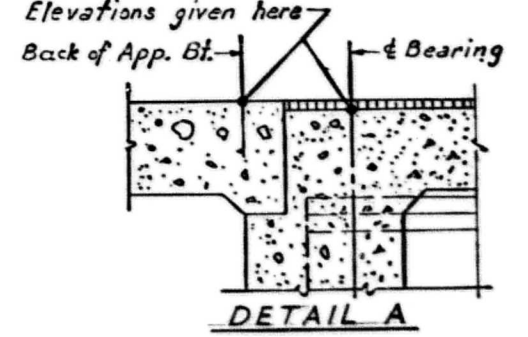
DEAD LOAD DEFLECTION DIAGRAM
 (Includes weight of concrete only)
 Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown above minus slab thickness, equals the fillet heights "t" above top flange of beams.

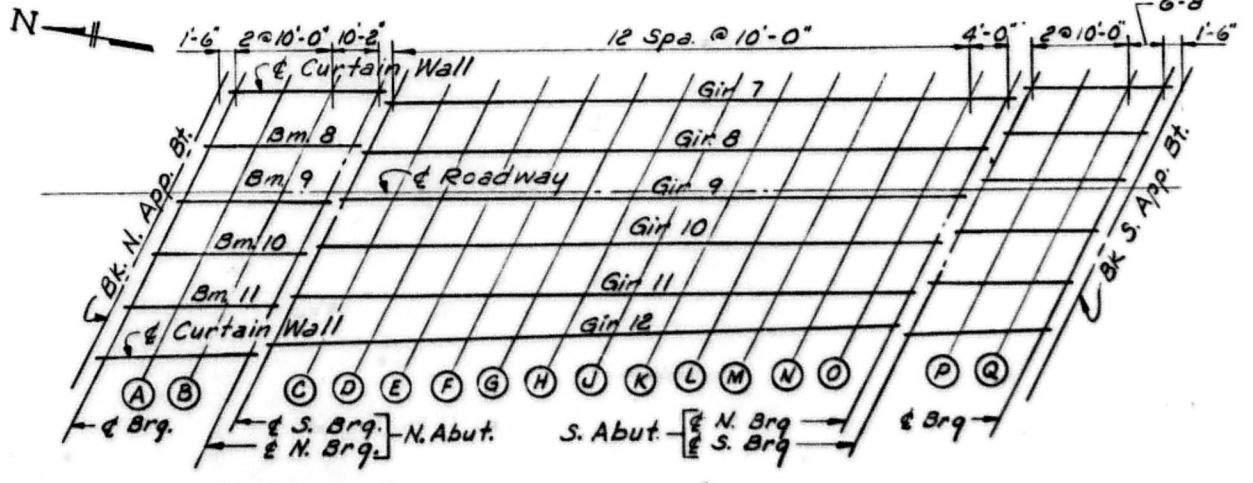
FILLET HEIGHTS

Note: All elevations in the Tables are given at the top of the concrete deck as shown in Detail A. Elevations given here



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted algebraically from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown above, minus slab thickness, equals the fillet "t". A positive value of "t" equals the fillet height above the top of the beam. A negative value of "t", not to exceed 1/2", equals the embedment of the beam above the theoretical bottom of slab elevation.

FILLET HEIGHTS



PLAN

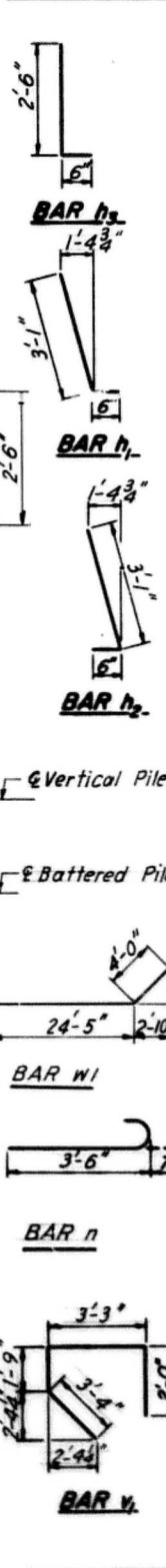
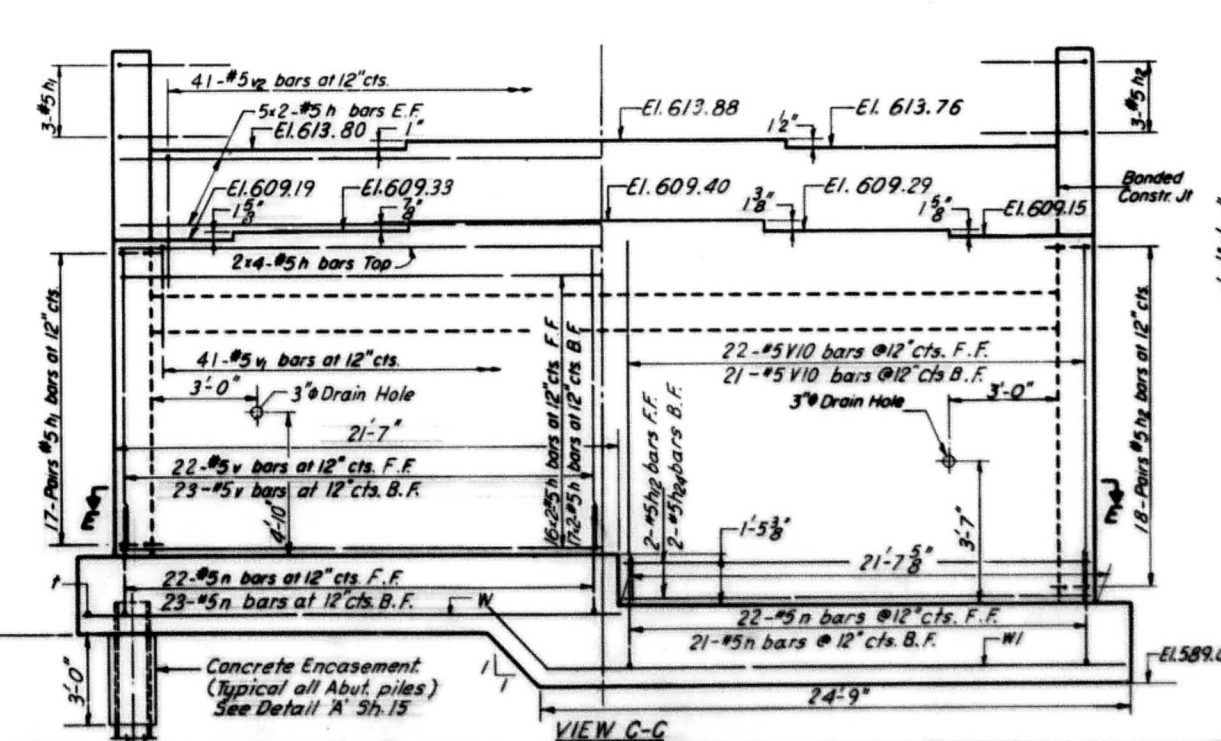
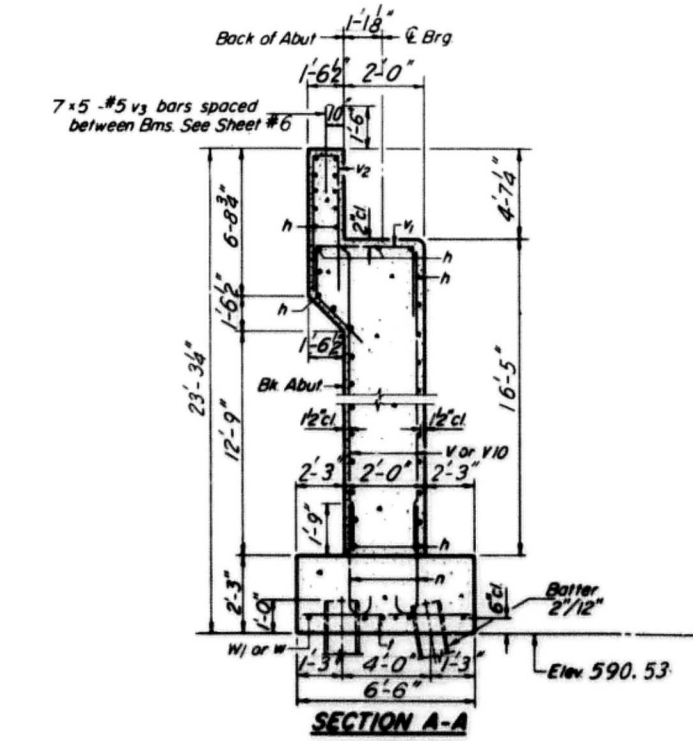
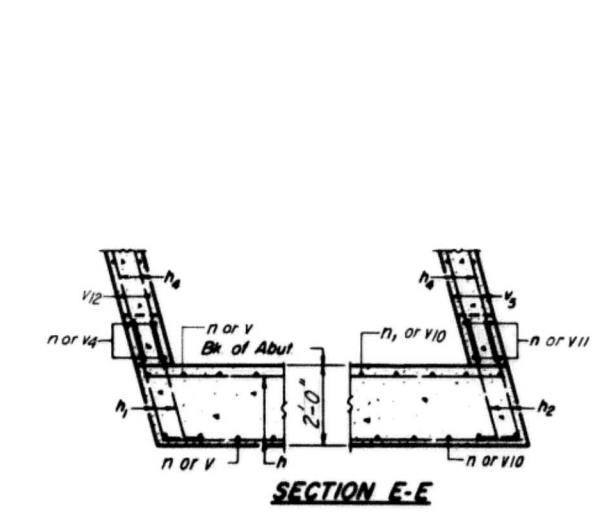
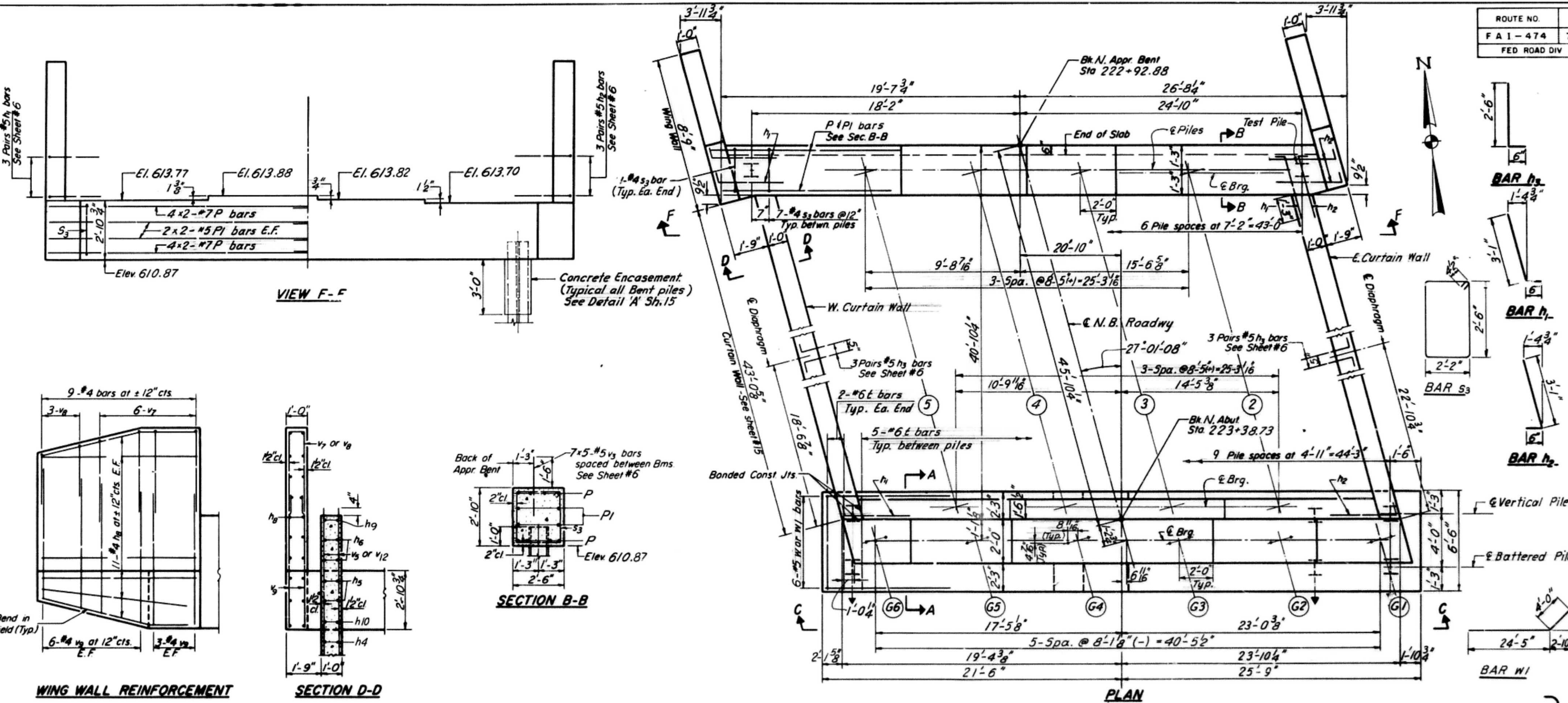
DESIGNED BY: A.D.C.
 DRAWN BY: A.J.C.
 CHECKED BY: A.T.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
ELEVATIONS
 SOUTHBOUND ROADWAY
 F.A.I. ROUTE 474 OVER
 ILLINOIS ROUTE 116
 STA. 223 + 71.15
 F.A.I. RT 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-474	72-3HB-2	PEORIA	41	19
FED ROAD DIV NO. 7		ILLINOIS PROJECT		

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	94	#5	22'-1"	
h	49	#5	3'-7"	
h	51	#5	3'-7"	
h	12	#5	3'-0"	
h	31	#5	40'-2"	
h	16	#5	22'-4"	
h	16	#5	23'-0"	
h	8	#10	42'-0"	
h	44	#4	8'-5"	
h	4	#8	44'-8"	
h	4	#5	30'-0"	
h	4	#10	16'-8"	
h	2	#5	21'-4"	
h	24	#5	20'-3"	
n	100	#5	4'-1"	
p	16	#7	24'-0"	
p	8	#5	23'-8"	
s ₃	44	#4	10'-1"	
t	49	#6	6'-2"	
v	45	#5	16'-1"	
v	41	#5	10'-4"	
v	41	#5	13'-11"	
v	78	#5	3'-0"	
v	6	#5	24'-0"	
v	36	#5	28'-10"	
v	28	#5	5'-11"	
v	12	#4	8'-5"	
v	6	#4	6'-3"	
v	36	#4	7'-2"	
v	43	#5	17'-6"	
v	6	#5	25'-6"	
v	36	#5	26'-2"	
w	6	#5	24'-6"	
w	6	#5	28'-5"	
Reinforcement Bars			Lbs.	15710
Class X Concrete			Cu Yd	160.4
Steel H Piles 10BP42			Lin. Ft.	1234
Test Pile			Eq.	1
Protective Coat			Sq. Yd.	7

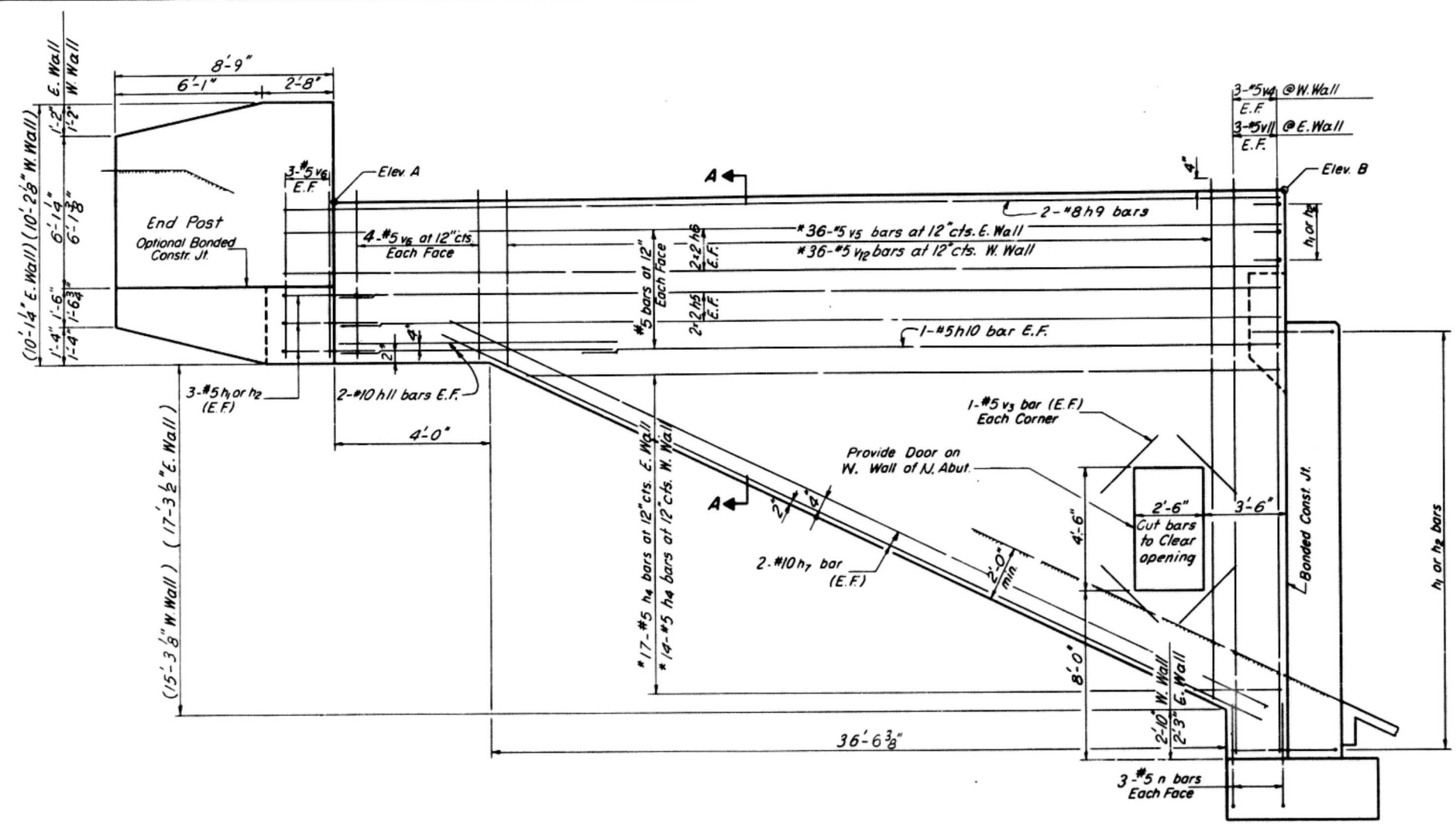


Note: Space Reinforcement Bars in Cap to miss anchor bolts. Pour steps monolithically with Cap. For top of Pile elevation in Abutments See Sh. 22

DESIGNED BY A.T.
DRAWN BY J.V.
CHECKED BY A.T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
NORTH ABUTMENT & APPROACH BENT
NORTHBOUND ROADWAY
FAI. ROUTE 474 OVER
ILLINOIS ROUTE 116
STA 223+71.15
FAI RT. 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS
SHEET 14 OF 23

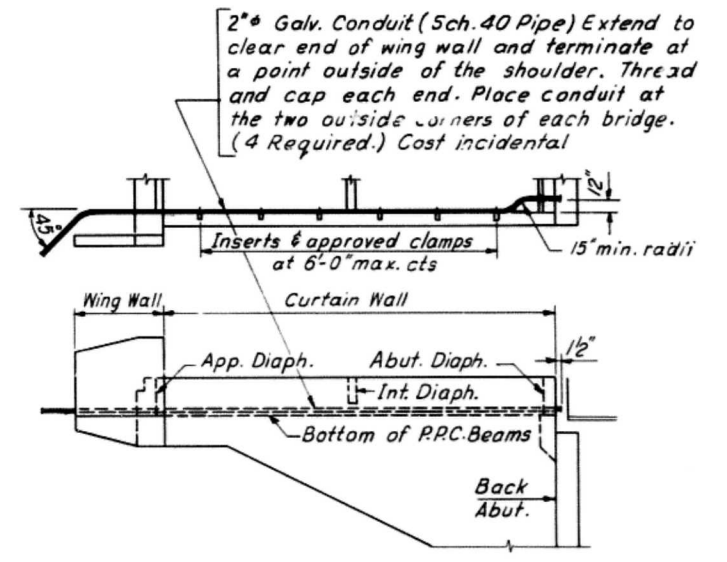
ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
FAI-474	72-3HB-2	PEORIA	41	20
FED ROAD DIV NO 7		ILLINOIS PROJECT		



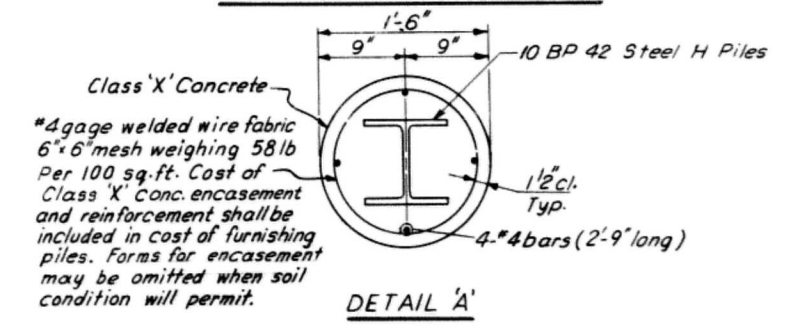
SIDE ELEVATION

TOP OF CURTAIN WALL ELEVATIONS

Location	Elev. A	Elev. B
E. Wall N. Abut.	616.43	616.50
W. Wall N. Abut.	616.51	616.54



ELECTRICAL CONDUIT LOCATION



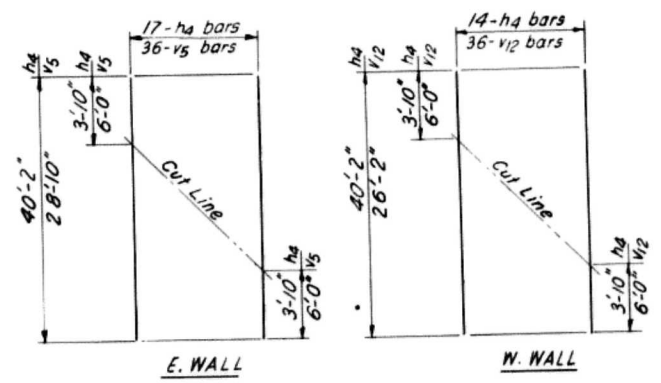
DETAIL 'A'

APPR. BENT - PILE DATA

Type-10BP42 Steel H Piles
Capacity-Drive to refusal
Est. Length-59'
No. Req'd - 6
Test Pile-1

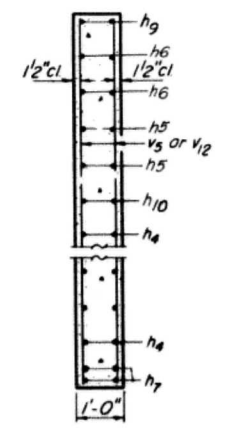
ABUT - PILE DATA

Type-10BP42 Steel H Piles
Capacity-Drive to refusal
Est Length-44'
No. Req'd - 20

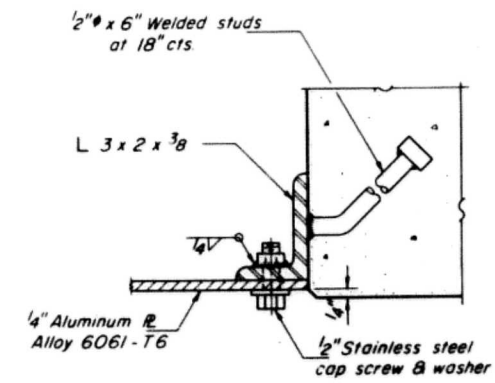


FIELD CUTTING DIAGRAM

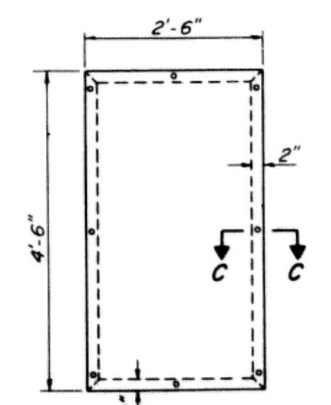
* Order #4, #5, #1/2 bars full length
Cut to fit as shown and use
remainder of bars in other face



SECTION A-A



SECTION C-C



DOOR ELEVATION

(Cost of door and frame are incidental)

DESIGNED BY: A. T.
DRAWN BY: J. J.
CHECKED BY: A. T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS
DIVISION OF HIGHWAYS
NORTH END CURTAIN WALLS & WING WALLS
NORTHBOUND ROADWAY
FAI ROUTE 474 OVER
ILLINOIS ROUTE 116
STA. 223+71.15
FAI RT 474 PEORIA COUNTY SECTION 72-3HB-2
CHRISTIAN-ROGE AND ASSOC
ENGINEERS
CHICAGO, ILLINOIS

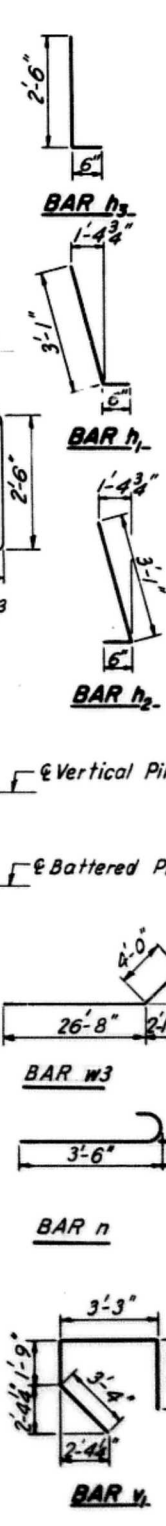
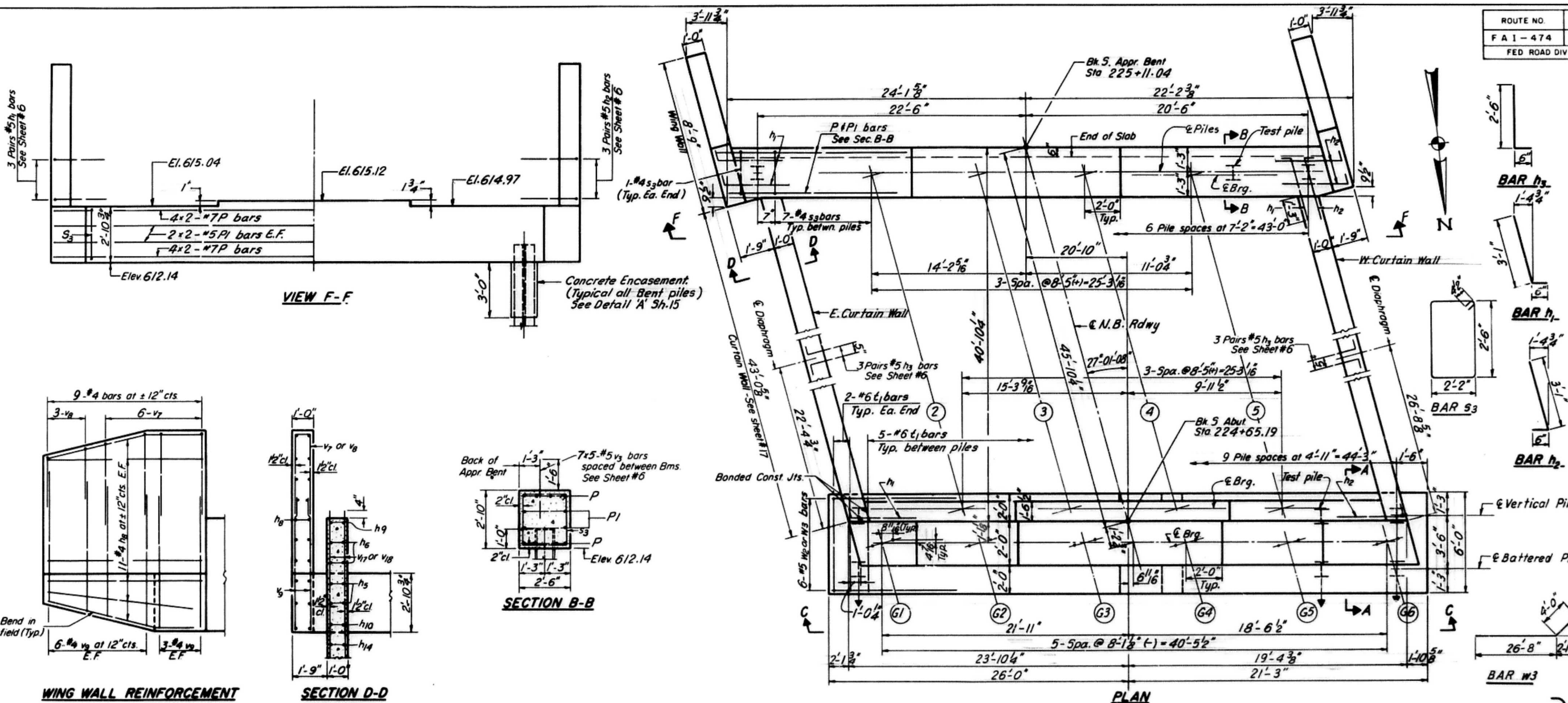
SHEET
15 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 1 - 474	72-3HB-2	PEORIA	4-1	21
FED ROAD DIV NO. 7		ILLINOIS PROJECT		

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	78	#5	22'-1"	—
h	45	#5	3'-7"	—
h	41	#5	3'-7"	—
h ₃	12	#5	3'-0"	—
h ₅	18	#5	22'-4"	—
h ₆	16	#5	23'-0"	—
h ₈	44	#4	8'-5"	—
h ₉	4	#8	44'-8"	—
h ₁₀	4	#5	30'-0"	—
h ₁₁	8	#10	16'-8"	—
h ₁₂	2	#5	21'-4"	—
h ₁₄	18	#5	37'-10"	—
h ₃₂	8	#10	37'-6"	—
n	100	#5	4'-1"	—
p	16	#7	24'-0"	—
p ₁	8	#5	23'-8"	—
s ₃	44	#4	10'-1"	—
t ₁	49	#6	5'-8"	—
v ₁	41	#5	10'-4"	—
v ₂	41	#5	13'-11"	—
v ₃	78	#5	3'-0"	—
v ₆	44	#5	5'-11"	—
v ₇	12	#4	8'-5"	—
v ₈	6	#4	6'-3"	—
v ₉	36	#4	7'-2"	—
v ₁₃	43	#5	12'-7"	—
v ₁₄	45	#5	13'-11"	—
v ₁₅	6	#5	21'-11"	—
v ₁₆	6	#5	20'-7"	—
v ₁₇	33	#5	21'-11"	—
v ₁₈	33	#5	19'-9"	—
w ₂	6	#5	22'-3"	—
w ₃	6	#5	30'-8"	—
Reinforcement Bars				Lbs. 13,620
Class X Concrete				Cu. Yd. 141.0
Steel H Piles 108P42				Lin. Ft. 692
Name Plate				Ea. 1
Test Pile				Ea. 2
Protective Coat				Sq. Yd. 7

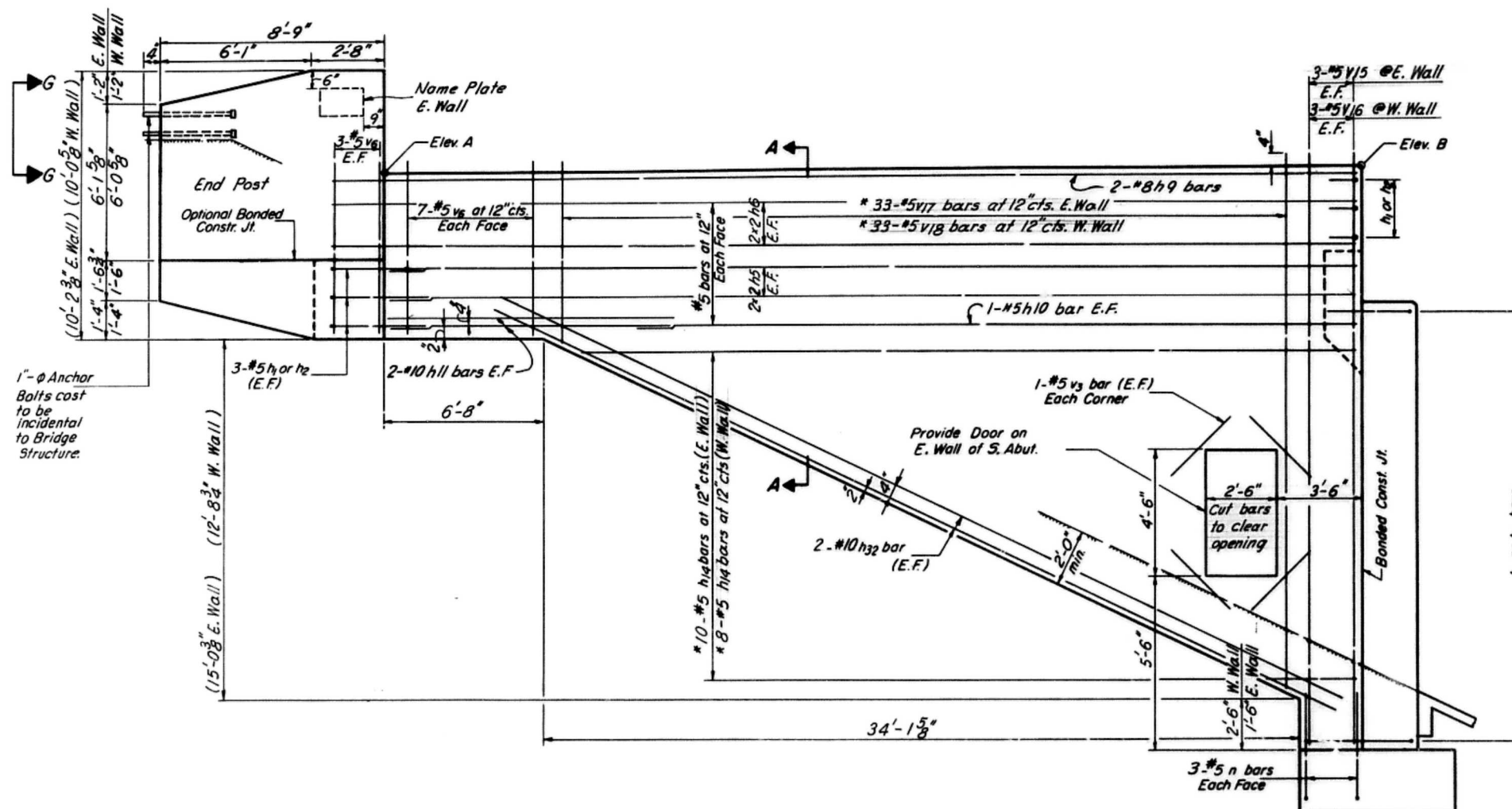
For Note see Sheet 14



STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
SOUTH ABUTMENT & APPROACH BENT
 NORTHBOUND ROADWAY
 F.A.I. ROUTE 474 OVER
 ILLINOIS ROUTE 116
 STA. 223+71.15
 FAI RT. 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

DESIGNED BY: A.T.
 DRAWN BY: J.J.
 CHECKED BY: A.T.

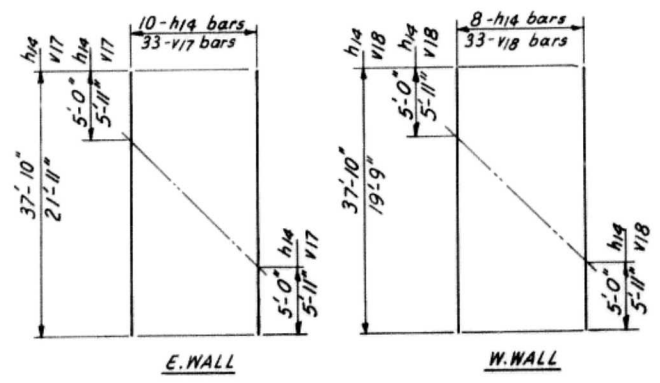
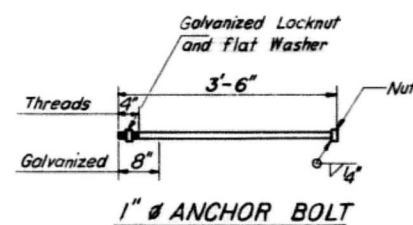
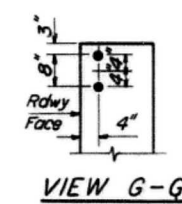
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-474	72-3HB-2	PEORIA	41	22
FED ROAD DIV NO 7		ILLINOIS	PROJECT	



SIDE ELEVATION

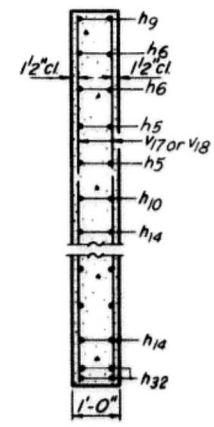
TOP OF CURTAIN WALL ELEVATIONS

Location	Elev. A	Elev. B
E. Wall S. Abut.	617.80	617.32
W. Wall S. Abut.	617.65	617.22

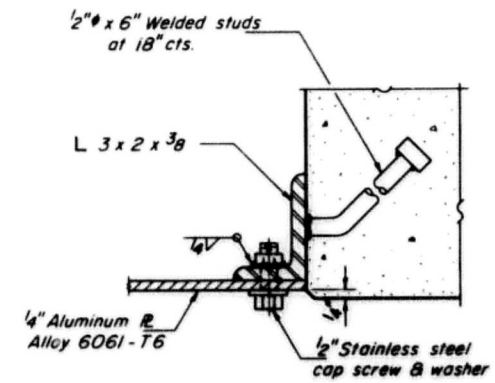


FIELD CUTTING DIAGRAM

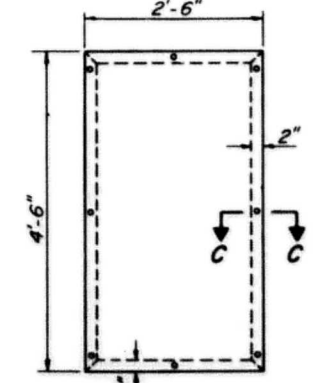
* Order #14, #17, #18 bars full length. Cut to fit as shown and use remainder of bars in other face



SECTION A-A



SECTION C-C



DOOR ELEVATION
(Cost of door and frame are incidental)

APPR. BENT-PILE DATA
 Type-10BP42 Steel H Piles
 Capacity-Drive to refusal
 Est. Length-33'
 No. Req'd - 6
 Test Pile -1

ABUT.-PILE DATA
 Type-10BP42 Steel H Piles
 Capacity-Drive to refusal
 Est. Length-26'
 No. Req'd - 19
 Test Pile -1

DESIGNED BY: A.T.
 DRAWN BY: J.V.
 CHECKED BY: A.T.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 SOUTH END CURTAIN WALLS & WING WALLS
 NORTHBOUND ROADWAY
 F.A.I. ROUTE 474 OVER
 ILLINOIS ROUTE 116
 STA. 223+71.15
 FAI RT. 474 PEORIA COUNTY SECTION 72-3HB-2

CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

SHEET
 17 of 23

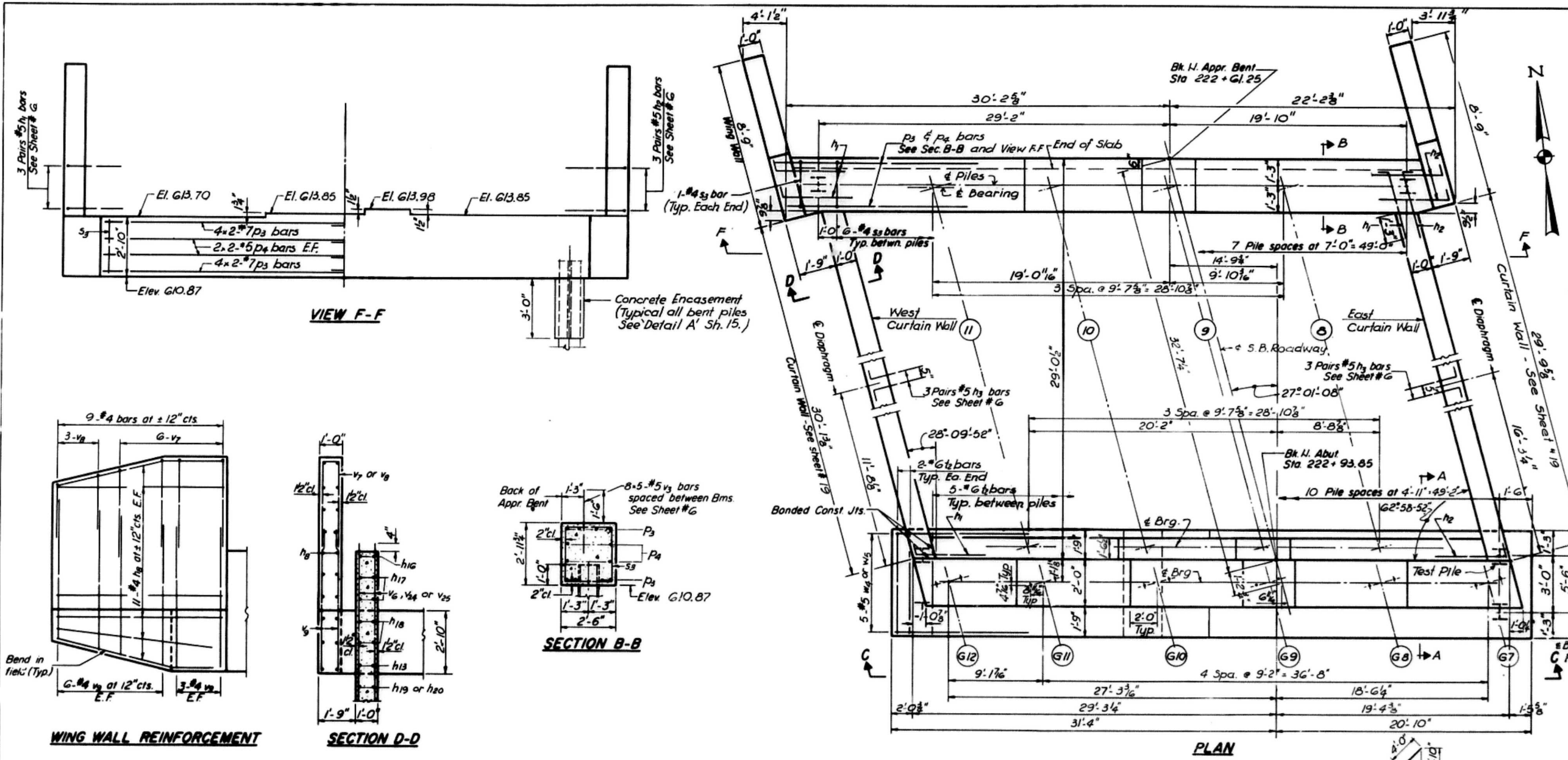
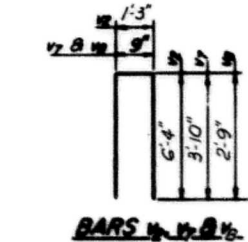
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 1-474	72-3HB-2	PEORIA	41	23
FED ROAD DIV NO 7		ILLINOIS PROJECT		

BILL OF MATERIAL

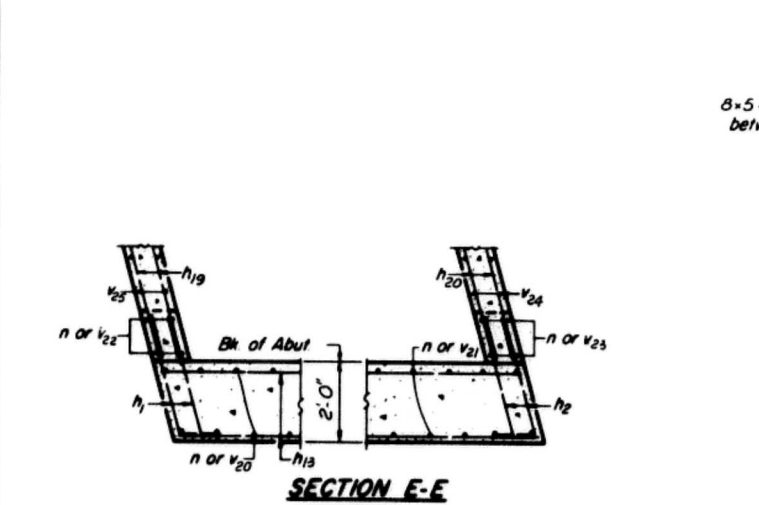
Bar	No.	Size	Length	Shape
h1	35	#5	3'-7"	
h2	39	#5	3'-7"	
h3	12	#5	3'-0"	
h4	44	#4	8'-5"	
h5	8	#10	8'-6"	
h6	70	#5	24'-10"	
h7	4	#10	30'-0"	
h8	4	#8	31'-8"	
h9	16	#5	16'-10"	
h10	16	#5	15'-8"	
h11	8	#5	28'-11"	
h12	11	#5	29'-4"	
h13	2	#5	23'-0"	
h14	2	#5	24'-0"	
n	110	#5	4'-1"	
p3	16	#7	27'-3"	
p4	8	#5	27'-0"	
s5	44	#4	10'-1"	
t2	54	#6	5'-2"	
v1	46	#5	10'-4"	
v2	46	#5	13'-11"	
v3	88	#5	3'-0"	
v4	24	#5	5'-11"	
v7	12	#4	8'-5"	
v8	6	#4	6'-3"	
v9	36	#4	7'-2"	
v20	49	#5	9'-4"	
v21	49	#5	11'-1"	
v22	6	#5	17'-2"	
v23	6	#5	18'-11"	
v24	25	#5	22'-11"	
v25	23	#5	20'-8"	
w4	5	#5	27'-1"	
w5	5	#5	30'-10"	

Reinforcement Bars	Lbs.	12,090
Class X Concrete	Cu Yds.	126.6
108P42 Steel H Piles	Lin Ft.	1525
Test Pile	Ea.	1
Name Plate	Ea.	1
Protective Coat	Sq Yds.	7

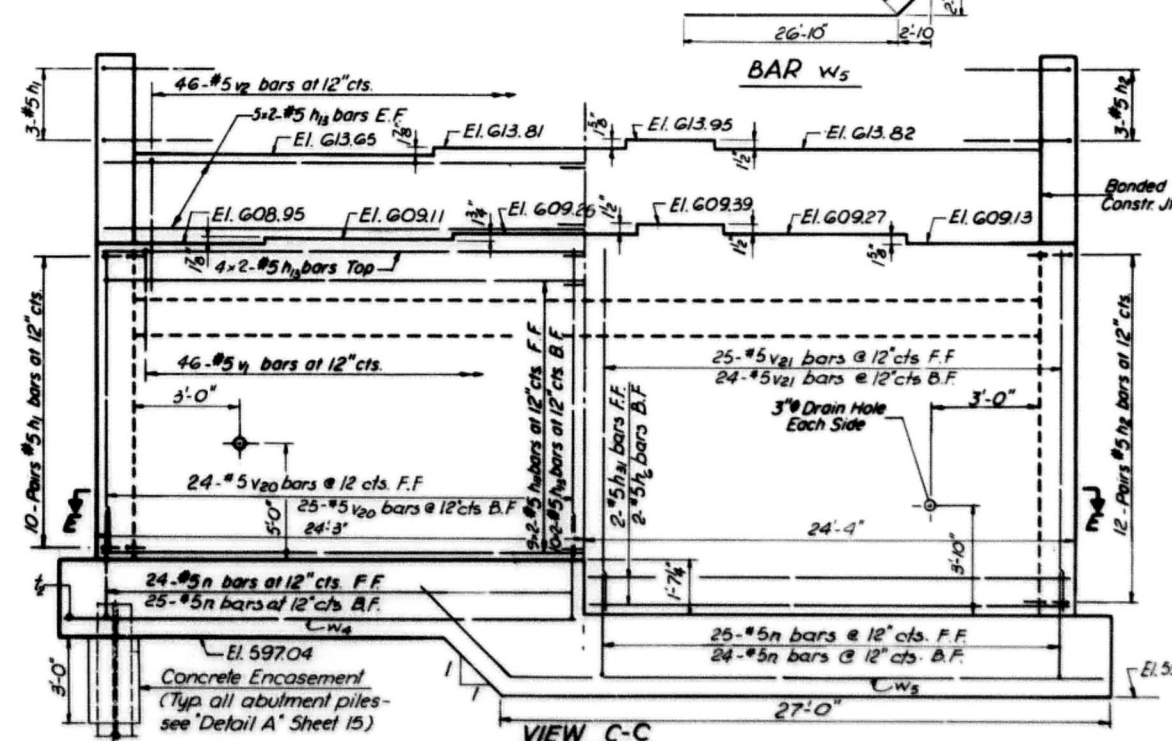
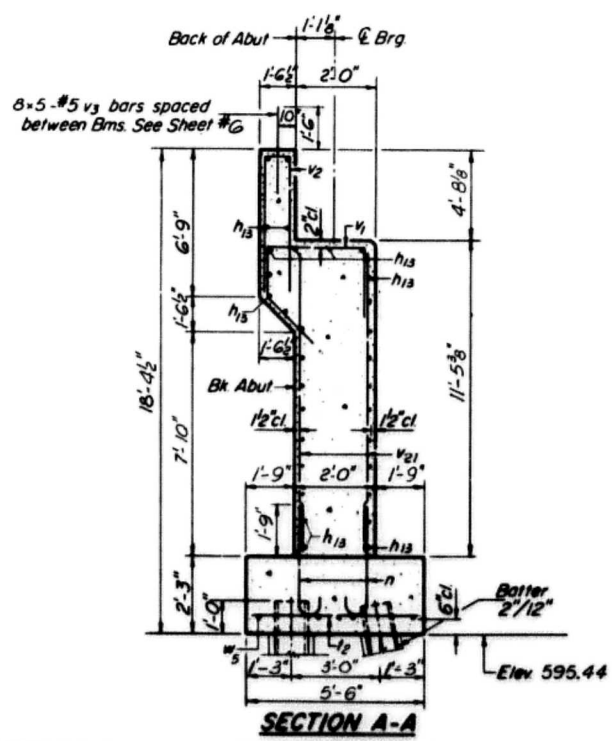
For notes see Sh. 14.



WING WALL REINFORCEMENT



DESIGNED BY A.T.
 DRAWN BY E.C.
 CHECKED BY A.T.



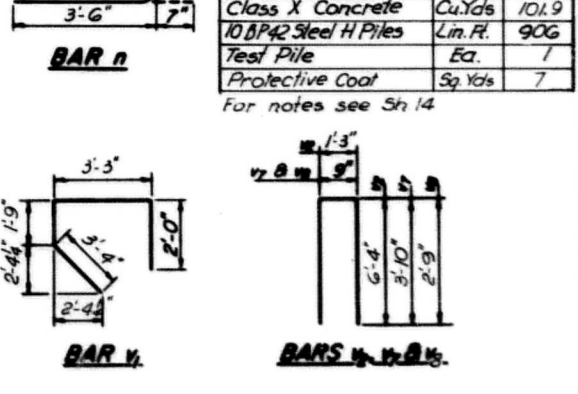
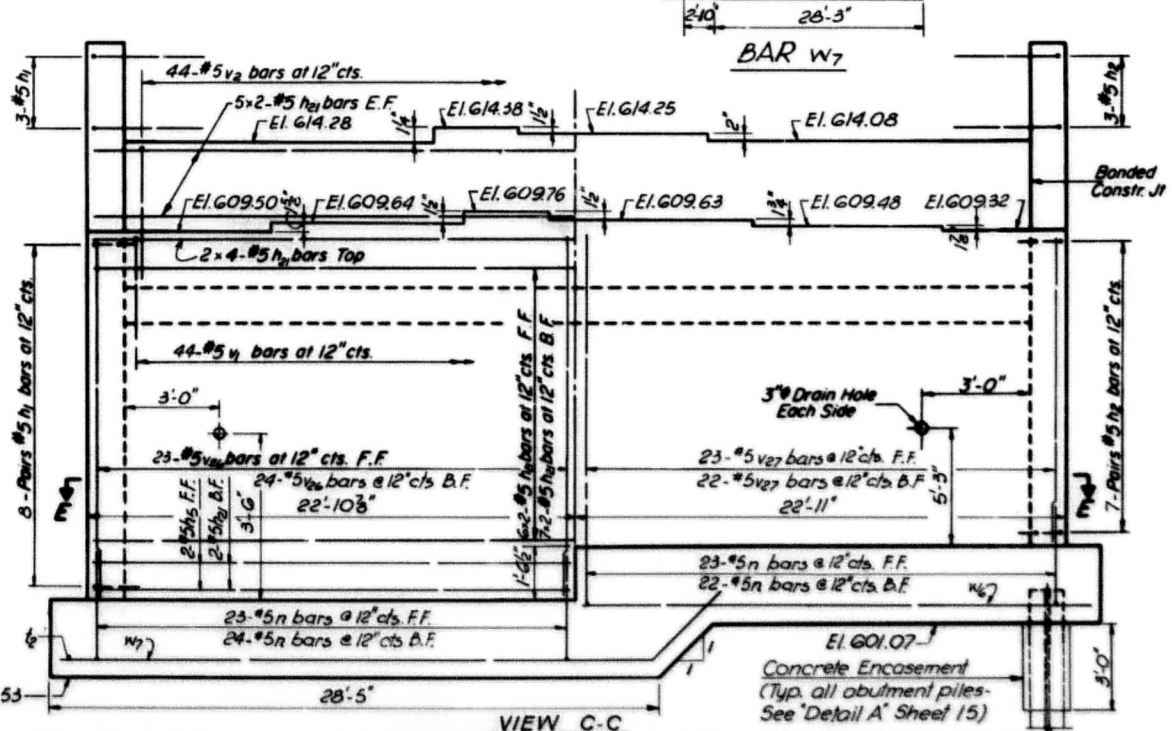
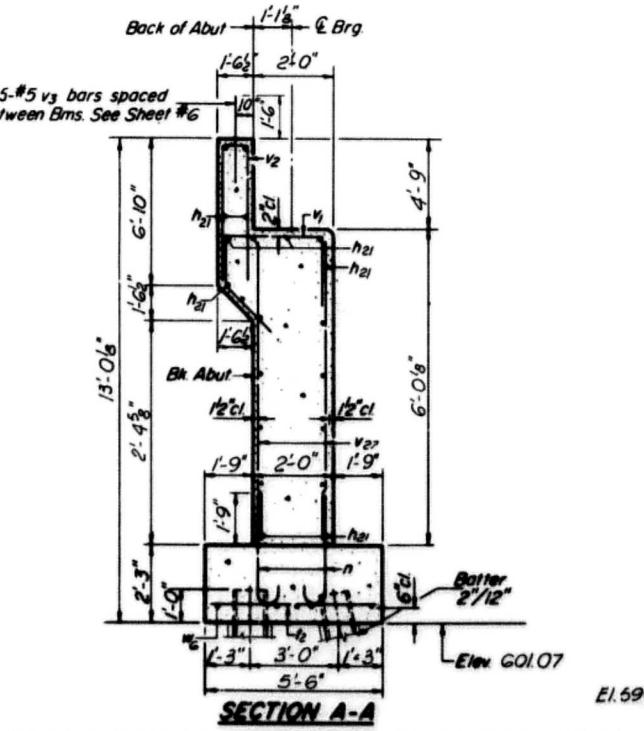
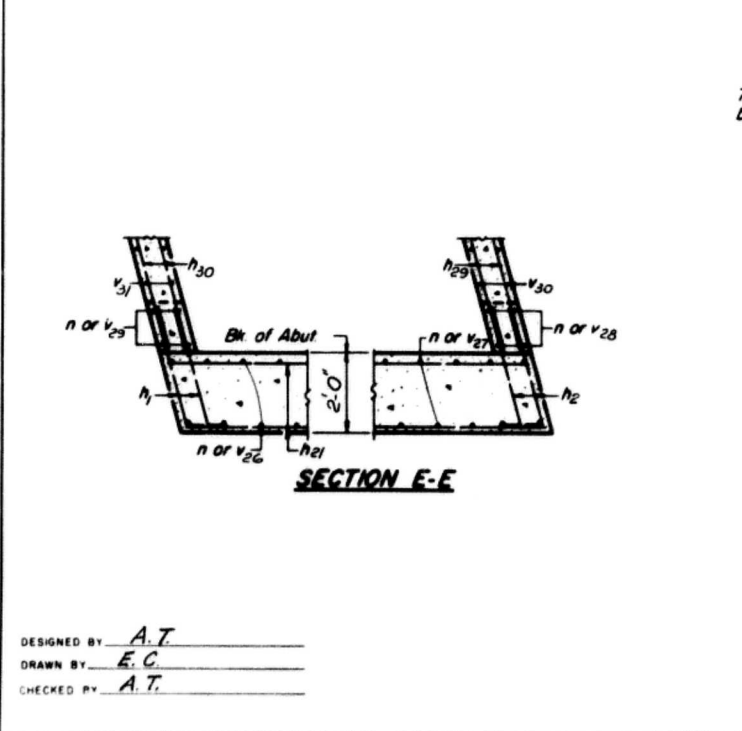
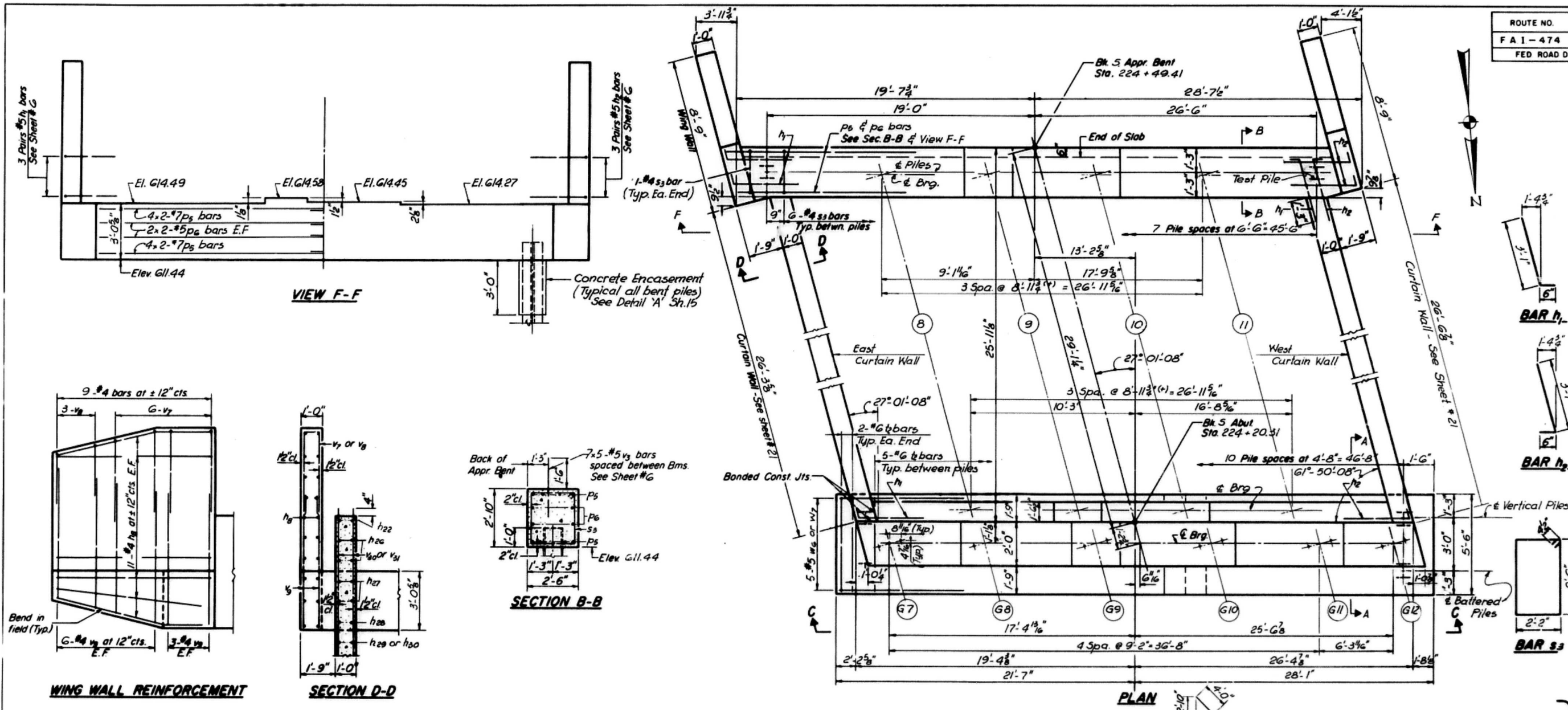
STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 NORTH ABUTMENT & APPROACH BENT
 SOUTHBOUND ROADWAY
 F.A.I. ROUTE 474 OVER
 ILLINOIS ROUTE 116
 STA. 223+71.15
 FAI RT 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-474	72-3HB-2	PEORIA	41	25
FED ROAD DIV NO 7	ILLINOIS PROJECT			

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1	31	#5	3'-7"	
h2	29	#5	3'-7"	
h5	2	#5	22'-4"	
h8	44	#4	8'-5"	
h21	56	#5	23'-5"	
h22	4	#8	28'-4"	
h23	8	#10	23'-0"	
h25	8	#10	8'-6"	
h26	8	#5	28'-4"	
h27	8	#5	26'-0"	
h28	4	#5	18'-9"	
h29	5	#5	21'-4"	
h30	7	#5	23'-3"	
n	104	#5	4'-1"	
ps	16	#7	24'-11"	
pg	8	#5	24'-8"	
s3	44	#4	10'-1"	
t2	54	#6	5'-2"	
v1	44	#5	10'-4"	
v2	44	#5	13'-11"	
v3	73	#5	3'-0"	
v7	12	#4	8'-5"	
v8	6	#4	6'-3"	
v9	36	#4	7'-2"	
v20	47	#5	7'-5"	
v27	45	#5	5'-8"	
v28	6	#5	13'-8"	
v29	6	#5	15'-6"	
v30	19	#5	16'-9"	
v31	19	#5	18'-2"	
v6	32	#5	5'-11"	
w6	5	#5	23'-2"	
w7	5	#5	32'-3"	
Reinforcement Bars	Lbs	9,880		
Class X Concrete	Cu.Yds	101.9		
10 B P42 Steel H Piles	Lin. Ft.	906		
Test Pile	Ea.	1		
Protective Coat	Sq Yds	7		

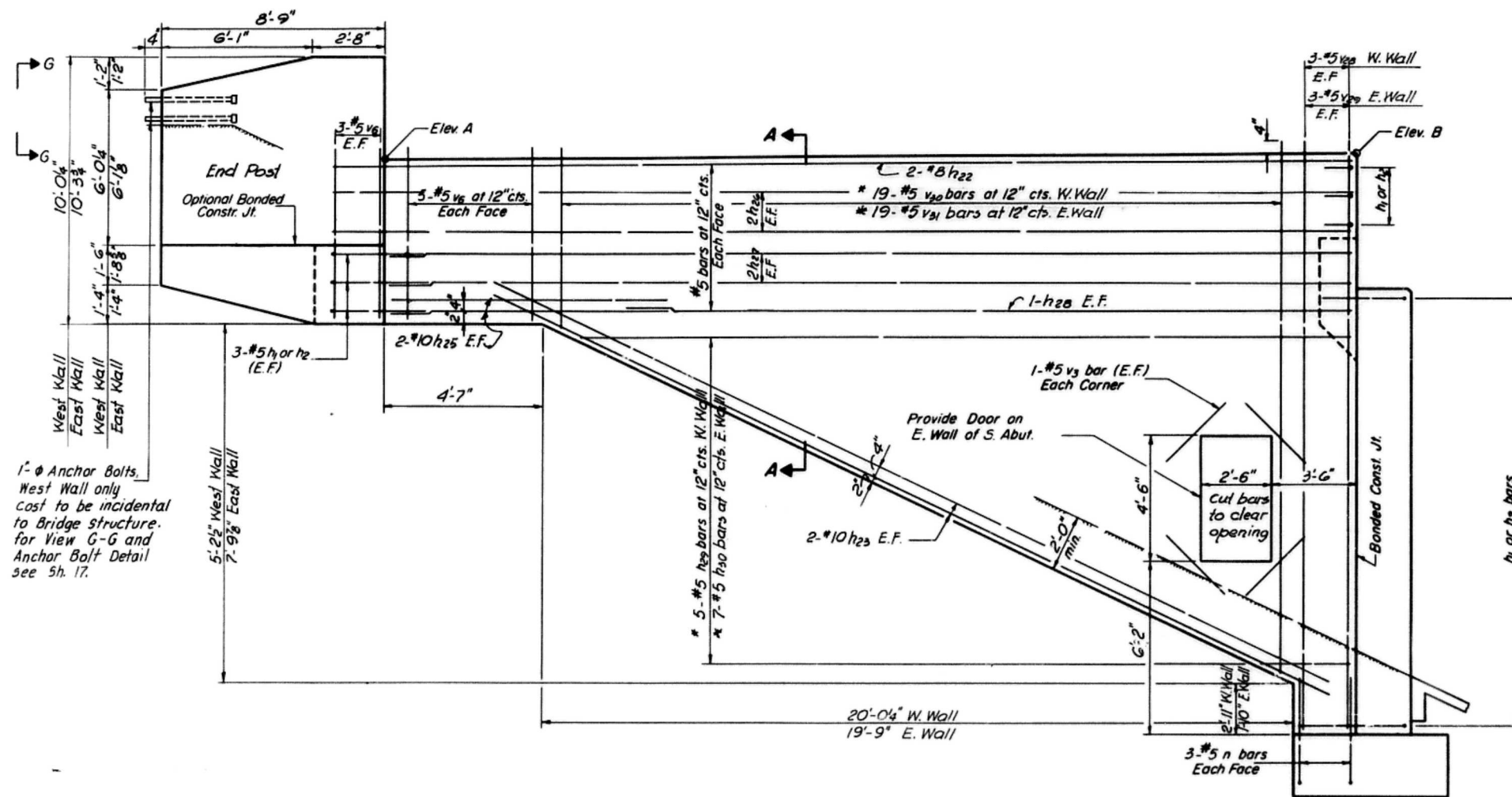
For notes see Sh 14



DESIGNED BY: A.T.
 DRAWN BY: E.C.
 CHECKED BY: A.T.

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
 SOUTH ABUTMENT & APPROACH BENT
 SOUTHBOUND ROADWAY
 F.A.I. ROUTE 474 OVER
 ILLINOIS ROUTE 116
 S: A. 223 + 71.15
 FAI RT. 474 PEORIA COUNTY SECTION 72-3HB-2
 CHRISTIAN-ROGE AND ASSOC.
 ENGINEERS
 CHICAGO, ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F A I - 474	72-3HB-2	PEORIA	41	26
FED ROAD DIV NO 7		ILLINOIS	PROJECT	

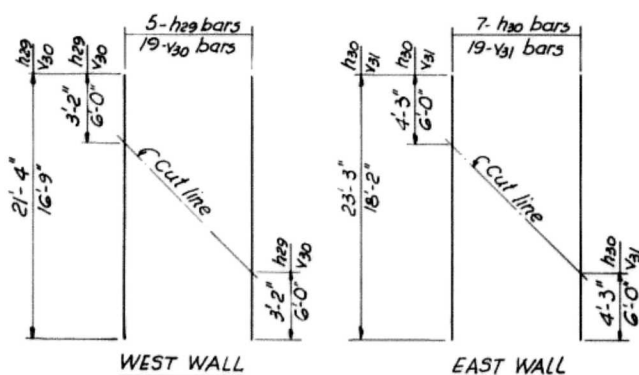


SIDE ELEVATION

TOP OF CURTAIN WALL ELEVATIONS

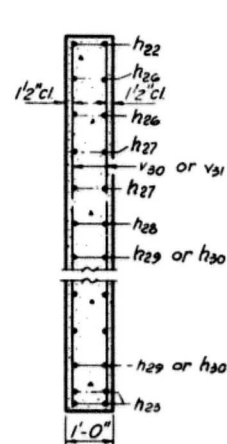
Location	Elev. A	Elev. B
E. Wall S. Abut.	G17.21	G17.00
W. Wall S. Abut.	G16.92	G16.73

1" - ϕ Anchor Bolts, West Wall only cost to be incidental to Bridge structure. for View G-G and Anchor Bolt Detail see Sh. 17.

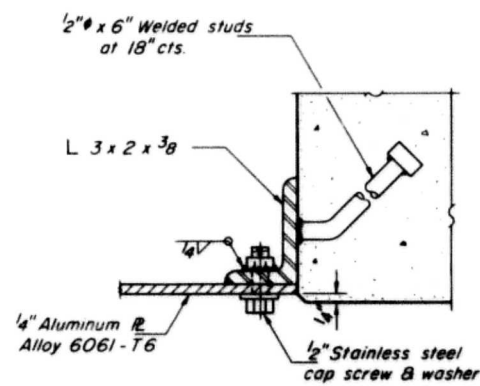


FIELD CUTTING DIAGRAM

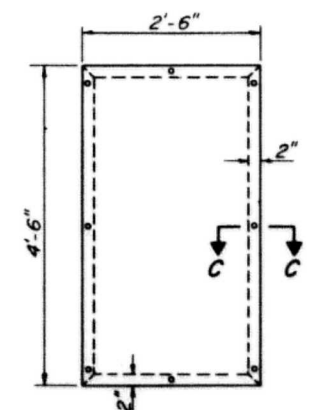
* Order h29, h30, v30 & v31 bars full length. Cut to fit as shown and use remainder of bars in other face



SECTION A-A



SECTION C-C



DOOR ELEVATION

(Cost of door and frame are incidental)

APPR. BENT - PILE DATA

Type : 10 BP 42 Steel
Capacity : Drive to Refusal
Est. Length : 32'
No. Req'd : 7
Test Pile : 1

ABUT - PILE DATA

Type : 10 BP 42 Steel
Capacity : Drive to Refusal
Est. Length : 31'
No. Req'd : 22

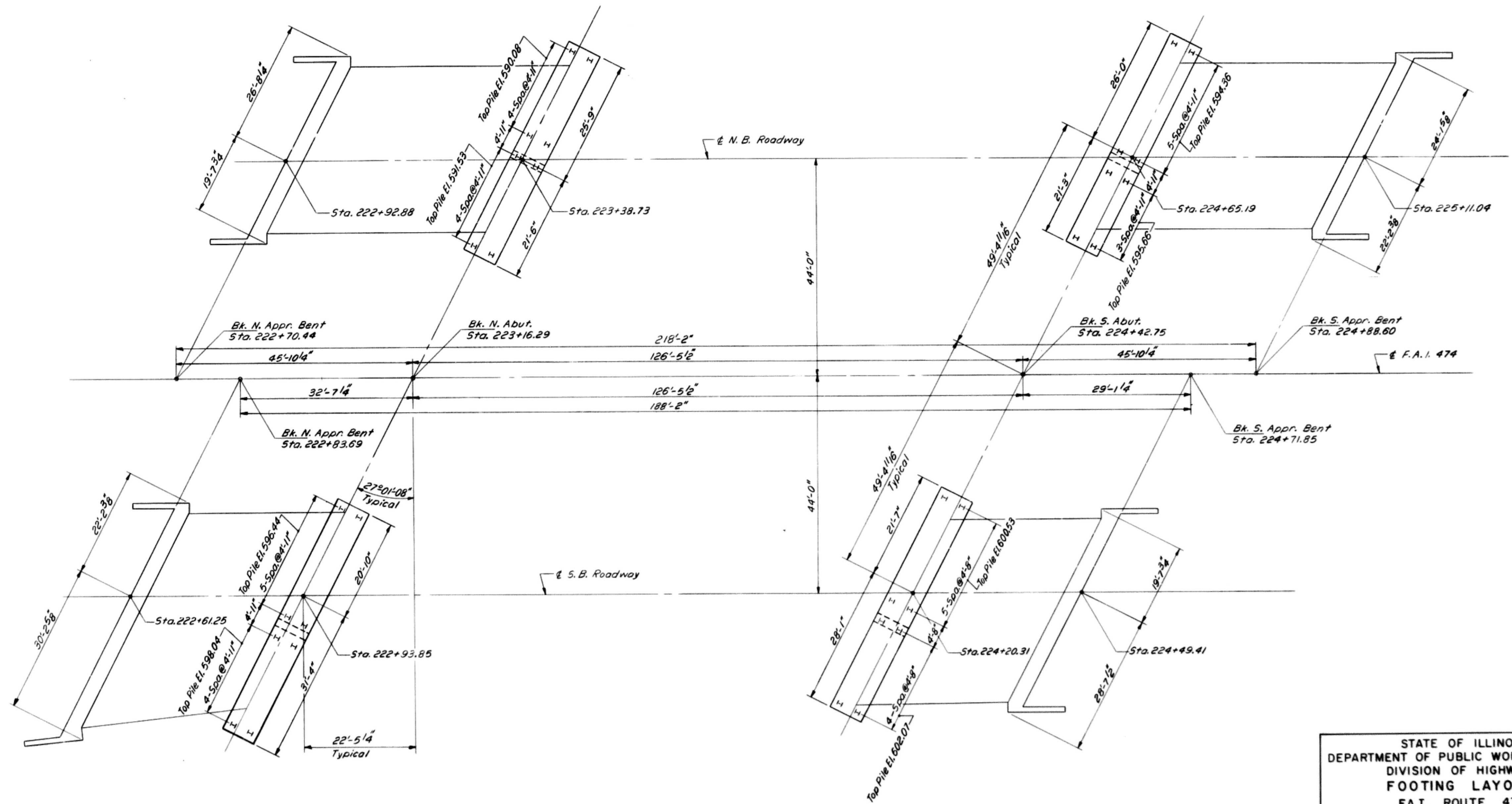
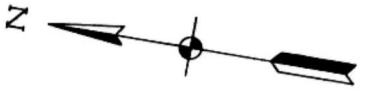
DESIGNED BY: A.T.
DRAWN BY: E.C.
CHECKED BY: A.T.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BLDGS.
DIVISION OF HIGHWAYS
SOUTH END CURTAIN WALLS & WING WALLS
SOUTHBOUND ROADWAY
F.A.I. ROUTE 474 OVER
ILLINOIS ROUTE 116
STA. 223+71.15
F A I RT 474 PEGRIA COUNTY SECTION 72-3HB-2

CHRISTIAN-ROGE AND ASSOC.
ENGINEERS
CHICAGO, ILLINOIS

SHEET
21 of 23

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.-474	72-3HB-2	PEORIA	4-1	27
FED. ROAD DIV. NO. 7	ILLINOIS	PROJECT		



FOOTING LAYOUT

DESIGNED BY A.T.
 DRAWN BY W.E.
 CHECKED BY AT

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BLDGS.
 DIVISION OF HIGHWAYS
FOOTING LAYOUT
 F.A.I. ROUTE 474
 OVER
 ILLINOIS ROUTE 116
 STA. 223 + 71.15
 F.A.I. RT. 474 PEORIA COUNTY SECTION 72-3HB-2

CHRISTIAN-ROGE AND ASSOC. ENGINEERS CHICAGO, ILLINOIS	SHEET 22 of 23
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Boring No. 1
Station 221+80
Offset 25' LT of FAI 474

Elevation	N	Qu / s.f.	w (%)
Ground Surface 581.0	0		
BROWN MOIST CLAY TRACE OF SAND AND GRAVEL	8	1.5 S	-
575.5	16		
BROWN MOIST CLAY LOAM TRACE OF SAND AND GRAVEL	9	1.6 S	-
573.0	9		
BROWN AND GRAY MOIST CLAY	28	2.5 S	-
570.5	28		
BROWN AND GRAY DAMP SHALEY CLAY TRACES OF SANDSTONE	27	4.2 S	-
568.8	27		
566.3	15	1.8 S	-
563.0	32	1.2 S	-
560.5	82	7.4 S	-
559.0	50/1"		
557.5	50/6"		
553.0	50/6"		
END OF BORING			

Boring No. 3
Station 224+30
Offset 50' LT of FAI 474

Elevation	N	Qu / s.f.	w (%)
Ground Surface 581.8	0		
LIGHT BROWN AND GRAY, MOIST CLAY LOAM (TRACES OF SANDSTONE)	100	1.6 S	-
576.3	22		
LIGHT BROWN AND GRAY, MOIST CLAY (TRACE OF SANDSTONE)	17	1.7 S	-
569.1	22		
BROWN AND GRAY DAMP CLAY TRACE OF SAND AND GRAVEL	8	2.1 S	-
566.6	29	4.6 S	-
564.1	54	5.0 S	14
561.3	6	1.2 S	-
556.3	25	5.0 4"	-
551.3	24		
547.8	50/5"		
547.3			
END OF BORING	-35		

Boring No. 5
Station 221+70
Offset 50' RT of FAI 474

Elevation	N	Qu / s.f.	w (%)
Ground Surface 577.1	0		
BROWN MOIST CLAY	11	2.7 S	21
571.1	11		
BROWN DAMP CLAY LOAM TRACE OF SAND AND GRAVEL	17	5.0 S	14
569.1	22		
BROWN AND GRAY DAMP CLAY TRACE OF SAND AND GRAVEL	29	4.6 S	17
566.6	29		
BROWN DAMP SHALEY CLAY	54	5.0 S	14
564.1	54		
GRAY DAMP SHALEY CLAY	83	9.2 S	11
561.3	6	1.2 S	-
556.3	25	5.0 4"	-
551.0	11		
END OF BORING	-35		

Boring No. 7
Station 224+26
Offset 32' RT of FAI 474

Elevation	N	Qu / s.f.	w (%)
Ground Surface 587.6	0		
BROWN, MOIST CLAY	15	2.0 S	21
581.1	15		
BROWN, MOIST CLAY LOAM (TRACE OF SAND AND GRAVEL)	26	2.2 S	21
574.6	11	2.0 S	27
572.1	12	3.1 S	15
569.6	11	1.0 S	28
562.1	25	5.0 3"	6
END OF BORING	-35		

N - Standard Penetration Test -
Blows per foot to drive 2"
O. D. Split Spoon Sampler 12" with
140# hammer falling 30".

Qu - Unconfined Compressive
Strength - t/sf
w - Water Content - percentage
of oven dry weight - %.

Typo failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

