

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

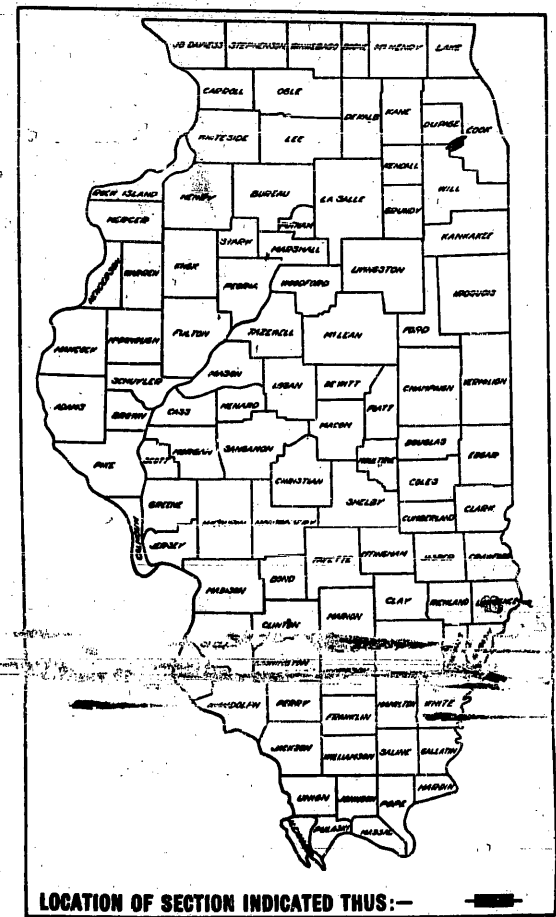
FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
I-55-6(9)267	DU PAGE	105	1	
I.L.L. REG. NO. 4 ILLINOIS PROJECT I-55-6(9)267				

SCALES
 PLAN 1 INCH = 100 FT. & 1 INCH = 80 FT.
 PROFILE, HOR. 1 INCH = 100 FT. & 1 INCH = 80 FT.
 PROFILE, VERT. 1 INCH = 10 FT. & 1 INCH = 8 FT.
 CROSS-SECTIONS 1 INCH = 8 FT. VERT. & 1 INCH = 10 FT. HORIZ.

**F.A.I. ROUTE 55 SECTION 22-2HB-1
PROJECT I-55-6(9)267
DU PAGE COUNTY**

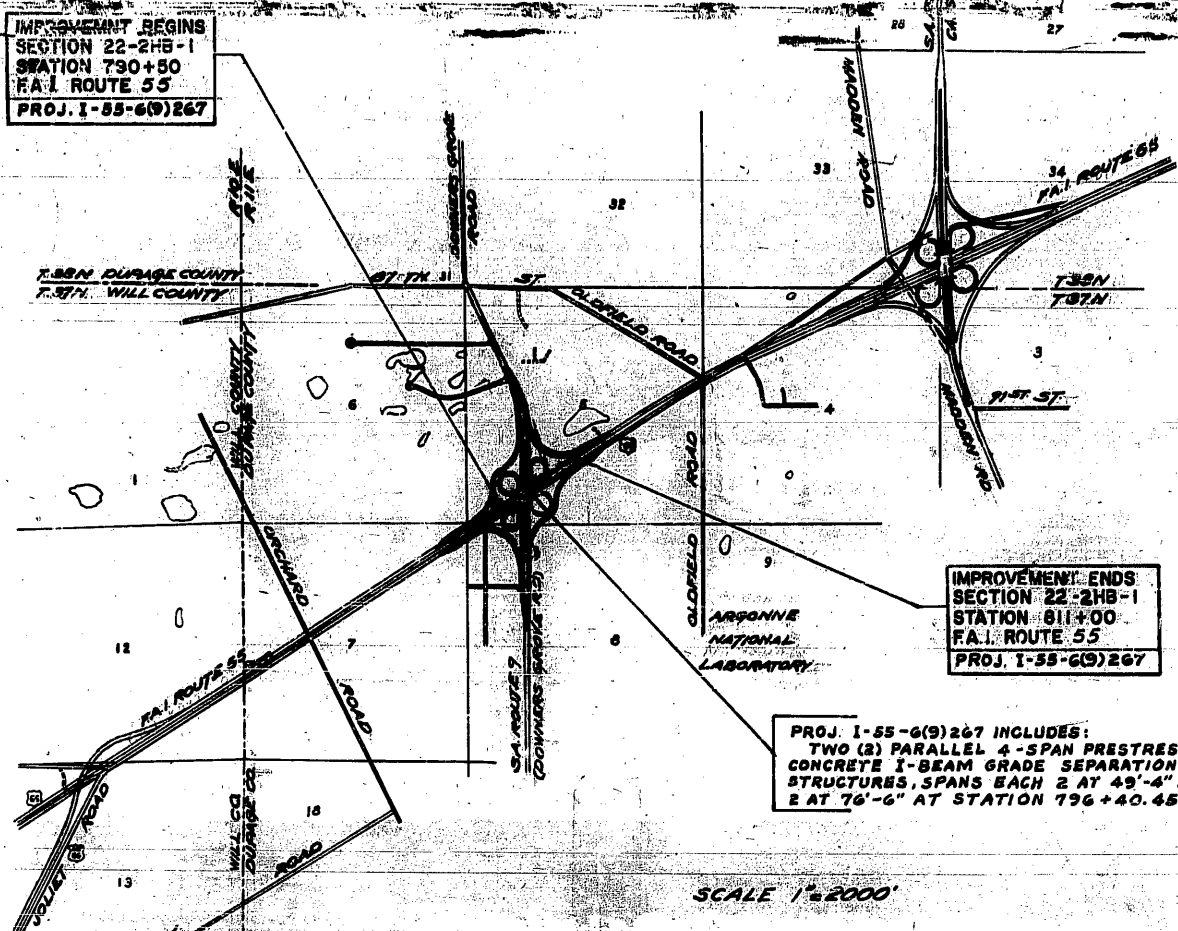
I-55-6(9)267
I-03-6(9)

#376



LOCATION OF SECTION INDICATED THUS: —

PLANS FOR STRUCTURES EXAMINED FEB. 24 '59
 ENGINEER OF RECORD: [Signature]



IMPROVEMENT BEGINS
SECTION 22-2HB-1
STATION 790+50
F.A.I. ROUTE 55
PROJ. I-55-6(9)267

IMPROVEMENT ENDS
SECTION 22-2HB-1
STATION 811+00
F.A.I. ROUTE 55
PROJ. I-55-6(9)267

PROJ. I-55-6(9)267 INCLUDES:
TWO (2) PARALLEL 4-SPAN PRESTRESSED
CONCRETE I-BEAM GRADE SEPARATION
STRUCTURES, SPANS EACH 2 AT 49'-4" AND
2 AT 76'-6" AT STATION 796+40.45

SCALE 1"=2000'

NET LIMIT OF PROJECT = 2050.00 FEET = 0.383 MILE

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

SUBMITTED: Feb. 18, 1959
 DISTRICT ENGINEER: [Signature]

EXAMINED: May 14, 1959
 DIVISION ENGINEER: [Signature]

PASSED: May 14, 1959
 CHIEF ENGINEER: [Signature]

APPROVED: May 14, 1959
 ENGINEER OF DESIGN: [Signature]

APPROVED: May 14, 1959
 CHIEF HIGHWAY ENGINEER: [Signature]

APPROVED: May 14, 1959
 DIRECTOR: [Signature]

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: [Signature]

DIVISION ENGINEER: [Signature] DATE: []

INDEX OF SHEETS

F.A.I. ROUTE 55; SECTION 22-2HB-1

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27	Profiles Ramps E & F
28	Profiles Ramps G & H
29	Profile Frontage Road I
30	Profile Frontage Road II
31	Profile Frontage Road III
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105	Standards 1775R, 2124R

SYMBOLS

	Proposed Portland Cement Concrete Pavement		Inlet to be constructed
	Proposed Colored Portland Cement Concrete Pavement		Cu.Yds. Trench Backfill
	Proposed Bituminous Surface Treatment Sub-Class A2 on Gravel or Crushed Stone Base Course, Type A		Cu.Yds. Granular Backfill at Culverts
	Proposed Incidental Bituminous Surfacing on Gravel or Crushed Stone Base Course, Type A (See Schedule for location and thickness.)		Private Entrance
	Existing Pavement to be removed		Existing Culvert
	Existing Pavement to be left in place		Proposed Pipe Culvert
	Proposed 2" Compacted Depth (220#/S.Y.) Bituminous Concrete, Dense Graded Aggregate Type, Class B, Sub-Class B-5 on 7" Compacted Depth, Gravel or Crushed Stone Base Course, Type A		Pipe Culvert (Type, Size and Length)
	Gravel or Crushed Stone Surface Course, Type A		Standard Headwall (Pipe, Size and Slope)
	Proposed Temporary Bituminous Surface Treatment Sub-Class A-3 on Gravel or Crushed Stone Base		Proposed Steel Plate Beam Guard Rail (12.5' Units)
	Manhole		Invert of Culvert
			Special Ditch Flow Line
			Catch Basins

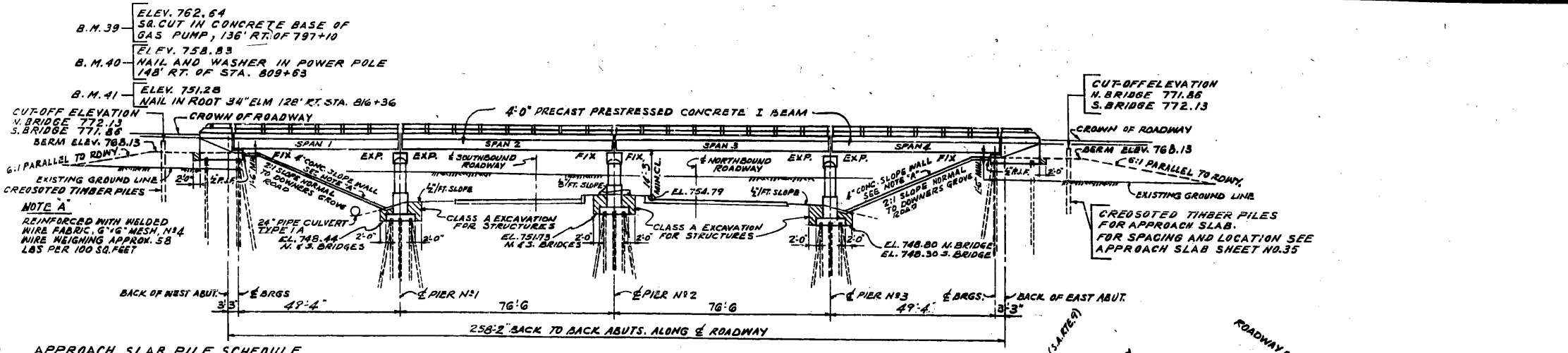
SUMMARY OF QUANTITIES

ITEM	UNIT	QUANTITY
Bituminous Materials (Cover and Seal Coats)	Gals.	14,538
Bituminous Materials (Prime Coat)	Gals.	15,632
Cast Iron Grates	Lbs.	970
Catch Basins, Type C, with Type 8 Grate	Each	2
Catch Basins, Type C, with Type 10 Frame	Each	3
Catch Basins, Type C, with Type 11 Frame	Each	4
Class A Excavation for Structures	Cu.Yds.	1,157
Class X Concrete	Sq.Yds.	2,210.7
Colored P.C. Concrete Pavement (10")	Sq.Yds.	11,209
Combination Concrete Curb and Gutter, Type 6	Lin.Ft.	4,258
Combination Concrete Curb and Gutter, Type 10	Lin.Ft.	9,166
Complete Seeding	Acres	21
Concrete Curb, Type 4	Lin.Ft.	1,421
Concrete Gutter, Type B	Lin.Ft.	1,847
Corrugated Metal Pipe, 15" (Temporary)	Lin.Ft.	212
Cover Coat Aggregate	Tons	371
Cover Coat Mixture Complete	Tons	1,069
Driving Concrete Piles	Lin.Ft.	2,070
Driving Timber Piles	Lin.Ft.	14,146
Earth Excavation	Cu.Yds.	281,027
Emulsified Asphalt	Gals.	8,400
Fertilizer Nutrients	Tons	4
Furnishing and Erecting Precast Prestressed Concrete I-Beams	Lin.Ft.	5,977.6
Furnishing and Erecting Metal Handrail	Lin.Ft.	1,104
Furnishing and Erecting R.O.W. Markers	Each	56
Furnishing and Erecting Structural Steel	Lbs.	49,760
Furnishing Concrete Piles	Lin.Ft.	2,070
Furnishing Cressed Piles, Up to 20'	Lin.Ft.	160
Furnishing Cressed Piles, 20.1' to 38'	Lin.Ft.	17,986
Granular Embankment	Cu.Yds.	31,096
Gravel or Crushed Stone Base Course, Type A	Tons	87
Gravel or Crushed Stone Shoulders, Type A	Tons	9,329
Gravel or Crushed Stone Shoulders, Type B	Tons	705
Gravel or Crushed Stone Surface Course, Type A	Tons	2,829
Guide Posts	Each	252
Handrail Concrete	Cu.Yds.	4.4
Incidental Bituminous Surfacing	Tons	342
Inlets, Type 10	Each	1
Inlets, Type 11	Each	12
Inlets, Type 12	Each	12
Inlets, Type 13	Each	4
Inlets, Type 14	Each	3
Inlets, Type 15	Each	3
Inlets, Type 16	Each	2
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Inlets,		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	222HB-1	DU PAGE	105	36
STA.	TO STA.			
REG. ROAD DIST. NO. 4	ILLINOIS	F.A. PROJECT	I-03-6(9)	

INDEX OF NORTH AND SOUTH BRIDGES
TITLE

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39	DECK REINFORCEMENT PLAN SPANS 1 & 2
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41	DECK CROSS SECTIONS AND DIAPHRAGM DETAILS
42	DIAPHRAGM DETAILS
43	DETAILS OF PRECAST PRESTRESSED CONCRETE I-BEAM
44	FRAMING PLAN AND DECK PLAN AT PIERS
45	BEARINGS DETAILS AND EXPANSION DEVICE
46	HANDRAIL DETAILS
47	EAST AND WEST ABUTMENTS AND WINGWALL DETAILS
48	EAST AND WEST ABUTMENTS AND CROSS SECTIONS
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51	PIER 3 NO. BRIDGE-PIER 1 SO. BRIDGE
52	REINFORCEMENT BAR LISTS
53	ABUTMENT PILES



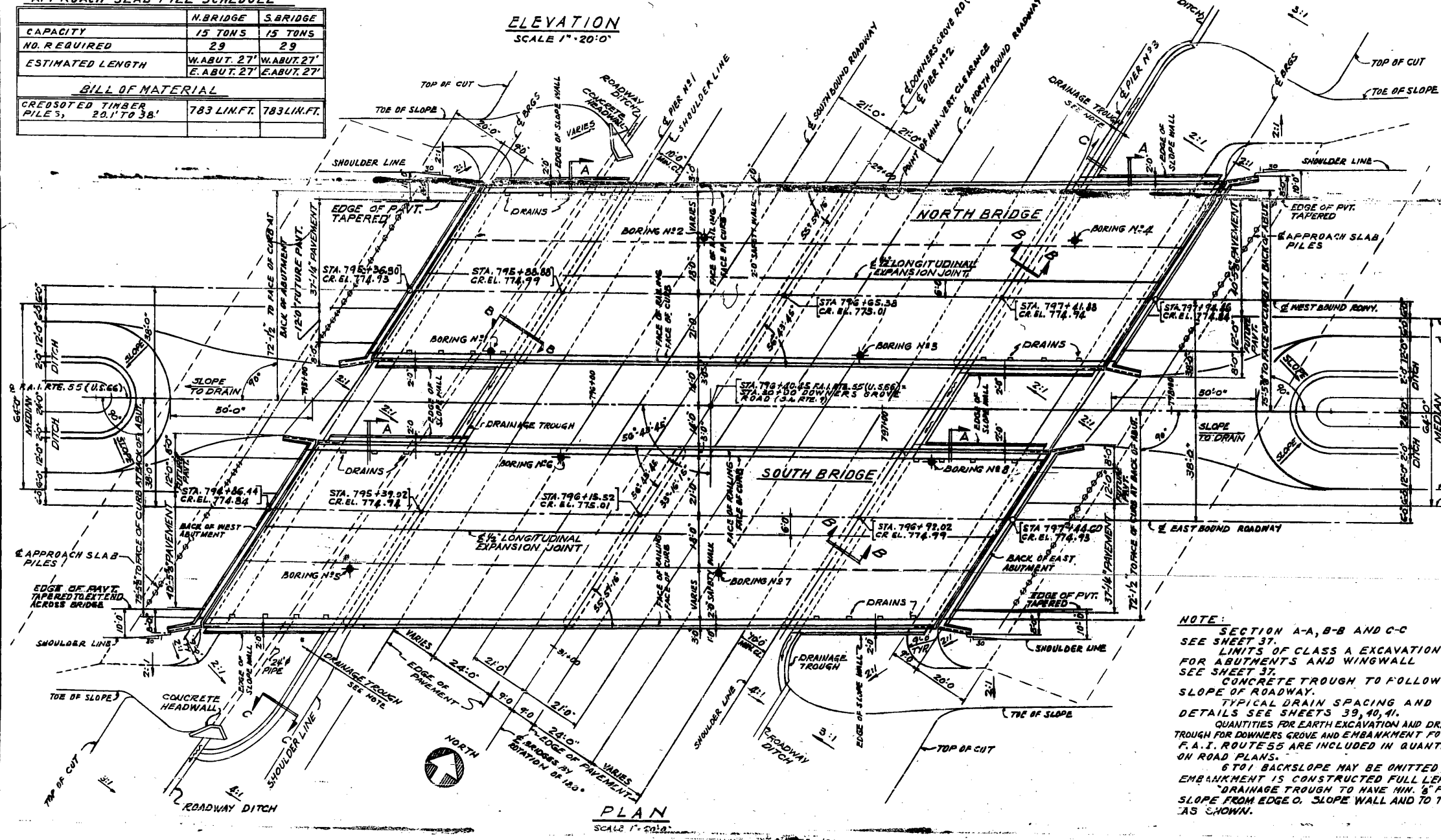
APPROACH SLAB PILE SCHEDULE

	N. BRIDGE	S. BRIDGE
CAPACITY	15 TONS	15 TONS
NO. REQUIRED	29	29
ESTIMATED LENGTH	W. ABUT. 27' E. ABUT. 27'	W. ABUT. 27' E. ABUT. 27'

BILL OF MATERIAL

CRESOTED TIMBER PILE 3", 20' TO 38'	783 LIN. FT.	783 LIN. FT.
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ELEVATION
SCALE 1" = 20' 0"



PLAN
SCALE 1" = 20' 0"

ABUTMENT PILE NOTES.

1. DRIVE A CONCRETE TEST PILE AT EACH ABUTMENT.
2. CONSTRUCT EMBANKMENTS AS SHOWN.
3. DRIVE THE REMAINDER OF THE CONCRETE PILES THROUGH THE EMBANKMENTS TO THE CAPACITY SHOWN ON THE PLANS AND TO NOT LESS THAN THE DEPTH DETERMINED FROM THE TEST PILES.
4. DRIVE TIMBER PILES FOR ABUTMENT WINGS AND APPROACH SLABS TO THE CAPACITY SHOWN ON THE PLANS AND TO A MINIMUM PENETRATION OF 10 FEET INTO THE EXISTING GROUND.
5. SEE SPECIAL PROVISIONS FOR ADDITIONAL REQUIREMENTS.

DESIGN LOADS
L.L. H20-SIG-44 & ALTERNATE FUTURE L-12 BIT WEARING SURFACE

DESIGN STRESSES

CONCRETE (CAST IN PLACE)
 f_c = 3,500 P.S.I.
 f_c = 1,480 P.S.I.
 f_c = 1,000 P.S.I. (WITH EARTH PRESSURE)
 f_p = 75 P.S.I. (PIER FOOTING)

PRESTRESSED CONCRETE
 f_c = 5,000 P.S.I.
 f_c = 4,000 P.S.I.
 f_c = 2,000 P.S.I.

REINFORCING STEEL
 f_s = 20,000 P.S.I.

PRETENSIONING STEEL
 f_{pu} = 245,000 P.S.I.
 f_{si} = 175,000 P.S.I.

PILE LOADS
 ABUTMENTS = 35 TONS (CONCRETE PILES)
 WING WALLS = 10 TONS (TIMBER PILES)
 APPROACH SLABS = 15 TONS (TIMBER PILES)
 PIERS = 20 TONS (TIMBER PILES)

NOTE:

SECTION A-A, B-B AND C-C SEE SHEET 37.

LIMITS OF CLASS A EXCAVATION FOR ABUTMENTS AND WINGWALL SEE SHEET 37.

CONCRETE TROUGH TO FOLLOW SLOPE OF ROADWAY.

TYPICAL DRAIN SPACING AND DETAILS SEE SHEETS 39, 40, 41.

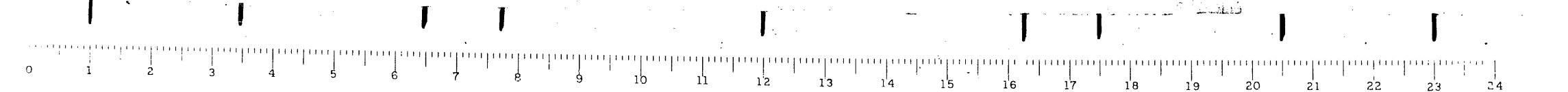
QUANTITIES FOR EARTH EXCAVATION AND DRAINAGE TROUGH FOR DOWNERS GROVE AND EMBANKMENT FOR F.A.I. ROUTE 55 ARE INCLUDED IN QUANTITIES ON ROAD PLANS.

6 TO 1 BACKSLOPE MAY BE OMITTED IF EMBANKMENT IS CONSTRUCTED FULL LENGTH DRAINAGE TROUGH TO HAVE MIN. 5" PER FOOT SLOPE FROM EDGE OF SLOPE WALL AND TO TERMINATE AS SHOWN.

TRAFFIC VOLUME	ROAD DESIGN	CLASSIFICATION	SPEED
30TH MAX. HR.			
DOWNERS GROVE RD (S.A. RTE. 9)	1992	A	50 MPH (THRU INTERCHANGE)
F.A.I. ROUTE 55 (U.S. 66)	4800	INTERSTATE	70 MPH.

GENERAL PLAN AND ELEVATION
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT I-03-6(9)
F.A.I. ROUTE 55, SECTION 22-2
DU PAGE COUNTY
STATION 796+40.45

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
 10 SOUTH WABASH AVENUE 587- CHICAGO, ILLINOIS



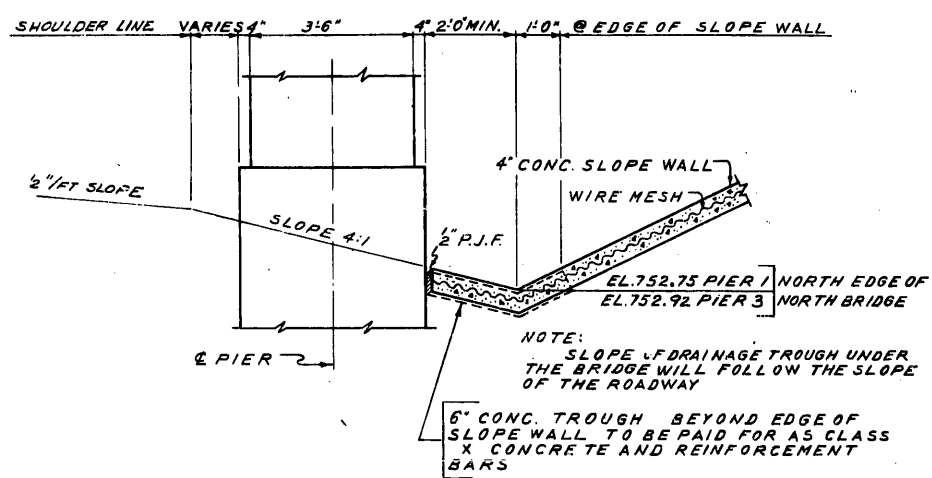
GENERAL NOTES

CLASS X CONCRETE SHALL BE USED THROUGHOUT EXCEPT FOR CONCRETE IN HANDRAILS AND PRECAST I-BEAMS.
 HANDRAIL CONCRETE SHALL BE USED IN HANDRAIL PORTION OF WINGWALLS AS SHOWN. FOR CONCRETE IN PRECAST I-BEAMS SEE SPECIAL PROVISIONS.
 ALL CONCRETE SHALL BE CAST IN PLACE EXCEPT FOR THE PRECAST PRESTRESSED CONCRETE I-BEAMS.
 THE CONCRETE FLOOR SLAB FOR EACH SPAN SHALL BE PLACED IN ONE CONTINUOUS OPERATION BETWEEN CONSTRUCTION JOINTS SHOWN AND SHALL BE FINISHED IN ACCORDANCE WITH ARTICLE 51.17 OF THE STANDARD SPECIFICATIONS.
 ALL STEEL SHALL BE STRUCTURAL STEEL EXCEPT AS OTHERWISE NOTED.
 BRONZE EXPANSION PLATES SHALL CONFORM TO A.S.T.M. SPECIFICATION B100, ALLOY 1, AND SHALL HAVE GRAPHITE INSERTS INSTALLED IN THE SLIDING SURFACE AS MANUFACTURED BY MERRIMAN BROS. INC., BOSTON, MASS., OR EQUAL.
 ALL STEEL BEARING PLATES, GRAPHITE BRONZE EXPANSION PLATES, LEAD PLATES AND ANCHOR BOLTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 OF THE STANDARD SPECIFICATION AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT - 21,740 LBS.
 STEEL EXPANSION DEVICES AT THE PIERS AND ABUTMENTS SHALL BE FABRICATED AND SET IN ACCORDANCE WITH ARTICLE 51.15 (G) OF THE STANDARD SPECIFICATIONS AND ARE INCLUDED IN QUANTITY OF STRUCTURAL STEEL. ESTIMATED WEIGHT 28,020 LBS.
 STRUCTURAL STEEL SHALL BE PAINTED ONE SHOP COAT OF RED LEAD PAINT AND TWO FIELD COATS OF ALUMINUM PAINT IN ACCORDANCE WITH SECTION 56 OF THE STANDARD SPECIFICATIONS EXCEPT AS OTHERWISE SPECIFIED ON THE PLANS. ALL PAINT SHALL BE FURNISHED AND APPLIED BY THE CONTRACTOR.
 THE CONTRACTOR SHALL DRIVE ONE CONCRETE TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE CONCRETE PILES.
 THE CONTRACTOR SHALL DRIVE ONE TIMBER TEST PILE AT EACH PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE TIMBER PILES.
 JOINTS IN DECK SLAB NOTED ON PLANS TO BE FILLED WITH "PARA-PLASTIC OR EQUAL" SHALL BE FILLED WITH JOINT SEALER CONFORMING TO "FEDERAL SPECIFICATION FOR SEALER, HOT POURED TYPE, FOR JOINTS IN CONCRETE, SS-3-16A." SHOP INSPECTION OF STRUCTURAL STEEL AND PRECAST PRESTRESSED I-BEAMS BY ILLINOIS DIVISION OF HIGHWAYS.

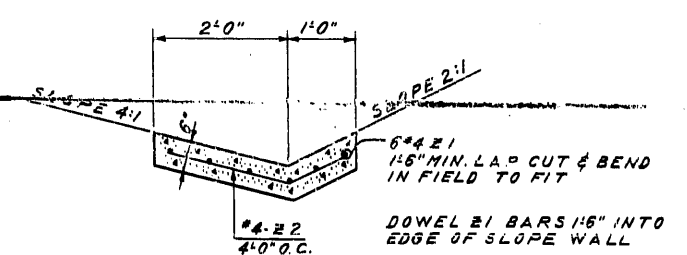
BILL OF MATERIAL NORTH AND SOUTH BRIDGES

ITEM	UNIT	QUANTITY			TOTALS
		NORTH BRIDGE SUPER	SOUTH BRIDGE SUB	SOUTH BRIDGE SUPER	
CLASS A EXCAVATION FOR STRUCTURES	CU.YDS.	—	586	—	1,167
CLASS X CONCRETE	CU.YDS.	460.0	597.6	460.0	2,123.1*
DRIVING CONCRETE PILES	LIN.FT.	—	1,035	—	2,070
DRIVING TIMBER PILES	LIN.FT.	—	7,073	—	14,146
FURNISHING AND ERECTING METAL HANDRAIL	LIN.FT.	552	—	552	1,104
FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS	LIN.FT.	2,986.8	—	2,986.8	5,973.6
FURNISHING AND ERECTING STRUCTURAL STEEL	LBS.	24,880	—	24,880	49,760
FURNISHING CONCRETE PILES	LIN.FT.	—	1,035	—	2,070
FURNISHING CREOSOTED PILES, 20" TO 30"	LIN.FT.	—	6,993	—	13,986
HANDRAIL CONCRETE	CU.YDS.	—	2.2	—	4.4
NAME PLATES	EACH	1	—	1	2
REINFORCEMENT BARS	LBS.	97,980	76,810	97,980	350,490*
SLOPE WALL	SQ.YDS.	—	729	—	1,458
TEST PILES (CONCRETE)	EACH	—	2	—	4
TEST PILES (TIMBER)	EACH	—	3	—	6
FURNISHING CREOSOTED PILES, UP TO 20'	LIN.FT.	—	80	—	160

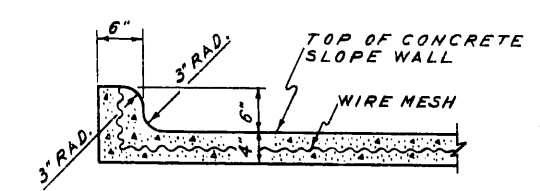
NOTE: THESE ITEMS MARKED THUS* INCLUDE 9.7 CU. YDS. CLASS X CONCRETE AND 316 LBS. REINFORCEMENT BARS FOR DRAINAGE TROUGHS.



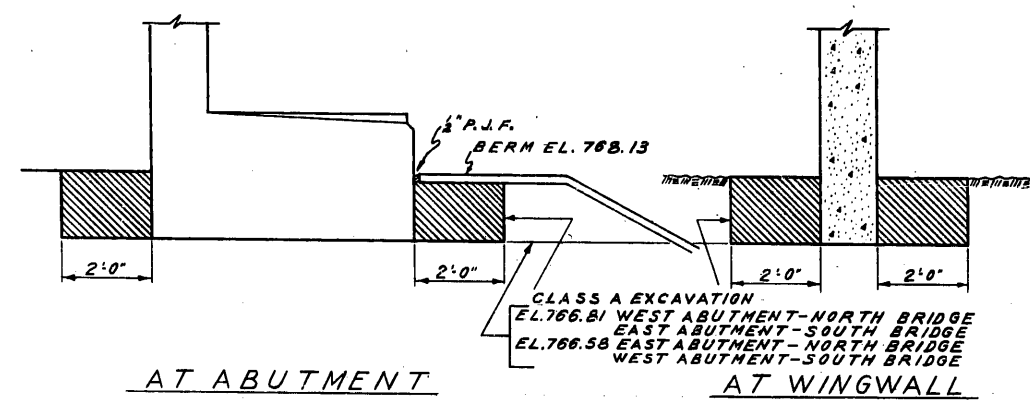
SECTION B-B



SECTION C-C



SECTION A-A
THRU EDGE OF CONCRETE SLOPE WALL



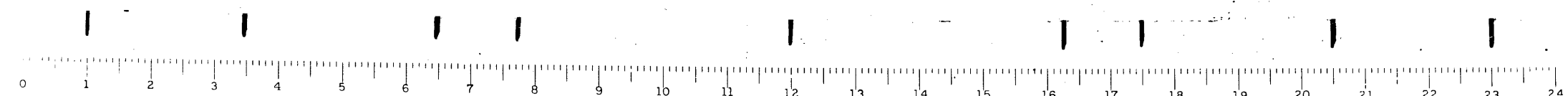
AT ABUTMENT AT WINGWALL
LIMITS OF CLASS A EXCAVATION

BILL OF MATERIAL-DRAINAGE TROUGHS

ITEM	UNIT	TOTAL
CLASS X CONCRETE	CUYDS	9.7
REINFORCEMENT BARS	LBS	910

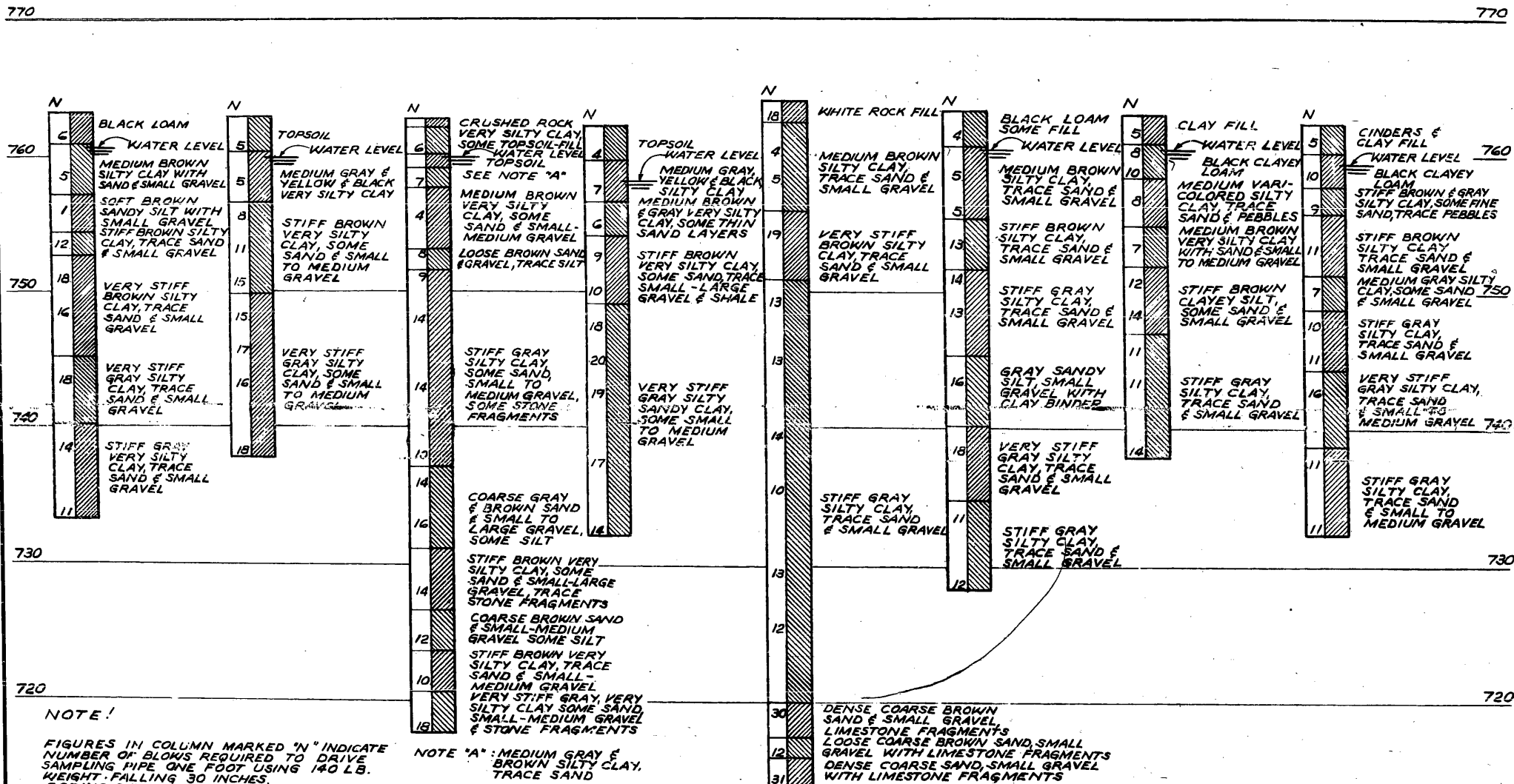
DRAINAGE DETAILS, EXCAVATION, QUANTITY AND GENERAL NOTES
 GRADE SEPARATION
 U.S. ROUTE 66
 OVER DOWNERS GROVE ROAD
 F.A. PROJECT
 F.A. ROUTE 66 SECTION 22-2HB-1
 DU PAGE COUNTY
 STATION 796+40.45

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
 16 SOUTH WABASH AVENUE 587 CHICAGO, ILLINOIS



SOIL TEST BORINGS

BORING No. 1 BORING No. 2 BORING No. 3 BORING No. 4 BORING No. 5 BORING No. 6 BORING No. 7 BORING No. 8



NOTE!
 FIGURES IN COLUMN MARKED "N" INDICATE NUMBER OF BLOWS REQUIRED TO DRIVE SAMPLING PIPE ONE FOOT USING 140 LB. WEIGHT FALLING 30 INCHES. BORING DATA ARE SHOWN ONLY AS A GUIDE FOR BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED IN THE WORK. FOR LOCATION OF BORING SEE SH. 36

NOTE "A": MEDIUM GRAY & BROWN SILTY CLAY, TRACE SAND

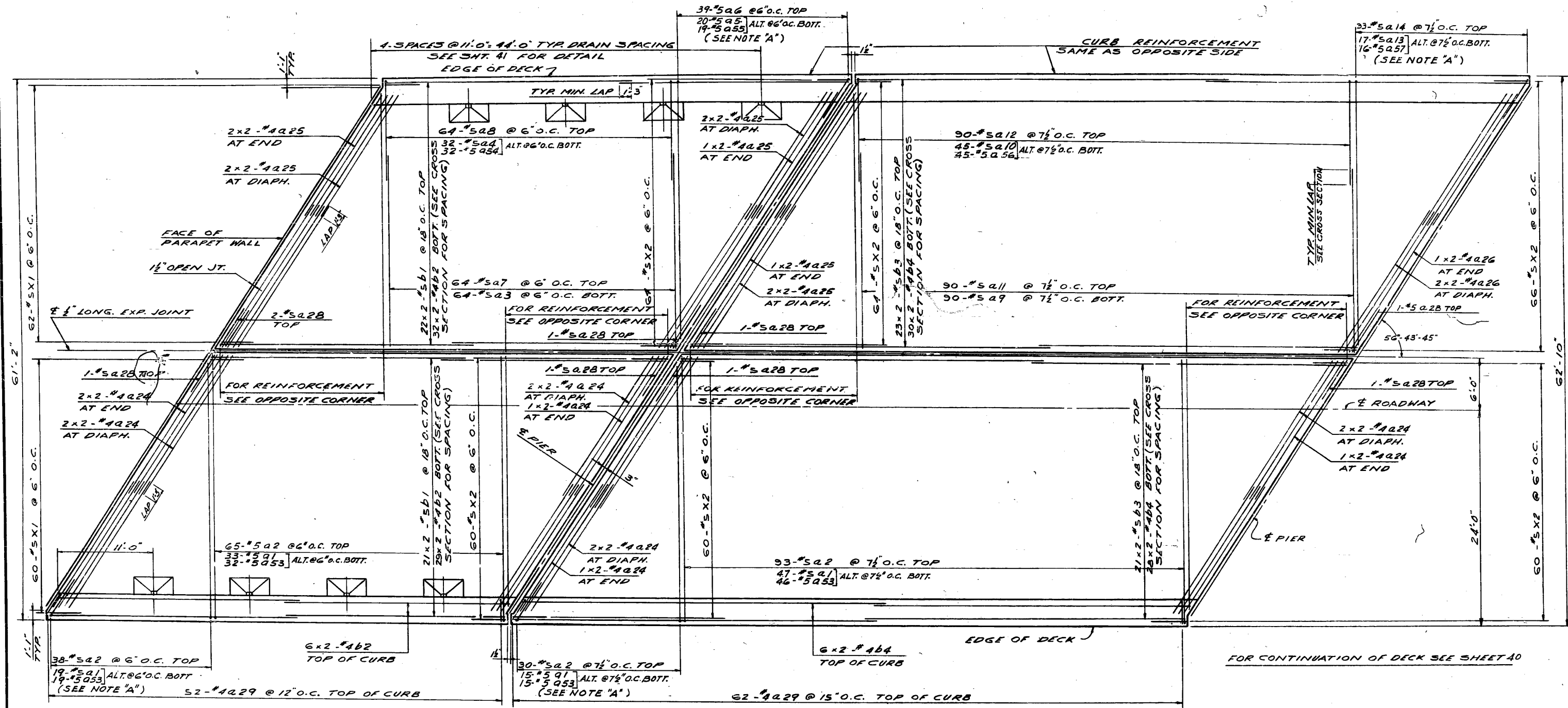
STATION 796+40.45
 BUILT 19 BY
 STATE OF ILLINOIS
 F.A.I. RT. 55 SEC. 22 - 2HB-1
 F.A. PROJ. I-55 - G(9)
 LOADING H20 - SIG
 SEE STATE OF ILLINOIS STD. 2113

NO. BRIDGE 50, BRIDGE
 NAME PLATES EACH /
LETTERING FOR NAME PLATES

BORINGS AND NAME PLATE
 GRADE SEPARATION
 U.S. ROUTE 66
 OVER DOWNERS GROVE ROAD
 F.A. PROJECT
 F.A.I. ROUTE 55 SECTION 22-2HB-1
 DU PAGE COUNTY
 STATION 796+40.45



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	22-2HB-1	DU PAGE	105	39
STA.	TO STA.			
ROAD DIST. NO. 41	ILLINOIS	F.A. PROJECT		



SPAN - 1
SPAN-4 (SO. BRIDGE)

SPAN - 2
SPAN-3 (SO. BRIDGE)

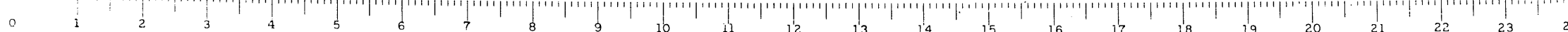
PLAN OF DECK REINFORCEMENT - NORTH BRIDGE
SCALE 3/8" = 1'-0"
SOUTH BRIDGE SIMILAR BY 180° ROTATION

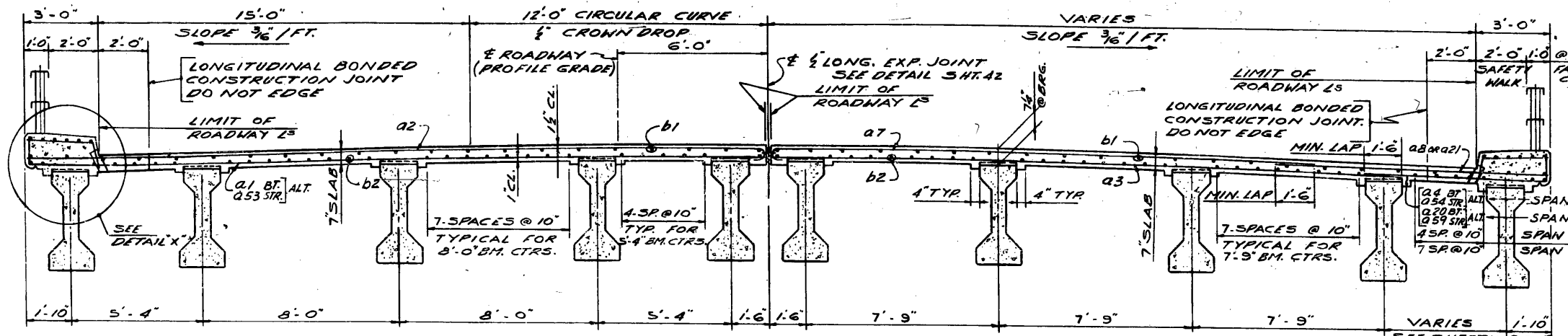
NOTE:
BARS NOTED THUSLY 32 x 2 - #5 ETC. INDICATE 32 LINES OF BARS WITH 2 LENGTHS OF BARS PER LINE.

NOTE "A"
CUT BARS IN FIELD TO FIT SKEW. USE REMAINING STRAIGHT PORTIONS OF BOTTOM BARS IN OPPOSITE CORNER OF SAME SLAB. USE REMAINING BENT PORTIONS OF TOP BARS IN OPPOSITE CORNER OF SAME SLAB.

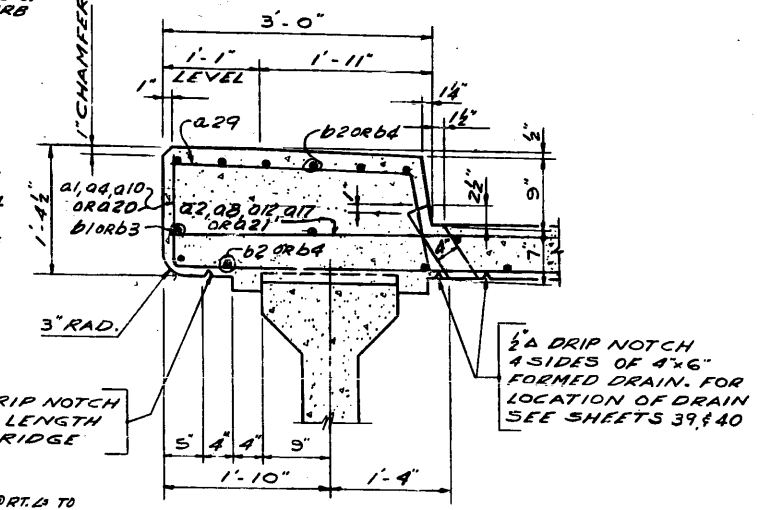
DECK REINFORCEMENT PLAN SPANS 1&2
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A.I. ROUTE 55 SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.45

ALFRED BENECH & ASSOCIATES CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE 587- CHICAGO, ILLINOIS

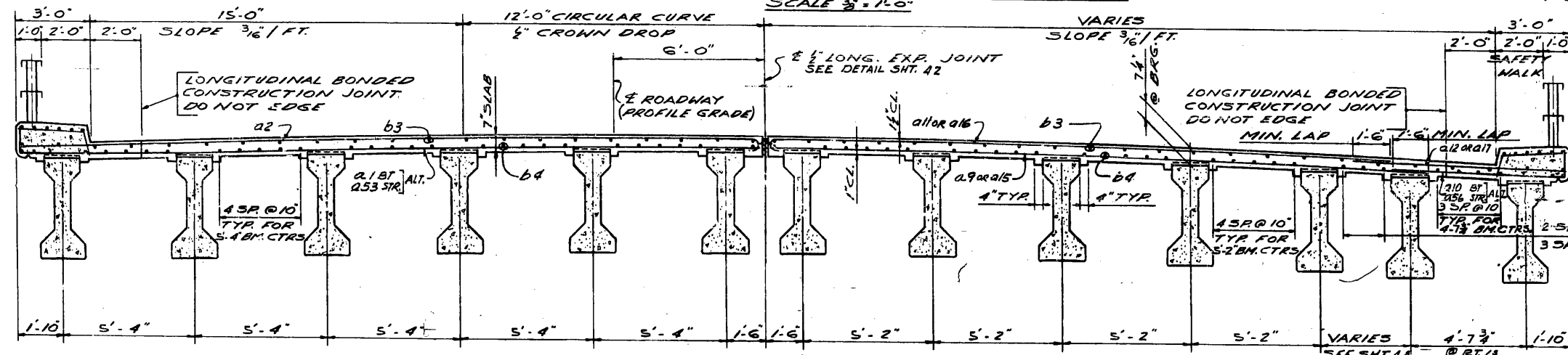




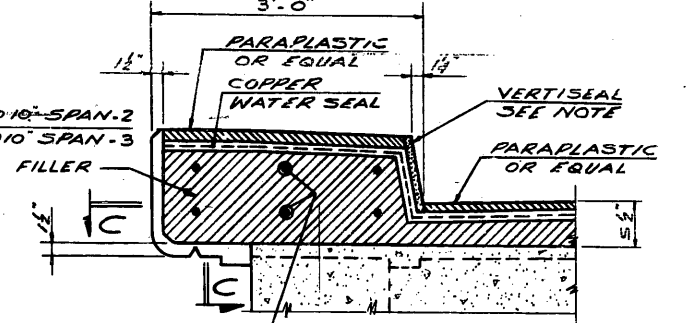
SPANS 1 & 4 CROSS SECTION - NORTH BRIDGE SHOWN
SOUTH BRIDGE SIMILAR BY 180° ROTATION
SCALE 3/8" = 1'-0"



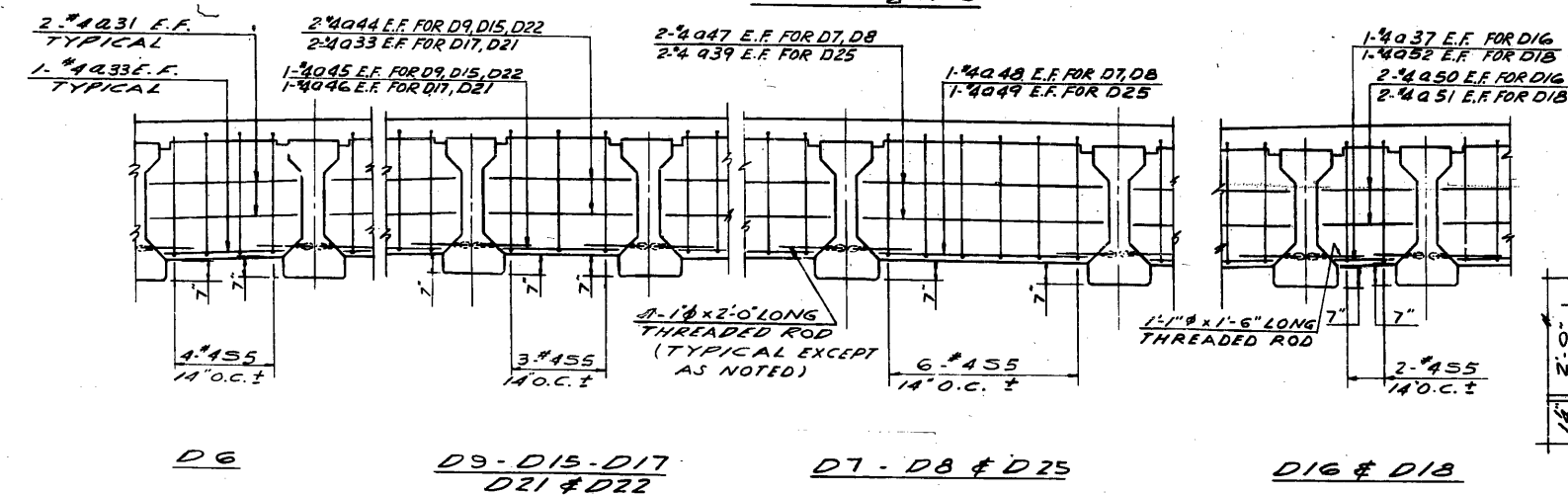
DETAIL 'X' AND DRAIN DETAIL
SCALE 1" = 1'-0"



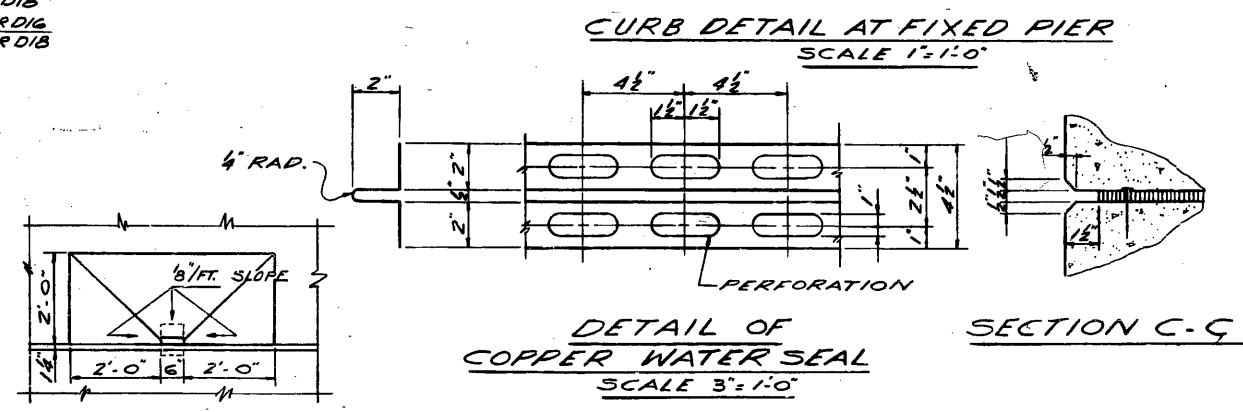
SPANS 2 & 3 CROSS SECTION - NORTH BRIDGE SHOWN
SOUTH BRIDGE SIMILAR BY 180° ROTATION
SCALE 3/8" = 1'-0"



NOTE:
SEAL VERTICAL CURB JOINT WITH BLACK COLD APPLIED JOINT SEALER 'VERTISEAL', OR APPROVED EQUAL.
CEMENT NAILS 2" LONG 12" O.C.



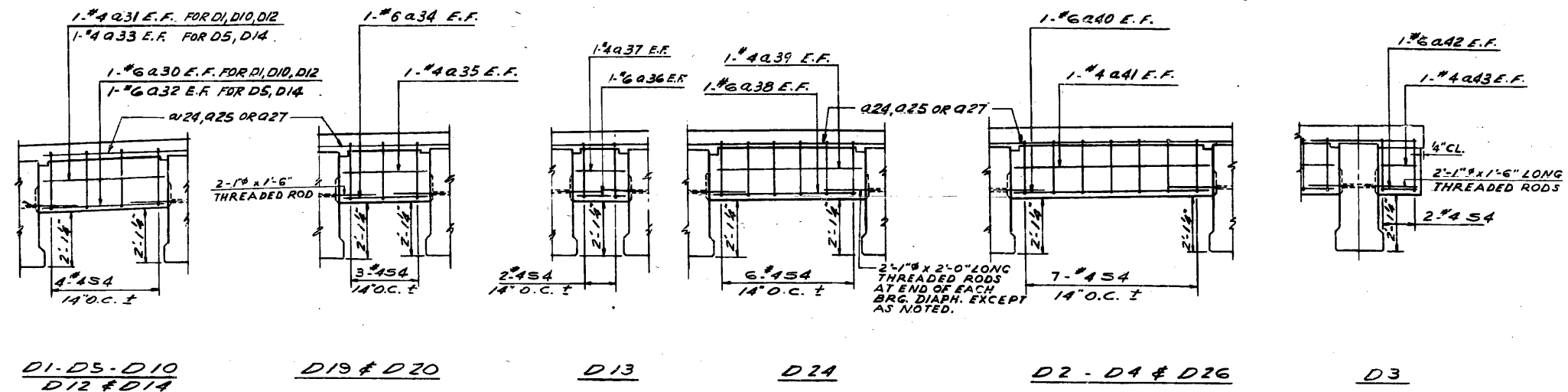
DIAPHRAGM DETAIL AT INTERIOR
SCALE 3/8" = 1'-0"



PLAN OF DRAIN
SCALE 1/2" = 1'-0"

NOTE:
COST OF THREADED RODS IS INCIDENTAL TO THE CONTRACT UNIT PRICE PER CUBIC YARD OF CLASS X CONCRETE.
FOR LOCATIONS, SEE SHT 40

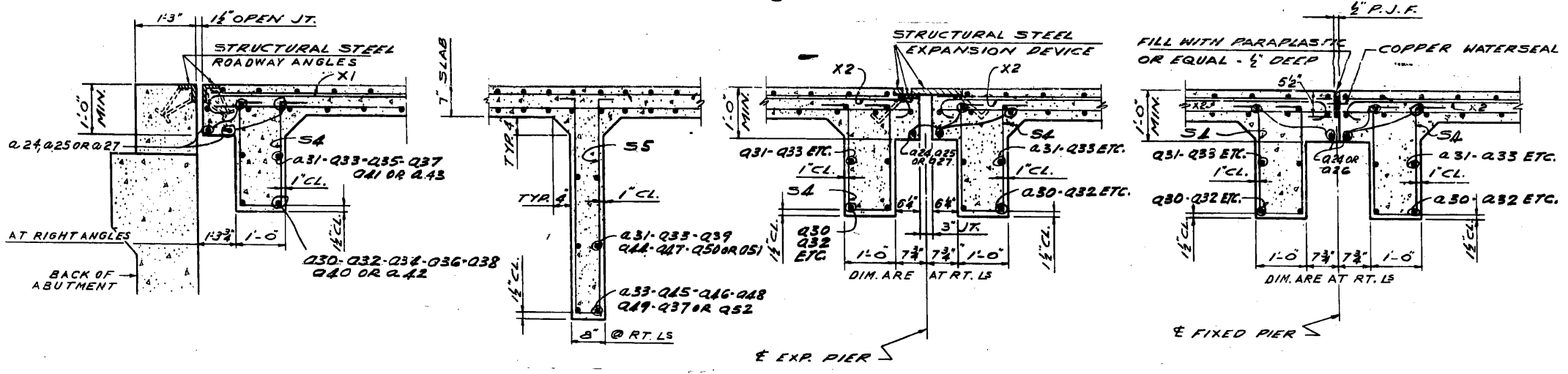
DECK CROSS SECTIONS AND DIAPHRAGM DETAILS
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A.I. ROUTE 55 SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.45



DIAPHRAGM DETAILS AT BEARINGS
SCALE 3/8" = 1'-0"

STANDARD
FILLET DETAIL

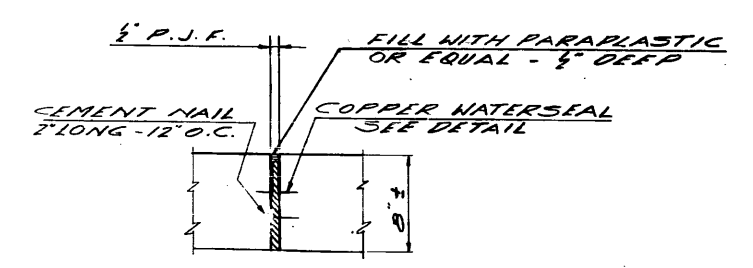
AFTER ALL PRECAST PRESTRESSED BEAMS HAVE BEEN ERECTED, ELEVATIONS OF TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT INTERVALS NOT TO EXCEED 10 FT. FROM THESE ELEVATIONS SUBTRACT THE INCREMENT OF DEFLECTIONS FOR THESE POINTS, DETERMINED FROM THE D.L. DEFLECTION DIAGRAM. THE ELEVATIONS SO OBTAINED SUBTRACTED ALGEBRAICALLY FROM THE THEORETICAL GRADE ELEVATIONS MINUS THE THICKNESS OF THE SLAB EQUAL THE DIMENSION "L". A POSITIVE VALUE OF "L" EQUALS THE FILLET HEIGHT ABOVE THE TOP OF THE BEAM. A NEGATIVE VALUE OF "L" EQUALS THE EMBEDMENT OF THE BEAM ABOVE THE THEORETICAL BOTTOM OF SLAB ELEVATION.



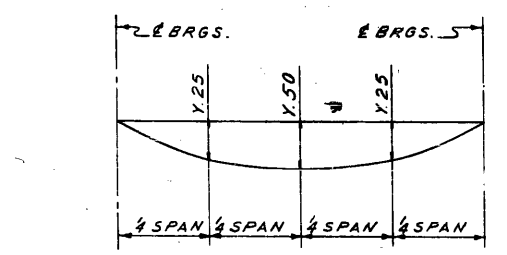
TYPICAL DIAPHRAGM SECTIONS
SCALE 3/8" = 1'-0"

TABLE OF "Y" DIMENSIONS
NORTH & SOUTH BRIDGE

LOCATION	X.25	X.50
BEAM		
CB1 TO CB4		
CB7 TO CB9	6"	3"
CB24 TO CB26		
CB29 & CB30		
CB5 & CB6	16"	8"
CB27 & CB28		
CB10, CB17,	3"	16"
CB18 & CB23		
CB11, CB14	7"	5"
CB21 & CB22		
CB12 & CB13	3"	2"
CB19 & CB20		
CB15 & CB16		

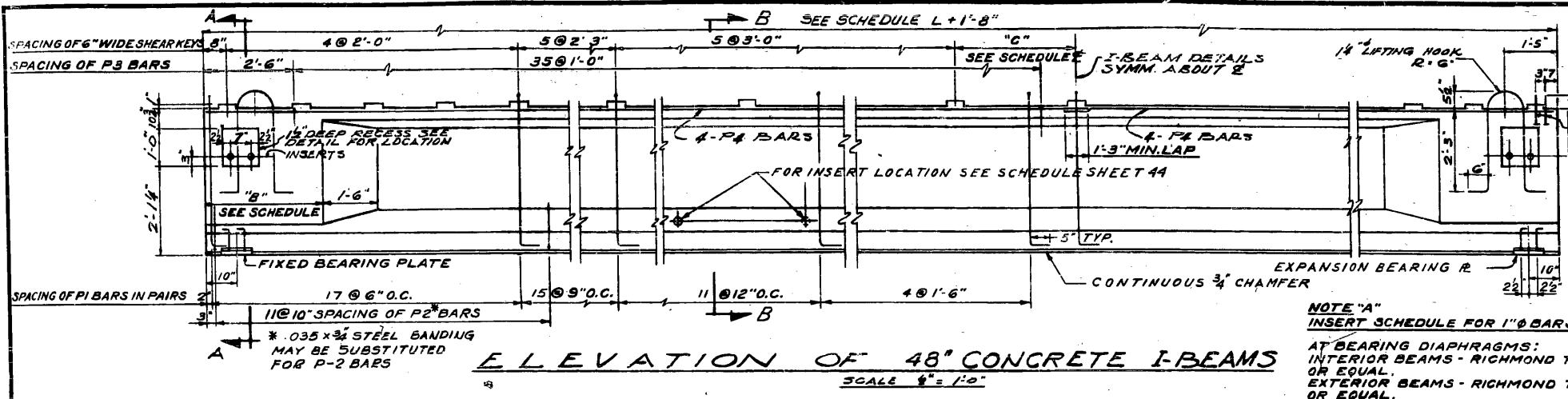


DETAIL OF 1/2" LONGITUDINAL EXP. JOINT



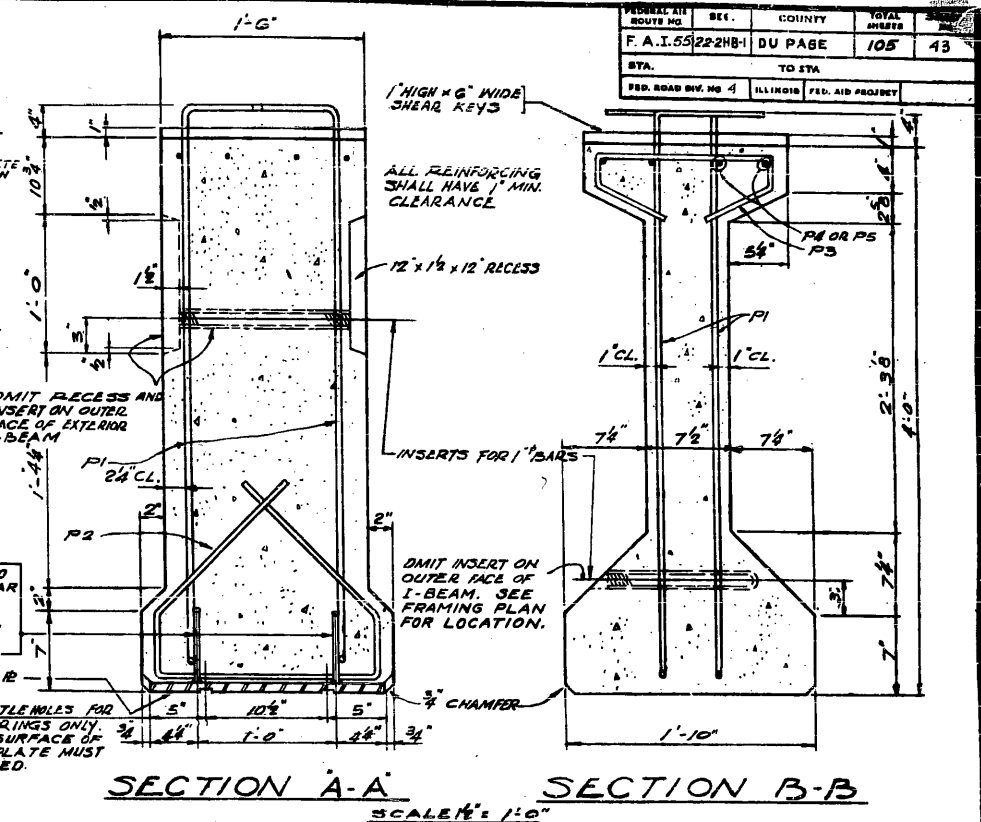
D.L. DEFLECTION DIAGRAM
WEIGHT OF PRESTRESSED I-BEAM NOT INCLUDED

DIAPHRAGM DETAILS
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A.I. ROUTE 55 SECTION 22-2HB-1
DU PAGE 105 OF 111
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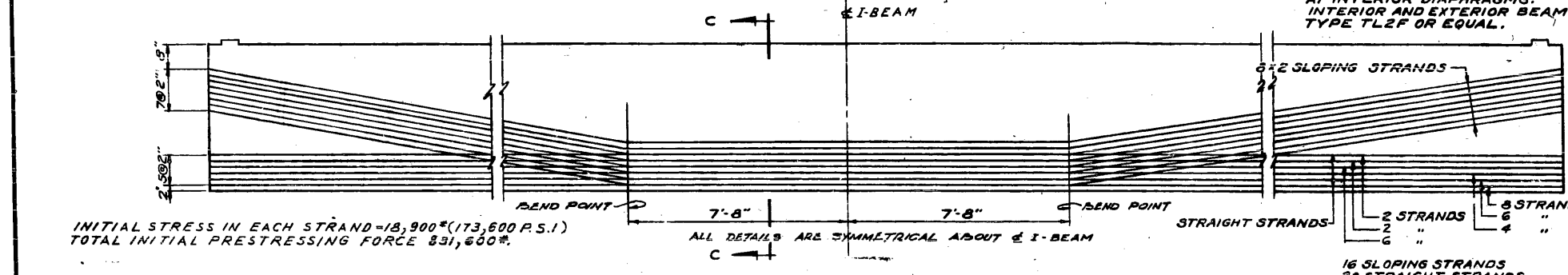


ELEVATION OF 48" CONCRETE I-BEAMS
 SCALE 1/2" = 1'-0"

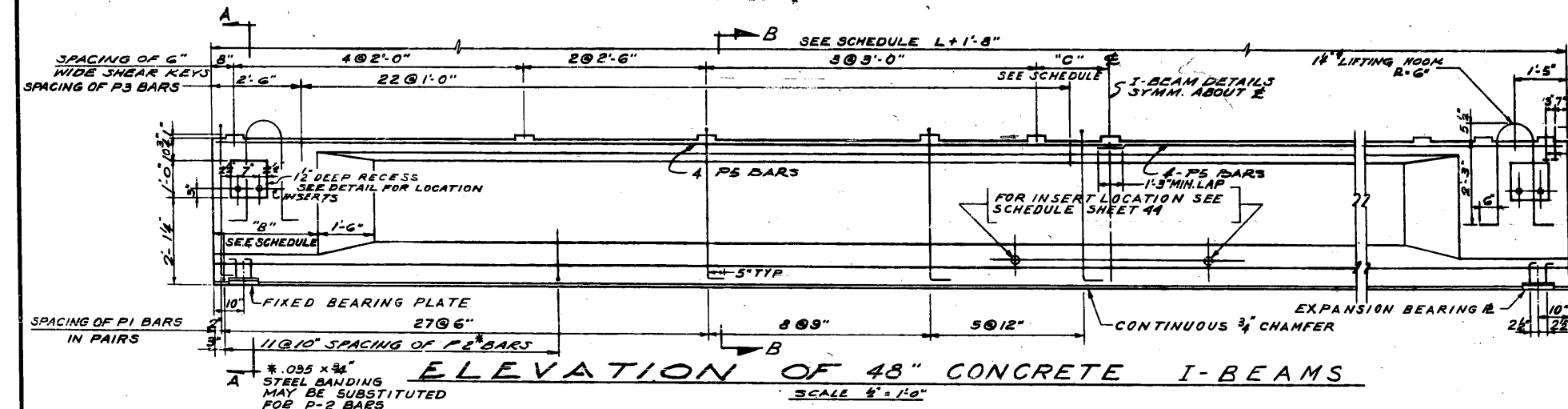
NOTE "A"
 INSERT SCHEDULE FOR 1" Ø BARS
 AT BEARING DIAPHRAGMS:
 INTERIOR BEAMS - RICHMOND TYPE CT OR EQUAL
 EXTERIOR BEAMS - RICHMOND TYPE TLEF OR EQUAL
 AT INTERIOR DIAPHRAGMS:
 INTERIOR AND EXTERIOR BEAMS - RICHMOND TYPE TLEF OR EQUAL.



SECTION A-A SECTION B-B
 SCALE 1/2" = 1'-0"

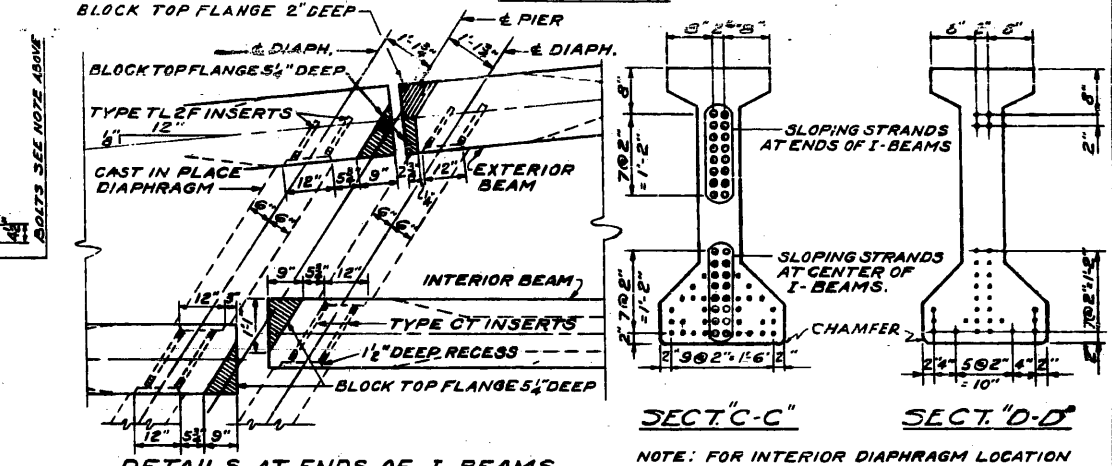


DETAILS OF PRESTRESSING STEEL FOR SPANS 2 AND 3

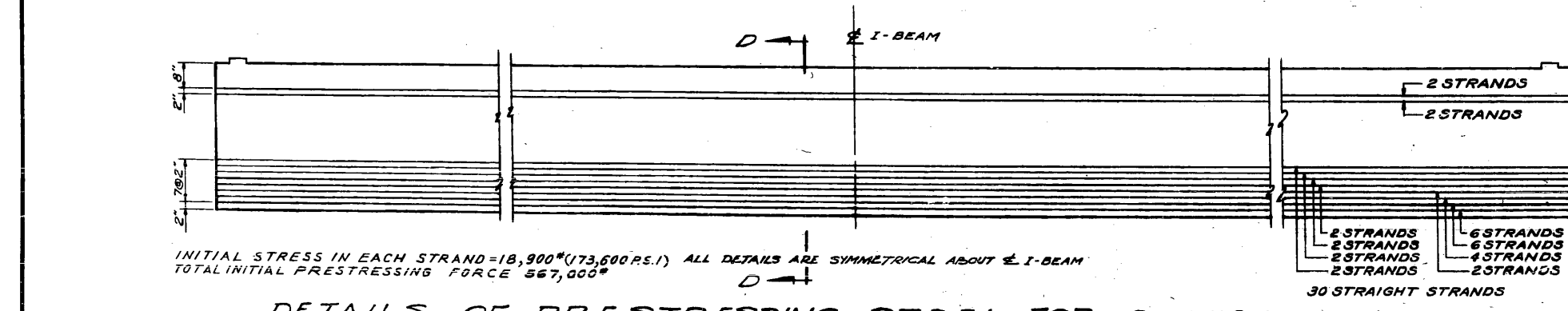


ELEVATION OF 48" CONCRETE I-BEAMS
 SCALE 1/2" = 1'-0"

NOTE "A"
 INSERT SCHEDULE FOR 1" Ø BARS
 AT BEARING DIAPHRAGMS:
 INTERIOR BEAMS - RICHMOND TYPE CT OR EQUAL
 EXTERIOR BEAMS - RICHMOND TYPE TLEF OR EQUAL
 AT INTERIOR DIAPHRAGMS:
 INTERIOR AND EXTERIOR BEAMS - RICHMOND TYPE TLEF OR EQUAL.



DETAILS AT ENDS OF I-BEAMS AND BEARING DIAPHRAGM LOCATION
 SCALE 1/2" = 1'-0"



DETAILS OF PRESTRESSING STEEL FOR SPANS 1 AND 4

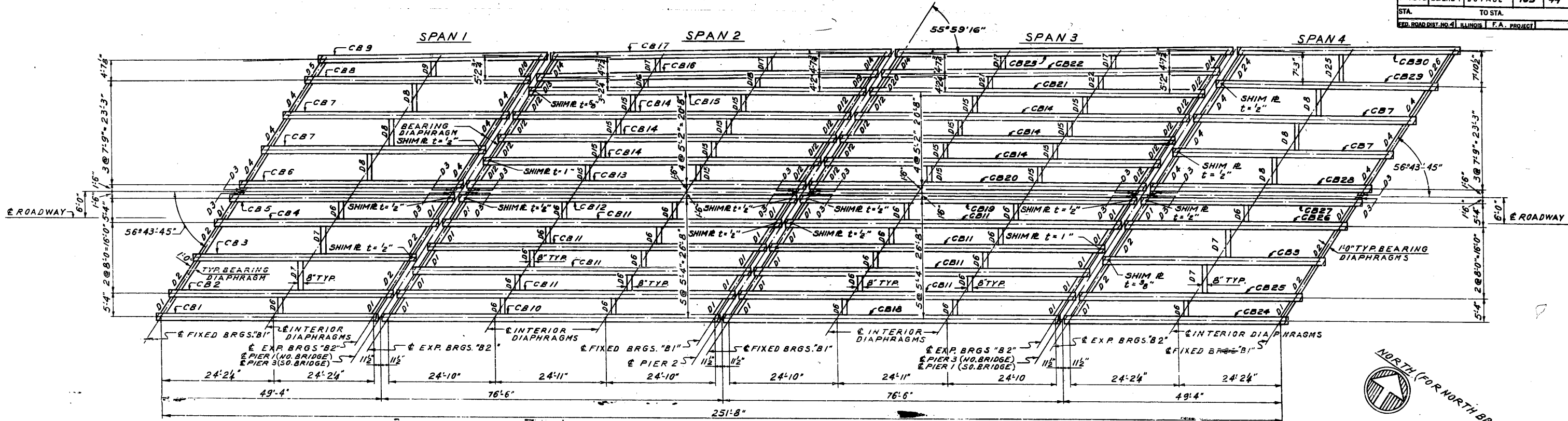
NOTES
 PRECAST PRESTRESSED CONCRETE I-BEAMS ARE DESIGNED IN ACCORDANCE WITH THE A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1953, AND THE CRITERIA FOR PRESTRESSED CONCRETE BRIDGES, 1954, OF THE BUREAU OF PUBLIC ROADS.
 PRESTRESSING STRANDS SHALL CONSIST OF UNCOATED SEVEN WIRE STRANDS WHICH HAVE A NOMINAL DIAMETER OF 7/16" AND A CROSS SECTIONAL AREA OF 0.1089 SQUARE INCHES.
 ALL REINFORCING STEEL, PRESTRESSING STRANDS, LIFTING HOOKS, INSERTS, BEARING PLATES AND OTHER ITEMS WHICH ARE CAST INTO THE PRECAST CONCRETE I-BEAMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS.
 PRESTRESSED CONCRETE I-BEAMS SHALL BE LIFTED ONLY BY THE LIFTING HOOKS PROVIDED IN THE TOP FLANGES AT THE ENDS OF THE BEAMS.
 SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION REGARDING MATERIALS, PRESTRESSING EQUIPMENT AND OPERATIONS, CONSTRUCTION AND HANDLING METHODS, AND OTHER REQUIREMENTS FOR THE PRECAST PRESTRESSED CONCRETE I-BEAMS.
 STEEL FOR LIFTING HOOK SHALL BE NON DERFORMED BARS OF STRUCTURAL OR INTERMEDIATE GRADE BILLET STEEL. ALTERNATE LIFTING HOOKS MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE 1/4" LIFTING HOOK SHOWN.

NOTE: FOR INTERIOR DIAPHRAGM LOCATION AND SCHEDULE SEE SHEET 44

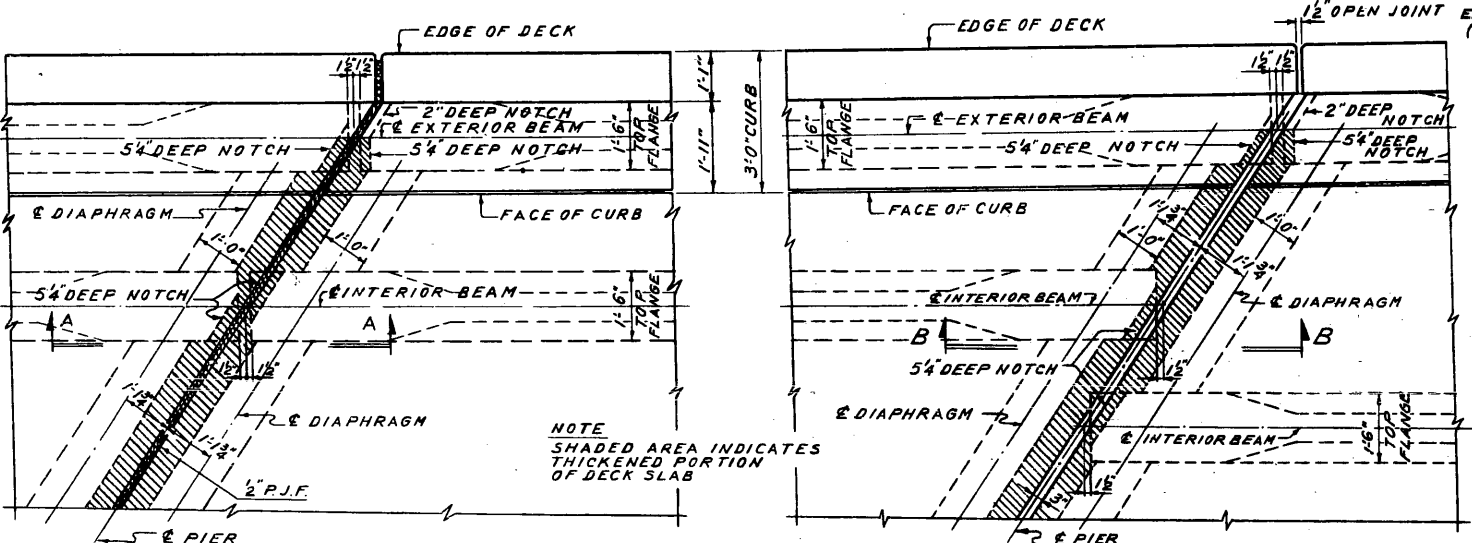
BAR SCHEDULE

MARK	SIZE	TYPE	LENGTH	D	C	D	E	F	H	K
P1	5	B	5'-6"	0-5/8"	2'-6"					
P2	3	A	5'-7"	1'-6"	0-5/8"	1'-5"	0-5/8"	1'-6"	1'-0"	1'-0"
P3	3	A	2'-9"	0-6"	0-29/32"	1'-8"	0-29/32"	0-6"	0-29/32"	0-5/8"
P4	6	STR.	39'-0"							
P5	6	STR.	25'-9"							

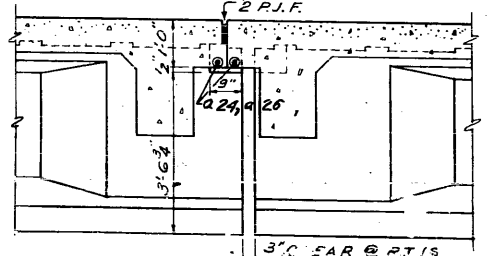
DETAILS OF PRECAST PRESTRESSED CONCRETE I-BEAMS GRADE SEPARATION U.S. ROUTE 66
 OVER DOWNERS GROVE ROAD
 F.A. PROJECT
 F.A.I. ROUTE 55 SECTION 22-2HB-1
 DU PAGE COUNTY
 STATION 796+40.45



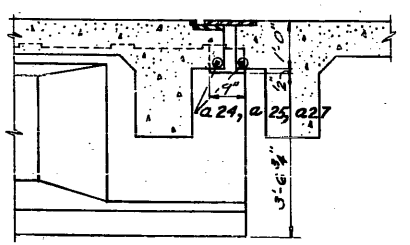
FRAMING PLAN-NORTH BRIDGE SHOWN
SOUTH BRIDGE SIMILAR BY ROTATION OF 180°
SCALE 3/8" = 1'-0"



AT FIXED PIER
AT EXPANSION PIER
PARTIAL PLAN OF DECK AT PIERS



SECTION A-A



SECTION B-B



TOP VIEW OF I-BEAM SHOWING INTERIOR INSERTS LOCATION

48" CONCRETE I-BEAM SCHEDULE FOR SPANS 1 AND 4							
I-BEAM NO.	L	B*	C	W	X	Y	Z
CB1	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	-	-	25'-11 1/2"	-
CB2	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	22'-5 1/4"	-	26'-9 3/4"	-
CB3	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	21'-6 3/4"	-	26'-9 3/4"	-
CB4	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	21'-6 3/4"	-	25'-11 1/4"	-
CB5	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	22'-5 1/4"	-	-	-
CB6	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	-	-	26'-8 3/4"	-
CB7	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	21'-7 3/4"	-	26'-8 3/4"	-
CB8	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	21'-7 3/4"	-	25'-9 3/4"	-
CB9	48'-9 1/2"	2'-10 1/4"	2'-6 3/4"	22'-9 3/4"	-	-	-
CB24	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	-	-	25'-11 1/4"	-
CB25	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	22'-5 1/4"	-	26'-9 3/4"	-
CB26	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	21'-6 3/4"	-	25'-11 1/4"	-
CB27	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	22'-5 1/4"	-	-	-
CB28	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	-	-	26'-8 3/4"	-
CB29	48'-4 1/2"	2'-10 1/4"	2'-4 1/2"	21'-7 3/4"	-	26'-8"	-
CB30	48'-9 1/2"	2'-10 1/4"	2'-6 3/4"	21'-11"	-	-	-

48" CONCRETE I-BEAM SCHEDULE FOR SPANS 2 AND 3							
I-BEAM NO.	L	B*	C	W	X	Y	Z
CB10	74'-7"	2'-10"	3'-2 1/2"	-	-	26'-7"	24'-11"
CB11	74'-7"	2'-10"	3'-2 1/2"	23'-1"	24'-11"	26'-7"	24'-11"
CB12	74'-7"	2'-10"	3'-2 1/2"	23'-1"	24'-11"	-	-
CB13	74'-7"	2'-10"	3'-2 1/2"	-	-	26'-6 3/4"	24'-11"
CB14	74'-7"	2'-10"	3'-2 1/2"	23'-1 1/2"	24'-11"	26'-6 3/4"	24'-11"
CB15	74'-7"	2'-10"	3'-2 1/2"	23'-1 1/2"	24'-11"	25'-11 1/2"	25'-0 1/2"
CB16	75'-2 1/2"	2'-10 3/8"	3'-6 3/8"	23'-10 3/8"	25'-0 1/2"	26'-6 3/4"	25'-1 1/2"
CB17	75'-2 1/2"	2'-10 3/8"	3'-6 3/8"	23'-6 1/2"	25'-1 1/2"	-	-
CB18	74'-7"	2'-10"	3'-2 1/2"	-	-	26'-7"	24'-11"
CB19	74'-7"	2'-10"	3'-2 1/2"	23'-1"	24'-11"	-	-
CB20	74'-7"	2'-10"	3'-2 1/2"	-	-	26'-6 3/4"	24'-11"
CB21	74'-7"	2'-10"	3'-2 1/2"	23'-1 1/2"	24'-11"	26'-3 3/4"	25'-0 1/2"
CB22	75'-2 1/2"	2'-10 3/8"	3'-6 3/8"	23'-6 3/8"	25'-0 1/2"	26'-6 3/4"	25'-1 1/2"
CB23	75'-2 1/2"	2'-10 3/8"	3'-6 3/8"	23'-6 3/8"	25'-1 1/2"	-	-

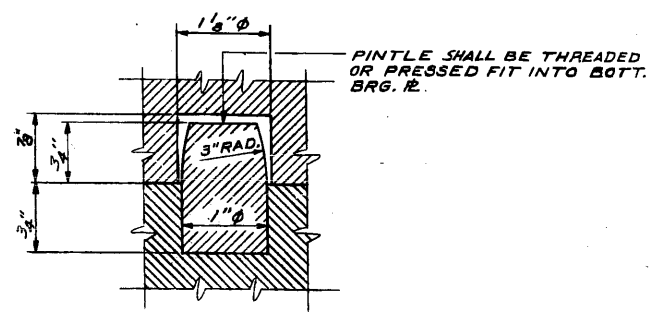
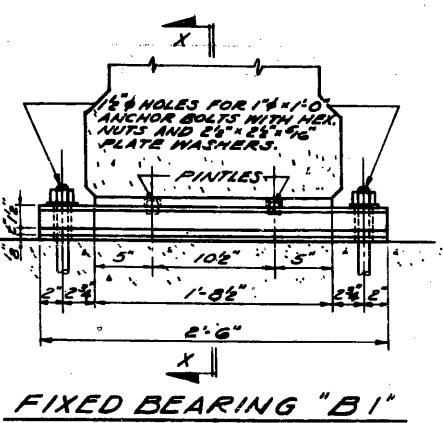
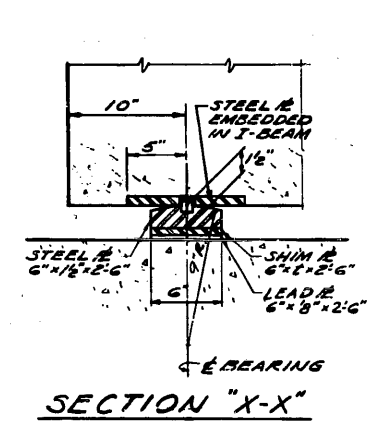
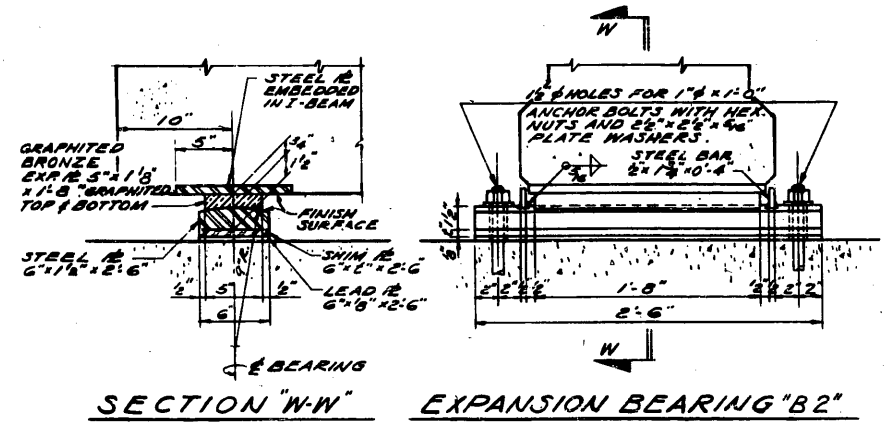
NOTE:
FOR BEARING DIAPHRAGM LOCATION
SEE SHEET 43
FOR TYPE OF INSERTS
SEE NOTE "A" SHEET 43

* THE "B" DIMENSION SHOWN MAY BE INCREASED TO A MAXIMUM OF 3'-8 1/2" PROVIDING THAT THE DIFFERENCE BETWEEN THE MAXIMUM AND MINIMUM "B" DIMENSION USED IS NOT MORE THAN 6"

FRAMING PLAN AND DECK PLAN AT PIERS
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A.I. ROUTE 55 SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.45

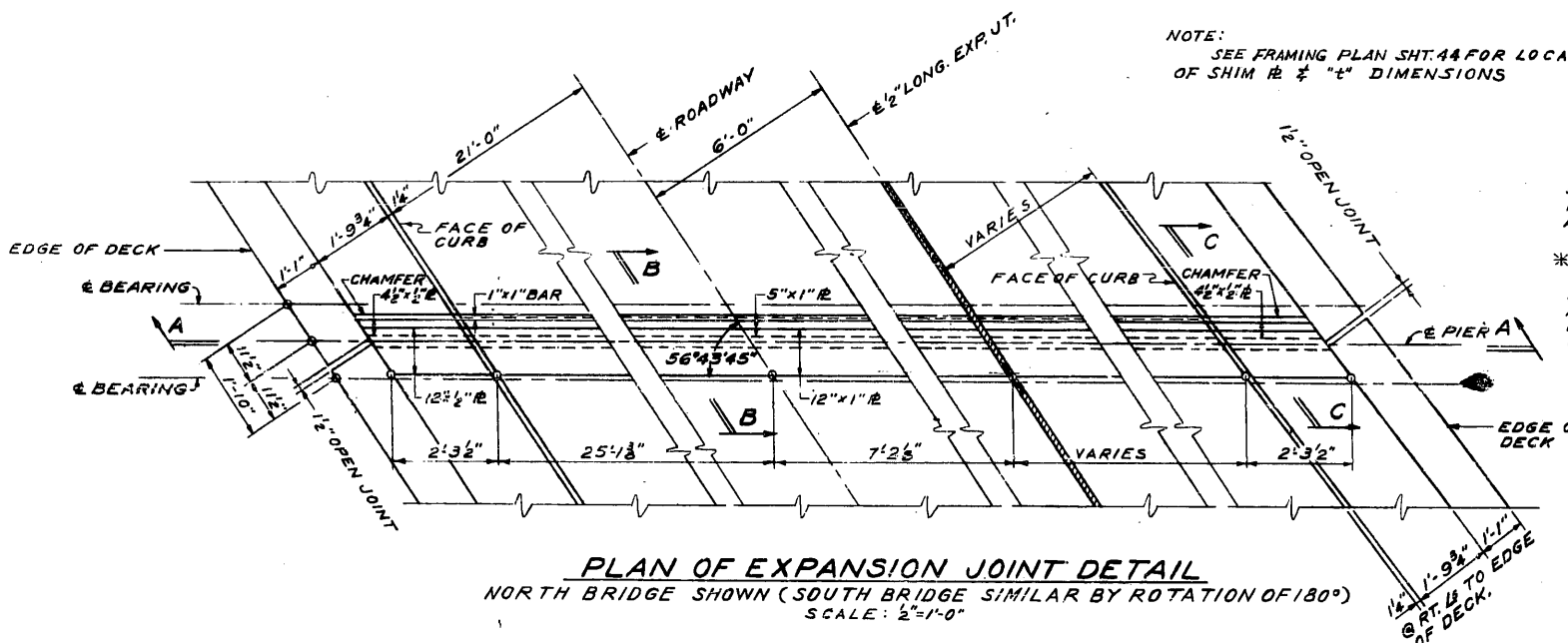


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	22-2HB-1	DU PAGE	105	45
STA.	TO STA.			
FED. ROAD DIST. NO. 2 ILLINOIS I.F.A. PROJECT				



PINTLE DETAIL
SCALE: 3/4" = 1'-0"

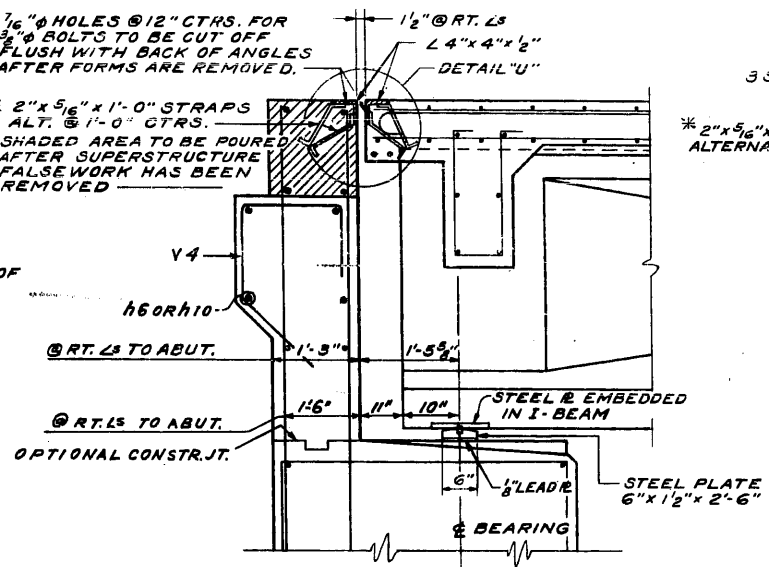
NOTE:
SEE FRAMING PLAN SHT. 44 FOR LOCATION
OF SHIM & "t" DIMENSIONS



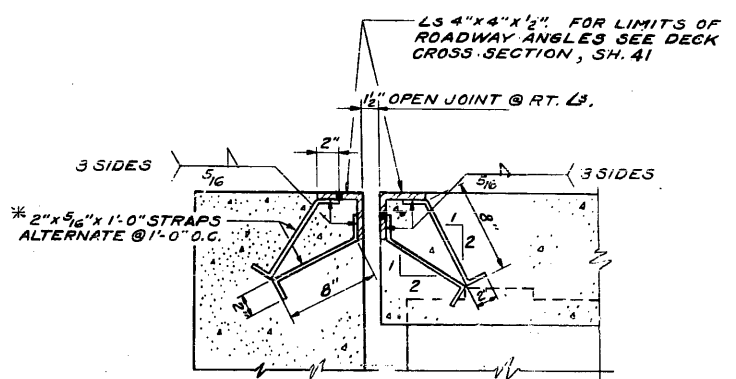
PLAN OF EXPANSION JOINT DETAIL
NORTH BRIDGE SHOWN (SOUTH BRIDGE SIMILAR BY ROTATION OF 180°)
SCALE: 1/2" = 1'-0"

1/4" HOLES @ 12" CTRS. FOR
3/8" BOLTS TO BE CUT OFF
FLUSH WITH BACK OF ANGLES
AFTER FORMS ARE REMOVED.

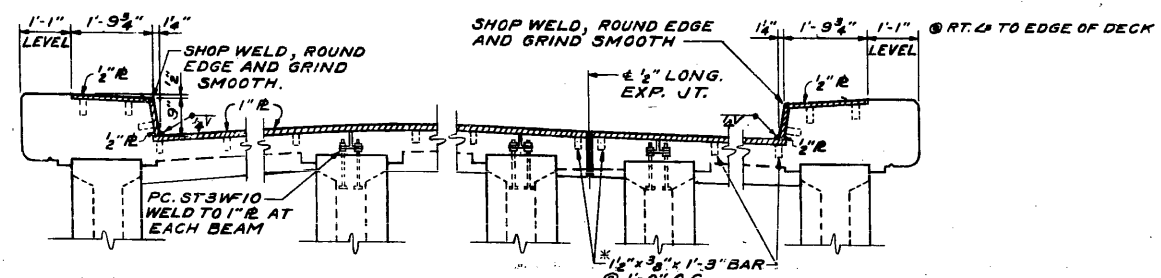
* 2" x 5/16" x 1'-0" STRAPS
ALT. @ 1'-0" CTRS.
SHADED AREA TO BE POURED
AFTER SUPERSTRUCTURE
FALSEWORK HAS BEEN
REMOVED



SECTION AT ABUTMENTS
SCALE: 3/4" = 1'-0"

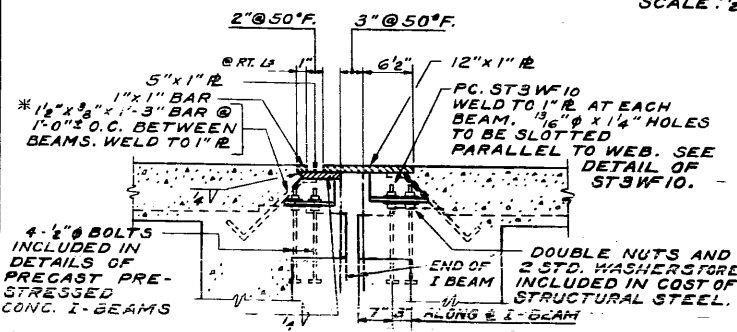


DETAIL "U"
SCALE: 1/2" = 1'-0"

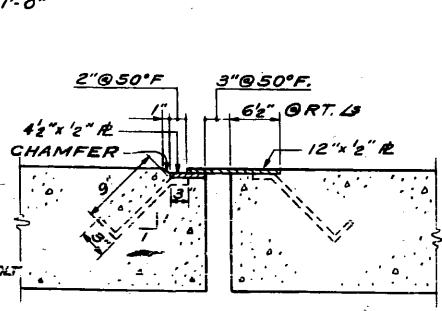


NOTE:
CUT AND WELD 1/2" P. ALONG CURB. SET 12" x 1/2" R FLUSH WITH
FACE OF CURB. GRIND ALL WELDS SMOOTH.
ALL MATERIAL FOR EXPANSION DEVICES SHALL BE
STRUCTURAL STEEL.

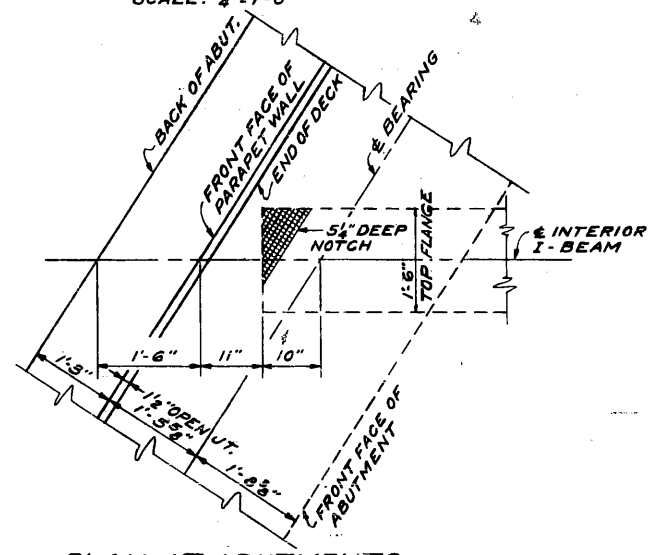
SECTION A-A
SCALE: 1/2" = 1'-0"



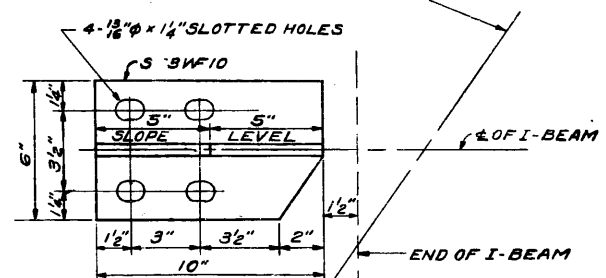
SECTION B-B
SCALE: 1" = 1'-0"



SECTION C-C
SCALE: 1" = 1'-0"



PLAN AT ABUTMENTS
SCALE: 3/4" = 1'-0"

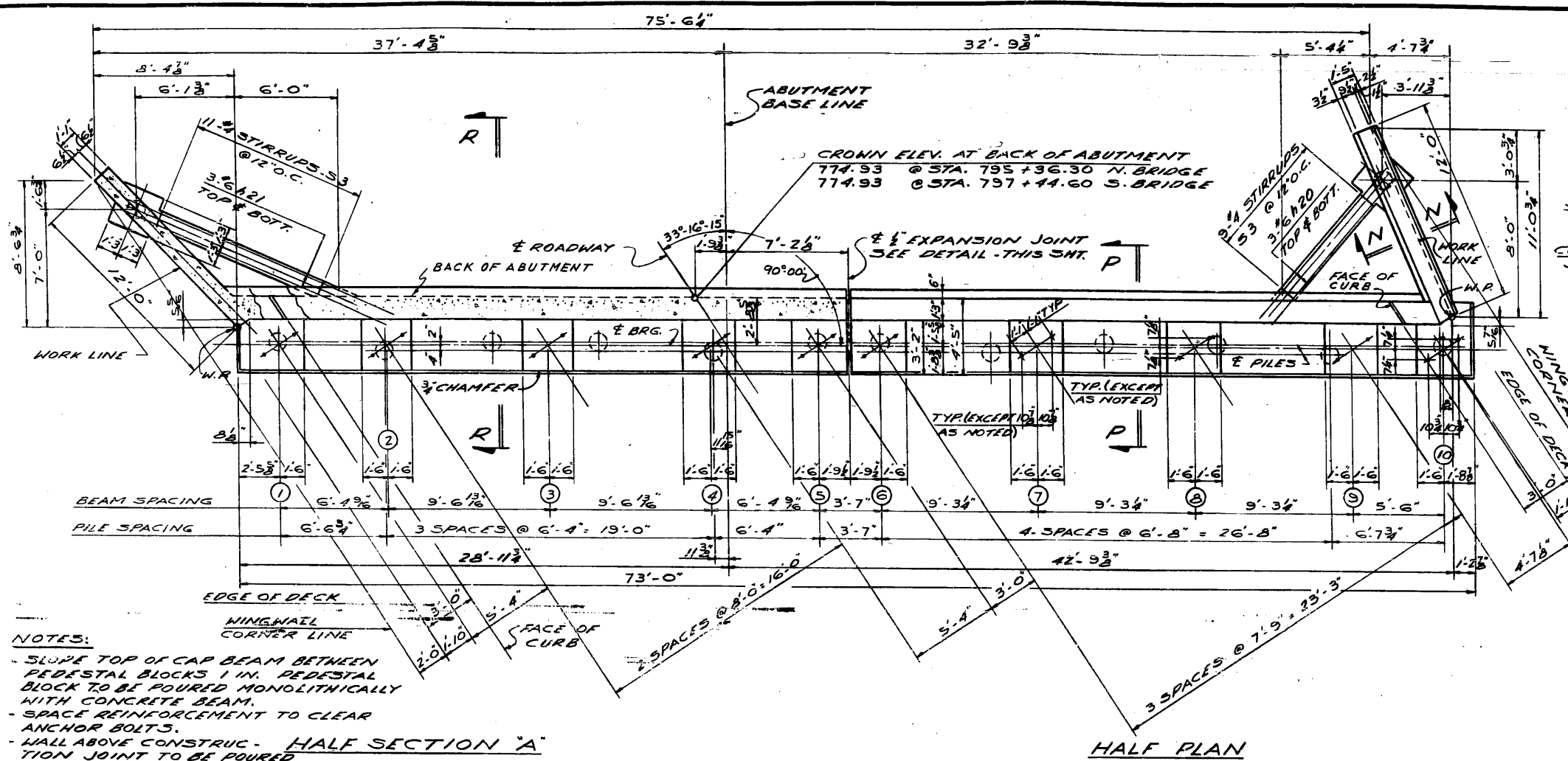


DETAIL OF ST3WF10
SCALE: 3" = 1'-0"

NOTE:
DIMENSIONS NOTED AT 50°F SHALL BE INCREASED
0.07 INCH FOR EACH 10° DROP IN TEMPERATURE FROM
50°F AND DECREASED 0.07 INCH FOR EACH 10°
INCREASE IN TEMPERATURE FROM 50°F.
ROADWAY EXPANSION DEVICES SHALL BE
FABRICATED AND ERECTED TO CONFORM TO
ROADWAY CROWN.
ASSEMBLE IN SHOP FOR INSPECTION.
ALL SURFACES INACCESSIBLE AFTER ERECTION
SHALL RECEIVE TWO SHOP COATS OF RED LEAD
PAINT EXCEPT PORTIONS EMBEDDED IN CONCRETE
* 3/4" x 8" x 2" C.R. 1020 STEEL GRANULAR OR
SOLID FLUX FILLED STUDS AUTOMATICALLY END
WELDED MAY BE SUBSTITUTED FOR STRAP ANCHORS.

BEARING DETAILS AND EXPANSION DEVICE
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A.I. ROUTE 66 SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.45

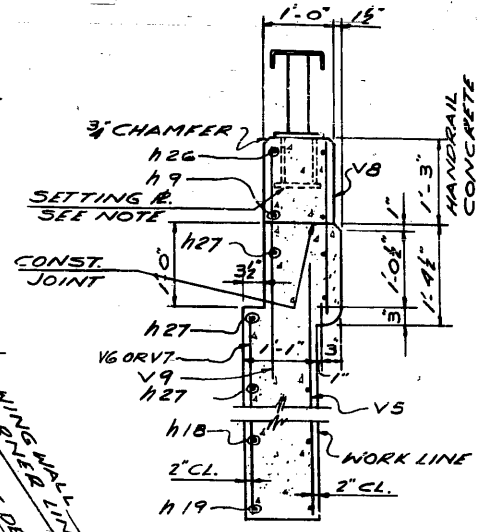
ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE 587 CHICAGO, ILLINOIS



NOTES:

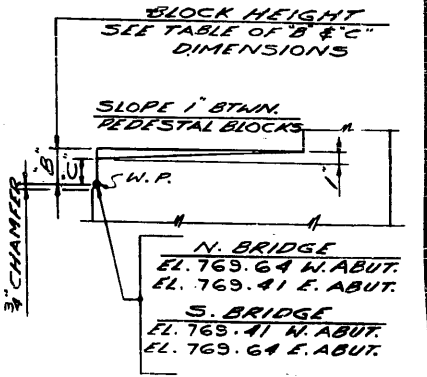
- SLOPE TOP OF CAP BEAM BETWEEN PEDESTAL BLOCKS 1 IN. PEDESTAL BLOCK TO BE POURED MONOLITHICALLY WITH CONCRETE BEAM.
- SPACE REINFORCEMENT TO CLEAR ANCHOR BOLTS.
- WALL ABOVE CONSTRUCTION JOINT TO BE POURED AFTER SUPERSTRUCTURE FALSEWORK HAS BEEN REMOVED.

WEST ABUTMENT - NORTH BRIDGE SHOWN
EAST ABUTMENT - SOUTH BRIDGE SIMILAR
 SCALE 1/4" = 1'-0"

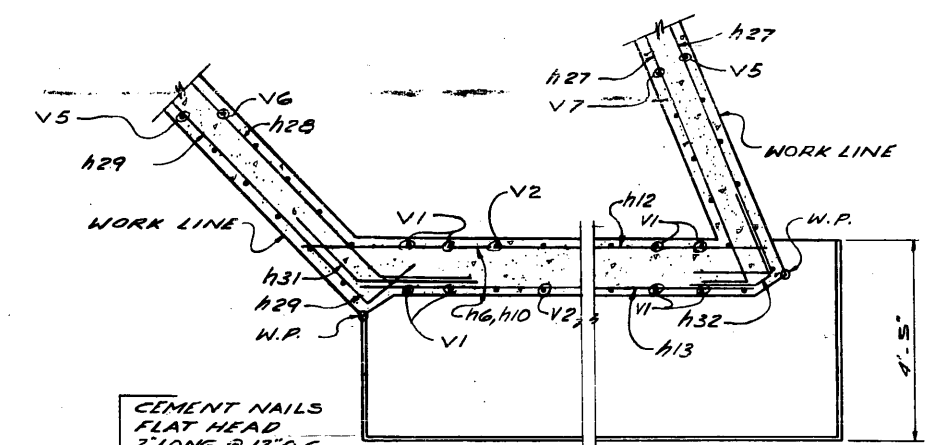


SECTION N-N
 SCALE 3/4" = 1'-0"

NOTE:
 SETTING PLATE TO BE CAST IN PLACE WITH HANDRAIL CONCRETE.

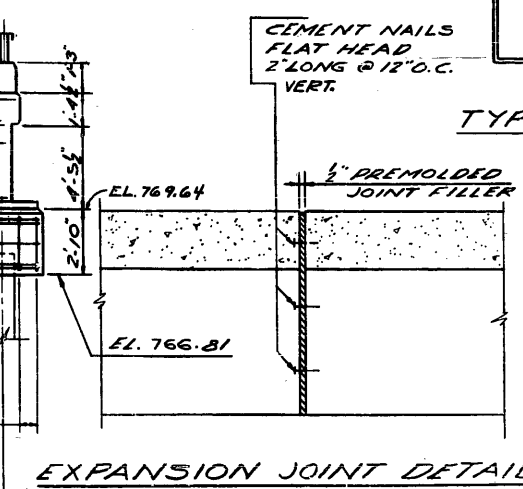
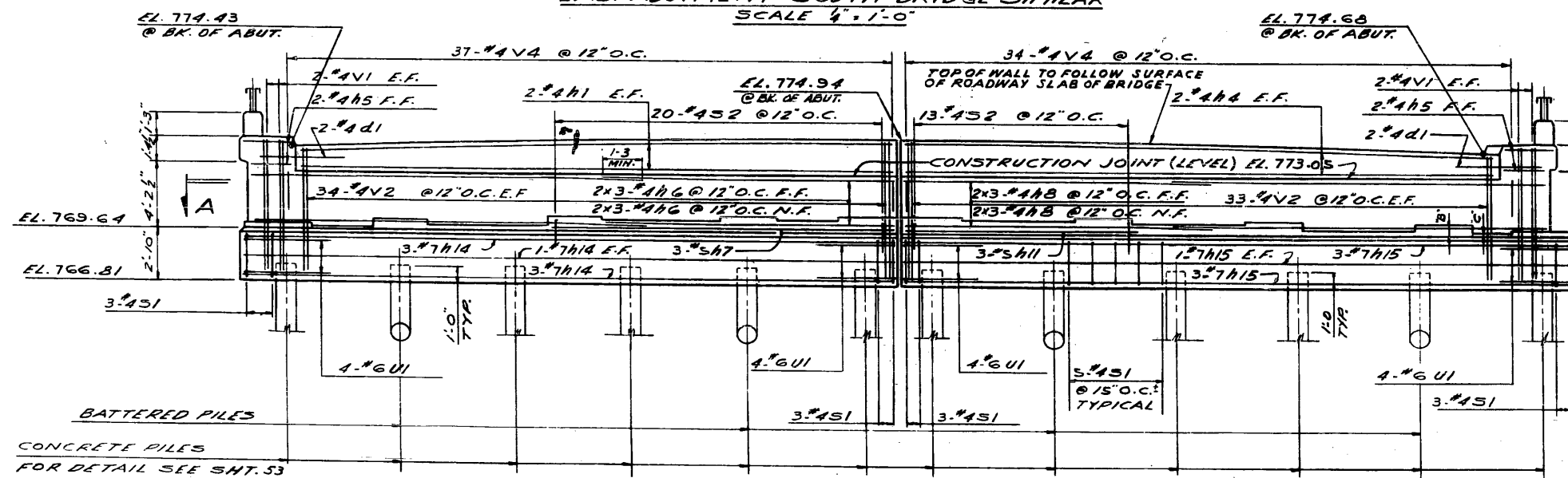


SECTION P-P
 SCALE 3/4" = 1'-0"



TYPICAL CORNER DETAIL
 SCALE 1/2" = 1'-0"

NOTE:
 FOR SECTION "R-R" AND WINGWALL ELEVATION SEE SHT. 47



EXPANSION JOINT DETAIL

PILE SCHEDULE FOR EACH ABUTMENT

PILES	CONCRETE	CREOSOTED TIMBER
CAPACITY	35 TONS	10 TONS
NO. REQ.	12 (INC. 1 TEST PILE)	2
EST. LENGTH	45 FEET	30 FEET

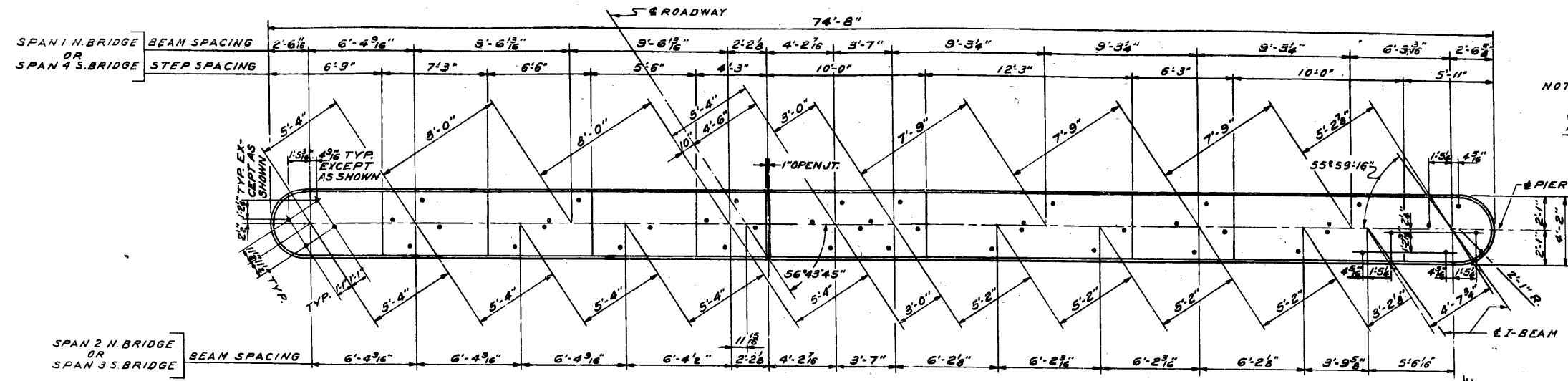
FRONT ELEVATION
WEST ABUT. NORTH BRIDGE SHOWN
EAST ABUT. SOUTH BRIDGE SIMILAR
 SCALE 1/2" = 1'-0"

TABLE OF "B" & "C" DIMENSIONS

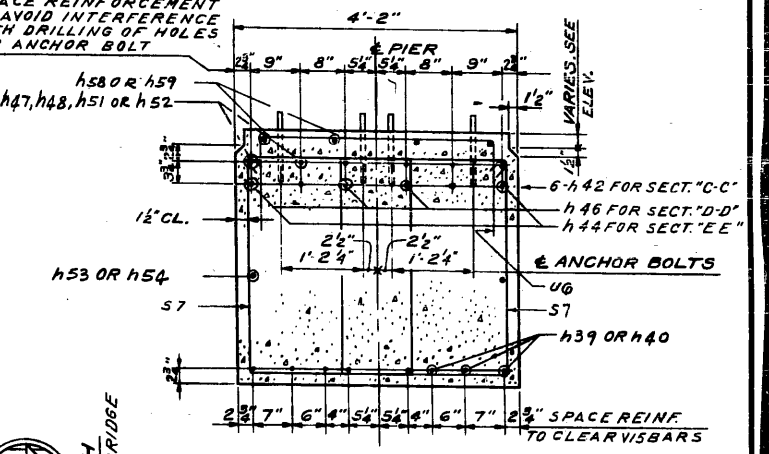
BLOCK LOCATION	1	2	3	4	5	6	7	8	9	10
"B" DIM.	2' 6"	3' 3"	5' 4"	6' 3"	6' 3"	6' 4"	4' 3"	3' 4"	1' 7"	
"C" DIM.	1' 3"	2' 3"	4' 1"	5' 3"		3' 3"	2' 4"	3' 6"		

(SEE SECTION "P-P")

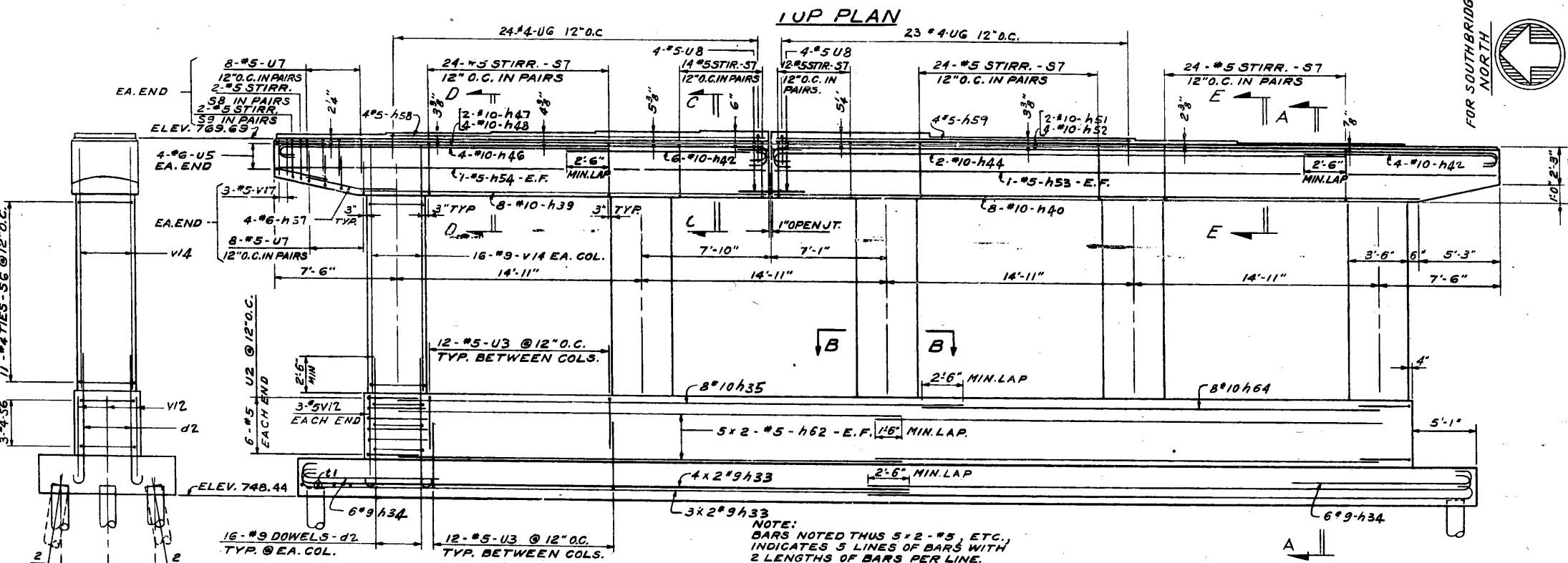
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 155	22-2HB	DU PAGE	105	49
STA.	TO STA.			
ROAD DIST. NO. 4 ILLINOIS F.A. PROJECT				



NOTE:
SPACE REINFORCEMENT
TO AVOID INTERFERENCE
WITH DRILLING OF HOLES
FOR ANCHOR BOLT

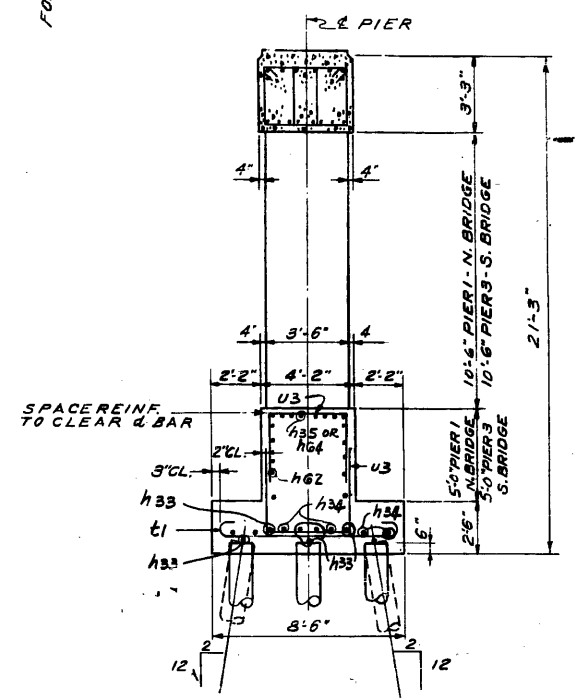


SECTION "C-C"
SECTIONS "D-D" & "E-E" SIMILAR

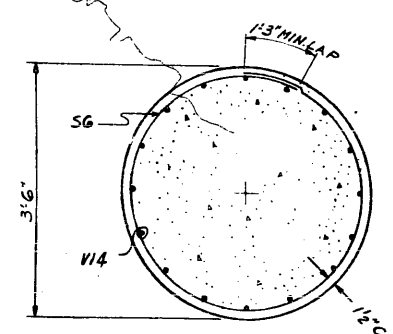


NOTE:
BARS NOTED THUS 5 x 2 #5, ETC.,
INDICATES 5 LINES OF BARS WITH
2 LENGTHS OF BARS PER LINE.

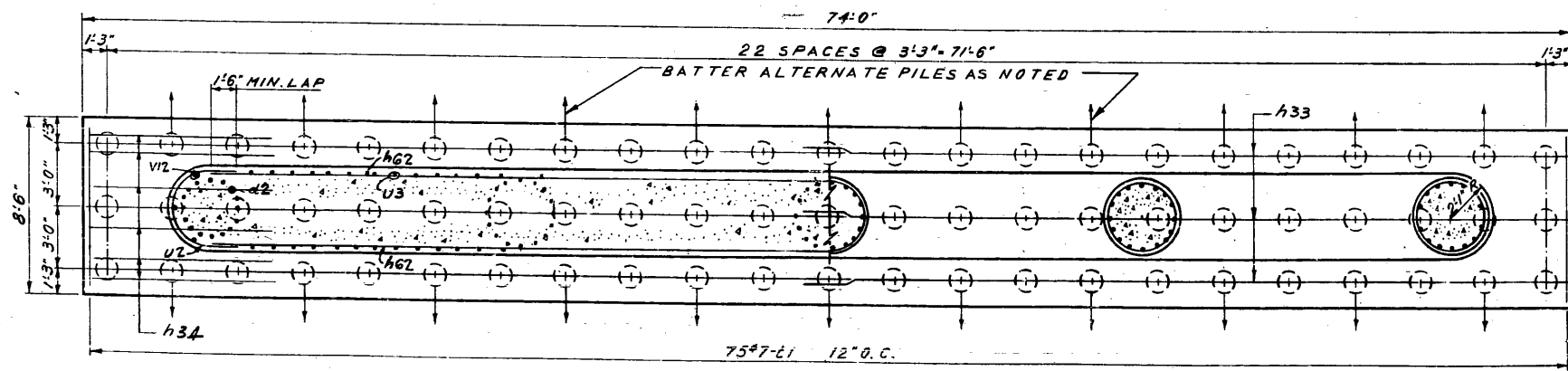
ELEVATION
SCALE: 1/4" = 1'-0"



SECTION A-A



SECTION B-B
SCALE: 3/4" = 1'-0"



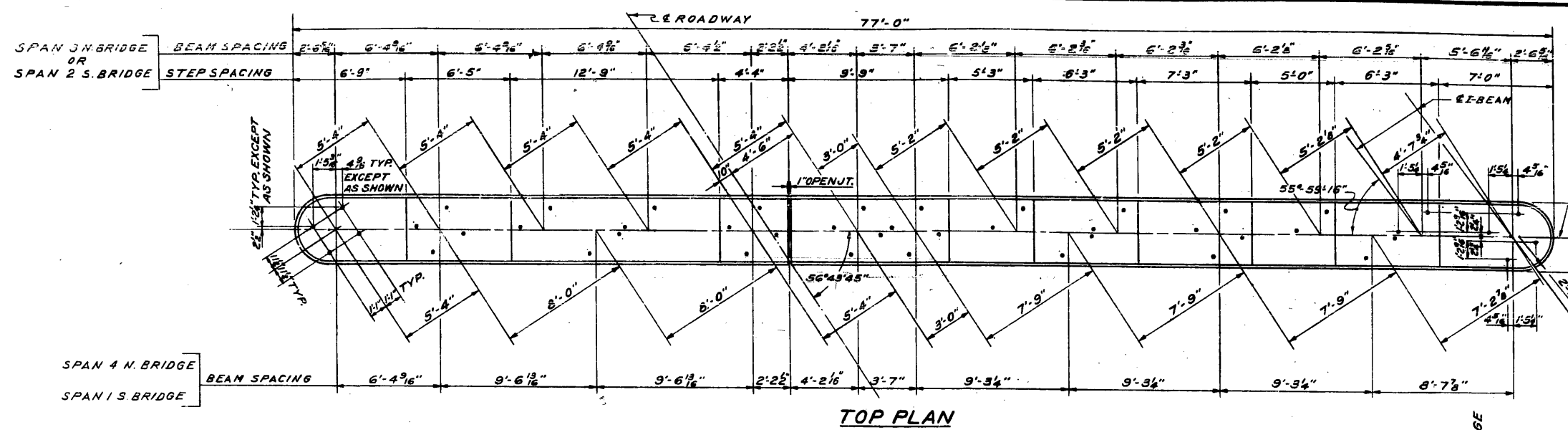
HALF SECTION
FOOTING PLAN

BILL OF MATERIAL

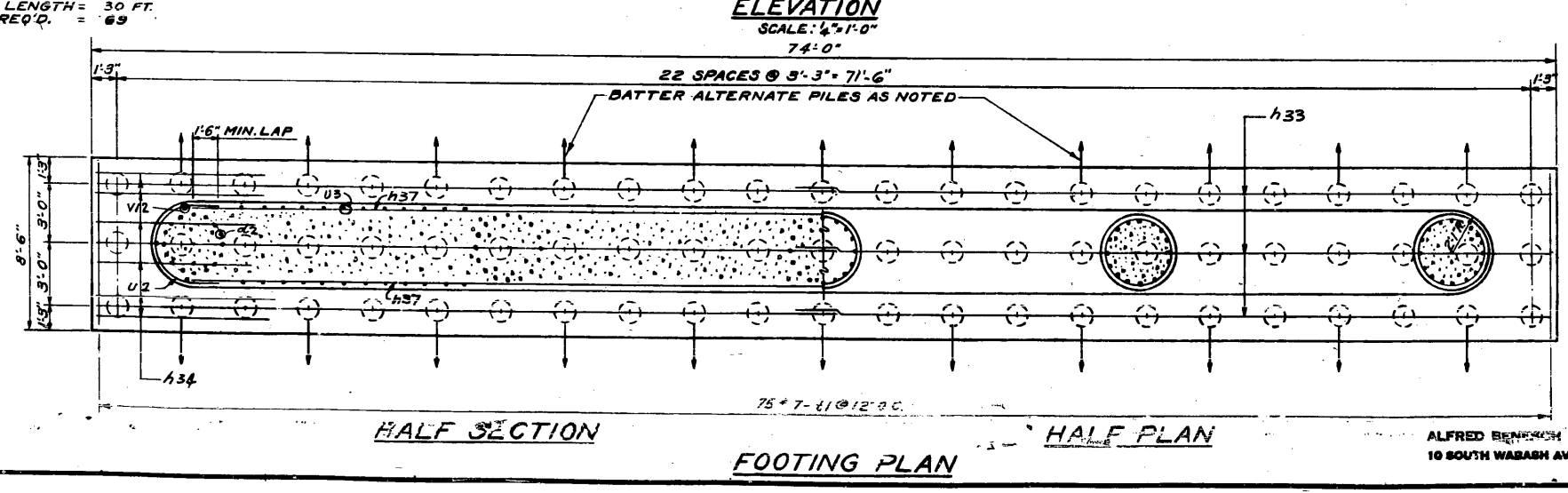
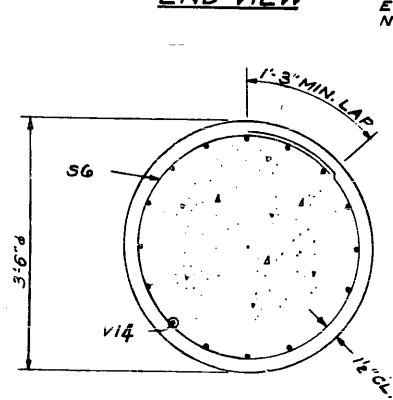
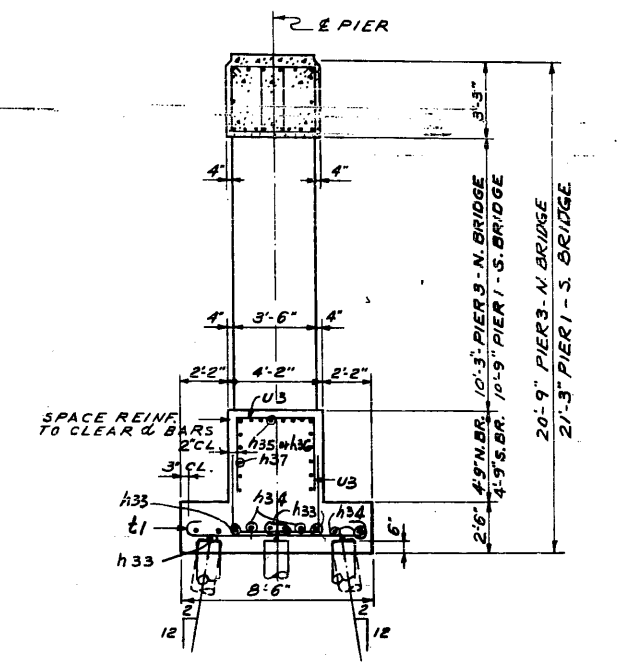
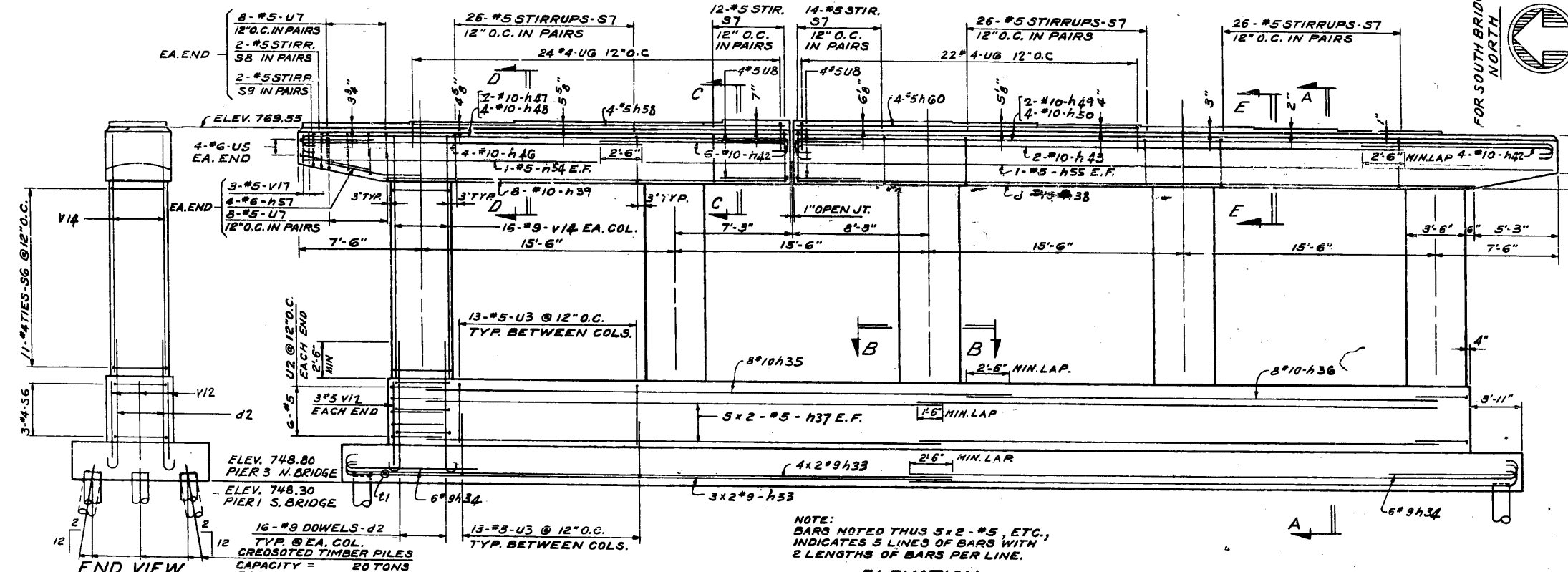
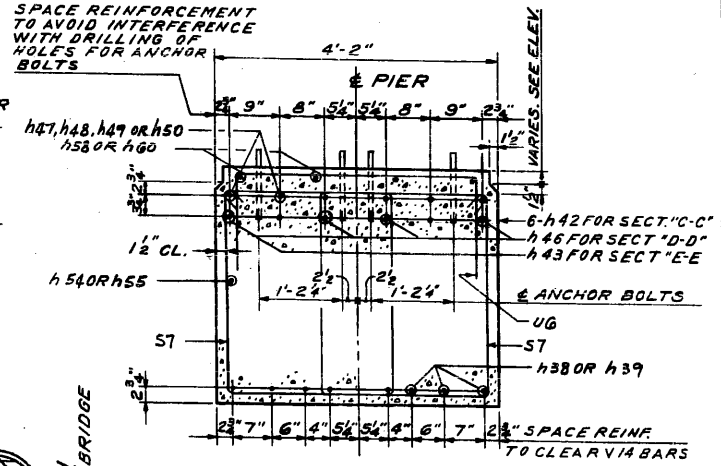
ITEM	UNIT	N. BRIDGE PIER 1	S. BRIDGE PIER 3
CLASS X CONCRETE	CU. YDS	163.7	163.7
REINFORCEMENT BARS	LBS.	22,560	22,560
CREOSOTED TIMBER PILES, 20.17x38"	LIN. FT.	2,070	2,070
TEST PILES (TIMBER)	EACH	1	1
DRIVING TIMBER PILES	LIN. FT.	2,070	2,070
CLASS A EXCAVATION FOR STRUCTURES	CU. YDS	186	184

PIER 1 NO. BRIDGE PIER 3 SO. BRIDGE
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A. ROUTE 15 SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.45

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 155-22-2HB-1	DU PAGE	ILLINOIS	105	51
STA.	TO STA.			
FED. ROAD DIST. NO. 4				



NOTE: SPACE REINFORCEMENT TO AVOID INTERFERENCE WITH DRILLING OF HOLES FOR ANCHOR BOLTS



BILL OF MATERIAL

ITEM	UNIT	N. BRIDGE PIER 3	S. BRIDGE PIER 1
CLASS X CONCRETE	CU. YDS.	149.9	150.1
REINFORCEMENT BARS	LBS	22,990	22,990
CRESOTED TIMBER PILES, 20.1 TO 38"	LIN. FIT.	2,070	2,070
TEST PILES (TIMBER)	EACH.	1	1
DRIVING TIMBER PILES	LIN. FT.	2,070	2,070
CLASS A EXCAVATION FOR STRUCTURES	CU. YDS.	179	183

PIER 3 NO. BRIDGE PIER 1 SO. BRIDGE
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
H.A.I. ROUTE 55 - SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.45

ALFRED BENKOVICH & ASSOCIATES CONSULTING ENGINEERS
10 SOUTH WABASH AVENUE
CHICAGO, ILLINOIS

REINFORCEMENT BAR LISTS

ABUTMENTS

NO. REQUIRED		NO. BRIDGE	SPAN	MARK	TYPE	ABUTMENT										
EAST	WEST					A	B	C	D	E	F	G	H	K	PIN	
STRAIGHT																
8	8	8	7	35-6	h14											
8	8	8	7	36-3	h15											
8	8	8	7	41-0	h16											
8	8	8	7	35-0	h17											
6	6	6	6	11-6	h20											
6	6	6	6	17-0	h21											
3	3	3	5	19-3	h7											
3	3	3	5	35-0	h24											
3	3	3	5	21-6	h25											
3	3	3	5	12-6	h11											
4	4	4	4	4-6	d1											
4	4	4	4	3-0	h1											
8	8	8	4	20-3	h2											
4	4	4	4	30-9	h3											
4	4	4	4	3-0	h4											
4	4	4	4	3-3	h5											
12	12	12	4	19-3	h6											
12	12	12	4	18-3	h8											
12	12	12	4	22-0	h10											
6	6	6	4	33-3	h12											
8	8	8	8	14-0	h18											
4	4	4	4	9-0	h19											
8	8	8	8	7-3	v1											
146	134	134	146	6-9	v2											
BENT																
16	16	16	16	12-6	u1	2	4-3	4-0							4-3	
4	4	4	4	11-11	h26	53		10-8	1-3					10 1/2	10 1/2	
10	10	10	10	13-7	h27	52	2-0	11-7						11-11	8 1/2	
5	5	5	5	13-8	h28	53		11-8	2-0					1-4 1/2	1-5	
5	5	5	5	13-5	h29	2	1-9	11-8								
2	2	2	2	4-10	h30	54	2-0	10	2-0				1-8	1-2	1-11	5
5	5	5	5	5-10	h31	53		3-3	2-7					1-10	1-10 1/2	
3	3	3	3	4-6	h32	54	2-0	6	2-0				1-8	1-2	1-11	5
67	62	62	67	13-6	s1	71	4	4-1	2-4	4-1	2-4					
58	33	33	58	6-9	s2	2	2-0	2-9						2-0		
20	20	20	20	5-0	s3	71	4	8	1-6	8	1-6					
2	2	2	2	2-7	v10	53		1-4	1-3					10 1/2	10 1/2	
2	2	2	2	3-9	v11	53		2-6	1-3					10 1/2	10 1/2	
76	71	71	76	5-0	v4	16	1-0	1-5	1-3	1-4				11 1/4	11 1/4	

DECK

NO. REQUIRED		NO. BRIDGE	SPAN	MARK	TYPE	DECK										
EAST	WEST					A	B	C	D	E	F	G	H	K	PIN	
STRAIGHT																
11	2	3	4	1	2	3	4									
64	60	60	64	25-6	o3											
64	60	60	64	11-6	o8											
90	90	90	90	26-9	o9											
90	90	90	90	9-0	o12											
88	88	88	88	27-9	o15											
88	88	88	88	9-6	o17											
60	60	60	60	14-0	o21											
94	90	90	94	26-0	b1											
88	88	88	88	38-9	b3											
51	41	41	51	29-8	o53											
32	32	32	32	7-6	o54											
19	19	19	19	31-3	o55											
45	44	44	45	7-0	o56											
16	16	16	16	32-3	o57											
17	17	17	17	33-3	o58											
30	30	30	30	10-0	o59											
21	21	21	21	34-0	o60											
BENT																
14	12	12	14	17-0	o24											
12	14	14	12	17-0	o24											
14	6	6	14	18-6	o25											
6	6	6	6	19-0	o26											
6	14	14	6	20-0	o27											
14	6	6	14	26-0	o27											
14	14	14	14	38-9	o24											
14	14	14	14	38-9	o24											
52	62	62	52	30-10	o1	2	1-2	24-8								
62	52	52	62	30-10	o1	2	1-2	24-8								
103	123	123	103	30-3	o2	1	7	24-8								
123	103	103	123	30-3	o2	1	7	24-8								
32	32	32	32	8-8	o4	2	1-2	7-6								
20	20	20	20	32-5	o5	2	1-2	31-3								
39	39	39	39	31-10	o6	1	7	31-3								
64	60	60	64	22-0	o7	1	7	21-5								
45	44	44	45	8-2	o10	2	1-2	7-0								
90	90	90	90	25-4	o11	1	7	24-9								
17	17	17	17	33-5	o13	2	1-2	32-3								
33	33	33	33	32-10	o14	1	7	32-3								
88	88	88	88	25-10	o16	1	7	25-3								
18	18	18	18	34-5	o18	2	1-2	33-3								
35	35	35	35	33-10	o19	1	7	33-3								
30	30	30	30	11-2	o20	2	1-2	10-0								
22	22	22	22	35-1	o22	2	1-2	33-11								
13	13	13	13	38-6	o23	1	7	33-11								
54	49	49	54	5-6	o28	1	7	4-11								
122	130	130	122	5-0	x1	7	7	4-5								
122	254	254	122	4-3	x2	1	7	3-8								
250	128	128	250	4-3	x2	1	7	3-8								
104	124	124	104	3-8	o29	53		2-8	1-0					1-0	1 1/2	
124	104	104	124	3-8	o29	53		2-8	1-0					1-0	1 1/2	

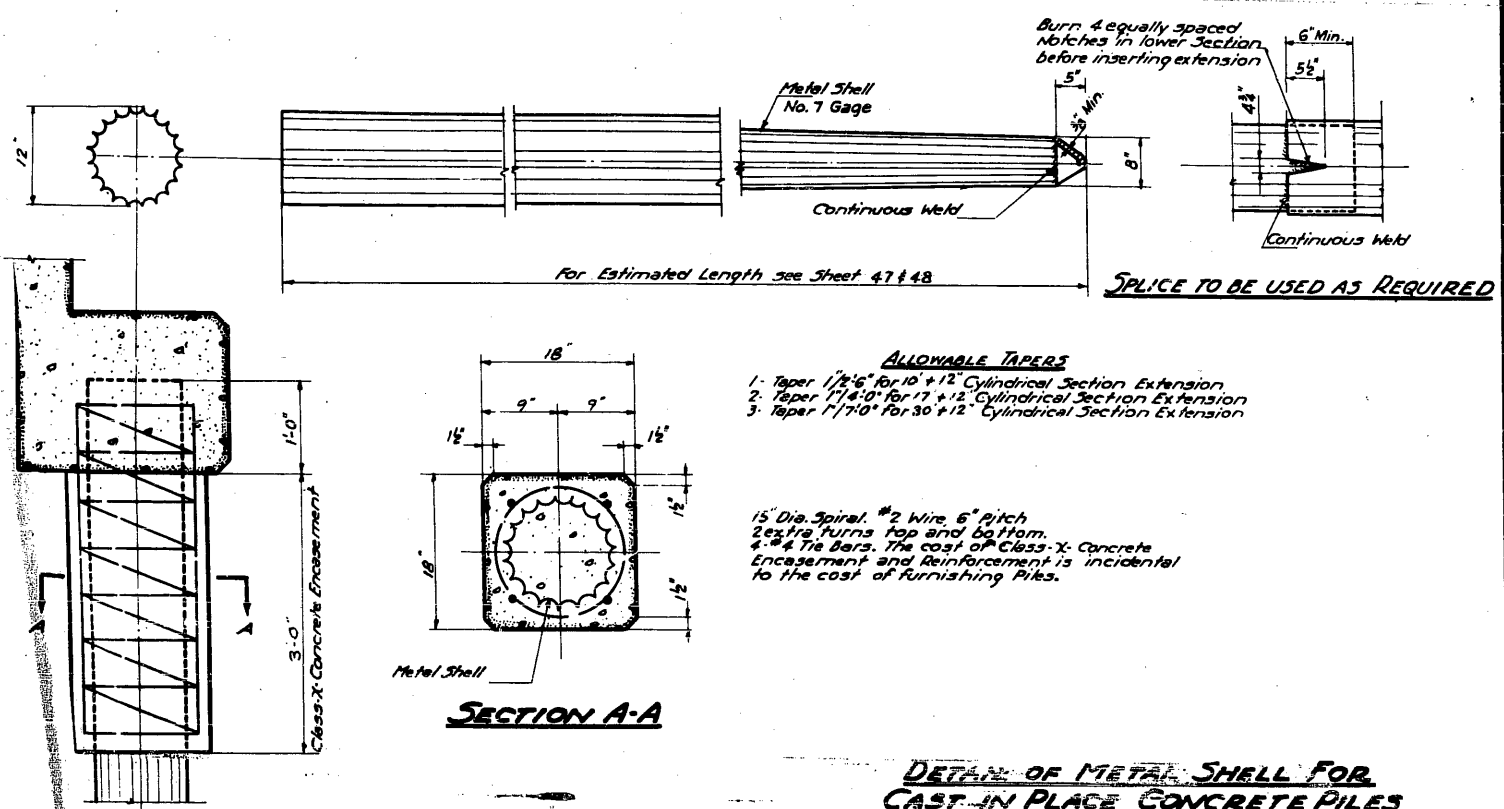
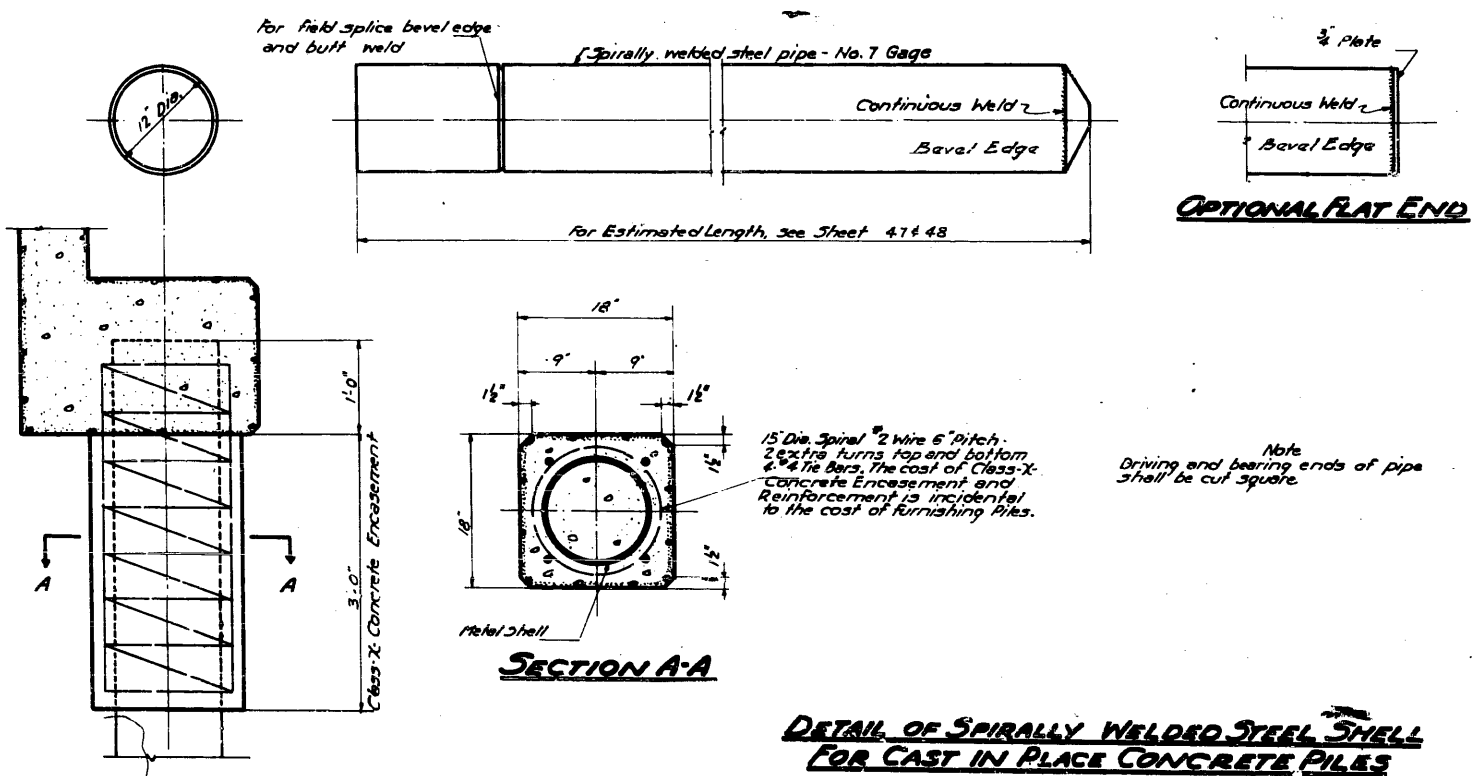
DIAPHRAGMS

NO. REQUIRED		NO. BRIDGE	SPAN	MARK	TYPE	DIAPHRAGM										
EAST	WEST					A	B	C	D	E	F	G	H	K	PIN	
STRAIGHT																
11	2	3	4	1	2	3	4									
10	38	38	10	4-3	o30											
34	38	38	34	4-3	o30											
24	44	44	24	3-5	o32											
22	22	22	22	2-11	o34											
2	2	2	2	1-9	o36											
2	2	2	2	6-6	o38											
20	22	22	20	7-3	o40											
8	8	8	8	9	o42											
BENT																
18	78	78	18	4-3	o31											
76	78	78	76	4-3	o31											
6	36	36	6	3-5	o33											
32	4	4	32	3-5	o33											
22	22	22	22	2-11	o35											
4	4	4	4	1-9	o37											
6	6	6	6	6-6	o39											
20	22	22	20	7-3	o41											
8	8	8	8	9	o43											
4	32	32	4	4-1	o44											
32	36	36	32	4-1	o44											
2	18	18	2	3-7	o45											
18	18	18	18	3-1	o45											
4	4	4	4	2-8	o46											
20	20	20	20	6-11	o47											

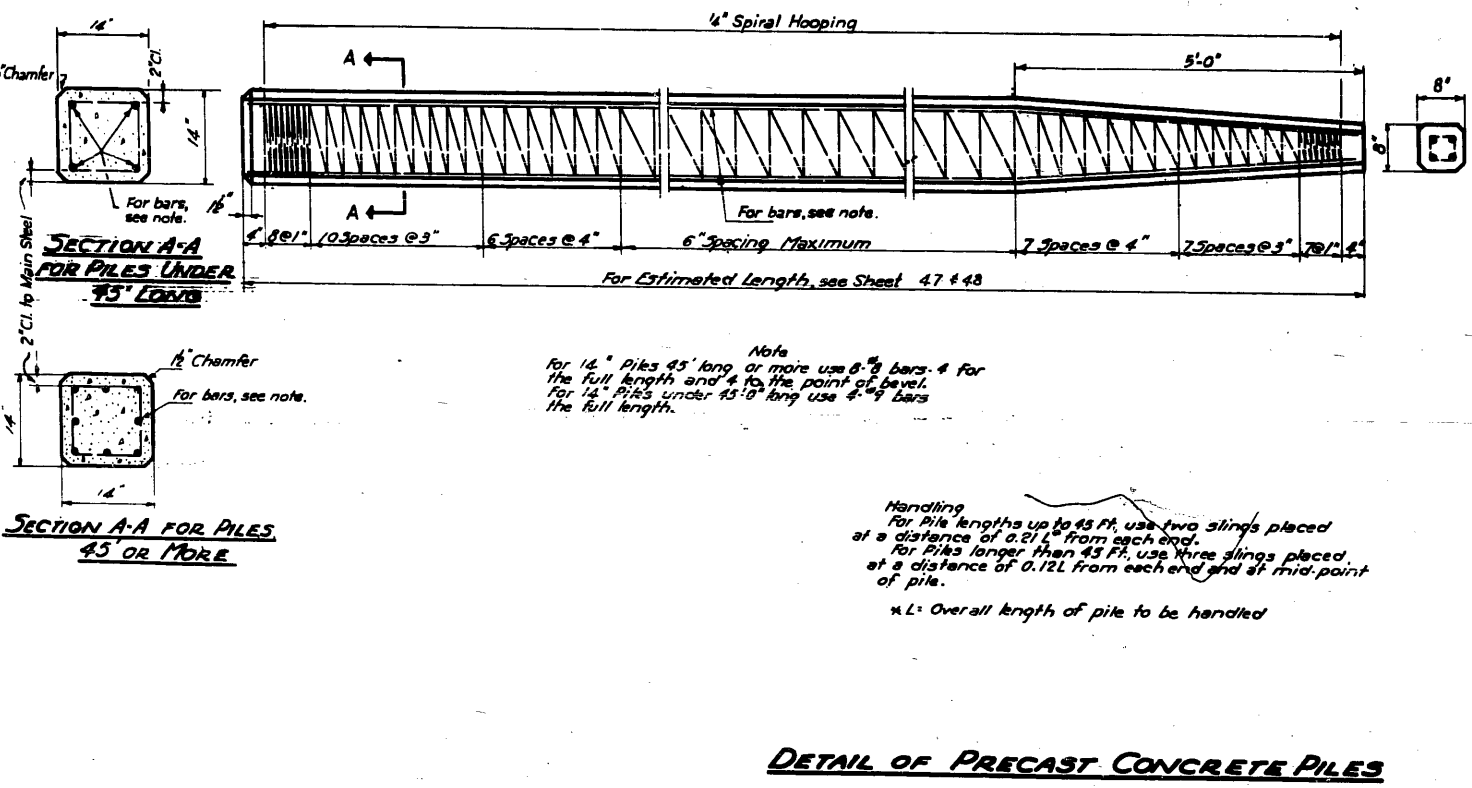
ABUTMENT PILES

PILING TO BE USED AT THE ABUTMENTS SHALL BE ANY OF THE VARIOUS KINDS SHOWN BELOW.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 65	22-2HB-1	DU PAGE	105	53
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	F.A. PROJECT		



- ALLOWABLE TAPERS**
1. Taper 1/2" for 10' + 12' Cylindrical Section Extension
 2. Taper 1/4" for 17' + 12' Cylindrical Section Extension
 3. Taper 1/10" for 30' + 12' Cylindrical Section Extension



DETAIL OF PRECAST CONCRETE PILES

ABUTMENT PILES
GRADE SEPARATION
U.S. ROUTE 66
OVER DOWNERS GROVE ROAD
F.A. PROJECT
F.A.I. ROUTE 65 SECTION 22-2HB-1
DU PAGE COUNTY
STATION 796+40.42

ALFRED BENESCH & ASSOCIATES CONSULTING ENGINEERS
 587- WASHINGTON AVENUE CHICAGO, ILLINOIS

