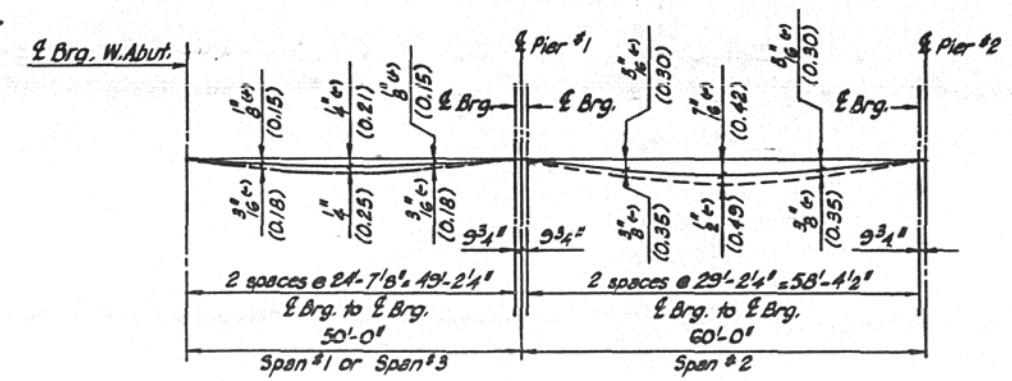


PLAN
Westbound Shown
Eastbound Similar

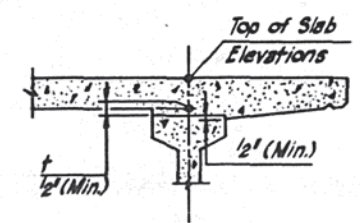
BEAM 1

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR D.L.DEF.
Bk. W. Abut.	738+39.75	21.00	670.68	670.68
C.L. Brg. W. Abut.	738+42.00	21.00	670.68	670.68
a1	738+52.00	21.00	670.71	670.72
a2	738+62.00	21.00	670.75	670.75
a3	738+72.00	21.00	670.78	670.78
a4	738+82.00	21.00	670.81	670.81
C.L. Brg.	738+91.20	21.00	670.84	670.84
C.L. Pier 1	738+92.00	21.00	670.84	670.84
C.L. Brg.	738+92.80	21.00	670.85	670.85
a5	739+02.80	21.00	670.88	670.87
a6	739+12.80	21.00	670.91	670.89
a7	739+22.80	21.00	670.94	670.92
a8	739+32.80	21.00	670.97	670.96
a9	739+42.80	21.00	671.01	671.00
C.L. Brg.	739+51.20	21.00	671.03	671.03
C.L. Pier 2	739+52.00	21.00	671.03	671.03
C.L. Brg.	739+52.80	21.00	671.04	671.04
a10	739+62.80	21.00	671.07	671.07
a11	739+72.80	21.00	671.10	671.10
a12	739+82.80	21.00	671.13	671.14
a13	739+92.80	21.00	671.17	671.17
C.L. Brg. E. Abut.	740+02.00	21.00	671.19	671.19
Bk. E. Abut.	740+04.25	21.00	671.20	671.20

REVISED



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of Concrete only)



FILLET HEIGHTS

TO DETERMINE "t" AFTER ALL PRESTRESSED BEAMS HAVE BEEN ERECTED, ELEVATIONS OF THE TOP OF THE BEAMS SHALL BE TAKEN AT THE INTERVAL SHOWN IN THE PLAN. THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS" SHOWN ON THE FOLLOWING SHEETS, MINUS SLAB (7 1/2") EQUALS THE FILLET HEIGHTS "t" ABOVE THE TOP OF THE BEAM.

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.

DESIGNED BY N.A.F.
DRAWN BY O.C.
CHECKED BY O.M.D.

AMIR-FAZLI AND ASSOCIATES, INC.
CONSULTING ENGINEERS

TOP OF SLAB ELEVATIONS
FAI RTE. 74
OVER SALT FORK RIVER
SEC. (10-7B-1) BR
CHAMPAIGN COUNTY
STR. NOS. 010-0029, 0030
STA. 739 + 22.00

DATE

BEAM 2 - BEAM 8

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR D.L.DEF.
EK. W. Abut	738+39.75	15.75	670.78	670.78
C.L. Brg. W. Abut	738+42.00	15.75	670.79	670.79
a1	738+52.00	15.75	670.82	670.84
a2	738+62.00	15.75	670.86	670.88
a3	738+72.00	15.75	670.89	670.91
a4	738+82.00	15.75	670.92	670.93
C.L. Brg.	738+91.20	15.75	670.95	670.95
C.L. Pier 1	738+92.00	15.75	670.95	670.95
C.L. Brg.	738+92.80	15.75	670.95	670.95
a5	739+02.80	15.75	670.99	671.01
a6	739+12.80	15.75	671.02	671.06
a7	739+22.80	15.75	671.05	671.10
a8	739+32.80	15.75	671.08	671.12
a9	739+42.80	15.75	671.11	671.14
C.L. Brg.	739+51.20	15.75	671.14	671.14
C.L. Pier 2	739+52.00	15.75	671.14	671.14
C.L. Brg.	739+52.80	15.75	671.15	671.15
a10	739+62.80	15.75	671.18	671.19
a11	739+72.80	15.75	671.21	671.23
a12	739+82.80	15.75	671.24	671.26
a13	739+92.80	15.75	671.27	671.29
C.L. Brg. E. Abut.	740+02.00	15.75	671.30	671.30
EK. E. Abut	740+04.25	15.75	671.31	671.31

BEAM 3 - BEAM 7

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR D.L.DEF.
EK. W. Abut	738+39.75	10.50	670.89	670.89
C.L. Brg. W. Abut	738+42.00	10.50	670.89	670.89
a1	738+52.00	10.50	670.93	670.94
a2	738+62.00	10.50	670.96	670.98
a3	738+72.00	10.50	670.99	671.01
a4	738+82.00	10.50	671.02	671.04
C.L. Brg.	738+91.20	10.50	671.05	671.05
C.L. Pier 1	738+92.00	10.50	671.05	671.05
C.L. Brg.	738+92.80	10.50	671.06	671.06
a5	739+02.80	10.50	671.09	671.11
a6	739+12.80	10.50	671.12	671.16
a7	739+22.80	10.50	671.15	671.20
a8	739+32.80	10.50	671.18	671.22
a9	739+42.80	10.50	671.22	671.24
C.L. Brg.	739+51.20	10.50	671.24	671.24
C.L. Pier 2	739+52.00	10.50	671.25	671.25
C.L. Brg.	739+52.80	10.50	671.25	671.25
a10	739+62.80	10.50	671.28	671.29
a11	739+72.80	10.50	671.31	671.33
a12	739+82.80	10.50	671.34	671.37
a13	739+92.80	10.50	671.38	671.39
C.L. Brg. E. Abut.	740+02.00	10.50	671.41	671.41
EK. E. Abut	740+04.25	10.50	671.41	671.41

STAGE CONST. LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR D.L.DEF.
EK. N. Abut	738+39.75	3.85	670.99	670.99
C.L. Brg. W. Abut	738+42.00	3.85	671.00	671.00
a1	738+52.00	3.85	671.03	671.04
a2	738+62.00	3.85	671.06	671.08
a3	738+72.00	3.85	671.09	671.11
a4	738+82.00	3.85	671.13	671.14
C.L. Brg.	738+91.20	3.85	671.15	671.15
C.L. Pier 1	738+92.00	3.85	671.16	671.16
C.L. Brg.	738+92.80	3.85	671.16	671.16
a5	739+02.80	3.85	671.19	671.22
a6	739+12.80	3.85	671.22	671.26
a7	739+22.80	3.85	671.26	671.30
a8	739+32.80	3.85	671.29	671.33
a9	739+42.80	3.85	671.32	671.34
C.L. Brg.	739+51.20	3.85	671.35	671.35
C.L. Pier 2	739+52.00	3.85	671.35	671.35
C.L. Brg.	739+52.80	3.85	671.35	671.35
a10	739+62.80	3.85	671.38	671.40
a11	739+72.80	3.85	671.42	671.44
a12	739+82.80	3.85	671.45	671.47
a13	739+92.80	3.85	671.48	671.49
C.L. Brg. E. Abut.	740+02.00	3.85	671.51	671.51
EK. E. Abut	740+04.25	3.85	671.52	671.52

BEAM 4 - BEAM 6

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR D.L.DEF.
EK. W. Abut	738+39.75	5.25	670.97	670.97
C.L. Brg. W. Abut	738+42.00	5.25	670.98	670.98
a1	738+52.00	5.25	671.01	671.02
a2	738+62.00	5.25	671.04	671.06
a3	738+72.00	5.25	671.07	671.09
a4	738+82.00	5.25	671.10	671.12
C.L. Brg.	738+91.20	5.25	671.13	671.13
C.L. Pier 1	738+92.00	5.25	671.14	671.14
C.L. Brg.	738+92.80	5.25	671.14	671.14
a5	739+02.80	5.25	671.17	671.20
a6	739+12.80	5.25	671.20	671.24
a7	739+22.80	5.25	671.23	671.28
a8	739+32.80	5.25	671.27	671.31
a9	739+42.80	5.25	671.30	671.32
C.L. Brg.	739+51.20	5.25	671.33	671.33
C.L. Pier 2	739+52.00	5.25	671.33	671.33
C.L. Brg.	739+52.80	5.25	671.33	671.33
a10	739+62.80	5.25	671.36	671.38
a11	739+72.80	5.25	671.39	671.42
a12	739+82.80	5.25	671.43	671.45
a13	739+92.80	5.25	671.46	671.47
C.L. Brg. E. Abut.	740+02.00	5.25	671.49	671.49
EK. E. Abut	740+04.25	5.25	671.49	671.49

BEAM 5

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR D.L.DEF.
EK. W. Abut	738+39.75	0.00	671.05	671.05
C.L. Brg. W. Abut	738+42.00	0.00	671.06	671.06
a1	738+52.00	0.00	671.09	671.10
a2	738+62.00	0.00	671.12	671.14
a3	738+72.00	0.00	671.15	671.17
a4	738+82.00	0.00	671.19	671.20
C.L. Brg.	738+91.20	0.00	671.22	671.22
C.L. Pier 1	738+92.00	0.00	671.22	671.22
C.L. Brg.	738+92.80	0.00	671.22	671.22
a5	739+02.80	0.00	671.25	671.28
a6	739+12.80	0.00	671.28	671.33
a7	739+22.80	0.00	671.32	671.36
a8	739+32.80	0.00	671.35	671.39
a9	739+42.80	0.00	671.38	671.40
C.L. Brg.	739+51.20	0.00	671.41	671.41
C.L. Pier 2	739+52.00	0.00	671.41	671.41
C.L. Brg.	739+52.80	0.00	671.41	671.41
a10	739+62.80	0.00	671.44	671.46
a11	739+72.80	0.00	671.48	671.50
a12	739+82.80	0.00	671.51	671.53
a13	739+92.80	0.00	671.54	671.55
C.L. Brg. E. Abut.	740+02.00	0.00	671.57	671.57
EK. E. Abut	740+04.25	0.00	671.58	671.58

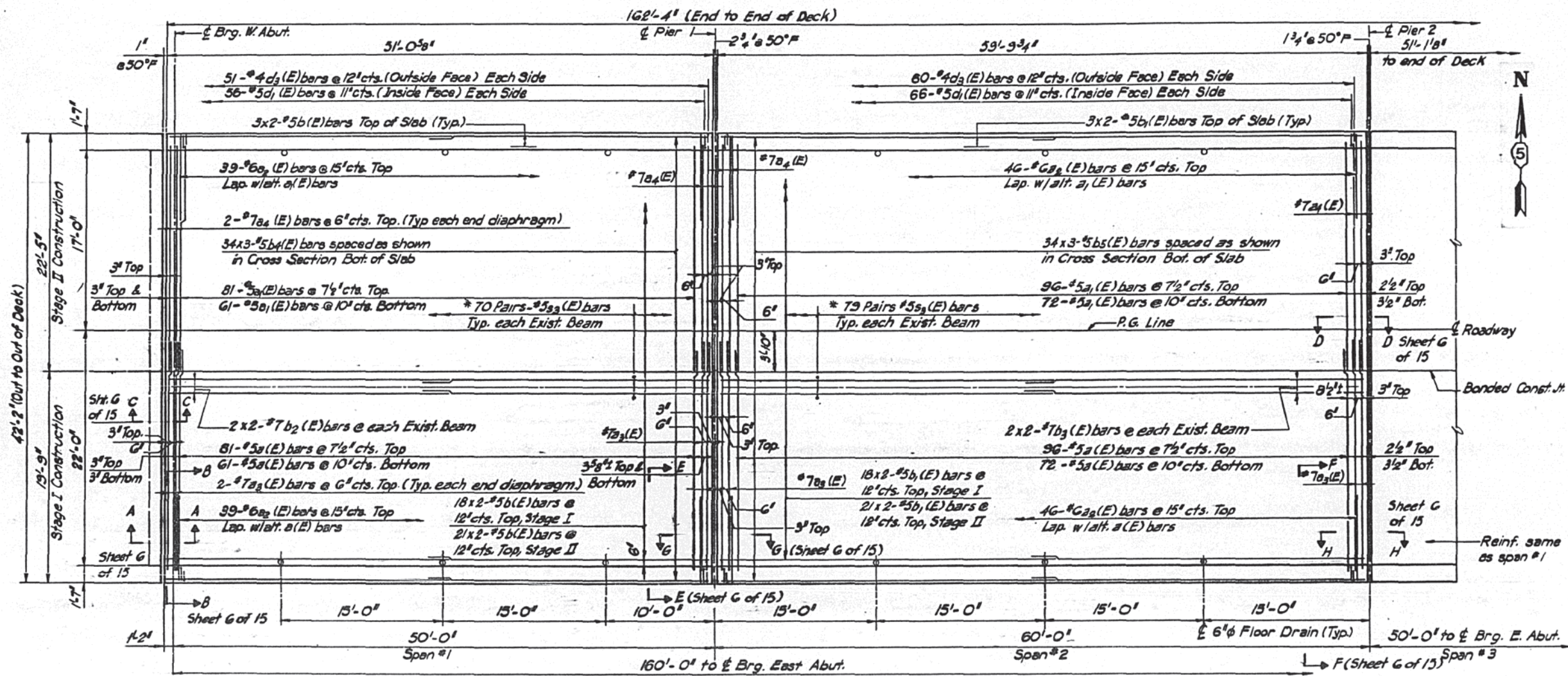
DESIGNED BY N.A.F.
 DRAWN BY b.z.
 CHECKED BY O.M.D.

AMIR-FAZLI AND ASSOCIATES, INC.
 CONSULTING ENGINEERS

TOP OF SLAB ELEVATIONS
 FAI RTE. 74
 OVER SALT FORK RIVER
 SEC. (10-7B-1) BR
 CHAMPAIGN COUNTY
 STR. NOS. 010-0029, 0030
 STA. 739 + 22.00

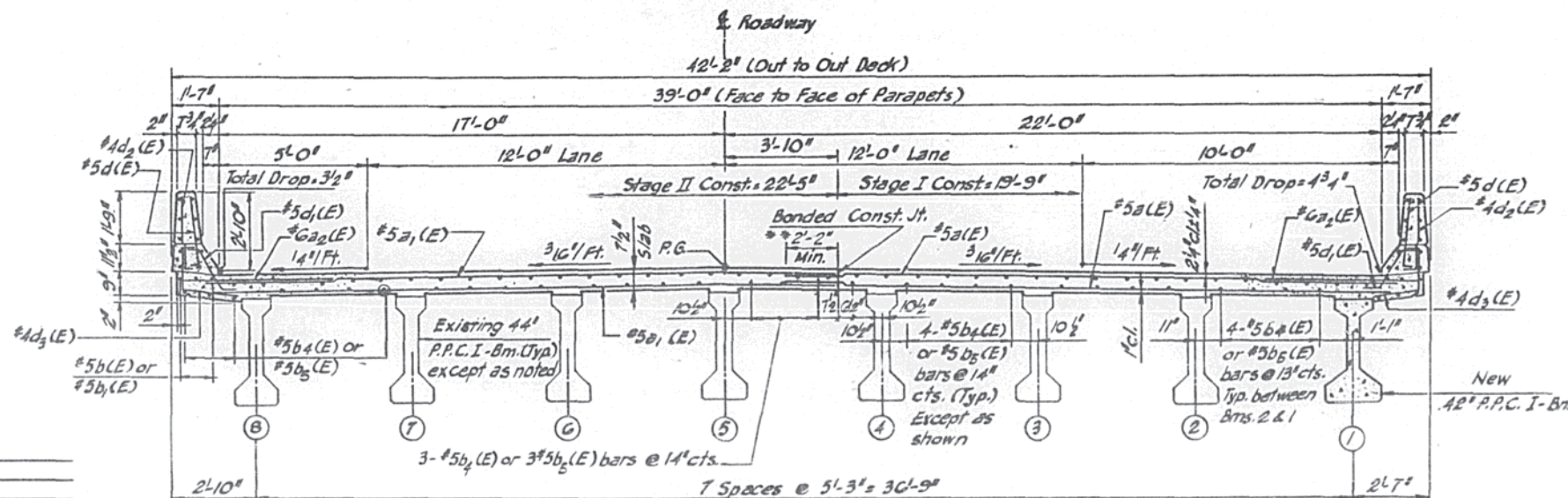
DATE

FAI RTE.	SECTION	COUNTY	TOTAL SHEET
FAI 74	(10-7B-1) BR	CHAMPAIGN	108
PROJECT			57
SHEET 5 OF 15			



* Weld #5s3 (E) to existing bars.
Cost incidental.

PARTIAL PLAN
EASTBOUND DECK SHOWN WESTBOUND SIMILAR



CROSS SECTION

LOOKING EAST FOR EAST BOUND
LOOKING WEST FOR WEST BOUND

* REINFORCEMENT BARS IN THIS AREA SHALL HAVE A MINIMUM OF 2'-2" LAP AND BE TIED WITH DOUBLE THE NUMBER OF TIES NOTUALLY USED.

NOTES:
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
BARS INDICATED THUS 29 x 4-#5 etc., INDICATES 29 LINES OF BARS WITH 4 LENGTHS PER LINE.
FOR BILL OF MATERIAL SEE SHEET 7 OF 15.
MINIMUM BAR LAPS FOR #5 BARS IS 1'-9", UNLESS OTHERWISE NOTED.
MINIMUM BAR LAPS FOR #7 BARS = 2'-10".

DESIGNED BY N.A.F.
DRAWN BY V.R.
CHECKED BY O.M.D.

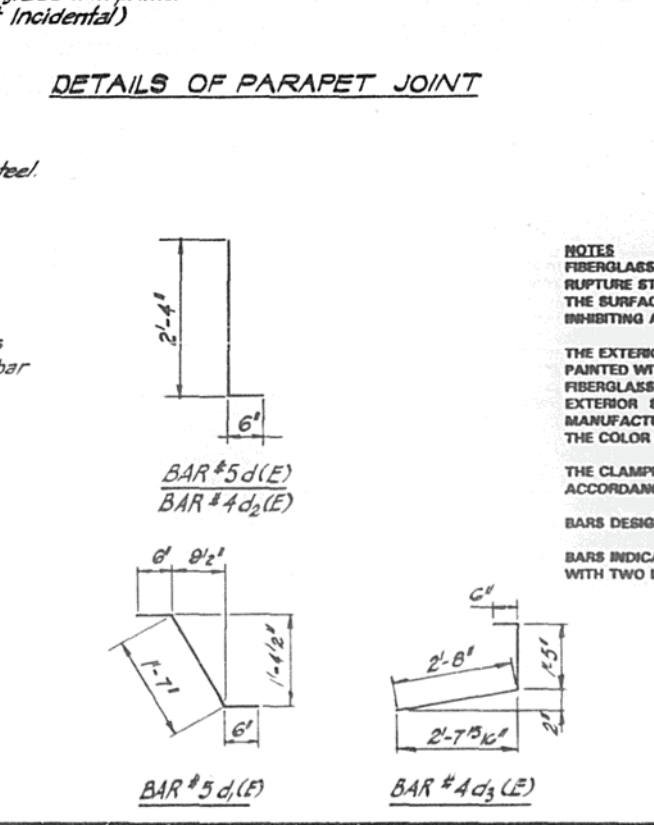
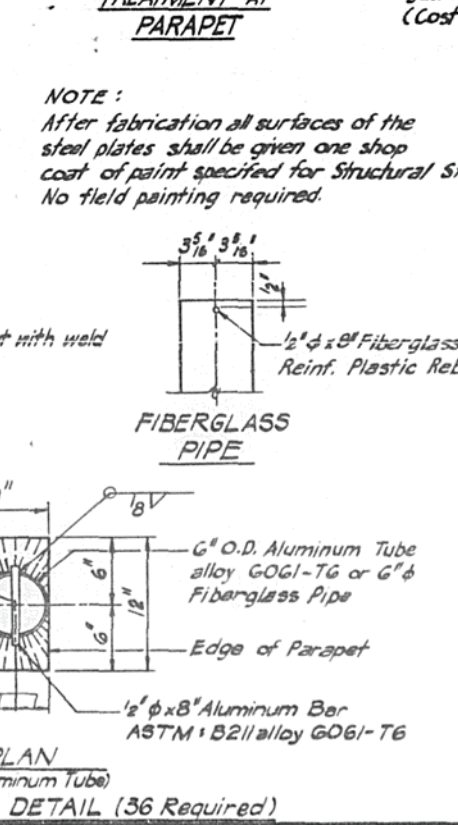
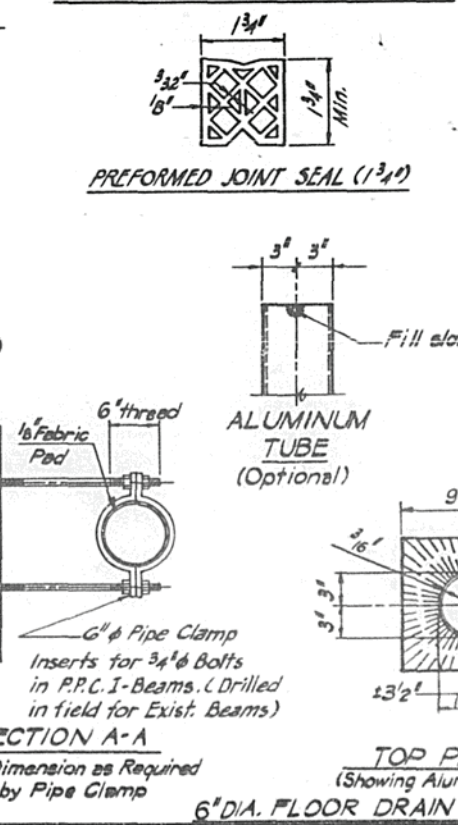
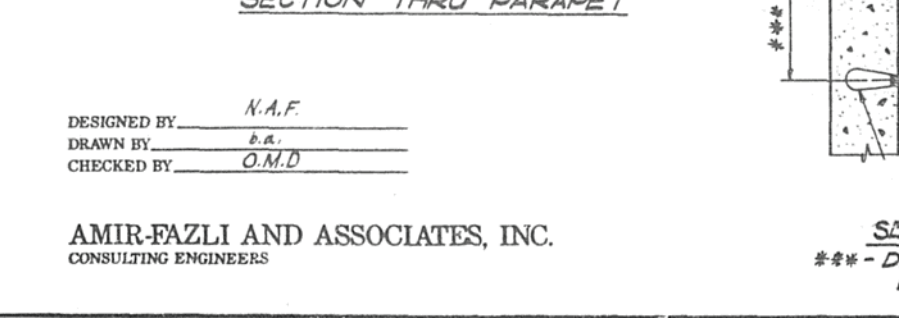
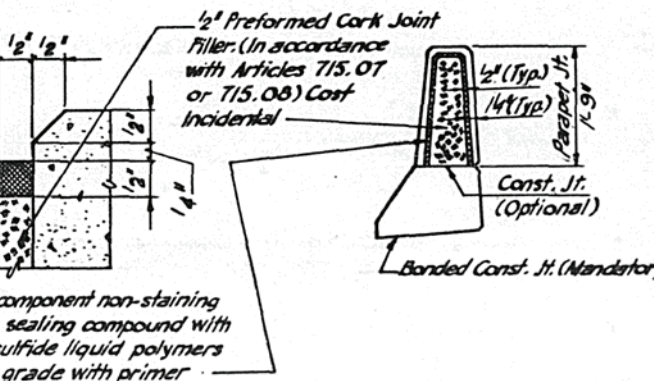
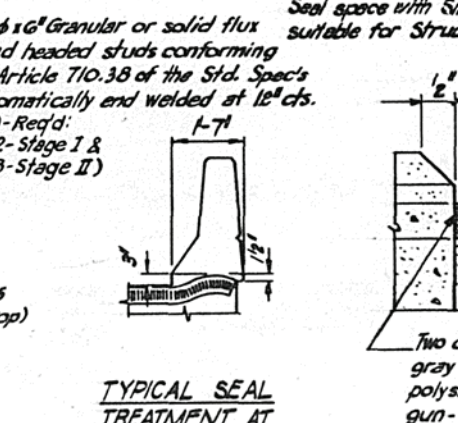
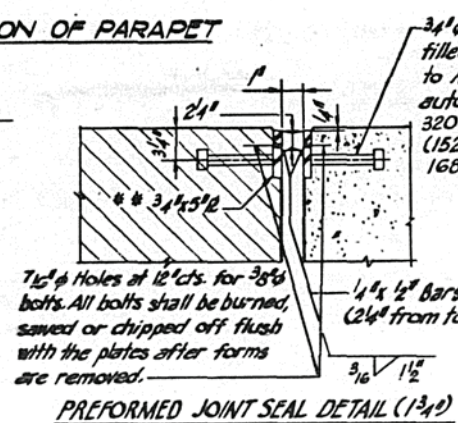
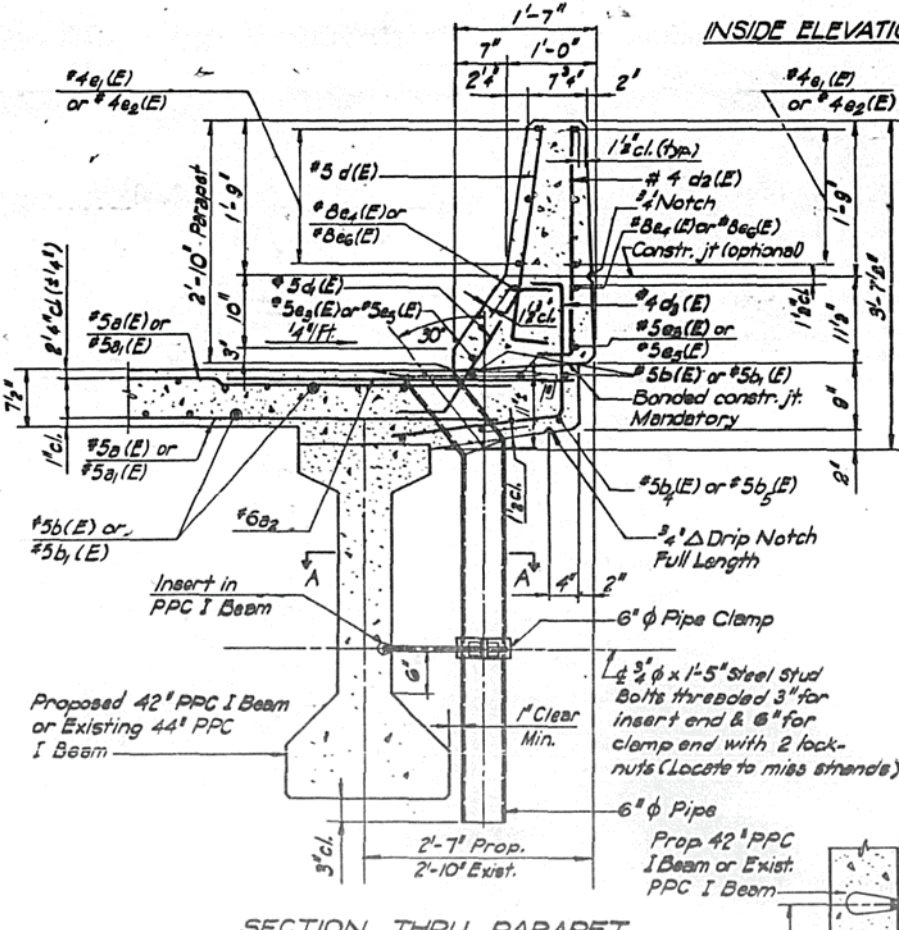
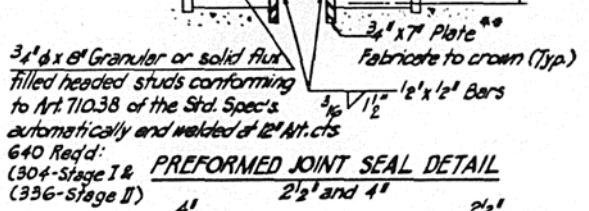
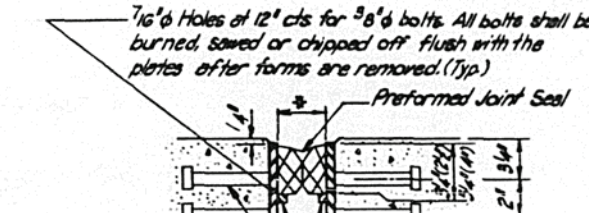
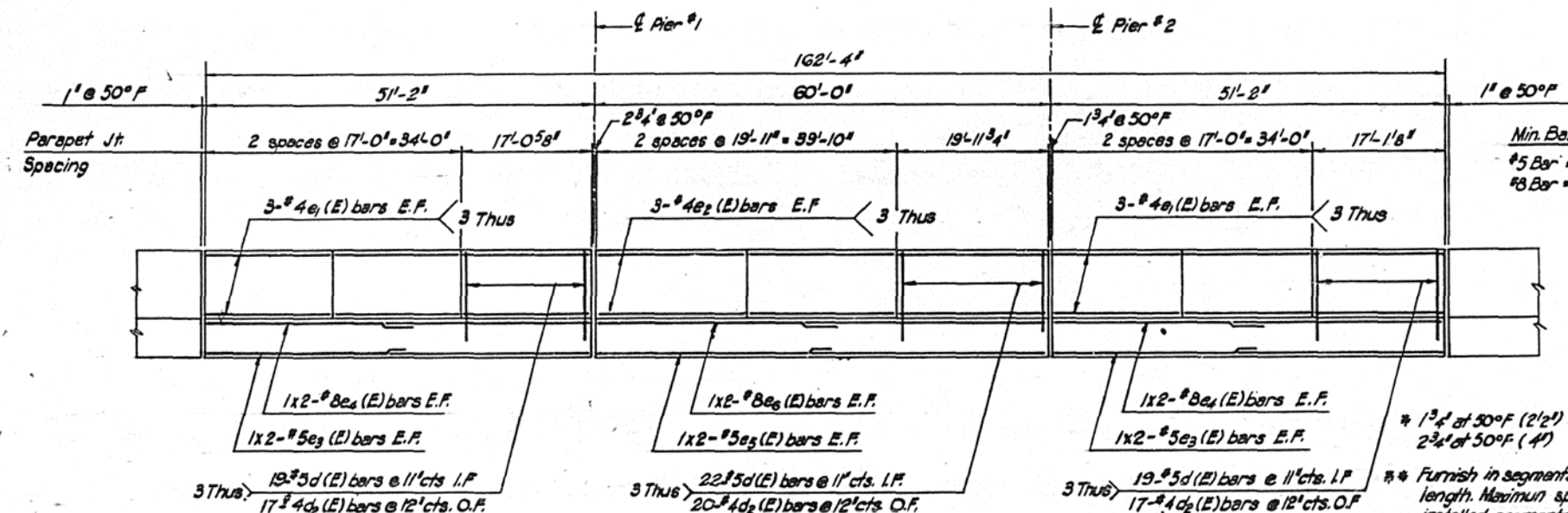
AMIR-FAZLI AND ASSOCIATES, INC.
CONSULTING ENGINEERS

DECK PLAN AND SECTION
FAI RTE. 74
OVER SALT FORK RIVER
SEC. (10-7B-1) BR
CHAMPAIGN COUNTY
STR. NOS. 010-0029, 0030
STA. 739 + 22.00

DATE

**SUPERSTRUCTURE
BILL OF MATERIAL**

BAR	No	SIZE	LENGTH	SHAPE
a ₁ (E)	904	#5	21'-0"	
a ₂ (E)	904	#5	21'-0"	
a ₃ (E)	496	#6	5'-0"	
a ₄ (E)	24	#7	22'-0"	
a ₅ (E)	24	#7	21'-0"	
b(E)	360	#5	26'-4"	
b ₁ (E)	180	#5	30'-9"	
b ₂ (E)	112	#7	26'-9"	
b ₃ (E)	56	#7	31'-3"	
b ₄ (E)	408	#5	18'-1"	
b ₅ (E)	204	#5	21'-0"	
d(E)	720	#5	2'-10"	
d ₁ (E)	712	#5	2'-7"	
d ₂ (E)	648	#4	2'-10"	
d ₃ (E)	648	#4	4'-7"	
e ₁ (E)	144	#4	16'-9"	
e ₂ (E)	72	#4	19'-8"	
e ₃ (E)	32	#5	26'-4"	
e ₄ (E)	32	#8	21'-3"	
e ₅ (E)	16	#5	30'-9"	
e ₆ (E)	16	#8	31'-8"	
m ₁ (E)	8	#6	3'-7"	
m ₂ (E)	48	#4	4'-2"	
m ₃ (E)	16	#8	4'-10"	
s ₁ (E)	32	#4	8'-7"	
s ₂ (E)	16	#4	7'-11"	
s ₃ (E)	632	#5	1'-7"	
ITEM		UNIT	QUANTITY	
Reinforcement Bars (Epoxy Coated)		Lbs.	109,000	
Class I Concrete Superstructure		Cu.Yd.	425	

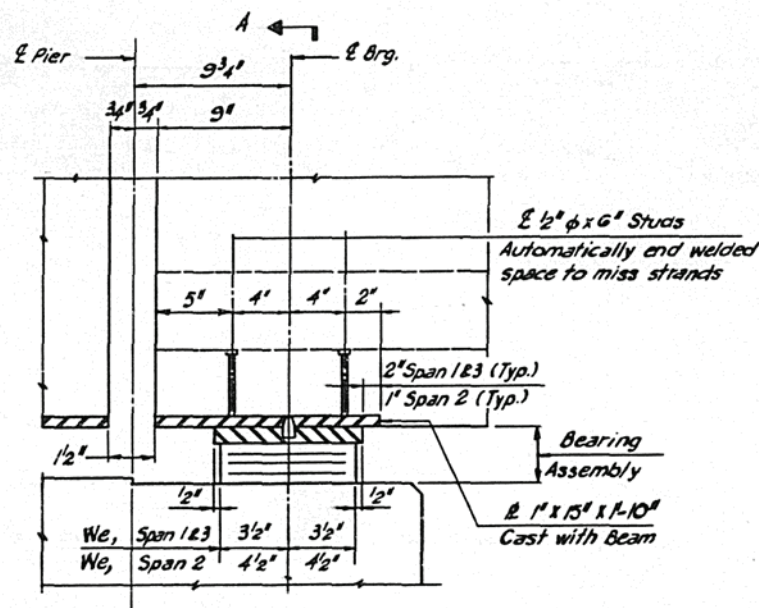


DESIGNED BY: N.A.F.
 DRAWN BY: B.A.
 CHECKED BY: O.M.D.

AMIR-FAZLI AND ASSOCIATES, INC.
 CONSULTING ENGINEERS

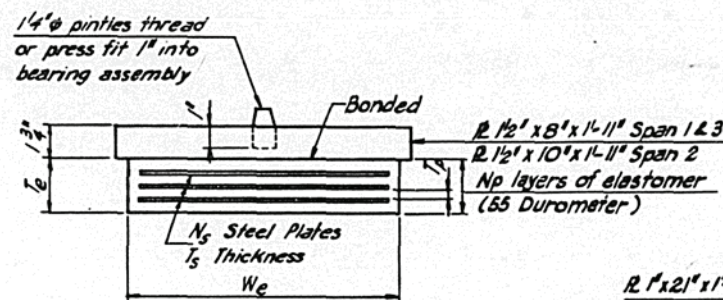
PARAPET DETAILS
 FAI RTE. 74
 OVER SALT FORK CREEK
 SEC. (10-7B-1) BR
 CHAMPAIGN COUNTY
 STR. NOS. 010-0029, 0030
 STA. 739 + 22.00

NOTES:
 FIBERGLASS PIPE SHALL CONFORM TO ASTM D2996, WITH SHORT-TIME RUPTURE STRENGTH HOOP TENSILE STRESS OF 30,000 PSI MINIMUM. THE SURFACE OF THE FIBERGLASS PIPE SHALL BE FREE OF GOND INHIBITING AGENTS.
 THE EXTERIOR SURFACES OF THE FIBERGLASS FLOOR DRAINS SHALL BE PAINTED WITH ONE COAT OF ALUMINUM PAINT. PAINTING OF THE FIBERGLASS FLOOR DRAINS WILL NOT BE REQUIRED WHEN THE EXTERIOR SURFACES OF THE FURNISHED DRAINS ARE COATED BY THE MANUFACTURER WITH SILVER PIGMENT OR A PIGMENT THAT MATCHES THE COLOR OF THE CONCRETE BEAM.
 THE CLAMPING DEVICE AND INSERTS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232.
 BARS DESIGNATED (E) SHALL BE EPOXY COATED.
 BARS INDICATED THUS 1 X 2 #5 ETC., INDICATES ONE LINE OF BARS WITH TWO LENGTHS PER LINE.



SECTION AT PIER #1- SPAN 2

Type I Elastomeric Exp. Bearing
 Details for Span 1 Expansion Brg. Similar by rotation
 Details for Expansion Brg. @ Pier #2 are similar.

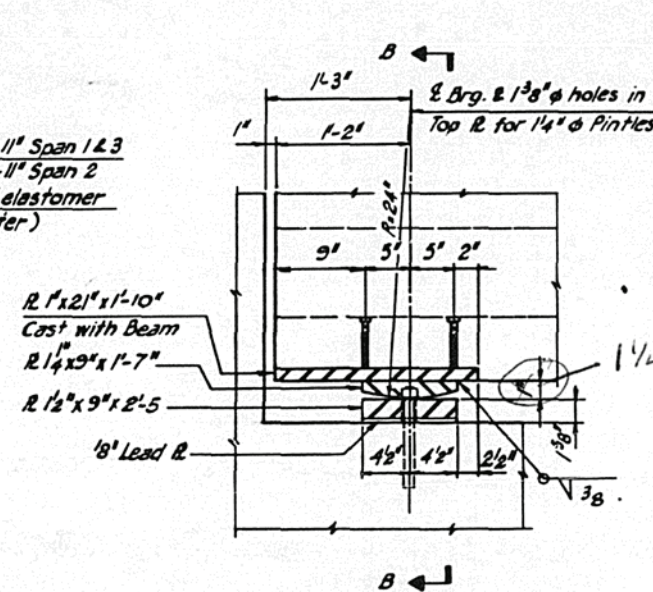


BEARING ASSEMBLY

Note: Shim plates shall not be placed under bearing assembly

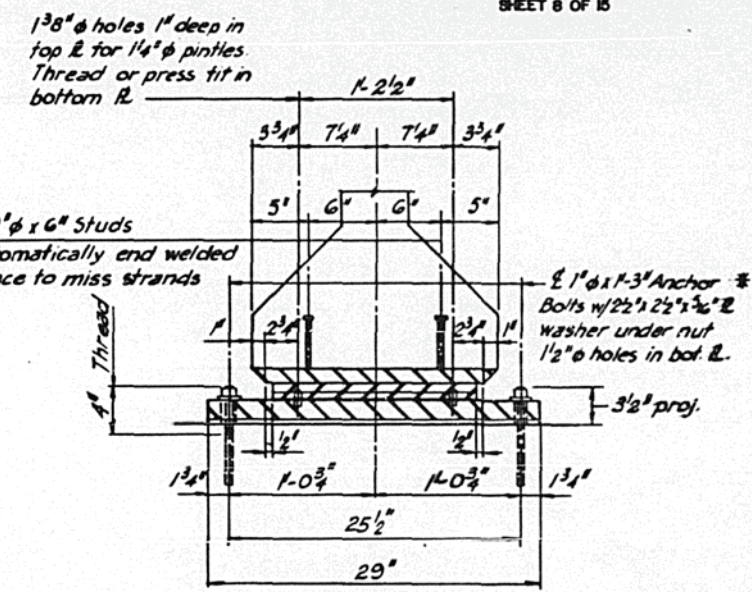
TYPE I- BEARING

Span	W _e	L _e	T _p	N _p	T _s	N _s	T _e	A
1 & 3	7"	12"	3/8"	4	3/32"	3	1/4"	1 3/4" x 8" x 23"
2	9"	12"	3/8"	5	3/32"	4	2/4"	1 3/4" x 10" x 23"



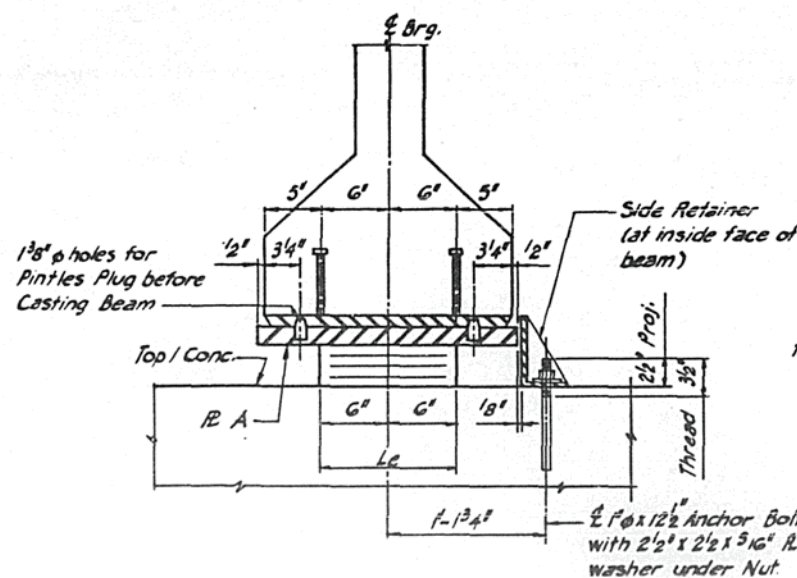
SECTION AT ABUTMENTS

(Fixed Bearing)

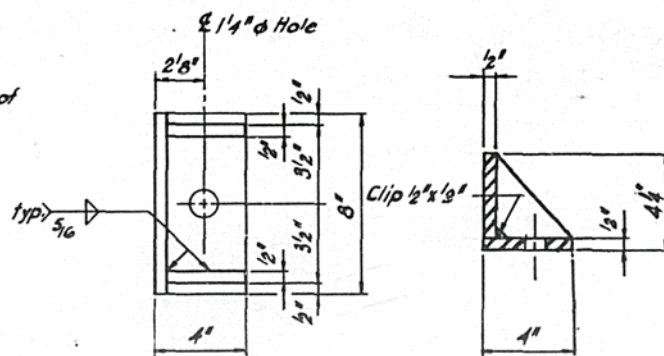


SECTION B-B

Total Number of Fixed Bearing 4



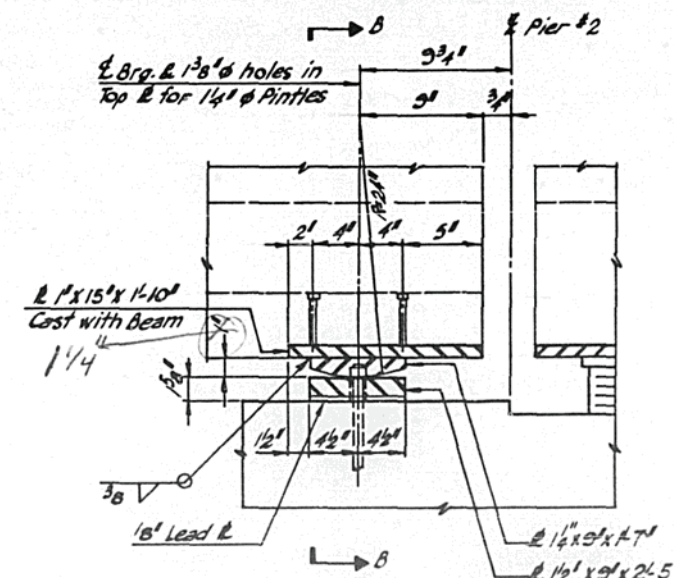
SECTION A-A



PLAN

SECTION

SIDE RETAINER
 G Required



SECTION AT PIER #2 - SPAN 2

(Fixed Bearing)

NOTES
 THE STRUCTURAL STEEL BEARING PLATES OF ELASTOMERIC BEARING ASSEMBLIES AND FIXED BEARING ASSEMBLIES SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M223, GRADE 50.

ALL EXPOSED SHIM PLATES AND BEARING PLATES SHALL BE AASHTO M223, GRADE 50. COST INCIDENTAL TO THE ITEM INVOLVED.

EQUIVALENT ROLLED ANGLE WITH STIFFENERS WILL BE ALLOWED IN LIEU OF WELDED PLATES FOR SIDE RETAINER.

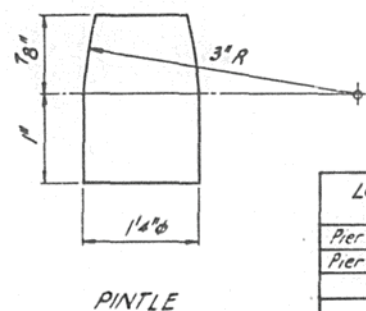
ALL ANCHORED BEARING PLATES IN PRESTRESSED CONCRETE BEAMS ARE INCLUDED IN THE UNIT PRICE BID FOR PRESTRESSED CONCRETE BEAMS (3'-6" DEPTH).

* ANCHOR BOLTS MAY BE BUILT INTO THE MASONRY OR DRILLED AND GROUTED IN PLACE AFTER BEAMS HAVE BEEN ERECTED. SEE SHEET 9 OF 15 FOR INSTALLATION.

** AFTER BEAMS HAVE BEEN ERECTED, HOLES SHALL BE DRILLED AND ANCHOR BOLTS GROUTED IN PLACE. SEE SHEET 9 OF 15 FOR ANCHOR BOLT INSTALLATION.

DESIGNED BY: N.A.F. A.A.
 DRAWN BY: b.a.
 CHECKED BY: O.M.D.

AMIR-FAZLI AND ASSOCIATES, INC.
 CONSULTING ENGINEERS



PINTLE

LOCATION	No of Elast. Brg. Type I
Pier #1 (EB & WB)	4
Pier #2 (EB & WB)	2
Total	6

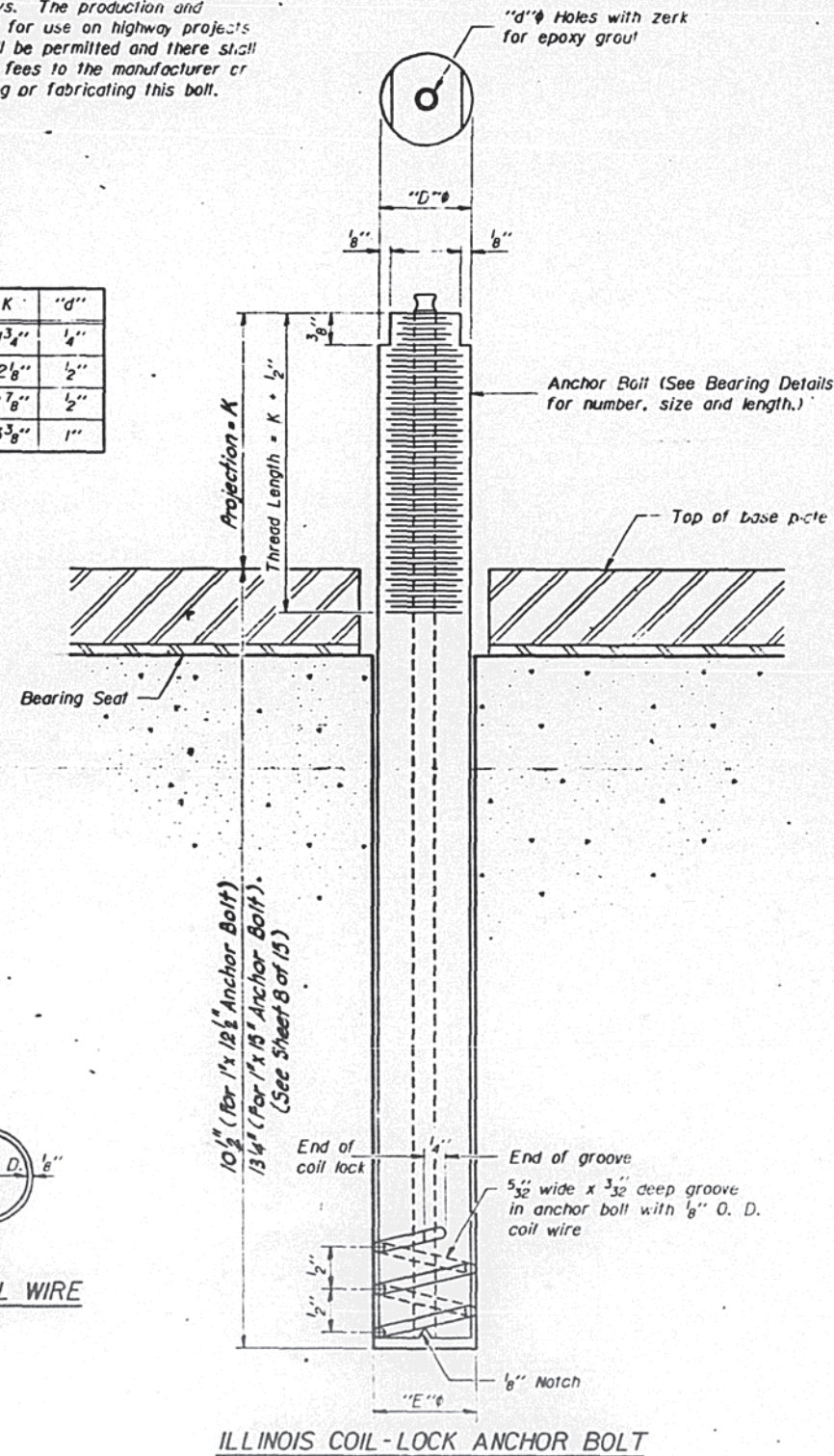
ELASTOMERIC & FIXED BEARINGS
 FAI RTE. 74
 OVER SALT FORK RIVER
 SEC. (10-7B-1) BR
 CHAMPAIGN COUNTY
 STR. NOS. 010-0029, 0030
 STA. 739 + 22.00

DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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



MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

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

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

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

ALTERNATE ANCHOR BOLTS

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

GENERAL NOTES

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

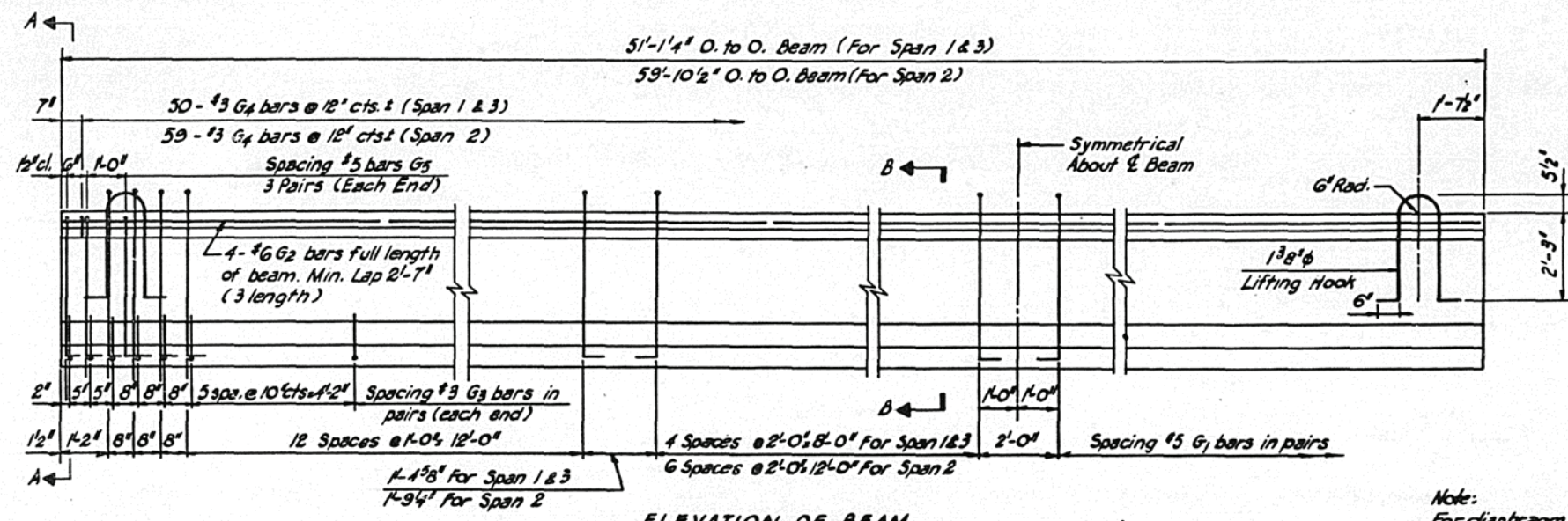
DESIGNED	N.A.F.
CHECKED	O.M.D.
DRAWN	b.a.
CHECKED	

ABB-1 12-1-83

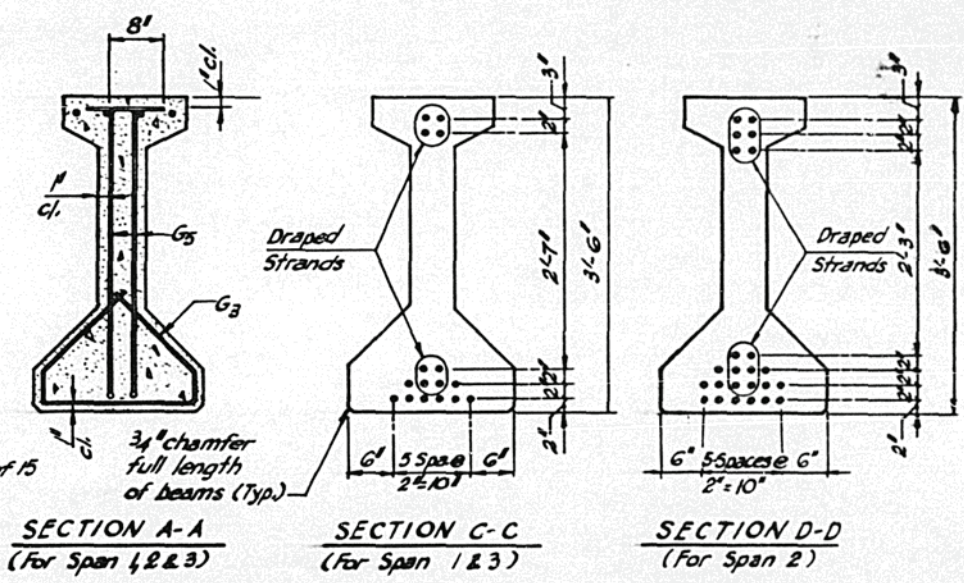
ANCHOR BOLT DETAILS FOR BEARINGS

FAI RTE. 74
OVER SALT FORK RIVER
SEC. (10-7B-1) BR
CHAMPAIGN COUNTY
STR. NOS. 010-0029,0030

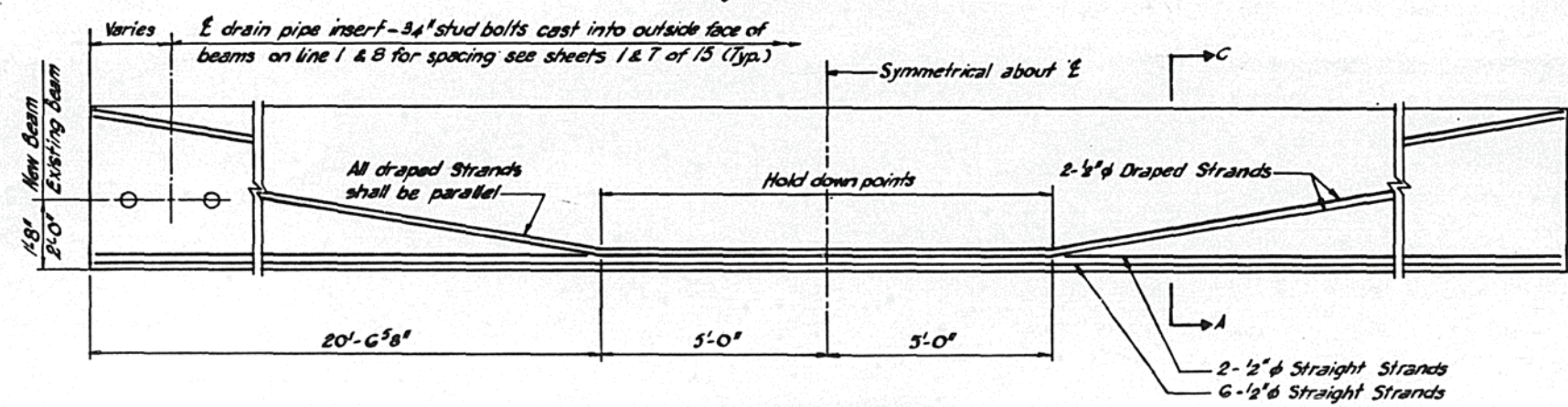
FAI 74	SECTION	COUNTY	TOTAL SHEET
00-7B-1) BR	CHAMPAIGN	108	62
PROJECT			SHEET 10 OF 15



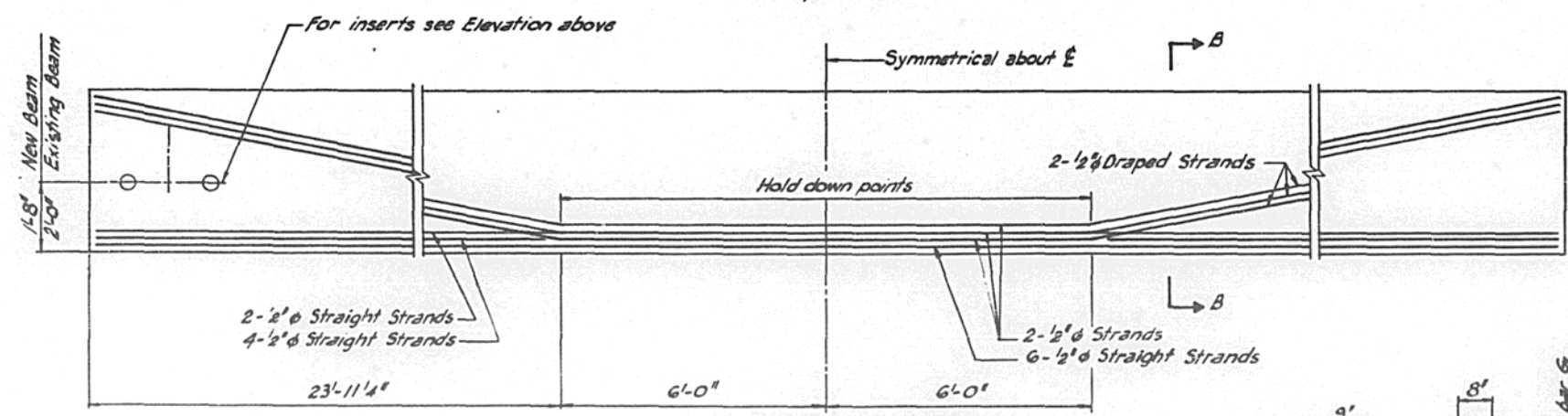
ELEVATION OF BEAM
Showing Reinforcement & Dimensions



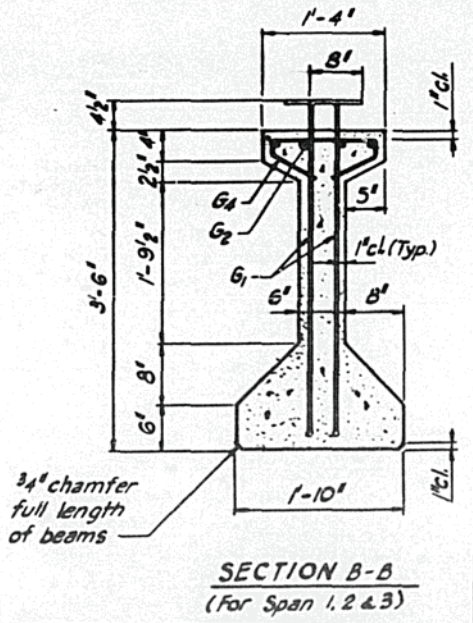
Note:
For diaphragm detail & inserts see Sheet 6 of 15



ELEVATION OF BEAM
Showing Prestressing steel (For Span 1 & 3)



ELEVATION OF BEAM
Showing Prestressing Steel (For Span 2)



BAR LIST (One Beam), For Span 1 & 3

Bar	No.	Size	Length	Shape
G1	84	#5	5'-2"	TL
G2	12	#6	19'-0"	TL
G3	44	#3	3'-0"	C
G4	50	#3	2'-6"	C
G5	12	#5	4'-7"	TL

4 Beams Required
BAR LIST (One Beam), For Span 2

Bar	No.	Size	Length	Shape
G1	92	#5	5'-2"	TL
G2	12	#6	21'-11"	TL
G3	44	#3	3'-0"	C
G4	59	#3	2'-6"	C
G5	12	#5	4'-7"	TL

2 Beams Required
BILL OF MATERIAL (For Span 1 & 3)

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 42"	Lin. Ft.	205

BILL OF MATERIAL (For Span 2)

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 42"	Lin. Ft.	120

NOTE

PRESTRESSING STEEL SHALL BE NON-GALVANIZED HIGH STRENGTH LOW RELAXATION 7 WIRE STRAND, GRADE 270.

ALL INSERTS AND THREADED RODS FOR INSERTS, REINFORCING AND PRESTRESSING STEEL AND OTHER ITEMS WHICH ARE CAST INTO THE PRECAST CONCRETE GIRDERS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAL FOOT OF FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I BEAM 42".

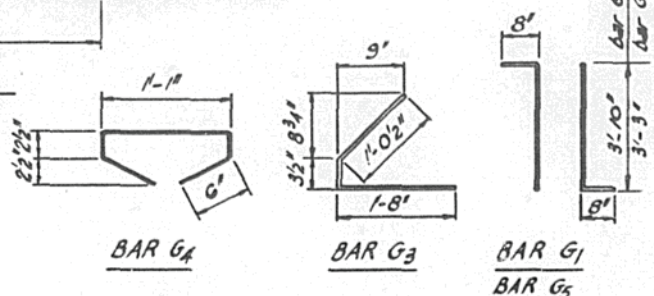
PRESTRESSING STEEL SHALL BE A NOMINAL DIAMETER OF 1/2" AND A NOMINAL CROSS-SECTIONAL AREA SHALL BE 0.153 SQ. IN.

INSERTS FOR 3/4" ϕ THREADED RODS ARE TO BE TWO STRUT, SINGLE COIL, FLARED LOOP TYPE FOR EXTERIOR GIRDERS.

STEEL FOR LIFTING HOOKS SHALL BE NON-DEFORMED BARS $f_y = 40,000$ psi.

REQUIRED RELEASE STRENGTH f'_{ci} SHALL BE 4,200 psi.

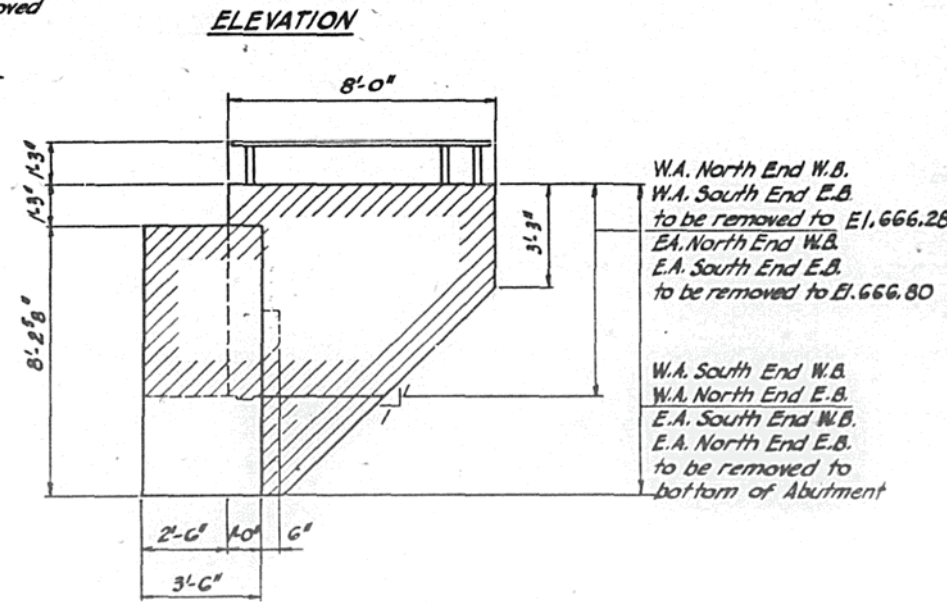
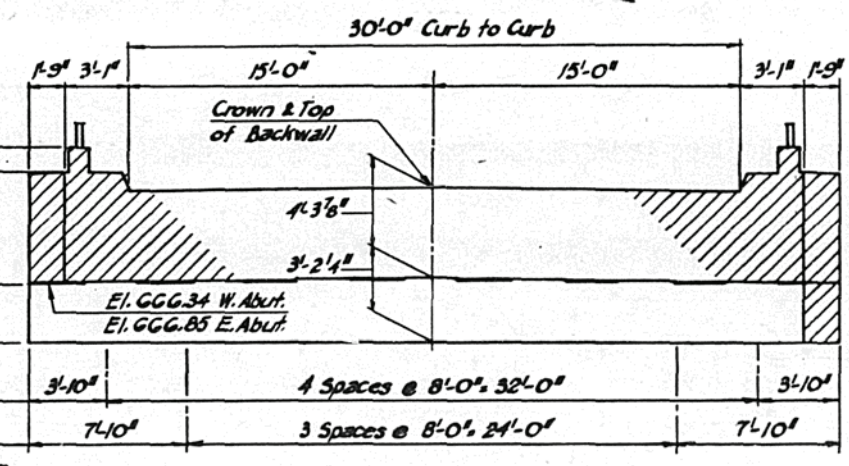
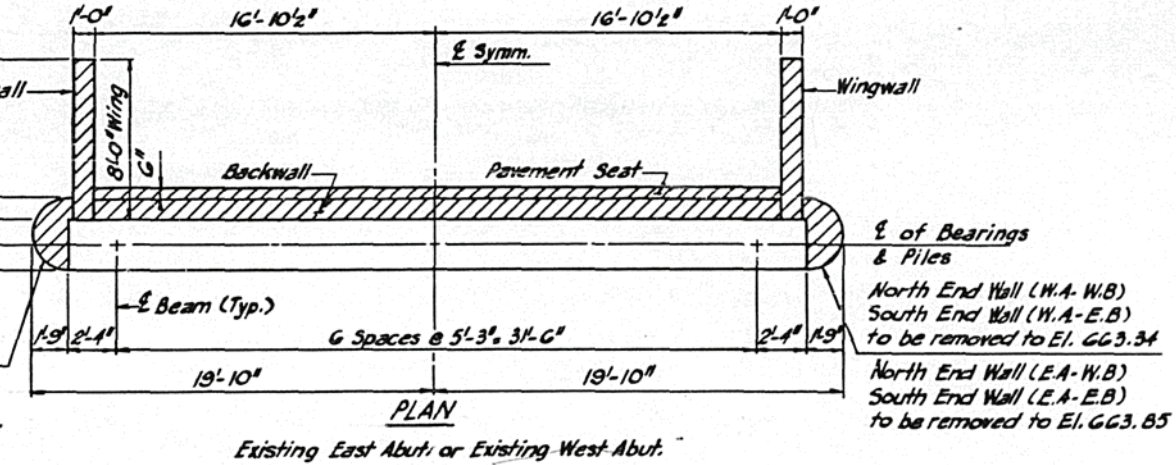
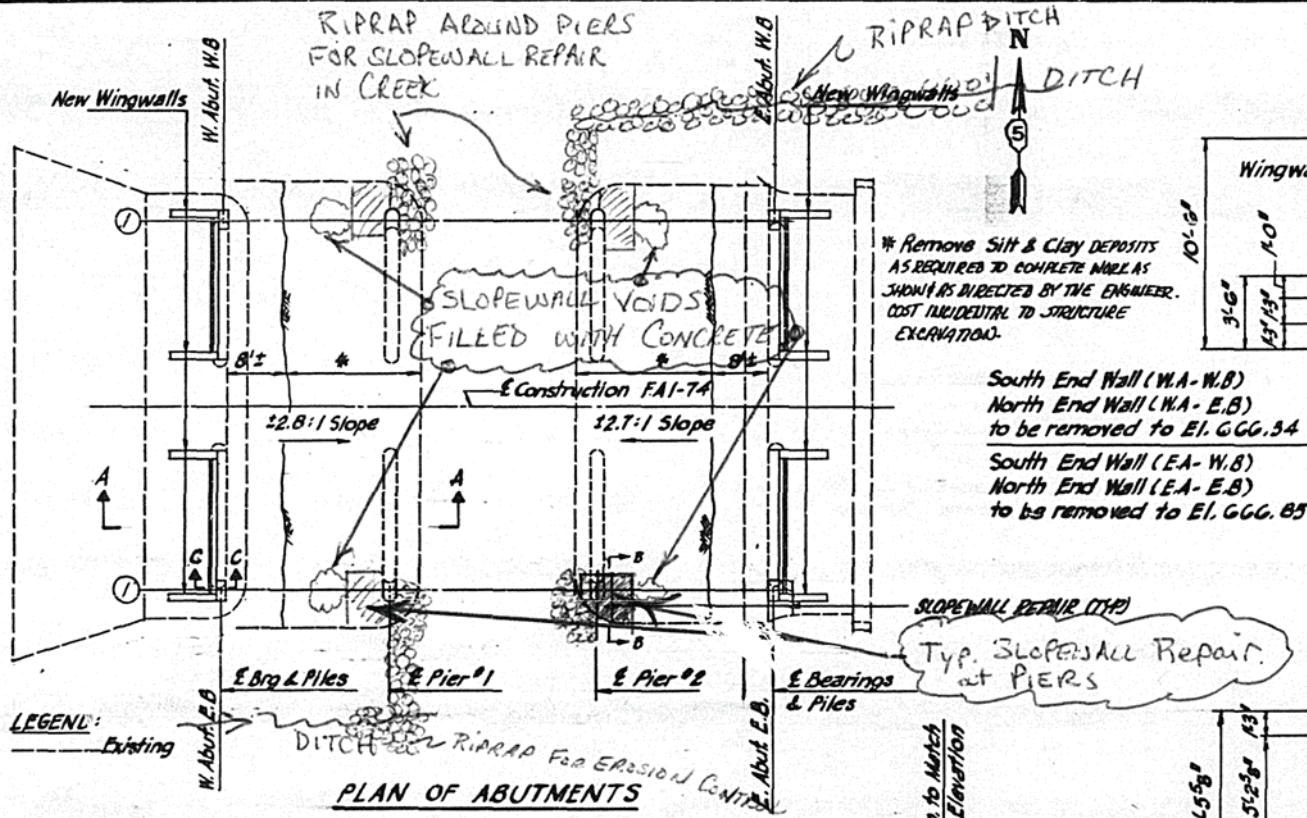
NON-PRESTRESSING STEEL SHALL CONFORM TO AASHTO DESIGNATION M-31, M-42, OR M-52, GRADE 60.



DESIGNED BY N.A.F.
DRAWN BY b.a.
CHECKED BY A.A.

AMIR-FAZLI AND ASSOCIATES, INC.
CONSULTING ENGINEERS

PRESTRESSED BEAMS - SPANS 1, 2 & 3
FAI RTE. 74
OVER SALT FORK RIVER
SEC. (10-7B-1) BR
CHAMPAIGN COUNTY
STR. NOS. 010-0029, 0030
STA. 739 + 22.00 DATE



* REMOVE Silt & Clay DEPOSITS AS REQUIRED TO COMPLETE WALLS AS SHOWN AS DIRECTED BY THE ENGINEER. COST INCIDENTAL TO STRUCTURE EXCAVATION.

South End Wall (W.A.-W.B.)
North End Wall (W.A.-E.B.)
to be removed to El. GGG.34

South End Wall (E.A.-W.B.)
North End Wall (E.A.-E.B.)
to be removed to El. GGG.85

El. of Bearings & Piles

North End Wall (W.A.-W.B.)
South End Wall (W.A.-E.B.)
to be removed to El. GGG.34

North End Wall (E.A.-W.B.)
South End Wall (E.A.-E.B.)
to be removed to El. GGG.85

NOTES

REMOVE EXISTING CONCRETE AS SHOWN (MATCHED AREAS). EXISTING VERTICAL REINFORCING BARS TO BE CLEANED AND INCORPORATED INTO NEW CONCRETE. COST INCIDENTAL TO "CLASS X CONCRETE".

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

THE MINIMUM HOLE DIAMETER FOR EPOXY GROUTED VERTICAL OR HORIZONTAL BARS SHALL BE THE DIAMETER OF THE BAR PLUS 1/4" AND THE MINIMUM DEPTH SHALL BE 9". SEE SPECIAL PROVISIONS. FOR HORIZONTAL BARS USE A GROUT APPROVED BY THE DEPARTMENT OR EPOXY GROUT IN ACCORDANCE WITH SSP-11. THE METHOD OF GROUT APPLICATION SHALL BE APPROVED BY THE ENGINEER. SEE SHEET 11 OF 15.

SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS.

BONDED CONSTRUCTION JOINT IN ACCORDANCE WITH ARTICLE 604.13(a)(2) OF THE STANDARD SPECIFICATIONS.

COST OF WIRE MESH IS INCIDENTAL TO "COST OF SLOPEWALL".

RIPRAP USED FROM CENTER OF PIER OUT IN CREEK. CONCRETE TOEWALL STOPS AT CENTER OF PIER.

DESIGNED BY N.A.F.
DRAWN BY b.e.
CHECKED BY O.M.D.

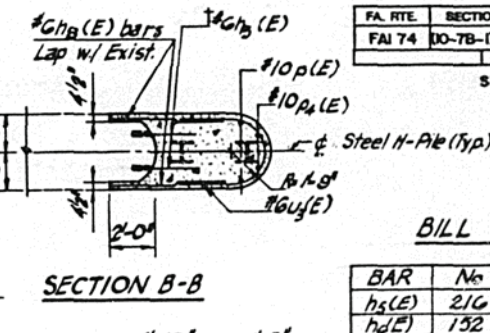
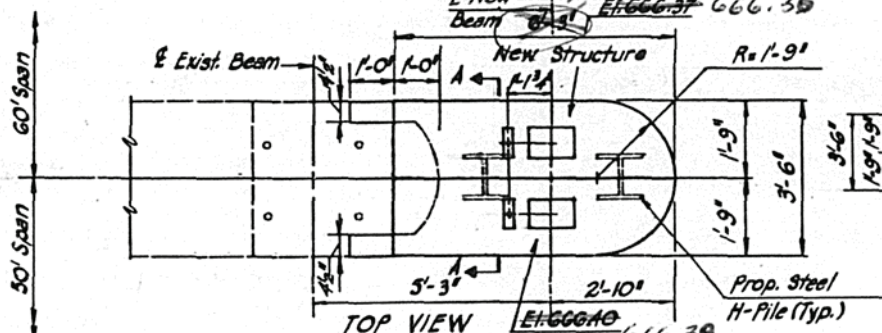
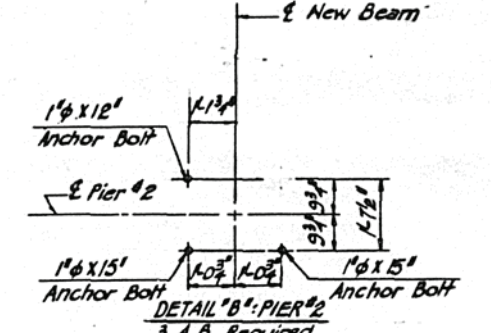
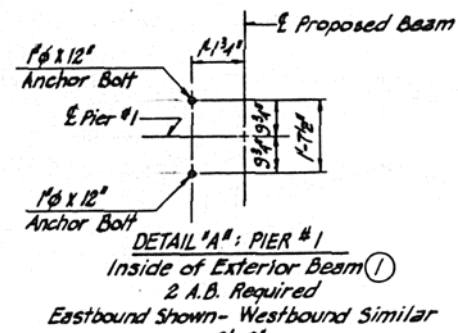
AMIR-FAZLI AND ASSOCIATES, INC.
CONSULTING ENGINEERS

ABUTMENTS
FAI RTE. 74
OVER SALT FORK RIVER
SEC. (10-7B-1) BR
CHAMPAIGN COUNTY
STR. NOS. 010-0029,0030
STA.739 + 22.00

DATE

SHOULD BE 6'-6"

FA. RTE.	SECTION	COUNTY	TOTAL SHEET
FAI 74	10-7B-1BR	CHAMPAIGN	108 65
PROJECT			
SHEET 15 OF 15			

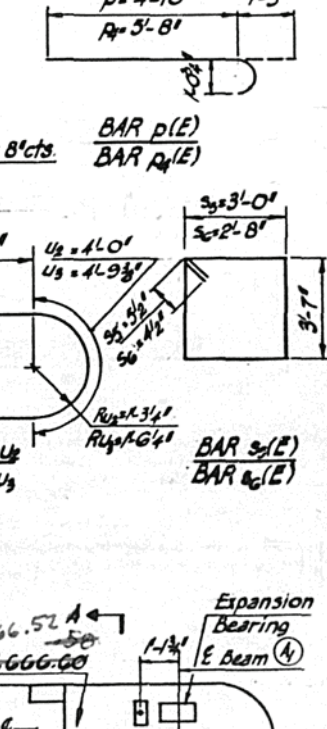
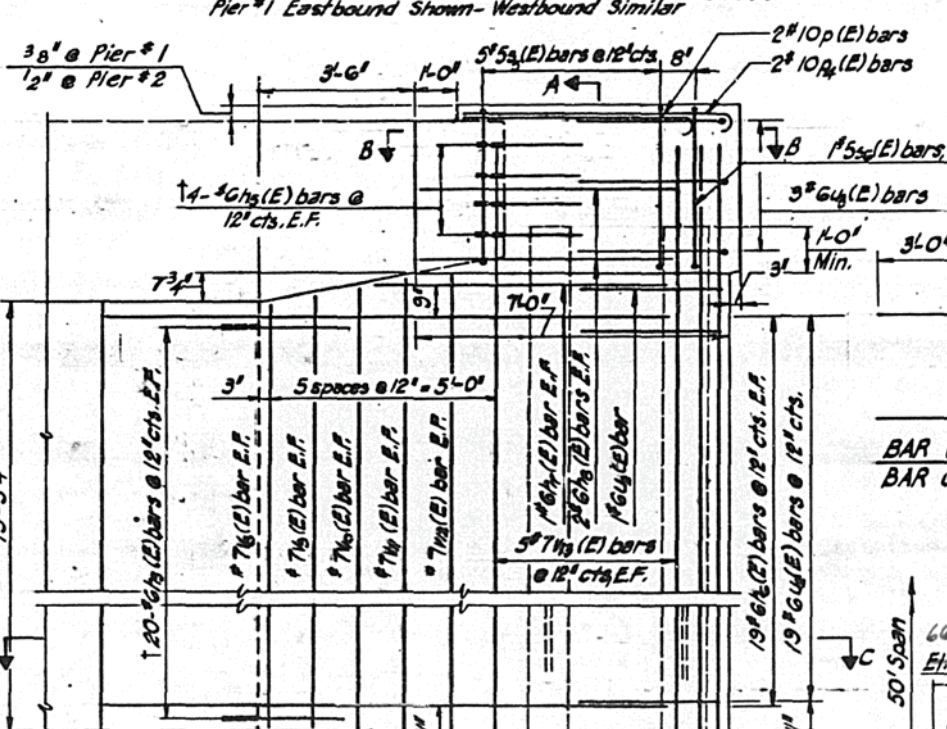
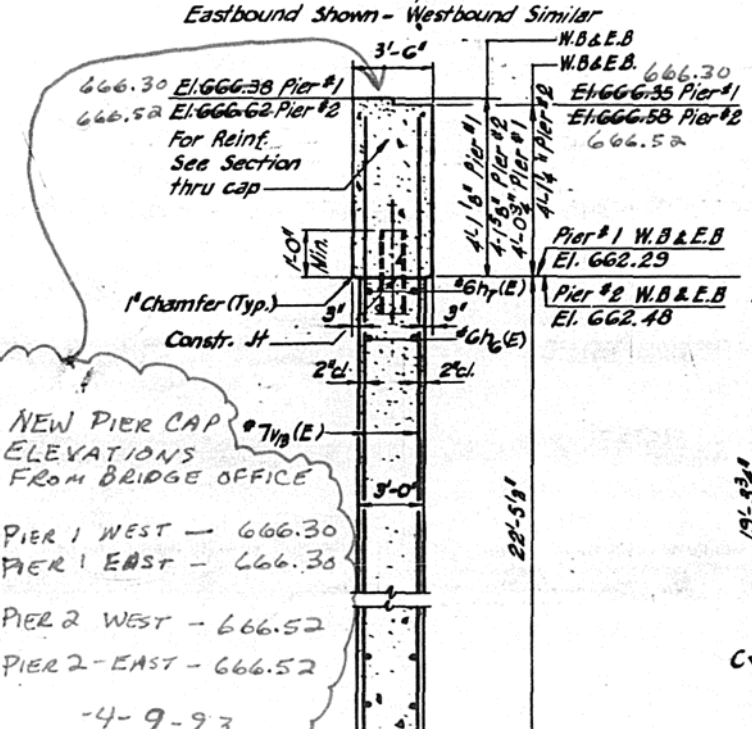
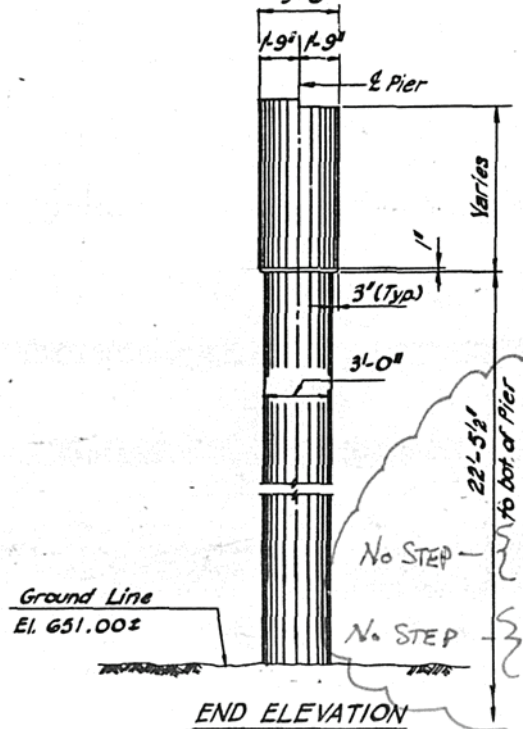


BILL OF MATERIAL

BAR	No.	SIZE	LENGTH	SHAPE
h ₂ (E)	216	#6	2'-10"	
h ₃ (E)	152	#6	12'-9"	
h ₄ (E)	8	#6	8'-0"	
h ₅ (E)	16	#6	5'-9"	
p(E)	8	#10	6'-3"	
R ₁ (E)	8	#10	7'-7"	
S ₅ (E)	20	#5	14'-7"	
S ₆ (E)	4	#5	13'-3"	
U ₁ (E)	92	#6	10'-0"	
U ₂ (E)	12	#6	10'-9"	
V ₁ (E)	8	#7	19'-0"	
V ₂ (E)	8	#7	18'-3"	
V ₃ (E)	8	#7	19'-5"	
V ₄ (E)	8	#7	22'-4"	
V ₅ (E)	8	#7	22'-3"	
V ₆ (E)	60	#7	24'-5"	

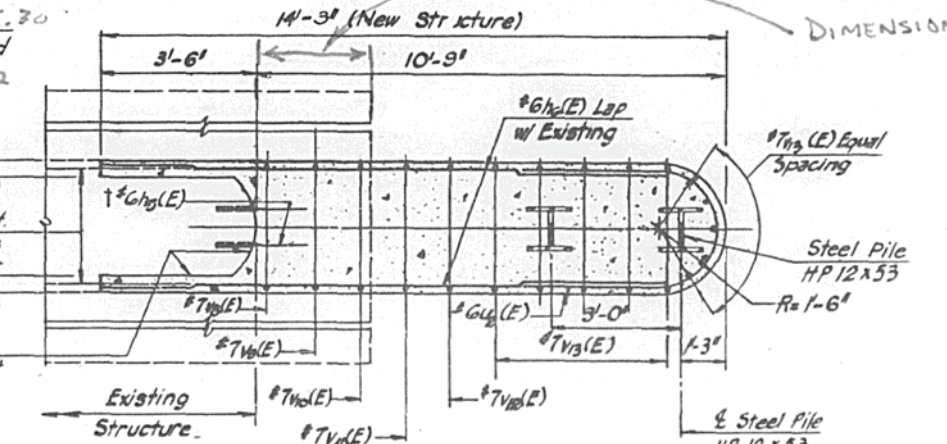
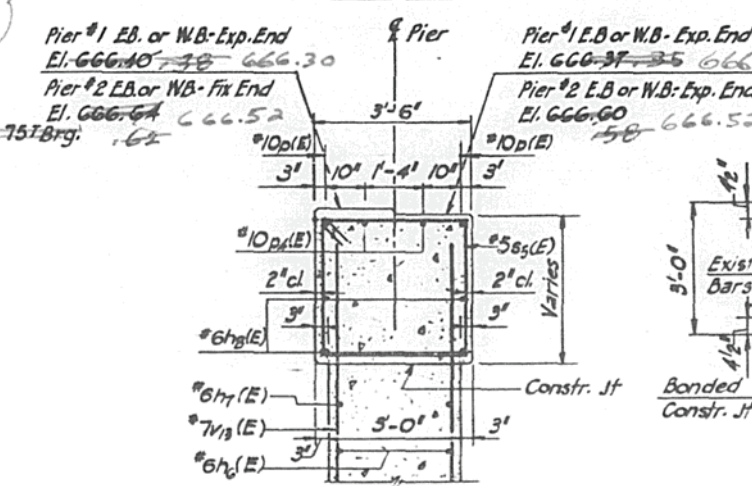
ITEM	UNIT	QUANTITY
Reinforcement Bars (Epoxy Coated)	Lbs.	11,270
Class X Concrete	Cu. Yd.	125
Steel Pile, HP 12x53	Lin. Ft.	234
Test Piles	Each	2
Concrete Removal	Cu. Yd.	10

+ Epoxy Grout (E) bars See Sheet 12 of 18.



CHANGE: DRIVE TEST PILE TO 90 TONS OTHER PILES TO 75 TONS (FROM BRIDGE OFFICE)

PILE DATA
 TYPE: Steel Pile, HP 12x53
 CAPACITY: 50-Ton-Design-Capacity driven to 75T Brg.
 EST. LENGTH: 39'
 No. REQUIRED: 6 + 2 Test Pile



DESIGNED BY: N.A.F.
 DRAWN BY: D.A.
 CHECKED BY: O.M.D.

AMIR-FAZLI AND ASSOCIATES, INC.
 CONSULTING ENGINEERS

LEGEND: --- Existing

NOTE
 EXISTING REINFORCEMENT BARS TO BE CLEANED, STRAIGHTENED AND INCORPORATED INTO NEW CONSTRUCTION. COST INCIDENTAL TO CLASS X CONCRETE SUPERSTRUCTURE.
 ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFER EXCEPT AS NOTED. FOUR STEPS MONOLITHICALLY WITH CAP.
 SPACE REINFORCEMENT IN CAP TO MISS ANCHOR BOLTS. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
 BONDED CONSTRUCTION JOINT IN ACCORDANCE WITH ARTICLE 504.13(a)(2) OF THE STANDARD SPECIFICATIONS.

PIERS
 FAI RTE. 74
 OVER SALT FORK CREEK
 SEC. (10-7B-1) BR
 CHAMPAIGN COUNTY
 STR. NOS. 010-0029, 0030
 STA. 739 + 22.00