

TOTAL BILL OF MATERIAL			
ITEM	UNITS	SUBSTR.	SUPERSTR. TOTAL
CLASS-X CONCRETE	CU. YDS.	426	294 630
REINFORCEMENT BARS	LBS.	55,155	41,963 97,118
STRUCTURAL STEEL	LBS.	188,659	188,659
ALUMINUM HANDRAIL	LIN. FT.	411	411
SLOPE WALL	SQ. YDS.	468	468
NAME PLATE	EACH	1	1
FURNISHING CREOSOTED PILES (UP TO 20')	LIN. FT.	220	220
DRIVING TIMBER PILES	LIN. FT.	220	220

GENERAL NOTES

DESIGN SPECIFICATIONS
 In accordance with A.A.S.H.O. Specifications 1957 Edition except as modified by the State of Illinois Standard Specifications for Road and Bridge Construction, 1958 Edition.

DESIGN LOADS
 H20-S16-44
 Horizontal Earth Pressure - Equivalent Fluid Pressure = 40 lbs. per cu. ft.

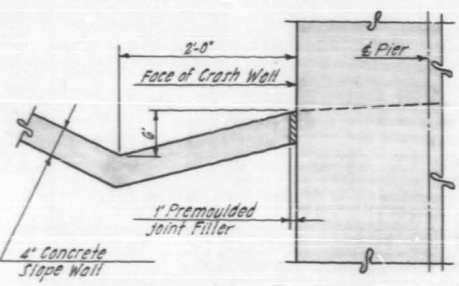
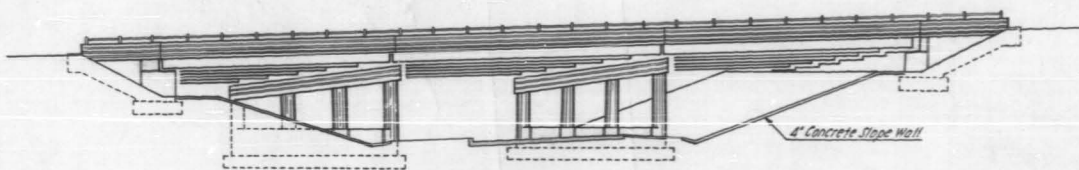
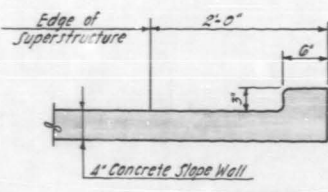
DESIGN UNIT STRESSES
 Concrete -
 Ultimate Compression $f_c = 3,500$ p.s.i.
 Allowable Compression (No Earth Pressure) $f_c = 1,400$ p.s.i.
 Allowable Compression (With Earth Pressure) $f_c = 1,000$ p.s.i.
 $n = 10$
 Steel -
 Structural Steel - $f_s = 18,000$ p.s.i.
 Reinforcing Steel - $f_s = 20,000$ p.s.i.

CONCRETE
 Class-X concrete shall be used throughout.
 The concrete floor slab shall be finished in accordance with Article 5.19 of the Standard Specifications.
 All exposed edges of concrete shall have a 3/4 inch, 45 degree chamfer.
 Open joints in parapets shall have no chamfer.

REINFORCEMENT
 All bars shall be round A.S.T.M. A305 with deformations conforming to A.S.T.M. A305. The size number is the number of 1/8 inches in the nominal diameter.
 Slope walls shall be reinforced with welded wire fabric 6" x 6" mesh, #4 gauge wires, weighing not less than 58 lbs. per 100 sq. ft.

STRUCTURAL STEEL
 All stringers and cover plates shall comply with A.S.T.M. Designation A 373.
 Welding shall conform with Art. 5.4.5 (s) of the Standard Specifications.
 All Rockers, Bearing Plates, Lead Plates, Pintles and Anchor Bolts are included for payment as Structural Steel.
 Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint after inspection and two field coats of aluminum paint. See Art. 56.1 to 56.8 inclusive of the Standard Specifications.
 Expansion Guards shall be fabricated and erected in accordance with Art. 51.56 of the Standard Specifications and is included for payment as Structural Steel. The exposed surfaces of the Expansion Guards shall receive two coats of red lead paint.
 Anchor Bolts shall be set before riveting diaphragms over supports.

FOOTINGS
 Assumed design bearing pressure of all footings - 2.5 tons per sq. ft.



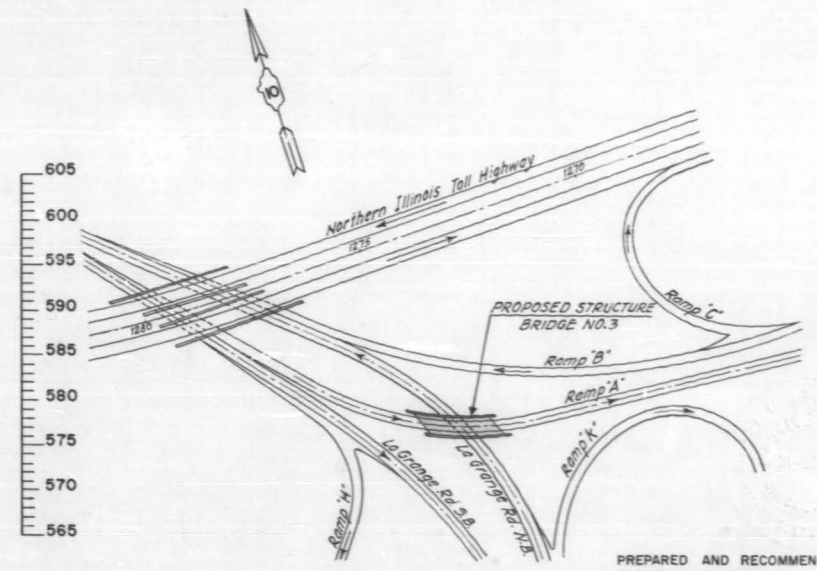
STATION 14 + 13.90
 BUILT 195 BY
 STATE OF ILLINOIS
 F.A.T. 5 SECTION BR-H-6
 F.A. PROJECT U-3 ()
 LOADING H20-S16

NAME PLATE
 see Spd. 2113

B3-1	B3-3	B3-6	B3-7	B3-8
EL. 604.2	EL. 604.6	EL. 605.6	EL. 605.4	EL. 605.8
BLOWS ON S.S. PENETRATION	BLOWS ON S.S. PENETRATION	BLOWS ON S.S. PENETRATION	BLOWS ON S.S. PENETRATION	BLOWS ON S.S. PENETRATION
BL. LOAM BROWN GRAVELLY CLAY GRAY GRAVELLY CLAY GRAY GRAVELLY SILTY CLAY GRAY GRAVELLY SILTY CLAY 100 8' 100 6' 100 6' 100 8' 100 8'	BL. LOAM BROWN GRAVELLY CLAY GRAY GRAY GRAY GRAY 125 5' 100 4' 100 8' 100 5' 100 10'	BL. LOAM MOTTLED BR & GRAY CLAY GR. GRAVELLY SILT GRAY SILTY CLAY GRAY GRAVELLY SILTY SAND GRAY SILT 100 6' 100 10' 100 10' 100 8' 100 10'	BL. LOAM MOTTLED GRAY & BR CLAY GRAY GRAVELLY SILT GRAY SILTY GRAY GR. GRAVELLY SILTY CLAY & SAND GRAY SAND 100 8' 100 8' 100 6' 100 6' 100 12' 125 12' 100 12'	BL. LOAM BROWN CLAY GRAY GRAVELLY SILT GRAY SILTY CLAY GRAVELLY SAND & SILT SILTY GRAY CLAY GRAY SAND GRAY SAND 100 8' 100 12' 100 12' 100 10' 100 10' 98 12' 50 18'

NOTE: All Split Spoon Samples Obtained by Standard Penetration Method.

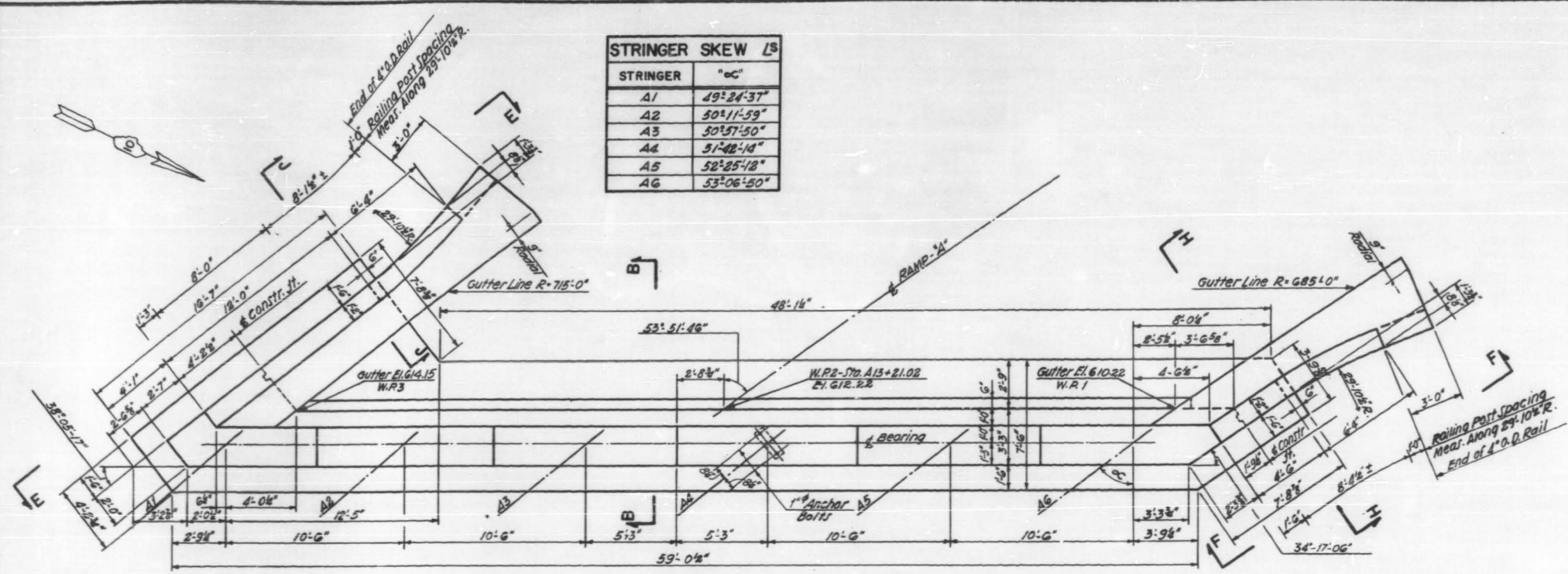
BORING LOGS
 Vertical Scale: 1" = 10'-0"



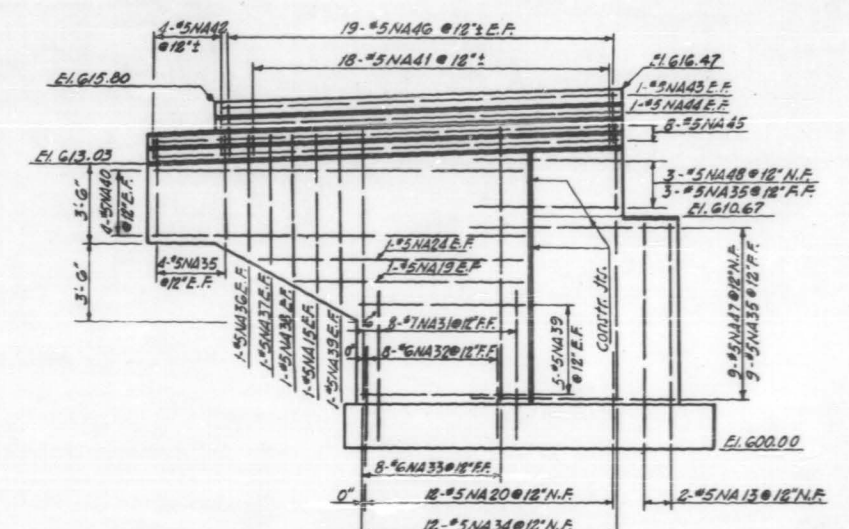
GENERAL PLAN
 BRIDGE NO. 3
 RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
 F.A.T. 5 SECTION BR-H-6
 COOK COUNTY
 STATION 14 + 13.90

PREPARED AND RECOMMENDED BY
 FARKAS & BARRON
 CONSULTING ENGINEERS
 BY *Maureen Barron 4/15/58*
 ILLINOIS S.E. LIC. NO. 8-2339 DATE

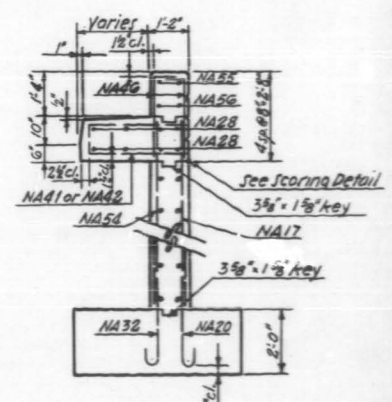
STRINGER	"OC"
A1	49°24'37"
A2	50°11'59"
A3	50°57'50"
A4	51°48'14"
A5	52°25'18"
A6	53°06'50"



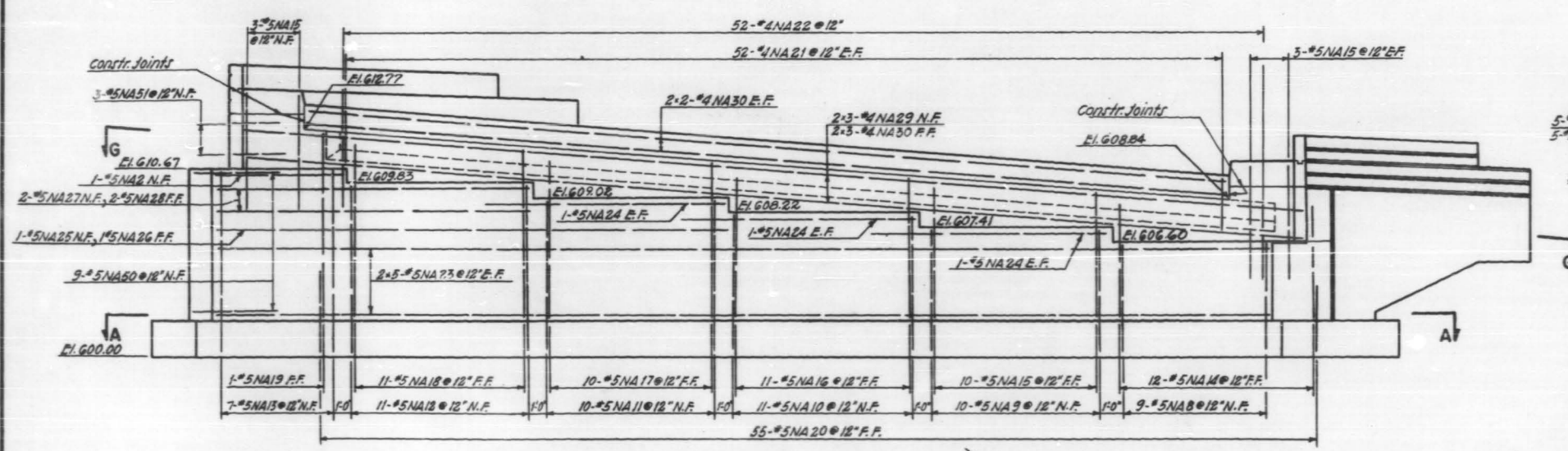
PLAN
Scale: 1/4" = 1'-0"



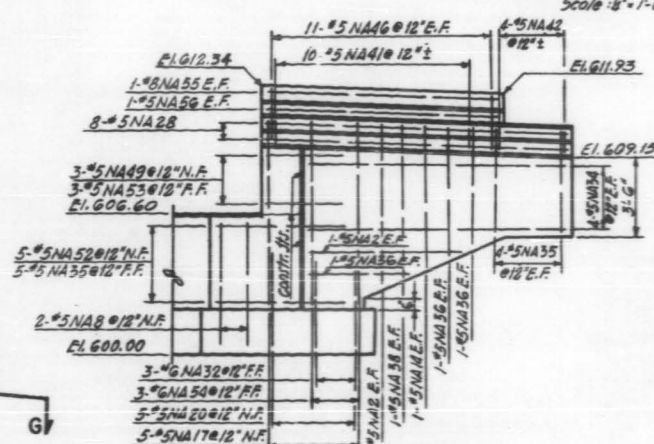
ELEVATION E-E
Scale: 1/8" = 1'-0"



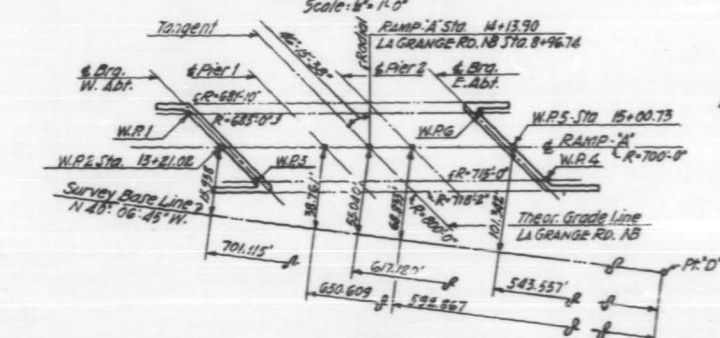
SECTION H-H
Scale: 3/8" = 1'-0"



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



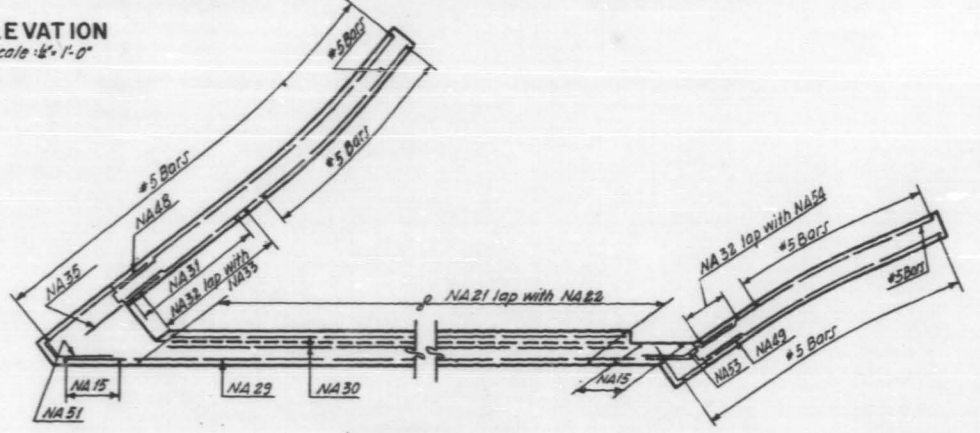
ELEVATION F-F
Scale: 1/4" = 1'-0"



LOCATION PLAN
No Scale

NOTE:
Bearing at N. Abt. & S. Abt. are parallel to the tangent line of LA GRANGE RD at Sta. 8+96.74

NOTE: Work this sheet with 101, 21 and 22



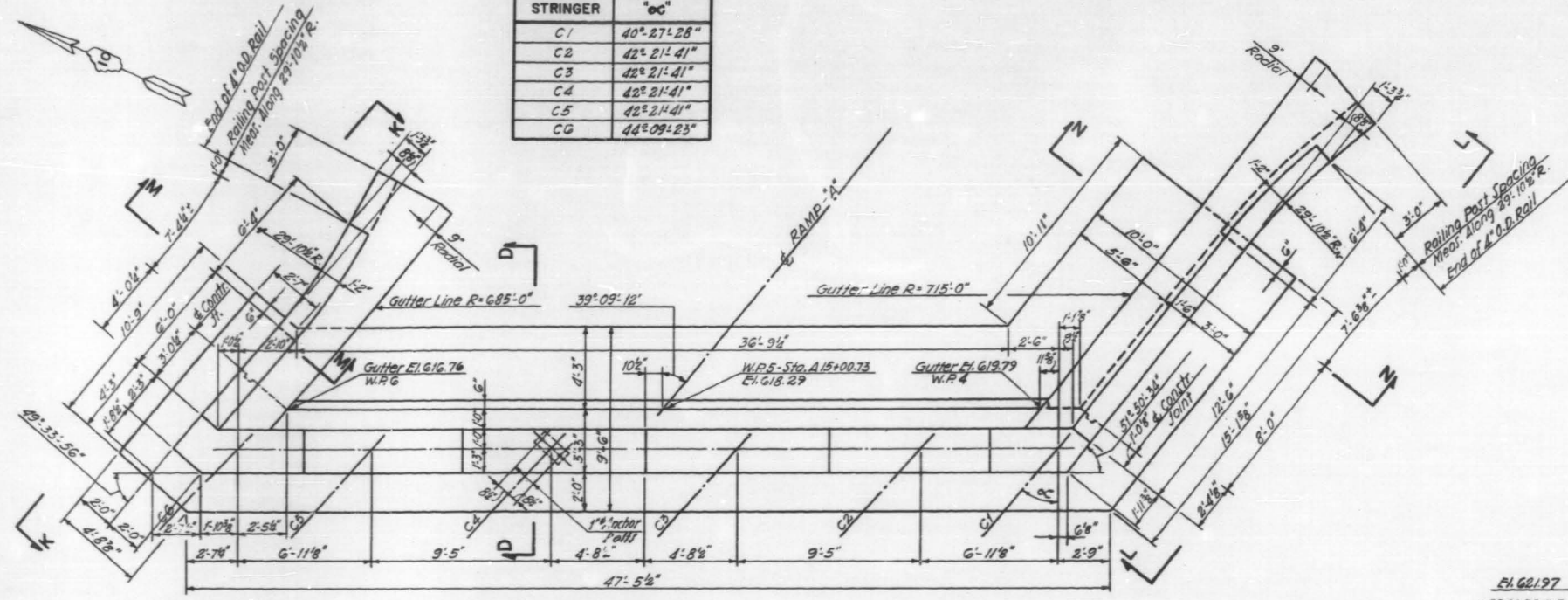
SECTION G-G
Scale: 1/4" = 1'-0"

WEST ABUTMENT
BRIDGE NO. 3
RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
PART. 5 SECTION BR-H-6
COOK COUNTY
STATION 14 + 13.90

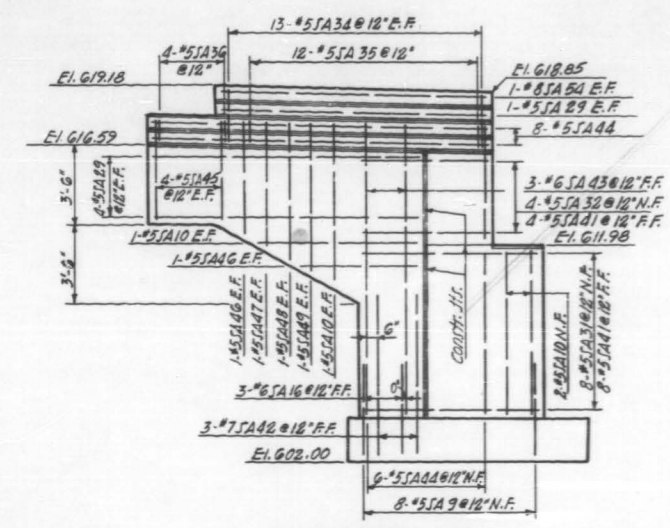
PREPARED AND RECOMMENDED BY
FARKAS & BARRON
CONSULTING ENGINEERS
BY: [Signature] 4/16/68
ILLINOIS S.E. L.C. NO. 2339 DATE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
LA. RT. 5	BR-H-6	COOK	146	21
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		
FILE NO.	BR-10	BR-10		

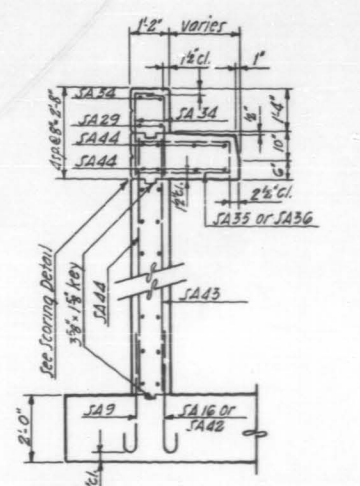
STRINGER	"oc"
C1	40° 27' 28"
C2	42° 21' 41"
C3	42° 21' 41"
C4	42° 21' 41"
C5	42° 21' 41"
CG	46° 09' 23"



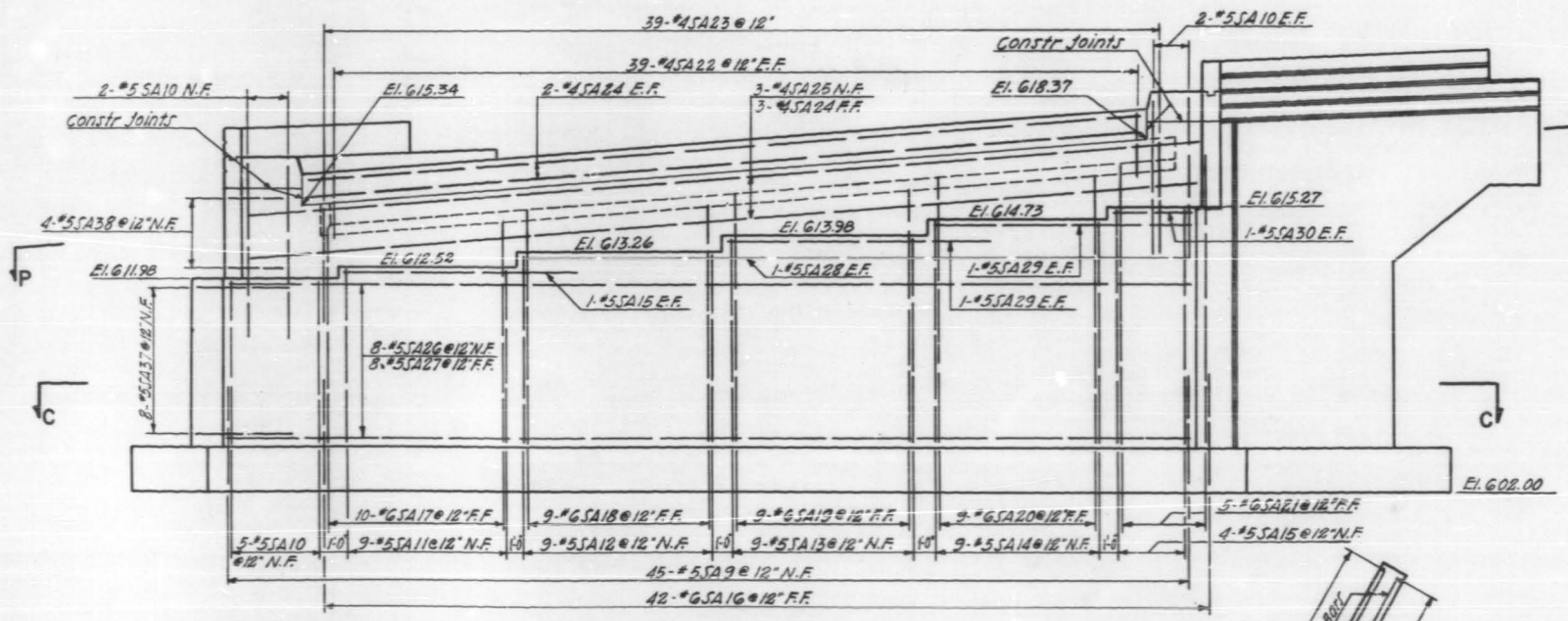
PLAN
Scale: 1/4" = 1'-0"



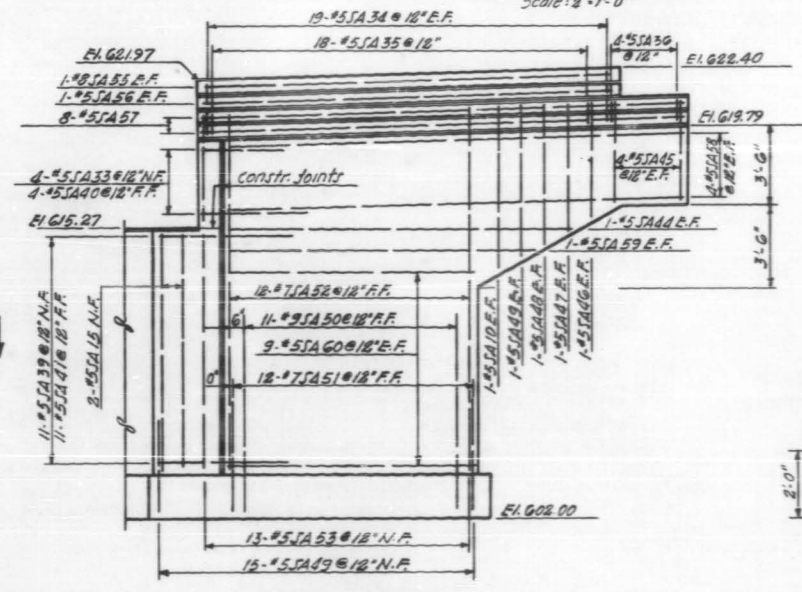
ELEVATION K-K
Scale: 1/4" = 1'-0"



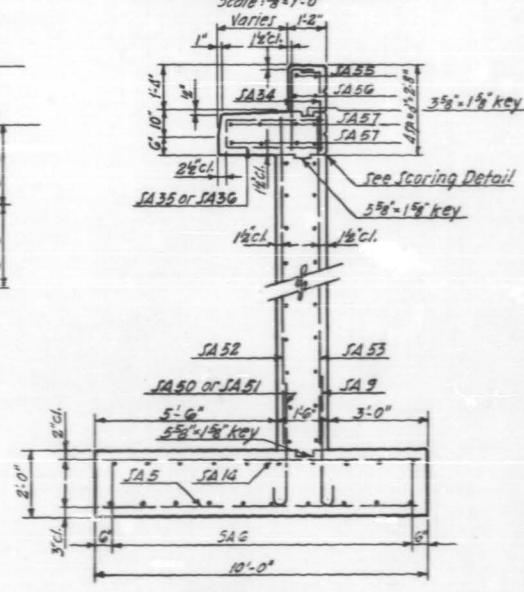
SECTION M-M AS SHOWN
SECTION J-J SIMILAR
Scale: 1/4" = 1'-0"



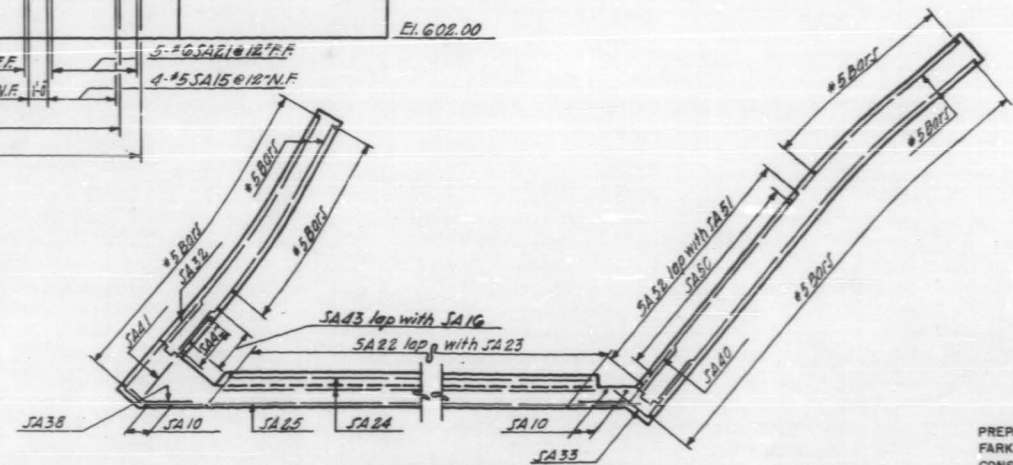
ELEVATION
Scale: 1/4" = 1'-0"



ELEVATION L-L
Scale: 1/4" = 1'-0"



SECTION N-N
Scale: 1/4" = 1'-0"

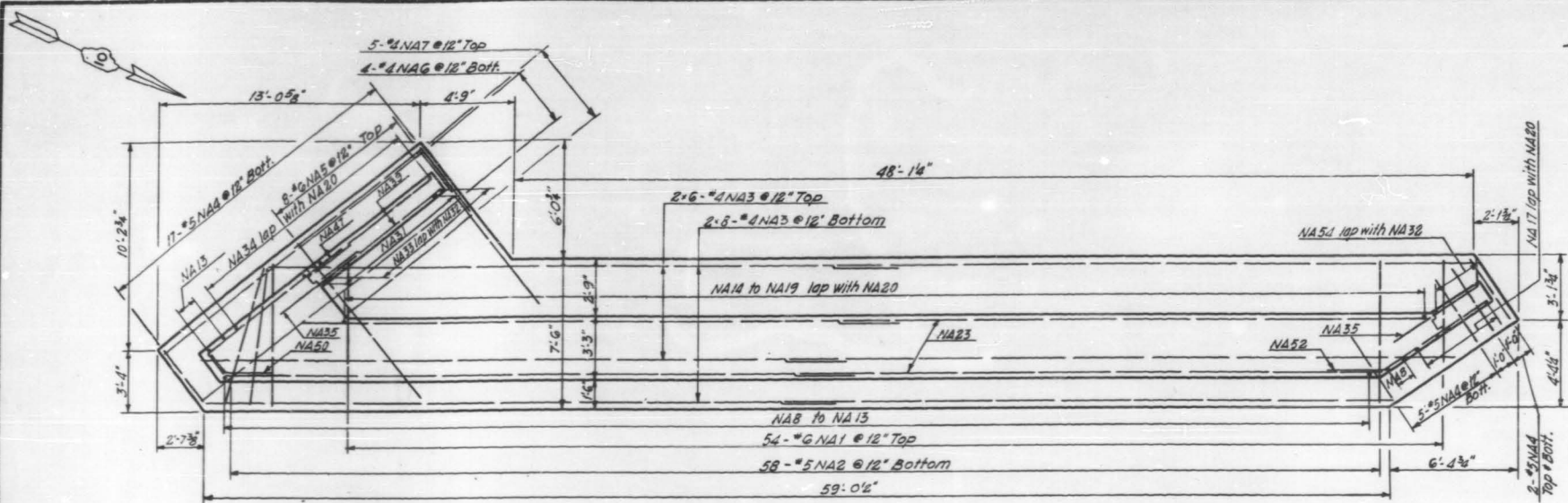


SECTION P-P
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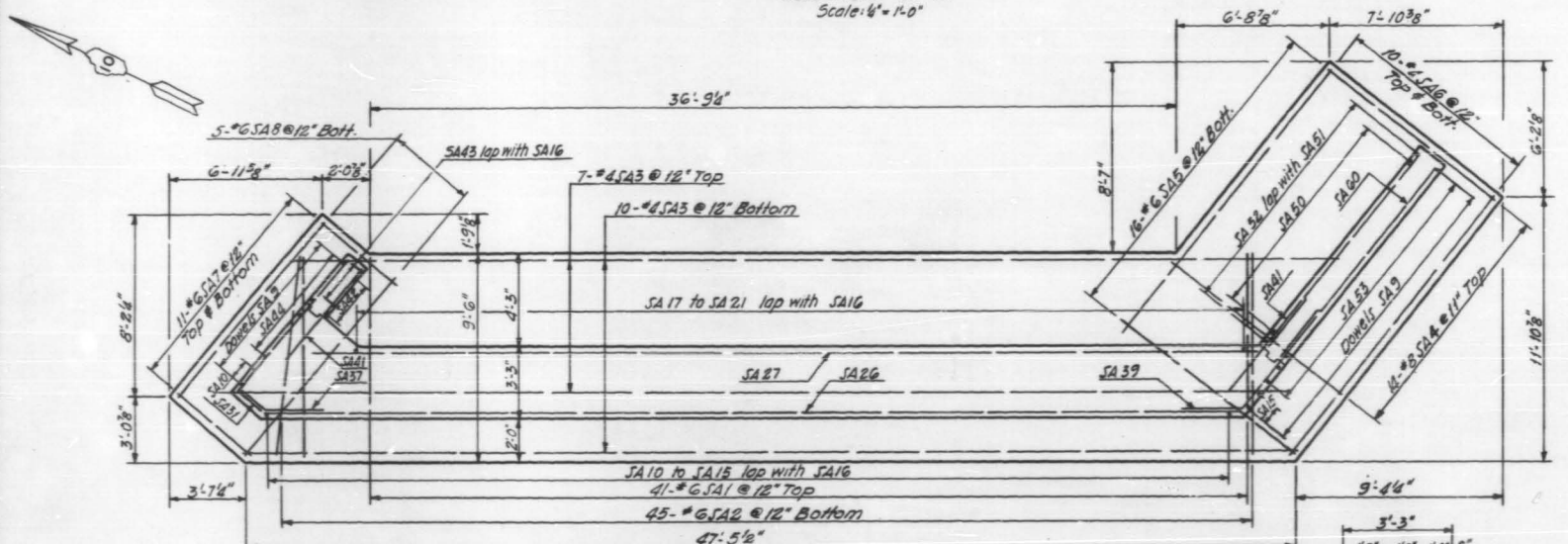
NOTE: Work this sheet with sheets 20 and 22

EAST ABUTMENT
BRIDGE NO. 3
RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
F.ART. 5 SECTION BR-H-6
COOK COUNTY
STATION 14 + 1390

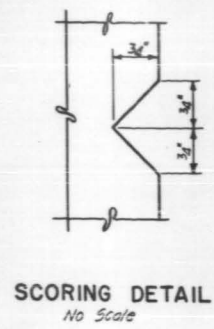
PREPARED AND RECOMMENDED BY
FARKAS & BARRON
CONSULTING ENGINEERS
BY: *Manoia R. Barron* 11/15/13
ILLINOIS S.E. LIC. NO. 2339 DATE



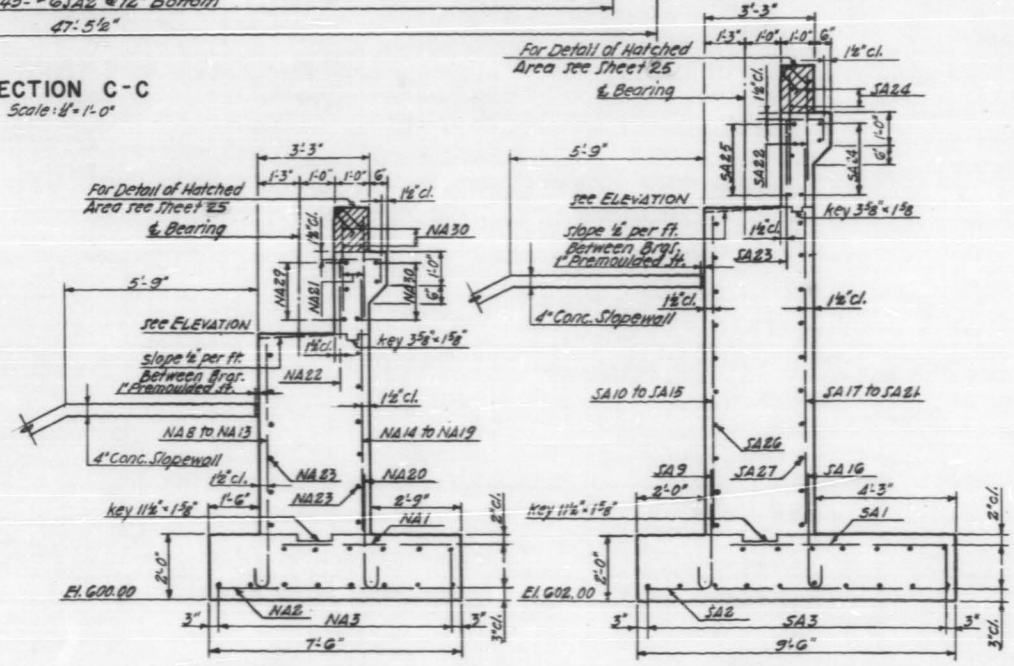
SECTION A-A
Scale: 1/4" = 1'-0"



SECTION C-C
Scale: 1/4" = 1'-0"

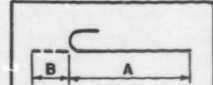


SCORING DETAIL
No Scale

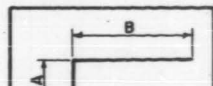


SECTION B-B
Scale: 3/8" = 1'-0"

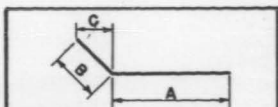
SECTION D-D
Scale: 3/8" = 1'-0"



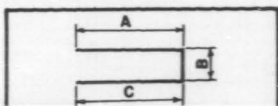
BAR	A	B
NA8	6'-2"	0'-7"
NA9	7'-0"	0'-7"
NA10	7'-9"	0'-7"
NA11	8'-7"	0'-7"
NA12	9'-5"	0'-7"
NA13	10'-3"	0'-7"
NA20	4'-5"	0'-7"
NA31	6'-9"	0'-10"
NA32	4'-4"	0'-8"
SA9	4'-0"	0'-7"
SA16	5'-4"	0'-8"
SA42	7'-3"	0'-10"
SA50	8'-9"	1'-3"
SA51	4'-8"	0'-10"



BAR	A	B
NA46	0'-8"	2'-4"
NA47	1'-6"	8'-10"
NA48	0'-8"	6'-3"
NA49	1'-4"	3'-10"
SA31	1'-6"	7'-11"
SA32	0'-8"	5'-8"
SA33	1'-4"	3'-0"
SA34	0'-8"	2'-4"



BAR	A	B	C
NA50	2'-1"	1'-6"	1'-1"
NA51	2'-1"	0'-8"	0'-5"
NA52	0'-2"	2'-1"	1'-9"
NA53	3'-8"	2'-1"	1'-9"
SA37	2'-1"	1'-6"	1'-8"
SA38	2'-1"	0'-8"	0'-6"
SA39	5'-0"	2'-1"	1'-3"
SA40	3'-0"	2'-1"	1'-3"



BAR	A	B	C
NA22	0'-9"	1'-3"	3'-0"
NA41	2'-8"	1'-0"	2'-8"
NA42	3'-4"	1'-0"	3'-4"
SA23	0'-9"	1'-3"	3'-9"
SA35	2'-8"	1'-0"	2'-8"
SA36	3'-4"	1'-0"	3'-4"

BILL OF MATERIAL-NORTH ABUTMENT

BAR	NO.	SIZE	LENGTH	SHAPE
NA1	54	6	5'-0"	—
NA2	63	5	7'-0"	—
NA3	28	4	3'-0"	—
NA4	26	5	3'-4"	—
NA5	8	6	10'-0"	—
NA6	4	4	16'-1"	—
NA7	5	4	7'-3"	—
NA8	11	5	6'-9"	—
NA9	10	5	7'-7"	—
NA10	11	5	8'-4"	—
NA11	10	5	9'-2"	—
NA12	11	5	10'-0"	—
NA13	9	5	10'-10"	—
NA14	14	5	6'-2"	—
NA15	21	5	7'-2"	—
NA16	11	5	7'-9"	—
NA17	15	5	8'-7"	—
NA18	11	5	9'-5"	—
NA19	3	5	10'-3"	—
NA20	72	5	5'-0"	—
NA21	104	4	3'-0"	—
NA22	52	4	5'-0"	—
NA23	20	5	30'-0"	—
NA24	8	5	12'-6"	—
NA25	1	5	28'-0"	—
NA26	1	5	24'-0"	—
NA27	2	5	17'-6"	—
NA28	10	5	13'-6"	—
NA29	6	4	29'-6"	—
NA30	10	4	26'-6"	—
NA31	8	7	7'-7"	—
NA32	11	6	5'-0"	—
NA33	8	6	12'-3"	—
NA34	20	5	12'-0"	—
NA35	33	5	4'-6"	—
NA36	8	5	5'-8"	—
NA37	2	5	5'-9"	—
NA38	4	5	6'-3"	—
NA39	12	5	7'-4"	—
NA40	8	5	16'-10"	—
NA41	28	5	6'-4"	—
NA42	8	5	7'-8"	—
NA43	2	8	18'-0"	—
NA44	2	5	18'-0"	—
NA45	8	5	21'-0"	—
NA46	60	5	3'-0"	—
NA47	9	5	10'-4"	—
NA48	3	5	6'-11"	—
NA49	3	5	5'-2"	—
NA50	9	5	3'-7"	—
NA51	3	5	2'-9"	—
NA52	5	5	8'-3"	—
NA53	3	5	5'-9"	—
NA54	3	6	8'-6"	—
NA55	2	8	10'-6"	—
NA56	2	5	10'-6"	—

BILL OF MATERIAL-SOUTH ABUTMENT

BAR	NO.	SIZE	LENGTH	SHAPE
SA1	41	6	6'-6"	—
SA2	45	6	9'-0"	—
SA3	17	4	47'-6"	—
SA4	14	8	9'-6"	—
SA5	16	6	9'-6"	—
SA6	20	4	15'-0"	—
SA7	22	6	4'-3"	—
SA8	5	6	10'-3"	—
SA9	68	5	4'-7"	—
SA10	19	5	7'-8"	—
SA11	9	5	8'-2"	—
SA12	9	5	9'-11"	—
SA13	9	5	3'-8"	—
SA14	9	5	10'-3"	—
SA15	8	5	10'-11"	—
SA16	45	6	6'-0"	—
SA17	10	6	11'-0"	—
SA18	9	6	11'-9"	—
SA19	9	6	12'-6"	—
SA20	9	6	13'-3"	—
SA21	5	6	13'-9"	—
SA22	78	4	3'-0"	—
SA23	39	4	5'-9"	—
SA24	7	4	38'-4"	—
SA25	3	4	45'-9"	—
SA26	8	5	44'-5"	—
SA27	8	5	43'-0"	—
SA28	2	5	30'-9"	—
SA29	14	5	12'-0"	—
SA30	2	5	3'-9"	—
SA31	8	5	9'-5"	—
SA32	4	5	6'-4"	—
SA33	4	5	4'-4"	—
SA34	64	5	3'-0"	—
SA35	30	5	6'-4"	—
SA36	8	5	7'-3"	—
SA37	8	5	3'-7"	—
SA38	4	5	2'-9"	—
SA39	11	5	7'-1"	—
SA40	4	5	5'-1"	—
SA41	23	5	5'-0"	—
SA42	3	7	8'-1"	—
SA43	3	6	15'-3"	—
SA44	16	5	15'-0"	—
SA45	16	5	4'-6"	—
SA46	6	5	5'-2"	—
SA47	4	5	5'-9"	—
SA48	4	5	6'-3"	—
SA49	4	5	6'-10"	—
SA50	11	9	10'-10"	—
SA51	12	7	5'-6"	—
SA52	12	7	16'-4"	—
SA53	13	5	16'-4"	—
SA54	2	8	18'-0"	—
SA55	2	8	18'-6"	—
SA56	2	5	18'-6"	—
SA57	8	5	21'-6"	—
SA58	8	5	20'-6"	—
SA59	8	5	15'-6"	—
SA60	18	5	11'-2"	—

Class-X Concrete C.Y. 111
Reinforcement Bars LBS. 7,080

Class-X Concrete C.Y. 126
Reinforcement Bars LBS. 2,125

Note: Work this sheet with SHS. 20 and 21

ABUTMENT DETAILS
BRIDGE NO. 3
RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
F.A.R.T. 5 SECTION BR-H-6
COOK COUNTY
STATION 14 + 13.90

PREPARED AND RECOMMENDED BY
FARKAS & BARRON
CONSULTING ENGINEERS
1110 S. LA GRANGE RD. CHICAGO, ILL. 60605
LLNOS SE. LIC. NO. 2339 DATE

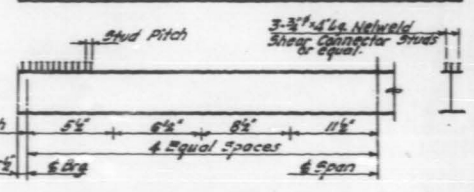
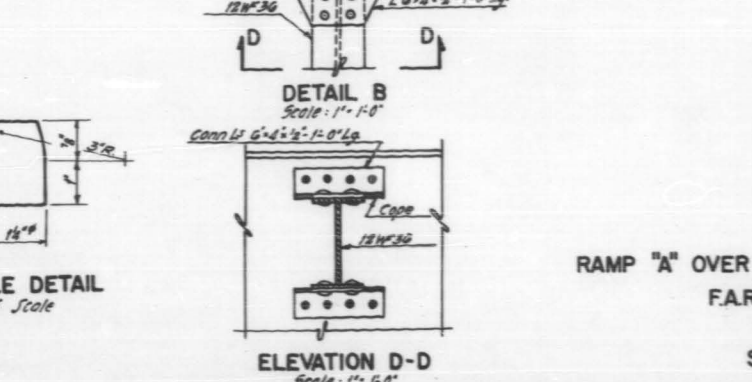
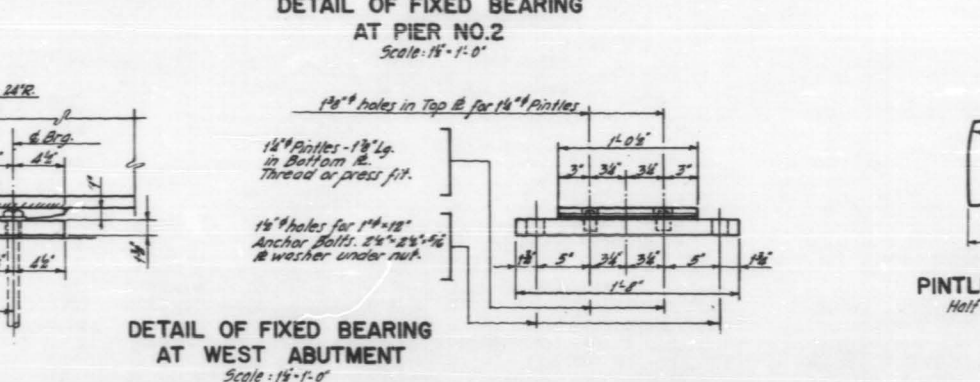
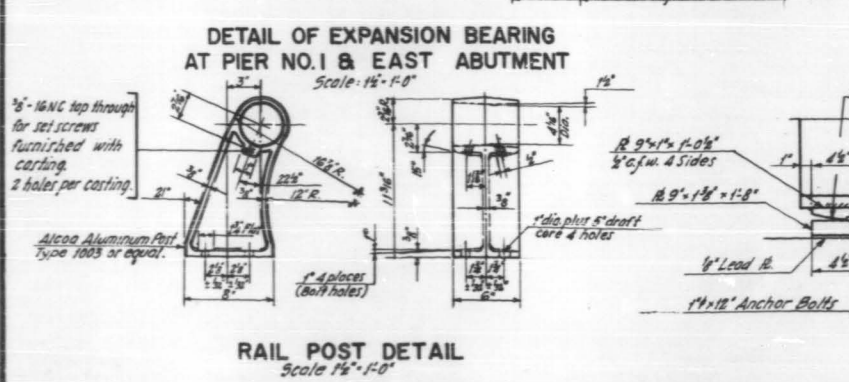
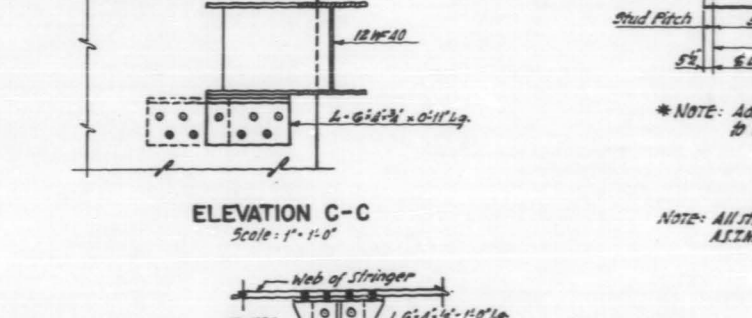
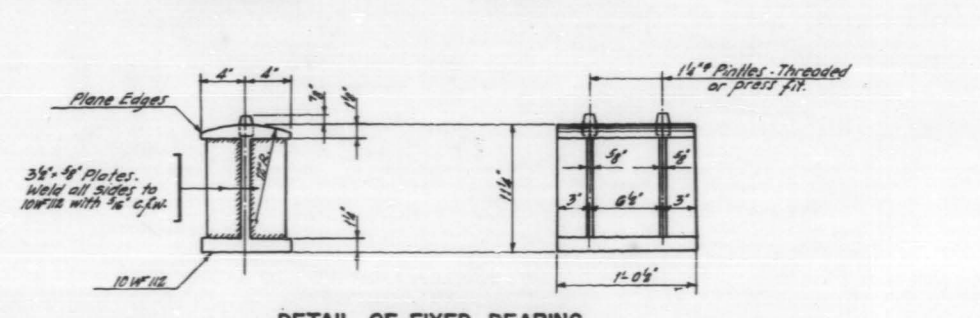
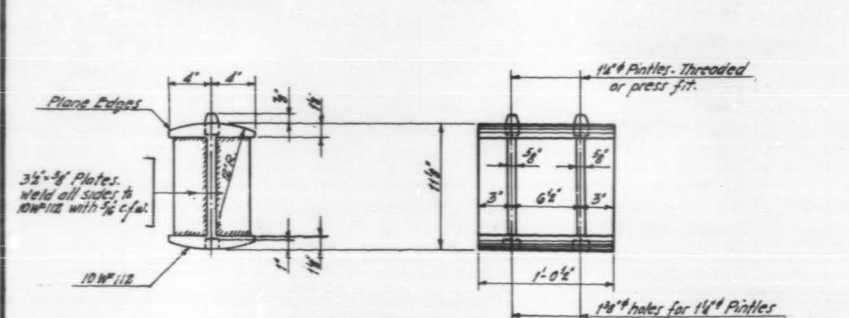
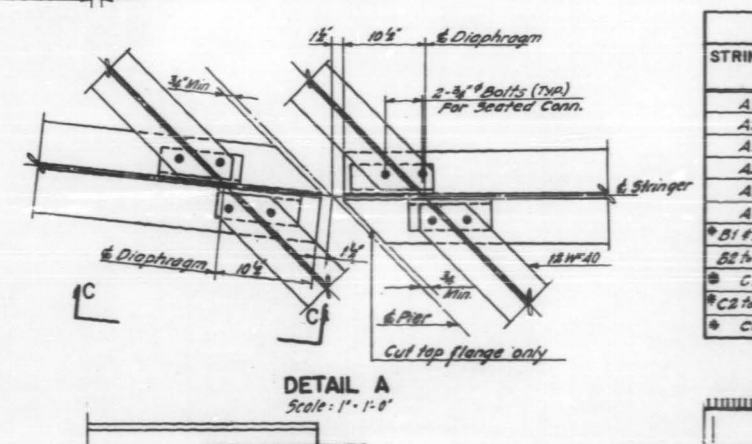
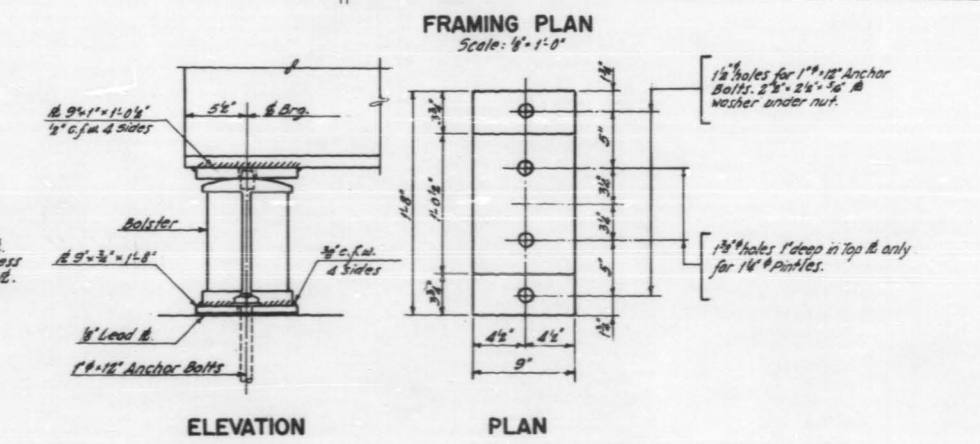
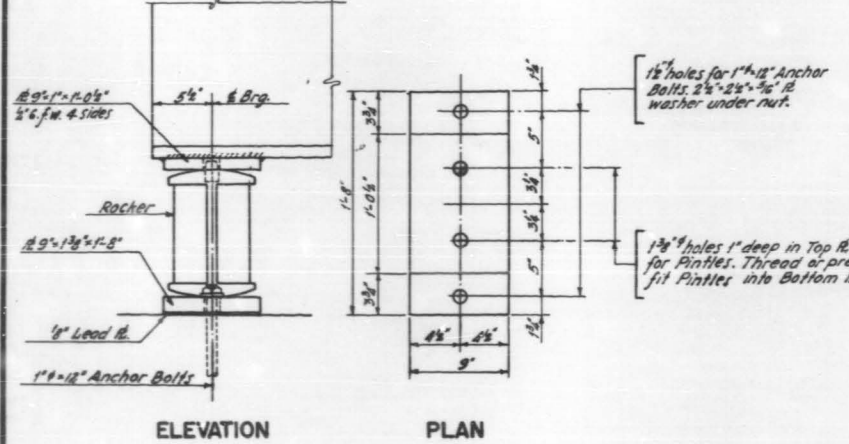
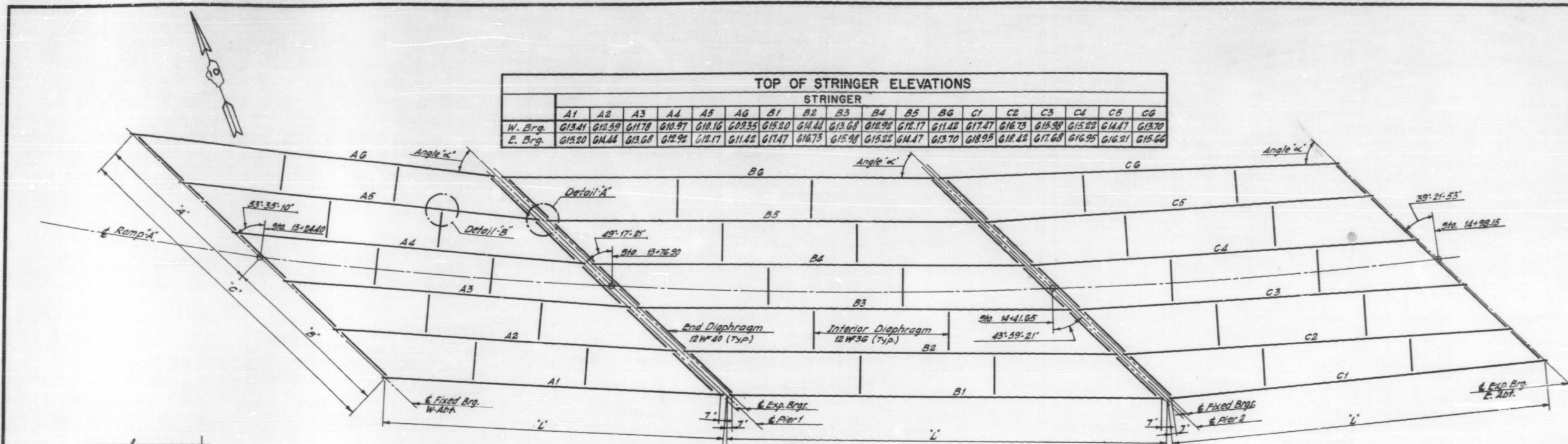
	A1	A2	A3	A4	A5	A6	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5	C6
W. Brg.	613.41	612.59	611.78	610.97	610.16	609.35	615.20	614.44	613.68	612.92	612.17	611.42	617.47	616.73	615.99	615.22	614.47	613.70
E. Brg.	615.20	614.44	613.68	612.92	612.17	611.42	617.47	616.73	615.99	615.22	614.47	613.70	618.95	618.21	617.48	616.73	615.99	615.20

	DIMENSION		
	A	B	C
W. Abt.	26'-3"	26'-3"	52'-6"
Pier 1	23'-8 1/2"	23'-8 1/2"	47'-1"
Pier 2	23'-8 1/2"	23'-8 1/2"	47'-1"
E. Abt.	20'-3 3/8"	21'-9 3/8"	42'-1 1/2"

STRINGER	DISTANCE L'	ANGLE "α"
A1	50'-3 3/8"	40'-35'-23"
A2	51'-1 1/2"	39'-48'-01"
A3	51'-11 1/2"	39'-02'-10"
A4	52'-9 1/4"	38'-17'-46"
A5	53'-7 3/8"	37'-34'-48"
A6	54'-6 8"	36'-53'-10"
B1 & B6	64'-8 3/8"	43'-21'-48"
C1	55'-5 3/8"	49'-32'-38"
C2 & C5	57'-1 8"	47'-38'-19"
C6	58'-9 1/4"	45'-30'-37"

Dimension 'L' is measured along the stringer from the Pier to the Pier, or the Pier to the Abutment.

STRINGER	C.C. BEARING	BEAM SIZE	BOTTOM COV. PL.	CAMBER
A1	19'-8 3/8"	33WF130	6'-2 1/2" x 24"	5/8"
A2	50'-6 3/8"	33WF141		5/8"
A3	51'-4 3/8"	33WF141		5/8"
A4	52'-2 1/2"	33WF130	7'-2 1/2" x 26"	5/8"
A5	53'-0 3/8"	33WF130	7'-2 1/2" x 26"	5/8"
A6	53'-11 1/8"	33WF130	10'-5 1/2" x 35"	5/8"
B1 & B6	63'-0 3/8"	33WF141	10'-1 1/2" x 44"	5/8"
B2 & B5	63'-0 3/8"	33WF130	10'-1 1/2" x 44"	5/8"
C1	54'-10 3/8"	33WF130	10'-5 1/2" x 35"	5/8"
C2 & C5	56'-6 8"	33WF130	10'-5 1/2" x 35"	5/8"
C6	58'-2 1/2"	33WF130	10'-5 1/2" x 35"	5/8"

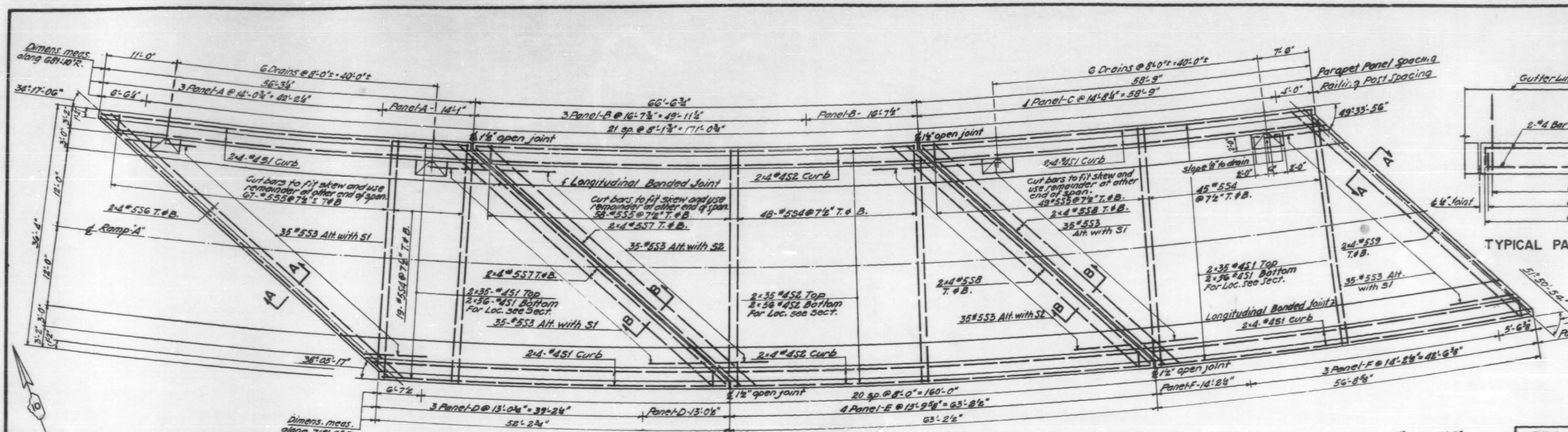


* NOTE: Add 1/8" to Camber @ Stringers B1 & C1 to C6 to correct for vertical curve.

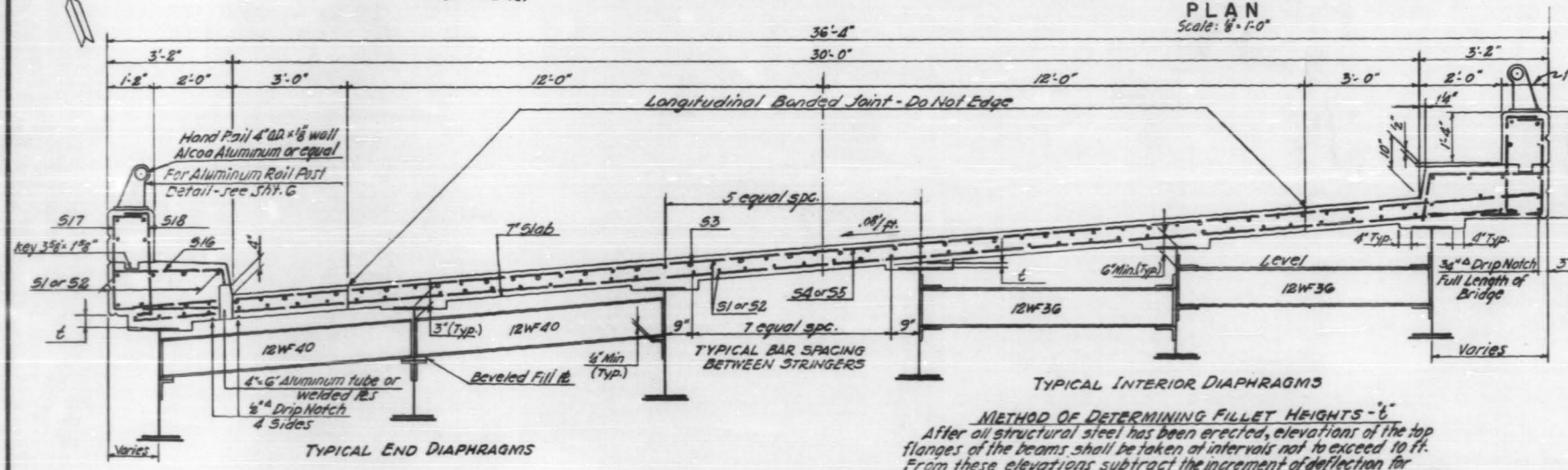
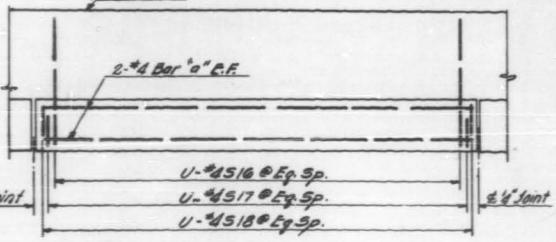
NOTE: All stringers and cover plates shall comply with A.S.T.M. Designation A 573 (See Art. 124.7)

PREPARED AND RECOMMENDED BY
FARKAS & BARRON
CONSULTING ENGINEERS
BY: [Signature] 11/1/23
ILLINOIS S.E. LIC. NO. 2330 DATE

FRAMING PLAN
BRIDGE NO. 3
RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
PART 5 SECTION BR-H-6
COOK COUNTY
STATION 14 + 13.90

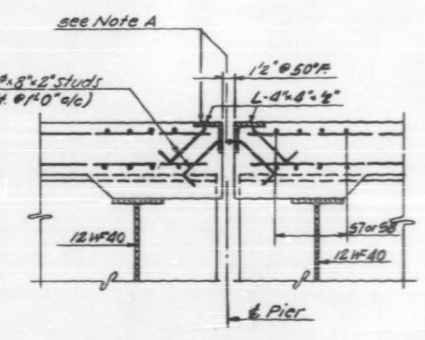


PANEL	U	BAR #
A	14	S10
B	17	S11
C	15	S12
D	13	S13
E	16	S14
F	14	S15

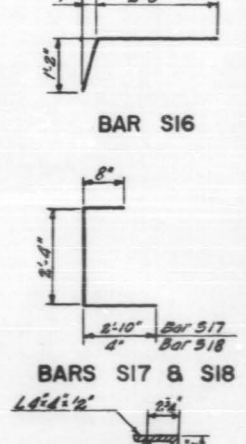


METHOD OF DETERMINING FILLET HEIGHTS - 6"
 After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. From these elevations subtract the increment of deflection for these points, determined from the D.L. deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus floor thickness, equals the fillet heights above top of beam.

	QUANTITY		STRAP LOCATION		ANGLE °		
	A	B	C	D	E	FASCIA W. FASCIA	
N. A.B.T.	48	52-98	1-28	1-7	48-0	34-17-06	38-05-17
PIER 1	45	46-06	0-28	0-10	45-0	39-01-28	42-18-55
PIER 2	41	47-82	0-28	0-6	41-0	44-37-04	47-18-29
S. A.B.T.	38	38-9	0-3	0-6	38-0	49-33-26	52-50-34

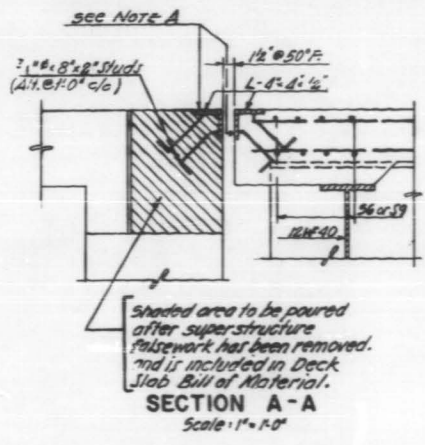
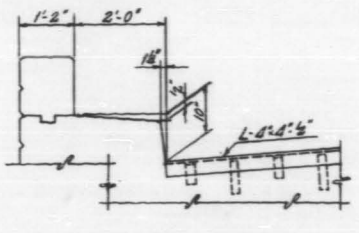
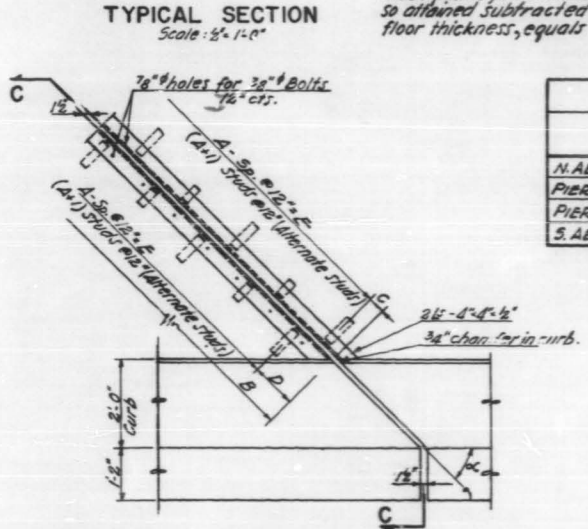
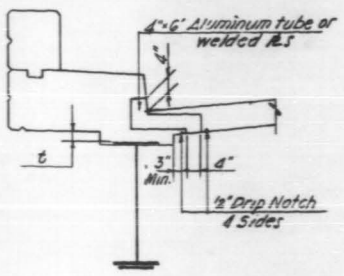


NOTE A
 1/2" holes @ 12" cts. for 3/8" bolts. All bolts shall be turned, sawed, or clipped off flush with back of angles after forms are removed.



BAR	NO.	SIZE	LENGTH	SHAPE
S1	396	4	29'-0"	---
S2	198	4	34'-0"	---
S3	210	5	10'-0"	---
S4	224	5	33'-10"	---
S5	348	5	36'-0"	---
S6	16	5	30'-0"	---
S7	32	5	27'-0"	---
S8	32	5	25'-0"	---
S9	16	5	23'-0"	---
S10	16	4	13'-9"	---
S11	16	4	16'-6"	---
S12	16	4	14'-4"	---
S13	16	4	12'-9"	---
S14	16	4	15'-6"	---
S15	16	4	13'-10"	---
S16	356	4	3'-10"	---
S17	356	4	5'-10"	---
S18	356	4	3'-4"	---

Class-X Concrete	CU. YD.	204
Reinforcement Bars	LBS.	41,965
Structural Steel	LBS.	188,659
Aluminum Handrail	LIN. FT.	411



Shaded area to be poured after superstructure falsework has been removed and is included in Deck Slab Bill of Material.

DECK SLAB
 BRIDGE NO. 3
 RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
 PART 5 SECTION BR-H-6
 COOK COUNTY
 STATION 14 + 13.90

PREPARED AND RECOMMENDED BY
 FARKAS & BARRON
 CONSULTING ENGINEERS
 BY: *Manuel Barron* 1/1/18
 ILLINOIS SE LIC. NO. 2339 DATE

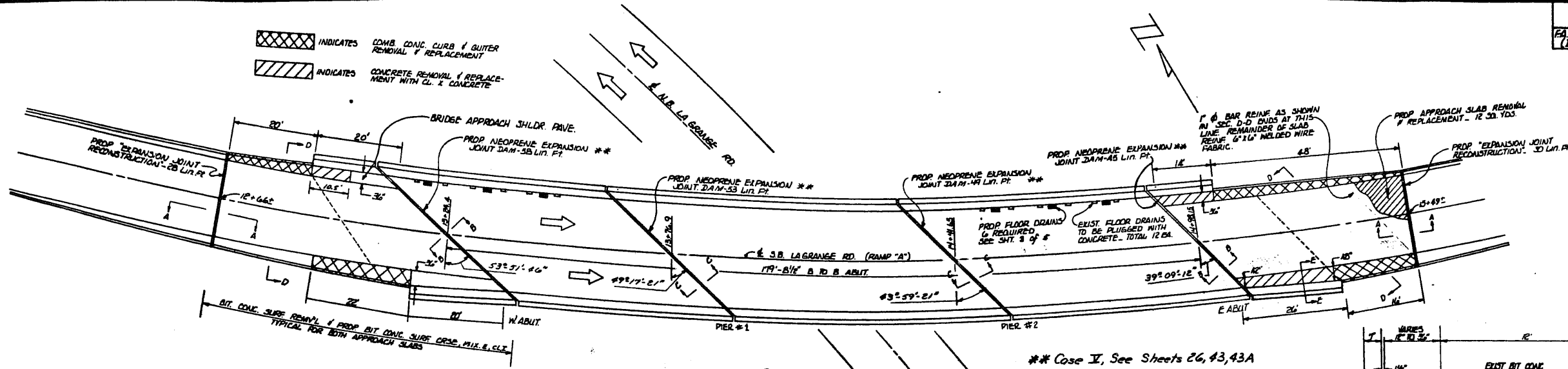
BRIDGE BILL OF MATERIALS (RAMP A OVER N.B. LA GRANGE RD.)			
CODE NO.	ITEM	UNIT	QUANTITY
406001	BITUMINOUS MATERIAL, PRIME COAT	GAL.	26
406003	AGGREGATE, PRIME COAT	TON	1
406014	BITUMINOUS CONCRETE SURFACE COURSE, MIX. E, CLASS I	TON	95
501024	CONCRETE REMOVAL	CU. YD.	3
503001	FLOOR DRAINS	EACH	6
503003	PROTECTIVE COAT	SQ. YD.	250
504003	CLASS X CONCRETE	CU. YD.	5.6
509004	CLEANING AND PAINTING STEEL BRIDGE #3	L. SUM	1
617010	BITUMINOUS CONCRETE SURFACE REMOVAL	SQ. YD.	934
617017	COMBINATION CONCRETE CURB & GUTTER REMOVAL & REPLACEMENT	LIN. FT.	106
624032	TRAFFIC BARRIER TERMINAL TYPE 2	EACH	2
633006	STEEL PLATE BEAM GUARD RAIL REMOVAL,	LIN. FT.	200
Z10007	APPROACH SLAB REMOVAL AND REPLACEMENT	SQ. YD.	12
Z10180	DECK SLAB REPAIRS (FULL DEPTH)	SQ. YD.	2
Z10181	DECK SLAB REPAIRS (PARTIAL DEPTH)	SQ. YD.	14
Z10245	NEOPRENE EXPANSION JOINT (DAM)	LIN. FT.	205
Z10375	REPAIR CONCRETE STRUCTURE	SQ. FT.	210
Z10388	SANDBLASTING	SQ. YD.	30
Z10530	WATERPROOFING MEMBRANE SYSTEM	SQ. YD.	584
	EXPANSION JOINT RECONSTRUCTION	LIN. FT.	58
	PIER COLUMN REPAIR 36" DIAMETER	LIN. FT.	75.7
	CONCRETE REMOVAL TYPE A	SQ. FT.	445
	STEEL PLATE BEAM GUARD RAIL, TYPE B	LIN. FT.	265
	RUB RAIL	LIN. FT.	180
	STEEL PLATE BEAM GUARD RAIL, TYPE B, SPECIAL	LIN. FT.	47
	PREPARATION OF BASE, BRIDGE DECK	SQ. YD.	584

BRIDGE # 3
BRIDGE NO 016-0518

BRIDGE BILL OF MATERIALS
RAMP A OVER N.B. LA GRANGE ROAD
SECTION: 1977-160-R5, BR
COOK COUNTY

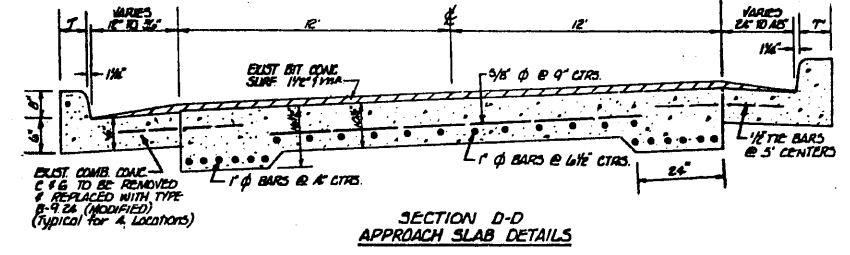
ROUTE	SECTION	COUNTY	TOTAL SHTS.	SHEET NO.
FALL RTE 3565 (ILL. RTE 171)	1977-160-R3, BR	COOK	57	31

SHT. 2 of 5

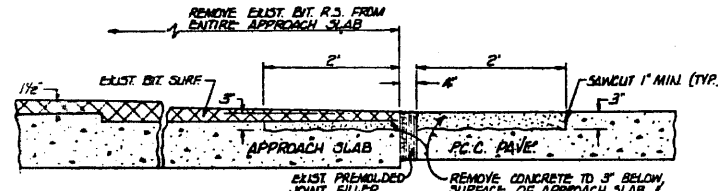


NOTE: SEE SHEET #3 OF 5 AND SHEET #4 OF 5 FOR PIER & ABUTMENT REPAIRS

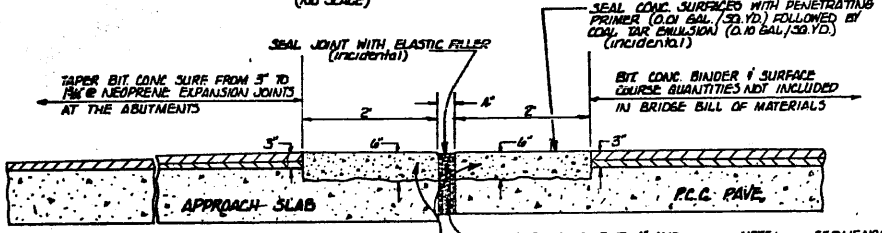
Case II, See Sheets 26, 43, 43A



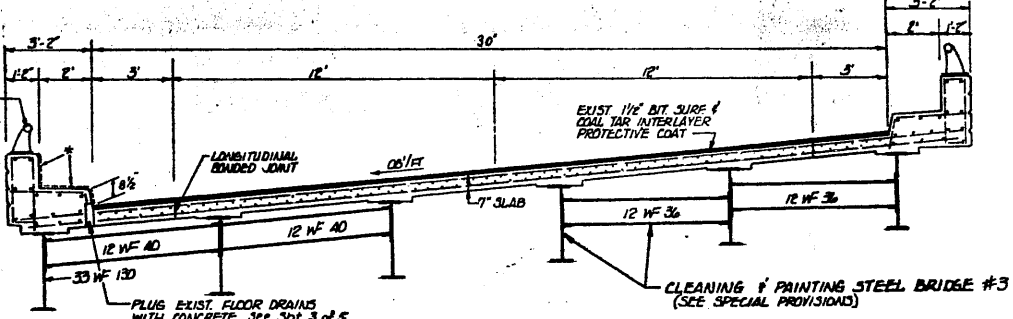
SECTION D-D APPROACH SLAB DETAILS



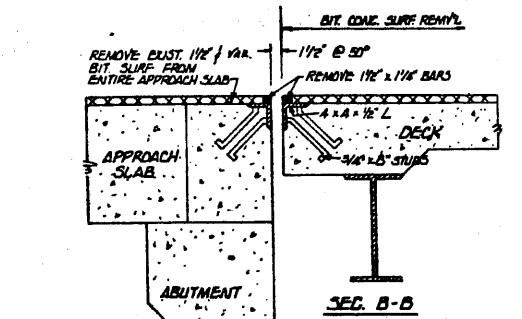
SEC. A-A EXIST. & EXPANSION JOINT



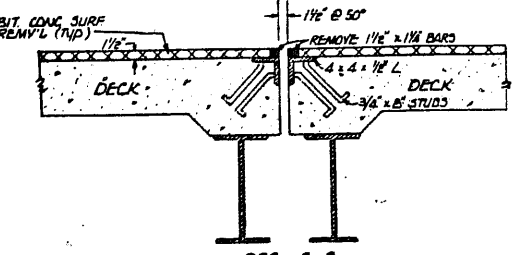
PROPOSED EXPANSION JOINT RECONSTRUCTION



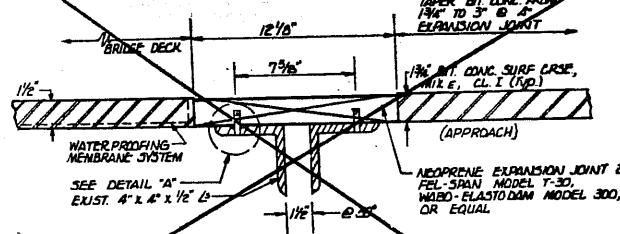
TYPICAL SECTION



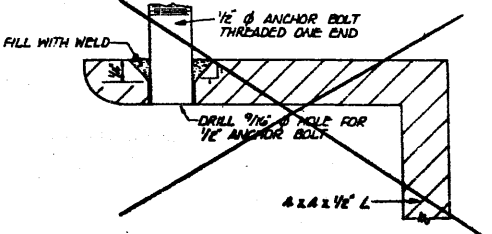
SEC. B-B EXIST. EXPANSION JOINT @ E.F.W. ABUTMENTS



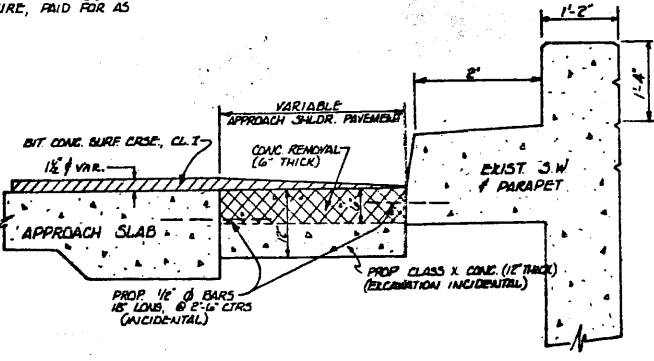
SEC. C-C EXIST. EXPANSION JOINT @ PIER #1 & PIER #2



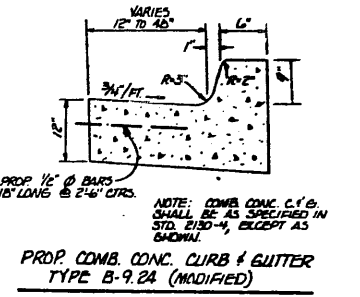
PROPOSED NEOPRENE EXPANSION JOINT @ E.F.W. ABUTMENTS & PIER #1 & PIER #2



DETAIL 'A'



SEC. E-E (TYPICAL 3 LOC.)



PROP. COMB. CONC. CURB & GUTTER TYPE B-9.24 (MODIFIED)

NOTE: SAWCUTTING OF P.C.C. PAVEMENT AND BITUMINOUS CONCRETE SURFACE SHALL BE CONSIDERED INCIDENTAL TO EXPANSION JOINT RECONSTRUCTION AND NEOPRENE EXPANSION JOINT

NOTE: PROVIDE PROTECTIVE COAT TO NEW CONCRETE CURB & GUTTER AND APPROACH PAVEMENT SURFACES.

*ALL BRIDGE SURFACE AREAS OF MEDIANS, CURB-GUARDS, SAFETY WALLS AND THE TOP AND INSIDE VERTICAL FACE OF PARAPET WALLS SHALL BE GIVEN TWO (2) COATS OF BOILED LANSSEED OIL MIXTURE, PAID FOR AS PROTECTIVE COAT.

BRIDGE #3

PLAN, TYPICAL SECTION AND EXPANSION JOINT DETAILS

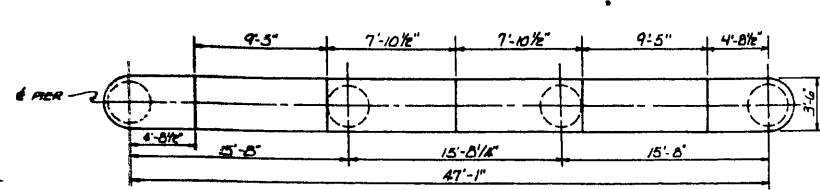
RAMP A OVER N.B. LA GRANGE ROAD
SECTION: 1977-160-R3, BR
COOK COUNTY

BRIDGE # 016-0518

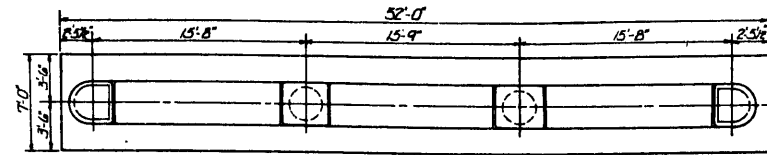
Rev 5-29-78

ROUTE	SECTION	COUNTY	TOTAL SHTS.	SHEET NO.
FAH 3565 (ILL. 171)	1977-160-RS, BR	COOK	57	32

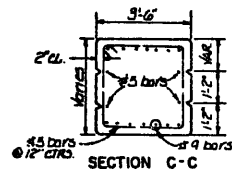
SHT. 3 of 5



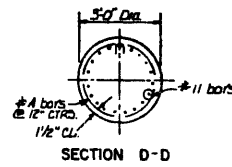
PLAN: PIER #1 AND PIER #2



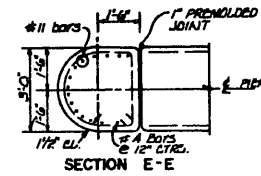
SECTION B-B



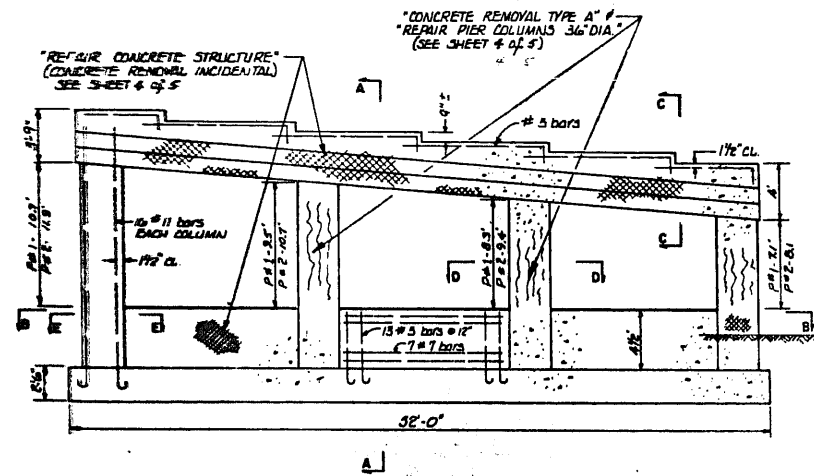
SECTION C-C



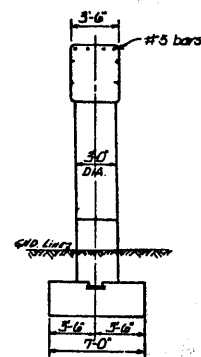
SECTION D-D



SECTION E-E



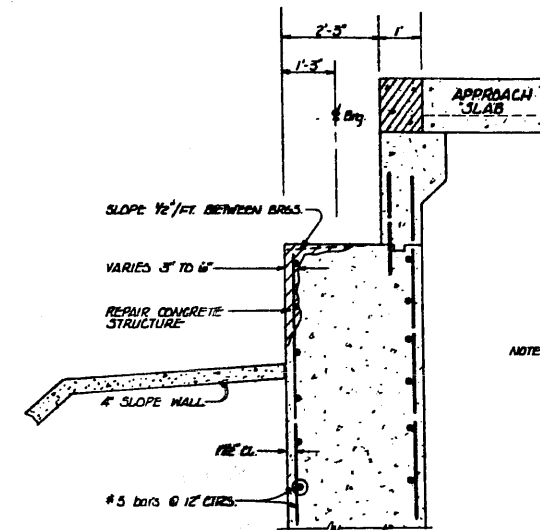
ELEVATION: PIER #1 AND PIER #2



SECTION A-A

PIER #1 "REPAIR CONCRETE STRUCTURE" - 120 Sq. Ft.
 PIER #2 "REPAIR CONCRETE STRUCTURE" - 40 Sq. Ft.

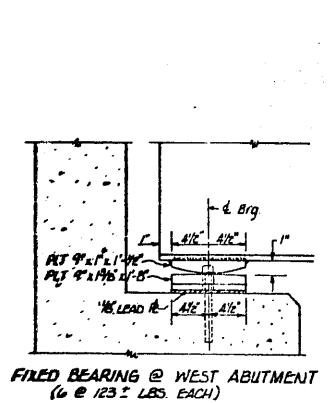
PIER REPAIRS



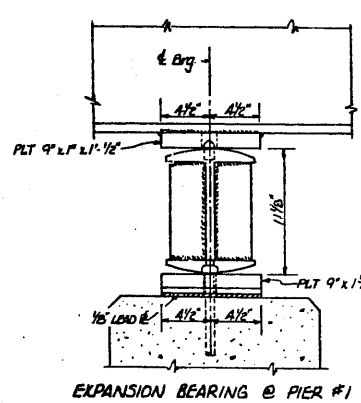
EAST ABUTMENT "REPAIR CONCRETE STRUCTURE" - 20 Sq. Ft.
 WEST ABUTMENT "REPAIR CONCRETE STRUCTURE" - 30 Sq. Ft.

ABUTMENT REPAIRS

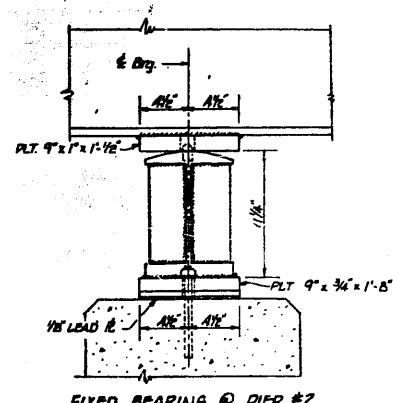
NOTE: EXIST REINFORCING BARS TO REMAIN IN PLACE & SHALL BE THOROUGHLY CLEANED OF RUST PRIOR TO PLACING REPLACEMENT CONCRETE. CONCRETE REMOVAL WILL NOT BE MEASURED OR PAID FOR SEPARATELY AND SHALL BE CONSIDERED INCIDENTAL TO "REPAIR CONCRETE STRUCTURE".



FIXED BEARING @ WEST ABUTMENT (6 @ 123 ± LBS. EACH)



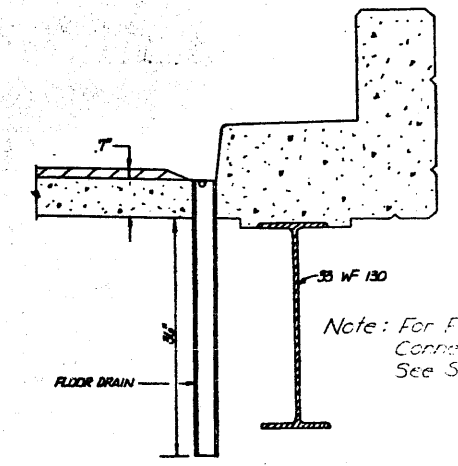
EXPANSION BEARING @ PIER #1 AND EAST ABUTMENT (12 @ 268 ± LBS. EACH)



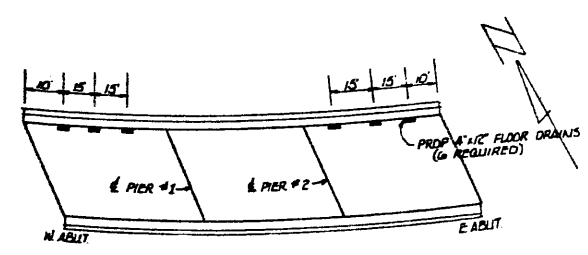
FIXED BEARING @ PIER #2 (6 @ 248 ± LBS. EACH)

DETAILS: BEARING ASSEMBLIES

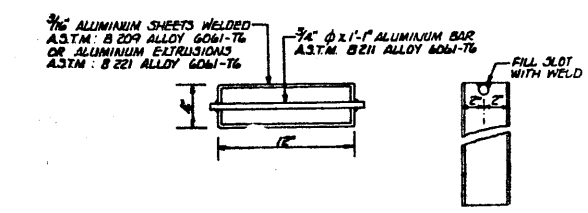
NOTE: ALL STRUCTURAL STEEL, INCLUDING THE BEARING ASSEMBLIES, SHALL BE CLEANED AND GIVEN TWO COATS OF ALUMINUM PAINT. SEE SPECIAL PROVISIONS.



Note: For Floor Drain Connection Details See Sheet #28 of 57.



FLOOR DRAIN LOCATION PLAN



DETAILS: PROP. FLOOR DRAINS (6 Req.)

BRIDGE #3

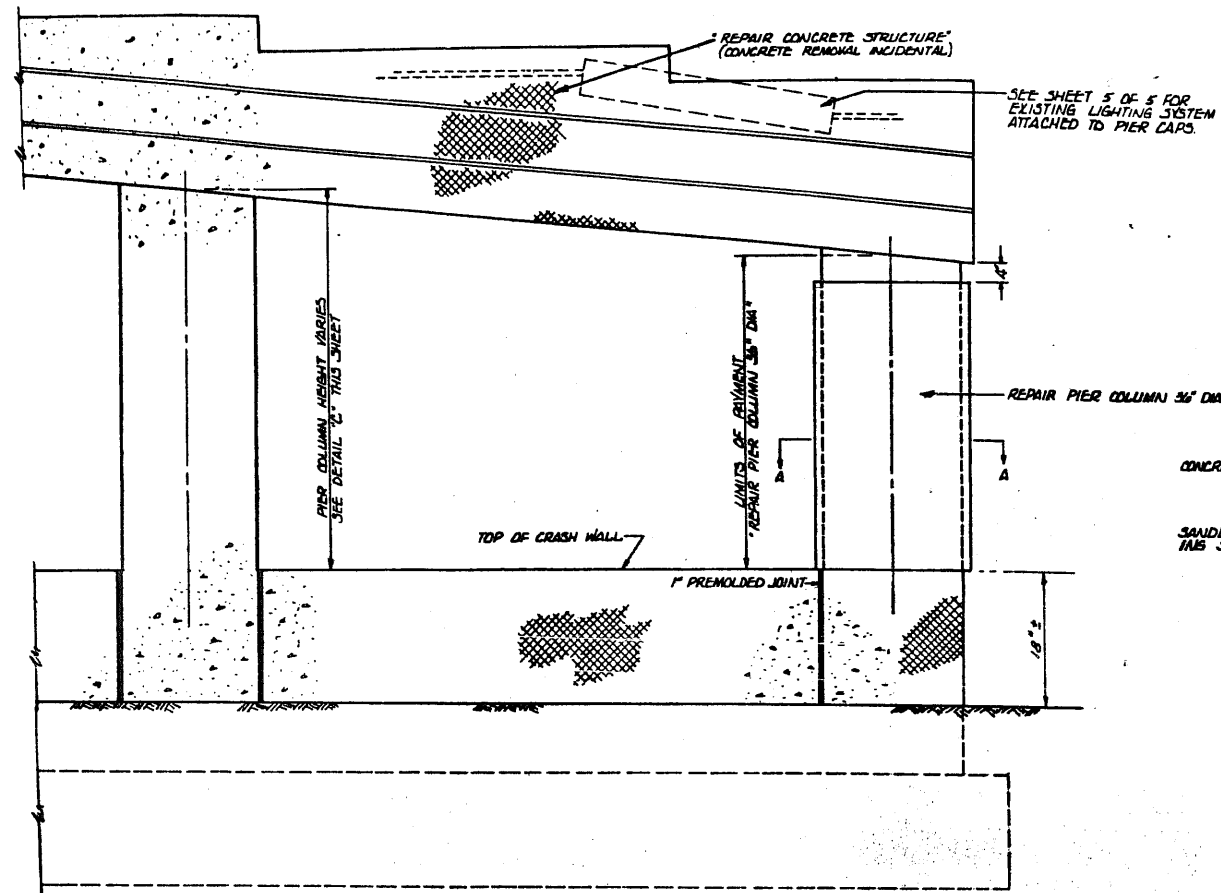
PIER & ABUTMENT REPAIRS, BEARING ASSEMBLIES AND FLOOR DRAIN DETAILS

RAMP A OVER LA GRANGE ROAD SECTION: 1977-160-RS, BR COOK COUNTY

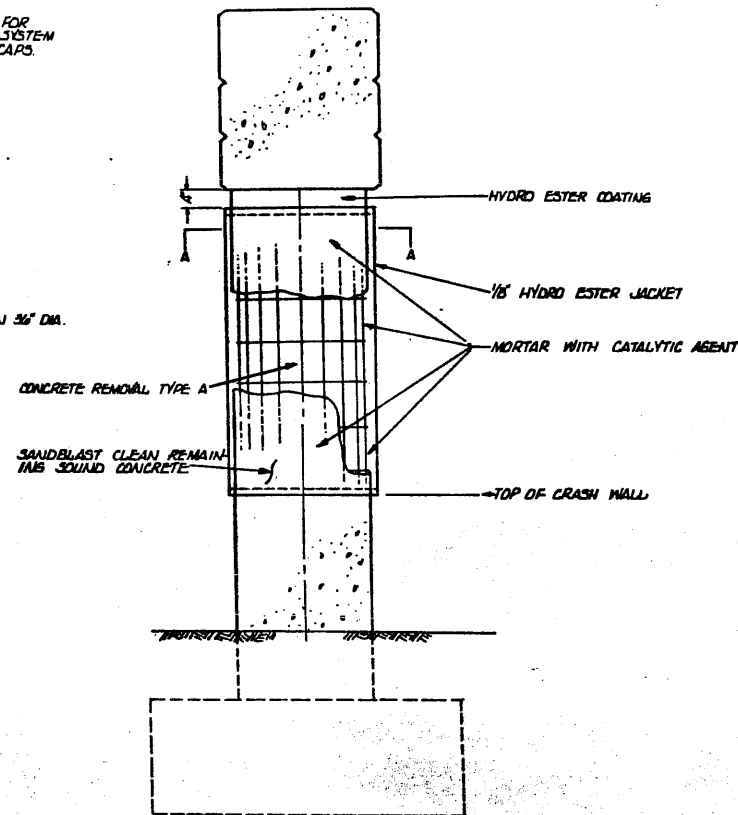
BRIDGE # 016-0518

ROUTE	SECTION	COUNTY	TOTAL SHTS.	SHEET NO.
FALL RTE 3565 (ILL. RTE 711)	1977-160-RS, BR	COOK	57	33

SHEET 4 OF 5



PARTIAL ELEVATION PIERS #1 & #2



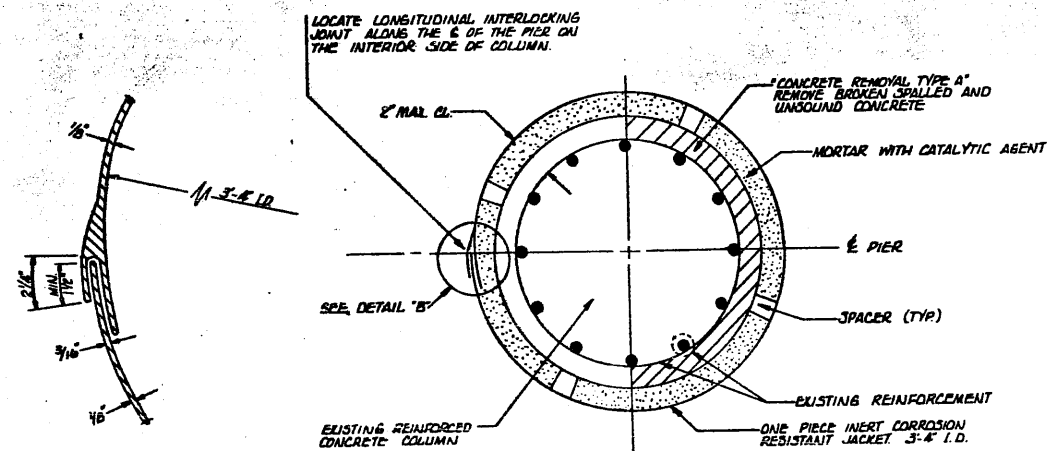
END VIEW

NOTE: "REPAIR PIER COLUMN 36\"/>

THE REMOVAL OF ALL UNSOUND CONCRETE AND SAND BLASTING OF THE REMAINING EXPOSED SURFACES OF THE CIRCULAR PIER COLUMNS PRIOR TO INSTALLING "JACKETS" SHALL BE MEASURED AND PAID FOR SEPARATELY AS SQUARE FEET OF "CONCRETE REMOVAL TYPE A" AND SQUARE YARDS OF "SANDBLASTING"

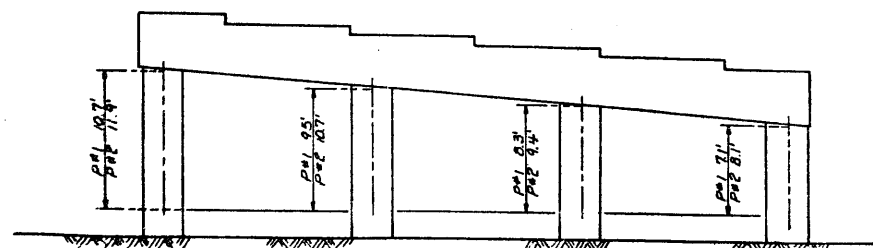
SAND BLAST CLEANING AS SPECIFIED IN CONCRETE REMOVAL TYPE A, WILL NOT BE MEASURED FOR PAYMENT AND SHALL BE CONSIDERED INCIDENTAL.

"REPAIR CONCRETE STRUCTURE" CONSISTS OF REMOVING DETEIORATED CONCRETE FROM THE EXTERIOR FACES OF THE PIER CAP AND CRASH WALL AND REPLACING WITH PNEUMATIC APPLIED CONCRETE. (SEE SPECIAL PROVISIONS)



SECTION A-A

DETAIL "B" INTERLOCKING JOINT



DETAIL "C"

REPAIR PIER COLUMN 36\"/>

PIER #1 - 35.6 LIN. FT.
PIER #2 - 40.1 LIN. FT.
TOTAL = 75.7 LIN. FT.

BRIDGE #3

REPAIR PIER COLUMN 36\"/>

RAMP A OVER N.B. LA GRANGE ROAD

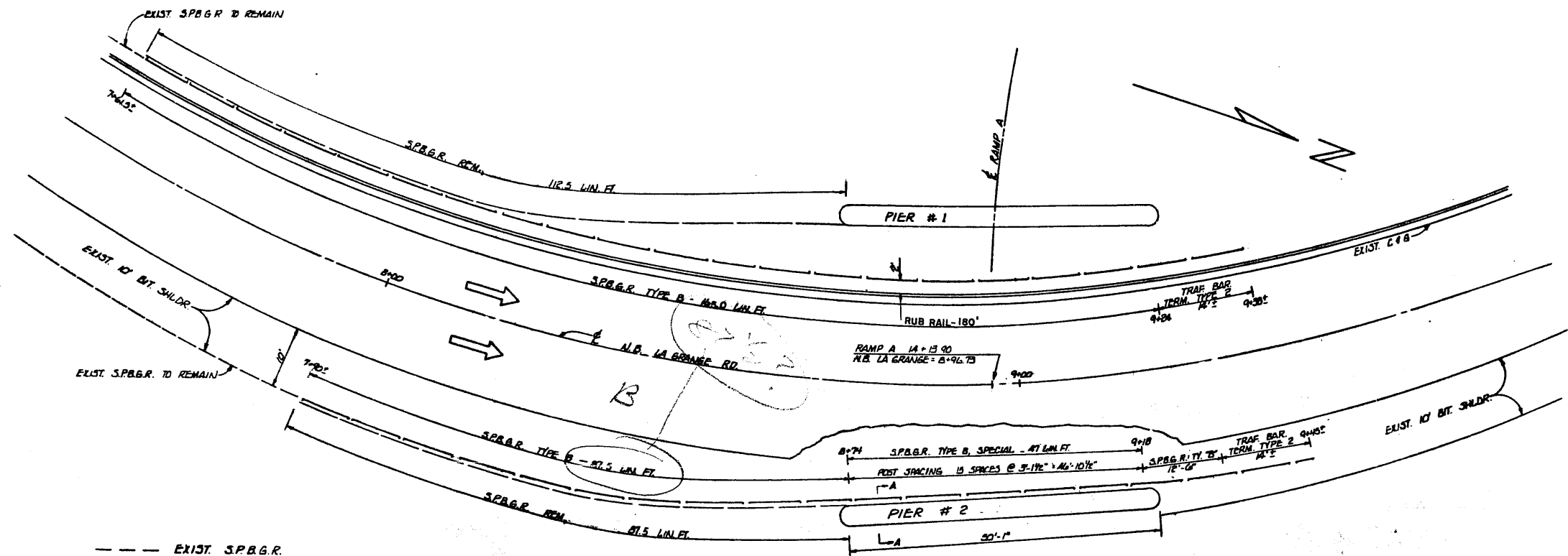
SECTION: 1977-160-RS, BR

COOK COUNTY

BRIDGE #016-0518

ROUTE	SECTION	COUNTY	TOTAL SHTS.	SHEET NO.
PAV. RTE 3965 (ILL. RTE. 77)	1977-160-RS, BR	COOK	57	34

SHEET 5 OF 5

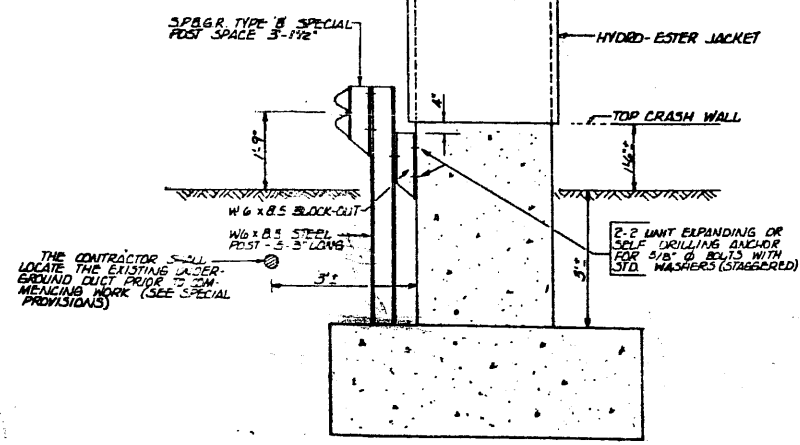


- EXIST. S.P.B.G.R.
- PROP. S.P.B.G.R.
- S.P.B.G.R. REM.

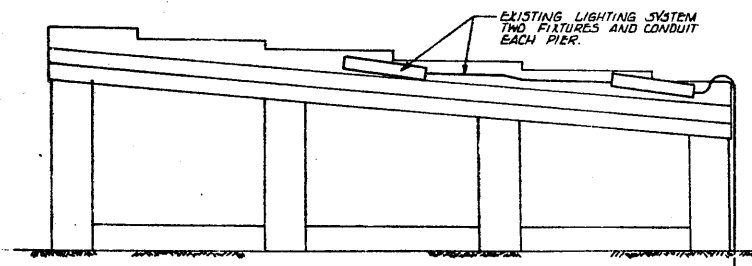
PLAN: STEEL PLATE BEAM GUARD RAIL DETAILS
(NO SCALE)

S.P.B.G.R. BILL OF MATERIALS

S.P.B.G.R. REMOVAL, SINGLE RAIL	- 200 LIN. FT.
S.P.B.G.R. TYPE B	- 265.0 LIN. FT.
S.P.B.G.R. TYPE B, SPECIAL	- 17.0 LIN. FT.
TRAFFIC BARRIER TERMINAL TY. 2	- 2 EACH
RUB RAIL	- 180 LIN. FT.



SECTION A-A
S.P.B.G.R. TYPE B, SPECIAL - TYPICAL FOR PIER #2



EXIST LIGHTING SYSTEM - PIER #1 & PIER #2

NOTE: THE REMOVAL AND RE-INSTALLATION OF THE EXISTING LIGHTING SYSTEM TO FACILITATE REPAIRS TO THE PIER CAP SHALL BE CONSIDERED INCIDENTAL (SEE SPECIAL PROVISIONS)

BRIDGE #3
DETAILS: STEEL PLATE BEAM GUARD RAIL AND EXISTING LIGHTING SYSTEM
RAMP A OVER N.B. LA GRANGE RD. SECTION: 1977-160-RS, BR COOK COUNTY

BRIDGE #016-0518

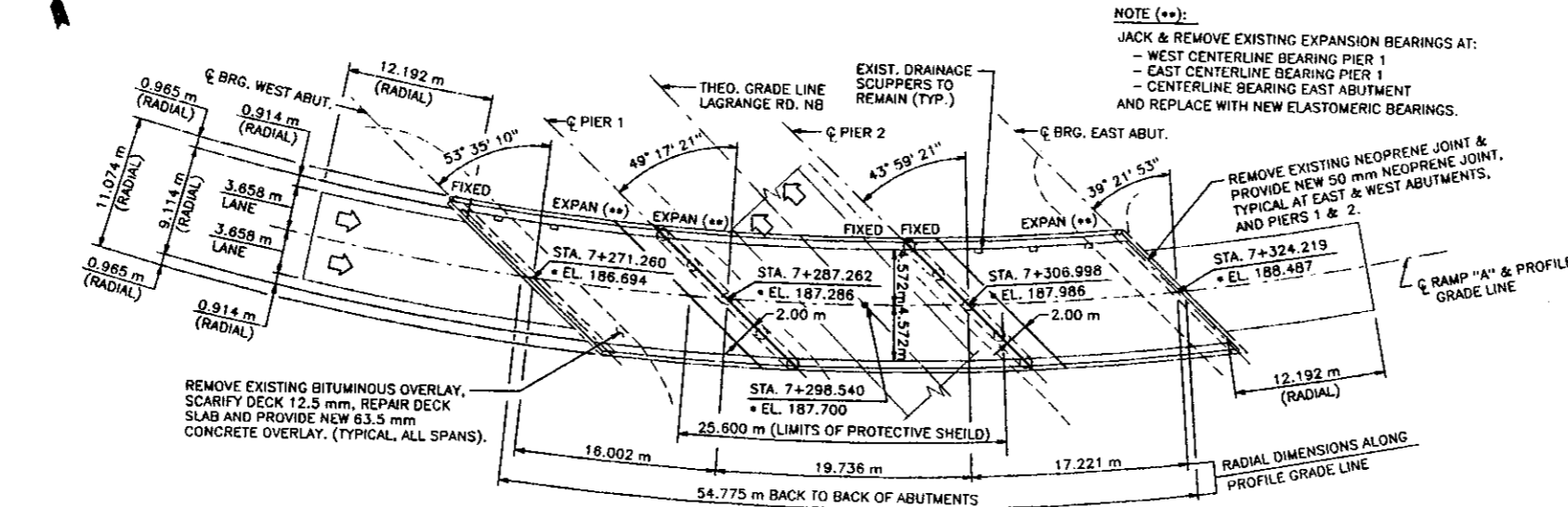
PLOT DATE: 08-30-1996. TIME: 10:45:31. USER: 507

BENCHMARK: ELEVATIONS SHOWN HAVE BEEN OBTAINED FROM THE EXISTING PLANS. THE CONTRACTOR SHALL ESTABLISH A TEMPORARY BENCHMARK, AS DIRECTED BY THE ENGINEER, UTILIZING THE FOLLOWING EXISTING BRIDGE SEATS AS THE SURVEY REFERENCE:

		ELEVATION
WEST ABUTMENT:	NORTH SIDE	186.133
	SOUTH SIDE	184.892
EAST ABUTMENT:	NORTH SIDE	186.532
	SOUTH SIDE	187.535

NO. OF SHEETS	SECTION	COMPY	DATE	BY
F.A.U. 3565	8	COOK	82	74

FED. ROAD DIST. NO. 7
ILLINOIS
FED. AID PROJECT
8-RS-3 & (BR-H[2,5,6,7] & BR-1) 1-1
SHEET NO. 1 OF 8



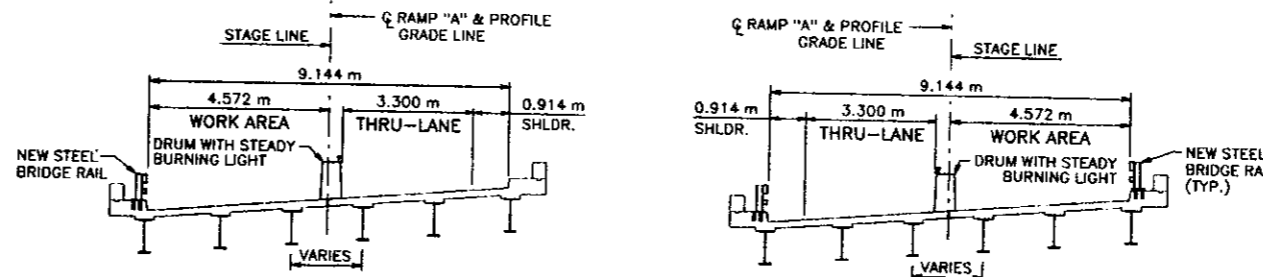
EXISTING HORIZONTAL CURVE DATA

P.C. STA. 7+199.239
 P.I. STA. 7+283.530
 P.T. STA. 7+359.792
 $\Delta = 43^\circ 06' 52''$
 $D = 8^\circ 11' 06''$
 $R = 213.360$ m
 $T = 84.291$ m
 $L = 160.551$ m

TOTAL BILL OF MATERIAL

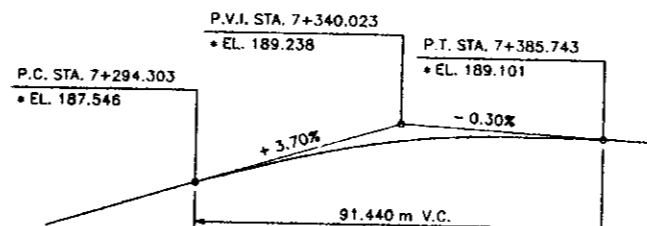
ITEM	UNIT	TOTAL
BITUMINOUS CONCRETE REMOVAL (DECK)	SQ. M.	503
CONCRETE REMOVAL (SPECIAL)	CU. M.	16
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18
NEOPRENE EXPANSION JOINT 50 mm	METER	63
CONCRETE SUPER-STRUCTURES	CU. M.	16
JACK AND REMOVE EXISTING BEARINGS	EACH	18
FURNISHING & ERECTING STRUCTURAL STEEL	KG.	1,630
REINFORCEMENT BARS, EPOXY COATED	KG.	2,110
BRIDGE SEAT SEALER	SQ. M.	85
BAR SPLICERS	EACH	56
APPROACH SLAB REPAIR	SQ. M.	30
BRIDGE DECK LATEX MODIFIED CONCRETE OVERLAY	SQ. M.	503
BRIDGE DECK SCARIFICATION	SQ. M.	503
DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ. M.	60
DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ. M.	20
DECK SLAB REPAIR (PARTIAL)	SQ. M.	120
PROTECTIVE SHIELD	SQ. M.	252
STEEL BRIDGE RAIL	METER	108
SLOPE WALL REMOVAL	SQ. M.	205
SLOPE WALL 100 mm	SQ. M.	205
EPOXY CRACK SEALING	METER	21
SLOPE WALL REPAIR	SQ. M.	2
HIGH PERFORMANCE ENHANCED SHOTCRETE	SQ. M.	20
POLYMER MODIFIED PORTLAND CEMENT MORTAR	CU. M.	0.6
COMPOSITE FIBER WRAP	SQ. M.	23

PLAN
 (TOP OF PROPOSED OVERLAY)

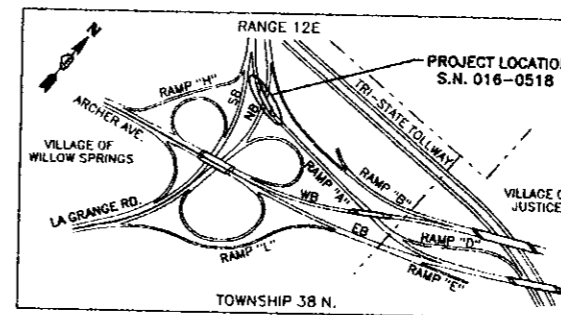


SUGGESTED STAGING CROSS SECTIONS

- NOTES:**
 1. FOR ADDITIONAL INFORMATION, SEE MAINTENANCE OF TRAFFIC DRAWINGS.
 2. STAGING SEQUENCE SHOWN ON THE PLANS IS INTENDED TO BE USED AS A GENERAL GUIDE FOR CONSTRUCTION.



THEORETICAL PROFILE - ARCHER AVE. (WESTBOUND)
 (TOP OF PROPOSED OVERLAY AT THE GRADE LINE)



LOCATION SKETCH

EXISTING STRUCTURE:

STA. 17+298.540, FAU ROUTE 3565, SECTION BR-H-6, BUILT IN 1959, REHABILITATED IN 1978.

SUPERSTRUCTURE: 3-SPAN, SIMPLY-SUPPORTED, COMPOSITE, REINFORCED CONCRETE DECK WITH WIDE FLANGE STEEL BEAMS AND MID-SPAN COVER-PLATES.

SUBSTRUCTURE: REINFORCED CONCRETE ABUTMENTS AND MULTIPLE COLUMN PIERS, SUPPORTED BY SPRFD FOOTINGS.

GENERAL NOTES

- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS M20, OPEN HOLES 22 mm, UNLESS OTHERWISE NOTED.
- CALCULATED WEIGHT OF STRUCTURAL STEEL = 1,630 KG.
- ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M300, TYPE I.
- FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OR GIRDERS NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
- REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31M, M-42M OR M-53M GRADE 400.
- PRIOR TO POURING THE NEW CONCRETE FOR THE DECK, ALL LOOSE RUST, LOOSE MILL SCALE, AND ALL OTHER LOOSE, DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE PORTIONS OF FLANGES OF STRINGERS AND DIAPHRAGMS IN CONTACT WITH CONCRETE. THE REMOVAL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SSPC SURFACE PREPARATION SPECIFICATIONS SP-3 FOR POWER TOOL CLEANING OR SP-2 FOR HAND TOOL CLEANING. COST INCIDENTAL TO CONTRACT.
- BRIDGE SEAT SEALER SHALL BE APPLIED TO THE SEAT AREA OF ALL ABUTMENTS AND PIERS.
- ALL DIMENSIONS ARE IN MILLIMETERS (mm), EXCEPT AS NOTED.

DESIGN SPECIFICATIONS

AASHTO 1992 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES WITH THE 1993, 1994 AND 1995 INTERIMS.

LOADING MS18

DESIGN STRESSES

CONCRETE: $f'_c = 24$ MPa (PROPOSED)
 $f'_c = 21$ MPa (EXISTING)

REINFORCEMENT STEEL: $f_y = 400$ MPa (PROPOSED & EXISTING)

STRUCTURAL STEEL: $f_y = 250$ MPa (PROPOSED)
 $f_y = 230$ MPa (EXISTING)

MAJOR WORK ITEMS

- RECONSTRUCTION OF EXPANSION JOINTS.
- REMOVAL OF EXISTING EXPANSION BEARINGS AND REPLACE WITH NEW ELASTOMERIC BEARINGS.
- PARTIAL AND FULL DEPTH REPAIRS TO THE BRIDGE DECK AND APPROACH SLABS.
- NEW CONCRETE OVERLAY ON BRIDGE DECK.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE

STEVENS EXPRESSWAY
 F.A.I. ROUTE 55
 RECONSTRUCTION PROJECT

ARCHER AVE. RESURFACING - POSTON RD. TO 65TH ST.

RAMP "A" OVER LAGRANGE ROAD NORTHBOUND
GENERAL PLAN & DETAILS
 STRUCTURE NO. 016-0518

McDonough Associates Inc.
 Engineers/Architects

DESIGNED BY: GAT
 CHECKED BY: AWW
 DRAWN BY: GAT

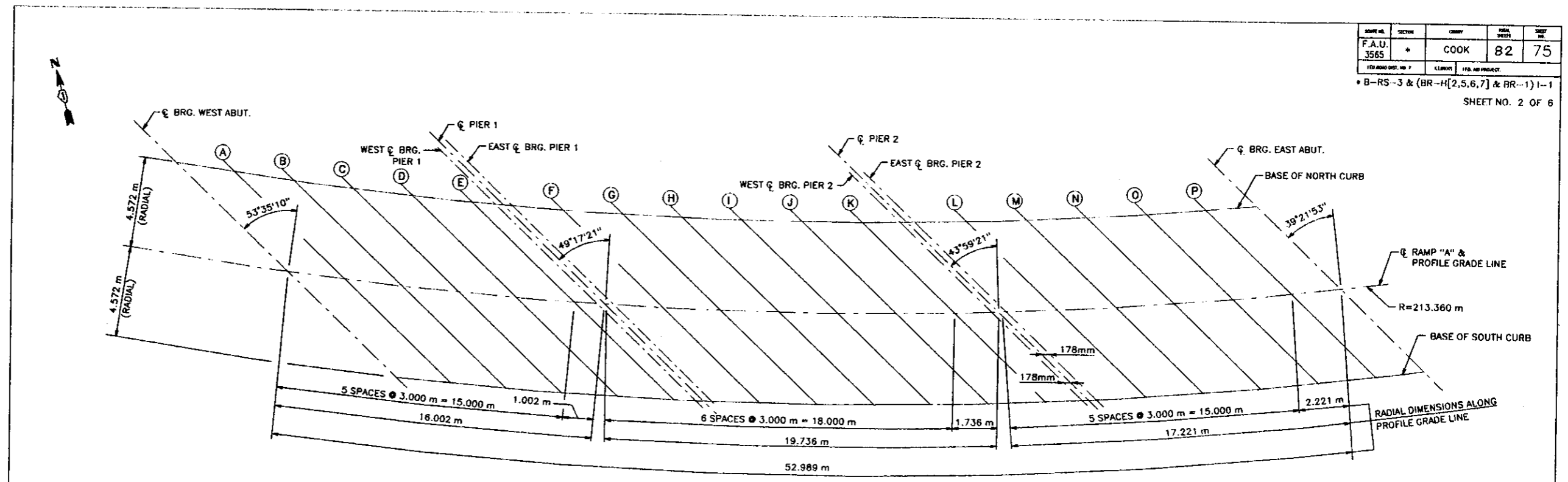
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PLOT DATE:08-01-1996. TIME:15:12:54. USER:507

DATE	SECTION	CHY	NO.	SHEET
F.A.U.	*	COOK	82	75
F.A.U. 3565		F.A.U. PROJECT		

* B-RS-3 & (BR-H[2,5,6,7] & BR-1) 1-1
SHEET NO. 2 OF 6



PLAN

PROPOSED TOP OF OVERLAY ELEVATION NORTH CURB

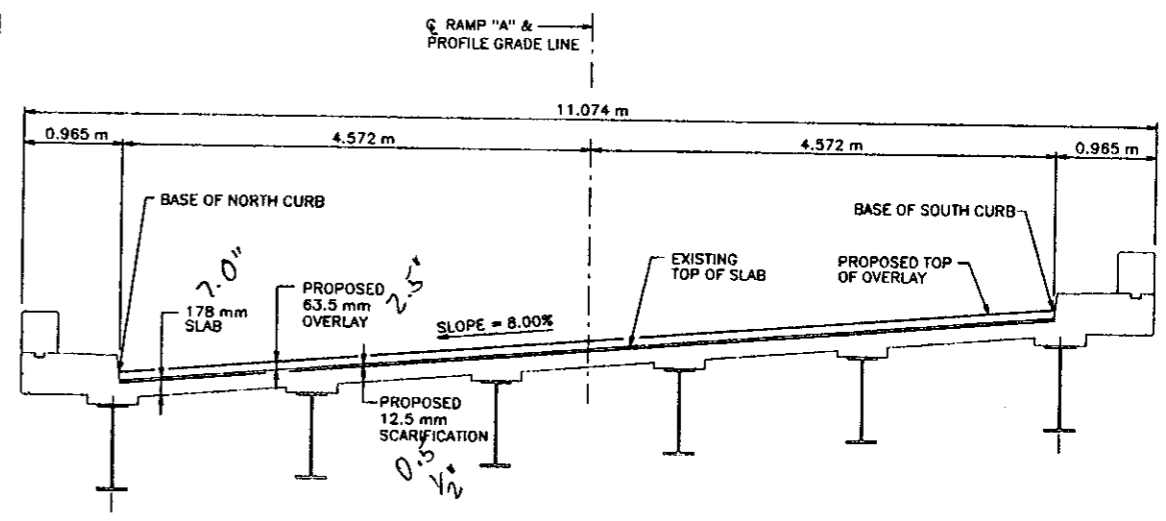
STATION	ELEVATION
Q BRG. W. ABUT.	7+264.792 186.418
A	7+267.857 186.531
B	7+270.923 186.645
C	7+273.989 186.758
D	7+277.055 186.872
E	7+280.120 186.985
WEST Q BRG. PIER 1	7+281.561 187.038
EAST Q BRG. PIER 1	7+281.937 187.052
F	7+285.002 187.166
G	7+288.068 187.279
H	7+291.134 187.392
I	7+294.199 187.506
J	7+297.265 187.618
K	7+300.330 187.726
WEST Q BRG. PIER 2	7+302.254 187.792
EAST Q BRG. PIER 2	7+302.625 187.805
L	7+305.691 187.907
M	7+308.756 188.006
N	7+311.822 188.101
O	7+314.888 188.193
P	7+317.953 188.281
Q BRG. E. ABUT.	7+320.357 188.348

PROPOSED TOP OF OVERLAY ELEVATION CENTERLINE & P.G.L.

STATION	ELEVATION
Q BRG. W. ABUT.	7+271.259 186.694
A	7+274.259 186.805
B	7+277.259 186.916
C	7+280.259 187.027
D	7+283.259 187.138
E	7+286.259 187.249
WEST Q BRG. PIER 1	7+287.084 187.279
EAST Q BRG. PIER 1	7+287.440 187.292
F	7+290.440 187.403
G	7+293.440 187.514
H	7+296.440 187.625
I	7+299.440 187.732
J	7+302.440 187.835
K	7+305.440 187.935
WEST Q BRG. PIER 2	7+306.819 187.980
EAST Q BRG. PIER 2	7+307.174 187.992
L	7+310.174 188.087
M	7+313.174 188.178
N	7+316.174 188.267
O	7+319.174 188.352
P	7+322.174 188.433
Q BRG. E. ABUT.	7+324.219 188.487

PROPOSED TOP OF OVERLAY ELEVATION SOUTH CURB

STATION	ELEVATION
Q BRG. W. ABUT.	7+277.216 186.951
A	7+280.153 187.059
B	7+283.090 187.168
C	7+286.027 187.277
D	7+288.964 187.385
E	7+291.901 187.494
WEST Q BRG. PIER 1	7+292.223 187.506
EAST Q BRG. PIER 1	7+292.562 187.519
F	7+295.499 187.627
G	7+298.436 187.733
H	7+301.373 187.835
I	7+304.310 187.935
J	7+307.247 188.031
K	7+310.184 188.124
WEST Q BRG. PIER 2	7+311.105 188.152
EAST Q BRG. PIER 2	7+311.447 188.163
L	7+314.384 188.251
M	7+317.321 188.336
N	7+320.258 188.418
O	7+323.195 188.497
P	7+326.132 188.572
Q BRG. E. ABUT.	7+327.865 188.615



TYPICAL CROSS SECTION (LOOKING EAST)

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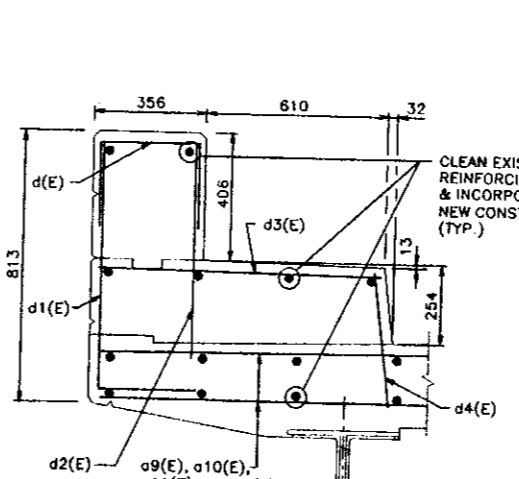
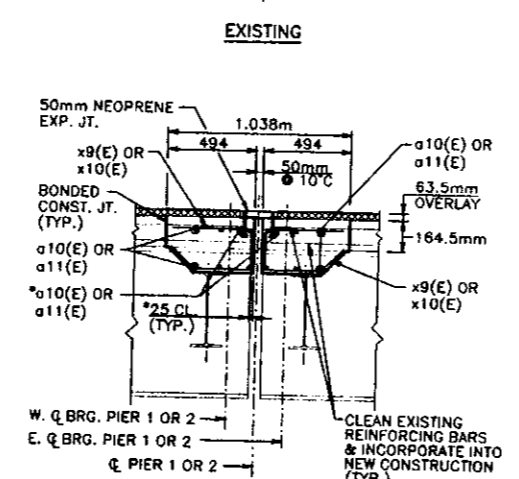
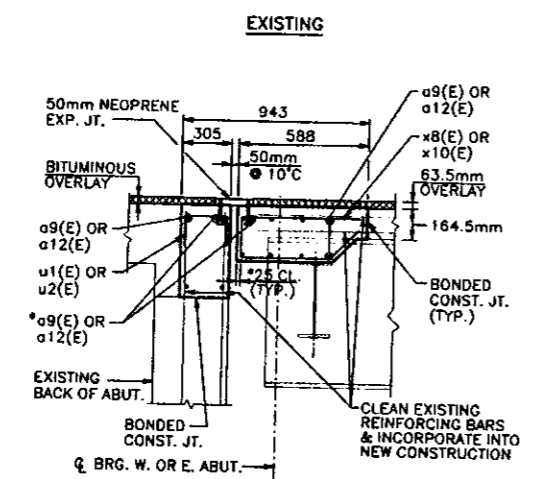
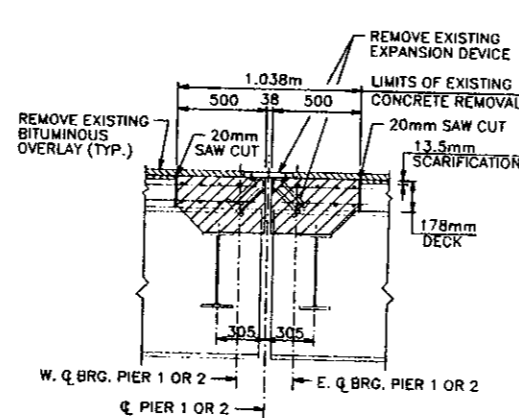
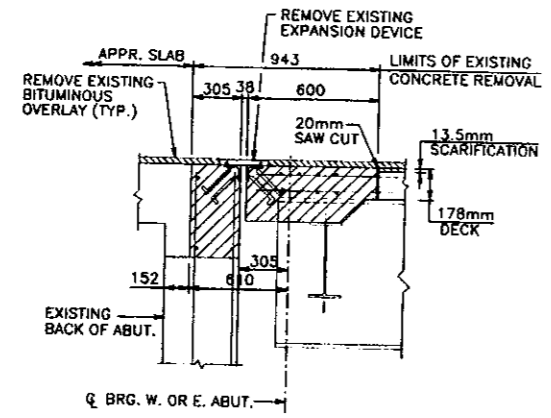
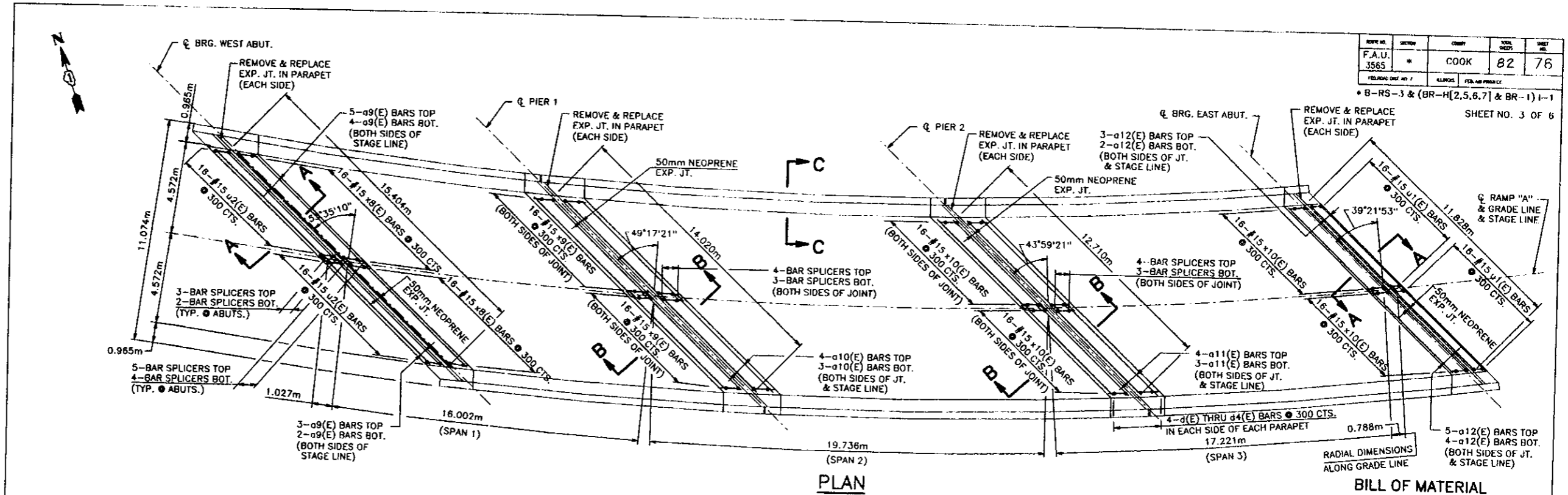
NO.	DATE	REVISION	BY

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	STEVENS ON EXPRESSWAY F.A.I. ROUTE 55 RECONSTRUCTION PROJECT
ARCHER AVE. RESURFACING - POSTON RD. TO 65TH ST.	
RAMP "A" OVER LAGRANGE ROAD NORTHBOUND TOP OF DECK ELEVATIONS STRUCTURE NO. 016-0518	
McDonough Associates Inc. Engineers/Architects	DESIGNED BY: JCN CHECKED BY: GAT DRAWN BY: JCN
SCALE: NONE	

PLOT DATE:08-01-1996. TIME:15:15:21. USER:507

DATE	3565	COOK	82	76
PROJECT	* B-RS-3 & (BR-H[2,5,6,7] & BR-1) I-1			

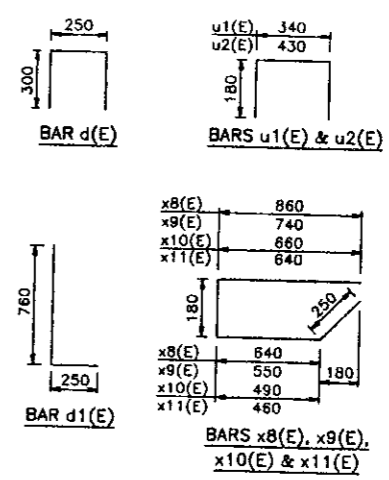
SHEET NO. 3 OF 6



NOTES:
 * PLACE u(E) AND x(E) BARS IN BACK OF ANCHOR BOLTS AS SHOWN IF REQUIRED TO MAINTAIN 25mm CL. (+0-3 mm). ANCHOR BOLTS SHOULD BE TIED TO u(E) AND x(E) BARS.
 REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
 ALL DIMENSIONS IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

BILL OF MATERIAL

BAR NO.	NO.	SIZE	LENGTH(m)	SHAPE	
a9(E)	28	#15	8.60	—	
a10(E)	28	#15	7.91	—	
a11(E)	28	#15	7.26	—	
a12(E)	28	#15	6.81	—	
d(E)	32	#15	0.85	□	
d1(E)	32	#15	1.01	□	
d2(E)	32	#15	0.61	—	
d3(E)	32	#15	0.86	—	
d4(E)	32	#15	0.30	—	
u1(E)	32	#15	0.70	□	
u2(E)	32	#15	0.79	□	
x8(E)	32	#15	1.93	□	
x9(E)	64	#15	1.72	□	
x10(E)	96	#15	1.58	□	
x11(E)	460	#15	0.46	□	
REINFORCEMENT BARS (EPOXY COATED)				kg	2110
BITUMINOUS CONCRETE REMOVAL (DECK)				sq. m	503
CONCRETE REMOVAL (SPECIAL)				cu. m	16
NEOPRENE EXPANSION JOINT 50mm				METER	63
CONCRETE SUPER-STRUCTURES				cu. m	16
BAR SPLICERS				EACH	56
BRIDGE DECK LATEX MODIFIED CONCRETE OVERLAY				sq. m	503
BRIDGE DECK SCARIFICATION				sq. m	503



DRAWING I.D.: H:\94029\DC\BRIDGES\FINAL\518.JT.DWG2. SCALE: 1:125

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE

STEVENSON EXPRESSWAY
 F.A.J. ROUTE 55
 RECONSTRUCTION PROJECT

ARCHER AVE. RESURFACING - POSTON RD. TO 65TH ST.
 RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
 DECK PLAN & DETAILS
 STRUCTURE NO. 016-0518

McDonough Associates Inc.
 Engineers/Architects

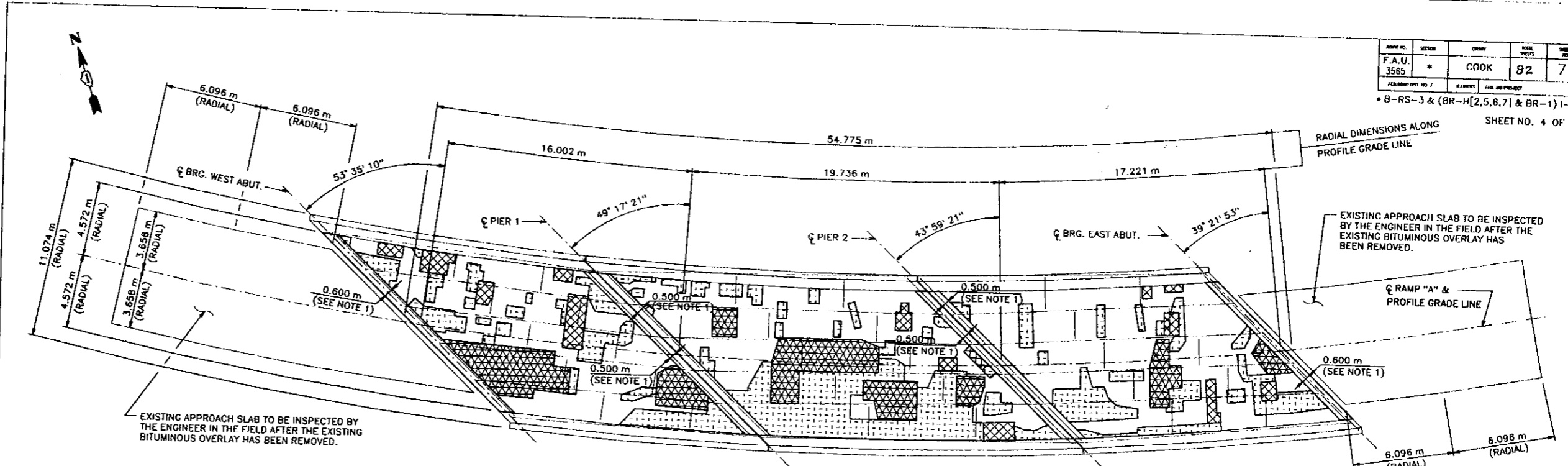
DESIGNED BY: JCN
 CHECKED BY: GAT
 DRAWN BY: JCN

SCALE: NONE

PLOT DATE: 08-01-1996. TIME: 15:16:48. USER: 1507

NO. 3585	SECTION *	DESIGNER COOK	SHEET 82	TOTAL SHEETS 77
F.A.U.		FEBRUARY 1997		
PROJECT NO. 1		F.A.I. PROJECT		

* B-RS-3 & (BR-H[2,5,6,7] & BR-1) 1-1
SHEET NO. 4 OF 6



EXISTING APPROACH SLAB TO BE INSPECTED BY THE ENGINEER IN THE FIELD AFTER THE EXISTING BITUMINOUS OVERLAY HAS BEEN REMOVED.

EXISTING APPROACH SLAB TO BE INSPECTED BY THE ENGINEER IN THE FIELD AFTER THE EXISTING BITUMINOUS OVERLAY HAS BEEN REMOVED.

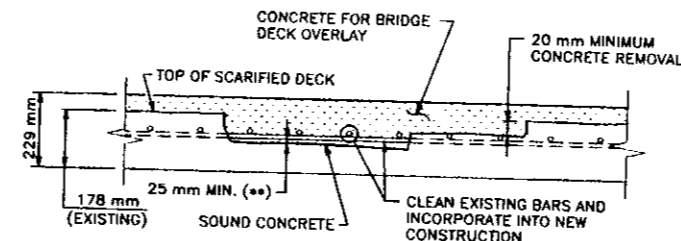
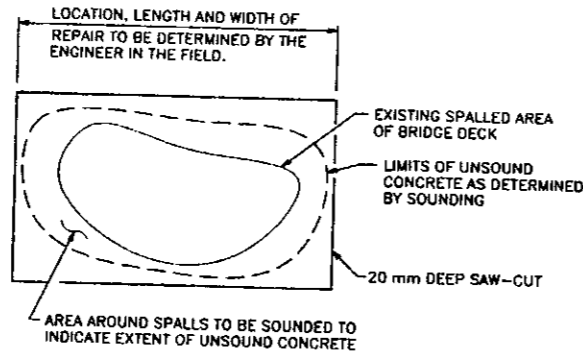
NOTE 1:
EXISTING CONCRETE DECK TO BE REMOVED AND REPLACED WITH NEW NEOPRENE JOINT WORK.

NOTE:
QUANTITIES FOR DECK SLAB REPAIR (PARTIAL & FULL-DEPTH) ARE ESTIMATES ONLY. ACTUAL LOCATIONS AND AREAS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

PLAN

LEGEND

- PARTIAL-DEPTH REPAIR AREA
- FULL-DEPTH REPAIR AREA (TYPE I)
- FULL-DEPTH REPAIR AREA (TYPE II)



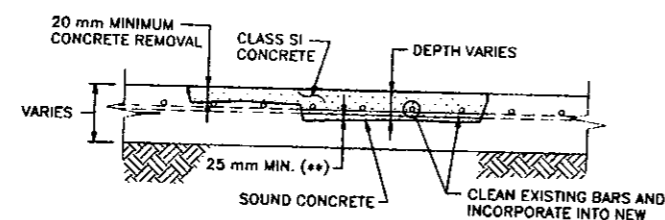
()** NOTE: IF ONE-HALF OF THE EXISTING REINFORCEMENT BAR IS EXPOSED, CONCRETE SHALL BE REMOVED A MINIMUM OF 25 mm BENEATH BAR.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (PARTIAL)	SQ. M.	120
DECK SLAB REPAIR (FULL-DEPTH, TYPE I)	SQ. M.	20
DECK SLAB REPAIR (FULL-DEPTH, TYPE II)	SQ. M.	60
APPROACH SLAB REPAIR	SQ. M.	30

BRIDGE DECK & APPROACH SLAB REPAIRS

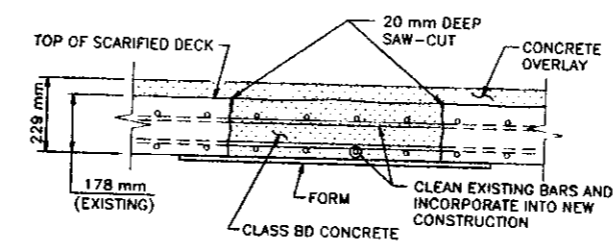
DEFECTIVE CONCRETE AREAS, AFTER THE EXISTING OVERLAY HAS BEEN STRIPPED, SHALL BE REMOVED TO THE WIDTH, LENGTH AND DEPTH REQUIRED TO REACH SOUND CONCRETE AS DETERMINED IN THE FIELD BY THE ENGINEER.



()** NOTE: IF ONE-HALF OF THE EXISTING REINFORCEMENT BAR IS EXPOSED, CONCRETE SHALL BE REMOVED A MINIMUM OF 25 mm BENEATH BAR.

PARTIAL DEPTH REPAIRS

ALL WORK SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.



FULL DEPTH REPAIRS

(WHEN DEPTH OF REPAIR IS GREATER THAN 90 mm)
ALL WORK SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

APPROACH SLAB REPAIR

ALL WORK SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

DRAWING I.D.: H:\94029\DC\BRIDGES\FINAL\51BPATCH.DWG, SCALE: 1:125

NO.	DATE	REVISION	BY

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

STEVENS ON EXPRESSWAY
F.A.I. ROUTE 55
RECONSTRUCTION PROJECT

ARCHER AVE. RESURFACING - POSTON RD. TO 65TH ST.

**RAMP "A" OVER LA GRANGE ROAD NORTHBOUND
DECK REPAIR PLAN & DETAILS**
STRUCTURE NO. 016-0518

McDonough Associates Inc.
Engineers/Architects

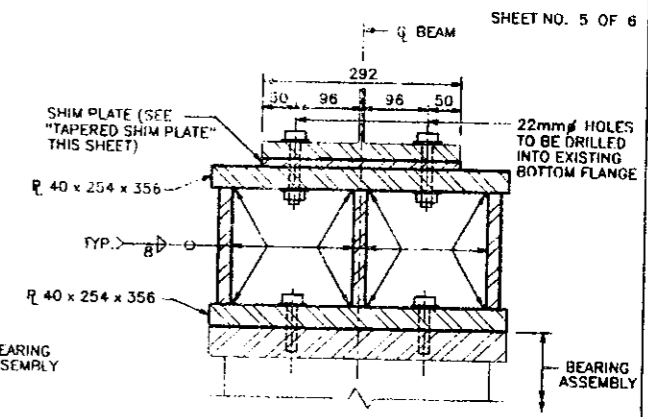
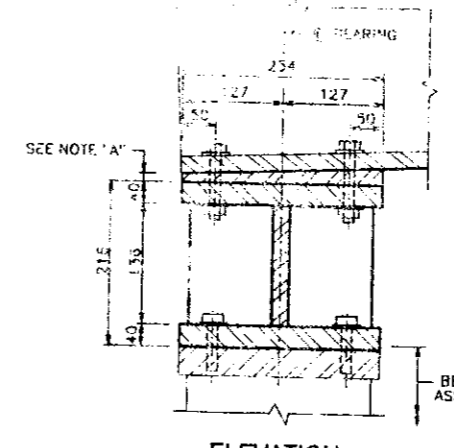
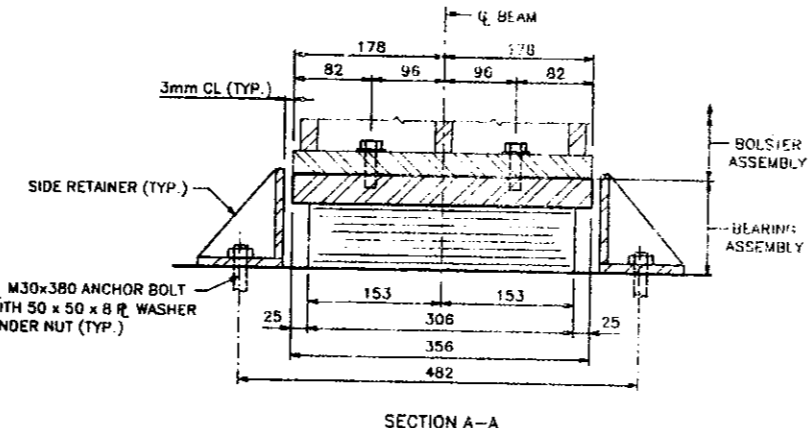
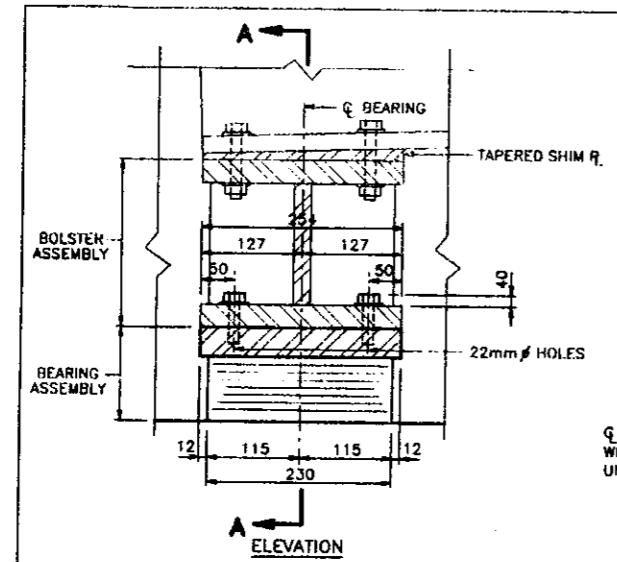
DESIGNED BY: GAT
CHECKED BY: AWW
DRAWN BY: GAT

SCALE: 1:125

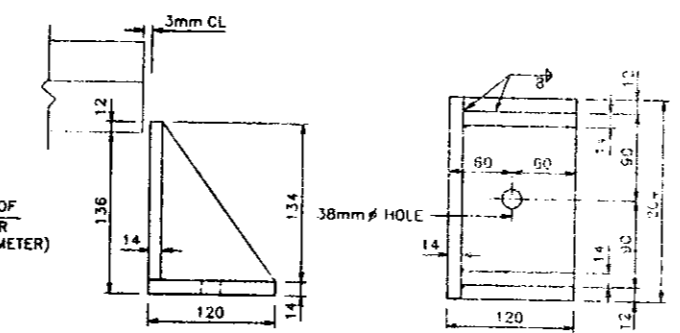
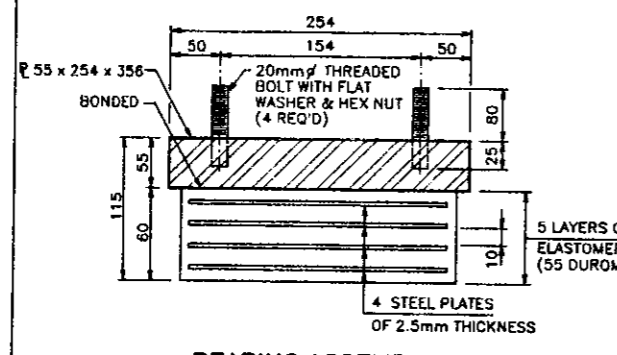
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REV. NO.	SECTION	DATE	SHEET NO.
F.A.U.		COOK	82
3565			78
PROJECT NO. 7		F.I.L. PROJECT	
B-RS-3 & (BR-H[2,5,6,7] & BR-1)-1			

SHEET NO. 5 OF 6



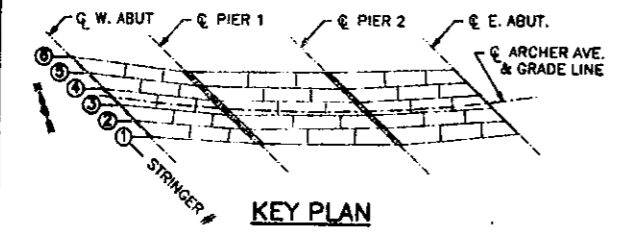
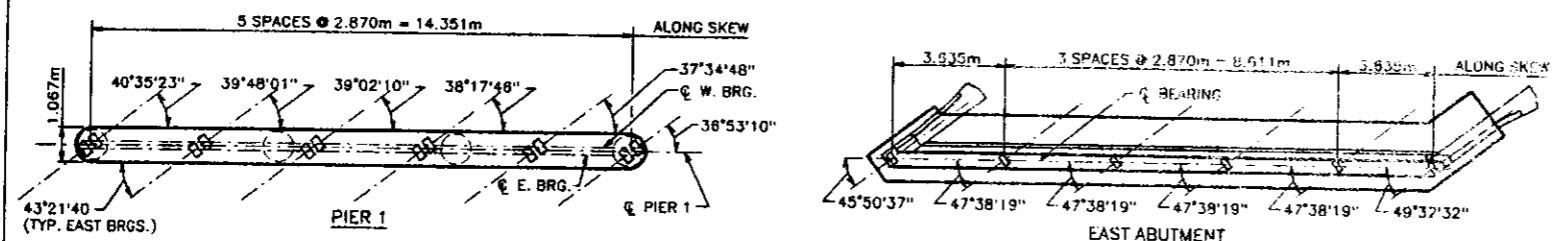
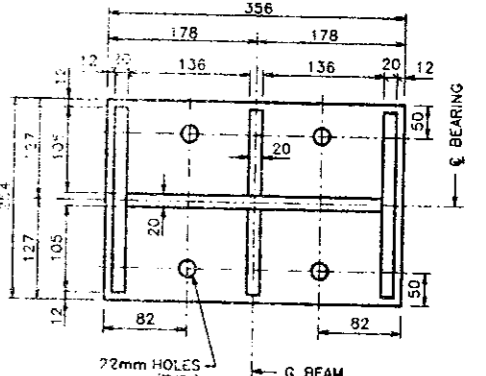
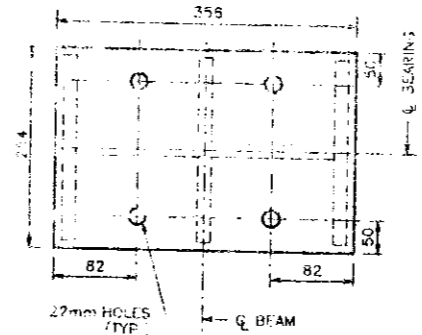
TYPE I ELASTOMERIC EXPANSION BEARING



NOTES: SHIM PLATES SHALL NOT BE PLACED UNDER BEARING ASSEMBLY

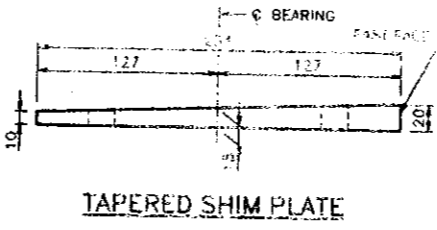
NOTES: EQUIVALENT ROLLED ANGLE WITH STIFFENERS WILL BE ALLOWED IN LIEU OF WELDED PLATES. WEIGHT INCLUDED WITH STRUCTURAL STEEL.

NOTE "A": FOR THICKNESS OF SHIM PLATES SEE "TAPERED SHIM PLATE" THIS SHEET



EXISTING BEAM REACTION TABLE

ITEM	W. Q. BRG. PIER 1	E. Q. BRG. PIER 1	Q. BRG. E. ABUT.
R _{DL} (kN)	154	189	166
R _{LL} (kN)	162	169	165
R _{IMP} (kN)	45	44	45
R _{TOT} (kN)	381	402	376



BILL OF MATERIAL

ITEM	UNIT	TOTAL
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18
JACK AND REMOVE EXISTING BEARINGS	EACH	18
FURNISHING & ERECTING STRUCTURAL STEEL	kg	16,30

NOTES:

- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO INSTALLING AND ORDERING OF MATERIALS. SHIM PLATES ARE NOT TO BE PLACED UNDER THE BEARING ASSEMBLIES.
- DISPOSAL OF EXISTING BEARINGS, PLATES, AND OTHER BEARING HARDWARE IS INCIDENTAL TO "JACK AND REMOVE EXISTING BEARINGS".
- BURN OFF EXISTING ANCHOR BOLTS FLUSH WITH CONCRETE SEAT PRIOR TO INSTALLING NEW BEARING.
- FOR JACKING AND REMOVING EXISTING BEARINGS, SEE SPECIAL PROVISIONS.
- ALL STEEL SHALL BE AASHTO M 270 GRADE 250, UNLESS OTHERWISE NOTED.
- REMOVAL OF EXISTING BEARING SOLE PLATE SHALL BE REMOVED IN A SAFE MANNER WHICH DOES NOT CAUSE DAMAGE TO THE EXISTING BEAM BOTTOM FLANGE.
- EACH BEARING ASSEMBLY SHALL BE FURNISHED WITH A 1 mm, 2 mm & 3 mm SHIM PLATE PACKAGE, WHICH IS INCIDENTAL TO "ELASTOMERIC BEARING ASSEMBLY, TYPE I".
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

STEVENSSON EXPRESSWAY
F.A.I. ROUTE 55
RECONSTRUCTION PROJECT

ARCHER AVE. RESURFACING - POSTON RD. TO 65TH ST.

**RAMP "A" OVER LAGRANGE ROAD NORTHBOUND
ELASTOMERIC BEARING & BOLSTER DETAILS**
STRUCTURE NO. 016-0518

McDonough Associates Inc.
Engineers/Architects

DESIGNED BY: GAT
CHECKED BY: AWW
DRAWN BY: JCN

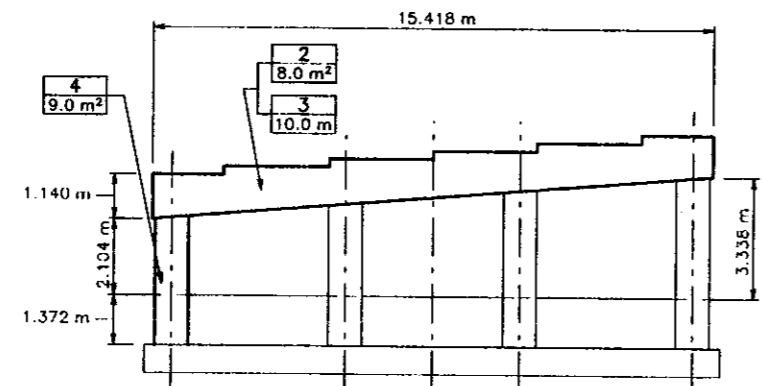
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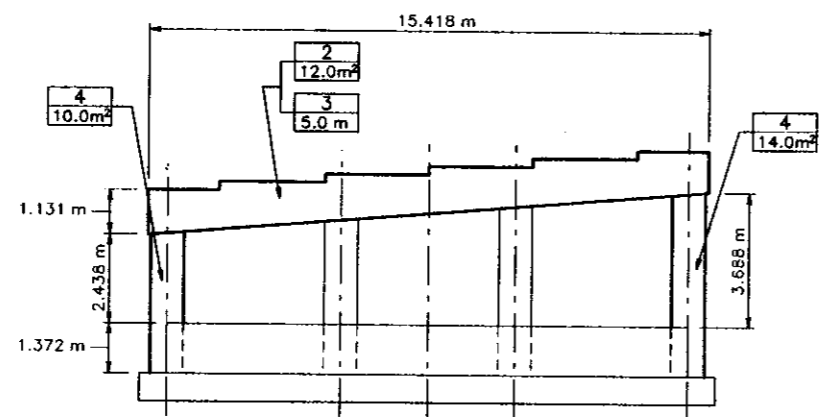
PLOT DATE: 08-01-1996, TIME: 17:49:42, USER: 505

NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS	NO. OF SHEETS
F.A.U. 3585	*	COOK	82	79

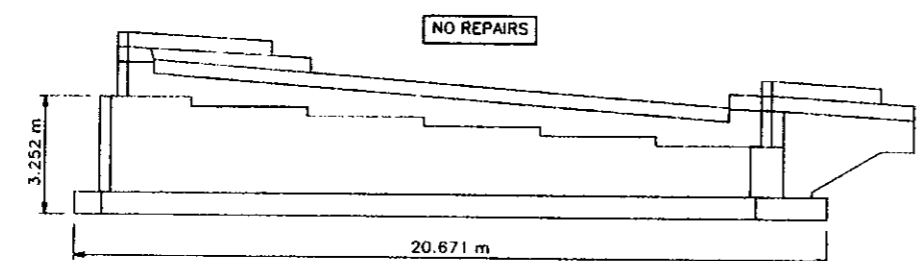
* B-RS-3 & (BR-H[2.5,6,7] & BR-1) I-1
SHEET NO. 6 OF 6



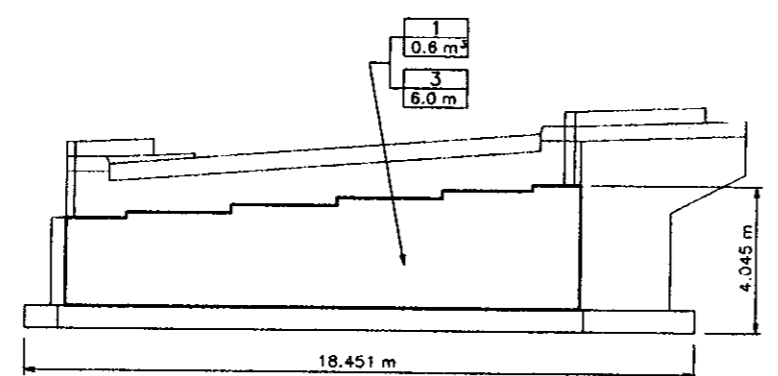
PIER 1
(LOOKING EAST)



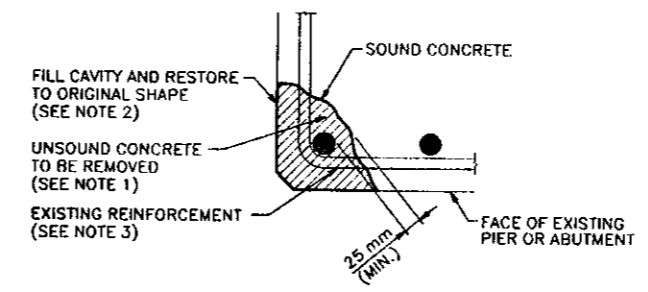
PIER 2
(LOOKING EAST)



WEST ABUTMENT



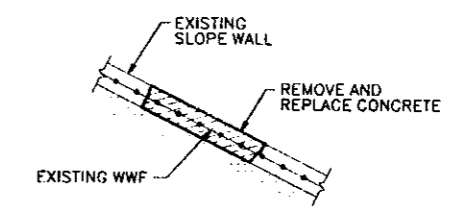
EAST ABUTMENT



CONCRETE REPAIR DETAIL

NOTES:

1. REMOVE ALL CRACKED AND UNSOUND CONCRETE TO SOUND SUBSTRATE. REINFORCEMENT BARS THAT ARE PARTIALLY EXPOSED UP TO HALF OF THE BAR DIAMETER, BUT ARE EMBEDDED IN SOUND CONCRETE, NEED NOT BE FURTHER EXPOSED UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
2. IF EXISTING REINFORCEMENT BECOMES EXPOSED DURING THE REMOVAL PROCESS, THEN THE CAVITY MUST BE FILLED WITH HIGH PERFORMANCE SHOTCRETE. IF EXISTING REINFORCEMENT IS NOT EXPOSED FOR MORE THAN ONE HALF OF THE BAR DIAMETER THEN THE CONTRACTOR HAS THE OPTION TO FILL THE CAVITY WITH EITHER HIGH PERFORMANCE SHOTCRETE OR POLYMER MODIFIED PORTLAND CEMENT MORTAR.
3. REINFORCING BARS THAT HAVE BEEN CUT OR HAVE LOST 25% OR MORE OF THEIR ORIGINAL CROSS-SECTIONAL AREA SHALL BE SUPPLEMENTED BY NEW IN-KIND REINFORCEMENT BARS. NEW BARS SHALL BE LAPPED A MINIMUM OF 32 BAR DIAMETERS OR AN APPROVED MECHANICAL BAR SPLICER SHALL BE USED. THE FURNISHING AND REPLACING OF SUPPLEMENTAL REINFORCEMENT BARS SHALL BE INCLUDED IN THIS ITEM.



SLOPE WALL REPAIR

NOTES:

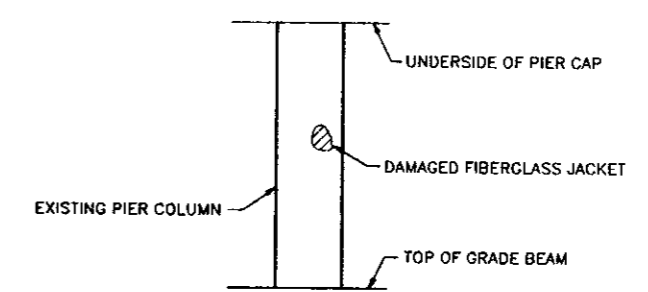
1. REMOVE DETERIORATED AND CRACKED CONCRETE SECTIONS AT LOCATIONS DIRECTED BY THE ENGINEER, WITHOUT DAMAGING THE EXISTING WELDED WIRE FABRIC (WWF).
2. IF THE EXISTING WWF IS DAMAGED, OR IF PORTIONS THEREOF ARE MISSING, THE CONTRACTOR SHALL REPLACE THE DAMAGED OR MISSING SECTIONS WITH NEW WWF. THE LAP LENGTH SHALL BE AT LEAST TWO MESH SPACINGS.
3. POUR CLASS SI CONCRETE TO MATCH SURFACE OF EXISTING SLOPE WALL.

LEGEND

	REPAIR CODE NUMBER
	AREA OF REPAIR (unit)
REPAIR CODES	
①	POLYMER MODIFIED PORTLAND CEMENT MORTAR
②	HIGH PERFORMANCE ENHANCED SHOTCRETE
③	EPOXY CRACK SEALING
④	COMPOSITE FIBER WRAP
⑤	SLOPE WALL REMOVAL
⑥	SLOPE WALL 100 mm
⑦	SLOPE WALL REPAIR

BILL OF MATERIAL

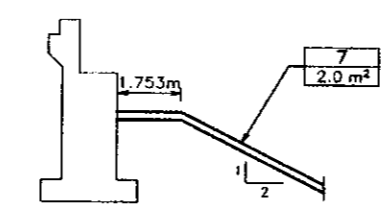
ITEM	UNIT	TOTAL
POLYMER MODIFIED PORTLAND CEMENT MORTAR	CU. M.	0.6
HIGH PERFORMANCE ENHANCED SHOTCRETE	SQ. M.	20.0
EPOXY CRACK SEALING	METER	21.0
COMPOSITE FIBER WRAP	SQ. M.	23.0
SLOPE WALL REMOVAL	SQ. M.	205.0
SLOPE WALL 100 mm	SQ. M.	205.0
SLOPE WALL REPAIR	SQ. M.	2.0



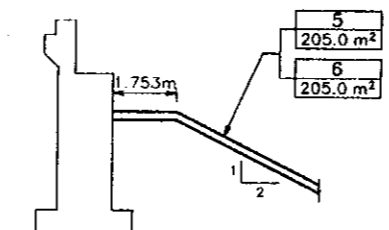
COMPOSITE FIBER WRAP REPAIR

NOTES:

1. THE EXISTING FIBERGLASS JACKETS SHALL BE REMOVED AT ALL LOCATIONS WHERE THEY HAVE HOLES, OR ARE DAMAGED TO THE POINT THAT THEY DO NOT PROPERLY ENCAPSULATE THE CONCRETE COLUMNS ANYMORE.
2. THE CONCRETE COLUMNS, WHERE EXISTING FIBERGLASS JACKETS HAVE BEEN REMOVED OR ARE MISSING, SHALL BE REPAIRED AND RESTORED TO THEIR ORIGINAL SIZE AND SHAPE. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES OUTLINES FOR CONCRETE REPAIR.
3. THE HIGH STRENGTH COMPOSITE FIBER WRAP SYSTEM SHALL BE INSTALLED OVER THE REPAIRED COLUMNS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

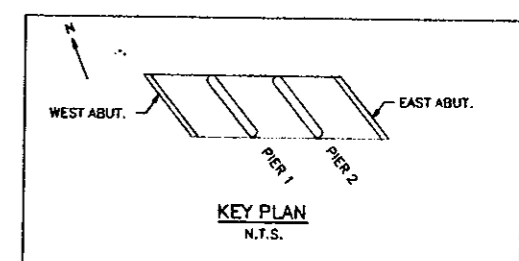


WEST ABUTMENT & SLOPEWALL
(LOOKING NORTH)



EAST ABUTMENT & SLOPEWALL
(LOOKING SOUTH)

ELEVATIONS



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
RECONSTRUCTION PROJECT

ARCHER AVE. RESURFACING - POSTON RD. TO 65TH ST.

**RAMP "A" OVER LAGRANGE ROAD NORTHBOUND
SUBSTRUCTURE REPAIR**
STRUCTURE NO. 016-0518

McDonough Associates Inc.
Engineers/Architects

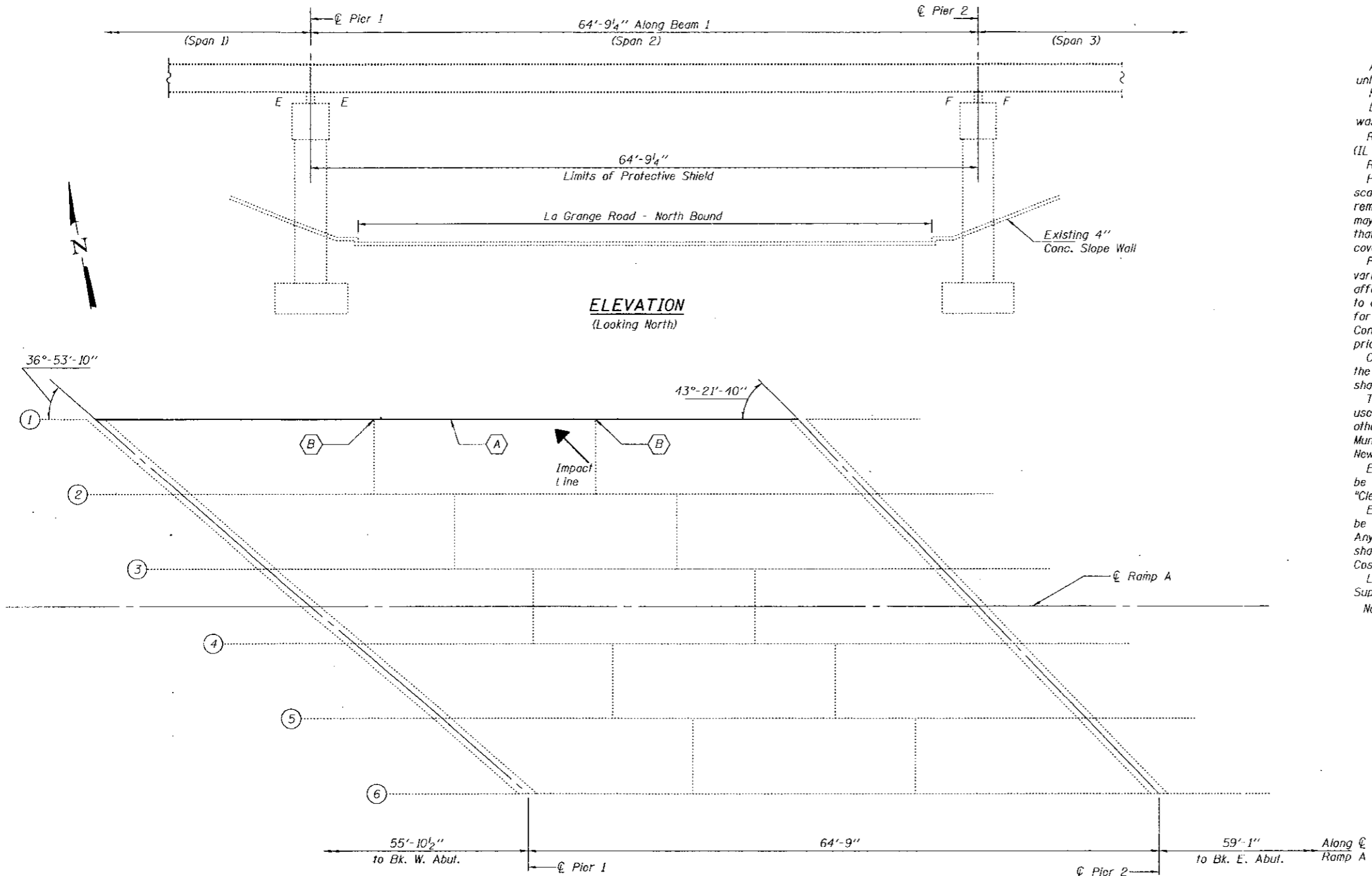
DESIGNED BY: JCN
CHECKED BY: AWW
DRAWN BY: JCN

SCALE: NONE

DRAWING ID: H:\94029\DC\BRIDGES\518SUB.DWG, SCALE: 1/8" = 1'-0"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 1
FAP 330		COOK	1-4	7	6 SHEETS
FIELDING DIST. NO. 7	BLINDS	FIELD NO. PROJECT	Contract Number:		



GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Fasteners shall be high strength bolts.

Diaphragm connection holes shall be 15/16" φ for 3/4" φ bolts. Two hardened washers shall be required at diaphragm connections.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

Cost of removal and re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included with Furnishing and Erecting Structural Steel.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Reddish Brown, Munsell No. 2.5G 4/8. See Special Provision "Cleaning and Painting New Metal Structures".

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

No field welding permitted except as specified in the contract documents.

ELEVATION
(Looking North)

PARTIAL FRAMING PLAN

- A - Remove and Replace Beam
- B - Top & Bottom Clip Angles to be replaced.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	22.8
Concrete Superstructures	Cu. Yd.	22.8
Furnishing and Erecting Structural Steel	Pound	11,050
Reinforcement Bars, Epoxy Coated	Pound	3050
Stud Shear Connectors	Each	76
Removing and Re-erecting Existing Rolling	Foot	67
Mechanical Splice	Each	226
Structural Steel Removal	Pound	11,050
Protective Shield	Sq. Ft.	432
Protective Coat	Sq. Yd.	63.3

DESIGNED *[Signature]*
CHECKED Victor H. Veliz
DRAWN Steffen
CHECKED AJB VHV

JANUARY 28, 2008
EXAMINED *[Signature]*
PASSED *[Signature]*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

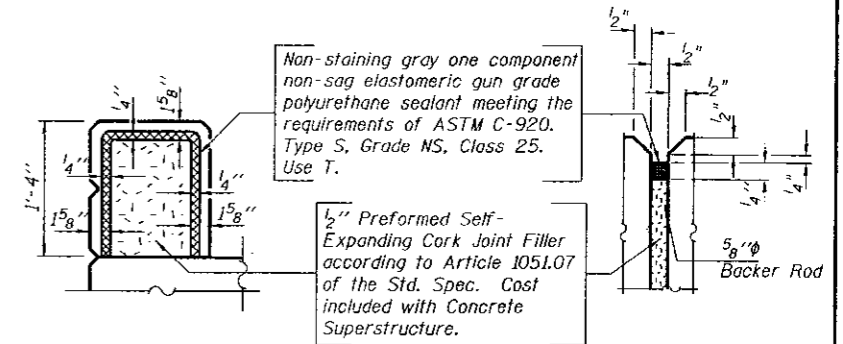


PLAN AND ELEVATION
FAP 330 (E.B. 79th St.)
COOK COUNTY
SN 016-0518

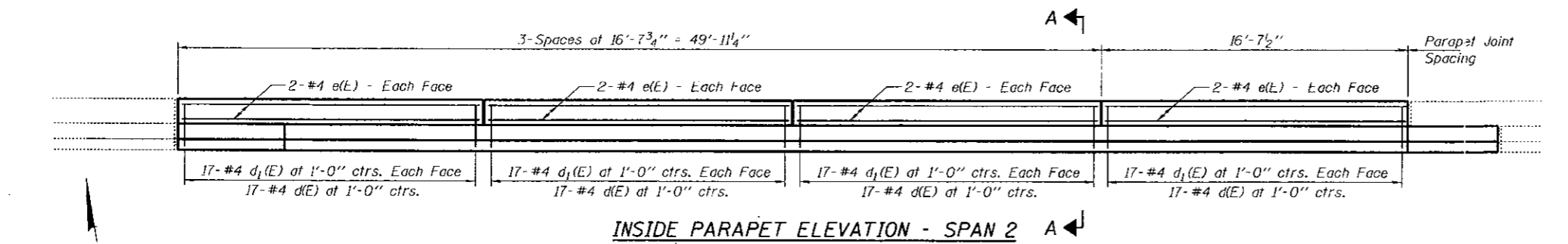
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 2
FAP 330		COOK	14	8	6 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

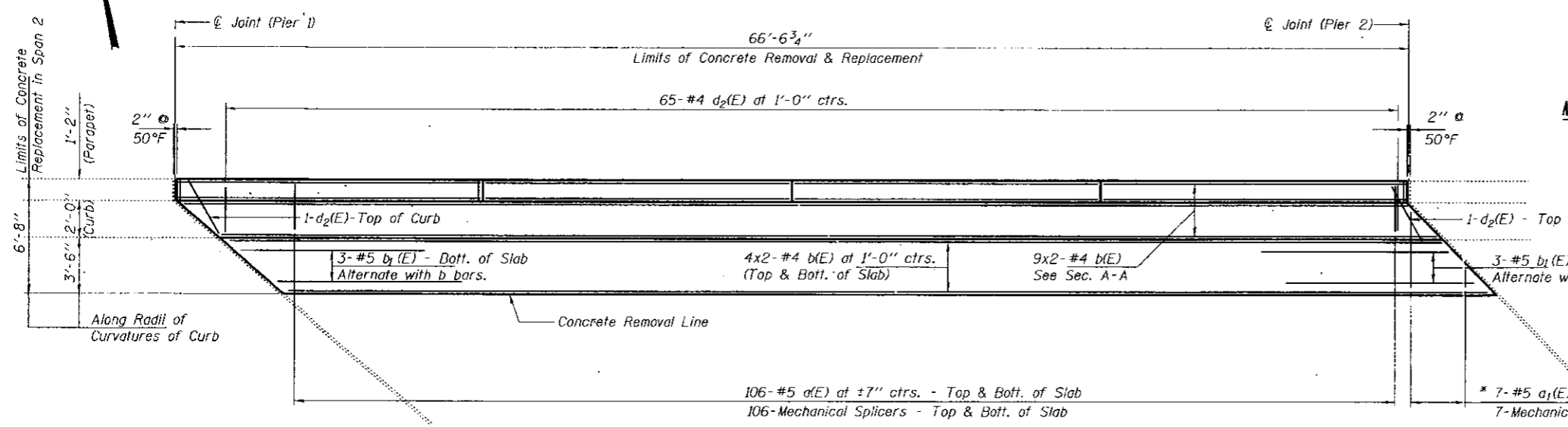
Contract Number:



PARAPET JOINT DETAILS



INSIDE PARAPET ELEVATION - SPAN 2



PARTIAL DECK PLAN - SPAN 2

MIN. BAR LAP
#4 = 1'-8"

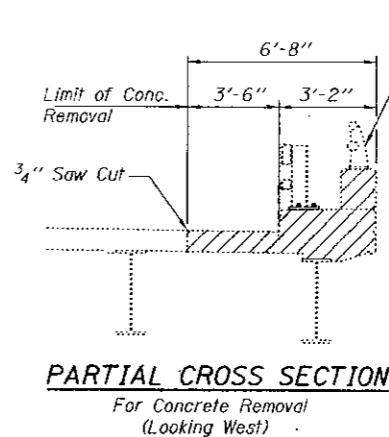
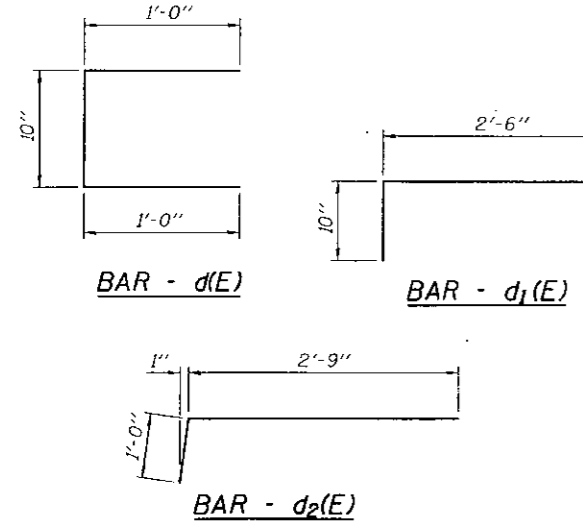
Notes:

Existing Bridge rail sections in Span 2 shall be removed, stored and re-used. For details see sheet 5 of 6. Cost included with Removing and Re-erecting Existing Railing.

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal areas shall be saw cut 3/4" prior to the removal of concrete.

Existing Neoprene Expansion Joint shall be removed, stored, and replaced at both Piers as required for concrete removal and replacement. Care shall be taken not to damage the material during all phases of construction. Cost included with Concrete Superstructure. See Detail A.

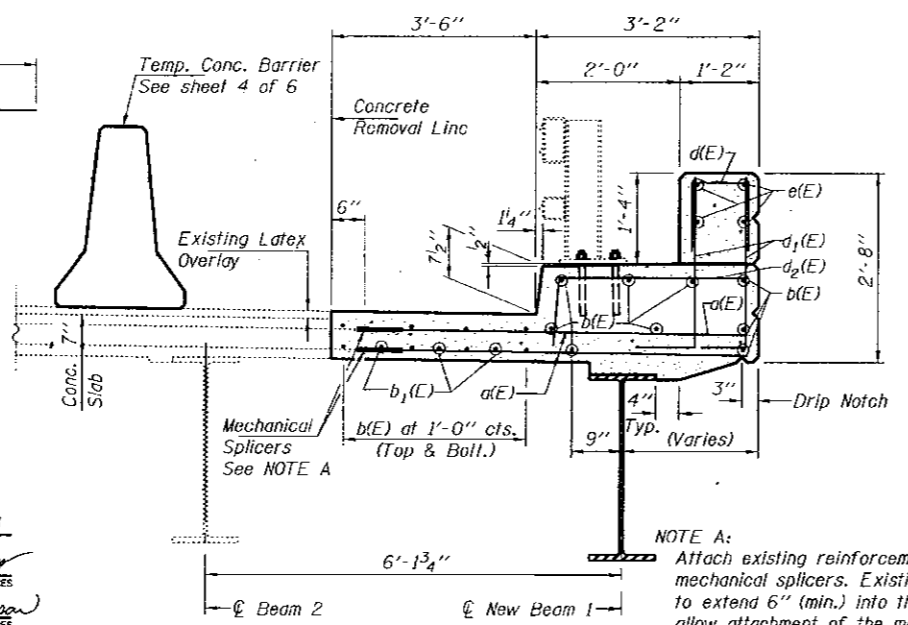
Bars indicated thus 4 x 2-#5 etc. indicates 4 line of bars with 2 lengths per line.



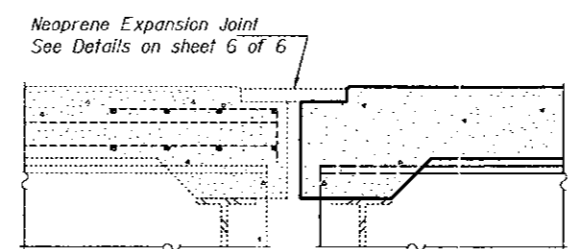
Existing Metal Handrail shall be removed. Cost included with Concrete Removal.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	212	#5	6'-2"	—
a ₁ (E)	14	#5	5'-2"	—
b(E)	34	#4	34'-0"	—
b ₁ (E)	6	#5	10'-0"	—
d(E)	68	#4	2'-10"	⊥
d ₁ (E)	136	#4	3'-4"	⊥
d ₂ (E)	67	#4	3'-9"	⊥
e(E)	16	#4	16'-4"	—
Concrete Removal		Cu. Yd.	22.8	
Concrete Superstructure		Cu. Yd.	22.8	
Reinforcement Bars, Epoxy Coated		Pound	3050	



SECTION A-A



DETAIL A

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

JANUARY 28, 2008

EXAMINED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES

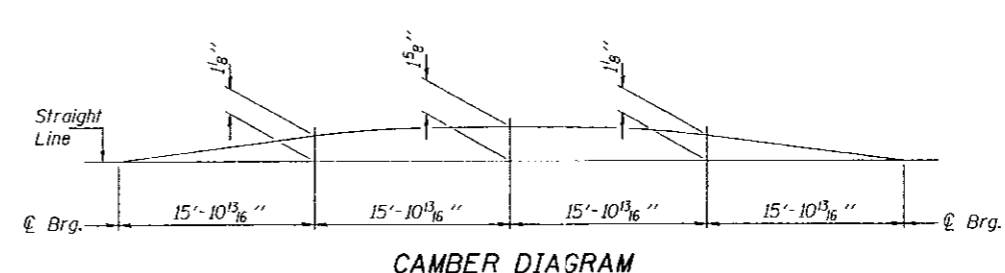
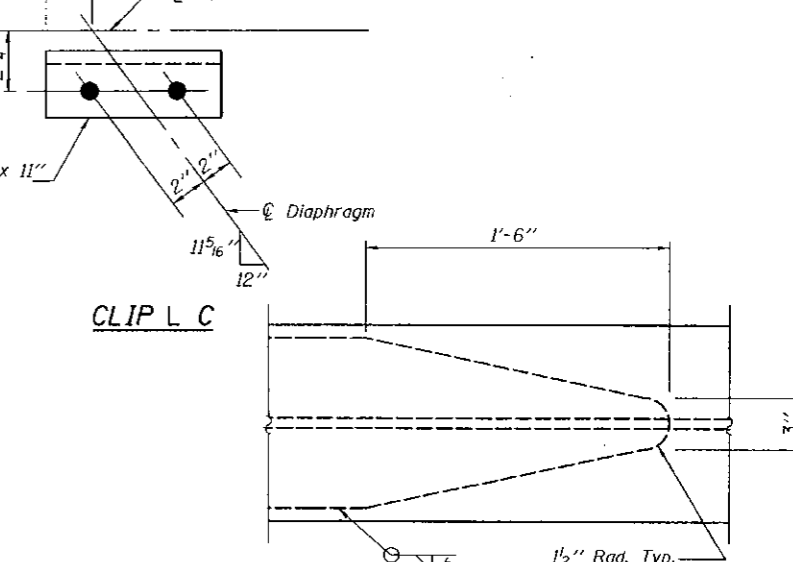
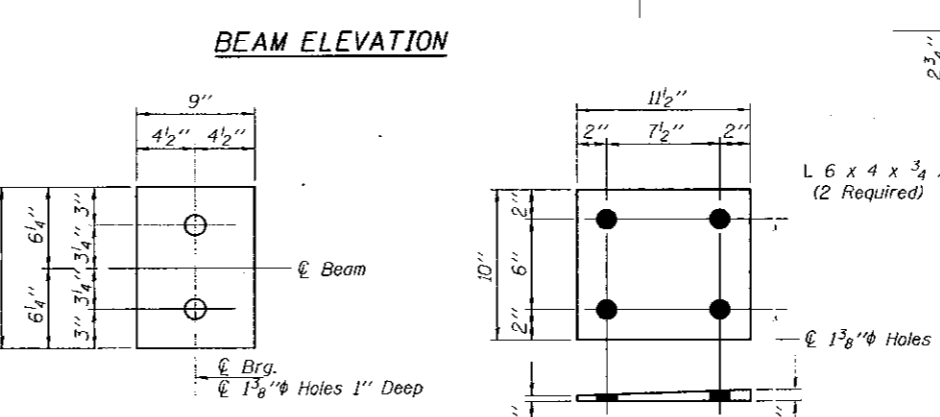
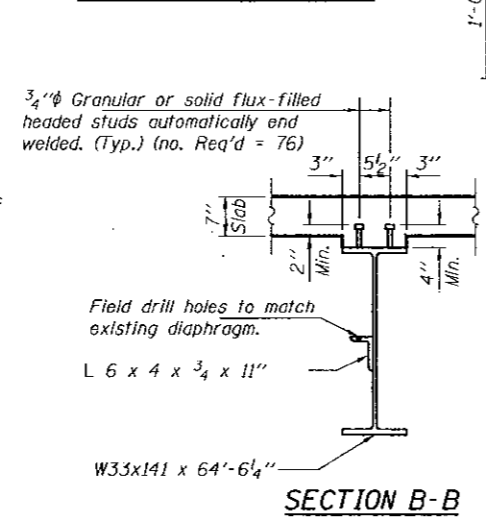
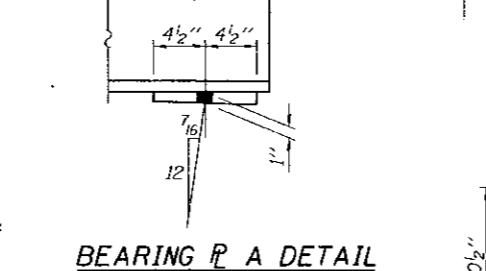
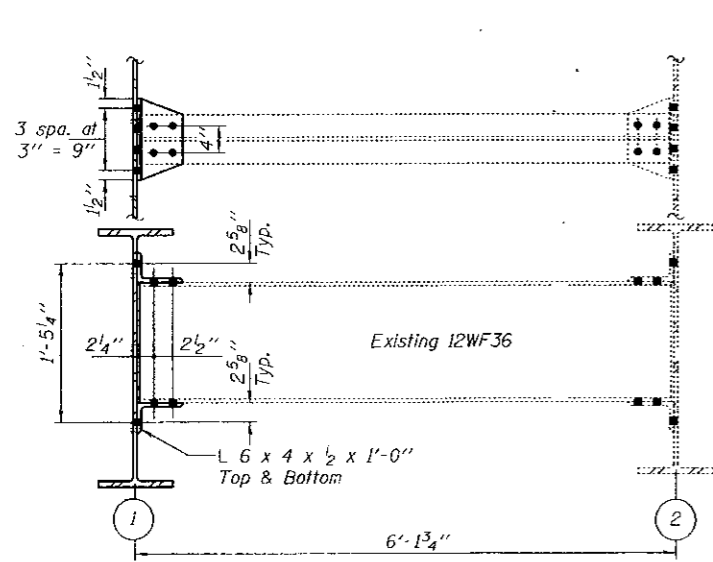
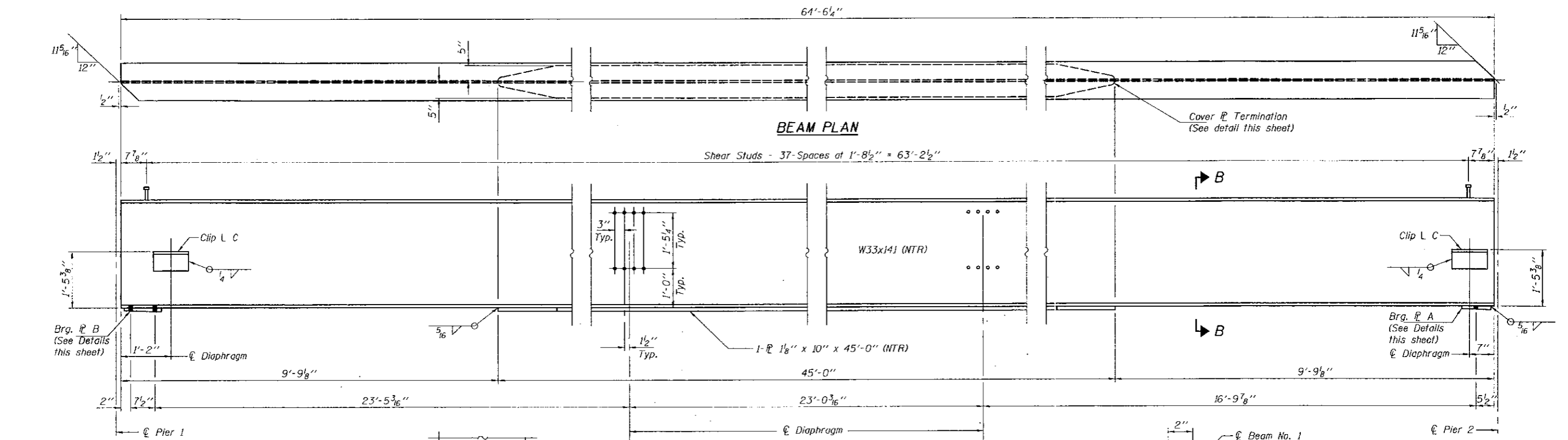
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

REPAIR DETAILS
FAP 330 (E.B. 79th St.)
COOK COUNTY
SN 016-0518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	DISTRICT	COUNTY	SECT.	SHEET	SHEET NO. 3 6 SHEETS
FAP 330		COOK	14	9	
FED. ROAD DIST. NO. 7	BLDG. NO.	FED. AID PROJECT NO.			

Contract Number:



DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

JANUARY 28, 2008
EXAMINED *Carl Proyer*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

REPAIR DETAILS
FAP 330 (E.B. 79th St.)
COOK COUNTY
SN 016-0518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

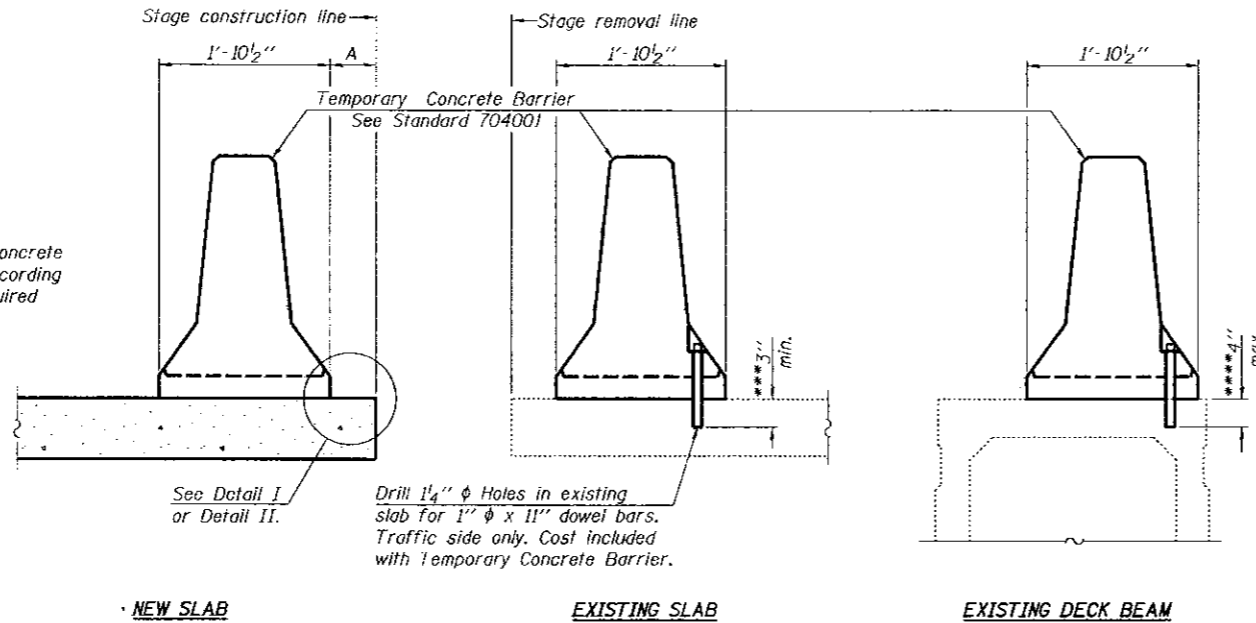
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 330		COOK	14	10
FED. ROAD DIST. NO. 7	ILLINOIS	FID. AID PROJECT		

SHEET NO. 4

6 SHEETS

Contract Number:

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

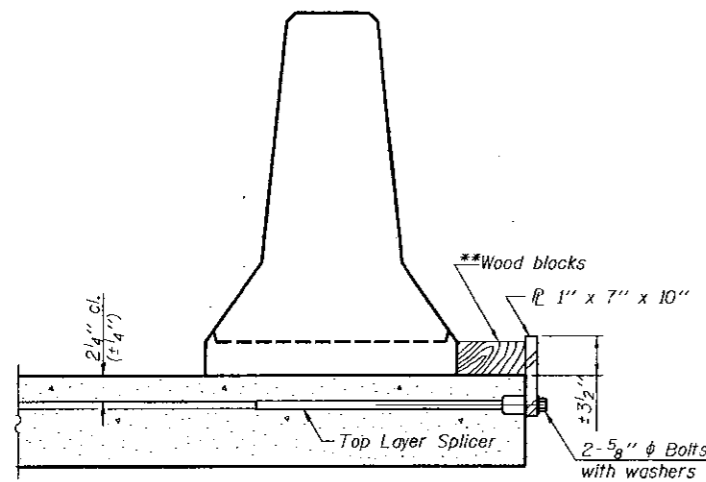
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

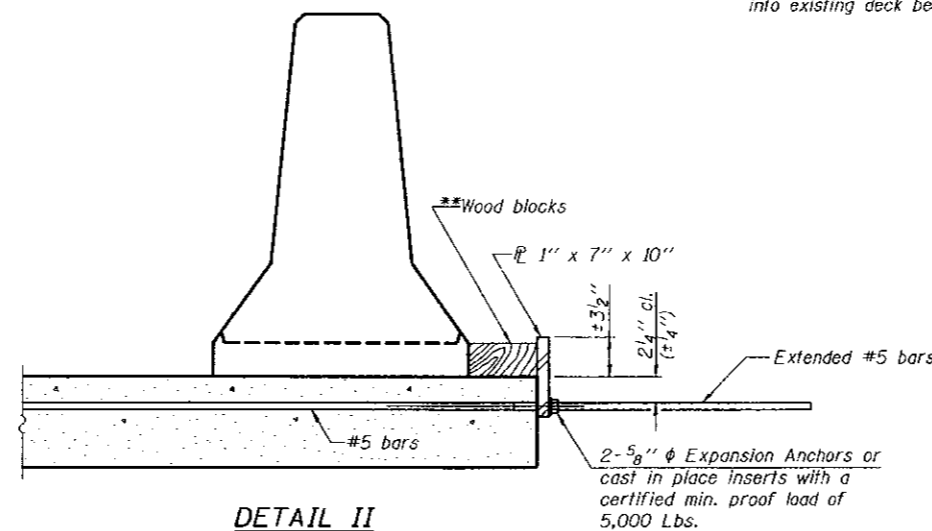
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

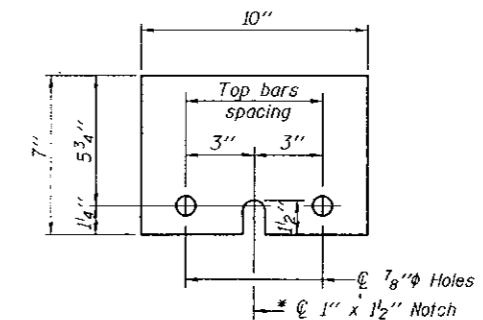
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface, and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x 10"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

JANUARY 28, 2008
 EXAMINED *A. Carl Pines*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

R-27

9-3-07

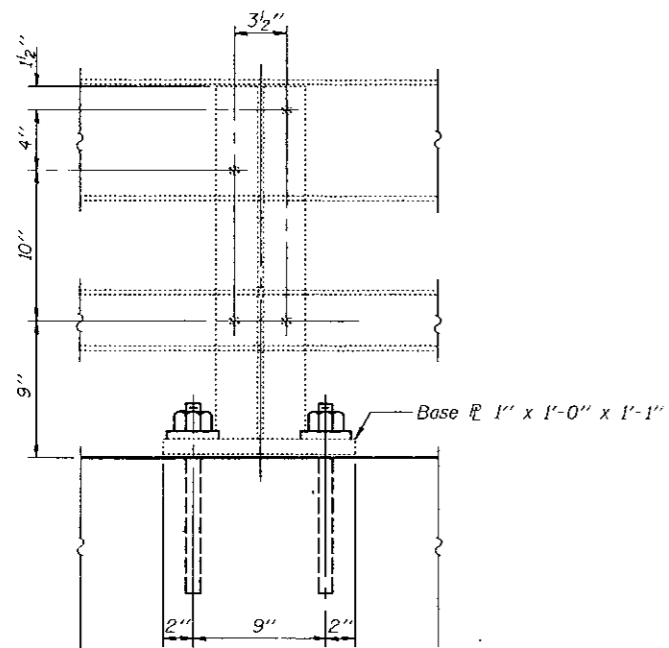
REPAIR DETAILS
 FAP 330 (E.B. 79th St.)
 COOK COUNTY
 SN 016-0518

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

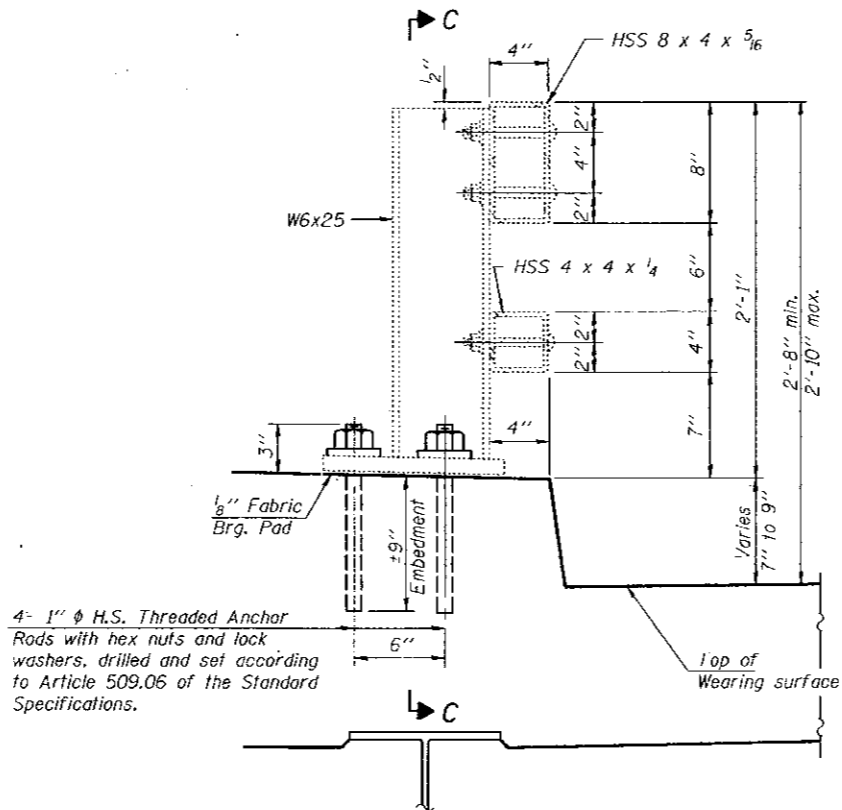
ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
FAP 330		COOK	14	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 5
6 SHEETS

Contract Number:



SECTION C-C



SECTION AT RAIL POST

4- 1" ϕ H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

Notes:

All field drilled holes shall be coated with an approved zinc rich paint before erection.

All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

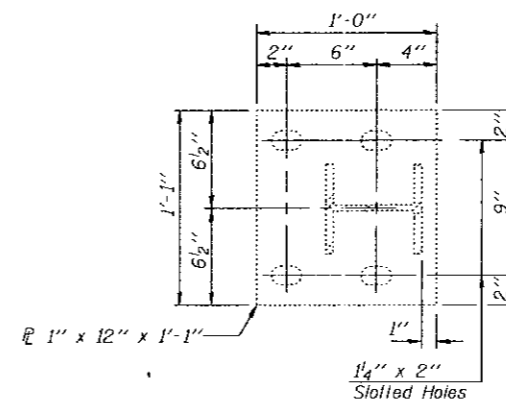
Removal and re-erection of the existing railing shall be accomplished in a manner that will avoid scratching, denting or other damage that may affect the durability or appearance of the railing.

The length paid for will be overall length along the rail from end to end, in place, at the location of re-erection.

This work will be paid for at the contract unit price per foot for Removing and Re-erection Existing Railing, which price shall include removal, temporary storage, re-erection, asphalt paint or new bearing pads, shims, and all new hardware required to satisfactorily complete the work.

BILL OF MATERIAL

Item	Unit	Quantity
Removing and Re-erection Existing Railing	Foot	67



EXISTING BASE PLATE DETAIL

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

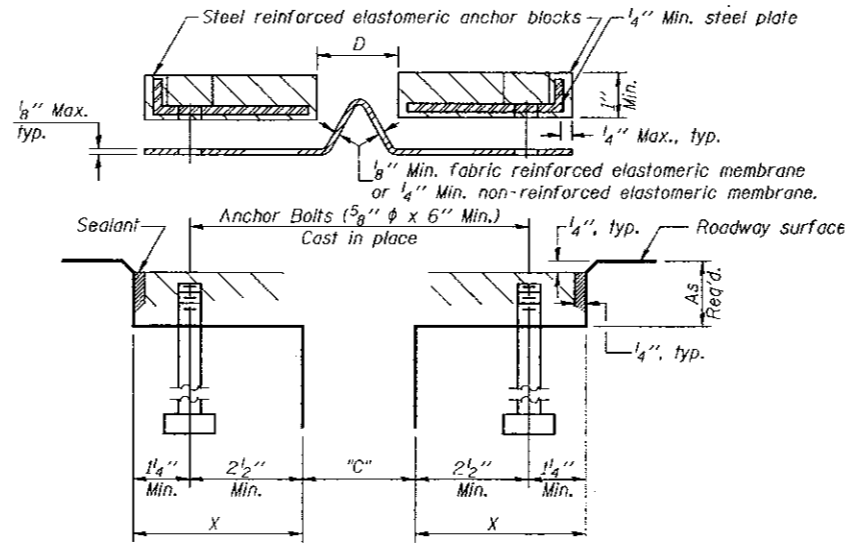
JANUARY 28, 2008
EXAMINED *A. Carl Thayer*
ENGINEER OF STRUCTURAL SERVICES
PASSED *Ralph E. Anderson*
ENGINEER OF BRIDGES AND STRUCTURES

REPAIR DETAILS
FAP 330 (E.B. 79th St.)
COOK COUNTY
SN 016-0518

Contract Number:

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CROSS SECTION

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.
 The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.
 The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.
 Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.
 The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

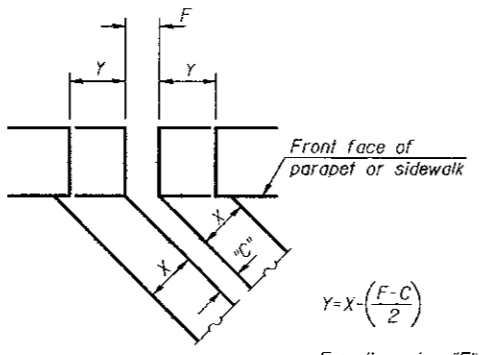
INSTALLATION NOTES

- Install continuous seal in roadway, parapet, curb, and sidewalk.
- Install anchor blocks as indicated.

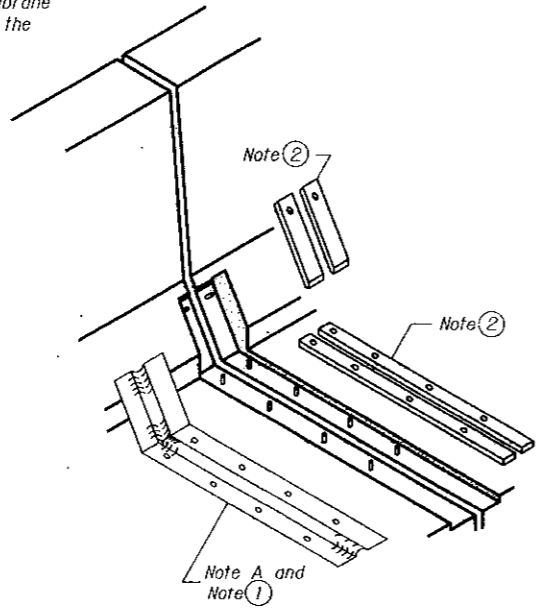
Note A:
Anchor bolts shall be placed to match existing holes in neoprene joint.

SKEW LIMITATIONS

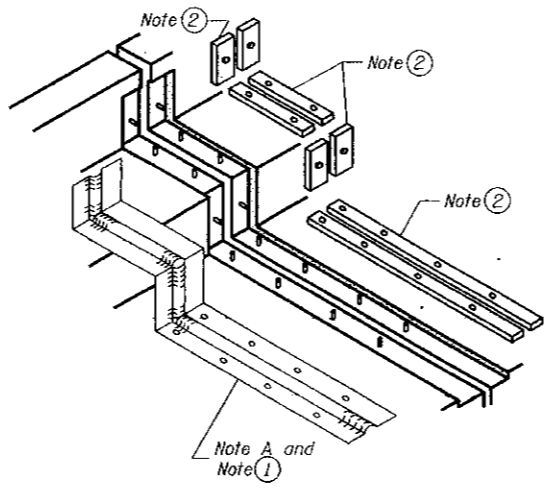
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.
 For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1/2" from centerline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



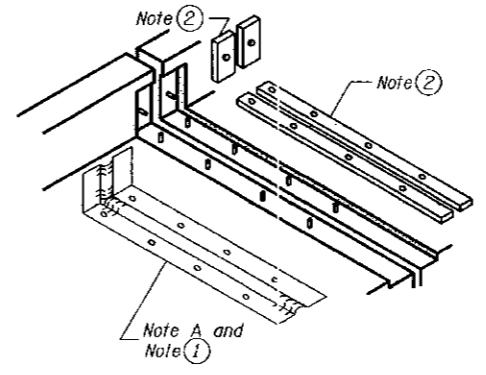
FORMING BLOCKOUT SKETCH



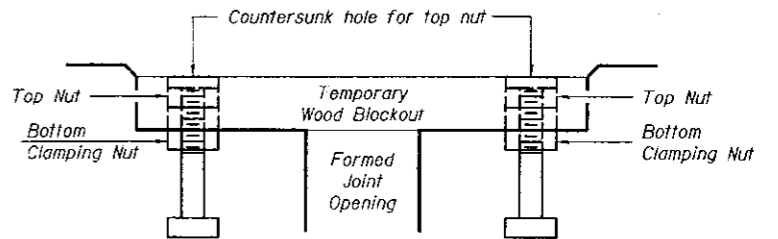
AT PARAPET



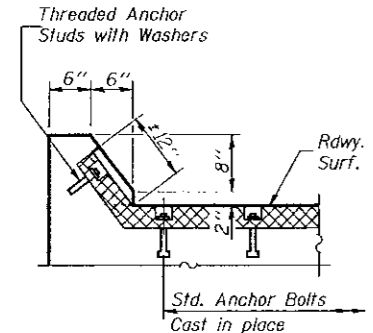
AT SIDEWALK OR MEDIAN



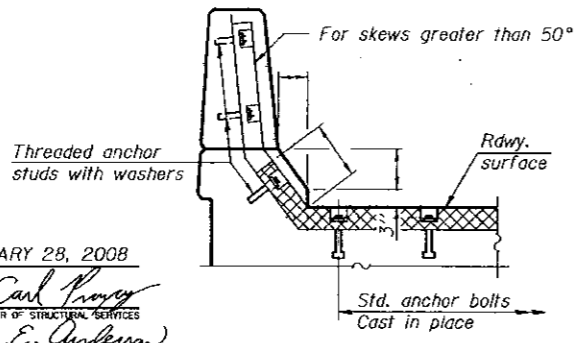
AT WALL



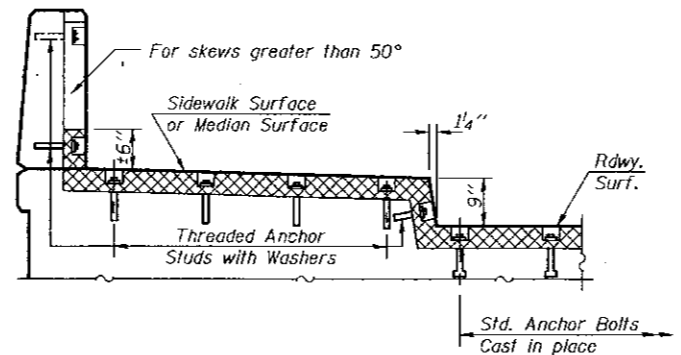
RECOMMENDED BLOCKOUT DETAIL



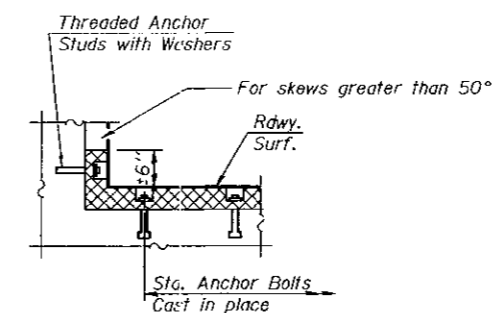
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS



AT WALL

DESIGNED	AJB
CHECKED	VHV
DRAWN	Steffen
CHECKED	AJB VHV

JANUARY 28, 2008
 EXAMINED *Carl Proyer*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED *Ralph E. Anderson*
 ENGINEER OF BRIDGES AND STRUCTURES

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