#86963 #119 3-10-00 FAI 55 McLean Co. SEC. (57-3-1,57-3,57-3-2,57-2)RS I&R #119 COPY

119

98%

7-7-2001

INDEX OF SHEETS

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MICROFILMED _____
REEL NUMBER _____
AWARDED _____
RESIDENT ENGINEER _____
AS BUILT CHANGES WERE MADE
ON THE FOLLOWING SHEETS _____

JULIE 1-800-892-0123

DISTRICT 3 NO. (815) 434-6131

PROJECT ENGINEER: STEVE ANDREWS
UNIT CHIEF: MICHELE LINDEMANN
TOWNSHIP: NORMAL, TOWANDA & MONEY CREEK

CONTRACT NO. 86963 057-0163(SB) 0164(NB)

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

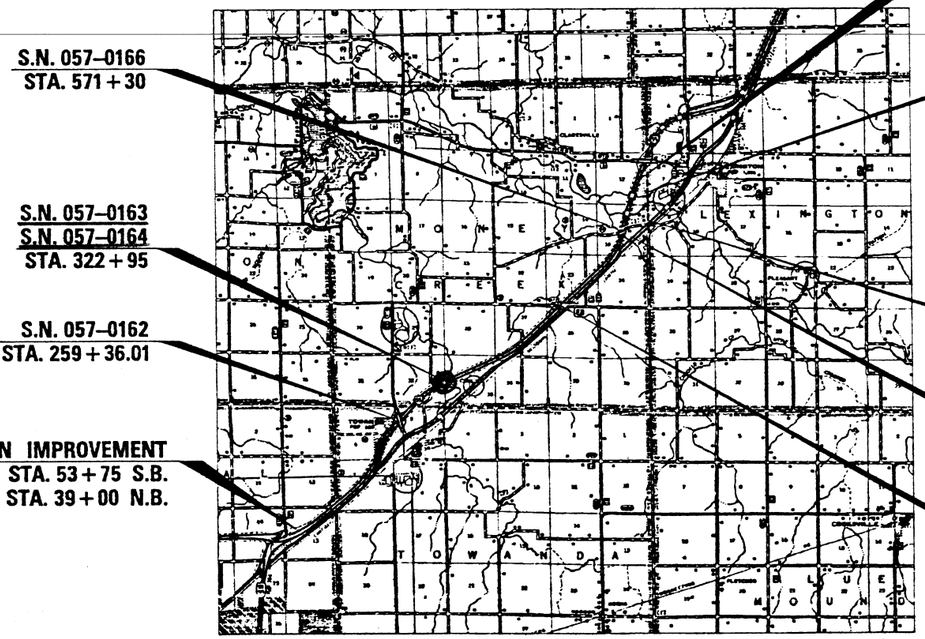
F.A.I. ROUTE 55 (I-55)
SECTION (57-3-1,57-3,57-3-2,57-2)RS
McLEAN COUNTY PROJ. ACIM-55-5(99)166

C-93-001-00

END IMPROVEMENT
STA. 625+00

S.N. 057-0166
STA. 571+30

S.N. 057-0169
S.N. 057-0170
STA. 608+35.40



S.N. 057-0163
S.N. 057-0164
STA. 322+95

S.N. 057-0162
STA. 259+36.01

BEGIN IMPROVEMENT
STA. 53+75 S.B.
STA. 39+00 N.B.

S.N. 057-0167
S.N. 057-0168
STA. 588+37.50

S.N. 057-0801
STA. 571+67

S.N. 057-0165
STA. 464+85.00

N

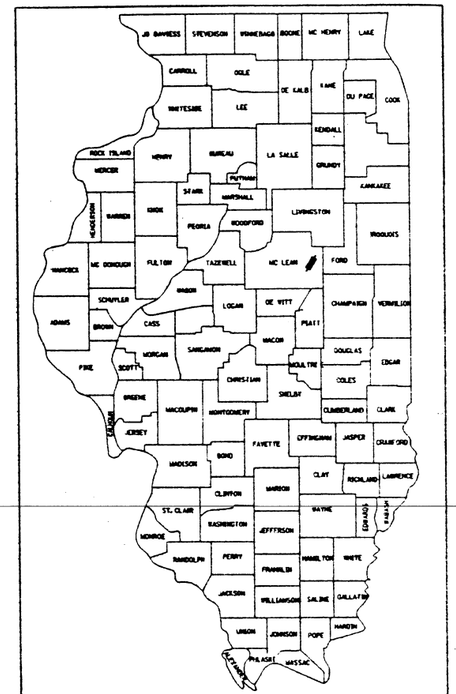
GROSS & NET LENGTH OF IMPROVEMENT:
S.B. = 54,100.19 FT. = 10.25 MI.
N.B. = 52,951.28 FT. = 10.03 MI.

STATION EQUATION S.B. 51+14.53 BK. = 86+60.28 AH.
STATION EQUATION N.B. 36+03.18 BK. = 98+45.54 AH.

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	McLEAN	139	1
F.A.P.R.A. REG.	ILLINOIS PROJECT			

*(57-3-1,57-3,57-3-2,57-2)R

P-93-043-99
D-93-021-00



LOCATION OF SECTION INDICATED THUS: ■

DESIGN DESIGNATION – INTERSTATE
ADT (2000) = 27300
P.V. – 79.5%
S.U. – 2.5%
M.U. – 18.0%

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED JANUARY 13, 2000
DISTRICT ENGINEER
February 4, 2000
ENGINEER OF DESIGN AND ENVIRONMENT
February 4, 2000
DIRECTOR, DIVISION OF HIGHWAYS

3-211

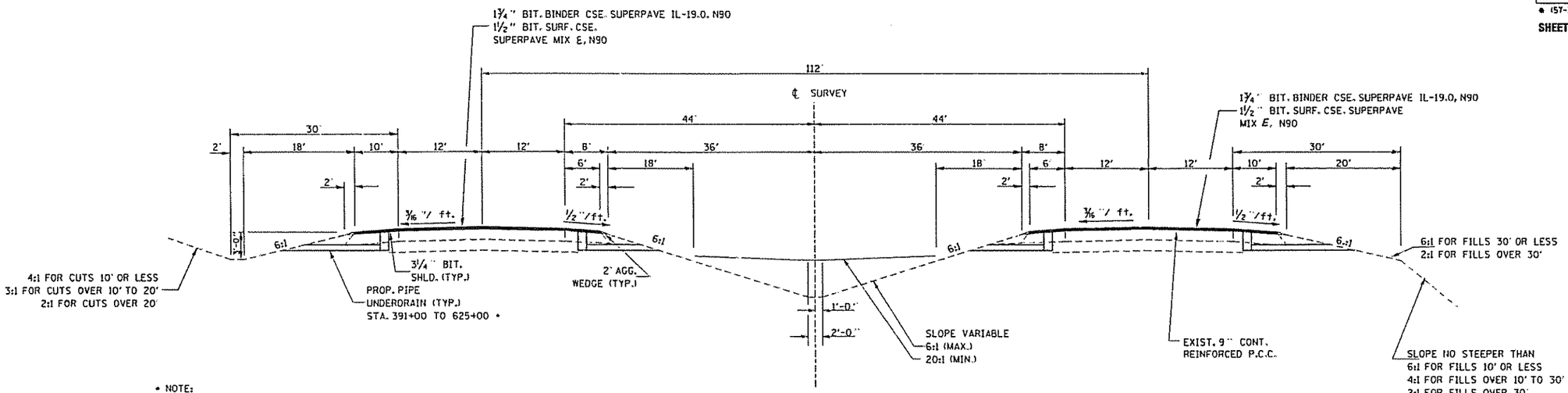
057-0163 &-0164

13, 2000
\E000100\SHEETS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	11
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

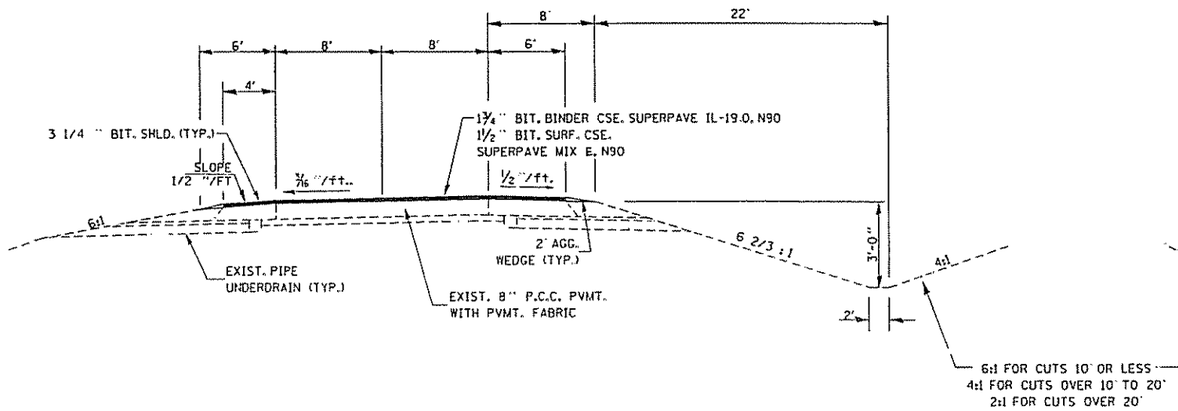
SHEET 3 of 3



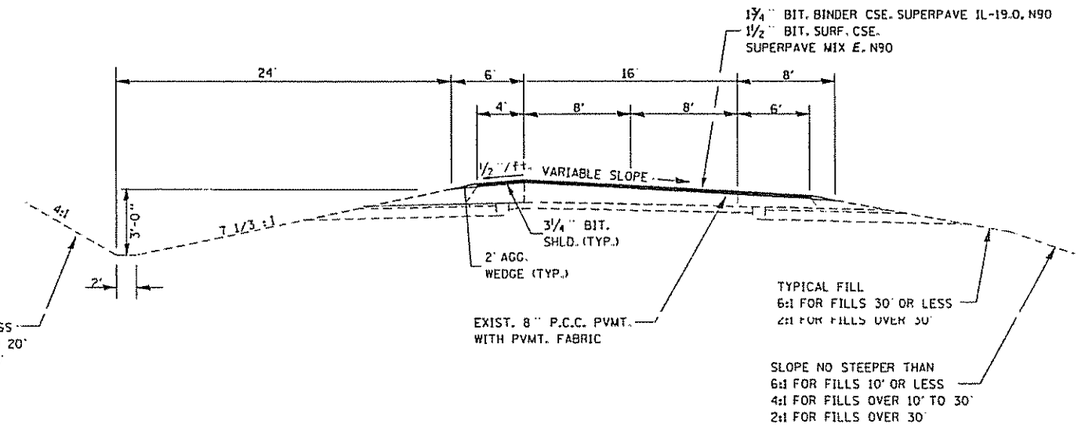
* NOTE:
EXISTING PIPE UNDERDRAIN IS PRESENT FROM STA. 191+11.81 TO 391+00
EXIST. C-STONE IS PRESENT FROM STA. 391+00 TO STA. 625+00

TYPICAL TANGENT CROSS SECTION

STA. 197+00.00 TO STA. 625+00.00 (AT TANGENT LOCATIONS)



TYPICAL TANGENT RAMP CROSS SECTION



TYPICAL SUPERELEVATED RAMP CROSS SECTION

JAN. 14, 2020
\E002100\DETAILS.DGN

TYPICAL SECTIONS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	17
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

MAINLINE SCHEDULE

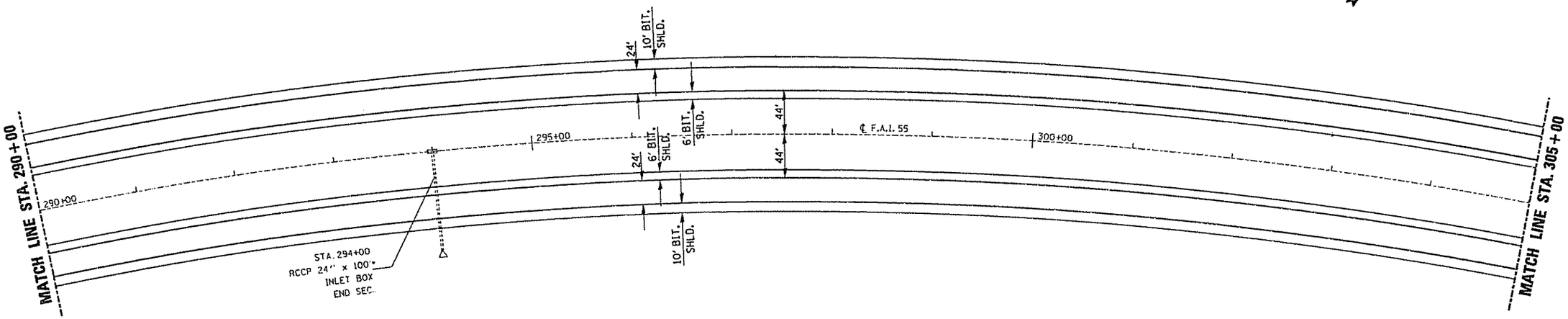
LOCATION	LENGTH	PAV'T AREA	BIT. CONC. SURF. CSE. SUPERPAVE	BIT. CONC. BIND CSE SUPERPAVE	BIT SHLDR	BIT SHLDR 10"	PAVED SHLDR REM	AGG SHLDS	BIT SURF REM (BUTT JT)	TEMP RAMP	BIT MAT (PR CT)	AGG (PR CT)	LEVEL BIND (HMA)	MIX FOR CRACKS, JTS & FLGWYS	MEDIAN REM PART. DEPTH	PCC SURF REM (BUTT JT)
	FOOT	SQ YD	TON	TON	TON	SQ YD	SQ YD	TON	SQ YD	SQ YD	GALLON	TON	TON	TON	SQ FT	SQ YD
NORTHBOUND LANES:																
40+60 TO 39+00	160	640.0	55.7	65	53.6			13.2	405	240	51.2	1.3	0.3	0.2		
39+00 TO 36+03.18	296.82	1187.3	103.3	120.5	99.5			24.4			95	2.4	0.6	0.4		
98+45.54 TO 111+48.72	1303.18	5212.7	453.5	529.1	436.7			107.2			417	10.4	2.6	1.6		
111+48.72 TO 117+48.72	600	2000.0	174	203	201.1			49.4			160	4	1	0.6		
117+48.72 TO 322+00	20451.28	54536.7	4744.7	5535.5	6853.5	1530.0	1529.7	1682.2		107	4362.9	109.1	27.3	16.4		
322+00 TO 323+89	STRUCTURE NUMBER 057-0164															
323+89 TO 586+74	26285	70093.3	6098.1	7114.5	8808.4	2111.0	2173.7	2162		213	5607.5	140.2	35	21		
586+74 TO 590+01	STRUCTURE NUMBER 057-0168															
590+01 TO 606+63	1662	4432.0	385.6	449.8	557.0	2072.0	2170.7	136.7		213	354.6	8.9	2.2	1.3		
606+63 TO 610+08	STRUCTURE NUMBER 057-0170															
610+08 TO 625+00	1492	3978.7	346.1	403.8	500.0	576.0	640.0	122.7		107	318.3	8	2	1.2		
625+00 TO 626+30	130	346.7	30.2	35.2	43.6			10.7	89	133	27.7	0.7	0	0.1		133
SOUTHBOUND LANES:																
55+35 TO 53+75	160	426.7	37.1	43.3	46.9			13.2	296	160	34.1	0.9	0.2	0.1		
53+75 TO 51+14.53	260.47	1884.2	163.9	191.2	87.3			21.4	311	160	150.7	3.8	0.9	0.9	411	
86+60.28 TO 89+87.56	327.28	1967.5	171.2	199.7	109.7			26.9			157.4	3.9	1	0.6	2161	
89+87.56 TO 97+25	737.44	3523.3	306.5	357.6	247.1			60.7			281.9	7	1.8	1.1		
97+25 TO 120+60.28	2335.28	9341.1	812.7	948.1	782.6			192.1			747.3	18.7	4.7	2.8		
120+60.28 TO 126+60.28	600	2000.0	174	203	201.1			49.4			160	4	1	0.6		
126+60.28 TO 322+00	19539.72	52105.9	4533.2	5288.7	6548.0	1530.0	1529.7	1607.2		107	4168.5	104.2	26.1	15.6		
322+00 TO 323+89	STRUCTURE NUMBER 057-0163															
323+89 TO 586+74	26285	70093.3	6098.1	7114.5	8808.4	2108.0	2171.9	2162		213	5607.5	140.2	35	21		
586+74 TO 590+01	STRUCTURE NUMBER 057-0167															
590+01 TO 606+63	1662	4432.0	385.6	449.8	557.0	2047.0	2171.1	136.7		213	354.6	8.9	2.2	1.3		
606+63 TO 610+08	STRUCTURE NUMBER 057-0169															
610+08 TO 625+00	1492	3978.7	346.1	403.8	500.0	576.0	640.4	122.7		107	318.3	8	2	1.2		
625+00 TO 626+30	130	346.7	30.2	35.2	43.6			10.7	89	133	27.7	0.7	0.2	0.1		133
MAINT. CROSSOVERS:																
110+00		171.1	14.9	17.4							64.2					
199+75		171.1	14.9	17.4							64.2					
412+70		171.1	14.9	17.4							64.2					
614+75		171.1	14.9	17.4							64.2					
RAMPS:																
RAMP A	2636	7283.0	633.6	739.2	552.1			433.6	56	461	582.6	14.6	3.6	2.2		461
RAMP B	1685	5347.0	465.2	542.7	352.9			277.2	56	450	427.8	10.7	2.7	1.6		450
RAMP C	2540	7378.0	641.9	748.9	532.0			417.8	56	333	590.2	14.8	3.7	2.2		333
RAMP D	1690	5334.0	464.1	541.4	354.0			278.0	56	442	426.7	10.7	2.7	1.6		442
*					1000.0	1000.0	1000.0									
TOTAL	114460.5	318553.2	27714.2	32333.1	38276.1	13550.0	14027.2	10118.1	1414.0	3792.0	25686.3	636.1	158.8	95.7	2572.0	1952.0

*CONTINGENCY QUANTITY ADDED FOR DETERIORATION AND LOW SHOULDER AREAS

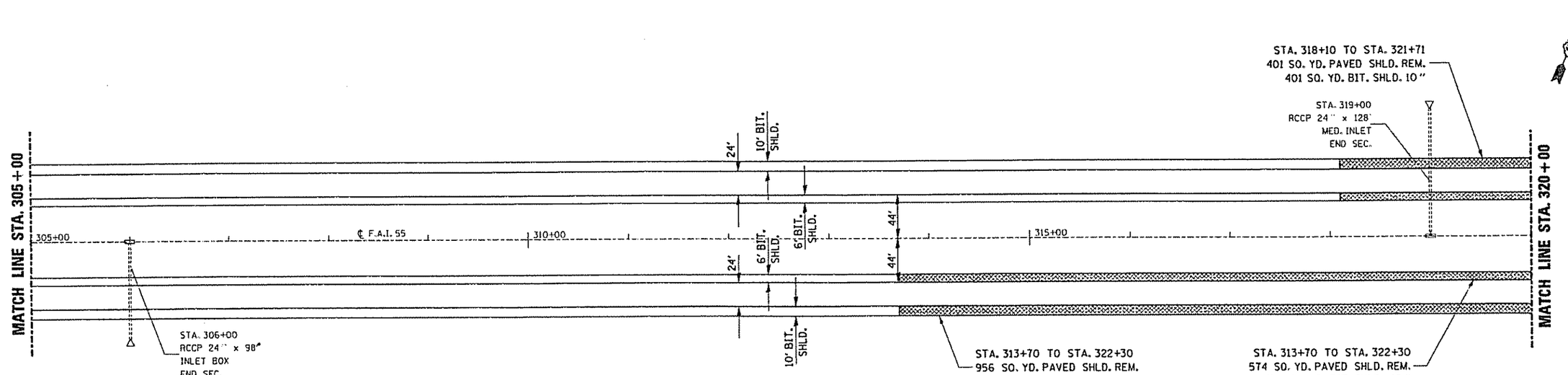
JAN. 11, 2000
\ED0210\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	McLEAN	139	36
STA. 290+00		TO STA. 320+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* 157-3-1,57-3,57-3-2,57-2RS



0 50 100 150



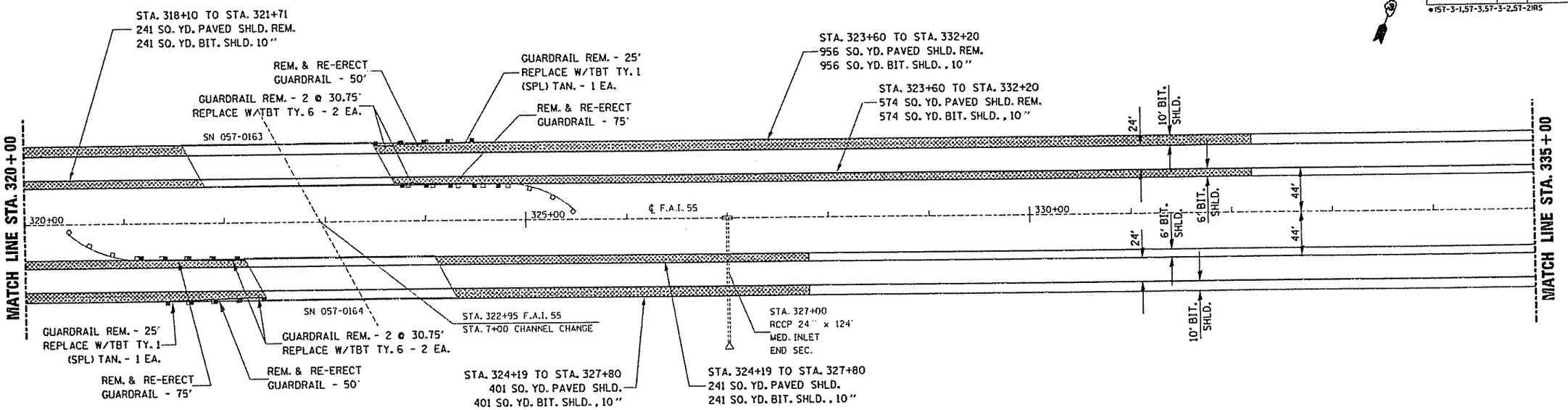
NOTE:
CONCRETE HEADWALLS SHALL BE ADDED TO ALL EXISTING PIPE UNDERDRAIN OUTLETS FROM STA. 53+75 TO STA. 391+00

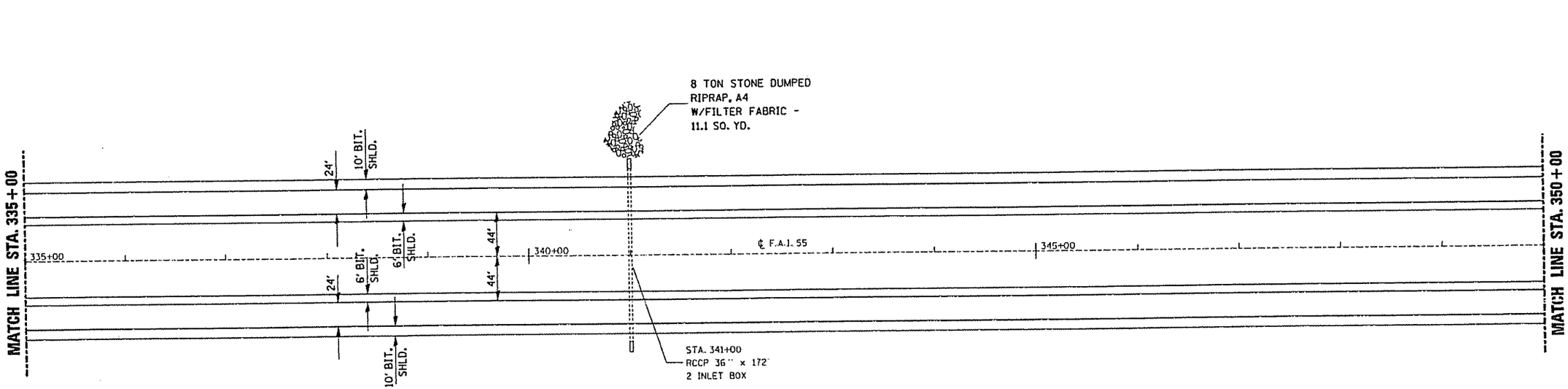
STA. 290+00 TO STA. 320+00

JAN. 11, 2000
\ED02100\SHEETS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	McLEAN	139	31
STA. 320+00		TO STA. 350+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

*(57-3-1,57-3,57-3-2,57-2RS





NOTE:
CONCRETE HEADWALLS SHALL BE ADDED TO ALL EXISTING PIPE UNDERDRAIN OUTLETS FROM STA. 53+75 TO STA. 391+00

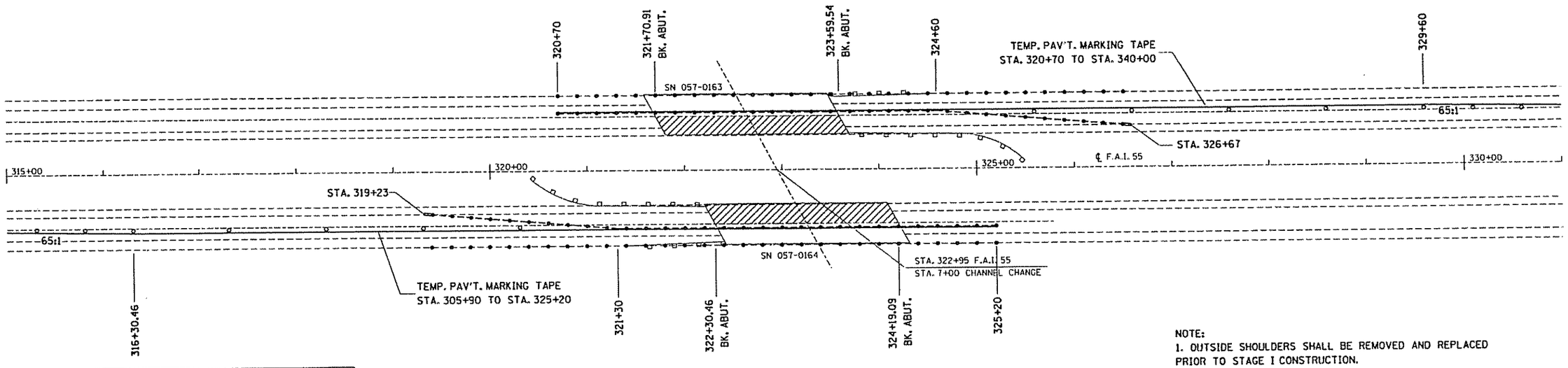
STA. 320+00 TO STA. 350+00

JAN. 11, 2000
\EDD2100\SHEETS.DGN

SHOULDER REMOVAL & REPLACEMENT		
S. N.		STATIONS
057-0163	318+10 TO 321+71.	323+60 TO 332+20
057-0164	313+70 TO 322+30.	324+19 TO 327+80

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55		McLEAN	139	48
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

(57-3-1.57-3.57-3-2.57-2RS)



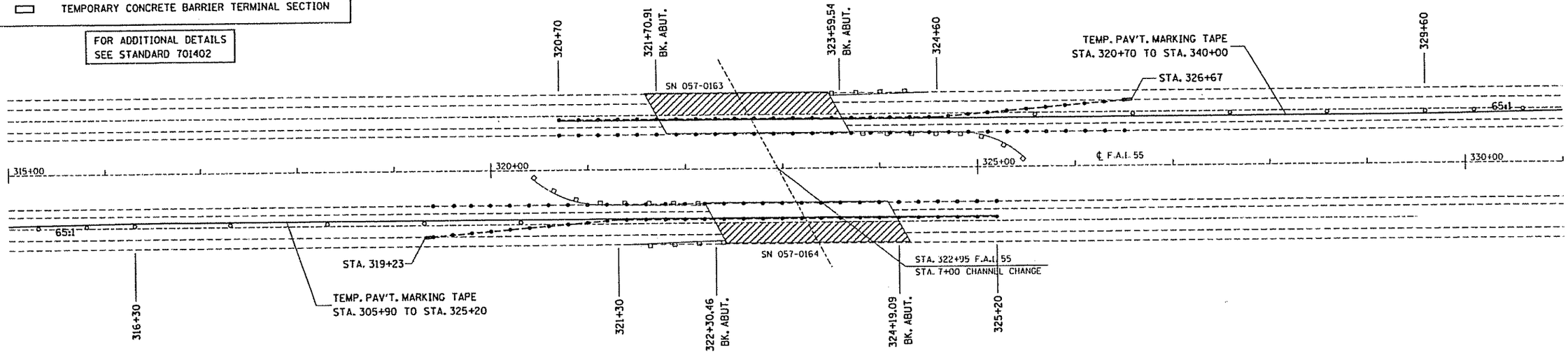
NOTE:
1. OUTSIDE SHOULDERS SHALL BE REMOVED AND REPLACED PRIOR TO STAGE I CONSTRUCTION.

2. MEDIAN SHOULDERS SHALL BE REMOVED AND REPLACED PRIOR TO STAGE II CONSTRUCTIONS.

STAGE I

- WORK AREA
- BI-DIRECTIONAL STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS @ 20' CTS.
- DRUM WITH STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER
- TEMPORARY CONCRETE BARRIER TERMINAL SECTION

FOR ADDITIONAL DETAILS SEE STANDARD 701402



STAGE II
STAGING PLANS
S.N. 057-0163 & S.N. 057-0164

JAN. 11, 2000
\ED02100\SHEETS.DGN

057-0164 Stage II

Meas: RU, SS, JMK 8-12-00
Calc: RU 9-1-00
Insp: RU, JMK 8-29-00
✓RU 9/1/00

9

Deck Slab Repair

STA.	Patch #	OFFSET From Parapet	L	W	Area (yd²)
322+50	1	18.5	19"	20"	.29
322+61	2	17.5	54"	23 1/2"	.98
322+69	3	17.5	57 1/4"	25"	1.13
322+75.5	4	11.0	31 1/2"	35"	.85
322+82	5	0'-13'	6.0	35 1/2"	1.97
322+86	6	0'-20'	6'6"	88"	5.30
322+90	7	12.5'	53"	29"	1.19
322+95	8	0'-10.5'	9'0	33"	2.75
322+95	9	15.5'	23"	23"	0.4
323+00	10	2.0	29"	25"	0.56
323+04	11	18.5	30 1/2"	37"	0.82
323+09	12	2.5	27"	24"	0.5
323+09	13	5.5	26"	24 1/2	0.49
323+08	14	17.0	45"	21 1/2"	0.81
323+13	15	5.0	25 1/2"	88"	1.73
323+12.5	16	11.5	25"	30"	0.75
323+12.5	17	16.0	22"	33 1/2"	0.57
323+15	18	18.5	21 1/2"	31"	0.51
323+19	19	0'-16'	16.8'	23 1/2"	2.48
323+22	20	18.5	39 1/2"	35"	1.07
323+28	21	0'-3.25'	32"	32"	.79
323+35	22	7.5	20"	20"	0.31
323+39	23	0'-6.5'	34"	77"	2.14

Depth

2 1/4 2 1/2 2 3/4
2 1/2 2 1/2 2 3/4
2 1/4 3 2 1/2
3 2 3/4 2 1/4 3 1/2 3 2 1/4
2 2 3/4 2
3 2 3/4 2 1/2
2 3/4 2 1/2
2 3
2 1/4 1 3/4
1 3/4 2 1/4
2 1/4 3 3 1/4
2 1/2 2 3/4
2 3/4 3 1/2
2 1/2 2 1/2 2
2 1/4 2 2 1/4
2 1/2 2 2
2 1/4 2 2 1/4
2 1/4 3 3 3/4
2 1/2 2
2 1/2 2 1/2 3
2 1/4 2
2 3 1/2 2 1/2 1 3/4

057-0164 Stage II

Meas: RU, SS, JMK 8-12 00
Calc: RU 9-1-00
Insp: RU, JMK 8-29-00

10

Deck Slab Repair Cont.

Station	Patch #	OFFSET From Ahead	L	W	Area yd²
323+44	24	0-6.0'	5.0'	25"	1.16
323+55	25	14.0	6.0'	28"	1.56
323+56.5	26	7.0	32"	20"	0.49
323+67	27	10	31"	21½"	0.51
323+78	28	19	31"	38"	0.91
323+80	29	17	28"	25"	0.54
323+84	30	18.5	34"	50"	1.31
323+98	31	17.0	34½"	26"	0.69
324+03	32	6.0	37"	28"	0.85
324+11	33	0-6.75'	78"	50"	3.01
324+16	34	0-3.68	44"	34"	1.15
					41.55 yd²

Pay 41.6 yd²

Depth

2 1/2 3 1/2 3
2 1/4 2 1/4 1 3/4
2 1/2 2 3/4
3 2 3/4
2 1/2 2
3 1 1/2
2 3 1/2 2 3/4
2 1/2 2
2 1/4 2 1/2
3 1/4 3 2 3/4
3 1 3/4

STAGE I

DECK PATCHES
MONEY CREEK (S.B)
S.N. 057-0163

6-22-00 35
MEAS CS, KH
CALC KH
VER: CS 07/10/00

PATCH #	STA.	OFFSET	LENGTH	WIDTH	AREA FT²	YD²	DEPTH
1	323+29.1	17'	1.5'	3.35'	~~4.85~~	~~.54~~ .516	.18
2	323+25	10.7'	1.27'	1.93'	~~3.2~~	~~.30~~ .27	.18
3	323+18	6.7'	3.12/2.08'	2.75/2.65'	8.58/5.51	1.57	.17
4	323+06.5	3.5'	1.5/1.68	7.90/5.07	11.7/8.52	2.25	.20
5	323+00	10.9'	1.67	2.12'	3.54	.39	.22
6	322+99	14.92'	1.24	1.31	1.62	.18	.14
7	321+96.4	4.3'	2.63/2.12	8.35/2.06	21.96/4.37	2.93	.21
8	319+85.5	2.8'	2.19'	3.91	8.56	.95	.15
9	319+80	3.15'	2.12'	3.38	7.17	.80	.13
10	319+60	.5'	2.42	7.71	18.66	2.07	.21
11	319+52	.64'	3.07'	6.42	19.71	2.19	.18
12	319+50	1.47'	2.12'	5.93	12.57	1.40	.14
13	319+45	.52'	2.42'	5.50	13.31	1.48	.17
14	319+40	3.10'	1.83	4.82	8.82	.98	.21
15	319+30	1.75'	1.97'	4.68	9.22	1.02	.17
16	319+27	2.20'	2.10'	4.97	10.44	1.16	.19
17	319+22	4.43'	1.90'	2.45	4.66	.52	.15
18	319+10	2.05'	2.17	6.45	14.0	1.56	.18

TOTAL = ~~22.35~~ 22.29 YD²

STAGE I

DECK PATCHES

MONEY CREEK (N.B.)

S.N. 057-0164

Z0016200 - DECK SLAB REPAIR (PARTIAL)

7-15-00 (46)

MEAS - KH TJ

INSP - CRA

CALC - CRA

✓ By EOH

7/21/00

SEE FOR #

PATCH #	STA.	(PARAPET) OFFSET	LENGTH	WIDTH	AREA FT²	YD²	DEPTH
1	322+53	8.4	1.23	1.50	1.84	0.20	.11
2	322+62	11	3.46	2.55	8.82	1.00	.13
3	322+62	17.5	1.50	1.65	2.48	0.28	.15
4	322+70	10	2.49	11.°	27.39	3.04	.14 & .14
5	322+72	11.3	2.70	7.°	18.9	2.10	.14
6	322+83	7.5	2.04	12.25	25.°	2.78	.15 & .12
7	322+85	1.5	4.78	2.95	14.10	1.57	.16
8	322+85	10.9	1.39	1.42	1.97	0~~.21~~ .22	.12
9	322+93	.80	1.74	2.47	4.30	0.48	.17
10	323+00	7.2	2.95	6.53	19.26	2.14	.15 & .16
11	323+09	10.5	3.67	7.08	26.0	2.89	.19 & .15
12	323+18	6.1	2.87	3.69	10.60	1.18	.18
13	323+40	5.5	2.02	2.40	4.84	0~~.53~~ .54	.20
14	323+52	1.5	2.76	1.62	4.47	0.50	.17
15	323+55	10.5	2.36	2.26	5.33	0.59	.15
16	323+66	17.5	1.95	1.80	3.51	0.39	.14
17	324+02	5.7	1.94	2.07	4.01	0.~~44~~45	.16
18	324+06	17.4	1.65	2.05	3.38	0.38	.13

~~20.7~~ 20.73 cu. yds PAY 20.7

(pg. # 35)

SHEET II

Z0016200
DECK SLAB REPAIR (PARTIAL)
MONEY CREEK BRIDGE - SB
Ø51-0163

PATCH NO.	STA.	EDGE OFFSET	LENGTH	WIDTH	AREA Ft²	SQ. Yd	DEPTH	QC/QA CONC
1	322+21	9.8 L	1.15	1.3	1.5	0.17	.15	.001
2	322+24	12.5L	1.40	4.10	5.7	0.63	.15	.031
3	322+32	9.2 L	1.25	1.60	2.0	0.22	.12	.009
4	322+32	3.6 L	2.0	1.45	2.9	0.32	.15	.016
5	322+38	8.4 L	3.2	1.90	6.08	0.68	.15	.034
6	322+45	11.8 L	1.85	4.5	8.32	0.93	.13	.04
7	322+53	0.5 L	1.25	1.25	1.6	0.17	.15	.009
8	322+90	11.7 L	2.40	3.80	9.12	1.01	.18	.06
9	322+93	8.7 L	1.70	2.20	3.74	~~0.41~~ 0.42	.15	.02
10	322+96	8.8 L	2.10	2.70	5.67	0.63	.15	.032
11	323+00	9.0 L	5.0	2.5	12.5	1.39	.20	.093
12	323+03	17.0 L	3.75	2.05	7.69	0.85	.22	.062
13	323+06	9.0 L	2.0	1.8	3.6	0.40	.18	.024
14	323+41	6.0 L	1.70	4.65	7.9	0.88	.15	.044
15	323+44	6.1 L	1.55	1.75	2.71	0.30	.12	.012
16	323+48	3.3 L	5.70	2.0	11.4	1.27	.18	.076
17	323+51	6.5 L	1.40	4.10	5.74	0.63	.18	.039
18	323+55	4.7 L	1.55	3.10	4.8	0.53	.20	.035
19	323+55	9.0 L	1.50	1.90	2.9	~~0.31~~ 0.32	.15	.016
						~~11.75~~ Sq. Yd		.165 yd³

✓ RJH 9/4/00

11.75 pay ~~11.75~~ 11.75

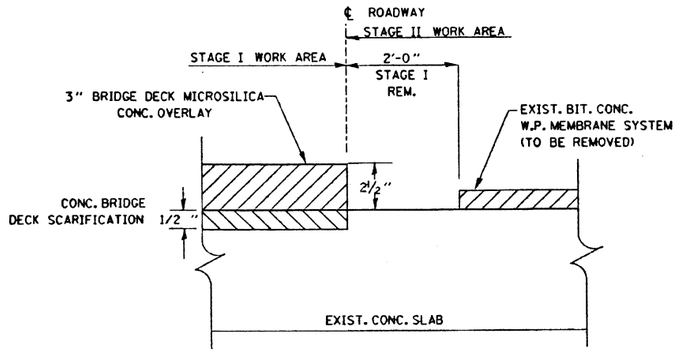
07-28-00
INSP CRA
MEAS CRA
calc: ERA, RU
QC/QA conc

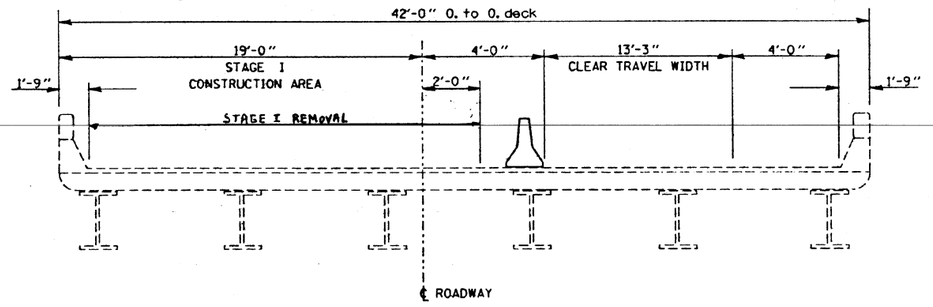
pay 0.7 yd³

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	62
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

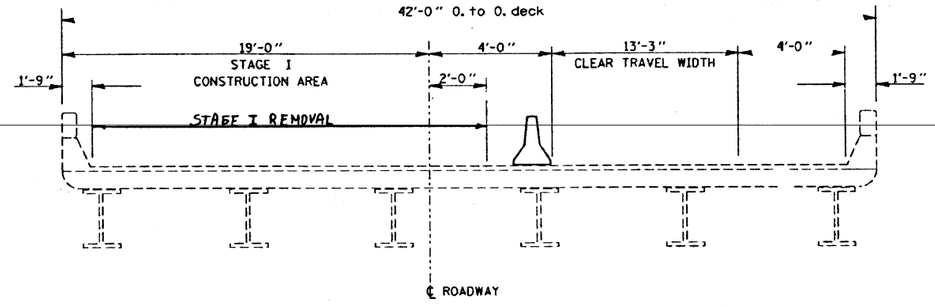
* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 1 of 15

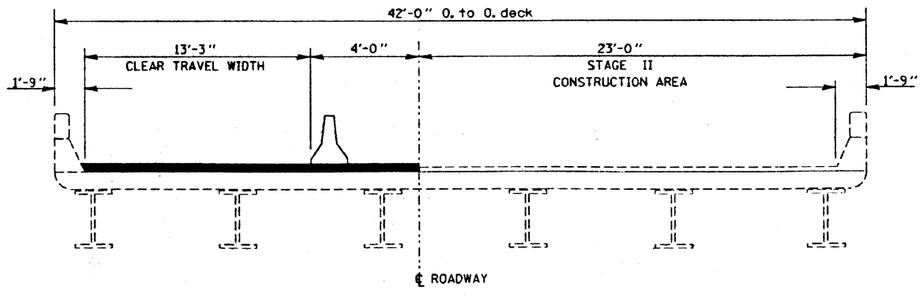




STAGE I
LOOKING SOUTH



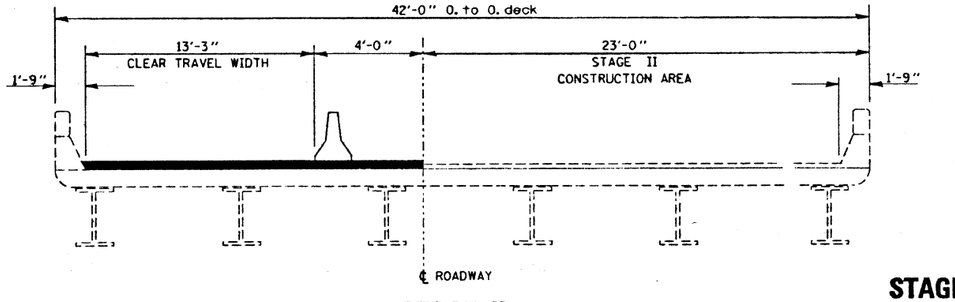
STAGE I
LOOKING NORTH



STAGE II
LOOKING SOUTH

STAGE CONSTRUCTION DIAGRAM

S.N. 057–0163



STAGE II
LOOKING NORTH

STAGE CONSTRUCTION DIAGRAM

S.N. 057–0164

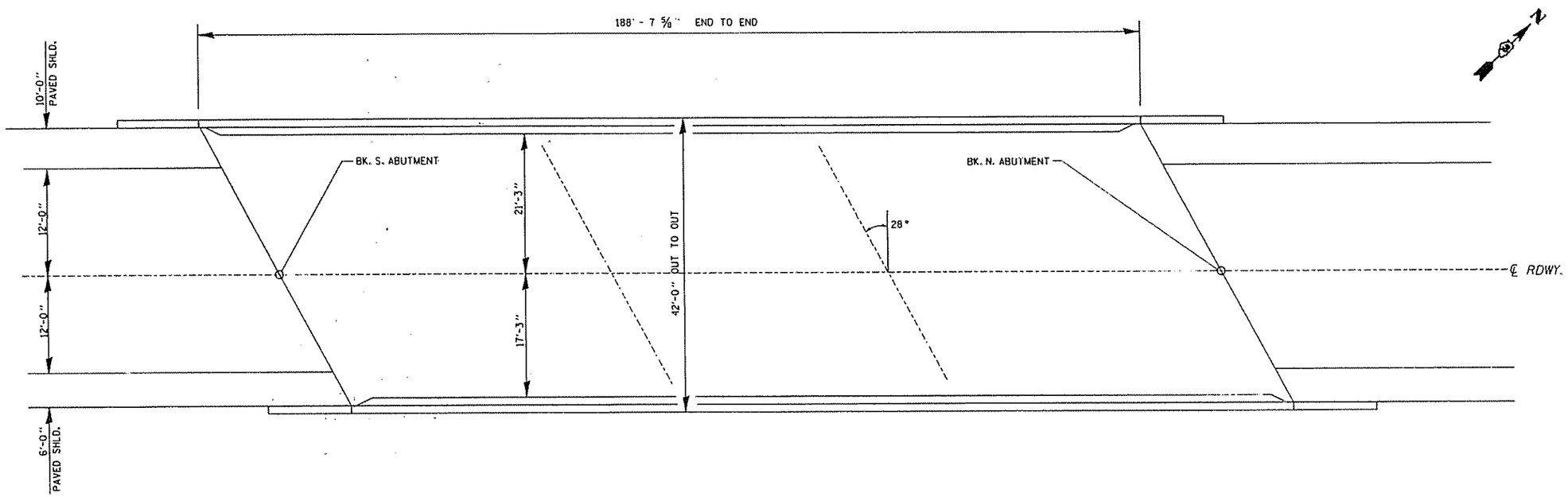
STAGING DETAILS
F.A.I. 55 OVER MONEY CREEK
SECTION (57–3–1, 57–3, 57–3–2, 57–2) RS
MCLEAN COUNTY
STA. 322 + 95
S.N. 057–0163 & S.N. 057–0164

DEC. 23, 1999
\ED02100\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	03
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 2 of 15



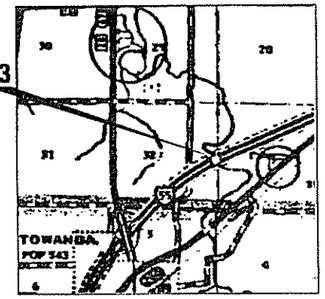
TOTAL BILL OF MATERIALS S.N. 057–0163

CODE NO.	ITEM	UNIT	QUANT.
20300100	CHANNEL EXCAVATION	CU YD	500
28100105	STONE RIPRAP, CLASS A3	SQ YD	11
28100107	STONE RIPRAP, CLASS A4	SQ YD	143
28200100	FILTER FABRIC FOR USE WITH RIPRAP	SQ YD	167
44001000	BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	807
50102400	CONCRETE REMOVAL	CU YD	6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	6
50300260	BRIDGE DECK GROOVING	SQ YD	765
50300300	PROTECTIVE COAT	SQ YD	823
50301245	FORMED CONCRETE REPAIR (DEPTH LESS THAN OR EQUAL TO 5")	SQ FT	84
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3385
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1859
59000100	EPOXY CRACK SEALING	FOOT	4
X0321468	PLUG EXISTING DECK DRAINS	EACH	20
Z0002600	BAR SPLICERS	EACH	22
Z0006110	BRIDGE DECK MICROSILICA CONCRETE OVERLAY	SQ YD	790
Z0012200	CONCRETE BRIDGE DECK SCARIFICATION (1/2 INCH)	SQ YD	790
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	1
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	2
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	12
*1002576	SILICONE JOINT SEAL - 2 1/2"	FOOT	47
*3000919	SILICONE JOINT SEAL - 1-1/2"	FOOT	47

NOTE:

SEE SHEET 3 OF 15 FOR GENERAL NOTES.

S.N. 057–0163



LOCATION SKETCH

GENERAL PLAN
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57–3–1, 57–3, 57–3–2, 57–2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057–0163

JAN. 5, 2000
\ED0200\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	64
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 3 of 15

General Notes:

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

2. All Structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type I. The cost shall be included in the cost of Furnishing and Erecting Structural Steel.

3. The existing structural steel contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

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

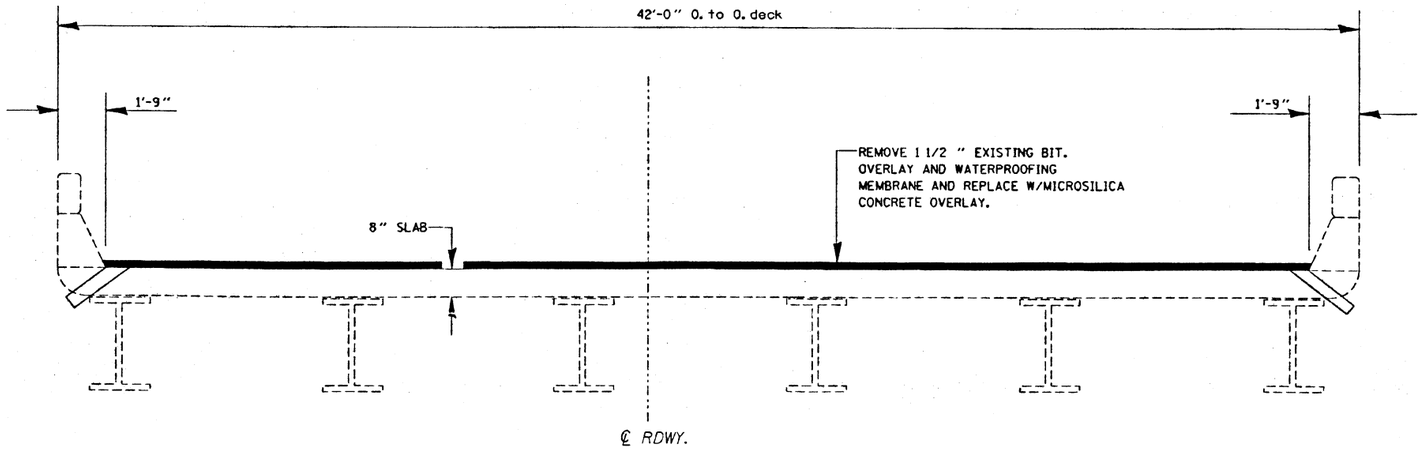
5. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included in the cost of "Concrete Removal".

6. Existing longitudinal reinforcement extending into the removed area shall be cleaned, straightened and incorporated into the new construction. Existing transverse reinforcement may be cut as shown and removed.

7. 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 beams in contact with concrete. The removal shall be accomplished according to the requirements of the SSPC Surface Preparation Specifications SP-3 for power tool cleaning or SP-2 for hand tool cleaning. Cost shall be included in the cost of "Concrete Superstructure".

8. 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 degrees Fahrenheit.

9. 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.



CROSS SECTION

LOOKING SOUTH

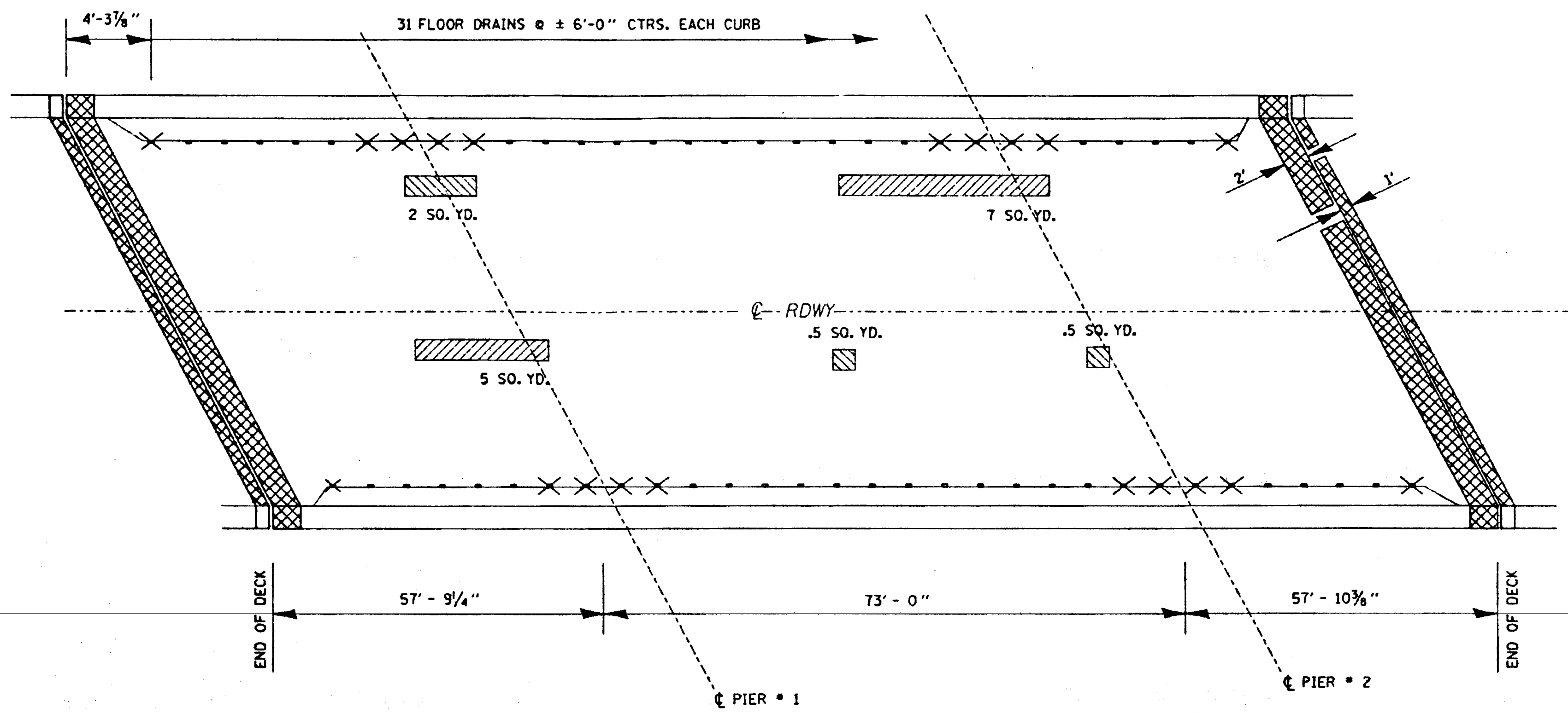
GENERAL NOTES AND TYPICAL SECTION
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0163

DEC. 23, 1999
\ED02\00\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	65
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 4 of 15



DECK REPAIR PLAN

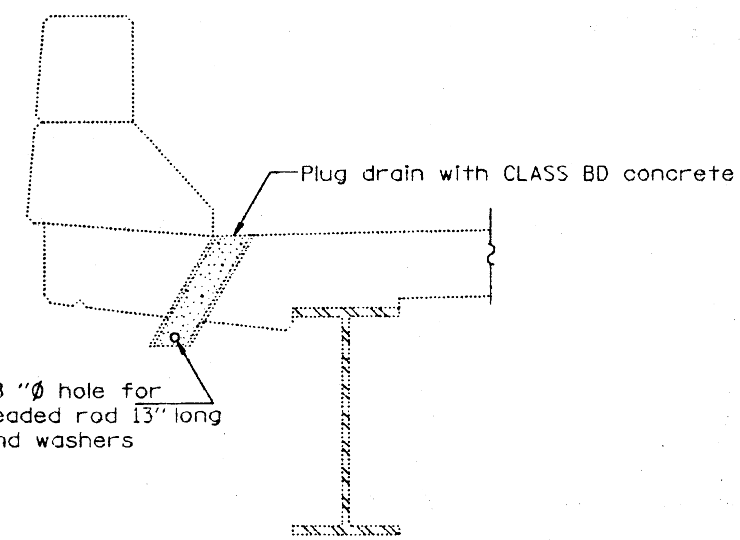
NOTES:

AREA OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.

EXISTING DECK DRAINS LOCATED WITHIN 10 FT. OF A PIER OR AN ABUTMENT SHALL BE ELIMNATED.

		UNIT	STAGE I	STAGE II	TOTAL
⊠	CONC. REMOVAL	CU. YD.	2.7	3.3	6
⊠	CONC. SUPERSTRUCTURE	CU. YD.	2.7	3.3	6
✕	PLUG EXISTING DECK DRAINS	EACH	10	10	20
▨	DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.	5	7	12
▧	DECK SLAB REPAIR (FULL DEPTH)	SQ. YD.	1	2	3

DECK SURVEY DATE: FEBRUARY 9, 1999



SECTION AT DRAIN

DRAIN ELIMINATION DETAILS

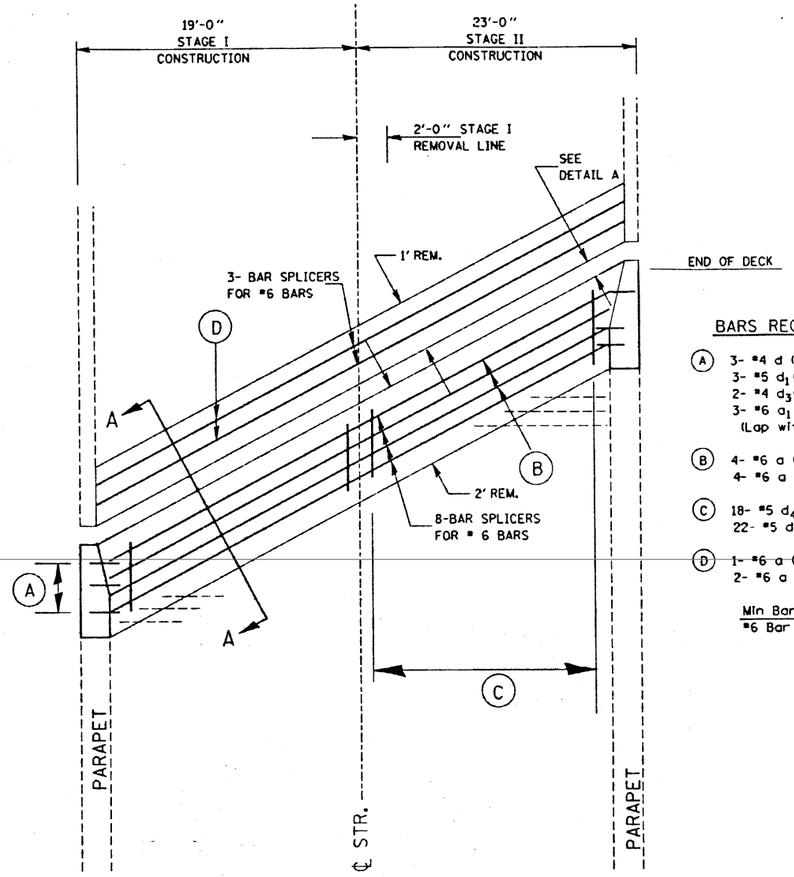
DECK REPAIR PLAN
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0163

DEC. 23, 1999
\ED02100\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	66
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 5 of 15



PLAN AT SOUTH ABUTMENT
(NORTH ABUTMENT MIRROR IMAGE)

BARS REQUIRED FOR EACH STAGE

(A) 3- #4 d (E) Bars
3- #5 d_1 (E) Bars
2- #4 d_3 (E) Bars @ ea. rail post
3- #6 a_1 (E) Bars (Top)
(Lap with a (E) & a_2 (E))

(B) 4- #6 a (E) Bars (Top - Stage I), (a_2 (E) Bars Top - Stage II)
4- #6 a (E) Bars (Bottom - Stage I), (a_2 (E) Bars Bottom - Stage II)

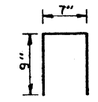
(C) 18- #5 d_4 (E) Bars @ 12" ctrs. (Stage I)
22- #5 d_4 (E) Bars @ 12" ctrs. (Stage II)

(D) ~~1- #6 a (E) Bar (Top - Stage I), (a_2 (E) Bars Top - Stage II)~~
2- #6 a (E) Bars (Bottom - Stage I), (a_2 (E) Bars Bottom - Stage II)

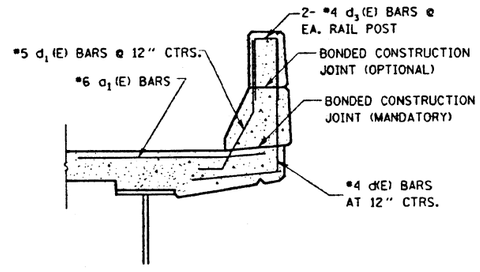
Min Bar Lap
#6 Bar 2'-7"

BILL OF MATERIAL SN 057-0163				
BAR	NO.	SIZE	LENGTH (FT.)	SHAPE
a(E)	22	#6	20'-3"	
a1(E)	12	#6	4'-0"	
a2(E)	22	#6	24'-11"	
d(E)	12	#4	4'-9"	
d1(E)	12	#5	3'-5"	
d3(E)	8	#4	2'-1"	
d4(E)	80	#5	2'-5"	
CONCRETE REMOVAL			CU YD	6
CONC. SUPERSTRUCTURE			CU YD	6
BAR SPLICERS			EACH	22
FURN. & ERECT STRUCT. STEEL			POUND	3385
REINFORCEMENT BARS, EPOXY COATED			POUND	1859

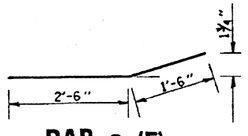
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED



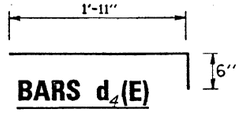
BAR d_3 (E)



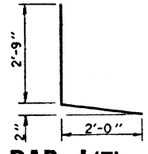
SECTION THRU PARAPET
(DECK SIDE)



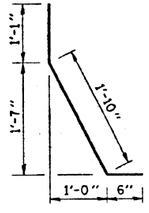
BAR a_1 (E)



BARS d_4 (E)



BAR d (E)



BAR d_1 (E)

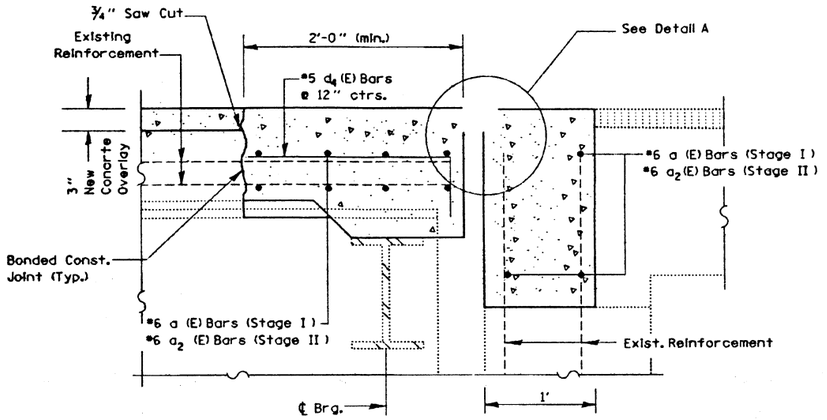
EXPANSION JOINT REPLACEMENT DETAILS
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0163

JAN. 28, 2000
\ED02\DOT\DETAILS\DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	67
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 6 of 15



SECTION A – A

NOTES:

1. THE LIMITS OF ALL CONCRETE REMOVAL SHALL BE SAW CUT 3/4" INTO CONCRETE.

2. EXISTING TRANSVERSE BARS EXTENDING FROM DECK INTO REMOVED AREA SHALL BE CUT ALLOWING 2'-0" TO EXTEND INTO THE REMOVED AREA. IN ADDITION, THESE CUT BARS SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO THE NEW CONSTRUCTION

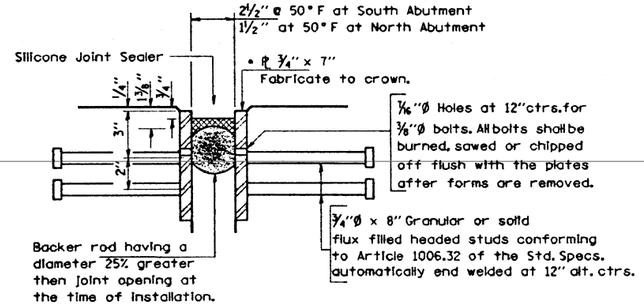
3. EXISTING LONGITUDINAL BARS IN DECK AND VERTICAL BARS IN ABUTMENT BACKWALL EXTENDING INTO THE REMOVED AREA SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED IN THE NEW WORK.

4. EXISTING PARAPET REINFORCEMENT EXTENDING INTO THE REMOVED AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION.

5. THE REMOVAL AND REPLACEMENT OF CONCRETE AT THE ABUTMENT BACKWALL, PARAPET, AND DECK WILL BE PAID FOR AS CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE.

6. THE PARAPET SHALL BE REMOVED ON THE DECK SIDE, BUT SHALL REMAIN IN PLACE ON THE ABUTMENT SIDE. CONCRETE REMOVAL AT THE ABUTMENT SHALL BE FROM FACE OF PARAPET TO FACE OF PARAPET.

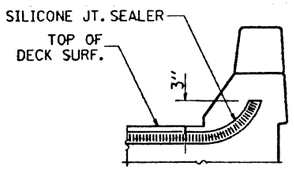
7. THE REMOVAL OF EXISTING PJS AND STEEL ARMOUR SHALL BE INCLUDED IN THE COST OF "CONCRETE REMOVAL".



NOTE: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No field painting required.

• Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.

SILICONE JOINT SEALER DETAIL A



TYPICAL END OF SEAL TREATMENT

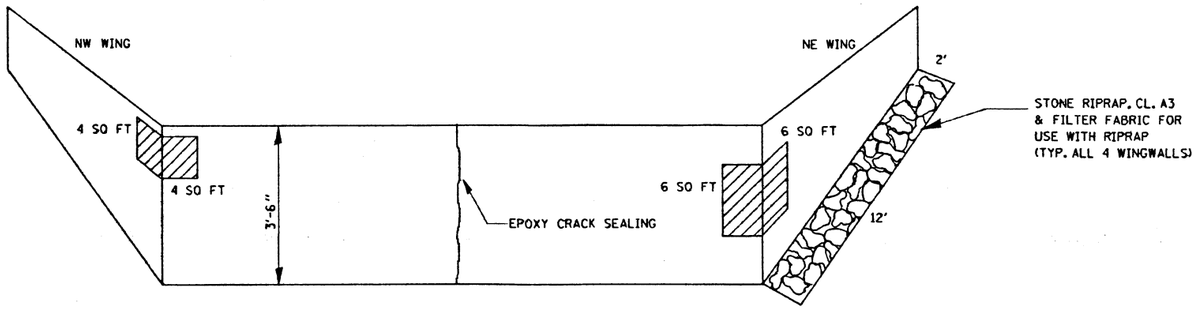
EXPANSION JOINT REPLACEMENT DETAILS
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0163

DEC. 23, 1999
\D502100\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	68
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

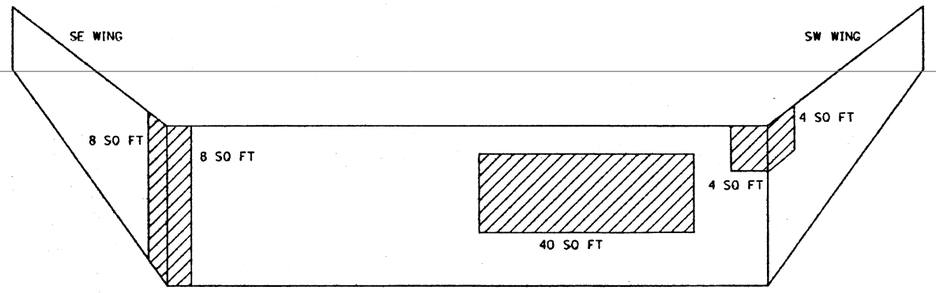
SHEET 7 of 15



NORTH ABUTMENT BACKWALL

EPOXY CRACK SEALING = 3' - 6"

FORMED CONCRETE
REPAIR ≤ 5 "
20 S.F.



SOUTH ABUTMENT BACKWALL

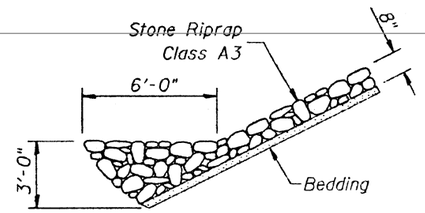
FORMED CONCRETE
REPAIR ≤ 5 " =
64 S.F.

EPOXY CRACK SEALING = 4'

FORMED CONCRETE
REPAIR ≤ 5 " =
84 S.F.

RIPRAP = 96 SQ FT

ABUTMENT CRACKS AND SPALLS
S.N. 057–0163



STONE RIPRAP ANCHOR DETAIL

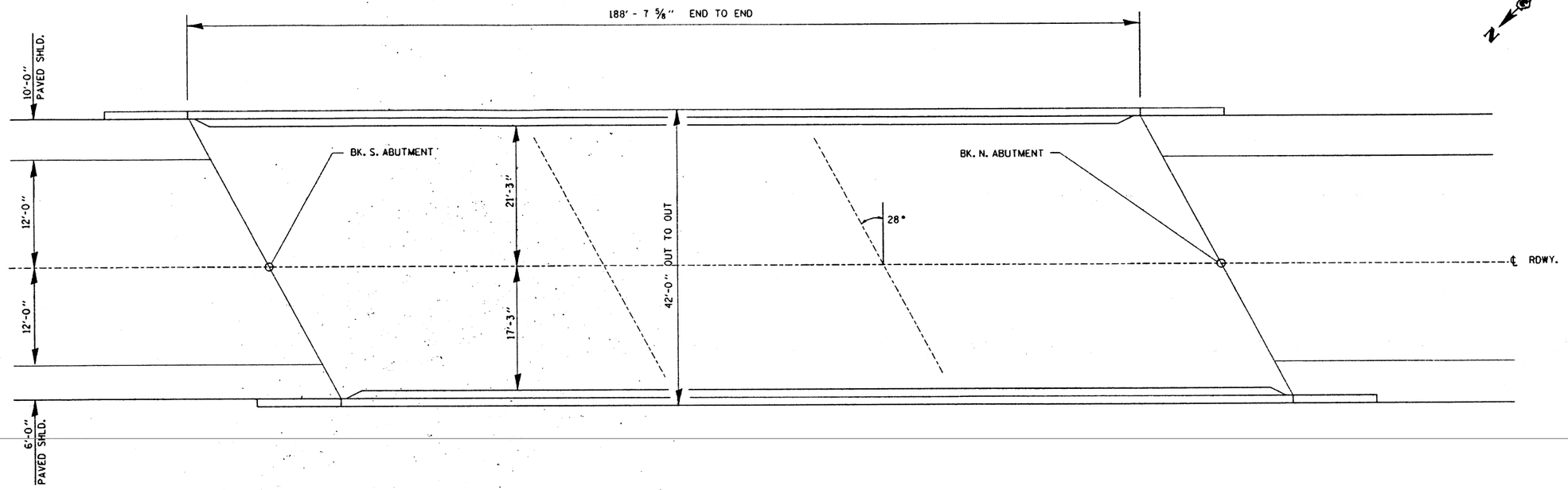
ABUTMENT REPAIRS
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57–3–1, 57–3, 57–3–2, 57–2) RS
MCLEAN COUNTY
STA. 322 + 95
S.N. 057–0163

DEC. 23, 1999
\EDOT\DGN\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	69
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 8 of 15

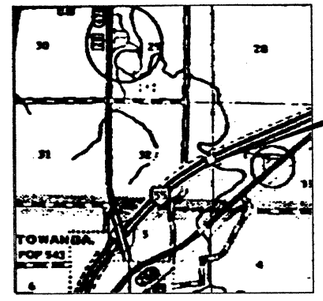


TOTAL BILL OF MATERIALS S.N. 057–0164

CODE NO.	ITEM	UNIT	QUANT
20300100	CHANNEL EXCAVATION	CU YD	500
28100105	STONE RIPRAP, CLASS A3	SQ YD	11
28100107	STONE RIPRAP, CLASS A4	SQ YD	143
28200100	FILTER FABRIC FOR USE WITH RIPRAP	SQ YD	167
44001000	BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	807
50102400	CONCRETE REMOVAL	CU YD	6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	6
50300260	BRIDGE DECK GROOVING	SQ YD	765
50300300	PROTECTIVE COAT	SQ YD	823
50301245	FORMED CONCRETE REPAIR (DEPTH LESS THAN OR EQUAL TO 5")	SQ FT	30
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3385
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1859
59000100	EPOXY CRACK SEALING	FOOT	15
X0321468	PLUG EXISTING DECK DRAINS	EACH	20
Z0002600	BAR SPLICERS	EACH	22
Z0006110	BRIDGE DECK MICROSILICA CONCRETE OVERLAY	SQ YD	790
Z0012200	CONCRETE BRIDGE DECK SCARIFICATION (1/2 INCH)	SQ YD	790
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	1
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	1
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	7
*1002576	SILICONE JOINT SEAL - 2 1/2"	FOOT	47
*3000919	SILICONE JOINT SEAL - 1-1/2"	FOOT	47

NOTE:

SEE SHEET 9 OF 15 FOR GENERAL NOTES.



S.N. 057–0164

LOCATION SKETCH

GENERAL PLAN
F.A.I. 55 N.B. OVER MONEY CREEK
SECTION (57–3–1, 57–3, 57–3–2, 57–2) RS
MCLEAN COUNTY
STA. 322 + 95
S.N. 057–0164

JAN. 5, 2000
\ED021\00\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	70
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 9 of 15

General Notes:

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

2. All Structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. The cost shall be included in the cost of Furnishing and Erecting Structural Steel.

3. The existing structural steel contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

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

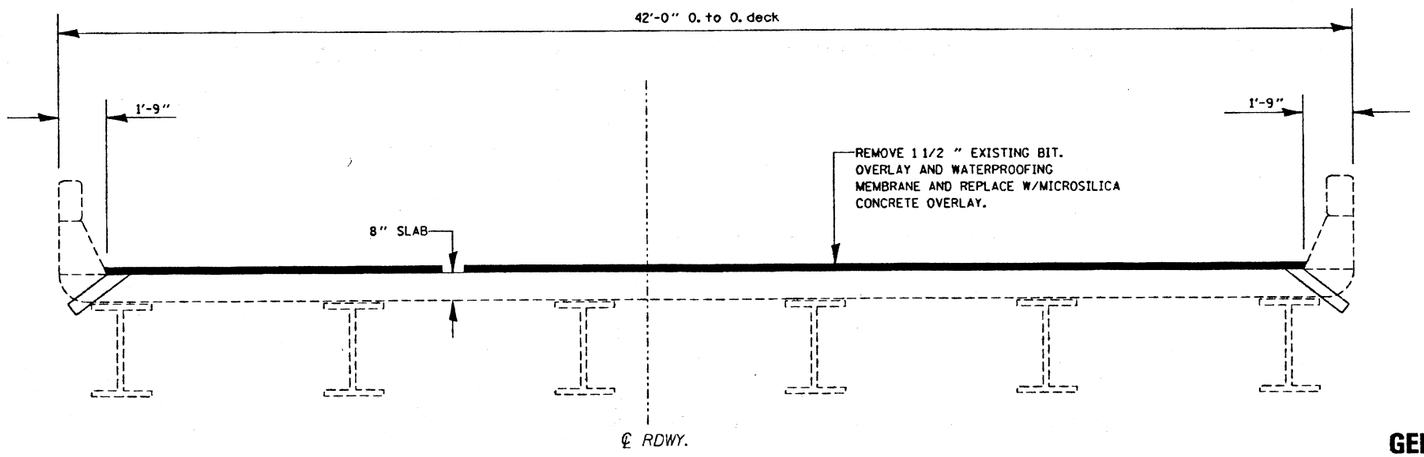
5. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included in the cost of "Concrete Removal".

6. Existing longitudinal reinforcement extending into the removed area shall be cleaned, straightened and incorporated into the new construction. Existing transverse reinforcement may be cut as shown and removed.

7. 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 beams in contact with concrete. The removal shall be accomplished according to the requirements of the SSPC Surface Preparation Specifications SP-3 for power tool cleaning or SP-2 for hand tool cleaning. Cost shall be included in the cost of "Concrete Superstructure".

8. 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 degrees Fahrenheit.

9. 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.



CROSS SECTION

LOOKING NORTH

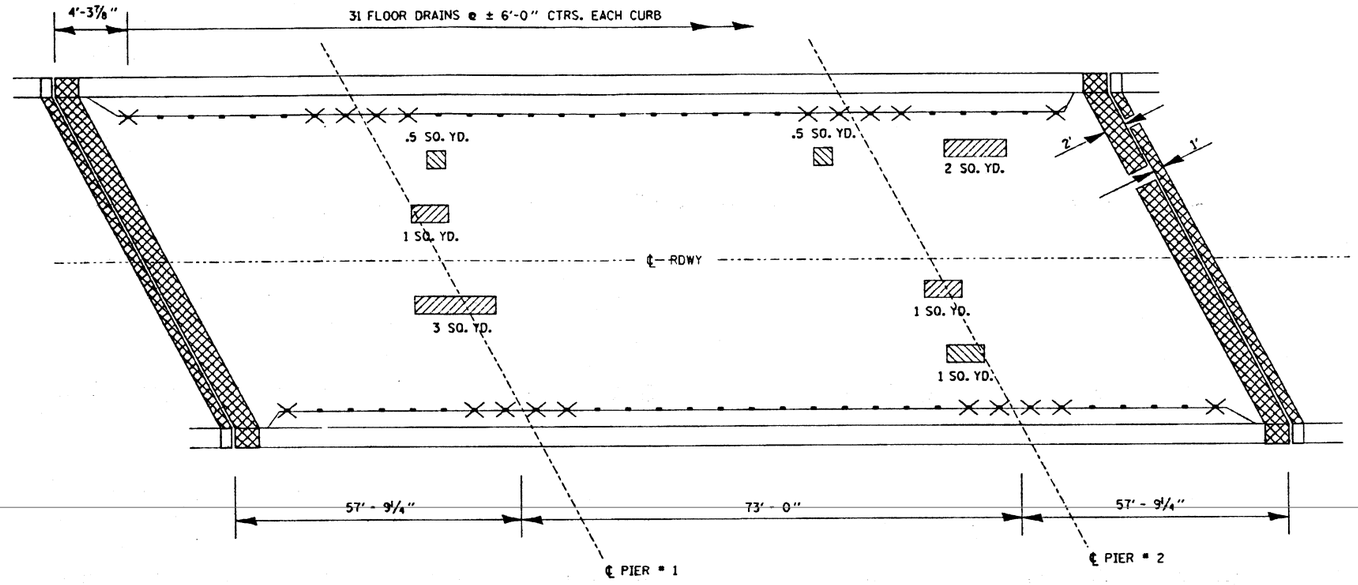
GENERAL NOTES AND TYPICAL SECTION
F.A.I. 55 N.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0164

DEC. 23, 1989
\EDOT\DGN\DETAILS.DGN

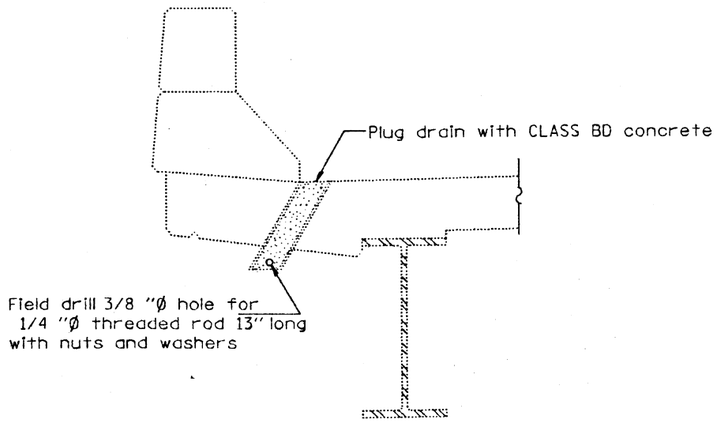
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	71
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 10 of 15



DECK REPAIR PLAN



SECTION AT DRAIN

DRAIN ELIMINATION DETAILS

NOTES:

AREA OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.

EXISTING DECK DRAINS LOCATED WITHIN 10 FT. OF A PIER OR AN ABUTMENT SHALL BE ELIMNATED.

	UNIT	STAGE I	STAGE II	TOTAL
CONC. REMOVAL	CU. YD.	2.7	3.3	6
CONC. SUPERSTRUCTURE	CU. YD.	2.7	3.3	6
PLUG EXISTING DECK DRAINS	EACH	10	10	20
DECK SLAB REPAIR (PARTIAL DEPTH)	SQ. YD.	3	4	7
DECK SLAB REPAIR (FULL DEPTH)	SQ. YD.	1	1	2

DECK SURVEY DATE: FEBRUARY 9, 1999

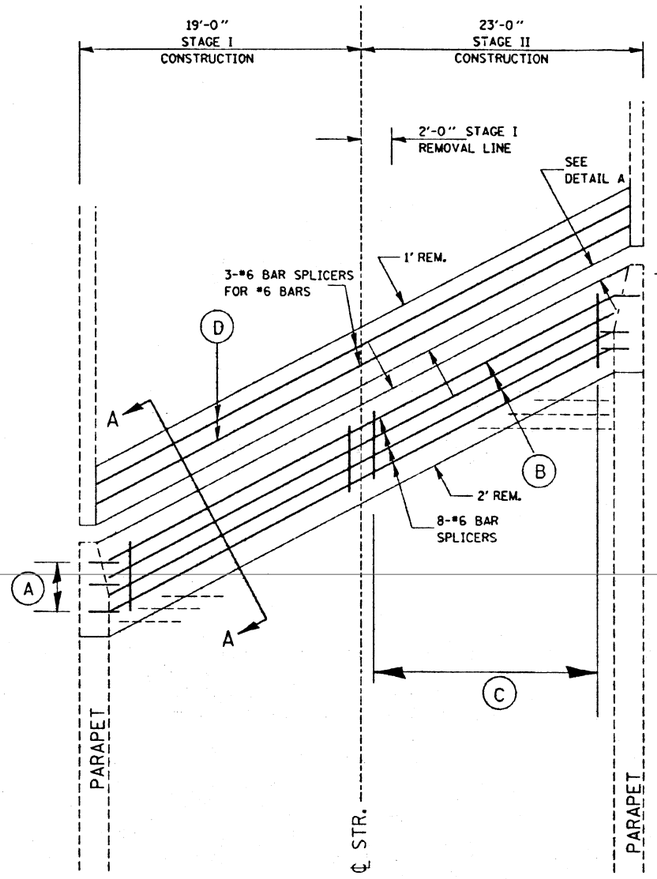
DECK REPAIR PLAN
F.A.I. 55 N.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0164

DEC. 23, 1999,
\EDO2100\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	72
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 11 of 15



PLAN AT NORTH ABUTMENT
(SOUTH ABUTMENT MIRROR IMAGE)

BARS REQUIRED FOR EACH STAGE

(A) 3- #4 d (E) Bars
3- #5 d_1 (E) Bars
2- #4 d_3 (E) Bars @ ea. rail post
3- #6 a_1 (E) Bars (Top)
(Lap with a (E) & a_2 (E))

(B) 4- #6 a (E) Bars (Top - Stage I), (a_2 (E) Bars Top - Stage II)
4- #6 a (E) Bars (Bottom - Stage I), (a_2 (E) Bars Bottom - Stage II)

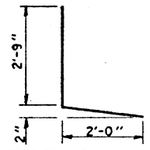
(C) 18- #5 d_4 (E) Bars @ 12" ctrs. (Stage I)
22- #5 d_4 (E) Bars @ 12" ctrs. (Stage II)

(D) 1- #6 a (E) Bar (Top - Stage I), (a_2 (E) Bars Top - Stage II)
2- #6 a (E) Bars (Bottom - Stage I), (a_2 (E) Bars Bottom - Stage II)

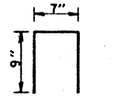
Min Bar Lap
#6 Bar 2'-7"

BILL OF MATERIAL SN 057-0164				
BAR	NO.	SIZE	LENGTH (FT.)	SHAPE
a (E)	22	#6	20'-3"	
a1 (E)	12	#6	4'-0"	
a2 (E)	22	#6	24'-11"	
d (E)	12	#4	4'-9"	
d1 (E)	12	#5	3'-5"	
d3 (E)	8	#4	2'-1"	
d4 (E)	80	#5	2'-5"	
CONCRETE REMOVAL			CU YD	6
CONC. SUPERSTRUCTURE			CU YD	6
BAR SPLICERS			EACH	22
FURN. & ERECT STRUCT. STEEL			POUND	3385
REINFORCEMENT BARS, EPOXY COATED			POUND	1859

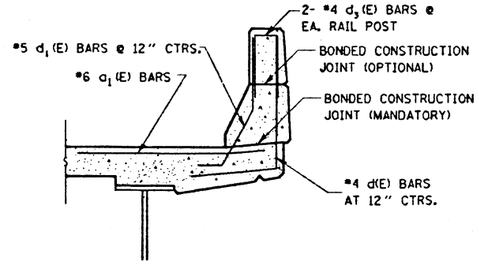
REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED



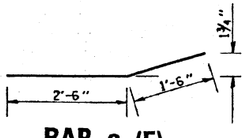
BAR d (E)



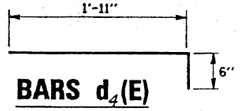
BAR d_3 (E)



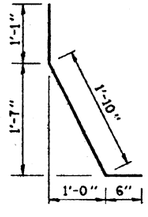
SECTION THRU PARAPET
(DECK SIDE)



BAR a_1 (E)



BARS d_4 (E)



BAR d_1 (E)

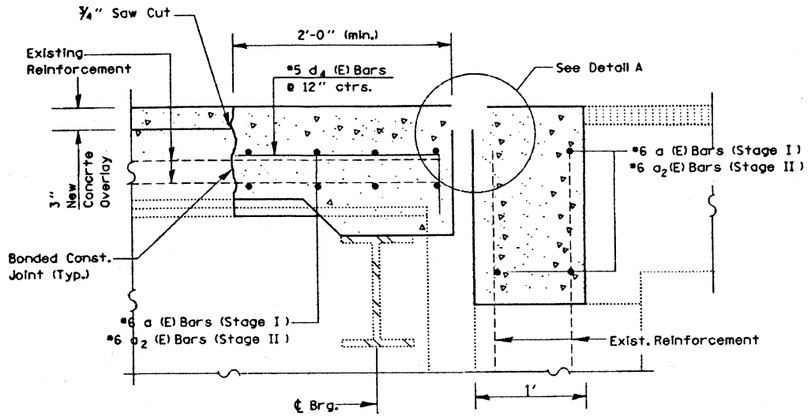
EXPANSION JOINT REPLACEMENT DETAILS
F.A.I. 55 N.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0164

JAN. 5, 2000
\EDOT\00\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	73
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 12 of 15



WITH CONCRETE OVERLAY

NOTES:

1. THE LIMITS OF ALL CONCRETE REMOVAL SHALL BE SAW CUT 3/4" INTO CONCRETE.

2. EXISTING TRANSVERSE BARS EXTENDING FROM DECK INTO REMOVED AREA SHALL BE CUT ALLOWING 2'-0" TO EXTEND INTO THE REMOVED AREA. IN ADDITION, THESE CUT BARS SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED INTO THE NEW CONSTRUCTION

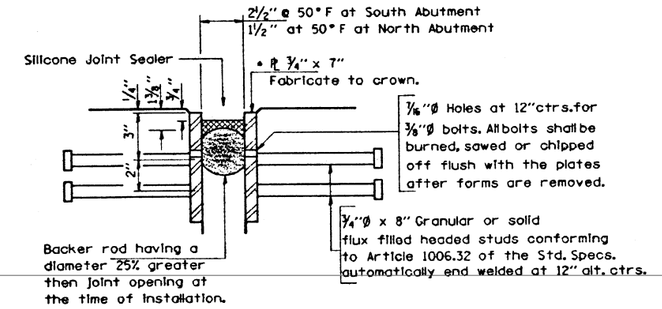
3. EXISTING LONGITUDINAL BARS IN DECK AND VERTICAL BARS IN ABUTMENT BACKWALL EXTENDING INTO THE REMOVED AREA SHALL BE CLEANED, STRAIGHTENED, AND INCORPORATED IN THE NEW WORK.

4. EXISTING PARAPET REINFORCEMENT EXTENDING INTO THE REMOVED AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION.

5. THE REMOVAL AND REPLACEMENT OF CONCRETE AT THE ABUTMENT BACKWALL, PARAPET, AND DECK WILL BE PAID FOR AS CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE.

6. THE PARAPET SHALL BE REMOVED ON THE DECK SIDE, BUT SHALL REMAIN IN PLACE ON THE ABUTMENT SIDE. CONCRETE REMOVAL AT THE ABUTMENT SHALL BE FROM FACE OF PARAPET TO FACE OF PARAPET.

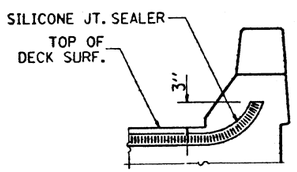
7. THE REMOVAL OF EXISTING PJS AND STEEL ARMOUR SHALL BE INCLUDED IN THE COST OF "CONCRETE REMOVAL".



NOTE: After fabrication all surfaces of the steelplates shallbe given one shop coat of paint specified for Structural Steel. No field painting required.

• Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shallbe ⅜". Sealspace with Silicone Sealant suitable for Structural Steel.

SILICONE JOINT SEALER DETAIL A



TYPICAL END OF SEAL TREATMENT

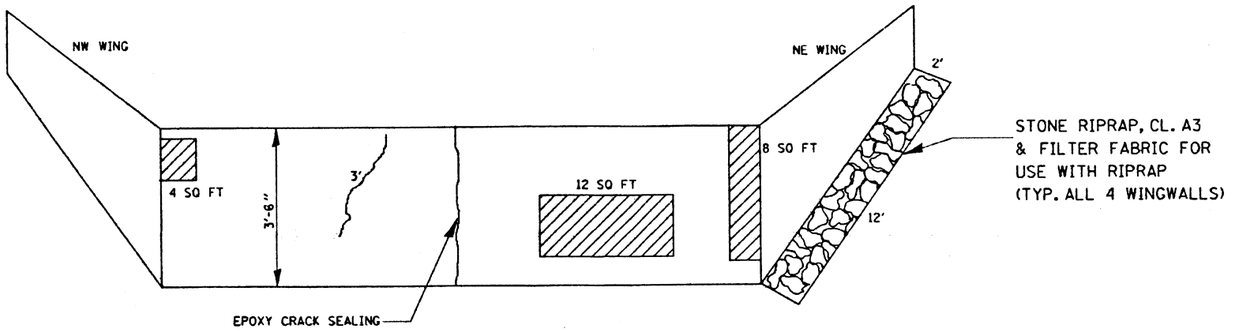
EXPANSION JOINT REPLACEMENT DETAILS
F.A.I. 55 N.B. OVER MONEY CREEK
SECTION (57-3-1, 57-3, 57-3-2, 57-2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057-0164

DEC. 23, 1993
\ED021\QV\DETAILS.DGN

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	74
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

SHEET 13 of 15

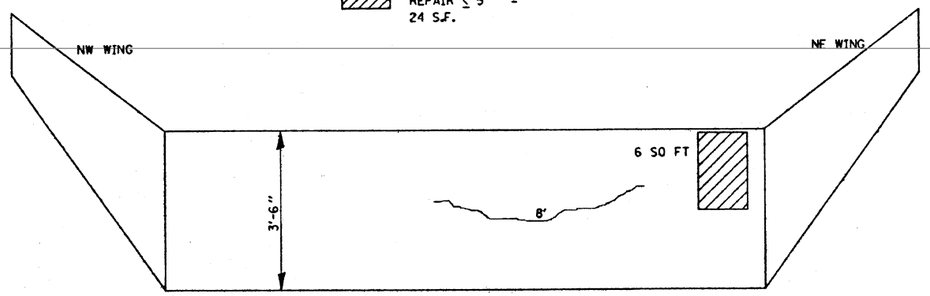


STONE RIPRAP, CL. A3
& FILTER FABRIC FOR
USE WITH RIPRAP
(TYP. ALL 4 WINGWALLS)

NORTH ABUTMENT BACKWALL

EPOXY CRACK SEALING = 6'-6"

FORMED CONCRETE
REPAIR ≤ 5 " =
24 S.F.



SOUTH ABUTMENT BACKWALL

EPOXY CRACK SEALING = 8'

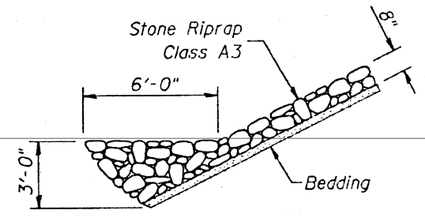
FORMED CONCRETE
REPAIR ≤ 5 " =
6 S.F.

EPOXY CRACK SEALING = 15'

FORMED CONCRETE
REPAIR ≤ 5 " =
30 S.F.

RIPRAP = 96 SQ FT

ABUTMENT CRACKS AND SPALLS
S.N. 057–0164



STONE RIPRAP ANCHOR DETAIL

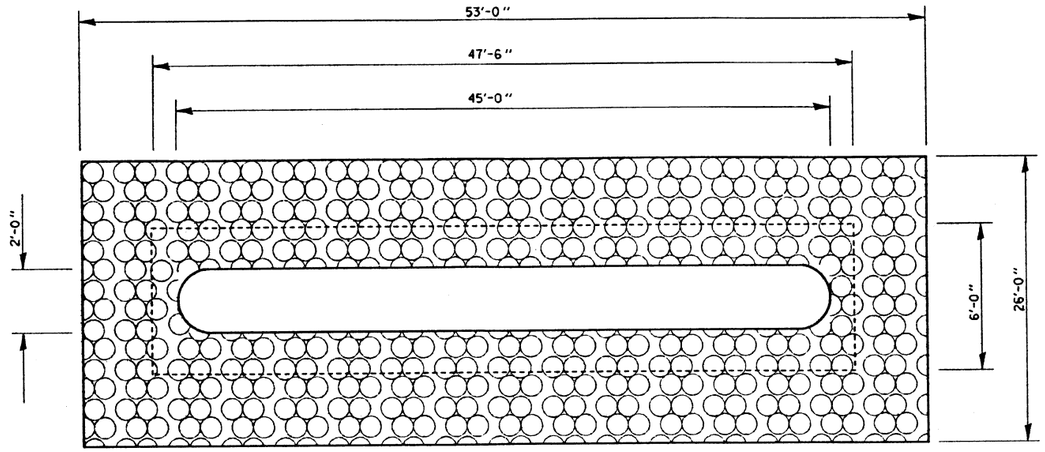
ABUTMENT REPAIRS
F.A.I. 55 N.B. OVER MONEY CREEK
SECTION (57–3–1, 57–3, 57–3–2, 57–2) RS
MCLEAN COUNTY
STA. 322 + 95
S.N. 057–0164

DEC. 23, 1999
\2000\GOVDET41LS.DGN

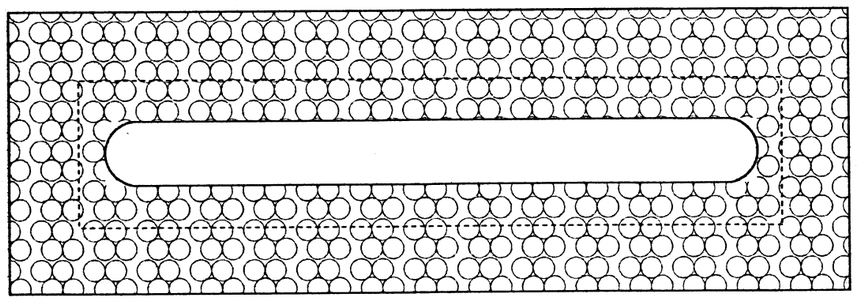
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	MCLEAN	139	75
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (57-3-1, 57-3, 57-3-2, 57-2) RS

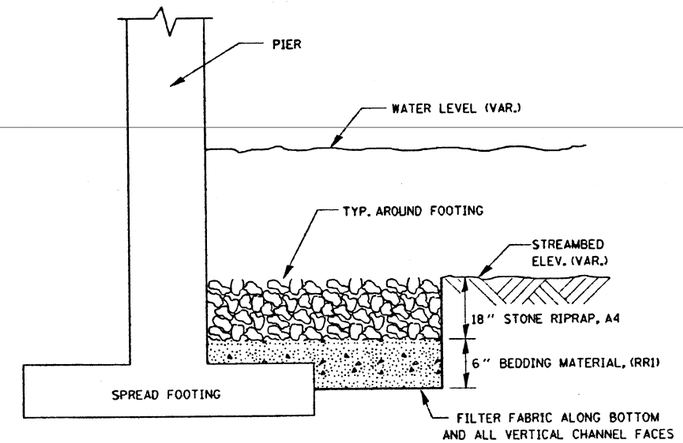
SHEET 14 of 15



PIER #2



PIER #1



TYPICAL SECTION FOR PIER.
RIPRAP CLASS A4

NOTE: CHANNEL EXCAVATION SHALL NOT EXCEED BOTTOM OF FOOTING

STR. # 057–0163 & STR. # 057–0164
PIERS 1 & 2

RIPRAP AT PIERS
F.A.I. 55 S.B. OVER MONEY CREEK
SECTION (57–3–1, 57–3, 57–3–2, 57–2) RS
MCLEAN COUNTY
STA. 322+95
S.N. 057–0163 & S.N. 057–0164

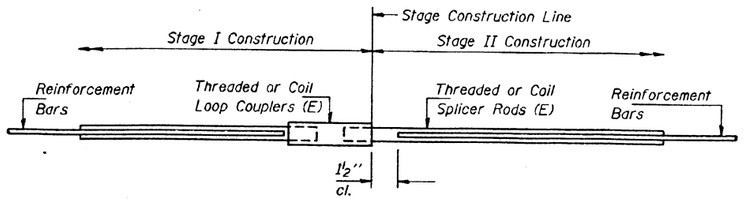
DEC. 23, 1999
\EDD2100\DETAILS.DGN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.	*	McLEAN	139	76
FED. ROAD DIST. NO.		ILLINOIS	FED. NO. PROJECT-	

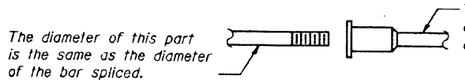
SHEET NO. 15
15 SHEETS

* (57-3-1,57-3,57-3-2,57-2)RS



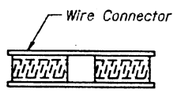
SPLICER DETAIL

Bar Size	No. Assemblies Required	Location
#6	22	Stage Construction Line S.N. 057-0163
#6	22	Stage Construction Line S.N. 057-0164
Total	44	



ROLLED THREAD DOWEL BAR

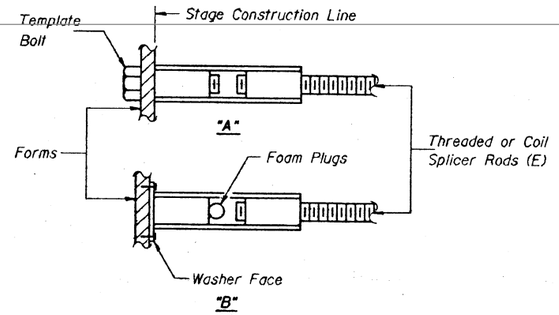
** ONE PIECE



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

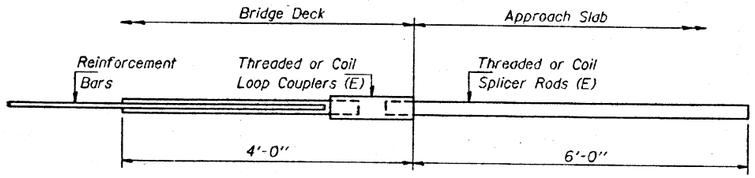
① Minimum Capacity (Tension in kips) = $1.25 \times fy \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where fy = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



INTEGRAL ABUTMENT BAR SPLICER ASSEMBLY DETAIL FOR #5 BAR

Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED _____ 20
ENGINEER OF BRIDGE DESIGN

PASSED _____
ENGINEER OF BRIDGES AND STRUCTURES

BSD-1 4-30-99

\standards\bsd1\s.dgn

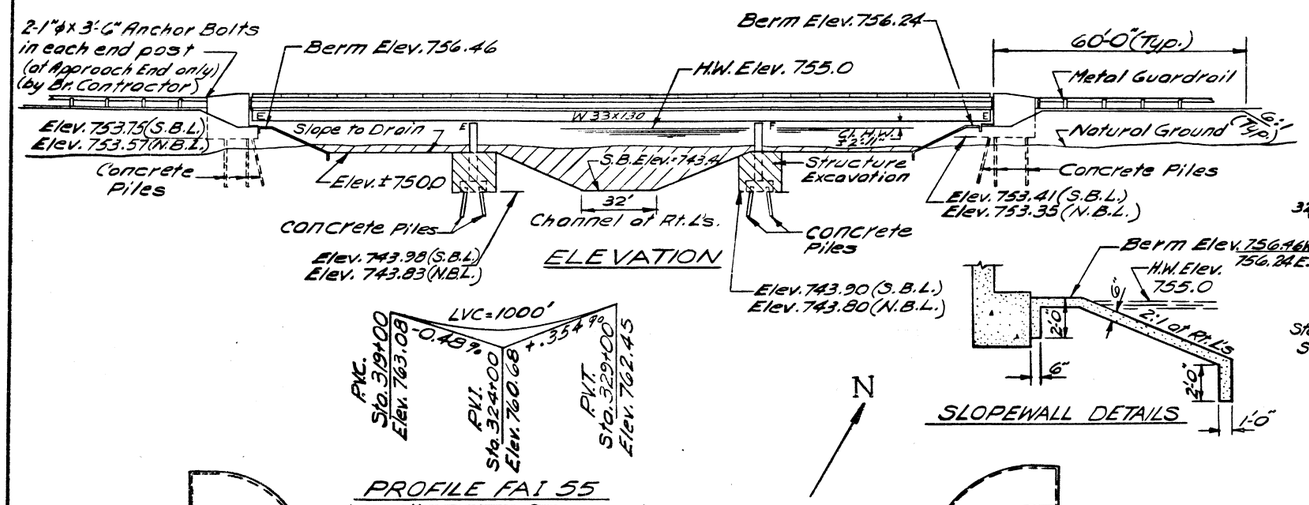
BAR SPLICER ASSEMBLY DETAILS
F.A.I. 55 OVER MONEY CREEK
SECTION (57-3-1,57-3,57-3-2,57-2) RS
McLEAN COUNTY
STA. 322+95
S.N. 057-0163 & S.N. 057-0164

BM #17 Boot Spike in 36" oak 230' Rt. of M.L. Sta. 334+12 Elev. 782.62

STATE OF ILLINOIS

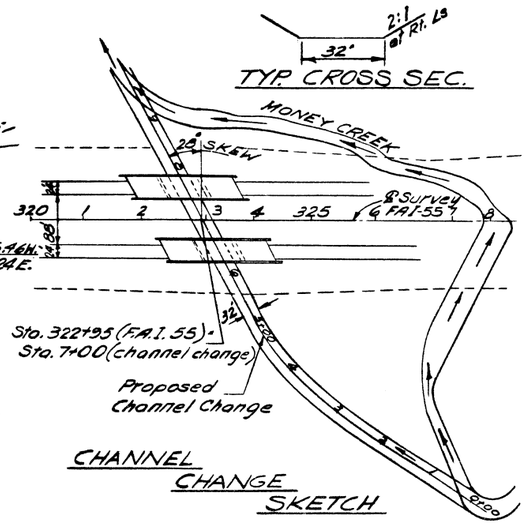
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
A. B. I. F. A. I. 55	57-3B	McLean	134	40
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT:	

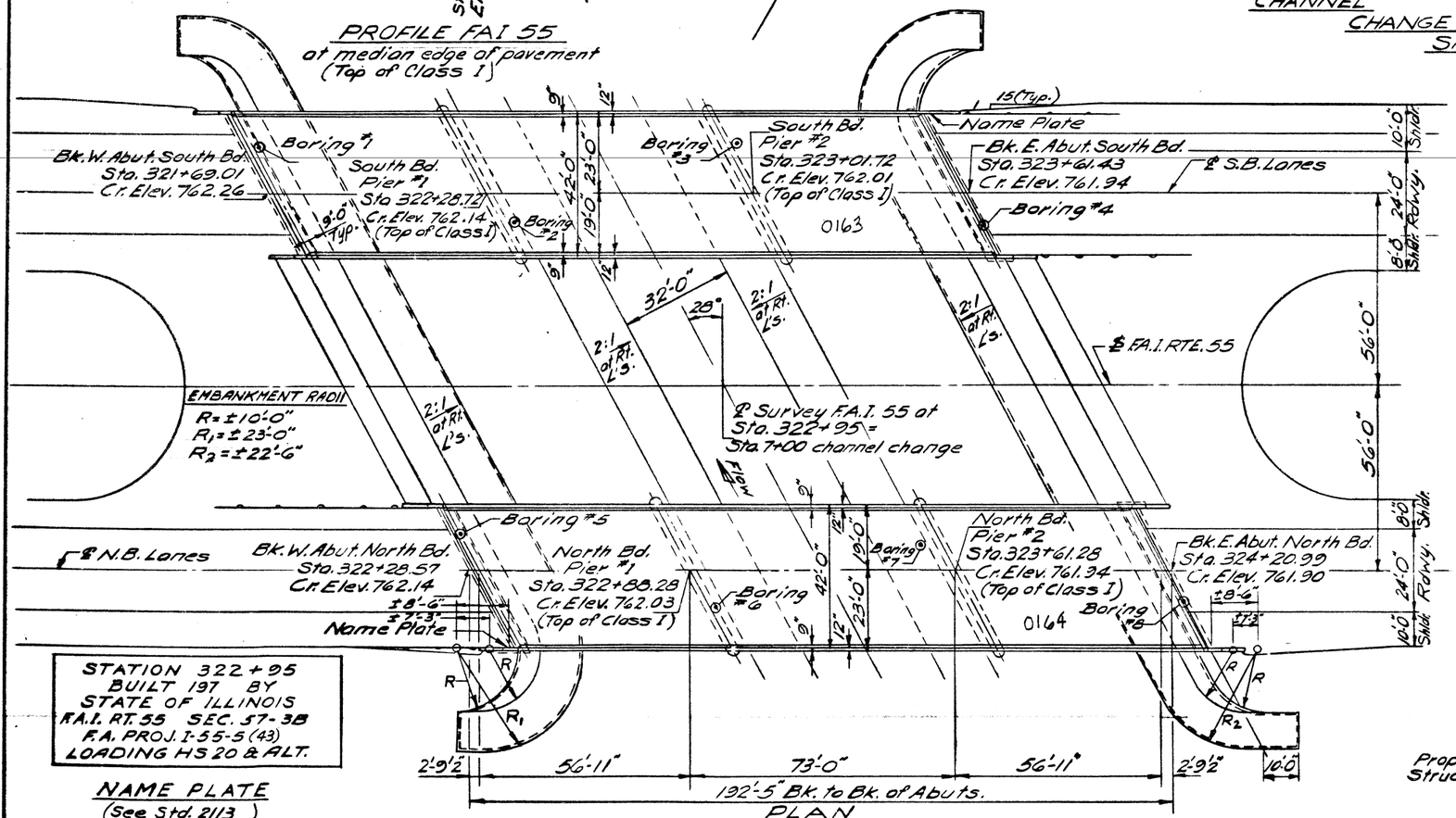
SHEET NO. 1
19 SHEETS



PROFILE FAI 55
at median edge of pavement
(Top of Class I)

SLOPEWALL DETAILS





PLAN

STATION 322+95
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 55 SEC. 57-3B
F.A. PROJ. I-55-5(43)
LOADING HS 20 & ALT.

NAME PLATE
(See Std. 2113)

DESIGNED	Prakash S. Wa
CHECKED	Leona McCormick
DRAWN	Leona Hearen PSL
CHECKED	GM

EXAMINED — September 24 1971
PASSED — W. C. Baumann, ENGINEER OF DESIGN
APPROVED — Richard L. Holtzman, CHIEF HIGHWAY ENGINEER

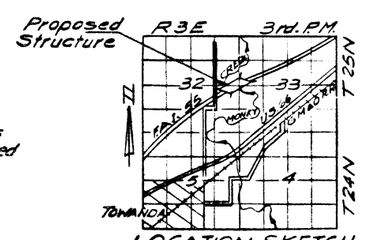
DESIGN STRESSES

fc = 1200 psi Slab
fc = 1400 psi Curb, Parapet & Sub
fs = 20,000 psi Reinf. & Struct. A-36
vc = 75 psi Footings & Wingwalls
n = 10
Future W.S. 23'/Sq. Ft.
Allow L.L. Δ = 4/1440 (comp)

LOADING HS 20-44 & ALT.

WATERWAY INFORMATION

Drainage Area: 27800 Acres
Character: Rolling, Clay, Cultivated
Req'd. Opening 970 Sq. Ft.
Proposed Opening 970 Sq. Ft.
Q(50) 4850 cfs.
Created Head Q31 Ft.



LOCATION SKETCH

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

Fasteners shall be high strength bolts. Bolts 3/4"ϕ, open holes 13/16" unless otherwise noted.

Calculated weight of structural steel = 366,640 Lbs.

Protective coat shall not be applied to surfaces to which coal tar interlayer protective coat is applied.

The basic lead silico chromate paint system shall be used for shop and field painting of structural steel.

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.

Anchor bolts shall be set before bolting diaphragms over supports.

Slope wall shall be reinforced with welded wire fabric, 6" x 6" mesh, weighing 58 lbs. per 100 Sq. Ft.

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

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

The Contractor shall drive four concrete test piles in permanent locations, one at the East abutment of the South bound lanes, one at the West abutment of the North bound lanes, one at pier #1 of the South bound lanes and one at pier #2 of the North bound lanes as directed by the Engineer before ordering the remainder of piles.

Layout of slope walls may be varied in the field to suit ground conditions as directed by the Engineer.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Bituminous Concrete Surface Course, Class I	Tons	131		131
Protective Coat	Sq. yds.	319		319
Structure Excavation	Cu. Yds.			467
Class X Concrete	Cu. Yds.	487.5	133.6	681.1
Structural Steel	L.S.	1		1
Aluminum Railing	Lin. Ft.	755		755
Reinforcement Bars	Lbs.	115,270	28,460	143,730
Name Plates	Each		2	2
Slope Wall (6")	Sq. Yds.			12.5
Class A Concrete	Cu. Yds.		240.0	240.0
Coal Tar Interlayer Protective Coat	Sq. Yds.	1628		1628
Concrete Piles	Lin. Ft.		2373	2373
Test Piles (Concrete)	Ea.		4	4
Preformed Joint Sealer	Lin. Ft.	192		192
Stud Shear Connectors	Ea.	5652		5652

GENERAL PLAN & ELEVATION
PROJ. I-55-5(43) 167
F.A.I. 55 over MONEY CREEK
F.A.I. RTE. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

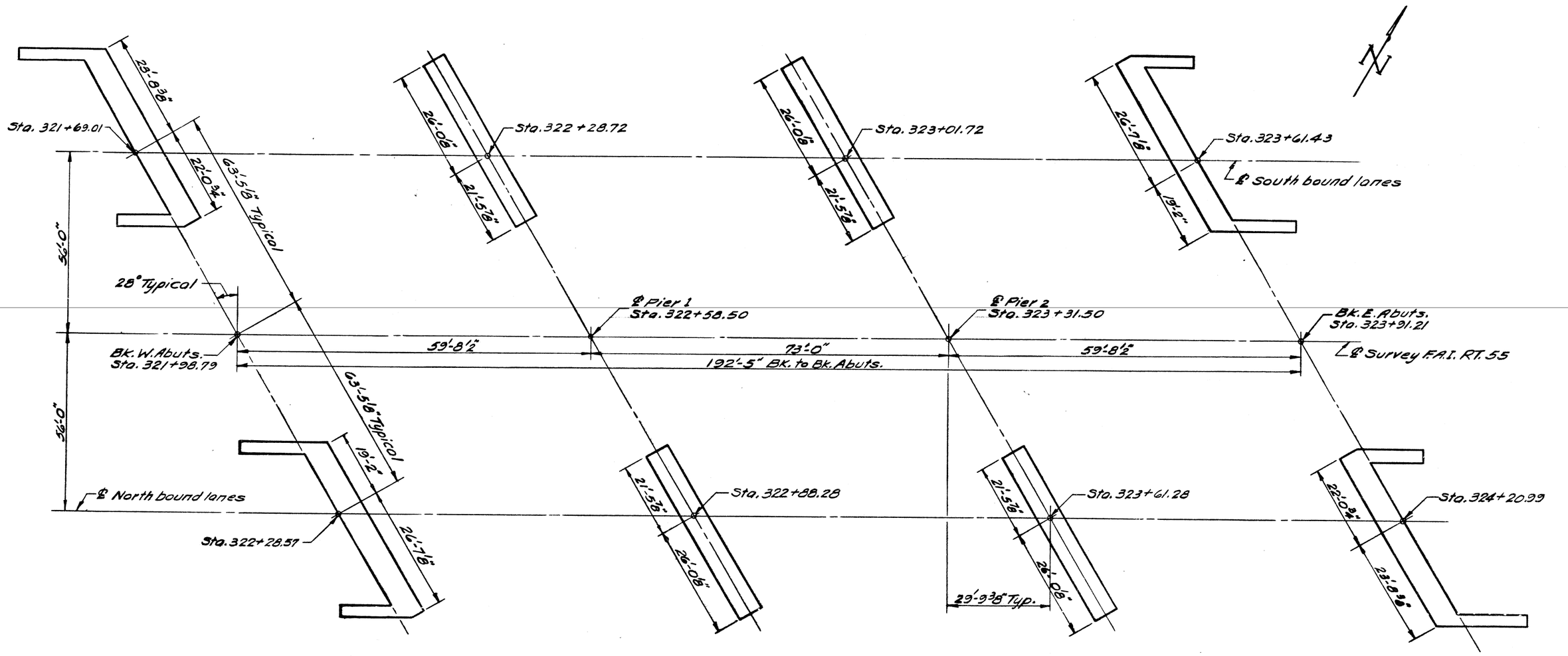
3-86

#15 5-1-73

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 2
13 SHEETS

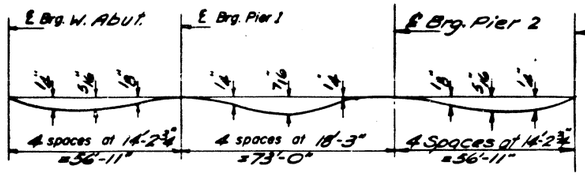


FOOTING LAYOUT

DESIGNED	Richard S. Ward
CHECKED	Hans McCormick
DRAWN	Leona Heeren PSL
CHECKED	GM

19
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED W. E. Baumann
ENGINEER OF DESIGN
APPROVED Richard H. Mostermen
CHIEF HIGHWAY ENGINEER

FOOTING LAYOUT
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

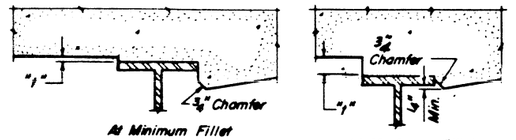


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

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

STATE OF ILLINOIS



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

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 3
13 SHEETS

LONGITUDINAL BONDED CONSTRUCTION JOINT

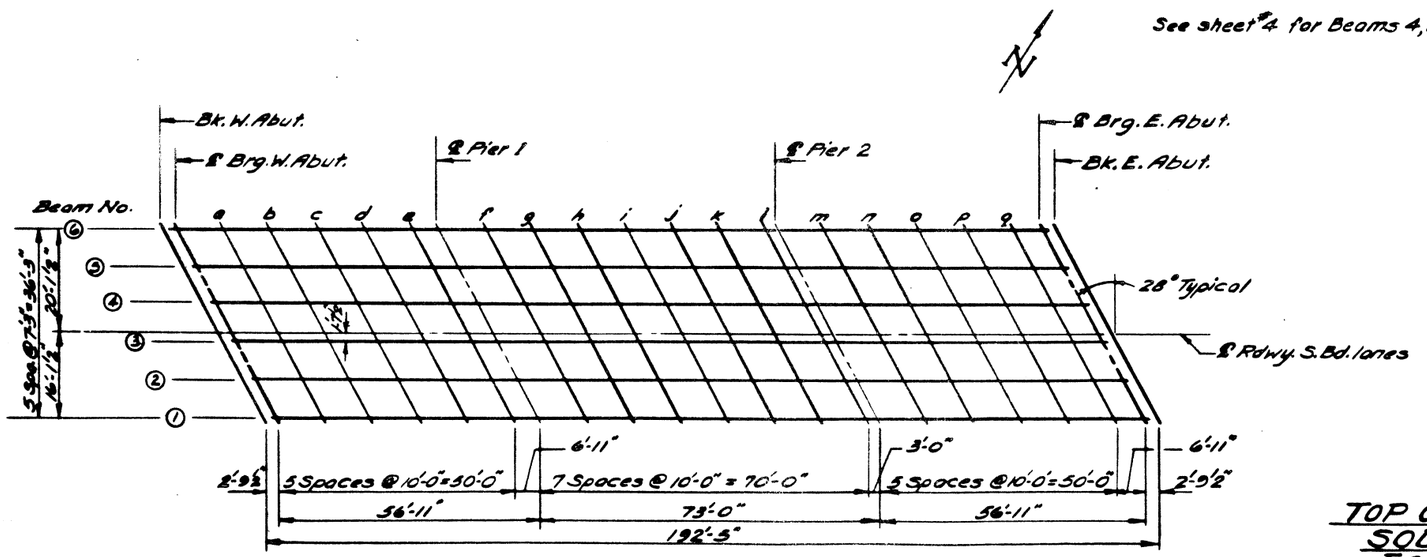
Location	Beam 1	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.		32180.374	16.125	761.849	761.84
a		32190.374	16.125	761.825	761.840
b		32200.374	16.125	761.801	761.824
c		32210.374	16.125	761.779	761.801
d		32220.374	16.125	761.757	761.779
e		32230.374	16.125	761.736	761.741
℄ Pier 1		32237.291	16.125	761.722	761.722
f		32247.291	16.125	761.703	761.713
g		32257.291	16.125	761.684	761.705
h		32267.291	16.125	761.666	761.697
i		32277.291	16.125	761.649	761.683
j		32287.291	16.125	761.633	761.657
k		32297.291	16.125	761.618	761.632
l		32307.291	16.125	761.603	761.607
℄ Pier 2		32310.291	16.125	761.599	761.599
m		32320.291	16.125	761.586	761.593
n		32330.291	16.125	761.573	761.589
o		32340.291	16.125	761.562	761.586
p		32350.291	16.125	761.551	761.573
q		32360.291	16.125	761.541	761.551
℄ Brg E. Abut.		32367.207	16.125	761.534	761.534

Location	Beam 2	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.		32178.181	12.000	761.940	761.940
a		32188.181	12.000	761.916	761.931
b		32198.181	12.000	761.892	761.915
c		32208.181	12.000	761.869	761.892
d		32218.181	12.000	761.847	761.860
e		32228.181	12.000	761.826	761.831
℄ Pier 1		32235.097	12.000	761.812	761.812
f		32245.097	12.000	761.793	761.803
g		32255.097	12.000	761.774	761.795
h		32265.097	12.000	761.756	761.786
i		32275.097	12.000	761.739	761.772
j		32285.097	12.000	761.722	761.746
k		32295.097	12.000	761.707	761.721
l		32305.097	12.000	761.692	761.695
℄ Pier 2		32308.097	12.000	761.688	761.688
m		32318.097	12.000	761.675	761.682
n		32328.097	12.000	761.662	761.678
o		32338.097	12.000	761.650	761.674
p		32348.097	12.000	761.639	761.661
q		32358.097	12.000	761.629	761.639
℄ Brg E. Abut.		32365.014	12.000	761.622	761.622

Location	Beam 3	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.		32176.519	8.875	761.993	761.993
a		32186.519	8.875	761.968	761.984
b		32196.519	8.875	761.945	761.967
c		32206.519	8.875	761.922	761.944
d		32216.519	8.875	761.900	761.912
e		32226.519	8.875	761.879	761.883
℄ Pier 1		32233.436	8.875	761.864	761.864
f		32243.436	8.875	761.845	761.855
g		32253.436	8.875	761.826	761.847
h		32263.436	8.875	761.808	761.838
i		32273.436	8.875	761.790	761.824
j		32283.436	8.875	761.774	761.798
k		32293.436	8.875	761.758	761.772
l		32303.436	8.875	761.744	761.747
℄ Pier 2		32306.436	8.875	761.739	761.739
m		32316.436	8.875	761.726	761.733
n		32326.436	8.875	761.713	761.728
o		32336.436	8.875	761.701	761.725
p		32346.436	8.875	761.690	761.712
q		32356.436	8.875	761.679	761.690
℄ Brg E. Abut.		32363.352	8.875	761.673	761.673

Location	Beam 4	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.		32172.664	1.625	762.116	762.116
a		32182.664	1.625	762.091	762.106
b		32192.664	1.625	762.067	762.090
c		32202.664	1.625	762.044	762.066
d		32212.664	1.625	762.021	762.034
e		32222.664	1.625	762.000	762.005
℄ Pier 1		32229.581	1.625	761.986	761.986
f		32239.581	1.625	761.965	761.976
g		32249.581	1.625	761.946	761.967
h		32259.581	1.625	761.928	761.958
i		32269.581	1.625	761.910	761.944
j		32279.581	1.625	761.893	761.917
k		32289.581	1.625	761.878	761.891
l		32299.581	1.625	761.862	761.869
℄ Pier 2		32302.581	1.625	761.858	761.858
m		32312.581	1.625	761.844	761.851
n		32322.581	1.625	761.831	761.847
o		32332.581	1.625	761.819	761.842
p		32342.581	1.625	761.807	761.829
q		32352.581	1.625	761.796	761.807
℄ Brg E. Abut.		32359.497	1.625	761.789	761.789

See sheet #4 for Beams 4, 5 and 6



PLAN

DESIGNED	Prakash S. W
CHECKED	L.H.
DRAWN	P.G. Barnett
CHECKED	PSL

E-S 8-1-63

Sept. 24 1971

EXAMINED

PASSED W. C. Baumann
DIRECTOR OF HIGHWAYS

APPROVED Richard H. Hotterman
CHIEF HIGHWAY ENGINEER

TOP OF SLAB ELEVATIONS SOUTH BOUND LANES F.A.I. RT. 55, SEC. 57-3B McLEAN COUNTY STA. 322+95

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 4
19 SHEETS

℄ RDWAY.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	32171.800	0.0	762.143	762.143
a	32181.800	0.0	762.119	762.134
b	32191.800	0.0	762.094	762.117
c	32201.800	0.0	762.071	762.094
d	32211.800	0.0	762.049	762.061
e	32221.800	0.0	762.027	762.032
℄ Pier 1	32228.717	0.0	762.013	762.013
f	32238.717	0.0	761.993	762.003
g	32248.717	0.0	761.973	761.994
h	32258.717	0.0	761.955	761.985
i	32268.717	0.0	761.937	761.970
j	32278.717	0.0	761.920	761.944
k	32288.717	0.0	761.904	761.918
l	32298.717	0.0	761.889	761.892
℄ Pier 2	32301.717	0.0	761.885	761.885
m	32311.717	0.0	761.871	761.878
n	32321.717	0.0	761.857	761.873
o	32331.717	0.0	761.845	761.869
p	32341.717	0.0	761.833	761.856
q	32351.717	0.0	761.823	761.833
℄ Brg. E. Abut.	32358.633	0.0	761.816	761.816

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.	32168.809	-5.625	762.063	762.063
a	32178.809	-5.625	762.038	762.053
b	32188.809	-5.625	762.014	762.036
c	32198.809	-5.625	761.990	762.013
d	32208.809	-5.625	761.967	761.980
e	32218.809	-5.625	761.946	761.951
℄ Pier 1	32225.726	-5.625	761.931	761.931
f	32235.726	-5.625	761.911	761.921
g	32245.726	-5.625	761.891	761.912
h	32255.726	-5.625	761.872	761.903
i	32265.726	-5.625	761.854	761.888
j	32275.726	-5.625	761.837	761.861
k	32285.726	-5.625	761.821	761.835
l	32295.726	-5.625	761.806	761.809
℄ Pier 2	32298.726	-5.625	761.801	761.801
m	32308.726	-5.625	761.787	761.794
n	32318.726	-5.625	761.773	761.789
o	32328.726	-5.625	761.761	761.785
p	32338.726	-5.625	761.749	761.771
q	32348.726	-5.625	761.738	761.748
℄ Brg. E. Abut.	32355.643	-5.625	761.731	761.731

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.	32164.954	-12.875	761.955	761.955
a	32174.954	-12.875	761.930	761.945
b	32184.954	-12.875	761.905	761.928
c	32194.954	-12.875	761.881	761.904
d	32204.954	-12.875	761.858	761.871
e	32214.954	-12.875	761.836	761.841
℄ Pier 1	32221.871	-12.875	761.821	761.821
f	32231.871	-12.875	761.801	761.811
g	32241.871	-12.875	761.781	761.802
h	32251.871	-12.875	761.762	761.792
i	32261.871	-12.875	761.743	761.777
j	32271.871	-12.875	761.726	761.750
k	32281.871	-12.875	761.709	761.723
l	32291.871	-12.875	761.694	761.697
℄ Pier 2	32294.871	-12.875	761.689	761.689
m	32304.871	-12.875	761.674	761.681
n	32314.871	-12.875	761.661	761.676
o	32324.871	-12.875	761.648	761.672
p	32334.871	-12.875	761.636	761.659
q	32344.871	-12.875	761.624	761.639
℄ Brg. E. Abut.	32351.788	-12.875	761.617	761.617

LONGITUDINAL BONDED CONSTRUCTION JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	32163.293	-16.000	761.895	761.895
a	32173.293	-16.000	761.869	761.884
b	32183.293	-16.000	761.844	761.867
c	32193.293	-16.000	761.820	761.843
d	32203.293	-16.000	761.797	761.810
e	32213.293	-16.000	761.775	761.780
℄ Pier 1	32220.209	-16.000	761.760	761.760
f	32230.209	-16.000	761.739	761.749
g	32240.209	-16.000	761.719	761.740
h	32250.209	-16.000	761.700	761.730
i	32260.209	-16.000	761.681	761.715
j	32270.209	-16.000	761.664	761.688
k	32280.209	-16.000	761.647	761.661
l	32290.209	-16.000	761.631	761.634
℄ Pier 2	32293.209	-16.000	761.627	761.627
m	32303.209	-16.000	761.612	761.619
n	32313.209	-16.000	761.598	761.614
o	32323.209	-16.000	761.585	761.609
p	32333.209	-16.000	761.572	761.595
q	32343.209	-16.000	761.561	761.572
℄ Brg. E. Abut.	32350.126	-16.000	761.554	761.554

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	32161.099	-20.125	761.815	761.815
a	32171.099	-20.125	761.789	761.804
b	32181.099	-20.125	761.764	761.786
c	32191.099	-20.125	761.740	761.762
d	32201.099	-20.125	761.716	761.729
e	32211.099	-20.125	761.694	761.699
℄ Pier 1	32218.016	-20.125	761.679	761.679
f	32228.016	-20.125	761.658	761.668
g	32238.016	-20.125	761.637	761.658
h	32248.016	-20.125	761.618	761.649
i	32258.016	-20.125	761.600	761.633
j	32268.016	-20.125	761.582	761.606
k	32278.016	-20.125	761.565	761.579
l	32288.016	-20.125	761.549	761.552
℄ Pier 2	32291.016	-20.125	761.544	761.544
m	32301.016	-20.125	761.529	761.536
n	32311.016	-20.125	761.515	761.531
o	32321.016	-20.125	761.502	761.526
p	32331.016	-20.125	761.489	761.511
q	32341.016	-20.125	761.478	761.488
℄ Brg. E. Abut.	32347.933	-20.125	761.470	761.470

DESIGNED	Prakash S. Lad
CHECKED	
DRAWN	L.H.
CHECKED	PSL

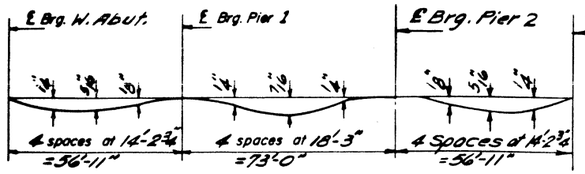
Sept. 24 1971

EXAMINED

PASSED W. E. Bamesberger
Director of Highways

APPROVED Richard H. Gotterman
Chief Highway Engineer

TOP OF SLAB ELEVATIONS
SOUTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STA. 322+95

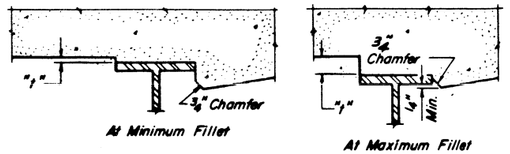


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

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

STATE OF ILLINOIS



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

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.S. 88	57-3B	McLean	144	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

SHEET NO. 5
19 SHEETS

LONGITUDINAL BONDED CONSTRUCTION JT.

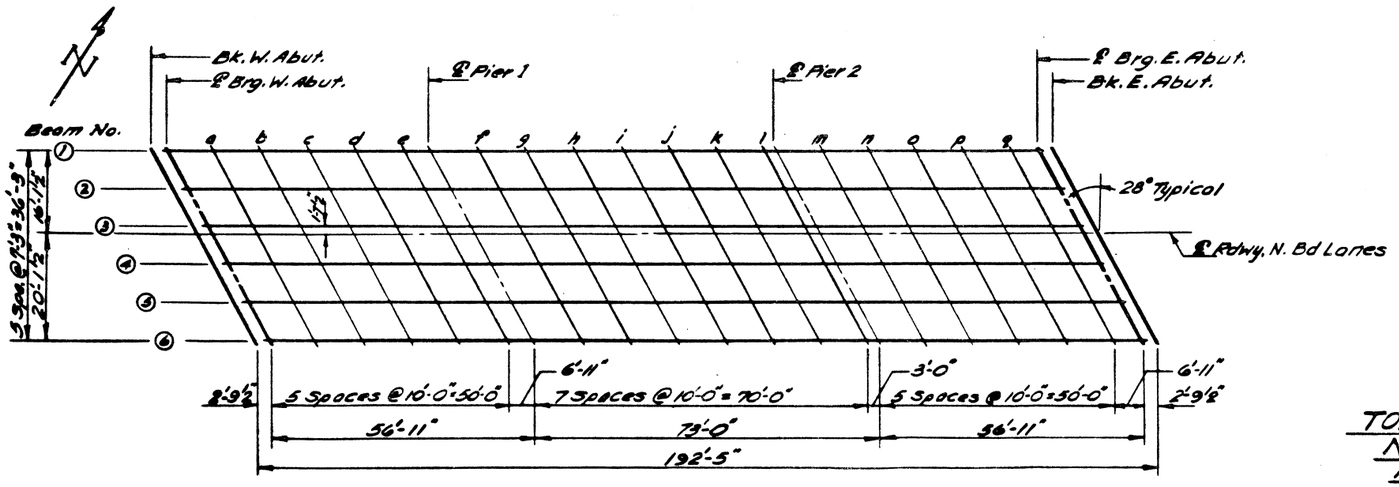
Location	Beam 1	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.		32222.786	-16.125	761.752	761.752
a		32232.786	-16.125	761.731	761.746
b		32242.786	-16.125	761.711	761.734
c		32252.786	-16.125	761.692	761.715
d		32262.786	-16.125	761.674	761.687
e		32272.786	-16.125	761.657	761.662
℄ Pier 1		32279.703	-16.125	761.645	761.645
f		32289.703	-16.125	761.629	761.640
g		32299.703	-16.125	761.614	761.635
h		32309.703	-16.125	761.600	761.631
i		32319.703	-16.125	761.587	761.620
j		32329.703	-16.125	761.574	761.598
k		32339.703	-16.125	761.562	761.576
l		32349.703	-16.125	761.551	761.555
℄ Pier 2		32352.703	-16.125	761.548	761.548
m		32362.703	-16.125	761.538	761.546
n		32372.703	-16.125	761.530	761.545
o		32382.703	-16.125	761.521	761.545
p		32392.703	-16.125	761.514	761.536
q		32402.703	-16.125	761.508	761.518
℄ Brg E. Abut.		32409.620	-16.125	761.504	761.504

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.		32224.979	-12.000	761.833	761.833
a		32234.979	-12.000	761.813	761.828
b		32244.979	-12.000	761.793	761.816
c		32254.979	-12.000	761.774	761.797
d		32264.979	-12.000	761.756	761.769
e		32274.979	-12.000	761.739	761.744
℄ Pier 1		32281.896	-12.000	761.728	761.728
f		32291.896	-12.000	761.712	761.722
g		32301.896	-12.000	761.697	761.718
h		32311.896	-12.000	761.683	761.713
i		32321.896	-12.000	761.670	761.703
j		32331.896	-12.000	761.657	761.681
k		32341.896	-12.000	761.646	761.659
l		32351.896	-12.000	761.635	761.638
℄ Pier 2		32354.896	-12.000	761.632	761.632
m		32364.896	-12.000	761.622	761.629
n		32374.896	-12.000	761.613	761.629
o		32384.896	-12.000	761.605	761.629
p		32394.896	-12.000	761.598	761.620
q		32404.896	-12.000	761.592	761.603
℄ Brg. E. Abut.		32411.813	-12.000	761.588	761.588

Location	Beam 2	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.		32226.641	-8.875	761.878	761.878
a		32236.641	-8.875	761.858	761.873
b		32246.641	-8.875	761.839	761.861
c		32256.641	-8.875	761.820	761.842
d		32266.641	-8.875	761.802	761.815
e		32276.641	-8.875	761.785	761.790
℄ Pier 1		32283.558	-8.875	761.774	761.774
f		32293.558	-8.875	761.758	761.769
g		32303.558	-8.875	761.743	761.764
h		32313.558	-8.875	761.729	761.760
i		32323.558	-8.875	761.716	761.750
j		32333.558	-8.875	761.704	761.728
k		32343.558	-8.875	761.693	761.706
l		32353.558	-8.875	761.682	761.682
℄ Pier 2		32356.558	-8.875	761.679	761.679
m		32366.558	-8.875	761.670	761.677
n		32376.558	-8.875	761.661	761.677
o		32386.558	-8.875	761.653	761.677
p		32396.558	-8.875	761.646	761.668
q		32406.558	-8.875	761.640	761.650
℄ Brg. E. Abut.		32413.474	-8.875	761.636	761.636

Location	Beam 3	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut		32230.496	-1.625	761.984	761.984
a		32240.496	-1.625	761.964	761.979
b		32250.496	-1.625	761.945	761.967
c		32260.496	-1.625	761.926	761.949
d		32270.496	-1.625	761.909	761.921
e		32280.496	-1.625	761.892	761.897
℄ Pier 1		32287.413	-1.625	761.881	761.881
f		32297.413	-1.625	761.866	761.876
g		32307.413	-1.625	761.851	761.872
h		32317.413	-1.625	761.838	761.868
i		32327.413	-1.625	761.825	761.858
j		32337.413	-1.625	761.813	761.837
k		32347.413	-1.625	761.802	761.815
l		32357.413	-1.625	761.792	761.796
℄ Pier 2		32360.413	-1.625	761.789	761.789
m		32370.413	-1.625	761.779	761.786
n		32380.413	-1.625	761.771	761.787
o		32390.413	-1.625	761.764	761.787
p		32400.413	-1.625	761.757	761.779
q		32410.413	-1.625	761.751	761.762
℄ Brg. E. Abut.		32417.329	-1.625	761.747	761.747

See Sheet #6 for Beams 4, 5 and 6



DESIGNED	Richard S Ward
CHECKED	
DRAWN	P.G. Barnett LH
CHECKED	TSL

E-S 8-1-63

EXAMINED Sept. 24 1971
Director of Highways and Traffic Operations

PASSED W. E. Baumann
Chairman of Board

APPROVED Richard A. McLennan
State Highway Engineer

TOP OF SLAB ELEVATIONS
NORTH BOUND LANES
F.A.I. RT. 55, SEC. 57-3B
McLEAN COUNTY
STA. 322+95

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 55	57-3B	McLean	144	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

SHEET NO. 6
19 SHEETS

℄ RDWAY.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.	32231.360	0.0	762.007	762.007
a	32241.360	0.0	761.987	762.003
b	32251.360	0.0	761.968	761.991
c	32261.360	0.0	761.950	761.973
d	32271.360	0.0	761.933	761.945
e	32281.360	0.0	761.916	761.921
℄ Pier 1	32288.277	0.0	761.905	761.905
f	32298.277	0.0	761.890	761.900
g	32308.277	0.0	761.875	761.896
h	32318.277	0.0	761.862	761.892
i	32328.277	0.0	761.849	761.882
j	32338.277	0.0	761.837	761.861
k	32348.277	0.0	761.826	761.840
l	32358.277	0.0	761.816	761.819
℄ Pier 2	32361.277	0.0	761.813	761.813
m	32371.277	0.0	761.804	761.811
n	32381.277	0.0	761.796	761.812
o	32391.277	0.0	761.788	761.812
p	32401.277	0.0	761.782	761.804
q	32411.277	0.0	761.776	761.786
℄ Brg. E. Abut.	32418.193	0.0	761.772	761.772

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	32234.351	5.625	761.913	761.913
a	32244.351	5.625	761.894	761.909
b	32254.351	5.625	761.875	761.898
c	32264.351	5.625	761.857	761.879
d	32274.351	5.625	761.840	761.852
e	32284.351	5.625	761.823	761.828
℄ Pier 1	32291.268	5.625	761.812	761.812
f	32301.268	5.625	761.797	761.808
g	32311.268	5.625	761.783	761.804
h	32321.268	5.625	761.770	761.800
i	32331.268	5.625	761.758	761.791
j	32341.268	5.625	761.746	761.770
k	32351.268	5.625	761.735	761.749
l	32361.268	5.625	761.725	761.728
℄ Pier 2	32364.268	5.625	761.722	761.722
m	32374.268	5.625	761.714	761.721
n	32384.268	5.625	761.706	761.721
o	32394.268	5.625	761.698	761.722
p	32404.268	5.625	761.692	761.714
q	32414.268	5.625	761.686	761.697
℄ Brg. E. Abut.	32421.184	5.625	761.683	761.683

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg W. Abut.	32238.206	12.875	761.788	761.788
a	32248.206	12.875	761.769	761.784
b	32258.206	12.875	761.750	761.773
c	32268.206	12.875	761.732	761.755
d	32278.206	12.875	761.715	761.728
e	32288.206	12.875	761.699	761.704
℄ Pier 1	32295.122	12.875	761.689	761.689
f	32305.122	12.875	761.674	761.685
g	32315.122	12.875	761.660	761.681
h	32325.122	12.875	761.647	761.678
i	32335.122	12.875	761.635	761.669
j	32345.122	12.875	761.624	761.648
k	32355.122	12.875	761.613	761.627
l	32365.122	12.875	761.604	761.607
℄ Pier 2	32368.122	12.875	761.601	761.601
m	32378.122	12.875	761.593	761.600
n	32388.122	12.875	761.585	761.601
o	32398.122	12.875	761.578	761.602
p	32408.122	12.875	761.572	761.594
q	32418.122	12.875	761.567	761.577
℄ Brg. E. Abut.	32425.039	12.875	761.564	761.564

LONGITUDINAL BONDED CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	32239.867	16.000	761.720	761.720
a	32249.867	16.000	761.700	761.716
b	32259.867	16.000	761.682	761.705
c	32269.867	16.000	761.664	761.687
d	32279.867	16.000	761.648	761.660
e	32289.867	16.000	761.632	761.637
℄ Pier 1	32296.784	16.000	761.621	761.621
f	32306.784	16.000	761.607	761.617
g	32316.784	16.000	761.593	761.614
h	32326.784	16.000	761.580	761.611
i	32336.784	16.000	761.569	761.602
j	32346.784	16.000	761.557	761.581
k	32356.784	16.000	761.547	761.560
l	32366.784	16.000	761.537	761.540
℄ Pier 2	32369.784	16.000	761.535	761.535
m	32379.784	16.000	761.526	761.533
n	32389.784	16.000	761.519	761.534
o	32399.784	16.000	761.512	761.536
p	32409.784	16.000	761.506	761.528
q	32419.784	16.000	761.501	761.512
℄ Brg E. Abut.	32426.701	16.000	761.498	761.498

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
℄ Brg. W. Abut.	32242.061	20.125	761.630	761.630
a	32252.061	20.125	761.610	761.626
b	32262.061	20.125	761.592	761.615
c	32272.061	20.125	761.575	761.597
d	32282.061	20.125	761.558	761.571
e	32292.061	20.125	761.543	761.547
℄ Pier 1	32298.977	20.125	761.532	761.532
f	32308.977	20.125	761.518	761.526
g	32318.977	20.125	761.504	761.525
h	32328.977	20.125	761.492	761.522
i	32338.977	20.125	761.480	761.513
j	32348.977	20.125	761.469	761.493
k	32358.977	20.125	761.459	761.473
l	32368.977	20.125	761.450	761.453
℄ Pier 2	32371.977	20.125	761.447	761.447
m	32381.977	20.125	761.439	761.446
n	32391.977	20.125	761.431	761.447
o	32401.977	20.125	761.425	761.449
p	32411.977	20.125	761.419	761.441
q	32421.977	20.125	761.414	761.425
℄ Brg. E. Abut.	32428.894	20.125	761.411	761.411

DESIGNED	Prakash S. Lad
CHECKED	
DRAWN	L.H.
CHECKED	P.S.L.

SEPT 24 1971

EXAMINED
Highway Bridge and Felting Specialist

PASSED
Engineer of Design

APPROVED
Chief Highway Engineer

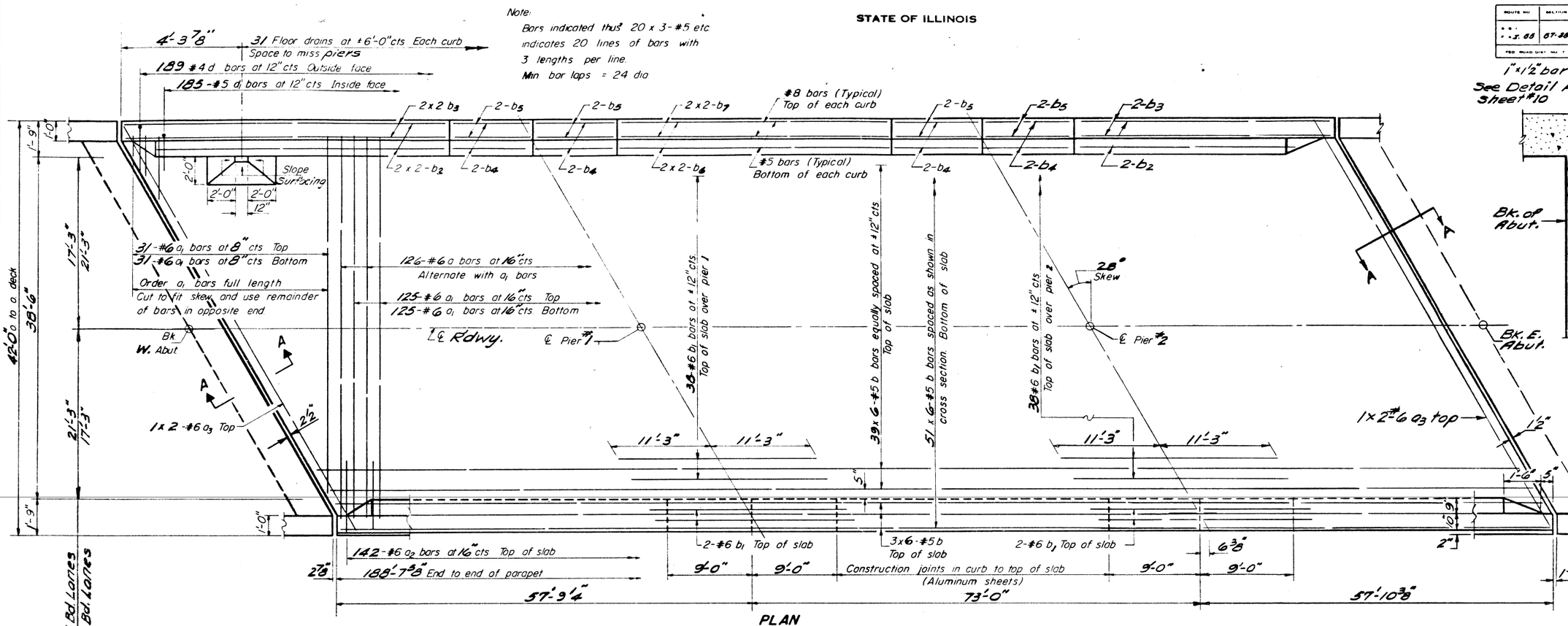
TOP OF SLAB ELEVATIONS
NORTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STA. 322+95

STATE OF ILLINOIS

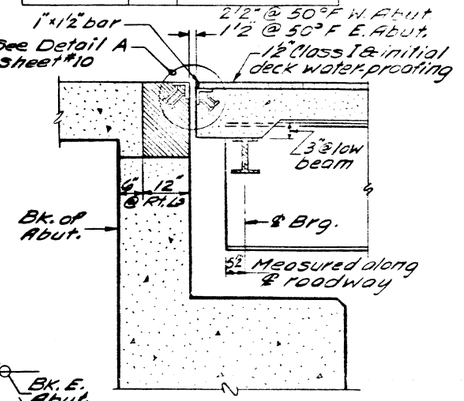
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJ.		

SHEET NO. 7
13 SHEETS

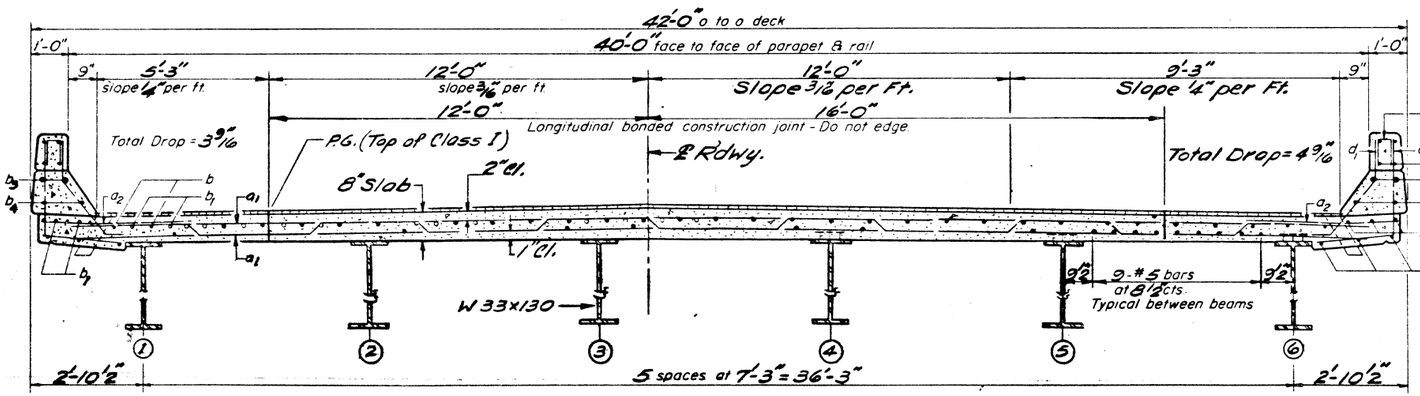
Note:
Bars indicated thus 20 x 3 - #5 etc indicates 20 lines of bars with 3 lengths per line.
Min. bar laps = 24 dia.



PLAN



SEC. A-A



CROSS SECTION
Looking In Direction of Traffic

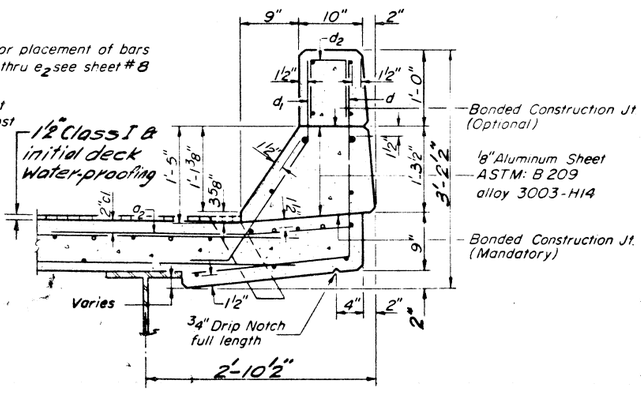
Note: For deck surfacing detail, see sheet #8

BAR a

BAR d

BAR d1

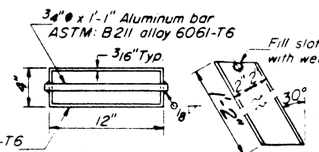
BAR a2



CURB SECTION

Cost of Aluminum Drains and Sheets shall be incidental to Class X Concrete

Aluminum Sheets Welded
ASTM: B 209 alloy 6061-T6
or Aluminum Extrusions
ASTM: B 221 alloy 6061-T6



FLOOR DRAIN

PLAN PRICES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	252	#6	41'-6"	
a1	624	#6	40'-0"	
a2	568	#6	4'-0"	
a3	8	#6	24'-6"	
b	1152	#5	33'-0"	
b1	168	#6	22'-6"	
b2	32	#5	25'-0"	
b3	32	#8	25'-6"	
b4	32	#5	5'-3"	
b5	32	#8	8'-3"	
b6	16	#5	28'-0"	
b7	16	#8	28'-6"	
d	756	#4	4'-8"	⌋
d1	740	#5	3'-5"	⌋
d2	184	#4	2'-1"	⊓
Reinforcement Bars			Lbs	113230
* Structural Steel			Lbs	366640
Class X Concrete			Cu Yds	463.1

* Weight of bearing assemblies with lead plates and anchor bolts are included as structural steel
Est. Wt. = 12710 lbs.

The lengths and quantities of longitudinal reinforcement and Class X Concrete in parapets are not included in above quantities. See sheet 8

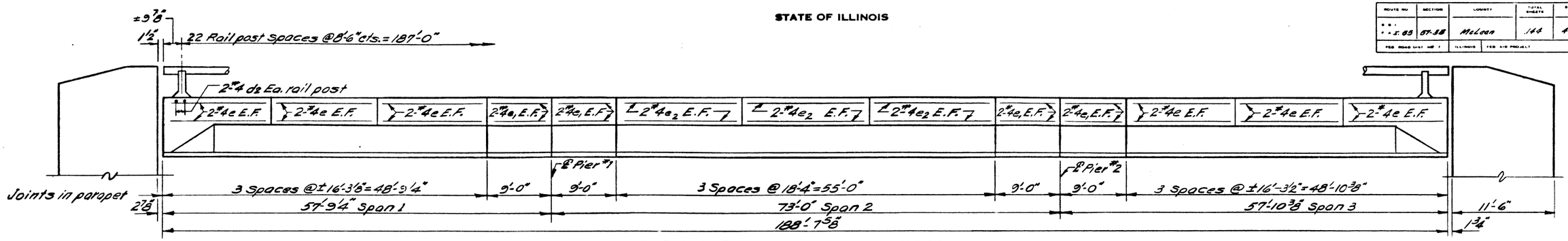
SUPERSTRUCTURE
SOUTH & NORTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

I-4 to 6-R (>15° thru 30°) 3-1-68

STATE OF ILLINOIS

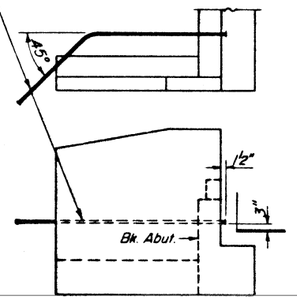
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	47
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
19 SHEETS

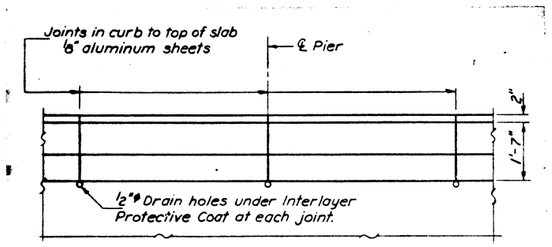


INSIDE PARAPET ELEVATION

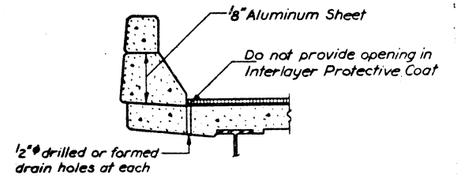
Locate 2"ø Galv. Conduit (Sch. 40 Pipe) ±12" inside of fascia beam web and parallel to beam line. Extend to clear the wing wall and terminate at a point outside of shoulder. Thread and cap each end. Place conduit at the two outside corners of each dual bridge & all four corners of a single bridge. (4-Req'd) Cost Incidental



ELECTRICAL CONDUIT LOCATION

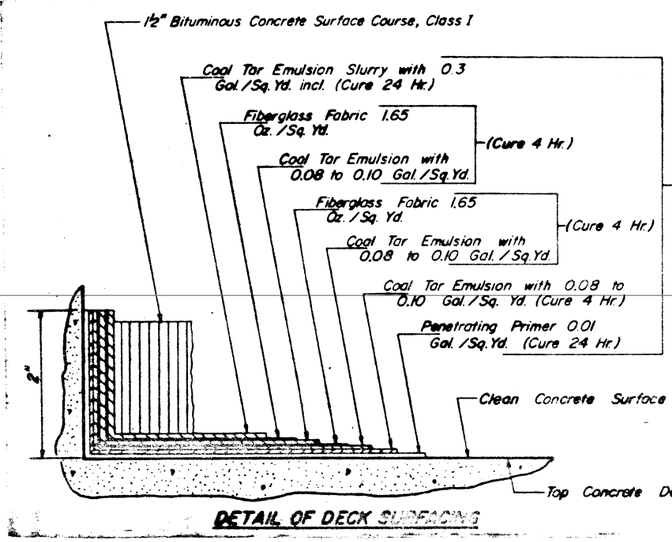


PLAN

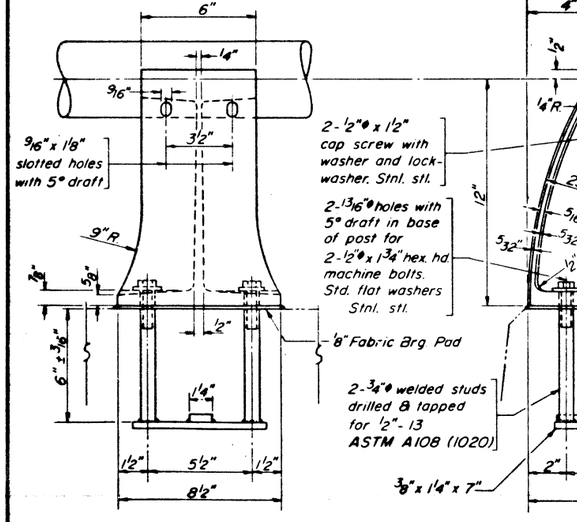


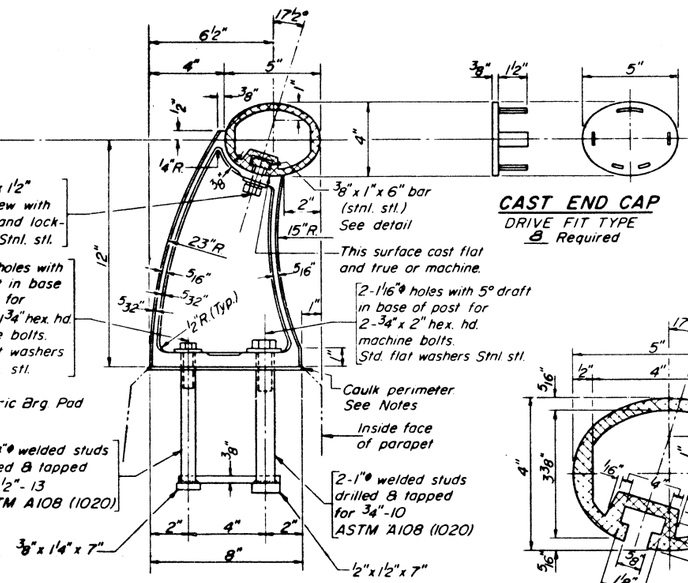
SECTION AT CURB JOINTS

DETAIL OF DRAIN HOLE



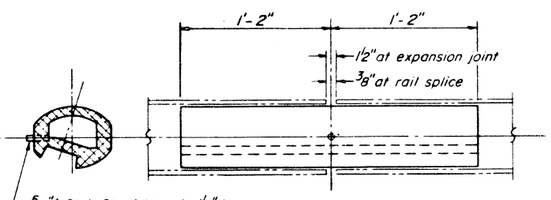
DETAIL OF DECK SURFACING





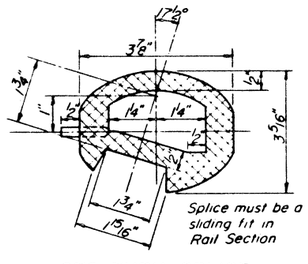
RAIL POST DETAILS

CAST END CAP
DRIVE FIT TYPE
8 Required

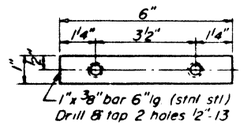


RAIL SPLICE

SEC. THRU ELLIPTICAL RAIL SECTION



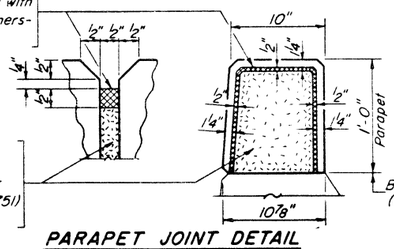
SEC. THRU SPLICE



CLAMP BAR

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

½" Preformed Cork Asphalt Joint Filler. (meets qualifications for ASTM: Designation D 1751) Cost incidental.



PARAPET JOINT DETAIL

NOTES:

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

All joints in rail shall be spliced per detail.

Provide 1 - ⅛" and 2 - 1/16" Aluminum Shims for 25% of the Posts. Rail element shall be parallel to Grade - high spots shall be ground and low spots shimmed.

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

Aluminum alloy rail shall conform to ASTM B221 alloy 6061-T6 or 6351-T5 with min. yield 35 ksi, min. tensile 38 ksi, and elongation of 10% in 2 inches.

TWO BRIDGES
PARAPETS & RAILS
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
e	96	#4	16'-0"	
e1	64	#4	8'-9"	
e2	48	#4	18'-0"	
Reinforcement Bars			Lbs.	1390
Class X Concrete			Cu. Yds.	24.4
Aluminum Railing			Lin. Ft.	755

ALUMINUM RAILING
NORTH AND SOUTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

DESIGNED	Pankaj S. Lal
CHECKED	Gene McCormick
DRAWN	Leona Heeren PSL
CHECKED	GM

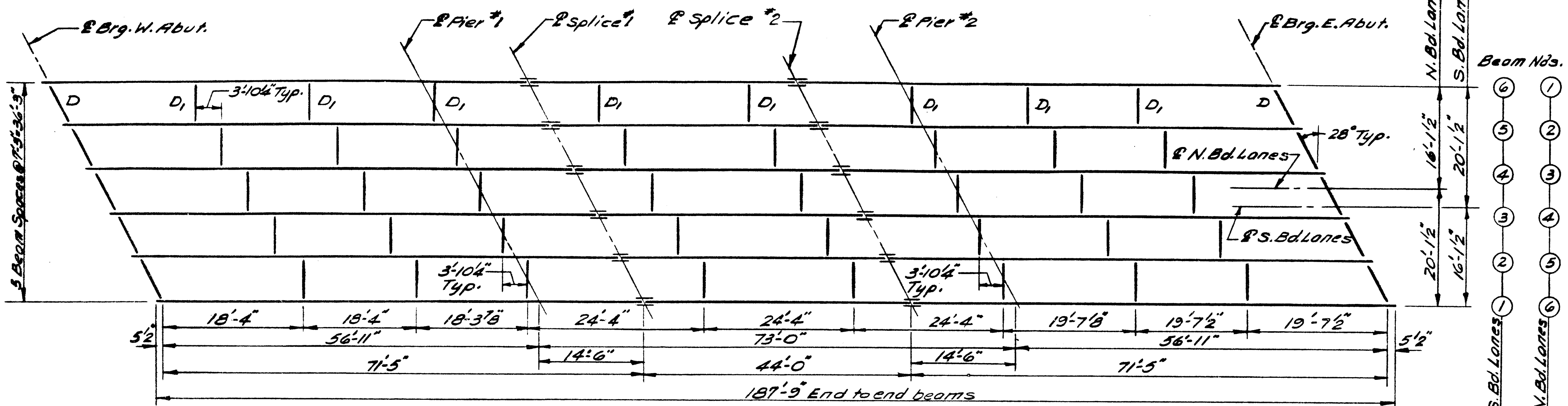
EXAMINED Sept. 24 19 71
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

R-17 4-22-68 9-18-69

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 55	57-3B	McLean	144	48 - 19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 9
19 SHEETS

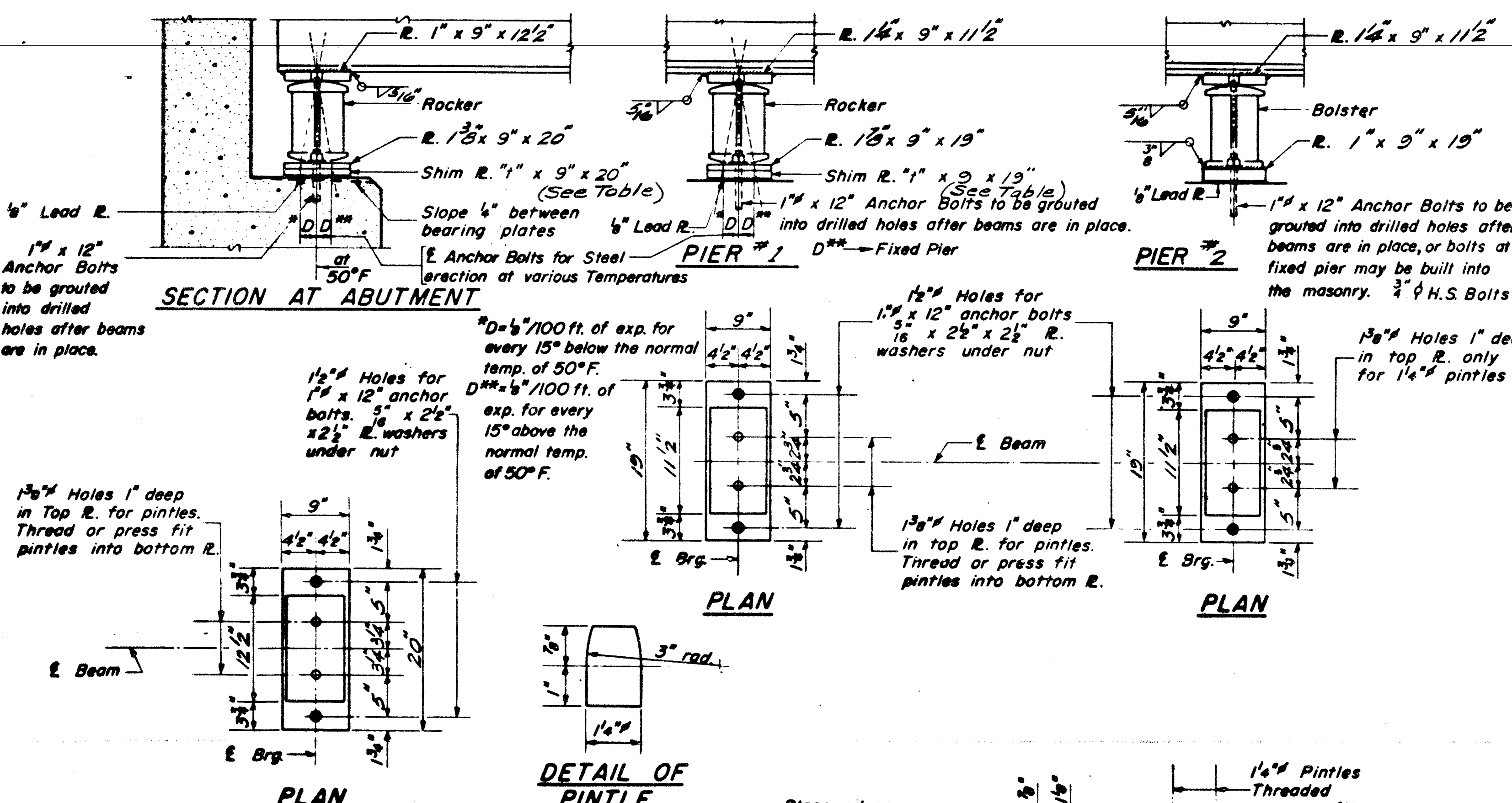


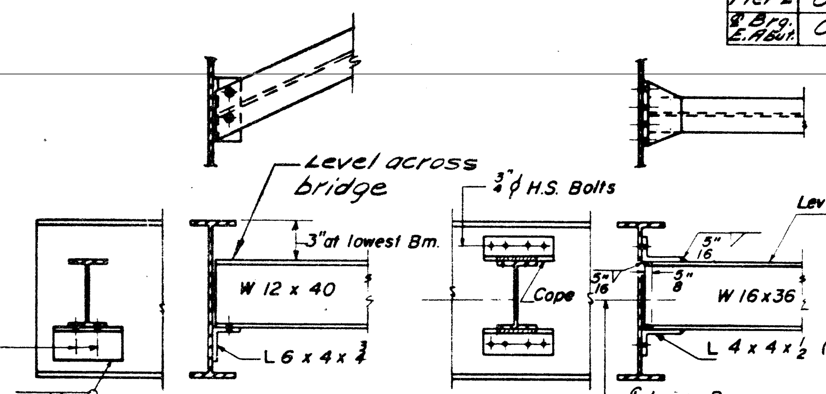
DIAPHRAGM LAYOUT
(All Beams W 33 x 130)

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

SHIM PLATES

	NORTH BOUND LANES						SOUTH BOUND LANES					
	Bm #1	Bm #2	Bm #3	Bm #4	Bm #5	Bm #6	Bm #1	Bm #2	Bm #3	Bm #4	Bm #5	Bm #6
℄ Brg. W. Abut.	0	0	0	0	0	0	0	0	⅝"	0	0	0
Pier #1	0	0	0	0	0	0	0	0	½"	0	0	0
Pier #2	0	0	0	0	0	0	0	0	0	0	0	0
℄ Brg. E. Abut.	0	0	0	0	0	0	0	0	0	0	0	0





DIAPHRAGM D
20 Required
(Two Bridges)

DIAPHRAGM D1
80 Required
(Two Bridges)

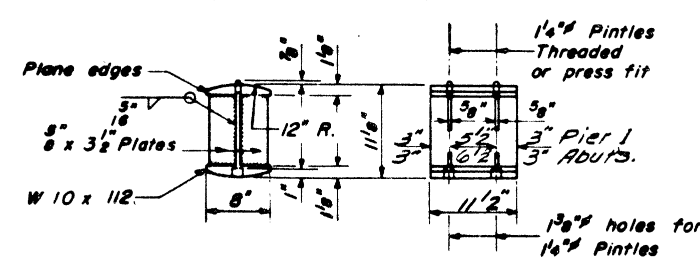
ELEVATION TOP OF W
(For Fabrication only)

SOUTH BOUND LANES

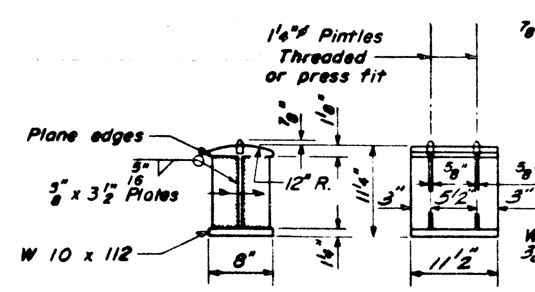
	Beam 6	Beam 5	Beam 4	Beam 3	Beam 2	Beam 1
℄ Brg. W. Abut.	761.15	761.29	761.40	761.45	761.33	761.19
℄ Brg. Pier 1	760.98	761.12	761.23	761.28	761.16	761.02
℄ Splice 1	760.93	761.07	761.19	761.24	761.12	760.98
℄ Splice 2	760.85	760.99	761.11	761.16	761.04	760.90
℄ Brg. Pier 2	760.84	760.99	761.10	761.16	761.04	760.90
℄ Brg. E. Abut.	760.81	760.96	761.07	761.13	761.01	760.87

NORTH BOUND LANES

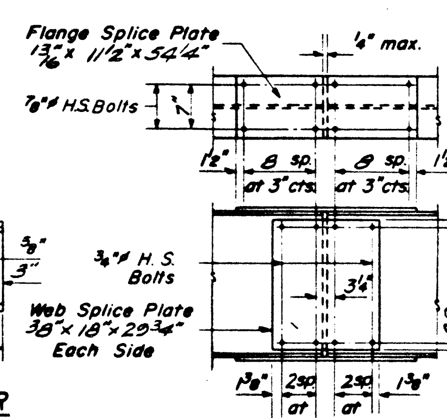
	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ Brg. W. Abut.	761.09	761.22	761.32	761.25	761.13	760.97
℄ Brg. Pier 1	760.94	761.07	761.18	761.11	760.99	760.83
℄ Splice 1	760.90	761.03	761.14	761.07	760.95	760.73
℄ Splice 2	760.85	760.98	761.09	761.02	760.90	760.74
℄ Brg. Pier 2	760.85	760.98	761.09	761.02	760.90	760.74
℄ Brg. E. Abut.	760.84	760.97	761.09	761.02	760.90	760.75



DETAIL OF ROCKER AT ABUTS. & PIER #1



DETAIL OF BOLSTER AT PIER #2



DETAIL OF SPLICE
(24 Req'd)

DESIGNED	Prakash S. [illegible]
CHECKED	[illegible]
P.G. Barnett / DRAWN	L. Heeren / W.A. Seusamen Jr. / PSL
CHECKED	GM

EXAMINED: Sept 24 1971 [signature]
PASSED: [signature]
APPROVED: [signature]

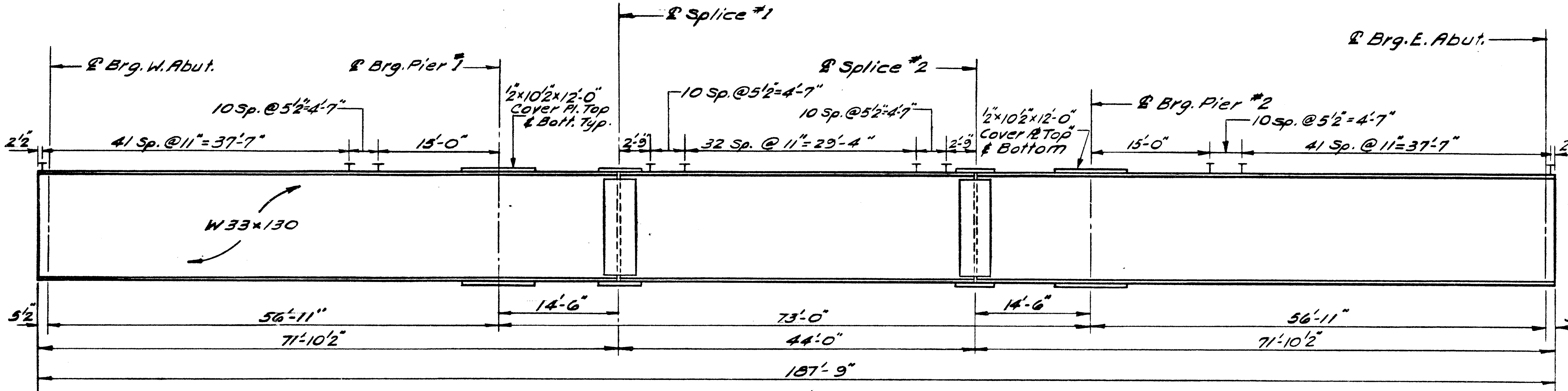
STRUCTURAL STEEL
NORTH & SOUTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

I-2 7-2-62 Rev 11-9-62 Rev. 8-16-63 Rev. 12-10-63 Rev. 8-1-70

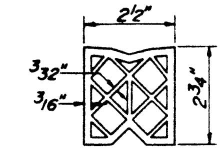
STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I. 55	57-3B	McLean	144	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT.		

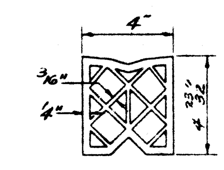
SHEET NO. 10
19 SHEETS



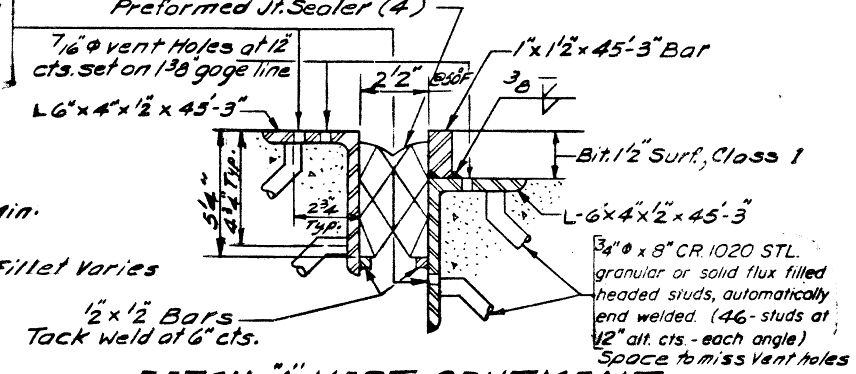
BEAM ELEVATION



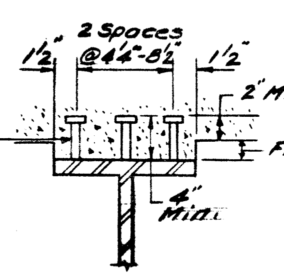
PREFORMED JOINT SEALER (2½")



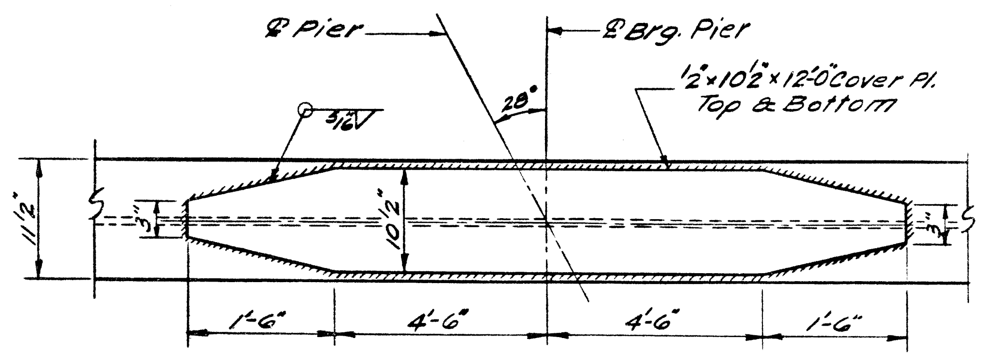
PREFORMED JOINT SEALER (4")



DETAIL "A"-WEST ABUTMENT
(From Section A-A Sheet 7)



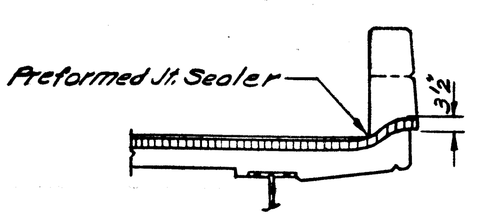
SHEAR CONNECTORS
(471 Req'd / Beam)



DETAIL OF COVER PLATE @ PIERS 1 & 2

MOMENT TABLE

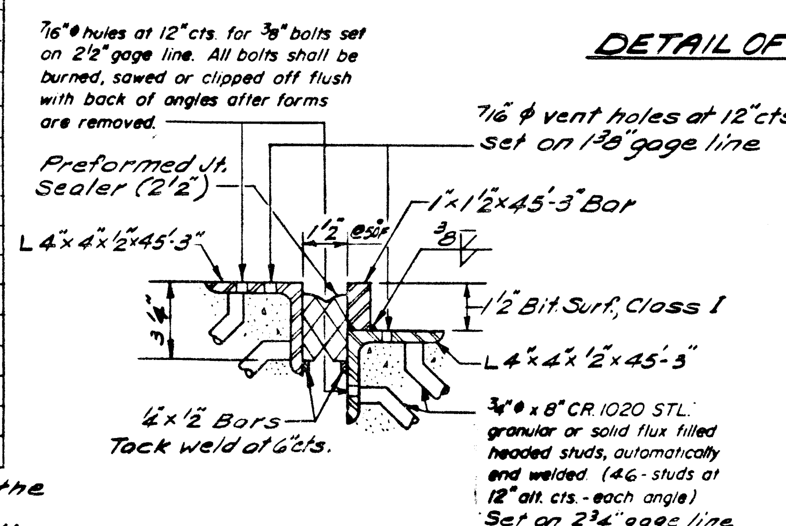
	0.4 Span 1 or 3	Piers 1 or 2	0.5 Span 2
Is (in⁴)	6710	9674	6710
Ic (in⁴)	17486		17486
Ss (in³)	406	568	406
Sc (in³)	587		587
D_L (K/')	0.901	1.305	0.901
M℄ (IK)	187	556	191
fs ℄ (ksi)	5.5	11.75	5.6
S℄ (K/')	0.404		0.404
MS℄ (IK)	99		123
M℄ (IK)	417	281	482
Mimp (IK)	112	73	120
TOTAL (IK)	628	354	725
fs ℄+SDL	12.8	7.50	14.9
fs Total (KSI)	18.3	19.25	20.5
Max. Shear Range (L.L+Imp): 53.91			



TYPICAL END OF SEALER TREATMENT

REACTION TABLE

	Abut.	Pier
R℄+S℄ (K)	27.37	94.55
R℄ (K)	38.42	48.63
Imp. (K)	10.37	12.64
R Total (K)	76.16	155.82



DETAIL "A"-EAST ABUTMENT
(From Section A-A Sheet 7)

Is and Ss are the moment of inertia and section modulus of the steel section.
Ic and Sc are moment of inertia and section modulus of the composite section used in computing fs

DESIGNED	Prakash S. W.
CHECKED	Gene McCormick
DRAWN	Leona Heeren PSL
CHECKED	GM

Sept. 24 1971
EXAMINED — ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED W. E. Baumann — ENGINEER OF DESIGN
APPROVED Richard H. Golterman — CHIEF HIGHWAY ENGINEER

BEAM ELEVATION
NORTH & SOUTH BOUND LANES
F.A.I. 55 SEC. 57-3B
McLEAN COUNTY
STA. 322+95

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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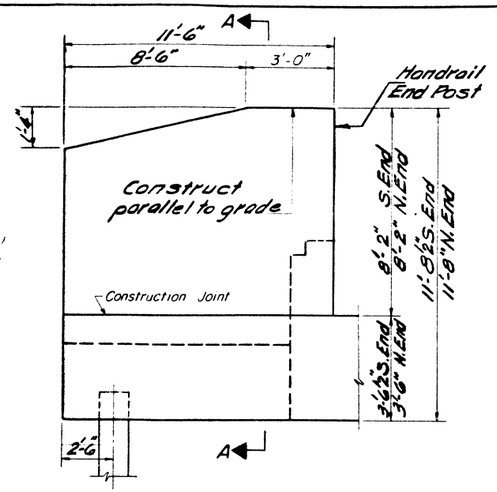
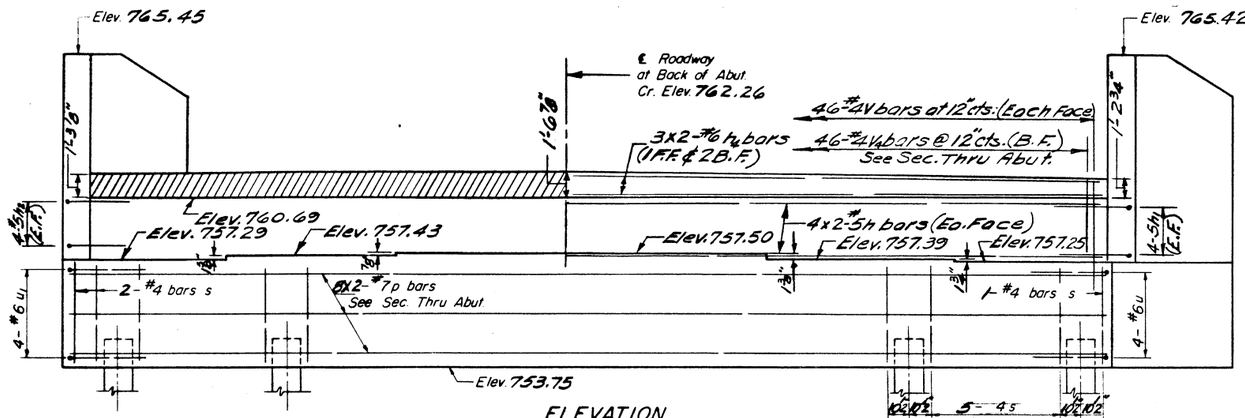
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

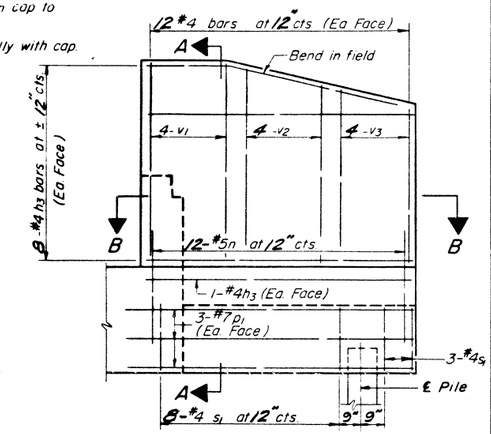
SHEET NO. 11
19 SHEETS



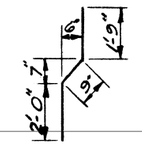
WING WALL ELEVATION



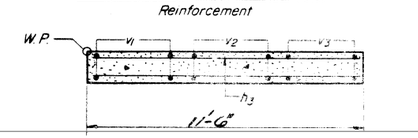
ELEVATION LOOKING WEST



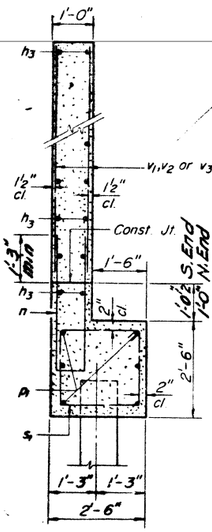
WING WALL ELEVATION
Reinforcement



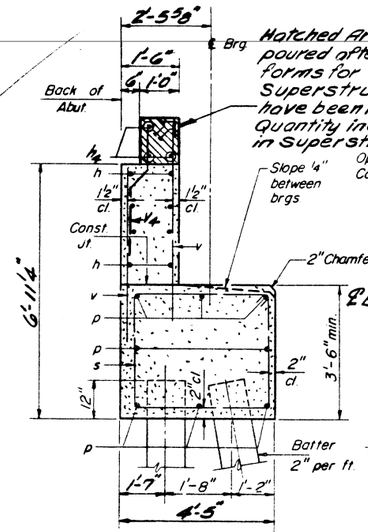
BAR V4



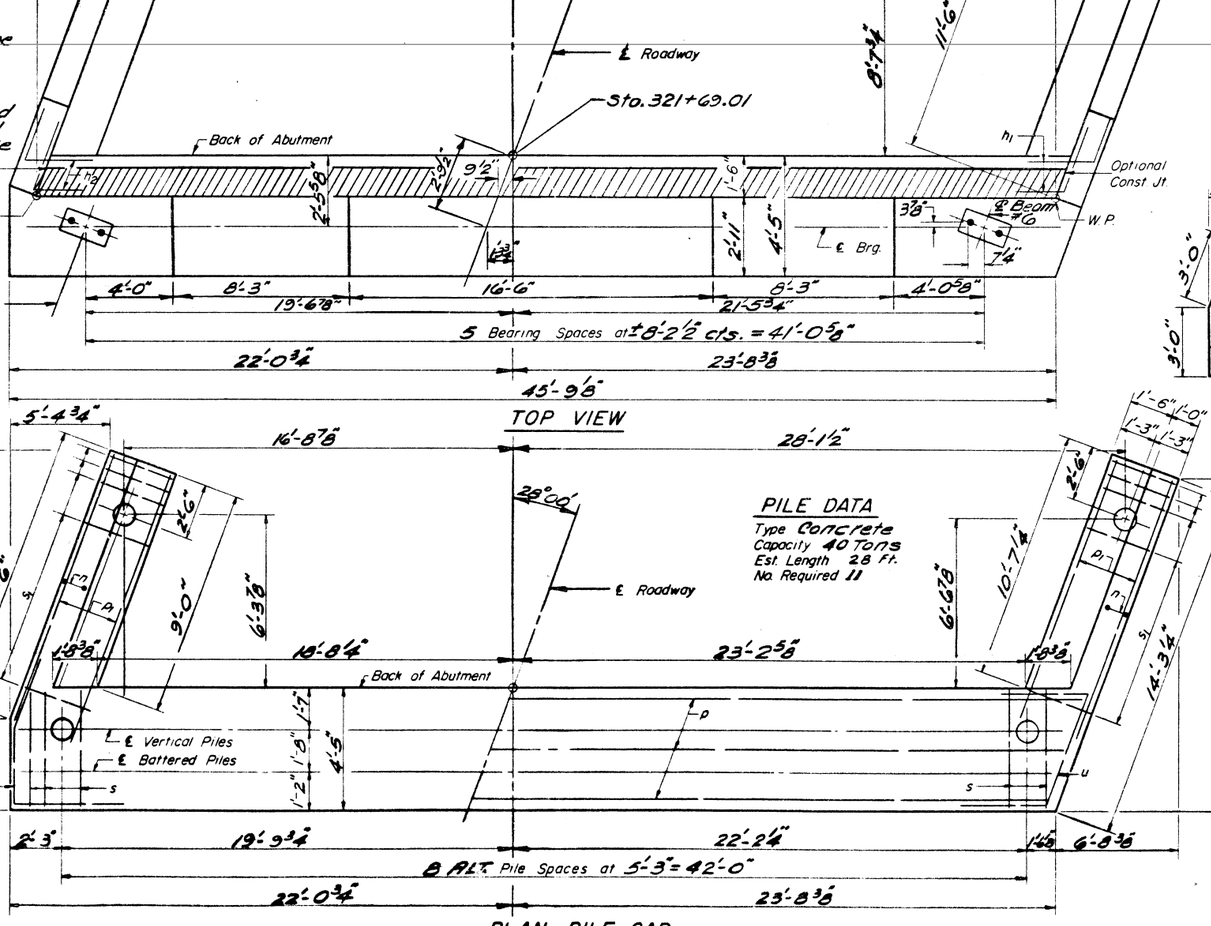
SEC. B-B



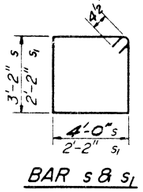
SEC. A-A



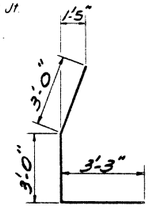
SEC. THRU ABUT.



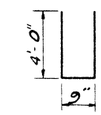
PLAN-PILE CAP



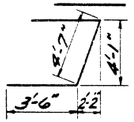
BAR s & s1



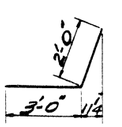
BAR u1



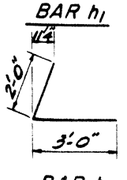
BAR n



BAR u



BAR h1



BAR h2

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h	16	#5	23'-0"	—
h1	8	#5	5'-0"	⌐
h2	8	#5	5'-0"	L
h3	36	#4	11'-3"	—
h4	6	#6	23'-3"	—
n	24	#5	8'-9"	⊔
p	16	#7	24'-0"	—
p1	12	#7	11'-3"	—
s	43	#4	15'-1"	□
s1	22	#4	9'-5"	□
u	4	#6	11'-7"	⊐
u1	4	#6	9'-3"	L
v	92	#4	5'-6"	—
v1	16	#4	7'-9"	—
v2	16	#4	7'-1"	—
v3	16	#4	6'-5"	—
v4	46	#4	4'-6"	—
Class X Concrete			Cu. Yds.	48.2
Reinforcement Bars			Lbs.	3636
Concrete Piles			Lin. Ft.	308

Note:
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line. Min. bar laps = 24 Dia.

DESIGNED	Pankuch S. (w)
CHECKED	Jane McConnell
DRAWN	Leona Heeren
CHECKED	GM PSL

SEPT 24 1971
EXAMINED
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED W. E. Baumann ENGINEER OF DESIGN
APPROVED Richard H. Gotterman CHIEF HIGHWAY ENGINEER

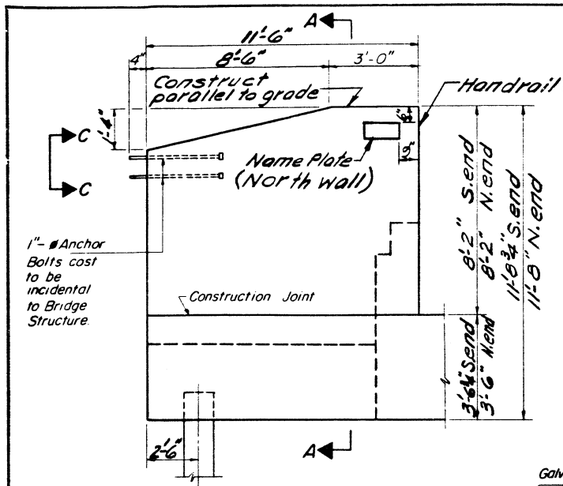
A-9-R (15°-34°) 2-1-66, 8-1-70

WEST ABUTMENT
SOUTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+35

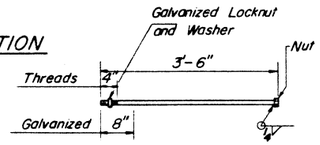
STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	142	81
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

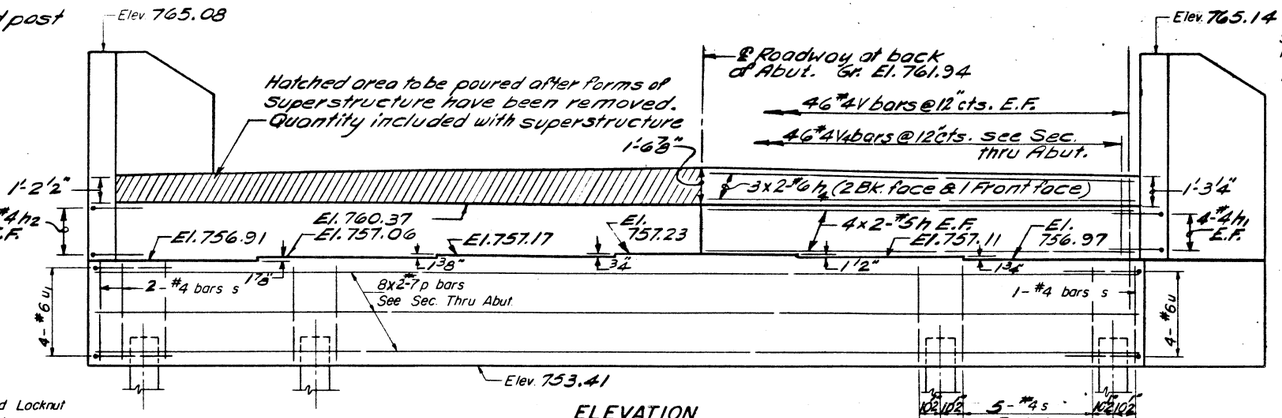
SHEET NO. 12
19 SHEETS



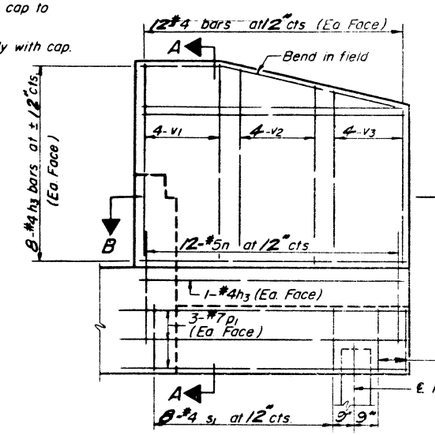
WING WALL ELEVATION



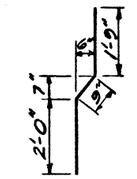
1" ø ANCHOR BOLT



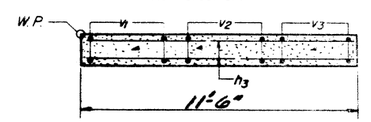
ELEVATION
(Looking East)



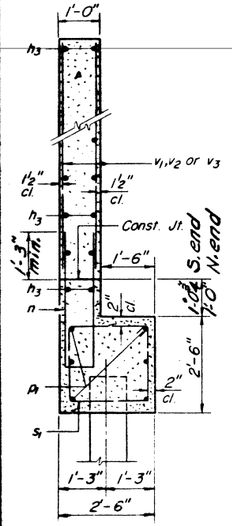
WING WALL ELEVATION
Reinforcement



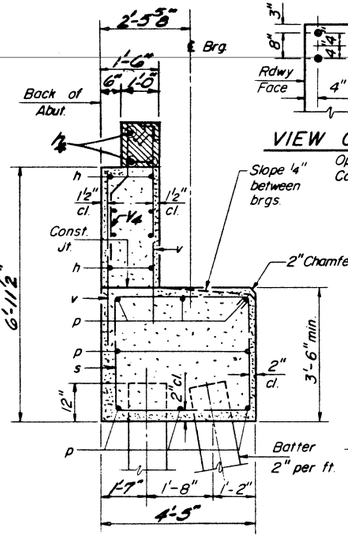
BAR V4



SEC. B-B

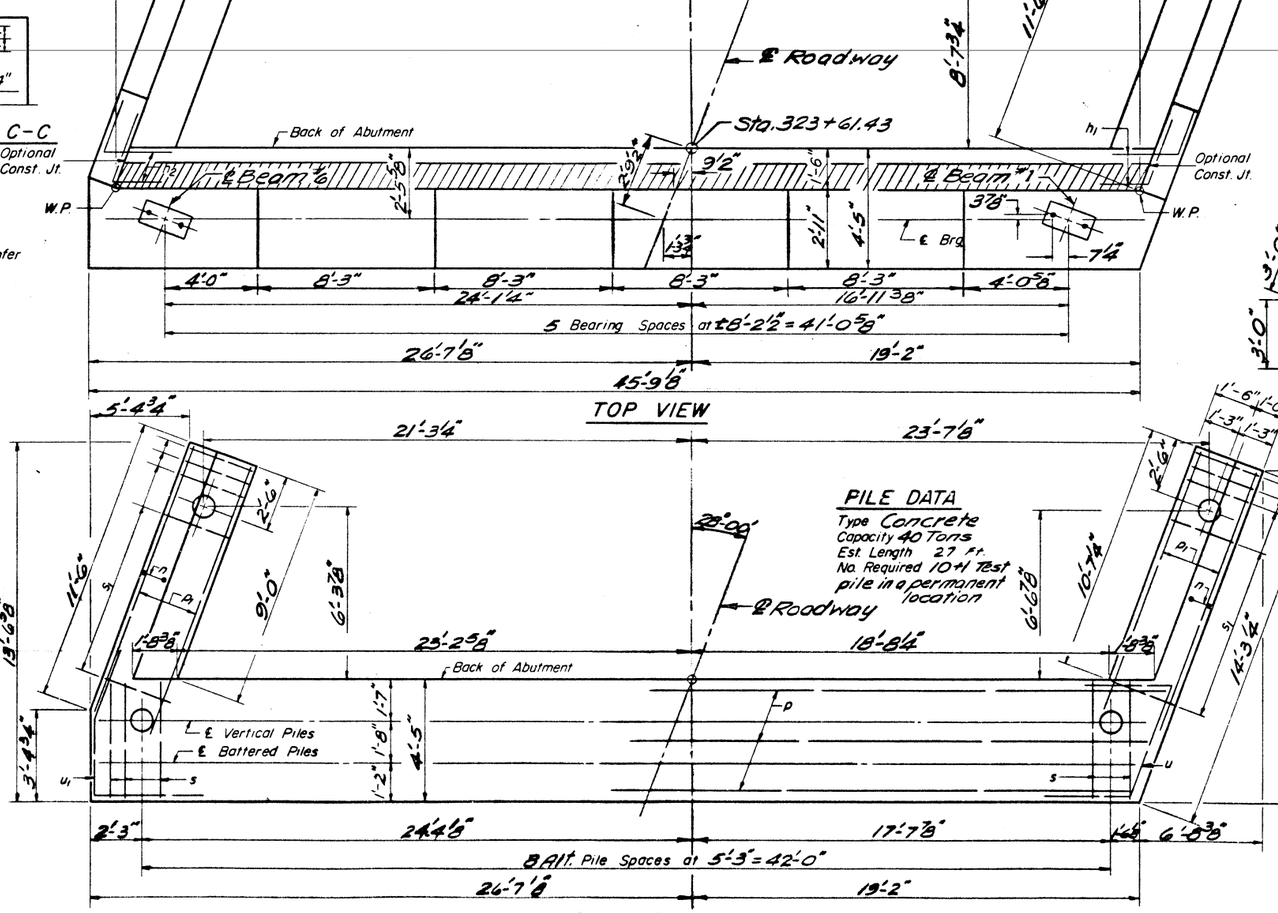


SEC. A-A



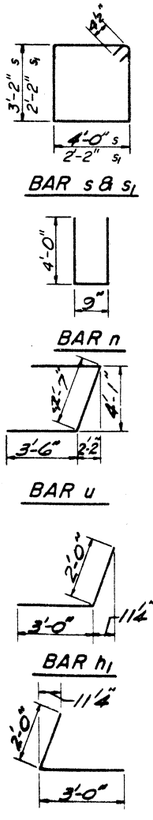
SEC. THRU ABUT.

VIEW C-C



TOP VIEW

PLAN-PILE CAP



BAR s & s1
BAR u1
BAR n
BAR u
BAR h1
BAR h2

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	16	#5	23'-0"	
h1	8	#5	3'-0"	
h2	8	#5	5'-0"	
h3	36	#4	11'-3"	
h4	6	#6	23'-3"	
n	24	#5	8'-9"	
p	16	#7	24'-0"	
p1	12	#7	11'-3"	
s	43	#4	15'-1"	
s1	22	#4	9'-5"	
u	4	#6	11'-7"	
u1	4	#6	9'-3"	
v	92	#4	5'-6"	
v1	16	#4	7'-9"	
v2	16	#4	7'-1"	
v3	16	#4	6'-5"	
V4	46	#4	4'-6"	
Class X Concrete			Cu Yds.	48.4
Reinforcement Bars			Lbs.	3430
Concrete Piles			Lin. Ft.	270
Test Piles (Concrete)			Ea.	1

Note:
Bars indicated thus 20x3-#5 Etc. indicates 20 lines of bars with 3 lengths per line. Min. bar laps = 24 Dia.

DESIGNED	Prakash S. W.
CHECKED	Gene McCormick
DRAWN	Leona Heeren PSL
CHECKED	GM

EXAMINED Sept. 24 1971
PASSED W. C. Baumann ENGINEER OF DESIGN
APPROVED Richard H. Gelterman CHIEF HIGHWAY ENGINEER

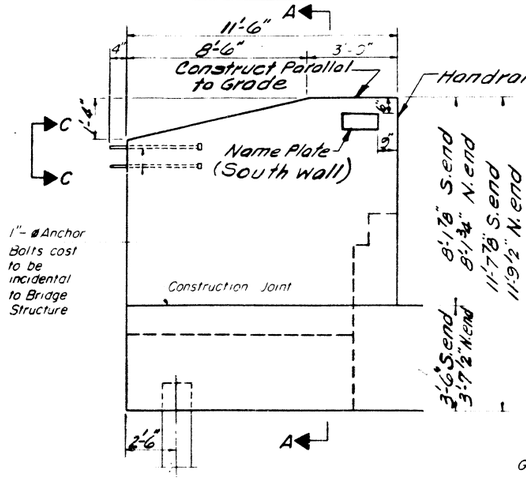
A-9-R (15°-34°) 2-1-66, 8-1-70

EAST ABUTMENT
SOUTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

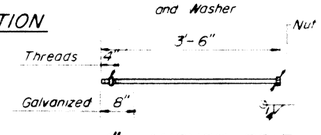
STATE OF ILLINOIS

ROUTE NO.	SECT. NO.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	13	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

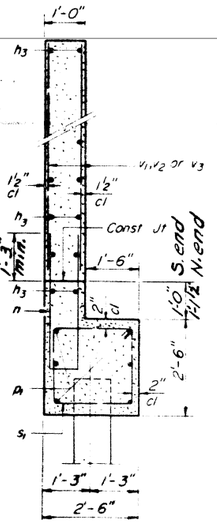
SHEET NO. 13
13 SHEETS



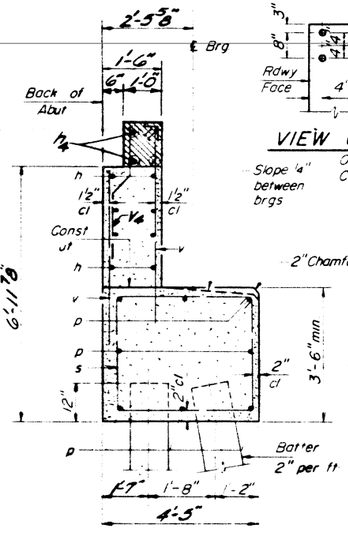
WING WALL ELEVATION



1" ø ANCHOR BOLT



SEC. A-A

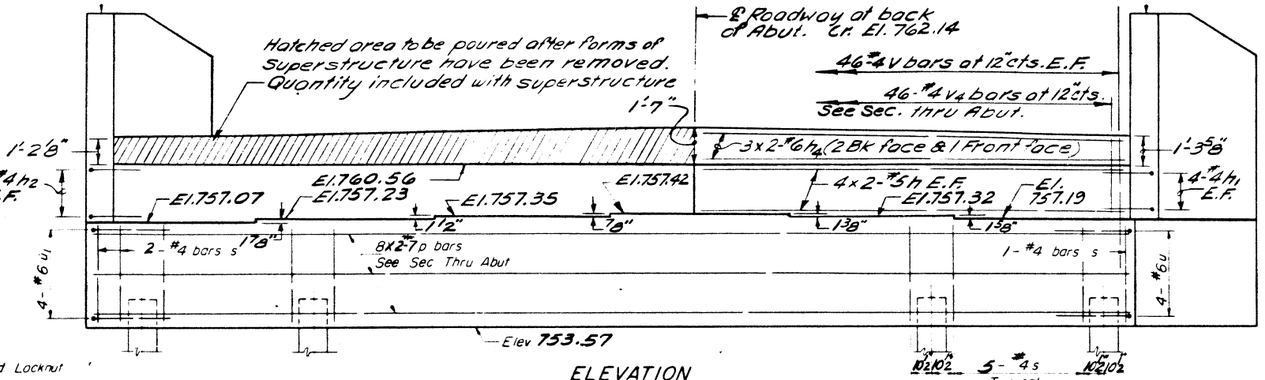


SEC. THRU ABUT

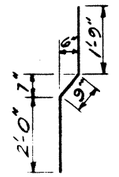
VIEW C-C

Slope ¼" between brgs

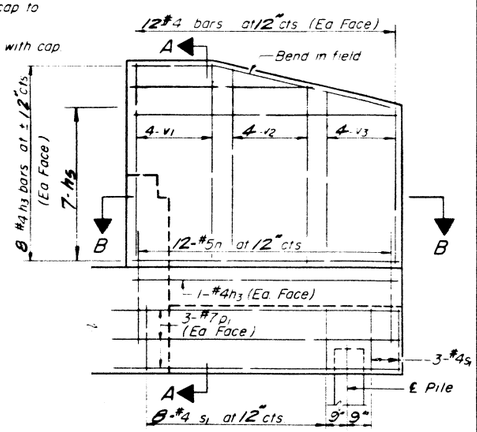
Optional Const Jt



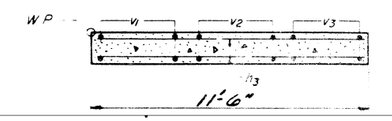
ELEVATION
Looking West



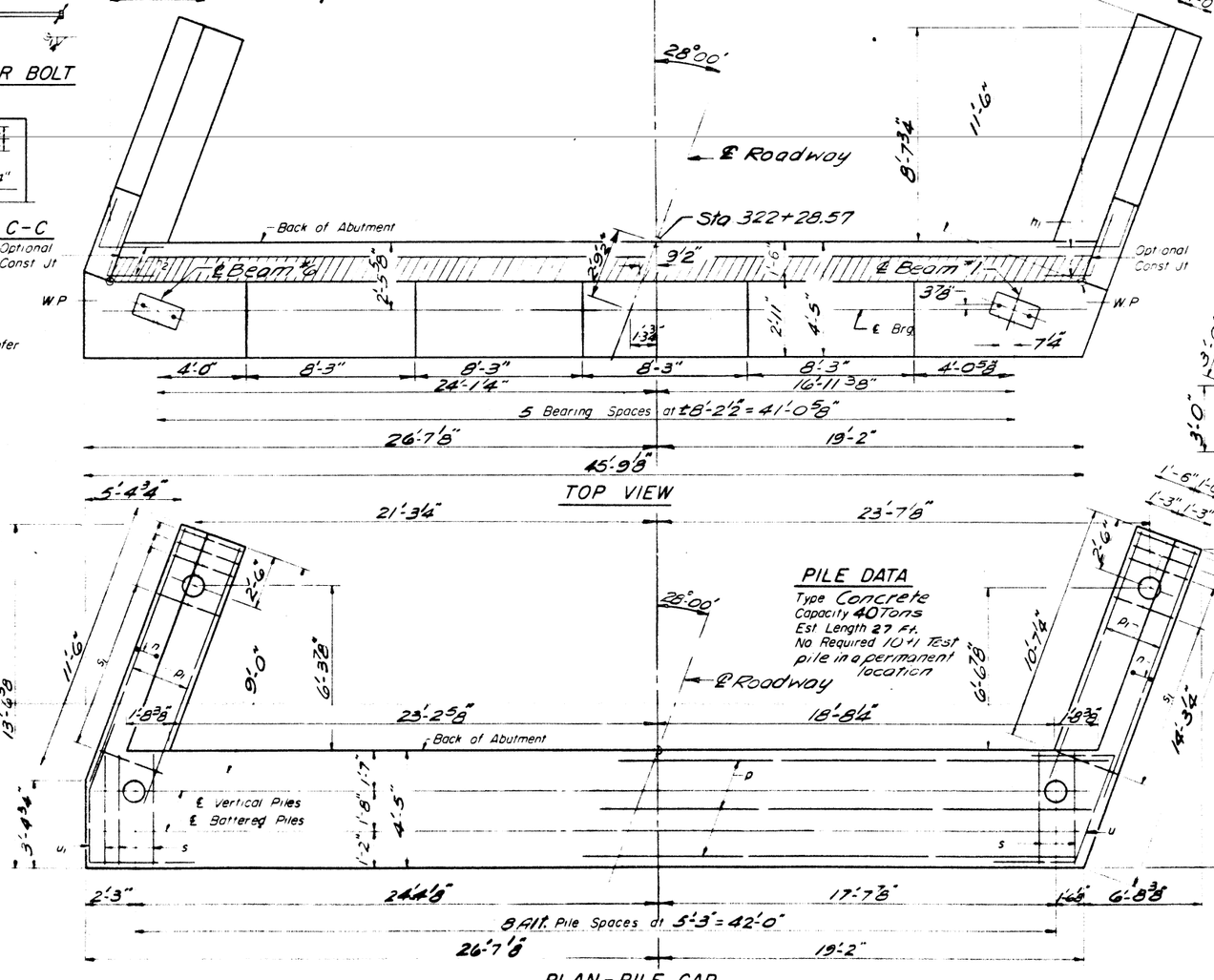
BAR V4



WING WALL ELEVATION
Reinforcement

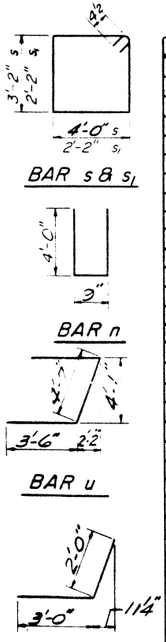


SEC. B-B



PLAN - PILE CAP

PILE DATA
Type Concrete
Capacity 40 Tons
Est Length 27 Ft.
No Required 10 +1 Test pile in a permanent location



BAR s & s1
BAR u1
BAR n
BAR u
BAR h1
BAR h2

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	16	#5	3'-0"	—
h1	8	#5	5'-0"	⌐
h2	8	#5	5'-0"	L
h3	36	#4	11'-3"	—
h4	6	#6	23'-3"	—
n	24	#5	8'-9"	⊔
p	16	#7	24'-0"	—
p1	12	#7	11'-3"	—
s	43	#4	15'-1"	□
s1	22	#4	9'-5"	□
u	4	#6	11'-7"	⊐
u1	4	#6	3'-3"	L
v	92	#4	5'-6"	—
v1	16	#4	7'-9"	—
v2	16	#4	7'-1"	—
v3	16	#4	6'-5"	—
v4	46	#4	4'-6"	—
Class X Concrete			CU YDS	48.4
Reinforcement Bars			LBS	3430
Concrete [illegible]			CU FT	270
Test Piles (Concrete)			EA	1

Note:
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line. Min. bar laps = 24 Dia.

DESIGNED	Richard S. Wa
CHECKED	Leona McCormick
DRAWN	Leona Heeren
CHECKED	GM PSL

EXAMINED Sept. 24 1971
PASSED H E Baumann
APPROVED Richard H. Gotterman

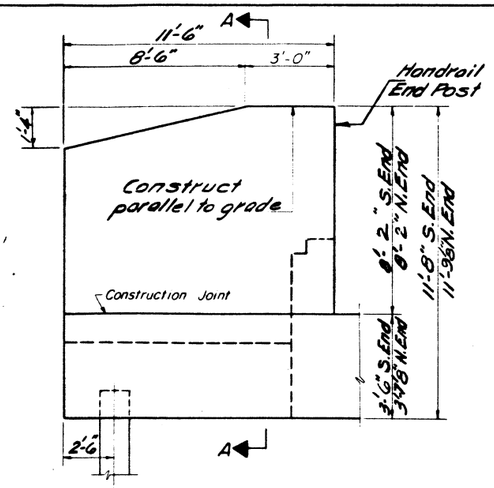
A-9-R (15°-34°) 2-1-66, 8-1-70

WEST ABUTMENT
NORTH BOUND LANES
F.A.I. RT 55 SEC 57-3B
McLEAN COUNTY
STATION 322+55

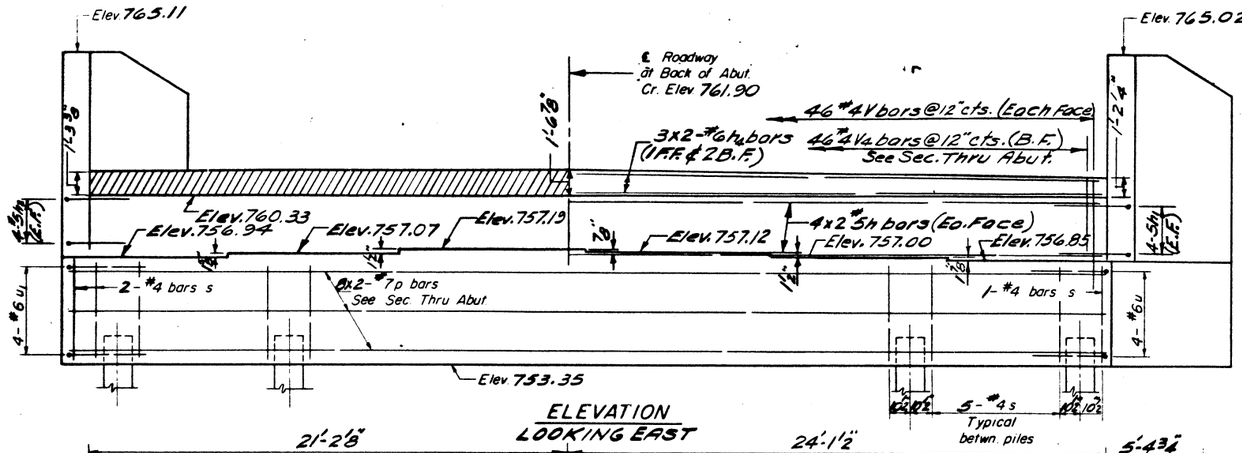
STATE OF ILLINOIS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
F.A.I. 55	57-3B	McLean	144	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

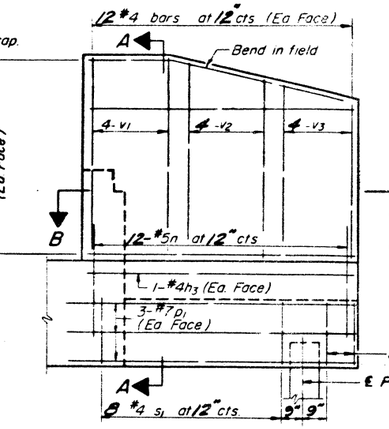
SHEET NO 14
19 SHEETS



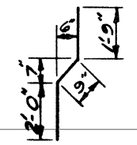
WING WALL ELEVATION



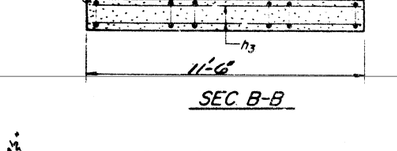
ELEVATION
LOOKING EAST



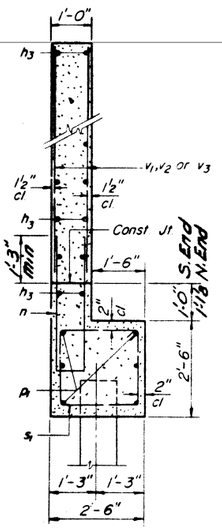
WING WALL ELEVATION
Reinforcement



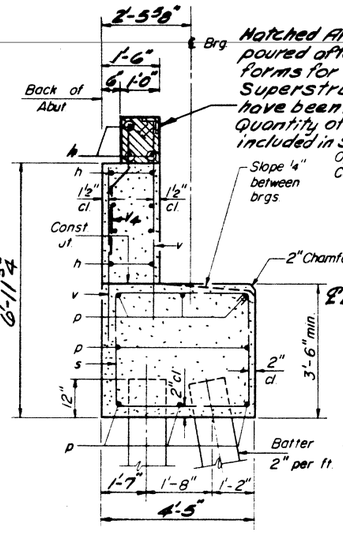
BAR V4



SEC B-B

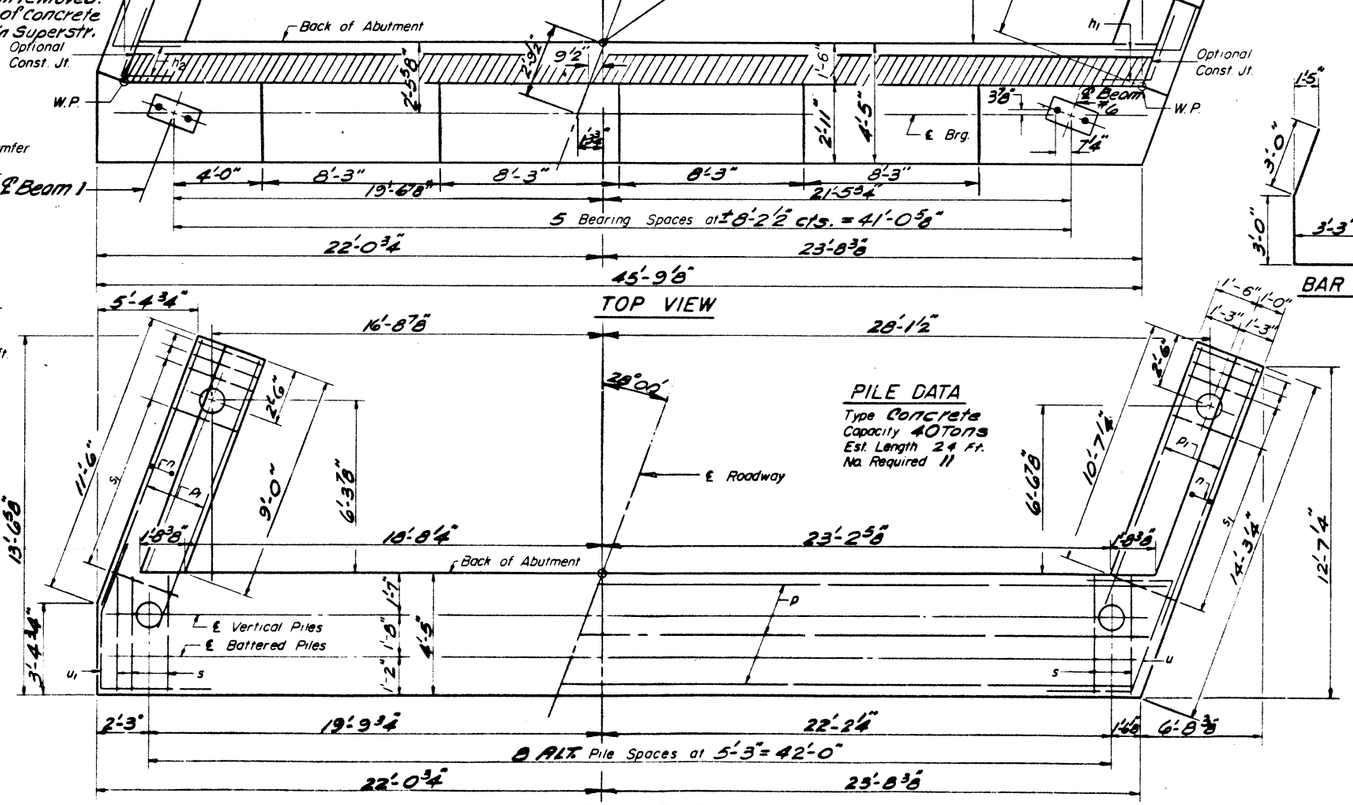


SEC. A-A



SEC. THRU ABUT.

Note:
Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line. Min. bar laps = 24 Dia.



PLAN-PILE CAP

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h	22	#5	23'-0"	
h1	8	#5	5'-0"	
h2	8	#5	5'-0"	
h3	36	#4	11'-3"	
h4	6	#6	23'-3"	
n	24	#5	8'-9"	
p	16	#7	24'-0"	
p1	12	#7	11'-3"	
s	43	#4	15'-1"	
s1	22	#4	9'-5"	
u	4	#6	11'-7"	
u1	4	#6	9'-3"	
v	92	#4	5'-6"	
v1	16	#4	7'-9"	
v2	16	#4	7'-1"	
v3	16	#4	6'-5"	
V4	46	#4	4'-6"	
Class X Concrete			Cu. Yds.	48.4
Reinforcement Bars			Lbs.	3630
Concrete Piles			Lin. Ft.	264

DESIGNED	Prakash S. Lad
CHECKED	Jerry McCormick
DRAWN	Leona Heeren PSL
CHECKED	GM

Sept. 24 1971
EXAMINED
CHIEF BRIDGE AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF DESIGN
APPROVED
CHIEF HIGHWAY ENGINEER

A-9-R (15°-34°) 2-1-66, 8-1-70

EAST ABUTMENT
NORTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S. B. I. / F. A. I. 55	57-3B	McLean	144	54
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

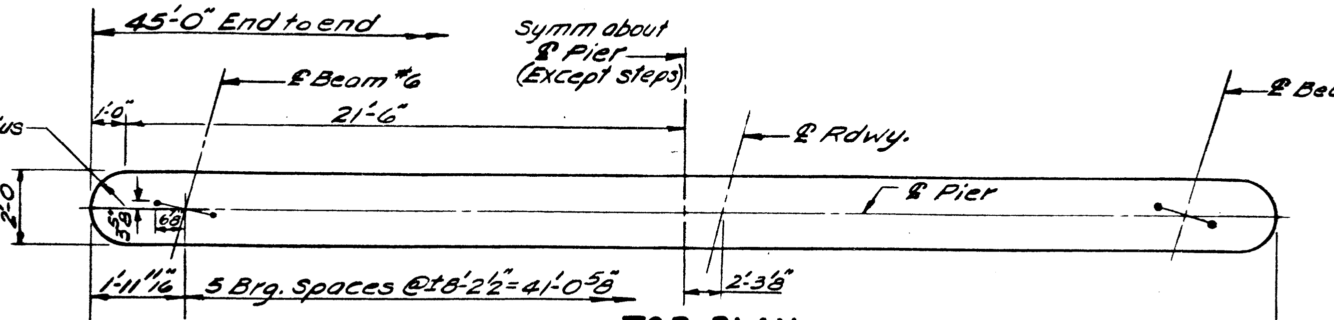
SHEET NO. 15
19 SHEETS

STATE OF ILLINOIS

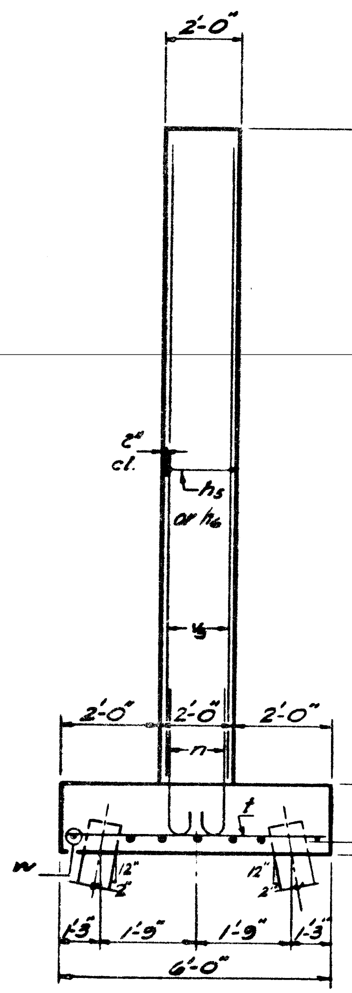
Note: Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line
Min. bar laps = 24 Dia.

Note: All exposed edges shall have standard 3/4" Chamfer.

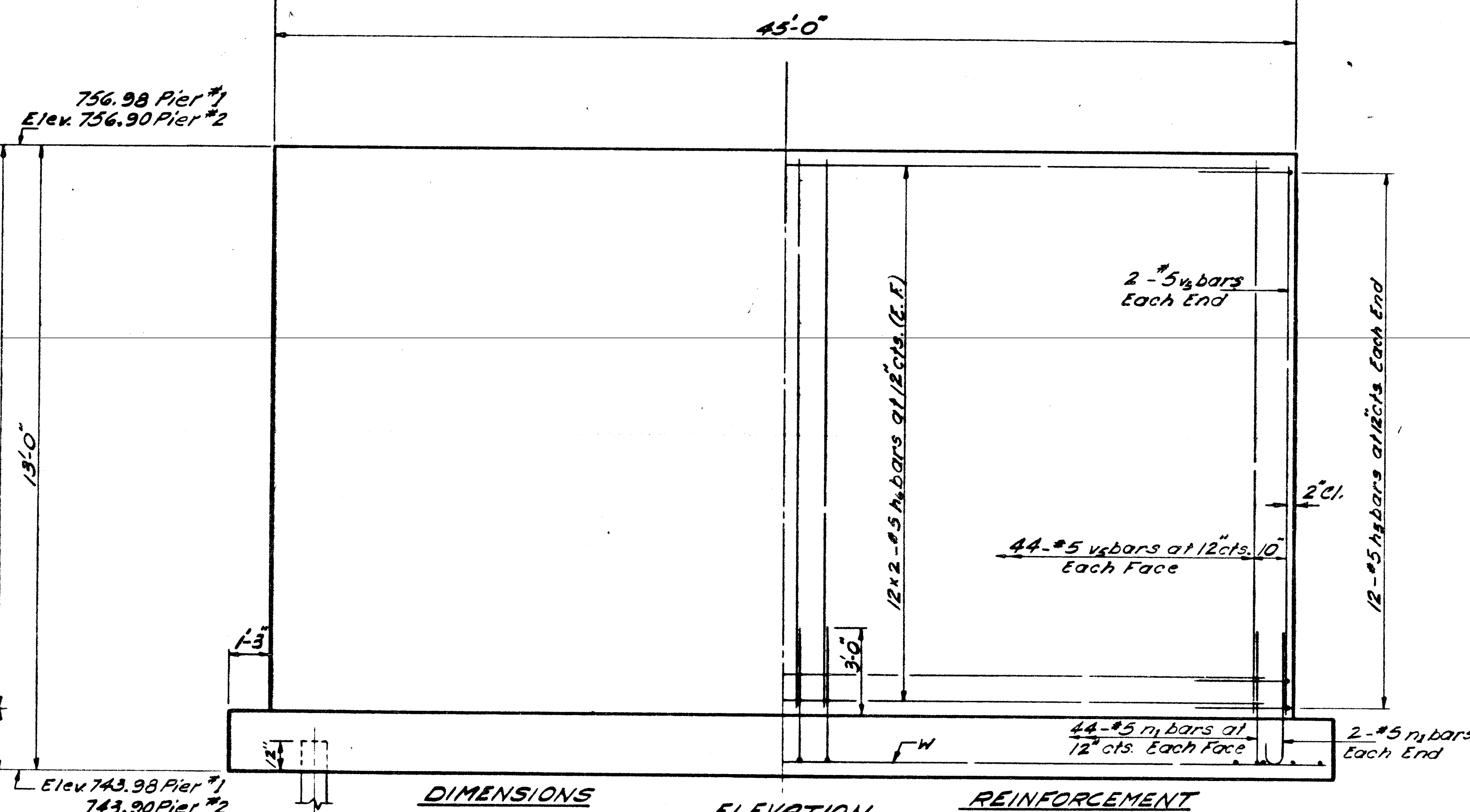
PILE DATA
Type ----- Concrete
Capacity ----- 35 Tons
Est. Length ----- 20 Ft. at Pier #1, 15 Ft. at Pier #2
No. Required --- 35+1 Test pile in a permanent location at pier #1



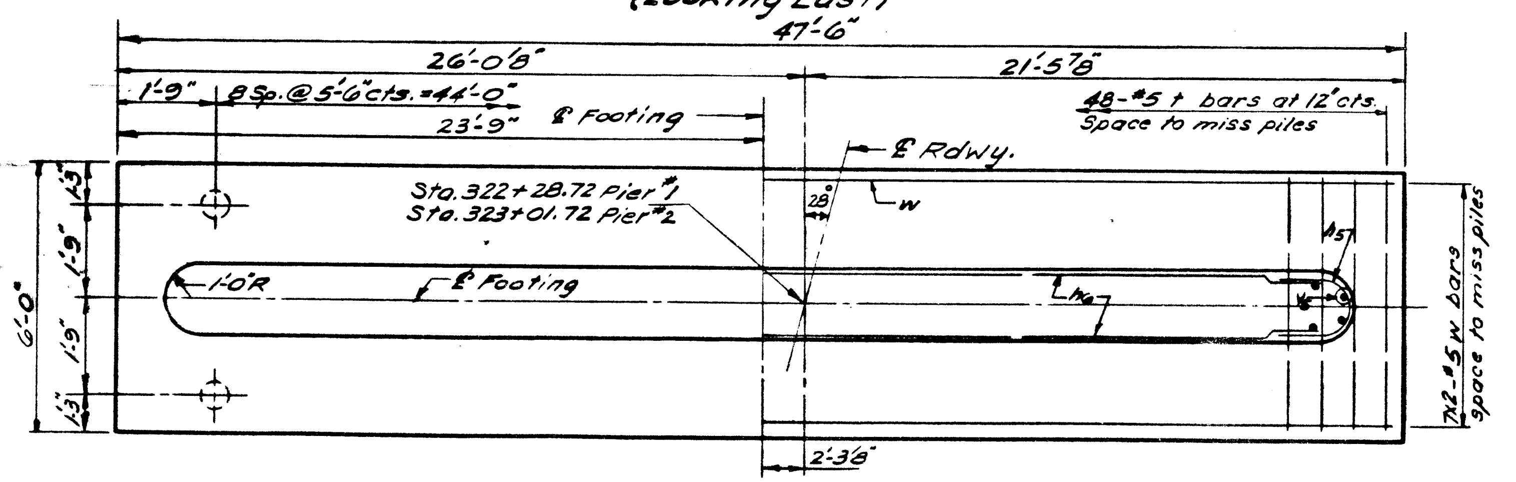
TOP PLAN



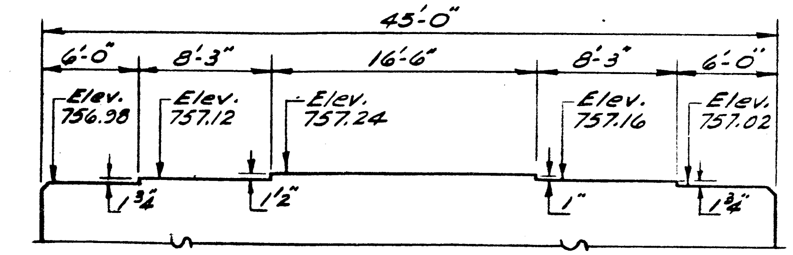
END VIEW



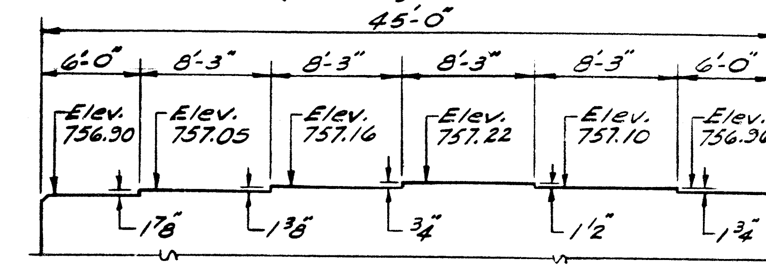
ELEVATION
(Looking East)



FOOTING PLAN

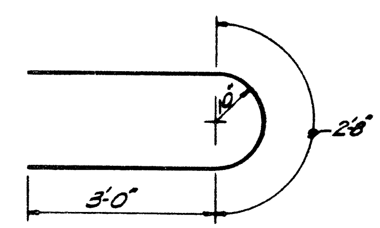


PIER #1
(Looking East)

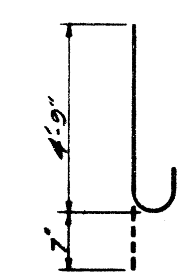


PIER #2

SEAT ELEVATIONS
(Looking East)



BAR hs



BAR n1

TWO PIERS

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h5	48	#5	8'-8"	⊂
h6	96	#5	22'-0"	—
n1	184	#5	5'-4"	⊂
t	96	#5	5'-9"	—
vs	184	#5	10'-6"	—
w	28	#5	24'-6"	—
Class A Concrete			Cu. Yds.	120.[illegible]
Reinforcement Bars			Lbs.	6970
Concrete Piles			Lin. Ft.	610
Test Piles Concrete			Ea.	1

DESIGNED	Prakash S. [illegible]
CHECKED	Gene McCormick
DRAWN	Leona Heeren PSL
CHECKED	GM

EXAMINED Sept. 24 1971 [signature] ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED W. E. Baumann ENGINEER OF DESIGN
APPROVED Richard H. Golterman CHIEF HIGHWAY ENGINEER

PIERS 1 & 2
SOUTH BOUND LANES
F.A.I. 55 SEC. 57-3B
McLEAN COUNTY
STA. 322+95

Note: Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line
Min. bar laps = 24 Dia.

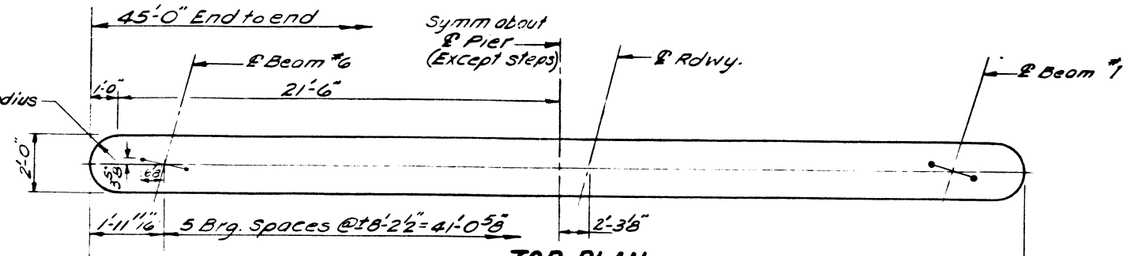
PILE DATA
Type - - - - - - Concrete
Capacity - - - - 35 Tons
Est. Length - - - - 22 Ft. at pier #1, 15 Ft. at Pier #2
No. Required - - - 35+1 Test pile in a permanent location at pier #2

STATE OF ILLINOIS

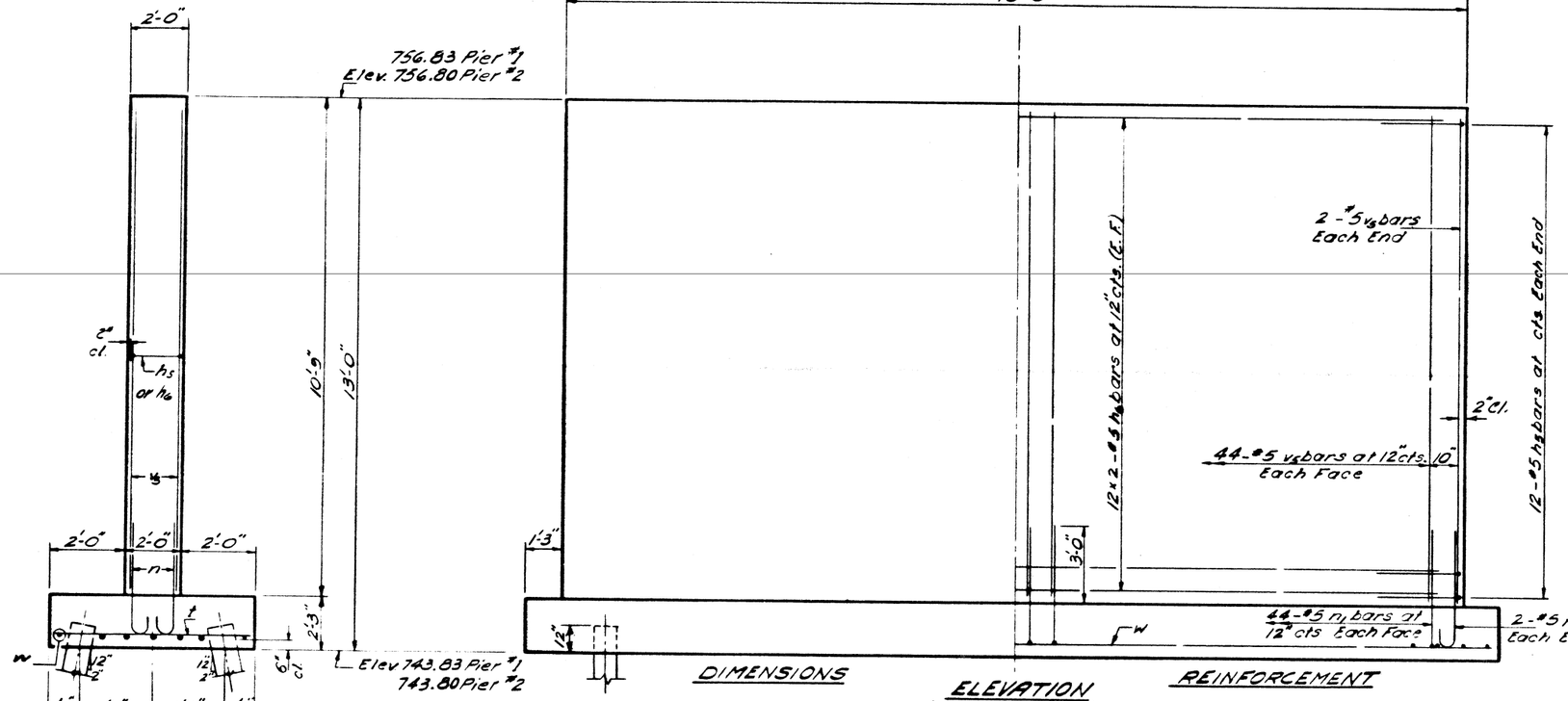
Note: All exposed edges shall have standard ¾" Chamfer.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	14	5B
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT:		

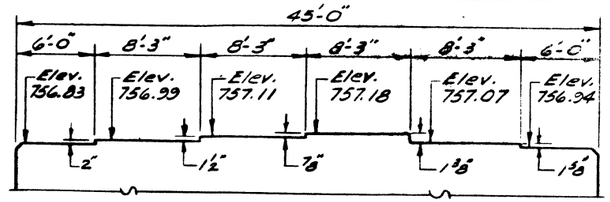
SHEET NO. 16
13 SHEETS



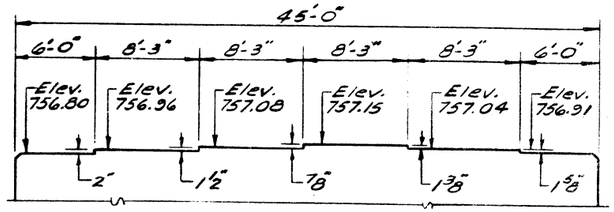
TOP PLAN



END VIEW — DIMENSIONS — ELEVATION (Looking West) — REINFORCEMENT

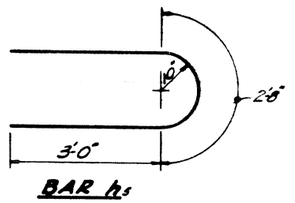


PIER #1

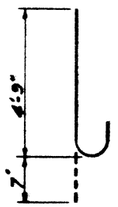


PIER #2

SEAT ELEVATIONS
(Looking West)



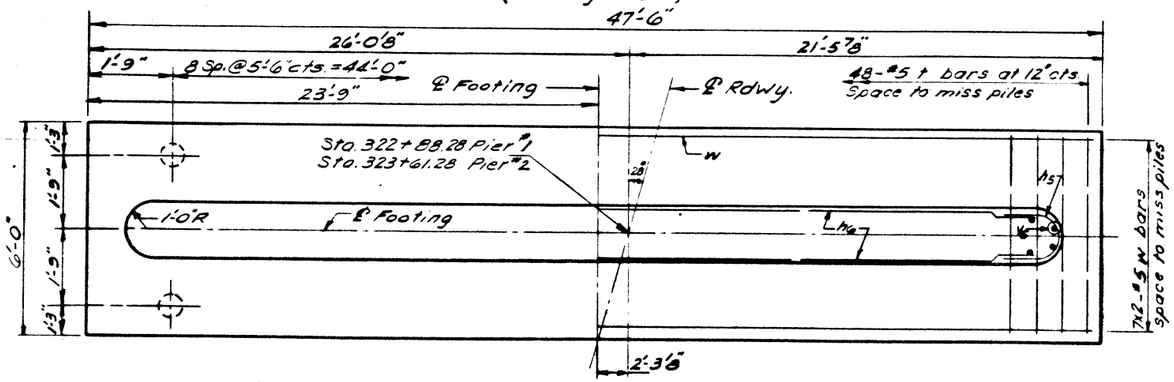
BAR h5



BAR n1

TWO PIERS
BILL OF MATERIAL

Bar	No	Size	Length	Shape
h5	48	#5	8'-8"	
h6	96	#5	22'-0"	
n1	184	#5	5'-4"	
t	96	#5	5'-9"	
vs	184	#5	10'-6"	
w	28	#5	24'-6"	
Class A Concrete			Cu. Yds.	120.0
Reinforcement Bars			Lbs.	6970
Concrete Piles			Lin. Ft.	651
Test Piles (Concrete)			Ea.	1



FOOTING PLAN

DESIGNED	Prakash S. W
CHECKED	Dana McCormick
DRAWN	Leona Heeren
CHECKED	GM PSL

SEPT 24 1971
EXAMINED
PASSED W. E. Baumann
Approved Richard H. Gutterman

PIERS 1 & 2
NORTH BOUND LANES
F.A.I. 55 SEC. 57-3B
McLEAN COUNTY
STA. 322+95

STATE OF ILLINOIS

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 17
13 SHEETS

Boring No. 1 Station 321+65 Offset 66' Lt. ℄
Surface Water El. ——— Groundwater El. at Completion -5.5' (Wash Boring) After 24 Hours -5.0'

Description	Elevation	Depth	N	Qu(t/sf)	w(%)	Recovery
Ground Surface	751.4	0				
DARK BROWN SILTY CLAY						
(MOIST, STIFF)	749.7		11	1.6 B	21	80
BROWN MOTTLED SILTY CLAY W/TR. SAND (MOIST, MEDIUM)		-5	6	1.2 B	18	80
FREE WATER ▽	744.4					
GREY BROWN SILTY SAND (LOOSE)			4	-	-	A.S.
	742.4					
GREY CLAY LOAM W/TR. SAND & GRAVEL (MOIST, V. STIFF)		-10	21	2.9 B	17	100
	739.9					
GREY FINE TO MED. SAND (V. LOOSE)			2	-	-	N.S.
(DENSE)		-15	37	-	-	100
	734.4					
GREY SILT (MOIST, STIFF)			52	1.6 S	18	100
	731.9					
GREY FINE TO COARSE SILTY SAND (DENSE)		-20	50	-	-	100
SAME MATERIAL		-20				
(V. DENSE)			55	-	-	100
	727.4					
GREY SILT (MOIST, HARD)		-25	51	1.5 S	19	80
	725.4					
GREY CLAY LOAM W/TR SAND & GRAVEL (HARD)			173	-	-	N.S.
(HARD)		-30	81	-	-	N.S.
(HARD)			114	-	-	N.S.
(DRY, HARD)	715.9	-35	138	6.8 B	10	80
END OF BORING		-40				

Boring No. 2 Station 322+35 Offset 47' Lt. ℄
Surface Water El. ——— Groundwater El. at Completion -5.0' (Wash Boring) After 24 Hours -5.0'

Description	Elevation	Depth	N	Qu(t/sf)	w(%)	Recovery
Ground Surface	751.6	0				
DARK BROWN SILTY CLAY						
(MOIST, STIFF)			18	1.9 B	-	50
	748.1					
BROWN SILTY CLAY (MOIST, STIFF)	747.6					
BROWN MOTTLED SILTY CLAY (MOIST, STIFF)	746.1	-5	10	1.8 B	-	100
FREE WATER ▽						
BROWN SILTY SAND (LOOSE)	744.1		0	-	-	100
GREY CLAY LOAM			3	3.4 B		
(MOIST, HARD)		-10	32	5.7 B	-	100
(HARD)	739.6					
GREY FINE TO MED. SAND			29	-	-	100
(MEDIUM)	737.6					
GREY SILT (STIFF)		-15	10	-	-	N.S
(V. STIFF)			27	2.0 S	-	100
	732.1					
GREY FINE & SILTY SAND (V. DENSE)		-20	42	-	-	100
SAME MATERIAL		-20				
	730.6					
GREY FINE TO COARSE SAND (DENSE)			41	-	-	80
	727.1					
GREY SILT (MOIST, HARD)		-25	37	3.0 S	16	80
	725.1					
GREY CLAY LOAM W/TR SAND & GRAVEL (DAMP, HARD)			42	4.0 B	13	100
(HARD)		-30	100	-	-	N.S.
(HARD)			90	-	-	N.S.
(HARD)		-35	68	-	-	N.S.
(HARD)			97	-	-	N.S.
(DAMP, HARD)		-40	97		14	A.S.
END OF BORING						

Boring No. 3 Station 322+96 Offset 67' Lt. ℄
Surface Water El. ——— Groundwater El. at Completion -5.5' (Wash Boring) After 24 Hours -5.0'

Description	Elevation	Depth	N	Qu(t/sf)	w(%)	Recovery
Ground Surface	751.3	0				
DARK BROWN SILTY CLAY						
(MOIST, STIFF)	748.8		5 / 7	1.8 B / 1.1	24 / 22	100
BROWN MOTTLED SILTY CLAY W/TR SAND (MOIST, STIFF)				B		
FREE WATER ▽	746.8					
BROWN SANDY CLAY LOAM		-5	6	0.4	21	50
(SOFT)	743.8		3 / 14	-	-	100
BROWN SAND W/FINE GRAVEL (MEDIUM)	742.3					
GREY CLAY W/TR SAND & GRAVEL (MOIST, HARD)		-10	37	-	19	5
(MOIST, HARD)	738.3		38	-	19	5
GREY FINE TO MEDIUM SAND						
(MEDIUM)	735.8	-15	29	-	-	100
GREY SILT						
(MOIST, V. STIFF)			33	2.9 S	19	100
	731.8					
GREY FINE TO CSE SAND (V. DENSE)		-20	54	-	-	100
SAME MATERIAL		-20				
(DENSE)			48	-	-	100
(DENSE)		-25	48	-	-	100
	725.3					
GREY CLAY LOAM W/TR SAND & GRAVEL (DAMP, HARD)		5"	26 / 100	8.8 S	13	100
	721.8		101			
GREY FINE TO CSE SAND W/TR GRAVEL (V. DENSE)	720.3	-30 3½"	100	-	-	100
GREY CLAY LOAM W/TR SAND & GRAVEL (DAMP, HARD)			93	10.1 B	11	100
(DAMP, HARD)	715.8	-35	97	9.0 B	11	80
END OF BORING		-40				

Boring No. 4 Station 323+65 Offset 46' Lt. ℄
Surface Water El. ——— Groundwater El. at Completion -5.5' (Wash Boring) After 24 Hours -5.0'

Description	Elevation	Depth	N	Qu(t/sf)	w(%)	Recovery
Ground Surface	751.5	0				
DARK BROWN SILTY CLAY						
(MOIST, STIFF)	748.5		13	2.2 B	22	100
BROWN MOTTLED SILTY CLAY						
(MOIST, STIFF) ▽ FREE WATER	746.0	-5	6	1.9 B	21	100
GREY BROWN MOTTLED, SANDY SILTY CLAY						
(MOIST, V. SOFT)			2	-	22	A.S.
	742.5					
GREY CLAY (V. STIFF)		-10	30	-	-	N.S.
(MOIST, STIFF)	739.0		9 / 12	1.6 B / -	21 / -	100
GREY FINE TO MEDIUM SAND						
(MEDIUM)	736.5	-15	6	-	-	100
GREY SILT			5	0.5	20	
(MOIST, MEDIUM)			37	2.9 B S	22	100
(MOIST, V. STIFF)	731.5	-20	19	1.9 S	21	100
GREY FINE SAND			20			
SAME MATERIAL	731.0	-20				
GREY FINE TO CSE. SAND W/TR. FINE GRAVEL (V. DENSE)			63	-	-	100
(DENSE)		-25	33	-	-	N.S.
	725.0					
GREY CLAY LOAM W/TR. SAND & GRAVEL (DAMP, HARD)			41	4.4 B	11	100
(HARD)		-30	145	-	-	N.S.
(DAMP, HARD)			107	8.1 S	10	100
(DAMP, HARD)	716.0	-35	105	8.7 B	11	100
END OF BORING		-40				

N - Standard Penetration Test Blows per ft. to Drive 2" O.D. Split Spoon Sampler 12" with 140 lb. Hammer falling 30".

N. S. - No Sample

Qu - Unconfined Compressive Strength - t/sf
NP - Non Plastic
S.T. - Shelby Tube
w - Water Content - Percentage of Oven Dry Weight - %

Type Failure
B - Bulge Failure
S - Shear Failure
E - Est. Value

A.S. - Auger Sample

DESIGNED	Prakash S. W.
CHECKED	G. McCormick
DRAWN	Leona Heeren
CHECKED	GM PSL

Sept. 24 1971
EXAMINED [signature] ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES
PASSED W. E. Baumann ENGINEER OF DESIGN
APPROVED Richard H. Golterman CHIEF HIGHWAY ENGINEER

BORING DATA
SOUTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.S. 55	57-3B	McLean	144	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. A.D. PROJECT		

SHEET NO 13
19 SHEETS

Boring No. 5 | **Station 322+24** | **Offset 46' Rt. ℄**

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Ground Surface 752.3	0				
DARK BROWN SILTY CLAY					
(MOIST, STIFF)	749.8	7	B 2.0	24	100
BROWN SILTY CLAY (MOIST, STIFF)	748.8	8	2.0	20	
BROWN, MOTTLED SILTY CLAY (WET, STIFF)	-5	9	B 2.4	26	100
FREE WATER ▽	745.8				
BROWN SILTY SAND & GRAVEL (LOOSE)	744.8	3	-	-	
GREY CLAY LOAM W/TR SAND & GRAVEL		4	-	22	A.S.
(MOIST, MEDIUM)	-10	10	B 4.1		100
GREY SAND (DENSE)	742.3	16	-	-	
GREY SILT	740.8		S		
(MOIST, V. STIFF)		33	3.9	21	100
(MOIST, STIFF)	-15	24	S 1.9	21	100
(MOIST, V. STIFF)		31	S 3.3	19	100
(MOIST, STIFF)	-20	16	S 1.3	21	
GREY FINE SILTY SAND (DENSE)	732.3	18	-	-	100

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Surface Water El. ——— Groundwater El. at Completion -4.0' (Wash Boring) After 24 Hours -5.5'					
SAME MATERIAL	-20				
	731.3				
GREY FINE TO CSE. SAND					
(DENSE)		49	-	-	100
	728.3				
GREY CLAY LOAM W/ TR. GRAVEL (V. STIFF)	-25	32	-	-	N.S.
	-30				
(HARD)		40	-	-	N.S.
	-35				
(HARD)		54			N.S.
(DAMP, HARD)		71	S 10.7	10	100
(HARD)	714.3	54	-	-	N.S.
END OF BORING					
	-40				

Boring No. 6 | **Station 322+94** | **Offset 66' Rt. ℄**

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Ground Surface 752.4	0				
DARK BROWN SILTY CLAY (MOIST, STIFF)	750.4		B		
BROWN SILTY CLAY (MOIST, STIFF)	749.6	5	2.4	23	100
BROWN MOTTLED SILTY CLAY (MOIST, STIFF)	-5	12	B 1.9	25	100
FREE WATER ▽	746.4				
GREY BROWN SILTY CLAY (MEDIUM	745.4				
BROWN SILTY SAND (LOOSE)		3	-	-	100
GREY BROWN CLAY LOAM W/TR. SAND & GRAVEL	742.9	3	B 2.0	17	
(MOIST, STIFF) (MOIST, V.STIFF)		2	B 3.6	17	
BROWN FINE SAND (LOOSE)	-10	5	-	-	80
GREY FINE & SILTY SAND	741.4				
(MEDIUM)		21	-	-	100
GREY SILT	738.9				
(MEDIUM)	-15	11	-	-	N.S.
(MEDIUM)		15	-	-	N.S.
GREY FINE & SILTY SAND (DENSE)	732.9	41	-	-	100

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Surface Water El. ——— Groundwater El. at Completion -4.0' (Wash Boring) After 24 Hours -4.5'					
	-20				
	731.4				
GREY FINE TO CSE. SAND					
(DENSE)		44	-	-	100
	-25				
(MEDIUM)		23	-	-	100
	724.9	9			
GREY CLAY LOAM		30	-	-	N.S.
(MOIST, HARD)	-30	40	-	-	N.S.
(HARD)		49	-	-	N.S.
	-35				
(HARD)		81	-	-	N.S.
(HARD)		55	-	-	N.S.
	-40				
HARD)	711.9	47	-	-	A.S.
END OF BORING					

Boring No. 7 | **Station 323+54** | **Offset 46' Rt. ℄**

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Ground Surface 751.4	0				
DARK BROWN SILTY CLAY (MOIST, STIFF)	750.4				
BROWN SILTY CLAY (MOIST, STIFF)	749.4	3	B		
BROWN MOTTLED SILTY CLAY W/TR. SAND (MOIST, STIFF)		10	B 1.94	20	80
	-5				
FREE WATER ▽	745.9	9	1.60	20	100
(MOIST, STIFF)	745.4				
BROWN SAND W/TR. GRAVEL (LOOSE)	744.4	3			
GREY CLAY LOAM W/TR. GRAVEL		35	-	-	A.S.
(MOIST, HARD)	742.4				
GREY FINE TO MED. SAND	-10				
(DENSE)		35	-	-	100
	-30				
(MEDIUM)		22	-	-	80
GREY SILT	737.9				
(STIFF)	-15	19	S 0.97	-	100
(MOIST, V. STIFF)		32	S 2.0	18	100
GREY FINE TO MED. SAND	732.9				
(DENSE)	-20	42	-	-	100

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Surface Water El. ——— Groundwater El. at Completion -3.0' (Wash Boring) After 24 Hours -4.0'					
SAME MATERIAL	-20				
(V. DENSE)		58	-	-	80
	727.4				
GREY CLAY LOAM W/TR. GRAVEL (DAMP, V. STIFF)	-25	31	B 2.4	11	80
	-30				
(HARD)		52	-	-	N.S.
(HARD)		48	-	-	N.S.
	-35				
(HARD)	715.9	54	-	-	N.S.
END OF BORING					
	-40				

Boring No. 8 | **Station 324+25** | **Offset 66' Rt. ℄**

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Ground Surface 751.4	0				
DARK BROWN SILTY CLAY (MOIST, STIFF)	749.9				
BROWN SILTY CLAY W/TR SAND (MOIST, STIFF)	748.4	10	B 1.6	23	100
BROWN MOTTLED SILTY CLAY (DAMP, MEDIUM)	-5	3	B 0.8	13	100
FREE WATER ▽	745.9				
BROWN SAND (LOOSE)	744.4	5	B		
GREY CLAY LOAM W/TR. GRAVEL (MOIST, VERY STIFF)		16	6.3	15	100
	-10				
	741.4	13	-	-	
GREY FINE TO MED. SAND (DENSE)		15	-	-	100
	738.9	19	-	-	100
GREY SILT (HARD)	738.4	27	S 4.4		
GREY FINE TO MED. SAND W/ SILT SEAMS (DENSE)	-15	35	-	-	100
GREY SILT	735.9				
(MOIST, V. STIFF)	733.4	24	S 3.5	20	100
GREY FINE TO CSE. SAND W/TR. GRAVEL					
(DENSE)	-20	47	-	-	100

	Elevation	N	Qu(t/sf)	w(%)	Recovery
Surface Water El. ——— Groundwater El. at Completion -3.0' (Wash Water Hole) After 24 Hours -3.0					
SAME MATERIAL W/TR. CLAY LOAM	-20				
(V. DENSE)	727.9	66	-	-	100
GREY CLAY LOAM W/ TR. GRAVEL	-25	34	-	-	N.S.
(MOIST, HARD)		13			
SPOON REFUSAL (SMALL ROCK)	5" =	55+	-	-	N.S.
	-30				
(HARD)		51	-	-	N.S.
(HARD)		50	-	-	N.S.
	-35				
(DAMP, HARD)	715.9	75	-	10	A.S.
END OF BORING					
	-40				

N - Standard Penetration Test Blows per ft. to Drive 2" O.D. Split Spoon Sampler 12" with 140 lb. Hammer falling 30".

N. S. - No Sample

Qu - Unconfined Compressive Strength - t/sf
NP - Non Plastic
S.T. - Shelby Tube
w - Water Content - Percentage of Oven Dry Weight - %

Type Failure
B - Bulge Failure
S - Shear Failure
E - Est. Value

A.S. - Auger Sample

DESIGNED Bakash S. W
CHECKED Gene McCormick
DRAWN Leono Heeren
CHECKED GM PSI.

SEPT. 24 1971
EXAMINED [signature] ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED [signature] ENGINEER OF DESIGN
APPROVED Richard E. Tolliver CHIEF HIGHWAY ENGINEER

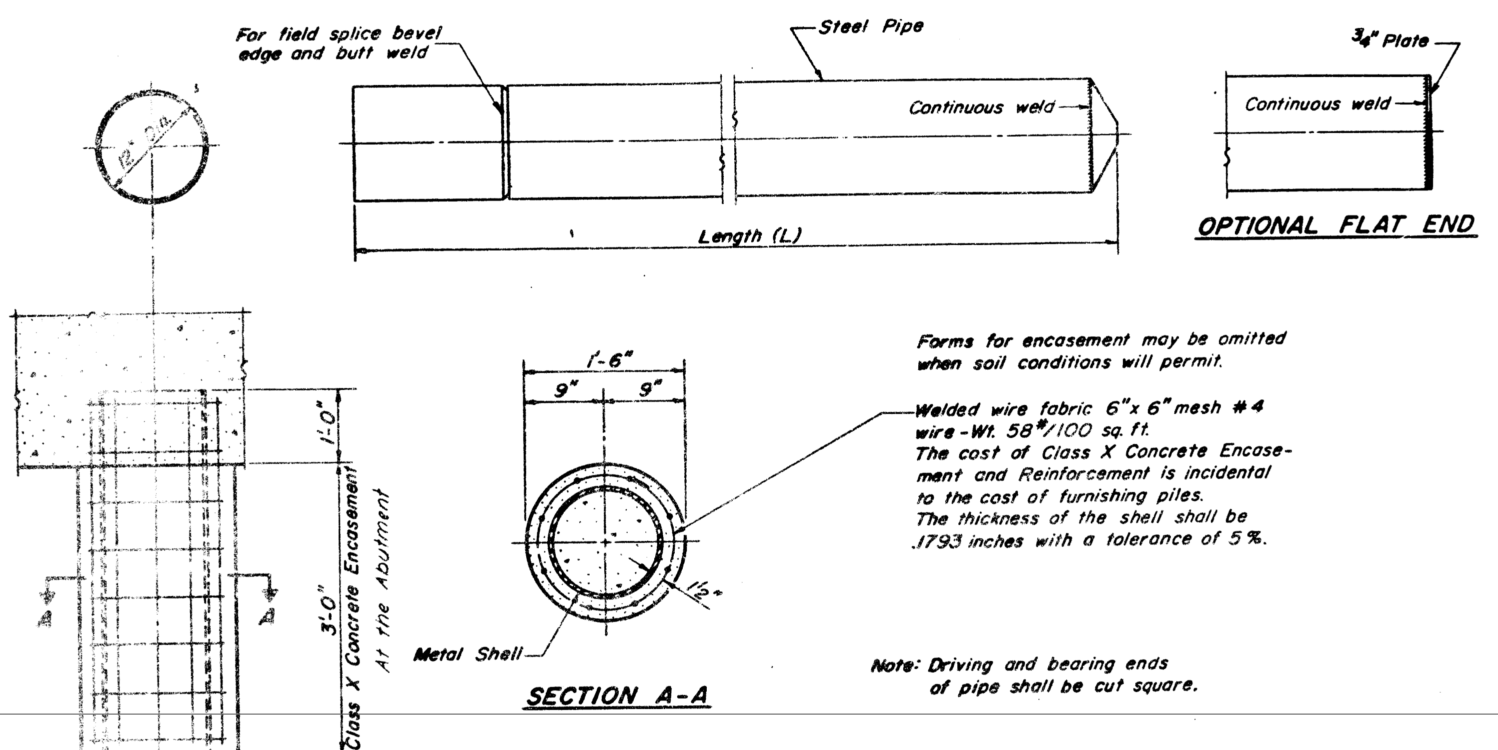
BORING DATA
NORTH BOUND LANES
F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3B	McLean	144	58
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 13

13 SHEETS

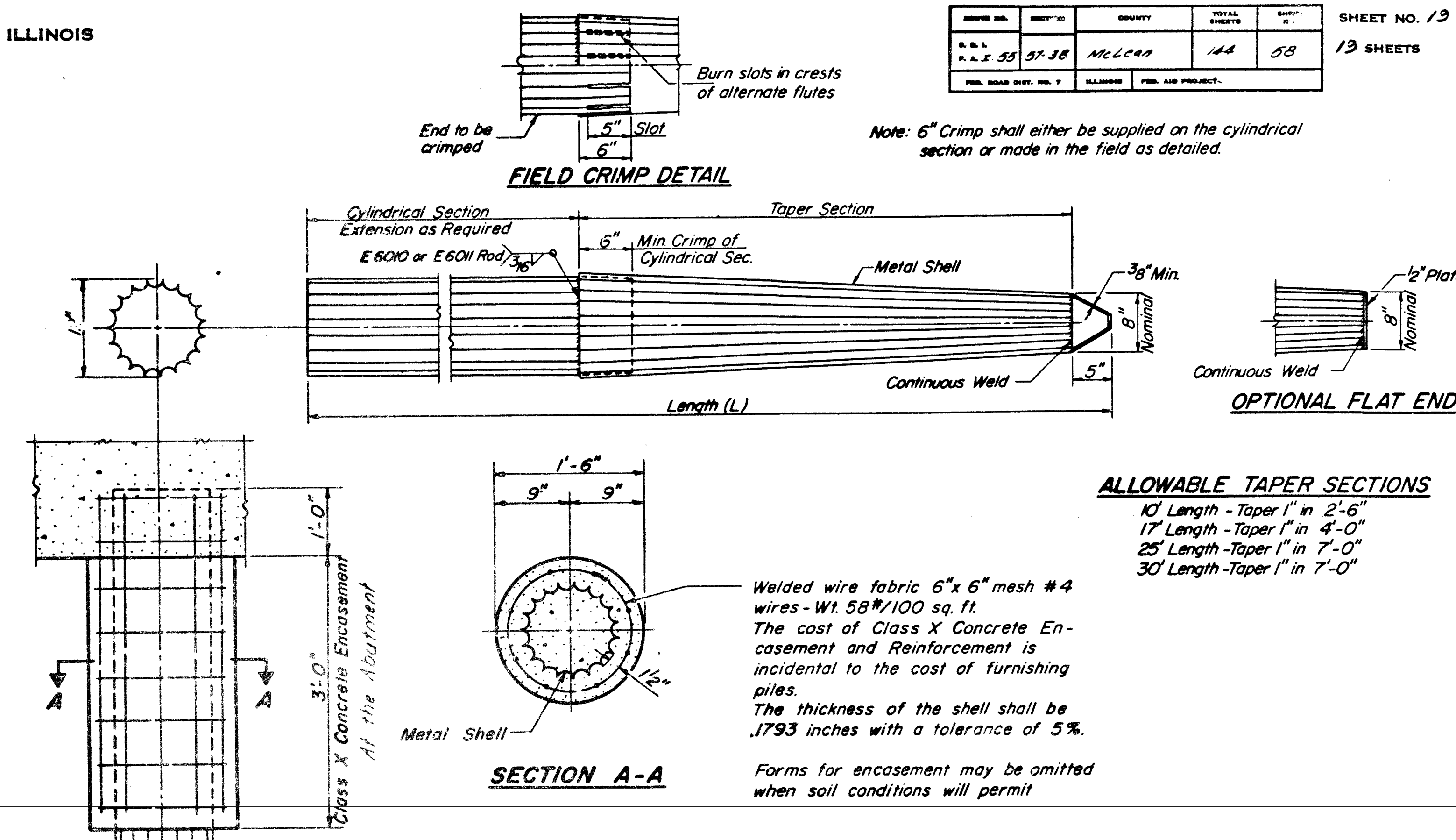


Forms for encasement may be omitted when soil conditions will permit.

Welded wire fabric 6"x 6" mesh #4 wire - Wt. 58#/100 sq. ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. The thickness of the shell shall be .1793 inches with a tolerance of 5%.

Note: Driving and bearing ends of pipe shall be cut square.

DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES



Note: 6" Crimp shall either be supplied on the cylindrical section or made in the field as detailed.

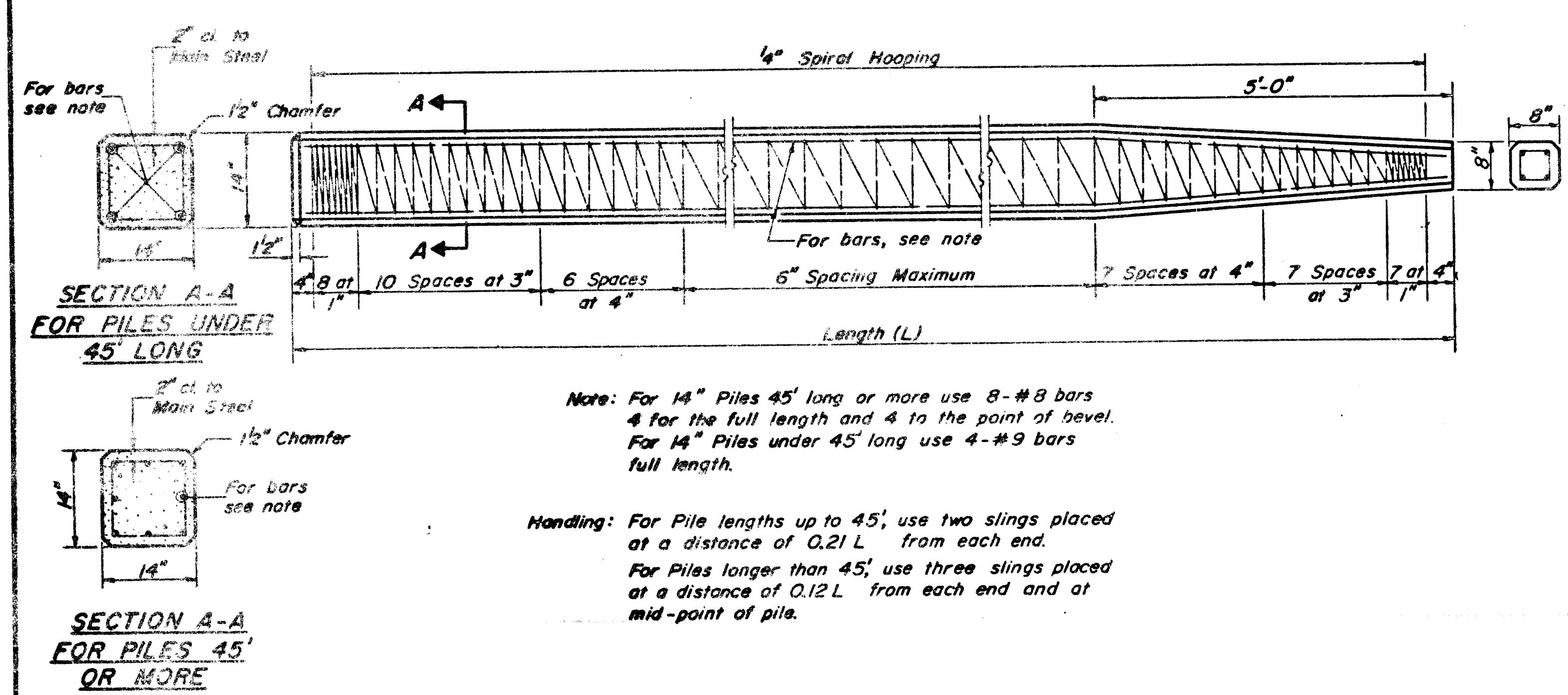
ALLOWABLE TAPER SECTIONS

10' Length - Taper 1" in 2'-6"
17' Length - Taper 1" in 4'-0"
25' Length - Taper 1" in 7'-0"
30' Length - Taper 1" in 7'-0"

Welded wire fabric 6"x 6" mesh #4 wires - Wt. 58#/100 sq. ft. The cost of Class X Concrete Encasement and Reinforcement is incidental to the cost of furnishing piles. The thickness of the shell shall be .1793 inches with a tolerance of 5%.

Forms for encasement may be omitted when soil conditions will permit

DETAIL OF TAPERED METAL SHELL FOR CAST IN PLACE CONCRETE PILES



Note: For 14" Piles 45' long or more use 8-#8 bars 4 for the full length and 4 to the point of bevel. For 14" Piles under 45' long use 4-#9 bars full length.

Handling: For Pile lengths up to 45', use two slings placed at a distance of 0.21 L from each end. For Piles longer than 45', use three slings placed at a distance of 0.12 L from each end and at mid-point of pile.

DESIGNED Pankrath ... CHECKED ... DRAWN ... CHECKED ...

Sept. 24 1971

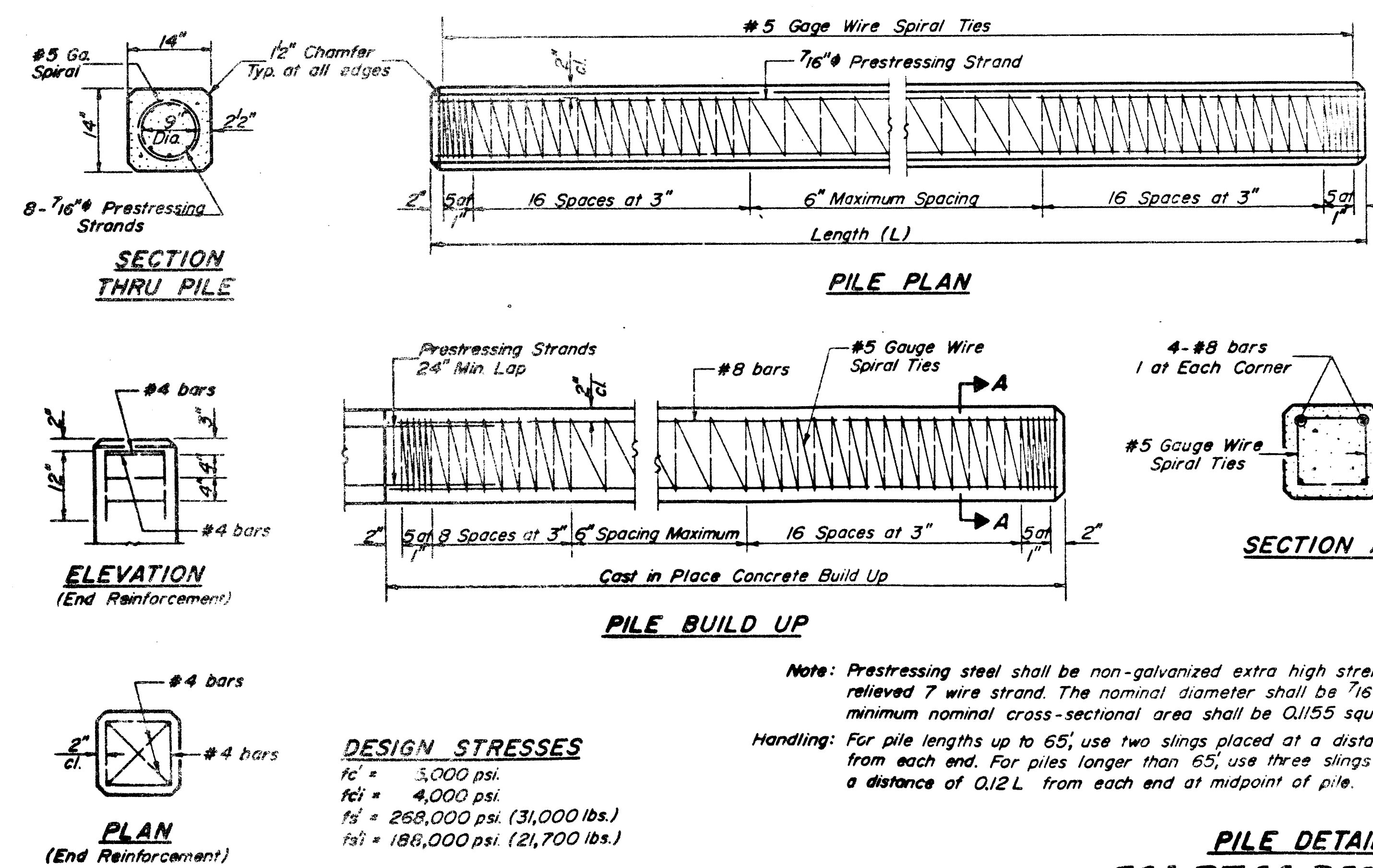
EXAMINED ... ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES

PASSED W.E. Baumann ENGINEER OF DESIGN

APPROVED Richard H. Golterman CHIEF HIGHWAY ENGINEER

X-2 2-14-69

DETAIL OF PRECAST CONCRETE PILES



DESIGN STRESSES

fc' = 5,000 psi.
fci = 4,000 psi.
fs' = 268,000 psi. (31,000 lbs.)
fsi = 186,000 psi. (21,700 lbs.)

Note: Prestressing steel shall be non-galvanized extra high strength stress-relieved 7 wire strand. The nominal diameter shall be 7/16" and the minimum nominal cross-sectional area shall be 0.1155 square inch.

Handling: For pile lengths up to 65', use two slings placed at a distance of 0.21 L from each end. For piles longer than 65', use three slings placed at a distance of 0.12 L from each end at midpoint of pile.

DETAIL OF PRECAST PRESTRESSED CONCRETE PILES

PILE DETAILS

F.A.I. RT. 55 SEC. 57-3B
McLEAN COUNTY
STATION 322+95

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3	MC LEAN	144	5
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT I-55-5( )		

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS, "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 2, 1971 THE SPECIAL PROVISIONS, THE MIMEOGRAPHED SPECIFICATIONS, AND THE STANDARDS.

THE WORK IN SECTION 57-3 CONSISTS OF THE CONSTRUCTION OF DUAL 24' WIDE CONTINUOUSLY REINFORCED P.C. CONCRETE PAVEMENT LANES, 9" THICK WITH A DEPRESSED MEDIAN; THE CONSTRUCTION OF FOUR INTERCHANGE RAMPS HAVING 16' WIDE STANDARD REINFORCED P.C. CONCRETE PAVEMENT 8" THICK, THE STUBS WHERE THEY CONNECT TO RELOC. C.H. 29 BEING EXCEPTED; THE COMPLETE WORK OF CONSTRUCTING DUAL 3 SPAN STEEL GIRDER BRIDGES OVER MONEY CREEK WITH A CHANNEL CHANGE; THE CONSTRUCTION OF A 10' x 4' R.C. BOX CULVERT; THE CONSTRUCTION OF VARIOUS DRAINAGE STRUCTURES; AND OTHER INCIDENTAL WORK NECESSARY TO COMPLETE THE SECTION.

STABILIZED SHOULDERS 9" SHALL BE CONSTRUCTED ALONG F.A.I. RTE. 55 AND THE INTERCHANGE RAMP TERMINALS ADJACENT TO THE 9" CRPCC PAVEMENT. FOR THE REMAINDER OF THE RAMPS, ADJACENT TO THE 8" SPRCC PAVEMENT, STABILIZED SHOULDERS 8" SHALL BE CONSTRUCTED.

THE CONTRACTOR SHALL FURNISH AND ERECT TWO SIGNS CONFORMING TO STANDARD 2153 AT THE LOCATION SHOWN ON SHEET 1, OR AS DIRECTED BY THE ENGINEER.

ALL STATIONING REFERS TO THE SURVEY CENTERLINE EXCEPT AS SHOWN ON PLANS

DATUM USED FOR SURVEY IS U.S.G.S.

WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTILL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUB-SECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITY FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR THEIR MARKING OF THE EXACT LOCATION.

MINIMAL ADJUSTMENTS IN PAY LIMITS OF GUARDRAIL AS DICTATED BY STANDARD DRAWINGS WILL NOT BE MADE WHERE SUCH ADJUSTMENT INVOLVES LESS THAN 1 1/2' OF LENGTH PER CONTINUOUS INSTALLATION.

FOR THE PURPOSES OF THIS CONTRACT, SPRING SEEDING IS THAT DONE BETWEEN JANUARY 1 AND JUNE 30; FALL SEEDING IS THAT DONE BETWEEN JULY 1 AND DECEMBER 31. SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN UNTILLABLE CONDITION. AREAS TO RECEIVE CLASS I SEEDING SHALL INCLUDE ALL SLOPES 4:1 AND FLATTER. SLOPES STEEPER THAN 4:1 RECEIVE CLASS III.

MULCHING SHALL BE IN ACCORDANCE WITH ARTICLE 643.03, METHOD 2.

IN SOME AREAS WITHIN THE LIMITS OF THIS CONTRACT, AN ANALYSIS OF THE SOILS CHARACTERISTICS INDICATED THE NEED FOR SUB-BASE GRANULAR MATERIAL, TYPE A, 6" THICK TO BE PROVIDED UNDER THE 4" STABILIZED SUB-BASE. LINES REPRESENTING THIS EXTRA THICKNESS HAVE BEEN SHOWN ON THE CROSS SECTIONS BUT THE END AREAS DO NOT REFLECT THIS EXTRA THICKNESS. THE EARTHWORK INVOLVED HAS BEEN CONSIDERED IN THE QUANTITIES, HOWEVER.

THE STATION LIMITS AND QUANTITIES FOR THE AREAS WHERE THIS EXTRA THICKNESS IS REQUIRED ARE AS FOLLOWS:

STATION 290+00 TO STATION 318+40	5,822 TONS
STATION 337+50 TO STATION 339+00	308 TONS
STATION 342+50 TO STATION 348+50	1,230 TONS

LEGEND
(AS SHOWN BELOW AND ON ST'D. 1686)
▲ INDICATES PERMANENT SURVEY MARKERS
■ INDICATES PROPOSED RIGHT OF WAY MARKERS
N.A.R. INDICATES NO AVAILABLE REFERENCES

INDEX OF SHEETS

*** 39A-39K SIGNING DETAILS**

STANDARDS

SIGNING STDS. 2140-7, 2142-4, 2147-5, 2148-4, 2161-1, 2162-5, 2167-2, 2173-2, 2206, 2256-4, 2257-2, 2259-1

Rev. 9-20-72 1-3-73
4-3-73

GENERAL NOTES, INDEX OF SHEETS AND LEGEND

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 55	57-3	MC LEAN	144	10
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT I-55-5( )		

TABULATION OF SURFACING ITEMS

LOCATION	STABILIZED SUB-BASE 4"	AGGREGATE SHOULDERS, TYPE A	STABILIZED SHOULDERS 8"	STABILIZED SHOULDERS 9"	AGGREGATE BASE COURSE, TYPE A	BITUMINOUS MAT'LS. PRIME COAT	BITUMINOUS MAT'LS. COVER COAT	BITUMINOUS MAT'LS. SEAL COAT	COVER COAT AGGREGATE	SEAL COAT AGGREGATE	8" P.C.C. PAVEMENT	PAVEMENT FABRIC	9" C.R. P.C.C. PAVEMENT	SUB-BASE GRANULAR MATERIAL TYPE "A"	AGGREGATE SURF COURSE, TYPE A
	SQ.YD.	TON	SQ.YD.	SQ.YD	CU. YD.	GAL	GAL	GAL.	TON	TON	SQ.YD.	SQ. YD.	SQ. YD.	TONS	TON
197+00 TO 200+00 FAI 55	1,800	161		1,067									1,600		
200+00 TO 230+00 FAI 55	18,453	1,542		10,935									16,403		
230+00 TO 260+00 FAI 55	17,693	1,390		8,645									16,000		
260+00 TO 290+00 FAI 55	17,693	1,316		8,645									16,000		
290+00 TO 320+00 FAI 55	18,000	1,316		10,667									16,000	5,822	
320+00 TO 350+00 FAI 55	16,536	1,224		9,987									14,698	1,538	
350+00 TO 380+00 FAI 55	18,000	1,316		10,667									16,000		
380+00 TO 391+00 FAI 55	6,600	483		3,911									5,867		
RAMP A	4,718	920	1,595	916							2,620	2,620	1,264		
RAMP B	3,289	550	968	619							1,552	1,552	1,191		
RAMP C	4,718	920	1,595	916							2,620	2,620	1,264		
RAMP D	3,289	550	968	619							1,552	1,552	1,191		
ACCESS ROAD A															2,938
FRONTAGE ROAD NO. 2					1,305	2,349	2,990	1,495	107	53					
FRONTAGE ROAD NO. 5					321	722	910	455	33	16					
ENT. MAINT., STA. 389+49															66
TOTALS	130,789	11,688	5,126	67,594	1,626	3,071	3,900	1,950	140	69	8,344	8,344	107,478	7,360	3,004

BRIDGE APPROACH SLABS STD. 2138, METHOD I

LOCATION	P.C.C. PAVEMENT 16½"-12"-16½" REINF. BARS SQ.YDS.	P.C.C. PAVEMENT REINF. BARS POUNDS	SUB-BASE GRANULAR MAT'L. TYPE A TONS
LT. STA. 321+43.20 - 321+69.58	70.5	3,875	18
LT. STA. 323+60.86 - 323+87.24	70.5	3,875	18
RT. STA. 322+02.76 - 322+29.14	70.5	3,875	18
RT. STA. 324+20.42 - 324+46.80	70.5	3,875	18
TOTALS	282	15,500	72

PIPE CULVERT TABULATION

LOCATION	PIPE CULVERTS TYPE I 18"	TYPE I 36"	TYPE I R.C.C.P. 24"	TYPE I R.C.C.P. 36"	TYPE 2 R.C.C.P 24"	TYPE 2 R.C.C.P 36"	TYPE 2 R.C.C.P 42"	TYPE I CS AD EQV 42"	END SECTIONS AD EQV 42"	END SECTIONS 18"	END SECTIONS 24"	END SECTIONS 36"	END SECTIONS 42"	ELBOW R.C. 24"	TEE R.C. PIPE 36P 24R	STORM SEWER TYPE I 6"	STORM SEWER TYPE I 8"	STORM SEWER TYPE I 10"	STORM SEWER TYPE I 12"	STORM SEWER TYPE I 18"	TRENCH BACK-FILL CU. YD.	INLETS STD 2243	INLETS STD 2244	INLETS STD 2245	INLETS STD 2246	INLETS STD 2248	INLETS STD 2249	INLETS STD 2250	EXCELSIOR BLANKET EACH	EXCELSIOR BLANKET SQ. YD.
F.A.I. RTE. 55																						(NOT PAID FOR INDIVIDUALLY)								
199+00			4			200						2			1								1						27
209+00			62																				1				1		16
216+00			2			230						2			1													1	20
225+00			86																					1			1		15
242+00			74																				1				1		13
252+25				216										2	2								2						15
268+75			94																					1			1		10
284+00			4			206						2			1								1						55
294+00					100						1											1							40
306+00			98								1											1							40
319+00			2		128						1			1														1	40
LT. 321+30																27					2								
RT. 321+90																27					2								
327+00			4		124						1			1														1	40
341+00			4	172											1								1			2			15
354+25			8																				2						45
364+00			74																				1				1		40
384+00			92																						1		1		37
RAMP A 124+00							80						2																15
RAMP B 287+75					90																								30
RAMP C 366+50					90																								30
RAMP D 451+00						106						2																	14
ACC. RD. A 16+00		38										2																	
ACC. RD. A 40+00	34									2																			
FR. RD. 2 19+30								54	2																				
FIELD TILE REPLACEMENT & WATER LINE SLEEVE (ESTIMATE)																660													
	34	38	608	388	532	742	80	54	2	2	4	10	2	4	6	714	① 150	380	2,934	400	165*	2	10	2	1	2	6	3	557	

* INCLUDES 100 CU YDS. FOR CONTINGENCY

① CONTINGENCY ITEM

Δ Non-Participating

GUARD RAIL TABULATION

LOCATION	SINGLE RAIL LIN. FT.	DOUBLE RAIL LIN. FT.	TERMINAL SECTION EACH
RT. STA. 257+75 - 259+75	200		2
LT. STA. 258+97 - 260+97	200		2
RT. STA. 320+34.20 - 322+09.20	150	25	
RT. STA. 321+30.47 - 322+30.47	75		1
LT. STA. 323+59.53 - 324+59.53	75		1
LT. STA. 323+80.80 - 325+55.80	150	25	
TOTALS	850	50	6

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 55	57-3	MC LEAN	149	11
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT I-55-5( )		

EARTHWORK SUMMARY

STATION TO STATION	THEORETICAL		TOPSOIL SOURCES		TOPSOIL REQUIRED		ADJUSTED		CHANNEL EXCAVATION		BORROW	TOPSOIL
	CUT	FILL	IN CUT (–)	IN FILL (+)	IN CUT (+)	IN FILL (–)	CUT	FILL	CUT	FILL	EXCAVATION	PLACEMENT
	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	CU. YD.	SQ. YD.
BALANCE NO. 1												
197+00 TO 245+54	9,819	119,432			1,579	5,884	11,398	113,548			130,537	67,167
ACCESS ROAD "A"	9,000	8,483			1,147	592	10,147	7,891			- 283	15,651
TOTAL BALANCE NO. 1	18,819	127,915			2,726	6,476	21,545	121,439			130,254	82,818
BALANCE NO. 2												
245+54 TO 314+83	126,258	64,491	23,775	516	9,375	4,627	111,858	60,380			- 36,383	126,018
FRONTAGE ROAD NO. 2	2,208	7,372			460	747	2,668	6,625			5,613	10,863
FRONTAGE ROAD NO. 5	1,026	228					1,026	228			- 714	
RAMP A	11,854	29,795	2,732		1,145	1,270	10,297	28,525			25,359	21,735
RAMP B	2,096	13,709	330		462	693	2,228	13,016			14,042	10,395
RAMP C	3,388	23,003	332		745	1,219	3,801	21,784			23,429	17,676
RAMP D	3,488	10,972	953		787	613	3,322	10,359			9,627	12,600
RAMP A INFIELD GRADING	15,234		2,983		1,269		13,520				- 13,520	11,421
RAMP B INFIELD GRADING	2,435	157	1,419		404		1,420	157			- 1,224	3,636
RAMP C INFIELD GRADING	8,156	348	4,466		1,295	114	4,985	234			- 4,692	12,681
RAMP D INFIELD GRADING	6,102		2,360		776		4,528				- 4,528	7,074
INFIELD GRADING BETWEEN C.H. AND SHEAR LINE	2,553	35	1,090		407	12	1,870	23			- 1,841	3,771
EXTRA SUB-BASE PLACEMENT	2,840						2,840				- 2,840	
TOTAL BALANCE NO.2	187,638	150,110	40,410	516	17,135	9,295	164,363	141,331			12,301	237,870
BALANCE NO. 3												
314+83 TO 323+00	29,405	23,525		30	1,146	711	30,551	22,844			- 1,996	16,713
TOTAL BALANCE NO. 3	29,405	23,525		30	1,146	711	30,551	22,844			- 1,996	16,713
BALANCE NO. 4												
323+00 TO 333+68	37,391	32,092	3,198	46	1,538	900	35,731	31,238			3,317	21,942
MONEY CREEK CHANNEL CHANGE									13,054		- 13,054	
MONEY CREEK FILL EXISTING CHANNEL										8,264	10,330	
TOTAL BALANCE NO. 4	37,391	32,092	3,198	46	1,538	900	35,731	31,238	13,054	8,264	593	21,942
BALANCE NO. 5												
333+68 TO 357+21	39,426	32,141	5,602	366	2,862	1,604	36,686	30,903			1,943	40,194
EXTRA SUB-BASE PLACEMENT	750						750				- 750	
TOTAL BALANCE NO. 5	40,176	32,141	5,602	366	2,862	1,604	37,436	30,903			1,193	40,194
BALANCE NO. 6												
357+21 TO 391+00	15,173	61,411	175	610	2,741	3,819	17,739	58,202			55,014	59,040
TOTAL BALANCE NO. 6	15,173	61,411	175	610	2,741	3,819	17,739	58,202			55,014	59,040
GRAND TOTALS	328,602	427,194	49,385	1,568	28,148	22,805	307,365	405,957	13,054	8,264	197,359	458,577

DELINEATOR TABULATION

LOCATION	DELINEATORS EACH
STA. 200+00 TO STA. 230+00	36
STA. 230+00 TO STA. 260+00	24
STA. 260+00 TO STA. 290+00	24
STA. 290+00 TO STA. 320+00	34
STA. 320+00 TO STA. 350+00	26
STA. 350+00 TO STA. 380+00	30
STA. 380+00 TO STA. 391+00	10
RAMP A	23
RAMP B	11
RAMP C	22
RAMP D	11
TOTAL	251

TREE REMOVAL SUMMARY

LOCATION	6 TO 15 IN. DIA. IN. DIA.	OVER 15 IN. DIA. IN. DIA.
STA. 200+00 TO STA. 230+00		282
STA. 230+00 TO STA. 260+00		375
STA. 290+00 TO STA. 320+00	48	1,050
STA. 320+00 TO STA. 350+00	130	702
TOTAL	178	2,409

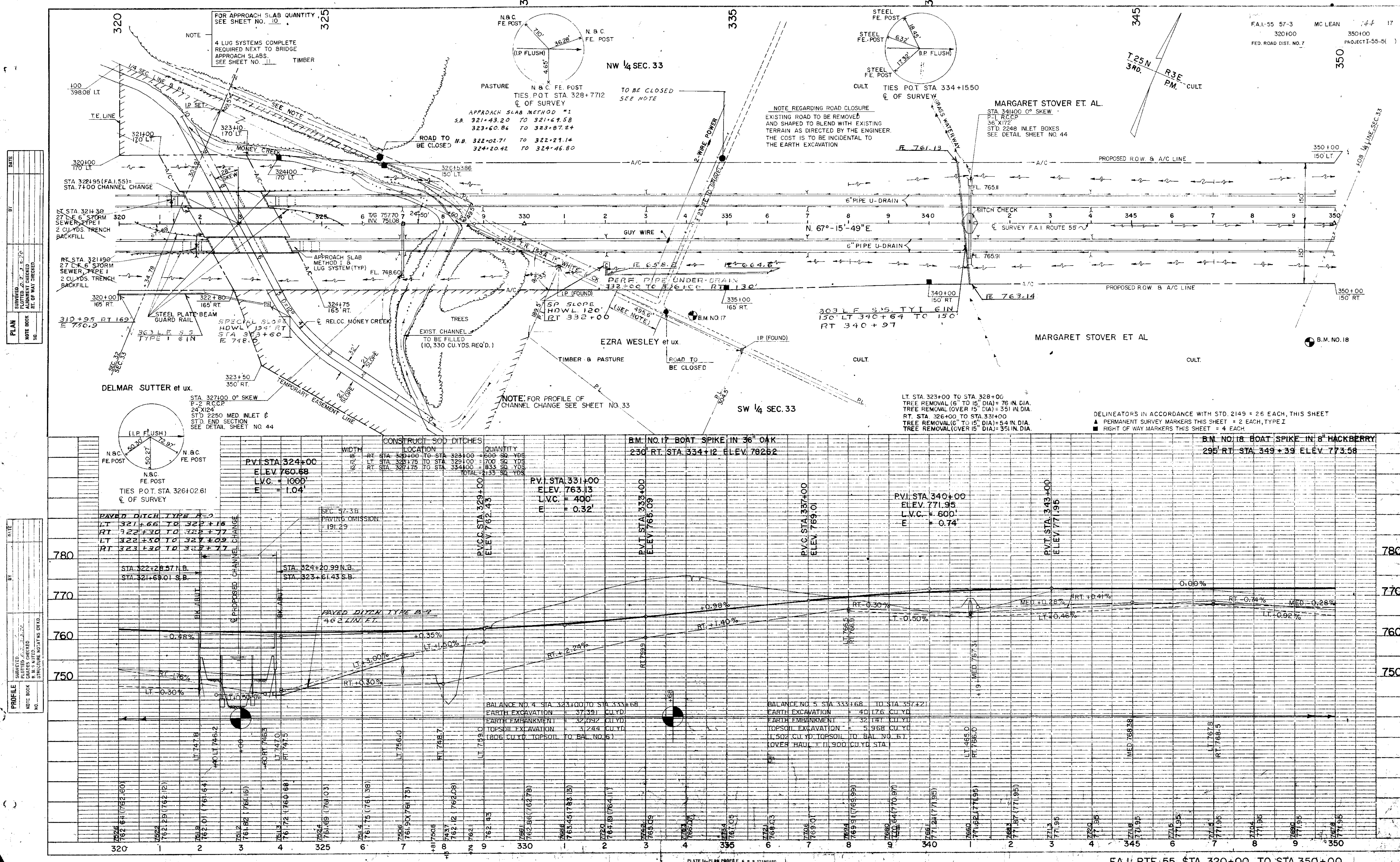
LUG SCHEDULE

(IN ACCORDANCE WITH STD'S. 2224 & 2261)

LOCATION	LUG SYSTEM COMPLETE EACH
SOUTHBOUND LANE:	
LT. STA. 320+89.20 TO STA. 321+43.20	1
LT. STA. 323+87.24 TO STA. 324+41.24	1
NORTHBOUND LANE:	
RT. STA. 321+48.76 TO STA. 322+02.76	1
RT. STA. 324+46.80 TO STA. 325+00.80	1
TOTAL	4

THE FOLLOWING RATES OF APPLICATION AND UNIT WEIGHTS INDICATE THE BASIS FOR ESTIMATING QUANTITIES.

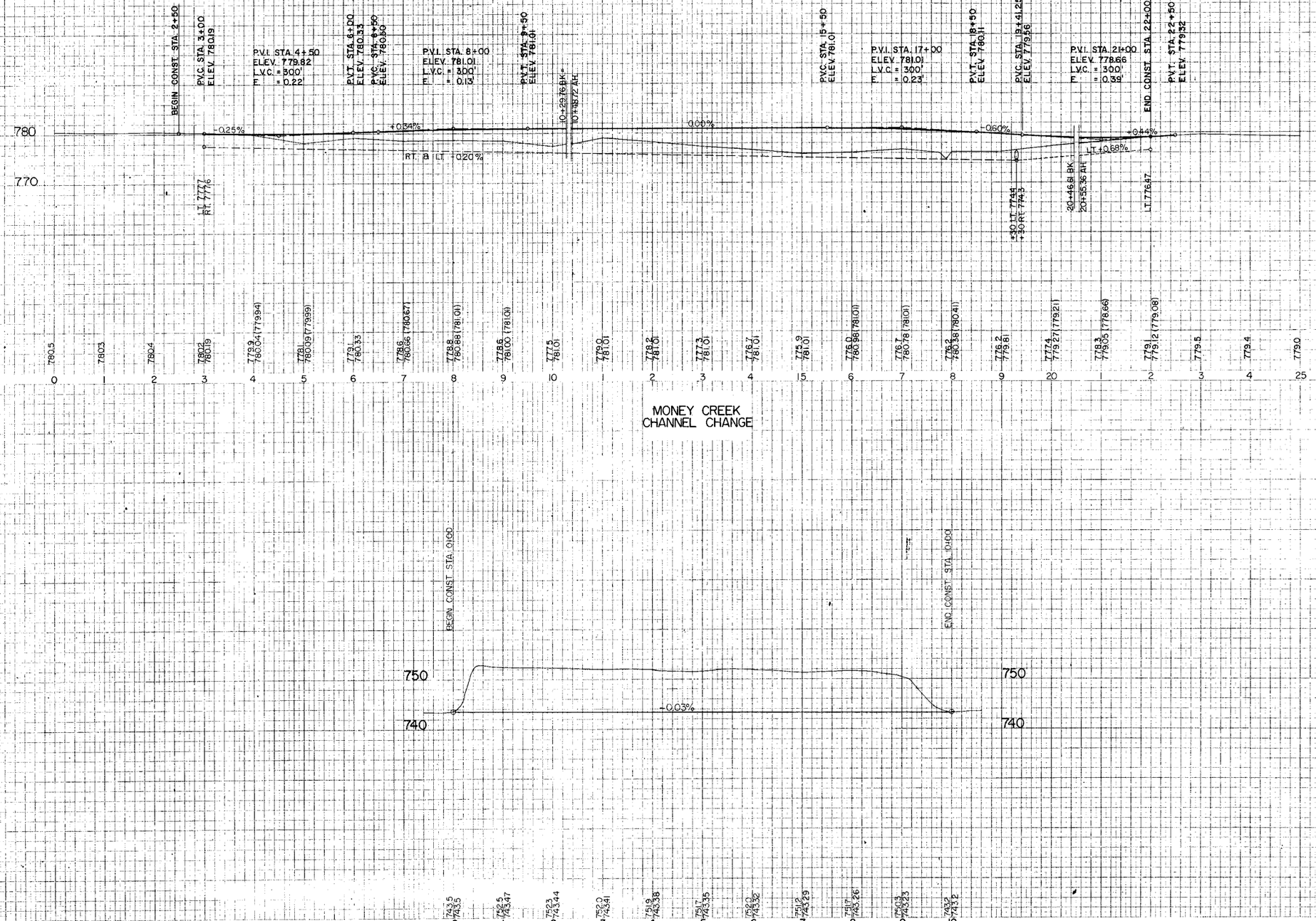
EARTH SHRINKAGE FACTOR	25%
TOPSOIL PLACEMENT	4" THICKNESS
COARSE AGGREGATE	2.05 TONS/CU.YD.
BITUMINOUS MATERIALS (PRIME COAT)	0.50 GALLON/SQ.YD.
BITUMINOUS MATERIALS (COVER & SEAL COATS)	0.35 GALLON/SQ.YD.
COVER COAT AGGREGATE	25 LBS/SQ.YD. - 2 APPLICATIONS
SEAL COAT AGGREGATE	25 LBS/SQ.YD. - 1 APPLICATION
FERTILIZER NUTRIENTS	100 LBS/ACRE/NUTRIENT
AGRICULTURAL GROUND LIMESTONE	3 TONS/ACRE
MULCH	2 TONS/ACRE
EMULSIFIED ASPHALT	100 GALLON/TON OF MULCH
SUPPLEMENTAL WATERING	3 GALLON/SQ.YD. - 2 APPLICATION



F.A.I. RTE. 55 STA. 320+00 TO STA. 350+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI. 55	57-3	MC LEAN	144	33
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT I-55-5( )		

FRONTAGE ROAD NO. 2

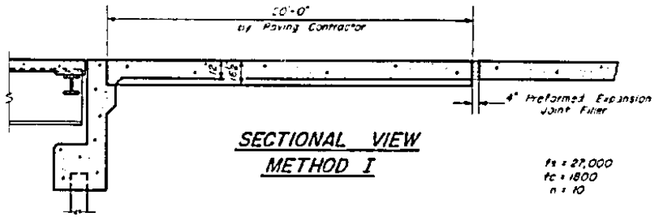


MONEY CREEK CHANNEL CHANGE

PLATE 3-CROSS SECTION OF A PART OF THE MONEY CREEK CHANNEL CHANGE

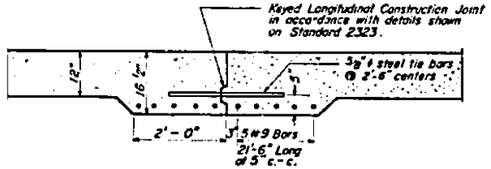
PROFILE-FRONTAGE ROAD NO. 2 & MONEY CREEK CHANNEL CHANGE

DETAILS OF BRIDGE APPROACHES
FOR FEDERAL AID INTERSTATE ROUTES



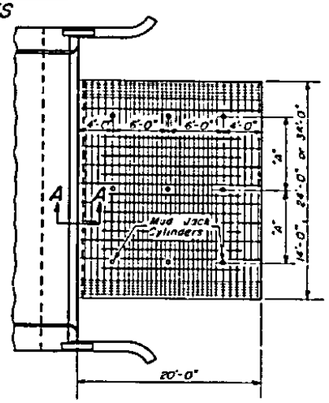
SECTIONAL VIEW
METHOD I

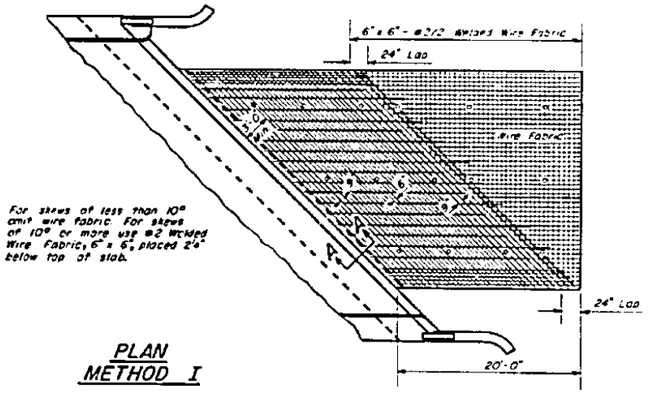
fs = 27,000
fc = 1800
n = 10



OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

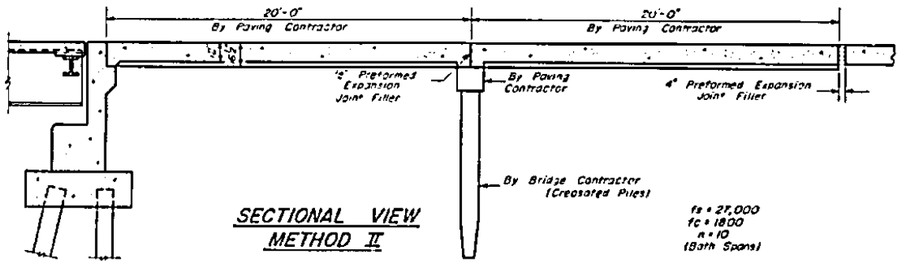
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joint shall be located at the edge of Traffic Lane.





For skews of less than 10° omit wire fabric. For skews of 10° or more use ø2 Welded Wire Fabric, 6" x 6", placed 2" below top of slab.

PLAN
METHOD I



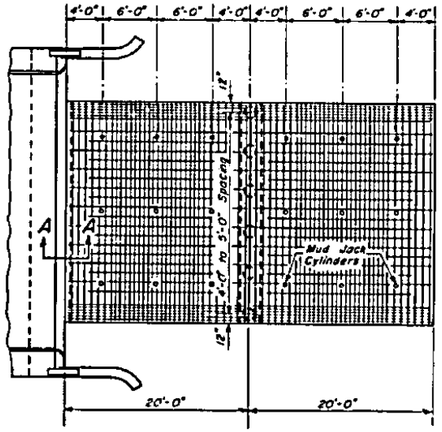
SECTIONAL VIEW
METHOD II

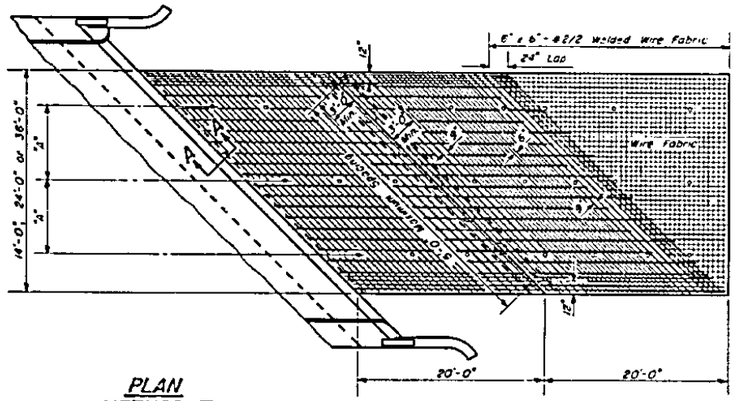
fs = 27,000
fc = 1800
n = 10
(Both Spans)

TABLE OF "A" DIMENSIONS

Width of Approach Slab	Dimension A (Spacing of Mud Jack Cylinders)
14'	6'-0"
24'	8'-0"
36'	2 Spaces at 8'-0"

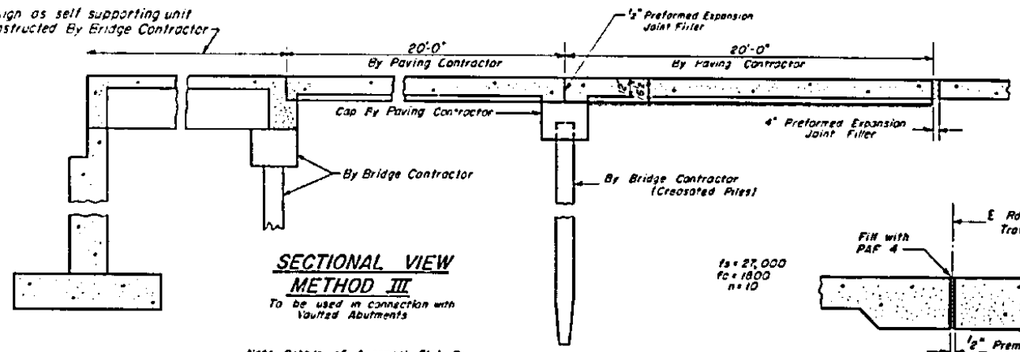
Expanded Metal weighing not less than 75 Lbs. per 100 sq ft or a welded bar mat weighing not less than 78 Lbs. per 100 sq ft having members of equal size in both directions and spaces not over 8" apart may be used instead of the ø2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar mat is furnished at no additional cost to the State.





PLAN
METHOD II

Design as self supporting unit
Constructed By Bridge Contractor



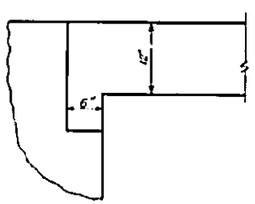
SECTIONAL VIEW
METHOD III

To be used in connection with Vaulted Abutments

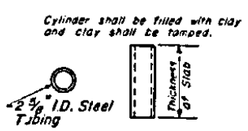
Note: Details of Approach Slab By Paving Contractor same as shown for Method II

LONGITUDINAL EXPANSION JOINT

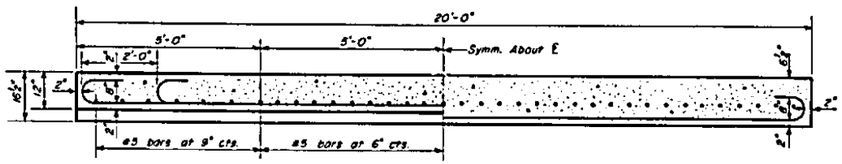
To be used when Approach Slabs are greater than 36'-0" wide. Joint shall be placed at edge of Traffic Lane nearest to the ℄ of the total width of Approach Slab.



SECTION A-A



DETAIL OF
MUD JACK CYLINDER



LONGITUDINAL SECTION THRU
CENTER OF SLAB

LONGITUDINAL SECTION THRU
THICKENED EDGE OF SLAB

GENERAL NOTES

The slab or slabs will be paid for at the contract unit price for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-12"-16½")

The concrete cap will be paid for at the contract unit price for CLASS X CONCRETE.

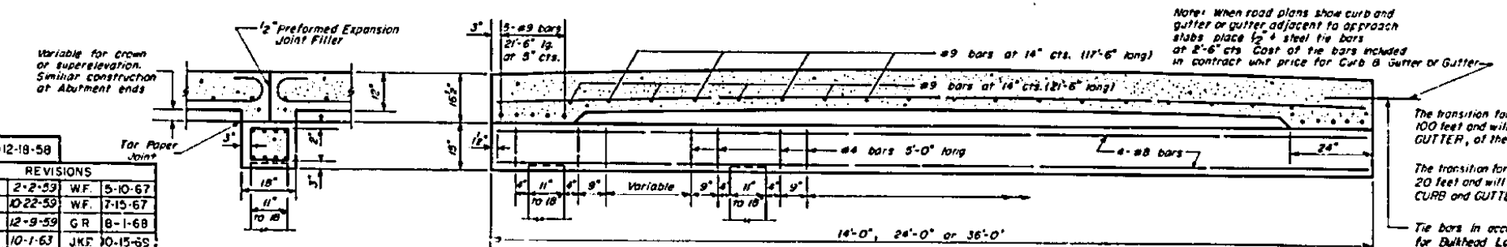
All Reinforcement Bars will be paid for at the contract unit price for REINFORCEMENT BARS, except as noted.

The Welded Wire Fabric, Mud Jack Cylinders and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (16½"-12"-16½")

Preformed Expansion Joint Filler shall conform to Section 715 of the Standard Specifications.

Width of Bridge Approach Slab pours shall be determined before the reinforcement bars are fabricated

The Contractor shall, after completion of the finishing operations, mark the location of the Mud Jack Cylinders.



Note: When road plans show curb and gutter or gutter adjacent to approach slabs place ½" ø steel tie bars at 2'-6" cts. Cost of the bars included in contract unit price for Curb & Gutter or Gutter.

The transition for gutter shall be made in 100 feet and will be paid for as CONCRETE GUTTER, of the type specified.

The transition for curb and gutter shall be made in 20 feet and will be paid for as COMBINATION CURB and GUTTER, of the type specified.

Tie bars in accordance with details for Bulkhead Longitudinal Construction Joint shown on Standard 2323.

SECTIONAL VIEW OF CONCRETE SLAB AND CAP

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

PASSED Oct. 15 1969
ENGINEER OF BRDGE AND TRAFFIC STRUCTURES

APPROVED Oct. 15 1969
ENGINEER OF DESIGN

ISSUED 12-18-58

REVISIONS			
WAS	2-2-59	WF.	5-10-67
CET	10-22-59	WF.	7-15-67
WAS	12-9-59	GR	8-1-68
WF	10-1-63	JKS	10-15-68
KHW	7-29-64		
WF.	10-29-64		

STANDARD 2138-8

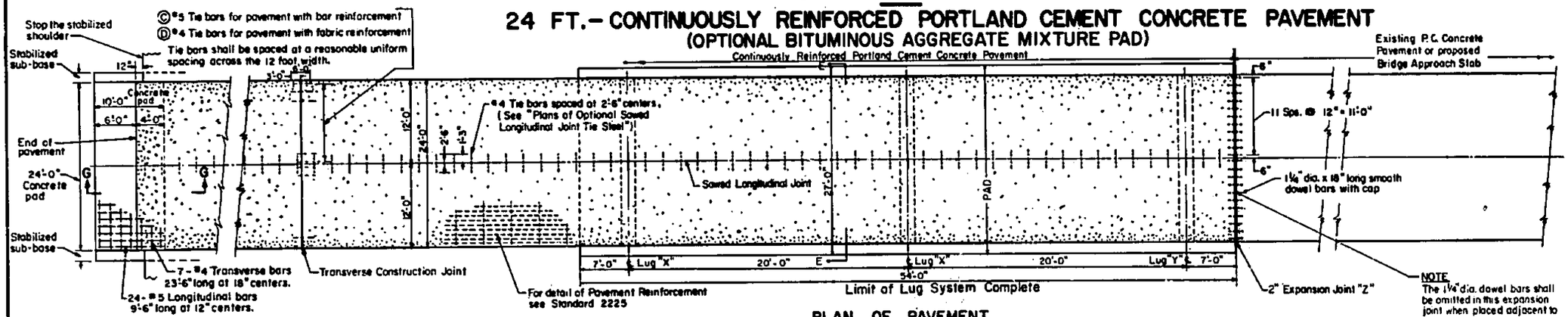
H-1.10 a

DESIGNED CET JR. CHECKED WAS JR. CHANGE WAS JR 26 NOV 1958

10/1/19 III

STANDARD DESIGN

24 FT.– CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(OPTIONAL BITUMINOUS AGGREGATE MIXTURE PAD)

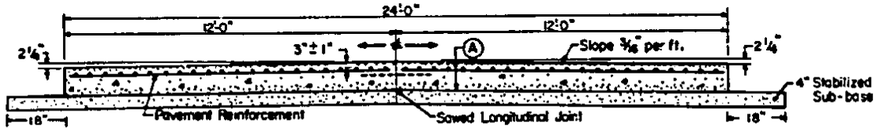


PLAN OF PAVEMENT

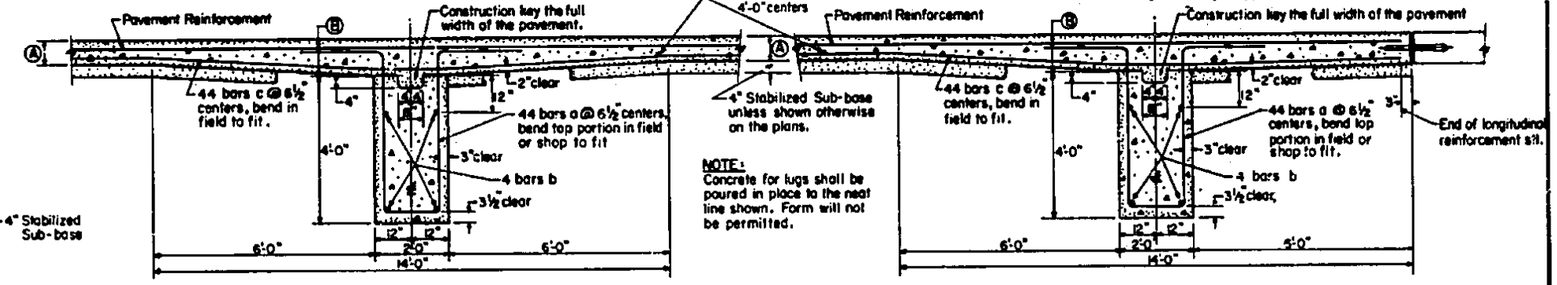
NOTE

When a slip form paver not equipped with approved automatic grade controls is to be used, it shall operate on the BAM pad which shall be extended so that the overall width is 6 inches greater than the width from outside to outside of the slip form paver's tracks. Such extended width will not be measured for payment but shall be considered incidental to the contract.

If the slip form paver is equipped with approved automatic grade controls that control the four corner supports of the paver and the Contractor elects to use these controls, the BAM pad shall be made wider than the design pavement width by not less than 12 inches nor more than necessary for the type of equipment used. An appropriate deduction will be made in quantity of BAM pad when the width is less than 3 feet wider than the design pavement width.



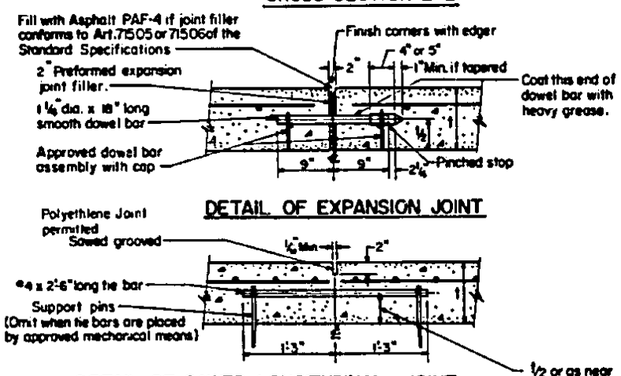
CROSS SECTION E-E



SECTION AT LUG "X"

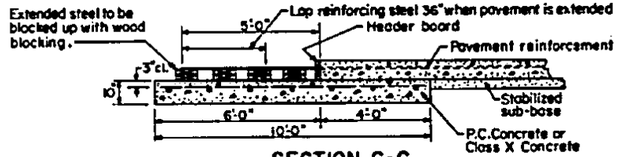
SECTION AT LUG "Y"

When pavement is adjacent to bridge approach slab, this expansion joint shall be provided in lieu of the 4" expansion joint shown on the Standard Drawings for Bridge Approaches.

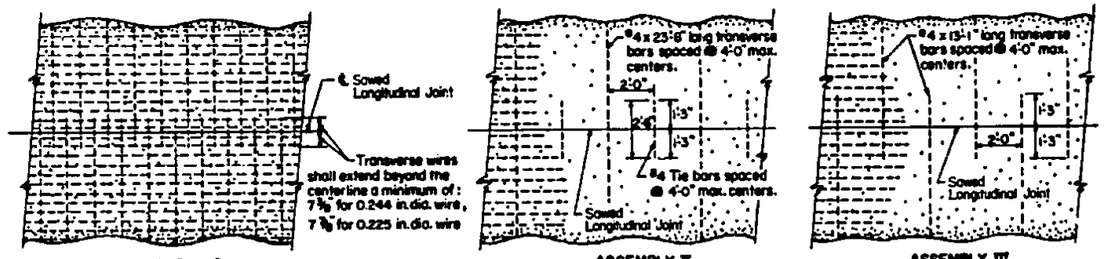


DETAIL OF EXPANSION JOINT

DETAIL OF SAWED LONGITUDINAL JOINT



SECTION G-G

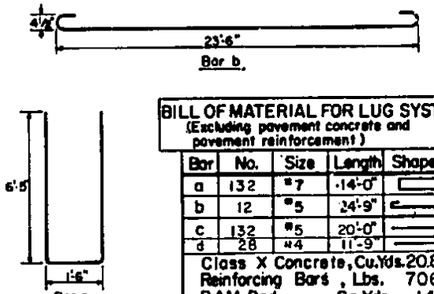


ASSEMBLY I — FABRIC REINFORCEMENT

ASSEMBLY II — BAR REINFORCEMENT

ASSEMBLY III

PLANS OF OPTIONAL SAWED LONGITUDINAL JOINT TIE STEEL

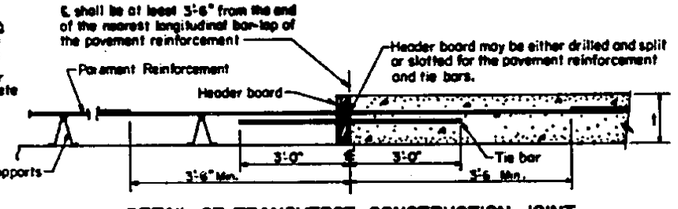


BILL OF MATERIAL FOR LUG SYSTEM
(Excluding pavement concrete and pavement reinforcement)

Bar	No.	Size	Length	Shape
a	132	#7	14'-0"	
b	12	#5	24'-9"	
c	132	#5	20'-0"	
d	28	#4	11'-9"	

Class X Concrete, Cu. Yds. 20.85
Reinforcing Bars, Lbs. 7062
BAM Pad, Sq. Yds. 146

Pvmt. Thick.	Ⓐ	Ⓑ	Ⓒ	Ⓓ
8"		12"	8	12
9"		14"	9	14



DETAIL OF TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

The 54 feet as shown above of Bituminous Aggregate Mixture Pad, between and adjacent to the lugs will be considered incidental to the Lug System.

Expansion joint shall be considered incidental to the cost of Continuously Reinforced Concrete Pavement.

Details shown in Section G-G shall apply only at the end of the construction section; the 10" reinforced concrete pad, header board, wood blocking, and the 5 ft. of extended pavement reinforcement will be considered incidental to the cost of the C.R.C. Pavement.

Lug end anchorages shall be constructed at the locations shown except that when the distance between two expansion joints marked "Z" is less than 1500 ft. the anchorage shall be as shown on the detailed construction plans.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				
PASSED June 26 1972 — Engineer of Road Plans And Contracts	ISSUED 1-4-65	W.F.	3-10-69	
APPROVED June 26 1972 — Engineer of Design	REVISIONS	JKP	10-15-69	
	W.F. 4-1-65	W.F.	3-18-70	
	W.F. 6-23-65	W.F.	6-26-72	
	W.F. 4-20-66			
	G.R. 8-1-68			
	G.R. 1-15-69			

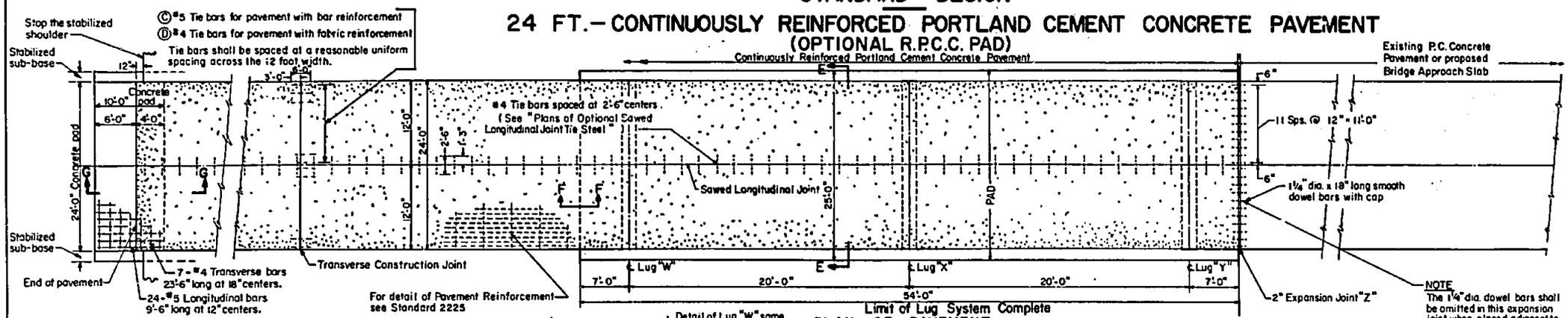
STANDARD 2224-9
(Full Size) W.F.

C-24.03 e

(Original)

STANDARD DESIGN

24 FT.– CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT
(OPTIONAL R.P.C.C. PAD)



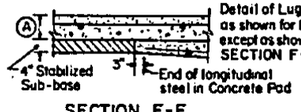
PLAN OF PAVEMENT

NOTE:

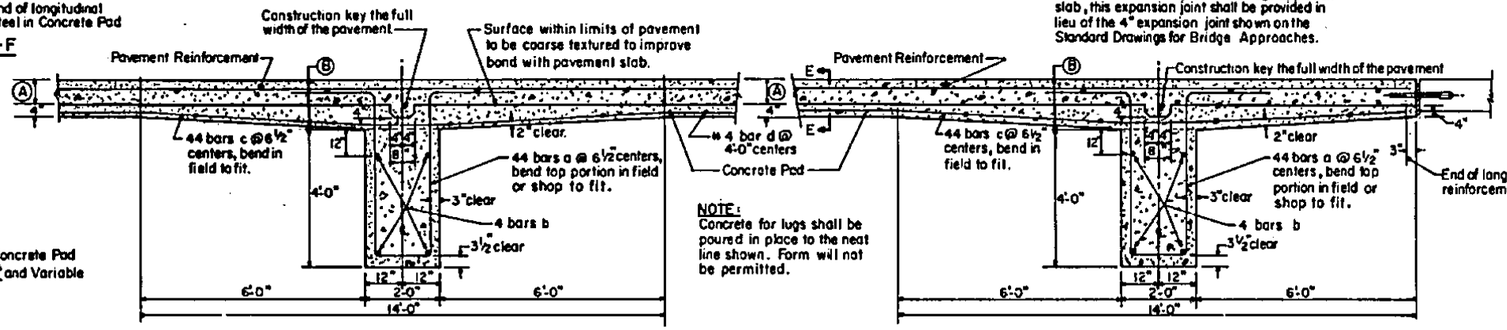
When a slip form paver not equipped with approved automatic grade controls is to be used, it shall operate on the concrete pad which shall be extended so that the overall width is 6 inches greater than the width from outside to outside of the slip form paver's tracks.

If the slip form paver is equipped with approved automatic grade controls that control the four corner supports of the paver and the Contractor elects to use these controls, the concrete pad shall be made wider than the design pavement width by not less than 12 inches nor more than necessary for the type of equipment used.

When it is required that the concrete pad be extended beyond the width shown in Section E-E, such extended width will not be measured for payment but shall be considered incidental to the contract.

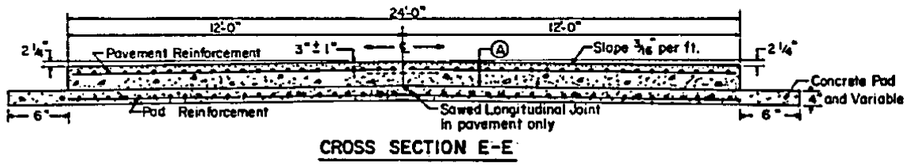


SECTION F-F

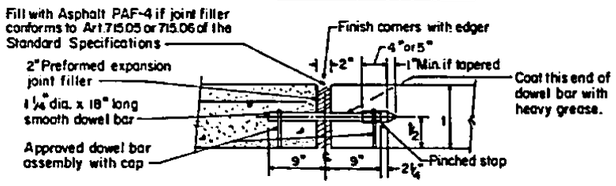


SECTION AT LUG "X"

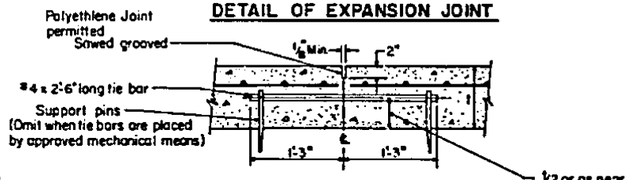
SECTION AT LUG "Y"



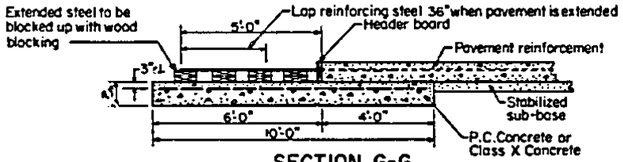
CROSS SECTION E-E



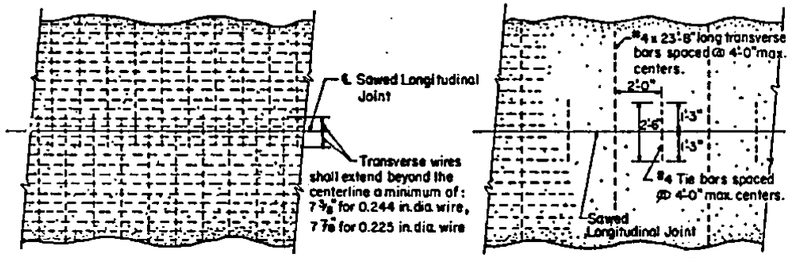
DETAIL OF EXPANSION JOINT



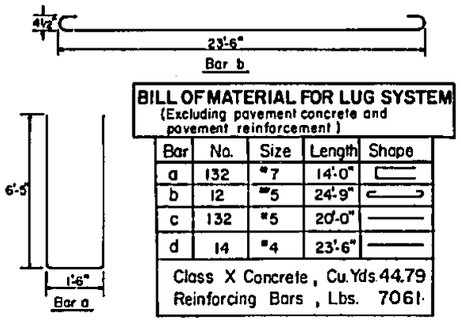
DETAIL OF SAWED LONGITUDINAL JOINT



SECTION G-G



PLANS OF OPTIONAL SAWED LONGITUDINAL JOINT TIE STEEL

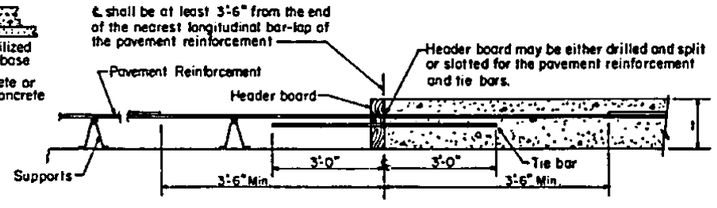


BILL OF MATERIAL FOR LUG SYSTEM
(Excluding pavement concrete and pavement reinforcement)

Bar	No.	Size	Length	Shape
a	132	#7	14'-0"	
b	12	#5	24'-9"	
c	132	#5	20'-0"	
d	14	#4	23'-6"	

Class X Concrete, Cu. Yds. 44.79
Reinforcing Bars, Lbs. 7061

Pav't Thk's Ⓐ	Ⓑ	Ⓒ	Ⓓ
8"	16"	8	12
9"	17"	9	14



DETAIL OF TRANSVERSE CONSTRUCTION JOINT

GENERAL NOTES

Lug and anchorages shall be constructed at the locations shown except that when the distance between two expansion joints marked "Z" is less than 1500 ft. the anchorage shall be as shown on the detailed construction plans.

Expansion joint shall be considered incidental to the cost of Continuously Reinforced Concrete Pavement..

Details shown in Section G-G shall apply only at the end of the construction section; the 10" reinforced concrete pad, header board, wood blocking, and the 5 ft. of extended pavement reinforcement will be considered incidental to the cost of the C.R.C. Pavement.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ISSUED 1-15-69	
	REVISIONS	
PASSED June 26, 1972	W.F.	3-10-69
Engineer of Road Plans And Contracts	G.R.	10-15-69
APPROVED June 26, 1972	W.F.	3-18-70
Engineer of Design	W.F.	6-26-72

STANDARD 2261-4

(Full Size)

C24.04 b