

STATION EQUATIONS

STA. 466+76.62 BACK= STA. 466+72.95 AHEAD	1
STA. 487+58.11 BACK= STA. 604+00.00 AHEAD	2
STA. 863+54.84 BACK= STA. 863+57.30 AHEAD	3
STA. 1011+36.07 BACK= STA. 1011+00.00 AHEAD	4
STA. 1049+93.21 BACK= STA. 1050+17.27 AHEAD	5
STA. 1128+90.50 E.B. BACK= STA. 1128+90.50 AHEAD & EXPWY. = STA. 1129+76.71 W.B. BACK	6

WHEREVER IN THESE PLANS THE DESIGNATED PROJECT IS SHOWN AS I-UI-55-6()264 OR I-FI-55-6()264, IT SHALL BE INTERPRETED TO BE I-IR-FI-55-6(124)264.

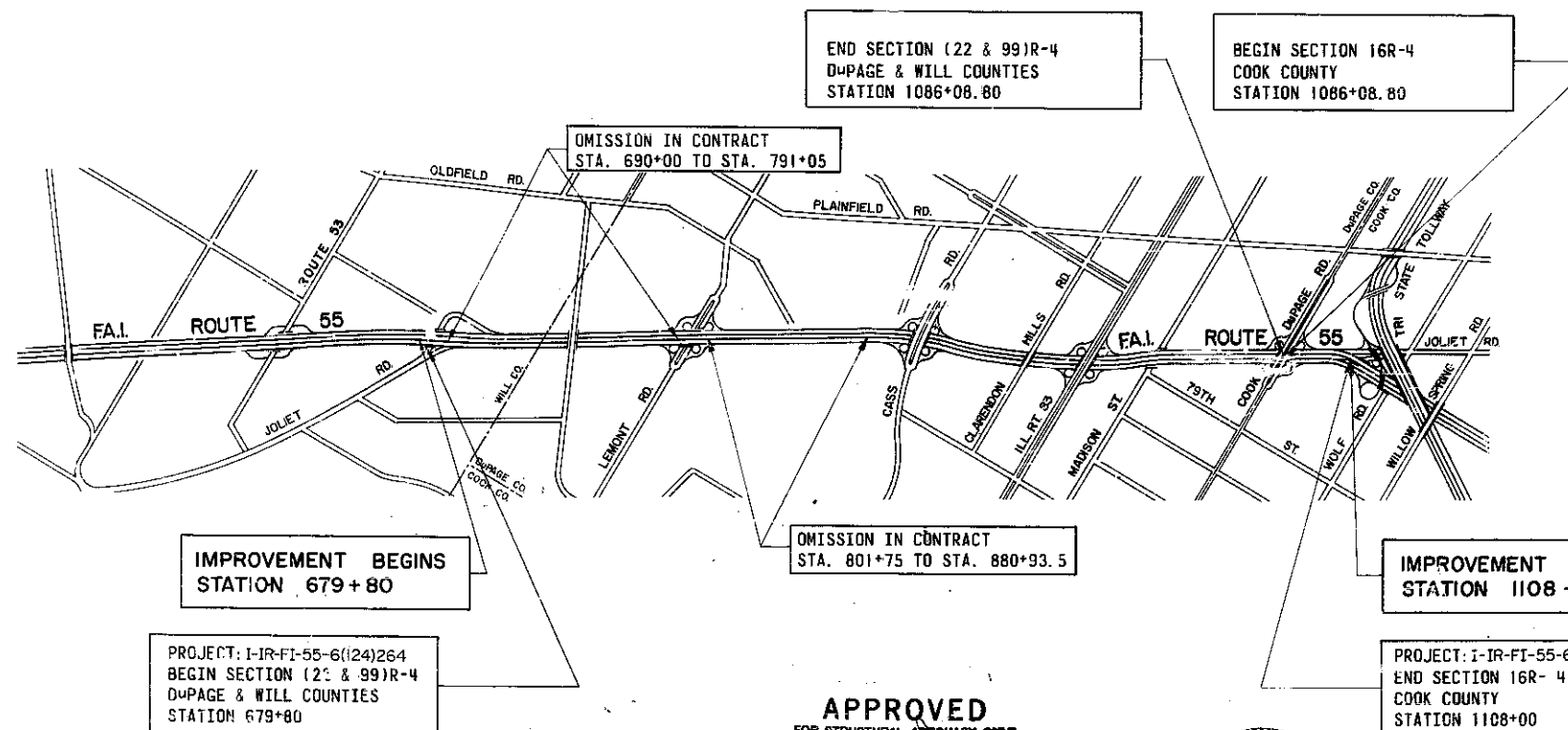
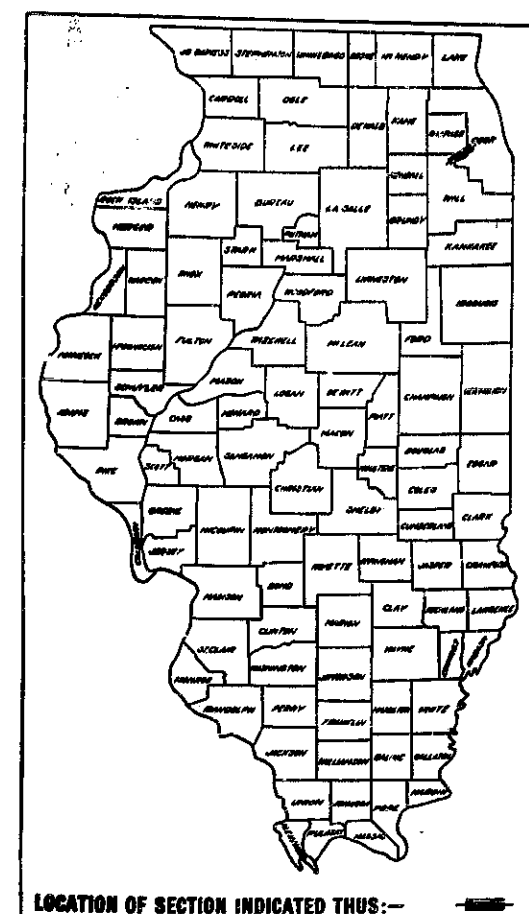
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID HIGHWAY

SCALES
PLAN 1 INCH = 50 FT.
PROFILE, HOR. 1 INCH = 50 FT.
PROFILE, VERT. 1 INCH = 5 FT.
CROSS-SECTIONS 1 INCH = 5 FT. VER. 10' HOR.

FA.I. ROUTE 55 ADLAI E. STEVENSON EXPRESSWAY REHABILITATION

SECTION (22,99,16) R-4
PROJECT I-IR-FI-55-6(124)264
WILL, DUPAGE & COOK COUNTIES
PC-91-213-75

FEDERAL-AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	WILL DUPAGE	119	1



ADLAI E. STEVENSON EXPRESSWAY

PROJECT: I-IR-FI-55-6(124)264
(22,99)R-4
GROSS LENGTH = 40,638.35 LIN. FT.
NET LENGTH = 22,605.30 LIN. FT. OR (4.281 MILES)

16R-4
GROSS LENGTH = 2,191.20 LIN. FT.
NET LENGTH = 2,191.20 LIN. FT. OR (0.415 MILES)

PROJECT LENGTH = 24,436.50 LIN. FT. OR (4.696 MILES)

APPROVED
FOR STRUCTURAL ADEQUACY ONLY



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED 4/18/76
EXAMINED 5/1/76
PASSED 5/1/76
APPROVED 5/1/76

DISTRICT ENGINEER
CHIEF ENGINEER
SUPERVISOR
DIRECTOR OF HIGHWAYS

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR
DATE

MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

INDEX OF SHEETS

FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
55	(22,00) R-4	WILL DU PAGE	119	2
FED ROAD DIST NO 7		ILLINOIS	FA PROJ 1-JUL-55-61	264
16 R-4		COOK		

40-98 BRIDGE DRAWINGS:

- 40-50 JOLIET ROAD
- 51-64 LEMONT ROAD
- 65-71 CASS AVENUE
- 72-86 MADISON STREET
- 87-92 COUNTY LINE ROAD
- 93 NEOPRENE EXPANSION JOINT
- 94 DETAILS OF DECK SLAB REPAIRS
- 95 ANGLE EXPANSION JOINT ADJUSTMENT
LONGITUDINAL JOINT ADJUSTMENT
- 96 PILE DETAILS
- 97 DRAINAGE SCUPPER
- 97A DRAINAGE SCUPPER- CAST IRON ALTERNATE
- 98 DETAILS OF COLLISION WALLS AT BRIDGE PIERS
(CLARENDON HILLS ROAD)
- 99 SCHEDULE OF SIGNING QUANTITIES
- 100 SIGN SPACING LAYOUT
- 101 FLOURESCENT SIGN LIGHTING EQUIPMENT
ELECTRICAL DETAILS OS-6
- 102 FLOURESCENT SIGN LIGHTING FIXTURES OS-6A

- 103 OVERHEAD SIGN STRUCTURES GENERAL PLAN & ELEVATION ALUMINUM
TRUSS & STEEL SUPPORTS
- 104 OVERHEAD SIGN STRUCTURES ALUMINUM TRUSS DETAILS
- 105 OVERHEAD SIGN STRUCTURES SUPPORT FRAME FOR ALUMINUM TRUSS
- 106 OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS
- 107 OVERHEAD SIGN STRUCTURES ALUMINUM WALKWAY DETAILS
- 108 OVERHEAD SIGN STRUCTURES FOUNDATION DETAILS
- 109 TIMBER BARRIER DETAIL
- 110 RAMP BARRICADE PLACEMENT THREE LANE ROADWAY
- 111 RAMP BARRICADE PLACEMENT TWO LANE ROADWAY
- 112 ONE LANE CLOSURE
- 113 TWO LANE CLOSURE
- 114 ONE AND TWO LANE JOG DETAIL
- 115 MOVING OPERATIONS UTILIZING FLASHING ARROWS
- 116 PAVEMENT MARKING DETAILS
- 117 CULVERT SCHEDULE
- 118 CULVERT SCHEDULE
- 119 PROGRESS SCHEDULE (DELETED FROM CONTRACT)

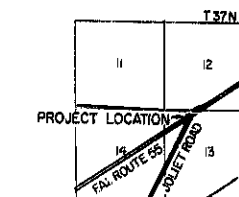
- 1 COVER SHEET
- 2 INDEX OF SHEETS, SIGNATURE BOX
- 3 GENERAL PLAN NOTES
- 4-8 SUMMARY OF QUANTITIES
- 9,10 TYPICAL SECTIONS
- 11 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 880+93.50 TO STA. 895+00
- 12 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 895+00 TO STA. 910+00
- 13 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 910+00 TO STA. 925+00
- 14 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 925+00 TO STA. 940+00
- 15 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 940+00 TO STA. 955+00
- 16 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 955+00 TO STA. 970+00
- 17 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 970+00 TO STA. 985+00
- 18 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 985+00 TO STA. 1000+00
- 19 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1000+00 TO STA. 1015+00
- 20 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1015+00 TO STA. 1030+00
- 21 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1030+00 TO STA. 1045+00
- 22 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1045+00 TO STA. 1060+00
- 23 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1060+00 TO STA. 1075+00
- 24 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1075+00 TO STA. 1090+00
- 25 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1090+00 TO STA. 1105+00
- 26 MEDIAN AND DRAINAGE, PLAN & PROFILE- STA. 1105+00 TO STA. 1108+00
- 27 BRIDGE APPROACH IMPROVEMENTS- JOLIET ROAD WEST
- 28 BRIDGE APPROACH IMPROVEMENTS- JOLIET ROAD WEST
- 29 BRIDGE APPROACH IMPROVEMENTS- LEMONT ROAD
- 30 CONCRETE BARRIER DETAILS
- 31 CONCRETE BARRIER TRANSITIONS
- 32 SPECIAL DETAILS FOR DOUBLE CONCRETE BARRIER
- 33 BOX CULVERT DETAIL STA. 993+00 MEDIAN
- 34 BOX CULVERT CONNECTIONS
- 35 TYPE B-24 FRAME AND GRATE & DROP MANHOLE DETAILS
- 36 CATCH BASIN, SPECIAL & INVERTED
- 37 EXPANSION JOINT, SPECIAL
- 38 PIPE DRAIN OUTLET & PIPE UNDERDRAINS
- 39 CASS AVENUE STAGING

REVISIONS		ILLINOIS DIVISION OF HIGHWAYS STEVENS ON EXPRESSWAY	
NAME	DATE		
		INDEX OF SHEETS	
		SCALE: NO. 1"=40' DRAWN BY: H.Z.	
		DATE: SEPTEMBER 1975 CHECKED BY: H.Z.	

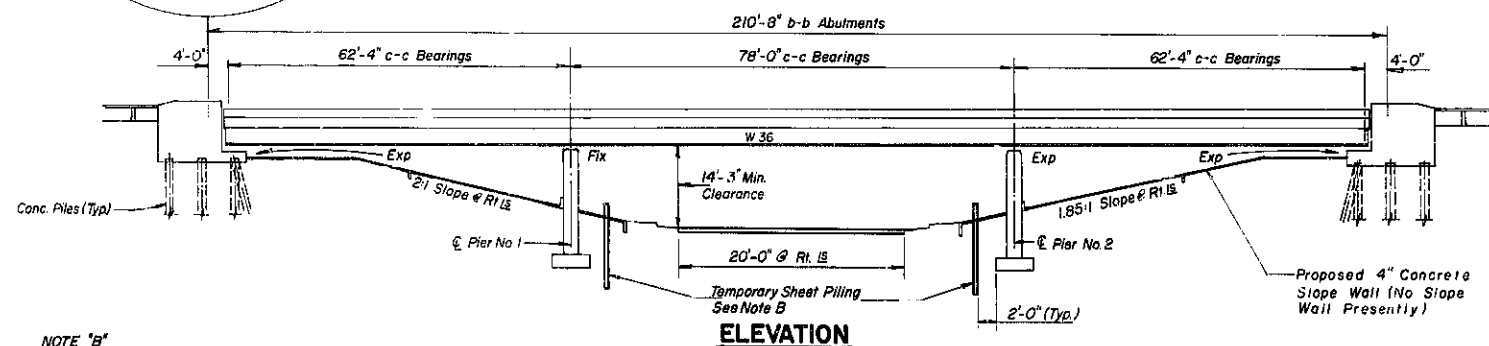
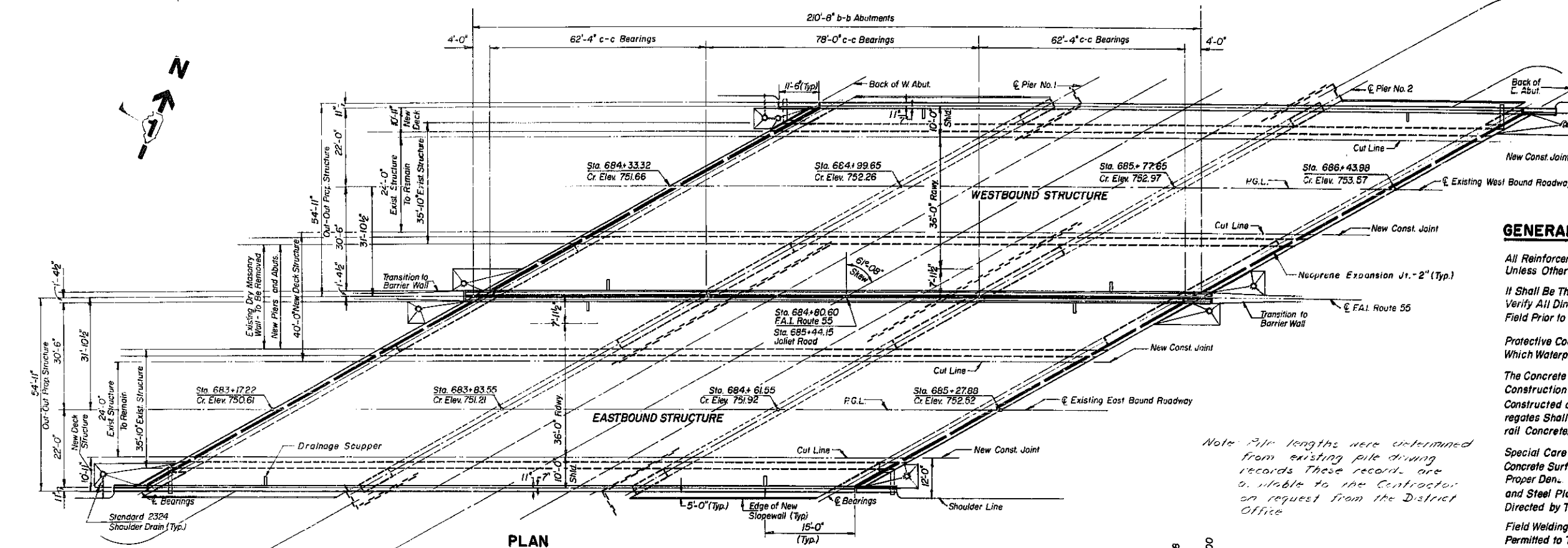
Revised 11-8-76 G.H.P.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
65	(92,99) R-4	WILL CO.	119	40
FED. ROAD DIST. NO. 7	ILLINOIS	FA. PROJ. I-55-61	1984	

18 R-4 COOK



LOCATION SKETCH



NOTE "B"

Temporary sheeting may be pulled once the excavated material has been replaced. The operation of driving sheeting removal and replacement of soil, and pulling of sheeting may be done pier by pier provided the Joliet Road roadway is always protected by sheeting during removal and replacement.

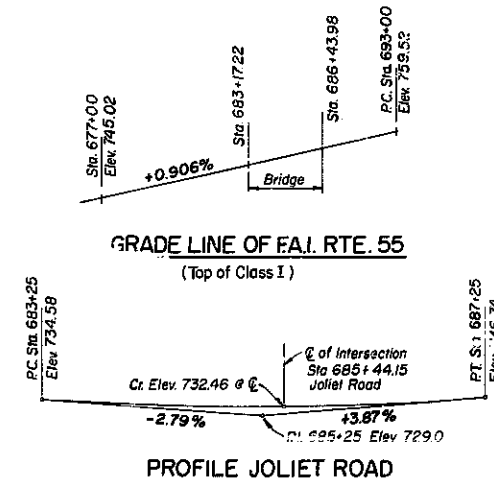
NOTES

DESIGN STRESSES

- $f_c = 1400$ P.S.I. Except as Follows:
- $f_c = 1200$ P.S.I. For Deck Slab
- $f_c = 1000$ P.S.I. For Concrete in Contact With Earth
- $f_s = 20,000$ P.S.I. M 183 Structural
- $f_s = 20,000$ P.S.I. Reinforcement Steel
- $v = 75$ P.S.I. Allowable Shear Stress in Footings
- $n = 10$

DESIGN SPECIFICATIONS AASHTO, 1974
As Applicable

DESIGN LOADING HS 20



Note: Pile lengths were determined from existing pile driving records. These records are available to the Contractor on request from the District Office.

GENERAL NOTES

All Reinforcement Bars Shall Be Lapped 24 Diameters Unless Otherwise Shown.

It Shall Be The Responsibility of The Contractor to Verify All Dimensions and Conditions Existing in the Field Prior to Construction and Ordering of Materials.

Protective Coat Shall Not Be Applied to Surfaces to Which Waterproofing Membrane System is Applied

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 Hand-rail Concrete.

Special Care Shall Be Taken in Compacting Bituminous Concrete Surface Along Expansion Joints to Achieve Proper Density to Form 1/4" Lip. Smaller Rollers and Steel Plates Shall be Used For This Purpose as Directed by The Engineer

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.

The Basic Lead Silico Chromate Point System Shall Be Used for Shop and Field Painting of New Steel. For Painting Existing Steel See Special Provisions.

Expansion Bolts Shall Consist of Self-Drilling Expansion Shields and 3/4" Ø Hooked Bolts. Hooked Bolts Shall Extend a Minimum of 12" Into New Concrete.

30 MPH Speed Limit Shall Be Maintained on The Structure for a Period of 3 Days After Completion of Each Deck Concrete Pouring Operation.

Calculated Weight of Structural Steel = 200,370 Lbs.

Work This Sheet with Sheet No. 41

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

GENERAL PLAN AND ELEVATION F.A.I. ROUTE 55 OVER JOLIET ROAD

STATION 684+80.6

SECTION 99R-4

F.A.I. ROUTE 55

WILL COUNTY

AS BUILT SECTION 99R-4

MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

SCALE
DATE

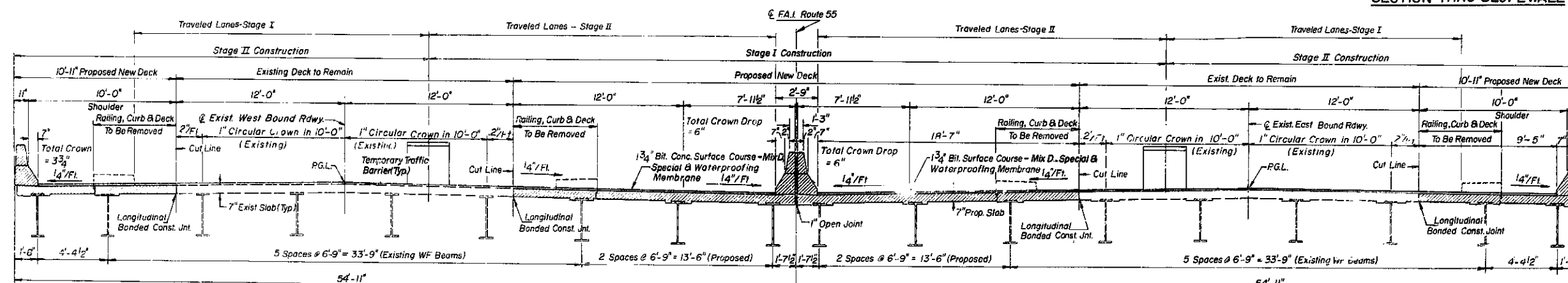
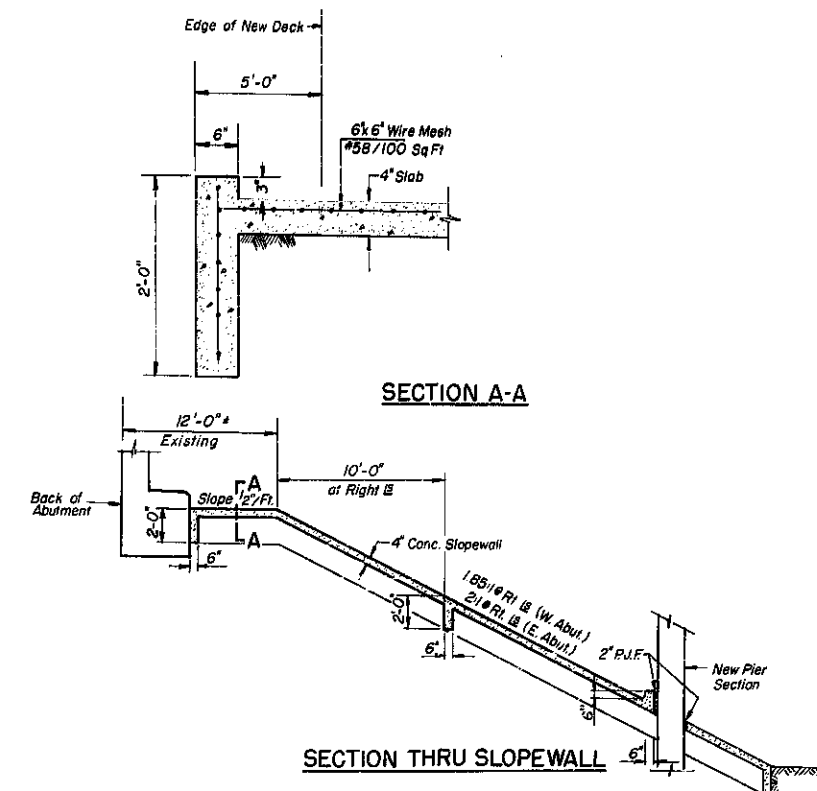
CHECKED BY: AA

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	WILL DU PAGE	119	41
FED. ROAD DIST. NO. 7	ILLINOIS	FA. PROJ. I-55-61	284	
16 R-4	COOK			

BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bit. Concrete Surface Course, Mix D, Special	Ton	177	—	177
Protective Coat	Sq. Yd.	353	—	353
Concrete Removal	Cu. Yd.	177	9	186
Structure Excavation	Cu. Yd.	—	1175	1175
Class X Concrete	Cu. Yd.	374.3	443.1	817.4
Waterproofing Membrane System	Sq. Yd.	2510	—	2510
Reinforcement Bars	Pound	120,450	52,290	172,740
Furnishing Concrete Piles	Lin. Ft.	—	494	494
Driving Concrete Piles	Lin. Ft.	—	494	494
Slope Wall - 4 inch	Sq. Yd.	—	2363	2363
F & E Structural Steel	L. Sum	1	—	1
Drainage Scuppers	Each	8	—	8
2" Neoprene Expansion Joint *	Lin. Ft.	443	—	443
Deck Slab Repair (Partial)	Sq. Yd.	37	—	37
Deck Slab Repair (Full Depth)	Sq. Yd.	17	—	17
Cleaning & Painting Steel, Bridge No. 1	L. Sum	1	—	1
Temporary Sheet Piling, Bridge No. 1	L. Sum	—	1	1
Expansion Bolts (3/4")	Each	—	312	312

* Fel - Span Neoprene Joints Shall Not Be Used on This Structure.



TYPICAL SECTION

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

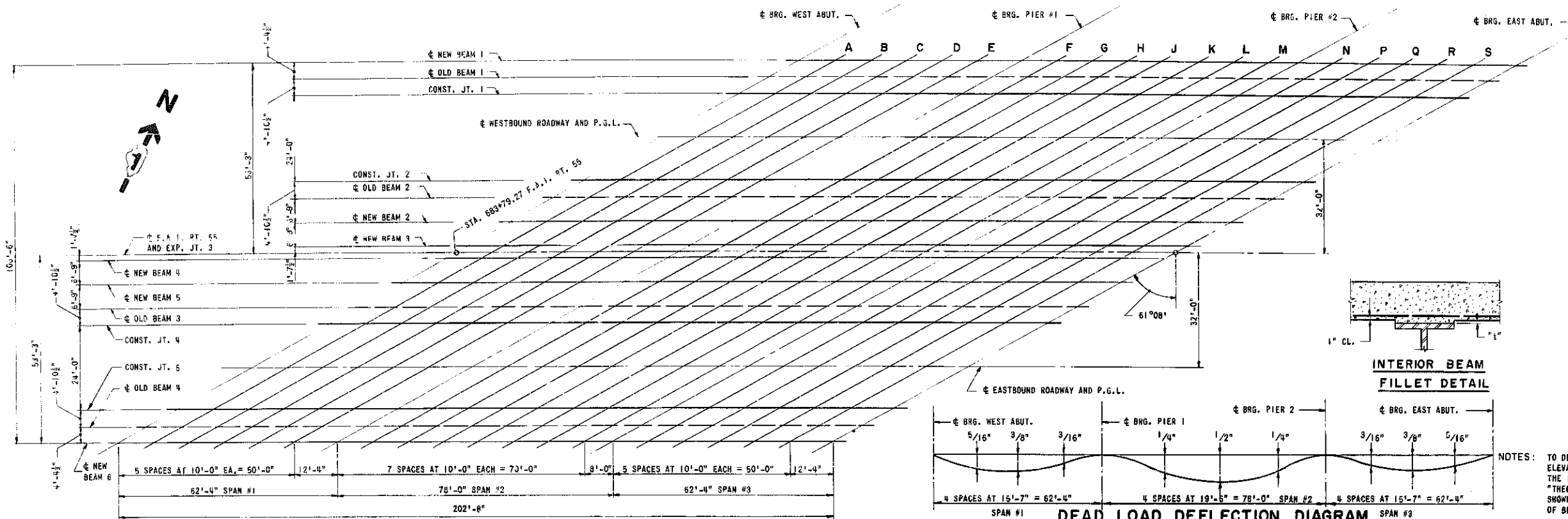
ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

TYPICAL SECTION AND DETAILS F.A.I. ROUTE 55 OVER JOLIET ROAD

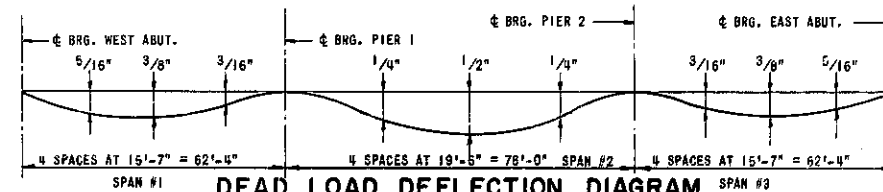
STATION 684 + 80.6
WILL COUNTY
SECTION 99R-4
AS BUILT SECTION 29R-1HB-F
SCALE
DATE
DRAWN BY: P.B.
CHECKED BY: A.A.

F.A.I. ROUTE 55
MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

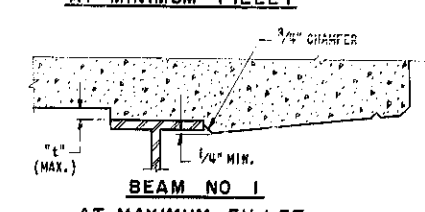
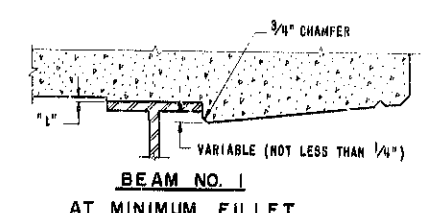
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	ILLINOIS	119	42
FED. ROAD DIST. NO. 7	WILL. QU. PAGE	ILLINOIS	FA PROJ. I-UI-55-61	1204
16 R-4 COOK				



PLAN



DEAD LOAD DEFLECTION DIAGRAM
(INCLUDES THE WEIGHTS OF CONCRETE & 1 1/2" BIT. SURFACING 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.



NOTES:
TO DETERMINE "C" AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED: ELEVATIONS OF THE TOP FLANGES OF THE BEAMS SHALL BE TAKEN AT THE INTERVALS SHOWN. THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION" SHOWN, MINUS 7" EQUALS THE FILLET HEIGHTS "C" ABOVE TOP FLANGE OF BEAM.
ELEVATIONS ARE GIVEN AT TOP OF CONCRETE SLAB.
OFFSETS ARE MEASURED POSITIVE NORTH OF F.A.I. RT. 55 AND NEGATIVE SOUTH OF F.A.I. RT. 55.

LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Q BRG. - WEST ABUT.	NEW BM.1	684+75.862	53.250	751.500	
	OLD BM.1	684+67.926	48.875	751.620	
	CONST. JT.1	684+59.083	44.000	751.641	
	CONST. JT.2	684+15.547	20.000	751.246	
	OLD BM.2	684+06.704	15.125	751.065	
	NEW BM.2	683+94.459	8.375	750.813	
	NEW BM.3	683+82.215	1.625	750.562	
	EXP. JT.3	683+79.267	0.000	750.501	
	NEW BM.4	683+76.319	-1.625	750.508	
	NEW BM.5	683+64.075	-8.375	750.538	
	OLD BM.3	683+51.830	-15.125	750.567	
	CONST. JT.4	683+42.987	-20.000	750.589	
A	CONST. JT.5	682+09.451	-44.000	750.194	
	OLD BM.4	682+00.608	-48.875	750.013	
	NEW BM.6	682+82.672	-53.250	749.850	
	NEW BM.1	684+85.862	53.250	751.691	751.711
	OLD BM.1	684+77.926	48.875	751.710	751.730
	CONST. JT.1	684+69.083	44.000	751.732	751.752
	CONST. JT.2	684+25.547	20.000	751.337	751.357
	OLD BM.2	684+16.704	15.125	751.155	751.175
	NEW BM.2	684+04.459	8.375	750.904	750.924
	NEW BM.3	683+92.215	1.625	750.652	750.672
	EXP. JT.3	683+89.267	0.000	750.592	750.612
	NEW BM.4	683+86.319	-1.625	750.599	750.619
B	NEW BM.5	683+74.075	-8.375	750.628	750.648
	OLD BM.3	683+61.830	-15.125	750.658	750.678
	CONST. JT.4	683+52.987	-20.000	750.679	750.699
	CONST. JT.5	683+09.451	-44.000	750.285	750.305
	OLD BM.4	683+00.608	-48.875	750.103	750.123
	NEW BM.6	682+92.672	-53.250	749.940	749.960
	NEW BM.1	685+05.862	53.250	751.872	751.905
	OLD BM.1	684+97.926	48.875	751.891	751.924
	CONST. JT.1	684+89.083	44.000	751.913	751.946
	CONST. JT.2	684+45.547	20.000	751.518	751.551
	OLD BM.2	684+36.704	15.125	751.337	751.370
	NEW BM.2	684+24.459	8.375	751.085	751.118
C	NEW BM.3	684+12.215	1.625	750.833	750.866
	EXP. JT.3	684+09.267	0.000	750.773	750.806
	NEW BM.4	684+06.319	-1.625	750.780	750.813
	NEW BM.5	683+94.075	-8.375	750.810	750.843
	OLD BM.3	683+81.830	-15.125	750.839	750.872
	CONST. JT.4	683+72.987	-20.000	750.861	750.894
	CONST. JT.5	683+29.451	-44.000	750.466	750.499
	OLD BM.4	683+20.608	-48.875	750.285	750.318
	NEW BM.6	683+12.672	-53.250	750.121	750.154
	NEW BM.1	685+25.862	53.250	752.053	752.086
	OLD BM.1	685+17.926	48.875	752.073	752.082
	CONST. JT.1	685+09.083	44.000	752.094	752.103
D	CONST. JT.2	684+65.547	20.000	751.700	751.709
	OLD BM.2	684+56.704	15.125	751.518	751.527
	NEW BM.2	684+44.459	8.375	751.266	751.276
	NEW BM.3	684+32.215	1.625	751.015	751.024
	EXP. JT.3	684+29.267	0.000	750.954	750.963
	NEW BM.4	684+26.319	-1.625	750.961	750.971
	NEW BM.5	684+14.075	-8.375	750.991	751.000
	OLD BM.3	684+01.830	-15.125	751.021	751.030
	CONST. JT.4	683+92.987	-20.000	751.042	751.051
	CONST. JT.5	683+49.451	-44.000	750.647	750.657
	OLD BM.4	683+40.608	-48.875	750.466	750.475
	NEW BM.6	683+32.672	-53.250	750.303	750.312
E	NEW BM.1	685+25.862	53.250	752.053	752.086
	OLD BM.1	685+17.926	48.875	752.073	752.082
	CONST. JT.1	685+09.083	44.000	752.094	752.103
	CONST. JT.2	684+65.547	20.000	751.700	751.709
	OLD BM.2	684+56.704	15.125	751.518	751.527
	NEW BM.2	684+44.459	8.375	751.266	751.276
	NEW BM.3	684+32.215	1.625	751.015	751.024
	EXP. JT.3	684+29.267	0.000	750.954	750.963
	NEW BM.4	684+26.319	-1.625	750.961	750.971
	NEW BM.5	684+14.075	-8.375	750.991	751.000
	OLD BM.3	684+01.830	-15.125	751.021	751.030
	CONST. JT.4	683+92.987	-20.000	751.042	751.051
Q BRG. - PIER NO. 1	CONST. JT.5	683+49.451	-44.000	750.647	750.657
	OLD BM.4	683+40.608	-48.875	750.466	750.475
	NEW BM.6	683+32.672	-53.250	750.303	750.312
	NEW BM.1	685+25.862	53.250	752.053	752.086
	OLD BM.1	685+17.926	48.875	752.073	752.082
	CONST. JT.1	685+09.083	44.000	752.094	752.103
	CONST. JT.2	684+65.547	20.000	751.700	751.709
	OLD BM.2	684+56.704	15.125	751.518	751.527
	NEW BM.2	684+44.459	8.375	751.266	751.276
	NEW BM.3	684+32.215	1.625	751.015	751.024
	EXP. JT.3	684+29.267	0.000	750.954	750.963
	NEW BM.4	684+26.319	-1.625	750.961	750.971
F	NEW BM.5	684+14.075	-8.375	750.991	751.000
	OLD BM.3	684+01.830	-15.125	751.021	751.030
	CONST. JT.4	683+92.987	-20.000	751.042	751.051
	CONST. JT.5	683+49.451	-44.000	750.647	750.657
	OLD BM.4	683+40.608	-48.875	750.466	750.475
	NEW BM.6	683+32.672	-53.250	750.303	750.312
	NEW BM.1	685+25.862	53.250	752.053	752.086
	OLD BM.1	685+17.926	48.875	752.073	752.082
	CONST. JT.1	685+09.083	44.000	752.094	752.103
	CONST. JT.2	684+65.547	20.000	751.700	751.709
	OLD BM.2	684+56.704	15.125	751.518	751.527
	NEW BM.2	684+44.459	8.375	751.266	751.276

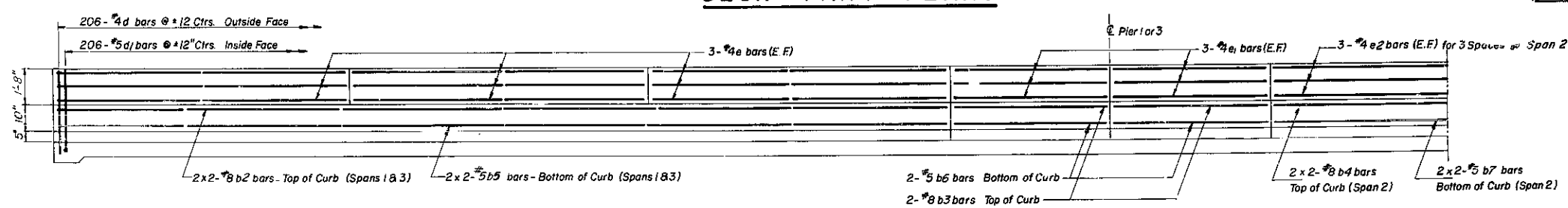
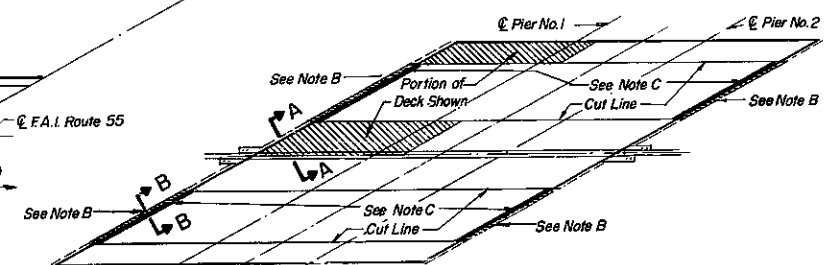
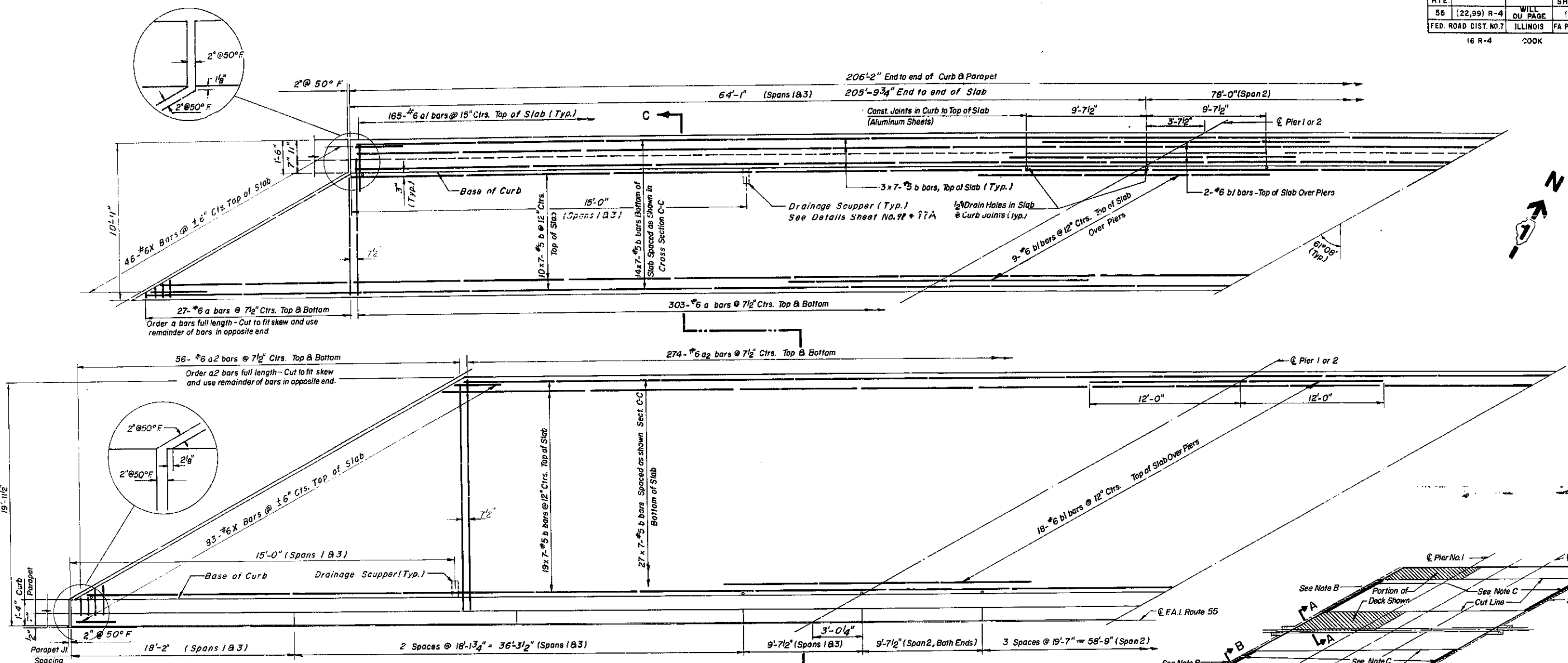
	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
B		NEW BM.1	684+95.862	53.250	751.782	751.814
		OLD BM.1	684+87.926	48.875	751.861	751.833
		CONST. JT.1	684+79.083	44.000	751.822	751.854
		CONST. JT.2	684+35.547	20.000	751.428	751.460
		OLD BM.2	684+26.704	15.125	751.246	751.278
		NEW BM.2	684+14.459	8.375	750.994	751.027
		NEW BM.3	684+02.215	1.625	750.743	750.775
		EXP. JT.3	683+99.267	0.000	750.682	750.714
		NEW BM.4	683+96.319	-1.625	750.689	750.722
		NEW BM.5	683+84.075	-8.375	750.719	750.751
		OLD BM.3	683+71.830	-15.125	750.749	750.781
		CONST. JT.4	683+62.987	-20.000	750.770	750.802
C		CONST. JT.5	683+19.451	-44.000	750.376	750.408
		OLD BM.4	683+10.608	-48.875	750.194	750.226
		NEW BM.6	683+02.672	-53.250	750.031	750.063
		NEW BM.1	685+05.862	53.250	751.872	751.905
		OLD BM.1	684+97.926	48.875	751.891	751.924
		CONST. JT.1	684+89.083	44.000	751.913	751.946
		CONST. JT.2	684+45.547	20.000	751.518	751.551
		OLD BM.2	684+36.704	15.125	751.337	751.370
		NEW BM.2	684+24.459	8.375	751.085	751.118
		NEW BM.3	684+12.215	1.625	750.833	750.866
		EXP. JT.3	684+09.267	0.000	750.773	750.806
		NEW BM.4	684+06.319	-1.625	750.780	750.813
D		NEW BM.5	683+94.075	-8.375	750.810	750.843
		OLD BM.3	683+81.830	-15.125	750.839	750.872
		CONST. JT.4	683+72.987	-20.000	750.861	750.894
		CONST. JT.5	683+29.451	-44.000	750.466	750.499
		OLD BM.4	683+20.608	-48.375	750.285	750.318
		NEW BM.6	683+12.672	-53.250	750.121	750.154

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
65	(22,99) R-4	WILL DU PAGE	139	43
FED. ROAD DIST. NO.7		ILLINOIS	FA PROJ. I-UI-55-61 1284	

16 R-4 COOK

LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
F	NEW BM.1	685+48.195	53.250	752.266	752.264	K	NEW BM.1	685+88.135	53.250	752.618	752.652	N	NEW BM.1	686+26.195	53.250	752.983	752.989
	OLD BM.1	685+40.259	48.875	752.275	752.283		OLD BM.1	685+80.259	48.875	752.638	752.671		OLD BM.1	686+18.259	48.875	752.982	752.988
	CONST. JT.1	685+31.416	44.000	752.297	752.304		CONST. JT.1	685+71.416	44.000	752.659	752.693		CONST. JT.1	686+09.416	44.000	753.003	753.010
	CONST. JT.2	684+87.880	20.000	751.902	751.910		CONST. JT.2	685+27.880	20.000	752.284	752.298		CONST. JT.2	685+65.880	20.000	752.609	752.615
	OLD BM.2	684+79.037	15.125	751.720	751.728		OLD BM.2	685+19.037	15.125	752.083	752.117		OLD BM.2	685+57.037	15.125	752.427	752.433
	NEW BM.2	684+66.792	8.375	751.469	751.476		NEW BM.2	685+06.792	8.375	751.831	751.865		NEW BM.2	685+44.792	8.375	752.176	752.182
	NEW BM.3	684+54.548	1.625	751.217	751.225		NEW BM.3	684+94.548	1.625	751.580	751.613		NEW BM.3	685+32.548	1.625	751.924	751.930
	EXP. JT.3	684+51.600	0.000	751.157	751.164		EXP. JT.3	684+91.600	0.000	751.519	751.553		EXP. JT.3	685+29.600	0.000	751.863	751.870
	NEW BM.4	684+48.653	-1.625	751.164	751.171		NEW BM.4	684+88.653	-1.625	751.526	751.560		NEW BM.4	685+26.653	-1.625	751.871	751.877
	NEW BM.5	684+36.408	-8.375	751.193	751.201		NEW BM.5	684+76.408	-8.375	751.556	751.590		NEW BM.5	685+14.408	-8.375	751.900	751.907
	OLD BM.3	684+24.164	-15.125	751.223	751.231		OLD BM.3	684+64.164	-15.125	751.585	751.619		OLD BM.3	685+02.164	-15.125	751.930	751.936
	CONST. JT.4	684+15.321	-20.000	751.244	751.252		CONST. JT.4	684+55.321	-20.000	751.607	751.641		CONST. JT.4	684+93.321	-20.000	751.951	751.956
CONST. JT.5	683+71.785	-44.000	750.850	750.858	CONST. JT.5	684+11.785	-44.000	751.212	751.246	CONST. JT.5	684+49.785	-44.000	751.557	751.563			
OLD BM.4	683+62.942	-48.875	750.668	750.676	OLD BM.4	684+02.942	-48.875	751.031	751.064	OLD BM.4	684+40.942	-48.875	751.375	751.381			
NEW BM.6	683+55.005	-53.250	750.505	750.513	NEW BM.6	683+95.005	-53.250	750.868	750.901	NEW BM.6	684+33.005	-53.250	751.212	751.218			
G	NEW BM.1	685+68.195	53.250	752.346	752.369	L	NEW BM.1	685+98.195	53.250	752.709	752.729	P	NEW BM.1	686+36.195	53.250	753.053	753.074
	OLD BM.1	685+60.259	48.875	752.366	752.389		OLD BM.1	685+90.259	48.875	752.728	752.748		OLD BM.1	686+28.259	48.875	753.073	753.093
	CONST. JT.1	685+51.416	44.000	752.387	752.410		CONST. JT.1	685+81.416	44.000	752.750	752.769		CONST. JT.1	686+19.416	44.000	753.094	753.114
	CONST. JT.2	684+97.880	20.000	751.993	752.015		CONST. JT.2	685+37.880	20.000	752.355	752.375		CONST. JT.2	685+75.880	20.000	752.699	752.720
	OLD BM.2	684+89.037	15.125	751.811	751.834		OLD BM.2	685+29.037	15.125	752.173	752.193		OLD BM.2	685+67.037	15.125	752.518	752.538
	NEW BM.2	684+76.792	8.375	751.559	751.582		NEW BM.2	685+16.792	8.375	751.922	751.942		NEW BM.2	685+54.792	8.375	752.266	752.287
	NEW BM.3	684+64.548	1.625	751.308	751.331		NEW BM.3	685+04.548	1.625	751.670	751.690		NEW BM.3	685+42.548	1.625	752.015	752.035
	EXP. JT.3	684+61.600	0.000	751.247	751.270		EXP. JT.3	685+01.600	0.000	751.610	751.629		EXP. JT.3	685+39.600	0.000	751.354	751.374
	NEW BM.4	684+58.653	-1.625	751.254	751.277		NEW BM.4	684+98.653	-1.625	751.617	751.636		NEW BM.4	685+36.653	-1.625	751.961	751.982
	NEW BM.5	684+46.408	-8.375	751.284	751.307		NEW BM.5	684+86.408	-8.375	751.646	751.666		NEW BM.5	685+24.408	-8.375	751.991	752.011
	OLD BM.3	684+34.164	-15.125	751.314	751.336		OLD BM.3	684+74.164	-15.125	751.676	751.696		OLD BM.3	685+12.164	-15.125	752.020	752.041
	CONST. JT.4	684+25.321	-20.000	751.335	751.358		CONST. JT.4	684+65.321	-20.000	751.698	751.717		CONST. JT.4	685+03.321	-20.000	752.042	752.062
CONST. JT.5	683+81.785	-44.000	750.940	750.963	CONST. JT.5	684+21.785	-44.000	751.303	751.323	CONST. JT.5	684+59.785	-44.000	751.647	751.668			
OLD BM.4	683+72.942	-48.875	750.759	750.782	OLD BM.4	684+12.942	-48.875	751.121	751.141	OLD BM.4	684+50.942	-48.875	751.466	751.486			
NEW BM.6	683+65.005	-53.250	750.596	750.619	NEW BM.6	684+05.005	-53.250	750.958	750.978	NEW BM.6	684+43.005	-53.250	751.303	751.323			
H	NEW BM.1	685+68.195	53.250	752.437	752.473	M	NEW BM.1	686+08.195	53.250	752.800	752.805	Q	NEW BM.1	686+46.195	53.250	753.144	753.176
	OLD BM.1	685+60.259	48.875	752.456	752.492		OLD BM.1	686+00.259	48.875	752.819	752.824		OLD BM.1	686+38.259	48.875	753.163	753.195
	CONST. JT.1	685+51.416	44.000	752.478	752.514		CONST. JT.1	685+91.416	44.000	752.840	752.845		CONST. JT.1	686+29.416	44.000	753.185	753.216
	CONST. JT.2	685+07.880	20.000	752.083	752.119		CONST. JT.2	685+47.880	20.000	752.446	752.451		CONST. JT.2	685+85.880	20.000	752.790	752.822
	OLD BM.2	684+99.037	15.125	751.902	751.937		OLD BM.2	685+39.037	15.125	752.264	752.269		OLD BM.2	685+77.037	15.125	752.608	752.640
	NEW BM.2	684+86.792	8.375	751.650	751.686		NEW BM.2	685+26.792	8.375	752.012	752.018		NEW BM.2	685+64.792	8.375	752.357	752.388
	NEW BM.3	684+74.548	1.625	751.398	751.434		NEW BM.3	685+14.548	1.625	751.761	751.766		NEW BM.3	685+52.548	1.625	752.105	752.137
	EXP. JT.3	684+71.600	0.000	751.338	751.374		EXP. JT.3	685+11.600	0.000	751.700	751.705		EXP. JT.3	685+49.600	0.000	752.045	752.076
	NEW BM.4	684+68.653	-1.625	751.345	751.381		NEW BM.4	685+08.653	-1.625	751.707	751.713		NEW BM.4	685+46.653	-1.625	752.052	752.083
	NEW BM.5	684+56.408	-8.375	751.375	751.410		NEW BM.5	684+96.408	-8.375	751.737	751.742		NEW BM.5	685+34.408	-8.375	752.081	752.113
	OLD BM.3	684+44.164	-15.125	751.404	751.440		OLD BM.3	684+84.164	-15.125	751.767	751.772		OLD BM.3	685+22.164	-15.125	752.111	752.143
	CONST. JT.4	684+35.321	-20.000	751.426	751.461		CONST. JT.4	684+75.321	-20.000	751.788	751.793		CONST. JT.4	685+13.321	-20.000	752.133	752.164
CONST. JT.5	683+91.785	-44.000	751.031	751.067	CONST. JT.5	684+31.785	-44.000	751.394	751.399	CONST. JT.5	684+69.785	-44.000	751.738	751.770			
OLD BM.4	683+82.942	-48.875	750.849	750.885	OLD BM.4	684+22.942	-48.875	751.212	751.217	OLD BM.4	684+60.942	-48.875	751.556	751.588			
NEW BM.6	683+75.005	-53.250	750.686	750.722	NEW BM.6	684+15.005	-53.250	751.049	751.054	NEW BM.6	684+53.005	-53.250	751.393	751.425			
J	NEW BM.1	685+78.195	53.250	752.528	752.568	Q BRG. - PIER NO. 2	NEW BM.1	686+16.195	53.250	752.872		R	NEW BM.1	686+56.195	53.250	753.235	753.268
	OLD BM.1	685+70.259	48.875	752.547	752.587		OLD BM.1	686+08.259	48.875	752.891			OLD BM.1	686+48.259	48.875	753.254	753.287
	CONST. JT.1	685+61.416	44.000	752.568	752.608		CONST. JT.1	685+99.416	44.000	752.913			CONST. JT.1	686+39.416	44.000	753.275	753.309
	CONST. JT.2	685+17.880	20.000	752.174	752.214		CONST. JT.2	685+55.880	20.000	752.518			CONST. JT.2	685+95.880	20.000	752.881	752.914
	OLD BM.2	685+09.037	15.125	751.992	752.032		OLD BM.2	685+47.037	15.125	752.337			OLD BM.2	685+87.037	15.125	752.699	752.732
	NEW BM.2	684+96.792	8.375	751.741	751.781		NEW BM.2	685+34.792	8.375	752.085			NEW BM.2	685+74.792	8.375	752.447	752.481
	NEW BM.3	684+84.548	1.625	751.489	751.529		NEW BM.3	685+22.548	1.625	751.833			NEW BM.3	685+62.548	1.625	752.196	752.229
	EXP. JT.3	684+81.600	0.000	751.428	751.468		EXP. JT.3	685+19.600	0.000	751.773			EXP. JT.3	685+59.600	0.000	752.135	752.169
	NEW BM.4	684+78.653	-1.625	751.436	751.476		NEW BM.4	685+16.653	-1.625	751.750			NEW BM.4	685+56.653	-1.625	752.142	752.176
	NEW BM.5	684+66.408	-8.375	751.465	751.505		NEW BM.5	685+04.408	-8.375	751.810			NEW BM.5	685+44.408	-8.375	752.172	752.206
	OLD BM.3	684+54.164	-15.125	751.495	751.535		OLD BM.3	684+92.164	-15.125	751.839			OLD BM.3	685+32.164	-15.125	752.202	752.235
	CONST. JT.4	684+45.321	-20.000	751.516	751.556		CONST. JT.4	684+83.321	-20.000	751.861			CONST. JT.4	685+23.321	-20.000	752.223	752.257
CONST. JT.5	684+01.785	-44.000	751.122	751.162	CONST. JT.5	684+39.785	-44.000	751.466		CONST. JT.5	684+79.785	-44.000	751.829	751.862			
OLD BM.4	683+92.942	-48.875	750.940	750.980	OLD BM.4	684+30.942	-48.875	751.284		OLD BM.4	684+70.942	-48.875	751.647	751.680			
NEW BM.6	683+85.005	-53.250	750.777	750.817	NEW BM.6	684+23.005	-53.250	751.121		NEW BM.6	684+63.005	-53.250	751.484	751.517			

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	WILL	119	44
FED. ROAD DIST. NO. 7	ILLINOIS	FA PROJ. I-UI-55-6	1264	
16 R-4	COOK			



Note B: Concrete Removal & Replacement.
Note C: Concrete Removal & Replacement.
 (See Section B-B, Sheet No. 45)

NOTES:
 All Reinforcement Bar Laps to be 24 Bar Diameters
 Bars Noted Thus: 7x3-#5 b bars, includes / Lines
 of #5 b bars with 3 Lengths Each Line.
 Work This Sheet with Sheet No. 45.

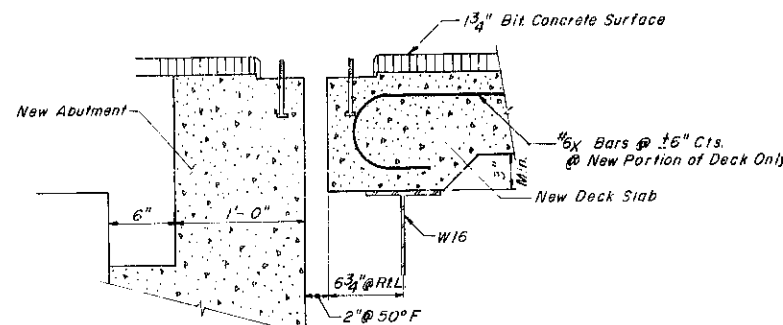
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE		ADLAI E. STEVENSON EXPRESSWAY F.A.I. ROUTE 55 REHABILITATION PROJECT	
DECK & PARAPET DETAILS F.A.I. ROUTE 55 OVER JOLIET ROAD			
STATION 684+80.00		AS BUILT SECTION 298-JRB-F	
WILL COUNTY		ROUTE 55	
MURPHY ENGINEERING INCORPORATED CONSULTING ENGINEERS		SCALE: DATE:	DRAWN BY: PB CHECKED BY: AA

FAI RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	COOK	118	45
FED. ROAD DIST. NO. 7	ILLINOIS	FA PROJ. T-UT-55-6	1284	

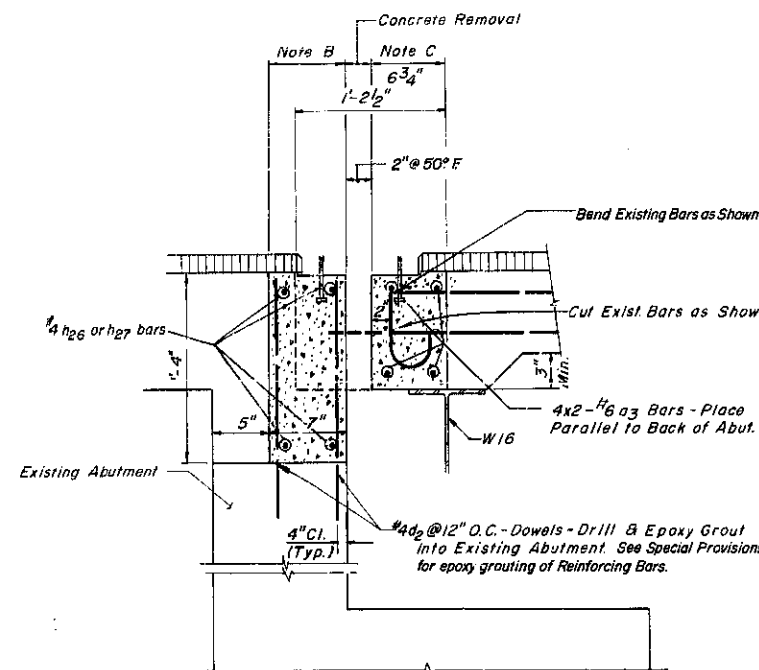
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	1320	#6	10'-0"	
a ₁	660	#6	4'-0"	
a ₂	1320	#6	19'-0"	
a ₃	32	#6	27'-2"	
b	1064	#5	30'-8"	
b ₁	124	#6	24'-0"	
b ₂	32	#8	28'-0"	
b ₃	32	#8	9'-4"	
b ₄	16	#8	30'-3"	
b ₅	32	#5	27'-8"	
b ₆	32	#5	9'-4"	
b ₇	16	#5	29'-11"	
d	824	#4	4'-6"	
d ₁	824	#5	4'-0"	
d ₂	200	#4	2'-2"	
e	144	#4	17'-10"	
e ₁	96	#4	9'-4"	
e ₂	72	#4	19'-4"	
x	516	#6	4'-8"	
Reinforcement Bars			Lbs.	120,450
Class X Concrete			Cu. Yds.	374.3
Protective Coat			Sq. Yds.	353
Waterproofing Membrane System			Sq. Yds.	2510
Bituminous Concrete Surf. Course, Mix D, Special			Tons	177
2" Neoprene Exp. Joint			Fl.	443
Drainage Scupper			Each	8
Concrete Removal			Cu. Yds.	177

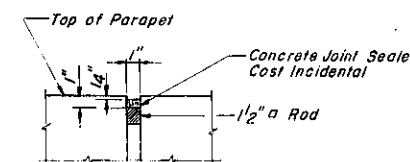
NOTE:
For Neoprene Exp. Joint
Detail See Sheet No. 93



SECTION A-A



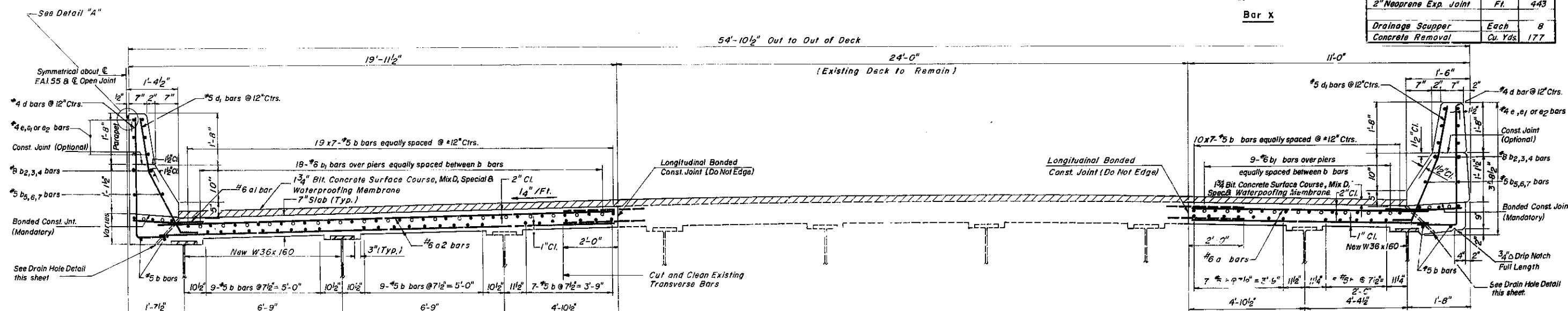
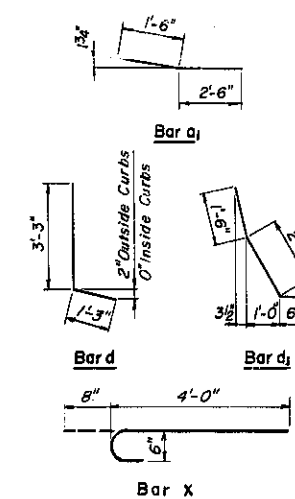
SECTION B-B



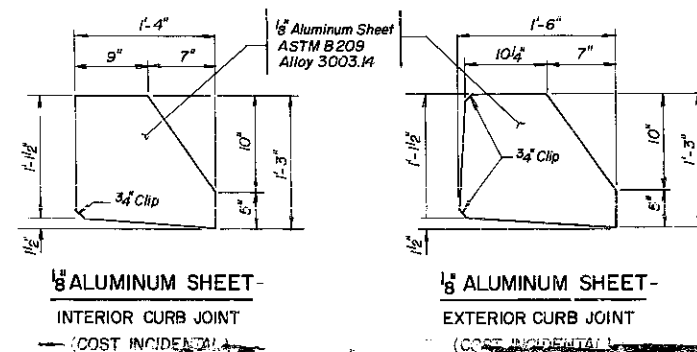
DETAIL "A"

NOTE B: Concrete Removal & Replacement

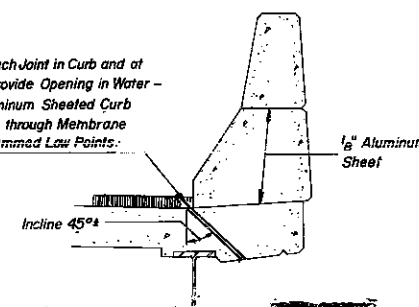
NOTE C: Concrete Removal & Replacement



SECTION C-C



1/2 inch drilled drain holes at each joint in curb and at expansion joints. Do not provide opening in waterproofing membrane at aluminum sheeted curb joints. Do provide opening through membrane at exp. joints and other dammed low points.



DRAIN HOLE DETAIL

NOTES:
All Reinforcement Bar Laps to be 24 Bar Diameters
Bars Noted Thus: 7x 3- 5 b bars, Indicates 7 Lines of 5 b bars with 3 Lengths Each Line.
Work This Sheet with Sheet No. 44

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

DECK DETAILS & CROSS SECTION
F.A.I. ROUTE 55 OVER JOLIET ROAD
STATION 684.80.6

SECTION 99R-4
SECTION 22R-11R-F

F.A.I. ROUTE 55
MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

SCALE:
DATE:

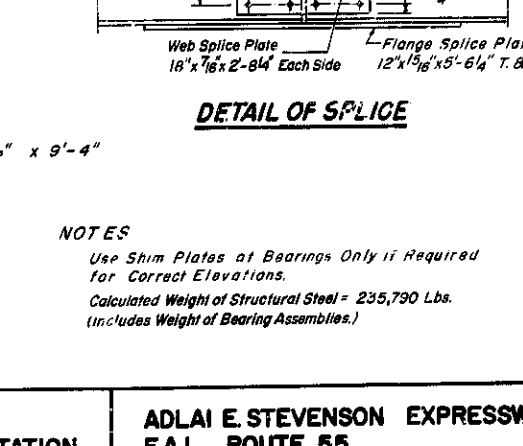
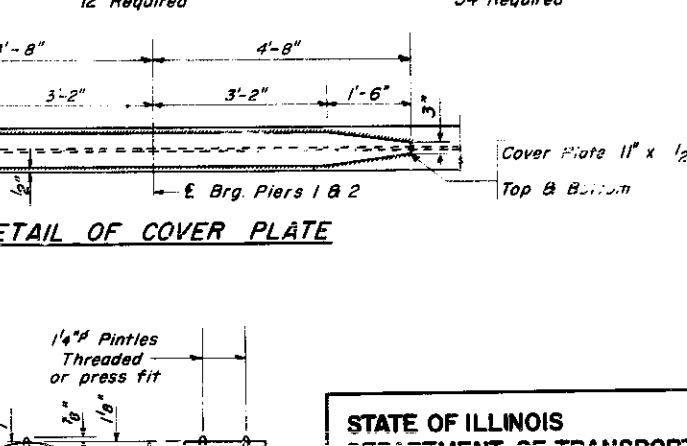
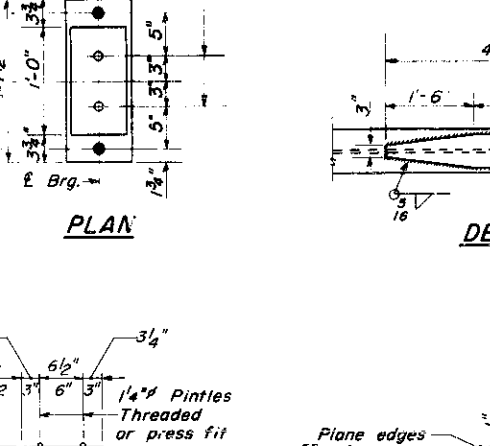
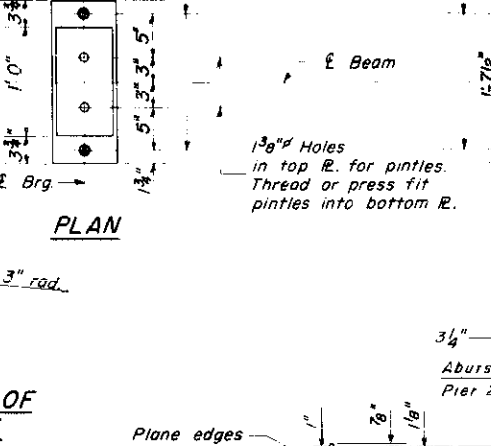
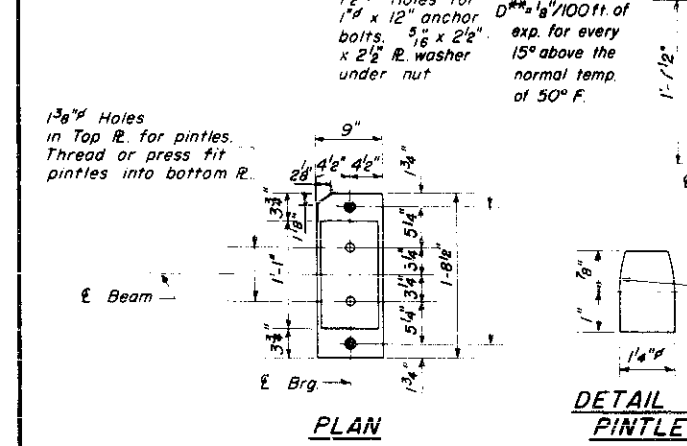
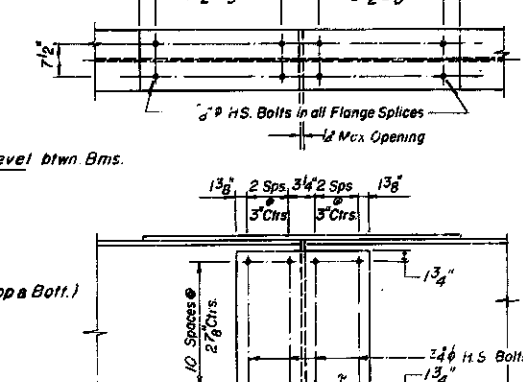
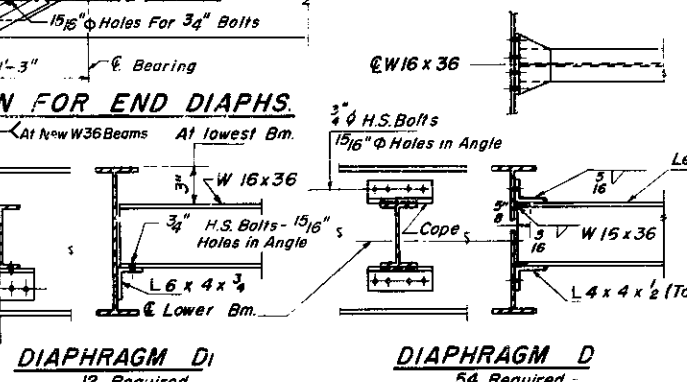
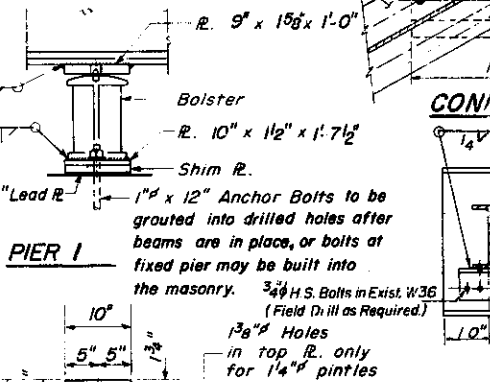
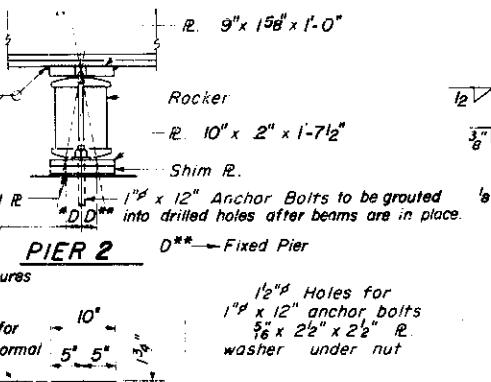
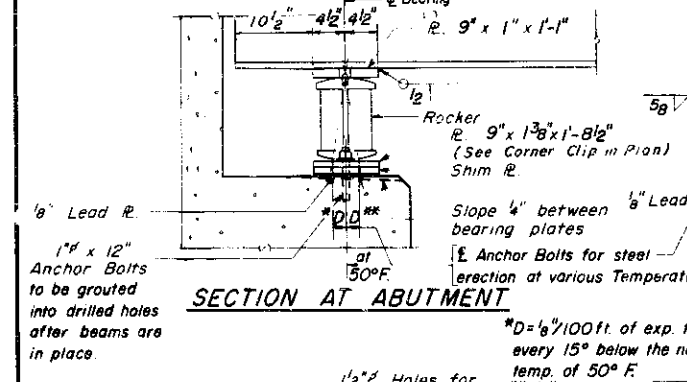
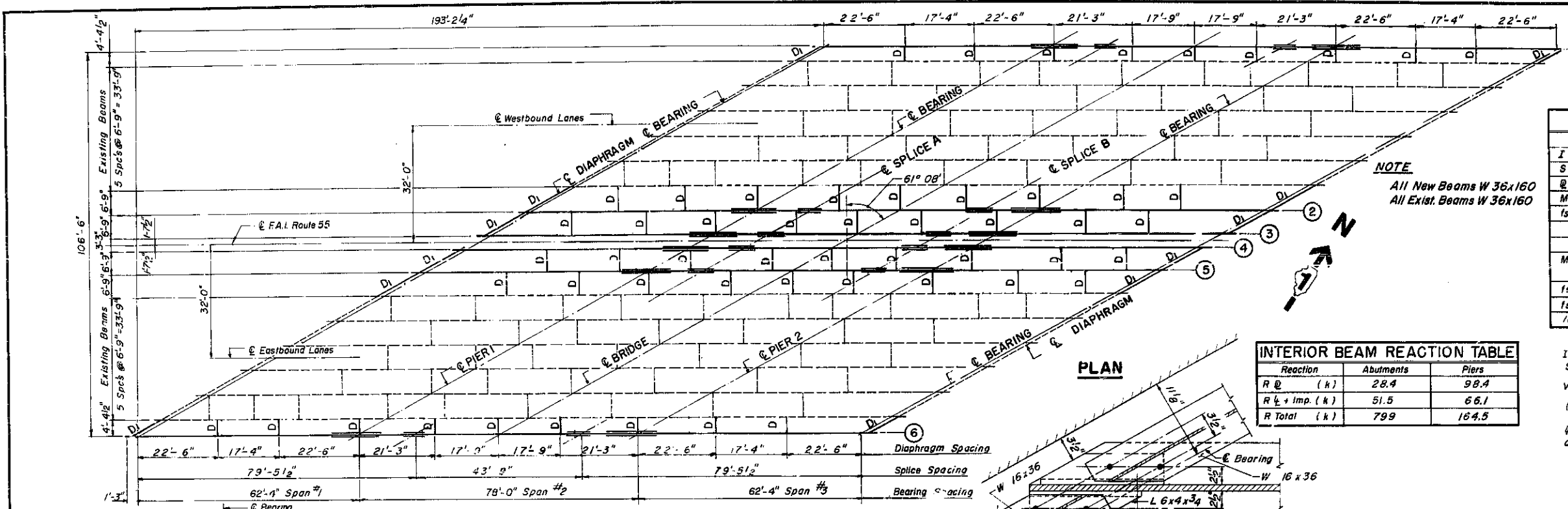
DRAWN BY: PA
CHECKED BY: PA

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	WILL CO PAGE	119	66
FED. ROAD DIST. NO. 7	ILLINOIS	FA PROJ. I-UI-55-61	1264	
16 R-4 COOK				

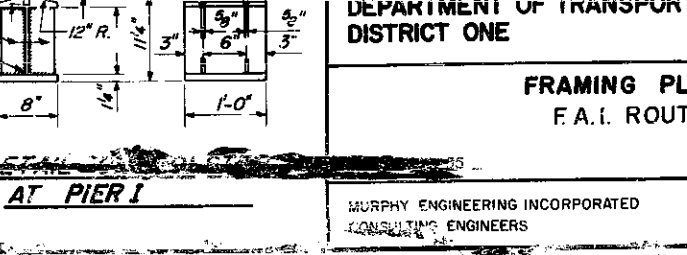
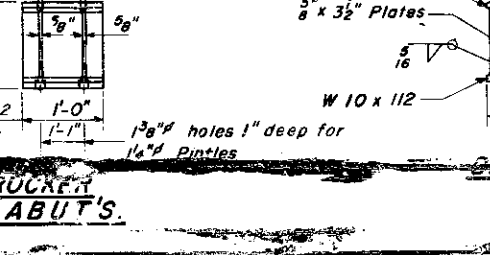
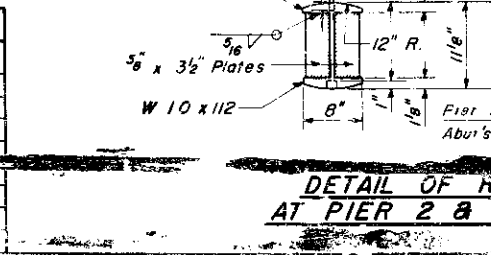
INTERIOR BEAM MOMENT TABLE			
	0.4 Span or 3	Pier 1 or 2	0.5 Span 2
I (in ⁴)	9760	13,424	9760
S (in ³)	542	726	542
Q (k/ft)	1,249	1,295	1,249
M _Q (ft-k)	322	-651.3	299.3
fs _Q (ksi)	7.13	10.77	6.63
M _{L+Imp} (ft-k)	524.7	-478.8	519.6
fs _{L+Imp} (ksi)	11.62	7.91	11.50
fs _{Total} (ksi)	18.75	18.68	18.13
/R (k)	50.7		51.5

INTERIOR BEAM REACTION TABLE		
Reaction	Abutments	Piers
R _Q (k)	28.4	98.4
R _{L+Imp} (k)	51.5	66.1
R _{Total} (k)	799	164.5

I and S are the Moment of Inertia and Section Modulus of the Steel Section Respectively
 V_R is The Maximum Live Load Plus Impact Shear Range in the Span
 (Symmetrical About 0.5 Span 2)
 Q includes Weight of Beam, Slab, Curb, Parapet 13¹/₄" J-1 and 25 pcf Future Wearing Surface



TOP OF BEAM ELEVATIONS						
Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Brg. W. Abut.	750.92	750.13	749.88	749.83	749.86	749.17
Brg. Pier 1	751.48	750.70	750.45	750.39	750.42	749.73
Splice B	752.04	751.25	751.00	750.94	750.97	750.29
Brg. Pier 2	752.19	751.40	751.15	751.10	751.13	750.44
Brg. E. Abut.						



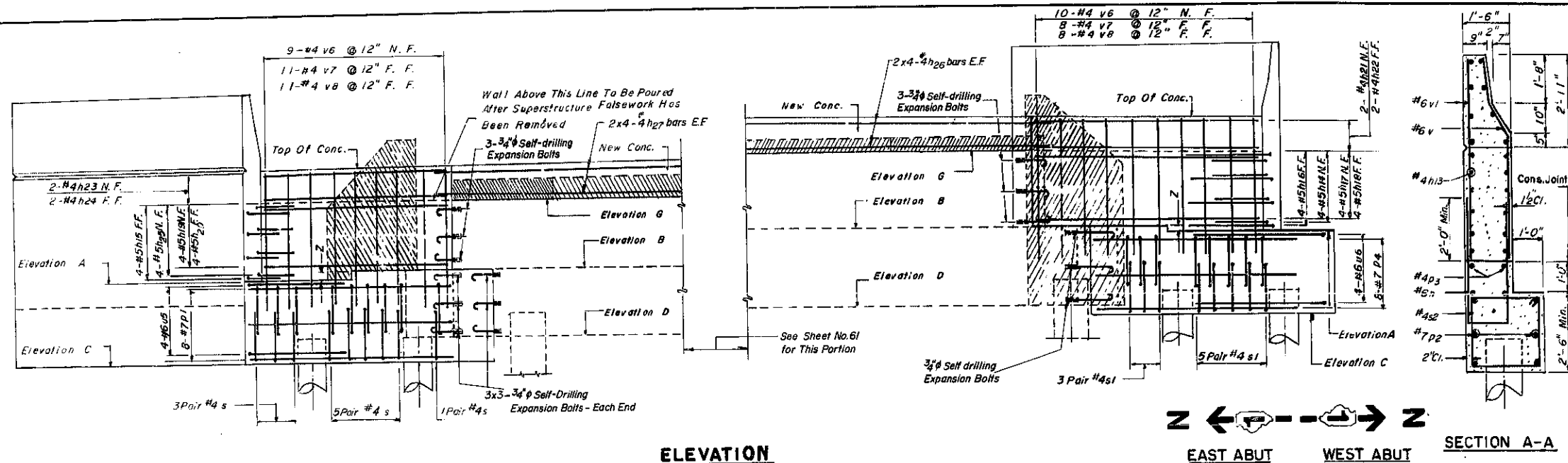
NOTES
 Use Shim Plates at Bearings Only if Required for Correct Elevations.
 Calculated Weight of Structural Steel = 235,790 Lbs.
 (includes Weight of Bearing Assemblies.)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

FRAMING PLAN AND BEARING DETAILS
F.A.I. ROUTE 55 OVER JOLIET ROAD
STATION 684+80.6
WILL COUNTY
SECTION 99R-4
MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS
SCALE:
DATE:
DRAWN BY: S.J.M.
CHECKED BY: J.R.L.

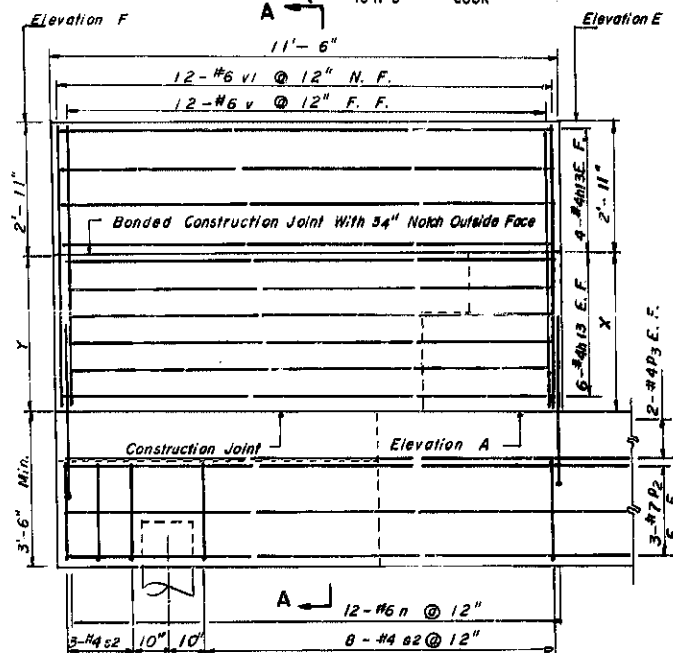
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22.99) R-3	WILL CO. ILLINOIS	119	47
FED. ROAD DIST. NO. 7	ILLINOIS	FA. PROJ. I-55-61	1204	



ELEVATION
East Abutment Shown
West Abutment Similar

SECTION A-A
EAST ABUT WEST ABUT

NOTE: Roughen Faces of Existing Concrete to be in Contact with New Concrete.
Expansion Bolts shall consist of self-drilling expansion shields and 3/4\"/>



WING WALL ELEVATION

REINFORCEMENT SCHEDULE & BILL OF MATERIAL

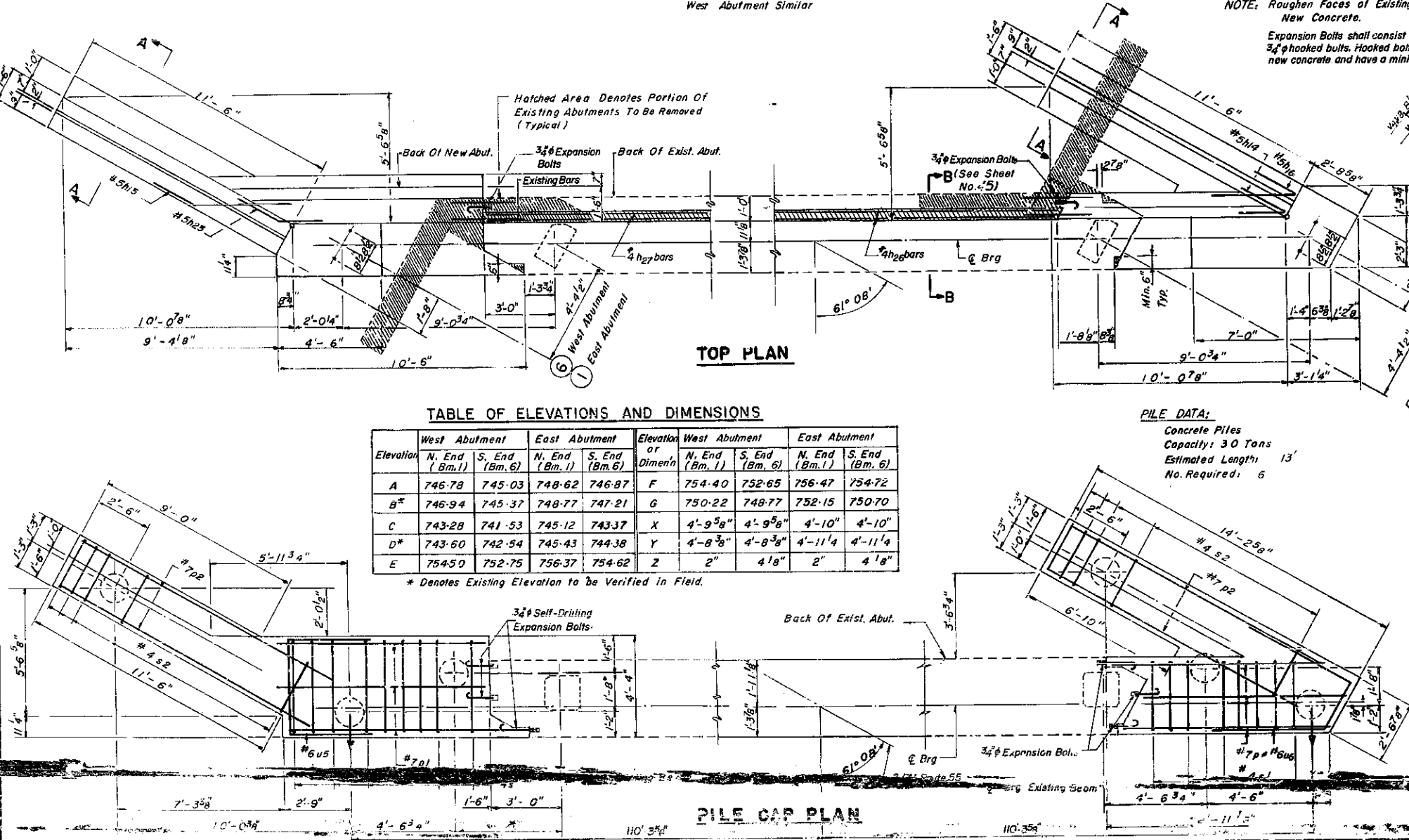
(Middle and L				buliments)					
BAR	NO.	SIZE	LENGTH	SHAPE	BAR	NO.	SIZE	LENGTH	SHAPE
d3	30	#5	3'-0"		h25	8	#5	4'-0"	
					h26	32	#4	19'-8"	
					h27	32	#4	19'-11"	
					m	6	#5	3'-0"	
					n	48	#6	9'-9"	
					p	32	#7	27'-7"	
h1	22	#4	7'-10"		p1	16	#7	9'-0"	
h1	22	#4	5'-11"		p2	24	#7	12'-4"	
h2	22	#4	2'-10"		p3	16	#4	12'-4"	
h3	8	#5	23'-7"		p4	16	#7	6'-10"	
h4	8	#5	20'-11"		s	236	#4	12'-11"	
h5	8	#5	21'-6"		s1	32	#4	10'-9"	
h6	8	#5	26'-2"		s2	44	#4	9'-5"	
h7	4	#4	23'-7"		u5	8	#6	11'-0"	
h8	4	#4	20'-11"		u6	8	#6	10'-2"	
h9	4	#4	23'-6"		v	74	#6	7'-8"	
h10	4	#4	26'-2"		v1	60	#6	7'-4"	
h11	16	#5	2'-8"		v2	100	#4	5'-10"	
h12	16	#5	5'-0"		v3	98	#4	4'-9"	
h13	80	#4	11'-3"		v4	96	#4	3'-5"	
h14	9	#5	5'-11"		v5	44	#5	2'-0"	
h15	8	#5	6'-3"		v6	38	#4	6'-2"	
h16	8	#5	5'-6"		v7	18	#4	4'-10"	
h17	8	#5	9'-3"		v8	38	#4	3'-10"	
h18	8	#5	6'-10"						
h19	8	#5	8'-0"						
h20	8	#5	9'-9"						
h21	4	#4	9'-3"						
h22	4	#4	6'-10"						
h23	4	#4	8'-0"						
h24	4	#4	8'-9"						
	</								

TABLE OF ELEVATIONS AND DIMENSIONS

Elevation	West Abutment		East Abutment		Elevation or Dimen't	West Abutment		East Abutment	
	N. End (Bm. 1)	S. End (Bm. 6)	N. End (Bm. 1)	S. End (Bm. 6)		N. End (Bm. 1)	S. End (Bm. 6)	N. End (Bm. 1)	S. End (Bm. 6)
A	746.78	745.03	748.62	746.87	F	754.40	752.65	756.47	754.72
B*	746.94	745.37	748.77	747.21	G	750.22	748.77	752.15	750.70
C	743.28	741.53	745.12	743.37	X	4'-9 3/8"	4'-9 3/8"	4'-10"	4'-10"
D*	743.60	742.54	745.43	744.38	Y	4'-8 3/8"	4'-8 3/8"	4'-11 1/4"	4'-11 1/4"
E	754.50	752.75	756.37	754.62	Z	2"	4'18"	2"	4'18"

* Denotes Existing Elevation to be Verified in Field.

PILE DATA:
Concrete Piles
Capacity: 30 Tons
Estimated Length: 13'
No. Required: 6



PILE CAP PLAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

ADLAI E STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

ABUTMENTS

F. A. I. ROUTE 55 OVER JOLIET ROAD
STATION 684+80.6

SECTION 99R-4
AS BUILT SECTION 22-119-F

MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

SCALE:
DATE:

DRAWN BY: C. K.
CHECKED BY: R. J. W.

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-3	WILL. DU PAGE	110	48
FED. ROAD DIST. NO. 7		ILLINOIS	FA PROJ. I-UI-55-61	1284

16 R-3 COOK

ELEVATION

East Abutment Shown, West Abutment Similar

TOP VIEW

SECTION X-X

SECTION Y-Y

SECTION THRU ABUTMENT
(CENTRAL PORTION, NORTHEAST END & SOUTHWEST END ONLY)

TABLE OF ELEVATIONS							
Location	L*	M	N	P*	Q	R	S
End of Approach	748.26	747.81	747.50	747.72	751.32	751.00	744.00
West Abutment	745.88	745.66	745.97	746.43	749.12	749.39	742.16

*Existing Elevation

PILE DATA:
Concrete Piles
Capacity: 30 Tons
Estimated Length: 13'
No. Required: 13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

ABUTMENTS
F.A.I. ROUTE 55 OVER JOLIET ROAD
STATION 684 + 80.6

SECTION 99 R-4
AS BUILT SECTION 29-IHB-F

MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

DRAWN BY: R. J. W.
CHECKED BY: C. K.

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-3	WILL DU PAGE	110	48
FED. ROAD DIST. NO. 7	ILLINOIS	FA PROJ I-UI-55-61	1284	
	16 R-3	COOK		

ELEVATION

East Abutment Shown, West Abutment Similar

TOP VIEW

PILE CAP PLAN

SECTION X-X

SECTION Y-Y

SECTION THRU ABUTMENT
(CENTRAL PORTION, NORTHEAST END & SOUTHWEST END ONLY)

TABLE OF ELEVATIONS

Location	L*	M	N	P*	Q	R	S
End of Approach	748.26	747.81	747.50	747.72	751.32	751.00	744.00
West Abutment	745.88	745.66	745.97	746.43	749.12	749.39	742.16

*Existing Elevation Overlaid in Field

PILE DATA:
Concrete Piles
Capacity: 30 Tons
Estimated Length: 13'
No. Required: 13

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE**

**ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT**

ABUTMENTS
F.A.I. ROUTE 55 OVER JOLIET ROAD
STATION 684 + 80.6

**SECTION 99 R-4
AS BUILT SECTION 29-IHB-F**

**MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS**

**DRAWN BY: R. J. W.
DATE:
CHECKED BY: C. K.**

F.A.I. RYE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	(22,99) R-4	WILL DU PAGE	118	49
FED. ROAD DIST. NO. 7	ILLINOIS	FA PROJ. I-UI-55-61	1264	

16 R-4 COOK

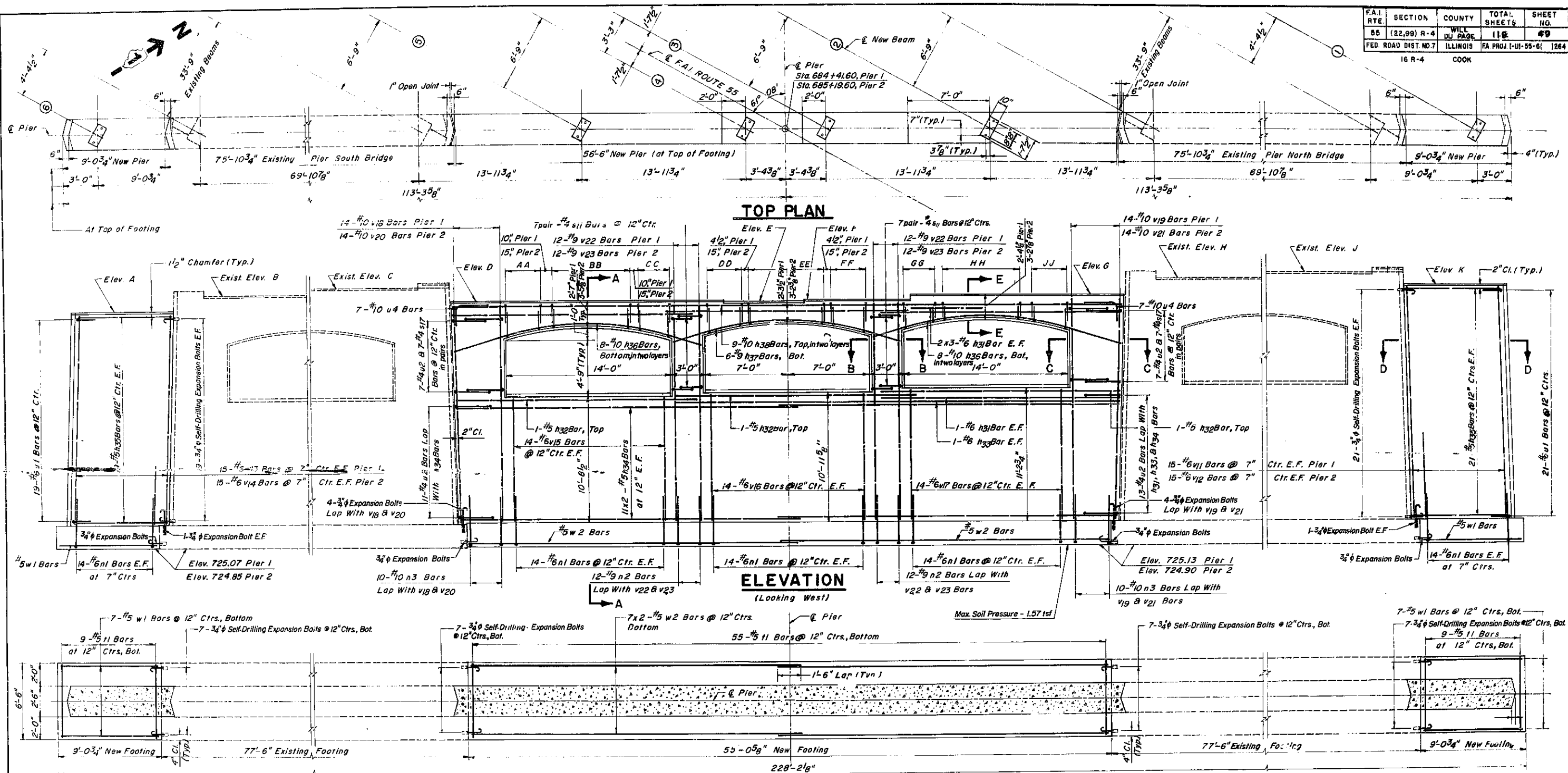


TABLE OF ELEVATIONS										
	A	B*	C*	D	E	F	G	H*	J*	K
PIER 1	745.48	746.57	747.08	746.17	746.14	746.20	746.45	747.63	748.14	747.23
PIER 2	746.16	746.35	746.86	746.85	746.82	746.87	747.12	747.40	747.91	747.51

* Elevations of Existing Piers

STIRRUP SCHEDULE					
PIER 1			PIER 2		
BAR	NO. OF PAIRS	SPACING	BAR	NO. OF PAIRS	SPACING
AA s12	5	10"	s15	3	15"
BB s13	7	10"	s12	6	15"
CC s12	5	10"	s15	3	15"
DD s14	10	4 1/2"	s16	3	15"
EE s13	6	15"	s14	6	15"
FF s14	10	15"	s16	3	15"
GG s14	5	10"	s15	3	15"
HH s13	7	10"	s14	6	15"
JJ s14	5	10"	s16	3	15"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT ONE

ADLAI E. STEVENSON EXPRESSWAY
F.A.I. ROUTE 55
REHABILITATION PROJECT

PIERS
F.A.I. ROUTE 55 OVER JOLIET ROAD
STATION 684+80.60

F.A.I. ROUTE 55

WILL COUNTY

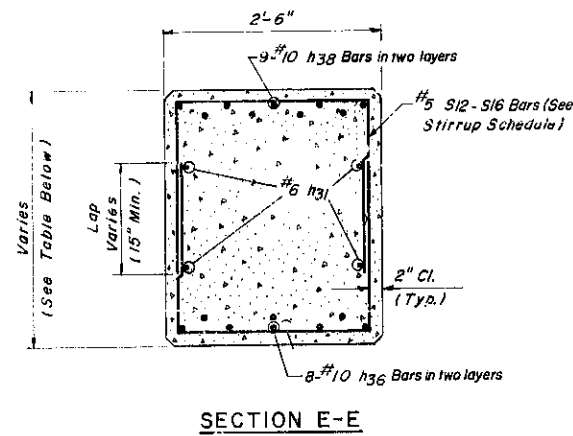
SECTION 99R-4
AS BUILT SECTION 29R-JHR-F

MURPHY ENGINEERING INCORPORATED
CONSULTING ENGINEERS

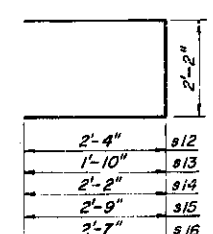
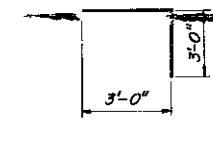
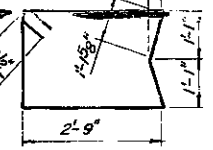
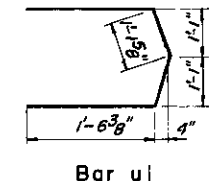
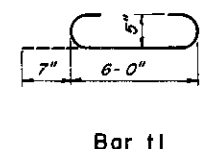
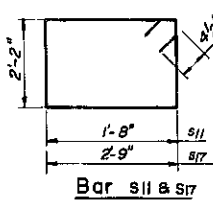
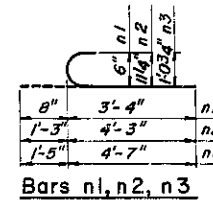
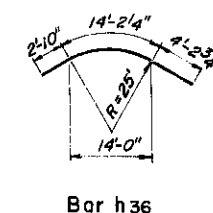
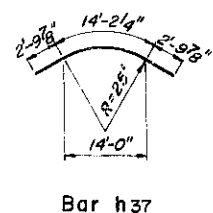
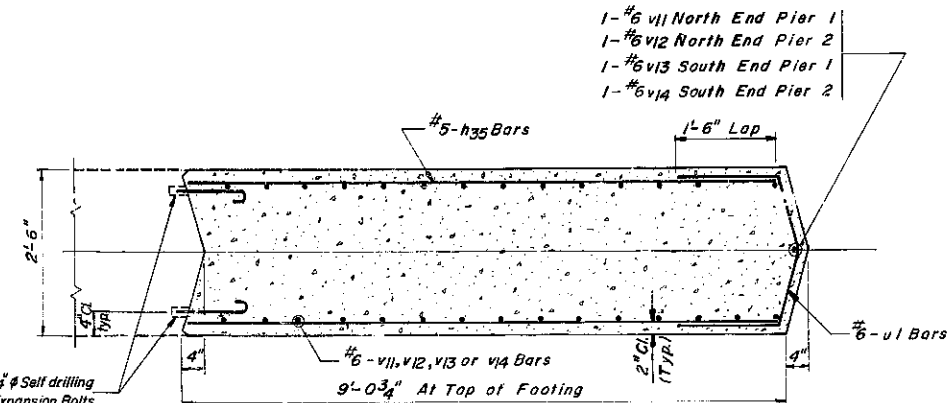
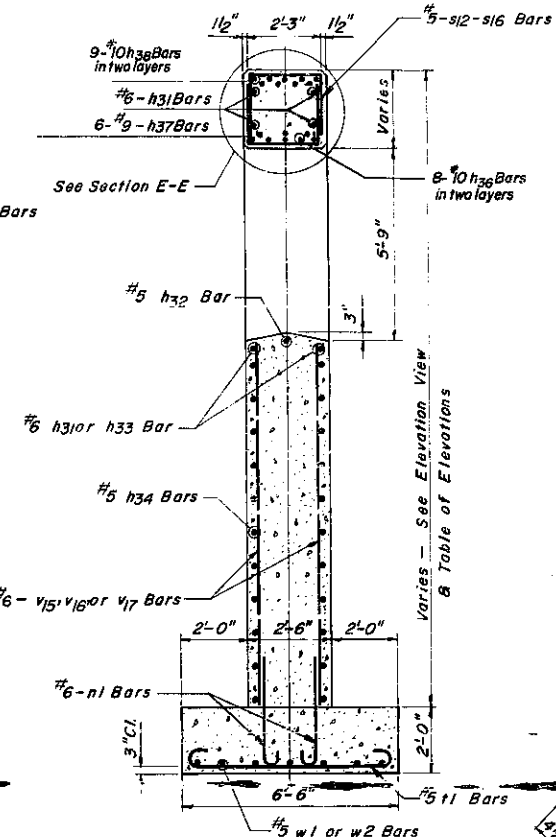
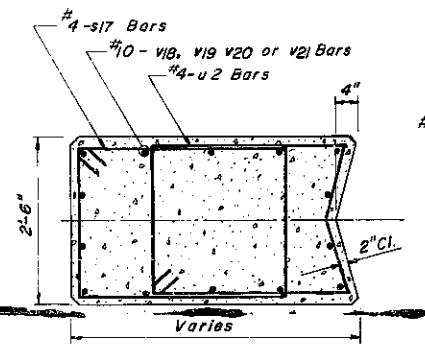
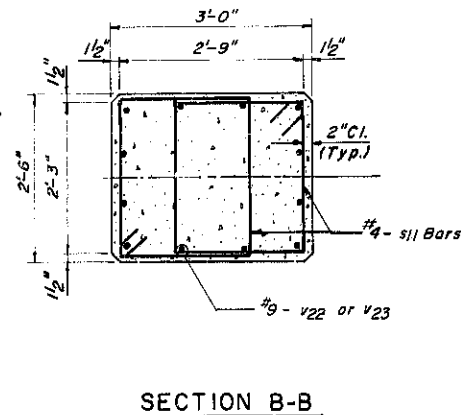
SCALE:
DATE:

DRAWN BY: B.C.M.
CHECKED BY: J.R.L.

Work This Sheet With "Pier Details" Sheet No. 50.



DEPTHS OF CAP BEAM (Measured at Minimum Point)			
STEEL BEAM NO.	2	4	5
PIER NO. 1	2'-4 1/8"	2'-3 1/2"	2'-7"
PIER NO. 2	3'-2 6/8"	3'-2 3/8"	3'-5 7/8"



REINFORCEMENT SCHEDULE				
BAR	NO.	SIZE	LENGTH	SHAPE
h31	28	#6	20'-6"	—
h32	6	#5	20'-6"	—
h33	4	#6	38'-0"	—
h34	88	#5	29'-0"	—
h35	160	#5	8'-9"	—
h36	32	#10	21'-3"	—
h37	12	#9	19'-10"	—
h38	18	#10	55'-6"	—
n1	280	#6	4'-0"	—
n2	48	#9	5'-6"	—
n3	40	#10	6'-0"	—
s11	56	#4	8'-5"	—
s12	64	#5	6'-10"	—
s13	80	#5	5'-10"	—
s14	168	#6	6'-6"	—
s15	24	#6	7'-8"	—
s16	48	#6	7'-4"	—
s17	28	#4	10'-7"	—
t1	146	#5	7'-2"	—
u1	60	#6	9'-4"	—
u2	76	#4	10'-9"	—
u4	28	#10	6'-0"	—
v11	31	#6	19'-11"	—
v12	31	#6	20'-10"	—
v13	31	#6	18'-2"	—
v14	31	#6	19'-1"	—
v15	56	#6	10'-6"	—
v16	56	#6	10'-9"	—
v17	56	#6	11'-0"	—
v18	14	#10	18'-10"	—
v19	14	#10	19'-1"	—
v20	14	#10	19'-9"	—
v21	14	#10	20'-0"	—
v22	24	#9	18'-10"	—
v23	24	#9	19'-9"	—
w1	28	#5	8'-9"	—
w2	28	#5	28'-9"	—

BILL OF MATERIAL		
ITEM	UNIT	TOTAL
Class X Concrete	Cu. Yd.	301.2
Reinforcement Bars	Lbs.	39,230
Expansion Bolts (3/4")	Each	240

Work This Sheet With "Piers" Sheet No. 49

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE	ADLAI E. STEVENSON EXPRESSWAY F.A.I. ROUTE 55 REHABILITATION PROJECT
PIER DETAILS F.A.I. ROUTE 55 OVER JOLIET ROAD STATION 684+20.60	
F.A.I. ROUTE 55	WILL COUNTY
MURPHY ENGINEERING INCORPORATED CONSULTING ENGINEERS	SCALE: DATE:
	DRAWN BY: B.S.M. CHECKED BY: J.R.L.