

BENCH MARK

Chiseled square on N-E side of manhole rim at the intersection of IL 170 and South Street. Elevation 508.497

EXISTING STRUCTURE

Structure No. 050-0070 was constructed in 1932. This structure consists of 4 steel truss spans and 9 steel stringer approach spans. The truss spans are supported on spread footing piers and the approach spans are supported on pile bents. The overall length is 1510'-3 3/4". Structure provides 21'-6" roadway width. Traffic shall be maintained on this structure while the new structure is under construction. No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

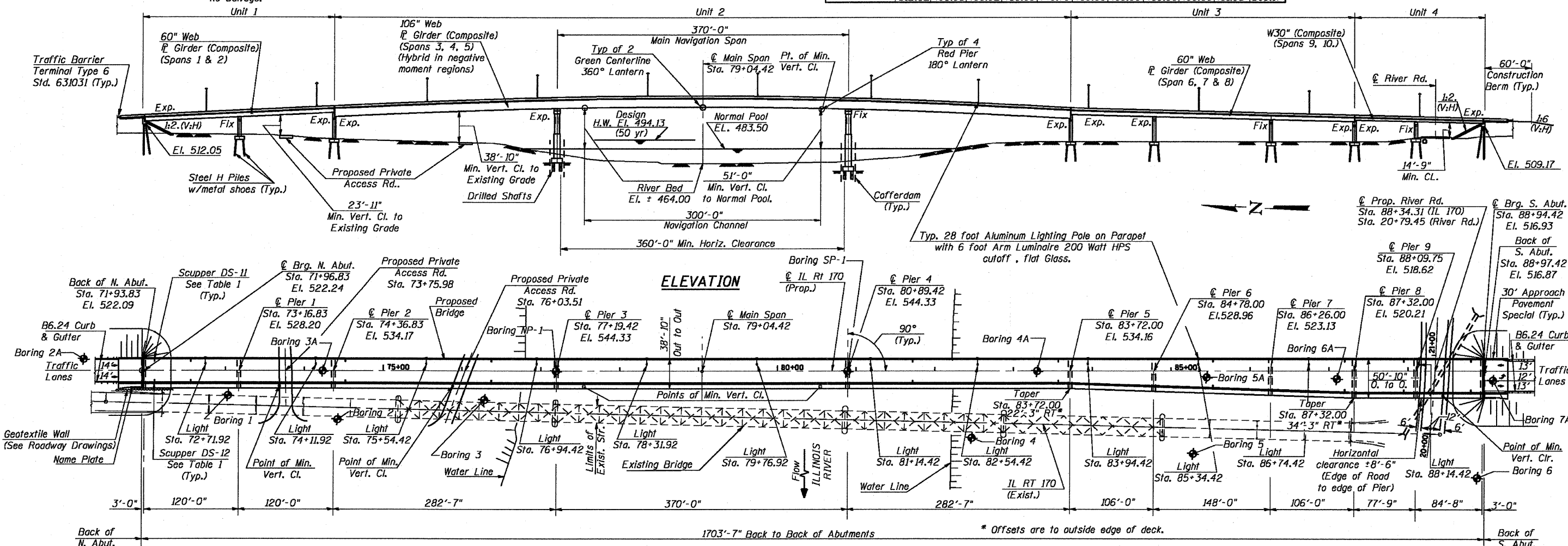


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET	DATE	SHEET NO. 1
786	109 BR	La Salle	351	201	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

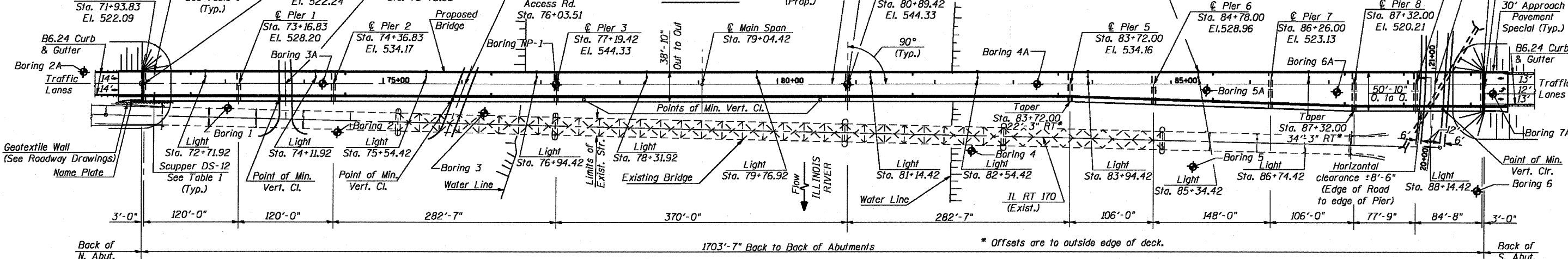
DESIGN SCOUR TABLE

Design Scour Elevation (ft)	North Abut.	Pier 1	Pier 2	Pier 3	Pier 4	Pier 5	Pier 6	Pier 7	Pier 8	Pier 9	South Abut.
	512.02	496.35	490.92	459.08	449.78	488.00	488.00	488.00	488.00	491.83	509.17

Contract # 66607



ELEVATION



PLAN

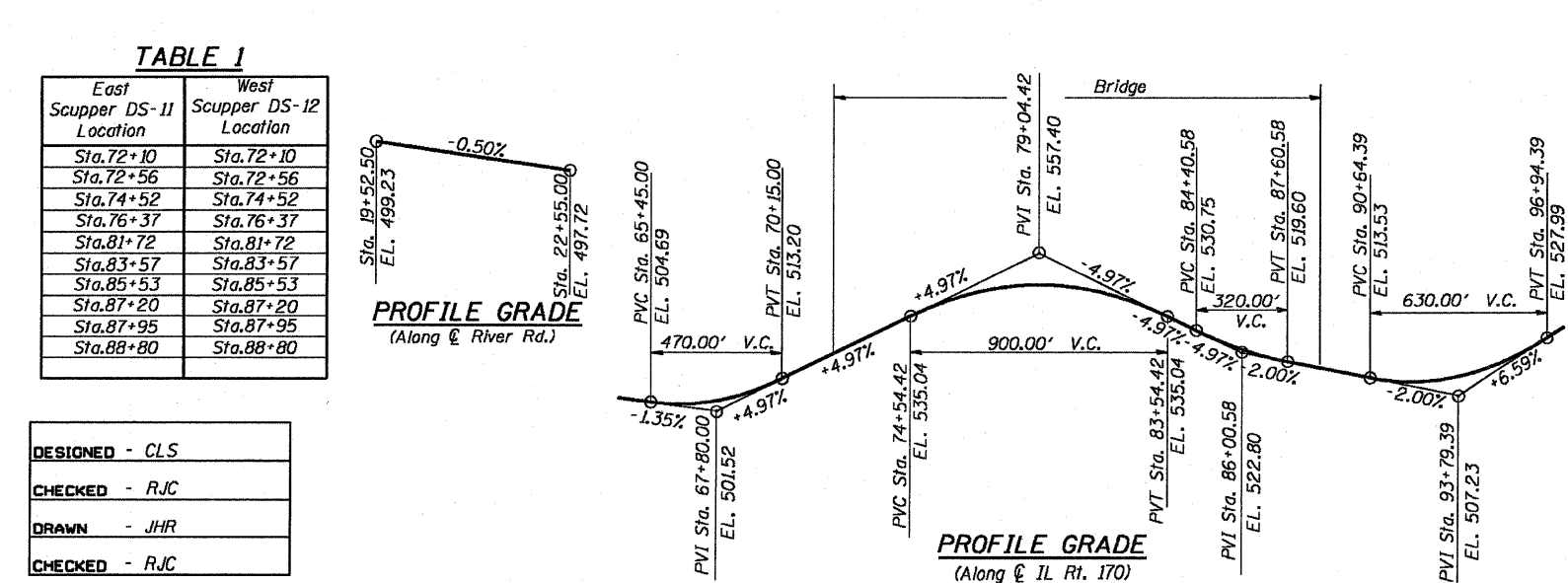


TABLE 1

East Scupper DS-11 Location	West Scupper DS-12 Location
Sta. 72+10	Sta. 72+10
Sta. 72+56	Sta. 72+56
Sta. 74+52	Sta. 74+52
Sta. 76+37	Sta. 76+37
Sta. 81+72	Sta. 81+72
Sta. 83+57	Sta. 83+57
Sta. 85+53	Sta. 85+53
Sta. 87+20	Sta. 87+20
Sta. 87+95	Sta. 87+95
Sta. 88+80	Sta. 88+80

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

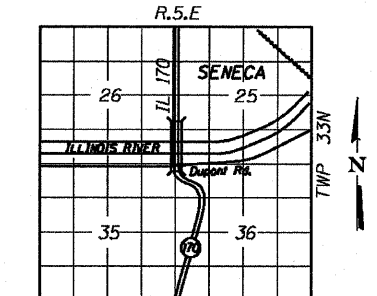
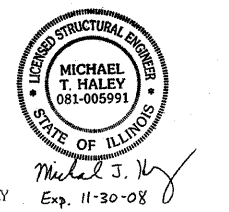
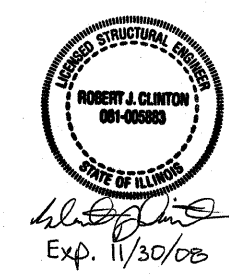
DESIGN SPECIFICATIONS
2002 AASHTO
Standard Specifications for Highway Bridges
1991 AASHTO Guide Specifications and Commentary
for Vessel Collision Design of Highway Bridges

DESIGN STRESSES
f_c' = 3,500 psi
f_s = 60,000 psi (reinforcement)
f_s = 50,000 psi (M270 Gr50W)
f_s = 70,000 psi (M270 Gr70W)

LOADING HS20-44
Allowance for Future
Wearing Surface 50 lb/sq. ft.

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

Notes:
1. For Waterway Information Table See Sheets S-2.
2. For Name Plate See Sheets S-2.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Exp. 11-30-08
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

GENERAL NOTES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

E	F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 2 89 SHEETS
	786	109 BR	La Salle	351	202	
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66607

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel Gr.50 = 4,024,470 Lbs
Calculated weight of Structural Steel Gr.70 = 411,330 Lbs

All structural steel shall be AASHTO M 270 Grade 50W except top and bottom flanges over Piers in Segment 2 which shall be AASHTO M 270 HPST0W.

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

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

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

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of the piers and abutments.

Structural steel shall only be painted for a distance of 10 ft. each way from all piers & abutments. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number as shown in the contract plans.

All exposed structural steel of the bearings shall be cleaned and shop painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

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

Sloped wall shall be reinforced with welded wire fabric, 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

The Contractor is alerted that the camber and dead load deflection values shown within the drawings were developed based on the deck pouring sequence shown on Sheet 23. Any deviation from this pouring sequence may require changes to the camber, dimensions and elevations derived from the dead load deflections. If the Contractor elects to vary from the pouring sequence shown on the Plans, an evaluation of the structure shall be performed by an Illinois Licensed Structural Engineer retained by the Contractor. Calculations and any revised details shall be submitted to the Engineer for review and approval.

The erection of the structural steel shall be accomplished by a steel erection contractor or sub-contractor certified as an Advanced Certified Steel Erector (ASCE) by AISC. See special provision for "Erection of Complex Steel Structures."

Slipforming of parapets is not allowed.

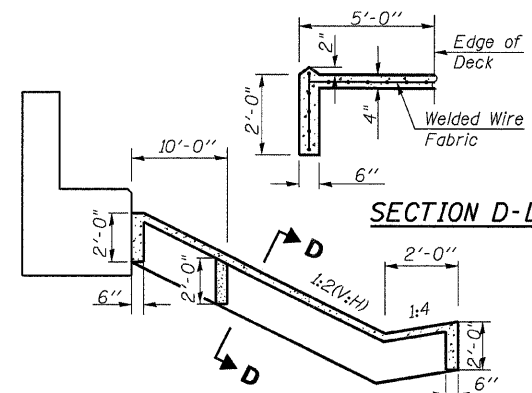
INDEX OF STRUCTURAL SHEETS

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* Prepared by Lin Engineering, Ltd.

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TYPICAL SECTION THRU SLOPE WALL
(North Abutment shown, South is similar)

BRIDGE TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	228
BRIDGE APPROACH PAVEMENT (SPECIAL)	SQ YD	284
REMOVAL OF EXISTING STRUCTURES	L SUM	1
PROTECTIVE SHIELD	SQ YD	482
STRUCTURE EXCAVATION	CU YD	1,206
COFFERDAM EXCAVATION	CU YD	1,195
COFFERDAM PIER 3	EACH	1
COFFERDAM PIER 4	EACH	1
CONCRETE STRUCTURES	CU YD	2988.0
CONCRETE SUPERSTRUCTURE	CU YD	2254.3
BRIDGE DECK GROOVING	SQ YD	5761
CONCRETE ENCASEMENT	CU YD	24
PROTECTIVE COAT	SQ YD	7539
FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
STUD SHEAR CONNECTORS	EACH	16,731
REINFORCEMENT BAR	POUND	52580
REINFORCEMENT BARS, EPOXY COATED	POUND	933800
BAR SPLICERS FOR #5 BAR	EACH	84
MECHANICAL SPLICE	EACH	532
BICYCLE RAILING	FOOT	1,732
PARAPET RAILING	FOOT	1762
SLOPE WALL 4 INCH	SQ YD	475
FURNISHING STEEL PILES HP12X74	FOOT	5108
DRIVING PILES	FOOT	5108
TEST PILE STEEL HP12X74	EACH	11
PILE SHOES	EACH	150
NAME PLATES	EACH	1
DRILLED SHAFT IN ROCK	CU YD	230
PREFORMED JOINT STRIP SEAL	FOOT	139
FINGER PLATE EXPANSION JOINT, 4"	FOOT	37.5
FINGER PLATE EXPANSION JOINT, 5"	FOOT	37.5
FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	80
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	42
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12
ELASTOMERIC BEARING ASSEMBLY, TYPE III	EACH	6
ANCHOR BOLTS, 1 IN	EACH	98
ANCHOR BOLTS, 1-1/4 IN	EACH	14
ANCHOR BOLTS, 1-1/2 IN	EACH	50
CONCRETE SEALER	SQ FT	2,796
GEOCOMPOSITE WALL DRAIN	SQ YD	151
PIPE UNDERDRAIN FOR STRUCTURES, 4 IN	FOOT	250
DRAINAGE SCUPPERS, DS-I2	EACH	10
DRAINAGE SCUPPERS, DS-II	EACH	10
HIGH LOAD MULTI-ROTATION BEARING, FIXED BOOK	EACH	6
HIGH LOAD MULTI-ROTATION BEARING, GUIDED EXPANSION, BOOK	EACH	6

WATERWAY INFORMATION TABLE

Flood	Frequency (Yr)	Discharge (cfs)	Waterway Opening (Sq.Ft.)		Natural H.W.E.		Created Head		Headwater Elev. (ft)	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Drainage Area: 8,259 sq. miles										
Existing Low Grade Elev. = 504.18 feet @ Sta. 67+00										
Proposed Low Grade Elev. = 517 feet @ Sta. 88+94										
	10	73000	12318	12636	491.54	491.58	0.04	0.03	491.58	491.61
DESIGN	50	98000	14218	14435	494.10	494.13	0.06	0.05	494.16	494.18
BASE	100	106000	14874	15501	494.82	494.85	0.07	0.06	494.89	494.91
OVERTOPPING										
MAX CALC	500	130000	16846	18116	496.78	496.84	0.10	0.09	496.88	496.93

STATION 79+04.42
BUILT BY
STATE OF ILLINOIS
IL. 170 F.A.P. 786
LOADING HS20
STRUCTURE NO. 050-0246

NAME PLATE
See Std. 515001

**GENERAL NOTES AND
BILL OF MATERIAL
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

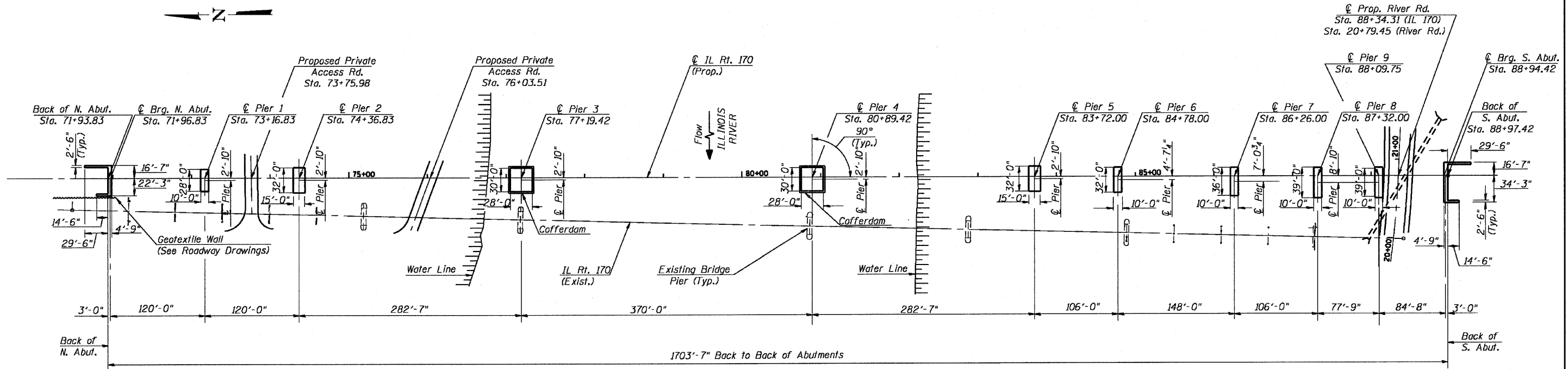
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
786	109 BR	La Salle	351	203
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 3
89 SHEETS

Contract # 66607



FOOTING LAYOUT PLAN

DESIGNED - RJC
CHECKED - CLS
DRAWN - JHR
CHECKED - RJC

SUBSTRUCTURE LAYOUT
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
786	109 BR	La Salle	351	204
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 66607

SHEET NO. 4
89 SHEETS

GIRDER 1

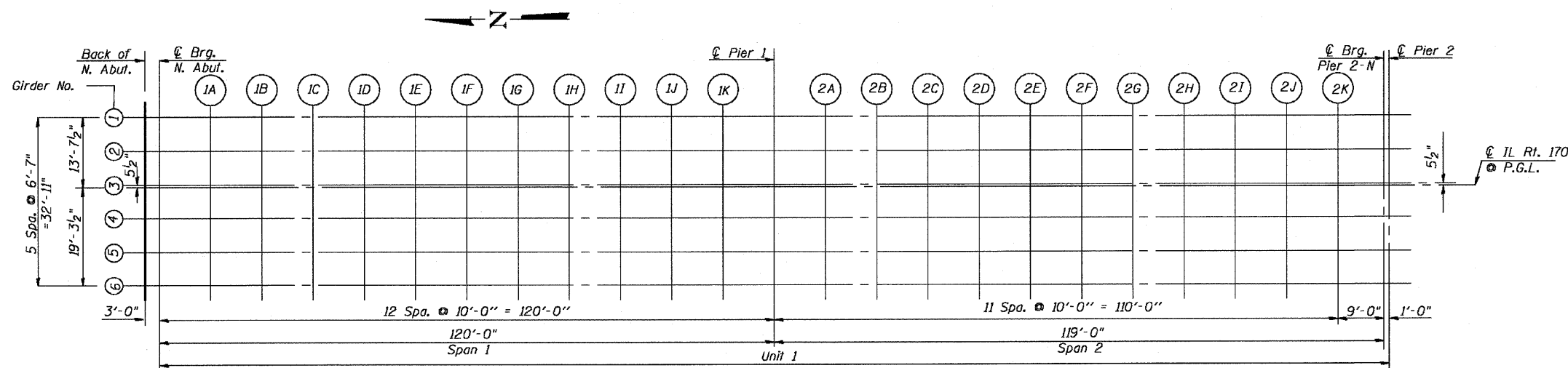
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	-13.63	521.87	521.87
⊕ Brg. N. Abut.	71+96.83	-13.63	522.02	522.02
1A	72+06.83	-13.63	522.51	522.55
1B	72+16.83	-13.63	523.01	523.09
1C	72+26.83	-13.63	523.51	523.61
1D	72+36.83	-13.63	524.00	524.12
1E	72+46.83	-13.63	524.50	524.62
1F	72+56.83	-13.63	525.00	525.12
1G	72+66.83	-13.63	525.50	525.60
1H	72+76.83	-13.63	525.99	526.07
1I	72+86.83	-13.63	526.49	526.54
1J	72+96.83	-13.63	526.99	527.01
1K	73+06.83	-13.63	527.48	527.49
⊕ Pier 1	73+16.83	-13.63	527.98	527.98
2A	73+26.83	-13.63	528.48	528.48
2B	73+36.83	-13.63	528.97	529.00
2C	73+46.83	-13.63	529.47	529.52
2D	73+56.83	-13.63	529.97	530.04
2E	73+66.83	-13.63	530.47	530.56
2F	73+76.83	-13.63	530.96	531.07
2G	73+86.83	-13.63	531.46	531.58
2H	73+96.83	-13.63	531.96	532.07
2I	74+06.83	-13.63	532.45	532.55
2J	74+16.83	-13.63	532.95	533.02
2K	74+26.83	-13.63	533.45	533.48
⊕ Brg Pier 2-N	74+35.83	-13.63	533.89	533.89
⊕ Pier 2	74+36.83	-13.63	533.94	533.94

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	-7.04	521.98	521.98
⊕ Brg. N. Abut.	71+96.83	-7.04	522.13	522.13
1A	72+06.83	-7.04	522.62	522.66
1B	72+16.83	-7.04	523.12	523.19
1C	72+26.83	-7.04	523.62	523.71
1D	72+36.83	-7.04	524.12	524.23
1E	72+46.83	-7.04	524.61	524.73
1F	72+56.83	-7.04	525.11	525.22
1G	72+66.83	-7.04	525.61	525.70
1H	72+76.83	-7.04	526.10	526.18
1I	72+86.83	-7.04	526.60	526.65
1J	72+96.83	-7.04	527.10	527.12
1K	73+06.83	-7.04	527.59	527.60
⊕ Pier 1	73+16.83	-7.04	528.09	528.09
2A	73+26.83	-7.04	528.59	528.59
2B	73+36.83	-7.04	529.09	529.11
2C	73+46.83	-7.04	529.58	529.63
2D	73+56.83	-7.04	530.08	530.15
2E	73+66.83	-7.04	530.58	530.67
2F	73+76.83	-7.04	531.07	531.18
2G	73+86.83	-7.04	531.57	531.68
2H	73+96.83	-7.04	532.07	532.17
2I	74+06.83	-7.04	532.56	532.65
2J	74+16.83	-7.04	533.06	533.13
2K	74+26.83	-7.04	533.56	533.59
⊕ Brg Pier 2-N	74+35.83	-7.04	534.01	534.01
⊕ Pier 2	74+36.83	-7.04	534.06	534.06

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	-0.46	522.08	522.08
⊕ Brg. N. Abut.	71+96.83	-0.46	522.23	522.23
1A	72+06.83	-0.46	522.73	522.76
1B	72+16.83	-0.46	523.22	523.30
1C	72+26.83	-0.46	523.72	523.82
1D	72+36.83	-0.46	524.22	524.33
1E	72+46.83	-0.46	524.72	524.83
1F	72+56.83	-0.46	525.21	525.32
1G	72+66.83	-0.46	525.71	525.80
1H	72+76.83	-0.46	526.21	526.28
1I	72+86.83	-0.46	526.70	526.75
1J	72+96.83	-0.46	527.20	527.23
1K	73+06.83	-0.46	527.70	527.70
⊕ Pier 1	73+16.83	-0.46	528.19	528.19
2A	73+26.83	-0.46	528.69	528.70
2B	73+36.83	-0.46	529.19	529.21
2C	73+46.83	-0.46	529.69	529.73
2D	73+56.83	-0.46	530.18	530.25
2E	73+66.83	-0.46	530.68	530.77
2F	73+76.83	-0.46	531.18	531.28
2G	73+86.83	-0.46	531.67	531.78
2H	73+96.83	-0.46	532.17	532.28
2I	74+06.83	-0.46	532.67	532.76
2J	74+16.83	-0.46	533.16	533.23
2K	74+26.83	-0.46	533.66	533.69
⊕ Brg Pier 2-N	74+35.83	-0.46	534.11	534.11
⊕ Pier 2	74+36.83	-0.46	534.16	534.16



DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

PLAN (UNIT 1)

TOP OF SLAB ELEVATIONS
UNIT 1 (1 OF 2)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Contract # 66607

ROADWAY & PG

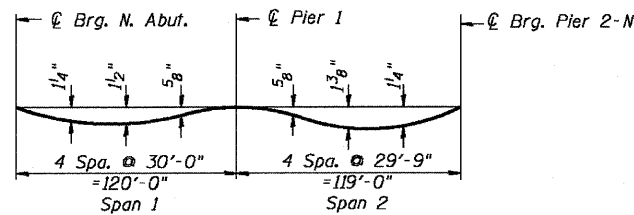
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	0.00	522.09	522.09
☉ Brg. N. Abut.	71+96.83	0.00	522.24	522.24
1A	72+06.83	0.00	522.73	522.77
1B	72+16.83	0.00	523.23	523.30
1C	72+26.83	0.00	523.73	523.82
1D	72+36.83	0.00	524.23	524.34
1E	72+46.83	0.00	524.72	524.84
1F	72+56.83	0.00	525.22	525.33
1G	72+66.83	0.00	525.72	525.81
1H	72+76.83	0.00	526.21	526.29
1I	72+86.83	0.00	526.71	526.76
1J	72+96.83	0.00	527.21	527.23
1K	73+06.83	0.00	527.70	527.71
☉ Pier 1	73+16.83	0.00	528.20	528.20
2A	73+26.83	0.00	528.70	528.70
2B	73+36.83	0.00	529.20	529.22
2C	73+46.83	0.00	529.69	529.74
2D	73+56.83	0.00	530.19	530.26
2E	73+66.83	0.00	530.69	530.78
2F	73+76.83	0.00	531.18	531.29
2G	73+86.83	0.00	531.68	531.79
2H	73+96.83	0.00	532.18	532.28
2I	74+06.83	0.00	532.67	532.76
2J	74+16.83	0.00	533.17	533.24
2K	74+26.83	0.00	533.67	533.70
☉ Brg Pier 2-N	74+35.83	0.00	534.12	534.12
☉ Pier 2	74+36.83	0.00	534.17	534.17

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	6.13	521.99	521.99
☉ Brg. N. Abut.	71+96.83	6.13	522.14	522.14
1A	72+06.83	6.13	522.64	522.68
1B	72+16.83	6.13	523.14	523.21
1C	72+26.83	6.13	523.63	523.73
1D	72+36.83	6.13	524.13	524.24
1E	72+46.83	6.13	524.63	524.74
1F	72+56.83	6.13	525.12	525.23
1G	72+66.83	6.13	525.62	525.72
1H	72+76.83	6.13	526.12	526.19
1I	72+86.83	6.13	526.61	526.66
1J	72+96.83	6.13	527.11	527.14
1K	73+06.83	6.13	527.61	527.62
☉ Pier 1	73+16.83	6.13	528.11	528.11
2A	73+26.83	6.13	528.60	528.61
2B	73+36.83	6.13	529.10	529.12
2C	73+46.83	6.13	529.60	529.64
2D	73+56.83	6.13	530.09	530.16
2E	73+66.83	6.13	530.59	530.68
2F	73+76.83	6.13	531.09	531.19
2G	73+86.83	6.13	531.58	531.69
2H	73+96.83	6.13	532.08	532.19
2I	74+06.83	6.13	532.58	532.67
2J	74+16.83	6.13	533.08	533.14
2K	74+26.83	6.13	533.57	533.61
☉ Brg Pier 2-N	74+35.83	6.13	534.02	534.02
☉ Pier 2	74+36.83	6.13	534.07	534.07

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	12.71	521.89	521.89
☉ Brg. N. Abut.	71+96.83	12.71	522.04	522.04
1A	72+06.83	12.71	522.53	522.57
1B	72+16.83	12.71	523.03	523.10
1C	72+26.83	12.71	523.53	523.62
1D	72+36.83	12.71	524.02	524.14
1E	72+46.83	12.71	524.52	524.64
1F	72+56.83	12.71	525.02	525.13
1G	72+66.83	12.71	525.51	525.61
1H	72+76.83	12.71	526.01	526.08
1I	72+86.83	12.71	526.51	526.56
1J	72+96.83	12.71	527.01	527.03
1K	73+06.83	12.71	527.50	527.51
☉ Pier 1	73+16.83	12.71	528.00	528.00
2A	73+26.83	12.71	528.50	528.50
2B	73+36.83	12.71	529.00	529.02
2C	73+46.83	12.71	529.49	529.54
2D	73+56.83	12.71	529.99	530.06
2E	73+66.83	12.71	530.48	530.57
2F	73+76.83	12.71	530.98	531.09
2G	73+86.83	12.71	531.48	531.59
2H	73+96.83	12.71	531.98	532.08
2I	74+06.83	12.71	532.47	532.56
2J	74+16.83	12.71	532.97	533.03
2K	74+26.83	12.71	533.47	533.50
☉ Brg Pier 2-N	74+35.83	12.71	533.91	533.91
☉ Pier 2	74+36.83	12.71	533.96	533.96



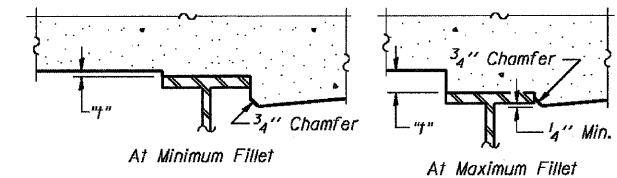
DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete only.)

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 above.

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. N. Abut.	71+93.83	19.29	521.75	521.75
☉ Brg. N. Abut.	71+96.83	19.29	521.90	521.90
1A	72+06.83	19.29	522.39	522.43
1B	72+16.83	19.29	522.89	522.97
1C	72+26.83	19.29	523.39	523.49
1D	72+36.83	19.29	523.89	524.00
1E	72+46.83	19.29	524.38	524.51
1F	72+56.83	19.29	524.88	525.00
1G	72+66.83	19.29	525.38	525.48
1H	72+76.83	19.29	525.87	525.95
1I	72+86.83	19.29	526.37	526.42
1J	72+96.83	19.29	526.87	526.90
1K	73+06.83	19.29	527.37	527.37
☉ Pier 1	73+16.83	19.29	527.86	527.86
2A	73+26.83	19.29	528.36	528.37
2B	73+36.83	19.29	528.86	528.88
2C	73+46.83	19.29	529.35	529.40
2D	73+56.83	19.29	529.85	529.92
2E	73+66.83	19.29	530.35	530.44
2F	73+76.83	19.29	530.84	530.95
2G	73+86.83	19.29	531.34	531.46
2H	73+96.83	19.29	531.84	531.95
2I	74+06.83	19.29	532.34	532.43
2J	74+16.83	19.29	532.83	532.90
2K	74+26.83	19.29	533.33	533.36
☉ Brg Pier 2-N	74+35.83	19.29	533.78	533.78
☉ Pier 2	74+36.83	19.29	533.83	533.83



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

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS
UNIT 1 (2 OF 2)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
786	109 BR	La Salle	351	206
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
89 SHEETS

Contract # 66607

GIRDER 1

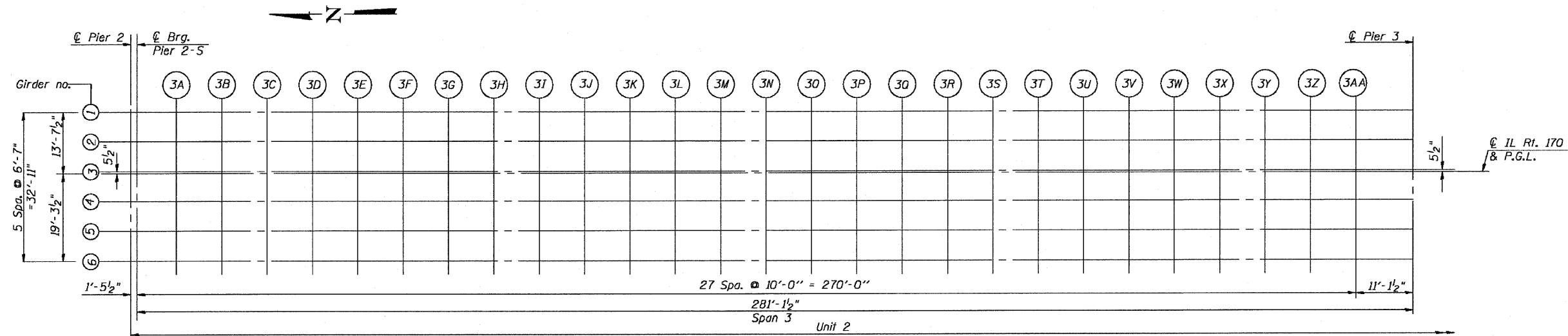
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 2	74+36.83	-13.63	533.94	533.94
⊙ Brg. Pier 2-S	74+38.29	-13.63	534.02	534.02
3A	74+48.29	-13.63	534.51	534.59
3B	74+58.29	-13.63	535.01	535.16
3C	74+68.29	-13.63	535.50	535.72
3D	74+78.29	-13.63	535.97	536.26
3E	74+88.29	-13.63	536.44	536.79
3F	74+98.29	-13.63	536.89	537.29
3G	75+08.29	-13.63	537.34	537.78
3H	75+18.29	-13.63	537.77	538.25
3I	75+28.29	-13.63	538.19	538.70
3J	75+38.29	-13.63	538.60	539.13
3K	75+48.29	-13.63	539.00	539.54
3L	75+58.29	-13.63	539.39	539.93
3M	75+68.29	-13.63	539.76	540.29
3N	75+78.29	-13.63	540.13	540.64
3O	75+88.29	-13.63	540.48	540.97
3P	75+98.29	-13.63	540.83	541.28
3Q	76+08.29	-13.63	541.16	541.58
3R	76+18.29	-13.63	541.48	541.86
3S	76+28.29	-13.63	541.79	542.12
3T	76+38.29	-13.63	542.09	542.37
3U	76+48.29	-13.63	542.38	542.61
3V	76+58.29	-13.63	542.66	542.83
3W	76+68.29	-13.63	542.92	543.06
3X	76+78.29	-13.63	543.18	543.27
3Y	76+88.29	-13.63	543.42	543.48
3Z	76+98.29	-13.63	543.66	543.69
3AA	77+08.29	-13.63	543.88	543.89
⊙ Pier 3	77+19.42	-13.63	544.11	544.11

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 2	74+36.83	-7.04	534.06	534.06
⊙ Brg. Pier 2-S	74+38.29	-7.04	534.13	534.13
3A	74+48.29	-7.04	534.63	534.70
3B	74+58.29	-7.04	535.12	535.26
3C	74+68.29	-7.04	535.61	535.82
3D	74+78.29	-7.04	536.09	536.36
3E	74+88.29	-7.04	536.55	536.88
3F	74+98.29	-7.04	537.00	537.38
3G	75+08.29	-7.04	537.45	537.87
3H	75+18.29	-7.04	537.88	538.34
3I	75+28.29	-7.04	538.30	538.78
3J	75+38.29	-7.04	538.71	539.21
3K	75+48.29	-7.04	539.11	539.62
3L	75+58.29	-7.04	539.50	540.01
3M	75+68.29	-7.04	539.87	540.38
3N	75+78.29	-7.04	540.24	540.73
3O	75+88.29	-7.04	540.59	541.06
3P	75+98.29	-7.04	540.94	541.37
3Q	76+08.29	-7.04	541.27	541.67
3R	76+18.29	-7.04	541.59	541.95
3S	76+28.29	-7.04	541.90	542.21
3T	76+38.29	-7.04	542.20	542.46
3U	76+48.29	-7.04	542.49	542.70
3V	76+58.29	-7.04	542.77	542.94
3W	76+68.29	-7.04	543.04	543.16
3X	76+78.29	-7.04	543.29	543.38
3Y	76+88.29	-7.04	543.53	543.59
3Z	76+98.29	-7.04	543.77	543.80
3AA	77+08.29	-7.04	543.99	544.00
⊙ Pier 3	77+19.42	-7.04	544.22	544.22

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 2	74+36.83	-0.46	534.16	534.16
⊙ Brg. Pier 2-S	74+38.29	-0.46	534.23	534.23
3A	74+48.29	-0.46	534.73	534.80
3B	74+58.29	-0.46	535.22	535.37
3C	74+68.29	-0.46	535.71	535.92
3D	74+78.29	-0.46	536.19	536.46
3E	74+88.29	-0.46	536.65	536.98
3F	74+98.29	-0.46	537.11	537.49
3G	75+08.29	-0.46	537.55	537.97
3H	75+18.29	-0.46	537.98	538.44
3I	75+28.29	-0.46	538.40	538.89
3J	75+38.29	-0.46	538.81	539.31
3K	75+48.29	-0.46	539.21	539.72
3L	75+58.29	-0.46	539.60	540.11
3M	75+68.29	-0.46	539.98	540.48
3N	75+78.29	-0.46	540.34	540.83
3O	75+88.29	-0.46	540.70	541.16
3P	75+98.29	-0.46	541.04	541.47
3Q	76+08.29	-0.46	541.37	541.77
3R	76+18.29	-0.46	541.70	542.05
3S	76+28.29	-0.46	542.01	542.31
3T	76+38.29	-0.46	542.31	542.57
3U	76+48.29	-0.46	542.59	542.81
3V	76+58.29	-0.46	542.87	543.04
3W	76+68.29	-0.46	543.14	543.26
3X	76+78.29	-0.46	543.39	543.48
3Y	76+88.29	-0.46	543.64	543.69
3Z	76+98.29	-0.46	543.87	543.90
3AA	77+08.29	-0.46	544.09	544.10
⊙ Pier 3	77+19.42	-0.46	544.33	544.33



PLAN (UNIT 2)

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 2 (1 OF 6)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
¢ Pier 2	74+36.83	0.00	534.17	534.17
¢ Brg. Pier 2-S	74+38.29	0.00	534.24	534.24
3A	74+48.29	0.00	534.74	534.81
3B	74+58.29	0.00	535.23	535.37
3C	74+68.29	0.00	535.72	535.93
3D	74+78.29	0.00	536.20	536.47
3E	74+88.29	0.00	536.66	536.99
3F	74+98.29	0.00	537.11	537.49
3G	75+08.29	0.00	537.56	537.98
3H	75+18.29	0.00	537.99	538.45
3I	75+28.29	0.00	538.41	538.89
3J	75+38.29	0.00	538.82	539.32
3K	75+48.29	0.00	539.22	539.73
3L	75+58.29	0.00	539.61	540.12
3M	75+68.29	0.00	539.98	540.49
3N	75+78.29	0.00	540.35	540.84
3O	75+88.29	0.00	540.70	541.17
3P	75+98.29	0.00	541.05	541.48
3Q	76+08.29	0.00	541.38	541.78
3R	76+18.29	0.00	541.70	542.06
3S	76+28.29	0.00	542.01	542.32
3T	76+38.29	0.00	542.31	542.57
3U	76+48.29	0.00	542.60	542.81
3V	76+58.29	0.00	542.88	543.05
3W	76+68.29	0.00	543.15	543.27
3X	76+78.29	0.00	543.40	543.49
3Y	76+88.29	0.00	543.64	543.70
3Z	76+98.29	0.00	543.88	543.91
3AA	77+08.29	0.00	544.10	544.11
¢ Pier 3	77+19.42	0.00	544.33	544.33

GIRDER 4

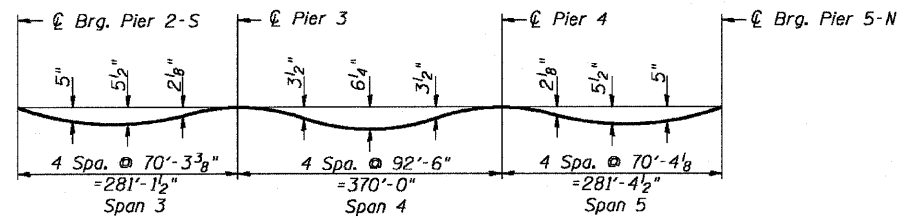
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
¢ Pier 2	74+36.83	6.13	534.07	534.07
¢ Brg. Pier 2-S	74+38.29	6.13	534.14	534.14
3A	74+48.29	6.13	534.64	534.71
3B	74+58.29	6.13	535.14	535.28
3C	74+68.29	6.13	535.62	535.83
3D	74+78.29	6.13	536.10	536.37
3E	74+88.29	6.13	536.56	536.89
3F	74+98.29	6.13	537.02	537.40
3G	75+08.29	6.13	537.46	537.88
3H	75+18.29	6.13	537.89	538.35
3I	75+28.29	6.13	538.31	538.80
3J	75+38.29	6.13	538.72	539.23
3K	75+48.29	6.13	539.12	539.63
3L	75+58.29	6.13	539.51	540.02
3M	75+68.29	6.13	539.89	540.39
3N	75+78.29	6.13	540.25	540.74
3O	75+88.29	6.13	540.61	541.07
3P	75+98.29	6.13	540.95	541.38
3Q	76+08.29	6.13	541.29	541.68
3R	76+18.29	6.13	541.61	541.96
3S	76+28.29	6.13	541.92	542.23
3T	76+38.29	6.13	542.22	542.48
3U	76+48.29	6.13	542.51	542.72
3V	76+58.29	6.13	542.78	542.95
3W	76+68.29	6.13	543.05	543.17
3X	76+78.29	6.13	543.30	543.39
3Y	76+88.29	6.13	543.55	543.61
3Z	76+98.29	6.13	543.78	543.81
3AA	77+08.29	6.13	544.00	544.02
¢ Pier 3	77+19.42	6.13	544.24	544.24

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
¢ Pier 2	74+36.83	12.71	533.96	533.96
¢ Brg. Pier 2-S	74+38.29	12.71	534.04	534.04
3A	74+48.29	12.71	534.53	534.61
3B	74+58.29	12.71	535.03	535.17
3C	74+68.29	12.71	535.52	535.73
3D	74+78.29	12.71	536.01	536.27
3E	74+88.29	12.71	536.46	536.79
3F	74+98.29	12.71	536.91	537.29
3G	75+08.29	12.71	537.36	537.78
3H	75+18.29	12.71	537.79	538.24
3I	75+28.29	12.71	538.21	538.69
3J	75+38.29	12.71	538.62	539.12
3K	75+48.29	12.71	539.02	539.53
3L	75+58.29	12.71	539.41	539.92
3M	75+68.29	12.71	539.78	540.28
3N	75+78.29	12.71	540.15	540.63
3O	75+88.29	12.71	540.50	540.96
3P	75+98.29	12.71	540.85	541.28
3Q	76+08.29	12.71	541.18	541.57
3R	76+18.29	12.71	541.50	541.85
3S	76+28.29	12.71	541.81	542.12
3T	76+38.29	12.71	542.11	542.37
3U	76+48.29	12.71	542.40	542.61
3V	76+58.29	12.71	542.68	542.84
3W	76+68.29	12.71	542.94	543.07
3X	76+78.29	12.71	543.20	543.29
3Y	76+88.29	12.71	543.44	543.50
3Z	76+98.29	12.71	543.68	543.71
3AA	77+08.29	12.71	543.90	543.91
¢ Pier 3	77+19.42	12.71	544.13	544.13

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
¢ Pier 2	74+36.83	19.29	533.83	533.83
¢ Brg. Pier 2-S	74+38.29	19.29	533.90	533.90
3A	74+48.29	19.29	534.40	534.47
3B	74+58.29	19.29	534.89	535.04
3C	74+68.29	19.29	535.38	535.60
3D	74+78.29	19.29	535.86	536.14
3E	74+88.29	19.29	536.32	536.67
3F	74+98.29	19.29	536.78	537.18
3G	75+08.29	19.29	537.22	537.66
3H	75+18.29	19.29	537.65	538.13
3I	75+28.29	19.29	538.07	538.58
3J	75+38.29	19.29	538.48	539.01
3K	75+48.29	19.29	538.88	539.42
3L	75+58.29	19.29	539.27	539.81
3M	75+68.29	19.29	539.64	540.18
3N	75+78.29	19.29	540.01	540.53
3O	75+88.29	19.29	540.37	540.85
3P	75+98.29	19.29	540.71	541.17
3Q	76+08.29	19.29	541.04	541.46
3R	76+18.29	19.29	541.36	541.74
3S	76+28.29	19.29	541.67	542.00
3T	76+38.29	19.29	541.97	542.25
3U	76+48.29	19.29	542.26	542.49
3V	76+58.29	19.29	542.54	542.72
3W	76+68.29	19.29	542.81	542.94
3X	76+78.29	19.29	543.06	543.15
3Y	76+88.29	19.29	543.31	543.37
3Z	76+98.29	19.29	543.54	543.57
3AA	77+08.29	19.29	543.76	543.77
¢ Pier 3	77+19.42	19.29	544.00	544.00



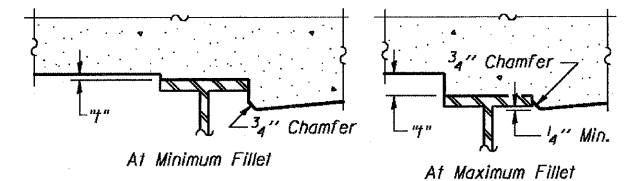
DEAD LOAD DEFLECTION DIAGRAM

(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 above.

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC



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

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS
UNIT 2 (2 OF 6)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Contract # 66607

GIRDER 1

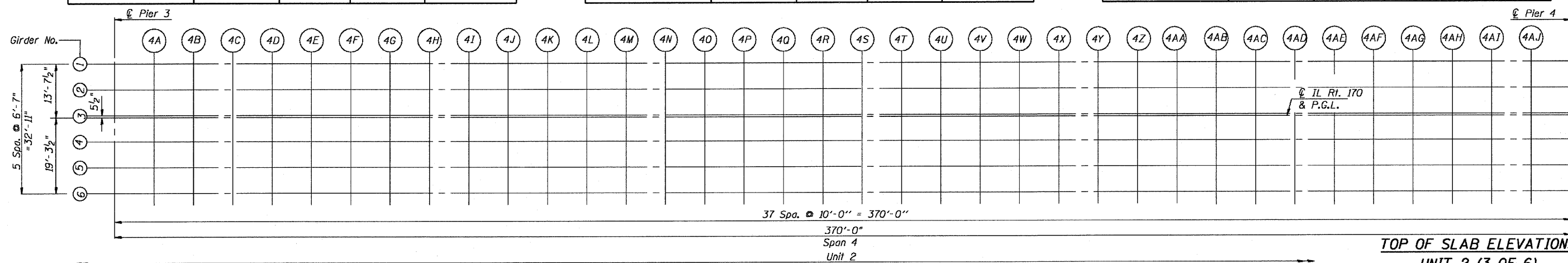
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 3	77+19.42	-13.63	544.11	544.11
4A	77+29.42	-13.63	544.31	544.31
4B	77+39.42	-13.63	544.50	544.51
4C	77+49.42	-13.63	544.68	544.70
4D	77+59.42	-13.63	544.84	544.89
4E	77+69.42	-13.63	545.00	545.08
4F	77+79.42	-13.63	545.14	545.25
4G	77+89.42	-13.63	545.27	545.42
4H	77+99.42	-13.63	545.39	545.58
4I	78+09.42	-13.63	545.51	545.73
4J	78+19.42	-13.63	545.60	545.87
4K	78+29.42	-13.63	545.69	546.00
4L	78+39.42	-13.63	545.77	546.11
4M	78+49.42	-13.63	545.84	546.21
4N	78+59.42	-13.63	545.89	546.29
4O	78+69.42	-13.63	545.94	546.35
4P	78+79.42	-13.63	545.97	546.40
4Q	78+89.42	-13.63	545.99	546.43
4R	78+99.42	-13.63	546.00	546.45
4S	79+09.42	-13.63	546.00	546.45
4T	79+19.42	-13.63	545.99	546.43
4U	79+29.42	-13.63	545.97	546.40
4V	79+39.42	-13.63	545.94	546.35
4W	79+49.42	-13.63	545.89	546.29
4X	79+59.42	-13.63	545.84	546.21
4Y	79+69.42	-13.63	545.77	546.11
4Z	79+79.42	-13.63	545.69	546.00
4AA	79+89.42	-13.63	545.60	545.87
4AB	79+99.42	-13.63	545.51	545.73
4AC	80+09.42	-13.63	545.39	545.58
4AD	80+19.42	-13.63	545.27	545.42
4AE	80+29.42	-13.63	545.14	545.25
4AF	80+39.42	-13.63	545.00	545.08
4AG	80+49.42	-13.63	544.84	544.89
4AH	80+59.42	-13.63	544.68	544.70
4AI	80+69.42	-13.63	544.50	544.51
4AJ	80+79.42	-13.63	544.31	544.31
⊙ Pier 4	80+89.42	-13.63	544.11	544.11

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 3	77+19.42	-7.04	544.22	544.22
4A	77+29.42	-7.04	544.42	544.42
4B	77+39.42	-7.04	544.61	544.62
4C	77+49.42	-7.04	544.79	544.81
4D	77+59.42	-7.04	544.95	545.00
4E	77+69.42	-7.04	545.11	545.18
4F	77+79.42	-7.04	545.25	545.36
4G	77+89.42	-7.04	545.38	545.53
4H	77+99.42	-7.04	545.51	545.68
4I	78+09.42	-7.04	545.62	545.83
4J	78+19.42	-7.04	545.72	545.97
4K	78+29.42	-7.04	545.80	546.09
4L	78+39.42	-7.04	545.88	546.20
4M	78+49.42	-7.04	545.95	546.30
4N	78+59.42	-7.04	546.00	546.38
4O	78+69.42	-7.04	546.05	546.44
4P	78+79.42	-7.04	546.08	546.49
4Q	78+89.42	-7.04	546.10	546.52
4R	78+99.42	-7.04	546.11	546.54
4S	79+09.42	-7.04	546.11	546.54
4T	79+19.42	-7.04	546.10	546.52
4U	79+29.42	-7.04	546.08	546.49
4V	79+39.42	-7.04	546.05	546.44
4W	79+49.42	-7.04	546.00	546.38
4X	79+59.42	-7.04	545.95	546.30
4Y	79+69.42	-7.04	545.88	546.20
4Z	79+79.42	-7.04	545.80	546.09
4AA	79+89.42	-7.04	545.72	545.97
4AB	79+99.42	-7.04	545.62	545.83
4AC	80+09.42	-7.04	545.51	545.68
4AD	80+19.42	-7.04	545.38	545.53
4AE	80+29.42	-7.04	545.25	545.36
4AF	80+39.42	-7.04	545.11	545.18
4AG	80+49.42	-7.04	544.95	545.00
4AH	80+59.42	-7.04	544.79	544.81
4AI	80+69.42	-7.04	544.61	544.62
4AJ	80+79.42	-7.04	544.42	544.42
⊙ Pier 4	80+89.42	-7.04	544.22	544.22

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 3	77+19.42	-0.46	544.33	544.33
4A	77+29.42	-0.46	544.53	544.53
4B	77+39.42	-0.46	544.71	544.72
4C	77+49.42	-0.46	544.89	544.92
4D	77+59.42	-0.46	545.06	545.10
4E	77+69.42	-0.46	545.21	545.29
4F	77+79.42	-0.46	545.35	545.46
4G	77+89.42	-0.46	545.49	545.63
4H	77+99.42	-0.46	545.61	545.79
4I	78+09.42	-0.46	545.72	545.94
4J	78+19.42	-0.46	545.82	546.07
4K	78+29.42	-0.46	545.91	546.20
4L	78+39.42	-0.46	545.98	546.31
4M	78+49.42	-0.46	546.05	546.40
4N	78+59.42	-0.46	546.11	546.48
4O	78+69.42	-0.46	546.15	546.54
4P	78+79.42	-0.46	546.18	546.59
4Q	78+89.42	-0.46	546.21	546.62
4R	78+99.42	-0.46	546.22	546.64
4S	79+09.42	-0.46	546.22	546.64
4T	79+19.42	-0.46	546.21	546.62
4U	79+29.42	-0.46	546.18	546.59
4V	79+39.42	-0.46	546.15	546.54
4W	79+49.42	-0.46	546.11	546.48
4X	79+59.42	-0.46	546.05	546.40
4Y	79+69.42	-0.46	545.98	546.31
4Z	79+79.42	-0.46	545.91	546.20
4AA	79+89.42	-0.46	545.82	546.07
4AB	79+99.42	-0.46	545.72	545.94
4AC	80+09.42	-0.46	545.61	545.79
4AD	80+19.42	-0.46	545.49	545.63
4AE	80+29.42	-0.46	545.35	545.46
4AF	80+39.42	-0.46	545.21	545.28
4AG	80+49.42	-0.46	545.06	545.10
4AH	80+59.42	-0.46	544.89	544.92
4AI	80+69.42	-0.46	544.71	544.72
4AJ	80+79.42	-0.46	544.53	544.53
⊙ Pier 4	80+89.42	-0.46	544.33	544.33



DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 2 (3 OF 6)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Contract # 66607

☉ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 3	77+19.42	0.00	544.33	544.33
4A	77+29.42	0.00	544.53	544.53
4B	77+39.42	0.00	544.72	544.73
4C	77+49.42	0.00	544.90	544.92
4D	77+59.42	0.00	545.06	545.11
4E	77+69.42	0.00	545.22	545.29
4F	77+79.42	0.00	545.36	545.47
4G	77+89.42	0.00	545.49	545.64
4H	77+99.42	0.00	545.62	545.79
4I	78+09.42	0.00	545.73	545.94
4J	78+19.42	0.00	545.83	546.08
4K	78+29.42	0.00	545.91	546.20
4L	78+39.42	0.00	545.99	546.31
4M	78+49.42	0.00	546.06	546.41
4N	78+59.42	0.00	546.11	546.49
4O	78+69.42	0.00	546.16	546.55
4P	78+79.42	0.00	546.19	546.60
4Q	78+89.42	0.00	546.21	546.63
4R	78+99.42	0.00	546.22	546.65
4S	79+09.42	0.00	546.22	546.65
4T	79+19.42	0.00	546.21	546.63
4U	79+29.42	0.00	546.19	546.60
4V	79+39.42	0.00	546.16	546.55
4W	79+49.42	0.00	546.11	546.49
4X	79+59.42	0.00	546.06	546.41
4Y	79+69.42	0.00	545.99	546.31
4Z	79+79.42	0.00	545.91	546.20
4AA	79+89.42	0.00	545.83	546.08
4AB	79+99.42	0.00	545.73	545.94
4AC	80+09.42	0.00	545.62	545.79
4AD	80+19.42	0.00	545.49	545.64
4AE	80+29.42	0.00	545.36	545.47
4AF	80+39.42	0.00	545.22	545.29
4AG	80+49.42	0.00	545.06	545.11
4AH	80+59.42	0.00	544.90	544.92
4AI	80+69.42	0.00	544.72	544.73
4AJ	80+79.42	0.00	544.53	544.53
☉ Pier 4	80+89.42	0.00	544.33	544.33

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 3	77+19.42	6.13	544.24	544.24
4A	77+29.42	6.13	544.44	544.44
4B	77+39.42	6.13	544.63	544.63
4C	77+49.42	6.13	544.80	544.83
4D	77+59.42	6.13	544.97	545.02
4E	77+69.42	6.13	545.12	545.20
4F	77+79.42	6.13	545.27	545.37
4G	77+89.42	6.13	545.40	545.54
4H	77+99.42	6.13	545.52	545.70
4I	78+09.42	6.13	545.63	545.85
4J	78+19.42	6.13	545.73	545.98
4K	78+29.42	6.13	545.82	546.11
4L	78+39.42	6.13	545.90	546.22
4M	78+49.42	6.13	545.96	546.31
4N	78+59.42	6.13	546.02	546.39
4O	78+69.42	6.13	546.06	546.46
4P	78+79.42	6.13	546.09	546.50
4Q	78+89.42	6.13	546.12	546.54
4R	78+99.42	6.13	546.13	546.55
4S	79+09.42	6.13	546.13	546.55
4T	79+19.42	6.13	546.12	546.54
4U	79+29.42	6.13	546.09	546.50
4V	79+39.42	6.13	546.06	546.46
4W	79+49.42	6.13	546.02	546.39
4X	79+59.42	6.13	545.96	546.31
4Y	79+69.42	6.13	545.90	546.22
4Z	79+79.42	6.13	545.82	546.11
4AA	79+89.42	6.13	545.73	545.98
4AB	79+99.42	6.13	545.63	545.85
4AC	80+09.42	6.13	545.52	545.70
4AD	80+19.42	6.13	545.40	545.54
4AE	80+29.42	6.13	545.27	545.37
4AF	80+39.42	6.13	545.12	545.20
4AG	80+49.42	6.13	544.97	545.01
4AH	80+59.42	6.13	544.80	544.83
4AI	80+69.42	6.13	544.63	544.63
4AJ	80+79.42	6.13	544.44	544.44
☉ Pier 4	80+89.42	6.13	544.24	544.24

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 3	77+19.42	12.71	544.13	544.13
4A	77+29.42	12.71	544.33	544.33
4B	77+39.42	12.71	544.52	544.53
4C	77+49.42	12.71	544.70	544.72
4D	77+59.42	12.71	544.86	544.91
4E	77+69.42	12.71	545.02	545.09
4F	77+79.42	12.71	545.16	545.27
4G	77+89.42	12.71	545.29	545.43
4H	77+99.42	12.71	545.41	545.59
4I	78+09.42	12.71	545.52	545.74
4J	78+19.42	12.71	545.62	545.88
4K	78+29.42	12.71	545.71	546.00
4L	78+39.42	12.71	545.79	546.11
4M	78+49.42	12.71	545.86	546.21
4N	78+59.42	12.71	545.91	546.28
4O	78+69.42	12.71	545.96	546.35
4P	78+79.42	12.71	545.99	546.40
4Q	78+89.42	12.71	546.01	546.43
4R	78+99.42	12.71	546.02	546.45
4S	79+09.42	12.71	546.02	546.45
4T	79+19.42	12.71	546.01	546.43
4U	79+29.42	12.71	545.99	546.40
4V	79+39.42	12.71	545.96	546.35
4W	79+49.42	12.71	545.91	546.28
4X	79+59.42	12.71	545.86	546.21
4Y	79+69.42	12.71	545.79	546.11
4Z	79+79.42	12.71	545.71	546.00
4AA	79+89.42	12.71	545.62	545.88
4AB	79+99.42	12.71	545.52	545.74
4AC	80+09.42	12.71	545.41	545.59
4AD	80+19.42	12.71	545.29	545.43
4AE	80+29.42	12.71	545.16	545.27
4AF	80+39.42	12.71	545.02	545.09
4AG	80+49.42	12.71	544.86	544.91
4AH	80+59.42	12.71	544.70	544.72
4AI	80+69.42	12.71	544.52	544.53
4AJ	80+79.42	12.71	544.33	544.33
☉ Pier 4	80+89.42	12.71	544.13	544.13

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 3	77+19.42	19.29	544.00	544.00
4A	77+29.42	19.29	544.19	544.19
4B	77+39.42	19.29	544.38	544.39
4C	77+49.42	19.29	544.56	544.59
4D	77+59.42	19.29	544.72	544.77
4E	77+69.42	19.29	544.88	544.96
4F	77+79.42	19.29	545.02	545.13
4G	77+89.42	19.29	545.16	545.30
4H	77+99.42	19.29	545.28	545.47
4I	78+09.42	19.29	545.39	545.62
4J	78+19.42	19.29	545.49	545.76
4K	78+29.42	19.29	545.57	545.88
4L	78+39.42	19.29	545.65	545.99
4M	78+49.42	19.29	545.72	546.09
4N	78+59.42	19.29	545.77	546.17
4O	78+69.42	19.29	545.82	546.23
4P	78+79.42	19.29	545.85	546.28
4Q	78+89.42	19.29	545.87	546.32
4R	78+99.42	19.29	545.88	546.33

GIRDER 6 (CONT.)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
4S	79+09.42	19.29	545.88	546.33
4T	79+19.42	19.29	545.87	546.32
4U	79+29.42	19.29	545.85	546.28
4V	79+39.42	19.29	545.82	546.23
4W	79+49.42	19.29	545.77	546.17
4X	79+59.42	19.29	545.72	546.09
4Y	79+69.42	19.29	545.65	545.99
4Z	79+79.42	19.29	545.57	545.88
4AA	79+89.42	19.29	545.49	545.76
4AB	79+99.42	19.29	545.39	545.62
4AC	80+09.42	19.29	545.28	545.47
4AD	80+19.42	19.29	545.16	545.30
4AE	80+29.42	19.29	545.02	545.13
4AF	80+39.42	19.29	544.88	544.96
4AG	80+49.42	19.29	544.72	544.77
4AH	80+59.42	19.29	544.56	544.59
4AI	80+69.42	19.29	544.38	544.39
4AJ	80+79.42	19.29	544.19	544.19
☉ Pier 4	80+89.42	19.29	544.00	544.00

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 2 (4 OF 6)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
786	109 BR	La Salle	351	210
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 10
89 SHEETS

Contract # 66607

GIRDER 1

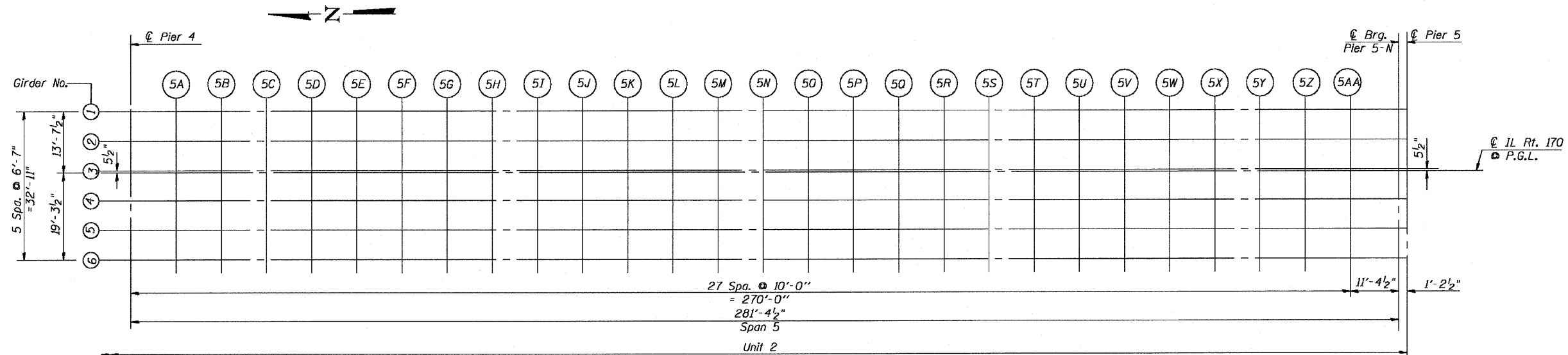
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 4	80+89.42	-13.63	544.11	544.11
5A	80+99.42	-13.63	543.90	543.91
5B	81+09.42	-13.63	543.68	543.71
5C	81+19.42	-13.63	543.45	543.51
5D	81+29.42	-13.63	543.21	543.30
5E	81+39.42	-13.63	542.95	543.08
5F	81+49.42	-13.63	542.69	542.86
5G	81+59.42	-13.63	542.41	542.63
5H	81+69.42	-13.63	542.12	542.40
5I	81+79.42	-13.63	541.83	542.15
5J	81+89.42	-13.63	541.52	541.89
5K	81+99.42	-13.63	541.20	541.61
5L	82+09.42	-13.63	540.87	541.32
5M	82+19.42	-13.63	540.52	541.01
5N	82+29.42	-13.63	540.17	540.68
5O	82+39.42	-13.63	539.80	540.34
5P	82+49.42	-13.63	539.43	539.97
5Q	82+59.42	-13.63	539.04	539.58
5R	82+69.42	-13.63	538.65	539.18
5S	82+79.42	-13.63	538.24	538.75
5T	82+89.42	-13.63	537.82	538.31
5U	82+99.42	-13.63	537.39	537.84
5V	83+09.42	-13.63	536.94	537.35
5W	83+19.42	-13.63	536.49	536.85
5X	83+29.42	-13.63	536.03	536.33
5Y	83+39.42	-13.63	535.55	535.78
5Z	83+49.42	-13.63	535.07	535.23
5AA	83+59.42	-13.63	534.57	534.66
☉ Brg. Pier 5-N	83+70.79	-13.63	534.00	534.00
☉ Pier 5	83+72.00	-13.63	533.94	533.94

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 4	80+89.42	-7.04	544.22	544.22
5A	80+99.42	-7.04	544.01	544.02
5B	81+09.42	-7.04	543.79	543.82
5C	81+19.42	-7.04	543.56	543.62
5D	81+29.42	-7.04	543.32	543.40
5E	81+39.42	-7.04	543.06	543.19
5F	81+49.42	-7.04	542.80	542.96
5G	81+59.42	-7.04	542.52	542.73
5H	81+69.42	-7.04	542.24	542.49
5I	81+79.42	-7.04	541.94	542.24
5J	81+89.42	-7.04	541.63	541.98
5K	81+99.42	-7.04	541.31	541.70
5L	82+09.42	-7.04	540.98	541.41
5M	82+19.42	-7.04	540.63	541.10
5N	82+29.42	-7.04	540.28	540.77
5O	82+39.42	-7.04	539.92	540.42
5P	82+49.42	-7.04	539.54	540.05
5Q	82+59.42	-7.04	539.15	539.67
5R	82+69.42	-7.04	538.76	539.26
5S	82+79.42	-7.04	538.35	538.83
5T	82+89.42	-7.04	537.93	538.39
5U	82+99.42	-7.04	537.50	537.93
5V	83+09.42	-7.04	537.06	537.44
5W	83+19.42	-7.04	536.60	536.94
5X	83+29.42	-7.04	536.14	536.42
5Y	83+39.42	-7.04	535.66	535.88
5Z	83+49.42	-7.04	535.18	535.33
5AA	83+59.42	-7.04	534.68	534.76
☉ Brg. Pier 5-N	83+70.79	-7.04	534.11	534.11
☉ Pier 5	83+72.00	-7.04	534.05	534.05

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 4	80+89.42	-0.46	544.33	544.33
5A	80+99.42	-0.46	544.12	544.13
5B	81+09.42	-0.46	543.90	543.92
5C	81+19.42	-0.46	543.66	543.72
5D	81+29.42	-0.46	543.42	543.51
5E	81+39.42	-0.46	543.17	543.29
5F	81+49.42	-0.46	542.90	543.07
5G	81+59.42	-0.46	542.63	542.83
5H	81+69.42	-0.46	542.34	542.59
5I	81+79.42	-0.46	542.04	542.34
5J	81+89.42	-0.46	541.73	542.08
5K	81+99.42	-0.46	541.41	541.80
5L	82+09.42	-0.46	541.08	541.51
5M	82+19.42	-0.46	540.74	541.20
5N	82+29.42	-0.46	540.38	540.87
5O	82+39.42	-0.46	540.02	540.52
5P	82+49.42	-0.46	539.64	540.16
5Q	82+59.42	-0.46	539.26	539.77
5R	82+69.42	-0.46	538.86	539.36
5S	82+79.42	-0.46	538.45	538.94
5T	82+89.42	-0.46	538.03	538.49
5U	82+99.42	-0.46	537.60	538.03
5V	83+09.42	-0.46	537.16	537.54
5W	83+19.42	-0.46	536.71	537.04
5X	83+29.42	-0.46	536.24	536.52
5Y	83+39.42	-0.46	535.77	535.99
5Z	83+49.42	-0.46	535.28	535.43
5AA	83+59.42	-0.46	534.78	534.87
☉ Brg. Pier 5-N	83+70.79	-0.46	534.22	534.22
☉ Pier 5	83+72.00	-0.46	534.16	534.16



PLAN (UNIT 2)

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 2 (5 OF 6)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EarthTech A tyco International Ltd. Company	F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	786	109 BR	La Salle	351	211
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

Contract # 66607

ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊘ Pier 4	80+89.42	0.00	544.33	544.33
5A	80+99.42	0.00	544.12	544.13
5B	81+09.42	0.00	543.90	543.93
5C	81+19.42	0.00	543.67	543.73
5D	81+29.42	0.00	543.43	543.51
5E	81+39.42	0.00	543.17	543.30
5F	81+49.42	0.00	542.91	543.07
5G	81+59.42	0.00	542.63	542.84
5H	81+69.42	0.00	542.35	542.60
5I	81+79.42	0.00	542.05	542.35
5J	81+89.42	0.00	541.74	542.09
5K	81+99.42	0.00	541.42	541.81
5L	82+09.42	0.00	541.09	541.52
5M	82+19.42	0.00	540.74	541.21
5N	82+29.42	0.00	540.39	540.88
5O	82+39.42	0.00	540.03	540.53
5P	82+49.42	0.00	539.65	540.16
5Q	82+59.42	0.00	539.26	539.78
5R	82+69.42	0.00	538.87	539.37
5S	82+79.42	0.00	538.46	538.94
5T	82+89.42	0.00	538.04	538.50
5U	82+99.42	0.00	537.61	538.04
5V	83+09.42	0.00	537.17	537.55
5W	83+19.42	0.00	536.71	537.05
5X	83+29.42	0.00	536.25	536.53
5Y	83+39.42	0.00	535.77	535.99
5Z	83+49.42	0.00	535.29	535.44
5AA	83+59.42	0.00	534.79	534.87
⊘ Brg. Pier 5-N	83+70.79	0.00	534.22	534.22
⊘ Pier 5	83+72.00	0.00	534.16	534.16

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊘ Pier 4	80+89.42	6.13	544.24	544.33
5A	80+99.42	6.13	544.03	544.13
5B	81+09.42	6.13	543.81	543.93
5C	81+19.42	6.13	543.58	543.73
5D	81+29.42	6.13	543.33	543.51
5E	81+39.42	6.13	543.08	543.30
5F	81+49.42	6.13	542.81	543.07
5G	81+59.42	6.13	542.54	542.84
5H	81+69.42	6.13	542.25	542.60
5I	81+79.42	6.13	541.95	542.35
5J	81+89.42	6.13	541.64	542.09
5K	81+99.42	6.13	541.32	541.81
5L	82+09.42	6.13	540.99	541.52
5M	82+19.42	6.13	540.65	541.21
5N	82+29.42	6.13	540.30	540.88
5O	82+39.42	6.13	539.93	540.53
5P	82+49.42	6.13	539.56	540.16
5Q	82+59.42	6.13	539.17	539.78
5R	82+69.42	6.13	538.77	539.37
5S	82+79.42	6.13	538.36	538.94
5T	82+89.42	6.13	537.94	538.50
5U	82+99.42	6.13	537.51	538.04
5V	83+09.42	6.13	537.07	537.55
5W	83+19.42	6.13	536.62	537.05
5X	83+29.42	6.13	536.15	536.53
5Y	83+39.42	6.13	535.68	535.99
5Z	83+49.42	6.13	535.19	535.44
5AA	83+59.42	6.13	534.70	534.87
⊘ Brg. Pier 5-N	83+70.79	6.13	534.13	534.22
⊘ Pier 5	83+72.00	6.13	534.06	534.16

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊘ Pier 4	80+89.42	12.71	544.13	544.13
5A	80+99.42	12.71	543.92	543.93
5B	81+09.42	12.71	543.70	543.73
5C	81+19.42	12.71	543.47	543.52
5D	81+29.42	12.71	543.23	543.31
5E	81+39.42	12.71	542.97	543.09
5F	81+49.42	12.71	542.71	542.87
5G	81+59.42	12.71	542.43	542.64
5H	81+69.42	12.71	542.14	542.40
5I	81+79.42	12.71	541.85	542.15
5J	81+89.42	12.71	541.54	541.89
5K	81+99.42	12.71	541.22	541.61
5L	82+09.42	12.71	540.88	541.31
5M	82+19.42	12.71	540.54	541.00
5N	82+29.42	12.71	540.19	540.67
5O	82+39.42	12.71	539.82	540.33
5P	82+49.42	12.71	539.45	539.96
5Q	82+59.42	12.71	539.06	539.57
5R	82+69.42	12.71	538.66	539.17
5S	82+79.42	12.71	538.26	538.74
5T	82+89.42	12.71	537.84	538.30
5U	82+99.42	12.71	537.40	537.83
5V	83+09.42	12.71	536.96	537.35
5W	83+19.42	12.71	536.51	536.85
5X	83+29.42	12.71	536.05	536.33
5Y	83+39.42	12.71	535.57	535.79
5Z	83+49.42	12.71	535.08	535.24
5AA	83+59.42	12.71	534.59	534.67
⊘ Brg. Pier 5-N	83+70.79	12.71	534.02	534.02
⊘ Pier 5	83+72.00	12.71	533.95	533.95

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊘ Pier 4	80+89.42	19.29	544.00	544.00
5A	80+99.42	19.29	543.79	543.80
5B	81+09.42	19.29	543.56	543.59
5C	81+19.42	19.29	543.33	543.39
5D	81+29.42	19.29	543.09	543.18
5E	81+39.42	19.29	542.84	542.96
5F	81+49.42	19.29	542.57	542.74
5G	81+59.42	19.29	542.29	542.51
5H	81+69.42	19.29	542.01	542.28
5I	81+79.42	19.29	541.71	542.03
5J	81+89.42	19.29	541.40	541.77
5K	81+99.42	19.29	541.08	541.49
5L	82+09.42	19.29	540.75	541.20
5M	82+19.42	19.29	540.40	540.89
5N	82+29.42	19.29	540.05	540.57
5O	82+39.42	19.29	539.69	540.22
5P	82+49.42	19.29	539.31	539.85
5Q	82+59.42	19.29	538.92	539.47
5R	82+69.42	19.29	538.53	539.06
5S	82+79.42	19.29	538.12	538.63
5T	82+89.42	19.29	537.70	538.19
5U	82+99.42	19.29	537.27	537.72
5V	83+09.42	19.29	536.83	537.23
5W	83+19.42	19.29	536.37	536.73
5X	83+29.42	19.29	535.91	536.21
5Y	83+39.42	19.29	535.43	535.67
5Z	83+49.42	19.29	534.95	535.11
5AA	83+59.42	19.29	534.45	534.54
⊘ Brg. Pier 5-N	83+70.79	19.29	533.89	533.89
⊘ Pier 5	83+72.00	19.29	533.83	533.83

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

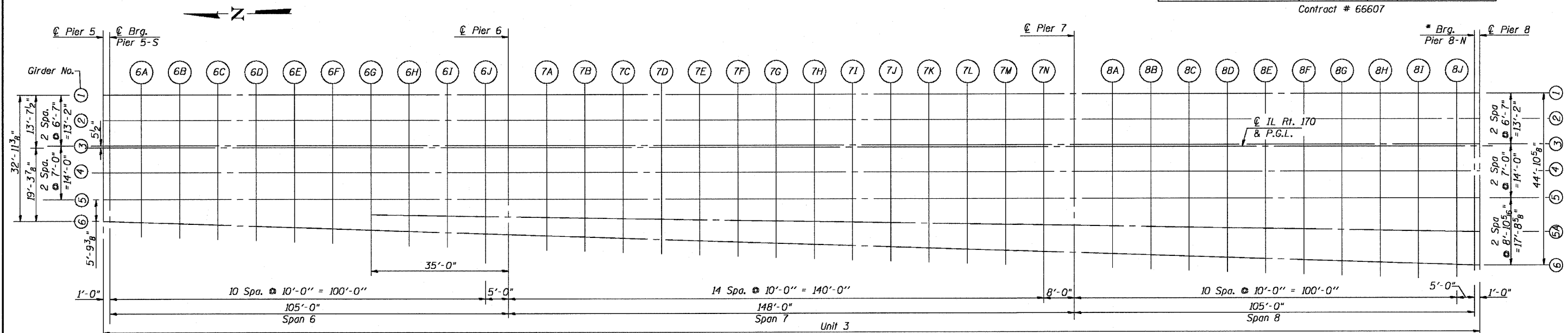
TOP OF SLAB ELEVATIONS
UNIT 2 (6 OF 6)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	LENG	SHEET	SHEET NO. 12
786	109 BR	La Salle	351	212	89 SHEETS
FED. ROAD DIST. NO. 7	BRIDGES	FED. AID PROJECT			

Contract # 66607



GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 5	83+72.00	-13.63	533.94	533.94
☉ Brg. Pier 5-S	83+73.00	-13.63	533.89	533.89
6A	83+83.00	-13.63	533.40	533.41
6B	83+93.00	-13.63	532.90	532.93
6C	84+03.00	-13.63	532.40	532.44
6D	84+13.00	-13.63	531.90	531.95
6E	84+23.00	-13.63	531.40	531.45
6F	84+33.00	-13.63	530.91	530.94
6G	84+43.00	-13.63	530.41	530.43
6H	84+53.00	-13.63	529.92	529.93
6I	84+63.00	-13.63	529.44	529.44
6J	84+73.00	-13.63	528.97	528.96
☉ Pier 6	84+78.00	-13.63	528.73	528.73
7A	84+88.00	-13.63	528.28	528.29
7B	84+98.00	-13.63	527.83	527.87
7C	85+08.00	-13.63	527.39	527.46
7D	85+18.00	-13.63	526.96	527.06
7E	85+28.00	-13.63	526.54	526.66
7F	85+38.00	-13.63	526.13	526.27
7G	85+48.00	-13.63	525.73	525.88
7H	85+58.00	-13.63	525.33	525.48
7I	85+68.00	-13.63	524.95	525.09
7J	85+78.00	-13.63	524.58	524.69
7K	85+88.00	-13.63	524.21	524.30
7L	85+98.00	-13.63	523.86	523.92
7M	86+08.00	-13.63	523.51	523.54
7N	86+18.00	-13.63	523.17	523.18
☉ Pier 7	86+26.00	-13.63	522.91	522.91
8A	86+36.00	-13.63	522.59	522.59
8B	86+46.00	-13.63	522.28	522.29
8C	86+56.00	-13.63	521.98	522.00
8D	86+66.00	-13.63	521.69	521.72
8E	86+76.00	-13.63	521.40	521.45
8F	86+86.00	-13.63	521.13	521.18
8G	86+96.00	-13.63	520.86	520.92
8H	87+06.00	-13.63	520.61	520.66
8I	87+16.00	-13.63	520.36	520.39
8J	87+26.00	-13.63	520.13	520.14
☉ Brg. Pier 8-N	87+31.00	-13.63	520.01	520.01
☉ Pier 8	87+32.00	-13.63	519.99	519.99

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 5	83+72.00	-7.04	534.05	534.05
☉ Brg. Pier 5-S	83+73.00	-7.04	534.00	534.00
6A	83+83.00	-7.04	533.51	533.53
6B	83+93.00	-7.04	533.01	533.04
6C	84+03.00	-7.04	532.51	532.55
6D	84+13.00	-7.04	532.01	532.06
6E	84+23.00	-7.04	531.52	531.56
6F	84+33.00	-7.04	531.02	531.05
6G	84+43.00	-7.04	530.52	530.54
6H	84+53.00	-7.04	530.03	530.04
6I	84+63.00	-7.04	529.55	529.55
6J	84+73.00	-7.04	529.08	529.07
☉ Pier 6	84+78.00	-7.04	528.85	528.85
7A	84+88.00	-7.04	528.39	528.40
7B	84+98.00	-7.04	527.94	527.98
7C	85+08.00	-7.04	527.50	527.57
7D	85+18.00	-7.04	527.07	527.17
7E	85+28.00	-7.04	526.65	526.78
7F	85+38.00	-7.04	526.24	526.38
7G	85+48.00	-7.04	525.84	525.99
7H	85+58.00	-7.04	525.45	525.60
7I	85+68.00	-7.04	525.06	525.20
7J	85+78.00	-7.04	524.69	524.81
7K	85+88.00	-7.04	524.32	524.41
7L	85+98.00	-7.04	523.97	524.03
7M	86+08.00	-7.04	523.62	523.65
7N	86+18.00	-7.04	523.28	523.29
☉ Pier 7	86+26.00	-7.04	523.02	523.02
8A	86+36.00	-7.04	522.70	522.70
8B	86+46.00	-7.04	522.39	522.40
8C	86+56.00	-7.04	522.09	522.11
8D	86+66.00	-7.04	521.80	521.83
8E	86+76.00	-7.04	521.51	521.56
8F	86+86.00	-7.04	521.24	521.30
8G	86+96.00	-7.04	520.98	521.03
8H	87+06.00	-7.04	520.72	520.77
8I	87+16.00	-7.04	520.47	520.51
8J	87+26.00	-7.04	520.24	520.25
☉ Brg. Pier 8-N	87+31.00	-7.04	520.12	520.12
☉ Pier 8	87+32.00	-7.04	520.10	520.10

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 3 (1 OF 3)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER 3

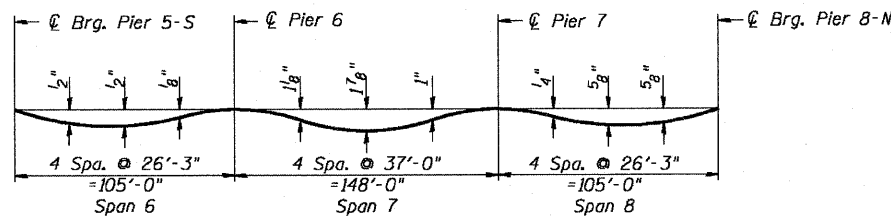
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 5	83+72.00	-0.46	534.16	534.16
☉ Brg. Pier 5-S	83+73.00	-0.46	534.11	534.11
6A	83+83.00	-0.46	533.61	533.63
6B	83+93.00	-0.46	533.11	533.15
6C	84+03.00	-0.46	532.61	532.66
6D	84+13.00	-0.46	532.12	532.16
6E	84+23.00	-0.46	531.62	531.66
6F	84+33.00	-0.46	531.12	531.15
6G	84+43.00	-0.46	530.62	530.64
6H	84+53.00	-0.46	530.13	530.14
6I	84+63.00	-0.46	529.65	529.65
6J	84+73.00	-0.46	529.18	529.18
☉ Pier 6	84+78.00	-0.46	528.95	528.95
7A	84+88.00	-0.46	528.49	528.51
7B	84+98.00	-0.46	528.04	528.08
7C	85+08.00	-0.46	527.60	527.67
7D	85+18.00	-0.46	527.17	527.27
7E	85+28.00	-0.46	526.75	526.88
7F	85+38.00	-0.46	526.34	526.49
7G	85+48.00	-0.46	525.94	526.09
7H	85+58.00	-0.46	525.55	525.70
7I	85+68.00	-0.46	525.16	525.30
7J	85+78.00	-0.46	524.79	524.91
7K	85+88.00	-0.46	524.43	524.52
7L	85+98.00	-0.46	524.07	524.13
7M	86+08.00	-0.46	523.72	523.76
7N	86+18.00	-0.46	523.39	523.40
☉ Pier 7	86+26.00	-0.46	523.12	523.12
8A	86+36.00	-0.46	522.80	522.80
8B	86+46.00	-0.46	522.49	522.50
8C	86+56.00	-0.46	522.19	522.21
8D	86+66.00	-0.46	521.90	521.94
8E	86+76.00	-0.46	521.62	521.67
8F	86+86.00	-0.46	521.34	521.40
8G	86+96.00	-0.46	521.08	521.13
8H	87+06.00	-0.46	520.82	520.87
8I	87+16.00	-0.46	520.58	520.61
8J	87+26.00	-0.46	520.34	520.35
☉ Brg. Pier 8-N	87+31.00	-0.46	520.23	520.23
☉ Pier 8	87+32.00	-0.46	520.20	520.20

☉ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 5	83+72.00	0.00	534.16	534.16
☉ Brg. Pier 5-S	83+73.00	0.00	534.11	534.11
6A	83+83.00	0.00	533.62	533.64
6B	83+93.00	0.00	533.12	533.15
6C	84+03.00	0.00	532.62	532.66
6D	84+13.00	0.00	532.12	532.17
6E	84+23.00	0.00	531.63	531.67
6F	84+33.00	0.00	531.13	531.16
6G	84+43.00	0.00	530.63	530.65
6H	84+53.00	0.00	530.14	530.15
6I	84+63.00	0.00	529.66	529.66
6J	84+73.00	0.00	529.19	529.18
☉ Pier 6	84+78.00	0.00	528.96	528.96
7A	84+88.00	0.00	528.50	528.51
7B	84+98.00	0.00	528.05	528.09
7C	85+08.00	0.00	527.61	527.68
7D	85+18.00	0.00	527.18	527.28
7E	85+28.00	0.00	526.76	526.89
7F	85+38.00	0.00	526.35	526.49
7G	85+48.00	0.00	525.95	526.10
7H	85+58.00	0.00	525.56	525.71
7I	85+68.00	0.00	525.17	525.31
7J	85+78.00	0.00	524.80	524.92
7K	85+88.00	0.00	524.43	524.52
7L	85+98.00	0.00	524.08	524.14
7M	86+08.00	0.00	523.73	523.76
7N	86+18.00	0.00	523.39	523.40
☉ Pier 7	86+26.00	0.00	523.13	523.13
8A	86+36.00	0.00	522.81	522.81
8B	86+46.00	0.00	522.50	522.51
8C	86+56.00	0.00	522.20	522.22
8D	86+66.00	0.00	521.91	521.94
8E	86+76.00	0.00	521.62	521.67
8F	86+86.00	0.00	521.35	521.41
8G	86+96.00	0.00	521.09	521.14
8H	87+06.00	0.00	520.83	520.88
8I	87+16.00	0.00	520.58	520.62
8J	87+26.00	0.00	520.35	520.36
☉ Brg. Pier 8-N	87+31.00	0.00	520.23	520.23
☉ Pier 8	87+32.00	0.00	520.21	520.21

GIRDER 4

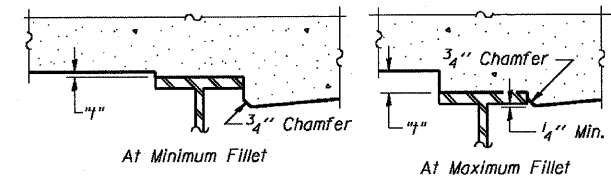
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 5	83+72.00	6.54	534.06	534.06
☉ Brg. Pier 5-S	83+73.00	6.54	534.01	534.01
6A	83+83.00	6.54	533.51	533.53
6B	83+93.00	6.54	533.02	533.05
6C	84+03.00	6.54	532.52	532.56
6D	84+13.00	6.54	532.02	532.07
6E	84+23.00	6.54	531.52	531.56
6F	84+33.00	6.54	531.03	531.06
6G	84+43.00	6.54	530.53	530.55
6H	84+53.00	6.54	530.04	530.04
6I	84+63.00	6.54	529.56	529.56
6J	84+73.00	6.54	529.09	529.08
☉ Pier 6	84+78.00	6.54	528.85	528.85
7A	84+88.00	6.54	528.40	528.41
7B	84+98.00	6.54	527.95	527.99
7C	85+08.00	6.54	527.51	527.58
7D	85+18.00	6.54	527.08	527.18
7E	85+28.00	6.54	526.66	526.78
7F	85+38.00	6.54	526.25	526.39
7G	85+48.00	6.54	525.85	526.00
7H	85+58.00	6.54	525.45	525.60
7I	85+68.00	6.54	525.07	525.21
7J	85+78.00	6.54	524.70	524.81
7K	85+88.00	6.54	524.33	524.42
7L	85+98.00	6.54	523.98	524.04
7M	86+08.00	6.54	523.63	523.66
7N	86+18.00	6.54	523.29	523.30
☉ Pier 7	86+26.00	6.54	523.03	523.03
8A	86+36.00	6.54	522.71	522.71
8B	86+46.00	6.54	522.40	522.41
8C	86+56.00	6.54	522.10	522.12
8D	86+66.00	6.54	521.80	521.84
8E	86+76.00	6.54	521.52	521.57
8F	86+86.00	6.54	521.25	521.31
8G	86+96.00	6.54	520.98	521.04
8H	87+06.00	6.54	520.73	520.78
8I	87+16.00	6.54	520.48	520.51
8J	87+26.00	6.54	520.24	520.26
☉ Brg. Pier 8-N	87+31.00	6.54	520.13	520.13
☉ Pier 8	87+32.00	6.54	520.12	520.12



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 above.

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC



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

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS
UNIT 3 (2 OF 3)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	214
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 14
89 SHEETS

Contract # 66607

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 5	83+72.00	13.54	533.95	533.95
⊙ Brg. Pier 5-S	83+73.00	13.54	533.90	533.90
6A	83+83.00	13.54	533.40	533.42
6B	83+93.00	13.54	532.90	532.93
6C	84+03.00	13.54	532.40	532.44
6D	84+13.00	13.54	531.90	531.95
6E	84+23.00	13.54	531.41	531.45
6F	84+33.00	13.54	530.91	530.94
6G	84+43.00	13.54	530.41	530.43
6H	84+53.00	13.54	529.92	529.93
6I	84+63.00	13.54	529.44	529.44
6J	84+73.00	13.54	528.97	528.96
⊙ Pier 6	84+78.00	13.54	528.74	528.74
7A	84+88.00	13.54	528.28	528.29
7B	84+98.00	13.54	527.83	527.87
7C	85+08.00	13.54	527.39	527.46
7D	85+18.00	13.54	526.96	527.06
7E	85+28.00	13.54	526.54	526.67
7F	85+38.00	13.54	526.13	526.27
7G	85+48.00	13.54	525.73	525.88
7H	85+58.00	13.54	525.34	525.49
7I	85+68.00	13.54	524.95	525.09
7J	85+78.00	13.54	524.58	524.70
7K	85+88.00	13.54	524.21	524.30
7L	85+98.00	13.54	523.86	523.92
7M	86+08.00	13.54	523.51	523.54
7N	86+18.00	13.54	523.17	523.19
⊙ Pier 7	86+26.00	13.54	522.91	522.91
8A	86+36.00	13.54	522.59	522.59
8B	86+46.00	13.54	522.28	522.29
8C	86+56.00	13.54	521.98	522.00
8D	86+66.00	13.54	521.69	521.73
8E	86+76.00	13.54	521.40	521.46
8F	86+86.00	13.54	521.13	521.19
8G	86+96.00	13.54	520.87	520.92
8H	87+06.00	13.54	520.61	520.66
8I	87+16.00	13.54	520.36	520.40
8J	87+26.00	13.54	520.13	520.14
⊙ Brg. Pier 8-N	87+31.00	13.54	520.01	520.01
⊙ Pier 8	87+32.00	13.54	519.99	519.99

GIRDER 5A

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 5	-	-	-	-
⊙ Brg. Pier 5-S	-	-	-	-
6A	-	-	-	-
6B	-	-	-	-
6C	-	-	-	-
6D	-	-	-	-
6E	-	-	-	-
6F	-	-	-	-
6G	84+43.00	17.60	530.33	530.34
6H	84+53.00	17.77	529.83	529.84
6I	84+63.00	17.93	529.35	529.35
6J	84+73.00	18.10	528.87	528.87
⊙ Pier 6	84+78.00	18.18	528.64	528.64
7A	84+88.00	18.35	528.18	528.19
7B	84+98.00	18.52	527.73	527.77
7C	85+08.00	18.68	527.28	527.35
7D	85+18.00	18.85	526.85	526.95
7E	85+28.00	19.02	526.43	526.55
7F	85+38.00	19.18	526.01	526.15
7G	85+48.00	19.35	525.61	525.76
7H	85+58.00	19.52	525.21	525.36
7I	85+68.00	19.68	524.82	524.96
7J	85+78.00	19.85	524.45	524.56
7K	85+88.00	20.02	524.08	524.17
7L	85+98.00	20.18	523.72	523.78
7M	86+08.00	20.35	523.37	523.40
7N	86+18.00	20.52	523.03	523.04
⊙ Pier 7	86+26.00	20.65	522.76	522.76
8A	86+36.00	20.82	522.44	522.44
8B	86+46.00	20.98	522.13	522.13
8C	86+56.00	21.15	521.82	521.84
8D	86+66.00	21.32	521.52	521.56
8E	86+76.00	21.48	521.24	521.29
8F	86+86.00	21.65	520.96	521.02
8G	86+96.00	21.82	520.69	520.75
8H	87+06.00	21.98	520.43	520.48
8I	87+16.00	22.15	520.18	520.22
8J	87+26.00	22.32	519.94	519.96
⊙ Brg. Pier 8-N	87+31.00	22.40	519.83	519.83
⊙ Pier 8	87+32.00	22.42	519.81	519.81

GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 5	83+72.00	19.29	533.83	533.83
⊙ Brg. Pier 5-S	83+73.00	19.33	533.77	533.77
6A	83+83.00	19.66	533.27	533.29
6B	83+93.00	19.99	532.77	532.80
6C	84+03.00	20.33	532.26	532.30
6D	84+13.00	20.66	531.76	531.80
6E	84+23.00	20.99	531.25	531.29
6F	84+33.00	21.33	530.75	530.78
6G	84+43.00	21.66	530.24	530.26
6H	84+53.00	21.99	529.74	529.75
6I	84+63.00	22.33	529.26	529.25
6J	84+73.00	22.66	528.78	528.77
⊙ Pier 6	84+78.00	22.83	528.54	528.54
7A	84+88.00	23.16	528.08	528.09
7B	84+98.00	23.49	527.62	527.66
7C	85+08.00	23.83	527.18	527.25
7D	85+18.00	24.16	526.74	526.84
7E	85+28.00	24.49	526.31	526.44
7F	85+38.00	24.83	525.90	526.04
7G	85+48.00	25.16	525.49	525.64
7H	85+58.00	25.49	525.09	525.24
7I	85+68.00	25.83	524.70	524.83
7J	85+78.00	26.16	524.32	524.43
7K	85+88.00	26.49	523.94	524.03
7L	85+98.00	26.83	523.58	523.64
7M	86+08.00	27.16	523.23	523.26
7N	86+18.00	27.49	522.88	522.89
⊙ Pier 7	86+26.00	27.76	522.62	522.62
8A	86+36.00	28.09	522.29	522.29
8B	86+46.00	28.43	521.97	521.98
8C	86+56.00	28.76	521.66	521.69
8D	86+66.00	29.09	521.36	521.40
8E	86+76.00	29.43	521.07	521.13
8F	86+86.00	29.76	520.79	520.85
8G	86+96.00	30.09	520.52	520.58
8H	87+06.00	30.43	520.26	520.31
8I	87+16.00	30.76	520.01	520.04
8J	87+26.00	31.09	519.76	519.77
⊙ Brg. Pier 8-N	87+31.00	31.26	519.64	519.64
⊙ Pier 8	87+32.00	31.29	519.62	519.62

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 3 (3 OF 3)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EarthTech A tyco International Ltd. Company	F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	786	109 BR	La Salle	351	215
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract # 66607

BEAM 1

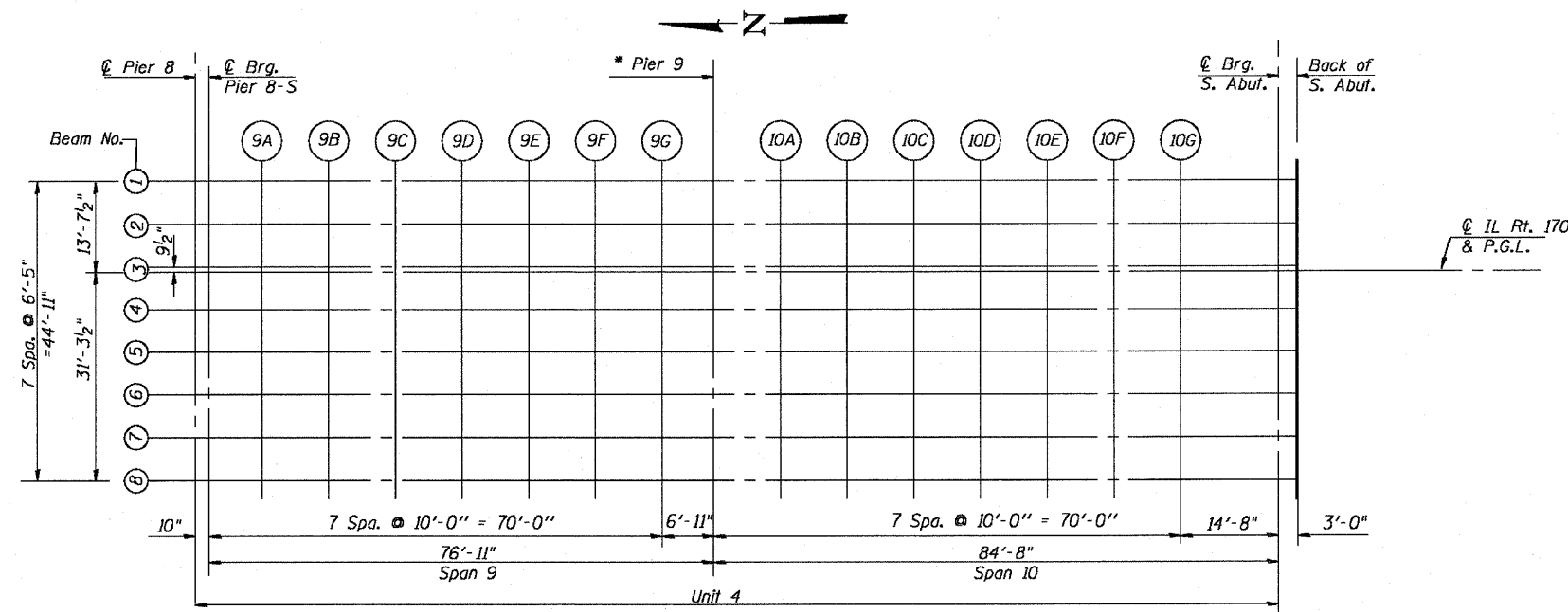
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 8	87+32.00	-13.63	519.99	519.99
☉ Brg. Pier 8-S	87+32.84	-13.63	519.97	519.97
9A	87+42.84	-13.63	519.75	519.79
9B	87+52.84	-13.63	519.54	519.61
9C	87+62.84	-13.63	519.33	519.42
9D	87+72.84	-13.63	519.13	519.21
9E	87+82.84	-13.63	518.93	518.99
9F	87+92.84	-13.63	518.73	518.76
9G	88+02.84	-13.63	518.53	518.54
☉ Pier 9	88+09.75	-13.63	518.40	518.40
10A	88+19.75	-13.63	518.20	518.23
10B	88+29.75	-13.63	518.00	518.07
10C	88+39.75	-13.63	517.80	517.92
10D	88+49.75	-13.63	517.60	517.75
10E	88+59.75	-13.63	517.40	517.56
10F	88+69.75	-13.63	517.20	517.34
10G	88+79.75	-13.63	517.00	517.10
☉ Brg. S. Abut.	88+94.42	-13.63	516.70	516.70
Bk. S. Abut.	88+97.42	-13.63	516.64	516.64

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 8	87+32.00	-7.21	520.10	520.10
☉ Brg. Pier 8-S	87+32.84	-7.21	520.08	520.08
9A	87+42.84	-7.21	519.86	519.90
9B	87+52.84	-7.21	519.64	519.71
9C	87+62.84	-7.21	519.44	519.52
9D	87+72.84	-7.21	519.24	519.32
9E	87+82.84	-7.21	519.04	519.09
9F	87+92.84	-7.21	518.84	518.87
9G	88+02.84	-7.21	518.64	518.64
☉ Pier 9	88+09.75	-7.21	518.50	518.50
10A	88+19.75	-7.21	518.31	518.33
10B	88+29.75	-7.21	518.11	518.18
10C	88+39.75	-7.21	517.91	518.02
10D	88+49.75	-7.21	517.71	517.85
10E	88+59.75	-7.21	517.51	517.66
10F	88+69.75	-7.21	517.31	517.44
10G	88+79.75	-7.21	517.11	517.20
☉ Brg. S. Abut.	88+94.42	-7.21	516.81	516.81
Bk. S. Abut.	88+97.42	-7.21	516.75	516.75

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 8	87+32.00	-0.79	520.20	520.20
☉ Brg. Pier 8-S	87+32.84	-0.79	520.18	520.18
9A	87+42.84	-0.79	519.96	520.00
9B	87+52.84	-0.79	519.75	519.82
9C	87+62.84	-0.79	519.54	519.62
9D	87+72.84	-0.79	519.34	519.42
9E	87+82.84	-0.79	519.14	519.19
9F	87+92.84	-0.79	518.94	518.97
9G	88+02.84	-0.79	518.74	518.74
☉ Pier 9	88+09.75	-0.79	518.61	518.61
10A	88+19.75	-0.79	518.41	518.43
10B	88+29.75	-0.79	518.21	518.28
10C	88+39.75	-0.79	518.01	518.12
10D	88+49.75	-0.79	517.81	517.95
10E	88+59.75	-0.79	517.61	517.76
10F	88+69.75	-0.79	517.41	517.54
10G	88+79.75	-0.79	517.21	517.30
☉ Brg. S. Abut.	88+94.42	-0.79	516.91	516.91
Bk. S. Abut.	88+97.42	-0.79	516.85	516.85



PLAN (UNIT 4)

☉ ROADWAY & PG

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
☉ Pier 8	87+32.00	0.00	520.21	520.21
☉ Brg. Pier 8-S	87+32.84	0.00	520.19	520.19
9A	87+42.84	0.00	519.97	520.01
9B	87+52.84	0.00	519.76	519.83
9C	87+62.84	0.00	519.55	519.64
9D	87+72.84	0.00	519.36	519.43
9E	87+82.84	0.00	519.16	519.21
9F	87+92.84	0.00	518.96	518.98
9G	88+02.84	0.00	518.76	518.76
☉ Pier 9	88+09.75	0.00	518.62	518.62
10A	88+19.75	0.00	518.42	518.45
10B	88+29.75	0.00	518.22	518.29
10C	88+39.75	0.00	518.02	518.14
10D	88+49.75	0.00	517.82	517.97
10E	88+59.75	0.00	517.62	517.77
10F	88+69.75	0.00	517.42	517.56
10G	88+79.75	0.00	517.22	517.31
☉ Brg. S. Abut.	88+94.42	0.00	516.93	516.93
Bk. S. Abut.	88+97.42	0.00	516.87	516.87

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

TOP OF SLAB ELEVATIONS
UNIT 4 (1 OF 2)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EarthTech
A tyco International Ltd. Company

F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	216
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 16
89 SHEETS

Contract # 66607

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 8	87+32.00	5.63	520.12	520.12
⊙ Brg. Pier 8-S	87+32.84	5.63	520.10	520.10
9A	87+42.84	5.63	519.88	519.92
9B	87+52.84	5.63	519.67	519.74
9C	87+62.84	5.63	519.47	519.55
9D	87+72.84	5.63	519.27	519.34
9E	87+82.84	5.63	519.07	519.12
9F	87+92.84	5.63	518.87	518.89
9G	88+02.84	5.63	518.67	518.67
⊙ Pier 9	88+09.75	5.63	518.53	518.53
10A	88+19.75	5.63	518.33	518.36
10B	88+29.75	5.63	518.13	518.20
10C	88+39.75	5.63	517.93	518.05
10D	88+49.75	5.63	517.73	517.88
10E	88+59.75	5.63	517.53	517.69
10F	88+69.75	5.63	517.33	517.47
10G	88+79.75	5.63	517.13	517.23
⊙ Brg. S. Abut.	88+94.42	5.63	516.84	516.84
Bk. S. Abut.	88+97.42	5.63	516.78	516.78

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 8	87+32.00	12.04	520.02	520.02
⊙ Brg. Pier 8-S	87+32.84	12.04	520.00	520.00
9A	87+42.84	12.04	519.78	519.82
9B	87+52.84	12.04	519.57	519.64
9C	87+62.84	12.04	519.37	519.45
9D	87+72.84	12.04	519.17	519.24
9E	87+82.84	12.04	518.97	519.02
9F	87+92.84	12.04	518.77	518.79
9G	88+02.84	12.04	518.57	518.57
⊙ Pier 9	88+09.75	12.04	518.43	518.43
10A	88+19.75	12.04	518.23	518.26
10B	88+29.75	12.04	518.03	518.10
10C	88+39.75	12.04	517.83	517.95
10D	88+49.75	12.04	517.63	517.78
10E	88+59.75	12.04	517.43	517.59
10F	88+69.75	12.04	517.23	517.37
10G	88+79.75	12.04	517.03	517.12
⊙ Brg. S. Abut.	88+94.42	12.04	516.74	516.74
Bk. S. Abut.	88+97.42	12.04	516.68	516.68

BEAM 6

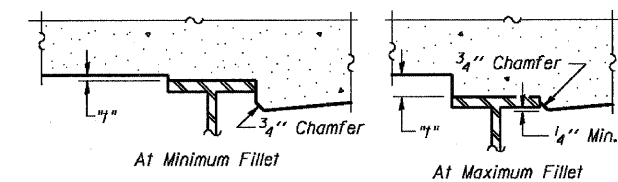
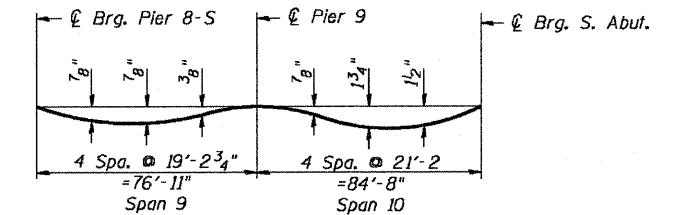
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 8	87+32.00	18.46	519.89	519.89
⊙ Brg. Pier 8-S	87+32.84	18.46	519.87	519.87
9A	87+42.84	18.46	519.65	519.69
9B	87+52.84	18.46	519.44	519.51
9C	87+62.84	18.46	519.23	519.31
9D	87+72.84	18.46	519.03	519.11
9E	87+82.84	18.46	518.83	518.89
9F	87+92.84	18.46	518.63	518.66
9G	88+02.84	18.46	518.43	518.43
⊙ Pier 9	88+09.75	18.46	518.30	518.30
10A	88+19.75	18.46	518.10	518.12
10B	88+29.75	18.46	517.90	517.97
10C	88+39.75	18.46	517.70	517.81
10D	88+49.75	18.46	517.50	517.64
10E	88+59.75	18.46	517.30	517.45
10F	88+69.75	18.46	517.10	517.23
10G	88+79.75	18.46	516.90	516.99
⊙ Brg. S. Abut.	88+94.42	18.46	516.60	516.60
Bk. S. Abut.	88+97.42	18.46	516.54	516.54

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 8	87+32.00	24.88	519.75	519.75
⊙ Brg. Pier 8-S	87+32.84	24.88	519.73	519.73
9A	87+42.84	24.88	519.51	519.55
9B	87+52.84	24.88	519.30	519.37
9C	87+62.84	24.88	519.10	519.18
9D	87+72.84	24.88	518.90	518.97
9E	87+82.84	24.88	518.70	518.75
9F	87+92.84	24.88	518.50	518.52
9G	88+02.84	24.88	518.30	518.30
⊙ Pier 9	88+09.75	24.88	518.16	518.16
10A	88+19.75	24.88	517.96	517.99
10B	88+29.75	24.88	517.76	517.83
10C	88+39.75	24.88	517.56	517.68
10D	88+49.75	24.88	517.36	517.51
10E	88+59.75	24.88	517.16	517.32
10F	88+69.75	24.88	516.96	517.10
10G	88+79.75	24.88	516.76	516.86
⊙ Brg. S. Abut.	88+94.42	24.88	516.47	516.47
Bk. S. Abut.	88+97.42	24.88	516.41	516.41

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
⊙ Pier 8	87+32.00	31.29	519.62	519.62
⊙ Brg. Pier 8-S	87+32.84	31.29	519.60	519.60
9A	87+42.84	31.29	519.38	519.42
9B	87+52.84	31.29	519.17	519.24
9C	87+62.84	31.29	518.97	519.05
9D	87+72.84	31.29	518.77	518.84
9E	87+82.84	31.29	518.57	518.62
9F	87+92.84	31.29	518.37	518.39
9G	88+02.84	31.29	518.17	518.17
⊙ Pier 9	88+09.75	31.29	518.03	518.03
10A	88+19.75	31.29	517.83	517.86
10B	88+29.75	31.29	517.63	517.71
10C	88+39.75	31.29	517.43	517.55
10D	88+49.75	31.29	517.23	517.39
10E	88+59.75	31.29	517.03	517.19
10F	88+69.75	31.29	516.83	516.97
10G	88+79.75	31.29	516.63	516.73
⊙ Brg. S. Abut.	88+94.42	31.29	516.34	516.34
Bk. S. Abut.	88+97.42	31.29	516.28	516.28



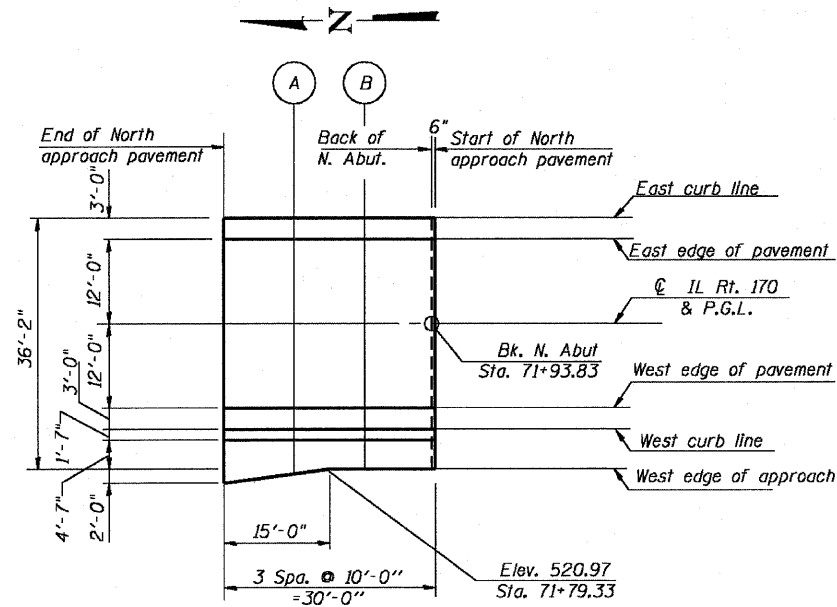
To determine "h": After all structural steel has been erected, elevations of the top flanges of the girders shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown above, minus slab thickness, equals the fillet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

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS
UNIT 4 (2 OF 2)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

Contract # 66607



PLAN (N. APPR. PAV'T.)

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	71+64.33	-15.00	520.37
A	71+74.33	-15.00	520.87
B	71+84.33	-15.00	521.37
Start N. Appr. Slab	71+94.33	-15.00	521.86

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	71+64.33	-12.00	520.43
A	71+74.33	-12.00	520.93
B	71+84.33	-12.00	521.43
Start N. Appr. Slab	71+94.33	-12.00	521.93

P.G.L. & CL STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	71+64.33	0.00	520.62
A	71+74.33	0.00	521.12
B	71+84.33	0.00	521.62
Start N. Appr. Slab	71+94.33	0.00	522.11

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	71+64.33	12.00	520.43
A	71+74.33	12.00	520.93
B	71+84.33	12.00	521.43
Start N. Appr. Slab	71+94.33	12.00	521.93

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	71+64.33	15.00	520.37
A	71+74.33	15.00	520.87
B	71+84.33	15.00	521.37
Start N. Appr. Slab	71+94.33	15.00	521.86

WEST SIDEWALK EDGE

Location	Station	Offset	Theoretical Grade Elevations
End N. Appr. Slab	71+64.33	23.17	520.20
A	71+74.33	21.83	520.73
B	71+84.33	21.17	521.24
Start N. Appr. Slab	71+94.33	21.17	521.73

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

**TOP OF SLAB ELEVATIONS
NORTH APPROACH PAVEMENT
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

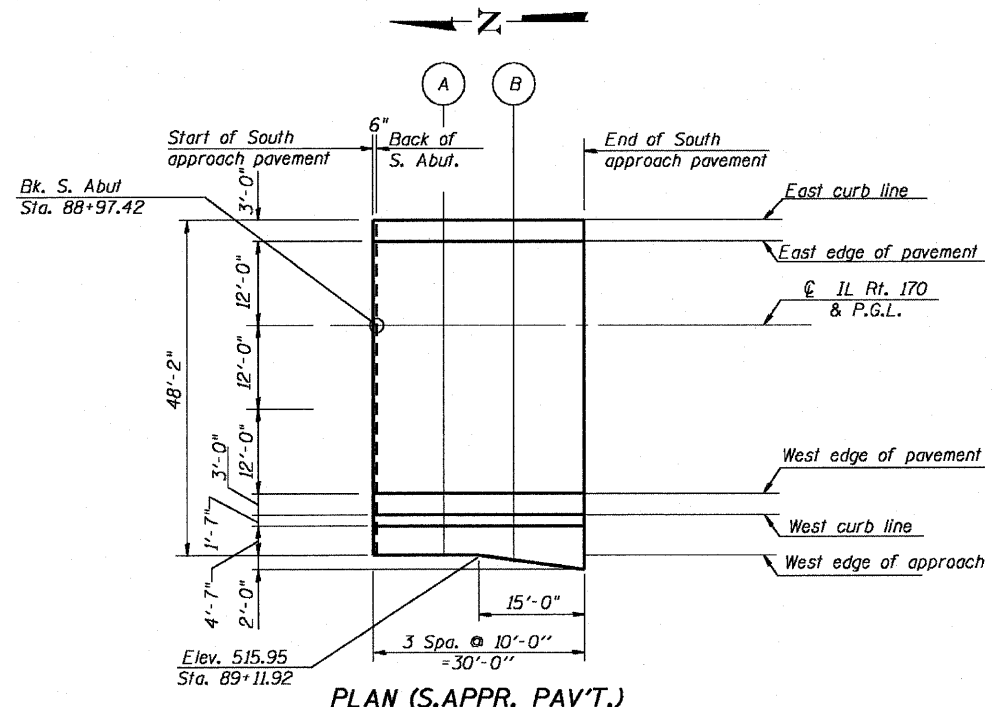
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STA. 0.00 TO 100.00	SHEET
786	109 BR	La Salle	351	218
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 18
89 SHEETS

Contract # 66607



PLAN (S.APPR. PAV'T.)

EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Start S.Appr. Slab	88+96.92	-15.00	516.63
A	89+06.92	-15.00	516.43
B	89+16.92	-15.00	516.23
End S. Appr. Slab	89+26.92	-15.00	516.03

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Start S.Appr. Slab	88+96.92	-12.00	516.69
A	89+06.92	-12.00	516.49
B	89+16.92	-12.00	516.29
End S. Appr. Slab	89+26.92	-12.00	516.09

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

P.G.L. & CL STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
Start S.Appr. Slab	88+96.92	0.00	516.88
A	89+06.92	0.00	516.68
B	89+16.92	0.00	516.48
End S. Appr. Slab	89+26.92	0.00	516.28

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
Start S.Appr. Slab	88+96.92	24.00	516.14
A	89+06.92	24.00	516.24
B	89+16.92	24.00	516.04
End S. Appr. Slab	89+26.92	24.00	515.84

WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
Start S.Appr. Slab	88+96.92	27.00	516.38
A	89+06.92	27.00	516.18
B	89+16.92	27.00	515.98
End S. Appr. Slab	89+26.92	27.00	515.78

WEST SIDEWALK EDGE

Location	Station	Offset	Theoretical Grade Elevations
Start S.Appr. Slab	88+96.92	33.17	516.25
A	89+06.92	33.17	516.05
B	89+16.92	33.83	515.83
End S. Appr. Slab	89+26.92	35.17	515.61

**TOP OF SLAB ELEVATIONS
SOUTH APPROACH PAVEMENT
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

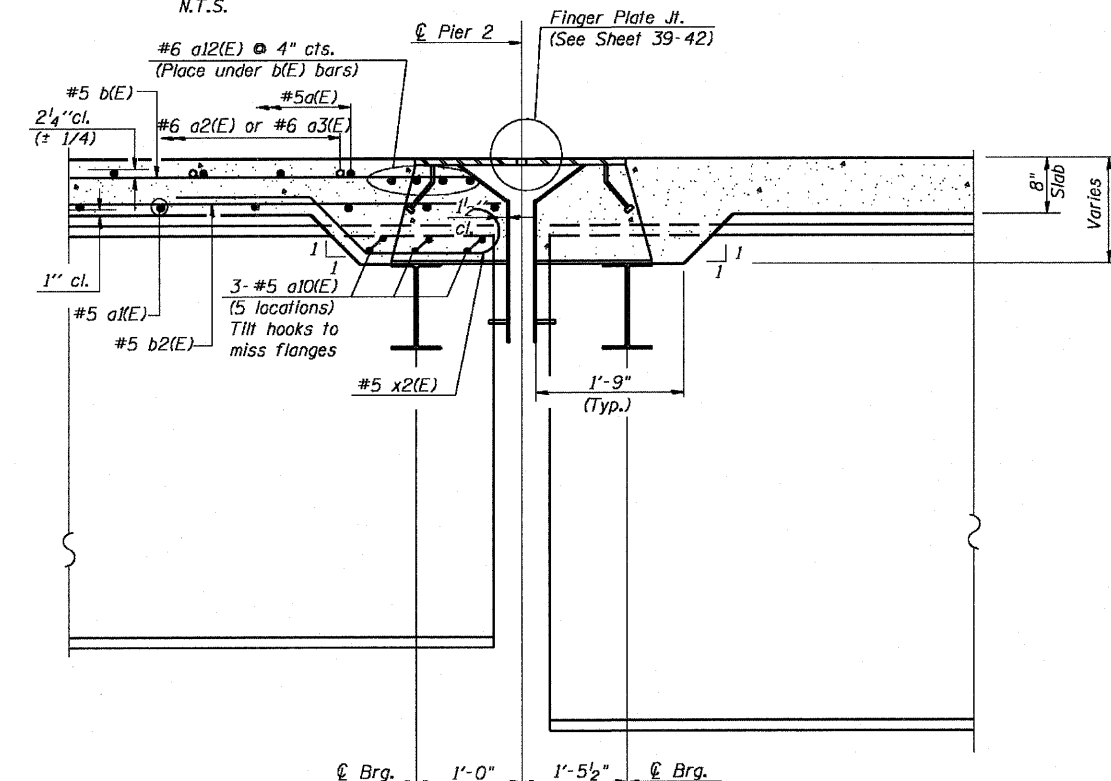
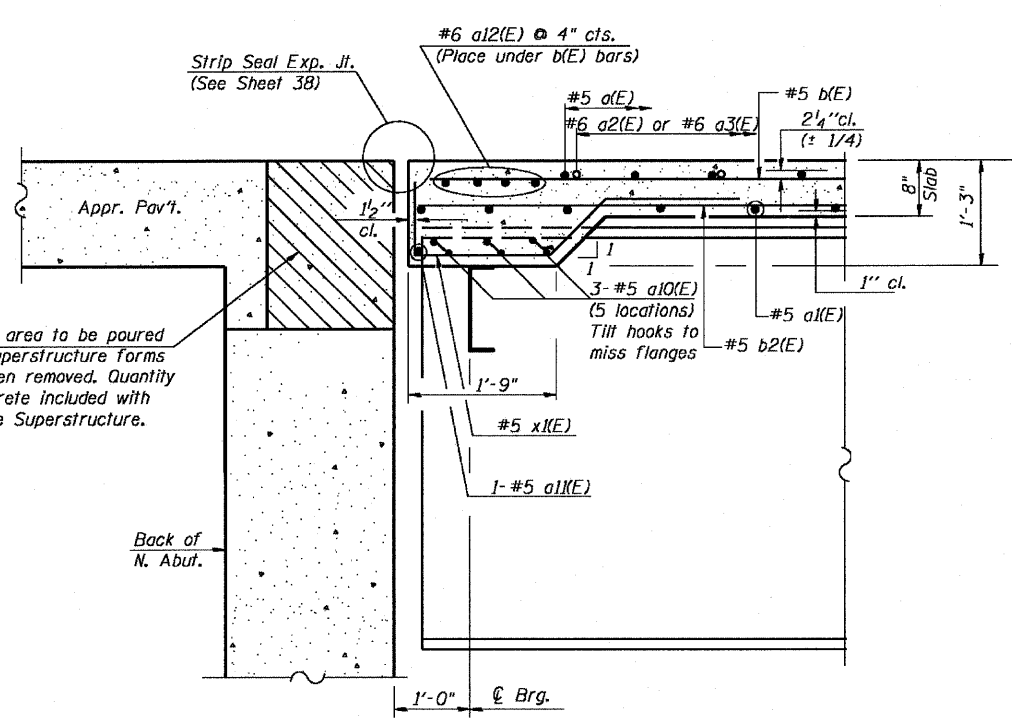
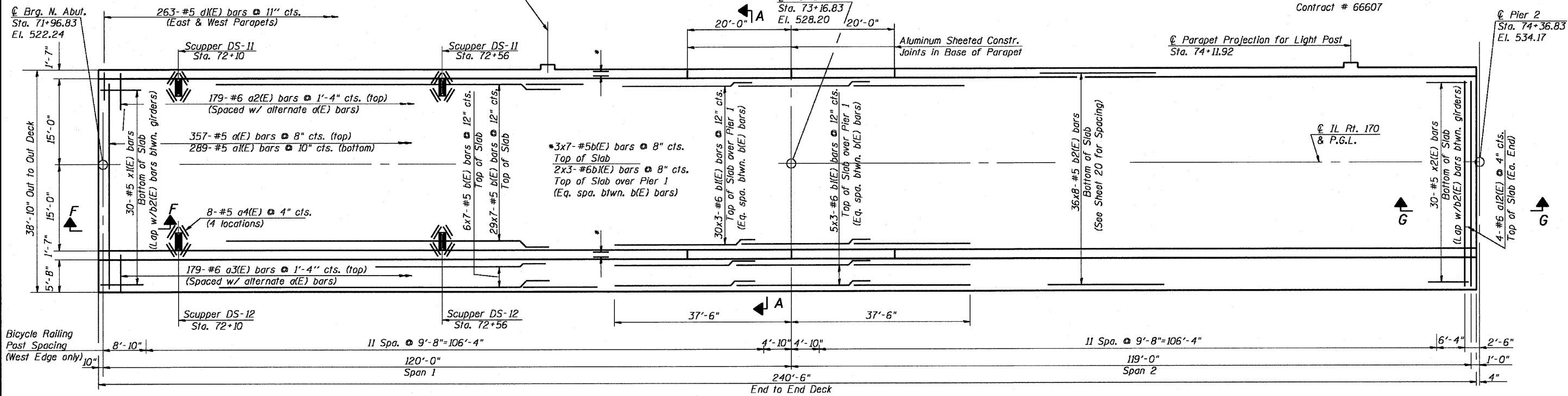
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	219
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 66607

SHEET NO. 19
89 SHEETS



- Notes:
1. Work this sheet with Sheets 20, 21, & 22.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SUPERSTRUCTURE PLAN
UNIT 1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

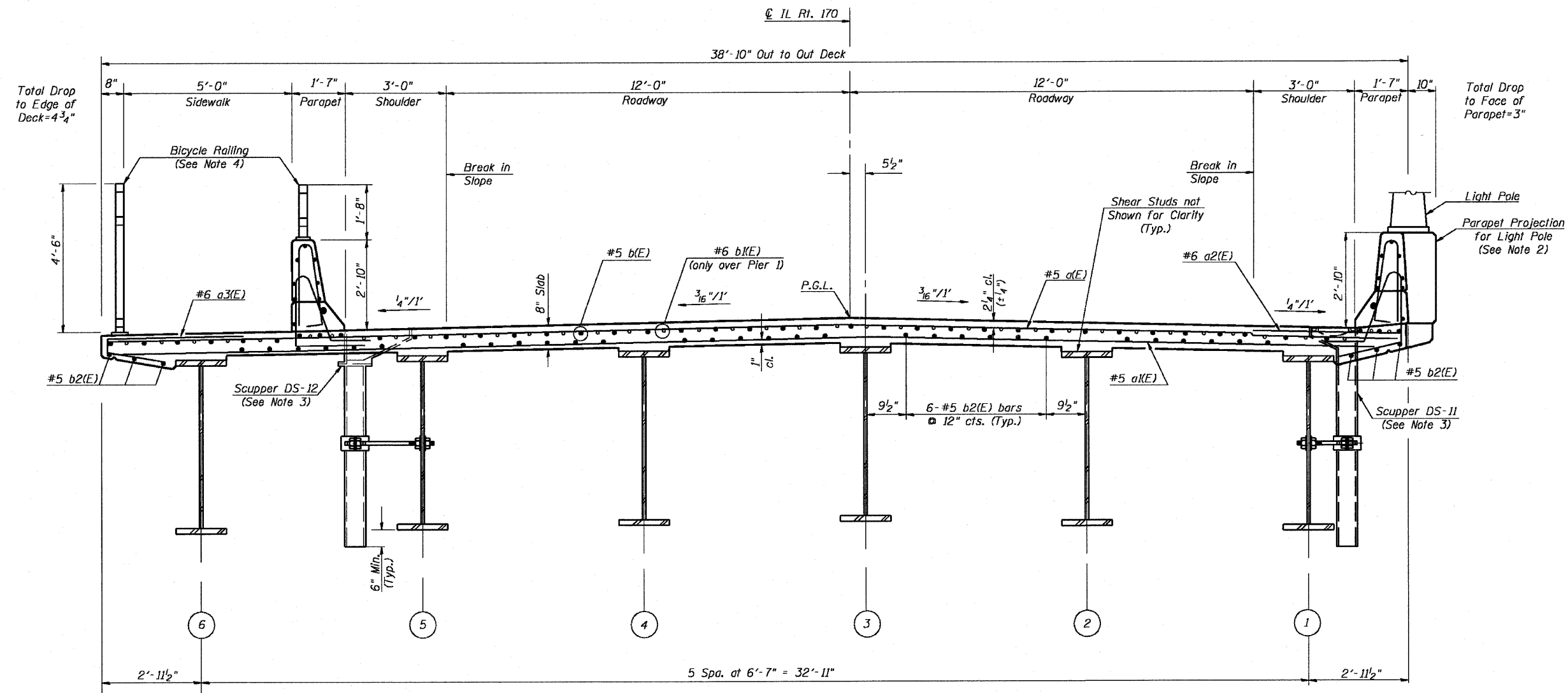
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	220
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 20
89 SHEETS

Contract # 66607



CROSS-SECTION A-A (UNIT 1)
Looking North

Notes:

1. Work this sheet with Sheets 19, 21, & 22.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

**DECK CROSS-SECTION
UNIT 1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

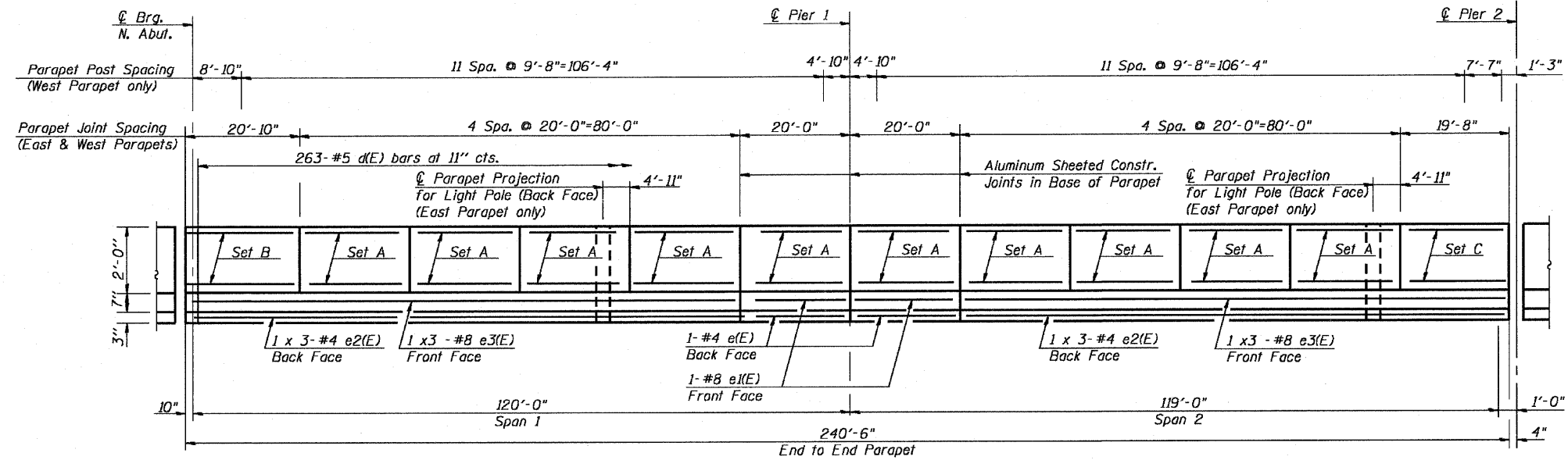
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET
786	109 BR	La Salle	351	221
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 21
89 SHEETS

Contract # 66607



INSIDE ELEVATION OF PARAPET (UNIT 1)
East Parapet shown (West Parapet similar)

- Set A** (10 locations)
7- #4 e(E) bars around perimeter
(See section thru parapet)
- Set B** (1 location)
7- #4 e4(E) bars around perimeter
(See section thru parapet)
- Set C** (1 location)
7- #4 e5(E) bars around perimeter
(See section thru parapet)

- Notes:**
1. Work this sheet with Sheets 19, 20, & 22.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3- #5 etc. indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.

DESIGNED	- CLS
CHECKED	- RJC
DRAWN	- JHR
CHECKED	- RJC

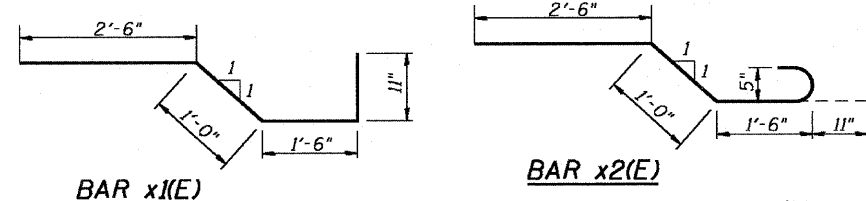
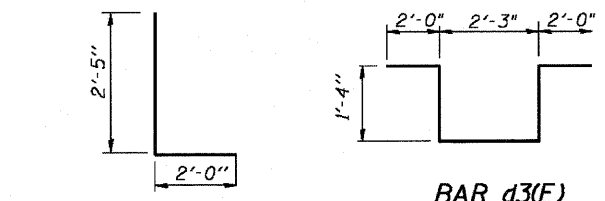
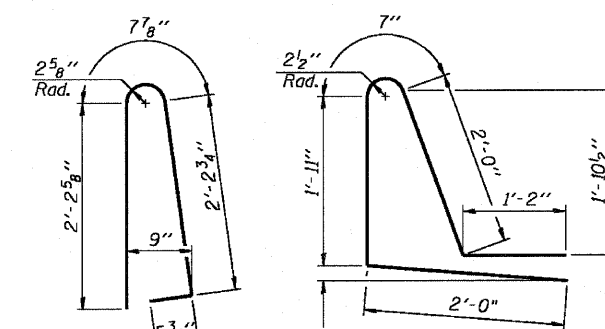
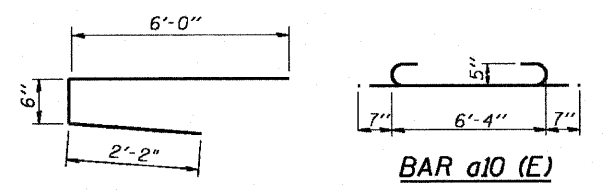
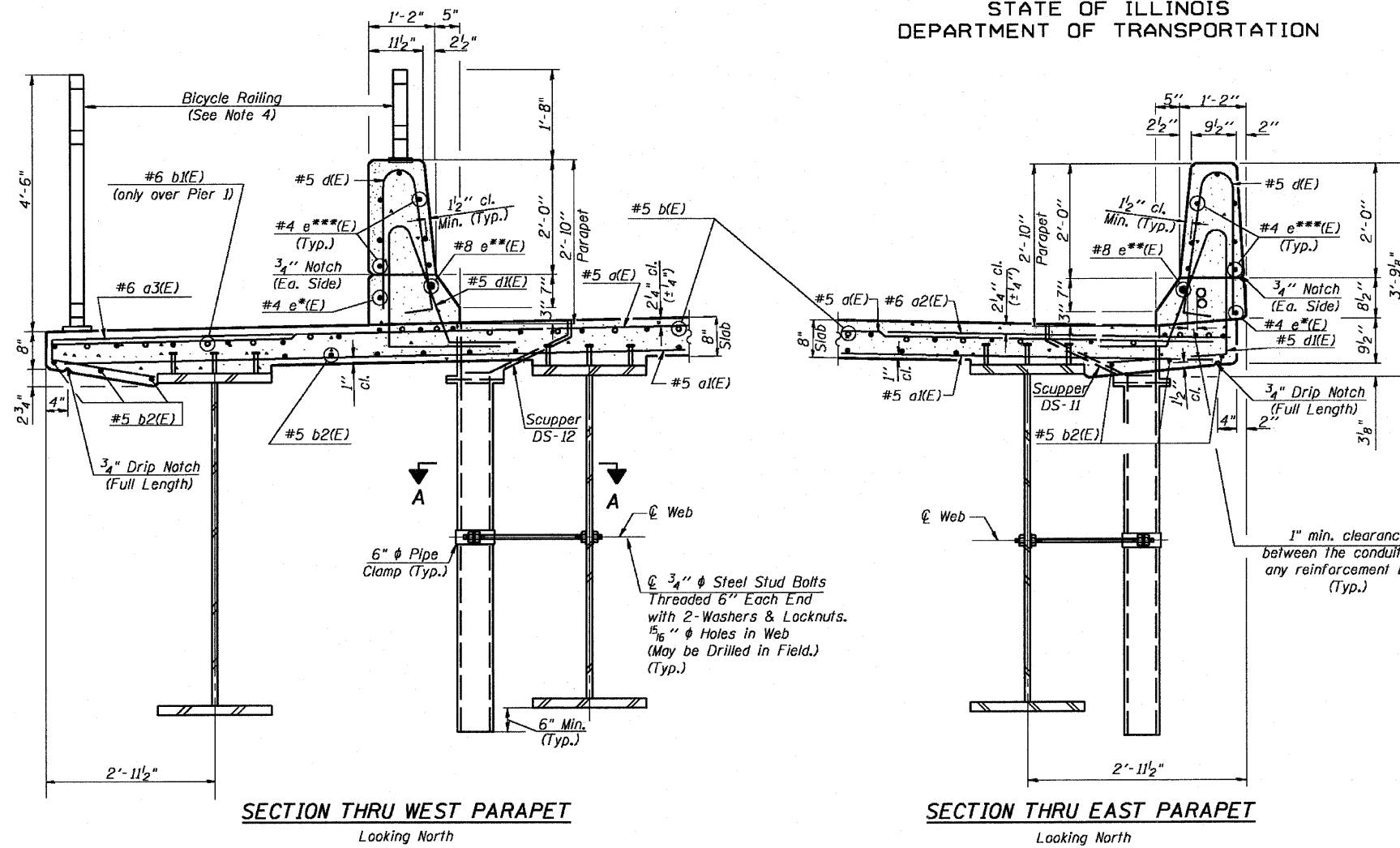
PARAPET DETAILS
UNIT 1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 22
786	109 BR	La Salle	351	222	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

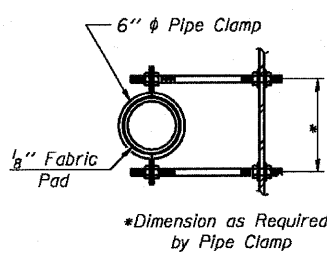
Contract # 66607



**SUPERSTRUCTURE
BILL OF MATERIAL**

Unit 1 (N. Abut. to Pier 2)

Bar	No.	Size	Length	Shape
a(E)	357	#5	38'-4"	—
a1(E)	289	#5	37'-8"	—
a2(E)	179	#6	6'-0"	—
a3(E)	179	#6	8'-8"	—
a4(E)	32	#5	2'-0"	—
a10(E)	30	#5	7'-6"	—
a11(E)	1	#5	32'-7"	—
a12(E)	8	#6	38'-4"	—
b(E)	287	#5	36'-3"	—
b1(E)	117	#6	26'-9"	—
b2(E)	288	#5	32'-0"	—
d(E)	526	#5	5'-7"	—
d1(E)	526	#5	7'-8"	—
d2(E)	6	#6	4'-5"	—
d3(E)	10	#6	8'-11"	—
e(E)	144	#4	19'-8"	—
e1(E)	4	#8	19'-8"	—
e2(E)	12	#4	34'-5"	—
e3(E)	12	#8	35'-10"	—
e4(E)	14	#4	20'-6"	—
e5(E)	14	#4	19'-4"	—
x1(E)	30	#5	5'-11"	—
x2(E)	30	#5	5'-11"	—
Reinforcement Bars, Epoxy Coated		Pound	67,250	
Concrete Superstructure		Cu. Yd.	305.1	
Bridge Deck Grooving		Sq. Yd.	756	
Protective Coat		Sq. Yd.	1,003	



SECTION A-A

#4 e*(E) = Bars #4 e(E) or #4 e2(E)
 #8 e**(E) = Bars #8 e1(E) or #8 e3(E)
 #4 e***(E) = Bars #4 e(E) or #4 e4(E) or #4 e5(E)

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

MINIMUM BAR LAPS

- (Slab)
 - #5 bar = 2'-2"
 - #6 bar = 2'-7"
 - #7 bar = 3'-5"
- (Parapet)
 - #4 bar = 1'-4"
 - #8 bar = 3'-5"

- Notes:**
- Work this sheet with Sheets 19, 20, & 21.
 - See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 - See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 - See Sheet 37 for Bicycle Railing Details.
 - Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 - Cut longitudinal reinforcement to clear drainage scuppers.

SUPERSTRUCTURE DETAILS

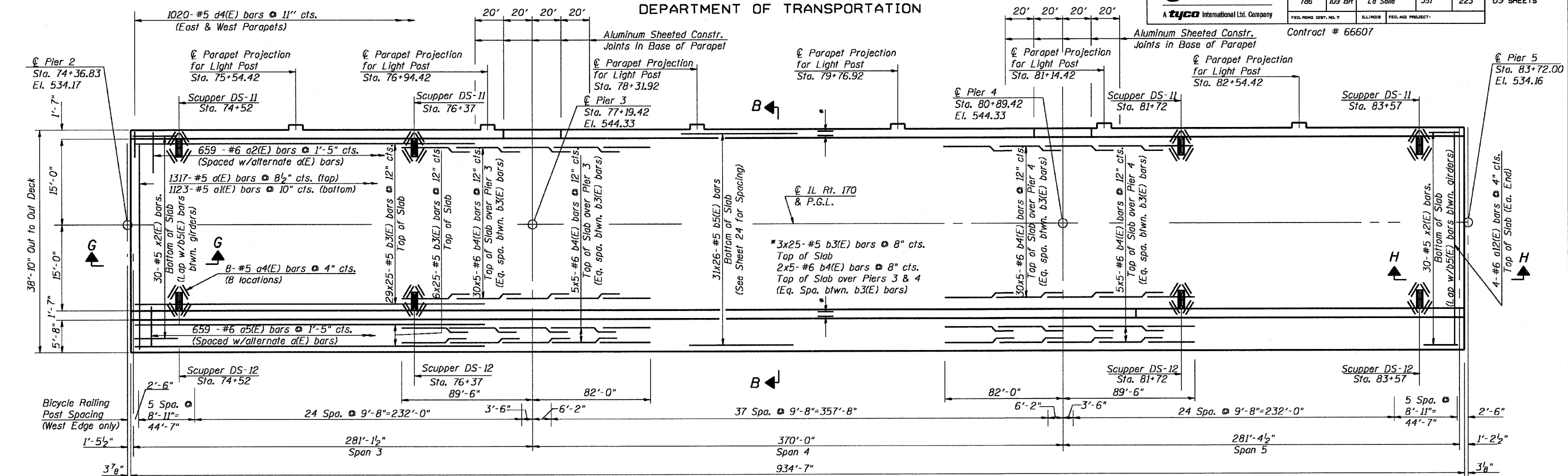
UNIT 1
 IL. 170 F.A.P. 786 OVER
 ILLINOIS RIVER AT SENECA
 PUBLIC WATERS
 LA SALLE COUNTY, SECTION 109 BR
 STATION 79+04.42
 STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

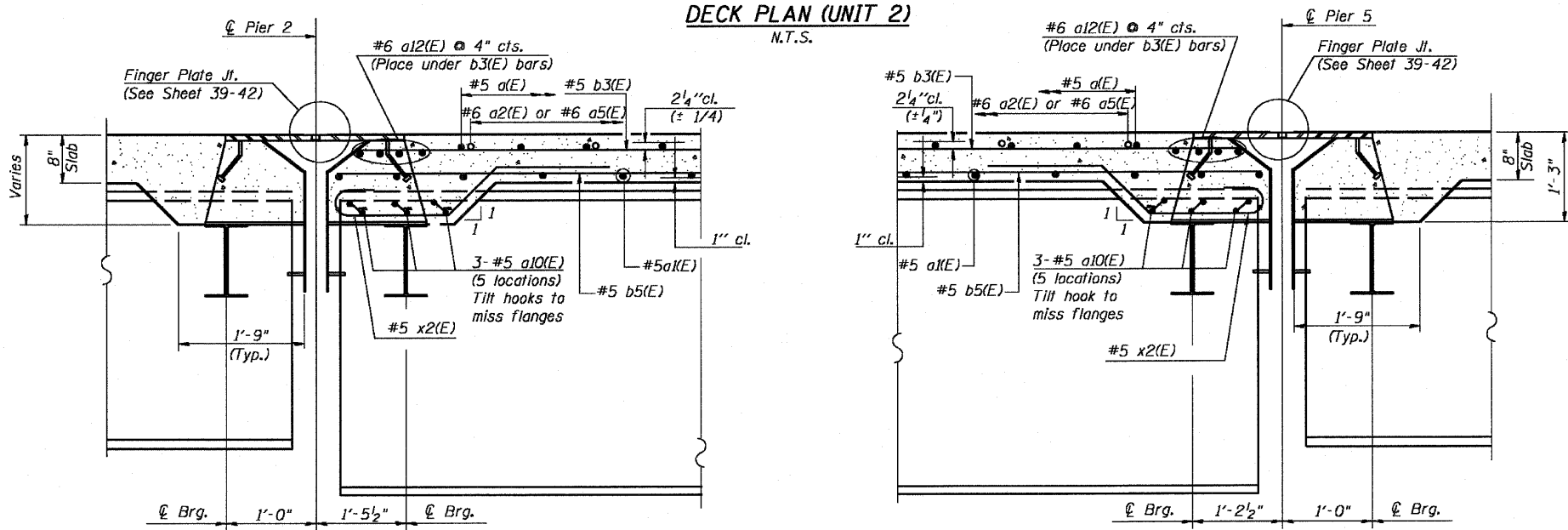


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
786	109 BR	La Salle	351	223
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Contract # 66607

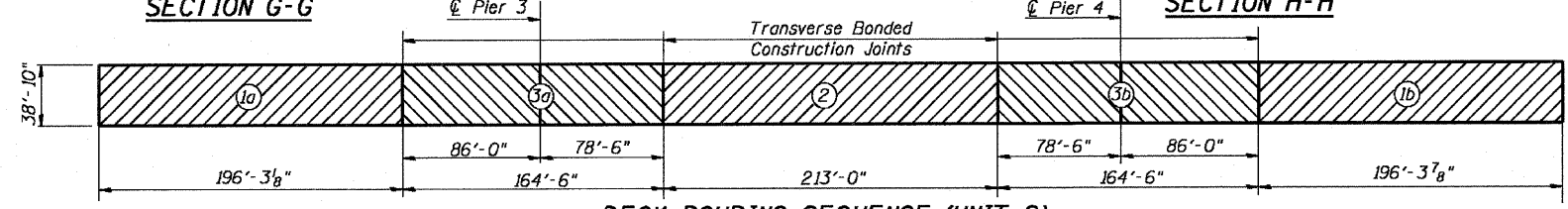


DECK PLAN (UNIT 2)
N.T.S.



SECTION G-G

SECTION H-H



DECK POURING SEQUENCE (UNIT 2)

The deck shall be poured in numerical sequence as shown. See notes 7 & 8.

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

Notes:

1. Work this sheet with Sheets 24, 25, & 26.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.
7. When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
-At least 72 hours shall have elapsed from the end of the previous pour.
-The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
8. Numbers within the deck pouring sequence indicate the number of pours as well as the sequence used to generate the screed elevations. Letters within the first and last pours indicate that these pours can be subdivided further but reanalysis of the screeds will be required.

SUPERSTRUCTURE PLAN
UNIT 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.2
STRUCTURE NO. 050-0246

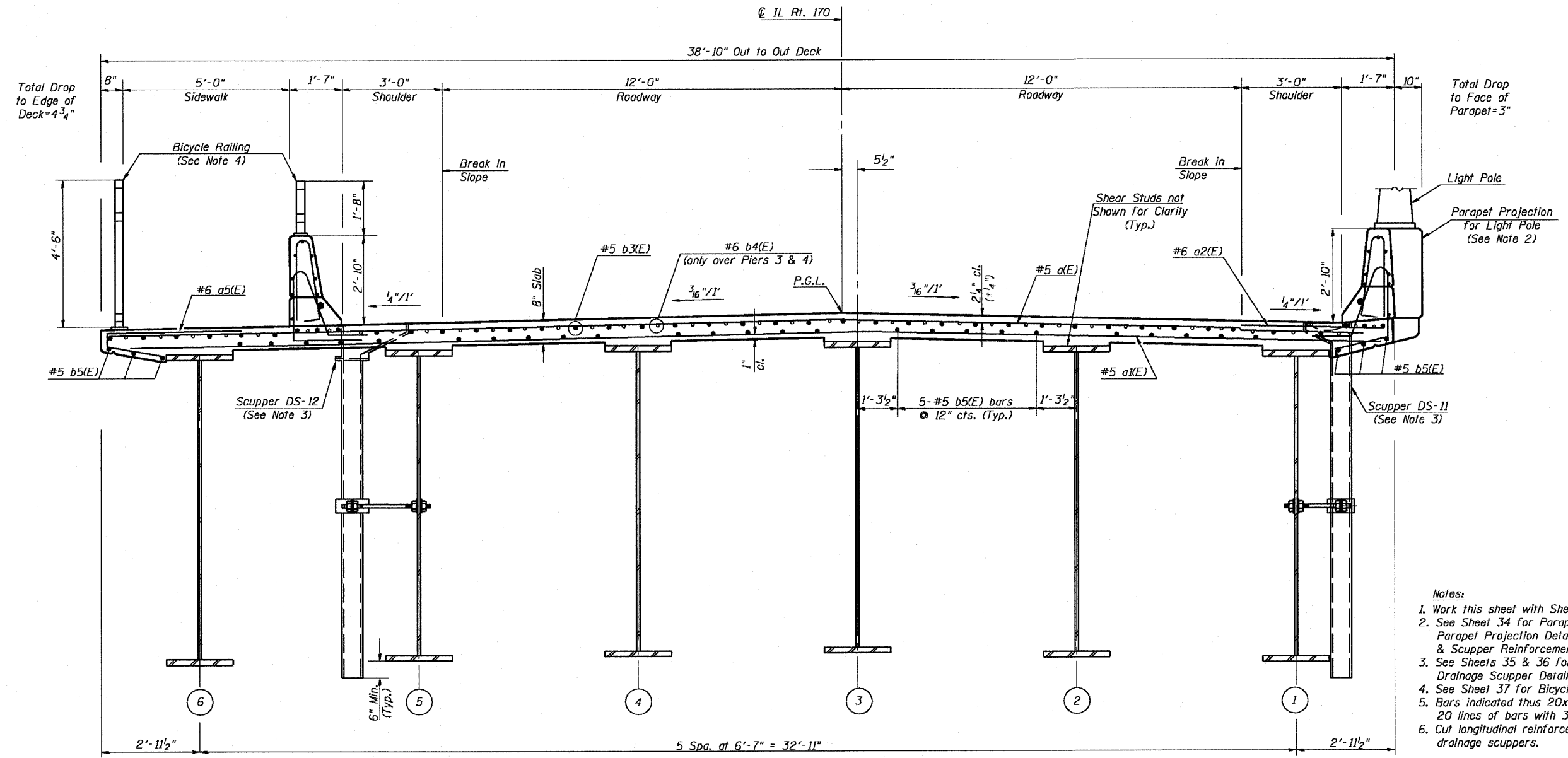
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
786	109 BR	La Salle	351	224
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

SHEET NO. 24
89 SHEETS

Contract # 66607



- Notes:
1. Work this sheet with Sheets 23, 25, & 26.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3-#5 etc, indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.

CROSS-SECTION B-B (UNIT 2)
Looking North

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

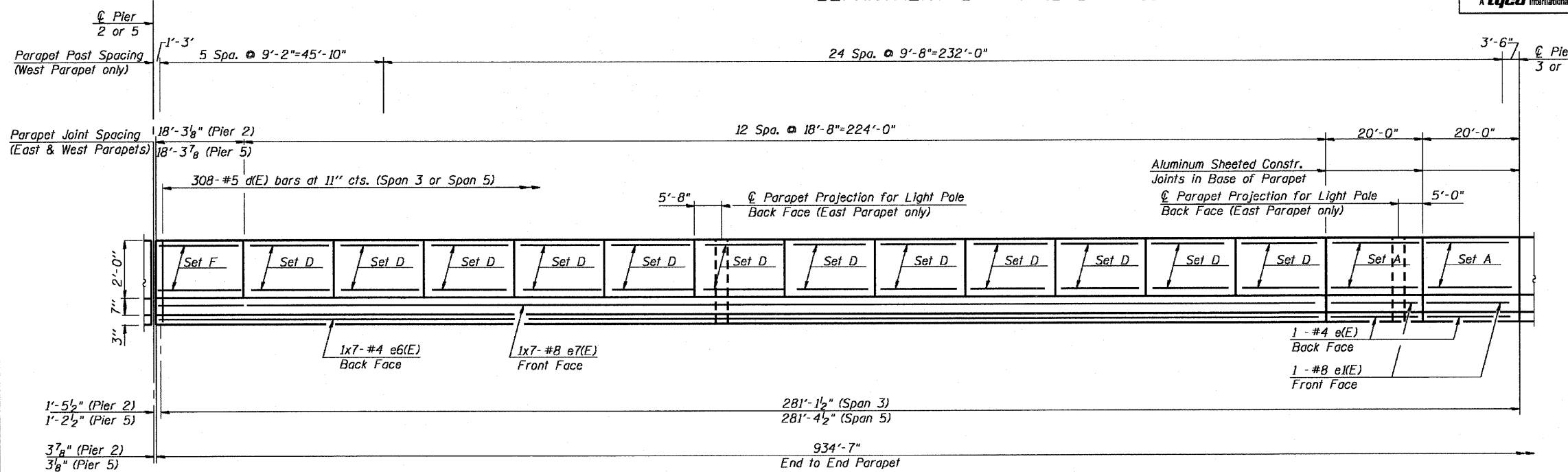
DECK CROSS-SECTION
UNIT 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



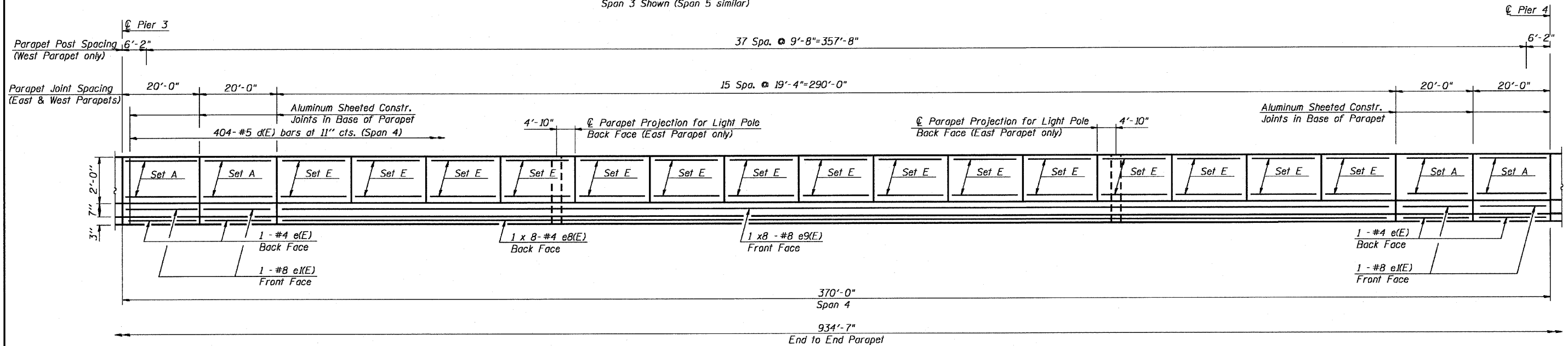
F.A.P. ROUTE NO.	SECTION	COUNTY	MILES	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	225	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			89 SHEETS

Contract # 66607



INSIDE ELEVATION OF PARAPET (UNIT 2)

East Parapet shown (West Parapet similar)
Span 3 Shown (Span 5 similar)



INSIDE ELEVATION OF PARAPET (UNIT 2)

East Parapet shown (West Parapet similar)

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

Set A (8 locations)
7-#4 e(E) bars around perimeter
(See section thru parapet)

Set D (24 locations)
7-#4 e10(E) bars around perimeter
(See section thru parapet)

Set E (15 locations)
7-#4 e11(E) bars around perimeter
(See section thru parapet)

Set F (2 locations)
7-#4 e12(E) bars around perimeter
(See section thru parapet)

Notes:

1. Work this sheet with Sheets 23, 24, & 26.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.

PARAPET DETAILS
UNIT 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Contract # 66607

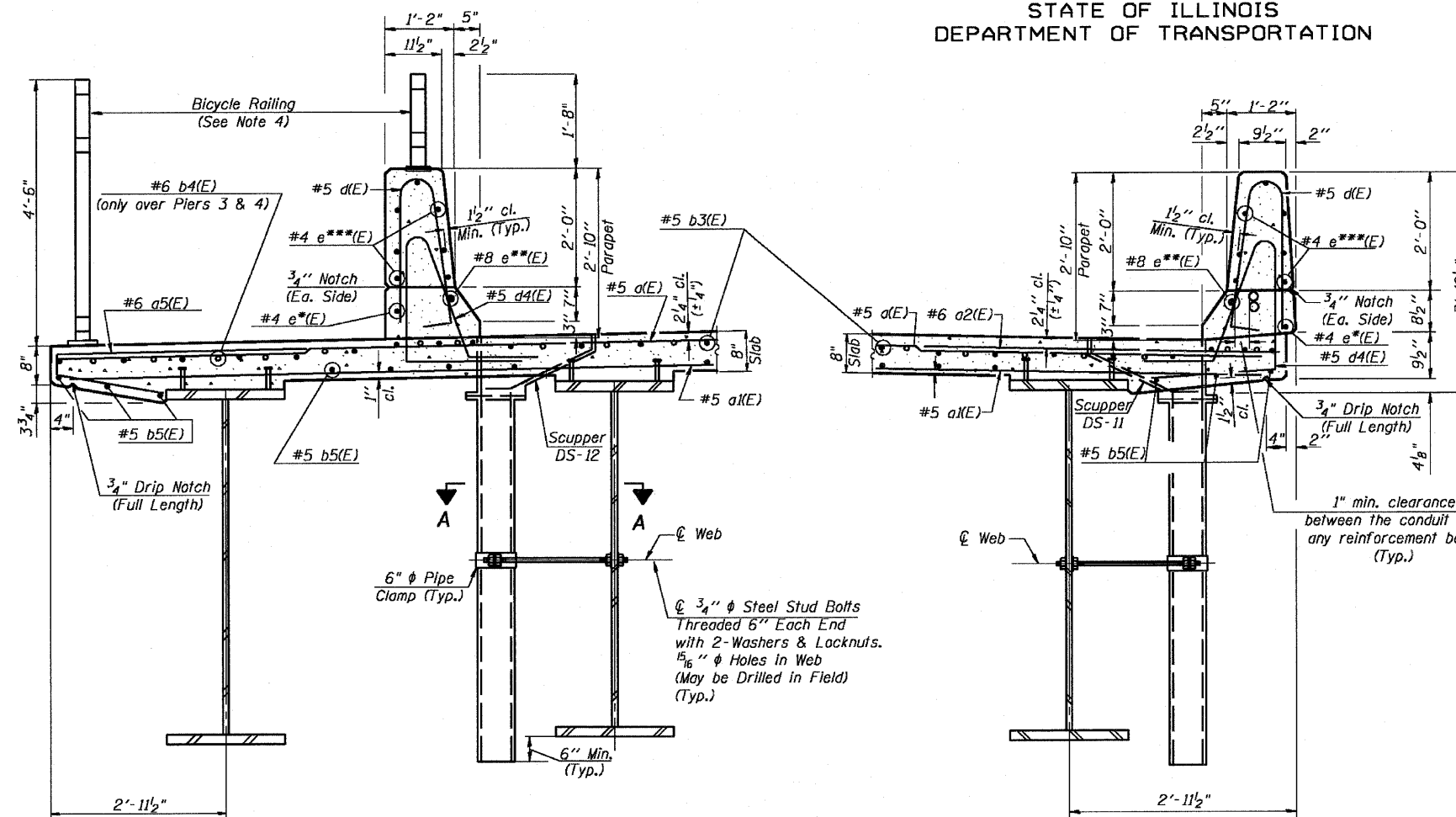
**SUPERSTRUCTURE
BILL OF MATERIAL**

Unit 2 (Pier 2 to Pier 5)

Bar	No.	Size	Length	Shape
a(E)	1317	#5	38'-4"	
a1(E)	1123	#5	37'-8"	
a2(E)	659	#6	6'-0"	
a4(E)	64	#5	2'-0"	
a5(E)	659	#6	8'-2"	
a10(E)	30	#5	7'-6"	
a12(E)	8	#6	38'-4"	
b3(E)	1025	#5	39'-6"	
b4(E)	390	#6	36'-5"	
b5(E)	806	#5	38'-1"	
d(E)	2040	#5	5'-7"	
d2(E)	18	#6	4'-5"	
d3(E)	30	#6	8'-11"	
d4(E)	2040	#5	7'-2"	
e(E)	128	#4	19'-8"	
e1(E)	16	#8	19'-8"	
e6(E)	28	#4	35'-9"	
e7(E)	28	#8	37'-7"	
e8(E)	16	#4	37'-5"	
e9(E)	16	#8	39'-3"	
e10(E)	336	#4	18'-4"	
e11(E)	210	#4	19'-0"	
e12(E)	28	#4	17'-11"	
x2(E)	60	#5	5'-11"	
Reinforcement Bars, Epoxy Coated	Pound		250,480	
Concrete Superstructure	Cu. Yd.		1,182.2	
Bridge Deck Grooving	Sq. Yd.		2,909	
Protective Coat	Sq. Yd.		3,898	

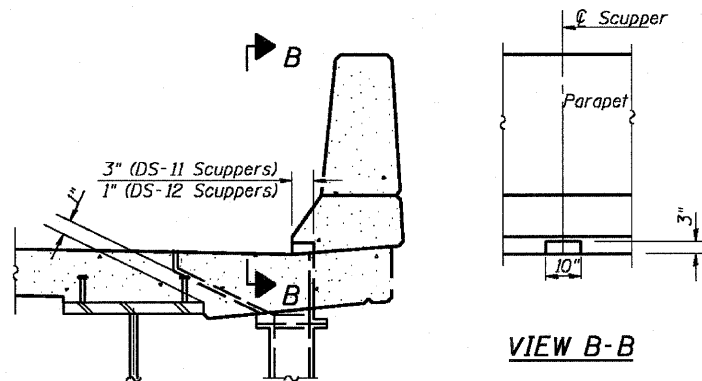
MINIMUM BAR LAPS

- (Slab)
#5 bar = 2'-2"
#6 bar = 2'-7"
#7 bar = 3'-5"
(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



SECTION THRU WEST PARAPET
Looking North

SECTION THRU EAST PARAPET
Looking North



PARAPET BLOCKOUT FOR SCUPPERS

(Applicable only to scuppers in Unit 2)

- #4 e*(E) = Bars #4 e(E) or #4 e6(E) or #4 e8(E)
#8 e*(E) = Bars #8 e1(E) or #8 e7(E) or #8 e9(E)
#4 e****(E) = Bars #4 e(E) or #4 e10(E) or #4 e11(E) or #4 e12(E)

Notes:

1. Work this sheet with Sheets 23, 24, & 25.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc, indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

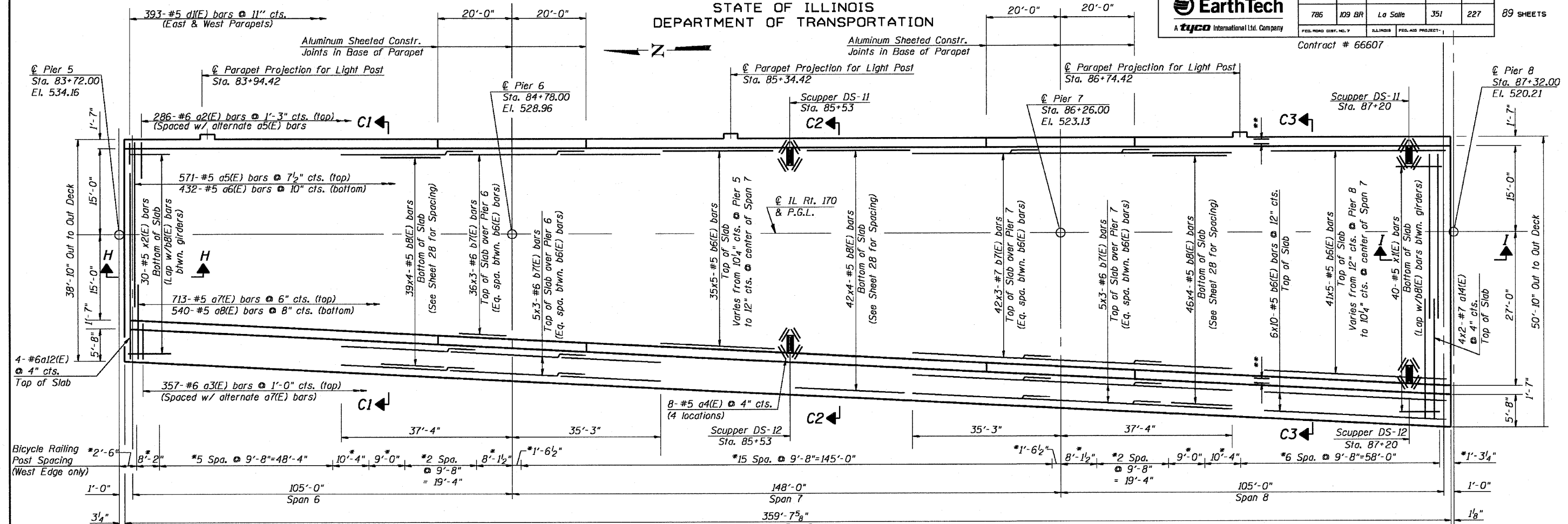
**SUPERSTRUCTURE DETAILS
UNIT 2**
**IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS**
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

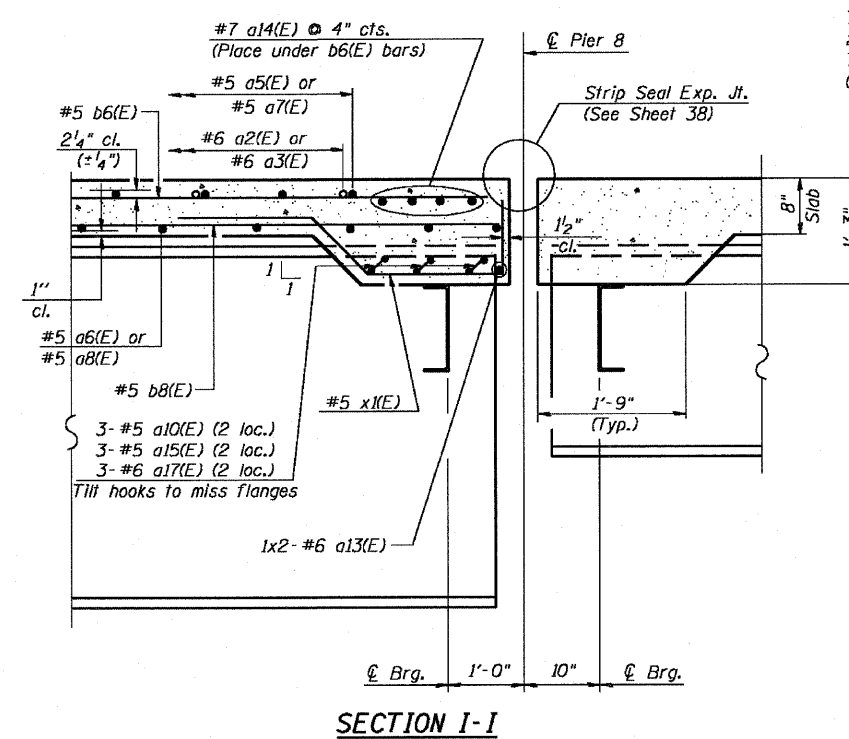
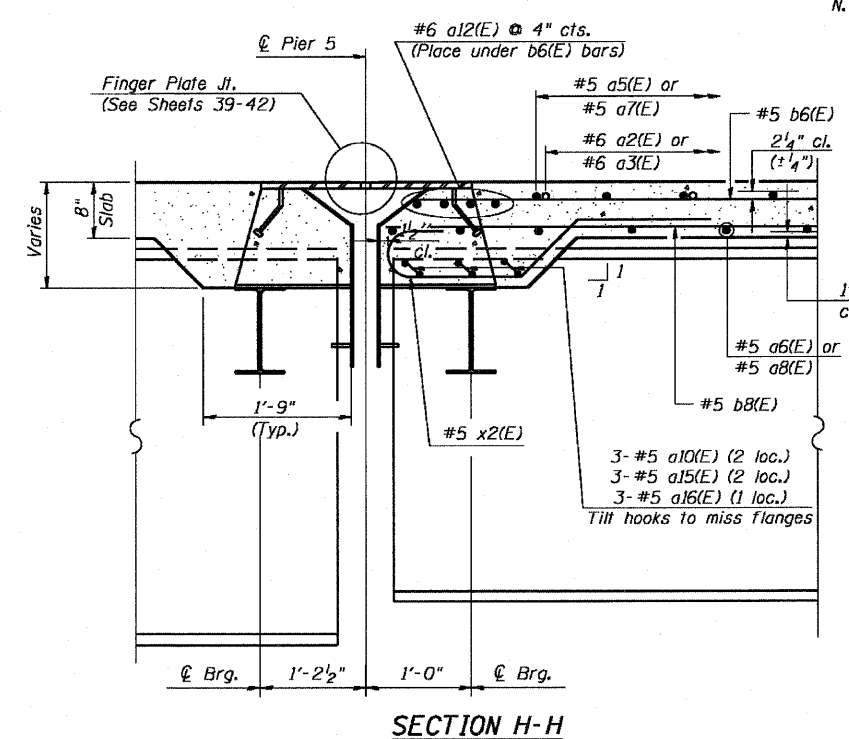


F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 27
786	109 BR	La Salle	351	227	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66607



* Dimensions given along skewed West Edge



**3x10-#5 b6(E) @ 8" cts. Top of Slab
2x3-#6 b7(E) @ 8" cts. Top of Slab over Piers 6 & 7 (Eq. Spa. between b6(E) bars)

- Notes:**
1. Work this sheet with Sheets 28, 29, & 30.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.

SUPERSTRUCTURE PLAN
UNIT 3
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

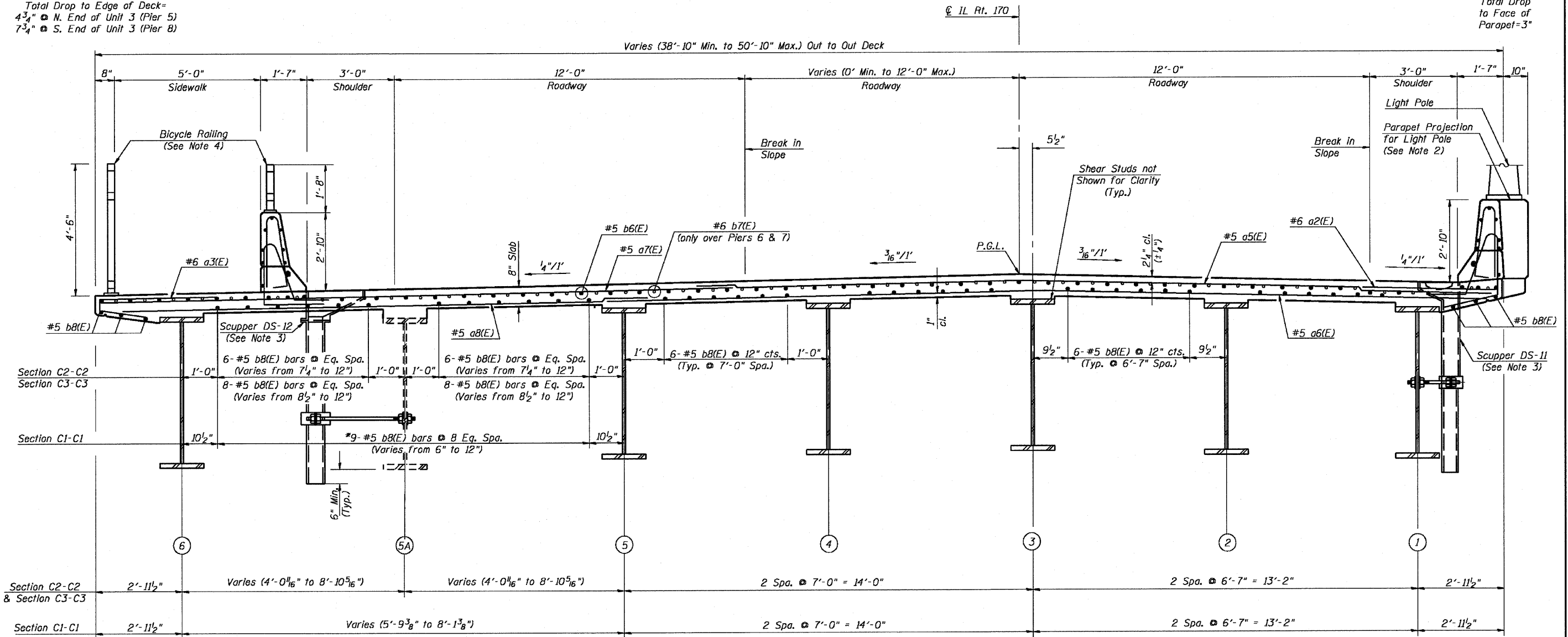
DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EarthTech A tyco International Ltd. Company	F.A.P. ROUTE NO.	SECTION	COUNTY	FEET	SHEET	SHEET NO. 28 89 SHEETS
	786	109 BR	La Salle	351	228	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		Contract # 66607	

Total Drop to Edge of Deck=
4³/₄" @ N. End of Unit 3 (Pier 5)
7³/₄" @ S. End of Unit 3 (Pier 8)

Total Drop to Face of Parapet=3"



CROSS-SECTIONS C1-C1, C2-C2, & C3-C3 (UNIT 3)

Looking North

* Some #5 b8(E) bars will be located directly above Girder 5A in Section C1-C1 since bar spacing is equal between Girders 5 & 6.

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

Notes:

1. Work this sheet with Sheets 27, 29, & 30.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.

**DECK CROSS-SECTION
UNIT 3
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

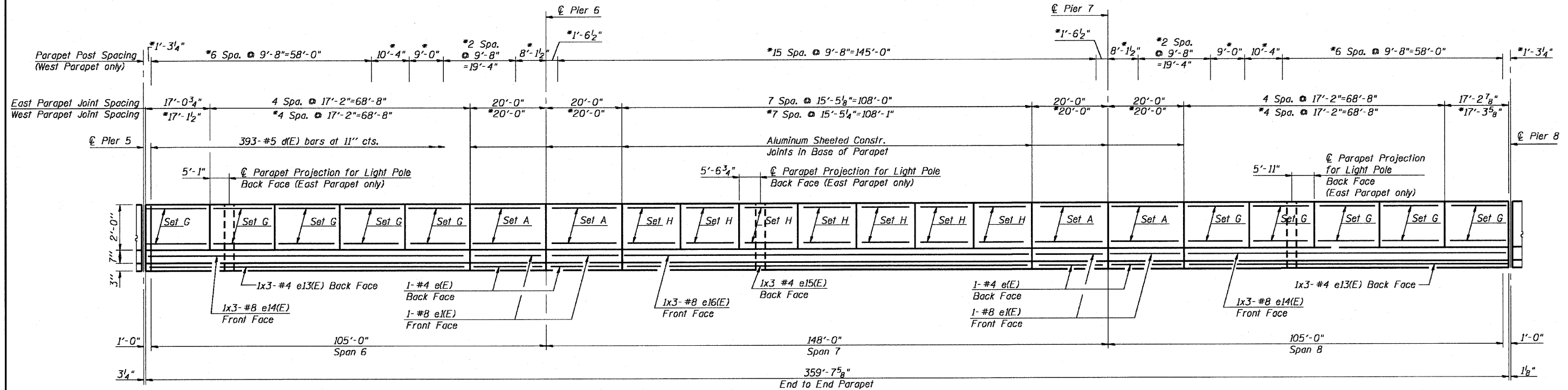
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	229

SHEET NO. 29
89 SHEETS

Contract # 66607



* Dimensions given along skewed West Edge

Set A (4 locations)
7-#4 e(E) bars around perimeter
(See section thru parapet)

Set G (10 locations)
7-#4 e17(E) bars around perimeter
(See section thru parapet)

Set H (7 locations)
7-#4 e18(E) bars around perimeter
(See section thru parapet)

INSIDE ELEVATION OF PARAPET (UNIT 3)

East Parapet shown (West Parapet similar)

Notes:

1. Work this sheet with Sheets 27, 28, & 30.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.

DESIGNED	- CLS
CHECKED	- RJC
DRAWN	- JHR
CHECKED	- RJC

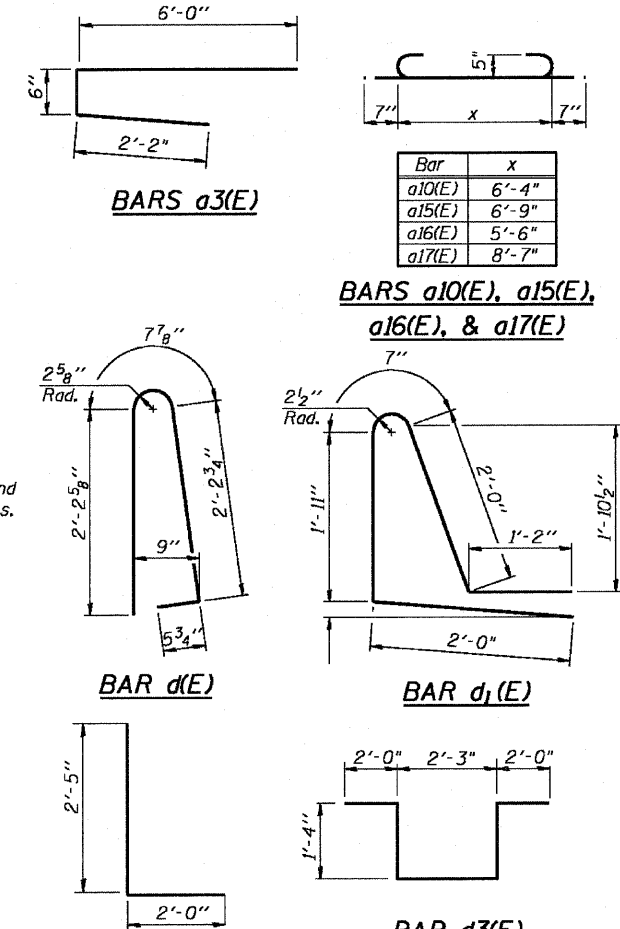
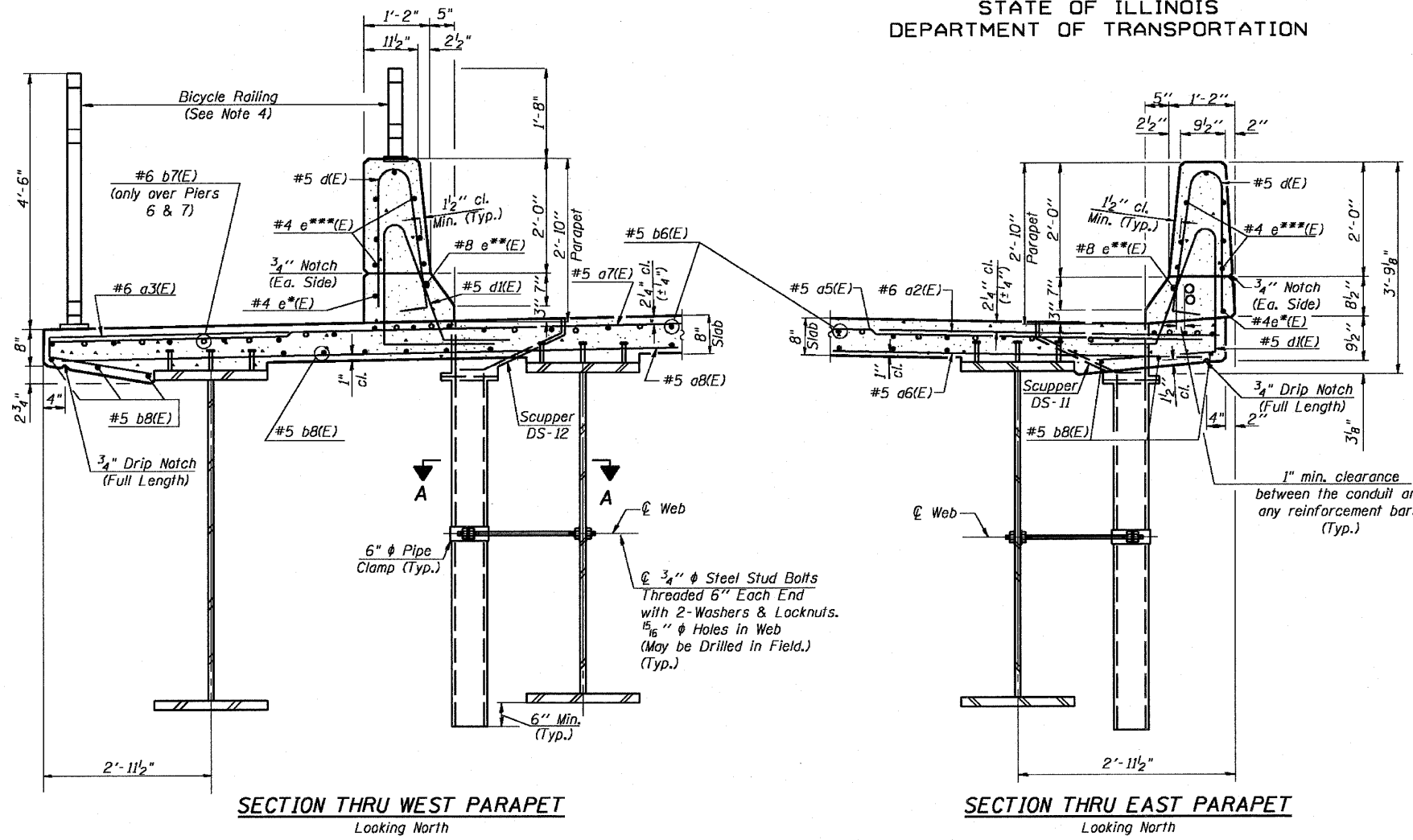
**PARAPET DETAILS
UNIT 3
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



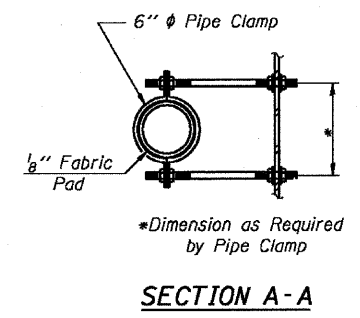
F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO.
786	109 BR	La Salle	351	230	89
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66607

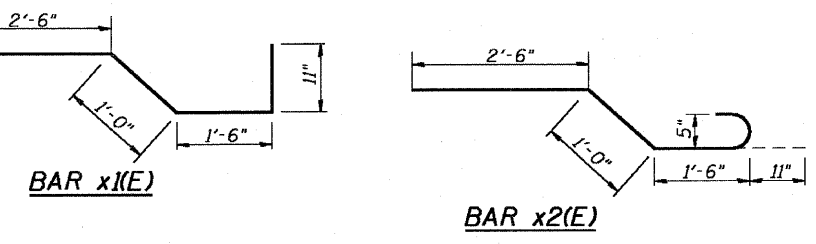
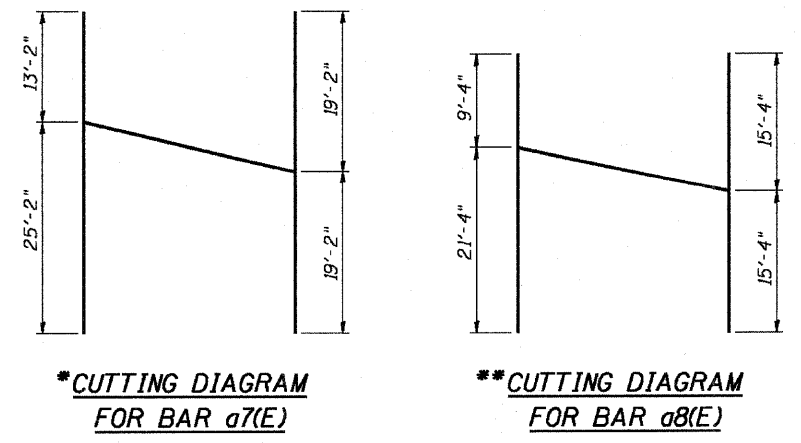


**SUPERSTRUCTURE
BILL OF MATERIAL**
Unit 3 (Pier 5 to Pier 8)

Bar	No.	Size	Length	Shape
a2(E)	286	#6	6'-0"	—
a3(E)	357	#6	8'-8"	—
a4(E)	32	#5	2'-0"	—
a5(E)	571	#5	27'-5"	—
a6(E)	432	#5	30'-7"	—
a7(E)	357	#5	38'-4"	—
a8(E)	270	#5	30'-8"	—
a10(E)	12	#5	7'-6"	—
a12(E)	4	#6	38'-4"	—
a13(E)	2	#6	23'-7"	—
a14(E)	8	#7	26'-11"	—
a15(E)	12	#5	7'-11"	—
a16(E)	3	#5	6'-8"	—
a17(E)	6	#6	9'-9"	—
b6(E)	500	#5	38'-0"	—
b7(E)	288	#6	26'-0"	—
b8(E)	508	#5	32'-0"	—
d(E)	786	#5	5'-7"	—
d1(E)	786	#5	7'-8"	—
d2(E)	9	#6	4'-5"	—
d3(E)	15	#6	8'-11"	—
e(E)	64	#4	19'-8"	—
e1(E)	8	#8	19'-8"	—
e13(E)	12	#4	29'-6"	—
e14(E)	12	#8	30'-11"	—
e15(E)	6	#4	36'-10"	—
e16(E)	6	#8	38'-3"	—
e17(E)	140	#4	16'-10"	—
e18(E)	98	#4	14'-9"	—
x1(E)	40	#5	5'-11"	—
x2(E)	30	#5	5'-11"	—
Reinforcement Bars, Epoxy Coated	Pound	126,730		
Concrete Superstructure	Cu. Yd.	504.1		
Bridge Deck Grooving	Sq. Yd.	1,360		
Protective Coat	Sq. Yd.	1,740		



#4 e*(E) = Bars #4 e(E) or #4 e13(E) or #4 e15(E)
 #8 e**(E) = Bars #8 e(E) or #8 e14(E) or #8 e16(E)
 #4 e***(E) = Bars #4 e(E) or #4 e17(E) or #4 e18(E)



- Notes:**
1. Work this sheet with Sheets 27, 28, & 29.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.

MINIMUM BAR LAPS

(Slab)
 #5 bar = 2'-2"
 #6 bar = 2'-7"
 #7 bar = 3'-5"

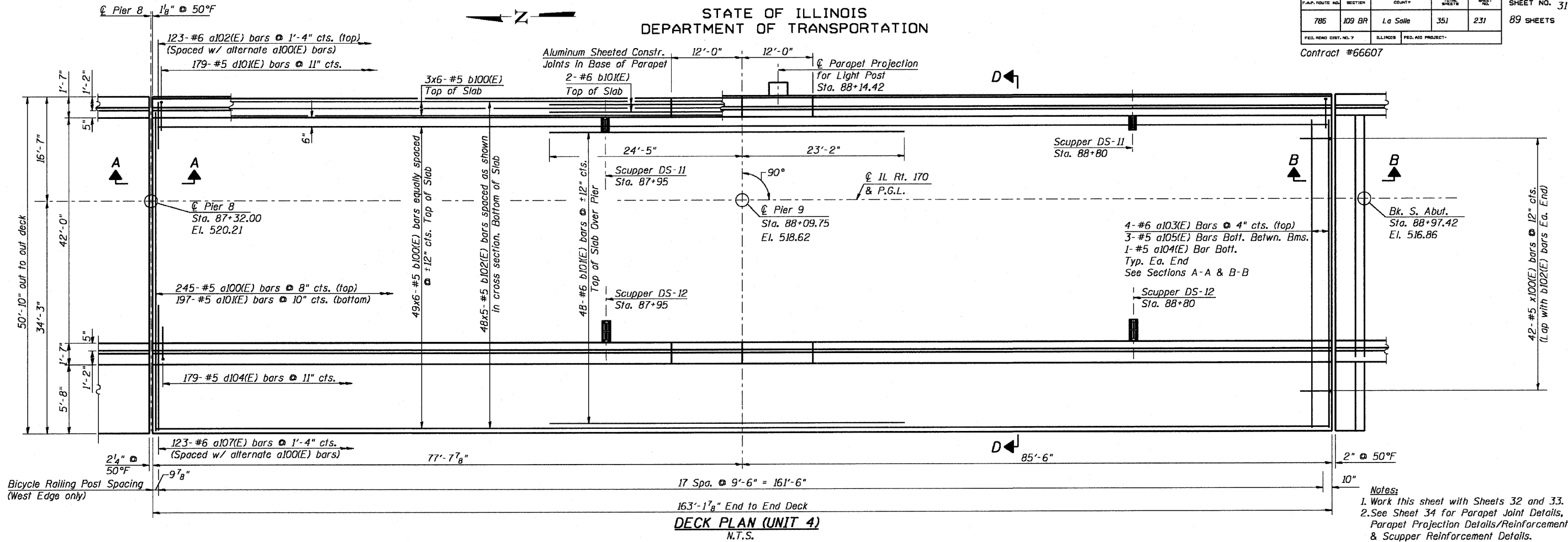
(Parapet)
 #4 bar = 1'-4"
 #8 bar = 3'-5"

**SUPERSTRUCTURE DETAILS
UNIT 3
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

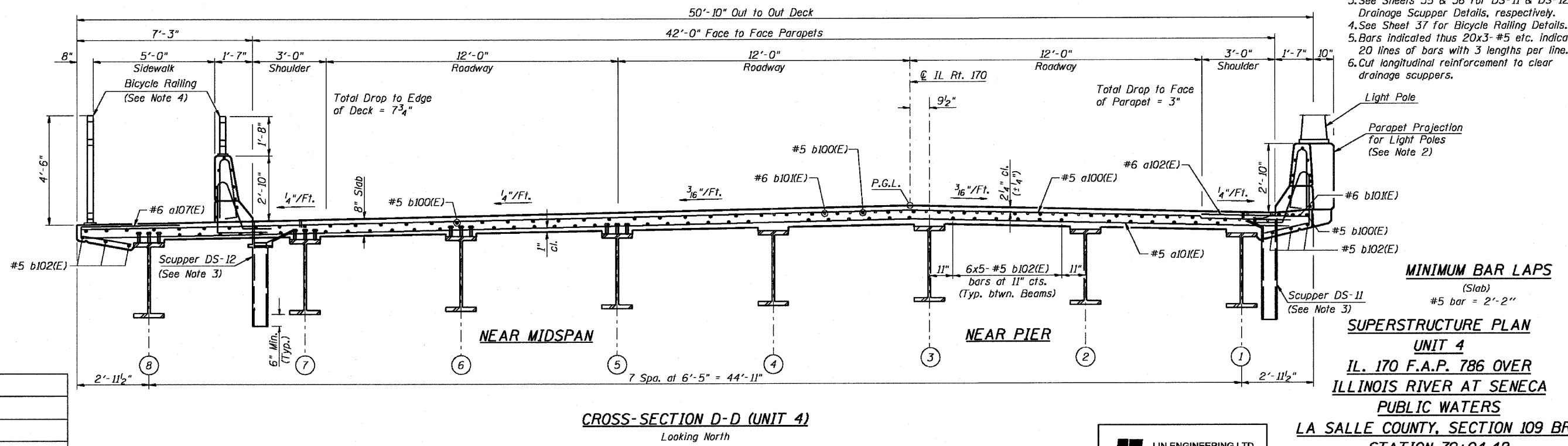
DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 31
786	109 BR	La Salle	351	231	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract #66607		



- Notes:**
1. Work this sheet with Sheets 32 and 33.
 2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
 3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
 4. See Sheet 37 for Bicycle Railing Details.
 5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 6. Cut longitudinal reinforcement to clear drainage scuppers.



MINIMUM BAR LAPS
(Slab)
#5 bar = 2'-2"

SUPERSTRUCTURE PLAN
UNIT 4

IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

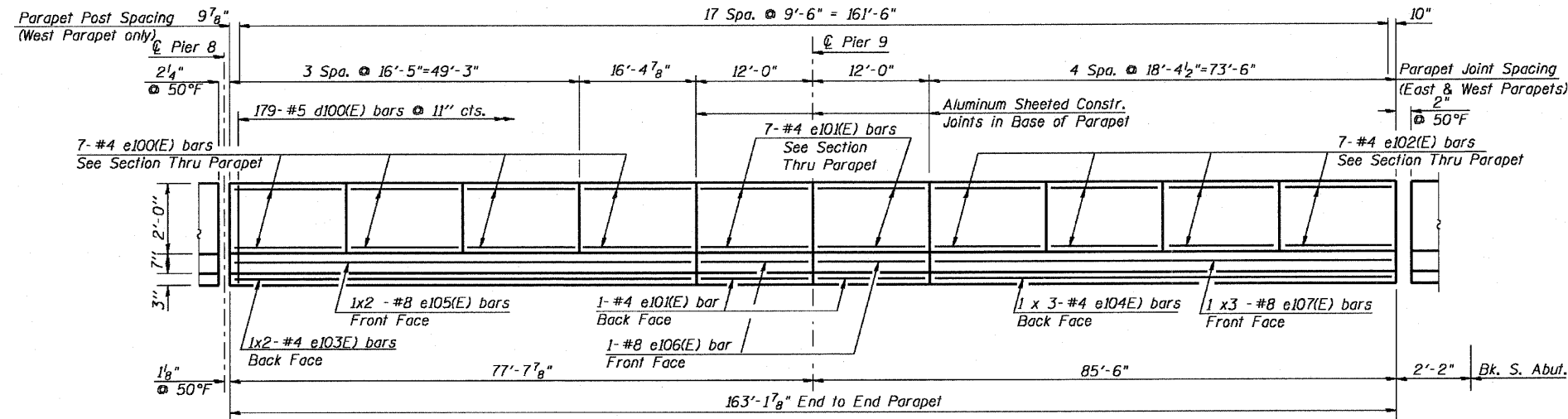
DESIGNED	RKM
CHECKED	MTH
DRAWN	AJF
CHECKED	MTH



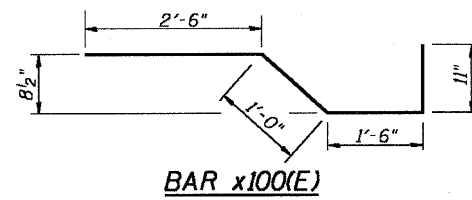
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE NO.	SECTION	COUNTY	1074 SHEETS	SHEET NO.	SHEET NO. 32
786	109 BR	La Salle	351	232	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

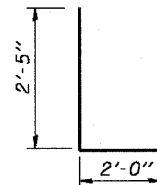
Contract #66607



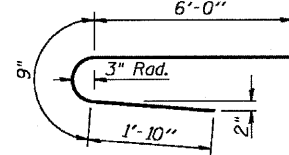
INSIDE ELEVATION OF PARAPET
East Parapet shown (West Parapet similar)



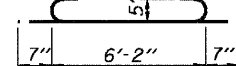
BAR x100(E)



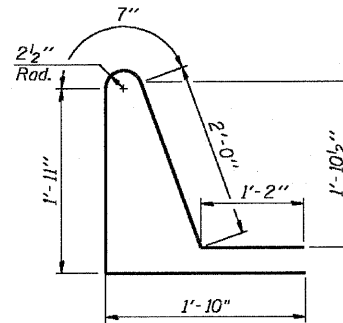
BAR d102(E)



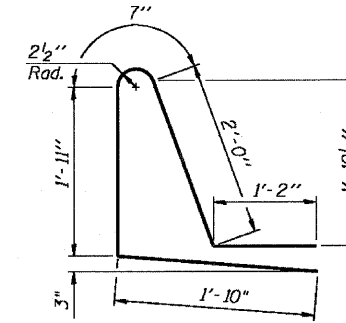
BAR a107(E)



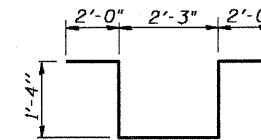
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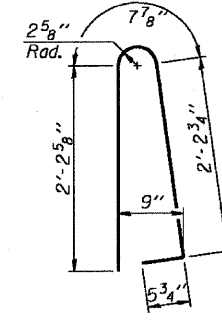
BAR d104(E)



BAR d106(E)



BAR d103(E)



BAR d100(E)

MINIMUM BAR LAPS

(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"

DESIGNED	RKM
CHECKED	MTH
DRAWN	AJF
CHECKED	MTH

Notes:

1. Work this sheet with Sheets 31 and 33.
2. See Sheet 34 for Parapet Joint Details, Parapet Projection Details/Reinforcement, & Scupper Reinforcement Details.
3. See Sheets 35 & 36 for DS-11 & DS-12 Drainage Scupper Details, respectively.
4. See Sheet 37 for Bicycle Railing Details.
5. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
6. Cut longitudinal reinforcement to clear drainage scuppers.

**SUPERSTRUCTURE
BILL OF MATERIAL**

Unit 4 (Pier 8 to S. Abut.)

Bar	No.	Size	Length	Shape
a100(E)	245	#5	50'-4"	—
a101(E)	197	#5	49'-8"	—
a102(E)	123	#6	6'-0"	—
a103(E)	8	#6	50'-0"	—
a104(E)	2	#5	44'-6"	—
a105(E)	42	#5	7'-4"	—
a106(E)	32	#5	2'-0"	—
a107(E)	123	#6	8'-7"	—
b100(E)	312	#5	28'-11"	—
b101(E)	50	#6	47'-7"	—
b102(E)	240	#5	34'-4"	—
d100(E)	358	#5	5'-7"	—
d101(E)	179	#5	7'-6"	—
d102(E)	3	#6	4'-5"	—
d103(E)	5	#6	8'-11"	—
d104(E)	179	#5	7'-6"	—
e100(E)	56	#4	16'-1"	—
e101(E)	32	#4	11'-8"	—
e102(E)	56	#4	18'-1"	—
e103(E)	4	#4	33'-4"	—
e104(E)	6	#4	25'-4"	—
e105(E)	4	#8	34'-5"	—
e106(E)	4	#8	11'-8"	—
e107(E)	6	#8	26'-10"	—
x100(E)	84	#5	5'-11"	—
Reinforcement Bars, Epoxy Coated	Pound		56,560	
Concrete Superstructure	Cu. Yd.		262.9	
Bridge Deck Grooving	Sq. Yd.		725	
Protective Coat	Sq. Yd.		898	

PARAPET DETAILS

UNIT 4

IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA

PUBLIC WATERS

LA SALLE COUNTY, SECTION 109 BR

STATION 79+04.42

STRUCTURE NO. 050-0246



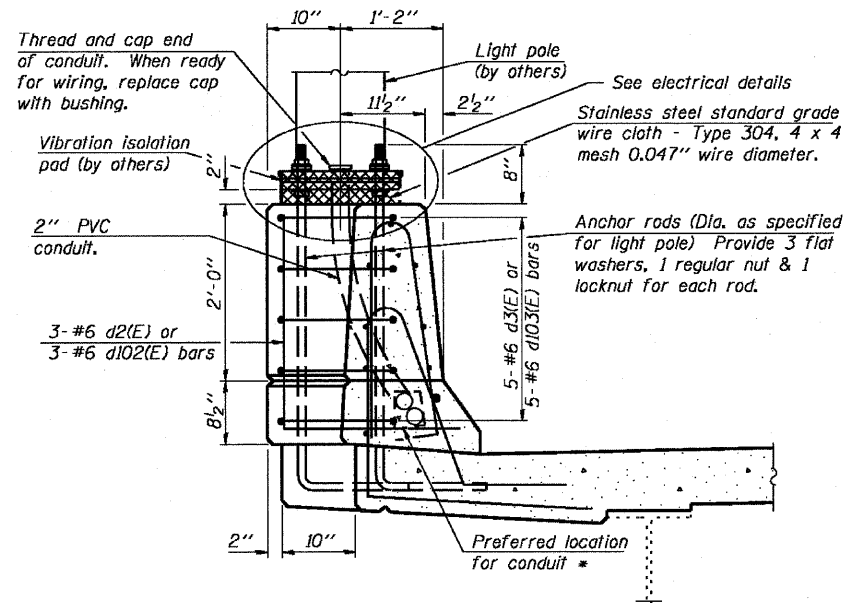
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	234
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

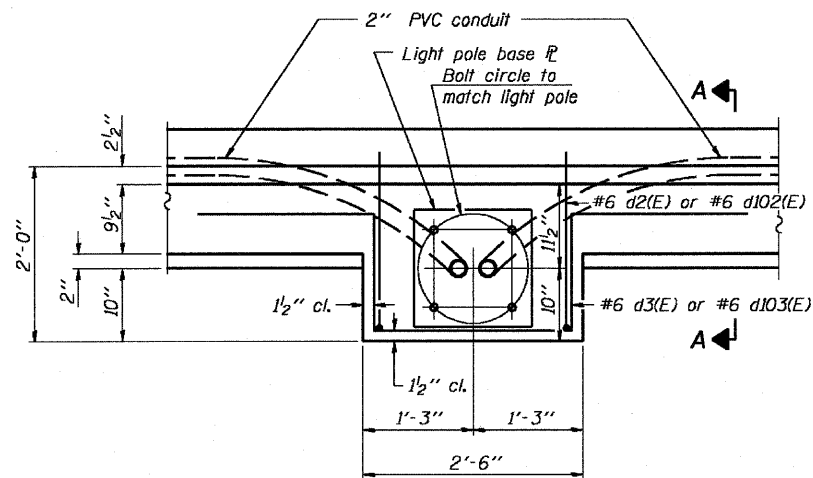
SHEET NO. 34
89 SHEETS

Contract # 66607



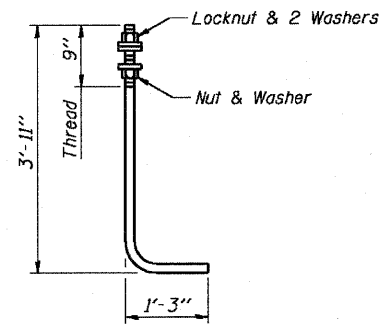
SECTION A-A

* All conduit encased in a parapet shall have a min. clearance of 1" from all reinforcement.



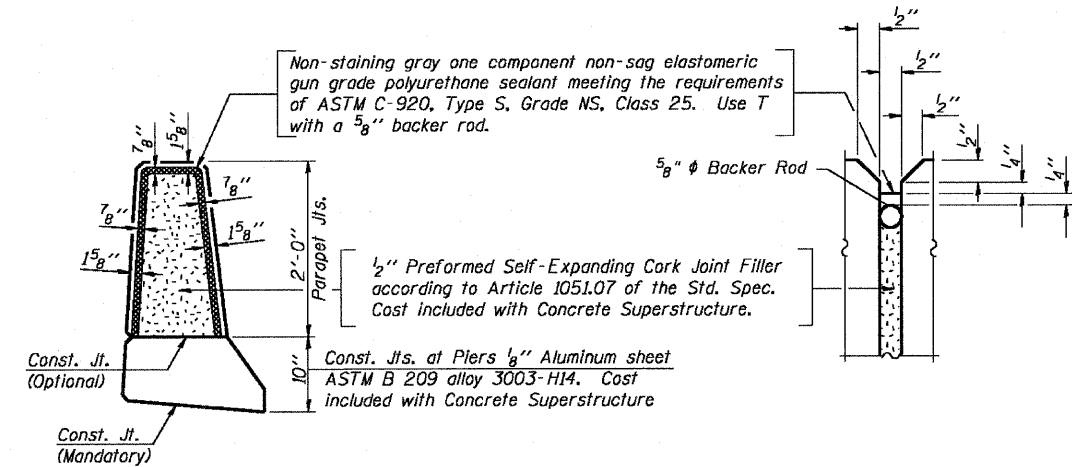
PLAN

Note:
Cost of anchor rods and conduit is included with Concrete Superstructure.

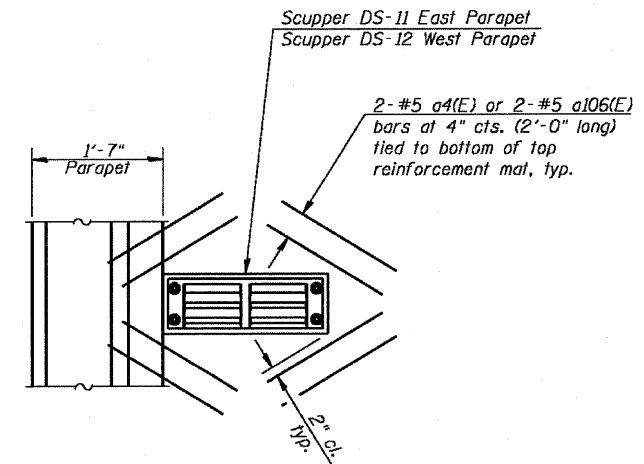


ANCHOR ROD

Diameter as specified for light poles.
(ASTM F 1554 Grade 105)



PARAPET JOINT DETAILS



SCUPPER REINFORCEMENT DETAIL

DESIGNED	- CLS
CHECKED	- RJC
DRAWN	- JHR
CHECKED	- RJC

GENERAL SUPERSTRUCTURE DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

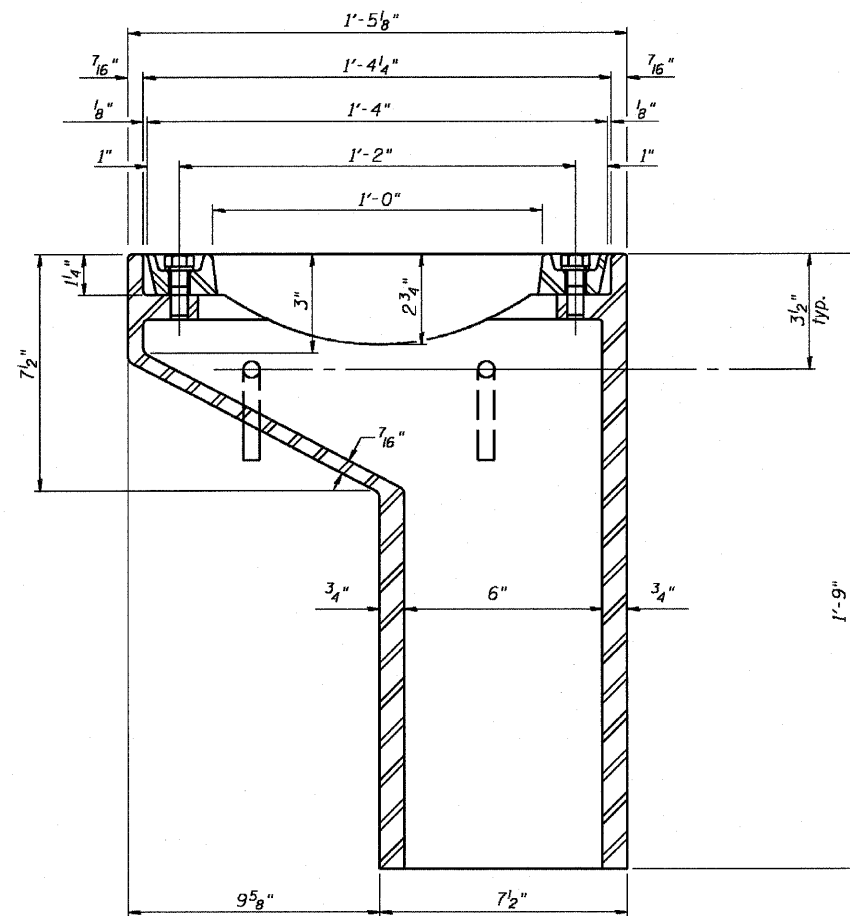
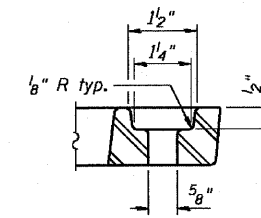
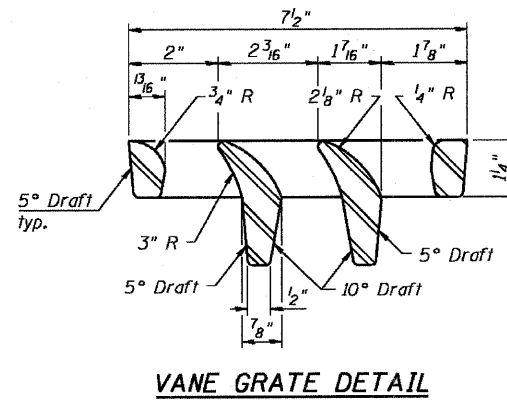
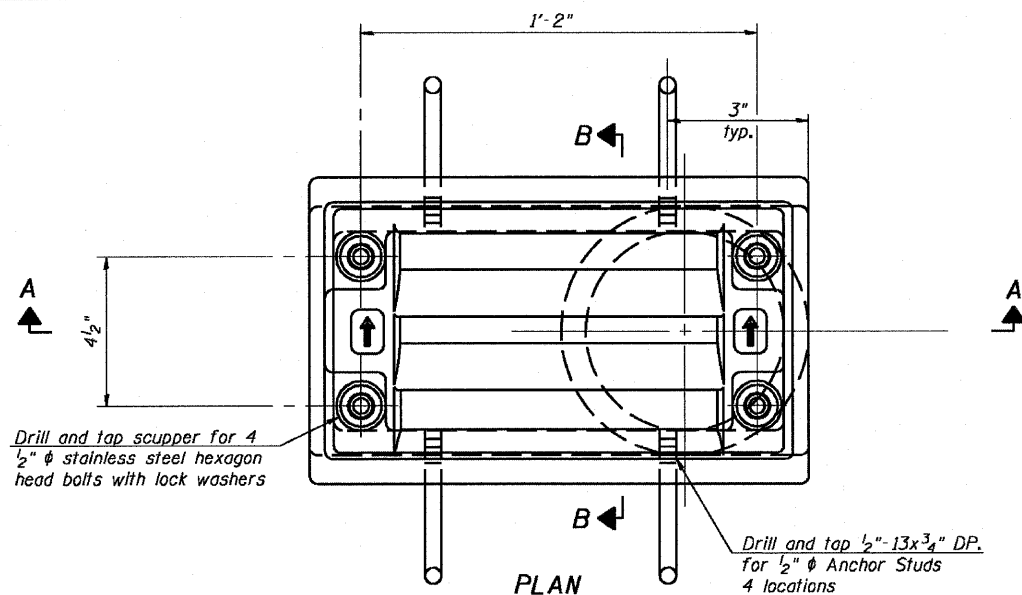
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



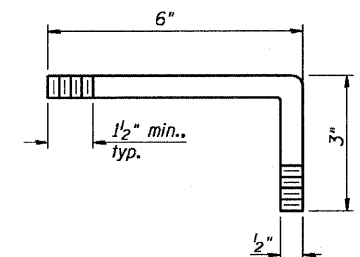
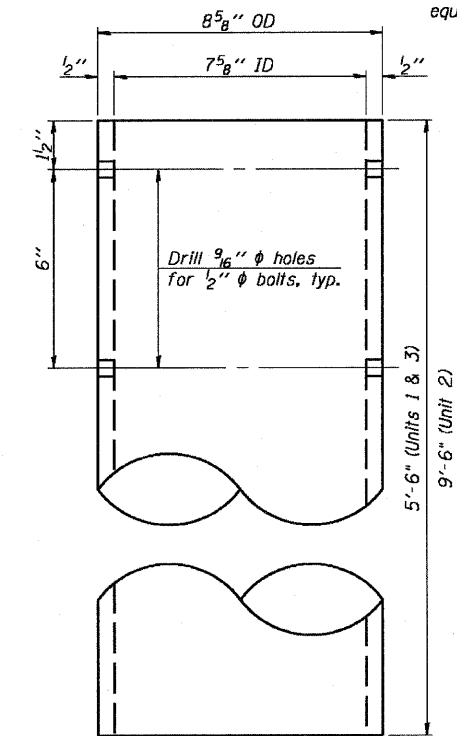
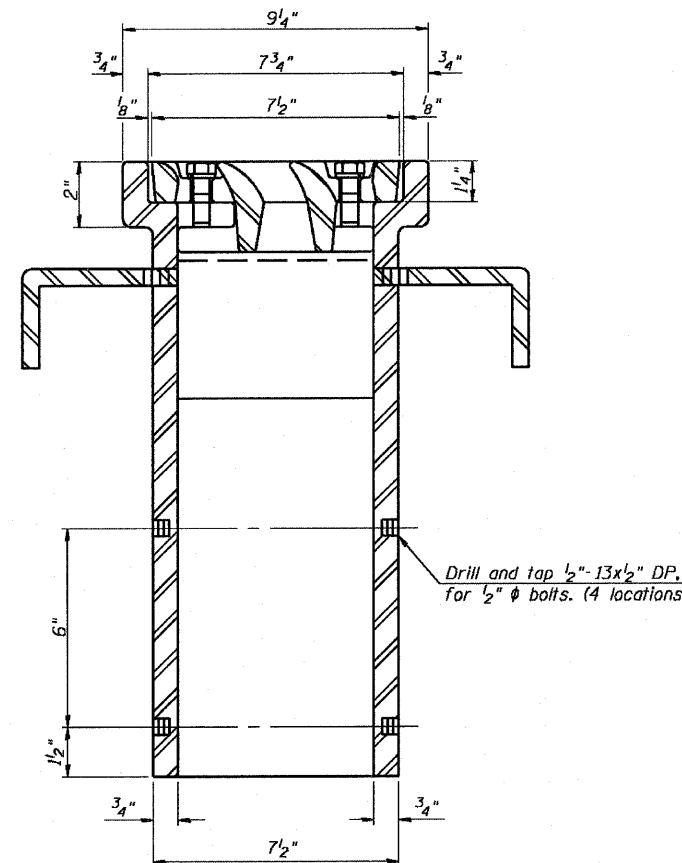
F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 35
786	109 BR	La Salle	351	235	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66607

Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



Locate scuppers flush with inside face of parapets for Units 1, 3, & 4. See Sheet 26 for the scupper embedment location relative to parapet for Unit 2.



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	10

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

DRAINAGE SCUPPER DS-11
 IL. 170 F.A.P. 786 OVER
 ILLINOIS RIVER AT SENECA
 PUBLIC WATERS
 LA SALLE COUNTY, SECTION 109 BR
 STATION 79+04.42
 STRUCTURE NO. 050-0246

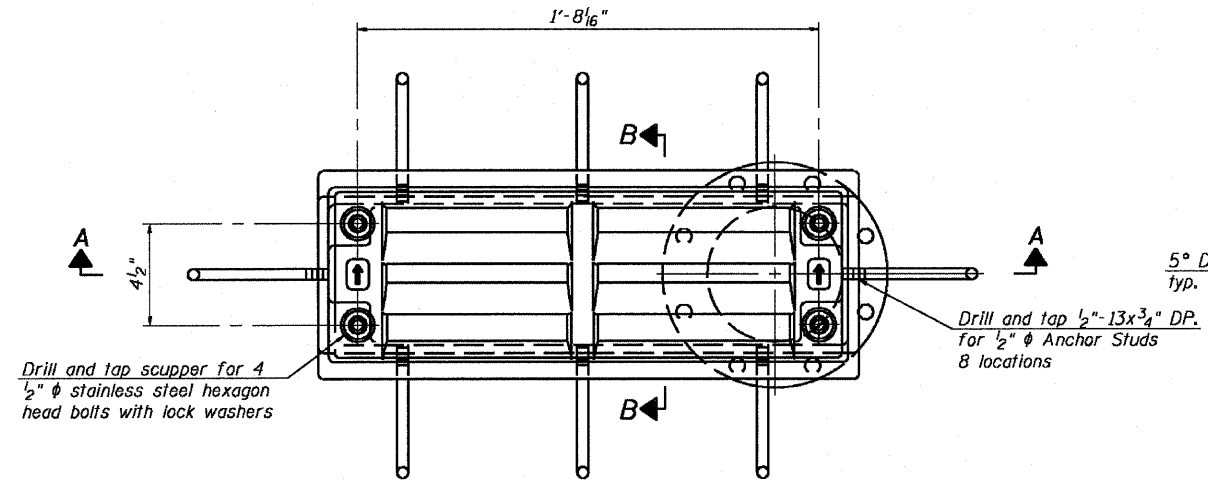
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



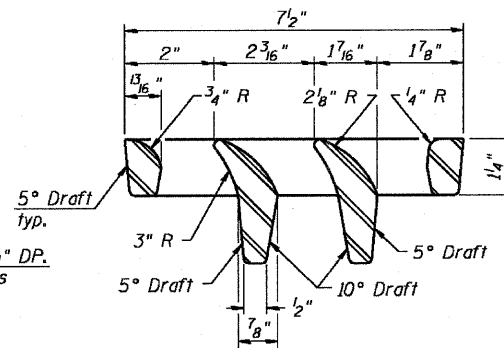
F.A.P. ROUTE NO.	SECTION	COUNTY	JOB NO.	SHEET NO.	SHEET NO. 36
786	109 BR	La Salle	351	236	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66607

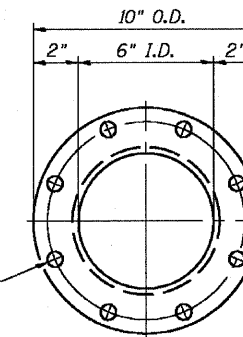
Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.



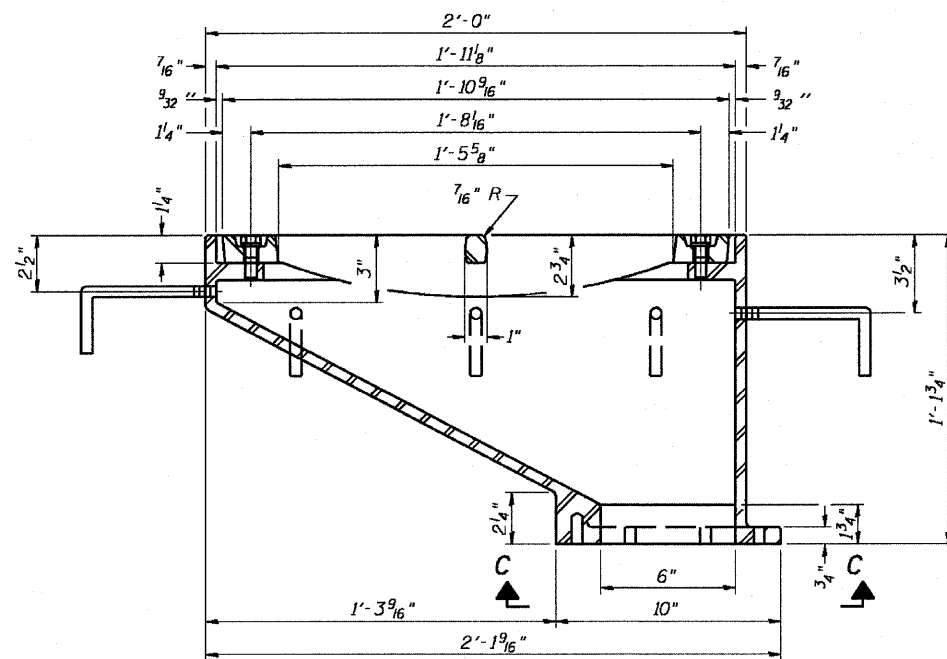
PLAN



VANE GRATE DETAIL

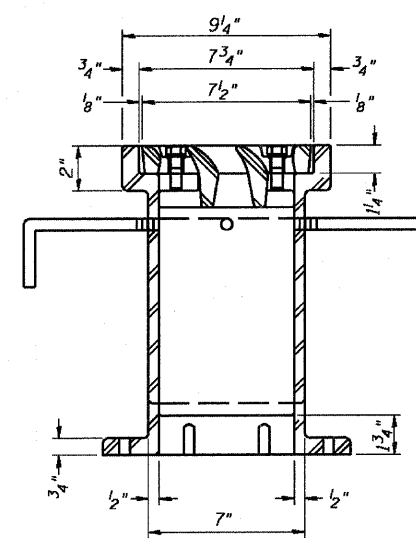


VIEW C-C

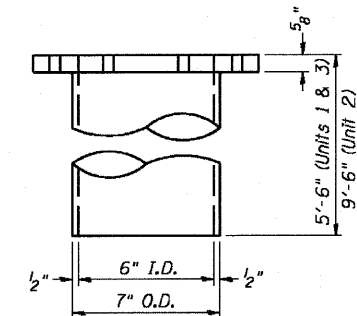


SECTION A-A

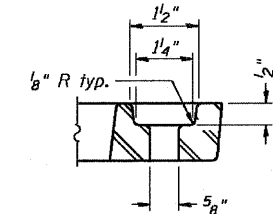
Locate scuppers flush with inside face of parapets for Units 1, 3, & 4. See Sheet 26 for the scupper embedment location relative to parapet for Unit 2.



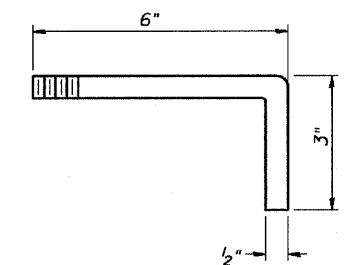
SECTION B-B



DOWNSPOUT



BOLT HOLE DETAIL



ANCHOR STUD DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	10

DRAINAGE SCUPPER DS-12
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

Drill and tap 8 holes for 1/2"-13 bolts on an 8 3/4" ϕ bolt circle. (2 blind holes are 1/4" deep, 6 thru holes)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

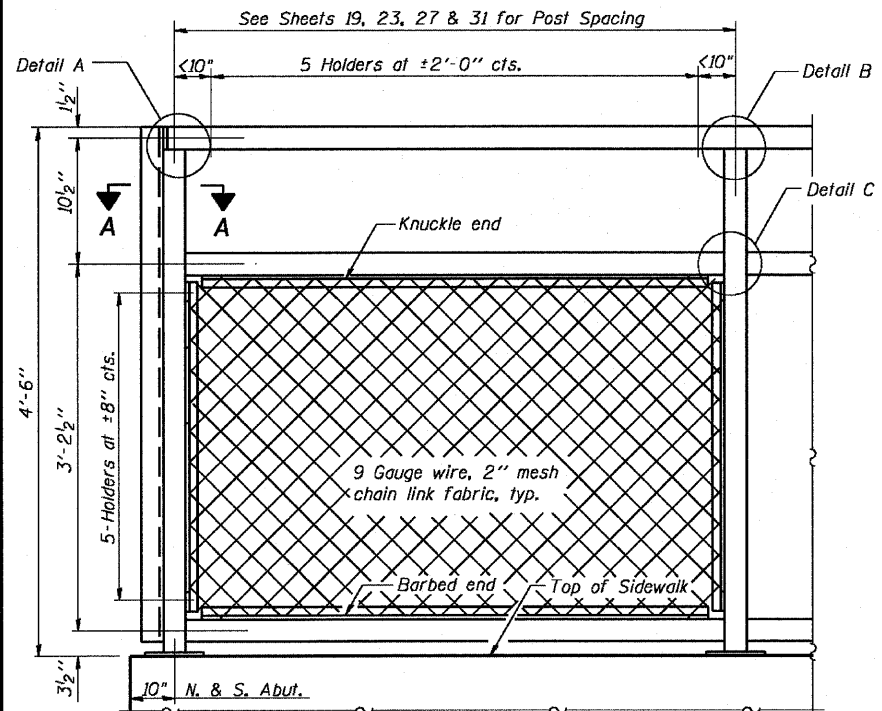


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	237
FED. ROAD DIST. NO. 7		ILLINOIS		FED. ROAD PROJECT

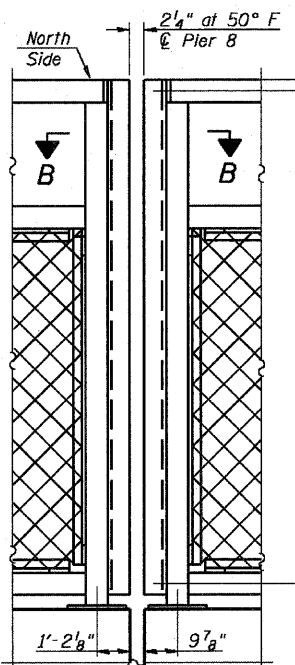
SHEET NO. 37
89 SHEETS

Contract # 66607

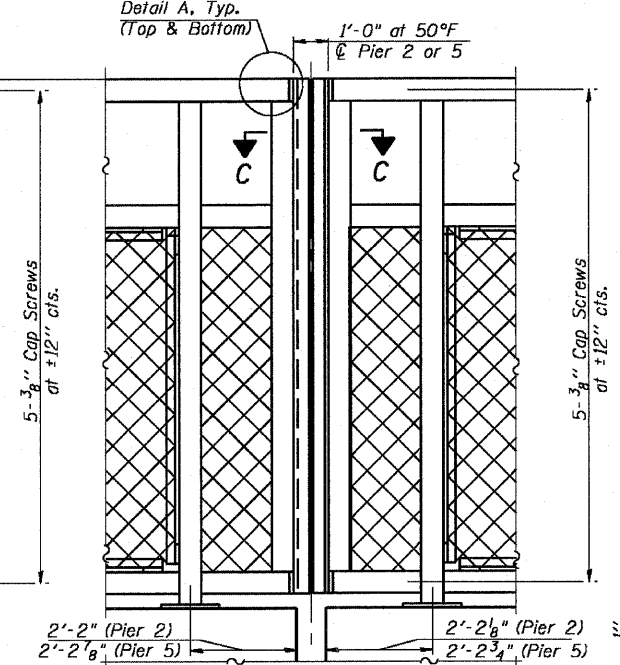
Note:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



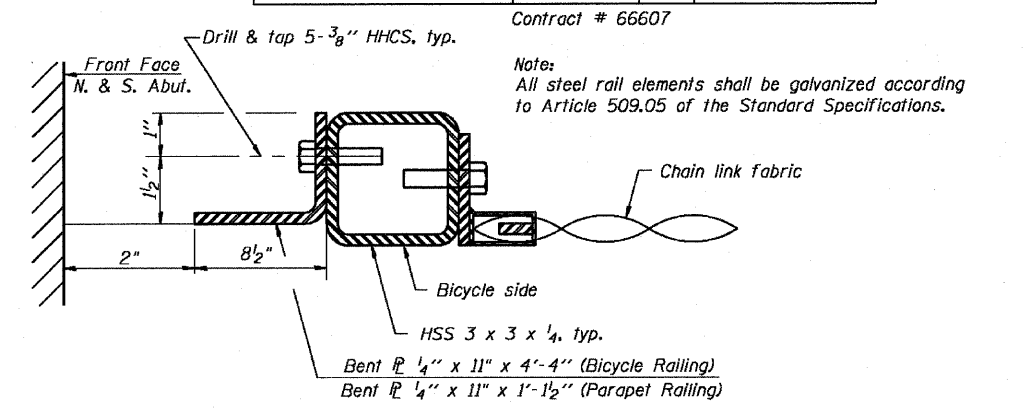
BICYCLE RAILING



BICYCLE RAILING

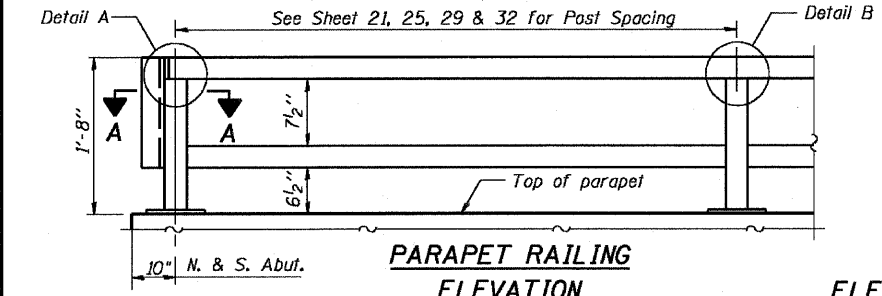


BICYCLE RAILING

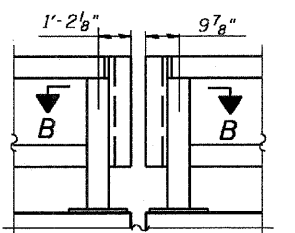


SECTION A-A

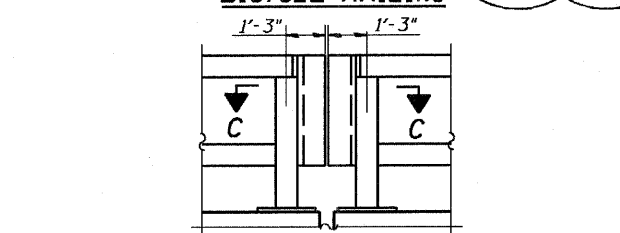
N. Abut. shown (S. Abut. similar)



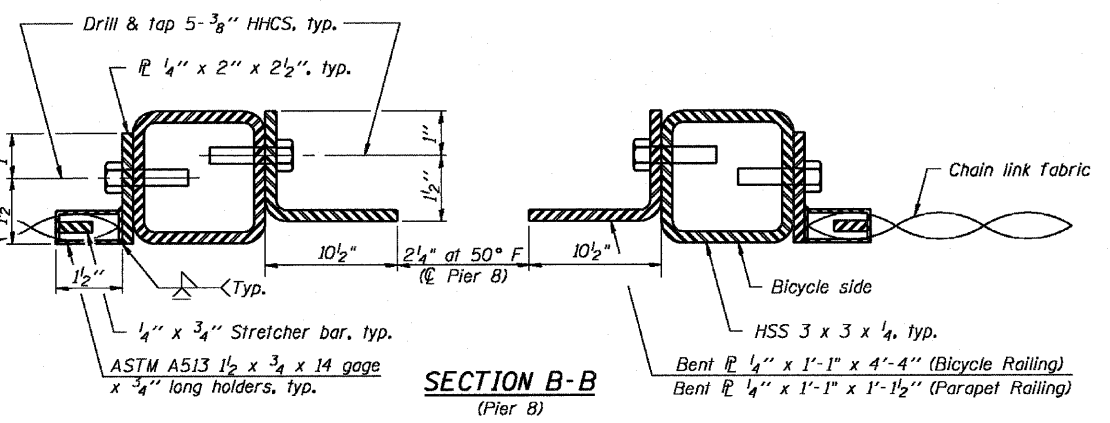
PARAPET RAILING ELEVATION



PARAPET RAILING ELEVATION AT STRIP SEAL E. J.

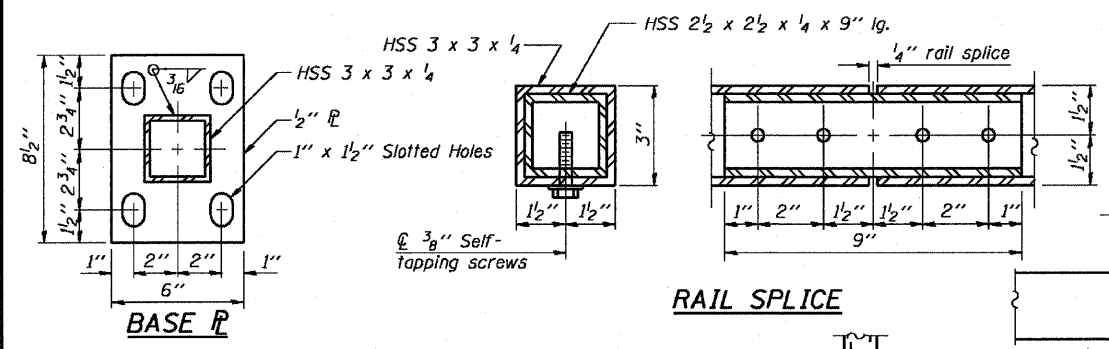


PARAPET RAILING ELEVATION AT FINGER PLATE E. J.



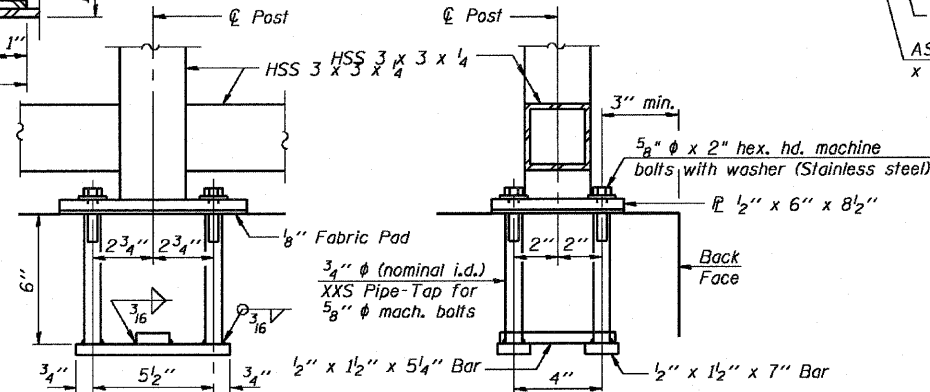
SECTION B-B

(Pier 8)

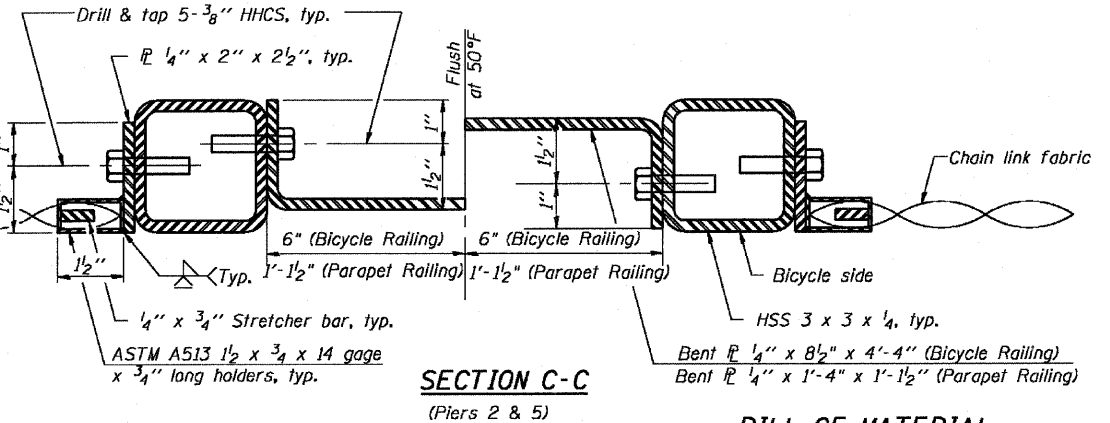


BASE PLATE

RAIL SPLICE



ANCHOR BOLT DETAILS



SECTION C-C

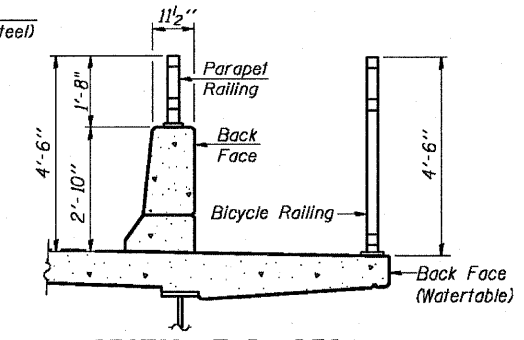
(Piers 2 & 5)

DESIGNED - CLS
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

DETAIL A

DETAIL B

DETAIL C



SECTION THRU DECK

BILL OF MATERIAL

Item	Unit	Quantity
Bicycle Railing	Foot	1732
Parapet Railing	Foot	1762

BICYCLE RAILING
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

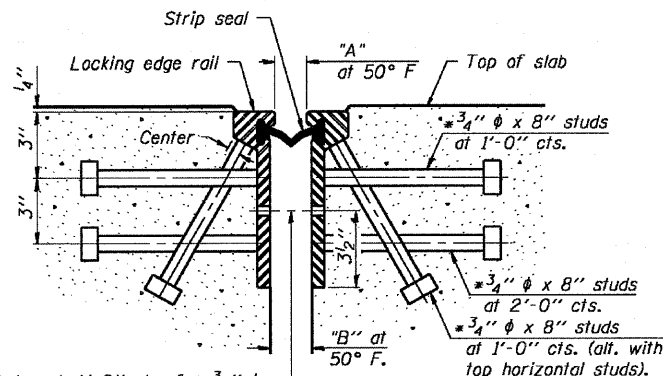
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

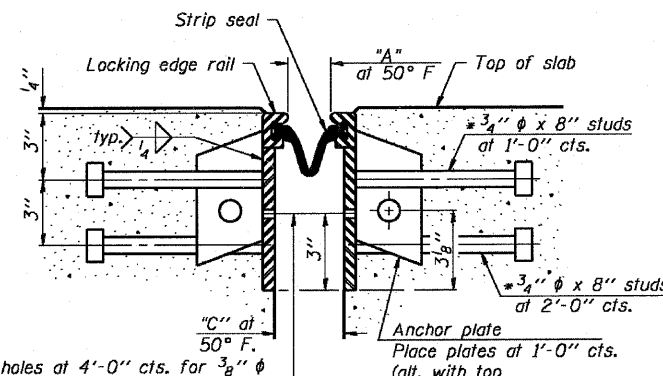
EarthTech A tyco International Ltd. Company	F.A.P. ROUTE NO.	SECTION	COUNTY	MILES	SHEET	SHEET NO. 38 89 SHEETS
	786	109 BR	La Salle	351	238	
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT		

Contract # 66607



7/16\"/>

SECTION THRU ROLLED RAIL JOINT



7/16\"/>

SECTION THRU ALTERNATE WELDED RAIL JOINT

Location	"A"	"B"	"C"
N. Abut.	1 1/2"	2"	2 3/4"
Pier 8	1 3/4"	2 1/4"	3"
S. Abut.	1 1/2"	2"	2 3/4"

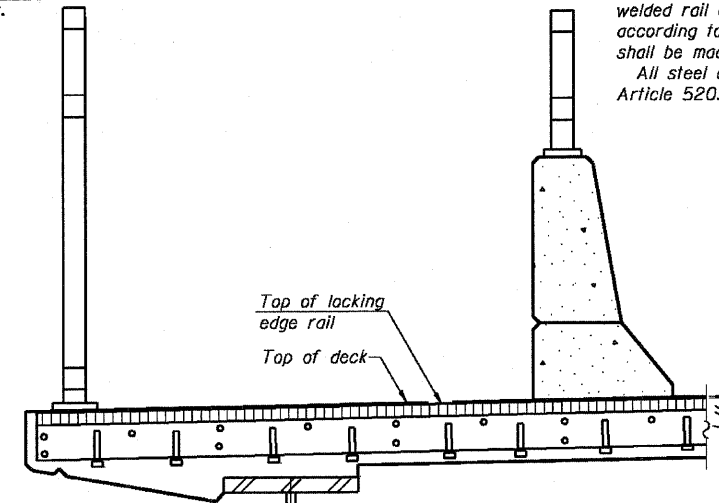
Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

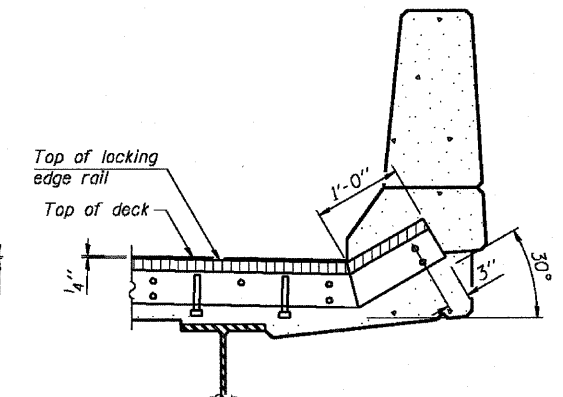
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed. The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

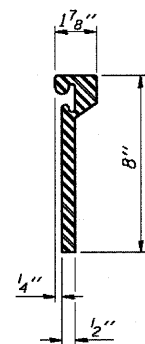


AT WEST RAILING

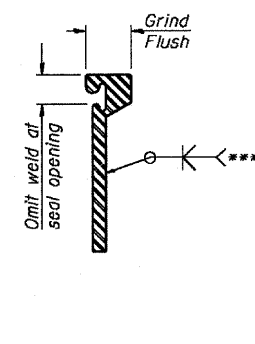


AT EAST PARAPET

TYPICAL END TREATMENTS

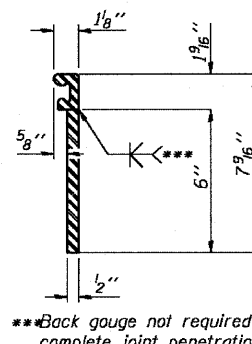


ROLLED (EXTRUDED) RAIL



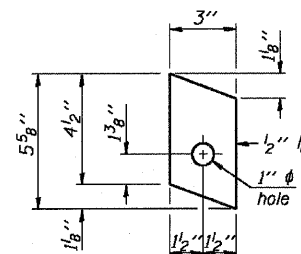
LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.

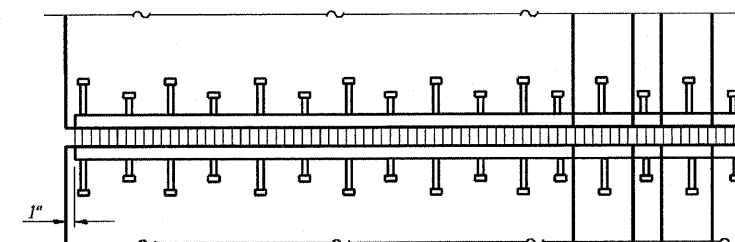


ALTERNATE WELDED RAIL

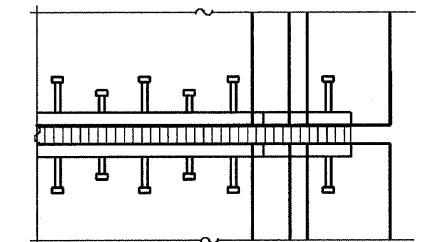
LOCKING EDGE RAILS



ANCHOR PLATE (for welded rail)



PLAN



BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	139'-0"

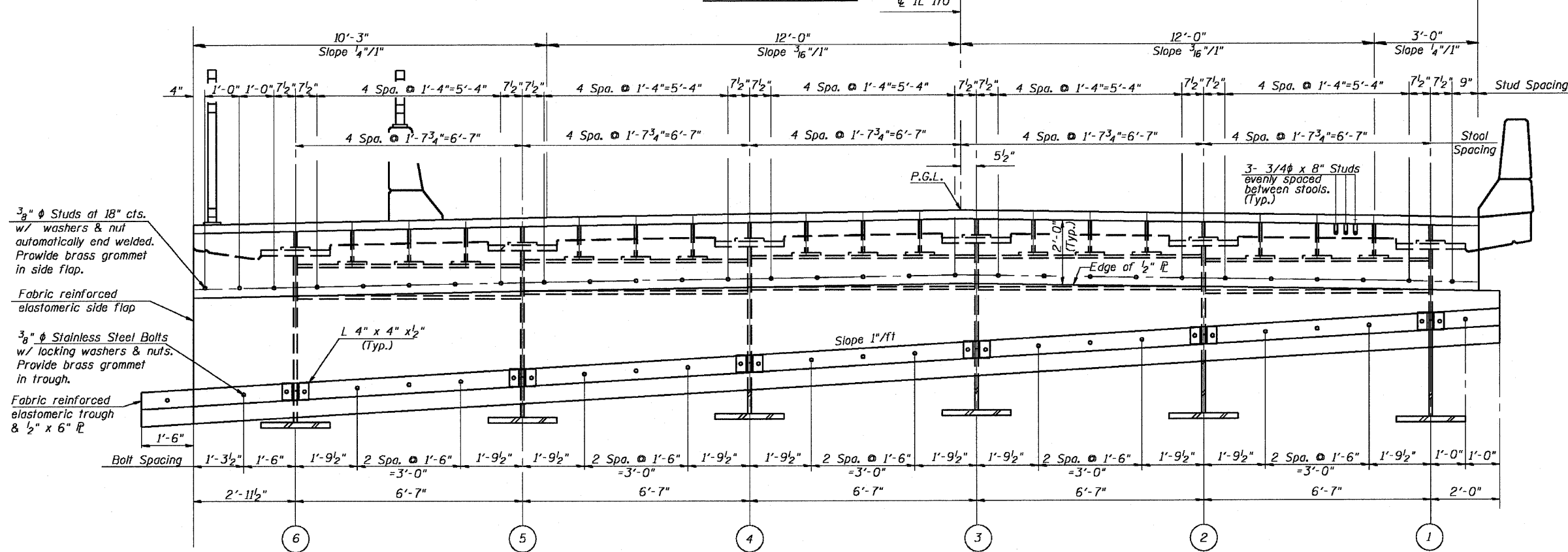
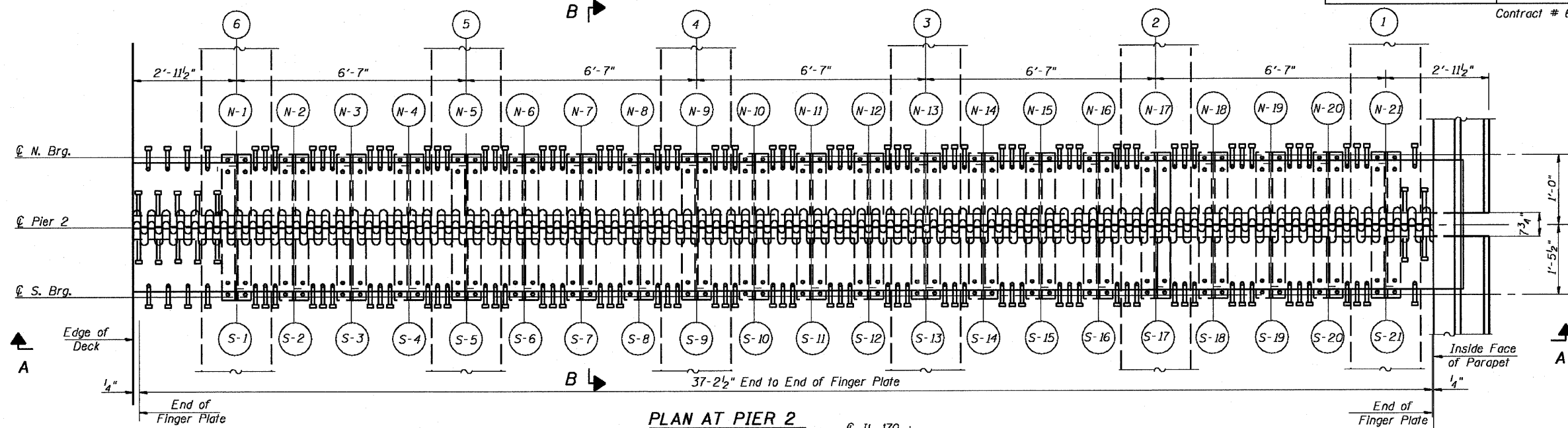
DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

PREFORMED JOINT STRIP SEAL
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STA. SHEETS	SHEET NO.	SHEET NO. 39 89 SHEETS
786	109 BR	La Salle	351	239	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract # 66607		



- Notes:
1. Work this sheet with Sheets 40, 41 & 42.
 2. M 270 Grade 50W steel shall be used for the finger plates and attachments.
 3. Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

SECTION A-A

**FINGER PLATE EXP. JOINT
AT PIER 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

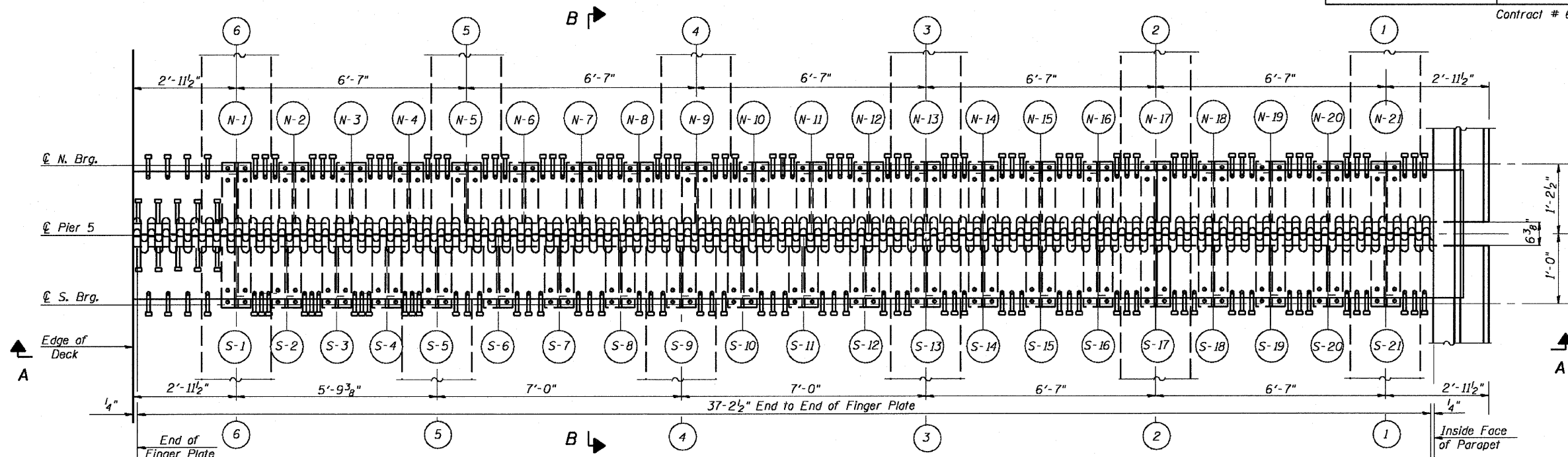
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



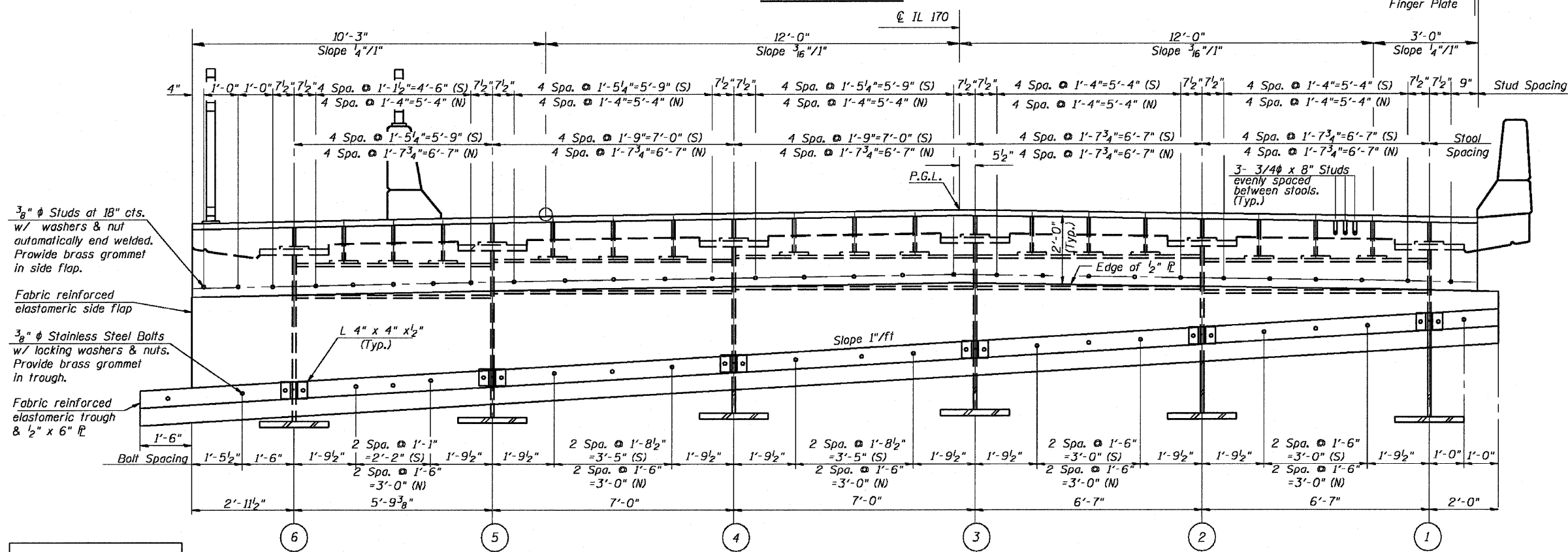
F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	240
FED. PROJ. DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 40
89 SHEETS

Contract # 66607



PLAN AT PIER 5



SECTION A-A

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

Notes:

1. Work this sheet with Sheets 39, 41 & 42.
2. M 270 Grade 50W steel shall be used for the finger plates and attachments.
3. Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

**FINGER PLATE EXP. JOINT
AT PIER 5
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

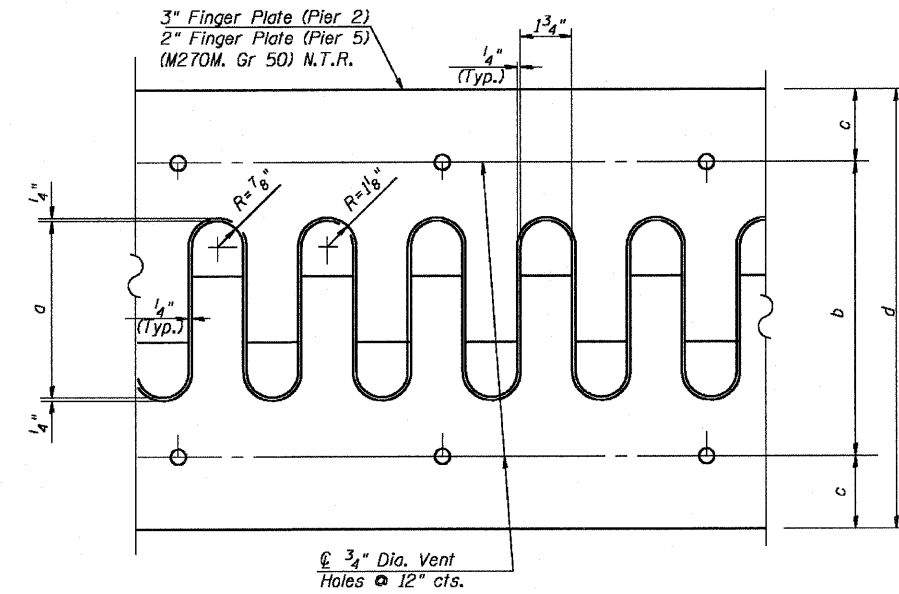
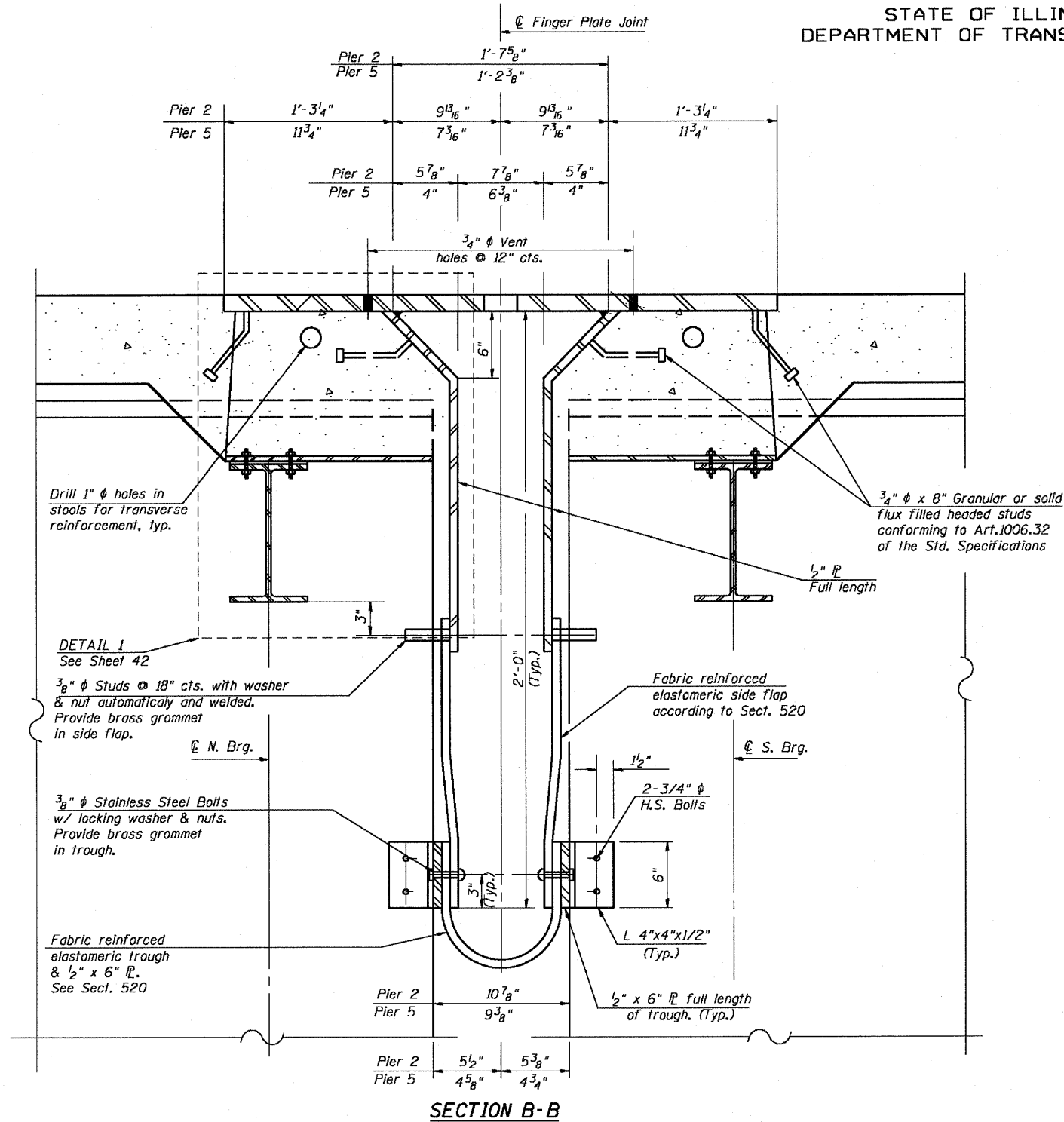
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	241
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

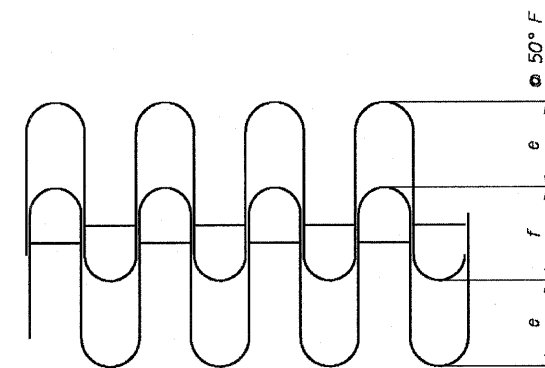
SHEET NO. 41
89 SHEETS

Contract # 66607



FLAME CUTTING DIAGRAM

Cut from ϕ 3" x 3'-8 1/2" x 37'-2 1/2" (Pier 2)
Cut from ϕ 2" x 2'-10" x 37'-2 1/2" (Pier 5)



FINGER PLATE SETTING DIAGRAM

Notes:

1. Work this sheet with Sheets 39, 40 & 42.
2. M 270 Grade 50W steel shall be used for the finger plates and attachments.
3. Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

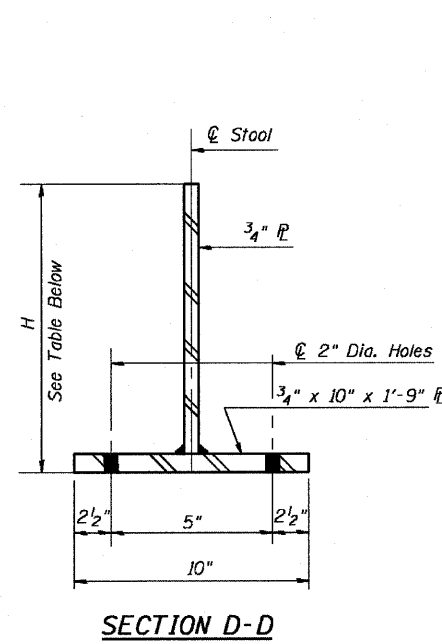
TABLE OF VARIABLES

LOCATION	a	b	c	d	e	f
Pier 2	1'-0 1/2"	1'-8 1/4"	1'-0 1/4"	3'-8 3/4"	5 1/8"	6 3/4"
Pier 5	8 3/4"	1'-4 1/2"	8 3/4"	2'-10"	4 1/8"	4 7/8"

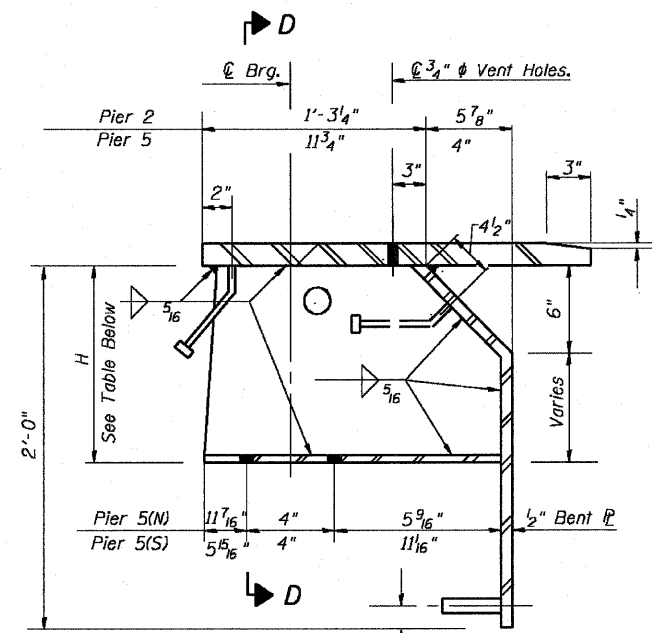
DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED -

FINGER PLATE EXP. JT. DETAILS 1
AT PIERS 2 & 5
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

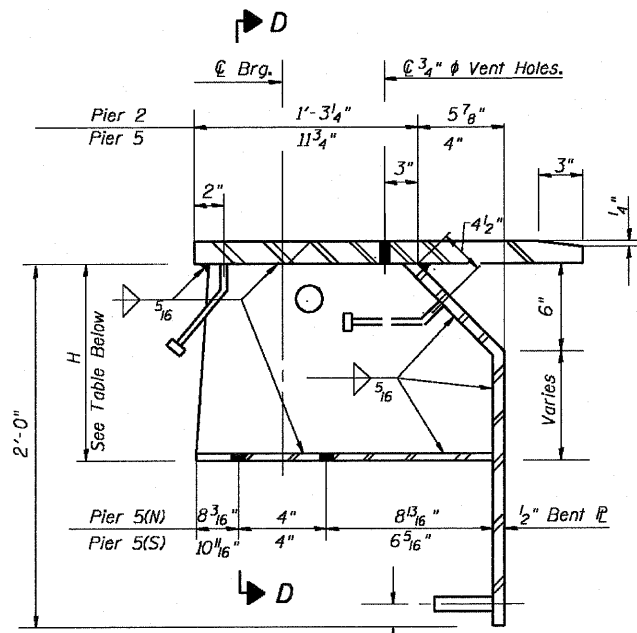
Contract # 66607



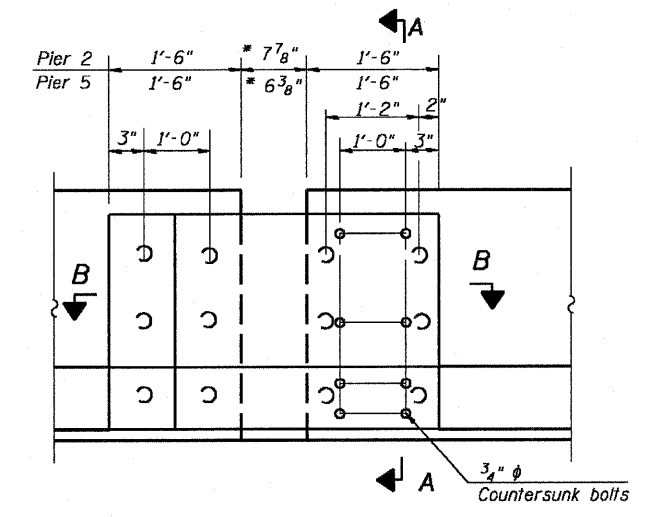
SECTION D-D



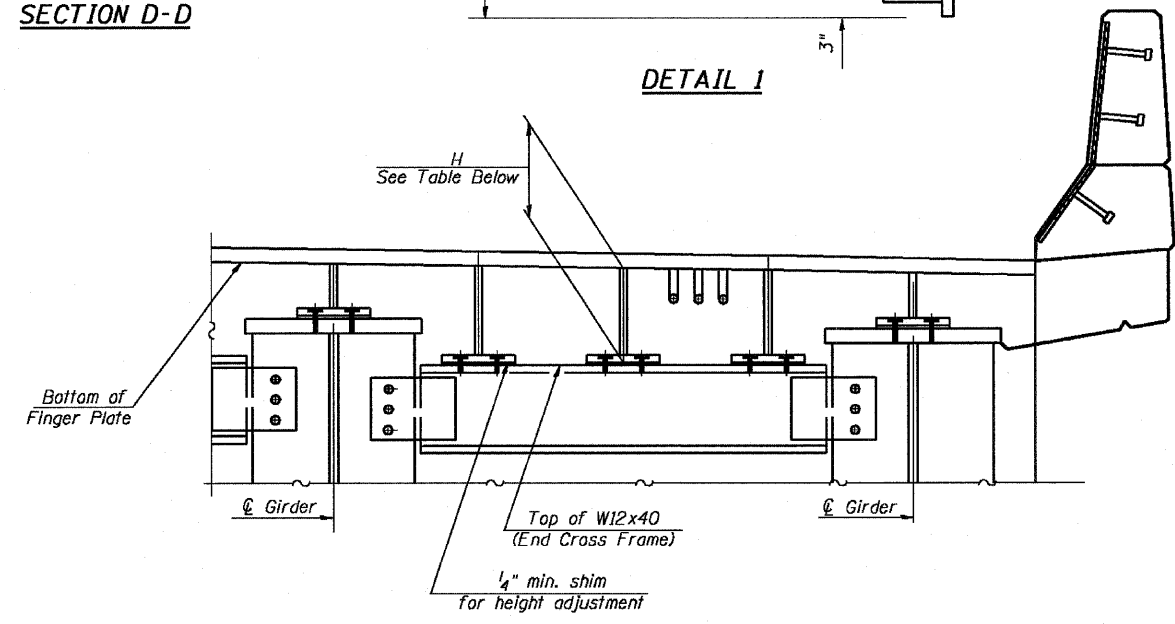
DETAIL 1



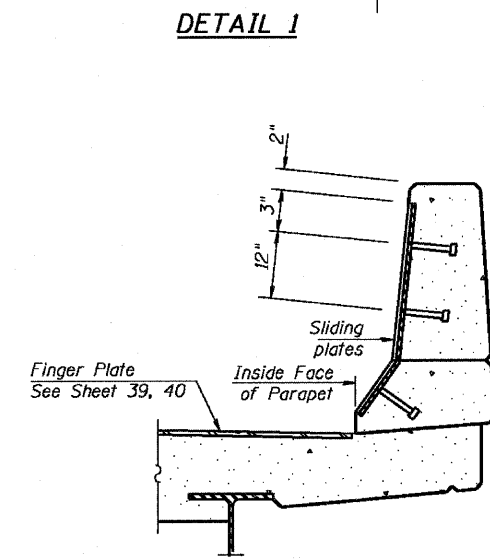
DETAIL 1



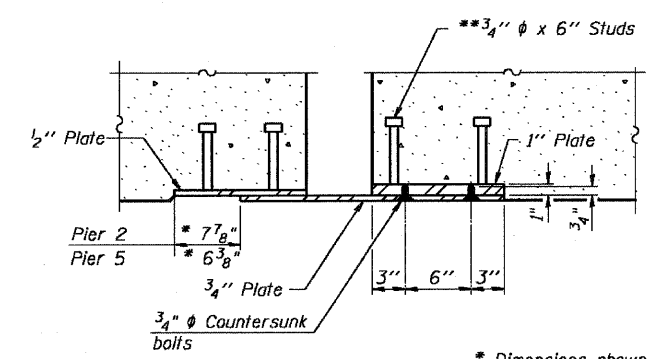
EAST PARAPET SLIDING PLATE DETAIL
(WEST PARAPET SIMILAR)



STOOLS DETAIL



SECTION A-A



SECTION B-B

* Dimensions shown are at 50° F
** Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

- Notes:
1. Work this sheet with Sheets 39, 40 & 41.
 2. M 270 Grade 50W steel shall be used for the finger plates and attachments.
 3. Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

TABLE OF STOOL HEIGHTS "H" - PIERS 2 & 5

LOCATION	STOOL NUMBER																				
Pier 2	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	S-14	S-15	S-16	S-17	S-18	S-19	S-20	S-21
	5 1/2"	9 1/16"	10 3/16"	10 5/8"	5 1/2"	9 3/4"	10 1/16"	10 7/8"	5 1/2"	9 1/16"	10"	10 3/16"	5 1/2"	10 1/4"	10"	9 1/16"	5 1/2"	10 3/8"	10 1/16"	9 15/16"	5 1/2"
	N-1	N-2	N-3	N-4	N-5	N-6	N-7	N-8	N-9	N-10	N-11	N-12	N-13	N-14	N-15	N-16	N-17	N-18	N-19	N-20	N-21
Pier 5	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8	S-9	S-10	S-11	S-12	S-13	S-14	S-15	S-16	S-17	S-18	S-19	S-20	S-21
	6 1/2"	10 5/8"	11"	11 1/16"	6 1/2"	10 5/8"	10 15/16"	11 1/4"	6 1/2"	10 9/16"	10 7/8"	11 3/16"	6 1/2"	11 1/4"	10 5/16"	10 9/16"	6 1/2"	11 1/4"	10 15/16"	10 1/16"	6 1/2"
	N-1	N-2	N-3	N-4	N-5	N-6	N-7	N-8	N-9	N-10	N-11	N-12	N-13	N-14	N-15	N-16	N-17	N-18	N-19	N-20	N-21
	6 1/2"	10 3/4"	11 1/8"	11 9/16"	6 1/2"	10 3/4"	11 1/8"	11 3/8"	6 1/2"	10 1/16"	11"	11 5/16"	6 1/2"	11 3/8"	11 1/8"	10 1/16"	6 1/2"	11 3/8"	11 1/8"	10 1/16"	6 1/2"

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

FINGER PLATE EXP. JT. DETAILS 2
AT PIERS 2 & 5
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

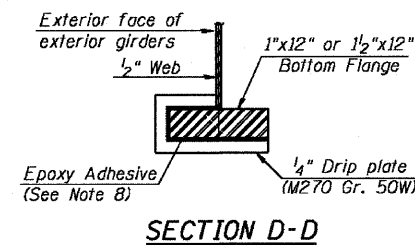
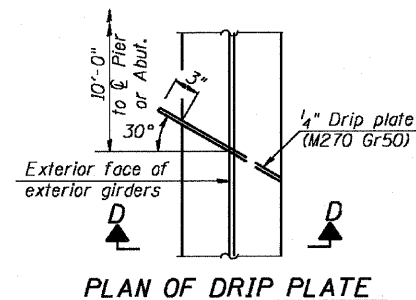
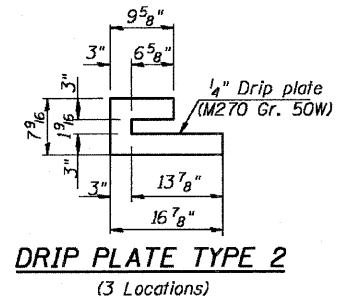
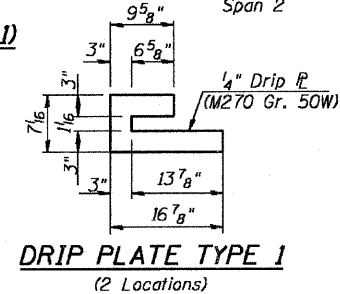
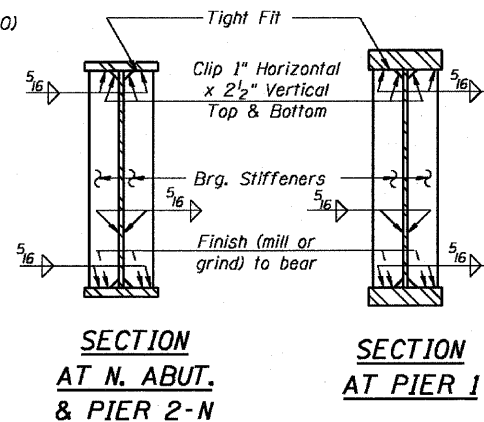
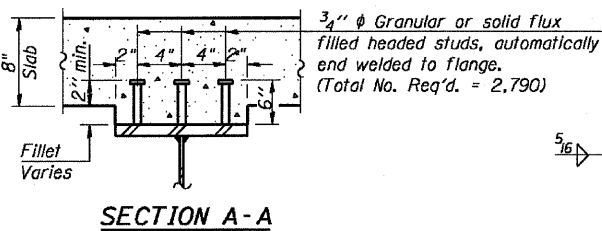
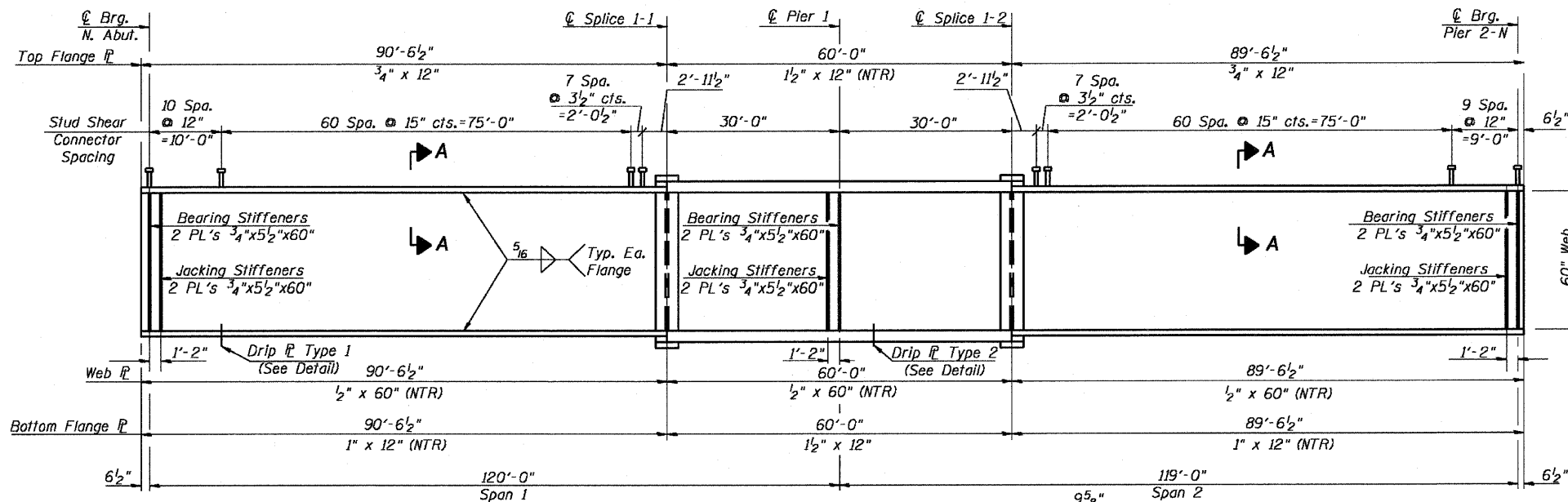
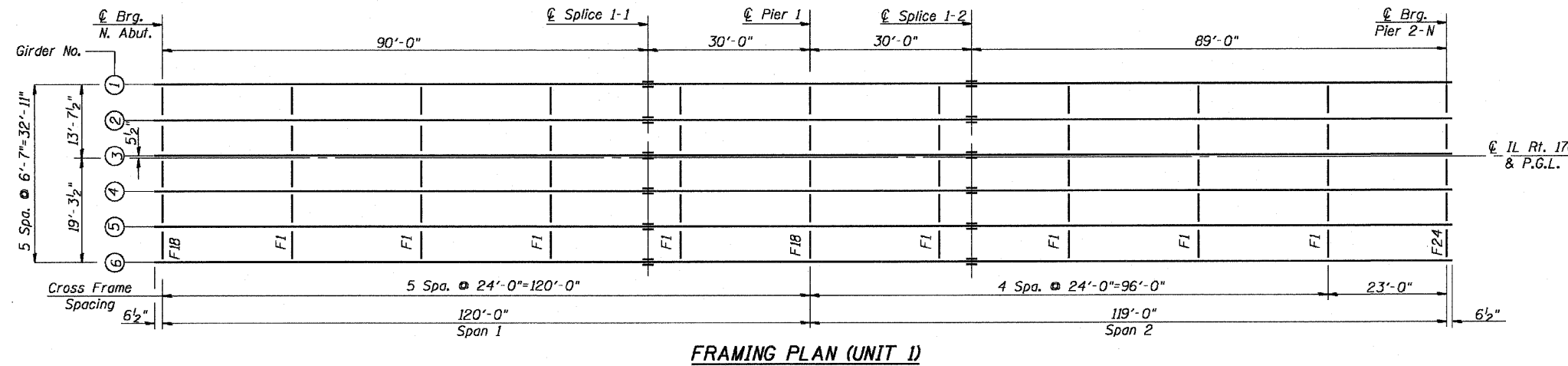
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SUBSECT.	SHEET NO.
786	109 BR	La Salle	351	243
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

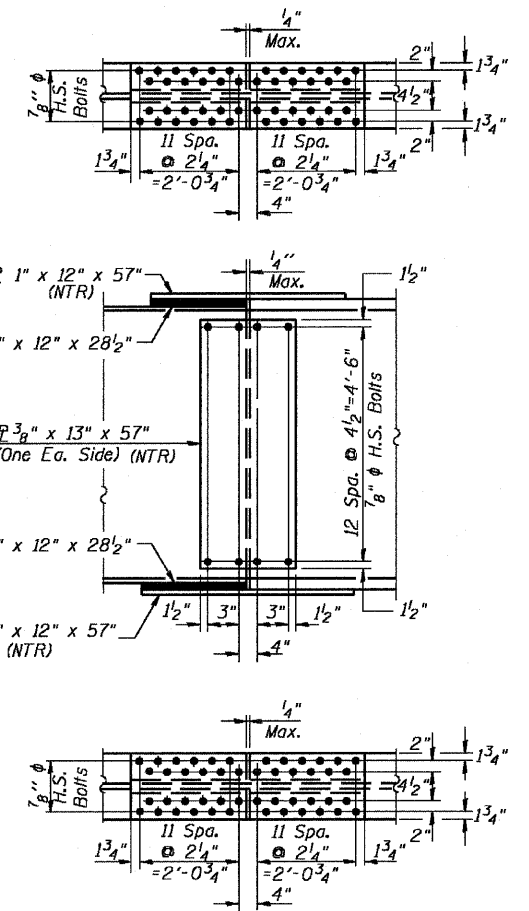
SHEET NO. 43
89 SHEETS

Contract # 66607



Notes:

1. Work this sheet with Sheet 44.
2. See sheet 54 for cross frame details.
3. M270 Grade 50W steel shall be used for all flanges, flange splice plates, webs, web splice plates, & bearing plates unless otherwise noted.
4. (NTR) denotes Notch Toughness Requirements. Plates designated "NTR" shall conform to the supplement requirements for toughness (Zone 2). NTR plates include tension flanges, webs, and all splice plate material (except fill plates).
5. H.S. bolts for splices shall be 7/8" φ AASHTO M164/ASTM A325 H.S. bolts (Type 3 for weathering steel) with 5/16" φ standard size holes unless otherwise noted.
6. Design of H.S. bolts assumes no threads in the shear plane and a Class A surface for slip resistance.
7. All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
8. Drip plates shall be installed on suitably prepared surfaces after shop priming, using a two component epoxy suitable for structural steel under prolonged exposure. Plates shall be painted with the paint specified for structural steel.



DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED -

FRAMING PLAN
UNIT 1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

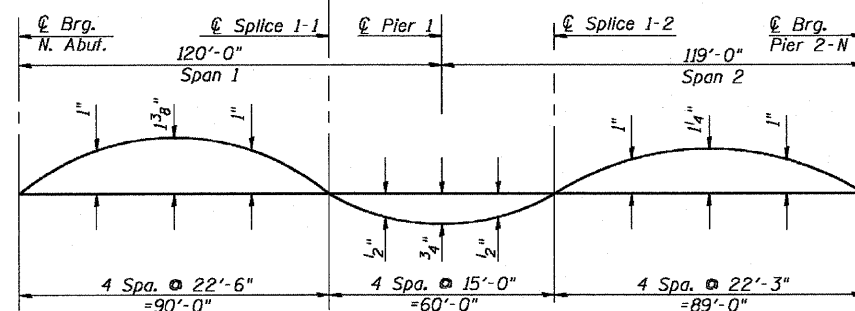
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	244
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 44
89 SHEETS

Contract # 66607



CAMBER DIAGRAM UNIT 1 (GIRDERS 1 THRU 6)

**TOP OF WEB ELEVATIONS BEFORE DEFLECTION
(FOR FABRICATION ONLY)**

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
N. Abut.	521.23	521.34	521.44	521.35	521.25	521.11
Splice 1-1	525.62	525.73	525.83	525.74	525.63	525.50
Pier 1	527.04	527.15	527.26	527.17	527.06	526.92
Splice 1-2	528.59	528.70	528.80	528.72	528.61	528.47
Pier 2-N	533.11	533.22	533.32	533.23	533.13	532.99

	0.4 Sp. 1	Pier 1	0.6 Sp. 2
I_s	28,300	43,047	28,300
$I_c(n)$	71,380	---	71,380
$I_c(3n)$	51,535	---	51,535
S_s	970	1,367	970
$S_c(n)$	1,395	---	1,395
$S_c(3n)$	1,255	---	1,255
Z	---	---	---
ϕ	0.877	1.348	0.877
$M\phi$	817	2,506	792
$s\phi$	0.413	---	0.413
$M_s\phi$	434	---	422
M_t	946	801	937
M_{imp}	193	164	192
$S_y [M_t + M_{imp}]$	1,898	1,608	1,882
M_a	4,094	5,349	4,024
M_u	5,813	---	5,813
$f_s \phi$ non-comp	10.11	22.00	9.80
$f_s \phi$ (comp)	4.15	---	4.04
$f_s S_y [M_t + M_{imp}]$	16.33	14.12	16.19
f_s (Overload)	30.59	36.12	30.02
f_s (Total)	---	46.95	---
VR	56.8	---	56.9

*

**

	N. Abut.	Pier 1	Pier 2-N
$R\phi$	57	198	56
R_t	44	71	44
Imp.	9	15	9
R_{Total}	110	284	109

* Compact section
** Braced non-compact and partially braced section

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- Z : Plastic Section Modulus of the steel section in non-composite areas (in.³).
- ϕ : Un-factored non-composite dead load (kips/ft.).
- $M\phi$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s\phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s\phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_t : Un-factored live load moment (kip-ft.).
- M_{imp} : Un-factored moment due to Impact (kip-ft.).
- M_a : Factored design moment (kip-ft.).
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
- f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
- VR : Maximum $\frac{1}{4}$ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

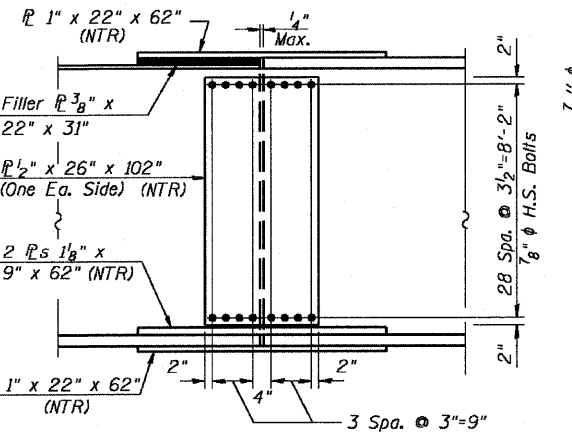
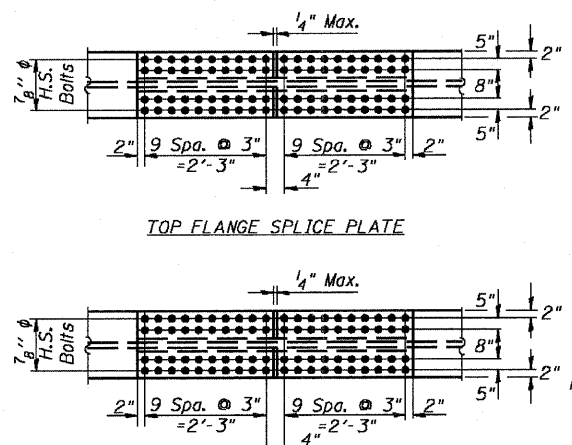
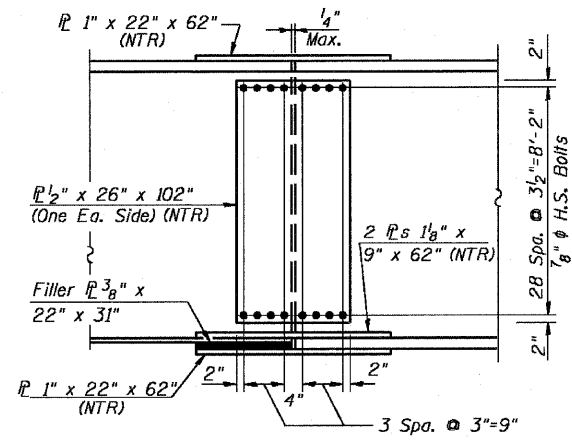
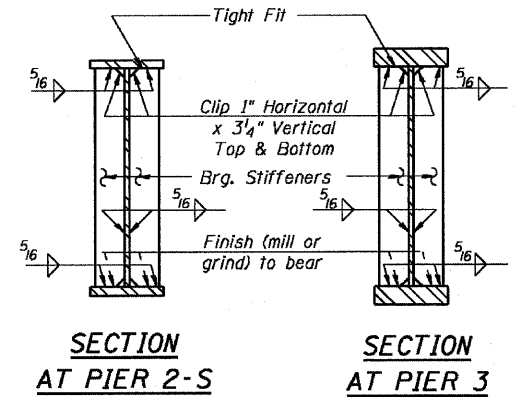
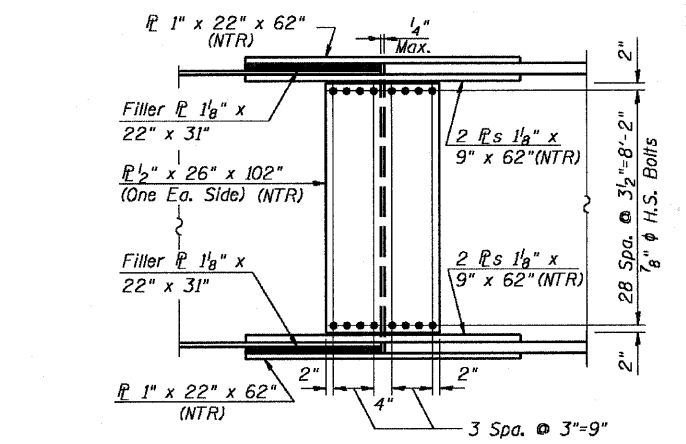
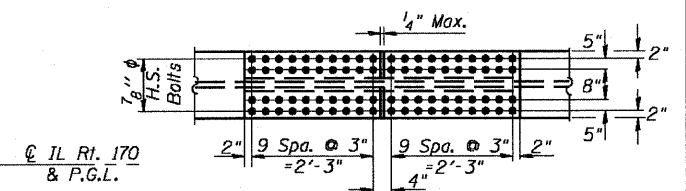
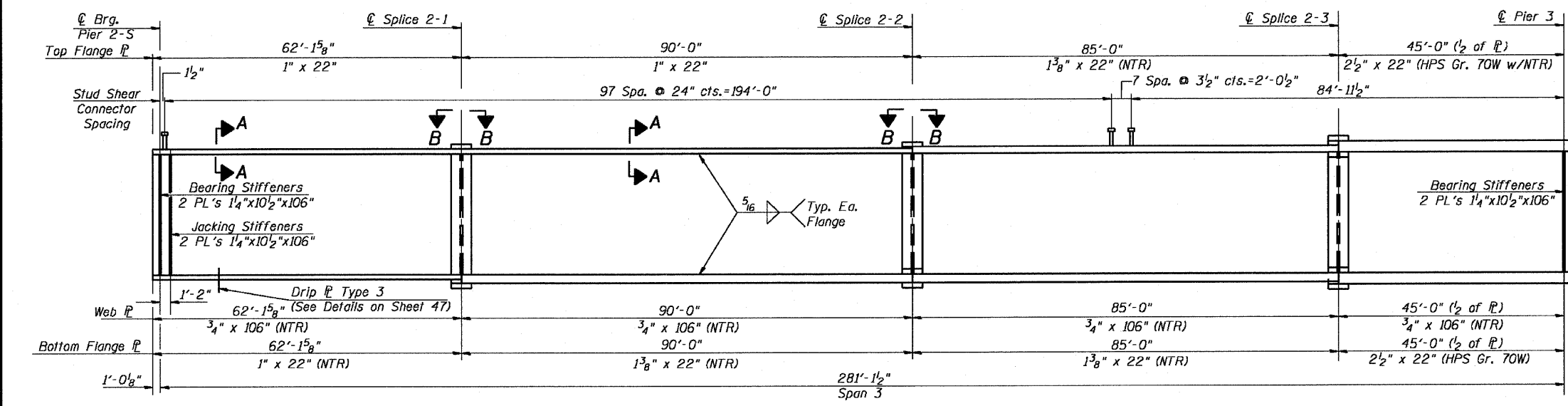
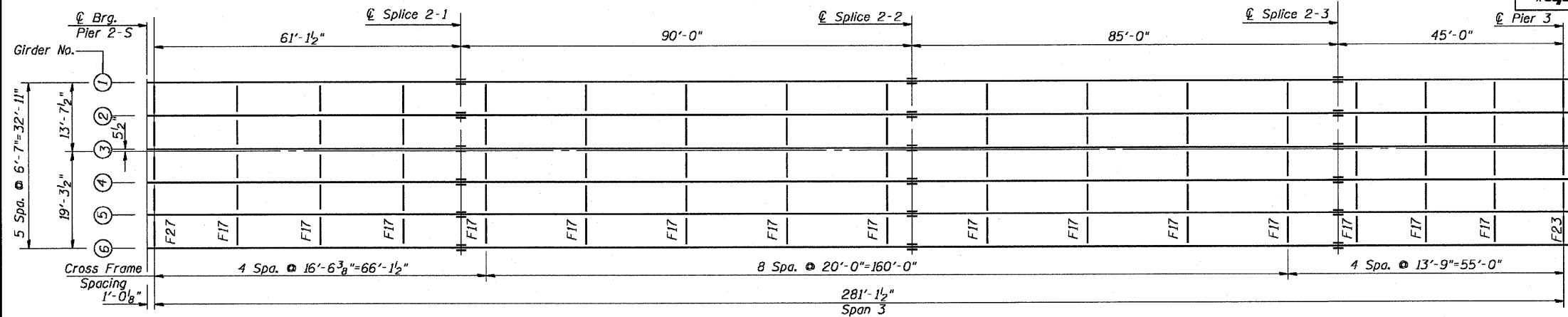
DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

**CAMBER DIAGRAM
UNIT 1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STATION	SHEET	SHEET NO.
786	109 BR	La Salle	351	245	89 SHEETS
Contract # 66607					



DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

- Notes:
1. Work this sheet with Sheets 46, 47, & 48.
 2. See Sheet 47 for Section A-A, View B-B, and corresponding notes.

FRAMING PLAN UNIT 2 (1 OF 3)

IL. 170 F.A.P. 786 OVER ILLINOIS RIVER AT SENECA PUBLIC WATERS

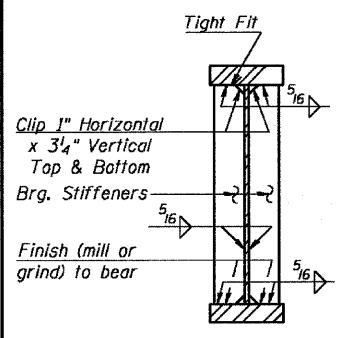
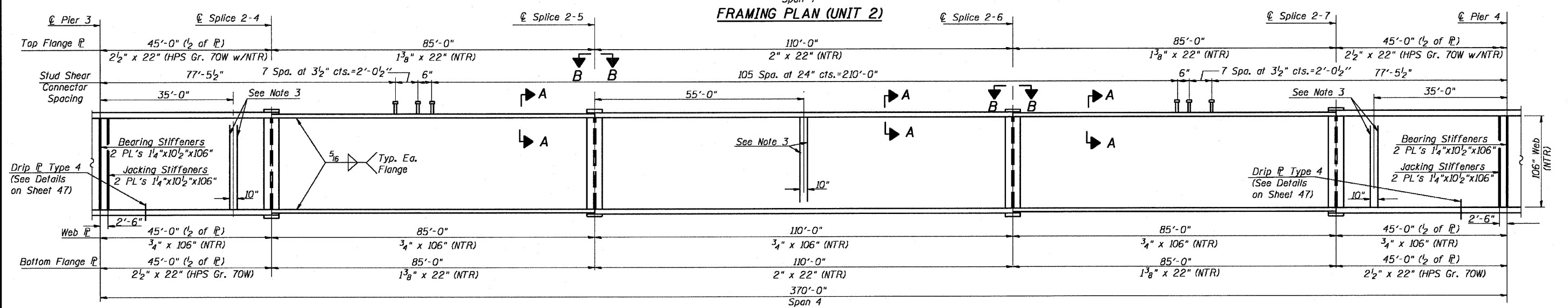
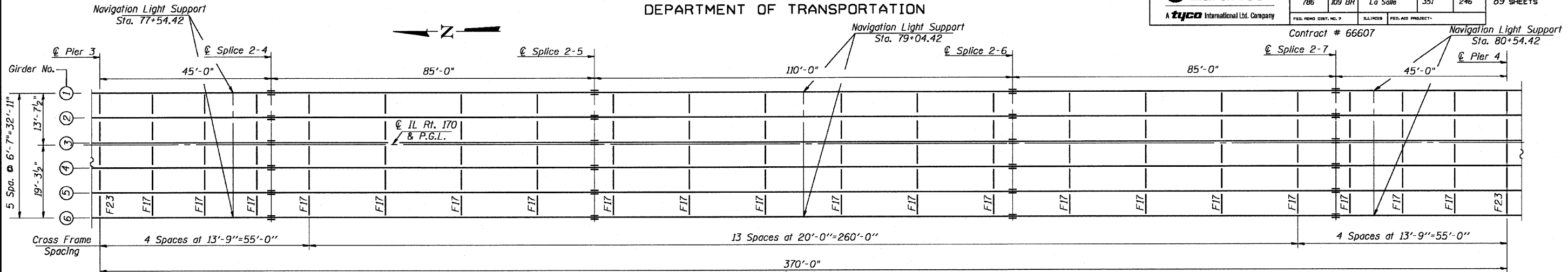
LA SALLE COUNTY, SECTION 109 BR STATION 79+04.42

STRUCTURE NO. 050-0246

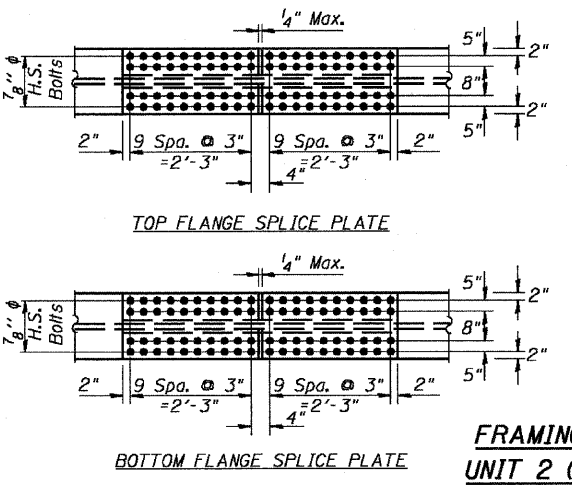
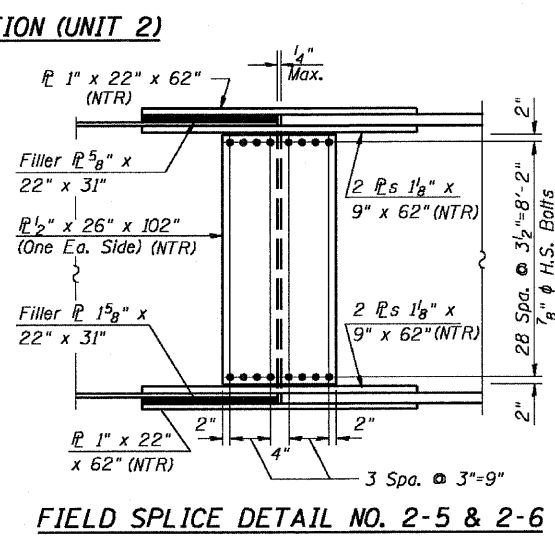
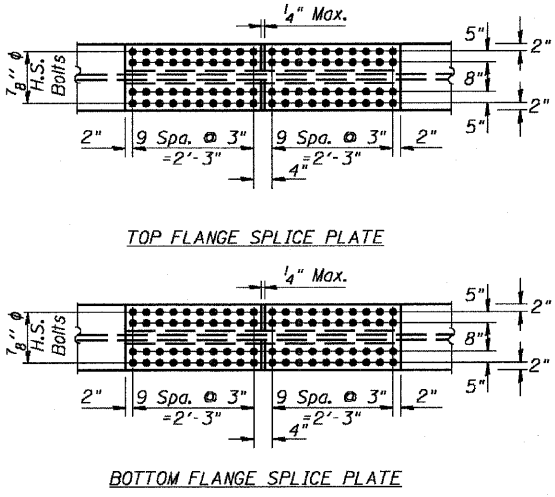
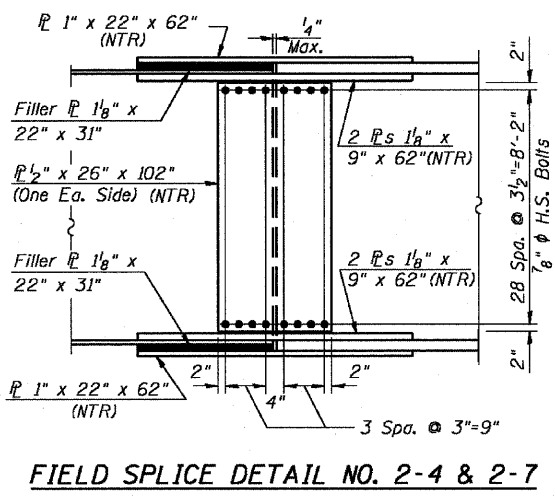
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	JOBS	SHEET	SHEET NO. 46
786	109 BR	La Salle	351	246	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract # 66607		



DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED - OPY



- Notes:
1. Work this sheet with Sheets 45, 47 & 48.
2. See Sheet 47 for Section A-A, View B-B, View C-C, and corresponding notes.
3. See Sheet 55 for Navigation Light Support Details (Exterior face of exterior girders only).

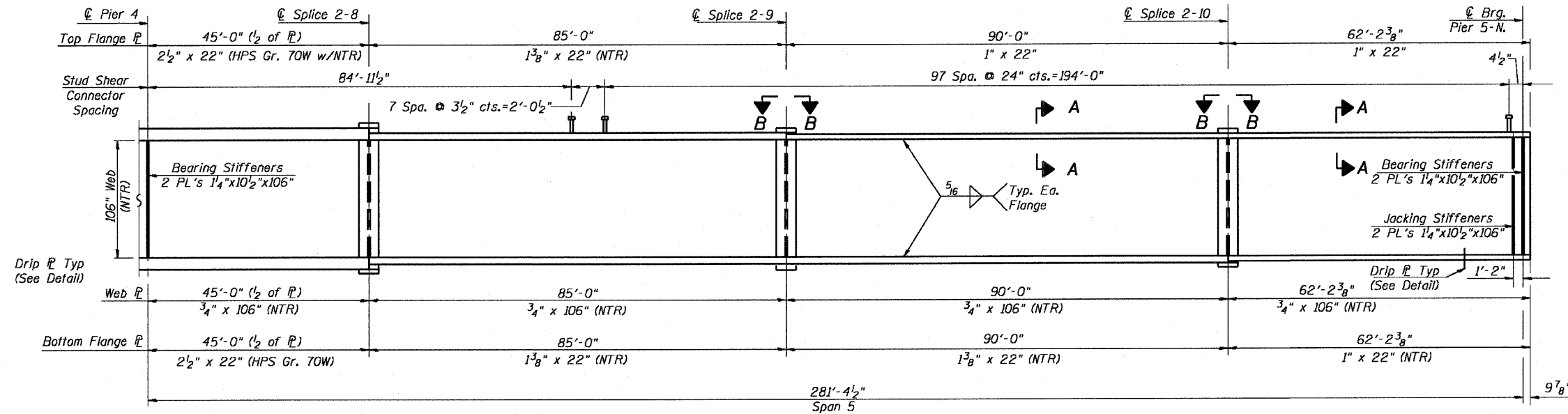
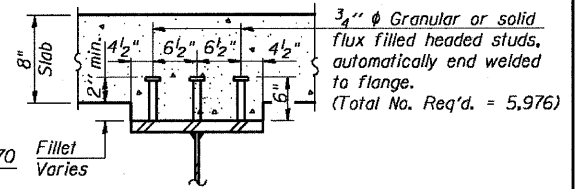
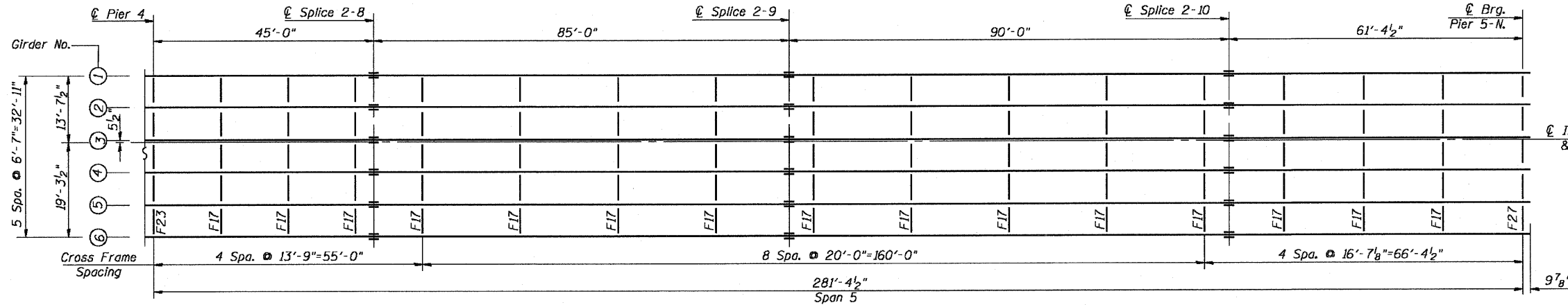
FRAMING PLAN
UNIT 2 (2 OF 3)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

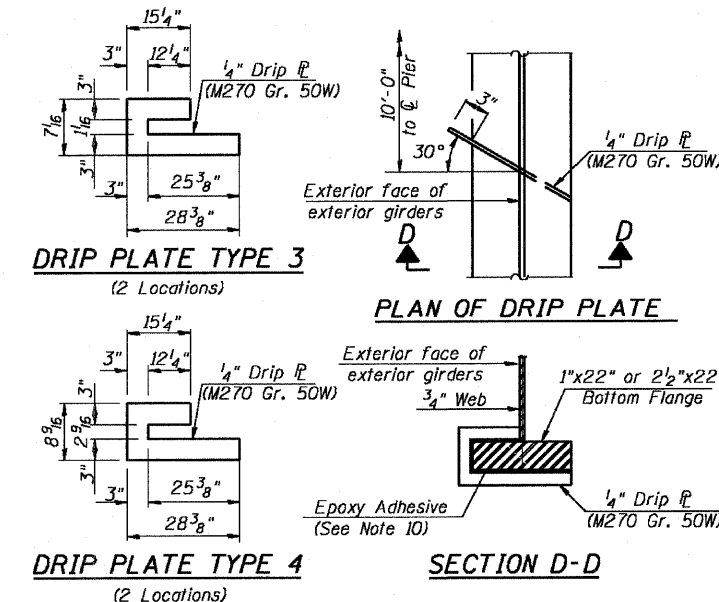
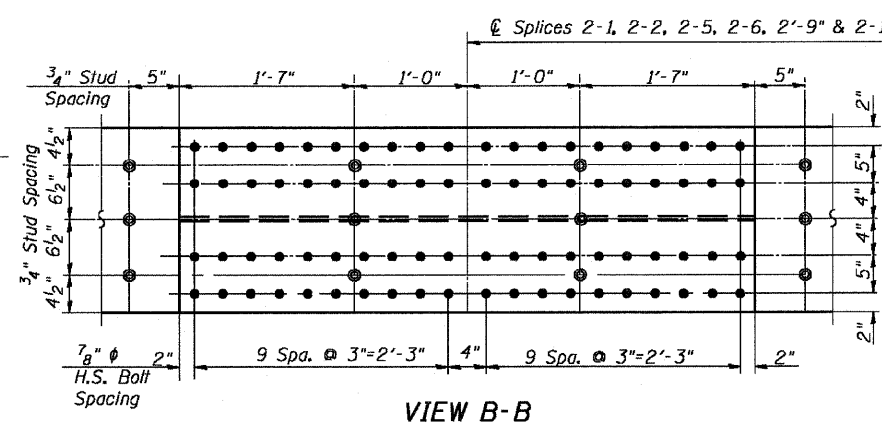
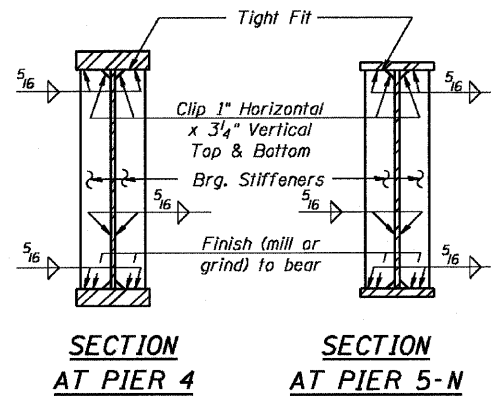


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	247	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66607



- Notes:
1. Work this sheet with Sheets 45, 46 & 48.
 2. See Sheet 45 for details of Splices 2-8 thru 2-10.
 3. See Sheet 54 for Cross Frame Details.
 4. M270 Grade 50W steel shall be used for all flanges, flange splice plates, webs, web splice plates, & bearing plates unless otherwise noted.
 5. M270 HPS Grade 70W steel shall be used for select flanges as noted.
 6. (NTR) denotes Notch Toughness Requirements. Plates designated "NTR" shall conform to the supplement requirements for toughness (Zone 2). NTR plates include tension flanges, webs, and all splice plate material (except fill plates).
 7. H.S. bolts for splices shall be 7/8" φ AASHTO M164/ASTM A325 H.S. bolts (Type 3 for weathering steel) with 5/16" φ standard size holes unless otherwise noted.
 8. Design of H.S. bolts assumes no threads in the shear plane and a Class A surface for slip resistance.
 9. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
 10. Drip plates shall be installed on suitably prepared surfaces after shop priming, using a two component epoxy suitable for structural steel under prolonged exposure. Plates shall be painted with the paint specified for structural steel.



DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

FRAMING PLAN
UNIT 2 (3 OF 3)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

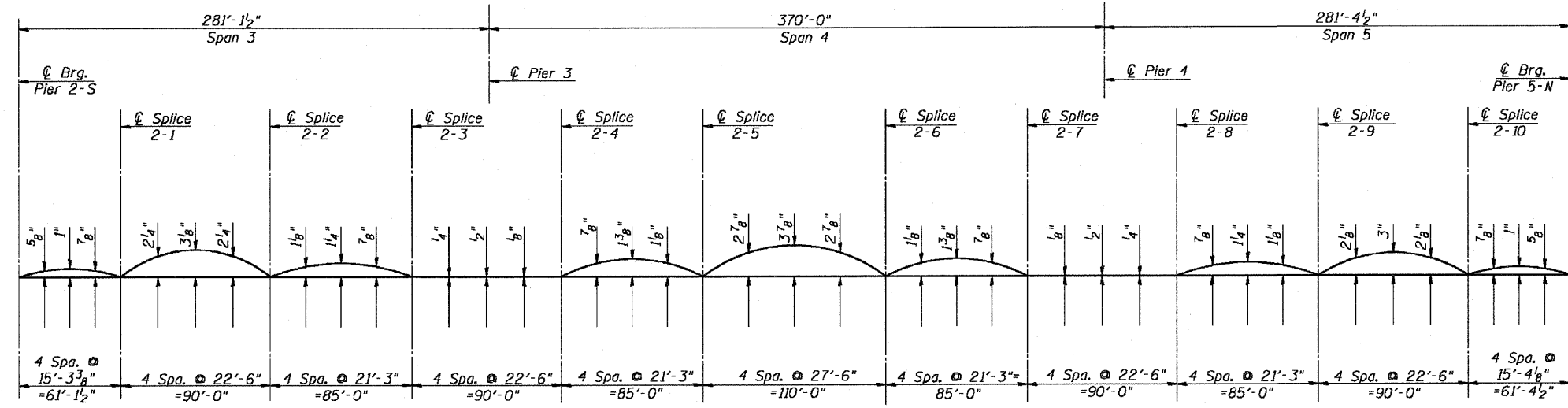
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STATION	SHEET
786	109 BR	La Salle	351	248
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 48
89 SHEETS

Contract # 66607



CAMBER DIAGRAM UNIT 2 - GIRDERS 1 THRU 6

TOP OF WEB ELEVATIONS BEFORE DEFLECTION
(FOR FABRICATION ONLY)

	0.4 Sp. 3	Pier 3	0.5 Sp. 4	Pier 4	0.6 Sp. 5
I_s	223,089	398,233	331,076	398,233	223,089
$I_c(n)$	401,614	---	499,989	---	401,614
$I_c(3n)$	299,990	---	400,320	---	299,990
S_s	4,376	7,175	6,020	7,175	4,376
$S_c(n)$	5,546	---	6,963	---	5,546
$S_c(3n)$	4,982	---	6,468	---	4,982
Z	---	---	---	---	---
$\bar{\rho}$	1.209	1.848	1.348	1.848	1.209
$M\bar{\rho}$	5,794	19,665	7,488	19,685	5,809
$s\bar{\rho}$	0.413	---	0.413	---	0.413
$M_s\bar{\rho}$	2,087	---	2,492	---	2,093
M_L	3,730	5,069	4,585	5,072	3,735
M_{imp}	459	568	463	568	459
$M_3 [M_L + M_{imp}]$	6,982	9,395	8,413	9,400	6,990
M_o	19,321	37,778	23,911	37,811	19,360
M_u	---	---	29,013	---	---
$f_s \bar{\rho}$ (non-comp)	15.89	32.89	14.93	32.92	15.93
$f_s \bar{\rho}$ (comp)	5.03	---	4.62	---	5.04
$f_s \bar{\rho} [M_L + M_{imp}]$	15.11	15.71	14.50	15.72	15.12
f_s (Overload)	36.02	48.60	34.05	48.64	36.10
f_s (Total)	46.83	63.18	---	63.24	46.92
VR	87.1	---	83.6	---	87.1

	Pier 2-S	Pier 3	Pier 4	Pier 5-N
$R\bar{\rho}$ (k)	163	624	625	164
R_L (k)	65	162	162	65
Imp. (k)	8	18	18	8
R_{Total} (k)	236	804	805	237

* Compact section
** Braced non-compact and partially braced section

DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).

Z: Plastic Section Modulus of the steel section in non-composite areas (in.³).

$\bar{\rho}$: Un-factored non-composite dead load (kips/ft.).

$M\bar{\rho}$: Un-factored moment due to non-composite dead load (kip-ft.).

$s\bar{\rho}$: Un-factored long-term composite (superimposed) dead load (kips/ft.).

$M_s\bar{\rho}$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).

M_L : Un-factored live load moment (kip-ft.).

M_{imp} : Un-factored moment due to impact (kip-ft.).

M_o : Factored design moment (kip-ft.).
 $1.3 [M\bar{\rho} + M_s\bar{\rho} + \frac{5}{3} (M_L + M_{imp})]$

M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).

f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M\bar{\rho} + M_s\bar{\rho} + \frac{5}{3} (M_L + M_{imp})$

f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M\bar{\rho} + M_s\bar{\rho} + \frac{5}{3} (M_L + M_{imp})]$

VR: Maximum $\bar{\rho}$ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

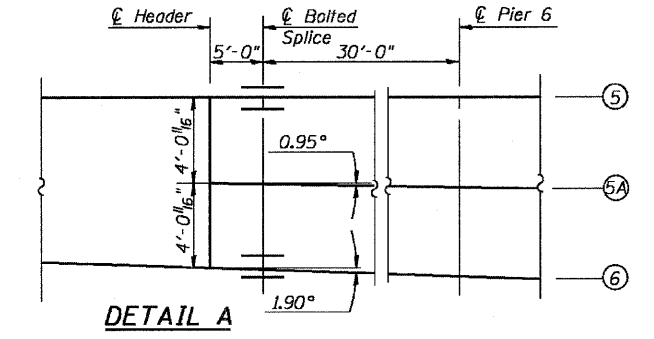
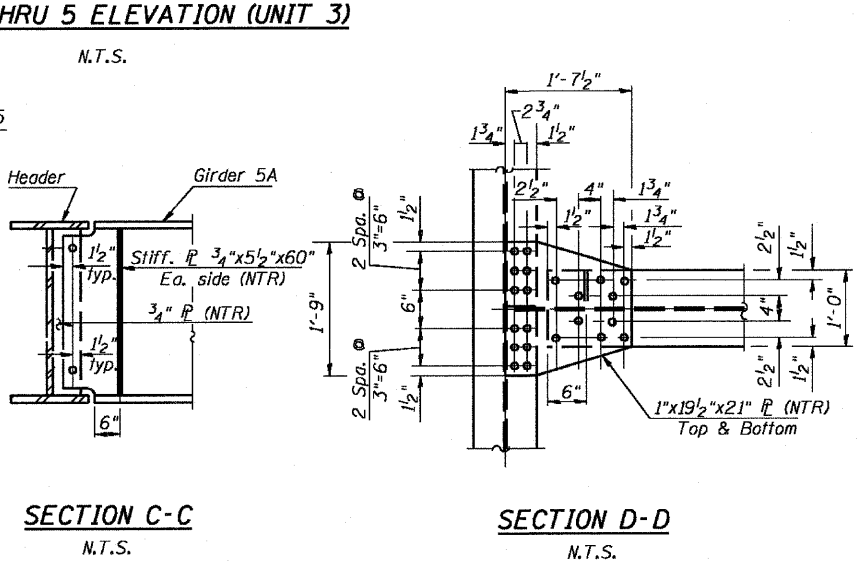
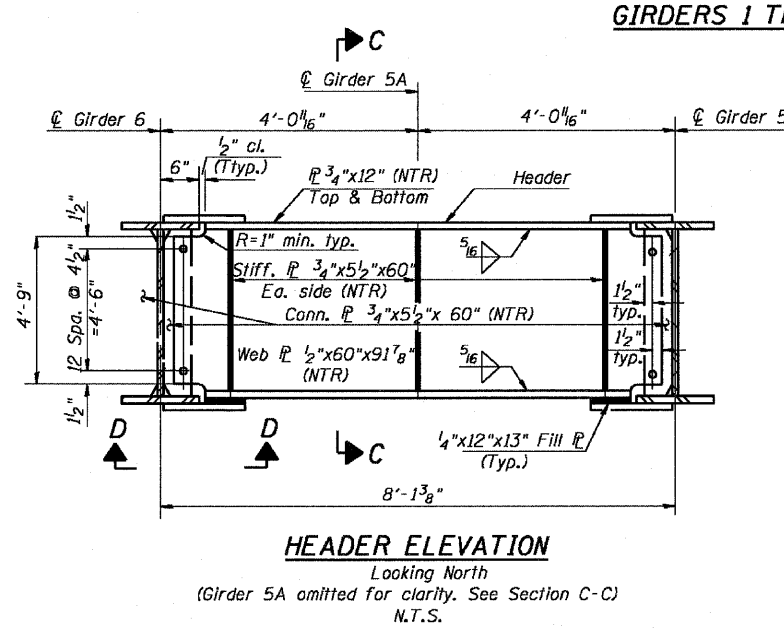
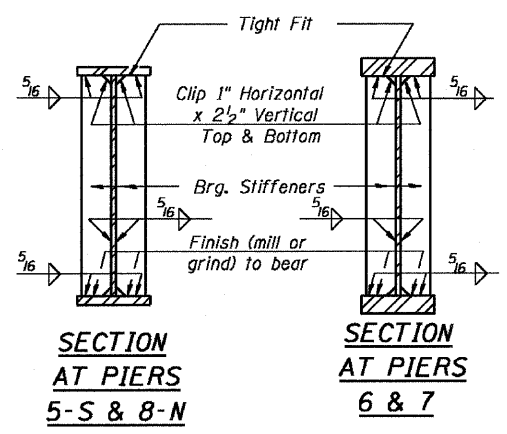
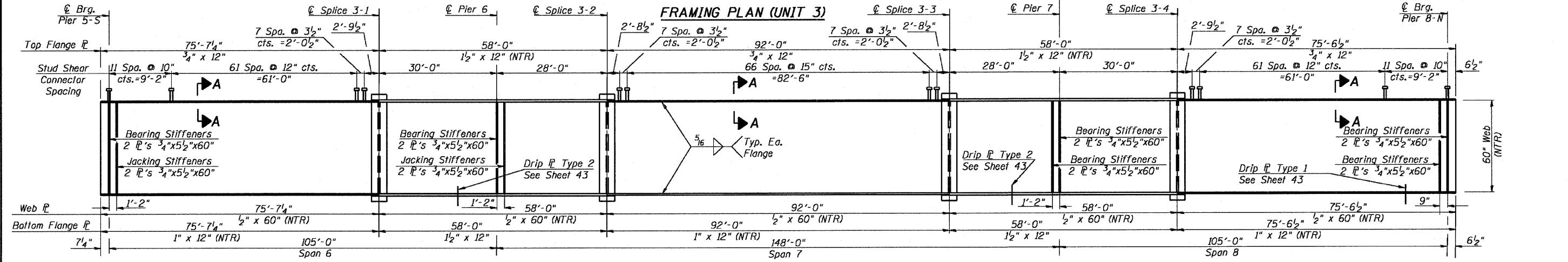
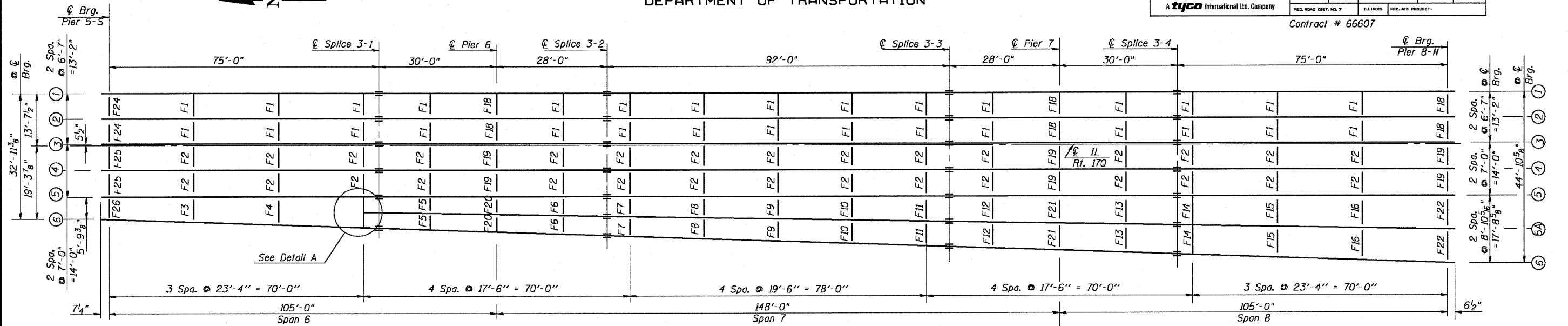
Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6
Pier 2-S	533.21	533.32	533.42	533.33	533.23	533.09
Splice 2-1	536.66	536.75	536.86	536.77	536.66	536.55
Splice 2-2	540.30	540.39	540.49	540.40	540.29	540.18
Splice 2-3	542.19	542.29	542.39	542.31	542.20	542.07
Pier 3	543.09	543.20	543.30	543.21	543.11	542.97
Splice 2-4	544.07	544.18	544.28	544.20	544.09	543.96
Splice 2-5	545.67	545.76	545.86	545.78	545.67	545.55
Splice 2-6	545.67	545.76	545.86	545.78	545.67	545.55
Splice 2-7	544.07	544.18	544.28	544.20	544.09	543.96
Pier 4	543.09	543.20	543.30	543.21	543.11	542.97
Splice 2-8	542.19	542.29	542.40	542.31	542.20	542.07
Splice 2-9	540.30	540.39	540.49	540.40	540.30	540.19
Splice 2-10	536.68	536.77	536.87	536.78	536.67	536.56
Pier 5-N	533.19	533.30	533.40	533.31	533.21	533.07

CAMBER DIAGRAM
UNIT 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 49 89 SHEETS
786	109 BR	La Salle	351	249	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	Contract # 66607		



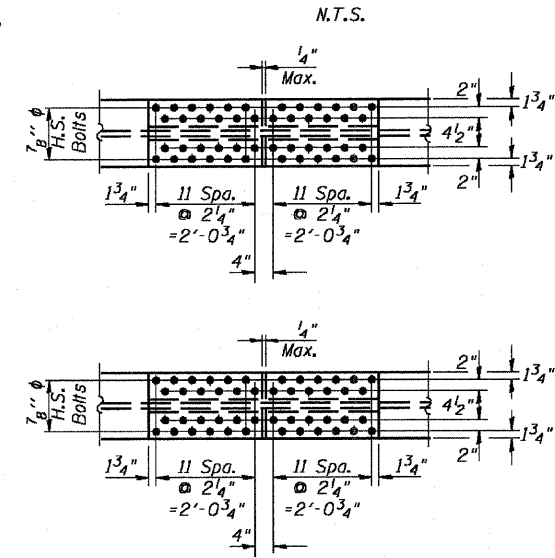
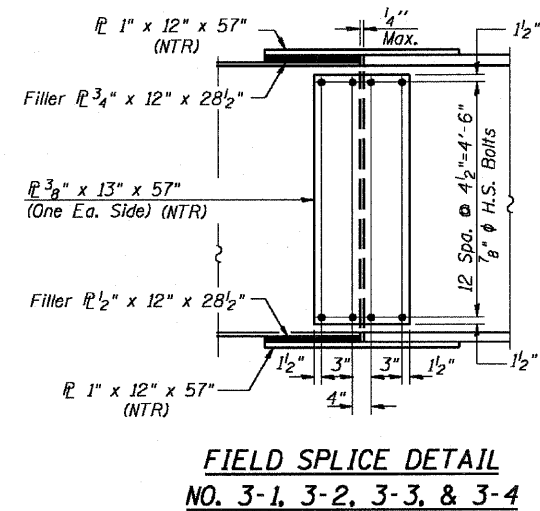
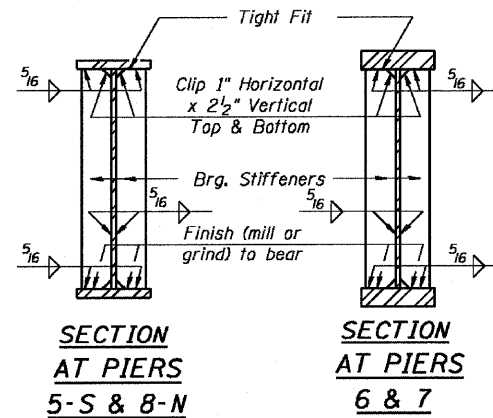
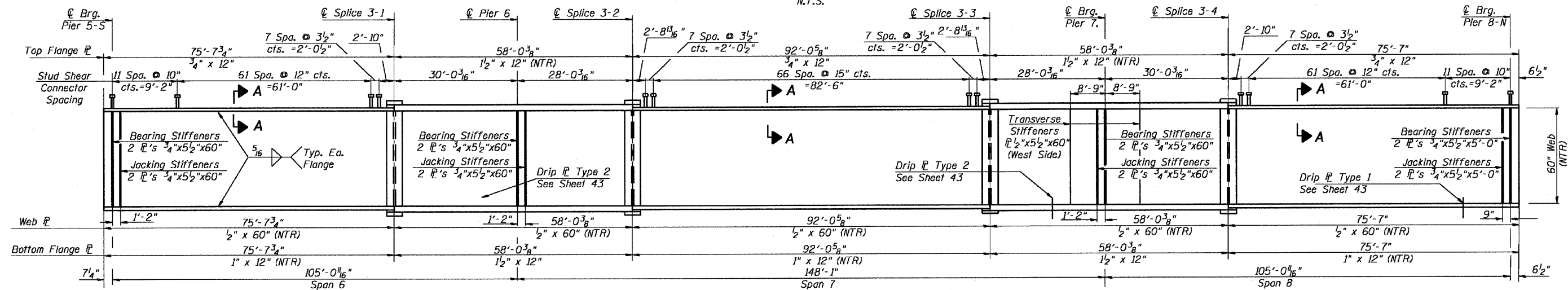
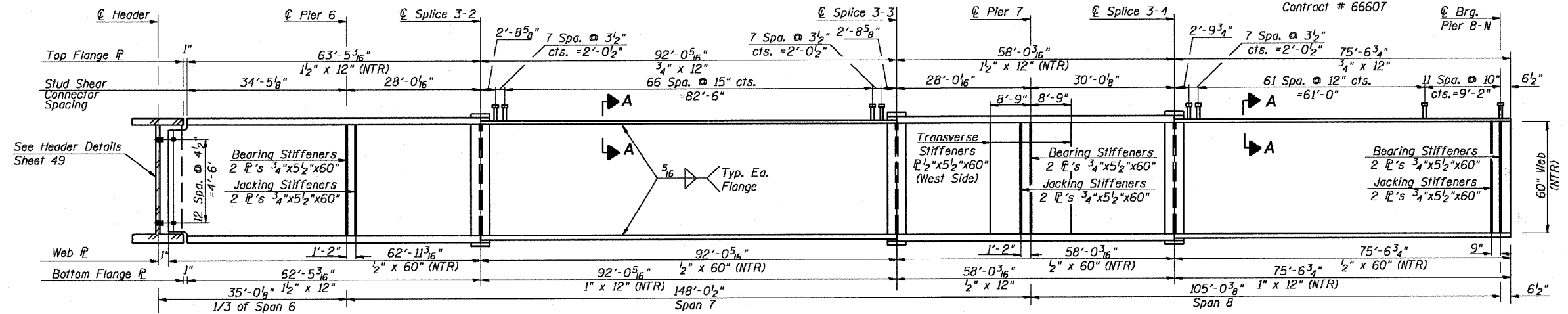
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CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

FRAMING PLAN
UNIT 3 (1 of 2)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

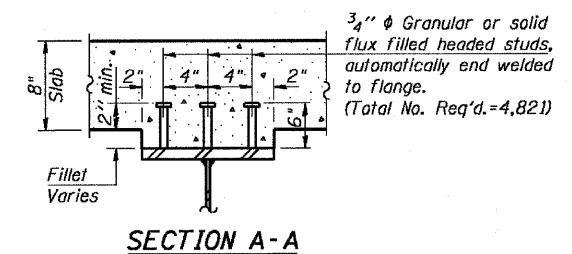
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 50
786	109 BR	La Salle	351	250	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



- Notes:**
1. Work this sheet with Sheet 49 & 51.
 2. See sheet 54 for cross frame details.
 3. M270 Grade 50W steel shall be used for all flanges, flange splice plates, webs, web splice plates, & bearing plates unless otherwise noted.
 4. (NTR) denotes Notch Toughness Requirements. Plates designated "NTR" shall conform to the supplement requirements for toughness (Zone 2). NTR plates include tension flanges, webs, and all splice plate material (except fill plates).
 5. H.S. bolts for splices shall be 7/8" φ AASHTO M164/ASTM A325 H.S. bolts (Type 3 for weathering steel) with 5/16" φ standard size holes unless otherwise noted.
 6. Design of H.S. bolts assumes no threads in the shear plane and a Class A surface for slip resistance.
 7. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.



FRAMING PLAN
UNIT 3 (2 of 2)
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

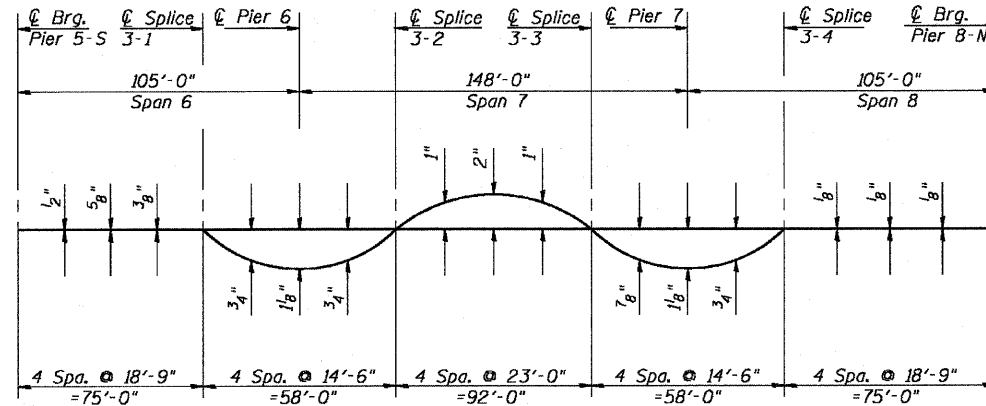
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CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

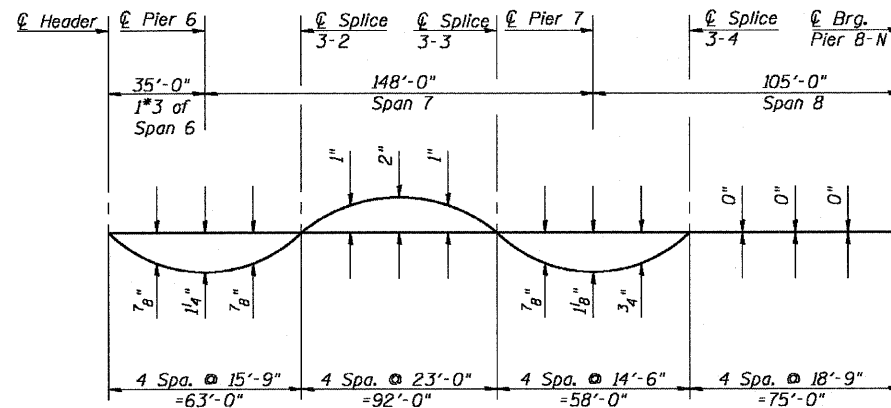


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	251
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66607



CAMBER DIAGRAM UNIT 3 (GIRDERS 1 THRU 5 & 6)
(Dimensions given along @ roadway)



CAMBER DIAGRAM UNIT 3 (GIRDER 5A)
(Dimensions given along @ roadway)

**TOP OF WEB ELEVATIONS BEFORE DEFLECTION
(FOR FABRICATION ONLY)**

Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 5-A	Girder 6
Pier 5-S	533.10	533.21	533.32	533.22	533.10	-----	532.98
Header	-----	-----	-----	-----	-----	529.41	-----
Splice 3-1	529.24	529.35	529.46	529.36	529.24	529.16	529.11
Pier 6	527.80	527.91	528.01	527.92	527.80	527.70	527.61
Splice 3-2	526.62	526.73	526.84	526.74	526.62	526.64	526.53
Splice 3-3	523.00	523.11	523.21	523.12	523.00	522.86	522.72
Pier 7	521.97	522.08	522.19	522.09	521.97	521.83	521.68
Splice 3-4	521.07	521.18	521.28	521.19	521.07	520.91	520.75
Pier 8-N	519.22	519.33	519.43	519.34	519.22	519.04	518.85

DESIGNED - CLS
CHECKED - OPY
DRAWN - JHR
CHECKED - RJC

INTERIOR GIRDER MOMENT TABLE (UNIT 3 - BEAM 4)

	0.4 Sp. 6	Pier 6	0.5 Sp. 7	Pier 7	0.6 Sp. 8
I_s	28,300	43,047	28,300	43,047	28,300
$I_c(n)$	72,515	---	72,515	---	72,515
$I_c(3n)$	52,540	---	52,540	---	52,540
S_s	970	1,367	970	1,367	970
$S_c(n)$	1,402	---	1,402	---	1,402
$S_c(3n)$	1,264	---	1,264	---	1,264
Z	---	---	---	---	---
ρ	0.919	1.357	0.919	1.392	0.919
$M \rho$	545	2,374	843	2,389	545
$s \rho$	0.423	---	0.398	---	0.428
$M_s \rho$	292	---	441	---	304
M_t	867	887	1,050	887	867
M_{imp}	188	177	192	177	188
$S_3 [M_t + M_{imp}]$	1,758	1,773	2,070	1,773	1,758
M_o	3,374	5,392	4,360	5,411	3,390
M_u	5,842	---	5,842	---	5,842
$f_s \rho$ non-comp	6.74	20.84	10.43	20.97	6.74
$f_s \rho$ comp	2.77	---	4.19	---	2.89
$f_s S_3 [M_t + M_{imp}]$	15.05	15.57	17.72	15.57	15.05
f_s (Overload)	24.56	36.41	32.33	36.54	24.68
f_s (Total)	---	47.33	---	47.50	---
VR	61.8	---	48.9	---	61.8

INTERIOR GIRDER REACTION TABLE UNIT 3 BEAM 4)

	Pier 5-S	Pier 6	Pier 7	Pier 8-N
$R \rho$	48	192	194	49
R_t	46	76	76	46
Imp.	10	15	15	10
R_{Total}	104	283	285	105

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in⁴ and in³).
- Z: Plastic Section Modulus of the steel section in non-composite areas (in³).
- ρ : Un-factored non-composite dead load (kips/ft.).
- $M \rho$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s \rho$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s \rho$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- M_t : Un-factored live load moment (kip-ft.).
- M_{imp} : Un-factored moment due to impact (kip-ft.).
- M_o : Factored design moment (kip-ft.).
 $1.3 [M \rho + M_s \rho + \frac{5}{3} (M_t + M_{imp})]$
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi).
 $M \rho + M_s \rho + \frac{5}{3} (M_t + M_{imp})$
- f_s (Total): Sum of stresses as computed from the moments below on non-compact section (ksi).
 $1.3 [M \rho + M_s \rho + \frac{5}{3} (M_t + M_{imp})]$
- VR: Maximum $\frac{1}{4}$ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

INTERIOR GIRDER MOMENT TABLE (UNIT 3 - BEAM 5)

	0.4 Sp. 6	Pier 6	0.5 Sp. 7	Pier 7	0.6 Sp. 8
I_s	28,300	43,047	28,300	43,047	28,300
$I_c(n)$	71,363	---	71,073	---	73,767
$I_c(3n)$	51,567	---	51,316	---	53,684
S_s	970	1,367	970	1,367	970
$S_c(n)$	1,395	---	1,393	---	1,409
$S_c(3n)$	1,255	---	1,252	---	1,273
Z	---	---	---	---	---
ρ	0.873	1.239	0.863	1.397	0.969
$M \rho$	532	2,249	808	2,409	623
$s \rho$	0.423	---	0.398	---	0.428
$M_s \rho$	293	---	461	---	305
M_t	812	814	1,002	886	935
M_{imp}	176	163	183	177	203
$S_3 [M_t + M_{imp}]$	1,647	1,628	1,975	1,772	1,897
M_o	3,213	5,041	4,217	5,435	3,672
M_u	5,813	---	5,804	---	5,871
$f_s \rho$ non-comp	6.58	19.74	10.00	21.15	7.71
$f_s \rho$ comp	2.80	---	4.42	---	2.88
$f_s S_3 [M_t + M_{imp}]$	14.16	14.29	17.01	15.55	16.15
f_s (Overload)	23.55	34.04	31.43	36.70	26.74
f_s (Total)	---	44.25	---	47.71	---
VR	57.7	---	46.0	---	64.9

INTERIOR GIRDER REACTION TABLE (UNIT 3 BEAM 5)

	Pier 5-S	Pier 6	Pier 7	Pier 8-N
$R \rho$	47	183	194	52
R_t	43	71	78	49
Imp.	9	14	16	10
R_{Total}	99	268	288	111

INTERIOR GIRDER MOMENT TABLE (UNIT 3 - BEAM 5A)

	Pier 6	0.5 Sp. 7	Pier 7	0.6 Sp. 8
I_s	43,047	28,300	43,047	28,300
$I_c(n)$	---	69,377	---	74,922
$I_c(3n)$	---	49,885	---	54,779
S_s	1,367	970	1,367	970
$S_c(n)$	---	1,383	---	1,415
$S_c(3n)$	---	1,240	---	1,282
Z	---	---	---	---
ρ	1.121	0.807	1.403	1.019
$M \rho$	1,915	737	2,387	682
$s \rho$	---	0.398	---	0.428
$M_s \rho$	---	471	---	299
M_t	666	819	794	999
M_{imp}	165	150	159	217
$S_3 [M_t + M_{imp}]$	1,385	1,615	1,588	2,027
M_o	4,290	3,670	5,168	3,910
M_u	---	5,763	---	5,896
$f_s \rho$ non-comp	16.81	9.12	20.95	8.44
$f_s \rho$ comp	---	4.56	---	2.80
$f_s S_3 [M_t + M_{imp}]$	12.16	14.01	13.94	17.19
f_s (Overload)	28.97	27.69	34.90	28.42
f_s (Total)	37.66	---	45.37	---
VR	---	42.0	---	67.6

INTERIOR GIRDER REACTION TABLE (UNIT 3 - BEAM 5A)

	***Header	Pier 6	Pier 7	Pier 8-N
$R \rho$	(k)	-36	161	194
R_t	(k)	-21	60	75
Imp.	(k)	-6	15	15
R_{Total}	(k)	-63	236	284

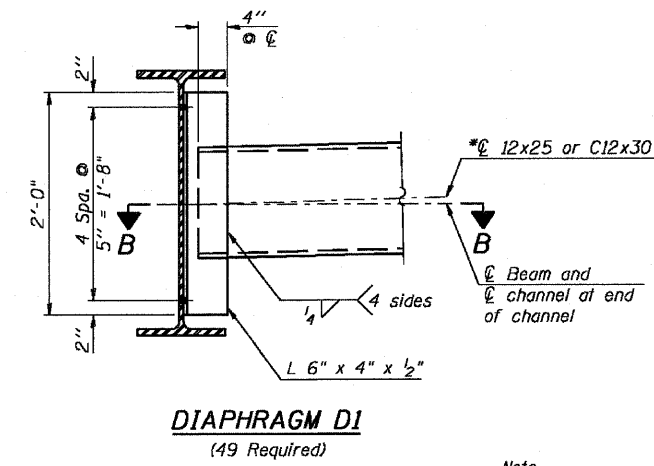
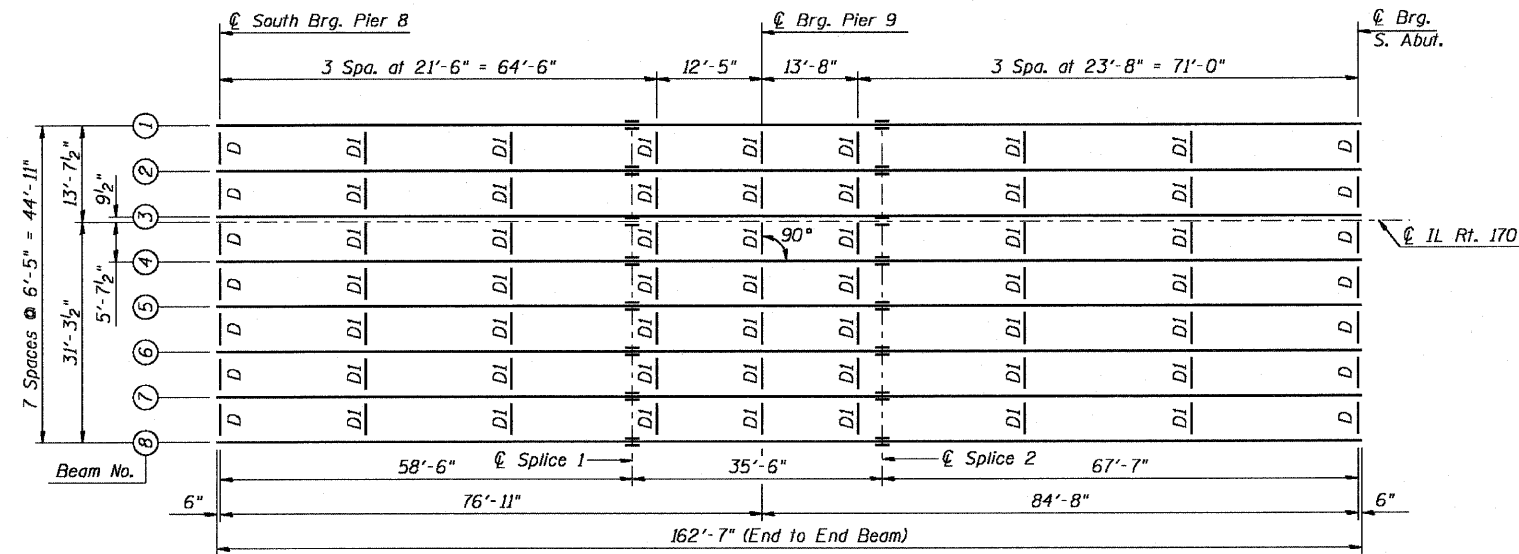
- * Compact section
- ** Braced non-compact and partially braced section
- *** Reactions for the header are negative & represent maximum uplift. Note that the header is always subject to some uplift.

**CAMBER DIAGRAM
UNIT 3
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

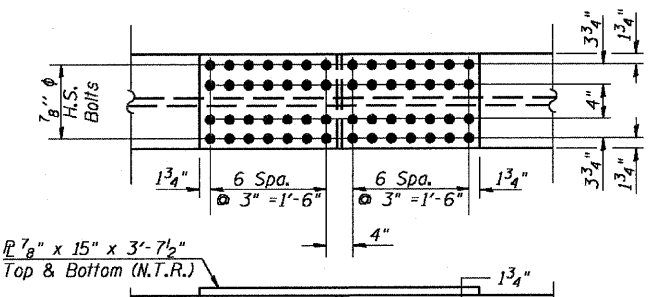
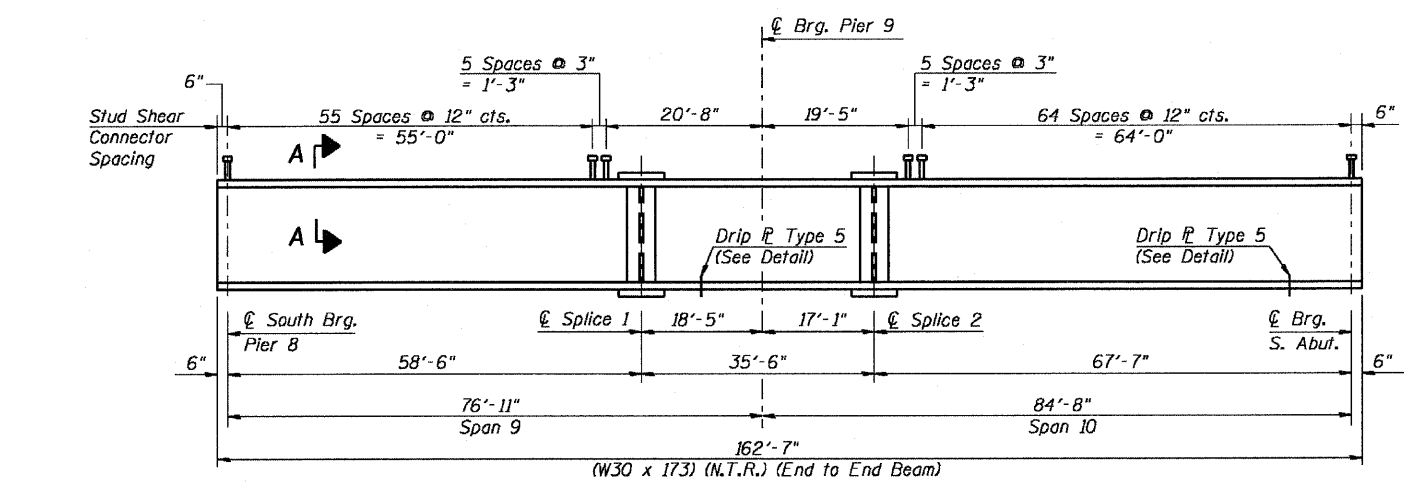
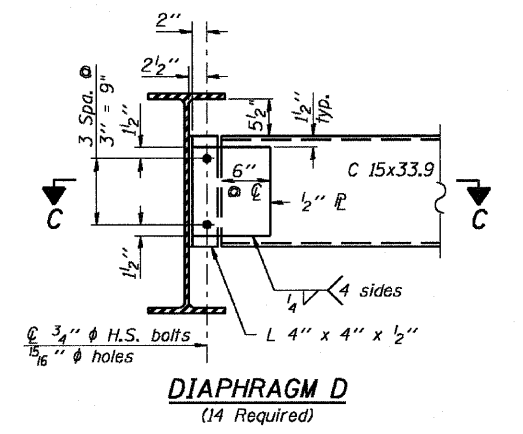
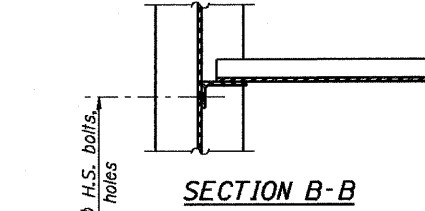
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE NO.	SECTION	COUNTY	STATION	SHEET NO.	SHEET NO. 52
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

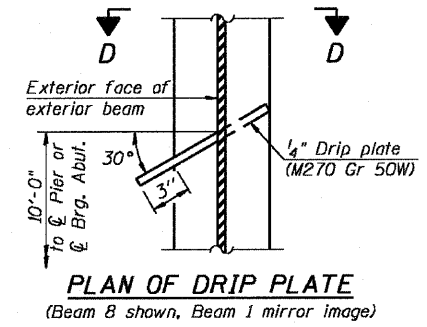
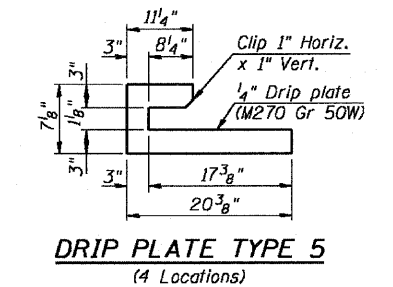
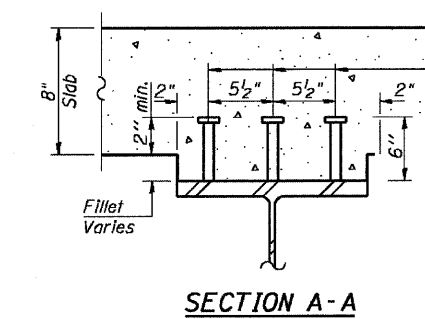
Contract #66607



Notes:
Two hardened washers required for each set of oversized holes.
* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.



- Notes:
- M270 Grade 50W steel shall be used for all beams, flange splice plates, web splice plates, & bearing plates unless otherwise noted.
 - (NTR) denotes Notch Toughness Requirements. Plates designated "NTR" shall conform to the supplemental requirements for toughness (Zone 2). NTR plates include beams and all splice plate material (except fill plates).
 - H.S. bolts for splices shall be 7/8" ϕ AASHTO M164/ASTM A325 H.S. bolts (Type 3 for weathering steel) with ϕ 3/16" standard size holes unless otherwise noted.
 - Design of H.S. bolts assumes no threads in the shear plane and a Class A surface for slip resistance.
 - All diaphragms between beams shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 - Drip plates shall be installed on suitably prepared surfaces after shop priming, using a two component epoxy suitable for structural steel under prolonged exposure. Plates shall be painted with the paint specified for structural steel.



TOP OF BEAM ELEVATIONS (For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8
ϕ S. Brg. Pier 8	519.26	519.37	519.47	519.39	519.29	519.16	519.03	518.89
ϕ Splice 1	518.01	518.12	518.22	518.14	518.04	517.91	517.77	517.64
ϕ Brg. Pier 9	517.66	517.77	517.87	517.79	517.69	517.56	517.42	517.29
ϕ Splice 2	517.33	517.44	517.54	517.47	517.37	517.23	517.10	516.97
ϕ Brg. S. Abut.	515.99	516.10	516.20	516.13	516.03	515.89	515.76	515.63

DESIGNED	RKM
CHECKED	MTH
DRAWN	AJF
CHECKED	MTH

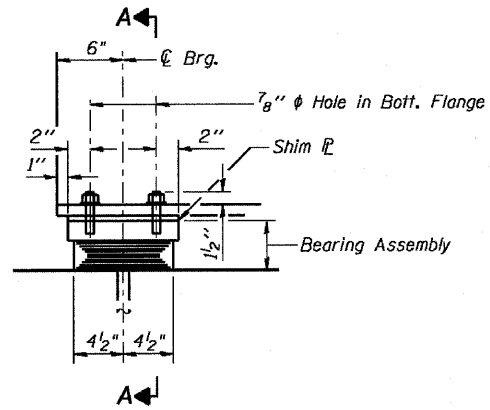
FRAMING PLAN
UNIT 4
ILL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246



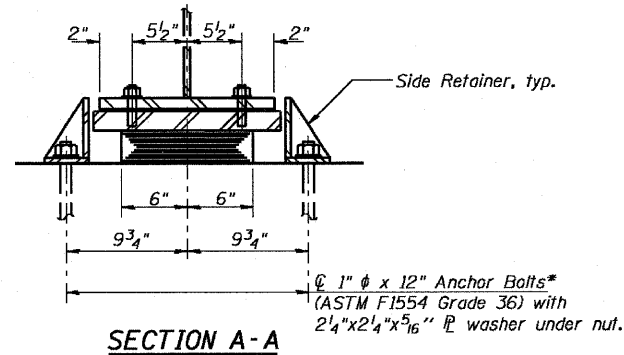
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. 53
786	109 BR	La Salle	351	253	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract #66607



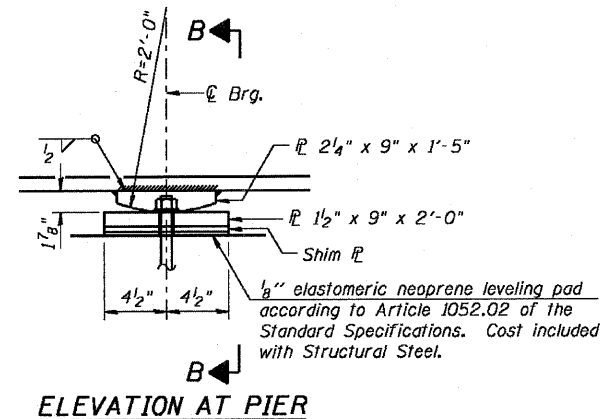
ELEVATION



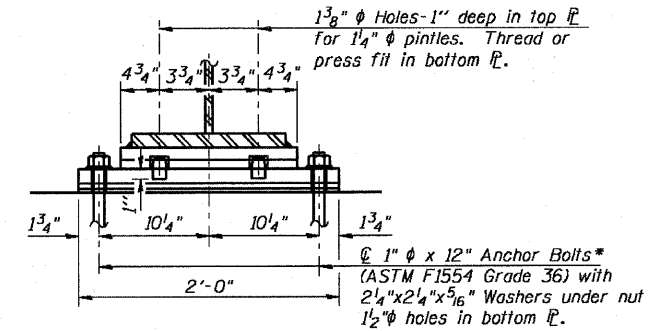
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.
AT PIER 8-S & S. ABUT.

* Lengths shown are minimum required embedment lengths.



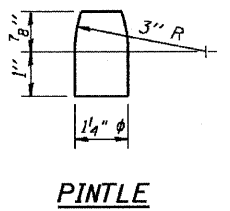
ELEVATION AT PIER



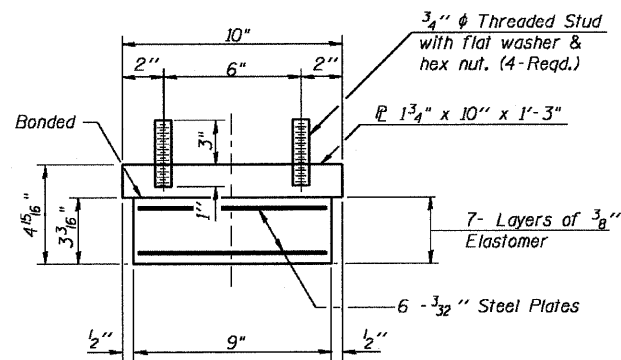
SECTION B-B

FIXED BEARING
AT PIER 9
(8-Required)

* Lengths shown are minimum required embedment lengths.



PINTLE

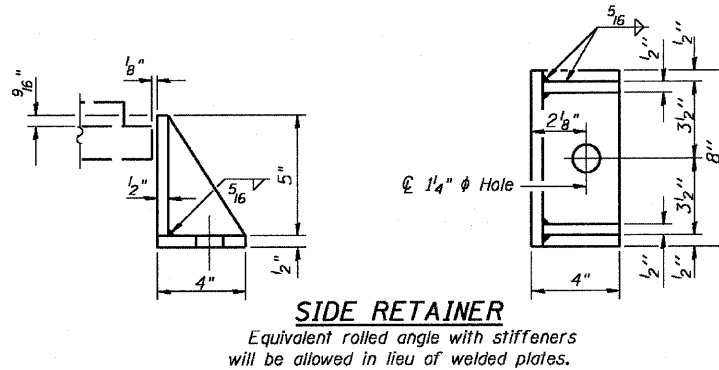


BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.
Two 1/2 inch adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown.
The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	16
Anchor Bolts 1"	Each	48



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

INTERIOR BEAM MOMENT TABLE (UNIT 4)			
	0.4 Sp. 9	Pier 9	0.6 Sp. 10
I_s	8,200	8,200	8,200
$I_c(n)$	20,486	-	20,486
$I_c(3n)$	14,759	-	14,759
S_s	539	539	539
$S_c(n)$	763	-	763
$S_c(3n)$	687	-	687
Z	-	605	-
ϕ	0.865	1.257	0.865
$M \phi$	330	979	460
$s \phi$	0.392	-	0.392
$M_s \phi$	171	-	230
$M \phi$	571	368	640
M_{imp}	142	89	152
$\phi_3 [M \phi + M_{imp}]$	1,188	762	1,320
M_a	2,196	2,263	2,613
M_u	3,460	2,521	3,460
$f_s \phi_{non-comp}$	7.4	21.8	10.3
$f_s \phi_{comp}$	3.0	-	4.0
$f_s \phi_3 [M \phi + M_{imp}]$	18.7	17.0	20.8
f_s (Overload)	29.1	38.8	35.1
VR	55.3	-	54.5

INTERIOR BEAM REACTION TABLE (UNIT 4)			
	Pier 8	Pier 9	South Abut.
$R \phi$	36	126	42
$R \phi$	42	54	42
$Imp.$	10	9	10
R_{Total}	88	189	94

* Compact section

- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total and Overload) due to non-composite dead loads (in.⁴ and in.³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total and Overload) due to short-term composite live loads (in.⁴ and in.³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total and Overload) due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- Z : Plastic Section Modulus of the steel section in non-composite areas.
- ϕ : Un-factored non-composite dead load (kips/ft.).
- $M \phi$: Un-factored moment due to non-composite dead load (kip-ft.).
- $s \phi$: Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s \phi$: Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M \phi$: Un-factored live load moment (kip-ft.).
- M_{imp} : Un-factored moment due to impact (kip-ft.).
- M_a : Factored design moment (kip-ft.).
- M_u : Compact composite moment capacity according to AASHTO LFD 10.50.1.1 or compact non-composite moment capacity according to AASHTO LFD 10.48.1 (kip-ft.).
- f_s (Overload): Sum of stresses as computed from the moments below (ksi). $M \phi + M_s \phi + \frac{5}{3} (M \phi + M_{imp})$
- VR : Maximum ϕ + impact horizontal shear range within the composite portion of the span for stud shear connector design (kips).

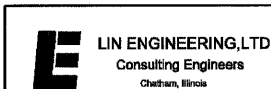
STRUCTURAL STEEL DETAILS

UNIT 4

ILL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS

LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

DESIGNED RKM
CHECKED MTH
DRAWN AJF
CHECKED MTH



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

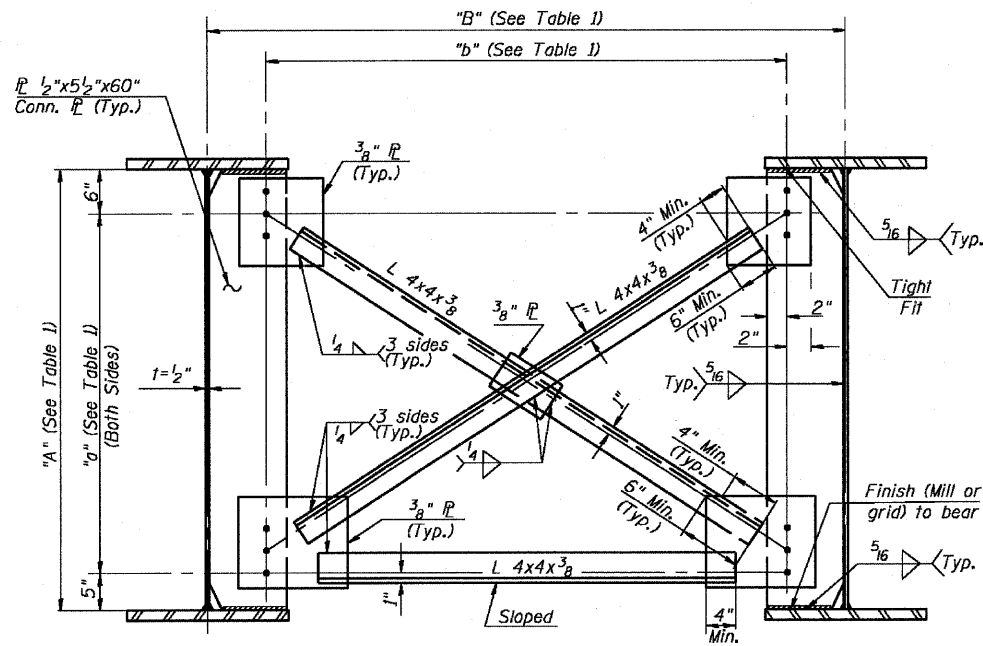


F.A.P. ROUTE NO.	SECTION	COUNTY	POST MILES	SHEET	SHEET NO. 54 89 SHEETS
786	109 BR	La Salle	351	254	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

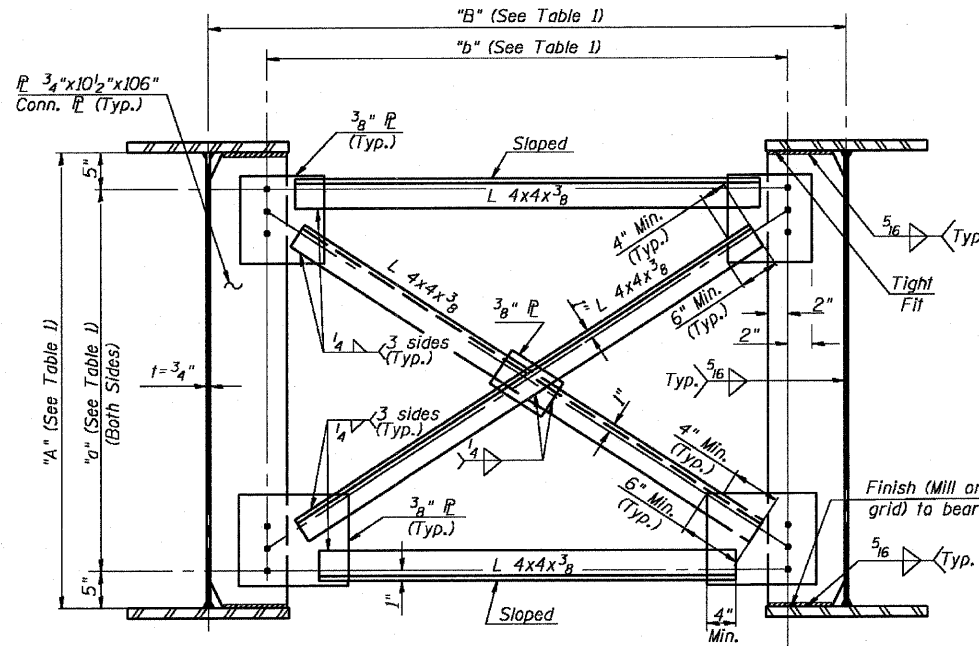
Contract # 66607

TABLE 1

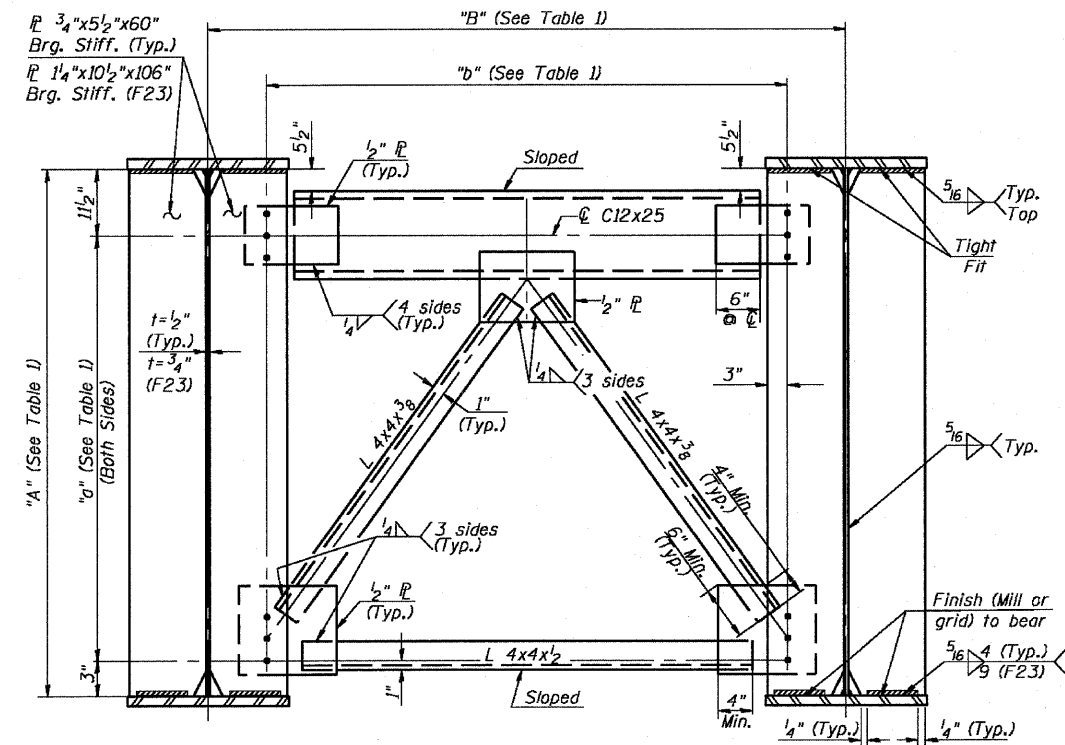
Name	Type	Quantity	"A"	"a"	"B"	"b"
F1	1	70	5'-0"	4'-1"	6'-7"	5'-11 1/2"
F2	1	30	5'-0"	4'-1"	7'-0"	6'-4 1/2"
F3	1	1	5'-0"	4'-1"	6'-6 3/4"	5'-11 1/4"
F4	1	1	5'-0"	4'-1"	7'-4 1/16"	6'-8 9/16"
F5	1	2	5'-0"	4'-1"	4'-4 3/16"	3'-8 11/16"
F6	1	2	5'-0"	4'-1"	4'-11 3/16"	4'-3 11/16"
F7	1	2	5'-0"	4'-1"	5'-2 11/16"	4'-7 3/16"
F8	1	2	5'-0"	4'-1"	5'-6 5/8"	4'-11 1/8"
F9	1	2	5'-0"	4'-1"	5'-10 1/2"	5'-3"
F10	1	2	5'-0"	4'-1"	6'-2 3/8"	5'-6 7/8"
F11	1	2	5'-0"	4'-1"	6'-6 5/16"	5'-10 13/16"
F12	1	2	5'-0"	4'-1"	6'-9 13/16"	6'-2 5/16"
F13	1	2	5'-0"	4'-1"	7'-4 13/16"	6'-9 5/16"
F14	1	2	5'-0"	4'-1"	7'-8 5/16"	7'-0 13/16"
F15	1	2	5'-0"	4'-1"	8'-0 15/16"	7'-5 7/16"
F16	1	2	5'-0"	4'-1"	8'-5 5/8"	7'-10 1/8"
F17	2	250	8'-10"	8'-0"	6'-7"	5'-1 1/4"
F18	3	16	5'-0"	3'-9 1/2"	6'-7"	6'-1 1/2"
F19	3	6	5'-0"	3'-9 1/2"	7'-0"	6'-6 1/2"
F20	3	2	5'-0"	3'-9 1/2"	4'-7 11/16"	4'-2 3/16"
F21	3	2	5'-0"	3'-9 1/2"	7'-1 5/16"	6'-7 13/16"
F22	3	2	5'-0"	3'-9 1/2"	8'-10 5/16"	8'-4 13/16"
F23	3	10	8'-10"	7'-7 1/2"	6'-7"	5'-3 1/4"
F24	4	7	5'-0"	4'-0"	6'-7"	6'-1 1/2"
F25	4	2	5'-0"	4'-0"	7'-0"	6'-6 1/2"
F26	4	1	5'-0"	4'-0"	5'-9 3/8"	5'-3 7/8"
F27	4	10	8'-10"	7'-10"	6'-7"	5'-3 1/4"



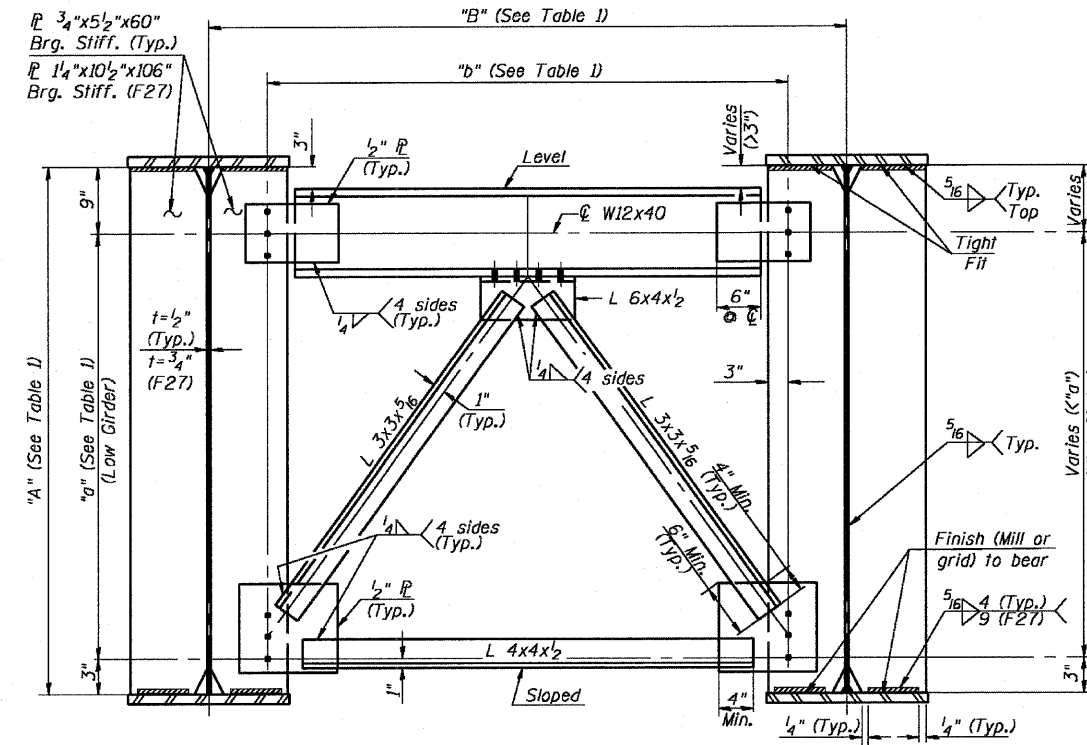
INTERIOR CROSS FRAME TYPE 1 (F1-F16)



INTERIOR CROSS FRAME TYPE 2 (F17)



END CROSS FRAME TYPE 3 (F18-F23)



END CROSS FRAME TYPE 4 (F24-F27)

DESIGNED - CLS
CHECKED -
DRAWN - JHR
CHECKED -

Notes

1. M270 Grade 50W steel shall be used for all cross frame & connection plate material.
2. Detail 5/16" φ holes for all 3/4" φ bolts.
3. Two hardened washers required for each set of oversized holes.
4. Place diaphragm with channel flanges and outstanding angle legs outward from abutment backwall and any other expansion joint.
5. All cross frames between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.

CROSS FRAME DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

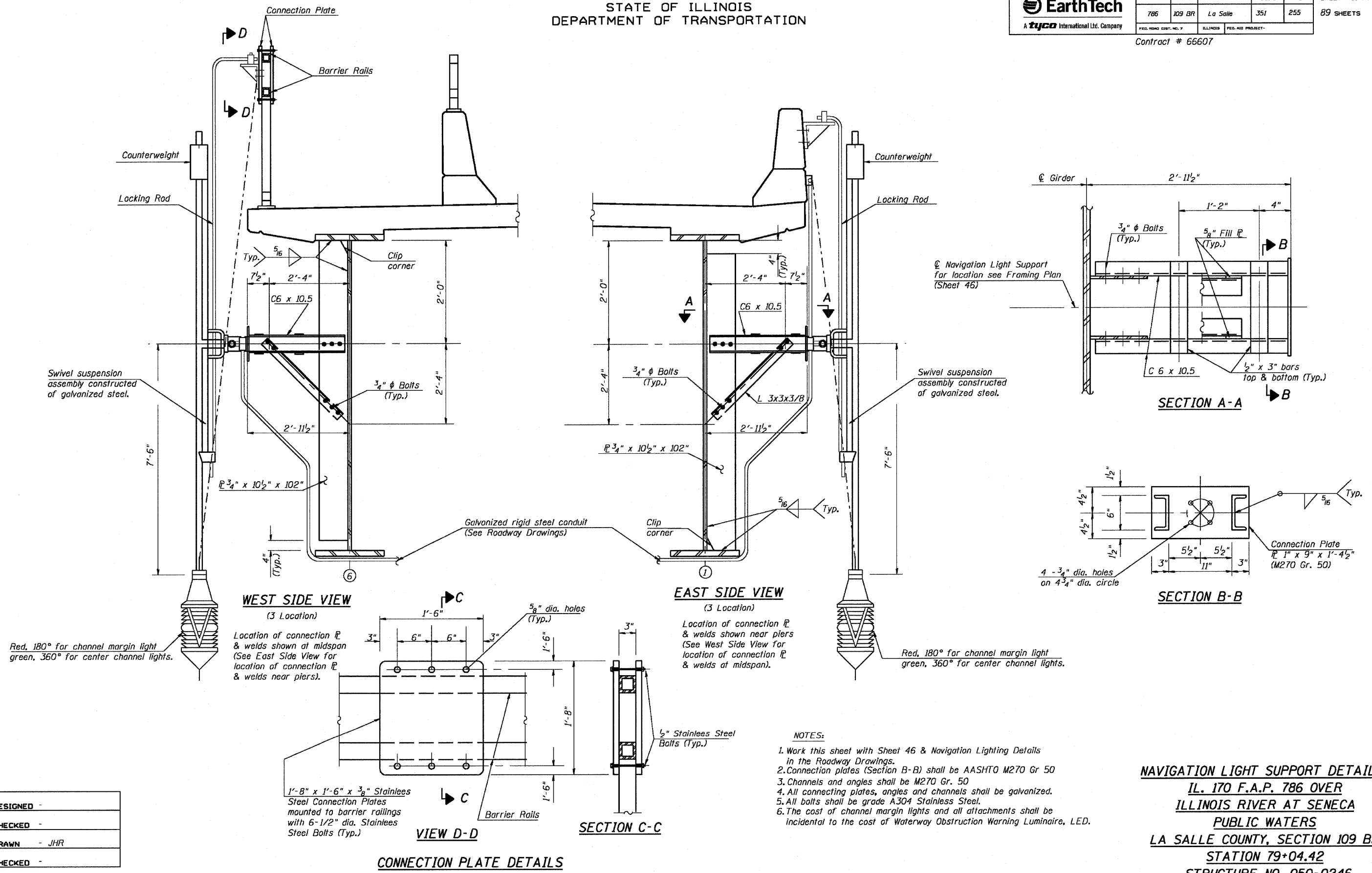
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET	DATE
786	109 BR	La Salle	351	255
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66607

SHEET NO. 55
89 SHEETS



DESIGNED -
CHECKED -
DRAWN - JHR
CHECKED -

NAVIGATION LIGHT SUPPORT DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

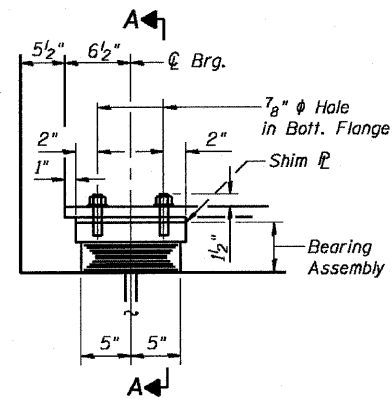
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



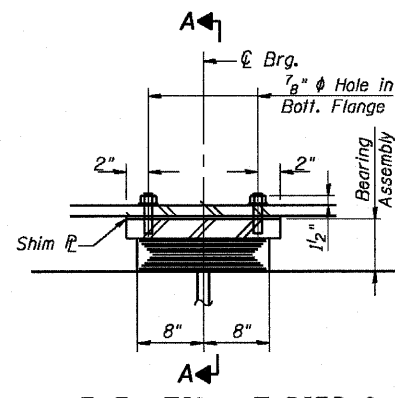
F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	256
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 56
89 SHEETS

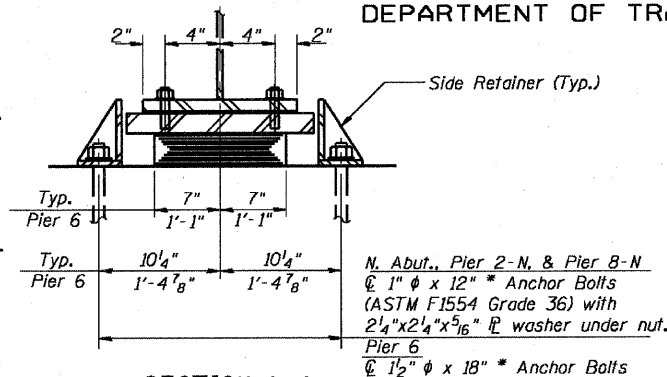
Contract # 66607



ELEVATION AT N. ABUT.
& PIERS 2-N & 8-N



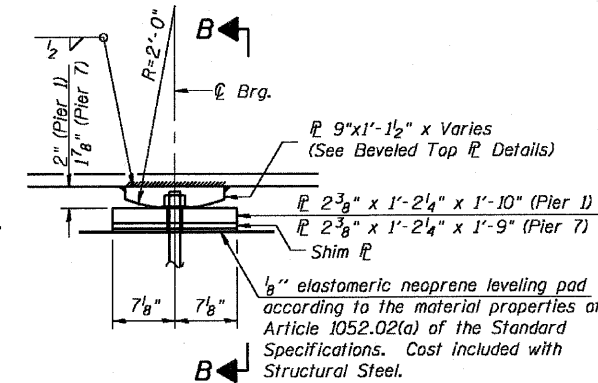
ELEVATION AT PIER 6



SECTION A-A

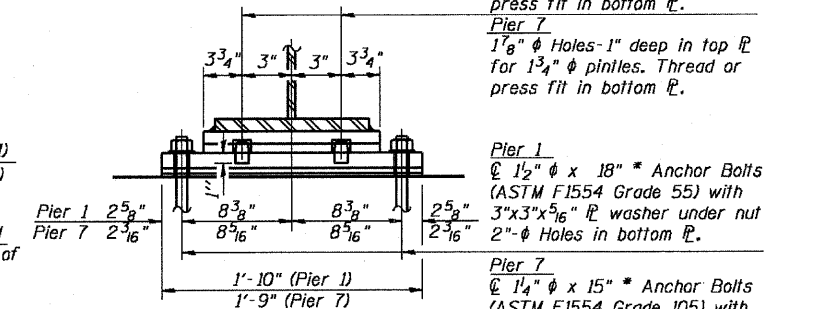
N. Abut., Pier 2-N, & Pier 8-N
1" x 12" Anchor Bolts (ASTM F1554 Grade 36) with 2 1/4" x 2 1/4" x 5/16" washer under nut.
Pier 6
1 1/2" x 18" Anchor Bolts (ASTM F1554 Grade 55) with 3" x 3" x 5/16" washer under nut.

*Lengths shown are minimum required embedment lengths.



ELEVATION AT PIERS 1 & 7

FIXED BEARING
AT PIERS 1 & 7



SECTION B-B

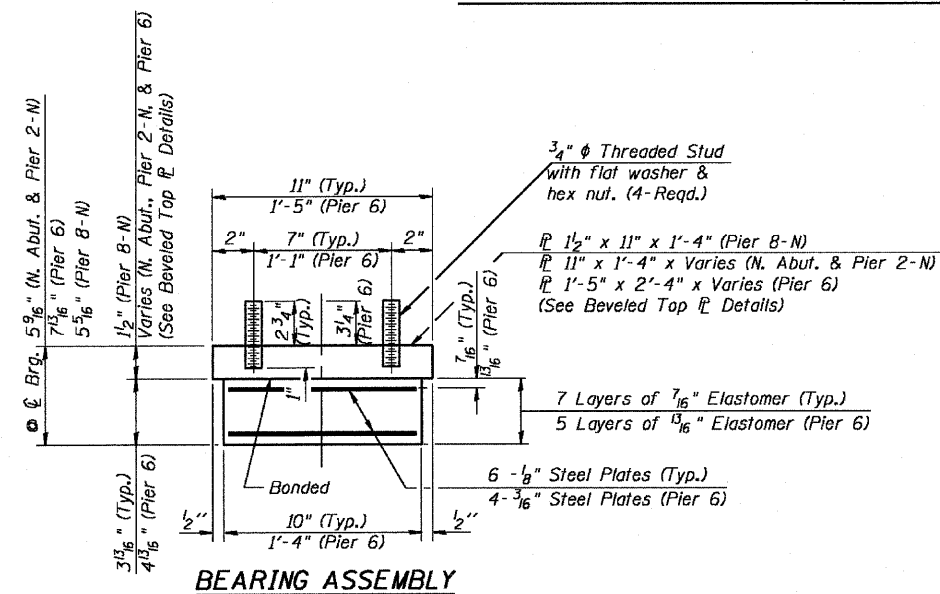
Pier 1
1 1/2" Holes-1" deep in top flange for 1 1/2" pintles. Thread or press fit in bottom flange.

Pier 7
1 3/4" Holes-1" deep in top flange for 1 3/4" pintles. Thread or press fit in bottom flange.

Pier 1
1 1/2" x 18" Anchor Bolts (ASTM F1554 Grade 55) with 3" x 3" x 5/16" washer under nut
2" Holes in bottom flange.

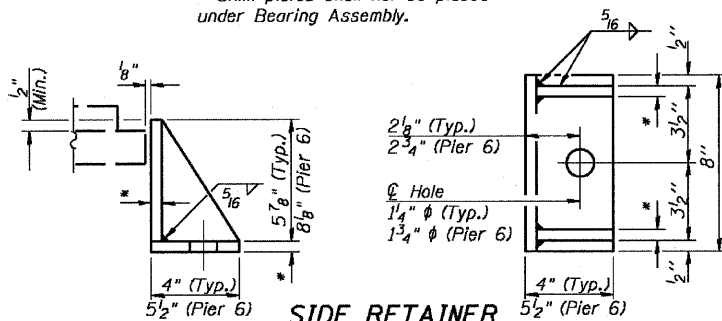
Pier 7
1 1/4" x 15" Anchor Bolts (ASTM F1554 Grade 105) with 2 3/4" x 2 3/4" x 5/16" washer under nut
1 3/4" Holes in bottom flange.

*Lengths shown are minimum required embedment lengths.



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

* Thickness = 1/2" (Typ.) & 5/8" (Pier 6)

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place. Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

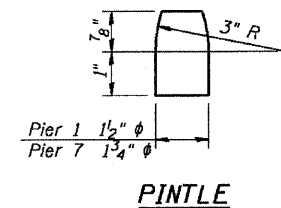
Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

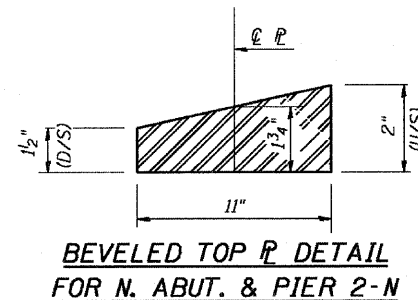
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All side retainers, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M111 or M232 *as applicable*.

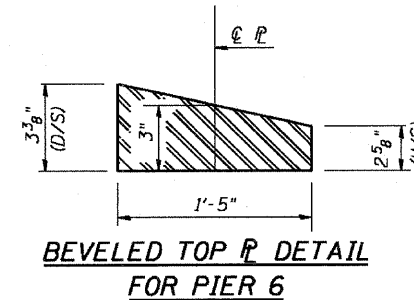
H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.



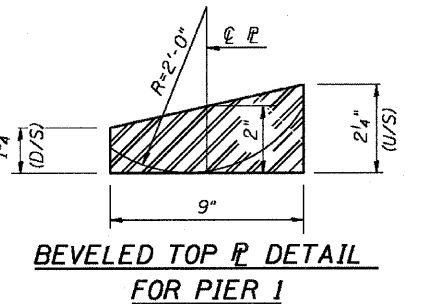
PINTLE



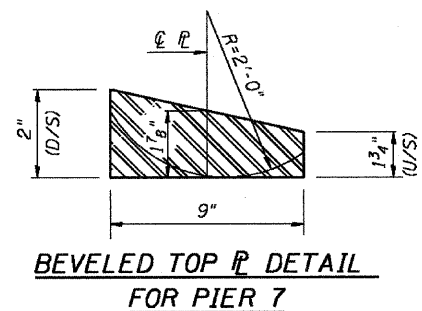
BEVELED TOP FLANGE
FOR N. ABUT. & PIER 2-N



BEVELED TOP FLANGE
FOR PIER 6



BEVELED TOP FLANGE
FOR PIER 1



BEVELED TOP FLANGE
FOR PIER 7

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	26
Anchor Bolts 1"	Each	38
Anchor Bolts 1 1/4"	Each	14
Anchor Bolts 1 1/2"	Each	26

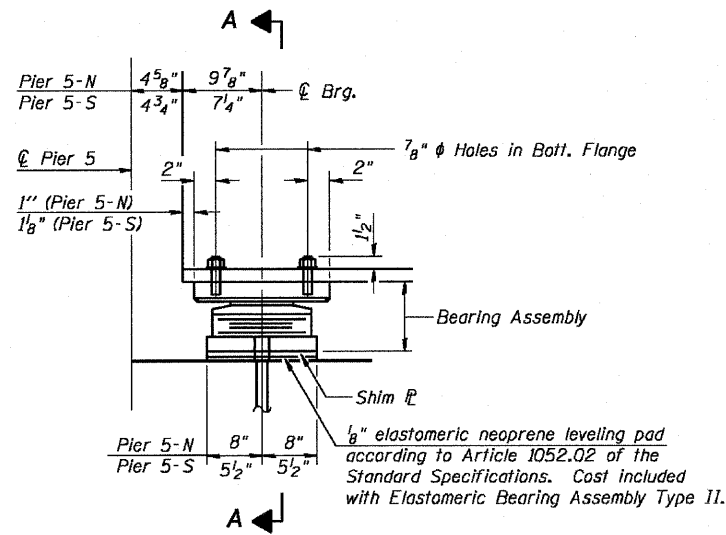
ELASTOMERIC BEARING
ASSEMBLY I

IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

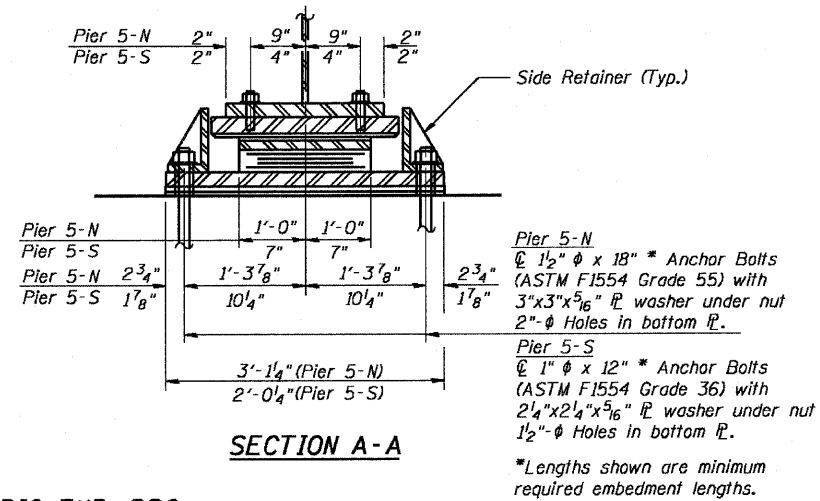
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EarthTech A tyco International Ltd. Company	F.A.P. ROUTE NO.	SECTION	COUNTY	PIERS	SHEET NO.
	786	109 BR	La Salle	351	257
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

SHEET NO. 57
89 SHEETS

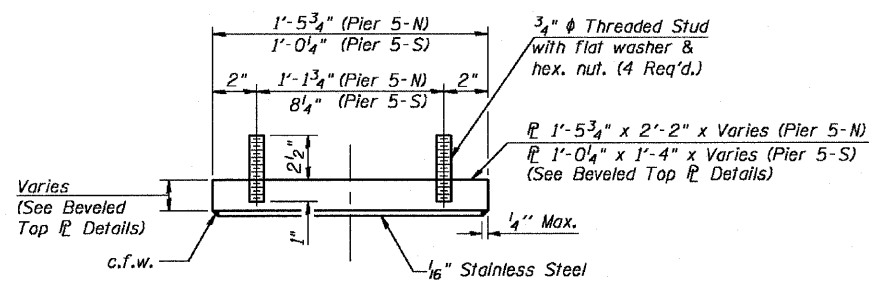


ELEVATION AT PIERS 5-N & 5-S

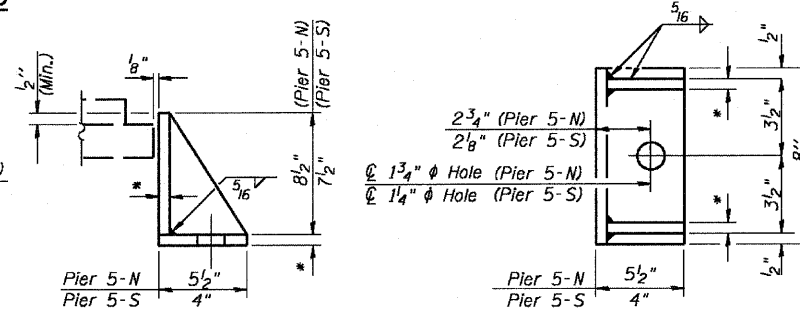


SECTION A-A

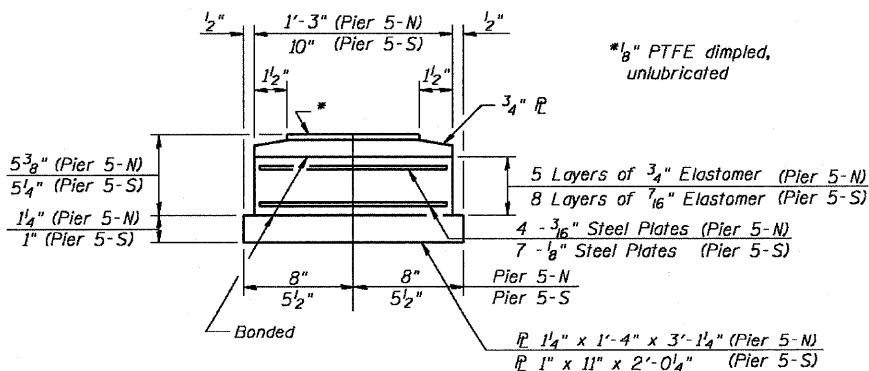
**TYPE II ELASTOMERIC EXP. BRG.
FOR PIERS 5-N & 5-S**



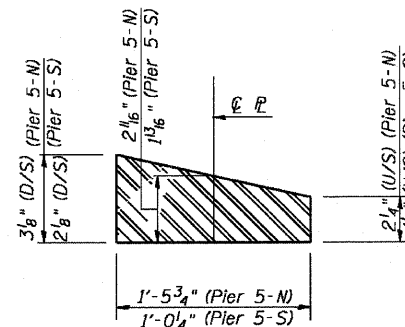
TOP BEARING ASSEMBLY



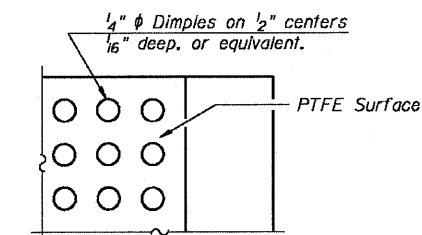
SIDE RETAINER



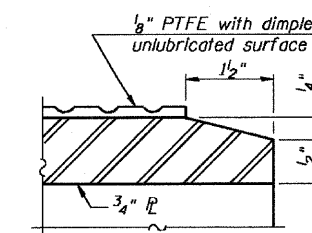
BOTTOM BEARING ASSEMBLY



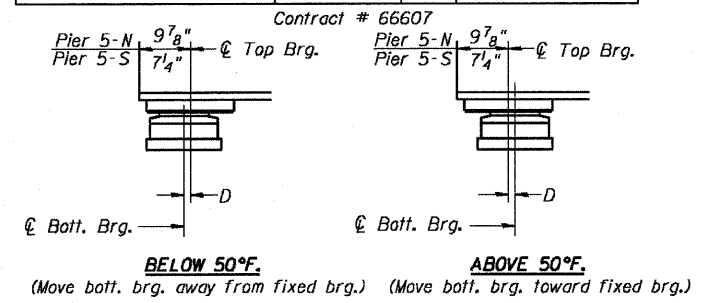
BEVELED TOP PLATE DETAIL FOR PIERS 5-N & 5-S



PLAN-PTFE SURFACE



SECTION THRU PTFE



SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type II bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W. Two 1/2 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All side retainers, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M111 or M232 (as applicable).

H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12
Anchor Bolts 1"	Each	12
Anchor Bolts 1 1/2"	Each	12

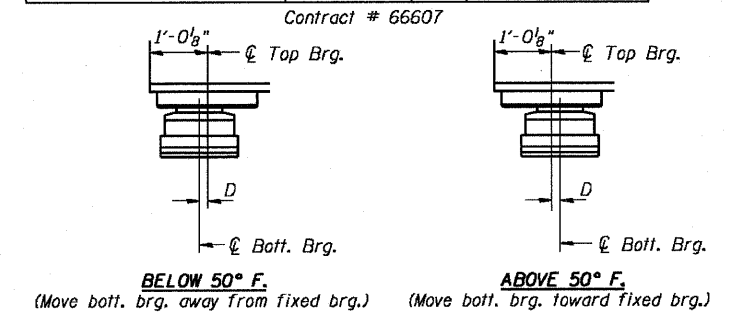
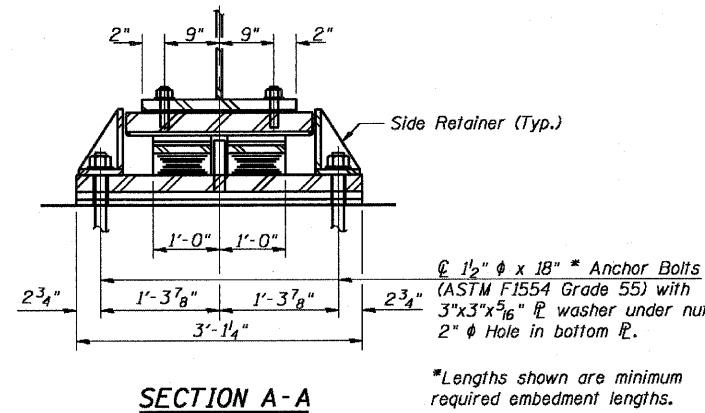
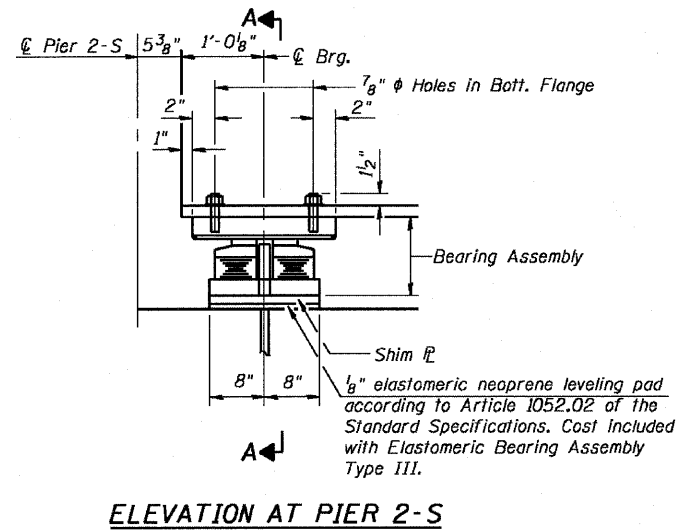
ELASTOMERIC BEARING ASSEMBLY 2
IL. 170 F.A.P. 786 OVER ILLINOIS RIVER AT SENECA PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR STATION 79+04.42
STRUCTURE NO. 050-0246

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



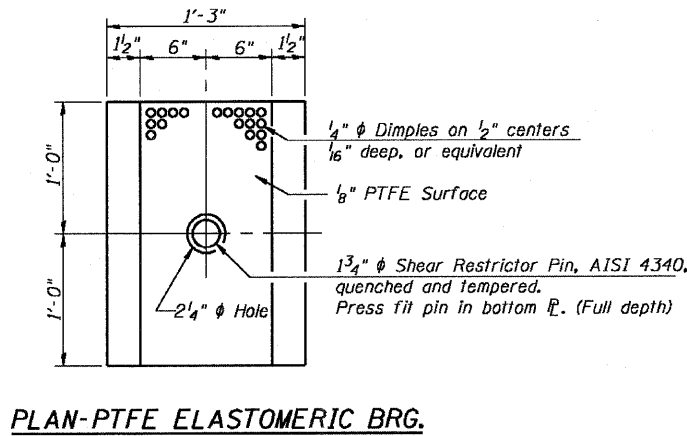
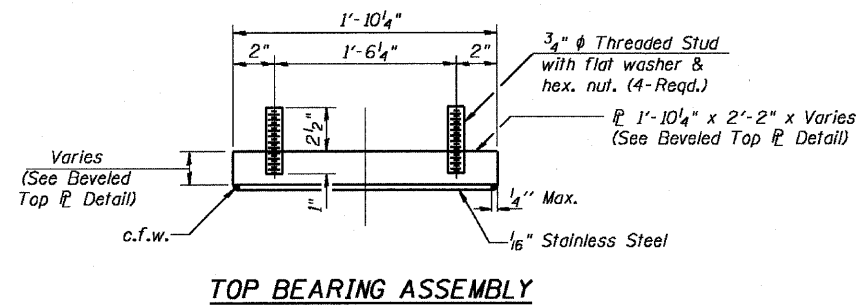
F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 58 89 SHEETS
786	109 BR	La Salle	351	258	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



SETTING ANCHOR BOLTS AT EXP. BRG.

D = $\frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50° F.

TYPE III ELASTOMERIC EXP. BRG. FOR PIER 2-S



Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Anchor bolts for Type III bearings shall be placed in holes drilled through the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Side retainers and other steel members required for the bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type III.

The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

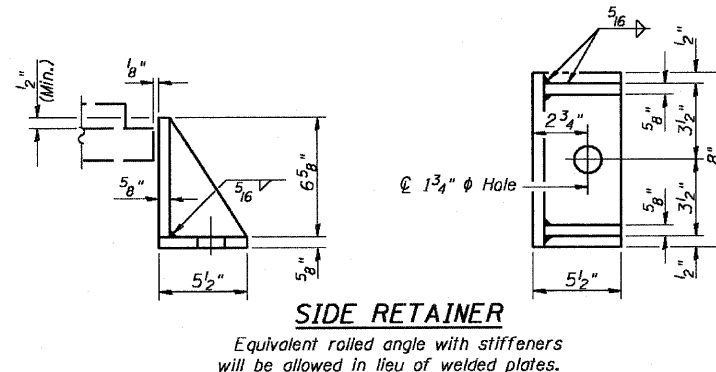
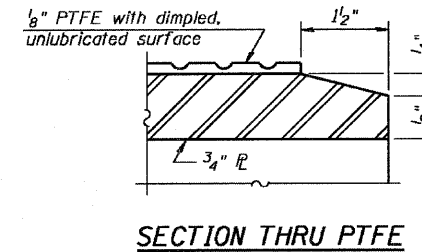
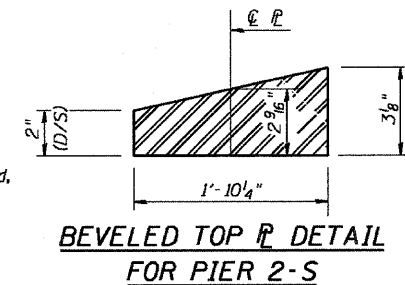
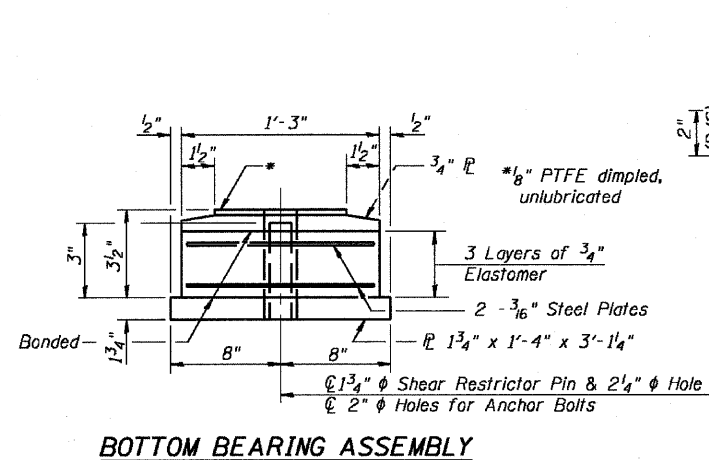
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

All side retainers, anchor bolts, nuts, washers, and pintles shall be galvanized according to AASHTO M111 or M232 *as applicable*.

H.S. bolts in bearing assembly shall be galvanized according to AASHTO M298 Class 50.



DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type III	Each	6
Anchor Bolts 1 1/2"	Each	12

ELASTOMERIC BEARING ASSEMBLY 3
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

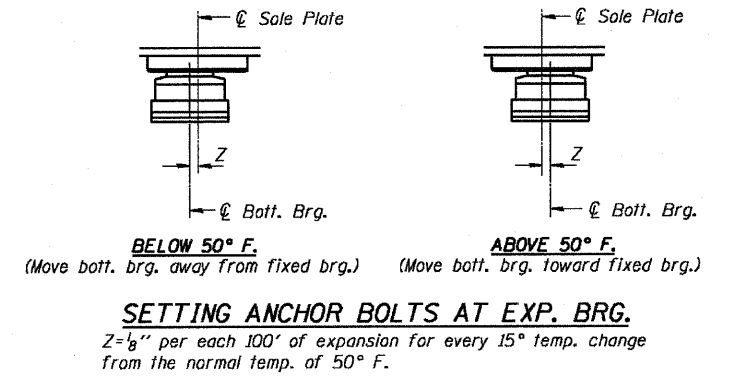
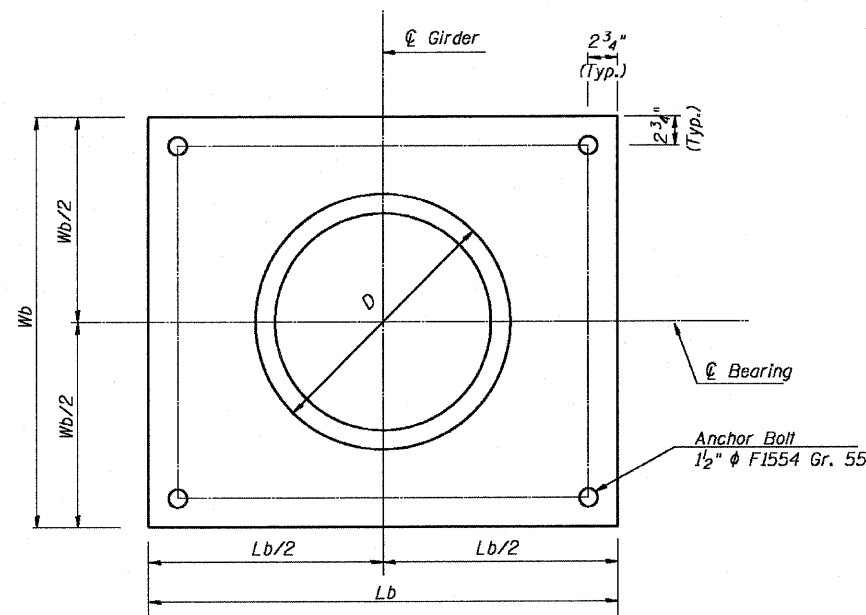
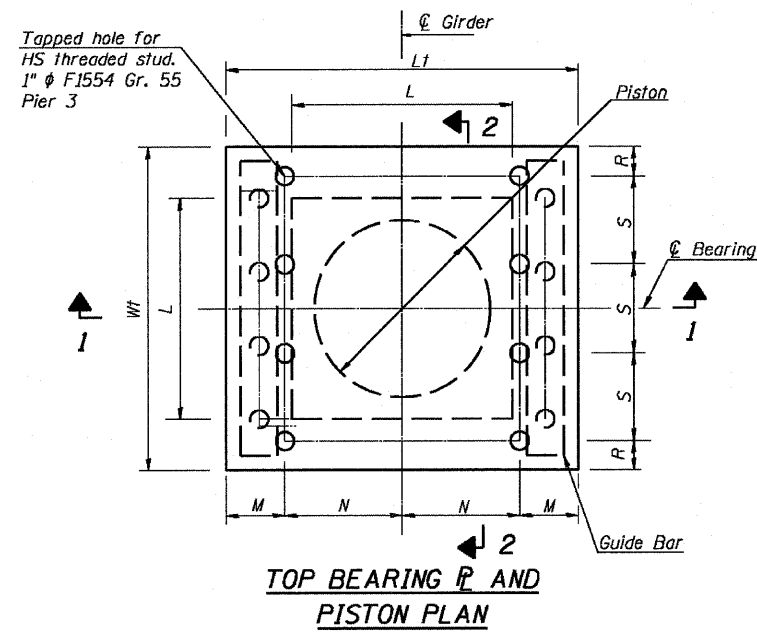
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SUBDIV.	SHEET
786	109 BR	La Salle	351	259
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

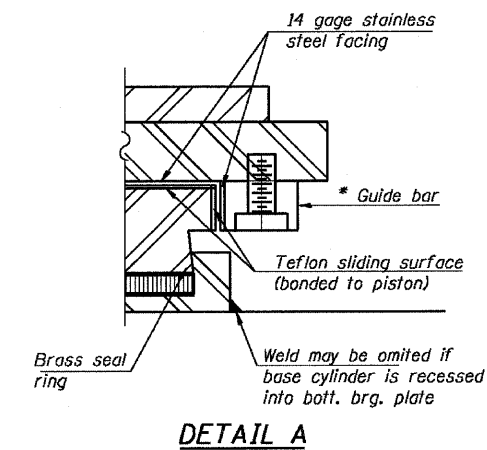
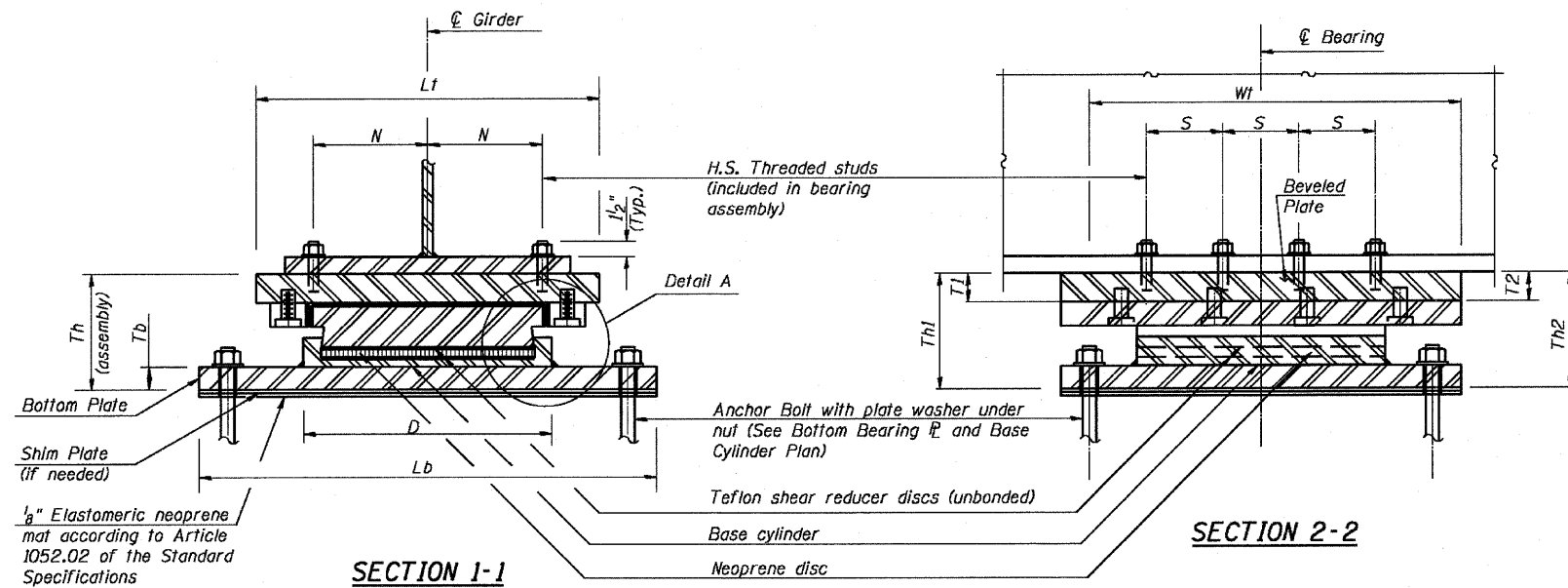
SHEET NO. 59
89 SHEETS

Contract # 66607



BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Guided Expansion BOOK.	Each	6



* As alternates to the bolted connection shown, the guide bars may be connected to the top bearing plate by groove welds or the guide bars and top bearing plate may be fabricated as a single piece.

GUIDE EXPANSION BEARING DIMENSION

Brg. Location	Vertical Design Load	Lateral Design Load	Total Required Movement	Bottom Bearing Plate			Top Bearing Plate						Th1 in.	Th2 in.	L in.	D in.		
				Tb in.	Lb in.	Wb in.	Top Plate		L1 in.	Wt in.	M in.	N in.					R in.	S in.
							T11 in.	T12 in.										
Pier 3	800	123	2 3/8	2	40	30	3 3/8	4	32	30	7	9	3	8	14 1/4	14 1/8	27	25

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

EXPANSION POT BEARING ASSEMBLIES
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

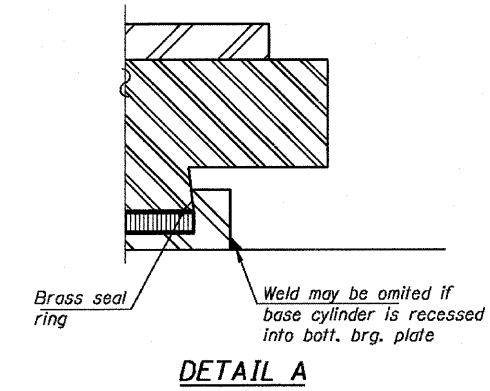
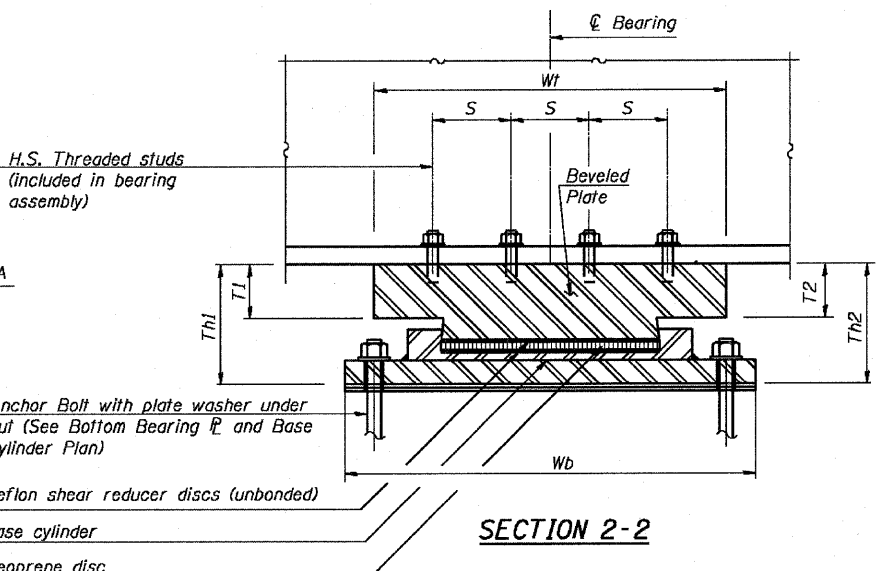
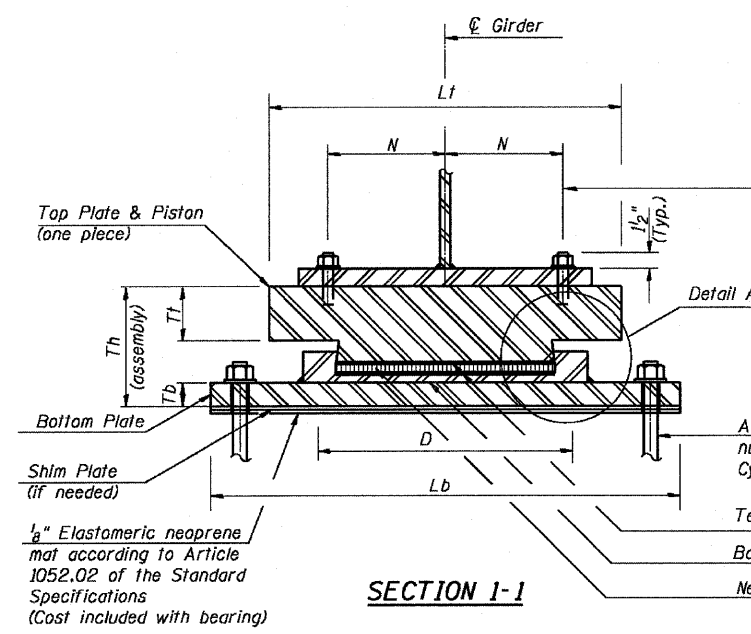
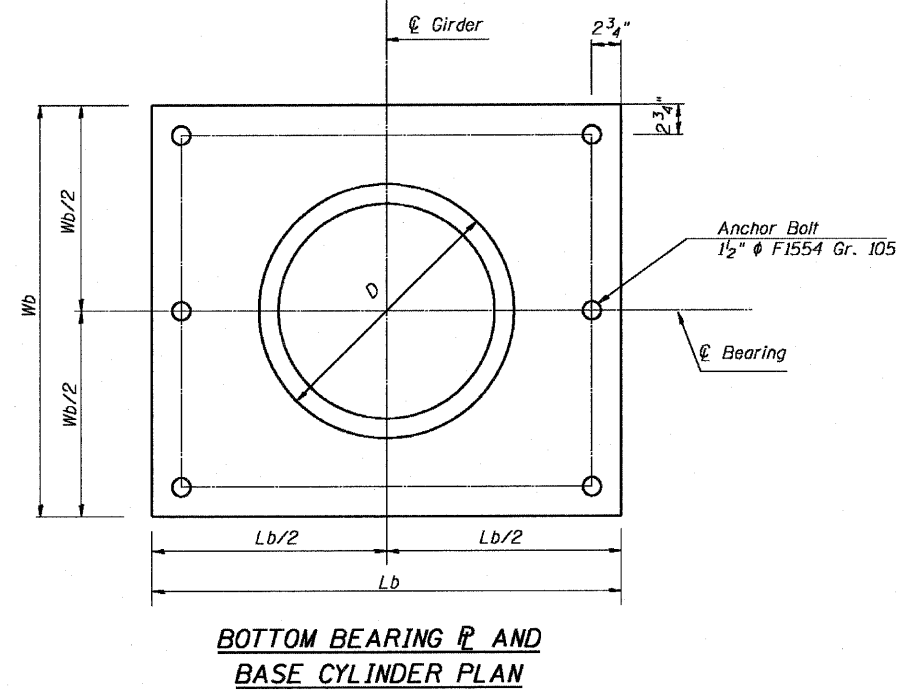
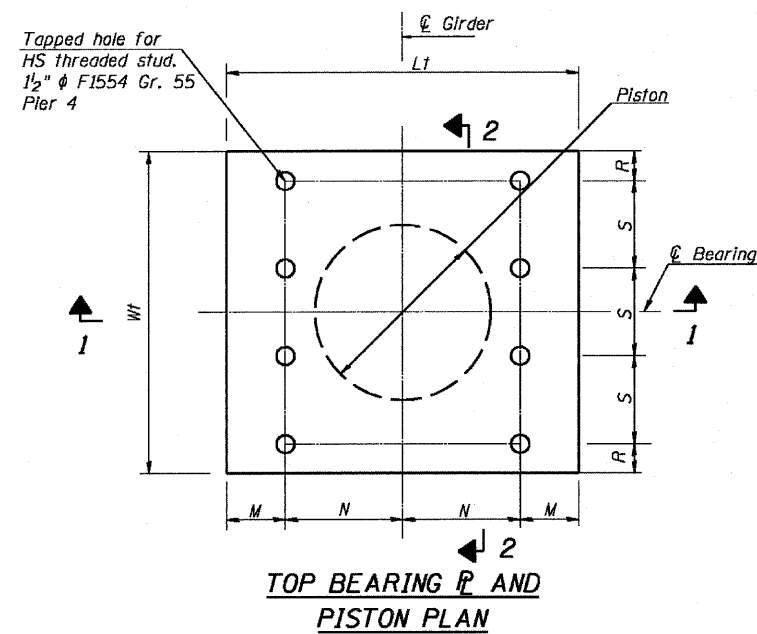
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	260
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 60
89 SHEETS

Contract # 66607



BILL OF MATERIAL

Item	Unit	Total
High Load Multi-Rotation Bearings, Fixed 800K	Each	6

DESIGNED - CLS
CHECKED - DEV
DRAWN - JHR
CHECKED - RJC

GUIDE FIXED BEARING DIMENSION

Brg. Location	Vertical Design Load	Lateral Design Load	Bottom Bearing Plate			Top Bearing Plate							Th1 in.	Th2 in.	D in.	
			Tb in.	Lb in.	Wb in.	Top Plate		Lt in.	Wt in.	M in.	N in.	R in.				S in.
						Tt1 in.	Tt2 in.									
Pier 4	800	310	2	38	30	4	3 1/2	27	27	4 1/2	9	3	7	11	10 1/2	25

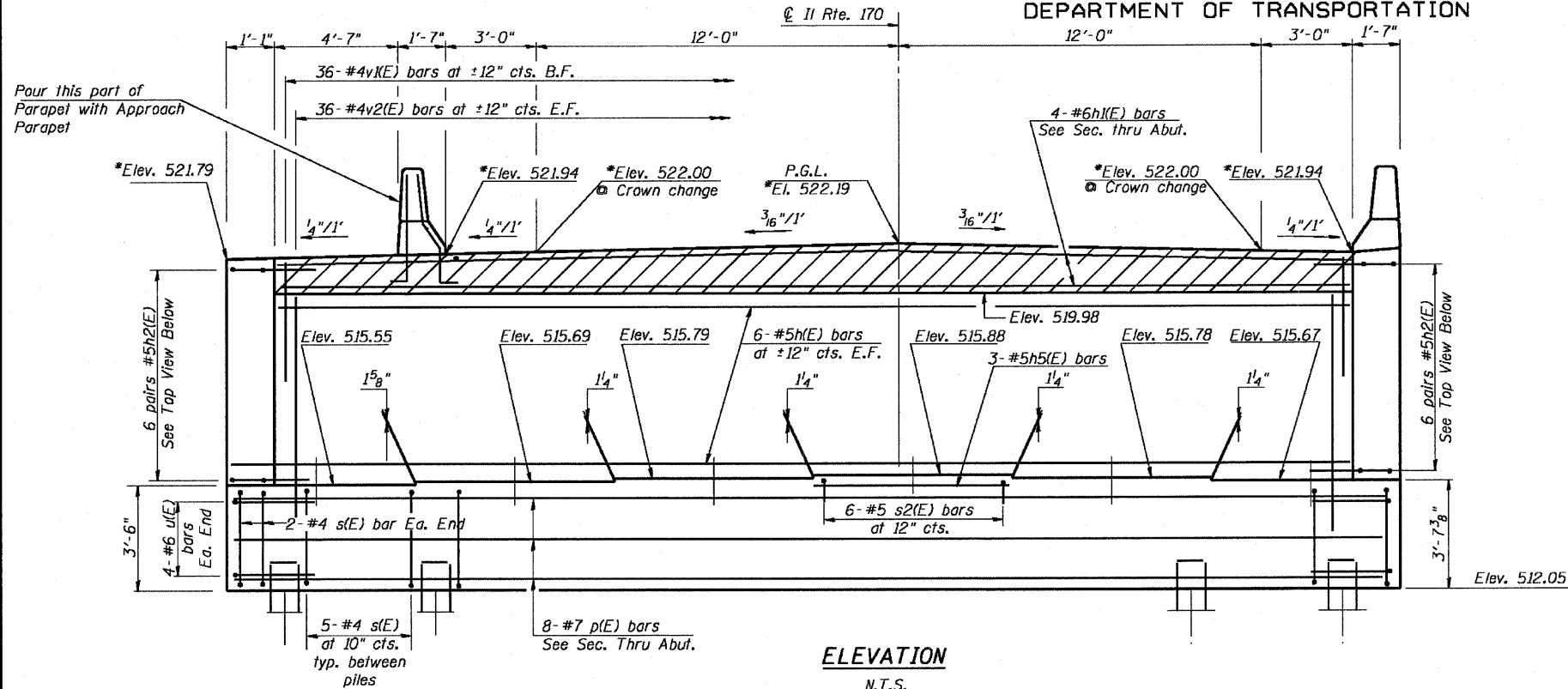
FIXED POT BEARING ASSEMBLIES
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

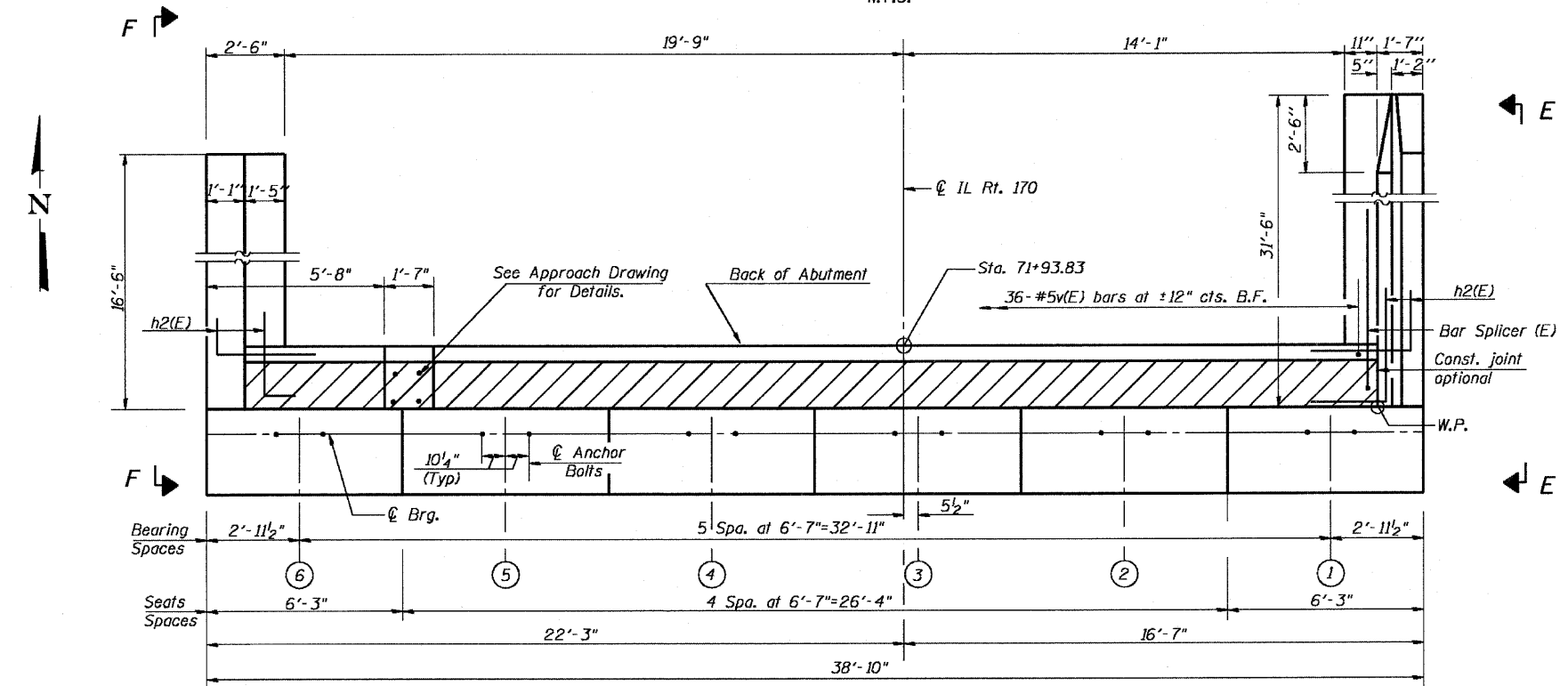
EarthTech A tyco International Ltd. Company	F.A.P. ROUTE NO.	SECTION	COUNTY	LISTED SHEETS	SHEET NO.
	786	109 BR	La Salle	351	261
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Contract # 66607

SHEET NO. 61
89 SHEETS

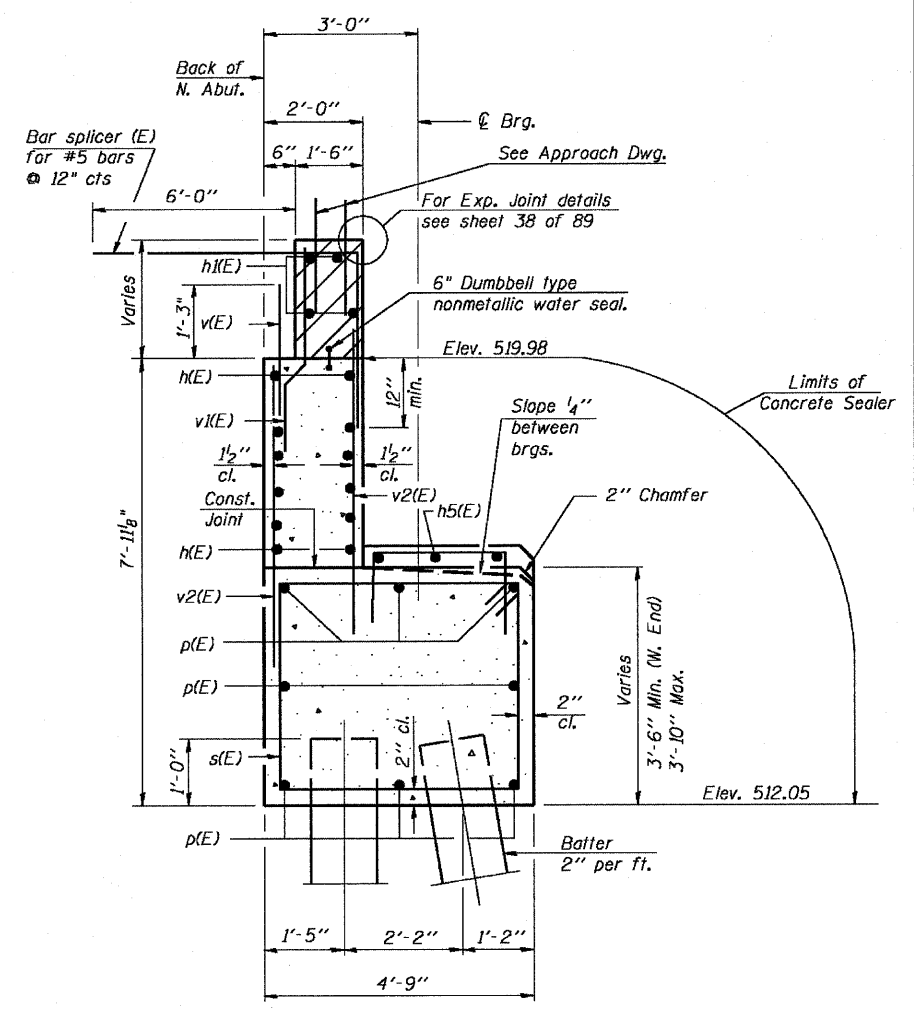


ELEVATION
N.T.S.



TOP VIEW
N.T.S.

DESIGNED - RJC
CHECKED - CLS
DRAWN - JHR
CHECKED - RJC

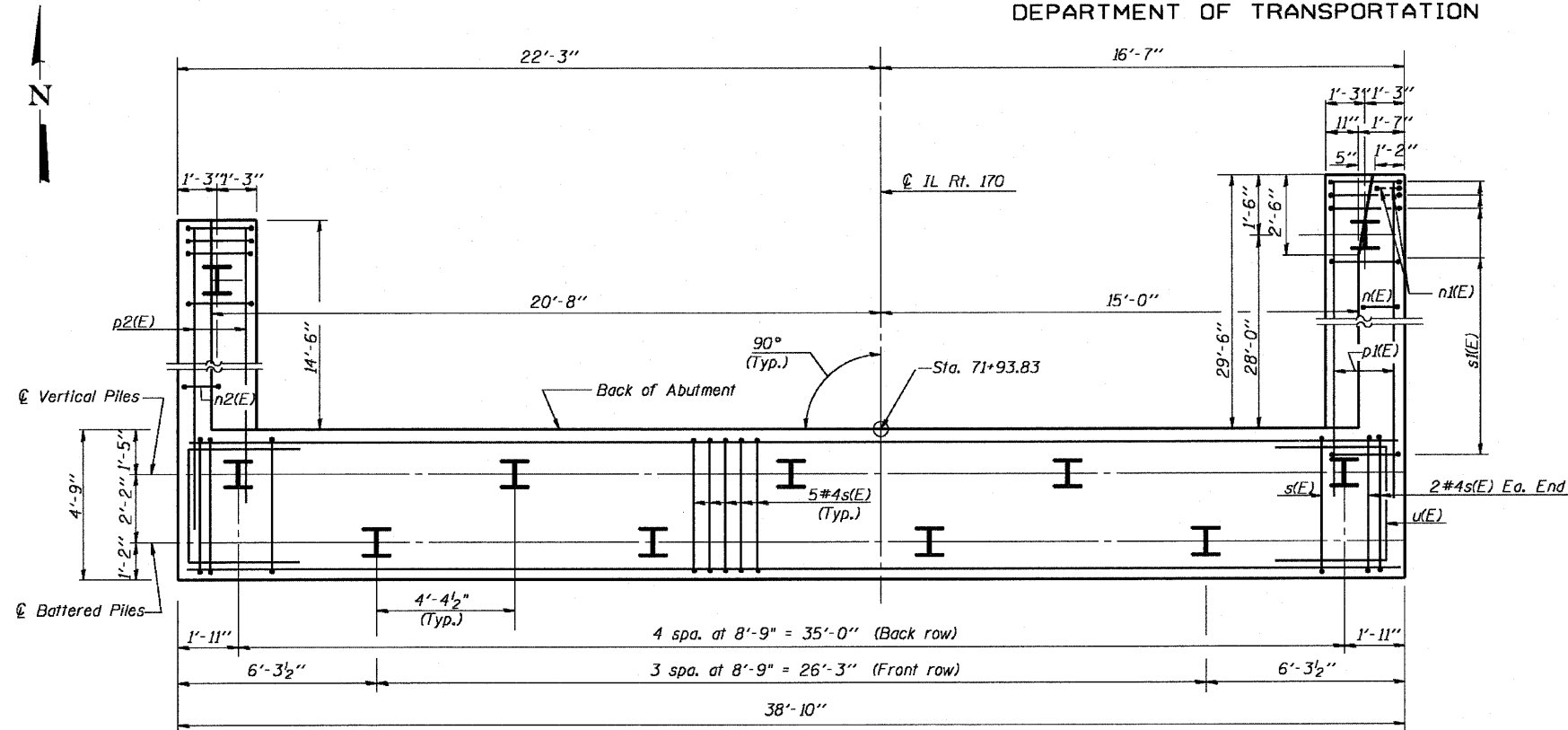


SEC. THRU ABUT.
N.T.S.

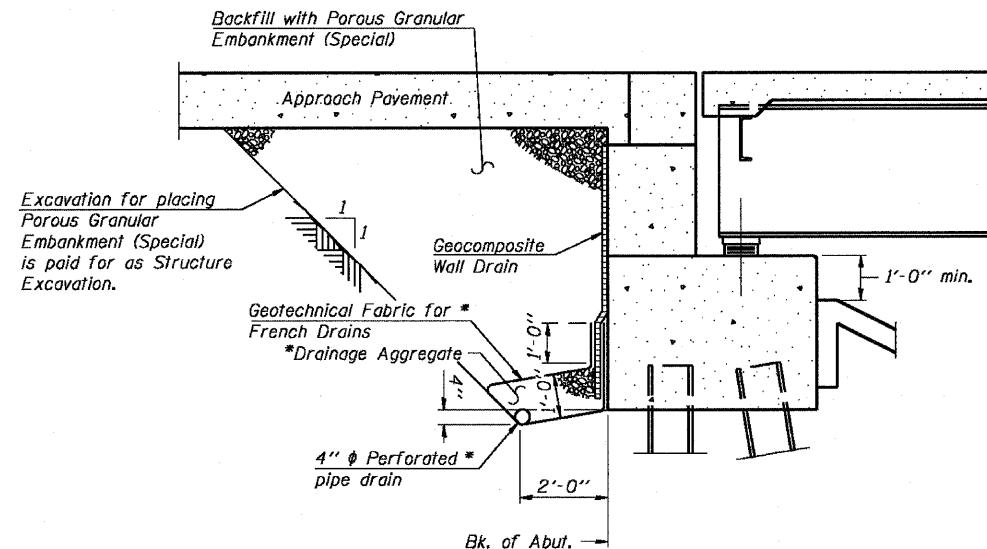
Notes:
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap. Quantity of concrete in parapets included with Concrete Superstructure. Encase Concrete Piles Per Sheet 81. * Elevations are at F.F. of Abutment Backwall. B.F. = Back Face E.F. = Each Face F.F. = Front Face Work this sheet with Sheets 62 and 63.

**NORTH ABUTMENT
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

Contract # 66607



PLAN-PILE CAP



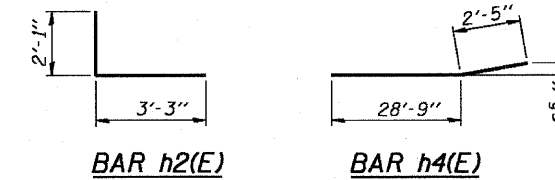
SECTION THRU ABUTMENT

(Showing Backfill and Drainage System)

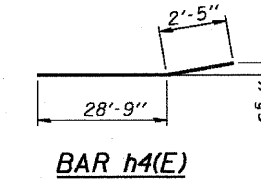
* Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slope. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601.10).

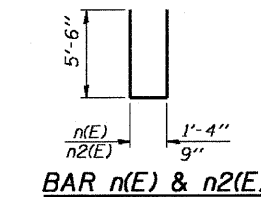
DESIGNED - RJC
CHECKED - CLS
DRAWN - JHR
CHECKED - RJC



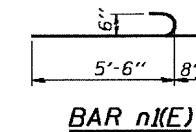
BAR h2(E)



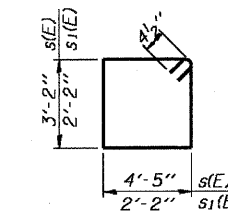
BAR h4(E)



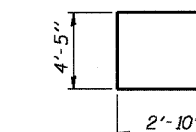
BAR n(E) & n2(E)



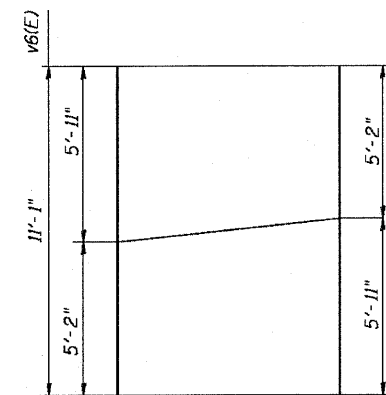
BAR n(E)



BARS s(E) & s1(E)

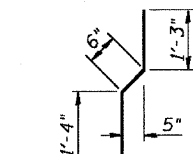


BAR u(E)

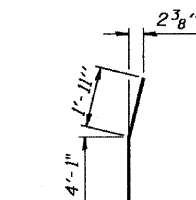


FILE CUTTING DIAGRAM FOR v6(E) BARS

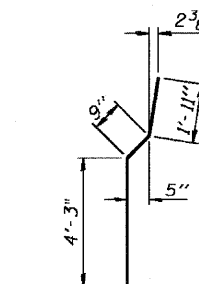
One Set of 17 bars v6(E)



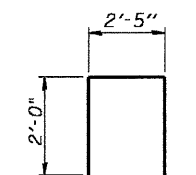
BAR v1(E)



BAR v3(E)



BAR v4(E)



BAR s2(E)

**N. ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	12	#5	35'-6"	—
h2(E)	4	#6	35'-10"	—
h3(E)	24	#5	5'-4"	—
h4(E)	13	#4	31'-2"	—
h5(E)	9	#4	31'-2"	—
h6(E)	3	#5	6'-3"	—
h7(E)	12	#5	16'-2"	—
n(E)	29	#6	12'-4"	—
n1(E)	6	#6	6'-2"	—
n2(E)	17	#6	11'-9"	—
p(E)	8	#7	38'-6"	—
p1(E)	6	#7	32'-6"	—
p2(E)	6	#7	17'-6"	—
s(E)	44	#4	15'-11"	—
s1(E)	49	#4	9'-5"	—
s2(E)	6	#5	6'-5"	—
u(E)	8	#6	10'-1"	—
v(E)	36	#5	3'-0"	—
v1(E)	36	#4	3'-1"	—
v2(E)	36	#4	8'-4"	—
v3(E)	3	#6	6'-0"	—
v4(E)	29	#6	7'-7"	—
v5(E)	32	#6	7'-7"	—
v6(E)	17	#6	11'-1"	—

Structure Excavation	Cu. Yd.	173
Concrete Structures	Cu. Yd.	62
Reinforcement Bars, Epoxy Coated	Pound	5940
Furnishing Steel Piles HP 12x74	Foot	474
Driving Piles	Foot	474
Test Piles	Each	1
Porous Granular Embankment (Special)	Cu. Yd.	104
Pipe Underdrains for Structure	L.F.	122
Geocomposite Wall Drain	Sq. Ft.	729
Pile Shoes	EA.	11
Bar Splicer (E) for #5 Bar	EA.	36

Reinforcement bars designated (E) shall be epoxy coated.

PILE DATA

Type: HP12x74 with Pile Shoes
Nominal Req'd Bearing = 589K
Allowable Resistance Available = 156K
Est. Length: 47
No. Required: 10
No. Test Piles: 1

NORTH ABUTMENT DETAILS 1

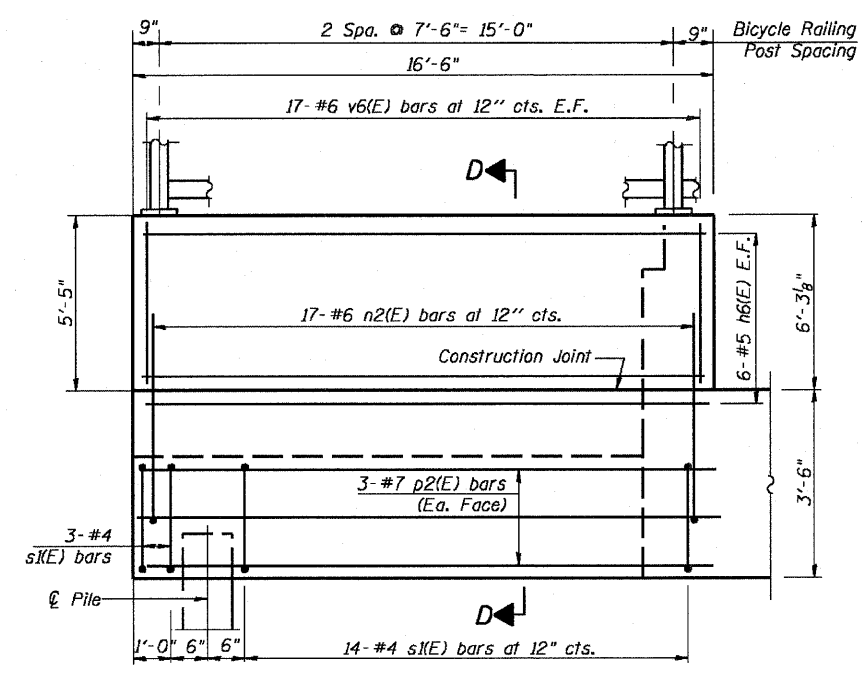
**IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

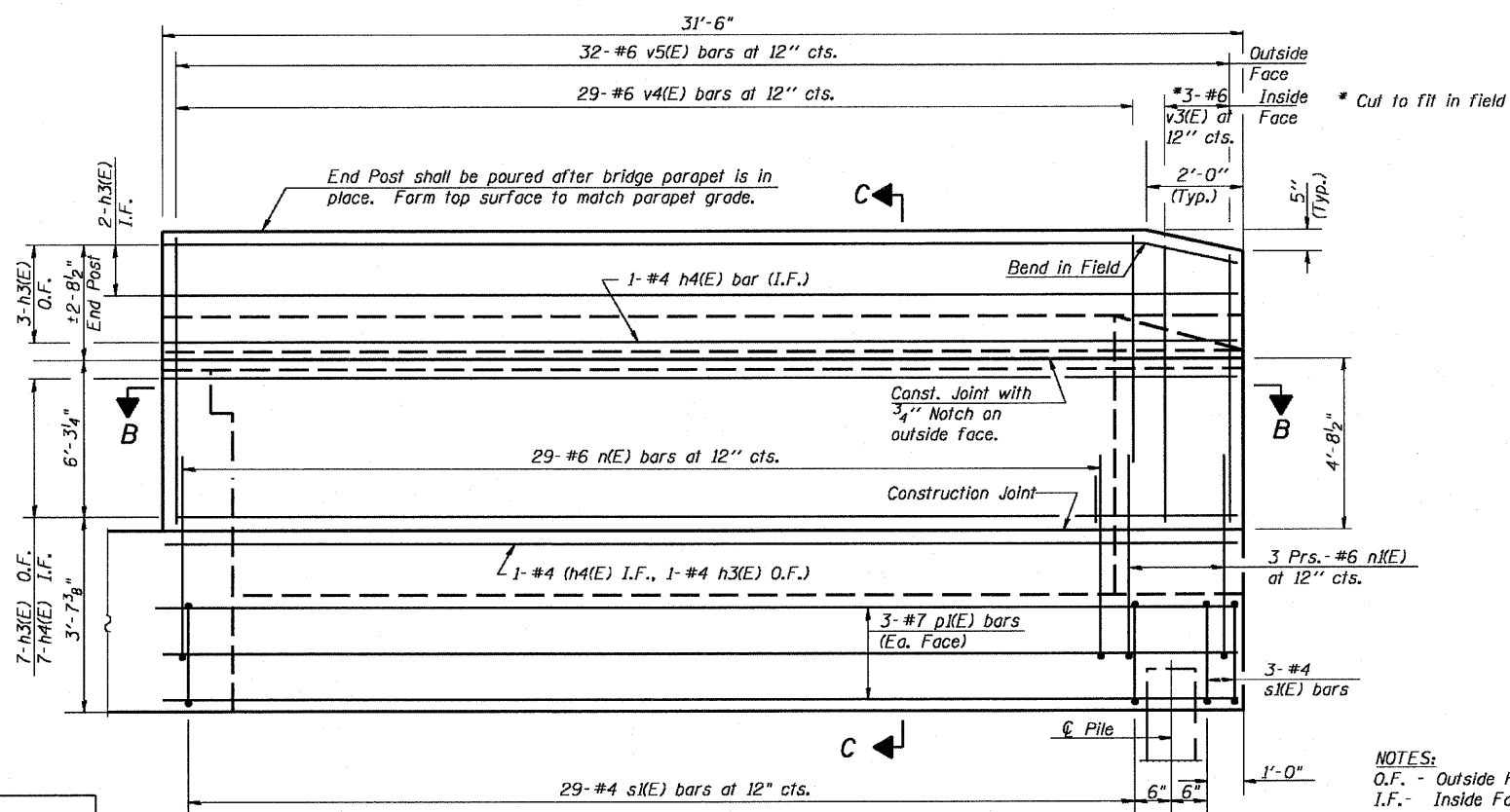


F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	263
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66607



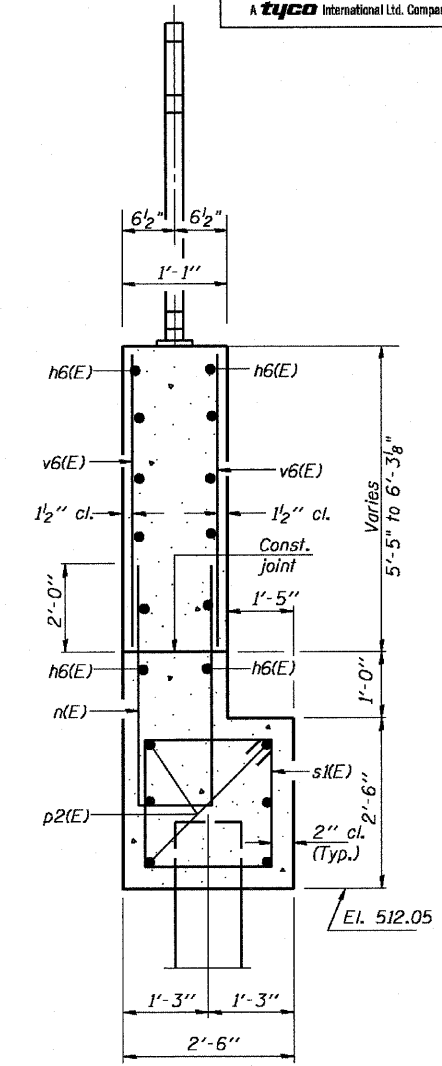
VIEW F-F
WEST WING WALL ELEVATION



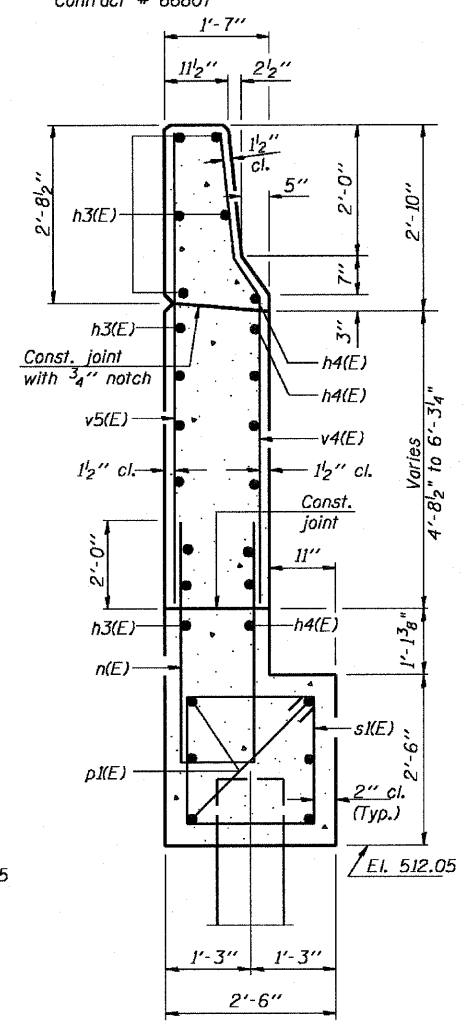
VIEW E-E
EAST WING WALL ELEVATION
N.T.S.

DESIGNED - RJC
CHECKED - CLS
DRAWN - JHR
CHECKED - RJC

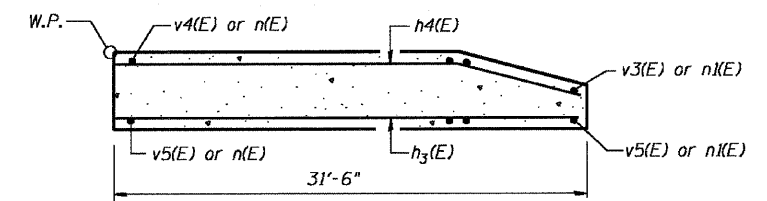
NOTES:
O.F. - Outside Face
I.F. - Inside Face
Quantity of concrete in end post included with Concrete Superstructure on sheet 22 of 92.



SECTION D-D
N.T.S.



SECTION C-C
N.T.S.



SEC. B-B
N.T.S.

NORTH ABUTMENT DETAILS 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

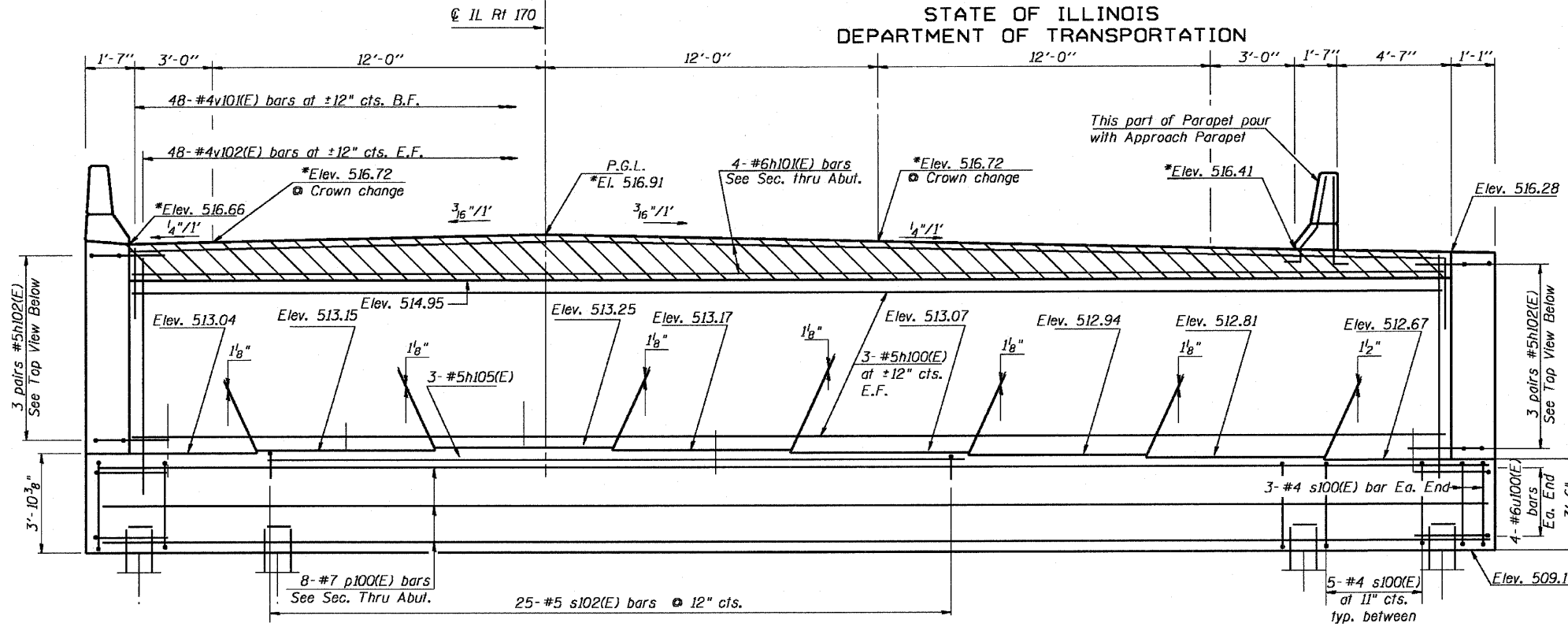
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



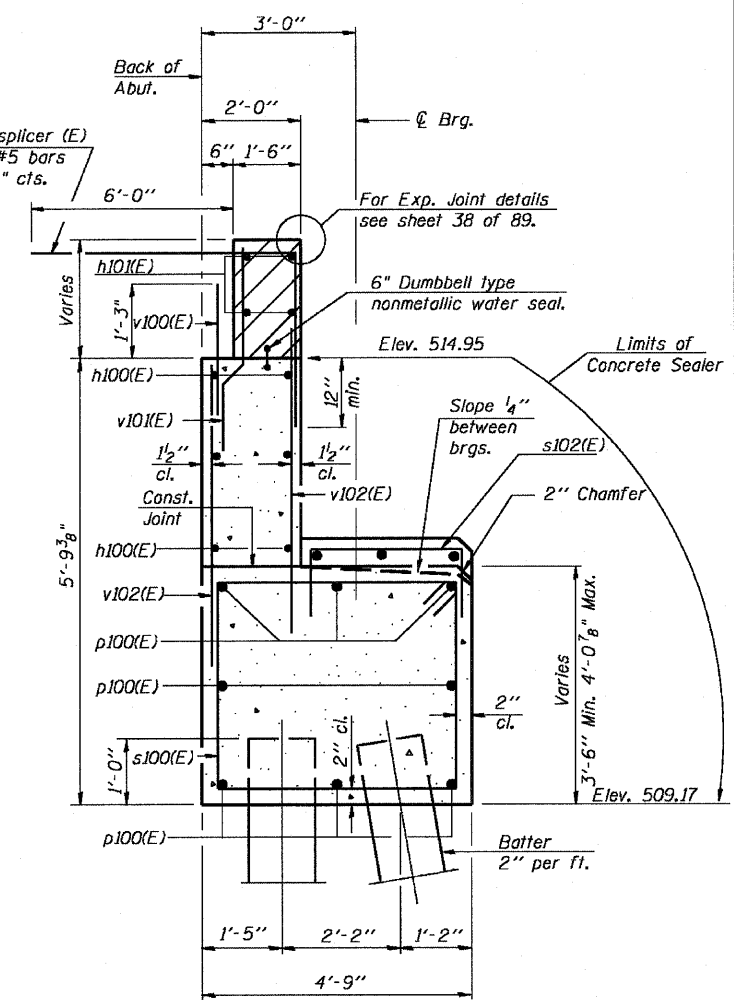
F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	264

SHEET NO. 64
89 SHEETS

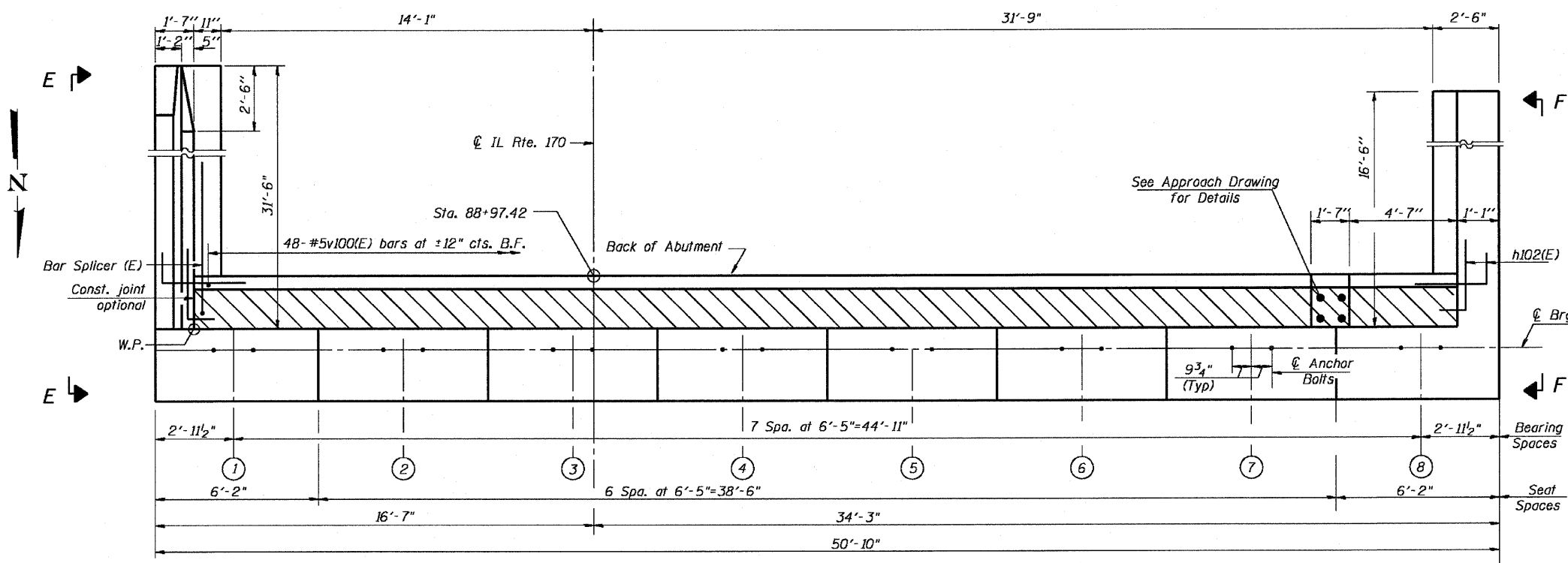
Contract # 66607



ELEVATION



SEC. THRU ABUT.

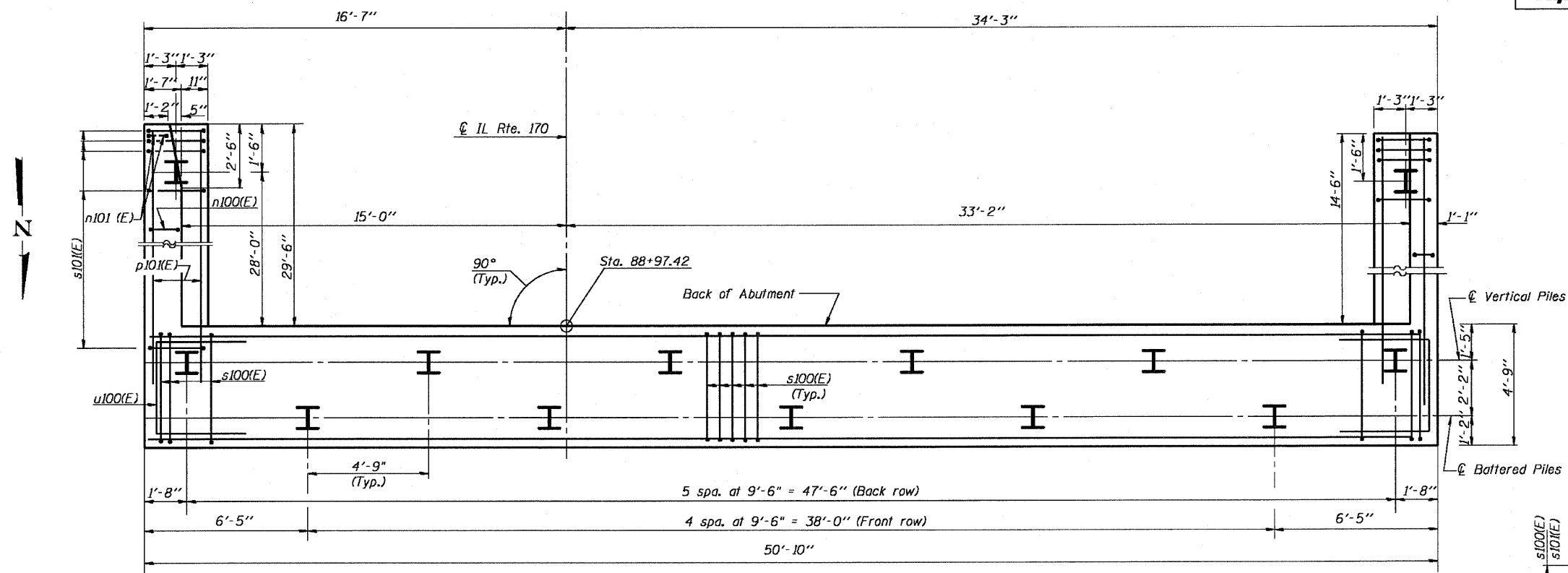


TOP VIEW

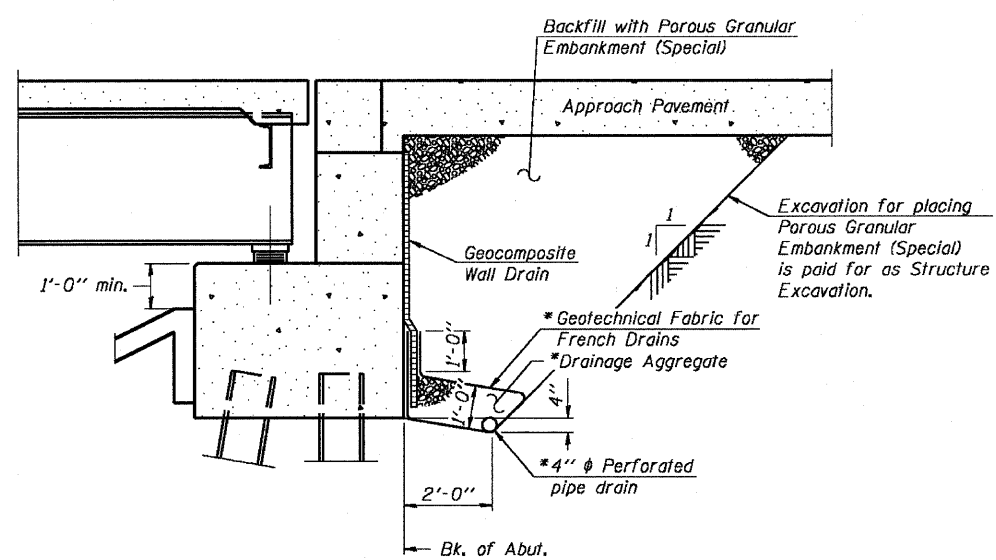
DESIGNED - RJC
CHECKED - CLS
DRAWN - JHR
CHECKED - RJC

- Notes:
- Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure. Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Quantity of concrete in parapets included with Concrete Superstructure.
 - Encase Concrete Piles Per Sheet B1.
 - * Elevations are at F.F. of Abutment Backwall.
 - B.F. = Back Face
 - E.F. = Each Face
 - F.F. = Front Face
 - Work this sheet with Sheets 65 and 66.

SOUTH ABUTMENT
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246



PLAN-PILE CAP

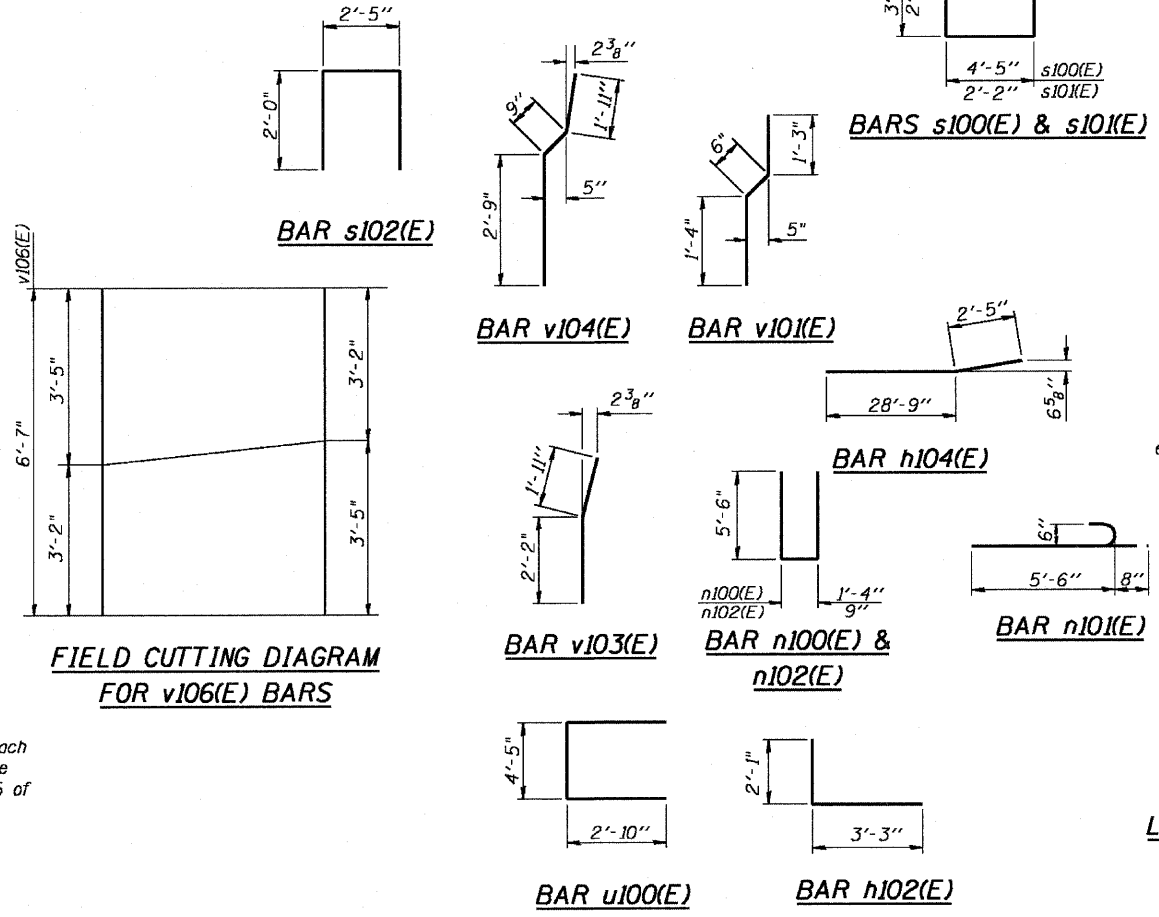


SECTION THRU ABUTMENT

(Showing Backfill and Drainage System)
*Included in the cost of Pipe Underdrains for Structures.

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except on outlet pipe shall extend until intersecting with the side slope. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

DESIGNED - RJC
CHECKED - CLS
DRAWN - JHR
CHECKED - RJC



FIELD CUTTING DIAGRAM FOR v106(E) BARS

**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h100(E)	6	#5	47'-10"	—
h101(E)	4	#6	47'-10"	—
h102(E)	12	#5	5'-4"	└
h103(E)	10	#4	31'-2"	—
h104(E)	6	#4	31'-2"	—
h105(E)	3	#5	25'-4"	—
h106(E)	10	#5	16'-2"	—
n100(E)	29	#6	12'-4"	└
n101(E)	6	#6	6'-2"	└
n102(E)	17	#6	11'-9"	└
p100(E)	8	#7	50'-6"	—
p101(E)	6	#7	32'-6"	—
p102(E)	6	#7	17'-6"	—
s100(E)	56	#4	15'-11"	└
s101(E)	49	#4	9'-5"	└
s102(E)	25	#5	6'-5"	└
u100(E)	8	#6	10'-1"	└
v100(E)	48	#5	3'-0"	—
v101(E)	48	#4	3'-1"	—
v102(E)	48	#4	5'-7"	—
v103(E)	3	#6	5'-1"	—
v104(E)	29	#6	6'-1"	—
v105(E)	32	#6	6'-1"	—
v106(E)	17	#6	6'-7"	—
Structure Excavation	Cu. Yd.		210	
Concrete Structures	Cu. Yd.		64	
Reinforcement Bars, Epoxy Coated	Pound		5940	
Furnishing Steel Piles HP 12x74	Foot		629	
Driving Piles	Foot		629	
Test Piles	Each		1	
Porous Granular Embankment (Special)	Cu. Yd.		124	
Pipe Underdrains for Structure	L.F.		128	
Geocomposite Wall Drain	Sq. Ft.		631	
Pile Shoes	EA.		13	
Bar splicers (E) for #5 bars	EA.		48	

Reinforcement bars designated (E) shall be epoxy coated.

PILE DATA

Type: HP12x74 with Pile Shoes
Nominal Req'd Bearing = 589K
Allowable Resistance Available = 156K
Est. Length: 52
No. Required: 12
No. Test Piles: 1

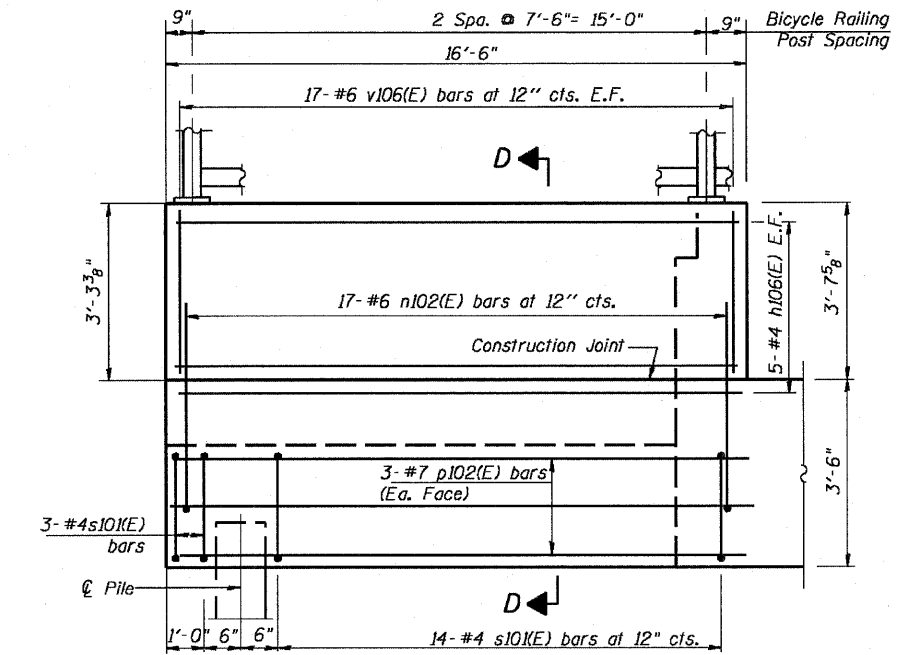
SOUTH ABUTMENT DETAILS I
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

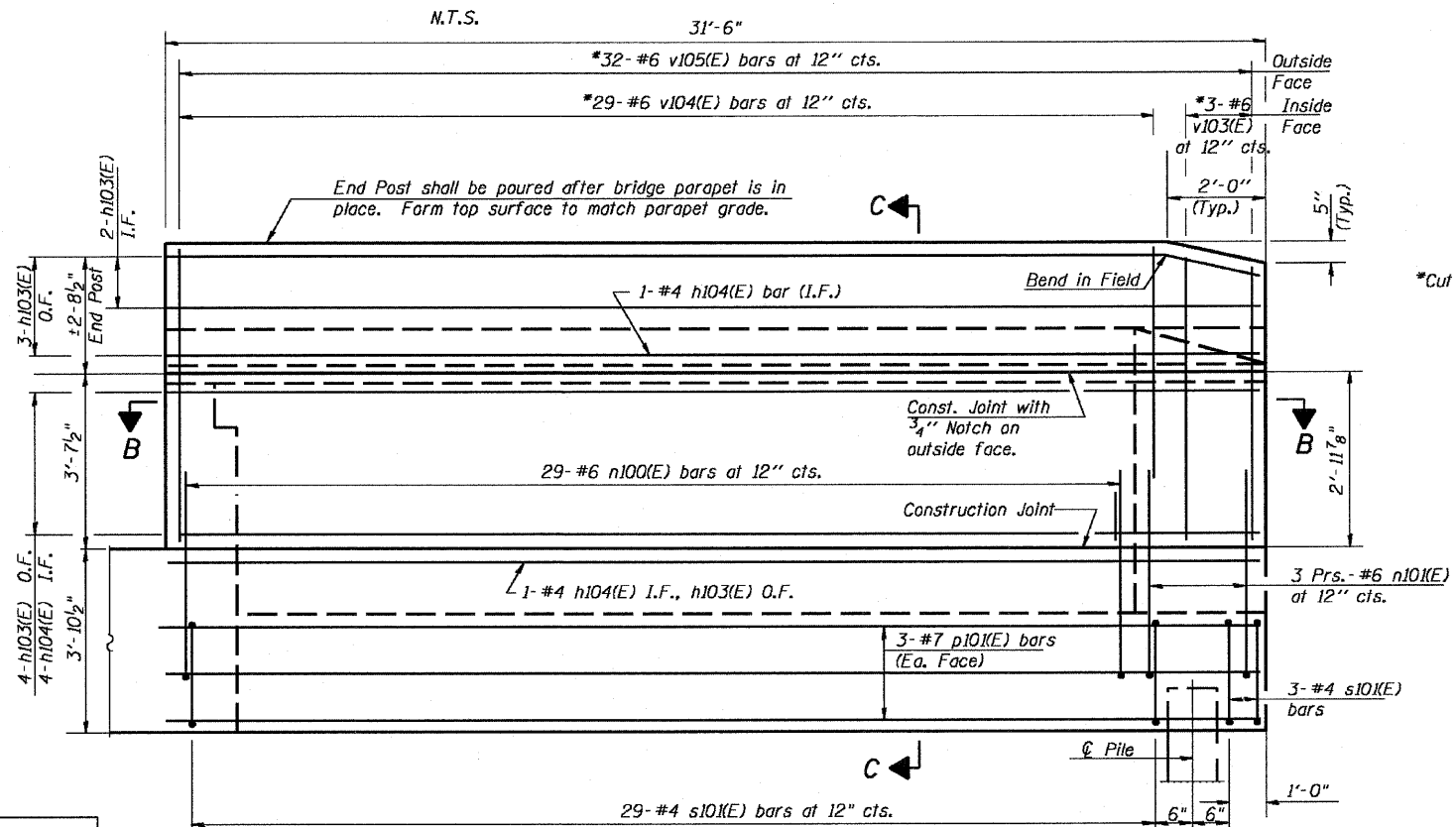


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO.
786	109 BR	La Salle	351	266	89 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-	

Contract # 66607

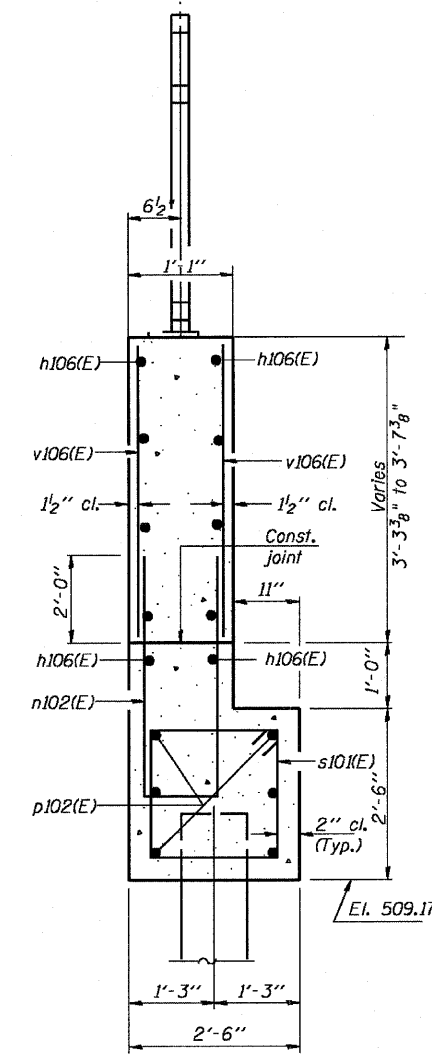


VIEW F-F
WEST WING WALL ELEVATION

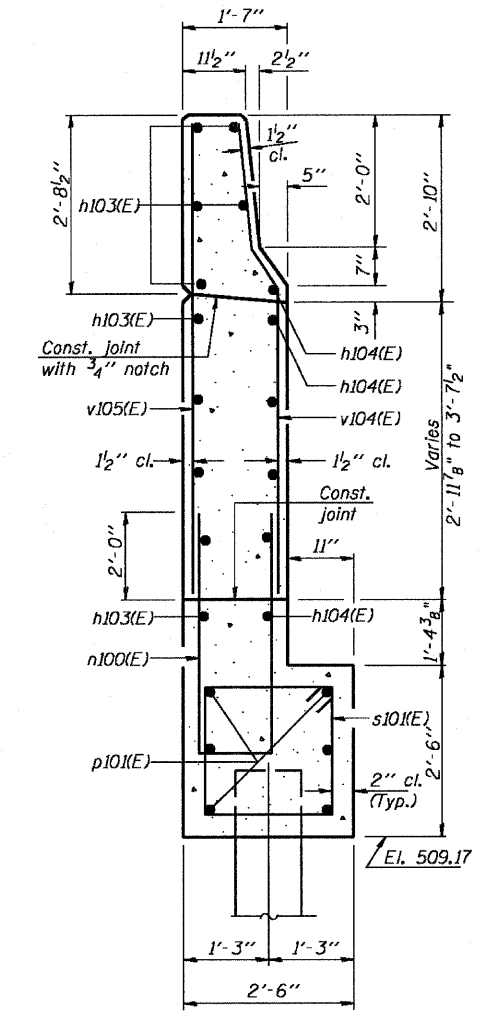


VIEW E-E
EAST WING WALL ELEVATION

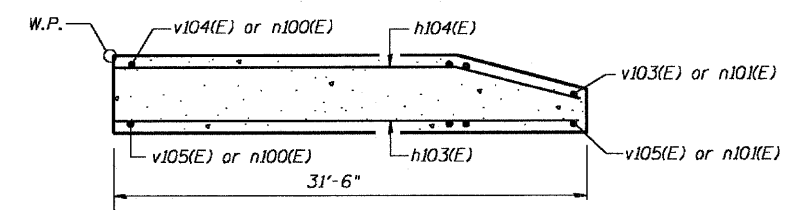
DESIGNED	- RJC
CHECKED	- CLS
DRAWN	- JHR
CHECKED	- RJC



SECTION D-D
N.T.S.



SECTION C-C
N.T.S.



SEC. B-B
N.T.S.

NOTES:
O.F. - Outside Face
I.F. - Inside Face

SOUTH ABUTMENT DETAILS 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Notes:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet 81 of 89.
4. Bridge seats between the bearings shall be sloped to drain.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



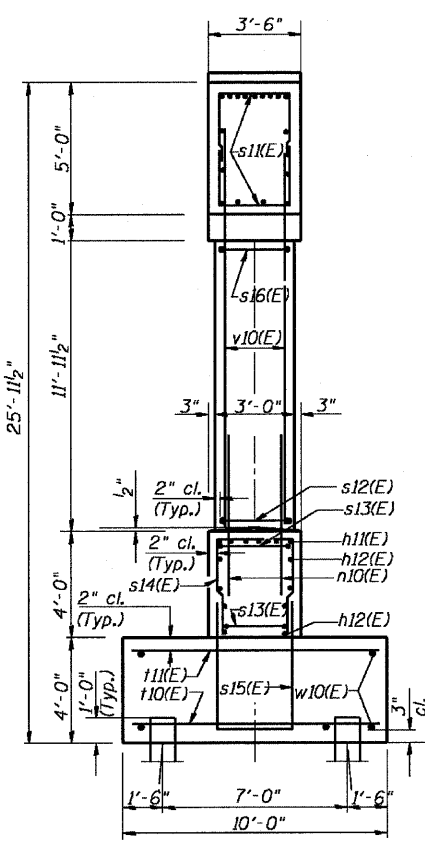
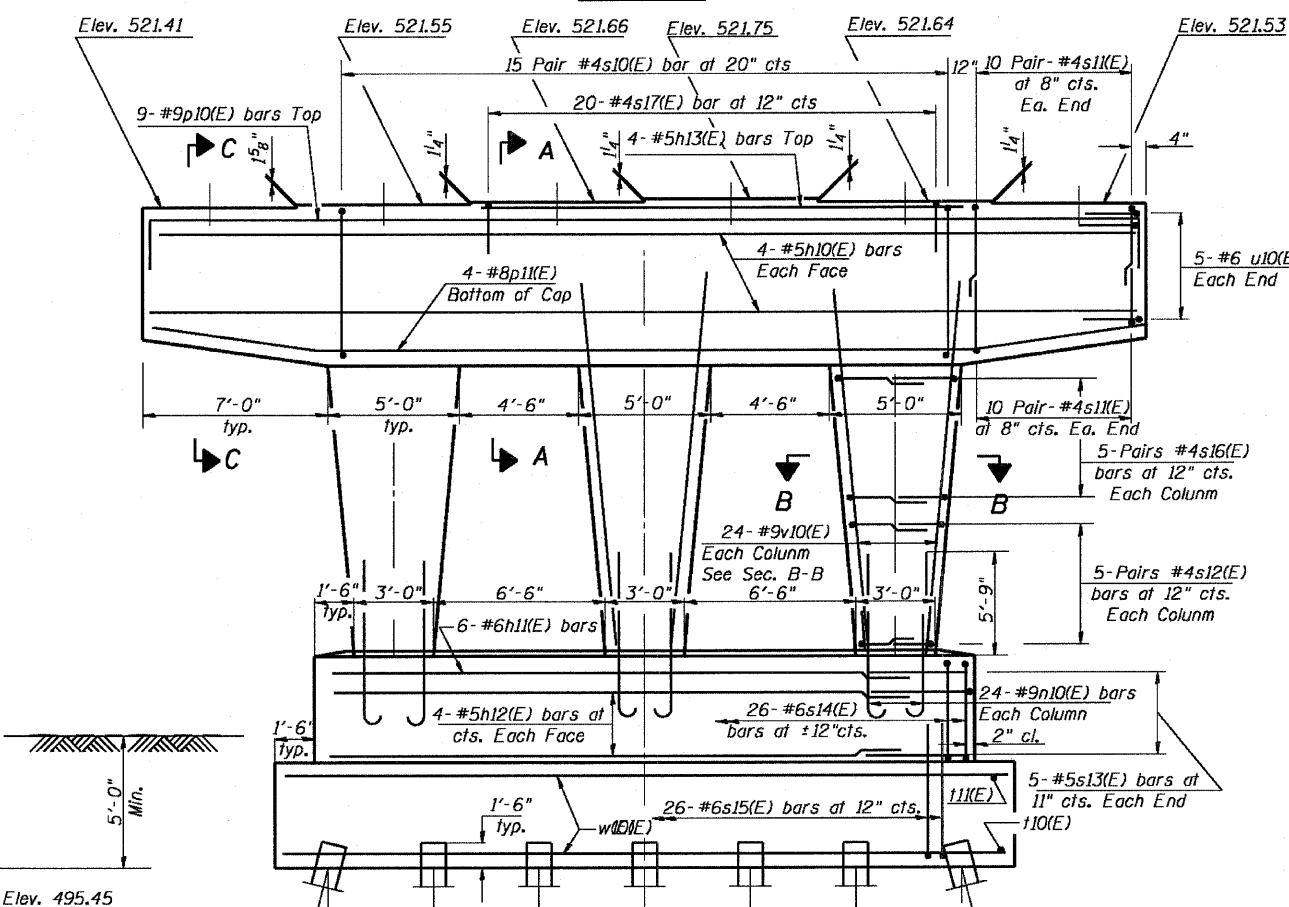
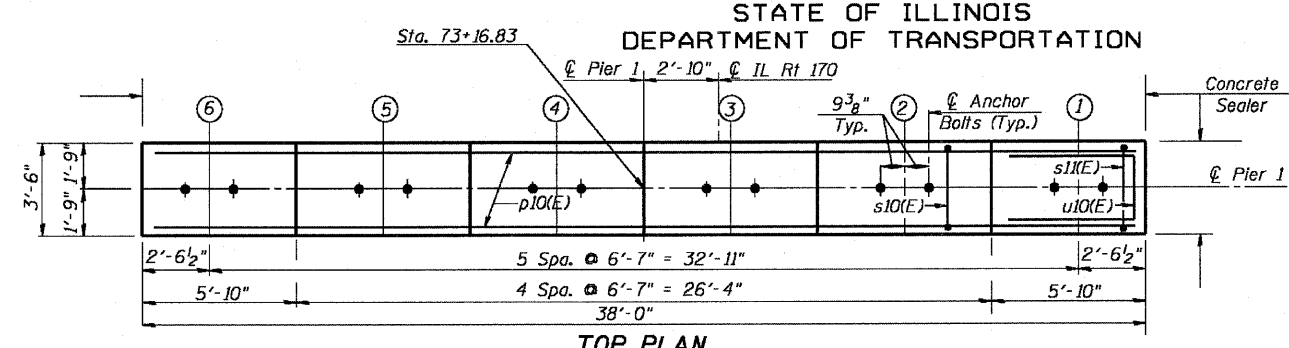
F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 67
786	109 BR	La Salle	351	267	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

Contract # 66607

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10(E)	8	#5	37'-8"	
h11(E)	6	#6	24'-8"	
h12(E)	8	#5	24'-8"	
h13(E)	4	#5	19'-0"	
n10(E)	72	#9	11'-0"	
p10(E)	9	#9	40'-10"	
p11(E)	4	#8	37'-10"	
s10(E)	30	#4	16'-9"	
s11(E)	80	#4	9'-8"	
s12(E)	30	#4	8'-0"	
s13(E)	10	#5	7'-6"	
s14(E)	26	#6	10'-10"	
s15(E)	26	#6	15'-10"	
s16(E)	30	#4	10'-0"	
s17(E)	20	#4	8'-2"	
v10(E)	36	#8	9'-8"	
v11(E)	18	#5	9'-8"	
w10(E)	10	#6	8'-10"	
v10(E)	72	#9	15'-4"	
w10(E)	18	#7	27'-8"	

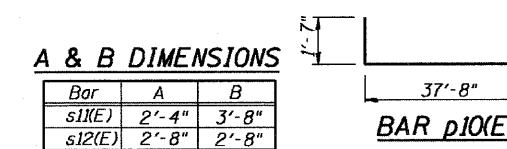
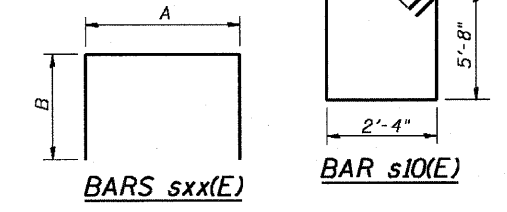
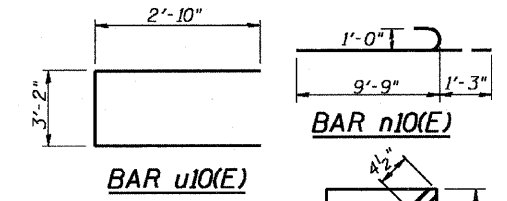
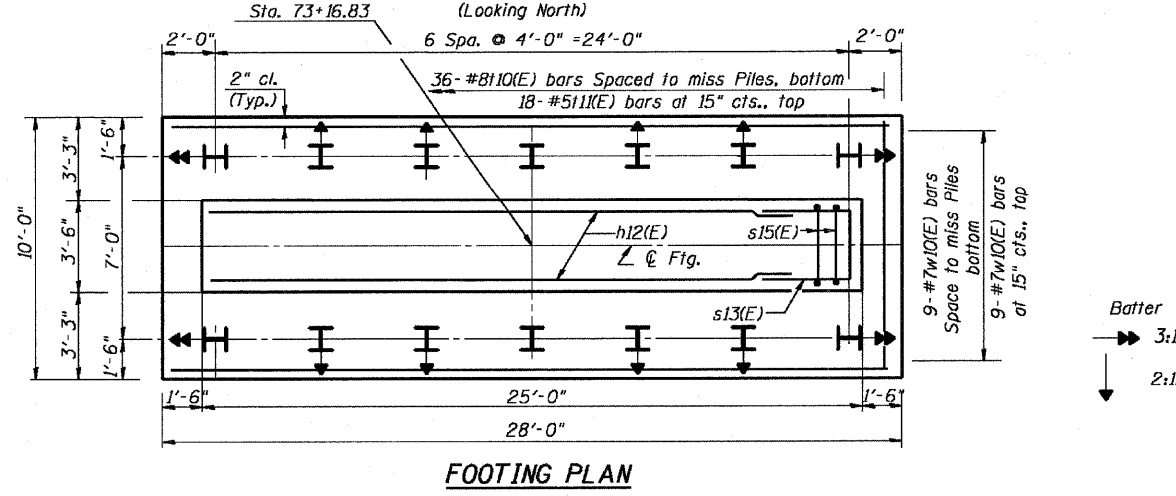
Structure Excavation	Cu. Yd.	78
Concrete Structures	Cu. Yd.	100
Reinforcement Bars, Epoxy Coated	Pound	13,630
Furnishing Steel Piles HP 12x74	Foot	455
Driving Piles	Foot	455
Test Pile	Each	1
Pile Shoes	Each	14



PILE DATA

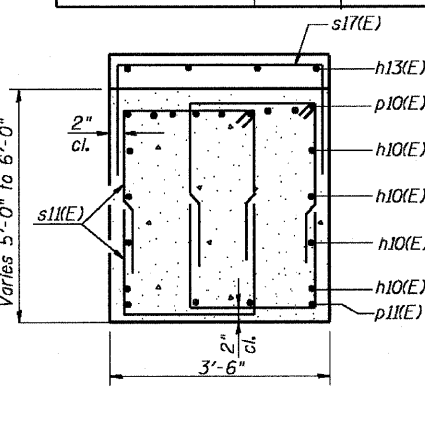
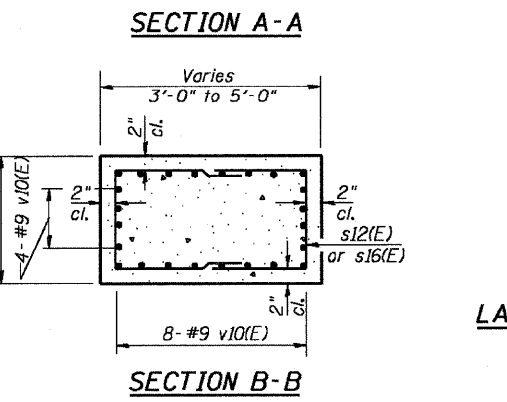
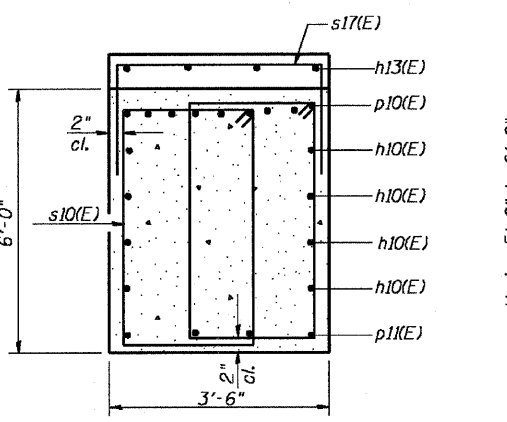
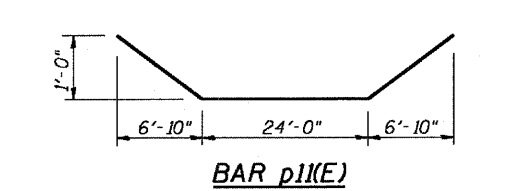
Type: HP12x74 with Pile Shoes
Nominal Required Bearing = 589K
Allowable Resistance Available = 196K
Est. Length: 35'
No. Production Piles: 13
No. Test Piles: 1

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV



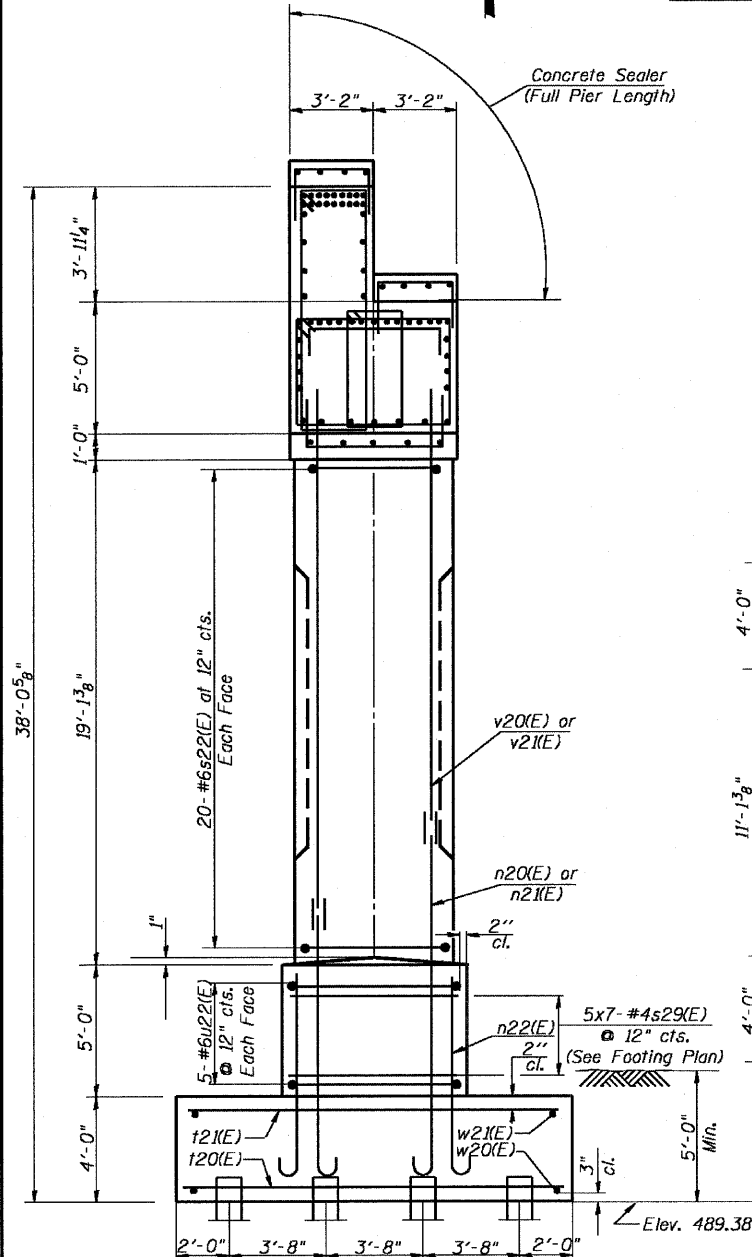
A & B DIMENSIONS

Bar	A	B
s11(E)	2'-4"	3'-8"
s12(E)	2'-8"	2'-8"
s13(E)	3'-2"	2'-2"
s14(E)	3'-2"	3'-10"
s15(E)	3'-2"	6'-4"
s16(E)	2'-8"	3'-8"
s17(E)	3'-2"	2'-6"



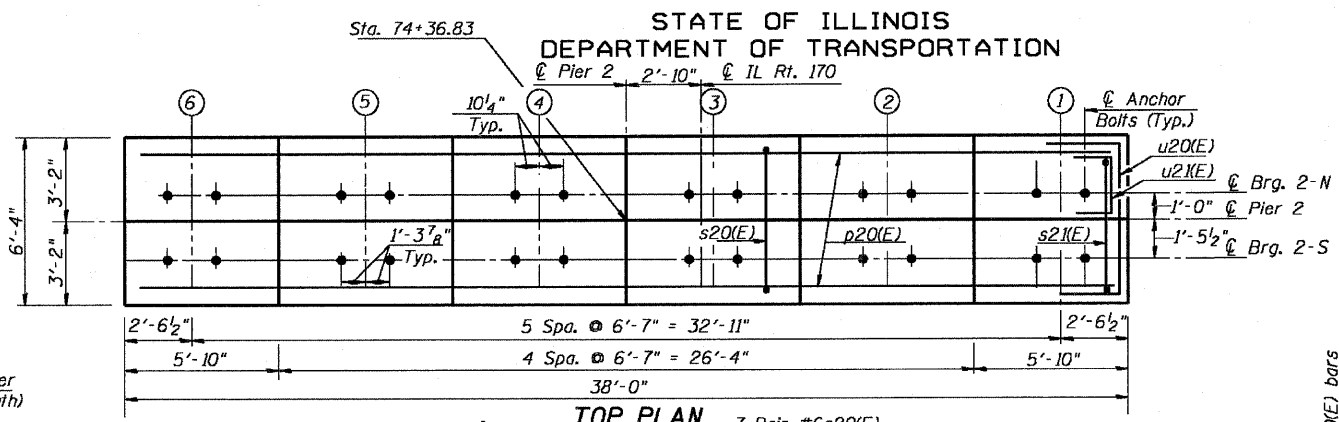
PIER 1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

- Notes:
1. Space reinforcement in cap to miss anchor bolts.
 2. Pour steps monolithically with cap.
 3. For details of piles, see sheet 81 of 89.
 4. Bridge seats between the bearings shall be sloped to drain.

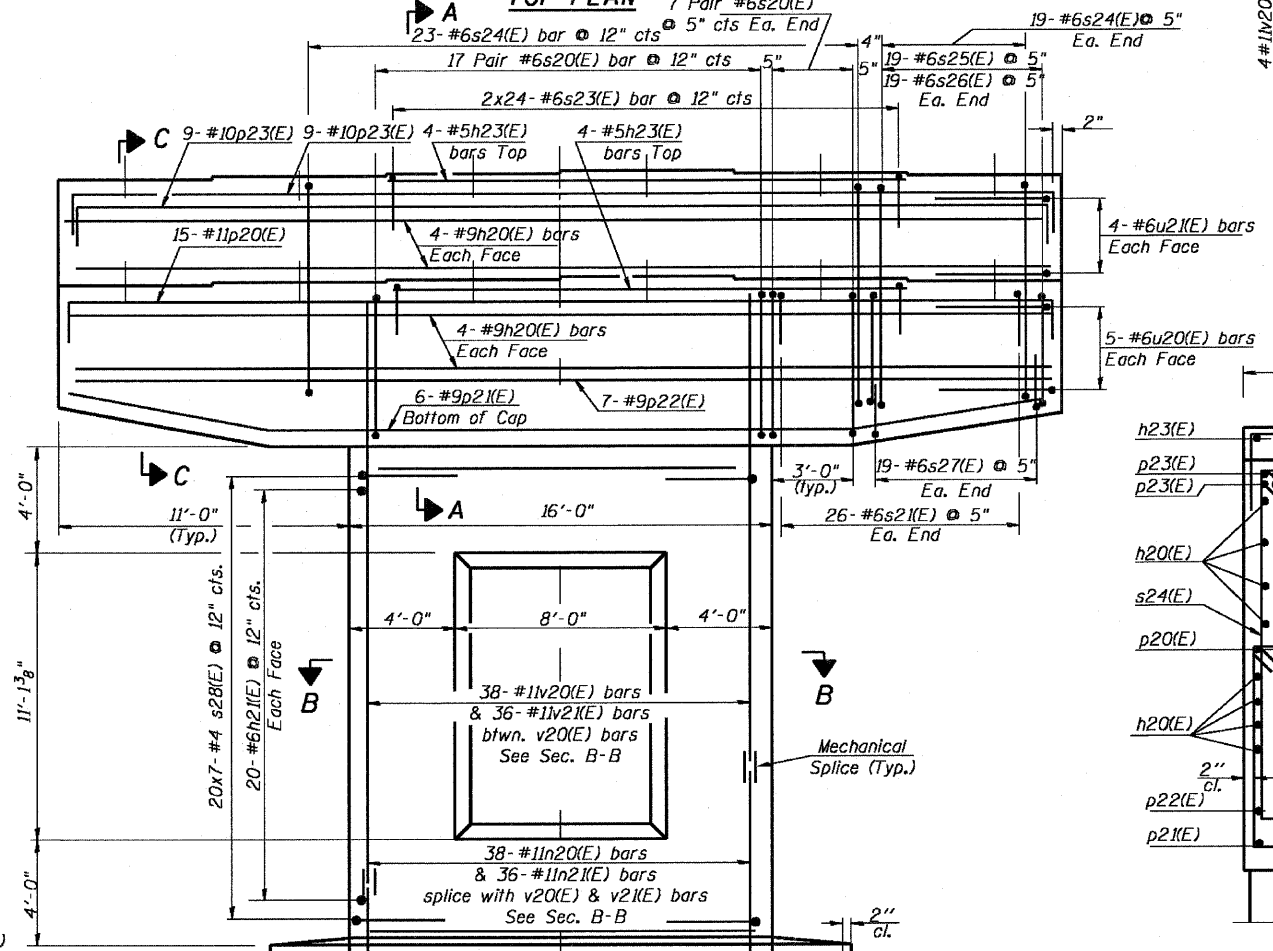


END VIEW

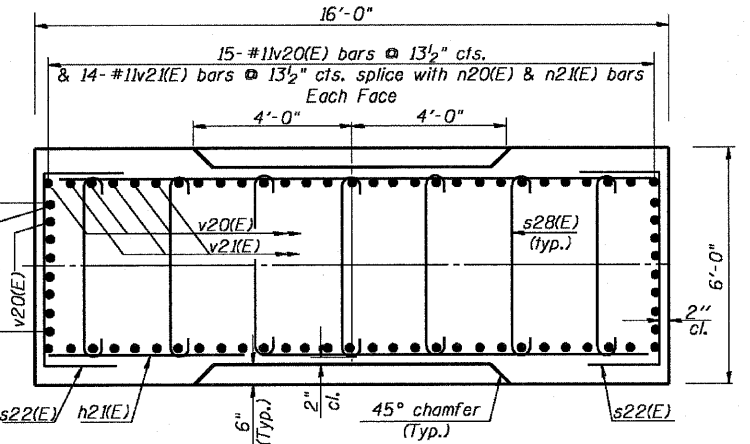
DESIGNED	- RJC
CHECKED	- DEV
DRAWN	- JHR
CHECKED	- DEV



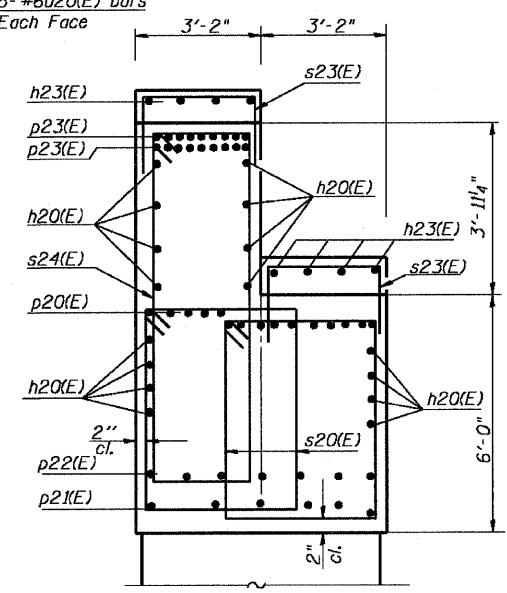
TOP PLAN



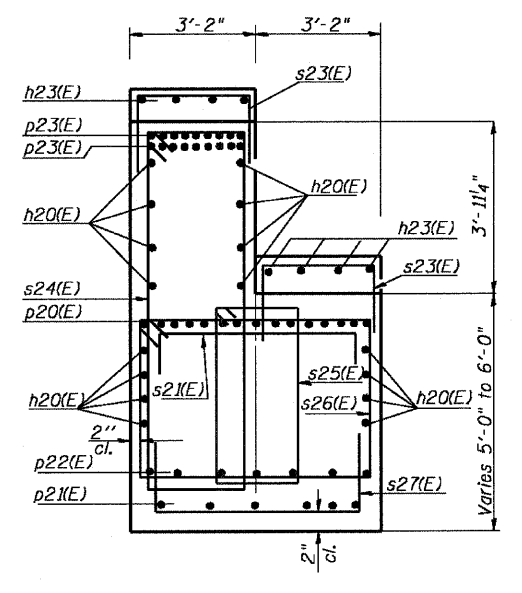
PIER 2 ELEVATION
(Looking North)



SECTION B-B



SECTION A-A



SECTION C-C

PIER 2
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+0.42
STRUCTURE NO. 050-0246

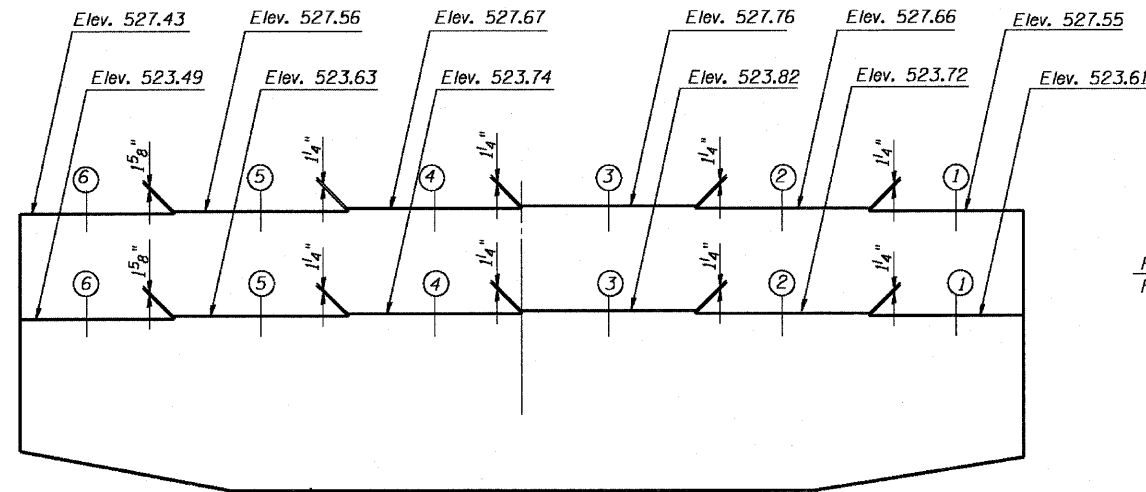
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	109 BR	La Salle	351	269
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 69
89 SHEETS

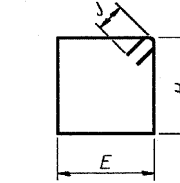
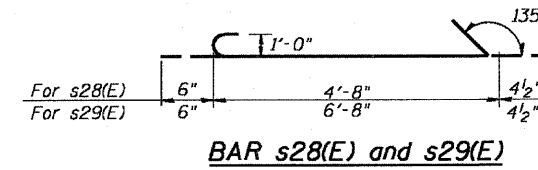
Contract # 66607



TOP OF PIER 2
(Showing Steps Elevations)

E, H & J DIMENSIONS

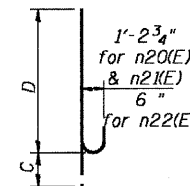
Bar	E	H	J
s20(E)	4'-0"	5'-8"	8"
s24(E)	2'-10"	8'-4"	8"
s25(E)	4'-0"	4'-8"	8"
s26(E)	6'-0"	4'-8"	8"



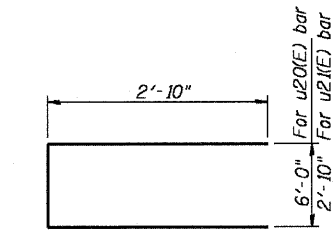
BAR syy(E)

C & D DIMENSIONS

Bar	C	D
n20(E)	1'-7"	12'-0"
n21(E)	1'-7"	15'-0"
n22(E)	8"	8'-7"

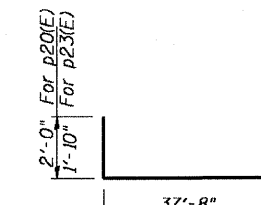


BARS nxx(E)

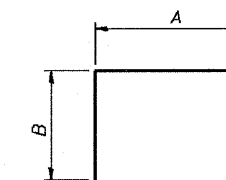


BAR u20(E) & u21(E)

BAR n20(E) n21(E) & n22(E)



BAR p20(E) & p23(E)

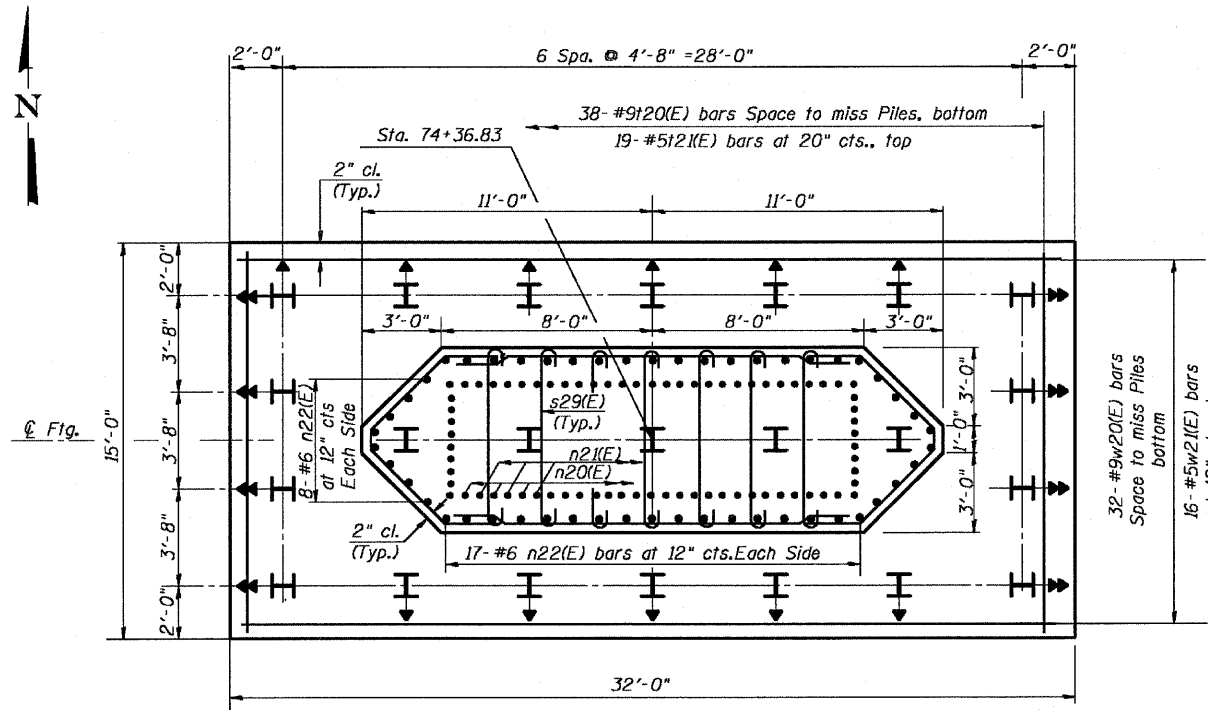


BARS sxx(E)

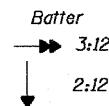
A & B DIMENSIONS

Bar	A	B
s21(E)	6'-0"	1'-0"
s22(E)	5'-8"	2'-8"
s23(E)	2'-10"	2'-6"
s27(E)	6'-0"	4'-0"

BARS sxx(E)



FOOTING PLAN



PILE DATA

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

Type: HP12x74 with Pile Shoes
Nominal Required Bearing = 589K
Allowable Resistance Available = 196K
Est. Length: 35'
No. Production Piles: 22
No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20(E)	16	#9	37'-8"	—
h21(E)	40	#6	15'-8"	—
h22(E)	10	#6	16'-0"	—
h23(E)	8	#5	19'-5"	—
n20(E)	38	#11	13'-7"	—
n21(E)	36	#11	16'-7"	—
n22(E)	50	#6	9'-3"	—
p20(E)	15	#11	41'-8"	—
p21(E)	6	#9	37'-10"	—
p22(E)	7	#9	37'-8"	—
p23(E)	18	#10	41'-4"	—
s20(E)	62	#6	20'-8"	—
s21(E)	52	#6	8'-0"	—
s22(E)	40	#6	11'-0"	—
s23(E)	48	#6	7'-10"	—
s24(E)	61	#6	23'-8"	—
s25(E)	38	#6	18'-8"	—
s26(E)	38	#6	22'-8"	—
s27(E)	38	#6	14'-0"	—
s28(E)	140	#4	5'-7"	—
s29(E)	35	#4	7'-7"	—
t20(E)	38	#9	14'-8"	—
t21(E)	19	#5	14'-8"	—
u20(E)	10	#6	11'-8"	—
u21(E)	8	#6	8'-6"	—
u22(E)	10	#6	14'-6"	—
v20(E)	38	#11	24'-7"	—
v21(E)	36	#11	21'-7"	—
w20(E)	32	#9	31'-8"	—
w21(E)	16	#5	31'-8"	—
Structure Excavation	Cu. Yd.	133		
Concrete Structures	Cu. Yd.	228		
Reinforcement Bars, Epoxy Coated	Pound	44,320		
Furnishing Steel Piles HP 12x74	Foot	770		
Driving Piles	Foot	770		
Test Pile,	Each	1		
Mechanical Splice	Each	74		
Pile Shoes	Each	23		

Notes:

Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 81 of 89.

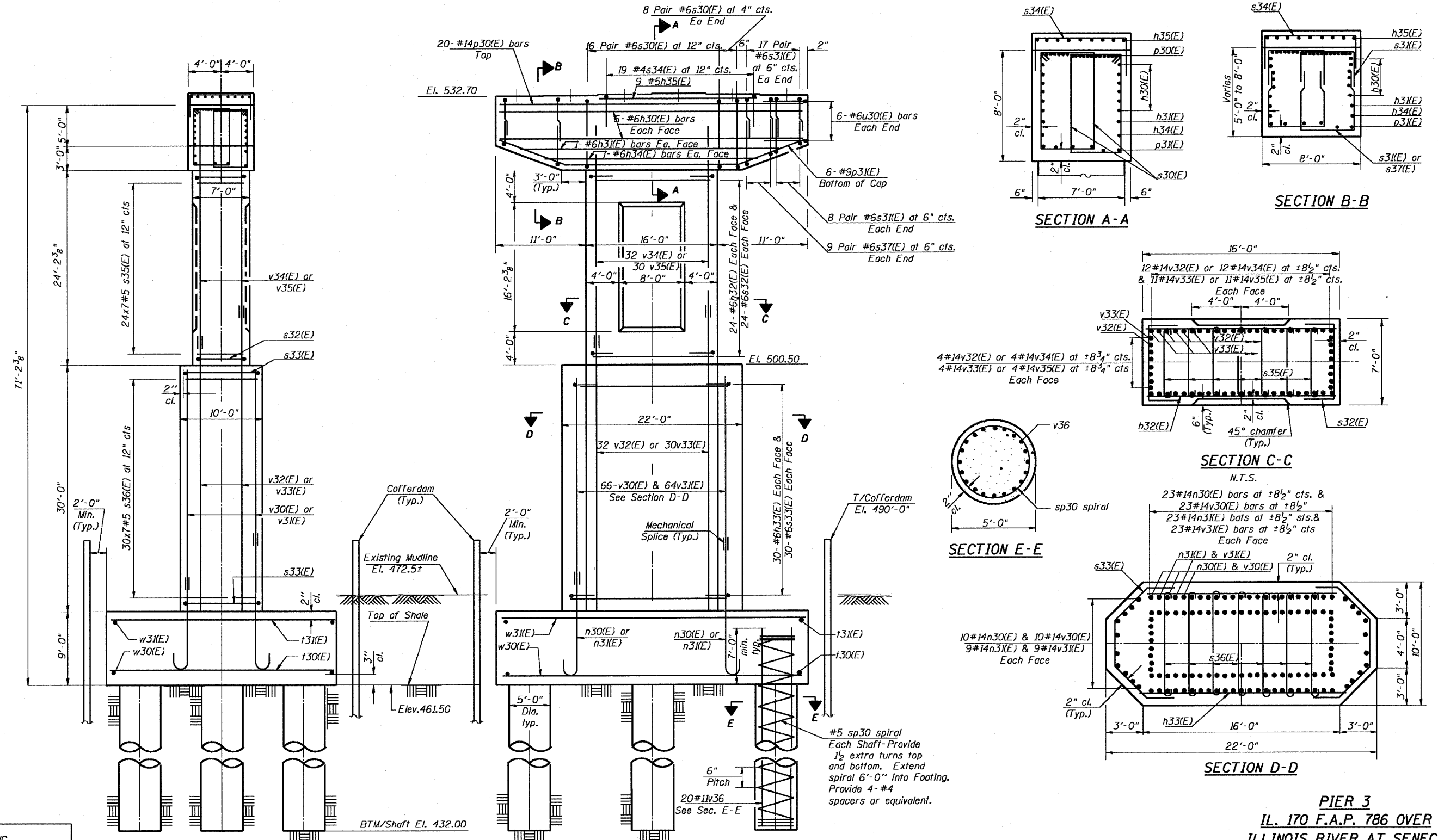
PIER 2 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO.
786	109 BR	La Salle	351	270
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		89 SHEETS

Contract # 66607

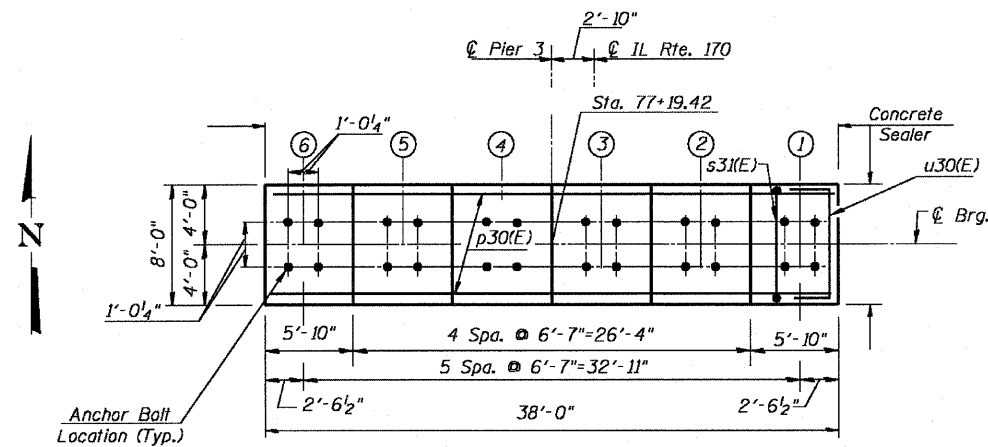


DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

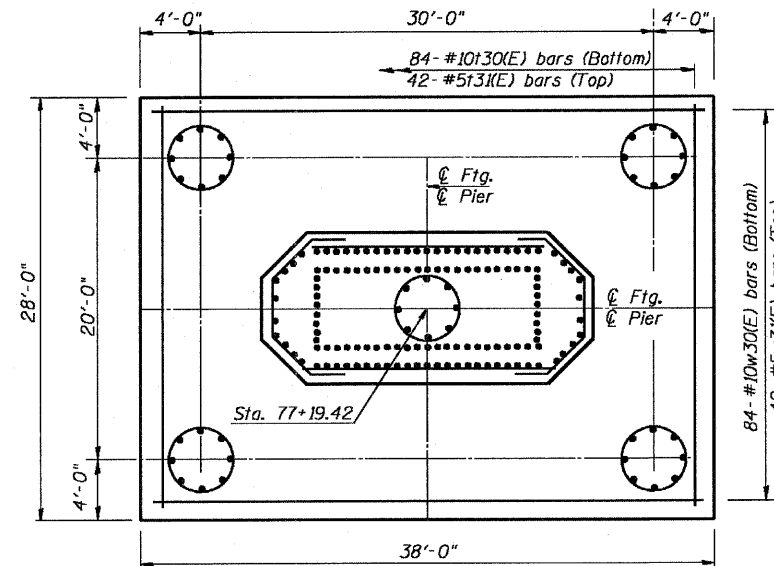
Contract # 66607

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h30(E)	12	#6	37'-8"	—
h3(E)	2	#6	32'-8"	—
h32(E)	48	#6	15'-8"	—
h33(E)	60	#6	16'-0"	—
h34(E)	2	#6	27'-4"	—
h35(E)	9	#5	19'-5"	—
n30(E)	66	#14	14'-3"	C
n3(E)	64	#14	17'-3"	C
p30(E)	20	#14	37'-8"	—
p3(E)	6	#9	37'-10"	—
s30(E)	64	#6	27'-0"	—
s3(E)	100	#6	14'-6"	—
s32(E)	48	#6	12'-4"	—
s33(E)	60	#6	17'-8"	—
s34(E)	19	#4	12'-8"	—
s35(E)	168	#5	7'-11"	—
s36(E)	210	#5	10'-10"	—
s37(E)	36	#6	16'-0"	—
sp30	5	#5	1084'-0"	—
t30(E)	84	#10	27'-8"	—
t3(E)	42	#5	27'-8"	—
u30(E)	12	#6	13'-4"	—
v30(E)	66	#14	26'-6"	—
v3(E)	64	#14	23'-3"	—
v32(E)	32	#14	33'-0"	—
v33(E)	30	#14	36'-0"	—
v34(E)	32	#14	28'-8"	—
v35(E)	30	#14	24'-8"	—
v36	100	#11	36'-3"	—
w30(E)	84	#10	37'-8"	—
w3(E)	42	#5	37'-8"	—
Cofferdam Excavation		Cu. Yd.	548	
Concrete Structures		Cu. Yd.	868	
Reinforcement Bars, Epoxy Coated		Pound	118,340	
Reinforcement Bars		Pound	24,920	
Drilled Shaft in Rock		Cu. Yd.	107	
Mechanical Splice		Ea.	192	

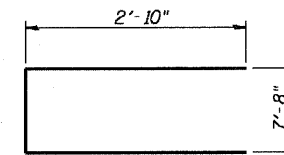


TOP PLAN

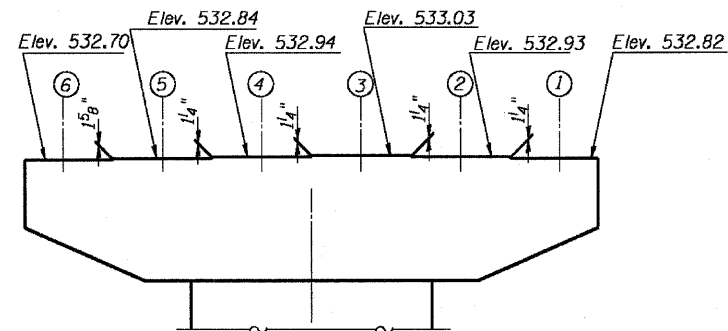


FOOTING PLAN

BAR s30(E)



BAR u30(E)

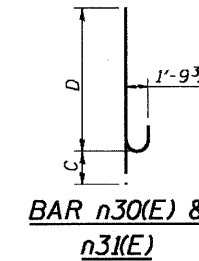


TOP OF PIER
(Showing Steps Elevations)

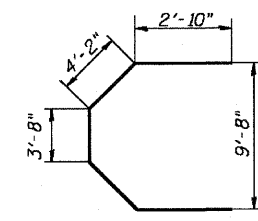
C & D DIMENSIONS

Bar	C	D
n30(E)	2'-3"	12'-0"
n3(E)	2'-3"	15'-0"

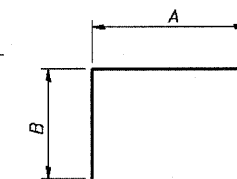
BARS nxx(E)



BAR n30(E) & n3(E)



BAR s33(E)

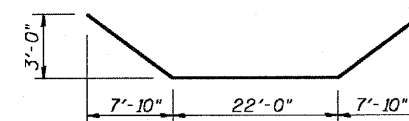


BARS sx(E)

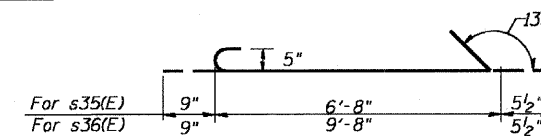
A & B DIMENSIONS

Bar	A	B
s3(E)	5'-2"	4'-8"
s32(E)	6'-8"	2'-10"
s34(E)	7'-8"	2'-6"
s37(E)	5'-2"	5'-5"

BARS syy(E)



BAR p3(E)



BAR s35(E) and s36(E)

VESSEL COLLISION FORCES

Load Case 1
Static Load = 2800K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Parallel to Pier & Navigational Channel

Load Case 2
Static Load = 1400K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Perpendicular to Pier & Navigational Channel

Note: Load Cases are considered independently
Load Combination 1.0(1.0D)+1.0P+1.0B+1.0SF+1.0E

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

Notes:

- Work this Sheet with Sheet 70
- Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
- Cofferdam Struts are not allowed to pass through Foundation.
- Final Design & Dimensions of Cofferdams are the Responsibility of the Contractor.

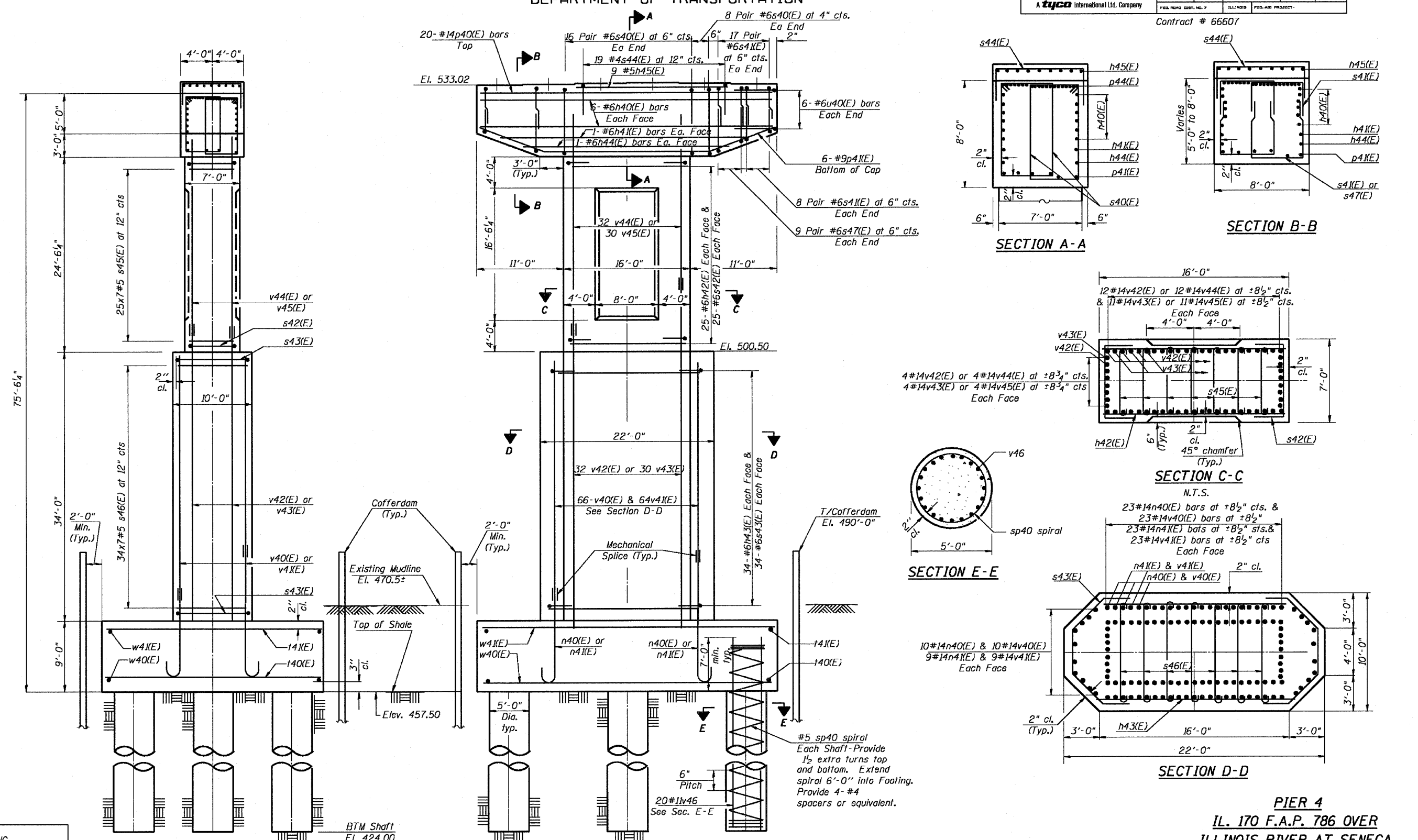
PIER 3 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STA. SHEETS	SHEET NO.	SHEET NO. 72
786	109 BR	La Salle	351	272	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

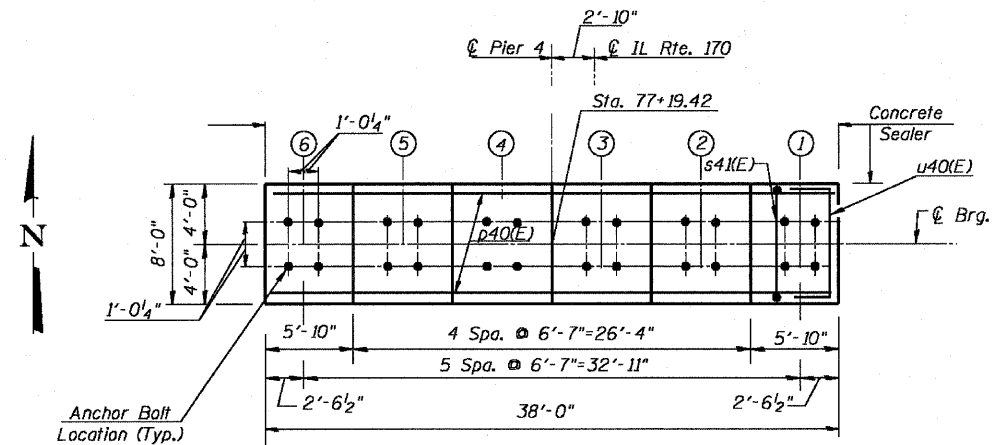
Contract # 66607



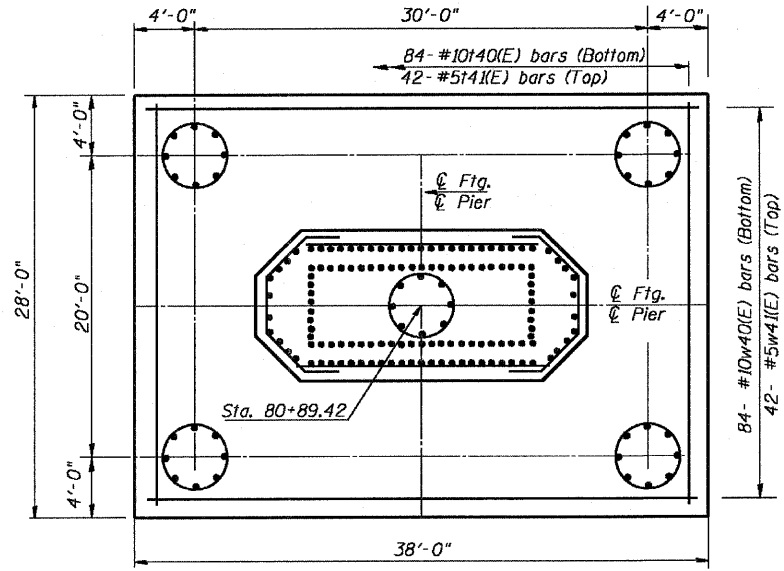
DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

PIER 4
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Contract # 66607

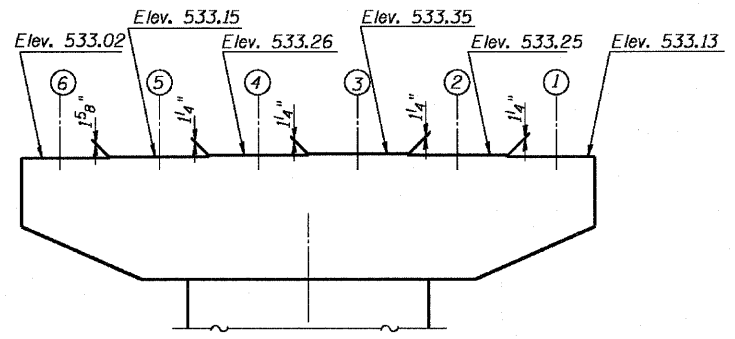


TOP PLAN



FOOTING PLAN

N.T.S.



TOP OF PIER

(Showing Steps Elevations)

VESSEL COLLISION FORCES

Load Case 1
Static Load = 2800K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Parallel to Pier & Navigational Channel

Load Case 2
Static Load = 1400K
Elevation = 500.13 ft (Barge Bow Rake 6' above MHW)
Direction = Perpendicular to Pier & Navigational Channel

Note: Load Cases are considered independently
Load Combination 1.0(1.0D)+1.0P+1.0B+1.0SF+1.0E)

DESIGNED	- RJC
CHECKED	- DEV
DRAWN	- JHR
CHECKED	- DEV

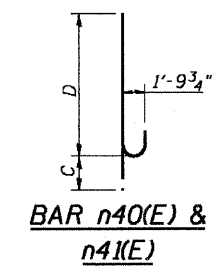
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n40(E)	12	#6	37'-8"	U
n4(E)	2	#6	32'-8"	U
n42(E)	50	#6	15'-8"	U
n43(E)	68	#6	16'-0"	U
n44(E)	2	#6	27'-4"	U
n45(E)	9	#5	19'-5"	U
n40(E)	66	#14	14'-3"	C
n4(E)	64	#14	17'-3"	C
p40(E)	20	#14	37'-8"	U
p4(E)	6	#9	37'-10"	U
s40(E)	64	#6	27'-0"	U
s4(E)	100	#6	14'-6"	U
s42(E)	50	#6	12'-4"	U
s43(E)	68	#6	17'-8"	U
s44(E)	19	#4	12'-8"	U
s45(E)	175	#5	7'-10"	U
s46(E)	238	#5	10'-11"	U
s47(E)	36	#6	16'-0"	U
sp40	5	#5	1201'-0"	W
t40(E)	84	#10	27'-8"	U
t4(E)	42	#5	27'-8"	U
u40(E)	12	#6	13'-4"	U
v40(E)	66	#14	30'-6"	U
v4(E)	64	#14	27'-6"	U
v42(E)	32	#14	37'-0"	U
v43(E)	30	#14	40'-0"	U
v44(E)	32	#14	28'-8"	U
v45(E)	30	#14	25'-8"	U
v46	100	#11	40'-3"	U
w40(E)	84	#10	37'-8"	U
w4(E)	42	#5	37'-8"	U
Cofferdam Excavation	Cu. Yd.		647	
Concrete Structures	Cu. Yd.		913	
Reinforcement Bars, Epoxy Coated	Pound		125,570	
Reinforcement Bars	Pound		27,660	
Drilled Shaft in Rock	Cu. Yd.		122	
Mechanical Splice	E.g.		192	

C & D DIMENSIONS

Bar	C	D
n40(E)	2'-3"	12'-0"
n4(E)	2'-3"	15'-0"

BARS nxx(E)



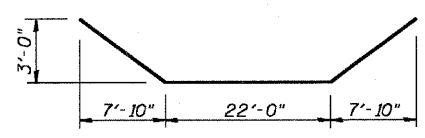
BAR n40(E) & n4(E)

BARS sxx(E)

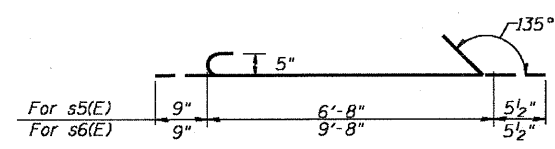
A & B DIMENSIONS

Bar	A	B
s4(E)	5'-2"	4'-8"
s42(E)	6'-8"	2'-10"
s44(E)	7'-8"	2'-6"
s47(E)	5'-2"	5'-5"

BARS sxx(E)



BAR p4(E)



BAR s45(E) and s46(E)

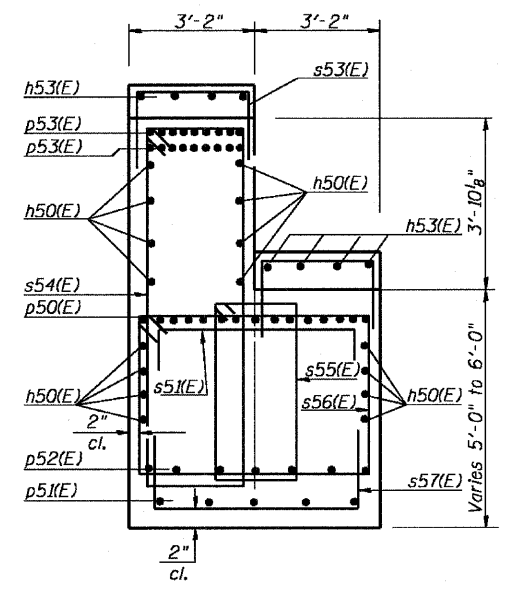
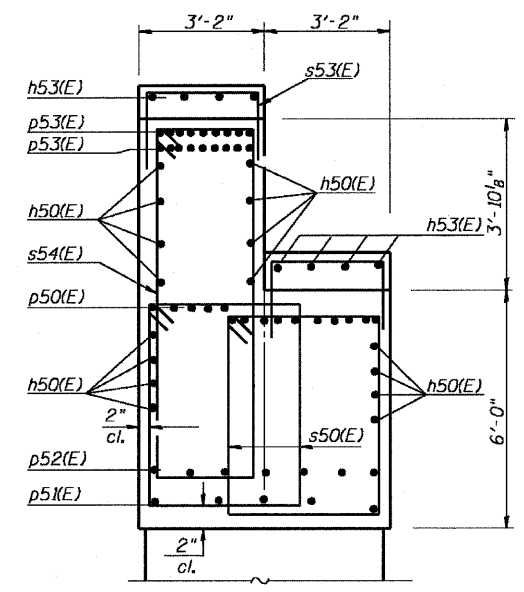
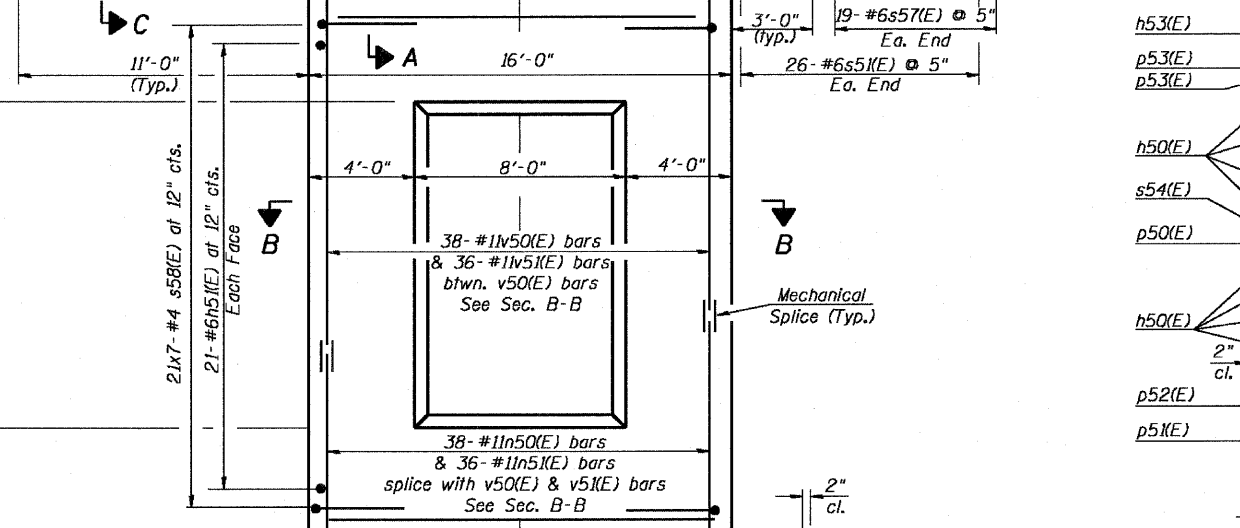
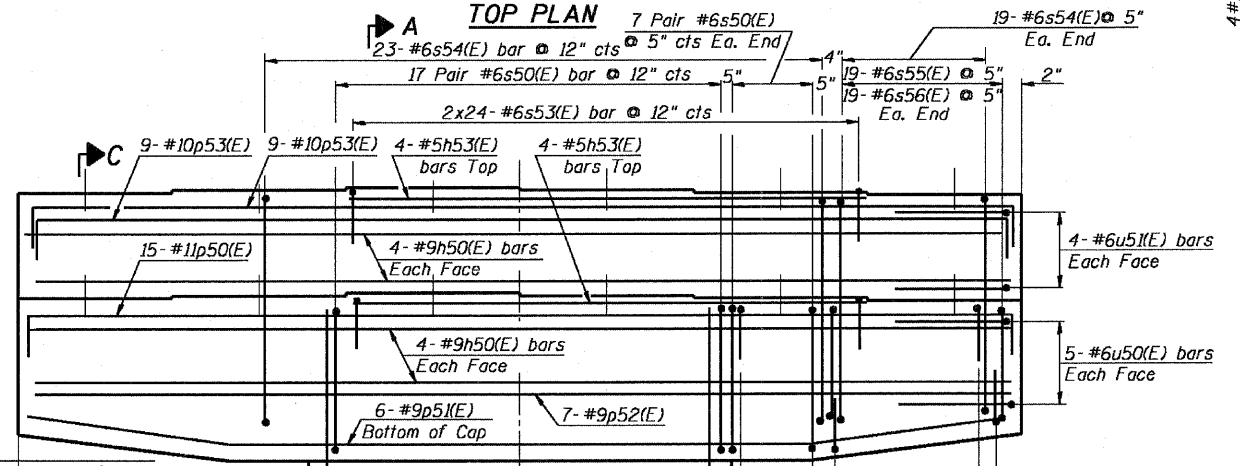
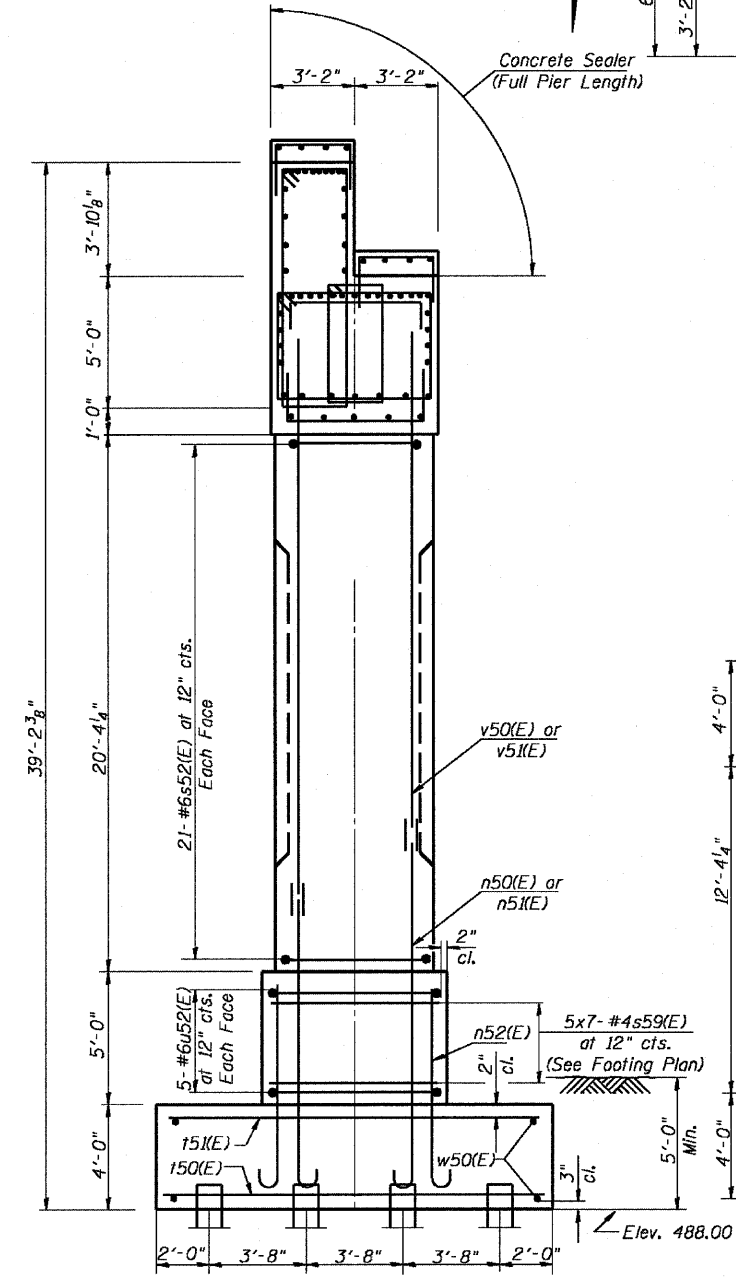
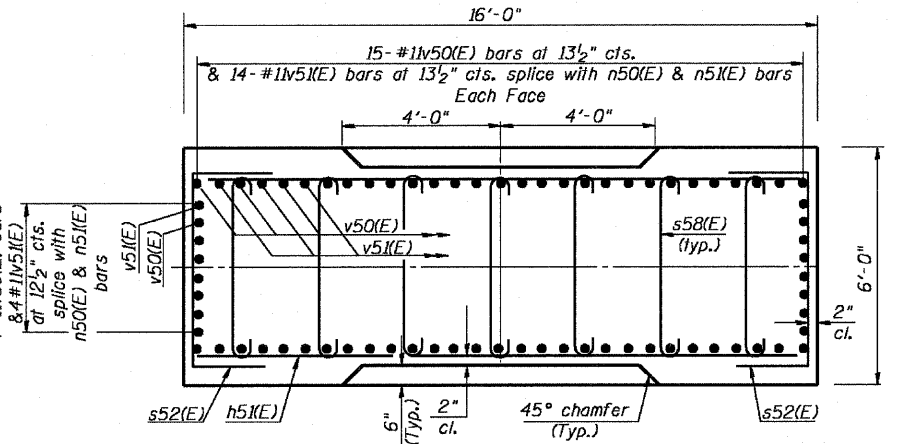
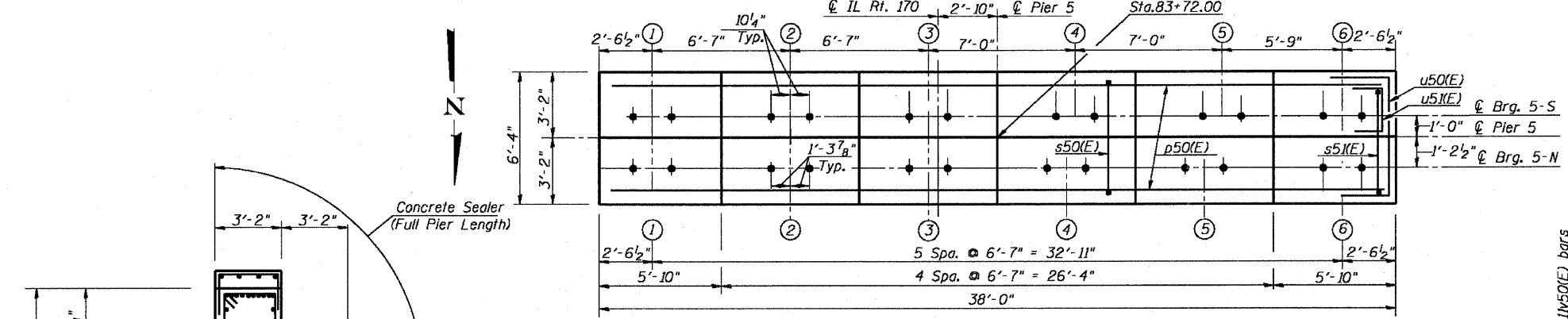
Notes:

1. Work this Sheet with Sheet 74.
2. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
3. Cofferdam struts are not allowed to pass through Foundation.
4. Final Design & Dimensions of Cofferdams are the Responsibility of the Contractor.

PIER 4 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Contract # 66607

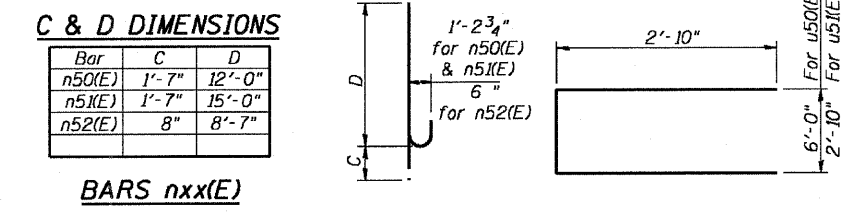
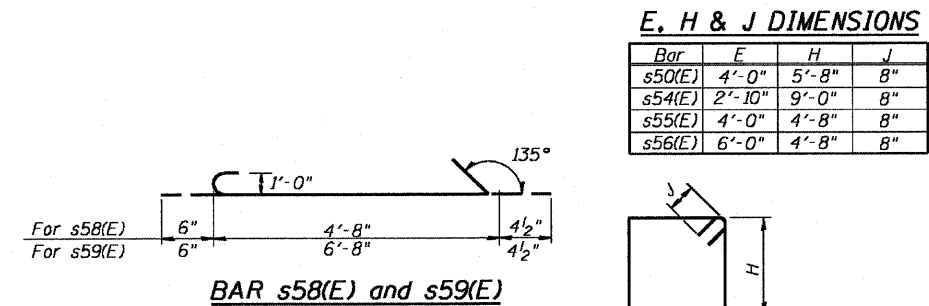
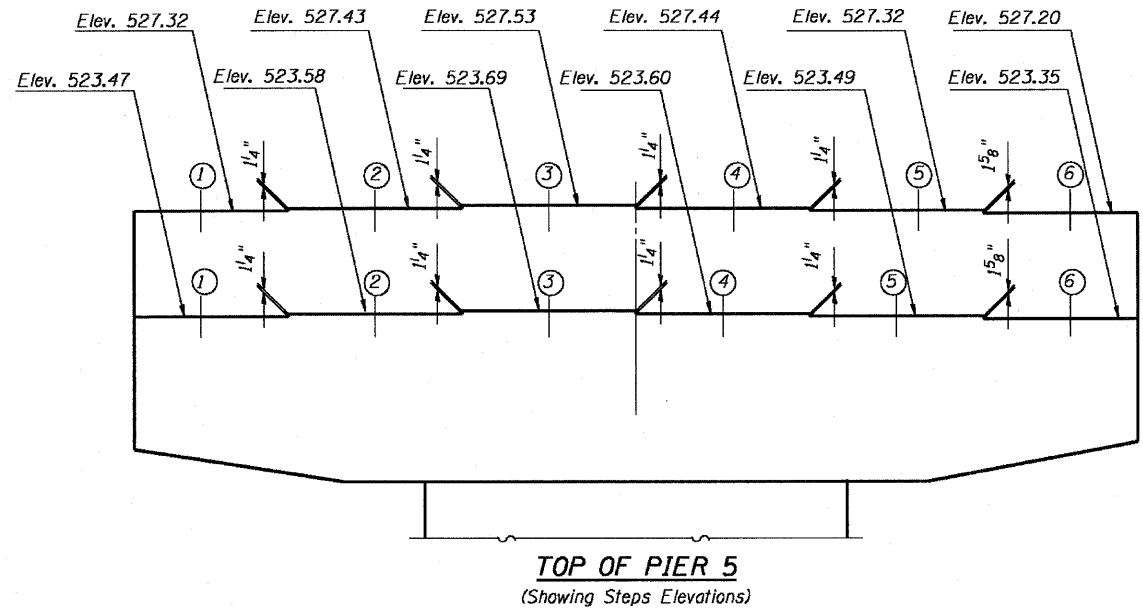
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DESIGNED	- RJC
CHECKED	- DEV
DRAWN	- JHR
CHECKED	- DEV

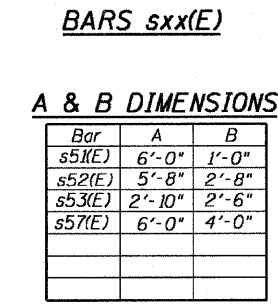
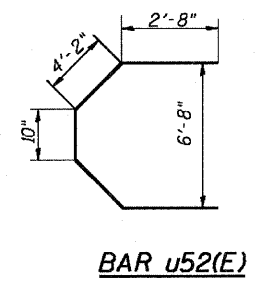
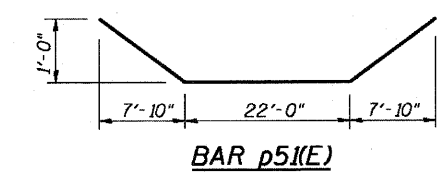
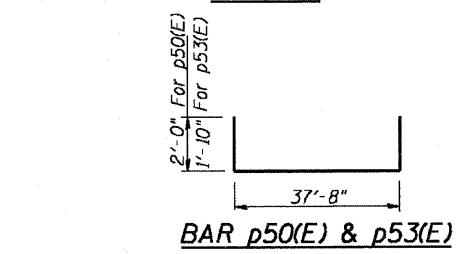
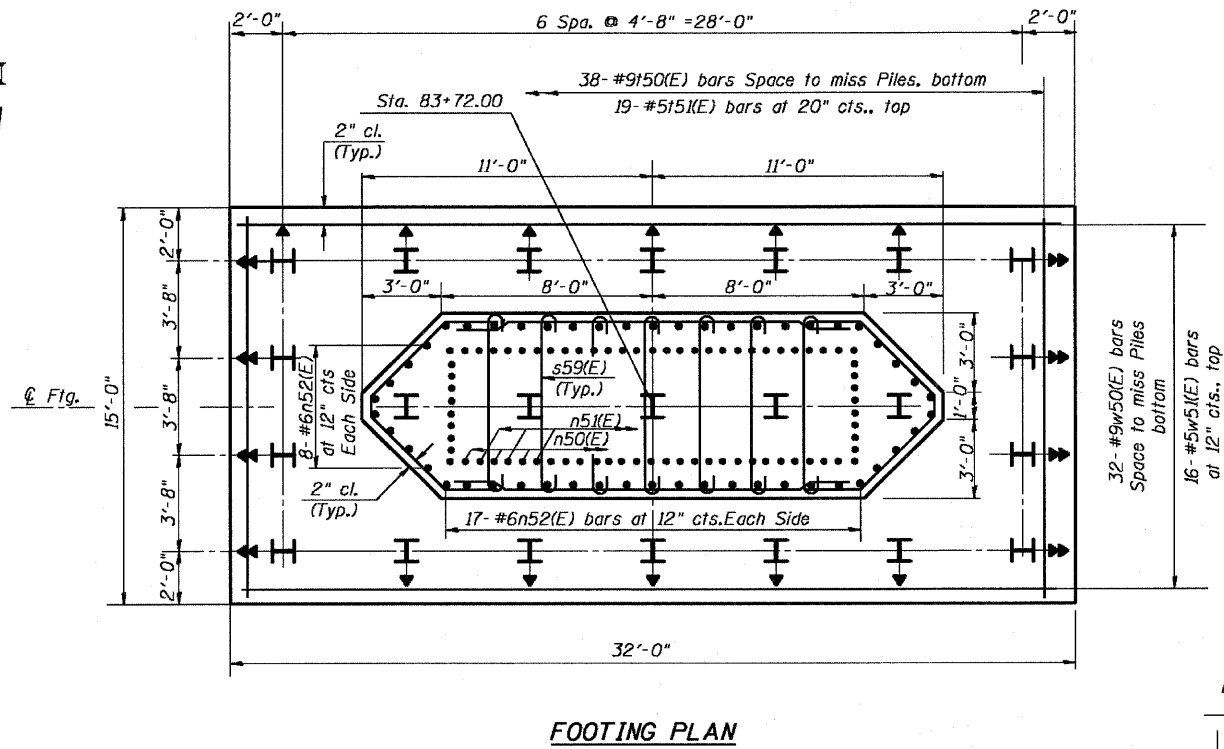
PIER 5
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Contract # 66607



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h50(E)	16	#9	37'-8"	—
h51(E)	42	#6	15'-8"	—
h52(E)	10	#6	16'-0"	—
h53(E)	8	#5	19'-5"	—
n50(E)	38	#11	13'-7"	—
n51(E)	36	#11	16'-7"	—
n52(E)	50	#6	9'-3"	—
p50(E)	15	#11	41'-8"	—
p51(E)	6	#9	37'-10"	—
p52(E)	7	#9	37'-8"	—
p53(E)	18	#10	41'-4"	—
s50(E)	62	#6	20'-8"	—
s51(E)	52	#6	8'-0"	—
s52(E)	42	#6	11'-0"	—
s53(E)	48	#6	7'-10"	—
s54(E)	61	#6	25'-0"	—
s55(E)	38	#6	18'-8"	—
s56(E)	38	#6	22'-8"	—
s57(E)	38	#6	14'-0"	—
s58(E)	147	#4	5'-7"	—
s59(E)	35	#4	7'-7"	—
t50(E)	38	#9	14'-8"	—
t51(E)	19	#5	14'-8"	—
u50(E)	10	#6	11'-8"	—
u51(E)	8	#6	8'-6"	—
u52(E)	10	#6	14'-6"	—
v50(E)	38	#11	22'-0"	—
v51(E)	36	#11	19'-0"	—
w50(E)	32	#9	31'-8"	—
w51(E)	16	#5	31'-8"	—
Structure Excavation	Cu. Yd.	140		
Concrete Structures	Cu. Yd.	232		
Reinforcement Bars, Epoxy Coated	Pound	42,960		
Furnishing Steel Piles HP 12x74	Foot	770		
Driving Piles	Foot	770		
Test Pile,	Each	1		
Mechanical Splice	Each	74		
Pile Shoes	Each	23		



PILE DATA

Type: HP12x74 with Pile Shoes
Nominal Required Bearing = 589K
Allowable Resistance Available = 196K
Est. Length: 35'
No. Production Piles: 22
No. Test Piles: 1

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 81 of 89.

PIER 5 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Four steps monolithically with cap.
 For details of piles, see sheet 81 of 89.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

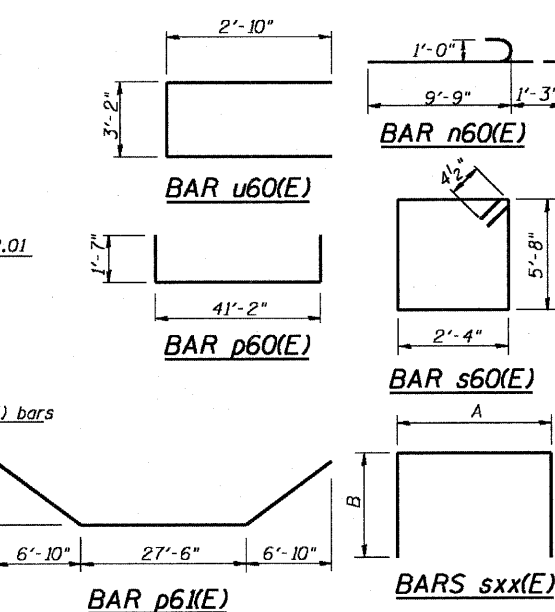
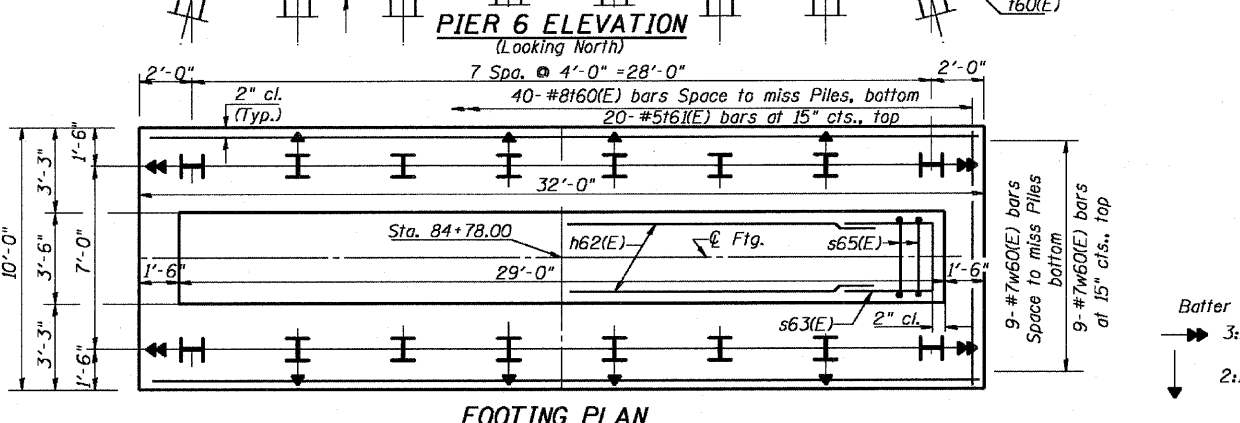
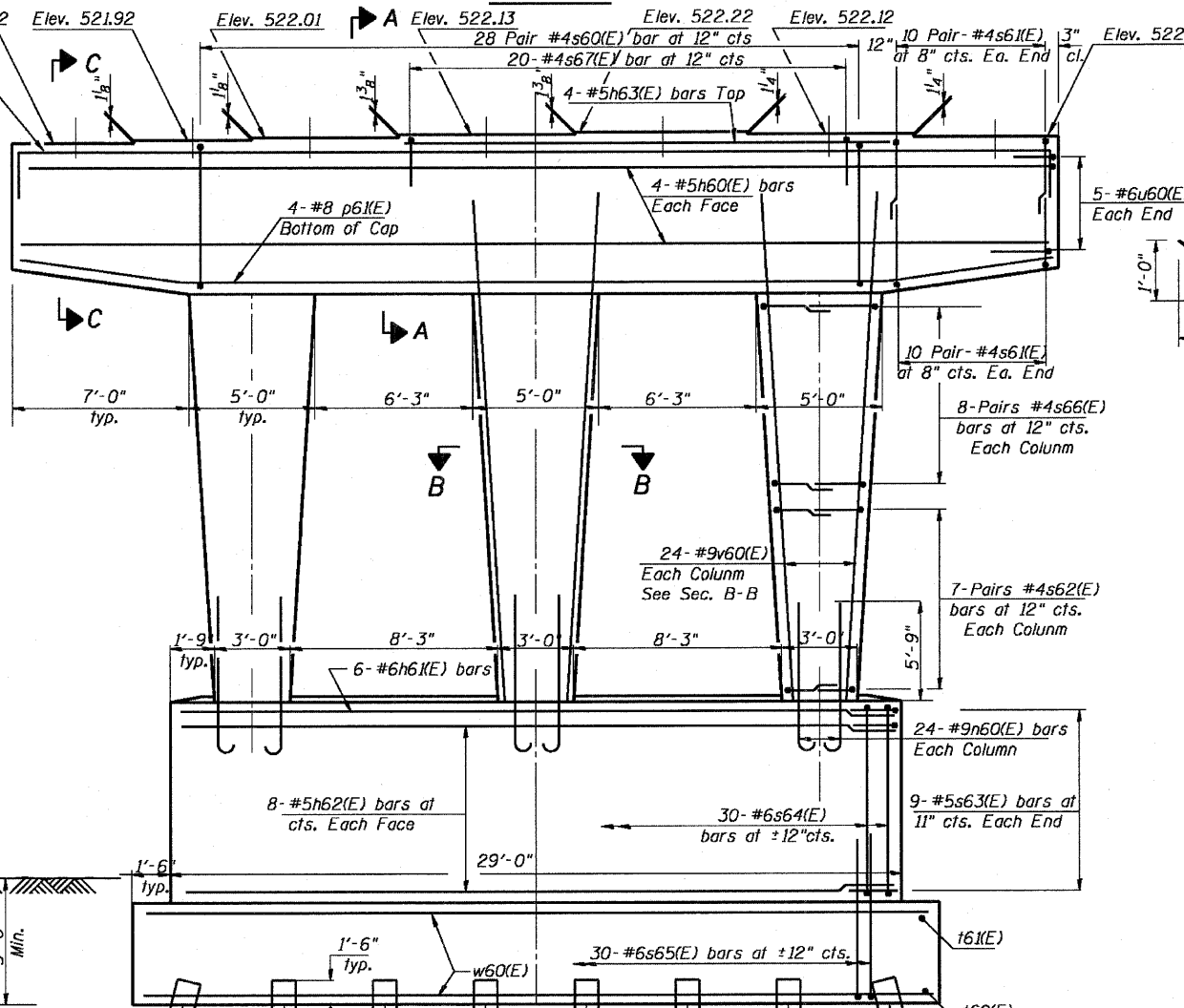
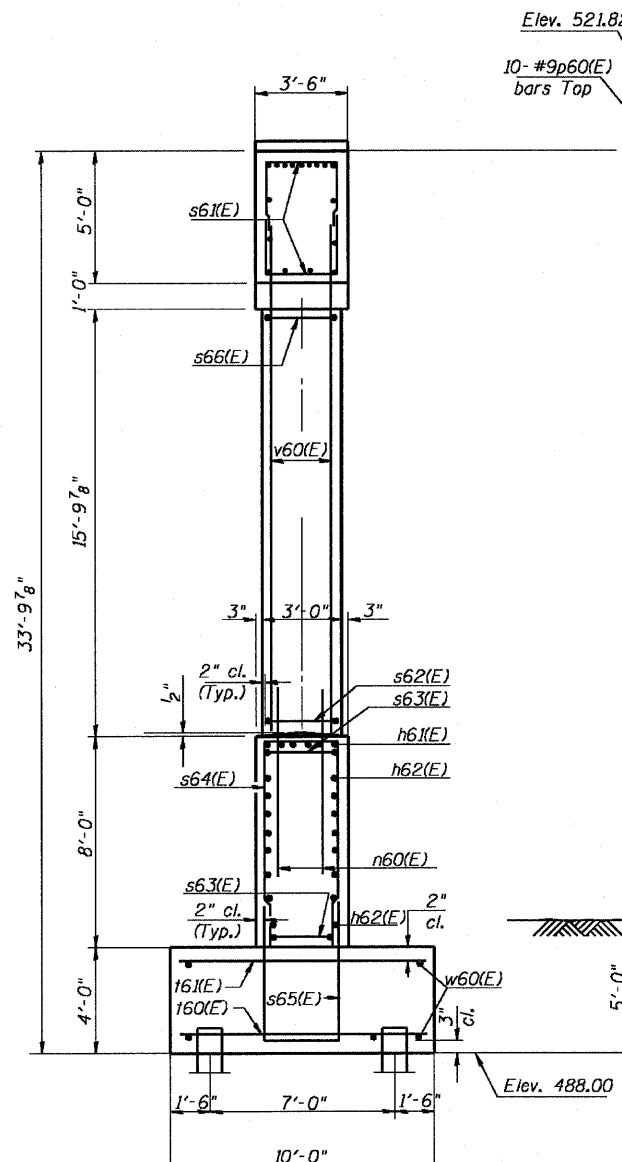
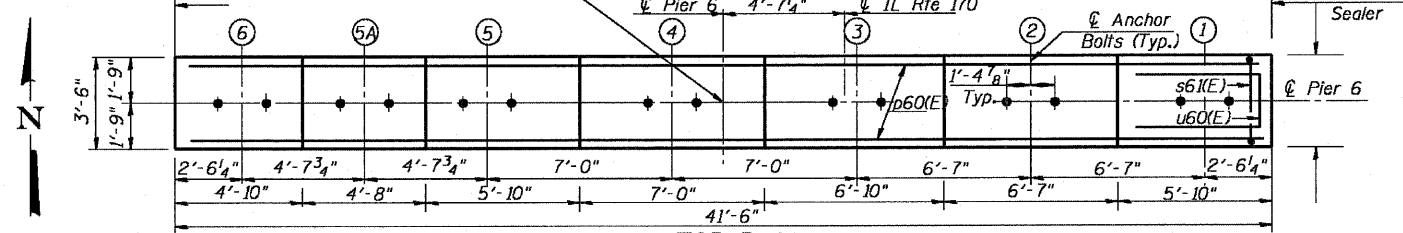


F.A.P. ROUTE NO.	SECTION	COUNTY	MILES	POST	SHEET NO. 76
786	109 BR	La Salle	351	276	89 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

Contract # 66607

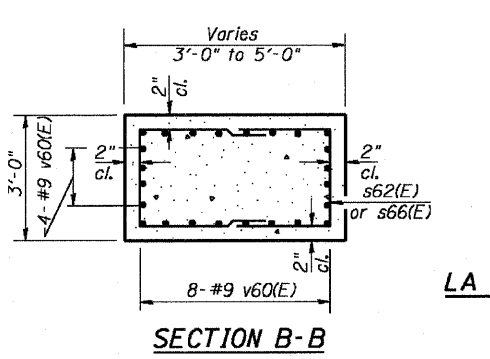
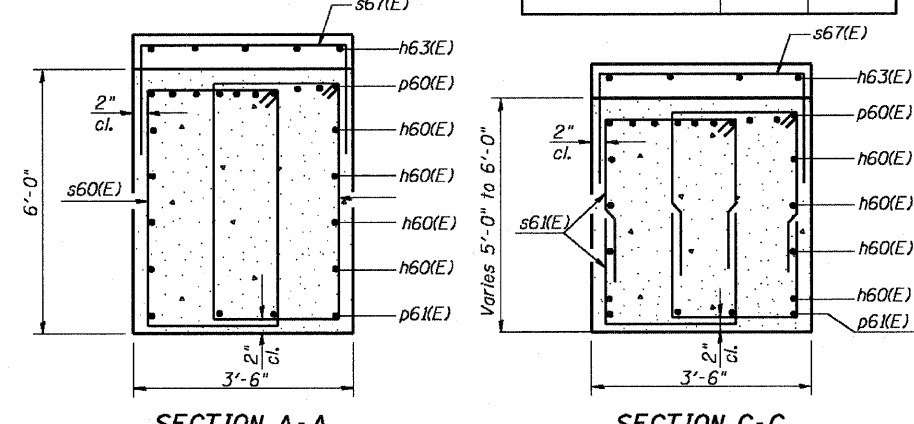
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h60(E)	8	#5	41'-2"	
h61(E)	6	#6	28'-8"	
h62(E)	16	#5	28'-8"	
h63(E)	4	#5	20'-0"	
n60(E)	72	#9	11'-0"	
p60(E)	10	#9	44'-4"	
p61(E)	4	#8	41'-4"	
s60(E)	56	#4	16'-9"	
s61(E)	80	#4	9'-8"	
s62(E)	42	#4	8'-0"	
s63(E)	18	#5	7'-6"	
s64(E)	30	#6	18'-6"	
s65(E)	30	#6	15'-10"	
s66(E)	48	#4	10'-0"	
s67(E)	20	#4	8'-2"	
160(E)	40	#8	9'-8"	
161(E)	20	#5	9'-8"	
u60(E)	10	#6	8'-10"	
v60(E)	72	#9	19'-0"	
w60(E)	18	#7	31'-8"	
Structure Excavation			Cu. Yd.	103
Concrete Structures			Cu. Yd.	131
Reinforcement Bars, Epoxy Coated			Pound	16,480
Furnishing Steel Piles HP 12x14			Foot	450
Driving Piles			Foot	450
Test Pile			Each	1
Pile Shoes			Each	16



A & B DIMENSIONS

Bar	A	B
s61(E)	2'-4"	3'-8"
s62(E)	2'-8"	2'-8"
s63(E)	3'-2"	2'-2"
s64(E)	3'-2"	7'-8"
s65(E)	3'-2"	6'-4"
s66(E)	2'-8"	3'-8"
s67(E)	3'-2"	2'-6"



DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

PILE DATA
 Type: HP12x14 with Pile Shoes
 Nominal Required Bearing = 589K
 Allowable Resistance Available = 196K
 Est. Length: 30'
 No. Production Piles: 15
 No. Test Piles: 1

PIER 6
 IL. 170 F.A.P. 786 OVER
 ILLINOIS RIVER AT SENECA
 PUBLIC WATERS
 LA SALLE COUNTY, SECTION 109 BR
 STATION 79+04.42
 STRUCTURE NO. 050-0246

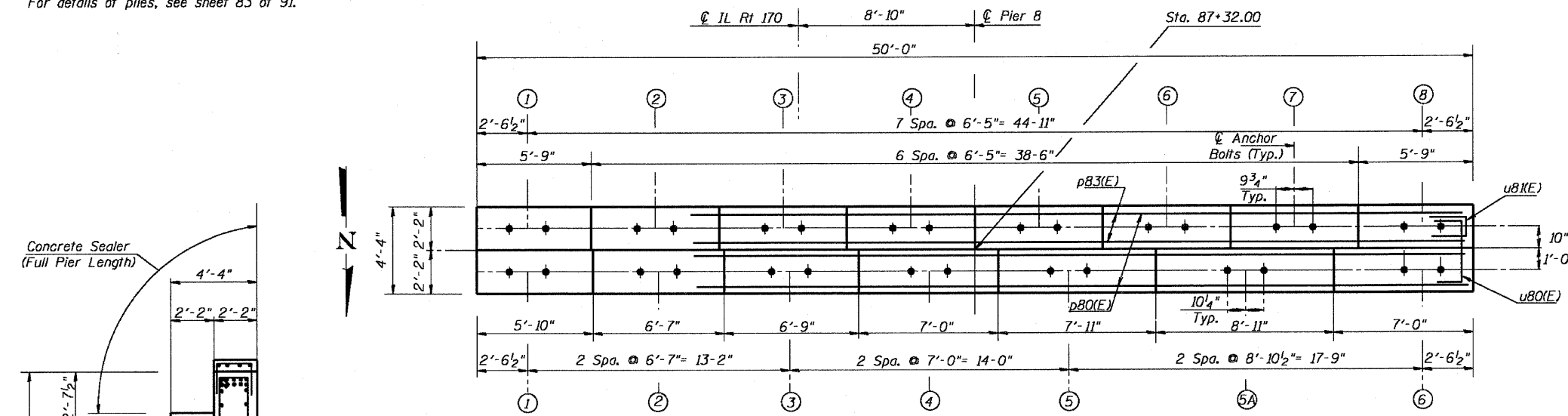
Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet 83 of 91.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

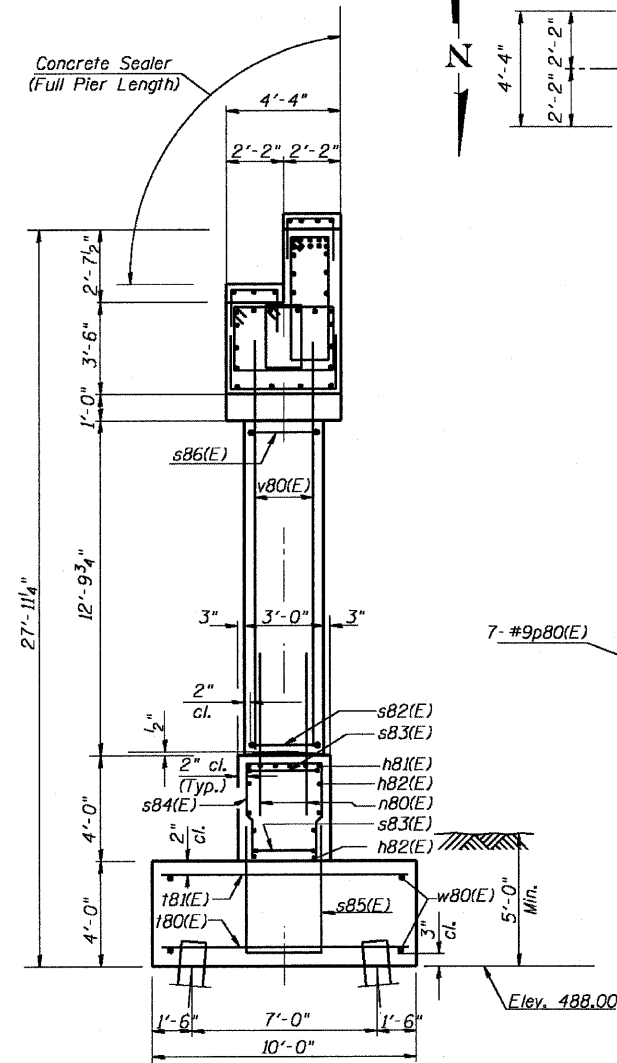


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	278
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66607



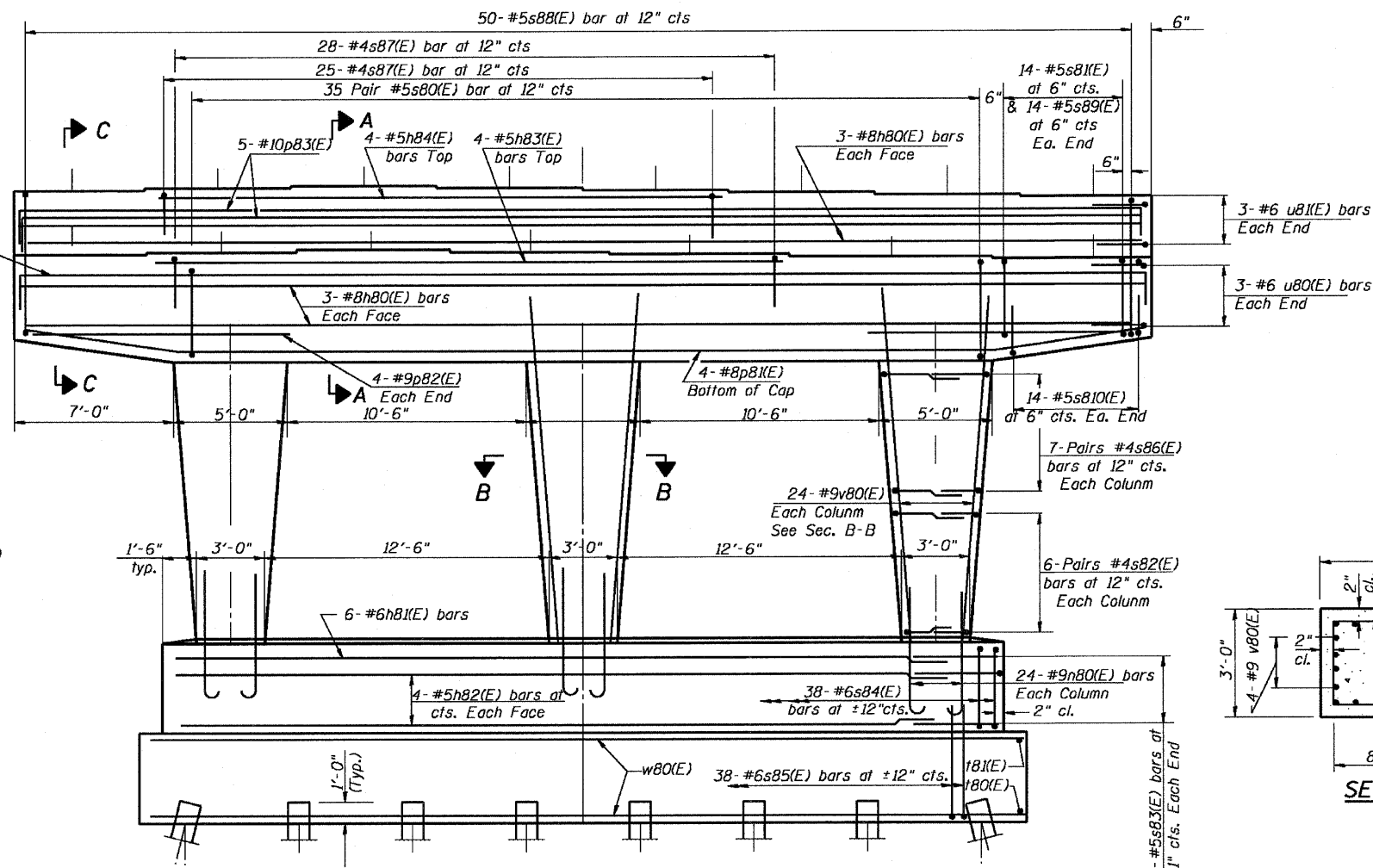
TOP PLAN



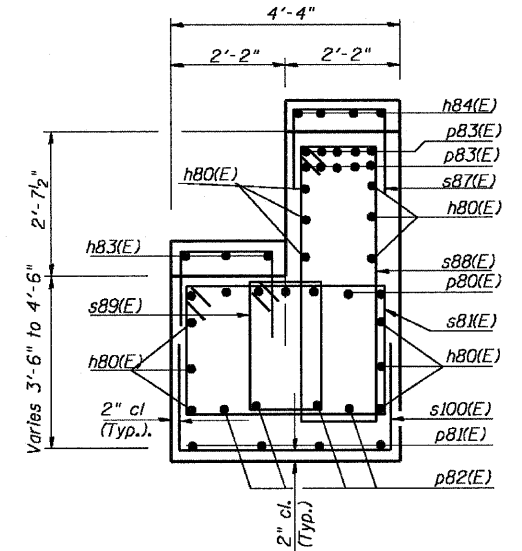
PILE DATA END VIEW

Type: HP12x74 with Pile Shoes
 Nominal Required Bearing = 589K
 Allowable Resistance Available = 196K
 Est. Length: 35'
 No. Production Piles: 15
 No. Test Piles: 1

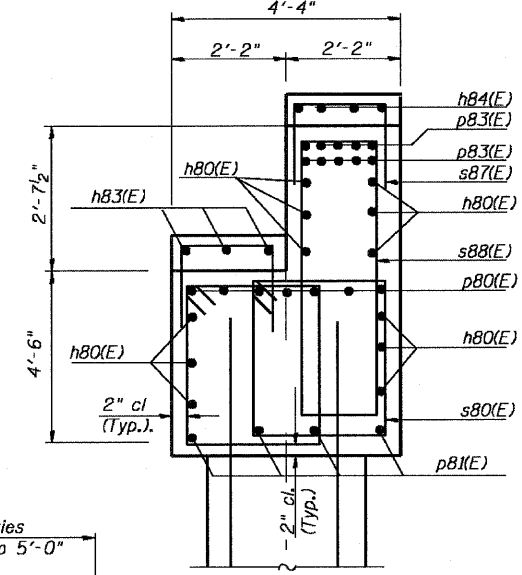
DESIGNED	- RJC
CHECKED	- DEV
DRAWN	- JHR
CHECKED	- DEV



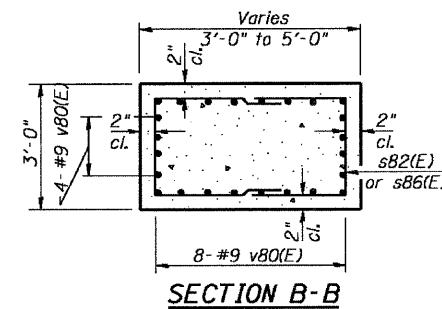
PIER 8 ELEVATION
 (Looking South)



SECTION C-C



SECTION A-A



SECTION B-B

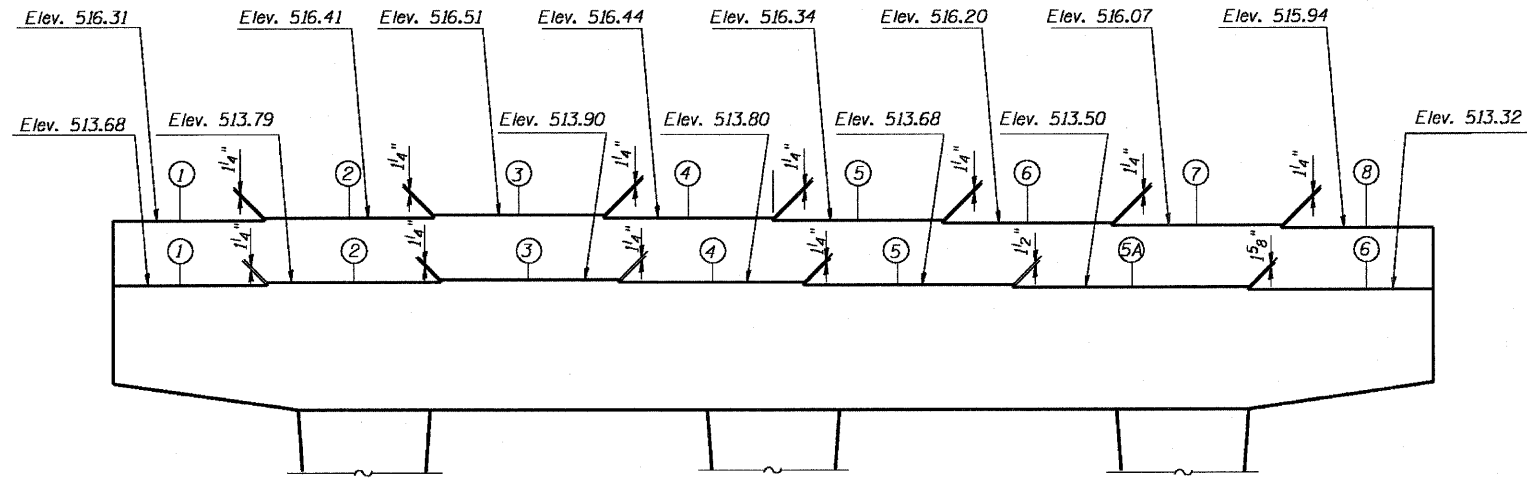
PIER 8
 IL. 170 F.A.P. 786 OVER
 ILLINOIS RIVER AT SENECA
 PUBLIC WATERS
 LA SALLE COUNTY, SECTION 109 BR
 STATION 79+04.42
 STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

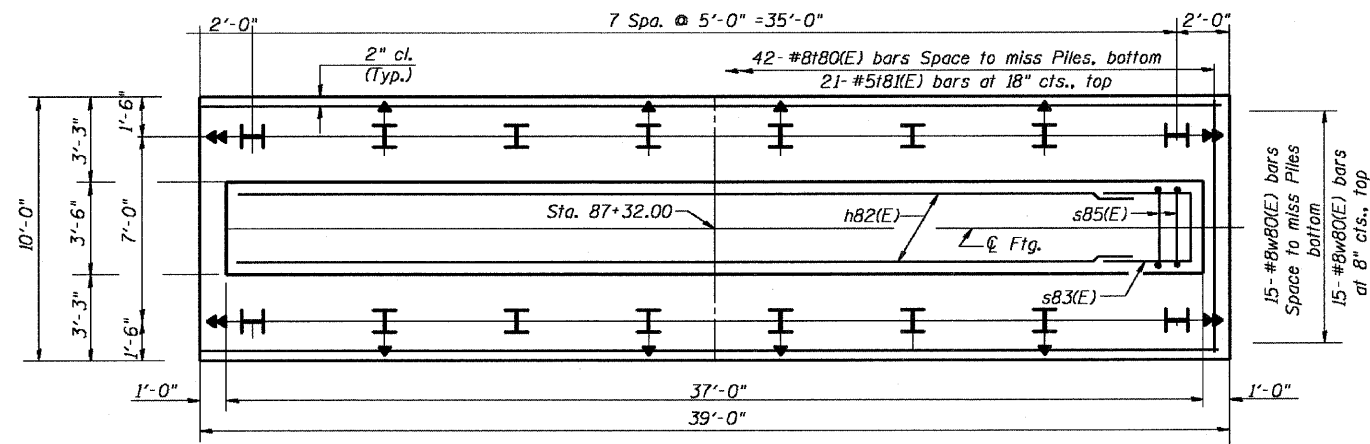
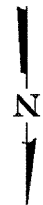


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	279
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66607



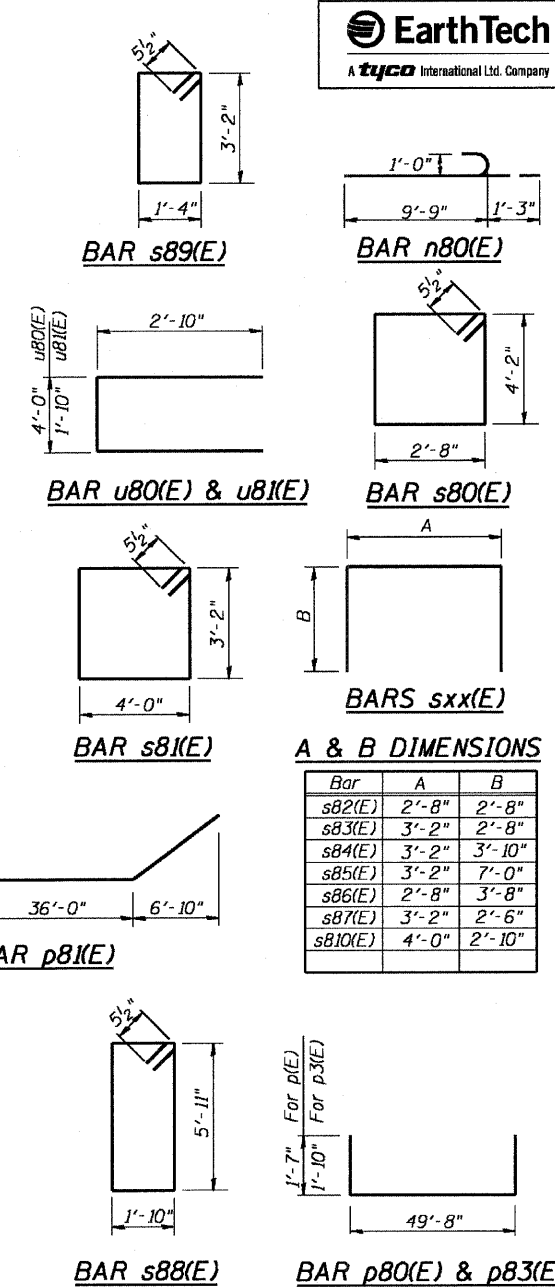
TOP PIER 8
(Showing Steps Elevations)
(Looking South)



FOOTING PLAN

Batter:
→ 3:12
↓ 2:12

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV



A & B DIMENSIONS

Bar	A	B
s82(E)	2'-8"	2'-8"
s83(E)	3'-2"	2'-8"
s84(E)	3'-2"	3'-10"
s85(E)	3'-2"	7'-0"
s86(E)	2'-8"	3'-8"
s87(E)	3'-2"	2'-6"
s810(E)	4'-0"	2'-10"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h80(E)	12	#8	49'-8"	—
h81(E)	6	#6	36'-8"	—
h82(E)	8	#5	36'-8"	—
h83(E)	4	#5	28'-3"	—
h84(E)	4	#5	25'-4"	—
n80(E)	72	#9	11'-0"	—
p80(E)	7	#9	52'-10"	—
p81(E)	4	#8	49'-10"	—
p82(E)	8	#9	10'-4"	—
p83(E)	10	#10	53'-4"	—
s80(E)	70	#5	14'-6"	—
s81(E)	28	#5	15'-3"	—
s82(E)	36	#4	8'-0"	—
s83(E)	10	#5	7'-6"	—
s84(E)	38	#6	10'-10"	—
s85(E)	38	#6	15'-10"	—
s86(E)	42	#4	10'-0"	—
s87(E)	53	#4	7'-2"	—
s88(E)	50	#5	16'-5"	—
s89(E)	28	#5	9'-11"	—
s810(E)	28	#5	9'-8"	—
t80(E)	42	#8	9'-8"	—
t81(E)	21	#5	9'-8"	—
u80(E)	6	#6	9'-8"	—
u81(E)	6	#6	7'-6"	—
v80(E)	72	#9	16'-0"	—
w80(E)	30	#8	38'-8"	—
Structure Excavation	Cu. Yd.	124		
Concrete Structures	Cu. Yd.	141		
Reinforcement Bars, Epoxy Coated	Pound	23,240		
Furnishing Steel Piles HP 12x74	Foot	525		
Driving Piles	Foot	525		
Test Pile	Each	1		
Pile Shoes	Each	16		

PIER 8 DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 For details of piles, see sheet B1 of 89.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

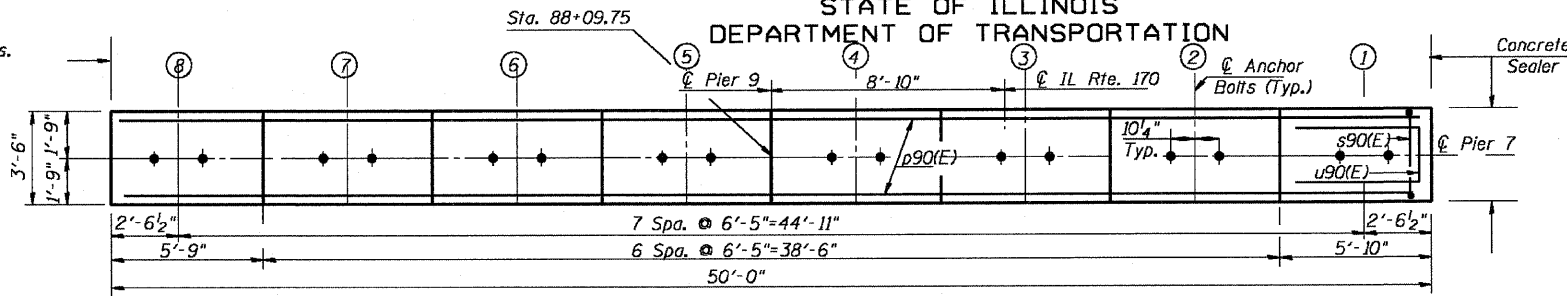


F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	280
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT

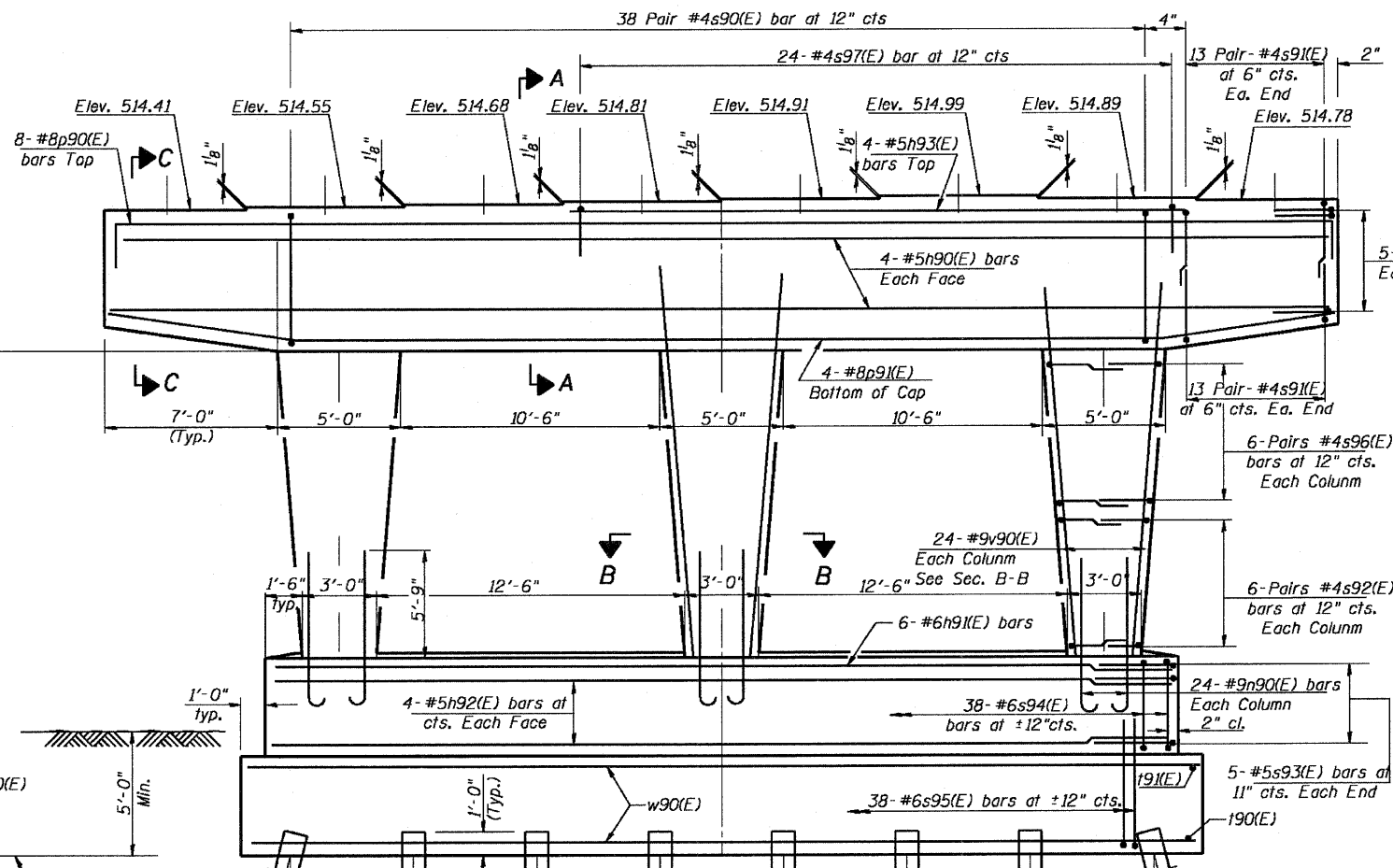
Contract # 66607

BILL OF MATERIAL

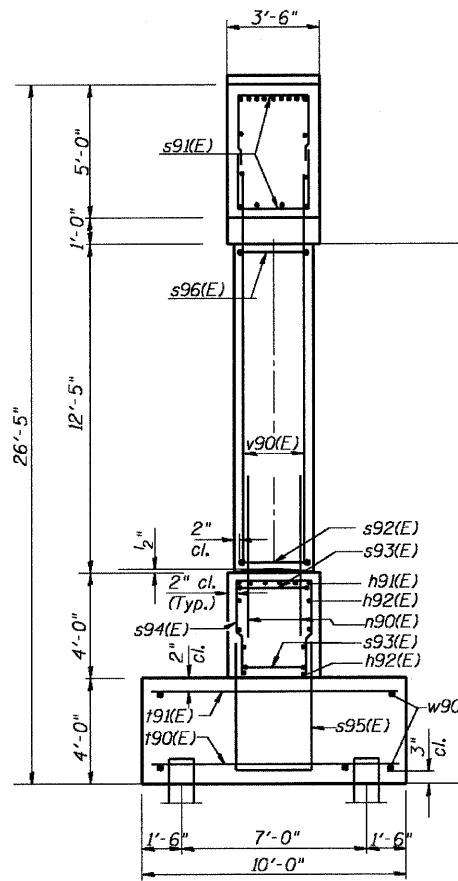
Bar	No.	Size	Length	Shape
h90(E)	8	#5	49'-8"	
h91(E)	6	#6	36'-8"	
h92(E)	8	#5	36'-8"	
h93(E)	4	#5	25'-4"	
n90(E)	72	#9	11'-0"	
p90(E)	8	#8	52'-4"	
p91(E)	4	#8	49'-10"	
s90(E)	76	#4	16'-9"	
s91(E)	104	#4	9'-8"	
s92(E)	36	#4	8'-0"	
s93(E)	10	#5	7'-6"	
s94(E)	38	#6	10'-10"	
s95(E)	38	#6	15'-10"	
s96(E)	36	#4	10'-0"	
s97(E)	24	#4	8'-2"	
u90(E)	10	#6	8'-10"	
v90(E)	72	#9	15'-9"	
w90(E)	30	#8	39'-8"	
Structure Excavation	Cu. Yd.		124	
Concrete Structures	Cu. Yd.		132	
Reinforcement Bars, Epoxy Coated	Pound		18,020	
Furnishing Steel Piles HP 12x74	Foot		525	
Driving Piles	Foot		525	
Test Pile	Each		1	
Pile Shoes	Each		16	



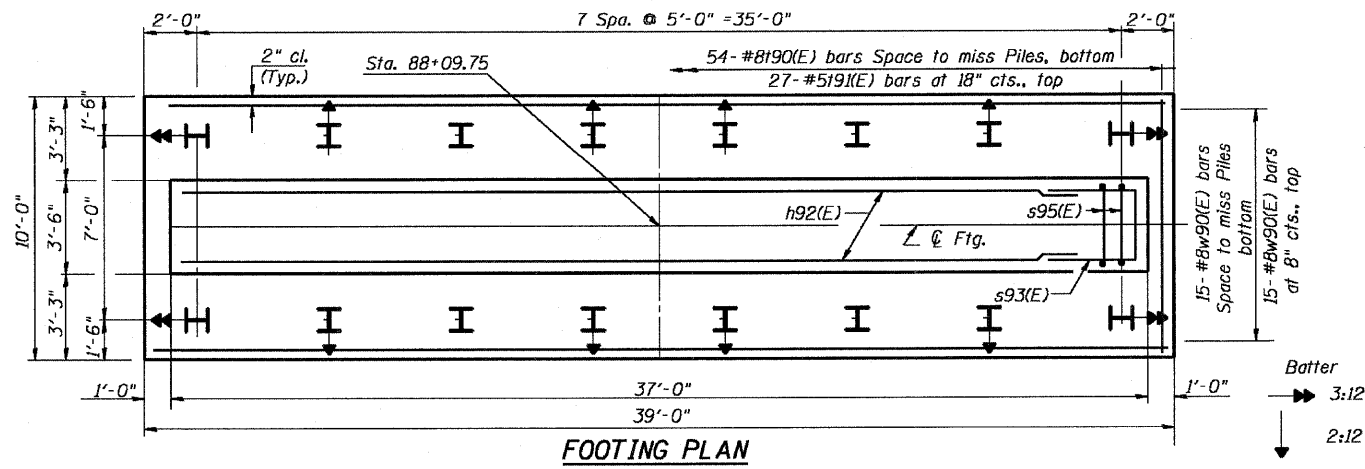
TOP PLAN



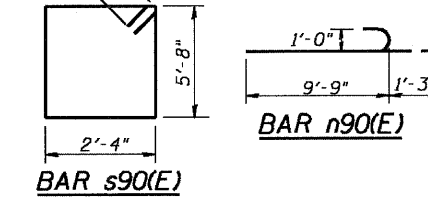
PIER 9 ELEVATION
 (Looking North)



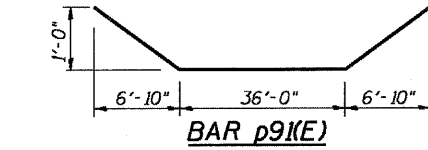
END VIEW



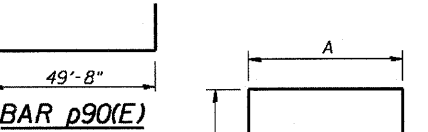
FOOTING PLAN



BAR s90(E)



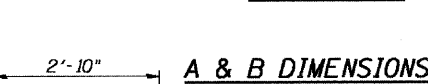
BAR p91(E)



BAR p90(E)



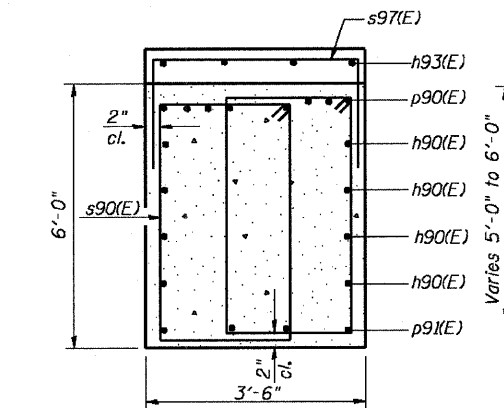
BARS sxx(E)



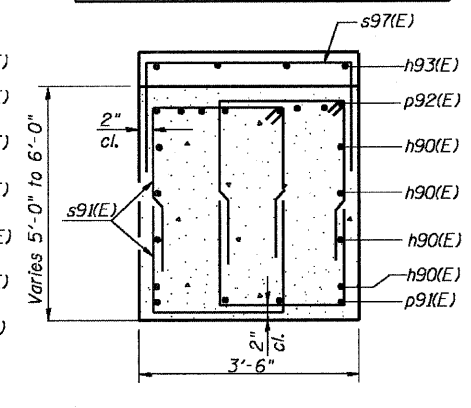
BAR u90(E)

A & B DIMENSIONS

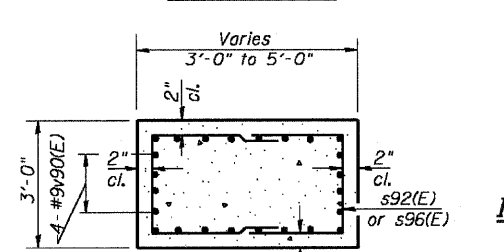
Bar	A	B
s91(E)	2'-4"	3'-8"
s92(E)	2'-8"	2'-8"
s93(E)	3'-2"	2'-2"
s94(E)	3'-2"	3'-10"
s95(E)	3'-2"	6'-4"
s96(E)	2'-8"	3'-8"
s97(E)	3'-2"	2'-6"



SECTION A-A



SECTION C-C



SECTION B-B

PILE DATA

Type: HP12x74 with Pile Shoes
 Nominal Required Bearing = 589K
 Allowable Resistance Available = 196K
 Est. Length: 35'
 No. Production Piles: 15
 No. Test Piles: 1

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

PIER 9
 IL. 170 F.A.P. 786 OVER
 ILLINOIS RIVER AT SENECA
 PUBLIC WATERS
 LA SALLE COUNTY, SECTION 109 BR
 STATION 79+04.42
 STRUCTURE NO. 050-0246

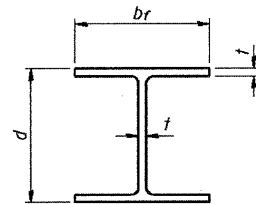
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
786	109 BR	La Salle	351	281
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

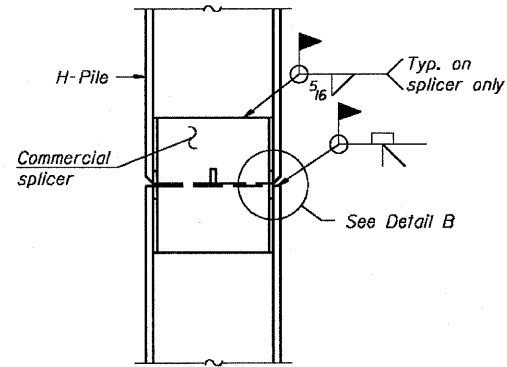
SHEET NO. 81
89 SHEETS

Contract # 66607

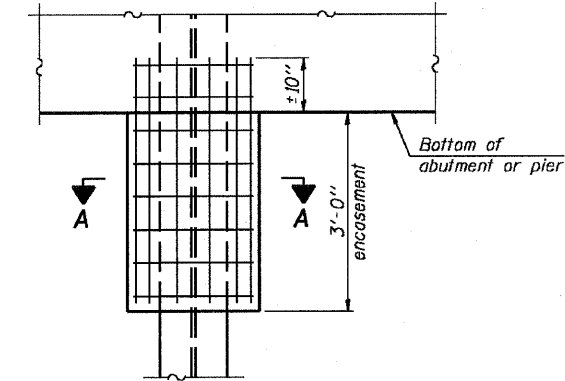


STEEL PILE TABLE

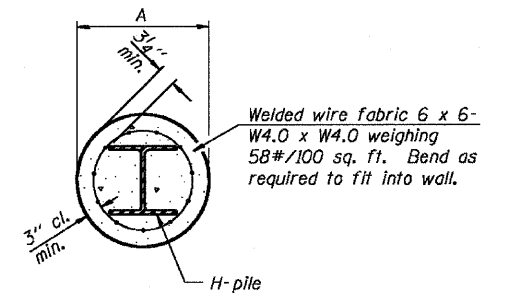
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



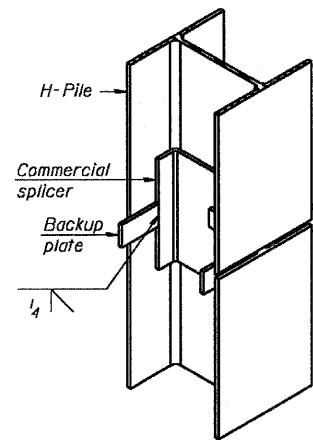
ELEVATION



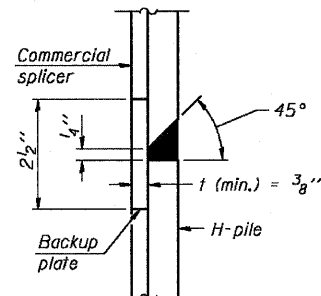
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

PILE ENCASEMENT

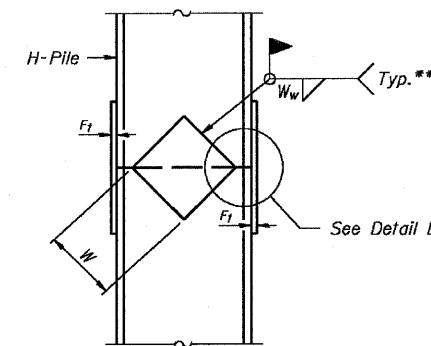


ISOMETRIC VIEW

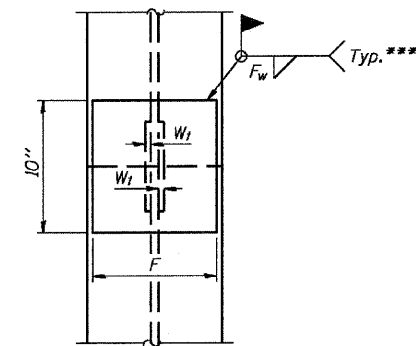


DETAIL "B"

WELDED COMMERCIAL SPLICE

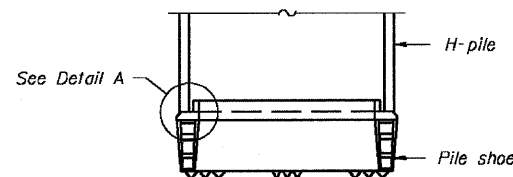


ELEVATION

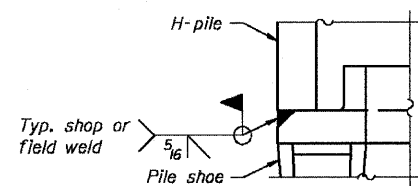


END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

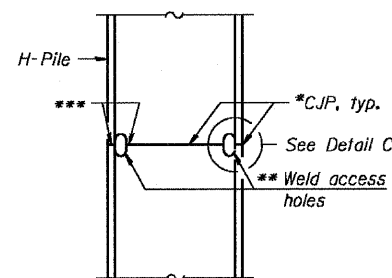


ELEVATION

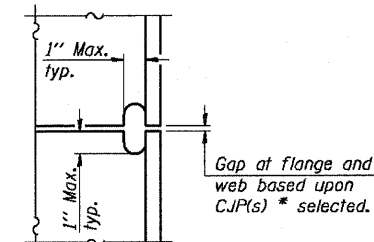


DETAIL A

H-PILE SHOE ATTACHMENT

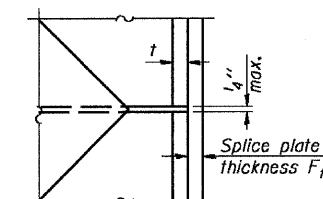


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

F-HP

11-1-06

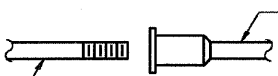
- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

STEEL H-PILES DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

Contract # 66607

The diameter of this part is equal or larger than the diameter of bar spliced.



The diameter of this part is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

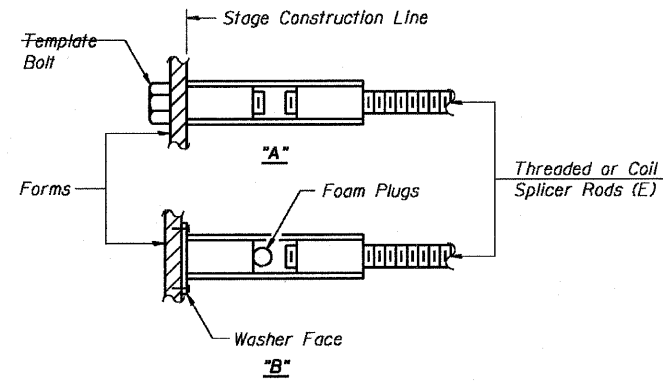
Wire Connector



WELDED SECTIONS

BAR SPLICER ASSEMBLY ALTERNATIVES

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



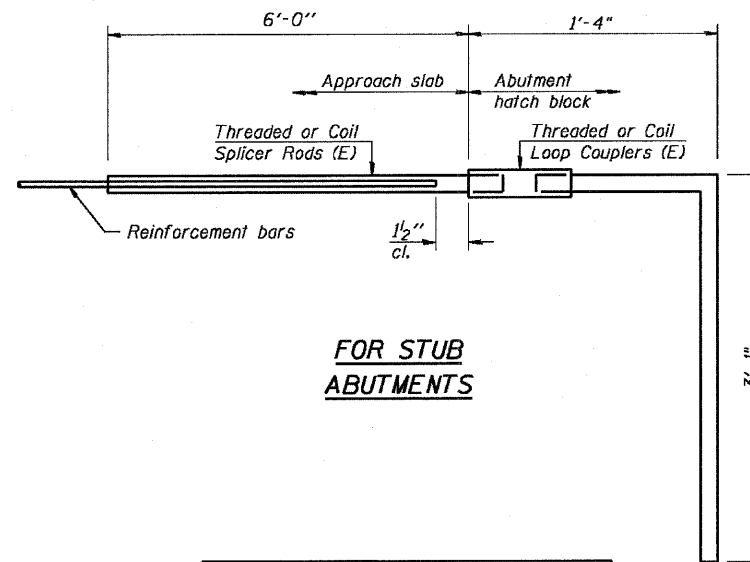
INSTALLATION AND SETTING METHODS

"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:

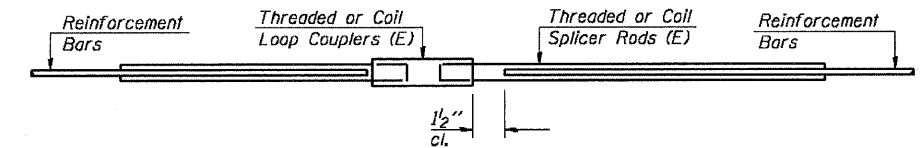
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8
#14	14'-3"	168.75	89.1



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 84



STANDARD

Bar Size	No. Assemblies Required	Location

DESIGNED - RJC
CHECKED - DEV
DRAWN - JHR
CHECKED - DEV

BAR SPLICER ASSEMBLY DETAILS
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 83
786	109 BR	La Salle	351	283
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		89 SHEETS

Contract # 66607



SOIL BORING LOG

Page 1 of 1

Date 10/15/02

ROUTE IL 170 DESCRIPTION PRELIMINARY BORING FOR NEW BRIDGE OVER THE ILLINOIS RIVER AT SENECA LOGGED BY LM:DDT
SECTION BRIDGE OVER ILLINOIS RIVER LOCATION NW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	DEPT	BL	UCS	MOIST	Surface Water Elev.	DEPT	BL	UCS	MOIST
Station	H	W	S	Qu	ft	H	W	S	Qu
050-0070 EXISTING 79+05					483.41				
BORING NO. 1 NORTH SIDE Station 72+95 Offset 18.00 FT Ground Surface Elev. 500.05 ft					483.41				
ADGURED Brown SANDY LOAM with GRAVEL Pieces (FILL)					488.05				
Loose Brown Loamy Fine to Medium GRAVEL	11				488.05				
	7								
	8								
	4								
	2								
	2								
Loose Brown Fine SAND	2				482.35				
Very Stiff Brown SANDY CLAY LOAM	5				492.08				
Very Loose to Loose Brown Medium Fairly Well-Graded SAND	2				491.08				
	2								
	2								
	3								
	1								
	2								
	2								
	3								
	2								
	1								
	1								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 2

Date 10/15/02

ROUTE IL 170 DESCRIPTION PRELIMINARY BORING FOR NEW BRIDGE OVER THE ILLINOIS RIVER AT SENECA LOGGED BY LM:DDT
SECTION BRIDGE OVER ILLINOIS RIVER LOCATION NW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	DEPT	BL	UCS	MOIST	Surface Water Elev.	DEPT	BL	UCS	MOIST
Station	H	W	S	Qu	ft	H	W	S	Qu
050-0070 EXISTING 79+05					483.41				
BORING NO. 2 NORTH SIDE Station 74+42 Offset 15.00 FT Ground Surface Elev. 501.81 ft					483.41				
ADGURED Brown SANDY LOAM with GRAVEL Pieces up to 3" Size					489.31				
Hard Brown LOAMY Fine GRAVEL	20				489.31				
Brown Medium to Coarse SAND	17				498.81				
Medium Brown Well-Graded Medium SAND	14				497.81				
	5								
	2								
	7								
	11								
Medium Brown SAND & Fine to Coarse GRAVEL	7				484.31				
	9								
	7								
	3								
	7								
	15								
	27								
Medium Light Brown Well-Graded Medium SAND with Some Fine to Coarse GRAVEL @ 14.5" TO 18"	8				481.31				
	6								
	5								
	8								
	10								
	11								
	4								
	8								
	9								
	5								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2

Date 10/15/02

ROUTE IL 170 DESCRIPTION PRELIMINARY BORING FOR NEW BRIDGE OVER THE ILLINOIS RIVER AT SENECA LOGGED BY LM:DDT
SECTION BRIDGE OVER ILLINOIS RIVER LOCATION NW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	DEPT	BL	UCS	MOIST	Surface Water Elev.	DEPT	BL	UCS	MOIST
Station	H	W	S	Qu	ft	H	W	S	Qu
050-0070 EXISTING 79+05					483.41				
BORING NO. 2 NORTH SIDE Station 74+42 Offset 15.00 FT Ground Surface Elev. 501.81 ft					483.41				
TOP OF ROCK					469.51				
Dense Gray to Dark Gray Weathered SHALE	34				469.51				
	10072								
Dense Greenish Gray SHALE	457.81				457.81				
	10074								
End of Boring	456.81				456.81				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208) BBS, from 137 (Rev. 8-99)

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SOIL BORINGS LOG #1 & #2
IL 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	JOINT SHEETS	SHEET NO.
786	109 BR	La Salle	351	285
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 85
89 SHEETS

Contract # 66607



SOIL BORING LOG

Page 1 of 1

ILLINOIS DEPARTMENT OF TRANSPORTATION
Division of Highways
District 03, Ottawa

PRELIMINARY BORING FOR NEW BRIDGE
OVER ILLINOIS RIVER AT SENECA

ROUTE IL 170 DESCRIPTION BRIDGE OVER ILLINOIS RIVER
SECTION RIVER LOCATION SW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO. 050-0070 EXISTING Station 79+05	BORING NO. 4 SOUTHSIDE Station 82+47 Offset 17.00 RT Ground Surface Elev. 485.64 ft	DEPTH (ft)	BLOW COUNT (blf)	UCS (psi)	MDS (blf)	SAND & GRAVEL (%)	SILT (%)	CLAY (%)	DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	BLOW COUNT (blf)	UCS (psi)	MDS (blf)	SAND & GRAVEL (%)	SILT (%)	CLAY (%)	DESCRIPTION	ELEVATION (ft)
									AUGERED Black soft SANDY LOAM	485.64	0								
		2							Brown Medium to Coarse SAND	484.14	2								
		3	0.4	24.0					Very Dense Brown Mix of SILT, SAND & GRAVEL including Pieces of SHALE & SANDSTONE	483.14	3								
		4	B							482.14	4								
		1							Medium Gray & Brown SANDY LOAM	481.14	1								
		2	0.6	20.0					TOP OF ROCK Dense Dark Gray SHALE	480.64	2								
		3							Borehole continued with rock coring.	479.14	3								
		3		12.0						478.14	3								
		2								477.14	2								
		1								476.14	1								
		25								475.14	25								
		22		10.0						474.14	22								
		21								473.14	21								
		12		24.0					Medium Brown Fine to Coarse SAND	472.14	12								
		18								471.14	18								
		4								470.14	4								
		5		20.0						469.14	5								
		10								468.14	10								
		9								467.14	9								
		20								465.64	20								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, form 137 (Rev. 8-89)



ROCK CORE LOG

Page 1 of 1

ILLINOIS DEPARTMENT OF TRANSPORTATION
Division of Highways
District 03, Ottawa

PRELIMINARY BORING FOR NEW BRIDGE
OVER ILLINOIS RIVER AT SENECA

ROUTE IL 170 DESCRIPTION BRIDGE OVER ILLINOIS RIVER
SECTION RIVER LOCATION SW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE CORING METHOD ROTARY CME 75

STRUCT. NO. 050-0070 EXISTING Station 79+05	BORING NO. 4 SOUTHSIDE Station 82+47 Offset 17.00 RT Ground Surface Elev. 485.64 ft	CORING BARREL TYPE & SIZE S' DOUBLE BARREL	DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	CORE DIAMETER (in)	CORE LENGTH (ft)	CORE TYPE	DESCRIPTION	ELEVATION (ft)	DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	CORE DIAMETER (in)	CORE LENGTH (ft)	CORE TYPE	DESCRIPTION	ELEVATION (ft)	
																			Top of Rock Elev. 480.64 ft
									SHALE, Gray Clayey, Weathered, Core water eroded Core Sample Qu SAMPLE MOISTURE = 16.2%	459.14	1	100	93						
									SHALE, Brownish Gray to Reddish Brown, Weathered	457.14									4.0
									SILTSTONE, Light Gray, Fine-grained, with Thin SHALE Partings Qu SAMPLE MOISTURE = 7.3%	456.14									5.2
									LIMESTONE, Dark Gray, Dense, Fine Grained Qu SAMPLE MOISTURE = 5.7%	453.84	2	100	87						572.7
									SANDSTONE, Light Gray, Fine grained, Micaceous, Slightly Calcareous, Contains SHALE Partings, CHANNEL DEPOSITS Qu SAMPLE MOISTURE = 10.3% = 9.7% = 10.2%	451.84									144.8
										450.84	3	100	83						112.5
									SANDSTONE, Gray, Fine grained, Gracing to SILTSTONE, Interbedded with SHALE, 1/4 TO 1/2 INCH Thick Lenses CHANNEL DEPOSIT Qu SAMPLE MOISTURE = 9.6% = 8.5%	446.24									151.2
										445.24	4	100	50						60.5
										439.14									103.8

End of Boring
Color pictures of the cores _____
Cores will be stored for examination until _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2836) BBS, form 138 (Rev. 8-98)

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SOIL BORING LOG #4
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 86
786	109 BR	La Salle	351	286
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		89 SHEETS

Contract # 66607



SOIL BORING LOG

Page 1 of 1

ROUTE IL 170 DESCRIPTION PRELIMINARY BORING FOR NEW BRIDGE OVER ILLINOIS RIVER AT SENECA LOGGED BY KWJ/DOJ
SECTION BRIDGE OVER ILLINOIS RIVER LOCATION SW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	STATION	BORING NO.	DESCRIPTION	DEPTH (ft)	TESTS	REMARKS
050-0070 EXISTING	79+05	5 SOUTHSIDE	Surface Water Elev. 453.41 R			
			Stream Bed Elev. _____ R			
			Groundwater Elev.: _____			
			First Encounter _____			
			Upon Completion _____			
			After _____			
			Loose LOAMY SAND & GRAVEL	0-12		
			Medium Gray SAND & Coarse GRAVEL (continued)	12-18		
			Dense Gray Medium to Coarse SAND	18-24		
			Dense Gray SAND & Fine GRAVEL	24-30		
			Dense Brown & Gray SAND & Vary Coarse GRAVEL	30-36		
			Loose Brown Coarse GRAVEL with Minor Amounts of SAND	36-42		
			Loose Brown SAND & GRAVEL	42-48		
			TOP OF ROCK	48		
			Hard Gray SHALE	48-50		
			End of Boring	50		
			Medium Gray Medium to Coarse SAND	50-52		
			Medium Gray SAND & Coarse GRAVEL	52-54		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

ROUTE IL 170 DESCRIPTION PRELIMINARY BORING FOR NEW BRIDGE OVER ILLINOIS RIVER AT SENECA LOGGED BY LM/DOJ
SECTION BRIDGE OVER ILLINOIS RIVER LOCATION SW 1/4, SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	STATION	BORING NO.	DESCRIPTION	DEPTH (ft)	TESTS	REMARKS
050-0070 EXISTING	79+05	6 SOUTHSIDE	Surface Water Elev. 463.41 R			
			Stream Bed Elev. _____ R			
			Groundwater Elev.: _____			
			First Encounter _____			
			Upon Completion _____			
			After _____			
			Brown LOAMY SAND	0-10		
			Loose Brown Medium to Coarse SAND with Some Fine to Medium GRAVEL	10-15		
			NOTE: AUGER SAMPLE HAS COBBLE SIZE GRAVEL	15-20		
			End of Boring	20		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 1

ROUTE IL 170 DESCRIPTION BRIDGE OVER ILLINOIS RIVER LOGGED BY LM/DOJ
SECTION BRIDGE OVER ILLINOIS RIVER LOCATION SW 1/4, SEC. 25, TWP. 33N, RNG. 5E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	STATION	BORING NO.	DESCRIPTION	DEPTH (ft)	TESTS	REMARKS
050-0070 EXISTING	79+05	2a Northside	Surface Water Elev. 483.41 ft			
			Stream Bed Elev. _____ ft			
			Groundwater Elev.: _____			
			First Encounter _____			
			Upon Completion _____			
			After _____			
			Augered Bituminous Pavement, Brown Sand & Gravel sub-base	0-7		
			Very Stiff Brown Sandy Loam with Sand Layers (Fill)	7-12		
			Loose Brown Fine Sand/ Medium Gravel with pieces Sandy Loam (Fill)	12-18		
			Very Stiff Dark Brown Sandy Clay Fill	18-24		
			Soft to Medium Gray/Brown Sandy Clay/ Sandy Loam with layer of Gray Fine to coarse sand	24-30		
			Loose to Medium Fine Sand/ Coarse Gravel	30-35		
			Hard Gray Shale	35-40		
			End of Boring	40		
			Soft Brown Silt	40-45		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SOIL BORING LOGS #5, #6, & #2a
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STATE SHEETS	SHEET NO.
786	109 BR	La Salle	351	288
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract # 66607

SHEET NO. 88
89 SHEETS



SOIL BORING LOG

Page 1 of 1
Date 4/27/06

ROUTE IL 170 DESCRIPTION BRIDGE OVER ILLINOIS RIVER
SECTION RIVER LOCATION SW 1/4, SEC. 25, TWP. 33N, RNG. 9E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	DE	BL	UC	MO	Surface Water Elev.	DE	BL	UC	MO
Station	P	O	S	I	ft	P	O	S	I
BORING NO.	T	W	Qu	T	Groundwater Elev.:	H	W	Qu	T
Station	S	tsf	(%)	ft	First Encounter	S	tsf	(%)	ft
Offset	(ft)	(ft)	(%)	ft	Upon Completion	(ft)	(ft)	(%)	ft
Ground Surface Elev.	(ft)	(ft)	(%)	ft	After	(ft)	(ft)	(%)	ft
050-0070 EXISTING 79+05					483.41				
6a Southside 87+10									
10.00ft									
483.54									
Augered Brown Fine/Coarse Sand & Gravel Fill Loamy in Top 6"									
481.54									
Loose Brown Fine/Coarse Sand w/ upto Coarse Gravel w/ layers Dark Brown Sandy Loam Fill									
489.54									
Stiff Black/Brown Sandy Clay Loam/ Sandy Loam with Gravel Pieces									
Sand Cave in @ 7.5' AAR									
485.54									
Loose Brown Fine/Coarse Sand with Minor Gravel Free water @ 12"									
Washed sample at 14'-16"									
482.54									
Hard Gray Shale weathered at surface									
477.04									
Medium Brown Fine/Coarse Sand with Minor Gravel									
Washed sample 17'-24"									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T298)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 1 of 2
Date 4/18/06

ROUTE IL 170 DESCRIPTION BRIDGE OVER ILLINOIS RIVER
SECTION RIVER LOCATION SW 1/4, SEC. 25, TWP. 33N, RNG. 9E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	DE	BL	UC	MO	Surface Water Elev.	DE	BL	UC	MO
Station	P	O	S	I	ft	P	O	S	I
BORING NO.	T	W	Qu	T	Groundwater Elev.:	H	W	Qu	T
Station	S	tsf	(%)	ft	First Encounter	S	tsf	(%)	ft
Offset	(ft)	(ft)	(%)	ft	Upon Completion	(ft)	(ft)	(%)	ft
Ground Surface Elev.	(ft)	(ft)	(%)	ft	After	(ft)	(ft)	(%)	ft
050-0070 EXISTING 79+05					483.41				
7a Southside 89+05									
12.00ft									
489.09									
Augered Brown Sand									
486.58									
Medium Brown Fine/Coarse Sand w/ Fine/Coarse Gravel									
Sample washed out at 20' (continued)									
478.08									
Dense Brown Fine/Coarse Sand w/ Fine/Coarse Gravel & Pieces Red Weathered Shale									
493.08									
Loose Brown Fine/Coarse Sand (sub round to sub angular) clean									
470.08									
Very Dense Brown Fine Sand w/ minor Coarse Gravel									
Sampled washed from 30'-33'									
480.58									
Medium Brown Fine/Coarse Sand (Clean) Free water @ 13.5'									
Sand Cave in @ 12.5' AAR									
484.08									
Very Dense Brown Fine Sand to Coarse Gravel (potential cobble size)									
Sample washed from 35'-46.5'									
476.08									
Medium Brown Fine/Coarse Sand w/ Fine/Coarse Gravel									
Sample washed out at 20'									
458.08									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T298)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Page 2 of 2
Date 4/19/06

ROUTE IL 170 DESCRIPTION BRIDGE OVER ILLINOIS RIVER
SECTION RIVER LOCATION SW 1/4, SEC. 25, TWP. 33N, RNG. 9E, 3rd PM
COUNTY LASALLE DRILLING METHOD Hollow Stem Auger HAMMER TYPE AUTOMATIC

STRUCT. NO.	DE	BL	UC	MO	Surface Water Elev.	DE	BL	UC	MO
Station	P	O	S	I	ft	P	O	S	I
BORING NO.	T	W	Qu	T	Groundwater Elev.:	H	W	Qu	T
Station	S	tsf	(%)	ft	First Encounter	S	tsf	(%)	ft
Offset	(ft)	(ft)	(%)	ft	Upon Completion	(ft)	(ft)	(%)	ft
Ground Surface Elev.	(ft)	(ft)	(%)	ft	After	(ft)	(ft)	(%)	ft
050-0070 EXISTING 79+05					483.41				
7a Southside 89+05									
12.00ft									
458.08									
Hard Gray/Green/Red Weathered reworked Shale									
457.08									
Hard Gray Calcareous Shale w/ Limestone Layers/ Beds									
454.08									
End of Boring									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T298)
BBS, from 137 (Rev. 8-99)

DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SOIL BORING LOGS #6a & #7a
IL 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

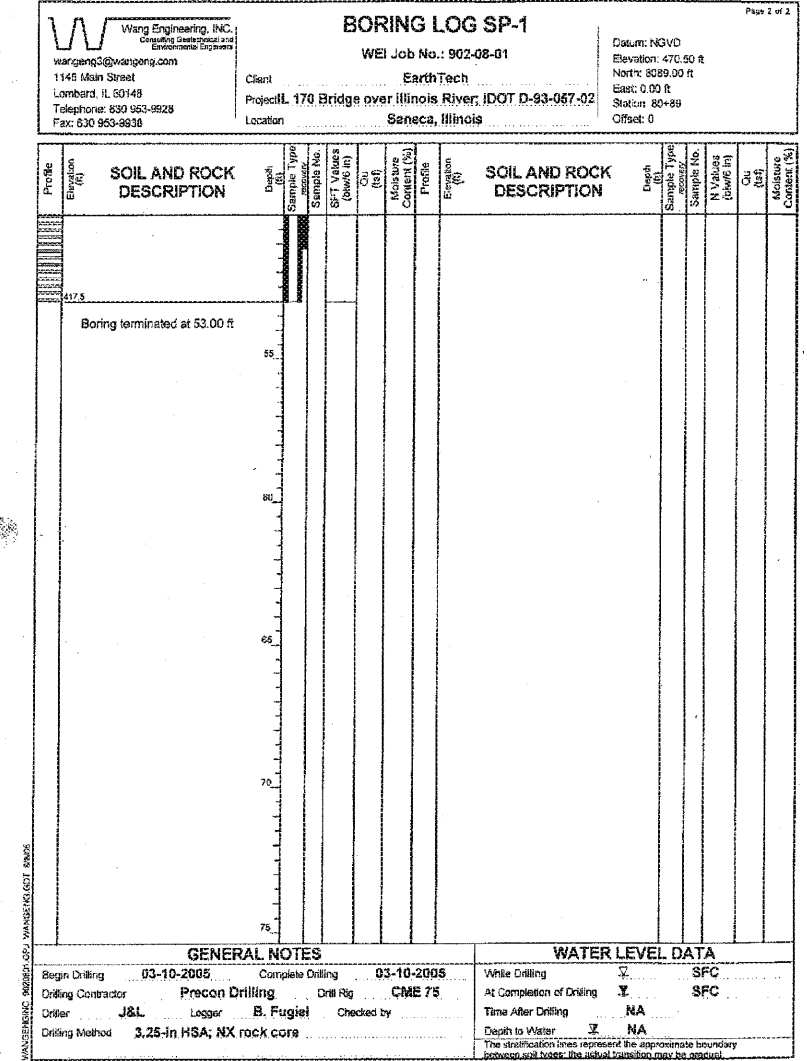
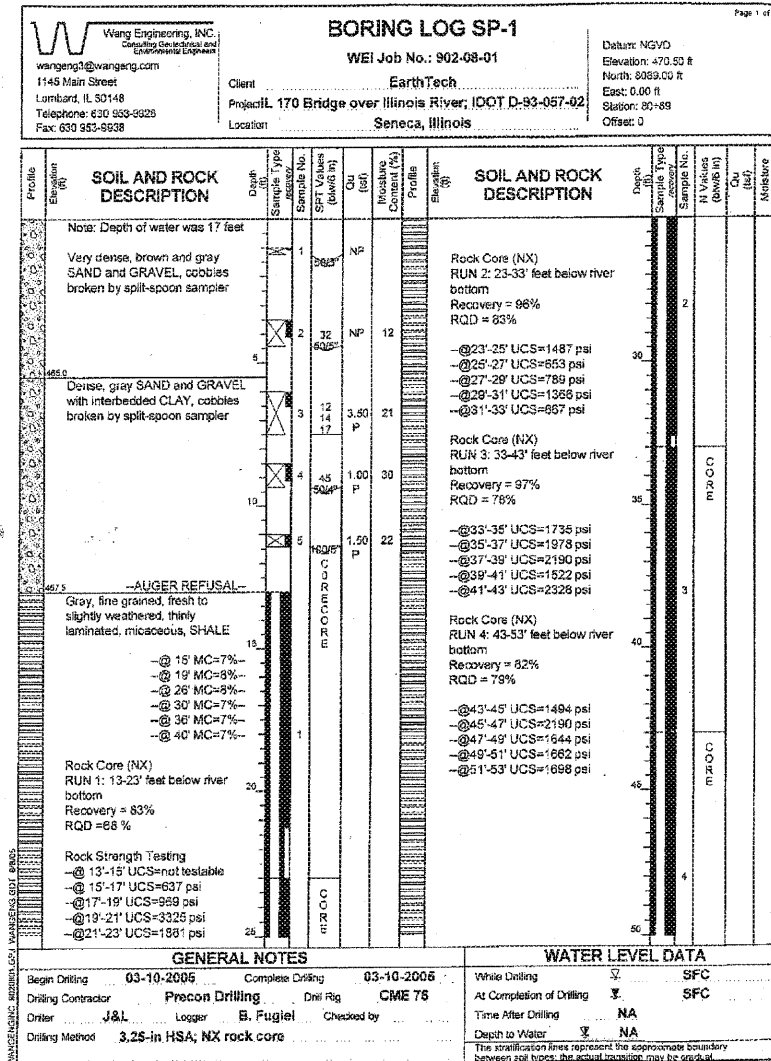
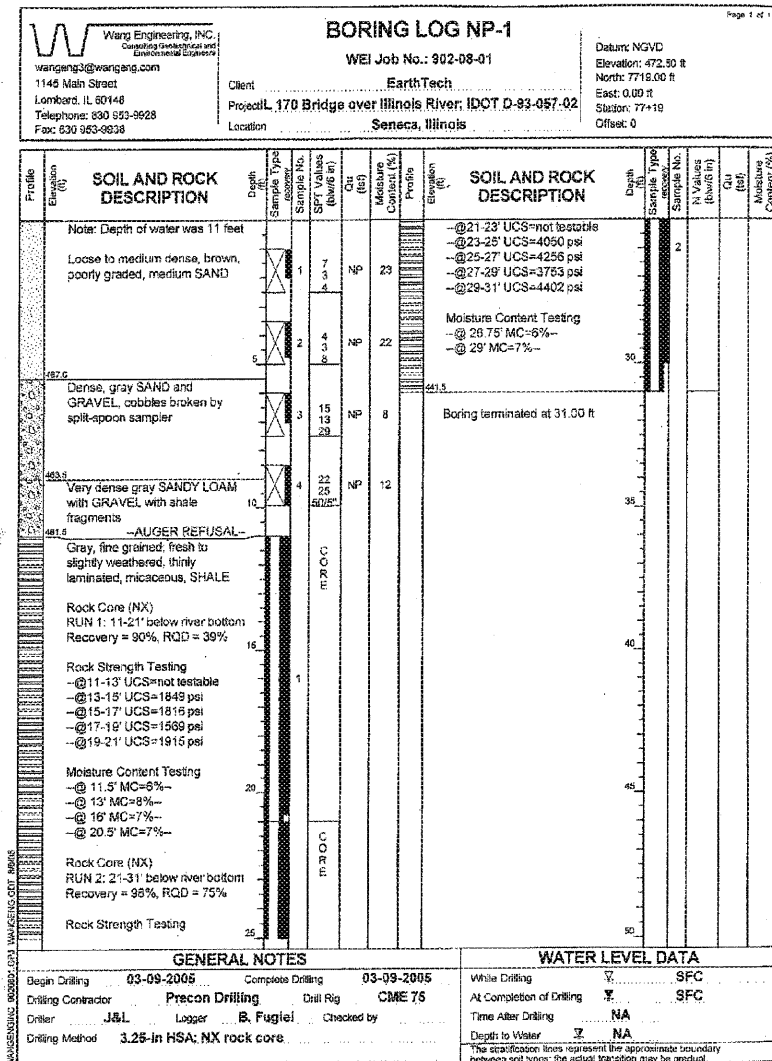
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



F.A.P. ROUTE NO.	SECTION	COUNTY	STATION	SHEET
786	109 BR	La Salle	351	289
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 89
89 SHEETS

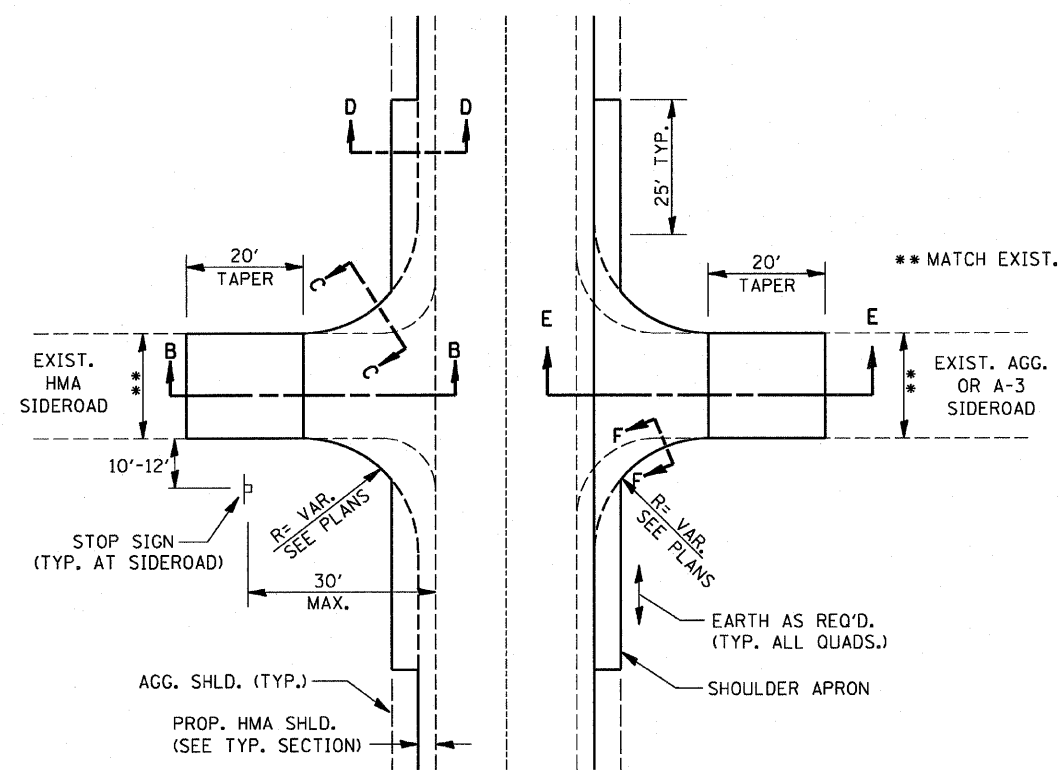
Contract # 66607



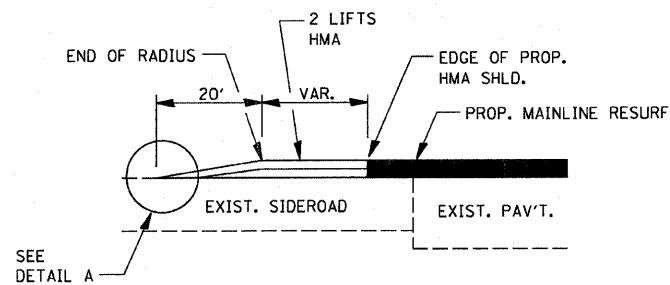
DESIGNED - DEV
CHECKED - RJC
DRAWN - JHR
CHECKED - RJC

SOIL BORING LOGS #NP-1 & #SP-1
IL. 170 F.A.P. 786 OVER
ILLINOIS RIVER AT SENECA
PUBLIC WATERS
LA SALLE COUNTY, SECTION 109 BR
STATION 79+04.42
STRUCTURE NO. 050-0246

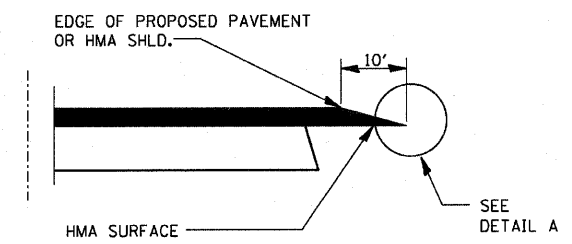
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	291
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



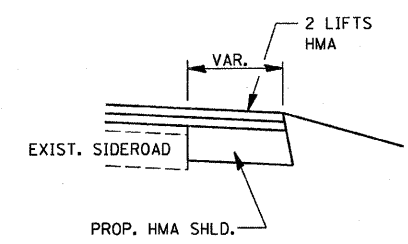
SIDEROAD DETAIL



SECTION B-B



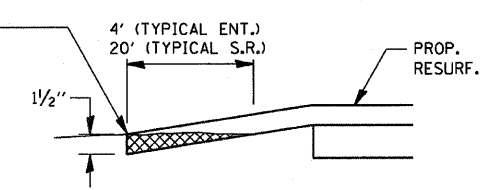
SECTION A-A



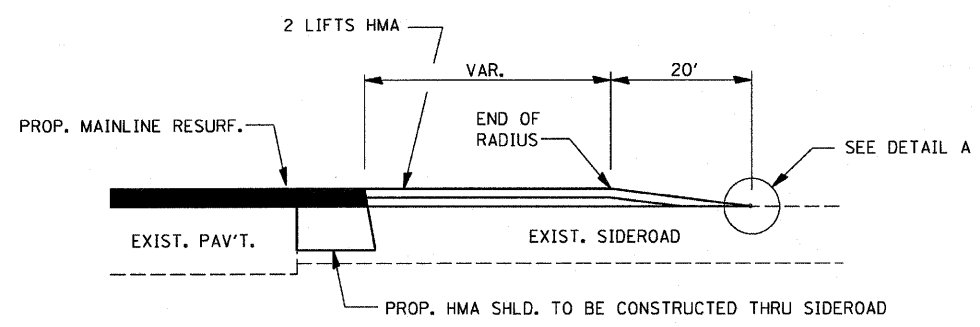
SECTION C-C

DETAILS AT ENTRANCES

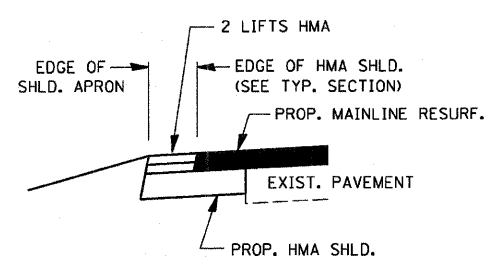
THE COST OF REMOVAL AT EXISTING HMA OR P.C.C. LOCATIONS SHALL BE PAID FOR PER SQ. YD. BY THE APPROPRIATE PAY ITEM. REMOVAL AT THE EXISTING AGG. LOCATIONS SHALL BE INCIDENTAL TO THE HMA. A-3 LOCATIONS SHALL BE FEATHER TAPERED.



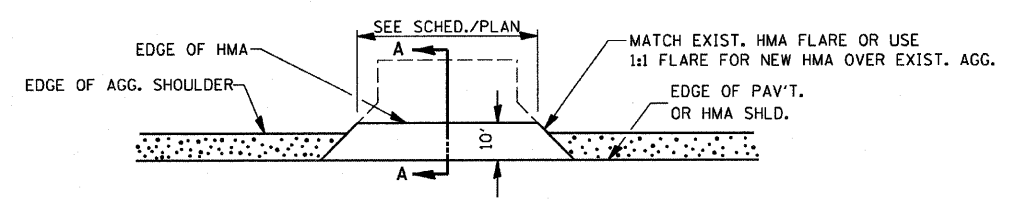
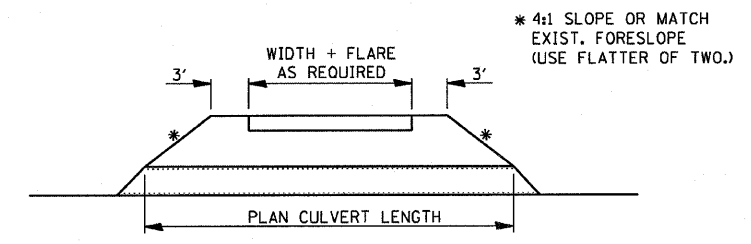
DETAIL A



SECTION E-E

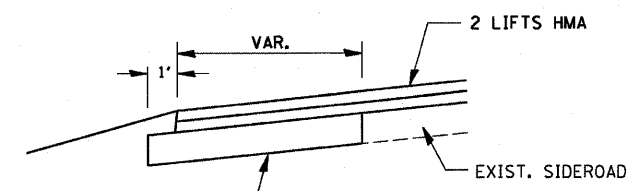


SECTION D-D



PLAN AT PRIVATE & COMMERCIAL ENTRANCES

(DO NOT RESURFACE FIELD ENTRANCES)



SECTION F-F

AGG. BASE CSE., TY. A - 8"
NOTE: SHOULDER APRON TO BE CONSTRUCTED THE SAME AS RADIUS WIDENING.

PLOT DATE = 10/14/2007
FILE NAME = #FILES
PLOT SCALE = #SCALE
USER NAME = #PROJECT

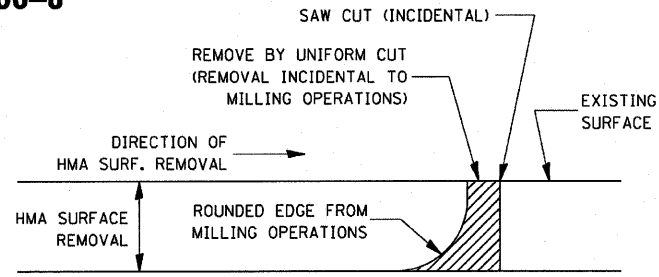
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 3 STANDARDS

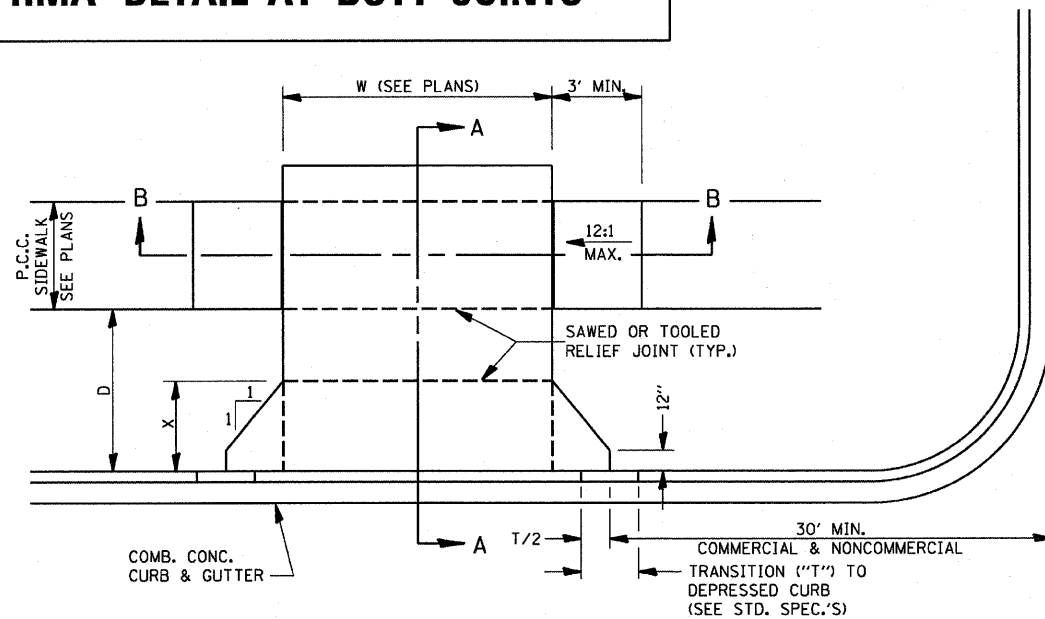
SCALE: 1" = 20'
DATE: OCTOBER, 2007
DRAWN BY: CJO
CHECKED BY: JCL

406-8

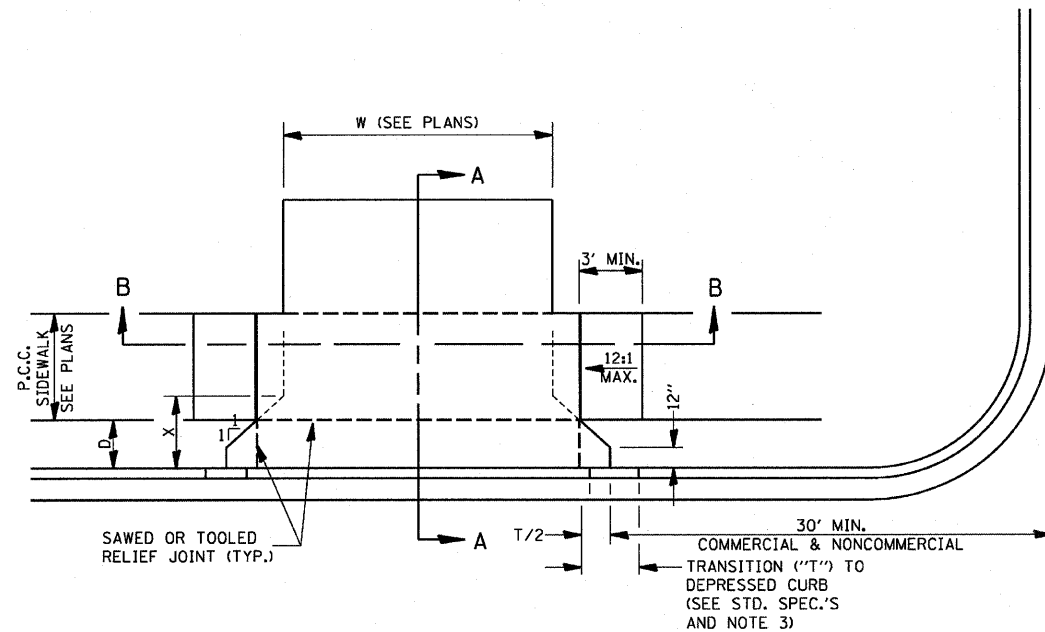


NOTE:
WHEN MILLING OPERATIONS PRODUCE A ROUNDED EDGE, THEN A SAW CUT SHALL BE USED TO MANUFACTURE A PERPENDICULAR EDGE AS SHOWN IN THE DETAIL. THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING THE USE OF THIS DETAIL

HMA DETAIL AT BUTT JOINTS



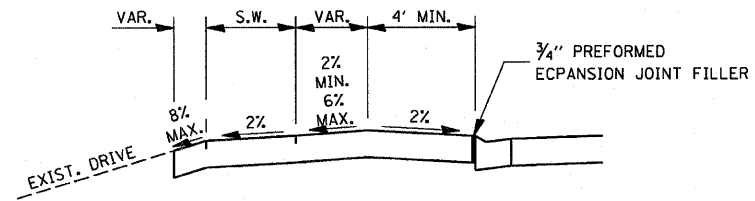
CASE I (D ≥ X)



CASE I (D < X)

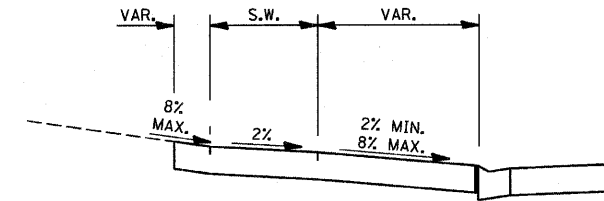


CONTRACT NO.			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
786	(109) BR	LASALLE	351
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

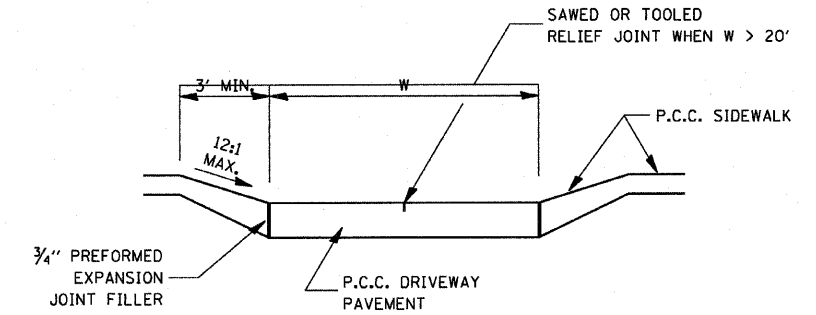


DEPRESSED ENTRANCE *
SECTION A-A

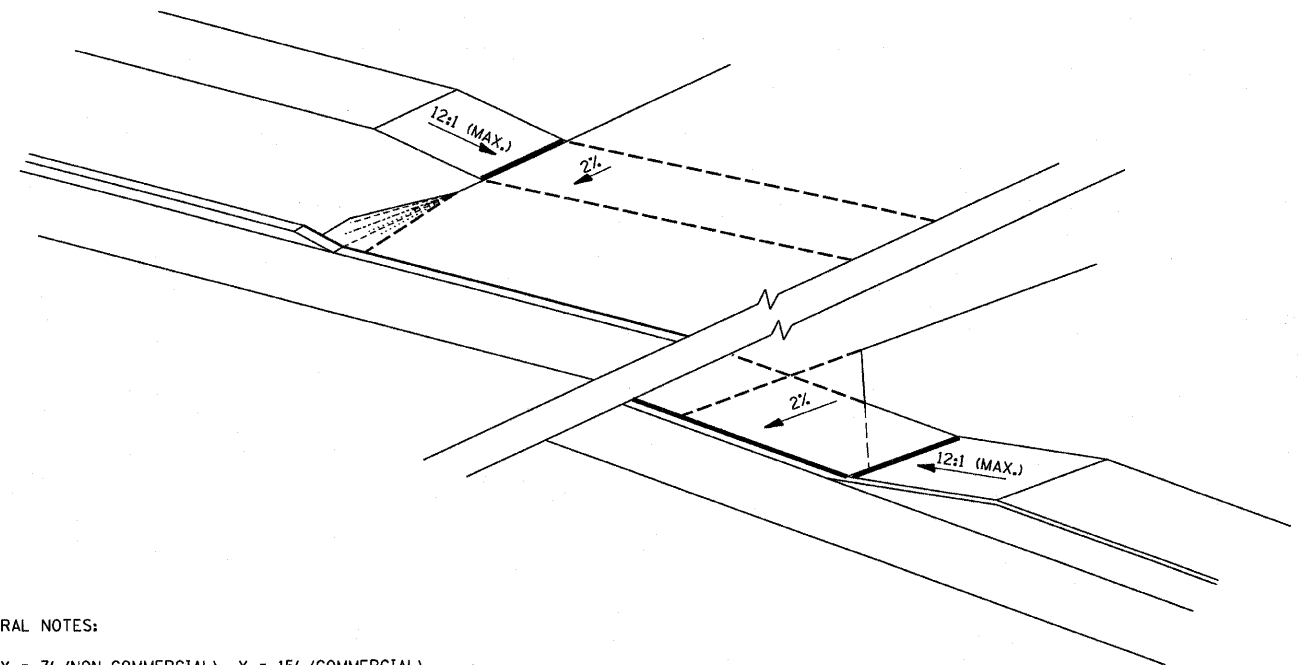
*(SEE X-SECTIONS FOR ENTRANCE PROFILE.)



ELEVATED ENTRANCE *
SECTION A-A



SECTION B-B



GENERAL NOTES:

1. X = 7' (NON-COMMERCIAL) X = 15' (COMMERCIAL)
2. COST OF EXPANSION JOINTS AND RELIEF JOINTS SHALL BE INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT.
3. AS THE DIMENSION "D" APPROACHES ZERO, THE TRANSITION TO DEPRESSED CURB SHALL BE NO STEEPER THAN 12:1

PCC URBAN ENTRANCES

REVISIONS	
NAME	DATE

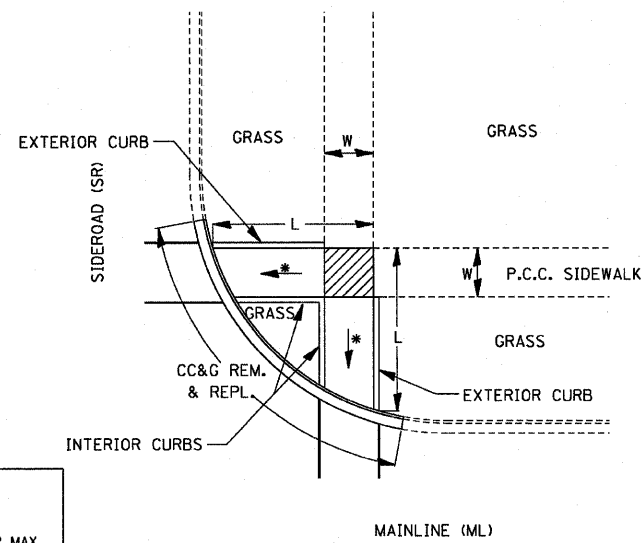
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 3 STANDARDS

SCALE: 1" = 20"
DATE: OCTOBER, 2007

DRAWN BY: CJO
CHECKED BY: JCL

423-1

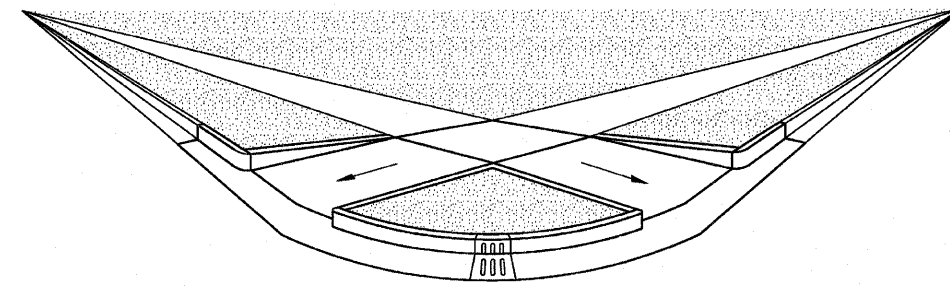
PLOT DATE = 10/14/2007
FILE NAME = REFLECT
PLOT SCALE = ESCALE
USER NAME = project



LEGEND
 SLOPE = 2%
 SLOPE = 1:12 MAX.

METHOD 1

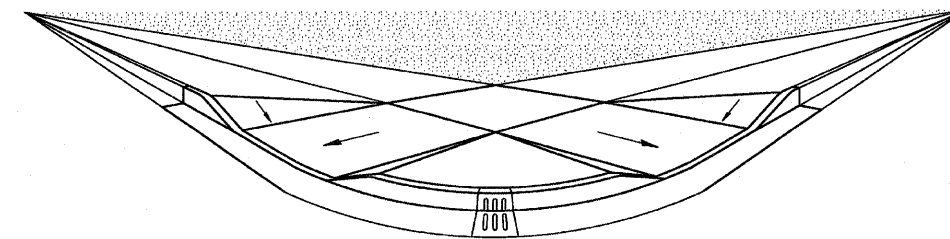
424-5
ADA SIDEWALK ACCESSIBILITY RAMPS



LEGEND
 GRASS

METHOD 1 PERSPECTIVE WITH SIDE CURBS

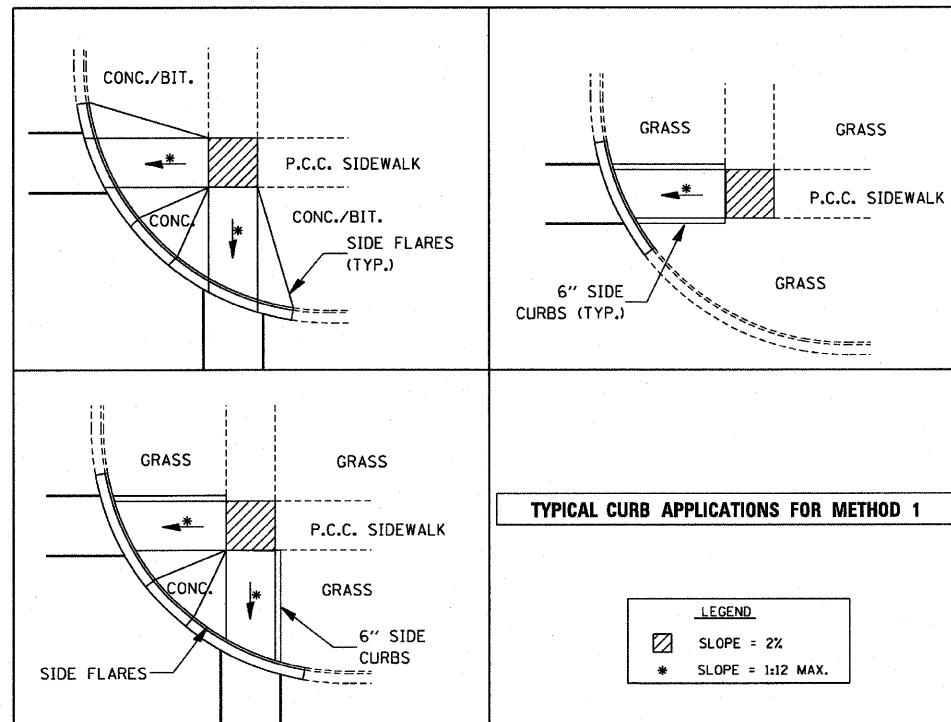
424-7
ADA SIDEWALK ACCESSIBILITY RAMPS



LEGEND
 GRASS

METHOD 1 PERSPECTIVE WITH SIDE FLARES

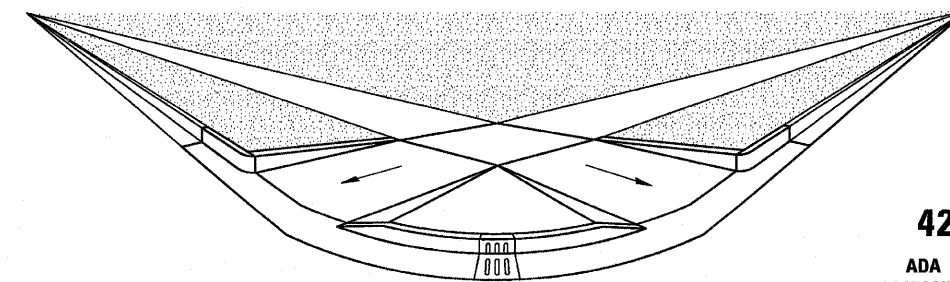
424-8
ADA SIDEWALK ACCESSIBILITY RAMPS



TYPICAL CURB APPLICATIONS FOR METHOD 1

LEGEND
 SLOPE = 2%
 SLOPE = 1:12 MAX.

424-6



LEGEND
 GRASS

METHOD 1 PERSPECTIVE WITH SIDE CURBS AND SIDE FLARES

424-9
ADA SIDEWALK ACCESSIBILITY RAMPS

REVISIONS	
NAME	DATE

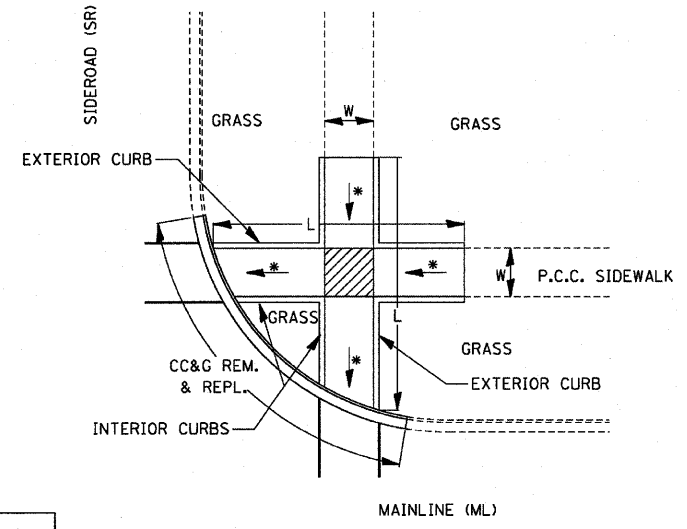
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 3 STANDARDS

SCALE: 1" = 20'
DATE: OCTOBER, 2007

DRAWN BY: CJO
CHECKED BY: JCL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	294
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

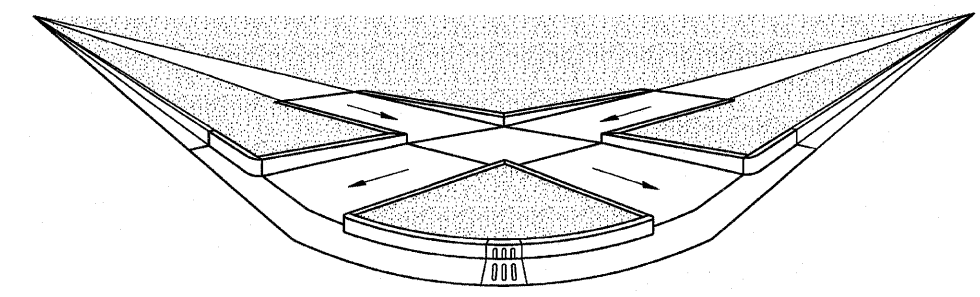


LEGEND

	SLOPE = 2%
*	SLOPE = 1:12 MAX.

METHOD 2

424-10
ADA SIDEWALK
ACCESSIBILITY RAMPS

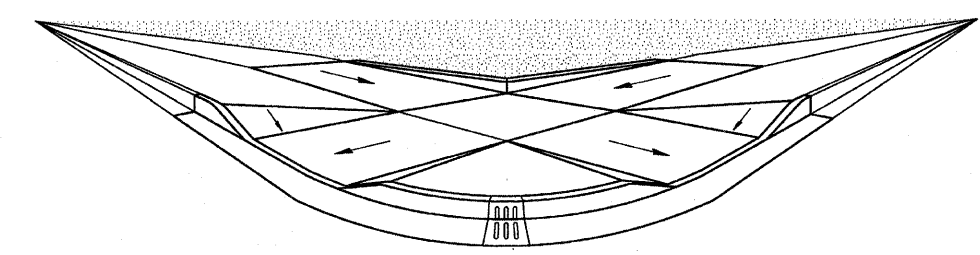


LEGEND

	GRASS
--	-------

METHOD 2 PERSPECTIVE
WITH SIDE CURBS

424-12
ADA SIDEWALK
ACCESSIBILITY RAMPS

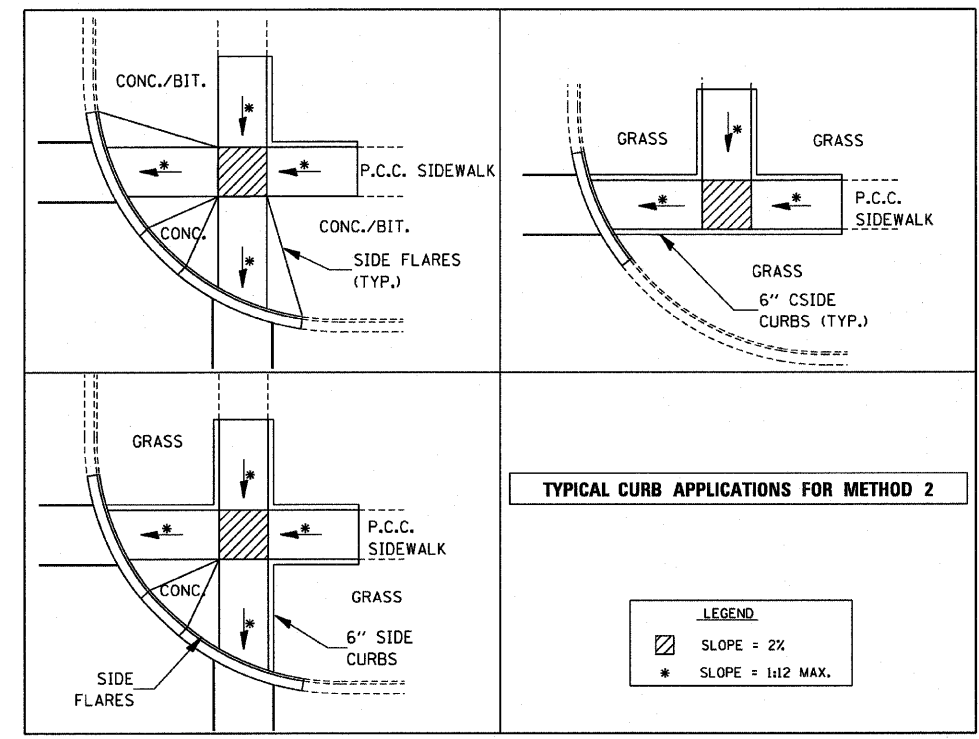


LEGEND

	GRASS
--	-------

METHOD 2 PERSPECTIVE
WITH SIDE FLARES

424-13
ADA SIDEWALK
ACCESSIBILITY RAMPS

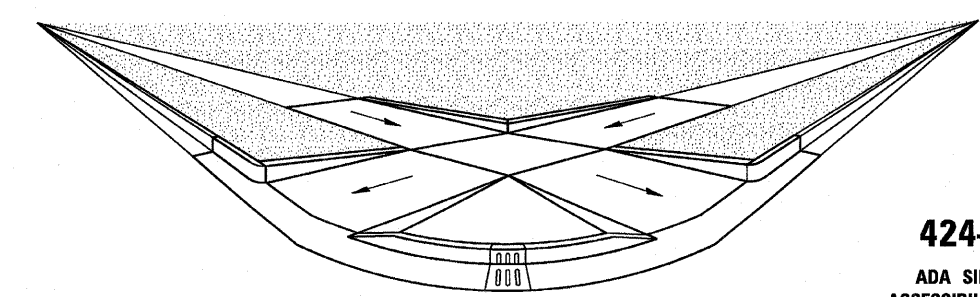


TYPICAL CURB APPLICATIONS FOR METHOD 2

LEGEND

	SLOPE = 2%
*	SLOPE = 1:12 MAX.

424-11



LEGEND

	GRASS
--	-------

METHOD 2 PERSPECTIVE
WITH SIDE CURBS AND SIDE FLARES

424-14
ADA SIDEWALK
ACCESSIBILITY RAMPS

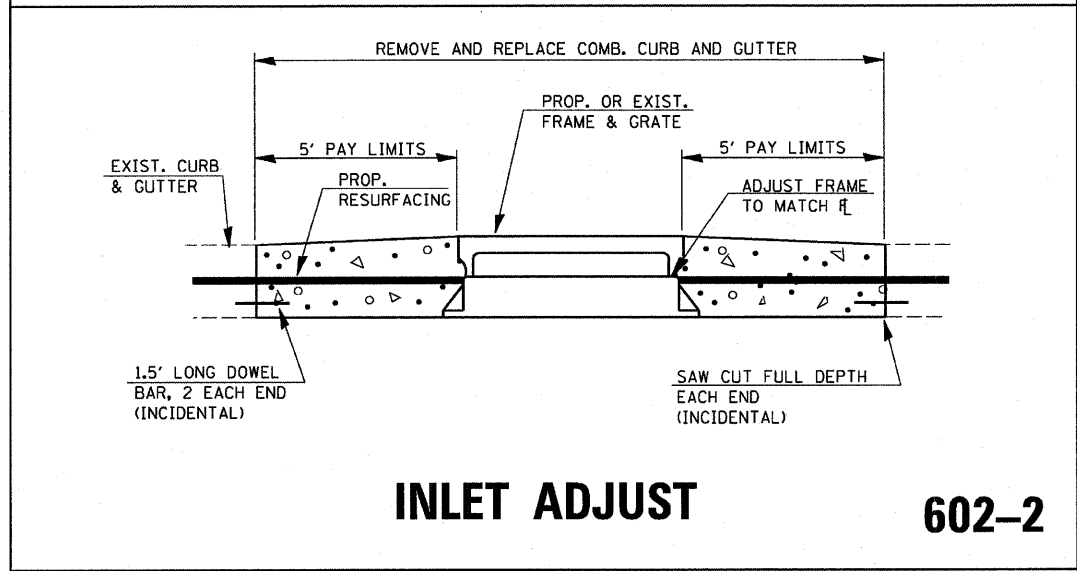
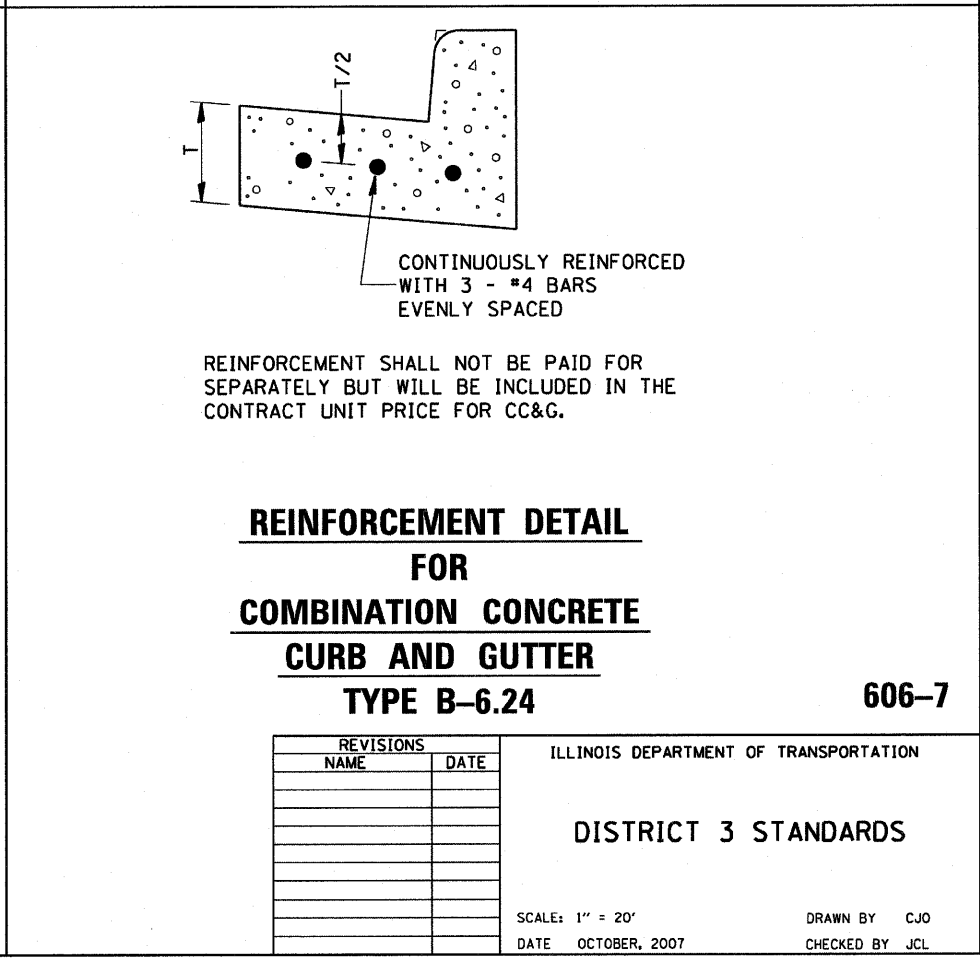
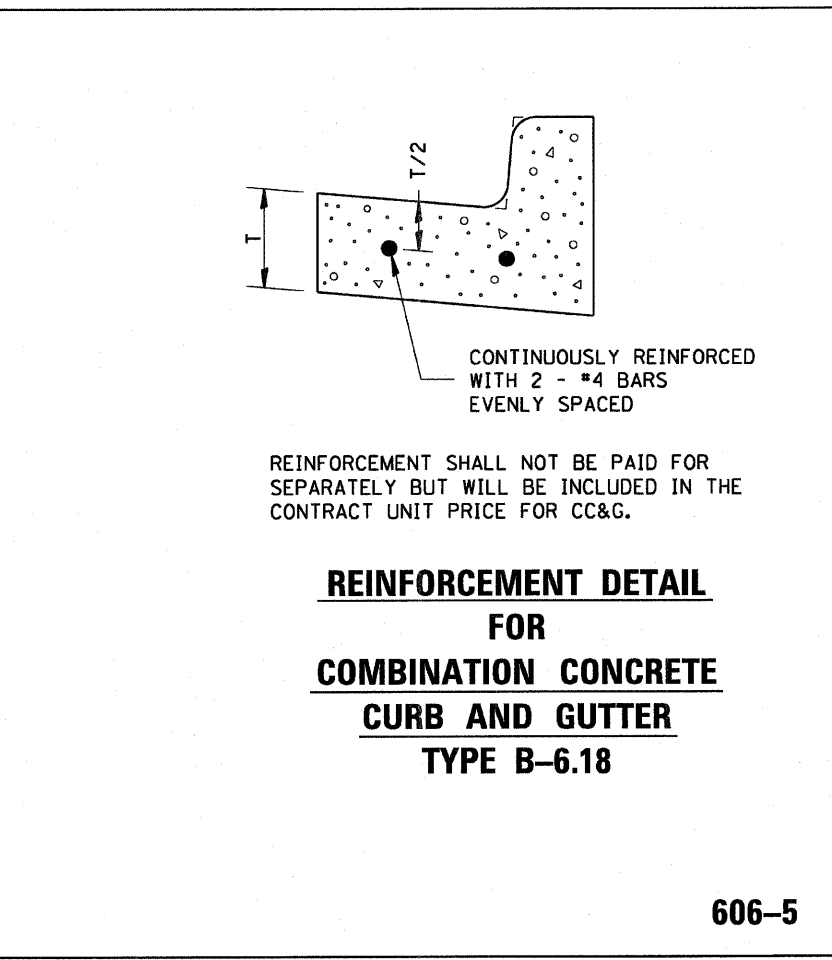
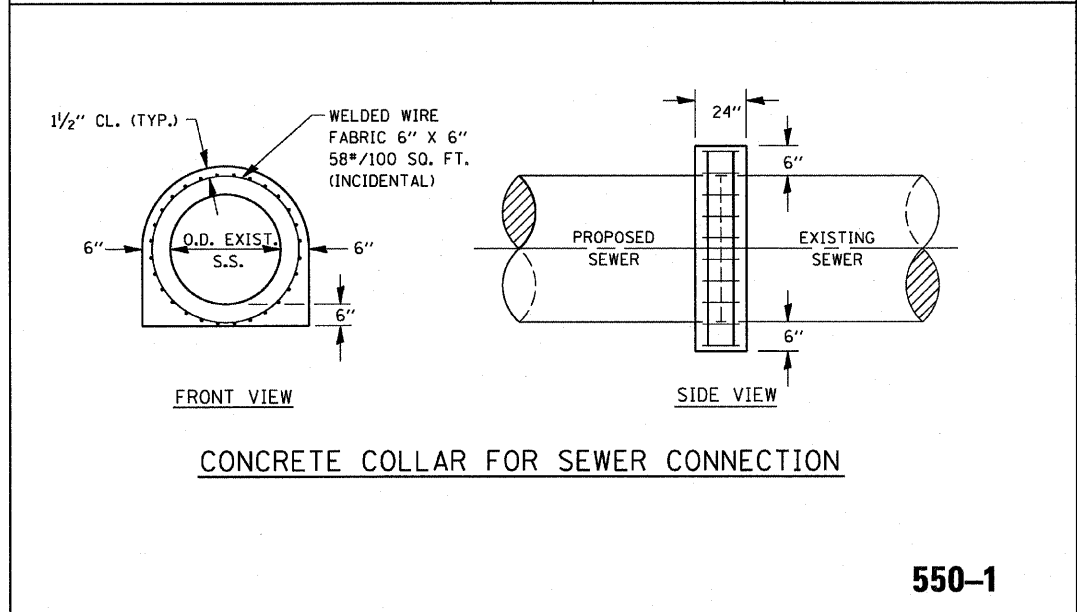
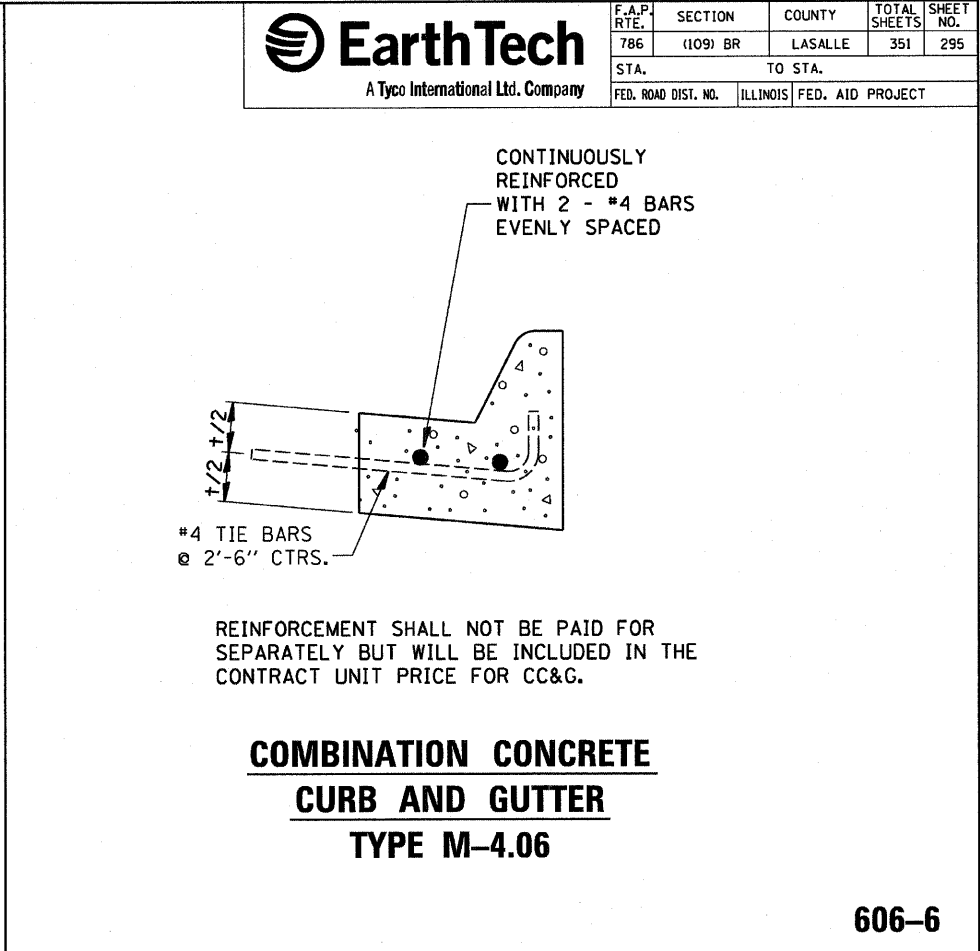
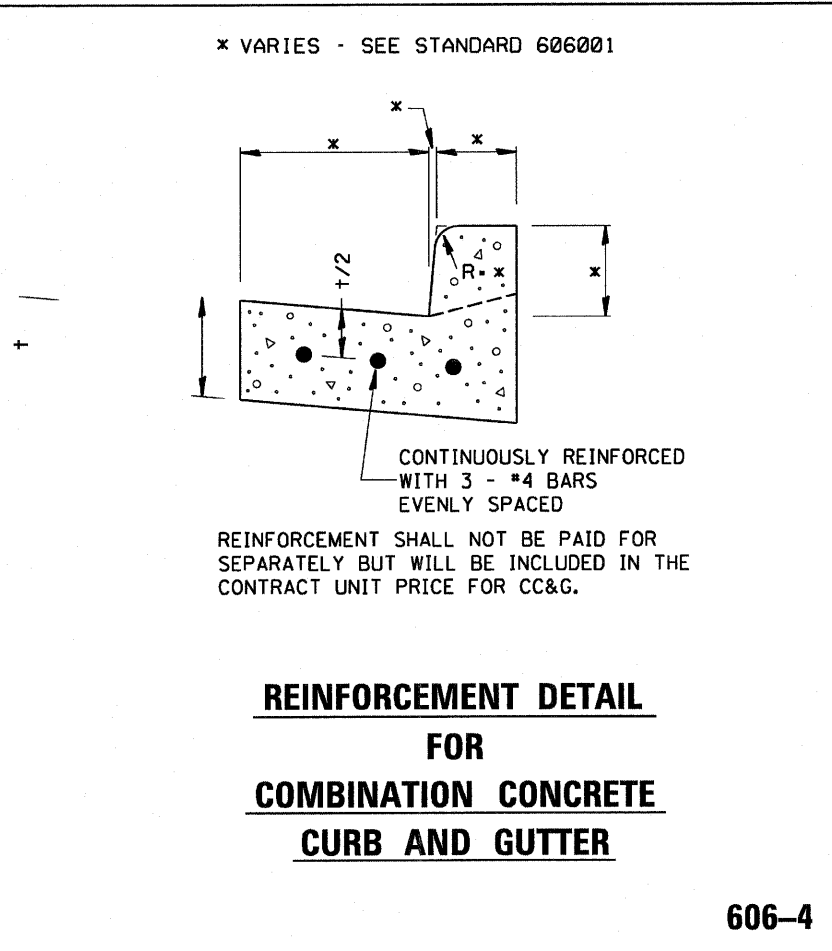
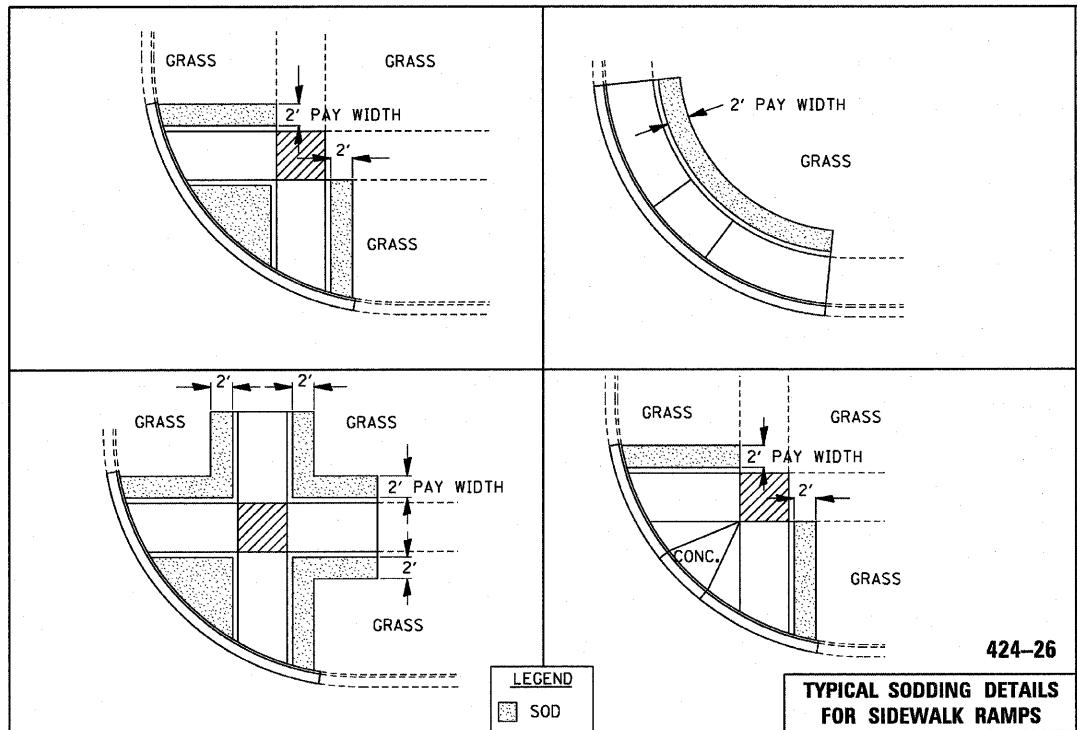
PLOT DATE = 10/11/2007
 FILE NAME = MILE14
 PLOT SCALE = 1/8"=1'-0"
 USER NAME = PROJECT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 3 STANDARDS

SCALE: 1" = 20'
DATE: OCTOBER, 2007
DRAWN BY: CJO
CHECKED BY: JCL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	295
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLOT DATE = 10/14/2007
FILE NAME = #FILES#
PLOT SCALE = #SCALE#
USER NAME = Project

REVISIONS	
NAME	DATE

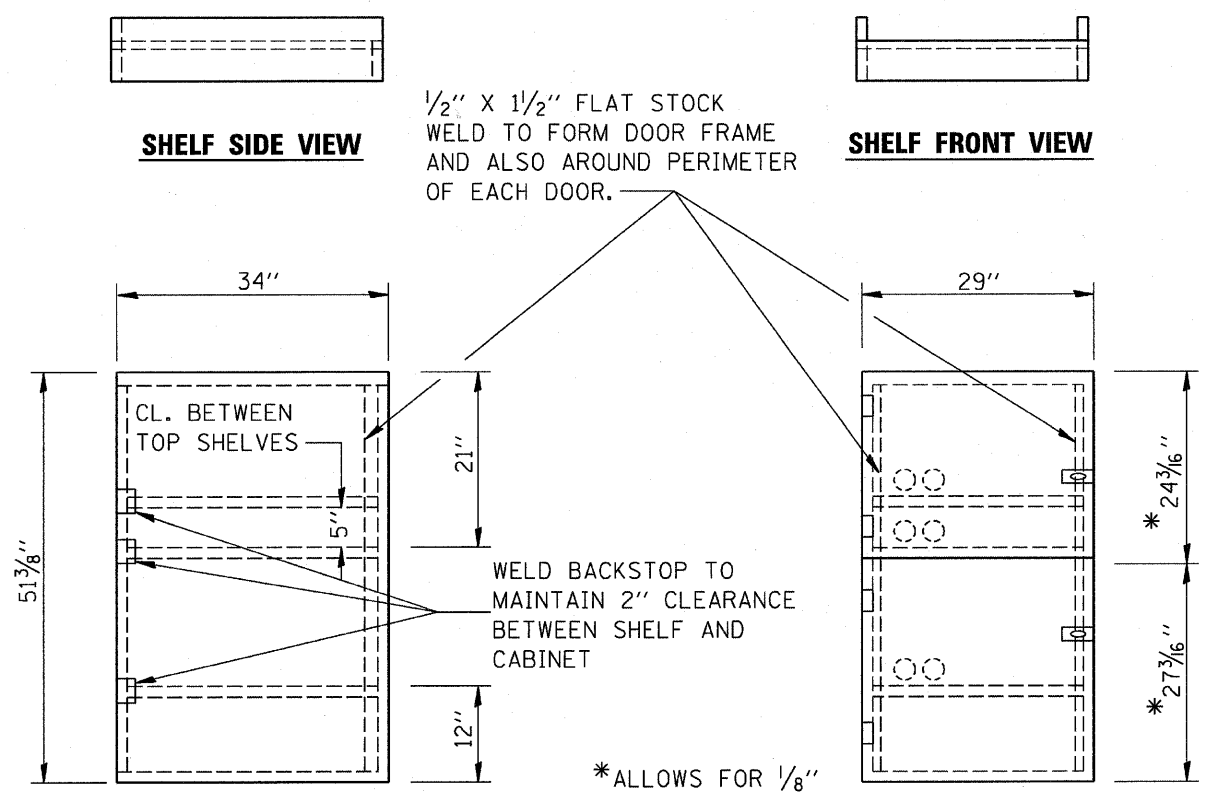
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 3 STANDARDS

SCALE: 1" = 20"
DATE: OCTOBER, 2007

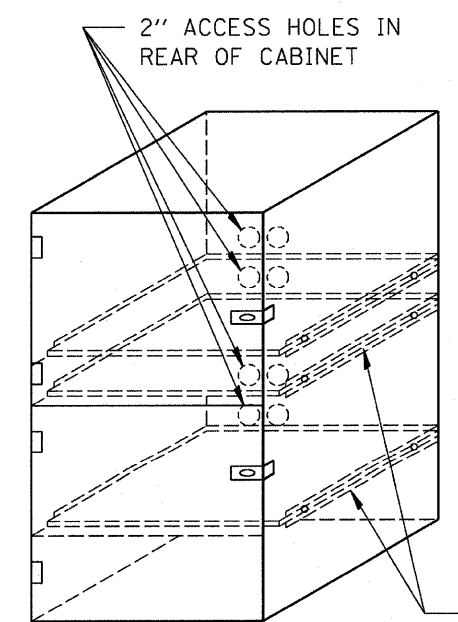
DRAWN BY: CJO
CHECKED BY: JCL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	296
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



* ALLOWS FOR 1/8" CLEARANCE AT TOP AND BOTTOM OF CABINET AND BETWEEN DOORS.

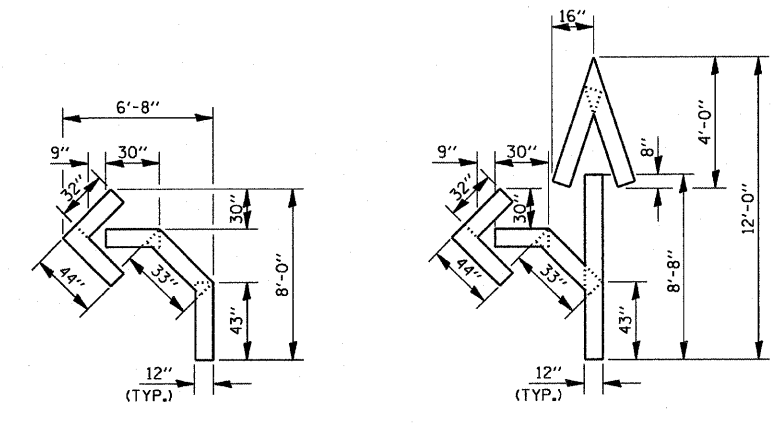
- NOTES:
1. USE 16 GAUGE STEEL FOR CABINET.
 2. THE TOP SHELF SHALL SLIDE IN OR OUT WITH THE TOP DOOR OPEN.
 3. ALL HINGES AND HASPS WILL BE WELDED TO THE CABINET.
 4. ALL EDGES SHALL BE GROUND SMOOTH.
 5. TWO (2" DIA.) ACCESS HOLES WILL BE REQUIRED FOR EACH SHELF.
 6. CABINET SHALL BE PAINTED WITH TWO COATS OF FLAT PAINT.
 7. 2 EACH MATCHING KEY PADLOCKS, WITH 3 KEYS PROVIDED, MASTER MODEL 3 T OR EQUIVALENT.
 8. 4 EACH PLAIN STEEL, NON-REMOVABLE PIN, NO HOLE 4"x4" SQUARE CORNER HINGES TO BE WELDED ON.
 9. 2 EACH EXTRA HEAVY, PLAIN STEEL, FIXED STAPLE, NO HOLE, 7 1/4 " HASPS TO BE WELDED ON.



FLAT STOCK DIMENSIONS VARY DEPENDING ON TYPE OF ROLLER ASSEMBLY.

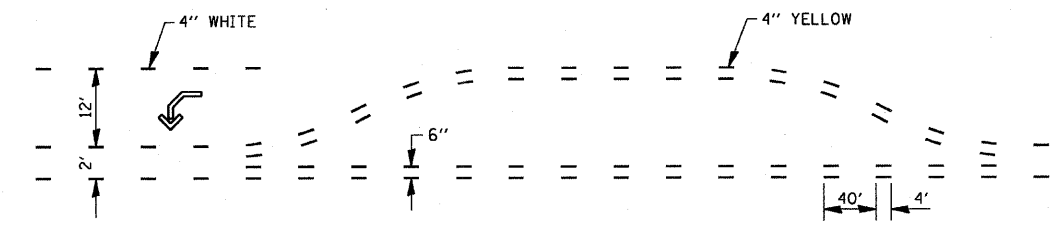
LOCKABLE COMPUTER CABINET

670-1



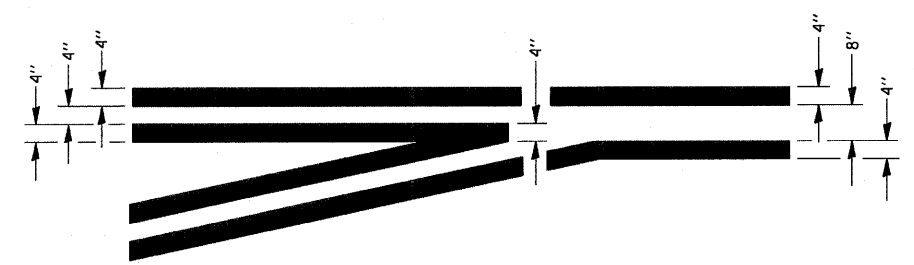
QUANTITY
12" LINE = 16 LIN. FT.
OR 4" LINE = 48 LIN. FT.

QUANTITY
12" LINE = 29 LIN. FT.
OR 4" LINE = 87 LIN. FT.



SHORT-TERM PAVEMENT MARKING FOR MEDIANS AND ARROWS

703-1



TYPICAL APPLICATION @ LEFT TURN LANES

780-1

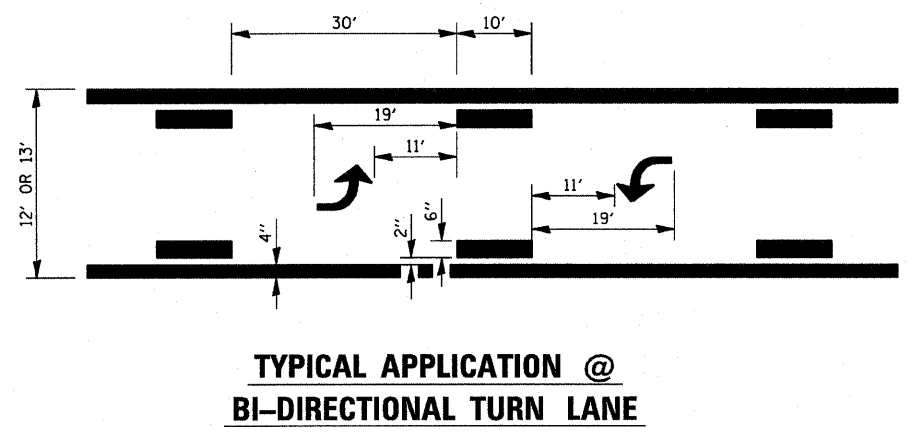
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 3 STANDARDS

SCALE: 1" = 20'
DATE: OCTOBER, 2007
DRAWN BY: CJO
CHECKED BY: JCL

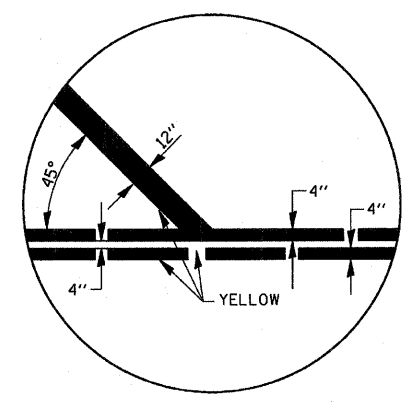
DATE = 10/1/2007
FILE NAME = 786-109-296
PLOT SCALE = 1/20
USER NAME = Project

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	297
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

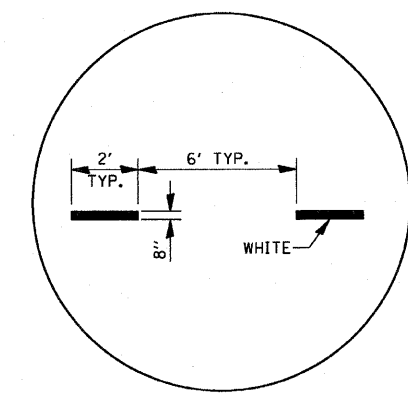


**TYPICAL APPLICATION @
BI-DIRECTIONAL TURN LANE**

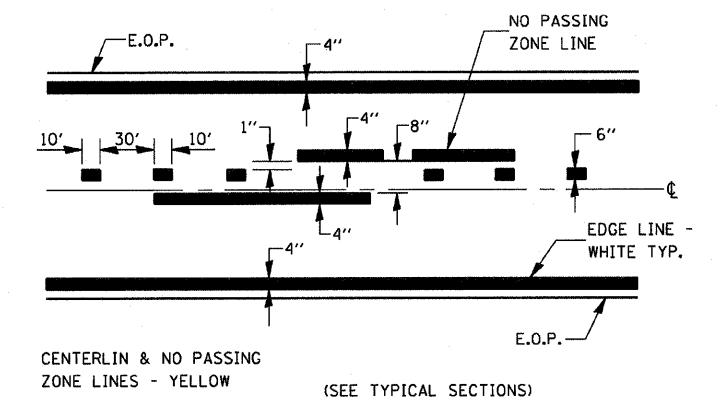
780-2



780-4

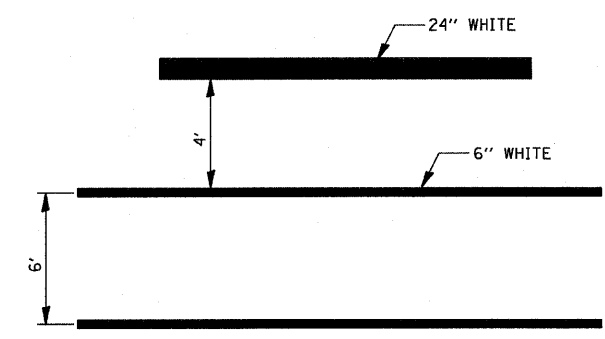


780-5



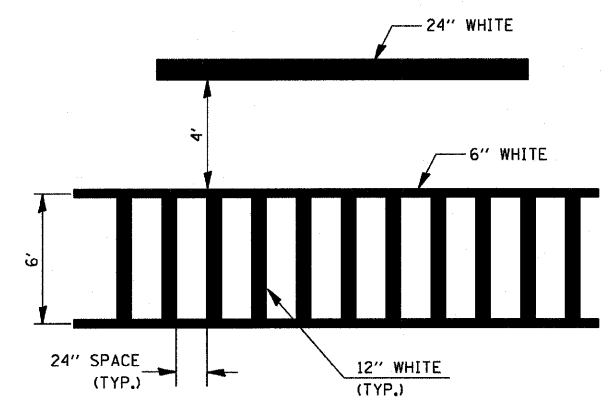
PAVEMENT MARKING
CENTERLINE & NO PASSING ZONE LINES - YELLOW (SEE TYPICAL SECTIONS)

780-8



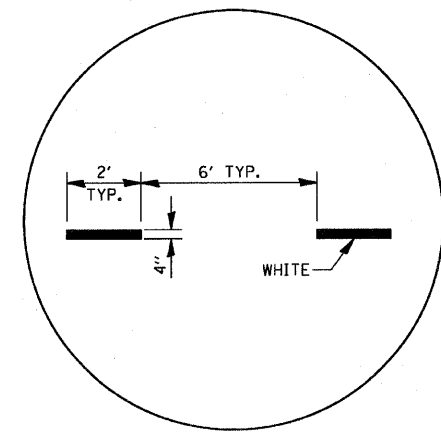
**TYPICAL SPACING DETAIL FOR
CROSSWALKS AND STOP BARS**

**780-3
OPTION 1**

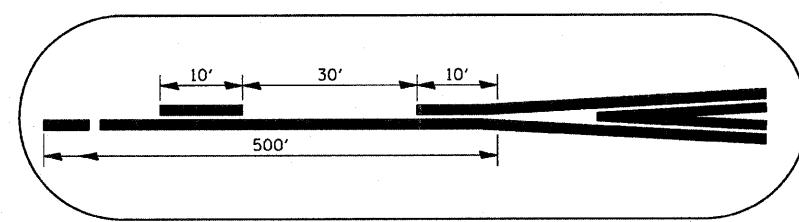


**TYPICAL SPACING DETAIL FOR
CROSSWALKS AND STOP BARS**

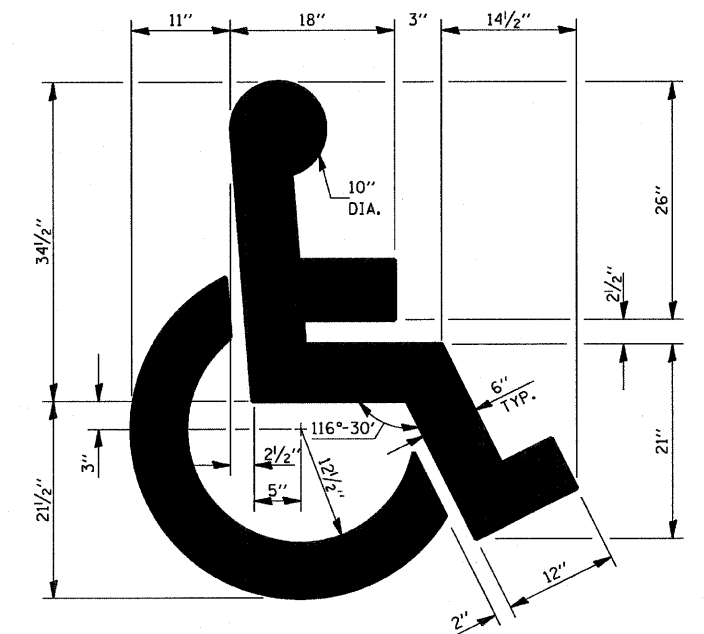
**780-3
OPTION 2**



780-6



780-7



**TYPICAL DETAIL FOR
PAINTING HANDICAP MARKINGS**

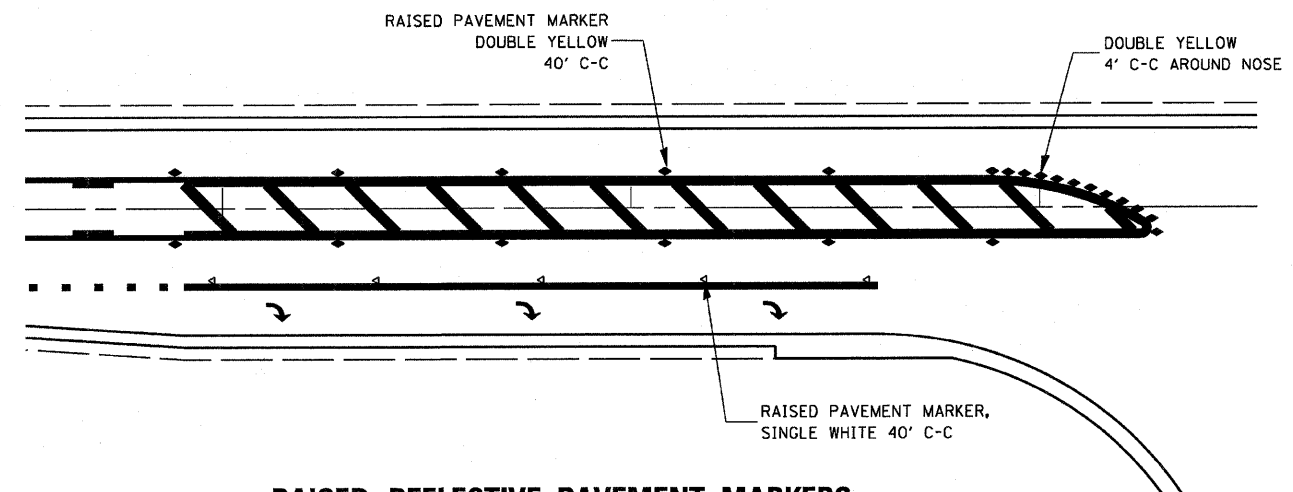
780-9

DATE = 10/1/2007
FILE NAME = 780-9
PLOT SCALE = 1/4" = 1'-0"
USER NAME = project

REVISIONS	
NAME	DATE

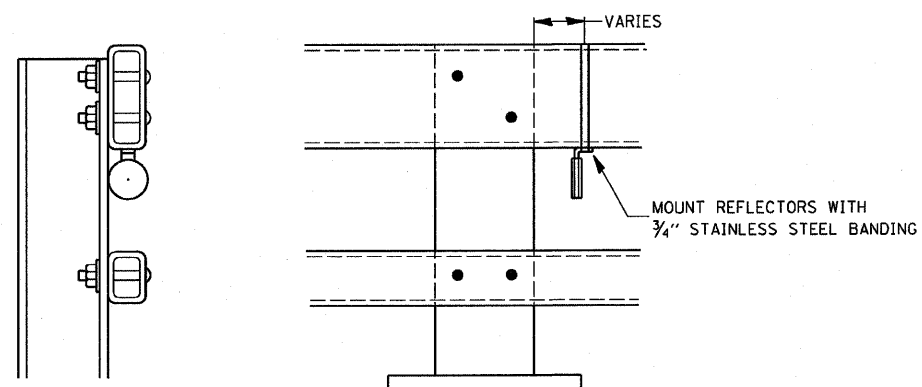
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 3 STANDARDS
SCALE: 1" = 20'
DATE: OCTOBER, 2007
DRAWN BY: CJO
CHECKED BY: JCL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
786	(109) BR	LASALLE	351	298
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



**RAISED REFLECTIVE PAVEMENT MARKERS
@ RIGHT TURN LANE**

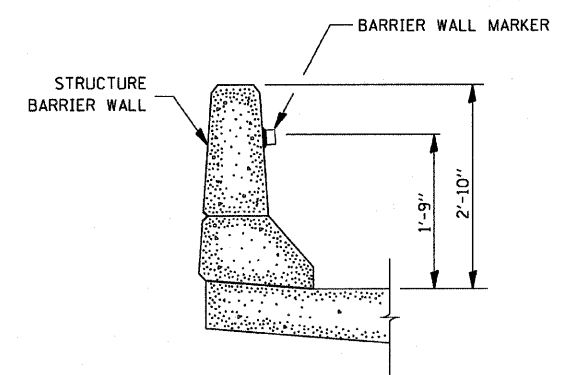
781-1



NOTES

1. REFLECTORS SHALL MEET THE REQUIREMENTS OF ARTICLE 1097.03 OF THE STANDARD SPECIFICATIONS.
2. FURNISHING AND INSTALLING THE COMPLETE REFLECTOR UNIT WILL BE PAID AT THE CONTRACT UNIT PRICE EACH FOR GUARD RAIL MARKERS.

**REFLECTOR MOUNTING
DETAIL FOR STEEL RAIL**



BARRIER WALL MARKER

782-4

782-3

REVISIONS	
NAME	DATE

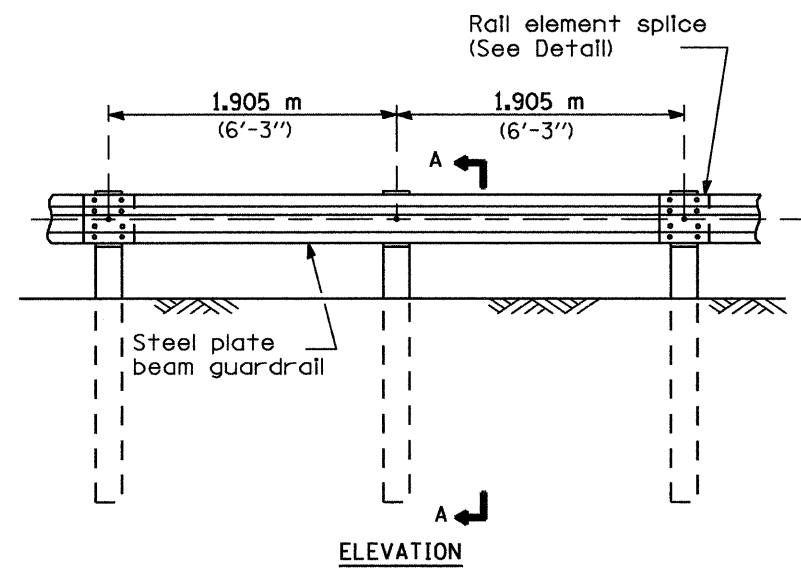
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 3 STANDARDS

SCALE: 1" = 20'
DATE: OCTOBER, 2007
DRAWN BY: CJO
CHECKED BY: JCL

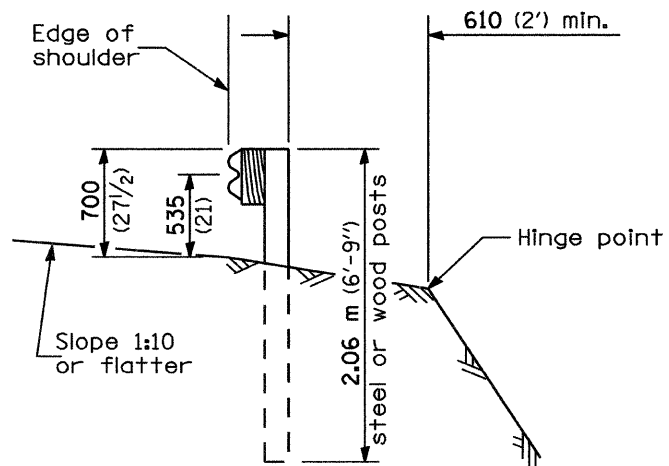
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FILE NAME = BPT1E1
PLOT SCALE = 1/8" = 1'-0"
USER NAME = project

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
78C	(109) BR	LASALLE		298A
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

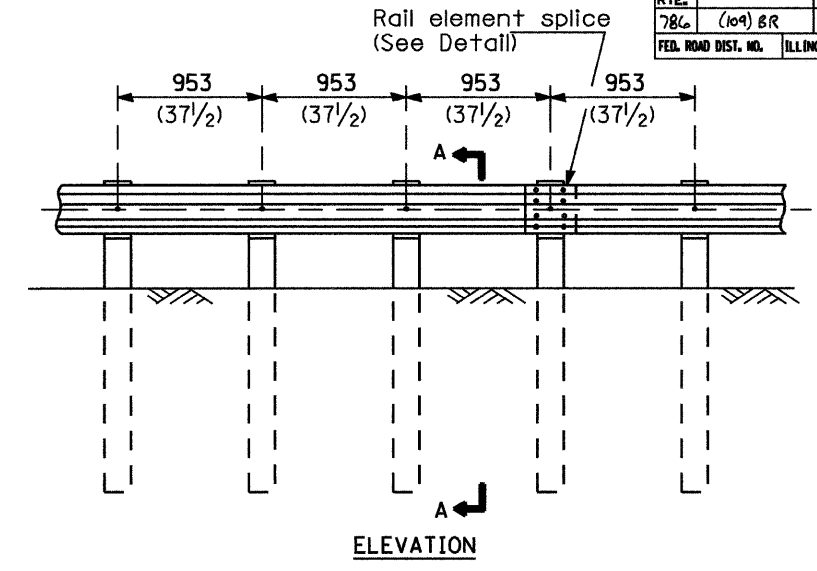


TYPE A

1.905 m (6'-3") Typical post spacing

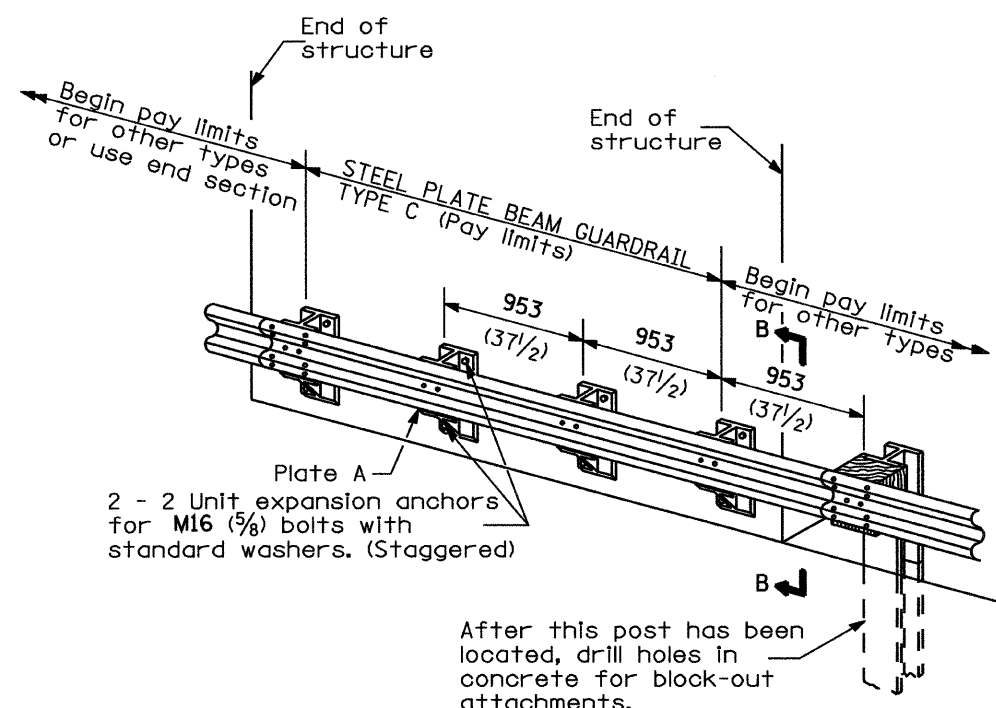


SECTION A-A



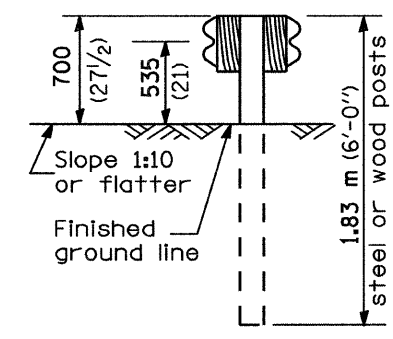
TYPE B

953 (37 1/2) Closed post spacing

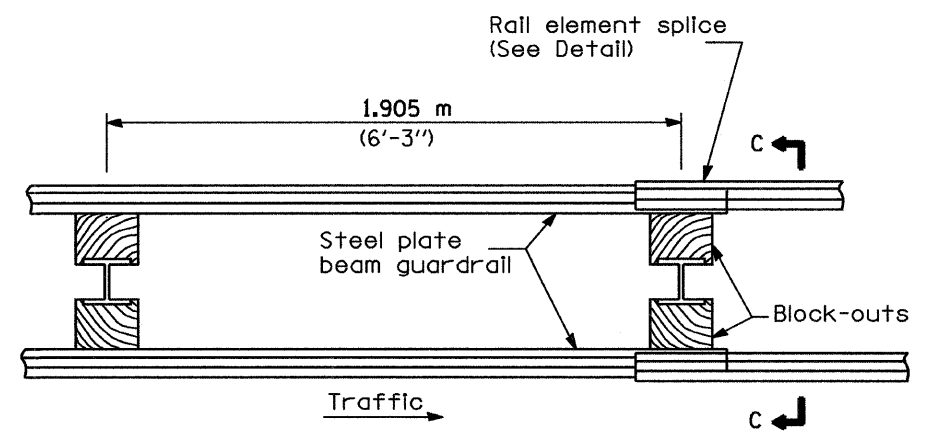


TYPE C

953 (37 1/2) Block-out spacing



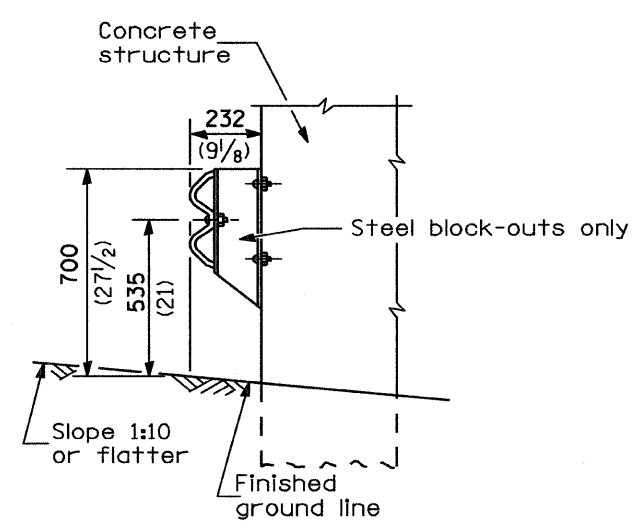
SECTION C-C



PLAN

TYPE D

Double steel plate beam guardrail
1.905 m (6'-3") typical post spacing



SECTION B-B

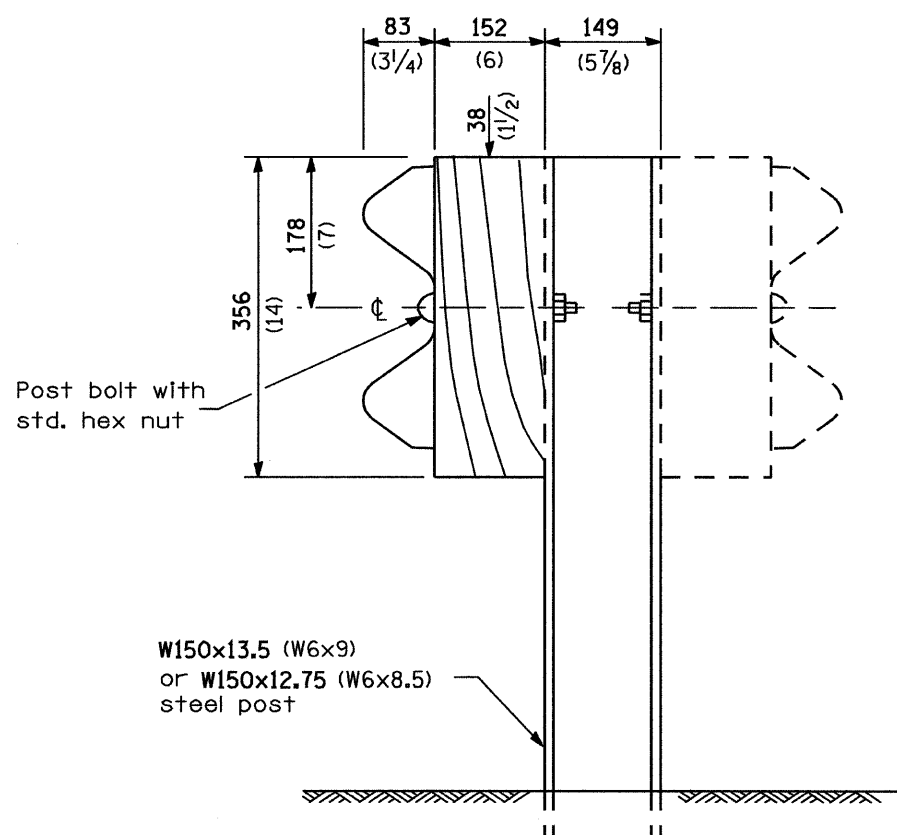
GENERAL NOTES

- All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
- All dimensions are in millimeters (inches) unless otherwise shown.
- The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.
- This detail is applicable to the guardrail system used prior to January 1, 2007. For details on the Midwest Guardrail System, see Standard 630001.

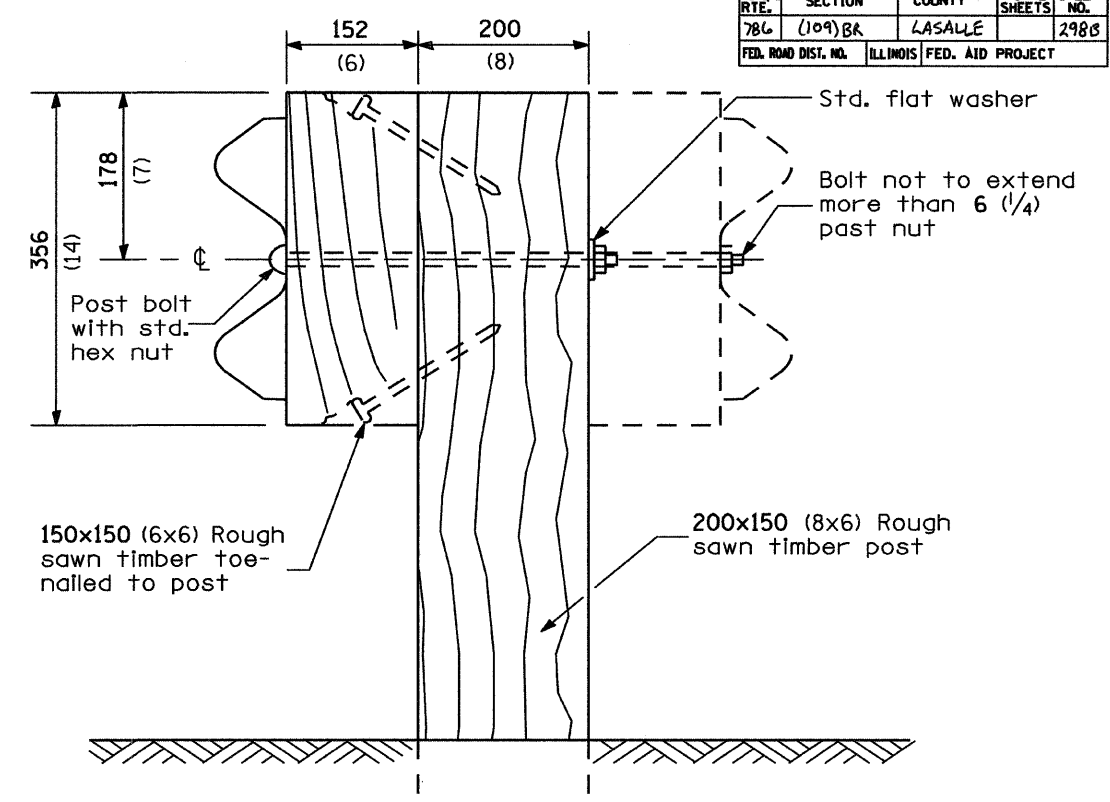
**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**
(Sheet 1 of 4)

DETAIL

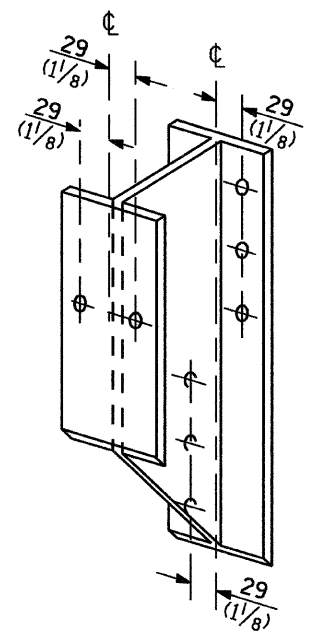
CONTRACT NO. 66607			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
786	(109)BA	LASALLE	298B
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		



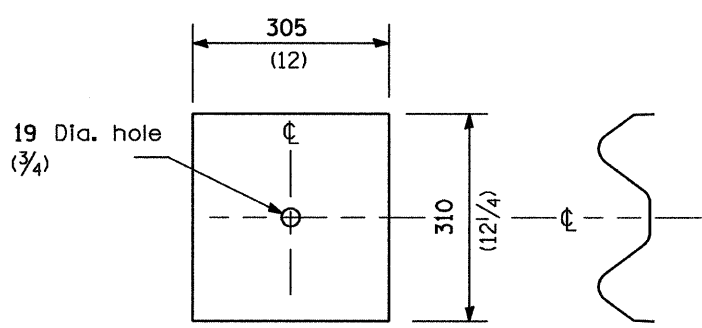
STEEL POST CONSTRUCTION



WOOD POST CONSTRUCTION



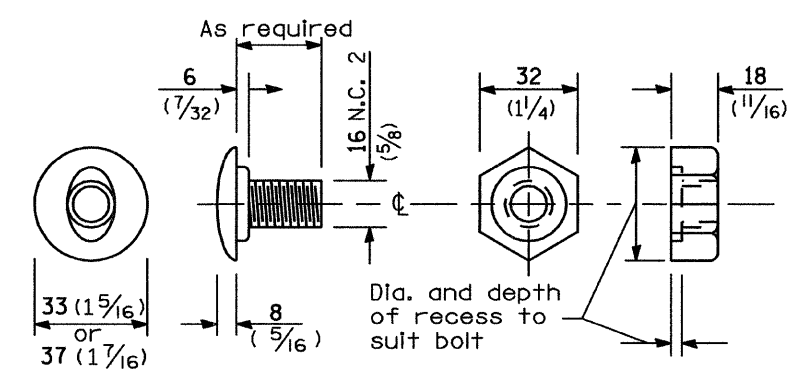
STEEL BLOCK-OUT DETAIL



NOTE

Plate A shall be placed between rail element and block-out at non-splice mounting points only when steel block-outs are used.

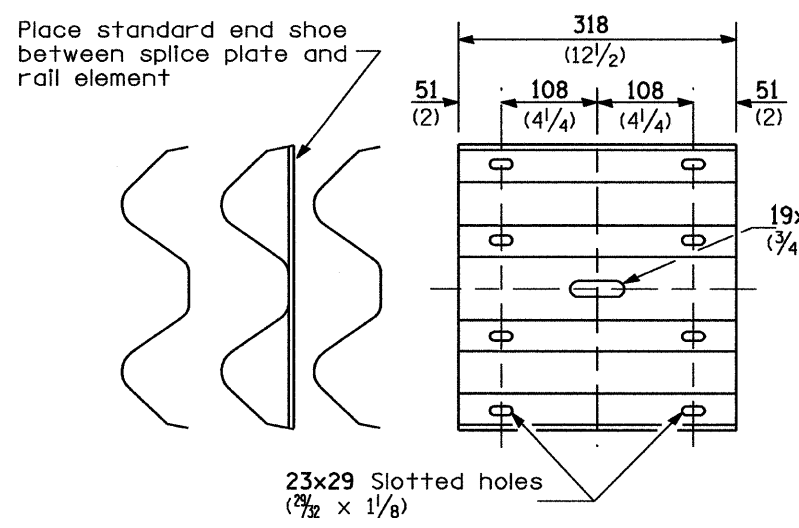
PLATE A



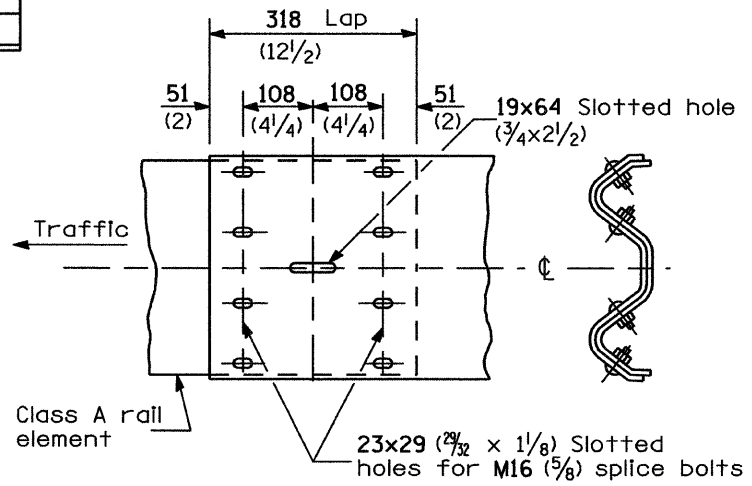
POST OR SPLICE BOLT & NUT

**REMOVE AND REERECT
STEEL PLATE BEAM GUARDRAIL**
(Sheet 2 of 4)
DETAIL

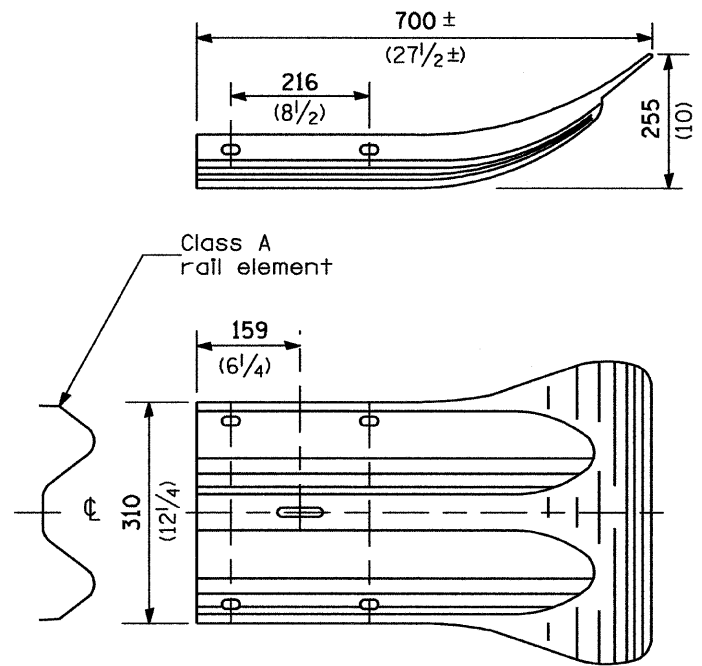
CONTRACT NO. 66607			
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
78c	(109) BR	LASALLE	298c
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		



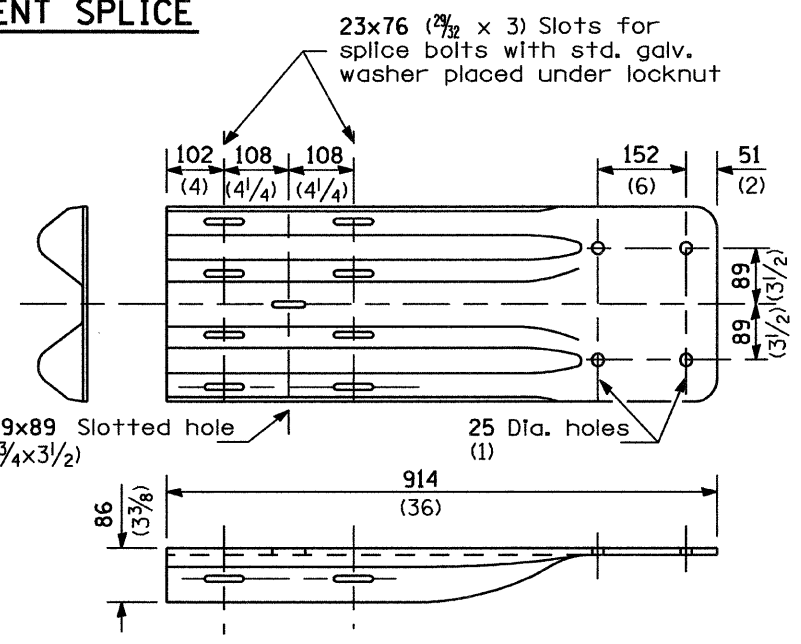
SPLICE PLATE



RAIL ELEMENT SPLICE



END SECTION



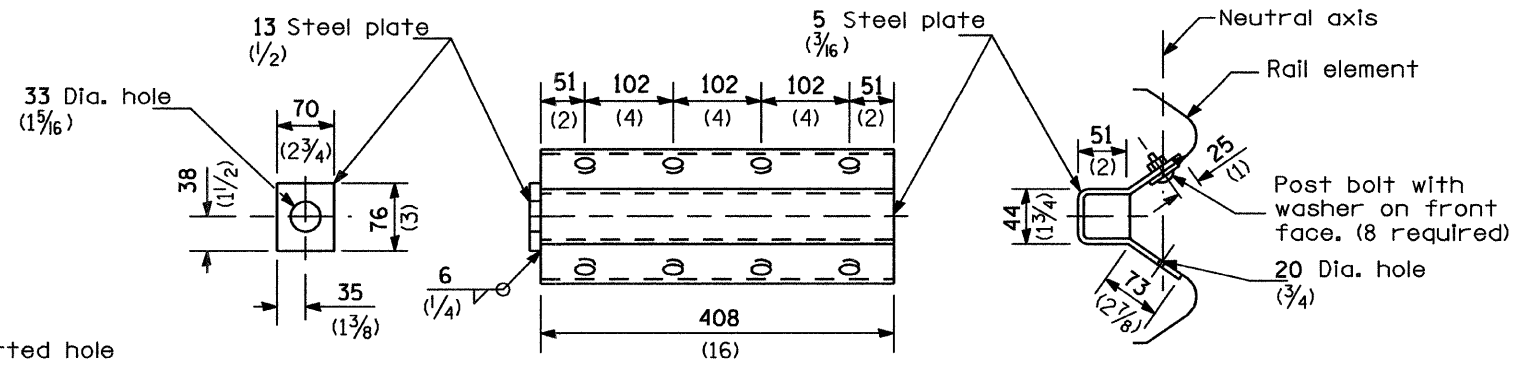
NOTE

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

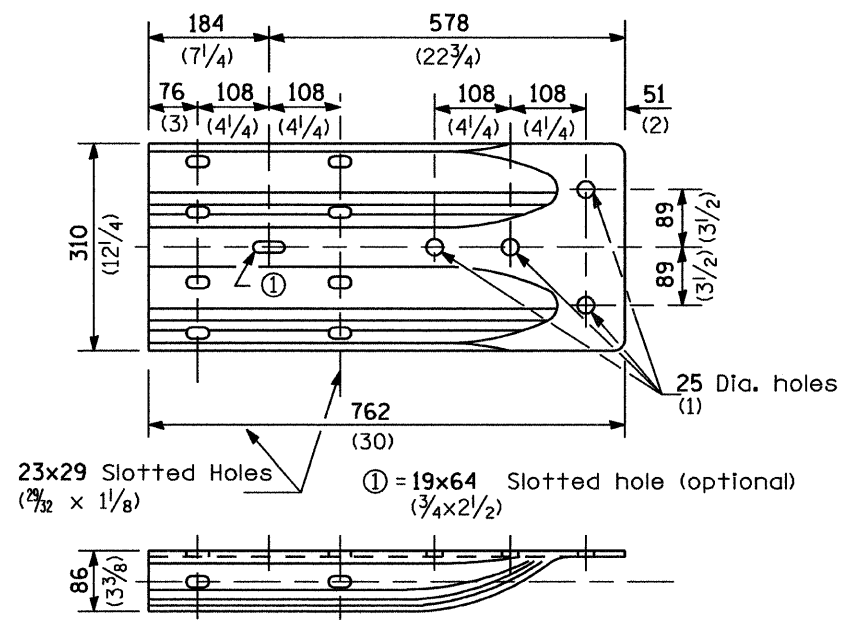
END SHOE



NOTE

Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

ANCHOR PLATE T DETAILS

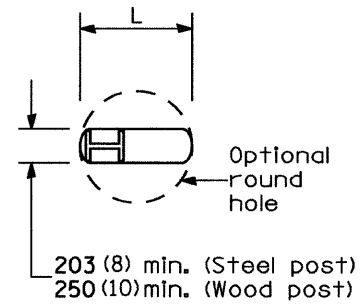


ALTERNATE END SHOE

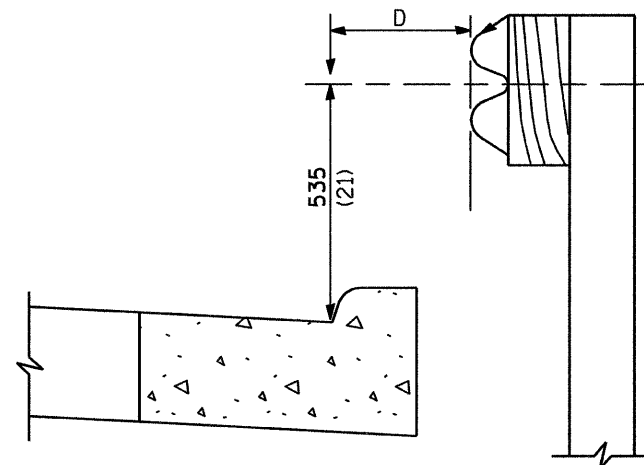
REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL

(Sheet 3 of 4)

DETAIL



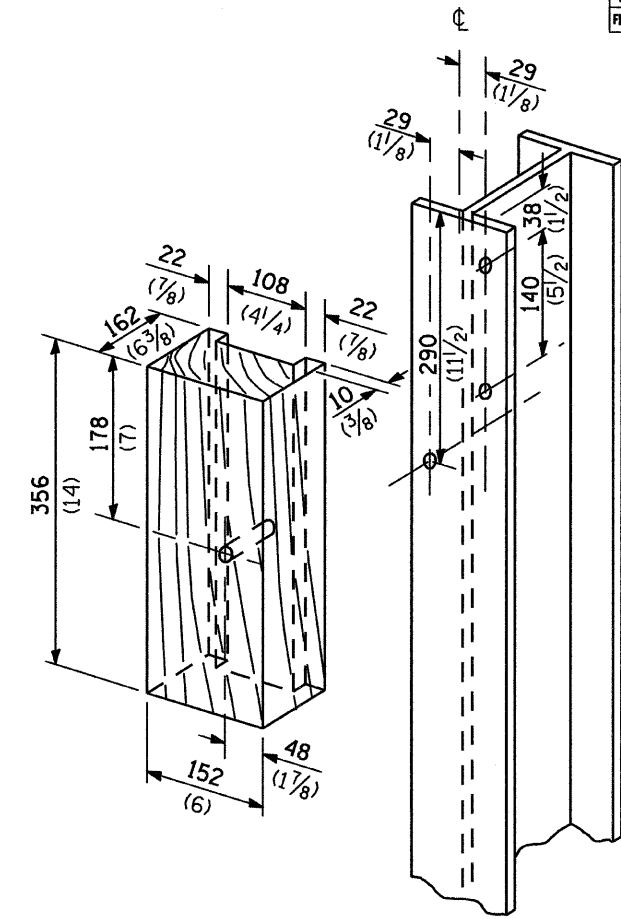
PLAN



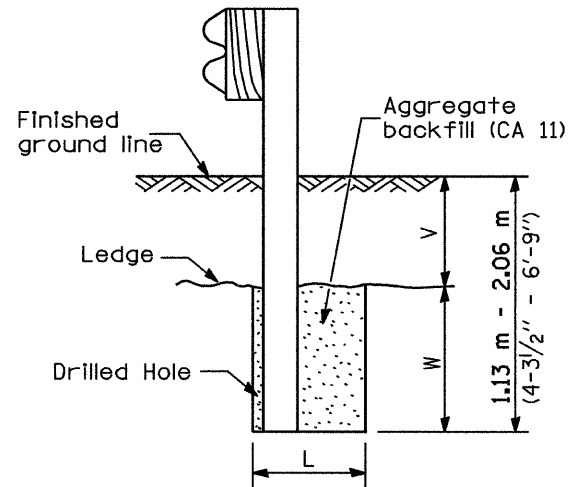
Note:
If it is necessary for D to be more than 300 (12) and less than 3.0 m (10'-0") type M-5 (M-2) curb and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D = 0 desirable to 300 (12) maximum)



WOOD BLOCK-OUT AND STEEL POST DETAILS

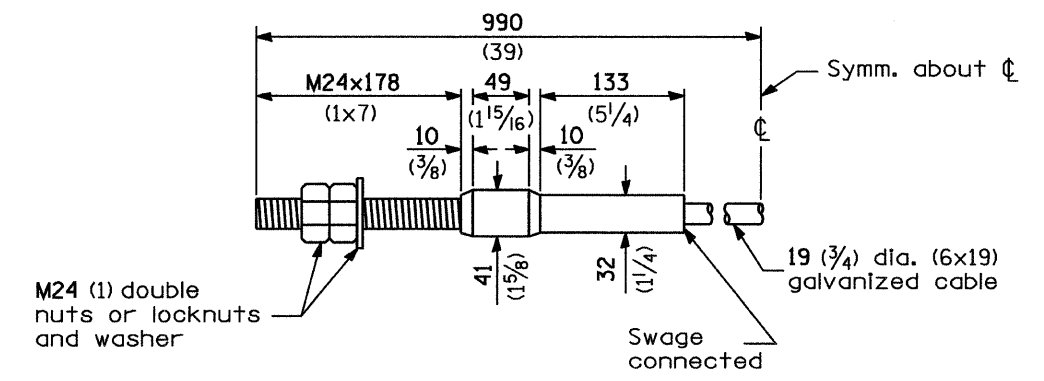


Note:
Ledge line is top of rock ledge or hard slag fill.

ELEVATION

FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED

V	W	L	
		Steel Post	Wood Post
0 - 460 (0 - 18)	610 (24)	530 (21)	580 (23)
>460 - 825 (>18 - 41.5)	305 (12)	203 (8)	250 (10)
>825 - 1.13 m (>41.5 - 53.5)	305 - 0 (12 - 0)	203 (8)	250 (10)



CABLE ASSEMBLY

(18,100 kg (40,000 lbs.) min. breaking strength)
Tighten to taut tension.

REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL
(Sheet 4 of 4)
DETAIL

