SN 002-0032
ORIGINAL CONST.

AS BUILT PLANS

AS BUILT PLANS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

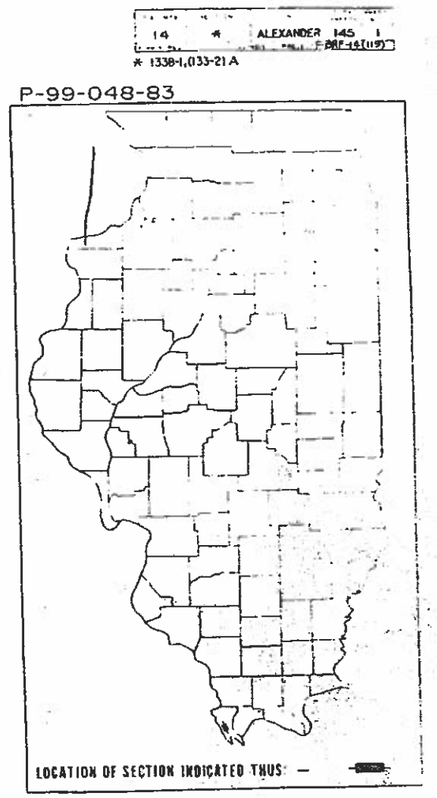
PLANS FOR PROPOSED FEDERAL AID HIGHWAY

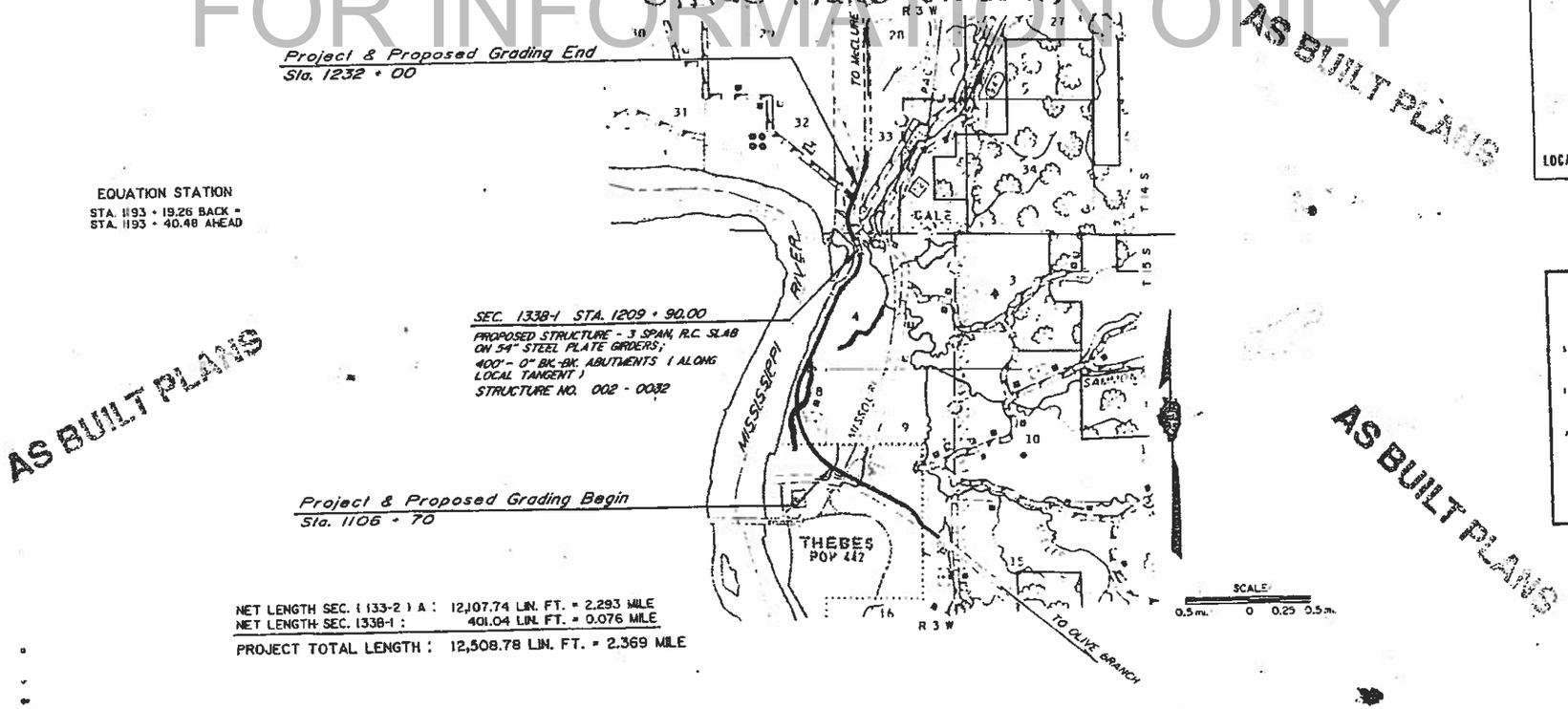
F.A. ROUTE 14 (ILL. RTE. 3)
SECTION 133B-1, (133-2) A
PROJECT NO. F-BRF-14 (119)
ALEXANDER COUNTY

C-99-021-87

Index Of Sheets	Sht. No. 8
Summary Of Quantities	Sht. No. 9

Office Plans (As Built)





AS BUILT PLANS

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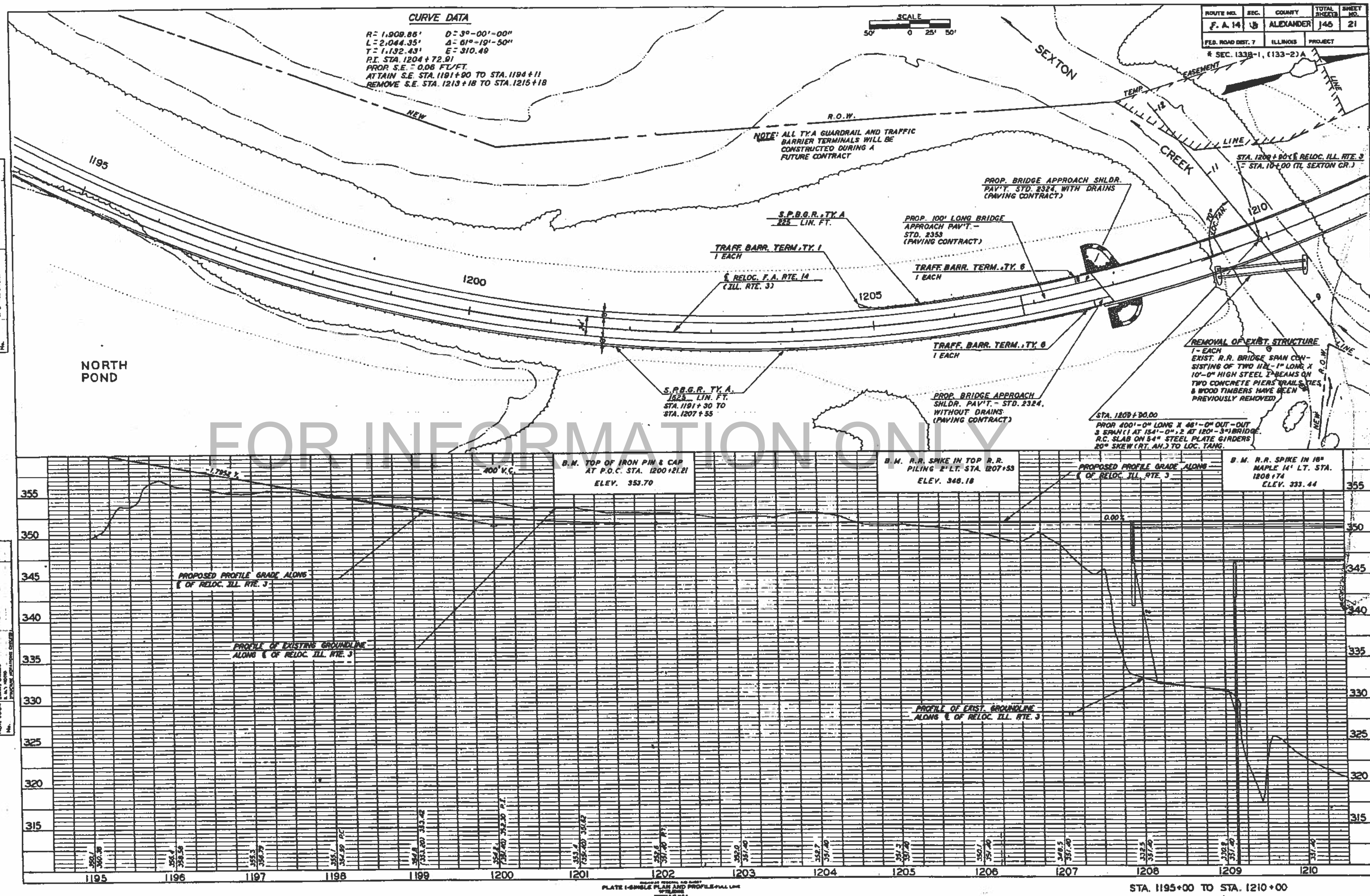
AS BUILT PLANS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan. 13 '88
RECOMMENDED 2-25 '88
PASSED 2-25 '88
APPROVED 2-25 '88

NET LENGTH SEC. (133-2) A : 12,107.74 LIN. FT. = 2.293 MILE
NET LENGTH SEC. 1338-1 : 401.04 LIN. FT. = 0.076 MILE
PROJECT TOTAL LENGTH : 12,508.78 LIN. FT. = 2.369 MILE

CONTRACT NO. 98006


ROUTE NO. F.A. 14
SEC. (5)
COUNTY ALEXANDER
TOTAL SHEETS 146
SHEET NO. 21
FED. ROAD DIST. 7
ILLINOIS
PROJECT
SEC. 1338-1, (133-2) A
CURVE DATA
R = 1,909.86'
D = 3°-00'-00"
L = 2,044.35'
Δ = 61°-19'-50"
T = 1,132.43'
E = 310.49
P.I. STA. 1204+72.91
PROP. S.E. = 0.06 FT./FT.
ATTAIN S.E. STA. 1191+90 TO STA. 1194+11
REMOVE S.E. STA. 1213+18 TO STA. 1215+18
SCALE
50' 0 25' 50'
SEXTON
CREEK
NEW
R.O.W.
TEMP.
EASEMENT
LINE
NOTE: ALL TY. A GUARDRAIL AND TRAFFIC BARRIER TERMINALS WILL BE CONSTRUCTED DURING A FUTURE CONTRACT
1195
1200
1205
1210
NORTH POND
STA. 1209+80 ℄ RELOC. ILL. RTE. 3 = STA. 10+00 (IL. SEXTON CR.)
PROP. BRIDGE APPROACH SHLDR. PAV'T. STD. 2324, WITH DRAINS (PAVING CONTRACT)
PROP. 100' LONG BRIDGE APPROACH PAV'T. - STD. 2353 (PAVING CONTRACT)
S.P.B.G.R., TY. A 225 LIN. FT.
TRAFF. BARR. TERM., TY. 1 1 EACH
TRAFF. BARR. TERM., TY. 6 1 EACH
℄ RELOC. F.A. RTE. 14 (ILL. RTE. 3)
TRAFF. BARR. TERM., TY. 6 1 EACH
REMOVAL OF EXIST. STRUCTURE
1 - EACH
EXIST. R.R. BRIDGE SPAN CONSISTING OF TWO 116'-1" LONG X 10'-0" HIGH STEEL I-BEAMS ON TWO CONCRETE PIERS (RAILS, TIES & WOOD TIMBERS HAVE BEEN PREVIOUSLY REMOVED)
S.P.B.G.R., TY. A 1525 LIN. FT. STA. 1191+30 TO STA. 1207+55
PROP. BRIDGE APPROACH SHLDR. PAV'T. - STD. 2324, WITHOUT DRAINS (PAVING CONTRACT)
STA. 1209+30.00
PROP. 400'-0" LONG X 46'-0" OUT-OUT 3 SPAN (1 AT 154'-0", 2 AT 120'-3") BRIDGE. R.C. SLAB ON 54" STEEL PLATE GIRDERS 20° SKEW (RT. AH.) TO LOC. TANG.
-1.7952 %
400' V.C.
B.M. TOP OF IRON PIN & CAP AT P.O.C. STA. 1200+21.21 ELEV. 353.70
B.M. R.R. SPIKE IN TOP R.R. PILING 2' LT. STA. 1207+53 ELEV. 346.18
PROPOSED PROFILE GRADE ALONG ℄ OF RELOC. ILL. RTE. 3
B.M. R.R. SPIKE IN 16" MAPLE 14' LT. STA. 1208+74 ELEV. 333.44
0.00%
PROPOSED PROFILE GRADE ALONG ℄ OF RELOC. ILL. RTE. 3
PROFILE OF EXISTING GROUNDLINE ALONG ℄ OF RELOC. ILL. RTE. 3
PROFILE OF EXIST. GROUNDLINE ALONG ℄ OF RELOC. ILL. RTE. 3
355
350
345
340
335
330
325
320
315
1195
1196
1197
1198
1199
1200
1201
1202
1203
1204
1205
1206
1207
1208
1209
1210
STA. 1195+00 TO STA. 1210+00
PLAN
PROFILE
NOTE BOOK No.
FOR INFORMATION ONLY

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-14	P	ALEXANDER	145	22
FED. ROAD DIST. 7	ILLINOIS	PROJECT		

X SEC. 1338-1, (133-2) A

SCALE
50' 0 25' 50'

TRAFFIC BARRIER TERMINAL, TY. 6 1 EACH (PAVING CONTRACT)

S.P.B.G.R., TY. A 275 LIN. FT. (PAVING CONTRACT)

TRAFFIC BARRIER TERMINAL, TY. 1 1 EACH (PAVING CONTRACT)

PERMANENT BARRICADES 1 EACH STA. 1218+25

TEMPORARY EASEMENT LINE

SETTLEMENT PLATFORM 1 EACH 20' LT. STA. 1212+50

EQ. STA. 1215+19.64 ℄ RELOC. ILL. RTE. 3 = STA. 0+00 GALE CONNECTOR

P.T. STA. 1213+84.83

P.C. STA. 1216+54.64

EQ. STA. 1221+04.21 ℄ RELOC. ILL. RTE. 3 = STA. 0L+00 LEVEE CONNECTOR LEFT STA. 0R+00 LEVEE CONNECTOR RIGHT

℄ LEVEE ROAD CONNECTOR LEFT (SEE SHT. NO. 29)

STA. 1218+24 EXIST. 8' x 8' BOX CULV. TO BE PLUGGED AT EACH END AND LEFT IN PLACE. CLASS X CONC. 0.30 cu. yds. (est.)

℄ RELOC. F.A. RTE. 14 (ILL. RTE. 3)

TEMPORARY DITCH

℄ GALE CONNECTOR (SEE SHT. NO. 29)

TRAFFIC BARRIER TERM., TY. 6 1 EACH S.P.B.G.R., TY. A 225 LIN. FT. (PAVING CONTRACT)

TRAFFIC BARRIER TERM., TY. 1 1 EACH

TRAFFIC BARRIER TERMINAL, TY. 1 EACH (PAVING CONTRACT)

S.P.B.G.R., TY. A 62.5 LIN. FT. (PAVING CONTRACT)

TRAFFIC BARRIER TERMINAL, TY. 1 EACH (PAVING CONTRACT)

S.P.B.G.R. REMOVAL LIN. FT. (PAVING CONTRACT)

S.P.B.G.R., TY. A - 125 LIN. FT. (PAVING CONTRACT)

S.P.B.G.R. REMOVAL LIN. FT. (PAVING CONTRACT)

CURVE DATA

R = 1,909.86' D = 3° - 00' - 00"
L = 988.51' Δ = 29° - 39' - 25"
T = 505.62' E = 65.80'
P.I. STA. 1221+60.46
PROP. S.E. = 0.06 FT./FT.
S.E. ATTAINED STA. 1215+21 TO STA. 1217+21
S.E. REMOVED STA. 1223+76 TO STA. 1227+76

NOTE: FOR CURVE DATA OF SIDEROAD SEE SHEETS NO. 29

℄ LEVEE ROAD CONNECTOR RIGHT (SEE SHT. NO. 29)

CONCRETE REMOVAL CU.YD. (EST.)
LT. STA. 1121+04 - REMOVE TOP OF EXISTING LEVEE CLOSURE STRUCTURE TO ELEV. 345.4 (TO BE DONE DURING PAVING CONTRACT)

CONCRETE REMOVAL CU.YD. (EST.)
RT. STA. 1121+10 - REMOVE TOP OF EXISTING LEVEE CLOSURE STRUCTURE TO 2' BELOW FINISHED GRADE (TO BE DONE DURING PAVING CONTRACT)

B.M. R.R. SPIKE IN 28" MAPLE 6' LT. STA. 1210+62
ELEV. 352.11

B.M. TOP OF IRON PIN & CAP AT P.T. STA. 1213+84.83
ELEV. 330.66

B.M. TOP OF IRON PIN & CAP AT P.O.C. STA. 1217+71.21
ELEV. 339.72

B.M. TOP ANGLE IRON ON S.E. CORNER OF WEST LEVEE GATE 15' LT. STA. 1222+
℄ EXISTING RTE. 3
ELEV. 350.89

PROPOSED PROFILE GRADE ALONG ℄ OF RELOC. ILL. RTE. 3

0.00%

-3.28 %

530' V.C.

PROFILE OF EXIST. GROUNDLINE ALONG ℄ OF RELOC. ILL. RTE. 3

PROFILE OF EXIST. ILL. RTE. 3 (N.T.) ALONG ℄ OF RELOC. ILL. RTE. 3

355 350 345 340 335 330 325 320 315 310

1210 1211 1212 1213 1214 1215 1216 1217 1218 1219 1220 1221 1222 1223 1224 1225

PLATE 1-SINGLE PLAN AND PROFILE SHEET

STA. 1210+00 TO STA. 1225+00

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.-14	69	ALEXANDER	145	128
FED. ROAD DIST. 7		ILLINOIS	PROJECT	

(SEC. 1338-1, 1133-2) A

PROPOSED 2" HIGH PRESSURE STEEL GAS MAIN RELOCATION WITH ALL WELDED JOINTS

1,347 LIN. FT. 2" STEEL GAS MAIN SCHEDULE 40

WELDED 90° CONNECTION 5'± FROM END OF PROPOSED CASING

STA. 1214 + 40 185.0 L.F. 12" STEEL CASING 85.0 FT. LT. 100.0 FT. RT. @ RIGHT ANGLE

EQ. STA. 1215+19.84 ℄ RELOC. ILL. RTE. 3 = STA. 0+00 GALE CONNECTOR

P.T. STA. 1217+84.63

P.C. STA. 1216+54.63

EQ. STA. 1221+04.21 ℄ RELOC. ILL. RTE. 3 = STA. 01+00 LEVEE CONNECTOR LEFT STA. 0+00.0 LEVEE CONNECTOR RIGHT

STA. 1218+24 EXIST. 2' = 2' BOX CULV.

SEE DETAIL A

℄ LEVEE ROAD CONNECTOR LEFT

℄ LEVEE ROAD CONNECTOR RIGHT

+00 90' LT.

+40 90' LT.

R.O.W.

NEW

EXIST.

TEMPORARY EASEMENT LINE

TEMPORARY DITCH

℄ RELOC. F.A. RTE. 14 (ILL. RTE. 3)

℄ GALE CONNECTOR

CONNECT PROP. 2" GAS MAIN TO EXIST. STEEL GAS MAIN 140.0'± RT. STA. 1214 + 40 USING 2" STEEL VALVE & 3 WAY WELDED TEE. CUT, PURGE & CAP EXIST. LINE TO BE ABANDONED. (TO BE CONSIDERED INCIDENTAL TO STEEL GAS MAIN)

CURVE DATA

R = 1,909.86' D = 3° - 00' - 00"
L = 988.57' Δ = 29° - 39' - 25"
T = 505.62' E = 65.80'
P.I. STA. 1221+60.46

PROP. S.E. = 0.06 FT./FT.
S.E. ATTAINED STA. 1215+21 TO STA. 1217+21
S.E. REMOVED STA. 1223+76 TO STA. 1227+76

STATE OF ILLINOIS

ABANDONED GAS LINE

CONNECT PROP. 2" GAS MAIN TO EXIST. 2" STEEL GAS MAIN 38.0'± LT. STA. 1225 + 00 USING 2" STEEL INSERT VALVE & 3 WAY WELDED TEE. CUT, PURGE & CAP EXIST. LINE TO BE ABANDONED. (TO BE CONSIDERED INCIDENTAL TO STEEL GAS MAIN)

SCALE 50' 0 25' 50'

NOTE : ELEVATION AND LOCATION OF PROPOSED GAS MAIN MAY BE ADJUSTED TO FIT FIELD CONDITION IF APPROVED BY THE ENGINEER.

EXIST. ILL. RTE. 3 | RELOC. ILL. RTE. 3 | LEVEE ROAD

12" STEEL CASING

EXIST. GROUNDLINE

ELEV. 335.0

ELEV. 326.0

CONNECT PROPOSED GAS MAIN TO EXISTING 2" HIGH PRESSURE GAS MAIN 140.0'± RT. STA. 1214 + 40

PROPOSED 2" HIGH PRESSURE GAS LINE RELOCATION 36" BURY

FINAL GRADE LINE

CONNECT PROPOSED GAS MAIN TO EXISTING 2" HIGH PRESSURE GAS MAIN 38'± LT. STA. 1225 + 00

360 355 350 345 340 335 330 325 320

0 1 2 3 4 5 6 7 8 9 10 11 12 13

FINAL GRADE OF LEVEE ROAD
CA 6
PROPOSED 2" GAS MAIN
SELECT EXCAVATED MATERIAL OR IMPERVIOUS CLAY
TRENCH WIDTH AS NARROW AS POSSIBLE ACROSS LEVEE ROAD
36"
6"

DETAIL A

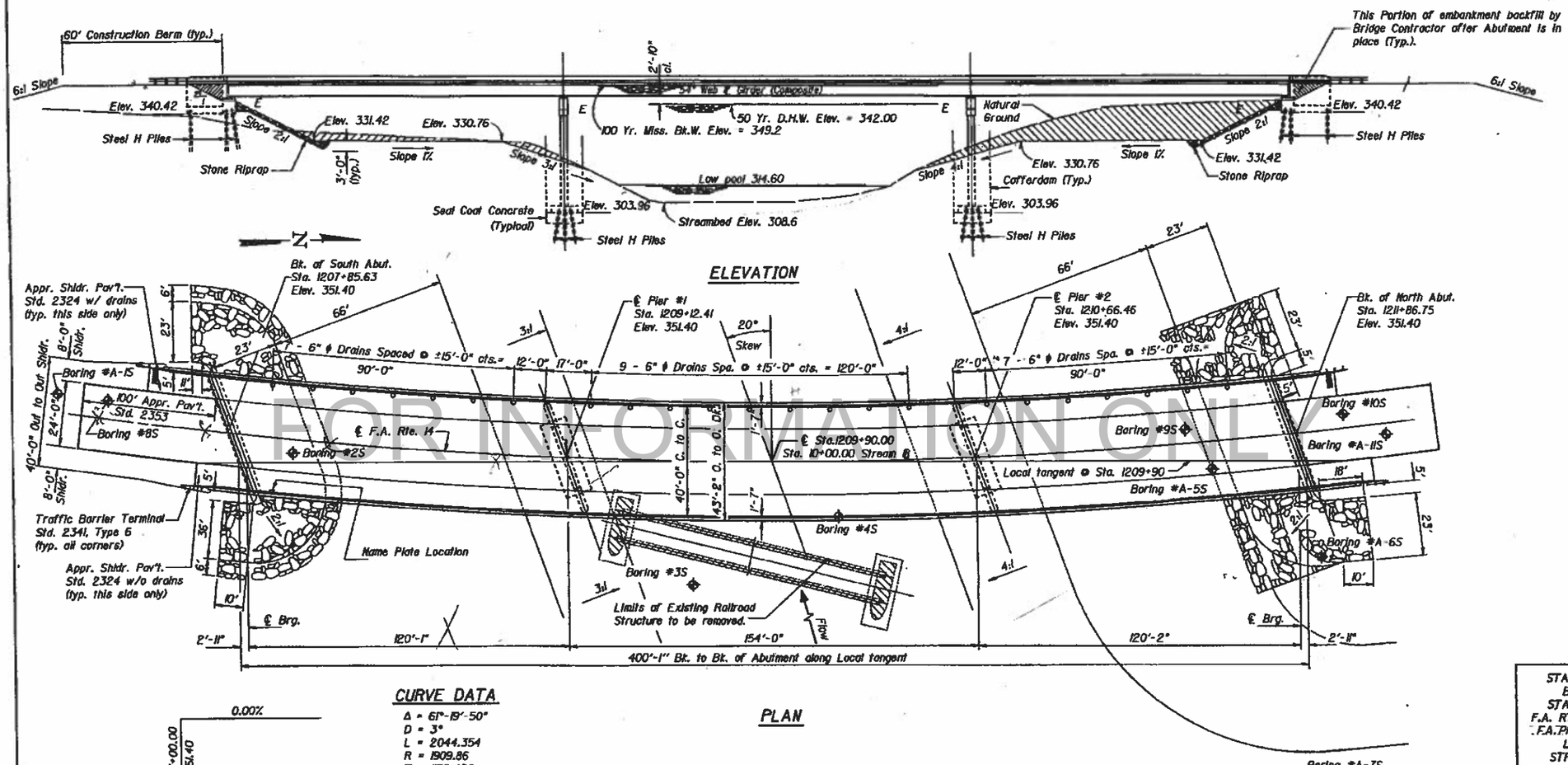
PLATE 1-SINGLE PLAN AND PROFILE-FULL LINE

DETAILS OF PROPOSED GAS LINE ADJUSTMENT

B.M. Benchmark R.R. Spike in 16" Maple tree, 14' Lt. Sta. 1208+74.00 Elev. 333.44

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	JOB NO.	SHEET NO.
F.A.S. 14	133B-1	Alexander	145	121
FED. ROAD DIST. NO. 7	BRIDGE	FED. AID PROJECT		19 SHEETS



CURVE DATA

Δ = 61°-19'-50"
D = 3°
L = 2044.354
R = 1909.86
T = 1132.428
E = 310.491
P.C. = 1193+40.48
P.I. = 1204+72.91
P.T. = 1213+84.83
S.E. = .06 ft./ft.

PLAN

0.00%
Sta. 1207+00.00
Elev. 351.40

PROFILE GRADE
(Along ℄ Roadway)

DESIGNED	M. R. Abrenck
CHECKED	Eric E. Gourley
DRAWN	John F. Schneller Jr.
CHECKED	GRA

Feb 11 1988
EXAMINED Greg D. Karan
PASSED James T. Kaufmann
APPROVED

WATERWAY INFORMATION

Drainage Area = 217 Sq. Mi. Low Grade Elev. 351.40 @ Sta. 1215+20.00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	15759	-	5764	342.00	-	0.0	-	342.00
Base	100	17904	-	5764	342.00	-	0.0	-	342.00
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	22787	-	5764	342.00	-	0.0	-	342.00

10 Yr. Flood on Mississippi River.

DESIGN SPECIFICATIONS
1983 AASHTO, 1984 thru 1986 Interims (Seismic Zone 3)

LOADING HS 20-44
Allow 25# / sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinf.)
fy = 36,000 psi (M183)
fy = 50,000 psi (M223 Grade 50)

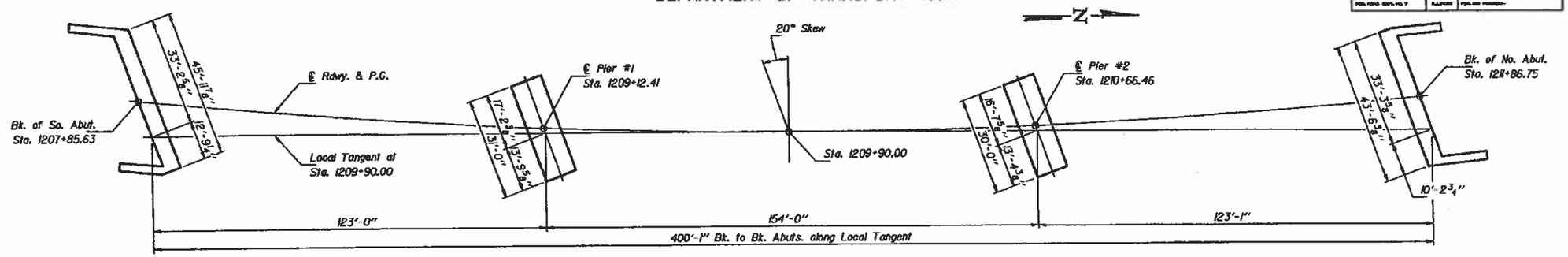
STATION 1209+90.00
BUILT 198 BY
STATE OF ILLINOIS
F.A. RTE. 14 SEC. 133B-1
F.A. PROJECT F-BRF-14(119)
LOADING HS20
STR. NO. 002-0032

NAME PLATE
See Std. 2113

GENERAL PLAN
ILLINOIS RTE. 3 OVER SEXTON CREEK
F.A. RTE. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00
STRUCTURE NUMBER 002-0032

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

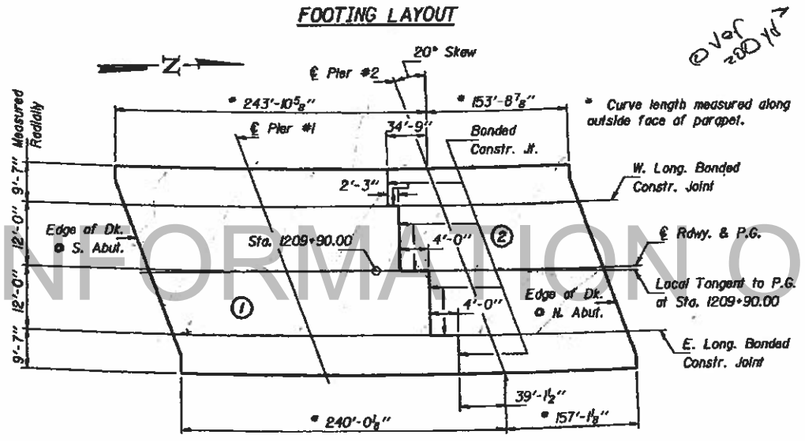
SHEET NO. 2
13 SHEETS



TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.		288	288
Floor Drains	Each	23		23
Protective Coat	Sq. Yd.	351		351
Class X Concrete Superstructure	Cu. Yd.	505.5		505.5
Class X Concrete	Cu. Yd.		464.8	464.8
Seismic Isolation Brg. Assy. 15"x 15"	Each		10	10
Seismic Isolation Brg. Assy. 18"x 18"	Each		10	10
Stud Shear Connectors	Each	4,230		4,230
Seal Coat Concrete	Cu. Yd.		178.9	178.9
Structural Steel	L.S.	1		1
Reinforcement Bars	Lbs.		67,940	67,940
Reinforcement Bars (Epoxy Coated)	Lbs.	146,620		146,620
Test Piles Steel HP12x74	Each		1	1
Test Piles Steel HP12x63	Each		1	1
Steel Piles HP12x 74	Lin. Ft.		3,234	3,234
Steel Piles HP12x 63	Lin. Ft.		2,518	2,518
Name Plates	Each	1		1
Stone Riprap, Class A2	Sq. Yd.		1050	1050
Neoprene Expansion Joint (4")	Lin. Ft.	90		90
Removal of Existing Structure	L.S.	1		1
Cofferdam	Each		2	2
Cofferdam Excavation	Cu. Yd.		910	910

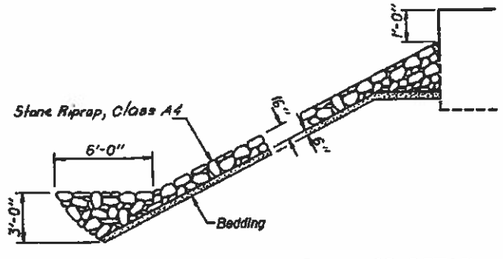
FOOTING LAYOUT



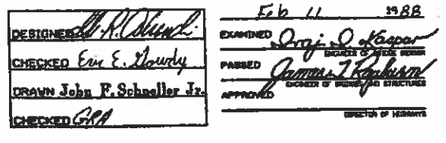
DECK POURING SKETCH

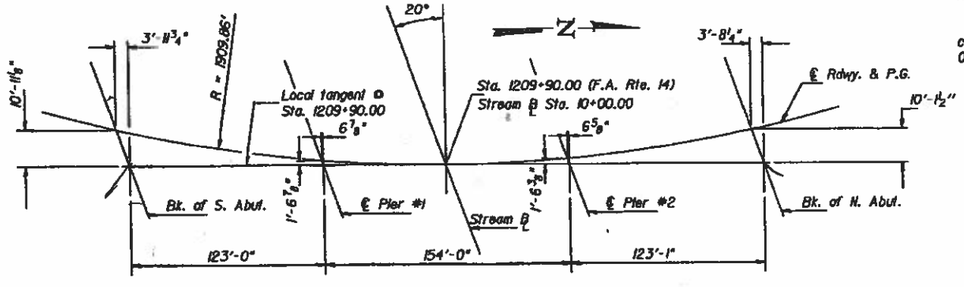
The concrete deck slab segments shall be poured in numerical order as shown above.

Notes: Transverse bonded construction joints are to be constructed radial. Longitudinal bonded construction joints are to be constructed along the curve.



STONE RIPRAP ANCHOR DETAIL





OFFSET SKETCH

GENERAL NOTES

See Proposal for Boring Data.

Fasteners shall be high strength bolts. Bolts ⅞"ϕ, open holes ¹⁵/₁₆"ϕ, unless otherwise noted.

Tightening and inspection of all high strength bolt connections shall conform to the requirements of the latest issue of the Specification for Structural Joints using A325 (M164) or A490 (M253) bolts for slip-critical connections. Except tightening methods using either the load indicating washers or the calibrated wrench are not allowed.

Calculated weight of Structural Steel = 42,660 Lbs. (AASHTO M183).

Calculated weight of Structural Steel = 512,990 Lbs. (AASHTO M223 Gr. 50).

The Zinc-silicate and vinyl paint system shall be used for shop and field painting of Structural Steel except where otherwise noted.

Field welding of construction accessories will not be permitted to the bottom flange of girders nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These Components are the tension flanges, webs and all splice plate material of the steel girders or wide flange beams.

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

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

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

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ½ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

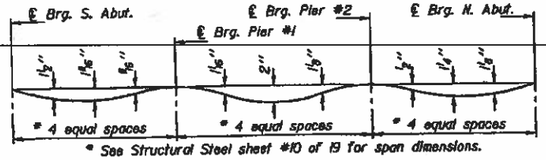
The contractor shall drive one (1) steel HP12x74 test piles in a permanent location at the South Abutment and one (1) steel HP12x63 test pile in a permanent location at Pier #2 as directed by the Engineer before ordering the remainder of piles.

Anchor bolts shall be set before bolting cross frames over supports.

All structural steel fabricators performing work on the main load carrying components of steel structures shall be certified under category III (AISC) Quality Certification Program.

DETAILS
ILLINOIS RTE. 3 OVER SEXTON CREEK
F.A. RTE. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00
STRUCTURE NUMBER 002-0032

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

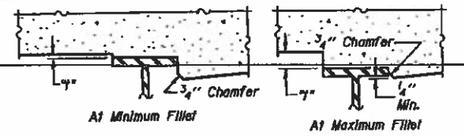


* See Structural Steel sheet #10 of 19 for span dimensions.

DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

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



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

FILLET HEIGHTS

℄ GIRDER #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120776.543	-18.333	350.300	350.300
℄ Brg. S. Abut.	120779.631	-18.333	350.300	350.300
A	120788.728	-18.333	350.300	350.340
B	120799.825	-18.333	350.300	350.379
C	120809.922	-18.333	350.300	350.419
D	120820.018	-18.333	350.300	350.459
E	120830.116	-18.333	350.300	350.499
F	120840.213	-18.333	350.300	350.441
G	120850.310	-18.333	350.300	350.421
H	120860.407	-18.333	350.300	350.394
I	120870.504	-18.333	350.300	350.367
J	120880.600	-18.333	350.300	350.346
K	120890.697	-18.333	350.300	350.327
℄ Pier 1	120904.796	-18.333	350.300	350.300
L	120914.893	-18.333	350.300	350.322
M	120924.990	-18.333	350.300	350.345
N	120935.087	-18.333	350.300	350.367
O	120945.184	-18.333	350.300	350.389
P	120953.281	-18.333	350.300	350.410
Q	120965.378	-18.333	350.300	350.430
R	120975.475	-18.333	350.300	350.451
S	120985.572	-18.333	350.300	350.460
T	120995.669	-18.333	350.300	350.441
U	121005.766	-18.333	350.300	350.422
V	121015.862	-18.333	350.300	350.403
W	121025.959	-18.333	350.300	350.382
X	121036.056	-18.333	350.300	350.358
Y	121046.183	-18.333	350.300	350.334
℄ Pier 2	121060.551	-18.333	350.300	350.300
Z	121070.648	-18.333	350.300	350.314
A1	121080.745	-18.333	350.300	350.327
B1	121090.841	-18.333	350.300	350.341
C1	121100.938	-18.333	350.300	350.363
D1	121111.035	-18.333	350.300	350.385
E1	121121.132	-18.333	350.300	350.404
F1	121131.229	-18.333	350.300	350.401
G1	121141.325	-18.333	350.300	350.387
H1	121151.423	-18.333	350.300	350.368
I1	121161.520	-18.333	350.300	350.366
J1	121171.617	-18.333	350.300	350.324
℄ Brg. N. Abut.	121179.240	-18.333	350.300	350.300
Bk. N. Abut.	121182.096	-18.333	350.300	350.300

WEST LONGITUDINAL BONDED CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120778.706	-12.000	350.680	350.680
℄ Brg. S. Abut.	120782.781	-12.000	350.680	350.680
A	120792.845	-12.000	350.680	350.720
B	120802.908	-12.000	350.680	350.759
C	120812.971	-12.000	350.680	350.799
D	120823.034	-12.000	350.680	350.809
E	120833.098	-12.000	350.680	350.815
F	120843.161	-12.000	350.680	350.821
G	120853.224	-12.000	350.680	350.803
H	120863.287	-12.000	350.680	350.774
I	120873.350	-12.000	350.680	350.747
J	120883.414	-12.000	350.680	350.726
K	120893.477	-12.000	350.680	350.707
℄ Pier 1	120907.443	-12.000	350.680	350.680
L	120917.506	-12.000	350.680	350.702
M	120927.569	-12.000	350.680	350.725
N	120937.633	-12.000	350.680	350.747
O	120947.696	-12.000	350.680	350.769
P	120957.759	-12.000	350.680	350.790
Q	120967.822	-12.000	350.680	350.810
R	120977.885	-12.000	350.680	350.831
S	120987.949	-12.000	350.680	350.840
T	120998.012	-12.000	350.680	350.821
U	121008.075	-12.000	350.680	350.802
V	121018.138	-12.000	350.680	350.783
W	121028.202	-12.000	350.680	350.761
X	121038.265	-12.000	350.680	350.738
Y	121048.328	-12.000	350.680	350.714
℄ Pier 2	121062.607	-12.000	350.680	350.680
Z	121072.670	-12.000	350.680	350.694
A1	121082.733	-12.000	350.680	350.707
B1	121092.797	-12.000	350.680	350.721
C1	121102.860	-12.000	350.680	350.743
D1	121112.923	-12.000	350.680	350.765
E1	121122.986	-12.000	350.680	350.784
F1	121133.049	-12.000	350.680	350.780
G1	121143.113	-12.000	350.680	350.777
H1	121153.176	-12.000	350.680	350.768
I1	121163.239	-12.000	350.680	350.736
J1	121173.302	-12.000	350.680	350.704
℄ Brg. N. Abut.	121180.867	-12.000	350.680	350.680
Bk. N. Abut.	121183.713	-12.000	350.680	350.680

℄ GIRDER #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120781.113	-9.167	350.850	350.850
℄ Brg. S. Abut.	120784.183	-9.167	350.850	350.850
A	120794.231	-9.167	350.850	350.890
B	120804.280	-9.167	350.850	350.929
C	120814.328	-9.167	350.850	350.969
D	120824.376	-9.167	350.850	350.979
E	120834.424	-9.167	350.850	350.985
F	120844.472	-9.167	350.850	350.991
G	120854.521	-9.167	350.850	350.971
H	120864.569	-9.167	350.850	350.944
I	120874.617	-9.167	350.850	350.917
J	120884.665	-9.167	350.850	350.896
K	120894.714	-9.167	350.850	350.876
℄ Pier 1	120908.621	-9.167	350.850	350.850
L	120918.669	-9.167	350.850	350.872
M	120928.717	-9.167	350.850	350.895
N	120938.765	-9.167	350.850	350.917
O	120948.813	-9.167	350.850	350.939
P	120958.862	-9.167	350.850	350.960
Q	120968.910	-9.167	350.850	350.980
R	120978.958	-9.167	350.850	351.001
S	120989.006	-9.167	350.850	351.010
T	120999.055	-9.167	350.850	350.991
U	121009.103	-9.167	350.850	350.972
V	121019.151	-9.167	350.850	350.953
W	121029.199	-9.167	350.850	350.931
X	121039.248	-9.167	350.850	350.908
Y	121049.296	-9.167	350.850	350.884
℄ Pier 2	121063.522	-9.167	350.850	350.850
Z	121073.570	-9.167	350.850	350.864
A1	121083.618	-9.167	350.850	350.877
B1	121093.667	-9.167	350.850	350.891
C1	121103.715	-9.167	350.850	350.913
D1	121113.763	-9.167	350.850	350.935
E1	121123.811	-9.167	350.850	350.954
F1	121133.860	-9.167	350.850	350.950
G1	121143.908	-9.167	350.850	350.947
H1	121153.956	-9.167	350.850	350.938
I1	121164.004	-9.167	350.850	350.905
J1	121174.053	-9.167	350.850	350.874
℄ Brg. N. Abut.	121181.591	-9.167	350.850	350.850
Bk. N. Abut.	121184.452	-9.167	350.850	350.850

P.G., ℄ RDWY. & ℄ GIRDER #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120785.634	0.000	351.400	351.400
℄ Brg. S. Abut.	120788.686	0.000	351.400	351.400
A	120798.686	0.000	351.400	351.440
B	120808.686	0.000	351.400	351.480
C	120818.686	0.000	351.400	351.519
D	120828.686	0.000	351.400	351.529
E	120838.686	0.000	351.400	351.535
F	120848.686	0.000	351.400	351.541
G	120858.686	0.000	351.400	351.520
H	120868.686	0.000	351.400	351.493
I	120878.686	0.000	351.400	351.467
J	120888.686	0.000	351.400	351.445
K	120898.686	0.000	351.400	351.426
℄ Pier 1	120912.405	0.000	351.400	351.400
L	120922.405	0.000	351.400	351.422
M	120932.405	0.000	351.400	351.445
N	120942.405	0.000	351.400	351.467
O	120952.405	0.000	351.400	351.489
P	120962.405	0.000	351.400	351.510
Q	120972.405	0.000	351.400	351.530
R	120982.405	0.000	351.400	351.551
S	120992.406	0.000	351.400	351.560
T	121002.405	0.000	351.400	351.541
U	121012.405	0.000	351.400	351.522
V	121022.405	0.000	351.400	351.502
W	121032.405	0.000	351.400	351.481
X	121042.405	0.000	351.400	351.457
Y	121052.405	0.000	351.400	351.433
℄ Pier 2	121068.483	0.000	351.400	351.400
Z	121076.463	0.000	351.400	351.414
A1	121086.463	0.000	351.400	351.427
B1	121096.463	0.000	351.400	351.441
C1	121106.463	0.000	351.400	351.463
D1	121116.463	0.000	351.400	351.485
E1	121126.463	0.000	351.400	351.504
F1	121136.463	0.000	351.400	351.500
G1	121146.463	0.000	351.400	351.497
H1	121156.463	0.000	351.400	351.487
I1	121166.463	0.000	351.400	351.456
J1	121176.463	0.000	351.400	351.424
℄ Brg. N. Abut.	121183.920	0.000	351.400	351.400
Bk. N. Abut.	121186.746	0.000	351.400	351.400

DESIGNED A.R. Abuchi
CHECKED Eric E. Dowdy
DRAWN John F. Schneller Jr.
CHECKED GRA

Feb 11 1988
EXAMINED Orgi O Kaspar
PASSED James T Pulkusm
APPROVED

E-S 1-6-82

TOP OF SLAB ELEVATIONS
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 4
				130	19 SHEETS

℄ GIRDER #4

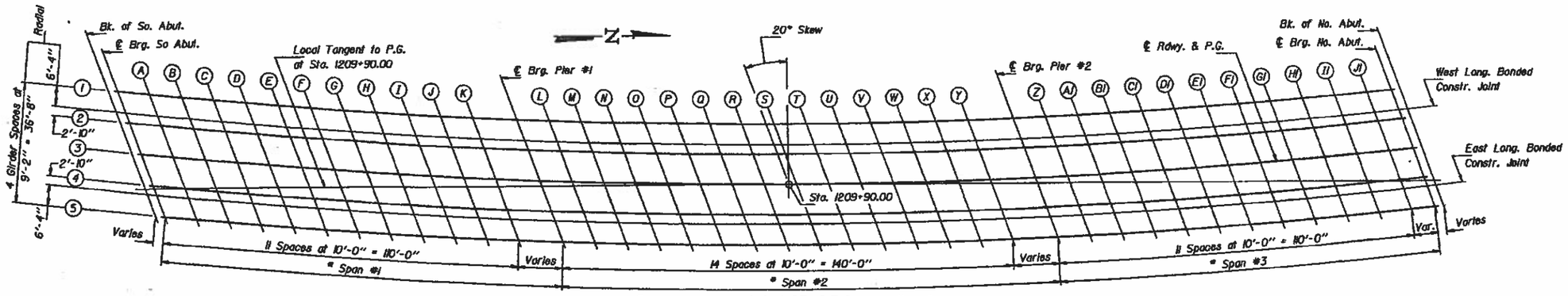
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120790.107	9.167	351.950	351.950
℄ Brg. S. Abut.	120793.141	9.167	351.950	351.950
A	120803.093	9.167	351.850	351.890
B	120813.045	9.167	351.850	352.030
C	120822.997	9.167	351.950	352.069
D	120832.950	9.167	351.950	352.079
E	120842.902	9.167	351.950	352.085
F	120852.854	9.167	351.950	352.091
G	120862.806	9.167	351.950	352.070
H	120872.759	9.167	351.950	352.043
I	120882.711	9.167	351.950	352.016
J	120892.663	9.167	351.950	351.995
K	120902.615	9.167	351.950	351.976
℄ Pier 1	120916.150	9.167	351.950	351.950
L	120926.102	9.167	351.950	351.972
M	120936.055	9.167	351.950	351.995
N	120946.007	9.167	351.950	352.017
O	120955.959	9.167	351.950	352.039
P	120965.911	9.167	351.950	352.060
Q	120975.864	9.167	351.950	352.081
R	120985.816	9.167	351.950	352.101
S	120995.768	9.167	351.950	352.110
T	121005.720	9.167	351.950	352.091
U	121015.673	9.167	351.950	352.071
V	121025.625	9.167	351.950	352.052
W	121035.577	9.167	351.950	352.031
X	121045.529	9.167	351.950	352.007
Y	121055.482	9.167	351.950	351.983
℄ Pier 2	121069.375	9.167	351.950	351.950
Z	121079.327	9.167	351.950	351.964
AI	121089.280	9.167	351.950	351.977
BI	121099.232	9.167	351.950	351.991
CI	121109.184	9.167	351.950	352.013
DI	121119.136	9.167	351.950	352.034
EI	121129.089	9.167	351.950	352.054
FI	121139.041	9.167	351.950	352.050
GI	121148.993	9.167	351.950	352.047
HI	121158.945	9.167	351.950	352.037
II	121168.898	9.167	351.950	352.005
JI	121178.850	9.167	351.950	351.974
℄ Brg. N. Abut.	121186.225	9.167	351.950	351.950
Bk. N. Abut.	121189.037	9.167	351.950	351.950

EAST LONGITUDINAL BONDED CONST. JT.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120781.480	12.000	352.120	352.120
℄ Brg. S. Abut.	120794.508	12.000	352.120	352.120
A	120804.446	12.000	352.120	352.160
B	120814.383	12.000	352.120	352.200
C	120824.321	12.000	352.120	352.239
D	120834.258	12.000	352.120	352.240
E	120844.196	12.000	352.120	352.255
F	120854.133	12.000	352.120	352.261
G	120864.071	12.000	352.120	352.240
H	120874.009	12.000	352.120	352.213
I	120883.946	12.000	352.120	352.186
J	120893.884	12.000	352.120	352.165
K	120903.821	12.000	352.120	352.146
℄ Pier 1	120917.300	12.000	352.120	352.120
L	120927.238	12.000	352.120	352.142
M	120937.175	12.000	352.120	352.165
N	120947.113	12.000	352.120	352.187
O	120957.050	12.000	352.120	352.209
P	120966.988	12.000	352.120	352.230
Q	120976.925	12.000	352.120	352.251
R	120986.863	12.000	352.120	352.271
S	120996.801	12.000	352.120	352.280
T	121006.738	12.000	352.120	352.261
U	121016.676	12.000	352.120	352.241
V	121026.613	12.000	352.120	352.222
W	121036.551	12.000	352.120	352.201
X	121046.488	12.000	352.120	352.177
Y	121056.426	12.000	352.120	352.153
℄ Pier 2	121070.269	12.000	352.120	352.120
Z	121080.207	12.000	352.120	352.134
AI	121090.144	12.000	352.120	352.147
BI	121100.082	12.000	352.120	352.161
CI	121110.020	12.000	352.120	352.183
DI	121119.957	12.000	352.120	352.206
EI	121129.895	12.000	352.120	352.224
FI	121139.832	12.000	352.120	352.220
GI	121149.770	12.000	352.120	352.217
HI	121159.707	12.000	352.120	352.207
II	121169.645	12.000	352.120	352.175
JI	121179.583	12.000	352.120	352.144
℄ Brg. N. Abut.	121186.933	12.000	352.120	352.120
Bk. N. Abut.	121189.740	12.000	352.120	352.120

℄ GIRDER #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	120794.532	18.333	352.500	352.500
℄ Brg. S. Abut.	120797.548	18.333	352.500	352.500
A	120807.453	18.333	352.500	352.540
B	120817.358	18.333	352.500	352.580
C	120827.263	18.333	352.500	352.619
D	120837.168	18.333	352.500	352.619
E	120847.073	18.333	352.500	352.635
F	120856.978	18.333	352.500	352.641
G	120866.882	18.333	352.500	352.620
H	120876.787	18.333	352.500	352.593
I	120886.692	18.333	352.500	352.566
J	120896.597	18.333	352.500	352.545
K	120906.502	18.333	352.500	352.526
℄ Pier 1	120919.857	18.333	352.500	352.500
L	120929.762	18.333	352.500	352.522
M	120939.667	18.333	352.500	352.545
N	120949.572	18.333	352.500	352.567
O	120959.476	18.333	352.500	352.589
P	120969.381	18.333	352.500	352.610
Q	120979.286	18.333	352.500	352.631
R	120989.191	18.333	352.500	352.651
S	120999.096	18.333	352.500	352.660
T	121009.001	18.333	352.500	352.641
U	121018.906	18.333	352.500	352.621
V	121028.811	18.333	352.500	352.602
W	121038.716	18.333	352.500	352.581
X	121048.621	18.333	352.500	352.557
Y	121058.526	18.333	352.500	352.533
℄ Pier 2	121072.258	18.333	352.500	352.500
Z	121082.163	18.333	352.500	352.514
AI	121092.068	18.333	352.500	352.527
BI	121101.973	18.333	352.500	352.541
CI	121111.878	18.333	352.500	352.563
DI	121121.783	18.333	352.500	352.586
EI	121131.687	18.333	352.500	352.604
FI	121141.592	18.333	352.500	352.600
GI	121151.497	18.333	352.500	352.587
HI	121161.402	18.333	352.500	352.587
II	121171.307	18.333	352.500	352.555
JI	121181.212	18.333	352.500	352.523
℄ Brg. N. Abut.	121188.507	18.333	352.500	352.500
Bk. N. Abut.	121191.305	18.333	352.500	352.500



* See Structural Steel sheet #10 of 19 for span dimensions.

PLAN

Horizonal dimensions are taken along ℄ of Individual Girders.

DESIGNED	M. R. Ahmed
CHECKED	Eric E. Dowdy
DRAWN	John F. Schaeller Jr.
CHECKED	CRA

Feb 11 1982

EXAMINED Engineer of Bridge Design

PASSED Engineer of Bridge and Structures

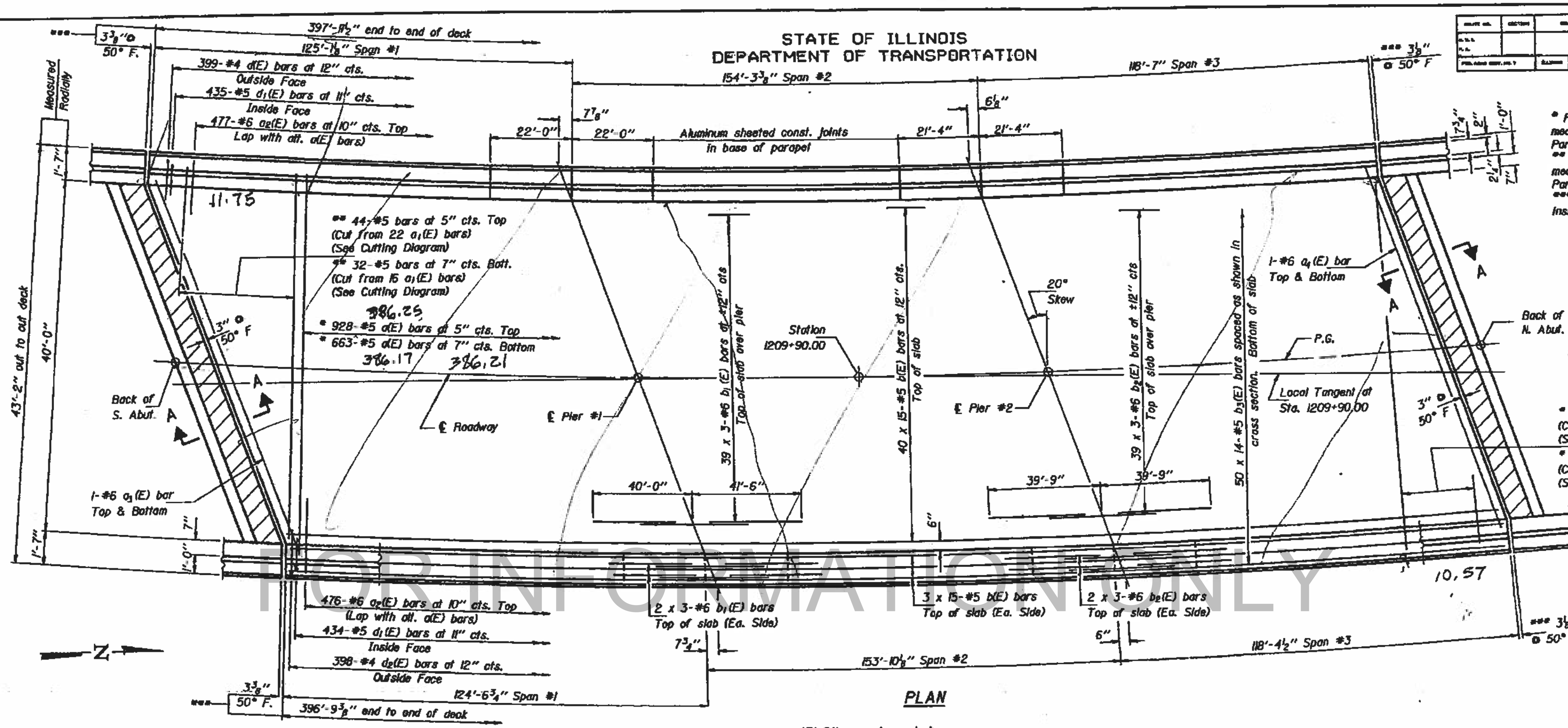
APPROVED Director of Highways

E-S 1-6-82

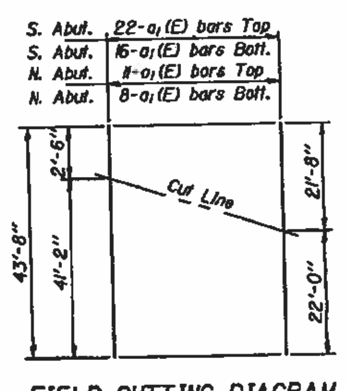
TOP OF SLAB ELEVATIONS
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 5
131
19 SHEETS

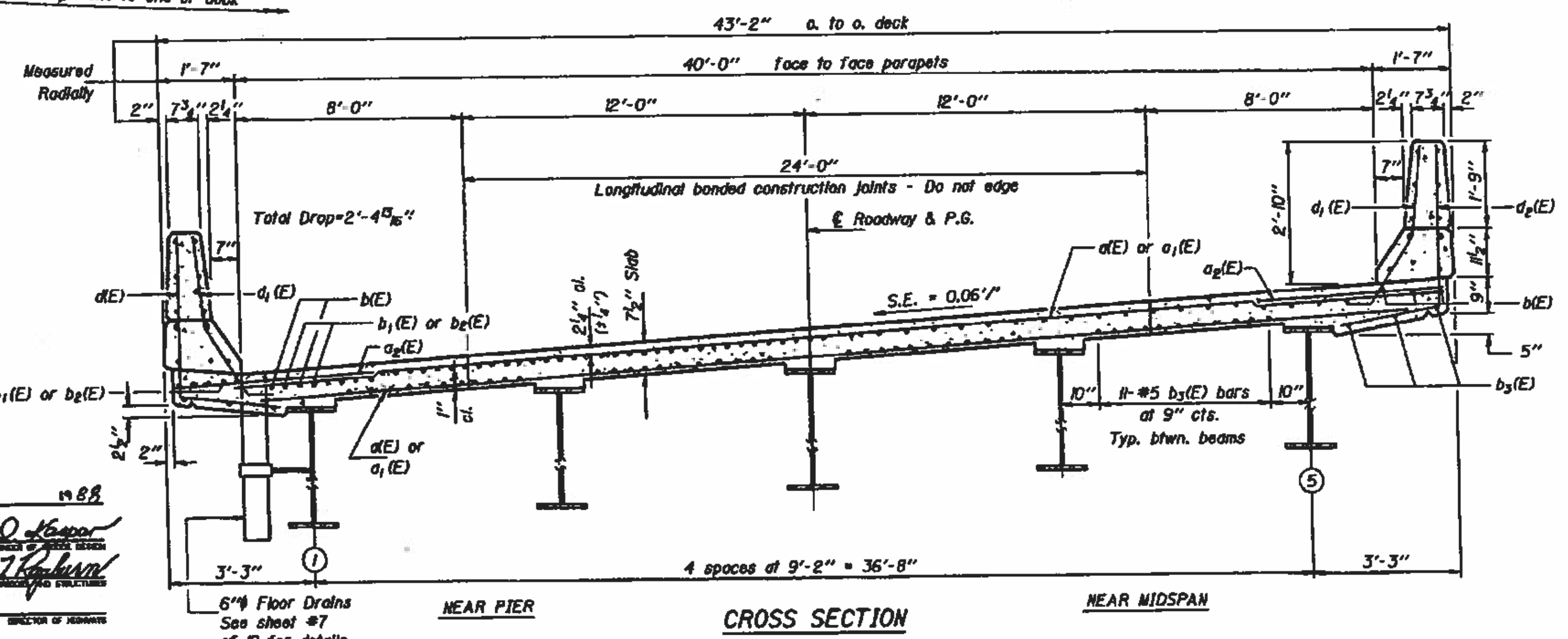


PLAN



FIELD CUTTING DIAGRAM

Order a1(E) bars full length.



CROSS SECTION

(Looking North)

* Place bars radially. Bar spacing measured at inside face of East Parapet.
** Place bars radially. Bar spacing measured at inside face of West Parapet.
*** Curve length measured along inside face of parapet.

Notes: See sheet #6 & #7 of 19 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
Place transverse bars radially and longitudinal bars parallel to girders.
The spacing of transverse bars shown are the maximum spacings.
Hatched area to be poured after superstructure forms have been removed.

MIN. BAR LAP
#5 bars = 2'-2"
#6 bars = 2'-7"

DESIGNED
CHECKED Eric E. Gundy
J.T. Downing
DRAWN John F. Schneller Jr.
CHECKED GKN

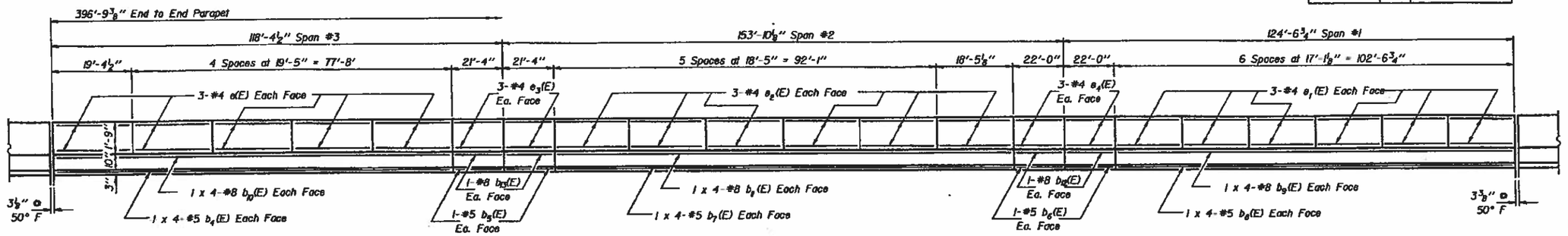
Feb 11 1988
EXAMINED
PASSED
APPROVED

S-1-R(>15°) 12-1-83

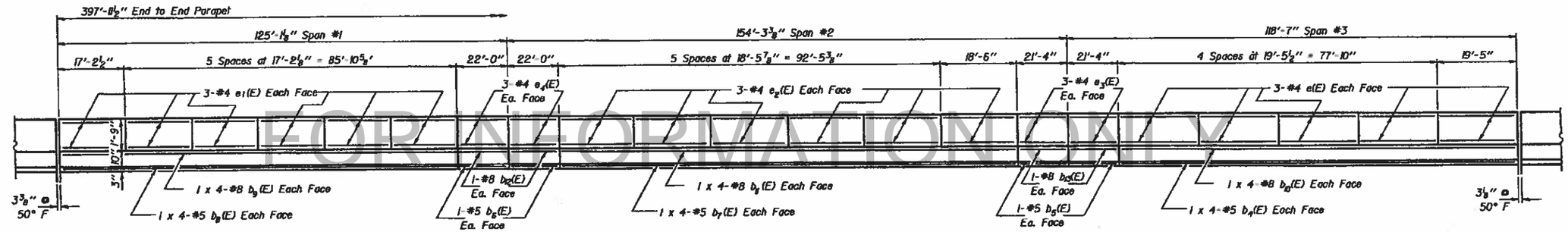
SUPERSTRUCTURE
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S.			152	6
P.T.E.				19 SHEETS
FED. ROAD DIST. NO. 9	ILL. ROUTE	FED. AID PROJECT		



INSIDE ELEVATION OF EAST PARAPET
(Looking East)

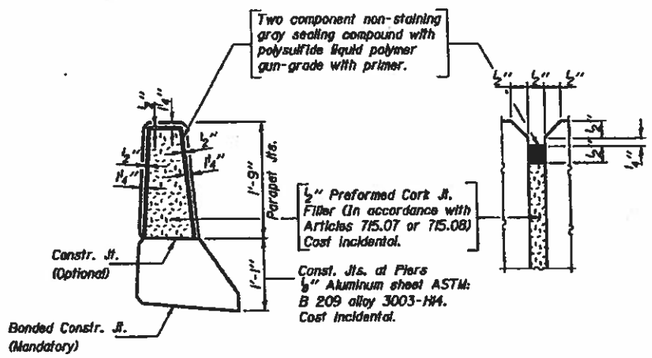


INSIDE ELEVATION OF WEST PARAPET
(Looking West)

MIN. BAR LAPS

#5 Bars = 1'-9"
#8 Bars = 3'-9"

Notes: Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.



PARAPET JOINT DETAILS

DESIGNED W. R. Wunderlich
CHECKED Eric E. Newby
J.T. Downing
DRAWN John F. Schneller Jr.
CHECKED CRH

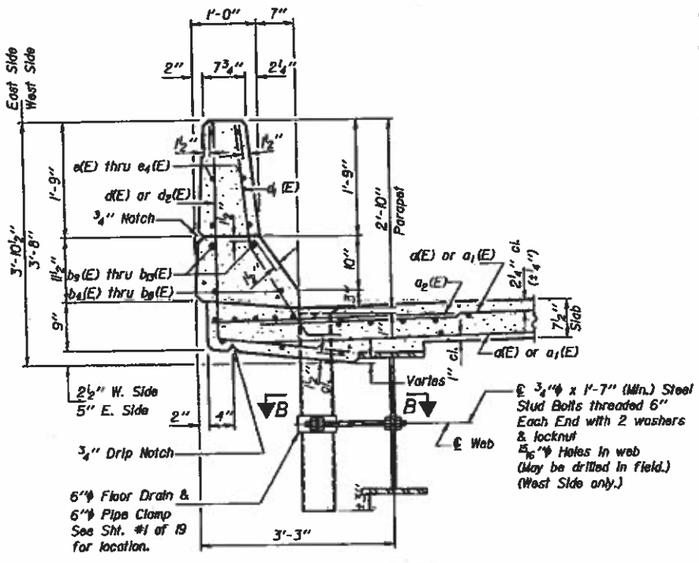
Feb 11 19 88
EXAMINED Raj. D. Kapur
PASSED James T. Rakburn
APPROVED

PARAPET
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 7
				133	19 SHEETS

Notes:
The exterior surfaces of the Floor Drain shall be painted with the vinyl enamel coat painting specified for Structural Steel. The exterior surface of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structural Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.

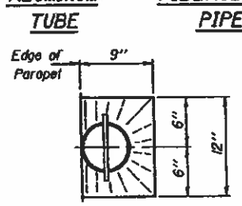


SECTION THRU PARAPET

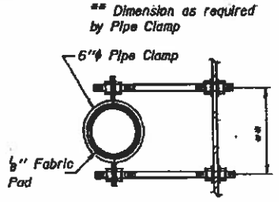
Fill slot with weld
½"ϕ x 8" Alum. Bar ASTM: B 211 alloy 6061-T6
3" 3"
3⁵⁄₁₆"
½"

ALUMINUM TUBE

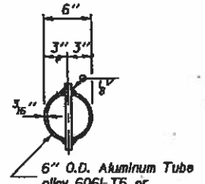
FIBERGLASS PIPE



TOP PLAN

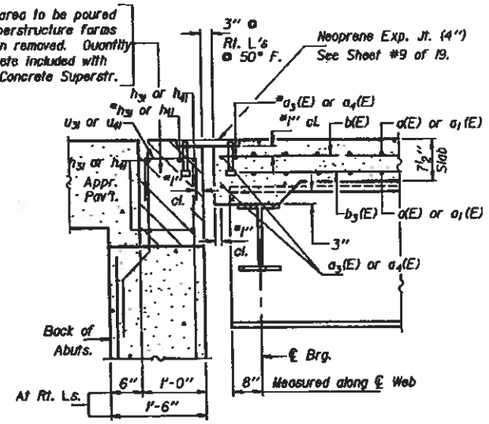


SECTION B-B



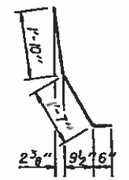
TOP PLAN
(Showing Aluminum Tube)

Hatched area to be poured after superstructure forms have been removed. Quantity of Concrete included with Class X Concrete Superstr.

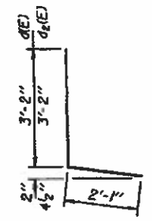


SECTION A-A

*Place a3(E), a4(E), h3y & h4y bars in back of anchor bolts as shown if required to maintain 1" cl. (+0-½"). Anchor bolts should be tied to a3(E), a4(E), h3y & h4y bars.



BAR d1(E)



BARS d(E) & d2(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	1591	#5	41'-2"	——
a1(E)	57	#5	43'-8"	——
a2(E)	953	#6	4'-0"	——
a3(E)	2	#6	45'-6"	——
a4(E)	2	#6	42'-3"	——
b(E)	690	#5	28'-7"	——
b1(E)	129	#6	28'-8"	——
b2(E)	129	#6	28'-3"	——
b3(E)	700	#5	30'-6"	——
b4(E)	16	#5	25'-8"	——
b5(E)	8	#5	21'-1"	——
b6(E)	8	#5	21'-9"	——
b7(E)	16	#5	29'-0"	——
b8(E)	16	#5	27'-2"	——
b9(E)	16	#8	28'-8"	——
b10(E)	16	#8	27'-2"	——
b11(E)	16	#8	30'-7"	——
b12(E)	8	#8	21'-9"	——
b13(E)	8	#8	21'-1"	——
d(E)	399	#4	5'-3"	L
d1(E)	869	#5	3'-11"	L
d2(E)	398	#4	5'-3"	L
e(E)	60	#4	19'-1"	——
e1(E)	72	#4	16'-10"	——
e2(E)	72	#4	18'-2"	——
e3(E)	24	#4	21'-1"	——
e4(E)	24	#4	21'-9"	——
Reinforcement Bars (Epoxy Coated)		Lbs.	146,620	
Class X Concrete Superstructure		Cu. Yds.	505.5	

Reinforcement bars designated (E) shall be epoxy coated.

DESIGNED	Gl. Rietveld
CHECKED	Eric E. Yourdy
	J.T. Downing
DRAWN	John F. Schneller Jr.
CHECKED	GAA

Feb 11 1988
EXAMINED Engineer of Bridge Design
PASSED Engineer of Operations and Structures
APPROVED Director of Highways

S-1-D 12-1-83

SUPERSTRUCTURE DETAILS
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 8
				134	19 SHEETS

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1½" Min.
2½"	2½"	1¾" Min.
4"	3"	2½" Min.

INSTALLATION NOTES

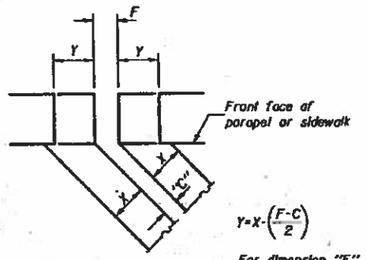
1. Install sponge mandrels into positions shown to form flap convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

NOTE A: Maximum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

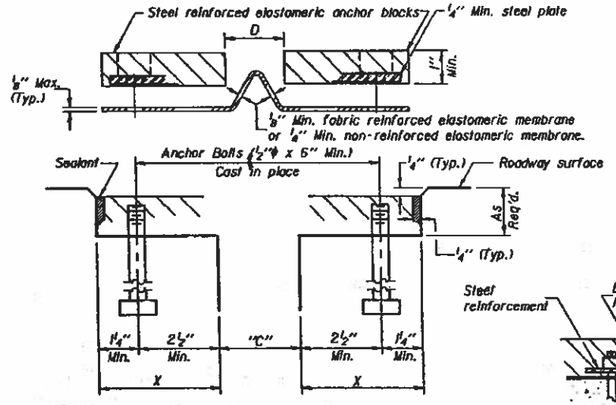
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1½" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" c/s.

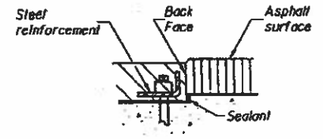


For dimension "F" see sheet #5 of 19.

FORMING BLOCKOUT SKETCH



CROSS SECTION



ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane. See Special Provisions.

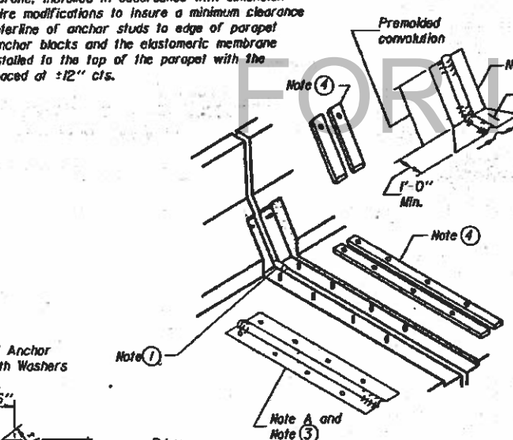
The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

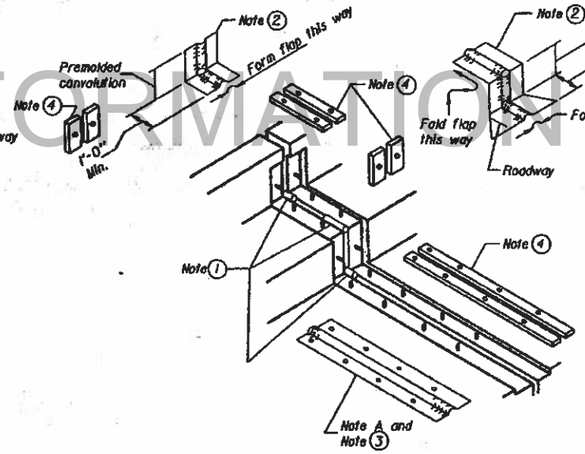
The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

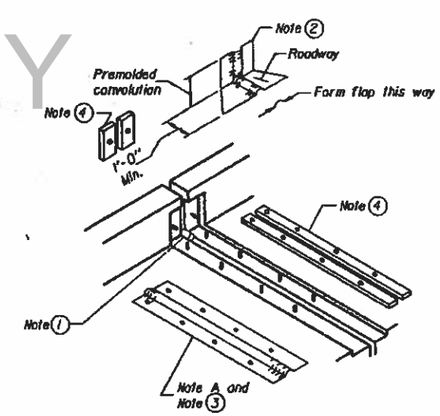
The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.



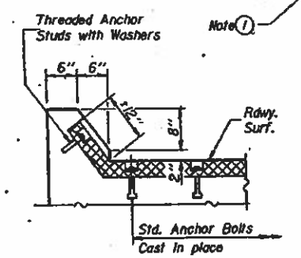
AT PARAPET



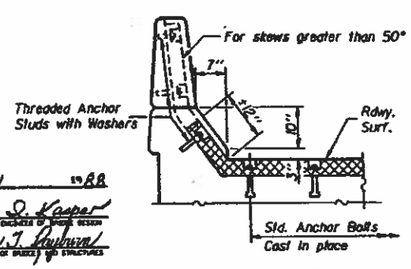
AT SIDEWALK OR MEDIAN



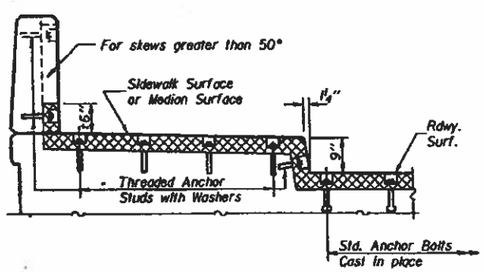
AT WALL



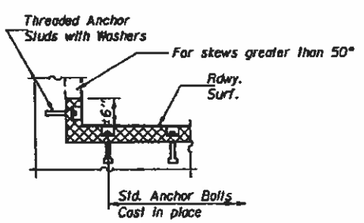
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN



AT WALL

TYPICAL END TREATMENTS

DESIGNED	A. R. Ahmed	Feb. 11	1988
CHECKED	Eric E. Hourby	EXAMINED	Engineer of Bridge Design
DRAWN	J. SCHNELLER	PASSED	Engineer of Bridges and Structures
CHECKED	GRA	APPROVED	Director of Highways

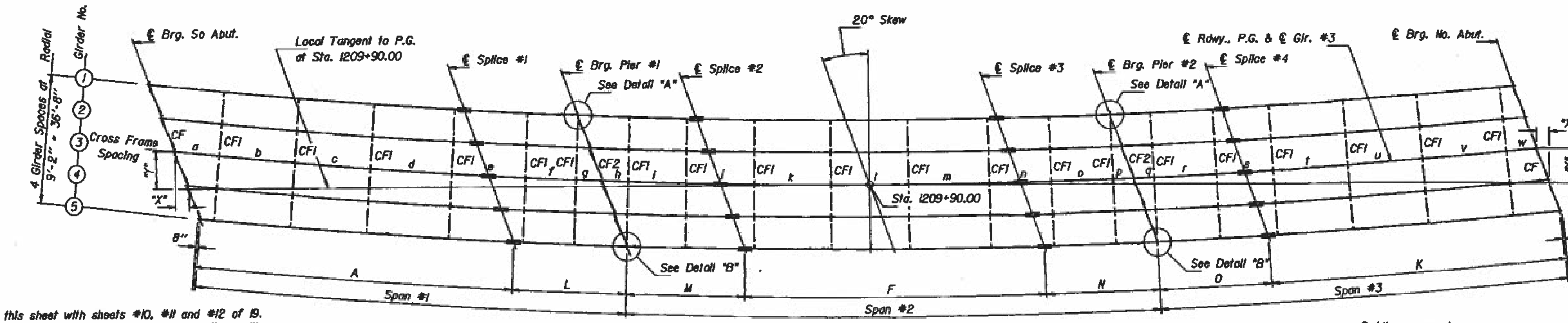
EJ-CS 12-1-83

CONTINUOUS SEAL TYPE
NEOPRENE EXPANSION JOINTS
For 2", 2½" and 4" Movement

FA RT 14 SEC 133B-1
ALEXANDER COUNTY
STA 1209+90.00

SHEET NO. 9
19 SHEETS
135

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Notes: Work this sheet with sheets #10, #11 and #12 of 19.
Girders shall be fabricated to their respective radii.
All horizontal dimensions are given along ℄ Girder except "x".
All vertical dimensions are given radially except "y".
Dimensions "x" & "y" are given from the respective Local Tangent of each Girder at Station 1209+90.00 .
For Girder dimensions, "x" & "y" dimensions and Cross Frame spacing see sheet #10 of 19.
Cross Frame CF1 shall be placed radially.
All Brg. Stiffeners and Connecting Plates are placed radially.
All flanges, webs, brg. stiffeners and splice plate materials shall be AASHTO M-223 Grade 50. All other Structural Steel shall be AASHTO M-183.

FRAMING PLAN

TOP OF WEB ELEVATIONS

Gir. \ Loc.	℄ Brg. S. Abut.	℄ Splice #1	℄ Brg. Pier #1	℄ Splice #2	℄ Splice #3	℄ Brg. Pier #2	℄ Splice #4	℄ Brg. N. Abut.
#1	349.53	349.48	349.40	349.50	349.50	349.40	349.46	349.53
#2	350.08	350.03	349.95	350.05	350.05	349.95	350.01	350.08
#3	350.63	350.58	350.50	350.60	350.60	350.50	350.56	350.63
#4	351.18	351.13	351.05	351.15	351.15	351.05	351.11	351.18
#5	351.73	351.68	351.60	351.70	351.70	351.60	351.66	351.73

Top of Web Elevations at Splices have been adjusted for Camber. For Fabrication only.

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total & Overload).

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total & Overload).

VR is the maximum Live Load + Impact shear range in span.

Mo (Applied Moment)=1.3[MD + MsD + 5/3(ML + I)].

fs + fw (Overload) is the sum of the stresses due to MD + MsD + 5/3(ML + I) + (Mbl / 1.3).

fs (Total) (Non-compact section) is the sum of the stresses due to 1.3[MD + MsD + 5/3(ML + I)].

Sbl is the section modulus for one flange plate for lateral flange bending.

Mbl is the lateral bending moment for flange plate (factored).

fw is the calculated normal stress at the edge of flange due to lateral flange bending (factored).

ML and RL have been increased due to effect of centrifugal force and superelevation.

Fb - Maximum allowable stress, Fbu or Fby, computed according to AASHTO (Guide Specifications for Horizontally Curved Highway Bridges Section 2.12(B) & 2.16).

MD - Moment due to dead loads on non-composite section.

MsD - Moment due to dead loads on composite section.

ML - Moment due to live loads on non-composite or composite section.

I - Live Load Impact.

INTERIOR GIRDER REACTION TABLE

		Abuts.	Piers
RD	(K)	69.7	244.5
RL	(K)	66.9	107.8
Imp.	(K)	11.0	20.5
R (Total)	(K)	147.6	372.8

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. #1 or 0.6 Sp. #3	Piers	0.5 Sp. #2
Is	(In⁴)	33,639.4	67,794.9	33,639.4
Ic	(In⁴)	86,391.7	———	86,391.7
Ss	(In³)	1,482.4	2,307.9	1,482.4
Sc	(In³)	1,987.1	———	1,987.1
Sbl	(In³)	61.3	101.3	61.3
D	(K/ft.)	1.159	1.558	1.171
MD	('K)	1,108.7	3,274.2	995.2
sD	(K/ft.)	0.393	———	0.393
MsD	('K)	441.5	———	480.1
ML	('K)	1,677.9	1,384.6	1,768.9
M (Imp)	('K)	275.1	263.1	258.3
5/3(ML+I)	('K)	3,255.0	2,746.2	3,378.7
Mo	('K)	6,246.8	7,826.5	6,310.2
Mbl	('K)	27.8	23.2	29.3
fsD non-comp	(k.s.i.)	9.0	17.0	8.1
fsD (comp)	(k.s.i.)	2.7	———	2.9
fs5/3(L+I)	(k.s.i.)	19.7	14.3	20.4
fw	(k.s.i.)	5.5	2.8	5.8
fs + fw(Overload)	(k.s.i.)	35.6	33.5	35.9
fs (Total)	(k.s.i.)	40.8	40.7	40.8
fs(Total) + fw	(k.s.i.)	46.3	43.5	46.6
Fb	(k.s.i.)	50.0	50.0	50.0
VR	(K)	74.5	———	66.4

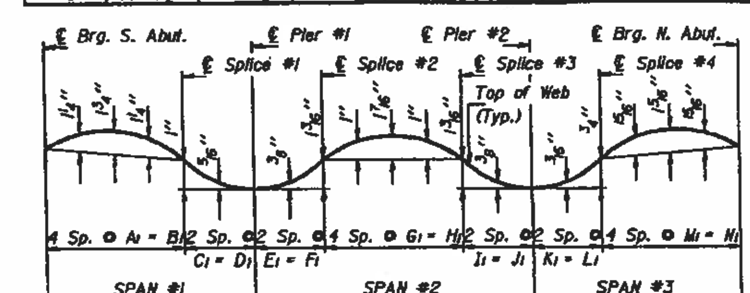
DESIGNED [signature]
CHECKED Eve E. Dowdy
DRAWN John F. Schneller Jr.
CHECKED GRA

Feb 11 1988
EXAMINED [signature]
PASSED [signature]
APPROVED

CAMBER DIAGRAM DIMENSIONS A1 THRU N1

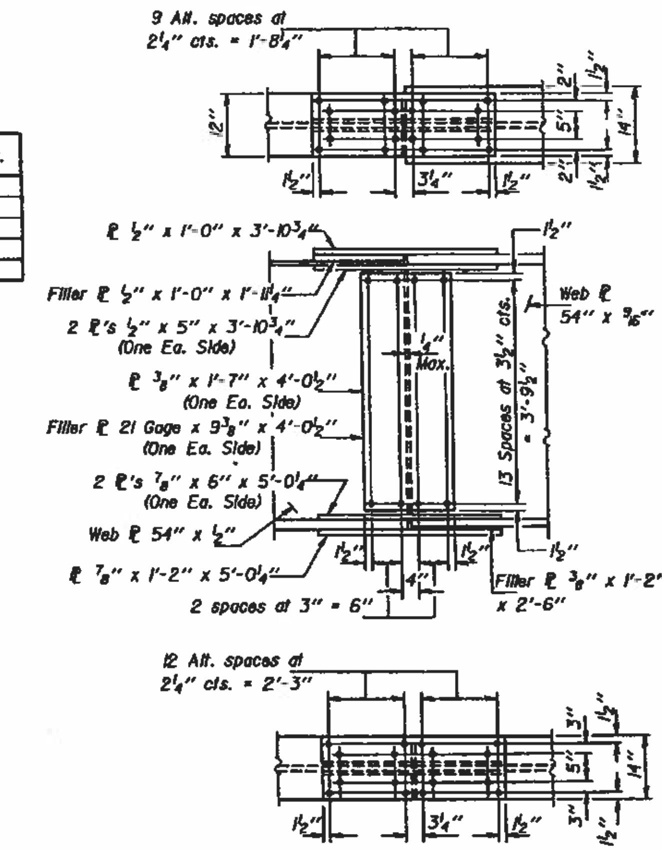
Gir. \ Loc.	A1	B1	C1	D1	E1	F1	G1
#1	±22'-8 7/8"	90'-11 1/2"	±16'-6"	33'-0"	±17'-3"	34'-6"	±21'-9"
#2	±22'-8 5/8"	90'-10 3/8"	±16'-5 7/8"	32'-11 3/4"	±17'-2 7/8"	34'-5 5/8"	±21'-8 7/8"
#3	±22'-8 3/8"	90'-9 1/4"	±16'-5 3/4"	32'-11 3/8"	±17'-2 3/4"	34'-5 3/8"	±21'-8 3/4"
#4	±22'-8 1/4"	90'-8 1/4"	±16'-5 1/2"	32'-11"	±17'-2 1/2"	34'-5"	±21'-8 1/2"
#5	±22'-7 3/4"	90'-7 1/8"	±16'-5 1/4"	32'-10 5/8"	±17'-2 3/8"	34'-4 5/8"	±21'-8 3/8"

Gir. \ Loc.	H1	I1	J1	K1	L1	M1	N1
#1	87'-0 1/8"	±16'-4 1/2"	32'-9"	±16'-3"	32'-6"	±21'-3 1/8"	85'-0 5/8"
#2	86'-11 1/2"	±16'-4 3/8"	32'-8 3/4"	±16'-3"	32'-5 7/8"	±21'-3"	85'-0 1/8"
#3	86'-10 3/4"	±16'-4 3/8"	32'-8 5/8"	±16'-2 7/8"	32'-5 5/8"	±21'-3"	84'-11 7/8"
#4	86'-10 1/8"	±16'-4 1/4"	32'-8 3/8"	±16'-2 3/4"	32'-5 3/8"	±21'-2 7/8"	84'-11 1/2"
#5	86'-9 1/2"	±16'-4 1/8"	32'-8 1/4"	±16'-2 5/8"	32'-5 1/4"	±21'-2 3/4"	84'-11 1/8"



See Span Length from Girder Dimension table on sheet #10 of 19.

CAMBER DIAGRAM



FIELD SPLICE DETAIL

(Use 7/8"ϕ H.S. Bolts)

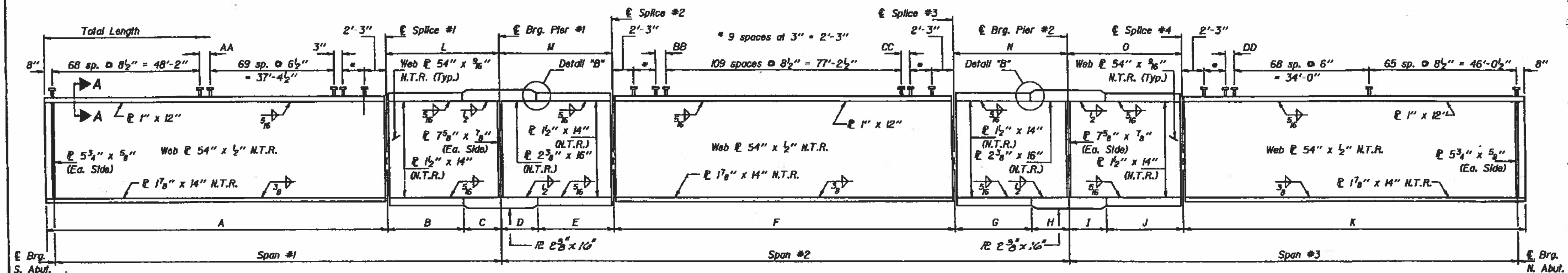
Notch Toughness Requirements are required for all splice plates except filler plates. Top flange filler plates shall be placed on the South side of splice #1 & #3 and on the North side of splice #2 & #4. Bottom flange filler plates shall be placed on the North side of splice #1 & #3 and on the South side of splice #2 & #4.

STRUCTURAL STEEL
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

Notes: All dimensions are along the curve except as noted.
Work this sheet with sheets #9, #11 & #12 of 19.
All flanges, webs, bearing stiffeners and splice plates materials shall be AASHTO M223 Grade 50.
All other Structural Steel shall be AASHTO M-183.

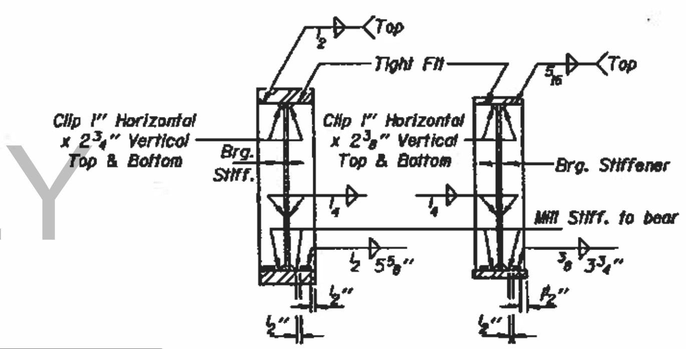
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 10 — 19 SHEETS — 136



GIRDER ELEVATION

"NTR" denotes plates to which notch toughness requirements are applicable.



SECTION AT PIER

SECTION AT ABUTMENT

CROSS FRAME SPACING

Gir. \ Loc.	a	b	c	d	e	f	g	h	i	j	k	l
#1	21'-8"	21'-7"	21'-7"	22'-4 1/2"	22'-1 1/4"	14'-7 3/4"	—	14'-11"	16'-10"	20'-7"	21'-1 1/8"	22'-0 1/8"
#2	17'-2 7/8"	21'-8 1/4"	21'-8 1/4"	22'-6"	22'-2 1/2"	14'-8 5/8"	3'-9 5/8"	11'-2 1/8"	16'-11"	20'-8 1/4"	21'-2 3/8"	22'-2 1/8"
#3	12'-9 7/8"	21'-9 1/2"	21'-9 1/2"	22'-7 1/8"	22'-3 7/8"	14'-9 1/2"	7'-7 1/4"	7'-5 1/2"	17'-0"	20'-9 3/8"	21'-3 1/2"	22'-3 3/8"
#4	8'-4 7/8"	21'-10 3/4"	21'-10 3/4"	22'-8 1/2"	22'-5 1/8"	14'-10 3/8"	11'-4 7/8"	3'-8 5/8"	17'-1"	20'-10 5/8"	21'-4 3/4"	22'-4 3/4"
#5	4'-0"	22'-0"	22'-0"	22'-9 3/4"	22'-6 3/8"	14'-11 1/8"	15'-2 1/2"	—	17'-1 7/8"	20'-11 3/4"	21'-6"	22'-6"

Gir. \ Loc.	m	n	o	p	q	r	s	t	u	v	w
#1	22'-3 1/8"	18'-8 3/4"	17'-9 1/4"	—	11'-7 1/8"	18'-1 1/8"	17'-4 1/8"	20'-7 1/4"	21'-7"	24'-3 1/4"	4'-0"
#2	22'-4 3/8"	18'-9 7/8"	17'-10 1/4"	2'-11 1/2"	8'-8 3/8"	18'-2 7/8"	17'-5 1/8"	20'-8 3/8"	21'-8 1/4"	24'-4 5/8"	6'-4 3/8"
#3	22'-5 3/4"	18'-11"	17'-11 1/4"	5'-11"	5'-9 1/2"	18'-4"	17'-6 1/8"	20'-9 5/8"	21'-9 1/2"	24'-6 1/8"	8'-8 5/8"
#4	22'-7"	19'-0"	18'-0 3/8"	8'-10 3/8"	2'-10 3/4"	18'-5"	17'-7 1/4"	20'-10 3/4"	21'-10 3/4"	24'-7 1/2"	11'-0 7/8"
#5	22'-8 3/8"	19'-1 1/8"	18'-1 3/8"	11'-9 7/8"	—	18'-6 1/8"	17'-8 1/8"	21'-0"	22'-0"	24'-8 7/8"	13'-5 1/4"

GIRDER DIMENSIONS

Gir. \ Loc.	Radius	Span #1	Span #2	Span #3	Total Length	A	B	C	D
#1	1891.53'	123'-11 1/2"	154'-3 1/8"	117'-6 5/8"	397'-1 1/4"	91'-7 1/2"	21'-0"	12'-0"	12'-0"
#2	1900.69'	123'-10 1/8"	154'-1 7/8"	117'-6"	396'-10"	91'-6 3/8"	20'-11 7/8"	11'-11 7/8"	11'-11 7/8"
#3	1909.86'	123'-8 5/8"	154'-0 3/4"	117'-5 1/2"	396'-6 7/8"	91'-5 1/4"	20'-11 5/8"	11'-11 3/4"	11'-11 3/4"
#4	1919.03'	123'-7 1/4"	153'-11 1/2"	117'-4 7/8"	396'-3 5/8"	91'-4 1/4"	20'-11 3/8"	11'-11 5/8"	11'-11 5/8"
#5	1928.19'	123'-5 3/4"	153'-10 3/8"	117'-4 3/8"	396'-0 1/2"	91'-3 1/8"	20'-11 1/8"	11'-11 1/2"	11'-11 1/2"

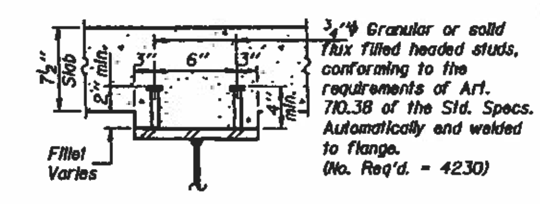
Gir. \ Loc.	E	F	G	H	I	J	K	L	M	N	O
#1	22'-6"	87'-0 1/8"	20'-9"	12'-0"	12'-0"	20'-6"	85'-8 5/8"	33'-0"	34'-6"	32'-9"	32'-6"
#2	22'-5 3/4"	86'-11 1/2"	20'-8 7/8"	11'-11 7/8"	12'-0"	20'-5 7/8"	85'-8 1/8"	32'-11 3/4"	34'-5 5/8"	32'-8 3/4"	32'-5 7/8"
#3	22'-5 5/8"	86'-10 3/4"	20"-8 3/4"	11'-11 7/8"	11'-11 7/8"	20'-5 3/4"	85'-7 7/8"	32'-11 3/8"	34'-5 3/8"	32'-8 5/8"	32'-5 5/8"
#4	22'-5 3/8"	86'-10 1/8"	20'-8 5/8"	11'-11 3/4"	11'-11 3/4"	20'-5 5/8"	85'-7 1/2"	32'-11"	34'-5"	32'-8 3/8"	32'-5 3/8"
#5	22'-5 1/8"	86'-9 1/2"	20'-8 1/2"	11'-11 3/4"	11'-11 3/4"	20'-5 1/2"	85'-7 1/8"	32'-10 5/8"	34'-4 5/8"	32'-8 1/4"	32'-5 1/4"

"X" & "Y" OFFSET DIMENSIONS

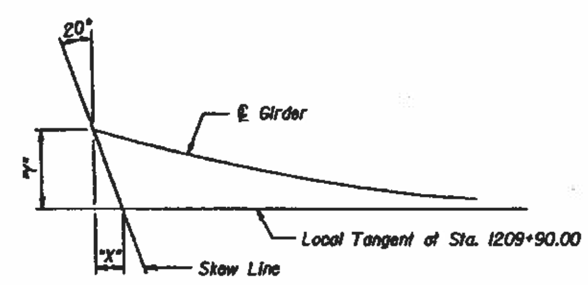
Gir. \ Loc.	℄ Brg. S. Abut.		℄ Splice #1		℄ Brg. Pier #1		℄ Splice #2		℄ Splice #3		℄ Brg. Pier #2		℄ Splice #4		℄ Brg. N. Abut.	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
#1	4'-2"	11'-5 1/2"	1'-3 1/8"	3'-7 3/4"	8 1/4"	1'-10 5/8"	2 1/8"	7 1/8"	1 5/8"	4 3/8"	5 5/8"	1'-3 1/2"	1'-0 1/8"	2'-9 1/4"	3'-4 1/2"	9'-3 3/8"
#2	4'-0 1/8"	11'-0 1/4"	1'-2 7/8"	3'-5"	7 1/2"	1'-8 3/4"	2 1/2"	6 7/8"	1 7/8"	5 1/8"	6 1/8"	1'-4 7/8"	1'-0 7/8"	2'-11 1/4"	3'-5 3/4"	9'-6 5/8"
#3	3'-10 1/4"	10'-7 1/4"	1'-2"	3'-2 3/8"	6 7/8"	1'-6 7/8"	2 1/8"	5 7/8"	2 1/8"	6"	6 5/8"	1'-6 3/8"	1'-1 1/2"	3'-1 1/4"	3'-7"	9'-10"
#4	3'-8 1/2"	10'-2 1/4"	1'-1"	2'-11 7/8"	6 1/4"	1'-5 1/4"	1 3/4"	5"	2 1/2"	6 7/8"	7 1/4"	1'-7 7/8"	1'-2 3/8"	3'-3 3/8"	3'-8 1/4"	10'-1 1/2"
#5	3'-6 3/4"	9'-9 3/8"	1'-0 1/8"	2'-9 1/2"	5 5/8"	1'-3 5/8"	1 1/2"	4 1/8"	2 7/8"	7 7/8"	7 3/4"	1'-9 1/2"	1'-3 1/8"	3'-5 1/2"	3'-9 1/2"	10'-4 7/8"

VALUES OF AA THRU DD

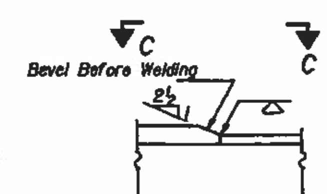
Gir. \ Loc.	AA	BB	CC	DD
#1	8"	4 1/8"	4 3/4"	6 1/8"
#2	6 7/8"	4 1/2"	4 1/2"	5 5/8"
#3	5 3/4"	4 1/8"	4 1/8"	5 3/8"
#4	4 3/4"	3 7/8"	3 3/4"	5"
#5	3 5/8"	3 1/2"	3 1/2"	4 5/8"



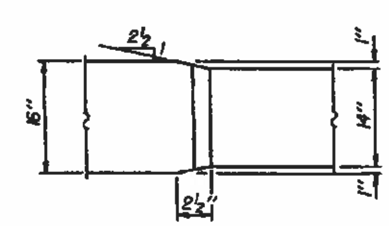
SECTION A-A



"X" & "Y" OFFSET LOCATIONS



DETAIL "B"



VIEW C-C

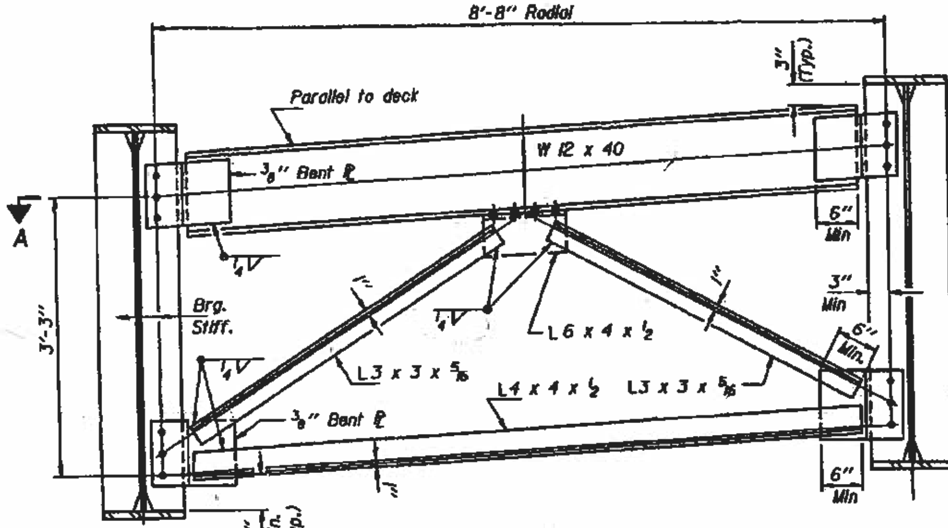
DESIGNED M. R. Abend
CHECKED Eric E. Doudy
J.T. Downing
DRAWN John F. Schneller Jr.
CHECKED GRA

Feb 11 1988
EXAMINED Orgi O. Kaspar
PASSED James T. Rayburn
APPROVED

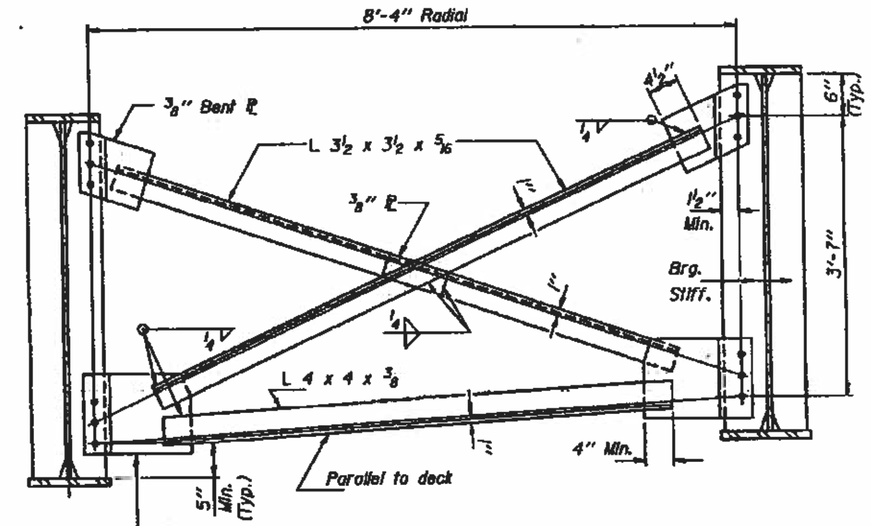
G-1 4-1-79

STRUCTURAL STEEL
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CROSS FRAME - CF
(8 Required)



CROSS FRAME - CF2
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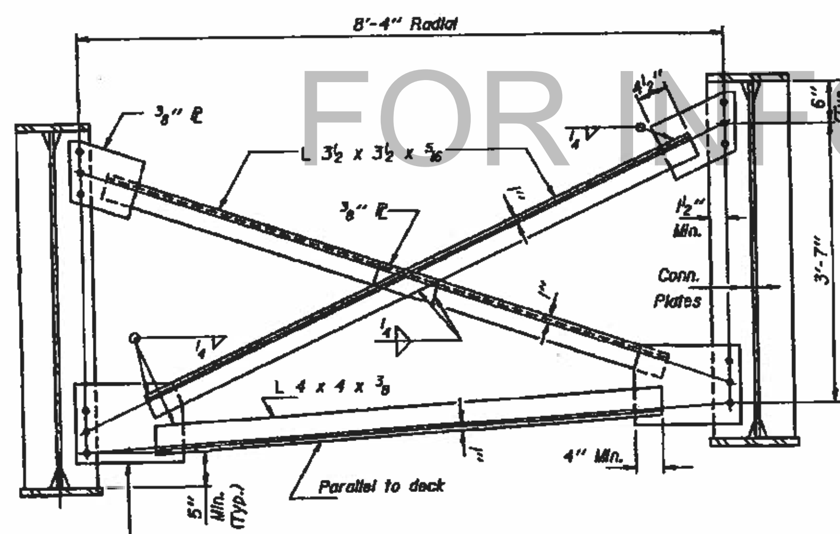
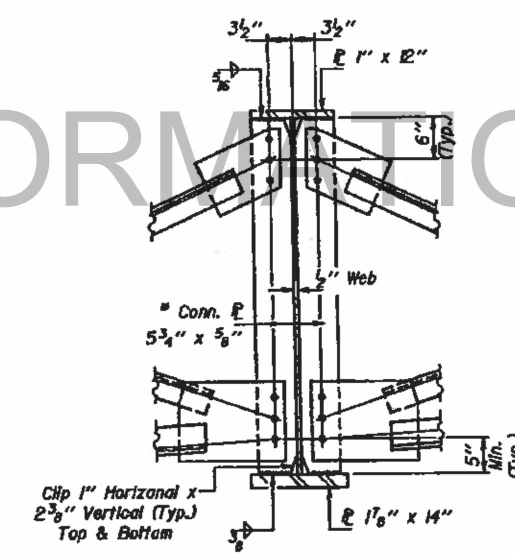
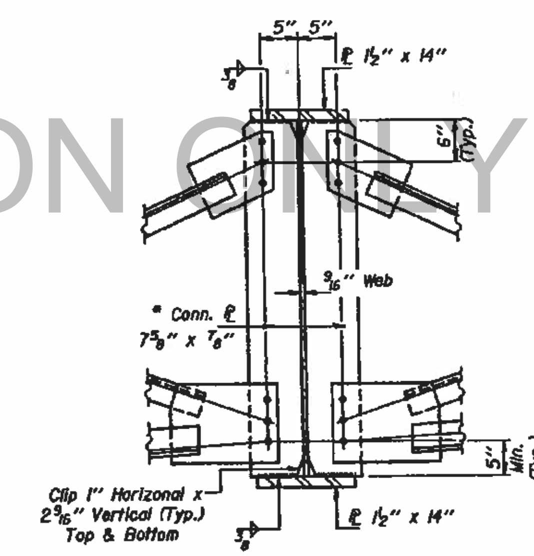


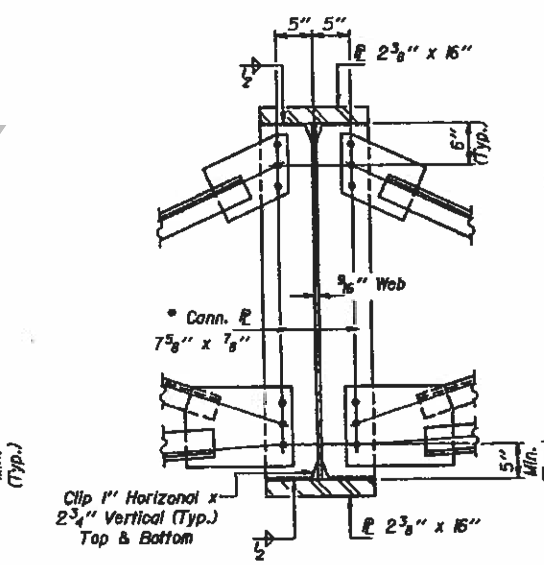
CROSS FRAME - CF1
(80 Required)



CROSS FRAME - CF1
(Showing Connecting Plates at 12" Top Flange and 14" Bottom Flange)



CROSS FRAME - CF1
(Showing Connecting Plates at 14" Top Flange and 14" Bottom Flange)



CROSS FRAME - CF1
(Showing Connecting Plates at 16" Top Flange and 16" Bottom Flange)

SHEET NO. 11
19 SHEETS

Notes:
Use 3/4"ϕ H.S. Bolts with 15/16"ϕ holes.
Two hardened washers shall be required over all holes for Cross Frame.
All connecting plates and bearing stiffeners are placed radial.
All Structural Steel for cross frames shall be AASHTO M-183.
For Section A-A see sheet #12 of 19.
* Omit connecting plates on exterior side of exterior Girders.

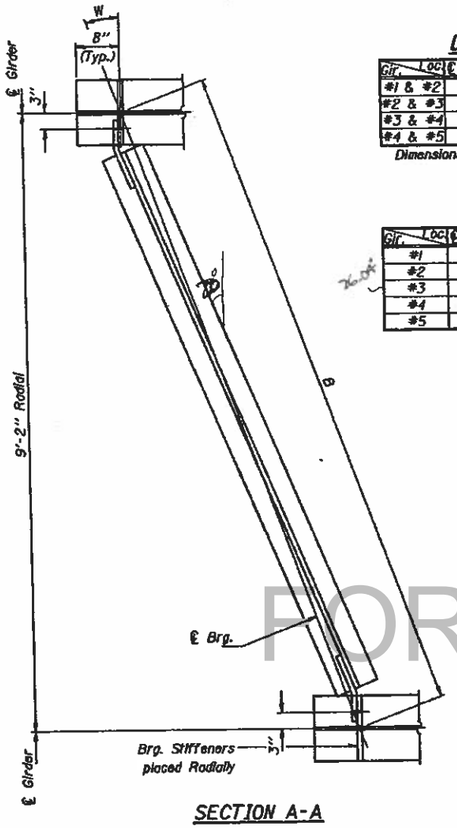
DESIGNED
CHECKED Eric E. Gundy
DRAWN John F. Schneller Jr.
CHECKED GRA

Feb 11 1988
EXAMINED
PASSED
APPROVED

STRUCTURAL STEEL
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 12
S.N.				138	19 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		



SECTION A-A

DIMENSION "B"

Gir. / Loc.	℄ Brg. S. Abut.	℄ Brg. N. Abut.
#1 & #2	10'-2 5/8"	9'-5 1/2"
#2 & #3	10'-2 1/2"	9'-5 1/2"
#3 & #4	10'-2 3/8"	9'-5 1/2"
#4 & #5	10'-2 1/4"	9'-5 3/8"

Dimensions are between Girders.

VALUE OF W

Gir. / Loc.	℄ Brg. S. Abut.	℄ Brg. N. Abut.
#1	26°-18'-40"	14°-19'-22"
#2	26°-10'-28"	14°-15'-08"
#3	26°-02'-22"	14°-10'-57"
#4	25°-54'-21"	14°-06'-48"
#5	25°-46'-25"	14°-02'-41"

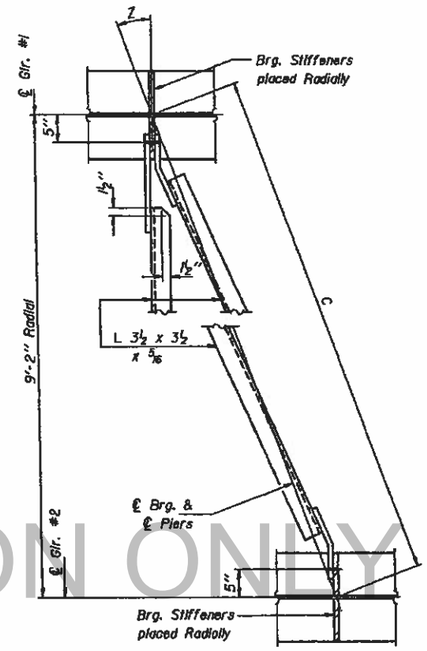
DIMENSION "C"

Gir. / Loc.	℄ Brg. Pier #1	℄ Brg. Pier #2
#1 & #2	9'-11 5/8"	9'-7 1/2"
#2 & #3	9'-11"	9'-7 1/2"
#3 & #4	9'-10 3/8"	9'-7 1/2"
#4 & #5	9'-10 3/4"	9'-7 3/8"

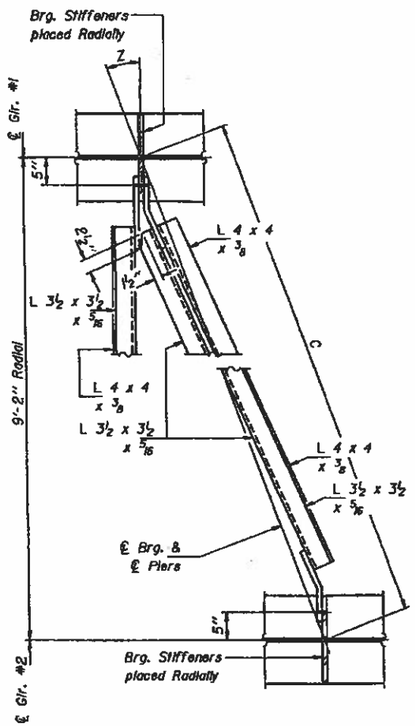
Dimensions are between Girders.

VALUE OF Z

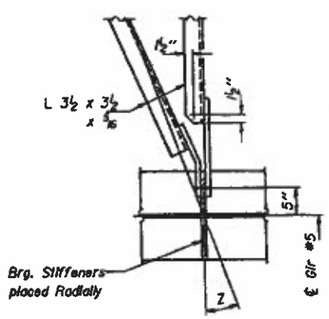
Gir. / Loc.	℄ Brg. Pier #1	℄ Brg. Pier #2
#1	22°-33'-22"	17°-53'-01"
#2	22°-26'-29"	17°-47'-40"
#3	22°-19'-40"	17°-42'-22"
#4	22°-12'-56"	17°-37'-08"
#5	22°-06'-15"	17°-31'-56"



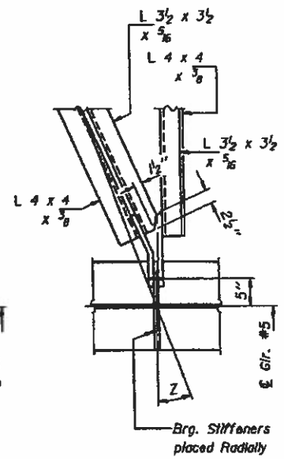
DETAIL "A"
(Top)



DETAIL "A"
(Bottom)



DETAIL "B"
(Top)



DETAIL "B"
(Bottom)

Notes: Work this sheet with sheets #9 and #11 of 19.

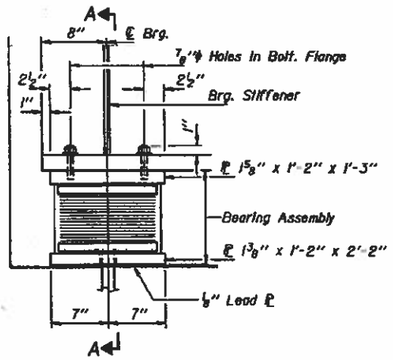
DESIGNED W. R. Wentz
CHECKED Eric E. Gourdy
DRAWN John F. Schaeller Jr.
CHECKED GPA

Feb 11 1988
EXAMINED Oraj O. Kaspar
DESIGN OF BRIDGE DIVISION
PASSED James T. Graham
DESIGN OF BRIDGES AND STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

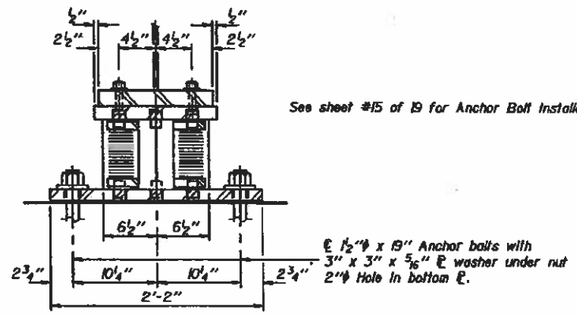
STRUCTURAL STEEL
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 13
139 19 SHEETS



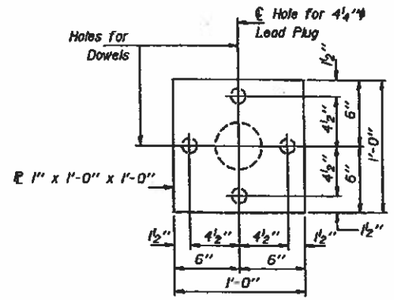
ELEVATION AT ABUTS.



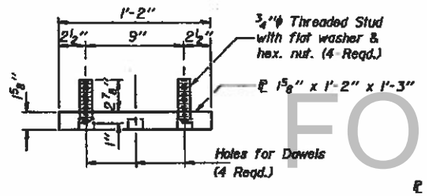
See sheet #15 of 19 for Anchor Bolt Installation.

SECTION A-A

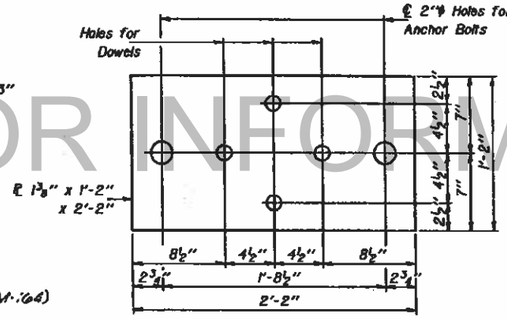
SEISMIC ISOLATION BEARING 1'-1" x 1'-1"



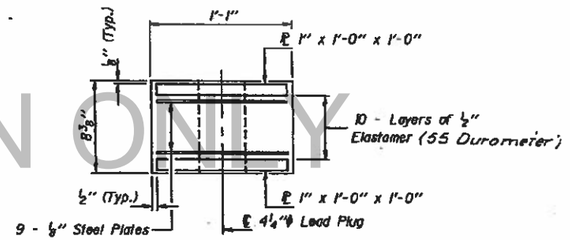
PLAN - TOP 1" PLATE



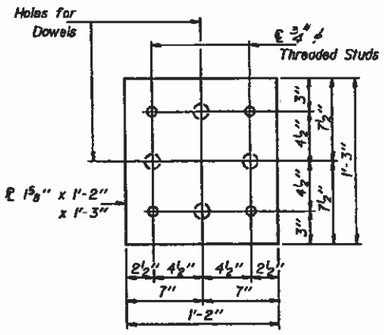
*TOP BEARING ASSEMBLY



*PLAN - BOTTOM BEARING ASSEMBLY

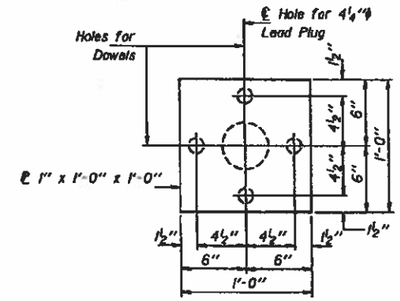


INTERIOR BEARING ASSEMBLY



*PLAN - TOP BEARING ASSEMBLY

*The Top & Bottom Plates of the Bearing Assembly shall be AASHTO M-223 Grade 50.



PLAN - BOTTOM 1" PLATE

BILL OF MATERIAL

Item	Unit	Total
Seismic Isolation Bearing Assy. 13"x13"	Each	10

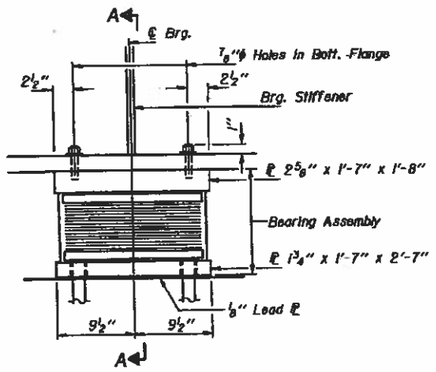
DESIGNED	H. R. Brandt
CHECKED	Eric E. Dowdy
DRAWN	John F. Schneller Jr.
CHECKED	GRA

Feb 11 1988
EXAMINED Engineer of Bridge Design
PASSED Engineer of Bridge and Structures
APPROVED Director of Highways

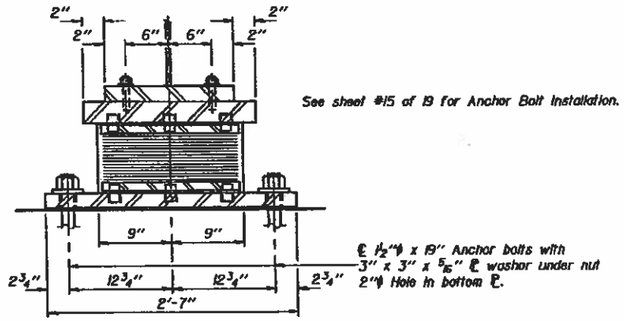
ABUTMENT BEARING DETAILS
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					SHEET NO. 14
				140	19 SHEETS



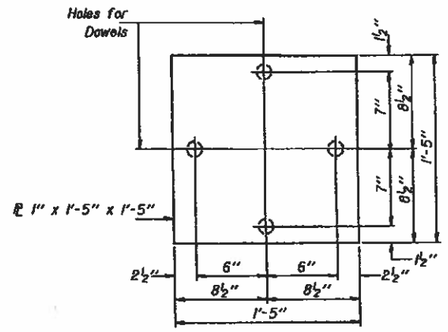
ELEVATION AT PIERS



See sheet #15 of 19 for Anchor Bolt Installation.

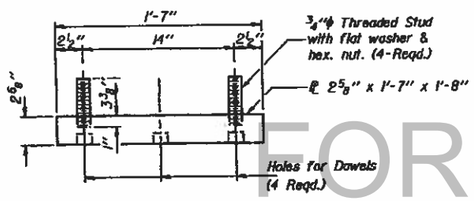
℄ 1½"ϕ x 19" Anchor bolts with 3" x 3" x 5/16" ℄ washer under nut 2"ϕ Hole in bottom ℄.

SECTION A-A

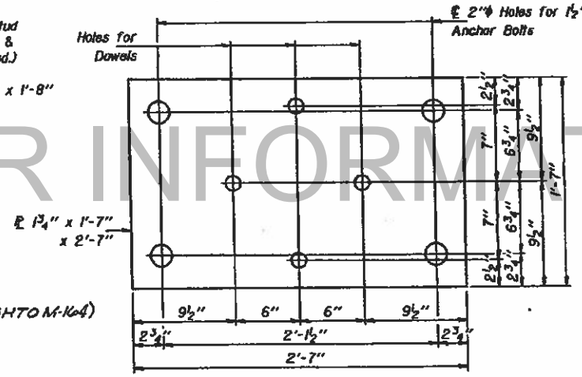


PLAN - TOP 1" PLATE

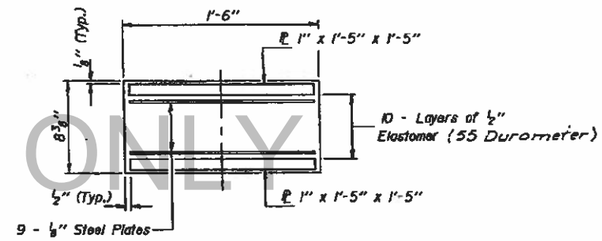
SEISMIC ISOLATION BEARING 1'-6" x 1'-6"



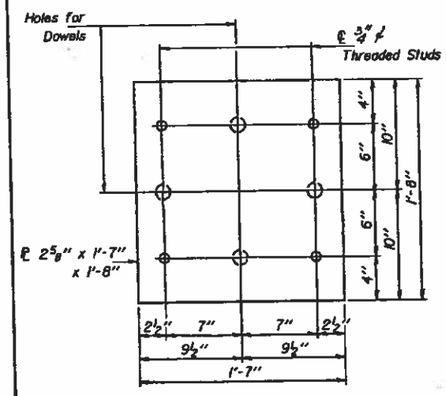
*TOP BEARING ASSEMBLY



*PLAN - BOTTOM BEARING ASSEMBLY

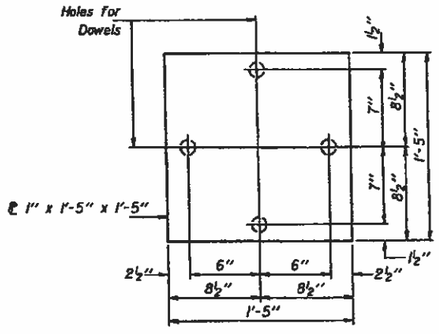


INTERIOR BEARING ASSEMBLY



*PLAN - TOP BEARING ASSEMBLY

*The Top & Bottom Plates of the Bearing Assembly shall be AASHTO M-223 Grade 50.



PLAN - BOTTOM 1" PLATE

BILL OF MATERIAL

Item	Unit	Total
Seismic Isolation Bearing Assy. 18"x 18"	Each	10

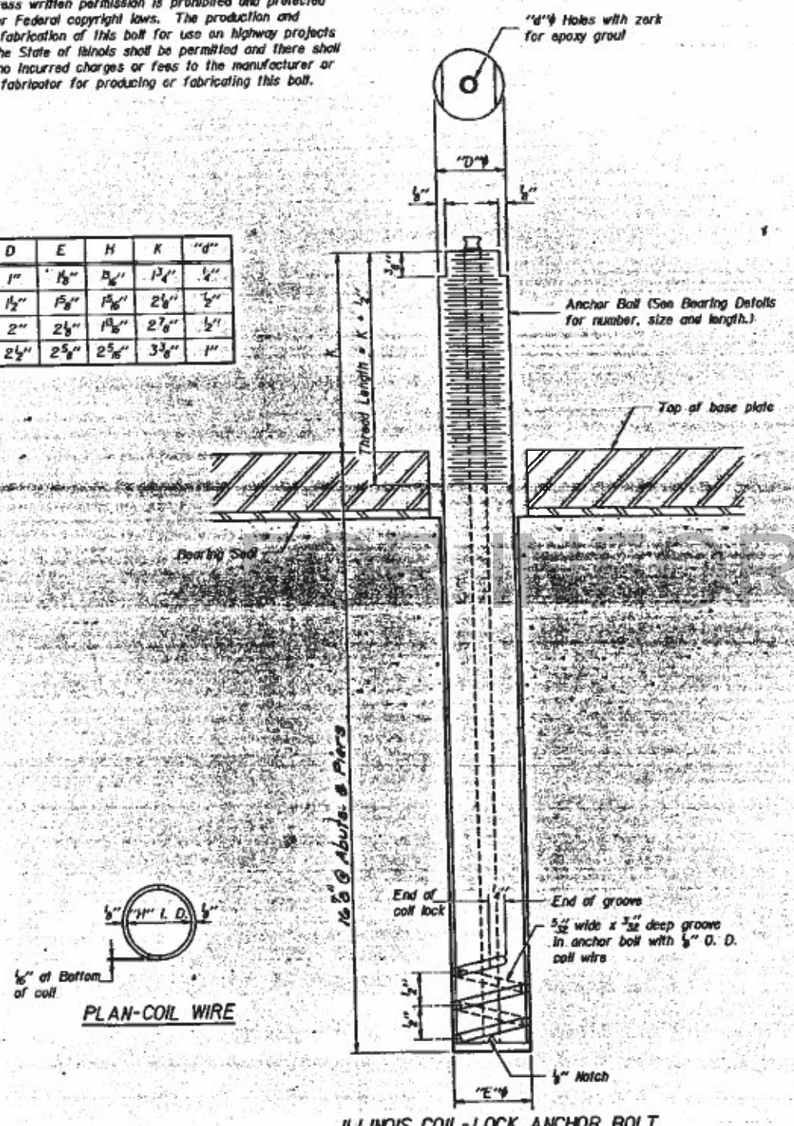
DESIGNED H. R. Albrecht	Feb 11 1988
CHECKED Eric E. Hourly	EXAMINED Engr. of Bridges
DRAWN John F. Schaeller Jr.	PASSED James T. Roberson ENGINEER OF BRIDGES AND STRUCTURES
CHECKED GRA	APPROVED DIRECTOR OF HIGHWAYS

PIER BEARING DETAILS
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

				141

SHEET NO. 15
19 SHEETS



D	E	H	K	"d"
1"	1⅛"	1⅝"	1¾"	½"
1½"	1⅝"	1¹⁵/₁₆"	2⅛"	½"
2"	2⅛"	1¹⁵/₁₆"	2⅞"	½"
2½"	2⅝"	2⁵/₁₆"	3⅜"	1"

PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C881, Type I, Grade I and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

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

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two-part system composed of:

1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

Anchor bolts, nuts and washers shall be completely coated by either the hot-dipped process conforming with AASHTO M 232 or the mechanical plating method conforming to ASTM B 695, Class 50. Zinc-coated nuts shall be tapped oversize in accordance with the requirements of AASHTO M 291 and shall meet the supplementary requirements S1.1 thru S1.2.1 of the same specifications for lubricant and testing.

DESIGNED	H. P. Aleck	EXAMINED	Feb 11 1988
CHECKED	Eric E. Hendy	PASSED	
DRAWN	J. SCHNELLER	APPROVED	
CHECKED	GRA		

ABB-1 12-1-83

ANCHOR BOLT DETAILS
FOR BEARINGS
F.A. RT. 74 SEC. 133B-1
ALEXANDER COUNTY
STA. 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 16
142
19 SHEETS

End Post shall be poured after bridge parapet is in place. Form top surface to match parapet grade.

* Elevations are given at front face of hatched block.

Notes: Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.

Hatched area to be poured after superstructure forms have been removed. Quantity of Concrete included with Class X Concrete Superstr.

Bars indicated thus 3 x 2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

WING WALL ELEVATION

ELEVATION
(Looking South)

WING WALL ELEVATION
Reinforcement

SEC. B-B

PILE ENCASEMENT DETAIL

Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Welded Wire Fabric & Class X Concrete Encasement is incidental to the cost of furnishing piles. Forms for encasement may be omitted when soil conditions will permit.

ANCHOR BOLT LOCATION DETAIL

SEC. A-A

SEC. THRU ABUT.

TOP VIEW

PILE DATA

Type: HP12x74
Capacity: Driven to Refusal
Est. Length: 91 Ft.
No. Req'd: 18 + 1 Test Pile

PLAN-PILE CAP

BAR h_{32}

BAR h_{33}

BAR h_{36}

BARS h_{32} & h_{33}

BARS s_{30} & s_{32}

BAR u_{30}

BAR u_{31}

BARS v_{31} & v_{32}

BARS v_{35} & v_{36}

BAR v_{37}

BARS u_{32}, s_{31} & s_{33}

MIN. BAR LAPS

#5 bars = 1'-9"
#6 bars = 2'-0"
#7 bars = 3'-5"

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{30}	8	#6	23'-4"	
h_{31}	12	#5	23'-2"	
h_{32}	14	#5	6'-0"	L
h_{33}	14	#5	6'-0"	
h_{34}	9	#5	12'-4"	
h_{35}	3	#5	8'-2"	
h_{36}	2	#5	18'-4"	
h_{37}	26	#4	15'-3"	
h_{38}	18	#4	15'-2"	
n_{30}	13	#6	11'-8"	
n_{31}	13	#6	16'-2"	
n_{32}	6	#6	5'-10"	
n_{33}	6	#6	8'-1"	
p_{30}	16	#7	26'-0"	
p_{31}	12	#7	15'-3"	
s_{30}	48	#5	16'-7"	
s_{31}	8	#5	10'-8"	
s_{32}	32	#4	9'-5"	
s_{33}	39	#4	11'-8"	
u_{30}	4	#6	15'-3"	
u_{31}	6	#6	9'-6"	
u_{32}	45	#5	1'-11"	
v_{30}	90	#4	8'-0"	
v_{31}	13	#6	8'-9"	
v_{32}	13	#6	9'-0"	
v_{33}	16	#6	8'-9"	
v_{34}	16	#6	9'-0"	
v_{35}	3	#6	8'-9"	
v_{36}	3	#6	9'-0"	
v_{37}	45	#5	3'-5"	
v_{38}	45	#5	2'-9"	
Class X Concrete			Cu. Yd.	77.2
Reinforcement Bars			Lbs.	6,580
Steel Piles HP12x74			Lin. Ft.	1638
Test Piles HP12x74			Each	1

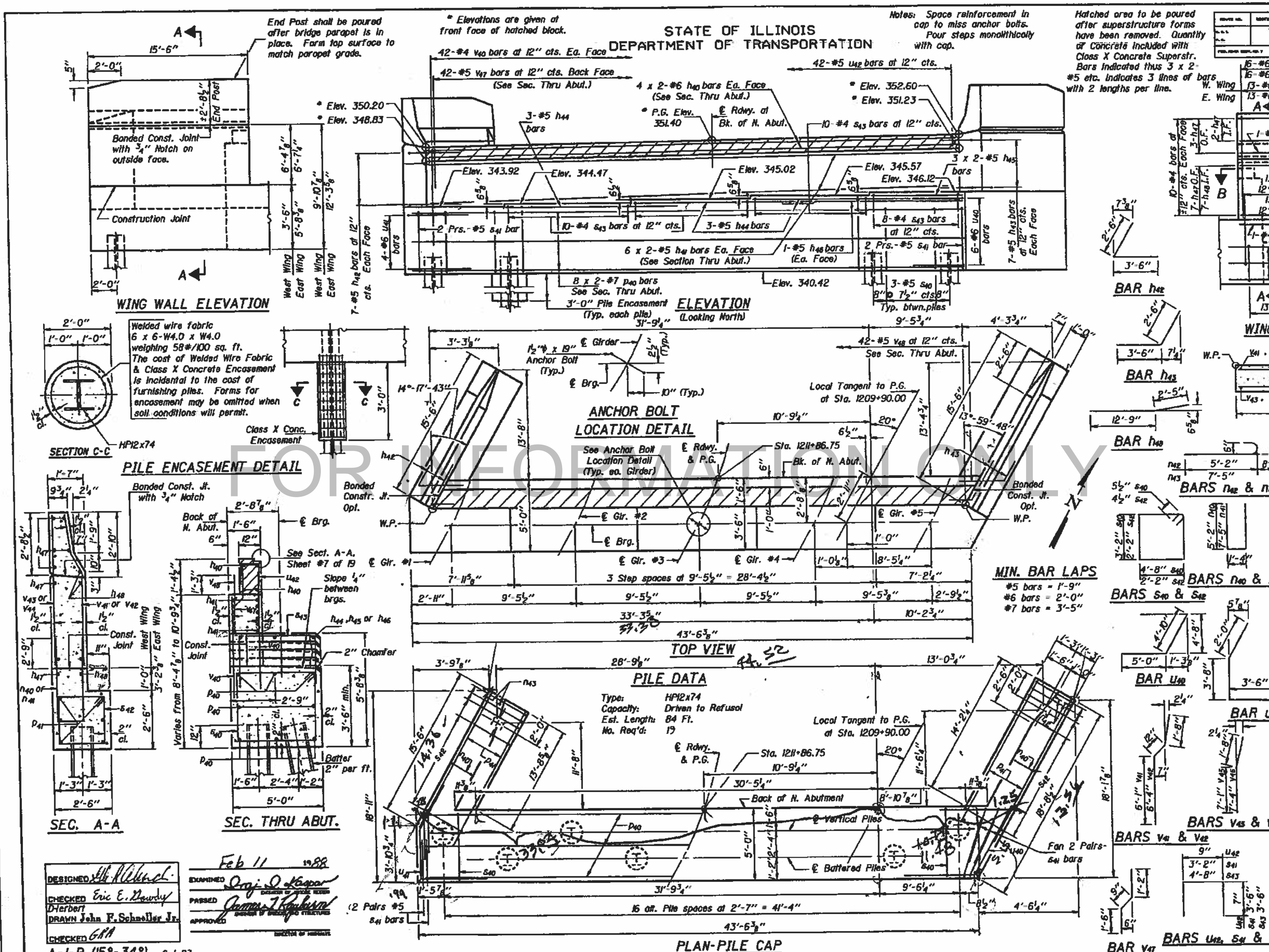
DESIGNED H. R. Allen Jr.
CHECKED Eric E. Howdy
DRAWN John F. Schneller Jr.
CHECKED GRA

Feb 11 19 88
EXAMINED Engineer of Bridges and Structures
PASSED
APPROVED Director of Highways

A-1-R (15°-34°) 6-1-83

SOUTH ABUTMENT
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NORTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_{40}	8	#6	21'-8"	
h_{41}	12	#5	21'-6"	
h_{42}	14	#5	6'-0"	
h_{43}	14	#5	6'-0"	
h_{44}	9	#5	11'-3"	
h_{45}	6	#5	4'-11"	
h_{46}	2	#5	17'-6"	
h_{47}	26	#4	15'-3"	
h_{48}	18	#4	15'-2"	
n_{40}	13	#6	11'-8"	
n_{41}	13	#6	16'-2"	
n_{42}	6	#6	5'-10"	
n_{43}	6	#6	8'-1"	
p_{40}	16	#7	24'-2"	
p_{41}	12	#7	15'-3"	
s_{40}	48	#5	16'-7"	
s_{41}	8	#5	10'-2"	
s_{42}	32	#4	9'-5"	
s_{43}	38	#4	11'-8"	
u_{40}	6	#6	14'-10"	
u_{41}	4	#6	9'-2"	
u_{42}	42	#5	1'-11"	
v_{40}	84	#4	8'-0"	
v_{41}	13	#6	8'-9"	
v_{42}	13	#6	9'-0"	
v_{43}	16	#6	8'-9"	
v_{44}	16	#6	9'-0"	
v_{45}	3	#6	8'-9"	
v_{46}	3	#6	9'-0"	
v_{47}	42	#5	3'-5"	
v_{48}	42	#5	2'-9"	
Class X Concrete			Cu. Yd.	73.5
Reinforcement Bars			Lbs.	6,420
Steel Piles HP12x74			Lin. Ft.	1,596

NORTH ABUTMENT
F.A. RT. 14 SECTION 133B-1
ALEXANDER COUNTY
STATION 1209+90.00

DESIGNED [signature]
CHECKED Eric E. Gowdy
D. Herbert
DRAWN John F. Schneller Jr.
CHECKED GRA
EXAMINED [signature]
PASSED James T. [signature]
APPROVED
Feb 11 1988
A-I-R (15°-34°) 6-1-83

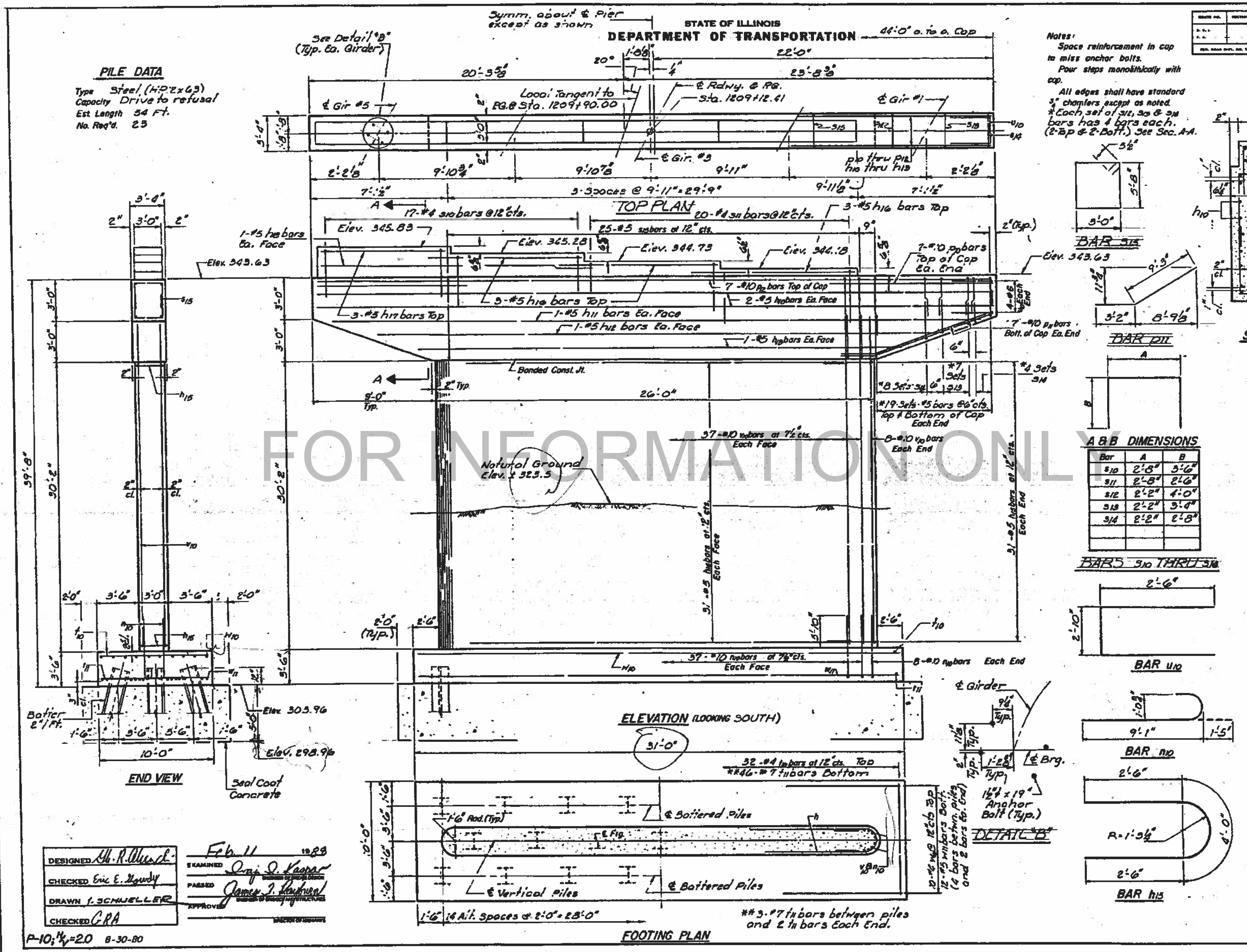
STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SHEET NO. 18

19 SHEETS

144



Notes:

Space reinforcement in cap to miss anchor bolts.

Pour steps monolithically with cap.

All edges shall have standard ¾" chamfers except as noted.

*Each set of s12, s13 & s14 bars has 4 bars each. (2-Top & 2-Bott.) See Sec. A-A.

A & B DIMENSIONS

Bar	A	B
s10	2'-8"	3'-6"
s11	2'-8"	2'-6"
s12	2'-2"	4'-0"
s13	2'-2"	3'-4"
s14	2'-2"	2'-8"

BARS s10 THRU s14

PIER #1 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h10	4	#5	43'-9"	—
h11	2	#5	40'-10"	—
h12	2	#5	35'-0"	—
h13	2	#5	29'-2"	—
h14	62	#5	23'-0"	—
h15	62	#5	9'-0"	⊃
h16	9	#5	11'-2"	—
h17	3	#5	6'-8"	—
h18	2	#5	16'-9"	—
n10	90	#10	10'-6"	⊃
p10	14	#10	17'-0"	—
p11	28	#10	12'-5"	—
p12	7	#10	43'-9"	—
s10	17	#4	9'-8"	⊓
s11	20	#4	7'-8"	⊓
s12	64	#5	10'-2"	⊓
s13	56	#5	8'-10"	⊓
s14	32	#5	7'-6"	⊓
s15	25	#5	18'-5"	☐
t10	32	#4	9'-9"	—
t11	46	#7	9'-9"	—
u10	8	#6	7'-10"	⊏
v10	90	#10	34'-3"	—
w10	10	#4	30'-9"	—
w11	12	#5	30'-9"	—

Class X Concrete	Cu. Yds.	159.8
Reinforcement Bars	Lbs.	27,740
Steel Piles HP12x63	Lin. Ft.	1,242
Seal Coat Concrete	Cu. Yds.	90.8

PIER #1
F.A. RT. 14 SEC. 1330-1
ALEXANDER COUNTY
STA. 1209+90.00

DESIGNED M. R. Olivero
CHECKED Eric E. Gowdy
DRAWN J. Schueller
CHECKED C.R.A.

Feb. 11 1983

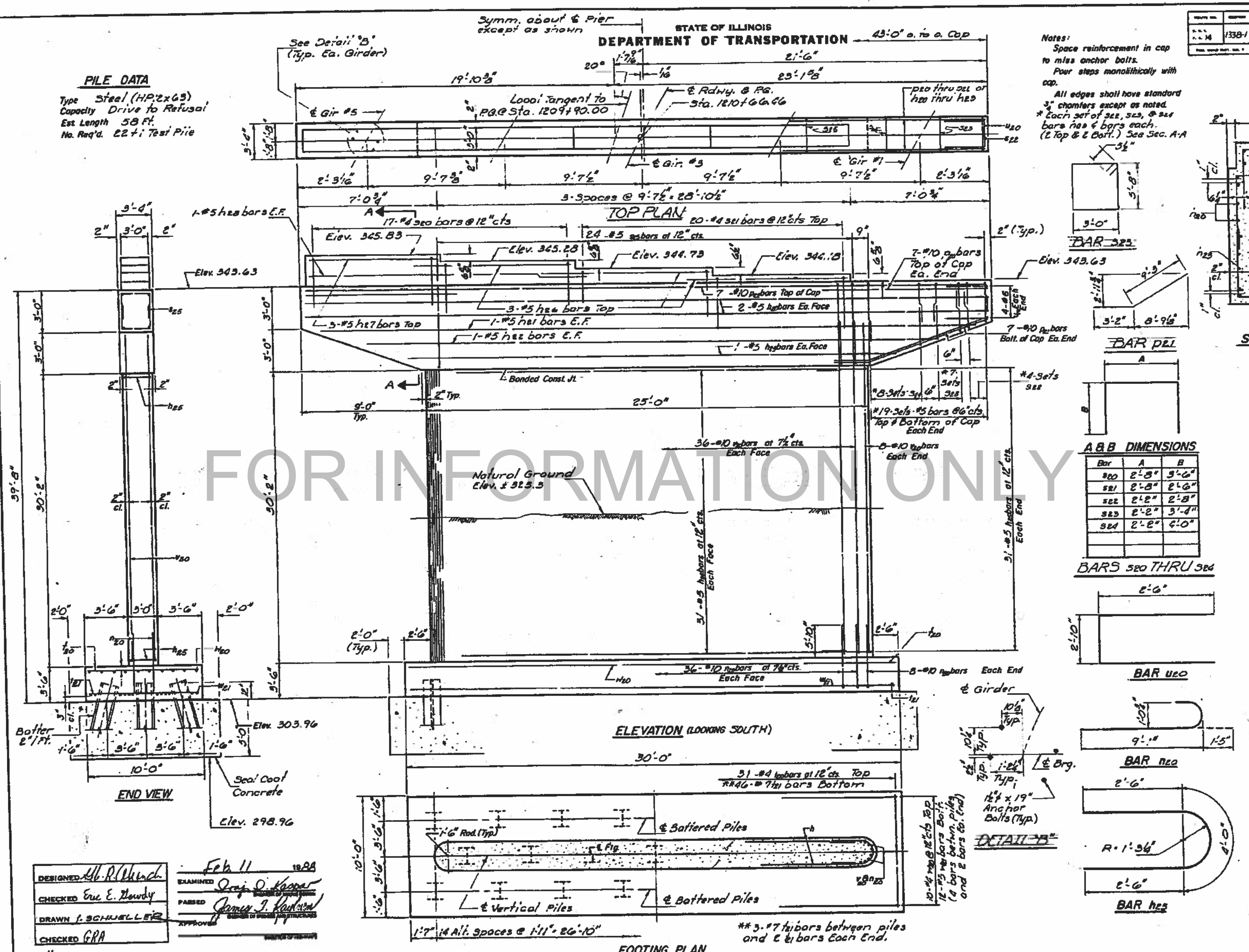
EXAMINED
PASSED
APPROVED

P-10; H/V=2.0 8-30-80

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Route No.	Section	County	Total Sheets	Sheet No.
F.A. Rt. 14	1338-I	Alexander	145	145

SHEET NO. 19
19 SHEETS



Notes:

Space reinforcement in cap to miss anchor bolts.

Pour steps monolithically with cap.

All edges shall have standard ¾" chamfers except as noted.

* Each set of s22, s23, & s24 bars has 4 bars each. (2 Top & 2 Bott.) See Sec. A-A

A & B DIMENSIONS

Bar	A	B
s20	2'-8"	3'-6"
s21	2'-8"	2'-6"
s22	2'-2"	2'-8"
s23	2'-2"	3'-4"
s24	2'-2"	4'-0"

BARS s20 THRU s24

PIER #2
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h20	4	#5	42'-9"	—
h21	2	#5	39'-10"	—
h22	2	#5	34'-0"	—
h23	2	#5	28'-2"	—
h24	62	#5	22'-0"	—
h25	62	#5	9'-0"	⊐
h26	9	#5	10'-10"	—
h27	3	#5	6'-8"	—
h28	2	#5	16'-6"	—
n20	88	#10	10'-6"	⊐
p20	14	#10	17'-0"	—
p21	28	#10	12'-5"	⟋
p22	7	#10	42'-9"	—
s20	17	#4	9'-8"	⊓
s21	20	#6	7'-8"	⊓
s22	32	#5	7'-6"	⊓
s23	56	#5	8'-10"	⊓
s24	64	#5	10'-2"	⊓
s25	24	#5	18'-3"	☐
t20	31	#4	9'-9"	—
t21	46	#7	9'-9"	—
u20	8	#6	7'-10"	⊏
v20	88	#10	34'-5"	—
w20	10	#4	29'-9"	—
w21	12	#5	29'-9"	—

Item	Unit	Quantity
Class X Concrete	Cu. Yds.	154.9
Reinforcement Bars	Lbs.	27,200
Steel Piles HP12x63	Lin. Ft.	1,276
Test Piles Steel HP12x63	Each	1
Seal Coat Concrete	Cu. Yds.	88.1

PIER #2
F.A. RT. 14 SEC. 1338-I
ALEXANDER COUNTY
STA. 1209+90.00

DESIGNED	G. R. Church
CHECKED	Eric E. Dowdy
DRAWN	J. Schueller
CHECKED	GRA

Feb. 11 1988
EXAMINED: [signature]
PASSED: James I. [signature]
APPROVED

P-10; 14/20 8-30-80