

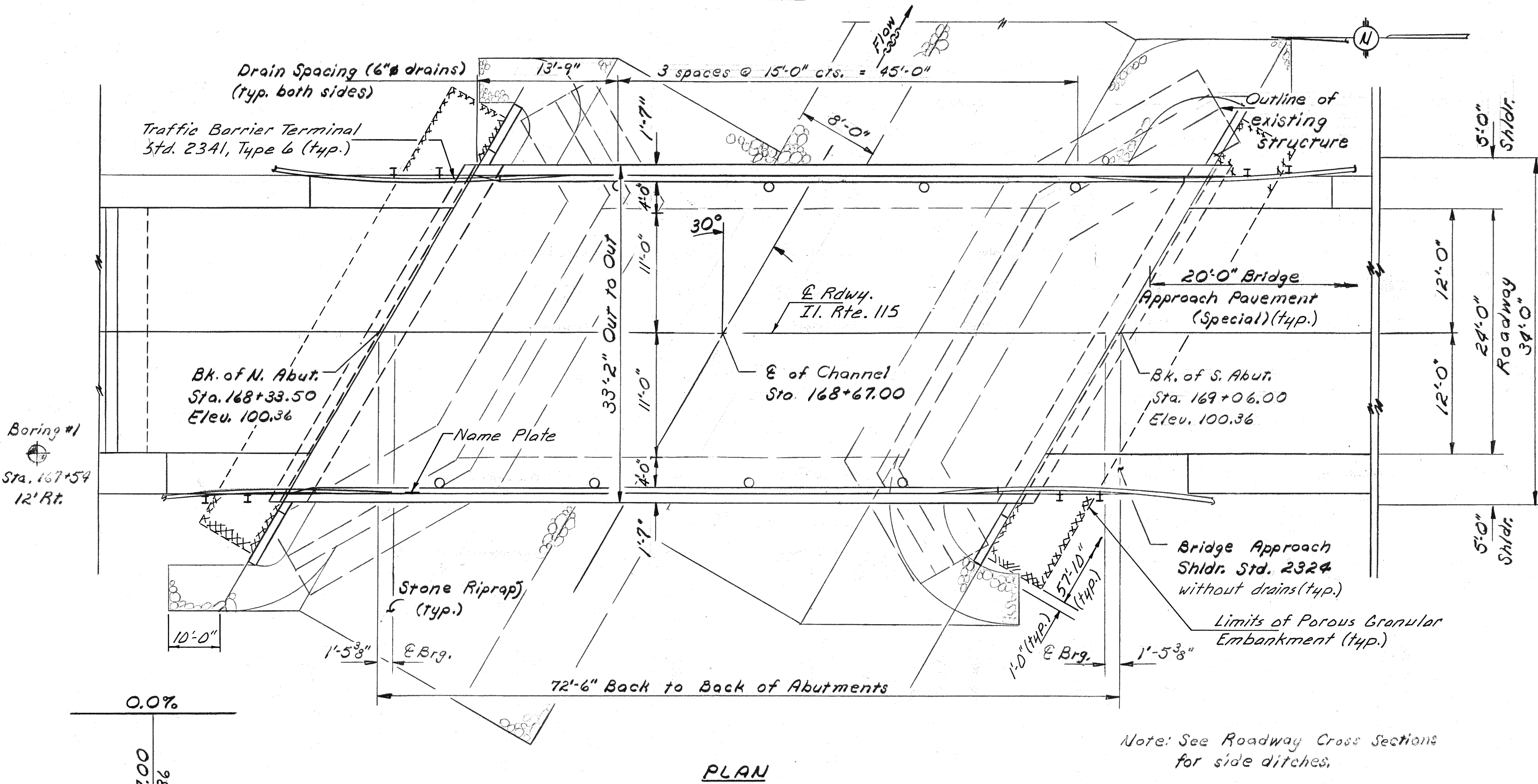
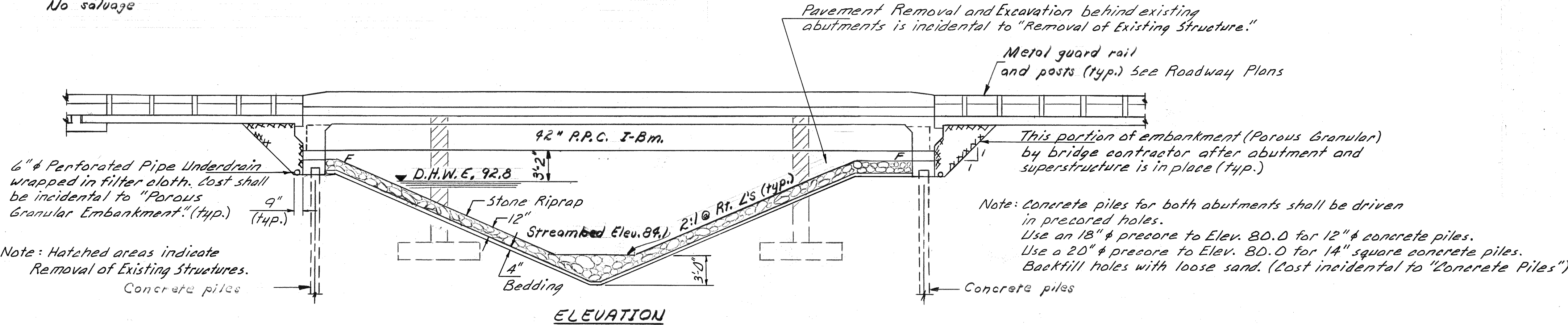
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. /
S.B.I. 115	4	FORD	35	11	8 SHEETS
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
* 109BR, 110BR, I					

GENERAL NOTES

See Proposal for Boring Data.
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 contractor shall drive one concrete test pile in a permanent location at the North Abutment as directed by the Engineer before ordering the remainder of piles.

Bench Mark: B.M. - #1 Chiseled "B" on S.E. wingwall @ Sta. 169+03.15.5' Left - Elev. 100.00
Existing Structure: S.N. 027-0041 Built in 1928 & rehabilitated in 1967. A single span R.C. tee-girder bridge on closed abutments; width = 22'-2" face to face of curbs; length = 43'-5" Back to Back of abutments. The existing structure shall be removed by the contractor and replaced with a single span bridge (P.R.C. I-Beam girders, 7 1/2" R.C. slab, with integral abutments). Traffic shall be detoured during construction.
No salvage



TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures	Each			1
Concrete Piles	Lin. Ft.		594	594
Test Pile Concrete	Each		1	1
Class X Concrete Superstructure	Cu. Yd.	106.2		106.2
Class X Concrete	Cu. Yd.		22.0	22.0
Reinforcement Bars	Lb.	1740	4590	6330
Reinforcement Bars (Epoxy Coated)	Lb.	15450		15450
Precast Prestressed Concrete I Bms. 42"	Lin. Ft.	352		352
Structure Excavation	Cu. Yd.		63	63
Porous Granular Embankment	Cu. Yd.		82	82
Stone Riprap	Sq. Yd.		812	812
Name Plates	Each	1		1
Floor Drains	Each	8		8
Protective Coat	Sq. Yd.	59		59

STATION 168+67.00
BUILT 198 BY
STATE OF ILLINOIS
S.B.I. RTE. 115 SEC. 109BR
LOADING HS20
STR. NO. 027-0082

NAME PLATE
See Std. 2113

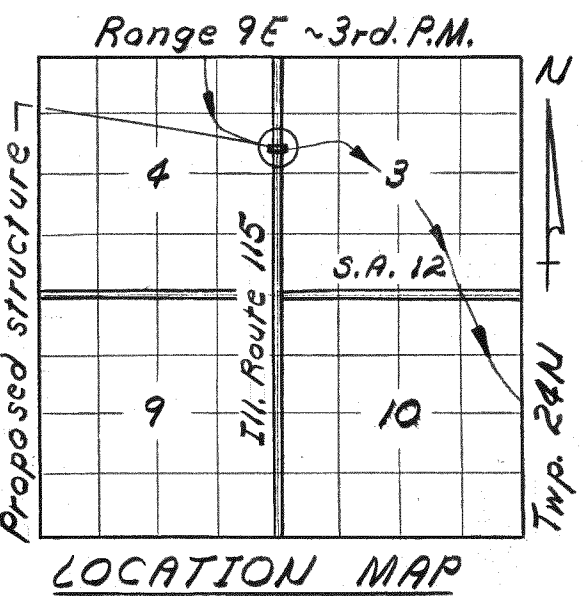
DESIGN STRESSES

Field Units
f'c = 3,500 p.s.i.
f'y = 60,000 p.s.i. (reinf.)
Precast Prestressed Units
f'c = 6,000 p.s.i.
f'cs = 4,600 p.s.i.
f's = 270,000 p.s.i. (2# strands)
f'sj = 189,000 p.s.i. (2# strands)

DESIGN SPECIFICATIONS
1983 AASHTO, 1984 & 1985 Interim Specifications
LOADING HS20-44
Allow 25 #1 sq. ft. for future wearing surface.

WATERWAY INFORMATION

Drainage Area 3.40 sq. mi.		Low Grade Elev. 100.22			@ Sta. 167+50.00				
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Not. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	473	210	221	92.8	0.0	0.0	92.8	92.8
Base	100	602	242	261	93.7	0.0	0.0	93.7	93.7
Overtopping									
Max. Calc.	500	774		315	94.8		0.0		94.8

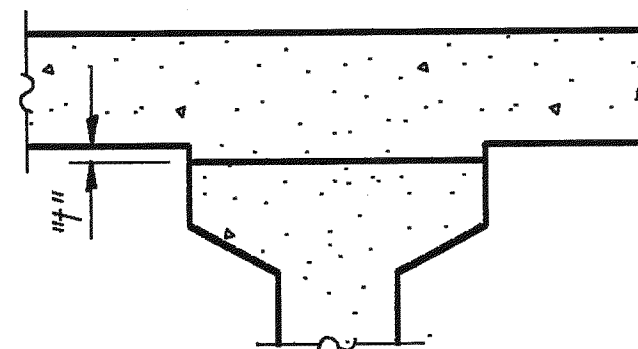


GENERAL PLAN
ILLINOIS ROUTE 115 OVER DRAINAGE
DITCH
S.B.I. ROUTE 115 ~ SECTION 109BR
FORD COUNTY
STATION 168+67.00
STRUCTURE NO. 027-0082

DESIGNED <i>Kenneth J. Rieckert</i>
CHECKED <i>Ralph E. Anderson</i>
DRAWN <i>R. Sommer</i>
CHECKED <i>K.L.R. R.E.A.</i>

May 14 1987
EXAMINED *Dan J. Kaspar*
PASSED *James J. Farnham*
APPROVED
DIRECTOR OF HIGHWAYS

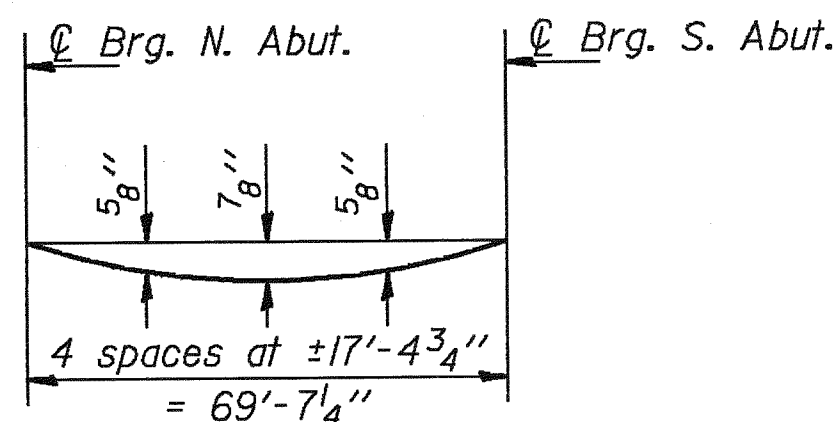
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



ROUTE NO.	SECTION	COUNTY	STATION	SHEET
S.B.I. 115	*	FORD	35	12
P.A.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 2

8 SHEETS



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab 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.

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	16841.294	-13.500	100.136	100.136
Br. N. Abut.	16842.737	-13.500	100.136	100.136
A	16852.737	-13.500	100.136	100.166
B	16862.737	-13.500	100.136	100.191
C	16872.737	-13.500	100.136	100.203
D	16882.737	-13.500	100.136	100.203
E	16892.737	-13.500	100.136	100.191
F	16902.737	-13.500	100.136	100.165
Br. S. Abut.	16912.351	-13.500	100.136	100.136
Bk. S. Abut.	16913.794	-13.500	100.136	100.136

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	16837.397	-6.750	100.254	100.254
Br. N. Abut.	16838.840	-6.750	100.254	100.254
A	16848.840	-6.750	100.254	100.284
B	16858.840	-6.750	100.254	100.310
C	16868.840	-6.750	100.254	100.322
D	16878.840	-6.750	100.254	100.321
E	16888.840	-6.750	100.254	100.309
F	16898.840	-6.750	100.254	100.283
Br. S. Abut.	16908.454	-6.750	100.254	100.254
Bk. S. Abut.	16909.897	-6.750	100.254	100.254

BEAM 3 & ROADWAY

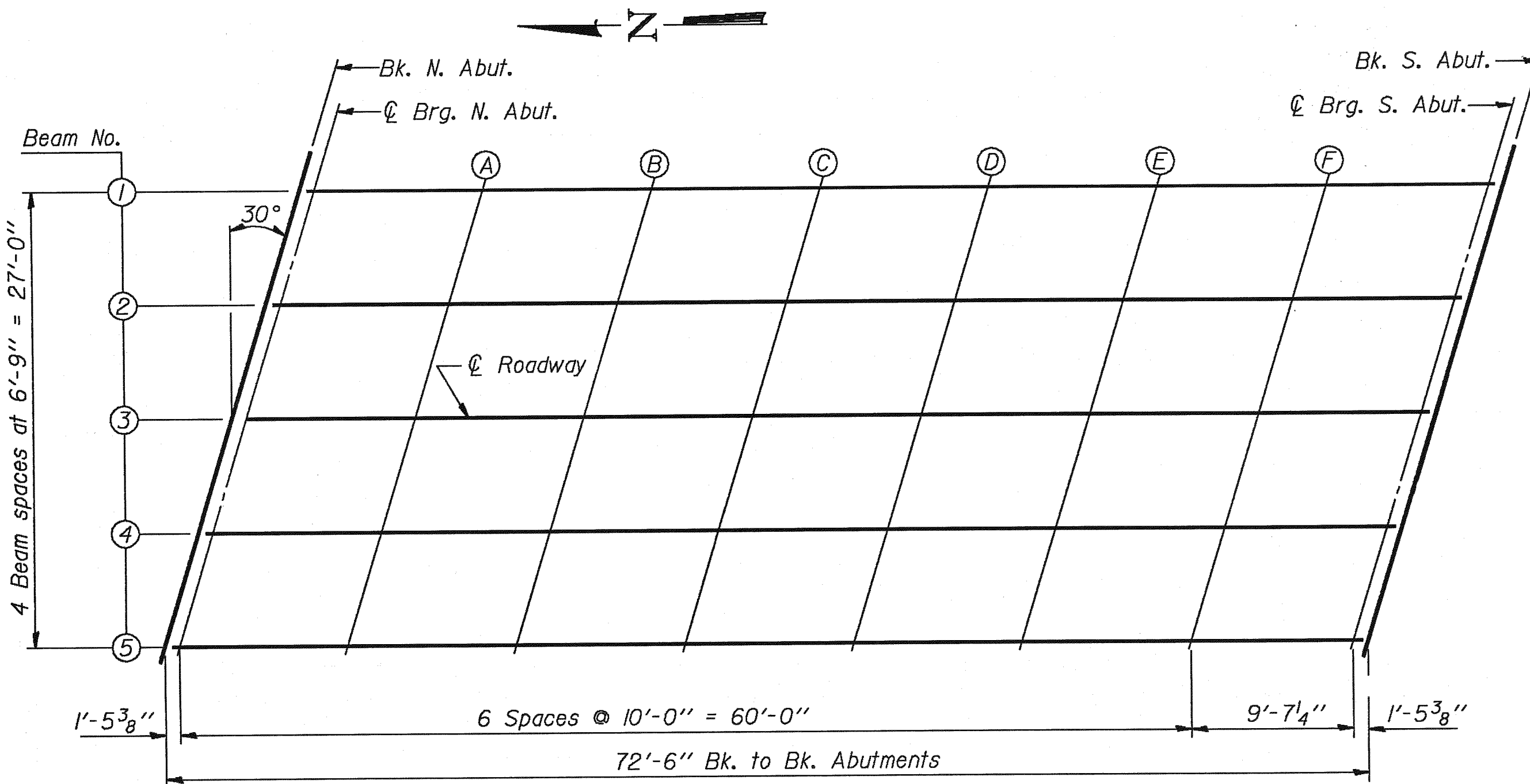
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	16833.500	0.000	100.360	100.360
Br. N. Abut.	16834.943	0.000	100.360	100.360
A	16844.943	0.000	100.360	100.390
B	16854.943	0.000	100.360	100.415
C	16864.943	0.000	100.360	100.427
D	16874.943	0.000	100.360	100.427
E	16884.943	0.000	100.360	100.415
F	16894.943	0.000	100.360	100.389
Br. S. Abut.	16904.557	0.000	100.360	100.360
Bk. S. Abut.	16906.000	0.000	100.360	100.360

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	16829.603	6.750	100.254	100.254
Br. N. Abut.	16831.046	6.750	100.254	100.254
A	16841.046	6.750	100.254	100.284
B	16851.046	6.750	100.254	100.310
C	16861.046	6.750	100.254	100.322
D	16871.046	6.750	100.254	100.321
E	16881.046	6.750	100.254	100.309
F	16891.046	6.750	100.254	100.283
Br. S. Abut.	16900.660	6.750	100.254	100.254
Bk. S. Abut.	16902.103	6.750	100.254	100.254

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	16825.706	13.500	100.136	100.136
Br. N. Abut.	16827.149	13.500	100.136	100.136
A	16837.149	13.500	100.136	100.166
B	16847.149	13.500	100.136	100.191
C	16857.149	13.500	100.136	100.203
D	16867.149	13.500	100.136	100.203
E	16877.149	13.500	100.136	100.191
F	16887.149	13.500	100.136	100.165
Br. S. Abut.	16896.763	13.500	100.136	100.136
Bk. S. Abut.	16898.206	13.500	100.136	100.136



PLAN

DESIGNED <i>Kevin L. Richens</i>
CHECKED <i>Ralph E. Anderson</i>
DRAWN <i>R. Sommer</i>
CHECKED <i>K.L.R. R.E.A.</i>

EXAMINED <i>May 14 1987</i>
PASSED <i>James J. Robinson</i>
APPROVED <i>James J. Robinson</i>

PI-E

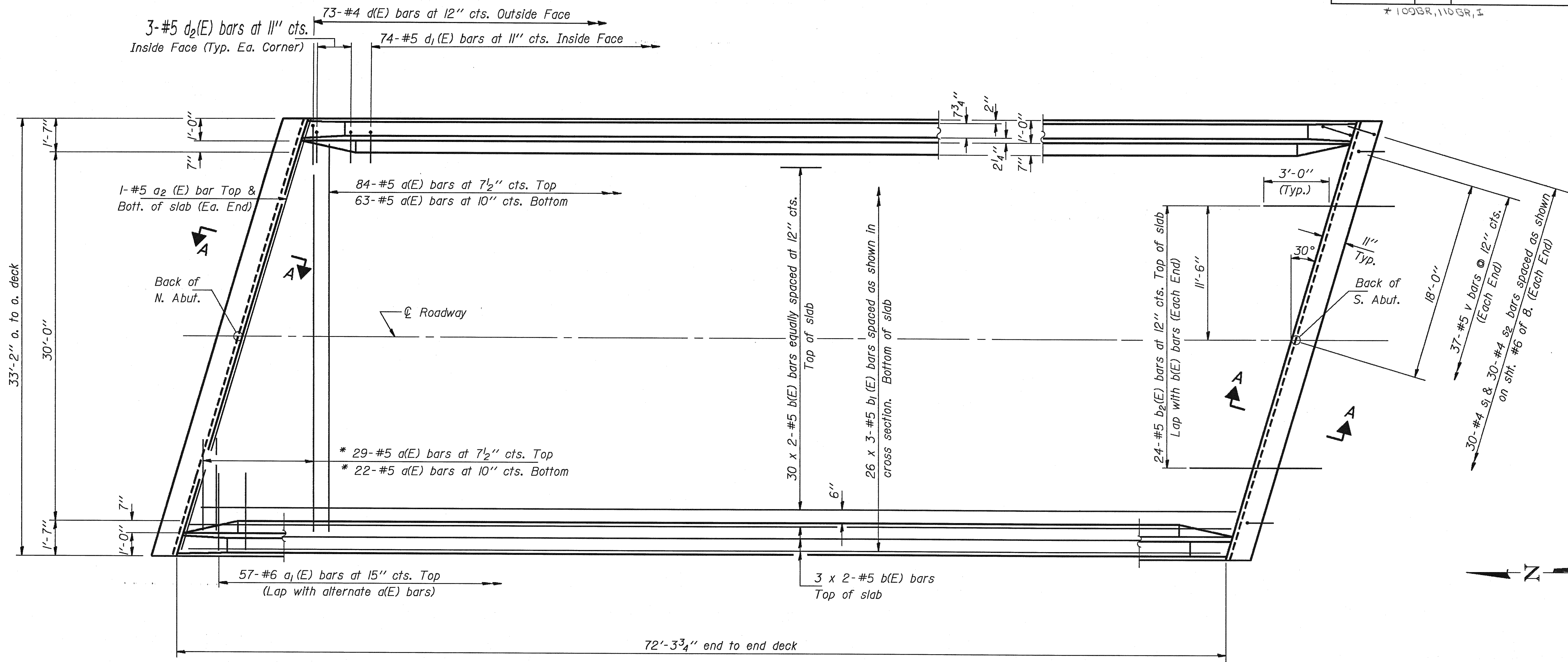
TOP OF SLAB ELEVATIONS
S.B.I. RTE. 115 SEC. 109BR
FORD COUNTY
STA. 168+67.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 115 F.A.	*	FORD	35	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

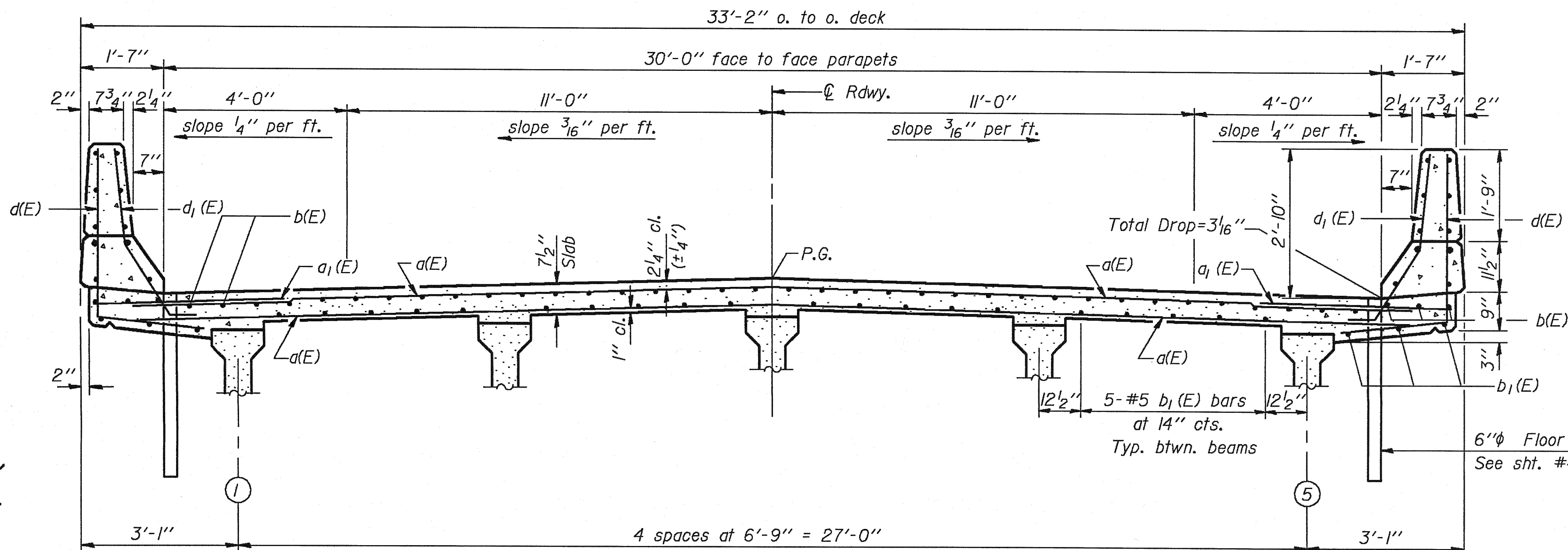
SHEET NO. 3
8 SHEETS

* 109BR, 110BR, I



PLAN

* Order a(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.



CROSS SECTION
(Looking South)

Notes: See sht. #4 of 8 for superstructure details
and Bill of Material.
For Section A-A see sht. #6 of 8.
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.

MIN. BAR LAP
#5 bar = 1'-8"

DESIGNED <i>Kevin L. Rochessa</i>
CHECKED <i>Ralph E. Anderson</i>
DRAWN <i>R. Sommer</i>
CHECKED <i>K.L.R. R.E.A.</i>

PI-1-L(15°) 12-31-85

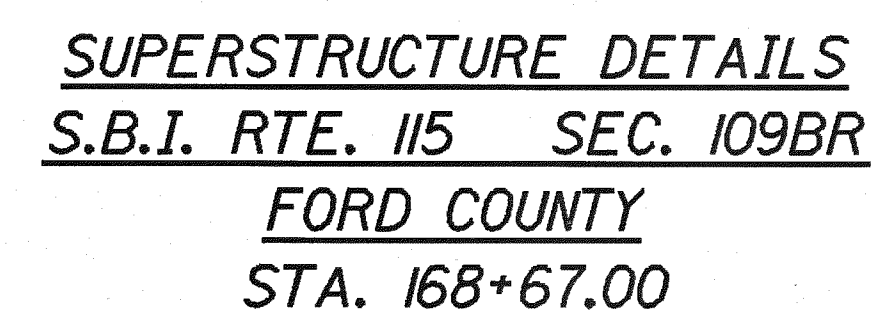
EXAMINED <i>May 14 1987</i>
PASSED <i>Draj D. Kaspar</i>
APPROVED <i>James J. Ruben</i>
DIRECTOR OF HIGHWAYS

SUPERSTRUCTURE
S.B.I. RTE. 115 SEC. 109BR
FORD COUNTY
STA. 168+67.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G. S. 115 P. A.	*	FORD	35	14
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

+ 10988.11088.I

SHEET NO. 4
8 SHEETS



SECTION A-A

Notes:

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.

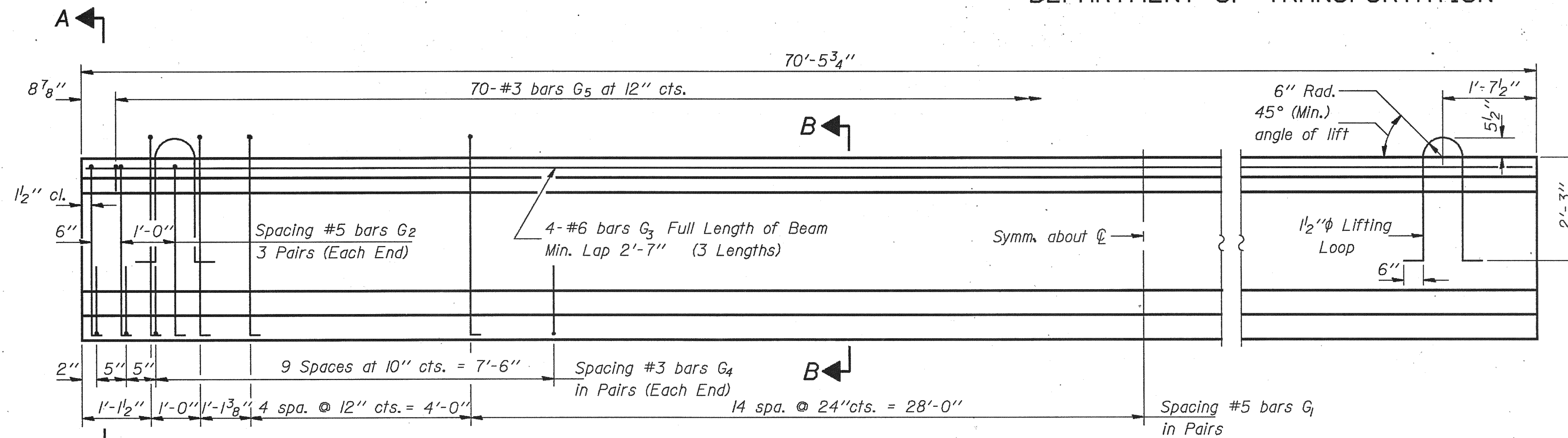
The exterior surfaces of the Fiberglass Floor Drains shall be painted with one coat of Aluminum paint. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete beam.

The clamping device and inserts shall be galvanized in accordance with AASHTO M-232.

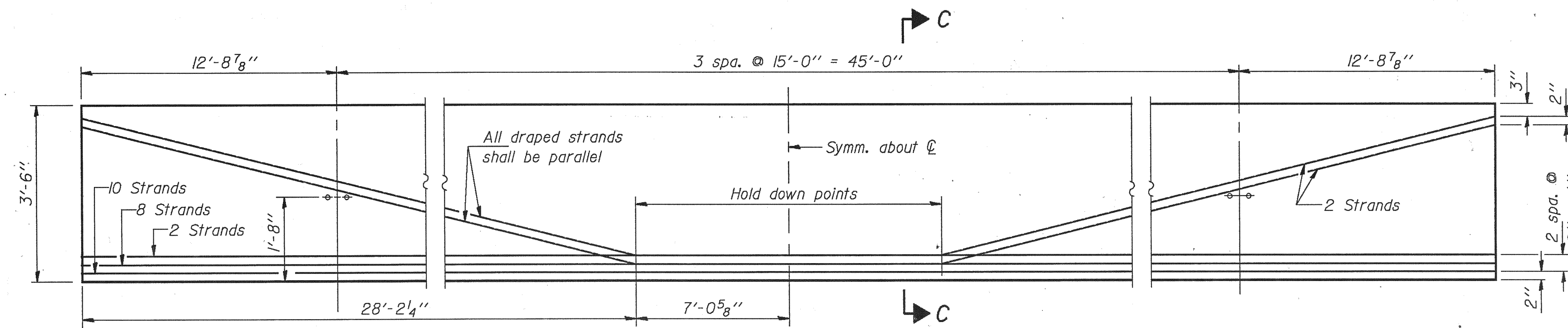
For Floor Drain locations see sht. #1 of 8.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 5
S.B.I. 115	+	FORD	35	15	8 SHEETS
F.A.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

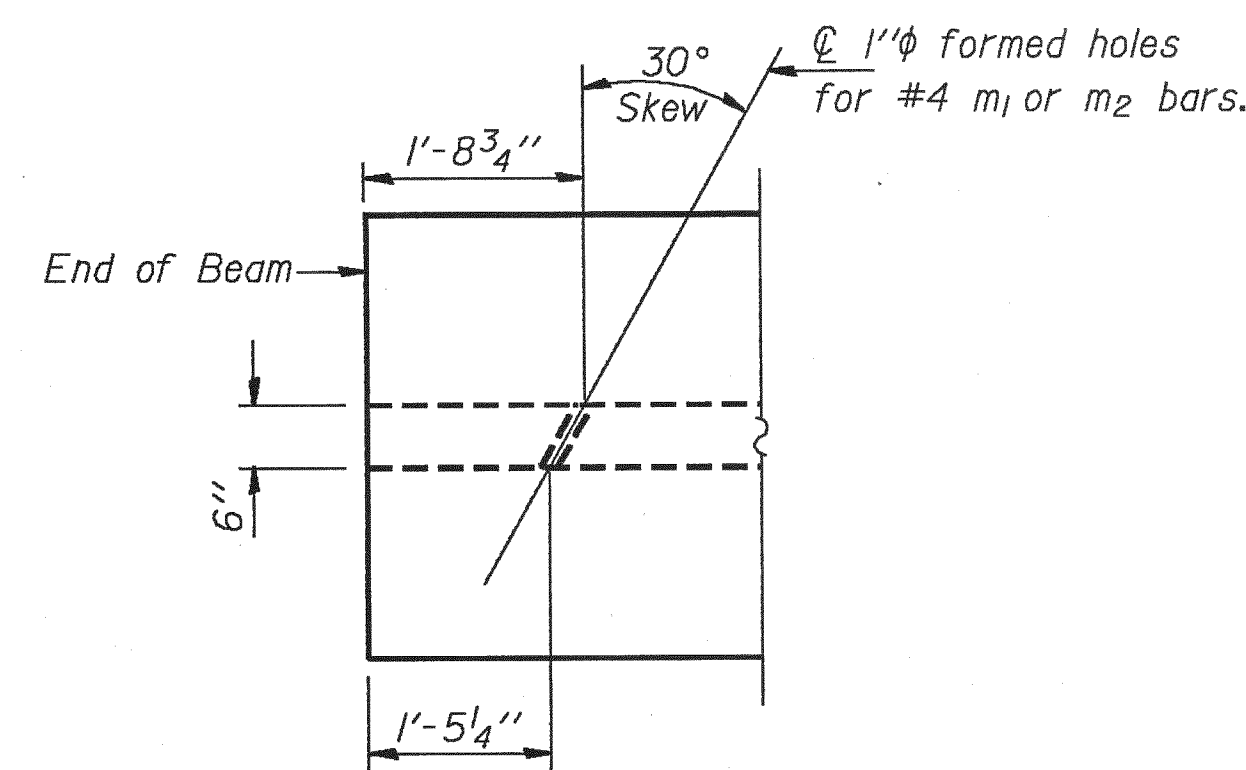


ELEVATION OF BEAM
(Showing Reinforcement & Dimensions)

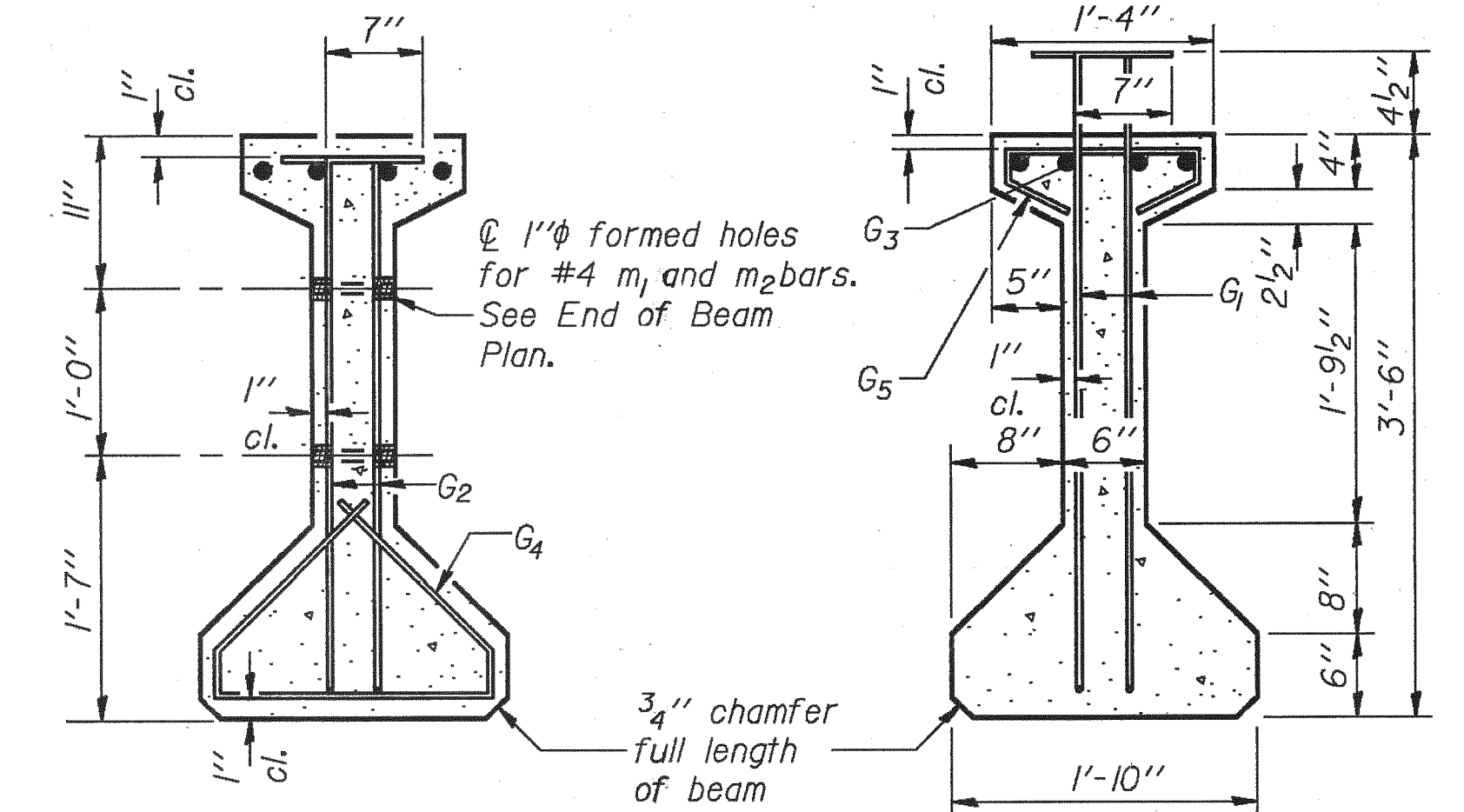


ELEVATION OF BEAM
(Showing Prestressing Steel)

Cl. of drain insert pairs for 3/4" stud bolts cast in beam. (Typ.) Outside face of exterior beams only. See sht. #4.

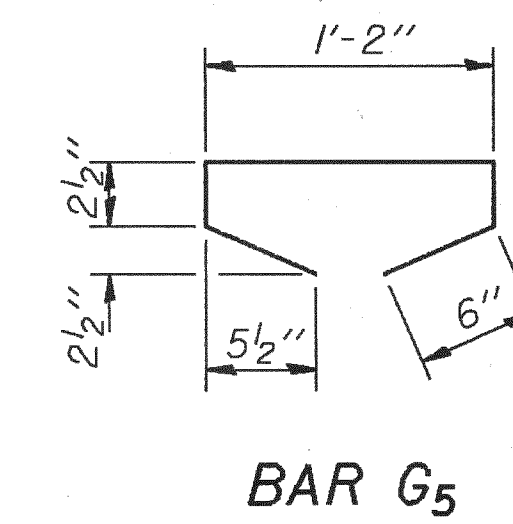


END OF BEAM PLAN

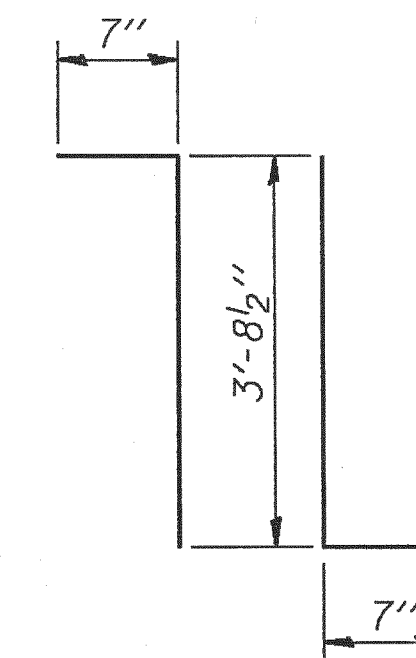


SECTION A-A

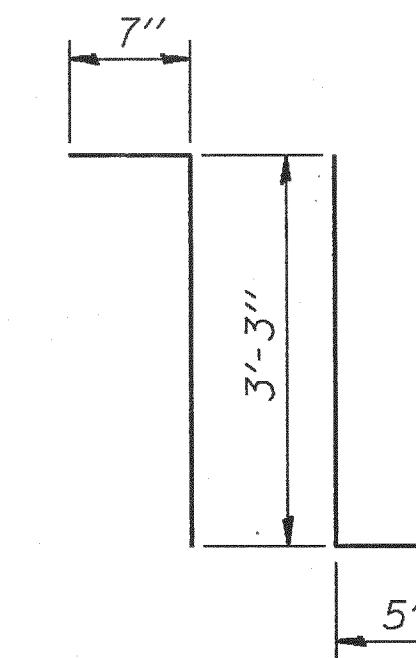
SECTION B-B



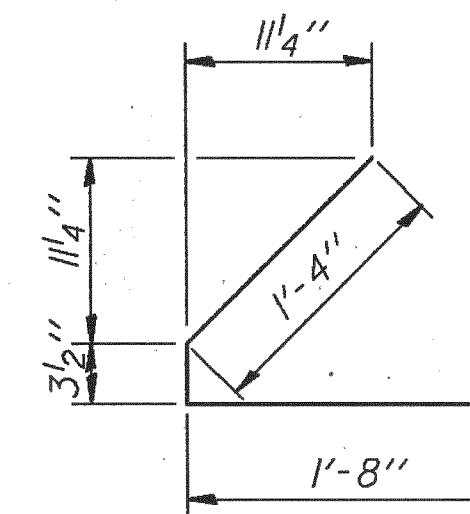
BAR G5



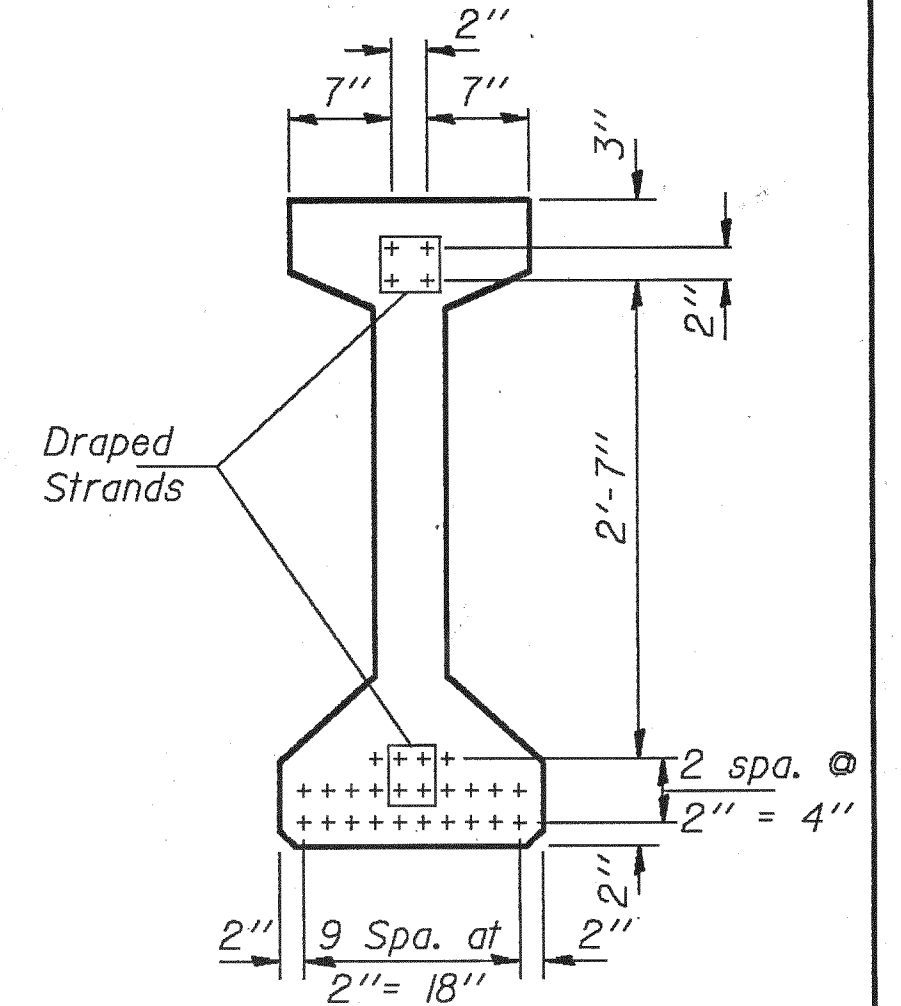
BAR G1



BAR G2



BAR G4



SECTION C-C

*** BAR LIST**

Bar	No.	Size	Length	Shape
G1	82	#5	4'-10 1/2"	7L
G2	12	#5	4'-3"	7L
G3	12	#6	25'-1"	—
G4	48	#3	3'-3 1/2"	—
G5	70	#3	2'-7"	—

* For one beam only.

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Lin. Ft.	352

NOTES

All reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 in." Prestressing steel shall be non-galvanized high strength, stress-relieved 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. Non-prestressing steel shall conform to AASHTO designation M-31, M-42 or M-53 Grade 60. Steel for lifting loops shall be non-deformed bars f'y=40,000 psi. Required release strength, f'cl, shall be 4600 psi.

BEAM DETAILS
S.B.I. RTE. 115 SEC. 109BR
FORD COUNTY
STA. 168+67.00

DESIGNED <i>Kevin J. Richers</i>	EXAMINED <i>May 14 1987</i>
CHECKED <i>Ralph E. Anderson</i>	PASSED <i>James J. Kappert</i>
DRAWN <i>R. Sommer</i>	APPROVED <i>James J. Kappert</i>
CHECKED <i>K.L.R. R.E.A.</i>	DIRECTOR OF HIGHWAYS

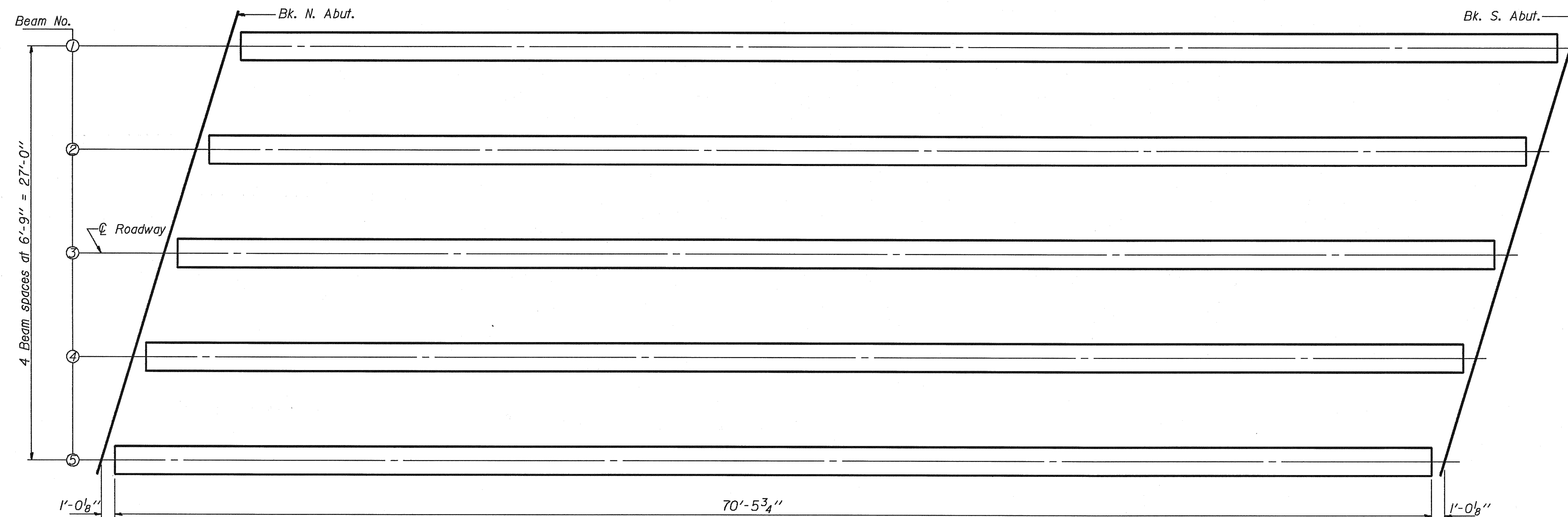
PI-4-42 4-15-83

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

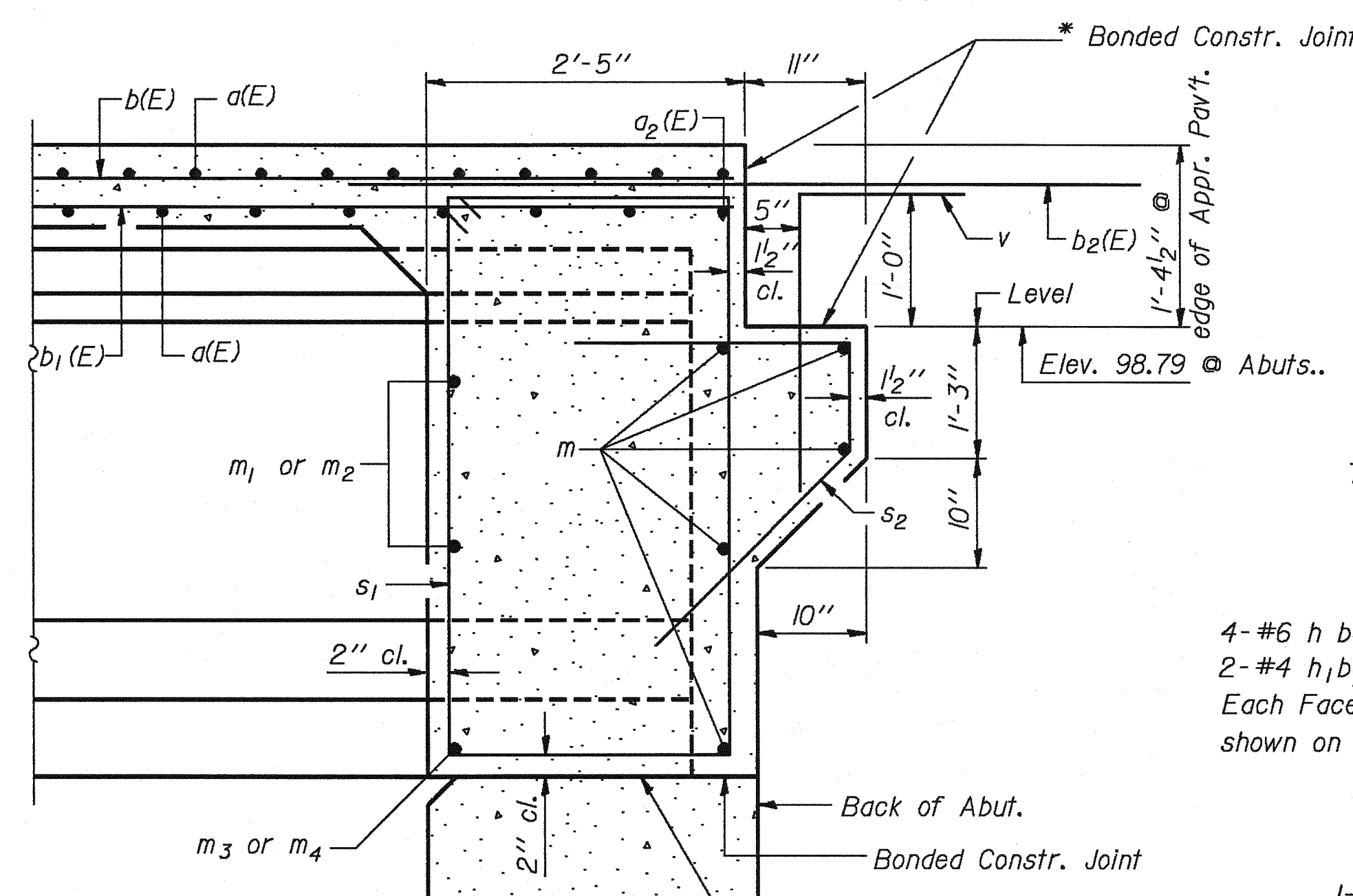
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6
S.B.I. 115	*	FORD	35	16	8 SHEETS
F.A.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

* 109BR, 110BR, I

MIN. BAR LAP
#4 bar = 1'-10"

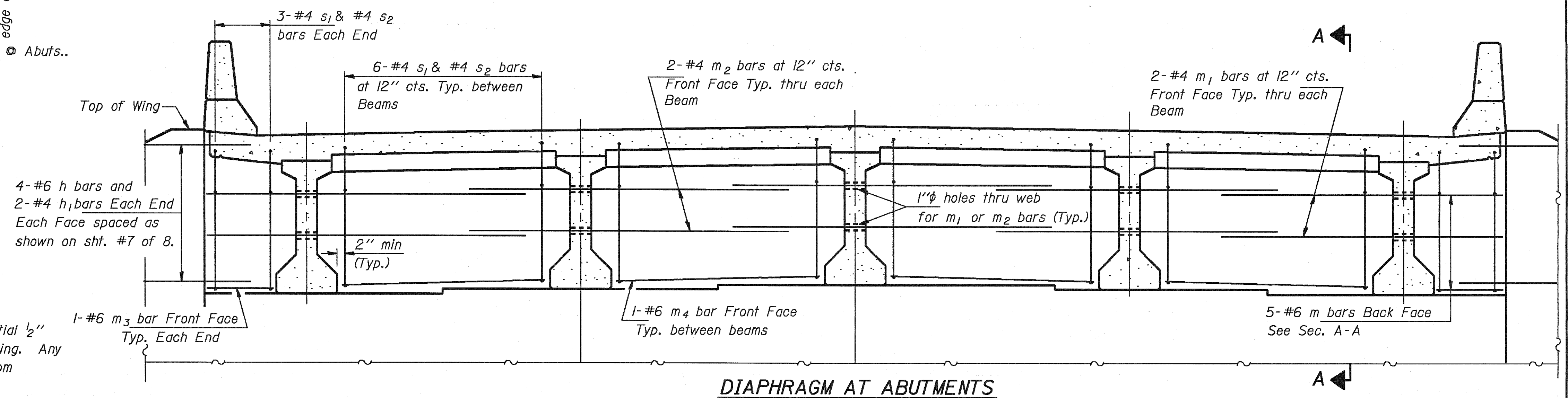


FRAMING PLAN



SECTION A-A
AT ABUTMENT
(at Rt. Ls)

Beam ends shall be set on initial 1/2" min. grout to provide full bearing. Any excess grout squeezed out from under beam shall be removed. Cost incidental.



DIAPHRAGM AT ABUTMENTS

Note: Reinforcement Bars and Class X Concrete Superstructures quantities for the Diaphragms are billed with superstructure on sht. #4 of 8.

DESIGNED *Kevin J. Reckers*
CHECKED *Robert E. Anderson*
DRAWN *R. Sommer*
CHECKED *K.L.R. R.E.A.*

EXAMINED *May 14 1987*
PASSED *James J. Kaspar*
APPROVED *James J. Kaspar*
DIRECTOR OF HIGHWAYS

DIAPHRAGM DETAILS
S.B.I. RTE. 115 SEC. 109BR
FORD COUNTY
STA. 168+67.00

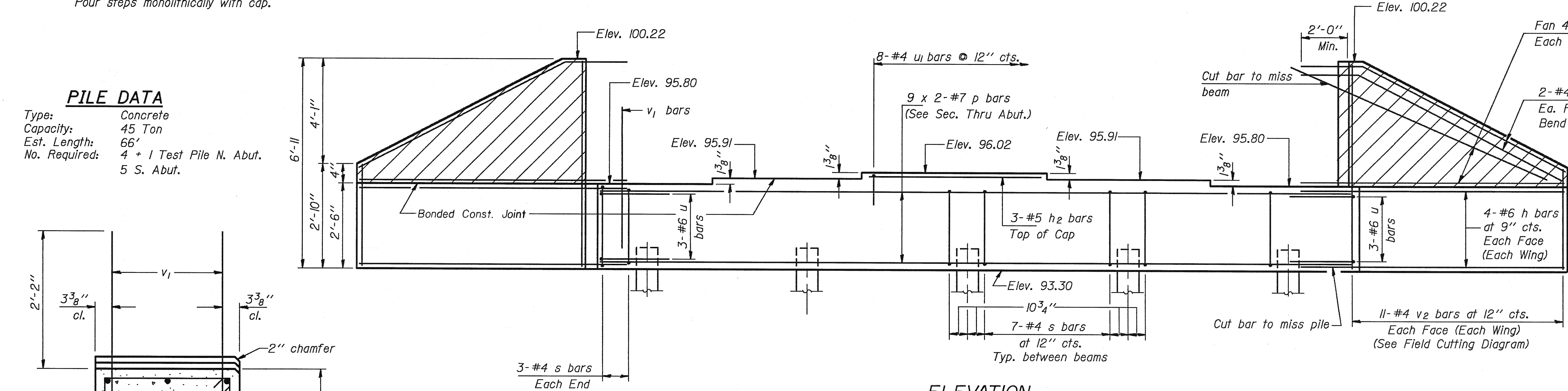
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 115	*	FORD	35	17
F.A.				8 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

Notes: All edges shall have standard $\frac{3}{4}$ " chamfers except as noted.
Hatched area to be poured with deck after beams are in place,
quantity of concrete to be included with Class X Concrete
Superstructure on sheet #4 of 8.
Pour steps monolithically with cap.

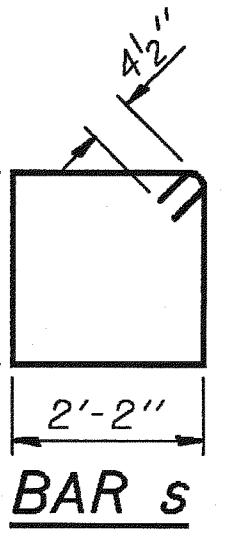
PILE DATA

Type: Concrete
Capacity: 45 Ton
Est. Length: 66'
No. Required: 4 + 1 Test Pile N. Abut.
5 S. Abut.

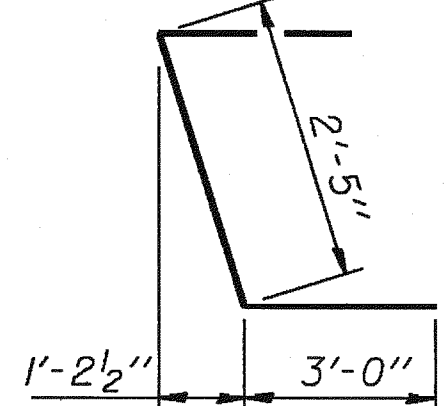


ELEVATION

South Abutment (Looking South)
North Abutment (Looking North)



BAR s



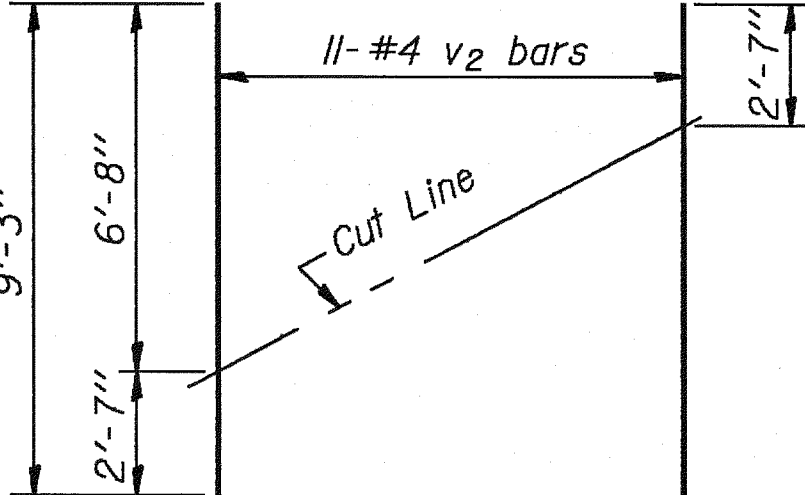
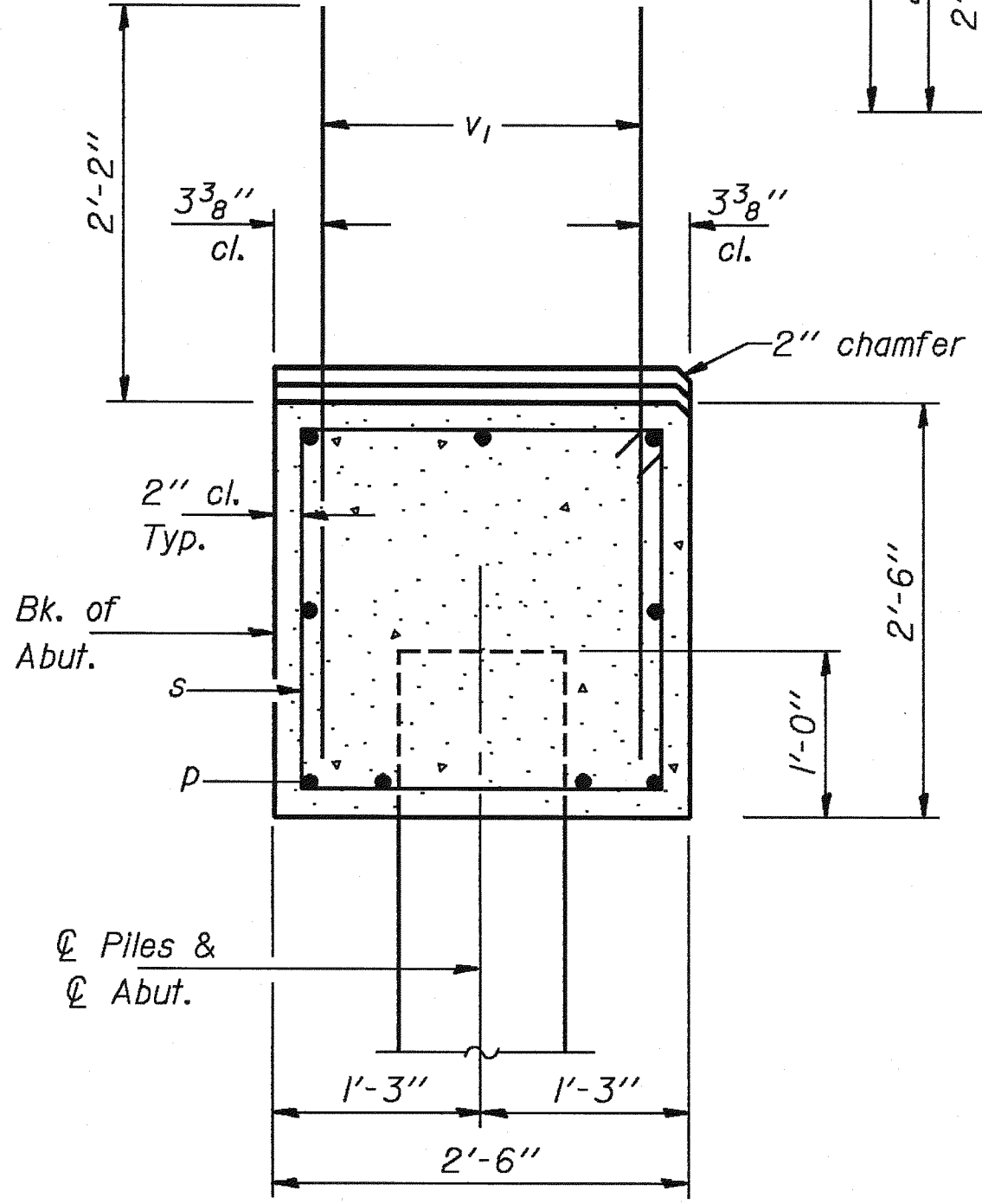
BAR u

BILL OF MATERIAL
TWO ABUTMENTS

Bar	No.	Size	Length	Shape
h	64	#6	13'-6"	—
h1	16	#4	13'-0"	—
h2	6	#5	7'-6"	—
p	36	#7	21'-0"	—
s	68	#4	9'-5"	□
u	12	#6	8'-5"	└
u1	16	#4	4'-2"	└
v1	146	#5	4'-4"	—
v2	44	#4	9'-3"	—
Class X Concrete			Cu. Yd.	22.0
Reinforcement Bars			Pound	4,590
Concrete Piles			Lin. Ft.	594
Test Pile Concrete			Each	1

SEC. THRU ABUT.

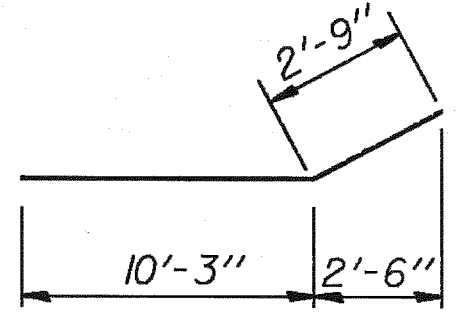
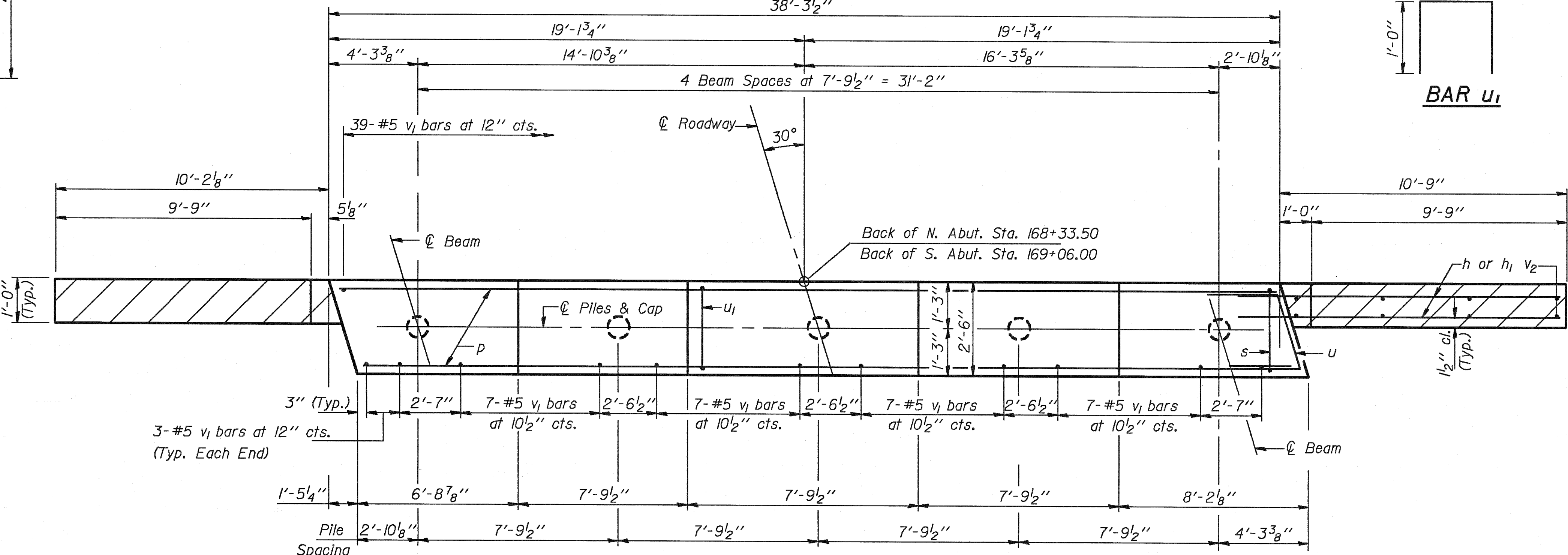
(Dimensions at Rt. L's)



FIELD CUTTING DIAGRAM

Order v2 bars full length. Cut to fit
and use the remainder in opposite face.

PLAN



BAR h1

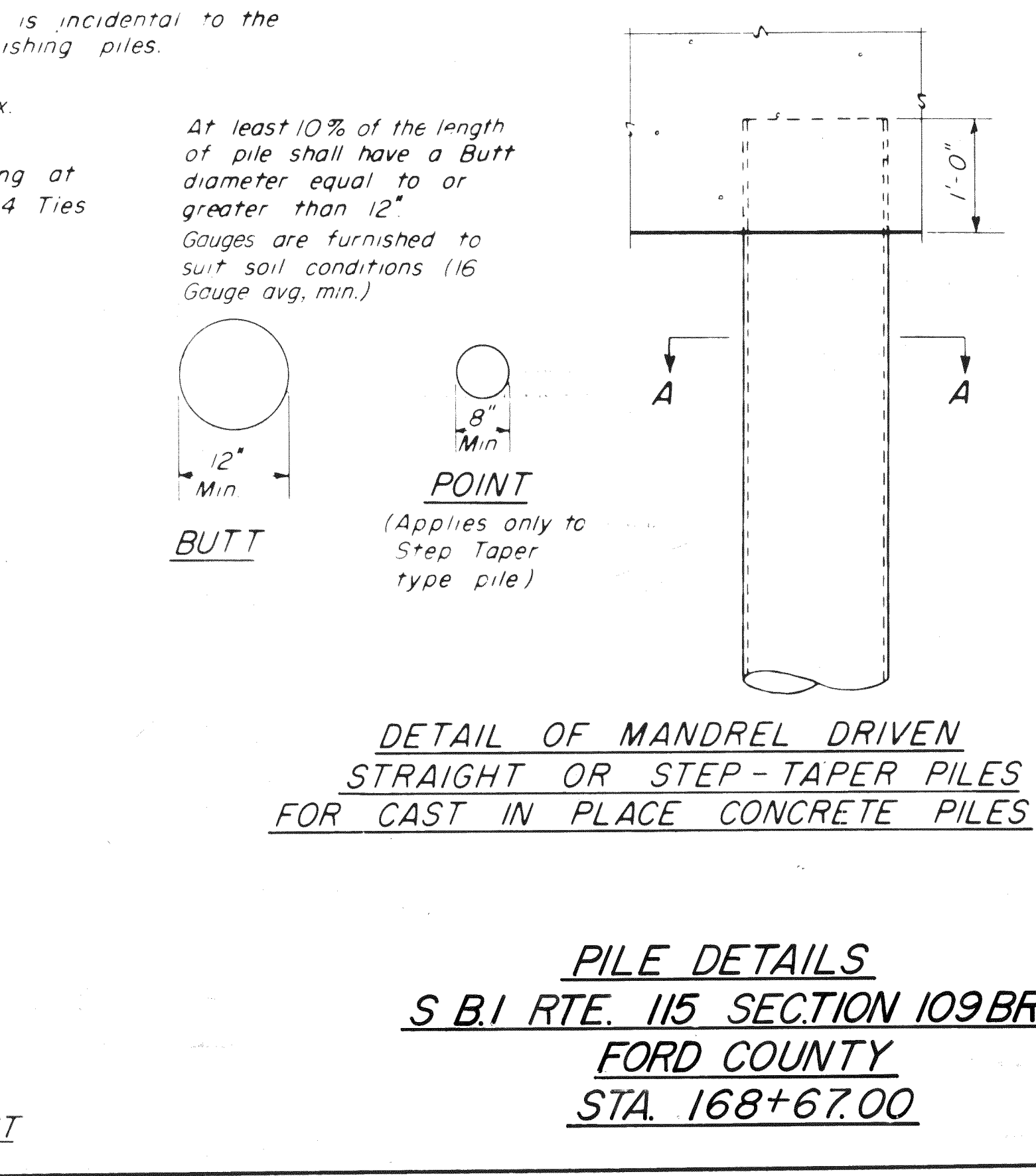
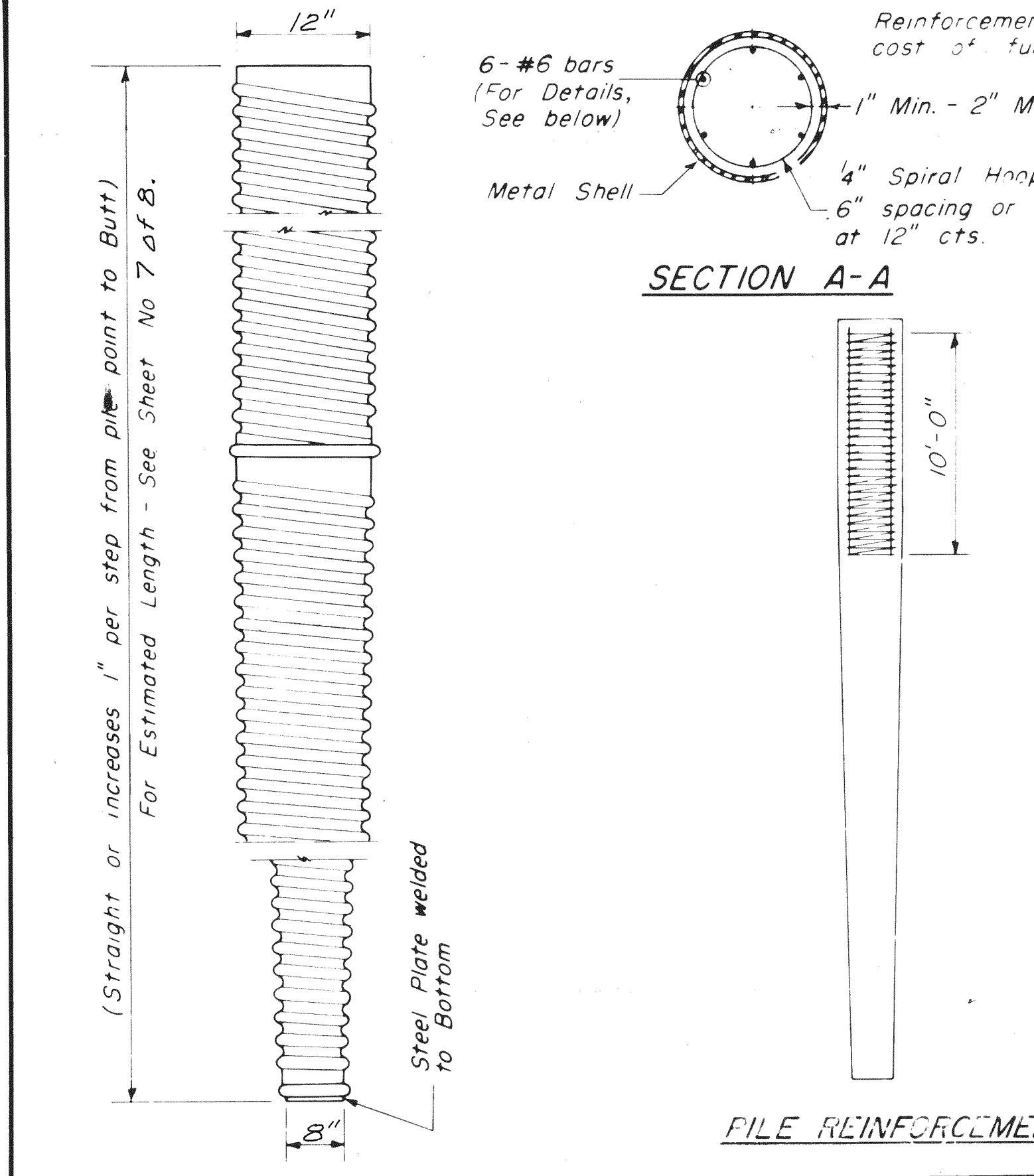
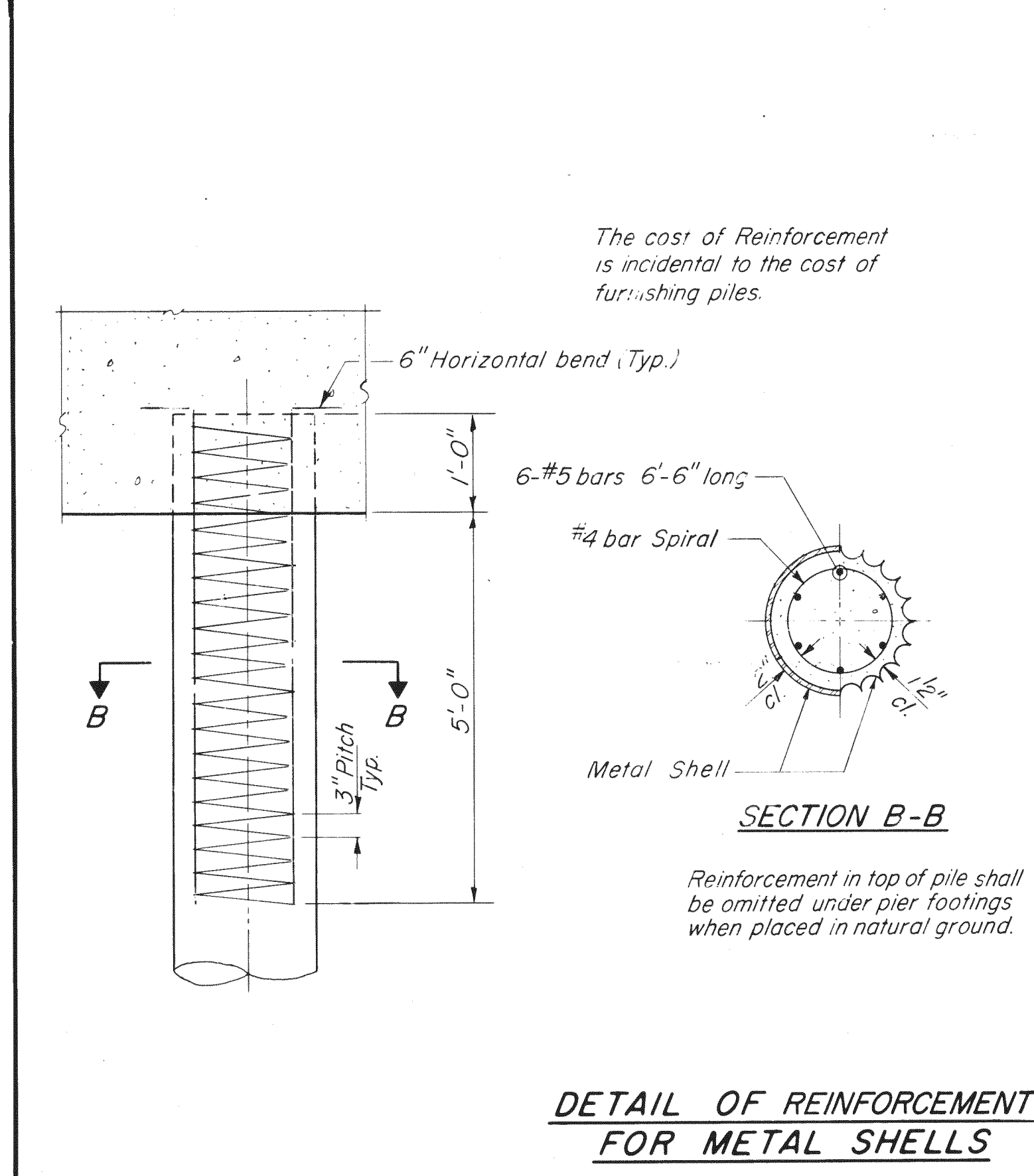
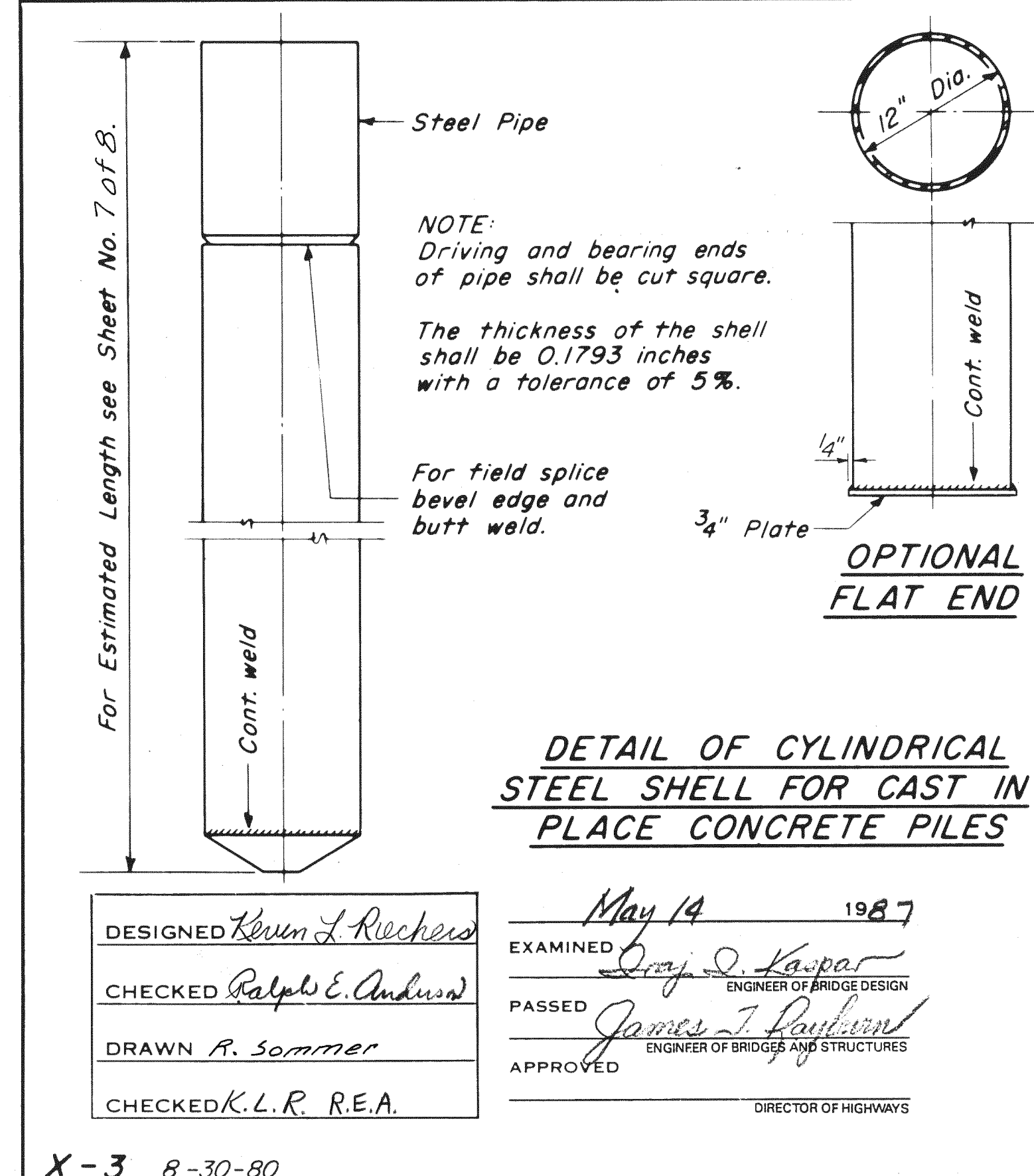
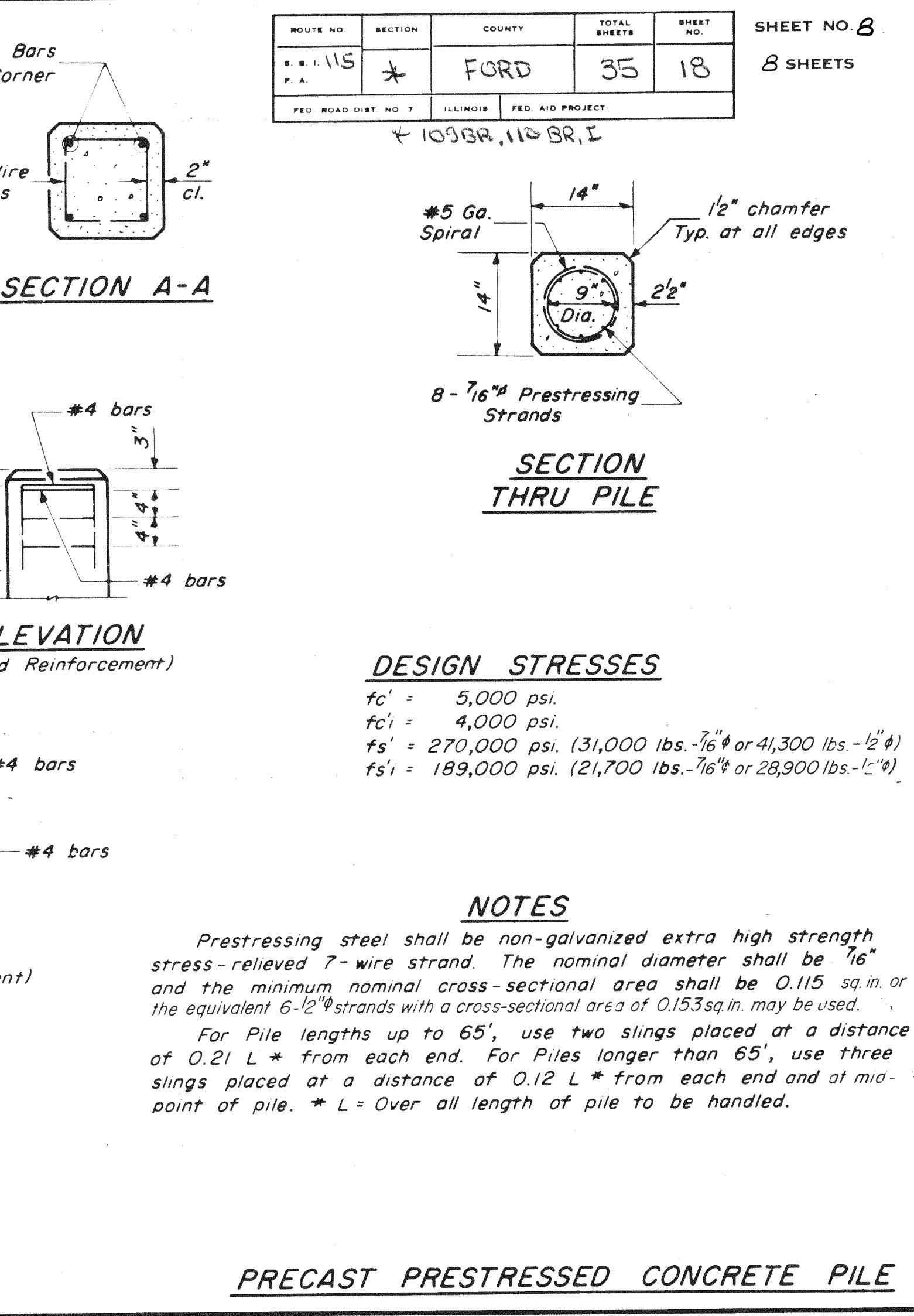
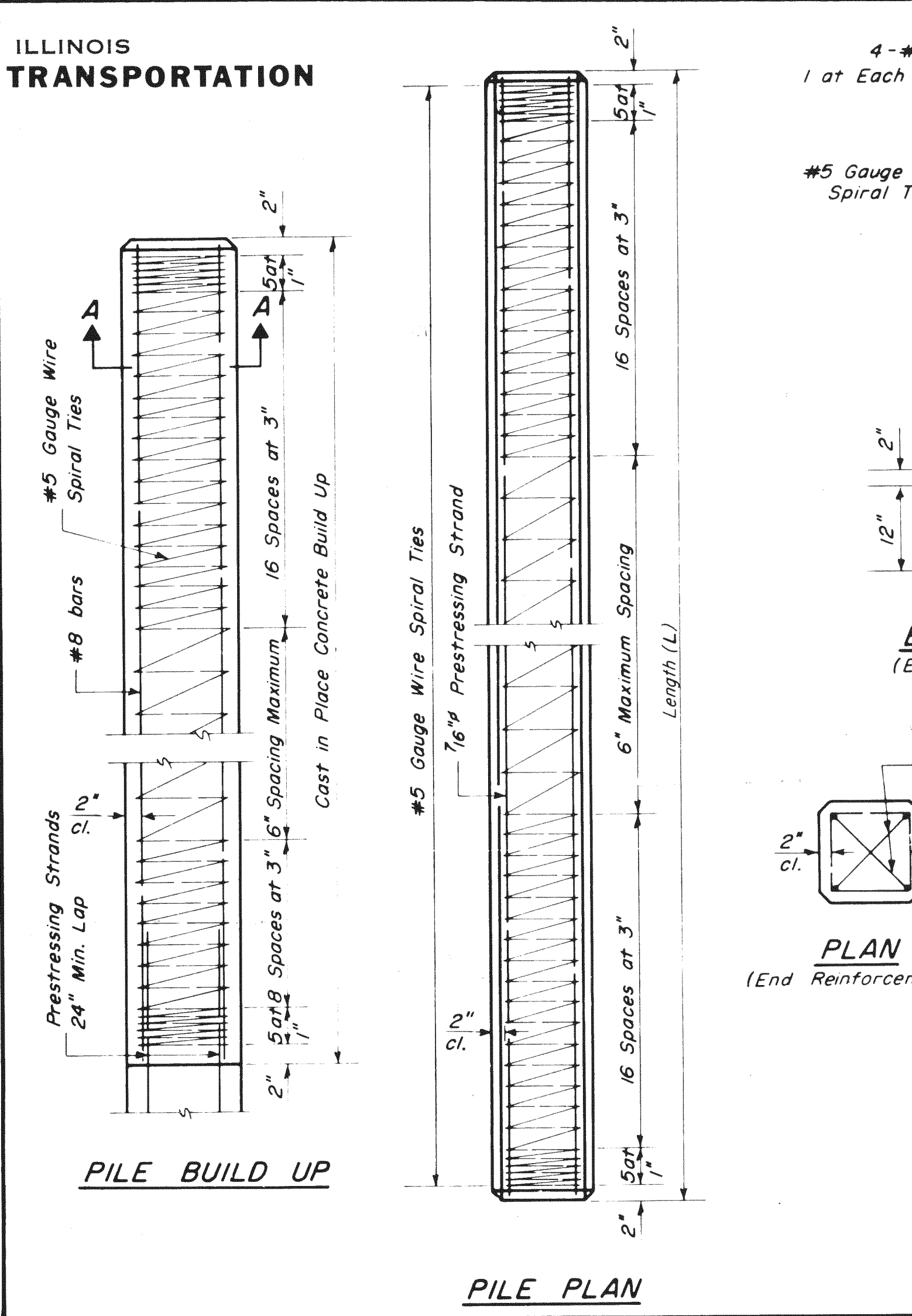
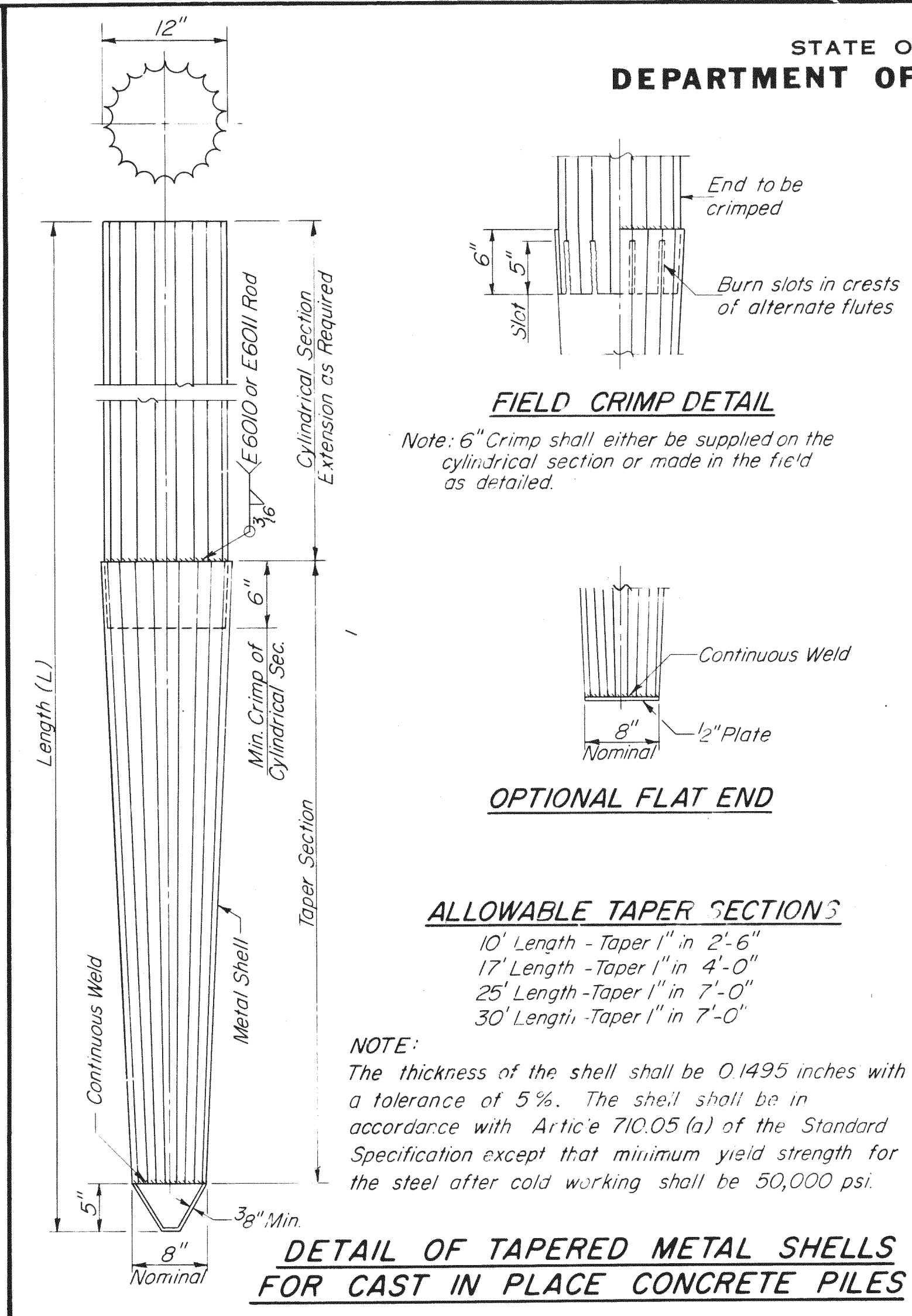
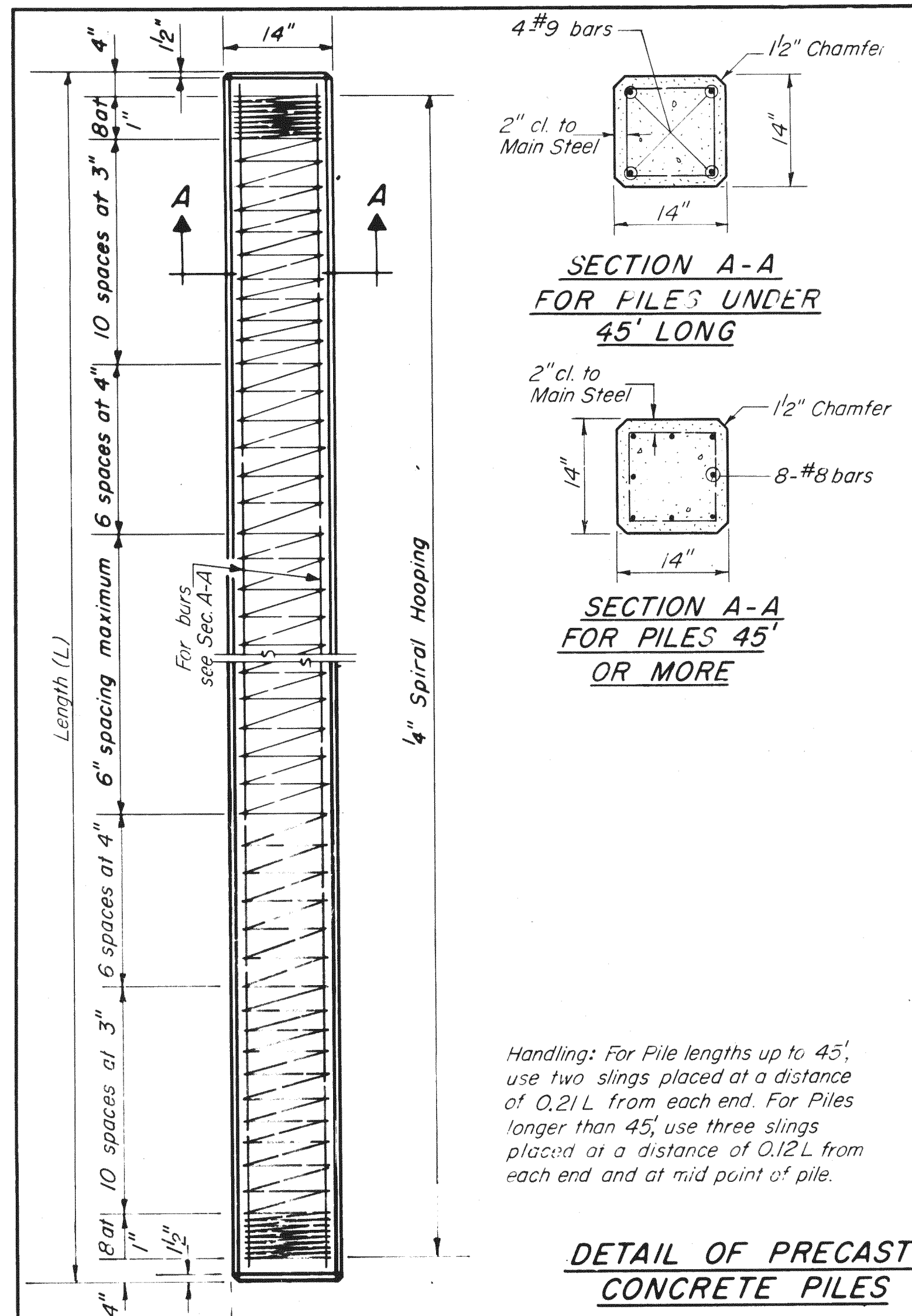
DESIGNED *Kenn J. Reicher*
CHECKED *Ralph E. Anderson*
DRAWN *R. Sommer*
CHECKED *K.L.R. R.E.A.*

May 14 1987
EXAMINED *Greg J. Kaspar*
PASSED *James J. Reicher*
APPROVED *James J. Reicher*
DIRECTOR OF HIGHWAYS

ABUTMENTS
S.B.I. RTE. 115 SEC. 109BR
FORD COUNTY
STA. 168+67.00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
115	*	FORD	35	18	8
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT					
+ 109BR, 110BR, 111					



DESIGNED *Kevin L. Reckers*
CHECKED *Paul E. Anderson*
DRAWN *R. Sommer*
CHECKED *K.L.R. R.E.A.*

EXAMINED *May 14 1987*
PASSED *James J. Rayburn*
APPROVED *James J. Rayburn*
DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 115	*	FORD	35	19
F.A.				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT: * 1088R, 1108R, I				

SHEET NO. 1
11 SHEETS

Bench Mark: B.M. #1 Chiseled "a" on S.E. wingwall 15' Lth. Sta. 407+42.5
Elev. = 100.00'

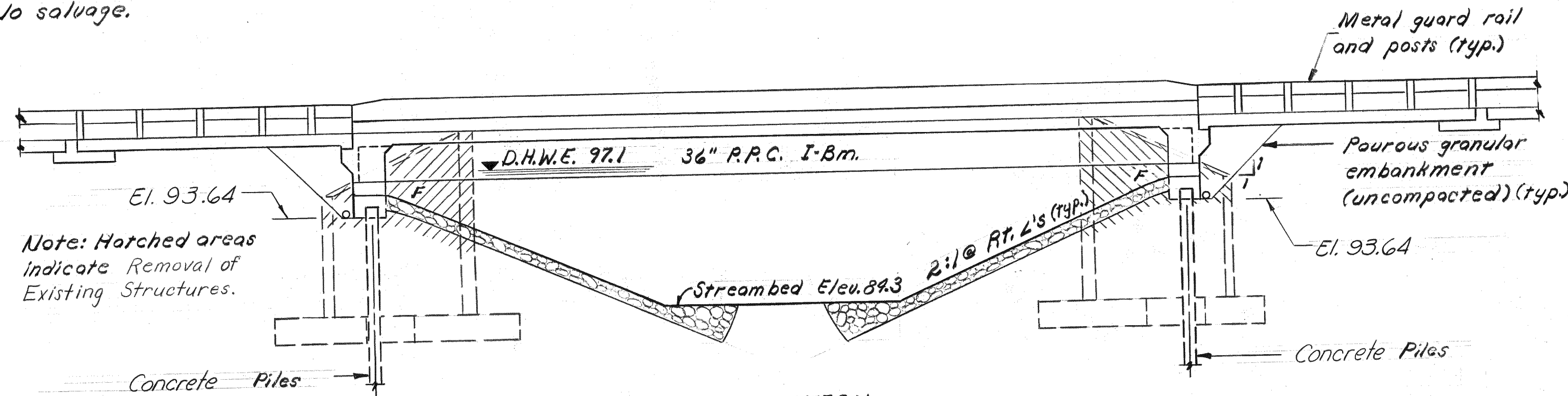
Existing Structure: 027-0042. The existing single span RCDG structure on closed abutments was built in 1929 as S.B.I. Route 115, Section 110-B. The existing structure has a 53'-0" Bk. to Bk. of abutments length and a 24'-2" o. to o. bridge width. The contractor shall remove the existing structure and replace it with a single span 36" RRC I-Bms. on integral abutments.

Traffic to be detoured during construction.
No salvage.

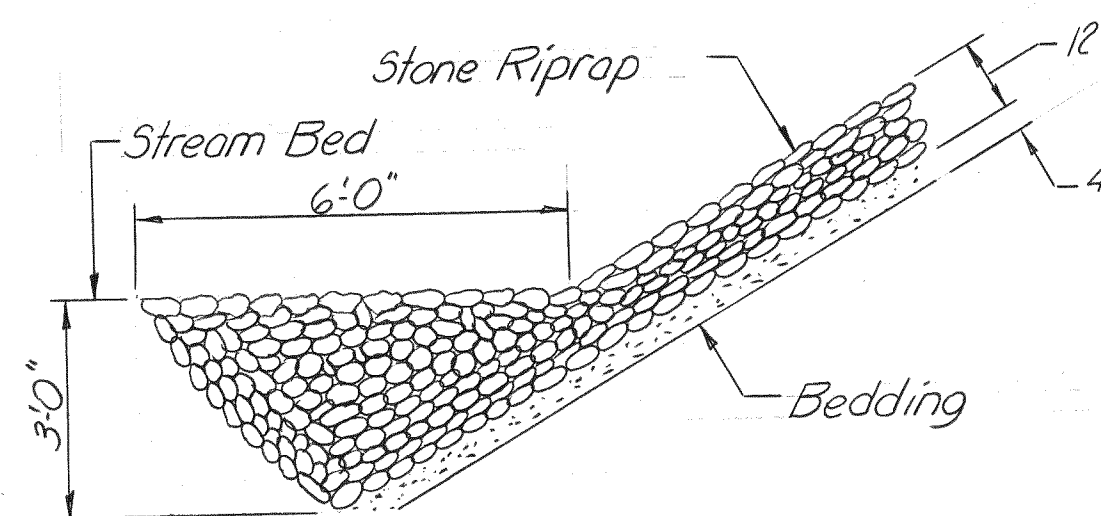
GENERAL NOTES

See Proposal for Boring Data.
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 contractor shall drive one concrete test pile in a permanent location at each abutment as directed by the Engineer before ordering the remainder of piles.

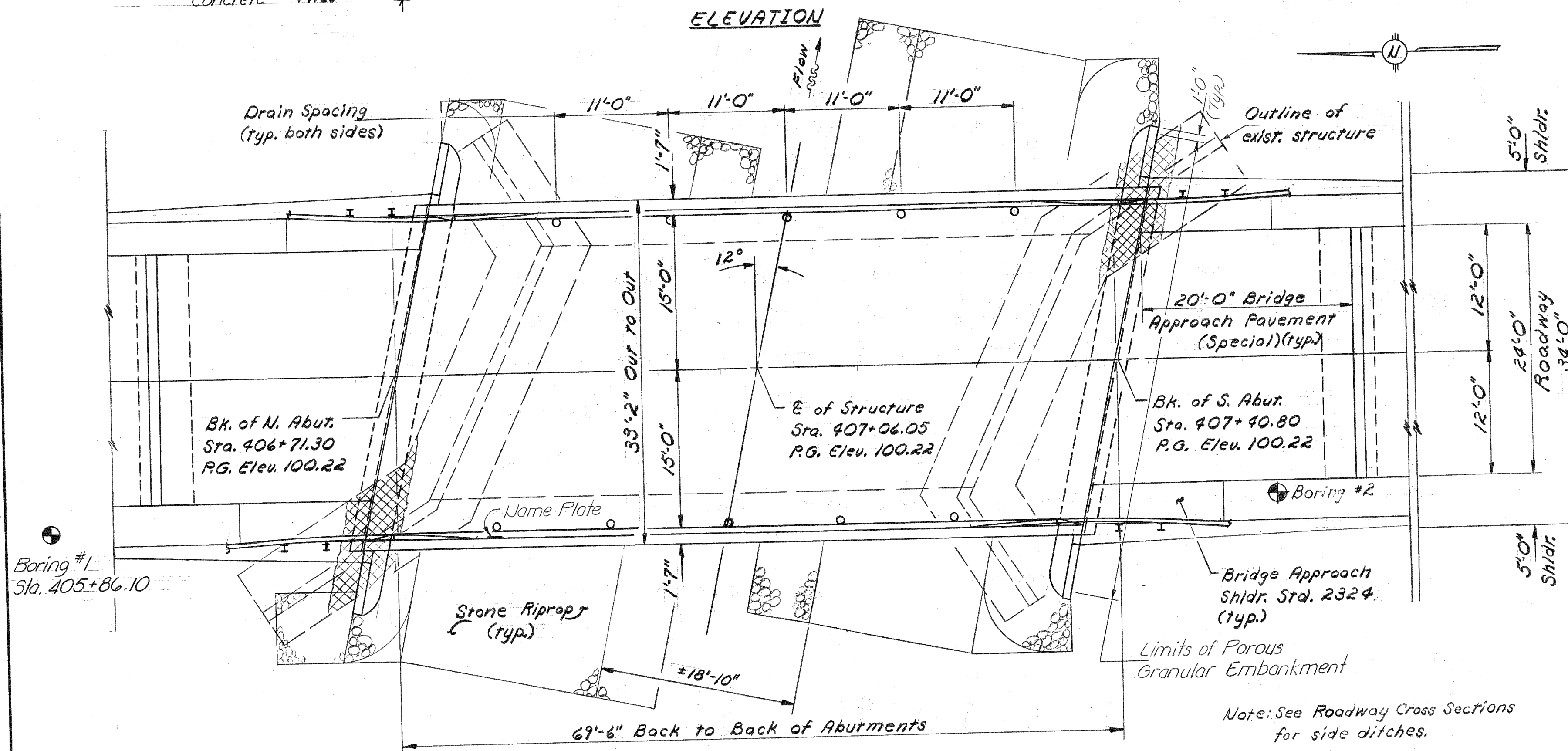
Note: Pavement Removal and Excavation between the existing & proposed abutments shall be incidental to Removal of Existing Structures.



Note: Hatched areas indicate Removal of Existing Structures.

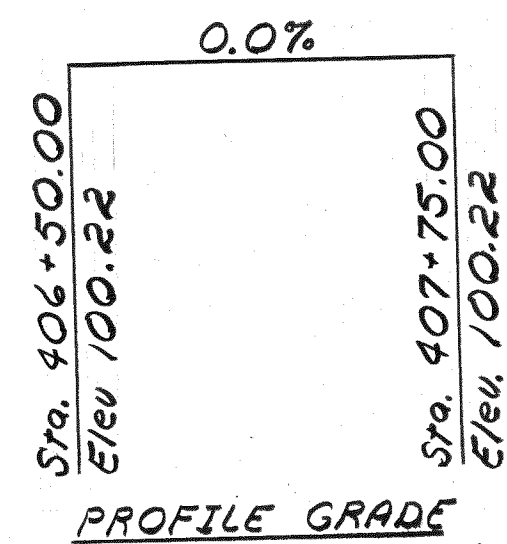


STONE RIPRAP ANCHOR DETAIL



PLAN

Note: Cross hatched areas indicate areas of wingwall and footing removal.



PROFILE GRADE

WATERWAY INFORMATION

WATERWAY

Drainage Area 29.8 sq.mi.		Low Grade Elev. 99.95		@ Sta. 408+50.00					
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Not. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	30	1244	386	526	97.1	0.25	0.14	97.35	97.24
Base	100	1563	386	526	97.6	0.40	0.21	98.00	97.81
Overtopping									
Max. Calc.	500	1970		526	98.1		0.34		98.44

STATION 407+06.05
BUILT 19 BY
STATE OF ILLINOIS
S.B.I. RT. 115 SEC. 110BR

LOADING HS20
STR. NO. 027-0083

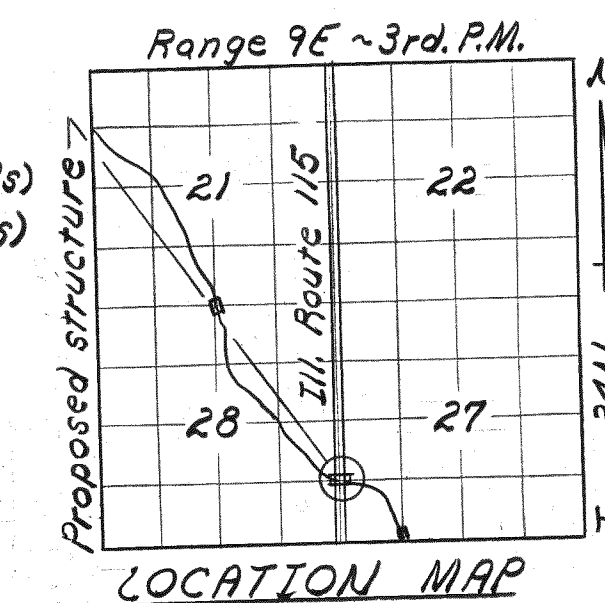
NAME PLATE
(See Std. 2113)

DESIGN STRESSES

Field Units
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i. (reinf.)
Precast Prestressed Units
 $f'_c = 6,000$ p.s.i.
 $f'_{ci} = 4,700$ p.s.i.
 $f'_{si} = 270,000$ p.s.i. (4" strands)
 $f'_{si} = 189,000$ p.s.i. (2" strands)

DESIGN SPECIFICATIONS
1983 AASHTO, 1984 & 1985 Interim Specifications

LOADING HS20-44
Allow 25*1 sq. ft. for future wearing surface.



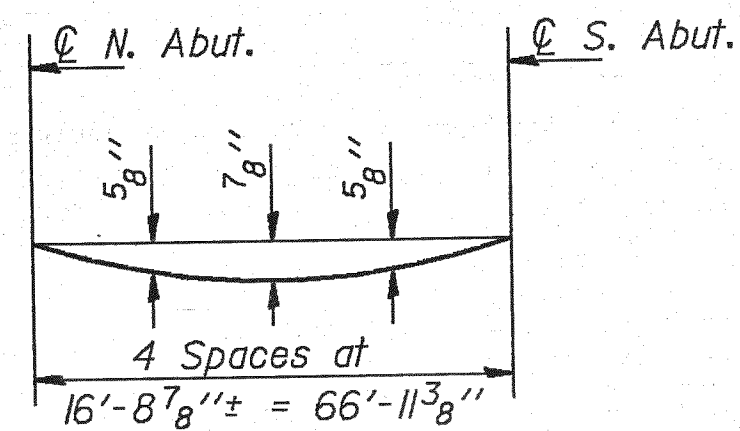
LOCATION MAP

GENERAL PLAN
ILLINOIS ROUTE 115 OVER EAST BRANCH OF
VERMILION RIVER
S.B.I. ROUTE 115 ~ SECTION 110BR
FORD COUNTY
STATION 407+06.05
STRUCTURE NO. 027-0083

DESIGNED	Angela L. Amosky
CHECKED	William J. Amosky
DRAWN	W.C.
CHECKED	GR

EXAMINED	May 15 1987	Dr. J. Kaspar
PASSED		James J. Kaspar
APPROVED		

DIRECTOR OF HIGHWAYS

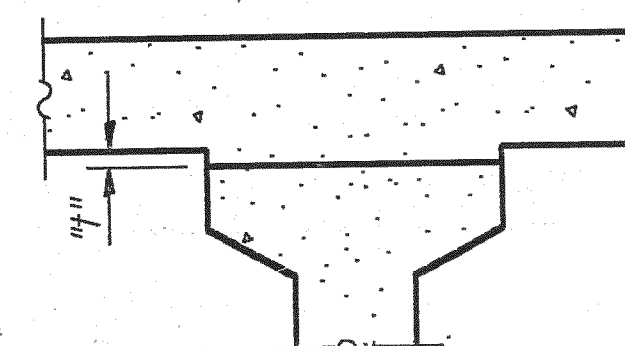


DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete slab only)

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



To determine "t": After all precast prestressed beams have 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 Deflections" minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 2
S.B.I. 115	*	FORD	35	20	// SHEETS
F.A.		ILLINOIS	FED. AID PROJECT-		
FED. ROAD DIST. NO. 7					

* 100BR, 110BR, I

☉ BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40674.170	-13.500	99.996	99.996
☉ N. Abut.	40675.447	-13.500	99.996	99.996
A	40685.447	-13.500	99.996	100.028
B	40695.447	-13.500	99.996	100.054
C	40705.447	-13.500	99.996	100.067
D	40715.447	-13.500	99.996	100.063
E	40725.447	-13.500	99.996	100.050
F	40735.447	-13.500	99.996	100.018
☉ S. Abut.	40742.392	-13.500	99.996	99.996
Bk. S. Abut.	40743.669	-13.500	99.996	99.996

☉ BEAM #2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40673.213	-9.000	100.079	100.079
☉ N. Abut.	40674.491	-9.000	100.079	100.079
A	40684.491	-9.000	100.079	100.111
B	40694.491	-9.000	100.079	100.137
C	40704.491	-9.000	100.079	100.150
D	40714.491	-9.000	100.079	100.146
E	40724.491	-9.000	100.079	100.133
F	40734.491	-9.000	100.079	100.102
☉ S. Abut.	40741.435	-9.000	100.079	100.079
Bk. S. Abut.	40742.713	-9.000	100.079	100.079

☉ BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40672.257	-4.500	100.150	100.150
☉ N. Abut.	40673.534	-4.500	100.150	100.150
A	40683.534	-4.500	100.150	100.182
B	40693.534	-4.500	100.150	100.208
C	40703.534	-4.500	100.150	100.221
D	40713.534	-4.500	100.150	100.217
E	40723.534	-4.500	100.150	100.204
F	40733.534	-4.500	100.150	100.172
☉ S. Abut.	40740.479	-4.500	100.150	100.150
Bk. S. Abut.	40741.756	-4.500	100.150	100.150

☉ ROADWAY & ☉ BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40671.300	0.000	100.220	100.220
☉ N. Abut.	40672.578	0.000	100.220	100.220
A	40682.578	0.000	100.220	100.252
B	40692.578	0.000	100.220	100.278
C	40702.578	0.000	100.220	100.291
D	40712.578	0.000	100.220	100.287
E	40722.578	0.000	100.220	100.274
F	40732.578	0.000	100.220	100.242
☉ S. Abut.	40739.522	0.000	100.220	100.220
Bk. S. Abut.	40740.800	0.000	100.220	100.220

☉ BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40670.343	4.500	100.150	100.150
☉ N. Abut.	40671.621	4.500	100.150	100.150
A	40681.621	4.500	100.150	100.182
B	40691.621	4.500	100.150	100.208
C	40701.621	4.500	100.150	100.221
D	40711.621	4.500	100.150	100.217
E	40721.621	4.500	100.150	100.204
F	40731.621	4.500	100.150	100.172
☉ S. Abut.	40738.565	4.500	100.150	100.150
Bk. S. Abut.	40739.843	4.500	100.150	100.150

☉ BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40669.387	9.000	100.079	100.079
☉ N. Abut.	40670.665	9.000	100.079	100.079
A	40680.665	9.000	100.079	100.111
B	40690.665	9.000	100.079	100.137
C	40700.665	9.000	100.079	100.150
D	40710.665	9.000	100.079	100.146
E	40720.665	9.000	100.079	100.133
F	40730.665	9.000	100.079	100.102
☉ S. Abut.	40737.609	9.000	100.079	100.079
Bk. S. Abut.	40738.887	9.000	100.079	100.079

☉ BEAM #7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40668.430	13.500	99.996	99.996
☉ N. Abut.	40669.708	13.500	99.996	99.996
A	40679.708	13.500	99.996	100.028
B	40689.708	13.500	99.996	100.054
C	40699.708	13.500	99.996	100.067
D	40709.708	13.500	99.996	100.063
E	40719.708	13.500	99.996	100.050
F	40729.708	13.500	99.996	100.018
☉ S. Abut.	40736.652	13.500	99.996	99.996
Bk. S. Abut.	40737.930	13.500	99.996	99.996

DESIGNED	Angela L. Nemsky
CHECKED	James J. Robinson
DRAWN	J.T. Downing
CHECKED	A.L.H. 9R

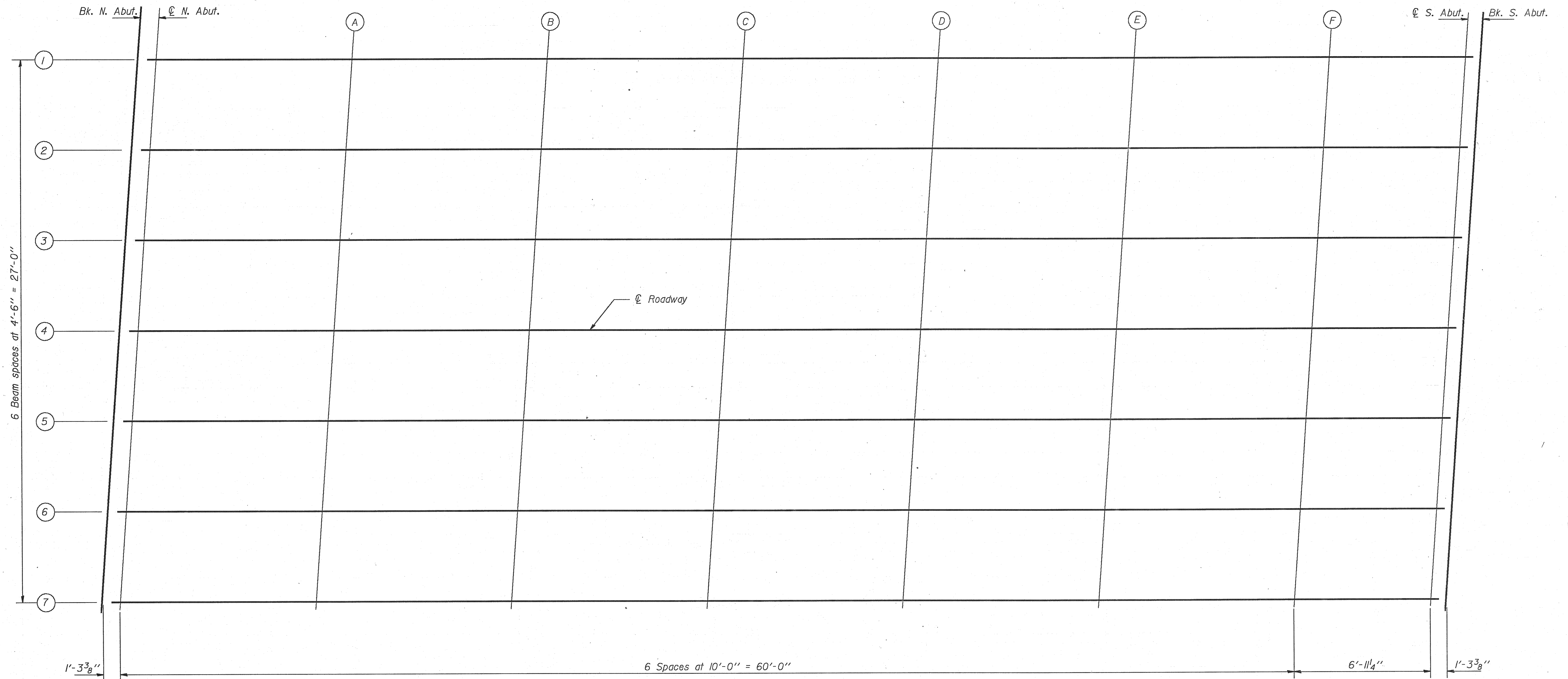
EXAMINED	May 15 1987	James J. Robinson
PASSED		James J. Robinson
APPROVED		James J. Robinson
		DIRECTOR OF HIGHWAYS

PI-E

TOP OF SLAB ELEVATIONS
S.B.I. RT. 115 SECTION 110BR
FORD COUNTY
STATION 407+06.05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 3
S.B.I. 115	*	FORD	35	21	// SHEETS
F.A.					
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-	109BR, 110BR, I		



BEAM LAYOUT

DESIGNED <i>Angela L. Hensley</i>	EXAMINED <i>May 15 1987</i>
CHECKED <i>James J. Kaspar</i>	PASSED <i>James J. Kaspar</i>
DRAWN <i>J.T. Downing</i>	APPROVED <i>James J. Kaspar</i>
CHECKED <i>ALM.</i>	DIRECTOR OF HIGHWAYS

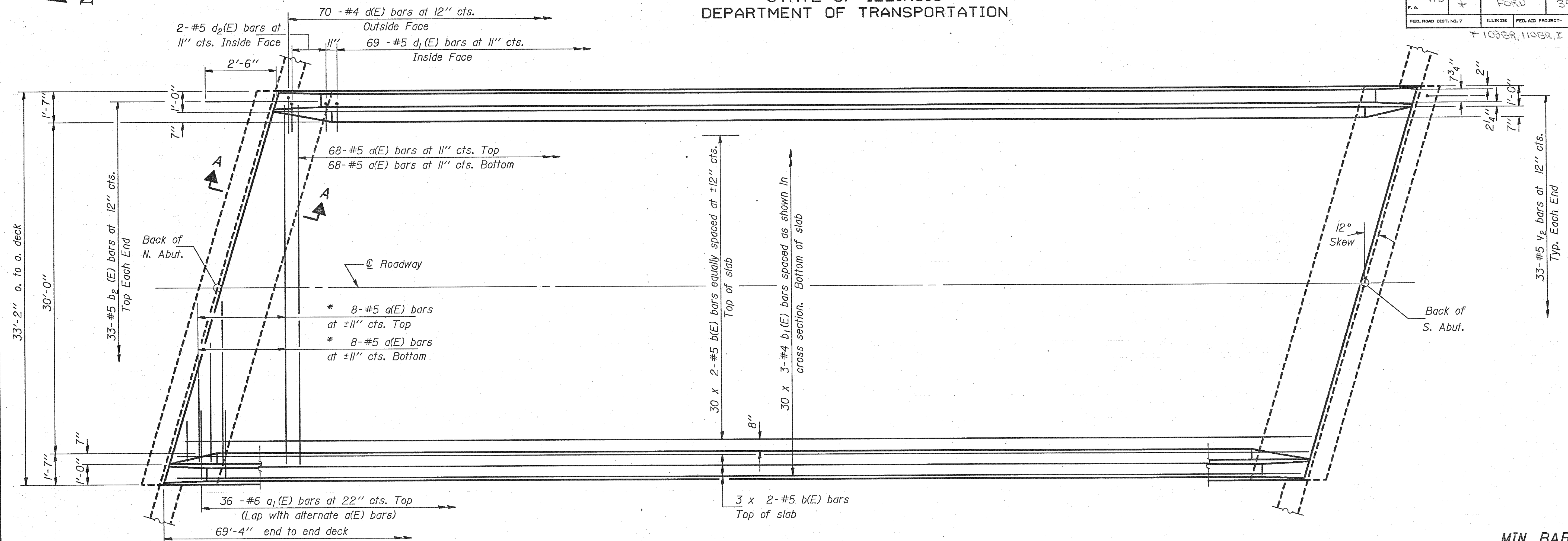
PI-E

TOP OF SLAB ELEVATIONS
S.B.I. RT. 115 SECTION 110BR
FORD COUNTY
STATION 407+06.05

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 115	+	FORD	35	22
F.A.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 4
// SHEETS

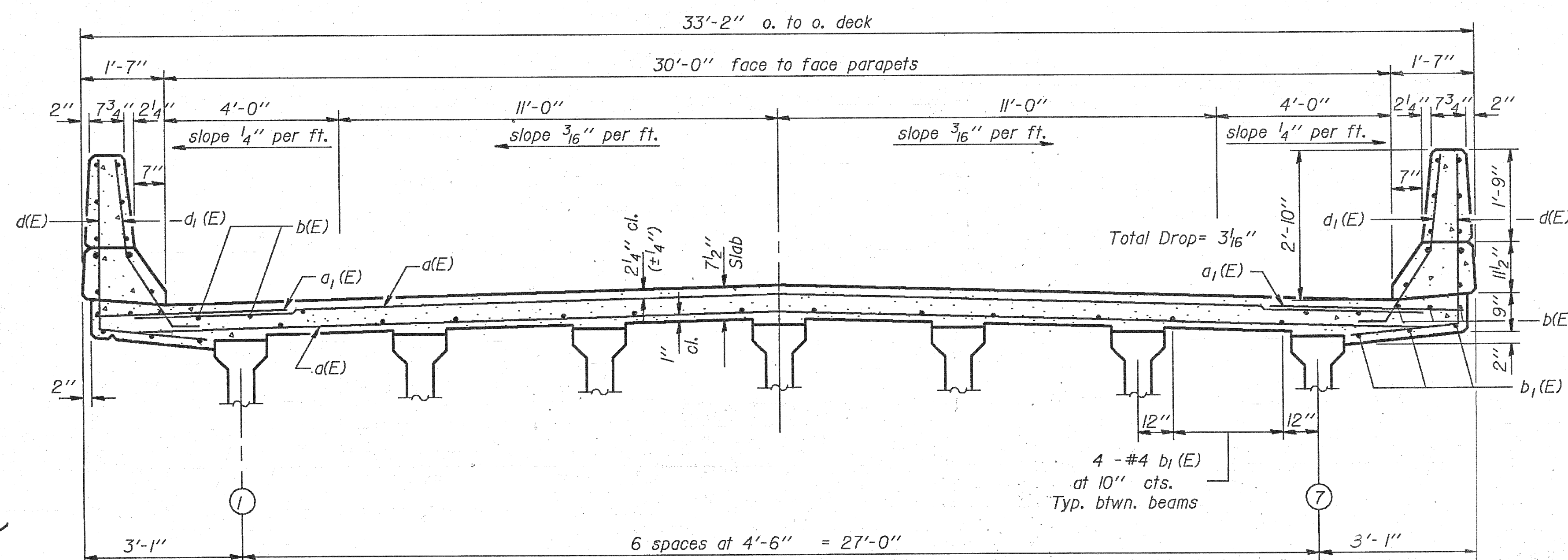


PLAN

* Order a(E) & a1(E) bars full length.
Cut to fit skew and use remainder
of bars in opposite end.

MIN. BAR LAPS

#4 Bar = 1'-4"
#5 Bar = 1'-8"



CROSS SECTION

(Looking South)

Notes: See sheet #6 of 11 for superstructure details
and Bill of Material.
See sheet #5 of 11 for sections at Abutments.
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.

DESIGNED *Angela J. Nemsky*
CHECKED *James J. Kasper*
DRAWN *J.T. Downing*
CHECKED *A.T.M.*

EXAMINED *May 15 1987*
PASSED *James J. Kasper*
APPROVED *James J. Kasper*
DIRECTOR OF HIGHWAYS

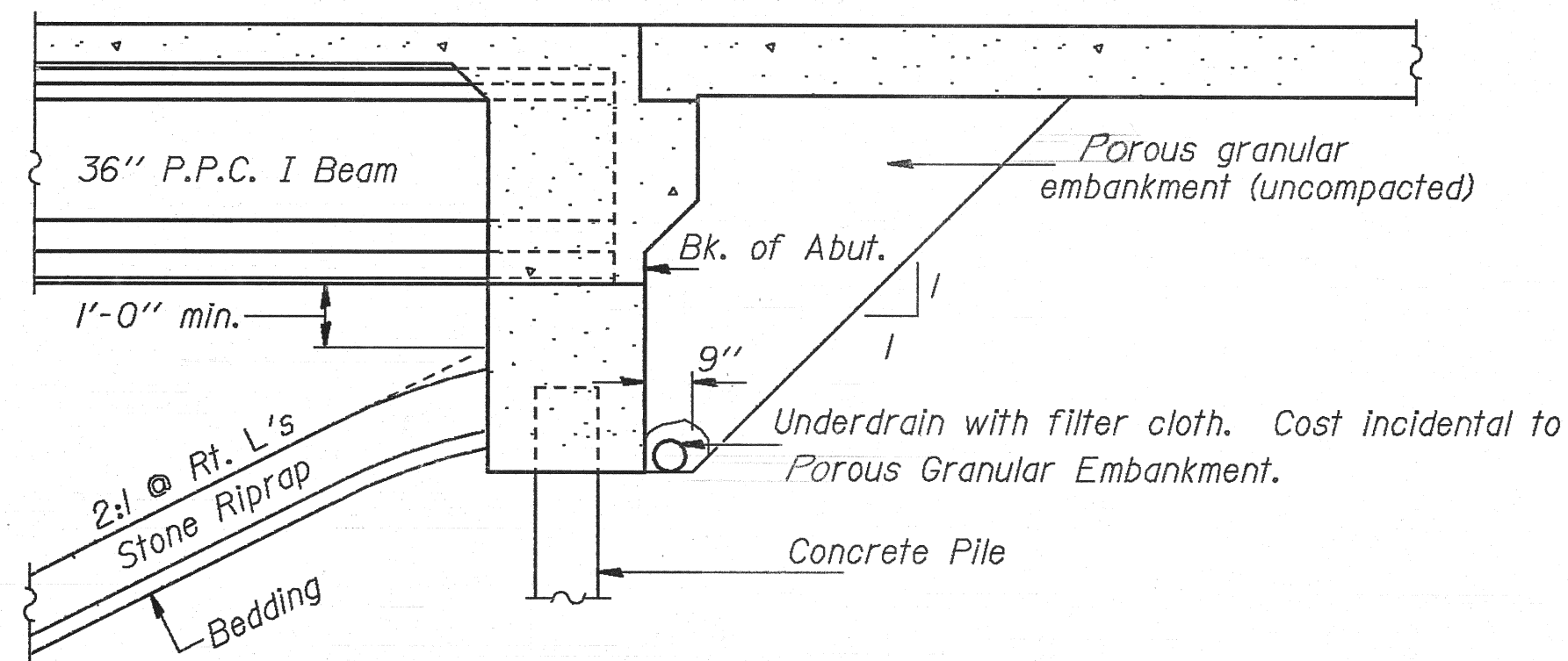
PI-1-L(15°) 12-31-85

SUPERSTRUCTURE
S.B.I. RT. 115 SECTION 110BR
FORD COUNTY
STATION 407+06.05

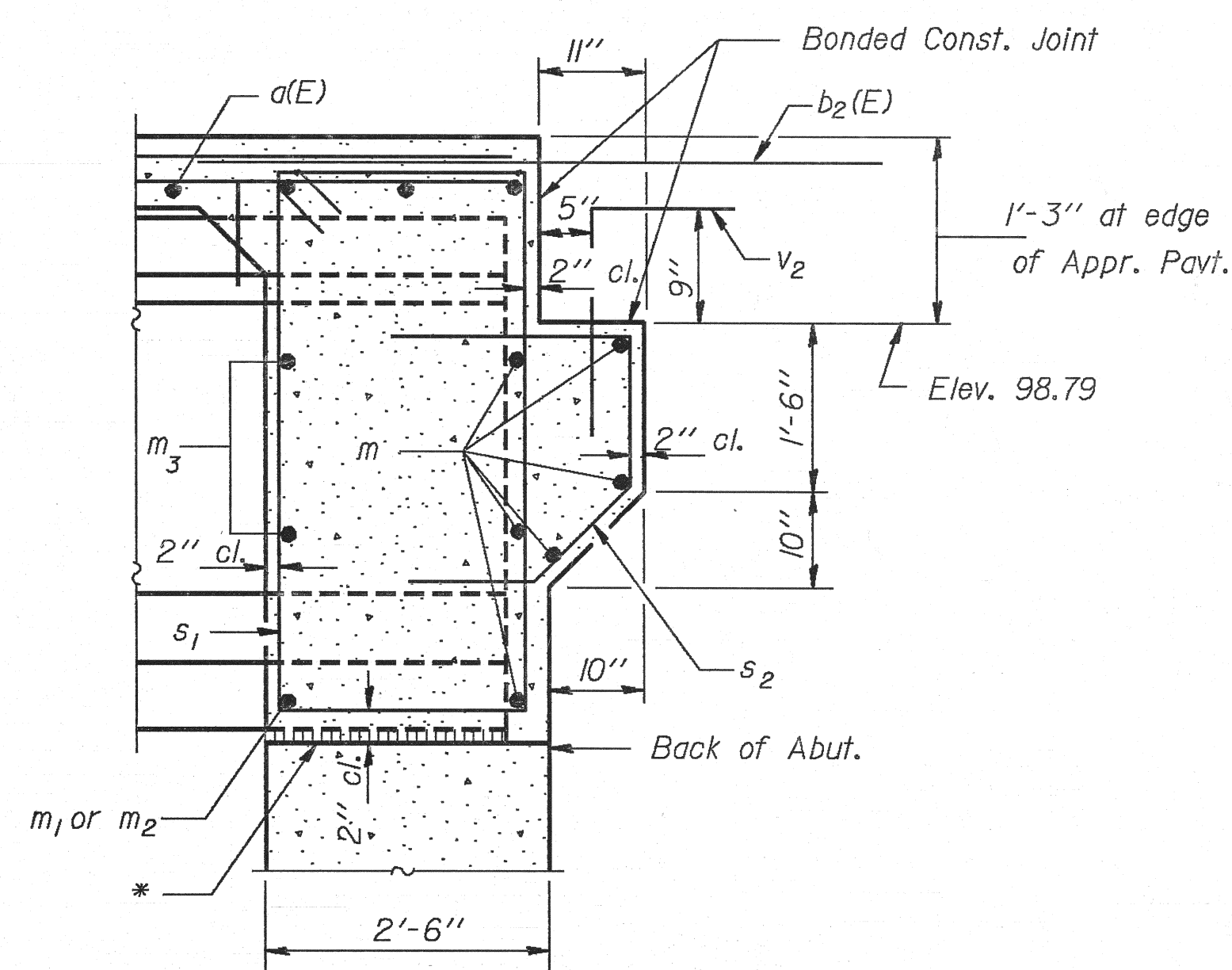
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
S.B.I. 115	*	FORD	35	23
F.A.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

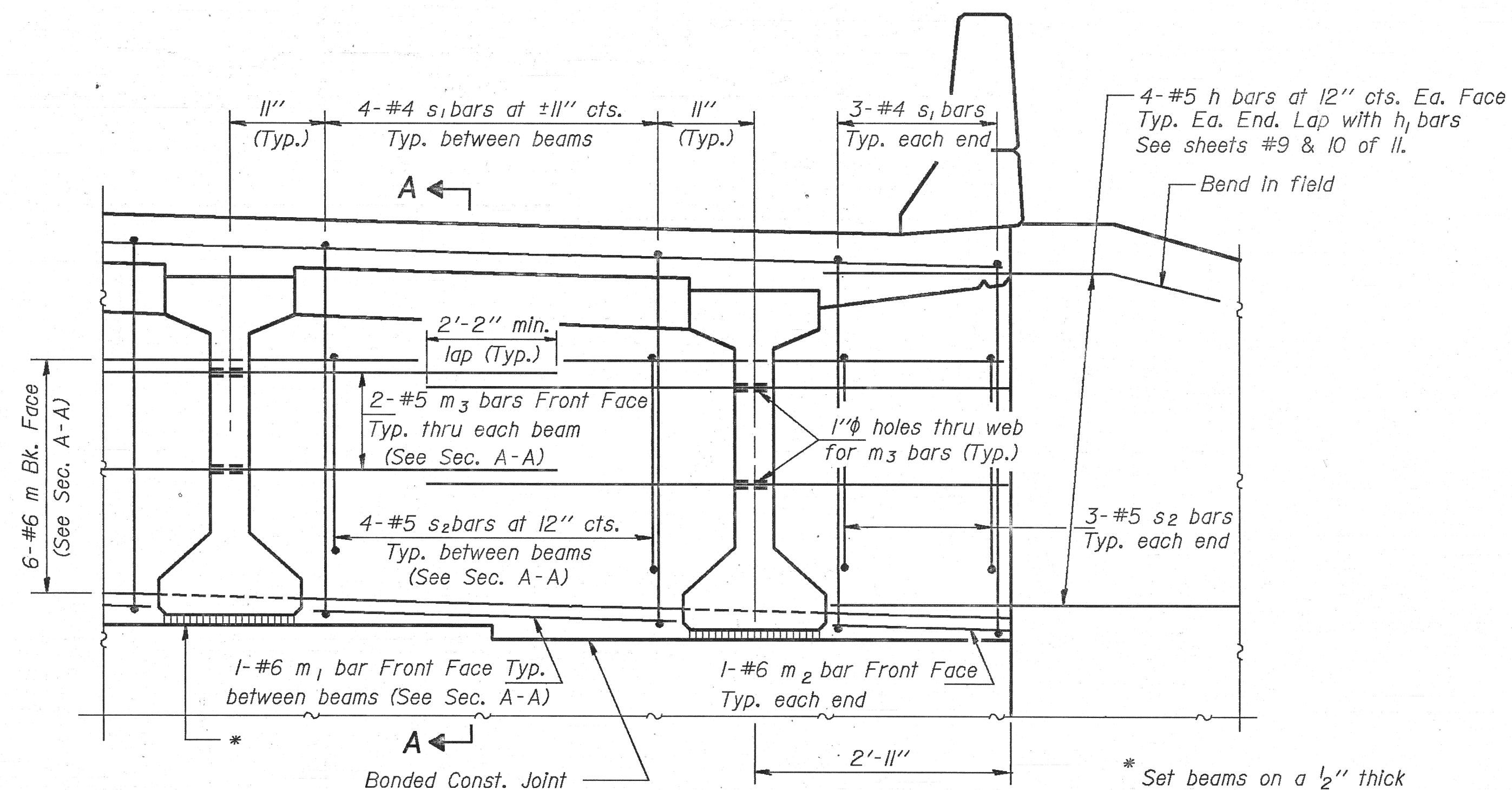
* 109BR, 110BR, I



EMBANKMENT DETAILS



SEC. A-A



ELEVATION AT ABUTMENTS

Notes: See sheet #6 of 11 for superstructure details and Bill of Material.

* Set beams on a 1/2 inch thick very dry mix of grout. Grout shall consist of 2:1 sand and P.C. mortar. Any excess grout squeezed out from under beams shall be cleaned. Cost incidental to P.P.C. I-Beams, 36 inch.

DESIGNED	Angela L. Hensley	EXAMINED	May 15 1987 Craig J. Kaspar ENGINEER OF BRIDGE DESIGN
CHECKED	William R. Hensley	PASSED	James J. Hensley ENGINEER OF BRIDGE AND STRUCTURES
DRAWN	J.T. Downing	APPROVED	
CHECKED	Ad M.		DIRECTOR OF HIGHWAYS

DIAPHRAGM DETAILS
S.B.I. RT. 115 SECTION 110BR
FORD COUNTY
STATION 407+06.05

Note: Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

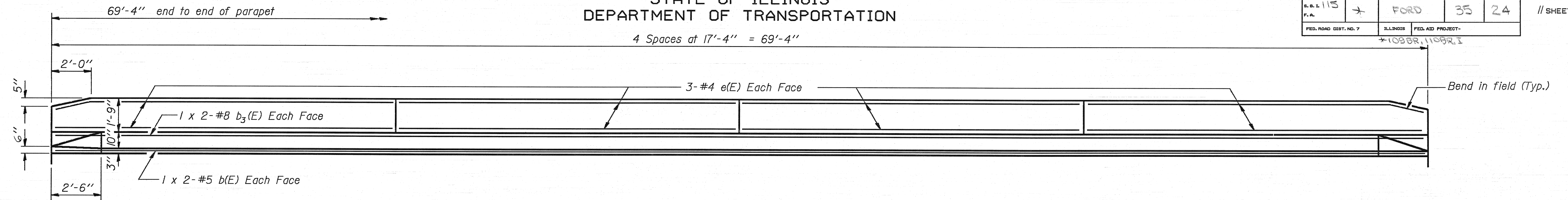
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

4 Spaces at 17'-4" = 69'-4"

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. 115	+	FORD	35	24
P.A.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 6

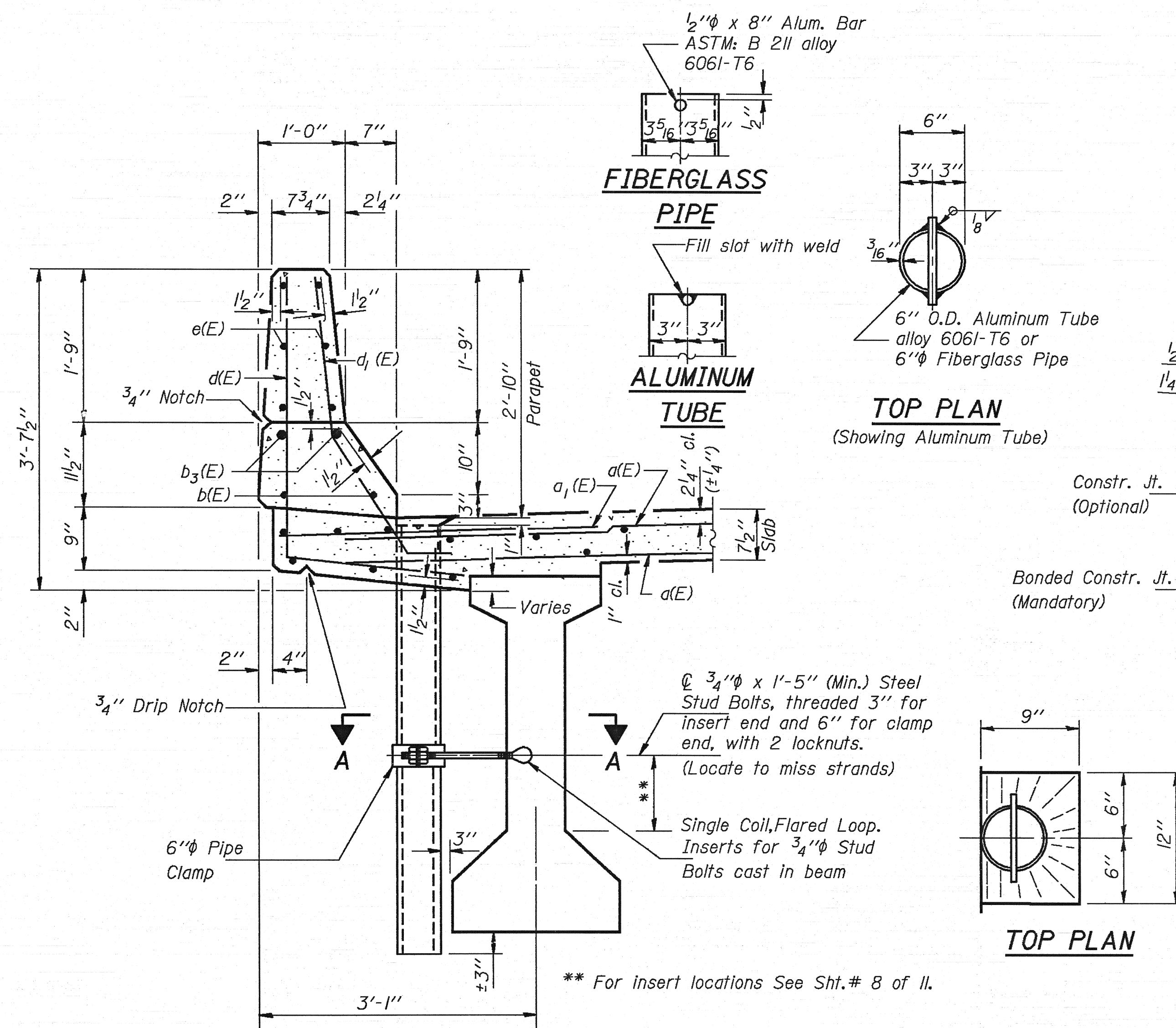
// SHEETS



INSIDE ELEVATION OF PARAPET

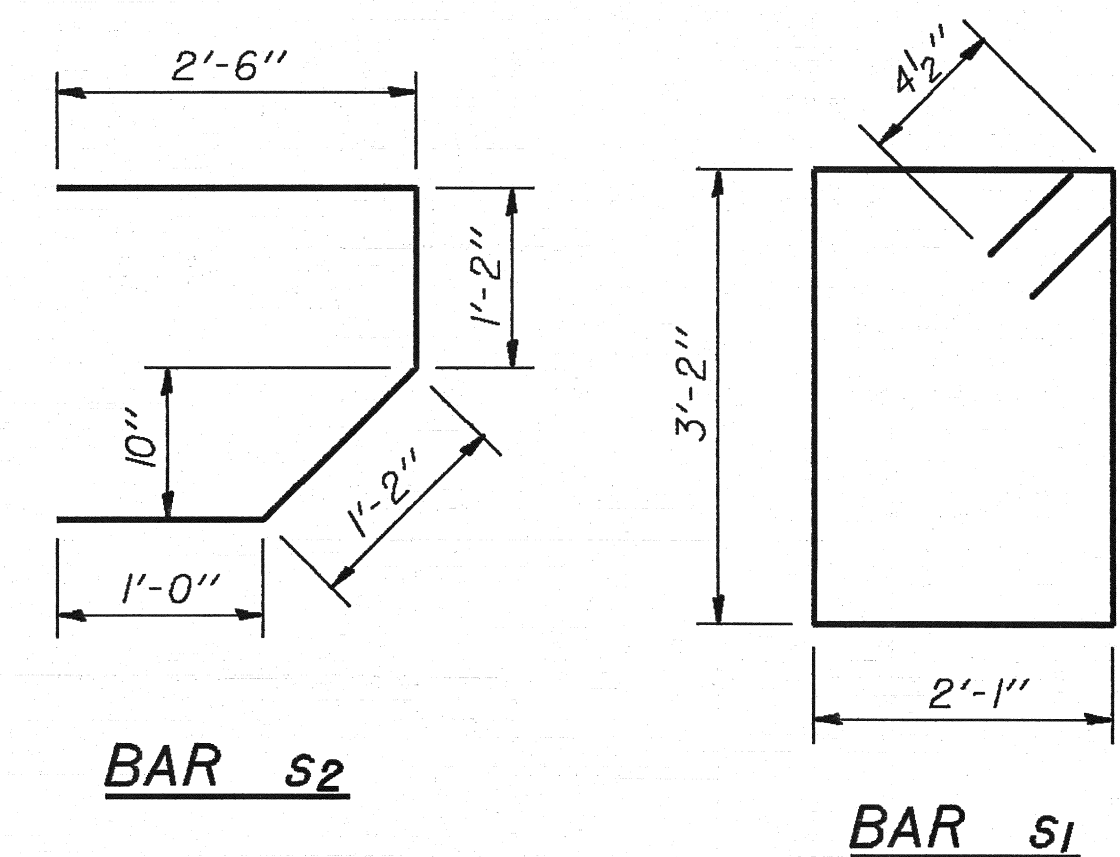
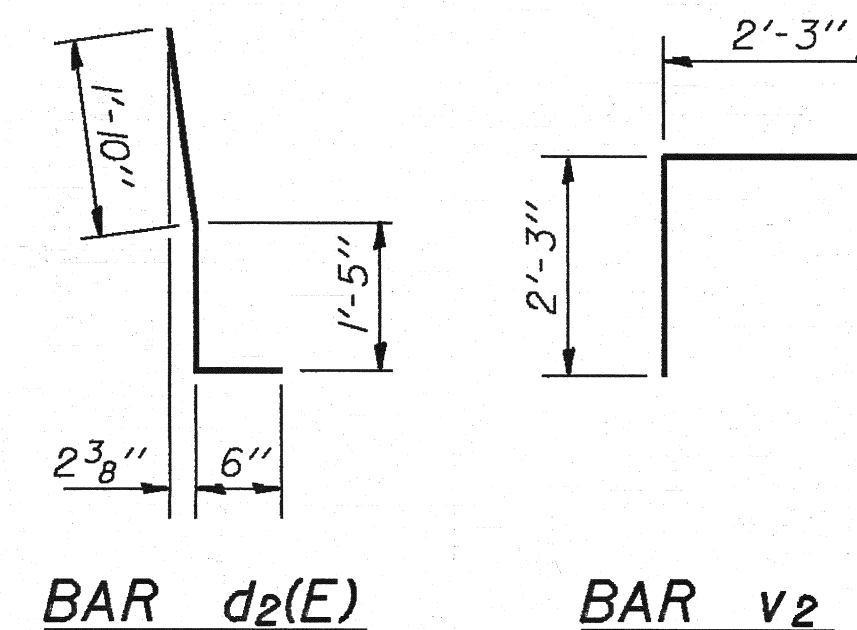
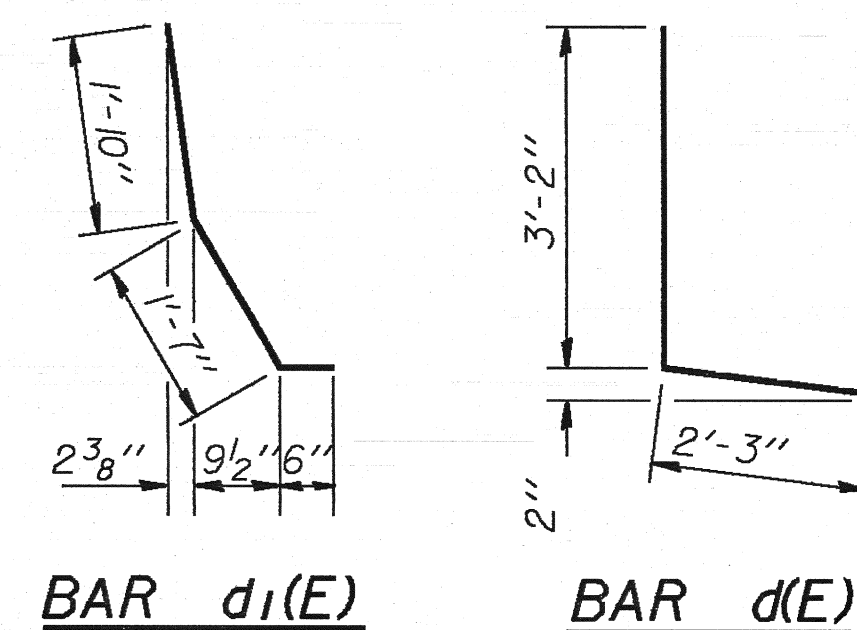
MIN. BAR LAPS

#5 Bar = 1'-8"
#8 Bar = 3'-5"



PARAPET JOINT DETAILS

Notes:
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.
The exterior surfaces of the Fiberglass Floor Drains shall be painted with one coat of Aluminum paint. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete beam.
The clamping device and inserts shall be galvanized in accordance with AASHTO M-232.



SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	152	#5	31'-0"	
a1(E)	72	#6	4'-0"	
b(E)	80	#5	35'-4"	
b1(E)	90	#4	24'-0"	
b2(E)	66	#5	5'-0"	
b3(E)	8	#8	36'-4"	
d(E)	140	#4	5'-5"	L
d1(E)	138	#5	3'-11"	L
d2(E)	8	#5	3'-9"	L
e(E)	48	#4	17'-1"	
m	12	#6	33'-4"	
m1	12	#6	2'-9"	
m2	4	#6	1'-11"	
m3	28	#5	6'-9"	
s1	60	#4	11'-3"	□
s2	60	#4	5'-10"	□
v2	66	#5	4'-6"	└
Reinforcement Bars (Epoxy Coated)		Lbs.	12500	
Class X Concrete Superstructures		Cu. Yds.	91.7	
Reinforcement Bars		Lbs.	1850	

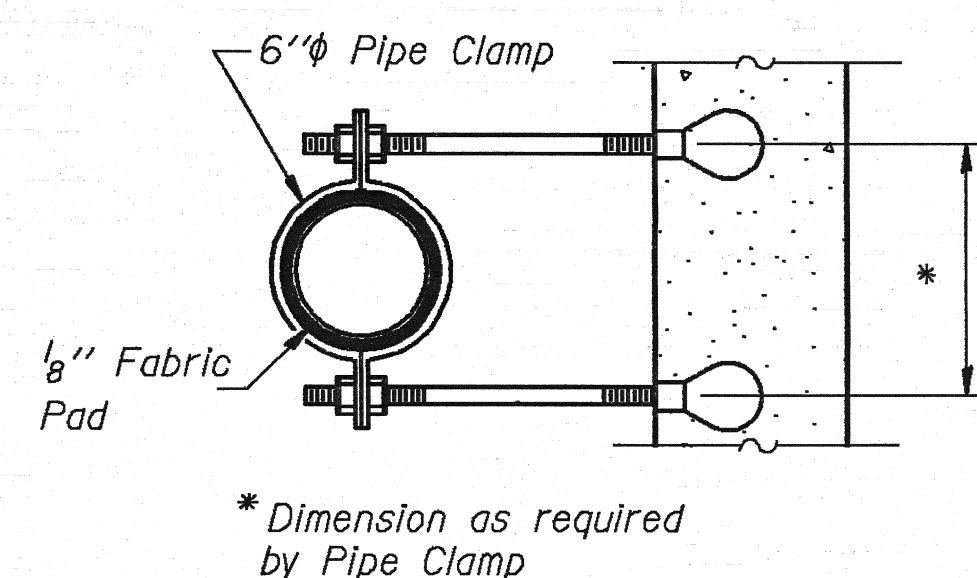
Reinforcement bars designated (E) shall be epoxy coated.

SUPERSTRUCTURE DETAILS
S.B.I. RT. 115 SECTION 110BR
FORD COUNTY
STATION 407+06.05

DESIGNED	Angela L. Hensley
CHECKED	James J. Kasper
DRAWN	J.T. Downing
CHECKED	A.L.M.

EXAMINED	May 15 1987
PASSED	James J. Kasper
APPROVED	James J. Kasper

PI-1-D 12-31-85



SECTION A-A