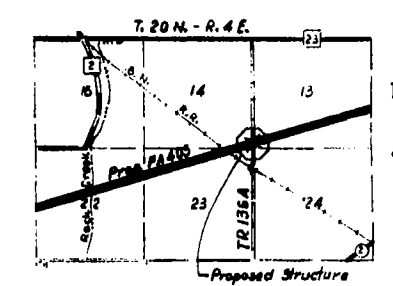


098-0063

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
S.A. 403	195-1-2	WHITESIDE	230	109	17 SHEETS
FOR ROAD DIST. NO. 7	ALABAMA	FOR AD. PROJECT			



LOCATION MAP

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
STRUCTURE EXCAVATION	CU. YDS.	-	231	231
PROTECTIVE COAT	SQ. YDS.	298	-	298
CLASS "X" CONCRETE	CU. YDS.	288.3	682.8	971.1
STRUCTURAL STEEL	L. SGN.	0.16	-	0.16
ALUMINUM RAILING	LIN. FT.	439	-	439
REINFORCEMENT BARS	LBS.	88,895	20,000	108,895
CONCRETE PILES (20.1 TO 20.5)	LIN. FT.	-	804	804
CONCRETE PILES	LIN. FT.	-	1798	1798
TEST PILES (CONCRETE)	EACH	-	4	4
WIRE PLATES	EACH	-	2	2
SLOPE WALLS (V)	SQ. YDS.	-	1601	1601
BIT. CONC. SURFACE COURSE (L-1)	TONS	85	-	85
ASPHALT CONCRETE (L-1)	SQ. YDS.	940	-	940
PAVEMENT AT. 2" (TYP.)	LIN. FT.	175	-	175
REINFORCING OF UNDESIRABLE MAT'L.	CU. YDS.	-	2018	2018
FORMS (CONCRETE)	CU. YDS.	-	2018	2018
PERMANENT BRIDGE MARK, TYPE 1	EACH	1	-	1

* CALCULATED WEIGHT OF STRUCTURAL STEEL = 190,520

DESIGN NOTES

DESIGN LOADINGS:
 HS 20-44 And Allowance for 25 RS.F.
 Future Wearing Surface

DESIGN STRENGTH:
 $f_c = 1000$ P.S.I. Except As Follows:
 $f_c = 1200$ P.S.I. For Deck Slab.
 $f_c = 1000$ P.S.I. For Concrete Contact With Earth.
 $f_s = 20,000$ P.S.I. - Reinforcement Steel.
 $f_s = 28,000$ P.S.I. - Reinforcement Steel.
 $v = 75$ P.S.I. Allowable Shear In Footings
 $n = 8$
 Allowable Live Load Deflection =
 $L/1000$ (Non Composite)
 DESIGN SPECIFICATIONS: AASHTO 1989 As Applicable

For footing layout see sheet #16.

GENERAL NOTES

ALL REINFORCEMENT BARS SHALL BE LAPPED 24 DIAMETERS UNLESS OTHERWISE SHOWN.

FIELD CONNECTIONS SHALL BE BOLTED USING HIGH STRENGTH BOLTS. BOLTS 3/4" Ø, UNLESS OTHERWISE NOTED.

FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED IN THE BOTTOM OF FLANGE OF BEAM OR GIRDER NOR ON THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM THE PIER SUPPORTS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.

ANCHOR BOLTS SHALL BE SET BEFORE BOLTING DIAPHRAGMS OVER SUPPORTS.

SLOPE WALL SHALL BE REINFORCED WITH WELDED WIRE FABRIC 6" x 6" MESH, WEIGHING 50# PER 100-SQ.FT.

THE DIMENSION CONFIGURATION SHOWN SHALL BE THE MINIMUM DIMENSION THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

THE CONTRACTOR SHALL DRIVE 4 CONCRETE TEST PILES IN A PERMANENT LOCATION, ONE EACH AT THE PIERS AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

THE BASIC LEAD SILICO CHROMATE PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL.

THE CONCRETE RAIL SECTION ABOVE THE MANDATORY GROUT JOINT AT THE TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

PROTECTIVE COAT SHALL NOT BE APPLIED TO SURFACES TO WHICH WATERPROOFING MEMBRANE IS APPLIED.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\pm 1/8$ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

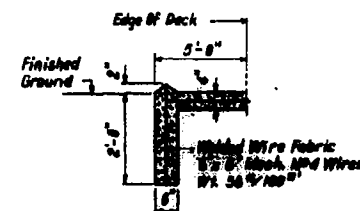
NOTE:

The top six feet of black clay shall be removed and shall be replaced with porous granular material to two feet above the water as and if observed during construction, and above that with suitable borrow material.

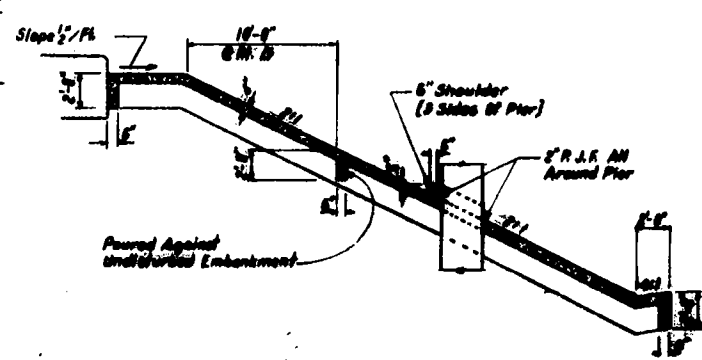
STATION 1496+11.93
 BUILT 19 BY
 STATE OF ILLINOIS
 F.A. 403 SECTION 195-1HB-5
 F.A. PROJECTIONS - 403-144
 LOADING HS 20

NAME PLATE

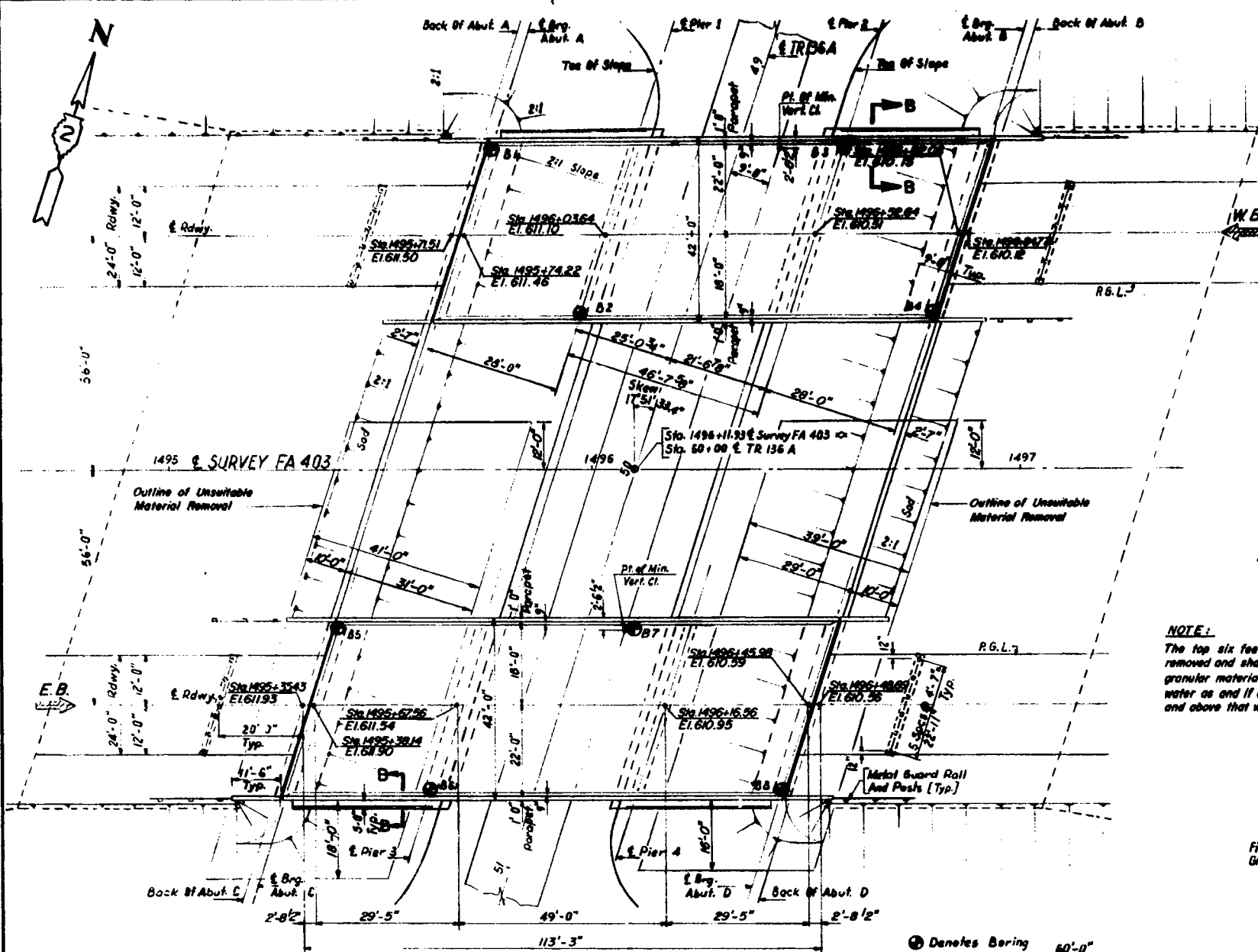
SEE STD. 213



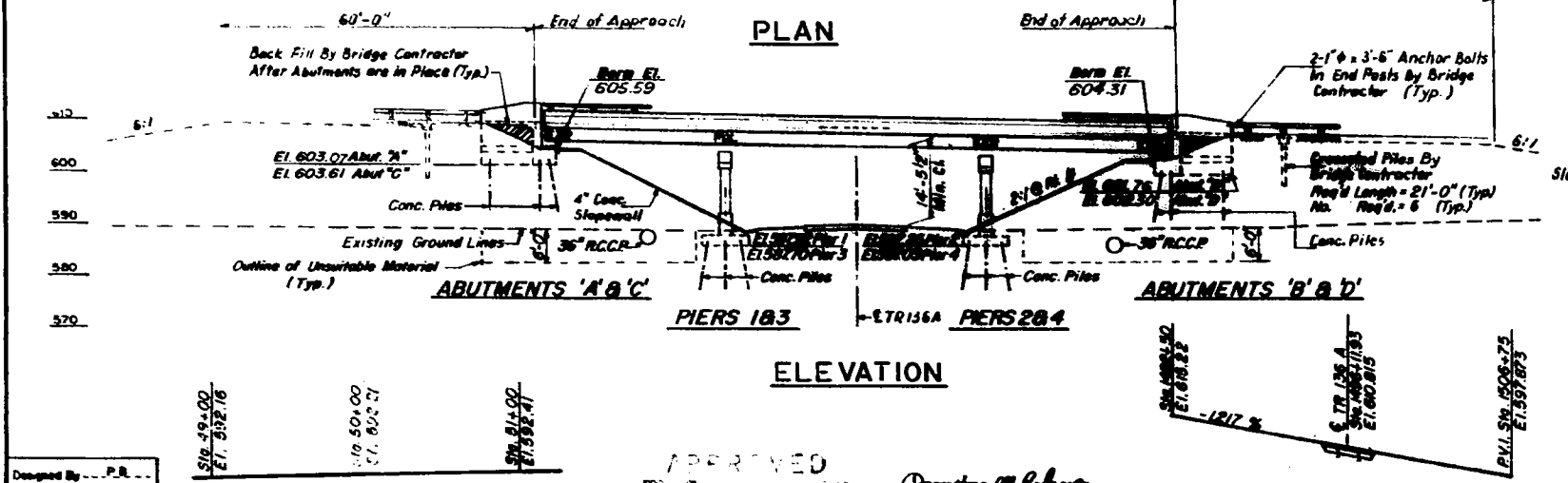
SECTION B-B



TYPICAL SECTION THRU SLOPE WALL



PLAN



ELEVATION

Designed By: P.R.
 Checked By: S.A.
 Drawn By: G.R.
 Checked By: D.M.C.

PROFILE TR 136 A

PROFILE FA 403 ALONG E SURVEY
 TOP OF CLASS I

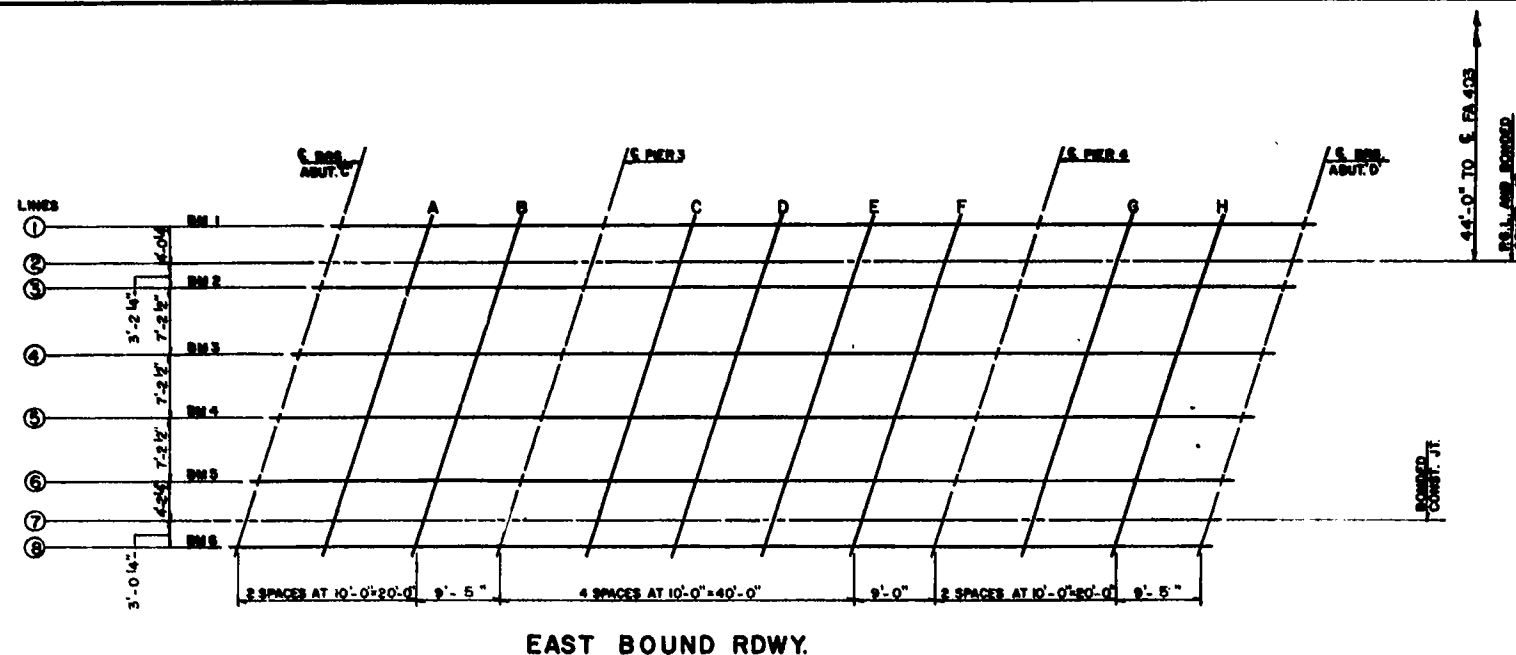
GENERAL PLAN & ELEVATION

FA 403 SECTION 195-1HB-5
 FA 403 OVER TR 136-A
 WHITESIDE COUNTY
 STATION 1496 + 11.93

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



FILLET HEIGHTS



EAST BOUND RDWY.

LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION	LOCATION OF LINES	STATION	OFFSET	THEORETICAL GRADE ELEVATIONS	DEFL CONC	THEORETICAL ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTION				
E Brg. Abut. C	1	1495+43.305	4.021	611.5664		611.566	E Pier 3	1	1495+72.725	4.021	611.2083		611.208	E	1	1496+ 2.725	4.021	610.8432	0.0175	610.861	G	1	1496+31.725	4.021	610.4902	0.0000	610.490
	2	1495+42.009	0.000	611.6659		611.666		2	1495+71.429	0.000	611.3079		611.308		2	1496+ 1.429	0.000	610.9427	0.0175	610.960		2	1496+30.429	0.000	610.5897	0.0000	610.590
	3	1495+40.982	-3.188	611.7283		611.728		3	1495+70.402	-3.188	611.3702		611.370		3	1496+ 0.402	-3.188	611.0081	0.0175	611.023		3	1496+29.402	-3.188	610.6520	0.0000	610.652
	4	1495+38.660	-10.395	611.8691		611.869		4	1495+68.080	-10.395	611.5111		611.511		4	1495+98.080	-10.395	611.1459	0.0175	611.164		4	1496+27.080	-10.395	610.7929	0.0000	610.793
	5	1495+36.337	-17.604	611.8349		611.835		5	1495+65.757	-17.604	611.4768		611.477		5	1495+95.757	-17.604	611.1117	0.0175	611.129		5	1496+24.757	-17.604	610.7587	0.0000	610.759
	6	1495+34.015	-24.811	611.7463		611.746		6	1495+63.435	-24.811	611.3883		611.388		6	1495+93.435	-24.811	611.0231	0.0175	611.041		6	1496+22.435	-24.811	610.6701	0.0000	610.670
	7	1495+32.466	-28.999	611.6755		611.676		7	1495+62.086	-28.999	611.3174		611.318		7	1495+92.086	-28.999	610.9523	0.0175	610.970		7	1496+21.086	-28.999	610.5993	0.0000	610.599
	8	1495+31.692	-32.021	611.6244		611.625		8	1495+61.112	-32.021	611.2663		611.266		8	1495+91.112	-32.021	610.9012	0.0175	610.919		8	1496+20.112	-32.021	610.5482	0.0000	610.548
A	1	1495+53.305	4.021	611.4447	0.0000	611.445	C	1	1495+82.725	4.021	611.0866	0.0091	611.096	F	1	1496+12.725	4.021	610.7215	0.0091	610.731	H	1	1496+41.725	4.021	610.3684	0.0000	610.369
	2	1495+52.009	0.000	611.5442	0.0000	611.544		2	1495+81.429	0.000	611.1862	0.0091	611.195		2	1496+11.429	0.000	610.8210	0.0091	610.830		2	1496+40.429	0.000	610.4680	0.0000	610.468
	3	1495+50.982	-3.188	611.6065	0.0000	611.607		3	1495+80.402	-3.188	611.2485	0.0091	611.258		3	1496+10.402	-3.188	610.8833	0.0091	610.893		3	1496+39.402	-3.188	610.5383	0.0000	610.538
	4	1495+48.660	-10.395	611.7474	0.0000	611.748		4	1495+78.080	-10.395	611.3894	0.0091	611.399		4	1496+ 9.080	-10.395	611.0242	0.0091	611.034		4	1496+37.080	-10.395	610.6712	0.0000	610.671
	5	1495+46.337	-17.604	611.7132	0.0000	611.713		5	1495+75.757	-17.604	611.3551	0.0091	611.364		5	1496+ 5.757	-17.604	610.9900	0.0091	610.999		5	1496+34.757	-17.604	610.6370	0.0000	610.637
	6	1495+44.015	-24.811	611.6246	0.0000	611.625		6	1495+73.435	-24.811	611.2665	0.0091	611.276		6	1496+ 3.435	-24.811	610.9014	0.0091	610.911		6	1496+32.435	-24.811	610.5484	0.0000	610.548
	7	1495+42.666	-28.999	611.5538	0.0000	611.554		7	1495+72.086	-28.999	611.1957	0.0091	611.205		7	1496+ 2.086	-28.999	610.8306	0.0091	610.840		7	1496+31.086	-28.999	610.4776	0.0000	610.478
	8	1495+41.692	-32.021	611.5027	0.0000	611.503		8	1495+71.112	-32.021	611.1446	0.0091	611.154		8	1496+ 1.112	-32.021	610.7795	0.0091	610.789		8	1496+30.112	-32.021	610.4265	0.0000	610.427
B	1	1495+63.305	4.021	611.3230	0.0000	611.323	D	1	1495+92.725	4.021	610.9649	0.0175	610.983	E Pier 4	1	1496+21.725	4.021	610.6119		610.612	E Brg. Abut. D	1	1496+51.145	4.021	610.2538		610.254
	2	1495+62.009	0.000	611.4225	0.0000	611.423		2	1495+91.429	0.000	611.0645	0.0175	611.082		2	1496+20.429	0.000	610.7115		610.712		2	1496+49.849	0.000	610.3533		610.353
	3	1495+60.982	-3.188	611.4848	0.0000	611.485		3	1495+90.402	-3.188	611.1268	0.0175	611.144		3	1496+19.402	-3.188	610.7738		610.774		3	1496+48.822	-3.188	610.4156		610.416
	4	1495+58.660	-10.395	611.6257	0.0000	611.626		4	1495+88.080	-10.395	611.2677	0.0175	611.285		4	1496+18.080	-10.395	610.9147		610.915		4	1496+46.900	-10.395	610.5565		610.557
	5	1495+56.337	-17.604	611.5915	0.0000	611.592		5	1495+85.757	-17.604	611.2334	0.0175	611.251		5	1496+14.757	-17.604	610.8885		610.881		5	1496+44.177	-17.604	610.5223		610.522
	6	1495+54.015	-24.811	611.5029	0.0000	611.503		6	1495+83.435	-24.811	611.1648	0.0175	611.182		6	1496+12.435	-24.811	610.7919		610.792		6	1496+41.999	-24.811	610.4937		610.494
	7	1495+52.666	-28.999	611.4321	0.0000	611.432		7	1495+82.086	-28.999	611.0740	0.0175	611.092		7	1496+11.086	-28.999	610.7211		610.721		7	1496+40.906	-28.999	610.3629		610.363
	8	1495+51.692	-32.021	611.3810	0.0000	611.381		8	1495+81.112	-32.021	611.0229	0.0175	611.041		8	1496+10.112	-32.021	610.6700		610.670		8	1496+39.932	-32.021	610.3118		610.312

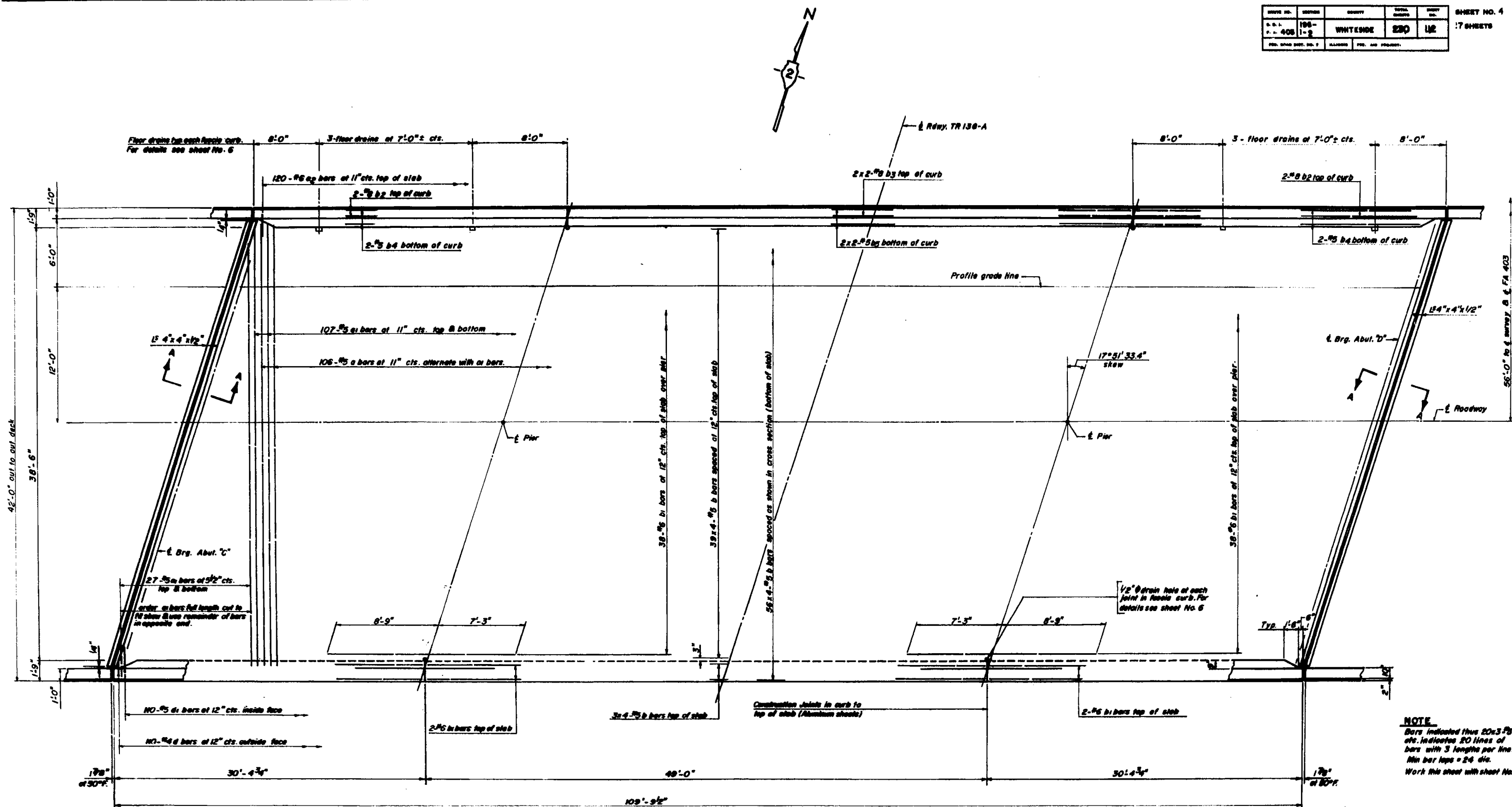
DESIGNED	D.M.P.
CHECKED	H.S.
DRAWN	A.S.
CHECKED	D.M.P.

NOTES:
ELEVATIONS ARE GIVEN AT SURFACE OF 1 1/2" CLASS I BITUMINOUS CONCRETE.
OFFSETS ARE FROM PROFILE GRADE

ELEVATIONS-TOP OF SLAB
PA-408 SECTION 105-105-5
OVER TR. 105-A
WHITEHIDE COUNTY
STATION 1496+1193

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PA 403	186-11-2	WHITESIDE	230	182
PA 403	186-11-2	WHITESIDE	230	182

SHEET NO. 4
17 SHEETS



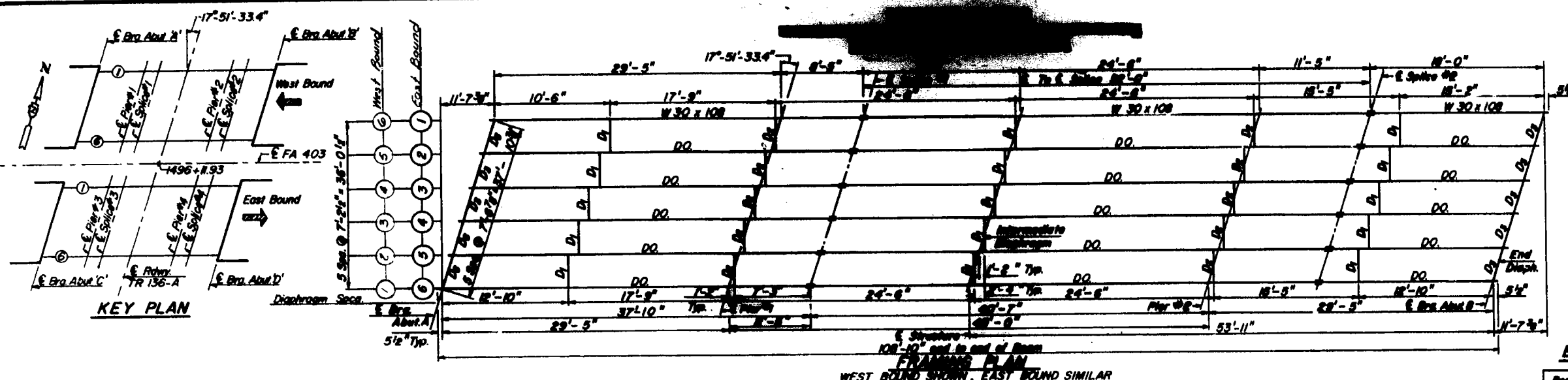
NOTE
Bars indicated thus 20x3-#8 etc. indicates 20 lines of bars with 3 lengths per line. Min bar laps = 24 dia. Work this sheet with sheet No. 5

DESIGNED	B.T.M.
CHECKED	H.S.
DRAWN	A.M.
CHECKED	H.S.

DECK PLAN (EAST BOUND SHOWN)
(WEST BOUND SIMILAR BY 180° ROTATION
ABOUT & SURVEY & & PA 403)

DECK SLAB
PA 403 SECTION 186-11B-5
PA 403 OVER TR 138A
WHITESIDE COUNTY
STATION 1496+11.93

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
U. S. 1.	108	WHITEHIDE	230	115
F. A. 405	1-2			
FED. ROAD DIST. NO. 7		ALLIANCE	FED. AID PROJECT.	



ELEV. TOP OF WEST BOUND BEAMS:

Beam No.	£ Bro. Abut. A	£ Pier #1	£ Splice #1	£ Pier #2	£ Splice #2	£ Bro. Abut. B
6	610.418	610.004	609.908	609.408	609.269	609.10
5	610.285	612.110	610.007	609.513	609.374	609.21
4	610.609	610.194	610.091	609.597	609.458	609.22
3	610.518	610.103	612.001	609.507	609.369	609.23
2	610.373	609.298	609.656	609.382	609.223	609.24
1	610.183	609.250	609.777	609.163	609.044	609.06

ELEV. TOP OF EAST BOUND BEAMS*

Boom No	£ Br. Adj. C	£ Pier # 3	£ Splice # 3	£ Pier # 4	£ Splice # 4	£ Br. Adj. D
1	610.732	610.317	610.215	609.721	609.582	609.4
2	610.834	610.479	610.377	609.883	609.744	609.58
3	611.036	610.680	610.546	610.224	609.685	609.77
4	611.091	610.586	610.464	609.590	609.851	609.6
5	610.942	610.487	610.395	609.501	609.752	609.6
6	610.931	610.375	610.273	609.779	609.640	609.4

For Fabrication Only

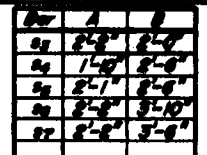
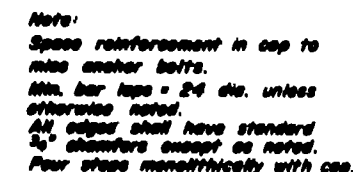
INTERIOR BEAM MOMENT TABLE

	0.4 Sp. for	Prior 2	0.5 Sp.
I (M)	4481	4481	4481
DL (M)	1255	1255	1255
MDL (M)	42.9	-217.4	159.1
MLL (M)	198.1	-240.21	290.8
M (M)	239.0	-457.6	449.9
P (M)	8.89	18.37	18.05

INTERIOR GARDER REACTION TABLE

	Abut.	Pier
MDL (K)	11.0	56.5
PLD (K)	45.9	62.7
STW (K)	54.9	119.2

SUPERSTRUCTURE STEEL
FA 403 SECTION 126-WB-5
FA 405 OVER TR 126-A
WHITESIDE COUNTY
STATION 1426+11.23



Bar	No.	Size	Length	Sh.
h_2	4	$\phi 3$	$40'-8"$	—
h_7	8	$\phi 3$	$29'-6"$	—
h_8	4	$\phi 7$	$25'-6"$	—
n_1	30	$\phi 8$	$6'-2"$	—
p_3	6	$\phi 10$	$40'-0"$	—
p_4	12	$\phi 10$	$13'-6"$	—
p_8	7	$\phi 8$	$27'-0"$	—
p_8	8	$\phi 8$	$8'-6"$	—
s_2	16	$\phi 8$	$11'-1"$	□
s_3	32	$\phi 8$	$8'-9"$	□
s_4	24	$\phi 4$	$6'-1"$	□
s_8	8	$\phi 8$	$7'-1"$	□
s_9	27	$\phi 8$	$9'-10"$	□
s_7	27	$\phi 8$	$9'-8"$	□
t	30	$\phi 6$	$6'-8"$	—
u_2	8	$\phi 8$	$7'-7"$	□
v_8	30	$\phi 8$	$11'-6"$	—
w	9	$\phi 7$	$27'-6"$	—

Class X Concrete	Cu. Yds.	47.1
Reinforcement Bars	Lbs.	691
Standard Deviation	Cu. Yds.	64
Jump Hole	Each	1
Concrete Pile	Lbs. Ft.	100
Test Pile (Comp.)	Each	1

Note: Name Plate required for Pier 41 only

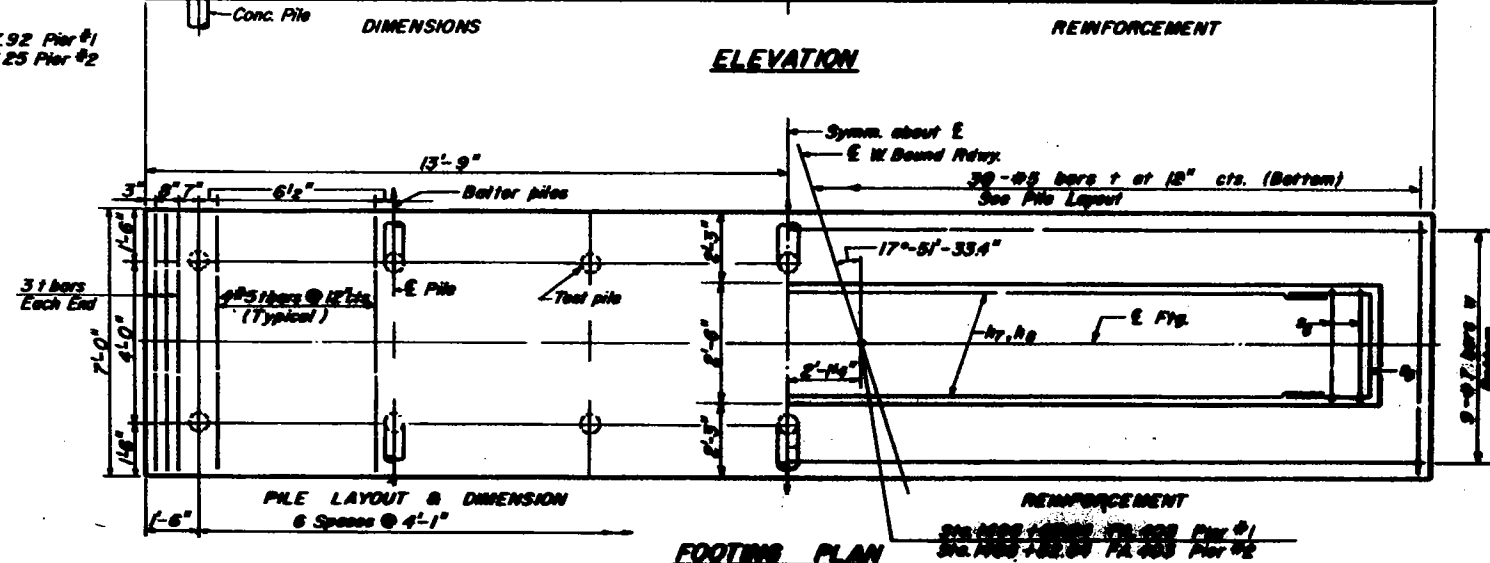
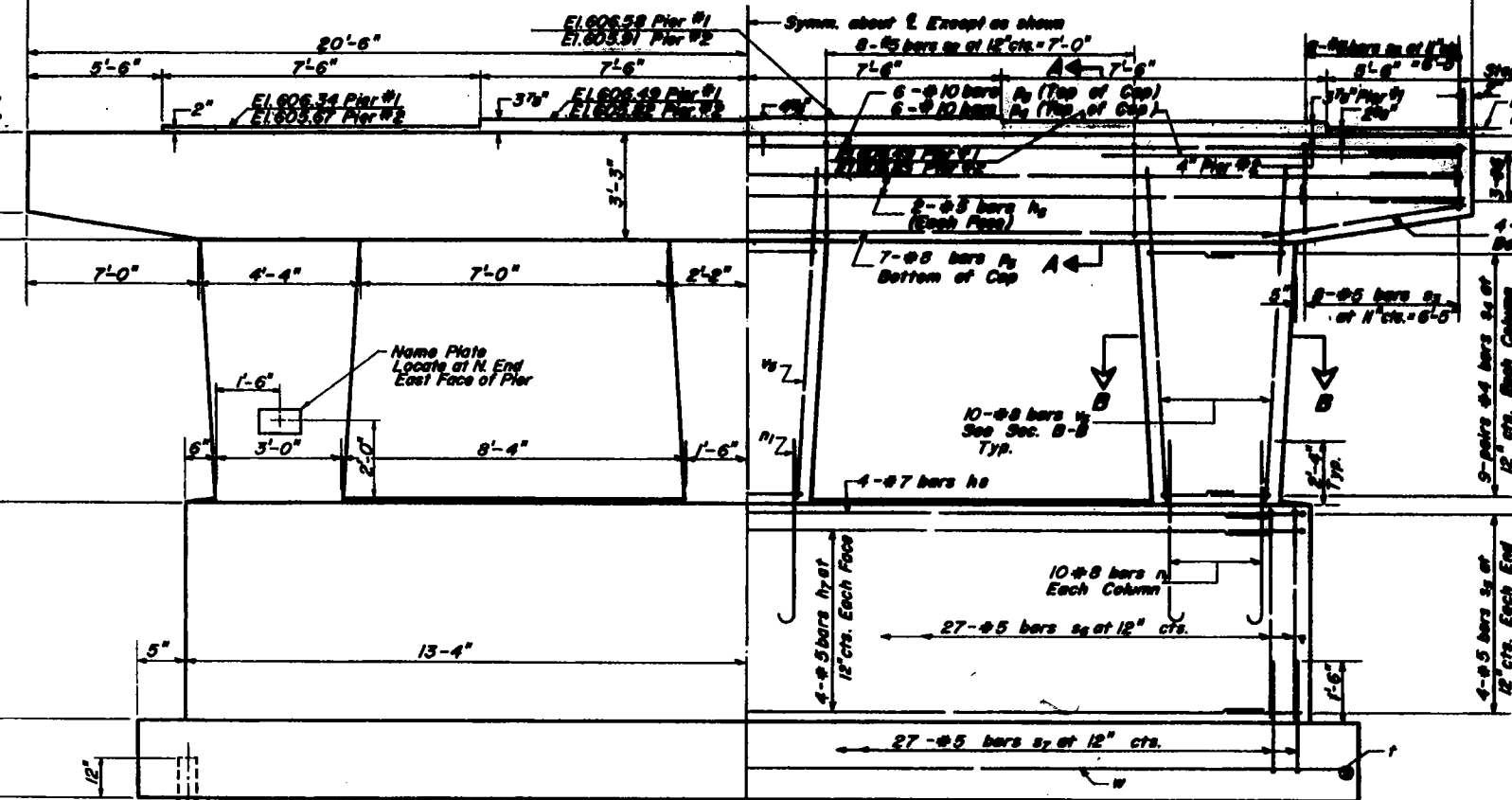
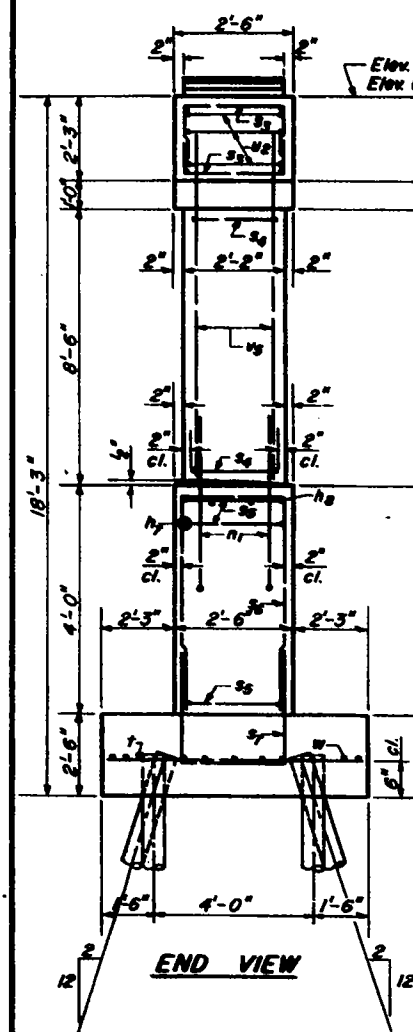
PIER 182

FA 403 SECTION 105-HQ-B

FA 403 OVER TR 126-A

WHITESIDE COUNTY

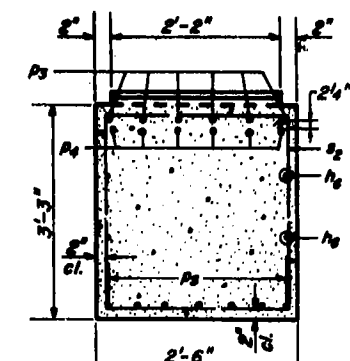
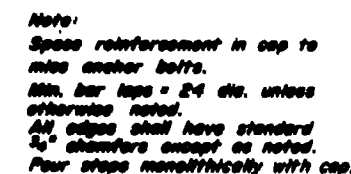
STATION 1496+11.93



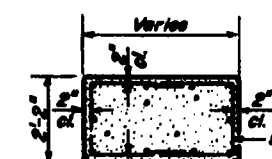
DESIGNED	R.A.
CHECKED	D.M.P.
DRAWN	Z.W.
CHECKED	D.M.P.

PILE DATA

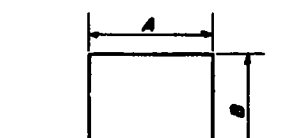
Type - Concrete
Capacity - 35 Tons
Est. Length - 12' Pier @ 12' @ 2
No. Piers - 40 (including one Test pile
Test Piles - One each Pier



SECTION A-A

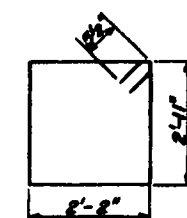


SECTION B-B

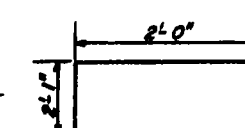


BARS s. thru s.

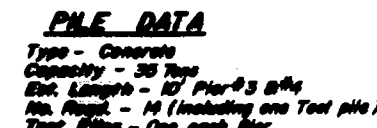
Box	A	B
83	$2^1 2^2$	$2^1 0^1$
84	$1^1 10^1$	$2^1 0^1$
85	$2^1 1^1$	$2^1 0^1$
86	$2^1 2^1$	$3^1 10^1$
87	$2^1 2^1$	$3^1 0^1$



BAR 8



BAR 43



PILE DATA

Type - Concrete
Capacity - 35 Tons
Est. Length - 12' Pier #3 & 4
No. Piers - 14 (including one Test pile)
Test Piles - One each Pier

ONE PIER BILL OF MATERIAL				
Bar	No.	Size	Length	Shape
#8	4	#5	40'-6"	=====
#7	8	#5	25'-6"	=====
#8	4	#7	25'-6"	=====
n ₁	30	#8	6'-2"	=====
p ₃	6	#10	40'-6"	=====
p ₄	12	#10	13'-6"	=====
p ₅	7	#8	27'-0"	=====
p ₆	8	#8	7'-8"	=====
g ₂	16	#8	11'-1"	=====
g ₃	32	#8	6'-2"	=====
g ₄	24	#4	6'-1"	=====
g ₅	8	#8	7'-1"	=====
g ₆	27	#8	8'-10"	=====
g ₇	27	#8	9'-2"	=====
r	30	#8	6'-8"	=====
u ₂	6	#8	7'-7"	=====
v ₂	30	#8	11'-6"	=====
w	9	#7	27'-0"	=====
Class X Concrete			Cu. Yds.	48.2
Reinforcement Bars			Lbs.	6312
Structural Expansion			Cu. Yds.	81.5
Stems Pile			Each	1
Concrete Piles			Lm. Ft.	130
Total Pile (Concrete)			Each	1

***Note: Name Plate required for North**

PIER 384

FA 403 SECTION 106-HR-1

FA 403 OVER TR 136-A

WHITESIDE COUNTY

STATION 1406+11.92

DESIGNED	R.A.
CHECKED	D.M.P.
DRAWN	Z.W.
CHECKED	P.A.

