Const No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS
2		HALL	ADDED LIGHTING
3	1-11-84	ELO	Added Signs

239'-0" TOTAL LENGTH OF BRIDGE

134'-0" SPAN NO. 1 | 105'-0" SPAN NO. 2

BEGINNING OF BRIDGE
STA. 31+63.17
F.G. EL. 590.41

BENT NO. 1
STA. 32+97.17
F.G. EL. 581.83

END OF BRIDGE
STA. 34+02.17
F.G. EL. 571.98

CLASS 2 RUBBED FINISH (THICKNESS OF SLAB) (TYP.)

8¾"

PROPOSED GROUND 2:1 SLOPE (TYP.)

EXPANSION

ABUTMENT NO. 1

FACE OF ROCK CUT

SLOPE 0.018 ft/ft

INTEGRAL

20'-7¼" ACT. CL.
16'-6" MIN. CL.

SLOPE 0.018 ft/ft

SLOPE 0.092 ft/ft

INTEGRAL ABUTMENT NO. 2

EXISTING GROUND LINE

BENT NO. 1

DECORATIVE FORM FINISH (ALL EXPOSED SURFACES OF BENT)

FACE OF ROCK CUT

600 590 580 570 560 550 540

— ELEVATION —

CHAIN LINK FENCE (TYP.)

1'-0" THICK WALLS (ABUT WINGS & ENDWALL)

3'-9⅜"

DECORATIVE FORM FINISH (TYP.)

ABUTMENT BEAM

— ABUTMENT NO. 1 —

DECORATIVE FORM FINISH (PARAPET INSET & ABUTMENT'S WINGS AND FRONT FACE OF FOOTING (EXPOSED SURFACES) (TYP.)

8¾" CLASS 2 RUBBED FINISH (THICKNESS OF SLAB TYP.)

560 550 540

LIST OF DRAWINGS

	DWG. NO.	REV. DATE
LAYOUT OF BRIDGE	M-110-130	7-13-83
GENERAL NOTES AND ESTIMATED QUANTITIES	M-110-131	7-13-83
FOUNDATION DATA	M-110-132	
BRIDGE GEOMETRY	M-110-133	7-13-83
BRIDGE GEOMETRY	M-110-134	7-13-83
SUPERSTRUCTURE	M-110-135	7-13-83
SUPERSTRUCTURE DETAILS	M-110-136	7-13-83
SUPERSTRUCTURE DETAILS	M-110-137	7-13-83
SUPERSTRUCTURE DETAILS	M-110-138	7-13-83
SUPERSTRUCTURE DETAILS @ ABUT NO 1 & BENT	M-110-139	7-13-83
SUPERSTRUCTURE DETAILS @ ABUT NO 2	M-110-140	7-13-83
ABUTMENT NO 1	M-110-141	7-13-83
ABUTMENT NO 1 DETAILS	M-110-142	7-13-83
ABUTMENT NO 2	M-110-143	7-13-83
PAVEMENT @ BRIDGE ENDS	M-110-144	7-13-83
BENT NO 1	M-110-145	7-13-83
BILL OF STEEL	M-110-146	7-13-83
BILL OF STEEL	M-110-147	7-13-83
TENNESSEE STD. PRECAST PRESTRESSED BRIDGE DECK PANELS	M-103-149	7-13-83
TENNESSEE STD. PRECAST PRESTRESSED BRIDGE DECK PANELS	M-103-150	7-13-83

CHAIN LINK FENCE

FACE OF ROCK CUT

18'-0" 18'-0"

℄ Sign No 29 ③ Dwg M-141-22

BENT NO. 1
STA. 32+97.17 ACKLEN PARK DRIVE
STA. 146+11.79 I-440

POINT "A"
STA 146+09.96 I-440
STA 33+63.96 ACKLEN
ACT. CL. 20'-7½"

FACE OF ROCK CUT

EXISTING ROW

EXISTING POWER POLE

BERM 10'-0"

PI

5'-0" SIDEWALK

DENOTES ⓒ PULL BOX CAST IN CONCRETE

ⓒ PULL BOX (STRUCTURES) (FOR UNDERSTRUCTURE LIGHTING)

PAVEMENT @ BRIDGE ENDS SEE STD. DWG. K-86-144 AND DWG M-110-144

STA. 32+90.00

1"ϕ CONDUIT

STA. 33+04.00

N 71° 09' 06" W

1"ϕ CONDUIT

BERM 10'-0"

STA. 33+73.00

END OF BRIDGE STA. 34+02.17

S 77° 51' 04" W

20'-0"

BEGINNING OF BRIDGE STA. 31+63.17 R

80°

STA. 31+85.00

1"ϕ CONDUIT

℄ SURVEY ACKLEN PARK DRIVE

35+17.69 ACKLEN PARK DRIVE
10+00.00 PARK CIRCLE
℄ SURVEY PARK CIRCLE

℄ ϕDVC CONDUIT

POWER LINE TO HOUSE

PRE SPLIT LINE

50:1 TAPER

EXISTING ROW

VARIES 18'-0" SHOULDER 12'-0" VARIES 3 LANE = 36'-0" SHOULDER 6'-0" 17'-0"

S 9° 13' 16" W

℄ SURVEY I-440

℄ Sign #27

18'-0" 6'-0" 6'-0"

℄ Sign #27A Dwg M-141-21 ⑤

17'-0" 6'-0" 3 LANE = 36'-0" SHOULDER 12'-0"

23'-0" 23'-0"

POINT "B"
STA 146+43.10 I-140
STA 33+72.41 ACKLEN
ACT. CL. 20'-7½"
0'-0"

N 0° 15' E

— PLAN —

CURVE DATA
ACKLEN PARK DRIVE

PI= 32+08.72
Δ= 30° 59' 50" RT
D= 19° 00'
R= 301.55'
T= 83.62'
L= 163.14'
EXT= 11.38'
N= 638,366.08
E= 1,757,191.97
SE= 0.018 ft/ft (R.C.)
SE TRANS= 100'

PVOT STA. 30+00.00 EL. 600.20

-6.00%

PVC STA 32+40.00 EL. 585.90

PVI STA 33+10.00 EL. 582.20

PVT STA 33+60.00 EL. 576.20

120'VC

-10.00%

PVC STA 34+75.00 EL. 564.70

PVI STA 35+75.00 EL. 554.70

PVT STA 36+75.00 EL. 550.14

200'VC.

-4.56%

PVOT STA 37+00.00 EL. 549.00

SKETCH SHOWING GRADE OF ACKLEN PARK DRIVE

NOTE: GRADES ARE BASED ON FINISHED GRADE.

-3.082%

PVC STA 146+52.00 EL. 548.13

PVI STA 150+00.00 EL. 537.40

700'VC

PVT STA 153+50 EL. 539.50

+0.60%

SKETCH SHOWING GRADE OF I-440

NOTE: GRADES ARE BASED ON FINISHED GRADE

TENNESSEE DIVISION

N

LIST OF SPECIAL PROVISIONS

NO.	TITLE	LATEST REV. DATE
907A	REGARDING EPOXY COATED REINFORCING STEEL	9-8-81
105A	REGARDING APPROVAL OF SHOP DRAWING	9-8-81

LIST OF STD. DWGS.

	DWG. NO.	REV. DATE
BRIDGE RAIL CONCRETE PARAPET WITH STRUCTURAL TUBING	K-38-162	11-82
STANDARD REINFORCING BAR SUPPORT DETAILS FOR CONCRETE SLABS	K-80-14	8-27-76
REINFORCED CONCRETE PAVEMENT @ BRIDGE ENDS	K-86-144	7-17-81
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	K-80-150	1-9-75

ADT (2000) = 3600
40'-0" ROADWAY WITH 2-5'-0" SIDEWALKS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

LAYOUT OF BRIDGE NO 4
ACKLEN PARK DRIVE OVER INTERSTATE 440
STATION 146-11.79
DAVIDSON COUNTY
1982

CORRECT Clellon L. Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-130

DESIGNED BY GARY HALL DATE 4-28-82
DRAWN BY Kevin K. McFarland DATE 9-16-82
SUPERVISED BY R.L.H. & H.M.B. DATE 9-16-82
CHECKED BY GARY HALL DATE 12-21-82

CLASS "A" GRADING "D" 38 C.Y.

CONST. No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-1(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS
2		HALL	ADDED LIGHTING

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (MARCH, 1981 EDITION)

LOADING: HS 20-44

DESIGN SPECIFICATIONS: AASHTO 1977 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS "A" (CAST IN PLACE). f'c = 3,000 P.S.I., EXCEPT FOR CONCRETE BRIDGE DECK. SEE SPECIAL NOTE FOR CONCRETE BRIDGE DECKS.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. PERMANENT FORMS MAY BE EITHER REMAIN-IN-PLACE STEEL OR PRECAST, PRESTRESSED CONCRETE PANELS. IN EITHER CASE, FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO SUPPORT MEMBERS. THE CONTRACTOR SHALL TAKE STEPS TO ASSURE THE STABILITY OF THE EXTERIOR GIRDER AGAINST TWISTING OR OVERTURNING DURING SLAB POURING OPERATIONS.

LINSEED OIL PROTECTIVE TREATMENT: SURFACES RECEIVING A CLASS 2 RUBBED FINISH OR DECORATIVE FORM FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE CONCRETE FINISH SKETCH THIS SHEET.

BEARING DEVICES: BEARING DEVICES SHALL BE IN ACCORDANCE WITH THE DIMENSIONS AND DETAILS SHOWN ON DRAWING M-110-141. THE CONTRACTOR MAY ALSO SUBMIT ALTERNATE DETAILS FOR APPROVAL.

REINFORCING STEEL: TO BE ASTM A615 GRADE 60. STANDARD CRSI HOOK DETAILS APPLY UNLESS OTHERWISE NOTED ON BILL OF STEEL. BENDING DIMENSIONS SHOWN ARE BASED ON GRADE 60. SPACING DIMENSIONS ARE CENTER TO CENTER UNLESS OTHERWISE NOTED ON DETAIL DRAWINGS. (THE SUFFIX E, FOR BARS SO MARKED, DENOTES EPOXY COATED REINFORCEMENT. SEE SPECIAL PROVISION 907A.

SPECIAL NOTE-FOOTING FOR BENTS: AFTER EXCAVATION TO ROCK FOR FOOTING HAS BEEN COMPLETED, HOLES 6' DEEP SHALL BE DRILLED AT POINTS DESIGNATED BY THE ENGINEER. FROM THE RESULTS OBTAINED, THE ENGINEER SHALL DETERMINE THE FINAL FOOTING ELEVATIONS. NO REINFORCING STEEL FOR BENT COLUMNS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

SHOP DRAWINGS: SEE SPECIAL PROVISION No. 105A.

SPECIAL NOTE-CONCRETE BRIDGE DECKS: CLASS "A" CONCRETE FOR BRIDGE DECKS SHALL BE IN ACCORDANCE WITH SECTION 604 EXCEPT AS FOLLOWS. MINIMUM 28 DAYS COMPRESSIVE STRENGTH = 4500 P.S.I., MAXIMUM WATER/CEMENT = 5.0 GAL./SACK OF CEMENT. AIR CONTENT = 6% (±) 2%. SEE SURFACE FINISH SKETCH FOR LIMITS.

BEARING DEVICES: (SEE DWG. NO. M-110-141)

NUMBER OF BEARING: 5 ELASTOMERIC BEARING

BEARING ASSEMBLY DESCRIPTION
BEARING: 12¼" X 43¾" X 4 15/16 W/S - 3/16" INTERNAL PLATES
LOAD PLATE: 13¼" X 44¾" X ½"
SHAPE FACTOR: SF = 6.0
ANGLE OF ROTATION: 1°
DESIGN LOAD: DEAD 230 KIPS
LIVE 180 KIPS

ESTIMATED QUANTITIES

ITEM NO'S.	204-02.01	204-04.01	204-05	604-02.03	604-03.01	604-03.02	604-03.03	620-14				604-01.12	710-10	710-11	714-01.04	908-21.02	920-01.11
ITEMS	DRY EXCAVATION (BRIDGES) C.Y. (1)	ROCK EXCAVATION (BRIDGES) C.Y. (1)	ROCK DRILLING (BRIDGES) L.F.	EPOXY COATED REINFORCING STEEL LB. (1)	CLASS "A" CONCRETE (BRIDGES) C.Y. (3)	STEEL BAR REINFORCEMENT (BRIDGES) LB. (1)	LINSEED OIL TREATMENT S.Y.	CONCRETE PARAPET W/ STRUCTURAL TUBING (X38-162) (7)(8)(9) L.F. (2)(5)				CLASS "A" CONCRETE (BRIDGE DECK) C.Y.	6"ϕ PERFORATED C.M. PIPE (18GA.) W/ FABROUS BACK-FILL L.F. (6)	6"ϕ C.M. PIPE UNDERDRAINS (18GA.) L.F.	STRUCTURE LIGHTING (BRIDGE No. 4) L.S. (12)(4)	BEARINGS (M-110-141) EA.	ROADWAY EXPANSION DEVICE L.F. (11)
SUPERSTRUCTURE				223,905	691.0	169,108.						367.7					
ABUTMENT No. 1	170	380	12	698.	90.6	11,451.											
BENT No. 1	0	125	12	0.	118.1	24,575.											
ABUTMENT No. 2	860	264	12	0.	53.3	7,992.											
PAVEMENT & BRIDGE ENDS				9,663.	114.0	20,783.											
TOTAL	1,030	769	36	234,266	1067.0	233,909.	1600	574.				367.7	140	60	1	5	55

* DENOTES: ALL ESTIMATED QUANTITIES BASED ON PLANS DIMENSIONS.

(1) NOTE: EXCAVATION BASED ON LOWER ROAD PROFILE.

(2) NOTE: THE COST OF 8 THREADED STEEL INSERTS WITH 8-⅞" ϕ X 4" HEX HEAD BOLTS, (A307), TO BE INCLUDED IN BRIDGE ITEMS BID ON.

(3) NOTE: COST OF RUBBER BONDING CEMENT AND ELASTOMERIC BEARING PADS TO BE INCLUDED IN UNIT PRICE BID FOR CLASS "A" CONCRETE.

(4) NOTE: THE COST OF WATER STOPS, BITUMINOUS-FIBERBOARD, ETC., AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEMS BID ON.

(5) NOTE: COST OF BRIDGE RAIL ENDPOST IS TO BE INCLUDED IN THE COST OF THE BRIDGE RAIL SYSTEM.

(6) NOTE: COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN COST OF PERFORATED C.M. PIPE.

(7) NOTE: ALL REINFORCING STEEL IN THE TRAFFIC FACE OF PARAPETS SHALL BE EPOXY COATED. COST TO BE INCLUDED IN THE PRICE BID FOR ITEM 620-14.

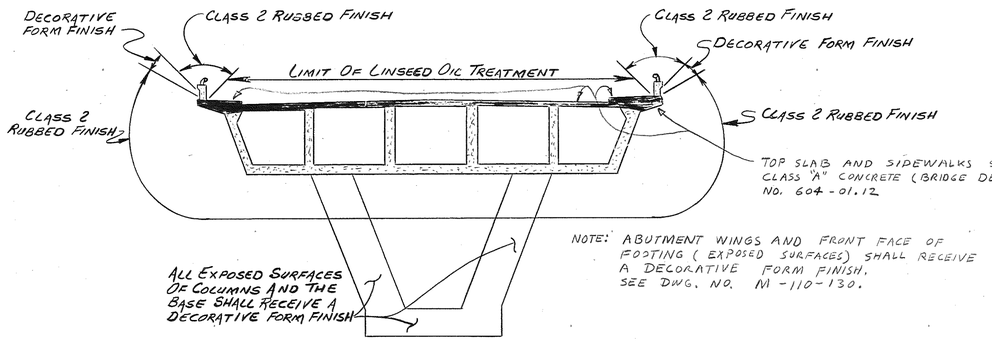
(8) NOTE: OUTSIDE EDGE OF SLAB AND BRIDGE RAIL TO CONFORM TO HORIZONTAL CURVE.

(9) NOTE: ALL EXPOSED SURFACES ON I-440 SIDE OF ABUTMENTS SHALL RECEIVE A DECORATIVE FORM FINISH. THE PARAPET INSET AND ALL EXPOSED SURFACES OF BENT SHALL RECEIVE A DECORATIVE FORM FINISH.

(10) NOTE: THE COST OF THE 50 DUROMETER ¼" FABRIC REINFORCED ELASTOMERIC GUTTER IS TO BE INCLUDED IN THE PRICE BID FOR ITEM 920-01.11.

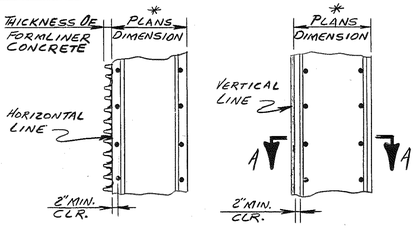
(11) NOTE: ACCEPTABLE EXPANSION DEVICES INCLUDE: A) AS 200 BY ACME HIGHWAY PRODUCTS, INC. B) ON-FLEX 25 BY ACCESSORIES, INC. C) WABO-MAVROR SB 200. BY WATSON BOWMAN ASSOCIATES, INC. OR EQUAL. TOTAL REQUIRED MOVEMENT 2".

(12) NOTE: LUM SUM FOR STRUCTURE LIGHTING TO INCLUDE THE INSTALLATION OF 65 L.F. OF 2" P.V.C. CONDUIT, 220 L.F. OF 1" GALVANIZED STEEL CONDUIT, 5 PULL BOXES AND ALL MISCELLANEOUS HARDWARE NECESSARY FOR INSTALLATION.



CONCRETE FINISH SKETCH

CONCRETE FINISHING: PORTIONS OF THE BRIDGE SURFACE DESIGNATED TO RECEIVE A CLASS 2 RUBBED FINISH SHALL BE FINISH ACCORDING TO SUBSECTION 604.22 OF THE STANDARD SPECIFICATIONS. PORTIONS OF THE BRIDGE SURFACE DESIGNATED TO RECEIVE A DECORATIVE FORM FINISH SHALL BE FORMED USING A FORMLINER SIMILAR TO BURKE B.G.30B CONCRETE HARP, LITHOTEX FORMLINER FRACTURED FINISH GROOVED T-150, SYMONS 3/4" NARROW FRACTURED FINISH P/C 309-09-9 OR EQUAL AFTER STRIPPING FORMLINERS. THE DECORATIVE FORM FINISHED AREAS SHALL RECEIVE A CLASS 1, ORDINARY FINISH IN ACCORDANCE WITH SUBSECTION 604.23 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL A SAMPLE CASTING USING THE FORMLINER TO BE FURNISHED. THE COST OF ALL CONCRETE FINISHES SHALL BE INCLUDED IN THE UNIT PRICE OF ITEMS BID ON. SURFACES RECEIVING A DECORATIVE OR CLASS 2 FINISH SHALL NOT RECEIVE A LINSEED OIL TREATMENT. SEE SURFACE SKETCH THIS SHEET. ABSOLUTELY NO MECHANICALLY FRACTURED SURFACES BE ALLOWED.



SECTION AA

NOTE: THESE DETAILS ARE TYPICAL FOR ALL STRUCTURAL ELEMENTS REQUIRING DECORATIVE FORM LINERS EXCEPT CONCRETE PARAPETS. PARAPET DIMENSIONS MAY BE REDUCED BY THE THICKNESS OF THE FORMLINERS IN ORDER TO UTILIZE STANDARD PARAPET FORMS. REINFORCED BAR BENDING DIMENSIONS SHALL BE REDUCED ACCORDINGLY.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

GENERAL NOTES & ESTIMATED QUANTITIES
ACKLEN PARK DRIVE
OVER
INTERSTATE 440
STATION 146+11.72
DAVIDSON COUNTY
1982

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-131

DESIGNED BY GARY HALL DATE 9-82
DRAWN BY RICK HINDMAN DATE 9-82
SUPERVISED BY DON HARRISON DATE 9-82
CHECKED BY G. HALL DATE 12-82

CONST. No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(5)706	1982	

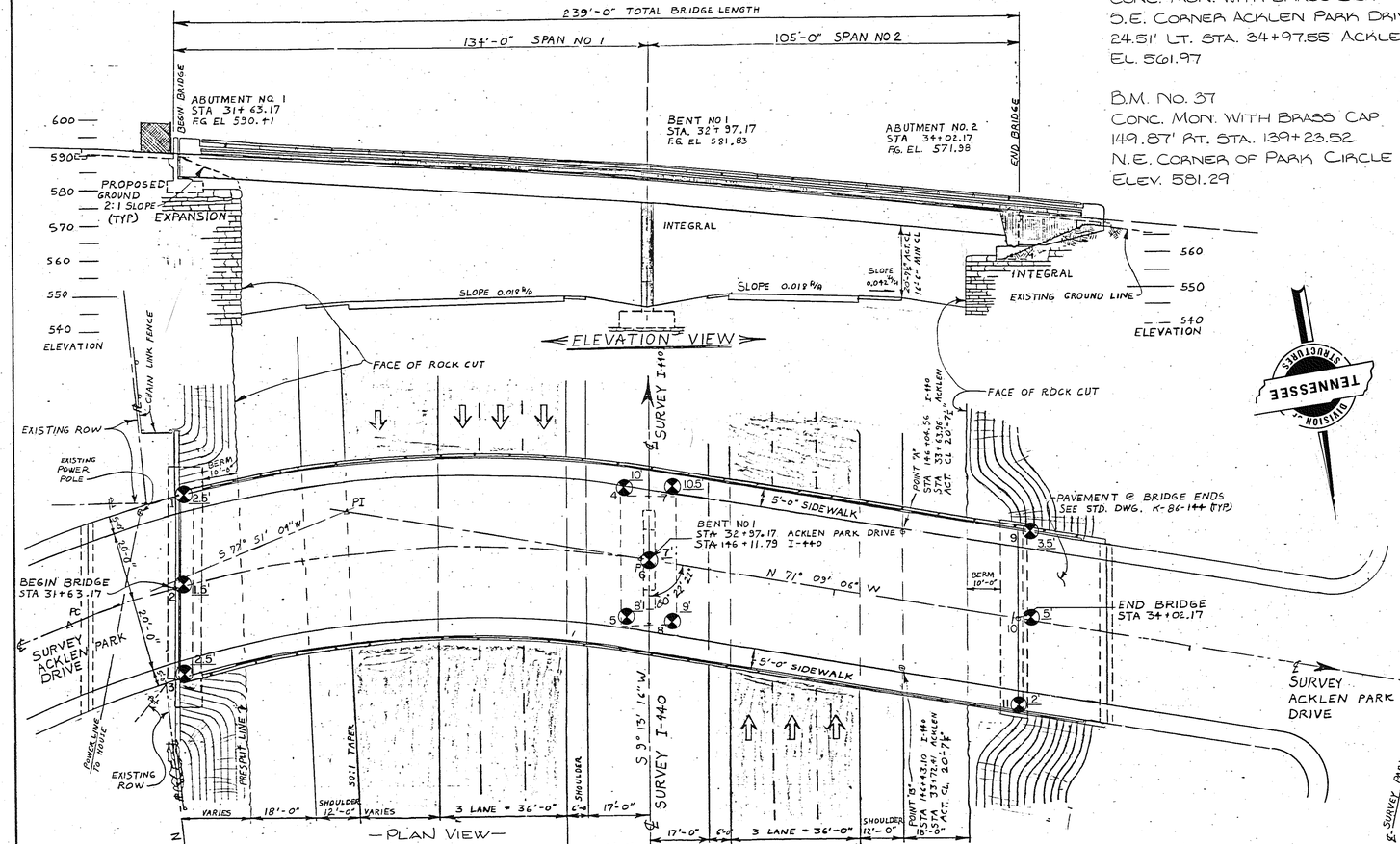
REVISIONS

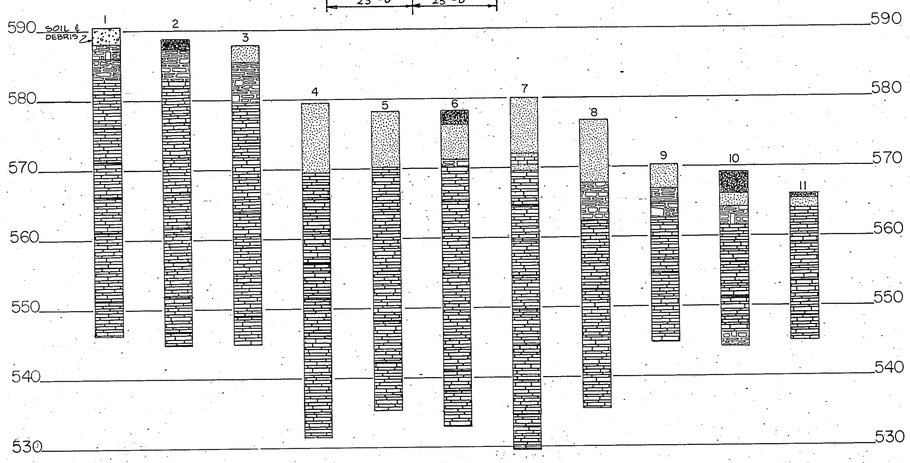
NO.	DATE	BY	BRIEF DESCRIPTION

B.M. No. 36
Conc. Mon. with Brass Disk
S.E. Corner Acklen Park Drive at Park Circle
24.51' Lt. Sta. 34+97.55 Acklen Park Drive
El. 561.97

B.M. No. 37
Conc. Mon. with Brass Cap
149.87' Rt. Sta. 139+23.52
N.E. Corner of Park Circle
Elev. 581.29

REQUIRED:
1) APPROXIMATE EXISTING GROUND LINE AND ROCK LINE.
2) SUFFICIENT GROUND, ROCK, AND CORING INFORMATION FOR BRIDGE FOUNDATIONS.





—Legend—

- ROADWAY MATERIAL
- RESIDUAL SILTS & CLAYS
- WEATHERED LIMESTONE
- LIMESTONE (10 TONS/FT.²)

HOLE NO. 2 — 2.5' DEPTH ROCK ENCOUNTERED — CORE

GROUND AND TOP OF ROCK ELEVATIONS

1.	G 590.5 R 588.0	7.	G 580.0± R 572.0±
2.	G 588.8 R 587.3	8.	G 576.8 R 567.8
3.	G 587.9 R 585.4	9.	G 570.3± R 566.8±
4.	G 579.5± R 569.5±	10.	G 569.2 R 564.2
5.	G 578.2 R 570.2	11.	G 566.0 R 564.0
6.	G 578.3 R 571.3		

NOTE: THIS DRAWING IS FOR FOUNDATION INFORMATION ONLY AND IS NOT TO BE USED AS A LAYOUT.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

FOUNDATION DATA
ACKLEN PARK DRIVE OVER INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY Gary Hall — DATE
DRAWN BY Gary Hall — DATE 4-28-82
SUPERVISED BY H. Brooks — DATE
CHECKED BY H. Brooks & Hall — DATE 5-3-82

CORRECT Cubellon L. Lovell
ENGINEER OF STRUCTURES

APPROVED Lewis Grimes
DIRECTOR OF HIGHWAYS

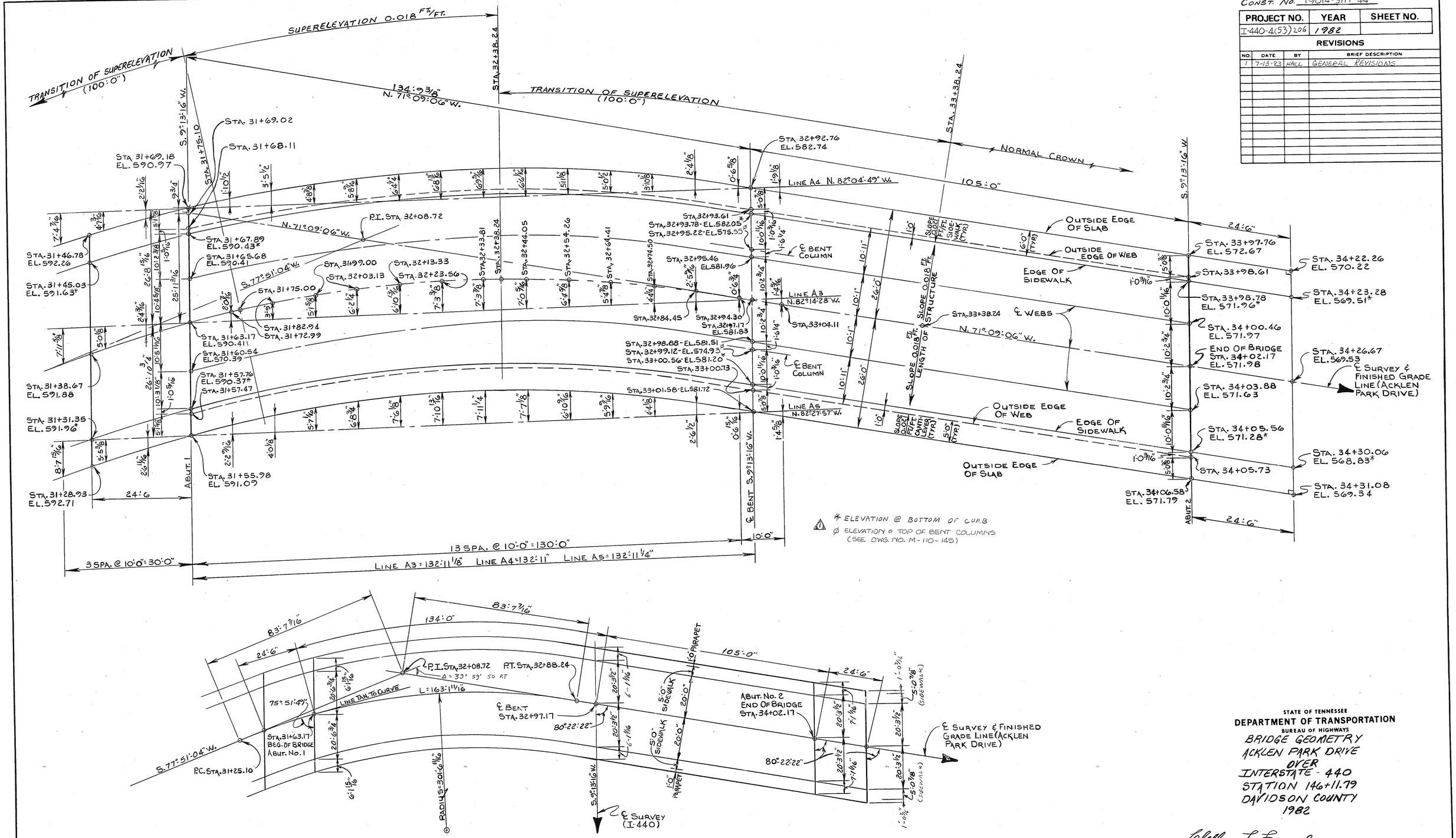
M-110-132

CONST. No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



⚠ * ELEVATION @ BOTTOM OF CURB
Ø ELEVATION @ TOP OF BENT COLUMNS (SEE DWG. NO. M-110-145)

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGE GEOMETRY
ACKLEN PARK DRIVE
OVER
INTERSTATE - 440
STATION 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY GARY HALL DATE 9-82
DRAWN BY RICK HINDMAN DATE 9-82
SUPERVISED BY DON HARRISON DATE 9-82
CHECKED BY GARY HALL DATE 12-82

CORRECT Clellon L Sweall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-133

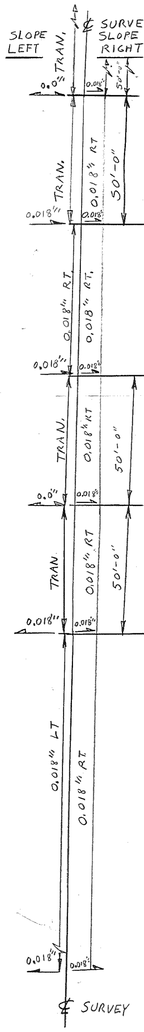
CONST NO 1314-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

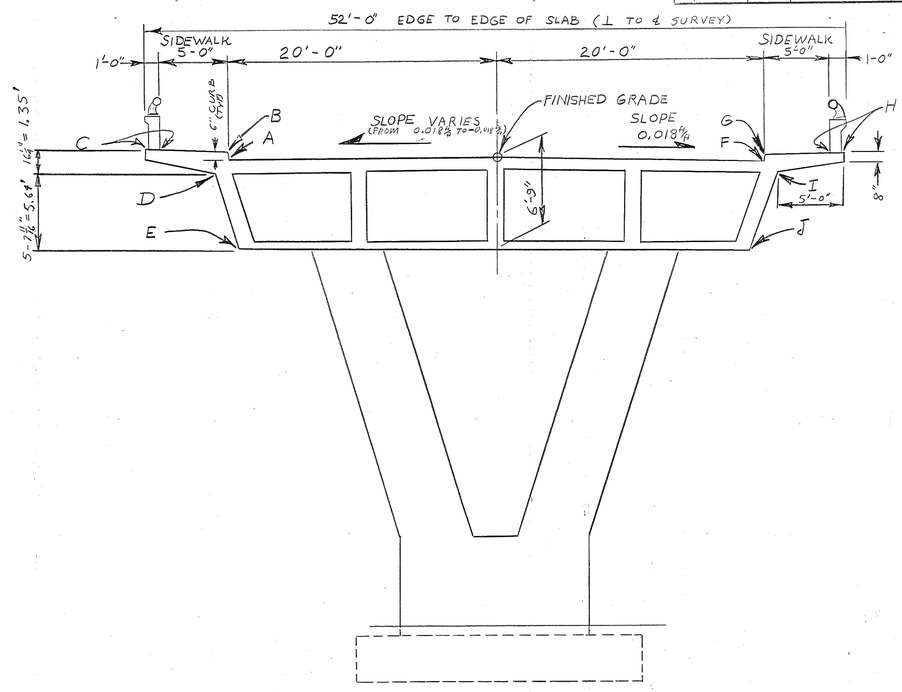
NO	DATE	BY	BRIEF DESCRIPTION
1	7-13-82	HALL	GENERAL REVISIONS
2	9-15-82	HALL	ADDED DEAD LOAD CORRECTION CURVE

SCREED ELEVATION & OTHER ELEVATION



	STATION	FINISHED GRADE	SLOPE LT. OF FINISHED GRADE	A *	B *	C *	D *	E *	SLOPE RT. OF FINISHED GRADE	F *	G *	H *	I *	J *
	31+20.00	593.00	0.001836%	592.96	593.46	593.57	—	—	0.018%	592.64	593.14	593.25	—	—
PC	31+25.10	592.69	200%	592.69	593.19	593.30	—	—		592.33	592.83	592.94	—	—
	30.00	592.40	0.00176	592.44	592.94	593.04	—	—		592.04	592.54	592.65	—	—
	40.00	591.80	0.005364	591.91	592.41	592.51	—	—		591.44	591.94	592.05	—	—
	50.00	591.20	0.008864	591.38	591.88	591.98	—	—		590.84	591.34	591.45	—	—
	60.00	591.60	0.01256	590.85	591.35	591.46	590.11	584.47		590.24	590.74	590.85	—	—
	70.00	590.00	0.01616	590.32	590.82	590.93	589.58	583.94		589.64	590.14	590.25	—	—
	31+75.10	589.69	0.018%	590.05	590.55	590.66	589.31	583.67		589.63	590.13	590.30	584.95	583.31
	80.00	589.40		589.76	590.26	590.37	589.02	583.38		589.04	589.54	589.65	588.30	582.66
	90.00	588.80		589.16	589.66	589.77	588.42	582.78		588.44	588.94	589.05	587.70	582.06
	32+00.00	588.20		588.56	589.06	589.17	587.82	582.18		587.84	588.34	588.45	587.10	581.46
	10.00	587.60		587.96	588.46	588.57	587.22	581.58		587.24	587.74	587.85	586.50	580.86
	20.00	587.00		587.36	587.86	587.97	586.62	580.98		586.64	587.14	587.25	585.90	580.26
	30.00	586.40		586.76	587.26	587.37	586.02	580.38		586.04	586.54	586.65	585.30	579.66
	32+38.24	585.91	0.018%	586.27	586.77	586.88	585.53	579.89		585.55	586.05	586.16	584.81	579.17
	40.00	585.80	0.01737	586.15	586.65	586.75	585.40	579.76		585.44	585.94	586.05	584.70	579.06
	50.00	585.18	0.01377	585.46	585.96	586.06	584.71	579.07		584.82	585.32	585.43	584.08	578.44
①	60.00	584.53	0.0102	584.66	585.16	585.27	583.92	578.28		584.17	584.67	584.78	583.43	577.79
	70.00	583.85	0.0066	583.98	584.48	584.53	583.24	577.60		583.43	583.93	584.10	582.75	577.11
	80.00	583.13	0.00297	583.19	583.69	583.79	582.44	576.80		582.77	583.27	583.38	582.03	576.39
PT.	32+88.24	582.52	0.0	582.52	583.02	583.13	581.78	576.14		582.16	582.66	582.77	581.42	575.78
	90.00	582.38	0.00063	582.37	582.87	582.97	581.62	575.98		582.02	582.52	582.63	581.28	575.64
	33+00.00	581.60	0.0042	581.52	582.02	582.12	580.77	575.13		581.24	581.74	581.85	580.50	574.86
	10.00	580.78	0.0078	580.62	581.12	581.23	579.88	574.24		580.42	580.92	581.03	579.68	574.04
	20.00	579.93	0.011143	579.70	580.20	580.31	578.96	573.32		579.57	580.07	580.18	578.83	573.19
	30.00	579.05	0.015103	578.75	579.25	579.35	578.00	572.36		578.69	579.19	579.30	577.95	572.31
	33+38.24	578.30	0.018%	577.94	578.44	578.55	577.20	571.56		577.34	578.44	578.55	577.20	571.56
	40.00	578.13		577.77	578.27	578.38	577.03	571.68		577.77	578.27	578.38	577.03	571.68
	50.00	577.18		576.82	577.32	577.43	576.08	570.44		576.82	577.32	577.43	576.08	570.44
	60.00	576.20		575.84	576.34	576.45	575.10	569.46		575.84	576.34	576.45	575.10	569.46
	70.00	575.20		574.84	575.34	575.45	574.10	568.46		574.84	575.34	575.45	574.10	568.46
	80.00	574.20		573.84	574.34	574.45	573.10	567.46		573.84	574.34	574.45	573.10	567.46
	33+90.00	573.20		572.84	573.34	573.45	572.10	566.46		572.84	573.34	573.45	572.10	566.46
	34+00.00	572.20		571.84	572.34	572.45	—	—		571.84	572.34	572.45	—	—
	10.00	571.20		570.84	571.34	571.45	—	—		570.84	571.34	571.45	—	—
	20.00	570.20		569.84	570.34	570.45	—	—		569.84	570.34	570.45	—	—
	30.00	569.20		568.84	569.34	569.45	—	—		568.84	569.34	569.45	—	—
	40.00	568.20	2.018%	567.84	568.34	568.45	—	—	0.018%	567.84	568.34	568.45	—	—

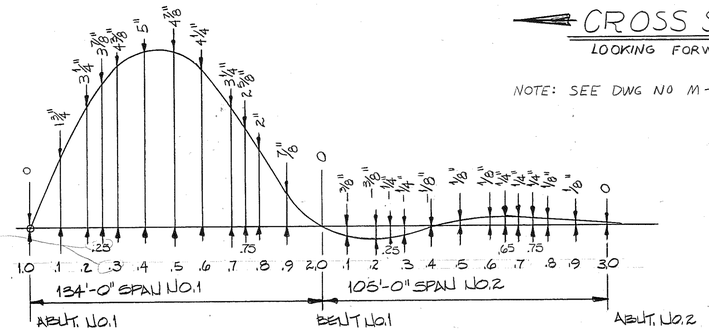
② * NOTE: THE ELEVATIONS GIVEN ARE FINAL ELEVATIONS. THE ELEVATIONS NEEDS TO BE ADJUSTED FOR DEAD LOAD CAMBER (SEE DEAD LOAD CORRECTION CURVE) AND THE AMOUNT OF ANTICIPATED TAKE UP IN THE FALSEWORK.



CROSS SECTION

LOOKING FORWARD ON SURVEY

NOTE: SEE DWG NO M-110-133.



② DEAD LOAD CORRECTION CURVE

NOTE: THIS CURVE IS FOR DEAD LOAD CAMBER ONLY AND SHOULD BE INCREASED BY AMOUNT OF ANTICIPATED TAKE UP IN THE FALSEWORK.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BRIDGE GEOMETRY
ACKLEN PARK DRIVE OVER
INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

CORRECT Gleldon L Lovvorn
ENGINEER OF STRUCTURES

APPROVED Louis Evans
DIRECTOR OF HIGHWAYS

M-110-134

DESIGNED BY GARY HALL DATE 12-28-82
DRAWN BY — DATE —
SUPERVISED BY HVB DATE 12-28-82
CHECKED BY GARY HALL DATE 12-28-82

CONSTRUCTION NO. 19014-3111-44

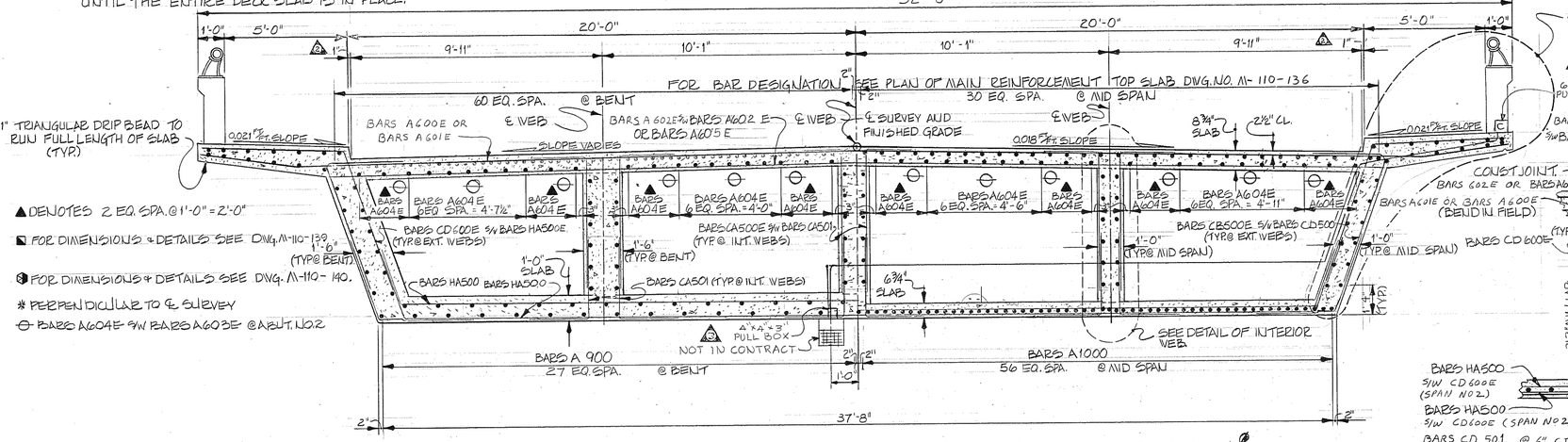
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS
2	9-15-83	HALL	CHANGED DIMENSIONS (CURB)
3		HALL	ADDED LIGHTING

NOTE: NO PORTION OF THE PARAPET SHALL BE POURED UNTIL THE ENTIRE DECK SLAB IS IN PLACE.

NOTE: OUTSIDE EDGE OF SLAB AND BRIDGE RAIL TO CONFORM TO HORIZONTAL CURVE.

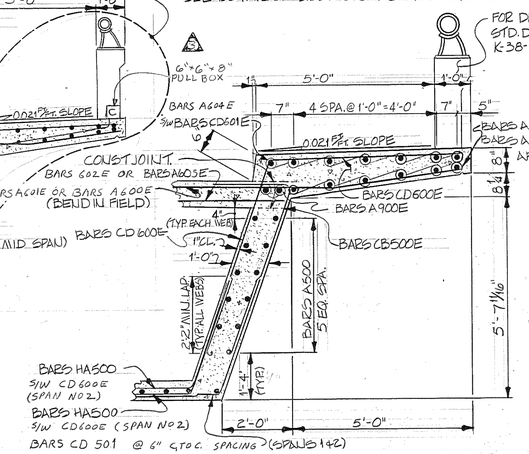


⚠ HALF SECTION AT BENT

⚠ HALF SECTION AT MID SPAN

SEE DETAIL OF SIDEWALK AND EXTERIOR WEB.

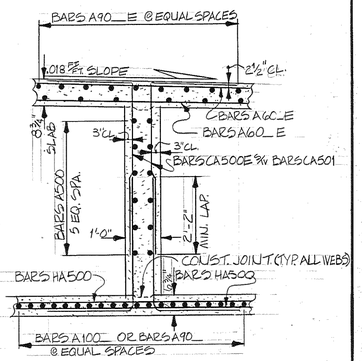
FOR DETAILS SEE STD. DWG. NO. K 38-162.



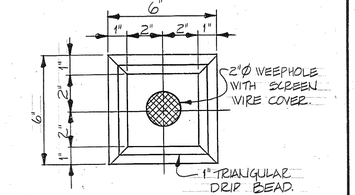
⚠ DETAIL OF SIDEWALK AND EXTERIOR WEB

NOTE: WHEN POURING SIDEWALK, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. WHEN POURING PARAPET PROVISIONS SHALL BE MADE FOR SETTING ANCHOR BOLTS FOR PARAPET RAILS. ALSO SEE DWG. NO. K-38-162.

NOTE: SEE DETAILS "A" & "B" AND PLAN VIEWS ON DWG NO M-110-137 FOR SPAN NO 1.

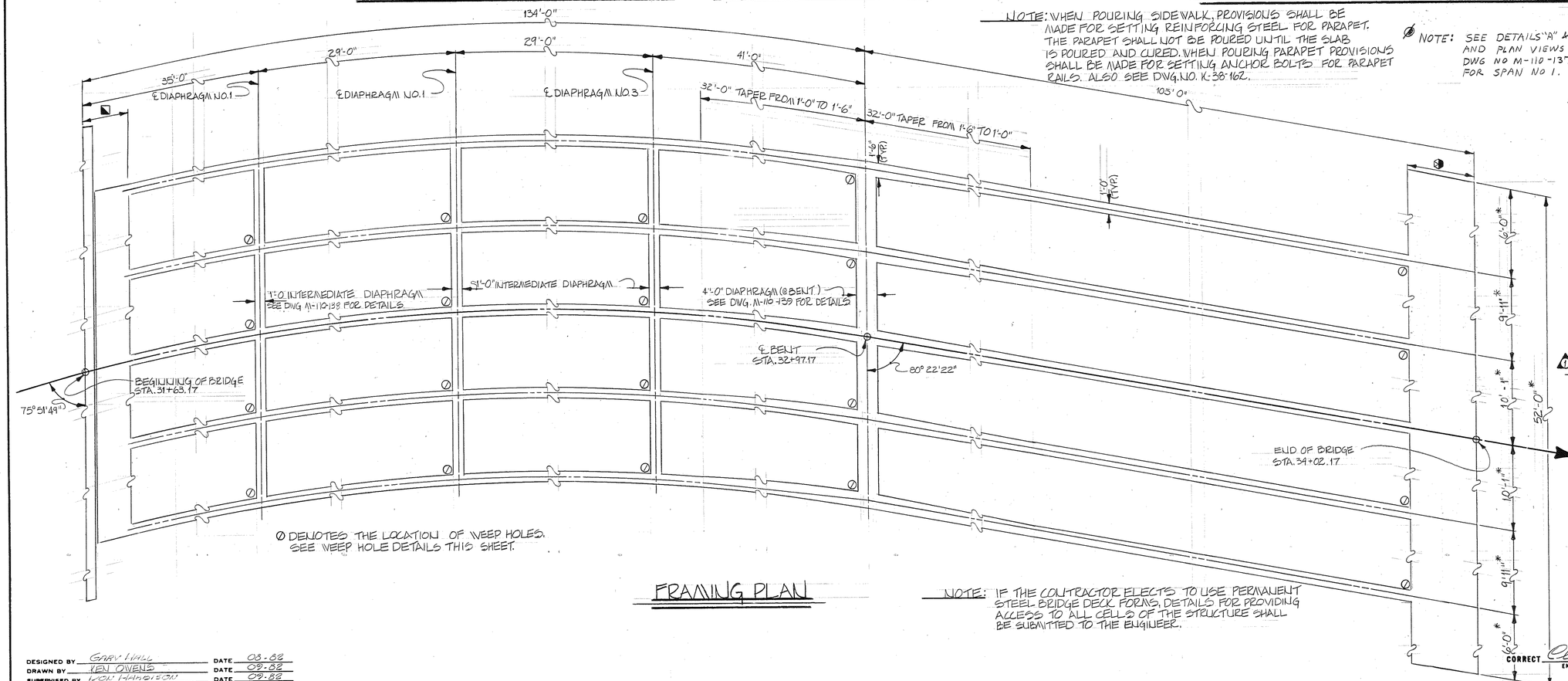


⚠ DETAIL OF INTERIOR WEB



WEEP HOLE DETAILS

NOTE: 2"Ø WEEPHOLES WITH SCREEN WIRE COVER REQUIRED AT LOW POINTS OF EACH CELL.



Ø DENOTES THE LOCATION OF WEEP HOLES. SEE WEEP HOLE DETAILS THIS SHEET.

FRAMING PLAN

NOTE: IF THE CONTRACTOR ELECTS TO USE PERMANENT STEEL BRIDGE DECK FORMS, DETAILS FOR PROVIDING ACCESS TO ALL CELLS OF THE STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER.

⚠ ESTIMATED QUANTITIES

CLASS "A" CONCRETE C.Y.		EPOXY COATED REINFORCING STEEL (LBS.)	STEEL BAR REINFORCEMENT (LBS.)
ITEM 604-03.01	ITEM 604-01.12		
691.0	367.7	223,905.	169,108

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE
ACKLEN PARK DRIVE
OVER INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

CORRECT — Clellon L. Loveall, ENGINEER OF STRUCTURES
APPROVED — Lewis Lynn, DIRECTOR OF HIGHWAYS

DESIGNED BY	GARY HALL	DATE 08-82
DRAWN BY	KEN OWENS	DATE 09-82
SUPERVISED BY	LOCH HANSON	DATE 09-82
CHECKED BY	GARY HALL	DATE 12-82

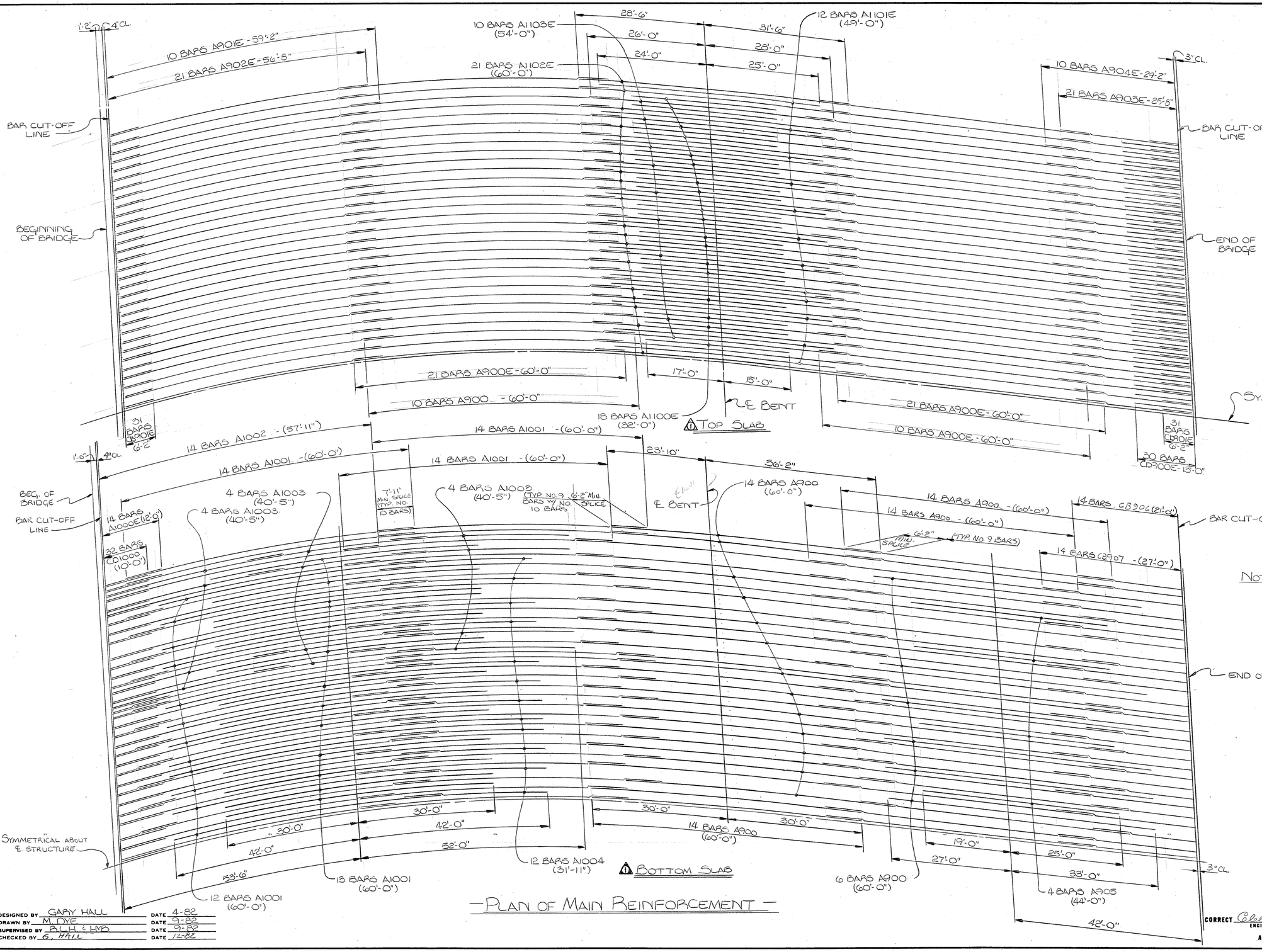
M-110-135

CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440 4(53) 206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	1-13-83	HALL	GENERAL REVISIONS



NOTE: FOR SPACING OF BARS, SEE TYPICAL CROSS SECTION, DWG. NO. M-110-135.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS ACKLEN PARK DRIVE OVER INTERSTATE 440 STATION 146+11.79 DAVIDSON COUNTY 1982

DESIGNED BY GARY HALL — DATE 4-82
DRAWN BY M. DYE — DATE 9-82
SUPERVISED BY B.L.H. & H.M.B. — DATE 9-82
CHECKED BY G. HALL — DATE 12-82

CORRECT Clellan L. Fowell
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-136

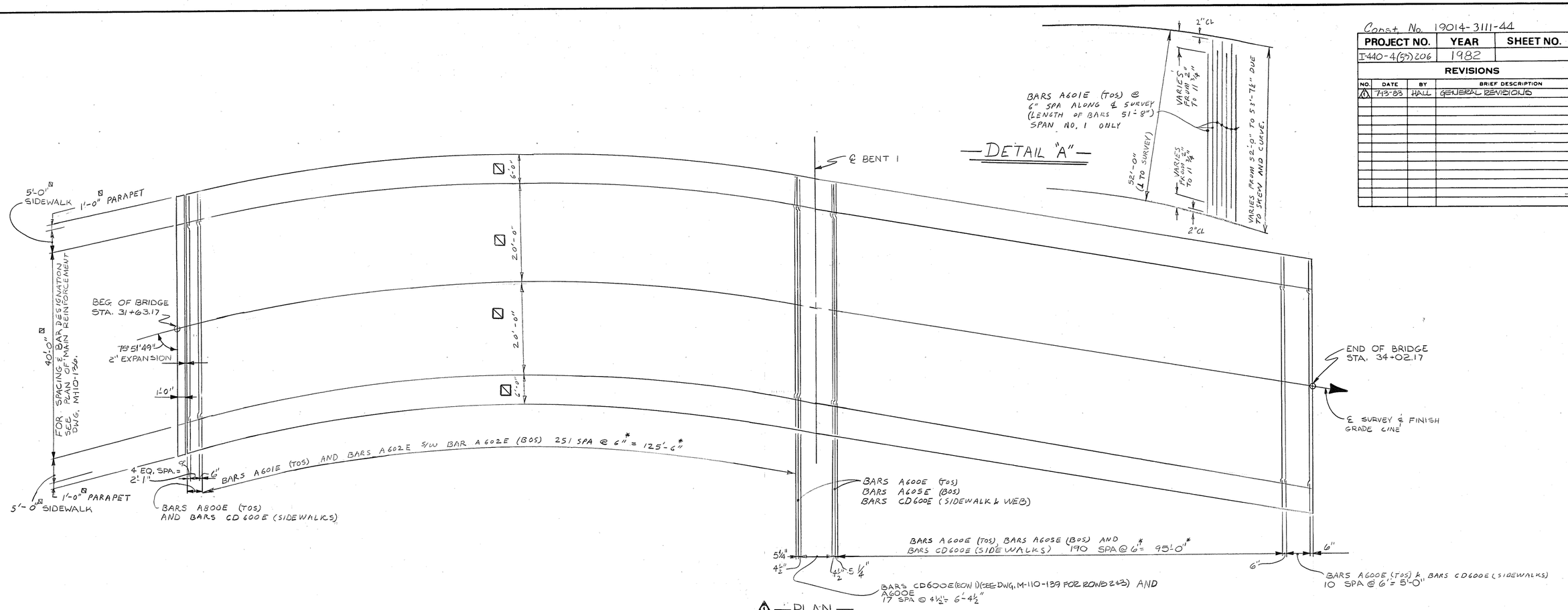
PLAN OF MAIN REINFORCEMENT

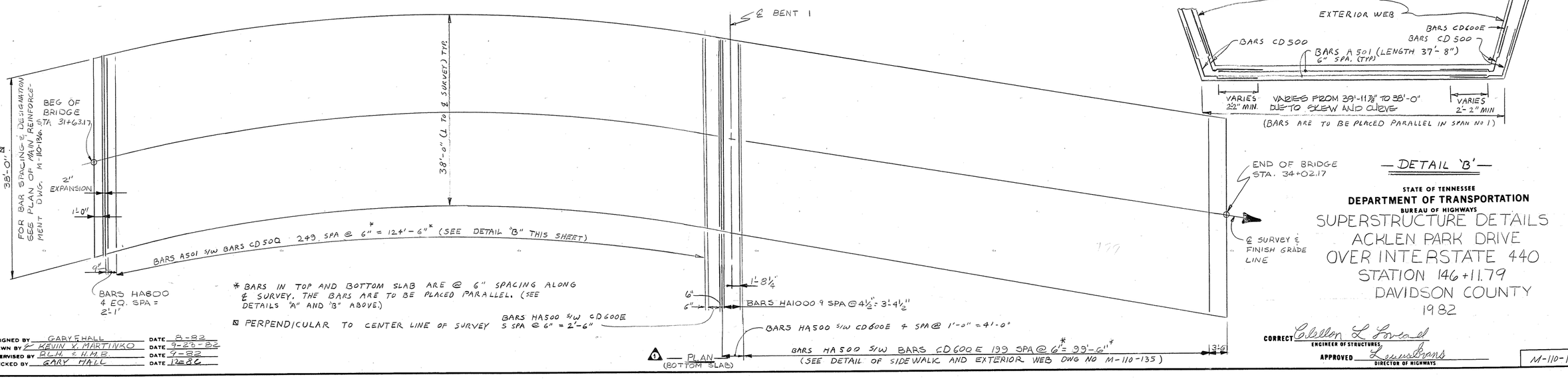
Const. No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(57) 206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS





DESIGNED BY GARY F. HALL DATE 8-82
DRAWN BY KEVIN X. MARTINKO DATE 9-23-82
SUPERVISED BY R.L.H. & H.M.B. DATE 9-82
CHECKED BY GARY HALL DATE 12-82

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS ACKLEN PARK DRIVE OVER INTERSTATE 440 STATION 146+11.79 DAVIDSON COUNTY 1982

CORRECT Gibson L Lovvorn
ENGINEER OF STRUCTURES
APPROVED Lawrence Evans
DIRECTOR OF HIGHWAYS

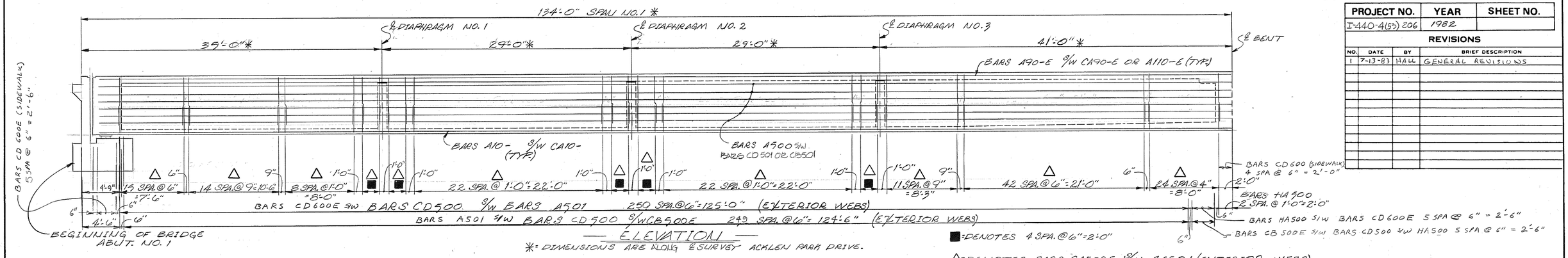
M-110-137

Const. No. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(53) 206	1982	

REVISIONS

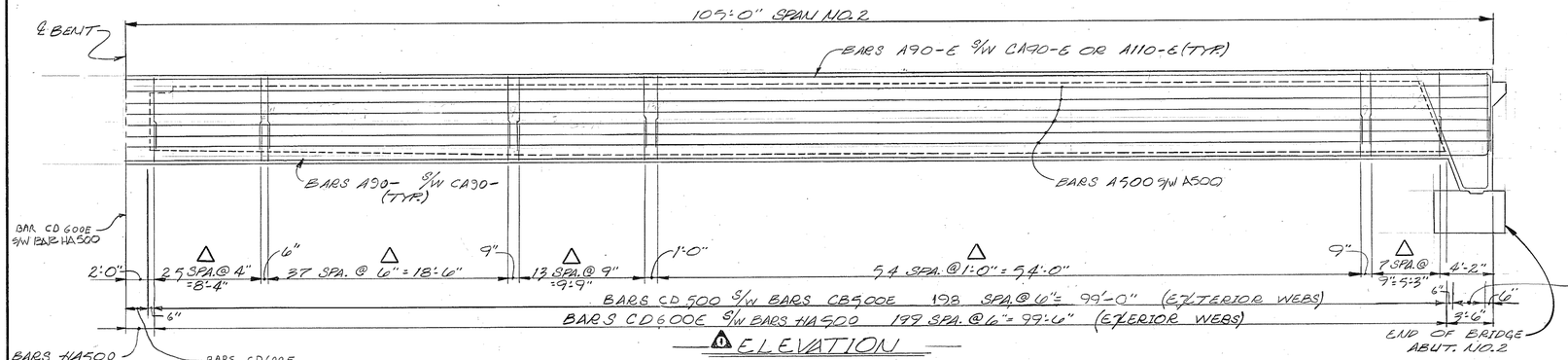
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



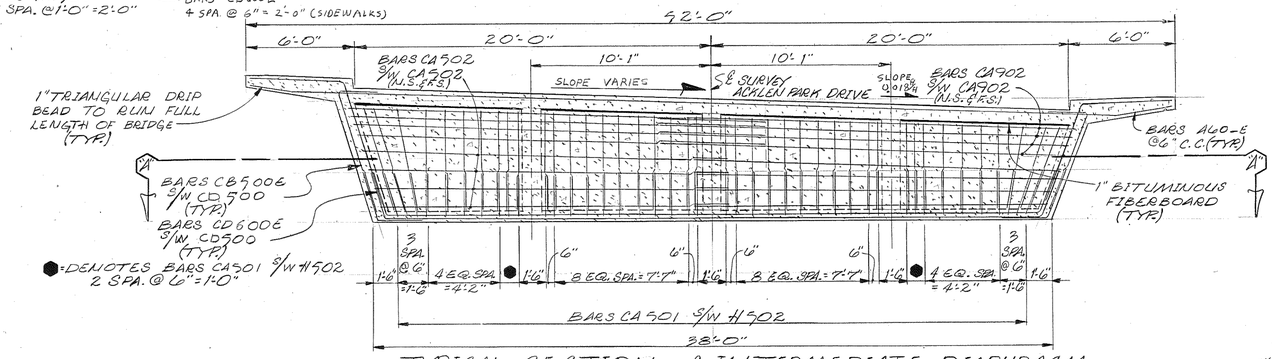
ELEVATION

*=DIMENSIONS ARE ALONG ℄SURVEY ACKLEN PARK DRIVE.

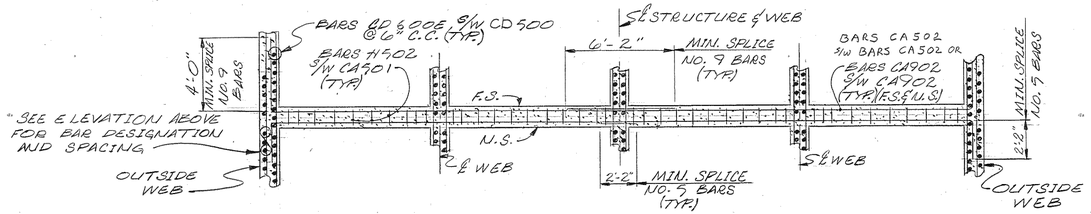
NOTE: BARS CD600E TO EXTEND INTO SIDEWALK.



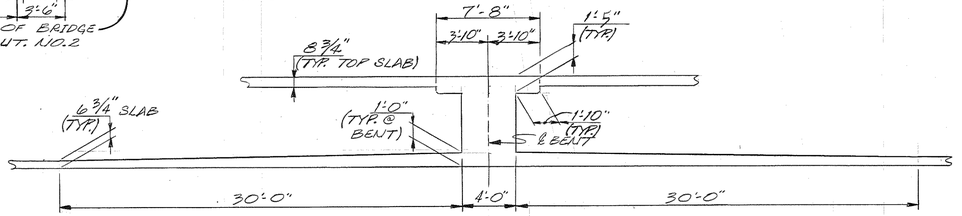
1 ELEVATION



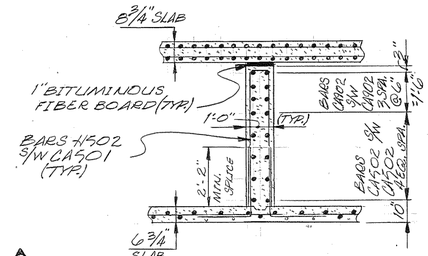
TYPICAL SECTION of INTERMEDIATE DIAPHRAGM



1 SECTION "A"-"A"



BOTTOM SLAB DETAIL



1 TYPICAL SECTION THRU DIAPHRAGM

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS ACKLEN PARK DRIVE Over INTERSTATE 440 STATION: 146+11.79 DAVIDSON COUNTY 1982

DESIGNED BY GARY HALL DATE 8-82
DRAWN BY GRANT L. LLOYD DATE 9-82
SUPERVISED BY EDGAR L. HARBISON DATE 7-82
CHECKED BY GARY HALL DATE 12-82

CORRECT Sheldon L. Howard, ENGINEER OF STRUCTURES
APPROVED Lewis S. Evans, DIRECTOR OF HIGHWAYS

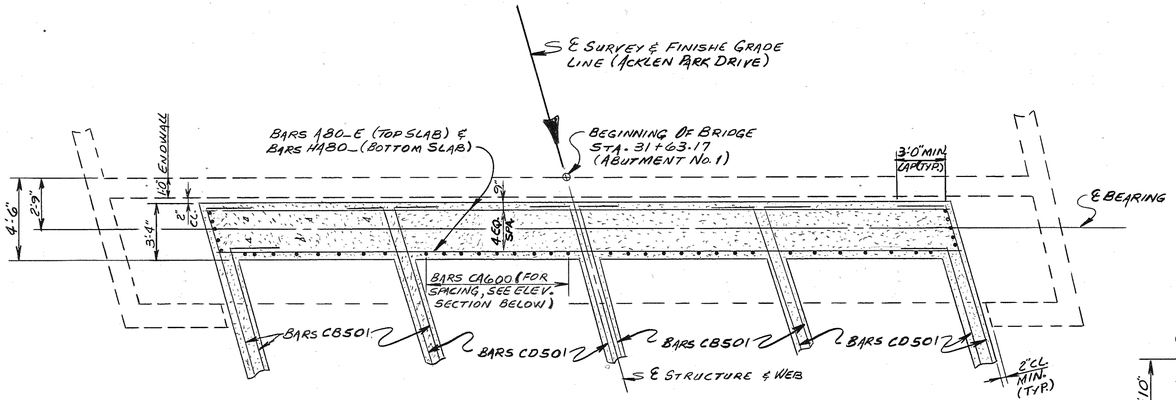
M-110-138

CONST. No. 19014-3111-44

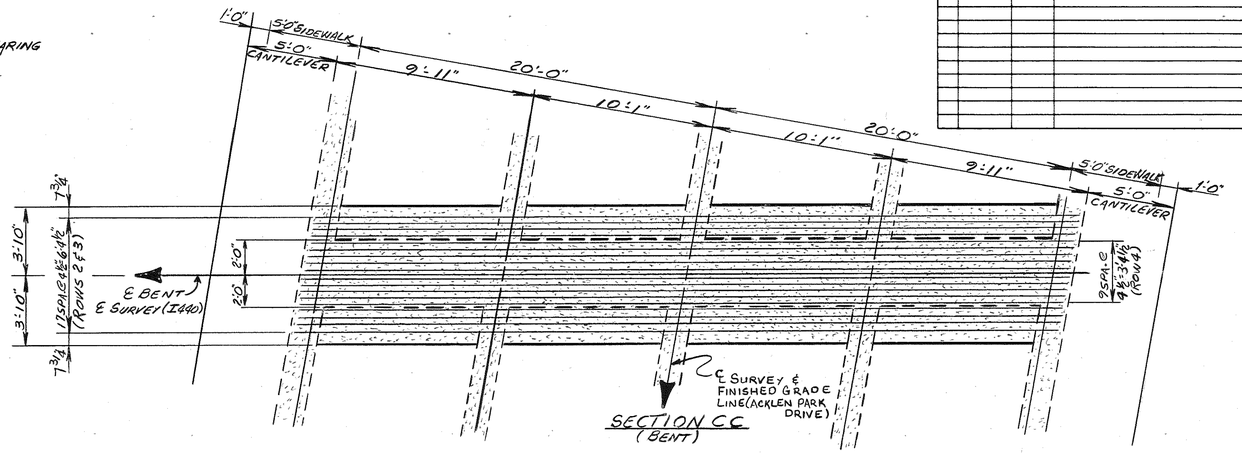
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

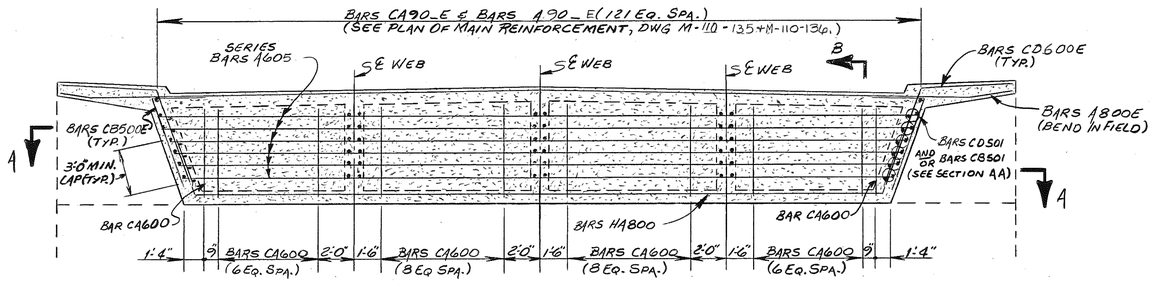
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



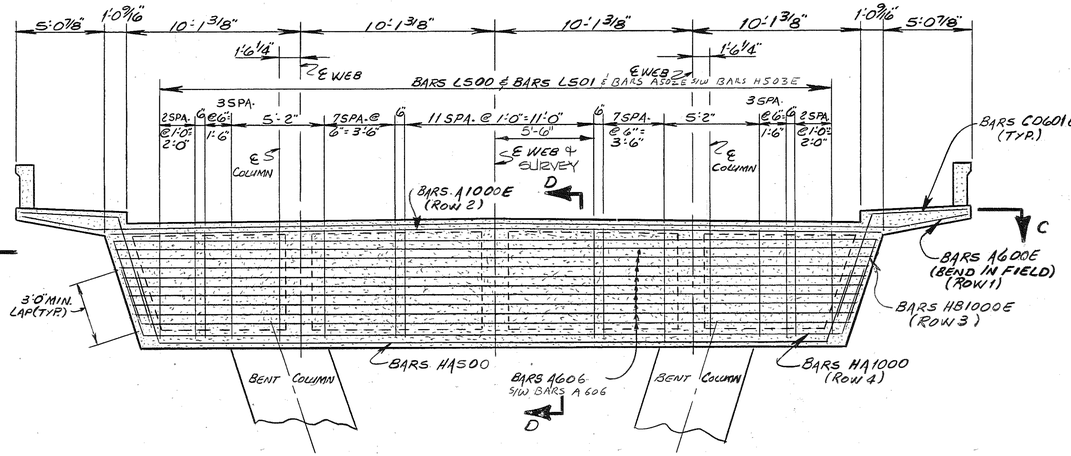
SECTION AA
(ABUT. 1)



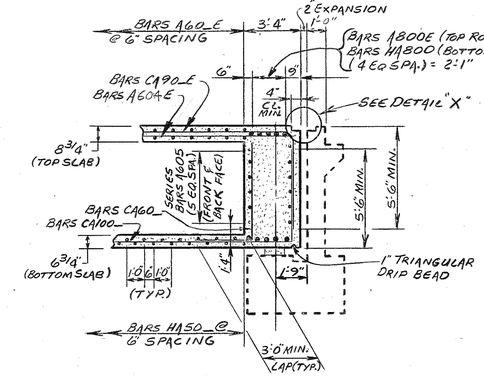
SECTION CC
(BENT)



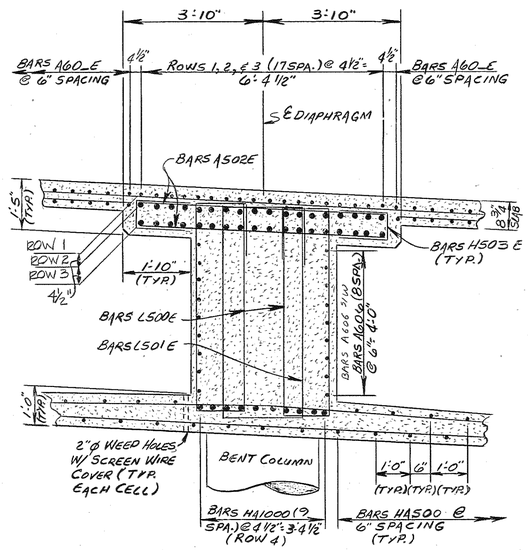
⚠1 ELEVATION SECTION - END DIAPHRAGM @ ABUTMENT NO. 1
(LOOKING BACK ON SURVEY)



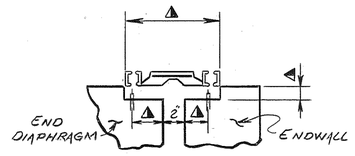
⚠1 ELEVATION - SECTION, SUPPORT DIAPHRAGM @ BENT



⚠1 SECTION BB



⚠1 SECTION DD



DETAIL "X"

⚠ DENOTES: DIMENSIONS ARE TO BE SUPPLIED BY MANUFACTURER OF EXPANSION JOINT. THE EXPANSION JOINT IS TO BE INSTALLED AS PRESCRIBED BY MANUFACTURER.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS @ ABUTMENT NO.1 & BENT
ACKLEN PARK DRIVE
OVER
INTERSTATE-440
STATION 146+11.79
DAVIDSON COUNTY

DESIGNED BY GARY HALL DATE 9-82
DRAWN BY RICK HINDMAN DATE 9-82
SUPERVISED BY DON HARBISON DATE 9-82
CHECKED BY GARY HALL DATE 12-82

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

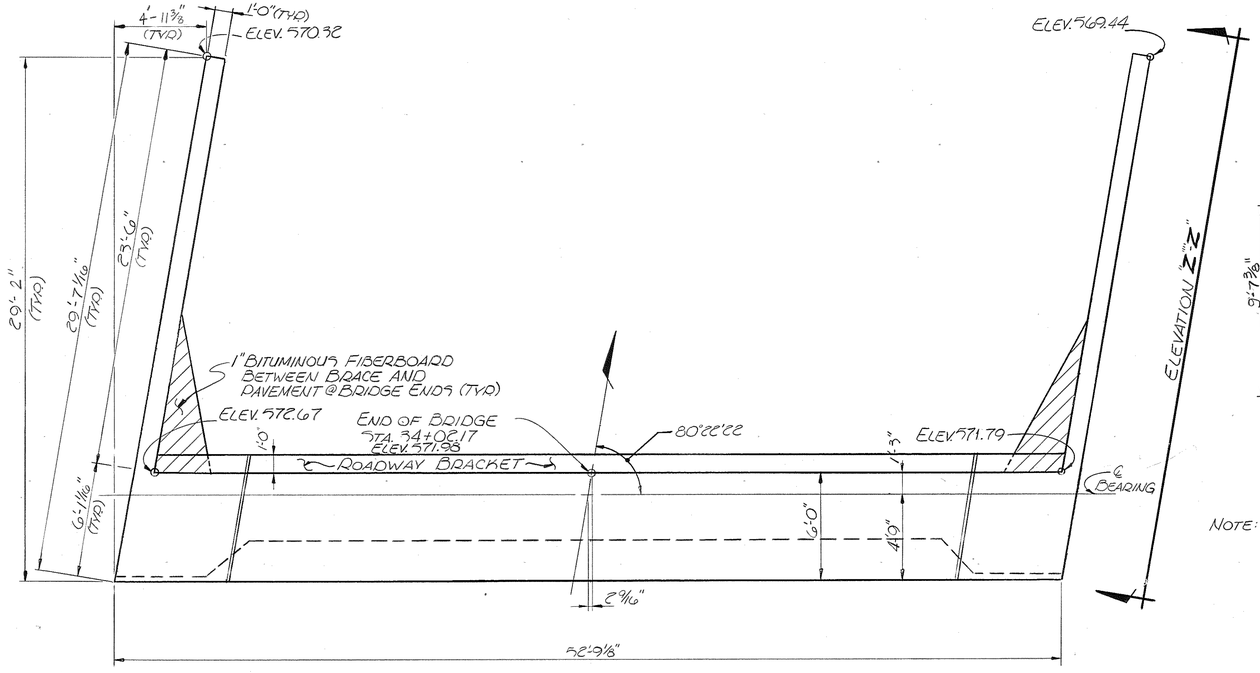
M-110-139

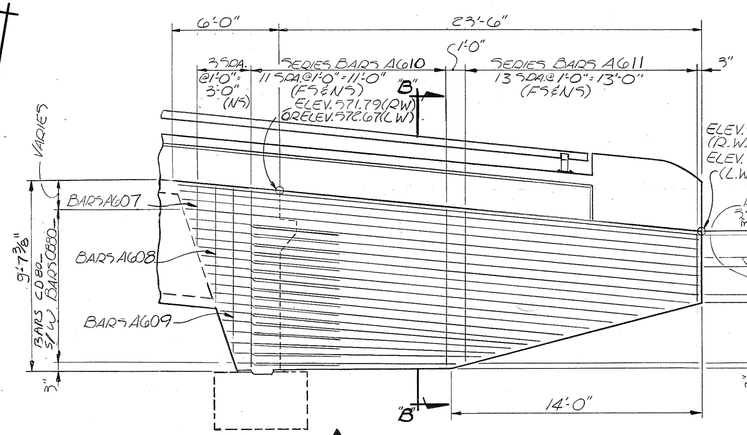
CONST. NO. 19014-3111-44

PROJECT NO.	YEAR	SHEET NO.
I-440-4(57)206	1982	

REVISIONS

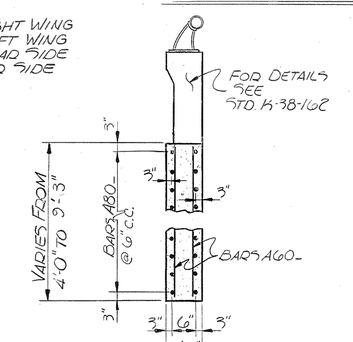
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS

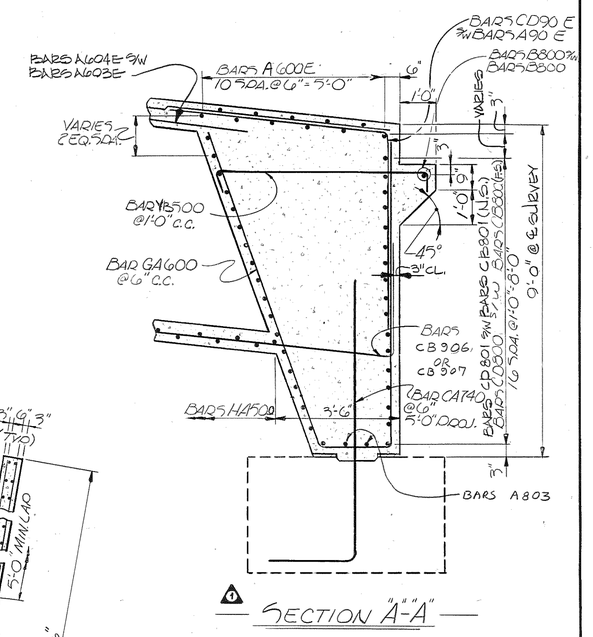


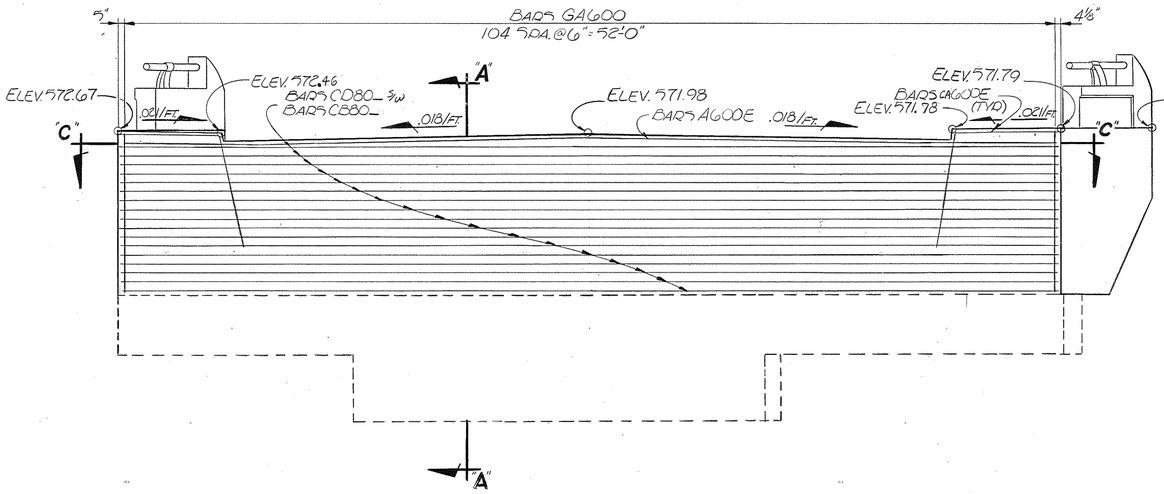


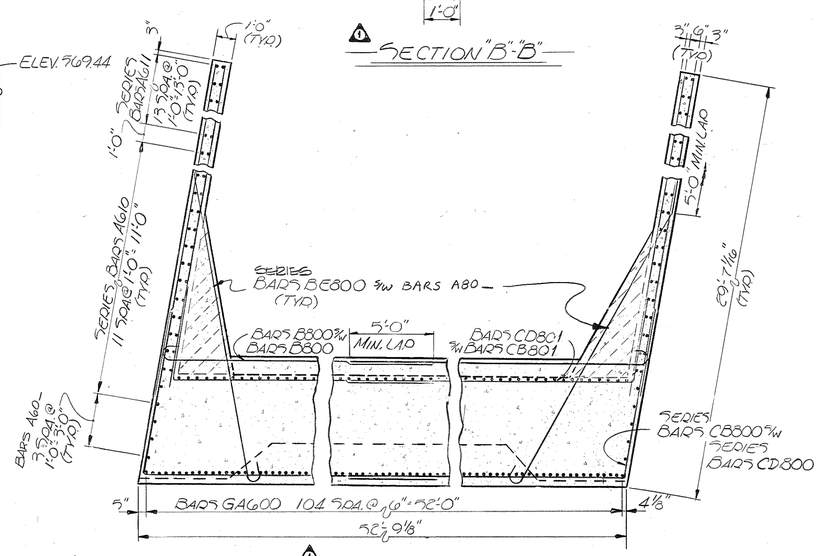
NOTE: BAR A80_ SHALL BE ON OUTSIDE FACES OF WING. THE WINGS ARE DESIGNED TO RESIST A HORIZONTAL FORCE. THE A600_ AND SERIES BARS A600_ ARE FOR MOMENT DISTRIBUTION AND SHALL BE INSIDE OF BARS A80_.

NOTE: R.W. DENOTES RIGHT WING
L.W. DENOTES LEFT WING
N.S. DENOTES NEAR SIDE
F.S. DENOTES FAR SIDE









STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

SUPERSTRUCTURE DETAILS AT ABUTMENT NO. 2 ACKLEN PARK DRIVE OVER INTERSTATE 440 STA. 146+11.79 DAVIDSON COUNTY

DESIGNED BY G.H DATE 9-82
DRAWN BY P.J DATE 10-82
SUPERVISED BY H.M.B. & R.L.H DATE 10-82
CHECKED BY GARY HALL DATE 12-82

CORRECT Lebbon L Loweall 1982
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

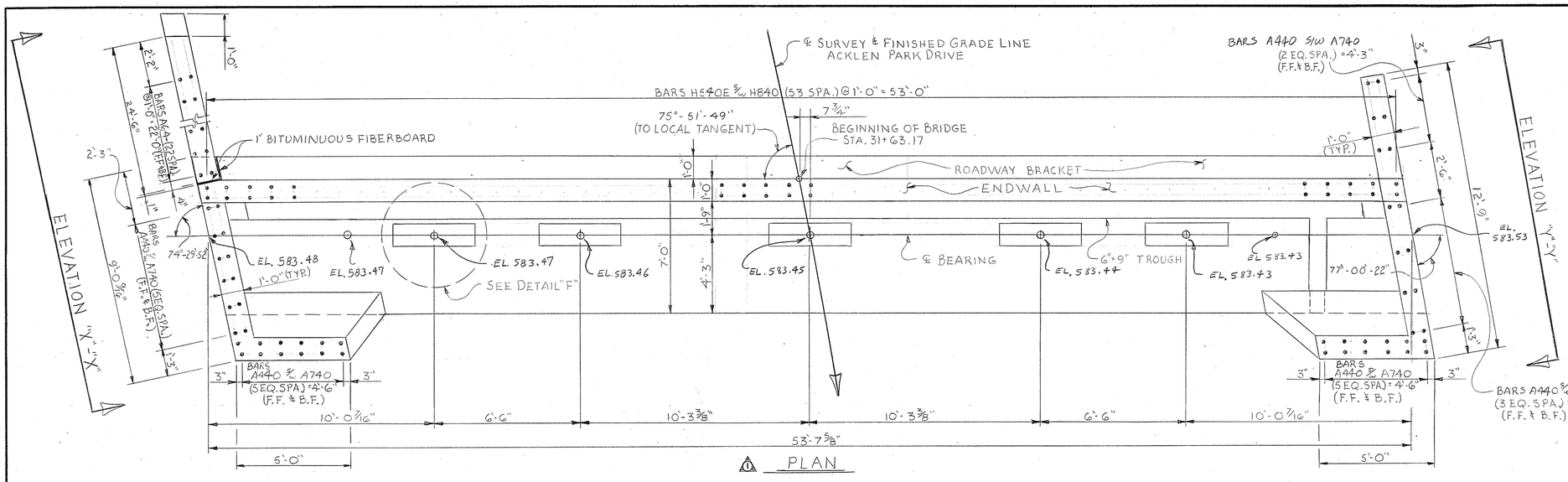
M-110-140

CONST. NO. 19014-3111-44

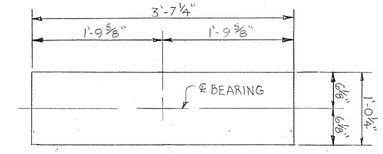
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

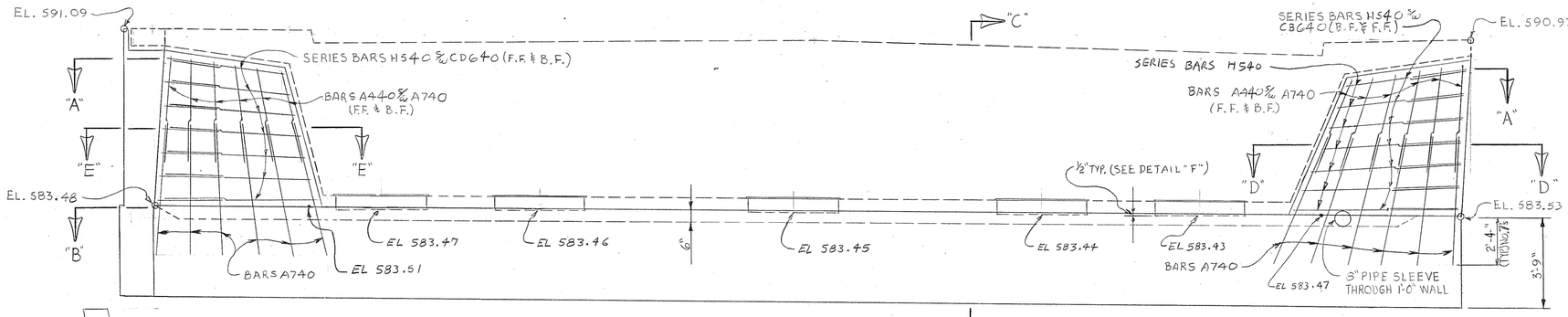
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



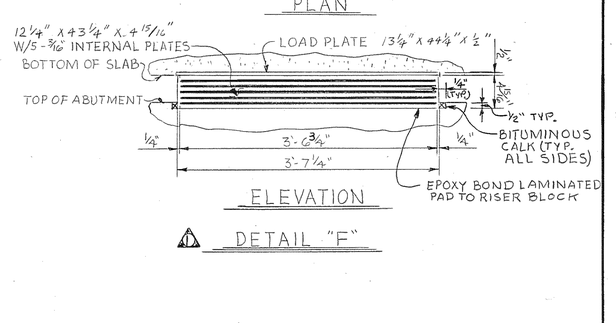
① PLAN



PLAN

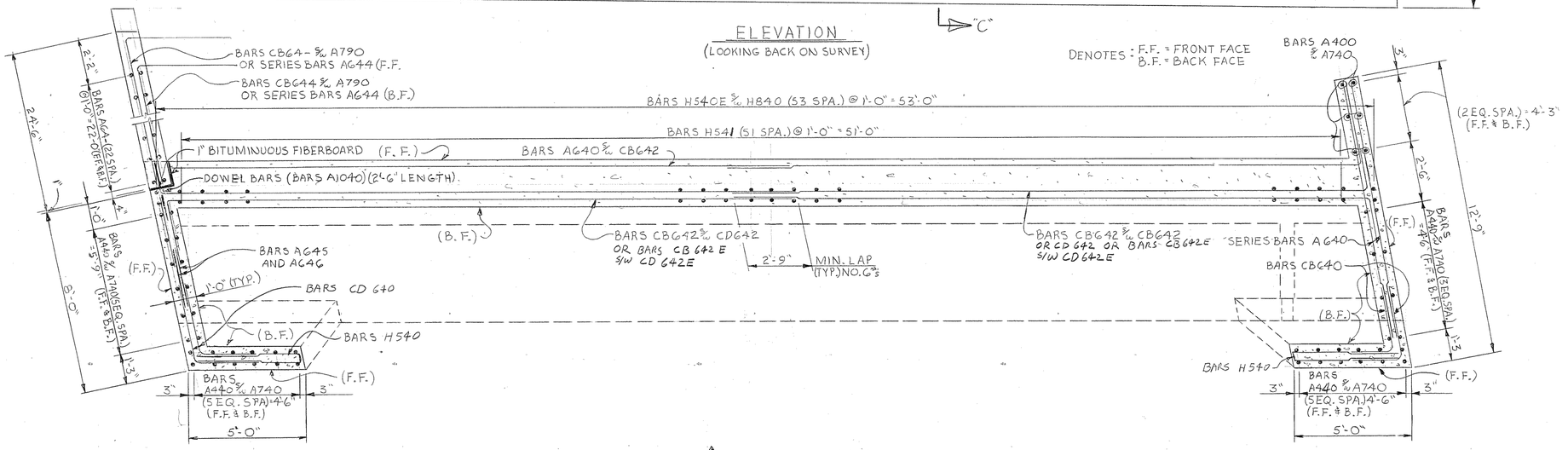


ELEVATION
(LOOKING BACK ON SURVEY)



ELEVATION

① DETAIL "F"



DENOTES: F.F. = FRONT FACE
B.F. = BACK FACE

① SECTION "A"-"A"

ESTIMATED QUANTITIES

ITEM	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LBS.	EPOXY-COATED REINF. STEEL LBS.
ABUT. NO. 1	90.6	11,451	698

①

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT No. 1
ACKLEN PARK DRIVE OVER
INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY GARY HALL DATE 8-82
DRAWN BY F.F. FROST DATE 9-82
SUPERVISED BY HARRISON DATE 9-82
CHECKED BY GARY HALL DATE 12-82

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

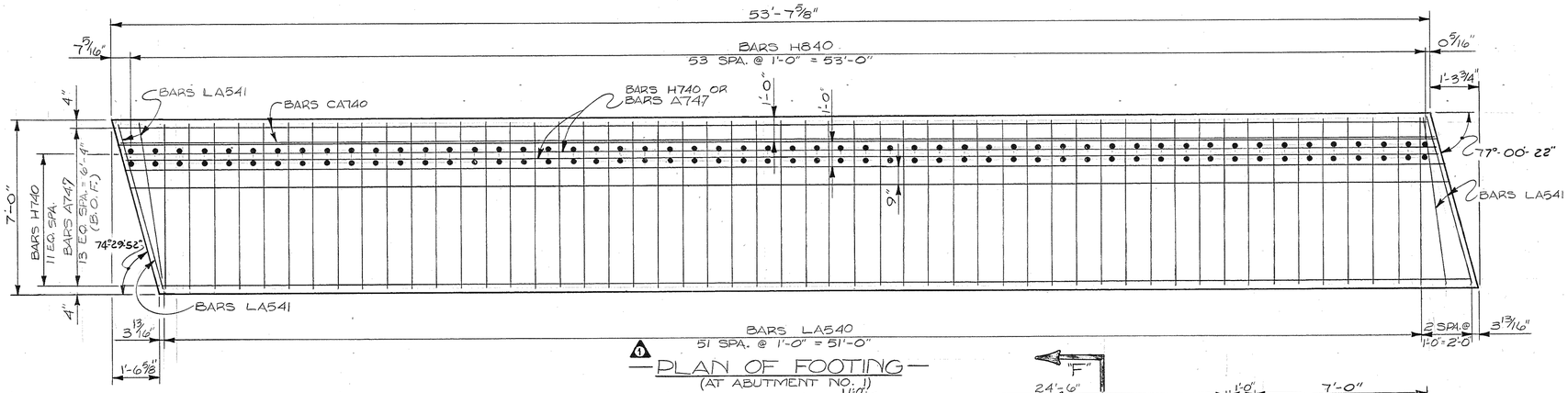
M-110-141

CONST. NO. 19014-3111-44

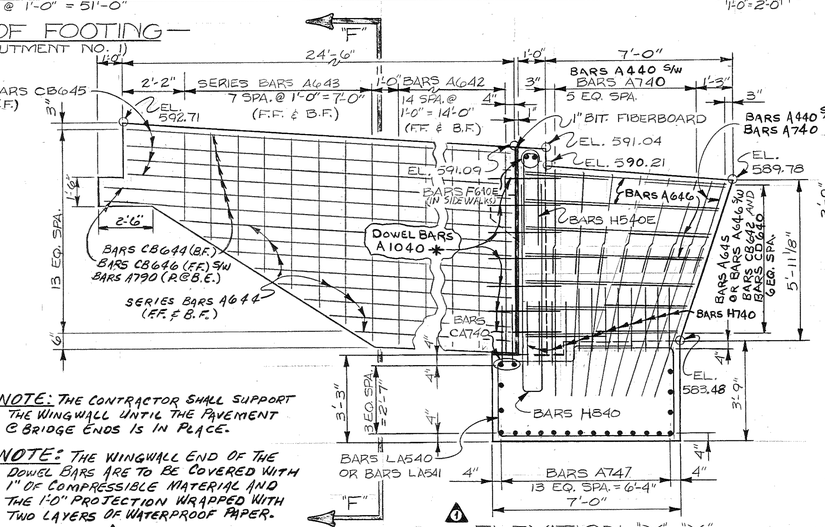
PROJECT NO.	YEAR	SHEET NO.
I-440-4(55)206	1982	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



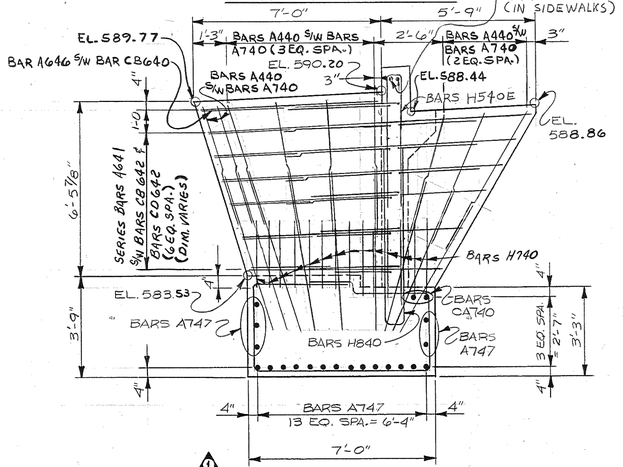
PLAN OF FOOTING
(AT ABUTMENT NO. 1)



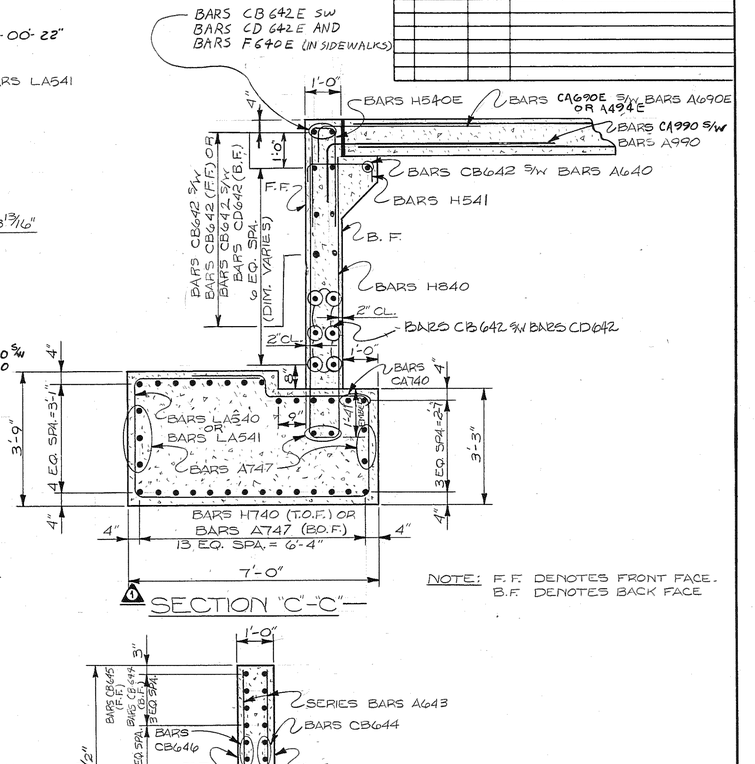
NOTE: THE CONTRACTOR SHALL SUPPORT THE WINGWALL UNTIL THE PAVEMENT @ BRIDGE ENDS IS IN PLACE.

* **NOTE:** THE WINGWALL END OF THE DOWEL BARS ARE TO BE COVERED WITH 1" OF COMPRESSIBLE MATERIAL AND THE 1'-0" PROJECTION WRAPPED WITH TWO LAYERS OF WATERPROOF PAPER.

ELEVATION "X"-"X"

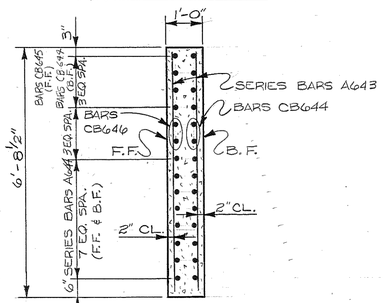


ELEVATION "Y"-"Y"

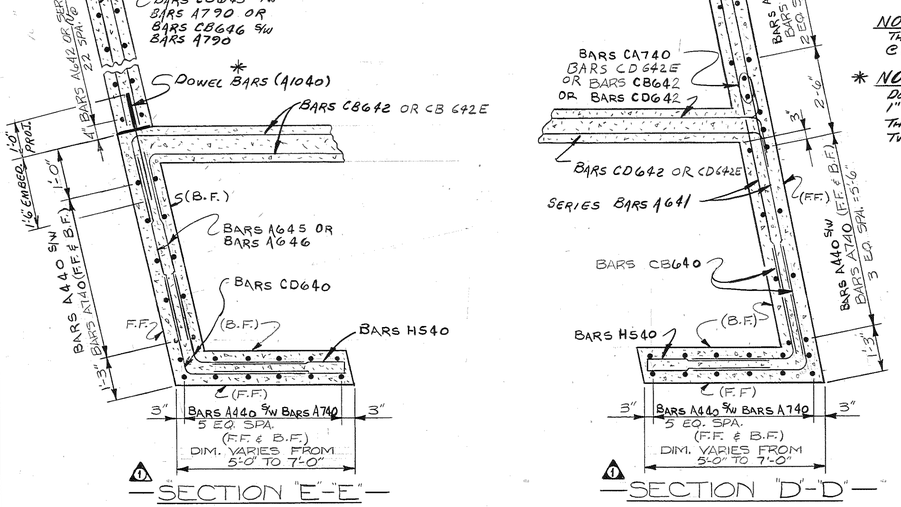


SECTION "C"-"C"

NOTE: F.F. DENOTES FRONT FACE. B.F. DENOTES BACK FACE



SECTION "F"-"F"



SECTION "E"-"E"

SECTION "D"-"D"

DESIGNED BY GARY HALL DATE 4-82
DRAWN BY VICKY FORREST DATE 9-82
SUPERVISED BY R. L. HARBISON; H.M.B. DATE 9-82
CHECKED BY GARY HALL DATE 12-82

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 1 DETAILS ACKLEN PARK DRIVE OVER INTERSTATE 440 STATION 146+11.79 DAVIDSON COUNTY 1982

CORRECT C. Allen L. Lovell
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

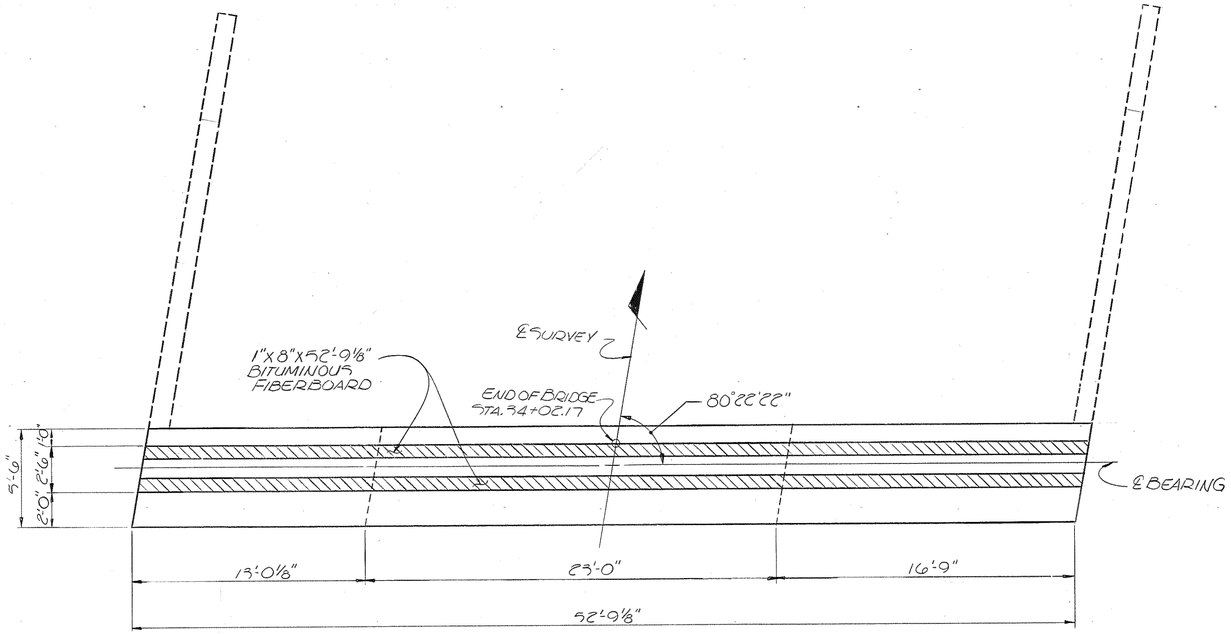
M-110-142

CONST. NO. 19014-3111-44

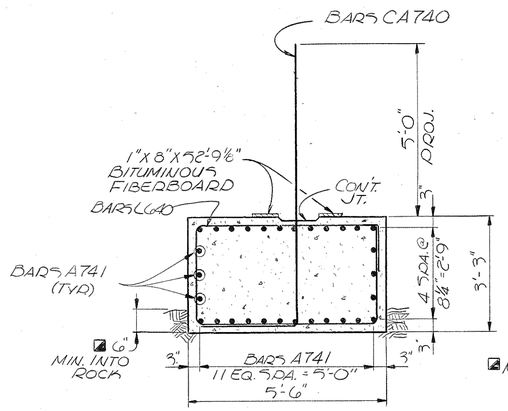
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53) 206	1986	

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS

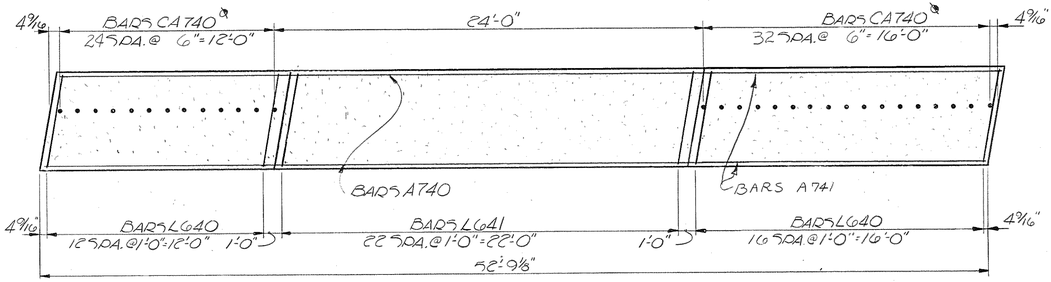


— PLAN —



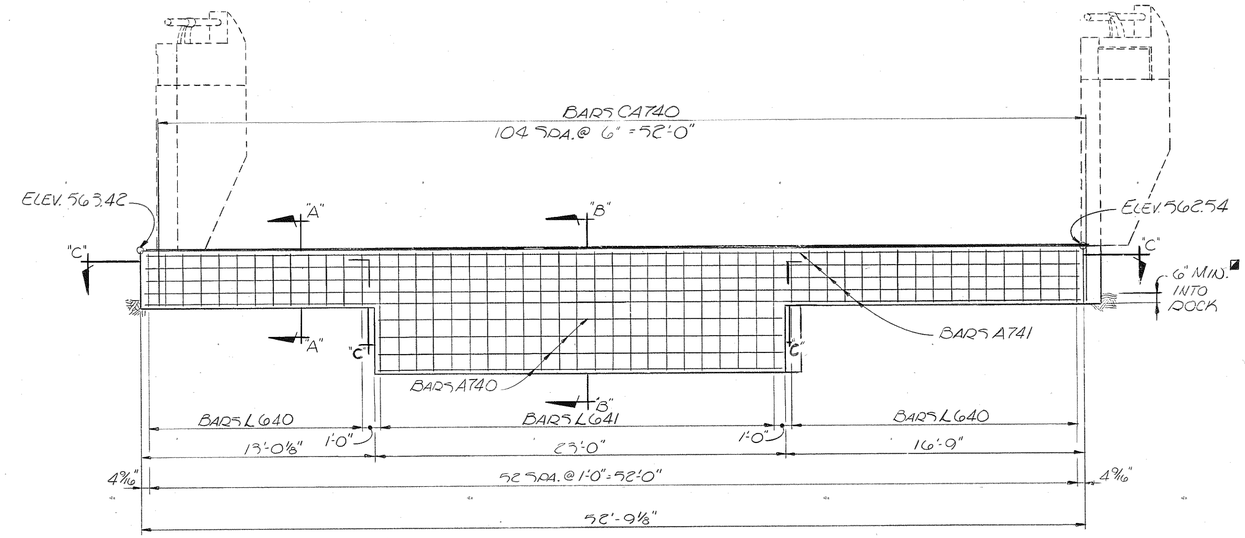
— SECTION "A"-"A" —

NOTE: THE ABUTMENT BEAM IS TO BE AT LEAST 6" INTO ROCK DUE TO A LARGE HORIZONTAL FORCE THAT TEMPERATURE WILL CAUSE.

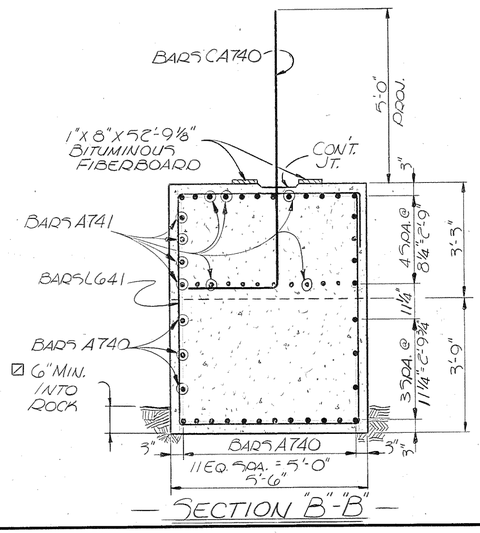


① — SECTION "C"-"C" —

BARS CA740 ARE @ 6" SPA. THE LENGTH OF THE ABUTMENT BEAM (105 BARS) (SEE ELEVATION VIEW THIS SHEET.)



— ELEVATION — ①



— SECTION "B"-"B" —

① — ESTIMATED QUANTITIES —

ITEM	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL lbs.
ABUT. NO. 2	53.3	7,392

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2
ACKLEN PARK DRIVE OVER INTERSTATE 440
STA. 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY GARY HALL DATE 9/82
DRAWN BY PEGGY JACKSON DATE 10/82
SUPERVISED BY D.L.H.E. HMB DATE 10/82
CHECKED BY GARY HALL DATE 12/82

CORRECT Clifton L Lovvorn
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

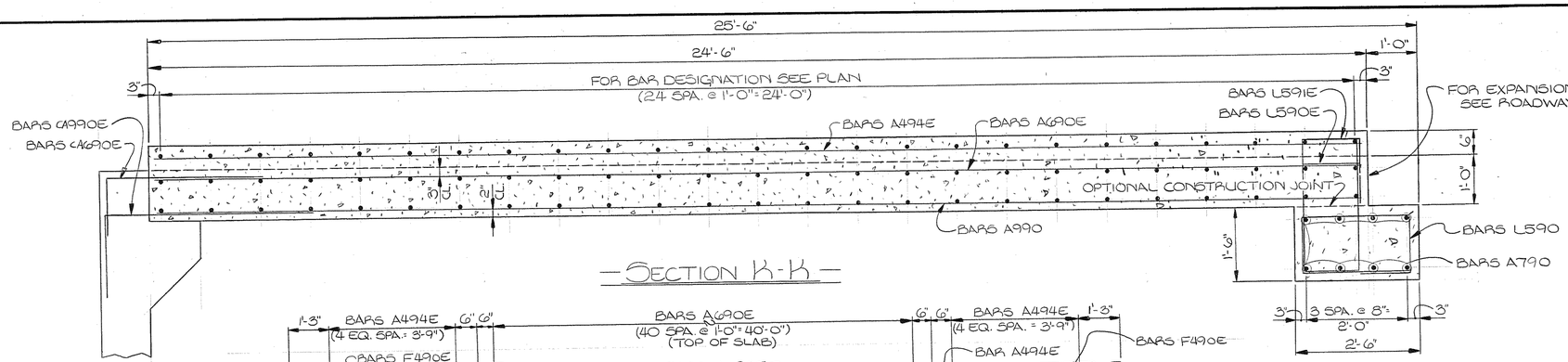
M-110-143

CONST. NO. 19014-3111-44

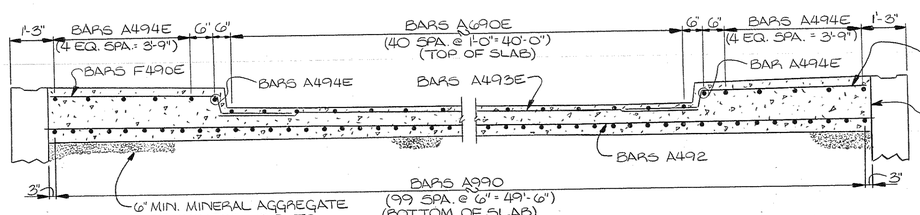
PROJECT NO.	YEAR	SHEET NO.
I-440-4(53)206	1982	

REVISIONS

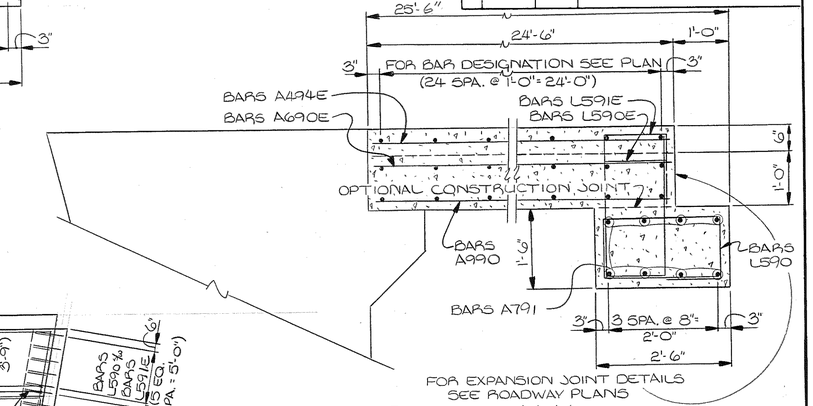
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



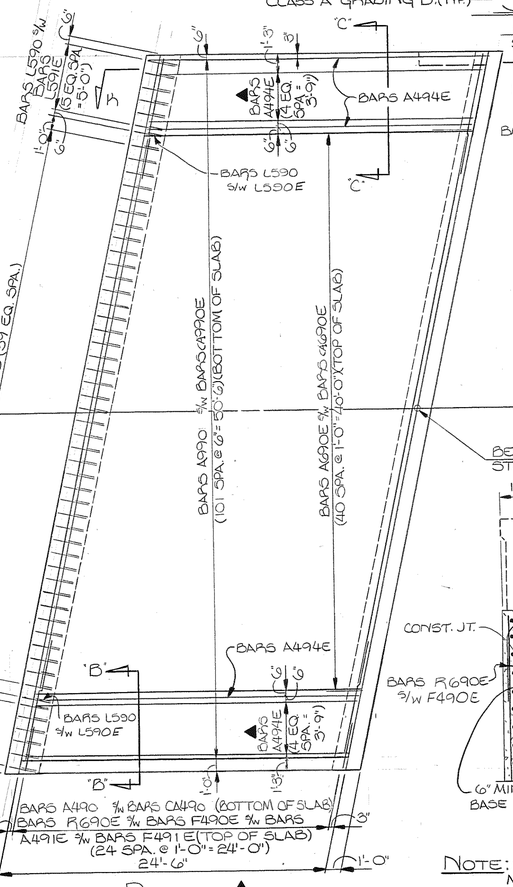
SECTION K-K



SECTION Y-Y ▲1

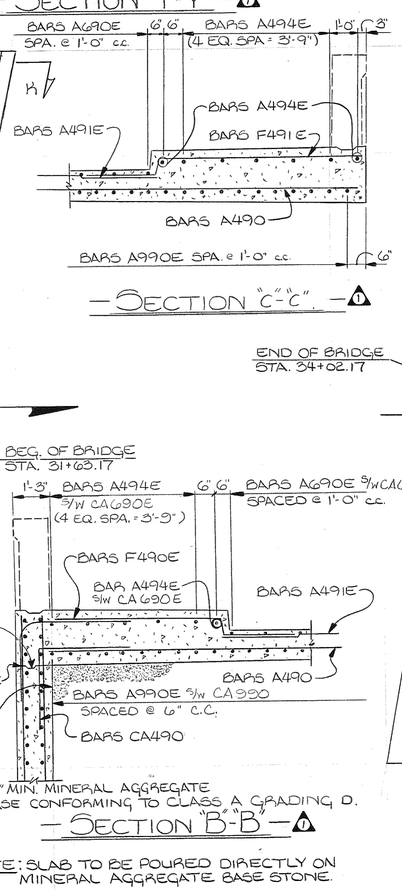


SECTION X-X



PLAN @ ABUT. NO. 1 ▲1

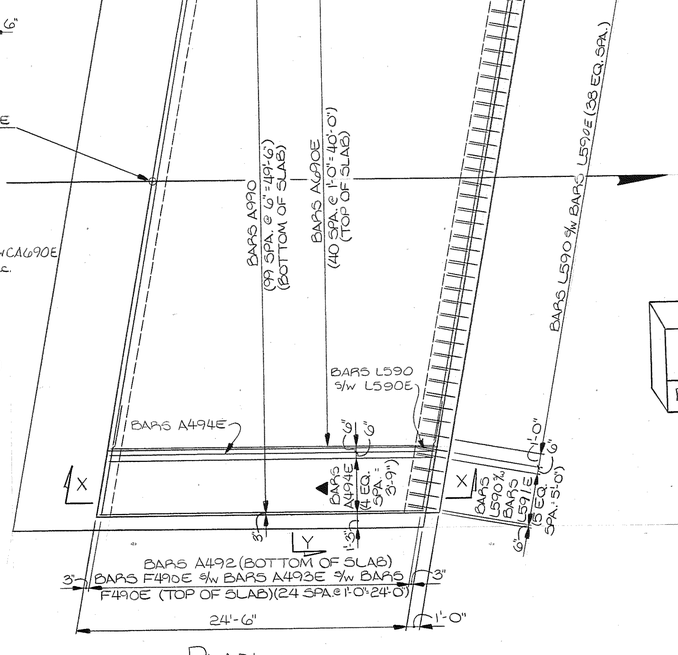
▲ DENOTES BAR DESIGNATION AND SPACING TYPICAL FOR SIDEWALKS ONLY.



SECTION "C"-"C" ▲1

SECTION "B"-"B" ▲1

NOTE: SLAB TO BE POURED DIRECTLY ON MINERAL AGGREGATE BASE STONE.



PLAN @ ABUT. NO. 2

ESTIMATED QUANTITIES ▲1

Item	CLASS 'A' CONCRETE C.Y.	EPOXY COATED REINFORCING STEEL LBS.	REINFORCING STEEL LBS.
PAV'MT @ BRIDGE ENDS	114.0	9,663.	20,783

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

PAVEMENT @ BRIDGE ENDS
ACHLEN PARK DRIVE
OVER INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY GARY HALL — DATE 4-82
DRAWN BY M. DYE — DATE 5-82
SUPERVISED BY B.L.H. & H.M.D. — DATE 5-82
CHECKED BY GARY HALL — DATE 12-82

CORRECT Charles L. Ferrell
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

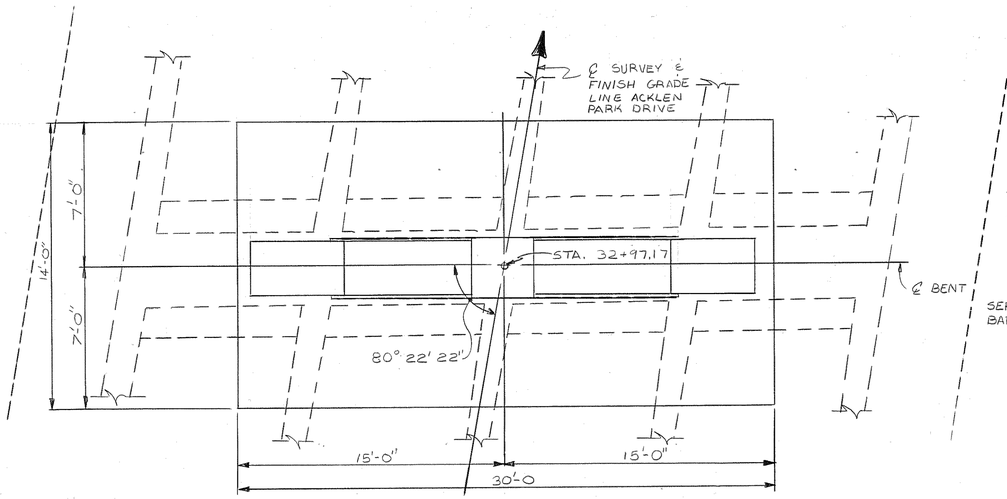
M-110-144

Const. No. 19014-3111-44

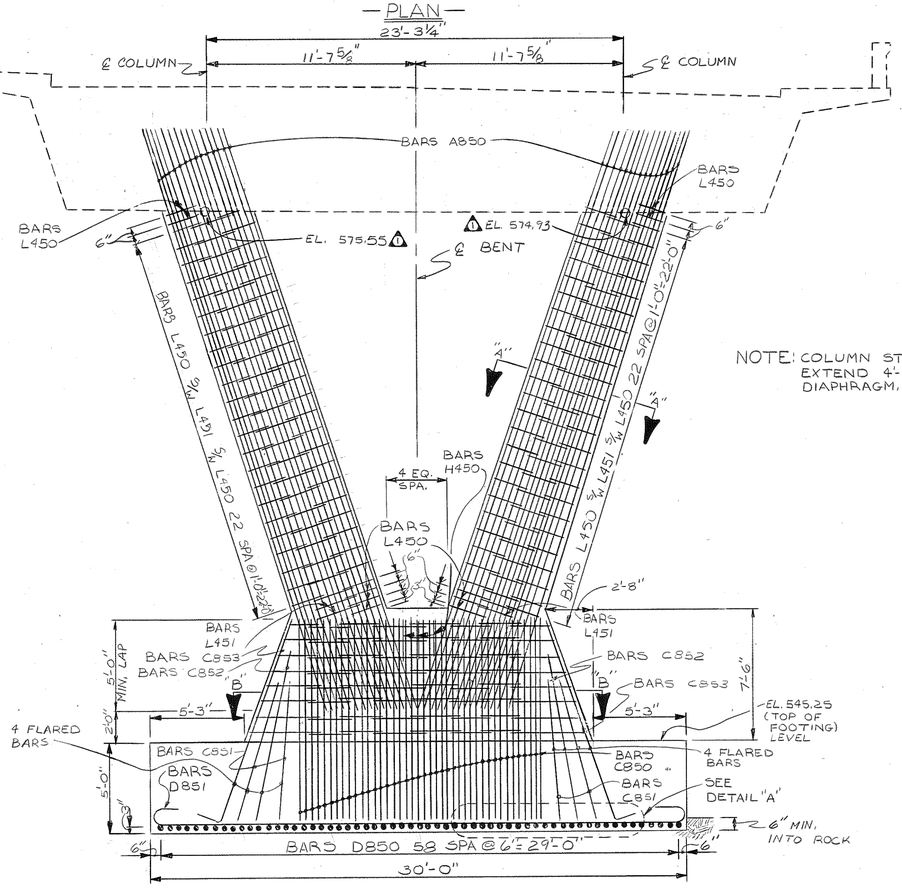
PROJECT NO.	YEAR	SHEET NO.
I-440-4(55) 206	1982	

REVISIONS

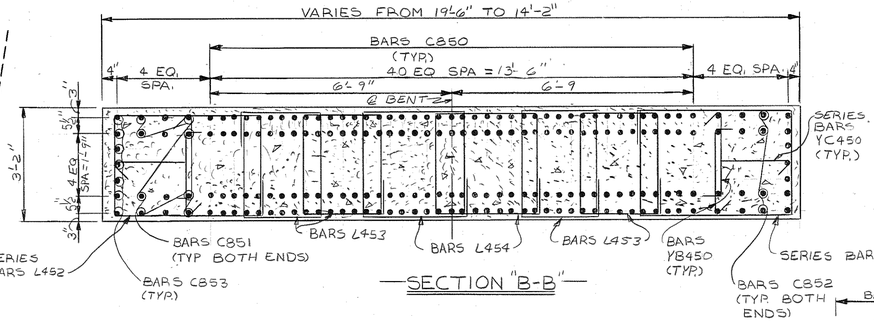
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS



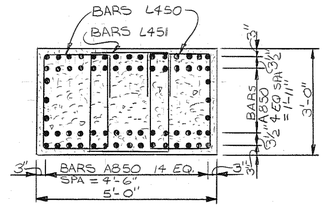
—PLAN—



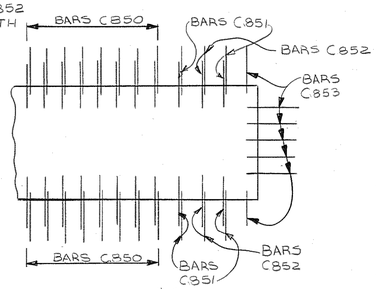
—ELEVATION—
(LOOKING FORWARD ON SURVEY)



—SECTION "B-B"—



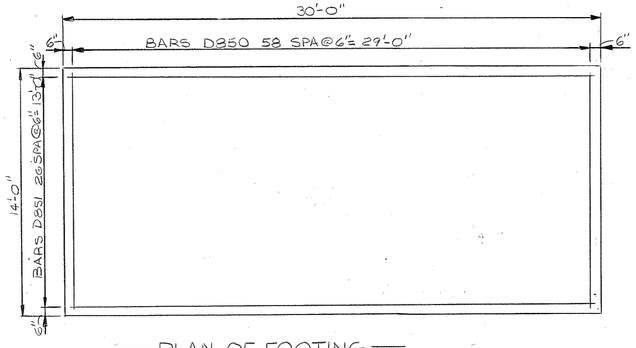
—SECTION "A-A"—



—DETAIL "A"—

NOTE: COLUMN STEEL TO EXTEND 4'-8" INTO DIAPHRAGM.

—END ELEVATION—



—PLAN OF FOOTING—

—ESTIMATED QUANTITIES—

ITEM	CLASS "A" CONCRETE C.Y.	REINFORCING STEEL LBS.
BENT 1	118.1	24,575.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENT NO.1
ACKLEN PARK DRIVE
OVER INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY GARY HALL DATE 8-31-82
DRAWN BY KEVIN X. MARTINKO DATE 9-20-82
SUPERVISED BY RLH & HMB. DATE 9-20-83
CHECKED BY GARY HALL DATE 12-86

CORRECT Clellon L Loveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-145

BILL OF STEEL

CONST. NO. 13014-3111-44					
FED ROAD DIST NO	STATE	FED AID PROJ NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN	I-440-1(53)206	1982		

REVISIONS

NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	HALL	GENERAL REVISIONS

⚠ SUPERSTRUCTURE

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A500	WEB	5	240					60'-0"
A501	BOTTOM SLAB	5	250					37'-8"
SERIES				LENGTH VARIES FROM 39'-0" TO 41'-9" IN INC. OF 6⅜" (6 BARS)				
A605	ENDWALL @ NO. 1	6	2					242'-3"
A606	DIAPHRAGM	6	36					22'-8"
A607	WINGWALL @ NO. 2	6	2					2'-5"
A608	WINGWALL @ NO. 2	6	2					5'-0"
A609	WINGWALL @ NO. 2	6	2					8'-0"
SERIES				LENGTH VARIES FROM 7'-6" TO 8'-5" IN INC. OF 1" (12 BARS)				
A610	WINGWALL @ NO. 2	6	4					95'-6"
SERIES				LENGTH VARIES FROM 7'-0" TO 7'-5" IN INC. OF 3" (14 BARS)				
A611	WINGWALL @ NO. 2	6	4					78'-9"
A800	WINGWALL @ NO. 2	8	16					29'-0"
A801	WINGWALL @ NO. 2	8	16					23'-0"
SERIES				LENGTH VARIES FROM 21'-0" TO 22'-6⅛" IN INC OF 1'-2⅝" (12 BARS)				
A802	WINGWALL @ NO. 2	8	4					140'-6"
A803	ABUT. NO 2	8	2					52'-5"
A900	BOTTOM SLAB	9	36					60'-0"
A905	BOTTOM SLAB	9	8					44'-0"
CB306	BOTTOM SLAB	9	28	21'-0"	3'-1"	4"		24'-0"
CB907	BOTTOM SLAB	9	28	27'-0"	3'-1"	4"		30'-0"
A1000	BOTTOM SLAB	10	28					12'-0"
A1001	BOTTOM SLAB	10	134					60'-0"
A1002	BOTTOM SLAB	10	28					57'-11"
A1003	BOTTOM SLAB	10	24					40'-5"
A1004	BOTTOM SLAB	10	24					31'-11"
B800	ENDWALL @ NO. 2	8	2	28'-9"				29'-8"
CD500	WEB & BOT. SLAB	5	1412	3'-6"	3'-0"	1'-6"		6'-5"
CA600	END DIAPHRAGM	6	34	5'-4"	3'-0"			8'-3"
CA501	DIAPHRAGM & WEB	5	2244	2'-5"	3'-10"			6'-2"
CA502	INTER. DIAPH.	5	48	21'-0	2'-2"			23'-1"
CB800	ENDWALL @ ABUT 2	8	18	29'-3"	1'-6"	1'-10"		40'-9"
CA902	INTER. DIAPH.	9	48	23'-11"	4'-0"			27'-10"
CD1000	BOTTOM SLAB	10	64	10'-0"	5'-4"	6"		15'-3"
CB501	WEB @ ABUT. 1	5	30	7'-0"	3'-0"	10"		9'-11"
SERIES				DIM. "a" VARIES FROM 12'-6" TO 17'-0 IN INC. 3⅜" (16 BARS)				
BE800	ABUT NO 2	8	2					330'-8"

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
CD501	WEB @ ABUT. 1	5	30	7'-0"	3'-0"	10"		9'-11"
CB801	ENDWALL @ NO. 2	8	17	29'-3"	6'-0"	10"		35'-2"
CD801	ENDWALL @ NO. 2	8	17	29'-3"	6'-0"	1'-10"		35'-2"
CD800	ENDWALL @ NO. 2	8	18	29'-3"	3'-0"	1'-10"		40'-9"
GA600	ENDWALL @ NO. 2	6	105	8'-0"	2'-0"	9'-4"	3'-3"	19'-2"
YB500	ENDWALL @ NO. 2	5	51	8'-10"	6"			9'-6"
H502	DIAPHRAGM	5	126	8"	4'-4"			9'-2
HA500	BOTTOM SLAB	5	210	37'-0"	3'-6"	1'-2"		93'-10"
HA800	END DIAPHRAGM	8	5	38'-6"	5'-0"	1'-8"		48'-4"
HA1000	BENT DIAPHRAGM	10	10	38'-0"	4'-0"	1'-6"		45'-10"

SUPERSTRUCTURE (EPOXY COATED)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A502E	DIAPHRAGM	5	84					6'-4"
A600E	TOP SLAB (TOS)	6	222					52'-4"
A601E	TOP SLAB (TOS)	6	252					51'-8"
A602E	TOP SLAB (BOS)	6	504					22'-7"
A603E	TOP SLAB @ ABUT. 2	6	56					12'-0"
A604E	TOP SLAB & SIDEWALK	6	280					60'-0"
A605E	TOP SLAB (BOS)	6	193					42'-3"
CA500E	WEB	5	1992	2'-5"	5'-0"			7'-9"
CB500E	WEB & TOP SLAB	5	912	4'-10"	2'-2"	9"		6'-11"
CD601E	SIDEWALK & TOP SLAB	6	26	12'-8"	3'-0"	3"		14'-11"
A800E	TOP SLAB	8	5					53'-0"
A1000E	SUPPORT DIA	10	18					42'-2"
A900E	TOP SLAB	9	124					60'-0"
A901E	TOP SLAB	9	20					59'-2"
A902E	TOP SLAB	9	42					56'-8"
A903E	TOP SLAB	9	42					25'-8"
A904E	TOP SLAB	9	20					29'-2"
HB1000E	SUPPORT DIA.	10	18	42'-2"	4'-0"	1'-6"		50'-0"
A1100E	TOP SLAB	11	36					32'-0"
A1101E	TOP SLAB	11	24					49'-0"
A1102E	TOP SLAB	11	42					60'-0"
A1103E	TOP SLAB	11	20					54'-0"

SUPERSTRUCTURE (EPOXY COATED) (CONTINUED)

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
CD900E	TOP SLAB	9	60	13'-0"	5'-4"	6"		18'-3"
CD901E	TOP SLAB	9	62	6'-2"	5'-4"	6"		9'-5"
CB901E	TOP SLAB	9	62	6'-2"	5'-4"	6"		9'-5"
H503E	DIAPHRAGM	5	84	7"	1'-0"			2'-3"
A800E	ENDWALL @ NO. 1	8	5					53'-2"
L500E	DIAPHRAGM	5	84	5'-10"	2'-0"	1'-3"		15'-10"
L501E	DIAPHRAGM	5	42	5'-10"	2'-0"	2'-0"		17'-4"
CD600E	SIDEWALK & WEB	6	956	5'-3"	5'-5"	1'-11"		10'-7"

PAVEMENT @ BRIDGE ENDS ⚠

BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A490	BOTTOM OF SLAB	4	25					52'-3"
A492	BOTTOM OF SLAB	4	25					50'-4"
A790	FOOTING	7	8					52'-3"
A791	FOOTING	7	8					50'-4"

PAVEMENT @ BRIDGE ENDS (EPOXY COATED) ⚠

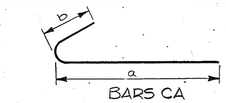
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A990	BOTTOM OF SLAB	9	202					24'-0"
CA490	BOTTOM OF SLAB	4	25	3'-2"	2'-4"			5'-5"
L590	FOOTING	5	107	1'-2"	1'-0"	2'-2"		7'-4"
A991E	TOP OF SLAB	4	25					41'-4"
A993E	TOP OF SLAB	4	25					40'-4"
A994E	SIDEWALK	4	25					24'-0"
A690E	TOP OF SLAB	6	82					24'-0"
R690E	TOP OF SLAB	6	25	1'-8"	4'-0"	4'-0"		8'9"
F490E	SIDEWALK	4	75	3'-6"	1"	4'-10"	6"	8'-10"
F491E	SIDEWALK	4	25	3'-6"	1"	5'-10"	6"	9'-10"
L590E	TOP OF SLAB	5	83	1'-2"	1'-0"	2'-2"		7'-4"
L591E	SIDEWALK	5	24	1'-2"	1'-0"	2'-8"		8'-4"
CA690E	TOP OF SLAB	6	54	3'-2"	3'-6"			6'-7"
CA990E	BOTTOM OF SLAB	9	102	3'-2"	4'-6"			7'-7"

⚠ ABUTMENT NO. 1

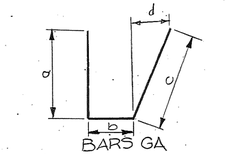
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A640	ROADWAY BRACKET	6	1					28'-0"
A642	WINGWALL	6	30					6'-9"
SERIES				LENGTH VARIES FROM 3'-0" TO 6'-7⅜" IN INC. OF 6⅛" (8 BARS)				
A643	WINGWALL	6	8					38'-7"
SERIES				LENGTH VARIES FROM 15'-8⅜" TO 21'-6" IN INC. OF 9⅜" (8 BARS)				
A644	WINGWALL	6	2					148'-10"
SERIES				6" DIM. B VARIES				
H540	APRON WALL	5	2	FROM 9'-6" TO 6'-0" IN INC. OF 3" (7 BARS)				77'-0"
SERIES				LENGTH VARIES FROM 7'-0" TO 12'-0" IN INC OF 10" (7 BARS)				
A641	APRON WALL	6	2					66'-6"
A740	APRON WALL	7	50					6'-0"
A747	FOOTING	7	19					53'-2"
A440	APRON WALL	4	50					5'-6"
CA740	FOOTING	7	2	58'-0"	4'-0"			56'-11"
A1040	DOWEL BARS	10	7					2'-6"
A645	APRON WALL	6	6					5'-0"
A646	APRON WALL	6	10					6'-3"
CB642	ENDWALL	6	16	28'-6"	3'-0"	9"		31'-5"
CB644	WINGWALL	6	6	23'-6"	4'-0"			27'-9"
CB644	WINGWALL	6	4	24'-0"	4'-0"			27'-11"
CB646	WINGWALL	6	2	25'-0"	4'-0"			28'-1"
LA540	FOOTING	5	52	6'-6"	3'-3"	2'-8"	3'-3"	20'-0"
LA541	FOOTING	5	4	6'-8"	3'-10"	2'-8"	3'-3"	20'-3"
CD642	ENDWALL	6	9	28'-6"	3'-0"	9"		31'-5"
H541	ROADWAY BRACKET	5	52	1'-8"	6"			2'-6"
H740	FOOTING	7	12	53'-0"	3'-7"			60'-0"
H840	ENDWALL	8	54	8"	7'-3"			15'-0"

ABUTMENT NO. 1 (EPOXY COATED) ⚠

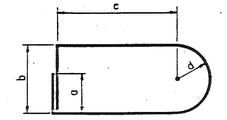
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
CB642E	ENDWALL	6	3	28'-6"	3'-0"	9"		31'-5"
CD642E	ENDWALL	6	1	28'-6"	3'-0"	9"		31'-5"
F640E	ENDWALL	6	4	3'-6"	1"	5'-10"	6"	9'-10"
H540E	ENDWALL	5	54	8"	3'-9"			8'-0



BARS CA



BARS GA



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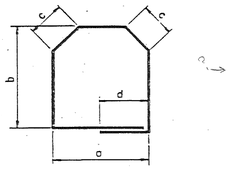
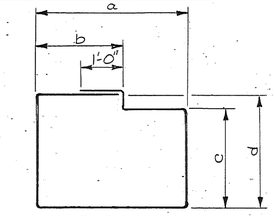


BARS M



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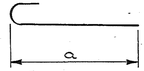
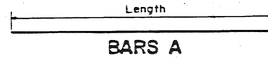
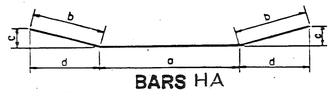


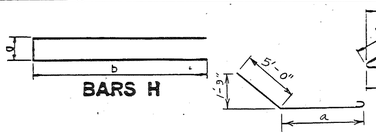
BARS YC



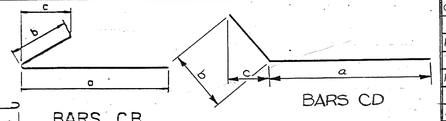
BARS A



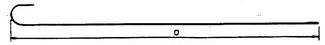
BARS HA



BARS H BARS BE

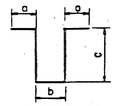


BARS CB BARS CD

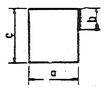


BARS B

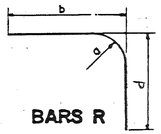
BARS F



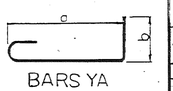
BARS K



BARS L



BARS R



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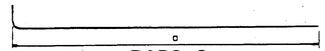

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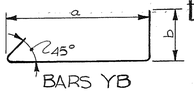
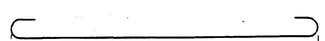
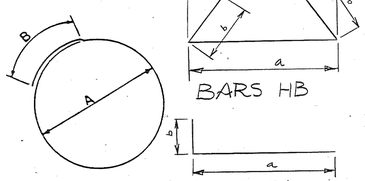


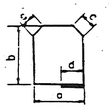
BARS YB



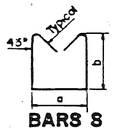
BARS D



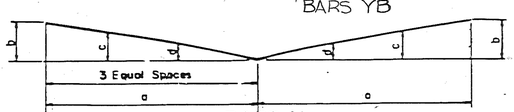
BARS T BARS HB BARS CA



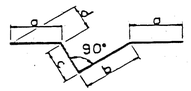
BARS M



BARS S



BARS V

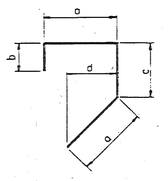


BARS JX

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

NOTE Dimensions shown on this sheet are outside to outside of bar. Standard C R S. I. Hook Details Shall Apply, Except As Noted.



BARS J

NOTE: THE SUFFIX "E" DENOTES EPOXY COATED STEEL.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

⚠ BILL OF STEEL

ACKLEN PARK DRIVE
OVER INTERSTATE 440
STATION 146+11.79
DAVIDSON COUNTY
1982

DESIGNED BY GARY HALL DATE 4-82
DRAWN BY VICKY FORREST DATE 10-82
SUPERVISED BY R.L. HARBISON; HYB DATE
CHECKED BY GARY HALL DATE 12-82

CORRECT Clellon L Foveall
ENGINEER OF STRUCTURES
APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-146

5-0-2

BILL OF STEEL

CONST. NO. 19014-3111-44

FED. PROJ. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.	I-440-4(52)206	19		

REVISIONS

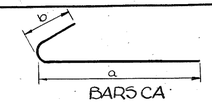
NO.	DATE	BY	BRIEF DESCRIPTION
1	7-13-83	WALL	GENERAL

ABUTMENT NO. 2 ⚠1

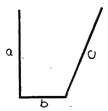
BAR	LOCATION	SIZE	NO REQ'D	BENDING DIMENSIONS a	b	c	d	LENGTH
A740	ABUT. BEAM	7	18					22'-6"
A741	ABUT. BEAM	7	30					52'-3"
CA740	ABUT. BEAM	7	105	8'-0"	3'-1"			11'-0"
LG40	ABUT. BEAM	6	30	5'-2"	1'-0"	2'-11"		16'-10"
LG41	ABUT. BEAM	6	23	5'-2"	1'-0"	6'-8"		24'-4"

BENT NO. 1

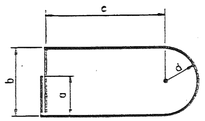
A850	COLUMN	8	132					33'-7"
C850	COLUMN BASE	8	164	10-9				12'-3"
C851	COLUMN BASE	8	16	8'-4"				9'-7"
C852	COLUMN BASE	8	8	9'-2"				10'-5"
C853	COLUMN BASE	8	14	VAR.				13'-3"
D850	FOOTING	8	59	13'-6"				15'-4"
D851	FOOTING	8	27	69'-6"				31'-3"
H450	COLUMN BASE	4	3	2'-8"	2'-0"			6'-7"
L450	COLUMN	4	102	1'-0"	1'-0"	2'-3"		10'-1"
L451	COLUMN	4	50	2'-1"	1'-0"	2'-3"		10'-8"
SERIES L452	COLUMN BASE	4	2	DIM. "A" VARIES FROM 4'-2 15/16" TO 2'-0 7/16" IN INC. OF 10 3/8" BY 10 OC. 2'-10 (8 BARS)				55'-5"
L453	COLUMN BASE	4	32	2'-2	1'-0	2'-10		10'-11"
L454	COLUMN BASE	4	16	2'-11	1'-0	2'-10		12'-3"
YB450	COLUMN BASE	4	40	2'-3"	8			3'-2"



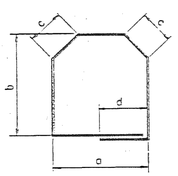
BARS CA



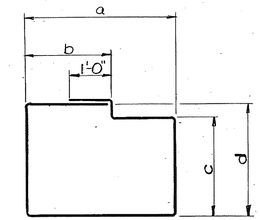
BARS GA



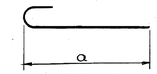
BARS X



BARS M



BARS LA

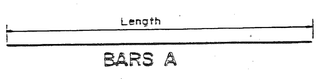


BARS YC

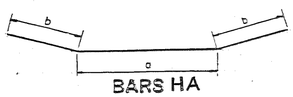
REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

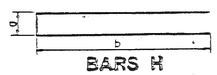
NOTE Dimensions shown on this sheet are outside to outside of bar Standard C R S I. Hook Details Shall Apply, Except As Noted.



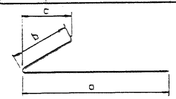
BARS A



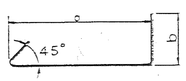
BARS HA



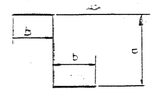
BARS H



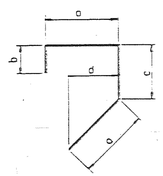
BARS CB



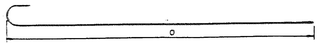
BARS YB



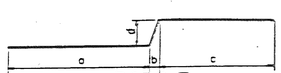
BARS Z



BARS J



BARS B



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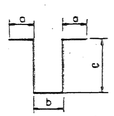
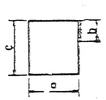


BARS K



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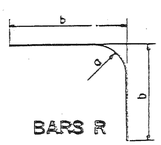
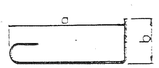
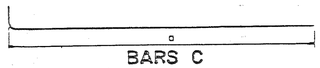


BARS R



BARS YA

NOTE: THE SUFFIX "E" DENOTES EPOXY COATED STEEL



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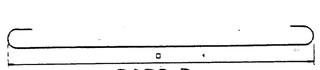

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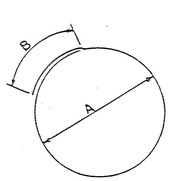

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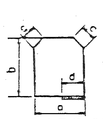

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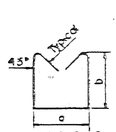

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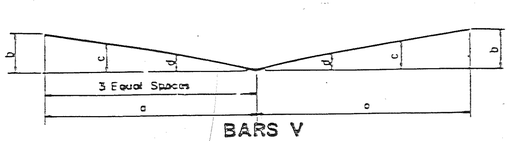

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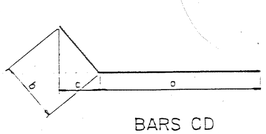

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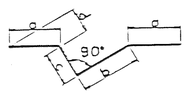

BARS JX

DESIGNED BY GHALL DATE 9-82
DRAWN BY RJ DATE 9-82
SUPERVISED BY RLH&NMB DATE 9-82
CHECKED BY GARY HALL DATE 12-82

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL

ACKLEN PARK DRIVE OVER
INTERSTATE 440
STA. 146+11.79
DAVIDSON COUNTY
1982

CORRECT Colleen L Fowell
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

M-110-147

5-0-2