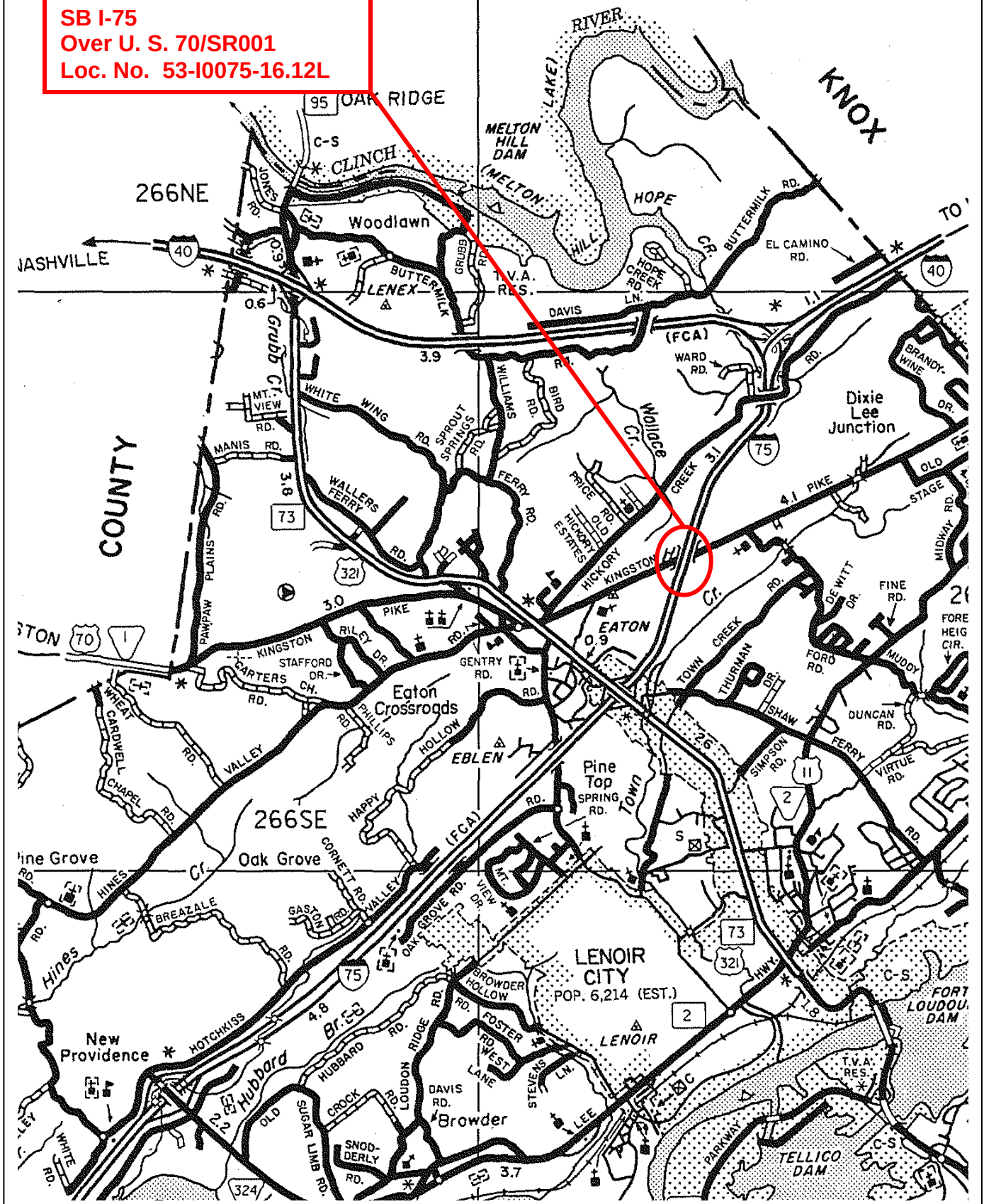


LOUDON COUNTY

ID No. 53I00750040
SB I-75
Over U. S. 70/SR001
Loc. No. 53-I0075-16.12L

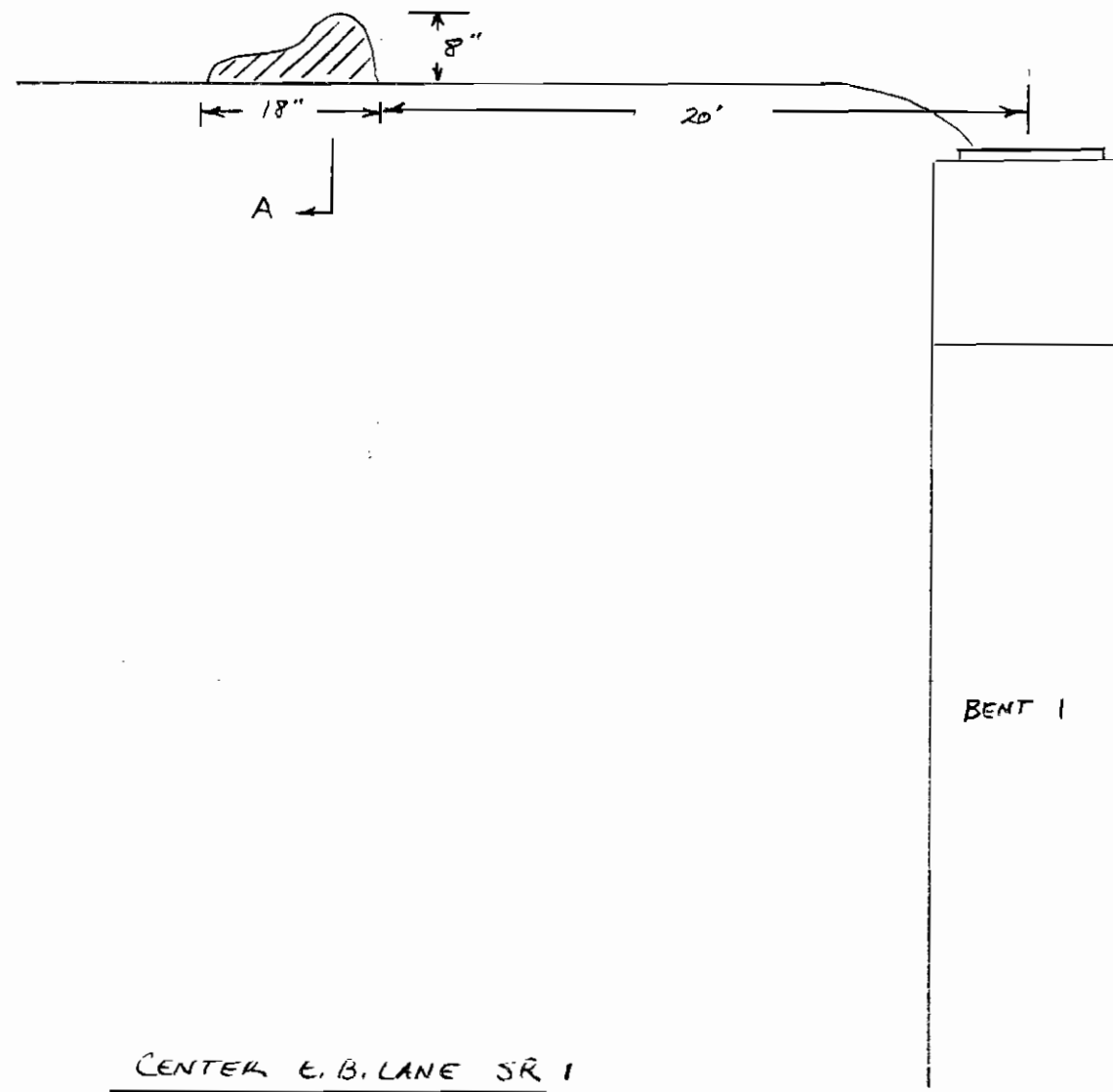


PAGE NO. _____

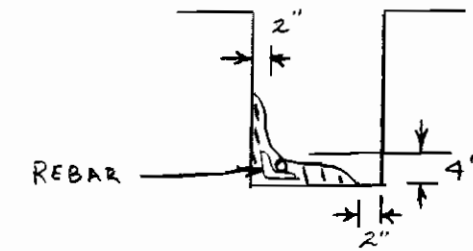
SHEET _____ OF _____

SPAN # 2

A



CENTER E.B. LANE SR 1



A-A - SECTION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
OFFICE OF BRIDGE INSPECTION
AND REPAIR

COLLISION DAMAGE BEAM A
SPAN 2

BRIDGE NO. 53-Z-75-16.16 LT
CROSSING: SA # 1

COUNTY: LOUDON

DRAWN LAY
DATE 9-28-00

REVISION
DATE

		ESTIMATED QUANTITIES																	
		ALTERNATE LSDC						ALTERNATE PMC											
ITEM NO.	▲	204-02.01	604-03.01	604-03.16	604-03.01	604-03.17	604-03.02	604-25.03	604-25.04	606-02.03	616-08	616-12	710-10	710-11	604-10.51	604-03.20	604-10.50		
ITEM		DRY EXCAVATION (BRIDGES) (C.Y.) ①	CLASS "A" CONCRETE (BRIDGES) (C.Y.) ②	BRIDGE DECK SEALANT TYPE I (LSDC) (S.Y.)	CLASS "A" CONCRETE (BRIDGES) (C.Y.) ②	BRIDGE DECK SEALANT TYPE II (PMC) (S.Y.)	STEEL BAR REINFORCEMENT (BRIDGES) (LBS.)	TEXTURED COATED FINISHING (EXISTING STRUCTURES) (S.Y.)	TEXTURED COATED FINISHING (NEW STRUCTURES) (S.Y.)	STEEL PILES (10 INCH) (L.F.)	CONCRETE PARAPET (M-28-1) (L.F.)	PORTABLE BARRIER RAIL (K-38-158) (L.F.) ⑤	6" PERFORATED C.M. PIPE (18 GA.) WITH POROUS BACKFILL (L.F.) ⑥	6" C.M. PIPE UNDERDRAINS (8 GA.) (L.F.)	▲ ① SCARIFYING (S.Y.) ⑦	BRIDGE JOINT MODIFICATION (L.F.)	BRIDGE DECK REPAIRS (S.Y.) ⑧		
SUPERSTRUCTURE			116.2	692	115.0	692	42,896	▲							419	67	0		
ABUTMENT NO. 1		14.1	16.5		16.5		2,487			270									
BENT NO. 1		16.5	11.6		11.6		1,784			180									
BENT NO. 2		16.5	12.0		12.0		1,845			180									
ABUTMENT NO. 2		14.1	16.0		16.0		2,474			270									
TOTAL		61.2	172.3	692	171.1	692	51,486	523	751	900	307.6	293	112	8	419	67	0		
SUPERSTRUCTURE			116.2	692	115.0	692	42,896								419	67	50		
ABUTMENT NO. 1		14.1	16.0		16.0		2,474			172									
BENT NO. 1		14.7	12.3		12.3		1,900			80									
BENT NO. 2		14.7	12.6		12.6		1,938			80									
ABUTMENT NO. 2		14.1	16.5		16.5		2,487			172									
TOTAL		57.6	173.6	692	172.4	692	51,695	563	790	504	307.6	293	112	8	419	67	50		
GRAND TOTAL		118.8	345.9	1384	343.5	1384	103,181	1086	1,541	1,404	615.2	586	224	16	838	134	50		

THESE ITEMS TO BE PAID FOR UNDER PROJECT NO. I-75-2(23)83.

ITEM 604-10.50 TO BE PAID FOR UNDER PROJECT NO. I-75-2(24)83.

PROJECT NO.		YEAR	SHEET NO.
		1978	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2-14-78	JWB	Add Item 604-03.20, NOTE 10
2	3/3/78	JMB	Alter Item 616-12 quantities
3	3/3/78	JMB	Change Item No. (Bridge Deck Sealant)
4	3/3/78	JMB	Add Item No. (Bridge Deck Sealant)
5	3/3/78	JMB	Revised Textured Coating Quantity to
6	3/3/78	JMB	Exclude Slope Painting
7	3/3/78	JMB	Deleted Structural Removal Item
8	3/3/78	JMB	Revised Note 6

NOTES: (1) EXCAVATION BASED ON EXISTING LOWER ROAD PROFILE.

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

(3) THE COST OF EPOXY JOINT, CONCRETE GROUT, ETC., AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEM 604-03.20

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

(5) THE COST OF 24 THREADED STEEL INSERTS AND 24 1/8" X 4" HEX HEAD BOLTS, (A307), TO BE INCLUDED IN BRIDGE ITEMS BID ON.

(6) THE COST OF REMOVING THE EXTERIOR PORTION OF THE EXISTING SLAB, PORTIONS OF THE EXISTING ABUTMENT, AND THE BRIDGE RAIL SHALL BE INCLUDED IN THE COST OF ITEM 604-03.01. ALL SALVAGEABLE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

(7) COST OF 1" X 8" BOLTS, WITH HEX NUTS AND WASHERS, 4" X 4" X 1/2" STEEL BACK-UP PLATES AND PLACING OF 5/8" X 3" X 1" STEEL PLATES @ EXISTING ABUTMENT, BEARING DEVICES TO BE INCLUDED IN BRIDGE ITEM 604-03.20 SEE DETAILS ON DWG. NO. M-38-149.

(8) THE CONTRACTOR SHALL BID EITHER ALTERNATE LSDC OR ALTERNATE PMC. THE VARIATION IN THE SUPERSTRUCTURE QUANTITY OF CLASS A CONCRETE FOR ALTERNATES LSDC AND PMC IS DUE TO THE DIFFERENCE IN DEPTH OF THE LSDC AND PMC SYSTEMS.

(9) SEE SPECIAL PROVISION NO. 481.

(10) QUANTITY OF 586 L.F. OF PORTABLE BARRIER RAIL INCLUDES 310 FT. FOR TRAFFIC CONTROL ON THE STRUCTURE AND 276 L.F. FOR TRAFFIC CONTROL UNDER THE STRUCTURE (ON SR-1) ▲

(11) COST OF REMOVAL OF EXISTING OVERLAY TO BE INCLUDED IN COST OF ITEM 604-10.51

GENERAL NOTES:

BRIDGE DECK SEALANT: THE BRIDGE DECK SHALL BE SEALED IN ACCORDANCE WITH SPECIAL PROVISION NO. 480. THESE BRIDGE DECK SEALANT SYSTEMS SHALL BE PAID FOR UNDER BRIDGE ITEMS 604-03.16 FOR LSDC OR 604-03.17 FOR PMC. 1384 S.Y. REQUIRED.

NOTE: THE CONTRACTOR SHALL CHECK THE LOCATION OF ALL EXISTING SUBSTRUCTURES AND VERIFY SPAN LENGTHS BEFORE CONSTRUCTION IS BEGUN.

GENERAL NOTES:

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF HIGHWAYS (1968 EDITION).

LOADING: HS20-44.

DESIGN SPECIFICATIONS: AASHTO 1973 EDITION WITH ADDENDA.

CONCRETE: TO BE CLASS "A", FC = 3000 PSI. SEE SPECIAL PROVISION NO. 130.

BRIDGE DECK FORMS: BRIDGE DECK FORMS FOR CONCRETE DECKS SHALL BE CONSTRUCTED USING EITHER REMOVABLE FORMS OR PERMANENT FORMS. IN EITHER CASE FORMS SHALL BE ATTACHED BY MEANS OTHER THAN WELDING TO SUPPORT MEMBERS. SEE SPECIAL PROVISION NO. 450.

PRECAST, PRESTRESSED BRIDGE DECK PANELS: A PORTION OF THE CONCRETE DECK MAY BE CONSTRUCTED OF PRECAST, PRESTRESSED BRIDGE DECK PANELS FABRICATED AND USED IN ACCORDANCE WITH STANDARD DRAWING K-80-15.

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.

SPECIAL NOTE: FOUNDATIONS FOR BENTS SHALL BE EXCAVATED TO THE PILE CUT-OFF ELEVATIONS SHOWN; ROD SOUNDINGS SHALL BE MADE AS DIRECTED BY THE ENGINEER. FROM THE RESULTS OBTAINED THE ENGINEER WILL DECIDE IF PILES WILL BE USED OR THE FOOTINGS CARRIED TO ROCK. COST OF ROD SOUNDINGS TO BE INCLUDED IN ITEMS BID ON. NO REINFORCING STEEL FOR BENT COLUMNS SHALL BE ORDERED UNTIL FINAL FOOTING ELEVATIONS HAVE BEEN DETERMINED.

PILES: TO BE HP10X42 DRIVEN TO REFUSAL ON ROCK OR A MINIMUM BEARING OF 65 TONS FOR THE BENTS AND 70 TONS FOR THE ABUTMENTS.

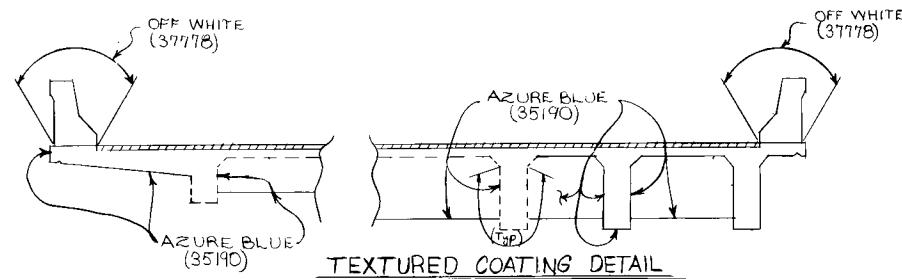
BRIDGE RAIL SYSTEM: BUILD PARAPETS ACCORDING TO STANDARD DRAWING M-28-1.

ELASTOMERIC BEARING PAD: SEE SPECIAL PROVISION NO. 210.

WELDING: SEE SPECIAL PROVISION NO. 410 AND DRAWING NO. M-38-149.

PRECAST, PRESTRESSED BRIDGE MEMBERS: SEE SPECIAL PROVISION NO. 555.

EPOXY: THE BINDER MIX, SAND AGGREGATE BATCH, PLACING METHOD, TEMPERATURE AND HUMIDITY LIMITATIONS, AND CURING TIMES SHALL BE AS RECOMMENDED BY THE MANUFACTURER. ACCEPTABLE BRANDS OF EPOXY ARE: EPI-TOPI 100, CELANESSE COATING CO., COLMA DUR-SIKA CHEMICAL CORP., SINMAST MORTAR MIX RESIN #4, SINMAST CORPORATION OF AMERICA, AND SIKASTIX 370-SIKA CHEMICAL CORP. COST OF JOINT PREPARATION AND EPOXY IN PLACE TO BE INCLUDED IN ITEMS BID ON.



FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE TENNESSEE STANDARD SPECIFICATION EXCEPT AS MODIFIED BY SPECIAL PROVISION NO. 130.

A TEXTURED COATED FINISH SHALL BE USED IN LIEU OF A CLASS 2 FINISH. THE COLOR OF THE FINISH SHALL BE SIMILAR TO AZURE BLUE, FEDERAL SPECIFICATION NO. 35190 AND OFF WHITE, FEDERAL SPECIFICATION NO. 37778, FEDERAL COLOR STANDARD NO. 5950, AND A COLOR SAMPLE SHALL BE SUBMITTED TO THE ENGINEER OF STRUCTURES FOR APPROVAL.

IN ADDITION TO THE ABOVE REQUIREMENTS, AZURE BLUE (35190) SHALL BE USED ON ALL EXPOSED EXISTING AND NEW SUPERSTRUCTURE AND ABUTMENT SURFACES. OFF WHITE (37778) SHALL BE USED ON ALL EXPOSED EXISTING AND NEW BENT SURFACES, AND CONCRETE PARAPET. SEE TEXTURED COATING SKETCH ABOVE. ▲

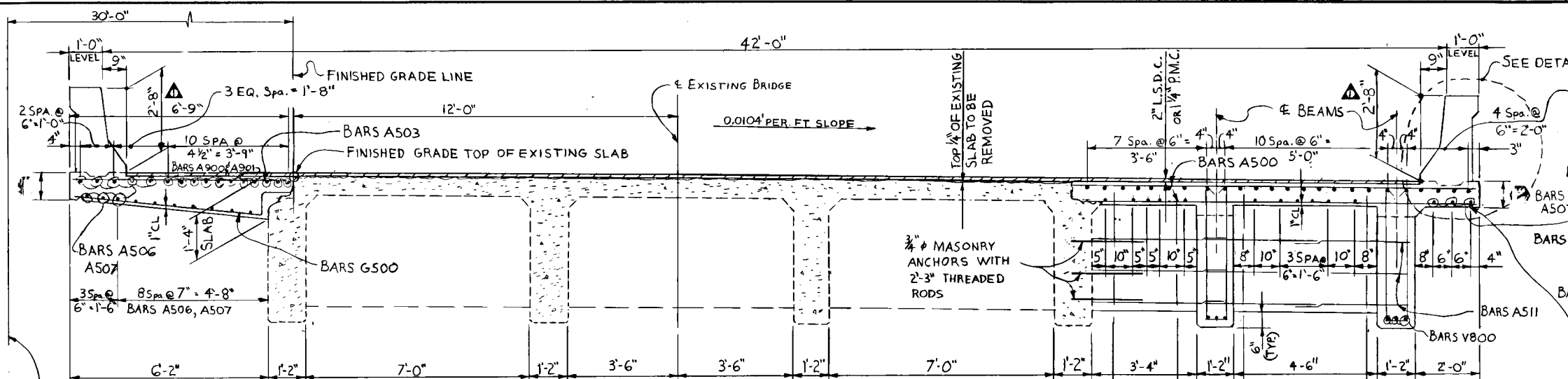
DESIGNED BY WAYMAN Bolly DATE Oct. '77
DRAWN BY KENNY Elice DATE Dec. '77
SUPERVISED BY M. J. J. Barry DATE Dec. '77
CHECKED BY T. Wilson DATE Dec. '77

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ESTIMATED QUANTITIES AND GENERAL NOTES
WIDENING INTERSTATE 75
OVER STATE ROUTE 1
STA. 1207+66.50
LOUDON COUNTY

CORRECT: H. C. LaRue
ENGINEER OF STRUCTURES
APPROVED: Lewis Evans
DIRECTOR OF HIGHWAYS

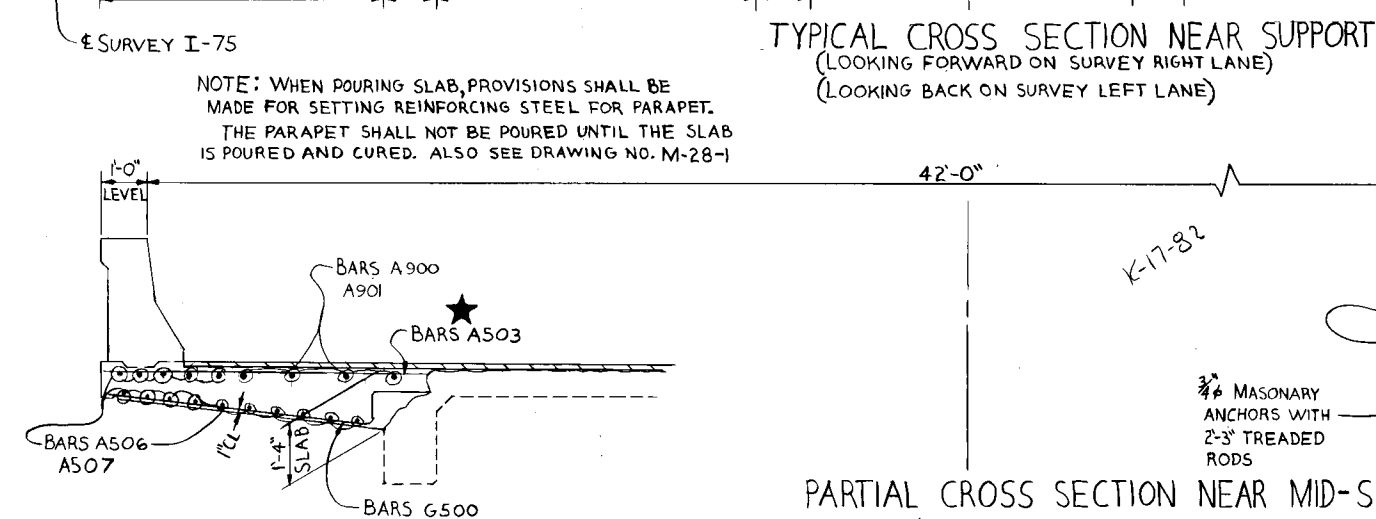
M-38-144



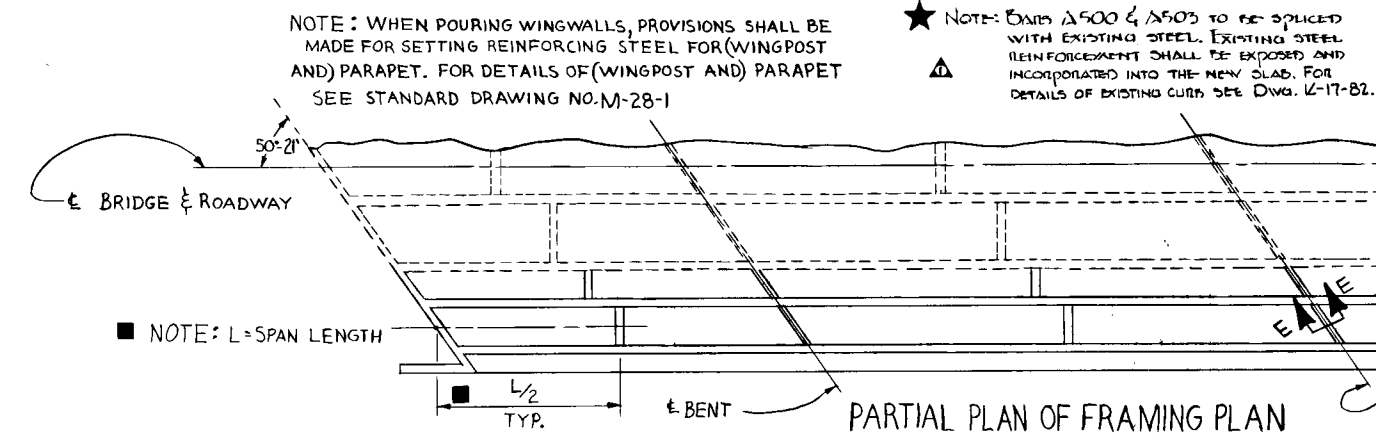
NOTE: FOR PLAN OF MAIN REINFORCEMENT, SEE DWG. NO. M-38-146

PROJECT NO.		YEAR	SHEET NO.
		1978	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	2/14/78	JVB	GUARDRAIL HEIGHT, EXISTING SLAB REINFORCING NOTE
	</		

* NOTE: FOR ADDITIONAL DETAILS OF DROP IN BOX SECTION SEE DWG. NO. M-38-149

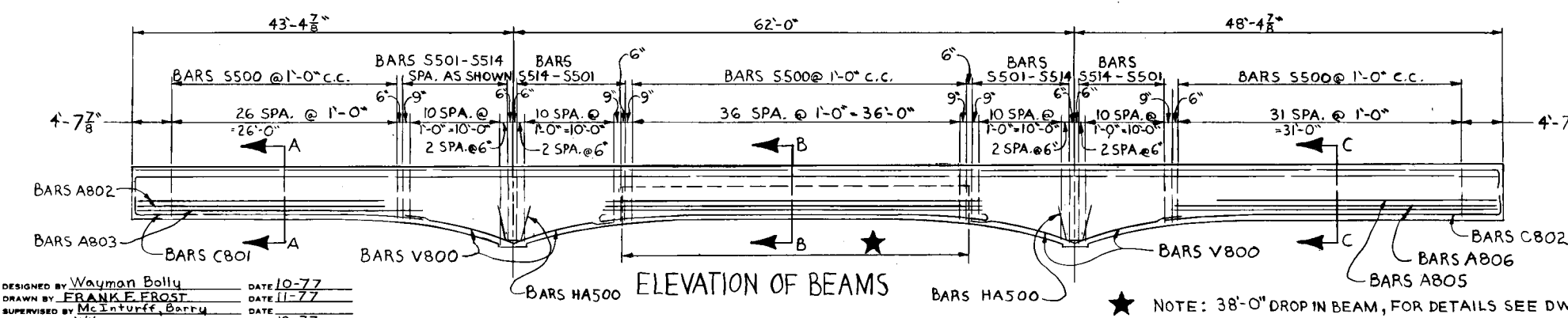


NOTE: WHEN POURING SLAB, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE SLAB IS POURED AND CURED. ALSO SEE DRAWING NO. M-28-1

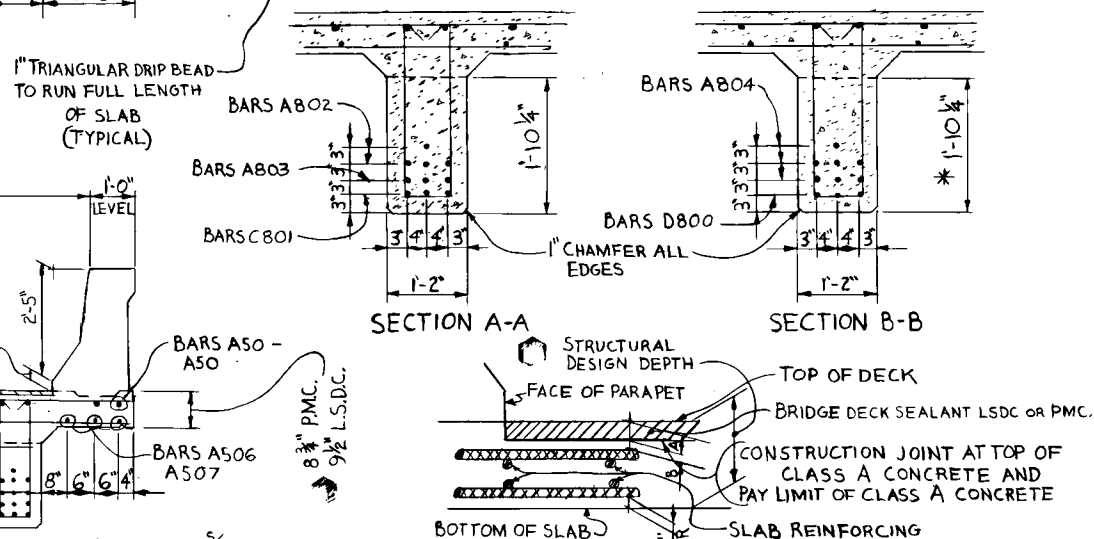


NOTE: WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR (WINGPOST AND) PARAPET. FOR DETAILS OF (WINGPOST AND) PARAPET SEE STANDARD DRAWING NO. M-28-1

NOTE: BARS A500 & A503 TO BE SPICED WITH EXISTING STEEL. EXISTING STEEL REINFORCEMENT SHALL BE EXPOSED AND INCORPORATED INTO THE NEW SLAB. FOR DETAILS OF EXISTING CURB SEE DWG. K-17-82.

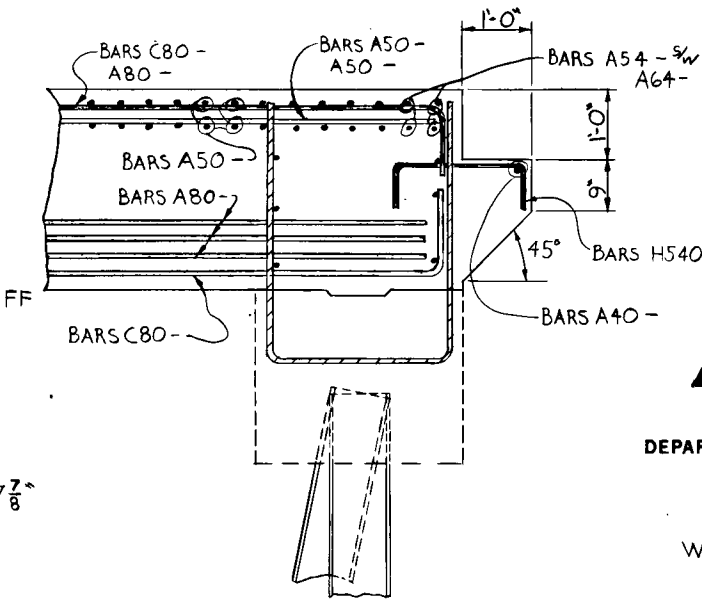


DESIGNED BY: Wayman Bolly
 DRAWN BY: FRANK E. FROST
 SUPERVISED BY: McInturff, Barry
 CHECKED BY: Wilson
 DATE: 10-77
 DATE: 11-77
 DATE: 12-77



DETAIL "A"

DIMENSION	LSDC	PMC
A	2"	1 1/4"
B	1 1/4"	1 1/4"



ITEM	CONCRETE CLASS #	REINFORCING STEEL lbs.
SUPERSTRUCTURE	▲	42,896

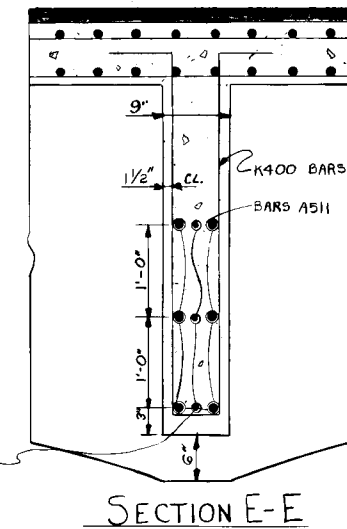
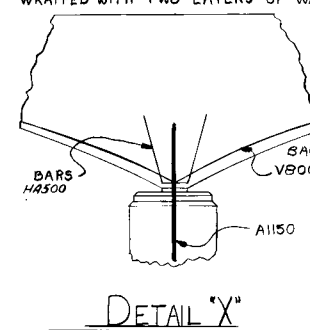
STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE
 LEFT AND RIGHT LANE
 WIDENING OF I-75 OVER S.R.1
 STA. 1207+66.50
 LOUDON COUNTY
 1978

NOTE: 38'-0" DROP IN BEAM, FOR DETAILS SEE DWG. NO. M-38-147

CORRECTED
 ENGINEER OF STRUCTURES
 APPROVED
 DIRECTOR OF HIGHWAYS

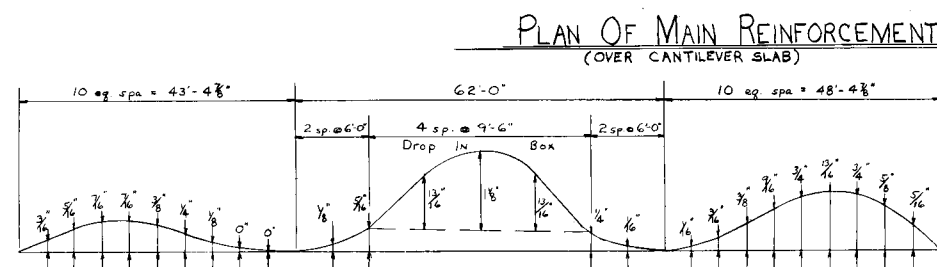
M-38-145

NOTE: TOP OF DOWELS TO BE COVERED WITH 1/2" OF COMPRESSIBLE MATERIAL AND THE 2'-0" PROJECTION WRAPPED WITH TWO LAYERS OF WATERPROOF PAPER.

[illegible]

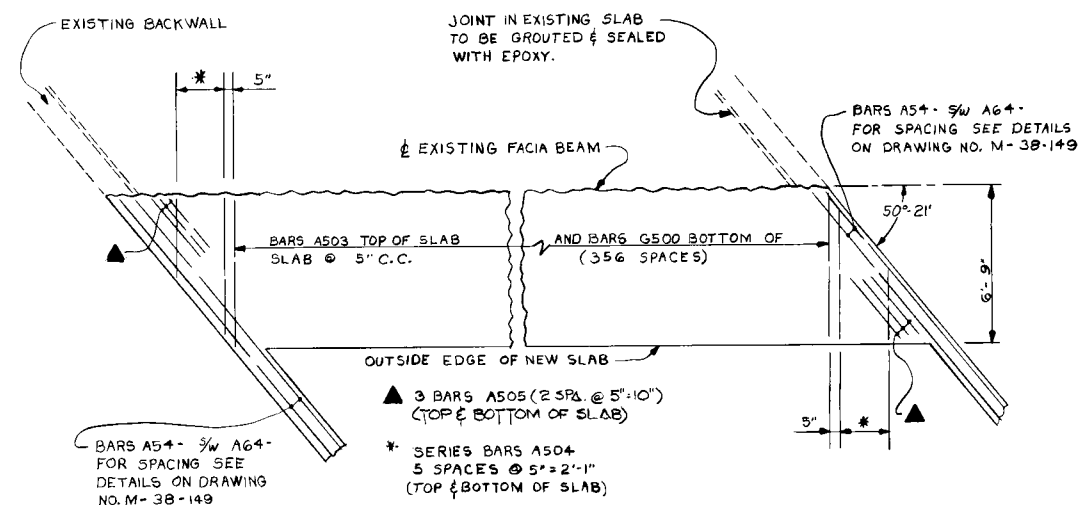
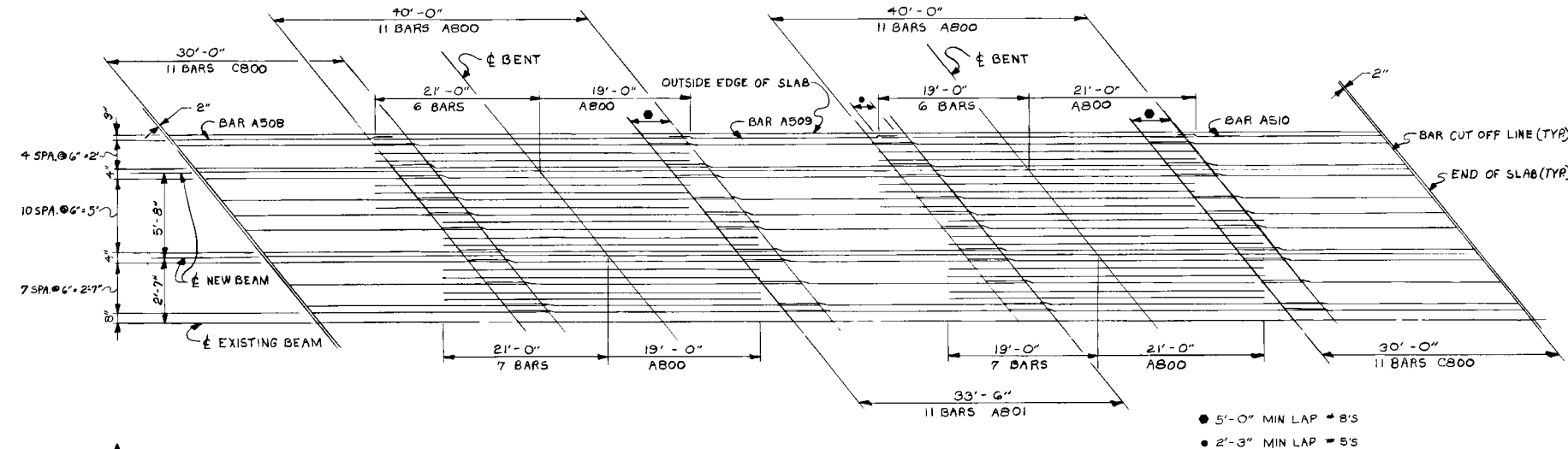
NOTE: COST OF FURNISHING & PLACING
INSERTS TO BE INCLUDED IN BRIDGE
ITEMS BID ON. (SEE PULL OUT NOTE
ON DRAWING NO. M-39-150)

NOTE: 3/4" DIA. MASONRY ANCHORS TO BE
DRILLED INTO EXISTING BEAM AS
SHOWN ON DRAWING NO. M-38-145.

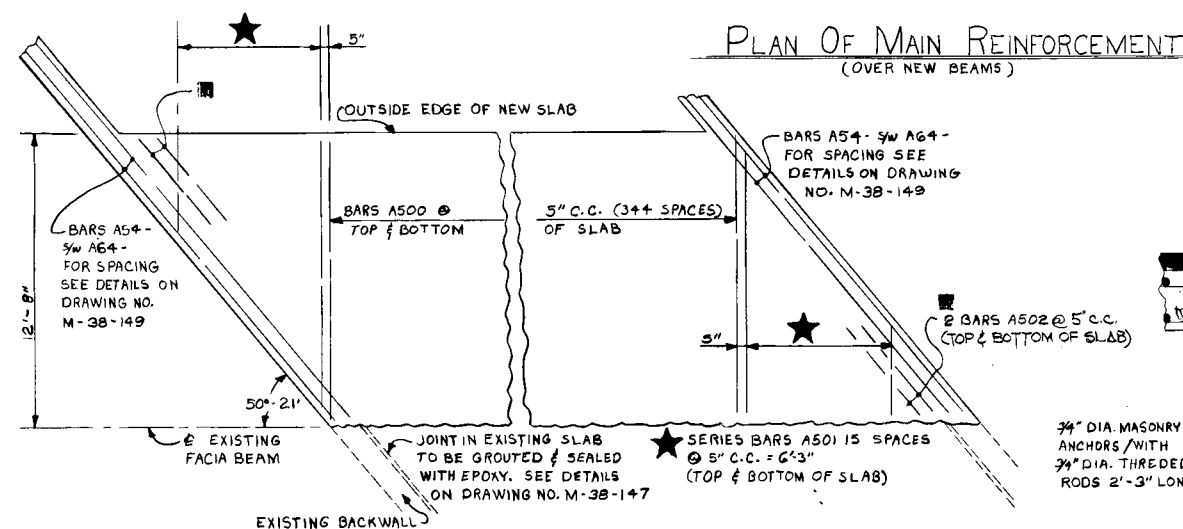


DEAD LOAD CORRECTION CURVE Δ

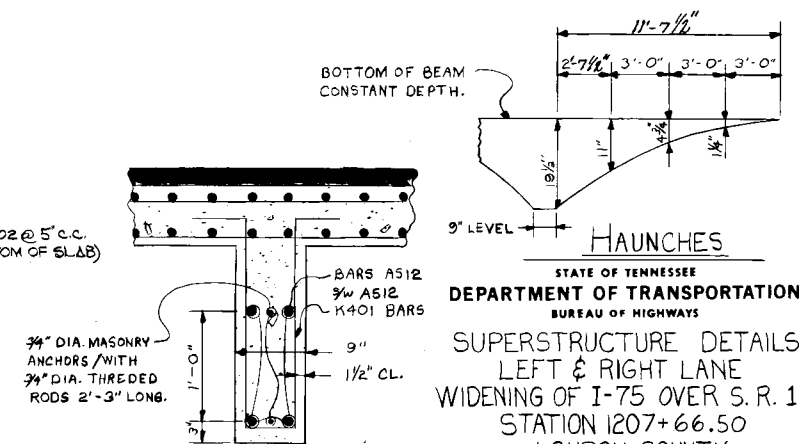
THIS CURVE IS FOR DEAD LOAD CAMBER ONLY
AND SHOULD BE INCREASED BY THE AMOUNT
OF ANTICIPATED TAKE UP IN THE FALSEWORK



SLAB PLAN SHOWING TRANSVERSE REINFORCING OVER CANTILIVER SLAB



SLAB PLAN SHOWING TRANSVERSE REINFORCING OVER NEW BEAMS



SECTION F-F

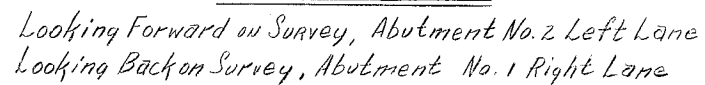
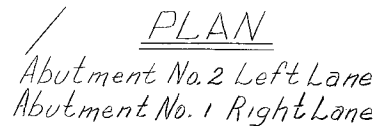
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
SUPERSTRUCTURE DETAILS
LEFT & RIGHT LANE
WIDENING OF I-75 OVER S. R. 1
STATION 1207+66.50
LOUDON COUNTY
1978

DESIGNED BY WAYMAN BOLLY DATE 10-77
 DRAWN BY DYAN CROSBY DATE 12-77
 SUPERVISED BY MSINTURF & BARRY DATE 12-77
 CHECKED BY WILSON DATE 12-77

CORRECT A. P. Duthie
ENGINEER OF STRUCTURES

APPROVED Levis Evans
DIRECTOR OF HIGHWAYS

M-38-146

[illegible]

<u>ESTIMATED QUANTITIES</u>		
ITEM	Concrete CLASS "A" C. Y.	Reinf. Steel Lbs.
ABUT. NO. 2 L. L.	16.0	2,474
ABUT. NO. 1 R. L.	16.0	2,474

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

ABUTMENT NO. 2 LEFT LANE
ABUTMENT NO. 1 RIGHT LANE
WIDENING OF I-75 OVER ST. RT. 1
STATION 1207 + 66.50
LOUDON COUNTY

1978

CORRECT L. W. Derthick
ENGINEER OF STRUCTURES

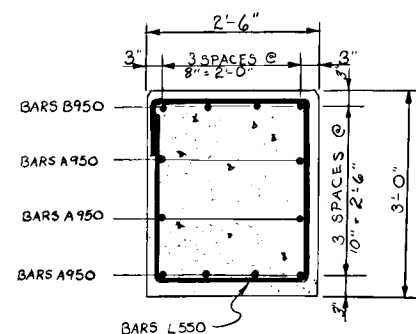
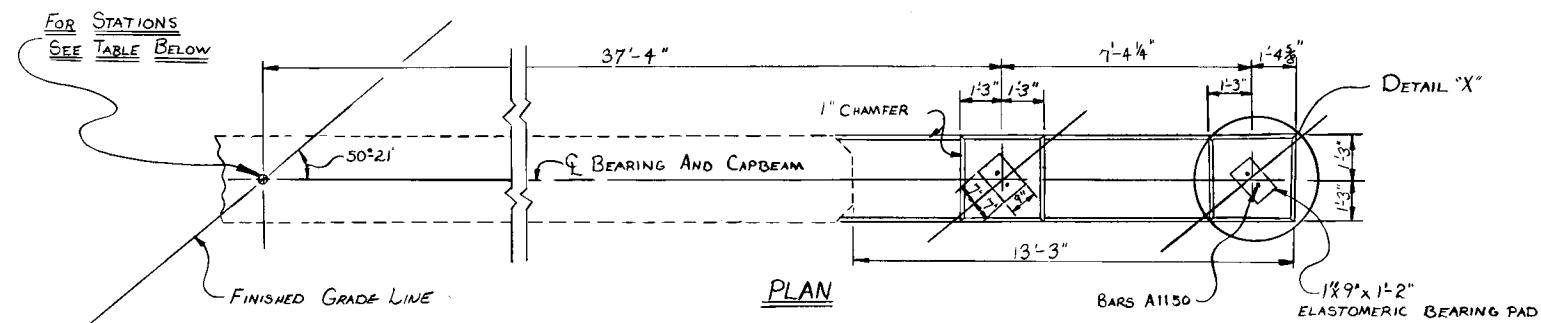
APPROVED Louis Guanel
DIRECTOR OF HIGHWAYS

M-38-148

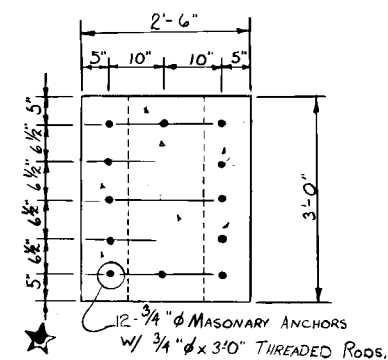
DESIGNED BY Wayman Bolly DATE 11-77
DRAWN BY Bernie Fugua DATE 12-77
SUPERVISED BY McInturff Barry DATE 12-77
CHECKED BY Graves & Bolly DATE 12-77

MICROFILMED

FOR STATIONS
SEE TABLE BELOW

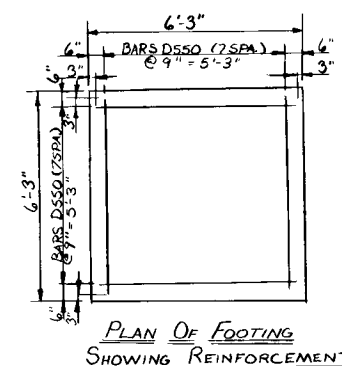


SECTION A-A

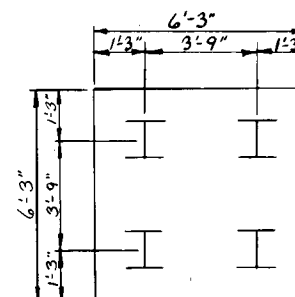


NOTE: COST OF FURNISHING AND PLACING INSERTS
TO BE INCLUDED IN BRIDGE ITEMS BID ON.

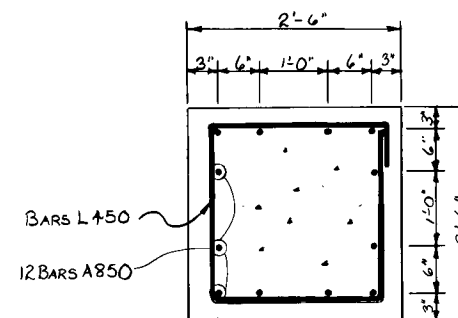
SECTION B-B



31 PLAN OF FOOTING
SHOWING REINFORCEMENT



PLAN OF FOOTING
SHOWING PILE ARRANGEMENT



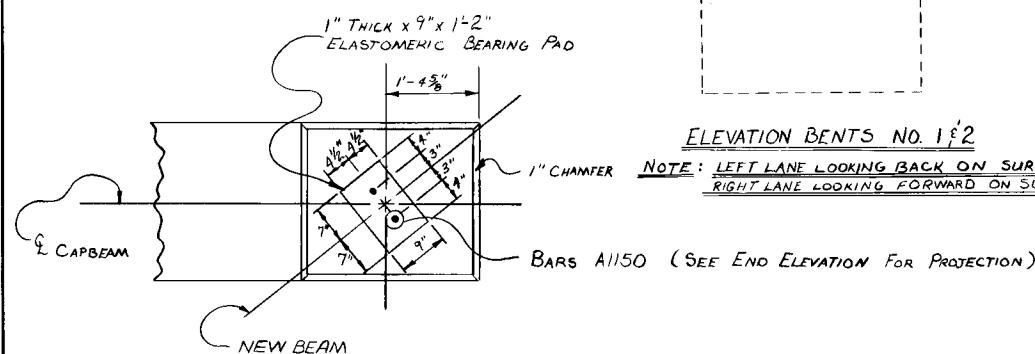
SECTION C-C

THE CONTRACTOR SHALL FURNISH ANCHOR
PULL OUT DATA FROM AN INDEPENDENT
TESTING LABORATORY AS PRESCRIBED BY
TENNESSEE HIGHWAY SPECIFICATIONS. THE
REQUIRED ULTIMATE LOAD FOR $\frac{3}{4}$ " $\emptyset$
ANCHORS IS 18,000 (LBS). SLIPPAGE
SHALL NOT EXCEED $\frac{1}{4}$ ". THE DEPARTMENT
WILL PERFORM TESTING OF ANCHORS
ON SITE TO INSURE THE SPECIFIED IN
PLACE REQUIREMENTS. INSTALLATIONS NOT
MEETING THESE REQUIREMENTS MUST BE
CORRECTED AT THE CONTRACTORS EXPENSE.

NOTE: WHEN POURING CAP BEAM, PROVISIONS SHALL BE MADE FOR SETTING BARS AT 150 PROJECTION TO BE 2'-0" FROM TOP OF RISER BLOCK.

NOTE: RISER BLOCKS TO BE POURED MONOLITHICALLY WITH CAP BEAM.

NOTE: COLUMN STEEL TO EXTEND 2'-6" INTO CAP BEAM.



DETAIL "X"

ELEVATION BENTS NO. 1 & 2

NOTE: LEFT LANE LOOKING BACK ON SURVEY
RIGHT LANE LOOKING FORWARD ON SURVEY

<u>TABLE OF STATIONS ELEVATIONS AND DIMENSIONS</u>									
		<u>ELEVATIONS</u>						<u>DIMENSION</u>	
	<u>ITEM</u>	<u>STATIONS</u>	<u>"A"</u>	<u>"B"</u>	<u>"C"</u>	<u>"D"</u>	<u>"E"</u>	<u>"F"</u>	<u>"X"</u>
<u>LEFT LANE</u>	<u>BENT NO1</u>	<u>1207+10.64</u>	<u>996.47</u>	<u>996.30</u>	<u>996.17</u>	<u>978.17</u>	<u>976.17</u>	<u>975.17</u>	<u>15'-0"</u>
	<u>BENT NO2</u>	<u>1207+72.41</u>	<u>997.23</u>	<u>997.11</u>	<u>996.97</u>	<u>977.47</u>	<u>975.47</u>	<u>974.47</u>	<u>16'-6"</u>
<u>RIGHT LANE</u>	<u>BENT NO1</u>	<u>1207+40.36</u>	<u>997.63</u>	<u>997.63</u>	<u>997.29</u>	<u>976.29</u>	<u>974.29</u>	<u>973.29</u>	<u>18'-0"</u>
	<u>BENT NO2</u>	<u>1208+22.36</u>	<u>998.26</u>	<u>998.25</u>	<u>997.93</u>	<u>975.93</u>	<u>973.93</u>	<u>972.93</u>	<u>19'-0"</u>

ESTIMATED QUANTITIES

ESTIMATED QUANTITIES			
	ITEM	CONCRETE CLASS "A" CY	REINFORCING STEEL (LBS.)
LEFT	BENT NO. 1	11.6	1784
LANE	BENT NO. 2	12.0	1845
RIGHT	BENT NO. 1	12.3	1900
LANE	BENT NO. 2	12.6	1938

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BENTS No 1 E 2
LEFT AND RIGHT LANES
WIDENING OF INTERSTATE 75
OVER STATE ROUTE 1
STATION 1207+66.50
LOUDON COUNTY
1978

DESIGNED BY WAYMAN BOLLY DATE 10-77
DRAWN BY STEVEN BROWN DATE 11-77
SUPERVISED BY MCMINTURE & BARRY DATE 11-77
CHECKED BY WILSON DATE 12-77

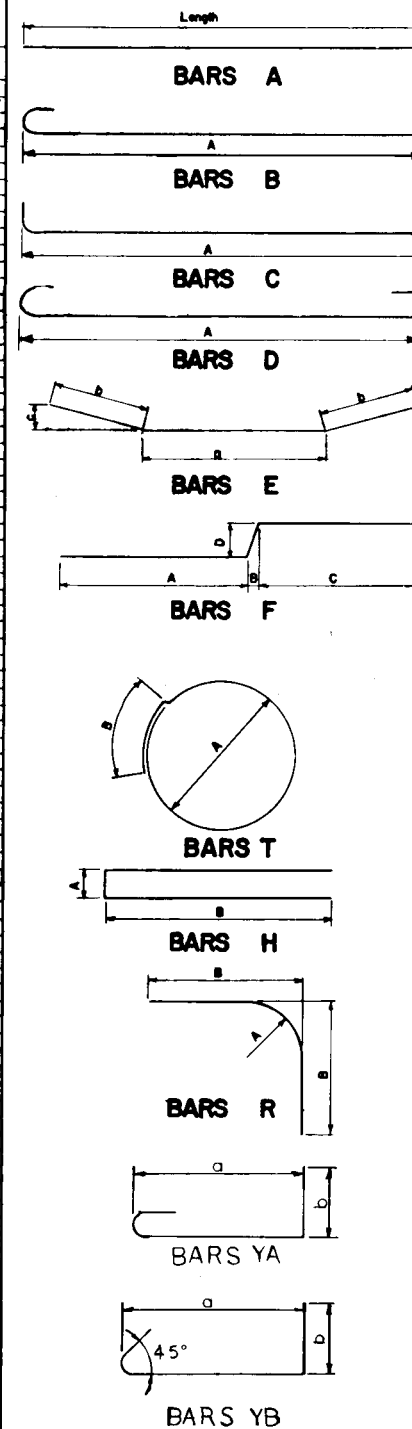
CORRECT H. Y. Dearthick
ENGINEER OF STRUCTURES

APPROVED Lewis Evans
DIRECTOR OF HIGHWAYS

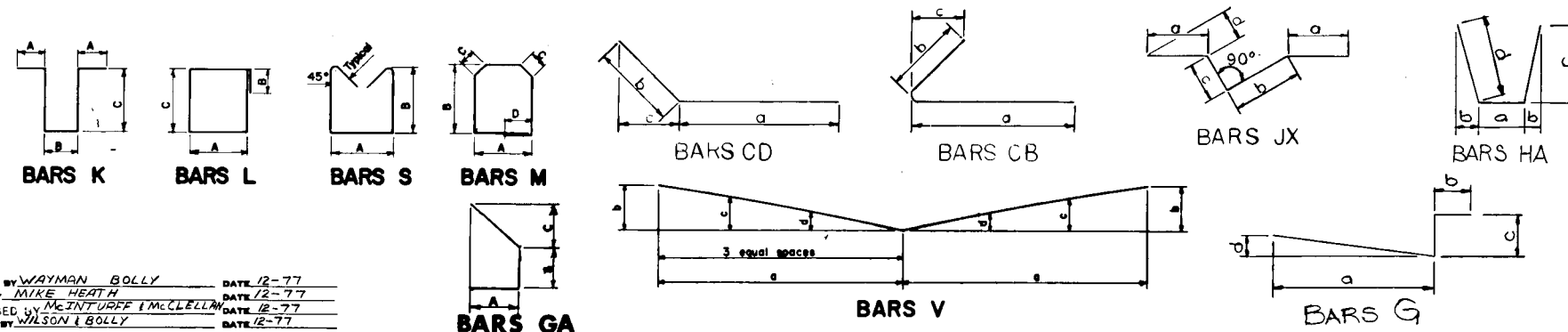
M-38-150

MICROFILMED

SUPERSTRUCTURE									ABUTMENT NO. 1 L.L.									BENTS NO. 1 & 2 L.L.															
Bar	Location	Size	No. Req'd	Bending Dimensions				Length	Bar	Location	Size	No. Req'd	Bending Dimensions				Length	Bar	Location	Size	No. Req'd	Bending Dimensions				Length							
				A	B	C	D						A	B	C	D					A	B	C	D									
A500	SLAB	5	690					12'-4"	SERIES #440	WINGWALL	# 2		VARY IN LENGTH FROM 2'-2" TO 5'-2 1/4" IN INC. OF 1 1/4" (30 BARS)				110'-4"	A850	COL. BENT 1	8	12					17'-6"							
SERIES A501	SLAB	5	4	VAR. IN LENGTH FROM 11'-10" TO 4'-4" IN INC. OF 6" (16 BARS)				12'-9"										A851	COL. BENT 2	8	12					17'-6"							
A502	SLAB	5	8					5'-0"										A850	CAPBEAM	9	16					13'-0"							
A503	SLAB	5	357					6'-6"										A1150	CAPBEAM	11	8					4'-0"							
SERIES A504	SLAB	5	4	VAR. IN LENGTH FROM 6'-0" TO 3'-6" IN INC. OF 6" (6 BARS)				28'-6"	A441	WINGWALL	# 2		VARY IN LENGTH FROM 1'4" TO 4'-11 1/2" IN INC. OF 5 1/2" (80 BARS)				26'-10"	B350	CAPBEAM	9	8		13'-0"		18'-3"								
A505	SLAB	5	12					4'-0"	A441	RDWY. BKT.	# 1						4'-0"	B350	FOOTING	8	24		6'-8"		8'-0"								
A506	SLAB	5	58					60'-0"	A441	RDWY. BKT.	# 1						13'-5"	L450	COL. BENT 1 & 2	4	32		2'-2" 1'-0" 2'-2"		9'-8"								
A507	SLAB	5	29					38'-0"	A540	ABUT. BM.	5	5					5'-7"	L550	CAPBEAM	5	22		2'-2" 1'-0" 2'-8"		10'-8"								
A508	SLAB	5	1					24'-6"	A541	ABUT. BM.	5	5					15'-5"																
A509	SLAB	5	1					28'-6"	A542	ENDWALL	5	7					15'-5"																
A510	SLAB	5	1					29'-6"	A543	ENDWALL	5	3					10'-3"																
A511	SUP. DIAPH.	5	12					15'-6"	A544	ENDWALL	5	10					5'-7"																
A512	INT. DIAPH.	5	36					4'-1"	A640	WINGWALL	6	10					34'-0"																
A800	SLAB	8	48					40'-0"	A641	WINGWALL	6	2					29'-5"																
A801	SLAB	8	11					33'-6"	A642	WINGWALL	6	2					24'-6"																
A802	BEAM	8	8					29'-3"	A643	WINGWALL	6	2					18'-9"																
A803	BEAM	8	6					33'-3"	A644	WINGWALL	6	2					15'-0"																
A804	BEAM	8	14					52'-0"	A645	WINGWALL	6	2					10'-0"																
A805	BEAM	8	6					33'-0"	A650	WINGWALL	6	2					5'-0"																
A806	BEAM	8	12					37'-6"	A651	WINGWALL	6	2					9'-10"																
A900	SLAB	9	19					40'-0"	A652	WINGWALL	6	2					7'-9"																
A901	SLAB	9	7					43'-0"	A653	WINGWALL	6	2					8'-9"																
C800	SLAB	8	22	30'-0"				31'-4"	A740	ABUT. BM.	7	7					5'-7"																
C801	BEAM	8	6	38'-3"				39'-7"	A741	ABUT. BM.	7	7					15'-5"																
C802	BEAM	8	6	43'-6"				44'-10"	H540	RDWY. BKT.	5	19	1'-8"	6"			2'-8"																
C900	SLAB	9	8	30'-0"				31'-7"	H640	BACKWALL	6	12	2'-8"	3'-11"			10'-6"																
D800	BEAM	8	6	54'-0"				55'-10"	H641	BACKWALL	6	12	8"	3'-11"			8'-6"																
G500	SLAB	5	357	5'-9"	10"	9"	7 1/2"	7'-10"	L540	ABUT. BM.	5	23	2'-8"	1'-0"	2'-2"		10'-8"																
H4500	BEAM	5	8	9"	6"	1'-11 1/2"	2'-0"	4'-9"																									
K400	SUP. DIAPH.	4	20	6"	6"	3'-6"		8'-6"																									
K401	INT. DIAPH.	4	30	6"	6"	2'-4"		6'-2"																									
I5"									ABUTMENT NO. 2 LEFT LANE																								
S00	BEAM	5	192	10 1/2"	2'-6"			6'-9"	BILL OF STEEL SAME AS ABUT.																								
S01	BEAM	5	8	10 1/2"	2'-6"			6'-9"	NO. 1, RIGHT LANE																								
S02	BEAM	5	9	10 1/2"	2'-6"			6'-10"																									
S03	BEAM	5	9	10 1/2"	2'-6"			6'-11"																									
S04	BEAM	5	9	10 1/2"	2'-6"			7'-0"																									
S05	BEAM	5	9	10 1/2"	2'-6"			7'-2"																									
S06	BEAM	5	9	10 1/2"	2'-6"			7'-5"																									
S07	BEAM	5	9	10 1/2"	2'-6"			7'-7"																									
S08	BEAM	5	9	10 1/2"	2'-6"			7'-11"																									
S09	BEAM	5	9	10 1/2"	2'-6"			8'-3"																									
S10	BEAM	5	9	10 1/2"	2'-6"			8'-7"																									
S11	BEAM	5	9	10 1/2"	2'-6"			9'-0"																									
S12	BEAM	5	9	10 1/2"	2'-6"			9'-6"																									
S13	BEAM	5	9	10 1/2"	2'-6"			9'-9"																									
S14	BEAM	5	9	10 1/2"	2'-6"			10'-0"																									
Y800	BEAM	8	12	10'-0"	1'-7 1/2"	1'-5 1/2"	10 1/2"	20'-6"																									



SUPERSTRUCTURE										ABUTMENT NO. 1 R. L.										BENTS NO. 1 & 2 R. L.									
Bar	Location	Size	No. Reqd.	Bending Dimensions				Length	Bar	Location	Size	No. Reqd.	Bending Dimensions				Length	Bar	Location	Size	No. Reqd.	Bending Dimensions				Length			
				A	B	C	D						A	B	C	D					A	B	C	D					
BILL OF STEEL SAME AS LEFT LANE									SERIES	WINGWALL	4	2	VARY IN LENGTH FROM 2'-2" TO 5'-2 1/4" IN INC. OF 1 1/4" (30 BARS)				110'-4"	A882	COL. BENT 1	8	12					20'-6"			
									A442									A853	COL. BENT 2	8	12					21'-6"			
																		A950	CAPBEAM	9	16					13'-0"			
																		A1150	CAPBEAM	11	8					4'-0"			
									SERIES	WINGWALL	4	2	VARY IN LENGTH FROM 1'-9" TO 4'-1 1/8" IN INC. OF 5 3/8" (6 BARS)				26'-10"	B950	CAPBEAM	9	8	3'-0"				14'-3"			
									A443									C850	FOOTING	8	24	4'-8"				8'-0"			
									A444	RDWY. BKT.	4	1					11'-8"	D550	FOOTING	5	32	5'-9"				6'-11"			
									A445	RDWY. BKT.	4	1					5'-2"	L450	COL. BENT 1 & 2	4	37	2'-2" 1'-0" 2'-2"				9'-8"			
									A542	ABUT. BM.	5	5					7'-8"	L550	CAPBEAM	5	22	2'-2" 1'-0" 2'-8"				10'-8"			
									A543	ABUT. BM.	5	5					13'-3"												
									A544	ENDWALL	5	7					13'-2"												
									A545	ENDWALL	5	3					10'-2"												
									A546	ENDWALL	5	10					7'-8"												
									A655	WINGWALL	6	10					34'-0"												
									A656	WINGWALL	6	2					20'-5"												
									A657	WINGWALL	6	2					24'-0"												
									A658	WINGWALL	6	2					19'-0"												
									A659	WINGWALL	6	2					15'-0"												
									A660	WINGWALL	6	2					10'-0"												
									A661	WINGWALL	6	2					5'-0"												
									A662	WINGWALL	6	8					9'-10"												
									A663	WINGWALL	6	2					9'-0"												
									A664	WINGWALL	6	2					8'-0"												
									A665	WINGWALL	6	2					6'-9"												
									A666	WINGWALL	6	2					5'-9"												
									A667	WINGWALL	6	2					4'-6"												
									A668	WINGWALL	6	2					3'-4"												
									A742	ABUT. BM.	7	7					7'-8"												
									A743	ABUT. BM.	7	7					13'-3"												
									H540	RDWY. BKT.	5	18	1'-8" 6"				2'-8"												
									H640	BACKWALL	6	10	2'-8" 3'-11"				10'-6"												
									H641	BACKWALL	6	14	8" 3'-11"				8'-6"												
									L540	ABUT. BM.	5	23	2'-8" 1'-0" 2'-2"				10'-8"												
ABUTMENT NO.2 RIGHT LANE																													
BILL OF STEEL SAME AS																													
ABUTMENT NO.1, LEFT LANE																													



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.

[illegible]

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

BILL OF STEEL

WIDENING OF
INTERSTATE 75 OVER STATE ROUTE 1
STATION 1207+66.50
LOUDON COUNTY
1978

CORRECT H. U. S. S. S.
ENGINEER OF STRUCTURES

APPROVED _____

Fleming Evans
DIRECTOR OF HIGHWAYS

M-38-151

FOR STRUCTURES WITH DECK JOINTS, THE PARAPET OPENING SHALL
EQUAL THE DECK OPENING. (SEE DETAIL "B" BELOW) FOR DETAILS
OF WINGPOST SEE BRIDGE DRAWINGS.

PLAN
Showing details
with Rail Removed

RUBBER OR P.V.C. WATERSTOP REQUIRED FOR BRIDGES WITH NO CURBS. (SET $1\frac{1}{2}$ " INTO SLAB) FOR DETAILS OF WATERSTOP, SEE DETAIL "A" BELOW.

▲ Cast aluminum posts conforming to the dimensions shown above for fabricated aluminum may be considered subject to the approval of the Engineer.

Technical drawing of a mechanical part showing a top view and a side view.

Top View: A rectangle with two circular holes. The distance from the left edge to the center of the first hole is $1\frac{3}{4}"$. The distance between the centers of the two holes is $3"$. The distance from the center of the second hole to the right edge is $1\frac{3}{4}"$. The total width of the rectangle is $6\frac{1}{2}"$.

Side View: A curved profile. The radius is 50 . The angle between the tangent at the center and the radius is 30° . The height of the profile is $1"$. The text "Radius conforms to o.d. of Rail" is written next to the side view.

Hand-drawn detail of a 6 inch wide anchor plate. The plate is 6 inches wide and 5 inches high. It is secured by two 1/4 inch diameter anchor bolts, each with a 7 inch spacing between them. The bolts are secured with nuts and washers. The plate is labeled "6 inch wide Anchor R".

Hand-drawn cross-section diagram of a composite wall assembly. The wall consists of a central core of HP600 #12 reinforcement bars, surrounded by a layer of HP400 #12 reinforcement bars, and an outer layer of concrete. The total thickness is 1'-5". The core has a width of 12" and a height of 6". The HP400 #12 bars are spaced at 12" and have a 1" clear space from the core. The HP600 #12 bars are spaced at 12" and have a 2" clear space from the HP400 #12 bars. The diagram is labeled with dimensions and material specifications.

[illegible]

2 These Bars shall be full length of parapet except that an
bar will pass through open joints.

CORRECT Fred Grace

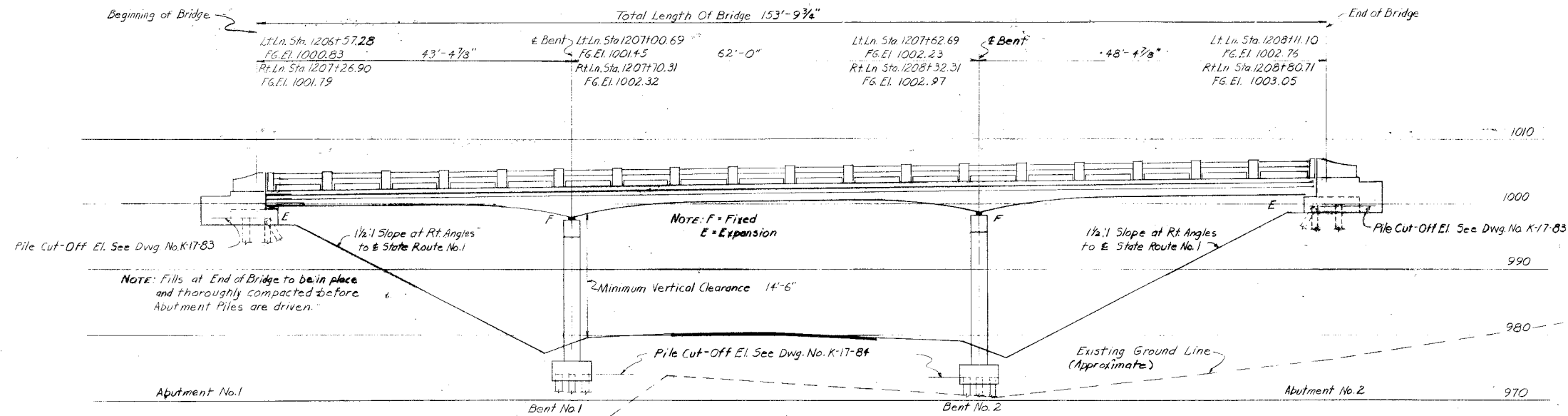
△ DETAIL 'A'
For parapet openings where bitum. fiber
expansion joint in deck is used.

FASTENER DETAIL
Each Post Connection requires
2-9/16" reduced weld-base studs
with hex nuts and washers.

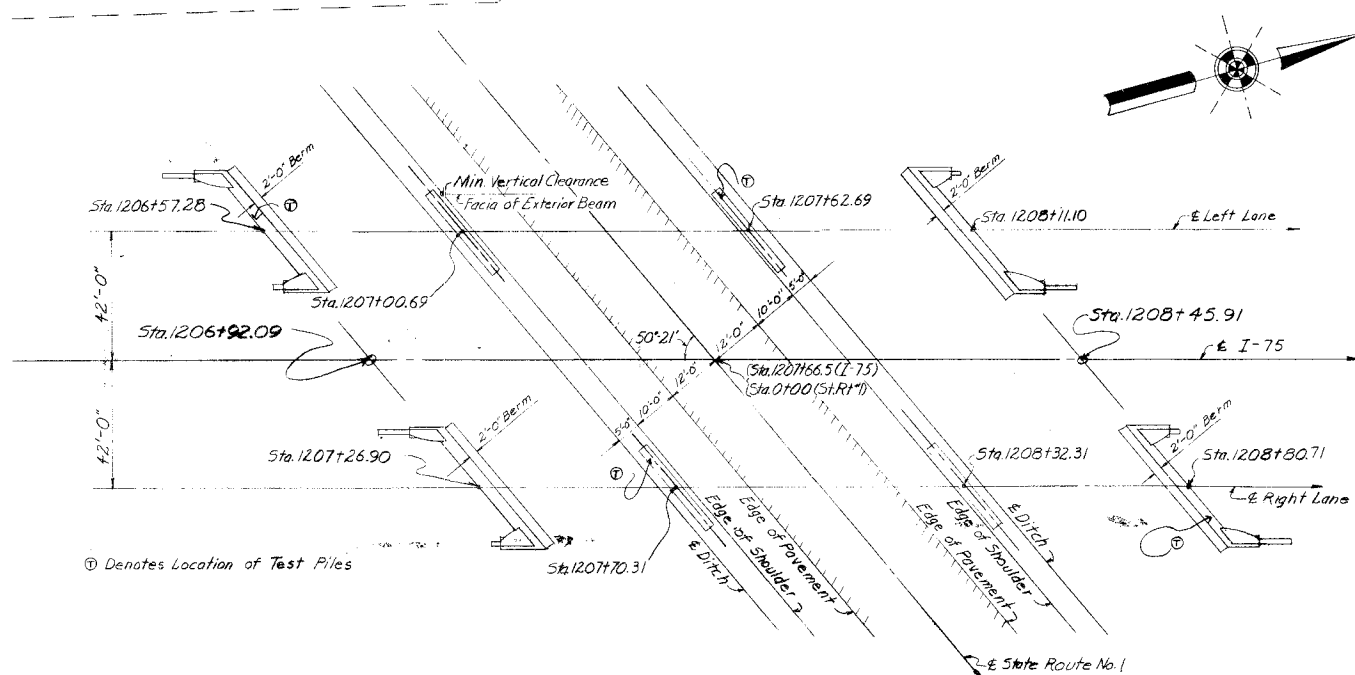
Detail as shown for deck-mounted parapet and similar for structures with curbs. See also Superstructure drawings.

3 or 4 Copies

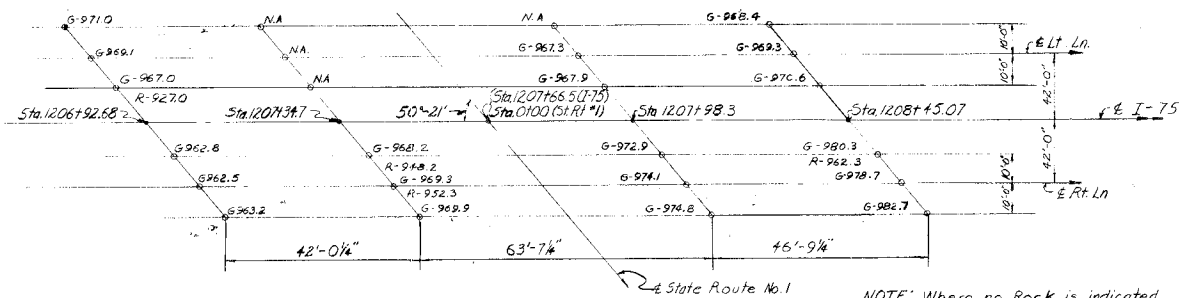
N-38-154



ELEVATION AT RIGHT ANGLES TO INTERSTATE 75



PLAN



ROCK SOUNDING SKETCH

G = Ground
R = Rock
NA = Not Accessible

NOTE: Where no Rock is indicated Soundings 40'± in depth indicated no contact.

GENERAL NOTES

SPECIFICATIONS: Standard Road and Bridge Specifications of the Tennessee Department of Highways

PRECAST-PRESTRESSED CONCRETE PILES: See Special Provisions

LOADING: H20-S16-44 and Alternate Military

CONCRETE: To be Class A

REINFORCING STEEL: To be intermediate or hard grade. Standard Hook Details as recommended by C.R.S.I. shall apply.

PILE 5: To be Precast Concrete for Abutments and Bents.

SELF LUBRICATING PLATES: See Special Provisions

JOINT SEALER: See Special Provisions Class A or B

SPECIAL NOTE - TEST PILES

Before any piles are ordered a Precast Concrete Test Pile 40' long shall be driven in its final location in abutments and the footing of the bents designated on the Plan this sheet. From the results obtained Precast Concrete Piles shall be ordered of such length as to provide a Minimum Bearing of 30 Tons for Bents and Abutments.

BEARING DEVICE NOTE

Use Standard Expansion Bearing Devices, Type E2 as shown on Dwg. No. K-17-83, STD. DWG. G-10-42. Use Standard Fixed Bearing Devices, Type F2 as shown on Standard Dwg. G-10-42. Required 16 Expansion Devices and 16 Fixed Devices.

HANDRAIL NOTE

Build Handrail according to Standard Dwg. H-5-110. Except use End Post as shown on Dwg. No. K-17-83. Dimensions: X=0, Q=151'-0", L=18 spaces @ 6'-9 3/4" @

LIST OF DRAWINGS

HANDRAIL: See note this sheet

SUPERSTRUCTURE

ABUTMENTS NO. 1 and 2

BENTS NO. 1 and 2

BILL OF STEEL

BEARING DEVICES: See note this sheet

PILE SPlice DETAIL

DWG. NO.

H-5-110

K-17-82

K-17-83

K-17-84

K-17-85

K-17-85 AND G-10-42

NOTE: DRIVE PILES THROUGH POOR MATERIAL & INTO NATURAL GROUND.

SKETCH SHOWING GRADES

NOTE: Elevations are based on Finished Grade.

State Route No. 1

Interstate 75

1600' VC

11.872%

3.00%

Sta. 1205+20 P.C. EL. 998.54

Sta. 1213+60 P.L. EL. 1014.26

Sta. 1222+00 P.T. EL. 989.06

Sta. 1206+57.28

Sta. 1207+00.69

Sta. 1207+26.90

Sta. 1207+70.31

Sta. 1207+80.71

Sta. 1208+11.10

Sta. 1208+32.31

Sta. 1208+45.91

Sta. 1208+80.71

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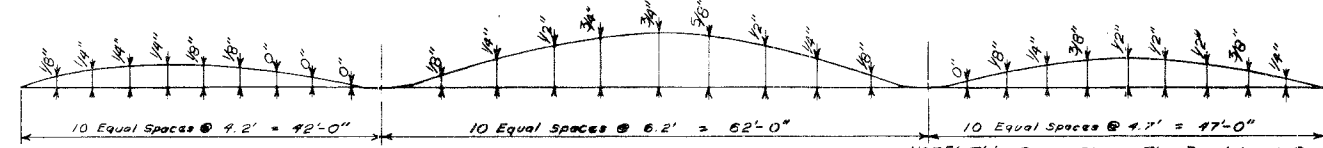
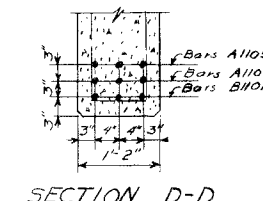
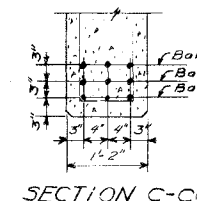
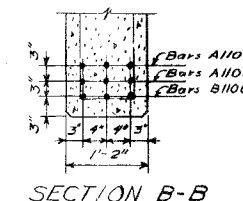
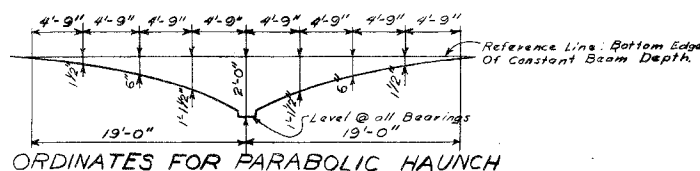
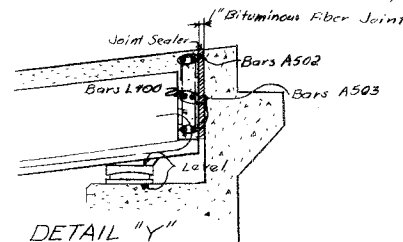
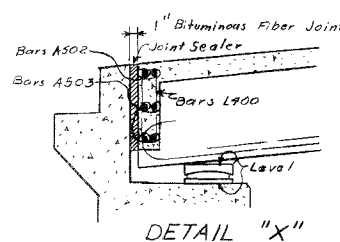
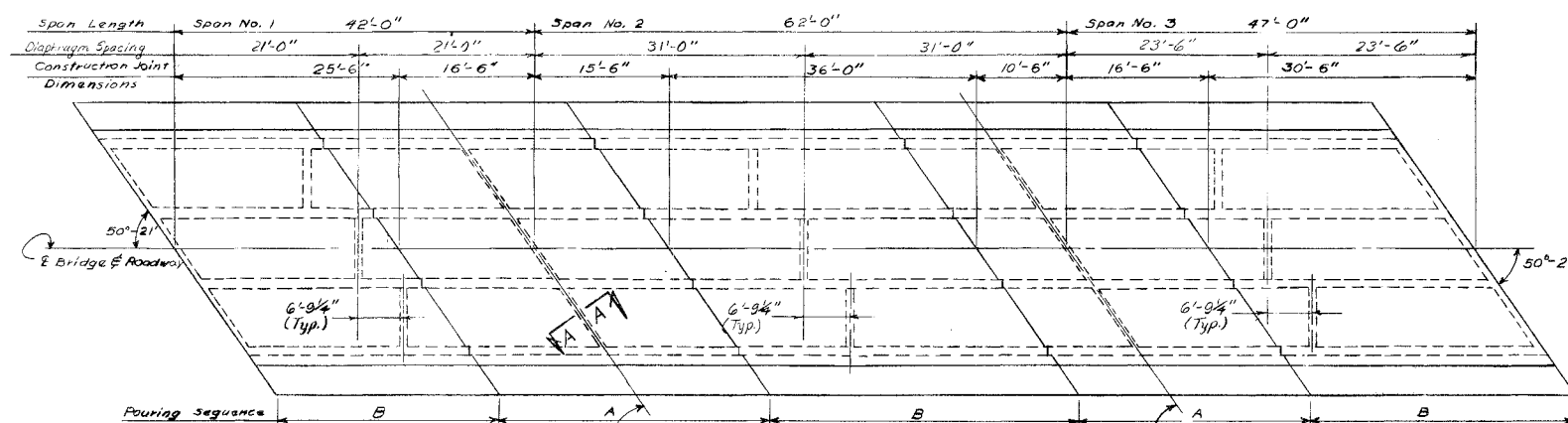
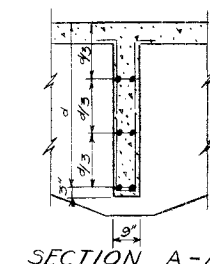
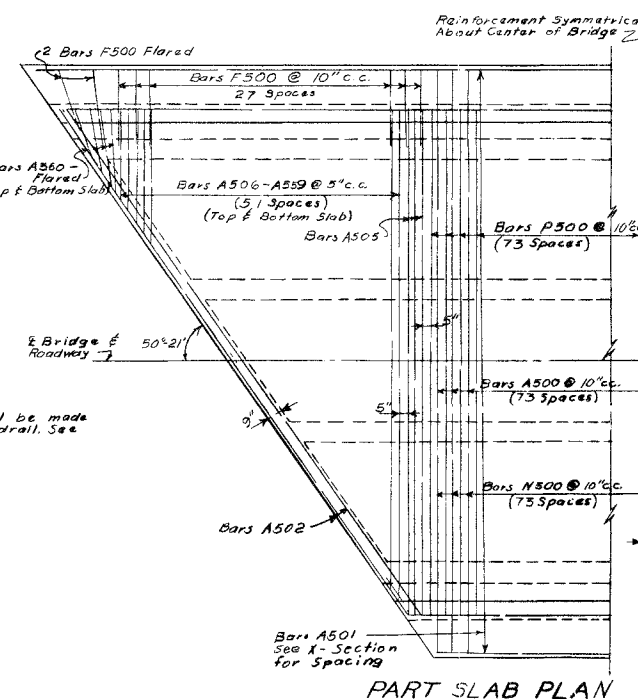
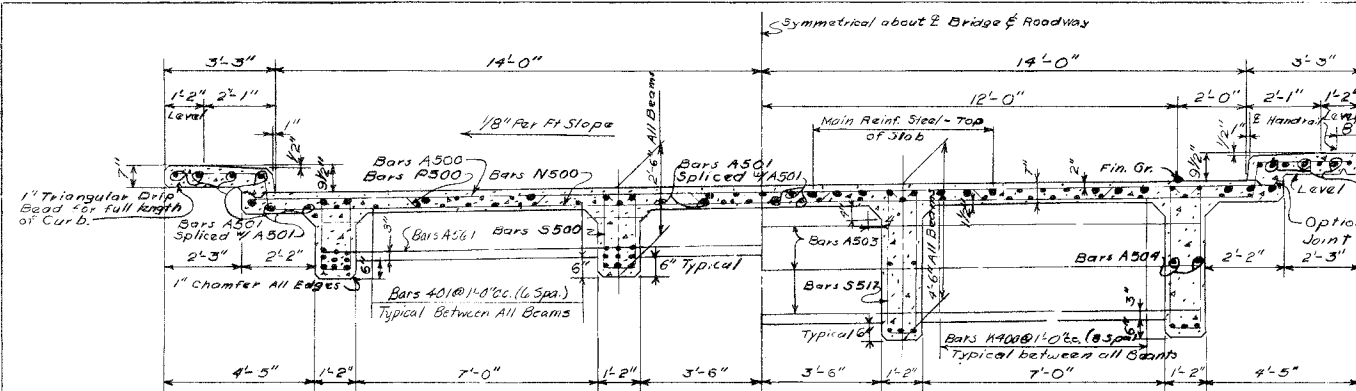
Sta. 1208+32.31

Sta. 1208+45.91

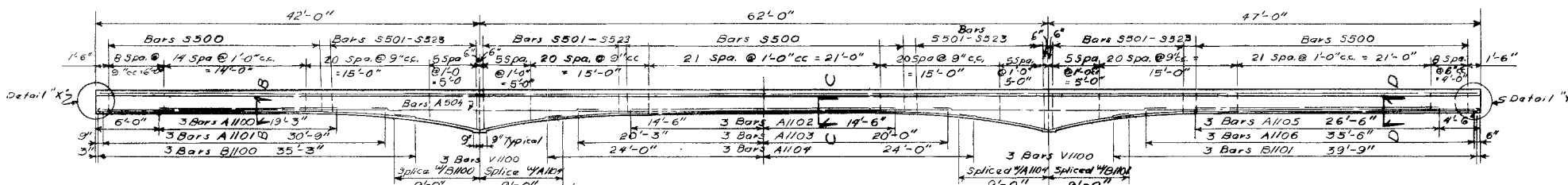
Sta. 1208

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19	29	131

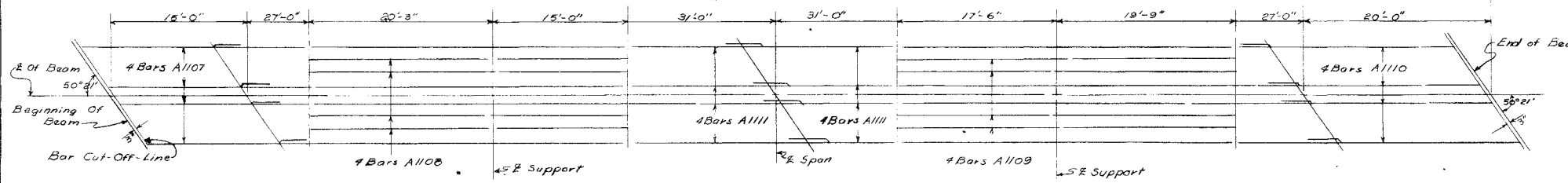
I-75-2(4)83



NOTE: This Curve Shows The Dead Load Camber Only And Should Be Increased By The Amount Of Anticipated Take Up In The Falsework.



CONSTRUCTION JOINT FOR BEAMS



ESTIMATED QUANTITIES	
Concrete Class X	191.6
Reinforcing Steel	76,134

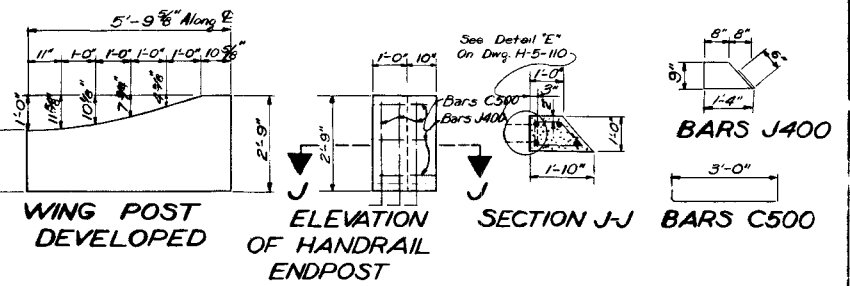
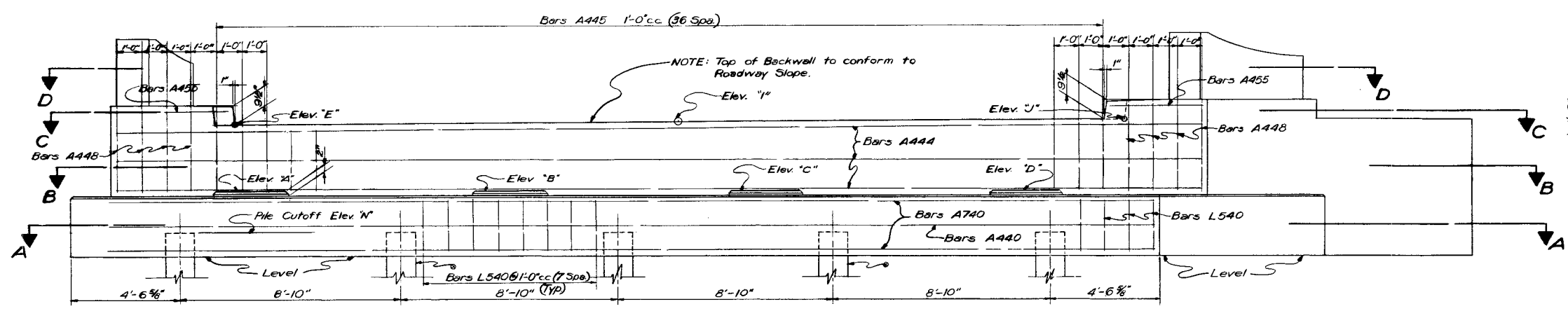
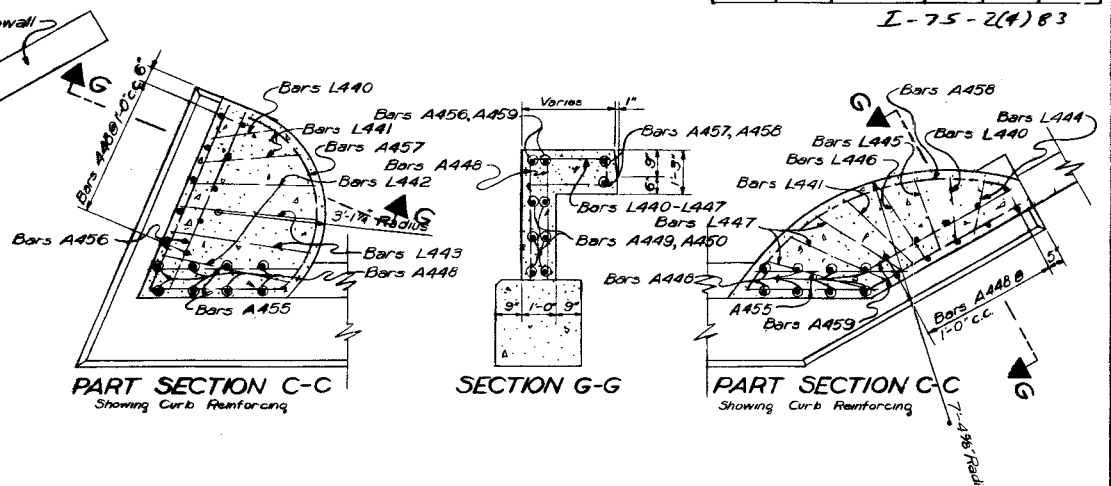
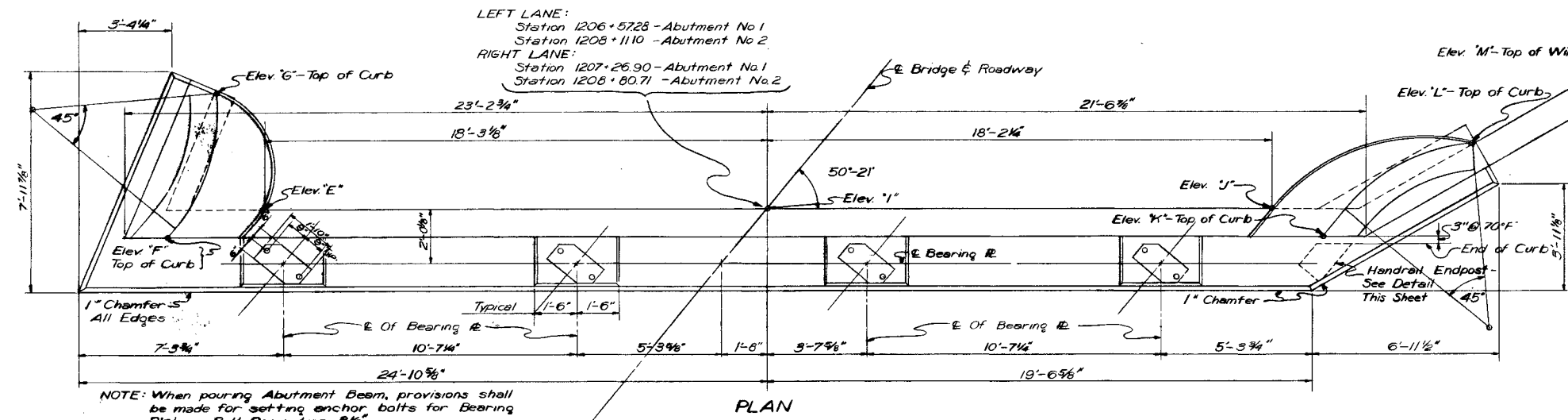
STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE
SUPERSTRUCTURE DETAILS
LEFT AND RIGHT LANES
INTERSTATE 75 OVER STATE ROUTE 1
STATION 1206+92.09
LOUDON COUNTY
1962

DESIGNED BY J. Goff
DRAWN BY J. D. Woodley
CHECKED BY J. G. & P. D. Q.

DATE 4-5-62
DATE
DATE

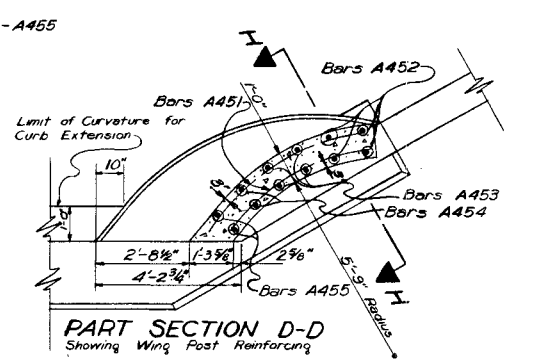
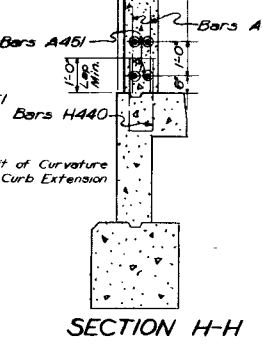
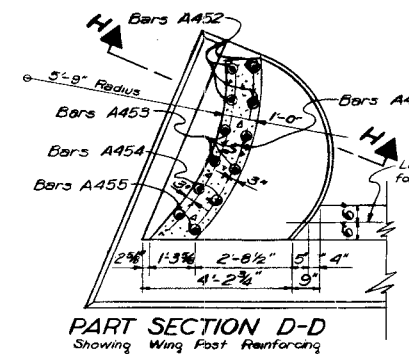
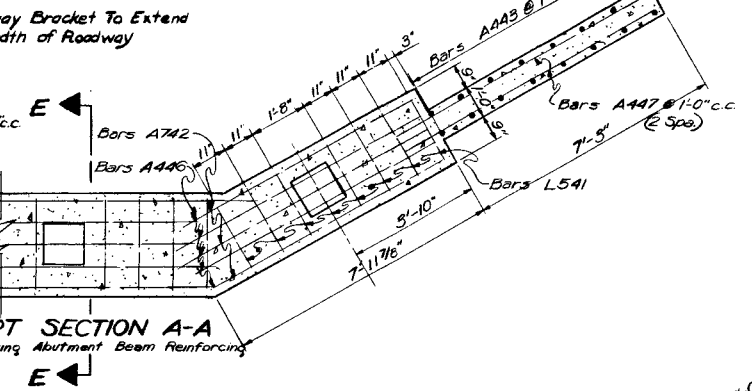
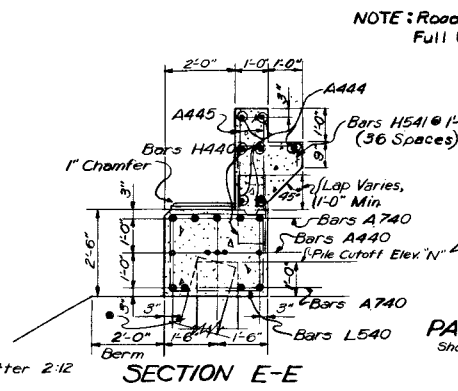
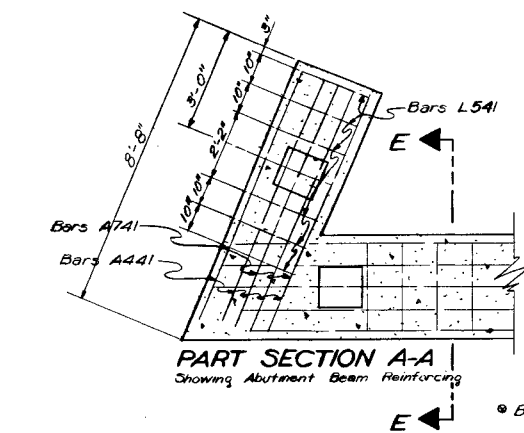
CORRECT
APPROVED
K-17-62

I-75-2(4)83



END POST - LIST OF MATERIALS - EACH

BAR	SIZE	NO.	LENGTH	QUANTITIES	
				Concrete - Cubic yds	Steel - Lbs.
C500	5	4	3'-4"	.14	22
J400	4	3	4'-3"		



ESTIMATED QUANTITIES

ITEM	CONCRETE CLASS #1 CU. YDS.	REINFORCING STEEL LBS.
LEFT LANE ABUTMENT NO. 1	26.0	2704
LEFT LANE ABUTMENT NO. 2	28.1	2704
RIGHT LANE ABUTMENT NO. 1	27.1	2704
RIGHT LANE ABUTMENT NO. 2	27.1	2704

TABLE OF ELEVATIONS

LEFT LANE		RIGHT LANE	
Abutment No. 1	Abutment No. 2	Abutment No. 1	Abutment No. 2
998.09	999.46	998.76	1000.38
997.90	999.61	998.76	1000.35
997.72	999.77	998.76	1000.32
997.53	999.92	998.76	1000.29
1001.02	1002.58	1001.67	1003.53
1001.86	1003.15	1002.49	1004.10
1001.78	1003.19	1002.43	1004.15
1000.71	1002.64	1001.66	1003.28
1000.39	1002.90	1001.66	1003.23
1001.11	1003.72	1002.41	1004.05
1001.08	1003.76	1002.37	1004.08
1000.28	1002.97	1001.57	1003.29
995.66	997.79	997.09	998.62

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE
ABUTMENTS NO. 1 & 2
LEFT & RIGHT LANES
INTERSTATE 75 OVER STATE ROUTE 1
STATION 1206+92.09
LOUDON COUNTY
1962

DESIGNED BY: J. GANT
DRAWN BY: J. GRIFFITH
CHECKED BY: J.G. & P.D.Q.

CORRECT: Fred Green
APPROVED: [Signature]
STATE HIGHWAY DEPT.