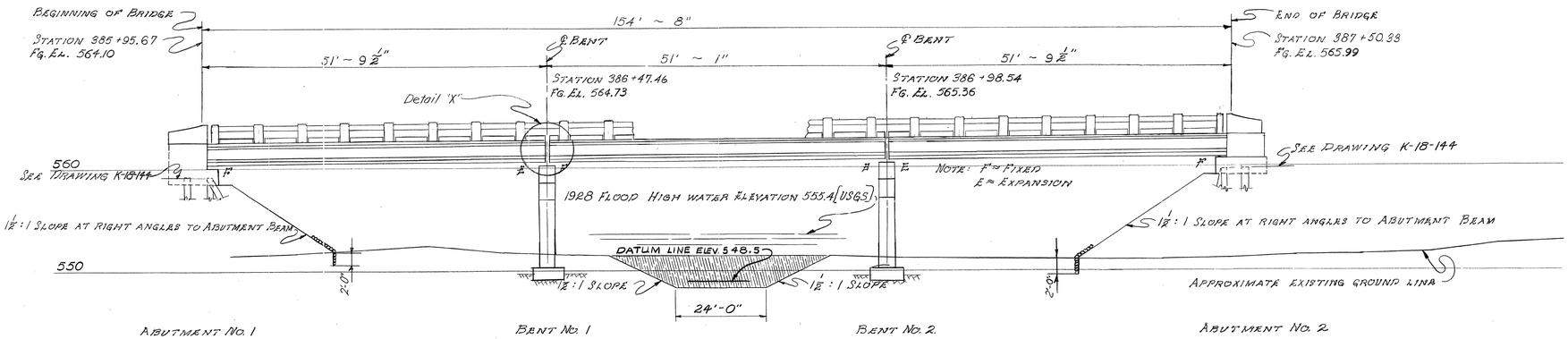
FED. ROAD DIST. NO.	STATE	FED. AND PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19	48	259

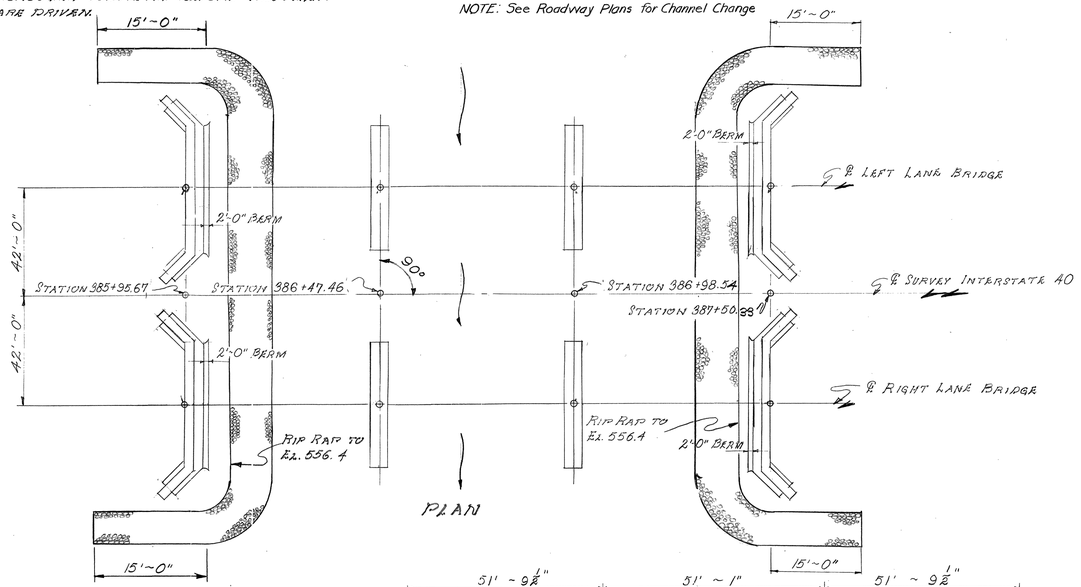
I-40-5(14)221

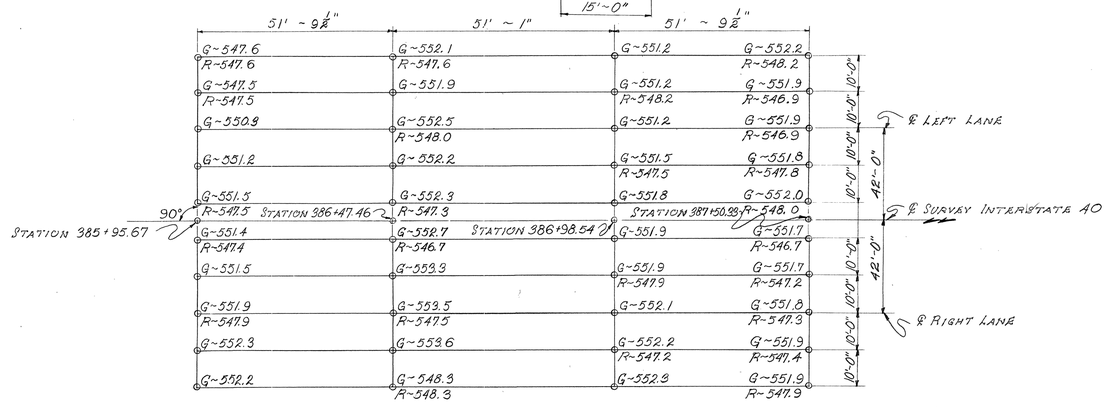


NOTE: FILLS AT END OF BRIDGE TO BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ABUTMENT PILES ARE DRIVEN.

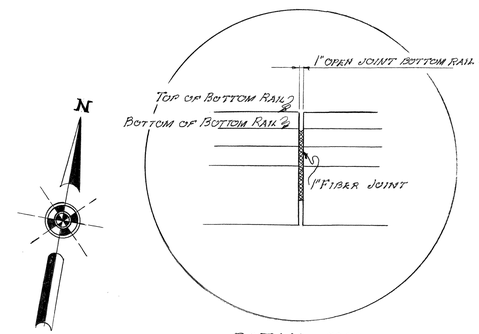
ELEVATION AT RIGHT ANGLES TO INTERSTATE 40

NOTE: See Roadway Plans for Channel Change





SOUNDING SKETCH
G = GROUND ELEVATION
R = ROCK ELEVATION



INTERSTATE ~ 40
SKETCH SHOWING GRADE
NOTE: ELEVATIONS BASED ON FINISHED GRADE.

DETAIL "X"
TYPICAL

GENERAL NOTES

SPECIFICATIONS: STANDARD ROAD & BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF HIGHWAYS.
LOADING: H20 ~ S16 ~ 44 AND ALTERNATE MILITARY LOAD.
CONCRETE: TO BE CLASS "A" (CAST IN PLACE)
REINFORCING STEEL: TO BE INTERMEDIATE OR HARR GRADE.
STANDARD HOOK DETAILS AS RECOMENDED BY C.R.S.I SHALL APPLY.
NEOPRENE BEARING PAD: SEE SPECIAL PROVISIONS.
JOINT SEALER: SEE SPECIAL PROVISIONS. CLASS "A".
DESIGN SPECIFICATIONS: AASHO ~ 1961

FOUNDATION NOTE

WHEN FOUNDATIONS FOR BENTS HAVE BEEN UNCOVERED, HOLES 6FT. DEEP SHALL BE DRILLED INTO THE ROCK AT POINTS DESIGNATED BY THE ENGINEER. NO COLUMN STEEL SHALL BE ORDERED UNTIL FINAL ELEVATION FOR BENT FOOTINGS HAVE BEEN DETERMINED.

HANDRAIL NOTE

BUILD HANDRAIL ACCORDING TO STANDARD DRAWING H~5~110 EXCEPT USE END POST AS SHOWN ON DWG. K-18-144. DIMENSIONS X = 1" Q = 152'-6"; L = 6'~11 ⅜" (~) @ 18 SPACES

PILE NOTE

ALL PILES SHALL BE DRIVEN TO ROCK OR MINIMUM BEARING OF 36 TONS FOR ABUTMENTS.

DESIGN DATA ACCORDING TO USGS REPORT

DRAINAGE AREA: 3.57 SQ. MI.
DISCHARGE: 4,440 C.F.S.
MEAN VELOCITY: 8.5 F.P.S.
WATERWAY PROVIDED: 521 SQ. FT.

LIST OF DRAWINGS

	DWG NO.
HANDRAIL: SEE NOTE THIS SHEET	H~5~110
SUPERSTRUCTURE	K-18-143
ABUTMENTS NO. 1~2	K-18-144
BENTS NO. 1, AND 2	K-18-145
BILL OF STEEL	K-18-146
PRESTRESSED BEAM DETAIL	K-18-142
PILE SPLICE DETAIL	G-10-42

ESTIMATED QUANTITIES

	ITEM	EXCAVATION CU. YD. DRY	EXCAVATION CU. YD. ROCK	CONCRETE CLASS "A" CU. YDS.	STEEL ~ LBS. REINFORCING	PRESTRESSED I BEAMS MONO TYPE III	CONCRETE HANDRAIL LIN. FT.	10" B.P. 42# STEEL PILES LIN. FT.	RIP RAP CU. YDS.	EXCAVATION WET CU. YD.
LEFT LANE	SUPERSTRUCTURE			146.9	43055	12				
	ABUTMENT No. 1			15.8	1850					
	BENT No. 1	21	7	18.4	6641					
	BENT No. 2	19	7	18.8	6721					
	ABUTMENT No. 2			16.0	1850					
	TOTAL	40	14	215.9	60117	12	303	169	32	
RIGHT LANE	SUPERSTRUCTURE			146.9	43055	12				
	ABUTMENT No. 1			16.0	1850					
	BENT No. 1	21	7	18.4	6641					
	BENT No. 2	19	7	18.8	6721					
	ABUTMENT No. 2			15.8	1850					
	TOTAL	40	14	215.9	60117	12	303	169	32	
	SUM TOTAL	80	28	431.8	120234	24	606	338	64	10

NOTE: COST OF 50 ~ 3" ϕ X 9" TRANSITE DRAINS TO BE INCLUDED IN UNIT PRICE BID FOR CLASS "A" CONCRETE.
* LENGTH OF ALL BEAMS 51'~0".

2-28'-0" ROADWAYS WITH SAFETY CURBS

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

LAYOUT OF TWIN BRIDGES INTERSTATE 40 OVER WILSON CREEK

STATION 385+95.67
WILSON COUNTY
1962

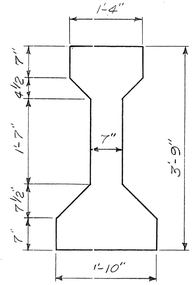
DESIGNED BY C. HUNTER DATE 5-3-62
DRAWN BY JAMA R. WOODARD DATE 5-10-62
TRACED BY DATE
CHECKED BY CEH, PDQ DATE 5-16-62

CORRECT Fred Crowe
BRIDGE ENGINEER
APPROVED Lee D Lang
STATE HIGHWAY ENGINEER

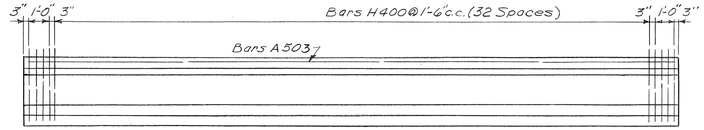
K-18-141

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		15	64	259

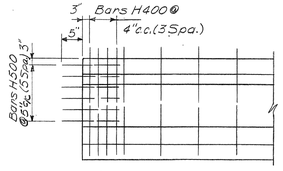
I-40-5(11#) 721



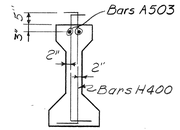
AASHO TYPE III BEAM



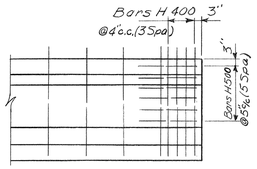
TYPICAL ELEVATION OF BEAM SHOWING REINFORCEMENT



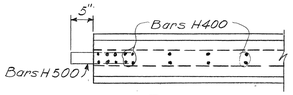
ELEVATION



WEB REINFORCEMENT

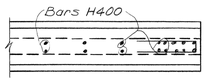


ELEVATION



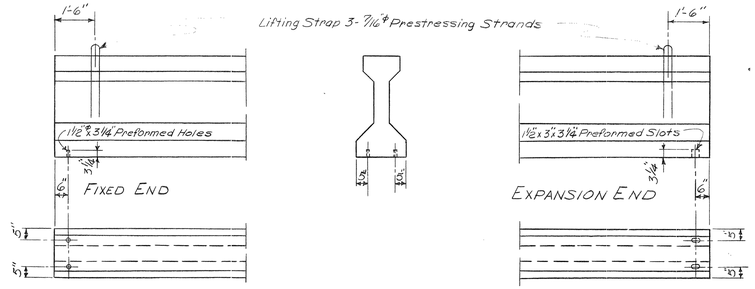
PLAN

END REINFORCEMENT
Typical at Abutments

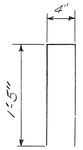


PLAN

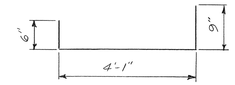
END REINFORCEMENT
Typical at Bents



DETAILS AT FIXED & EXPANSION ENDS OF BEAM

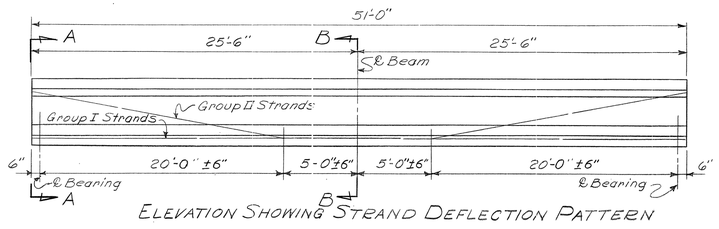


BARS H500

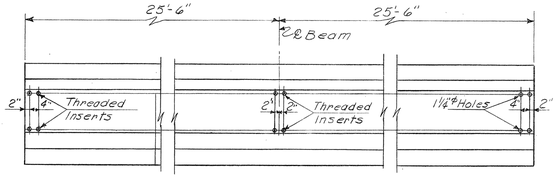


BARS H400

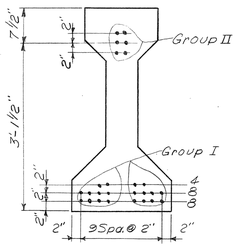
BARS A503



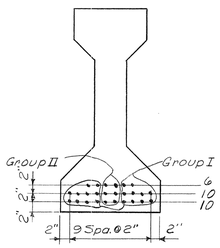
ELEVATION SHOWING STRAND DEFLECTION PATTERN



PART LONGITUDINAL ELEVATION OF BEAM



SECTION A-A
26 Strands



SECTION B-B
26 Strands

BILL OF STEEL
Each Beam

Bar	Size	No.	Length
A503	5	2	50'-6"
H400	4	82	5'-4"
H500	5	12	3'-2"

ESTIMATED QUANTITIES
Each Beam

Concrete Class "A" Cu. Yds.	Reinforcing Steel Lbs.	Prestressing Steel - Lbs
7.3	438	495

GENERAL NOTES

1. All Prestressing Strands to be 7/16" ϕ 7 Wire Uncoated Stress-Relieved Prestressed Strands.
2. An Initial Force of 18,900 Shall be Applied to Each Strand in all Beams.
3. Top of Beam to be Rough Floated. At Approximately the Time of Initial Set, the Top of the Beam Shall be Scrubbed Transversely with a Coarse Wire Brush to Remove all Laitance and to Produce a Rough Surface.
4. All Beams are AASHO-PCI- Standard Type III.
5. Inserts for Diaphragms to be Richmond Type DT1 & DT-S or Equal, 5/8 Inserts 1/2 Threaded Rods, to Provide a 2'-0" Splice With Bars A501, to be Furnished by Fabricator.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

PRESTRESSED BEAM DETAILS
LEFT AND RIGHT LANES
INTERSTATE 40 OVER WILSON CREEK
STATION 385+95.67
WILSON COUNTY
1962

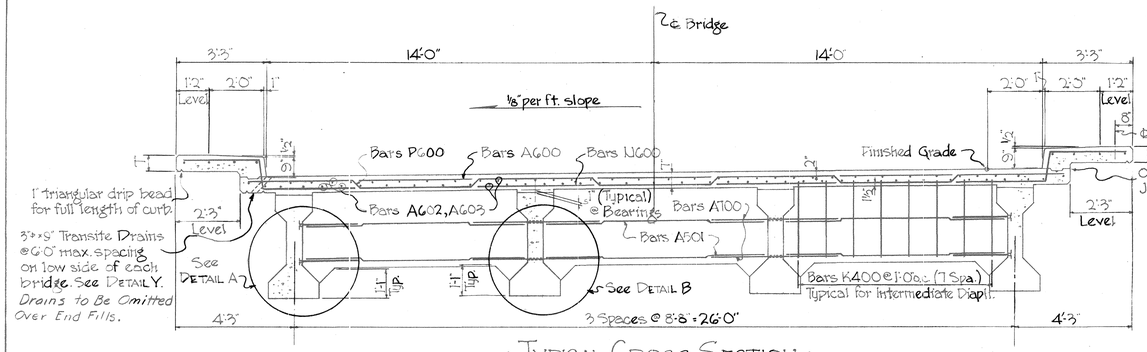
DESIGNED BY C.E. Hunter DATE 5-3-62
DRAWN BY J. Byrd DATE 5-9-62
TRACED BY DATE
CHECKED BY CEH, RDQ DATE 5-17-62

CORRECT Fred Greene
BRIDGE ENGINEER
APPROVED
STATE HIGHWAY ENGINEER

K-18-142

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19	65	259

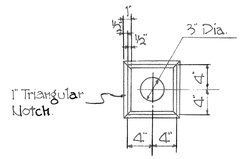
I-40-5(14)221



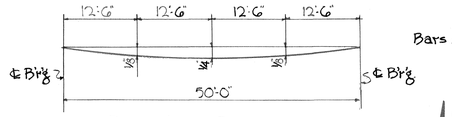
• TYPICAL CROSS SECTION •

Left Lane looking forward on survey.
Right Lane looking back on survey.

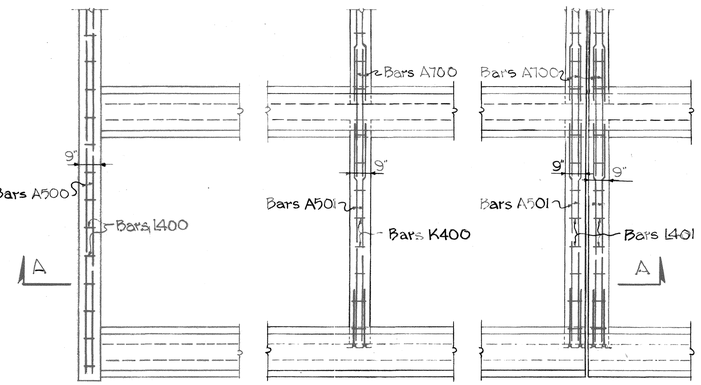
*NOTE: When pouring curbs, provisions shall be made for setting steel for Concrete Handrail. See dwg. no. H-5-110.



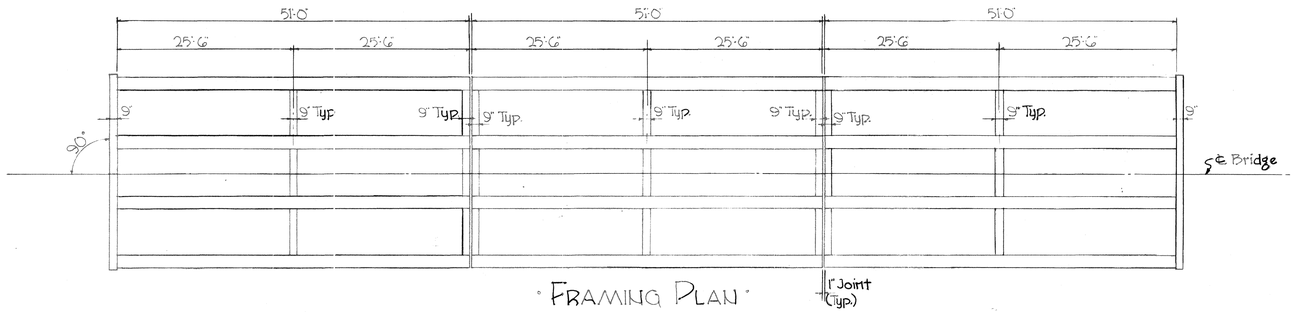
DETAIL "Y"



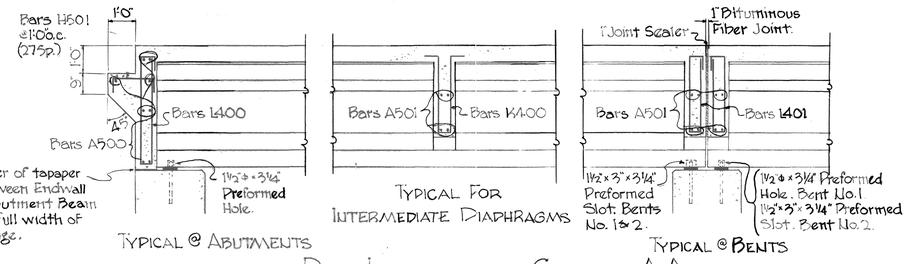
DEAD LOAD DEFLECTION DUE TO SLAB



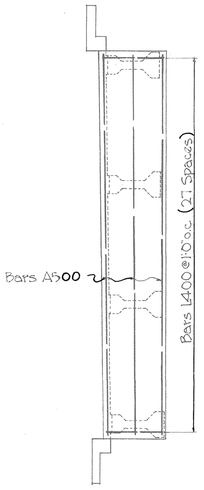
• PLAN OF ENDWALL & DIAPHRAGMS •



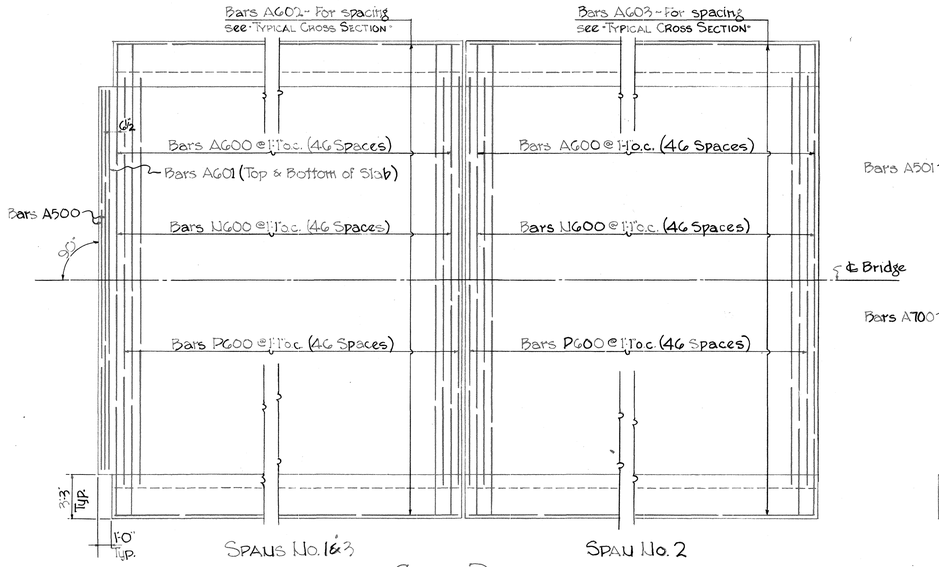
• FRAMING PLAN •



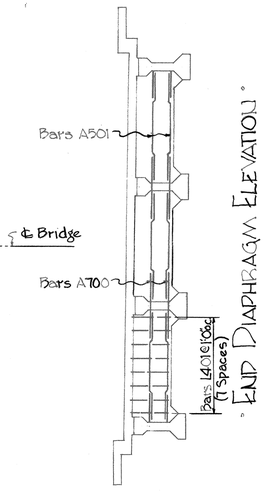
• PART LONGITUDINAL SECTION A-A •



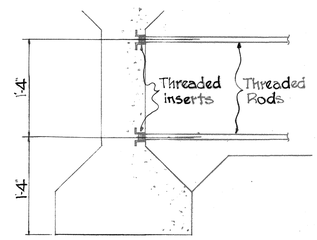
• ENDWALL ELEVATION •



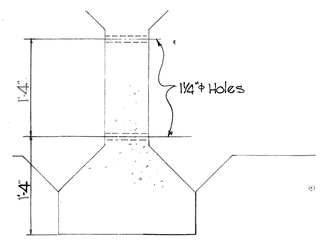
• SLAB PLAN •



• END DIAPHRAGM ELEVATION •



DETAIL A



DETAIL B

• ESTIMATED QUANTITIES •

* Concrete Class "A"	146.9	Cu. Yds.
Reinforcing Steel	43055	Lbs.

* Poured-in-Place

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

SUPERSTRUCTURE DETAILS

LEFT & RIGHT LANES
INTERSTATE 40 OVER WILSON CREEK
STATION 385+95.67
WILSON COUNTY
1962

DESIGNED BY C.E. Hunter — DATE 5-3-62
DRAWN BY J.S. — DATE May 9, 1962
TRACED BY — DATE
CHECKED BY C.E. Hunter, P.E. — DATE 5-17-62

CORRECT Fred Green, BRIDGE ENGINEER
APPROVED W.A. Long, STATE HIGHWAY ENGINEER

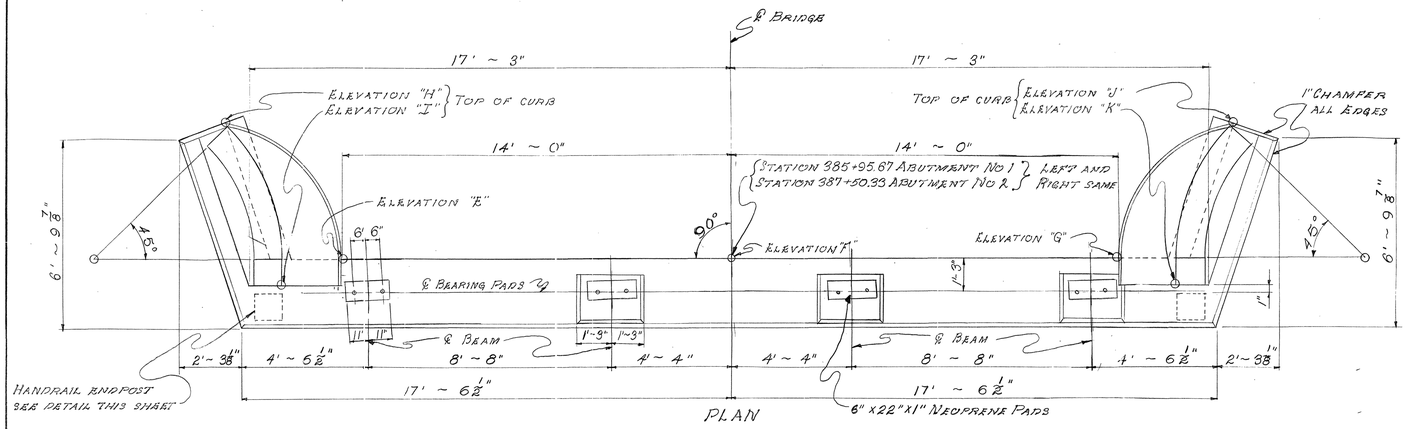
K-18-143

Revised 7-18-62 CH. by J.R.M.
REV. 6-6-62

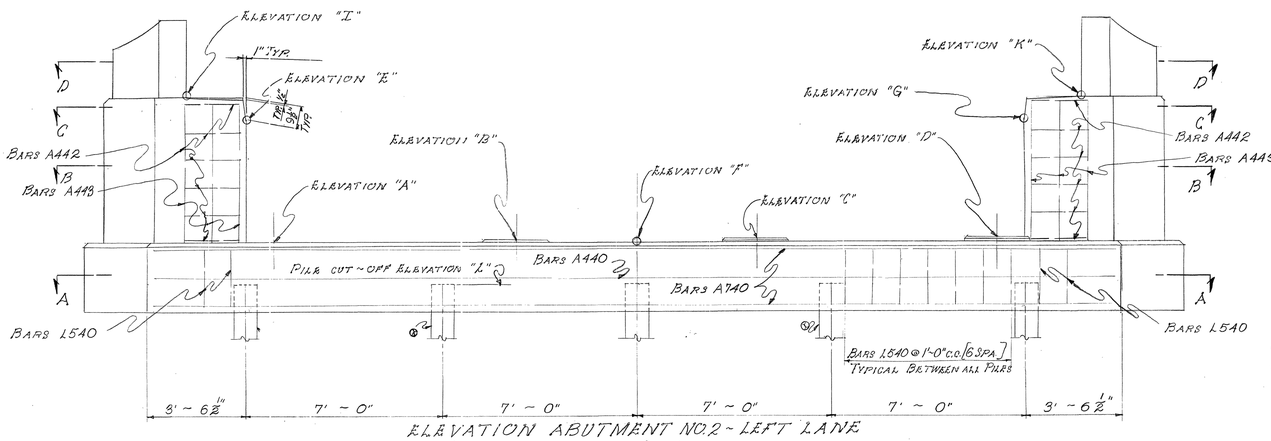
NOTE: WHEN POURING ABUTMENTS PROVISIONS SHALL BE MADE FOR SETTING DOWEL BARS FOR PRESTRESSED BEAMS. DOWEL PROJECTION 3 3/4".

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19	66	259

I-40-5(14)221



PLAN

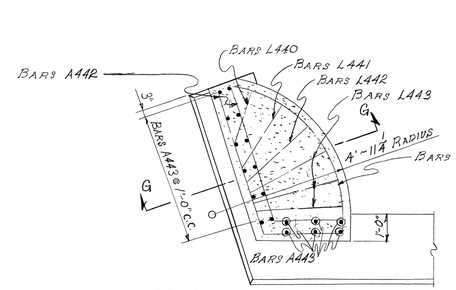


ELEVATION ABUTMENT NO.2 ~ LEFT LANE

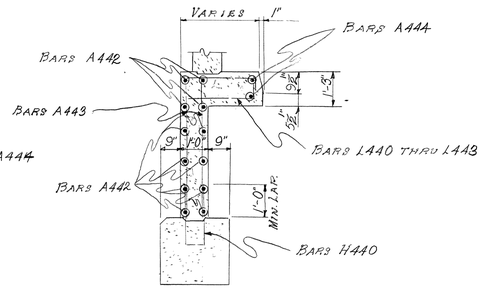
LOOKING FORWARD ON SURVEY.

NOTE: SAME FOR ABUTMENT NO. 1 ~ RIGHT LANE LOOKING BACK ON SURVEY. ABUTMENT NO. 1 ~ LEFT LANE AND NO. 2 ~ RIGHT LANE SIMILAR EXCEPT FOR EFFECT OF ELEVATIONS SEE TABLE OF ELEVATIONS.

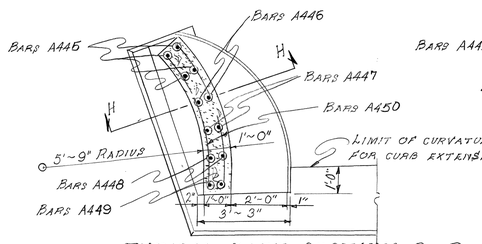
Ⓧ BATTER PILES FORWARD 2:12. SEE SECTION E ~ E.



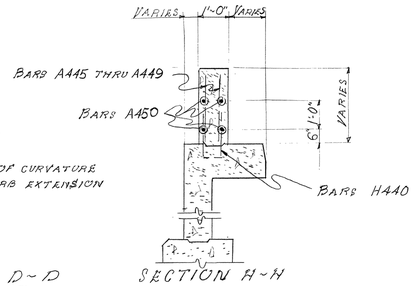
TYPICAL PART SECTION C ~ C
SHOWING REINFORCEMENT IN CURB



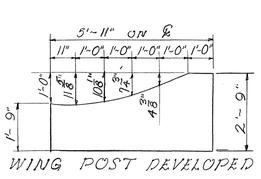
SECTION G ~ G



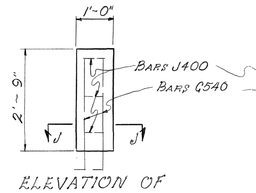
TYPICAL PART SECTION D ~ D
SHOWING REINFORCEMENT IN WING POST



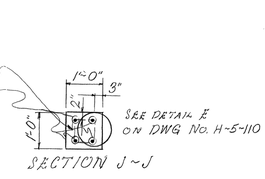
SECTION H ~ H



WING POST DEVELOPED



ELEVATION OF HAND RAIL ~ END POST



SECTION J ~ J

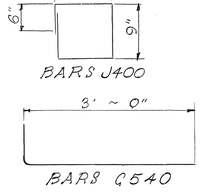


TABLE OF ELEVATIONS

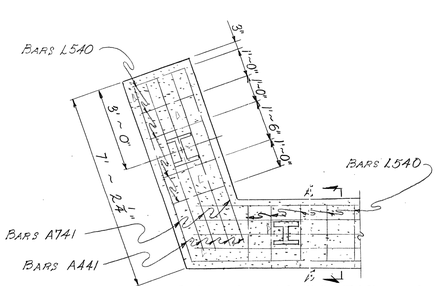
	ITEM	ELEVATIONS											
		A	B	C	D	E	F	G	H	I	J	K	L
LEFT LANE	ABUTMENT 1	559.62	559.53	559.44	559.35	564.12	559.39	563.83	569.85	564.92	569.56	564.63	557.85
LEFT LANE	ABUTMENT 2	561.21	561.30	561.39	561.48	565.72	561.22	566.01	566.57	566.50	566.86	566.79	559.71
RIGHT LANE	ABUTMENT 1	559.35	559.44	559.53	559.62	563.83	559.39	564.12	569.56	564.63	569.85	564.92	557.85
RIGHT LANE	ABUTMENT 2	561.48	561.39	561.30	561.21	566.01	561.22	565.72	566.86	566.79	566.57	566.50	559.71

ESTIMATED QUANTITIES

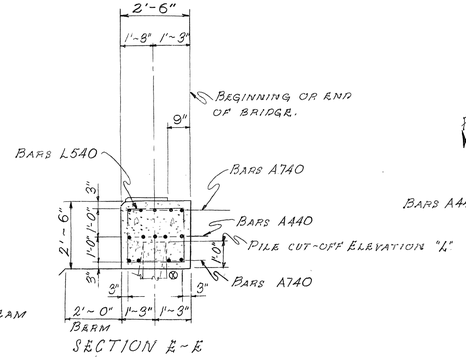
	ITEM	CONCRETE Ⓒ A Cu. YDS.	REINFORCING ST. LBS.
LEFT LANE	ABUTMENT 1	15.8	1850
LEFT LANE	ABUTMENT 2	16.0	1850
RIGHT LANE	ABUTMENT 1	16.0	1850
RIGHT LANE	ABUTMENT 2	15.8	1850

END POST ~ LIST OF MATERIALS ~ EACH

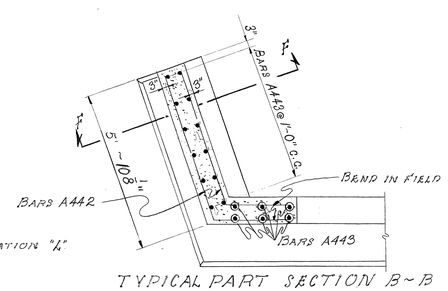
BAR	SIZE	NO.	LENGTH	QUANTITIES CONCRETE ~ CU. YD.	QUANTITIES STEEL ~ LBS.
C540	5	4	3'~4"	.10	21
J400	4	3	3'~4		



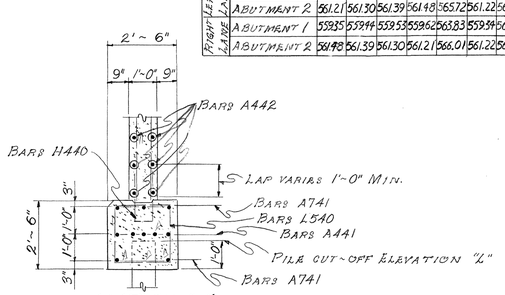
TYPICAL PART SECTION A ~ A
SHOWING REINFORCEMENT IN ABUTMENT BEAM



SECTION E ~ E



TYPICAL PART SECTION B ~ B
SHOWING REINFORCEMENT IN WINGWALL



SECTION F ~ F

Ⓧ BATTER PILES 2:12

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

ABUTMENTS NO. 1 AND 2
LEFT AND RIGHT LANE
INTERSTATE 40 OVER WILSON CREEK
STATION 385 + 95.67
WILSON COUNTY
1962

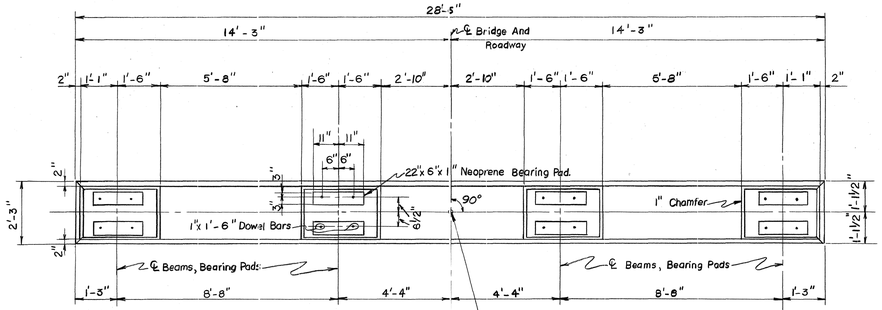
DESIGNED BY C.E. Hunter DATE 5-1-62
DRAWN BY James R. Woodard DATE 5-1-62
TRACED BY DATE
CHECKED BY CEH PDQ DATE 5-18-62

CORRECT Fred Groves
BRIDGE ENGINEER
APPROVED C. E. D. Lang
STATE HIGHWAY ENGINEER

K-18-144

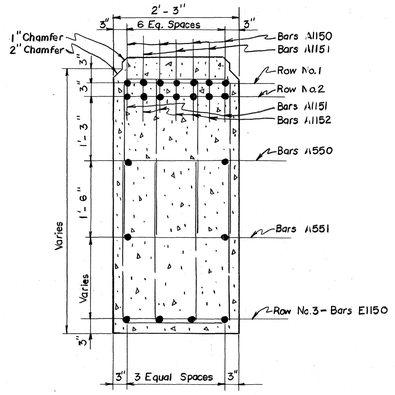
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19	67	259

I-40-5(14)221

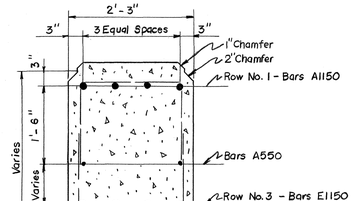


NOTE: When pouring cap beam provisions shall be made for setting dowel bars for prestressed beams. Dowel bar projection 3¾".

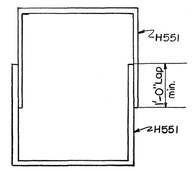
PLAN



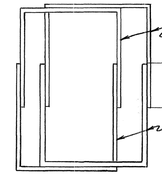
SECTION B-B



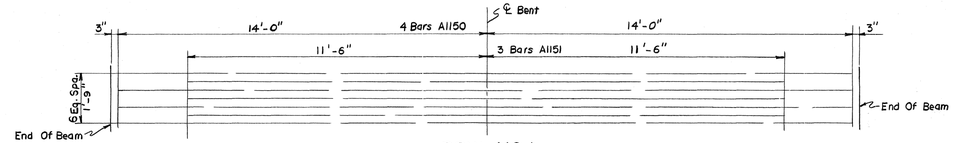
SECTION A-A



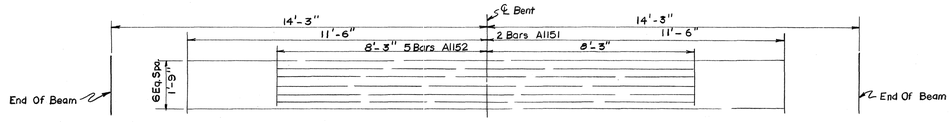
DETAIL "A"



DETAIL "B"



ROW NO. 1



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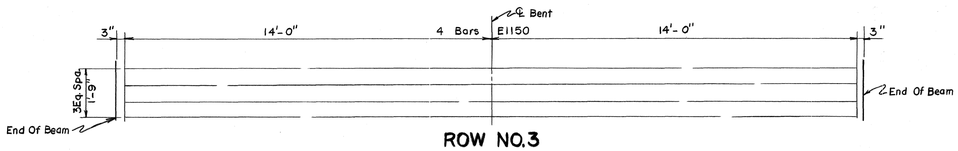
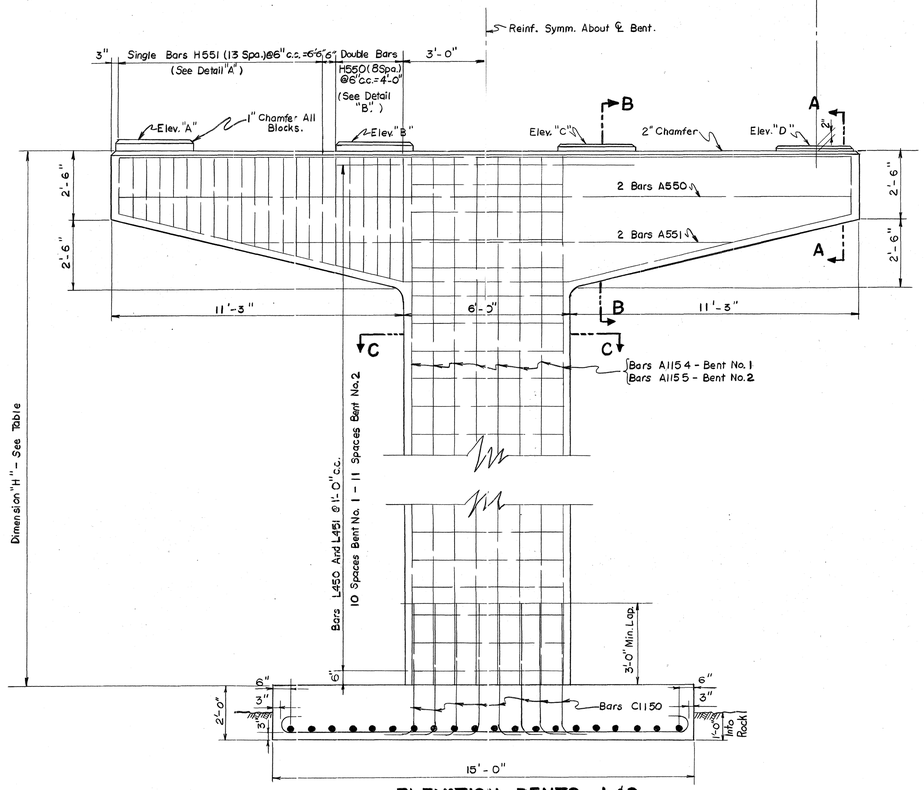


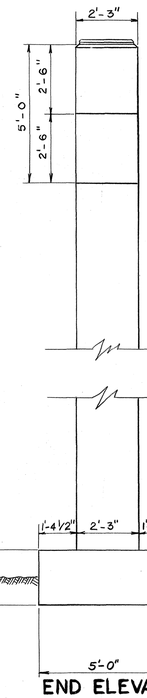
ROW NO. 3

PLAN OF MAIN REINFORCING - CAP BEAM

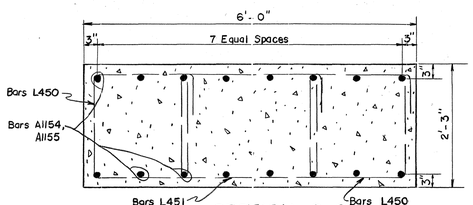


ELEVATION BENTS 1 & 2

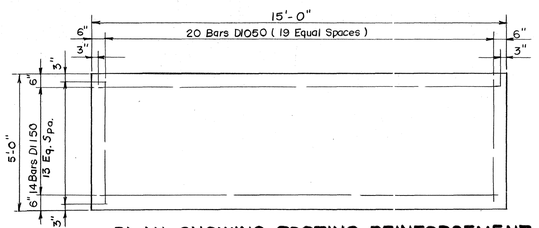
Right Lane Looking Forward On Survey
Left Lane Similar Except Opposite Hand



END ELEVATIONS



SECTION C-C



PLAN SHOWING FOOTING REINFORCEMENT

TABLE OF ELEVATIONS AND DIMENSIONS

Item	Elev. "A"	Elev. "B"	Elev. "C"	Elev. "D"	Dim. "H"
Bent No. 1	560.24	560.15	560.06	559.97	11'-0"
Bent No. 2	560.87	560.78	560.69	560.60	11'-9"

NOTE: Elevations and dimensions same for Left and Right Lanes.

ESTIMATED QUANTITIES

	Item	Concrete Class "A" Cubic Yards	Reinforcing Steel Lbs.
Rt. Ln.	Bent No. 1	18.4	6641
Rt. Ln.	Bent No. 2	18.8	6721
Lt. Ln.	Bent No. 1	18.4	6641
Lt. Ln.	Bent No. 2	18.8	6721

DESIGNED BY C.E. Hunter DATE 5-7-62
DRAWN BY C.E. Hunter DATE 5-10-62
TRACED BY DATE
CHECKED BY C.E.H., P.D.Q. DATE 5-21-62

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

BENTS NO. 1 AND 2
LEFT AND RIGHT LANES
INTERSTATE 40 OVER WILSON CREEK
STATION 385+95.67
WILSON COUNTY
1962

CORRECT Fred Greene
BRIDGE ENGINEER

APPROVED Edward Long
STATE HIGHWAY ENGINEER

K-18-145

BILL OF STEEL

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
3	TENN.		19	68	259

I-40-5(12)221

LEFT LANE

SUPERSTRUCTURE

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A500	Endwall & Rdwy Brkt	5	16					27'6"
A501	Inter. End Diaph.	5	84					8'0"
A600	Slab	6	141					29'6"
A601	Slab	6	4					27'6"
A602	Slab & Curbs	6	328					27'3"
A603	Slab & Curbs	6	164					26'9"
A700	Inter. End Diaph.	7	56					4'5½"
H501	Rdwy Bracket	5	56	1'5"	6"			2'5"
K900	Intermediate Diaph.	4	72	6	5"	2'9"		6'11"
L900	Endwall	4	56	5"	6"	4'0"		9'4"
L901	End Diaphragm	4	96	5"	6"	2'9"		6'10"
N600	Slab	6	141	34'0	2'9"	28'5"	1'1"	35'11"
P600	Slab	6	141	29'6	3'11½	3'-8"	4'-5"	30'3"

ABUTMENTS NO. 1 & 2

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A440	Beam	4	10					39'-7"
A441	Beam	4	20					6'-9"
A442	Wingwall	4	48					8'-3"
A443	Wingwall	4	72					5'-0"
A444	Curb	4	6					7'-6"
A445	Wingpost	4	12					1'-6"
A446	Wingpost	4	8					1'-9"
A447	Wingpost	4	18					2'-0"
A448	Wingpost	4	8					2'-3"
A449	Wingpost	4	21					2'-6"
A450	Wingpost	4	15					5'-6"
A140	Beam	7	13					39'-7"
A141	Beam	7	20					6'-9"
H440	Wingwall & Curb	4	60	8"	2'-0			4'-8"
L440	Curb	4	4	2'3"	6"	11"		6'-10"
L441	Curb	4	4	2'-9"	6"	11"		7'-10"
L442	Curb	4	4	3'-0"	6"	11"		8'-4"
L443	Curb	4	12	3'3"	6"	11"		8'-10"
L540	Beam	5	84	2'2½"	1'0"	2'2"		9'-8"

BENTS NO. 1 & 2

Bar	Location	Size	No. Req'd.	Bending Dimensions A	B	C	D	Length
A550	Cap Beam	5	4					28'-0"
A551	Cap Beam	5	4					19'-4"
A1150	Cap Beam	11	8					28'-0"
A1151	Cap Beam	11	10					23'-0"
A1152	Cap Beam	11	10					16'-6"
A1154	Column Bent No.1	11	16					10'-9"
A1155	Column Bent No.2	11	16					11'-6"
C1150	Column & Footing	11	32	4'-9"				5'-6"
D1050	Footing	10	40	14'6"				17'-4"
D1150	Footing	11	28	4'-6"				7'-8"
E1150	Cap Beam	11	8	6'-0"	11'-5"	2'-6"		28'-10"
H550	Cap Beam	5	72	1'-4"	2'-10			7'-0"
H551	Cap Beam	5	112	1'-11"	2'-5"			6'-9"
L450	Column	4	46	1'-9"	1'-0	1'-11"		8'-4"
L451	Column	4	23	2'-1"	1'-0	1'-11"		9'-1"

NOTE: 96, 1" ϕ x 1'-6" Dowel Bars Required (Both Lanes)

RIGHT LANE

SUPERSTRUCTURE

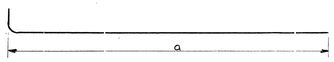
SAME AS LEFT LANE

ABUTMENTS NO. 1 & 2

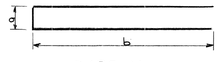
SAME AS LEFT LANE

BENTS NO. 1 & 2

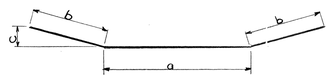
SAME AS LEFT LANE



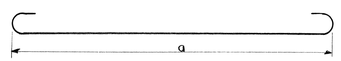
BARS C



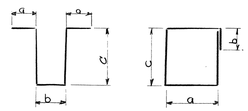
BARS H



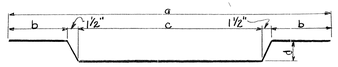
BARS E



BARS D



BARS K BARS L



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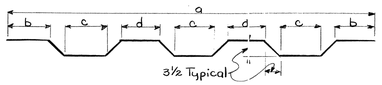
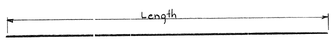


BARS P



BARS A

REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	S	06

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

BILL OF STEEL
INTERSTATE 40 OVER WILSON CREEK
STATION 385+95.67
WILSON COUNTY
1962

DESIGNED BY C.E. HUNTER DATE 3-10-62
DRAWN BY J.T. TOMEY DATE 5-13-62
CHECKED BY C.E.H., P.D.Q. DATE 5-17-62

CORRECT Fred Greene, DISTRICT ENGINEER
APPROVED eee D. Long, STATE HIGHWAY ENGINEER

K-18-146