

Bridge Maintenance Recommendations

Page No. _____

Page 1 of 1

Bridge Location No.: 95 - I0040 - 7.43 R

Bridge Number: 95I00400011

Co. Route Log Mile

County: Wilson

Crossing: WILSON CREEK *

Region: 03

Bridge Rating: GOOD

District: 32

Inspection Cycle: 15

Maint.Resp.: 01

Inspection Date: 3/14/2002

Spec.Case: 0

Co.Seq: 01

Comments: -Level approach pavement a and b.
Clean debris from deck.

Maintenance Recommendations:

Maintenance Completed
By / Date

Maintenance Recommendations:	Maintenance Completed By / Date
XXXXX	

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY _____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY _____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

CONTACT:

MR. RAY MCCLELLAND
D.O.T. BRIDGE INSPECTION
6601 CENTENNIAL BLVD.
NASHVILLE, TN 37243

MR. DON GREER
D.O.T. BRIDGE INSPECTION
6601 CENTENNIAL BLVD.
NASHVILLE, TN 37243

Bridge Maintenance Recommendations

Page No. _____

Page 1 of 1

Bridge Location No.: 95 - I0040 - 7.43 R

Co. Route Log Mile

Bridge Number: 95I00400011

County: Wilson

Crossing: WILSON CREEK *

Region: 03

Bridge Rating: GOOD

District: 32

Inspection Cycle: 14

Maint.Resp.: 01

Inspection Date: 6/2/00

Spec.Case: 0

Co.Seq: 01

Comments: -Level approach pavement a and b.
Clean debris from deck.

Maintenance Recommendations:

Maintenance Completed
By / Date

XXXXX

COMPLETION NOTIFICATION: RETURN WITHIN 6 MONTHS OF INSPECTION DATE.

INITIAL AND DATE RECOMMENDATIONS WHEN COMPLETED.

MAINTENANCE ACTIVITIES ARE COMPLETED (DATE) _____ BY _____

MAINTENANCE ACTIVITIES ARE PARTIALLY COMPLETED (DATE) _____ BY _____

MAINTENANCE ACTIVITIES ARE INCOMPLETE, SCHEDULED FOR (DATE) _____

EXPLANATIONS AND COMMENTS:

CONTACT:

MR. RAY MCCLELLAND
D.O.T. BRIDGE INSPECTION
6601 CENTENNIAL BLVD.
NASHVILLE, TN 37243

MR. DON GREER
D.O.T. BRIDGE INSPECTION
6601 CENTENNIAL BLVD.
NASHVILLE, TN 37243



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

Revised 06/15/2000

Bridge Number:
(Includes Item 5A)

Feature Intersected:

County:
Route:
Special Case:
County Sequence:
Log Mile:

CODE ONLY THOSE VALUES WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	CONDITION CODING GUIDELINES (Values for Coding Items 56, 59, 60 and 62)
90	INSPECTION DATE	<input type="text" value="06/02/2000"/> <u>3/14/02</u>	N NOT APPLICABLE
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.	9 EXCELLENT CONDITION
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
36	TRAFFIC SAFETY FEATURES		7 GOOD CONDITION - SOME MINOR PROBLEMS.
	Br. Rail Trans. Appr. Rail Appr. Rail Ends		6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
	1 1 1 1		5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
41	STRC OPEN/CLOSED/POSTED	A	4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
	A K P		3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
58	DECK	9 8	2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
59	SUPERSTRUCTURE	8	1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
60	SUBSTRUCTURE	9 6	0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
61	CHANL/CHANL PROTECTION	7	
62	CULVERT AND RETAIN WALL	N	
71	WATERWAY ADEQUACY	7	
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	8	
521	OVERALL CONDITION (Circle One)		
	<input checked="" type="radio"/> GOOD <input type="radio"/> FAIR <input type="radio"/> POOR <input type="radio"/> CRITICAL		

Lilbert A. Dierke Hurter 3/14/02
TEAM LEADER SIGNATURE REVIEW DATE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

Bridge Condition Coding Form

County:

Route:

Special Case:

County Sequence:

Log Mile:

Bridge Number:
(Includes Item 5A)

Feature Intersected:

CODE ONLY THOSE NUMBERS WHICH HAVE CHANGED

ITEM #	DESCRIPTION	VALUE	COMMENTS
90	INSPECTION DATE	<input type="text" value="5/1/98"/> <u>6/2/00</u>	RATINGS FOR CODING ITEMS 58, 59, 60 AND 62
10	MINIMUM V.C. OVER DECK (ROADWAY + SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.	9 EXCELLENT CONDITION
520	MINIMUM V.C. OVER DECK (EXCLUDES SHOULDERS)	99 FT. 99 IN. ____ FT. ____ IN.	8 VERY GOOD CONDITION - NO PROBLEMS NOTED.
54	MINIMUM VERTICAL UNDERCLEARANCE (EXCLUDES SHOULDERS)	<input type="text" value="N"/> 0 FT. 0 IN. Circle One: H R <input checked="" type="radio"/> N ____ FT. ____ IN.	7 GOOD CONDITION - SOME MINOR PROBLEMS.
36	TRAFFIC SAFETY FEATURES		6 SATISFACTORY CONDITION - MINOR DETERIORATION OF STRUCTURAL ELEMENTS.
	Br. Rail Trans. Appr. Rail Appr. Rail Ends		5 FAIR CONDITION - ALL PRIMARY STRUCTURAL ELEMENTS ARE SOUND BUT MAY HAVE MINOR SECTION LOSS, CRACKING, SPALLING OR SCOUR.
	1 1 1 1		4 POOR CONDITION - ADVANCED SECTION LOSS, DETERIORATION, SPALLING OR SCOUR.
41	STRC OPEN/CLOSED/POSTED	A	3 SERIOUS CONDITION - LOSS OF SECTION, DETERIORATION, SPALLING OR SCOUR HAVE SERIOUSLY AFFECTED PRIMARY STRUCTURAL COMPONENTS. LOCAL FAILURES ARE POSSIBLE. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT.
	A K P		2 CRITICAL CONDITION - ADVANCED DETERIORATION OF PRIMARY STRUCTURAL ELEMENTS. FATIGUE CRACKS IN STEEL OR SHEAR CRACKS IN CONCRETE MAY BE PRESENT OR SCOUR MAY HAVE REMOVED SUBSTRUCTURE SUPPORT. UNLESS CLOSELY MONITORED IT MAY BE NECESSARY TO CLOSE THE BRIDGE UNTIL CORRECTIVE ACTION IS TAKEN.
58	DECK	9	1 "IMMINENT" FAILURE CONDITION - MAJOR DETERIORATION OR SECTION LOSS PRESENT IN CRITICAL STRUCTURAL COMPONENTS OR OBVIOUS VERTICAL OR HORIZONTAL MOVEMENT AFFECTING STRUCTURAL STABILITY. BRIDGE IS CLOSED TO TRAFFIC BUT CORRECTIVE ACTION MAY PUT BACK IN LIGHT SERVICE.
59	SUPERSTRUCTURE	8	0 FAILED CONDITION - OUT OF SERVICE AND BEYOND CORRECTIVE ACTION.
60	SUBSTRUCTURE	9	
61	CHANL/CHANL PROTECTION	7	
62	CULVERT AND RETAIN WALL	N	
72	APPROACH RDWY ALIGNMENT (USE VALUES OF 3, 6, OR 8)	6 <u>8</u>	
OVERALL CONDITION (Circle One)			
	<input checked="" type="radio"/> GOOD FAIR POOR CRITICAL		
<u>Silbert Wayne Hunter</u>		<u>6/2/00</u>	
SIGNATURE		DATE	

BARS INPUT FILE DATA REPORT

- General Data -

FILE NAME: 95- 82.DAT REGION: 3
ROUTE: I0040
LOGMILE: 0743 SYSTEM BRIDGE?: YES
LANE (R/L): R
CROSSING: WILSON CREEK

LEFT AND RIGHT LANES

- Specific Data -

STD. OVERLOAD BRIDGE?: YES TIMBER SUBSTRUCTURE?: NO
STRUCTURE TYPE - I43: 602 ASPHALT DEPTH ON DECK: 0.
LAST REVISION DATE: 07/10/96 TYPE OF RATING ANALYSIS: LF
OVERALL CONDITION: G TOTAL NUMBER OF SPANS: 3
IS BRIDGE POSTED?: NO MAXIMUM SPAN LENGTH - I48: 51
YEAR BRIDGE WAS BUILT: 1962

BARS DATA INPUT SPREADSHEET

**** FOR INTERIOR GIRDERS ****

BRIDGE NUMBER: 95-I40-7.43

EVAL: A. R. M.

DATE: 7/11/96

BARS MEMBER: G01

COMMENTS: CONTINUOUS PCI WITH 1.5" OF ASPHALT

GENERAL DATA FOR INTERIOR GIRDER:

Enter the Bridge Type.....(SS,CSC,PCIB or RC):	PCIB
Enter the Concrete Deck Thickness.....Inches:	12
Enter the Timber Deck Thickness.....Inches:	0
Enter Stay-in-Place CM Form Weight....Lbs/Sq. Ft.:	0
Enter the Depth of Asphalt.....Inches:	0
Enter the Depth of Dirt or Gravel.....Inches:	0
Enter the Bridgerail Weight....Lbs./Ft. of Girder:	200
Enter Miscellaneous Weight....Lbs./Ft. of Girder:	0
Average Beam Spacing.....Feet:	8.67
Curb-to-Curb Roadway Width.....Feet:	42
Supporting Top Flange or Stem Width.....Inches:	16
Length of Span Number 1.....Feet:	51.79
Length of Span Number 2.....Feet:	51.083
Length of Span Number 3.....Feet:	51.79
Length of Span Number 4.....Feet:	0
Length of Span Number 5.....Feet:	0
Length of Span Number 6.....Feet:	0
Reduce D.F. due to bridge Width(Y/N)?	N
Enter Concrete Diaphragm Depth.....Inches:	32
Enter Concrete Diaphragm Thickness.....Inches:	9

DISTRIBUTION FACTOR OUTPUT

No. of Traffic Lanes:	3	D.F. Control Factor:	5.5
D.F. Control Spacing:	14	Lane Reduction..(%)	0%
One Lane Factor.....:	2	Timber Deck Factor.:	3.75
CM Deck Factor.....:	4.5		

DISTRIBUTION FACTOR = 1.576

BARS DATA INPUT SPREADSHEET

** FOR INTERIOR GIRDERS **

DEAD LOAD INFORMATION OUTPUT

Asphalt DL....Lbs/Ft:	0	*Conc. Deck..Lbs/Ft:	0
Gravel DL....Lbs/Ft:	0	Timber Deck.Lbs/Ft:	0
Rail/Misc. DL.Lbs/Ft:	200	CM Form....Lbs/Ft:	0
Diaphragm Wt....Kips:	2.451	Stem Width Factor.:	16

* NOTE If the bridge type is "SS", then the weight of the concrete deck will be calculated and will be added to the Card 10 Weight. The other bridge types will add in the weight of the deck on Cards 13 or 14 and, therefore, a value of zero will be shown in this field.

<u>SPAN NO</u>	<u>EFF. DECK WIDTH</u> <u>CARDS 13 or 14</u>	<u>SUP. DEAD LOAD</u> <u>CARD 10</u>
1	104.0	200
2	104.0	200
3	104.0	200
4	0.0	0
5	0.0	0
6	0.0	0

RATING INFORMATION INPUT

<u>CHECK POINT</u>	<u>MCAP INV.</u>	<u>MCAP OPER</u>	<u>H-15 LL+I</u>	<u>HS20 LL+I</u>	<u>H-15 INV.</u>	<u>H-15 OPER</u>	<u>HS20 INV.</u>	<u>HS20 OPER</u>
1.5	1035.0	1338.5	274.2	500.2	56.62	73.22	74.49	96.33
2.0	618.4	1030.7	273.3	364.4	33.94	56.57	61.09	101.83
2.5	1056.0	1373.5	236.0	415.4	67.12	87.30	91.52	119.03

NOTE Only three (3) critical check-points can be evaluated at one time.

CONTROL RATINGS IN TONS

	<u>H-15-44</u>	<u>HS-20-44</u>
INVENTORY	34	61
OPERATING	57	96

STRUCTURE I.D. = ARM-082

 * STRUCTURE HEADER AND DESCRIPTION *

100-- 2 A. MCNABB EA/I/O/P = FILE REQUESTS AND OUTPUT DATA EXCEPTIONS
 TYPE = PCIB YEAR = 62 LEN = 154.67 FT. WIDTH = 42.00 FT. 3 SPANS SP.LOAD =
 INV.LL.TRK. = OP.LL.TRK. =

 * STRUCTURE LOCATION AND PERMANENT IDENTIFICATION FACTORS *

200-- 5 BRIDGE=LM 7.43 DIST./CO. = 3 95 CONST. ROUTE = I-40 CONST. SECT. = CONST. STA. = 0+
 MICROFILM REEL NO. DESIGN PLANS= COMPUTATIONS= CORRESPONDENCE=
 ROUTE I.D. = MARKED ROUTE =

 * COMMENTS *

300-- 6 0 I-40/ WILSON CREEK WIYH NO ASPHALT --- LEFT AND RIGHT LANES

 * SPECIFICATIONS GENERALLY APPLICABLE TO STRUCTURE MEMBERS *

STRUCT STEEL	REINF. CONCRETE	COMPOSITE STEEL/CONC	PRESTRESSED CONCRETE	IMPACT FACTOR INV OP POST SPEC	TIMBER
400-- 7	FY= 0. F'WC= 4500.	FY = 0. F'CC= 0.	LOSS = 0. F'WS = 0. MAX =.00 .00 .00 .00 FY = 0. EG/ES= .000 F'WC= 0. MIN =.00 .00 .00 .00 FV = 0.		

 * MEMBER SPECIFICATIONS AND REQUIRED ANALYSIS-GIRDER, STRINGER AND FLOOR BEAM *

MEMBER SPANS ID	STIFF. (SPAN 4)	SPAN 2 (SPAN 5)	SPAN 3 (SPAN 6)	MATL CODE	ALLOWABLE STRESS FY FB FC* FC**	LL DIST.	END THRU	MAX FL.BM DECK	IMPACT FACTOR INV OP. POST SPEC
500-- 8	G 1	3 X	51.000	51.000	.000	CPS	.00	1.576	.00 .00 .00 .00

 * SUPERIMPOSED DEAD LOADS-GIRDERS, STRINGERS AND FLOOR BEAMS *

MEMBER ID	SYMM	SPAN NO.	DISTANCE FR. LEFT SUPP.	LOAD TYPE	P OR W(L)	LOAD W(R)	LENGTH
600--10	G 1	1	25.500FT.	P	2.5	.0	.000FT.
700--10	G 1	2	.000FT.	W	200.0	.0	51.000FT.
800--10	G 1	2	25.500FT.	P	2.5	.0	.000FT.
900--10	G 1	1	.000FT.	W	200.0	.0	51.000FT.

SECTION RANGE SPECIFICATIONS

MEMBER ID	SYMM	SPAN NO.	RANGE	SECTION NO.	SEC. VAR.	HINGE CODE	HINGE 1 DIST.	HINGE 2 DIST.	CODE	HYBRID GIRDER FY
1000--11	G 1	1	42.000FT.	1	0		.000FT.	.000FT.		0.
1100--11	G 1	1	9.000FT.	2	0		.000FT.	.000FT.		0.
1200--11	G 1	2	11.000FT.	2	0		.000FT.	.000FT.		0.
1300--11	G 1	2	29.000FT.	1	0		.000FT.	.000FT.		0.
1400--11	G 1	2	11.000FT.	2	0		.000FT.	.000FT.		0.

SECTION PROPERTIES (COMPOSITE) - GIRDERS, STRINGERS, FLOOR BEAMS

MEMBER ID	SYMM	SPAN RANGE	RANGE LENGTH	COMP N SECT	A	WIDTH	THICK	FILLET	EFFECT.	DIST TO
1500--14	G 1	1	51.000FT.	C	0	104.00	12.00	16.00	1.00	104.00
1600--14	G 1	2	51.000FT.	C	0	104.00	12.00	16.00	1.00	104.00

SECTION PROPERTIES (PRESTRESSED CONCRETE) - GIRDERS, STRINGERS, FLOOR BEAMS

MEMBER ID	SECT	ADR	SAME	VOIDS DEPTH	WIDTH	DIST.	CODE	DEPTH	TELM	TELT	TEFT	WEBT	BFLT	BFLW	I	ASI	DI
1700--15	G 1	1	0	.0	.00	.0	TNG	3.00	.0	.0	.00	.00	.00	.0	1	A	1007.00
1800--15	G 1	1	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	2	A	1007.00
1900--15	G 1	1	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	3	A	607.00
2000--15	G 1	1	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	4	B	605.00
2100--15	G 1	2	0	.0	.00	.0	TNG	3.00	.0	.0	.00	.00	.00	.0	1	A	807.00
2200--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	2	A	807.00
2300--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	3	A	407.00
2400--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	4	A	207.00
2500--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	5	A	207.00
2600--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	6	A	207.00
2700--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	7	B	605.00
2800--15	G 1	2	0	.0	.00	.0		.00	.0	.0	.00	.00	.00	.0	8	B	806.00

SUMMARY OF RATING CALCULATIONS-----STRUCTURE MEMBER G 1 BARS-PC RELEASE 5.5
 INVENTORY AND/OR OPERATING ANALYSIS

D/P STR. I.D.-- ARM-082

STRUCTURE LM 7.43

INPUT CODING --

INVENTORY OPERATING
 LIVE LOAD RATING LIVE LOAD RATING

H15 H 33.95 HS20 HS 53.43

STRUCTURE DESCRIPTION -- LOCATION -- MICROFILM REEL NUMBERS --

IDENTIFICATION	LM 7.43	DISTRICT	3	DESIGN PLANS
TYPE	PCIB	COUNTY	95	COMPUTATIONS
YEAR OF CONSTR.	1962	CONSTR. RTE.	I-40	CORRESPONDENCE
LENGTH	154.67 FEET	CONSTR. SEC.	0+	
ROADWAY WIDTH	42.00 FEET	CONSTR. STA.		
NUMBER OF SPANS	3	KEY RTE.		
		MARKED RTE.		

ANALYST REMARKS --

I-40/ WILSON CREEK WIYH NO ASPHALT --- LEFT AND RIGHT LANES

INVENTORY RATING SUMMARY --

MEMBER ID. G 1
 SPAN 2
 CRITICAL C.P. DIST. .0 FEET
 LIVE LOAD DESIGNATION H15

MOMENT
 (FT. KIPS)
 MEMBER CAPACITY -688.4
 DL EFFECT -70.0

CAPACITY FOR (LL+I) -618.4
 ACTUAL (LL+I) -273.3

INVENTORY RATING H 33.95

OPERATING RATING SUMMARY --

MEMBER ID. G 1
 SPAN 1
 CRITICAL C.P. DIST. 20.4 FEET
 LIVE LOAD DESIGNATION HS20

MOMENT
 (FT. KIPS)
 MEMBER CAPACITY 2026.8
 DL EFFECT 652.5

CAPACITY FOR (LL+I) 1374.4
 ACTUAL (LL+I) 514.4

OPERATING RATING HS 53.43

*** FINAL SUMMARY OF RATING RESULTS FOR --- STRUCTURE ID. ARM-082 BARS-PC RELEASE 5.5
INVENTORY AND/OR OPERATING ANALYSIS

D/P STR. ID-- ARM-082

STRUCTURE LM 7.43

INPUT CODING--

DATE 7/10/96
BY A. MCNABB

INVENTORY
LIVE LOAD RATING OPERATING
H15 H 33.9 HS20 HS 53.4

MICROFILM REEL NUMBERS--

STRUCTURE DESCRIPTION-- LOCATION--
IDENTIFICATION LM 7.43 DISTRICT 3
TYPE PCIB COUNTY 95
YEAR OF CONSTR. 1962 I-40
LENGTH 154.67 FEET
ROADWAY WIDTH 42.00 FEET
NUMBER OF SPANS 3
DESIGN PLANS
COMPUTATIONS
CORRESPONDENCE

ANALYST REMARKS--

I-40/ WILSON CREEK WIYH NO ASPHALT --- LEFT AND RIGHT LANES

INVENTORY RATING SUMMARY
MEMBER I.D. G 1
SPAN 2
CRITICAL C.P. DIST. .0 FEET
LIVE LOAD DESIGNATION H15

MOMENT
(FOOT-KIPS)
MEMBER CAPACITY -688.4
DL EFFECT -70.0

CAPACITY FOR (LL+I) -618.4
ACTUAL (LL+I) -273.3

INVENTORY RATING H 33.95

OPERATING RATING SUMMARY G 1
MEMBER I.D. G 1
SPAN 1
CRITICAL C.P. DIST. 20.4 FEET
LIVE LOAD DESIGNATION HS20

MOMENT
(FOOT-KIPS)
MEMBER CAPACITY 2026.8
DL EFFECT 652.5

CAPACITY FOR (LL+I) 1374.4
ACTUAL (LL+I) 514.4

OPERATING RATING HS 53.43

DATE 07/10/96

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE PRESTRESSED CONCRETE FLEXURAL MEMBER

MEMBER I.D.--G01

C.P. LOCATION 1.40

ARM-082

BARS RELEASE 5.5

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 1

H IN.	AREA SQ. IN.	AS IN.	CT IN.	DA IN.	ECC IN.	FI KIPS	IX		C IN.	SECTION MODULUS		C IN.	
							+ BEND IN**4	- BEND IN**3		TOP IN**3	BOTTOM IN**3		
NON-COM	45.00	560.00	2.83	25.15	2.06	16.15	491.5	129186.7	19.85	5136.0	6509.1	M	
						LOSS =	41917.3	520372.6	40.19	108125.9	6509.1	P	
SLAB RESTEEL		1.86	55.19			FF =	372.8	351770.4	129186.7	26196.8	11141.8	N	
NON-COMP: D =	41.31	KD =	10.20	JD =	38.46	*** COMP:			54.31	KD =	7.01	JD =	51.97

***** ULTIMATE STRENGTH ***** MOMENT CAPACITY

X-DIST (FT.) Y-ORDINATE	PRESTRESS PSI	STEEL / CONC	TOP		BOTTOM	
			+ BEND	- BEND	+ BEND	- BEND
SLAB **EY	60000.*	4500.0	FT-KIPS	FT-KIPS	FT-KIPS	FT-KIPS
INVENTORY	248000.0	5000.0	1442.4	-234.0	1442.4	-234.0
OPERATING	248000.0	5000.0	2404.0	-390.0	2404.0	-390.0
POST VEHI	.0	.0	.0	.0	.0	.0
POST VEHI2	.0	.0	.0	.0	.0	.0
POST VEHI3	.0	.0	.0	.0	.0	.0
POST SPEC	.0	.0	.0	.0	.0	.0

***** DL MOMENT ***** AVAIL. CAPAC. FOR LL+IMPACT

DL EFFECT	SDI FT-KIPS	DL FT-KIPS	59.4 INVENTORY	1050.9 OPERATING	625.5 1050.9	625.5 1050.9	1042.4 1374.4	1042.4	TOP		BOTTOM	
									+ BEND	- BEND	+ BEND	- BEND
AREA	*** ULT MOM CAP	VEH. 1	.0	.0	.0	.0	.0	.0	1751.5	1042.4	1374.4	1042.4
TOTALS	FT-KIPS	VEH. 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
POS	3125.2	VEH. 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NEG	51.4	NEG	-507.0	SPECIAL	.0	.0	.0	.0	.0	.0	.0	.0

***** LIVE LOAD AND RATING CALCULATIONS (IMPACT FACTOR = .284 FOR +BEND AND = .284 FOR -BEND)

LIVE LOAD	LL+IMP	LL	LOC. NO.	DIR	AXLE SPACE	LL+IMP	LL	LOC. CONC	LOAD	LOC. CONC	LOAD 2	RATING FACT.	SAFE LOAD CAPACITY	RATING VALUE
INV H15 +BEND	281.5	219.2	34.400	R	.0	268.8	209.3	20.400	3.734	56.0	H	56.0		
INV H15 -BEND	46.3	36.1	81.600	R	.0	47.4	36.9	71.400	.000					
OPER HS20 +BEND	514.4	400.6	6.400	L	.0	358.4	279.1	20.400	2.672	96.2	HS	53.4		
OPER HS20 -BEND	99.7	77.7	90.501	R	.0	63.2	49.2	71.400	.000					
POST +BEND	.0	.0	.000						.000	.0				
POST -BEND	.0	.0	.000						.000	.0				
POST +BEND	.0	.0	.000						.000	.0				
POST -BEND	.0	.0	.000						.000	.0				
POST SPEC +BEND	.0	.0	.000						.000	.0				
POST SPEC -BEND	.0	.0	.000						.000	.0				

D/P STRUCTURE I.D. ARM-082
MEMBER I.D.--G01
C.P. LOCATION 2.00

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 2 *****
H AREA AS CT DA ECC IX + BEND IX C (BOT) TOP BOTTOM BOTTOM C
IN. SQ.IN. SQ.IN. IN. IN. IN. KIPS IN**4 IN**3 IN**3 IN**3 IN**3 M
NON-COM 45.00 560.00 2.83 24.96 2.35 8.61 491.5 126472.1 20.04 5066.5 6311.7 6311.7 P
LOSS = 40300.7 513175.1 126472.1 40.26 108204.8 .0 12747.4 .0 N
SLAB RESTEEL 5.38 55.15 377.4 346471.7 126472.1 31.69 26037.1 .0 10932.1 .0 3N
NON-COMP: D = 33.58 KD = 8.29 JD = 31.14 *** COMP: D = 46.58 KD = 6.78 JD = 44.32

***** INFLUENCE LINE (SIMPLE SPAN) *****
X-DIST (FT.) POS AREA =
Y-ORDINATE
***** ORIGINATES OF AND AREAS UNDER INFLUENCE LINE (CONTINUOUS SPAN) *****
SPAN 1 SPAN 2 SPAN 3 SPAN 4 SPAN 5 SPAN 6
T 0 .000 .000 .000 .000 .000 .000
E 1 -1.338 -1.990 .578 .000 .000 .000
N 2 -2.595 -3.260 .972 .000 .000 .000
T 3 -3.690 -3.917 1.204 .000 .000 .000
H 4 -4.542 -4.067 1.294 .000 .000 .000
S 5 -5.070 -3.812 1.263 .000 .000 .000
P 6 -5.193 -3.253 1.132 .000 .000 .000
O 7 -4.830 -2.490 .920 .000 .000 .000
I 8 -3.900 -1.626 .647 .000 .000 .000
N 9 -2.320 -.762 .333 .000 .000 .000
T 0 .000 .000 .000 .000 .000 .000

***** ULTIMATE STRENGTH ***** MOMENT CAPACITY
PRESTRESS STEEL / CONC TOP TOP TOP BOTTOM BOTTOM
PSI PSI + BEND - BEND + BEND - BEND - BEND
SLAB * = FY 60000.* 4500.0FT-KIPS FT-KIPS FT-KIPS FT-KIPS
INVENTORY 248000.0 5000.0 1233.6 -660.4 1233.6 -660.4
OPERATING 248000.0 5000.0 2056.0 -1100.7 2056.0 -1100.7
POST VEH1 .0 .0 .0 .0 .0 .0
POST VEH2 .0 .0 .0 .0 .0 .0
POST VEH3 .0 .0 .0 .0 .0 .0
POST SPEC .0 .0 .0 .0 .0 .0
***** DL MOMENT ***** AVAIL. CAPAC. FOR LL+IMPACT
DL EFFECT TOP TOP BOT
SDL +BEND -BEND +BEND -BEND
FT-KIPS FT-KIPS F-KIPS F-KIPS F-KIPS F-KIPS
.0 -70.0 INVENTORY 1275.6 618.4 1275.6 618.4
AREA ***** ULT MOM CAP VEH. 1 .0 .0 .0 .0 .0
TOTALS FT-KIPS VEH. 2 .0 .0 .0 .0 .0
42.5 POS 2672.8 VEH. 3 .0 .0 .0 .0 .0
299.2 NEG -1430.9 SPECIAL .0 .0 .0 .0 .0

***** LIVE LOAD AND RATING CALCULATIONS (IMPACT FACTOR = .284 FOR +BEND AND = .284 FOR -BEND) *****
-----TRUCK LOAD-----LANE LOAD-----
LIVE LL+IMP LL LOC.NO. DIR AXLE LL+IMP LL LOC.CONC LOC.CONC RATING SAFE LOAD RATING
LOAD FT. FT. FT. FT. TONS CAPACITY VALUE
FT-KIPS FT-KIPS FT. FT. FT. FT. VALUE
INV H15 +BEND 37.3 29.1 136.400 R .0 38.6 30.0 122.400 2.263 33.9 H 33.9
-BEND 149.8 116.7 16.600 L .0 273.3 212.8 30.600 71.400 101.8 HS 56.6
OPER HS20 +BEND 80.7 62.8 145.298 R .0 51.4 40.0 122.400 2.829 101.8 HS 56.6
-BEND 323.9 252.2 7.703 L .0 364.4 283.8 30.600 .000 .0
POST +BEND .0 .0 .000 .000 .000 .000
-BEND .0 .0 .000 .000 .000 .000
POST +BEND .0 .0 .000 .000 .000 .000
-BEND .0 .0 .000 .000 .000 .000
POST +BEND .0 .0 .000 .000 .000 .000
-BEND .0 .0 .000 .000 .000 .000
POST SPEC +BEND .0 .0 .000 .000 .000 .000
-BEND .0 .0 .000 .000 .000 .000

DATE 07/10/96

DETAIL DATA AT MOMENT CHECK POINT FOR
COMPOSITE PRESTRESSED CONCRETE FLEXURAL MEMBER

BARS RELEASE 5.5
D/P STRUCTURE I.D. ARN-082
MEMBER I.D.--G01
C.P. LOCATION 3.00

***** SECTION PROPERTIES IN COMPOSITE RANGE 1 OF SPAN 3 *****

H	AREA	AS	CT	DA	ECC	FI	IX	IX	C	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN**4	IN**4	IN.	IN**3	IN**3	IN**3	IN**3	IN**3	IN**3	IN**3	IN**3
NON-COM	45.00	560.00	2.83	24.96	2.35	8.61	491.5	126472.1	20.04	5066.5	6311.7	6311.7	6311.7	6311.7	6311.7	6311.7	6311.7
SLAB RESTEEL		5.38	55.15				40300.7	513175.1	40.26	108204.8		12747.4					
NON-COMP: D =	33.58	KD =	8.29	JD =	31.14	FF =	377.4	346471.7	31.69	26037.1		10932.1					
						LOSS =			46.58	KD =	6.78	JD =	44.32				

***** INFLUENCE LINE (SIMPLE SPAN) *****

X-DIST (FT.)
Y-ORDINATE

***** ULTIMATE STRENGTH ***** MOMENT CAPACITY

PRESTRESS	STEEL / CONC	TOP	TOP	BOTTOM	BOTTOM
PSI	PSI	+ BEND	- BEND	+ BEND	- BEND
SLAB *-FY	60000.*	4500.0	FT-KIPS	FT-KIPS	FT-KIPS
INVENTORY	248000.0	5000.0	1233.6	-660.4	1233.6
OPERATING	248000.0	5000.0	2056.0	-1100.7	2056.0
POST VEHI		.0	.0	.0	.0
POST VEHI2		.0	.0	.0	.0
POST VEHI3		.0	.0	.0	.0
POST SPEC		.0	.0	.0	.0

***** DL MOMENT ***** AVAIL.-CAPAC. FOR LL+IMPACT *****

DL	SDI	TOP	TOP	BOTTOM	BOTTOM
FT-KIPS	FT-KIPS	+BEND	-BEND	+BEND	-BEND
INVENTORY	1275.6	1275.6	618.4	1275.6	618.4
OPERATING	2126.0	1030.7	1685.6	1030.7	1685.6
VEH. 1		.0	.0	.0	.0
VEH. 2		.0	.0	.0	.0
VEH. 3		.0	.0	.0	.0
SPECIAL		.0	.0	.0	.0

***** LIVE LOAD AND RATING CALCULATIONS (IMPACT FACTOR = .284 FOR +BEND AND = .284 FOR -BEND) *****

LIVE LOAD	LL+IMP	LL	LOC.NO.	DIR	AXLE	LL+IMP	LL	LOC.CONC	LOC.CONC	LOAD	LOAD	RATING	SAFE LOAD	RATING
FT-KIPS	FT-KIPS	FT.	1	WHEEL	SPACE	FT.	FT-KIPS	FT.	FT.	TONS	TONS	FACT.	CAPACITY	VALUE
INV H15 +BEND	37.3	29.1	16.600	L	.0	38.6	30.0	30.600						
INV H15 -BEND	149.8	116.7	136.400	R	.0	273.3	212.8	122.400	81.600			2.263	33.9	H 33.9
OPER HS20 +BEND	80.7	62.8	7.703	L	.0	51.4	40.0	30.600						
OPER HS20 -BEND	323.9	252.2	145.298	R	.0	364.4	283.8	122.400	81.600			2.829	101.8	HS 56.6
POST +BEND	.0	.0	.000									.000	.0	
POST -BEND	.0	.0	.000									.000	.0	
POST +BEND	.0	.0	.000									.000	.0	
POST -BEND	.0	.0	.000									.000	.0	
POST SPEC +BEND	.0	.0	.000									.000	.0	
POST SPEC -BEND	.0	.0	.000									.000	.0	

SUMMARY OF SHEAR ANALYSIS

DATE 07/10/96

MEMB. ID	MATERIAL	SPAN NO.	DIS FT.	FRM	R	DL KIPS	SDL KIPS	SHEAR KIPS	---INVENTORY---		---OPERATING---		--VEH. 1-- LL+I KIPS	--VEH. 2-- LL+I KIPS	--VEH. 3-- LL+I KIPS	--SPECIAL-- LL+I KIPS
									LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V				
G01	CPS	1	.000	L	L	48.5	5.0	48.5	30.9	2.8	56.5	4.9	LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V
		1	20.400	L	L	6.7	.9	6.7	14.0	13.5	24.5	21.2	LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V
		1	25.500	L	L	.1	1.1	.1	11.3	18.1	17.7	28.9	LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V
		2	.000	L	L	48.5	6.3	48.5	35.9	4.5	60.4	7.9	LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V
		2	25.500	L	L	.1	1.2	.1	15.8	15.8	22.5	22.5	LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V
		3	.000	L	L	48.5	7.7	48.5	36.5	.9	63.2	1.6	LL+I MAX.V	LL+I MIN.V	LL+I MAX.V	LL+I MIN.V

BRIDGE DECK EVALUATION

County WILSON Route I-40 Date 1-12-88
 Bridge Number 95-I40-7.43 E.B.L Over WILSON CR.
 Bridge Length 154.67' Bridge Width 280'
 Total Deck Area Evaluated 4330.76 sq. ft.

CORROSION

Over 0.35v
ASP. OVERLAY sq. ft.
N/A %

VISUAL

Spalls Scaling
ASP. OVERLAY sq. ft. sq. ft.
N/A % %

DELAMINATIONS

Chain Drag
ASP. OVERLAY sq. ft.
N/A %

CHLORIDES

No. Tests Over 2 lbs/yd³ 2
 Total No. of Tests 4
 % Tests Over 2 lbs/yd³ .500

CALCULATIONS

Total Sq. Ft. > 0.35v Corrosion Potential N/A sq. ft.
 Sq. Ft. Spalls Outside > 0.35v N/A sq. ft.
 Sq. Ft. Delamination Outside > 0.35v N/A sq. ft.
 Total Contaminated Deck Sq. Ft. (-Chloride) N/A sq. ft.
 Total Deck Area 4330.76 sq. ft.
 Total Contaminated Deck Area (-Chloride) N/A sq. ft.
 Total Deck Not > 0.35v, Spalled, Delaminated 4,330.76 sq. ft.

$$\frac{\% \text{ Chloride Tests Over } 2 \text{ lbs per yd}^3}{100} \times \text{Total Deck Area Not } > 0.35v, \text{ Spalled Delaminated} = \text{Deck Area Contaminated}$$

$$\frac{50}{100} \times 4330.76 = 2165.38 \text{ sq. ft.}$$

Total Contaminated Deck Area (-Chloride) N/A sq. ft.
 Total Contaminated Deck Area 2165.38 sq. ft.

Total Contaminated Deck Area ÷ Total Area = 50 %

259
76

21

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
DIVISION OF MATERIALS AND TESTS

Form DT-0044
Re: Form T-2

ORIGINAL OR CHECK SAMPLE OF Bridge Deck Cores

Project Reference No. BRF NB15(18) County Wilson
Project No. 99102-570394-4361-501 Contract No. _____ Region _____
Ord. No. _____ Req. No. _____ Heat No. _____ Size _____
Date Sampled 12-23 1987 Date Received at Lab. 12-23 1988
Identification _____
Submitted by Bill Green Sampled by Josh Hill
Sampled from Bridge Decks Amount Represented 8 cores
Producer _____ Location _____
Manufacturer _____ Location _____
Serial No. C8 Report No. _____

FOR LAB USE ONLY

FIELD USE

95-I-40

7.43

Wilson Creek

Core	# Grains	Field _g
9 1	.10	3.92
10 2	.05	1.96
11 3	.10	3.92
12 4	.13	5.09
13 1	.13	5.09
14 2	.10	3.92
15 3	.10	3.92
16 4	.12	4.70

(E.B.L)

(W.B.L)

REMARKS:

This material information the requirements of the specifications
for Bridge Deck Cores Tested by _____

[Signature]
Chief Chemist

Approved [Signature]
Engineer of Materials and Tests

Bridge No.: 95 — 10040 — 0743

Crossing: WILSON CREEK

Federal No.: 95100400011

Date:

March 14, 2002

PIC1



BRIDGE NO. AT ABUTMENT # 1

Bridge No.: 95 — 10040 — 0743
Crossing: WILSON CREEK
Federal No 95I00400011

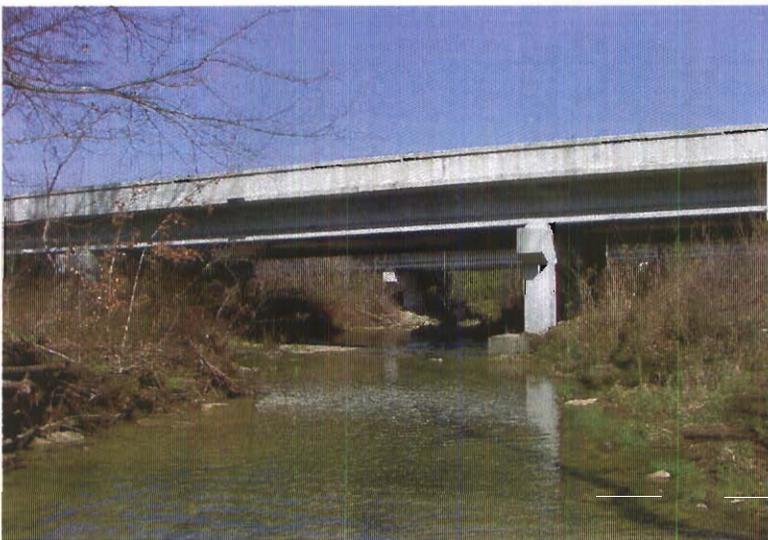
Date: March 14, 2002

PIC2



SPALL @ PIER-1 BACKSIDE W/EXP.REBAR

PIC3



INLET-ELEV

Bridge No.: 95 — 10040 — 0743
Crossing:: WILSON CREEK *
Federal No.: 95I00400011

Date: March 14, 2002

PIC4



VIEW ACROSS DECK FROM B-APPR

Bridge No.: 95 — 10040 — 0743
Crossing: WILSON CREEK *
Federal No.: 95I00400011

Date:

June 2, 2000

PIC1



VAD

Bridge No.: 95 — 10040 — 0743
Crossing: WILSON CREEK *
Federal No 95100400011

Date:

June 2, 2000

PIC2



BRIDGE NO. AT ABUTMENT # 1

PIC3



INLET-ELEVATION

ROUTINE BRIDGE INSPECTION REPORT

Page No. 3-72-02

Form BIR 3.0C
(Rev. 9-22-98)
DT-1537

Field Report No. 14¹⁵ Date 6/2/2000
Previous Report No. _____ Date _____
Plans: Yes

Bridge No. 95100400011
Eleven Digit No.

Bridge Location No. 95 - 10040 - 7.43 R
Co. Route Log Mile

T 40 over WILSON CREEK
Road Name Crossing

Indepth Insp. Req'd: No
(If yes itemize limits under comment)

Structure Type PPCIB FRACTURE CRITICAL: No

FEATURE CHANGES:

Wearing Surface / Type CONCRETE Depth _____ (in.)
Bridge Rail / Describe changes:
Approach Rail /

CLEARANCE CHANGES: (If yes make changes below)

Vertical Clearance over deck / (ft.-in.)
Vertical Under Clearance / (ft.-in.)
Horizontal Under Clearance / (*. * ft.)
Deck Width Curb/Curb / (*. * ft.)
Deck Width Rail/Rail / (*. * ft.)
Sidewalk Width Rt. _____ Lt. _____

INSPECTORS

Hunter
Daniel
Waller
Trotter

Condition: **GOOD** (If change describe in comments)

Comments

Approaches	F	Patched pavement w. slight settlement
Deck Condition (Item 58)	G	There are some patched areas in bottom deck
Superstructure (Item 59)		
a. Beams	G	
b. Bearings	G	
c. Diaphragms	G	
Substructure (Item 60)		
a. Caps/Bridge Seats	F	1 1/2" deep spalls & 1/4" open cracks in bottom of caps
b. Columns/Piles	G	
c. Footings	G	
d. Wing W./Breast W.	G	
Scour/Erosion	G	
Channel (Item 61)	G	

UNDERWATER INSPECTION

To Be Performed By: None required

Date Underwater Insp. /

BRIDGE is: /

Weight Limit Posted NO
Gross..... Tons
2 Axle..... Tons
3 or more Axles.. Tons

COMMENTS:

Note: Please note change in rating on caps. This structure was rehabilitated in 1990 but deterioration in the bottom of the caps since last inspection forced a lower rating on item 60 due to delaminated areas & spalls up to 1 1/2" deep with random cracks.

Supervising Bridge Inspector: Nilbert Wayne Hunter BRIDGE RATING: **GOOD**

SUMMARY
95-I40-7.43 RT
3-14-2002

I40/Wilson Cr
3 Span/P.P.C. I-Beam

This bridge was inspected and found to be in **good** condition. The approach pavement has 1 ¼" settlement at "A" and "B" ends, and is rated fair. The embankment, and drains are in good condition. All traffic safety features are in place and are standard type. There are paddleboard decals at the approach rail terminals at the "A" approach.

The concrete wearing surface is in good condition. There are deck drains which are open and good, and the joint leakage is good. The superstructure elements and substructure units are in good condition. The caps are fair due to in-place spalls and ¼" cracks with slight delamination and this was not visible at last inspection. The channel appears adequate, and there was no scour detected at time of inspection.

Gilbert Wayne Hunter

SUMMARY
95-I40-7.43 RT
6-2-2000

I40/Wilson Cr
3 Span/P.P.C. I-Beam

This bridge was inspected and found to be in **good** condition. The approach pavement has 1 ¼" settlement at "A" and "B" ends, and is rated fair. The embankment, and drains are in good condition. All traffic safety features are in place and are standard type. There are paddleboard decals at the approach rail terminals at the "A" approach.

The concrete wearing surface is in good condition. There are deck drains which are open and good, and the joint leakage is good. The superstructure elements and substructure units are in good condition. The channel appears adequate, and there was no scour detected at time of inspection.

Gilbert Wayne Hunter

BRIDGE INSPECTION REPORT

FORM BIR 3.0
Rev. 3-1-97
DT-0069

FIELD REPORT NO. 13 DATE 5-6-98
PREVIOUS REPORT NO. 12 DATE 10-21-90
PLANS ---- YES NO

BRIDGE NO. 95I00400011 BRIDGE LOC. NO. 95-I40-7.43 ^{RT} (LOG km)
ELEVEN DIGIT NO. CO. ROUTE LOG MILE (LOG km)

I40 OVER WILSON CREEK
ROAD NAME FEATURE INTERSECTED STRUCTURE NAME (IF NAMED)

YEAR CONSTRUCTED 1962 COUNTY WILSON MAINTENANCE DISTRICT NO. 30
(ESTIMATED OR ACTUAL)

YEAR WIDENED 1990 YEAR REHABILITATED 1990
[] [X] ESTIMATED OR ACTUAL ESTIMATED OR ACTUAL
[] [X]

FEATURES

WEARING SURFACE-- CONCRETE TIMBER ASPHALT (DEPTH= mm)
FLARED WIDTH ----- YES NO
NAVIGATIONAL CONTROL-- YES NO
MEDIAN WIDTH ----- OPEN NONE CLOSED

BRIDGE SKEW 90° LT RT

STRUCTURE TYPE P.P.C.T.B NO. SPANS 3
Main Span Main Span

STRUCTURE TYPE — NO. SPANS —
Approach Spans Approach Spans

MAXIMUM SPAN LENGTH 15.79 TOTAL LENGTH 47.15

WIDTHS (*.**m) CLEARANCES (*.**m)
DECK OUT-TO-OUT 13.41 MIN. VERTICAL OVER DECK —
ROADWAY CURB/CURB 12.80 MIN. VERTICAL UNDER CL. —
SIDEWALK — RT — LT — MIN. LATERAL UNDER CL — RT —
*APPROACH ROADWAY 7.32 LT —
APPR. SHLD. 3.05 RT 1.22 LT —
*DOES NOT INCLUDE SHOULDER

INSPECTORS
1. G. REED
2. W. P. L. L.
3. W. H. H. H.
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

UNDERWATER INSPECTION

INSPECTION PERFORMED BY:
DOT FIELD TEAM DATE _____
CONTRACT DIVERS DATE _____
NONE REQUIRED

(< 7.62 m)
NBIS BRIDGE LENGTH > 7.62
(**. **m)

CHANGE IN STRUCTURAL CONDITION YES NO
MAJOR REPAIRS MADE YES NO

FRACTURE CRITICAL
DETAILS: YES NO
IF YES, INCLUDE BIR 3.9

COMMENTS:

D. W. H.
SUPERVISING BRIDGE INSPECTOR

BRIDGE RATING
GOOD FAIR POOR CRITIC

NOTE: UNLESS OTHERWISE NOTED, MEASUREMENTS ARE TO BE TAKEN TO TWO (2) DECIMAL PLACES IN METERS.

PERFORMANCE EVALUATION

Time of day inspected 9:00 A.M. Weather conditions cloudy 60°

Vehicles observed ALL TYPES

<u>LIVE LOAD BEHAVIOR</u>	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
<u>Substructure</u>			
Horiz. & Vert. Defl. - - -	[]	[<input checked="" type="checkbox"/>]	_____
Vibration - - - - -	[]	[<input checked="" type="checkbox"/>]	_____
<u>Superstructure</u>			
Horiz. & Vert. Defl. - - -	[]	[<input checked="" type="checkbox"/>]	_____
Vibration - - - - -	[]	[<input checked="" type="checkbox"/>]	_____

APPROACH

Alignment	<input checked="" type="radio"/> G	F	P	C	_____
Slab	<input type="radio"/> G	F	P	C	_____
Joints	<input type="radio"/> G	F	P	C	_____
Pavement	<input checked="" type="radio"/> G	F	P	C	_____
Embankment	<input type="radio"/> G	F	P	C	_____
Drains	<input checked="" type="radio"/> G	F	P	C	<u>APPROX ONLY</u>

TRAFFIC SAFETY FEATURES

					<u>STANDARD</u>	<u>SUB-STANDARD</u>	
Bridgerailing	<input checked="" type="radio"/> G	F	P	C	[<input checked="" type="checkbox"/>]	[]	_____
Transitions	<input checked="" type="radio"/> G	F	P	C	[<input checked="" type="checkbox"/>]	[]	_____
Guardrail	<input checked="" type="radio"/> G	F	P	C	[<input checked="" type="checkbox"/>]	[]	_____
Guardrail Terminal	<input checked="" type="radio"/> G	F	P	C	[<input checked="" type="checkbox"/>]	[]	_____

SIGNING

Details on Terminals

	<u>YES</u>	<u>NO</u>	<u>NEEDED</u>	
Paddleboard - - - - -	[]	[<input checked="" type="checkbox"/>]	[]	WEIGHT LIMIT POST YES [] NO [<input checked="" type="checkbox"/>]
Vertical Clearance (< 4.4 m) - - -	[]	[<input checked="" type="checkbox"/>]	[]	GROSS-- _____ TC
Narrow [] One Lane Bridge [] - []	[]	[<input checked="" type="checkbox"/>]	[]	2 AXLE - _____ TC
				3 OR MORE AXLES--- _____ TC

Other Signs or Plaques _____
 Comments Regarding Any Problems With Signing _____

RECOMMENDATIONS

- Bridgerail Is Substandard [] Install Post Load Limit Signs
- Approach Rail Is Substandard [] Level Approach
- Install Paddleboard Signs []

FORM BIR 3.3
 Rev. 3-1-97
 DT-0082

BRIDGE LOC. NO. 95 - I40 - 7.43 ^{RT.} ()
 CO. ROUTE L.M. (LOG km)

DATE: 5-6-98

SUBSTRUCTURE

ABUTMENTS

COMMENTS

PILES TO BE REPLACED

						PILE(S)	BENT
CAPS	(G)	F	P	C			
BREASTWALL	(G)	F	P	C			
WINGS	(G)	F	P	C			
BACKWALL	(G)	F	P	C			
PLUMB	(G)	F	P	C			
FOOTING	(G)	F	P	C			
PILES	(G)	F	P	C	N. V.		
EMBANKMENT	(G)	F	P	C			
BEARINGS	(G)	F	P	C			
SLOPE PAVING	(G)	F	P	C			

PIERS

CAPS	(G)	F	P	C			
COLUMNS	(G)	F	P	C			
PLUMB	(G)	F	P	C			
FOOTINGS	(G)	F	P	C			
PILES	(G)	F	P	C	N. A. on Red Rock		
BEARINGS	(G)	F	P	C			

BENTS

CAPS	G	F	P	C			
COLUMNS	G	F	P	C			
PLUMB	G	F	P	C			
FOOTINGS	G	F	P	C			
PILES	G	F	P	C			
BEARINGS	G	F	P	C			

PILES NEED REPLACEMENT NO [] YES []

CUT VEGETATION NO [] YES []

CLEAR DRIFT NO [] YES []

RECOMMENDATIONS: _____

NOTE: UNLESS OTHERWISE NOTED, MEASUREMENTS ARE TO BE TAKEN TO TWO (2) DECIMAL PLACES IN METERS.

STREAM CHANNEL DATA AND CONDITIONS

STREAM CROSSING: W. 15th CA

- I. 1. Type of bed material? Bedrock
- 2. Has the channel shifted? YES [] NO [] NOT APPARENT []
- 3. Condition of rip-rap? (G) F P C Est. % failed _____ N/A []
- 4. Overall condition of channel? (G) F P C
- 5. Item 61 - Code values 0 thru 9 according to the recording and coding guide currently in effect: 8
- 6. Underwater diver inspection recommended? YES [] NO []
If yes, why? _____

- II. Channel and bank stability conditions: (check if applicable)
- 1. Steep bank - Failures upstream [] downstream [] conditions
- 2. Moderate bank erosion []
- 3. Bank (a) low growth [] (b) large timber []
Vegetation (c) dead trees [] (d) clear banks []
- 4. Sediment or gravel accumulation: YES [] NO [] UNKNOWN []
- 5. Channel altered or straightened: YES [] NO [] UNKNOWN []
- 6. Stable conditions: (a) live growth [] (b) bedrock []
(c) boulders [] (d) flat slopes []
($\leq 2:1$)

- III. Waterway adequacy and debris characteristics: (check if applicable)
- 1. Bridge deck elevations:
 - (a) level with approach roadway []
 - (b) higher than approach roadway. []
 - (c) roadway approach ≥ 0.6 m above natural ground line. . []
- 2. Abutment encroaches into channel []
- 3. Large scour (blowhole) under bridge. []
- 4. Indications that flood waters overtop bridge:
NO [] YES [] OCCASIONALLY [] FREQUENTLY [] UNKNOWN []
- 5. Debris characteristics:
 - (a) debris present YES [] NO []
 - (b) debris likely to accumulate: YES [] NO []
 - (c) dead trees upstream: [] or downstream: []

IV. Comments: _____

SPECIAL INSPECTION DATA - FOR REASONS OTHER THAN FC OR SCOUR

- I. Does this bridge need a special inspection? YES [] NO []
- II. Reason for special inspection: _____

SUMMARY
95-I40-7.43 RT
5-6-98

I40/Wilson Cr
3 Span/P.P.C. I-Beam

This bridge was inspected and found to be in good condition. The approach alignment, pavement, embankment, and drains are in good condition. All traffic safety features are in place and are standard type. There are paddleboard decals at the approach rail terminals at the "A" approach.

The concrete wearing surface is in good condition. There are deck drains which are open and good, and the joint leakage is good. The superstructure elements and substructure units are in good condition. The channel appears adequate, and there was no scour detected at time of inspection.

Don Greer

95-140-7.43 RT 5/6/98

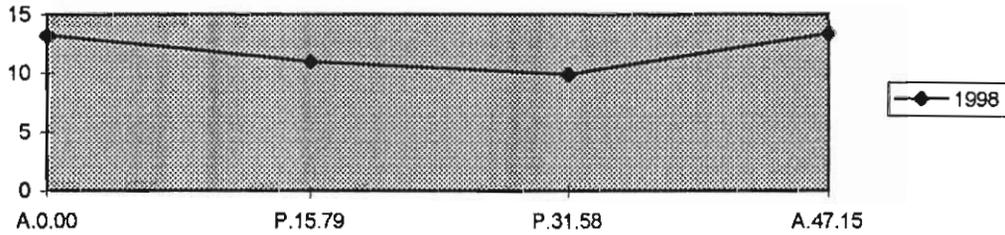
ASSUMED ELEV.--15.24--TOP OF CAP RT END ABUT #1

STATION ELEVS.

1998

A.0.00	13.24
P.15.79	10.97
P.31.58	9.88
A.47.15	13.41

UPSTREAM

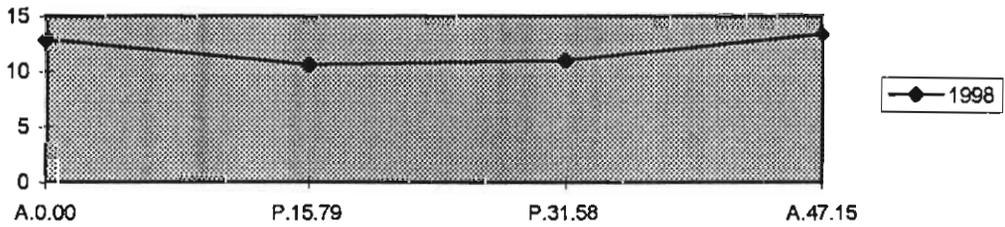


STATION ELEVS.

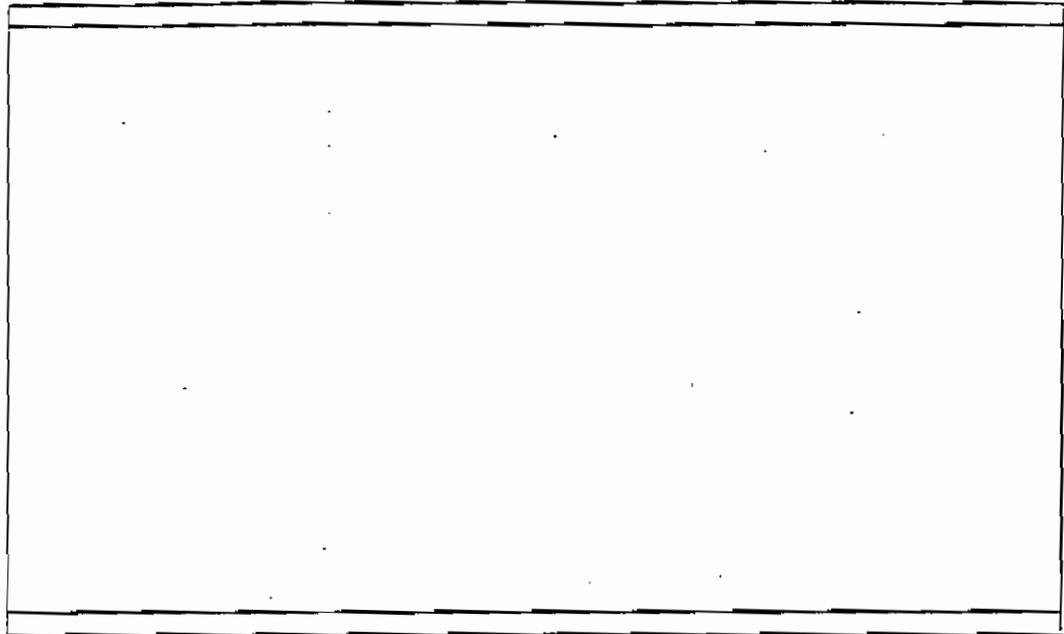
1998

A.0.00	12.84
P.15.79	10.6
P.31.58	10.99
A.47.15	13.36

DOWNSTREAM



5-6-98 Dg

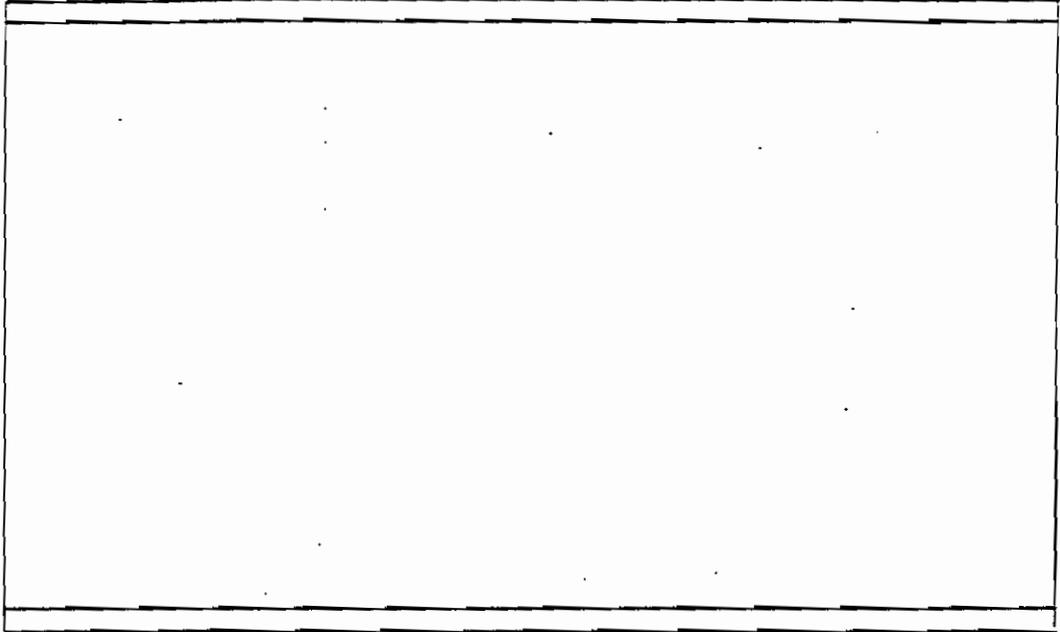


Top Slab = 1

Br. = 95-140-7.43 RT

Deck	G	
Parapet	G	
Drains	G	
Joints	N.A.	

5-6-48 Ry

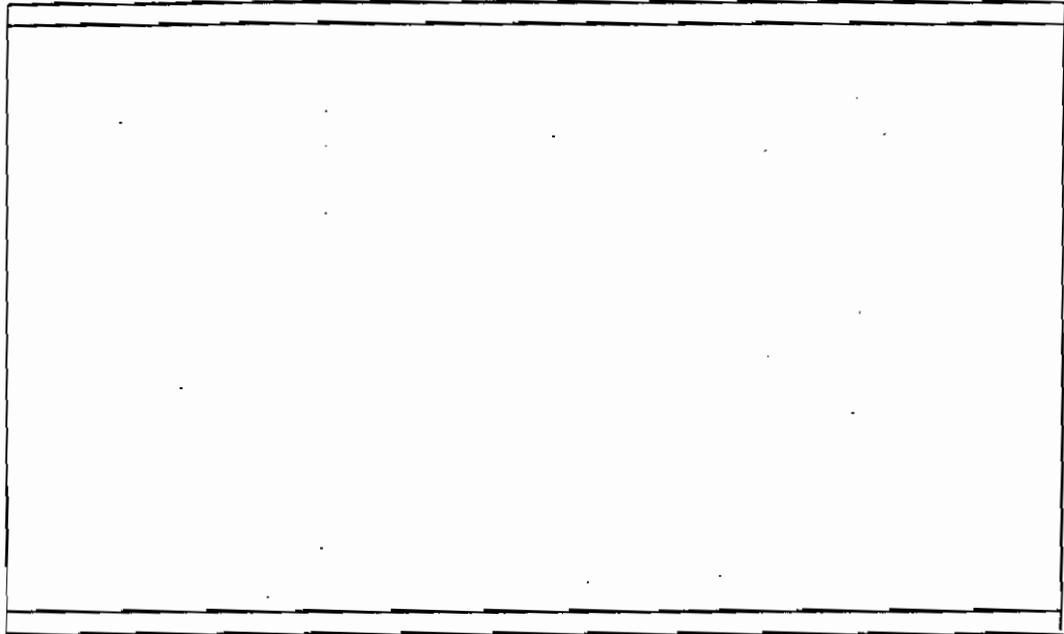


TOP SLAB = 2

Br. = 95-140-7.43 RT.

Deck	G	
Parapet	G	
Drains	G	
Joints	N.A.	

5-6-98

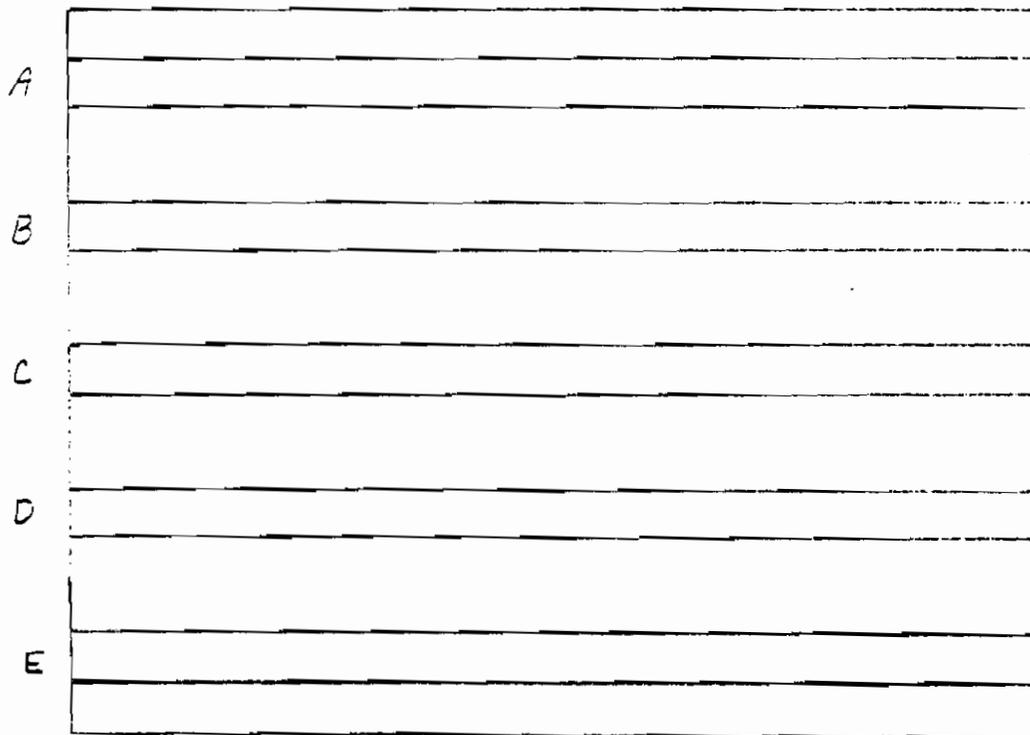


TOP SLAB = 3

Br. = 95-140-7.43 RT.

Deck	G	
Parapet	G	
Drains	G	
Joints	N.A.	

5-6-98/3



Bottom slab = 1

Br. # 95-I40-7.43 RT

D=12	G	
Diam.	G	
Beams	G	

5.6.98 Jy

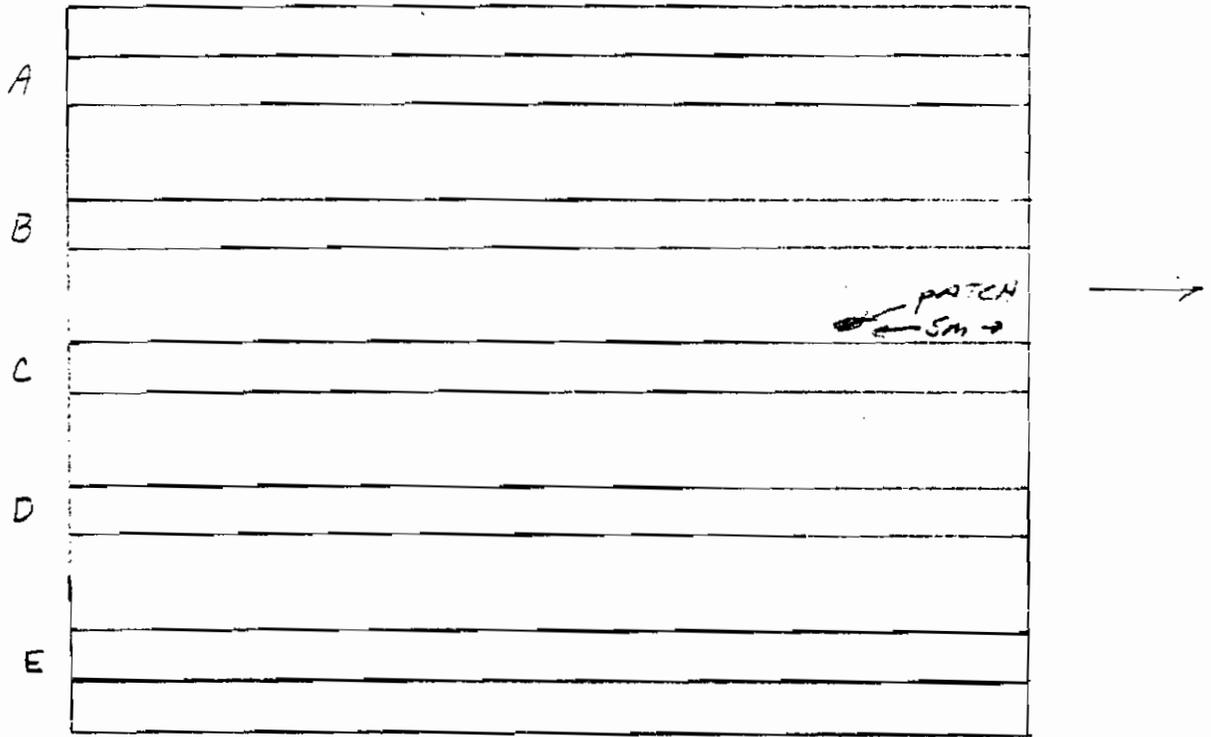
A	
B	
C	
D	
E	

Bottom class = 2

Br. # 95-140-7.43 RT

Depth	4	
Diam.	4	
Beams	4	

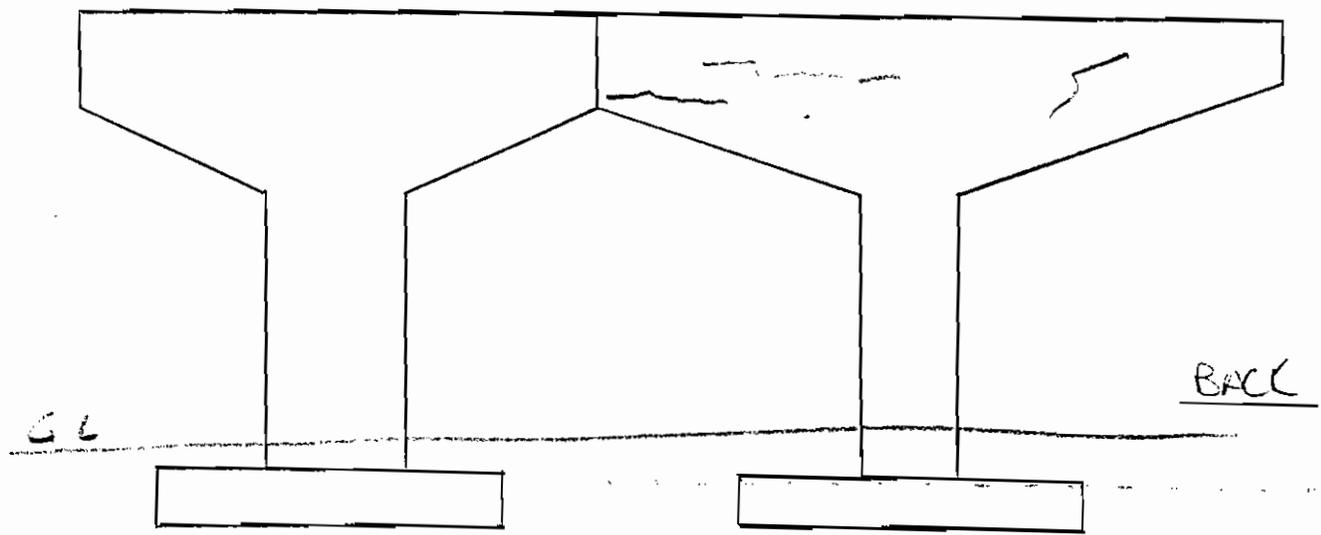
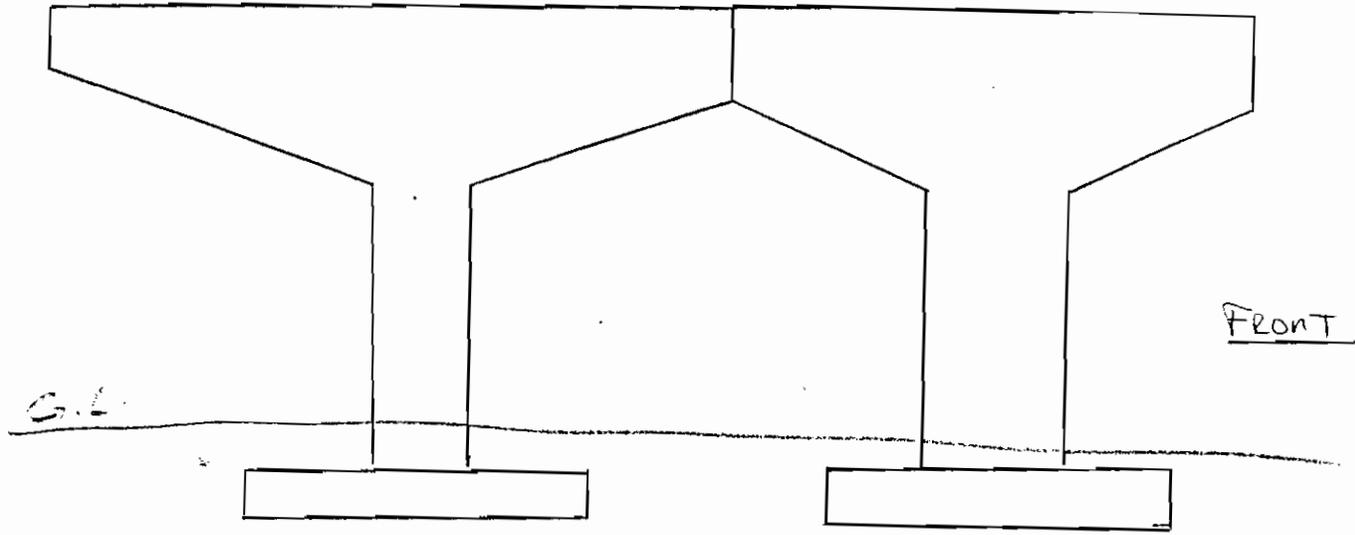
5-6-78



Bottom slab = 3

B.F. # 95-140-7.43 RT

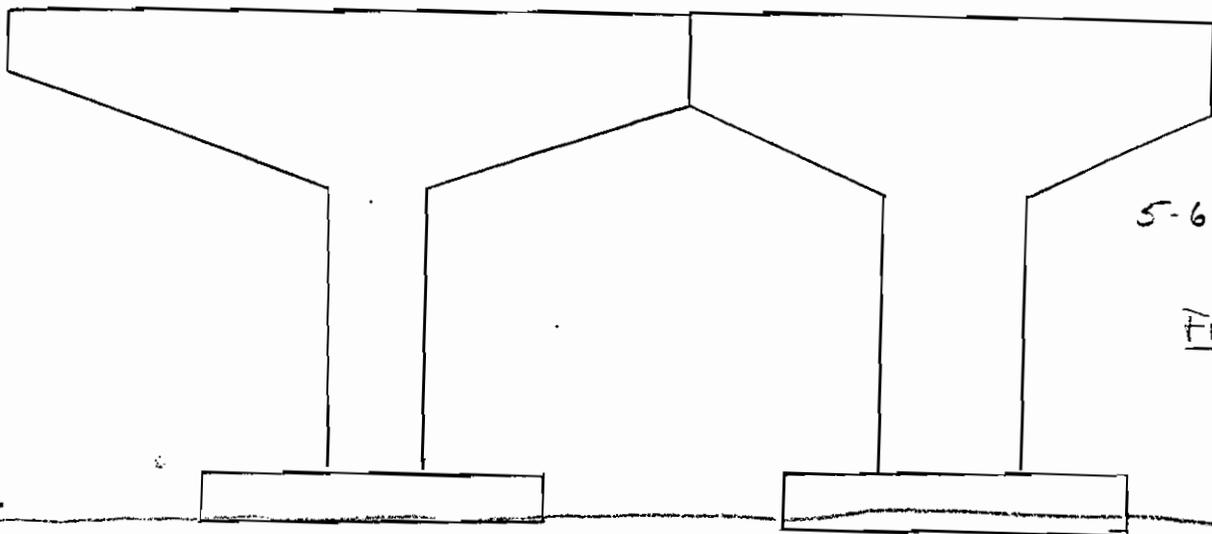
Deck	6	
Finish	4	
Beams	4	



BENT # 1

Br. # 95-140-7.43 RT

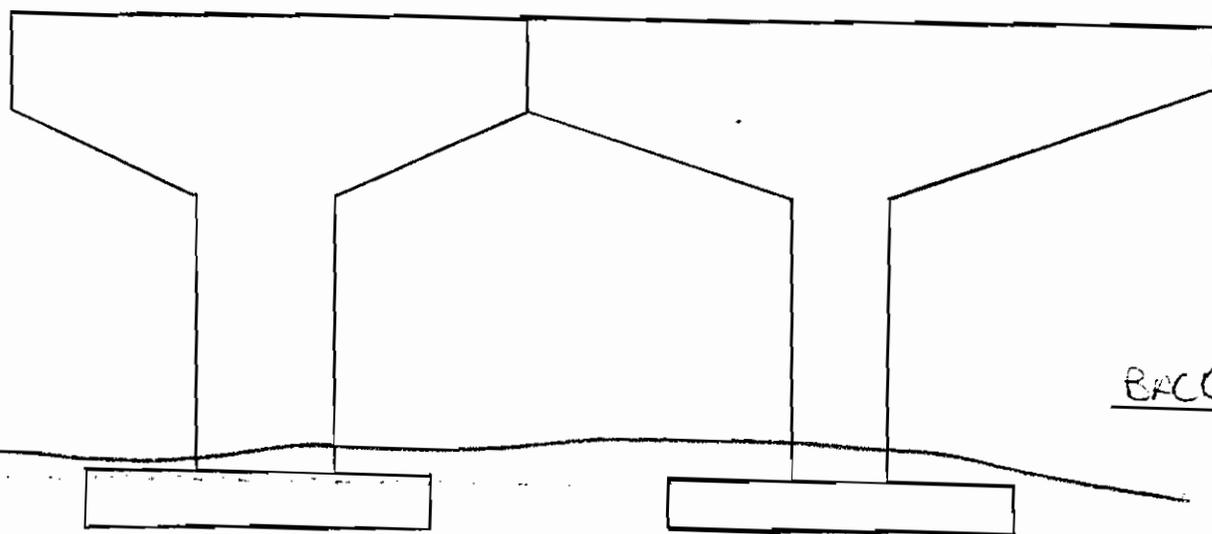
CAP	G	SEVERAL HAIRCRACKS
COLUMN	G	
FOOTING	NIY	
BEARING	G	NEOPRENE



5-6-98A

FRONT

w. 6.



BACK

S.C.

BENT # 2

Br. # 95-I40-7.43 RT

CAP	G	
COLUMN	G	
FOOTING	G	
BEARING	G	NEOPRENE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE INSPECTION AND REPAIR OFFICE
SUITE 1200, JAMES K. POLK BUILDING
NASHVILLE, TENNESSEE 37243-0338

GERALD F. NICELY

COMMISSIONER

PHIL BREDESEN

GOVERNOR

September 10, 2007

Mr. Gene Scott
Utility Section
6601 Centennial Blvd.
Nashville, Tennessee 37243-0360

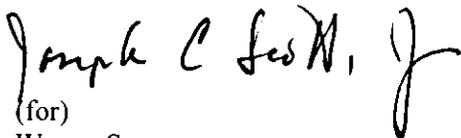
Re: Proposed Sewer Installation
Bridge No. 95I00400011 and
Bridge No. 95I00400012
Location Number 95-I40-07.43
Wilson county

Dear Mr. Scott;

We are enclosing three copies of the proposed sewer installation under I40 in Wilson County. These drawings are marked "APPROVED".

If you have any questions, please contact our office.

Yours truly,


(for)

Wayne Seger
Civil Engineering Manager 2
Bridge Inspection and Repair Office

WS:jcs

Enclosure

cc: Mr. J. C. Scott



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
NASHVILLE, TENNESSEE 37243-0360

September 4, 2007

Mr. Joe Scott
Division of Structures
James K. Polk Building
505 Deadrick Street
Suite 1200
Nashville, TN 37243

RE: Project I-40 E.B. L./W.B. L. for 15" SDR 35 PVC
Sewer Main in Wilson County

Dear Mr. Scott:

Enclosed we are submitting four sets of drawings for your review for the City of Lebanon Department of Public Works to open-cut and installed 15" sewer main underneath and parallel to Wilson Creek Bridge, Bridge Nos. 95100400011 & 95100400012.

If these plans meet your approval, please return.

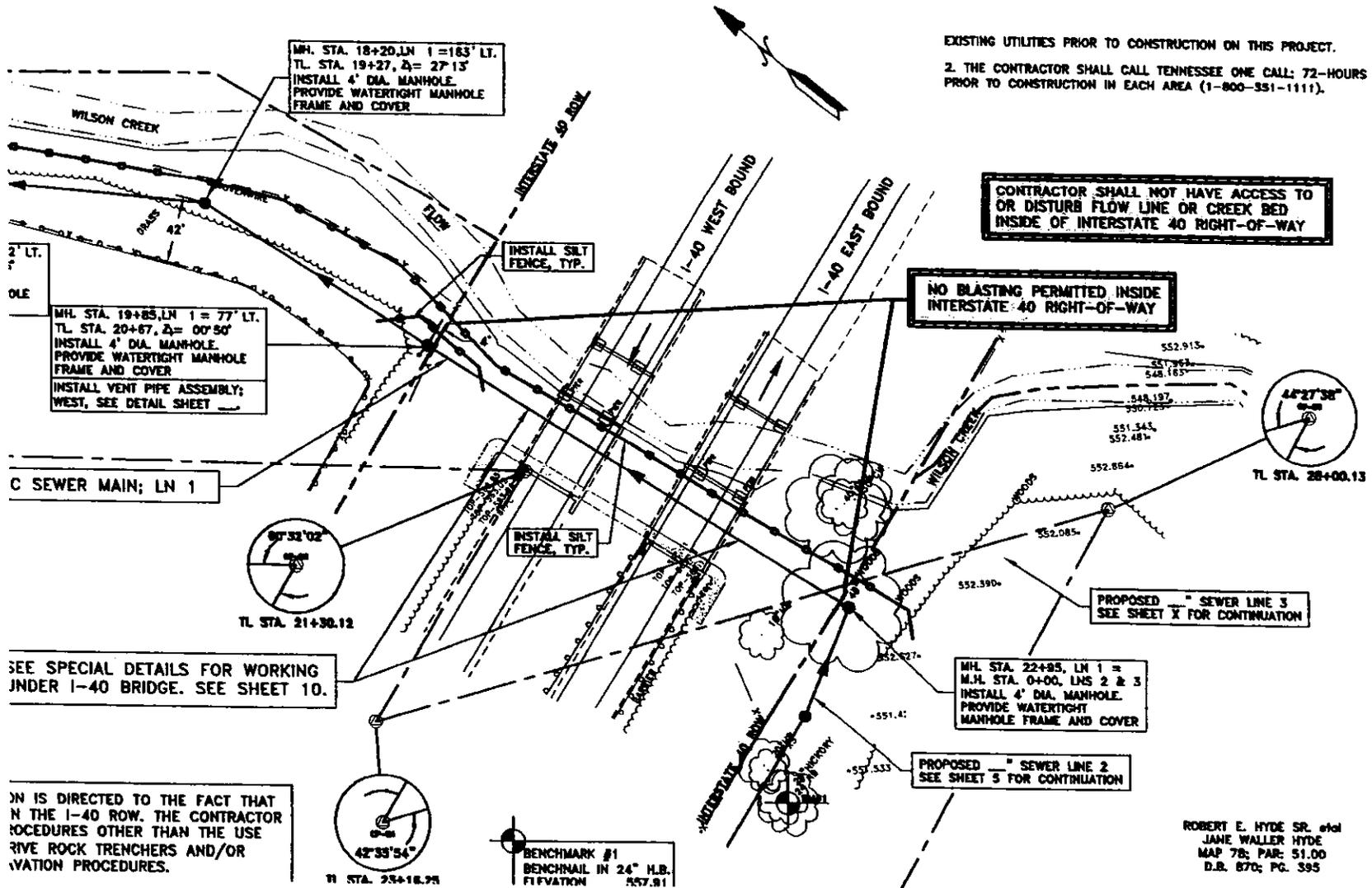
If you have any questions, please feel free to contact me at 615-350-4231.

Sincerely,

Gene Scott
Region III Utilities
6601 Centennial Blvd.
Nashville, TN 37243-0360

GS/lc
Enclosures

Rec'd
9-6-07
fcs



EXISTING UTILITIES PRIOR TO CONSTRUCTION ON THIS PROJECT.

2. THE CONTRACTOR SHALL CALL TENNESSEE ONE CALL: 72-HOURS PRIOR TO CONSTRUCTION IN EACH AREA (1-800-351-1111).

CONTRACTOR SHALL NOT HAVE ACCESS TO OR DISTURB FLOW LINE OR CREEK BED INSIDE OF INTERSTATE 40 RIGHT-OF-WAY

NO BLASTING PERMITTED INSIDE INTERSTATE 40 RIGHT-OF-WAY

M.H. STA. 18+20, LN 1 = 163' LT.
TL STA. 19+27, Δ = 27°13'
INSTALL 4' DIA. MANHOLE.
PROVIDE WATERTIGHT MANHOLE
FRAME AND COVER

M.H. STA. 19+85, LN 1 = 77' LT.
TL STA. 20+67, Δ = 00°50'
INSTALL 4' DIA. MANHOLE.
PROVIDE WATERTIGHT MANHOLE
FRAME AND COVER
INSTALL VENT PIPE ASSEMBLY;
WEST, SEE DETAIL SHEET

NO BLASTING PERMITTED INSIDE INTERSTATE 40 RIGHT-OF-WAY

M.H. STA. 22+85, LN 1 =
M.H. STA. 0+00, LNS 2 & 3
INSTALL 4' DIA. MANHOLE.
PROVIDE WATERTIGHT
MANHOLE FRAME AND COVER

PROPOSED " SEWER LINE 2
SEE SHEET 5 FOR CONTINUATION

PROPOSED " SEWER LINE 3
SEE SHEET X FOR CONTINUATION

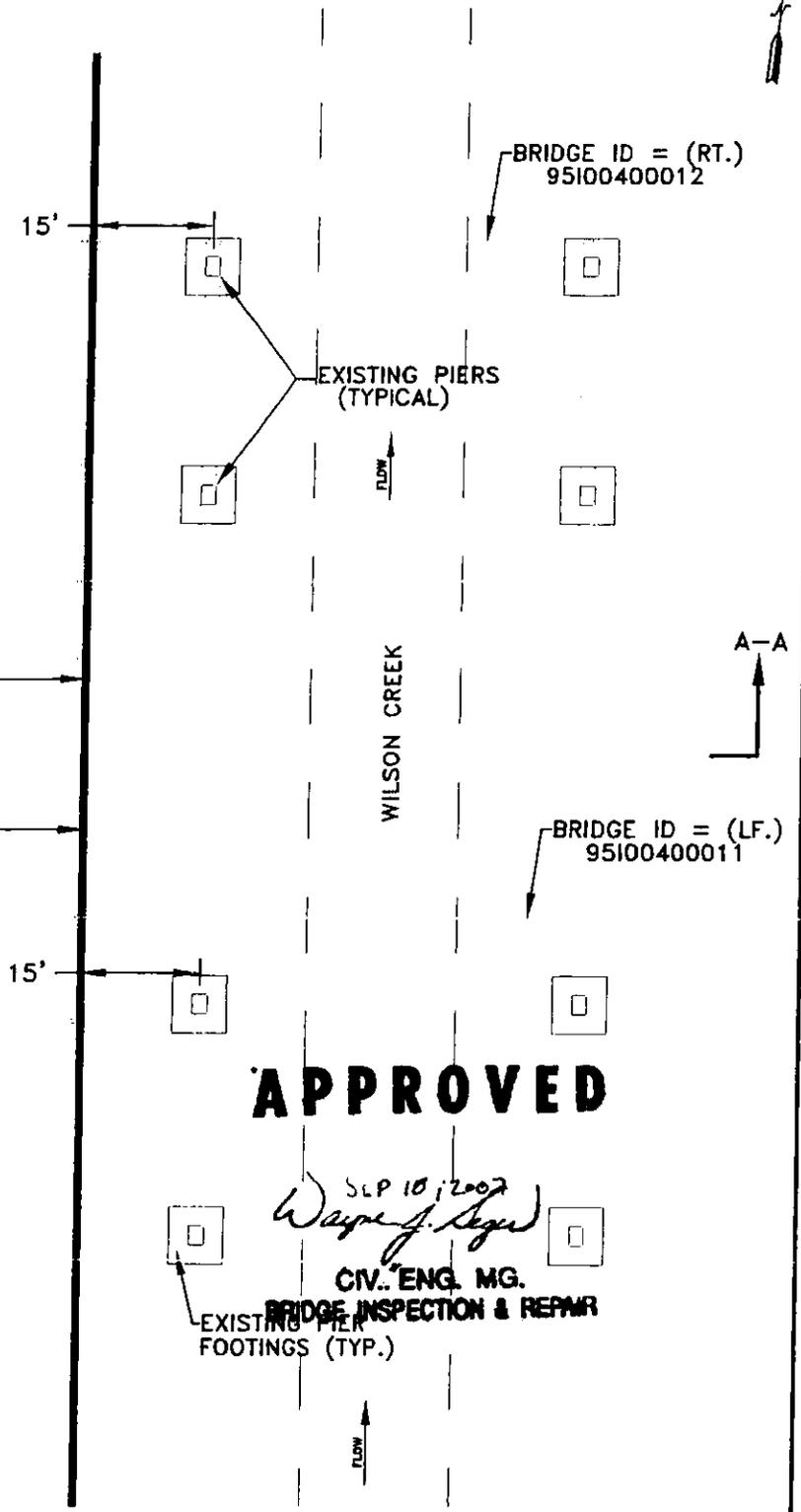
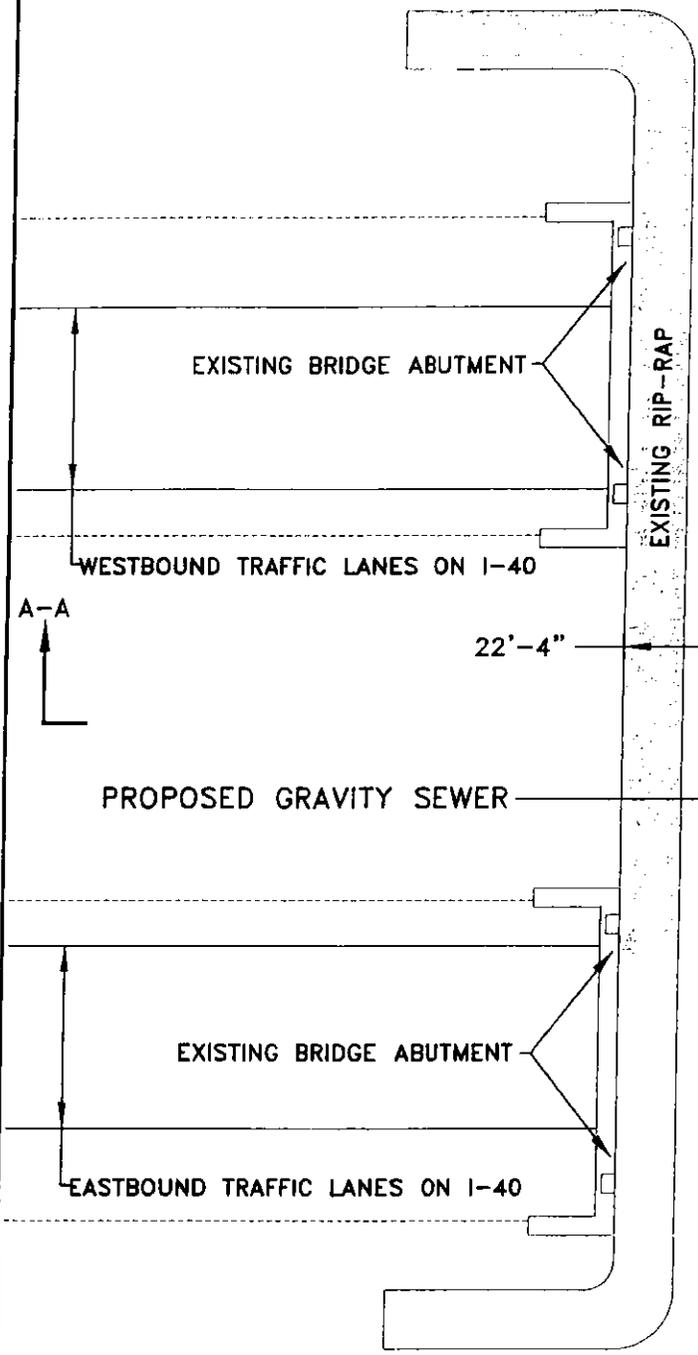
C SEWER MAIN; LN 1

SEE SPECIAL DETAILS FOR WORKING UNDER I-40 BRIDGE. SEE SHEET 10.

CONTRACTOR IS DIRECTED TO THE FACT THAT IN THE I-40 ROW, THE CONTRACTOR SHALL FOLLOW PROCEDURES OTHER THAN THE USE OF ROCK TRENCHERS AND/OR CONSTRUCTION PROCEDURES.

BENCHMARK #1
BENCHMARK IN 24" H.B.
ELEVATION 557.81

ROBERT E. HYDE SR. et al
JANE WALLER HYDE
MAP 78; PAR: 51.00
D.B. 870; PG. 395



APPROVED

SLP 10/2007
Wayne J. Agnew

CIV. ENG. MG.
 BRIDGE INSPECTION & REPAIR

DEPARTMENT OF PUBLIC WORKS
 LEBANON, TENNESSEE

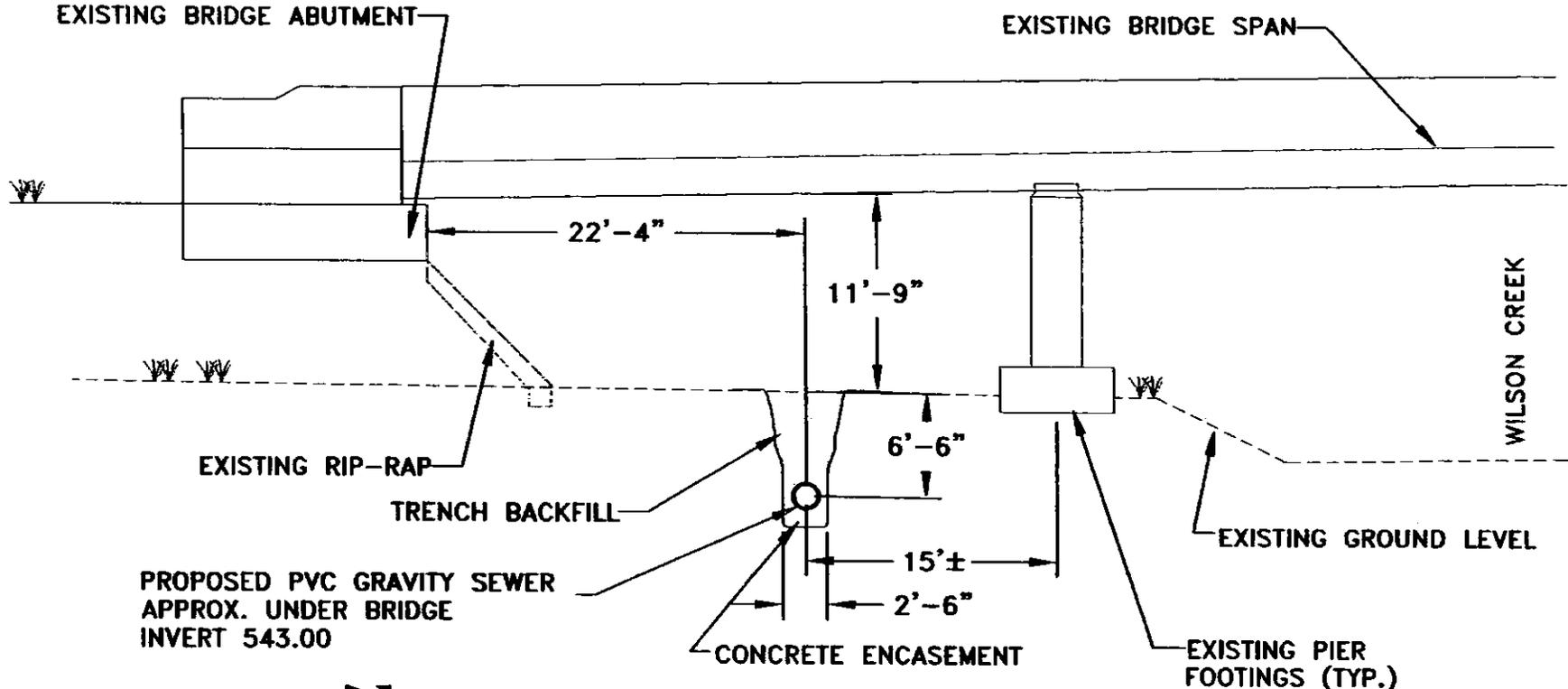
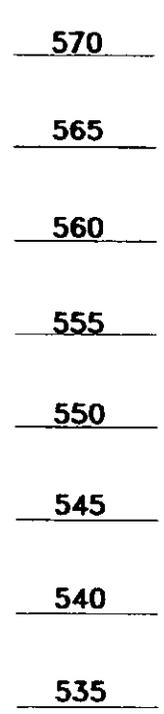
GRAVITY SEWER ALIGNMENT
 UNDER I-40 / WILSON CREEK
 BRIDGE NOS. 95100400011 & 95100400012

PLAN VIEW 95100400011

SCALE: 1/2" = 1'-0"

 Water Management Services, LLC
 PROFESSIONAL ENGINEERING SERVICES
 NASHVILLE, TENNESSEE

ELEVATION:



SECTION A-A

CIV. ENGR. M.G.
BRIDGE INSPECTION & REPAIR

SEP 10 2007

APPROVED

NOTE: THE CONTRACTOR SHALL CUT TRENCH WITH CHAIN DRIVEN TRENCHER OR OTHER NON-EXPLOSIVE METHOD. NO BLASTING PERMITTED WITHIN ROW OF INTERSTATE 40.

DEPARTMENT OF PUBLIC WORKS
LEBANON, TENNESSEE

GRAVITY SEWER ALIGNMENT
UNDER I-40 / WILSON CREEK
BRIDGE NOS. 95100400011 & 95100400012

PROFILE VIEW

SCALE 1" = 10'

Water Management Services, LLC
PROFESSIONAL ENGINEERING SERVICES
MEMPHIS, TENNESSEE

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(88)230	1989	

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	10-11-89	HYB	ADD PARAPET DRAINS

NOTE: THE PILLS AT THE ENDS OF THE BRIDGE SHALL BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ANY ABUTMENT PILES ARE DRIVEN.

REFERENCE DRAWINGS

DWG. NO'S K-18-141 THRU K-18-146

LIST OF DRAWINGS

TITLE OF DWG.	DWG. NO.	LATEST REV. DATE
LAYOUT OF BRIDGE NO. 1	M-216-1	
GENERAL NOTES	M-216-2	
ESTIMATED QUANTITIES	M-216-3	
FOUNDATION DATA	M-216-4	
SUPERSTRUCTURE	M-216-5	
SUPERSTRUCTURE DETAILS	M-216-6	
BRIDGE SCREED	M-216-7	
BRIDGE APPROACH	M-216-8	
PRESTRESSED BEAM DETAILS	M-216-9	
ABUTMENT NO. 1 & NO. 2	M-216-10	
PIER NO. 1 & NO. 2	M-216-11	
BILL OF STEEL (RT. LN.)	M-216-12	
BILL OF STEEL (LT. LN.)	M-216-13	

LIST OF STANDARD DRAWINGS

TITLE OF DWG.	DWG. NO.	LATEST REV. DATE
STANDARD REINFORCEMENT		
BAR SUPPRT DETAILS	K-80-14	8-27-76
MISCELLANEOUS ABUTMENT AND DRAINAGE DETAILS	K-85-150	6-25-87
* BRIDGE RAILING CONCRETE PARAPET	M-28-1	11-01-88
* STANDARD PILE DETAILS	M-174-150	

* DENOTES: THESE DRAWINGS ARE TO BE PRINTED WITH PLANS

LIST OF SPECIAL PROVISIONS

NO.	REGARDING	LATEST REV. DATE
105A	APPROVAL OF SHOP DRAWINGS	7-21-87
604	CONCRETE STRUCTURES	11-6-87
604C	STRUCTURAL CONCRETE	1-26-88
604R	RIDEABILITY OF BRIDGE DECKS AND ROADWAY APPROACHES	1-20-87
615	PRECAST PRESTRESSED CONCRETE BRIDGE MEMBERS	5-18-88
709	MACHINED RIP-RAP	5-4-87
907A	EPOXY COATED REINFORCING STEEL	3-25-85

HYDRAULIC DATA

DRAINAGE AREA	3.57 SQ. MI.
Q ₁₀₀	2809 C.F.S.
VELOCITY	4.20 F.P.S.
WATERWAY AREA	669 S.F.
OVERTOPPING EL.	562.30

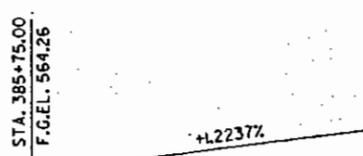
U.S.G.S. 1928 FLOOD DATA

DISCHARGE	4440 C.F.S.
MEAN VELOCITY	8.5 F.P.S.
WATERWAY AREA	521 S.F.

PARAPET DRAIN LOCATION

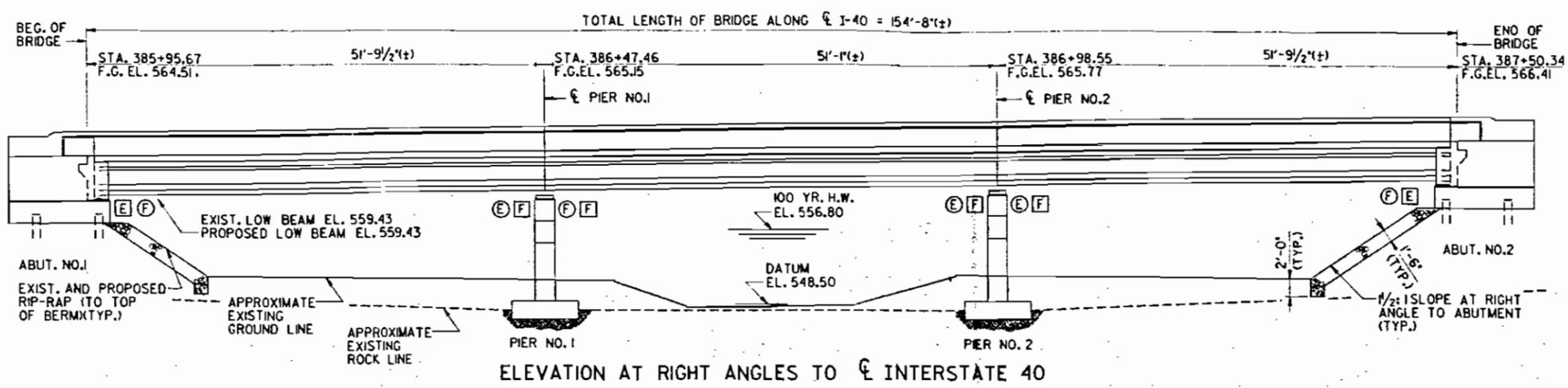
LEFT LANE	RIGHT LANE
STA. 386+12.93	STA. 386+12.93
STA. 386+30.20	STA. 386+30.20
STA. 386+13.00	STA. 386+13.00
STA. 387+24.45	STA. 387+24.45

NOTE: DRAINS TO BE LOCATED ON LOW SIDE OF BRIDGE. FOR DETAILS SEE STD. DWG. M-28-1A.

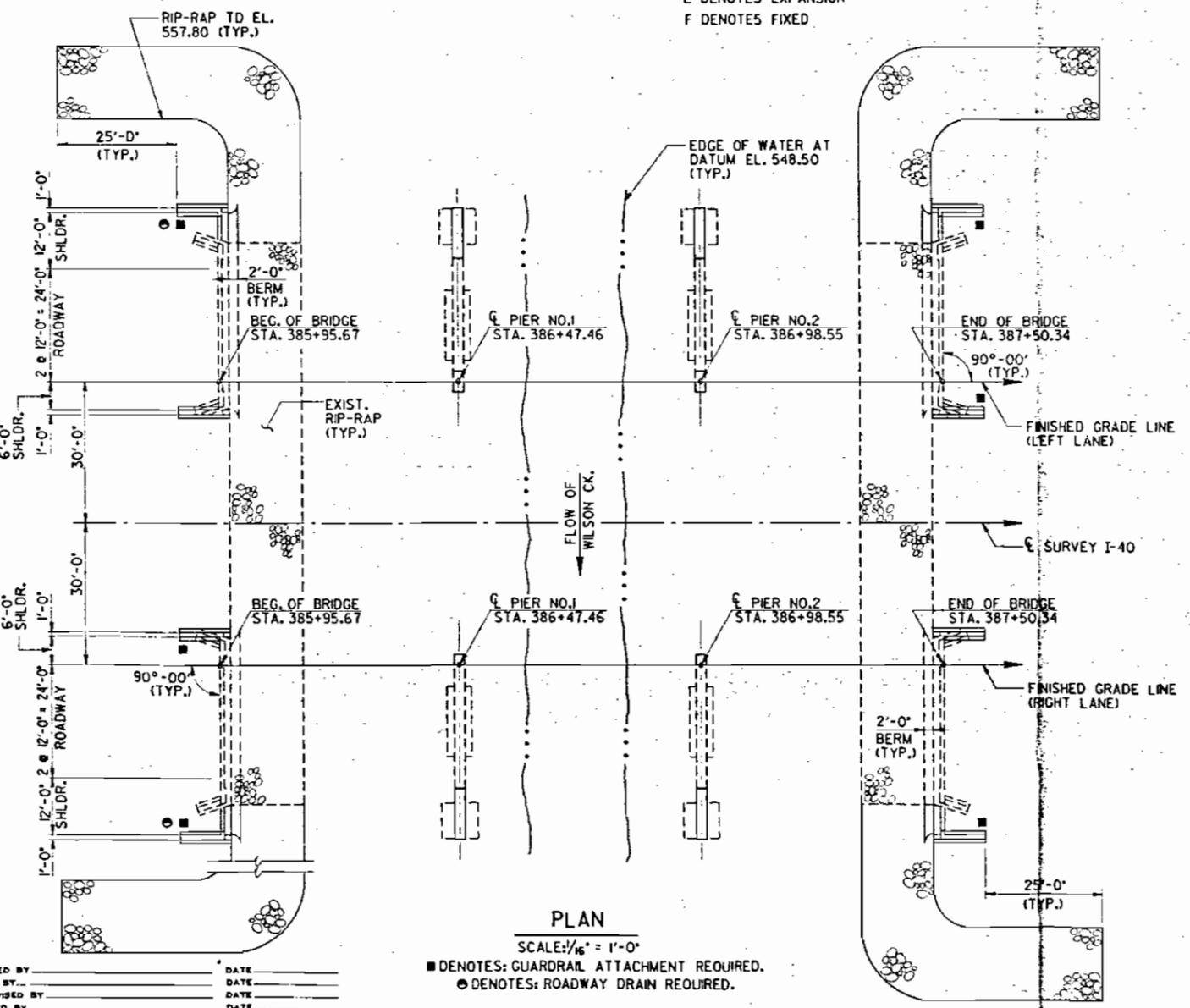


SKETCH SHOWING GRADE

FINISHED GRADE ELEVATIONS SHOWN ABOVE ARE BASED UPON ORIGINAL FINISHED GRADE PLUS 5'.
 NOTE: BENCH MARK FOR BRIDGE AND BRIDGE APPROACH CONSTRUCTION TO BE A PAINTED SQUARE ON NORTHERN END OF LEFT LANE ABUTMENT BEAM AT BEGINNING OF BRIDGE. THE BENCH MARK SHALL BE TRANSFERRED TO AN APPROPRIATE LOCATION PRIOR TO BEGINNING CONSTRUCTION. BENCH MARK ELEV. = 559.34.



NOTES: ○ DENOTES EXISTING SUPPORT CONDITION
 □ DENOTES PROPOSED SUPPORT CONDITION
 E DENOTES EXPANSION
 F DENOTES FIXED



DESIGN SPEED = 70 M.P.H.
 TWO - 42'-0" ROADWAYS WITH CONCRETE PARAPET RAILS
 STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
LAYOUT OF BRIDGE NO. 1
LEFT AND RIGHT LANES
WIDENING OF INTERSTATE 40
OVER
WILSON CREEK
STATION 385+95.67
 BR. ID. NO. 9510040001 (RT. LN.)
 BR. ID. NO. 9510040002 (LT. LN.)
 WILSON COUNTY

CORRECT *Edward P. Wasserman* 1989
 APPROVED *Louis Jones*
 DIRECTOR OF HIGHWAYS

PROJECT NO.	YEAR	SHEET NO.
IR-40-5(88)230	1989	

ESTIMATED QUANTITIES (LEFT LANE)

ITEM NO.	202-04.01	204-02.01	204-03.01	204-04.01	204-05	204-10.01	204-10.02	604-01.02	604-02.03	604-03.01	604-03.02	604-04.01
ITEM	REMOVAL OF STRUCTURES (BRIDGE NO. 1) (LT. LN.) ⑪ L.S. ⑦	DRY EXCAVATION (BRIDGES) C.Y. ①	WET EXCAVATION (BRIDGES) C.Y. ①	ROCK EXCAVATION (BRIDGES) C.Y.	ROCK DRILLING (BRIDGES) L.F.	FOUNDATION PREPARATION (PIER NO. 1) (STA. 386+47.46) L.S. ⑨	FOUNDATION PREPARATION (PIER NO. 2) (STA. 386+98.55) L.S. ⑨	CLASS 'A' CONCRETE (BRIDGE DECK) C.Y.	EPOXY COATED REINFORCING STEEL LBS.	CLASS 'A' CONCRETE (BRIDGES) C.Y.	STEEL BAR REINFORCEMENT (BRIDGES) LBS.	APPLIED TEXTURE FINISH (NEW STRUCTURES) S.Y.
SUPERSTRUCTURE								154	30,162		717	
ABUTMENT No. 1		27								12	1,764	
PIER NO. 1		27	3	1	6					9	1,517	
PIER NO. 2		11	2	1	6					9	1,532	
ABUTMENT No. 2		28								12	1,764	
TOTAL	1	77	5	2	12	1	1	154	30,162	42	7,294	738

ESTIMATED QUANTITIES (LEFT LANE) CONT'D

ITEM NO.	604-04.02	604-10.50	604-10.54	604-36	606-02.03	615-01.03	620-03	709-05.06	710-09.01	710-09.02	920-02.19
ITEM	APPLIED TEXTURE FINISH (EXIST. STRUCTURES) S.Y.	BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB) S.Y. ⑩	CONCRETE REPAIRS S.F. ⑩	SCARIFYING S.Y. ⑧	STEEL PILES (10 INCH) L.F.	PRESTRESSED CONCRETE I-BEAM (TYPE III) L.F. ② ④	CONCRETE PARAPET L.F. ⑤	MACHINED RIP-RAP (CLASS A-I) TON	6" PERF. PIPE W/ VERTICAL DRAIN SYSTEM L.F. ③	6" PIPE UNDERDRAIN L.F.	EPOXY INJECTION L.F.
SUPERSTRUCTURE											
ABUTMENT No. 1					30			101	25	15	
PIER NO. 1			10								65
PIER NO. 2			3								18
ABUTMENT No. 2			1		31			101	25	15	
TOTAL	155	90	14	447	61	152	345	202	50	30	83

ESTIMATED QUANTITIES (RIGHT LANE)

ITEM NO.	202-04.02	204-02.01	204-03.01	204-04.01	204-05	204-10.03	204-10.04	604-01.02	604-02.03	604-03.01	604-03.02	604-04.01
ITEM	REMOVAL OF STRUCTURES (BRIDGE NO. 1) (RT. LN.) ⑪ L.S. ⑦	DRY EXCAVATION (BRIDGES) C.Y. ①	WET EXCAVATION (BRIDGES) C.Y. ①	ROCK EXCAVATION (BRIDGES) C.Y.	ROCK DRILLING (BRIDGES) L.F.	FOUNDATION PREPARATION (PIER NO. 1) (STA. 386+47.46) L.S. ⑨	FOUNDATION PREPARATION (PIER NO. 2) (STA. 386+98.55) L.S. ⑨	CLASS 'A' CONCRETE (BRIDGE DECK) C.Y.	EPOXY COATED REINFORCING STEEL LBS.	CLASS 'A' CONCRETE (BRIDGES) C.Y.	STEEL BAR REINFORCEMENT (BRIDGES) LBS.	APPLIED TEXTURE FINISH (NEW STRUCTURES) S.Y.
SUPERSTRUCTURE								154	30,162		717	
ABUTMENT No. 1		27								12	1,764	
PIER NO. 1				1	6					9	1,517	
PIER NO. 2		11	4	1	6					10	1,585	
ABUTMENT No. 2		28								12	1,764	
TOTAL	1	66	4	2	12	1	1	154	30,162	43	7,347	738

ESTIMATED QUANTITIES (RIGHT LANE) CONT'D

ITEM NO.	604-04.02	604-10.50	604-10.54	604-36	606-02.03	615-01.03	620-03	709-05.06	710-09.01	710-09.02	920-02.19
ITEM	APPLIED TEXTURE FINISH (EXIST. STRUCTURES) S.Y.	BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB) S.Y. ⑩	CONCRETE REPAIRS S.F. ⑩	SCARIFYING S.Y. ⑧	STEEL PILES (10 INCH) L.F.	PRESTRESSED CONCRETE I-BEAM (TYPE III) L.F. ② ④	CONCRETE PARAPET L.F. ⑤	MACHINED RIP-RAP (CLASS A-I) TON	6" PERF. PIPE W/ VERTICAL DRAIN SYSTEM L.F. ③	6" PIPE UNDERDRAIN L.F.	EPOXY INJECTION L.F.
SUPERSTRUCTURE											
ABUTMENT No. 1					30			101	25	15	
PIER NO. 1			10								25
PIER NO. 2			10								
ABUTMENT No. 2			1		30			101	25	15	
TOTAL	155	45	20	447	60	152	345	202	50	30	25

REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION
1	3-29-89	HMB	ADD NOTE 11

NOTES:

- ① EXCAVATION BASED ON EXISTING GROUND.
- ② COST OF ELASTOMERIC PADS, RUBBER BONDING CEMENT, AND DOWEL BARS TO BE INCLUDED IN THE COST OF PRESTRESSED BEAMS.
- ③ COST OF POLYETHYLENE SHEETING AND ALL MISCELLANEOUS ITEMS NECESSARY FOR INSTALLATION TO BE INCLUDED IN COST OF PERFORATED PIPE.
- ④ THE COST OF 12 INSERT ASSEMBLIES AND 48 3/8" x 4" HEX HEAD BOLTS, (A307), TO BE INCLUDED IN ITEM 620-03.
- ⑤ ALL REINFORCING STEEL IN THE PARAPET SHALL BE EPOXY COATED. COST TO BE INCLUDED IN THE PRICE BID FOR ITEM 620-03.
- ⑥ THE COST OF BITUMINOUS-FIBERBOARD, AND ALL MISCELLANEOUS JOINT MATERIAL TO BE INCLUDED IN BRIDGE ITEMS BID ON.
- ⑦ THE COST OF REMOVING THE EXTERIOR PORTION OF THE EXISTING SLAB, PORTIONS OF THE EXISTING ABUTMENT, AND THE BRIDGERAIL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202-04.01 AND 202-04.02.
- ⑧ THE COST OF REMOVING ANY EXISTING ASPHALT OVERLAY SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SCARIFYING.
- ⑨ SEE FOUNDATION PREPARATION NOTE ON DWG. NO. M-216-2.
- ⑩ ITEMS 604-10.50 AND 604-10.54 SHALL BE BID WITH THE CONTINGENCY THAT THESE ITEMS MAY BE INCREASED, DECREASED, OR ELIMINATED AS DIRECTED BY THE ENGINEER.
- ⑪ THE USE OF A RAMMER IS PROHIBITED FOR REMOVAL OF CONCRETE. SEE NOTES ON DWG. NO. M-216-6.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
ESTIMATED QUANTITIES
LEFT AND RIGHT LANES
WIDENING OF INTERSTATE 40
OVER
WILSON CREEK
STATION 385+95.67
BR. ID. NO. 95100400011 (RT. LN.)
BR. ID. NO. 95100400012 (LT. LN.)
WILSON COUNTY

CORRECT *Edward P. Wasserman* 1989
APPROVED *Amie Evans*
DIRECTOR OF HIGHWAYS

DESIGNED BY _____ DATE _____
DRAWN BY _____ DATE _____
SUPERVISED BY _____ DATE _____
CHECKED BY _____ DATE _____

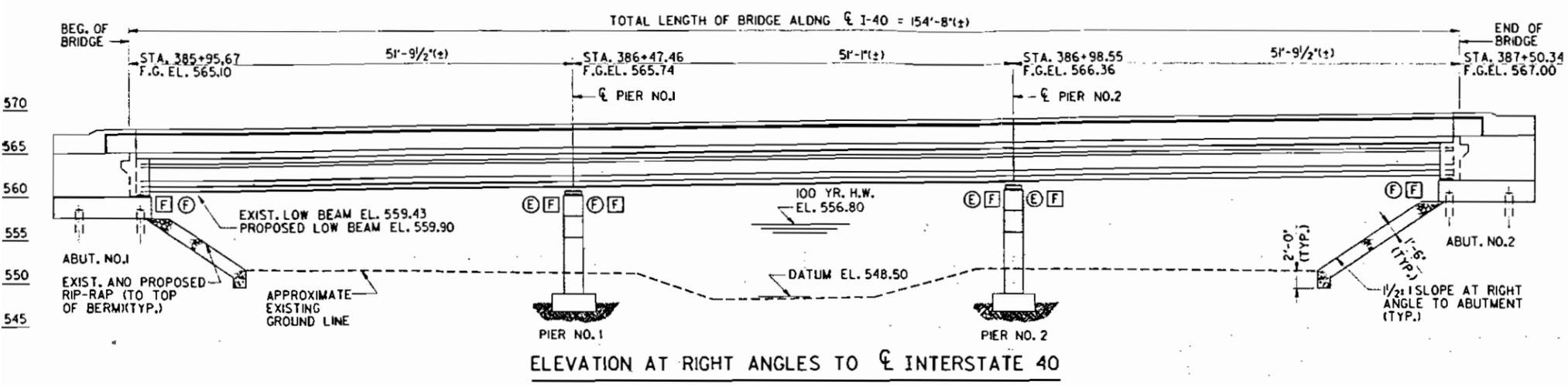
P.E. NO. 95001-5157-44		531	X081
PROJECT NO.	YEAR	SHEET NO.	
IR-40-511001229	1988		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

REQUIRED INFORMATION

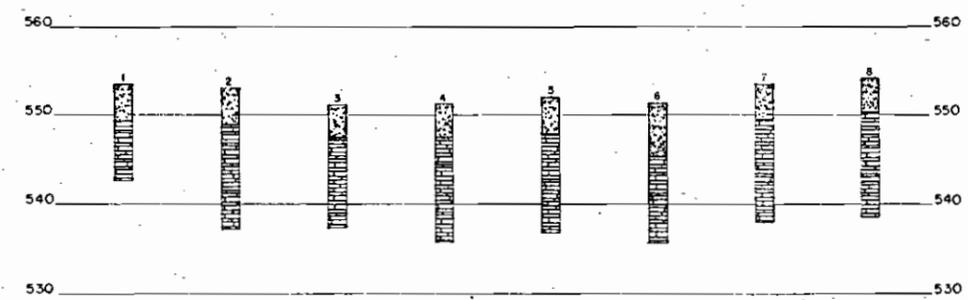
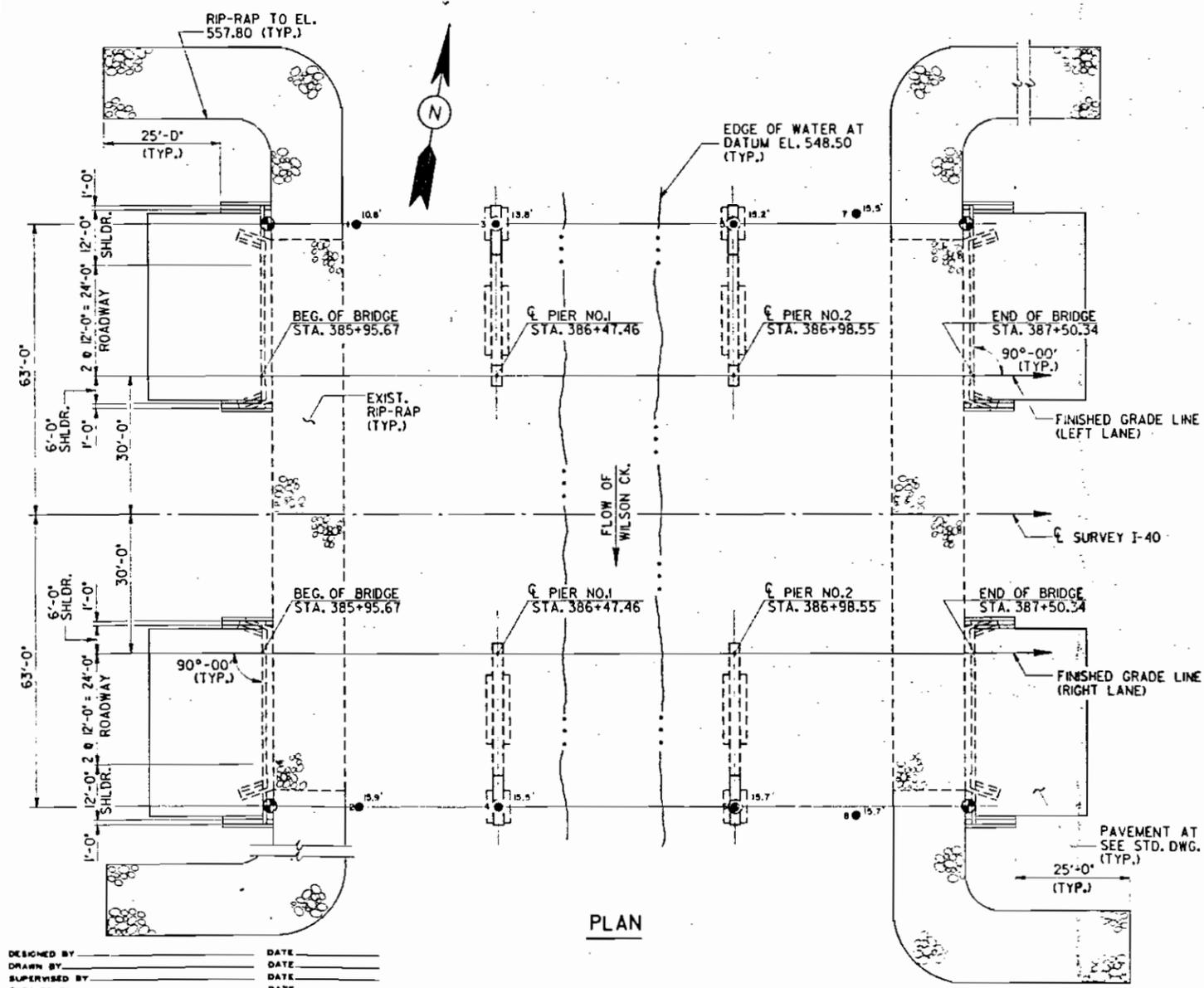
- APPROXIMATE EXISTING GROUND LINE AND ROCK LINE.
- SUFFICIENT GROUND AND CORING INFORMATION FOR BRIDGE FOUNDATION.

BENCH MARK
ELEVATION 559.34 TOP OF ABUTMENT BEAM, NORTH CORNER OF ABUTMENT NO.1 (LEFT LANE)

NOTE
THIS SHEET FOR FOUNDATION INVESTIGATION PURPOSE ONLY AND IS NOT TO BE USED FOR FINAL CONSTRUCTION STAKE-OUT PURPOSE.



NOTES: ○ DENOTES EXISTING SUPPORT CONDITION
□ DENOTES PROPOSED SUPPORT CONDITION
E DENOTES EXPANSION
F DENOTES FIXED



GROUND AND ROCK ELEVATIONS

1 6553.6	3 6551.1	5 6551.9	7 6553.5
2 6549.6	4 6547.3	6 6547.6	8 6549.5
9 6553.0	10 6551.2	11 6551.3	12 6554.2
13 6549.0	14 6537.3	15 6545.3	16 6550.2

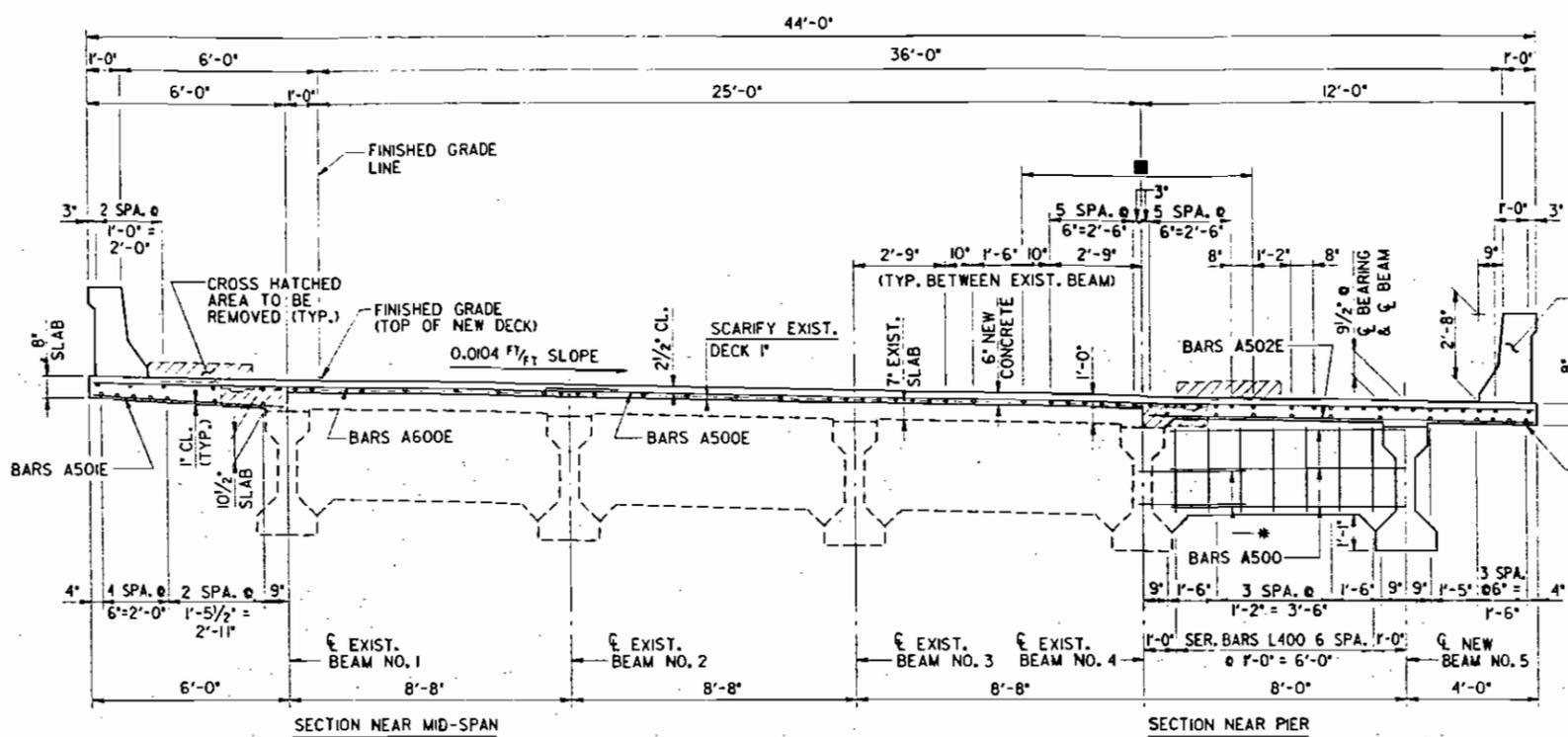
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
FOUNDATION DATA
LEFT AND RIGHT LANES
WIDENING OF INTERSTATE 40
OVER
WILSON CREEK
STATION 385+95.67
BR. ID. NO. 95100400011 (RT. LN.)
BR. ID. NO. 95100400012 (LT. LN.)
WILSON COUNTY

CORRECT *Edward P. Wasserman* 1988
DESIGNER OF STRUCTURES
APPROVED *Louis Brown*
DIRECTOR OF HIGHWAYS

DESIGNED BY _____ DATE _____
DRAWN BY _____ DATE _____
SUPERVISED BY _____ DATE _____
CHECKED BY _____ DATE _____

CONST. NO. 95001-3150-44 531 X081			
PROJECT NO.	YEAR	SHEET NO.	
IR-40-5(88)230	1989		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

NOTES:
 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.
 ALL GIRDERS TO BE SUPPORTED DURING CONSTRUCTION OF SLAB TO PREVENT ROTATION.



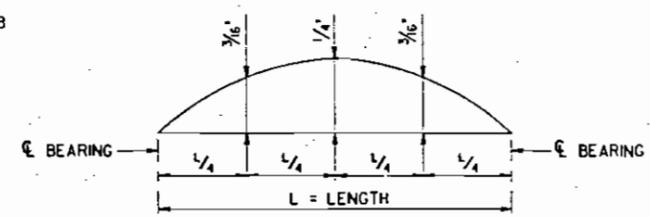
TYPICAL CROSS SECTION

(LOOKING FORWARD ON SURVEY RIGHT LANE)
 (LOOKING BACK ON SURVEY LEFT LANE)

* DENOTES: BARS A504 @ 1'-0" (MAX.) DRILLED AND GROUTED INTO EXISTING BEAM WITH 5" MIN. EMBEDMENT. BARS A504 TO BE DRILLED 5/2" FROM END OF BEAM.

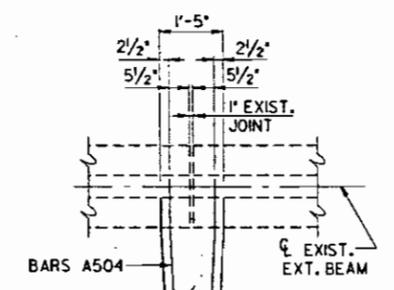
■ DENOTES: PLAN OF MAIN REINFORCEMENT
 ○ DENOTES: BARS A503E 3/4 BARS A503E
 3/4 BARS A504E
 ● DENOTES: MAIN REINFORCEMENT

NOTE: NO PERMANENT BRIDGE DECK FORMS ARE TO BE USED ON THIS STRUCTURE.

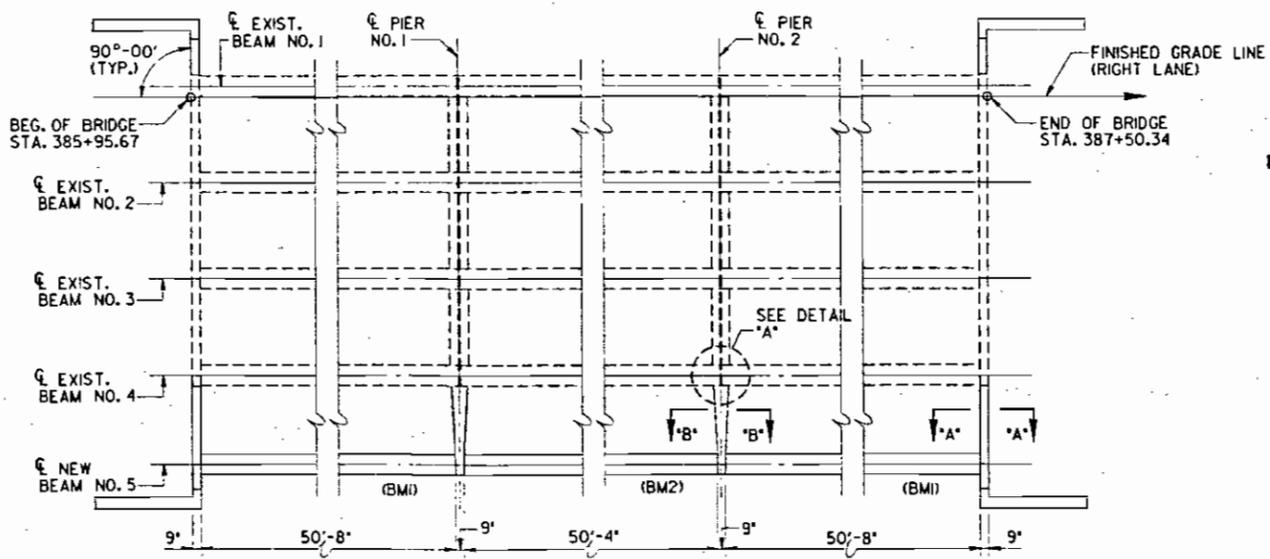


DEAD LOAD CORRECTION CURVE

THIS CURVE IS FOR DEAD LOAD SLAB AND ALL DEAD LOADS THAT ARE APPLIED AFTER SLAB IS IN PLACE.



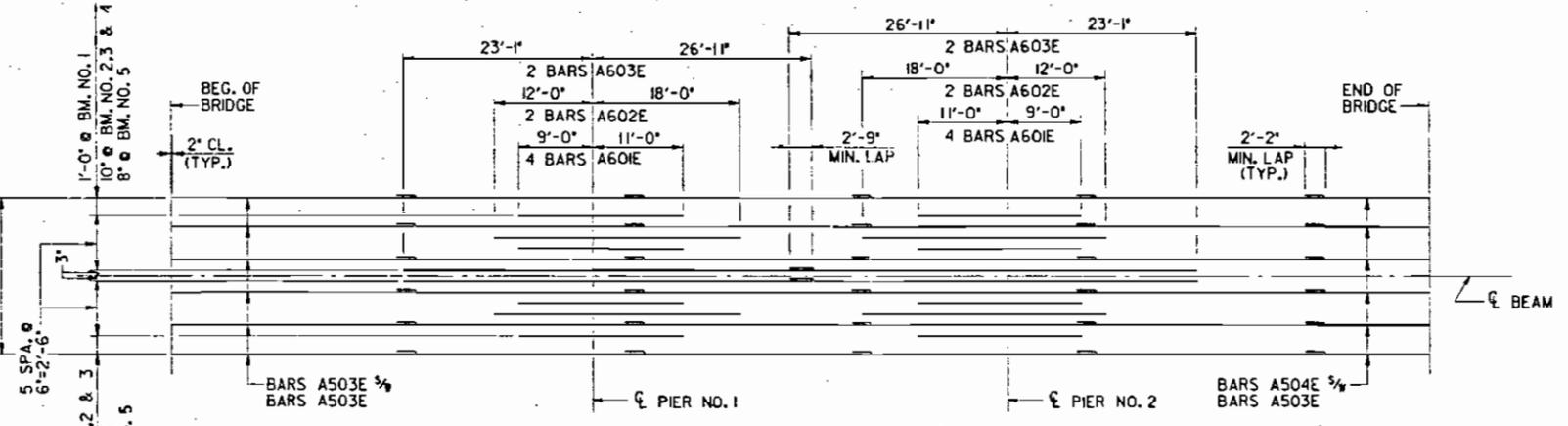
DETAIL 'A'



FRAMING PLAN

(RIGHT LANE SHOWN)
 (LEFT LANE OPPOSITE HAND)

NOTE: FOR SECTION 'A-A' AND SECTION 'B-B' SEE DWG. NO. M-216-6.



PLAN OF MAIN REINFORCEMENT

ESTIMATED QUANTITIES

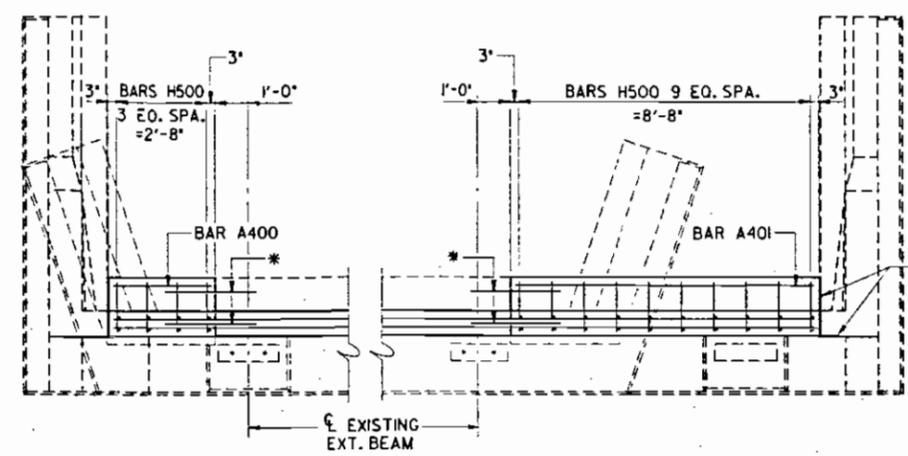
ITEM	CLASS 'A' CONCRETE (BRIDGE DECK) C.Y.	STEEL BAR REINFORCEMENT LBS.	EPOXY COATED REINFORCING STEEL LBS.
LEFT LANE	154	717	30,162
RIGHT LANE	154	717	30,162

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE
 LEFT AND RIGHT LANES
 WIDENING OF INTERSTATE 40
 OVER
 WILSON CREEK
 STATION 385+95.67
 BR. ID. NO. 95100400011 (RT. LN.)
 BR. ID. NO. 95100400012 (LT. LN.)
 WILSON COUNTY

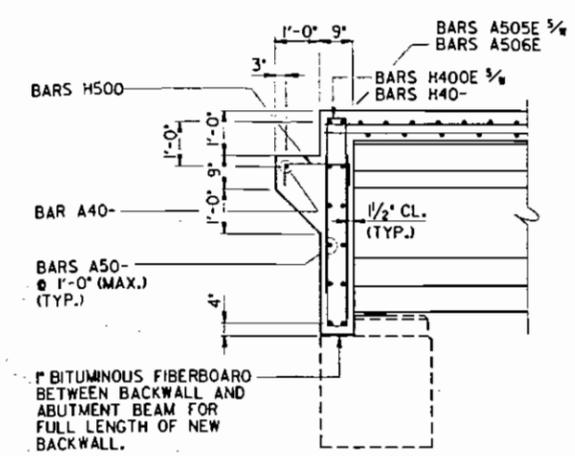
CORRECT *Edward P. Wasserman* 1989
 APPROVED *Chris Evans*
 DIRECTOR OF HIGHWAYS

DESIGNED BY _____ DATE _____
 DRAWN BY _____ DATE _____
 SUPERVISED BY _____ DATE _____
 CHECKED BY _____ DATE _____

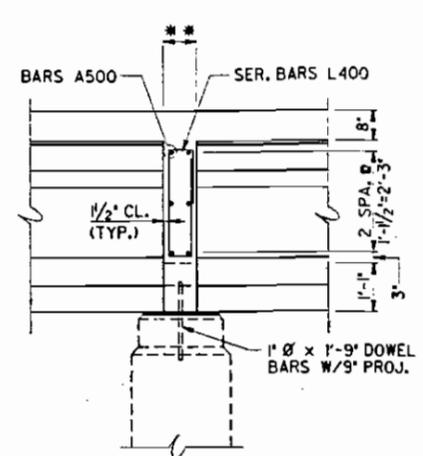
CONST. NO. 95001-3150-44		531	X081
PROJECT NO.	YEAR	SHEET NO.	
IR-40-5(88)230	1989		
REVISIONS			
NO.	DATE	BY	DESCRIPT
1	3-29-89	HMB	ADD NOTE



PLAN



SECTION 'A-A'

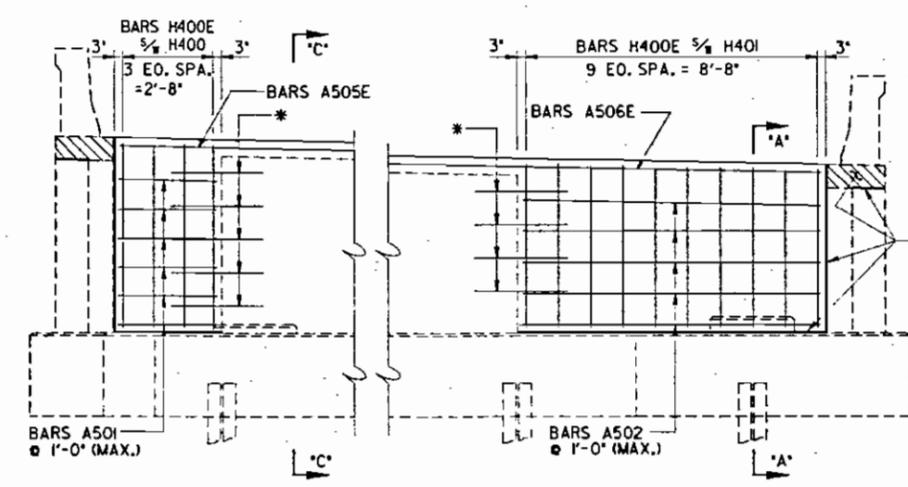


SECTION 'B-B'

SPECIAL NOTE FOR DOWEL BARS AT PIERS: TOP OF DOWELS TO BE COVERED WITH 1/2" OF COMPRESSIBLE MATERIAL AND THE 9" PROJECTION WRAPPED WITH 2 LAYERS OF WATER-PROOF PAPER.

NOTE: SUPPORT DIAPHRAGMS SHALL BE POURED CONCURRENTLY WITH THE DECK SLAB AND INCLUDED IN THE QUANTITY FOR ITEM 604-01.12.

NOTE: THE BACKWALL SHALL NOT BE POURED UNTIL THE GIRDERS ARE IN PLACE. THE TOP 1'-0" OF THE BACKWALL SHALL BE POURED CONCURRENTLY WITH THE END OF SLAB.

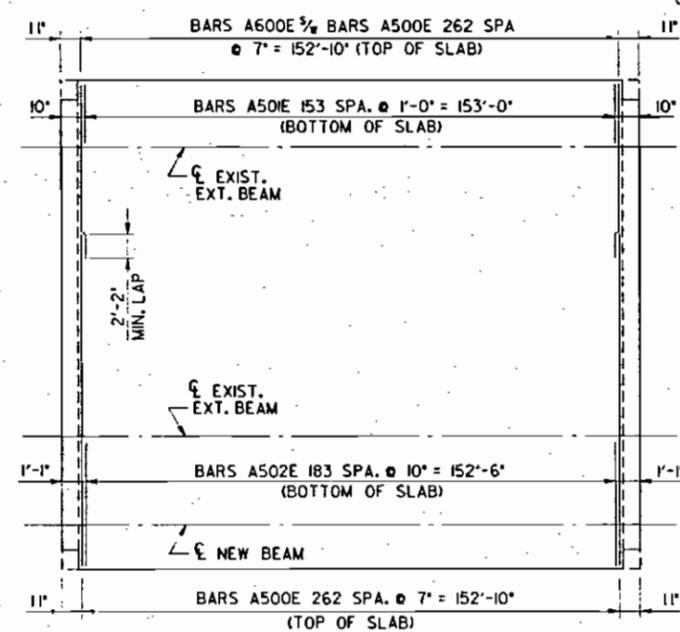


ELEVATION

(LOOKING FORWARD ON SURVEY END OF BRIDGE R.L.)
 (LOOKING BACK ON SURVEY BEG. OF BRIDGE L.L.)
 (B.O.B. R.L. AND E.O.B. L.L. OPPOSITE HAND)

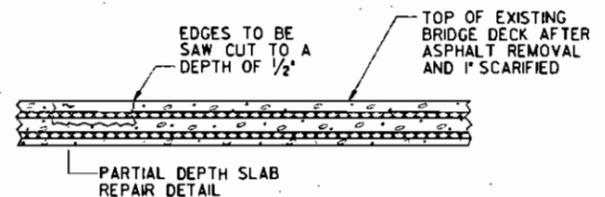
* DENOTES: BARS A503 @ 1'-0" (MAX.) DRILLED AND GROUTED INTO EXISTING BACKWALL AND ROADWAY BRACKET WITH 1'-3" EMBEDMENT.

■ DENOTES: BITUMINOUS FIBERBOARD TO BE AFFIXED TO WINGS WITH FOUR 1-1/2" LONG CONCRET MASONRY NAILS PER PIECE.



SLAB PLAN

(SHOWING TRANSVERSE REINFORCEMENT)

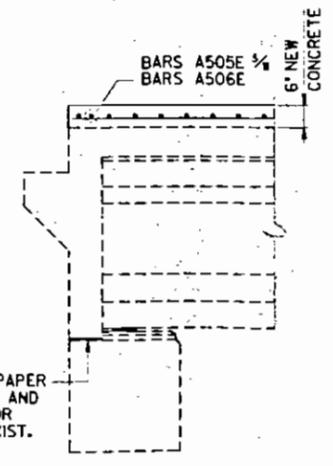


SKETCH SHOWING DECK REPAIR

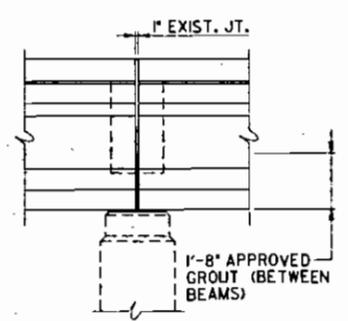
NOTE: REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF 3/4" BELOW THE TOP MAT OF REINFORCING STEEL. ALL REINFORCING STEEL IN AREAS OF DECK REPAIR SHALL BE BLAST CLEANED. LOCATIONS AND LIMITS OF COMPLETE AND PARTIAL DEPTH DECK REPAIR SHALL BE DESIGNATED BY THE ENGINEER, UNDER THE DIRECTION OF THE T.D.O.T. DIVISION OF STRUCTURES. PARTIAL DEPTH DECK REPAIR WILL BE PAID FOR UNDER ITEM 604-10.50, BRIDGE DECK REPAIR (PARTIAL DEPTH OF SLAB), S.Y.

NOTE: CONCRETE FOR DECK REPAIR SHALL BE POURED WHEN POURING THE 6" NEW DECK. THE COST OF THE CONCRETE BELOW THE SCARIFICATION LEVEL TO BE INCLUDED IN ITEM 604-10.50.

NOTE: ITEM 604-10.50 SHALL BE BID WITH THE CONTINGENCY THAT IT MAY BE INCREASED, DECREASED OR ELIMINATED AS DIRECTED BY THE ENGINEER.



SECTION 'C-C'



GROUTING DETAIL

NOTE: GROUT TO BE NON-SHRINK, NON-METALLIC AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 P.S.I. ALL GROUTING MATERIAL SHALL BE APPROVED BY T.D.O.T. MATERIALS AND TESTS.

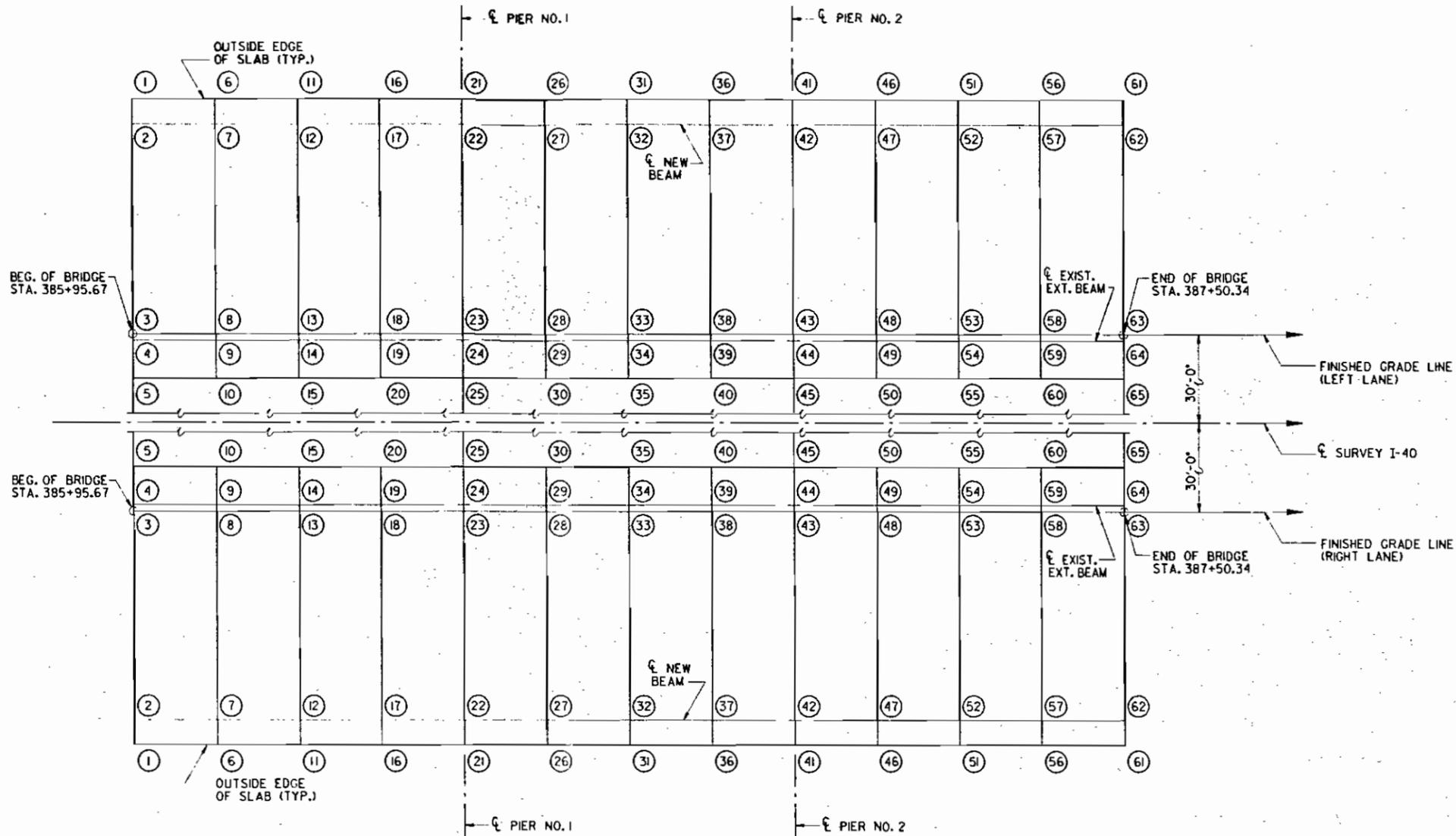
⚠ NOTE: POWER DRIVEN HAND TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE IN MAKING PARTIAL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS: 1) PNEUMATIC HAMMERS HEAVIER THAN 35 POUND CLASS SHALL NOT BE USED. 2) CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 LEFT AND RIGHT LANES
 WIDENING OF INTERSTATE 40
 OVER
 WILSON CREEK
 STATION 385+95.67
 BR. ID. NO. 9510040001 (RT. LN.)
 BR. ID. NO. 9510040002 (LT. LN.)
 WILSON COUNTY

CORRECT *Edward P. Wasserman* 1989
 ENGINEER OF STRUCTURES
 APPROVED *David Cross*
 DIRECTOR OF HIGHWAYS

DESIGNED BY _____ DATE _____
 DRAWN BY _____ DATE _____
 SUPERVISED BY _____ DATE _____
 CHECKED BY _____ DATE _____

CONST. NO. 95001-3150-44		531	X081
PROJECT NO.	YEAR	SHEET NO.	
IR-40-5(88)230	1989		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



BRIDGE SCREED PLAN

NOTE: SEE SHEET NO. M-216-1 FOR B.M. TO BE USED FOR BRIDGE AND BRIDGE APPROACH ELEVATIONS.

TABLE OF STATIONS AND ELEVATIONS

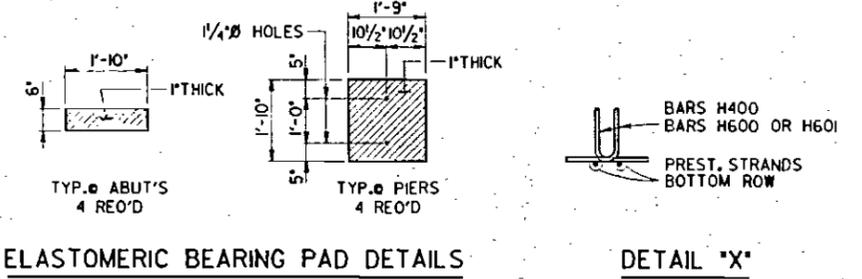
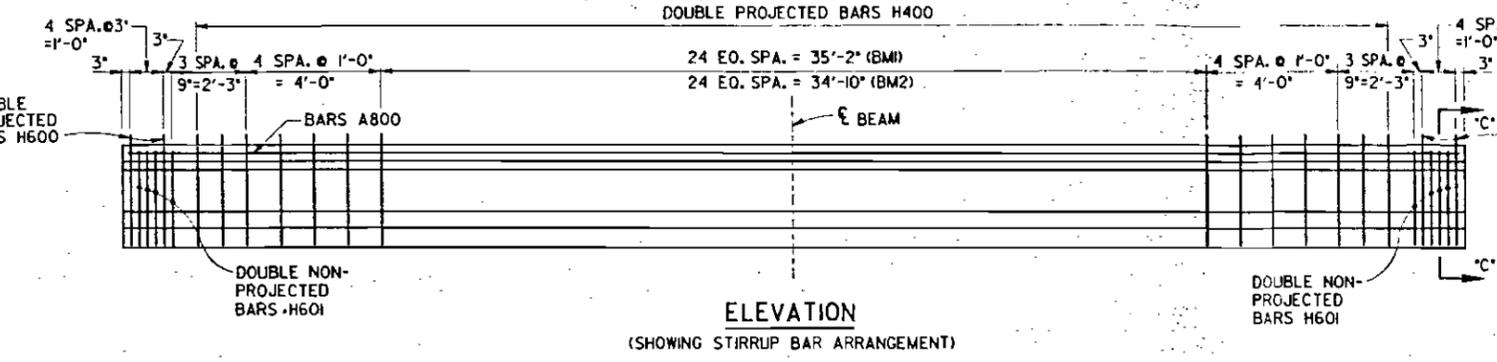
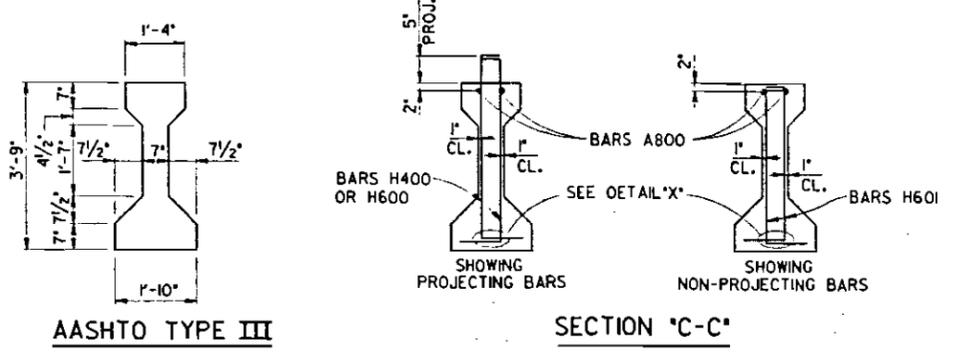
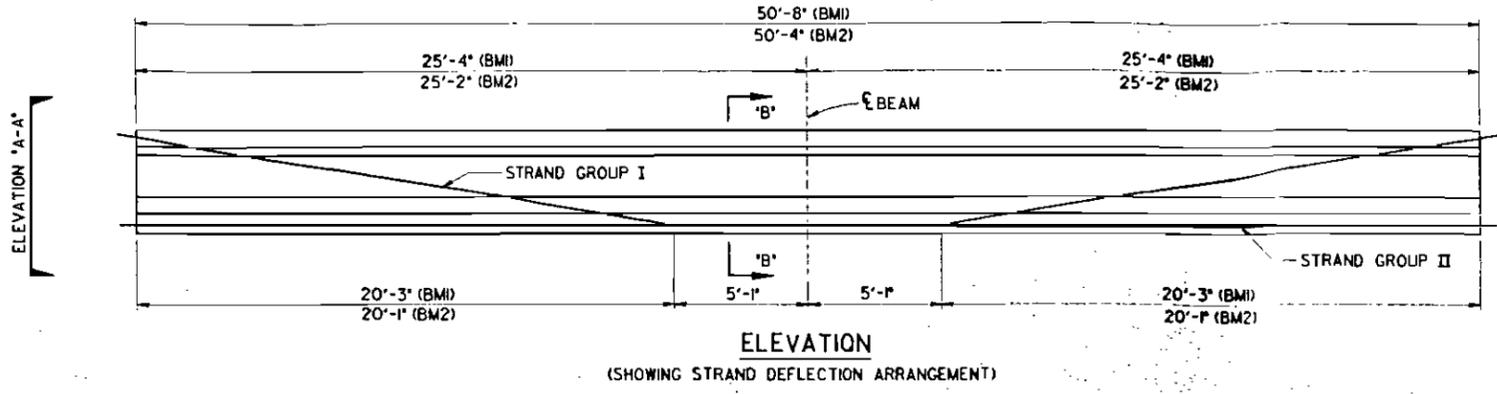
POINT	STATION	ELEVATION												
1	385+95.67	564.13	14	386+21.57	564.84	27	386+60.23	564.96	40	386+85.78	565.69	53	387+24.45	566.09
2	385+95.67	564.17	15	386+21.57	564.90	28	386+60.23	565.30	41	386+98.55	565.39	54	387+24.45	566.10
3	385+95.67	564.51	16	386+34.51	564.60	29	386+60.23	565.31	42	386+98.55	565.43	55	387+24.45	566.16
4	385+95.67	564.52	17	386+34.51	564.65	30	386+60.23	565.38	43	386+98.55	565.77	56	387+37.39	565.86
5	385+95.67	564.59	18	386+34.51	564.99	31	386+73.01	565.07	44	386+98.55	565.78	57	387+37.39	565.90
6	386+08.62	564.29	19	386+34.51	565.00	32	386+73.01	565.12	45	386+98.55	565.84	58	387+37.39	566.25
7	386+08.62	564.33	20	386+34.51	565.06	33	386+73.01	565.46	46	387+11.50	565.55	59	387+37.39	566.26
8	386+08.62	564.67	21	386+47.46	564.76	34	386+73.01	565.47	47	387+11.50	565.59	60	387+37.39	566.32
9	386+08.62	564.68	22	386+47.46	564.80	35	386+73.01	565.53	48	387+11.50	565.93	61	387+50.34	566.02
10	386+08.62	564.74	23	386+47.46	565.15	36	386+85.78	565.23	49	387+11.50	565.94	62	387+50.34	566.06
11	386+21.57	564.45	24	386+47.46	565.16	37	386+85.78	565.27	50	387+11.50	566.00	63	387+50.34	566.41
12	386+21.57	564.49	25	386+47.46	565.22	38	386+85.78	565.62	51	387+24.45	565.70	64	387+50.34	566.42
13	386+21.57	564.83	26	386+60.23	564.92	39	386+85.78	565.63	52	387+24.45	565.75	65	387+50.34	566.48

DESIGNED BY _____ DATE _____
 DRAWN BY _____ DATE _____
 SUPERVISED BY _____ DATE _____
 CHECKED BY _____ DATE _____

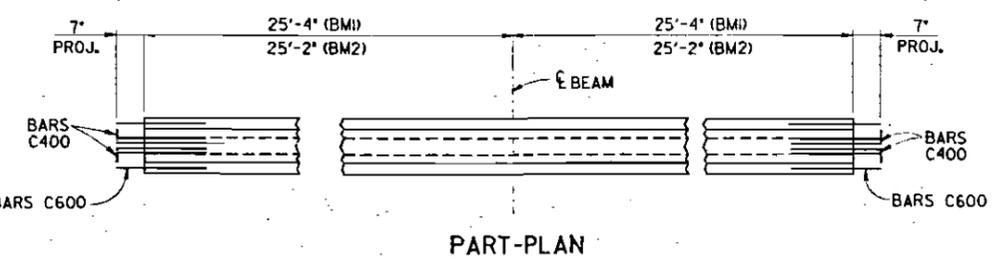
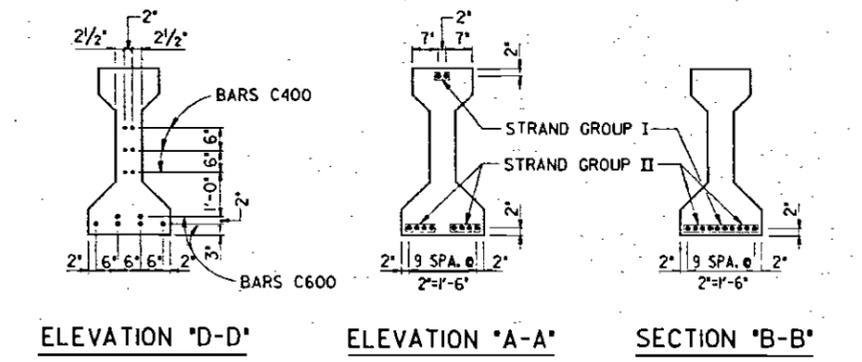
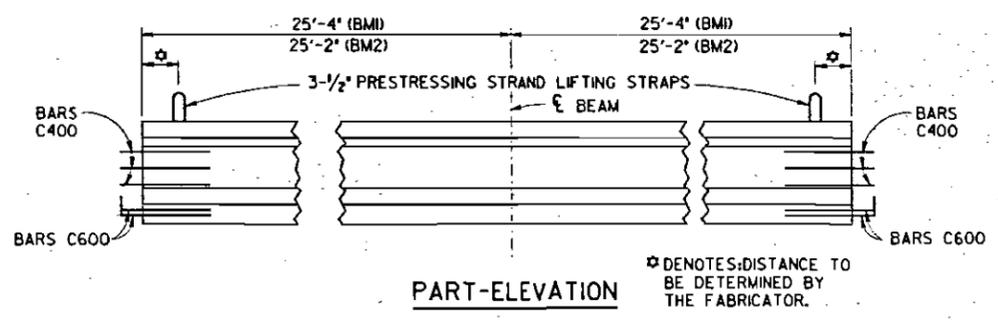
CORRECT *Edward P. Wasserman* 1989
ENGINEER OF STRUCTURES
 APPROVED *James P. Gross*
DIRECTOR OF HIGHWAYS

STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 BUREAU OF HIGHWAYS
 BRIDGE SCREED
 LEFT AND RIGHT LANES
 WIDENING OF INTERSTATE 40
 OVER
 WILSON CREEK
 STATION 385+95.67
 BR. ID. NO. 9510040001 (RT. LN.)
 BR. ID. NO. 9510040002 (LT. LN.)
 WILSON COUNTY

CONST. NO. 95001-3150-44		531	X081
PROJECT NO.	YEAR	SHEET NO.	
1R-40-5(88)230	1989		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



- NOTES:**
- 1) THE TOP OF ALL BEAMS TO BE ROUGH FLOATED. AT APPROXIMATELY THE TIME OF INITIAL SET, THE TOP OF THE BEAMS SHALL ALSO BE SCRUBBED TRANSVERSELY WITH A COARSE WIRE BRUSH TO REMOVE ALL LAITANCE AND PRODUCE A ROUGH SURFACE. WHERE PRECAST SLAB PANELS ARE TO BE USED AND SET ON BITUMINOUS FIBERBOARD, THE OUTER TWO INCHES OF THE TOP FLANGE MAY BE TROWELED.
 - 2) MILD STEEL REINFORCING SHALL BE ASTM A615 GRADE 60.
 - 3) ALL PRESTRESSING STRANDS TO BE 1/2" Ø ASTM GRADE 270K, 7 WIRE UNCOATED STRESS RELIEVED LOW RELAXATION PRESTRESSING STRANDS.
 - 4) ALL BEAMS ARE AASHTO-PCI STANDARD TYPE III.
 - 5) AFTER THE BEAM IS REMOVED FROM THE PRESTRESSING BED, BARS C600 AND C400 SHALL BE BENT A SUFFICIENT AMOUNT SO AS TO PERMIT THE 'C' BARS OF ADJOINING BEAM TO MESH WHEN IN THE ERECTED POSITION.
 - 6) THE PRESTRESSING STRANDS SHALL BE LEFT PROJECTING 3" ± FROM THE ENDS OF THE BEAMS. THERE SHALL NOT BE ANY PROTECTIVE COATING PLACED ON THE ENDS OF THE BEAMS OR ON THE PROJECTING STRANDS.
 - 7) THE CONCRETE FOR THIS CONSTRUCTION SHALL BE OF SUCH PROPERTIES AS TO ATTAIN A COMPRESSIVE STRENGTH OF NOT LESS THAN 5,000 PSI AT THE AGE OF 28 DAYS AND STRESS TRANSFER SHALL NOT BE MADE TO THE BRIDGE MEMBER UNTIL THE TEST SPECIMENS INDICATE THAT THE CONCRETE HAS REACHED A COMPRESSIVE STRENGTH OF AT LEAST 4,000 PSI. SEE GENERAL NOTES FOR CONCRETE FINISHING.
 - 8) AN INITIAL FORCE OF 31,003 LBS., SHALL BE APPLIED TO EACH STRAND IN ALL BEAMS.
 - 9) PRESTRESSING STRANDS SHALL NOT BE GREATER THAN NOMINAL 1/2" DIAMETER.
 - 10) THE SEQUENCE FOR TRANSFER OF STRESS OR THE CUTTING STRANDS SHALL BE IN ACCORDANCE WITH ARTICLE 615.14 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AND SHALL BE SHOWN ON THE APPROVED SHOP DRAWINGS. AT NO TIME SHALL MORE THAN 1/6 TH OF THE TOTAL PRESTRESSING FORCE BE ECCENTRIC ABOUT THE CENTERLINE OF THE BEAM.
 - 11) FIXED END DOWELS TO BE 1" x 1'-9".
 - 12) ELASTOMERIC PADS TO BE 1" x 6" x 1'-10" AT ABUTMENTS AND 1" x 1'-9" x 1'-10" WITH 1/4" Ø HOLES AT PIERS.

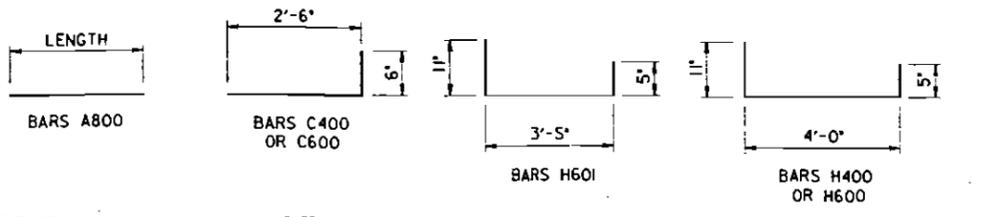


BILL OF STEEL
(PER BEAM)

BAR	SIZE	BMI		BM2	
		NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH
A800	8	2	50'-4"	2	50'-0"
C400	4	12	3'-0"	12	3'-0"
C600	6	12	3'-0"	12	3'-0"
H400	4	74	5'-4"	74	5'-4"
H600	6	8	5'-4"	8	5'-4"
H601	6	16	4'-9"	16	4'-9"

ESTIMATED QUANTITIES
(PER BEAM)

BEAM	NO. BEAMS REQ'D.	CLASS 'A' CONCRETE C.Y.	REINFORCING STEEL LB.	PRESTRESSING STRANDS (LOW RELAXATION) LB.
BMI	4	7	789	269
BM2	2	7	787	267

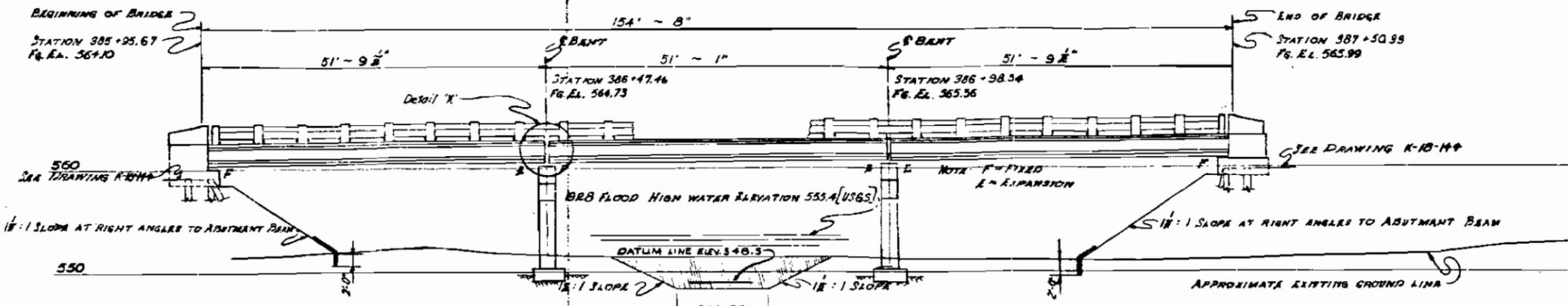


NOTE: COST OF ELASTOMERIC PADS, 8 DOWEL BARS, AND RUBBER BONDING CEMENT TO BE INCLUDED IN THE COST OF PRESTRESSED BEAM.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS
PRESTRESSED BEAM DETAILS
LEFT AND RIGHT LANES
WIDENING OF INTERSTATE 40
OVER
WILSON CREEK
STATION 385+95.67
BR. ID. NO. 9510040001 (RT. LN.)
BR. ID. NO. 9510040002 (LT. LN.)
WILSON COUNTY

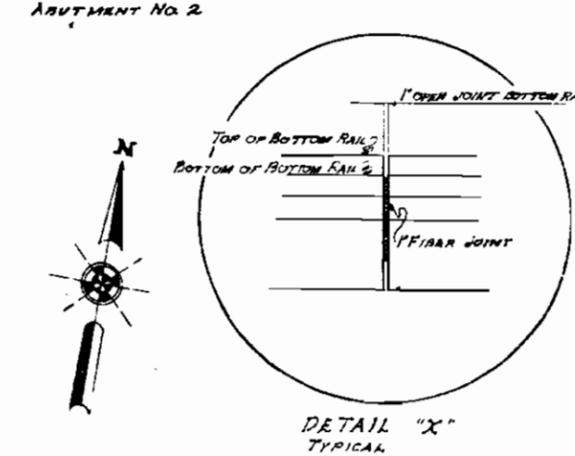
CORRECT *Edward P. Wasserman* 1989
APPROVED *James Evans*
DIRECTOR OF HIGHWAYS

DESIGNED BY _____ DATE _____
DRAWN BY _____ DATE _____
SUPERVISED BY _____ DATE _____
CHECKED BY _____ DATE _____



ABUTMENT NO. 1
NOTE: FILLS AT END OF BRIDGE TO BE IN PLACE AND THOROUGHLY COMPACTED BEFORE ABUTMENT PILES ARE DRIVEN

BENT NO. 1
BENT NO. 2
ELEVATION AT RIGHT ANGLES TO INTERSTATE 40
NOTE: See Roadway Plans for Channel Change



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 HARD GRADE. STANDARD JOINT DETAILS AS RECOMMENDED BY C.F. 3.1 SHALL APPLY. NEGATIVE BEARING PAD: SEE SPECIAL PROVISIONS. JOINT SEALER: SEE SPECIAL PROVISIONS. CLASS 'A': DESIGN SPECIFICATIONS: AASHTO-1961

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

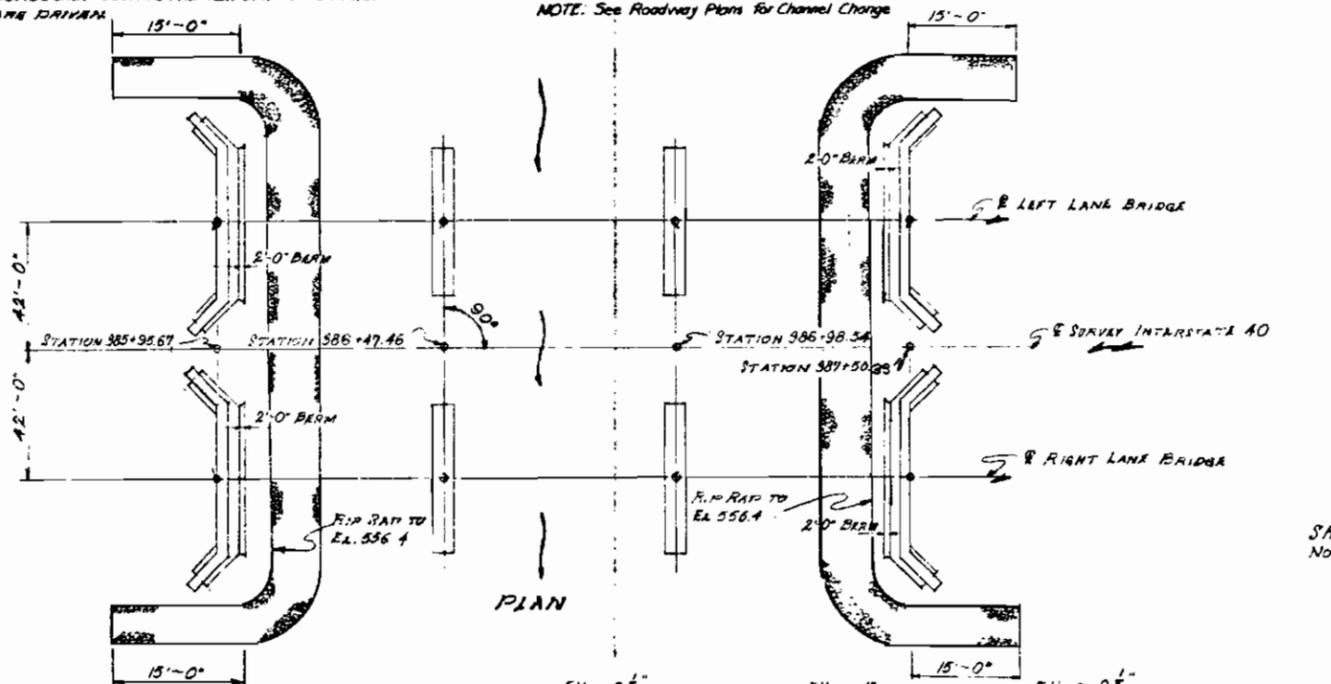
HANDRAIL NOTE
BUILD HANDRAIL ACCORDING TO STANDARD DRAWINGS H-3-110 EXCEPT USE END POST AS SHOWN ON DWG. K-18-144. DIMENSIONS X*1" G-52-6'; L*6'-11 5/8" (-) @ 12" SPACES

FILE NOTE
ALL PILES SHALL BE DRIVEN TO ROCK OR MINIMUM BEARING OF 30 TONS FOR ABUTMENTS.

DESIGN DATA ACCORDING TO USGS REPORT
DRAINAGE AREA: 2.57 SQ. MI.
DISCHARGE: 4,440 CFS.
MEAN VELOCITY: 85 CFS.
WATERWAY PROVIDED: 521 SQ. FT.

LIST OF DRAWINGS

HANDRAIL SEE NOTE THIS SHEET	H-3-110
SUBSTRUCTURE	K-18-143
FOUNDATIONS NO. 1-2	K-18-144
FOUNDATIONS NO. 1 AND 2	K-18-145
BILL OF MATERIALS	K-18-146
PREFABRICATED BEAM DETAIL	K-18-142
PILE SPIKE DETAIL	G-10-42



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

SCOUNDING SKETCH

G = GROUND ELEVATION
R = ROCK ELEVATION

G-547.6	G-552.1	G-551.2	G-552.2
R-547.6	R-547.6	R-548.2	R-548.2
G-547.5	G-551.9	G-551.2	G-551.9
R-547.5	R-548.2	R-548.2	R-546.9
G-550.9	G-552.5	G-551.2	G-551.9
R-548.0	R-546.9	R-546.9	R-546.9
G-551.5	G-552.2	G-551.5	G-551.8
R-547.5	R-547.3	R-547.5	R-547.3
G-551.4	G-552.7	G-551.9	G-551.7
R-547.4	R-546.7	R-546.7	R-546.7
G-551.5	G-552.3	G-551.9	G-551.7
R-547.9	R-547.2	R-547.9	R-547.2
G-552.3	G-552.5	G-552.1	G-551.8
R-547.9	R-547.5	R-547.5	R-547.3
G-552.3	G-552.6	G-552.2	G-551.9
R-548.2	R-547.2	R-547.2	R-547.4
G-552.2	G-548.9	G-552.3	G-551.9
R-548.9	R-548.9	R-548.9	R-548.9

ESTIMATED QUANTITIES

ITEM	CONCRETE CU YD	STEEL - LBS. REINFORCING	PRECAST CONCRETE CU YD	WOOD CU YD	PAVEMENT CU YD	EMERALD CU YD	EROSION CONTROL CU YD
SUBSTRUCTURE	146.9	43055	12				
ABUTMENT NO. 1	15.8	1850					
BENT NO. 1	21.7	18.4	664.1				
BENT NO. 2	19.7	18.8	672.1				
ABUTMENT NO. 2	15.0	1850					
TOTAL	40.14	215.9	6011.7	12	303	169	32
SUBSTRUCTURE	146.9	43055	12				
ABUTMENT NO. 1	15.8	1850					
BENT NO. 1	21.7	18.4	664.1				
BENT NO. 2	19.7	18.8	672.1				
ABUTMENT NO. 2	15.0	1850					
TOTAL	40.14	215.9	6011.7	12	303	169	32
SUM TOTAL	80.28	431.8	12023.4	24	606	338	64

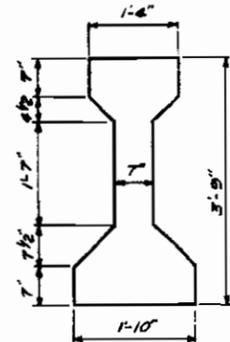
2-28'-0" ROADWAYS WITH SAFETY CURBS

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

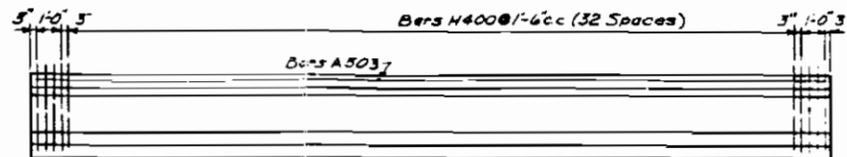
LAYOUT OF TWO BRIDGES
INTERSTATE 40 OVER WILSON CREEK
STATION 385 + 95.67
WILSON COUNTY
1962

DESIGNED BY: G. HUNTER DATE: 5-9-62
DRAWN BY: J. H. HARRIS DATE: 7-12-62
CHECKED BY: C. H. P. DATE: 5-18-62

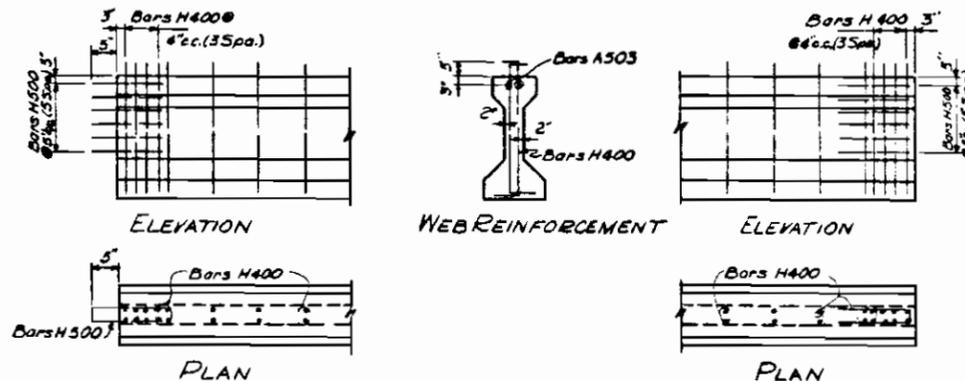
CONTRACT: Fred Jones
APPROVED: [Signature] DATE: 5-18-62



AASHO TYPE III BEAM



TYPICAL ELEVATION OF BEAM SHOWING REINFORCEMENT



ELEVATION

WEB REINFORCEMENT

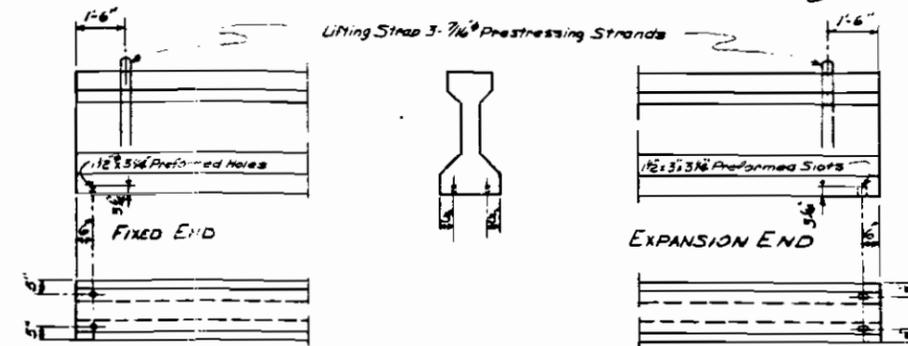
ELEVATION

PLAN

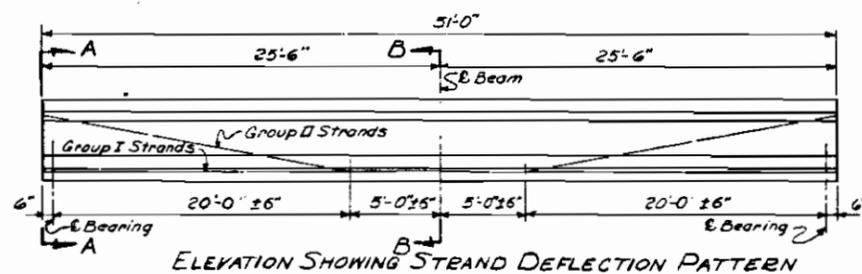
PLAN

END REINFORCEMENT
Typical at Abutments

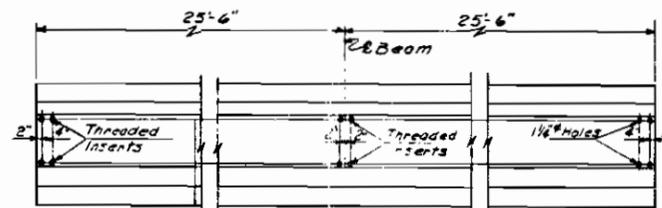
END REINFORCEMENT
Typical at Bents



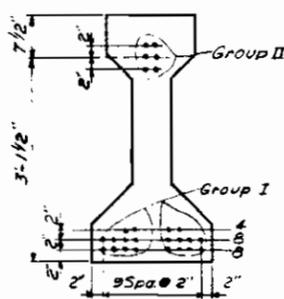
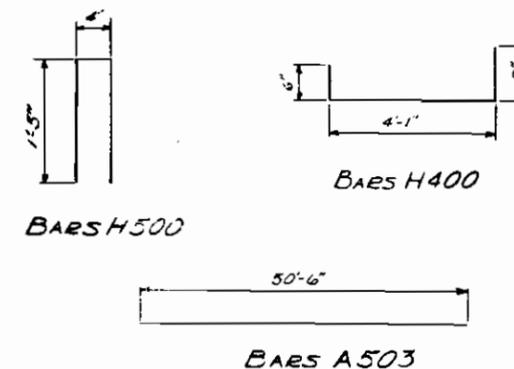
DETAILS AT FIXED & EXPANSION ENDS OF BEAM



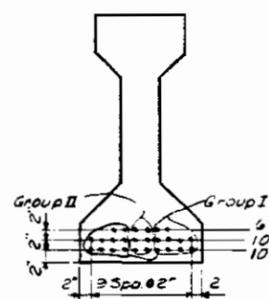
ELEVATION SHOWING STRAND DEFLECTION PATTERN



PART LONGITUDINAL ELEVATION OF BEAM



SECTION A-A
26 Strands



SECTION B-B
26 Strands

BILL OF STEEL

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

ESTIMATED QUANTITIES

Concrete Class A	Reinforcing Steel	Prestressing Steel
Cu. Yds	lbs.	lbs.
73	438	495

GENERAL NOTES

- All Prestressing Strands to be 7/16" TWING Uncoated Stress-Relieved Prestressed Strands.
- An Initial Force of 18,300 LBS. shall be Applied to Each Strand in all Beams.
- Top of Beam to be Rough Finished. 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.
- All Beams are AASHO-PCI Standard Type III.
- Inserts for Daphragms to be Rigid and Type DT1 & DT-5 or Equal. Inserts 1/2" Threaded Rods to Provide a 2'-2" Splice with Bars A503, to be furnished by Fabricator.

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

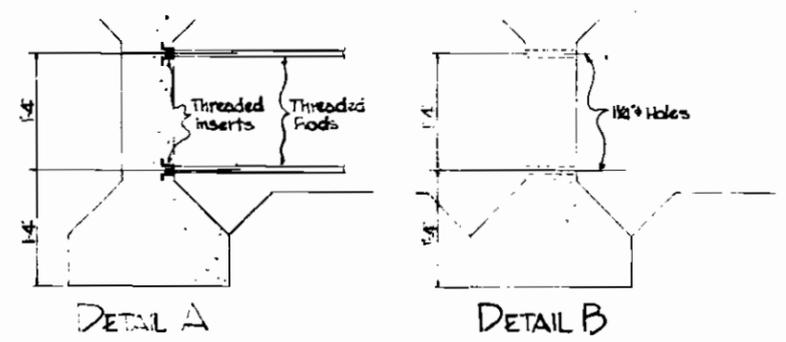
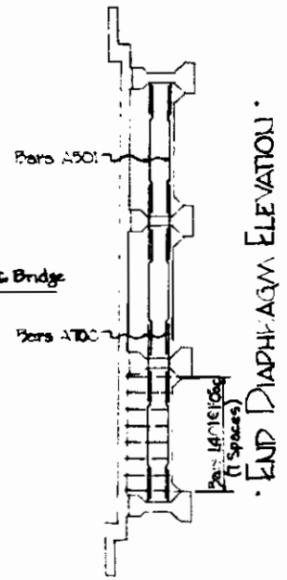
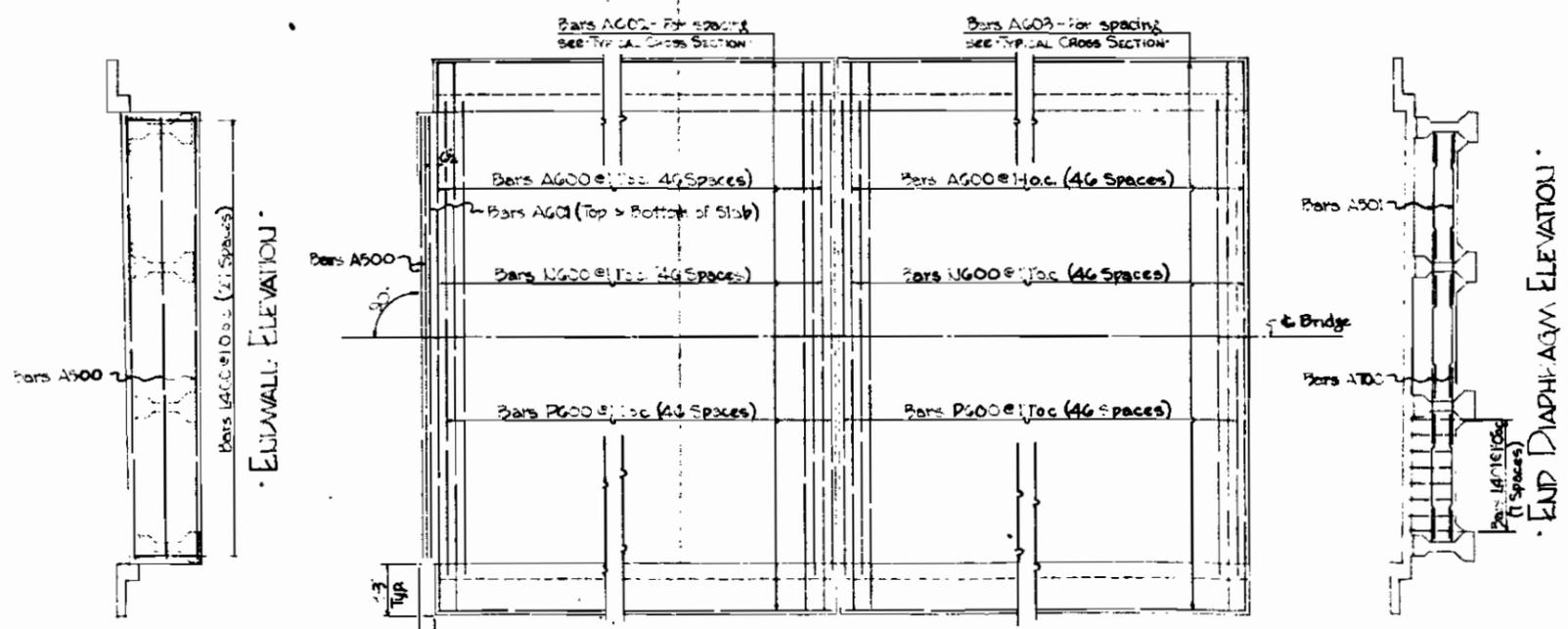
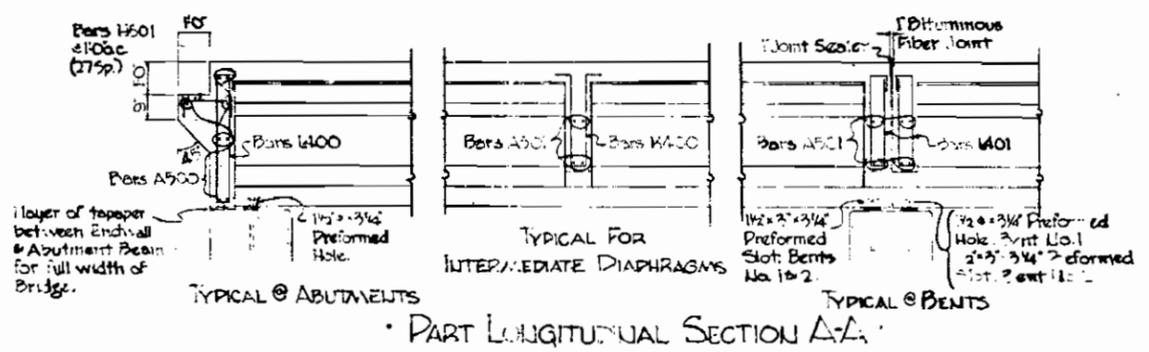
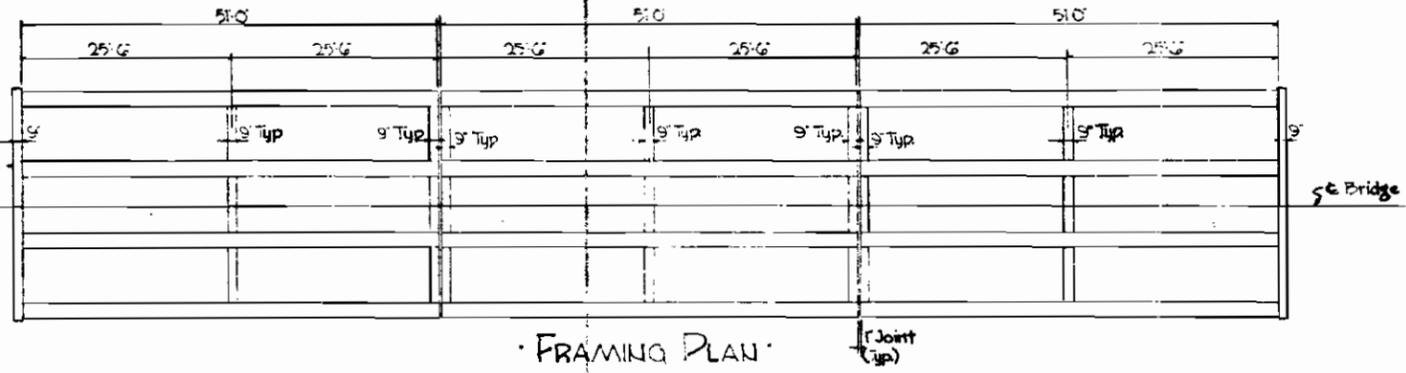
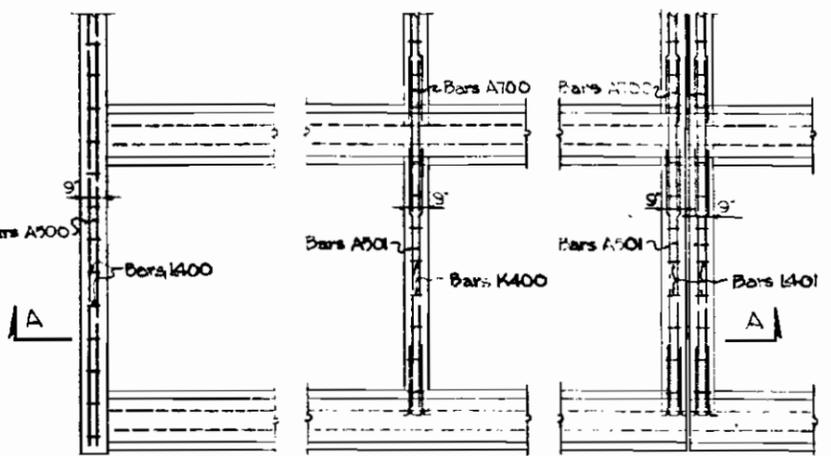
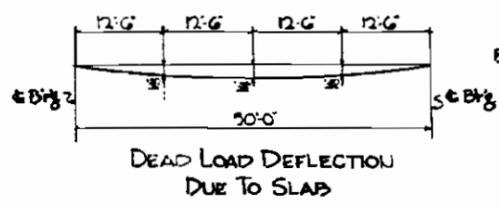
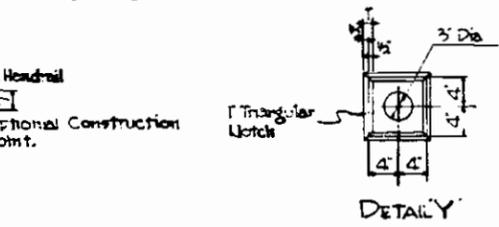
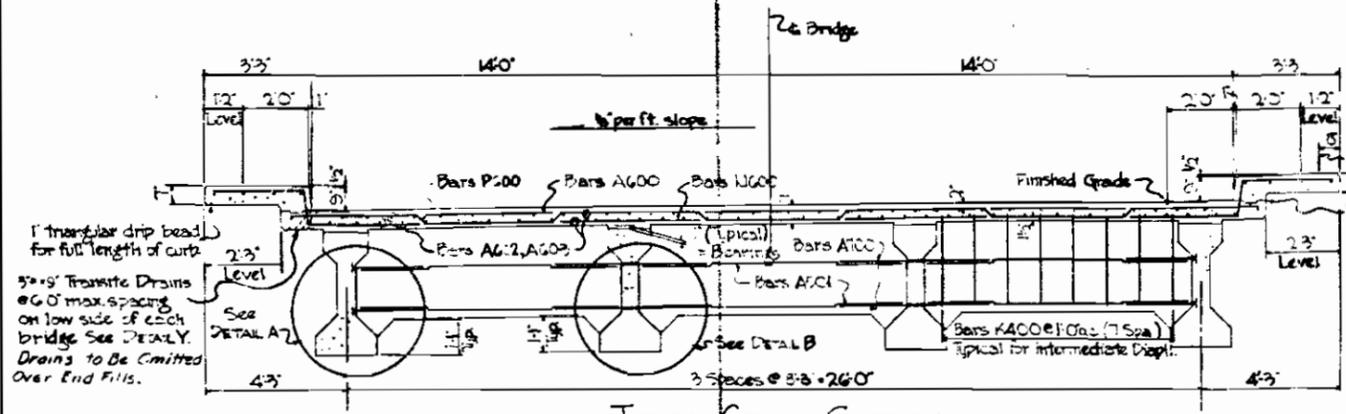
PRESTRESSED BEAM DETAILS
LEFT AND RIGHT LANES
INTERSTATE 40 OVER WILSON CREEK
STATION 385-35.67
WILSON COUNTY
1962

CORRECT
Fred Cooper
DATE 5-17-62

APPROVED
DATE 5-17-62

K-18-142

DESIGNED BY C.E. Hunter DATE 5-3-62
DRAWN BY C. BYR DATE 5-5-62
TRACED BY DATE
CHECKED BY C.E. Hunter DATE 5-17-62



ESTIMATED QUANTITIES

Concrete Class A	146.9	Cu Yds.
Reinforcing Steel	4305.5	Lbs.
Formed in Place		

STATE OF TEXAS
 DEPARTMENT OF HIGHWAYS
 SUPERSTRUCTURE DETAILS
 LEFT & RIGHT LANES
 INTERSTATE 40 OVER MISON CREEK
 SECTION 225-527
 WILSON COUNTY
 1962

Revised 7-11-62
 P.O. 66-62
 On file 1871

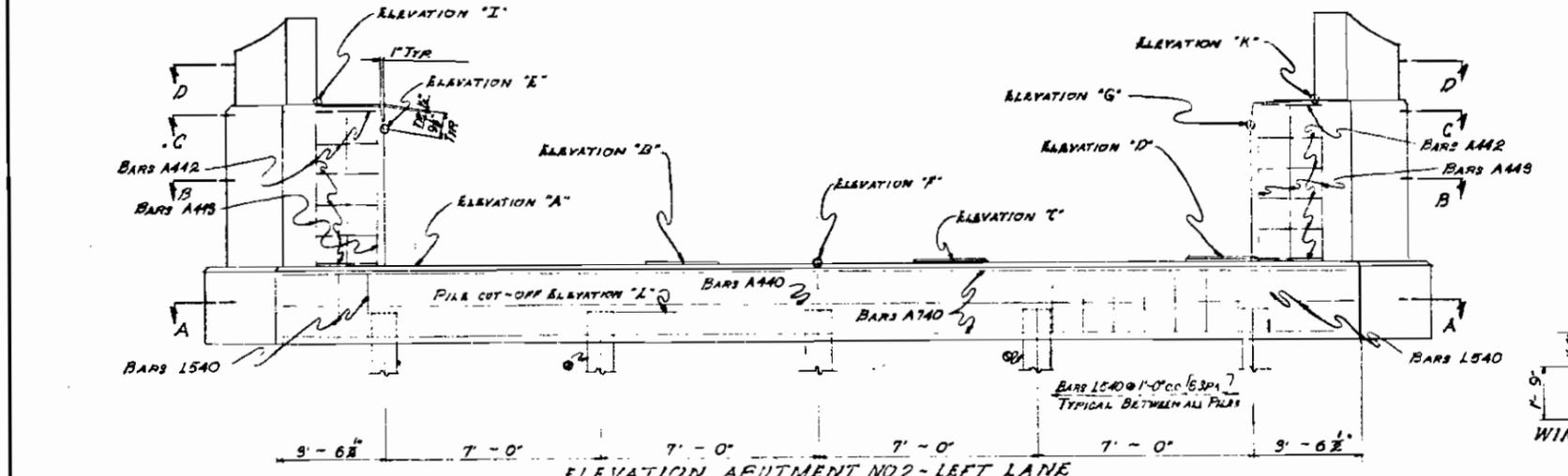
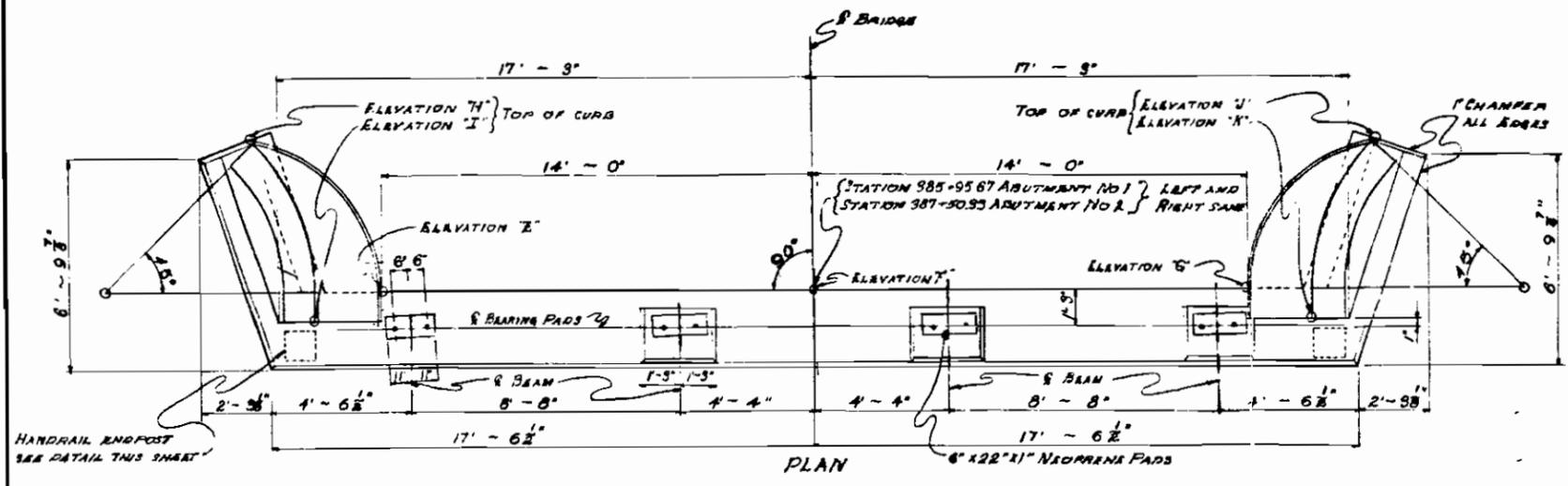
DESIGNED BY: C.E. H. TETER
 DRAWN BY: J.S.
 TRACED BY: J.S.
 CHECKED BY: J.S.
 DATE: 5-3-62
 DATE: 4-9-62
 DATE: 5-17-62

Frank Green
 J. S. Teter

NOTE: WHEN POURING ABUTMENTS PROVISIONS SHALL BE MADE FOR BATTING DOWN BARS FOR PRESTRESSED BEAMS. DOWNWARD PROJECTION 3".

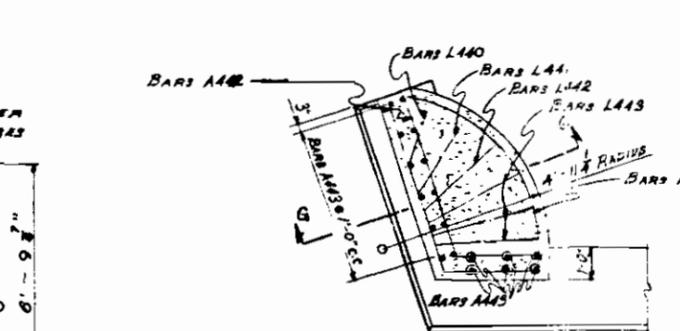
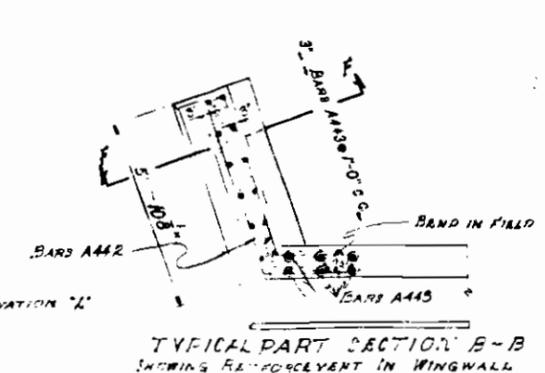
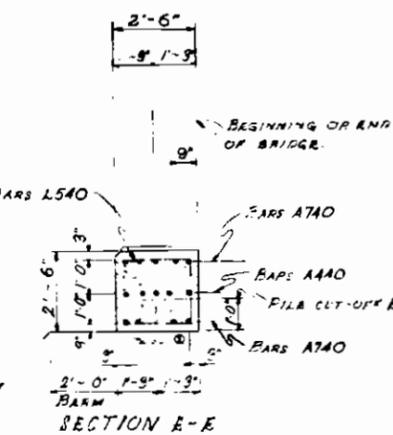
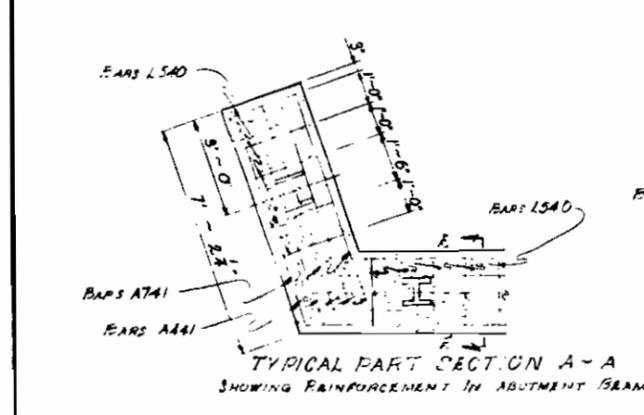
FIG. ROAD DIST. NO.	STATE	PROJ. NO.	CONTRACT NO.	SHEET NO.	TOTAL SHEETS
3	TENN.			66	259

I-40-S(10)221

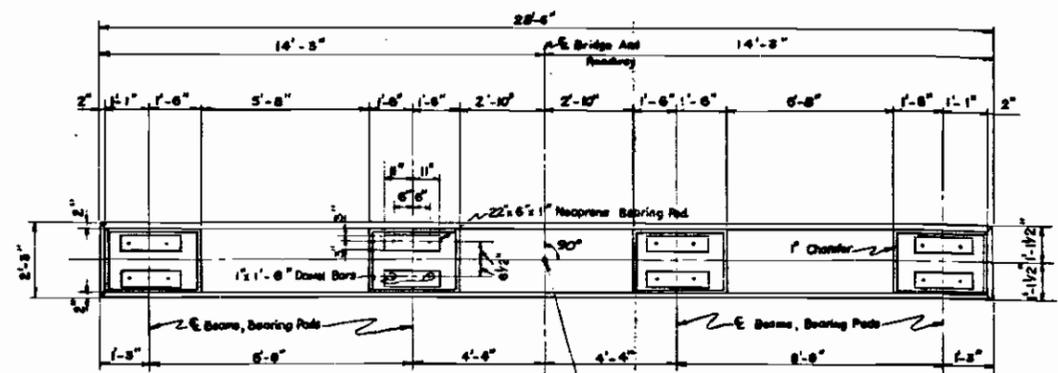


ⓐ BATTER PILES FORWARD 2:12. SEE SECTION E-E.

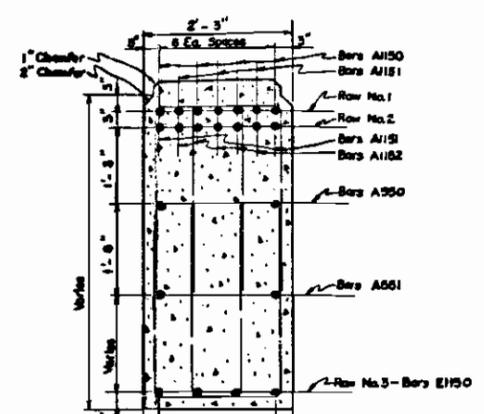
NOTE: SAME FOR ABUTMENT NO. 1 - RIGHT LANE LOOKING BACK ON SURVEY. ABUTMENT NO. 1 - LEFT LANE AND NO. 2 - RIGHT LANE SIMILAR EXCEPT FOR REVERSE OF ELEVATIONS SEE TABLE OF ELEVATIONS.



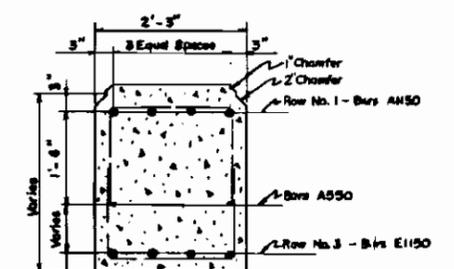
I-40-5(10)221



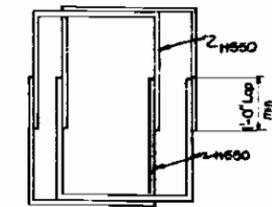
PLAN



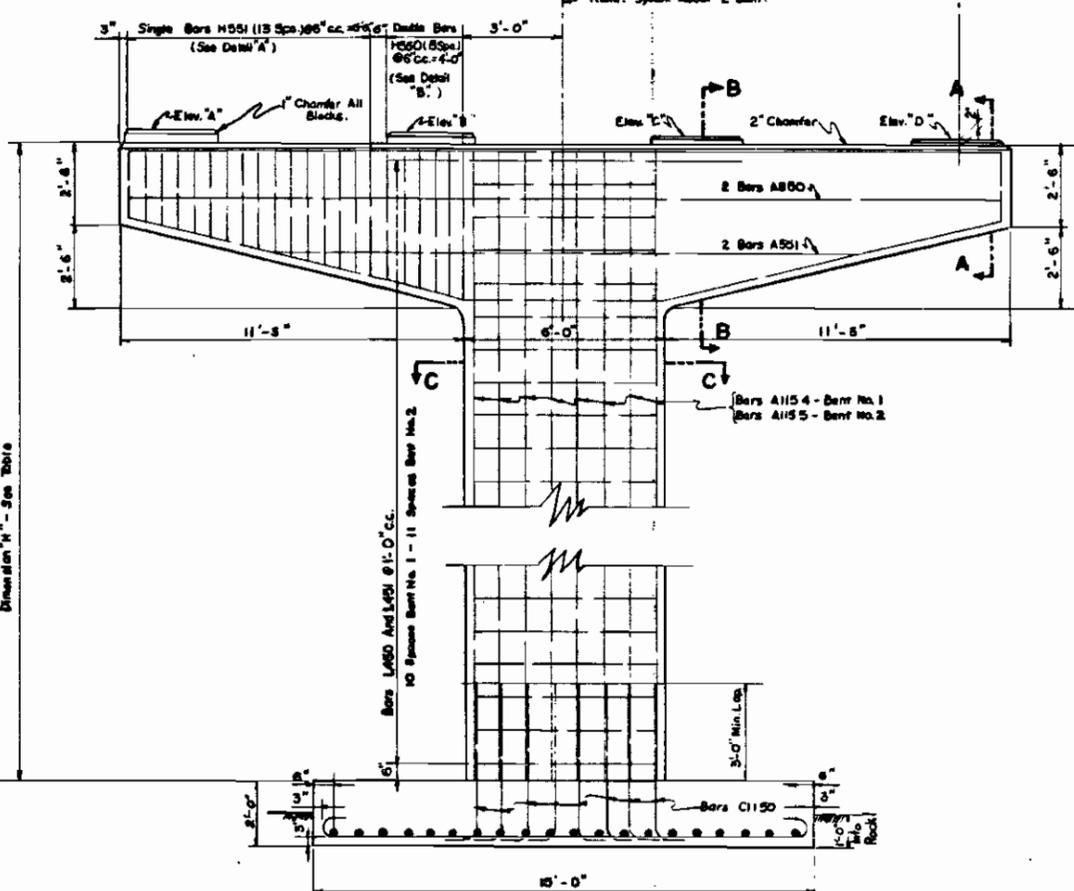
SECTION A-A



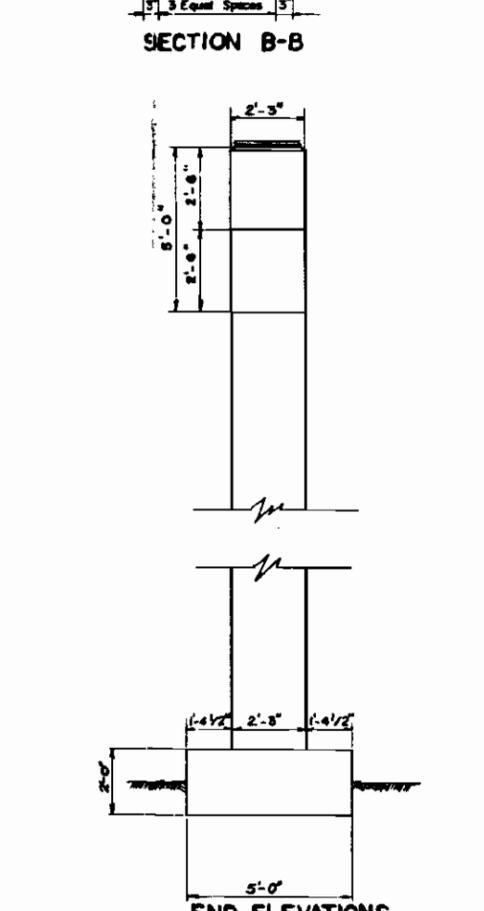
DETAIL "A"



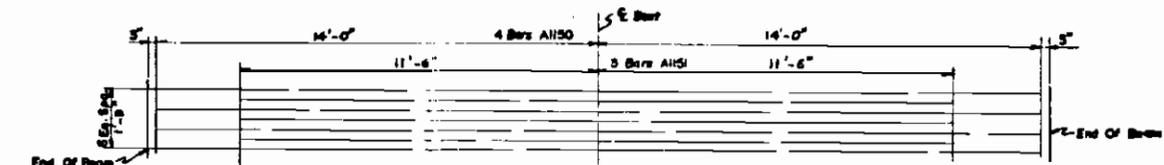
DETAIL "B"



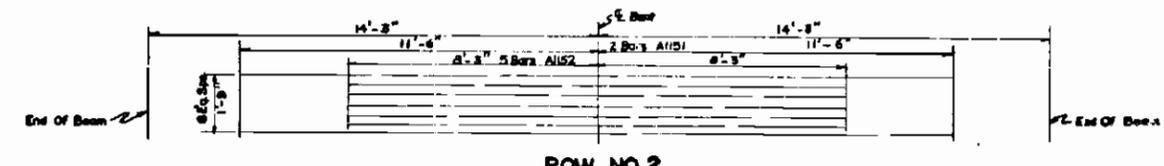
ELEVATION BENTS 1 & 2



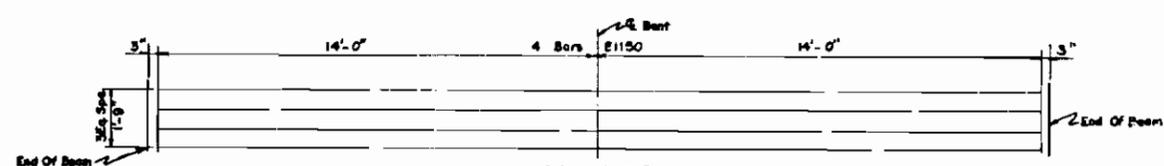
END ELEVATIONS



ROW NO. 1



ROW NO. 2



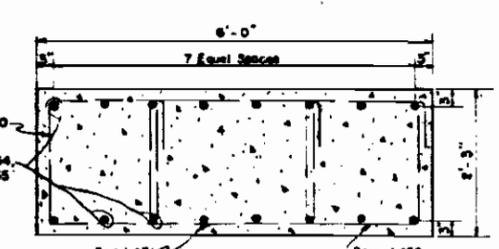
ROW NO. 3

PLAN OF MAIN REINFORCING - CAP BEAM

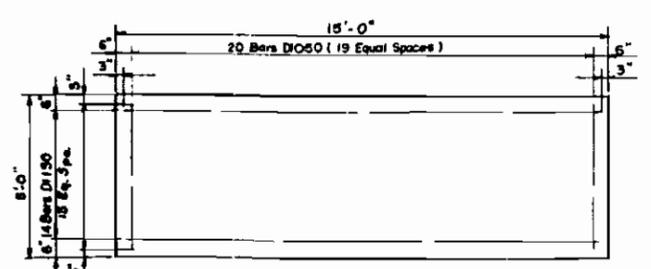
TABLE OF ELEVATIONS AND DIMENSIONS

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	560.57	560.75	560.69	560.60	11'-9"

NOTE: Elevations and dimensions same for left and right lanes.



SECTION C-C



PLAN SHOWING FOOTING REINFORCEMENT

ESTIMATED QUANTITIES

Item	Concrete Class "A" Cubic Yards	Reinforcing Steel Lbs.
Bent No. 1	13.4	6641
Bent No. 2	18.6	6721
Bent No. 1	13.4	6641
Bent No. 2	18.6	6721

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 Greer
APPROVED: [Signature]

K-13-145

DESIGNED BY: C.E. Hunter
DRAWN BY: C.E. Hunter
CHECKED BY: GEM, PRQ
DATE: 5-2-62

LEFT LANE

BILL OF STEEL

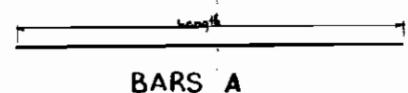
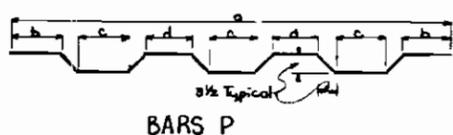
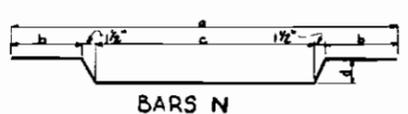
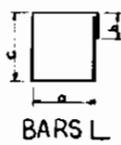
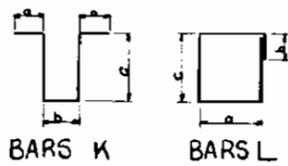
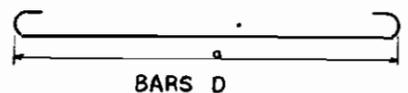
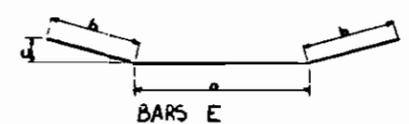
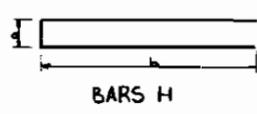
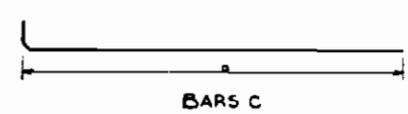
RIGHT LANE

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

SUPERSTRUCTURE					ABUTMENTS NO. 1 & 2					BENTS NO. 1 & 2				
Bar	Location	Size	No. Bending Dimensions	Length	Bar	Location	Size	No. Bending Dimensions	Length	Bar	Location	Size	No. Bending Dimensions	Length
			A B C D					A B C D					A B C D	
A500	Endwall	5	16	27'-6"	A440	Beam	4	10	26'-7"	A550	Cap. Beam	8	4	28'-0"
A501	Inter. End Diaph.	5	04	8'-0"	A441	Beam	4	20	46'-2"	A551	Cap. Beam	5	4	19'-4"
A600	Slab	6	141	27'-6"	A442	Wingwall	4	40	4'-3"	A1150	Cap. Beam	11	0	28'-0"
A601	Slab	6	4	27'-6"	A443	Wingwall	4	72	5'-0"	A1151	Cap. Beam	11	10	28'-0"
A602	Slab & Curbs	6	222	27'-6"	A444	Curb	4	8	7'-6"	A1152	Cap. Beam	11	10	16'-6"
A603	Slab & Curbs	6	84	26'-2"	A445	Wingpost	4	16	1'-6"	A1154	Column Bent No. 1	11	16	10'-8"
A700	Inter. End Diaph.	7	56	4'-9"	A446	Wingpost	4	0	1'-9"	A1155	Column Bent No. 2	11	16	11'-8"
H501	Edging Bracket	5	56	1'-5" 6"	A447	Wingpost	4	0	2'-0"	D1150	Footng	11	32	4'-9"
K600	Intermediate Diaph.	4	16	5'-2" 29"	A448	Wingpost	4	0	2'-3"	D1150	Footng	11	28	4'-4"
L600	Endwall	4	56	5'-6" 4'-0"	A449	Wingpost	4	0	2'-6"	E1152	Cap. Beam	11	8	6'-0" 8'-8" 26"
L601	End Diaphragm	4	96	5'-6" 2'-9"	A450	Wingpost	4	16	5'-6"	H350	Cap. Beam	5	72	1'-4" 2'-0"
N600	Slab	6	141	27'-6" 29" 28" 15"	A140	Beam	7	10	24'-7"	H551	Cap. Beam	5	112	1'-11" 2'-5"
P600	Slab	6	141	27'-6" 29" 28" 15" 30" 3'	A141	Beam	7	20	6'-9"	H551	Cap. Beam	5	112	1'-11" 2'-5"
					A450	Wingwall Curb	4	60	8'-2"	L450	Column	4	23	2'-7" 1'-0" 1'-4"
					L440	Curb	4	4	2'-3" 6" 11"					
					L441	Curb	4	4	2'-9" 6" 11"					
					L442	Curb	4	4	3'-0" 6" 11"					
					L443	Curb	4	12	3'-3" 6" 11"					
					L640	Beam	5	24	2'-2" 1'-0" 2'-8"					

SUPERSTRUCTURE					ABUTMENTS NO. 1 & 2					BENTS NO. 1 & 2				
Bar	Location	Size	No. Bending Dimensions	Length	Bar	Location	Size	No. Bending Dimensions	Length	Bar	Location	Size	No. Bending Dimensions	Length
			A B C D					A B C D					A B C D	
SAME AS LEFT LANE					SAME AS LEFT LANE					SAME AS LEFT LANE				

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



REINFORCING STEEL CODE

TYPE	SIZE	SERIES
A	5	06

STATE OF TENNESSEE
DEPARTMENT OF HIGHWAYS
NASHVILLE

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

DRAWN BY: G.E. HUNTER DATE: 3-22-62
CHECKED BY: J.T. TONEY DATE: 3-13-62
APPROVED BY: C.E.H. F.D.D. DATE: 3-17-62

CORRECT: Fred Greer
APPROVED: [Signature]