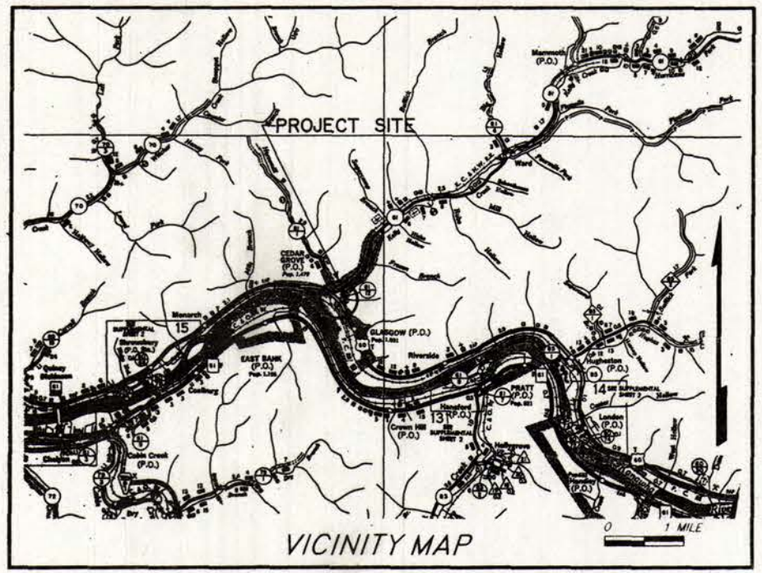


VICINITY MAP

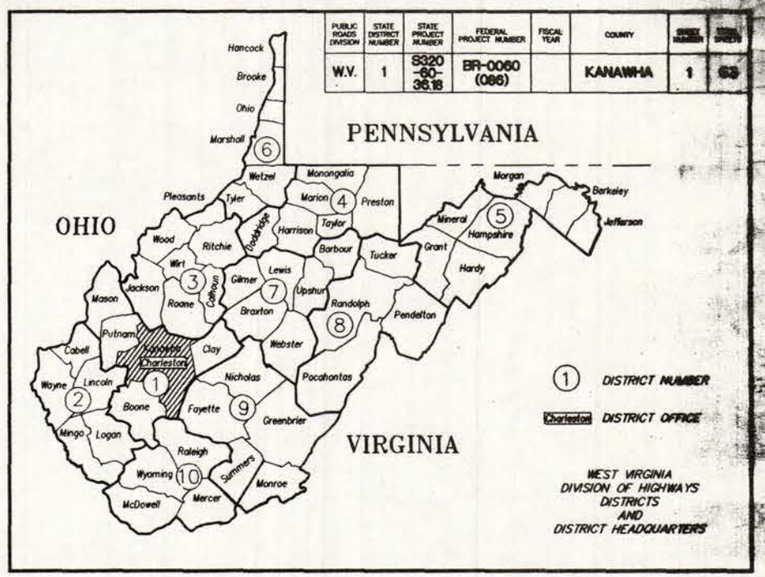
WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR CONSTRUCTION
OF
STATE HIGHWAY

FEDERAL PROJECT NO. BR-0060(086)
STATE PROJECT NO. S320-60-36.18
ROUTE NO. U.S. ROUTE 60
CEDAR GROVE CORPORATION
KANAWHA COUNTY

KELLY CREEK BRIDGE

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-60-36.18	BR-0060(086)		KANAWHA	1	63



UTILITIES ENCOUNTERED:

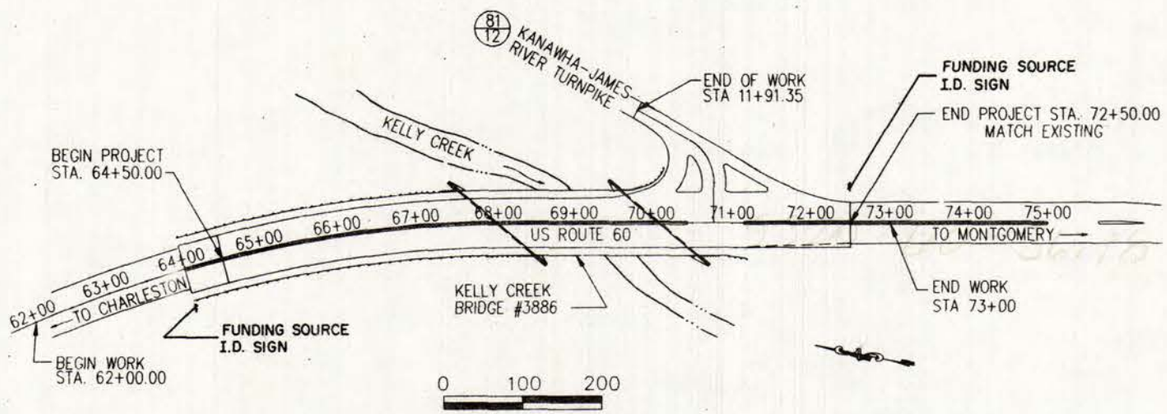
APPALACHIAN POWER COMPANY
WV POWER GAS SERVICE
C&P TELEPHONE
TOWN OF CEDAR GROVE WATER & SEWER

	LENGTH ROADWAY	BRIDGE
STA. 64+00.00 TO STA. 68+00.00	400.00 LF	
STA. 68+00.00 TO STA. 70+07.70		207.70
STA. 70+07.70 TO STA. 72+50.00	242.30 LF	
	642.30 LF = 0.12 MI	207.70 LF = 0.04 MI

PROJECT TOTAL = 850 LF = 0.16 MI

TYPE OF CONSTRUCTION:

GRADE, DRAIN, PAVEMENT, BRIDGE # 3886, AND SEWER RELOCATION



PLANS PREPARED BY:

Chapman Technical Group

HARVEY R. CHAPMAN C.E. REGISTERED NO. 6850 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Harvey R. Chapman
REGISTERED PROFESSIONAL ENGINEER

3/10/93
DATE

NOTES:
STANDARD DETAIL BOOK VOL. I **DATED MARCH 1, 1993** & VOLUME II **DATED JAN. 1, 1994** SHALL APPLY TO THIS PROJECT.

SCALES

PLAN HOR. 0 20 ft

PROFILE VERT. 10 ft 0

HOR. 0 50 ft

DESIGN DESIGNATION

A.D.T. (1991)	= 11,300
A.D.T. (2011)	= 15,650
D.H.V. (2011)	= 1,180
D.	= 55/45
T.	= 7%
V.	= 50 MPH

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- CORPORATION LINE
- PROPOSED R/W LINE
- PROPERTY LINE
- EXISTING FENCE
- PROPOSED FENCE
- EDGE OF STREAM
- PROPOSED GUARD RAIL
- EXISTING GUARD RAIL
- RAILROAD
- GAS LINE
- WATER LINE
- TELEPHONE LINE
- ELECTRIC LINE
- TELEPHONE POLE
- POWER POLE
- COMBINED POWER AND TELEPHONE POLE
- TREE
- SHRUB
- RIGHT OF WAY MARKER

No.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTIONS
3	GENERAL NOTES AND TYPICAL SECTIONS
4	SUMMARY OF QUANTITIES
5	QUANTITY SUMMARY TABLES
6	SUPERELEVATION DATA
7	PAVEMENT DETAILS
8-18	STANDARD DETAILS **(NOT USED)**
19-21	SPECIAL DETAILS **(NOT USED)**
22-24	MAINTENANCE OF TRAFFIC
25-26	PLAN SHEETS
27	CENTERLINE PROFILE
28	PLAN-PROFILE LAYOUT OF INTERSECTION
29-53	BRIDGE NO. 3886
54	SANITARY SEWER RELOCATION
55-63	CROSS SECTIONS

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

I HERBY CERTIFY THAT THIS IS A CORRECT COPY OF THE PLANS OF THE PROJECT BR-0060(086), S320-60-36.18

BUSINESS MANAGER

DATE

RECOMMENDED *James E. Sothen* *DIRECTOR OF STRUCTURES DIVISION*

RECOMMENDED *DIRECTOR ROADWAY DESIGN DIVISION*

RECOMMENDED *CHIEF ENGINEER DEVELOPMENT*

RECOMMENDED FOR APPROVAL *STATE HIGHWAY ENGINEER*

APPROVED *COMMISSIONER OF HIGHWAYS*

APPROVED

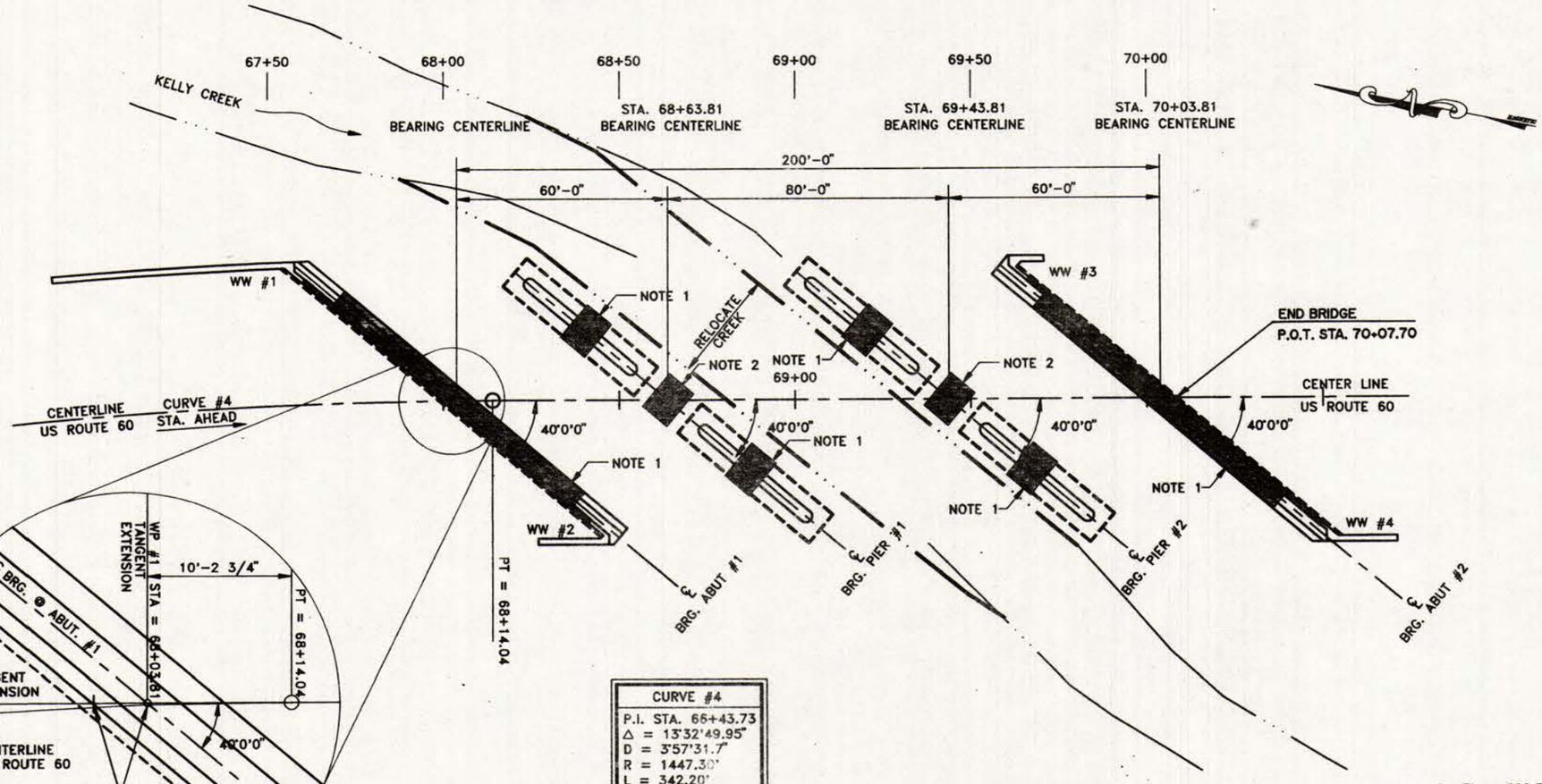
DIVISION ADMINISTRATOR *DATE*

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

PROJECT NO. BR - 0060(086), S320-60-36.18

FILE NO. 93006-1 S320-60-36.18

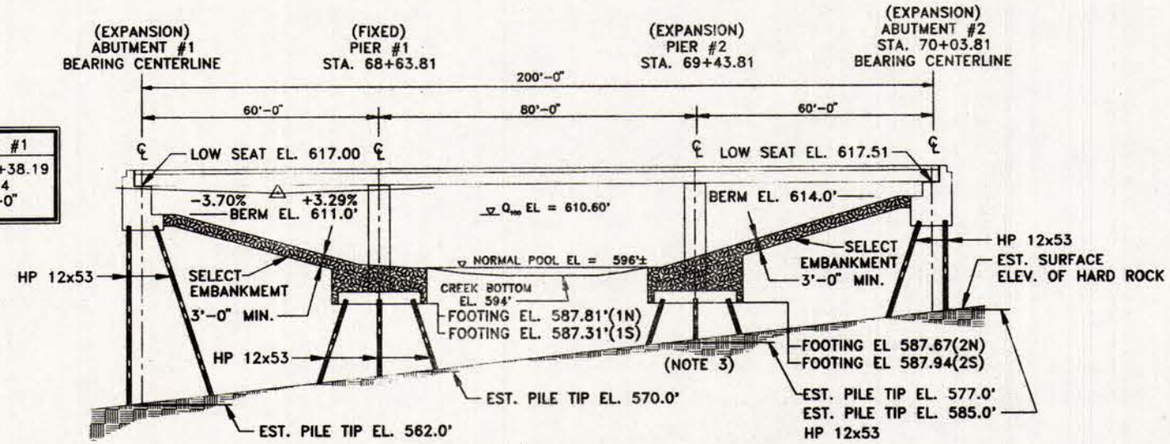
PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY		
W.V.	1	S320-60-36.19	BR-0060 (086)		KANAWHA	29	65



CURVE #4
P.I. STA. 66+43.73
Δ = 13°32'49.95"
D = 3°57'31.7"
R = 1447.30'
L = 342.20'
T = 171.90'
E = 10.17'
s.e. = 0.052

LIST OF BRIDGE DRAWINGS

SHEET NUMBER	DESCRIPTION
1	PLAN AND ELEVATION
2	STRUCTURE NOTES
3	ESTIMATED QUANTITIES
4	REMOVAL DETAILS & CONSTRUCTION STAGING
5	ABUTMENT 1
6	ABUTMENT 1 & WINGWALL #1
7	ABUTMENT 2
8	ABUTMENT 2 & WINGWALLS #2, 3 & 4
9	PIER 1N & 1S
10	PIER 2N & 2S
11	FRAMING PLAN
12	FRAMING DETAILS
13	BEARING DETAILS
14	DECK PLAN
15	DECK DETAILS
16	DECK DETAILS
17	DECK SLAB ELEVATIONS
18	EXPANSION JOINT
19	EXPANSION JOINT
20	APPROACH SLABS
21	REINFORCING BAR SCHEDULE
22	REINFORCING BAR SCHEDULE
23	SITUATION PLAN
24	BORE HOLE SECTIONS
25	BORE HOLE SECTIONS



CENTERLINE ELEVATION

VERTICAL CURVE #1
P.V.I. STA. = 68+38.19
EL. = 616.34
L.V.C. = 630'-0"

Q_{10} EL = 602.70'
Q_{50} EL = 607.30'
Q_{100} EL = 610.60'
Q_{500} EL = 625.90'

NOTE:
BACKWATER FROM THE KANAWHA RIVER GOVERNS ALL FLOOD ELEVATIONS

– EXISTING FOOTINGS

NOTES:

1. REMOVE EXISTING FOOTING IN ITS ENTIRETY, INCLUDING PILING. SEE "REMOVAL DETAILS AND CONSTRUCTION STAGING", SHEET 4, FOR SEQUENCE OF CONSTRUCTION.
2. REMOVE EXISTING FOOTING TO 2'-0" BELOW FINAL GRADE AND LEAVE REMAINDER IN PLACE.
3. BASED ON BOULDERS ENCOUNTERED DURING SUBSURFACE INVESTIGATION, PILE LOCATIONS AT PIER #2 SHALL BE PREDRILLED AND DRIVEN. MINIMUM PILE LENGTH IS 10 FEET.

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

SCALE: 1"= 20'
DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

PLAN AND ELEVATION

Chapman Technical Group

1

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-60-36.18	BR-0060 (086)		KANAWHA	30	63

GOVERNING SPECIFICATIONS

THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES AS CONTAINED IN THE BOOK ENTITLED "WEST VIRGINIA DEPARTMENT OF HIGHWAYS, STANDARD SPECIFICATIONS, ROADS AND BRIDGES", (ADOPTED 1993) AND AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS (ADOPTED JANUARY 1, 1994), THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, FIFTEENTH EDITION (1992), 1993 INTERIM, ADOPTED BY AASHTO ALONG WITH THE CONTRACT DOCUMENTS AND THE CONTRACT PLANS ARE THE GOVERNING SPECIFICATIONS APPLICABLE TO THIS PROJECT.

DESIGN

THE BRIDGE IS DESIGNED FOR HS25 LIVE LOADINGS AND PROVIDES FOR AN ADDITIONAL WEARING SURFACE OF 25 LBS. PER SQUARE FOOT OF ROADWAY. THE ADDITIONAL WEARING SURFACE IS NOT INCLUDED IN THIS CONTRACT. THE DESIGN IS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, FIFTEENTH EDITION (1992),1993 INTERIM, ADOPTED BY AASHTO. THE SEISMIC DESIGN IS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES, 1983, 1991 INTERIM, ADOPTED BY AASHTO.

DESIGN UNIT STRESSES

CLASS "B" CONCRETE (PIERS AND ABUTMENTS)	F'c= 3,000 PSI
CLASS "K" CONCRETE (BRIDGE DECK AND PARAPETS)	F'c= 4,500 PSI
SUPERSTRUCTURE REINFORCING STEEL	Fy = 60,000 PSI
SUBSTRUCTURE REINFORCING STEEL	Fy = 60,000 PSI
STRUCTURAL STEEL, INCL. SPLICE PLATES, AASHTO M270 GR50	Fy = 50,000 PSI
PILING, MISC. FRAMING & DIAPHRAGHMS AASHTO M270 GR36	Fy = 36,000 PSI

CONCRETE

WATER-REDUCING RETARDING ADMIXTURE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS WILL BE USED IN ALL CLASS "K" CONCRETE IN THE SUPERSTRUCTURE. RETARDER WILL NOT BE REQUIRED FOR TEMPERATURES BELOW 50 DEG. F. THE CONTRACTOR'S ATTENTION IS CALLED TO THE TEST REQUIREMENTS FOR RETARDER ADMIXTURE. PAYMENT SHALL BE INCLUDED IN ITEM 601-03.

CHAMFER ALL EXPOSED EDGES 3/4" BY 3/4" ON SUPERSTRUCTURE AND 1" BY 1" ON SUBSTRUCTURE UNLESS OTHERWISE NOTED.

CONCRETE IN ABUTMENT BACKWALLS ABOVE THE BRIDGE SEAT MAY BE PLACED WITHIN 2'-0" OF THE TOP OF THE BACKWALL PRIOR TO CONSTRUCTION OF THE SUPERSTRUCTURE DECK.

THE ABUTMENT, PARAPETS AND WINGWALLS SHALL BE CLASS 2, RUBBED FINISH, IN ACCORDANCE WITH SUBSECTION 601.11.2 OF THE STANDARD SPECIFICATIONS. BRIDGE DECK SHALL BE FINISHED IN ACCORDANCE WITH SUBSECTION 601.11.4 OF THE STANDARD SPECIFICATIONS.

WEEP DRAINS

WEEP DRAINS ARE TO BE OF A NON-RUSTING MATERIAL. THE COST OF THE WEEP DRAINS IS TO BE INCLUDED IN ITEM 601-02.

REINFORCING STEEL BARS

BARS SHALL CONFORM TO AASHTO M31 GRADE 60. ALL REINFORCING BARS IN DECK, PARAPETS AND THOSE DESIGNATED IN ABUTMENT BACKWALLS, BRIDGE SEATS, AND ABUTMENT PARAPETS SHALL BE EPOXY COATED.

THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND THE FACE OF CONCRETE SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN ON THE DRAWINGS:

TOP OF SLABS	2-1/2 IN.
BOTTOM OF SLABS	1 IN.
FOOTINGS	3 IN.
ALL OTHER LOCATIONS	2 IN.

REINFORCEMENT UNDER BEARINGS SHALL BE PLACED TO AVOID INTERFERENCE WITH DRILLING OF ANCHOR BOLT HOLES.

PREFORMED JOINT FILLER

PREFORMED JOINT FILLER FOR VERTICAL JOINTS IN THE BARRIERS SHALL BE SPONGE RUBBER, TYPE 1, CONFORMING TO ARTICLE 708.1.1 OF THE STANDARD SPECIFICATIONS. THERE IS NO SEPARATE PAYMENT FOR PREFORMED JOINT FILLER AND ALL COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 601-03.

ANCHOR BOLTS

ANCHOR BOLTS SHALL MEET THE REQUIREMENTS OF M183 AND SHALL HAVE HEX-NUT AND WASHER. WHEN ANCHOR BOLT GOES THROUGH SOLE PLATE, NUT IS TO BE 1/4" CLEAR. BURR THREADS AT FACE OF NUT.

ANCHOR BOLT HOLES SHALL BE DRILLED. THE ANCHOR BOLT HOLES SHALL BE FILLED WITH PORTLAND CEMENT NON-SHRINK GROUT IN ACCORDANCE WITH SETCION 715.5 OF THE STANDARD SPECIFICATIONS. THE GROUT SHALL BE PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THERE IS NO SEPARATE PAYMENT FOR THE NON-SHRINK GROUT. ALL COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 601-02.

BEARING AREAS

BRIDGE SEATS ON ABUTMENTS UNDER BEARING SHOES SHALL BE FINISHED TO TRUE PLANES AND ELEVATIONS.

EXCAVATION

EXCAVATION FOR ALL SUBSTRUCTURE FOUNDATIONS SHALL BE CLASSIFIED AS "STRUCTURE EXCAVATION" OR "WET EXCAVATION". THE LIMITS FOR EXCAVATION AT ABUTMENTS 1 & 2 AND PIERS 1 & 2 SHALL BE AS SHOWN ON THE PLANS.

THE ABUTMENT AND PIER CONCRETE SHALL BE POURED "IN THE DRY" USING METHODS SELECTED BY THE CONTRACTOR. NO DIRECT PAYMENT WILL BE MADE FOR COFFERDAMS IF THEY ARE REQUIRED. THE COST FOR "IN THE DRY" PLACEMENT SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 212-02, WET EXCAVATION.

STRUCTURAL STEEL

THE LUMP SUM BID FOR ITEM 615-01 STEEL SUPERSTRUCTURE SHALL INCLUDE ALL STRUCTURAL STEEL COMPLETE IN PLACE INCLUDING ANCHOR BOLTS, BEARINGS, PREFORMED FABRIC PADS, DECK EXPANSION JOINTS, ALL PAINTING AND PREFORMED ELASTOMERIC STRIP SEALS. THE CONTRACTOR SHALL SUBMIT ALL FALSEWORK PLANS FOR REVIEW BY THE ENGINEER PRIOR TO BEGINNING OF WORK.

STRUCTURAL STEEL USED AS MAIN LOAD CARRYING MEMBERS SUBJECT TO TENSION OR STRESS REVERSAL SHALL MEET THE LONGITUDINAL CHARPY V-NOTCH TOUGHNESS TEST REQUIREMENTS. MAIN LOAD CARRYING MEMBERS FOR THIS STRUCTURE ARE LIMITED TO WIDE FLANGE BEAMS. M270 GRADE 50 STEEL, AT THE CONTRACTOR'S OPTION, MAY BE SUBSTITUTED FOR M270 GRADE 36 WITH THE DEPARTMENTS APPROVAL AND AT NO ADDITIONAL COST TO THE DEPARTMENT.

PILING

ALL HP 12x53 PILING SHALL HAVE A LOAD CAPACITY OF 70 TONS PER PILE. PILING SHALL BE DRIVEN TO REFUSAL WITH A POWER HAMMER DEVELOPING A MINIMUM CAPACITY OF 15,000 FOOT POUNDS PER BLOW. PRACTICAL REFUSAL IS DEFINED AS THE EQUIVALENT OF 20 BLOWS FOR ONE INCH OF PENETRATION. IF A LARGER HAMMER IS USED, THE NUMBER OF BLOWS IN THE LAST INCH OF PENETRATION MAY BE REDUCED IN DIRECT PROPORTION TO THE ENERGY RATING OF THE HAMMER BUT NO LESS THAN 12. PILE LOCATIONS AT PIERS #2N &2S SHALL BE PRE-DRILLED AND DRIVEN TO A MINIMUM DEPTH OF 10' OR TO REFUSAL, WHICHEVER IS GREATER.
THE PREDRILLING HOLE SHALL BE 17 INCHES. THE VOID SHALL BE FILLED IN ACCORDANCE WITH SECTION 616.15 OF THE SPECIFICATIONS.
ALL PILING SHALL BE EQUIPPED WITH HARDENED PILE POINTS. PILE POINTS SHALL BE DFP HARD BITE H-776, MANUFACTURED BY DOUGHERTY FOUNDATION PRODUCTS, INC., HARD BITE HP-77600, MANUFACTURED BY ASSOCIATED PILE AND FITTING CORP., SP SERIES BY S.P.A. OR APPROVED EQUAL. THERE IS NO SEPARATE PAYMENT FOR PILE POINTS. ALL COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 616-04.

BOLTS

DIAMETER OF HOLES SHALL BE 1/16-IN. LARGER THAN NOMINAL DIAMETER OF FASTENERS.

BEARING SHOES

SHOES SHALL BE SET SO THAT AT A TEMPERATURE OF 68 DEG. F. THEY ARE CENTERED UNDER FULL DEAD LOAD.
SOLE PLATES SHALL BE BEVELED TO FIT BEAM GRADES WHEN BEAM GRADE EXCEEDS 1.0%.

PAINTING

SHOP AND FIELD PAINTING SHALL BE DONE IN ACCORDANCE WITH SECTION 615 OF THE STANDARD SPECIFICATIONS. THE COLOR FOR THE TOP COAT SHALL BE FROM FEDERAL STANDARD 595A.

FEDERAL STD. NO.
14223 (LT. GREEN)

ALL STEEL SURFACES, INCLUDING THOSE EMBEDDED IN CONCRETE SHALL RECEIVE A SHOP PRIMER. ALL AREAS WHICH WILL BE INACCESSIBLE AFTER THE CONCRETE DECK SLABS ARE PLACED SHALL BE PAINTED WITH THE SECOND AND THIRD COATS IN THE SHOP. DECK DRAINS SHALL NOT BE PAINTED BUT ARE TO BE GALVANIZED AS SHOWN IN THE DRAWINGS.

GALVANIZING

ANCHOR BOLTS SHALL BE GALVANIZED AS SHOWN ON THE DRAWINGS. GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A123 AND A153. COST IS TO BE INCLUDED IN THE PRICE PAID FOR STRUCTURAL STEEL. THE APPLICATION OF GALVANIZING SHALL BE 2 OUNCES PER SQUARE FOOT OF ACTUAL SURFACE.

BACKFILL

THE CONTRACTOR SHALL BACKFILL AROUND THE SUBSTRUCTURE AS SOON AS POSSIBLE AFTER REMOVAL OF FORMS AND FALSEWORK AND SHALL SLOPE SURFACES TO DRAIN.

HORIZONTAL CONTROL

ALL BEARINGS SHOWN ARE BASED ON AN ASSUMED NORTH. DIMENSIONS GIVEN ARE MEASURED HORIZONTALLY AND AT 68 DEG. F. UNLESS OTHERWISE NOTED.

ELEVATIONS

ELEVATIONS SHOWN REFER TO THE U.S. COAST AND GEODETIC SURVEYS BASED ON SEA LEVEL DATUM, 1929, 1957 ADJUSTMENT.

CONSTRUCTION JOINT KEYS

HORIZONTAL-KEYED CONSTRUCTION JOINTS MAY, AT THE CONTRACTOR'S OPTION, BE MADE A ROUGHENED CONSTRUCTION JOINT IN THE SUBSTRUCTURE.

REMOVAL OF EXISTING STRUCTURE

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING U.S. ROUTE 60 BRIDGE (BRIDGE #1575) IN ACCORDANCE WITH CONTRACT PLANS AND SECTION 203 OF THE SPECIFICATIONS AND ALL WORK SHALL BE PAID FOR UNDER ITEM 203-01, DISMANTLING STRUCTURES.

SELECT EMBANKMENT

THE SELECT EMBANKMENT SHALL BE SIZED FROM 12 TO 24 INCHES AND SHALL CONTAIN NO MORE THAN 15 PERCENT (BY VISUAL INSPECTIONS) OF OTHER SUITABLE UNCLASSIFIED MATERIAL.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
203-01 (1)	DISMANTLING STRUCTURE	LS	1
212-01	STRUCTURE EXCAVATION	CY	~~1,338~~ 866 ⚠1
212-02	WET EXCAVATION	CY	1,000
212-05	SELECT MATERIAL FOR BACKFILL	CY	~~554~~ 490 ⚠1
601-02	CLASS B CONCRETE	CY	~~1,846~~ 1509 ⚠1
601-03	CLASS K CONCRETE	CY	~~3,470~~ 467 ⚠1
602-01	REINFORCING STEEL BARS	LB	101,291
602-02	EPOXY COATED REINFORCING STEEL BARS	LB	180,052
615-01	STEEL SUPERSTRUCTURE	LS	1
616-04 (HP 12X53)	STEEL BEARING PILES DRIVEN	LF	6,277
616-05 (HP 12X53)	STEEL BEARING PILES PREDRILLED AND DRIVEN	LF	538
639-01	CONSTRUCTION LAYOUT STAKES	LS	1

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY
⚠1	30	CORRECT QUANTITIES	3-23-96	JED

SCALE: NONE DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

STRUCTURE NOTES

Chapman Technical Group

SHEET NO. 2

FILE NO. 9038-2

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	6320 -60- 36.18	BR-0060 (086)		KANAWHA	31	63

WEIGHT OF REINFORCING STEEL BARS (POUNDS)

	LOCATION	#4	#5	#6	#7	#8	#10	TOTAL
UNCOATED	ABUTMENT 1		10,741					10,741
	ABUTMENT 2		8,640					8,640
	WINGWALL #1		4,420	901				5,321
	WINGWALL #2		1,826	360				2,186
	WINGWALL #3		722	127				849
	WINGWALL #4		1,320	232				1,552
	PIER 1N		6,410		6,056	3,386	2,214	18,066
	PIER 1S		6,410		6,056	3,386	2,214	18,066
	PIER 2N		6,279		6,056	3,386	2,214	17,935
	PIER 2S		6,279		6,056	3,386	2,214	17,935
							TOTAL	101,291
EPOXY COATED	DECK		12,250	152,260				164,510
	ABUTMENT 1		4,728	1,196				5,924
	ABUTMENT 2		4,805	2,153				6,958
	WINGWALL #1		1,395					1,395
	WINGWALL #2		599					599
	WINGWALL #3		262					262
	WINGWALL #4		404					404
							TOTAL	180,052

QUANTITY TABLE

	LOCATION	STRUCTURE EXCAVATION ITEM NO. 212-01		WET EXCAVATION ITEM NO. 212-02		SELECT MATERIAL FOR BACKFILLING ITEM 212-05		CLASS B CONCRETE ITEM NO. 601-02		STEEL BEARING PILES, DRIVEN ITEM NO. 616-04 (HP12X53)		STEEL BEARING PILES, PRE-DRILLED AND DRIVEN ITEM NO. 616-05 (HP12X53)	
		UNIT	QUANTITY	UNIT	QUANTITY	UNIT	QUANTITY	UNIT	QUANTITY	UNIT	QUANITY	UNIT	QUANITY
PHASE II	ABUTMENT 1	CY	(180) ~~320~~	CY	0	CY	75	CY	~~245~~ (142)	LF	1067	LF	0
	ABUTMENT 2	CY	(152) ~~250~~	CY	0	CY	(41) ~~72~~	CY	~~178~~ (108)	LF	613	LF	0
	WINGWALL #1	CY	0	CY	0	CY	0	CY	0	LF	0	LF	0
	WINGWALL #2	CY	52	CY	0	CY	24	CY	47	LF	198	LF	0
	WINGWALL #3	CY	0	CY	0	CY	0	CY	0	LF	0	LF	0
	WINGWALL #4	CY	30	CY	0	CY	14	CY	31	LF	114	LF	0
	PIER 1S	CY	0	CY	250	CY	45	CY	209	LF	417	LF	0
	PIER 2S	CY	0	CY	250	CY	45	CY	209	LF	0	LF	272
	TOTAL		(414) ~~652~~		500		(244) ~~275~~		(746) ~~919~~		2409		272
PHASE III	ABUTMENT 1	CY	(169) ~~305~~	CY	0	CY	78	CY	~~227~~ (131)	LF	1166	LF	0
	ABUTMENT 2	CY	(145) ~~243~~	CY	0	CY	(42) ~~75~~	CY	~~168~~ (100)	LF	697	LF	0
	WINGWALL #1	CY	117	CY	0	CY	27	CY	95	LF	1520	LF	0
	WINGWALL #2	CY	0	CY	0	CY	0	CY	0	LF	0	LF	0
	WINGWALL #3	CY	21	CY	0	CY	9	CY	19	LF	57	LF	0
	WINGWALL #4	CY	0	CY	0	CY	0	CY	0	LF	0	LF	0
	PIER 1N	CY	0	CY	250	CY	45	CY	209	LF	428	LF	0
	PIER 2N	CY	0	CY	250	CY	45	CY	209	LF	0	LF	266
	TOTAL		(452) ~~686~~		500		(246) ~~279~~		~~927~~ (763)		3868		266

ITEM 615-01 INCLUDES

DESCRIPTION	UNIT	QUANTITY
M270 STEEL GRADE 50	LB	292,800
M270 STEEL GRADE 36	LB	42,345
BEARINGS	EA	40
ELASTOMERIC STRIP STEEL	LF	248
DECK DRAINS (8"ø)	EA	13

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY
1	31	CORRECT QUANTITIES	3-23-94	JED

SCALE: NONE DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

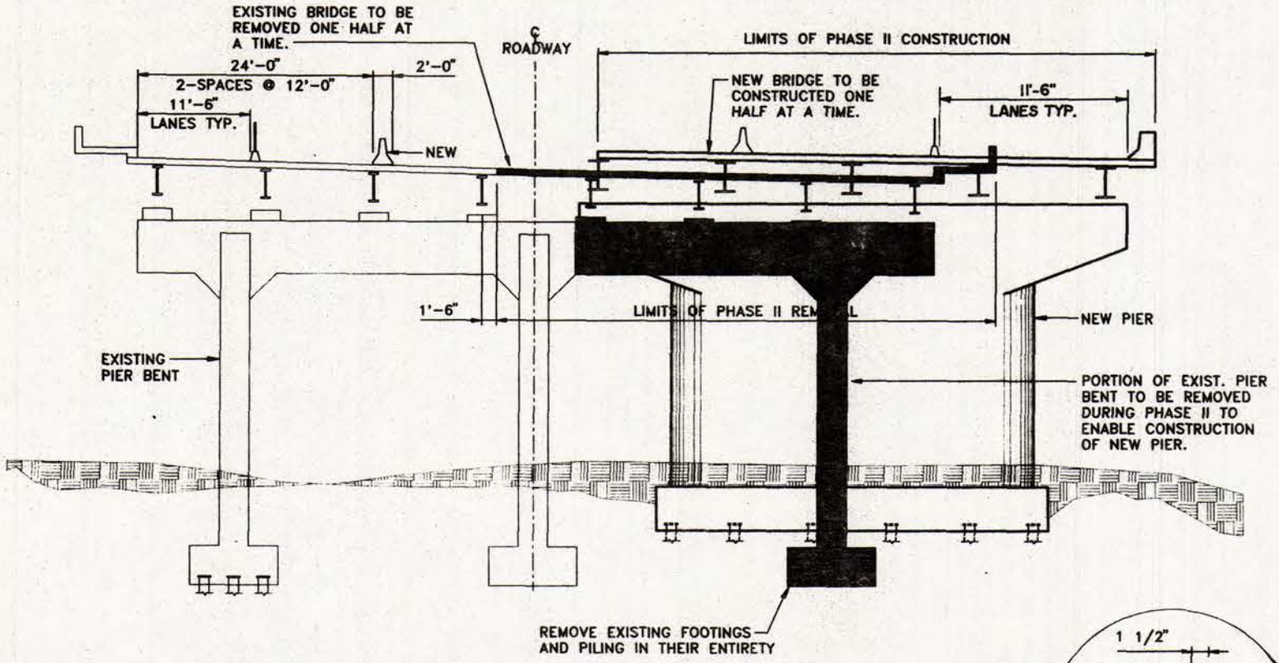
ESTIMATED QUANTITIES

Chapman Technical Group

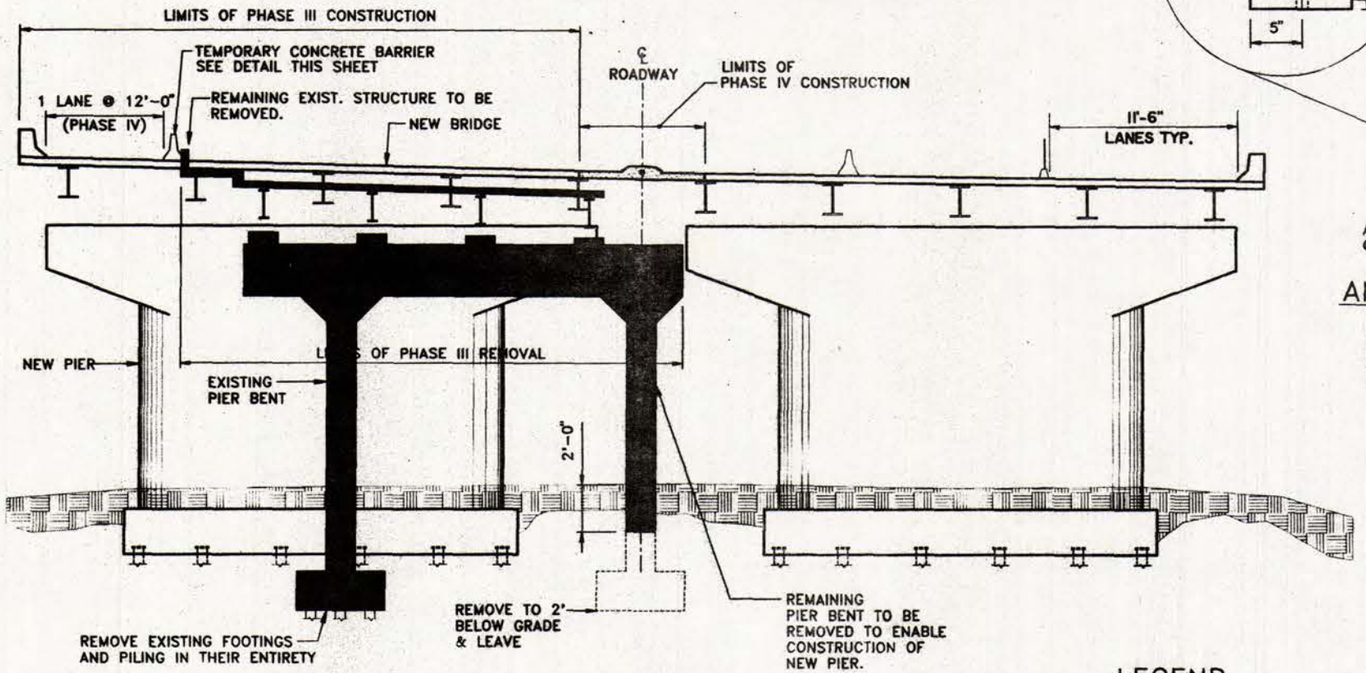
SHEET NO. 3

FILE NO. 60036-3/PLOT 1=1

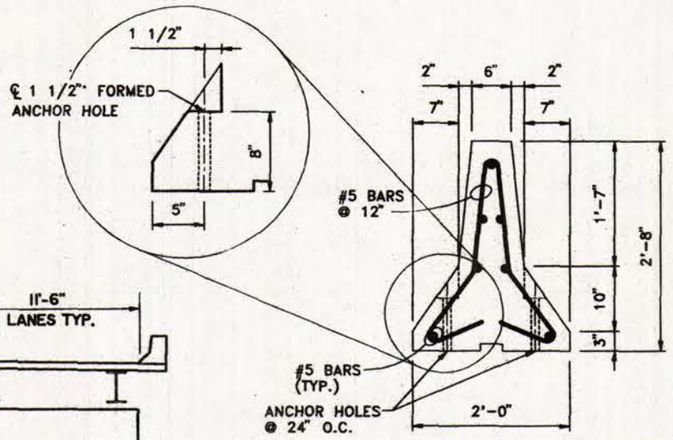
PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY		
W.V.	1	S320-00-36.19	BRI-0060 (086)		KANAWHA		



PIERS 1 AND 2 FOR PHASE II CONSTRUCTION



PIERS 1 AND 2 FOR PHASE III CONSTRUCTION



ANCHORED TEMPORARY CONCRETE BARRIER

NO SCALE – FOR ADDITIONAL DETAIL, SEE TEMPORARY BARRIER–STANDARD DETAIL SHEET.

LEGEND

DENOTES STRUCTURE TO BE REMOVED

REMOVAL AND CONSTRUCTION SEQUENCE

PHASE I

THIS PHASE INVOLVES NON–BRIDGE WORK. SEE ROADWAY PLANS FOR DETAILS.

PHASE II

INSTALL TEMPORARY TRAFFIC BARRIER. (ANCHOR TO EXISTING DECK, REMOVE EXISTING MEDIAN ISLAND AS REQUIRED.)

ROUTE TRAFFIC TO NORTH HALF OF EXISTING SUPERSTRUCTURE TO LIMITS SHOWN. INSTALL TEMPORARY SHEETING, AS REQUIRED, ADJACENT TO THE PHASE II ROADWAY BEHIND EXISTING ABUTMENTS, REGRADE THE SOUTH HALF OF THE END SLOPES TO THE NEW CROSS SECTION AND REMOVE THE SOUTH HALF OF THE ABUTMENTS. REMOVE SOUTH HALF OF PIERS TO THE LIMITS SHOWN.

CONSTRUCT SOUTH HALF OF THE NEW BRIDGE SUBSTRUCTURE ELEMENTS TO THE LIMITS SHOWN, INCLUDING THE SOUTHWEST AND SOUTHEAST RETAINING WALLS. ERECT THE NEW STRUCTURAL STEEL GIRDERS AND DIAPHRAGMS AND CONSTRUCT THE NEW BRIDGE DECK AND BARRIER. INSTALL TEMPORARY TRAFFIC BARRIER ON THE NEWLY CONSTRUCTED BRIDGE DECK.

PHASE III

ROUTE TRAFFIC TO NEWLY CONSTRUCTED BRIDGE DECK.
REMOVE TEMPORARY TRAFFIC BARRIER FROM EXISTING BRIDGE. REMOVE REMAINING EXISTING SUPERSTRUCTURE AND ABUTMENTS.
REMOVE BALANCE OF EXISTING PIERS IN THEIR ENTIRETY EXCEPT AS NOTED.
REGRADE NORTHERN HALF OF END SLOPES TO THE FINAL CROSS SECTION AND REMOVE REMAINING ABUTMENTS IN THEIR ENTIRETY.

COMPLETE CONSTRUCTION OF NEW ABUTMENTS AND PIERS, INCLUDING THE NORTHEAST AND NORTHWEST RETAINING WALLS. ERECT REMAINING NEW STRUCTURAL STEEL GIRDERS AND DIAPHRAGMS. CONSTRUCT NEW BRIDGE DECK AND BARRIER TO LIMITS SHOWN.

PHASE IV

INSTALL TEMPORARY TRAFFIC BARRIER ON THE NEWLY CONSTRUCTED NORTH HALF OF NEW BRIDGE. ROUTE ONE–WAY TRAFFIC TO EACH HALF OF BRIDGE USING THE OUTERMOST LANES.

ERECT REMAINING NEW DIAPHRAGMS. CONSTRUCT REMAINING NEW BRIDGE AND MEDIAN. REMOVE TEMPORARY TRAFFIC BARRIERS ON BOTH HALVES OF BRIDGE. REPAIR DECK AS REQUIRED. RESUME NORMAL TRAFFIC.
PHASE IV DIAPHRAGMS MAY BE SET INTO PLACE DURING PHASE III CONSTRUCTION AS LONG AS THEIR END CONNECTIONS ARE FREE TO ROTATE DURING PLACEMENT OF CONCRETE. FINAL FITUP OF THESE DIAPHRAGMS SHALL OCCUR DURING PHASE IV CONSTRUCTION.

NOTES:

1. THERE IS NO SEPARATE PAYMENT FOR TEMPORARY SHEETING REQUIRED BY THE CONSTRUCTION AND ALL COSTS SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 601–02.
2. ALL ANCHORS SHALL BE 1" DIAMETER, HIGH STRENGTH, THRU BOLTS OR APPROVED RESIN ANCHORS SPACED AT 24" CENTERS. WHEN RESIN ANCHORS ARE USED, THEY MUST BE EMBEDDED A MINIMUM OF 6" INTO FIRM CONCRETE. THE ANCHORS SHALL BE PLACED ON THE ROADWAY SIDE OF THE BARRIER.
3. THE BRIDGE DECK SURFACE AREA ON WHICH THE PRECAST CONCRETE BARRIER SEGMENTS WILL REST SHALL BE CLEARED OF ALL LOOSE SAND, GRAVEL, DIRT, AND DEBRIS.

   ANY IRREGULARITIES IN THE BRIDGE DECK AREA, UNLESS JUDGED BY THE ENGINEER TO BE INCONSEQUENTIAL, SHALL BE LEVELED WITH GROUT AND/OR ASPHALT.

   ASPHALT ROLL ROOFING SHALL BE PLACED ON THOSE BRIDGE DECK AREAS, AS JUDGED BY THE ENGINEER, TO HAVE A SURFACE ROUGHNESS WHICH WOULD INHIBIT FRICTION CONTACT BETWEEN BARRIER SEGMENTS AND DECK. THE COST OF THIS ITEM SHALL BE INCLUDED IN ITEM 636–17 "TEMPORARY BARRIER".

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

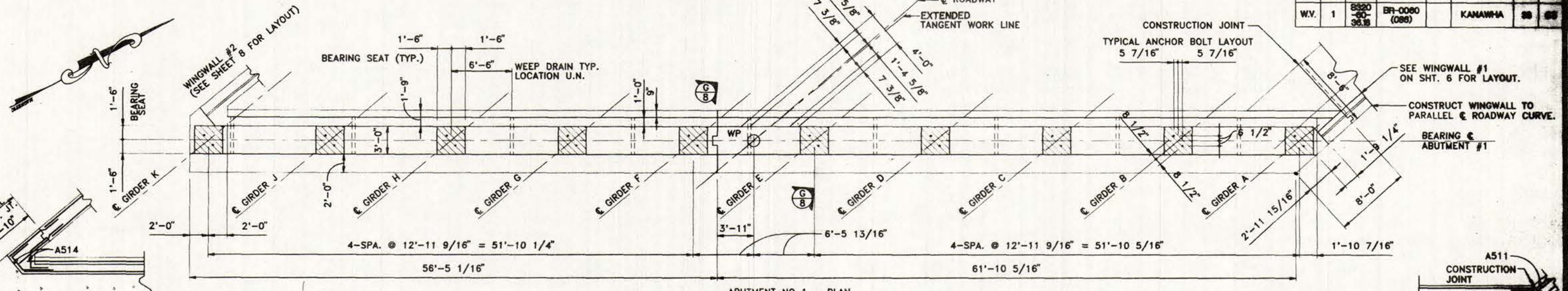
SCALE: NONE DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3986 REPLACEMENT

REMOVAL DETAILS AND CONSTRUCTION STAGING

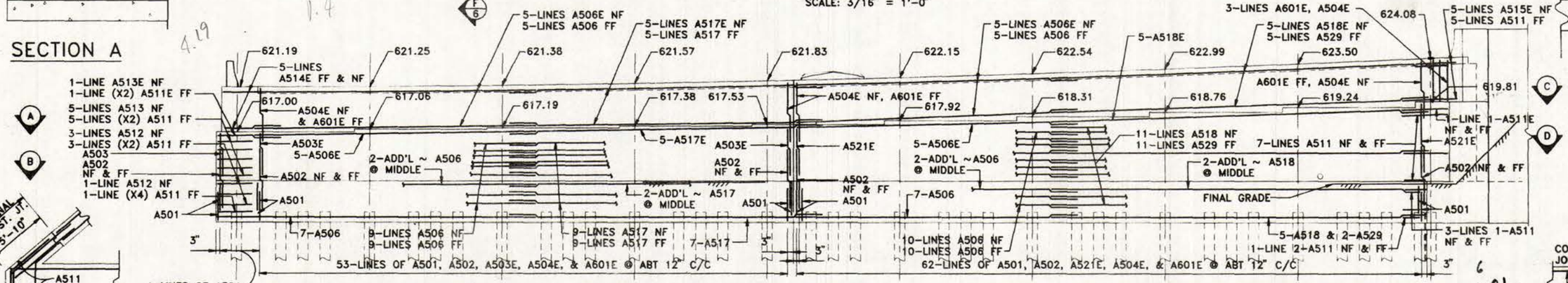
Chapman Technical Group

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	1	8320-60-36.19	BR-0060 (086)		KANAWHA	38	68



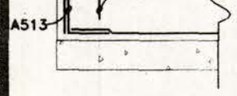
ABUTMENT NO 1 – PLAN
SCALE: 3/16" = 1'-0"

SECTION A

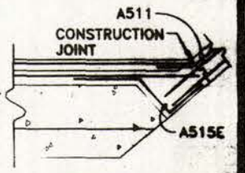


ABUTMENT NO 1 – ELEVATION
SCALE: 3/16" = 1'-0"

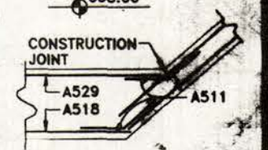
SECTION B

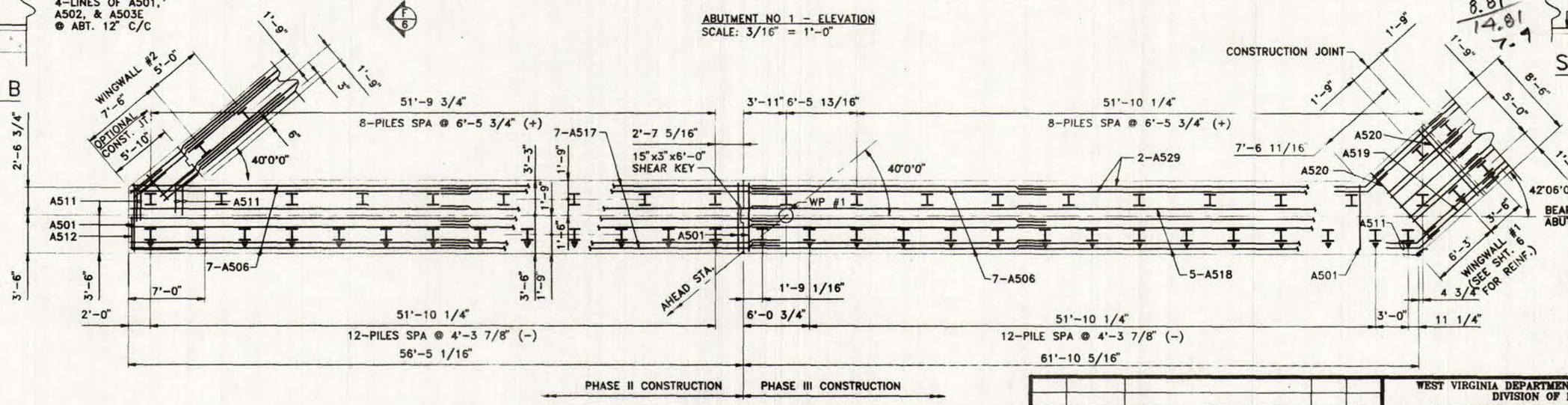


SECTION C



SECTION D





ABUTMENT NO 1 – FOOTING PLAN
SCALE: 3/16" = 1'-0"

NOTE:.
▼ DESIGNATES PILES BATTERED @ 4:12
ALL PILES ARE HP12x53

LEGEND
FF – FAR FACE
NF – NEAR FACE

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: 3/16" = 1'-0" | DATE: SEPTEMBER 1992

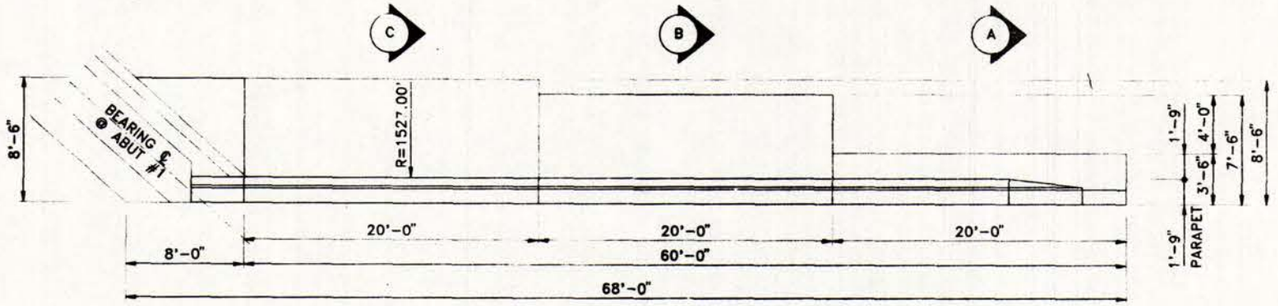
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

ABUTMENT NO. 1

Chapman Technical Group

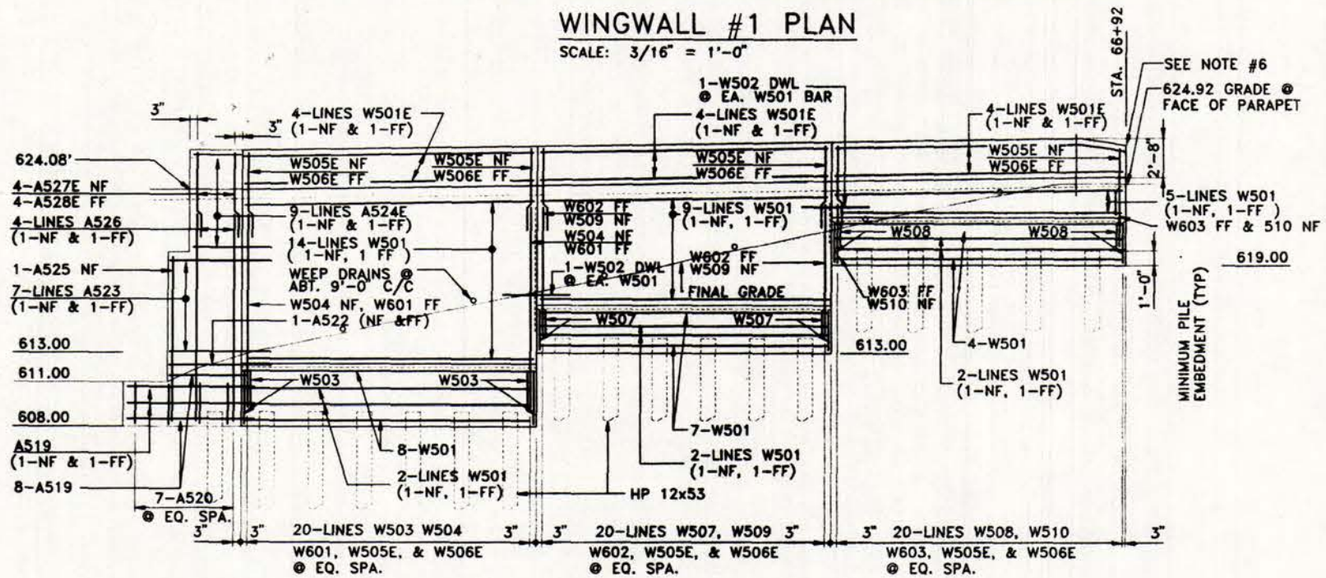
SHEET NO. 5

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-60-36.18	BR-0060 (066)		KANAWHA	34	63



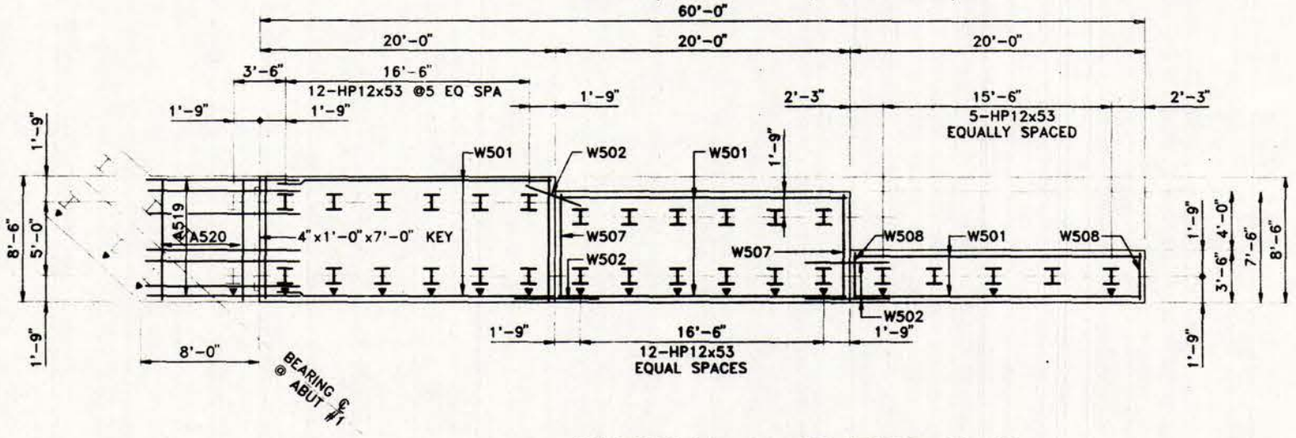
WINGWALL #1 PLAN

SCALE: 3/16" = 1'-0"



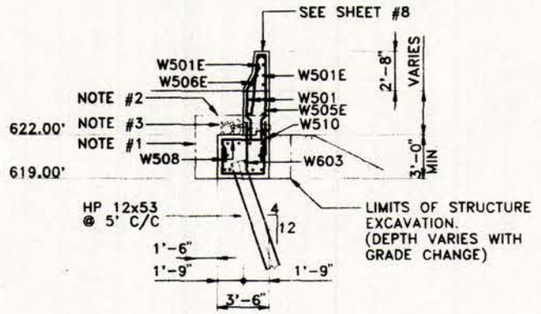
WINGWALL #1 ELEVATION

SCALE: 3/16" = 1'-0" (PHASE III CONST.)



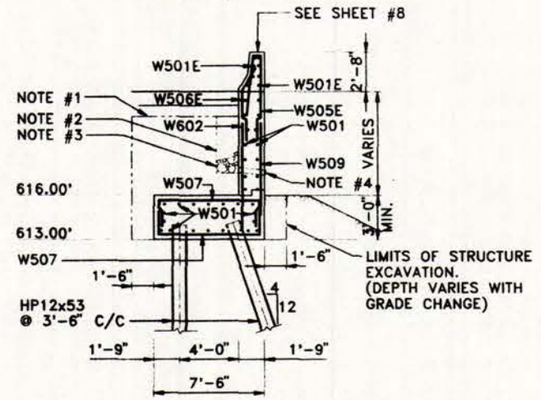
WINGWALL #1 FOOTING PLAN

SCALE: 3/16" = 1'-0"



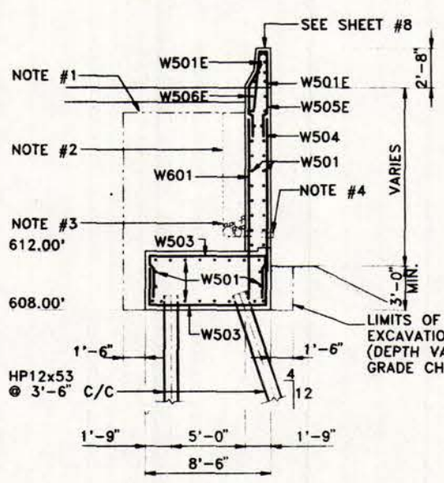
SECTION A

SCALE. 3/16" = 1'-0"



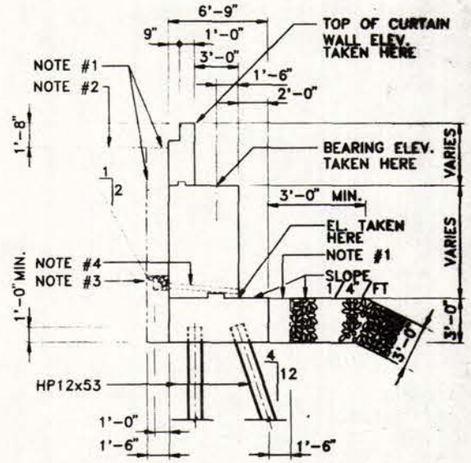
SECTION B

SCALE: 3/16" = 1'-0"



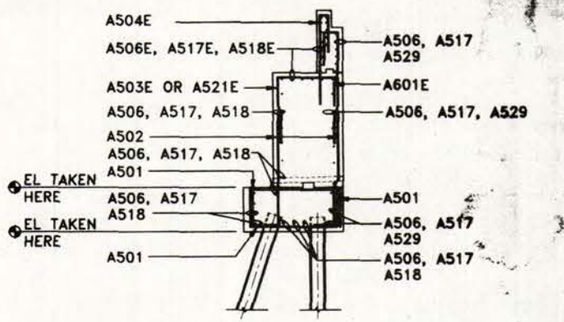
SECTION C

SCALE: 3/16" = 1'-0"



TYPICAL ABUTMENT SECTION

SCALE: 3/16" = 1'-0"



F/6 SECTION THRU ABUTMENT #1

SCALE: 3/16" = 1'-0"

NOTE:
1. LIMITS OF STRUCTURE EXCAVATION
2. LIMITS OF SELECT ~~EMBANKMENT~~ MATERIAL FOR BACKFILLING
3. STACK STONES AROUND WEEP HOLE TO PREVENT LOSS OF BACKFILL (COST INCLUDED IN ITEM 212-50)
4. 4"ø WEEP DRAIN, SLOPE 1/4" PER FOOT
5. ALL PILES HP12x53 WITH MINIMUM PILE EMBEDMENT INTO PILE CAP OF 1'-0"
6. SEE TYPICAL END POST DETAIL ON SHEET #16

▼ DENOTES PILES BATTERED @4:12

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY
1	34	CORRECT NOTE	3-23-94	JED

SCALE: AS SHOWN DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

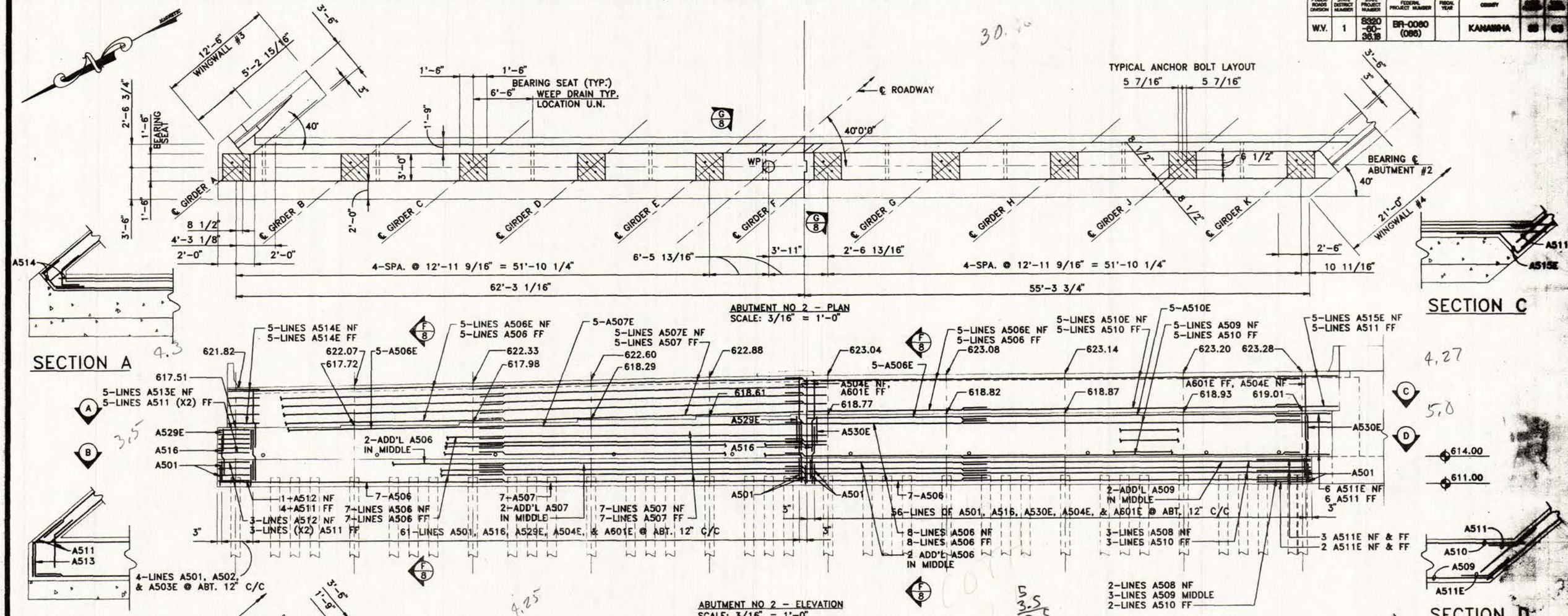
WING WALL #1

Chapman Technical Group

SHEET NO. 6

FILE NO. 6003a-9 SCALE: 1=64

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY		
W.V.	1	S320-60-36.18	BR-0060 (086)		KANAWHA		



NOTE:
▼ DESIGNATES PILES BATTERED @ 4:12
ALL PILES ARE HP12x53

LEGEND
FF - FAR FACE
NF - NEAR FACE

ABUTMENT NO 2 - FOOTING PLAN
SCALE: 3/16" = 1'-0"

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: 3/16" = 1'-0" DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

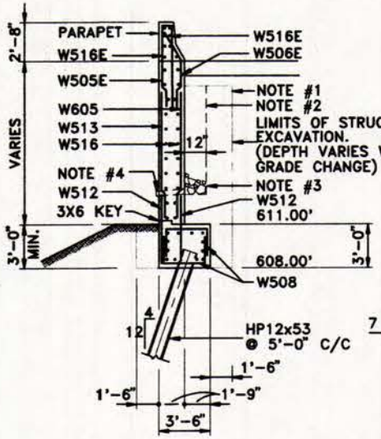
ABUTMENT NO. 2

Chapman Technical Group

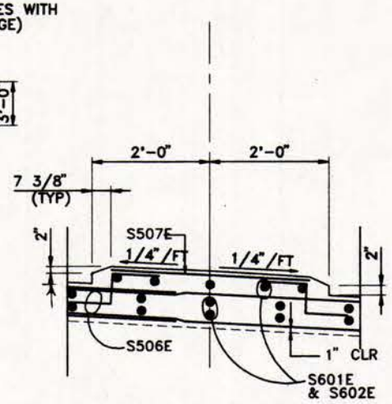
SHEET NO. 7

FILE NO. 9703A-7 SCALE 1=64

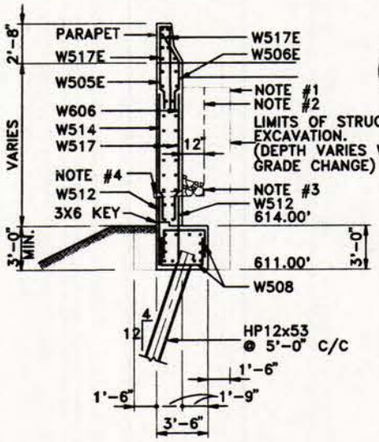
PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320 -60- 36.18	BR-0060 (086)		KANAWHA	36	63



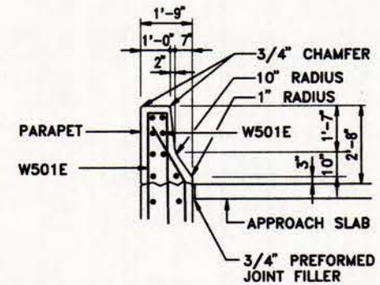
SECTION A
SCALE: 3/16" = 1'-0"



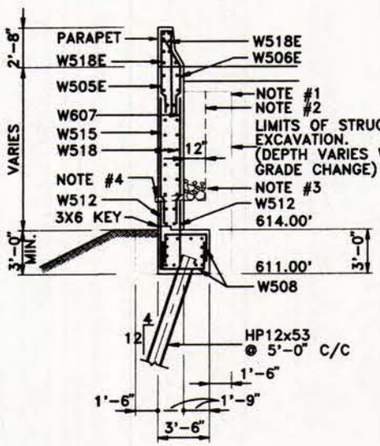
G/8 MEDIAN AT TOP OF CURTAIN WALL
SCALE: 1" = 1'-0"



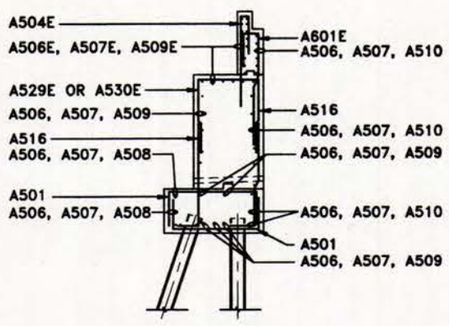
SECTION B
SCALE: 3/16" = 1'-0"



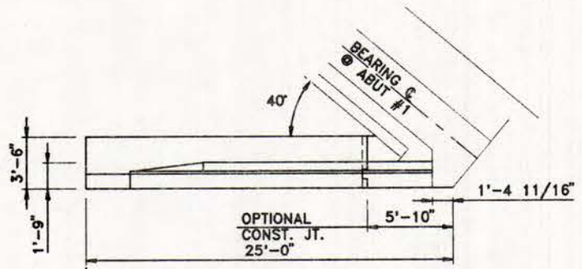
TYPICAL PARAPET SECTION
SCALE: 3/8" = 1'-0"



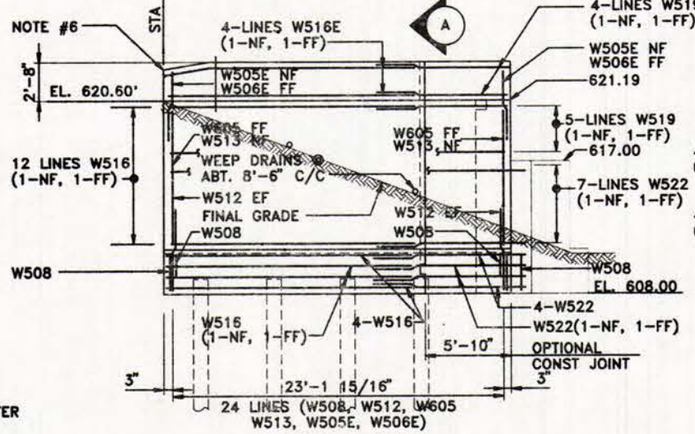
SECTION C
SCALE: 3/16" = 1'-0"



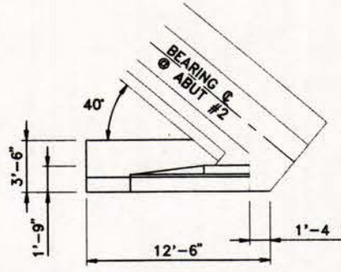
F/8 SECTION THRU ABUTMENT #2
SCALE: 3/16" = 1'-0"



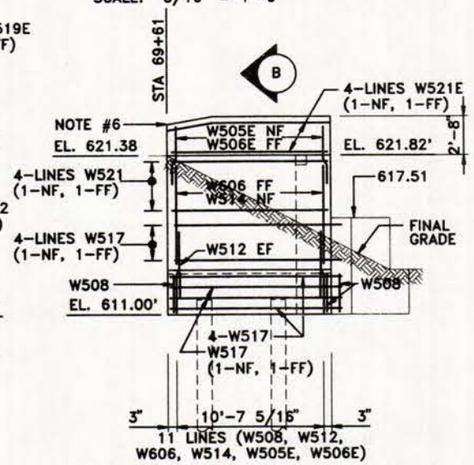
WINGWALL #2 PLAN
SCALE: 3/16" = 1'-0"



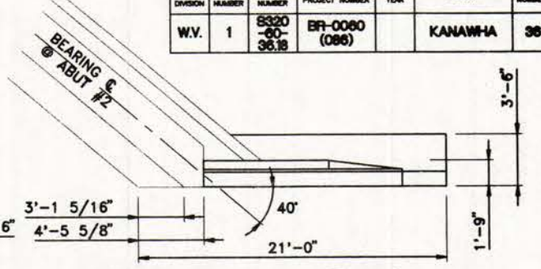
WINGWALL #2 ELEVATION
SCALE: 3/16" = 1'-0" (PHASE II CONSTRUCTION)



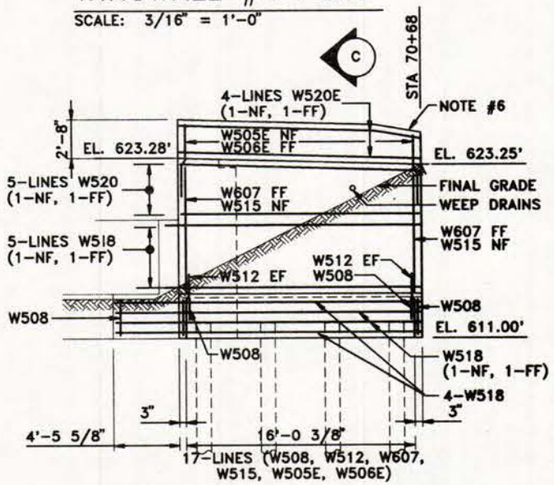
WINGWALL #3 PLAN
SCALE: 3/16" = 1'-0"



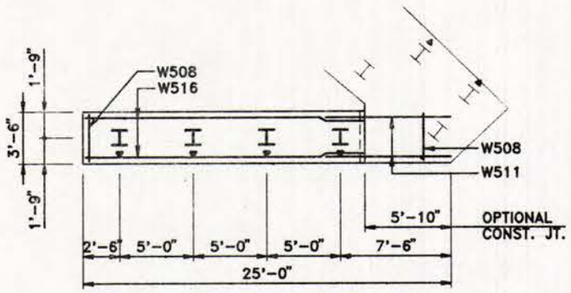
WINGWALL #3 ELEVATION
SCALE: 3/16" = 1'-0" (PHASE III CONST.)



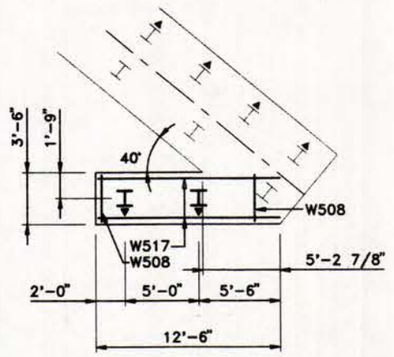
WINGWALL #4 PLAN
SCALE: 3/16" = 1'-0"



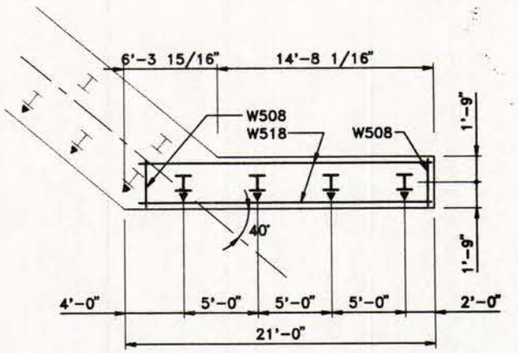
WINGWALL #4 ELEVATION
SCALE: 3/16" = 1'-0" (PHASE II CONSTRUCTION)



WINGWALL #2 FOOTING PLAN
SCALE: 3/16" = 1'-0"



WINGWALL #3 FOOTING PLAN
SCALE: 3/16" = 1'-0"



WINGWALL #4 FOOTING PLAN
SCALE: 3/16" = 1'-0"

LEGEND
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE

NOTE:
1. LIMITS OF STRUCTURE EXCAVATION
2. LIMITS OF SELECT ~~EMBANKMENT~~ (MATERIAL FOR BACKFILLING) ⚠
3. STACK STONES AROUND WEEP HOLE TO PREVENT LOSS OF BACKFILL (COST INCLUDED IN ITEM 212-50)
4. 4"ø WEEP DRAIN, SLOPE 1/4" PER FOOT
5. ALL PILES HP12x53 WITH MINIMUM PILE EMBEDMENT INTO PILE CAP OF 1'-0"
6. SEE TYPICAL END POST DETAIL ON SHEET #16

▼ DENOTES PILES BATTERED @4:12

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY
⚠1	36	CORRECT NOTE	3-23-94	JED

SCALE: AS SHOWN
DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

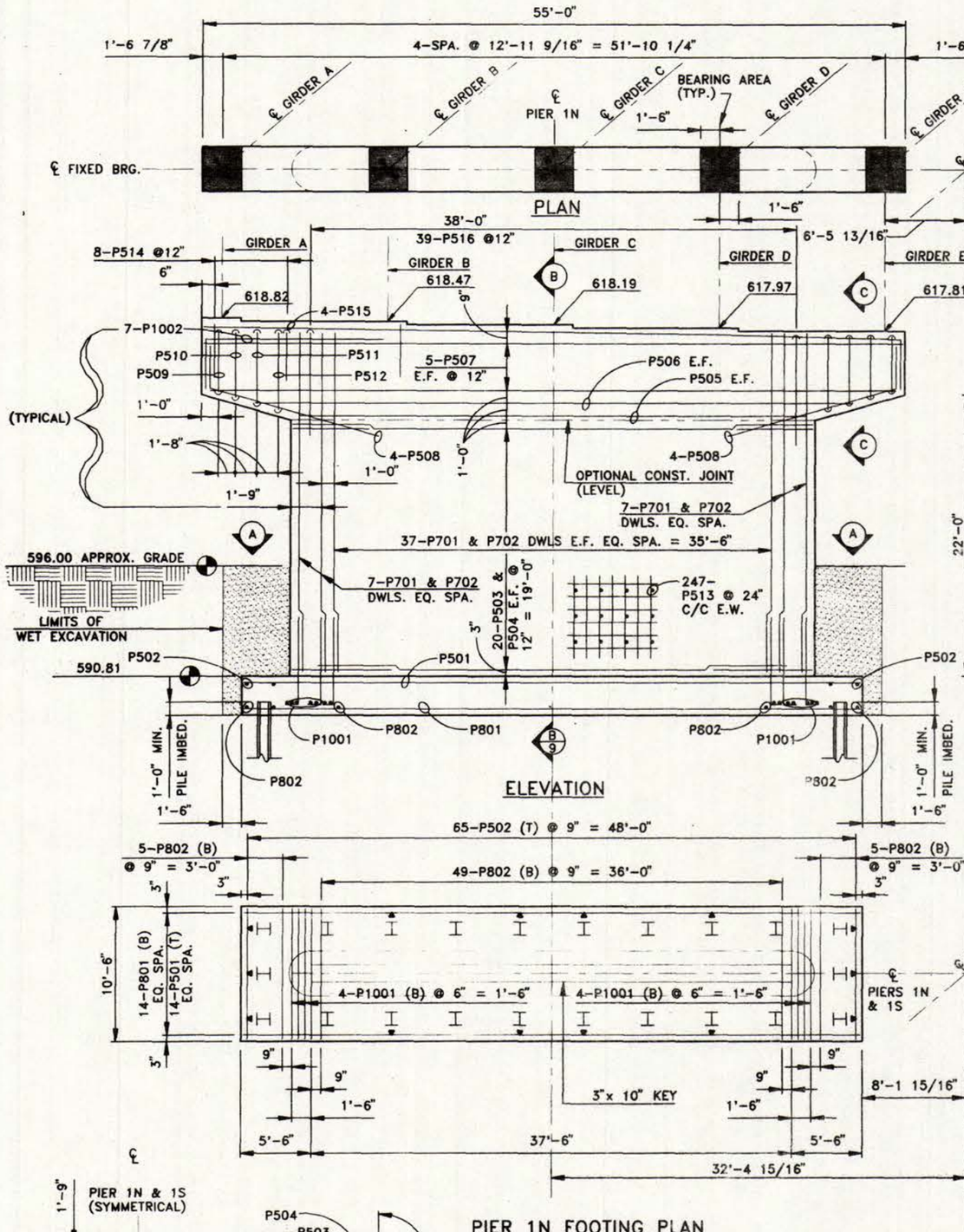
WINGWALLS 2,3, + 4

Chapman Technical Group

SHEET NO. 8

FILE NO. 9003a-8 ROAD Trans

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY		
W.V.	1	8320-60-36.19	BR-0060 (066)		KANAWHA	67	68



SCALE: 3/16"= 1'-0" U.N.O. | DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

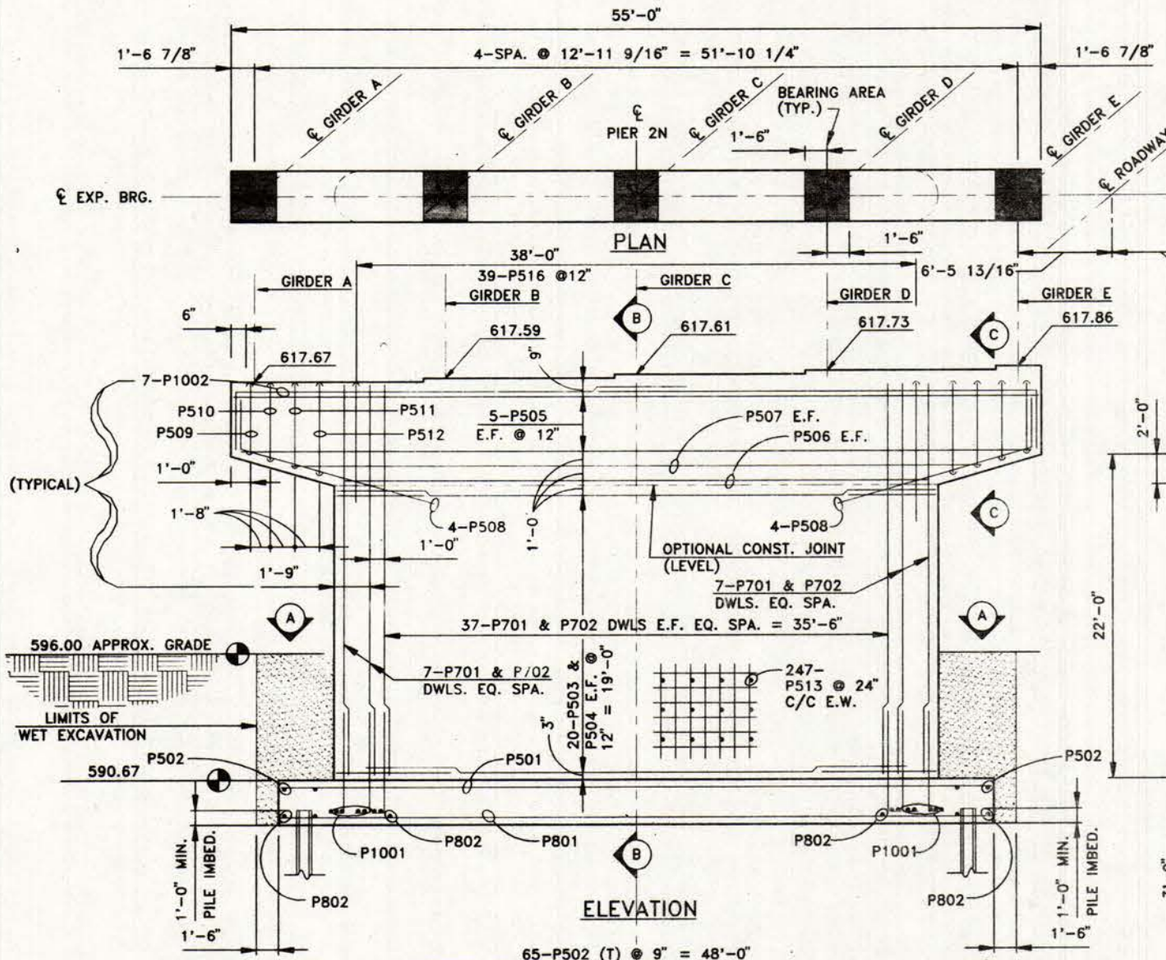
PIER 1N AND 1S DETAILS

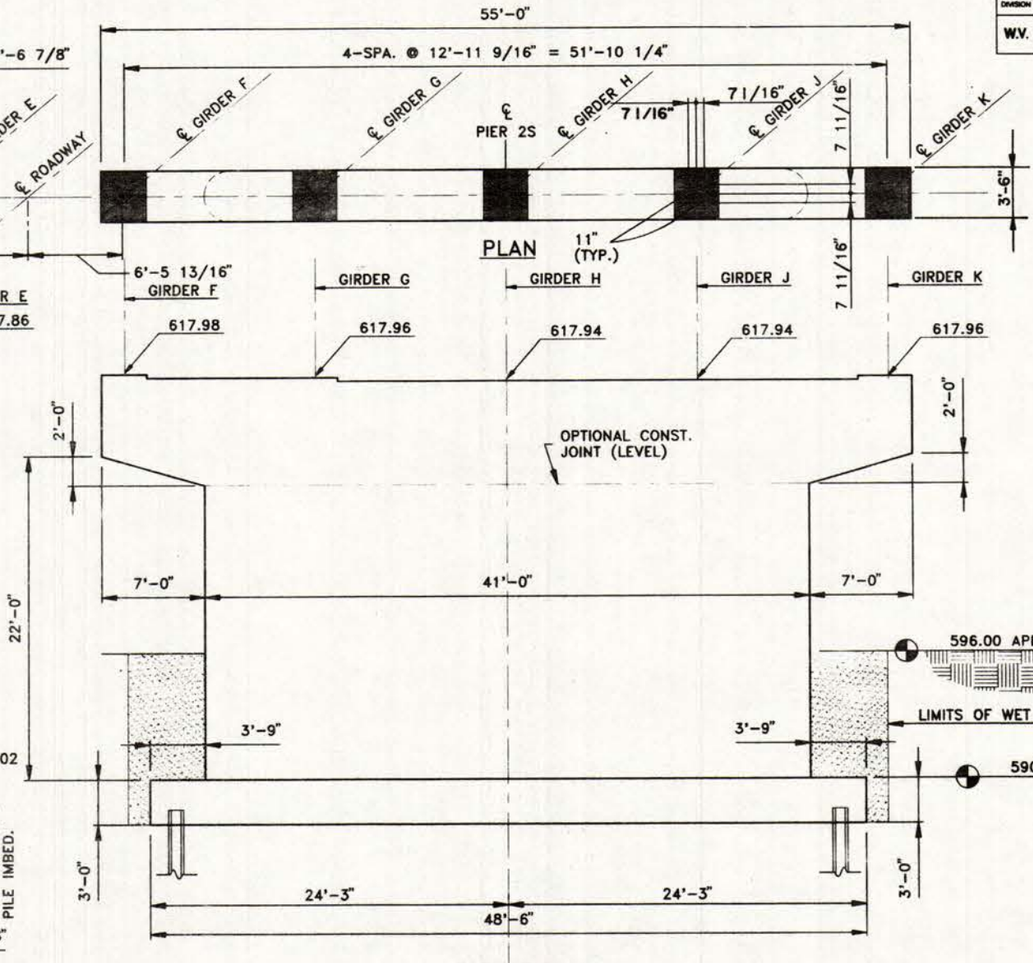
Chapman Technical Group

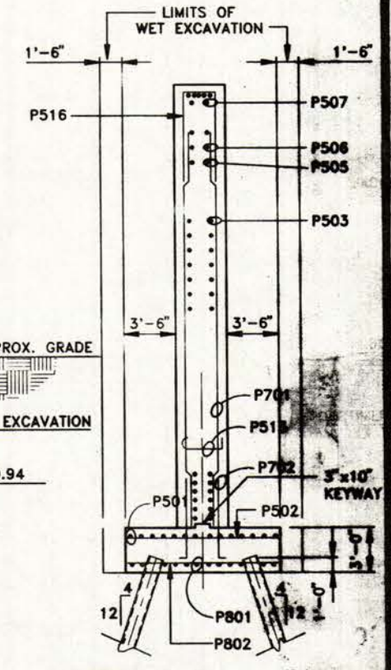
SHEET NUMBER 9

FILE NO. 60036-9 SCALE 3/16=1'-0

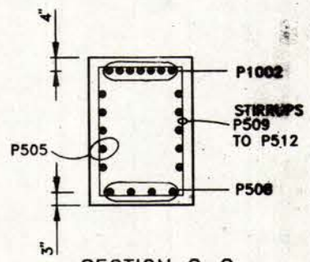
PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-60-36.18	BR-0060 (086)		KANAWHA	28	63



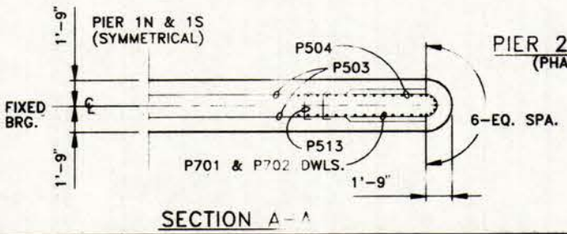




PIER 1N SAME AS PIER 1S EXCEPT FOR ELEVATIONS AS NOTED.



SCALE: 3/8" = 1'-0"



▲ - INDICATES DIRECTION OF 4:12 BATTER ON PILES
ALL PILES ARE HP 12x53

REVISION NUMBER	SHEET NUMBER	REVISIONS	BY

SCALE: 3/16"= 1'-0" U.N.O.
DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

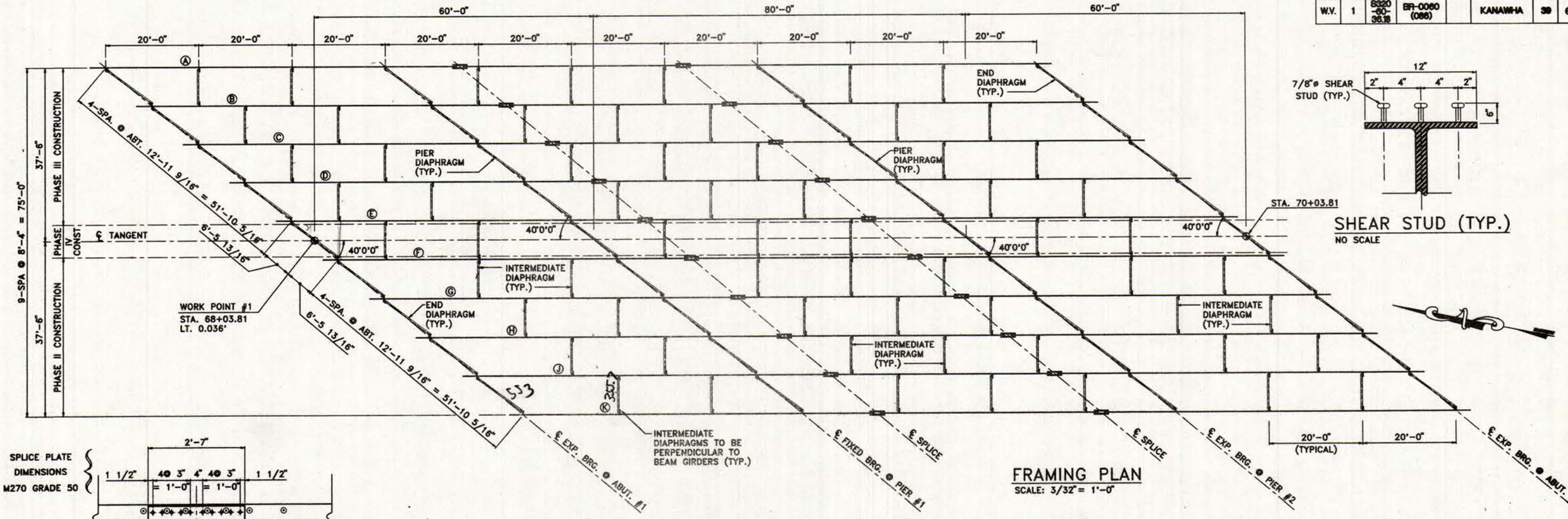
PIER 2N AND 2S DETAILS

Chapman Technical Group

SHEET NO. 10

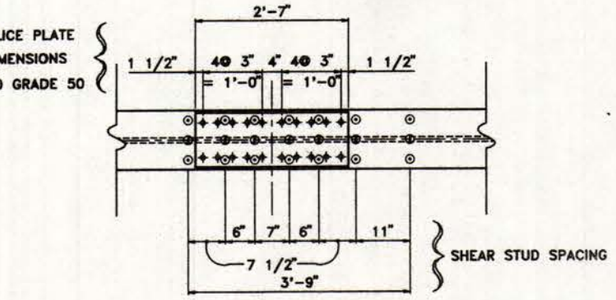
FILE NO. 9003a-10 SCALE: 3/16=12

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-00-36.18	BR-0060 (086)		KANAWHA	39	63

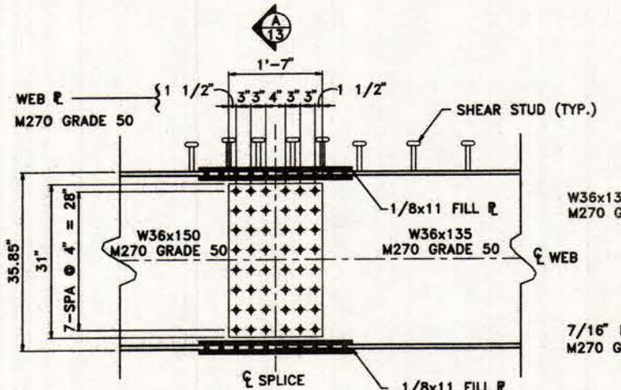


FRAMING PLAN
SCALE: 3/32" = 1'-0"

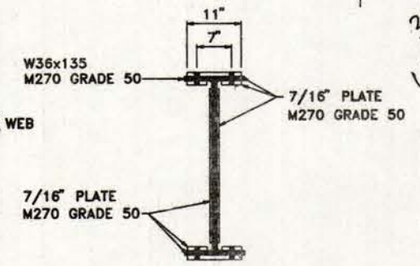
SHEAR STUD (TYP.)
NO SCALE



PLAN

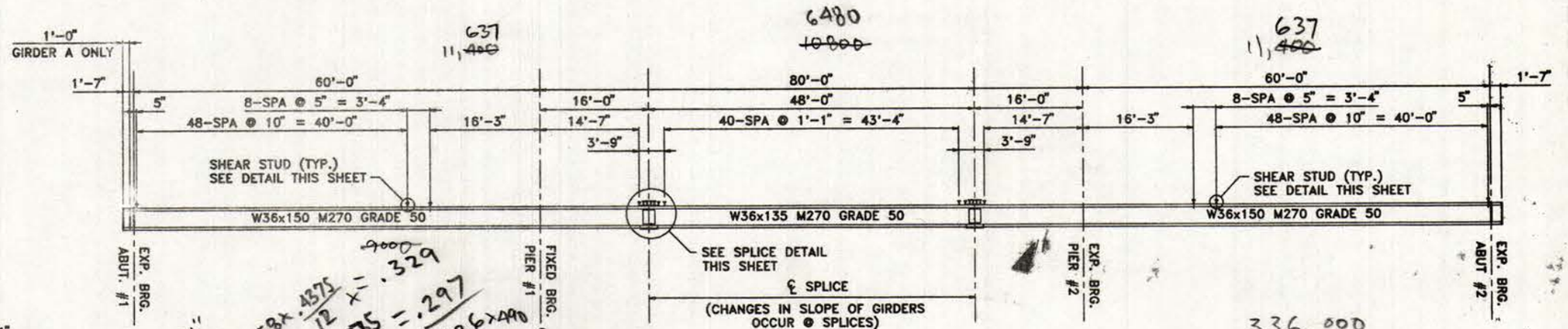


ELEVATION



SECTION A-A

SPLICE DETAIL
SCALE: 3/4" = 1'-0"



GIRDER ELEVATION (TYP. FOR Ⓐ THRU Ⓚ)

NOTES:

GIRDERS SHALL BE FABRICATED SO THAT ENDS, BEARING STIFFNERS, AND CONNECTION PLATES AT END DIAPHRAGMS ARE PLUMB UNDER FULL DEAD LOAD.

CAMBER IS NOT REQUIRED. TURN NATURAL CAMBER UP.

ALL DIAPHRAGMS ARE TO BE MC 18x42.7 & M270 GRADE 36 STEEL.

ALL GIRDERS ARE TO BE M270 GRADE 50 STEEL.

ALL SPLICE PLATES ARE TO BE M270 GRADE 50 STEEL.

ALL LONGITUDINAL AND TRANSVERSE DIMENSIONS ARE MEASURED HORIZONTALLY.

OPEN HOLES SHALL BE 15/16"ø UNLESS NOTED. FIELD CONNECTIONS SHALL BE MADE WITH 7/8"ø HIGH STRENGTH BOLTS

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: AS SHOWN | DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE 60886 REPLACEMENT

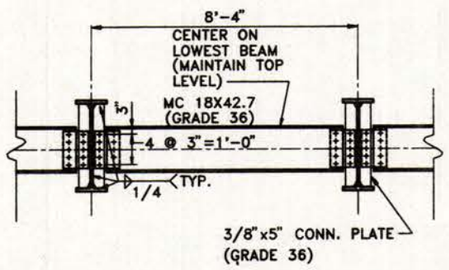
FRAMING PLAN

Chapman Technical Group

SHEET NO. 11

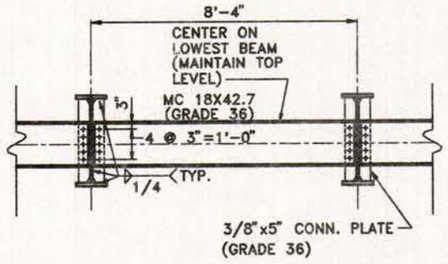
FILE NO. 60039-13 / SCALE: 1=100

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-60-36.18	BR-0060 (088)		KANAWHA	40	63



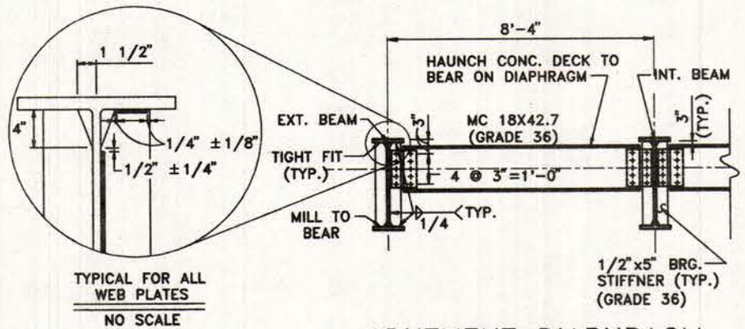
PIER DIAPHRAGM

NO SCALE



INTERMEDIATE DIAPHRAGM

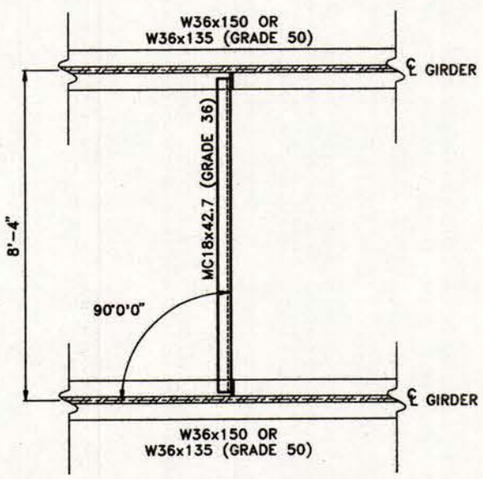
NO SCALE



NO SCALE

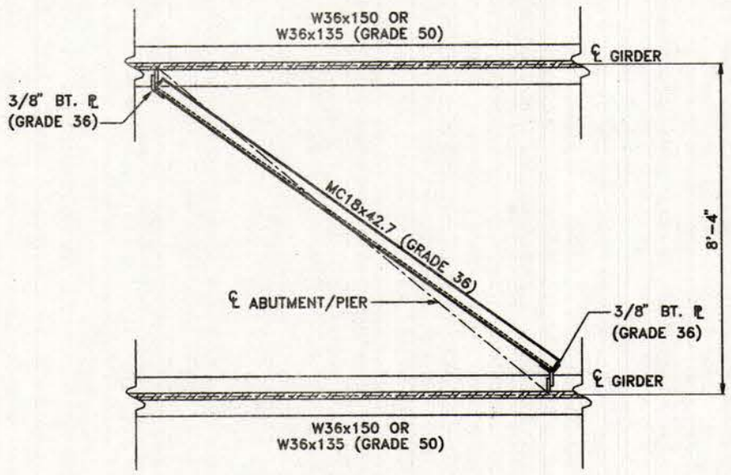
ABUTMENT DIAPHRAGM

NO SCALE



INTERMEDIATE DIAPHRAGM PLAN

NO SCALE



ABUTMENT AND PIER DIAPHRAGM PLAN

NO SCALE

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: NONE

DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

KELLY CREEK BRIDGE #3886 REPLACEMENT

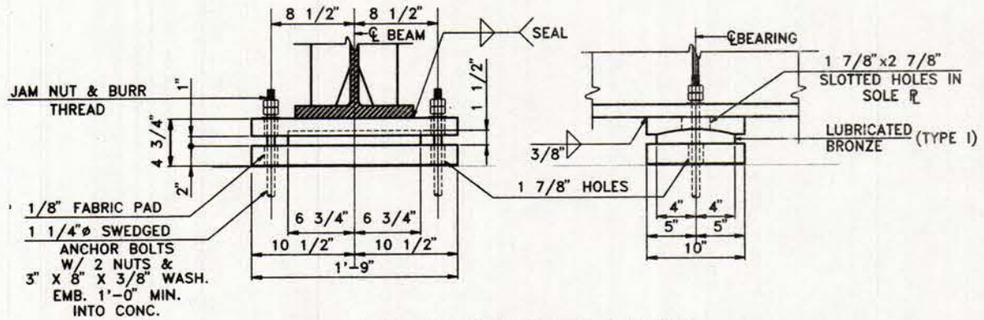
FRAMING DETAILS

Chapman Technical Group

SHEET NO. 12

FILE NO. 9003a-14 SCALE: 1/8=1'0

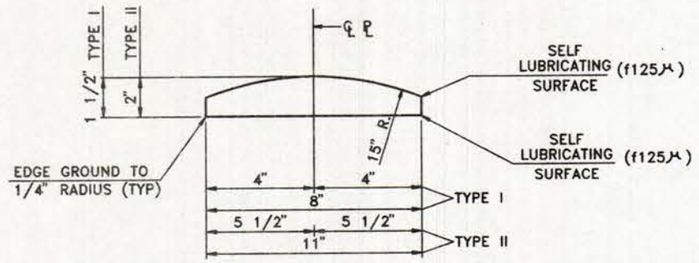
PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-00-36.18	BR-0060 (086)		KANAWHA	41	63



FOR ALL BEAMS (20 REQ'D.)

ABUTMENT 1 & 2 EXPANSION BEARING

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

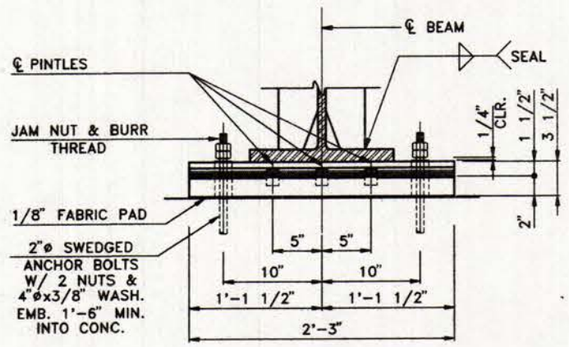


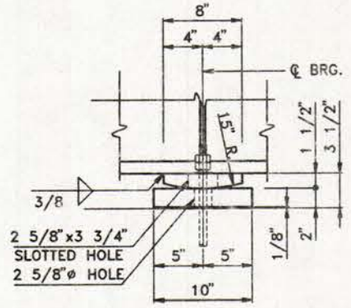
BRONZE PLATE (PIER #2) TYPE II

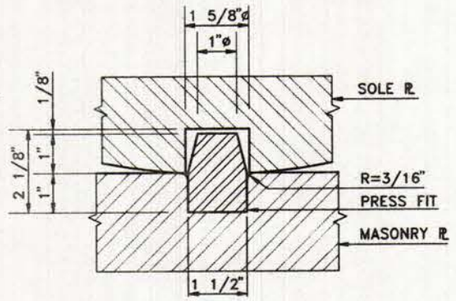
SCALE: NONE

BRONZE PLATE (ABUT. #1 & #2) TYPE I

SCALE: NONE







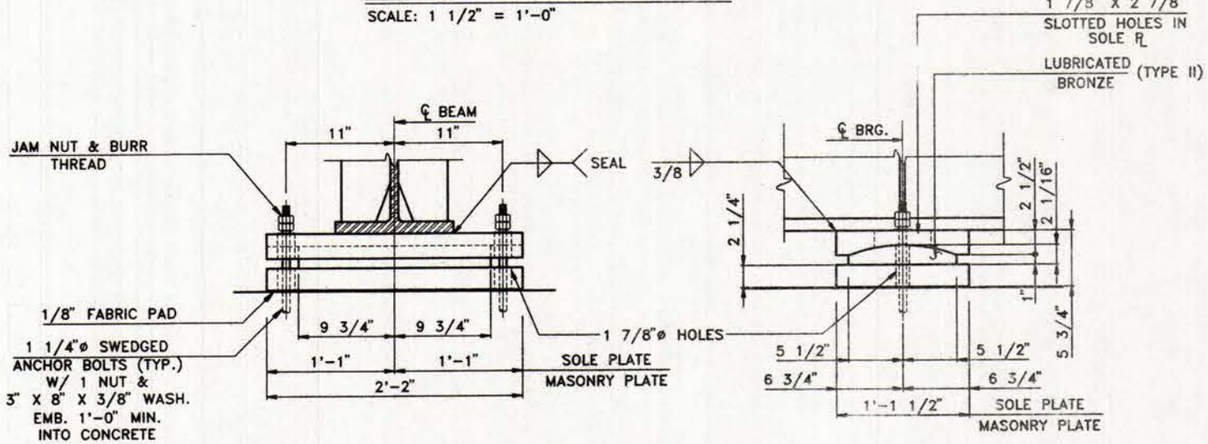
PINTLE DETAIL

SCALE: 1/2" = 1"

FOR ALL BEAMS (10 REQ'D.)

PIER #1 FIXED BEARING

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



FOR ALL BEAMS (10 REQ'D.)

PIER #2 EXPANSION BEARING

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

BEARING NOTES

FILL SLOTS AND HOLES IN MASONRY PLATE AROUND ANCHOR BOLTS WITH APPROVED NON-HARDENING CAULKING COMPOUND OR ELASTIC JOINT SEALER.

STEEL SURFACES OF SOLE PLATE, ROCKER PLATE, WEB AND BEARING PLATE TO BE A MACHINE FINISH AS SHOWN ON THE DETAILS, MEASURED IN ACCORDANCE WITH ANSI B46.1. OTHER STEEL PLATE SURFACES TO BE AT LEAST 1000µ INCH.

BEARINGS SHALL BE SHOP ASSEMBLED AND MATCH MARKED TO INSURE PROPER FIT.

PLATE THICKNESS SHOWN ARE AT THE CENTERLINES OF BEARINGS AT 70°F.

SOLE PLATE TO BE LEVELED OR HAVE RADIUS MACHINED TO MATCH GRADE WHEN GRADE EXCEEDS 3% FOR FIXED BEARING OR 1% FOR ALL OTHER BEARINGS.

STEEL PLATES SHALL MEET A FLATNESS REQUIREMENT OF 0.005 INCH/INCH MAXIMUM IN DIRECTION BEING MEASURED (WIDTH, LENGTH AND DIAGONALS) BUT NOT TO EXCEED 1/8 INCH.

BEARING SURFACES SHALL BE FINISHED IN ACCORDANCE WITH SECTION 615.3.23, FINISH IN THE DIRECTION OF ROTATION.

ALL SHOE STEEL, INCLUDING SOLE AND MASONARY PLATES AND ANCHOR BOLTS SHALL BE PAINTED WITH 4 MILS OF ZINC RICH PAINT IN ACCORDANCE WITH SECTION 711.20, THE FIELD COAT SHALL BE THE SAME AS FOR STRUCTURAL STEEL.

A FABRIC PAD FOR LEVELING SHALL BE PLACED UNDER THE MASONRY PLATE.

THE COST OF THE BRONZE PLATES AND FABRIC PADS SHALL BE INCLUDED IN ITEM 615-01.

ALL SOLE PLATES AND MASONRY PLATES ARE TO BE AASHTO M270 GR36.

EXPANSION BEARING NOTES

SURFACES OF SOLE PLATE AND MASONRY PLATE IN CONTACT WITH BRONZE PLATE TO HAVE A MACHINE FINISH OF AT LEAST 125µ INCH. THESE STEEL SURFACES SHALL NOT BE PAINTED, BUT SHALL BE COATED WITH A MULTIPURPOSE GREASE BEFORE SHIPMENT. COATING SHALL BE REMOVED WITH A SOLVENT IMMEDIATELY PRIOR TO ERECTION.

SELF-LUBRICATING BRONZE BEARING PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM B22, COPPER ALLOY UNS C91100 MODIFIED WITH UP TO 2.5% LEAD MAXIMUM. THE SLIDING SURFACES OF THE PLATES SHALL BE PROVIDED WITH ANNULAR GROOVES OR CYLINDRICAL RECESSES, OR A COMBINATION THEREOF, WHICH SHALL BE FILLED WITH A LUBRICATING COMPOUND. THE LUBRICATING COMPOUND SHALL BE COMPRESSED INTO THE RECESSES UNDER SUFFICIENT PRESSURE TO FORM A NON-PLASTIC LUBRICATING INSET, THE LUBRICATING INSET SHALL COMPRISE NOT LESS THAN 25% OF THE TOTAL AREA OF THE PLATE. THE FRICTIONAL COEFFICIENT SHALL NOT EXCEED 0.10R, WHEN BEARING IS TESTED UNDER A LOAD OF R AND FOR 1000 CYCLES.

THE COMPOUND SHALL BE FREE OF ANY MATERIAL WHICH COULD CAUSE ABRASIVE OR CORROSIVE ACTION UPON THE METAL SURFACES AND ALSO SHALL BE ABLE TO WITHSTAND EXTREMELY HIGH PRESSURES AND ATMOSPHERIC ELEMENTS OVER LONG PERIODS OF TIME.

ALL ITEMS SHALL BE THE STANDARD PRODUCTS OF THE MANUFACTURER OF SUCH MATERIALS FOR THIS APPLICATION.

PRIOR TO ASSEMBLY IN PLACE, THE STEEL SURFACES WHICH WILL BEAR ON THE SELF-LUBRICATING BEARING PLATE SHALL BE THOROUGHLY LUBRICATED WITH ADDITIONAL ANTI-OXIDANT LUBRICANT FURNISHED BY THE MANUFACTURER. THESE STEEL SURFACES SHALL NOT BE PAINTED.

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: AS SHOWN DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

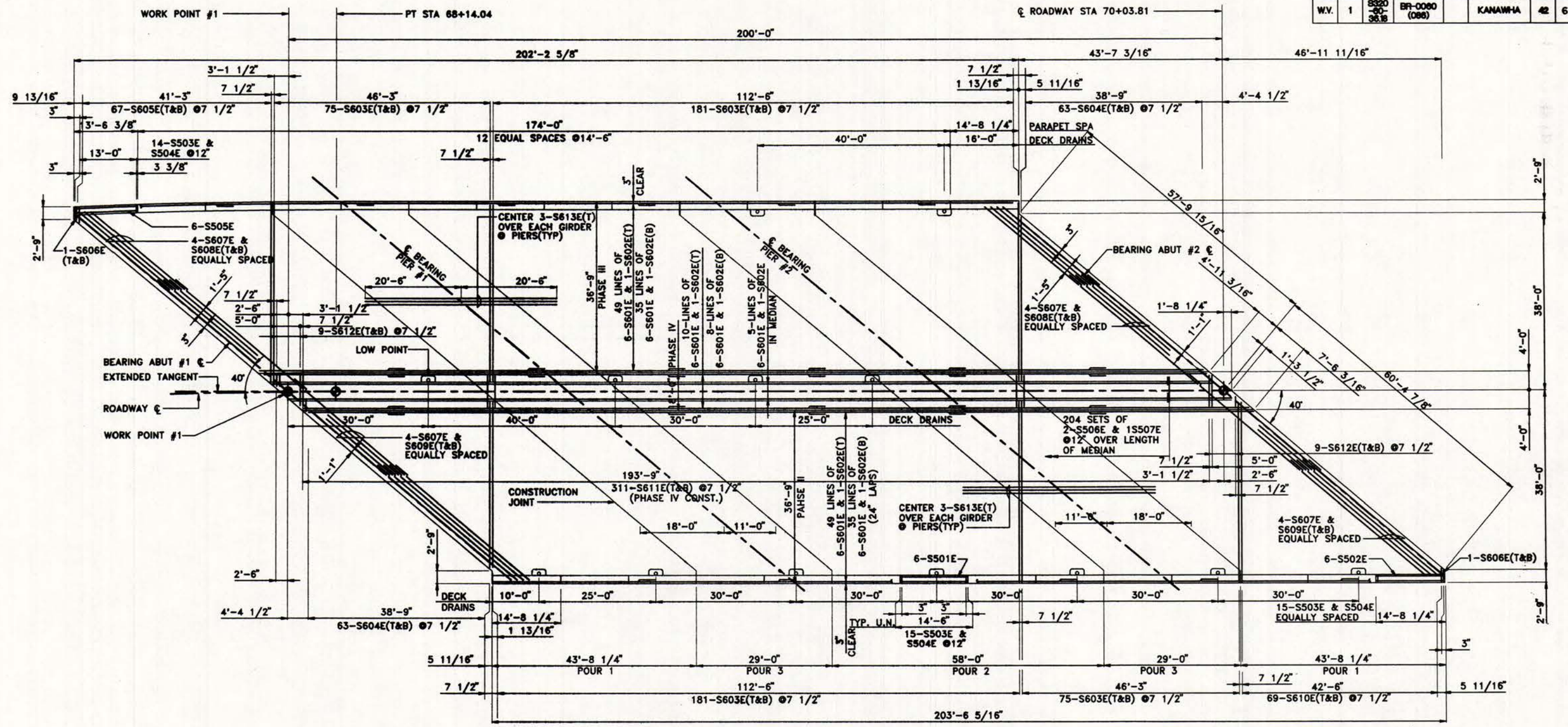
BEARING DETAILS

Chapman Technical Group

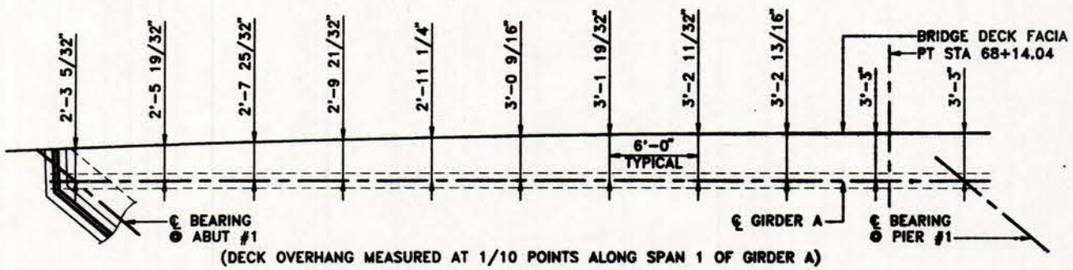
SHEET NO. 13

FILE NO. 8320B-19 / PLOT 1-9

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-00-36.16	BR-0080 (086)		KANAWHA	42	63



DECK PLAN
SCALE: 3/32" = 1'-0"



(DECK OVERHANG MEASURED AT 1/10 POINTS ALONG SPAN 1 OF GIRDER A)

SLAB LAYOUT DETAIL
SCALE: 3/16" = 1'-0"

QUANTITIES

ITEM	UNIT	QUANTITY
CLASS K CONCRETE	C.Y.	~~447~~ (467) 1
EPOXY COATED REINFORCING STEEL BARS	LBS	164,510

NOTE:
DIMENSIONS ARE IN A HORIZONTAL PLANE AND DO NOT COMPENSATE FOR VERTICAL SLOPES OF ROADWAY.

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY
1	42	CORRECT QTY. FOR CLASS K CONC.	3-17-94	JED

SCALE: 3/32" = 1'-0" DATE: SEPTEMBER 1992

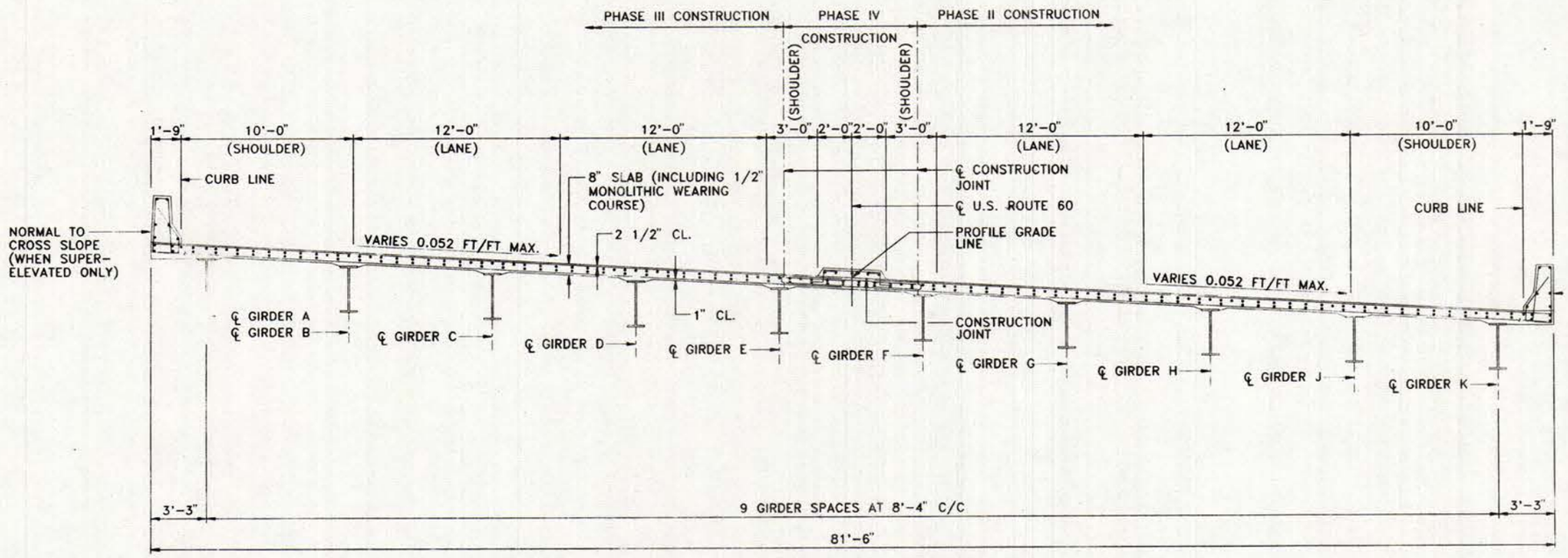
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

DECK PLAN

Chapman Technical Group

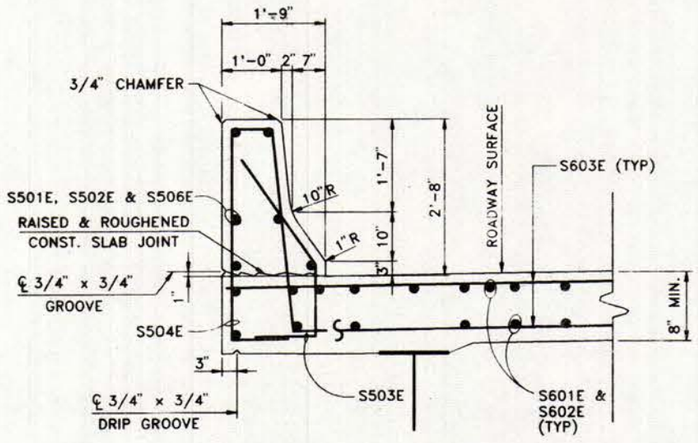
SHEET NO. 14

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	9320 -60- 36.18	BR-0060 (086)		KANAWHA	48	63



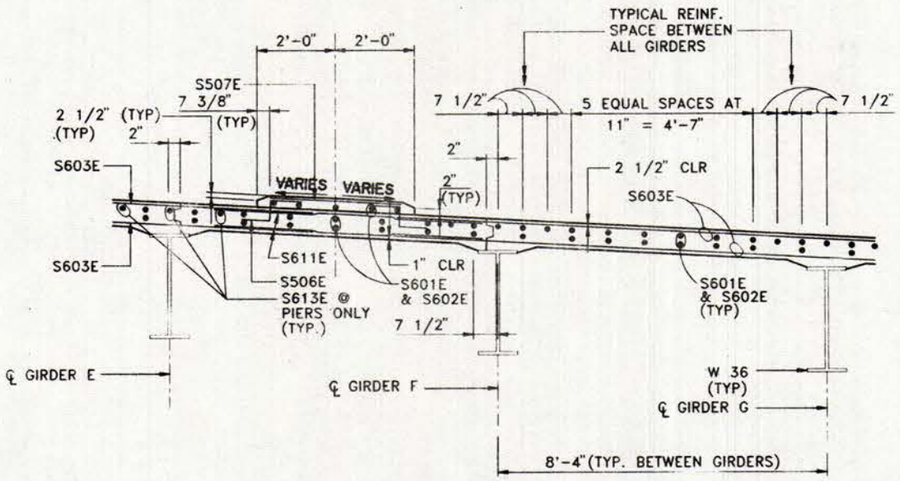
DECK CROSS SECTION

SCALE: 1/4"=1'-0"



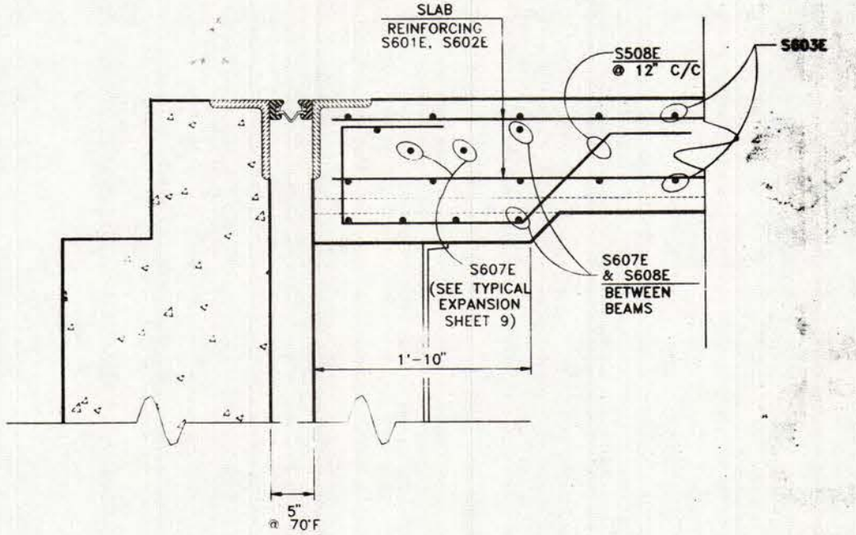
BRIDGE & PARAPET WALL SECTION

SCALE: 3/4" = 1'-0"



ENLARGED TYPICAL SECTION OF BRIDGE DECK

SCALE: NONE



TYPICAL SLAB END

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

REVISION NUMBER	SHEET NUMBER	REVISIONS

SCALE: AS SHOWN | DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

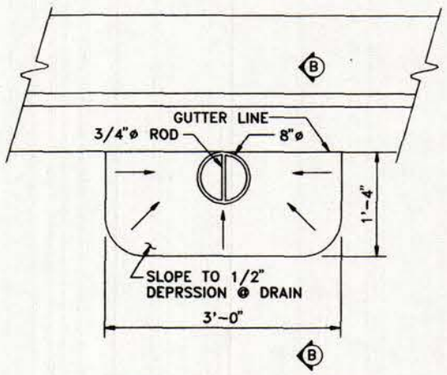
DECK DETAILS

Chapman Technical Group

SHEET NO. 15

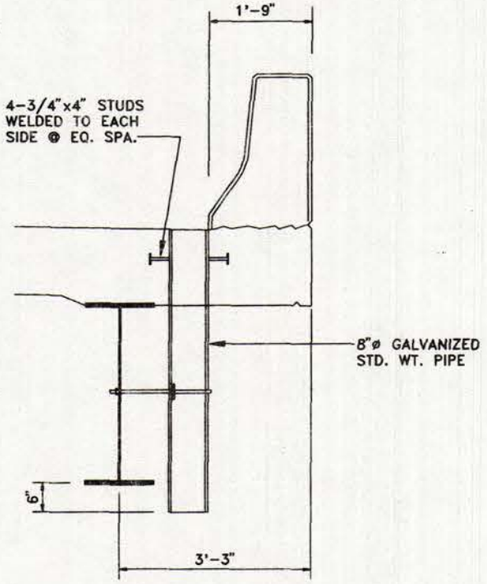
FILE NO. 9003S-15 / SCALE 1=48

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	1	8320-00-36.19	BR-0060 (088)		KANAWHA	44	63

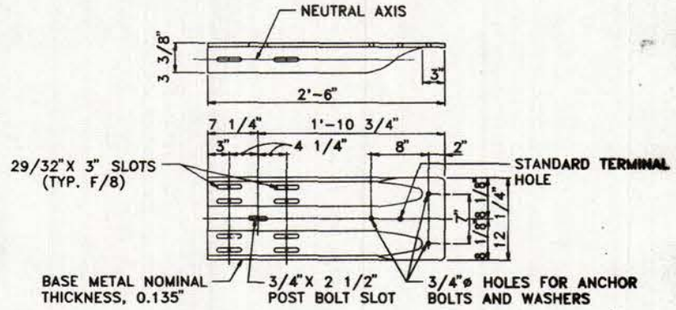


DECK DRAIN DETAIL
SCALE: 1" = 1'-0"

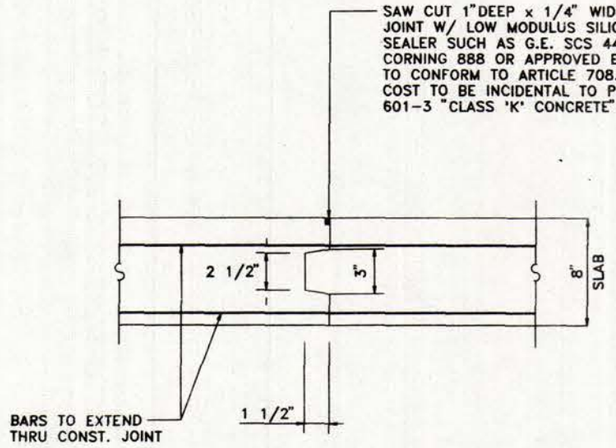
(GALVANIZE ASSEMBLY ASTM AASHTO M111)
(INCIDENTAL TO CLASS "K" CONCRETE)



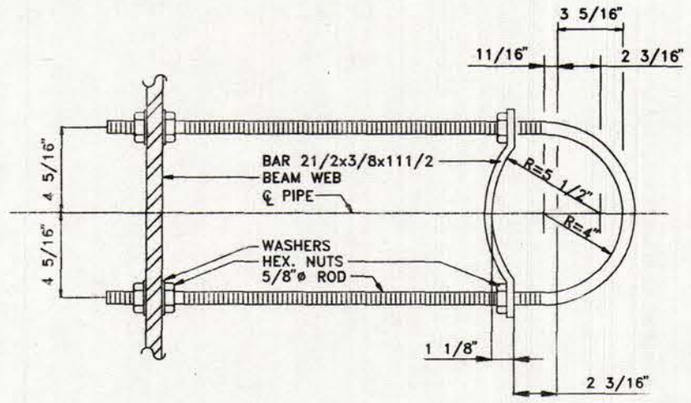
SECTION B-B
SCALE: 3/4" = 1'-0"



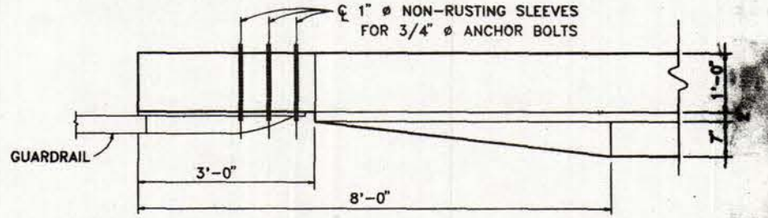
GUARDRAIL END SHOE
NO SCALE



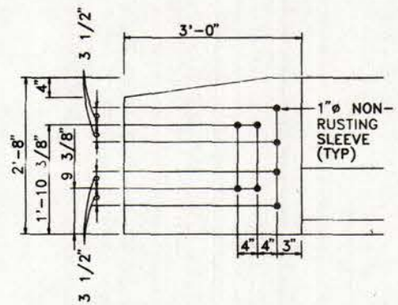
CONSTRUCTION JOINT DETAIL
SCALE: NONE



DECK DRAIN PIPE CLAMP
SCALE: 3"=1'-0"



END POST PLAN
SCALE: 3/4"= 1'-0"



TYP. END POST ELEVATION
SCALE: 3/4"= 1'-0"

NOTES:

7/8" ANCHOR BOLTS WITH 3"X 3"X 1/4" WASHER AND 2 HEX. NUTS. ANCHOR BOLTS TO BE ENCASED IN 1" I.D. SLEEVE OF NON RUSTING MATERIAL. GALVANIZE ANCHOR BOLTS IN ACCORDANCE WITH A.S.T.M. A123-203

CONCRETE, SLEEVES & BOLTS FOR ENDPOSTS ARE INCLUDED IN ITEM 601-02 CLASS B CONCRETE

DECK DRAIN NOTES

1. WHERE DECK DRAINS INTERFERE WITH REINFORCING BARS IN DECK SLAB, THE BARS SHALL BE CUT AS DIRECTED BY THE ENGINEER.
2. PAYMENT FOR DECK DRAINS, SUPPORTS AND PIPES SHALL BE MADE UNDER ITEM 615-01, STEEL SUPERSTRUCTURE.
3. ALL PIPE AND FITTINGS SHALL BE 8" DIAMETER STANDARD BLACK STEEL PIPE IN ACCORDANCE WITH SECTION 709.17.
4. ALL EXPOSED SURFACES OF PIPES, FRAMES AND GRATINGS SHALL BE PAINTED AS PER GENERAL NOTES EXCEPT THAT THE INSIDE SURFACES OF PIPE SHALL RECEIVE TWO(2) COATS OF SHOP PAINT. HOT DIP GALVANIZING IN ACCORDANCE WITH ASTM A123, TWO OUNCES PER SQUARE FOOT, MAY BE USED IN LIEU OF PAINTING.

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: AS SHOWN | DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3900 REPLACEMENT

DECK DETAILS

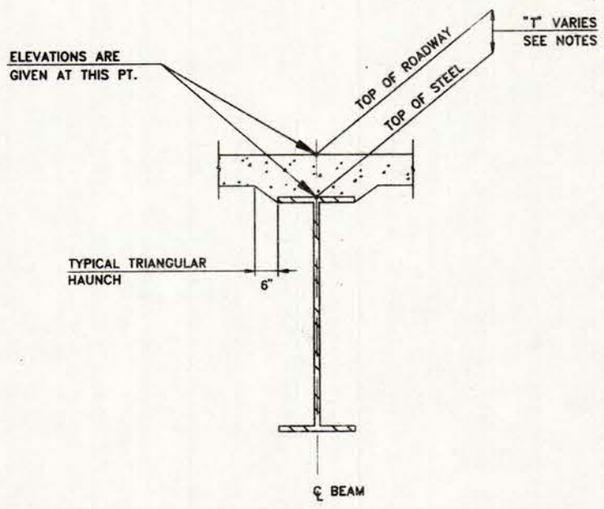
Chapman Technical Group

SHEET NO. 16

FILE NO. 0088-21 / SCALE: 1=10

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	1	8320 -60- 36.18	BR-0060 (086)		KANAWHA	45	63

	SPAN 1										SPAN 2										SPAN 3										
	℄ BEARING	TOP OF SLAB ELEVATIONS									℄ BEARING	TOP OF SLAB ELEVATIONS									℄ BEARING	TOP OF SLAB ELEVATIONS									℄ BEARING
	ABUT 1	.10	.20	.30	.40	.50	.60	.70	.80	.90	PIER 1	.10	.20	.30	.40	.50	.60	.70	.80	.90	PIER 2	.10	.20	.30	.40	.50	.60	.70	.80	.90	ABUT 2
GIRDER A	624.08	623.94	623.81	623.67	623.55	623.43	623.31	623.20	623.10	622.99	622.89	622.77	622.65	622.54	622.43	622.33	622.24	622.16	622.08	622.01	621.95	621.91	621.87	621.84	621.81	621.78	621.76	621.74	621.75	621.78	621.82
B	623.50	623.39	623.27	623.17	623.07	622.97	622.88	622.79	622.70	622.62	622.54	622.45	622.36	622.28	622.20	622.14	622.08	622.02	621.98	621.94	621.90	621.89	621.87	621.86	621.85	621.85	621.87	621.88	621.93	622.00	622.07
C	622.99	622.90	622.81	622.72	622.65	622.57	622.50	622.43	622.37	622.31	622.26	622.20	622.13	622.08	622.04	622.00	621.97	621.95	621.93	621.93	621.92	621.93	621.93	621.94	621.96	621.98	622.04	622.10	622.17	622.25	622.33
D	622.54	622.47	622.40	622.34	622.29	622.23	622.19	622.14	622.10	622.07	622.04	622.00	621.97	621.95	621.94	621.93	621.93	621.94	621.98	621.98	622.00	622.03	622.06	622.10	622.15	622.21	622.28	622.35	622.43	622.51	622.60
E	622.15	622.10	622.06	622.02	621.99	621.96	621.93	621.92	621.90	621.89	621.88	621.87	621.88	621.89	621.90	621.93	621.96	621.99	622.09	622.09	622.15	622.20	622.25	622.31	622.38	622.46	622.53	622.61	622.70	622.79	622.88
F	621.83	621.80	621.78	621.77	621.76	621.76	621.75	621.75	621.76	621.76	621.77	621.78	621.80	621.83	621.87	621.91	621.96	622.02	622.15	622.15	622.23	622.29	622.36	622.43	622.51	622.58	621.67	622.76	622.85	622.94	623.04
G	621.57	621.57	621.58	621.59	621.60	621.61	621.62	621.63	621.63	621.64	621.65	621.68	621.71	621.75	621.79	621.84	621.90	621.97	622.12	622.12	622.21	622.28	622.35	622.43	622.51	622.60	622.69	622.78	622.88	622.98	623.08
H	621.38	621.40	621.43	621.45	621.48	621.50	621.50	621.51	621.52	621.54	621.55	621.59	621.63	621.67	621.73	621.79	621.85	621.93	622.10	622.10	622.19	622.27	622.35	622.44	622.53	622.62	622.72	622.81	622.92	623.03	623.14
J	621.25	621.30	621.34	621.37	621.37	621.38	621.39	621.40	621.42	621.44	621.46	621.51	621.55	621.61	621.67	621.74	621.82	621.90	622.09	622.09	622.19	622.28	622.36	622.46	622.55	622.65	622.75	622.86	622.97	623.09	623.20
K	621.19	621.21	621.23	621.24	621.25	621.36	621.28	621.30	621.33	621.36	621.39	621.44	621.49	621.56	621.63	621.71	621.79	621.88	622.09	622.09	622.20	622.29	622.39	622.48	622.59	622.69	622.80	622.92	623.05	623.16	623.28
A–D	------	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.01	----	------	0.01	0.03	0.05	0.06	0.07	0.06	0.05	0.03	0.01	------	----	0.01	0.01	0.02	0.02	0.03	0.02	0.01	623.03	------
E–F	------	0.01	0.01	0.01	0.02	0.01	0.01	0.01	----	----	------	0.01	0.02	0.03	0.04	0.04	0.04	0.03	0.02	0.01	------	----	----	0.01	0.01	0.01	0.02	0.01	0.01	623.09	------
G–K	------	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.01	----	------	0.01	0.02	0.05	0.06	0.07	0.06	0.05	0.03	0.01	------	----	0.01	0.01	0.02	0.02	0.03	0.02	0.01	623.16	------



HAUNCH DETAIL

NO SCALE

NOTES

1. TABULATED DEFLECTIONS ARE DUE TO THE CONCRETE SLAB ONLY. DEFLECTIONS FROM BARRIERS, MEDIAN & FUTURE WEARING SURFACE ARE NOT INCLUDED. FOR GIRDERS E & F THE DEFLECTIONS ARE REDUCED FOR PHASE II AND PHASE III CONSTRUCTION ONLY. THE DEFLECTIONS CAUSED BY PHASE IV CONSTRUCTION ARE NEGLIGIBLE SINCE THE LOAD WILL BE DISTRIBUTED OVER ALL 10 GIRDERS.

2. ELEVATIONS OF THE TOP OF ROADWAY ARE AT CENTERLINE OF BEAM. AFTER ALL BEAMS HAVE BEEN ASSEMBLED AND FALSEWORK REMOVED AND BEFORE ANY CONCRETE DECK IS POURED, THE ENGINEER SHALL TAKE ELEVATIONS ALONG THE TOP OF STEEL AT POINTS WHERE GRADE ELEVATIONS ARE GIVEN. THE DIFFERENCE BETWEEN THIS ELEVATION AND THE GRADE ELEVATION SHOWN, PLUS THE AMOUNT THE DEFLECTION SHOWN AT EACH POINT DUE TO THE D.L. OF CONCRETE, WILL BE THICKNESS "T" AT THESE POINTS (SEE HAUNCH DETAIL).

   THE MINIMUM THICKNESS "T" SHALL NOT BE LESS THEN 8" AT THE CENTERLINE OF BEAMS. IF THE BEAMS HAVE EXCESSIVE CAMBER AND THIS MINIMUM CANNOT BE OBTAINED, THE GRADE SHALL BE ADJUSTED TO OBTAIN THIS THICKNESS.

REVISION NUMBER	SHEET NUMBER	REVISION	DATE	BY

SCALE: NONE

DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

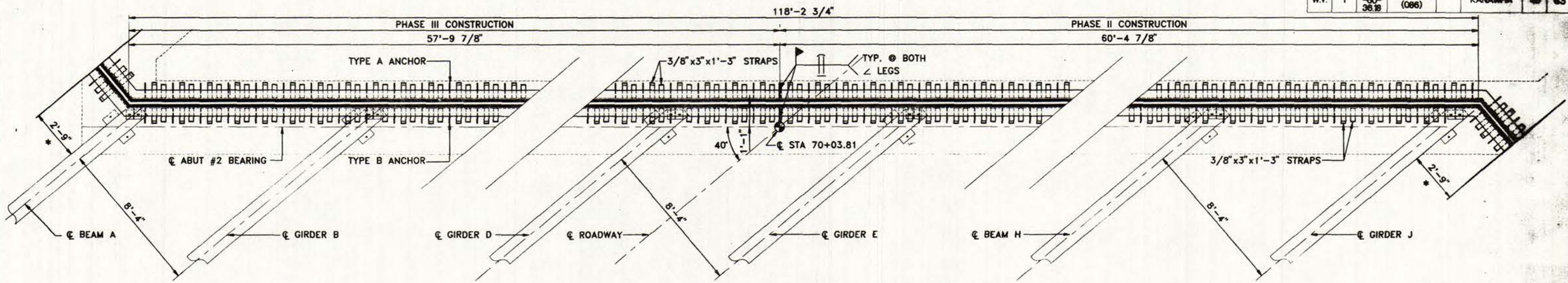
DECK SLAB ELEVATIONS AND DEFLECTION TABLE

Chapman Technical Group

SHEET NO. 17

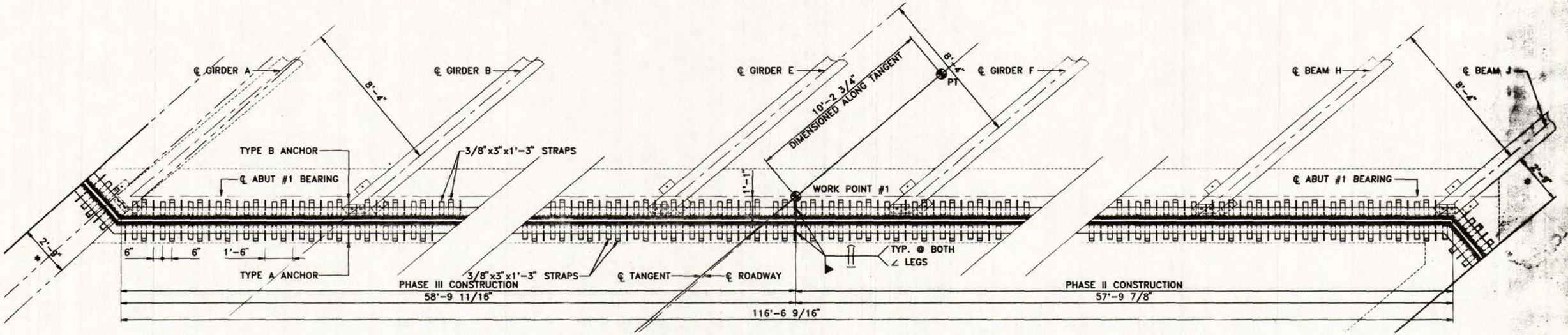
FILE NO. 95038-23 SCALE 1=1

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-60-36.18	BR-0060 (086)		KANAWHA	49	63



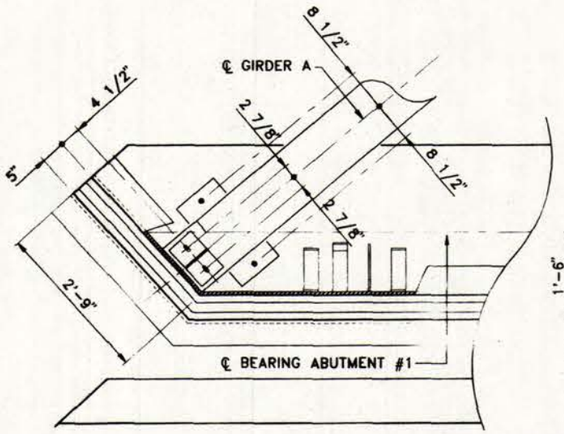
ABUTMENT NO. 2 – EXPANSION JOINT

SCALE: 3/8" = 1'-0"



ABUTMENT NO. 1 – EXPANSION JOINT

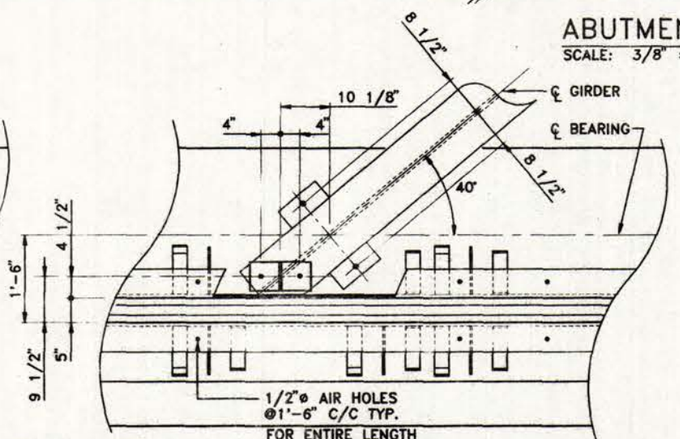
SCALE: 3/8" = 1'-0"



(STRAPS LEFT OUT FOR CLARITY)

ABUTMENT #1 GIRDER A

SCALE: 3/4" = 1'-0"



ENLARGED EXPANSION DEVICE DETAIL

SCALE: 3/4" = 1'-0"

*THIS DIMENSION IS FROM THE DECK FASCIA TO THE BREAK POINT OF THE L8x6x3/4 IN THE EXPANSION DEVICE ON THE DECK SIDE OF THE JOINT.

NOTE:
ALL DIMENSIONS ARE MEASURED HORIZONTALLY.

REVISIONS

SCALE: 3/8" = 1'-0" DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

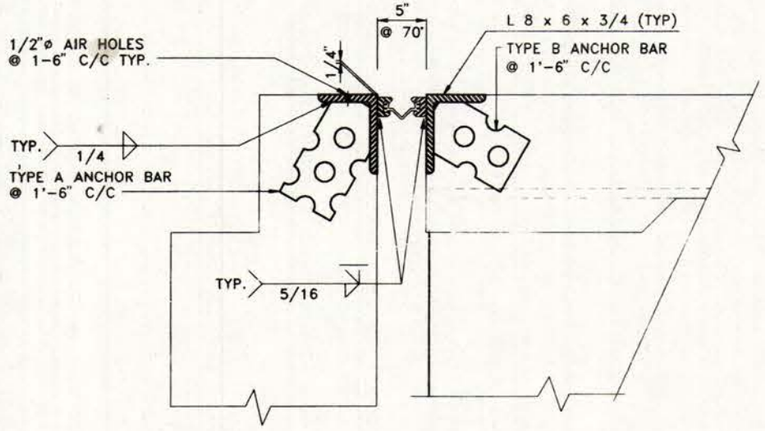
EXPANSION JOINT

Chapman Technical Group

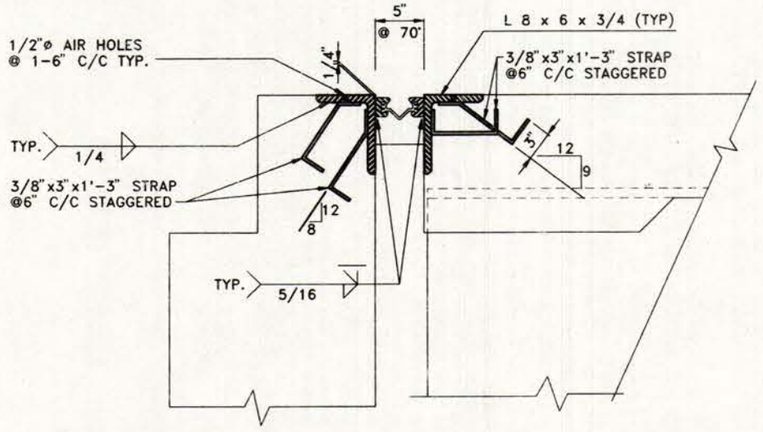
SHEET NO. 18

SURVEYED PLOTTED NOTE BOOK NO. — SURVEYED PLOTTED CHECKED NOTE BOOK NO. — I.E. NO. 90035-23

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-60-36.18	BR-0060 (086)		KANAWHA	47	63



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



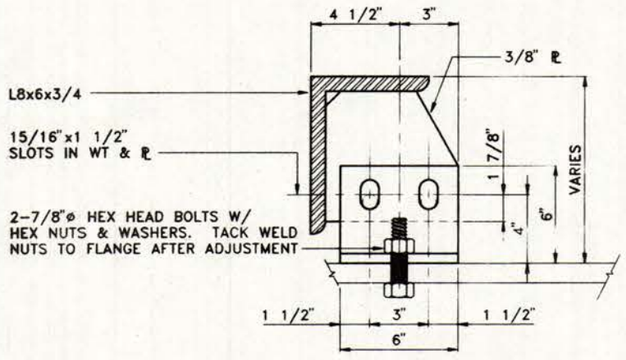
SECTION B-B
SCALE: 1 1/2' = 1'-0"

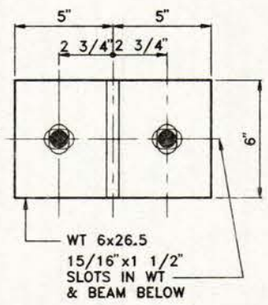
NOTES FOR EXPANSION DEVICES

1. ARMORED JOINTS WITH ELASTIC STRIP SEALS SHALL HAVE A MOVEMENT RATING OF 2", AS MANUFACTURED BY:

   a. D.S. BROWN CO. - TYPE L200 WITH TYPE SSA EXTRUSION.
   b. WATSON BOWMAN ACME CORP - SE300 WITH TYPE A EXTRUSION
   c. STRUCTURAL ACCESSORIES, INC. - 40SEQ WITH TYPE AM2 EXTRUSION
   OR APPROVED EQUIVALENT.

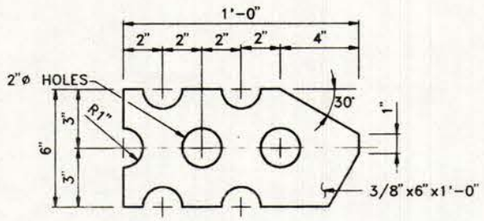
2. THE STEEL EXTRUSIONS, ANGLES, STRAPS, AND BARS SHALL BE GRADE 36 STEEL. BOLTS SHALL BE A307 STEEL.
3. THE ELASTOMERIC WEB OF THE STRIP SEAL MAY BE INSTALLED IN THE EXTRUSIONS IN THE SHOP OR IN THE FIELD IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
4. THE ARMORED JOINT ASSEMBLY IS SUBJECT TO THE SHOP DRAWING REQUIREMENTS OF STRUCTURAL STEEL.
5. ALL PARTS OF THE EXPANSION DEVICES FOR ABUTMENTS 1 AND 2 SHALL BE PAID FOR UNDER ITEM 615-01.
6. THE 5" OPENING @ 70° IS BASED ON THE D.S. BROWN TYPE SSA EXTRUSION. IF ANOTHER EXTRUSION IS USED, THE OPENING MAY VARY BUT IN NO CASE SHALL BE LESS THAN 2" BETWEEN EXTRUSIONS @ 70°.
7. ANGLES ARE TO FIT ROADWAY CROWN AND GRADE (SEE TYPICAL SECTION, SHEET 15).
8. PAINT AS PER STRUCTURAL STEEL. SURFACES IN CONTACT WITH CONCRETE SHALL NOT BE PAINTED. SURFACES INACCESSIBLE AFTER ERECTION SHALL BE GIVEN THREE (3) SHOP COATS OF PAINT.



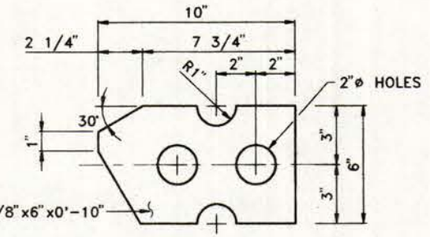


(FOR GIRDER A @ ABUT #1 ONLY)

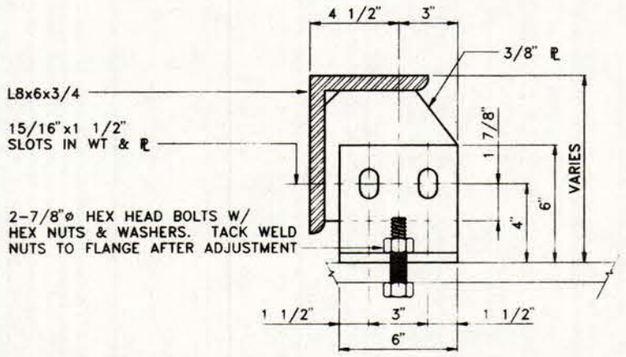
FABRICATED TEE
SCALE: 1 1/2" = 1'-0"

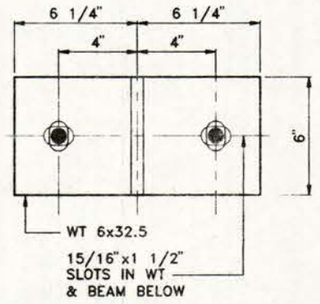


DETAIL TYPE A ANCHOR BAR
SCALE: 3"=1'-0"



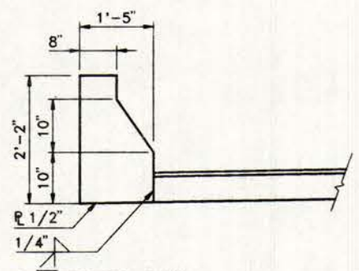
DETAIL TYPE B ANCHOR BAR
SCALE: 3"=1'-0"





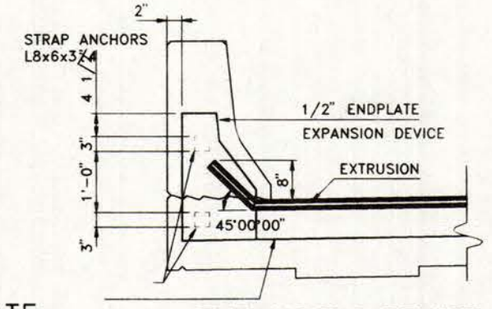
(FOR ALL GIRDERS EXCEPT GIRDER A @ ABUT #1)

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

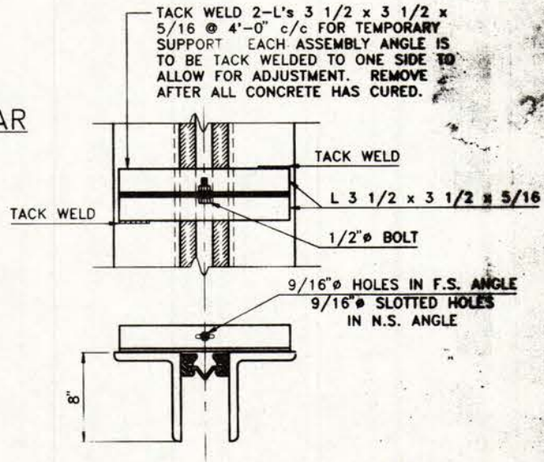


G @ EXTRUSION ONLY

EXPANSION DEVICE ENDPLATE
NO SCALE



(B) EXPANSION DEVICE SECTION
NO SCALE



TEMPORARY SUPPORT
NO SCALE

REVISION NUMBER	SHEET NUMBER	DATE	BY

SCALE: AS SHOWN
DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

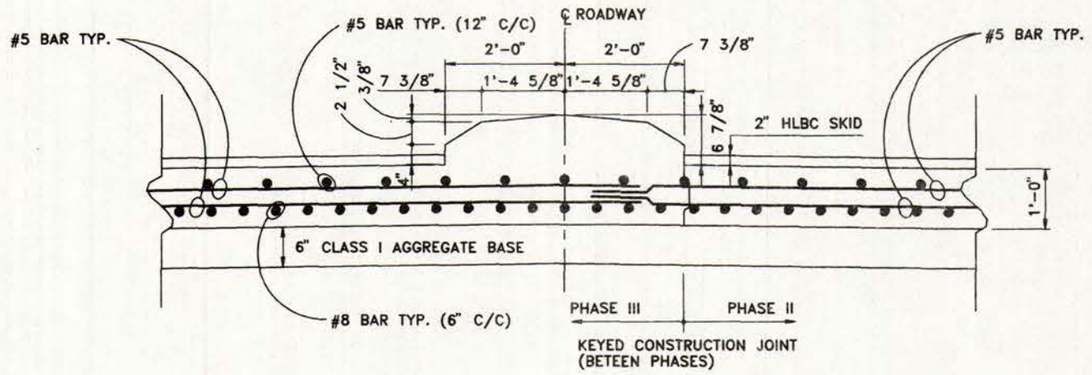
EXPANSION JOINT

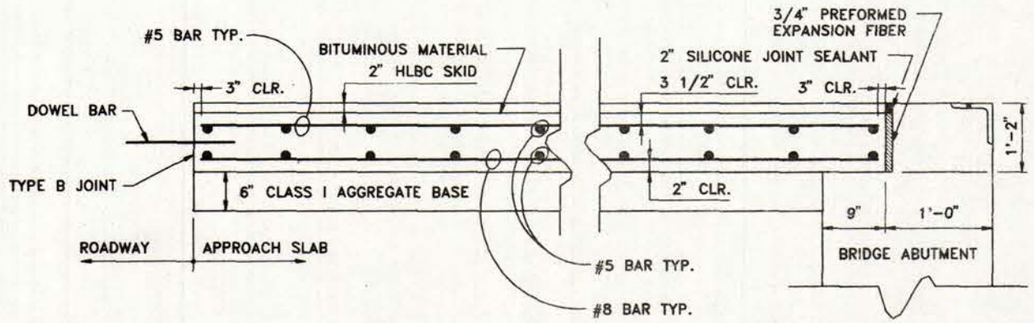
Chapman Technical Group

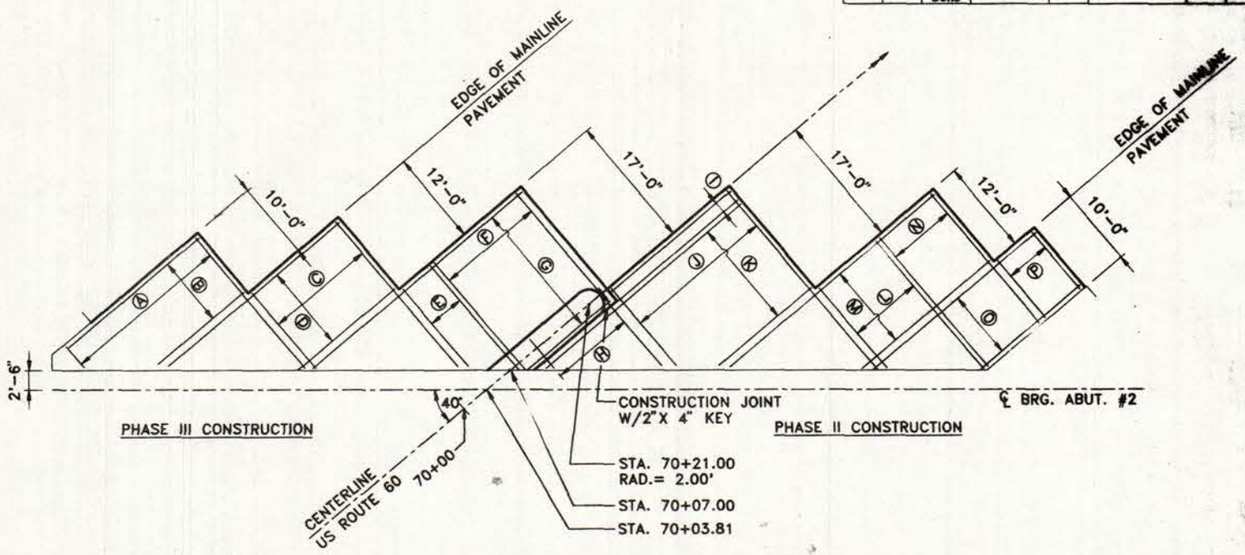
SHEET NO. 19

FILE NO. 90036-24

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-60-36.18	BR-0060 (088)		KANAWHA	49	68

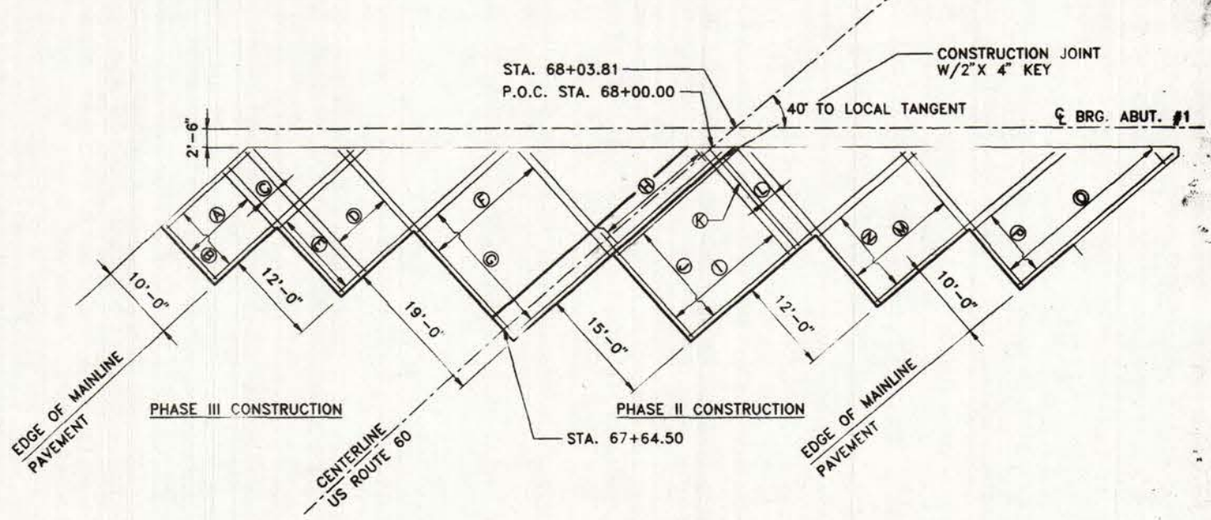






APPROACH SLAB – ABUTMENT #2

NOTE: SEE TABLE BELOW FOR BAR DESCRIPTIONS



APPROACH SLAB – ABUTMENT #1

NOTE: SEE TABLE BELOW FOR BAR DESCRIPTIONS

APPROACH SLAB #1		APPROACH SLAB #2	
NO.	BAR DESCRIPTION	NO.	BAR DESCRIPTION
A	20– AS501E (T&B) @ 12" c/c	A	48– AS517E (T&B) @ 12" c/c
B	10– AS502E (T) @ 12" c/c 20– AS801E (B) @ 6" c/c	B	10– AS518E (T) @ 12" c/c 20– AS807E (B) @ 6" c/c
C	8– AS503E (T&B) @ 12" c/c	C	30– AS519E (T&B) @ 12" c/c
D	18– AS504E (T&B) @ 12" c/c	D	12– AS520E (T) @ 12" c/c 24– AS808E (B) @ 6" c/c
E	12– AS505E (T) @ 12" c/c 24– AS802E (B) @ 6" c/c	E	12– AS521E (T&B) @ 12" c/c
F	32– AS506E (T&B) @ 12" c/c	F	28– AS522E (T&B) @ 12" c/c
G	19– AS507E (T) @ 12" c/c 38– AS803E (B) @ 6" c/c	G	19– AS523E (T) @ 12" c/c 38– AS809E (B) @ 6" c/c
H	34– AS508E (T&B) @ 12" c/c	H	24– AS524E (T&B) @ 12" c/c
I	34– AS509E (T&B) @ 12" c/c	I	2– AS525E (T) @ 12" c/c 4– AS810E (B) @ 6" c/c
J	15– AS510E (T) @ 12" c/c 30– AS804E (B) @ 6" c/c	J	20– AS526E (B) @ 12" c/c
K	2– AS511E (T&B)	K	15– AS527E (T) @ 12" c/c 30– AS811E (B) @ 6" c/c
L	6– AS512E (T&B) @ 12" c/c	L	20– AS528E (T&B) @ 12" c/c
M	32– AS513E (T&B) @ 12" c/c	M	12– AS529E (T) @ 12" c/c 24– AS812E (B) @ 6" c/c
N	12– AS514E (T) @ 12" c/c 24– AS805E (B) @ 12" c/c	N	9– AS530E (T&B) @ 12" c/c
O	52– AS515E (T&B) @ 12" c/c	O	10– AS531E (T) @ 12" c/c 20– AS813E (B) @ 6" c/c
P	10– AS516E (T) @ 12" c/c 20– AS806E (B) @ 6" c/c	P	14– AS532E (T&B) @ 12" c/c

REVISION NUMBER	SHEET NUMBER	REVISION	BY

SCALE: NONE

DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

APPROACH SLABS

Chapman Technical Group

20

FILE NO. 8035-35 / SCALE: 1=1"

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET	TOTAL SHEETS
W.V.	1	S320-60-36.18	BR-0060 (086)		KANAWHA	49A	68

BAR SCHEDULE

MARK	TYPE	NUMBER REQUIRED PHASE II	NUMBER REQUIRED PHASE III	LENGTH	DIMENSIONS A	B	C	D	E	WEIGHT 602-02
APPROACH SLAB AT ABUTMENT #1										
AS501E	STR	–	20	9'-6"						198
AS502E	STR	–	10	19'-0" AVG.	14'-0" to	24'-0"				198
AS503E	STR	–	8	21'-6"						179
AS504E	STR	–	18	17'-3" AVG.	21'-0" to	13'-6"				324
AS505E	STR	–	12	20'-9" AVG.	14'-6" to	27'-0"				260
AS506E	STR	–	32	24'-9" AVG.	17'-6" to	32'-0"				826
AS507E	STR	–	19	31'-0" AVG.	25'-0" to	37'-0"				614
AS508E	STR	–	34	10'-6" AVG.	4'-0" to	17'-0"				372
AS509E	STR	34	–	17'-9"	–	–				629
AS510E	STR	15	–	29'-0" AVG.	20'-6" to	37'-6"				454
AS511E	STR	2	–	16'-0"	–	–				225
AS512E	STR	6	–	14'-6"	–	–				21
AS513E	STR	32	–	20'-3" AVG.	13'-6" to	27'-0"				676
AS514E	STR	12	–	23'-0"	16'-6" to	29'-6"				288
AS515E	STR	52	–	12'-0"	2'-0" to	22'-0"				651
AS516E	STR	10	–	20'-3" AVG.	15'-0" to	25'-6"				211
									SUBTOTAL #5 BARS	6,196
AS801E	STR	–	20	9'-6"	–	–				507
AS802E	STR	–	24	20'-9" AVG.	14'-6" to	27'-0"				1,330
AS803E	STR	–	38	31'-0" AVG.	25'-0" to	37'-0"				3,145
AS804E	STR	30	–	29'-0" AVG.	20'-6" to	37'-6"				2,323
AS805E	STR	24	–	23'-0" AVG.	16'-6" to	29'-6"				1,474
AS806E	STR	20	–	20'-3" AVG.	15'-0" to	25'-6"				1,081
									SUBTOTAL #8 BARS	9,860
									TOTAL APPROACH SLAB 1 =	16,056

THE SUFFIX "E" IN THE MARK INDICATES EPOXY COATED REINFORCEMENT.

ESTIMATED QUANTITIES *

ITEM NO.	DESCRIPTION	UNIT	AS #1	AS #2
307-01	CLASS I AGGREGATE	CY	36	36
402-01 SG	HLBC SKID STONE & GRAVEL	TON	24	24
402-01 S	HLBC SKID SLAG ALT.	TON	22	22
409-02	BITUMINOUS MATERIAL	GAL	129	130
502-01 (12)	12" PCC APPROACH SLAB	SY	215	216
	EPOXY COATED REINFORCING STEEL	LB	16,056	15,114
	3/4" PREFORMED EXPANSION JOINT FILLER W/2" SILICONE JOINT SEALANT	LF	153	144

* NOTE: THESE QUANTITIES ARE INCLUDED IN ROADWAY ITEMS.

BAR SCHEDULE

MARK	TYPE	NUMBER REQUIRED PHASE II	NUMBER REQUIRED PHASE III	LENGTH	DIMENSIONS A	B	C	D	E	WEIGHT 602-02
APPROACH SLAB AT ABUTMENT #1										
AS517E	STR	–	48	11'-9" AVG.	2'-0"	21'-6"				588
AS518E	STR	–	10	24'-0" AVG.	15'-0" to	24'-0"				250
AS519E	STR	–	30	12'-6" AVG.	12'-6" to	24'-6"				391
AS520E	STR	–	12	29'-6" AVG.	15'-6" to	29'-6"				369
AS521E	STR	–	12	15'-0" AVG.	13'-0" to	17'-0"				188
AS522E	STR	–	28	18'-6"	–	–				540
AS523E	STR	–	19	24'-3" AVG.	14'-0" to	34'-6"				481
AS524E	STR	24	–	7'-6" AVG.	4'-0" to	11'-0"				188
AS525E	STR	2	–	19'-6"	–	–				41
AS526E	STR	20	–	21'-3" AVG.	13'-0" to	29'-6"				443
AS527E	STR	15	–	24'-0" AVG.	15'-6" to	32'-6"				375
AS528E	STR	20	–	16'-9" AVG.	13'-0" to	20'-6"				349
AS529E	STR	12	–	27'-9" AVG.	21'-6" to	34'-0"				347
AS530E	STR	9	–	21'-6"	–	–				202
AS531E	STR	10	–	21'-6" AVG.	15'-6" to	27'-6"				224
AS532E	STR	14	–	9'-6"	–	–				139
									SUBTOTAL #5 BARS	5,115
AS807E	STR	–	20	19'-6" AVG.	15'-0" to	24'-0"				1,041
AS808E	STR	–	24	22'-6" AVG.	15'-6" to	29'-6"				1,442
AS809E	STR	–	38	24'-3" AVG.	14'-0" to	34'-6"				2,460
AS8010E	STR	4	–	19'-6"	–	–				208
AS8011E	STR	30	–	24'-0" AVG.	16'-6" to	32'-6"				1,922
AS8012E	STR	24	–	27'-9" AVG.	21'-6" to	34'-0"				1,778
AS8013E	STR	20	–	21'-6" AVG.	15'-6" to	27'-6"				1,148
									SUBTOTAL #8 BARS	9,999
									TOTAL APPROACH SLAB 2 =	15,114

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: NONE

DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

BAR SCHEDULE AND
ESTIMATED QUANTITIES
FOR APPROACH SLABS

Chapman Technical Group

20A

FILE NO. 0060s086 SCALE: 1=120

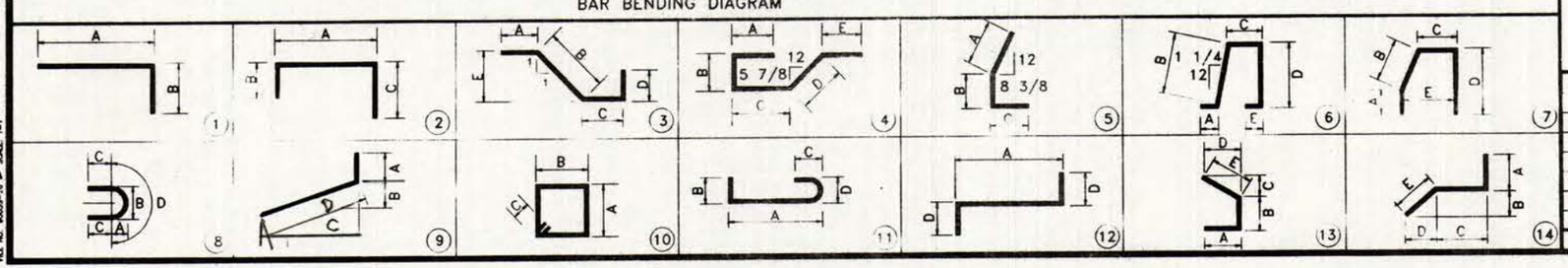
REINFORCING BAR SCHEDULE

MARK	TYPE	NUMBER REQUIRED			LENGTH	DIMENSIONS					WEIGHT	
											602-01	602-02
DECK		PHASE II	PHASE III	PHASE IV		A	B	C	D	E		
S501E	STR	72	72	–	14'-1"						–	2,115
S502E	STR	12	6	–	14'-3"						–	268
S503E	5	210	209	–	3'-10 1/4"	2'-4"	8 1/4"	10"			–	1,684
S504E	6	210	209	–	9'-5 3/8"	1'-9"	3'-1 1/8"	8 1/4"	3'-1"	10"	–	4,129
S505E	STR	–	6	–	13'-1"						–	82
S506E	12	–	–	408	3'-2"	1'-2"	1'-0"				–	1,348
S507E	STR	–	–	204	3'-0"						–	638
S508E	4	106	132	–	8'-0"	1'-0"	11"	1'-6"	2'-1"	2'-6"	–	1,986
									SUBTOTAL #5		0	12,250
S601E	STR	504	504	138	30'-0"						–	51,639
S602E	STR	84	84	23	35'-0"						–	10,041
S603E	STR	512	512	–	39'-2"						–	60,240
S604E	STR	2 SETS OF 63	2 SETS OF 63	–	19'-9" AVG.	3'-6" TO 36'-0" STEP 6 5/16"					–	7,476
S605E	STR	–	2 SETS OF 67	–	20'-8 1/2" AVG.	2'-11" TO 38'-6" STEP 6 1/2"					–	4,168
S606E	STR	2	2	–	2'-6"						–	15
S607E	STR	16	16	–	30'-0"						–	1,442
S608E	STR	–	16	–	33'-6"						–	805
S609E	STR	16	–	–	42'-3"						–	1,015
S610E	STR	2 SETS OF 69	–	–	20'-8" AVG.	2'-10" TO 38'-6" STEP 6 3/16"					–	4,284
S611E	STR	–	–	622	7'-8"						–	7,163
S612E	STR	–	–	4 SETS OF 9	5'-1 1/2"	3'-0" TO 7'-3" STEP 5 11/16"					–	277
S613E	STR	28	28	4	41'-0"						–	3,695
									SUBTOTAL #6		0	152,260
									TOTAL DECK		0	164,510

REINFORCING BAR SCHEDULE

MARK	TYPE	NUMBER REQUIRED				LENGTH	DIMENSIONS					WEIGHT	
												602-01	602-02
		PIER 1N	PIER 1S	PIER 2N	PIER 2S		A	B	C	D	E		
P501	STR	14	14	14	14	48'-1"						2,808	–
P502	STR	65	65	65	65	10'-1"						2,734	–
P503	STR	40	40	40	40	37'-6"						6,258	–
P504	8	40	40	40	40	8'-5 3/4"	1'-7"	3'-2"	1'-9"	4'-11 3/4"		1,415	–
P505	STR	2	2	2	2	41'-7"						347	–
P506	STR	2	2	2	2	48'-7"						405	–
P507	STR	10	10	10	10	54'-7"						2,277	–
P508	9	8	8	8	8	9'-10"	1'-0"	2'-5 1/8"	8'-6"	8'-10"		328	–
P509	10	2	2	2	2	17'-0 3/4"	4'-11 3/8"	3'-2"	5"			142	–
P510	10	2	2	2	2	18'-0 1/4"	5'-5 1/8"	3'-2"	5"			150	–
P511	10	2	2	2	2	18'-11 3/4"	5'-10 7/8"	3'-2"	5"			158	–
P512	10	2	2	2	2	19'-11 1/4"	6'-4 5/8"	3'-2"	5"			166	–
P513	11	247	247	247	247	4'-8"	3'-2"	10"	5"	5"		4,809	–
P514	2	8	8	–	–	7'-10"	2'-4"	3'-2"	2'-4"			131	–
P515	STR	4	4	–	–	15'-6"						130	–
P516	2	39	39	39	39	19'-2"	8'-0"	3'-2"	8'-0"			3,119	–
										SUBTOTAL #5		25,377	–
P701	STR	88	88	88	88	26'-9"						19,246	–
P702	1	88	88	88	88	6'-11"	5'-9"	1'-2"				4,976	–
										SUBTOTAL #7		24,222	–
P801	STR	14	14	14	14	48'-1"						7,189	–
P802	STR	59	59	59	59	10'-1"						6,354	–
										SUBTOTAL #8		13,543	–
P1001	STR	8	8	8	8	10'-1"						1,388	–
P1002	1	14	14	14	14	31'-0"	13'-6"	4'-6"				7,470	–
										SUBTOTAL #10		8,858	–
										TOTAL PIERS		72,000	0

BAR BENDING DIAGRAM



PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-80-36.18	BR-0080 (086)		KANAWHA	49	65

ABUTMENT #1

MARK	TYPE	NUMBER REQUIRED		LENGTH	DIMENSIONS					WEIGHT	
										602-01	602-02
		PHASE II	PHASE III		A	B	C	D	E		
A501	2	114	124	11'-3"	6'-3"	2'-6"	2'-6"			2,793	–
A502	1	114	124	8'-0"	7'-0"	1'-0"				1,986	–
A503E	2	57	–	12'-11"	4'-5"	4'-3"	4'-3"			–	768
A504E	2	53	65	10'-1"	0'-6"	3'-4"	6'-3"			–	1,241
A506	STR	32	34	30'-0"						2,605	–
A506E	STR	10	10	30'-0"						–	626
A511 ●	9	20	31	6'-9"	2'-6"	2'-4"	3'-0"	4'-3"		359	–
A511E ●	9	2	2	6'-9"	2'-6"	2'-4"	3'-0"	4'-3"		–	28
A512	1	4	–	7'-0"	3'-0"	4'-0"				29	–
A513	1	4	–	5'-0"	2'-6"	2'-6"				21	–
A513E	1	1	–	5'-0"	2'-6"	2'-6"				–	5
A514E ●	13	10	–	6'-4"	2'-0"	2'-0"	2'-0"	3'-0"	2'-4"	–	66
A515E ●	14	–	5	7'-10"	2'-10"	4'-8"	2'-0"	2'-0"	3'-0"	–	41
A517	STR	32	–	30'-5"						1,015	–
A517E	STR	10	–	30'-5"						–	317
A518	STR	–	18	35'-10"						673	–
A518E	STR	–	10	35'-10"						–	374
A519	STR	–	20	10'-3"						214	–
A520	1	–	7	6'-0"	3'-0"	3'-0"				44	–
A521E	2	–	62	16'-11"	4'-5"	6'-3"	6'-3"			–	1,094
A522	STR	–	2	9'-3"						19	–
A523	STR	–	14	8'-3"						120	–
A524E	STR	–	18	5'-9"						–	108
A525	STR	–	1	11'-4"						12	–
A526	STR	–	8	15'-6"						129	–
A527E	7	–	4	9'-8"	2'-6"	2'-6"	0'-8"	5'-0"	1'-5	–	40
A528E	5	–	4	4'-10"	2'-4"	2'-6"	–			–	20
A529	STR	–	18	38'-6"						722	–
									TOTAL #5	10,741	4,728
A601E	2	53	65	12'-3"	1'-3"	6'-0"	5'-0"			–	1,196
									TOTAL #6	–	1,196
									TOTAL ABUT. #1	10,741	5924

ABUTMENT #2

MARK	TYPE	NUMBER REQUIRED		LENGTH	DIMENSIONS					WEIGHT	
										602-01	602-02
		PHASE II	PHASE III		A	B	C	D	E		
A501	2	112	130	11'-3"	6'-3"	2'-6"	2'-6"			2,840	–
A504E	2	56	61	10'-1"	0'-6"	3'-4"	6'-3"			–	1,230
A506	STR	28	26	30'-0"						1,690	–
A506E	STR	10	10	30'-0"						–	626
A507	STR	–	26	35'-9"						969	–
A507E	STR	–	10	35'-9"						–	373
A508	STR	5	–	29'-9"						155	–
A509	STR	10	–	32'-3"						336	–
A510	STR	15	–	34'-9"						544	–
A510E	STR	10	–	34'-9"						–	362
A511	9	21	20	6'-9"	2'-6"	2'-4"	3'-0"	4		289	–
A511E	9	6	–	6'-9"	2'-6"	2'-4"	3'-0"	4'-3"		–	–
A512	1	–	4	7'-0"	3'-0"	4'-0"				29	–
A513E	1	–	4	5'-0"	2'-6"	2'-6"				21	–
A514E	13	–	10	6'-3"	2'-0"	2'-0"	2'-0"	3'-0"	2'-4"	–	65
A515E	14	5	–	7'-10"	2'-10"	4'-8"	2'-0"	2'-0"	3'-0"	–	41
A516	1	112	130	7'-0"	6'-0"	1'-0"				1,767	–
A529E	2	65	65	10'-5"	4'-5"	3'-0"	3'-0"				1,412
A530E	2	56	–	11'-11"	4'-5"	3'-9"	3'-9"				696
									TOTAL #5	8,640	4,805
A601E	2	56	61	12'-3"	1'	6'-0"	5'-0"			TOTAL #6	0	2,153
									TOTAL ABUT. #2	8,640	6,958

NOTES: FIGURES IN CIRCLE SHOW BAR TYPE.
ALL DIMENSIONS ARE FROM OUT TO OUT OF BARS.
NO CORRECTION IN LENGTH FOR BEND CURVATURE IS TO BE MADE.
FOR STANDARD HOOK DIMENSIONS SEE A.C.I. MANUAL OF CONCRETE PARACICE
FOR DETAILING CONCRETE STRUCTURES (A.C.I. 315).
FIRST DIGIT FOLLOWING PREFIX INDICATES BAR SIZE. EXAMPLE: S501 = #5, A801 = #8.
THE SUFFIX "E" IN THE MARK INDICATES EPOXY COATED REINFORCEMENT.

REVISION NUMBER	REVISIONS

SCALE: AS SHOWN | DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

REINFORCING BAR SCHEDULE

Chapman Technical Group

21

PLT. NO. 60035-16 / SCALE: 1=1

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NO.	TOTAL SHEETS
W.V.	1	S320 -60- 36.18	BR-0060 (086)		KANAWHA	20	63

WINGWALL #1 (PHASE III CONSTRUCTION)

MARK	TYPE	NUMBER REQUIRED	LENGTH	DIMENSIONS					WEIGHT	
									602-01	602-02
				A	B	C	D	E		
W501	STR	106	19'-6"						2,156	–
W501E	STR	24	19'-6"						–	488
W502	STR	44	5'-0"						229	–
W503	2	40	14'-0"	8'-0"	3'-0"	3'-0"			584	–
W504	STR	20	14'-2"						296	–
W505E	7	60	9'-8"	2'-0"	2'-6"	0'-8"	4'-6"	1'-5"	–	605
W506E	5	60	4'-10"	2'-4"	2'-6"	–			–	302
W507	2	40	12'-0"	7'-0"	2'-6"	2'-6"			501	–
W508	2	40	8'-0"	3'-0"	2'-6"	2'-6"			334	–
W509	STR	20	10'-6"						219	–
W510	STR	20	4'-10"						101	–
								TOTAL #5	4,420	1,395
W601	STR	20	14'-8"						441	–
W602	STR	20	10'-6"						315	–
W603	STR	20	4'-10"						145	–
								TOTAL #6	901	–
							TOTAL WINGWALL #1		5,321	1,395

WINGWALL #2 (PHASE II CONSTRUCTION)

MARK	TYPE	NUMBER REQUIRED	LENGTH	DIMENSIONS					WEIGHT	
									602-01	602-02
				A	B	C	D	E		
W505E	7	24	10'-8"	2'-6"	2'-6"	0'-8"	5-'0"	1'-5"	–	267
W506E	5	24	4'-10"	2'-4"	2'-6"				–	121
W508	2	48	8'-0"	3'-0"	2'-6"	2'-6"			400	–
W512	STR	48	5'-0"						250	–
W513	STR	24	10'-0"						250	–
W516	STR	36	18'-10"						707	–
W516E	STR	8	18'-10"						–	157
W519	STR	10	6'-6"						–	–
W519E	STR	8	6'-6"						–	54
W522	STR	26	8'-1"						219	–
								TOTAL #5	1,826	599
W605	STR	24	10'-0"					TOTAL #6	360	–
							TOTAL WINGWALL #2		2,186	599

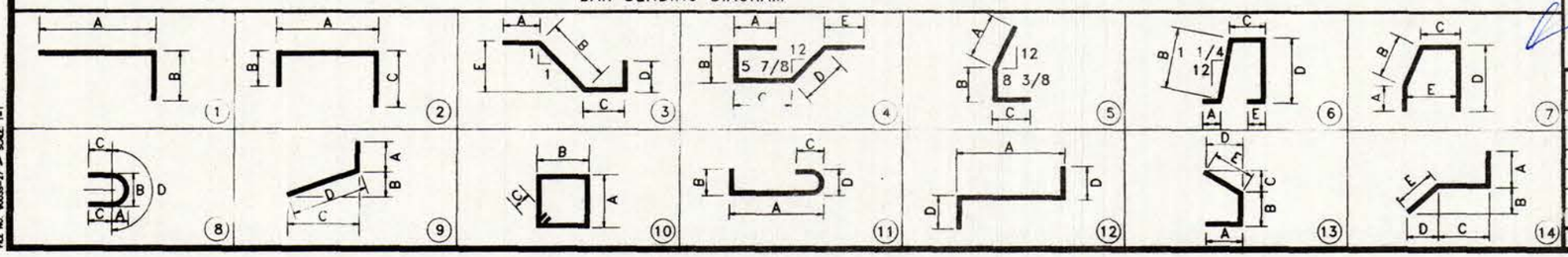
WINGWALL #3 (PHASE III CONSTRUCTION)

MARK	TYPE	NUMBER REQUIRED	LENGTH	DIMENSIONS					WEIGHT	
									602-01	602-02
				A	B	C	D	E		
W505E	7	11	10'-8"	2'-6"	2'-6"	0'-8"	5'-0"	1'-5"	–	122
W506E	5	11	4'-10"	2'-4"	2'-6"				–	55
W508	2	22	8'-0"	3'-0"	2'-6"	2'-6"			184	–
W512	STR	22	5'-0"						115	–
W514	STR	11	7'-8"						88	–
W517	STR	20	12'-0"						250	–
W521	STR	8	10'-2"						85	–
W521E	STR	8	10'-2"						–	85
								TOTAL #5	722	262
W606	STR	11	7'-8"						127	–
								TOTAL #6	127	–
								TOTAL WINGWALL #3	849	262

WINGWALL #4 (PHASE II CONSTRUCTION)

MARK	TYPE	NUMBER REQUIRED	LENGTH	DIMENSIONS					WEIGHT	
									602-01	602-02
				A	B	C	D	E		
W505E	7	17	10'-8"	2'-6"	2'-6"	0'-8"	5'-0"	1'-5	–	189
W506E	5	17	4'-10"	2'-4"	2'-6"				–	86
W508	2	42	8'-0"	3'-0"	2'-6"	2'-6"			350	–
W512	STR	34	5'-0"						177	–
W515	STR	17	9'-1"						161	–
W518	STR	22	20'-6"						470	–
W520	STR	10	15-6"						162	–
W520E	STR	8	15-6"						–	129
								TOTAL #5	1,320	404
W607	STR	17	9'-1						232	–
								TOTAL #6	232	–
								TOTAL WINGWALL #4	1,552	404

BAR BENDING DIAGRAM



NOTES:
FIGURES IN CIRCLE SHOW BAR TYPE.
ALL DIMENSIONS ARE FROM OUT TO OUT OF BARS.
NO CORRECTION IN LENGTH FOR BEND CURVATURE IS TO BE MADE.
FOR STANDARD HOOK DIMENSIONS SEE A.C.I. MANUAL OF CONCRETE PRACTICE FOR DETAILING CONCRETE STRUCTURES (A.C.I. 315).
FIRST DIGIT FOLLOWING PREFIX INDICATES BAR SIZE. EXAMPLE : S501 = #5, A801 = #8.
THE SUFFIX "E" IN THE MARK INDICATES EPOXY COATED REINFORCEMENT.

SHEET NUMBER	REVISION	DATE	BY

SCALE: AS SHOWN
DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

REINFORCING BAR SCHEDULE

Chapman Technical Group

22

FILE NO. 90035-27 SCALE: 1=1

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-00-36.18	BR-0060 (086)		KANAWHA	6	6A

KELLY CREEK
EX. R/W
PP 314C296
DEMO. #202-1(3)
DEMO. #202-1(4)
66+07.56 110.78' LT.
66+36.70 93.50' LT.
66+49.73 92.54' LT.
TSRE
ENCROACHMENT DEMO. #202-1(5)
DUMPED ROCK GUTTER STA. 66+52 TO STA. 66+72 W=2', D=1.5', T=2' & L=25'
INV. OUT 597.38' DO NOT DISTURB OUTFALL KELLY CREEK
LIMITS OF S.E. CHANNEL CONSTRUCTION
PP 314D334
ENCROACHMENT DEMO. #202-1(9)
ENCROACHMENT DEMO. #202-1(8)
CONC. HEADWALL STA. 69+20.15 47.54' LT. INV. OUT 608.50'
INV. OUT 613.47'
RELOCATE CREEK
END OF WORK STA. 11+91.35
SIGN POSTS
BCT STA. 70+13 86' LT.
N 19°47'01.2" E
81/12
PT = 11+13.90
℄ CURVE #5
8" 11+00
18" RCP
PC = 10+49.01
BH-10
WW #3
BH-7
BH-4
WW #1
BEGIN BRIDGE STA. 68+00.31
EDGE OF PAVEMENT
US ROUTE 60 TO CHARLESTON
66+00
67+00
68+00
69+00
70+00
71+00
℄ CURVE #4
4' MEDIAN
65+00
BH-2
BH-3
BH-5
BH-8
BH-11
END BRIDGE STA. 70+07.31 S 11°15'06.0" E
US ROUTE 60 TO MONTGOMERY
WW #4
BH-12
INV. OUT 600.81'
BH-9
CONC. HEADWALL STA. 69+21.14 47.98' RT. INV. OUT 599.00'
LIMITS OF S.E. CHANNEL CONSTRUCTION
INV. OUT 594.13'
INV. OUT 593.96'
4" (ABANDONED)
EDGE OF PAVEMENT
PCC = 64+71.83
66+50.00 85.64' LT.
67+97.46 90.14' RT.
66+50.00 95.64' RT.
67+88.44 99.87' RT.
TCE
EX. R/W
HEADWALL INV. IN 598.02'
℄ 68+14.04
18"
8"
ST
SS

(EXPANSION) ABUTMENT #1 BEARING CENTERLINE
(FIXED) PIER #1 STA. 68+63.81
(EXPANSION) PIER #2 STA. 69+43.81
(EXPANSION) ABUTMENT #2 STA. 70+03.81 BEARING CENTERLINE
200'-0"
60'-0" 80'-0" 60'-0"
℄ LOW SEAT EL. 617.00
℄ LOW SEAT EL. 617.51
-3.70% +3.29%
BERM EL. 611.0'
Q_{100} EL = 610.60'
BERM EL. 614.0'
NORMAL POOL EL = 596'±
HP 12x53
SELECT EMBANKMEMT 3'-0" MIN.
CREEK BOTTOM EL. 594'
FOOTING EL. 587.81'(1N)
FOOTING EL. 587.31'(1S)
FOOTING EL 587.67(2N)
FOOTING EL 587.94(2S)
SELECT EMBANKMENT 3'-0" MIN.
HP 12x53
EST. SURFACE ELEV. OF HARD ROCK
EST. PILE TIP EL. 562.0'
EST. PILE TIP EL. 570.0'
EST. PILE TIP EL. 577.0'
EST. PILE TIP EL. 585.0'
HP 12x53

CENTERLINE ELEVATION

VERTICAL CURVE #1
P.V.I. STA. = 68+38.19
EL. = 616.34
L.V.C. = 630'-0"

Q_{50} EL = 602.70'
Q_{100} EL = 607.30'
Q_{500} EL = 610.60'
Q_{SOF} EL = 625.90'

NOTE:
BACKWATER FROM THE KANAWHA RIVER GOVERNS ALL FLOOD ELEVATIONS

NOTE:
BASED ON BOULDERS ENCOUNTERED DURING SUBSURFACE INVESTIGATION, PILE LOCATIONS AT PIER #2 SHALL BE PREDRILLED AND DRIVEN. MINIMUM PILE LENGTH IS 10 FEET.

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: 1"= 20' DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

SITUATION PLAN

Chapman Technical Group

23

PLE NO. 60028-39

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	S320-60-36.19	BR-0060 (088)		KANAWHA	22	63

625
620
615
610
605
600
595
590
585
580
575
570
565
560
555
550

BH-1

622.50'

6
6
5
19
18
8-50/5"
30
22
28
3
29
BROWN SILTY CLAY W/ ROCK FRAGMENTS AND SAND- MEDIUM STIFF TO VERY STIFF (FILL)

BOTTOM OF ABUT #1 @ EL 608.00'

595.50'

568.50'

566.80'

GRAY SHALE-MEDIUM HARD

558.50'

LIGHT GRAY SANDSTONE W/. HORIZONTAL BEDDING PLANES AND SHALE LAMINATIONS (HARD)

F
SH
ST

BH-2

620.80'

4
4
13
31
50/3"
18
36
26
25
23
32
BROWN AND GRAY SILTY CLAY W/ROCK FRAGMENTS AND SAND- MEDIUM STIFF TO STIFF (FILL)

BOTTOM OF ABUT #1 @ EL 608.00'

576.00'

571.00'

566.80'

556.80'

LIGHT GRAY SANDSTONE, MEDIUM GRAINED, HORIZONTAL BEDDING PLANE WITH SHALE LAMINATIONS (HARD)

F
ST

BH-3

620.00'

3
7
2
7
14
15
21
16
6
27
30
50/1"
BROWN AND GRAY SILTY CLAY W/ ROCK FRAGMENTS, DAMP- SOFT TO STIFF (FILL)

BOTTOM OF ABUT #1 @ EL 608.00'

604.00'

576.00'

6
GRAY SAND MEDIUM GRAINED WET-LOOSE (FILL)

571.00'

1"+50/5"
DARK GRAY WEATHERED SHALE DAMP-SOFT (FILL)

566.00'

562.50'

BOULDER

552.50'

GRAY SANDSTONE, MEDIUM GRAINED WITH SHALE LAMINATIONS-HARD

F
B
ST

BH-4

596.80'

594.80'

21
9
4
GRAY SAND AND SILTY CLAY WITH ROCK FRAGMENTS (FILL)

BOTTOM OF PIER 1N @ EL 587.81'

584.80'

5
2
3
GRAY SILTY CLAY AND NL MEDIUM STIFF TO SOFT

569.80'

LIGHT GRAY SANDSTONE, MEDIUM GRAINED, HORIZONTAL BEDDING PLANES W/ SHALE LAMINATIONS (FILL)

559.80'

F
N
ST

BH-5

596.70'

591.70'

12
8
BLACK SILTY CLAY WITH ROCK FRAGMENTS (FILL)

BOTTOM OF PIER 1S @ EL 587.31'

586.70'

WOH (WEIGHT OF HAMMER)
3
4
2 DARK GRAY SILTY CLAY AND NL-SOFT

569.70'

GRAY SHALE-MEDIUM HARD

565.95'

LIGHT GRAY SANDSTONE, FINED GRAINED, HORIZONTAL BEDDING PLANE WITH SHALE LAMINATIONS (HARD)

559.70'

F
N
SH
ST

BH-6

597.20'

596.20'

14
15
3 BLACK SILTY CLAY AND SAND WITH ROCK FRAGMENTS (FILL)

BOTTOM OF PIER 1S @ EL 587.31'

33
3
16
4
2
DARK GRAY SILTY CLAY AND NP

585.20'

572.20'

33 GRAY SAND, MEDIUM GRAINED, MOIST DENSE

570.20'

GRAY SHALE MEDIUM HARD

566.70'

LIGHT GRAY SANDSTONE, MEDIUM GRAINED HORIZONTAL BEDDING PLANE WITH SHALE LAMINATIONS (HARD)

560.20'

F
N
SH
ST

ST SANDSTONE
SH SHALE
F FILL
28 STANDARD PENETRATION TEST RESULT
N NATURAL SOIL
B BOULDER

WATER TABLE ▼ 24 HOURS
WATER TABLE ▽ IMMEDIATE

GRAPHIC SCALE
0 1 2 3 4 5 10
1"=5' (IN FEET)

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: AS SHOWN
DATE: SEPTEMBER 199-

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE #3886 REPLACEMENT

BORE HOLE SECTIONS

Chapman Technical Group

24

FILE NO. 10035-29

PUBLIC ROADS DIVISION	STATE DISTRICT NUMBER	STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
W.V.	1	8320-00-36.18	BR-0060 (086)		KANAWHA	23	63

625
620
615
610
605
600
595
590
585
580
575
570
565
560
555
550

BH-7

593.20'

BOTTOM OF PIER 2N
@ EL 587.67

N
31
BROWN SAND AND GRAVEL W/ ROCK FRAGMENTS, WET-DENSE

578.20'
SH
78
576.70'
GRAY WEATHERED SHALE, DAMP-SOFT

ST
566.70'
GRAY SHALE-MEDIUM HARD

BH-8

596.20'

BOTTOM OF PIER 2N
@ EL 587.67

N
12
33
50/1".
BROWN SAND AND GRAVEL W/ ROCK FRAGMENTS, WET-DENSE

577.20'
SH
570.70'
GRAY SHALE-MEDIUM HARD

ST
567.20'
LIGHT GRAY SANDSTONE, MEDIUM GRAINED WITH HORIZONTAL BEDDING PLANE AND SHALE LAMINATIONS-HARD

BH-9

596.30'

BOTTOM OF PIER 2S
@ EL 587.94

N
48
18
BROWN SAND AND GRAVEL W/ ROCK FRAGMENTS, WET-DENSE

576.30'
SH
573.30'
GRAY SHALE-MEDIUM HARD

ST
568.30'
LIGHT GRAY SANDSTONE, MEDIUM GRAINED WITH HORIZONTAL BEDDING PLANE AND SHALE LAMINATIONS-HARD

BH-10

620.80'

BOTTOM OF ABUT #2
@ EL 611.00

F
5
9
12
5
25
16
30
594.80'
8-50/0"
BROWN AND GRAY SAND AND SILTY CLAY WITH ROCK FRAGMENTS, DAMP TO WET SOFT TO STIFF (FILL)

585.80'
SH
575.80'
GRAY SHALE-MEDIUM HARD

BH-11

622.60'

BOTTOM OF ABUT #2
@ EL 611.00

F
2
15
15
12
BROWN SILTY CLAY WITH ROCK FRAGMENTS, MOIST-STIFF (FILL)

598.60'
20
6
20
BROWN SAND WITH ROCK FRAGMENTS WET-MEDIUM DENSE (FILL)

585.10'
SH
575.10'
GRAY SHALE-MEDIUM HARD

BH-12

622.90'

BOTTOM OF ABUT #2
@ EL 611.00

F
13
35
20
13
17
20
18
15
21
BROWN AND BLACK SILTY CLAY WITH ROCK FRAGMENTS DAMP-STIFF (FILL)

592.90'
2
BROWN SILTY CLAY WITH ROCK FRAGMENTS, MOIST STIFF (FILL)

587.90'
14
BROWN SILTY CLAY WITH ROCK FRAGMENTS, MOIST STIFF (FILL)

584.40'
580.40'
SH
574.40'
GRAY SHALE-MEDIUM HARD

ST SANDSTONE
SH SHALE
F FILL
B BOULDER
N NATURAL SOIL
28 STANDARD PENETRATION TEST RESULT

WATER TABLE 24 HOURS
WATER TABLE IMMEDIATE

GRAPHIC SCALE
0 1 2 3 4 5 10
1"=5'
(IN FEET)

REVISION NUMBER	SHEET NUMBER	REVISIONS	DATE	BY

SCALE: AS SHOWN
DATE: SEPTEMBER 1992

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
KELLY CREEK BRIDGE 43886 REPLACEMENT

BORE HOLE SECTIONS

Chapman Technical Group

SHEET NO. 25

FILE NO. 8320-20