



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFO NUMBER
05700378

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
JOHN JOHNSTON 304-558-2402

*709055926 304-464-4441
 CARR CONCRETE CORPORATION
 PO BOX 265
 WAVERLY WV 26184-0265

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

VENDOR

SHIP TO

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
04/16/2007				

BID OPENING DATE: 05/09/2007 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		210-16	\$23,522.00	\$23,522.00
PRESTRESSED CONCRETE BOX BEAMS TO PROVIDE PRESTRESSED CONCRETE BOX BEAMS FOR PACKING HOUSE BRIDGE, PROJECT #S333-8/18-2.11. ALL MATERIALS SHALL BE SHIPPED TO BRIDGE SITE AS SHOWN ON THE ATTACHED PLANS. DELIVERY: LOCATED ON CO. RT. 8/18, 0.7 MILES EAST OF CO. RT. 13 IN MORGAN COUNTY. PLEASE CALL GARY HINES AT 304-289-2212 OR 304-289-3521 AT LEAST 24 HOURS PRIOR TO DELIVERY. SEE ATTACHED VENDOR PREFERENCE CERTIFICATE CERTIFICATION AND APPLICATION* IS HEREBY MADE FOR PREFERENCE IN ACCORDANCE WITH WEST VIRGINIA CODE, 5A-3-37 (DOES NOT APPLY TO CONSTRUCTION CONTRACTS). A. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED: <input type="checkbox"/> BIDDER IS AN INDIVIDUAL RESIDENT VENDOR AND HAS RESIDED CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR <input checked="" type="checkbox"/> BIDDER IS A PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR AND HAS MAINTAINED ITS HEAD-QUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY I						

RECEIVED

2007 MAY -9 A 8:31

PURCHASING DIVISION
STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE	TELEPHONE	DATE	
Robert Burr Stanton	304-464-4441	5/7/07	
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	
Project Manager	55-0685425		

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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<p>WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR 80% OF THE OWNERSHIP INTEREST OF BIDDER IS HELD BY ANOTHER INDIVIDUAL, PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR WHO HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS CONTINUOUSLY IN WEST VIRGINIA FOR FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION; OR</p> <p>() BIDDER IS A CORPORATION NONRESIDENT VENDOR WHICH HAS AN AFFILIATE OR SUBSIDIARY WHICH EMPLOYS A MINIMUM OF ONE HUNDRED STATE RESIDENTS AND WHICH HAS MAINTAINED ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA CONTINUOUSLY FOR THE FOUR (4) YEARS IMMEDIATELY PRECEDING THE DATE OF THIS CERTIFICATION.</p> <p>B. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:</p> <p>() BIDDER IS A RESIDENT VENDOR WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES WORKING ON THE PROJECT BEING BID ARE RESIDENTS OF WEST VIRGINIA WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID;</p> <p>OR</p> <p>() BIDDER IS A NONRESIDENT VENDOR EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS OR IS A NONRESIDENT VENDOR WITH AN AFFILIATE OR SUBSIDIARY WHICH MAINTAINS ITS HEADQUARTERS OR PRINCIPAL PLACE OF BUSINESS WITHIN WEST VIRGINIA EMPLOYING A MINIMUM OF ONE HUNDRED STATE RESIDENTS WHO CERTIFIES THAT, DURING THE LIFE OF THE CONTRACT, ON AVERAGE AT LEAST 75% OF THE EMPLOYEES OR BIDDERS' AFFILIATE'S OR SUBSIDIARY'S EMPLOYEES ARE RESIDENTS OF WEST VIRGINIA</p>						

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<p>WHO HAVE RESIDED IN THE STATE CONTINUOUSLY FOR THE TWO YEARS IMMEDIATELY PRECEDING SUBMISSION OF THIS BID.</p> <p>BIDDER UNDERSTANDS IF THE SECRETARY OF TAX & REVENUE DETERMINES THAT A BIDDER RECEIVING PREFERENCE HAS FAILED TO CONTINUE TO MEET THE REQUIREMENTS FOR SUCH PREFERENCE, THE SECRETARY MAY ORDER THE DIRECTOR OF PURCHASING TO: (A) RESCIND THE CONTRACT OR PURCHASE ORDER ISSUED; OR (B) ASSESS A PENALTY AGAINST SUCH BIDDER IN AN AMOUNT NOT TO EXCEED 5% OF THE BID AMOUNT AND THAT SUCH PENALTY WILL BE PAID TO THE CONTRACTING AGENCY OR DEDUCTED FROM ANY UNPAID BALANCE ON THE CONTRACT OR PURCHASE ORDER.</p> <p>BY SUBMISSION OF THIS CERTIFICATE, BIDDER AGREES TO DISCLOSE ANY REASONABLY REQUESTED INFORMATION TO THE PURCHASING DIVISION AND AUTHORIZES THE DEPARTMENT OF TAX AND REVENUE TO DISCLOSE TO THE DIRECTOR OF PURCHASING APPROPRIATE INFORMATION VERIFYING THAT BIDDER HAS PAID THE REQUIRED BUSINESS TAXES, PROVIDED THAT SUCH INFORMATION DOES NOT CONTAIN THE AMOUNTS OF TAXES PAID NOR ANY OTHER INFORMATION DEEMED BY THE TAX COMMISSIONER TO BE CONFIDENTIAL.</p> <p>UNDER PENALTY OF LAW FOR FALSE SWEARING (WEST VIRGINIA CODE 61-5-3), BIDDER HEREBY CERTIFIES THAT THIS CERTIFICATE IS TRUE AND ACCURATE IN ALL RESPECTS; AND THAT IF A CONTRACT IS ISSUED TO BIDDER AND IF ANYTHING CONTAINED WITHIN THIS CERTIFICATE CHANGES DURING THE TERM OF THE CONTRACT, BIDDER WILL NOTIFY THE PURCHASIN DIVISION IN WRITING IMMEDIATELY.</p> <p style="text-align: right;">BIDDER: <i>Carr Concrete Corp.</i></p>						

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S H I P T O
DIVISION OF HIGHWAYS JOBSITE SEE SPECIFICATIONS

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04/16/2007				

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<p>BID OPENING DATE AND TIME</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p> <p style="text-align: center;">----- 304-464-4013 -----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):</p> <p style="text-align: center;">----- Burr Stanley -----</p> <p>***** THIS IS THE END OF RFQ 05700378 ***** TOTAL: \$ 23,522⁰⁰</p>						

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SPECIFICATIONS

The following sections of the West Virginia Department of Transportation, Division of Highways Standard Specifications Road and Bridges, adopted 2000 as modified by the January 1, 2003 Supplemental Specifications shall apply to the administration of this requisition: Sections 101, 102.4, 102.5, 105.1, 105.3, 105.4, 105.10, 105.11, 105.12, 105.13, 106.3, 106.4, 106.5, 106.6, 106.7, 106.9, 107.1, 107.2, 107.3, 107.14, 107.19, 107.20, 108.8, 108.9, 109.1, 109.2 and 109.20

All items supplied under this requisition shall meet the requirements of the "West Virginia Department of Transportation, Division of Highways Standard Specifications Road and Bridges, adopted 2000, as modified by the January 1, 2003 Supplemental Specifications.

All Prestressed Concrete Box Shaped Beams shall be manufactured in accordance with West Virginia Department of Transportation, Division of Highways Standard Bridge Plan Sheets as follows:

<u>Item Description</u>	<u>Standard Sheet No</u>	<u>Revision Date</u>
17" Box Beam	BR-B17A & BR-B17B	9/96
Beam Details	BR-B100, BR-B101, BR-B102 & BR-B104	9/96
Post-Tensioning Details	BR-B103	9/96

Alternates to the above Division of Highways standards will be permitted if approved by the District Five Bridge Engineer. Alternate designs must be submitted for approval on the Design Data Charts provided as a part of the quotation sheets for this requisition and must be approved prior to award of this requisition purchase order. In addition to the design criteria contained on the Division of Highways Standard Bridge Plan Sheets referenced above, all alternate designs must be based on the following criteria:

- A. One lane bridge with a deck width of 15'-0" out to out and roadway width of 15'-0" rail to rail.
- B. Guardrail superimposed dead load of 30 pounds per linear foot assumed to be applied equally to all beams.
- C. Future wearing surface superimposed dead load of 50 psf applied equally to all beams.

D. Live loading of 1.25X HS20-44(HS25).

The terms "Contractor" and "Vendor" used in the above specifications or this requisition are interchangeable. Contractor shall mean Vendor and Vendor shall mean Contractor.

West Virginia Department of Transportation, Division of Highways Standard Specifications Road and Bridges, adopted 2000 and Supplemental Specifications dated January 1, 2003 may be obtained from:

WEST VIRGINIA DIVISION OF HIGHWAYS
CONTRACT ADMINISTRATION DIVISION
1900 KANAWHA BLVD., EAST
BLDG. 5, ROOM A-729
CHARLESTON, WV 25305
PHONE (304) 558-2871

West Virginia Department of Transportation, Division of Highways Standard Bridge Plan Sheets may be obtained from:

WEST VIRGINIA DIVISION OF HIGHWAYS
DISTRICT FIVE HEADQUARTERS, BRIDGE DEPT.
P. O. BOX 99
BURLINGTON, WV 26710-0099
PHONE (304) 289-2220

ACCEPTANCE

Cracks developing in a beam may be cause for rejection of the beam. Cracks that are not detrimental to the structural integrity of the beam, as determined by the Division of Highways, may be accepted under the following conditions:

- 1) Cracks of 0.004 inch or less shall be treated with a second coat of a Division of Highways approved concrete sealer.
- 2) Cracks of greater than 0.004 inch shall be treated by a Division of Highways approved epoxy injection methods.

All concrete sealer and epoxy injection required for acceptance shall be preformed at no additional cost to the Division of Highways.

DELIVERY

Upon receipt of a State Purchase Order the Vendor shall submit shop drawings to the District Five Bridge Engineer within twenty (20) calendar days. Shop drawings must be approved by the Division of Highways prior to the manufacture of any beam sections.

All beam sections and accessories shall be available for delivery to the specified delivery site within (75) calendar days after Vendor's receipt of approved shop drawings.

The Division of Highways requires that all beam sections be delivered to the designated job site in a single calendar day.

Should the Vendor fail to meet the above delivery schedule, liquidated damages will be assessed in accordance with Section 108.7 of the current Division of Highways Standard Specifications Road and Bridges.

Sites for delivery of beam sections and accessories under this requisition purchase order shall be accessible to equipment that is normally and customarily used for transportation of beam sections. Delivery will not be required where gross vehicle loaded weights will exceed the legal road or bridge load. Upon receipt of an approved Requisition Purchase Order the Vendor must notify the District Five Bridge Engineer within ten (10) calendar days if delivery under the terms of this requisition cannot be performed due to weight restrictions or roadway geometrics.

Prior to delivery, all Beams, Accessories, and Optional Items shall be tested and accepted in accordance with Section 603 of the Division of Highways Standard Specifications Road and Bridges adopted 1993 as modified by the July 1, 1998 Supplemental Specifications

VENDOR INVOICE

Vendors invoices must be submitted in original and one copy and contain the following:

- a. Division of Highways Requisition Purchase Order number
- b. Total quantity and unit price with the total cost of each type of beam section, other items furnished.

NOTE: Under no circumstance will the West Virginia Division of Highways, accept or pay for quantities of material in excess of the quantity stated on the Requisition Purchase Order.

PARTIAL PAYMENT OF APPROVED BEAMS

Upon completion of manufacture and approval by the Division of Highways of all Beams, specified on the Requisition Purchase Order, the vendor may invoice and the Division will pay for the cost of manufacturing the beams, not to exceed 65% of the total cost of the delivered Beams. Partial payment for Beams shall be subject to the following conditions:

- a. The vendor must request partial payment and furnish an official invoice for the manufactured and approved beams.
- b. The partial payment invoice shall be accompanied by a surety bond equal to the invoiced amount guaranteeing delivery of all items specified on the Requisition Purchase Order.
- c. The vendor shall furnish a statement of approved beam condition and exact storage location.
- d. The vendor shall furnish a legal right-of-entry onto the storage site to Division of Highways' employees and/or agents for the purpose of inspecting, sampling, testing and removing any or all Beams.
- e. The vendor shall certify that the stored beams are suitably marked and identified as property of the Division of Highways and will not be used for any purpose not designated by the Division.

PRESTRESSED CONCRETE BOX BEAMS & ASSOCIATED HARDWARE

PACKING HOUSE BRIDGE

STATE PROJECT NO. S333-8/18-2.11

BID SCHEDULE

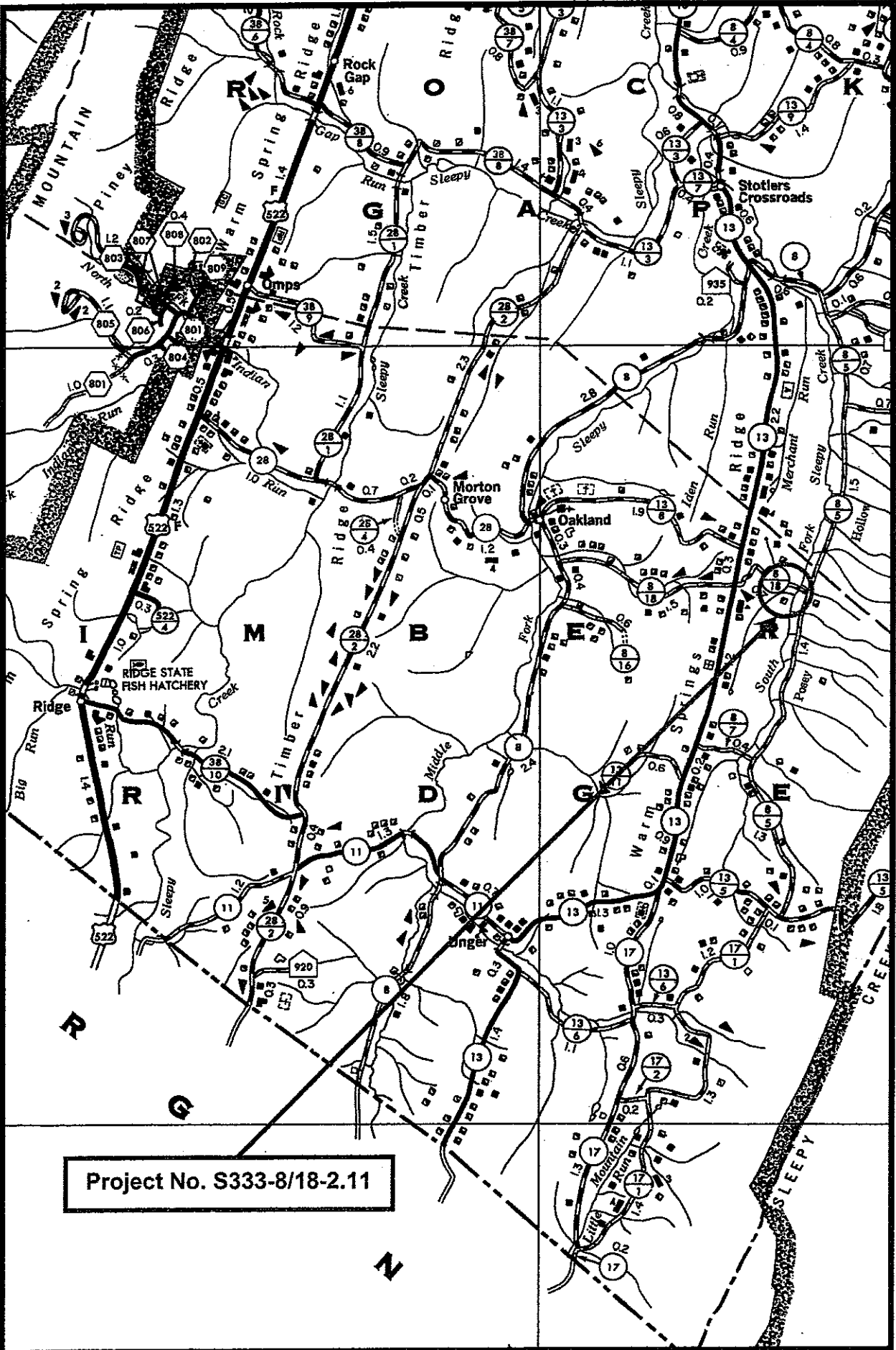
Item No.	Quantity	Description	Unit Price	Amount
01.	2	EACH - EXTERIOR BEAMS 17" depth x 36" width x 31' - 6" overall length (30'-0" c-c bearing anchor bolt holes). With all guardrail & hardware attached.	<u>4694.00</u>	<u>9,388.00</u>
02.	3	EACH - INTERIOR BEAMS 17" depth x 36" width x 31' - 6" overall length. (30'-0" c-c bearing anchor bolt holes)	<u>4694.00</u>	<u>14,082.00</u>
03.	10	EACH - ELASTOMERIC BEARING PADS (3/4" thick x 5" x 24")	<u>1.00</u>	<u>10.00</u>
04.	10	EACH - NO. 8 DEFORMED ANCHOR BOLT (Grade 50) bar. 1" diameter X 2'-10" length	<u>1.00</u>	<u>10.00</u>
05.	30	LF - PREFORMED JOINT FILLER. (1" thick x 17")	<u>1.00</u>	<u>30.00</u>
06.	2	EACH - POST TENSIONING BARS. (1" diameter, threaded, full length bars, with all plates, hex nuts and other hardware as required)	<u>1.00</u>	<u>2.00</u>

TOTAL

\$23,522⁰⁰

EXTERIOR BEAMS ARE TO BE SHIPPED COMPLETE WITH ALL GUARDRAIL, INSERTS, GUARDRAIL POSTS, GUARDRAIL ATTACHED.

ALL BEAMS AND OTHER ITEMS ARE TO BE IN ACCORDANCE WITH THE ATTACHED PLANS AND SPECIFICATIONS FOR THIS PROJECT.

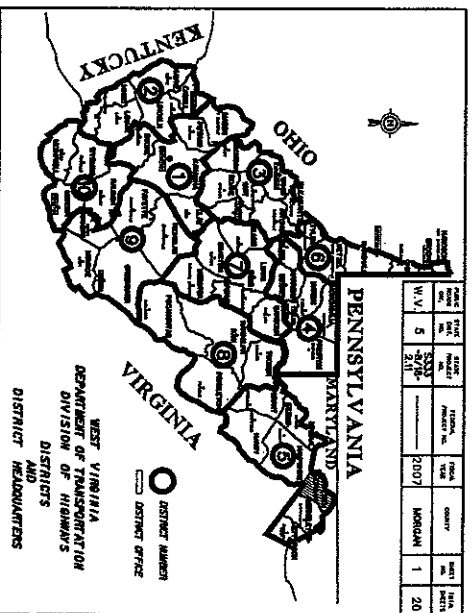
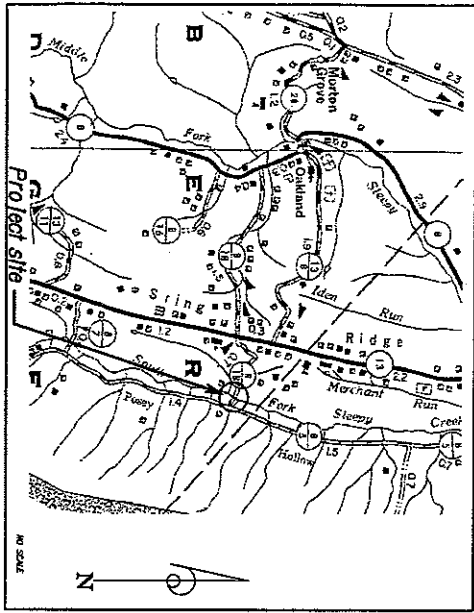


Project No. S333-8/18-2.11

WEST VIRGINIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 PLANS FOR CONSTRUCTION

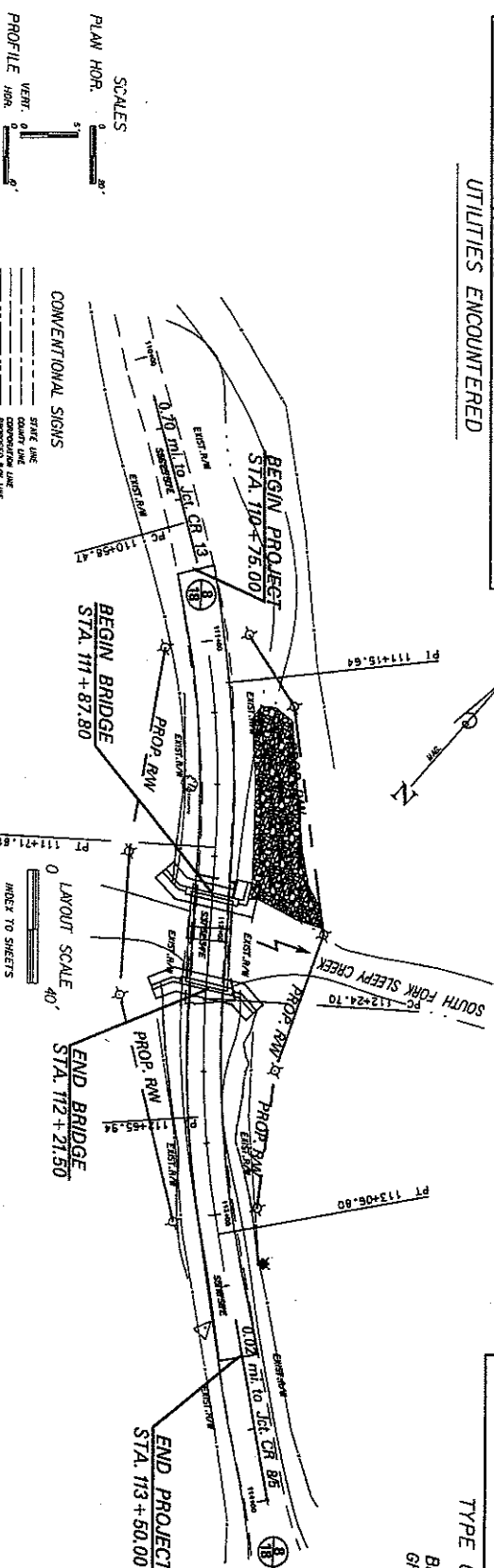
OF
PACKING HOUSE BRIDGE
 STATE PROJECT NO. S333-8/18-211
 ROUTE NO. CO. 8/18 (SLS)
 TIMBER RIDGE DISTRICT
 MORGAN COUNTY

PROJECT LENGTH
 BEGIN PROJECT STATION 1075.00
 END PROJECT STATION 1135.00
 TOTAL PROJECT LENGTH = 275.00 FT. = 0.05 MI.



TYPE OF CONSTRUCTION

BRIDGE NO. 33-8/18-212
 GRADE, DRAIN, & PAVE



DESIGN DESCRIPTION

A. D. T. LEADERSHIP	NO.
G. H. V.	
D.	
T.	
V.	

CONVENTIONAL SIGNS

STATE LINE	XXXXXX
COUNTY LINE	XXXXXX
PROPERTY LINE	XXXXXX
PAVEMENT NEW LINE	XXXXXX
PAVEMENT OLD LINE	XXXXXX
EDGE OF STREAM	XXXXXX
PROPOSED GRADE	XXXXXX
PAVING	XXXXXX
EXISTING GRADE	XXXXXX
WATER LINE	XXXXXX
ELECTRIC LINE	XXXXXX
TELEPHONE POLE	XXXXXX
EXISTING POWER AND TELEPHONE POLE	XXXXXX
TRAIL	XXXXXX
ROAD	XXXXXX
RIGHT OF WAY BARRIER	XXXXXX

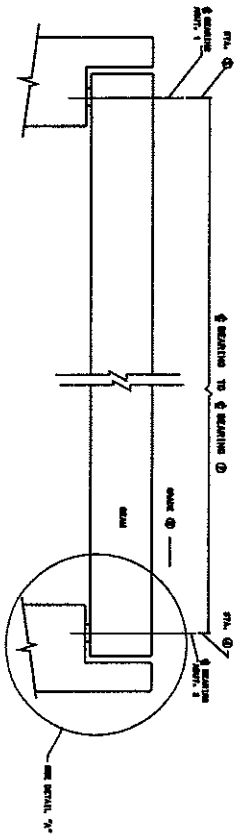
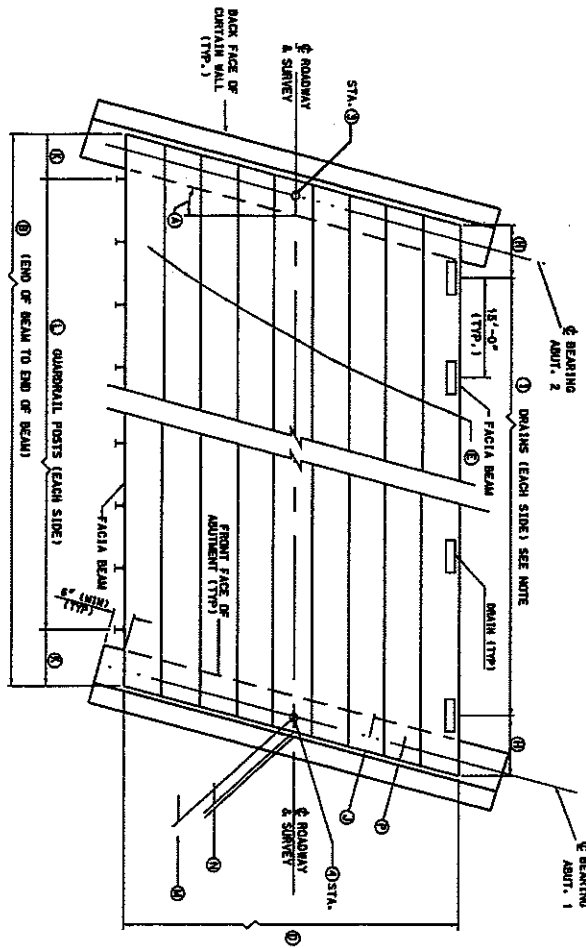
NO.	TITLE SHEET	DATE
1	TITLE SHEET	8/18/07
2	ESTIMATE OF QUANTITIES	
3	GENERAL NOTES	
4	MAINTENANCE OF TRAFFIC	
5	PLAN SHEET	
6	PROPOSED GRADE	
7	PROPOSED RIGHT OF WAY	
8	CROSS SECTIONS	

RECOMMENDED Designer

APPROVED District Engineer/Manager

BRIDGE NO. 33-8/18-212

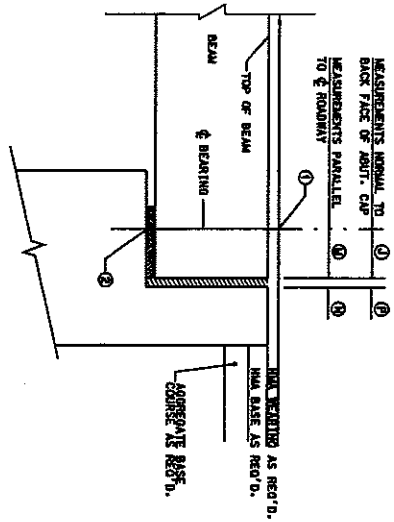
NOTE: DRAINS ARE REQUIRED ONLY IF CURBS ARE SPECIFIED.



SUPERSTRUCTURE LAYOUT PLAN

SUPERSTRUCTURE ELEVATION ALONG ROADWAY

IF BEARING SURFACE IS EXISTING, ELEVATION OF BEARING SHALL BE TAKEN AT THE TOP SURFACE OF THE BEAM.



CONTROL ELEVATIONS & BEARING DIMENSIONS ALONG ROADWAY DETAIL 'A'

CONTROL ELEVATIONS

CODE	ABUTMENT 1	ABUTMENT 2
1	300.04	300.04
2	289.48	289.48

CONTROL ELEVATIONS ESTABLISHED FROM SURVEY

CONTROL STATIONING

CODE	LOCATION	STATION VALUE
1	BEARING AT	111484.85
2	BEARING AT	118414.85
3	BEARING AT	118414.85

CONTROL STATIONING ESTABLISHED FROM SURVEY

CONTROL DIMENSIONS

DIMENSION	CODE	VALUE
BEARING DIMENSION	A	10' 0"
LENGTH OF BEAM, OUT-TO-OUT	B	31'-4"
DECK WIDTH, OUT-TO-OUT	D	15'-0"
NUMBER OF BEAMS	E	5
SPALL LENGTH, & BEARING TO & FROM	F	30'-0"
DISTANCE FROM END OF BEAM TO CENTER OF BEAM	H	N/A
NUMBER OF GALLIES, EACH SIDE	I	N/A
PERPENDICULAR DISTANCE FROM BEARING TO END OF BEAM	J	8'-0"
DISTANCE FROM BEARING TO FIRST QUADRANT PORT	K	1'-0"
NUMBER OF QUADRANT PORTS	L	10
DISTANCE FROM BEARING TO END OF BEAM (PARALLEL TO & FROM)	M	0"
WIDTH OF EXPANSION CRACKING PARALLEL TO & OF ROADWAY	N	1'
PERPENDICULAR WIDTH OF EXPANSION CRACKING	P	1'
GRADE S	R	0.00%

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
CONCRETE	PROPOSED CONCRETE BEAMS	LF	187.5
FORMS	FOR BEARING CURBS	SQ	6.3

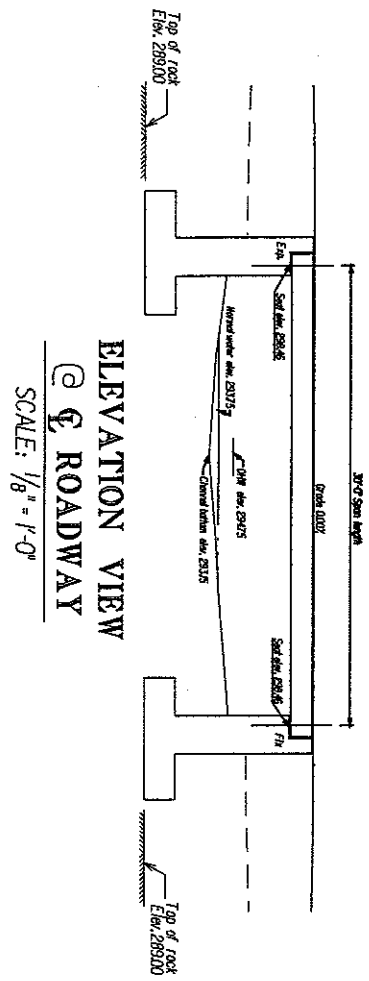
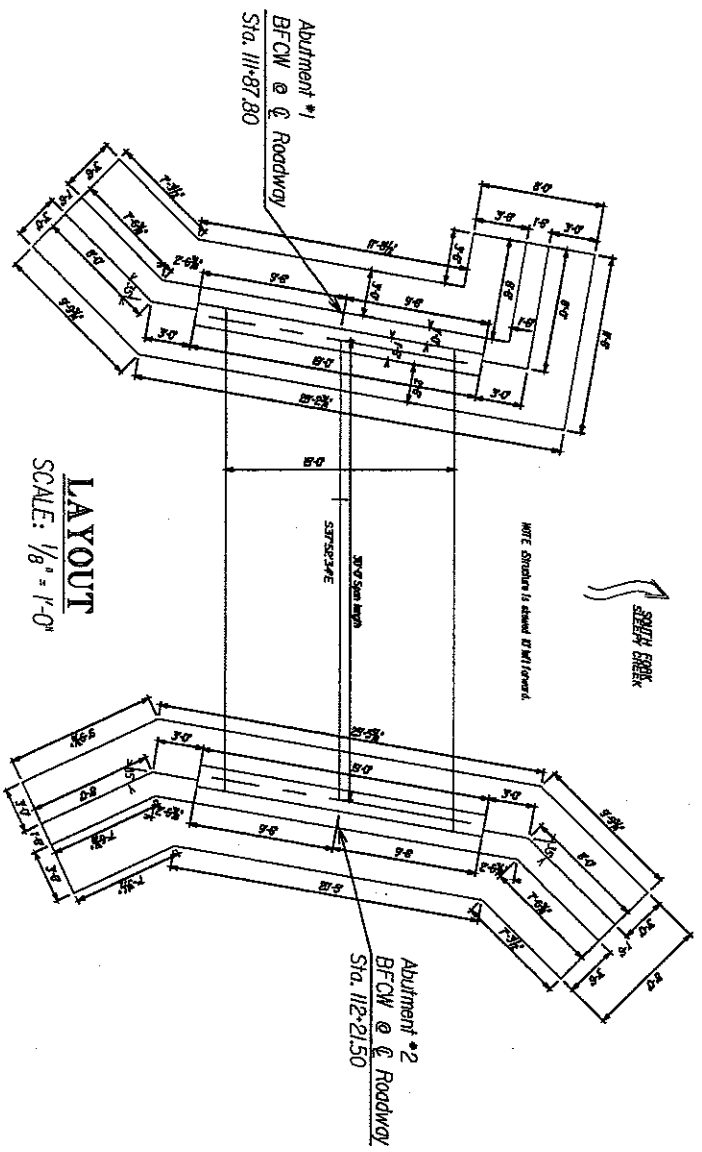
THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - STRUCTURES

PACKING HOUSE BRIDGE
OVER
SOUTH FORK SLEEPY CREEK
MORGAN COUNTY

SUPERSTRUCTURE PLAN

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - STRUCTURES
MORGAN COUNTY
SHEET BR-1A

BRIDGE NUMBER: 11
DATE: 11-1-13
BRIDGE DESIGN NO.: 23-2-13-2-12



HYDRAULIC DATA

DRAINAGE AREA - 2,932 ACRES
 Q 10 (USGS METHOD) - 646 CFS
 NEW OPENING - 128 S.F.
 EXISTING OPENING - 7 S.F.
 ELEVATION BOTTOM OF SUPER-STRUCTURE (NEW) - 298.50
 ELEVATION BOTTOM OF SUPER-STRUCTURE (EXISTING) - N/A

Backwater elevations for the proposed bridge are less than backwater elevations for the existing structure at the design flow rate.

STATE	FEDERAL	STATE	SHEET TOTAL
PROJECT NUMBER	PROJECT NUMBER	COUNTY	NO. OF SHEETS
3333-87-112	5	MORGAN	9
			20

DESIGNED	DATE	W. VA. DEPARTMENT OF HIGHWAYS STRUCTURES DIVISION PACKING SHED ROAD BRIDGE OVER SOUTH FORK SLEEPY CREEK IN MORGAN COUNTY LAYOUT & ELEVATION	SHEET 2 OF 11 SHEET NO. 333-87-112-212
CHECKED	DATE		
APPROVED	DATE		
DATE	DATE		

STATE	PROJECT NUMBER	COUNTY	SHEET NO.
VA	233-4-18-5-11	MORGAN	14
ROAD DIST.			30

MIN. CONCRETE STRENGTH @ DETENSION = 4,000 PSI.
 MIN. CONCRETE STRENGTH @ 28 DAYS = 5,000 PSI.
 JACKING FORCE /LOW RELAX STRAND = 30,800 LBS.

DESIGN DATA FOR 17" DEPTH BOX BEAM

SPAN LENGTH @ TO & BEARING	20'		22'		24'		26'		28'		30'		32'		34'		36'		38'		40'	
	21'-0"	23'-0"	23'-0"	25'-0"	25'-0"	27'-0"	27'-0"	29'-0"	29'-0"	31'-0"	31'-0"	33'-0"	33'-0"	35'-0"	35'-0"	37'-0"	37'-0"	39'-0"	39'-0"	41'-0"	41'-0"	
NO. OF GRADE 210, 1 1/2" DIA. LOW-BEAM STRANDS, AREA/STRAND = 0.153 SQ. IN.	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
STAND POSITION NUMBER	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
PRESTRESSING FORCE AT DETENSION (KIPS/BEAM)	182	241	241	241	241	241	299	299	299	299	299	356	356	356	356	356	356	356	356	356	356	
FINAL PRESTRESSING FORCE (KIPS/BEAM)	189	241	241	241	241	241	273	273	273	273	273	322	322	322	322	322	322	322	322	322	322	
ULTIMATE DESIGN MOMENT (FT-KIPS/BEAM)	202	225	225	225	225	225	282	282	282	282	282	346	346	346	346	346	346	346	346	346	346	
ULTIMATE RESISTING MOMENT (FT-KIPS/BEAM)	209	279	279	279	279	279	293	293	293	293	293	312	312	312	312	312	312	312	312	312	312	
TOTAL NUMBER OF DEBONDED STRANDS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LAYER 1-DEBONDED STRAND POSITION NUMBER AND LENGTH FROM EACH END	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
LAYER 2-DEBONDED STRAND POSITION NUMBER AND LENGTH FROM EACH END	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
END TENSION STEEL EACH END (SIZE & LENGTH)	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	3-#4	
DETENSION, INCHES +/- (UPWARD) (IN)	0.03	0.08	0.08	0.08	0.08	0.08	0.14	0.14	0.14	0.14	0.14	0.22	0.22	0.22	0.27	0.27	0.27	0.27	0.27	0.27	0.27	
ERUCTION, INCHES +/- (UPWARD) (IN)	0.05	0.12	0.11	0.11	0.11	0.11	0.20	0.20	0.20	0.20	0.32	0.32	0.32	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	
WEIGHT OF TYPICAL BEAM INCLUDING DIMENSIONAL TONS) (D.C2)	5.6	6.1	6.6	6.6	6.6	6.6	7.6	7.6	7.6	7.6	8.1	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	
NUMBER AND SPACING OF QUARRAIL INSERTS	7	8	9	9	9	9	10	10	10	10	11	12	12	12	12	12	12	12	12	12	12	

- NOTES:
1. BEAM WEIGHTS LISTED IN DESIGN TABLES ARE APPROXIMATE AND ARE BASED ON ZERO SKEW AND DIMENSIONS SP. & 15'-0" C-C MAX. ADDITION OF SKEW AND EXTRA DIMENSIONS WILL INCREASE WEIGHT.
 2. FOR STANDARD CURB, ADD 93 LBS. (0.05 TON) PER CURB, PER FOOT OF BEAM.
 3. CAMBER VALUES LISTED IN DESIGN TABLE ARE APPROXIMATE AND ARE FOR COMPARISON PURPOSES ONLY. THEY SHOULD NOT BE USED FOR INSPECTION PURPOSES UNLESS PERMITTED BY THE CONTRACTOR.
 4. DATA LISTED IN THE DESIGN TABLE MAY DIFFER FROM THE DATA LISTED IN THE SPECIFICATIONS AND ENTER SPECIFIC DATA FOR BEAM LENGTH REQUIRED IN THIS COLUMN.
 5. THIS SHEET TO BE USED WITH STANDARD SHEET NUMBERS BR-10R BR-14, BR-17A, BR-9100.
 6. STANDARD BEAM SKEW SHALL BE 30 DEGREES.
 7. DESIGNER, FABRICATOR AND ERECTOR SHALL ALWAYS THAT SKEWED BEAM ENDS MAY TRIST OR WARP CHAINING LAYERS BEAM SECTIONS SHALL BE SECURED IN PLACE. METHOD OF CORRECTION SHALL PROVIDE EQUAL TOTAL BEARING ON THE PAVES AND A LEVEL TOP BEAM SURFACE. METHOD SHALL BE A PRE-APPROVED METHOD BY DESIGNER OR STRUCTURES DIVISION.
 8. BEAM FABRICATOR SHALL NOTIFY CONTRACTOR THAT BEAM ENDS ARE TRISTED PRIOR TO SHIPPING OF BEAMS.

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS-STRUCTURES

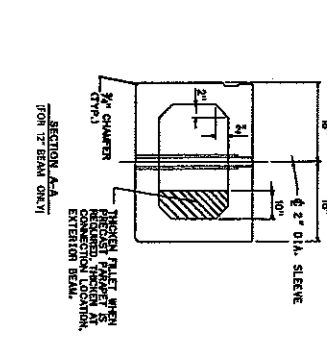
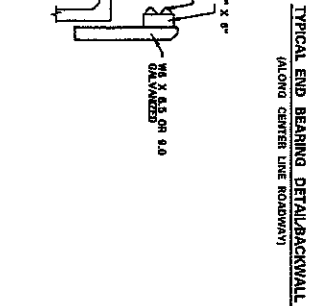
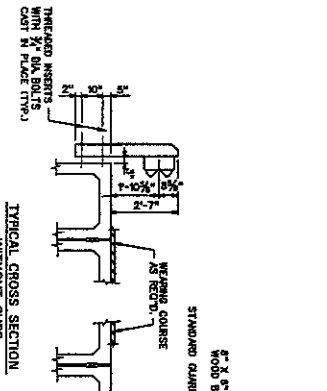
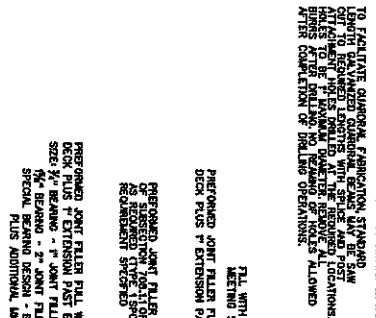
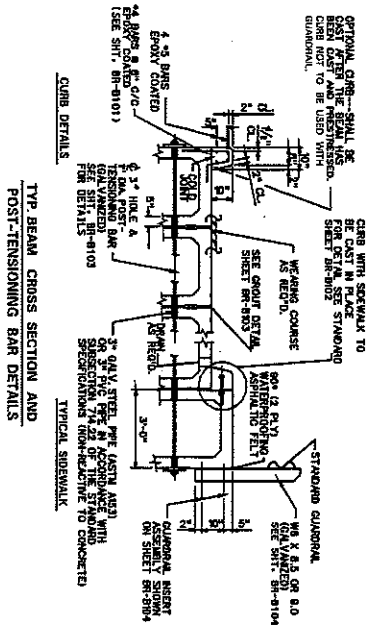
PACKING HOUSE BRIDGE
 OVER SOUTH FORK SLEEPY CREEK
 IN MORGAN COUNTY

DESIGN TABLE FOR 17" PRESTRESSED BOX BEAM

STANDARD SHEET BR-2778

DATE: 4-18-95
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

PROJECT NO. 233-4-18-5-11
 SHEET NO. 14 OF 30

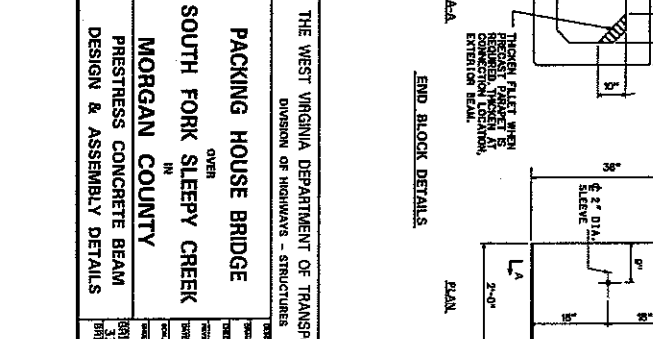
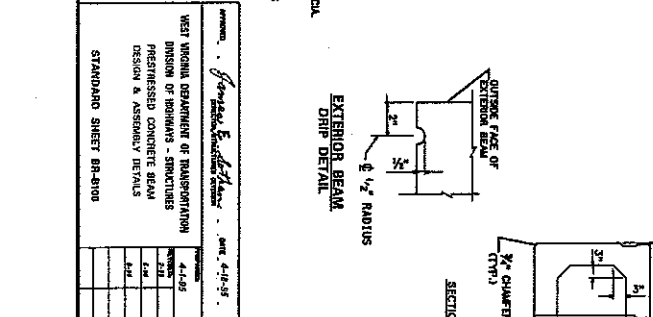
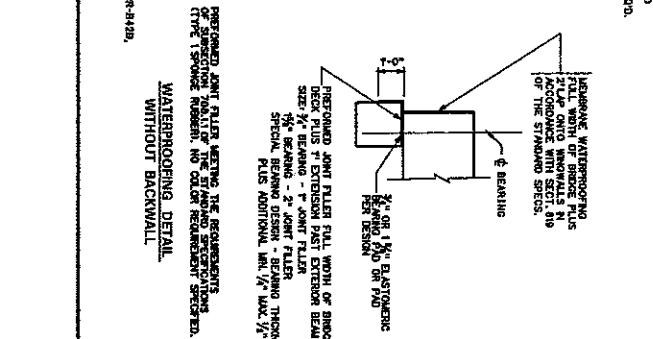


GOVERNING SPECIFICATIONS

THE WEST VIRGINIA DEPARTMENT OF HIGHWAYS SPECIFICATIONS FOR ROADS AND BRIDGES, ADOPTED 1958 AS AMENDED BY THE BOARD OF PUBLIC WORKS, IS HEREBY REFERRED TO FOR THE DESIGN AND CONSTRUCTION OF THE STRUCTURES DESCRIBED HEREIN. THE CONTRACT PLANS AND CONDITIONS SHALL BE SUPPLEMENTED BY THE PROVISIONS OF THE SPECIFICATIONS FOR THE STRUCTURES DESCRIBED HEREIN. THE CONTRACT PLANS AND CONDITIONS SHALL BE SUPPLEMENTED BY THE PROVISIONS OF THE SPECIFICATIONS FOR THE STRUCTURES DESCRIBED HEREIN.

DESIGN AND FABRICATION NOTES

- 1) ALL MEMBERS ARE DESIGNED FOR 14,000 PSI COMPRESSIVE STRENGTH WITH 60,000 PSI TENSILE STRENGTH FOR ALL STEEL. ALL MEMBERS ARE DESIGNED FOR 14,000 PSI COMPRESSIVE STRENGTH WITH 60,000 PSI TENSILE STRENGTH FOR ALL STEEL.
- 2) COMPRESSIVE STRENGTH OF CONCRETE AT THE TIME OF PRESTRESSING SHALL NOT BE LESS THAN 4,000 PSI. 7-DAY 3" BOX BEAMS 5,000 PSI. 4" BOX BEAM 5,000 PSI.
- 3) COMPRESSIVE STRENGTH OF CONCRETE AT THE TIME OF PRESTRESSING SHALL NOT BE LESS THAN 4,000 PSI. 7-DAY 3" BOX BEAMS 5,000 PSI. 4" BOX BEAM 5,000 PSI.
- 4) PRESTRESSING STEEL SHALL BE SEVEN-WIRE UNCOATED LOW RELAXATION STRAND IN ACCORDANCE WITH ASTM A420 GRADE 270 WITH TENSILE STRENGTH OF 270,000 PSI EXCEPT FOR 4" BOX BEAM, PRESTRESSING STEEL SHALL BE SEVEN-WIRE UNCOATED LOW RELAXATION OVERSIZE AND SHALL MEET THE REQUIREMENTS OF ASTM A420 GRADE 270 WITH TENSILE STRENGTH OF 270,000 PSI.
- 5) CALCULATED TENSILE STRESS AFTER ALL LOSSES SHALL NOT EXCEED 18,000 PSI FOR 3" BOX BEAMS AND 20,000 PSI FOR 4" BOX BEAMS.
- 6) CALCULATED TENSILE STRESS AFTER ALL LOSSES SHALL NOT EXCEED 18,000 PSI FOR 3" BOX BEAMS AND 20,000 PSI FOR 4" BOX BEAMS.
- 7) WHERE THE CALCULATED TENSILE STRESS EXCEEDS THE ALLOWABLE TENSILE STRESS, THE DESIGNER SHALL PROVIDE MEANS TO REDUCE THE CALCULATED TENSILE STRESS TO BELOW THE ALLOWABLE TENSILE STRESS. ADDITIONALLY, DOWNSIZED NON-RESTRESSED REINFORCEMENT SHALL BE PROVIDED TO RESIST THE TENSILE STRESS.
- 8) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 9) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 10) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 11) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 12) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 13) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 14) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 15) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 16) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 17) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 18) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 19) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.
- 20) ALL MEMBERS SHALL BE DESIGNED TO RESIST ALL LOSSES OCCURRING AFTER ALL LOSSES HAVE OCCURRED.



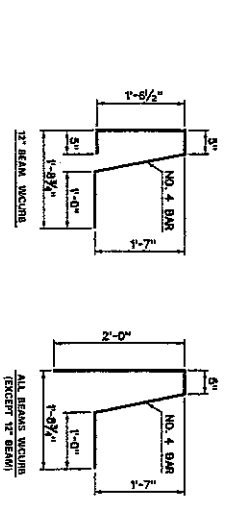
PROJECT NUMBER	COUNTY	SHEET NO.	TOTAL SHEETS
433-2-11-11	MORGAN	15	20

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - STRUCTURES

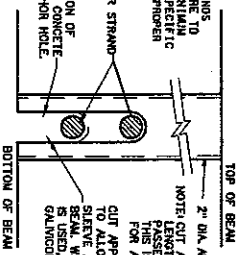
PACKING HOUSE BRIDGE
OVER
SOUTH FORK SLEEPY CREEK
IN
MORGAN COUNTY

PRESTRESS CONCRETE BEAM
DESIGN & ASSEMBLY DETAILS

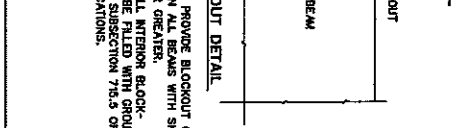
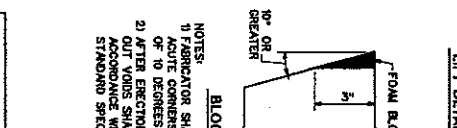
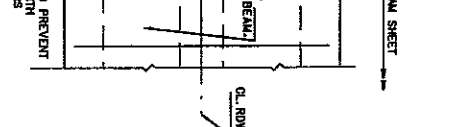
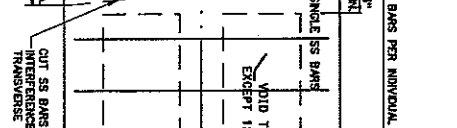
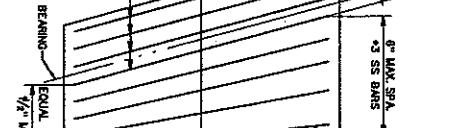
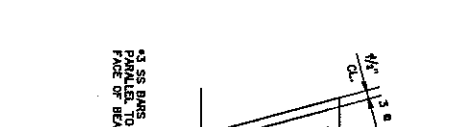
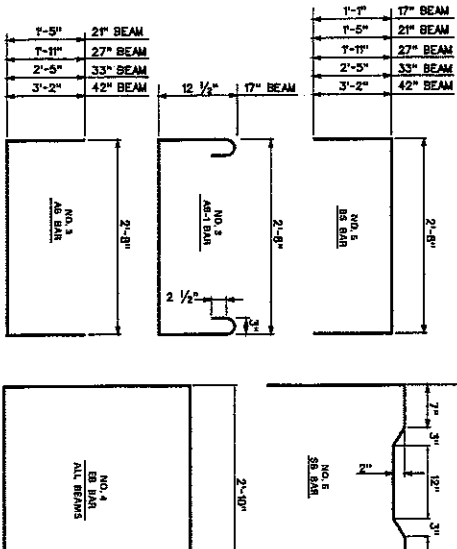
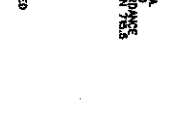
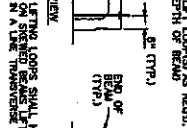
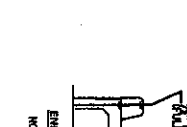
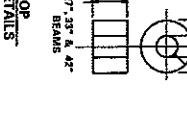
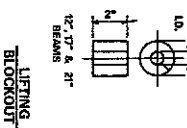
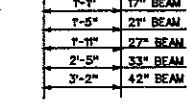
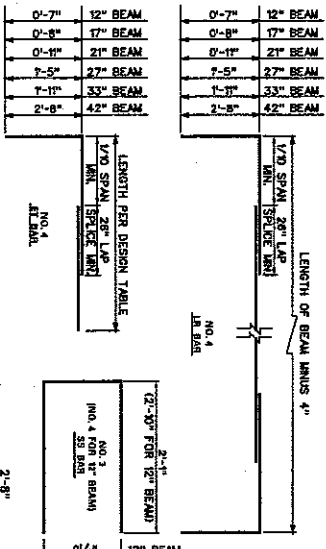
STANDARD SHEET BR-9100



NOTE: WHEN CENTER STRANDS TO BE USED, THE CENTER STRANDS SHALL BE REINFORCED WITH AN ANCHOR SLEEVE AT THE CENTER LINE OF THE STRAND DESIGN LENGTH. SEE SPECIFIC DESIGN DATA FOR PROPER CENTER STRAND ANCHOR SLEEVE DETAIL.

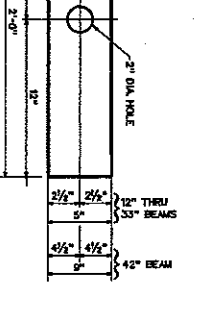
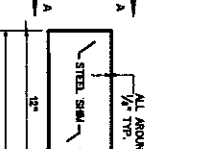
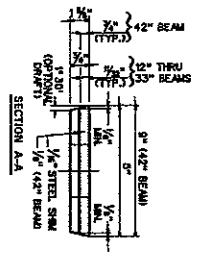


ANCHOR SLEEVE DETAILS
(USE WHEN CENTER STRAND IS SPECIFIED)

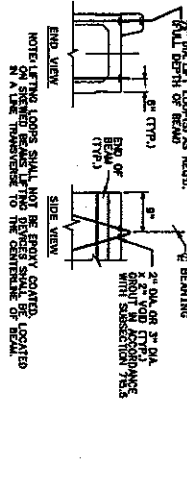


TO ACCOMMODATE THE 2\"/>

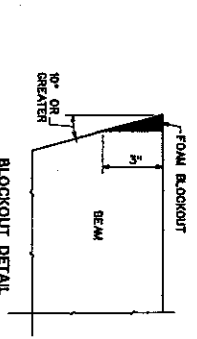
SECTION NO. 1
OPTION NO. 2



ELASTOMERIC BEARING PAD DETAIL
NOTES: THE BEARING PAD SHALL CONFORM TO ASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 901, DIVISION II, WITH A DOWNSLOPE BONDNESS OF 20.

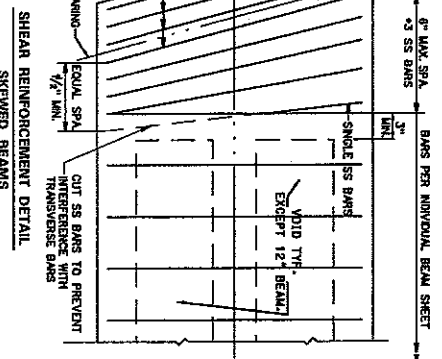


LIFT DETAILS



BLOCKOUT DETAIL

NOTES:
1) FABRICATOR SHALL PROVIDE BLOCKOUT OF ACUTE CORNERS ON ALL BEAMS WITH SKEWS OF 10 DEGREES OR GREATER.
2) AFTER ERECTION, ALL INTERIOR BLOCK-OUT Voids SHALL BE FILLED WITH GROUT IN STANDARD SPECIFICATIONS.



SHEAR REINFORCEMENT DETAIL
SKEWED BEAMS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY-STRUCTURES

PACKING HOUSE BRIDGE
OVER
SOUTH FORK SLEEPY CREEK
IN
MORGAN COUNTY
PRESTRESSED CONCRETE BEAM
DESIGN & ASSEMBLY DETAILS

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
DRAWN BY	DATE
SCALE	NOTE

LAP SPLICE TABLE

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
20'	20'	28'	33'	39'	45'	

NOTES:
1. MINIMUM BAR BENDING DIAMETERS SHALL BE 5 BAR DIAMETERS. EXCEPT THAT NO. 3 AND NO. 4 BARS THE MINIMUM BAR BENDING DIAMETER SHALL BE 4 BAR DIAMETERS. ALL DIMENSIONS ARE OUT TO OUT.
2. IF OPTIONAL SPLICING OF LR AND RT BARS IS USED, TERMINATION OF LAP SPLICE SHALL BE NO CLOSER TO THE END OF THE BEAM THAN 1/2 OF THE SPAN LENGTH. ALL DIMENSIONS ARE OUT TO OUT.
NOTE: THIS SHEET TO BE USED WITH STANDARD SHEET BR-1 OR BR-1A, BR-SR-A, BR-SR-A2, BR-SR-A3, BR-SR-A4, BR-SR-A5, BR-SR-A6, BR-SR-A7, BR-SR-A8, BR-SR-A9, BR-SR-A10, BR-SR-A11, BR-SR-A12, BR-SR-A13, BR-SR-A14, BR-SR-A15, BR-SR-A16, BR-SR-A17, BR-SR-A18, BR-SR-A19, BR-SR-A20, BR-SR-A21, BR-SR-A22, BR-SR-A23, BR-SR-A24, BR-SR-A25, BR-SR-A26, BR-SR-A27, BR-SR-A28, BR-SR-A29, BR-SR-A30, BR-SR-A31, BR-SR-A32, BR-SR-A33, BR-SR-A34, BR-SR-A35, BR-SR-A36, BR-SR-A37, BR-SR-A38, BR-SR-A39, BR-SR-A40, BR-SR-A41, BR-SR-A42, BR-SR-A43, BR-SR-A44, BR-SR-A45, BR-SR-A46, BR-SR-A47, BR-SR-A48, BR-SR-A49, BR-SR-A50, BR-SR-A51, BR-SR-A52, BR-SR-A53, BR-SR-A54, BR-SR-A55, BR-SR-A56, BR-SR-A57, BR-SR-A58, BR-SR-A59, BR-SR-A60, BR-SR-A61, BR-SR-A62, BR-SR-A63, BR-SR-A64, BR-SR-A65, BR-SR-A66, BR-SR-A67, BR-SR-A68, BR-SR-A69, BR-SR-A70, BR-SR-A71, BR-SR-A72, BR-SR-A73, BR-SR-A74, BR-SR-A75, BR-SR-A76, BR-SR-A77, BR-SR-A78, BR-SR-A79, BR-SR-A80, BR-SR-A81, BR-SR-A82, BR-SR-A83, BR-SR-A84, BR-SR-A85, BR-SR-A86, BR-SR-A87, BR-SR-A88, BR-SR-A89, BR-SR-A90, BR-SR-A91, BR-SR-A92, BR-SR-A93, BR-SR-A94, BR-SR-A95, BR-SR-A96, BR-SR-A97, BR-SR-A98, BR-SR-A99, BR-SR-A100.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY-STRUCTURES
DESIGN & ASSEMBLY DETAILS
STANDARD SHEET BR-9100

SHEET NO.	TOTAL SHEETS	COUNTY	PROJECT NUMBER	STATE	FED. AID DIST. NO.
18	20	MORGAN	533-971-4-11	5	

GENERAL NOTES

1. POST-TENSIONING THREADED-BARS SHALL BE INSTALLED AS FOLLOWS: 2-BARS TO LEFT AND 2-BARS TO RIGHT OF EACH BEAM AND 2-BARS TO LEFT AND 2-BARS TO RIGHT OF EACH COLUMN. THE REINFORCING THREADED-BAR SHALL BE PLACED IN THE CENTER OF THE BEAM OR COLUMN AND SHALL BE SPACED AS SHOWN IN THE DRAWINGS.
2. SPLIT-TENSION THREADED-BARS SHALL BE INSTALLED AS FOLLOWS: 2-BARS TO LEFT AND 2-BARS TO RIGHT OF EACH BEAM AND 2-BARS TO LEFT AND 2-BARS TO RIGHT OF EACH COLUMN. THE REINFORCING THREADED-BAR SHALL BE PLACED IN THE CENTER OF THE BEAM OR COLUMN AND SHALL BE SPACED AS SHOWN IN THE DRAWINGS.
3. ALL POST-TENSIONING THREADED-BARS, WITH BEARING PLATES, COMPRESSES AND ANCHORAGE DEVICES SHALL BE INSTALLED AS SHOWN IN THE DRAWINGS. THE BEARING PLATES SHALL BE INSTALLED AS SHOWN IN THE DRAWINGS AND SHALL BE SPACED AS SHOWN IN THE DRAWINGS. THE BEARING PLATES SHALL BE INSTALLED AS SHOWN IN THE DRAWINGS AND SHALL BE SPACED AS SHOWN IN THE DRAWINGS.
4. ALL REINFORCING STEEL SHALL BE GRADE 60 AND EXACT CENTER.
5. EACH PRESTRESSED CONCRETE BEAM SHALL BE TESTED BY MANUFACTURER AT THE TIME OF CASTING. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION.
6. AFTER CONSTRUCTION OF SLAB, TREATMENT BY MANUFACTURER AND A MINIMUM OF FIVE MONTHS HAVE ELAPSED, THE BEAM SHALL BE TESTED BY MANUFACTURER AT THE TIME OF CASTING. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION.
7. FOR A POST-TENSIONING THREADED-BAR, THE BEAM SHALL BE TESTED BY MANUFACTURER AT THE TIME OF CASTING. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION. THE TESTS SHALL BE MADE AT THE DIVISION OF HIGHWAYS OR AT THE DIVISION OF TRANSPORTATION.
8. CONTRACTOR SHALL BE REQUIRED TO SUBMIT FOR EACH PROJECT, THE GROUT PRE-TENSIONING DETAILS AS SHOWN ABOVE. CONTRACTOR SHALL BE REQUIRED TO PREPARE A GROUT PRE-TENSIONING DETAILS AS SHOWN ABOVE. CONTRACTOR SHALL BE REQUIRED TO PREPARE A GROUT PRE-TENSIONING DETAILS AS SHOWN ABOVE.

PROCEDURES

1. BEAMS ARE TO BE SET WITH NO GAP BETWEEN THEM.
2. AFTER ALL BEAMS ARE SET, THE BEAMS SHALL BE PULLED TOGETHER TRANSVERSELY BY APPLYING A SLIGHT POST-TENSIONING FORCE. APPROXIMATELY 3,000 POUNDS.
3. FILL THE SHEAR KEY OUT WITH THE PRE-APPROVED GROUT MIXTURE.
4. AFTER GROUT HAS BEEN PLACED FOR 24 HOURS, APPLY A 10% OF THE FINAL POST-TENSIONING TO ALL THREADED-BARS, WORKING BEAM ENDS FIRST. THE BEAMS SHALL BE PULLED TOGETHER TRANSVERSELY BY APPLYING A SLIGHT POST-TENSIONING FORCE. APPROXIMATELY 3,000 POUNDS.
5. MEASURE AND RECORD, ON THE SPACE PROVIDED ON THE PLANS, THE ACTUAL TOTAL TENSIONING OF EACH THREADED-BAR. CHANGE THE ACTUAL TENSIONING TO THE BEAMS PREDICTED ELONGATION. THIS ELONGATION SHALL BE INDICATED BY THE BEAMS PREDICTED ELONGATION. THIS ELONGATION SHALL BE INDICATED BY THE BEAMS PREDICTED ELONGATION.
6. USING SKW, TRIM EXCESS THREADED-BAR LEAVING A MINIMUM OF 4" PAST THE END, OR EQUAL, ON EACH END.
7. INSTALL ANCHOR DOMES AT EACH END.

GROUT STRENGTH TABLE

DAY	1 DAY	3 DAY	7 DAY
MIN. STRENGTH	1000 PSI (70 MPa)	1500 PSI (105 MPa)	2000 PSI (140 MPa)
MAX. STRENGTH	1000 PSI (70 MPa)	1500 PSI (105 MPa)	2000 PSI (140 MPa)

EXHAUSTION SCHEDULE

NO.	1	2	3	4	5	6	7	8	9	10
DATE										

PLAN VIEW-SKEWED BRIDGE > 20° POST-TENSIONING BAR SPACING (NO SCALE)

NO.	1	2	3	4	5	6	7	8	9	10
DATE										

NOTE: THIS SHEET TO BE USED WITH STANDARD SHEET BR-101 OR BR-102A. BR-101 IS FOR BRIDGE BR-101 AND BR-102A IS FOR BRIDGE BR-102A.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-STRUCTURES
TRANSPORTATION
POST-TENSIONING DETAILS
SHEET BR-8109

POST-TENSIONING BAR LAYOUT SCHEDULE

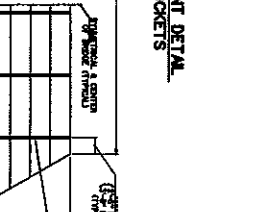
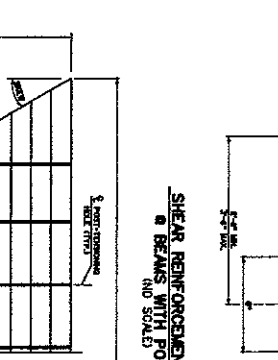
STEP	1	2	3	4	5	6	7	8	9	10
SPAN	30'-0"									
SKW	20°									
1	31'-0"									
2	2'-0"									
3	2'-0"									
4	5'-1'-3/4"									
5	NA									
6	11'-11'-1/2"									
7	NA									
8	NA									
9	NA									
10	NA									

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-STRUCTURES

PACKING HOUSE BRIDGE
OVER
SOUTH FORK SLEEPY CREEK
IN
MORGAN COUNTY

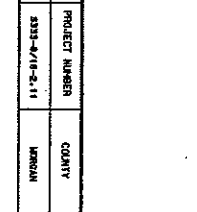
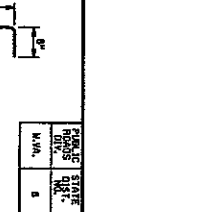
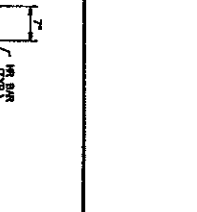
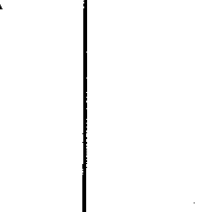
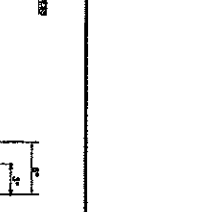
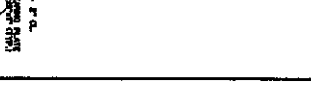
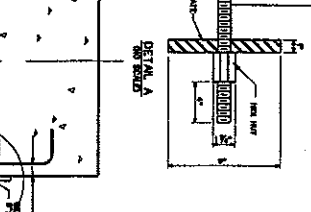
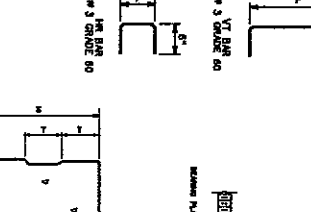
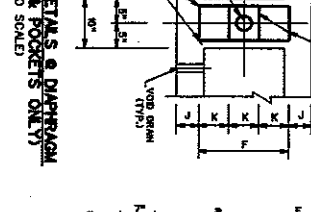
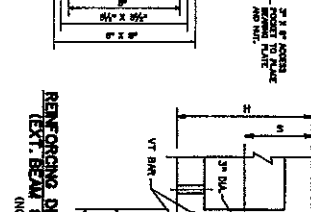
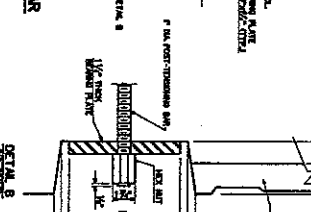
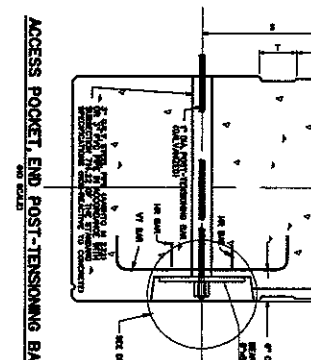
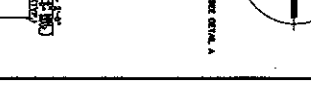
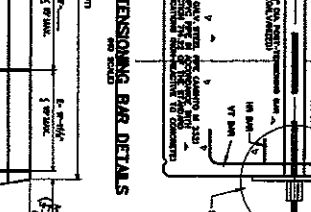
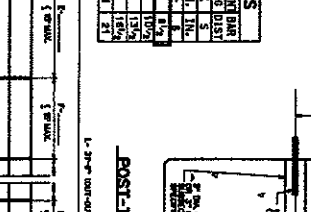
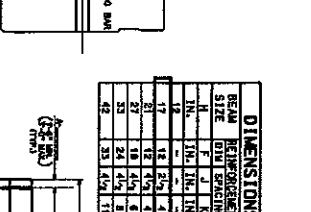
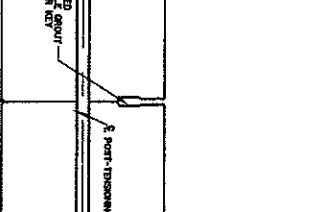
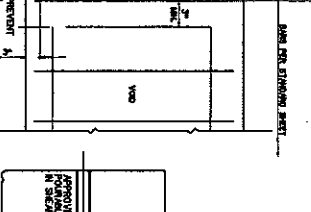
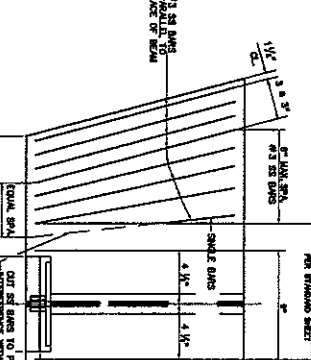
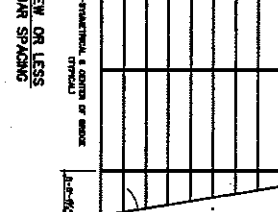
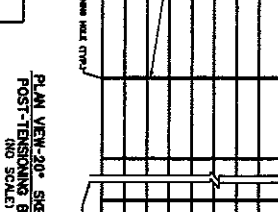
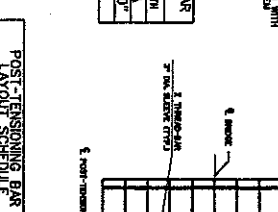
TRANSVERSE POST-TENSIONING DETAILS
PRESTRESSED CONCRETE BEAMS

BRIDGE NUMBER 33-8-18-2-12



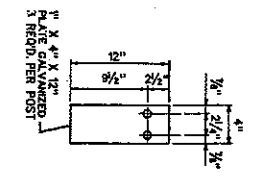
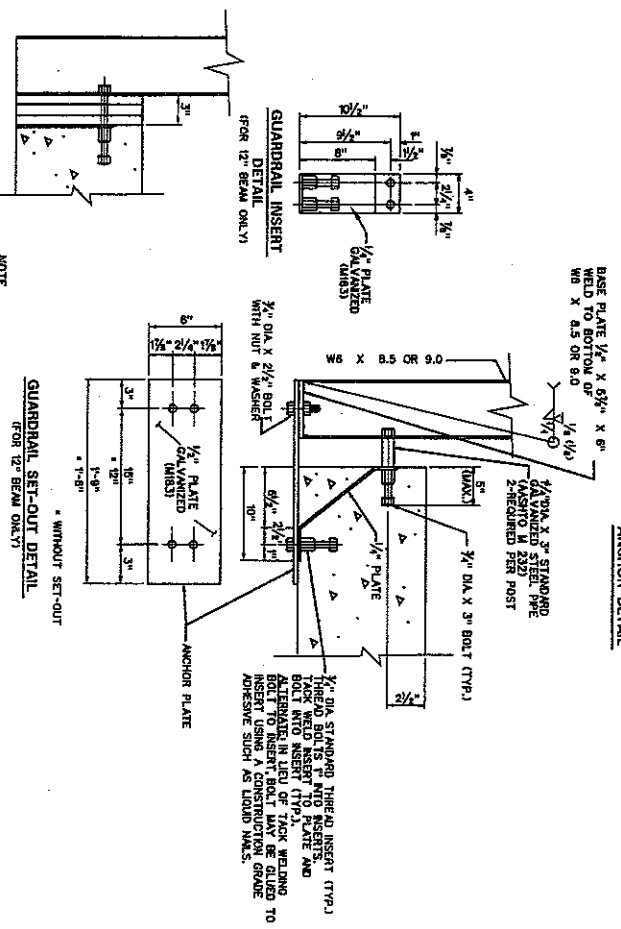
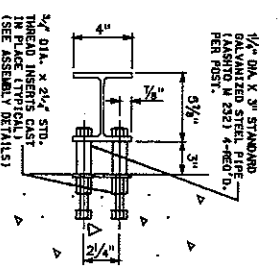
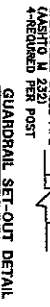
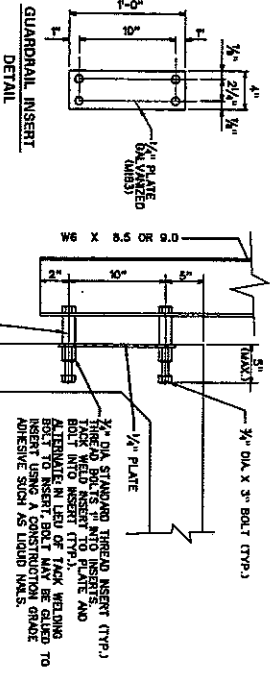
POST-TENSIONING BAR DIMENSIONS

BEAM NO.	1	2	3	4	5	6	7	8	9	10
BEAM SIZE	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"
BEAM SPACING DIST	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
BEAM NO.	1	2	3	4	5	6	7	8	9	10
BEAM SIZE	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"	18" x 24"
BEAM SPACING DIST	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
BEAM NO.	1	2	3	4	5	6	7	8	9	10

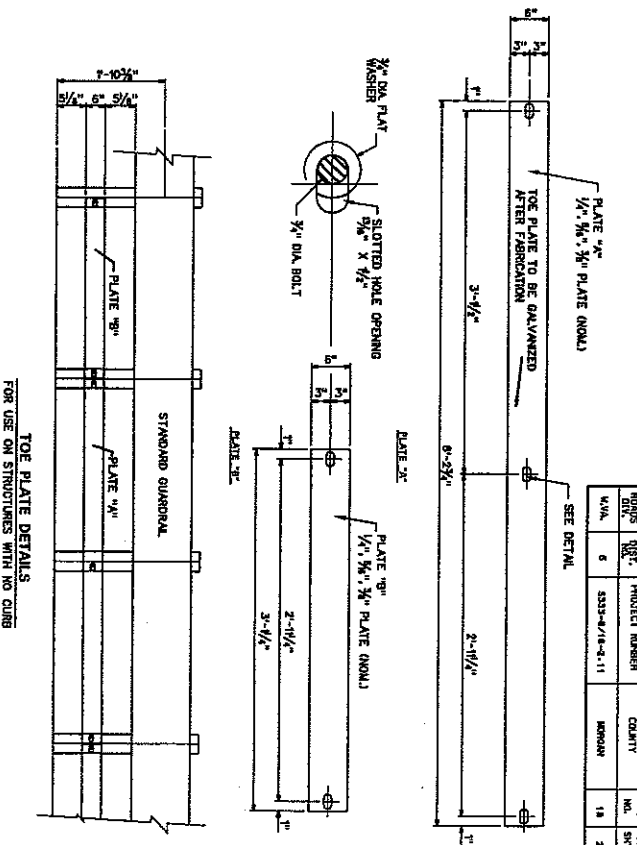


PROJECT NUMBER 333-4-18-2-11
COUNTY MORGAN
SHEET NO. 17
TOTAL SHEETS 20

NOTES:
 1. ENTIRE ASSEMBLY IS TO BE NOT-DIPPED GALVANIZED AFTER FABRICATION BEYOND THE POINTS FOR PROPER FIT. AFTER FABRICATION, THE ENTIRE ASSEMBLY SHALL BE GALVANIZED. GALVANIZING SHALL BE PERFORMED IN ACCORDANCE WITH ASTM B-633. AFTER FABRICATION IN ACCORDANCE WITH ASTM B-633, TYPE 2, CLASSIFICATION NO. 22.
 2. ANY DAMAGE TO GALVANIZED AREAS SHALL BE TOUCHED UP WITH GALVONOL OR EQUIV.
 3. WHEN THE GUARDRAIL POST IS LOCATED OVER THE BRIDGE SEAT (ON 12" BEAMS ONLY) THE ANCHOR PLATE AND FOUR BOLTS SHALL BE OMITTED. INSTALL IN ACCORDANCE WITH THE GUARDRAIL ANCHOR OVER BRIDGE SEAT DETAIL THIS SHEET.



NOTE: SHEET TO BE USED WITH STANDARD SHEET BR-4 OR BR-14, BR-21A, BR-21B, BR-27, BR-43, BR-48, BR-57, BR-62, BR-67, BR-72, BR-87A, BR-87B, BR-87C, BR-87D, BR-87E, BR-87F, BR-87G, BR-87H, BR-87I, BR-87J, BR-87K, BR-87L, BR-87M, BR-87N, BR-87O, BR-87P, BR-87Q, BR-87R, BR-87S, BR-87T, BR-87U, BR-87V, BR-87W, BR-87X, BR-87Y, BR-87Z, BR-87AA, BR-87AB, BR-87AC, BR-87AD, BR-87AE, BR-87AF, BR-87AG, BR-87AH, BR-87AI, BR-87AJ, BR-87AK, BR-87AL, BR-87AM, BR-87AN, BR-87AO, BR-87AP, BR-87AQ, BR-87AR, BR-87AS, BR-87AT, BR-87AU, BR-87AV, BR-87AW, BR-87AX, BR-87AY, BR-87AZ, BR-87BA, BR-87BB, BR-87BC, BR-87BD, BR-87BE, BR-87BF, BR-87BG, BR-87BH, BR-87BI, BR-87BJ, BR-87BK, BR-87BL, BR-87BM, BR-87BN, BR-87BO, BR-87BP, BR-87BQ, BR-87BR, BR-87BS, BR-87BT, BR-87BU, BR-87BV, BR-87BW, BR-87BX, BR-87BY, BR-87BZ, BR-87CA, BR-87CB, BR-87CC, BR-87CD, BR-87CE, BR-87CF, BR-87CG, BR-87CH, BR-87CI, BR-87CJ, BR-87CK, BR-87CL, BR-87CM, BR-87CN, BR-87CO, BR-87CP, BR-87CQ, BR-87CR, BR-87CS, BR-87CT, BR-87CU, BR-87CV, 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PROJECT NUMBER	DATE	BY	CHECKED BY	SCALE
5333-9/19-2-11	6			

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS-STRUCTURES
 PRESTRESSED CONCRETE BEAM
 DESIGN & ASSEMBLY DETAILS
 STANDARD SHEET BR-8164

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS-STRUCTURES
PACKING HOUSE BRIDGE
 OVER
SOUTH FORK SLEEPY CREEK
 IN
MORGAN COUNTY
 PRESTRESSED CONCRETE BEAM
 DESIGN & ASSEMBLY DETAILS

PROJECT NUMBER	DATE	BY	CHECKED BY	SCALE
5333-9/19-2-11	6			

AFFIDAVIT

West Virginia Code §5A-3-10a states:

No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owned is an amount greater than one thousand dollars in the aggregate

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

EXCEPTION:

The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

Under penalty of law for false swearing (West Virginia Code, §61-5-3), it is hereby certified that the vendor acknowledges the information in this said affidavit and are in compliance with the requirements as stated.

Vendor's Name: Carr Concrete Corporation
Authorized Signature: Robert "Burr" Stanley Date: 5/7/07