



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

Request for Quotation

RFQ NUMBER:
 01110755

PAGE:
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
 BUYER 33
 304-558-2402

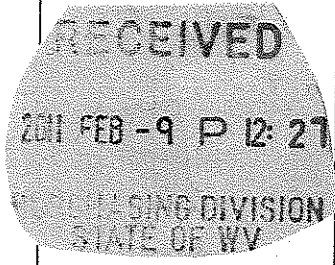
VENDOR
 *709042451 304-425-8955
 EASTERN VAULT COMPANY INC
 PO BOX 1134
 PRINCETON WV 24740

SHIP TO
 DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/29/2010	Net 30	OUR TRUCK	JOBSITE	INCLUDED

BID OPENING DATE: 02/09/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	SF		210-16		\$ 76,385.00
<p>PRESTRESSED CONCRETE BEAMS</p> <p>REQUEST FOR QUOTATION (RFQ)</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS FOR A CONTRACT TO PROVIDE PRESTRESSED CONCRETE BEAMS FOR PROJECT # S303-8/4-0.08, BIG HORSE CREEK BRIDGE IN BOONE COUNTY, PER THE ATTACHED SPECIFICATIONS.</p> <p>TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO SHERI SLONE IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA MAIL AT THE ADDRESS SHOWN IN THE BODY OF THIS RFQ, VIA FAX AT 304-558-2596, OR VIA EMAIL AT SHERI.D.SLONE@WV.GOV. DEADLINE FOR TECHNICAL QUESTIONS IS 01/21/2011 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED.</p> <p>EXHIBIT 10</p> <p>REQUISITION NO.:</p> <p>ADDENDUM ACKNOWLEDGEMENT</p>						



SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE: *Brian P. Struble* BRIAN P. STRUBLE TELEPHONE: 304-425-8955 DATE: 2-8-11

TITLE: Controller FEIN: 55-0520255 ADDRESS CHANGES TO BE NOTED ABOVE

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

GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **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. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **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, and the West Virginia Insurance Commission. 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.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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

Request for Quotation

RFQ NUMBER
 01110755

PAGE
 2

ADDRESS CORRESPONDENCE TO ATTENTION OF:
 BUYER 33
 304-558-2402

VENDOR

*709042451 304-425-8955
 EASTERN VAULT COMPANY INC
 PO BOX 1134
 PRINCETON WV 24740

SHIP TO

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED 12/29/2010	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
----------------------------	---------------	----------	--------	---------------

BID OPENING DATE: 02/09/2011 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC.</p> <p>ADDENDUM NO.'S:</p> <p>NO. 1 ✓</p> <p>NO. 2 ✓</p> <p>NO. 3 ✓</p> <p>NO. 4 ✓</p> <p>NO. 5 ✓</p> <p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p>..... <i>B.P. Smith</i> SIGNATURE EASTERN VAULT Co., Inc. COMPANY 2-8-11 DATE</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>B.P. Smith</i>	TELEPHONE	DATE 2-8-11	
TITLE	FEIN 55-0920255	ADDRESS CHANGES TO BE NOTED ABOVE	

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



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

Request for Quotation

RFQ NUMBER
01110755

PAGE
3

ADDRESS CORRESPONDENCE TO ATTENTION OF:
BUYER 33 304-558-2402

V
E
N
D
O
R

*709042451 304-425-8955
 EASTERN VAULT COMPANY INC
 PO BOX 1134
 PRINCETON WV 24740

S
H
I
P
T
O

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
12/29/2010				
BID OPENING DATE: 02/09/2011		BID OPENING TIME 01:30PM		

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.</p> <p>REV. 09/21/2009</p> <p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: SHERI SLONE - FILE 33</p> <p>RFQ. NO.: 01110755</p>						

B.P. [Signature]

SIGNATURE		SEE REVERSE SIDE FOR TERMS AND CONDITIONS		TELEPHONE	DATE 2-8-11
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE			

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



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

Request for Quotation

RFQ NUMBER
01110755

PAGE
4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
BUYER 33
304-558-2402

VENDOR

*709042451 304-425-8955
EASTERN VAULT COMPANY INC
PO BOX 1134
PRINCETON WV 24740

SHIP TO

DIVISION OF HIGHWAYS
JOBSITE
SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
12/29/2010				

BID OPENING DATE: **02/09/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>BID OPENING DATE: 02/09/2011</p> <p>BID OPENING TIME: 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p> <p style="text-align: center;">----- 304-425-1171 -----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):</p> <p style="text-align: center;">----- BRIAN P. STRUBLE -----</p> <p>***** THIS IS THE END OF RFQ 01110755 ***** TOTAL: <u>\$76,385.00</u></p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
		2-8-11
TITLE	ADDRESS CHANGES TO BE NOTED ABOVE	

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

**TO PROVIDE PRESTRESSED CONCRETE BEAMS FOR PROJECT
S303-8/4-0.08, BIG HORSE CREEK BRIDGE IN BOONE COUNTY.**

SPECIFICATIONS

1. Beams are to be fabricated in accordance with attached plan sheets 1 through 9. These are standard bridge design sheets which have been detailed with specific requirements for this project.
2. Cost includes shipping to the project site which is located on an attached excerpt from a county highway map. May require steerable trailers due to one severe curve leading to a narrow bridge on Lincoln Co. Rte. 3/10. Call District Bridge Engineer at 304-558-3775 for scheduling delivery.

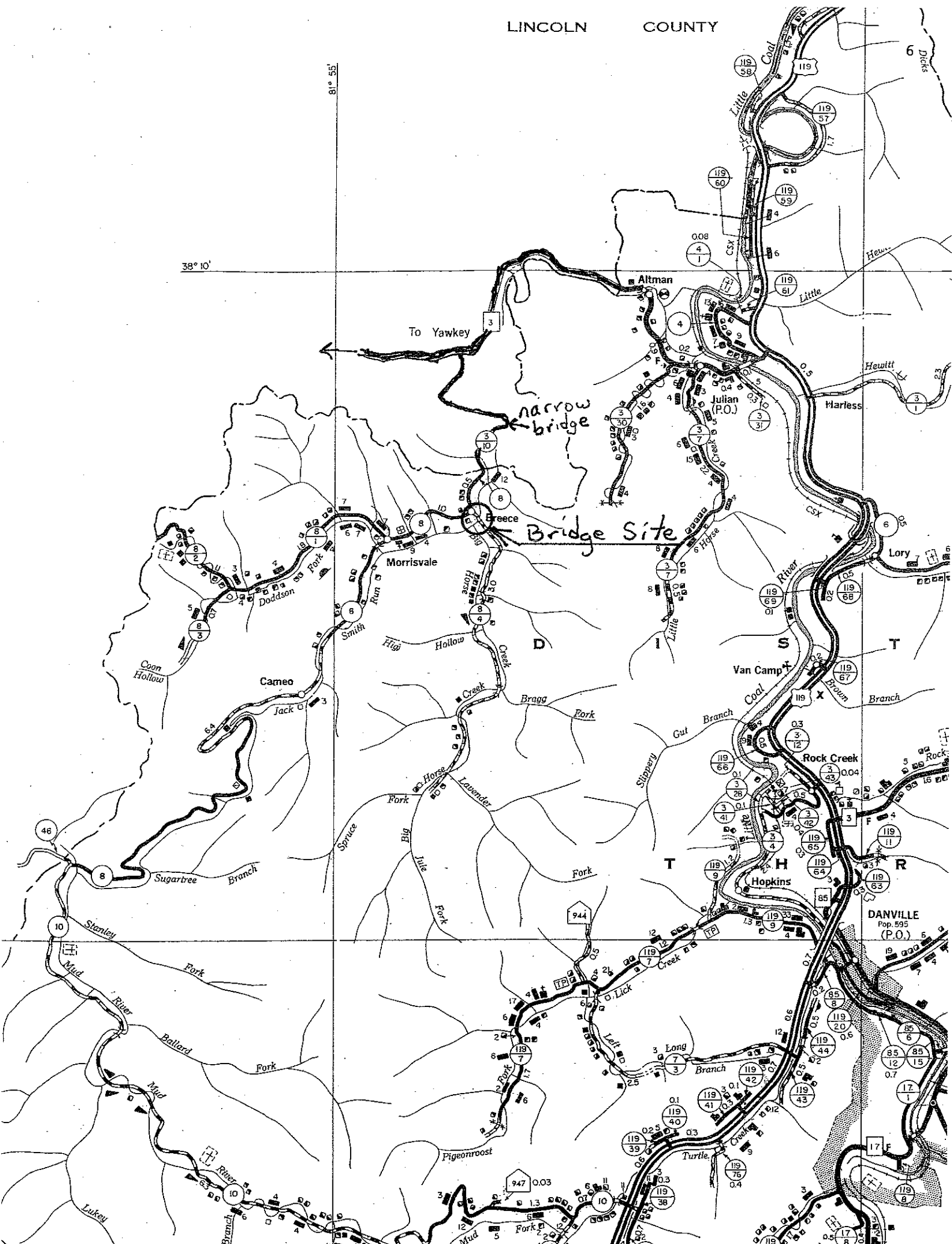
BID SCHEDULE

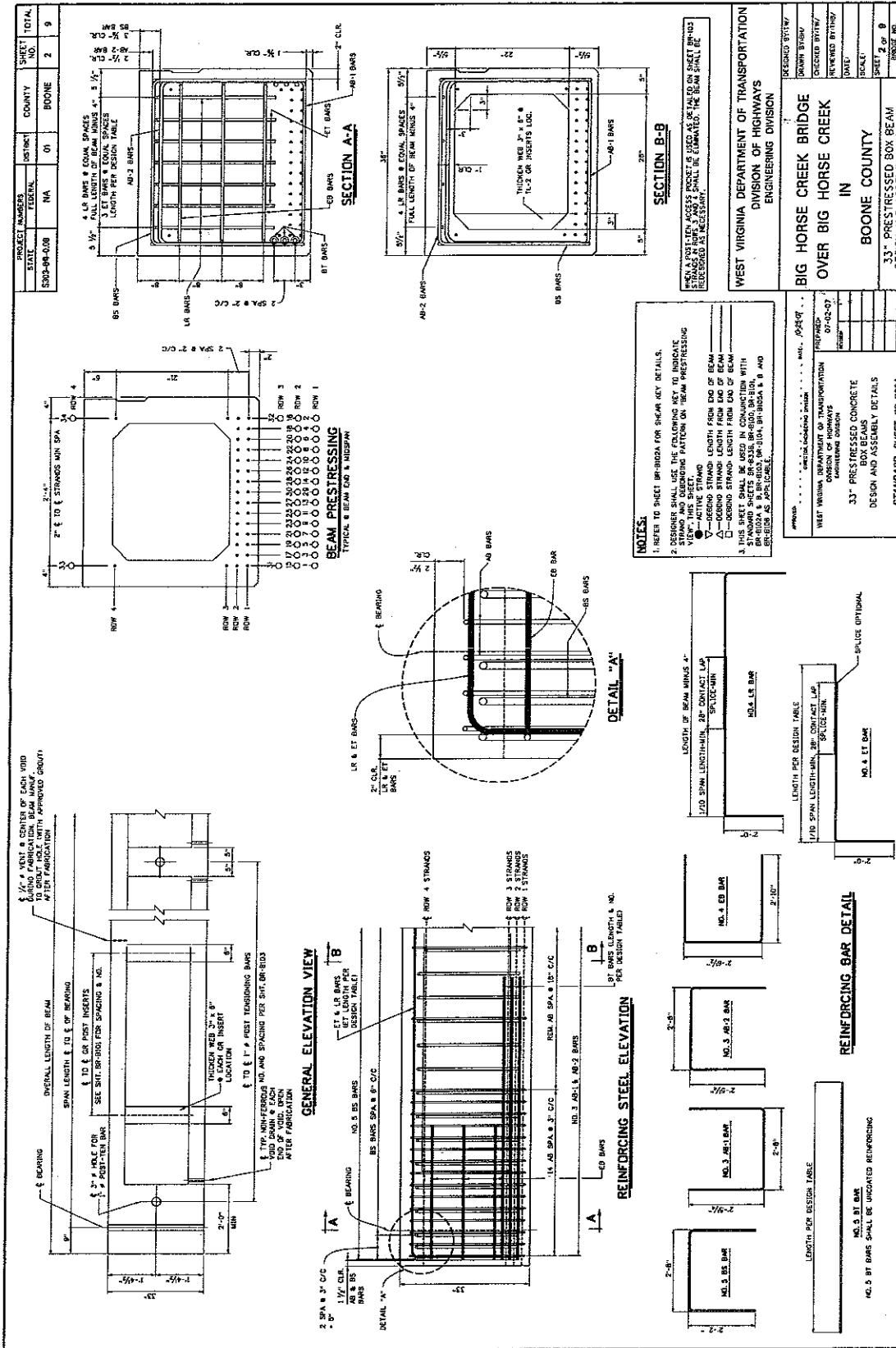
<u>ITEM</u>	<u>QTY</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u>	<u>TOTAL</u>
1	357.5 LF	Int. Beam (33"x3') 70'0" c-c Brg. 71'6" Overall Length (5 Beams), No skew.	<u>120.00</u>	\$ <u>42,900.00</u>
2	143.0 LF	Ext. Beam (33"x3') 70'0" c-c Brg. 71'6" Overall Length (2 Beams). No skew. (With GR inserts)	<u>150.00</u>	<u>21,450.00</u>
3	10 Each	B1 Elastomeric Lam. Brg. Pad	<u>100.00</u>	<u>1000.00</u>
4	4 Each	B2 Elastomeric Lam. Brg. Pad	<u>100.00</u>	<u>400.00</u>
5	115 SF	1" Type 1 Sponge Rubber (for Backwalls)	<u>15.00</u>	<u>1725.00</u>
6	86 SF	3" Type 1 Sponge Rubber (for Bridge Seats)	<u>45.00</u>	<u>3870.00</u>
7	146 LF	1" Dia. Post-Tensioning Bar With Nuts as Required	<u>30.00</u>	<u>4380.00</u>
8	12 Each	Bearing Plate 9" x 9" x 1" With Washers as Required	<u>55.00</u>	<u>660.00</u>
			TOTAL	\$ <u>76,385.00</u>

LINCOLN COUNTY

38° 10'

81° 55'





PROJECT NUMBER STATE 5302-BR-008	DISTRICT COUNTY NA BOONE	SHEET NO. TOTAL 2 9
--	-----------------------------------	------------------------------

DESIGNED BY/DATE DRAWN BY/DATE CHECKED BY/DATE REVIEWED BY/DATE	BOONE COUNTY
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEERING DIVISION	
BIG HORSE CREEK BRIDGE OVER BIG HORSE CREEK IN BOONE COUNTY	
33" PRESTRESSED BOX BEAM DESIGN AND ASSEMBLY DETAILS	
STANDARD SHEET BR-833A	

- NOTES:
- REFER TO SHEET BR-833A FOR SHEAR KEY DETAILS.
 - DESIGNER SHALL USE THE FOLLOWING KEY TO INDICATE REINFORCING PATTERN ON "BEAM PRESTRESSING VIEW", THIS SHEET.
 - - ACTIVE STRAND
 - - DESSING STRAND - LENGTH FROM END OF BEAM
 - - DESSING STRAND - LENGTH FROM END OF BEAM
 - THIS SHEET SHALL BE USED IN CONJUNCTION WITH APPROVED SHEETS BR-833A, BR-833B, BR-833C, BR-833D, BR-833E, BR-833F, BR-833G, BR-833H, BR-833I, BR-833J, BR-833K, BR-833L, BR-833M, BR-833N, BR-833O, BR-833P, BR-833Q, BR-833R, BR-833S, BR-833T, BR-833U, BR-833V, BR-833W, BR-833X, BR-833Y, BR-833Z AND BR-833A THROUGH BR-833Z AS APPLICABLE.

APPROVED

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEERING DIVISION	DESIGNED BY/DATE	DRAWN BY/DATE
33" PRESTRESSED CONCRETE BOX BEAM DESIGN AND ASSEMBLY DETAILS	BOONE COUNTY	
STANDARD SHEET BR-833A		

LENGTH PER DESIGN TABLE	LENGTH PER DESIGN TABLE	LENGTH PER DESIGN TABLE
NO. 5 BY BAR	NO. 4 ED BAR	NO. 4 ED BAR
NO. 5 BY BARS SHALL BE UNGRADED REINFORCING		

LENGTH PER DESIGN TABLE	LENGTH PER DESIGN TABLE	LENGTH PER DESIGN TABLE
NO. 5 BY BAR	NO. 3, 4B1, 2	NO. 4 ED BAR
NO. 5 BY BARS SHALL BE UNGRADED REINFORCING		

LENGTH PER DESIGN TABLE	LENGTH PER DESIGN TABLE	LENGTH PER DESIGN TABLE
NO. 5 BY BAR	NO. 3, 4B1, 2	NO. 4 ED BAR
NO. 5 BY BARS SHALL BE UNGRADED REINFORCING		

MIN. CONCRETE STRENGTH @ RELEASE = 5500 PSI
 MIN. CONCRETE STRENGTH @ 28 DAYS = 8000 PSI
 INITIAL PULL/STRAND = 33,820 LBS
 CROSS-SECTION AREA/STRAND = 0.187 SQ. IN.

DESIGN DATA FOR 33" DEPTH ADJACENT BOX BEAM

SPAN LENGTH & TO & BEARING	50'-0"	52'-0"	54'-0"	56'-0"	58'-0"	60'-0"	62'-0"	64'-0"	66'-0"	68'-0"	70'-0"
OVERALL LENGTH OF BEAM	50'-0"	52'-0"	54'-0"	56'-0"	58'-0"	60'-0"	62'-0"	64'-0"	66'-0"	68'-0"	70'-0"
NO. OF 270 KSI 1/2" x 1/2" LOW RELAXATION STRANDS, AREA/STRAND = 0.187 SQ. IN.	12	12	12	12	14	14	14	16	16	18	18
ROW 1	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4	12.7, 8.1, 13.4
ROW 2	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28	15.18, 27.28
ROW 3											
ROW 4	33.34	33.34	33.34	33.34	33.34	33.34	33.34	33.34	33.34	33.34	33.34
PRESTRESSING FORCE IMMEDIATELY AFTER STRAND RELEASE, P ₁ (KIPS/BEAM)	394	394	394	459	459	459	521	521	583	583	585
EFFECTIVE PRESTRESSING FORCE AFTER ALL LOSSES, P _e (KIPS/BEAM)	359	359	381	414	414	417	468	470	521	522	524
REQUIRED FACTORED MOMENT											
FACTORED FLEXURAL RESISTANCE, M _r (FT-KIPS/BEAM)	598	919	979	1042	1107	1173	1244	1312	1393	1454	1527
TOTAL NO. DEBUNDLED STRANDS	1092	1092	1092	1280	1280	1280	1478	1478	1656	1656	1656
DEBUNDLED STRAND POSITION NUMBER & SHIELDING LENGTH FROM EACH END	ROW 1										
	ROW 2										
NUMBER & LENGTH +4 FT TOP REBAR, # x EACH END	3 - #4 x 8'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"	3 - #4 x 7'-0"
NUMBER & LENGTH +5 FT BOTTOM REBAR, # x EACH END	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"	5 - #6 x 7'-0"
DESIGN CHANGE	0.19	0.18	0.17	0.27	0.26	0.25	0.39	0.38	0.51	0.50	0.48
+ = POSITIVE (UP)	0.25	0.24	0.19	0.33	0.32	0.27	0.49	0.44	0.66	0.59	0.52
0 = FINAL	0.17	0.10	0.03	0.21	0.12	0.01	0.27	0.14	0.36	0.23	0.08
NO. OF INSERTS RECD.											12
NUMBER & SPACING OF BEAM TO BEARINGS											1'-0"
NO. OF FIRST INSERT											5'-10 1/2"
NO. OF 1st INSERT											
NO. OF 2nd INSERT											
SEE NOTE 6											
WEIGHT OF TYPICAL BEAM INCLUDING DIAPHRAGM (LBS)	18.9	20.6	21.3	22.0	22.7	23.4	24.4	25.1	25.8	26.2	27.2

NOTES:
 1. DESIGN VALUES LISTED IN THE DESIGN TABLE ARE BASED ON ZERO SKEW, 2 FT. LONG ENDBLOCK AND 180 DEGREE SPREAD BEAMS, LONGER ENDBLOCKS AND ADDITIONAL DIAPHRAGMS SHOULD BE ADJUSTED ACCORDINGLY.
 2. DESIGNERS SHOULD NOTE THAT DATA IN STANDARD TABLE IS BASED ON EVERY SPAN LENGTHS A TWO LANE STRUCTURE B BEAMS WITH ZERO SKEW, SUPERIMPOSED DEAD LOADS AND TYPE F PARAPET (321 PL) AND A FWS OF 30 PSF. FOR NON-STANDARD BRIDGE DATA SHOULD BE THE STANDARD DESIGN TABLE BE USED.
 3. PREDICTED DESIGN CHANGE VALUES LISTED IN THE TABLE ARE BASED ON EMPIRICAL FORMULAS AND AS SUCH ARE APPROXIMATE. FOR DESIGNERS TO REQUESTED DESIGN VALUES SHOULD BE COMPLETED WITHIN 72 HOURS OF RELEASE. ADDITIONAL CHANGES SHOULD BE EVALUATED UNDER CONDITIONS THAT MINIMIZE THE EFFECT OF TEMPERATURE VARIATION.
 4. DESIGNER, FABRICATOR AND ERECTOR SHALL BE AWARE THAT SKEWED END BEAMS MAY TWIST OR WARP CAUSING UNIFORM BEAM SEATING AT THE BEARINGS. THE CONTRACTOR IS REQUIRED TO CORRECT AT THE ANCHOR, TO BE SECURED IN PLACE. METHOD OF CORRECTION SHALL PROVIDE AN EVEN, TO BE SECURED IN PLACE. METHOD OF CORRECTION SHALL BE 1/4" INCH.
 5. MAXIMUM BEAM SKEW SHALL BE 30 DEGREES.
 6. DESIGNER (DEPT) VALUE OF NUMBER OF INSERTS INSTALLED FROM END OF BEAM TO FIRST INSERT TO SECOND INSERT, ABOVE VALUES SHALL BE BASED ON THE REQUIRED 6'-0" COMPASSIAL POST SPACING ACROSS THE BRIDGE.
 7. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-802A, BR-802A & B, BR-810A, BR-810A, BR-810A & B AND BR-810B AS APPLICABLE.

DESIGN TABLE FOR 33"
 PRESTRESSED BOX BEAM
 STANDARD SHEET BR-812B
 WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 DATE: 07-02-07

STATE PROJECT NUMBER	FEDERAL AID PROJECT NUMBER	COUNTY	SHEET NO.	TOTAL SHEETS
5300-48-008	NA	BOONE	4	9

POST-TENSIONING BEAMS SHALL BE ONE INCH DIAMETER 100 KSI STEEL AND SHALL CONFORM TO AASHTO M275, TYPE II. STEEL TIE RODS SHALL BE DESIGNED TO ALLOW THE USE OF HEAVY HEX NUTS AND COUPLERS THAT THREAD INTO THE END OF THE DEFORMATIONS. HEAVY HEX NUTS AND COUPLERS SHALL BE OF A DESIGN AND MATERIAL RECOMMENDED BY THE BAR MANUFACTURER TO DEVELOP THE FULL TENSILE STRENGTH OF THE BAR. PROPERLY DOCUMENTED CERTIFIED MILL TEST REPORTS SHALL BE PROVIDED FOR EACH HEAT OF STEEL TIE RODS.

ALL POST-TENSIONING TIE RODS, NUTS, BEARING PLATES, COUPLERS, AND ANCHORAGE HARDWARE SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M11. THE GALVANIZING PLANT SHALL ADMINISTER ADEQUATE QUALITY CONTROL MEASURES TO ENSURE ADEQUATE PROTECTION THROUGHOUT THE LIFE OF THE STRUCTURE. MEASURES TO CONSERVE GALVANIZING SOLUTION SHALL BE PROVIDED TO MAINTAIN THE QUALITY OF THE GALVANIZING PLANT.

ALL POST-TENSIONING BEARING PLATES SHALL CONFORM TO AASHTO M270, GRADE 36. SHEAR KEY GROUT SHALL BE A GROUT THAT IS RECOMMENDED BY THE MANUFACTURER FOR A FOUR-BEAR APPLICATION AND THAT BASED ON THE MANUFACTURER'S TEST DATA WILL ATTAIN A MINIMUM OF 4000 PSI COMPRESSIVE STRENGTH IN 3 DAYS UNDER CONDITIONS REPRESENTATIVE OF THE CONDITIONS TO BE EXPERIENCED AT THE SITE. THE GROUT MUST BE LISTED ON THE APPROVED LIST OF GROUTS PUBLISHED BY THE WEST VIRGINIA DIVISION OF HIGHWAYS. MATERIALS CONTROL SOIL AND TESTING DIVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER MIXTURE AND CURING OF THE GROUT PRIOR TO INSTALLATION OF THE GROUT IN THE STRUCTURE. THE PROJECT MANAGER FOR APPROVAL OF THE GROUT MIXTURE SHALL BE THE SUPERVISOR OF THE STRUCTURE. A POULABLE CONSISTENCY WITH THE SAME WATER/GROUT MIXTURE RATIO TO BE USED IN THE STRUCTURE.

THE CONTRACTOR SHALL BE REQUIRED TO COMPLETE THE GROUT STRENGTH TABLE ON BR-103. RESULTS OBTAINED IN THE NOTE ABOVE, THE CONTRACTOR SHALL BE REQUIRED TO PREPARE A NEW PRE-TEST AND SUBMISSION FOR APPROVAL UNDER ANY OF THE FOLLOWING CONDITIONS:

- A PERIOD OF 18 MONTHS HAS ELAPSED SINCE LAST PRE-APPROVAL TESTING.
- THE CONTRACTOR MANUFACTURER HAS REVISED OR CHANGED THE GROUT SPECIFICATIONS.
- THE CONTRACTOR CHANGES GROUT MANUFACTURER.
- THE CONTRACTOR IS REQUIRED TO COMPLETE THE GROUT STRENGTH TABLE ON BR-103.
- TEST PROCEDURES FOR DETERMINING THE COMPRESSIVE STRENGTH OF GROUT SHALL USE CORE SPECIMENS IN ACCORDANCE WITH ASTM C618 AS MODIFIED BY ASTM C1027. GROUT TESTING IN ACCORDANCE WITH AASHTO T23 (STANDARD CYLINDER TEST) IS NOT ACCEPTABLE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF SHOP DRAWINGS IN ACCORDANCE WITH THE WEST VIRGINIA DIVISION OF HIGHWAYS DOCUMENTS, 00-102, AND THE STANDARD SPECIFICATIONS. ADDITIONAL INFORMATION IS PROVIDED IN SECTION 7 OF THE BRIDGE DESIGN MANUAL. SHOP DRAWINGS SHALL INCLUDE THE FABRICATOR'S DESIGNING PLAN.

WEST VIRGINIA DIVISION OF HIGHWAYS
ENGINEERING DIVISION
07/02/07
DESIGN & ASSEMBLY NOTES
STANDARD SHEET BR-103

WEST VIRGINIA DIVISION OF HIGHWAYS
ENGINEERING DIVISION
07/02/07

BIG HORSE CREEK BRIDGE
OVER BIG HORSE CREEK
IN
BOONE COUNTY
PRESTRESSED CONCRETE BEAM
DESIGN & ASSEMBLY NOTES
03-09-008

REINFORCING STEEL:

- ALL REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BILLET STEEL AND SHALL MEET THE REQUIREMENTS OF AASHTO M62, SUPPLEMENT 1.
- ALL TENSION LAPS SHALL BE A CLASS B CONTACT TYPE MINIMUM LAP SPACING SHALL BE AS GIVEN IN THE AASHTO M62, SUPPLEMENT 1. IF LAP SPACING OF 11" IS USED, TERMINATION OF THE SPICE SHALL BE NO CLOSER TO THE END OF THE BEAM THAN 1/3 OF THE SPAN LENGTH.
- MINIMUM BAR BENDING DIAMETER SHALL BE 6 BAR DIAMETERS, EXCEPT THAT NO. 4 BAR MAY HAVE A MINIMUM BEND DIAMETER OF 4 BAR DIAMETERS.
- MINIMUM CONCRETE COVER SHALL BE AS SPECIFIED IN SECTION 603.5 OF THE STANDARD SPECIFICATIONS, EXCEPT WHERE NOTED ON THE DRAWINGS.

POST-TENSIONING BEAMS:

- ALL WELDING OF REINFORCEMENT IS NOT PERMITTED. REINFORCING CAGES AND LONGITUDINAL STEEL SHALL BE ADEQUATELY TIED WITH APPROVED MEANS TO PREVENT RACKING AND MISALIGNMENT.
- ALL WELDING OF FABRICATED ITEMS, AS SHOWN IN THESE PLANS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF AASHTO M208, D15, 2002.

REINFORCING STEEL:

- ALL POST-TENSIONING TIE RODS, NUTS, BEARING PLATES, COUPLERS, AND ANCHORAGE HARDWARE SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M11. THE GALVANIZING PLANT SHALL ADMINISTER ADEQUATE QUALITY CONTROL MEASURES TO ENSURE ADEQUATE PROTECTION THROUGHOUT THE LIFE OF THE STRUCTURE. MEASURES TO CONSERVE GALVANIZING SOLUTION SHALL BE PROVIDED TO MAINTAIN THE QUALITY OF THE GALVANIZING PLANT.

REINFORCING STEEL:

- ALL POST-TENSIONING TIE RODS, NUTS, BEARING PLATES, COUPLERS, AND ANCHORAGE HARDWARE SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M11. THE GALVANIZING PLANT SHALL ADMINISTER ADEQUATE QUALITY CONTROL MEASURES TO ENSURE ADEQUATE PROTECTION THROUGHOUT THE LIFE OF THE STRUCTURE. MEASURES TO CONSERVE GALVANIZING SOLUTION SHALL BE PROVIDED TO MAINTAIN THE QUALITY OF THE GALVANIZING PLANT.

REINFORCING STEEL:

- ALL POST-TENSIONING TIE RODS, NUTS, BEARING PLATES, COUPLERS, AND ANCHORAGE HARDWARE SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M11. THE GALVANIZING PLANT SHALL ADMINISTER ADEQUATE QUALITY CONTROL MEASURES TO ENSURE ADEQUATE PROTECTION THROUGHOUT THE LIFE OF THE STRUCTURE. MEASURES TO CONSERVE GALVANIZING SOLUTION SHALL BE PROVIDED TO MAINTAIN THE QUALITY OF THE GALVANIZING PLANT.

REINFORCING STEEL:

- ALL POST-TENSIONING TIE RODS, NUTS, BEARING PLATES, COUPLERS, AND ANCHORAGE HARDWARE SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M11. THE GALVANIZING PLANT SHALL ADMINISTER ADEQUATE QUALITY CONTROL MEASURES TO ENSURE ADEQUATE PROTECTION THROUGHOUT THE LIFE OF THE STRUCTURE. MEASURES TO CONSERVE GALVANIZING SOLUTION SHALL BE PROVIDED TO MAINTAIN THE QUALITY OF THE GALVANIZING PLANT.

THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-B7A & B THRU BR-B7K & B, BR-B7L, BR-B7M & B, BR-B7N, BR-B7O, BR-B7P, BR-B7Q & B, BR-B7R & B, BR-B7S & B, BR-B7T & B, BR-B7U & B, BR-B7V & B, BR-B7W & B, BR-B7X & B, BR-B7Y & B, BR-B7Z & B, BR-B800, BR-B801, BR-B802, BR-B803, BR-B804, BR-B805 & B, BR-B806 & B, BR-B807 & B, BR-B808 & B, BR-B809 & B, BR-B810 & B, BR-B811 & B, BR-B812 & B, BR-B813 & B, BR-B814 & B, BR-B815 & B, BR-B816 & B, BR-B817 & B, BR-B818 & B, BR-B819 & B, BR-B820 & B, BR-B821 & B, BR-B822 & B, BR-B823 & B, BR-B824 & B, BR-B825 & B, BR-B826 & B, BR-B827 & B, BR-B828 & B, BR-B829 & B, BR-B830 & B, BR-B831 & B, BR-B832 & B, BR-B833 & B, BR-B834 & B, BR-B835 & B, BR-B836 & B, BR-B837 & B, BR-B838 & B, BR-B839 & B, BR-B840 & B, BR-B841 & B, BR-B842 & B, BR-B843 & B, BR-B844 & B, BR-B845 & B, BR-B846 & B, BR-B847 & B, BR-B848 & B, BR-B849 & B, BR-B850 & B, BR-B851 & B, BR-B852 & B, BR-B853 & B, BR-B854 & B, BR-B855 & B, BR-B856 & B, BR-B857 & B, BR-B858 & B, BR-B859 & B, BR-B860 & B, BR-B861 & B, BR-B862 & B, BR-B863 & B, BR-B864 & B, BR-B865 & B, BR-B866 & B, BR-B867 & B, BR-B868 & B, BR-B869 & B, BR-B870 & B, BR-B871 & B, BR-B872 & B, BR-B873 & B, BR-B874 & B, BR-B875 & B, BR-B876 & B, BR-B877 & B, BR-B878 & B, BR-B879 & B, BR-B880 & B, BR-B881 & B, BR-B882 & B, BR-B883 & B, BR-B884 & B, BR-B885 & B, BR-B886 & B, BR-B887 & B, BR-B888 & B, BR-B889 & B, BR-B890 & B, BR-B891 & B, BR-B892 & B, BR-B893 & B, BR-B894 & B, BR-B895 & B, BR-B896 & B, BR-B897 & B, BR-B898 & B, BR-B899 & B, BR-B900 & B, BR-B901 & B, BR-B902 & B, BR-B903 & B, BR-B904 & B, BR-B905 & B, BR-B906 & B, BR-B907 & B, BR-B908 & B, BR-B909 & B, BR-B910 & B, BR-B911 & B, BR-B912 & B, BR-B913 & B, BR-B914 & B, BR-B915 & B, BR-B916 & B, BR-B917 & B, BR-B918 & B, BR-B919 & B, BR-B920 & B, BR-B921 & B, BR-B922 & B, BR-B923 & B, BR-B924 & B, BR-B925 & B, BR-B926 & B, BR-B927 & B, BR-B928 & B, BR-B929 & B, BR-B930 & B, BR-B931 & B, BR-B932 & B, BR-B933 & B, BR-B934 & B, BR-B935 & B, BR-B936 & B, BR-B937 & B, BR-B938 & B, BR-B939 & B, BR-B940 & B, BR-B941 & B, BR-B942 & B, BR-B943 & B, BR-B944 & B, BR-B945 & B, BR-B946 & B, BR-B947 & B, BR-B948 & B, BR-B949 & B, BR-B950 & B, BR-B951 & B, BR-B952 & B, BR-B953 & B, BR-B954 & B, BR-B955 & B, BR-B956 & B, BR-B957 & B, BR-B958 & B, BR-B959 & B, BR-B960 & B, BR-B961 & B, BR-B962 & B, BR-B963 & B, BR-B964 & B, BR-B965 & B, BR-B966 & B, BR-B967 & B, BR-B968 & B, BR-B969 & B, BR-B970 & B, BR-B971 & B, BR-B972 & B, BR-B973 & B, BR-B974 & B, BR-B975 & B, BR-B976 & B, BR-B977 & B, BR-B978 & B, BR-B979 & B, BR-B980 & B, BR-B981 & B, BR-B982 & B, BR-B983 & B, BR-B984 & B, BR-B985 & B, BR-B986 & B, BR-B987 & B, BR-B988 & B, BR-B989 & B, BR-B990 & B, BR-B991 & B, BR-B992 & B, BR-B993 & B, BR-B994 & B, BR-B995 & B, BR-B996 & B, BR-B997 & B, BR-B998 & B, BR-B999 & B, BR-1000 & B.

LAP SPACING TABLE	
BAR SIZE	SPACING
NO. 3	21"
NO. 4	24"
NO. 5	28"
NO. 6	34"
NO. 7	41"

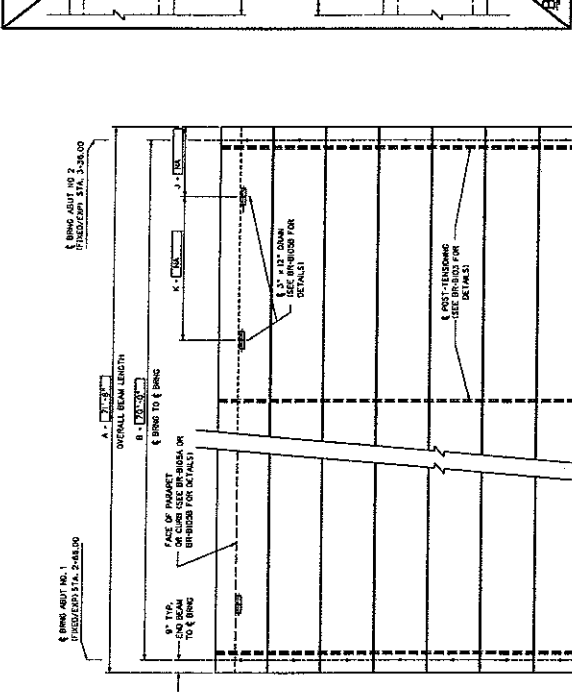
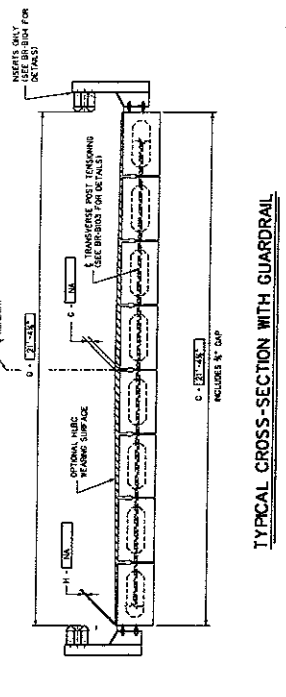
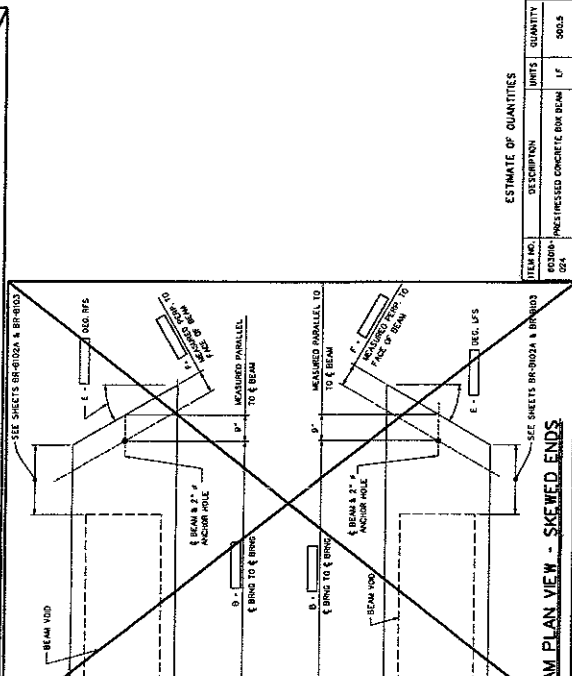
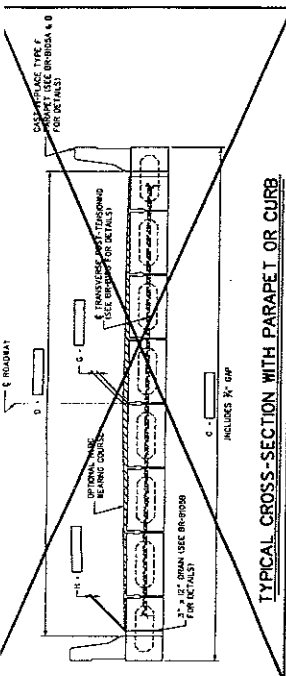
DESCRIPTION	CODE	VALUE
OVERALL BEAM LENGTH	A	11'-4"
SPAN LENGTH, ϵ BEARING TO ϵ BEARING	B	7'-9"
DEPTH OF BEARING BOTH - BUT TO CUT	C	21'-4"
DEPTH OF FACE OF PARAPET TO FACE OF PARAPET	D	21'-4"
NUMBER OF BEAMS REQUIRED	E	1
BEAM SIZE (WIDTH \times DEPTH)	F	18" \times 33"
SKEW ANGLE	G	NORMAL
NORMAL DEG. OF BEG. L.F.S.	H	NA
PERPENDICULAR DISTANCE FROM FACE OF BEAM TO ϵ BEARING	I	NA
THICKNESS OF BEARING COURSE ϵ OF BEARING COURSE	J	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	K	NA
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	L	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	M	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	N	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	O	NA
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	P	NA
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	Q	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	R	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	S	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	T	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	U	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	V	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	W	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	X	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	Y	NO
THICKNESS OF BEARING COURSE ϵ OF FACE OF PARAPET	Z	NO

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION

BIG HORSE CREEK BRIDGE
 OVER BIG HORSE CREEK
 IN
 BOONE COUNTY

PRESTRESSED CONCRETE BEAM
 DESIGN & ASSEMBLY NOTES

DESIGNED BY: []
 CHECKED BY: []
 DRAWN BY: []
 DATE: []
 SHEET NO. 5 OF 9
 03-84-0-08



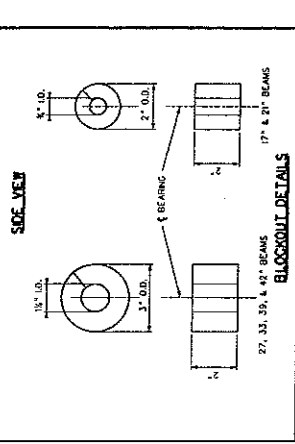
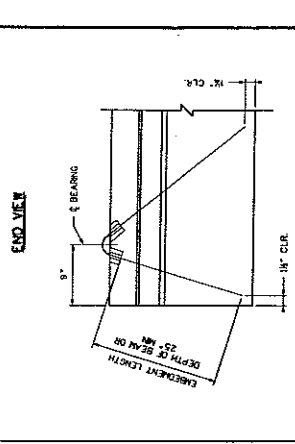
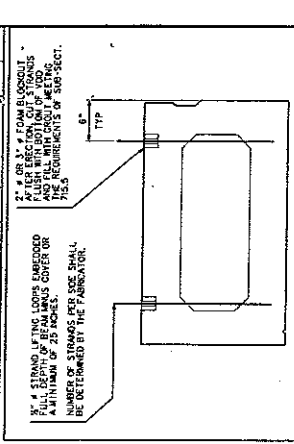
ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
0000	PRESTRESSED CONCRETE BOX BEAM	LF	
0001		LF	
0002		LF	
0003		LF	
0004		LF	
0005		LF	
0006		LF	
0007		LF	
0008		LF	
0009		LF	
0010		LF	
0011		LF	
0012		LF	
0013		LF	
0014		LF	
0015		LF	
0016		LF	
0017		LF	
0018		LF	
0019		LF	
0020		LF	
0021		LF	
0022		LF	
0023		LF	
0024		LF	
0025		LF	
0026		LF	
0027		LF	
0028		LF	
0029		LF	
0030		LF	
0031		LF	
0032		LF	
0033		LF	
0034		LF	
0035		LF	
0036		LF	
0037		LF	
0038		LF	
0039		LF	
0040		LF	
0041		LF	
0042		LF	
0043		LF	
0044		LF	
0045		LF	
0046		LF	
0047		LF	
0048		LF	
0049		LF	
0050		LF	

NOTES:

- BRIDGE FABRICATION IS TO BE PERFORMED BY THE BEAM FABRICATOR. COST OF ALL BRIDGE GUARDRAIL ITEMS TO INCLUDE FABRICATION, CLEARANCE, ATTACHMENT HARDWARE, AND MISCELLANEOUS ITEMS, NEEDED IN ITEM 0030 IS PRESTRESSED CONCRETE BOX BEAM SHALL BE INCLUDED.
- THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-801A & B, BR-802A & B, BR-803A & B, BR-804A & B, BR-805A & B, BR-806A & B, BR-807A & B, BR-808A & B, BR-809A & B, BR-810A & B, BR-811A & B, BR-812A & B, BR-813A & B, BR-814A & B, BR-815A & B, BR-816A & B, BR-817A & B, BR-818A & B, BR-819A & B, BR-820A & B, BR-821A & B, BR-822A & B, BR-823A & B, BR-824A & B, BR-825A & B, BR-826A & B, BR-827A & B, BR-828A & B, BR-829A & B, BR-830A & B, BR-831A & B, BR-832A & B, BR-833A & B, BR-834A & B, BR-835A & B, BR-836A & B, BR-837A & B, BR-838A & B, BR-839A & B, BR-840A & B, BR-841A & B, BR-842A & B, BR-843A & B, BR-844A & B, BR-845A & B, BR-846A & B, BR-847A & B, BR-848A & B, BR-849A & B, BR-850A & B, BR-851A & B, BR-852A & B, BR-853A & B, BR-854A & B, BR-855A & B, BR-856A & B, BR-857A & B, BR-858A & B, BR-859A & B, BR-860A & B, BR-861A & B, BR-862A & B, BR-863A & B, BR-864A & B, BR-865A & B, BR-866A & B, BR-867A & B, BR-868A & B, BR-869A & B, BR-870A & B, BR-871A & B, BR-872A & B, BR-873A & B, BR-874A & B, BR-875A & B, BR-876A & B, BR-877A & B, BR-878A & B, BR-879A & B, BR-880A & B, BR-881A & B, BR-882A & B, BR-883A & B, BR-884A & B, BR-885A & B, BR-886A & B, BR-887A & B, BR-888A & B, BR-889A & B, BR-890A & B, BR-891A & B, BR-892A & B, BR-893A & B, BR-894A & B, BR-895A & B, BR-896A & B, BR-897A & B, BR-898A & B, BR-899A & B, BR-900A & B, BR-901A & B, BR-902A & B, BR-903A & B, BR-904A & B, BR-905A & B, BR-906A & B, BR-907A & B, BR-908A & B, BR-909A & B, BR-910A & B, BR-911A & B, BR-912A & B, BR-913A & B, BR-914A & B, BR-915A & B, BR-916A & B, BR-917A & B, BR-918A & B, BR-919A & B, BR-920A & B, BR-921A & B, BR-922A & B, BR-923A & B, BR-924A & B, BR-925A & B, BR-926A & B, BR-927A & B, BR-928A & B, BR-929A & B, BR-930A & B, BR-931A & B, BR-932A & B, BR-933A & B, BR-934A & B, BR-935A & B, BR-936A & B, BR-937A & B, BR-938A & B, BR-939A & B, BR-940A & B, BR-941A & B, BR-942A & B, BR-943A & B, BR-944A & B, BR-945A & B, BR-946A & B, BR-947A & B, BR-948A & B, BR-949A & B, BR-950A & B, BR-951A & B, BR-952A & B, BR-953A & B, BR-954A & B, BR-955A & B, BR-956A & B, BR-957A & B, BR-958A & B, BR-959A & B, BR-960A & B, BR-961A & B, BR-962A & B, BR-963A & B, BR-964A & B, BR-965A & B, BR-966A & B, BR-967A & B, BR-968A & B, BR-969A & B, BR-970A & B, BR-971A & B, BR-972A & B, BR-973A & B, BR-974A & B, BR-975A & B, BR-976A & B, BR-977A & B, BR-978A & B, BR-979A & B, BR-980A & B, BR-981A & B, BR-982A & B, BR-983A & B, BR-984A & B, BR-985A & B, BR-986A & B, BR-987A & B, BR-988A & B, BR-989A & B, BR-990A & B, BR-991A & B, BR-992A & B, BR-993A & B, BR-994A & B, BR-995A & B, BR-996A & B, BR-997A & B, BR-998A & B, BR-999A & B, BR-1000A & B.

PROJECT NUMBER	PROJECT NUMBER	DATE	QUANTITY	SHEET TOTAL
3303-98-008	NA	01	BOONE	9



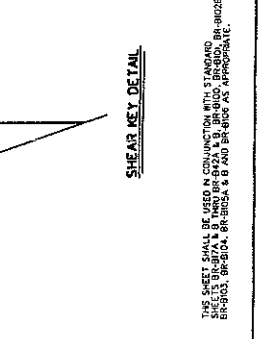
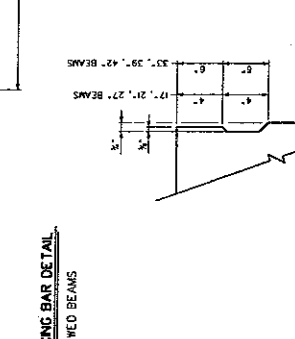
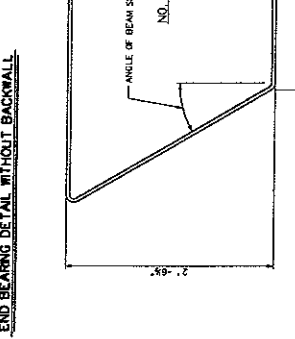
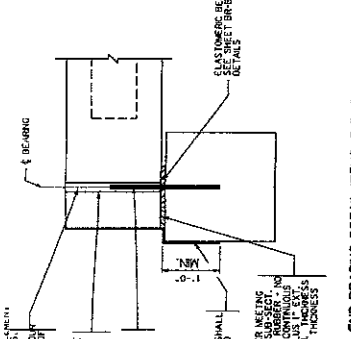
DESIGNED BY: THY
 DRAWN BY: THY
 CHECKED BY: TM
 REVIEWED BY: TW
 DATE:
 SCALE:
 SHEET 6 OF 9
 BRIDGE NO.
 03-94-008

2" x 3" OR 3" x 4" FOAM BLOKHOLES - AFTER ERECTION, CUT STRONGS A FULL DEPTH OF BEAMS OVER OR UNDER JOINTS MEETING REQUIREMENTS OF SUB-SECT. 715.3. NUMBER OF STRAPS PER JOINT SHALL BE DETERMINED BY THE FABRICATOR.

1" x 4" STRIP LIFTING LOOPS EMERGED AFTER ERECTION, CUT STRONGS A FULL DEPTH OF BEAMS OVER OR UNDER JOINTS MEETING REQUIREMENTS OF SUB-SECT. 715.3. NUMBER OF STRAPS PER JOINT SHALL BE DETERMINED BY THE FABRICATOR.

27, 33, 39, & 42 BEAMS
 17" & 27" BEAMS
 BLOCKOUT DETAILS

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 BIG HORSE CREEK BRIDGE
 OVER BIG HORSE CREEK
 IN
 BOONE COUNTY
 PRESTRESSED CONCRETE BEAM
 SKEWED END REINFORCING
 MISC. DESIGN AND ASSEMBLY DETAILS
 STANDARD SHEET BR-5022A

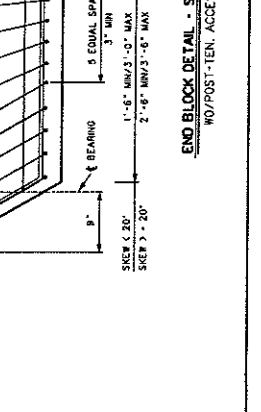
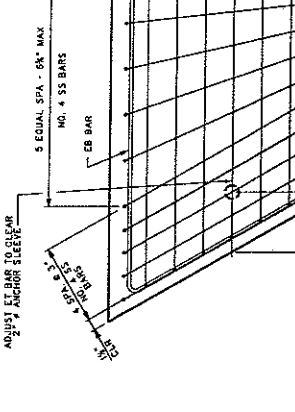
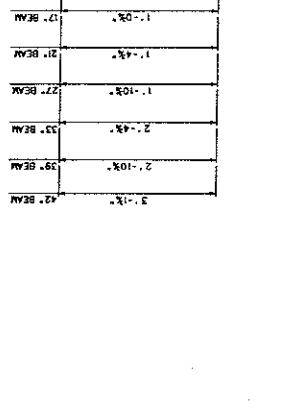
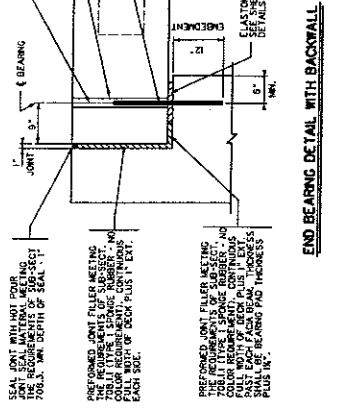


MORTAR MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. SHALL BE USED AT EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 708.3.
 2" x 4" ANCHOR SLEEVE. MATERIAL SHALL BE GALV. STEEL PIPE MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. ANCHOR SLEEVE LENGTH SHALL BE DEPTH OF BEAM MINUS 3".
 1" x 4" x 2'-0" LONG GALV. NO. 8 DEFORMED REBAR (GR. 60). BRIDGE SEALS ABOUT SHALL BE IN ACCORDANCE WITH SUB-SECT. 715.3.
 MEMBRANE WATERPROOFING IN ACCORDANCE WITH SUB-SECT. 710.3. AND BOTH OF BEAMS SHALL BE SET INTO BACKWALL.
 PREFORMED JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. SHALL BE USED AT EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 708.3. MAX. DEPTH OF SEALANT 1" MAX.
 ELASTOMER BEARING PAD WITH ANCHOR BARS FOR BEARING DETAILS.

NO. 4 SS BAR
 2'-10"

REINFORCING BAR DETAIL
 SKEWED BEAMS

SHEAR KEY DETAIL



MORTAR MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. SHALL BE USED AT EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 708.3.
 2" x 4" ANCHOR SLEEVE. MATERIAL SHALL BE GALV. STEEL PIPE MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. ANCHOR SLEEVE LENGTH SHALL BE DEPTH OF BEAM MINUS 3".
 1" x 4" x 2'-0" LONG GALV. NO. 8 DEFORMED REBAR (GR. 60). BRIDGE SEALS ABOUT SHALL BE IN ACCORDANCE WITH SUB-SECT. 715.3.
 MEMBRANE WATERPROOFING IN ACCORDANCE WITH SUB-SECT. 710.3. AND BOTH OF BEAMS SHALL BE SET INTO BACKWALL.
 PREFORMED JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. SHALL BE USED AT EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 708.3. MAX. DEPTH OF SEALANT 1" MAX.
 ELASTOMER BEARING PAD WITH ANCHOR BARS FOR BEARING DETAILS.

NO. 4 SS BAR
 2'-10"

REINFORCING BAR DETAIL
 SKEWED BEAMS

SHEAR KEY DETAIL

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 BIG HORSE CREEK BRIDGE
 OVER BIG HORSE CREEK
 IN
 BOONE COUNTY
 PRESTRESSED CONCRETE BEAM
 SKEWED END REINFORCING
 MISC. DESIGN AND ASSEMBLY DETAILS
 STANDARD SHEET BR-5022A

DESIGNED BY: THY
 DRAWN BY: THY
 CHECKED BY: TM
 REVIEWED BY: TW
 DATE:
 SCALE:
 SHEET 6 OF 9
 BRIDGE NO.
 03-94-008

SEAL JOINT WITH HOT POUR JOINT SEAL MATERIAL MEETING REQUIREMENTS OF SUB-SECT. 710.3. MAX. DEPTH OF SEALANT 1" MAX.
 PREFORMED JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. SHALL BE USED AT EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF SUB-SECT. 708.3. MAX. DEPTH OF SEALANT 1" MAX.
 ELASTOMER BEARING PAD WITH ANCHOR BARS FOR BEARING DETAILS.

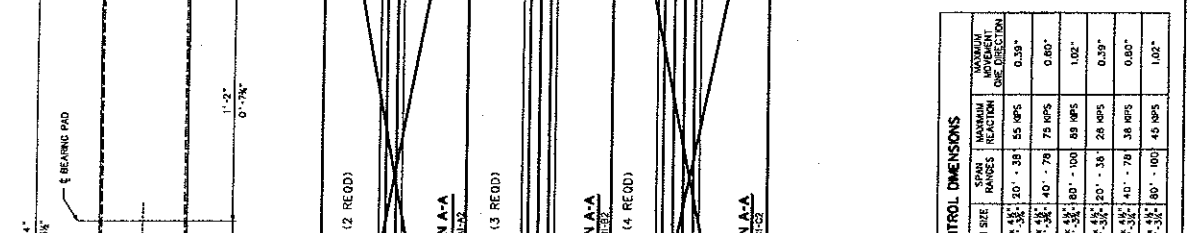
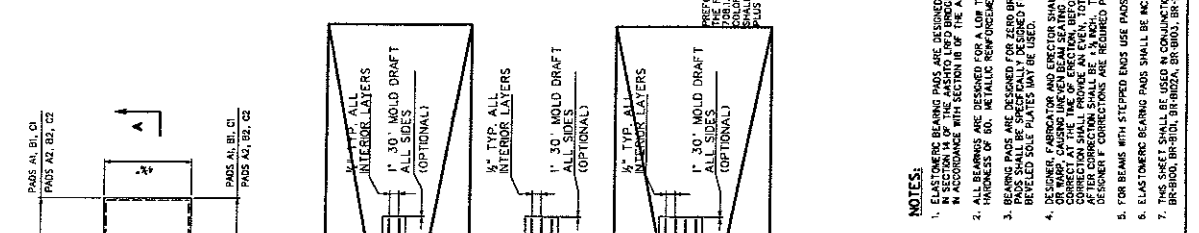
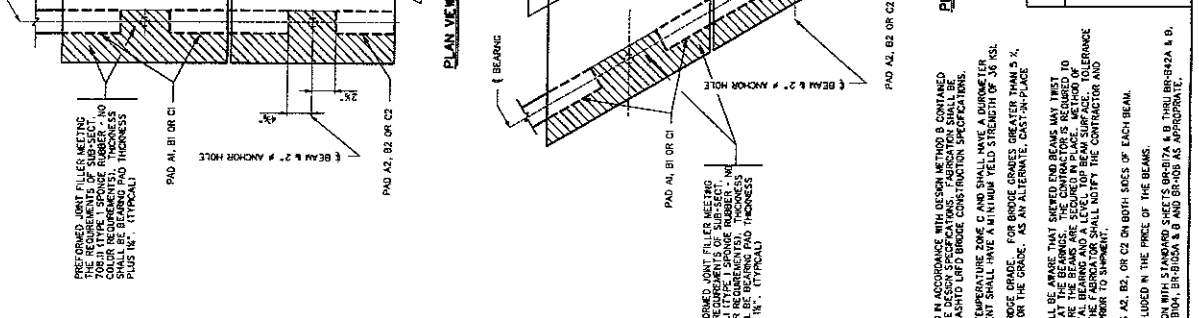
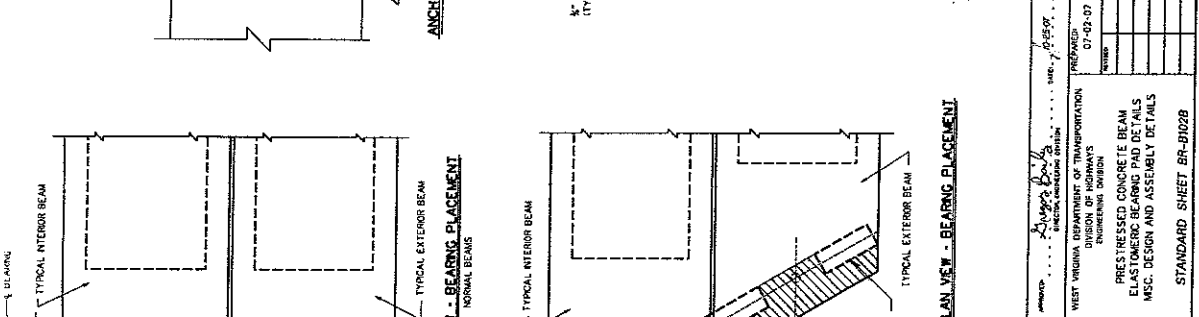
NO. 4 SS BAR
 2'-10"

REINFORCING BAR DETAIL
 SKEWED BEAMS

SHEAR KEY DETAIL

PROJECT NUMBER	DATE	DESIGNER	SCALE
SK03-89-0-08	01	BOONE	7/9

DESIGNED BY	DATE
DRAWN BY	1987
CHECKED BY	1987
REVIEWED BY	1987
DATE	
SHEET	7 OF 9
BRIDGE NO.	09-84-0-08



BOX BEAM BEARING PAD CONTROL DIMENSIONS

PAD	LENGTH	WIDTH	HEIGHT	NO. SHIMS	SHIM SIZE	MIN. RAISES	MAX. RAISES	MAXIMUM MOVEMENT ONE DIRECTION
A1	48"	28"	18"	2	1/2" x 3/4"	20" - 38"	55 KIPS	0.39"
B1	48"	28"	16"	3	1/2" x 3/4"	40" - 78"	75 KIPS	0.60"
C1	48"	28"	26"	4	1/2" x 3/4"	60" - 100"	85 KIPS	1.02"
A2	48"	19 1/2"	16"	2	1/2" x 3/4"	20" - 38"	20 KIPS	0.39"
B2	48"	19 1/2"	16"	3	1/2" x 3/4"	40" - 78"	30 KIPS	0.60"
C2	48"	19 1/2"	26"	4	1/2" x 3/4"	60" - 100"	40 KIPS	1.02"

NOTES:

- ELASTOMERIC BEARING PADS ARE DESIGNED IN ACCORDANCE WITH DESIGN METHOD B CONTAINED IN THE AASHTO STANDARD SPECIFICATIONS FOR BRIDGE DESIGN. FABRICATOR SHALL BE IN ACCORDANCE WITH SECTION 7.02.11 OF THE AASHTO BRIDGE CONSTRUCTION SPECIFICATIONS.
- ALL BEARINGS ARE DESIGNED FOR A DESIGN LOAD OF 200 KIPS. THE ZONE C AND SHALL HAVE A DIRMETER THICKNESS OF 50. METALLIC REINFORCEMENT SHALL BE AN INTRINSIC FIELD STRENGTH OF 36 KSI.
- BEARING PADS ARE DESIGNED FOR ZERO SPREAD BEARING. FOR BRIDGE GRADIENTS GREATER THAN 5%, BEVELLED SOLE PLATES MAY BE USED.
- DESIGNER, FABRICATOR AND ERECTOR SHALL BE AWARE THAT SKEWED END BEAMS MAY TWIST OR WARP. CAREFUL USE OF BEAM SEATING AT THE BEARINGS, THE CONTRACTOR IS REQUIRED TO CORRECT ANY BEAM TWIST OR WARP. TOTAL BEARING AND A LEVEL TOP BEAM SURFACE TOLERANCE DESIGNER'S CONSTRUCTION ARE REQUIRED FROM TO SHOWN.
- FOR BEAMS WITH STEPPED ENDS USE PADS A1, B1, OR C1 ON BOTH SIDES OF EACH BEAM.
- ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE PRICE OF THE BEARINGS.
- THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-07A & B, THRU BR-042A & B, BR-800, BR-801, BR-802A, BR-803, BR-904, BR-905, BR-906A & B AND BR-08 AS APPROPRIATE.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

BIG HORSE CREEK BRIDGE
OVER BIG HORSE CREEK
IN
BOONE COUNTY

PRESTRESSED CONCRETE BEAM
ELASTOMERIC BEARING PAD DETAILS
MISC. DESIGN AND ASSEMBLY DETAILS

DESIGNED BY: 1987
DRAWN BY: 1987
CHECKED BY: 1987
REVIEWED BY: 1987
DATE:

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PRESTRESSED CONCRETE BEAM
ELASTOMERIC BEARING PAD DETAILS
MISC. DESIGN AND ASSEMBLY DETAILS

STANDARD SHEET BR-B02B

PLAN VIEW - BEARING PLACEMENT

PREFORMED URETH FILLERS MEETING THE REQUIREMENTS OF SUB-SECT. 7.02.11 (TYPE I) SPONGE RUBBER, 1/2" THICK, SHALL BE BEARING PAD THICKNESS PLUS 1/4" (TYPICAL).

PREFORMED URETH FILLERS MEETING THE REQUIREMENTS OF SUB-SECT. 7.02.11 (TYPE I) SPONGE RUBBER, 1/2" THICK, SHALL BE BEARING PAD THICKNESS PLUS 1/4" (TYPICAL).

ANCHOR SLEEVE DETAIL

2" CHAMFER (TYP)

1/4" RADIUS

Drip Groove Detail

FOAM BLOCKOUT RECD. AFTER ERECTOR HAS Laid WITH DRAIN SECTION TO BE IN ACCORDANCE WITH SUB-SECT. 7.02.3

10" OR GREATER

SECTION A-A

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

SECTION A-A

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

SECTION A-A

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

1/2" TYP. ALL INTERIOR LAYERS

1" 30' MOLD DRAFT ALL SIDES (OPTIONAL)

ANCHOR SLEEVE DETAIL

2" CHAMFER (TYP)

1/4" RADIUS

Drip Groove Detail

FOAM BLOCKOUT RECD. AFTER ERECTOR HAS Laid WITH DRAIN SECTION TO BE IN ACCORDANCE WITH SUB-SECT. 7.02.3

10" OR GREATER

PROJECT NUMBER: **SD3-BR-010B** DIST. NO: **01** COUNTY: **BOONE**

DIST. NO: **01** COUNTY: **BOONE** SHEET NO: **6** OF **8**

3. GALVANIZED STEEL PIPE (ASTM A133) SUPPORTS SHALL BE INSTALLED TO THE STANDARD SPECIFICATIONS, NON-REACTIVE WITH CONCRETE.

POST-TENSIONING BAR SPACING PLAN
NORMAL OR SHEET < 20'

REFER TO STANDARD SHEET BR-010A FOR SHEAR KEY DETAILS.

REINFORCING BAR DETAIL
ALL BARS OR 60 - EPOXY COATED

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION
PRESTRESSED CONCRETE BEAM
TRANSVERSE POST-TENSIONING DETAILS
STANDARD SHEET BR-8103

SHEAR REINFORCEMENT DETAIL
BEAMS WITH ACCESS POCKETS

REINFORCING DETAILS - DIAPHRAGM
EXTERIOR BEAM & POCKETS ONLY

REINFORCING BAR DETAIL
ALL BARS OR 60 - EPOXY COATED

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

POST-TENSIONING BAR SPACING PLAN
EVEN NO. BEAMS
SHEET > 20'

POST-TENSIONING BAR SPACING PLAN
NORMAL OR SHEET < 20'

REINFORCING BAR DETAIL
ALL BARS OR 60 - EPOXY COATED

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

GRROUT DETAILS

1. INSTALL ONE INCH THICK WASHER AND GROUT STOP BY BLIND TO ONE SIDE. FOR THE ENTIRE LENGTH OF THE GROUT STOP THE OTHER SIDE OF THE CONNECTION

2. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

3. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

4. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

5. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

6. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

7. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

POST-TENSIONING BAR DETAIL

3. GALVANIZED STEEL PIPE (ASTM A133) SUPPORTS SHALL BE INSTALLED TO THE STANDARD SPECIFICATIONS, NON-REACTIVE WITH CONCRETE.

4. GALVANIZED STEEL PIPE (ASTM A133) SUPPORTS SHALL BE INSTALLED TO THE STANDARD SPECIFICATIONS, NON-REACTIVE WITH CONCRETE.

5. GALVANIZED STEEL PIPE (ASTM A133) SUPPORTS SHALL BE INSTALLED TO THE STANDARD SPECIFICATIONS, NON-REACTIVE WITH CONCRETE.

REINFORCING BAR DETAIL

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

SHEAR REINFORCEMENT DETAIL

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

POST-TENSIONING BAR SPACING PLAN
ODD NO. BEAMS
SHEET > 20'

POST-TENSIONING BAR SPACING PLAN
NORMAL OR SHEET < 20'

REINFORCING BAR DETAIL
ALL BARS OR 60 - EPOXY COATED

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

GRROUT DETAILS

1. INSTALL ONE INCH THICK WASHER AND GROUT STOP BY BLIND TO ONE SIDE. FOR THE ENTIRE LENGTH OF THE GROUT STOP THE OTHER SIDE OF THE CONNECTION

2. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

3. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

4. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

5. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

6. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

7. GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

BIG HORSE CREEK BRIDGE
OVER BIG HORSE CREEK

IN
BOONE COUNTY

PRESTRESSED CONCRETE BEAM
TRANSVERSE POST-TENSIONING DETAILS

03-84-08

DESIGNED BY: [Name]
CHECKED BY: [Name]
REVIEWED BY: [Name]
DATE: [Date]

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION
PRESTRESSED CONCRETE BEAM
TRANSVERSE POST-TENSIONING DETAILS
STANDARD SHEET BR-8103

DIMENSIONS

BEAM	RELATIONS	BAR	LENGTH
A	11'-0"	2	24'-0"
B	11'-0"	2	24'-0"
C	11'-0"	2	24'-0"
D	11'-0"	2	24'-0"
E	11'-0"	2	24'-0"
F	11'-0"	2	24'-0"
G	11'-0"	2	24'-0"
H	11'-0"	2	24'-0"
I	11'-0"	2	24'-0"
J	11'-0"	2	24'-0"
K	11'-0"	2	24'-0"
L	11'-0"	2	24'-0"
M	11'-0"	2	24'-0"
N	11'-0"	2	24'-0"
O	11'-0"	2	24'-0"
P	11'-0"	2	24'-0"
Q	11'-0"	2	24'-0"
R	11'-0"	2	24'-0"
S	11'-0"	2	24'-0"
T	11'-0"	2	24'-0"
U	11'-0"	2	24'-0"
V	11'-0"	2	24'-0"
W	11'-0"	2	24'-0"
X	11'-0"	2	24'-0"
Y	11'-0"	2	24'-0"
Z	11'-0"	2	24'-0"

POST-TENSIONING BAR DETAIL

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.

GRROUT STRENGTH TABLE

PRE-TEST STRENGTH	3 DAY		7 DAY	
	CALL.	NO. 3	NO. 3	NO. 3
Z	0.85	NO. 3	NO. 3	NO. 3
Y	0.85	NO. 3	NO. 3	NO. 3

ELONGATION (INCHES)

ELONGATION	3 DAY		7 DAY	
	CALL.	NO. 3	NO. 3	NO. 3
Z	0.85	NO. 3	NO. 3	NO. 3
Y	0.85	NO. 3	NO. 3	NO. 3

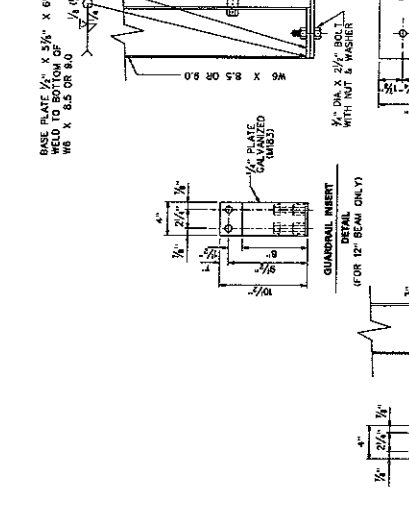
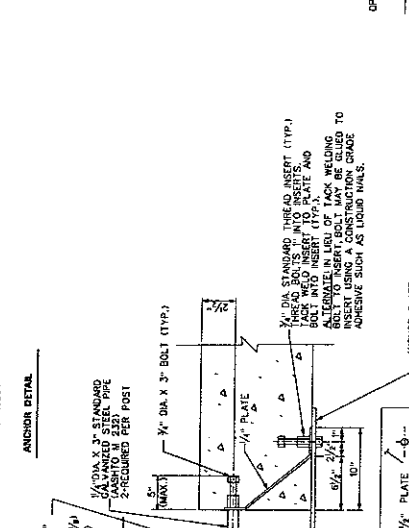
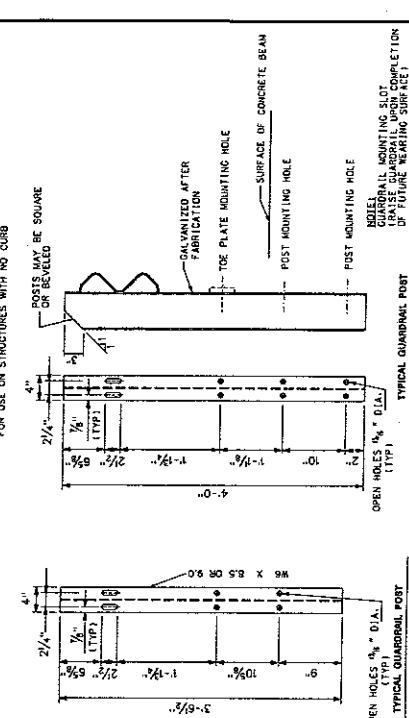
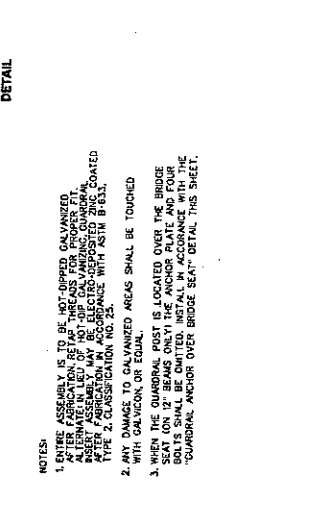
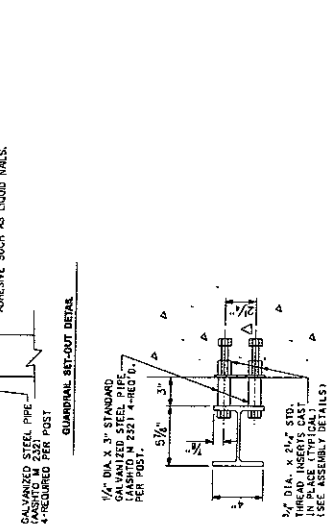
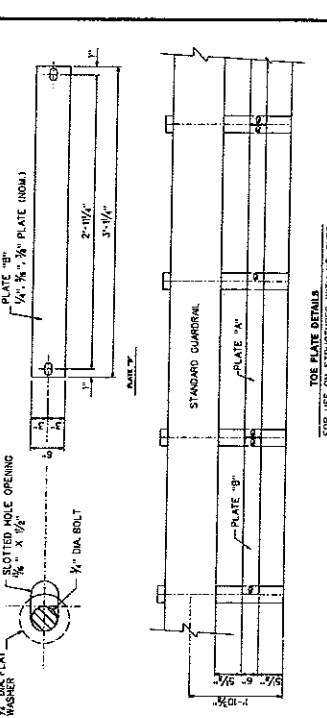
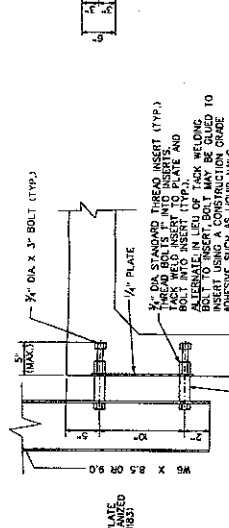
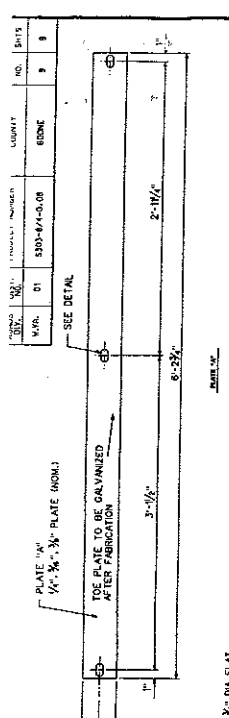
PROCEEDURE NOTES

- INSTALL ONE INCH THICK WASHER AND GROUT STOP BY BLIND TO ONE SIDE. FOR THE ENTIRE LENGTH OF THE GROUT STOP THE OTHER SIDE OF THE CONNECTION
- GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.
- GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.
- GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.
- GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.
- GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.
- GRROUT STOP SHALL BE 2" DEEP AND 1" THICK. GRROUT STOP SHALL BE INSTALLED AFTER BEAM IS SET.

REINFORCING BAR DETAIL

1. DO NOT STAIN IN LINE WITH THE POST-TENSIONING BAR DURING TENSIONING

2. REINFORCING BARS AND CATCHERS ARE TO BE USED AS PER POST-TENSIONING WORK SHALL BE THE MATERIAL APPROVED BY THE MANUFACTURER OF THE POST-TENSIONING ROPE. IN NO CASE SHALL THE CONTRACTOR USE REINFORCING MATERIALS OF A DIFFERENT TYPE OR FROM A DIFFERENT MANUFACTURER.



NOTES:
 1. EXTERIOR ASSEMBLY IS TO BE INST. BEFORE GALVANIZING. AFTER FABRICATION, RETAP THROUGHS FOR GALVANIZING. INSERT ASSEMBLY AND TOP GALVANIZING. GALVANIZING AFTER FABRICATION IN ACCORDANCE WITH ASTM B 633. TYPE 4 CLASSIFICATION NO. 25.
 2. WITH GALVANIZED OR COATED AREAS SHALL BE TOUCHED.
 3. WHEN THE GUARDRAIL POST IS LOCATED OVER THE BRIDGE SEAT (ON 12\"/>

TOE PLATE DETAILS FOR USE ON STRUCTURES WITH NO CURB
 GALVANIZED AFTER FABRICATION
 SURFACE OF CONCRETE BEAM
 POST MOUNTING HOLE
 POST MOUNTING HOLE
 OPEN HOLES 1/4\"/>

ANCHOR DETAIL
 BASE PLATE 1/4\"/>

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS-STRUCTURES
BIG HORSE CREEK BRIDGE
OVER BIG HORSE CREEK
 IN
BOONE COUNTY
PRESTRESSED CONCRETE BEAM
DESIGN & ASSEMBLY DETAILS
 STANDARD SHEET BR-904
 BRIDGE NUMBER
 03-574-0-08

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS-STRUCTURES
BIG HORSE CREEK BRIDGE
OVER BIG HORSE CREEK
 IN
BOONE COUNTY
PRESTRESSED CONCRETE BEAM
DESIGN & ASSEMBLY DETAILS
 STANDARD SHEET BR-904
 BRIDGE NUMBER
 03-574-0-08

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). West Virginia Code, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the West Virginia Code. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

- 1. Application is made for 2.5% resident vendor preference for the reason checked: 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, Bidder is a partnership, association or corporation resident vendor and 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 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, Bidder is a 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; or,
2. Application is made for 2.5% resident vendor preference for the reason checked: 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; or,
3. Application is made for 2.5% resident vendor preference for the reason checked: 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 Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. Application is made for 5% resident vendor preference for the reason checked: Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of 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) reject the bid; 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.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of 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.

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 Purchasing Division in writing immediately.

Bidder: EASTERN VAULT CO., INC. Signed: [Signature]
Date: 2-8-11 Title: Controller

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

RFQ No. 01-110755

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING 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 owed 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 exceed 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.

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

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: EASTERN VAULT Co., INC.

Authorized Signature:  BRIAN STRUBLE Date: 2-8-11

State of West Virginia

County of Mercer, to-wit:

Taken, subscribed, and sworn to before me this 8th day of February, 2011.

My Commission expires Oct 18, 2015.

AFFIX SEAL HERE

NOTARY PUBLIC 