



12-31-14
 Ann Gammell
 SE Regional Construction Engineer
 Vermont Agency of Transportation
 P.O. Box 1837, 61 Depot Street
 Wilder, VT 05088

Re: Rockingham BRF 0126 (12)

Dear Ann,

Please consider this letter and enclosures as a Developmental Value Engineering Proposal to substitute the Next Beam construction with a traditional steel girder and concrete deck construction.

- a. Description:** Cold River Bridges, LLC is proposing to replace the original design of 12 individual Next beam deck section with a conventional 4 girder and concrete deck system. Some key benefits of this DVEP proposal are listed below.
1. Cold Joints will be reduced to a single joint between phases.
 2. Eliminates the need for a closure of RT 121 to allow for the center closure pour between phases.
 3. Future long term savings to the Agency in maintenance and replacement cost.
 4. Eliminates designers concerns regarding differential camber, resulting in irregular joints.
 5. Produces a continuous composite deck structure.
 6. Easily adaptable for future utility additions (Town of Rockingham Concern)

b. Itemization: The following are the proposed changes by change of design.

<u>PROPOSED ITEMS TO BE DELETED BY COD.</u>					
				UNIT	EXTENDED
ITEM	DESCRIPTION	QTY	UNIT	PRICE	PRICE
501.33	CONCRETE HPC A	56	CY	\$1,000.00	\$56,000.00
501.34	CONC-HPCB-PIERS	6	CY	\$1,000.00	\$6,000.00
507.16	DRILL/GROUT DOWELS	384	LF	\$10.00	\$3,840.00
507.12	REINF STEEL-LVL II	21500	LB	\$3.00	\$64,500.00
531.16	BEARINGS ELAS	16	EA	\$100.00	\$1,600.00
531.17	BEARINGS REINF	32	EA	\$500.00	\$16,000.00
641.15	MESSAGE BOARDS	2	EA	\$1000.00	\$2000.00
900.60	SP HPC RAPID SET	30	CY	\$1,000.00	\$30,000.00
900.64	SP NEXT TEES	811	LF	\$900.00	\$729,900.00
				TOTAL	\$ 909,840.00

PROPOSED ITEMS TO BE ADDED BY COD.					
				UNIT	EXTENDED
ITEM	DESCRIPTION	QTY	UNIT	PRICE	PRICE
501.33	CONCRETE HPC A (FPQ)	255	CY	\$1,000.00	\$255,000.00
501.34	CONC-HPCB-PIERS(FPQ)	3	CY	\$1,000.00	\$3,000.00
507.16	DRILL/GROUT DOWELS (FPQ)	197	LF	\$10.00	\$1,970.00
507.12	REINF STEEL-LVL II (FPQ)	63750	LB	\$2.75	\$175312.50
531.17	BEARINGS-PIERS (FPQ)	8	EA	\$2,500.00	\$20,000.00
531.17	BEARINGS-ABUTS (FPQ)	8	EA	\$1,000	\$8,000.00
508.00	SHEAR CONN (FPQ)	1	LS	\$12,000.00	\$12,000.00
505.00	PLATE GIRDER (FPQ)	180,000	LB	\$2.25	\$405,000.00
900.00	ENGINEERING (FPQ)	1	ALL	\$25,000.00	\$25,000.00
				TOTAL	\$ 905,282.50

- c. **Computation of Net Saving:** Cold River Bridges, LLC submitted the original CVEP as a zero dollar value engineering proposal. After moving forward into the DVEP process CRB has realized a net saving of \$4557.50 to be split equally between CRB and the Agency.
- d. **Prediction of other cost:** At this time there are no additional cost.
- e. **Plans and Specifications:** Cold River Bridges, LLC has employed Calderwood Engineering as the design engineer. At this point we have posted the design calculations for the Structural steel and the concrete deck and reinforcing steel. We would request that Vtrans and their consultants begin their review and the design calculations for the abutments, piles, and bearings along with a typical section are expected shortly and will be uploaded at that time. Drawings will be developed during the review process of the calculations. As the design phase has taken longer than expected anything that VTRANS and there consultants could do to expadite the review process would be appreciated and would assist in the forward progress of the design and the overall project.
- f. **Contract Completion:** There will be no change to the Original contract completion date.

Thank You,

Chad Contaldi