

# MEMORANDUM

**TO:** Programs, Projects and Operations Subcommittee

**FROM:** Martin P. Cleveland

**SUBJECT:** West Branch Channel Project (86<sup>th</sup> to Giles Road – Left Bank)  
Tributaries Low Water Crossing Project Bids

**DATE:** January 3, 2007

Attached is a location map and typical plan drawings for the referenced Low Water Crossing project. The work consists of installing five separate reinforced concrete box culverts along the left bank (north side) of the West Branch Papillion Creek, between 86<sup>th</sup> Street and Giles Road in Sarpy County, west of Papillion, NE. The box culverts vary in size from 6 ft. by 5 ft. to 10 ft. by 7 ft. and from 38 to 42 ft. in length. The work consists of constructing these box culverts and related ramps from channel project access road to berm level. These box culverts will provide access across five tributaries for channel maintenance and future trail. The box culverts (low water crossing) will carry the 2 year frequency flood flows and are designed to handle over-topping by larger storm events via articulated concrete block slope paving. Work is to be completed by June 15, 2007.

An alternate bid of a box culvert was requested for tributary WW6, for comparison purposes, as there is an alternative crossing option of retrofitting an existing wood trestle bridge (former Union Pacific Railroad). The estimated cost to retrofit this 50 to 80 year old bridge for a crossing, plus associated upstream creek stabilization, is \$50,000. The alternate bid of a box culvert (cost of \$90,680.91) appears to be a better choice than retrofitting the wood trestle bridge (cost of \$50,000) due to anticipated life span.

A bid summary for the low water crossing project is as follows:

	Base Bid-(WW3,4,5 &7)	Alternate 1 Bid (WW6)	Total Base Bid (Base + Alternate 1)
Engineer's Estimate	510,977.00	111,789.00	622,766.00
TAB Construction	387,161.50	97,042.40	484,203.90
M.E. Collins	362,986.90	90,680.91	453,667.81
Hawkins Construction	396,783.50	93,288.07	490,071.57
Vrana Construction	404,304.90	89,576.20	493,881.10
Yost Construction	667,678.75	149,337.75	817,016.50
Dobson Bros.	415,524.00	95,902.00	511,426.00

\* WW = tributary

The apparent low bidder is M.E. Collins Contracting Company, Inc. with a bid as follows:

Base Bid: \$362,986.90 plus Alternate No. 1 Bid: \$90,680.91 equals Total Base Bid: \$453,667.81.

Based on the estimated quantities, the total project cost would be \$453,667.81. The Engineer's Opinion of Probable Construction Cost by Ehrhart Griffin and Associates for the project is \$622,766.00.

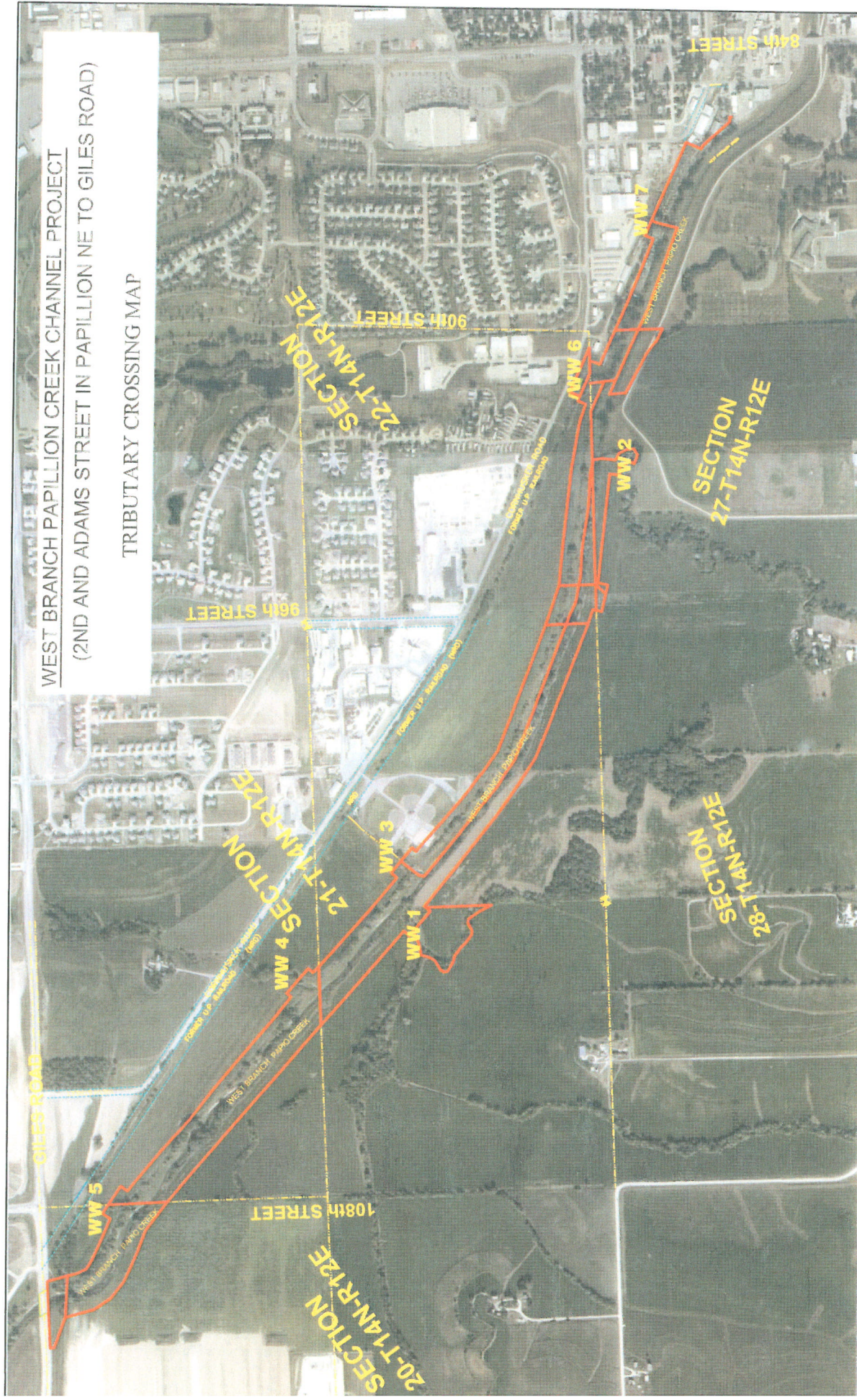
This work will be funded via funds included in West Branch Channel Project Contract Work (Account 01 03 – 04 4477). As of December 8, 2006, remaining funds in this account is \$1,063,751.37.

**It is management's recommendation that the Subcommittee recommend to the Board of Directors that the General Manager be authorized to execute a contract for West Branch Channel Project tributaries low water crossing project with M.E. Collins Contracting Company, Inc., for their total base bid of \$453,667.81, which includes constructing low water crossings at tributaries WW3, 4, 5, 6 and 7.**



**WEST BRANCH PAPILLION CREEK CHANNEL PROJECT**  
 (2ND AND ADAMS STREET IN PAPILLION NE TO GILES ROAD)

**TRIBUTARY CROSSING MAP**



**PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT**

DESIGNED BY: DRAWN BY: SM & M CHECKED BY: MPC APPROVED BY: MJP	EXHIBIT	WEST BRANCH PAPILLION CREEK TRIBUTARY CROSSING MAP	PROJECT NO.: 330
			DATE: 1/20/20
			SCALE: 1" = 100'
			SHEET NO. 1 OF 1



# Aerial View of Existing Conditions (WW6)





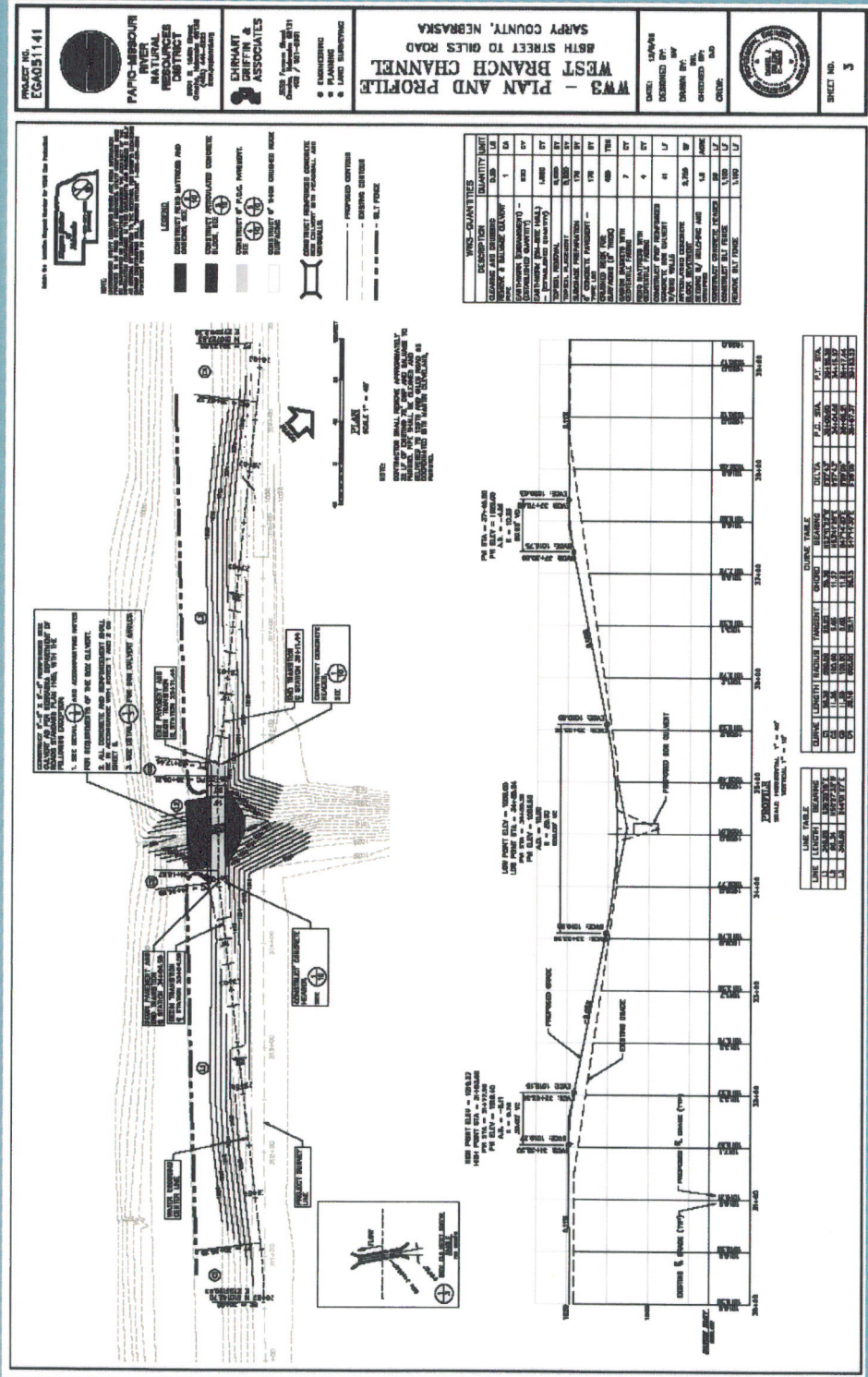
# Existing Conditions - Temporary Crossing (WW4)

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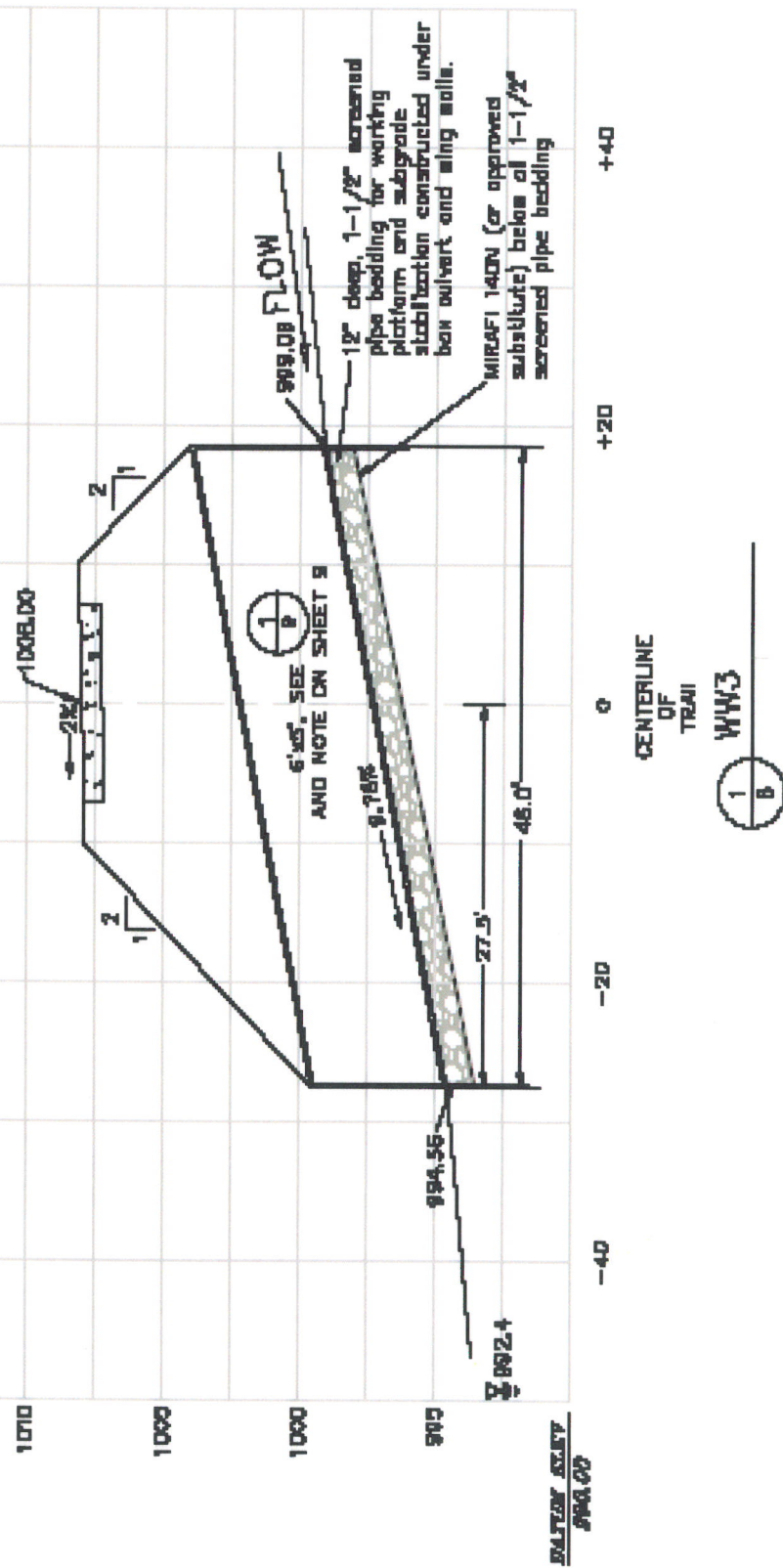




# Typical Crossing Plan & Profile (WW3)

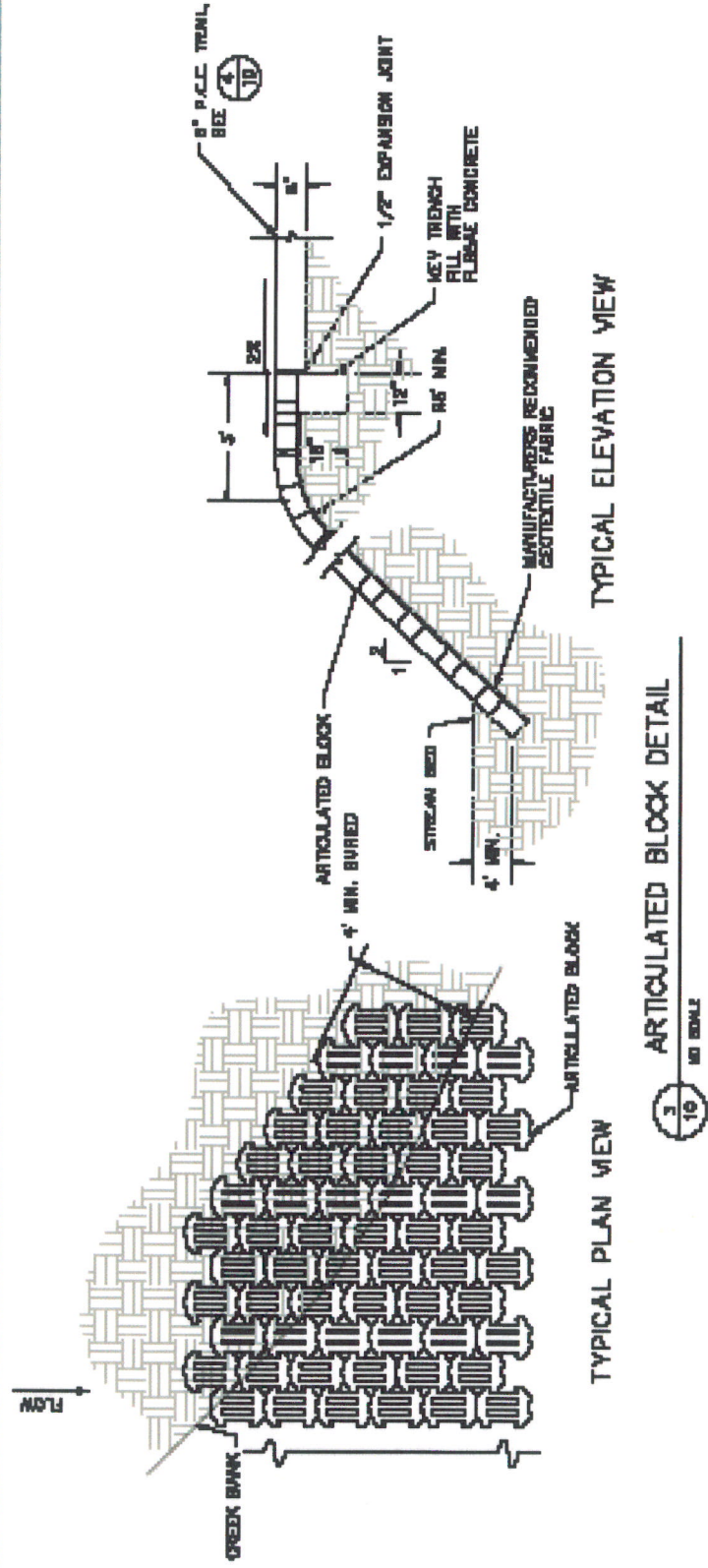








# Articulated Block Detail





# Bid Results Summary

	Base Bid – (WW3 4, 5 & 7)	Alternate 1 Bid (WW6)	Total Base Bid (Base + Alternate 1)
Engineer's Estimate	510,977.00	111,789.00	622,766.00
TAB Construction	387,161.50	97,042.40	484,203.90
M.E. Collins	362,986.90	90,680.91	453,667.81
Hawkins Construction	396,783.50	93,288.07	490,071.57
Vrana Construction	404,304.90	89,576.20	493,881.10
Yost Excavating	667,678.75	149,337.75	817,016.50
Dobson Bros.	415,524.00	95,902.00	511,426.00



WEST BRANCH CHANNEL  
LOW WATER CROSSINGS  
BID OPENING - DECEMBER 27, 2006

				Engineer's		TAB Construction		M.E. Collins	
No.	Item Description	Estimated		Unit Price	Total	Unit Price	Total	Unit Price	Total
		Quantity	Unit						
BASE BID - (WW3 4, 5, AND 7)									
1	CLEARING AND GRUBBING GENERAL	1	LS	\$3,500.00	\$3,500.00	\$15,205.00	\$15,205.00	\$8,075.10	\$8,075.10
2	REMOVE AND SALVAGE CULVERT PIPE	4	EA	\$1,000.00	\$4,000.00	\$700.00	\$2,800.00	\$1,280.00	\$5,120.00
3	EARTHWORK (EMBANKMENT) - (ESTABLISHED QUANTITY)	3,680	CY	\$4.00	\$14,720.00	\$2.30	\$8,464.00	\$2.30	\$8,464.00
4	EARTHWORK (ON-SITE HAUL) - (ESTABLISHED QUANTITY)	11,760	CY	\$6.00	\$70,560.00	\$2.50	\$29,400.00	\$2.50	\$29,400.00
5	TOPSOIL REMOVAL	34,145	SY	\$0.20	\$6,829.00	\$0.40	\$13,658.00	\$0.40	\$13,658.00
6	TOPSOIL PLACEMENT	34,145	SY	\$0.20	\$6,829.00	\$0.45	\$15,365.25	\$0.50	\$17,072.50
7	SUBGRADE PREPARATION	647	SY	\$2.00	\$1,294.00	\$2.30	\$1,488.10	\$2.00	\$1,294.00
8	8" CONCRETE PAVEMENT - TYPE L65	847	SY	\$70.00	\$45,290.00	\$31.50	\$20,380.50	\$35.90	\$23,227.30
9	CRUSHED ROCK FOR SURFACING (8" THICK)	2,065	TON	\$15.00	\$30,975.00	\$24.37	\$50,324.05	\$21.00	\$43,365.00
10	GABION BASKET W/ GEOTEXTILE FABRIC	40	CY	\$220.00	\$8,800.00	\$95.91	\$3,836.40	\$231.00	\$9,240.00
11	REVEGETATION W/ GEOTEXTILE FABRIC	28	CY	\$100.00	\$2,800.00	\$381.24	\$10,674.72	\$282.00	\$7,896.00
12	CONSTRUCT 6' X 5' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	41	LF	\$400.00	\$16,400.00	\$501.88	\$20,577.08	\$387.00	\$15,867.00
13	CONSTRUCT 8' X 6' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	47	LF	\$600.00	\$28,200.00	\$717.00	\$33,699.00	\$532.00	\$25,004.00
14	CONSTRUCT 8' X 7' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	39	LF	\$580.00	\$22,620.00	\$814.00	\$31,746.00	\$641.00	\$24,999.00
15	CONSTRUCT 10' X 7' REINFORCED CONCRETE BOX CULVERT W/ WING WALL	42	LF	\$660.00	\$27,720.00	\$911.00	\$38,262.00	\$744.00	\$31,248.00
16	ARTICULATING CONCRETE BLOCK RETENTION	11,320	SF	\$15.00	\$169,800.00	\$6.05	\$68,486.00	\$7.20	\$81,504.00
17	SEEDING W/ MULCHING AND CRIMPING	7.4	AC	\$2,500.00	\$18,500.00	\$1,389.00	\$10,278.60	\$797.00	\$5,897.80
18	CONSTRUCT CONCRETE HEADER	112	LF	\$20.00	\$2,240.00	\$4.15	\$464.80	\$9.60	\$1,075.20
19	CONSTRUCT SILT FENCE	4,600	LF	\$3.00	\$13,800.00	\$2.02	\$9,292.00	\$1.80	\$8,280.00
20	REMOVE SILT FENCE	4,600	LF	\$3.50	\$16,100.00	\$0.60	\$2,760.00	\$0.50	\$2,300.00
Total Base Bid					\$510,977.00		\$387,161.50		\$362,986.90
ALTERNATE 1 BID - (WW6)									
1	CLEARING AND GRUBBING GENERAL	1	LS	\$1,000.00	\$1,000.00	\$5,588.00	\$5,588.00	\$3,230.00	\$3,230.00
2	REMOVE AND SALVAGE CULVERT PIPE	1	EA	\$1,000.00	\$1,000.00	\$700.00	\$700.00	\$1,280.00	\$1,280.00
3	EARTHWORK (EMBANKMENT) - (ESTABLISHED QUANTITY)	2,010	CY	\$4.00	\$8,040.00	\$2.45	\$4,924.50	\$2.30	\$4,623.00
4	EARTHWORK (ON-SITE HAUL) - (ESTABLISHED QUANTITY)	140	CY	\$6.00	\$840.00	\$6.00	\$840.00	\$5.50	\$770.00
5	TOPSOIL REMOVAL	8,085	SY	\$0.20	\$1,617.00	\$0.40	\$3,234.00	\$0.40	\$3,234.00
6	TOPSOIL PLACEMENT	8,085	SY	\$0.20	\$1,617.00	\$0.45	\$3,638.25	\$0.50	\$4,042.50
7	SUBGRADE PREPARATION	160	SY	\$2.00	\$320.00	\$2.30	\$368.00	\$2.90	\$464.00
8	8" CONCRETE PAVEMENT - TYPE L65	160	SY	\$70.00	\$11,200.00	\$31.50	\$5,040.00	\$38.80	\$6,208.00
9	CRUSHED ROCK FOR SURFACING (8" THICK)	495	TON	\$15.00	\$7,425.00	\$25.16	\$12,454.20	\$21.00	\$10,395.00
10	GABION BASKET W/ GEOTEXTILE FABRIC	11	CY	\$220.00	\$2,420.00	\$97.65	\$1,074.15	\$231.00	\$2,541.00
11	REVEGETATION W/ GEOTEXTILE FABRIC	9	CY	\$100.00	\$900.00	\$422.00	\$3,798.00	\$280.50	\$2,524.50
12	CONSTRUCT 9' X 7' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	40	LF	\$620.00	\$24,800.00	\$859.00	\$34,360.00	\$720.00	\$28,800.00
13	ARTICULATING CONCRETE BLOCK RETENTION	2,620	SF	\$15.00	\$39,300.00	\$6.05	\$15,851.00	\$7.20	\$18,864.00
14	SEEDING W/ MULCHING AND CRIMPING	1.7	AC	\$2,500.00	\$4,250.00	\$1,433.00	\$2,436.10	\$712.30	\$1,210.91
15	CONSTRUCT CONCRETE HEADER	28	LF	\$20.00	\$560.00	\$4.15	\$116.20	\$10.50	\$294.00
16	CONSTRUCT SILT FENCE	1,000	LF	\$3.00	\$3,000.00	\$2.02	\$2,020.00	\$1.80	\$1,800.00
17	REMOVE SILT FENCE	1,000	LF	\$3.50	\$3,500.00	\$0.60	\$600.00	\$0.40	\$400.00
Total Alternate 1 Bid					\$111,789.00		\$97,042.40		\$90,680.91
Total Bid (Base + Alternate 1)					\$622,766.00		\$484,203.90		\$453,667.81



WEST BRANCH CHANNEL  
LOW WATER CROSSINGS  
BID OPENING - DECEMBER 27, 2006

		Hawkins Construction		Vrana Construction		Yost Excavating		Dobson Bros.	
No.	Item Description	Unit Price	Total	Unit Price	Total	Unit Price	Total	Unit Price	Total
BASE BID - (WW3, 4, 5, AND 7)									
1	CLEARING AND GRUBBING GENERAL	\$55,762.00	\$55,762.00	\$51,000.00	\$51,000.00	\$50,000.00	\$50,000.00	\$16,000.00	\$16,000.00
2	REMOVE AND SALVAGE CULVERT PIPE	\$1,166.54	\$4,666.16	\$780.00	\$3,120.00	\$2,000.00	\$8,000.00	\$420.00	\$1,680.00
3	EARTHWORK (EMBANKMENT) - (ESTABLISHED QUANTITY)	\$2.42	\$8,905.60	\$4.00	\$14,720.00	\$4.50	\$18,560.00	\$2.10	\$7,728.00
4	EARTHWORK (ON-SITE HAUL) - (ESTABLISHED QUANTITY)	\$2.25	\$26,460.00	\$2.20	\$25,872.00	\$5.20	\$61,152.00	\$2.30	\$27,048.00
5	TOPSOIL REMOVAL	\$0.22	\$7,511.90	\$0.22	\$7,511.90	\$2.00	\$68,290.00	\$0.35	\$11,950.75
6	TOPSOIL PLACEMENT	\$0.34	\$11,609.30	\$0.20	\$6,829.00	\$2.25	\$76,826.25	\$0.45	\$15,365.25
7	SUBGRADE PREPARATION	\$1.56	\$1,009.32	\$5.50	\$3,558.50	\$12.00	\$7,764.00	\$5.00	\$3,235.00
8	8" CONCRETE PAVEMENT - TYPE L65	\$28.29	\$18,303.63	\$36.00	\$23,292.00	\$42.00	\$27,174.00	\$45.00	\$29,115.00
9	CRUSHED ROCK FOR SURFACING (8" THICK)	\$18.93	\$39,090.45	\$13.50	\$27,877.50	\$21.90	\$45,223.50	\$25.00	\$51,625.00
10	GABION BASKET W/ GEOTEXTILE FABRIC	\$208.43	\$8,337.20	\$150.00	\$6,000.00	\$175.00	\$7,000.00	\$185.00	\$6,600.00
11	REVEGETATION W/ GEOTEXTILE FABRIC	\$280.93	\$7,866.04	\$185.00	\$5,180.00	\$180.00	\$5,040.00	\$220.00	\$6,160.00
12	CONSTRUCT 6' X 5' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	\$414.22	\$16,983.02	\$535.00	\$21,935.00	\$675.00	\$27,675.00	\$595.00	\$24,395.00
13	CONSTRUCT 8' X 6' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	\$592.55	\$27,849.85	\$675.00	\$31,725.00	\$905.00	\$42,535.00	\$745.00	\$35,015.00
14	CONSTRUCT 8' X 7' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	\$610.94	\$23,826.66	\$740.00	\$28,860.00	\$935.00	\$36,465.00	\$865.00	\$33,735.00
15	CONSTRUCT 10' X 7' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	\$697.69	\$29,302.98	\$745.00	\$31,290.00	\$990.00	\$41,580.00	\$820.00	\$34,440.00
16	ARTICULATING CONCRETE BLOCK RETENTION	\$7.83	\$88,635.80	\$7.50	\$84,900.00	\$9.80	\$110,936.00	\$8.00	\$90,560.00
17	SEEDING W/ MULCHING AND CRIMPING	\$1,180.35	\$8,734.59	\$1,890.00	\$13,986.00	\$2,000.00	\$14,800.00	\$1,100.00	\$8,140.00
18	CONSTRUCT CONCRETE HEADER	\$8.35	\$935.20	\$9.00	\$1,008.00	\$14.00	\$1,568.00	\$11.00	\$1,232.00
19	CONSTRUCT SILT FENCE	\$1.69	\$7,774.00	\$2.30	\$10,580.00	\$2.65	\$12,190.00	\$1.60	\$7,360.00
20	REMOVE SILT FENCE	\$0.70	\$3,220.00	\$1.10	\$5,060.00	\$1.50	\$6,900.00	\$0.80	\$4,140.00
Total Base Bid			\$396,783.50		\$404,304.90		\$667,678.75		\$415,524.00
ALTERNATE 1 BID - (WW6)									
1	CLEARING AND GRUBBING GENERAL	\$11,430.00	\$11,430.00	\$3,500.00	\$3,500.00	\$10,000.00	\$10,000.00	\$3,500.00	\$3,500.00
2	REMOVE AND SALVAGE CULVERT PIPE	\$1,167.00	\$1,167.00	\$780.00	\$780.00	\$2,000.00	\$2,000.00	\$420.00	\$420.00
3	EARTHWORK (EMBANKMENT) - (ESTABLISHED QUANTITY)	\$2.42	\$4,864.20	\$4.00	\$8,040.00	\$4.50	\$9,045.00	\$2.10	\$4,221.00
4	EARTHWORK (ON-SITE HAUL) - (ESTABLISHED QUANTITY)	\$3.37	\$471.80	\$2.20	\$308.00	\$5.20	\$728.00	\$5.25	\$735.00
5	TOPSOIL REMOVAL	\$0.22	\$1,778.70	\$0.22	\$1,778.70	\$2.00	\$16,170.00	\$0.35	\$2,829.75
6	TOPSOIL PLACEMENT	\$0.34	\$2,748.90	\$0.20	\$1,617.00	\$2.25	\$18,191.25	\$0.45	\$3,638.25
7	SUBGRADE PREPARATION	\$1.56	\$249.60	\$5.50	\$880.00	\$12.00	\$1,920.00	\$5.00	\$800.00
8	8" CONCRETE PAVEMENT - TYPE L65	\$28.38	\$4,540.80	\$36.00	\$5,760.00	\$42.00	\$6,720.00	\$45.00	\$7,200.00
9	CRUSHED ROCK FOR SURFACING (8" THICK)	\$18.93	\$9,370.35	\$13.50	\$6,682.50	\$21.90	\$10,840.50	\$25.00	\$12,375.00
10	GABION BASKET W/ GEOTEXTILE FABRIC	\$208.38	\$2,292.18	\$150.00	\$1,650.00	\$175.00	\$1,925.00	\$165.00	\$1,815.00
11	REVEGETATION W/ GEOTEXTILE FABRIC	\$279.30	\$2,513.70	\$185.00	\$1,665.00	\$180.00	\$1,620.00	\$220.00	\$1,980.00
12	CONSTRUCT 8' X 7' REINFORCED CONCRETE BOX CULVERT W/ WING WALLS	\$665.69	\$26,627.60	\$760.00	\$30,400.00	\$914.00	\$36,560.00	\$775.00	\$31,000.00
13	ARTICULATING CONCRETE BLOCK RETENTION	\$7.85	\$20,567.00	\$7.50	\$19,650.00	\$9.80	\$25,676.00	\$8.00	\$20,960.00
14	SEEDING W/ MULCHING AND CRIMPING	\$1,180.35	\$2,006.80	\$1,890.00	\$3,213.00	\$2,000.00	\$3,400.00	\$1,100.00	\$1,870.00
15	CONSTRUCT CONCRETE HEADER	\$9.63	\$269.64	\$9.00	\$252.00	\$14.00	\$392.00	\$11.00	\$308.00
16	CONSTRUCT SILT FENCE	\$1.69	\$1,690.00	\$2.30	\$2,300.00	\$2.65	\$2,650.00	\$1.60	\$1,600.00
17	REMOVE SILT FENCE	\$0.70	\$700.00	\$1.10	\$1,100.00	\$1.50	\$1,500.00	\$0.80	\$800.00
Total Alternate 1 Bid			\$93,288.07		\$89,576.20		\$149,337.75		\$95,902.00
Total Bid (Base + Alternate 1)									
			\$490,071.57		\$493,881.10		\$817,016.50		\$511,426.00