Agenda Item: 8.

MEMORANDUM

TO: Programs, Projects and Operations Subcommittee

FROM: Martin P. Cleveland, Construction Engineer

SUBJECT: Big Papio Creek Levee Culverts Project

DATE: March 3, 2016

The Big Papio Levee Culverts Project is located in Douglas and Sarpy Counties, in Nebraska, as shown on the enclosed location map. The project consists replacing four corrugated metal pipes (CMP) with reinforced concrete pipe (RCP) and high density polyethylene pipe (HDPE). In addition, nine corrugated metal pipes will be lined with HDPE pipe. The thirteen corrugated metal pipes have corroded inverts with perforations.

On February 24, 2016, the District opened bids for the Big Papio Levee Culverts project. The two bids ranged from $1,928,003.76 to $2,793,185.46. The apparent low bid of $1,928,003.76 was submitted by ME Collins. Enclosed is a bid summary. The ME Collins bid total listed on bid tab was $1,952,200.66 vs. actual total of $1,928,003.76.

The project was previously bid in December 2015 with received bids ranging from $1,994,990.68 to $2,639,326.42. Bids were rejected to significant deviation from the engineer's cost estimate.

The Engineer's cost estimate for the Big Papio Levee Culverts project, prepared by FYRA Engineering, is $1,144,822.25. Enclosed is the engineer's bid recommendation letter. It is the engineer's recommendation that the project be rebid with a longer construction period (e.g. 1 year).

Management recommends that the Programs, Projects and Operations Subcommittee recommend to the Board of Directors that the General Manager be authorized reject all of the February 24, 2016 bids for the construction of the Big Papio Levee Culverts Project and rebid the project.

5916 MC:pb file 529

FYRA
ENGINEERING

March 3, 2016

Mr. Martin Cleveland
Papio-Missouri River NRD
8901 S. 154th Street
Omaha, NE 68138

Re: Big Papio Levee Culverts Project – Bid Recommendation

Dear Martin:

The bid opening for the above-referenced project was held at the P-MRNRD on February 24, 2016. This was a follow up to the Board accepting the Engineer's Recommendation after the December 30th bid opening to reject all bids and re-bid the project later. For your convenience, that recommendation is attached to this letter. Two bids were received for the project. The results of the bids are attached to this letter in the form of a bid tabulation sheet. The low bid of $1,928,003.76 was received from M.E. Collins Co. Inc, of Wahoo, NE and was above the engineer's estimate of $1,141,942.25. This was slightly lower than the previously low bid (also submitted by M.E. Collins) of $1,994,990.68. The higher bid at each of the bid openings was submitted by Valley Corporation and their bid increased from $2,693,326.42 to $2,793,185.46.

After a review of the new bids, many of the unit prices still appear to be much higher than the engineer's opinion of probable construction costs (EOPCC – also referred to as "Engineer's Estimate"). The attached bid tabulation sheet also shows the deviation from Engineer's Estimate and the low bidder's bid items which assists in seeing where the discrepancies lie.

After the initial bid that the Board rejected, the Contract Documents were re-written to extend the allowable working days from 50 to 95. All contractors that expressed interest were notified and several stated that they had intended to bid the project the second time around, but unfortunately, that did not happen. Both contractors present at the bid opening reinforced that in fact, all contractors are busy right now and the schedule was still a problem for them and others. Several contractors that did not bid the project stated the same thing. In short, it is a very difficult bidding climate.

The City of Omaha currently has 11 Combined Sewer Overflow (CSO) contracts underway and more are coming. Similarly, the City of Council Bluffs has multiple large projects underway, including the massive Council Bluffs Interstate System (CBIS) project. Collectively, this has reduced the number of "utility" contractors available to bid the project.

Due to the two bid results, the current bidding climate described above, as well as what is anticipated in the near future, I believe that there are five options;

1. Accept the current low bid from M.E. Collins and construct the project for the low bid amount.
2. Reject the current bids and re-bid the project next month, extend the total contracting time to one (1) year and keep the total WORKING days at 95. This will simply allow contractors to bid on a project that can begin on the time frame that works for the individual contractor. This

would allow contractors to clear out some of their existing backlog and ensure work in the future.

3. Divide the project by work type (new pipe installation vs. sliplining) and bid them as two (2) separate projects.
4. A combination of 2. and 3. above.
5. Reject all bids and postpone re-bidding the project until a later date when the bid climate changes.

With regards to urgency of the work, the Corps of Engineers gave most of the Big Papio Levee Culverts in this project, an Unacceptable rating in a March 19, 2015 drainage structure inspection review letter. In order to maintain a good standing in the Corps of Engineers 84-99 program, the NRD will need to more forward to remedying the problem by addressing deficiencies in these culverts. Therefore, indefinitely delaying the project is not an option.

My opinion is that awarding the project as currently bid has some potential adverse long term effects. The NRD will have dozens of these levee penetrations to rehabilitate in the coming years and establishing a construction price that is, in my opinion, is considerably elevated due to the current bidding climate, could cost the NRD significant dollars in the future. I do not see the current bidding climate changing substantially in the near future and for that reason, simply re-bidding the project will not help for some time.

My recommendation is to consider option 2.This seems to be the most viable option, considering all factors.

Please feel free to contact me if you have any questions.

Sincerely,

Michael K. Sotak, P.E.

Big Papio Levee Culverts Project - Bid Tabulation Sheet

City of Bellevue Culvert

Contractor			M.E. Collins		Valley Corporation		Engineer's Opinion of Costs		Low Bid Deviation	Average Bid Deviation
Item	**Unit**	**Total**	**Unit Cost**	**Extension**	**Unit Cost**	**Extension**	**Unit Cost**	**Extension**		
Mobilization	LS	1	$ 45,193.00	$ 45,193.00	$ 17,902.41	$ 17,902.41	$ 6,000.00	$ 6,000.00	$ 39,193.00	$ 25,547.71
Pipe Cleaning	LS	1	$ 36,082.00	$ 36,082.00	$ 8,836.72	$ 8,836.72	$ 2,000.00	$ 2,000.00	$ 34,082.00	$ 20,459.36
Strip, Stockpile, and Replace 6" Topsoil	SY	405	$ 0.50	$ 202.50	$ 9.89	$ 4,005.45	$ 5.00	$ 2,025.00	$ (1,822.50)	$ 78.98
Excavation	CY	1194	$ 12.00	$ 14,328.00	$ 15.89	$ 18,972.66	$ 4.00	$ 4,776.00	$ 9,552.00	$ 11,874.33
Embankment	CY	6	$ 123.00	$ 738.00	$ 142.95	$ 857.70	$ 4.00	$ 24.00	$ 714.00	$ 773.85
Levee Embankment	CY	936	$ 16.00	$ 14,976.00	$ 19.96	$ 18,682.56	$ 4.00	$ 3,744.00	$ 11,232.00	$ 13,085.28
Remove Concrete Headwall	EA	1	$ 315.00	$ 315.00	$ 599.36	$ 599.36	$ 600.00	$ 600.00	$ (285.00)	$ (142.82)
Remove 36" Dia CMP	LF	36	$ 53.00	$ 1,908.00	$ 22.21	$ 799.56	$ 25.00	$ 900.00	$ 1,008.00	$ 453.78
Remove, Recondition and Reinstall 36" Dia Flap Gate	EA	1	$ 3,156.00	$ 3,156.00	$ 2,267.83	$ 2,267.83	$ 1,100.00	$ 1,100.00	$ 2,056.00	$ 1,611.92
36" Dia CMP	LF	8.5	$ 152.00	$ 1,292.00	$ 150.33	$ 1,277.81	$ 80.00	$ 680.00	$ 612.00	$ 604.90
30" Dia RCP	LF	36	$ 179.00	$ 6,444.00	$ 155.30	$ 5,590.80	$ 100.00	$ 3,600.00	$ 2,844.00	$ 2,417.40
30" Dia RCP Flared End Section	EA	1	$ 1,622.00	$ 1,622.00	$ 2,090.95	$ 2,090.95	$ 1,000.00	$ 1,000.00	$ 622.00	$ 856.48
30" Dia HDPE Sliplining w/Grout	LF	153	$ 181.00	$ 27,693.00	$ 290.09	$ 44,383.77	$ 245.00	$ 37,485.00	$ (9,792.00)	$ (1,446.62)
36" Joint Block	EA	1	$ 3,608.00	$ 3,608.00	$ 2,107.53	$ 2,107.53	$ 1,800.00	$ 1,800.00	$ 1,808.00	$ 1,057.77
6" Crushed Rock Surfacing	SY	138	$ 22.00	$ 3,036.00	$ 28.19	$ 3,890.22	$ 7.00	$ 966.00	$ 2,070.00	$ 2,497.11
Double Timber Pile Pipe Support	EA	1	$ 10,550.00	$ 10,550.00	$ 16,447.56	$ 16,447.56	$ 5,000.00	$ 5,000.00	$ 5,550.00	$ 8,498.78
Class "C" RipRap	TN	235	$ 79.00	$ 18,565.00	$ 75.72	$ 17,794.20	$ 60.00	$ 14,100.00	$ 4,465.00	$ 4,079.60
Class "B" RipRap	TN	66	$ 79.00	$ 5,214.00	$ 75.72	$ 4,997.52	$ 50.00	$ 3,300.00	$ 1,914.00	$ 1,805.76
SWPPP Measures	LS	1	$ 13,747.00	$ 13,747.00	$ 3,777.11	$ 3,777.11	$ 900.00	$ 900.00	$ 12,847.00	$ 7,862.06
Seeding	AC	0.5	$ 6,029.00	$ 3,014.50	8,453.54	$ 4,226.77	$ 700.00	$ 350.00	$ 2,664.50	$ 3,270.64
			TOTAL	**$ 211,684.00**	**TOTAL**	**$ 179,508.49**	**TOTAL**	**$ 90,350.00**		

City of Omaha Culverts

Contractor			M.E. Collins		Valley Corporation		Engineer's Opinion of Costs		Low Bid	Average Bid
Item	**Unit**	**Total**	**Unit Price**	**Extension**	**Unit Price**	**Extension**	Unit Cost	Extension	Deviation	Deviation
MOBILIZATION	LS	1	$ 87,499.00	$ 87,499.00	$ 93,775.26	$ 93,775.26	$ 15,700.00	$ 15,700.00	$ 71,799.00	$ 74,937.13
PIPE CLEANING	LS	1	$ 19,959.00	$ 19,959.00	$ 42,150.37	$ 42,150.37	$ 6,000.00	$ 6,000.00	$ 13,959.00	$ 25,054.69
STRIP, STOCKPILE, AND REPLACE 6" TOPSOIL	SY	485	$ 0.50	$ 242.50	$ 17.94	$ 8,700.90	$ 5.00	$ 2,425.00	$ (2,182.50)	$ 2,046.70
EXCAVATION	CY	1143	$ 12.00	$ 13,716.00	$ 15.89	$ 18,162.27	$ 4.00	$ 4,572.00	$ 9,144.00	$ 11,367.14
EMBANKMENT	CY	447	$ 11.00	$ 4,917.00	$ 29.23	$ 13,065.81	$ 4.00	$ 1,788.00	$ 3,129.00	$ 7,203.41
REMOVE AND REPLACE SPLIT RAIL FENCE	LF	75	$ 24.00	$ 1,800.00	$ 46.92	$ 3,519.00	$ 25.00	$ 1,875.00	$ (75.00)	$ 784.50
REMOVE 24" DIA CMP	LF	30	$ 32.00	$ 960.00	$ 44.42	$ 1,332.60	$ 15.00	$ 450.00	$ 510.00	$ 696.30
REMOVE 36" DIA CMP	LF	10	$ 32.00	$ 320.00	$ 88.84	$ 888.40	$ 25.00	$ 250.00	$ 70.00	$ 354.20
REMOVE 42" DIA CMP	LF	52	$ 53.00	$ 2,756.00	$ 44.42	$ 2,309.84	$ 50.00	$ 2,600.00	$ 156.00	$ (67.08)
REMOVE 24" DIA FLAP GATE	EA	2	$ 315.00	$ 630.00	$ 500.49	$ 1,000.98	$ 200.00	$ 400.00	$ 230.00	$ 415.49
20" DIA SOLID WALL HDPE	LF	30	$ 85.00	$ 2,550.00	$ 176.79	$ 5,303.70	$ 50.00	$ 1,500.00	$ 1,050.00	$ 2,426.85
20" DIA HDPE SLIPLINING W/GROUT	LF	500	$ 126.00	$ 63,000.00	$ 338.05	$ 169,025.00	$ 145.00	$ 72,500.00	$ (9,500.00)	$ 43,512.50
30" DIA HDPE SLIPLINING W/GROUT	LF	135	$ 175.00	$ 23,625.00	$ 298.20	$ 40,257.00	$ 245.00	$ 33,075.00	$ (9,450.00)	$ (1,134.00)
42" DIA RCP	LF	52	$ 284.00	$ 14,768.00	$ 211.46	$ 10,995.92	$ 200.00	$ 10,400.00	$ 4,368.00	$ 2,481.96
42" DIA RCP PIPE BEND	EA	1	$ 4,727.00	$ 4,727.00	$ 3,850.62	$ 3,850.62	$ 2,000.00	$ 2,000.00	$ 2,727.00	$ 2,288.81
HIGH STRENGTH INFLATABLE PIPE PLUG	EA	2	$ 16,305.00	$ 32,610.00	$ 5,161.27	$ 10,322.54	$ 500.00	$ 1,000.00	$ 31,610.00	$ 20,466.27
24" CONCRETE JOINT BLOCK	EA	2	$ 3,083.00	$ 6,166.00	$ 817.36	$ 1,634.72	$ 1,500.00	$ 3,000.00	$ 3,166.00	$ 900.36
42" JOINT BLOCK	EA	1	$ 4,892.00	$ 4,892.00	$ 3,102.44	$ 3,102.44	$ 1,800.00	$ 1,800.00	$ 3,092.00	$ 2,197.22
42" DIA CONCRETE COLLAR	EA	1	$ 1,347.00	$ 1,347.00	$ 3,759.33	$ 3,759.33	$ 1,600.00	$ 1,600.00	$ (253.00)	$ 953.17
18" DIA METAL FLARED END SECTION W/TAPER	EA	2	$ 2,253.00	$ 4,506.00	$ 533.85	$ 1,067.70	$ 400.00	$ 800.00	$ 3,706.00	$ 1,986.85
24" DIA FLAP GATE	EA	2	$ 3,020.00	$ 6,040.00	$ 1,153.47	$ 2,306.94	$ 2,000.00	$ 4,000.00	$ 2,040.00	$ 173.47
36" DIA FLAP GATE	EA	1	$ 3,526.00	$ 3,526.00	$ 2,760.50	$ 2,760.50	$ 2,500.00	$ 2,500.00	$ 1,026.00	$ 643.25
42" DIA FLAP GATE	EA	1	$ 4,113.00	$ 4,113.00	$ 4,035.17	$ 4,035.17	$ 3,000.00	$ 3,000.00	$ 1,113.00	$ 1,074.09
SINGLE TIMBER PILE PIPE SUPPORT	EA	3	$ 3,957.00	$ 11,871.00 *	$ 8,334.56	$ 25,003.68	$ 2,900.00	$ 8,700.00	$ 3,171.00	$ 9,737.34
DOUBLE TIMBER PILE PIPE SUPPORT	EA	1	$ 9,212.00	$ 9,212.00	$ 15,229.19	$ 15,229.19	$ 5,000.00	$ 5,000.00	$ 4,212.00	$ 7,220.60
CLASS "C" RIPRAP	TN	627	$ 79.00	$ 49,533.00	$ 77.58	$ 48,642.66	$ 60.00	$ 37,620.00	$ 11,913.00	$ 11,467.83
CLASS "B" RIPRAP	TN	171	$ 79.00	$ 13,509.00	$ 75.72	$ 12,948.12	$ 50.00	$ 8,550.00	$ 4,959.00	$ 4,678.56
GEOTEXTILE FABRIC	SY	223	$ 4.00	$ 892.00	$ 8.56	$ 1,908.88	$ 1.75	$ 390.25	$ 501.75	$ 1,010.19
SWPPP MEASURES	LS	1	$ 10,094.00	$ 10,094.00	$ 11,331.33	$ 11,331.33	$ 1,700.00	$ 1,700.00	$ 8,394.00	$ 9,012.67
SEEDING	AC	1.5	$ 5,435.00	$ 8,152.50	$ 5,395.35	$ 8,093.03	$ 700.00	$ 1,050.00	$ 7,102.50	$ 7,072.76
WETLAND SEEDING	AC	0.02	$ 6,805.00	$ 136.10	$ 22,748.50	$ 454.97	$ 2,000.00	$ 40.00	$ 96.10	$ 255.54
			TOTAL	**$ 408,069.10 ***	**TOTAL**	**$ 566,938.87**	**TOTAL**	**$ 236,285.25**		
			Total listed on Bid Tab	**$ 432,266.00**						

* Extension does not match unit cost times quantity, so extension was corrected.

Remaining Culverts

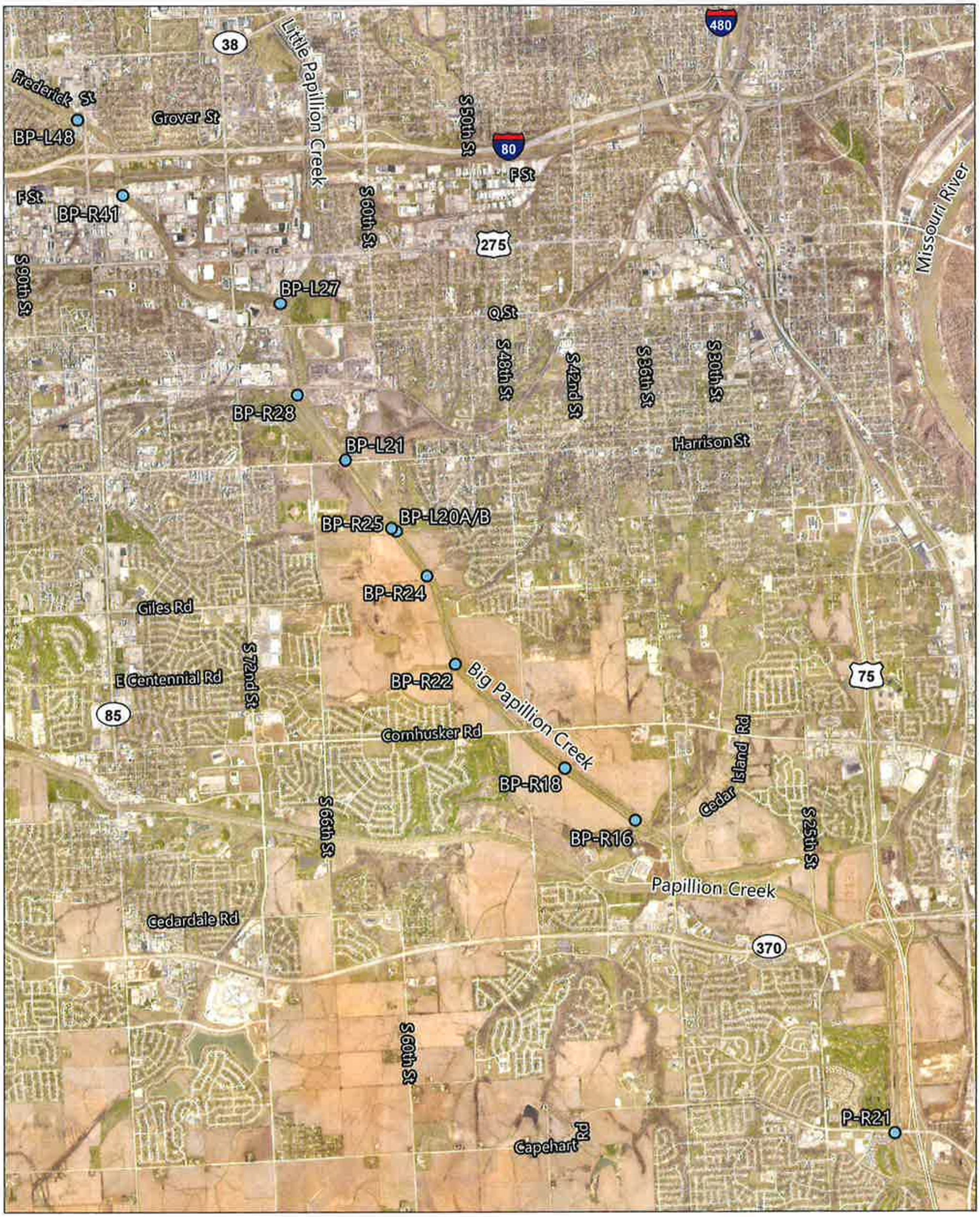
Contractor			M.E. Collins		Valley Corporation		Engineer's Opinion of Costs		Low Bid	Average Bid
Item	**Unit**	**Total**	**Unit Price**	**Extension**	**Unit Price**	**Extension**	Unit Cost	Extension	Deviation	Deviation
Mobilization	LS	1	$ 52,525.00	$ 52,525.00	$ 330,017.20	$ 330,017.20	$ 53,700.00	$ 53,700.00	$ (1,175.00)	$ 137,571.10
Pipe Cleaning	LS	1	$ 21,010.00	$ 21,010.00	$ 76,324.23	$ 76,324.23	$ 9,500.00	$ 9,500.00	$ 11,510.00	$ 39,167.12
Ring Levee Embankment and Removal	CY	1672	$ 24.00	$ 40,128.00	$ 39.91	$ 66,729.52	$ 12.00	$ 20,064.00	$ 20,064.00	$ 33,364.76
Clearing and Grubbing	LS	1	$ 22,060.00	$ 22,060.00	$ 12,927.75	$ 12,927.75	$ 3,000.00	$ 3,000.00	$ 19,060.00	$ 14,493.88
Temporary 24" Dia CMP through Ring Levee	LF	199	$ 53.00	$ 10,547.00	$ 70.36	$ 14,001.64	$ 40.00	$ 7,960.00	$ 2,587.00	$ 4,314.32
Temporary 24" Dia Flap Gate for Ring Levee	EA	2	$ 1,411.00	$ 2,822.00	$ 1,153.47	$ 2,306.94	$ 2,000.00	$ 4,000.00	$ (1,178.00)	$ (1,435.53)
Strip, Stockpile, and Replace 6" Topsoil	SY	4661	$ 0.30	$ 1,398.30	$ 12.71	$ 59,241.31	$ 5.00	$ 23,305.00	$ (21,906.70)	$ 7,014.81
Excavation	CY	14702	$ 9.00	$ 132,318.00	$ 11.35	$ 166,867.70	$ 4.00	$ 58,808.00	$ 73,510.00	$ 90,784.85
Embankment	CY	1174	$ 16.00	$ 18,784.00	$ 29.23	$ 34,316.02	$ 4.00	$ 4,696.00	$ 14,088.00	$ 21,854.01
Levee Embankment	CY	11022	$ 16.00	$ 176,352.00	$ 19.96	$ 219,999.12	$ 4.00	$ 44,088.00	$ 132,264.00	$ 154,087.56
Remove 15"/12" Dia CMP	LF	203	$ 25.00	$ 5,075.00	$ 22.21	$ 4,508.63	$ 5.00	$ 1,015.00	$ 4,060.00	$ 3,776.82
Remove 18" Dia CMP	LF	40	$ 25.00	$ 1,000.00	$ 22.21	$ 888.40	$ 50.00	$ 2,000.00	$ (1,000.00)	$ (1,055.80)
Remove 24" Dia CMP	LF	60	$ 25.00	$ 1,500.00	$ 22.21	$ 1,332.60	$ 15.00	$ 900.00	$ 600.00	$ 516.30
Remove 48" Dia CMP	LF	131	$ 25.00	$ 3,275.00	$ 44.42	$ 5,819.02	$ 25.00	$ 3,275.00	$ -	$ 1,272.01
Remove 84" Dia CMP	LF	118	$ 53.00	$ 6,254.00	$ 55.52	$ 6,551.36	$ 50.00	$ 5,900.00	$ 354.00	$ 502.68
Remove 15" Dia Flared End Section	EA	1	$ 105.00	$ 105.00	$ 888.36	$ 888.36	$ 100.00	$ 100.00	$ 5.00	$ 396.68
Remove 24" Dia Flared End Section	EA	1	$ 105.00	$ 105.00	$ 1,110.45	$ 1,110.45	$ 150.00	$ 150.00	$ (45.00)	$ 457.73
Remove 36" Dia Flared End Section	EA	1	$ 158.00	$ 158.00	$ 1,480.59	$ 1,480.59	$ 200.00	$ 200.00	$ (42.00)	$ 619.30
Remove 24" Dia Flap Gate	EA	1	$ 315.00	$ 315.00	$ 1,000.97	$ 1,000.97	$ 200.00	$ 200.00	$ 115.00	$ 457.99
Remove and Salvage (to Owner) 48" Dia Flap Gate	EA	1	$ 735.00	$ 735.00	$ 1,421.07	$ 1,421.07	$ 400.00	$ 400.00	$ 335.00	$ 678.04
Remove and Salvage(to Owner) 84" Dia Flap Gate	EA	1	$ 1,576.00	$ 1,576.00	$ 1,655.67	$ 1,655.67	$ 800.00	$ 800.00	$ 776.00	$ 815.84
Remove Existing Combination Curb Inlet	EA	1	$ 1,050.00	$ 1,050.00	$ 2,220.91	$ 2,220.91	$ 1,200.00	$ 1,200.00	$ (150.00)	$ 435.46
Remove Timber Pile Pipe Support	EA	1	$ 525.00	$ 525.00	$ 1,030.06	$ 1,030.06	$ 800.00	$ 800.00	$ (275.00)	$ (22.47)
Remove and Replace 6' Chain Link Fence w/Barbed	LF	70	$ 83.00	$ 5,810.00	$ 46.92	$ 3,284.40	$ 30.00	$ 2,100.00	$ 3,710.00	$ 2,447.20
Remove and Replace Pavement	SY	30	$ 75.00	$ 2,250.00	$ 140.76	$ 4,222.80	$ 35.00	$ 1,050.00	$ 1,200.00	$ 2,186.40
Flowable Concrete for Pipe Abandonment	CY	7	$ 251.00	$ 1,757.00	$ 697.31	$ 4,881.17	$ 115.00	$ 805.00	$ 952.00	$ 2,514.09
Type "A" Single Inlet w/Cast Iron Curb Inlet	EA	1	$ 3,832.00	$ 3,832.00	$ 4,878.45	$ 4,878.45	$ 3,500.00	$ 3,500.00	$ 332.00	$ 855.23
48" Dia Manhole	EA	1	$ 3,101.00	$ 3,101.00	$ 4,822.66	$ 4,822.66	$ 2,500.00	$ 2,500.00	$ 601.00	$ 1,461.83
Tap Existing Area Inlet	EA	2	$ 891.00	$ 1,782.00	$ 663.48	$ 1,326.96	$ 900.00	$ 1,800.00	$ (18.00)	$ (245.52)
18" Dia Solid Wall HDPE	LF	214	$ 53.00	$ 11,342.00	$ 72.00	$ 15,408.00	$ 50.00	$ 10,700.00	$ 642.00	$ 2,675.00
20" Dia Solid Wall HDPE	LF	181	$ 61.00	$ 11,041.00	$ 87.95	$ 15,918.95	$ 50.00	$ 9,050.00	$ 1,991.00	$ 4,429.98
20" Dia HDPE Sliplining w/Grout	LF	572	$ 127.00	$ 72,644.00	$ 221.30	$ 126,583.60	$ 145.00	$ 82,940.00	$ (10,296.00)	$ 16,673.80
30" Dia HDPE Sliplining w/Grout	LF	178	$ 175.00	$ 31,150.00	$ 260.66	$ 46,397.48	$ 245.00	$ 43,610.00	$ (12,460.00)	$ (4,836.26)
24" Dia CMP	LF	20	$ 58.00	$ 1,160.00	$ 108.47	$ 2,169.40	$ 80.00	$ 1,600.00	$ (440.00)	$ 64.70
60" Dia RCP	LF	124	$ 381.00	$ 47,244.00	$ 383.81	$ 47,592.44	$ 500.00	$ 62,000.00	$ (14,756.00)	$ (14,581.78)
96" Dia RCP	LF	152	$ 1,324.00	$ 201,248.00	$ 1,137.04	$ 172,830.08	$ 500.00	$ 76,000.00	$ 125,248.00	$ 111,039.04
24" Concrete Joint Block	EA	1	$ 982.00	$ 982.00	$ 1,625.96	$ 1,625.96	$ 1,500.00	$ 1,500.00	$ (518.00)	$ (196.02)
60" Dia Concrete Collar	EA	1	$ 4,526.00	$ 4,526.00	$ 5,260.79	$ 5,260.79	$ 1,000.00	$ 1,000.00	$ 3,526.00	$ 3,893.40
96" Dia Concrete Collar	EA	1	$ 9,682.00	$ 9,682.00	$ 8,386.28	$ 8,386.28	$ 1,500.00	$ 1,500.00	$ 8,182.00	$ 7,534.14
18" Dia Metal Flared End Section w/Taper Sleeve	EA	1	$ 2,347.00	$ 2,347.00	$ 1,067.70	$ 1,067.70	$ 400.00	$ 400.00	$ 1,947.00	$ 1,307.35
24" Dia Galvanized Steel Flared End Section	EA	2	$ 503.00	$ 1,006.00	$ 1,142.16	$ 2,284.32	$ 350.00	$ 700.00	$ 306.00	$ 945.16
36" Dia Galvanized Steel Flared End Section	EA	1	$ 912.00	$ 912.00	$ 1,559.17	$ 1,559.17	$ 750.00	$ 750.00	$ 162.00	$ 485.59
60" Dia RCP Flared End Section	EA	1	$ 5,980.00	$ 5,980.00	$ 8,904.51	$ 8,904.51	$ 6,000.00	$ 6,000.00	$ (20.00)	$ 1,442.26
96" Dia RCP Sloped End Section	EA	1	$ 19,961.00	$ 19,961.00	$ 21,666.92	$ 21,666.92	$ 6,000.00	$ 6,000.00	$ 13,961.00	$ 14,813.96

Remaining Culverts

Contractor			M.E. Collins		Valley Corporation		Engineer's Opinion of Costs		Low Bid Deviation	Average Bid Deviation
Item	**Unit**	**Total**	**Unit Price**	**Extension**	**Unit Price**	**Extension**	Unit Cost	Extension		
Remove, Recondition and Reinstall 24" Dia Flap Gate	EA	1	$ 1,831.00	$ 1,831.00	$ 2,267.83	$ 2,267.83	$ 1,000.00	$ 1,000.00	$ 831.00	$ 1,049.42
Remove, Recondition and Reinstall 36" Dia Flap Gate	EA	1	$ 2,407.00	$ 2,407.00	$ 3,049.84	$ 3,049.84	$ 1,100.00	$ 1,100.00	$ 1,307.00	$ 1,628.42
21" Dia Flap Gate	EA	1	$ 1,347.00	$ 1,347.00	$ 2,260.01	$ 2,260.01	$ 1,800.00	$ 1,800.00	$ (453.00)	$ 3.51
24" Dia Flap Gate	EA	2	$ 1,359.00	$ 2,718.00	$ 2,306.93	$ 4,613.86	$ 2,000.00	$ 4,000.00	$ (1,282.00)	$ (334.07)
60" Dia Flap Gate	EA	1	$ 6,448.00	$ 6,448.00	$ 7,038.09	$ 7,038.09	$ 3,000.00	$ 3,000.00	$ 3,448.00	$ 3,743.05
96" Dia Flap Gate	EA	1	$ 13,834.00	$ 13,834.00	$ 13,294.18	$ 13,294.18	$ 5,500.00	$ 5,500.00	$ 8,334.00	$ 8,064.09
Sheet Pile	SF	528	$ 34.00	$ 17,952.00	$ 76.93	$ 40,619.04	$ 40.00	$ 21,120.00	$ (3,168.00)	$ 8,165.52
Single Timber Pile Pipe Support	EA	4	$ 5,264.00	$ 21,056.00	$ 6,575.46	$ 26,301.84	$ 2,900.00	$ 11,600.00	$ 9,456.00	$ 12,078.92
Double Timber Pile Pipe Support	EA	1	$ 11,898.00	$ 11,898.00	$ 14,059.30	$ 14,059.30	$ 5,000.00	$ 5,000.00	$ 6,898.00	$ 7,978.65
BP-R22 Timber Pile Pipe Supports	EA	1	$ 23,114.00	$ 23,114.00	$ 58,083.36	$ 58,083.36	$ 14,500.00	$ 14,500.00	$ 8,614.00	$ 26,098.68
BP-R24 Timber Pile Pipe Supports	EA	1	$ 15,409.00	$ 15,409.00	$ 32,677.40	$ 32,677.40	$ 9,000.00	$ 9,000.00	$ 6,409.00	$ 15,043.20
6" Crushed Rock Surfacing	SY	803	$ 18.00	$ 14,454.00	$ 23.22	$ 18,645.66	$ 7.00	$ 5,621.00	$ 8,833.00	$ 10,928.83
Class "C" RipRap	TN	2047	$ 75.00	$ 153,525.00	$ 89.54	$ 183,288.38	$ 60.00	$ 122,820.00	$ 30,705.00	$ 45,586.69
Class "B" RipRap	TN	458	$ 75.00	$ 34,350.00	$ 91.51	$ 41,911.58	$ 50.00	$ 22,900.00	$ 11,450.00	$ 15,230.79
SWPPP Measures	LS	1	$ 13,747.00	$ 13,747.00	$ 30,216.89	$ 30,216.89	$ 19,600.00	$ 19,600.00	$ (5,853.00)	$ 2,381.95
Wetland Seeding	AC	0.07	$ 13,108.00	$ 917.56	$ 32,498.14	$ 2,274.87	$ 2,000.00	$ 140.00	$ 777.56	$ 1,456.21
Seeding	AC	7.2	$ 4,704.00	$ 33,868.80	$ 7,281.17	$ 52,424.42	$ 700.00	$ 5,040.00	$ 28,828.80	$ 38,106.61
			TOTAL	**$ 1,308,250.66**	**TOTAL**	**$ 2,046,738.11**	**TOTAL**	**$ 815,307.00**		

Total for all Culverts	**$ 1,928,003.76 ***	**$ 2,793,185.46**	**$1,141,942.25**
Listed on Bid Tab	**$ 1,952,200.66**		

* Extension does not match unit cost times quantity, so extension was corrected.



Location Map - Figure 1
Big Papio Levee Culverts Project
Papio-Missouri River NRD
Douglas and Sarpy County, NE

N
0 0.5 1 2
Miles

PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT

FYRA ENGINEERING