
MEMORANDUM

TO: RANDY HILL, PUBLIC WORKS DIRECTOR

FROM: JON LUTZ, CITY ENGINEER

SUBJECT: CEDAR STREET RECONSTRUCTION
APPROVE WATER UTILITY REIMBURSEMENT AGREEMENT

DATE: October 1, 2012

INTRODUCTION:

The City of Muscatine is reconstructing Cedar Street from Houser to Parham. Water main relocation and other hydrant adjustment work must be completed to accommodate the new configuration.

BACKGROUND:

The project has been divided into 3 phases. Phase 1 culvert extensions near the Wood Creek and Stonebrook subdivision entrances are completed. Phase 2 in 2012 includes water, electric, gas, and telephone utility relocations and some storm sewer work. Phase 3 in 2013 will be paving reconstruction and grading work on the entire length.

Water main relocation work:

Approximately 1900 feet of water main and associated work is currently under contract with Brandt Construction Company for \$189,502.00. Muscatine Power & Water proposed to pay 50% of the water related improvements up to \$140,000. Therefore, the City and MPW would each fund \$94,751.00 for this work. This funding split was presented to council in the memo approving plans and specifications for this project.

Additional work including a tie to the Logan Street main and other hydrant elevation adjustments are proposed to be funded according to the same ratio. The Logan water main work will be performed in 2013 when Cedar is closed at that location for grading and paving.

RECOMMENDATION/RATIONALE:

The City engineer recommends approving the reimbursement agreement as submitted by MPW.

BACKUP INFORMATION:

1. Bid Tabulation
2. Water utility reimbursement agreement.

February 22, 2012

Mr. John Lutz
City Engineer
City of Muscatine Public Works Facility
1459 Washington Street
Muscatine, IA 52761

Subject: 2012 Cedar Street Roadway Improvements, Utility Relocation Phase

Dear Mr. Lutz:

Muscatine Power & Water reviewed the preliminary plans for roadway improvements to Cedar Street, between Parham and Houser Streets ("Cedar Street Project"). An existing water main, with considerable remaining useful life, lies in the planned construction area. Our review of the plans, indicate that the Cedar Street Project will create a new profile detrimentally affecting the water main in some areas. The new profile of the road, as currently proposed by the City, would leave the water main in some areas too shallow and more prone to being affected by ground heave during freeze/thaw cycles. The Cedar Street Project will require replacing a portion of the existing 10 inch water main with 1900 feet (from approximately 1818 Cedar Street to 2107 Cedar Street with an extension of 252 feet on Logan Street.) of new 10-inch ductile iron water main at the new depth. The new water main will need to be relocated to a bury depth of at least five feet of cover and no deeper than eight feet to accommodate future maintenance needs. MP&W understands that the water main relocation work will be conducted by the City's contractor according to the City's plans, with MP&W approval. In order to facilitate the Cedar Street Project, MP&W agrees to the contributions toward the relocation of the affected water main as specified in this letter.

1. **Plans and Permits.** MP&W will design the piping, valves, blocking, service connections, material specifications, and such related to the water main, and the City will prepare the construction drawings and final specifications. MP&W will submit the City's constructions drawings and final plans to Iowa Department of Natural Resources (IDNR) to request the required permits related to the relocation of the water main. This process requires submission of final plans and can take months before IDNR approval is issued. The City must provide MP&W with final plans for the Cedar Street Project and timely updates if plans change. Significant changes may require re-review by IDNR. Changes to the Cedar Street Project plans could affect IDNR issued permits, add to the cost of the work, and cause delays.
2. **Contract Review.** MP&W will have opportunity to review, provide input, and approve the City's contract for the water main relocation work prior to release for bidding. Specifications for the water main relocation will meet MP&W's standards for construction and materials.

3. **Engineering and Inspection Services.** MP&W will provide, at no cost to the City, engineering and inspection services during the water main relocation work to ensure construction and materials meet all the pertinent specifications and permit requirements.
4. **Direct Financial Contribution.** Upon completion of the work and passing final inspection by MP&W, MP&W agrees to pay 50% of the estimated \$280,000 construction cost for the water main relocation work, including services, restoration, and the rights for salvage. The total amount of MP&W's portion shall not exceed \$140,000 for water main contract items. MP&W will only pay this contribution for work actually performed and expenses actually incurred by the City's contractor. Any discounts provided by a contractor or vendor will also apply to the MP&W contribution. Any change orders or modifications by the City to the Cedar Street project that affect the water main relocation work and causes MP&W's portion of the cost to exceed \$140,000, will be considered the City's responsibility.

We realize the City is faced with capital infrastructure needs and know that we can continue to work together to complete these projects as they arise for the benefit of the citizens of the City of Muscatine.

If you would like further explanation or you have any questions, please contact me at (563) 262-3360.

Regards,

Kris J Hatfield
Manager of Water and Utility Services
Muscatine Power and Water

cc: Sal LoBianco
Brandy Olson
Tim Reed
Ahren Gross

Agreed to by the City of Muscatine:

Signed: _____

By: _____

Its: _____

BID TABULATION **CEDAR STREET UTILITY PROJECT**

Bid Opening: May 23, 2012

				Engineer's Estimate		Sulzberger Excavating, INC.			Brandt Construction Co.			Hagerty Earthworks, LLC		
#	ITEM	QUANTITY	UNIT	Price/ Unit	Total	Price/ Unit	Total	Adjusted Total	Price/Unit	Total	Adjusted Total	Price/Unit	Total	Adjusted Total
General								Per Alternates			Per Alternates			Per Alternates
A1	Mobilization	1	LS	\$30,000.00	\$30,000.00	\$8,250.00	\$8,250.00	\$8,250.00	\$12,000.00	\$12,000.00	\$12,000.00	\$6,500.00	\$6,500.00	\$6,500.00
A2	Traffic Control	1	LS	\$3,000.00	\$3,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,800.00	\$1,800.00	\$1,800.00	\$1,600.00	\$1,600.00	\$1,600.00
A3	Grading	1	LS	\$45,000.00	\$45,000.00	\$37,500.00	\$37,500.00	\$37,500.00	\$19,000.00	\$19,000.00	\$19,000.00	\$37,500.00	\$37,500.00	\$37,500.00
A4	Urban Seeding	0.35	ACRE	\$2,000.00	\$700.00	\$1,980.00	\$693.00	\$693.00	\$2,010.00	\$703.50	\$703.50	\$1,800.00	\$630.00	\$630.00
A5	Rural Seeding	2.28	ACRE	\$2,000.00	\$4,520.00	\$1,980.00	\$4,474.80	\$4,474.80	\$1,665.00	\$3,636.90	\$3,636.90	\$1,800.00	\$4,068.00	\$4,068.00
A6	Silt Fence	1131	LF	\$3.00	\$3,393.00	\$3.25	\$3,675.75	\$3,675.75	\$2.00	\$2,262.00	\$2,262.00	\$3.00	\$3,393.00	\$3,393.00
A7	TV Inspection	1	LS	\$4,700.00	\$4,700.00	\$2,850.00	\$2,850.00	\$2,850.00	\$2,450.00	\$2,450.00	\$2,450.00	\$2,500.00	\$2,500.00	\$2,500.00
A8	Construction Survey	1	LS	\$12,000.00	\$12,000.00	\$4,650.00	\$4,650.00	\$4,650.00	\$4,700.00	\$4,700.00	\$4,700.00	\$10,850.00	\$10,850.00	\$10,850.00
A9	Pavement Removal	118	SY	\$10.00	\$1,180.00	\$10.00	\$1,180.00	\$1,180.00	\$12.00	\$1,416.00	\$1,416.00	\$20.00	\$2,360.00	\$2,360.00
A10	7" PCC Pavement Patch	118	SY	\$60.00	\$7,080.00	\$94.50	\$11,151.00	\$11,151.00	\$48.00	\$5,428.00	\$5,428.00	\$86.30	\$10,183.40	\$10,183.40
A11	6" Asphalt Millings Subbase	136	SY	\$5.00	\$680.00	\$7.00	\$952.00	\$952.00	\$11.00	\$1,496.00	\$1,496.00	\$6.50	\$884.00	\$884.00
A12	Concrete Barrier Rail	200	LF	\$15.00	\$3,000.00	\$11.00	\$2,200.00	\$2,200.00	\$22.00	\$4,400.00	\$4,400.00	\$15.00	\$3,000.00	\$3,000.00
Section A Subtotal:					\$115,253.00		\$78,576.55	\$78,576.55		\$59,182.40	\$59,182.40		\$83,468.40	\$83,468.40
Water Distribution														
B1	10" DIWM Class 52	1968	LF	\$75.00	\$147,600.00	\$57.10	\$112,372.80	\$112,372.80	\$74.25	\$146,124.00	\$0.00	\$65.00	\$127,920.00	\$127,920.00
B2	8" DIWM Class 52	96	LF	\$80.00	\$7,680.00	\$79.00	\$7,584.00	\$7,584.00	\$75.00	\$7,200.00	\$7,200.00	\$56.00	\$5,376.00	\$5,376.00
B3	6" DIWM Class 52	18	LF	\$80.00	\$1,440.00	\$103.00	\$1,854.00	\$1,854.00	\$84.50	\$1,521.00	\$1,521.00	\$48.50	\$873.00	\$873.00
B4	10" line Stop	1	EA	\$5,000.00	\$5,000.00	\$8,000.00	\$8,000.00	\$8,000.00	\$10,500.00	\$10,500.00	\$10,500.00	\$9,500.00	\$9,500.00	\$9,500.00
B5	10" Gate Valve	1	EA	\$4,000.00	\$4,000.00	\$1,950.00	\$1,950.00	\$1,950.00	\$2,800.00	\$2,800.00	\$2,800.00	\$4,000.00	\$4,000.00	\$4,000.00
B6	10" Plug & Thrust Block	2	EA	\$2,500.00	\$5,000.00	\$750.00	\$1,500.00	\$1,500.00	\$450.00	\$900.00	\$900.00	\$1,600.00	\$1,600.00	\$1,600.00
B7	10"x10" Tapping Valve & Sleeve	2	EA	\$5,000.00	\$10,000.00	\$4,080.00	\$8,160.00	\$8,160.00	\$4,900.00	\$9,800.00	\$9,800.00	\$5,500.00	\$11,000.00	\$11,000.00
B8	8" Line Stop	1	EA	\$3,000.00	\$3,000.00	\$4,350.00	\$4,350.00	\$4,350.00	\$5,850.00	\$5,850.00	\$5,850.00	\$5,800.00	\$5,800.00	\$5,800.00
B9	8" Gate Valve	1	EA	\$2,500.00	\$2,500.00	\$1,425.00	\$1,425.00	\$1,425.00	\$1,650.00	\$1,650.00	\$1,650.00	\$3,500.00	\$3,500.00	\$3,500.00
B10	6" Valve & Hydrant Assembly	4	EA	\$3,500.00	\$14,000.00	\$3,985.00	\$15,940.00	\$15,940.00	\$18,800.00	\$18,800.00	\$18,800.00	\$3,950.00	\$15,800.00	\$15,800.00
B11	2" Copper Service Reconnection	1	EA	\$2,000.00	\$2,000.00	\$2,250.00	\$2,250.00	\$2,250.00	\$2,445.00	\$2,445.00	\$2,445.00	\$2,425.00	\$2,425.00	\$2,425.00
B12	1" Copper Service Reconnection	1	EA	\$1,000.00	\$1,000.00	\$1,895.00	\$1,895.00	\$1,895.00	\$1,200.00	\$1,200.00	\$1,200.00	\$1,625.00	\$1,625.00	\$1,625.00
Section B Subtotal:					\$203,220.00		\$167,480.80	\$167,480.80		\$208,690.00	\$82,566.00		\$189,419.00	\$189,419.00
Storm Sewer														
C1	SW401 Manhole 5' Dia	3	EA	\$3,500.00	\$10,500.00	\$5,080.00	\$15,240.00	\$15,240.00	\$2,900.00	\$8,700.00	\$8,700.00	\$4,850.00	\$14,550.00	\$14,550.00
C2	SW401 Manhole 6' Dia	1	EA	\$4,500.00	\$4,500.00	\$4,915.00	\$4,915.00	\$4,915.00	\$3,400.00	\$3,400.00	\$3,400.00	\$4,950.00	\$4,950.00	\$4,950.00
C3	SW507 Inlet	1	EA	\$2,800.00	\$2,800.00	\$2,980.00	\$2,980.00	\$2,980.00	\$2,350.00	\$2,350.00	\$2,350.00	\$2,850.00	\$2,850.00	\$2,850.00
C4	SW508 Inlet	5	EA	\$3,200.00	\$16,000.00	\$3,040.00	\$15,200.00	\$15,200.00	\$2,300.00	\$11,500.00	\$11,500.00	\$2,910.00	\$14,550.00	\$14,550.00
C5	SW510 Inlet	1	EA	\$4,000.00	\$4,000.00	\$4,280.00	\$4,280.00	\$4,280.00	\$4,150.00	\$4,150.00	\$4,150.00	\$5,050.00	\$5,050.00	\$5,050.00
C6	Raise Manhole 5' Dia	1	EA	\$2,000.00	\$2,000.00	\$1,150.00	\$1,150.00	\$1,150.00	\$1,050.00	\$1,050.00	\$1,050.00	\$3,400.00	\$3,400.00	\$3,400.00
C7	15" RCP 20000	550	LF	\$30.00	\$16,500.00	\$42.00	\$23,100.00	\$23,100.00	\$37.00	\$20,350.00	\$20,350.00	\$46.00	\$25,300.00	\$25,300.00
C8	15" RCP Apron	4	EA	\$850.00	\$3,400.00	\$1,045.00	\$4,180.00	\$4,180.00	\$665.00	\$2,660.00	\$2,660.00	\$1,300.00	\$5,200.00	\$5,200.00
C9	18" RCP 20000	498	LF	\$42.00	\$20,916.00	\$45.50	\$22,659.00	\$22,659.00	\$39.00	\$19,422.00	\$19,422.00	\$48.50	\$24,153.00	\$24,153.00
C10	24" RCP 20000	53	LF	\$60.00	\$3,180.00	\$64.25	\$3,405.25	\$3,405.25	\$55.00	\$2,915.00	\$2,915.00	\$53.00	\$2,809.00	\$2,809.00
C11	24" RCP Apron	1	EA	\$1,400.00	\$1,400.00	\$1,525.00	\$1,525.00	\$1,525.00	\$755.00	\$755.00	\$755.00	\$1,672.00	\$1,672.00	\$1,672.00
C12	30" RCP 20000	591	LF	\$70.00	\$41,370.00	\$63.85	\$37,735.35	\$37,735.35	\$60.00	\$35,460.00	\$35,460.00	\$81.00	\$36,051.00	\$36,051.00
C13	30" HDPE	98	LF	\$85.00	\$8,330.00	\$70.50	\$6,909.00	\$6,909.00	\$101.00	\$9,898.00	\$9,898.00	\$81.00	\$5,978.00	\$5,978.00
C14	30" RCP Apron	1	EA	\$1,500.00	\$1,500.00	\$2,200.00	\$2,200.00	\$2,200.00	\$1,000.00	\$1,000.00	\$1,000.00	\$2,050.00	\$2,050.00	\$2,050.00
C15	Remove & Mortar 24" CMP	1	EA	\$3,000.00	\$3,000.00	\$1,500.00	\$1,500.00	\$1,500.00	\$1,900.00	\$1,900.00	\$1,900.00	\$1,100.00	\$1,100.00	\$1,100.00
C16	18" Driveway Culvert	1	EA	\$1,000.00	\$1,000.00	\$1,550.00	\$1,550.00	\$1,550.00	\$1,655.00	\$1,655.00	\$1,655.00	\$1,850.00	\$1,850.00	\$1,850.00
C17	Class E Revetment Stone	110	TON	\$55.00	\$6,050.00	\$48.00	\$5,280.00	\$5,280.00	\$44.00	\$4,840.00	\$4,840.00	\$53.00	\$5,830.00	\$5,830.00
Section C Subtotal:					\$146,446.00		\$153,808.60	\$150,403.35		\$132,905.00	\$132,905.00		\$157,343.00	\$157,343.00
Alternates														
D1	15" HDPE/A2000 PVC	267	LF	\$27.00	\$7,209.00	\$47.50	\$12,682.50	\$0.00	\$39.25	\$10,479.75	\$0.00	\$46.00	\$12,282.00	\$0.00
D2	18" HDPE/A2000 PVC	400	LF	\$38.00	\$15,200.00	\$49.75	\$19,900.00	\$0.00	\$43.00	\$17,200.00	\$0.00	\$48.50	\$19,400.00	\$0.00
D3	24" HDPE/A2000 PVC	53	LF	\$50.00	\$2,650.00	\$62.00	\$3,286.00	\$3,286.00	\$61.00	\$3,233.00	\$0.00	\$53.00	\$2,809.00	\$0.00
D4	30" HDPE/A2000 PVC	497	LF	\$60.00	\$29,820.00	\$67.00	\$33,299.00	\$0.00	\$68.00	\$32,602.00	\$0.00	\$81.00	\$30,317.00	\$0.00
D5	Nyloplast 30" Manhole	1	EA	\$1,300.00	\$1,300.00	\$4,915.00	\$4,915.00	\$0.00	\$2,600.00	\$2,600.00	\$0.00	\$5,000.00	\$5,000.00	\$0.00
D6	10" HDPE DR9 Water Main	1968	LF	\$85.00	\$167,280.00	\$60.00	\$118,080.00	\$0.00	\$84.50	\$126,936.00	\$126,936.00	\$85.00	\$127,920.00	\$0.00
Section D Subtotal:								\$3,286.00			\$126,936.00			\$0.00
Base Bid					\$464,919.00		\$399,865.95		\$400,787.40				\$430,230.40	
Bid With Lower Alternates								\$399,746.70	>>>>LOW BID>>>>	\$381,599.40				\$430,230.40