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Public Works

**City Transit
263-8152**

MEMORANDUM

**Equipment Maintenance
Roadway Maintenance
Collection & Drainage
Building & Grounds
Engineering**

To: Brian Stineman Public Works Director
FROM: Jim Edgmond, City Engineer
DATE: October 1, 2018
RE: West Side Trail Final Design Engineering Agreement

INTRODUCTION:

The route study for the west side trail is complete and the final design survey and NEPA clearances are being evaluated. The last portion of the project is to get the actual design of the project completed.

BACKGROUND:

The negotiations are complete between the City and Martin & Whitacre. These negotiations have resulted in a scope of services and an agreed upon fee. The scope of services is attached and the final design Engineering Agreement fee is \$71,910.00. This fee includes reducing the survey portion of the contract from \$47,500.00 to \$30,000.00.

Westside Trail Survey=	\$30,000.00	Previously Approved
Westside Trail Final Design=	\$71,910.00	
Westside Trail NEPA=	\$55,000.00	Previously Approved

RECOMMENDATION/RATIONALE:

Recommend city council approve this proposal from Martin Whitacre team in the amount of \$71,910.00 for the final design engineering agreement of the Westside Trail.

BACKUP INFORMATION:

1. Letter proposal from Martin Whitacre.

AGREEMENT FOR PROFESSIONAL SERVICES

WEST SIDE TRAIL CONNECTION

CITY OF MUSCATINE, IOWA

DESCRIPTION OF PROJECT AND SCOPE OF IMPROVEMENTS:

Martin & Whitacre Surveyors & Engineers (CONSULTANT) has been selected by the City of Muscatine (CLIENT) to help design a new segment of the trail system located in Muscatine, Iowa. The scope of services is based on the following project limits, assumed construction program and assumed construction time frame:

Project Limits: Trail construction on Houser Street from Kent Stein Park to Discover Park.

Assumed Construction Program:

- Construction of new 10-ft wide trail, including:
 - Removal of existing curb and surface improvements required for street connections
 - Trail subgrade excavation and placement of modified subbase
 - Construction of new 10-ft wide HMA or PCC pavement
 - Reconstruction of driveway aprons and pedestrian ramps to meet ADA requirements
- Erosion control, sediment control and turf establishment
- Traffic control and construction staging
- Other miscellaneous items

Assumed Construction Time Frame: September 2019 to June 2020

I. BASIC SERVICES

For purposes of this Project, Basic Services to be provided by the CONSULTANT are as follows:

TASK 1: PROJECT INITIATION

Subtask 1.1: Coordination Meetings

Description: The CONSULTANT shall facilitate a Project Kick-off Meeting with CLIENT to accomplish the following:

- Review and confirm the scope and nature of the proposed improvements
- Review any special issues regarding project staging during construction
- Conduct a field review of project area by project team members and City staff
- Determine if revisions to the scope are necessary to include additional improvements
- Confirm the project schedule and specific milestones

Deliverables:

- Minutes of Kick-off Meeting
-

Subtask 1.2: Coordination Meetings

Description: Coordination meetings with CLIENT throughout the design phase shall occur at a minimum every two weeks. The purpose will be to review project status, discuss coordination and design issues, and review project schedule and budget.

Deliverables:

- Minutes of Meetings

TASK 2: FIELD DATA COLLECTION

Description: The CONSULTANT shall collect soil information as required for design and preparation of construction documents. Information to be collected shall include:

- Soil borings and analysis at locations where retaining walls will be located

Deliverables:

- Soil boring logs

TASK 3: ENVIRONMENTAL ASSESSMENT

Description: The CONSULTANT shall coordinate with a certified environmental specialist to develop an environmental plan that meets current NEPA requirements based on an assumption that a Programmatic Categorical Exclusion (PCE) can be completed. Components required for the completion of the environmental assessment include:

- Project management and administration
- Concept statement development and documentation
- NEPA Analysis and documentation
 - Define purpose and need
 - Description of proposed action and alternatives
 - Data gathering
 - Land use inventory
 - Review local and regional plans
 - Identify public/special use lands
 - Wetlands and natural resources inventory
 - Historic and archaeological resources
 - Hazardous waste/contaminated sites
 - Cemeteries and burial plot research
 - Create property owner database
 - Environmental Impact Analysis (PCE Level)
 - NEPA Environmental Document (PCE Level)
 - Interagency coordination and involvement

Deliverables:

- Completed environmental assessment based on the assumption of receiving a PCE complying with NEPA with the current regulations for project with federal funding.
- Construction mitigation requirements to accommodate impacts on sensitive areas within project area.

TASK 4: PRELIMINARY DESIGN

Subtask 4.1: Preliminary Plans

Description: The CONSULTANT shall complete preliminary design. Major design components to include the following:

- Horizontal alignment and plan view layout of the proposed improvements: trail centerline, curb lines, driveways, sidewalks and other improvements
- Centerline vertical alignments and profiles; Intersection and pedestrian ramp layouts with pavement elevations
- Cross-sections at 50-foot intervals, driveways and critical design locations
- Proposed retaining wall type and design; Structural design for retaining walls and grading requirements

- Proposed drainage improvements: pipe sizes, horizontal layouts, vertical profiles, special details, and other applicable information
- Preparation of traffic control and staging plan with an emphasis on maintaining access during construction
- Miscellaneous plan sheets, including: Title sheet, tabulations, typical sections, details, and other required information

Preliminary design and plans will conform to the requirements of the CLIENT, Iowa Department of Transportation and SUDAS specifications. The CONSULTANT shall review the plans with CLIENT prior to the Iowa DOT Preliminary Plan and Check Plan stages.

Deliverables:

- Preliminary plans at complete stages
- A Project Manual is not required for a Department of Transportation let project.
- Preliminary Estimate of Quantities & Preliminary Engineer's Opinion of Probable Construction Costs.

Subtask 4.2: Iowa Department of Transportation Deliverables

Description: The CONSULTANT shall complete the required deliverables for the Iowa Department of Transportation to keep the project on the schedule as set by the CLIENT and in concurrence with the Iowa Department of Transportation letting schedule. This task will include completing the submittals required for:

Development Progress Deliverables:

- Concept Statement
- Preliminary Plans
- Check Plans

Clearances:

- Agreement
- NEPA
- SHPO Review

TASK 5: FINAL DESIGN AND BIDDING PHASE

Subtask 5.1: Final Contract Documents

Description: The CONSULTANT shall complete final project design and preparation of plans and specifications in accordance with the requirements of the CLIENT, Iowa Department of Transportation and SUDAS specifications. CONSULTANT shall review the plans with the CLIENT prior to Final Plan submittal to the Iowa DOT.

Deliverables:

- Final Plans
- Final Estimate of Quantities & Engineer's Estimate of Probable Construction Costs.

Subtask 5.2: Iowa Department of Transportation Deliverables

Description: The CONSULTANT shall complete the required deliverables for the Iowa DOT to keep the project on the schedule as set by the CLIENT and in concurrence with the Iowa Department of Transportation letting schedule. This task will include completing the submittals required for:

Development Progress Deliverables:

- Final Plans
- Development Certificate

- Final Turn-In

Clearances:

- Utilities
- Permits

Subtask 5.3: Bidding

Description: The CONSULTANT shall provide the following services during the bidding phase:

- Project will be let by the Iowa Department of Transportation
- Assist CLIENT in preparing recommendation for City Council regarding the award of the Contract.

Deliverables:

- Copies of advertisement for bids
- Copies of bid tabulation
- Letter with recommendation regarding the award of the Contract

II. PROJECT SCHEDULE

The project schedule will follow the Iowa DOT Type 2 schedule as described in I.M. 3.002. The schedule accounts for:

1. Prepare Concept Statement: 4 weeks
2. Prepare Preliminary Plans: 16 weeks
3. Prepare Check Plans: 10 weeks
4. Prepare Final Plans: 2 weeks

This schedule for the design of the trail will be in concurrence with additional DOT reviews with a project schedule of approximately 13 months. The project schedule shall commence within 1 week of notice to proceed.

The environmental assessment will be on a separate schedule that will be completed in concurrence with the design of the trail. The schedule established here assumes that a PCE can be obtained. The concept statement will take approximately 1 month and will start at the beginning of the preliminary design phase. The NEPA analysis will take approximately 6 to 9 months and will commence after the concept statement is finalized and approved by the DOT.

III. DESIGN FEE SCHEDULE

The CONSULTANT shall coordinate all work associated with the items identified above. Progress payments will be submitted on a monthly basis throughout the design process in coordination with city council meetings. The fees for each task are as follows:

TASK 1: PROJECT INITIATION

- Hourly basis estimated at \$7,300. This task includes the project kick-off meeting and meetings every two weeks for an estimate 13-month project timeline.

TASK 2: FIELD DATA COLLECTION

- Lump sum for soil analysis: \$4,300

TASK 3: ENVIRONMENTAL ASSESSMENT

- Lump sum for NEPA clearances based on receiving a PCE: \$55,000

TASK 4: PRELIMINARY DESIGN

- Hourly not to exceed: \$46,110

TASK 5: FINAL DESIGN AND BIDDING PHASE

- Hourly not to exceed: \$14,200

IV. SUBCONSULTANT MANAGEMENT

Martin & Whitacre Surveyors & Engineers will manage subcontracts with:

1. Impact 7G for all environmental assessment and NEPA compliance
2. Bolton & Menk will be hired on a consultant basis to help with the DOT process and structural design as needed.

V. EXCLUSIONS

- (i) Legal review and legal advice
- (ii) Work related to right-of-way acquisition

Martin & Whitacre Surveyors and Engineers, Inc.

City of Muscatine



Ricky Teed, P.E.
Martin & Whitacre Surveyors and Engineers

Name:

Title:

Date: 8/23/2018

Date: