Executive Director Contracting Recommendation

Date: 10/19/2018

RECOMMENDATION FOR ACTION:

The Co-Executive Directors have reviewed and recommend approval of the following Contract Action(s).

SUMMARY OF CONTRACTING ACTION:

Per the contract review and approval procedures that were adopted by the Diversion Authority on November 10, 2016 and amended August 23, 2018, the Owner's Program Management Consultant (PMC) or Engineer of Record (EOR) is directed to prepare task orders and task order amendments for existing Master Services Agreements (MSA) and submit them to the Co-Executive Directors for review and action.

The Owner's PMC has prepared the following Contract Action(s):

Houston-Moore Group, LLC

Task Order 17, Amendment 6 – WP-42 SDB and SDC $777,864

- Add subtask B (SDC) scope and budget for WP-42E
- Extend the Period of Performance to June 30, 2020

BACKGROUND AND DISCUSSION:

Houston-Moore Group, LLC (HMG) is the Engineer of Record for the In-Town Levees (WP-42) projects, and has provided Services During Bid (SDB) and Services During Construction (SDC) for WP-42 projects from July 10, 2014, to the present time.

This amendment adds Services During Construction (SDC) scope and budget for the recently awarded WP-42E (2nd St. So. and Main Ave. Flood Mitigation) construction project, and extends the POP to the project completion date, June 30, 2020.

The table below summaries the contracting history for this task order and the current contracting action.

Summary of Contracting History and Current Contract Action:

Original Agreement or Amendment	Budget ($) Change	Revised Project Cost	Agreement Date	Project Completion	Comments
Task Order 17 Amendment 0	$ -	$1,550,000	10-Jul-14	30-Sep-16	Initial WP-42 SDB and SDC agreement for WP- 42A.1, WP-42A.2, and WP42A.3.
Task Order 17 Amendment 1	$693,000	$2,243,000	8-Aug-15	30-Sep-16	Adds SDB and SDC for WP-42F.1S; SDB for WP- 42H.2; SDB for WP-42I; and, SDB for WP-42C.2.
Task Order 17 Amendment 2	$1,605,000	$3,848,000	2-Feb-16	30-Jun-17	Incorporated AWD-00052; added additional SDC period of performance and budget for WP- 42A.2 and WP-42A.1/A.3; added SDC for WP- 42H.2, WP-42I.1, and WP-42C.1; and, added SDB for 42F.1N.
Task Order 17 Amendment 3	$751,000	$4,599,000	26-May-16	31-Jul-17	Incorporates AWD-00058 and includes additional SDC services for 42F.1N. Adds requirement for Engineer to note Activity ID on monthly invoices.
Task Order 17 Amendment 4	$333,000	$4,932,000	23-Jun-16	31-Jul-17	Incorporates AWD-00059 scope amendment budget changes for WP42F.1S, WP42H.2, and WP42I.1. Add SDC scope and budget for WP42F.2.

Original Agreement or Amendment	Budget ($) Change	Revised Project Cost	Agreement Date	Project Completion	Comments
Task Order 17 Amendment 5	$411,413	$5,343,413	26-Oct-17	31-Dec-18	Incorporate new MSA terms and conditions, add WP-42G SDC and SDB scope and budget, reallocate SDB and PM budgets, incorporate MSA bill rate increase for SDC budget, increase SDC budgets closeout projects, and extend the POP to Dec 31, 2018.
Task Order 17 Amendment 6	$777,864	$6,121,277	24-Oct-18	30-Jun-20	Add WP-42E SDC scope and budget and extend the POP to June 30, 2020.

FINANCIAL CONSIDERATIONS:

HMG is the Engineer of Record for this project and prepared the technical specifications and drawings for the bid package, and will provide Service During Construction (SDC).

HMG provided the attached cost proposal for this amendment. The PMC reviewed it and a summary of that review is listed below. The labor rates are consistent with the 2018 MSA allowed rates. This task order is billed on a time and material basis for actual costs incurred for services performed.

1. **WP-42E SDC services**: The construction project is scheduled to start in the Fall of 2018 and finish in the summer of 2020, with some construction during the winter of 2018/2019. HMG's SDC cost proposal of $777,864 is approximately 9 percent of the construction contract amount.
    a. Subtask 2.B.3 (Pre-Construction Meeting): HMG's proposed 7 hours of professional services at an average rate of approximately $185 per hour for staff to participate in the Pre-Construction meeting for a total cost of $1,286.00.
        i. The PMC feels this is a reasonable level of effort.
    b. Subtask 2.B.5 (Resident Project Representative): The scope of work for this task includes providing a full time, on site, construction inspector for the project.
        i. HMG proposed 2,528 hours of professional services at an average rate of approximately $140 per hour for a total cost of $352,980.00.
        ii. HMG has assumed 280 working days, with the level of effort at the beginning and end of the project to be part time. This includes 2,420 hours for the resident project representative, and 108 hours for other staff categories to support this task.
        iii. The PMC feels this is a reasonable level of effort.
    c. Subtask 2.B.6 (Quality Assurance Management): The scope of work for this task includes providing management and engineering staff to oversee QA activities, review reports, maintain logs of QA activities, and prepare reports.
        i. HMG proposed 100 hours of professional services at an average rate of approximately $165 per hour for a total cost of $16,428.00.
        ii. The PMC feels this is a reasonable level of effort.

d. Subtask 2.B.7 (Requests for Information): The scope of work for this task includes providing responses to contractor requests for information when requested.

   i. HMG proposed 146 hours of professional services at an average rate of approximately $170 per hour for a total cost of $24,512.00.

   ii. The PMC feels this is a reasonable level of effort.

e. Subtask 2.B.8 (Shop Drawing Review): The scope of work for this task includes reviewing shop drawings, samples, and operation and maintenance manuals for conformance with contract documents.

   i. HMG proposed 228 hours of professional services at an average rate of approximately $180 per hour for a total cost of $40,612.00.

   ii. The PMC feels this is a reasonable level of effort.

f. Subtask 2.B.9 (Change Order Support): The scope of work for this task includes providing support for development of contractor change order pricing for modifications that affect the project design or function.

   i. HMG proposed 138 hours of professional services at an average rate of approximately $165 per hour for a total cost of $22,728.00.

   ii. The PMC feels this is a reasonable level of effort.

g. Subtask 2.B.10 (Surveying): The scope of work for this task includes providing surveying for project controls, benchmarks, existing conditions, and quantities for payment verification.

   i. HMG proposed 80 hours for a two person survey crew at a rate of $284 per hour plus 32 hours of professional services at an average rate of approximately $160 per hour for a total cost of $27,772.00.

   ii. The PMC feels this is a reasonable level of effort.

h. Subtask 2.B.11 (Maintain Redline Drawings): The scope of work for this task includes maintaining a set of redlined as-built drawings for the project.

   i. HMG proposed 70 hours of professional services at an average rate of approximately $160 per hour plus 18 hours for a two person survey crew at a rate of $284 per hour for a total cost of $16,432.00.

   ii. The PMC feels this is a reasonable level of effort.

i. Subtask 2.B.12 (Prepare/Review Site Visit Reports): The scope of work for this task includes preparing or reviewing reports for site visits by USACE or other external review teams.

   i. HMG proposed 36 hours of professional services at an average rate of approximately $170 per hour for a total cost of $6,042.00.

   ii. The PMC feels this is a reasonable level of effort.

j. Subtask 2.B.13 (Commissioning Activities): The scope of work for this task includes providing commissioning activities such as equipment operability testing and demonstrations and operations staff training.

   i. HMG proposed 46 hours of professional services at an average rate of approximately $155 per hour for a total cost of $7,112.00.

   ii. The PMC feels this is a reasonable level of effort.

k. Subtask 2.B.14 (Payment Application Verification): The scope of work for this task includes providing and or reviewing monthly pay application quantities.

   i. HMG proposed 202 hours of professional services at an average rate of approximately $160 per hour for a total cost of $32,200.00.

   ii. The PMC feels this is a reasonable level of effort.

l. Subtask 2.B.15 (Punchlist and Final Inspection): The scope of work for this task includes preparing a punch list of incomplete, inspecting, verifying and documenting the work was completed, and coordinate a final inspection.

   i. HMG proposed 59 hours of professional services at an average rate of approximately $170 per hour for a total cost of $10,163.00.

   ii. The PMC feels this is a reasonable level of effort.

m. Subtask 2.B.16 (Update the Design Report): The scope of work for this task includes updating the Design Document Report after construction completion to reflect the design changes, contract modifications, site conditions encountered, testing, and submittals.

   i. HMG proposed 114 hours of professional services at an average rate of approximately $165 per hour for a total cost of $18,652.00.

   ii. The PMC feels this is a reasonable level of effort.

n. Subtask 2.B.17 (As-Built Drawings): The scope of work for this task includes providing final As-Built drawings in conformance with the same standards as the design drawings.

   i. HMG proposed 118 hours of professional services at an average rate of approximately $145 per hour for a total cost of $17,144.00.

   ii. The PMC feels this is a reasonable level of effort.

o. Subtask 2.B.18 (Inspection and Monitoring Plan): The scope of work for this task includes preparing a post construction Inspection and Monitoring Plan specifying annual inspections required to verify satisfactory maintenance and performance of the flood risk management features.

   i. HMG proposed 66 hours of professional services at an average rate of approximately $170 per hour for a total cost of $11,272.00.

   ii. The PMC feels this is a reasonable level of effort.

p. Subtask 2.B.19 (Levee Certification): The scope of work for this task includes preparing and providing flood risk reduction certifications as required by the Owner.

   i. HMG proposed 90 hours of professional services at an average rate of approximately $175 per hour for a total cost of $16,470.00.

   ii. The PMC feels this is a reasonable level of effort.

q. Subtask 2.C.1 (Project Management): The scope of work for this task includes providing project management services, including monthly status reports and invoicing.

   i. HMG proposed 112 hours of professional services at an average rate of approximately $160 per hour for a total cost of $18,088.00.

   ii. The PMC feels this is a reasonable level of effort.

r. Subtask 2.C.2 (Project Meetings): The scope of work for this task includes providing project management services, including monthly status reports and invoicing.

   i. HMG proposed 224 hours of professional services at an average rate of approximately $160 per hour for a total cost of $36,176.00.

   ii. The PMC feels this is a reasonable level of effort.

s. HMG Expenses: HMG proposed $4,225.00 in expenses for the project. This includes 5,000 miles at $0.545 per mile for travel to and from the construction site, plus $1,500.00 of other misc. expenses such as supplies and reproductions.

   i. The PMC feels this is a reasonable level of effort for the anticipated project duration.

t. Subconsulting services: The following is a summary of proposed subconsultant services for this task order amendment.

   i. HMG's subconsultant, BARR Engineering Co., is providing geotechnical construction observation and support services for this project. BARR estimated 300 hours for this scope of work at a proposed budget of $46,000.00.

      1. At BARR's 2018 labor rates and an assumed distribution of management (50 hours), technical (230 hours), and administration (20 hours) staff averaging approximately $145 per hour, plus an assumed budget of approximately $3000.00 for travel expenses for the identified 6 site trips ($500.00 per trip), the proposed budget and level of effort seems reasonable and appropriate for the proposed scope of work.

      2. HMG's MSA allowed 10 percent markup of subcontractor services is $4,600.00.

      3. The PMC feels this is a reasonable level of effort.

ii. HMG's subconsultant, SRF Consulting Group, Inc., is providing electrical, landscaping, and irrigation construction observation and support services for this project. SRF estimated 232 hours for this scope of work at a proposed budget of $42,700.00.

1. SRF's Project Coordination services include day to day project management and administration.
    a. SRF proposed a total of 24 hours at approximately $180 per hour for a total cost $4,7320.00.
2. SRF's Project Meetings services include participation in the pre construction meeting weekly construction progress meetings.
    a. SRF proposed a total of 26 hours at approximately $165 per hour for a total cost $4,332.00.
3. SRF's Shop Drawing Review services include review of electrical, landscaping, and irrigation facilities shop drawings.
    a. SRF proposed a total of 88 hours at approximately $185 per hour for a total cost $16,272.00.
4. SRF's Construction Inspection services include site visits by local and remote staff to inspect electrical, landscaping, and irrigation facilities.
    a. SRF proposed a total of 94 hours at approximately $170 per hour for a total cost $14,796.00.
    b. The PMC feels this is a reasonable level of effort.
5. SRF's proposed expenses include travel expenses for proposed site visits, such as mileage reimbursement, document reproduction, airfare, and per diem.
    a. A total of $4,188.00 of expenses is proposed. The majority of these expenses are travel related, and average about $1,000 per trip.
6. HMG's MSA allowed 10 percent markup of subcontractor services is $4,270.00.
7. The PMC feels the level of effort and unit rate costs are reasonable.

2. **Extend the Period of Performance to June 30, 2020:** Construction activities are scheduled to continue into the summer of 2020 for WP-42E. This amendment extends the period of performance to the project completion date, June 30, 2020.

The table below lists the task order budgets by subtask.

Table 2: WP-42 Task Order Budgets by Subtask:

Subtask	Current Budget ($)	Amendment 6 ($)	Revised Budget ($)
A. SDB	172,000		172,000
B. SDC	5,151,413	777,864	5,929,277
C. PM	0		0
D. On Call	20,000	-	20,000
TOTAL	**5,343,413**	**777,864**	**6,121,277**

The PMC reviewed this task order amendment and found it to be acceptable.

ATTACHMENT(S):

1. Draft Task Order 17, Amendment 6
2. HMG Cost Proposal Task Order 17, Amendment 6

Prepared by: Program Management Consultant

John W. Glatzmaier

John Glatzmaier, P.E.
Jacobs

October 19, 2018
Date

Submitted by: Co-Executive Directors

Michael J. Redlinger Fargo Assistant City Administrator	Robert W. Wilson Cass County Administrator
Concur: October 23, 2018 *Non-Concur:*	*Concur:* October 22, 2018 *Non-Concur*

Cc: Technical Advisory Group

- Nathan Boerboom, City of Fargo/Diversion Authority Project Manager
- David Overbo, Clay County Engineer
- Jason Benson, Cass County Engineer
- Robert Zimmerman, Moorhead City Engineer

This is Task Order No. 17, Amendment ~~5~~6, consisting of 6 pages.

Houston-Moore Group, LLC

Task Order No. 17, Amendment ~~5~~6

FMDA Purchase Order No. 174124

Services During Construction – Work Package 42

In accordance with the Master Agreement for Professional Services between **Fargo-Moorhead Flood Diversion Authority** ("Owner") and **Houston-Moore Group, LLC** (HMG) ("Engineer"), dated May 1, 2017 ("Agreement"), Owner and Engineer agree as follows:

The parties agree that in the event of a conflict between prior versions of this Task Order No. 17 and this Amendment, the terms and conditions in this Amendment shall prevail, provided however, nothing herein shall preclude Engineer from invoicing for work authorized under prior versions of this Task Order and performed prior to effective date of this Amendment, even to the extent such prior work was revised by this Amendment. All other terms and conditions shall remain the same and are hereby ratified and affirmed by the parties.

1. Specific Project Data
   A. Title: SERVICES DURING CONSTRUCTION – WORK PACKAGE 42
   B. Description: Provide Services During Bid (SDB) and Services During Construction (SDC) for projects designed by HMG for the Fargo-Moorhead Area Flood Diversion Project (Project).
   C. Background: The scope of work for this Task Order includes SDB and SDC. Owner will be issuing various construction packages for bid. Engineer will assist Owner with SDC, including SDB. It is anticipated that the following construction contracts will be required:
      1. WP-42A.1, A.3 – Red River Levees – 4th Street Lift Station, Gatewell, and Outfall Structure
      2. WP-42A.2 – Red River Levees –2nd Street Lift Station and Gatewell Structure
      3. WP-42F.1S – Flood Control, 2nd Street North, South of Pump Station
      4. WP-42H.2 – El Zagal Area Flood Risk Management – Phase 2 (SDB and SDC)
      5. WP-42I.1 – Mickelson Levee Extension (SDB and SDC)
      6. WP-42C.2 – Park East Demolition (SDB and SDC)
      7. WP-42C.1 – HoJo, Old Shakey's, and FPS Demolition (SDB and SDC)
      8. WP-42F.1N – Flood Control, 2nd Street North, North of Pump Station (SDB only)
      9. WP-42F.2 - Flood Control, 2nd Street South, (Park East) (SDB and SDC)
      10. WP-42G – General Landscaping and Plantings (SDB and SDC)
      ~~10.~~11. WP-42E – 2nd St. So. and Main Ave. Flood Mitigation (SDB and SDC)

2. Services of Engineer

   The following functions and activities describe the general services authorized under this Task Order, Engineer will perform activities to accomplish the scope described herein, as well as other services that may be mutually agreed to by the parties pursuant to the terms of the Agreement.

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A. SERVICES DURING BIDDING

1. Respond to bidder inquiries forwarded by Owner's Representative during advertisement period and prepare addenda as necessary to provide a clear, biddable set of solicitation documents.
2. Attend and participate in pre-bid meetings and site visits.
3. Attend bid openings and, if requested, assist in evaluation of bids.
4. Incorporate addenda into the plans and technical specifications to create a set of Contract Award Documents.
5. Prepare a submittal register based on the Contract Documents indicating required submittals, the specific technical submittals requiring review and/or approval by the Engineer, and administrative submittals that can be reviewed by the Owner's Representative.

B. SERVICES DURING CONSTRUCTION

1. Comply with the general guidelines of the Memorandum for Record No. 018 (MFR-018) "Fargo-Moorhead Metro (FMM) Flood Risk Management (FRM) Project - Sponsor Constructed Features Roles and Responsibilities" between the Diversion Authority, US Army Corps of Engineers (USACE), and the Program Management Consultant (PMC) as modified herein.

2. Fulfill the duties of Engineer in accordance with the specific requirements of the Contract Documents for each project. Follow project documentation requirements provided by the PMC.

3. Participate in one or more partnering meetings.

4. Comply with Owner's and Contractor's safety plans.

5. Provide a Resident Project Representative (RPR) that will represent the Engineer and Owner's Representative. RPR will have the duties and defined in the Contract Documents for each project.

6. Provide Quality Assurance Managers and/or Project Engineers to perform general field observation and manage the specific inspections to be performed by third party materials testing firm, and other specialty inspection agents as needed.
    a. Validate results of tests and inspections, oversee retesting or other actions needed to reconcile deficiencies.
    b. Maintain a log for each type of test conducted.
    c. Prepare Daily Reports and submit to Owner's Representative and City of Fargo.
    d. Prepare Weekly Reports for each project documenting the work performed by Contractor, Quality Assurance activities performed, and current issues and challenges.
7. Respond to Requests for Information and other construction communication provided by the Owner's Representative.

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8. Review shop drawings, samples, and operation and maintenance manuals for conformance with the Contract Documents.

9. Lead development and scoping, and coordinate Contractor pricing of Change Orders or other modifications that affect the design or function of the Project, and provide drafts to PMC for review and approval recommendation to Owner.

10. Perform the following survey tasks in accordance with MRF-015, Survey Standards:

    a. Additional project control, if required.

    b. Benchmark checks during construction.

    c. Existing conditions surveys.

    d. Quantity surveys for Contractor's monthly payment application.

    e. As-built construction surveys

11. Maintain a set of full-scale contract drawings indicating as-built conditions. Assemble redline information from Contractor, Engineer's Resident Project Representative, and other sources to maintain these drawings.

12. Prepare or review site visit reports for site visits by Engineer, USACE or their external peer review team, or other authorities.

13. Provide commissioning activities, including equipment testing, demonstrations of capability and operability, and training of operating staff.

~~13.~~14. Assist Owner's Representative with determination of monthly pay application quantities.

~~14.~~15. Identify issues on a punch list for the Contractor to resolve. Upon completion of punch list items, coordinate a final inspection. Document each inspection.

~~15.~~16. Following completion of construction, update the Design Document Report to reflect the design changes, contract modifications, site conditions encountered, testing, and submittals.

~~16.~~17. Provide Final As-Built drawings in conformance with the same standards as the design drawings.

~~17.~~18. Prepare a post construction Inspection and Monitoring Plan specifying annual inspections required to verify satisfactory maintenance and performance of the flood risk management features.

~~18.~~19. Provide flood risk reduction certifications as required by Owner.

~~19.~~20. Deliverables:

    a. Contract Award Document(s)

    b. Log of QC Tests

    c. Daily Reports

    d. Weekly Reports

    e. Site Visit Reports

    f. Punch List(s)

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g. Updated Design Document Report

h. Final As-Built Drawings

i. Inspection and Monitoring Plan

j. Flood Risk Reduction Certifications

C. PROJECT MANAGEMENT (budget for these tasks included in Subtask 2.B)

1. Provide project management, including monthly status reports and invoicing to PMC, on Engineer's task activity.
2. Participate in regular and periodic meetings or teleconferences with contractors, the Owner's Representative, City of Fargo, Owner, and USACE.
3. Deliverables:
   a. Monthly status reports and invoices

D. ON-CALL SERVICES

1. Respond to requests for services from Owner or Owner's Representative for tasks not included in individual Task Orders. Services will be provided only with written authorization from Owner or Owner's Representative.
2. Deliverables:
   a. On-call services deliverables as requested.

3. Owner's Responsibilities

Owner shall have those responsibilities set forth in the Agreement.

4. Times for Rendering Services

Subtask	**Start Time**	**Completion Time**
All Work	July 10, 2014	September 30, 2016
Amendment 2	January 28, 2016	June 30, 2017
Amendment 3	May 1, 2016	July 31, 2017
Amendment 5	July 31, 2017	December 31, 2018
Amendment 6	October 24, 2018	June 30, 2020

5. Payments to Engineer

A. Owner shall pay Engineer for services rendered as follows:

I. Compensation for services in Subtasks A, B, and C shall be on a Time and Material basis in accordance with the Standard Hourly Rates shown in Paragraph 14 of the Agreement.

II. The budgets for Subtask D is an allowance.

B. Engineer will notify Owner when 80 percent of the budget is expended.

C. Engineer will submit an amendment for additional compensation when 90 percent of the budget is expended, or confirm to Owner that this Task Order can be completed for the remaining budget.

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D. Engineer will not perform work beyond 100 percent of the budget without Owner's authorization by an amendment to this Task Order.

Subtask	Activity ID	Current Budget ($)	Change ($)	Revised Budget ($)
A. Services During Bid	CN-9520 WP-42SDC	172,000~~190,000~~	~~(18,000)~~	172,000~~172,000~~
B. Services During Construction	CN-9520 WP-42SDC	5,151,413~~4,321,000~~	777,864~~830,413~~	5,929,277~~5,151,413~~
C. Project Management	CN- 9520 WP-42SDC	0~~401,000~~	~~-401,000~~	0~~0~~
D. On-Call Services	CN-9520 WP-42SDC	20,000	~~0~~	20,000~~20,000~~
TOTAL		**5,343,413~~4,932,000~~**	**777,864~~411,413~~**	**6,121,277~~5,343,413~~**

E. The terms of payment are set forth in Paragraph 15 of the Agreement.

F. When invoicing work, Engineer shall note the Activity ID (shown in the table above) associated with each invoiced activity.

6. Sub consultants:

   A. Barr Engineering (geotechnical inspections and support)
   B. SRF (signaling and lighting and landscaping)

7. Other Modifications to Agreement: No additions or modifications

8. Attachments: None.

9. Documents Incorporated By Reference:

   A. Agreement between Owner and Engineer for Professional Services -Task Order Edition, dated ~~March 8, 2012~~May 1, 2017.

   B. AWD-00050 REV-0, Services During Bidding-WP-42F.1S, dated July 9, 2015.

   C. AWD-00052 REV 0, WP-42C.2 SDC and WP-42C.1 SDB, dated November 12, 2015.

   D. AWD-00058 REV 0, WP-42F.1N SDC and WP-42F.2 SDB, dated May 12, 2016.

   E. AWD-00059 REV 0, WP-42F.1S, WP-42H.2, and WP-421.1 additional SDC, dated May 26, 2016.

   ~~E.~~F. HMG cost proposal received October 17, 2018.

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10. **Terms and Conditions:** Execution of this Task Order by Owner and Engineer shall make it subject to the terms and conditions of the Agreement (as modified above), which Agreement is incorporated by this reference. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is July 10, 2014.

ENGINEER:	OWNER:
Houston-Moore Group, LLC	**Fargo-Moorhead Metro Diversion Authority**
Signature Date	Signature Date
Jeffry J. Volk Name	Michael J. Redlinger ~~Timothy J. Mahoney~~ Name
President Title	Co-Executive Director~~Chairman, Flood Diversion Board of Authority~~ Title
DESIGNATED REPRESENTATIVE FOR TASK ORDER:	DESIGNATED REPRESENTATIVE FOR TASK ORDER:
C. Gregg Thielman Name	Nathan Boerboom~~Michael J. Redlinger~~ Name
Sr. Project Manager Title	Diversion Authority Project Manager~~Assistant City Administrator~~, City of Fargo Title
925 10th Avenue East West Fargo, ND 58078 Address	200 3rd Street North Fargo, ND 58102 Address
cgthielman@houstoneng.com E-Mail Address	~~mredlinger~~nboerboom@cityoffargo.com E-Mail Address
(701) 237-5065 Phone	(701) 476-~~4135~~6743 Phone
Fax	~~(701) 476-4136~~ Fax

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Received October 9, 2018,
Revised October 17, 2018

HMG

FM Metro Risk Management Project
HMG Task Order No. 17 - Services During Construction - WP42E

Task	Activity Description	Personnel Costs: Senior Project Manager Hours	Senior Project Manager Cost	Project Manager Hours	Project Manager Cost	Professional Engineer I Hours	Professional Engineer I Cost	Graduate Engineer Hours	Graduate Engineer Cost	2M Crew Hours	2M Crew Cost	CADD Technician III Hours	CADD Technician III Cost	Administrative Assistant Hours	Administrative Assistant Cost	Cost Per Task
WP42E - Services During Construction **(Assume a 280 work day construction timeline for WP42F1North - Oct 15, 2018 to July 1, 2020)**																
Task 2.B.3	Participate in Preconstruction Meeting - **Assume 1 meetings**	1	$ 240	2	$ 400	2	$ 368	2	$ 278		$ -	0	$ -	0	$ -	$ 1,286
Task 2.B.5	Provide a Resident Project Representative (RPR) that will represent the Engineer and Owner's Representative. RPR will have the duties and defined in the Contract Documents for each project. **- Generally Assume 40 work days in 2018 at 5 hours a day, 210 work days in 2019 at 10 hours a day, and 30 work days in 2020 at 4 hours a day.**	8	$ 1,920	20	$ 4,000	40	$ 7,360	2420	$ 336,380		$ -		$ -	40	$ 3,320	$ 352,980
Task 2.B.6	Provide Quality Assurance Managers and/or Project Engineers to perform general field observation and manage the specific inspections agents as needed. This includes a) Validate results of tests and inspections, oversee retesting or other actions needed to reconcile deficiencies. b) Maintain a log for each type of test conducted. c) Prepare Daily Reports and submit to Owner's Representative and City of Fargo. d) Prepare a weekly report for each project documenting the work performed by Contractor, Quality Assurance activities performed, and current issues and	4	$ 960	20	$ 4,000	40	$ 7,360	20	$ 2,780		$ -		$ -	16	$ 1,328	$ 16,428
Task 2.B.7	Respond to Requests for Information and other construction communication provided by the Owner's Representative	2	$ 480	40	$ 8,000	40	$ 7,360	60	$ 8,340		$ -		$ -	4	$ 332	$ 24,512
Task 2.B.8	Review shop drawings, samples, and operation and maintenance manuals for conformance with the Contract Documents	4	$ 960	40	$ 8,000	140	$ 25,760	40	$ 5,560		$ -		$ -	4	$ 332	$ 40,612
Task 2.B.9	Lead development and scoping, and coordinate Contractor pricing of change Orders or other modifications that affect the design or function of the Project, and provide drafts to PMC for review and approval recommendation to Owner	2	$ 480	40	$ 8,000	40	$ 7,360	40	$ 5,560		$ -		$ -	16	$ 1,328	$ 22,728
Task 2.B.10	Perform the following survey tasks in accordance with MFR-015, Survey Standards: a) Additional project control, if required; b) Benchmark checks during construction; c) Existing conditions surveys; d) Quantity surveys for Contractor's monthly payment application; e) As-built construction surveys.	2	$ 480	2	$ 400	8	$ 1,472	12	$ 1,668	80	$ 22,720	8	$ 1,032		$ -	$ 27,772
Task 2.B.11	Maintain a set of full-scale contract drawings indicating as-built conditions. Assemble redline informaiton from Contractor, Engineer's RPR, and other sources to maintain these drawings	2	$ 480	8	$ 1,600	20	$ 3,680	40	$ 5,560	18	$ 5,112		$ -		$ -	$ 16,432
Task 2.B.12	Prepare or review site visit reports for site visits by Engineer, USACE or their external peer review team, or other authorities	2	$ 480	10	$ 2,000	10	$ 1,840	10	$ 1,390		$ -	0	$ -	4	$ 332	$ 6,042
Task 2.B.13	Be responsible for commissioning activities, including equipment testing, demonstrations of capability and operability, and training of operating staff.	2	$ 480	4	$ 800	16	$ 2,944	16	$ 2,224		$ -	0	$ -	8	$ 664	$ 7,112
Task 2.B.14	Assist Owner's Representative with determination of monthly pay application quantities.	2	$ 480	20	$ 4,000	60	$ 11,040	120	$ 16,680		$ -	0	$ -		$ -	$ 32,200
Task 2.B.15	Identify issues on a punch list for the Contractor to resolve. Upon completion of punch list items, coordinate a final inspection. Document each inspection.	2	$ 480	20	$ 4,000	12	$ 2,208	25	$ 3,475		$ -	0	$ -		$ -	$ 10,163
Task 2.B.16	Following completion of construction, update the Design Documentation Report to reflect the design changes, contract modifications, site conditions encountered, testing, and submittals	16	$ 3,840	16	$ 3,200	30	$ 5,520	12	$ 1,668		$ -	24	$ 3,096	16	$ 1,328	$ 18,652
Task 2.B.17	Provide Final As-Built drawings in conformance with the same standards as the design drawings (WP42E) -	2	$ 480	8	$ 1,600	20	$ 3,680	40	$ 5,560		$ -	40	$ 5,160	8	$ 664	$ 17,144
Task 2.B.18	Prepare a post construction Inspection and Monitoring Plan specifying annual inspections required to verify satisfactory maintenance and performance of the flood risk management features.	2	$ 480	20	$ 4,000	20	$ 3,680	20	$ 2,780		$ -		$ -	4	$ 332	$ 11,272
Task 2.B.19	Provide flood risk reduction certifications as required by owner or Diversion Authority	8	$ 1,920	24	$ 4,800	40	$ 7,360	16	$ 2,224		$ -		$ -	2	$ 166	$ 16,470
	Total	61	$ 14,640	294	$ 58,800	538	$ 98,992	2893	$ 402,127	98	$ 27,832	72	$ 9,288	122	$ 10,126	$ 621,805
WP42E - Project Management																
Task 2.C.1	Provide project management, including monthly status reports and invoicing to Owner on Engineer's task activity - **Assume 280 work day construction timeline and approximately 1 hour per week (including prep.) for PM and Prof. Eng.**	0	$ -	0	$ -	56	$ 10,304	56	$ 7,784		$ -		$ -		$ -	$ 18,088
Task 2.C.2	Participate in regular and periodic meetings or teleconferences with contractors, the Owner's Representatives, Owner, and USACE - **Assume 280 work day construction timeline and approximately 2 hour per week (including prep.) for PM and Prof. Eng.**	0	$ -	0	$ -	112	$ 20,608	112	$ 15,568		$ -		$ -		$ -	$ 36,176
	Total	0	$ -	0	$ -	168	$ 30,912	168	$ 23,352	0	$ -	0	$ -	0	$ -	$ 54,264
	Geotechnical Support - Proposal from Barr - $46,000 plus 10% markup															$ 50,600
	Landscaping and Electrical Technical Support - SRF - $42,700 plus 10% markup															$ 46,970
	Expenses (WP42E) Based on 280 work day construction timeline and travel for construction observation and periodic inspections, assume 5,000 miles of mileage at 0.545 plus $1,500 for other misc. expenses.															$ 4,225
	Grand Totals	61	$ 14,640	294	$ 58,800	706	$ 129,904	3061	$ 425,479	98	$ 27,832	72	$ 9,288	122	$ 10,126	$ 777,864

Attachment 1

resourceful. naturally.
engineering and environmental consultants

BARR

September 24, 2018

Houston-Moore Group, LLC
Attn: Gregg Thielman

Re: Proposal to Provide Geotechnical Construction Observation Support for Levee, Pump Station and Floodwalls at 2nd Street and Main Avenue in Downtown Fargo, Work Package 42E (WP42E) Services During Construction (SDC) – Task Order No. 17
Fargo Moorhead Metro Area Diversion Project
Cass County, North Dakota

Dear Mr. Thielman:

We are pleased to submit for your consideration a proposal to provide geotechnical services for a proposed pump station, levee and floodwall (Work Package 42E) at Main Avenue and 2nd Street in downtown Fargo. Thank you for considering Barr Engineering Co. (Barr) for this job. This proposal follows Barr's work related to the previously authorized Task Order 13 performing WP42E geotechnical analysis and design, last amended on January 25, 2018. This proposal is for Services During Construction under Task Order 17.

Scope

The proposed scope of Barr's professional consulting services includes:

HMG has requested an estimate for construction observation support for an assumed period of 26 weeks commencing in May of 2019. The proposed scope of Barr's professional consulting services is proposed to include 26 weeks of construction observation support intended to also serve as a basis for completion of the construction portion of the DDR for these work phases:

- One 2-day site visit during pump station excavation;
- One 2-day site visit during pump station backfill;
- One 2-day site visit during floodwall excavation;
- One 2-day site visit during floodwall backfill or other work;
- One 2-day site visit during miscellaneous excavation;
- One 2-day site visit during miscellaneous backfill;
- 26 weeks of office support, reviewing daily field reports, coordination w/ PMC and HMG on site RPR;
- 26 weeks of participation in weekly construction conference calls;
- Compile construction report for WP42E Design Documentation Report and coordinate w/ on site RPR for RPR contributing sections;

- Compile construction report for WP42A3 Design Documentation Report and coordinate w/ on site RPR for RPR contributing sections;

Additional Barr services could be provided on a time and expense basis and are available upon request.

Schedule

The following timeline is estimated for completion of the work, but is flexible:

- Barr assumes in-the-field construction observation support will be required for an assumed period of 26 weeks commencing in May of 2019.
- All tasks and deliverables will be completed 52 weeks after receiving authorization to proceed and receipt of the necessary project design information from HMG. Barr will coordinate with the design team as design progresses to complete this work on an acceptable timeline.

Cost

The estimated cost to provide these tasks is as follows:

- **Total for all tasks: $46,000 (this cost assumes 300 hours of Barr staff time);**

We intend to perform these services on a time and expense basis in accordance with the agreement between Barr Engineering Co. and Houston-Moore Group, LLC. Please contact us if you have any questions about this proposal, and we look forward to continuing collaboration with you in the near future.

Respectfully Submitted for Your Consideration,

Matt Metzger, P.E.
Project Manager

Brian LeMon, P.E.
Vice President, Barr Engineering Co.

Attachment 2

SRF Consulting Group, Inc.

Work Tasks and Person-Hour Estimates

Client: Houston-Moore Group. LLC

Project: F-M Diversion: 2nd Street/Downtown - In-Town Levees

WP42E - 2nd Street S and Main Avenue Flood Mitigation

In-construction services

7715.23

Subconsultants:

TASK NO.	SUMMARY OF TASKS
1.0	PROJECT COORDINATION
2.0	PROGRESS MEETINGS
3.0	SHOP DRAWING REVIEW
4.0	ON-SITE INSPECTION

Project Overview:

Scope of Work is limited to landscape, lighting, and irrigation in-construction services. Assumes that the HEI team will be taking the lead on general project management, coordination with CH2M, daily construction engineering and inspection, construction survey, measuring and computing pay quantities, contract administration, claims, shop drawings, preparing and submitting final documentation and project closeout. Assumes SRF will be engaged during 2019-2020 active construction operations.

SRF Consulting Group, Inc.

Work Tasks and Person-Hour Estimates

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TASK NO.	TASK DESCRIPTION	PRINCIPAL	SR. ASSOC.	ASSOCIATE	SR. PROF	PROF.	TECHNICAL	CLERICAL	TOTALS	EST. FEE
1.0	**PROJECT COORDINATION** Assumptions: CH2M is Owner's Representative, HEI is project design lead SRF to be involved in 12 weeks of active construction in 2019 SRF to be involved in 12 weeks of active construction in 2020 One (1) year plant establishment period to begin after substantial completion Owner to use Aconex Software Client Deliverables: Access to Aconex, day-to-day project management and administration, scheduling coordination meetings.									
1.1	Project management and coordination between HEI and SRF team. Assumes 1 hour per week of active construction for Project Manager	0	24	0	0	0	0	0	24	$4,320
	SUBTOTAL - TASK 1	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**24**	**$4,320**
2.0	**PROGRESS MEETINGS** CH2M to prepare meeting agenda and minutes SRF to attend Pre-Construction Conference by Skype SRF to attend Weekly Progress Meetings only as needed									
2.1	Pre-Construction Meetings	0	2	0	0	0	0	0	2	$360
2.2	Weekly Progress Meetings (assumes 12 meetings in 2019 and 12 meetings in 2020 all by Skype and one hour in length)	0	12	0	12	0	0	0	24	$3,972
	SUBTOTAL - TASK 2	**0**	**14**	**0**	**12**	**0**	**0**	**0**	**26**	**$4,332**
3.0	**SHOP DRAWING REVIEW** Assumptions: Assumes Use of Aconex Software									
3.1	Review and respond to shop drawing submittals and RFIs for Electrical	0	36	0	0	0	0	0	36	$6,480
3.2	Review and respond to shop drawing submittals and RFIs for Landscape	0	8	0	36	0	0	0	44	$6,876
3.3	Review and respond to shop drawing submittals and RFIs for Irrigation	0	8	0	0	0	0	0	8	$1,440
	SUBTOTAL - TASK 3	**0**	**52**	**0**	**36**	**0**	**0**	**0**	**88**	**$14,796**

SRF Consulting Group, Inc.

Work Tasks and Person-Hour Estimates

Client: Houston-Moore Group. LLC

Project: F-M Diversion: 2nd Street/Downtown - In-Town Levees

WP42E - 2nd Street S and Main Avenue Flood Mitigation

In-construction services

7715.23

TASK NO.	TASK DESCRIPTION	PRINCIPAL	SR. ASSOC.	ASSOCIATE	SR. PROF	PROF.	TECHNICAL	CLERICAL	TOTALS	EST. FEE
4.0	**ON-SITE INSPECTION** Assumptions: One on-site visit for Electrical for Pump Station One on-site visit for Lead LA for Paver review Two on-site visits by LA Designer for Planting review Additional on-site inspection to be done by local SRF staff On-site visits will each be one full day									
4.1	Mock-up Reviews for Pavers, Colored Concrete, and Floodwall	0	12	0	16	0	0	0	28	$4,576
4.2	Pump Station start up for Electrical	0	12	0	0	0	0	0	12	$2,160
4.3	Addition on-site coordination by local SRF staff during SRF active in-construction. Assumes 1hr/wk.	0	2	0	24	0	0	0	26	$3,984
4.4	Plant layout inspection and review	0	2	0	12	0	0	0	14	$2,172
4.5	Final Plant Inspection at end of one year warranty	0	2	0	12	0	0	0	14	$2,172
	SUBTOTAL - TASK 4	**0**	**30**	**0**	**64**	**0**	**0**	**0**	**94**	**$15,064**
	TOTAL ESTIMATED PERSON-HOURS	**0**	**120**	**0**	**112**	**0**	**0**	**0**	**232**	
	AVERAGE HOURLY BILLING RATES	$210	$180	$162	$151	$122	$117	$85		
	ESTIMATED LABOR AND OVERHEAD	$0	$21,600	$0	$16,912	$0	$0	$0		$38,512
	ESTIMATED DIRECT NON-SALARY EXPENSES									$4,188
	TOTAL ESTIMATED FEE									**$42,700**

SRF Consulting Group, Inc.

Client: Houston-Moore Group. LLC

Project: F-M Diversion: 2nd Street/Downtown - In-Town Levees

WP42E - 2nd Street S and Main Avenue Flood Mitigation

In-construction services

Work Tasks and Person-Hour Estimates

7715.23

TASK NO.	TASK DESCRIPTION	PRINCIPAL	SR. ASSOC.	ASSOCIATE	SR. PROF	PROF.	TECHNICAL	CLERICAL	TOTALS	EST. FEE
ESTIMATE OF DIRECT NON-SALARY EXPENSES:										
	MILEAGE:	Personal Vehicles		30	Miles @	$0.535				$16
		Survey Vehicle		0	Miles @	$0.650				$0
	REPRODUCTION:	Copy Duplication		40	Copies @	$0.10				$4
		Color Copies		80	Copies @	$0.35				$28
	AIRFARE:	Round Trip		4	Trips @	$1,000.00				$4,000
	LODGING:	Per Night/Per Employee		0	Nights @	$125.00				$0
	MEALS:	Per Day/Per Employee		4	Days @	$35.00				$140
	PRINTING:									$0
	SUPPLIES:									$0
	COMMUNICATIONS:	Mail, Express, Etc.								$0
		Cell Phone Charges		0	Minutes @	$0.30				$0
	SUBCONSULTANTS:									$0
	ESTIMATED DIRECT NON-SALARY EXPENSES									$4,188

SUMMARY OF COSTS:		PRINCIPAL	SR. ASSOC.	ASSOCIATE	SR. PROF	PROF.	TECHNICAL	CLERICAL	TOTALS	
1.0	PROJECT COORDINATION	$ -	$ 4,320	$ -	$ -	$ -	$ -	$ -	$ 4,320	
2.0	PROGRESS MEETINGS	$ -	$ 2,520	$ -	$ 1,812	$ -	$ -	$ -	$ 4,332	
3.0	ON-SITE INSPECTION	$ -	$ 9,360	$ -	$ 5,436	$ -	$ -	$ -	$ 14,796	
4.0	#REF!	$ -	$ 5,400	$ -	$ 9,664	$ -	$ -	$ -	$ 15,064	
5.0	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
6.0	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
7.0	0.0	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	
										$38,512