### **AMENDMENT NO. 1 TO C22895**

Contract Start Date: 7/11/2016 Original Total Amount: \$434,495.00
Original Completion Date: 7/31/2018 As Previously Amended: 0
Amendment Completion Date: 12/31/2018 Current Amendment: \$188,483.39
Resolution: 17-0820R New Total Contract Amount: \$622,978.39

This amendment, effective as of the date of attestation by the City Clerk (the "Effective Date"), by and between the City of Duluth, hereinafter referred to as "City", and AMI Consulting Engineers P.A. located at 91 Main Street, Superior, WI 54880, hereinafter referred to as "Consultant", for the purpose of rendering services to the City.

WHEREAS, on July 11, 2016, City and Consultant entered into an agreement bearing City of Duluth Contract No. 22895 for professional engineering services for the Duluth Entertainment Convention Center (DECC) seawall repair and rehabilitation project, which Contract has not been previously amended, hereinafter referred to as the "Contract"; and

WHEREAS, both parties desire to amend the Contract.

NOW THEREFORE, in consideration of the mutual covenants and conditions hereinafter set forth, the parties hereto hereby agree as follows:

In this Amendment changes in the language of the Contract which delete language will be shown as stricken and language added to the contract language will be underlined.

Revision 1. The completion times described in Section II.F.5. and II.G.18. of the Contract are hereby amended as follows:

Section F.5. The construction survey & layout phase shall be completed by March 31, 2017 December 31, 2018.

Section G.5. The construction administration and inspection phase shall be completed by July 31, 2018 December 31, 2018.

Revision 2. The maximum compensation described in Section V.C. of the Contract is hereby amended as follows:

The maximum compensation for all phases A through G shall not exceed Four Hundred Thirty-Four Thousand, Four Hundred Ninety Five and no/100th Six Hundred Twenty-two Thousand Nine Hundred Seventy-eight and 39/100ths Dollars.

In all other respects the contract, together with all of its terms, covenants and conditions, is hereby confirmed in its entirety.

IN WITNESS WHEREOF, the parties have hereunto set their hands as of the date of attestation shown below:

CITY OF DULUTH		AMI CONSULTING ENGINEERS P.A.		
Ву:		Ву:		
Mayor		Company Representative		
Attest:		Its:		
City Clerk		Title of Representative		
Date Attested:		Date:		
Countersigned:				
City Auditor	Date			
Approved as to form:				
City Attorney	Date			

# **EXHIBIT A**



# Consulting Engineers P.A.

November 14, 2017

Mr. Erik Birkeland City of Duluth 1532 West Michigan Street Duluth, MN 55806

Re: DECC Seawall Project – Construction Management Proposal – Revision #1

AMI Project # 161080

Mr. Birkeland,

The following proposal has been prepared at the request of the City of Duluth (City) for the DECC Seawall Project. AMI Consulting Engineer's (AMI) proposal has been based on our knowledge of the site, site inspections both above and below the waterline at the seawall locations, and design work completed for the DECC Seawall Project. Our engineering firm has significant experience in project management of waterfront development and Brownfield redevelopment. AMI's niche in waterfront development and marine civil engineering experience, combined with a thorough knowledge of the shorelines along the DECC and design work completed for the DECC Seawall Project, give us a unique ability to serve as the project management firm for the construction of the DECC Seawall Project.

# SCOPE OF WORK

It is our understanding that the City of Duluth desires AMI to serve as the project management firm for approximately 1,208 LF of seawall repairs (Phase 1). AMI has included time to coordinate with the electrical project management firm which also performed the design work for the DECC Seawall Project (Gausman & Moore). AMI has also included time to coordinate with the material testing agencies.

# CONSTRUCTION MANAGEMENT SERVICES

Due to the complex nature of the project, AMI has budgeted to provide approximately 75% construction management services for a term starting in late Fall of 2017 and finishing in the Summer of 2018 (7 months). It is planned that construction would proceed through the winter months to insure certain sections of Minnesota Slip can be completed before major events in 2018. Remaining non-critical areas would then be completed through the remainder of the summer. Construction timelines will be contingent on available funding, project alternates approved by the City, and selected contractor sequencing.

## HIGH-PERFORMANCE COATINGS

AMI has budgeted for an engineer/scientist to be onsite approximately 75% of the time during all aspects involved with the high-performance coating of steel sheet piling purchased and contracted by the City. This individual will be responsible for overseeing the proper preparation of the steel sheet piling, correct application of coatings, and that curing of coatings is in conformance with the project specifications and

91 MAIN STREET PH: (715) 718-2193 SUPERIOR, WI 54880 FAX: (877) 761-7058 the manufacturer's recommendations. Project management services are necessary due to the critical care that must be taken when applying high-performance coatings on steel sheet piling. From past projects and recent coating failures, it has been discovered that project management is a critical component to ensure proper surface preparation and application of coatings.

#### CONSTRUCTION

AMI has budgeted for an engineer/scientist to be present 75% of the time during construction activities on site. This individual will be responsible for overseeing construction to ensure compliance with construction plans and project specifications, implementing the soil contingency plan that may include segregation, overseeing stockpiling, reuse, and potential off-site disposal of contaminated soil and materials should that be necessary, and insuring proper construction storm water management. Additional tasks will include notice to proceed, verification of baseline staking, project kick-off meeting, schedule tracking, weekly contractor and stakeholder meetings, weekly progress reports to the City, pay application review and certification, shop drawing and material specification review and approval, visual inspections, field engineering, completion punch lists, final walk through, as-builts, project acceptance, and processing change orders if required. In addition, AMI has also budgeted for a final dive inspection to verify connections, vertical wall alignment, and condition of high-performance coatings after installation.

## DESIGN SERVICES CHANGE ORDER & ORIGINAL CONSTRUCTION MANAGEMENT BREAKDOWN OF COSTS

It is prudent to note that the original construction management fee (\$167,000.00) was approved by the City and allocated for the DECC Seawall Project in conjunction with the original design fee. However, throughout the design of the DECC Seawall Project, the scope of work dramatically changed and increased which depleted the construction management budget. AMI was instructed by the City to continue billing under the original contract even though the City knew the construction management budget would be depleted. Table 1 depicts a breakdown of the cost for each additional scope that increased or was added to the DECC Seawall Project during the design phase.

Description		Fee	
Marine Engineering		\$	(98,442.01)
Civil Engineering		\$	(29,356.13)
Bidding Assistance		\$	(16,869.00)
Vista Platform Permitting		\$	(4,422.50)
Project Management		\$	(23,574.25)
Scope Development		\$	(4,550.00)
Final Plan Review		\$	(10,056.25)
Electrical Subcontractor - Gausman & Moore		\$	(39,500.00)
	Total	\$	(226,770.14)

Table 1: Cost Breakdown for Increased Scope of Work

Because the construction management and environmental budget still had \$162,490.00 & \$4,796.75, respectively, remaining, the total difference between the original contract and the amount spent to date is (-\$226,770.14 + \$162,490.00 + \$4,796.75 = -\$59,483.39). The value of \$59,483.39 has been included in the design services change order in Table 2 of the following section.

Typical engineering / permitting fees are 6 to 8% of construction costs for all disciplines on similar projects. The total estimated project cost was \$11 million for the design work that was completed for the DECC Seawall Project (note, only a portion of the design work completed was bid for construction at this

time). AMI is currently at 4.5% of the construction costs for all phases with respect to the engineering work completed.

There are several principle reasons why the original scope of work increased. First, there were multiple design changes for the marine and civil engineering work that extended the project schedule. As stated in the "Professional Engineering Services Agreement" - Received 6/21/16, the anticipated project schedule was for up to 5 months of design with bidding in the fall of 2016 and construction in the winter of 2016-2017. Due to the multiple meetings the City of Duluth & Stakeholders and changes in design the project timeline was extended by over a year.

AMI also presented several different bidding documents for the seawall and site layouts. The plan set for each discipline was originally presented as one large project but then broken up into several different "phases" for budgetary reasons. The plan set was then changed from a "phased" plan set back to one large plan set. Even with the large plan set, the City decided to only bid a portion of the full construction documents. This final change required AMI to provided additional documents and information to the contractor to thoroughly explain what would be and what would not be included in the project. Each change in the plan set required additional drafting and review time to ensure no information was duplicated or excluded.

The required civil design work also changed several times due to uncertainty of final layouts. AMI presented several different ideas for bike path and sidewalk layouts along the entire project areas. The City eventually decided against AMI's proposed layouts since it was decided a larger Trail Study should be completed to better connect the project area to the larger trail system in the City of Duluth. As a result of this, AMI updated the plans to include a basic layout of sidewalks & bike paths that could be removed easily and efficiently if required once the larger Trail Study was completed.

AMI also provided emergency inspection services after some dock wall failures, resulting in sinkholes along the backside of the dock wall, occurred. These inspections resulted in the necessity of a temporary loading platform for the Vista Fleet. AMI designed and provided bidding services for the installation of a wooden temporary loading platform along MN Slip. Once a contractor was selected, AMI also performed construction management services. These additional services included daily site visits, topographic surveys for as-build drawings which was required by the City of Duluth Engineering Department, review and approval of material submittals, re-design of the platform due to obstructions documented during construction, and coordination between the Contractor, City of Duluth, and DECC personnel. AMI also purchased, fabricated, and installed the new mooring system for the Vista vessel along the new loading platform. The installation of the loading platform also required AMI to fill out, submit, and coordinate with the State & Federal agencies for permitting.

Additional field inspections and engineering services were performed on the abutment of the MN Slip Pedestrian Bridge. Several discussions were held between AMI, the City of Duluth, and LHB (Engineering Firm performing the repairs to the drive system of bridge) on if the open pile abutment of the pedestrian bridge should be encased in sheet pile as part of the seawall project. Ultimately, it was decided to keep the bridge abutment completely independent of the new seawall installation.

The City also decided to include mechanical and electrical upgrades which was not included in the original contract. The mechanical upgrades required AMI to do further research into the existing water service, design a new water service, provide construction documents and technical specifications. To complete the required electrical upgrades, AMI utilized Gausman & Moore to complete the design. Gausman & Moore completed the electrical design, provided construction documents & technical specifications, and

assisted AMI during the bidding process. Due to the extended scope of work additional survey work was also completed by AMI to include areas along the DECC. Additional time was also required by AMI to coordinate between the different disciplines.

Additional bidding services were also required since the City of Duluth bid/purchase the bulk steel items and the application of high-performance coatings on the steel sheet piling. This additional bidding service was completed to eliminate any mark-up from the contractor due to budgetary concerns. AMI produced separate bid documents for the bulk steel products and application of the high-performance coatings. AMI also assisted during the bidding process by answering contractor questions and evaluation of the bids.

## PROPOSED FEES

AMI Consulting Engineers will provide the construction management services previously described in the Scope of Work section on an Hourly Rate Basis according to the attached 2017 Fee Schedule. No additional services will be completed without prior written authorization. A breakdown of the estimated fees is shown in Table 2.

Description		Fee	
Project Management - Coatings		\$	9,000.00
Project Management - Construction		\$	120,000.00
Design Services Change Order		\$	59,483.39
	Total	\$	188.483.39

Table 2: Proposed Construction Management Fee

The proposed fee is in general agreement with the original construction management fee for the project; however, the fees listed in Table 2 include the project management of the coatings and the electrical work, which were not included in the original fee. The design services change order is a result of increased scope of work during the design phase as described in the previous section.

Typical project management / construction oversight fees are 3 to 5% of construction costs on similar projects. The pending construction costs are \$6.5 million for construction of the design work bid (includes contractor's bid + City purchases of bulk steel + City coating contract). AMI is proposing 3.3% (not including Design Services Change Order) of the construction costs for the pending construction contract award.

# **SUMMARY**

AMI has estimated the level of effort based on our past experience in the harbor and from the information provided by the City of Duluth. We can provide an additional spreadsheet detailing our estimated time and materials, for the not-to-exceed values presented in Table 2 without prior approval for your reference if requested. This starting budget will guide the project and be used to provide fiscal updates. AMI will be prompt in identifying potential scope of work changes and work with the City of Duluth to limit possible budget disruptions.

If you have any questions or comments, please contact me at (715) 718-2193 Ext 12. We appreciate the opportunity to serve the City of Duluth on this infrastructure improvement project.

Respectfully Submitted,

Chad W. Scott, P.E.

(hold San)

Principal

AMI Consulting Engineers, P.A.

Attachments:

AMI 2017 Fee Schedule