Purchasing Division
Finance Department

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Duluth, Minnesota 55802

218-730-5340
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Addendum 1
Solicitation 23-AA07
Duluth Coastal Infrastructure Rehabilitation Project

This addendum serves to notify all bidders of the following changes to the solicitation documents:

Please see the attached document from AMI for changes to the solicitation.

Please acknowledge receipt of this Addendum by checking the acknowledgment box within the www.bidexpress.com solicitation.

Posted: **August 1, 2023**

AMI
Consulting Engineers P.A.

August 1, 2023

Re: Duluth Coastal Infrastructure Rehabilitation – Addendum #1
AMI Project # 211016

1. **Pre-Bid Meeting – Additional Information**
   A non-mandatory pre-bid meeting was held on Thursday, July 27th, 2023. The sign-in sheet for the pre-bid meeting is attached to this addendum for reference. The recording of the meeting can be found at the link:
   https://amiconsultingengineers-my.sharepoint.com/:v:/g/personal/chase_dewhirst_amiengineers_com/EYLEUFW2dhNLsOpsJrXkZ-gBoerKPOFmn8FsP7T18uqZIw?e=f8P2UN
   A copy of the presentation is attached to this addendum.

2. **Contractor Inspect Existing IPE**
   The City has scheduled a meeting for potential Contractors to view & inspect the salvaged Ipe stock on Thursday, August 3rd, 2023, at 9:00AM. Contractors shall meet at the City of Duluth's Street Maintenance Tool House at 105 North 40th Ave W in Duluth, MN. A map of the Ipe stockpile location & meeting location is attached to this addendum.

3. **Grandma's Marathon**
   Grandma's Marathon on June 22, 2024, will take place through the Construction Limits. Contractors will need to coordinate with the City of Duluth, DECC and Grandma's Marathon for the use of the remaining service road (Harbor Drive) for race purposes. The Contractor should build into the construction schedule that no progress will be made on the project during the timeframe of Thursday, June 20th, 2024, through Sunday, June 23rd, 2024. Thursday and Friday should be reserved for cleaning/clearing the construction site and preparing the service road to be race ready. There should be conscious effort to reduce noise levels Thursday-Sunday.

4. **Cruise Ships**
   Access through the construction site needs to be maintained at all times for cruise ship tender tugs and barges for loading & unloading passengers and luggage during construction. See sheets G100 thru G115 for additional details on access requirements.

5. **Monuments on Site**
   Lady Liberty needs to be removed from the project site with all pieces intact. Construction plans are not available, and it is up to the Contractor to determine the best

way to remove the monument. The City has not yet determined where Lady Liberty will be placed after removal.

The Buoy needs to be removed from the project site. The City has not yet determined where the buoy will be placed after removal.

6. **Door 6**
   Temporary snow fencing shall be installed in front of DECC Door 6 as shown on sheets G110 thru G114. The temporary snow fencing is to allow for tractor trailers to nose into the construction limits and back up into Door 6. The Contractor shall also place additional gravel, as required, within the construction limits for tractor trailers to access Door 6.

7. **Vista Fleet**
   Vista Fleet currently leases the dock wall from STA 0+00 to 2+36 from the DECC to load and unload passengers. The Contractor shall complete the necessary landside upgrades within Vista Fleet's leased space prior to Memorial Day 2024 or after September 30th, 2024, to minimize impacts to their operations. Once upgrades are completed in Vista Fleet's leased space, the Contractor shall reduce the limits of the construction fencing to allow for pedestrian access. The Contractor is also responsible for maintaining power & potable water access for Vista Fleet along their leased space and along Minnesota Slip. See sheet G114 for additional information.

8. **City Purchase Steel Unloading**
   The Contractor will be responsible for providing the labor and equipment necessary to unload the steel materials which were purchased by the City of Duluth. The Bid Form for the Steel Procurement Contract has been attached to this Addendum for reference. The Steel Material will be arriving in Duluth on September 25th and will be stored at Lot D (900-1100 West Railroad Street, Duluth, MN 55802). The Contractor will be responsible for verifying that the quantity of steel procured by the City matches the attached Bid Proposal Form. The Contractor will also be responsible for inspecting for any damage to the materials and coatings which may have occurred during transit. The Owner's Representative will be inspecting the coatings prior to loading the sheet pile on the truck for transit.

   The Contractor will be required to unload the steel material within 1.5 hours after the trucks check in at Lot D. The trucking company will provide 24-hour notice prior to arrival in Duluth. If the steel materials are not unloaded within 1.5 hours after check-in, the Contractor will be charged a $75/Hr demurrage fee.

9. **Question**:
   Is the owner providing an Engineer's Estimate on the project?
   Answer:
   The Owner is not making the Engineer's Estimate available to Contractors.

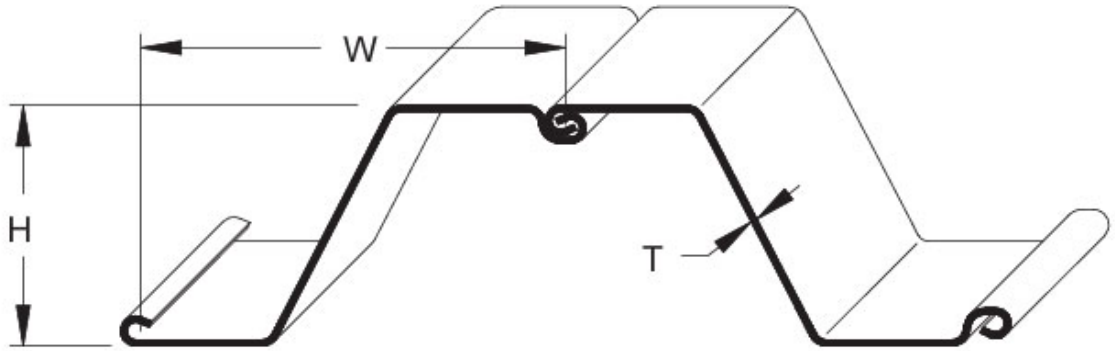
10. Question:

Are there any Buy American requirements for the project?

Answer:

To the greatest extent practicable, Contractors are encouraged to purchase American made equipment and products with funding provided under EDA financial assistance awards.

Several large structural steel members have already been purchased by the City. The plans specify PZC 18 as the sheet pile, but a DZ95 sheet pile has been approved and ordered by the City for this project. General product data for the DZ95 sheet pile is given below.



Section	Thickness in (mm)	Height in (mm)	Nominal Width in (mm)	Cross Sectional Area in^2 (cm^2)	Pile Weight lbs/lin ft. (kg/lin m)	Wall Weight lbs/ft^2 (kg/m^2)	Moment of Inertia in^4/wall ft (cm^4/wall m)	Section Modulus in^3/ wall ft (cm^3/wall m)	Coating Area Both Sides ft^2/ft m^2/m
DZ95	0.375 (9.50)	16.50 (419)	29.00 (737)	17.15 (110.6)	58.40 (87)	24.20 (118)	311.22 (42500)	37.72 (2028)	6.80 (2.08)

11. Question:

How will the Owner/Engineer verify that the drive line clearing is satisfactorily complete?

Answer:

The Owner's Representative/Engineer will perform dive inspections as required to verify that the drive line is clear of obstruction. The Contractor shall coordinate with the Owner's Representative/Engineer to allow for adequate time to perform the necessary inspections. Dive inspections will be performed within (5) business days of notice from Contractor. The Engineer anticipates that four (3) hour dive inspections will be necessary to verify that the drive line is clear.

The Contractor will not install steel sheet pile until the drive line has been cleared of obstructions and verified by Owner's Representative/Engineer. If the Contractor chooses to proceed with the installation of new sheet pile prior to verification, the

Contractor forfeits their claim for any delays or alterations which may be required if obstructions are encountered at any depth.

12. **Question**:
How should the Contractor ensure that 5 feet below the mudline has been cleared?
Answer:
The Contractor is responsible for determining means & methods to ensure that the drive line has been clear. However, it is recommended that the Contractor use divers to ensure that the drive line is cleared of debris as much as possible.

13. **Question**:
What is the protocol for encountering debris during the clearing of the drive line?
Answer:
The Contractor is responsible for developing procedures to clear the drive line if debris or obstructions are encountered. The protocol for removal of debris or obstructions depends on the type and size of the obstructions. Smaller and biodegradable debris or obstructions may be left in place, but larger non-organic debris may need to be removed.

14. **Question**:
Will Contractors need to dewater the alcove in order to install the storm sewer pipe?
Answer:
The Contractor is responsible for determining means & methods to install the storm sewer alcove. At a minimum, the Contractor shall develop the means & methods to install the alcove that meets the installation sequence provided on sheet CT405. Contractors may dewater the area to install the alcove, but it is not required.

15. **Question**:
What is the minimum width required for roadway access during construction along Harbor Drive?
Answer:
Harbor drive shall be reduced to one-way traffic for deliveries to the DECC and Great Lakes Aquarium (GLA), and for pedestrian (walking) and emergency vehicle access. The roadway will be closed to pedestrian vehicles. The roadway width shall be approximately 21'-10" from edge of traffic barrier to edge of curb & gutter. See G115 for additional information.

16. **Question**:
Will contractors be allowed to place their cranes adjacent to Harbor Drive and complete work from land?
Answer:
Due to the deterioration of the existing dock walls along the project site, the Contractor may not place any cranes, large equipment, or material stockpiles within 25 feet of the existing dock wall. The Contractor is responsible for determining if adequate room is available for cranes or other large equipment outside of the 25-foot restriction.

Cut sections of the available space and assumed excavation limits along Harbor Drive are provided on Sheet G115. Contractor shall verify if adequate space is available from land for the installation of the new steel sheet pile and tie-back system near the Great Lakes Aquarium (GLA).

Contractor will be responsible for protecting existing surfaces outside of the construction zone and will be responsible for replacing damaged surfaces due to the movement of equipment outside of the construction zone.

17. **Question**:
Can any of the adjacent festival property be used for access to the NE [sic] portion of the project?
Answer:
The Contractor may access the project site through Bayfront Festival Park if the Contractor provides adequate protection to the existing surfaces. The Contractor will be responsible for replacing damaged surfaces due to the movement of equipment outside of the construction zone and through Bayfront Festival Park. Scheduling of access through Bayfront Park will need to be coordinated with the DECC and occur outside of event dates.

PROJECT:	Duluth Coastal Infrastructure Rehabilitation Project

DATE:	7/27/2023

AMI Consulting Engineers P.A.

PRE-BID SIGN-IN SHEET

NAME :	COMPANY:	EMAIL:	PHONE NUMBER:
1) Chase Dewhirst	AMI	chase.dewhirst@amiengineers.com	651-263-9915
2) Miah Schmidt	AMI	miah.schmidt@amiengineers.com	715-718-2193
3) Jeff Stark	DECC	jstark@decc.org	218-623-1238
4) Steve Rankila	DECC	srankila@decc.org	218-590-0066
5) Mo Convery	Confluence	mconvery@thinkconfluence.com	612-333-3702 ext. 509
6) Terry Minarik	Confluence	tminarik@thinkconfluence.com	612-333-3702
7) Lyssa Goranson	Ayres	goransonl@ayresassociates.com	651-604-3141
8) Matt Bolf	SEH	mbolf@sehinc.com	218-260-9551
9) Robert Hurd	City of Duluth	rhurd@duluthmn.gov	218-626-5130
10) Laura Smith	City of Duluth	lsmith@duluthmn.gov	218-730-5003
11) Mike Wolf	City of Duluth	mwolf@duluthmn.gov	218-730-5004
12) Erik Birkeland	City of Duluth	ebirkeland@duluthmn.gov	218-730-4435
13) Josh Felleson	Ames Construction	joshfelleson@amesco.com	952-892-8600
14) Charlie Bell	Northland Constructors	charlie.bell@northlandconstructors.us	218-625-2287
15) Connor Houle	Northland Constructors	connor.houle@northlandconstructors.us	218-341-3835
16) Kellen McCoshen	Northern Interstate	kellen@northerninterstate.com	218-590-3359
17) Nathan Fox	Lakehead Constructors	nfox@lakeheadconstructors.com	218-491-4569
18) Brian Rankila	Wren Works	brian@wrenworks40.com	218-721-6693
19) Mark Hendrickson	Kokosing Industries Inc.	mhendrickson@kokosing.biz	231-420-4639
20) John Hickey	Michels	jhickey@michels.us	920-412-5000
21) Andy Dammer	Veit	andy.dammer@veitusa.com	218-341-1843
22) Jon Brostowitz	Veit	jon.brostowitz@veitusa.com	218-350-1037
23) Matt Zupetz	Rachel Contracting	mzupetz@rachelcontracting.com	218-461-5525
24) Jeff Tyllia	Hunt Electric	jtyllia@huntelectric.com	218-310-2543
25) Nick Patterson	JF Brennan	npatterson@jfbrennan.com	218-349-5237
26) Dustin Waldo	Ulland	dwaldo@ulland.com	218-391-5626
27) Tory George	Parsons Electric	troy.george@archkey.com	218-591-1621



AMI Consulting Engineers P.A.

CITY OF DULUTH COASTAL INFRASTRUCTURE REHABILIATION

City of Duluth/DECC

1

PRE-BID MEETING

GENERAL PROJECT INFO

AMI Consulting Engineers P.A.

OWNER

- City of Duluth

DESIGN TEAM

- AMI Consulting Engineers
  - Marine Structural
  - Civil Transportation
  - Coastal
- SEH
  - Civil Engineering
- Ayres & Associates
  - Electrical
- Confluence
  - Architecture

CONFLUENCE

SEH

AMI Consulting Engineers P.A.

AYRES

2

PRE-BID MEETING

GENERAL PROJECT INFO

AMI Consulting Engineers P.A.

PROJECT DESCRIPTION

- The project has four different funding sources:
  - State Bonding Funds
  - Economic Development Agency (EDA).
  - City of Duluth - Roadway
  - City of Duluth – Storm Sewer

QUANTITIES			
BAYWALK	ROADWAY	EDA	STORM SEWER

3

PRE-BID MEETING

GENERAL PROJECT INFO

AMI Consulting Engineers P.A.

PROJECT SCHEDULE

- Pre-Bid Meeting = Thursday, July 27th at 9:00 AM CT
  - Site Visit Immediately after Pre-Bid Meeting
- Bid Question Due Date = Friday, August 4th
- Final Addendums Issued = Wednesday, August 9th
- Bid Due Date = Tuesday, August 15th at 2:00 PM CT
- Council Meeting & Approval = September 11th
- Unloading of City Purchased Steel = September 25th

CONSTRUCTION SCHEDULE

- Project Start Date = September 25th, 2023
  - EDA Review of Bids (Approximately 1 week process)
- Substantial Completion = November 1st , 2024
- Final Completion Date = ***May 23rd, 2025***

4

PRE-BID MEETING
GENERAL PROJECT INFO

AMI Consulting Engineers P.A.

EDA REQUIREMENTS

- Payment Procedures
  - Certified Payrolls are Required
  - Items paid for different funding sources need to be tracked separately

PERMITTING REQUIREMENTS

- US Army Corp of Engineers (USACE)
  - Dock Construction & Rehabilitation = Nationwide Permit 3 (Maintenance)
- National Pollutant Discharge Elimination System Permit (NPDES)
- Minnesota Pollution Control Agency (MPCA)
  - Stormwater Permit
- City of Duluth Erosion/Sediment Control Permit
- City of Duluth Construction Services & Inspections
- All other permits are the responsibility of the Contractor.

5

PRE-BID MEETING
GENERAL PROJECT INFO

AMI Consulting Engineers P.A.

GENERAL CONSTRUCTION OVERVIEW

- Install New Coated Seawall
- Install New Bollards and Foundations
- Installation of Concrete Storm Wall
- Narrowing of Harbor Drive
- Installation of a Roundabout
- Upgrade or Installation of Site Utilities
  - Electrical
  - Storm Sewer
  - Water
- General Site Landscaping & Amenities

OWNER FURNISHED MATERIALS

- Structural Steel (Bid received 05/24/2023)
  - Coated Steel Sheet Pile
  - C12x30 Double Channel Wale (Individual pieces)
  - 16" Ø x ½" Steel Pipe Piles
  - 3/8" Bent Plate Steel Pile Cap
- Contractor will be responsible for unloading of material at Lot D

*** All Owner furnished materials are based on Neat Line Quantities per the Bid Form. The Contractor is responsible for any additional materials including the installation of a high-performance coating on additional steel sheet connectors, steel plates, touch-ups, etc. per the construction documents.

6

PRE-BID MEETING
GENERAL PROJECT INFO

AMI Consulting Engineers P.A.

SITE CONDITIONS & GENERAL INFORMATION

- Scope of Work Limits
  - Seawall – Stationing Along Dock Wall
  - Site Amenities & Surfaces – Stationing along Roadway Alignment
- Schedule
  - Substantial Completion by Nov. 1, 2024
  - Final Completion by May 23, 2025
- Liquidated Damages
  - 2020 Edition of MnDOT Standard Specifications for Construction
- Tight Work Area
  - DECC Activities & Deliveries
  - GLA Deliveries
  - Cruise Ship Activity
  - Vista Fleet Operations

SITE CONDITIONS & GENERAL INFORMATIONS/ CONT.

- Winter Work
- Staging Areas
  - On-site – DECC
  - Off-site – Lot D

7



AMI Consulting Engineers P.A.

GENERAL (G)

Traffic Control Plans, Access Plans, Excavation Limits, Storage Area

8

PRE-BID MEETING
GENERAL (G)
DISCIPLINE DETAILS

AMI Consulting Engineers P.A.

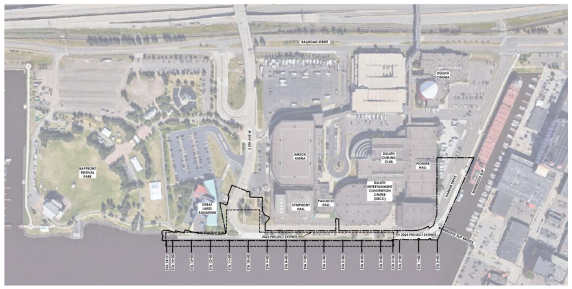
GENERAL	
G001	COVER SHEET
G002	INDEX
G003	EDA SIGNAGE DETAILS
G100	PROJECT OVERVIEW PLAN
G101	TRAFFIC CONTROL NOTES
G110	TRAFFIC CONTROL PLAN 2023 CONSTRUCTION SEASON
G111	TRAFFIC CONTROL PLAN 2024 CONSTRUCTION SEASON
G112	CRUISE SHIP TENDER TUG ACCESS PLAN 2023 CONSTRUCTION SEASON
G113	GLA LOADING DOCK ACCESS PLAN 2024 CONSTRUCTION SEASON
G114	CRUISE SHIP TENDER TUG & VISTA FLEET ACCESS PLAN 2024 CONSTRUCTION SEASON
G115	DOCK WALL EXCAVATION LIMIT 2023 CONSTRUCTION SEASON
G116	LOT D STEEL MATERIAL STORAGE AREA STAGING AND ACCESS PLAN
G120	EXISTING CONDITIONS
G121	EXISTING CONDITIONS

9

PRE-BID MEETING
GENERAL (G)
DISCIPLINE DETAILS

AMI Consulting Engineers P.A.

PROJECT EXTENDS 2023 & 2024



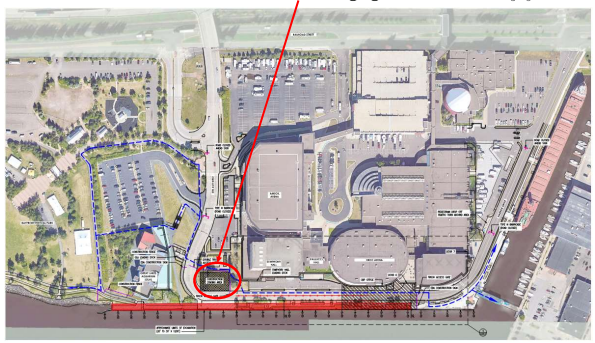
10

PRE-BID MEETING
GENERAL (G)
DISCIPLINE DETAILS

AMI Consulting Engineers P.A.

PROJECT EXTENDS 2023

- Steel Storage Area (Lot D)
- Staging Area Onsite
- Cruise Ship Access (Last Cruise Ship is Sept 18th)
- Dock Wall Excavation and Installation Limits
- General DECC Deliveries & Events
- Symphony Hall (Loading Dock Alterations)
- GLA Loading Dock Access



TRAFFIC CONTROL PLAN - 2023 CONSTRUCTION SEASON

11

PRE-BID MEETING
GENERAL (G)
DISCIPLINE DETAILS

AMI Consulting Engineers P.A.

PROJECT EXTENDS 2024

- Staging Areas Onsite
- Cruise Ship Access (13 Ships between May & October 2024)
- General DECC Deliveries & Events
- GLA Loading Dock Access Plan
- Vista Fleet (Memorial Day to End of September)



TRAFFIC CONTROL PLAN - 2024 CONSTRUCTION SEASON

12

PRE-BID MEETING

GENERAL (G)

DISCIPLINE DETAILS

LOT D 2023

- Existing SSP Dock Wall (Contractor responsible for verifying condition)
- Dock areas beyond SSP heavily deteriorated
- Haul route/site access plan



LOT D STEEL STORAGE AREA STAGING AND ACCESS PLAN

LEGEND

STEEL MATERIAL STORAGE AREA
CONSTRUCTION STAGING AREA
POTENTIAL BARGE ROUTE
POTENTIAL TRUCK ROUTE

13



CIVIL (C)

Construction Details, Grading, Sitework

14

PRE-BID MEETING

CIVIL (C)

DISCIPLINE DETAILS

CIVIL	
C001	GENERAL LAYOUT
C002	CONSTRUCTION NOTES
C003	CONSTRUCTION DETAILS
C004	CONSTRUCTION DETAILS
C005	CONSTRUCTION DETAILS
C006	CONSTRUCTION DETAILS
C007	PEDESTRIAN CURB RAMP DETAILS
C008	PEDESTRIAN CURB RAMP DETAILS
C009	PEDESTRIAN CURB RAMP DETAILS
C010	PEDESTRIAN CURB RAMP DETAILS
C011	PEDESTRIAN CURB RAMP DETAILS
C012	PEDESTRIAN CURB RAMP DETAILS
C013	MNDOT CONCRETE PAVEMENT DETAILS
C014	MNDOT CONCRETE PAVEMENT DETAILS
C015	MNDOT PAVEMENT JOINT DETAILS
C016	MNDOT PAVEMENT JOINT DETAILS
C017	MNDOT PAVEMENT JOINT DETAILS
C018	MNDOT PAVEMENT JOINT DETAILS
C019	CONCRETE PAVEMENT REHABILITATION DETAILS
C020	CONCRETE PAVEMENT REHABILITATION DETAILS
C021	TYPICAL SECTIONS
C022	TYPICAL SECTIONS
C023	SECTIONS
C024	SECTIONS
C025	SECTIONS
C026	SECTIONS
C027	SECTIONS
C028	PAVEMENT JOINTING PLAN
C029	ALIGNMENT PLAN
C030	REMOVAL PLAN

C031	REMOVAL PLAN
C032	GRADING PLAN
C033	GRADING PLAN
C034	GRADING PLAN
C035	GRADING PLAN
C036	GRADING POINT TABLE
C037	GRADING POINT TABLE
C038	GRADING POINT TABLE
C039	SITE LAYOUT PLAN
C040	SITE LAYOUT PLAN
C041	BOARDWALK PLAN
C042	BOARDWALK PLAN
C043	BOARDWALK PLAN
C044	BOARDWALK PLAN
C045	BOARDWALK PLAN
C046	BOARDWALK PLAN
C047	UTILITY PLAN
C048	UTILITY PLAN
C049	STORM PROFILES
C050	STORM PROFILES
C051	EROSION CONTORL PLAN
C052	EROSION CONTORL PLAN
C053	STORMWATER POLLUTION PREVENTION PLAN
C054	STORMWATER POLLUTION PREVENTION PLAN
C055	PAVEMENT MARKING AND SIGNING PLAN
C056	PAVEMENT MARKING AND SIGNING PLAN

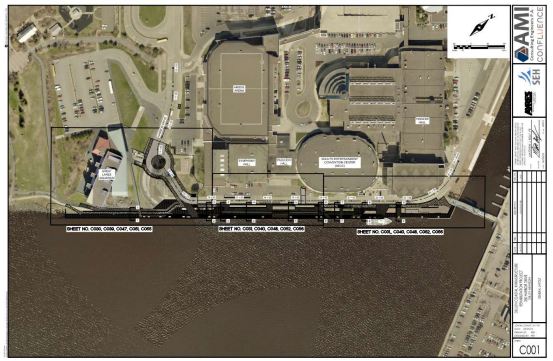
C057	LIGHTING PLAN
C058	LIGHTING DETAILS

15

PRE-BID MEETING

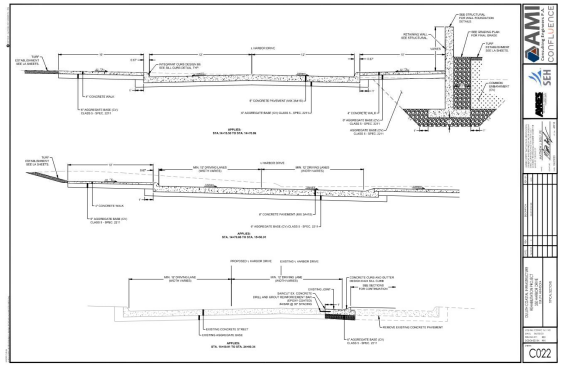
CIVIL (C)

DISCIPLINE DETAILS



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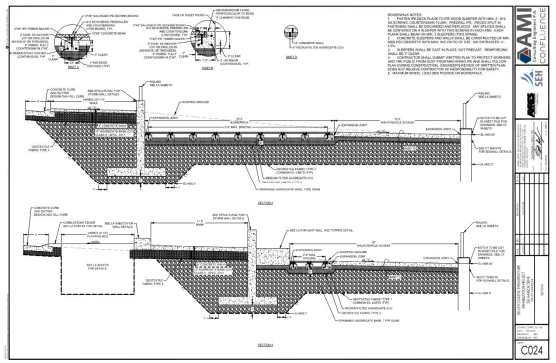
PRE-BID MEETING
CIVIL (C)
DISCIPLINE DETAILS



C022

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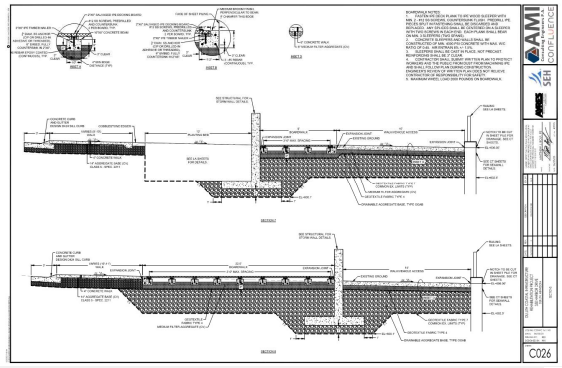
PRE-BID MEETING
CIVIL (C)
DISCIPLINE DETAILS



C024

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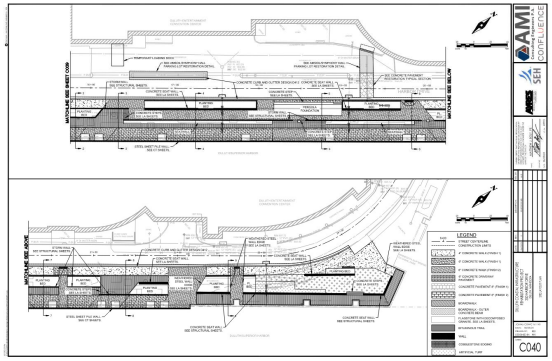
PRE-BID MEETING
CIVIL (C)
DISCIPLINE DETAILS



C026

19

PRE-BID MEETING
CIVIL (C)
DISCIPLINE DETAILS



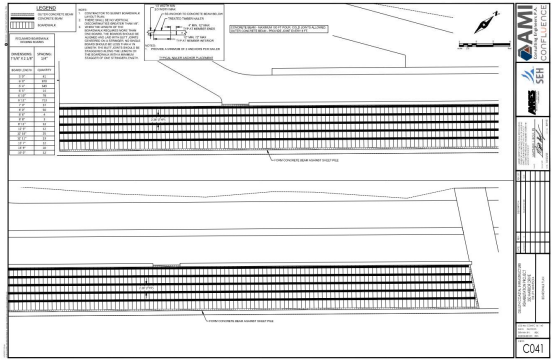
C040

20

PRE-BID MEETING

CIVIL (C)

DISCIPLINE DETAILS



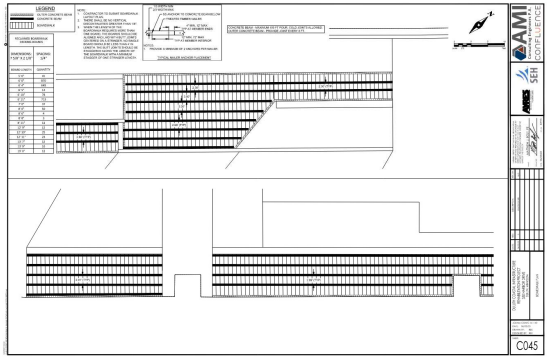
C041

21

PRE-BID MEETING

CIVIL (C)

DISCIPLINE DETAILS



C045

22



CIVIL TRANSPORTATION (CT)

Dock Structures

23

PRE-BID MEETING

CIVIL TRANSPORTATION (CT)

DISCIPLINE DETAILS

CIVIL TRANSPORTATION	
CT010	CIVIL TRANSPORTATION GENERAL NOTES
CT011	CIVIL TRANSPORTATION GENERAL NOTES
CT100	EXISITNG DOCK WALL OVERALL PLAN
CT101	EXISITNG DOCK WALL PLAN STA 0+00 TO 5+50
CT102	EXISITNG DOCK WALL PLAN STA 5+50 TO 11+00
CT103	EXISITNG DOCK WALL PLAN STA 11+00 TO 14+31
CT110	REHABILITATED DOCK WALL OVERALL PLAN
CT111	REHABILITATED DOCK WALL PLAN STA 0+00 TO 5+50
CT112	REHABILITATED DOCK WALL PLAN STA 5+50 TO 11+00
CT113	REHABILITATED DOCK WALL PLAN STA 11+00 TO 14+31
CT200	EXISITNG DOCK WALL PHOTOS
CT201	EXISITNG DOCK WALL PHOTOS
CT300	EXISITNG DOCK WALL SECTIONS
CT301	EXISITNG DOCK WALL SECTIONS
CT310	REHABILITATED WALL SECTIONS
CT311	REHABILITATED WALL SECTIONS
CT312	REHABILITATED WALL SECTIONS
CT400	DOCK WALL DETAILS
CT401	DOCK WALL DETAILS
CT402	DOCK WALL DETAILS
CT403	DOCK WALL DETAILS
CT404	DOCK WALL DETAILS
CT405	ALCOVE DETAILS
CT406	ALCOVE DETAILS
CT410	CLEAT AND BOLLARD DETAILS
CT411	CLEAT AND BOLLARD DETAILS
CT420	FENDER DETAILS
CT421	FENDER DETAILS

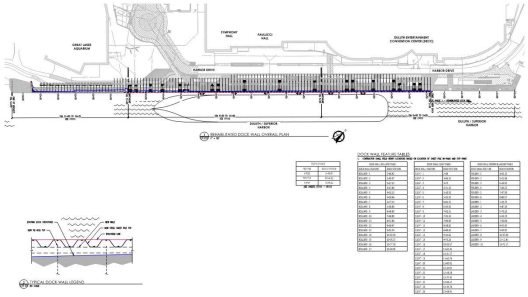
24

PRE-BID MEETING
CIVIL TRANSPORTATION (CT)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Rehabilitated Steel Sheet Pile Dock Wall with new Tieback System along corridor
  - Existing Dock walls (Steel & Timber)
- Mooring/Bollard System
- Fendering System



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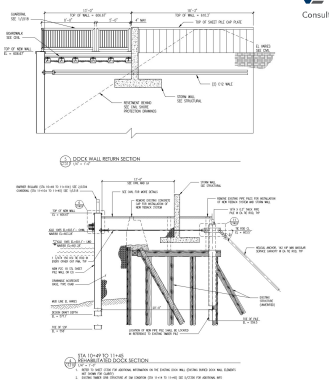
25

PRE-BID MEETING
CIVIL TRANSPORTATION (CT)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Dock Wall Installation
  - Clear Drive Area
  - Obstructions in drive area
  - Vibratory Hammer Min. Requirements
  - Existing Crib Structure (STA. 11+14 to 11+45)
  - Dock Wall Return Section
  - SSP and Storm Wall Intersection
- Coatings
  - Touchups due to damage & installation of fender systems



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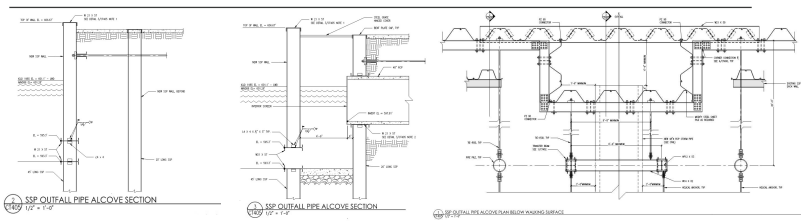
26

PRE-BID MEETING
CIVIL TRANSPORTATION (CT)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Alcove
  - Construction Sequencing
  - UW Welding & Installation of Structural Steel Members
  - UW Concrete Placement (Tremie Procedures & Admixtures)
  - Coating of Steel Members & SSP Connectors



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27

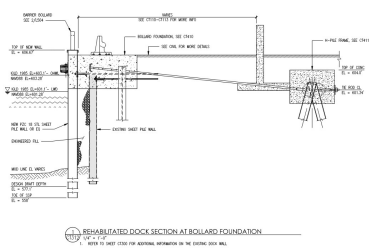
PRE-BID MEETING
CIVIL TRANSPORTATION (CT)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Mooring/Bollard System
  - 100-ton bollards
  - 3 pile tieback system





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28

PRE-BID MEETING

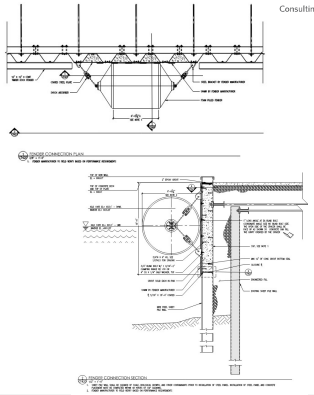
CIVIL TRANSPORTATION (CT)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Dock Wall Fendering System (Picture from April 2022)
- Foam Filled Fenders with Steel Backer Plate with UHMW & Concrete
- Coated Steel Backer Plate
- Add Alternative (2)





29

PRE-BID MEETING

CIVIL TRANSPORTATION (CT)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Key Submittals /Testing
  - Driving Logs & Alignment Checks – SSP (Daily)
  - Driving Logs & Alignment Checks - H & Pipe Piles (Daily)
  - Experienced Surveyor
  - Helical Anchor Design & Testing
  - Pile Testing (Completed by Owner)
  - Fender System Design
- AMI Full Time Project Management

30



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CIVIL SHORE PROTECTION (CH)

Demolition, Sediment and Erosion Control

31

PRE-BID MEETING

CIVIL SHORE PROTECTION DESIGN (CH)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

CIVIL SHORE PROTECTION	
CH000	GENERAL NOTES
CH100	EXISTING & DEMO PLAN VIEW
CH110	PROPOSED PLAN VIEW
CH200	EXISTING & DEMO CROSS SECTIONS
CH210	PROPOSED CROSS SECTION
CH211	PROPOSED CROSS SECTION
CH212	PROPOSED TYPICAL DETAILS

32

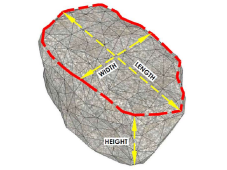
PRE-BID MEETING

CIVIL SHORE PROTECTION (CH)

AMI Consulting Engineers P.A.

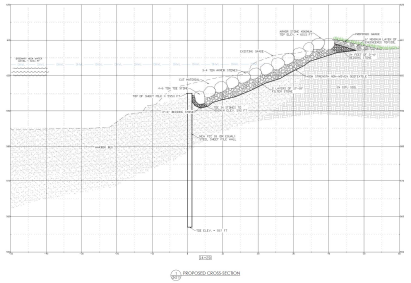
DISCIPLINE DETAILS

- Armor Stone Shoreline Protection
  - Salvage Existing Rubble Stones On-site
  - 3-foot Minimum Average Diameter for all Armor Stone
  - Filter Stone must be 12 to 18 inches in Diameter
  - Submit Scale Tickets for Filter and Armor Stone



ASPECT RATIO = LENGTH / WIDTH OR HEIGHT (WHICHEVER IS SMALLER)

STONE ASPECT RATIO DETAIL



33

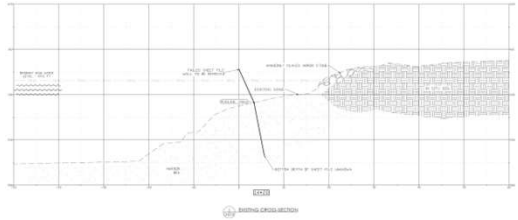
PRE-BID MEETING

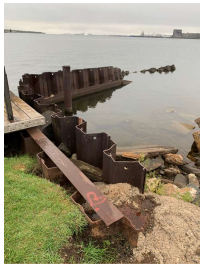
CIVIL SHORE PROTECTION (CH)

AMI Consulting Engineers P.A.

DISCIPLINE DETAILS

- Sheet Pile Removal
  - Existing Failed Sheet Pile must be removed entirely
  - Failed Sheet Pile cannot be cut off at or below the Mudline
  - Wale present on the Existing Sheet Pile





34



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LANDSCAPE (L)

Site Furnishings, Site Details

CONFLUENCE

35

PRE-BID MEETING

LANDSCAPE (L)

DISCIPLINE DETAILS

CONFLUENCE

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LANDSCAPE	
L001	LANDSCAPE NOTES
L100	LANDSCAPE VIEWS
L101	LANDSCAPE VIEWS
L200	OVERALL SITE FURNISHINGS PLAN
L201	SITE FURNISHINGS ENLARGEMENT PLAN 1
L202	SITE FURNISHINGS ENLARGEMENT PLAN 2
L203	SITE FURNISHINGS PERGOLA AREA ENLARGEMENT AND ADD ALTERNATE
L300	JOINTING PLAN
L301	SITE JOINTING PLAN 1
L302	SITE JOINTING PLAN 2
L400	OVERALL PLANTING PLAN
L401	PLANTING PLAN ENLARGEMENTS
L402	PLANTING PLAN ENLARGEMENTS
L500	PLANTING DETAILS
L501	SITE DETAILS: FURNISHINGS 1
L502	SITE DETAILS: FURNISHINGS 2
L503	SITE DETAILS: FURNISHINGS 3
L504	SITE DETAILS: BOLLARDS
L505	SITE DETAILS: PERGOLA
L506	SITE DETAILS: SEAT WALLS 1
L507	SITE DETAILS: SEAT WALLS 2
L508	SITE DETAILS: SEAT WALLS 3
L509	SITE DETAILS: SEAT WALLS 4
L510	SITE DETAILS: STEPS 1
L511	SITE DETAILS: STEPS 2
L512	SITE DETAILS: COBBLESTONE EDGE
L513	SITE DETAILS: WALL MOUNTED MONUMENT SIGN
L514	SITE DETAILS: FREESTANDING MONUMENT SIGN
L515	SITE DETAILS: SYNTHETIC TURF AND ADD ALTERNATE SLAB WALL
L516	SITE DETAILS: SECURITY GATE
L517	SITE DETAILS: RAILING AND TOPOGRAPHIC MARKING
L518	SITE DETAILS: GUARDRAIL AND METAL ENCLOSURE

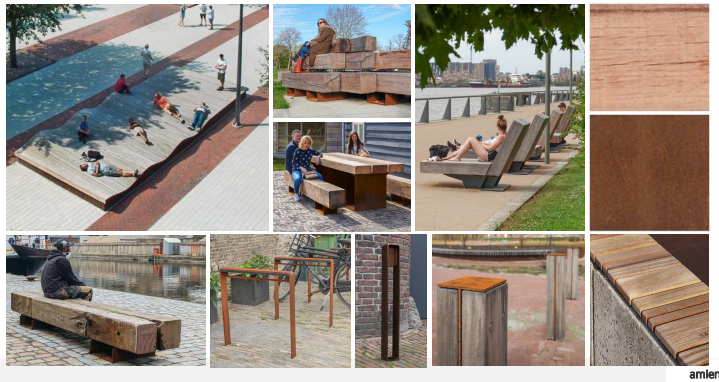
36

PRE-BID MEETING
LANDSCAPE (L)
CHARACTER



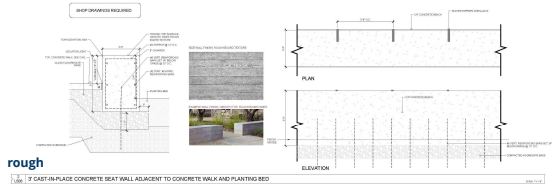
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PRE-BID MEETING
LANDSCAPE (L)
FURNISHINGS



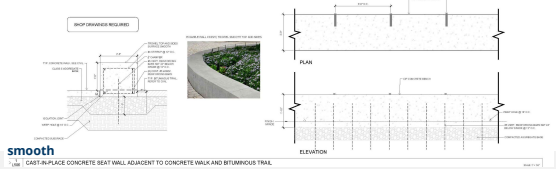
38

PRE-BID MEETING
LANDSCAPE (L)
CONCRETE FINISHES : VERTICAL



rough

3' CAST-IN-PLACE CONCRETE SEAT WALL ADJACENT TO CONCRETE WALK AND PLANTING BED

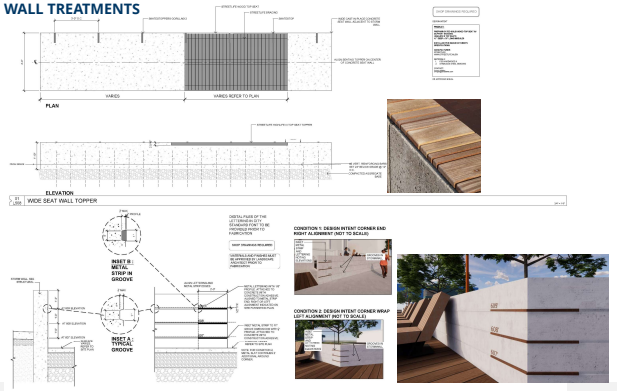


smooth

CAST-IN-PLACE CONCRETE SEAT WALL ADJACENT TO CONCRETE WALK AND BITUMINOUS TRAIL

39

PRE-BID MEETING
LANDSCAPE (L)
WALL TREATMENTS



WIDE SEAT WALL TOPPER

INSET METAL TOPOGRAPHIC WALL MARKINGS AND STORM WALL GROOVE FINISH

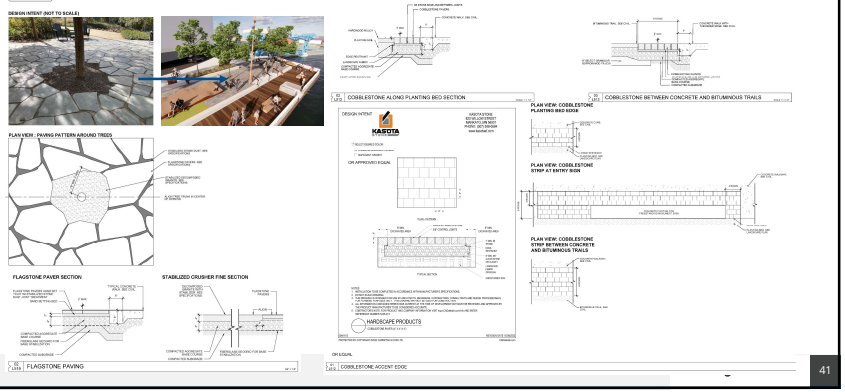
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PRE-BID MEETING

LANDSCAPE (L)

PAVING AND COBBLESTONES

CONFLUENCE AMI Consulting Engineers P.A.



41

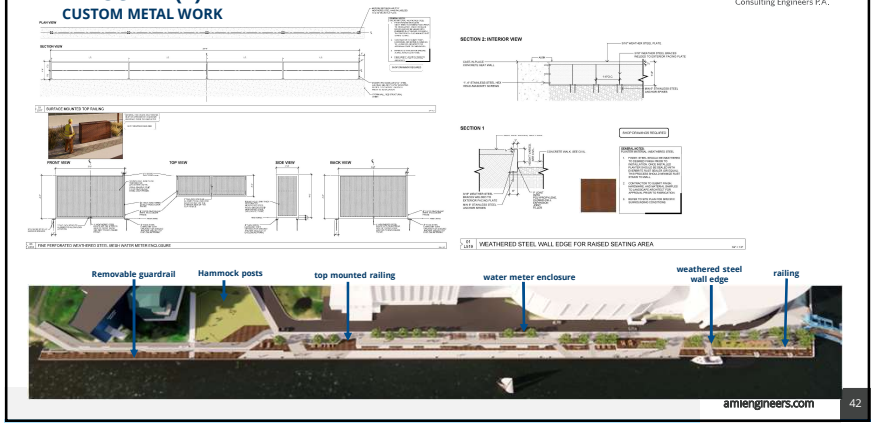
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PRE-BID MEETING

LANDSCAPE (L)

CUSTOM METAL WORK

CONFLUENCE AMI Consulting Engineers P.A.



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42

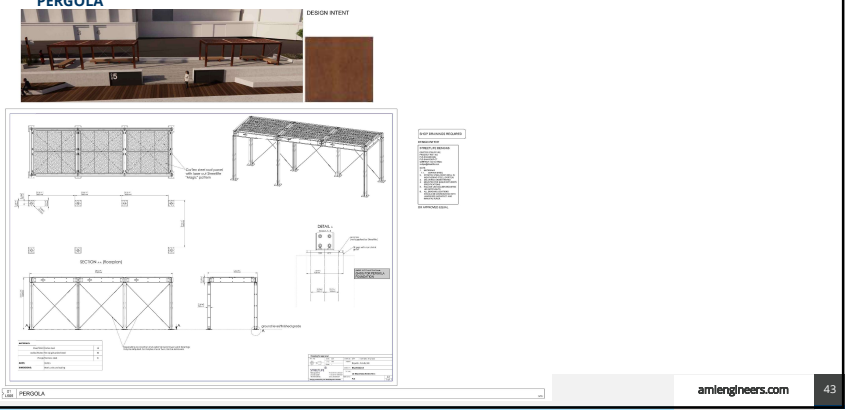
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PRE-BID MEETING

LANDSCAPE (L)

PERGOLA

CONFLUENCE AMI Consulting Engineers P.A.



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43

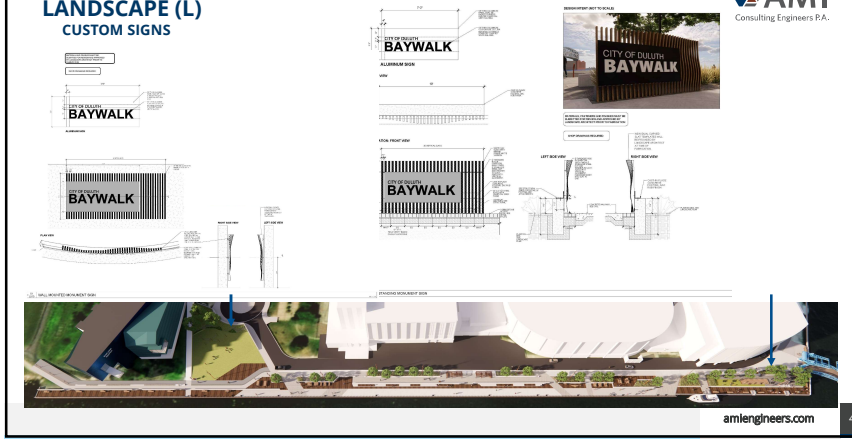
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PRE-BID MEETING

LANDSCAPE (L)

CUSTOM SIGNS

CONFLUENCE AMI Consulting Engineers P.A.



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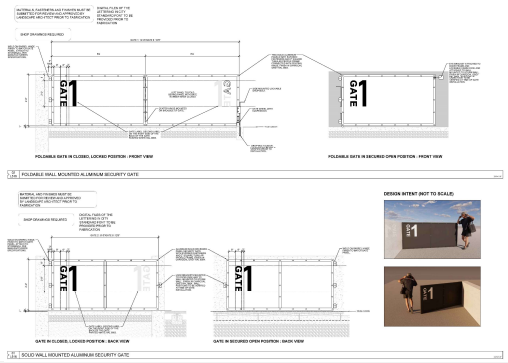
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44

PRE-BID MEETING

LANDSCAPE (L)

CUSTOM GATES



CONFLUENCE

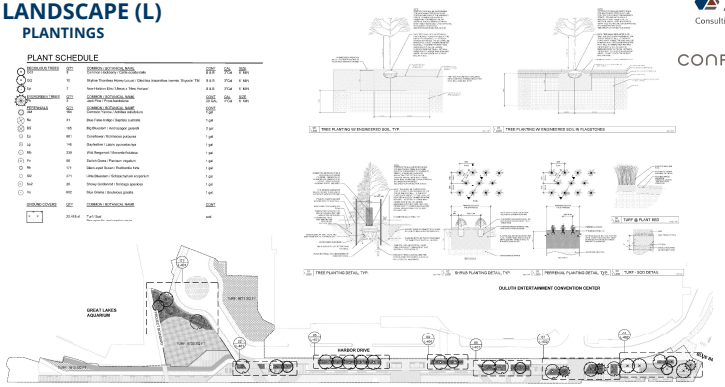
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45

PRE-BID MEETING

LANDSCAPE (L)

PLANTINGS



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CONFLUENCE

46



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STRUCTURAL (S)

Roundabout and Storm Retaining Walls, Pergola Foundation, and Storm Gates

47

PRE-BID MEETING

STRUCTURAL (S)

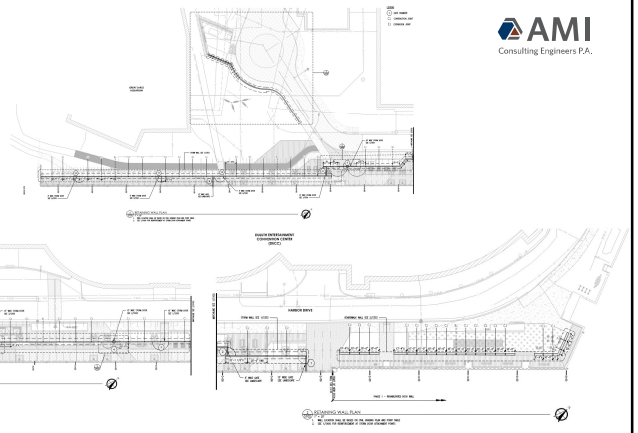
DISCIPLINE DETAILS

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	STRUCTURAL
S010	STRUCTURAL GENERAL NOTES
S100	OVERALL RETAINING WALL PLAN
S101	RETAINING WALL PLAN
S102	RETAINING WALL PLAN
S103	RETAINING WALL PLAN AT ROUNDABOUT
S104	RETAINING WALL PILE PLAN
S200	RETAINING WALL REMOVALS ELEVATIONS & DETAILS
S300	RETAINING WALL ELEVATIONS
S301	RETAINING WALL ELEVATIONS
S302	RETAINING WALL SECTIONS
S303	RETAINING WALL SECTIONS
S400	RETAINING WALL DETAILS
S401	RETAINING WALL DETAILS
S402	RETAINING WALL DETAILS
S403	PERGOLA & SIGN FOUNDATION DETAILS
S500	GATE DETAILS
S501	GATE DETAILS
S502	GATE DETAILS

48

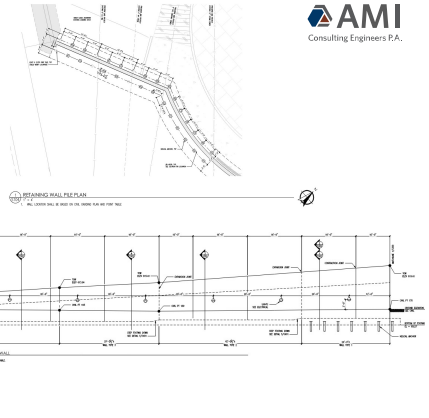
PRE-BID MEETING
STRUCTURAL (S)
DISCIPLINE DETAILS
- Retaining Wall Plans



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49

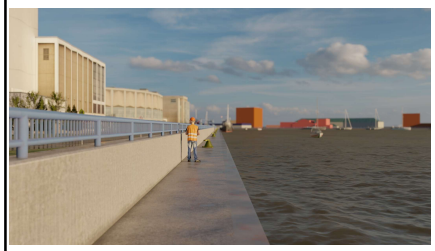
PRE-BID MEETING
STRUCTURAL (S)
DISCIPLINE DETAILS
- Great Lakes Aquarium Retaining Wall
  - Existing Piles
  - Helical Anchors
  - Temporary Shoring
  - Demo Existing Wall
  - Protect Loading Dock

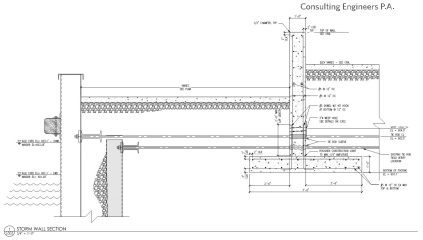


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50

PRE-BID MEETING
STRUCTURAL (S)
DISCIPLINE DETAILS
- Storm Wall
  - Sequencing

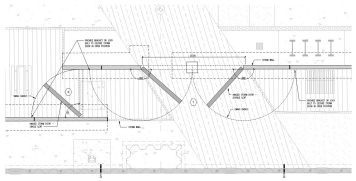


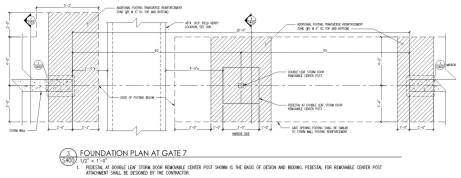


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51

PRE-BID MEETING
STRUCTURAL (S)
DISCIPLINE DETAILS
- Storm Wall Gates
  - Cruise Ship Security
  - Flood Control
  - Foundations Design for Global Forces
    - Contractor/Storm Wall Gate Manufacture responsible for connections & transfer of forces





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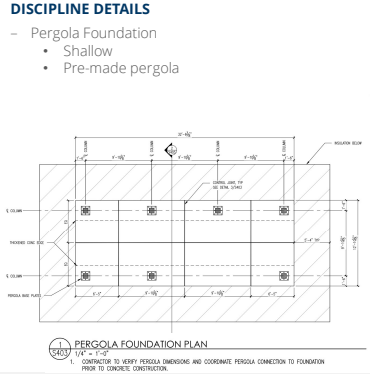
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PRE-BID MEETING

STRUCTURAL (S)

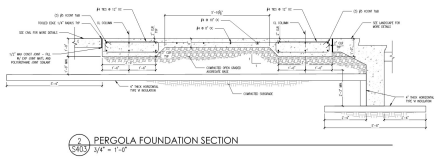
DISCIPLINE DETAILS

- Pergola Foundation
  - Shallow
  - Pre-made pergola



PERGOLA FOUNDATION PLAN

1. CONTRACTOR TO VERIFY PERGOLA DIMENSIONS AND COORDINATE PERGOLA CONNECTION TO FOUNDATION PRIOR TO CONCRETE CONSTRUCTION.



PERGOLA FOUNDATION SECTION

53



ELECTRICAL (E)

Electrical Demolition, Electrical Plan

54

PRE-BID MEETING

ELECTRICAL (E)

DISCIPLINE DETAILS

	ELECTRICAL
E001	ELECTRICAL TITLE SHEET
E100	ELECTRICAL DEMOLITION PLAN
E110	ELECTRICAL OVERALL PLAN
E111	ELECTRICAL PLAN STA 0+00 TO 5+50
E112	ELECTRICAL PLAN STA 5+50 TO 11+00
E113	ELECTRICAL PLAN STA 11+00 TO 14+31
E200	ELECTRICAL DETAILS
E300	ELECTRICAL SCHEDULES

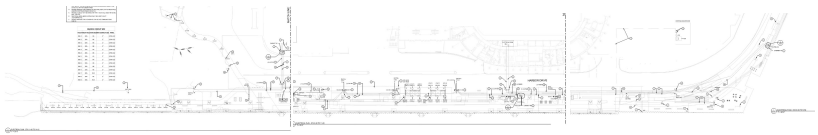
55

PRE-BID MEETING

ELECTRICAL (E)

DISCIPLINE DETAILS

- Overall Electrical Site Plan
  - Vendor Power and Low Voltage Cabinets #1, #2, and #3
  - Site Lighting – Pole, Pergola, Wave Wall & Retaining Wall
  - Security System Camera locations



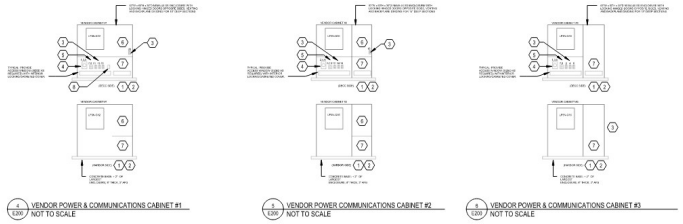
56

PRE-BID MEETING

ELECTRICAL (E)

DISCIPLINE DETAILS

- Vendor Power and Low Voltage Cabinets #1, #2, and #3 details



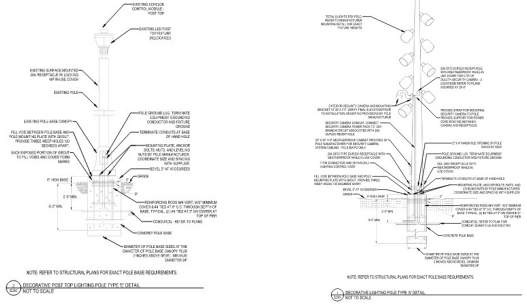
57

PRE-BID MEETING

ELECTRICAL (E)

DISCIPLINE DETAILS

- Site Lighting Details



58



QUESTIONS?

59

Contractor Meet – Salvaged Ipe

Meet at the Street Maintenance Toolhouse located 105 N 40th Avenue W. on the north side.





BID PROPOSAL FORM

The purpose of this BID PROPOSAL FORM is to present Unit Costs for furnishing material or system not purchased by Owner. Contractor is responsible for providing final quantities of materials based on their bid.

NOTE: All costs are to be considered final with materials delivered to the Duluth, MN. Include cost for all materials, including but not limited to, shipping, fabrication, labor, equipment, insurance, permits state and local taxes, overhead and profit to provide items listed under each system. The costs below are to be considered complete with pickup from Contractor's selected location and delivery to ***Lot D at 900-1100 West Railroad Street, Duluth, MN 55802.***

Item No.	Description	Estimated Quantity	Unit	Bid Unit Price	Bid Price
STEEL PROCUREMENT					
~~1~~	~~MATERIAL HANDLING: Contractor shall provide Labor and Equipment Necessary to load materials at Contractor's selected location and unload materials at Lot D at 900-1100 West Railroad Street in Duluth, MN. The Contractor will be provided an approximate space of 300 feet by 250 feet for storage of materials.~~	~~1~~	~~LS~~	-	-
2	STEEL SHEET PILE - DOCK WALL: Furnish PZC18 (or equivalent) x 50-foot length Steel Sheet Piling, ASTM A572 Grade 50 or better in accordance with all Drawings and Specifications. Quantity of steel sheet pile to be provided was determined based on the horizontal length of wall by the length of the sheet pile (Projected Face). The horizontal length of the wall does not account for the sloped faces of the sheet pile.	63250	SF	$ -	$ -
3	PROTECTIVE STEEL COATINGS FOR DOCK WALL SHEET PILE: Application of Owner approved coating to one side of the steel sheet pile to the thickness and limits specified in the project plans & specifications. Quantity of coating to be installed was determined based on total horizontal length of wall by the vertical height of the coating (Projected Face = 1,265 ft x 17 ft = 21,505 SF). Quantities do not include sloped faces of sheet pile. Contractor shall account for these additional surfaces in the unit costs.	21505	SF	$ -	$ -
4	DOUBLE CHANNEL WALE: Furnish 2-C12x30 channel, ASTM A572 Grade 50, in accordance with all Drawings and Specifications. Steel members shall be loose in 40-foot sections with the exception of one 20-foot section. Quantity of steel to be provided was determined based on total length of double channel wale. Each foot of double channel wall specified in the Quantity column accounts for 1-foot section of two channels.	1220	LF	$ -	$ -
5	STEEL PIPE PILES: Furnish 16"Øx0.5" Thick x 46-foot length Steel Piling, ASTM A252 Grade 3 or better, in accordance with all Drawings and Specifications.	5198	LF	$ -	$ -
6	BENT PLATE STEEL PILE CAP: Furnish 3/8-inch Bent Steel Plate Cap, ASTM A572 Grade 50, in accordance with all Drawings and Specifications. Steel members shall be loose in 40-foot sections with the exception of one 20-foot section.	1220	LF	$ -	$ -
				TOTAL LUMP SUM BID	$ -