

BID OF _____

2020

PROPOSAL, CONTRACT, BOND AND SPECIFICATIONS

FOR

WARNER LAGOON PIER AND ICE ACCESS

CONTRACT NO. 9428

MUNIS NO. 12774-51-130

IN

MADISON, DANE COUNTY, WISCONSIN

AWARDED BY THE COMMON COUNCIL
MADISON, WISCONSIN ON _____

CITY ENGINEERING DIVISION
1600 EMIL STREET
MADISON, WISCONSIN 53713

<https://bidexpress.com/login>

**WARNER LAGOON PIER AND ICE ACCESS
CONTRACT NO. 9428**

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This Proposal, and Agreement have
been prepared by:

**CITY PARKS DIVISION
CITY OF MADISON
MADISON, DANE COUNTY, WISCONSIN**


Eric Knepp, Parks Superintendent

EMK: scl

SECTION A: ADVERTISEMENT FOR BIDS AND INSTRUCTIONS TO BIDDERS

REQUEST FOR BID FOR PUBLIC WORKS CONSTRUCTION CITY OF MADISON, WISCONSIN

A BEST VALUE CONTRACTING MUNICIPALITY

PROJECT NAME:	WARNER LAGOON PIER AND ICE ACCESS
CONTRACT NO.:	9428
BID BOND	5%
PREQUALIFICATION APPLICATION DUE (2:00 P.M.)	2/27/2020
BID SUBMISSION (2:00 P.M.)	3/5/2020
BID OPEN (2:30 P.M.)	3/5/2020
PUBLISHED IN WSJ	2/13/2020, 2/20/2020 & 2/27/2020

PREQUALIFICATION APPLICATION: Forms are available at the same location or on our website, www.cityofmadison.com/business/pw/forms.cfm. If not currently prequalified in the categories listed in Section A, an amendment to your Prequalification will need to be submitted prior to the same due date. Postmark is not applicable.

BIDS TO BE SUBMITTED by hand to 1600 EMIL ST., MADISON, WI 53713 or online at www.bidexpress.com.

THE BID OPENING is at 1600 EMIL ST., MADISON, WI 53713.

STANDARD SPECIFICATIONS

The City of Madison's Standard Specifications for Public Works Construction - 2020 Edition, as supplemented and amended from time to time, forms a part of these contract documents as if attached hereto.

These standard specifications are available on the City of Madison Public Works website, www.cityofmadison.com/Business/PW/specs.cfm.

The Contractor shall review these Specifications prior to preparation of proposals for the work to be done under this contract, with specific attention to Article 102, "BIDDING REQUIREMENTS AND CONDITIONS" and Article 103, "AWARD AND EXECUTION OF THE CONTRACT." For the convenience of the bidder, below are highlights of three subsections of the specifications.

SECTION 102.1: PRE-QUALIFICATION OF BIDDERS

In accordance with Wisconsin State Statutes 66.0901 (2) and (3), all bidders must submit to the Board of Public Works proof of responsibility on forms furnished by the City. The City requires that all bidders be qualified on a biennial basis.

Bidders must present satisfactory evidence that they have been regularly engaged in the type of work specified herein and they are fully prepared with necessary capital, materials, machinery and supervisory personnel to conduct the work to be contracted for to the satisfaction of the City. All bidders must be pre-qualified by the Board of Public Works for the type of construction on which they are bidding prior to the opening of the bid.

In accordance with Section 39.02(9)(a)l. of the General Ordinances, all bidders shall submit in writing to the Affirmative Action Division Manager of the City of Madison, a Certificate of Compliance or an Affirmative Action Plan at the same time or prior to the submission of the proof of responsibility forms.

The bidder shall be disqualified if the bidder fails to or refuses to, prior to opening of the bid, submit a Certificate of compliance, Affirmative Action Plan or Affirmative Action Data Update, as applicable, as defined by Section 39.02 of the General Ordinances (entitled Affirmative Action) and as required by Section 102.11 of the Standard Specifications.

SECTION 102.4 PROPOSAL

No bid will be accepted that does not contain an adequate or reasonable price for each and every item named in the Schedule of Unit Prices.

A lump sum bid for the work in accordance with the plans and specifications is required. The lump sum bid must be the same as the total amounts bid for the various items and it shall be inserted in the space provided.

All papers bound with or attached to the proposal form are considered a part thereof and must not be detached or altered when the proposal is submitted. The plans, specifications and other documents designated in the proposal form will be considered a part of the proposal whether attached or not.

A proposal submitted by an individual shall be signed by the bidder or by a duly authorized agent. A proposal submitted by a partnership shall be signed by a member/partner or by a duly authorized agent thereof. A proposal submitted by a corporation shall be signed by an authorized officer or duly authorized registered agent of such corporation, and the proposal shall show the name of the State under the laws of which such corporation was chartered. The required signatures shall in all cases appear in the space provided thereof on the proposal.

Each proposal shall be placed, together with the proposal guaranty, in a sealed envelope, so marked as to indicate name of project, the contract number or option to which it applies, and the name and address of the Contractor or submitted electronically through Bid Express (www.bidexpress.com). Proposals will be accepted at the location, the time and the date designated in the advertisement. Proposals received after the time and date designated will be returned to the bidder unopened.

SECTION 102.5: BID DEPOSIT (PROPOSAL GUARANTY)

All bids, sealed or electronic, must be accompanied with a Bid Bond (City of Madison form) equal to at least 5% of the bid or a Certificate of Annual/Biennial Bid Bond or certified check, payable to the City Treasurer. Bid deposit of the successful bidders shall be returned within forty-eight (48) hours following execution of the contract and bond as required.

MINOR DISCREPENCIES

Bidder is responsible for submitting all forms necessary for the City to determine compliance with State and City bidding requirements. Notwithstanding any language to the contrary contained herein, the City may exercise its discretion to allow bidders to correct or supplement submissions after bid opening, if the minor discrepancy, bid irregularity or omission is insignificant and not one related to price, quality, quantity, time of completion or performance of the contract.

Bidders for this Contract(s) must be Pre-Qualified for at least one of the following type(s) of construction denoted by an

Building Demolition

- 101 Asbestos Removal
- 120 House Mover

- 110 Building Demolition

Street, Utility and Site Construction

- 201 Asphalt Paving
- 205 Blasting
- 210 Boring/Pipe Jacking
- 215 Concrete Paving
- 220 Con. Sidewalk/Curb & Gutter/Misc. Flat Work
- 221 Concrete Bases and Other Concrete Work
- 222 Concrete Removal
- 225 Dredging
- 230 Fencing
- 235 Fiber Optic Cable/Conduit Installation
- 240 Grading and Earthwork
- 241 Horizontal Saw Cutting of Sidewalk
- 242 Infrared Seamless Patching
- 245 Landscaping, Maintenance
- 246 Ecological Restoration
- 250 Landscaping, Site and Street
- 251 Parking Ramp Maintenance
- 252 Pavement Marking
- 255 Pavement Sealcoating and Crack Sealing
- 260 Petroleum Above/Below Ground Storage Tank Removal/Installation
- 262 Playground Installer

- 265 Retaining Walls, Precast Modular Units
- 270 Retaining Walls, Reinforced Concrete
- 275 Sanitary, Storm Sewer and Water Main Construction
- 276 Sawcutting
- 280 Sewer Lateral Drain Cleaning/Internal TV Insp.
- 285 Sewer Lining
- 290 Sewer Pipe Bursting
- 295 Soil Borings
- 300 Soil Nailing
- 305 Storm & Sanitary Sewer Laterals & Water Svc.
- 310 Street Construction
- 315 Street Lighting
- 318 Tennis Court Resurfacing
- 320 Traffic Signals
- 325 Traffic Signing & Marking
- 332 Tree pruning/removal
- 333 Tree, pesticide treatment of
- 335 Trucking
- 340 Utility Transmission Lines including Natural Gas, Electrical & Communications
- 399 Other _____

Bridge Construction

- 501 Bridge Construction and/or Repair

Building Construction

- 401 Floor Covering (including carpet, ceramic tile installation, rubber, VCT)
- 402 Building Automation Systems
- 403 Concrete
- 404 Doors and Windows
- 405 Electrical - Power, Lighting & Communications
- 410 Elevator - Lifts
- 412 Fire Suppression
- 413 Furnishings - Furniture and Window Treatments
- 415 General Building Construction, Equal or Less than \$250,000
- 420 General Building Construction, \$250,000 to \$1,500,000
- 425 General Building Construction, Over \$1,500,000
- 428 Glass and/or Glazing
- 429 Hazardous Material Removal
- 430 Heating, Ventilating and Air Conditioning (HVAC)
- 433 Insulation - Thermal
- 435 Masonry/Tuck pointing

- 437 Metals
- 440 Painting and Wallcovering
- 445 Plumbing
- 450 Pump Repair
- 455 Pump Systems
- 460 Roofing and Moisture Protection
- 464 Tower Crane Operator
- 461 Solar Photovoltaic/Hot Water Systems
- 465 Soil/Groundwater Remediation
- 466 Warning Sirens
- 470 Water Supply Elevated Tanks
- 475 Water Supply Wells
- 480 Wood, Plastics & Composites - Structural & Architectural
- 499 Other _____

State of Wisconsin Certifications

- 1 Class 5 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for quarries, open pits and road cuts.
- 2 Class 6 Blaster - Blasting Operations and Activities 2500 feet and closer to inhabited buildings for trenches, site excavations, basements, underwater demolition, underground excavations, or structures 15 feet or less in height.
- 3 Class 7 Blaster - Blasting Operations and Activities for structures greater than 15 ' in height, bridges, towers, and any of the objects or purposes listed as "Class 5 Blaster or Class 6 Blaster".
- 4 Petroleum Above/Below Ground Storage Tank Removal and Installation (Attach copies of State Certifications.)
- 5 Hazardous Material Removal (Contractor to be certified for asbestos and lead abatement per the Wisconsin Department of Health Services, Asbestos and Lead Section (A&LS).) See the following link for application: www.dhs.wisconsin.gov/Asbestos/Cert. State of Wisconsin Performance of Asbestos Abatement Certificate must be attached.
- 6 Certification number as a Certified Arborist or Certified Tree Worker as administered by the International Society of Arboriculture
- 7 Pesticide application (Certification for Commercial Applicator For Hire with the certification in the category of turf and landscape (3.0) and possess a current license issued by the DATCP)
- 8 State of Wisconsin Master Plumbers License.

SECTION B: PROPOSAL

Please refer to the
Bid Express Website
at <https://bidexpress.com>
look up contract number
and go to
Section B: Proposal Page

You can access all City of Madison bid solicitations for FREE at www.bidexpress.com

Click on the "Register for Free" button and follow the instructions to register your company and yourself. You will be asked for a payment subscription preference, since you may wish to bid online someday. Simply choose the method to pay on a 'per bid' basis. This requires no payment until / unless you actually bid online. You can also choose the monthly subscription plan at this time. You will, however, be asked to provide payment information. Remember, you can change your preference at anytime. You will then be able to complete your free registration and have full access to the site. Your free access does not require completion of the 'Digital ID' process, so you will have instant access for viewing and downloading. To be prepared in case you ever do wish to bid online, you may wish to establish your digital ID also, since you cannot bid without a Digital ID.

If you have any problems with the free registration process, you can call the bidexpress help team, toll free at 1-888-352-2439 (option 1, option1).

SECTION C: SMALL BUSINESS ENTERPRISE

**Instructions to Bidders
City of Madison
SBE Program Information**

SBE NOT APPLICABLE

SECTION D: SPECIAL PROVISIONS

WARNER LAGOON PIER AND ICE ACCESS CONTRACT NO. 9428

It is the intent of these Special Provisions to set forth the final contractual intent as to the matter involved and shall prevail over the Standard Specifications and plans whenever in conflict therewith. In order that comparisons between the Special Provisions can be readily made, the numbering system for the Special Provisions is equivalent to that of the Specifications.

Whenever in these Specifications the term "Standard Specifications" appears, it shall be taken to refer to the City of Madison Standard Specifications for Public Works Construction and Supplements thereto.

SECTION 102.11: BEST VALUE CONTRACTING

This Contract shall be considered a Best Value Contract if the Contractor's bid is equal to or greater than \$63,500 for a single trade contract; or equal to or greater than \$311,500 for a multi-trade contract pursuant to MGO 33.07(7).

SECTION 104: SCOPE OF WORK

This project consists of installation of an accessible fishing pier and sidewalk, and reconstruction of existing concrete and asphalt access to the Warner Park Lagoon. This work will include removal of asphalt, installation of concrete sidewalk, a concrete abutment wall, a concrete launch, grading and earthwork, and installation of a pre-manufactured pier.

This project is located at Warner Park along the Warner lagoon shoreline and adjacent to the reservable park shelter. The site address is 2930 North Sherman Drive, Madison, Wisconsin.

The Contractor shall view the site prior to bidding to become familiar with the existing conditions. The Contractor shall work with the existing utilities to resolve conflicts during the construction process.

SECTION 104.4: INCREASED OR DECREASED QUANTITIES

It is agreed and understood that the quantities of any items of work shown on the plans or in the proposal are subject to increase or decrease during the progress of the work. The Engineer reserves the right to increase or decrease the quantities of any items of work, including increase or decrease of quantities by alteration of plans, as may be considered necessary or desirable during the progress of the work to satisfactorily complete the project. Such increases or decreases in quantities shall not be considered as a waiver of any conditions of the contract nor invalidate any of the provisions thereof. All terms of Section 104.5 Increase Items and Section 104.6 Decreased and Deleted Items of the Standard Specifications for Public Works Construction are applicable to this project.

All bid items listed in the proposal page shall be paid for at the quantity listed in the proposal page, and shall not be measured in the field unless otherwise indicated in these special provisions, or there is a significant change approved by the Engineer. Bid items that are not used may be eliminated.

SECTION 105.1: AUTHORITY OF THE ENGINEER

The Engineer shall resolve all questions which arise as to the quality and acceptability of materials furnished, work performed, manner of performance, rate of progress of the work, interpretation of the plans and Specifications, acceptable fulfillment of the contract, compensation, and disputes and mutual rights between Contractors under the Specifications. The Engineer shall determine the amount and quantity of work performed and materials furnished.

All decisions of the Engineer shall, when so requested, be rendered in writing. They shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor applies in writing to the Board of Public Works for a review of such decision.

Any change proposed by a Contractor in SBE subcontractors, vendors or suppliers from those SBEs indicated on the SBE Compliance Report must be approved by the Engineer and the City's Manager of the Affirmative Action Division (hereafter, AAD). When requested, such decision shall be rendered in writing. Such decisions shall be final and conclusive in all matters unless within ten (10) days after such decision the Contractor or the affected SBE applies in writing to the Board of Public Works for a review of such decision.

In the event the Engineer and the AAD disagree over the proper decision to be made regarding an SBE, the Mayor shall appoint a third person to resolve the disagreement, within 30 days of appointment. The decision thus rendered may be reviewed by the Board of Public Works upon request of the Contractor or the affected SBE as set forth in Sections 105.1 and 105.2 of the City's standard specifications.

SECTION 105.9: SURVEYS, POINTS, AND INSTRUCTION

The City of Madison shall be responsible for setting all lines and/or grades required to complete the work.

Any questions regarding surveying issues should be directed to Dan Rodman of the Parks Division drodman@cityofmadison.com or (608) 658-3087.

SECTION 105.12: COOPERATION BY CONTRACTOR

Several utilities exist on site. The Contractor shall perform a One Call through Digger's Hotline for each site at least three days prior to beginning construction. To ensure that Parks-owned utilities are also marked, include the PARK NAME AT THE BEGINNING OF THE MARKING instructions field on the ticket, and send a copy of the ticket to the City of Madison Parks Surveyor (Dan Rodman / drodman@cityofmadison.com / tel (608) 658-3087/ fax (608)267-1162).

The Contractor shall secure materials at the end of each work day to deter any potential vandalism and theft.

A pre-construction meeting will be required prior to the start of construction.

The Contractor warrants that its services are performed, within the limits prescribed by the City, with the usual thoroughness and competence of the consulting profession; in accordance with the standard for professional services at the time those services are rendered. The Contractor shall be responsible for the accuracy of the work performed under this Agreement, and shall promptly make necessary revisions or corrections resulting from their negligent acts, errors or omissions without additional compensation. The Contractor shall be responsible for any damages incurred as a result of their errors, omissions, or negligent acts and for any losses or costs to repair or remedy construction.

Warner Park is a popular public facility that is heavily used by local residents. The Contractor shall expect pedestrian traffic throughout the work area and shall be prepared to accommodate park users. Additionally the Contractor shall be aware of the following facilities/activities, for which they will need to make special accommodations:

- The Warner Park Shelter (main park shelter) is a reservable park shelter. The Contractor shall not block doorways, drinking fountains, picnic tables, restrooms, etc. The parking lot for the park and shelter shall not be used for construction staging. The Contractor must work around dates when the shelter is reserved for use. The Contractor shall be responsible for ensuring at the end of each day, that the work site is left clean, orderly, free of construction debris, barricades, etc. The Contractor may have to work around specific shelter reservation dates, and may be required to change schedules depending on special events and reserved dates.

- Park maintenance activities will occur throughout the duration of the contract. The Contractor shall accommodate mowing, trash pickup, and other maintenance activities. The Contractor may contact Kristin Mathews, Parks East Operations Supervisor at kmmathews@cityofmadison.com with questions or concerns regarding maintenance.

SECTION 105.13: ORDER OF COMPLETION

The Contractor shall submit to the City a detailed schedule at or prior to the preconstruction meeting showing the sequence and anticipated dates of all construction activities.

SECTION 107.2: PROTECTION AND RESTORATION OF PROPERTY, PROPERTY MONUMENTS AND PUBLIC LAND SURVEY MONUMENTS

The Contractor shall be responsible for repairing any existing utilities, structures, curb, lawn, pavement, etc. damaged through construction. Repairs must be made at their own expense and in accordance with the City of Madison Standard Specifications for Public Works Construction

SECTION 108.2: PERMITS

The following permits have been applied for by the City:

1. WI-DNR Permit
2. City of Madison Erosion Control Permit - obtained
3. U.S. Army Corps of Engineers

The City's obtaining these permits is not intended to be exhaustive of all permits that may be required to be obtained by the Contractor for construction of this project. **It shall be the responsibility of the Contractor to identify and obtain all other permits needed for construction.**

The Contractor shall meet the conditions of all permits and must keep a copy of each individual permit on site at all times throughout construction.

The Contractor shall meet the conditions of the permits by properly installing and maintaining the erosion control and items shown on the plans, specified in these Special Provisions, or as directed by the Engineer or his designees. This work will be paid for under the appropriate bid items, or if appropriate items are not included in the contract, they shall be paid for as Extra Work.

The Contractor shall not begin work until these permits have been obtained by the City.

SECTION 109.2: PROSECUTION OF THE WORK

Work cannot start on this contract until after the "Start to Work" letter has been received. Construction work must begin within seven (7) calendar days after the date appearing on the mailed notice to do so that was sent to the Contractor. Construction work shall be carried at a rate so as to secure full completion within the contract times outlined in Section 109.7, the rate of progress and the time of completion being essential conditions of this Agreement. Definite notice of intention to start work shall be given to the Engineer at least seventy-two (72) hours in advance of beginning work.

The fixed, agreed upon, liquidated damages for failure to complete all work within the contract, unless otherwise specified in this section, shall be calculated in accordance with Article 109 of the Standard Specifications. The Contractor shall limit workdays from 7:00 am to 7:00 pm, Monday - Friday, unless approved by the Engineer in writing.

SECTION 109.7: TIME OF COMPLETION

The Contractor may begin work on the Warner Lagoon Pier and Ice Access once the contract has been approved in late April. The Contractor shall complete work by May 29, 2020. A ceremony for the opening of this pier will be held on June 6th at the Kids Fishing Day hosted by the Yahara Fishing Club. The time of completion may be extended if permits are not obtained prior to construction.

SECTION 110.1: MEASUREMENT OF QUANTITIES

All bid items listed in the proposal page shall be paid for at the quantity listed in the proposal page, and shall not be measured in the field unless otherwise indicated in these special provisions, or there is a significant change approved by the Engineer. A significant change shall be considered more than a 30% change in quantities.

Items listed as "Undistributed" on the proposal page shall only be paid if determined necessary by the Engineer and shall be measured in the field by the Engineer.

BID ITEM 10911 - MOBILIZATION

DESCRIPTION

Work under this item shall include all costs associated with mobilization of the Contractor to the site. Parking of equipment, storage of materials, and staging shall be allowed within project limits as shown on plans. THE CONTRACTOR MAY NOT DRIVE OR STORE EQUIPMENT ON ANY PORTION OF THE PARK OUTSIDE THE CONSTRUCTION LIMITS UNLESS INDICATED OTHERWISE ON PLANS OR DIRECTED IN THE FIELD BY THE ENGINEER.

The Contractor is responsible for restoration of any damage to the site due to construction access.

BID ITEM 20101 - EXCAVATION CUT

DESCRIPTION

Work under this item shall include loosening, loading, hauling, and disposal of all materials. Excavation cut shall be in accordance with Article 201 of the Standard Specifications.

The excavation quantities for this contract have been calculated by subtracting digital terrain models of the existing and proposed surfaces and sub surfaces within the different material areas. Cut (in place quantities) and fill have been estimated from these models. No shrinkage factor has been applied to fill quantities to estimate net volume.

The Contractor is responsible to review attached earthwork calculations. Three-dimensional CAD files containing the digital terrain models used for the earthwork calculations are available. Adjustments were made for topsoil assuming excavation of six (6) inches of existing topsoil, twelve (12) inches of existing asphalt and gravel, eight (8) inches of existing concrete, and placement of six (6) inches of proposed topsoil.

Any additional undercut required due to field conditions shall be paid for under 20140 - GEOTEXTILE FABRIC TYPE SAS NON WOVEN (UNDISTRIBUTED), BID ITEM 20219 - BREAKER RUN (UNDISTRIBUTED), and BID ITEM 40321 – UNDERCUT (UNDISTRIBUTED). Test rolling for undercut determination is required and is incidental to this bid item. The Contractor shall contact the Engineer to proof subgrade prior to paving.

It is estimated that ~37 cubic yards of subsoil shall be made available through Excavation Cut and that ~7 cubic yards of subsoil shall require disposal.

Excess excavated material shall be disposed of at a suitable location determined by the Contractor at no additional cost to the City of Madison.

Suitable materials (to be determined by the Engineer) may be reused as fill within the project limits. Placement of these fill materials shall be considered incidental to this bid item and shall not be compensated separately. All double handling and subsoil placement is included in this bid item.

Contractor to note all excavated areas shall be filled at the end of each work day. No excavated areas shall be "open" during non-work hours.

See Appendix A for soil borings and geotechnical report.

BID ITEM 20221 - TOPSOIL

DESCRIPTION

Work under this item shall include all necessary work, labor, and incidentals required to place and distribute six (6) inches of topsoil to meet proposed grades. Topsoil shall comply with Article 202 of the Standard Specifications.

Stripped topsoil can be stockpiled on site within the construction fence boundary.

The topsoil quantities for this contract have been computed by CAD surface data volume computations. It is estimated that ~18 cubic yards of topsoil shall be made available through Excavation Cut and ~22 cubic yards of topsoil shall be distributed on-site through BID ITEM 20221 - TOPSOIL. Importing of additional topsoil shall be incidental to this bid item.

The Contractor shall notify the Engineer a minimum of 48 hrs prior to inspect and approve the finish grade. The inspection shall occur prior to seeding and mulching.

BID ITEM 20227 – LIGHT RIPRAP – GLACIAL FIELD STONE

DESCRIPTION

Work under this item shall include all necessary work, labor and incidentals required to provide and install glacial field stone as shown in the plan set and described in these Special Provisions. The stone shall be sized between 6 and 12 inches in diameter. The intent of the varied stone sizes is to create graded stone stabilization.

The material shall be comprised of rounded, durable, glacial till that has been sorted for size and is not susceptible to freeze-thaw degradation. Crushed, blasted or "made" stone will not be permitted on site.

Prior to placement, the Contractor shall submit sourcing information to the Engineer.

Light Riprap shall be placed as shown in the drawings. The material shall be underlain with geotextile filter fabric which shall be incidental to this bid item.

Minimum Diameter	Median Diameter	Maximum Diameter
6"	9"	12"

BID ITEM 20701 - TERRACE SEEDING

DESCRIPTION

Work under this bid item shall consist of preparing seed beds, furnishing and sowing the required seed, furnishing and applying the required stabilizers, fertilizer, and mulching material on all disturbed areas including areas damaged by construction activities, in accordance with Article 207 of the Standard

Specifications. Seed mixture shall be either in whole, or a mixture of the City of Madison sun terrace mix and shade terrace mix applied appropriately based on shady and sunny areas of the site.

Contractor to note – the Engineer shall be called to inspect and approve the finish grade prior to seeding and mulching.

Contractor is responsible for obtaining seed bed germination per Article 207 of the Standard Specifications, regardless of site conditions.

Quantities listed in the proposal page includes seeding all proposed turf areas within the disturbed limits.

Approximately 100 square yards of terrace seeding is designated for over-seeding the undisturbed area.

BID ITEM 21017 - SILT SOCK (8 INCH) - COMPLETE

DESCRIPTION

Work under this item shall include all work, materials, labor, and incidentals necessary for the Contractor to install, maintain, and remove 8 inch silt sock in accordance with the City of Madison Standard Specifications for Public Works Construction.

50 linear feet have been added to the proposal page for undistributed silt sock to be used around soil stockpiles. The quantity of this item may be reduced, increased, or eliminated based as needed for emergency sediment control and perimeter control around soil stockpiles.

BID ITEM 21062 - EROSION MATTING, CLASS I, URBAN TYPE B

DESCRIPTION

Work under this item shall include all work, materials, labor, and incidentals necessary to install Erosion Matting, Class I, Urban Type B on all seeded disturbed areas as noted in the plans.

Work under this bid item shall be as set forth in the latest edition of the Standard Specifications, except the Contractor shall note that special care with anchorage devices shall be required so as to not injure park users. Anchorage devices for the mat are required to be a product identified on the Wisconsin Department of Transportation Erosion Control Product Acceptability List (PAL) under the category of "Anchoring Devices for Erosion Matting, Class I, Urban Type B."

Anchorage devices shall be completely biodegradable. Photobiodegradable or metal anchorage devices shall not be allowed. Materials deemed to present a hazard from splintering or spearing shall not be approved, including solid wood devices.

Anchorage devices shall be submitted to the Engineer for approval prior to placement.

Erosion Matting, Class I, Urban Type B shall be installed correctly with correct anchorage, staple pattern, and overlap. To verify the staple pattern, the Contractor shall provide to the Engineer a manufacturer's recommended staple pattern for the type of matting installed.

Trimming of the Erosion Matting, Class I, Urban Type B required to accommodate fence location shall be considered incidental to this bid item.

BID ITEM 30301 - 5 INCH CONCRETE

DESCRIPTION

Work under this item shall include all work, materials, labor, and incidentals necessary for the Contractor to install, maintain, and remove 5 inch concrete in accordance with the City of Madison Standard

Specifications for Public Works Construction. Construction of the 6 inch thickened edge at the abutment wall shall be considered incidental to this bid item and shall not be paid separately for additional concrete.

BID ITEM 40102 - CRUSHED AGGREGATE BASE COURSE, GRADATION NO. 2

DESCRIPTION

Work under this item shall include all work, materials, labor, and incidentals necessary for the Contractor to place 9 inch depth of crushed aggregate base course under the portion of the asphalt drive that is being reconstructed.

BID ITEM 40202 - HMA PAVEMENT 4 LT 58-28 S

DESCRIPTION

Work under this item shall include all work, materials, labor, and incidentals necessary for the Contractor place 3 inch depth of HMA Pavement 4 LT 58-28 S required to repave the portion of the existing asphalt drive that is being reconstructed.

BID ITEM 90000 - CONSTRUCTION FENCE (PLASTIC)

DESCRIPTION

Work under this item shall include all work, materials, labor and incidentals necessary for the Contractor to provide, install, maintain, and remove construction fence from the project site as shown on the plans.

Construction fencing shall be installed to discourage access to the construction area by the general public during the course of the project. Fencing shall be maintained throughout construction and adjusted or removed at the request of the Engineer.

This fence shall be highly visible (orange), constructed of a plastic web, and able to withstand the expected amount of use it shall receive on a construction site. Relocation of fencing may be required as the work progresses. No extra payment shall be made for temporarily opening and re-closing the fence, or relocation of the fencing as needed to perform the work. Fencing shall be left in place until construction operations are complete.

Construction fence shall be required around the staging area identified on the plans. 150 linear feet of construction fencing have been added to the proposal page for undistributed construction fence to be used around construction staging.

Construction fencing shall be International Orange color, high-density polyethylene mesh conforming to the following:

- Mesh opening: 1 inch minimum to 3 inch maximum
- Height: 4 feet
- Ultimate tensile strength: Avg 3000 lb per 4 width (ASTM D638)

METHOD OF MEASUREMENT

Construction Fence (Plastic) shall be measured by the linear foot quantity as listed in the proposal page without measurement thereof.

BASIS OF PAYMENT

Construction Fence (Plastic) shall be measured as described above and shall be paid for at the contract unit price which shall be full compensation for all work, materials, labor, tools, equipment, disposal, and incidentals required to complete the work as set forth in the description.

BID ITEM 90001 - LAKE AND GROUNDWATER CONTROL

Work under this item shall include all work, materials, equipment, and incidentals required to control lake levels in order to complete the work as defined in the special provisions and plan set. The Contractor shall submit to the Engineer for approval, a detailed lake control and groundwater control plan. The plan shall be submitted a minimum of 10 business days prior to starting work and shall clearly state the methods and materials proposed to control lake levels for the installation of the concrete pier abutment and ice access.

The Contractor shall be aware that any dewatering, including trench dewatering or pumping accumulated storm water, shall include stormwater treatment for sediment removal prior to discharge off-site. At a minimum, this treatment shall include filtering the water via a sediment bag prior to discharge. The geotextile bag shall have a 0.040 mm apparent opening size (AOS). If, at the determination of the Engineer, this treatment process is not providing sufficient sediment removal, the Contractor shall add polymer to the sediment bag. These polymers shall comply with the WDOT standards for Polyacrylamide Soil Stabilizers and shall conform to the WDOT's Product Acceptability List (PAL) for Soil Stabilizers, Type B. If necessary the Contractor shall obtain, from the Wisconsin Department of Natural Resources (WDNR), in accordance with Paragraph 144.025(2)(e), Wisconsin Statutes, permits for all groundwater control wells which singly or in aggregate produce 70 or more gallons per minute. All wells shall be drilled and sealed in accordance with requirements of the WDNR for installing and abandoning wells. The address for obtaining well permits is: Wisconsin Department of Natural Resources Private Water Supply Section BOX 7921 Madison, Wisconsin 53707.

The Contractor shall be solely responsible for choosing a method of lake and groundwater control that is compatible with the constraints defined. The Contractor shall be responsible for the adequacy of the lake and groundwater control system and shall take all necessary measures to insure that the groundwater control operation will not endanger or damage any existing adjacent utility or structure. The method or methods shall be designed, installed, and operated in such a manner to provide satisfactory working conditions and to maintain the progress of work. The methods and systems shall be designed so as to avoid settlement or damage to adjacent property in accordance with the applicable legislative statutes and judicial decisions of the State of Wisconsin.

All required pumping, drainage, and disposal of groundwater shall be done without damage to adjacent property or structures, or to the operations of other contractors and without interference with the access rights of public or private parties. Borings are provided in these bid documents to assist the Contractor in determining what methods are required to dewater the site.

METHOD OF MEASUREMENT

Lake and Groundwater Control shall be measured as a lump sum for all lake and groundwater control necessary throughout construction.

BASIS OF PAYMENT

Lake and Groundwater Control shall be measured as described above and shall be paid at the contract unit price, which shall be considered full compensation for all permitting, labor, materials, equipment, and incidentals necessary to control, divert, and treat water prior to discharge for the duration of the project.

BID ITEM 90002 – PIER ABUTMENT

DESCRIPTION

Work under this bid item shall include all labor, equipment, materials, and incidentals necessary to construct the concrete abutment for the fishing pier. This bid item includes all work necessary to excavate, undercut, backfill, and construct the reinforced concrete abutment.

All concrete, reinforcing steel (uncoated), expansion filler, and other incidentals shall conform to Article 301 of the Standard Specifications for Public Works Construction. Provide expansion filler between the sidewalk and the abutment paving notch. Finish the concrete abutment in accordance with Article 301 and as noted on the drawings.

The final dimensions of the concrete abutment may need to be adjusted to accommodate the fishing pier gangway dimensions. Coordinate final dimensions with Engineer prior to constructing abutment.

Remove existing organic and peat soils to the underlying sand layer. Backfill excavation to bottom of foundation elevation using 1 ¼ inch clear stone wrapped in geotextile fabric Type SAS Nonwoven.

Maintain a dry excavation during construction of the concrete abutment. Payment for dewatering shall be in accordance with the Lake and Groundwater Control bid item.

METHOD OF MEASUREMENT

Pier Abutment shall be measured by lump sum for the completed work as described above.

BASIS OF PAYMENT

Pier Abutment shall be measured as described above and shall be paid at the contract unit price, which shall be considered full compensation for all labor, materials, equipment, and incidentals **including excavation, backfill, installation of clear stone base, geotextile fabric, concrete, steel reinforcement, and all associated work required to construct the concrete abutment in accordance with the drawings and special provisions.**

BID ITEM 90003 – PIER INSTALLATION

DESCRIPTION

Work under this bid item shall include all labor, equipment, materials and incidentals necessary to install a galvanized, structural-steel framed boardwalk with high-density polyethylene (HDPE) decking, including all fittings, accessories, and fasteners. The design, manufacture, procurement of the pier SHALL NOT BE INCLUDED IN THIS CONTRACT, and shall be part of a separate bidding process.

For the Contractors reference, the pier design drawings and specifications are included in Appendix C.

The proposed pier **will be purchased by the City of Madison** and ordered for delivery from the pier manufacturer to the Contractor's pre-determined receiving location. The Contractor shall provide equipment and labor for off-loading, loading, and trucking as needed. The pier manufacturer shall provide information on weight and dimensions of equipment being shipped, the recommended equipment for off-loading the pier, and shall give the Contractor at least one week's notice prior to delivery.

The Contractor is responsible for securing all deliveries and insuring the completeness of the order prior to installation. The Contractor is required to inspect all deliveries received for damage and shall notify the Engineer when materials have been received and inspected. Inspection by the Contractor shall occur upon delivery. If materials are found to have been damaged upon delivery to Contractor, the Contractor shall inform vendor and provide photographs of damage, and, if necessary, store the materials at the receiving location. If the materials are damaged after delivery to Contractor but before installation is complete, the Contractor shall be responsible for securing replacement materials.

If the Contractor receives the pier at the project site, the Contractor shall be required to secure the pier from theft or vandalism at the project site. If the Contractor receives the pier at the project site, the Contractor shall also be required to deliver the pier from the Contractors yard to the project location. Protecting the pier shall be incidental to this bid item. The Contractor shall be responsible for any theft or damage to the pier while at the project site. **The pier shall not be allowed to remain at the project site, uninstalled, for more than 48 hours.**

The Contractor shall contact the Engineer within three (3) working days of receipt of the pier equipment to confirm equipment matches what was specified. Original packing slips from each shipment shall be provided to the Engineer.

The Contractor shall contact the Engineer prior to installation to coordinate exact date for pier installation and to verify correct layout. All installation of the pier shall adhere and conform to the installation specifications as provided by the pier manufacturer.

The Contractor shall be responsible for all costs associated with reserving a crane to install the pier. Installation of pier anchors identified by the pier manufacturer are incidental to this bid item.

The Contractor shall secure the pier to the concrete abutment in a manner that provides a smooth transition between the abutment and decking. The pier shall be installed to the correct elevations as specified by the pier manufacturer and installation specifications to meet required elevations based on the finished pier abutment as shown on the plans.

METHOD OF MEASUREMENT

Pier Installation shall be measured by lump sum for the completed work as described above.

BASIS OF PAYMENT

Pier Installation shall be measured as described above and shall be paid at the contract unit price which shall be full compensation for all work, materials, tools, equipment, labor, hauling, placement, disposal and incidentals required to complete the work as set forth in the description. Pier guide pipe materials and installation are incidental to this bid item.

BID ITEM 90004 – 8 INCH CONCRETE LAUNCH

Work under this item includes all materials, equipment, labor, and incidentals required to construct an 8-inch concrete ramp for ice access as described in these special provisions and to the lines and grades shown on the plan set. This bid item includes all work necessary to excavate and prepare an appropriate base for the installation. Lake and Groundwater Control, which shall include all work necessary to exclude or manage lake water during the installation shall be paid under Bid Item 90001.

MATERIALS

CONCRETE

Concrete provided and placed per this bid item shall comply with Article 301 of the Standard Specifications for Public Works Construction, except as defined below:

- Grade A concrete as defined in Wisconsin DOT Standard Specifications Section 501
- Type II (low-alkali) cement
- Water: Cement ratio shall be less than 0.45
- 4,000 psi minimum 28-day compressive strength concrete
- Air Entrainment: 6% by volume, +/- 1%
- 3-4 inch slump
- #4 rebar, non-epoxy coated

Concrete shall be tested in accordance with Section 301.2 of the Standard Specifications.

BASE

The concrete launches shall be underlain with a minimum of 10 inches of mechanically-compacted, crushed aggregate. Aggregate shall be layered: 8 inches of gradation number 1, as defined in Article 401 of the Standard Specifications, shall be overlain with 2 inches of gradation number 2. Provision and placement of the aggregate shall be included in this bid item. Hauling and properly disposing of

excavated material shall also be included in this bid item. Aggregate base shall be incidental this this bid item. It is estimated that there are 11.9 cubic yards of aggregate base needed for this

CONSTRUCTION

PLACEMENT

Concrete placement shall begin at the bottom of the ramp and proceed in an uphill direction. The surface shall be floated immediately, and any aggregate that is at the surface or causing problems shall be pushed down. Concrete shall have heavy broom finish.

COLD WEATHER PROTECTION

If necessary, the Contractor shall take appropriate steps to protect newly placed concrete from cold weather. Cold weather protection shall comply with Section 301.8 of the Standard Specifications, and/or the direction of the Engineer.

Cold weather protection shall be expected based on the contract schedule. Costs associated with cold weather protection shall be included with this bid item

METHOD OF MEASUREMENT

8 Inch Concrete Launch shall be measured as lump sum of complete concrete ramp placed in the field.

BASIS OF PAYMENT

8 Inch Concrete Launch shall be paid for at the contract unit price, which shall be considered full compensation for construction of the structure described above **including, excavation, backfill, installation and procurement of aggregate base, provision and placement of base materials, provision and placement of concrete and reinforcing steel, finishing the concrete as described, appropriately curing the concrete for the weather conditions, and all associated work required to construct 8 inch concrete launch in accordance with the drawings and special provisions.**

END OF SPECIAL PROVISION

SECTION E: BIDDERS ACKNOWLEDGEMENT

**WARNER LAGOON PIER AND ICE ACCESS
CONTRACT NO. 9428**

Bidder must state a Unit Price and Total Bid for each item. The Total Bid for each item must be the product of quantity, by Unit Price. The Grand Total must be the sum of the Total Bids for the various items. In case of multiplication errors or addition errors, the Grand Total with corrected multiplication and/or addition shall determine the Grand Total bid for each contract. The Unit Price and Total Bid must be entered numerically in the spaces provided. All words and numbers shall be written in ink.

1. The undersigned having familiarized himself/herself with the Contract documents, including Advertisement for Bids, Instructions to Bidders, Form of Proposal, City of Madison Standard Specifications for Public Works Construction - 2020 Edition thereto, Form of Agreement, Form of Bond, and Addenda issued and attached to the plans and specifications on file in the office of the City Engineer, hereby proposes to provide and furnish all the labor, materials, tools, and expendable equipment necessary to perform and complete in a workmanlike manner the specified construction on this project for the City of Madison; all in accordance with the plans and specifications as prepared by the City Engineer, including Addenda Nos. _____ through _____ to the Contract, at the prices for said work as contained in this proposal. (Electronic bids submittals shall acknowledge addendum under Section E and shall not acknowledge here)
2. If awarded the Contract, we will initiate action within seven (7) days after notification or in accordance with the date specified in the contract to begin work and will proceed with diligence to bring the project to full completion within the number of work days allowed in the Contract or by the calendar date stated in the Contract.
3. The undersigned Bidder or Contractor certifies that he/she is not a party to any contract, combination in form of trust or otherwise, or conspiracy in restraint of trade or commerce or any other violation of the anti-trust laws of the State of Wisconsin or of the United States, with respect to this bid or contract or otherwise.
4. I hereby certify that I have met the Bid Bond Requirements as specified in Section 102.5. *(IF BID BOND IS USED, IT SHALL BE SUBMITTED ON THE FORMS PROVIDED BY THE CITY. FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID).*
5. I hereby certify that all statements herein are made on behalf of _____ (name of corporation, partnership, or person submitting bid) a corporation organized and existing under the laws of the State of _____ a partnership consisting of _____; an individual trading as _____; of the City of _____ State of _____; that I have examined and carefully prepared this Proposal, from the plans and specifications and have checked the same in detail before submitting this Proposal; that I have fully authority to make such statements and submit this Proposal in (its, their) behalf; and that the said statements are true and correct.

SIGNATURE

TITLE, IF ANY

Sworn and subscribed to before me this _____ day of _____, 20_____.

(Notary Public or other officer authorized to administer oaths)
My Commission Expires _____

Bidders shall not add any conditions or qualifying statements to this Proposal.

SECTION F: BEST VALUE CONTRACTING
WARNER LAGOON PIER AND ICE ACCESS
CONTRACT NO. 9428

Best Value Contracting

1. The Contractor shall indicate the non-apprenticeable trades used on this contract.

2. Madison General Ordinance (M.G.O.), 33.07(7), does provide for some exemptions from the active apprentice requirement. Apprenticeable trades are those trades considered apprenticeable by the State of Wisconsin. Please check applicable box if you are seeking an exemption.

- Contractor has a total skilled workforce of four or less individuals in all apprenticeable trades combined.
- No available trade training program; The Contractor has been rejected by the only available trade training program, or there is no trade training program within 90 miles.
- Contractor is not using an apprentice due to having a journey worker on layoff status, provided the journey worker was employed by the contractor in the past six months.
- First-time Contractor on City of Madison Public Works contract requests a onetime exemption but intends to comply on all future contracts and is taking steps typical of a "good faith" effort.
- Contractor has been in business less than one year.
- Contractor doesn't have enough journeyman trade workers to qualify for a trade training program in that respective trade.
- An exemption is granted in accordance with a time period of a "Documented Depression" as defined by the State of Wisconsin.

3. The Contractor shall indicate on the following section which apprenticeable trades are to be used on this contract. Compliance with active apprenticeship, to the extent required by M.G.O. 33.07(7), shall be satisfied by documentation from an applicable trade training body; an apprenticeship contract with the Wisconsin Department of Workforce Development or a similar agency in another state; or the U.S Department of Labor. This documentation is required prior to the Contractor beginning work on the project site.

- The Contractor has reviewed the list and shall not use any apprenticeable trades on this project.

**WARNER LAGOON PIER AND ICE ACCESS
CONTRACT NO. 9428**

LIST APPRENTICABLE TRADES (check all that apply to your work to be performed on this contract)

- BRICKLAYER
- CARPENTER
- CEMENT MASON / CONCRETE FINISHER
- CEMENT MASON (HEAVY HIGHWAY)
- CONSTRUCTION CRAFT LABORER
- DATA COMMUNICATION INSTALLER
- ELECTRICIAN
- ENVIRONMENTAL SYSTEMS TECHNICIAN / HVAC SERVICE TECH/HVAC INSTALL / SERVICE
- GLAZIER
- HEAVY EQUIPMENT OPERATOR / OPERATING ENGINEER
- INSULATION WORKER (HEAT & FROST)
- IRON WORKER
- IRON WORKER (ASSEMBLER, METAL BLDGS)
- PAINTER & DECORATOR
- PLASTERER
- PLUMBER
- RESIDENTIAL ELECTRICIAN
- ROOFER & WATER PROOFER
- SHEET METAL WORKER
- SPRINKLER FITTER
- STEAMFITTER
- STEAMFITTER (REFRIGERATION)
- STEAMFITTER (SERVICE)
- TAPER & FINISHER
- TELECOMMUNICATIONS (VOICE, DATA & VIDEO) INSTALLER-TECHNICIAN
- TILE SETTER

SECTION G: BID BOND

KNOW ALL MEN BY THESE PRESENT, THAT Principal and Surety, as identified below, are held and firmly bound unto the City of Madison, (hereinafter referred to as the "Obligee"), in the sum of five per cent (5%) of the amount of the total bid or bids of the Principal herein accepted by the Obligee, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The conditions of this obligation are such that, whereas the Principal has submitted, to the City of Madison a certain bid, including the related alternate, and substitute bids attached hereto and hereby made a part hereof, to enter into a contract in writing for the construction of:

WARNER LAGOON PIER AND ICE ACCESS CONTRACT NO. 9428

1. If said bid is rejected by the Obligee, then this obligation shall be void.
2. If said bid is accepted by the Obligee and the Principal shall execute and deliver a contract in the form specified by the Obligee (properly completed in accordance with said bid) and shall furnish a bond for his/her faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said bid, then this obligation shall be void.

If said bid is accepted by the Obligee and the Principal shall fail to execute and deliver the contract and the performance and payment bond noted in 2. above executed by this Surety, or other Surety approved by the City of Madison, all within the time specified or any extension thereof, the Principal and Surety agree jointly and severally to forfeit to the Obligee as liquidated damages the sum mentioned above, it being understood that the liability of the Surety for any and all claims hereunder shall in no event exceed the sum of this obligation as stated, and it is further understood that the Principal and Surety reserve the right to recover from the Obligee that portion of the forfeited sum which exceed the actual liquidated damages incurred by the Obligee.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Obligee may accept such bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, on the day and year set forth below.

Seal PRINCIPAL

Name of Principal

By

Date

Name and Title

Seal SURETY

Name of Surety

By

Date

Name and Title

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under National Provider No. _____ for the year _____, and appointed as attorney in fact with authority to execute this bid bond and the payment and performance bond referred to above, which power of attorney has not been revoked.

Date

Agent Signature

Address

City, State and Zip Code

Telephone Number

NOTE TO SURETY & PRINCIPAL

The bid submitted which this bond guarantees shall be rejected if the following instrument is not attached to this bond:

Power of Attorney showing that the agent of Surety is currently authorized to execute bonds on behalf of the Surety, and in the amounts referenced above.

Certificate of Biennial Bid Bond

TIME PERIOD - VALID (FROM/TO)
NAME OF SURETY
NAME OF CONTRACTOR
CERTIFICATE HOLDER <p style="text-align: center;">City of Madison, Wisconsin</p>

This is to certify that a biennial bid bond issued by the above-named Surety is currently on file with the City of Madison.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the biennial bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing Surety will give thirty (30) days written notice to the certificate holder indicated above.

Signature of Authorized Contractor Representative

Date

SECTION H: AGREEMENT

THIS AGREEMENT made this _____ day of _____ in the year Two Thousand and Twenty between _____ hereinafter called the Contractor, and the City of Madison, Wisconsin, hereinafter called the City.

WHEREAS, the Common Council of the said City of Madison under the provisions of a resolution adopted _____, and by virtue of authority vested in the said Council, has awarded to the Contractor the work of performing certain construction.

NOW, THEREFORE, the Contractor and the City, for the consideration hereinafter named, agree as follows:

1. **Scope of Work.** The Contractor shall, perform the construction, execution and completion of the following listed complete work or improvement in full compliance with the Plans, Specifications, Standard Specifications, Supplemental Specifications, Special Provisions and contract; perform all items of work covered or stipulated in the proposal; perform all altered or extra work; and shall furnish, unless otherwise provided in the contract, all materials, implements, machinery, equipment, tools, supplies, transportation, and labor necessary to the prosecution and completion of the work or improvements:

WARNER LAGOON PIER AND ICE ACCESS CONTRACT NO. 9428

2. **Completion Date/Contract Time.** Construction work must begin within seven (7) calendar days after the date appearing on mailed written notice to do so shall have been sent to the Contractor and shall be carried on at a rate so as to secure full completion SEE SPECIAL PROVISIONS, the rate of progress and the time of completion being essential conditions of this Agreement.
3. **Contract Price.** The City shall pay to the Contractor at the times, in the manner and on the conditions set forth in said specifications, the sum of _____ (\$ _____) Dollars being the amount bid by such Contractor and which was awarded to him/her as provided by law.
4. **Affirmative Action.** In the performance of the services under this Agreement the Contractor agrees not to discriminate against any employee or applicant because of race, religion, marital status, age, color, sex, disability, national origin or ancestry, income level or source of income, arrest record or conviction record, less than honorable discharge, physical appearance, sexual orientation, gender identity, political beliefs, or student status. The Contractor further agrees not to discriminate against any subcontractor or person who offers to subcontract on this contract because of race, religion, color, age, disability, sex, sexual orientation, gender identity or national origin.

The Contractor agrees that within thirty (30) days after the effective date of this agreement, the Contractor will provide to the City Affirmative Action Division certain workforce utilization statistics, using a form to be furnished by the City.

If the contract is still in effect, or if the City enters into a new agreement with the Contractor, within one year after the date on which the form was required to be provided, the Contractor will provide updated workforce information using a second form, also to be furnished by the City. The second form will be submitted to the City Affirmative Action Division no later than one year after the date on which the first form was required to be provided.

The Contractor further agrees that, for at least twelve (12) months after the effective date of this contract, it will notify the City Affirmative Action Division of each of its job openings at facilities in Dane County for which applicants not already employees of the Contractor are to be considered. The notice will include a job description, classification, qualifications and application procedures

and deadlines. The Contractor agrees to interview and consider candidates referred by the Affirmative Action Division if the candidate meets the minimum qualification standards established by the Contractor, and if the referral is timely. A referral is timely if it is received by the Contractor on or before the date started in the notice.

Articles of Agreement Article I

The Contractor shall take affirmative action in accordance with the provisions of this contract to insure that applicants are employed, and that employees are treated during employment without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin and that the employer shall provide harassment free work environment for the realization of the potential of each employee. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship insofar as it is within the control of the Contractor. The Contractor agrees to post in conspicuous places available to employees and applicants notices to be provided by the City setting out the provisions of the nondiscrimination clauses in this contract.

Article II

The Contractor shall in all solicitations or advertisements for employees placed by or on behalf of the Contractors state that all qualified or qualifiable applicants will be employed without regard to race, religion, color, age, marital status, disability, sex, sexual orientation, gender identity or national origin.

Article III

The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided by the City advising the labor union or worker's representative of the Contractor's equal employment opportunity and affirmative action commitments. Such notices shall be posted in conspicuous places available to employees and applicants for employment.

Article V

The Contractor agrees that it will comply with all provisions of the Affirmative Action Ordinance of the City of Madison, including the contract compliance requirements. The Contractor agrees to submit the model affirmative action plan for public works contractors in a form approved by the Affirmative Action Division Manager.

Article VI

The Contractor will maintain records as required by Section 39.02(9)(f) of the Madison General Ordinances and will provide the City Affirmative Action Division with access to such records and to persons who have relevant and necessary information, as provided in Section 39.02(9)(f). The City agrees to keep all such records confidential, except to the extent that public inspection is required by law.

Article VII

In the event of the Contractor's or subcontractor's failure to comply with the Equal Employment Opportunity and Affirmative Action Provisions of this contract or Section 39.03 and 39.02 of the Madison General Ordinances, it is agreed that the City at its option may do any or all of the following:

1. Cancel, terminate or suspend this Contract in whole or in part.

2. Declare the Contractor ineligible for further City contracts until the Affirmative Action requirements are met.
3. Recover on behalf of the City from the prime Contractor 0.5 percent of the contract award price for each week that such party fails or refuses to comply, in the nature of liquidated damages, but not to exceed a total of five percent (5%) of the contract price, or ten thousand dollars (\$10,000), whichever is less. Under public works contracts, if a subcontractor is in noncompliance, the City may recover liquidated damages from the prime Contractor in the manner described above. The preceding sentence shall not be construed to prohibit a prime Contractor from recovering the amount of such damage from the non-complying subcontractor.

Article VIII

The Contractor shall include the above provisions of this contract in every subcontract so that such provisions will be binding upon each subcontractor. The Contractor shall take such action with respect to any subcontractor as necessary to enforce such provisions, including sanctions provided for noncompliance.

Article IX

The Contractor shall allow the maximum feasible opportunity to small business enterprises to compete for any subcontracts entered into pursuant to this contract. (In federally funded contracts the terms "DBE, MBE and WBE" shall be substituted for the term "small business" in this Article.)

5. Substance Abuse Prevention Program Required. Prior to commencing work on the Contract, the Contractor, and any Subcontractor, shall have in place a written program for the prevention of substance abuse among its employees as required under Wis. Stat. Sec. 103.503.
6. **Contractor Hiring Practices.**

Ban the Box - Arrest and Criminal Background Checks. (Sec. 39.08, MGO)

This provision applies to all prime contractors on contracts entered into on or after January 1, 2016, and all subcontractors who are required to meet prequalification requirements under MGO 33.07(7)(l), MGO as of the first time they seek or renew pre-qualification status on or after January 1, 2016. The City will monitor compliance of subcontractors through the pre-qualification process.

- a. **Definitions.** For purposes of this section, "Arrest and Conviction Record" includes, but is not limited to, information indicating that a person has been questioned, apprehended, taken into custody or detention, held for investigation, arrested, charged with, indicted or tried for any felony, misdemeanor or other offense pursuant to any law enforcement or military authority.

"Conviction record" includes, but is not limited to, information indicating that a person has been convicted of a felony, misdemeanor or other offense, placed on probation, fined, imprisoned or paroled pursuant to any law enforcement or military authority.

"Background Check" means the process of checking an applicant's arrest and conviction record, through any means.

- b. **Requirements.** For the duration of this Contract, the Contractor shall:
 1. Remove from all job application forms any questions, check boxes, or other inquiries regarding an applicant's arrest and conviction record, as defined herein.

2. Refrain from asking an applicant in any manner about their arrest or conviction record until after conditional offer of employment is made to the applicant in question.
3. Refrain from conducting a formal or informal background check or making any other inquiry using any privately or publicly available means of obtaining the arrest or conviction record of an applicant until after a conditional offer of employment is made to the applicant in question.
4. Make information about this ordinance available to applicants and existing employees, and post notices in prominent locations at the workplace with information about the ordinance and complaint procedure using language provided by the City.
5. Comply with all other provisions of Sec. 39.08, MGO.

c. Exemptions: This section shall not apply when:

1. Hiring for a position where certain convictions or violations are a bar to employment in that position under applicable law, or
2. Hiring a position for which information about criminal or arrest record, or a background check is required by law to be performed at a time or in a manner that would otherwise be prohibited by this ordinance, including a licensed trade or profession where the licensing authority explicitly authorizes or requires the inquiry in question.

To be exempt, Contractor has the burden of demonstrating that there is an applicable law or regulation that requires the hiring practice in question, if so, the contractor is exempt from all of the requirements of this ordinance for the position(s) in question.

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IN WITNESS WHEREOF, the Contractor has hereunto set his/her hand and seal and the City has caused this contract to be sealed with its corporate seal and to be executed by its Mayor and City Clerk on the dates written below.

Countersigned:

	Company Name
Witness	Date
Witness	Date

	President
	Date
	Date

CITY OF MADISON, WISCONSIN

Provisions have been made to pay the liability that will accrue under this contract.

Approved as to form:

	Finance Director
	Date
Witness	Date
Witness	Date

	City Attorney
	Date
	Date
	Date

SECTION I: PAYMENT AND PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
as principal, and _____
Company of _____ as surety, are held and firmly bound unto the City of
Madison, Wisconsin, in the sum of _____ (\$_____) Dollars, lawful money of the United
States, for the payment of which sum to the City of Madison, we hereby bind ourselves and our
respective executors and administrators firmly by these presents.

The condition of this Bond is such that if the above bounden shall on his/her part fully and faithfully
perform all of the terms of the Contract entered into between him/herself and the City of Madison for the
construction of:

**WARNER LAGOON PIER AND ICE ACCESS
CONTRACT NO. 9428**

in Madison, Wisconsin, and shall pay all claims for labor performed and material furnished in the
prosecution of said work, and save the City harmless from all claims for damages because of negligence
in the prosecution of said work, and shall save harmless the said City from all claims for compensation
(under Chapter 102, Wisconsin Statutes) of employees and employees of subcontractor, then this Bond is
to be void, otherwise of full force, virtue and effect.

Signed and sealed this _____ day of _____

Countersigned:

Company Name (Principal)

Witness

President Seal

Secretary

Approved as to form:

Surety Seal
 Salary Employee Commission

City Attorney

By _____
Attorney-in-Fact

This certifies that I have been duly licensed as an agent for the above company in Wisconsin under
National Producer Number _____ for the year _____, and appointed as attorney-in-fact
with authority to execute this payment and performance bond which power of attorney has not been
revoked.

Date

Agent Signature

APPENDIX A

SOIL BORING AND GEOTECHNICAL REPORT



Construction • Geotechnical
Consulting Engineering/Testing

November 5, 2019
C19051-14

Ms. Sarah Lerner, LEED AP, RLA
City of Madison – Parks Division
City-County Building, Room 104
210 Martin Luther King, Jr. Blvd.
Madison, WI 53703

Re: Geotechnical Exploration Report
Proposed Warner Park Lagoon Pier
Warner Park
Madison, Wisconsin

Dear Ms. Lerner:

Construction • Geotechnical Consultants, Inc. (CGC) has completed the subsurface exploration program for the proposed pier at Warner Park in Madison, Wisconsin. The purpose of the exploration program was to evaluate the site's subsurface conditions from a geotechnical engineering viewpoint and to provide soil parameters for a proposed concrete abutment. An electronic copy of this report is being submitted for your use.

PROJECT DESCRIPTION

We understand that there will be a pier constructed at the lagoon in Warner Park. We anticipate the pier to be anchored to a concrete abutment. The location of the proposed pier (Option 2) is indicated on the Soil Boring Location Exhibit attached in Appendix B.

SUBSURFACE CONDITIONS

The geotechnical exploration program consisted of drilling one Standard Penetration Test (SPT) soil boring to 25 ft below the existing ground surface on October 30, 2019. The boring was drilled by Badger State Drilling (under subcontract to CGC) using a truck-mounted CME-55 rotary drill rig equipped with hollow-stem augers and an automatic SPT hammer. More information regarding the drilling program is included in Appendix A of this report, with the boring location presented on the Soil Boring Location Exhibit found in Appendix B. The ground surface elevation at the boring location was estimated by CGC based on publicly-available topographic data (DCiMap; 1-ft contour lines), and the elevation should therefore be considered approximate.

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The subsurface conditions encountered at the site are as follows (in descending order):

- 3 in. of *asphalt pavement* on top of about 8 in. of *base course*; followed by
- About 5 ft of *organic silt/clay (possible fill)* and *sedimentary peat*; over
- Medium dense to very dense *sand* strata with variable amounts of silt and gravel as well as scattered cobbles/boulders to the maximum depth explored, with an isolated stiff *lean to silty clay* layer around 15 ft.

Groundwater was initially encountered during drilling at a depth of 8 ft, corresponding to about EL 844 ft. Upon the completion of drilling (after pulling the augers) and about one hour after the completion of drilling, groundwater levels were measured at about 3.0 to 2.5 ft below the ground surface, corresponding to approximately EL 849.0 to 849.5 ft. It must be noted that the lagoon is connected to Lake Mendota, and lagoon levels as well as groundwater levels in the proximity of the lagoon are generally expected to be near lake levels. For reference, On the day the soil boring was conducted, the water level in Lake Mendota was recorded at about EL 851.0 ft according to the Dane County Land & Water Resources Department *Lake Levels & Information* online platform. Groundwater levels can be anticipated to fluctuate based on seasonal variations in lake level, precipitation, infiltration, and other factors. More detailed information regarding soil and groundwater conditions at the site is presented in the Boring Log attached in Appendix B.

DISCUSSION AND RECOMMENDATIONS

Based on the results of the geotechnical exploration program, the organic layers extending to an approximate 5 to 6-ft depth are not suitable for support of the proposed concrete abutment. Provided the abutment will bear within the medium dense sand strata below a depth of about 5 to 6 ft, it is our opinion that a maximum net allowable bearing pressure of 5,000 psf can be used for foundation design. Recommendations and pertinent geotechnical design parameters for lateral loading are presented in Table 1. *Appropriate safety factors need to be applied.* Additional information regarding this report is discussed in Appendix C.

We recommend the abutment bear directly on the natural sands encountered below about 5 to 6 ft in the soil boring. The allowable design soil bearing pressure of 5,000 psf assumes that a firm and stable subgrade is developed. As an alternative, the surficial organic soils and peat should be undercut and replaced with compacted 1.25-in. clear stone densified until deflection ceases using a hoe-pak. Where total clear stone layer thicknesses exceed 12 in., the clear stone should be wrapped in non-woven geotextile fabric (e.g., Mirafi 160N or equivalent) to prevent migration of fines from the surrounding soils into the void spaces of the clear stone. The undercut should be widened a foot per foot of depth for stress distribution purposes (or lean concrete replacement can be implemented to develop stability, with evaluation to be made by CGC at the time of excavating). Dewatering will also be needed during construction because of the close proximity of the lagoon, with means and methods the contractor's responsibility.



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Regarding lateral earth pressure passive resistance, it can be increased by removing the organic silt/very soft clay on the lake-side of the abutment and replacing it with compacted clear stone topped with rock rip-rap. The clear stone/rip-rap wedge should be at least 5 ft wide between the abutment and the lake if implemented.

We understand that battered helical piers have been utilized for a similar project in Vilas Park, and the soil parameters included in Table 1 can also be used for helical pier design.

RECOMMENDED CONSTRUCTION MONITORING

To check that earthwork and construction proceeds in accordance with our recommendations, the following operations should be monitored by CGC:

- Abutment construction to document that the subsurface conditions are consistent with those anticipated from the boring; and
- Placement of concrete and concrete evaluation (including test cylinders).

* * * * *



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It has been a pleasure to serve you on this project. We look forward to continuing our project involvement by providing testing services during the construction phase of the project. If you have any questions or need additional consultation, please contact us.

Sincerely,

CGC, Inc.

Michael N. Schultz, PE
Principal/Senior Consulting Professional

Tim F. Gassenheimer, EIT, CST
Staff Engineer

Encl: Table 1 - Design Soil Parameters
Appendix A - Field Exploration Program
Appendix B - Soil Boring Location Exhibit
Log of Test Boring (1)
Log of Test Boring-General Notes
Unified Soil Classification System
Appendix C - Document Qualifications

TABLE 1 - Design Soil Parameters ⁽¹⁾
Warner Park Lagoon Pier
Madison, Wisconsin

Layer ⁽²⁾	Organic Silt/Clay and Sedimentary Peat	Medium Dense Sand	Stiff Lean to Silty Clay	Very Dense Sand, Scattered Cobbles/Boulders	Replacement Well-Compacted Crushed Clear Stone
Approx. Depth Below Existing Ground Surface (ft)	0 to 5.5	5.5 to 13	13 to 17	17 to 25 ⁽³⁾	-
Short-Term Loading Conditions					
<i>Cohesion, c (psf)</i>	0	0	1,500	0	0
<i>Angle of Internal Friction, ϕ (deg)</i>	40	32	0	36	36
<i>At-Rest Lateral Earth Pressure Coefficient, K_0 (-)</i>	0.36	0.47	1.00	0.41	0.41
<i>Active Lateral Earth Pressure Coefficient, K_a (-)</i>	0.22	0.31	1.00	0.26	0.26
<i>Passive Lateral Earth Pressure Coefficient, K_p (-)</i>	4.60	3.25	1.00	3.85	3.85
Long-Term Loading Conditions					
<i>Cohesion, c' (psf)</i>	0	0	30	0	0
<i>Angle of Internal Friction, ϕ' (deg)</i>	40	32	25	36	36
<i>At-Rest Lateral Earth Pressure Coefficient, K_0 (-)</i>	0.36	0.47	0.58	0.41	0.41
<i>Active Lateral Earth Pressure Coefficient, K_a (-)</i>	0.22	0.31	0.41	0.26	0.26
<i>Passive Lateral Earth Pressure Coefficient, K_p (-)</i>	4.60	3.25	2.46	3.85	3.85
Mass Concrete on Layer					
<i>Friction Factor, $\tan \delta$ (-)</i>	Not recommended	0.40	0.30	0.50	0.55
<i>Friction Angle, δ (deg)</i>		21.8	16.7	26.6	28.8
Unit Weight					
<i>Moist (pcf)</i>	80	125	120	135	100
<i>Saturated (pcf)</i>	100	135	125	145	110
<i>Buoyant (pcf)</i>	38	73	63	83	48

Notes:

- ⁽¹⁾ Values do not include factor of safety (i.e., FS = 1).
- ⁽²⁾ Generalized to some degree; refer to soil boring log for more information.
- ⁽³⁾ Termination depth of soil boring; layer may extend deeper.

APPENDIX A

FIELD EXPLORATION PROGRAM

APPENDIX A

FIELD EXPLORATION PROGRAM

The geotechnical exploration program consisted of drilling one Standard Penetration Test (SPT) soil boring to 25 ft below the existing ground surface on October 30, 2019. The boring was drilled by Badger State Drilling (under subcontract to CGC) using a truck-mounted CME-55 rotary drill rig equipped with hollow-stem augers and an automatic SPT hammer.

The boring was sampled at 2.5-ft intervals to a depth of 15 ft and at 5-ft intervals thereafter. The soil samples were obtained in general accordance with specifications for standard penetration testing, ASTM D1586. The specific procedures used for drilling and sampling are described below.

1. Drilling Procedures Between Samples

The borings were extended downward between samples using hollow stem augers.

2. Standard Penetration Test and Split-Barrel Sampling of Soils
(ASTM Designation: D1586)

This method consists of driving a 2-inch outside diameter split barrel sampler using a 140-pound weight falling freely through a distance of 30 inches. The sampler is first seated 6 inches into the material to be sampled and then driven 12 inches. The number of blows required to drive the sampler the final 12 inches is recorded on the log of borings and is known as the Standard Penetration Resistance.

During the field exploration, the driller visually classified the soil and prepared a field log. *Field screening of the samples for possible environmental contaminants was not conducted by the driller as environmental site assessment activities were not part of CGC's work scope.* Water level observations were made during, upon the completion and after the completion of drilling and are shown at the bottom of the boring log. Upon completion of drilling, the open borehole was backfilled with bentonite in accordance with WDNR guidelines. The soils were then delivered to our laboratory for visual classification. The soils were visually classified by a geotechnical engineer using the Unified Soil Classification System. The final log prepared by the engineer, along with a Soil Boring Location Exhibit and a description of the Unified Soil Classification System is presented in Appendix B.

APPENDIX B

**SOIL BORING LOCATION EXHIBIT
LOGS OF TEST BORINGS (1)
LOG OF TEST BORING – GENERAL NOTES
UNIFIED SOIL CLASSIFICATION SYSTEM**



SOIL BORING LOCATION EXHIBIT
 Proposed Warner Park Lagoon Pier
 Warner Park
 Madison, WI

CGC, Inc.

Job No.:
 C19051-14

Date:
 11/2019

- Notes**
1. Boring was drilled by Badger State Drilling on October 30, 2019.
 2. Boring location is approximate.
 3. Base map was obtained via DCiMap.

Legend
 Denotes Soil Boring Location and Number

Proposed Pier (Option 2)

B-1

N



LOG OF TEST BORING

Project **Proposed Warner Park Lagoon Pier**
 Location **Warner Park**
Madison, WI

Boring No. **1**
 Surface Elevation (ft) **852±**
 Job No. **C19051-14**
 Sheet **1** of **1**

2921 Perry Street, Madison, WI 53713 (608) 288-4100, FAX (608) 288-7887

SAMPLE					VISUAL CLASSIFICATION and Remarks	SOIL PROPERTIES				
No.	TYPE	Rec (in.)	Moist	N		Depth (ft)	qu (tsf)	W	LL	PL
					3± in. Asphalt Pavement / 8± in. Base Course					
1		8	M	8	Loose/Medium Stiff, Black Organic SILT/CLAY, Little Sand, Trace Gravel, Scattered Gray Silty Fine to Coarse Sand Seams (OL - Possible Fill)	(0.75)				
2		6	M	3	Very Loose, Black Sedimentary PEAT, Trace to Little Sand (PT)					
3		12	M/W	17	Medium Dense, Dark Gray Silty Fine to Medium SAND, Little Gravel, Trace Organics (SM)					
4		18	W	29	Medium Dense, Gray to Dark Gray Fine to Medium SAND, Trace to Little Silt, Trace Gravel and Organics (SP/SP-SM)					
5		14	W	30	Medium Dense to Dense, Gray to Dark Gray Fine SAND, Trace Silt and Organics (SP)					
6		14	W	17	Stiff, Gray Lean to Silty CLAY, Trace Sand, Numerous Thin Silt Seams (CL/CL-ML)	(1.5-1.75)				
7		1	W	50/5"	Very Dense, Gray Fine to Medium SAND, Some Gravel, Trace to Little Silt, Scattered Cobbles/Boulders (SP/SP-SM) Very Limited Recovery in Sample 7 (18.5 to 20 ft)					
8		2	W	50/5"	Very Dense, Gray Fine to Medium SAND, Some Silt and Gravel, Scattered Cobbles/Boulders (SM) Limited Recovery in Sample 8 (23.5 to 25 ft)					
					End of Boring at 25 ft					
					Borehole Backfilled with Bentonite Chips; Surface Patched with Asphalt Cold Patch					

WATER LEVEL OBSERVATIONS

GENERAL NOTES

While Drilling ∇ **8.0'** Upon Completion of Drilling **3.0'**
 Time After Drilling **1 Hour**
 Depth to Water **2.5'** ∇
 Depth to Cave in **8.0'**

Start **10/30/19** End **10/30/19**
 Driller **BSD** Chief **JF** Rig **CME-55**
 Logger **GB** Editor **TFG**
 Drill Method **2.25" HSA; Autohammer**

The stratification lines represent the approximate boundary between soil types and the transition may be gradual.

LOG OF TEST BORING
General Notes

DESCRIPTIVE SOIL CLASSIFICATION

Grain Size Terminology

Soil Fraction	Particle Size	U.S. Standard Sieve Size
Boulders	Larger than 12"	Larger than 12"
Cobbles	3" to 12"	3" to 12"
Gravel: Coarse.....	3/4" to 3"	3/4" to 3"
Fine	4.76 mm to 3/4"	#4 to 3/4"
Sand: Coarse.....	2.00 mm to 4.76 mm.....	#10 to #4
Medium	0.42 to mm to 2.00 mm	#40 to #10
Fine	0.074 mm to 0.42 mm.....	#200 to #40
Silt.....	0.005 mm to 0.074 mm.....	Smaller than #200
Clay.....	Smaller than 0.005 mm.....	Smaller than #200

Plasticity characteristics differentiate between silt and clay.

General Terminology

- Physical Characteristics
 - Color, moisture, grain shape, fineness, etc.
- Major Constituents
 - Clay, silt, sand, gravel
- Structure
 - Laminated, varved, fibrous, stratified, cemented, fissured, etc.
- Geologic Origin
 - Glacial, alluvial, eolian, residual, etc.

Relative Density

Term	"N" Value
Very Loose.....	0 - 4
Loose.....	4 - 10
Medium Dense.....	10 - 30
Dense.....	30 - 50
Very Dense.....	Over 50

Relative Proportions Of Cohesionless Soils

Proportional Term	Defining Range by Percentage of Weight
Trace.....	0% - 5%
Little.....	5% - 12%
Some.....	12% - 35%
And	35% - 50%

Consistency

Term	q _u -tons/sq. ft
Very Soft.....	0.0 to 0.25
Soft.....	0.25 to 0.50
Medium.....	0.50 to 1.0
Stiff.....	1.0 to 2.0
Very Stiff.....	2.0 to 4.0
Hard.....	Over 4.0

Organic Content by Combustion Method

Soil Description	Loss on Ignition
Non Organic.....	Less than 4%
Organic Silt/Clay.....	4 - 12%
Sedimentary Peat.....	12% - 50%
Fibrous and Woody Peat...	More than 50%

Plasticity

Term	Plastic Index
None to Slight.....	0 - 4
Slight.....	5 - 7
Medium.....	8 - 22
High to Very High ..	Over 22

The penetration resistance, N, is the summation of the number of blows required to effect two successive 6" penetrations of the 2" split-barrel sampler. The sampler is driven with a 140 lb. weight falling 30" and is seated to a depth of 6" before commencing the standard penetration test.

SYMBOLS

Drilling and Sampling

- CS – Continuous Sampling
- RC – Rock Coring: Size AW, BW, NW, 2"W
- RQD – Rock Quality Designation
- RB – Rock Bit/Roller Bit
- FT – Fish Tail
- DC – Drove Casing
- C – Casing: Size 2 1/2", NW, 4", HW
- CW – Clear Water
- DM – Drilling Mud
- HSA – Hollow Stem Auger
- FA – Flight Auger
- HA – Hand Auger
- COA – Clean-Out Auger
- SS – 2" Dia. Split-Barrel Sample
- 2ST – 2" Dia. Thin-Walled Tube Sample
- 3ST – 3" Dia. Thin-Walled Tube Sample
- PT – 3" Dia. Piston Tube Sample
- AS – Auger Sample
- WS – Wash Sample
- PTS – Peat Sample
- PS – Pitcher Sample
- NR – No Recovery
- S – Sounding
- PMT – Borehole Pressuremeter Test
- VS – Vane Shear Test
- WPT – Water Pressure Test

Laboratory Tests

- q_a – Penetrometer Reading, tons/sq ft
- q_u – Unconfined Strength, tons/sq ft
- W – Moisture Content, %
- LL – Liquid Limit, %
- PL – Plastic Limit, %
- SL – Shrinkage Limit, %
- LI – Loss on Ignition
- D – Dry Unit Weight, lbs/cu ft
- pH – Measure of Soil Alkalinity or Acidity
- FS – Free Swell, %

Water Level Measurement

- ▽ - Water Level at Time Shown
- NW – No Water Encountered
- WD – While Drilling
- BCR – Before Casing Removal
- ACR – After Casing Removal
- CW – Cave and Wet
- CM – Caved and Moist

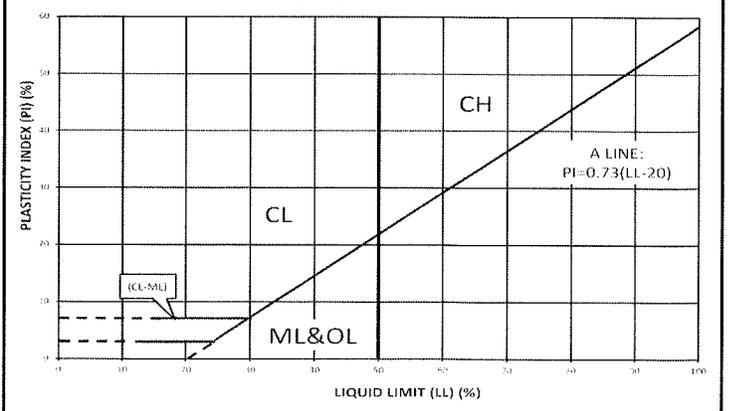
Note: Water level measurements shown on the boring logs represent conditions at the time indicated and may not reflect static levels, especially in cohesive soils.

CGC, Inc.

Madison - Milwaukee

Unified Soil Classification System

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART			
COARSE-GRAINED SOILS (more than 50% of material is larger than No. 200 sieve size)			
Clean Gravels (Less than 5% fines)			
GRAVELS More than 50% of coarse fraction larger than No. 4 sieve size		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
		GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
	Gravels with fines (More than 12% fines)		
		GM	Silty gravels, gravel-sand-silt mixtures
		GC	Clayey gravels, gravel-sand-clay mixtures
Clean Sands (Less than 5% fines)			
SANDS 50% or more of coarse fraction smaller than No. 4 sieve size		SW	Well-graded sands, gravelly sands, little or no fines
		SP	Poorly graded sands, gravelly sands, little or no fines
	Sands with fines (More than 12% fines)		
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
FINE-GRAINED SOILS (50% or more of material is smaller than No. 200 sieve size.)			
SILTS AND CLAYS Liquid limit less than 50%		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
		OL	Organic silts and organic silty clays of low plasticity
SILTS AND CLAYS Liquid limit 50% or greater		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
		CH	Inorganic clays of high plasticity, fat clays
		OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils

LABORATORY CLASSIFICATION CRITERIA			
GW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3		
GP	Not meeting all gradation requirements for GW		
GM	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. between 4 and 7 are borderline cases requiring use of dual symbols	
GC	Atterberg limits above "A" line or P.I. greater than 7		
SW	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3		
SP	Not meeting all gradation requirements for GW		
SM	Atterberg limits below "A" line or P.I. less than 4	Limits plotting in shaded zone with P.I. between 4 and 7 are borderline cases requiring use of dual symbols	
SC	Atterberg limits above "A" line with P.I. greater than 7		
Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows:			
Less than 5 percent GW, GP, SW, SP			
More than 12 percent GM, GC, SM, SC			
5 to 12 percent Borderline cases requiring dual symbols			
PLASTICITY CHART			
			

APPENDIX C

DOCUMENT QUALIFICATIONS

APPENDIX C DOCUMENT QUALIFICATIONS

I. GENERAL RECOMMENDATIONS/LIMITATIONS

CGC, Inc. should be provided the opportunity for a general review of the final design and specifications to confirm that earthwork and foundation requirements have been properly interpreted in the design and specifications. CGC should be retained to provide soil engineering services during excavation and subgrade preparation. This will allow us to observe that construction proceeds in compliance with the design concepts, specifications and recommendations, and also will allow design changes to be made in the event that subsurface conditions differ from those anticipated prior to the start of construction. CGC does not assume responsibility for compliance with the recommendations in this report unless we are retained to provide construction testing and observation services.

This report has been prepared in accordance with generally accepted soil and foundation engineering practices and no other warranties are expressed or implied. The opinions and recommendations submitted in this report are based on interpretation of the subsurface information revealed by the test borings indicated on the location plan. The report does not reflect potential variations in subsurface conditions between or beyond these borings. Therefore, variations in soil conditions can be expected between the boring locations and fluctuations of groundwater levels may occur with time. The nature and extent of the variations may not become evident until construction.

II. IMPORTANT INFORMATION ABOUT YOUR GEOTECHNICAL ENGINEERING REPORT

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes. While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you* - should apply the report for any purpose or project except the one originally contemplated.

READ THE FULL REPORT

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A GEOTECHNICAL ENGINEERING REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *CGC cannot accept responsibility or liability for problems that occur because our reports do not consider developments of which we were not informed.*

SUBSURFACE CONDITIONS CAN CHANGE

A geotechnical engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

MOST GEOTECHNICAL FINDINGS ARE PROFESSIONAL OPINION

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgement to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ - sometimes significantly - from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most

effective method of managing the risks associated with unanticipated conditions.

A REPORT'S RECOMMENDATIONS ARE NOT FINAL

Do not over-rely on the confirmation-dependent recommendations included in your report. *Those confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgement and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *CGC cannot assume responsibility or liability for the report's confirmation-dependent recommendations if we do not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A GEOTECHNICAL ENGINEERING REPORT IS SUBJECT TO MISINTERPRETATION

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical engineering report. Confront that risk by having CGC participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

DO NOT REDRAW THE ENGINEER'S LOGS

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

GIVE CONSTRUCTORS A COMPLETE REPORT AND GUIDANCE

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

READ RESPONSIBILITY PROVISIONS CLOSELY

Some clients, design professionals, and constructors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic

expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineer's responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

ENVIRONMENTAL CONCERNS ARE NOT COVERED

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

OBTAIN PROFESSIONAL ASSISTANCE TO DEAL WITH MOLD

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

RELY ON YOUR GEOTECHNICAL ENGINEER FOR ADDITIONAL ASSISTANCE

Membership in the Geotechnical Business Council (GBC) of Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with CGC, a member of GBC, for more information.

Modified and reprinted with permission from:

Geotechnical Business Council
of the Geoprofessional Business Association
8811 Colesville Road, Suite G 106
Silver Spring, MD 20910

APPENDIX B

PERMITS



City of Madison Engineering Division

EROSION CONTROL PERMIT

Permit Number: ENG100-2020-00276

City Engineering: (608) 266-4751

Location of Work: 2930 N Sherman AVE

Parcel: 080936100976

Permittee: Eric Knepp

Telephone: (608) 266-4711

Email:

eknepp@cityofmadison.com

Owner: CITY OF MADISON PARKS

Telephone:

FEE SCHEDULE		APPROVALS		 <p>Call 811 or (800) 242-8511 (262) 432-7910 (877) 500-9592 (emergency only)</p>
Simplified Plan Base Fee	100.00	Plan Review:	DAO	
Total Fee Amount	100.00	Issuance:	DAO	
Total Invoiced Amount	100.00			
Paid	100.00			
Balance Due	0.00			

PROPOSED WORK: Warner Lagoon Pier and Ice Access

Project Description:

Permit Type: Simplified Checklist

Construction Start Date: 4/27/2020

Permit Expiration Date: 7/30/2020

Seed Sod Restore Date: 5/29/2020

USLE Rate: 5

Total Disturbed Area: 2,295

EC Checklist Attached

EC Plan Attached

Pumping Plan Attached

FOR CITY OF MADISON USE ONLY: APPROVED

Daniel Olivares

01/22/2020

- Erosion Control Permit Reviewer

Date

Simplified Checklist

See page two of this permit for Permit Conditions and Requirements.



City of Madison Engineering Division

EROSION CONTROL PERMIT

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Telephone: (608) 266-4711

Email:

Owner: CITY OF MADISON PARKS

Telephone:

eknepp@cityofmadison.com

Permit Conditions and Requirements:

Failure to abide by any of the following permit conditions will be considered a violation of the City's Erosion Control Ordinance (MGO Ch. 37) and can result in the issuance to the permittee and/or the property owner of Official Notices, citations, and/or referral to the City Attorney for resolution of non-compliance.

Erosion & Sediment Control Measures are to be installed prior to any land disturbance activities.

Within ten (10) days of the completion of the project or site stabilization the applicant shall submit an Erosion Control Notice of Termination (ECNOT). The ECNOT should be sent to the administrative authority that initially approved your permit.

The Erosion Control Permit applicant shall conduct a pre-construction meeting attended by a Professional Engineer responsible for initial implementation certification of the erosion control plan. The Professional Engineer shall document and submit minutes of this meeting to City Engineering.

A Professional Engineer currently licensed in the State of Wisconsin shall certify the initial installation and implementation of the measures shown on the approved erosion control plan. Documentation on the City's Installation Certification form shall be submitted to the administrative authority within one (1) week of the installation.

The certification form can be found on the City's webpage at <http://www.cityofmadison.com/engineering/Permits.cfm>.

As part of the Erosion Control Permit requirements this construction project requires erosion control inspections and reporting by the permittee (or by their authorized inspector). Inspections shall be conducted a minimum of once per week and also after every 24-hour rain event of 0.5" or more precipitation. The results of these inspections shall be entered on the City's permit and inspection tracking system.

Dust Control, if applicable shall be provided, per WDNR Conservation Practice Standard 1068.

Trench Dewatering, if applicable shall be provided, per WDNR Conservation Practice Standard 1061.

All BMP's installed for erosion control shall be in accordance with the applicable WDNR Conservation Practice Standards found at: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

EEEP Statement:

This project falls in the area subject to increased erosion control enforcement as authorized by the fact that it is in the ROCK RIVER TMDL ZONE and by Resolution 14-00043 passed by the City of Madison Common Council on 1/21/2014. You will be expected to meet a higher standard of erosion control than the minimum standards set by the WDNR.



January 22, 2020

GP-SC-2020-13-00160

GP-SC-2020-13-00161

City of Madison Parks Division
Kay Rutledge
210 Martin Luther King Jr. Blvd., Rm 104
Madison, WI 53703

This permit has not yet been
issued by the DNR.

Dear Kay Rutledge:

This acknowledges receipt of your application for placing a boat ramp in Warner Lagoon and wetland fill or disturbance for recreational development near Lake Mendota, City of Madison in Dane County.

Our field staff are currently evaluating your proposal. Depending on the amount of information you provided and the complexity of your project, you may be asked to provide additional information so that a complete evaluation can be made. We will notify you of the final disposition of your application as soon as we complete our review.

If you have not already done so, please contact the Dane County and local municipal zoning offices to determine if a local permit is also required for your project. I have forwarded a copy of your application to the U.S. Army Corps of Engineers. They will advise you directly as to whether their regulations apply to your project.

If you would like to know more about this project or would like to see the application and plans, please visit the Department's permit tracking website at <https://permits.dnr.wi.gov/water/SitePages/Permit%20Search.aspx> and search for WP-GP-SC-2020-13-X01-17T17-43-52.

If you have any questions, please contact your local Water Management Specialist, Jeff Schure at (608) 228-8107 or email Jeff.Schure@wisconsin.gov.

Sincerely,

Sarah Rhodes
Waterway and Wetland Permit Intake Specialist

cc: Jeff Schure, Water Management Specialist
U.S. Army Corps of Engineers
Sarah Lemer, City of Madison Parks Division



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT
180 FIFTH STREET EAST, SUITE 700
ST. PAUL, MN 55101-1678

02/10/2020

Regulatory File No. MVP-2020-00221-KDZ

THIS IS NOT A PERMIT

City of Madison Parks Division
Kay Rutledge
210 Martin Luther King Jr. Blvd.
Room 104
Madison, WI 53703

This permit has not yet been issued. Email correspondence from the U.S. Army Corps of Engineers regarding this permit is on the following page.

Dear Ms. Rutledge:

We have received your submittal described below. You may contact the Project Manager with questions regarding the evaluation process. The Project Manager may request additional information necessary to evaluate your submittal.

File Number: MVP-2020-00221-KDZ

Applicant: City of Madison Parks Division

Project Name: City of Madison-Parks/Warner Park Pier and Launch

Project Location: Section 36 of Township 8 N North, Range 9 E, Dane County, Wisconsin (Latitude: 43.12983; Longitude: -89.37046)

Received Date: 01/23/2020

Project Manager: Kyle Zibung
(651) 290-5877
Kyle.D.Zibung@usace.army.mil

Additional information about the St. Paul District Regulatory Program, including the new Clean Water Rule, can be found on our web site at <http://www.mvp.usace.army.mil/missions/regulatory>.

Please note that initiating work in waters of the United States prior to receiving Department of the Army authorization could constitute a violation of Federal law. If you have any questions, please contact the Project Manager.

Thank you.

U.S. Army Corps of Engineers
St. Paul District
Regulatory Branch

CC: City of Madison Parks-Ms. Sarah Lerner
WDNR-Jeff Schure

APPENDIX C

PIER DRAWINGS AND TECHNICAL SPECIFICATIONS

DATE:	NO.	REVISIONS

GENERAL NOTES:

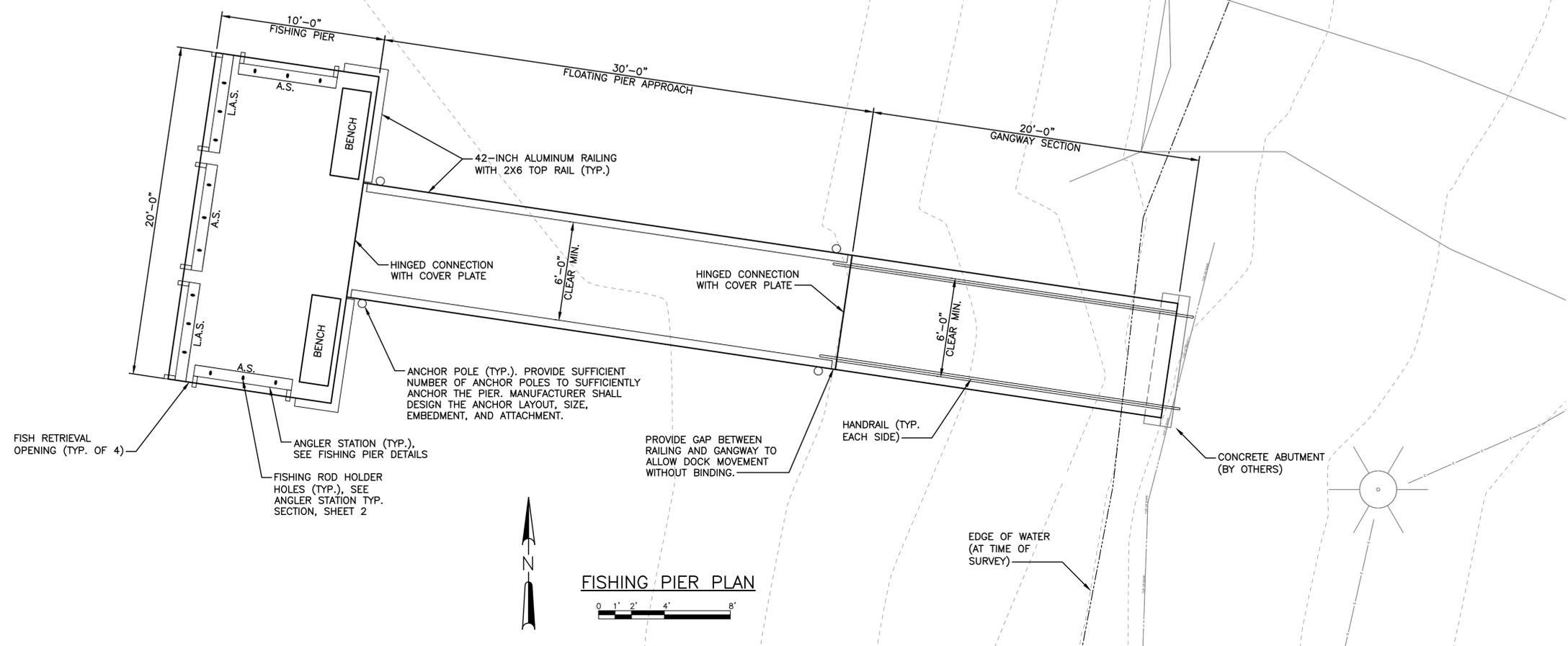
- PIER MANUFACTURER IS RESPONSIBLE FOR DESIGN OF THE FLOATING PIER SYSTEM INCLUDING ANCHORAGE TO PROVIDE A COMPLETE SYSTEM WHICH IS FUNCTIONAL THROUGHOUT THE DESIGN WATER LEVEL RANGE.
- PIER SHALL BE DESIGNED TO MEET THE PERFORMANCE CRITERIA STATED IN THE FISHING PIER SPECIFICATIONS, SECTION 35 51 13.
- OVERALL PIER DIMENSIONS SHOWN ARE NOMINAL AND MAY VARY SLIGHTLY BASED ON MANUFACTURER'S DETAILS.
- PIER FLOATATION DESIGN SHALL ACCOUNT FOR THE ADDITIONAL LOADING FROM THE GANGWAY AND SHALL MEET THE PERFORMANCE CRITERIA PER THE SPECIFICATIONS.
- HANDRAILS ARE REQUIRED ON BOTH SIDES OF GANGWAY. PROVIDE HANDRAIL EXTENSION AT EACH END AS REQUIRED BY ADA STANDARDS.
- PIER MANUFACTURER SHALL DESIGN POST AND SLEEVE ANCHORAGE SYSTEM. ANCHORAGE SYSTEM SHALL ACCOUNT FOR THE FULL RANGE OF WATER LEVELS SHOWN.
- DESIGN FLOATING PIER SYSTEM TO ALLOW FOR SEASONAL REMOVAL BY CITY.
- SITE SURVEY COMPLETED BY CITY OF MADISON ON OCTOBER 10, 2009 AND UPDATED ON OCTOBER 8, 2019.
- HINGED CONNECTION BETWEEN DOCK SECTIONS SHALL INCLUDE REMOVABLE PIN WITH HOLE AT ONE END FOR OWNER'S LOCK.

LEGEND:

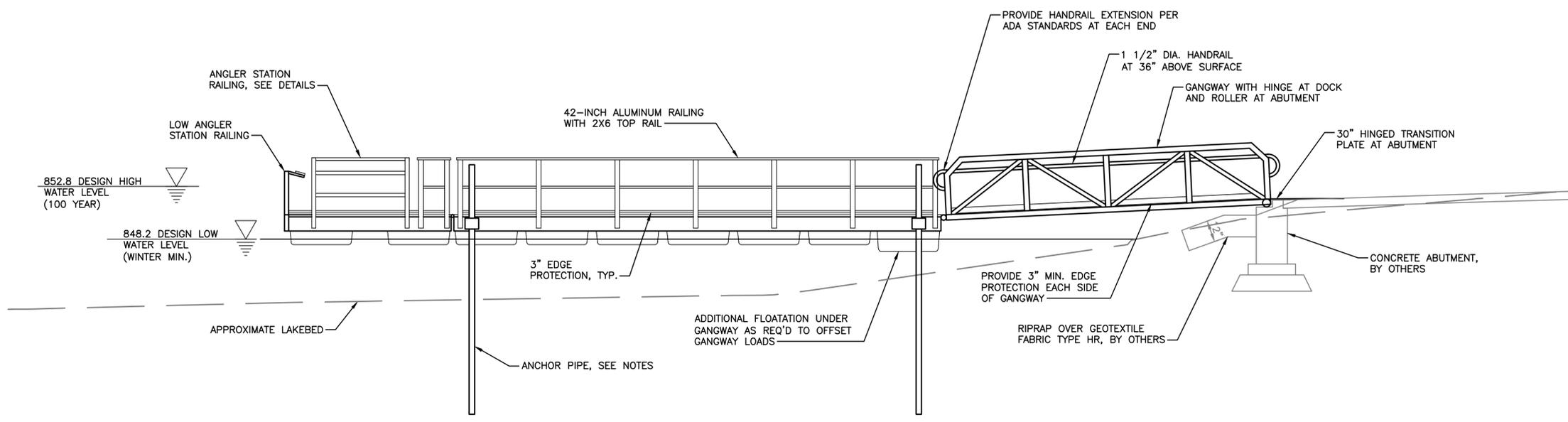
A.S. = ANGLER STATION, SEE DETAILS, SHT 2.
L.A.S. = LOW ANGLER STATION, SEE DETAILS, SHT 2.

SHEET INDEX:

- FISHING PIER PLAN AND ELEVATION
- FISHING PIER DETAILS



FISHING PIER PLAN



FISHING PIER ELEVATION

FISHING PIER PLAN AND ELEVATION

WARNER PARK LAGOON
PARKS DIVISION
CITY OF MADISON

CONTRACT

PROJECT

JOB NO.
1020.115

PROJECT MGR.
BMO



SHEET
1

Professional

Engineering

Services

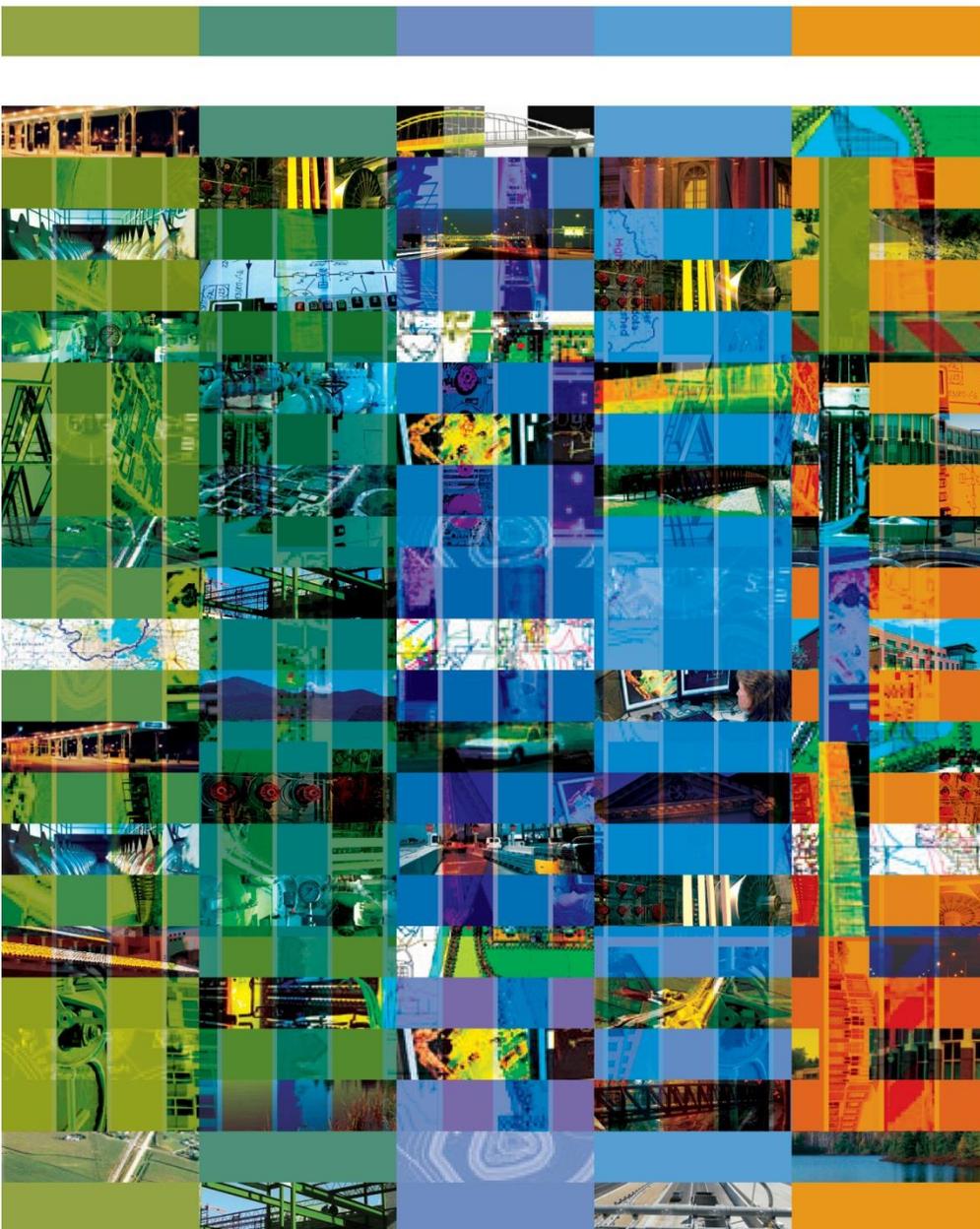
Warner Lagoon Fishing Pier— Procurement

Technical Specifications

City of Madison

Madison, WI

Issued January 14, 2020



PLAN HOLDER: _____

Set No.: _____

TECHNICAL SPECIFICATIONS

WARNER LAGOON FISHING PIER-PROCUREMENT
CITY OF MADISON
MADISON, WISCONSIN

Prepared by:

STRAND ASSOCIATES, INC.®
910 West Wingra Drive
Madison, WI 53715
www.strand.com

Issued
January 14, 2020



SECTION 00 01 10

TABLE OF CONTENTS

WARNER LAGOON FISHING PIER-PROCUREMENT
CITY OF MADISON
MADISON, WISCONSIN

Pages
Through

SPECIFICATIONS

DIVISION 01-GENERAL REQUIREMENTS

COORDINATION, FIELD ENGINEERING, AND MEETINGS 01 31 00- 2

DIVISION 35-WATERWAY AND MARINE CONSTRUCTION

FISHING PIER..... 35 51 13- 6

END OF SECTION

SECTION 01 31 00

COORDINATION, FIELD ENGINEERING, AND MEETINGS

PART 1—GENERAL

1.01 SUMMARY

- A. Work Included:
 - 1. Coordination.
 - 2. Relationship between the City and Strand Associates, Inc.®

1.02 COORDINATION

- A. Contractor shall coordinate scheduling, submittals, and work to provide an efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.

1.03 RELATIONSHIP BETWEEN THE CITY AND STRAND ASSOCIATES, INC.®

- A. Strand Associates, Inc.® has been hired by the City as a consultant to prepare drawings and specifications for this project. Additionally, Strand Associates, Inc.® will assist the City by providing shop drawing review and responding to questions that may arise during construction. The City is referred to as the City and/or Engineer in the Contract Documents.
- B. Strand Associates, Inc.® will not supervise, direct, control or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or safety precautions and programs incidental thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the furnishing or performance of the Work. Strand Associates, Inc.® will not be responsible for Contractor's failure to perform or furnish the Work in accordance with the Contract Documents. Strand Associates, Inc.® will not be responsible for the acts or omissions of Contractor or of any subcontractor, any supplier, or of any person or organization performing or furnishing any of the Work.
- C. During construction, the duties and responsibilities of Strand Associates, Inc.® include the following:
 - 1. Review Contractor product submittals.
 - 2. Report to City when clarifications and interpretations of the Contract Documents are needed. Consider, evaluate, and report to City in regard to Contractor's requests for modification.
- D. Strand Associates, Inc.® shall not:
 - 1. Exceed limitations of City's authority as set forth in the Contract Documents.
 - 2. Undertake any of the responsibilities of Contractor, Subcontractor, Suppliers or Contractor's superintendent.
 - 3. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction.

4. Advise on, issue directions regarding, or assume control over safety precautions and programs in connection with the Work.
5. Accept shop drawing or sample submittals from anyone other than Contractor.
6. Authorize the City to occupy the Project in whole or in part.
7. Participate in specialized field or laboratory tests or inspections conducted off site by others except as specifically authorized by City.

PART 2-PRODUCTS

NOT APPLICABLE

PART 3-EXECUTION

NOT APPLICABLE

END OF SECTION

SECTION 35 51 13

FISHING PIER

PART 1—GENERAL

1.01 SUMMARY

- A. This section is a Design/Build Specification and includes the design and manufacturing of the floating fishing pier system as shown on the Drawings. No Alternative system shall be considered for this project without prior approval.

1.02 REFERENCES

- A. American Institute of Steel Construction (AISC) Manual of Steel Construction.
- B. American Society of Testing and Materials (ASTM).
- C. American Welding Society (AWS) Structural Welding Code.
- D. American Wood Protection Association (AWPA).
- E. American Society of Civil Engineers (ASCE) Manuals and Reports on Engineering Practice No. 50, Planning and Design Guidelines for Small Craft Harbors, Third Edition.

1.03 MANUFACTURER QUALIFICATIONS AND QUALITY ASSURANCE

- A. The Floating Dockage Manufacturer (herein referred to as the Contractor) shall not have less than five years continuous experience in site specific design, fabrication, and installation of floating dockage systems. Acceptable manufacturers include the following:
 - 1. VW Dock Company
2704 16th Street
Spirit Lake, IA 51360
712-336-1016
Contact: Scott Chambers
 - 2. MariCorpUS
27882 State Highway 39
Shell Knob, MOP 65747
1-877-856-3625
 - 3. Meeco-Sullivan
1501 East Electric Avenue
McAlester, OK 74501
800-627-4621
 - 4. Shoremaster
1025 International Lane
Fergus Falls, MN 56538
1-800-328-8945
 - 5. Port-A-Pier
9580 Rica Lane
Brussels, WI 54204
920-825-7474

- B. Contractor shall demonstrate to City at least three successful floating fishing pier installations in a similar environment anchored with guide piles.
- C. Contractor shall be approved by the Wisconsin Department of Natural Resources for manufacturing floating piers.
- D. Contractor shall provide at least one person who shall be present during installation of this work who shall be thoroughly familiar with the type of materials being installed, the requirements of this work and who shall direct the work.

1.04 SUBMITTALS

- A. Source Quality Control:
 - 1. Design calculations signed and sealed by the Dockage Designer (or another Licensed Professional Engineer, experienced in floating dock design) prior to installation. Design calculations shall clearly show the structural details, specified materials and performance of the system under design loadings are in complete conformance with the design criteria.
 - 2. Shop drawings and manufacturers' literature, signed and sealed by the Dockage Designer (or another Licensed Professional Engineer, experienced in floating dock design). Shop drawings shall include all information necessary for the fabrication of component parts of the structure. All drawings shall be accurately and completely dimensioned. Drawings shall indicate all relevant sizes and shall show thicknesses, gauges, finishes, materials, etc., of all items shown. Indicate size of members, type and location of shop and field connections and the type, size and extent of all welds. The following is a partial listing of details required for submittal:
 - a. Cover sheet listing project, location, Owner, Manufacturer, and project design criteria.
 - b. Decking layout.
 - c. Connection details.
 - d. Typical dock sections.
 - e. Details of anchorage system.
 - f. Railing details.
 - g. Details of flotation unit.
 - h. Side rails and/or moldings.
 - i. Gangway details.
 - j. Lift ring connection details.
 - 3. Prior to final payment, submit complete Record Drawings.
 - 4. Prior to final payment, submit a complete Operations Manual, at a minimum, containing the following information:
 - a. Manufacturer's representative's name, address and phone number.
 - b. Location of anchorage and connections to dockage. Details and recommendations for moving or removing the docks.
 - c. Complete discussion of system maintenance recommendations.
 - d. Manufacturer data sheets for flotation units and other dockage system components.
 - e. Float test reports for encasement thickness and water absorption.
 - f. Design calculations.

1.05 WARRANTY

- A. Contractor shall execute and deliver to City, before final payment, a written guarantee satisfactory to City. The guarantee shall state that all labor and materials (including dockage and all associated work) furnished by Contractor are in accordance with the contract Drawings and Specifications, and authorized alterations and additions thereto; and that, should any defect develop during the contract guarantee period as hereinafter defined, due to improper materials, workmanship, arrangement or design, those defects will be corrected by Contractor without expense to City.
- B. The Guarantee for all labor and materials except the flotation materials shall be for a period of five years from the date in which the completed work is turned over to and accepted by City. The guarantee for the flotation materials shall be for a period of 10 years. Individual five-year manufacturer's guarantees for materials and equipment may be provided to comply with the prime contractor's guarantee responsibilities.

1.06 SYSTEM DESCRIPTION

- A. Performance Requirements:
 - 1. The complete floating dockage system, gangways and anchorage shall be designed in accordance with ASCE Manuals and Reports on Engineering Practice, Report No. 50, Planning and Design Guidelines for Small Craft Harbors, except as modified herein. The system shall also prevent torsion, racking and twisting by providing sufficient built-in torsion resistance.
 - 2. Water Levels: Design the boarding dock system to function through the water level range shown on the drawings.
 - 3. Vertical Loading:
 - a. Dead load shall be the entire weight of the floating piers and gangway.
 - b. Live load for flotation calculations shall be not less than 40 pounds/square foot (psf) for floating piers.
 - c. Piers at dead loading in the water shall maintain a free board of 15 inches to 18 inches. Design freeboard shall be indicated in the shop drawings. The freeboard on the overall dock system shall not vary more than 1-inch from the approved drawings. The slope shall not vary more than 1-inch in 10 feet. At the design load of dead load plus 40 psf live load, a free board of not less than 8 inches shall be maintained.
 - d. In addition to the above, the end of the pier must be designed to withstand a 400 pound total live load 2 feet from the end without loss of free board of more than 4 inches.
 - e. A 200 lb load applied on one outer corner of the pier shall not cause a freeboard differential of more than 2 inches per 3 feet of width across the end of the pier. Structural members, deck surfaces, gangways, and ramps shall be designed with a uniform live load of 50 PSF. The decking and frame shall be designed to support a 400 pound concentrated load acting on a one square foot area. Allowable deflection under design loading is L/180 for gangways and ramps.
 - 4. Horizontal Loading:
 - a. Uniform wind load perpendicular to the dock: 20 psf.
 - b. The structure and system shall be designed to withstand a sustained wave height of 1 foot.
 - 5. Hinged floating dock module connections shall be designed to transmit a 3,000-pound load across the connection. The connections shall be designed such that the individual dock sections can be easily separated for system removal.

6. Anchorage System Criteria
 - a. The floating dock system shall be anchored with a post and sleeve anchorage system or similar system if approved by City. Dockage manufacturer is responsible for the design of the pile sleeves and the post/pile pipe size and embedment. Minimum pipe size is 3-inch diameter.
 - b. Dock framing shall be sufficiently braced at the pile guide location.
 - c. Anchorage posts/piles shall be driven or augered into the lake bottom using an auger tip on the anchor pipe.

PART 2--PRODUCTS

2.01 MATERIALS

- A. Structural:
 1. Composite decking shall be MoistureShield, Vantage Collection, 1 x 6 decking, color to be selected by City. Submit sample for approval.
 2. Composite lumber shall be Moisture Shield and shall match decking color.
 3. Structural steel shall conform to the requirements of the standard specification for structural steel, ASTM A36. All steel for the floating dockage shall be hot dip galvanized in accordance with the requirements of ASTM A123. All steel structural members shall be galvanized after fabrication. Minimal field cutting, welding or drilling will be allowed, if acceptable to ENGINEER. Steel surfaces exposed by cutting, welding or drilling shall be coated with a zinc rich cold galvanizing compound.
 4. Hardware: Bolts, lag bolts, screws, flat washers and lock washers shall be of the type and size best suited for the intended use. Low carbon bolts shall conform to the requirements for Grade A bolts, ASTM A325 or A449. All fasteners and miscellaneous hardware shall be zinc or cadmium coated in accordance with the requirements of ASTM A153.
- B. Railing: Provide aluminum railing as shown on drawings. Design railing and attachments to support guardrail design loads as required by the 2015 International Building Code.
- C. Flotation:
 1. Expanded polystyrene encased all around with suitable polyethylene.
 2. Encasement Material shall meet the following requirements:
 - a. One piece rotationally molded Linear Low Density Polyethylene or High Density Polyethylene appropriate for a marine environment.
 - b. Nominal thickness shall be .150-inch or greater.
 - c. Encasement shall consist of virgin material, black in color, minimum 2% carbon black and UV stabilized.
 - d. Minimum tensile strength = 2,500 psi (ASTM D-638).
 - e. Minimum Density = 0.937 g/cc (ASTM D-1505).
 - f. Brittleness Temperature of -75 Degrees C (ASTM D-746).
 - g. Exceed the Falling Dart Impact Test (ASTM D1998-04).
 - h. Minimum Flexural Modulus = 100,000 psi (ASTM D-790).
 3. Flotation material shall be closed cell polystyrene. Polystyrene shall have a minimum density of approximately 0.9 pounds per cubic foot. Water absorption shall be less than 3 pounds per cubic foot at 7 days when tested by the Hunt absorption test.
 4. Flotation material shall completely fill the encasement. No voids or air gaps will be permitted.

5. Flotation units shall be manufactured in a fashion to allow full bearing of the float on the structural frame in both vertical and lateral directions. Connections of flotation units shall be designed so that the floating dock acts as a single unit.
- D. Other Materials: All other materials, not specifically described, but required for a complete and proper installation of floating dockage, shall be designed in accordance with ASCE Report No. 50 (Report on Small Craft Harbors, latest edition) except as modified herein.
- E. Benches: Provide 6-foot-long, surface-mounted "Walden Bench" manufactured by Thomas Steele with composite redwood lumber, or equal. Provide reinforced frame sections below the bench legs as required.

2.02 CONSTRUCTION

- A. Decking shall be fastened to the structural frame with bolts or screws. Nails will not be permitted. There shall be at least one fastener at every structural cross support with two at the end of each board. Fasteners shall be of a protected metal compatible with the material in the structural frame. Deck framing or cross supports shall be spaced as required to support the maximum decking span recommended by decking manufacturer.
- B. Decking shall be placed perpendicular to the longitudinal axis of the dock with 1/8-inch gaps between individual decking boards and installed in accordance with manufacturer's instructions.
- C. All joints and connections between floating structures must be capable of transmitting all loads and forces imposed upon the structures. Connections shall not protrude above the level of the deck. Provide transition or cover plates at connections as necessary to provide an ADA compliant walking surface over the joints.
- D. Structures are to be factory assembled in the largest possible shippable units. Modular structures must be designed for quick and easy assembly and disassembly.

PART 3-EXECUTION

3.01 WORKMANSHIP

- A. Dock sections shall be completely prefabricated by the dock manufacturer and delivered ready for direct unloading into the water. All workmanship shall be first class in all respects. Any units not representing a finished and acceptable appearance will be rejected.
- B. All steel members shall be free from twists, bends, distortions and open joints. All steel construction shall be free of sharp edges and burrs. Ends of exposed steel members shall be rounded or beveled. All coping and mitering shall be done with care. Projecting materials and burrs that would prevent bearing of the various members on each other shall be removed.
- C. All drilling and cutting of steel done after galvanizing (if acceptable to Engineer) shall be painted with a zinc rich cold galvanizing compound. All welds over galvanized material shall be thoroughly cleaned and coated with two coats of cold galvanizing compound.

- D. All welding shall conform to the requirements of the AWS. Welds shall be a solid and homogeneous part of the metals joined and shall be free from pits or scale, and shall be of areas and length required to develop the required strength for the intended use. Welders shall meet the American Welding Society (AWS) certification for work performed on this project.
- E. All bolts, nuts and washers shall be set square with connecting structural members and the nuts shall be drawn up tight. Lock washers or other devices or techniques shall be used to prevent nuts from loosening after being properly tightened.
- F. Deck screws shall be set so the heads are just below the surface.

END OF SECTION

For more location information
please visit www.strand.com

Office Locations

Brenham, Texas | 979.836.7937

Cincinnati, Ohio | 513.861.5600

Columbus, Indiana | 812.372.9911

Columbus, Ohio | 614.835.0460

Indianapolis, Indiana | 317.423.0935

Joliet, Illinois | 815.744.4200

Lexington, Kentucky | 859.225.8500

Louisville, Kentucky | 502.583.7020

Madison, Wisconsin* | 608.251.4843

Milwaukee, Wisconsin | 414.271.0771

Phoenix, Arizona | 602.437.3733

*Corporate Headquarters

