

**SPECIFICATIONS  
FOR THE  
FACILITY SITE IMPROVEMENTS  
AT  
CARNAHAN PARK, TRASK RIVER-MILE 1.4  
FOR THE  
CITY OF TILLAMOOK**



Approved By:  
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20 April 2016

**AS ADVERTISED**

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FACILITY SITE IMPROVEMENT  
AT CARNAHAN PARK,  
TRASK RIVER – MILE 1.4  
FOR THE  
CITY OF TILLAMOOK

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## SECTION 01010 - SUMMARY OF WORK

### PART 1 - GENERAL

#### 1.1 DESCRIPTION OF WORK

- A. Location of work is at Carnahan Park, Trask River – Mile 1.4, Tillamook County, Oregon.
- B. Major project components are as follows:
- Dock Removal & Disposal
  - Sediment Removal
  - Launch Ramp Toe Riprap Restoration
  - Dock Installation
- C. Project is for The City of Tillamook, referred to hereafter as Owner.
- D. The Owner's Representative is:
- |                      |   |
|----------------------|---|
| Kate Laxson          | Phone: 503.374.1824   |
| Public Works         | Fax: 503.842.3445   |
| City of Tillamook    | email: <a href="mailto:klaxson@tillamookor.gov">klaxson@tillamookor.gov</a> |
| 201 Laurel Ave       |   |
| Tillamook, OR, 97141 |   |
- E. The Engineer of Record is:
- |                             |   |
|-----------------------------|---|
| Jeffery W. Smith, P.E.      | Phone: 503.378.2607   |
| Boating Facilities Engineer | Fax: 503.378.4597   |
| Oregon State Marine Board   | email: <a href="mailto:jeff.smith@state.or.us">jeff.smith@state.or.us</a> |
| P.O. Box 14145              | 435 Commercial Street NE  |
| Salem, OR 97309-5065        | Salem, OR   |
- F. The Engineer's Representative is:
- |                             |   |
|-----------------------------|---|
| Stuart Jantze               | Phone: 503.378.2604   |
| Boating Facilities Designer | Fax: 503.378.4597   |
| Oregon State Marine Board   | email: <a href="mailto:stuart.jantze@state.or.us">stuart.jantze@state.or.us</a> |
| P.O. Box 14145              | 435 Commercial Street NE  |
| Salem, OR 97309-5065        | Salem, OR   |
- G. This project is bid out as a **LUMP SUM CONTRACT** and the Contractor shall furnish all labor, equipment, and materials necessary to complete work in accordance with the drawings, specifications, and terms of the contract.
- H. Value Engineering, whereby the Contractor suggests alternate design and/or materials for a reduced cost and share in the savings, is **NOT** a component of this project contract.

1.2 DRAWINGS

A. The following six [06] drawings hereby form a part of this contract:

1. 2915 – 1550 – 18 Title Sheet
2. 2915 – 1550 – 19 Existing Site & Demolition Plan
3. 2915 – 1550 – 20 Proposed Site Plan
4. 2915 – 1550 – 21 Sections
5. 2915 – 1550 – 22 Owner Furnished Docks (Informational)
6. 2915 – 1550 – 23 Sign Details

END OF SECTION 01010

## SECTION 01019 - CONTRACT CONSIDERATIONS

### PART 1 - GENERAL

#### 1.1 PERMITS

##### A. ENVIRONMENTAL PERMITS

1. All work shall comply with conditions set forth in Corps of Engineers permit No. NWP-2015-242, dated October 5, 2015. IN-WATER WORK PERIOD SCHEDULE

Permit Condition C states the following: c. Permittee shall perform all in-water work, including temporary fills or structures, during the in-water work window of November 1 to February 15 to minimize impacts to aquatic species unless coordinated with and subsequently approved by the Corps.

2. In accordance with Permit Condition C, ODFW has specified an additional in-water work period. On March 24, 2016, ODFW Watershed District Manager, Chris Knutsen, advised that June 13th would be acceptable as a start date for in-water activities. Further, in-water work through August is okay with ODFW. ODFW encourages work to be done during extreme low tides, such as those in early June, to do some of the work "in the dry".
3. Docks may be installed outside of the in-water work window.

#### 1.2 PROJECT COMPLETION

- A. Upon completion of the work, clean up and remove from the Owner's property all refuse and unused materials of any kind resulting from the work.

- B. Provide the following documents:

1. A written request for final inspection.
2. A clean set of drawings marked, showing all deviations from the planned construction (as built) and representing a complete record of the actual location of all completed work.
3. Contractor's Application for Payment Form, Final Payment Request and Contractors Release of Liens & Claims Form.

END OF SECTION 01019

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## SECTION 01090 - REFERENCE STANDARDS AND ABBREVIATIONS

### PART 1 - GENERAL

#### 1.1 REFERENCED STANDARDS & ABBREVIATIONS:

##### A. All work shall conform to the following referenced standards:

AA	Aluminum Association
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACM	American Construction Manual
ADA	American's with Disabilities Act Standards for Accessible Design 2010
AISC	American Institute of Steel Construction
APA	American Plywood Association
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
IBC	International Building Code 2006 State of Oregon 2007 Edition Structural Specialty Code Amended
ISSA	International Slurry Surfacing Association
NEC	National Electric Code 2005
ODOT	Oregon Standard Specifications for Highway Construction by the Oregon Department of Transportation, 2008.
OSHA	Occupational Safety and Health Administration
QPL	Qualified Products Listing by the Oregon Department of Transportation, Materials and Research Section
UPC	Uniform Plumbing Code 2003 State of Oregon 2005 Edition Plumbing Specialty Code
WAQTC	Western Alliance for Quality Transportation Construction
WCLIB	West Coast Lumber Inspection Bureau

END OF SECTION 01090

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## SECTION 01100 - SPECIAL PROJECT PROCEDURES

### PART 1 - GENERAL

#### 1.1 SPECIAL PROJECT REQUIREMENTS

- A. On-site Work Period:
1. Contractor is advised that this is a public recreation facility. The parking lot and launching facility will be closed as required for on-site construction operations, contact the Owner a minimum of 30 days in advance, to schedule closure of boat ramp to the public during the construction period.
  2. Owner furnished docks are scheduled for delivery and ready for installation by September 1<sup>st</sup>, 2016. Docks shall be installed expediently after their arrival.
  3. To facilitate fall fishing activities, the boat ramp shall be open for use from 4pm Friday through 6am Monday.
- B. All construction debris shall be disposed of in such a manner that it cannot enter the waterway.
- C. Care shall be taken to prevent any petroleum products, chemicals, or other deleterious material from entering the water.
- D. All areas along the bank, disturbed or newly created by the construction activity, shall be seeded, sodded, revegetated, or given some other type of protection against subsequent erosion and returned back to its original condition.
- E. Work in the waterway shall be done so as to minimize turbidity increases in the water that tend to degrade water quality and damage aquatic life.

END OF SECTION 01100

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## **SECTION 01305 – PRODUCT AND MATERIAL SUBMITTALS**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION**

- A. This Section specifies transmittal instructions, the number of copies of Contractor submittals to be provided, and distribution of those submittals as required in the General Conditions.
- B. Submittals may include:
  - 1. Product Submittals
  - 2. Materials Submittals
  - 3. Equipment Submittals
  - 4. Shop Drawings

### **PART 2 - REQUIRED SUBMITTALS**

- 2.1 Submittals are required if indicated in the specification sections.
- 2.2 Deviation from Contract: Submit a request for substitution for deviations from the Specifications or Drawings. Include the reason for the deviation and cost differential for the deviation. Deviations from the Contract shall be authorized only if previously approved in writing.
- 2.3 The Engineer of Record (or the Engineer's Representative) reserves the right to ask for Submittals that are not referenced in this document.

### **PART 3 - EXECUTION**

#### **3.1 SUBMISSIONS**

- A. Submittals Format
  - 1. The preferred format for submittals is in electronic format.
  - 2. If hard copies are submitted, the contractor shall submit three (3) copies of all required information. Individual sheets shall not exceed 11"x 17" in size.
- B. Each submittal shall be accompanied by a Submittal Transmittal Form. The Submittal Transmittal Form shall indicate:
  - 1. Which specific product is being proposed.
  - 2. How the product is being used (indicate specific specification sections where applicable).
  - 3. Size and quantities (if applicable).

- C. Submittals shall be received by the Engineer of Record (or the Engineer's Representative) not less than fourteen (14) calendar days prior to purchase and/or installation.
- D. Submittal Completeness: Submittals which do not have all the required information are not acceptable and will be returned without review.

### 3.2 REVIEW PROCEDURE

- A. The Engineer of Record (or the Engineer's Representative) will review the submittal for conformance to the plans and specifications. After review, the submittal will be returned to the Contractor, and a Copy shall be supplied to the Owner. The returned material will consist of one (1) marked-up copy of the submittal. Additional copies as needed will be the responsibility of the Contractor. The returned submittal will indicate one of the following actions:
  - 1. **"Accepted as Submitted"** - If the review indicates the material, equipment or work method is in general conformance with the Contract Drawings/Specifications, the submittal copies shall be marked "Accepted as Submitted." In this event, the Contractor may begin to incorporate the material/equipment/work method covered in the submittal.
  - 2. **"Accepted as Noted"** - If the review indicates the submittal is insufficient or that limited corrections are required, the submittal copies may be marked "Accepted as Noted." The Contractor may begin to implement the work method or incorporate materials/comments covered in the submittal in accordance with the corrections/comments noted.
  - 3. **"Correct and Resubmit"** - If the review reveals the submittal is insufficient or contains incorrect data and the comments require revision and resubmittal, the submittal copies shall be marked "Correct and Resubmit." In this case, the Contractor shall not then undertake work covered by this submittal until the submittal has been revised, resubmitted, and returned to the Contractor with a marking of "Accepted" or "Accepted as Noted."
  - 4. **"Review Not Required"** - If the review reveals the material, equipment, or work does not require submittal, then the submitted copies shall be marked "Review Not Required" In this event, the Contractor may begin to incorporate the material/equipment/work covered by the submittal and no further action is required.

### 3.3 EFFECT OF REVIEW OF CONTRACTOR'S SUBMITTALS

- A. A mark of "Accepted" or "Accepted as Noted" shall mean the Engineer of Record (or the Engineer's Representative) has no objection to the Contractor, upon the Contractor's own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.
- B. The Contractor shall furnish to the Engineer the following items for equipment, articles, and materials incorporated in the work:
  - 1. Submittals for items identified in individual specification sections.

2. Manufacturer's special tools and special accessories normally furnished by the manufacturer and which, by their specific nature and special design, are suited for convenient and expeditious adjustment, maintenance, and repair.
3. Two sets of installation instructions, parts lists; routine preventative maintenance and operation manuals; corrective maintenance instructions; drawings and other like data pertinent for maintenance and repair.
4. Manufacturer's and dealer's warranties and guarantees which are normally available to purchasers. Such warranties and guarantees shall be made effective to the Owner as the purchaser.

END OF SECTION 01305

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## SECTION 01545 – SURVEY LAYOUT & CONTROL

### PART 1 - CONSTRUCTION STAKEOUT

- A. The Engineer of Record has provided reference points for the Contractor's stakeout of the construction work. The reference points are in the form of reference elevation and coordinates from existing survey control points, as shown on the drawings. The Contractor will be solely responsible for laying out the work from coordinate point stakeout control shown on the drawings, and the Owner or the Engineer of Record will provide no additional stakeout. A Professional Land Surveyor (PLS) licensed in the State of Oregon shall perform all post-construction in-water survey.
- B. In-water post-construction surveys of the sediment removal area will be accomplished by Contractor for the purpose of determining the minimum depth and cross section has been removed, as shown on the drawings. As soon as practicable after the completion of sediment removal, the work will be examined by soundings or sonic fathometer methods. Should any shoals, lumps, or lack of contract depth be disclosed by this examination, the Contractor will be required to remove by additional excavation.
- C. A PLS is required to layout and verify the final depths of the sediment removal area and placement of the riprap. The Contractor's professional surveyor shall provide to the Engineer an as-constructed drawing and an ASCII point file showing elevations of the removal area. This drawing shall provide confidence that the work was performed according to specification. Inspections/verification shall be required as follows:
  - 1. For the survey grid, the maximum distance between confidence points shall be no greater than 10 feet. The horizontal limits of the excavated area shall extend a minimum of 25 feet beyond the edge of the excavated area, to demonstrate adequate depth was obtained during sediment removal activities. 90 percent of confidence points taken shall demonstrate that elevations are at or below the depths as indicated on the drawings. At no time shall any elevation be higher than 0.3 feet above what is indicated on the plans.

END OF SECTION 01545

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## SECTION 01560 – ENVIRONMENTAL CONTROLS

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. This section specifies environmental mitigation and temporary environmental controls required to be maintained during construction. Nothing in this section shall relieve any person from the obligation to comply with the regulations or permits of any federal, state, or local authority.

### PART 2 - MATERIALS

#### 2.1 SUBMITTALS

A. Erosion Control Plan

1. Submittal: Develop and maintain for the duration of the contract an Erosion Control Plan (ECP) that will effectively incorporate and implement environmental protection precautions. The Contractor's ECP shall include methods and interim facilities to be constructed and/or used concurrently during construction to control erosion in such a manner as to ensure that sediment and sediment-laden water does not enter any drainage system, roadways, or violate applicable water quality standards. The ECP shall be in strict conformance with the requirements of the permits. Visible or measurable erosion which enters, or is likely to enter, a public storm and surface water system, wetland or stream is prohibited. The ECP shall include the name of the Contractor's employee authorized to supervise and enforce compliance with the ECP and telephone number(s) to contact that person at any time.
2. The ECP shall be submitted to and approved by the Owner prior to initiating clearing activities.
3. In the event a regulatory agency or jurisdiction determines the ECP to be inadequate to protect the environment:
  - (a) The Contractor shall immediately stop the affected work in progress until adequate environmental protection measures are implemented.
  - (b) The Contractor shall modify the ECP to meet the requirements of said regulatory agencies or jurisdictions and provide the Owner with the revisions to the ECP within five (5) Days of the notice of deficiency.

#### 2.2 EROSION CONTROL

A. Temporary Sediment Fences:

1. Provide, install, and maintain an upland sediment fence for a maximum of 5 feet offset from proposed improvements for the duration of the project.
2. Provide, install, and maintain an upland sediment fence along both sides of the ramp from the top of the bank to the waterline for the duration of the project.

3. Sediment fence shall have manufactured stitched loops for 2"x2" post installation. Posts shall be spaced a maximum of 6 feet apart.
  4. Where practical, the filter fabric shall be purchased in a continuous roll to the length required to avoid the use of joints. When joints are necessary, filter fabric shall be spliced together only at support posts with a minimum 6-inch overlap, and both ends securely fastened to the post, or overlap 2"X 2" posts and attach as shown on the detail.
  5. The physical integrity of all materials shall be sufficient to meet the requirements of their intended use and withstand normal wear and tear.
- B. Floating Silt Curtain (also known as Turbidity Curtain)
1. Provide, install, and maintain an in-water siltation curtain around the perimeter of all work occurring below the waterline at the time of construction, for the duration of the project, as shown on the drawings.
  2. The Contractor shall provide a commercially available silt curtain. Floating silt curtains are available from:
    - (a) Boom Environ. Products, New Bedford, MA (800) 770 BOOM.
    - (b) Parker Systems, Inc, Chesapeake, VA, (866) 472 7537.
    - (c) Elastec/American Marine, Carmi, IL, (618) 382 2525.
    - (d) Nilex Geosynthetics, Denver, CO, (800) 537 4241.
    - (e) Aer-Flo, Inc., Bradenton, FL, (800) 823-7356
    - (f) Layfield Plastics, Bellingham, WA, (800) 796-6868.
  3. The silt curtain material shall be brightly colored to enhance visibility in such a manner that it will attract the attention of nearby boaters. Alternately, the silt curtain may be marked with brightly colored buoys to provide visibility.
  4. Buoyancy provided by the flotation units shall be sufficient to support the weight of the curtain and associated load lines. Said flotation must also maintain enough freeboard to prevent water overtopping.
  5. Load lines must be fabricated into the bottom and top of the fabric. The supplemental (bottom) load line shall consist of a chain incorporated into the bottom hem of the curtain, with sufficient weight to serve as ballast to hold the curtain in a vertical position. Additional anchorage shall be provided as necessary.
  6. Anchors must be sufficient to hold the curtain in the same position relative to the bottom of the watercourse, without interfering with the action of the curtain. Anchor spacing will vary with current velocity and potential wind and wave action; manufacturer's recommendations should be followed.

7. Provide product submittal (to the Engineer of Record) of the intended silt curtain and a diagram of the intended assembled silt curtain including anchoring techniques to meet site specific conditions prior to the ordering any products for approval.

### PART 3 - EXECUTION

#### 3.1 DUST

#### 3.2 SEDIMENT TRANSPORT PREVENTION

- A. Prevent dirt and mud, from escaping trucks departing the work site, by cleaning truck tires before leaving the construction site.
- B. All streets in the construction area used by Contractor's trucks or any other equipment hauling material to and from the area, whether within the Contract limits or adjacent thereto, shall be kept clean by the Contractor and shall be continuously serviced by the Contractor's use of sprinkling trucks to control dust. All cleaning and sprinkling shall be at the Contractor's expense. Violations of these requirements are sufficient grounds for the Owner to order the streets in question to be cleaned by others. The expense of the street cleaning will be charged against the Contractor and cost withheld from Contractor's payments.

#### 3.3 NOISE CONTROL

- A. Comply with all local, state, and federal noise level rules, regulations and ordinances.
- B. There are further requirements for Pile Driving Operations, see pile driving section if applicable.

#### 3.4 TREE AND PLANT PROTECTION

- A. The Contractor shall protect all existing native shrubs and trees outside of the work limits from damage by construction activities. Work areas shall be carefully located and marked to reduce potential damage. Trees shall not be used as anchors for stabilizing working equipment. The Contractor shall not remove any native shrubs or trees outside of the work limits without written approval from Owner.
  - B. If native shrubs or trees are damaged or destroyed by the Contractor's operations without prior authorization by the Owner, the Contractor shall replace the native shrubs or tree in species, size and grade to the satisfaction of and at no cost to the Owner. In the event the Contractor does not perform this replacement work in a timely manner as determined by the Owner, the Owner reserves the right to have the work performed by others. The expense of replacing native shrubs or trees will be charged against the Contractor and the cost withheld from Contractor's payments.
- A. Trees or shrubs that are replaced shall be warrantied from death or disease under the terms of the project warranty.

### 3.5 UPLAND DEWATERING AND WATER CONTROL

- A. The Contractor shall not divert storm drainage or sewer flow through any portion of new sewer or any other new facility until after that portion of the pipeline to be used has been field-acceptance tested in accordance with the Specifications, and until specific written approval from the Owner has been received. No direct water from construction activities shall be diverted to new or existing sanitary sewer.
- B. Maintain excavations free from water while construction is in progress. Any water which is pumped from excavated areas shall not be diverted into the state waterways without proper treatment or confinement.

### 3.6 EROSION CONTROL

- A. Execute the approved Erosion Control Plan (ECP).
- B. Temporary Sediment Fences:
  - 1. Sediment fence shall have a minimum vertical burial of 6 inches. All excavated material from sediment fence installation shall be firmly re-deposited along the entire trenched area on the uphill side of the fence.
  - 2. The sediment fence shall be installed to follow the contours where feasible. The fence posts shall be spaced a maximum of 6 feet apart and driven securely into the ground a minimum of 24 inches.
  - 3. Sediment fences shall be inspected by the Contractor immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs, relocations or additions shall be made immediately.
  - 4. At no time shall more than one foot of sediment be allowed to accumulate behind a sediment fence. Sediment should be removed or regraded into slopes, and the sediment fences repaired and reestablished as needed
  - 5. Sediment fences shall be removed when they have served their useful purpose, but not before the up slope area has been permanently protected and stabilized.
- C. Floating Silt Curtain
  - 1. Follow manufacturer's recommendations for installation and anchoring to meet anticipated water conditions.
  - 2. To the extent possible, the curtain should be located parallel to the direction of flow of the water body.
  - 3. The ends of the curtain, both floating upper and weighted lower, should extend well up into the shoreline. The ends should be secured firmly to the shoreline to fully enclose the area where sediment may enter the water.
- D. Filter fabric fences, sediment barriers and other erosion control devices shall be removed by the Contractor when they have served their useful purpose, but not before the upslope area has been permanently protected and stabilized.

### 3.7 CULTURAL RESOURCES

- A. Attention is directed to the National Historic Preservation Act of 1966 and 36 CFR 800, which provide for the preservation of potential historical, architectural, archaeological or cultural resources (hereinafter "cultural resources").
- B. The Owner intends to conform to the applicable requirements of the National Historic Preservation Act of 1966 as it relates to the preservation of cultural resources and fair compensation to the Contractor for delays resulting from such cultural resources investigations.
- C. Monitoring: In the event potential cultural resources are uncovered during subsurface excavations at the worksite, the following procedures will be instituted:
  - 1. The Contractor will notify the Owner immediately.
  - 2. The Owner will issue a verbal work suspension directing the Contractor to cease all construction operations at the location of a potential cultural resources discovery. The Owner will contact a professional archaeologist to evaluate the significance of the find. A written work suspension order will be issued within four hours of the verbal work suspension order.
  - 3. Such work suspension will be effective until such time as the qualified archaeologist can evaluate the potential cultural resources for their significance and make recommendations to the State Historic Preservation Officer. Any work suspension direction will contain the following:
    - (a) A clear description of the work to be suspended.
    - (b) Any instructions regarding issuance of further orders by the Contractor for material services.
    - (c) Specific direction to the Contractor to minimize the work suspension costs (i.e., work elsewhere while archaeologist is evaluating find).
    - (d) Estimated duration of the temporary suspension.
  - 4. If the archaeologist determines the cultural resource is eligible to be nominated to the National Register of Historic Places, the Owner may extend the duration of the work suspension order in writing.
  - 5. Equitable adjustment of the construction Contract time will be made for temporarily suspended work in accordance with the General Conditions.

### 3.8 FINES

- A. Contractor shall be responsible for all fines incurred from non-compliance with regulations of governing authorities.

END OF SECTION 01560

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## SECTION 02100 - SITEWORK

### PART 1 - GENERAL

#### 1.1 DESCRIPTION

- A. This item shall include the clearing and grubbing of all construction areas to the extent necessary for the Contractor to perform the work, and all work described below.
- B. Carefully maintain benchmarks, monuments, and other reference points; if disturbed or destroyed, replace as directed by the project inspector.
- C. Provide all protection, barricades, silt fences, and other devices required by State or municipal laws; maintain same for full period of operation. Remove from site when directed by the project inspector.
- D. Work includes removal and disposal of the existing docks and any miscellaneous items as shown on drawings.
- E. Removal of the pile mounted aluminum instrument tube and instrument will be by the Owner, and is not a part of this contract.

#### 1.2 RELATED WORK

- A. Environmental Controls, Section 01560
- B. Earthwork, Section 02200

### PART 2 - MATERIALS

- A. Not Applicable

### PART 3 - EXECUTION

- A. Disposal material is the property of the Contractor and therefore it is the sole responsibility of the Contractor. Disposal material shall be hauled off site and completely removed from the Owner's property. Disposal of contaminated soil shall be in accordance with federal, state, and local laws and regulations.
- B. Existing docks are pressure treated wood frame construction with expanded polystyrene foam floatation contained inside. Each dock section weighs approximately 3400 lbs. Remove steel hinge pins between dock sections prior to removal. Docks shall not be disassembled in any fashion while in the water or on the launch ramp.
- D. Concrete shall be removed from the Project Site and legally disposed.
- E. Docks may not be sold, donated or re-used as docks in another location or waterbody. Contractor will be required to provide documentation that all docks have been properly disposed of within the contract period.

END OF SECTION 02100

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## SECTION 02200 - EARTHWORK

### PART 1 - GENERAL

#### 1.1 DESCRIPTION OF WORK

- A. This item includes all labor, equipment, and materials required for the excavation and grading of the project site to the lines and grades shown on the drawings and required by the specifications. Work within this item includes, but is not limited to, the following in accordance with ODOT 00330.41:
1. Excavation of all material encountered to the limits shown on the drawings.
  2. Hauling, disposing, and spreading of excess excavated material to sites secured by the Contractor.
  3. Locating and protecting existing facilities and utilities.
  4. Grading and reshaping of grade.
  5. All miscellaneous items of work required to complete the construction.
- B. This item includes furnishing, transporting, and installing riprap as shown on the drawings or required by the Specifications.

#### 1.2 RELATED WORK

- A. Sitework, Section 02100

#### 1.3 DEFINITIONS

- A. Unclassified excavation is defined as all excavation regardless of the type, nature, or condition of the materials encountered. The Contractor shall assume full responsibility to estimate the kind and extent of the various materials to be encountered.
- B. Rock excavation is defined as removal of boulders having a volume of 2 cubic yards or more, solid bedrock and ledge rock, that cannot be excavated or removed by dozers with rippers, but which require systematic drilling and blasting or the use of pneumatic rock splitters, hammers, and wedges. If material that is classified as rock is mechanically removed with grading equipment, the volume of material removed shall be measured and paid for as common excavation.
- C. Common excavation is defined as removal of all material not classified as rock excavation.
- D. Overexcavation is the removal of suitable material below the limits designated for excavation.
- E. Disposal material is defined as all excavated material that is beyond the quantities required for the project or unusable for the project. This includes materials that are unsuitable for embankment, in excess of embankment quantities required, and/or contaminated.

1.4 RIPRAP

- A. Riprap shall be broken stone and shall meet the requirements of ODOT 00390.11.
- B. Riprap shall be ODOT Class 700 or Class 100 as shown on drawings:

<u>Class 700 Size of Stone (Pounds)</u>	<u>Percent (%) by Weight</u>
700 - 500	20
500 - 200	30
200 - 20	40
20 - 0	10

1.5 GRASS SEED

- A. Grass seed should be tolerant to low moisture conditions and partial shade. No irrigation is anticipated.

PART 2 - EXECUTION

2.1 GENERAL

- A. All upland areas containing water shall be drained prior to beginning construction.
- B. Slope ground away from paved areas and buildings. Avoid forming pockets that will collect and retain the free flow of surface water. Divert surface water to natural drainage courses.
- C. No excavation shall be left open more than seven days unless otherwise approved by the Owner's Representative.
- D. All excavations left open overnight shall be fenced with wire mesh or plastic mesh fence secured to steel posts all around the excavation as per ODOT 03010.20, 03010.40 and 01050.44.
  - 1. The bottom of the fence shall generally follow the contour of the ground.
  - 2. Maximum spacing of the steel posts shall be ten feet.
  - 3. Minimum height of the fence shall be 36 inches.
- E. Disposal material is the property of the Contractor and therefore it is the sole responsibility of the Contractor. Disposal material shall be hauled off site and completely removed from the Owner's property. Disposal of contaminated soil shall be in accordance with federal, state, and local laws and regulations.
- F. Contractor shall conduct excavation work in such a manner as required to protect existing trees and vegetation on site.

2.2 RIPRAP

- A. Place such that no bare earth is exposed.

- B. Placement shall be in such a manner to produce a reasonably well graded uniform mass. It is the intent of these specifications to produce a compact riprap protection in which all sizes of material are placed in their proper proportions and with a reasonably smooth, uniform, finished surface. Hand placing, rearranging of individual stones by mechanical equipment slapping the surface of the material with armor plating or some other approved means may be required to the extent necessary to secure the results specified.
- C. Hand place smaller units to fill all voids.
- D. Contractor shall furnish all riprap required.

### 2.3 GRASS SEED

- A. After final grading, Contractor shall establish a seeded lawn for all disturbed or graded areas as shown on drawings and as specified in ODOT 01030.

END OF SECTION 02200

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## **SECTION 05155- ALUMINUM BOARDING DOCK INSTALLATION**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION OF WORK**

- A. The work under this item shall consist of all labor, materials, tools and equipment necessary to install owner furnished aluminum boarding docks and appurtenances as shown on the drawings.
- B. Owner furnished docks and accessories will be delivered and off-loaded in the parking lot as shown on the drawings. Delivery and offloading is NOT part of this contract (NIC).

#### **1.2 DOCK CONFIGURATIONS**

- A. Individual docks are 6'x20' (nominal) shall be labeled by the fabricator and numbered sequentially as shown on the drawings. Dock installation shall be as shown on the Proposed Site Plan. Each dock weighs approximately 3800 lbs.

### **PART 2 - PRODUCTS**

#### **2.1 PARTS**

- A. Contractor will need to provide Marine Grade Anti-Sieze Lubricant to be used on threaded connections.
- B. All parts required to assemble the docks will be owner furnished
  - 1. Docks: Eight (8)
  - 2. External Pile hoops: Four (4) with washers, nuts and bolts
  - 3. Transition Plate: One (1) aluminum plates with w/ stainless steel hinge pins, washers, nuts and bolts
  - 4. Hinge Pins: Eight (8) stainless steel round bar pins w/ stainless steel washers, nuts and bolts
  - 5. Hinge Barrel Spacers: Five (5) UHMW-PE spacers per hinge pin (40 total)
  - 6. Sign Posts: One (1) aluminum frame sign posts w/ stainless steel bolts, washers and nuts

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Docks are typically moved/installed with a fork lift or a back hoe using straps. If straps are used they shall be slung underneath the docks and not lifted by attaching to the bullrails.

- B. As dock installation proceeds, it may be necessary to make adjustments to the dock positions to align with existing pile locations. Each pile hoop has adjustable wear pads on the uphill and downhill sides of the pile pocket.
- C. Dock sections are connected together with full length stainless steel hinge pins and are designed so that there is no metal to metal contact after installation. Each hinge barrel has a pressed in UHMW-PE bushing to isolate the hinge pin from the hinge barrel. Install each hinge pin with five (5) UHMW-PE spacers as follows: Install one spacer onto the hinge pin and up against hinge pin stop prior to installing the hinge pin. Place one spacer between each adjacent hinge barrel and onto the hinge pin as the hinge pin is advanced through the barrels (3 places). Place one spacer on the end of the hinge pin prior to placing stainless steel washer, bolt, and nut.
- D. The existing concrete abutment shall be chamfered 6 in x 6 in to accommodate the first dock hinge barrels at the transition plate connection. The abutment surface shall be left smooth of any ridges to allow proper seating of the transition plate. The chamfer shall be made in a neat line.

END OF SECTION 05150

## SECTION 10100 - SPECIALTIES - CREDITS SIGNAGE

### PART 1 - GENERAL

#### 1.2 DESCRIPTION OF WORK

- A. This work consists of furnishing, installation, and construction of signage items as indicated on the drawings and as specified. These specialty items include:
  - 1. Sign Plate.
  - 2. Posts to Support Sign.

#### 1.3 SUBMITTALS

- A. Submit shop drawings showing size and configuration of sign and actual lettering and symbols.

### PART 2 - MATERIALS

#### 2.1 FACILITY CREDITS SIGN

- A. Sign shall be purchased from Oregon Corrections Enterprises, 777 Stanton Boulevard, Ontario, Oregon, 97914. Contact Ramona Erickson at telephone 541-881-4556 or FAX 541-881-5494. Substitutions will not be permitted.
- B. Text and logos shall be as indicated on the drawings.
- C. Sign posts shall be 4" x 4" nominal size, graded (#1 or Btr) Douglas fir, pressure treated with waterborne preservative (ACZA or CCA) to a minimum net retention of 0.40 pounds per cubic foot. A total of two posts are required for the sign.

### PART 3 - EXECUTION

#### 3.1 CREDITS SIGN

- A. Attach 30" x 36" "Credits" sign to two (2) pressure treated 4"x 4" wood posts with vandal resistant screws. Sign post embedment depth shall be 3 feet and backfill material shall be 3/4"-0" crushed rock unless shown otherwise on the drawings.
- B. Locate sign units and accessories where indicated using mounting methods of the type described and in compliance with the manufacturer's instruction.
- C. Install signs level, plumb, and at the height indicated with sign surfaces free from distortion or other defects in appearance.

END OF SECTION 10100

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## **SECTION 10110 - SPECIALTIES - TRAFFIC REGULATORY CONTROLS**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION OF WORK**

- A. This work consists of furnishing, installation, and construction of traffic regulatory control items as indicated on the drawings and as specified. These specialty items include:
  - 1. Traffic Delineators.

#### **1.2 SUBMITTALS**

- A. Submit shop drawings showing size and configuration of sign and actual lettering and symbols.

### **PART 2 - MATERIALS**

#### **2.1 TRAFFIC DELINEATORS**

- A. Traffic delineator (tubular marker) shall be 36 inch Impact Recovery Post, color yellow with two (2) bands of white reflective tape and a plugged top. For mounting, use Fixed Base with Reactive Spring System, bolted connection. Products available from Traffic Safety Supply Co., Portland, Oregon. Phone 503.235.8531.

### **PART 3 - EXECUTION**

#### **3.1 TRAFFIC DELINEATORS**

- A. Attach traffic delineator(s) on the abutment as shown on drawings with fixed base kit installed to manufacturer's specifications.

END OF SECTION 10110

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