



Paul R. LePage  
GOVERNOR

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
16 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0016

March 15, 2013

Subject: **Portland Marine Terminal**  
State WIN: 018413.10  
**Amendment No. 2**

David Bernhardt  
COMMISSIONER

Dear Sir/Ms:

Attachments;

1. Pre-bid meeting questions
2. Addendum #2 Electrical Items Electrical Items
3. Meeting attendance list

Make the following changes to the Bid Documents:

In the Bid Documents, make the changes indicated in the attached document titled "Addendum #2 Electrical Items:"

The following questions have been received:

**Question:** To prevent the cable to the Pedestals and J-Boxes integrity being compromised by stress on it because of the length of the pull and not to exceed the number of degree bends allowed in a conduit run (360 degrees) suggest 4'-0" x 4'-0" x 4"x01" hand hole in both runs, one at J-box #1 + 2 and one at Pedestal #1.

**Response:** Hand holes shall be provided at both locations. See Addendum #2 Electrical Items, addition to Subsection 626.45.

**Question:** Drawing 5 of 7 states "2. Electrical Conduit shall be schedule 80PVC." Spec Section 626.45 states "Underground electrical conduit shall be schedule 40 PVC." Are we to procure and install Schedule 40 or Schedule 80?

**Response:** Schedule 40 PVC.

**Question:** Will the meter be supplied by CMP? Are we to assume final connection/fit out of meter to be by CMP?

**Response:** The contractor shall obtain the service meter box from CMP and make all necessary arrangements to activate the new service.



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**Question:** Will ¾" EMT suffice for conduit for lighting in new utility building? If no, please specify preferred conduit type.

**Response:** Conduit for lighting the utility building shall be ¾" EMT.

**Question:** There is no specification on the cable required for this project. Please provide details on this.

**Response:** See the attached Addendum #2 Electrical Items, addition to Subsection 626.45.

Consider these changes and information prior to submitting your bid on March 20, 2013.

Sincerely,



George M. A. Macdougall P.E.  
Contracts & Specifications Engineer

## Questions received from the mandatory pre-bid meeting held on March 14, 2013

### QUESTIONS:

**Question:** To prevent the cable to the pedestals and j-boxes integrity being compromised by stress on it because of length of pull and not to exceed the number of degree bends allowed in a conduit run (360 deg.), suggest 4ft x 4ft x 4ft hand hole in both runs: one at j-boxes #1 and #2 and one at pedestal #1.

**Response:** Hand holes shall be provided at both locations. See Addendum #2 Electrical Items, addition to Subsection 626.45.

**Question:** Will 3/4" EMT suffice for conduit for lighting in new utility building? If no, please specify preferred conduit type.

**Response:** Conduit for lighting the utility building shall be 3/4" EMT.

**Question:** What is the specification of the marine cable?

**Response:** See Addendum #2 Electrical Items, addition to Subsection 626.45.

**Question:** Is it acceptable to make the Utility Building a wood-framed structure?

**Response:** Yes. The Utility Building may be either a pre-fabricated structure or a wood-framed structure.

**Question:** In the trench details, are the conduits required to be spaced or is it acceptable to place the conduits without spaces?

**Response:** Conduits shall have 1-inch separation. See Addendum #2 Electrical Items for more information pertaining to the trench details.

**Question:** Please clarify the dimensions and positions of the CMP meter and CT box.

**Response:** See Addendum #2 Electrical Items for changes to the plans.

**Question:** Who will supply the metering?

**Response:** The contractor shall obtain the service meter box from CMP and make all necessary arrangements to activate the new service.

**Question:** Will the new foundation for the Utility Building be connected to the existing building? If not, will there need to be expansion joints in the conduits between the two buildings?

**Response:** The new foundation will not be connected to the existing building. Expansion joints in the conduits will be required between the two buildings.

**Question:** What is the required strength of the conduit: Schedule 40 or Schedule 80?

**Response:** Schedule 40 PVC.

**Question:** Is it a requirement to encase the electrical conduits in concrete?

**Response:** No.

**Question:** What are the specific TWIC requirements for the project?

**Response:** Once the temporary fence is erected, workers performing construction activities inside the Primary Construction Zone do not need a TWIC card. Workers performing construction activities outside of the Primary Construction Zone must either have a TWIC card or must be accompanied and monitored by Security Personnel, who shall be an individual with a TWIC card and who is not engaged in the construction activity, or is a third-party security agent. See SP 105 “Contractor Access to Construction Areas,” and SP 807 “Security Requirements” for more information.

**Question:** Have the building permit requirements been addressed with the City of Portland?

**Response:** Yes. The building permit application process has been commenced by the MaineDOT. Payment for the permits will be made by the MaineDOT.

**Question:** Have the electrical permit requirements been addressed with the City of Portland?

**Response:** No. The contractor will be required to secure these in collaboration with the MaineDOT. Permit expenses will be incidental to Item 815.28 Contractor Allowance---CMP.

**Question:** Will butt joints be required at trench edges?

**Response:** No. Only sawcuts will be required.

**Question:** Where can TWIC cards be obtained?

**Response:** 185 Lancaster Road, Portland, ME. Go to the following link for more information:  
<http://www.twicinformation.com/twicinfo/portinfo.jsp?id=1009>

**Question:** May we have a copy of the sign-in sheet?

**Response:** Yes. Sheet is attached hereto.

## **Addendum # 2 Electrical Items**

International Marine Terminal  
Portland, Maine  
March 12, 2013

### **Specifications**

#### 626.45 Electrical Conduit, Wiring, and Trenching

The following paragraphs are added:

Building wire in conduit shall be 600 volt class Type THWN-2 or Type XHHW-2, as manufactured by Southwire or approved equal. Conductors shall be rated 90° C with moisture and heat-resistant thermoset cross-linked polyethylene insulation.

Multi-conductor cable serving receptacle outlets for portable reefer assemblies shall be 4-conductor Type W cable with three phase conductors (black, white and red insulation), and one ground conductor (green insulation). Multi-conductor cable shall be as manufactured by Coleman Cable Inc (CCI), or approved equal. The cable shall include # 2 AWG conductors rated 90°C wet locations and shall be rated for 152 amperes according to NEC Table 400.5(A)(2).

Provide a flush, in-ground pre-cast concrete hand hole to facilitate the pulling of electrical cable in service conduits at two trench locations: 1) adjacent to junction box #1; and 2) at pedestal #1. The hand holes shall be 48" long by 48" wide, by 54" deep and shall be provided with a traffic rated steel cover. Concrete hand holes shall be as manufactured by Precast Concrete Products of Maine, or equal.

#### 626.05 Basis of Measurement

The following is added to Electrical Conduit, Wiring and Trenching:

The accepted quantity of Electrical Conduit, Wiring, and Trenching will be paid for at the contract lump sum price. Payment shall be full compensation for all materials, labor, equipment, and incidentals for the complete installation of all underground conduits actually furnished, installed and accepted. This price shall include the cost of furnishing and installing the conduit, wiring conductors, fittings, receptacles, trenching, labor, temporary shoring (if needed), saw cutting pavement, equipment, precast concrete hand holes, and incidentals necessary to complete the work.

### **Drawings**

#### Drawing 4 Electrical Single Line Diagram

The eight feeders originating at the service/distribution panelboard section 1 that serve receptacle outlets for portable reefer receptacles are revised as follows:

Provide 3#1/0, plus 1#6 ground, building wire conductors in 2-inch conduit from the service/distribution panelboard to the new in-ground precast electrical hand hole located adjacent to junction box #1. Provide waterproof splices within the hand hole and transition to multi-conductor Type W cable. Extend the Type W multi-conductor cable underground in 2-inch conduit from the hand hole to each of the junction boxes # 1 through #6.

### Drawing 5 Electrical Details 1

Section A-A Note 2 is revised as follows:

2. Electrical conduits shall be Schedule 40 PVC.

The following note is added to Section A-A

4. Provide conduit spacers with 1 inch separation.

The overall width dimension indicated in Section A\_A is revised to be 3'-0" ±.

### Drawing 7 Utility Building Details

The following is added to Note 1:

Wiring for the light and light switch shall be run in 3/4" Electrical Metallic Tubing (EMT). Conductors shall be Type THW or XHHW, #12 AWG. Provide a conduit expansion joint when crossing between the existing utility building and the new building.

The following note is added:

4. The contractor shall provide a service CT cabinet in full conformance with the Central Maine Power Company's standards as listed in the latest edition of the CMP Handbook of Requirements for Electrical Service and Meter Installations. Obtain the service meter from CMP and make all necessary arrangements to activate the new service.

### Drawing 7 Electrical Panel Details

The dimension of the service box is revised to be 48 inches square. The height of the service box is revised to be 72 inches above the floor (to the top of the cabinet).

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