

## SECTION 00 91 13.3

### ADDENDUM NO.4

NOTICE is hereby given that the **Bidding Documents have been modified and replacement pages issued** herewith. Replacement pages have an **Issue Date of March 14, 2016**, contain reference to “**Addendum 4**” in the footer, and text changes for additions identified by double underline and deletions identified by ~~Strikeout~~.

Specifications: Replacement pages include:

- Section 32 16 16.16 H Piles- Pages 2,4 and 5

NOTICE is hereby given of the following **additional information and clarifications** which do not cause change to the Bidding Documents. The answers below are provided in response to questions and comments submitted by Bidders.

1. *On drawing E50.01 keyed note # 1 states to provide NEMA 4 junction box for transition to #12 wire. Please advise what wire we are transitioning to # 12 in the four camera locations?*

Answer: Please see drawing E05.02 Keyed Notes #6 and #8, and drawing E05.03 Keyed Note #3 for wire and conduit sizes for each camera location. On drawing E50.01, a NEMA 4 junction box is no longer required for transitioning to #12 wire at each camera location and Keyed Note #1 may be removed.

2. *Ductbank R in the Ductbank Schedule on drawing E80.01 lists 4” conduit for ducts P5, P6 & P7. Shouldn’t these ducts be smaller than 4”?*

Answer: The conduit sizes for ducts P5, P6, and P7 should read as 1”, 2” and 1 1/2” conduits respectively, not 4”. Duct P6 should be read as “Fiber Patch Panel”, not “Future Fiber Patch Panel”.

3. *In the riser diagram on drawing E10.01 is the contractor only responsible for called out wiring? For instance, the contractor is to provide (3) 3/0 from #51 Hunt St. to P-HH3-3, but is wiring from P-HH3-3 to P-HH3-2 by others?*

Answer: The contractor is responsible for wiring from each residence to the nearest associated manhole. The secondary wiring between manholes is the responsibility of the utility. On drawing E50.01, please note that the secondary feeds to #54 Hunt Street, #52 Hunt Street, and #50 Hunt Street should read (3)#2, 2”C.

4. Addendum # 3 issued March 10, 2016; Section number shall be modified as 00 91 13.2.

**Prepared by: Woodard & Curran (Engineer)**

- C. Shop Drawings: fabrication and installation details for piles, including driving points, splices and field cut holes. Indicate welds by standard AWS symbol, distinguishing between shop and field welds, and show size, length and type of each weld
- D. Certificates of welding qualifications
- E. Design Data/Submittals
- F. Source and Field Quality Control Submittals
- G. Qualification Statements for Installer, surveyor, and Testing agency, and professional engineer.
- H. Proposed pile driving system information and driving criteria including proposed pile hammer and two wave equation analyses of the proposed driving system to evaluate driving stresses. Base soil properties for analysis on \soil borings with thickest and thinnest layers of peat contained in the Project geotechnical and subsurface information.
- I. Closeout and Maintenance Material Submittals: per Division 01 General Requirements.
  - 1. Wave equation analyses

#### 1.06 **QUALITY ~~ASSURANCE~~CONTROL**

- A. Provide in accordance with Division 01 General Requirements.
- B. Qualifications: per Division 01 General Requirements and as follows.
  - 1. Installer: experienced in installing driven piles similar in material, design and extent specified, whose work has resulted in construction with a successful in-service performance. Installer's responsibility includes providing a qualified professional engineer to prepare pile driving records.
  - 2. Surveyor: licensed in the state where Project is located.
  - 3. Welding: qualify procedures and personnel according to AWS Standards.
  - 4. Testing Agency: qualified according to ASTM E 329.
  - 5. Professional engineer licensed in the state where Project is located.

#### 1.07 **DELIVERY, STORAGE, AND HANDLING**

- A. Provide in accordance with Division 01 General Requirements.

- B. Provide that licensed land surveyor performs surveys, layouts, and measurements for steel H piles.
- C. Layout each steel H pile to lines and levels required prior to excavating.
- D. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, vibration, and other hazards created by driving steel H piles.
- E. Utilize pile driving equipment capable of installing piles to the specified geotechnical capacity without damaging piles and achieving the desired pile axial capacity. Provide pile driving equipment submittals prior to equipment mobilization.

### 3.02 INSTALLATION

- A. Pre-excavation, ~~jetting, or~~ augering ~~or vibratory hammer installation~~ are anticipated for the Project. Jetting or vibratory hammer installation are not anticipated for the Project.
- B. Limit driving stresses to a maximum compressive stress of 45 kips per square inch for steel H piles. Provide cast steel points to limit pile damage during driving.
- C. Drive piles to a minimum ultimate capacity of 200 kips with a single or double acting air or steam hammer, or a drop hammer. The minimum rated energy of the hammer must be sufficient to achieve the minimum ultimate pile capacity while not overstressing the pile during driving.
- D. Install piles in a continuous manner using the same equipment and to approximately the same penetration resistance using approved driving criteria.
- E. Drive piles in designated locations and do not deviate from the planned location by more than 3 inches in any direction. Out of plumb piles: if inclination is greater than 1 inch in 10 feet of single piles.
- F. Contact Engineer immediately if conflicts arise with locations.
- G. Record actual measurements of each steel H pile's location, bottom and top elevations, deviations from specified tolerances, and other specified data.
- H. Maintain accurate driving records for each pile, including the following data, compiled and attested to by qualified professional engineer.
  - Project name and number
  - Name of pile driver
  - Pile location and designation
  - Sequence of driving in pile group
  - Pile dimensions

- Ground elevations
- Elevations of tips after driving
- Final tip and cut off elevations of piles after driving
- Records of re-driving
- Elevation of splices
- Type, make, model and rated energy of hammer
- Weight and stroke of hammer
- Type of pile driving cap used
- Cushion material and thickness
- Actual stroke and blow rate of hammer
- Number of blows for each 12 inches of penetration and number of blows per 1 inch for the last 6 inches of driving
- Pile deviations from location and plumb

### 3.03 FIELD QUALITY CONTROL

- A. Provide in accordance with Division 01 General Requirements.
- ~~B. Owner will engage a qualified independent testing and inspecting agency to perform field quality control testing.~~

### 3.04 CLOSEOUT ACTIVITIES

- A. Provide in accordance with Division 01 General Requirements.
- B. Remove surplus excavated material and legally dispose of off Site.

**END OF SECTION**