

<u>ITEM 607.9201-25 -</u>	<u>INSTALLING FOUNDATIONS FOR NOISE BARRIERS OR WOOD SCREEN FENCING (2'-6" DIAMETER)</u>
<u>ITEM 607.9202-25 -</u>	<u>INSTALLING FOUNDATIONS FOR NOISE BARRIERS OR WOOD SCREEN FENCING (3'-0" DIAMETER)</u>
<u>ITEM 607.9203-25 -</u>	<u>INSTALLING FOUNDATIONS FOR NOISE BARRIERS OR WOOD SCREEN FENCING (3'-6" DIAMETER)</u>
<u>ITEM 607.9204-25 -</u>	<u>ANCHORING FOUNDATIONS FOR NOISE BARRIERS INTO ROCK</u>
<u>ITEM 607.9205-25 -</u>	<u>ANCHORING FOUNDATIONS FOR WOOD SCREEN FENCES INTO ROCK</u>
<u>ITEM 607.9206-25 -</u>	<u>INSTALLING FOUNDATIONS FOR NOISE BARRIERS OR WOOD SCREEN FENCING (3'-6" TO 4'-6" DIAMETER)</u>

1. DESCRIPTION:

- 1.01 This work shall consist of installing foundations and/or anchoring foundations into rock for noise barriers or wood screen fences at the locations and to the required depths and diameters shown on the Plans.

2. MATERIALS:

- 2.01 If the hole contains less than 2 inches of water at the time of concrete placement, the concrete shall meet the requirements of Concrete for Structures, Class A.
- 2.02 If the hole contains more than 2 inches of water at the time of concrete placement, the concrete shall meet the requirements of Concrete for Structures, Class G (Deposited Under Water)
- 2.03 Reinforcing Steel shall meet the requirements of [REDACTED] and shall be galvanized in accordance with [REDACTED]
- 2.04 Threaded anchor rods shall conform to [REDACTED] and shall be galvanized in accordance with [REDACTED]
- 2.05 Grout for threaded anchor rods shall conform to either [REDACTED]

3. CONSTRUCTION DETAILS:

- 3.01 The Contractor shall provide equipment capable of drilling holes through in situ soils, boulders, obstructions and bedrock to the required depth and diameter shown on the plans. The Contractor has the sole responsibility for selecting appropriate drilling equipment and procedures for the subsurface conditions encountered. Equipment deemed unsatisfactory by the Engineer shall be removed from the site and replaced with satisfactory equipment at no additional cost to the Authority.
- 3.02 The holes for foundations shall be true and plumb as approved by the Engineer. The center of the foundation shall be located directly under the center of the post. The center of the foundation shall not vary from the center of the post by more than 2 inches in any direction. The top elevation of the foundation shall not vary from the elevation shown on the plans by more than 1/2 inch.
- 3.03 Holes for foundations shall be progressed in a manner that causes no subsidence of the surrounding ground surface. If subsidence should occur, the Contractor shall cease work and provide a written plan to prevent subsidence to the Engineer. Work shall not resume until the Engineer approves the plan. All damage caused by subsidence shall be repaired in a manner satisfactory to the Engineer at

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no additional cost to the Authority.

3. CONSTRUCTION DETAILS: (cont'd)

- 3.04 Precautions shall be taken to prevent the collapse of the sides of the holes. Temporary casings used to keep the hole open shall be extracted as the concrete is placed. Temporary casings that cannot be removed shall remain in place and be cut-off at the top of footing elevation at no additional cost to the Authority. All voids between the outside of the casing and the surrounding ground shall be immediately filled by a method approved by the Engineer.
- 3.05 If bedrock is encountered before the design depth of the hole is reached, the Contractor shall construct the footing using one of the following methods, as shown on the Plans or directed by the Engineer:
 - A. Continue drilling the hole through rock to the lesser of either the footing's original designed depth, or the depth to top of rock plus the minimum rock socket embedment specified on the Plans.
 - B. Drill and grout threaded anchor rods into the rock. The diameter, depth into rock and number of anchor rods per footing shall be as shown on the Plans or as directed by the Engineer.
- 3.06 The hole shall be cleaned out immediately prior to placing reinforcement and concrete. There shall be less than 2 inches of debris on the bottom of the hole prior to concrete placement.
- 3.07 The reinforcing cage shall be placed and centered in the hole so that the minimum concrete cover specified in the Plans is achieved. The Contractor shall use centralizers as directed by the Engineer.
- 3.08 Concrete shall be placed by tremie, pumping or free-fall. When placing concrete by free-fall, the concrete shall be directed so that it does not strike the sides of the hole or any reinforcing. For holes with more than 2 inches of water in the bottom of the hole immediately prior to concrete placement, the concrete shall be placed by the tremie method, only.
- 3.09 Concrete shall be placed to the elevation shown on the plans and properly consolidated.
- 3.10 The concrete shall cure a minimum of seven days before noise barrier or wood screen posts are placed.

4. METHOD OF MEASUREMENT:

- 4.01 The quantity of foundations shall be the number of linear feet of foundation satisfactorily installed between the top and bottom of the foundation as shown on the Plans, or revised in writing by the

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Engineer.

- 4.02 The quantity of anchoring foundations into rock shall be the number of footings satisfactorily anchored into rock by drilling and grouting threaded anchor rods.

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5. BASIS OF PAYMENT:

- 5.01 The unit price bid per linear foot shall include the cost of furnishing all labor, material and equipment necessary to complete the work, including drilling through all in situ soil, boulders, obstructions and bedrock, keeping the hole open, disposal of excavated material and placing concrete and reinforcing.
- 5.02 The unit price bid for each foundation anchored into rock shall include all labor, material and equipment necessary to complete the work, including drilling holes in rock, placing the anchor rods in the holes and grouting.