

SECTION 9.16 NOISE BARRIER WALL

9.16.01--Description: This work shall consist of furnishing and constructing noise barriers in the locations and to the dimensions and details shown on the plans or as ordered by the Engineer.

Unless a specific type of wall is required by the plans, the Contractor may select any one of the types whose details are shown on the plans.

The Contractor shall identify by type and name, in his proposal, the specific type of wall for each location upon which his bid is based.

The type of noise barrier wall mounted on a structure may be different from the type of wall used on the adjacent roadway. If the contractor proposes to use different types of wall, he shall design the transition or connection of the two types and submit the design and details to the Engineer for overall consideration, review and approval prior to furnishing material.

Rock in so far as it applies to "Rock in Pole Excavation" shall be defined as rock in definite ledge formation, boulders or portions of boulders, cement masonry structures, concrete structures or portland cement concrete pavement which has a cross-sectional area that exceeds fifty percent (50%) of the cross-sectional area of the designed pier hole.

9.16.02--Material: Materials for portland cement concrete shall conform to the requirements of Article M.03.01. The size of aggregate and the mix formulation shall be submitted to the Engineer for approval.

All other materials shall conform to the requirements as indicated on the individual noise barrier wall plans.

9.16.03--Construction Methods: All walls shall be constructed as shown on the plans and as recommended by the manufacturer or fabricator.

Shop Drawings: The Contractor shall submit shop drawings to the Engineer for approval in accordance with Article 1.05.02(b). These drawings shall include, but not be limited to, the following information: The layout plans, details of stepped installation on grades, transition and connection of wall on a structure to the adjacent wall, material lists and material designations.

All vertical joints shall be plumb.

Where poles are used, they shall be set in concrete in predrilled holes. The concrete shall fill the bore to the full depth of hole and shall be crowned at the top for drainage. The drilled hole shall be reasonably true and plumb to the stated diameter and depth. Precautions shall be taken in the operational procedures to protect the hole from collapse. Should rock or other obstructions be encountered in making the hole, this material shall be removed and any space outside the designed pier diameter shall be replaced with concrete.

The concrete shall be placed in the dry, against the existing soil or rock. All disturbed material around the concrete shall be compacted.

Compacted gravel fill shall be constructed in accordance with Section 2.14.

All ground beyond the gravel or stone limits disturbed by the installation of the wall shall be restored to its original condition and all excess material removed from the site.

9.16.04--Method of Measurement: This item shall be measured for payment by the number of square meters of noise barrier wall completed and accepted within the limits indicated on the plans or as ordered by the Engineer. The horizontal pay limit shall be from center to center of each pier, pole or post. The vertical pay limit shall be from the finished ground elevation, prior to placement of crushed stone, measured at the center of

the panel, to the top of the wall. Areas above the design height and the overhang area beyond the centerline of pier, pole or post will not be measured for payment.

The horizontal pay limit for structure mounted noise barrier wall shall be as described above, whereas the vertical pay limit shall be measured from the top to the bottom of sheathing.

Where rock is encountered, it will be measured for payment from the top of the rock to the bottom of the necessary rock excavation.

9.16.05--Basis of Payment: Payment for this work will be made at the contract unit price per square meter for "Noise Barrier Wall" or "Noise Barrier Wall (Type)" complete in place, which price shall include all materials, including stone, foundation, and materials for the fabrication and installation of the wall itself, grading, disposal of surplus material, equipment, tools, labor and work incidental to the installation of the wall.

When rock is encountered within the limits of excavation, its removal will be paid for at the contract unit price per vertical meter for "Rock in Pole Excavation," which price shall include any additional excavation to remove the rock and any additional concrete required to fill the excavation beyond the designed pier hole diameter or depth.

Pay Item	Pay Unit
Noise Barrier Wall (Type and Designation)	m ²