

206 STRUCTURE BACKFILL

206.01 DESCRIPTION

The work shall consist of the backfill of abutments, piers, walls, and culverts to the lines, grades and cross sections shown on the plans or as directed by the Chief Engineer. This shall include any additional area outside the excavation pay limits for construction of the structures. It shall be limited to the area between the bottom of the footing and the original ground or sub-grade, whichever is lower. Fill may be obtained from excavated material meeting specification requirements or from any approved source. Fill obtained from sources outside the project limits shall be designated as Borrow Structure Backfill.

206.02 MATERIALS

Materials shall conform to the requirements of [804.04](#).

206.03 CONSTRUCTION REQUIREMENTS

Structure Backfill or Borrow Structure Backfill shall be constructed in accordance with the requirements of [203](#) and the following:

The minimum in place density of structure backfill shall be 95 percent.

Where backfill is to be placed on both sides of abutments, piers, walls and culverts, the fill shall be placed and compacted on both sides to approximately the same elevation at the same time.

As soon as practicable, all excavated or open spaces resulting from the excavation shall be backfilled. Areas adjacent to footings shall be backfilled and compacted to the top of the footings within 48 hours after placing footing concrete.

Jetting or puddling of backfill will not be permitted.

Where sheeting, bracing, and supporting of any type has been used in constructing the structure, it shall be so removed that no voids are left in space occupied by it.

Backfill behind abutments, piers, and walls of structures will not be permitted until the concrete in the structures has aged for 14 days, except that backfill may be placed earlier if results of tests show that the concrete has obtained 85 per cent of the design strength and the concrete in the structure is at least 7 days old.

Structure backfill shall be placed in uniform horizontal layers of not more than 6 inches in loose depth and for the full width of the fill.

Heavy compaction equipment will not be permitted to operate closer than 4 feet from the structure, unless permitted by the Chief Engineer and in accordance with his direction. Special care shall be taken to prevent any wedging action against the structure and the existing slopes shall be stepped or serrated as necessary to prevent such wedge action.

Backfill within 4 feet of the structure shall be compacted by means of mechanical tampers. The tamped fill shall be brought up in conjunction with the layers in the adjacent fill.

Any damp-proofed surface or membrane waterproofing damaged by the placing of backfill shall be repaired by the Contractor at his expense.

206.04 MEASURE AND PAYMENT

The unit of measure for Structure Backfill or Borrow Structure Backfill will be the cubic yard limited by vertical planes 18 inches outside of and parallel to the footings and from a horizontal plane at the bottom of footings to the existing or finished grade and/or proposed sub-grade exclusive of the volume occupied by the structure and previous backfill.

The number of cubic yards of Structure Backfill or Borrow Structure Backfill will be paid for at the contract price per cubic yard whether on-site or borrow material is used. Payment will include all labor, material, equipment, and incidentals necessary to complete the work, including stockpiling, furnishing, hauling, placement and compaction.