

SECTION 920
SLOPE PAVING

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920.01 SCOPE

This specification covers the requirements for areas to be paved with concrete and adjacent areas or quadrants to be backfilled and graded as indicated herein.

920.02 MATERIALS

The materials for construction of slope paving and related work shall conform to this specification, the contract drawings and all relevant sections of the Specifications Book as outlined herein.

920.02.01 Concrete

Concrete shall be as specified on the drawings and shall meet the requirements of Section 904 of the Specifications Book, "Concrete Structures".

Concrete shall meet the criteria for substructure concrete and the slump shall be of such consistency that will permit placement, consolidation and finishing on a 1.5:1 slope.

920.02.02 Concrete Reinforcement

All reinforcing steel supplied shall conform to Section 905 of the Specification Book, "Concrete Reinforcement".

920.02.03 Wood

Material utilized for wood strips is not required to be preservative treated or structural grade. The material may be of second or third use providing it is reasonably straight, sound and meets with the approval of the Engineer.

920.02.04 Selected Granular Base Course, GRANULAR "A"

Granular bedding materials shall be Selected Granular Base Course, GRANULAR "A" and shall conform to Section 315 of the Specifications Book.

920.02.05 Extra Backfill, Select Material Compacted

Extra backfill select material compacted, shall conform to Section 902.05.01, "Select Material Compacted", of the Specifications Book.

920.02.06 Extra Backfill, Compacted Ordinary Fill

Extra backfill, compacted ordinary fill, shall conform to Section 902.05.02, "Compacted Ordinary Fill", of the Specifications Book.

920.03 PREPARATION

Preparation of the work site to receive concrete slope paving and erosion control blankets as well as the backfilling and grading of the balance of the quadrant at each corner of the structure shall be carried out as outlined below.

The Contractor shall supply, transport to site, handle, place, spread, trim and compact, compacted ordinary fill and select material compacted to the dimensions, elevations and slopes as indicated on the contract drawings and as stated herein. This shall include placing select material compacted and compacted ordinary fill below the area to be paved with concrete, covered with future erosion control blankets and the balance of the quadrant. The quadrant shall be defined as that sector or area at the corner of a structure radiating from the end of the wingwall and sweeping through 90 degrees more or less to the perpendicular from the wingwall. The prepared area shall extend from the top of the roadway fill to the bottom of the slope and blend with the natural topography. The balance of the quadrant shall be backfilled and graded to conform with the natural topography. Erosion control blankets shall be placed at the sides of the slope paving and extend from the back face of the Type C Curb and Gutter to the end of the wingwall. The erosion control blankets shall conform with the Contract Drawings.

Extra backfill, compacted ordinary fill and select material compacted, shall be compacted to at least 90% of the Standard Proctor Dry Density (ASTM D698-78).

Trimming shall be carried out to the satisfaction of the Engineer with all necessary hand and equipment work as required.

Also included in preparation is the excavation, removal and disposal of unsuitable, waste, or excess materials.

920.04 CONSTRUCTION PROCEDURE

The width of the slope paved with concrete shall equal the superstructure, i.e. deck, width in the case of a single structure. Normally, the concrete slope paving shall extend beyond the abutment stem to the limit of superstructure overhang.

For twin structures where the clear gap between the superstructures is seven (7) metres or less, the width of the slope paved with concrete shall extend from the near edge of one superstructure to the far edge of the adjacent superstructure and be continuous throughout its entirety. Where the concrete slope paving is continuous below twin superstructures, the gap between the wingwalls of twin structures shall be treated as an extension of the slope paved with concrete from the front face of the abutment stem to the end of the wingwalls. The top of the slope paving at the end of the wingwalls shall extend down into the median ditch. The paved reinforced concrete slope shall be continuous from bottom to top of slope and down into the median ditch.

The area paved with concrete shall be skewed as required.

After the surface to receive slope paving has been prepared, the slope paving shall be constructed. This consists of supply, placing and compaction of GRANULAR "A", wood strips, reinforcing steel and concrete.

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Selected granular base course, GRANULAR "A", shall be placed in a uniform layer, spread, compacted and trimmed to the Engineer's satisfaction. Granular bedding, GRANULAR "A" shall be compacted to at least 90% of Standard Proctor Dry Density (ASTM D698-78).

The placing of wood strips shall be as outlined in the contract drawings.

Reinforcing steel shall be placed at mid-depth of the slope paving and shall be securely held in position. Rebar to be offset from Vee grooves and wood strips by ± 50 mm to increase cover where possible. Adequate rebar support chairs or concrete blocks shall be utilized to prevent displacement of the reinforcing steel mat.

The supply, placing, consolidation, finishing and curing for concrete shall be as outlined in Section 904 of the Specifications Book, "Concrete Structures".

920.05 MEASUREMENT FOR PAYMENT

Measurement for payment purposes shall be in square metres rounded to the nearest zero decimal one (0.1) square metres.

The area to be measured for payment purposes shall be based upon the length and width of the area paved with concrete. The length is defined as the distance from the back face of the underlying roadway curb to the front face of the abutment stem parallel to the edge of the superstructure. If the length is different at each side of the slope paving, the average length shall be used. The length measurement shall be taken parallel to the inclined slope and the horizontal berm at the top of the slope. The width is defined as the perpendicular distance from one edge of the slope paving to the other edge. The width dimension shall be based upon the plan view without any allowance for inclined distances. For flared slope paving, the average width shall be used. The slope paving width is more or less defined as the distance from a point directly below the edge of the superstructure to a similar point below the far edge of the single or twin superstructure as the case may be.

Measurement of individual components comprising the slope paving as described herein or as indicated on the drawings will not be made for payment purposes. These items which are considered incidental to the works include, but are not limited to: excavation and trimming, extra backfill, select material compacted and compacted ordinary fill, selected granular base course GRANULAR "A", wood, concrete reinforcement and concrete, and erosion control blankets. Compacted ordinary fill underneath the area where slope paving is to be placed, will be paid as compacted fill as per appropriate item in the contract documents.

Measurement for payment purposes outside the area actually paved with concrete will not be made but shall be considered incidental to the work.

920.06 BASIS OF PAYMENT

Payment at the contract price for Slope Paving includes full compensation for all materials, labour, plant, equipment and services to complete the work as described above or so indicated on the contract drawings.

The Contractor shall place 10mm Styrofoam, or an approved equal, between slope paving concrete and concrete strut surfaces. This work is considered incidental and no additional payment will be made for same.