

SECTION 712 - BLOCK PAVING

712.01 DESCRIPTION

This section covers the requirements for paving driveways, parking areas, medians, verges, footpaths and traffic islands using manufactured paving blocks.

712.02 MATERIALS

Unless otherwise specified, the Contractor shall supply all materials necessary to construct the paving including paving blocks, bedding crushed rock or gravel, bedding sand, jointing sand, and concrete or timber edging.

Paving blocks shall meet the requirements specified in Clause 712.13.

Bedding and jointing sand shall consist of clean, hard, durable, naturally occurring grains free from clay, dust, soft or flaky particles, shale, salt, alkali, organic matter, soil or other deleterious substances.

Bedding and jointing sand shall be maintained at a uniform moisture content.

Bedding sand shall comply with the grading requirements shown in Table 712.021.

Table 712.021

AS Sieve	9.50 mm	4.75 mm	2.36 mm	1.18 mm	0.600 mm	0.300 mm	0.150 mm	0.075 mm
% Passing	100	95-100	80-100	50-85	25-60	10-30	5-15	0-10

Jointing sand shall be dry, free flowing and shall all pass the 1.18 mm sieve with 10-20% passing the 0.075 mm sieve. Bedding sand shall not be used for joint filling.

712.03 CONFORMITY WITH DRAWINGS

All surfaces shall be finished in conformity with the lines, grades, thicknesses and cross sections shown on the drawings or specified within the following limits:

- (a) Paving shall be shaped to match the level of existing fixtures, (e.g. pit covers, edgings and driveways) to within 5 mm. Elsewhere the deviation of the finished work from line or level shall not exceed 20 mm at any point, and the rate of change of deviation from line or level shall not exceed 20 mm in 10 m or 2 mm between adjacent blocks. Except on curves or in shaped areas, the deviation of the finished work from a 3 m straightedge shall not exceed 15 mm at any point.
- (b) Unless otherwise specified all paving shall be shaped to shed surface water from the entire paved area in the direction of natural slope or towards constructed surface drains. The slope at any point on the paving except on a ridge shall be not less than 1%.
- (c) Where median or other surfacing is to be constructed between edge sections of substantially the same level, the paving shall be crowned to produce a crossfall towards the edges not exceeding 3% and not less than 1%.

712.04 SETTING OUT

The work shall be set out in accordance with the drawings by:

(a) The Contractor.

~~(b) Initially by the Superintendent. The alignment and level pegs will be indicated to the Contractor on the site by the Superintendent prior to the commencement of work.~~

712.05 PROVISION FOR TRAFFIC

The Contractor shall make provision for traffic in accordance with Section 166 as provided for in this specification. Deliveries of material to the site shall be made in such a manner as to minimise interference to traffic and material shall not be placed on any carriageway or footpath.

If a traffic lane closure is required the Contractor shall submit details of the proposed signing to the Superintendent for review.

712.06 TEMPORARY WORKS AND PROTECTION OF PROPERTY

Before obstructing any waterway, channel, culvert, or pipe, the Contractor shall make provision for temporary diversion and submit the proposal to the Superintendent for review.

The Contractor shall make provision for the safe discharge of drainage and storm water at all times during the construction of the Works.

The Contractor shall take every precaution necessary to protect property, including fences, buildings, poles, hedges, shrubs, gardens, and the like on or adjacent to the Works.

712.07 TRIMMING AND BEDDING

The areas on which block paving is to be placed shall be trimmed by the Contractor to an even and stable surface to allow a layer of bedding material not less than the minimum specified thickness to be placed.

Lower bedding shall consist of graded crushed rock or natural gravel, watered as necessary and compacted to form a hard, dense surface.

Upper bedding shall consist of bedding sand complying with the requirements of Clause 712.02 placed in accordance with the following requirements:

- (a) Sand shall be spread loose in a uniform layer of 30 mm nominal thickness and shall be screeded in a loose condition to achieve a layer of uniform thickness, to the specified design level, following compaction of the paving.
- (b) The spread sand shall be carefully maintained in a loose condition and protected against precompaction both prior to and following screeding. Sand shall be lightly screeded in a loose condition to the predetermined depth just ahead of the laying of the paving units. Under no circumstances shall the sand be screeded in advance of the laying face to an extent to which paving will not be completed on that day.

712.08 EDGE TREATMENT

Where it is specified that paving shall match concrete edgings any protrusions on the line of the edging shall be removed to allow paving blocks to be placed abutting a straight edge. Chamfered blocks shall be placed adjacent to all concrete edgings with the lower edge of the chamfer set at the level of the top of the edging.

Where concrete edging does not exist and is not specified, the Contractor shall supply and construct a timber edge strip to match the finished level of paving. Unless otherwise specified the edge strip shall be constructed from rough sawn 100 mm x 50 mm pressure treated Standard Grade Radiata Pine using the longest lengths that are practicable in each situation. The strip shall be firmly bedded and supported by 100 mm x 50 mm hardwood or pressure treated radiata pine stakes 450 mm long placed at each end of a timber strip with intermediate stakes at no more than 2 m intervals. The stakes shall be placed on the opposite side of the strip to the paving, driven to a level 25 mm below the top of the timber edging, and secured to the strip by two 75 mm galvanized nails.

Following installation of the edge strip the ground surface not to be paved adjacent to the strip, shall be reinstated or filled with soil to match the finished level of the edge strip.

Part width paving blocks at the edge of the paved area with or without concrete edgings, shall be saw-cut along the line of the edge.

712.09 PROVISION FOR PERMANENT SIGNS

Where shown on the drawings or specified, sign post sleeves supplied by VicRoads shall be placed by the Contractor to provide for erection of permanent signs in the areas to be paved.

Sign post sleeves will be not greater than 500 mm long and they shall be placed vertically with the top of the sleeve 5-15 mm below the finished level of the paving and shall be installed before paving is commenced. Any sand or debris which falls into the sleeve shall be removed.

712.10 LAYING PAVING BLOCKS

Unless otherwise specified, paving shall be laid in a stretcher bond pattern commencing at the longest straight edge with the long sides of the pavers parallel to that edge.

Paving blocks shall be placed with gaps nominally 2 to 4 mm wide between adjacent blocks such that all joints are correctly aligned.

In each row all whole blocks shall be laid first. Closure blocks shall be cut and fitted subsequently. Such closure blocks shall consist of not less than 25% of a whole block. Spaces less than 25% of a full block shall be filled with a mortar consisting of four parts sand and one part cement and coloured to match the colour of the paving blocks.

Except where it is necessary to correct any minor variations occurring in the laying pattern the paving blocks shall not be hammered into position. Where adjustment of position is necessary care shall be taken to avoid premature compaction of the sand bedding.

Any foot or barrow traffic shall use boards overlying and raised above the paving to prevent disturbance of blocks prior to compaction. No other construction traffic shall be allowed on the paving at this stage of construction.

712.11 COMPACTION AND JOINT FILLING

As soon as practicable after laying the paving blocks, the paving joints shall be filled with joint filling sand and the paving shall be compacted. Joint filling sand shall be spread over the paving and broomed into the joints and not less than two passes of a plate compactor shall be used with compaction and brooming continuing until lipping has been eliminated between blocks and the joints completely filled with sand. Any blocks that are cracked or broken during compaction shall be immediately removed and replaced. All paving shall be fully compacted on the day of laying, provided that compaction shall not proceed closer than 1 m from any face where paving will be continued.

712.12 CLEAN UP

At the completion of work all unused materials and trimmed material shall be removed from the site and the paving shall be swept clean.

712.13 SCHEDULE OF DETAILS – REFER TO TENDER DRAWINGS.

- ~~(a) Type/shape of block ——— #:~~
- ~~(b) Colour of block ——— #:~~
- ~~(c) Size of block ——— #:~~
- ~~(d) Thickness of block ——— #: (mm)~~
- ~~(e) Thickness of bedding
 - ~~Upper bedding ——— #: (mm)~~
 - ~~Lower bedding ——— #: (mm)~~~~