

16 Shoulder Maintenance

16.1 Scope

This Section sets out the requirements for maintaining **unsealed shoulders, side slopes and surface water channels**.

The work required by this Section does not include:

- a) removing **detritus** from **surface water channels**
- b) **vegetation control** on grassed **shoulders**
- c) **chemical control** of **side slopes** and **surface water channels**
- d) improvements to **shoulders** and **surface water channels**
- e) **shoulder** maintenance in urban areas or on unsealed highways
- f) maintenance of grassed **shoulders** and swales.

16.2 Definitions

Terms defined in Table 3.2, Definitions appear in **bold**.

16.3 Response Times

The Contractor must complete all **shoulder** maintenance work by the date shown on the agreed **programme**.

16.4 Specific Requirements

The contractor shall inspect all road **shoulders** within the contract, prepare **schedules** of maintenance including location and priority work in order to meet the response times and submit the **schedule** to the engineer.

16.4.1. Extent of Work

Shoulders must be maintained from the existing edge of seal to a line parallel to the edge of seal which is 500 mm beyond the invert of the **surface water channels**.

If there are no **surface water channels**, the Contractor is responsible for maintaining the **unsealed shoulder** and **side slope** from the existing edge of seal to a line parallel to, and 3.0m offset from, the existing edge of seal.

16.4.2. Shoulder Maintenance

The Contractor shall maintain all **unsealed shoulders, side slope and surface water channels** (gravel and grassed) within the **scheduled** lengths as follows:

- a) all material used whether aggregate or topsoil, shall conform to the nominated specification in the contract documents or shall be an equivalent material.

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- b) the existing widths and crossfalls shall be maintained as agreed with the Engineer.
- c) material shall not encroach onto the **sealed carriageway** at any time except during maintenance operations. Prior to completing maintenance activities all loose material must be removed from sealed surfaces.
- d) for vegetated areas (e.g. grassed areas) an even and mowable **vegetation** cover shall be maintained.
- e) all maintenance aggregate must be evenly graded aggregate with a maximum size of 20mm.

Shoulders shall be maintained as follows:

- f) **shoulder** material shall be maintained in an even shape, and where material is added, it shall be compacted using suitable compaction plant. Depth of loose material shall not exceed 20mm loose depth.
- g) **shoulders** shall be maintained so a build up of material adjacent to the edge of seal that prevent water draining from the sealed surface does not form.

To reduce the long term costs of unsealed **shoulder** maintenance, the Contractor shall allow **vegetation** growth on existing **shoulders**. Existing vegetated **shoulders** must not be removed except to prevent ponding of water on the sealed surface immediately adjacent to the edge of seal.

16.5 Performance Criteria

The performance of the Contractor during the contract period will be measured by the following criteria.

- a) that all **shoulder** maintenance work is carried out in accordance with this Specification by the date shown on the agreed **programme**.
- b) inspections are completed on time and inspection records are available when requested by the engineer.
- c) that the **unsealed shoulders, side slopes and surface water channels** remain compacted, and shed water from the adjacent **sealed carriageway** without ponding, **channelling** of water, or **edge rutting**.
- d) that the **unsealed shoulders, side slopes and surface water channels** retain their widths and crossfalls.
- e) all **shoulder** maintenance repairs shall have a finished surface such that no water ponds on the **sealed carriageway, shoulder** or taper edge.