

# Master Specification

## Part RD-BP-C1

### Cold Planing

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**Government of South Australia**  
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## RD-BP-C1 Cold Planing

### 1 General

- a) This Master Specification Part sets out the requirements for the planing and removal of existing pavements prior to the placement of asphalt including:
  - i) the documentation requirements, as set out in section 2;
  - ii) the requirements for cold planing, as set out in section 3;
  - iii) the requirements for service castings, as set out in section 4;
  - iv) the requirements for cold planed material, as set out in section 5;
  - v) the requirements for measurement, as set out in section 6;
  - vi) the Hold Point requirements, as set out in section 7; and
  - vii) the verification requirements and records, as set out in section 8.
- b) The planing and removal of existing pavements prior to the placement of asphalt must comply with the Reference Documents, including:
  - i) Department EHTM Attachment 9A - Guideline for the Beneficial Reuse of Solid Waste (available from: <https://dit.sa.gov.au/standards/manuals#EHTM>); and
  - ii) EPA Standard for the production and use of Waste Derived Fill (available from: <http://www.epa.sa.gov.au>).
- c) Without limiting the requirements of PC-SM1 “Traffic and Pedestrian Management”, where there are planing Works or Temporary Works to be carried out under traffic, the Contractor must provide the Principal with at least 4 days’ notice of the dates on which planing will be undertaken under traffic in order to coordinate with traffic signals and maintenance.

### 2 Documentation

#### 2.1 Construction Documentation

In addition to the requirements of PC-CN3 “Construction Management”, the Construction Documentation must include:

- a) documents, procedures, and instructions for the application and testing of cold planing;
- b) details of the Contractor’s proposal for tolerances of >10mm for coarse materials (e.g. macadam), if relevant, as required by section 3.1b); and
- c) details of the Contractor’s proposed use of temporary ramps, road user safety and comfort, work zone traffic management, and temporary line marking for protecting the Works as required by section 3.3c).

#### 2.2 Quality Management Records

In addition to the requirements of PC-QA1 “Quality Management Requirements” or PC-QA2 “Quality Management Requirements for Major Projects” (as applicable), the Quality Management Records must include:

- a) records of the quantity and disposal method for the cold asphalt planings, as required by section 5.4; and
- b) the verification requirements and records required by section 8.

## 3 Cold planing

### 3.1 General

- a) The depth of excavation for all cold planing operations must be in accordance with the pavement works schedules in the Contract Documents, where available. Where no pavement works schedules are provided, the following tolerances will apply:
  - i)  $\pm 5$  mm in asphalt; and
  - ii)  $\pm 10$  mm in all other material.
- b) The Contractor may propose tolerances of  $>10$ mm for coarse materials (e.g. macadam) as part of the Construction Documentation.
- c) The position of the excavation must not vary by more than  $\pm 20$  mm from that specified in the Contract Documents or sections 3.1a) or 3.1b) (as applicable).
- d) Cold planing must be carried out where the level of the layer underlying the new asphalt course is such that the new course cannot be placed within the tolerances specified in the Contract Documents or sections 3.1a) or 3.1b) (as applicable).
- e) The Contractor must protect all areas of 14 mm and 20 mm asphalt exposed after cold planing operations from water infiltration.
- f) Sides and ends of the planed excavation must be in accordance with pavement joint details shown on the Contract Documents. Where the Contract Documents do not include pavement joint details, the Department Standard Drawings must be followed.
- g) Following completion of the cold planing operations and prior to placing of new fill or pavement, a **Hold Point** will apply to confirm the depth of excavation has been achieved and inspect the suitability of the surface. New fill or pavement must not be placed until this Hold Point has been released.
- h) The Contractor must provide at the Hold Point in section 3.1g):
  - i) at no less than 10 m intervals, details of the cutting depths after clean up, obtained at the centre and each edge of the cut; or
  - ii) where excavations are less than 10 m in length, a minimum of 3 cross section measurements taken at approximately equal intervals along the length.
- i) As a result of the inspection contemplated by section 3.1g), the Contractor may be directed to undertake activities including:
  - i) proof rolling;
  - ii) additional cold planing; or
  - iii) variation to the total depth of the pavement treatment specified.

### 3.2 Edge and end planing

#### 3.2.1 General

If the level of the layer underlying the new asphalt course is such that the new course cannot be placed within the specified tolerances, edge planing or end planing, must be carried out.

#### 3.2.2 Edge planing alongside gutters

- a) Where asphalt pavement is to be placed alongside gutters, edge planing must be carried out to the depth required for placement of the asphalt course at the gutter lip and tapered to zero over a distance of approximately 1.9 m.
- b) An asphalt surface course or SAMI must be placed within 2 days of edge planing.

### 3.2.3 End planing

- a) Where new pavement is to match an existing pavement, end planing must be carried out to the depth required for placement of the new pavement at the interface with the existing pavement and tapered to zero over a distance of approximately 3.8 m.
- b) An asphalt surface course must be placed within 24 hours of end planing.

## 3.3 Protection of the Works

- a) The Contractor must protect the Works until the required thickness of new fill or pavement has been laid, compacted and cured sufficiently to carry traffic without deforming the Works or affecting future riding quality.
- b) If the cold planing is being undertaken as part of plane and reinstate Works, the excavations resulting from the cold planing operation must be fully reinstated with asphalt on the same day as the pavement excavation.
- c) The Contractor's proposed use of temporary ramps, road user safety and comfort, work zone traffic management, and temporary line marking for the purposes of protecting the Works must be submitted as part of the Construction Documentation.

## 4 Service castings

- a) Service castings located within the planed zone must have existing asphalt removed around the casting to achieve a uniform surface.
- b) The Contractor must protect all appurtenances and Utility Services from damage. The Contractor must inform itself of the position of all appurtenances and Utility Services.

## 5 Cold planed material

### 5.1 General

- a) All loose material produced during cold planing operations must be removed by the Contractor from the planed pavement, gully boxes, gutters and footpaths, and the pavement and its immediate surroundings must be left in a clean and tidy state.
- b) Ownership of the cold asphalt planings will be vested in the Contractor.

### 5.2 Storage and disposal

- a) Asphalt planings must be disposed of to an asphalt plant for reuse.
- b) The Contractor must manage the planings in accordance with Department EHTM Attachment 9A - Guideline for the Beneficial Reuse of Solid Waste.

### 5.3 Sampling

The Contractor must allow sampling of the cold asphalt planings for chemical testing by the Principal for research and monitoring purposes.

### 5.4 Records

- a) The Contractor must maintain records of the quantity and disposal method for the cold asphalt planings, which must form part of the Quality Management Records.
- b) The records required by section 5.4a) must include separate totals for quantities of cold asphalt planing disposal by reprocessing in asphalt, recycling as granular pavement materials, and disposal to landfill.

## 6 Measurement

### 6.1 Over excavation

Where the Contractor excavates in excess of the volume by using the specified cutting depth plus the tolerance in section 3.1, the Contractor must place additional asphalt where the over excavation has taken place. The Contractor must bear all costs associated with over excavation.

### 6.2 Measurement

Where the Contract Documents include a mechanism for the measurement of excavation for the purposes of payment:

- a) if the excavation is to be measured for the purpose of payment, it will be made to the nearest 0.1 m<sup>3</sup> for each section planed and based on solid measurement (i.e. the area planed by the average measured depth of cold planing);
- b) if requested by the Principal, the Contractor must provide calculations to verify the volume claimed; and
- c) if haulage distance is measured for the purpose of payment, the haulage distance must be calculated on the basis of the actual haul distance to the lowest cost nominated disposal site. The haulage distance only includes the loaded trip only and excludes the return trip.

## 7 Hold Points

Table RD-BP-C1 7-1 details the review period or notification period, and type (documentation or construction quality) for each Hold Point referred to in this Master Specification Part.

**Table RD-BP-C1 7-1 Hold Points**

Section reference	Hold Point	Documentation or construction quality	Review period or notification period
3.1g)	Prior to placing of new fill or pavement	Construction quality	3 hours notification

## 8 Verification requirements and records

The Contractor must supply written verification as part of the Quality Management Records that the requirements listed in Table RD-BP-C1 8-1 have been complied with.

**Table RD-BP-C1 8-1 Verification requirements**

Section reference	Subject	Property	Test procedure	Test frequency	Acceptance limits
3	Cold planning levels and position	Variation in level Variation in lateral position	In accordance with PC-SI1 "Site Surveys"	As required by PC-SI1 "Site Surveys"	Refer sections 3.1a) and 3.1b) Refer section 3.1c)
5.4	Cold planning material	Quantity and disposal method	Not applicable	Not applicable	Not applicable