

## **SPECIFICATION FOR THE REPAIR OF POTHoles IN BITUMINOUS SURFACED ROADS**

### **1. SCOPE**

This specification sets out the requirements for the repair of potholes in bituminous surfaced roads and bridge decks.

To achieve the long term maintenance objectives of Transit New Zealand the following principles shall be followed:

- (a) The Contractor shall inspect all roads within the Contract and shall ensure that all potholes are repaired at the time of inspection.
- (b) The Contractor shall inspect and repair all potholes within the maximum cycle response time required and shall be responsible for subsequent maintenance of repairs during the Contract period.
- (c) The Contractor shall report as required to the Engineer and shall record all repair work undertaken.

### **2. DEFINITION**

A pot-hole is where surface attrition has occurred over an area exceeding 70 mm in diameter but not exceeding 1m<sup>2</sup> in area and the basecourse aggregate is exposed, or where the defect exceeds 50 mm in depth in structural asphaltic concrete.

A pothole shall also be where surface attrition has occurred over an area exceeding 70 mm diameter and the underlying pavement is exposed. (This does not include scabbing and stripping on a chip seal).

### **3. RESPONSE TIME**

Potholes shall be repaired within the cycle response times scheduled by the Engineer in the Contract documents.

#### **4. WORK REPORTING AND RECORDING REQUIREMENTS**

All work reported and recorded by the Contractor shall be in terms of Transit New Zealand State Highway Route Positions.

When, in the opinion of the Contractor, the pothole is due to underlying instability of the road pavement, the Contractor shall report such potholes after repair to the Engineer. Although the Contractor shall maintain pothole repairs in such reported areas the Engineer may agree to reimbursement of the cost of further repairs after the initial reporting and repair.

The Contractor shall record pothole numbers and their location. Where an individual pothole exceeds 1m<sup>2</sup> in area the Contractor shall repair the pothole and immediately report its location to the Engineer.

The Engineer may agree to reimbursement of additional costs for repair of individual potholes exceeding 1m<sup>2</sup> in area that have been immediately reported.

#### **5. PREPARATION OF REPAIR AREA**

- (a) The immediate area surrounding the pothole shall be excavated to remove distressed material.
- (b) In premix material the sides of the excavation shall be trimmed as near as possible to vertical while avoiding undermining the adjacent pavement. All loose or fractured material shall be removed.
- (c) In unbound granular materials the sides of the excavation shall be trimmed to a battered slope. Excavation shall be to a firm base with all loose material removed.
- (d) The excavation of the repair area shall be carried out in such a manner that the integrity of adjacent sections of pavement are not disturbed.

#### **6. BACKFILLING THE REPAIR AREA**

##### **6.1 In Granular Pavements**

###### **(a) Less Than 100 mm Deep**

To ensure bond with the surrounding pavement material, a light tack-coat of emulsion shall be applied to all surfaces in contact with premix material.

The pothole shall be filled with premix material.

Backfill material shall be thoroughly compacted so that a uniformly dense and stable repair is produced which does not move under the action of ordinary road traffic.

**(b) More Than 100 mm Deep**

When the depth of repair is greater than 100 mm, backfilling to a level 50 mm below the finished level may be with basecourse of nominal maximum size not greater than 0.4 times the layer depth. The material shall be compacted to a uniformly dense and stable condition. The remaining 50 mm shall be constructed in accordance with the requirements of clause 6.1 (a).

**6.2 In Structural Asphaltic Concrete Pavements**

The Contractor shall select the repair method most appropriate to correct the defect. Ragged edges shall not be permitted.

- (a) Where the defect extends below the depth of the asphaltic concrete, all distressed unbound granular material shall be removed and the base of the excavation compacted to provide a firm foundation for replacement materials. Basecourse aggregate conforming to the requirements of TNZ M4 specification shall be used to reinstate the repair to the underside of the asphaltic concrete.
- (b) Repair material used above the underside of the structural asphaltic concrete shall conform to the requirements of TNZ M10 Specification.

**7. SURFACING**

The finished running surface of the repair carried out under clause 6 above shall be waterproof.

**7.1 Surface Profile**

The finished surface of the repair shall match the general profile of the adjacent surface have no sharp ridges and shall be such that it does not allow water to pond nor is higher than the adjacent pavement by more than 10 mm when measured by a 2 m straightedge.

## **8. PERFORMANCE CRITERIA**

The performance of the Contractor during the Contract period will be measured by the following criteria:

- (a) That all potholes are repaired to the technical requirements of this specification within the cycle response times required.
- (b) That repaired potholes continue to remain waterproof and maintain a smooth riding surface.
- (c) That there is no flushing or bleeding of the surface of potholes.

## **9. BASIS FOR PAYMENT**

The basis for payment shall be an all inclusive rate per km of road per month.