

	<b>Unit ID: 815</b>
<b>Domain</b>	<b>ROAD CONSTRUCTION AND MAINTENANCE – BITUMEN ROAD MAINTENANCE</b>
<b>Title:</b>	<b>Repair potholes and cracks on bituminous road surfaces</b>
<b>Level: 2</b>	<b>Credits: 12</b>

### Purpose

This unit standard is intended for those who work in road construction and maintenance operations. People holding credit for this unit standard are able to: Plan and prepare for work; demonstrate knowledge of repairing bituminous road surfaces; prepare to repair a bituminous road surface; repair bituminous surface; complete work related documents; and clean up work area.

### Special Notes

1. Entry information:

Prerequisite

- Unit ID 712 - *Comply with health, safety and environmental rules and regulations in road construction and maintenance work operations.*

2. Quality in this unit standard means adherence to contract requirements and workplace instructions.
3. Expected worksite production target are to be met.
4. Assessment evidence may be collected from a real workplace, a simulated workplace or an appropriately simulated environment in which road construction and maintenance operations are carried out.
5. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures, and compliance with workplace procedures.
6. Performance of all elements in this unit standard must comply with all relevant legal, workplace and contractual requirements, and manufacturers' specifications.
7. Regulations and legislation relevant to this unit standard include but are not limited to the following:
  - Labour Act, No. 11 of 2007 as amended
  - Occupational Health and Safety Regulations No. 18, 1997
  - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No 53 Road Traffic and Transport Regulations
  - Road Ordinance 1972 and other relevant legislations and all subsequent amendments.

### Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the

Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website [www.nta.com.na](http://www.nta.com.na).

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **Performance Criteria**

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, explained, clarified and applied to the allocated task.
- 1.2 Safety requirements, including personal protective clothing and equipment are obtained from the site safety plan and workplace policies and procedures, and applied to the allocated task.
- 1.3 Traffic control requirements are obtained and implemented according to workplace requirements.
- 1.4 Plant, tools, fuel, lubricants, equipment, attachments and accessories selected to carry out tasks are checked for consistency with the requirements of the job, their usability and any faults rectified or reported prior to commencement of work.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.6 Road furniture is protected as required by the proposed task.

### **Element 2: Demonstrate knowledge of repairing bituminous road surfaces**

#### **Performance Criteria**

- 2.1 The technologies of repairing bituminous road surfaces are explained.
- 2.2 The cost benefits of timely bituminous road surface repairs in terms of road maintenance, rehabilitation and construction are explained.
- 2.3 The impact on road safety of timely road maintenance is explained.
- 2.4 The impact of timely road maintenance for road users is explained.

### **Element 3: Prepare to repair a bituminous road surface**

#### **Performance Criteria**

- 3.1 Work activities are planned in terms of plant and equipment, personnel, material and specified quality and time frame.

- 3.2 The affected area is marked out in accordance with contract requirements.
- 3.3 The affected area is checked as demarcated and prepared as per specifications.
- 3.4 Work area is checked for hazards. All hazards are identified and corrective actions taken in accordance with workplace procedures.
- 3.5 Personal protective equipment is fitted and worn in accordance with instructions and specifications.
- 3.6 Signs are checked and the worksite is secured in accordance with instructions and specifications.

#### **Element 4: Repair bituminous surface**

##### **Performance Criteria**

- 4.1 Pothole subsurface layers are shaped and compacted to the required specifications.
- 4.2 Joints between existing surface and repair are cut, lean and bonded according to specifications and in accordance with given instructions.
- 4.3 The affected area is resurfaced according to instructions and specifications.
- 4.4 Cracks are cleaned and sealed according to specifications.
- 4.5 Tools and equipment are used in accordance to their design purpose.
- 4.6 Work is carried out according to work place safety requirements.
- 4.7 Work is measured and recorded as far as production output is concern as per company procedure.

#### **Element 5: Complete work related documents**

##### **Performance Criteria**

- 5.1 Work related documents are completed in accordance with contract and workplace requirements.
- 5.2 Maintenance and service related documents are completed in accordance with manufacturer and workplace requirements.
- 5.3 Documents related to accidents or other incidents are completed in accordance with workplace requirements.

#### **Element 6: Clean up work area**

##### **Performance Criteria**

- 6.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.

- 6.2 Road furniture protection material is disposed of in an environmentally safe manner as per company policy.
- 6.3 Safety barricades are uplifted and temporary traffic control signs are removed in a safe manner.
- 6.4 Tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.
- 6.5 Unused materials are safely stored and stacked for future use.

### **Registration Data**

<b>Subfield:</b>	Road Construction and Maintenance
<b>Date first registered:</b>	
<b>Date this version registered:</b>	
<b>Anticipated review:</b>	
<b>Body responsible for review:</b>	Namibia Training Authority