

Domain	ROAD CONSTRUCTION AND MAINTENANCE - KERBLAYING	Unit ID: 720
Unit Title:	Construct kerbs and channels using pre-cast products	
Level: 2		Credits: 10

Purpose

This unit standard is intended for those who work in road construction and maintenance performing kerblaying operations. People holding credit for this unit standard are able to: Plan and prepare for work, set out and prepare for construction and installation, demonstrate knowledge of technology of constructing of pre-cast kerbs and concrete channels, prepare bedding to receive kerbs, lay pre-cast concrete kerbs and channels and clean up work area.

Special Notes

1. Entry information:
 - Prerequisite
 - Unit 712 - *Comply with health, safety and environmental rules and regulations in road construction and maintenance work operations.*
2. Assessment evidence may be collected from a real workplace or a simulated real workplace in which kerb laying operations are carried out.
3. Safe working practices are to include day to day observation of safety policies and procedures and compliance with emergency procedures.
4. Construction to be carried out on new projects and existing roads during traffic conditions and non-traffic conditions.
5. Tools to include shovels, rakes, trowels, forming tools, string lines and spirit levels, concrete mixers, wheelbarrows, form elements and may include dumpy and laser levels.
6. Drawings may include but not limited to site plans, cross-sectional plans and structural detail for kerbs, channels and fixtures.
7. Performance of all elements in this unit standard must comply with all relevant workplace requirements contractual agreement and manufacturers' specifications.
8. Regulations and legislation relevant to this unit standard include 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 on Road Traffic and Transport Regulations.
 - Road Ordinance 1972 and other relevant legislations.

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.

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 and applied to the allocated task.
- 1.2 Safety requirements are obtained from the site safety plan, workplace policies and procedures and applied to the task.
- 1.3 Signage and traffic regulating requirements are identified and obtained from the project traffic management plan and implemented.
- 1.4 Plant, tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for usability and any faults rectified and reported prior to commencement.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the task.
- 1.6 Work area is checked for hazards. All hazards are identified and corrective action is taken in line with workplace housekeeping procedures including eliminating and reporting.

Element 2: Set out and prepare for construction and installation.

Performance Criteria

- 2.1 Existing services are identified and protected to prevent damage.
- 2.2 Location of kerb, channel and fixtures are set out to dimensions from drawings and specifications or to pre-set pegs.
- 2.3 Driveways and other inverts are set out to drawings and specifications.
- 2.4 Grades are checked to ensure correct fall.
- 2.5 Formwork is constructed and checked to ensure compliance with specifications.

Element 3: Demonstrate knowledge of technology of constructing of pre-cast kerbs and concrete channels.

Performance Criteria

- 3.1 Technology for constructing pre-cast kerbs and concrete channels is identified.
- 3.2 This technology is compared with the technology of in-situ casting of concrete kerbs by hand and machine.
- 3.3 The relative benefits of the different technologies are described.

Element 4: Prepare bedding to receive kerbs

Performance Criteria

- 4.1. Work area is checked for hazards. All hazards are indentified and corrective action is taken in line with worksite housekeeping procedures to include eliminating and reporting.
- 4.2. All tools equipment and personal protective equipment required for the task are identified and ensured to be functional, and are ready for use at work area.
- 4.3. The work area is excavated according to work requirements.
- 4.4. The bedding is prepared in accordance with work requirements.
- 4.5. The consequences of laying kerbs on an inadequate bedding are identified in terms of the effect of subsidence on the finished products.
- 4.6. Alignment makers are noted and protected according to site procedures.
- 4.7. The consequences of not protecting alignment makers are recognised in terms of the effects on the alignment of the finished product and production.

Element 5: Lay pre-cast concrete kerbs and channels.

Range

Pre-cast concrete kerbs include but are not limited to barrier and mountable with transition.

Performance Criteria

- 5.1 Work is carried out in accordance with workplace safety requirements.
- 5.2 The kerb and channel is neat and true within tolerances and matches all design specifications in accordance with given instructions.
- 5.3 Joints are spaced evenly and filled with mortar in accordance with contract requirements.

- 5.4 The kerbs channels are backfilled in terms of contract specifications, without causing movement.
- 5.5 Tools and equipment are used in accordance with their designed purpose and manufacturer's specifications.
- 5.6 Personal protective equipment is used as required in accordance with the Occupational Health and Safety Act.
- 5.7 Work is completed within industry accepted time frame.
- 5.8 Work is checked on completion to ensure compliance with work instructions.
- 5.9 Assistants are utilised effectively, instructions are given clearly and in such a way that promotes good working relationships.

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 Plant, tools and equipments are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices.
- 6.3 Unused materials are safely stored, stacked for future use and recorded in accordance with workplace procedures.
- 6.4 Work related records are completed in accordance with workplace requirements.

Registration Data

Subfield:	Road Construction and Maintenance
Date first registered:	12 November 2009
Date this version registered:	12 November 2009
Anticipated review:	2013
Body responsible for review:	Namibia Training Authority