



# GATES AND GRIDS POLICY

## 1. BACKGROUND AND CONTEXT

Council seeks to provide a simple and consistent process for the management of gates and grids on public roads within the Etheridge Shire to allow for the safe movement of stock on roads without causing adverse impacts on road users.

This policy defines the framework under which gates and grids are to be managed within the Shire. It will provide the basis for the approval, installation, ongoing maintenance and removal of a gate and/or grid on a public road and outlines the responsibilities of the permit holder so that the risk to landowners, road users and Council is safely controlled. It ensures compliance with the relevant legislation and Council's various local laws.

## 2. PURPOSE AND SCOPE

The Transport Infrastructure Act 1994 and Transport Operations (Road Use Management) Act 1995 impose a statutory duty on Council to construct, maintain and operate public roads to promote the safe transport of persons and goods, while the Local Government Act 2009 Part 3 Division 1.S60 grants Councils control of all roads in our local government area. Gates and grids are defined as ancillary works on roads within legislation and while Council has the responsibility for the control, care and management of our public roads, provision of this policy transfer to the landowner, for gates and grids which are permitted for use.

## 3. DEFINITIONS

"Applicant" – The person making an application for an approval, permit or license under the relevant Local Law, and shall include the person on whose behalf the application is made.

"Local Authority"- Council's Chief Executive Officer and/or employee authorised by delegation to issue approvals, permits or licenses under the relevant Local Law.

"Gate"- A moveable barrier, usually hinged, for closing an opening in a wall or fence which is designed to allow passage into or out of a place whether enclosed or not.

"Grid"- A structure designed to permit the movement of vehicular traffic along a road but prevents the passage of livestock but excludes a gate.

"Licensee" – The person (owner) to whom the approval, permit or license is issued under the relevant Local Law.

"Public Road"- An area of land that:

- Is dedicated, open to, or used by the public; or
- Is developed or mainly used for the driving of motor vehicles; or
- Is a footpath, bicycle path, bridge, culvert, ford, tunnel or viaduct.

## **4. POLICY PROVISIONS**

### **4.1 Fees**

The application form for the approval to install a grid must be accompanied by the appropriate fee as shown in the Council's Schedule of Fees and Charges.

### **4.2 Responsibility of Licensee**

4.2.1 A person must not install a gate or grid on a public road unless the installation has been approved (licensed) by Council

4.2.2 It is Council Policy that all gates, grids and associated infrastructure are the responsibility of the licensee (owner). The licensee (owner) of the grid is responsible for maintenance of the grid structure, the roadway for five (5) metres on either approach to the grid, and for the associated fencing including gates within the road reserve.

4.2.3 Council will not approve a gate (only) within a fence line across a public road. Council requires that approved stock grids are used and these shall also have a gate installed adjacent the grid within the road reserve.

4.2.4 The licensee (owner) shall accept all liability and take out and maintain the insurance required to indemnify himself and Council against all claims for personal injury and property damage resulting from the existence of the grid, including the initial construction period.

4.2.5 The licensee (owner) has a duty of care to regularly monitor the condition of the grid(s) and gate(s) and adjacent roadway, and to initiate action with respect to maintaining the grid in a safe operating condition for the travelling public.

### **4.3 New Roadwork**

In the event of Council performing new road construction at the grid location, it is Council Policy that the grid be upgraded to meet Council specifications. The responsibilities in such a case are as follows:

Owner:

- Purchase of grid to specification;
- Transport of grid and all relevant and associated material to site;
- Purchase of all material for abutments as per the specification;
- Purchase of signage as per specification;
- Where applicable supply of materials and installation on any gates and fencing required;
- Registration ( Licensing) of grid at completion of works and
- On-going maintenance of the grid
- Purchase and construction of grid to specification **IF** the applicant intends to carry out the installation and construction of the grid by other and not by Council

Council:

- Where applicable remove existing grid and abutments;
- Construct temporary side track with appropriate construction- works signage for the duration of the works;
- Installation of the new grid , abutments and signage;
- Complete associated Roadwork.

### **4.4 Upgrading of gates and grids**

4.4.1 Where Council requires a grid and/or gate to be upgraded to meet its current standard, Council will issue a Defect Notice to the landowner, and the landowner shall make all the necessary improvements as listed in the notice, at no cost to Council.

4.4.2 The landowner may approach Council to carry out the works under a Private Works Authorisation on a full cost –recovery basis. In such case, Council will:

- Provide an estimate cost of the work, and
- Provide an expected date of commencement and completion, prior to the Works Authority agreement being signed, and
- Carry out all work required, at such time as a suitable crew is in the area, so as to minimise travel/establishment costs.

4.4.3 Actual costs incurred will be charged to the landowner.

4.4.4 Council will require the landowner upgrading the gate and/or grid to lodge an Application for the Licensed Grid, at the site.

#### **4.5 Supply of Grids and Signs**

4.5.1 Council does not have any grids and /or abutments available for sale. However there are a number of businesses in the region, which manufacture grids for sale. All grids and abutments installed shall meet the strength requirements of T44 Highway Loading as defined by “Ausroads- 1992”.

4.5.2 Council may make available for purchase the required signs, posts and fittings through Council’s Store at market rates, plus handling and cost recovery

#### **4.6 Maintenance of Installation**

4.6.1 Maintenance of a grid installation is the responsibility of the licensee, and due diligence must be exercised proactively in identifying maintenance required to ensure safety of the travelling public, and in initiating remedial action when required.

4.6.2 Should Council identify that works required to correct any problems, Council will issue a Defect Notice to the owner and the owner shall rectify the defects.

4.6.3 If the works are not carried out within the time stated on the Defect Notice (usually sixty (60) days, less if it is a safety issue), then Council may undertake the works or remove the gate or grid and bill the owner.

4.6.4 The landowner must agree in writing as a condition of the license, prior to installing/upgrading the grid, to pay Council for all maintenance work carried out on the installation, whenever Council is unable to contact the landowner within a reasonable period, or if the repair work identified in a Defect Notice is not completed within the time stipulated in the Notice.

4.6.5 In the event of a safety hazard being identified at the grid, the owner is required to immediately correct the problem to a safe condition, which is satisfactory to Council and to specification

#### **4.7 Other Terms and Conditions**

Subject to satisfactory installation of grid(s), as set out in this policy, the applicants may be issued with a license on the following terms and conditions:

- The licence shall continue in force until cancelled by the Local Authority;
- The Local Authority may cancel this license at any time by giving three(3) months written notice to the licensee;

- The licensee shall secure with a reputable insurer, insurance cover for each grid, with respect to public liability of an amount not less than ten (10) million dollars. This insurance cover shall indemnify and keep indemnified both the landholder and the Council from and against any claim, action or proceeding in respect to injury or damage to any person or property arising out of the existence of the grid or gate, including for the duration of the construction period.
- Such insurance shall be maintained current for the duration of the existence of the grid.
- The landowner shall within fourteen (14) days of demand, deliver a copy of the Insurance Policy to the Local Authority as evidence of conformance with his obligations in regard to this condition
- The landowner making the application for a license to install/erect a grid is required to advertise this intention by advertising in the INFORM and one other newspaper that circulates within the shire. Council will arrange for the adjacent properties be advised of the intention to ensure that all interested parties are made aware of the proposed gate and/or grid.
- Council will not deal with an application for a grid license until a minimum period of thirty (30) days has elapsed from the date of publication.
- If a grid license is relinquished by the landowner, or cancelled by Council, the Council shall be responsible for removing the grid, gate and appurtenances from the road and reinstating the roadway to standard on either side of the grid.

#### **4.8 Technical Specifications – For erection of stock grids on public roads by private landowners.**

##### **4.8.1 License**

A stock grid shall only be constructed on a public road if it is licensed in accordance with Council Policy.

##### **4.8.2 Location and Alignment**

A grid shall only be constructed on a public road at the location (specified road chainage) authorised by Council

- A grid shall be constructed at right angles to the centre line of the road. This may mean that in some circumstances, the alignment of the grid will be skewed in relation to the alignment of the fence line.
- The centre of the grid shall be coincident with the centre of the pavement, whether or not it has been widened for curve requirements, or otherwise.
- The grade of the grid shall conform to the longitudinal grade of the road unless directed otherwise by the Director of Engineering Services.

The levels of the grid surface (including crossfall) shall be in accordance with the directions of the Director of Engineering Services

##### **4.8.3 Construction**

###### **General**

- The minimum width of the grid installation required by Council varies depending upon the road classification and type of road construction on which it is to be built.
- Grids shall be constructed to the dimensions and details on the Etheridge Shire Council Standard Drawings. Where those drawings are silent, the specifications shown on the Main Roads Standard Drawings 1351 and 1352 are to apply.
- All excavations and subsequent disposal of spoil shall be carried out in an environmentally responsible manner in accordance with Council's Environmental Policy.
- Approach ramps (if ordered) shall be constructed in accordance with the grades shown on the Drawings. The quality of the material used in the ramps, and the construction method employed, shall be in accordance with current Council standards and practices and shall require approval of the Director of Engineering Services.

###### **Ground Preparation**

- In poor soil conditions Council may use selected fill beneath the abutment and floor which will be maintained by the applicant.

In special circumstances the Council may concrete an erosion protection slab between the footings to be maintained by applicant

**IN THE EVENT THIS WORK IS TO BE CARRIED OUT BY THE APPLICANT OTHER THAN COUNCIL CREWS THE FOLLOWING WILL APPLY.**

**Concrete Abutments**

Abutments may be either purchased precast from a manufacturer, or cast in situ. In all cases the concrete in the abutments and the slab shall be a minimum of Class 32Mpa/20 unless directed otherwise by the Director of Engineering Services.

If precast abutments are used, the abutments shall be certified to meet the requirements of Austroads T44 loading. If cast in situ, the concrete shall generally be supplied by a quality assured, commercial concrete supplier. Alternatively, where permitted by the Director of Engineering Services, the concrete may be batched on site.

Where on-site batching of concrete is permitted, the **Specification for Volumetric Batching of Concrete in Figure 1** shall apply and:

- Each abutment shall be cast in a single placing operation in accordance with **Attachment B** or alternatively as a two section placing operation as detailed on Drawings.
- Care shall be taken during the placing operation to ensure that proper filling of the formwork and adequate compaction of the concrete is achieved, and that all associated reinforcement tie bars (where employed) and holding down bolts are correctly positioned.
- Provide continuous moist curing or wrap in impervious membrane all concrete components for a minimum of two (2) continuous days following initial set.
- All formwork shall remain in position for the above mentioned period.
- Mixing and placing operations shall not take place during extremely hot (ambient air temperature in excess of 45° C) or extremely cold (ambient air temperature less than 5° C) weather conditions unless the Director of Engineering Services approves otherwise.
- The minimum cover requirements of reinforcing steel shall be 30mm as per AS3600. Reinforcing Steel shall be sized and fixed in accordance with DSC Standard Drawings- **Attachment D**.
- No alterations to the design of the abutments may be made without prior consent of the Director of Engineering Services.
- A 200UB, 18.2kg railway line or equivalent wear plate shall be placed in the top face of the abutment. This plate shall be placed in the top face of the abutment. This plate shall be embedded in the concrete but should be slightly raised ensuring the grid is sitting on the steel and not wearing the concrete.
- To ensure the stability, four (4) sets of holding down bolts shall be installed for each grid panel, one (1) at each corner.

**Grid Steel Work**

The completed structure shall meet the strength requirements for "Austroads-1992" T44 loading.

Commercial manufacturers may supply pre-assembled steel grids certified by a practising structural engineer to meet the requirements of Austroads T44 loading. Alternatively, steel assemblies shown on the attached DSC Standard Drawings may be used. No changes to these configurations shall be made without prior consent of Council.

**Bearers:**

- Bearers shall be 250 UB 37.3
- All members must be at least Grade 300 steel.

**Rails:**

- Rails are to be 100mm X 50mm X 6mm RHS
- All members must be at least Grade 450 steel

Although not preferred, rails may be constructed using sections of railway line, but the sections to be used (bed, bearers, and grid rails) shall be no heavier than 60lbs rail (31kg mass)

**Connections**

- The specifications given in the attached drawings must not be deviated from in any way without the prior written consent of the Director of Engineering Services.
- The connection of the top rails to the bearers will be via 6mm welds along the top of the bearer rail connection. Welding shall be AS/NZ 1534.1.
- Each grid unit must be connected to the abutments at four locations by way of holding down bolts. The bolts shall be designed such that the grid can be removed if necessary. Refer to Etheridge Shire Council Standard Drawings.

**Backfilling**

Once the abutments are in place and the initial curing of the concrete has taken place, then the space between the opposing abutments can be backfilled and compacted. If Council has determined an erosion slab is necessary, the slab shall be installed.

Selected fill can also be put in place on the outside of the grid abutments and compacted to bring the road level up to the same level as the top of the concrete abutments. Compaction may be required to meet the compaction standards stated in the Drawings

**Endwalls/Wingwalls**

Endwalls / Wingwalls shall be constructed to the dimensions shown in the drawings. They may be constructed of concrete or be stone pitched. Their purpose is to prevent earth from collapsing from the road embankment at each end.

**Stone Pitching**

Stone pitching shall consist of sound (preferably igneous) rock, which will not disintegrate in water, or otherwise weather rapidly.

The minimum stone dimension shall be 150mm unless approved otherwise by the Director of Engineering Services.

The stone pitching may be hand –placed dry packed, or grouted with cement mortar consisting of 1 part (by volume) of cement to 3 parts of approved sand. The mortar shall be worked between the stones to a depth of at least 75mm. New grouting shall be shaded and kept damp for a period of not less than 48 hours

**Concrete**

Free-form concrete a minimum of 75mm thick and complying with the specification for the abutments, but with 12mm max aggregate size, may be used

**End Structures**

In case of a traffic incident that impacts on posts or rails on the sides of a grid, the posts or rails shall provide minimal resistance (i.e. be frangible) and collapse, or fall away easily and relatively safely under the impact.

Accordingly, no fence line strainer post or other solid posts (e.g. rail-line used as post) shall be placed closer than three (3) metres from the side of the grid. This is because such posts can cause considerable damage to an errant vehicle. A light tubular steel (RHS) “wing panel” with a white painted sight-board or a hand –strained fenced connection between the strainer post and the end panel on the grid, as shown in the Etheridge Shire Council Standard Drawings in **Attachment D** is preferred. Maximum post size within the frangible zone shall be 65mm outside diameter with 2.3mm wall thickness steel pipe or equivalent.

Prefabricated end panels as shown in the Etheridge Shire Council Standard Drawings in **Attachment D** may be installed. Note that all horizontal rails parallel to the direction of the traffic, shall have fully welded connections, and be housed within an outer frame.

No unrestrained horizontal rails parallel to the direction of the traffic, of any description, are permitted, as they constitute a potential “horizontal spear hazard” for motorists. If such currently exists they shall be removed and replaced with an acceptable arrangement.

Tubular steel panels shall be prefabricated from galvanised pipe manufactured in accordance with AS 1450, to the dimensions as shown in **Attachment D**.

### **Width Markers**

In all cases width markers shall be erected at each end of the grid to define the grid width to approaching traffic. Refer to **Attachment B** (see clearance requirements).

### **Delineators**

Where the approach road alignment requires it, delineators (guideposts) shall be installed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) to guide traffic safely through the stock grid installation. Delineators may be ordered at construction by the Director of Engineering Services, or at any time under a Defect Notice.

### **Grid Warning Signs**

Reflectorised grid warning signs shall be provided at both approaches to the grid ( in accordance with MUTCD).

Unless directed otherwise by the Director of Engineering Services, warning signs for the grid shall be erected as follows:

- On the left hand side of the road (facing the oncoming traffic), distant from the gate or grid not less than 75m and not more than 200m.
- Positioned not less than 2m and not more than 4m from the edge of the carriageway unless directed otherwise by the Director of Engineering Services.
- Angled to the road as necessary to provide satisfactory visibility to approaching traffic.
- On galvanised steel pipe, outside dia.65mm, 2.3mm wall thickness.

Signs shall be bolted to posts using two (2) 12mm diameter galvanised cup-head bolts, nuts and washers, and brackets.

All posts shall be erected vertically and shall be embedded a minimum of 600mm into solid ground.

Materials List for “Grid “signage is as follows:

- 2x”GRID” warning signs (W5-16B)
- 2x”ONE LANE” warning signs (W8-16B) single grids only
- 2x posts and sets of brackets
- 2x Width Marker – Left ( D4-3A(L)) single grids only
- 2x Width Marker – Right (D4-3A(R)) single grids only

### **Double Grids**

Where the grid is so wide that it requires construction using two separate grid panels, the two grids shall be connected together with M24 bolts at 300mm centres and secured using nylon locknuts to prevent them vibrating loose, and to facilitate removal if/when necessary. The distance between the two grids shall be a maximum of 40mm.

### **Safety and Road usability during installation**

The applicants prior to commencement and during the entire period necessary for installation of the grids, shall take all necessary steps for the protection of travelling public during excavation, concrete works, laying and setting of the grid and fencing , by:

- Erecting suitable barriers together with appropriate warning signs and devices, in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and as directed by Council's Director of Engineering Services, warning of the work in progress;
- Constructing a safe and adequate side track to allow traffic to by-pass the construction site and as directed by Council's Director of Engineering Services; and
- Repairing or causing to be repaired , any damage to the roadway caused through such excavation, concrete works, laying and setting of the grid and fencing , with repairs to be effected in such a manner so as to restore the roadway to a similar state and condition as existed prior to the commencement of the works.

### **Inspection and hold points**

In the event that approval is granted for a grid, a person shall not commence construction or placement until Council carries out the following inspections and the authorisation is given to proceed:

- The steel grid structure (other than for an approved pre-fabricated grid) must be either certified by a practising Structural Engineer, or alternatively, inspected by Council to determine compliance with the Etheridge Shire Council Standard Drawing, prior to transport to site. (Approved pre-fabricated grids compliant with relevant specifications are available for purchase from commercial grid manufacturers.)
- The exact location at which a grid is to be located must be inspected and approved by Council so that issues of safety concerning sight distance etc. are determined.
- Concrete abutments/slabs must be inspected by Council, at the following Hold Points:
  - ❖ When excavation and steel fixing is completed and prior to pouring; and
  - ❖ On completion of pour and once grid has been mounted.
- An inspection to ensure all appropriate signage has been installed is required upon completion.

**An inspection may be arranged by contacting Council's Engineering Department on phone: 40621233 at least fourteen (14) prior to the date the inspection is required.**

## **6. AUTHORITIES AND ACCOUNTABILITIES**

The Director of Engineering Services is the authority that is accountable for the administration of this policy.

## **7. RELATED DOCUMENTATION**

Roads Policy



## 8. APPROVAL TABLE

Approved by Council	Meeting number and date	
GMES2, 19 November 2014 Resolution No: 2014/GM1188	GM, 17 <sup>th</sup> May 2019	
	Resolution number	
	2019/GM2619	
Approval by CEO	David Munro	
Effective date	Review date	
19 November 2014	30 <sup>th</sup> June 2021	
Policy Author		
Director of Engineering		
Current incumbent		
Implementation Officer		
Director of Engineering		
Current incumbent	Contact number	Official file no.
	4062 1233	

Annexure A

Figure 1-Specification for on-site volumetric batching concrete

**SPECIFICATION FOR ON-SITE VOLUMETRIC BATCHIN OF CONCRETE**

(Where permitted by the Director of Engineering Services, the following specification shall apply)

- The concrete mix shall consist of 1 part cement to 3.5 parts of combined aggregate (coarse and fine), with the minimum amount of water (sufficient only to give a workable mix) added.
- Coarse aggregate shall be sound, clean, hard stone of approved quality, free from organic and other impurities. All of the coarse aggregate shall pass 37.5mm A.S. sieve with a minimum 98% being retained on a 2.36mm A.S. sieve.
- Fine aggregate shall be sound, clean sand approved quality, free from organic and other impurities. All of the fine aggregate shall pass a 4.75mm A.S. sieve.
- The combined aggregate grading shall require approval of the Director of Engineering Services. At least 8% by weight of the combined aggregate shall pass a 300µm A.S. sieve.
- Water shall be free from matter harmful to concrete and reinforcing. Where water is not free from colour or taste, a sample shall be submitted to the Director of Engineering Services for analysis.

The mixing operation shall continue until the component materials are thoroughly blended. Mixing by hand shall not be permitted,

#### **Attachment A – Road Classification for Grid Width**

##### **ROAD CLASSIFICATION FOR GRID WIDTH**

<b>Road Width Discretionary</b>	<b>Grid Width Minimum</b>	<b>Floodway Minimum</b>
Forsayth - Einasleigh	8 metres	8 metres

Forsayth – Agate Creek	6 metres	6 metres
Oak Park Road	6 metres	6 metres
Gregory - Kidston	6 metres	6 metres
Kidston - Gilberton	6 metres	6 metres
Strathmore	6 metres	6 metres
Abingdon Downs Station	6 metres	6 metres
Agate Creek - Ortona	4 metres	4 metres
Gilberton - Ortona	6 metres	6 metres
Other Multi Station Access Roads	6 metres	6 metres
Station Entrance or boundary	4 metres	NA
Undara	8 metres	8 metres
O'Brien Creek Gemfields Access Road	6 metres	6 metres

Where the Discretionary Clause Applies a grid width may be reduced to a minimum of 4 metres if, in the opinion of the Director of Engineering Services, and appropriate horizontal alignment for 150 metres either side of the proposed grid site exists to safely allow the grid width to be reduced to the minimum of 4 metres.

## **Attachment B – Guidelines for Maintenance**

### **Guidelines for the Maintenance and Care of Licensed Stock Grids**

The following is provided as an indicative guide, but the licensee is responsible to fulfil his duty of care with respect to the travelling public and initiate his own actions as the need arises. The safety of the travelling public is of utmost importance and urgent action by the licensee is required when appropriate.

<b>Broken Grid Rails:</b>	<ul style="list-style-type: none"> <li>• 1 rail- to be replaced within 48 hours</li> <li>• More than one rail – to be repaired immediately</li> </ul>
<b>Loose Grid Rails:</b>	Broken welds are to be repaired within 7 days.
<b>Signs:</b>	The licensee shall ensure that all requisite signs are in place and maintained in a satisfactory state. Any signs which are removed, damaged or have lost their reflective characteristics shall be replaced within 15 days of becoming aware.
<b>Delineation:</b>	Minimum delineation requirements identified in the Technical Specification and the Standard Drawings shall be maintained at all times. Damaged wing panels should be repaired within 10 working days. Width markers or delineators should be replaced within 7 working days.
<b>Fence Posts Construction</b>	Fence strainer posts in the fence line adjacent the grid shall be no closer to the edge of the grid than 3 metres.
<b>Road Subsidence</b>	Where the roadway immediately adjacent the abutments suffers subsidence, the licensee shall take action to fill the depression with sound gravel material to bring the surface back to grade.
<b>Visibility</b>	The licensee shall ensure that the structure remains in a highly visible state at all times. Any vegetation growth in the vicinity of, or on the approaches to the structure, which obscures or partly obscures visibility of the grid, shall be removed. The licensee shall ensure painted surfaces are maintained in a state of high visibility.
<b>Horizontal Spear Hazard</b>	Any unrestrained horizontal railings aligned parallel to the direction of traffic shall be immediately removed, as they present a particular hazard to traffic. Wire ties, small bolts or tack welding fixing the rails may not constitute satisfactory restraint in the event of impact by a vehicle.
<b>Non- Frangible Posts:</b>	Posts of greater structural strength than a 65mm OD steel pipe shall be removed from the "frangible" zone.

**Attachment C – Pro forma for Advertisement**

**Pro Forma of Advertisement to be inserted in two editions of a newspaper circulating in the area**

**APPLICATION FOR LICENSE TO ERECT GATE/AND OR GRID ACROSS ROAD**

In accordance with Chapter 3 Part 3 Division 1 Section 60 of the Local Government Act 2009, notice is hereby given of intention to apply for a license to erect a gate and/or grid across (LOCATION) between (LOT NUMBERS).

The application may be inspected at the offices of the Etheridge Shire Council and objections to the granting of the license may be lodged with the Chief Executive Officer on or before (INSERT DATE – must be two (2) weeks from date of advertisement)

Any such objections shall be in writing, shall be addressed to the Chief Executive Officer and shall set out the grounds of objection and the facts and circumstances relied on by the objector in support of those grounds.

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(APPLICANT)

## Attachment D- Standard Drawings

Project 100 C-000	1
Date 30/07/14	
Grade Felt Felt Felt	

## Summary

1. Concrete to be 24Mpa/20
2. 4.0mm down 20mm
3. One per 100 m<sup>2</sup> to be installed
4. One per 100 m<sup>2</sup> of each grid
5. 4.0mm
6. 2.00 Tons for 4.0mm
7. Main Roads Standard 20mm
8. 4.0mm
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99. 4.0mm
100. 4.0mm

Approved by : R. Samanasekera  
RPEQ 8471

Design by : S.Karabi



Grid

Report 03C-001	2	Sheet
Date 31/07/16		
Scale Not scaled		

