

Ku-ring-gai Council – Footpath Maintenance and Repairs  
Policy and Procedure

**Ku-ring-gai Council**

**Footpath Maintenance and Repairs  
Policy and Procedure**

**1. Purpose**

The purpose of this Policy is to formalise Council's policy and set of procedures for the maintenance and repair of Council's footpaths.

**2. Objectives**

The objectives of the Policy are to:

- Provide safe access for pedestrians and other users of Council's footpaths.
- Efficiently allocate available funding and resources for the maintenance and repair of the footpaths.
- Develop a priority for repairs.
- Minimise the ongoing maintenance problems by using effective repair treatments.
- Program repair work in association with Council's reconstruction program.
- Develop procedures for the reporting of injuries caused by tripping on footpaths and requests for repairs to damaged footpath.
- Develop a system for recording and reporting on the condition of Council's footpaths and reported injuries.

|                                     |                       |  |                  |                    |             |
|-------------------------------------|-----------------------|--|------------------|--------------------|-------------|
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| <b>Version</b>                      | <b>Effective date</b> | <b>Summary of changes</b>              |                  |                    |             |
| 1.0                                 | 8 Sept 2003           | Original                               |                  |                    |             |
| 2.0                                 | 23 June 2008          | Rewrite. Updated procedure and process |                  |                    |             |
| 3.0                                 | Sept 2011             | Rewrite. Updated procedure and process |                  |                    |             |
| 4                                   | Feb 2013              | Rewrite. Updated procedure and process |                  |                    |             |

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### **3. Definitions**

In this Policy:

**Defect** means any form of failure in the footpath surface, including raised pavement, cracking and irregularities. Failure can be structural and/or visual in nature.

**DN** is the abbreviation for Defect Number. It means the number assigned to a footpath defect recorded in the Footpath Maintenance Database. It is based on the type of defect and the location category.

### **4. Legislative Framework**

Under the *Roads Act 1993*, Council, as the road authority, is responsible for the care, maintenance and control of the public road reserve.

In 2001, the High Court of Australia abolished the non-feasance provisions previously applied to Councils and Road Authorities. On 18 June 2002, the State Government introduced the *Civil Liabilities Act* relating to the awarding of damages against Councils. This Policy and Procedure is developed to manage risk and to allocate funding on a priority basis.

### **5. Principles**

#### **5.1 Issues**

The main concern with lifting or damaged footpaths is the danger it presents to pedestrians when using Council's footpaths. There is a need for Council to be proactive and effect footpath repairs particularly in busy streets near shopping centres and transport modes where pedestrian movements are high.

The main causes why footpath slabs are raised or broken is due to tree roots either from Council's street trees or trees within private property which are near the boundary. Other significant causes of damage relate to openings in the footpath caused by public utility authorities or tradespeople. Damage to footpaths can also be caused by unauthorised vehicles driving onto the footpath.

In general terms, footpaths which are not subjected to any of the above conditions can remain in a serviceable condition for a significant period without the need for replacement. Whereas, footpaths subject to some or all of the above problems can deteriorate quickly and may require continual repair.

#### **5.2 Nature Strips**

Generally, Council will not undertake work on the nature strip where there is no formed footpath. Any work to ensure safe pedestrian access would need to be

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determined by an assessment of factors such as pedestrian usage or drainage problems.

Council is not responsible for repairs and maintenance of retaining walls on nature strips. Refer to Council's policy *Private Use of Road Reserves and Nature Strips*.

## **6. Implementation**

Civil Works section is responsible for the implementation of this Policy and Procedures.

Operational details of procedures are set out in the *Footpath Maintenance Procedures*.

The stages of implementation are explained below and summarised as follows:

- Identification
- Evaluation - Prioritisation of footpaths between 1 to 6
- Programming - Rating of footpaths and program
- Establish controls – notification handling, response times
- Treatments

### **6.1 Identification**

There are three (3) forms of identification methods:

#### **(i) Scheduled Inspections**

This is a survey of existing footpaths, which identifies tripping and cracking defects in the footpath, from which a comparative rating of the condition of the footpath is established. The information is recorded in a database and as sections of footpath repairs are completed the database is updated. Council area is fully surveyed on a five (5) year cycle to investigate for any new trip hazards and audit the database.

The 10 Year Footpath Inspection Schedule is included as an attachment to the *Footpath Maintenance Procedures*. It should be noted the greater the usage then the more frequent the inspections.

#### **(ii) Complaints/Requests from public**

When members of the public report trip hazards or injuries relating to falls caused by raised sections of footpaths, Council is required to record the information in the Customer Request Management System.

If there has been a reported fall and injury sustained, then if appropriate, information relating to the incident should be reported to Council's Insurance Co-

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ordinator with details of the location and cause of the fall. These requests are to be responded to promptly with action taken, as soon as possible, to make the area safe.

**(iii) Authorised openings**

At times, Public utility authorities and tradespeople are required to carry out footpath and road openings when new cables are to be laid or connections made to the service mains. A completed application must be submitted and the relevant fee paid prior to any work commencing. The Conditions of Opening are stated on the application form including the management and control of traffic and pedestrians during the work.

Temporary restorations are to be done to make the area safe. The exact dimensions of the opening are advised to the Restorations and Driveways Engineer who will issue the order to the Depot or Council's contractor to effect the permanent restoration work. Details of the permanent restoration work are covered in Council's specification.

**6.2 Evaluation**

The evaluation for footpaths relates to the risk management processes. The two (2) main criteria for evaluation are *severity of the footpath defect* and the *frequency of use* which are explained below. This criteria is used in a Matrix as shown in **Table 1.0** to determine the priority of the repair to the trip hazard.

**Table 1.0 - Prioritisation of footpath hazard**

| Severity of the footpath defect<br>(Displacement Height) | Frequency of Pedestrian Usage |                         |                      |
|--|-------------------------------|-------------------------|----------------------|
|  | Cat A<br>(High Usage)         | Cat B<br>(Medium Usage) | Cat C<br>(Low Usage) |
| >20mm  | 1                             | 2                       | 3                    |
| 10mm – 20mm  | 3                             | 5                       | 6                    |

**6.2.1 Severity of the footpath defect**

The severity categories are based on the height of the trip hazard between consecutive footpath slabs.

Sites with displacement heights greater than 10mm would require either removal and replacement or grinding. Sites with displacement heights less than 10mm are not recorded or repaired, unless repairing adjacent defects. These may be ground down using a concrete grinding machine.

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### 6.2.2 Frequency of Pedestrian usage

The frequency of use category is based on pedestrian usage and identified areas throughout the Council area where pedestrian use is expected to be high. It includes the consideration of the type of user.

The three (3) frequency categories are:

|                   |  |
|-------------------|--|
| <b>Category A</b> | High pedestrian usage – such as at shopping centres and railway stations   |
| <b>Category B</b> | Medium pedestrian usage – such as at schools, nursing homes and aged car facilities, and the outskirts of shops and railway stations |
| <b>Category C</b> | Low usage – general local residential streets without schools, nursing homes or bus routes.  |

### 6.3 Programming

#### 6.3.1 Rating of footpath trip hazard

The percentage of cracks (%C) and percentage of trippers (%T) is determined for each frontage. The frontage is rated in a similar format as AAS27.

Trippers are rated a greater problem due to the potential safety hazard. The number of cracks must be analysed as to being a potential source of trippers and unserviceability of the path.

The rating for the section is determined from an average of the frontage ratings as shown in Table 2.0 below:

**Table 2.0**

| Rating | Expired Life | Description                    | Condition T | Condition C |
|--------|--------------|--------------------------------|-------------|-------------|
| 1      | 40           | Asset unserviceable            | %T>50       | %C>70       |
| 2      | 30           | Major reconstruction required  | 25<=%T<=50  | 35<=%C<=70  |
| 3      | 20           | Serious deterioration          | 5<=%T<25    | 15<=%C<35   |
| 4      | 10           | Some superficial deterioration | 1<=%T<5     | 5<=%C<15    |
| 5      | 0            | Near perfect                   | %T<1        | %C<5        |

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### 6.3.2 Develop Program for Footpath maintenance and repair

The entire Council area is inspected every five (5) years, with the high pedestrian areas inspected more regularly. Scheduled inspections are to be undertaken as follows:

|                   |                         |  |          |
|-------------------|-------------------------|--|----------|
| <b>Category A</b> | High Pedestrian Usage   | Shops and Railway Stations   | yearly   |
| <b>Category B</b> | Medium Pedestrian Usage | Schools, Nursing Homes and the outskirts of Shops and Railway Stations | 3 yearly |
| <b>Category C</b> | Low Usage               | Local Residential Streets  | 5 yearly |

The 10 Year Footpath Inspection Schedule is included as an attachment to the *Footpath Maintenance Procedures*.

An inspection rates the section and identifies the defects – both for immediate action and for future programming.

### 6.4 Establish controls

Following the programming, it is necessary to establish control mechanisms for undertaking temporary maintenance for:

- dealing with high to low risk footpath trip hazards;
- dealing with complaints from the public, service requests from staff and authorised openings.

It is intended with a programmed approach to repairing surveyed trip hazards, the amount of complaints and service requests will reduce. However, there needs to be a sufficient amount of funds available each year to repair sites which have recorded complaints or service requests.

#### 6.4.1 Authorised openings

These sites generally represent a potential danger and can be made safe during the work by the erection of barricades and lighting, then temporarily repaired until permanent repairs can be effected.

Authorised openings are restored once Council has been advised the work is completed. Requirements for temporary restoration of authorised openings render the site safe until permanent repairs can be carried out.

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### 6.4.2 Notification handling

With a complaint from the public relating to trip hazards or falls, the matter is reported in the following manner:

- by phone call to Customer Service which creates a Customer Management Request (CRM) for the attention of the Civil Works Section.
- by letter or email which is recorded in the electronic record management (TRIM) and actioned to the Civil Works Section.
- CRM's and TRIM actions are investigated and required repair work is scheduled by the Civil Works Section.

### 6.4.3 Response times for temporary repair

Complaints or Service Requests relating to Priority 1 sites should be made temporarily safe within 24 hours.




For Priority 2 and 3, sites should be made temporarily safe within 1 to 6 weeks of notification, subject to assessment of the location.

For Priority 4 to 6, sites are considered whether action should be taken now or programmed as resources permit.

A summary of response times for complaints or service requests relating to trip hazards is shown in the table 3.0 below, based on the prioritisation table 1.0 above.

**Table 3.0 – Response times for temporary repairs**

| Severity of the footpath defect (Displacement Height) | Frequency of Pedestrian Usage |                           |                        |
|---|-------------------------------|---------------------------|------------------------|
|   | Category A (High Usage)       | Category B (Medium Usage) | Category C (Low Usage) |
| >20mm   | 1                             | 2                         | 3                      |
| 10mm – 20mm   | 3                             | 5                         | 6                      |

|   |                      |
|---|----------------------|
|  | 24 hours             |
|  | 1 to 6 weeks         |
|  | As resources permits |

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## **6.5 Treatment**

### **6.5.1 Temporary Repairs**

Temporary repair consists of using asphalt to ramp the raised section of concrete slab or to bridge over the damaged or raised section if it is an asphalt footpath.

### **6.5.2 Permanent Repairs or Rehabilitation**

Permanent repairs or rehabilitation of sections of footpath are programmed based on the category and rating from the scheduled inspections. Generally, full sections of the footpath are rehabilitated. Refer to the *Footpath Maintenance Procedures* for further details.

### **6.5.3 Footpath Slabs Subject to Tree Growth**

Tree roots cause displacement of footpath slabs. It is necessary to try and prevent a continuation of the trip hazard from the tree roots as they continue to grow.

Tree roots cannot be removed unless approval is given by the appropriate Tree Management Officer. The slab directly over the roots and the slabs either side of the area are removed. All slabs are replaced with asphalt. This allows movement as the tree root continues to grow and can be more easily replaced as necessary.

### **6.5.4 Footpath Slabs Subject to Vehicular Movement**

When footpath slabs have been damaged by vehicles, the footpath slabs are to be replaced as they constitute a trip hazard. Replacement slabs are a minimum of 100mm thick and reinforced with F72 reinforcing mesh. Where driveways exist, the replacement will be in accordance with Council's Standard Drawing after a site assessment.

### **6.5.5 Footpath Slabs with Minor Displacements**

Where the displacement between footpath slabs is less than 10mm and the slabs are in good condition with no visible signs of cracking, it may be possible to grind the high slab using a concrete grinder until it matches the adjoining slab. This treatment should not be used more than twice as continued grinding reduces the slab thickness and its ultimate strength. The slab should be ground smooth and not leave any rutting.