

Code of Practice for Working on the Road

This code applies to all work affecting roads in Wellington City

August 2006



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ME HEKE KI PŌNEKE
WELLINGTON CITY COUNCIL

Wellington

FOREWORD

This code is based on earlier revisions that have been used and accepted for many years. Revisions have been produced from time to time to make work activities on the roads more effective and to align the requirements with national practices where possible. This code facilitates the efficient and effective management of the diverse range of work activities on the roads of Wellington. Feedback and suggestions are welcome to help ensure the code will continue to reflect the best interests of the citizens of Wellington.

ACKNOWLEDGEMENT

A special note of thanks is made to Standards New Zealand for permission to use parts of their New Zealand Handbook 'Code of Practice for Working in the Road, SNZ HB 2002:2003'

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CONTENTS

Page

FOREWORD	1
ACKNOWLEDGEMENT	1
1. INTRODUCTION	6
2. INTERPRETATION	7
3. RESPONSIBILITIES	9
3.1 GENERAL.....	9
3.2 SAFETY.....	9
3.3 EMERGENCY RESPONSE	9
3.4 COST OF REMEDIAL WORK	10
3.5 PUBLIC LIABILITY INSURANCE	10
3.6 STOP WORK ORDERS.....	10
3.7 ROAD WORK NOTICE FEE.....	10
3.8 OTHER FEES.....	10
3.9 DEPOSITS.....	10
4. PRIOR APPROVAL OF WORK	11
5. ROAD WORK NOTICE	12
6. COMPLETION NOTICE	13
7. PLANNING OF WORK	14
7.1 RESOURCE CONSENTS	14
7.2 ENCROACHMENT LICENSES.....	14
7.3 PLANNING AND CO-ORDINATION BETWEEN PRINCIPALS	14
7.3.1 General	14
7.3.2 Co-ordination Meetings	14
7.3.3 Carriageway And Footpath Resurfacing Planning	14
7.3.3.1 Annual Programs	14
7.3.3.2 Short notice resurfacing work.....	14
7.3.4 Trench Sharing	15
7.3.5 Co-operation	15
7.4 SIZE, NATURE, AND POSITIONING OF UTILITIES AND STRUCTURES.....	15
7.4.1 General	15
7.4.2 Separation from other features	15
7.4.2.1 Separation from trees.....	15
7.4.2.2 Separation from other utilities	16
7.4.2.3 Separation from kerbs or water channels.....	16
7.4.3 Depth of utilities	16
7.4.4 Utility chamber covers	16
7.4.5 Tidiness of overhead utilities	17
7.4.6 Height of overhead utilities	17
7.4.7 Poles	17
7.4.7.1 General	17
7.4.7.2 Position.....	17
7.4.7.3 Poles with adjacent Pedestal/Cabinet/Structure.....	17
7.4.7.4 Consultation.....	18
7.4.7.5 Signs on poles.....	18
7.4.8 Pedestals, Cabinets and other above ground structures	18
7.4.8.1 Size, shape and appearance	18
7.4.8.2 Absence of pedestals/cabinets/structures in Commercial areas	18
7.4.8.3 Position.....	19
7.4.8.4 Consultation.....	19
7.4.9 Stormwater pipes to kerb and channel	19

7.5	MARK OUT AND LOCATION OF UNDERGROUND UTILITIES	19
7.5.1	General	19
7.5.2	Traffic light cables and detector loops	20
7.6	SURFACE LEVEL SURVEY	20
7.7	DURATION OF THE WORK.....	21
7.8	NOTIFICATION OF PUBLIC	21
7.8.1	Information signs	21
7.8.2	Letter drops	22
7.8.3	Extensive notification	22
8.	GENERAL CONSTRUCTION REQUIREMENTS	23
8.1	NORMAL HOURS OF WORK	23
8.2	NOISE	23
8.3	CONSTRUCTION SITE.....	24
8.3.1	General	24
8.3.2	Size	24
8.3.3	Tidiness	24
8.3.4	Contractor's name on equipment	24
8.3.5	Traffic management	25
8.3.5.1	General	25
8.3.5.2	Application of the <i>Local Road Supplement</i>	25
8.3.5.3	Special traffic needs	26
8.3.5.4	Conflict with trolley buses.....	27
8.3.5.5	Moving of legally parked vehicles	27
8.3.5.6	Moving of illegally parked vehicles	27
8.3.5.7	Use of restricted kerbside parking areas	27
8.3.5.8	Use of footpaths.....	28
8.3.5.9	Access to properties.....	28
8.3.5.10	Closure of roads	28
8.3.6	Work near overhead wires	28
8.3.7	Parking offences	28
8.4	STORM WATER CONTROL	28
8.5	DAMAGE TO OTHER PROPERTY	28
8.5.1	General	28
8.5.2	Damage to underground Utilities	29
8.5.3	Damage to trees	29
9.	EXCAVATION	30
9.1	EXCAVATION NEAR TREES	30
9.2	EXCAVATION NEAR A KERB AND/OR CHANNEL	30
9.3	INITIAL CUTTING OF PAVEMENTS	30
9.4	MOVEMENT OF ADJOINING PAVEMENT OR ROAD FOUNDATION	31
9.5	EXCAVATION NEAR A POWER POLE OR TROLLEY BUS WIRE POLE	31
9.6	EXCAVATION IN A GARDEN AREA	31
10.	BACKFILLING	32
10.1	GENERAL.....	32
10.2	REMOVAL OF POLES AND BASES OF STRUCTURES	32
10.3	BEDDING MATERIAL	32
10.4	BACKFILL MATERIAL	33
10.4.1	Deeper backfill material	33
10.4.2	Base layer	33
10.4.2.1	Basecourse	33
10.4.2.2	Concrete	33
10.4.3.	Under kerb and channels	34
10.4.4	Around poles	34
10.5	COMPACTION.....	34
10.5.1	General	34
10.5.2	Testing	34

11.	TEMPORARY SURFACES	35
11.1	GENERAL.....	35
11.2	MATERIALS	35
11.2.1	Asphalt - Carriageways and footpaths	35
11.2.2	Steel plates - Carriageways and footpaths	35
11.2.2.1	Steel plates in Carriageways	35
11.2.2.2	Steel plates in Footpaths.....	35
11.2.3	Tightly bound basecourse - Footpaths and kerbside parking areas only	35
11.3	DISPENSATION.....	36
11.4	DURATION.....	36
11.5	TEMPORARY ROAD MARKINGS.....	36
11.6	MAINTENANCE OF TEMPORARY SURFACES	36
12.	REINSTATEMENT OF KERB AND CHANNELS, RAMPS AND VEHICLE CROSSINGS	37
12.1	KERB AND CHANNEL	37
12.2	STORMWATER OUTLET IN KERB	37
12.3	PEDESTRIAN RAMPS.....	37
12.4	RESIDENTIAL KERB CROSSINGS	38
12.5	COMMERCIAL FOOTPATH CROSSING	38
13	REINSTATEMENT OF PAVEMENTS	39
13.1	FINAL CUTTING OF SURFACE	39
13.1.1	General	39
13.1.2	Standard trimming allowance	39
13.1.3	Neat cutting pattern	39
13.1.4	Extra trimming near surface joints/cracks	40
13.1.5	Extra trimming in new surfaces	40
13.1.6	Full width reinstatement of cycle lanes	40
13.1.7	Full width reinstatement of footpaths and driveways	41
13.1.7.1	General.....	41
13.1.7.2	Concrete surface minimum panel length.....	41
13.1.7.3	Exception for small holes.....	41
13.2	CARRIAGEWAYS.....	43
13.2.1	General	43
13.2.2	Permanent surface levels	43
13.2.3	Asphalt surfaces	43
13.2.3.1	Tack coat.....	43
13.2.3.2	Asphalt	43
13.2.3.3	Emulsion and sand sealing of joints	44
13.2.4	Reinstatement in chip seal surfaces	44
13.2.5	Block Paving surfaces	44
13.2.6	Special surfaces	45
13.3	FOOTPATHS AND DRIVEWAYS.....	46
13.3.1	General	46
13.3.2	Permanent surface levels	46
13.3.3	Asphalt surfaces	46
13.3.3.1	Tack coat.....	46
13.3.3.2	Asphalt	46
13.3.3.3	Emulsion and sand sealing of joints	46
13.3.4	Concrete surfaces	46
13.3.5	Block Paving Surfaces	47
13.3.6	Special Surfaces	47
13.3.7	Steps	47
14.	REINSTATEMENT OF BERMS	48
15.	REINSTATEMENT OF GARDEN AREAS, SHRUBS AND TREES	48
16.	REINSTATEMENT OF BATTERS	49
17.	REINSTATEMENT OF ROAD MARKINGS	49
18.	MAINTENANCE	49

APPENDICES

Appendix A – Road Work Interaction Process..... 50
Appendix B – Prior Approval Application Form 51
Appendix C – Road Closure Request Form..... 52
Appendix D Standard Letter Notifying Public 53
Appendix E – Road Work Notice – Obtainers copy (Sample only) 54
Appendix F – Road Work Notice – Road Controllers copy (Sample only)..... 55
Appendix G – Completion Notice (Sample only) 56
Appendix H - Utility damage report form..... 57
Appendix I Scala Penetrometer Test Results Form 58
Appendix J - Clegg Hammer Test Results Form 59
Appendix K- Main Roads 60
Appendix L - Heritage And Notable Trees..... 61
Appendix M – Separation Distances Between Utilities 65
Appendix N - Concrete Steps..... 66
Appendix O – Pedestrian Ramp..... 67
Appendix P – Exposed Aggregate Edges to Service Covers/Other areas 68

1. INTRODUCTION

The object of this code is to minimise the inconvenience and damage that could be caused by any work on the road to the public, road assets, or other property. Such works are commonly carried out by either a Utility Company, the Council, a Contractor, or member of the public. In writing this Code it was recognised that the cost of work in the roads is ultimately paid by the Public. Therefore these rules and procedures are meant to be fair, efficient and affordable.

Should this Code not seem reasonable for a specific situation then the Road Controller may agree to a variation. Such matters should be raised by the Principal or the Contractor and agreed with the Road Controller before any variation occurs. Often this would be identified during planning for the job and be raised in the application for Prior Approval (Refer to Section 4)

2. INTERPRETATION

- “Asphalt” - Asphaltic Concrete manufactured to comply with the TNZ M/10 P:1992 specification and laid in accordance with the TNZ P/9 :1975 specification.
- “Batter” - Sloped road side areas usually covered in scrub, shrubs or trees.
- “Berm” - Reasonably level road side areas usually planted with grass.
- “Carriageway” - Areas of road formed specifically for vehicle use by the general public including adjoining water channels and any shoulders areas between them.
- “Contractor” - Any party that carries out the physical work.
- “Council” - Wellington City Council.
- “Cycle lane” - Area of road marked specifically for cycle use.
- “Driveway” - Paved berm and batter areas formed specifically for access to adjoining properties.
- “Footpath” - Area of road formed specifically for pedestrian use.
- “Main road” - Those roads either listed or described as a Main Road in the Appendix K.
- “Pole” - A pole for supporting Utilities, signs, lights or other structure above the road.
- “Principal” - The party paying for the work to be done. This would normally be a Utility Operator, the Council, or other owner of an asset being maintained or installed.
- “Public” - Any person.
- “Road” - The whole of any land vested in the Council for the purposes of road. Typically this contains carriageways, footpaths, driveways, berms, and batter areas. Refer to figure 1.
- “Road Controller” - That person, part of Council, or party given the responsibility to control Road work. Currently this is the Road Controller in the Infrastructure Directorate - Transport Group, ph 801 3880, Fax 801 3018, 24 hr C/- ph 499 4444.
- “Road work ” - Any construction work or associated investigation work being carried out above, below, or on the road.
- “Trench” - Any excavation in the road, or damage to the surface of the road.
- “Utility” - A pipe, conduit, cable, wire, valve, cabinet, pedestal, substation, regulator station, telephone box, post box, pole, sign, or constructed structure.
- “Utility Operator” - The recognised owner of a Utility network.
- “Vehicle crossing” - The kerb and footpath entrance to a driveway.

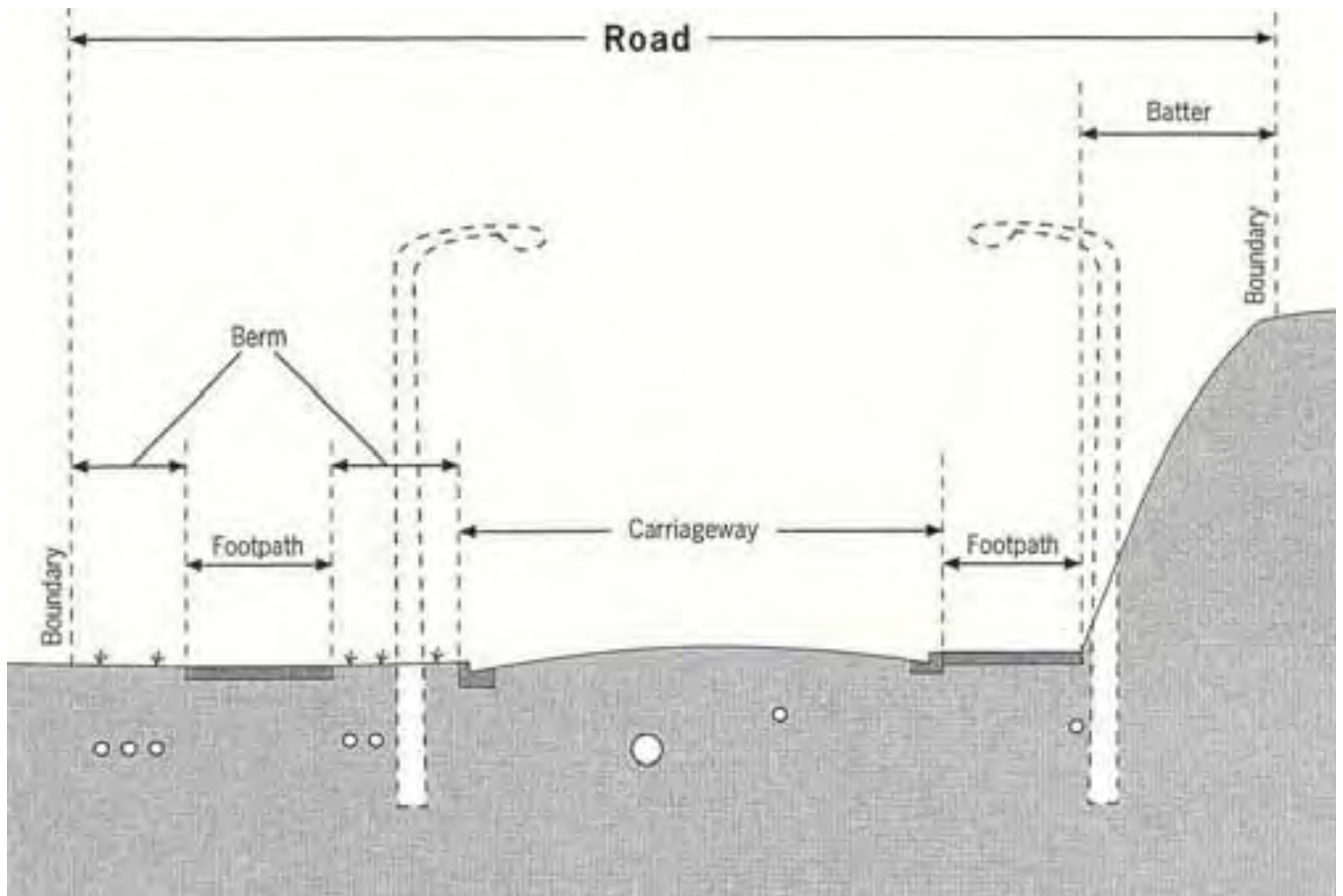


Figure 1 - Typical road cross-section

3. RESPONSIBILITIES

3.1 General

The Principal and their Contractor/s shall be responsible to ensure all requirements of this code are met. Should the Contractor/s not oblige then the Principal must take ultimate responsibility to ensure the requirements are met.

In addition to the requirements of this Code the work must be carried out to comply with any other Council requirements or Acts and Regulations of Parliament and any amendments thereof. Requirements and Acts are:

- Health and Safety in Employment Act 1992
- Land Transport Act 1998
- Litter Act 1979
- Resource Management Act 1991
- Transport Act, 1962
- Traffic Regulations 1976
- The various Utility Acts
- Wellington City Council District Plans rules
- Wellington City Council Consolidated By-laws 1991 (including 'Drainage and Plumbing', Section 7, 'Earthworks', Section 8, 'Roads and Public Places', Section 17)
- OSH Services 'Guide for Safety with Underground Services'

3.2 Safety

The safety needs of the Public and the Contractor must be properly considered and met at all times during the work. In this respect the Contractor must:

- Have a reasonable safety plan prepared before the work starts
- Carry out their work in a safe manner
- Ensure the work site is maintained in a safe manner both during and after work hours

3.3 Emergency response

The Principal or their Contractor must be able to be contacted by means of a telephone at all times, both during and after work hours. This is in case of a dangerous or an unacceptable situation occurring as a result of their work.

Any such telephone call to the Principal or the Contractor must be able to achieve the following:

- A response from a person within 15 minutes to say that the situation will be attended
- Arrival on site within a further 45 minutes of either the Principal or the Contractor and their action to minimise and if possible eliminate the hazard

3.4 Cost Of Remedial Work

Should the Work not meet a requirement of this code then the Principal and their Contractor shall be liable for any costs of the action of the Road Controller to remedy the situation. Where possible, reasonable opportunity will first be given to the Principal and/or their Contractor to remedy the situation.

3.5 Public Liability Insurance

The Contractor must have a Public Liability insurance cover in the joint names of the Contractor and the WCC, for a minimum amount of \$5,000,000 indemnifying the parties in respect of any one claim or series of claims arising out of the same occurrence.

The policy must be extended to cover all insurable risks normally applicable to road work including vibration and removal of support.

3.6 Stop Work Orders

Failure to meet any of the requirements of this code may result in a Stop Work Order being issued by the Road Controller. An order allowing work to recommence would be issued by the Road Controller once requirements are met.

3.7 Road Work Notice fee

Council charges fees for Road Work Notice jobs. An invoice will be sent out for these fees once the jobs have been completed.

The fees will be charged to the Utility Operator for whom the work is being done except that where that work is for a private party such as a property owner the fee will be charged to the person (or Organisation) that obtains the Road Work Notice.

Details of these fees are available from either; the Road Controller, the Council website, or from where Road Work Notices are obtained. These fees are subject to change from time to time as may be approved by Council and publicly notified. This is commonly done on an annual basis for each financial year July - June. If a Completion Notice for a job has not been received and if the job is not confirmed as satisfactorily finished by the Road Controller when the fees are changed, then the new fees shall apply to that Road Work Notice job.

Any invoices not paid by the 20th of the month following the invoice may be subject to a late payment fee of either 10% of the Road Work Notice fee, or, \$300 (whichever is less, but not less than \$50), plus interest calculated daily from the invoice due date at 15% per annum plus a monthly follow up fee of \$50 per month.

Should a Road Work Notice job be reopened due to deterioration of that work (Refer to Section 18) further fees will apply as if it were a new Road Work Notice.

3.8 Other fees

Other fees may apply in special situations such as for a Resource Consent, an Encroachment License, or to advertise a Road Closure.

3.9 Deposits

Where a Principal or Contractor has performed badly in the past the Council may require a deposit to be paid before that work continues or before any new work starts. The deposit may be the estimated value of the potential work.

4. PRIOR APPROVAL OF WORK

Prior approval is required from the Road Controller before work can commence in any of the following situations.

- **A trench, or series of holes, may extend more than 20 m along the road**
- **A traffic lane on a Main Road may be closed** (Refer to Appendix K)
- **A road may be closed for more than 2 minutes**
- **Work is proposed on the carriageway of the State Highway route** (Refer to Appendix K)
- **Work may affect a road structure such as a bridge, tunnel, or retaining wall**
- **A private underground utility is to be laid other than private connections to a Utility network**
- **A financial contribution is sought for the reinstatement of the road**
- **Work needs to be done outside of Normal Hours of Work** (Refer to Section 8.1)
- **An above ground structure where Prior Approval is required** (Refer to Section 7.4.8)
- **An excavation under the canopy of a tree** (Refer to Section 9.1)
- **A variation from the requirements of this Code of Practice is wanted**

A sample Prior Approval application form is attached, Appendix B. Electronic copies of these are available from the Road Controller.

The application must include a plan showing details of the nature and location of the proposed work, and the location of other underground utilities. Plans must be of a scale not smaller than 1:500.

The application for approval must be made at least 15 working days before work starts.

Should the work not be completed within 6 months of the Prior Approval then a further Prior Approval must be sought and obtained for the works to either continue or commence. Any new requirements will then apply.

In an emergency situation the work may start without Prior Approval but the Road Controller must be advised immediately if it falls into one of the above categories. The Road Controller can be contacted 24 hours on the Council after hours telephone 499 4444. The Road Controller may subsequently impose any requirements they consider reasonable for the situation.

5. ROAD WORK NOTICE

A Road Work Notice (sample in Appendix E) is needed for the following situations:

- **Excavation work of any sort (Includes drilling)**
- **Work is being carried out in an other party's excavation unless that party has a Road Work Notice and that party agrees to cover the work with their Road Work Notice**
- **Where damage is caused to the road**
- **A new pavement surface is to be laid**
- **Any other work where a traffic lane is to be blocked and traffic is delayed or likely to be delayed more than 2 minutes**

The Notice must be obtained by the Principal except that the Contractor may obtain the Road Work Notice if either the Principal has given written authority to the Road Controller for that Contractor to do so, or if the work is not for a Utility Operator.

Notices can be obtained from any one of the following Council outlets:

- City Service Centre, Ground floor, 101 Wakefield Street (8am-5pm, Mon - Fri)
- Mervyn Kemp Library, Corner Cambridge St and Main Rd, Tawa (10am – 5pm, Mon - Fri)

The Notice must be obtained from one of these outlets, or sent and received by the Road Controller through fax (04) 8013018, **at least one working day before work starts**. Except for emergency work or unexpected damage where it must be either obtained, or sent and received, by no later than one working day after the work starts.

A separate Notice is required for each street where a job extends over more than one street. In the case of a job at an intersection a second notice is required if the job extends beyond the road boundary alignment of the first street.

A separate Notice is required for each party where more than one party are carrying out work in the same location or in the same excavation unless there is an agreement between them for the other party to be responsible for their work.

The Obtainer's copy of the Notice, along with a copy of any additional requirements from the Prior Approval, **must be kept on site** while work is being carried out.

Should the start of the job be delayed more than a week from the start date on the Notice then the Road Controller is to be notified within one day of the job starting.

If the work covered by a Notice has not been started or finished within three months of it being obtained, the Notice may be deemed by the Road Controller to have lapsed. A new Notice must then be obtained for the job if requested by the Road Controller.

Additional fees may apply where a Road Work Notice is either obtained late or the information supplied is inadequate or incorrect.

6. COMPLETION NOTICE

Once a Road Work Notice job is finished a 'Completion Notice' must be completed and sent to the Road Controller within one week. This notice must include any dimensions and details of the position of the job that are different from what was written on the Road Work Notice.

A Completion Notice form is provided with each Road Work Notice form in the booklet where Road Work Notices are obtained (Refer to Section 5). A sample Completion Notice is shown in Appendix G.

Additional fees may apply if either a Completion Notice is not submitted or if information on the Notice is inadequate or incorrect.

7. PLANNING OF WORK

7.1 Resource consents

A Resource Consent may be necessary before work may start. Generally this applies only where structures are to be placed above the surface of the road. Please first check the Council District Plan or call the Road Controller if unsure.

7.2 Encroachment licenses

An Encroachment License may be necessary before work may start. Generally this applies only where structures are to be placed above the surface of the road. Please first check the Council Bylaws or call the Road Controller if unsure.

7.3 Planning and co-ordination between Principals

7.3.1 General

All works shall be planned and co-ordinated well in advance whenever possible. A summary of stages and affected parties is shown in Appendix A - 'Road Work Interaction Process'

7.3.2 Co-ordination Meetings

All Utility Operators and Council Principal parties must have a representative attend the two monthly co-ordination meeting hosted by the Road Controller. The main purpose is to help co-ordinate all utility work, road resurfacing work and other planned street activities to minimise any nuisance and costs caused to each other and the public.

7.3.3 Carriageway And Footpath Resurfacing Planning

7.3.3.1 Annual Programs

The Carriageway and Footpath resurfacing Principals should contact the planning staff of the Utility Operators with draft proposals before completing their annual resurfacing program. Utility Operators must respond with details of any conflicting work within 15 working days.

Once the program is finalised a copy must be distributed to each of the Utility Operators. The Utility Operators must notify the respective Carriageway or Footpath resurfacing Principal immediately should their circumstances change in that they need to work in any of the roads programmed for resurfacing. The resurfacing Principal may be able to reprogram their work to minimise conflicts, but if not, additional measures may be required by the Road Controller to fully restore the new surface.

7.3.3.2 Short notice resurfacing work

From time to time the Carriageway or Footpath resurfacing Principal may need to add a job to their annual program at short notice. In those situations they should contact the planning staff of the Utility Operators with their proposal. Utility Operators must respond with details of any conflicting work within 2 working days.

7.3.4 Trench Sharing

Utility Operators and Contractors must co-operate to share trenches and utility facilities to minimise disturbance to the road and public, and to maximise the efficient use of road space.

7.3.5 Co-operation

All Principals and Contractors must reasonably co-operate with each other to minimise the disruption to the public and extent of any work on the roads.

Where possible, this may include sharing of a trench, ducts, or network.

Where co-operation is needed, reasonable time must be given to suit the situation and the interests of others.

From time to time there will be activities, such as events, or parades that affect the road. All Principals and Contractors shall co-operate to accommodate the needs of an activity as may be requested by the Road Controller.

7.4 Size, nature, and positioning of utilities and structures

7.4.1 General

All utilities and structures must be of a minimum dimension for their required purpose.

Wherever possible utilities must be laid to achieve the following:

- They must be laid either parallel, or at right angles to the centreline of the road
- They must be laid on an alignment and at a depth that efficiently uses road space in consideration of future utility and road interests

Where possible utilities should be located underground to reduce unnecessary clutter to the streetscape.

7.4.2 Separation from other features

7.4.2.1 Separation from trees

7.4.2.1.1 Underground utilities near trees

Approval will be required for any excavations under the canopy of trees. Please refer to Section 9.1 'Excavation near trees'.

7.4.2.1.2 Overhead utilities near trees

For any overhead cabling to be installed within 1 metre of any tree branches, the Road Controller must be contacted at least 5 working days prior to that work to assess the situation. Should the Road Controller require the tree to be trimmed then it must be done in a manner consistent with good trade practice. The Road Controller may also require the trimming to be done by a person with suitable qualifications in terms of arboriculturist work near overhead utilities. Any trimming costs must be paid by the Principal involved.

With respect to any of the Heritage and Notable Trees, listed in Appendix L, overhead utilities must not be located above, in, or under their canopy area.

7.4.2.2 Separation from other utilities

Utilities must only be laid in a manner that reasonably respects the separation requirements of other Utility Operators. In respect of power cables, gas pipes, Stormwater pipes, Sewer pipes, and Water Supply pipes these separation distances are given in Appendix M.

7.4.2.3 Separation from kerbs or water channels

Where utilities are laid along the road the utilities, including any excavation, must not be closer than 300 mm from the kerb or water channel as shown in figure 2. In road situations where there is no kerb, the water channel shall be taken as a 400 mm wide zone along which any stormwater should flow on the edge of the road formation.

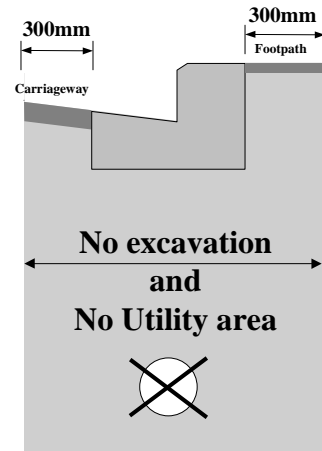


Figure 2 - “No utility” area for utilities laid along the road

7.4.3 Depth of utilities

Utilities must be laid with a depth of cover not less than that shown in the following table.

MINIMUM DEPTHS OF COVER

Where located	NATURE OF UTILITY	
	Mains - generally laid along the road (mm)	Service connections - generally laid across the road (mm)
Carriageways	600	500
Footpaths	500	400
Berms	500	300

7.4.4 Utility chamber covers

Utility chamber covers shall be of a design that can be easily adjusted in level either up, or down, by as much as 100mm to conform with new surface levels that may be required from time to time. In this respect they should be no more difficult or expensive to raise or lower than a standard Council 600 mm diameter manhole cover. Any additional cost would have to be born by the Utility Owner when those adjustments are necessary. Typically the surface of carriageways are adjusted once every 10 years and footpaths once every 20 years.

Utility chambers and their covers must be strong enough to withstand the loading that may legally be applied with a reasonable factor of safety. No rocking or other movement is to occur under vehicular or pedestrian traffic.

Utility covers must achieve a skid resistance classification of either class ‘V’ or ‘W’ in terms of Section 5.2; table 2 in AS/NZS 4586:1999 (i.e. a British pendulum value of net less than 45 using a four S Rubber foot on a wetted surface).

Utility chambers shall be positioned preferably in batter or berm areas. Where that is not possible then they shall be in footpath areas. They shall only be put in carriageway areas as a last resort.

7.4.5 Tidiness of overhead utilities

Overhead utilities shall be maintained in a neat and tidy manner. In respect of utilities being run up/down poles they shall, where possible and where the requirements of the pole owner allow, be within the pole, or neatly and securely bundled together against the pole, and be located on the downstream, furthest, side from approaching traffic so as to be not visible to approaching traffic and so as to not to encroach on the footpath width or road width.

7.4.6 Height of overhead utilities

MINIMUM HEIGHT OF OVERHEAD CABLES

Type of road	Over carriageways (m)	Over all other areas of road (m)
Roads on over height route (Indicated in Appendix K)	6.0	4.25
All other roads	5.5	4.25

7.4.7 Poles

7.4.7.1 General

Poles must be tidy in appearance and have no sharp edges that could be a nuisance to pedestrians or cyclists.

7.4.7.2 Position

Poles must not be positioned in either a carriageway or in a position that restricts access to an adjoining property. They must be positioned in a road side batter or berm area if those areas exist. This may require an alternative design such as using a single cantilevered pole structure to reduce the number of poles needed or using an existing pole. Where there is no batter or berm area a pole may be located in the footpath subject to the following requirements:

- it must not encroach more than 500 mm into the footpath from the kerb face
- it must not encroach more than 300 mm into the footpath from the back of the footpath
- In no situation may a footpath width be restricted to a clear width of less than 1.2 m in a Residential Area or 2.5 m in a Suburban Centre, or the City Central Area. These areas are identified in the Council's District Plan

7.4.7.3 Poles with adjacent Pedestal/Cabinet/Structure

In the situation of poles being relocated and, there being any pedestal or other associated small structure at the base of the pole, the following action is required:

In residential areas

That pedestal/cabinet/structure must also be relocated with the pole and positioned to avoid any nuisance to the public.

In commercial areas

That pedestal/cabinet/structure must be removed unless approved otherwise in writing by the Road Controller. Refer to the requirements for 'Absence of pedestals/cabinets/structures in Commercial areas' in Section 7.4.7. 2.

7.4.7.4 Consultation

Prior to the installation of any pole, the adjoining property owners must be consulted and their reasonable interests accommodated.

7.4.7.5 Signs on poles

Signs must only be attached to street poles, power poles lamp posts or other street structures with the agreement of the owner of that structure.

Signs and lights mounted on poles must be at a height not less than 2.4 metres clear to the underside of the sign/light.

7.4.8 Pedestals, Cabinets and other above ground structures

7.4.8.1 Size, shape and appearance

Any pedestal, cabinet, or other above ground utility or other structure, except for a pole, must not be larger than the following sizes, unless Prior Approval is first obtained:

- Pedestals must be smaller than 600 mm high, 250 mm long, and 250 mm wide, but be at least 300 mm high to avoid people tripping over them
- Cabinets, used to contain utility network equipment, must be smaller than 1000 mm high, 600 mm long, and 400 mm wide, but be at least 300 mm high to avoid people tripping over them

All pedestals, cabinets, or other above ground structures must be tidy in appearance, have rounded corners, and, must not have any sharp protrusions.

7.4.8.2 Absence of pedestals/cabinets/structures in Commercial areas

In the commercial areas of Wellington there are to be no cabinets, pedestals, or other above ground structures, except for poles, unless 'Prior Approval' is first sought and the agreement of the Road Controller is given. These commercial areas are identified as 'Suburban Centres', or 'Central area' in the Council's District Plan.

In respect of customer connection equipment in those commercial areas it is expected that equipment will be located in private property, or in an adjoining underground chamber. Where the supply is to a street structure it is expected that equipment will be contained within that structure, or in an adjoining underground chamber.

In respect of other Utility equipment in commercial areas that needs to be in the road, it is expected that it will be located underground where at all possible to avoid it being a nuisance, or being unsightly, to road users.

7.4.8.3 Position

Above ground structures must not be positioned in either a carriageway or in a position that restricts access to an adjoining property. They must be positioned in a road side batter or berm area if those areas exist. Where there is no batter or berm area a structure may be located in the footpath subject to the following requirements:

- Cabinets must be aligned with another obstruction unless approved otherwise by the Road Controller. Such obstructions may be a lamp posts, street trees (but not positioned within the tree canopy), or discontinuities in the fences and walls at the back of the footpaths. If a cabinet is approved to be located otherwise, in an exposed position, it must be positioned at the back of the footpath and against (not more than 30 mm from) a vertical wall or fence
- Pedestals must be positioned at the back of the footpath and against (not more than 30 mm from) a vertical wall or fence
- In no situation may a footpath width be restricted to a clear width of less than 1.2 m in a Residential Area. More width will likely be required if approval is given for a pedestal, cabinet or other structure in a Suburban Centre, or the City Central Area. These areas are identified in the Council's District Plan.

7.4.8.4 Consultation

Prior to the construction of any pedestal, cabinet, or other above ground structure, the adjoining property owners must be consulted and their reasonable interests accommodated.

7.4.9 Stormwater pipes to kerb and channel

Stormwater pipes running to the street kerb and channel must be galvanised steel in any footpath or vehicle crossing areas. They must be a minimum 100mm internal diameter. In some situations a galvanised rectangular section pipe may be approved by the Road Controller, such as in block paving footpath areas. Refer also to Section 12.2. 'Stormwater outlet in kerb'.

7.5 Mark out and location of underground utilities

7.5.1 General

A list of other Utility Operators is available from where Road Work Notices are obtained.

All underground utilities in close proximity of the proposed work should be marked out on the ground before works commence in accordance with the respective Utility wishes. A copy of all plans of the other underground utilities must be kept on site while work is in progress.

It is up to the Contractor to use such methods approved by other respective Utility Operators to locate and confirm the exact position of their Utilities. In respect of thrusting, boring or bursting techniques being used nearby utilities shall include every utility that crosses the path of the proposed thrust, bore, or burst. Locating other utilities would normally require excavation by hand. Some exceptions are:

- In respect of thrusting, boring, or bursting activities below a depth of 800mm the lateral water household services do not need to be first located
- In respect of thrusting, boring, or bursting activities lateral household services can be located without excavation if flush down locator or underground radar techniques can be shown to locate these services in a sufficiently accurate manner

If prior to thrusting, boring or pipe bursting a Contractor does not first locate all utilities that cross the path they shall be liable for all costs necessary to expose or test those utilities to ensure they have sustained no damage.

If there is a retaining wall supporting the road, then there may be anchors or tie backs in the road. Care will be needed to locate and avoid any damage to these. If unsure, ask the Road Controller.

The 'Guide for Safety with Underground Services' published by OSH shall also be used in conjunction with these above requirements.

7.5.2 Traffic light cables and detector loops

Traffic light cables and detector loops exist in the vicinity of traffic lights.

Most traffic light cables carry 220 volts and are housed in ducts with 300 – 600 mm cover.

Traffic detector loops are typically located in the road surfacing within 6 metres of a stop line at any signalised location as indicated in figure 3.

The Contractor must liaise with the Council's traffic light staff before any excavation or saw cutting work near traffic lights. This is to clarify the location of cables and to prevent unnecessary damage to loops. Saw cutting through these shallow loops results in changes in signal operations which can in turn cause significant disruption to traffic flows.

The Contractor is liable for the full cost of repairing loops, tobies, cables or other signal equipment damaged by their works.

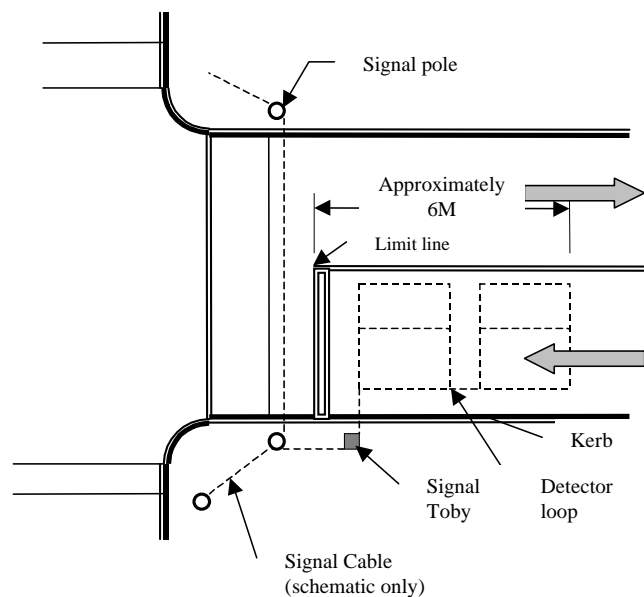


Figure 3 - Plan view of Traffic Signal cables and detector loops (Schematic only)

7.6 Surface level survey

The Road Controller may require a road surface level survey to be carried out where an excavation is proposed that will be over 1.5 metres deep. This survey would measure the road surface level at 5 metre intervals on each kerb and immediately around the proposed excavation. Such a survey must be accurate and have sufficient off-set marks so that levels can be re-measured at the same points to within 5mm at any stage of the road work. The Principal will be responsible for the cost of these surveys.

7.7 Duration of the work

All road work must be planned and carried out to minimise the duration of the work and the inconvenience to the public. There is also a restriction on work in the December Christmas shopping period. (Refer to Section 8.1)

7.8 Notification of public

7.8.1 Information signs

Where work is likely to extend more than one week in duration, special information signs must be erected at the ends of the job. These should be erected at least one week before work starts.

The information displayed, lettering size, size and colour of sign, should match the example shown in figure 4

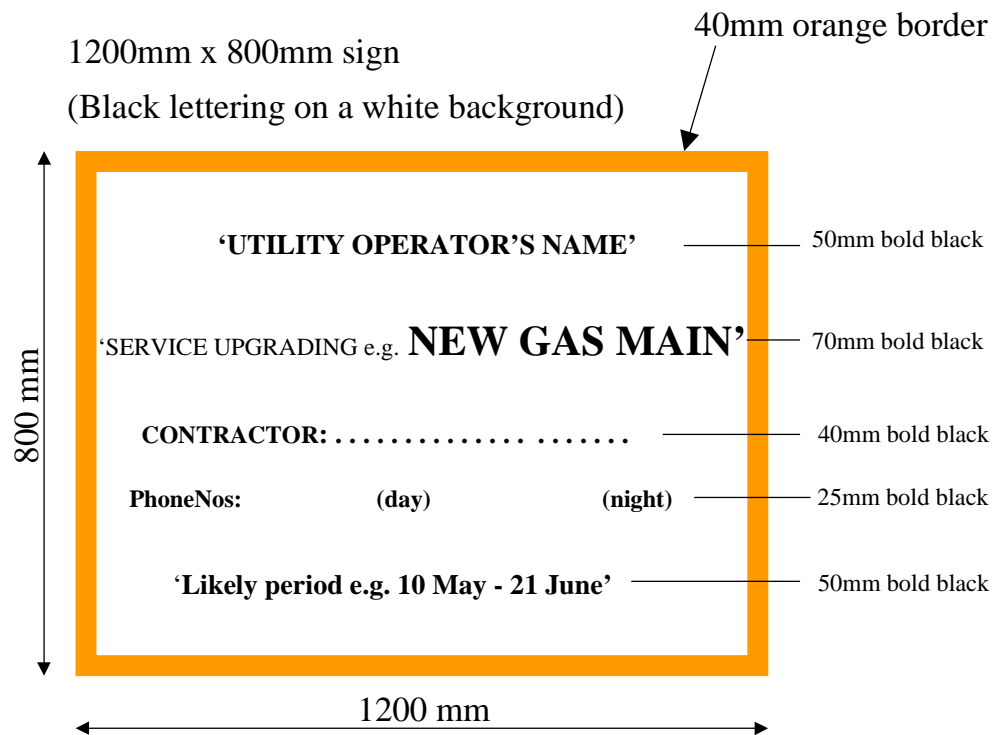


Figure 4 - Information sign

Signs must be erected so they are clearly visible to road users and must not cause a nuisance in the following respects:

- They must not be within 30 metres of a pedestrian crossing or an intersection. Otherwise they might distract a driver
- They must not be on a handrail fence
- They must not be on a pole or structure without first obtaining the agreement of the owner of that pole/structure
- They must not obstruct the visibility of Road Users
- They must not physically obstruct Road Users and must be at least 2.4 metres clear above pedestrian areas

7.8.2 Letter drops

All public working or residing within 50 metres of the work site must be given at least 48 hours advanced notice in writing of the nature, times, duration of the works, and 24 hour contact telephone number/s where it is likely they will be affected. A copy shall also be delivered or sent by fax to the Road Controller, (Fax 801 3018) at the same time. A suggested form of the letter is given in Appendix D.

Situations where the public are likely to be affected are:

- Work outside of Normal Hours of Work
- Where parking or access from a street may be affected
- Resurfacing or excavation work within 50 metres of a shop during shopping hours
- Resurfacing or excavation work within 50 metres of a school during week days
- Where the use of breakers, road profiling, saw cutting, pile driving or other very loud equipment is likely to extend for more than an hour
- Where construction work is to start before 8.00 a.m.

7.8.3 Extensive notification

In situations where there may be a significant effect on the public the Road Controller may require any or all of the following before construction work may start:

- a) Production and distribution of a suitable leaflet advising the public of the forthcoming project at least one month before work starts.
- b) Advertisement/public-notice in specified local newspapers at least two working days before work is started.
- c) Advertisement/public-notice on specified local major radio stations be made in advance of the work and throughout the period of the work. Typically this would be made regularly during the peak traffic times both immediately before and while traffic or public may be affected each day.

8. GENERAL CONSTRUCTION REQUIREMENTS

8.1 Normal hours of work

7.00 a.m. to 6.00 p.m. Monday to Saturday

No work on a Main Road from 7.00 a.m. to 9.00 a.m. and 4.00 p.m. to 6.00 p.m. Monday to Friday.

No work Sundays or Public Holidays

No work may be carried out in the Christmas shopping period, 1st to 24th December inclusive, in the Central, or Suburban, shopping areas except for emergency work.

Different hours of work may be required by Council in streets where prior approval is needed. Such as no work between 12.00 noon and 2.00 p.m. in shopping areas, or work only at night on a busy street with no loud noise such as the use of breakers, profilers or saw cutters after 10.00 p.m.

8.2 Noise

All work is to be carried out in accordance with the requirements of the NZ Standard 6803P:1984 'The measurement and assessment of noise from construction, maintenance and demolition work'. This Standard limits the levels of noise that may be received at situations around a work site. This includes major restrictions on noise before 7.30am and after 6.00pm unless approved otherwise through "Prior Approval" (Section 4, as a variation to the requirements of this code).

All plant and equipment must be silenced in accordance with good industry practice. Care must also be taken to use work methods that minimise noise levels, such as avoiding the use of breakers and other similar loud noise when required to work late at night.

Consideration must be given to avoid any unreasonable nuisance to nearby public, such as restaurants, coffee bars, shops, student examinations, performances, businesses, hospitals, care institutions and schools. Work near such situations will require public consultation, and may require extra measures to minimise the nuisance to the public. For example such extra measures might be:

- Consultation with the public to best accommodate needs
- Work carried out only during other agreed hours and/or days
- Periodic breaks during the day where breakers, saw cutters, profilers etc are not used. e.g. a regular minimum 10 minute break every hour to allow local businesses to make phone calls
- Periods of reduced noise without the use of breakers, saw cutters, profilers, compaction equipment, etc, during the lunch time shopping period 12.00 noon to 2.00 p.m.
- Use of sound screens
- Use of different construction methods
- Additional notification of the public

Should any complaints be received, then the Road Controller may stop the work until further agreed measures are taken to manage the noise problem.

8.3 Construction site

8.3.1 General

The construction site is the area used by the Contractor for their work and the storage of any equipment, plant and materials. This includes any area of road that does not have a proper temporary surface for public use.

The Site must be clearly defined and/or barricaded to avoid the public being exposed to danger.

No site is to include any area of foreshore or other Council Land, that is not road, without first obtaining specific written approval from the manager/owner of that land.

8.3.2 Size

The size of the work site must be kept as small as reasonably possible. Typically any construction work should not exceed 50 metres in length along the road unless otherwise approved by the Road Controller.

8.3.3 Tidiness

Any areas of the Construction site where the public have access and all areas adjoining the construction site must be kept clean and tidy at all times.

Any concrete or diesel spillage etc., must be cleaned up immediately. Diesel or concrete spillages are not to be washed into the stormwater system.

Any pavement damaged by oil, diesel or other such spillage must be replaced.

Once the work is finished the site must be clean and tidy when opened for public use.
This also includes:

- the removal of any paint used to mark out underground utilities where it is considered unsightly by the Road Controller
- the cleaning of any affected street sumps in the site and down hill from the work

8.3.4 Contractor's name on equipment

All equipment, plant, barricading, cones and signs left on site while work is not being carried out must be labelled with the Contractor's name and be kept in a clean condition to maintain their visibility.

This allows the Contractor to be easily identified in afterhours situations if some action is required. Sites must not contain equipment with other Contractor's names as this is misleading.

8.3.5 Traffic management

8.3.5.1 General

A Traffic Management Plan (TMP) must be prepared by a qualified person and be kept on site while work is in progress for any situation where vehicular traffic or pedestrians may be affected.

Traffic control must be appropriate to the situation at all times both during work hours and after work hours.

The TMP shall be prepared in accordance with the following standards:

- *State Highway Routes* – (Airport to the Northern boundaries of the City) The State Highway routes are outlined in Appendix K – Main Roads. They also include the Motorways. The State Highway route is subject to change as the Inner City Bypass works proceed. The ‘TNZ Code of Practice for Temporary Traffic Management, November 2004, (*TNZ COPTTM*) together with any amendments, or any subsequent revision, of that code apply to all *State Highway Routes*. Copies of the *TNZ COPTTM* can be either: viewed, downloaded, or ordered, from the following website: www.transit.govt.nz
- *All other roads* - Temporary Traffic Management for Local Roads Supplement to TNZ COPTTM September 2005’ (*Local Roads Supplement*) together with any amendments, or any subsequent revision. (Please refer to the next clause ‘Application of the Local Road Supplement’) Copies of the *Local Roads Supplement* can be either: viewed, downloaded, or ordered, from the following website: www.trainingaspirations.co.nz

8.3.5.2 Application of the *Local Roads Supplement*

Levels of Roads/Temporary Traffic Management

All roads in Wellington City are classified as Local Roads except for the State Highway route/s (Refer above).

Traffic Management Co-ordinator (TMC)

The WCC Traffic Management Co-ordinator (TMC) shall be:

The Traffic Management Co-ordinator (TMC),
Transport Group,
Infrastructure Directorate,
Wellington City Council,

Contact details:
Ph 801 3880, Fax 801 3018,
email: road.control@wcc.govt.nz
Civic Centre Offices, 101 Wakefield St
PO Box 2199,
Wellington

Or,

the TMC may be a person appointed by them to be a TMC.

Delays to Traffic

Should delays to traffic exceed 2 minutes the STMS/TC for the site must make immediate changes to end the delays, or if that is not possible, they must contact the TMC immediately, ph 801 3880 (8am – 5pm, Monday – Friday), ph 499 4444 after hours and public holidays.

Formal Approval of TMP

Formal Approval of a TMP is required in the following situations, as outlined in the *Local Roads Supplement* :

A footpath is to be closed (e.g. TMD3)

A cycle lane is to be closed (e.g. TMD24)

A pedestrian crossing is to be affected (e.g. visibility or access to or from the crossing is affected)

A traffic signal controlled situation is to be affected (e.g traffic flows affected, detector loops cut, traffic to be channelled away from loops, rephasing of lights needed, pedestrians channelled away from normal crossing route)

Restricted parking is to be affected

A suitable TMP can not be produced with the TMDs in the Supplement

Portable traffic signals are to be used (e.g. TMD39)

For a Mobile operation on a road with a posted speed limit exceeding 50km/h

Traffic is to be split in one direction around a work site (e.g. TMD62)

There is no STMS, or TC, with delegated authority to approve the TMP

Further situations that require Formal Approval of the TMP are:

A road is to be closed for more than 2 minutes

Traffic delays more than 2 minutes are likely.

A 'Bus Only' lane is to be closed

A lane closure is required at the exit of an intersection

8.3.5.3 Special traffic needs

Any local vehicular traffic or pedestrian needs must be accommodated. Examples of these are:

- Trolley buses – Trolley buses need to easily reach their overhead wires
- Bus stops - The need for buses to stop outside of the traffic lanes and additional footpath widths for waiting passengers
- Schools - The busy drop off and pick up times typically between 8.00 a.m. - 9.00 a.m. and between 2.45 p.m. - 3.30 p.m.
- Shops - Higher pedestrian volumes at lunch times 12.00 noon - 2.00 p.m.
- Emergency Services premises - Fire, Ambulance, Police
- Access sensitive premises e.g. Petrol Stations, Large carparks etc
- Sporting fixtures. Normally on Saturdays
- Specific local events that significantly increase road useage
- Railway stations at peak commuter times

8.3.5.4 Conflict with trolley buses

Trolley buses must be able to easily reach the wires with their DC connection poles at all times of the day and week. If this may not be achieved then arrangements must first be made to the satisfaction of the trolley bus operator, Stagecoach (ph: 3878700 ext 716). Any queries with regard to the overhead network should be directed to the Overhead Manager of Wellington Cable Car Ltd (ph: 473-2708)

8.3.5.5 Moving of legally parked vehicles

If there is a need for the contractor to relocate any parked vehicles from proposed work areas the following processes must be followed.

Moving of legally parked vehicles

If there is a need to relocate any legally parked vehicle/s from a work site then the following steps are required.

At least 24 hours before hand:

- A letter drop about the parking restriction to all properties within 50 metres of the site
- A notice under the windscreen wipers of cars in the affected work site area

At least 12 hours before hand

- A sign or signs, or meter hoods clearly displaying 'No Stopping' or 'Reserved Parking' are to be displayed at not more than 6 metre spacings along the road

At the time of moving the vehicle

- Any damage to the vehicle/s should be photographed before moving them
- A person warranted in terms of Section 128D & 128E of the Land Transport Act 1998 must be present to authorise the removal of the vehicle/s
- A reputable Tow firm must be used to relocate the vehicle/s to a nearby legal parking place
- Council and Police must be notified immediately of the move with details of the vehicle and relocation

After completion of the work the vehicle must be put back in its original location unless other arrangements have been made with the owner of the vehicle.

8.3.5.6 Moving of illegally parked vehicles

If there is a need to relocate any illegally parked vehicle/s from a work site then the following steps are required.

- The Council Parking Enforcement service (Ph 801 3555) should be asked and their assistance used to relocate the vehicle/s

Alternatively, if they can not assist then:

- Any damage to the vehicle/s should be photographed before moving them
- A person warranted in terms of Section 128D & 128E of the Transport Act 1998 must be present to authorise the removal of the vehicle/s
- A reputable Tow firm must be used to relocate the vehicle/s to a nearby legal parking place
- Council and The Police must be notified immediately of the move with details of the vehicle and relocation.

8.3.5.7 Use of restricted kerbside parking areas

Where parking meter, pay and display or other restricted kerbside areas are to be used for construction or traffic purposes the use must have been approved and any associated fees paid to Council.

8.3.5.8 Use of footpaths

No vehicles, heavy equipment or the feet of a hoist or crane are to be on a footpath unless specifically approved by the Road Controller and only then if adequate timber boards or other measures are taken to avoid damage being caused.

8.3.5.9 Access to properties

Where access to a property is to be affected the Contractor must provide alternative parking, at the Contractor's expense. The owner/occupier must be given 24 hours notice by way of a letter drop. The access may be reinstated by plates or other means. Pedestrian access must be available at all times.

8.3.5.10 Closure of roads

Any need to close a road requires written approval from the Road Controller. In the situation of a Main Road (Refer to Appendix K for a list of Main Roads) this should be sought at least four weeks prior to the closure. On other roads it should be sought at least two weeks prior to the closure. A closure may require advertising and associated Council costs to be paid by the applicant.

A sample 'Road closure request form' is provided in Appendix C.

8.3.6 Work near overhead wires

The Contractor shall protect and work safely near all overhead services adjacent to the construction site and shall follow the instructions of the relevant Utility Operator.

8.3.7 Parking offences

Parking of vehicles, plant or equipment must comply with all regulations and restrictions unless approved otherwise by the Council. Offending items may be ticketed and towed away at the Contractor's expense (Refer also to Section 8.3.5.7 "Use of restricted kerbside parking areas").

8.4 Storm water control

Care must be taken to ensure that flood water on the road is not directed onto a private property. Storm water channels and sumps are to be kept clear at all times.

8.5 Damage to other property

8.5.1 General

The Contractor should photograph any apparent damage, wear, or subsidence to both the Road, and any immediate property before work starts.

The cost of repair, replacement, or reinstatement, of any disturbance or damage to the road, road surfaces, trees, gardens, fences, retaining walls, signs, poles, parking meters, or other structures, or property, caused by the Contractor's action, or caused by others because of negligence on the part of the Contractor, must be paid by the Contractor or the Principal.

8.5.2 Damage to underground Utilities

Any damage to other underground utilities, including traffic detector loops, shall be notified to their owner immediately and repairs made which are agreeable to the owner at the Contractor's cost. In respect of damage to private drains repairs must be carried out by a Registered Drainlayer. Any damaged stormwater pipes to the kerb and channel must be repaired in galvanised 100mm steel pipe and be joined in a proper drain laying manner.

Damage to any drainage or water pipes must be reported to the Road Controller within one week of the damage being detected. The report must include:

- Location of the damage
- Type of underground service
- Owner of the service
- When the damage was detected
- When the damage was repaired
- Name of the party who carried out the repairs
- The associated Road Work Notice number for the works that caused the damage

A form for reporting this damage is given in Appendix H.

8.5.3 Damage to trees

Any damage to tree roots, trunk, branches, leaves, or contamination of soil under or near the tree must be reported to the Road Controller for the WCC Arborist to assess and undertake any necessary repairs. In respect of tree roots please refer to Section 9.1.

9. EXCAVATION

9.1 Excavation near trees

Excavations in road land must not be carried out under the canopy of trees growing in the road without the Prior Approval of the Road Controller. (Refer to Section 4, "Prior Approval of Work") Methods such as thrusting, hand digging or an alternative route may be required to avoid damage to the tree roots.

Where a heritage or notable tree, listed in Appendix L, may be affected further requirements may apply.

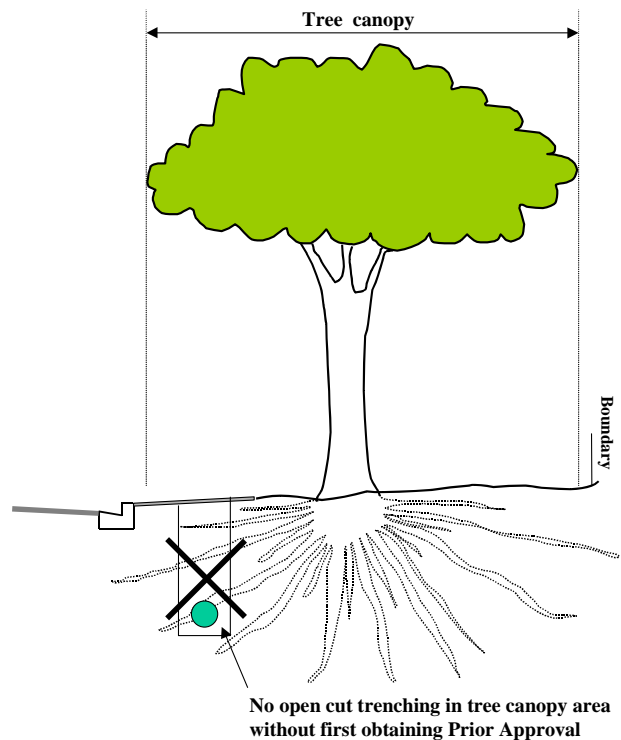


Figure 5 - Restriction on excavations near trees

All tree roots encountered which need to be severed and which are between 10mm and 75mm diameter are to be neatly cut with a saw or other suitable pruning equipment. **Under no circumstances may a digger be used to sever the roots.** Tree roots greater than 75mm diameter are to be referred to the Road Controller for the Council Arborist to attend. If there is to be any delay in backfilling, roots are to be protected from drying out until they can be covered in new topsoil.

9.2 Excavation near a kerb and/or channel

In the situation of excavations that extend along the road the excavation, must not be closer than 300 mm from the kerb or water channel as shown in figure 6. In road situations where there is no kerb, the water channel shall be taken as a 400 mm wide zone along which any stormwater should flow on the edge of the road formation.

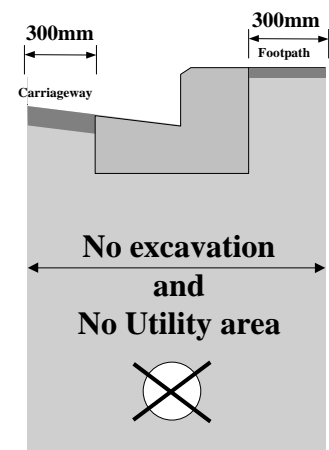


Figure 6 - Excavation clearance from kerb and/or channel

Should such an excavation extend within 300 mm of the kerb and channel then the Road Controller may require the kerb and/or channel to be replaced.

In the case of narrow excavations across the road for property service connections, these excavations may extend under the kerb and channel as long as the reinstatement, or any damage, is attended to in accordance with Sections 10.4.3 or 12.1 respectively.

9.3 Initial cutting of pavements

Where excavation work is to be done within a paved surface the surface must be cut on the edges of the proposed excavation to a depth sufficient to avoid disturbance to the adjoining pavement.

Pavements with concrete in them must be saw cut to at least two thirds of the depth of the concrete prior to excavation. This is to minimise damage that may be caused to the adjoining pavement by breakers.

9.4 Movement of adjoining pavement or road foundation

Any movement of any part of the adjoining pavement or road foundation caused by the work must be excavated and repaired by the Contractor as soon as possible. This includes the entire road pavement and affected road foundation between the excavation and the limit of any under break or a sign of movement such as a surface crack.

9.5 Excavation near a power pole or trolley bus wire pole

Written consent is required from the pole owner (Vector Ltd and /or Wellington Cable Car Limited) for any excavation near power poles or trolley overhead wire poles as follows:

- Deeper than 300 mm and closer than 2.2m to the pole or stay wire, or
- Deeper than 750 mm between 2.2m and 5.0m of the pole or stay wire.

This is a requirement of the New Zealand Electricity Regulations 1997(as amended in 1999 and 2002) and ECP34.

9.6 Excavation in a garden area

Before any Council garden area is affected the Contractor must contact the Council Parks & Gardens Horticultural Manager to liaise on the extent and nature of the work. This allows the opportunity to carefully remove plants if required. The Contractor will be responsible for the full reinstatement costs as outlined in Section 15, "Reinstatement of garden areas, shrubs and trees".

10. BACKFILLING

10.1 General

Materials and compaction used are to be such that no discernible settlement occurs.

No cement, lime, or backfill materials containing them, may be used in backfilling work unless specifically required by this code or unless necessary around poles for stability purposes.

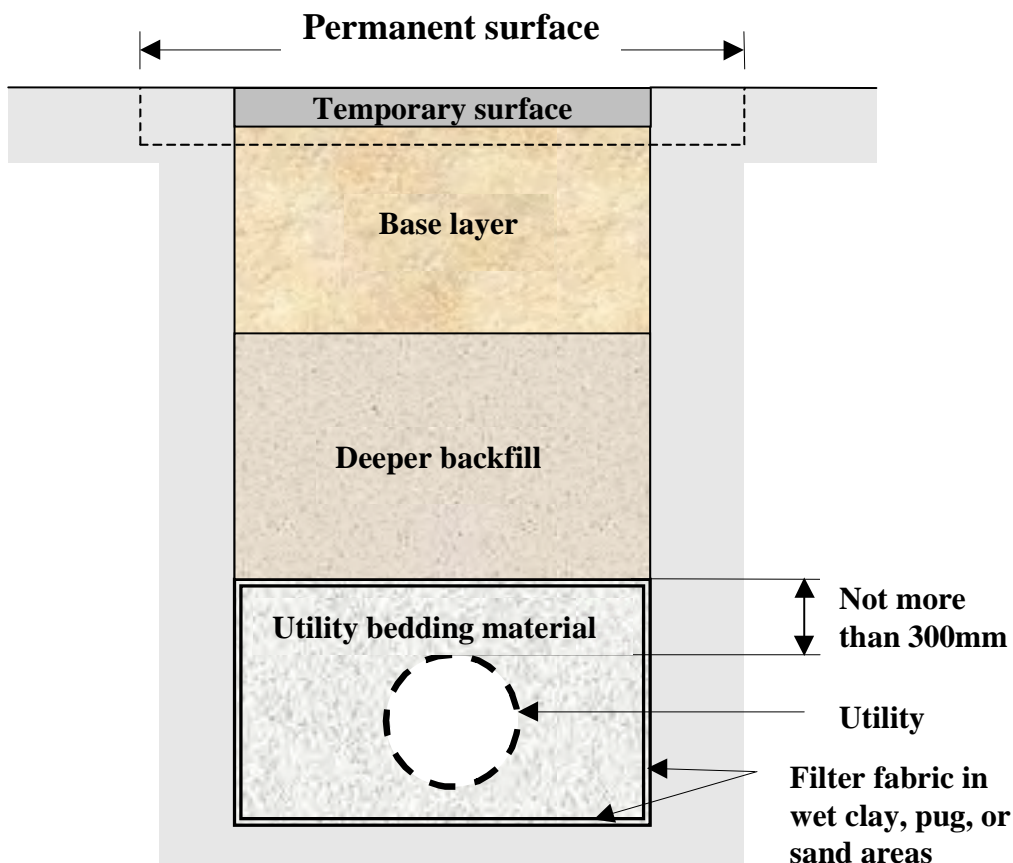


Figure 7 - Typical cross-section of a backfilled excavation

10.2 Removal of poles and bases of structures

Poles no longer required for overhead services and bases no longer required for structures must be removed to a depth of at least 300mm and the surface reinstated.

10.3 Bedding material

Bedding material must be to the Principal's specification and be placed in a thoroughly compacted form. An appropriate filter fabric material must be placed around the bedding material if the bedding material is an open graded material and the adjoining ground is either sand or soft clay and likely to experience ground water (Refer to figure 7). This is to prevent migration of adjoining finer material into the bedding material.

Bedding material must not extend more than 300 mm above the utility.

10.4 Backfill material

10.4.1 Deeper backfill material

Cheaper backfill materials, including insitu materials, may be used at depths greater than 400mm as long as it is an 'All Passing 40 mm sieve size, AP40, and compaction requirements are met. Examples of materials which may achieve this, if they have the right moisture content, are domestic basecourse and some clay materials.

10.4.2 Base layer

10.4.2.1 Basecourse

Good quality basecourse complying with the TNZ M5 (Wellington) AP40 specification must be used to a minimum depth of:

- 400mm - Carriageways
- 100mm - Footpaths and Driveways

The surface of the base layer may have a dressing not deeper than 40 mm of AP20 top course material.

10.4.2.2 Concrete

Where concrete exists in the carriageway pavement, concrete must be replaced. This will require the following measures:

- The cut faces to be drilled and 500mm R20 dowels, or equivalent, grouted in as shown in figure 8
- 665 mesh reinforcing extending between the edges of the excavation (where there is reinforcing in the adjoining concrete)
- Concrete, with a slump not less than 50mm, poured and vibrated to a depth equivalent to the adjoining depth but not less than 250mm
- The concrete must have a strength of not less than a 20 MPa at 28 days

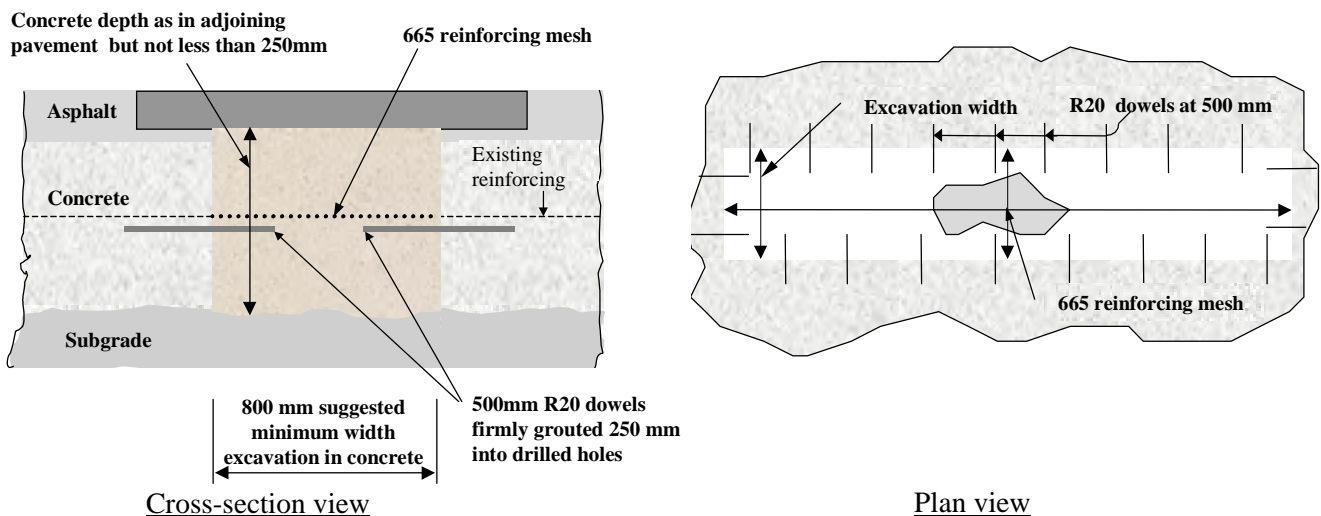


Figure 8 - Reinstatement of Concrete in carriageways

10.4.3. Under kerb and channels

Where an excavation extends under a concrete channel or kerb and the channel has not subsided, cracked or been damaged, then it may remain. In those situations, a minimum 200 mm deep concrete foundation must be placed as shown on figure 9 to support the channel. The concrete must have a strength of not less than a 20 MPa at 28 days.

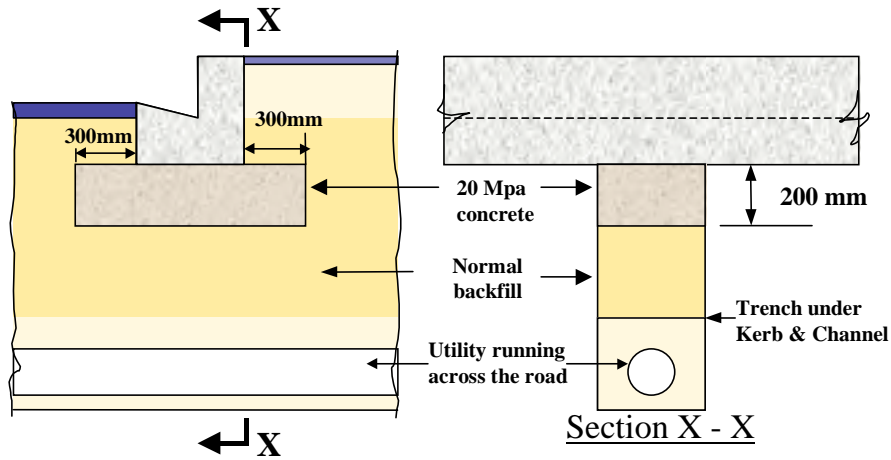


Figure 9 - Concrete and backfill foundation under a concrete water channel or kerb

10.4.4 Around poles

Concrete may be used as backfill at any depth around poles except the surface material must be as required in Section 13.3 to match the surrounding surface.

10.5 Compaction

10.5.1 General

As a guide all material should be placed and compacted in layers not exceeding 200mm in loose depth. Compaction must be not less than that necessary to achieve the following at all depths of any backfill.

Location in road	Scala penetrometer (blows per 50 mm of penetration)	Clegg Hammer (Measured on the 4 th blow)
Carriageways	7	35
Footpaths	4	25
Berms	2	10

Please note that Clegg hammer tests only indicate the compaction of the top layer of any backfill. These compaction tests would need to be carried out on every layer to be assured of proper compaction.

In the case of sand a lesser compaction requirement may be approved by the Road Controller if it can be clearly shown that the compaction is at least as much as the undisturbed sand in the adjoining ground.

10.5.2 Testing

The Contractor must carry out compaction tests at not less than 5 metre distances in any backfill work. The results of tests taken must be recorded and made available to the Road Controller if requested. Sample Penetrometer and Clegg Hammer test forms are included in Appendices I and J.

11. TEMPORARY SURFACES

11.1 General

No trench is to be opened to traffic or pedestrian use without a proper temporary surface, as described below, or a permanent resurface.

The surface level must be within 5 mm below to 15mm above the original surface level.

11.2 Materials

11.2.1 Asphalt - Carriageways and footpaths

Asphalt may be either a hot mix or cold mix and must be laid in manner and depth to be durable for vehicular and pedestrian use.

Mix types other than those covered by the TNZM10P specification may be used as long as they produce a durable surface.

11.2.2 Steel plates - Carriageways and footpaths

11.2.2.1 Steel plates in Carriageways

These must be secured and cushioned with rubber matting to prevent them rocking, moving or creating a noise problem. If the plate causes a lip greater than 30 mm high then asphalt ramps must be formed around the edges of the plate.

Use of steel plates in the carriageway requires 'UNEVEN SLIPPERY SURFACE' (TW4.WCC.US) warning sign/s to be displayed to warn traffic of those hazards.

11.2.2.2 Steel plates in Footpaths

A ramp must be formed around the edges of the plate so that pedestrians don't trip. Ramps in footpath areas should be not steeper than 1 vertical in 8 horizontal. Any lip must be made clearly visible by colour or shade difference and must be not higher than 5mm.

11.2.3 Tightly bound basecourse - Footpaths and kerbside parking areas only

This must be TNZ M5 (Wellington) AP40 specification material but may have a surface dressing of an AP20 top course material. These surfaces must be maintained clean and tidy without any sign of erosion, or, scattered loose material on the surrounding surface. If the surface is not maintained in this way then an asphalt temporary surface must be laid immediately.

11.3 Dispensation

Where a Contractor gets caught out by wet weather or a shortage of asphalt they may request the Road Controller for dispensation to leave an area of carriageway without a proper temporary surface. Such situations will require:

- additional 'UNEVEN SURFACE' (TW2.WCC.US) warning sign/s and SPEED RESTRICTION signs to be displayed to control and warn traffic of that hazard
- the surface must be maintained so that it is within 30 mm of the surrounding road surface level at all times
- the surface must be reinstated with a proper temporary surface or permanent surface within one working day

Dispensation may be withheld on some busy main roads.

No dispensation will be given for footpaths.

11.4 Duration

Temporary surfaces must be replaced by a permanent resurface within 30 days.

11.5 Temporary road markings

Temporary road markings may be required on temporary surfaces for safety or parking enforcement reasons. Situations where temporary markings must be put in place immediately are broken yellow "No Stopping" lines, "Stop" and "Giveaway" limit lines, and pedestrian crossing markings. Should other markings be requested by the Road Controller they must be applied within 24 hours in a manner that is clearly visible and legally enforceable.

11.6 Maintenance of temporary surfaces

Temporary surfaces are to be maintained at all times free of loose material and to the above standards until replaced with a proper permanent surface.

12. REINSTATEMENT OF KERB AND CHANNELS, RAMPS AND VEHICLE CROSSINGS

12.1 Kerb and channel

Should any settlement, cracking or damage occur to a kerb or water channel it must be removed at least 1 metre beyond the extent of any excavation or damage and be replaced to within 5 mm of the original line and level. The finished surface must be smooth and all joints must be clean and tight. The concrete must have a strength of not less than a 20 MPa at 28 days.

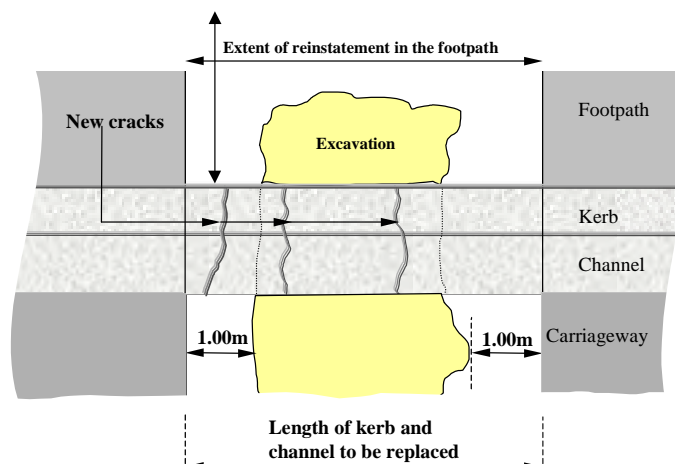


Figure 19 - Reinstatement of kerb or channel

12.2 Stormwater outlet in kerb

The stormwater outlet shall be formed flush with the face of the kerb and in the manner outlined in figure 20. Refer also to Section 7.4.9 'Stormwater pipes to kerb and channel'

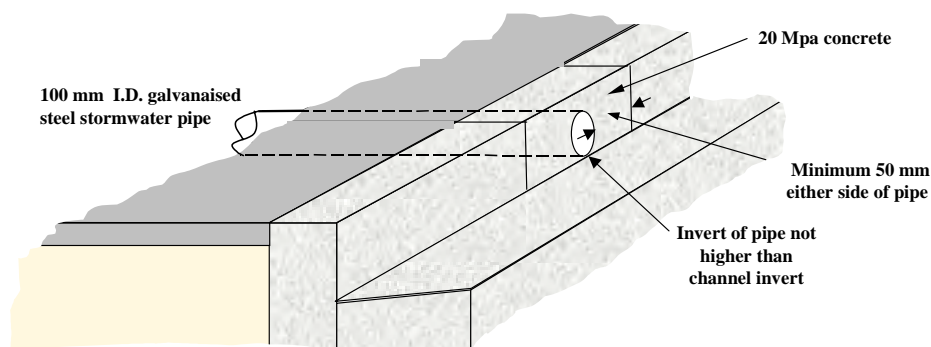


Figure 20 – Reinstatement of kerb at Stormwater outlet

12.3 Pedestrian ramps

Any affected pedestrian ramp is to be fully replaced with concrete to a minimum depth of 100 mm. The concrete must have a strength of not less than a 20 MPa at 28 days. The finished surface levels are to be within 2 mm of the adjoining footpath and channel levels and be evenly graded between. Gradients should normally be not steeper than 1 vertical in 8 horizontal. A drawing of a standard pedestrian ramp is shown in Appendix O.

Any tactile surfaces (knobbly tiles) are to be replaced strictly in the correct position and alignment in the ramp. If not sure please ask the Road Controller.

12.4 Residential kerb crossings

Should any settlement, cracking or damage occur to a residential kerb crossing it must be removed and be replaced for the full length of the crossing to within 5 mm of the original line and level. The reinstated crossing must contain a central D12 bar for the full length. The concrete must have a strength of not less than a 20 MPa at 28 days. The finished surface must be smooth and all joints must be clean and tight.

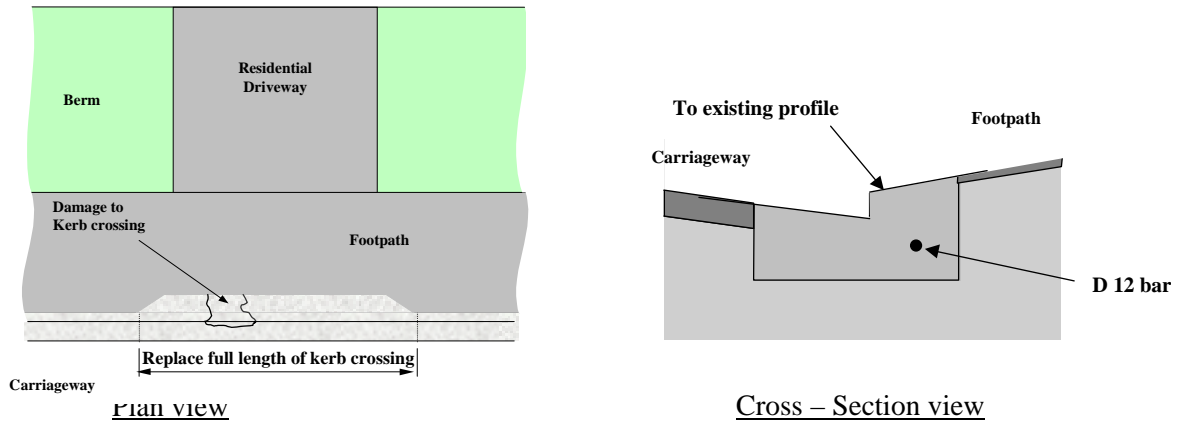


Figure 21 - Reinstatement of residential kerb crossing

12.5 Commercial footpath crossing

Commercial footpath crossings are concrete vehicle crossings which normally extend at least the full width of the footpath. They are built to provide off street vehicle access to commercial properties and to shared multi residential driveways (At least three household units). These are meant to be stronger to take the vehicle loads typical of those situations.

The requirements for reinstating concrete footpaths shall apply (Sections 13.1.7 & 13.3.4) except that 665 mesh must be used, and the minimum concrete depth increased to 150 mm. Any joints with the adjoining crossing must be doweled as indicated in figure 22. The concrete must have a strength of not less than a 20 MPa at 28 days.

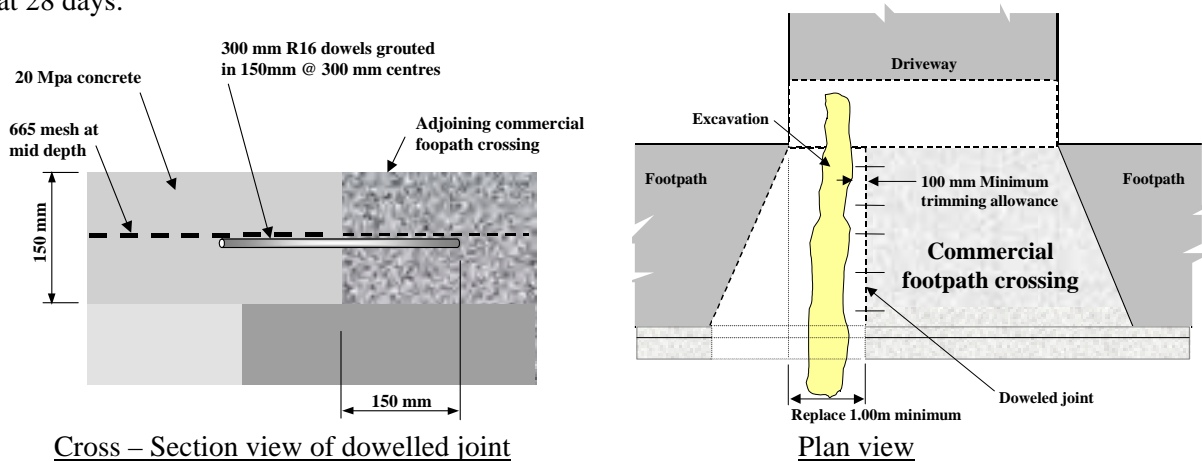


Figure 22 - Trench across commercial footpath crossing

Any trench along the full length of the crossing will require the full crossing to be replaced as shown in figure 23.

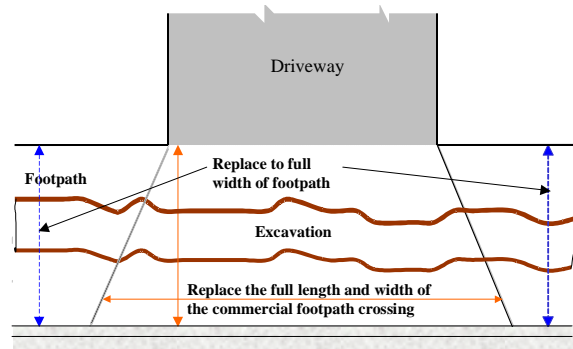


Fig 23 - Trench along commercial footpath crossing

13 REINSTATEMENT OF PAVEMENTS

13.1 FINAL CUTTING OF SURFACE

13.1.1 General

All joints must be saw cut to a depth sufficient to avoid disturbance of the adjoining pavement. Normally this would be to the depth of the proposed surface pavement layer (e.g. either 70mm or 90mm for asphalt on a Main road)

13.1.2 Standard trimming allowance

The top pavement layer must be cut back at least 100mm as shown in figure 10 from both the excavation, and from any damage that has been done to the pavement or the road foundation,.

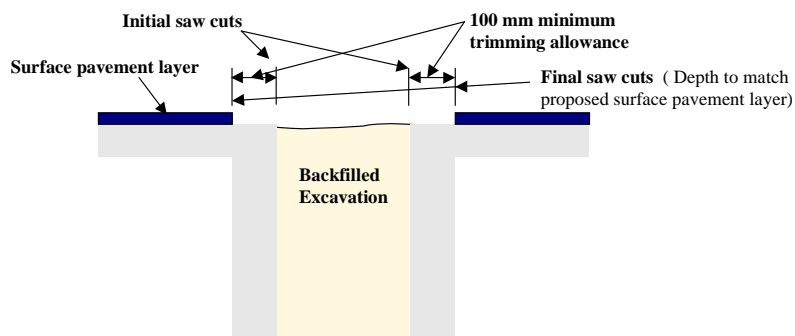


Figure 10 – Standard Trimming Allowance

13.1.3 Neat cutting pattern

All joints must form a neat simple pattern such as in Figure 11. Generally this will mean a rectangular pattern.

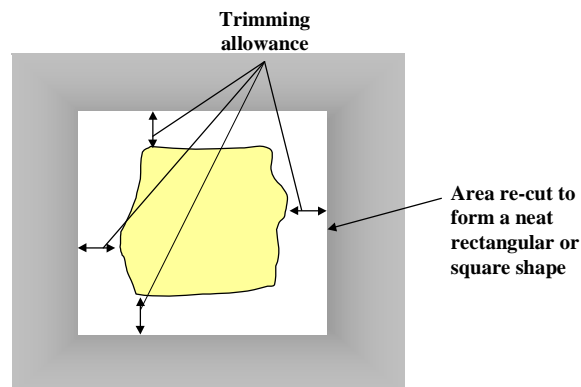


Figure 11 – Simple pattern

Saw cuts on either side of a trench must be parallel and straight for not less than 5 metres unless the dimensions of the job are less such as in figure 12

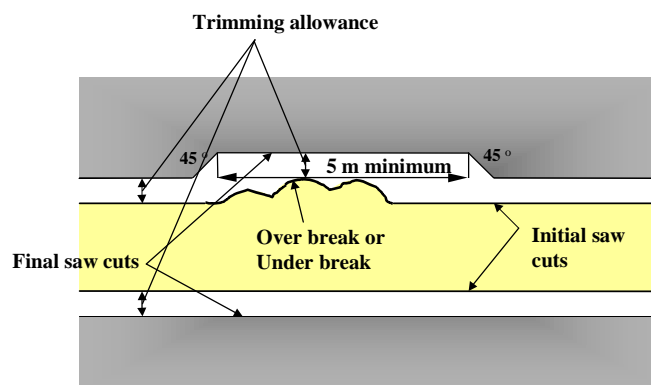


Figure 12 - Parallel cutting of joints and minimum length

Any protruding corner of the pavement surface must be trimmed back 500 mm such as in figure 13.

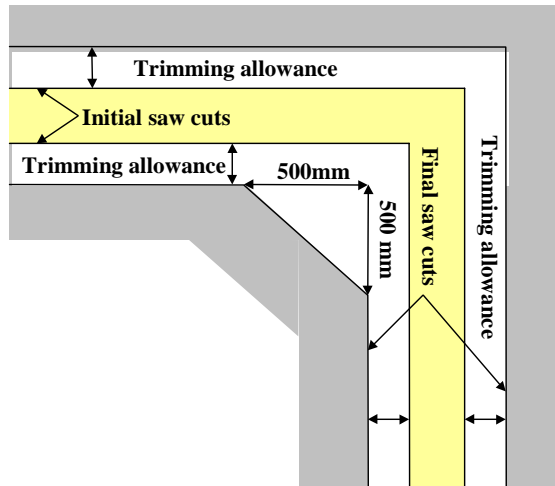


Figure 13 – Trim back protruding corner

13.1.4 Extra trimming near surface joints/cracks

If an excavation approaches to within 500mm of the edge of the pavement surface, or other surface joint, or crack the remaining area must be removed and included in the area to be reinstated.

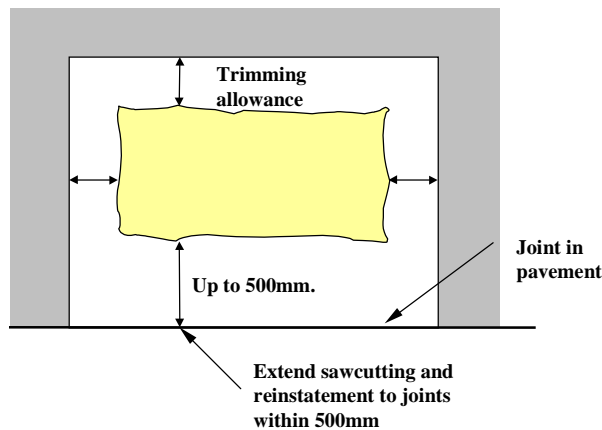


Figure 14 - Extension of area to nearby joints

13.1.5 Extra trimming in new surfaces

Where the carriageway surface is less than 2 years old the standard trimming allowance must be increased to 200mm or more as may be required by the Road Controller.

13.1.6 Full width reinstatement of cycle lanes

Any trench of any size within a defined cycle lane must be reinstated to not less than the full width of that cycle lane.

13.1.7 Full width reinstatement of footpaths and driveways

13.1.7.1 General

The full width of any affected footpath, or driveway must be reinstated over the affected length and beyond as indicated in figures 15 and 16, except that for concrete surfaces and small holes further adjustments apply as indicated below in Sections 13.1.7.2 and 13.1.7.3 respectively.

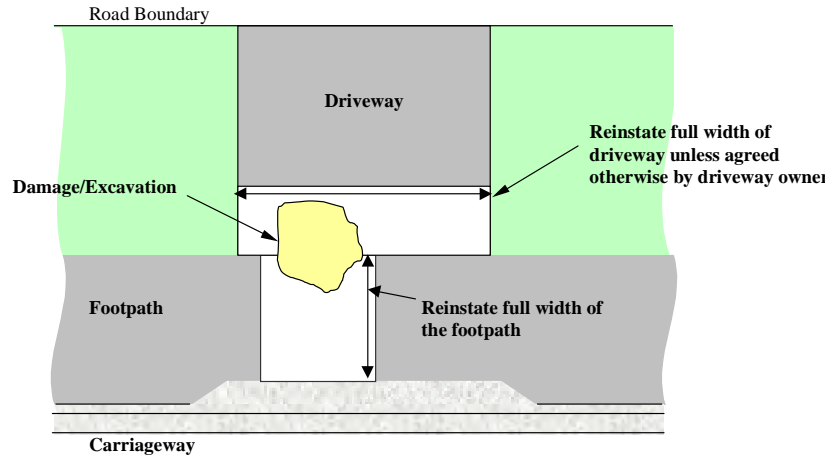


Figure 15 - Excavation/Damage in footpath or driveway

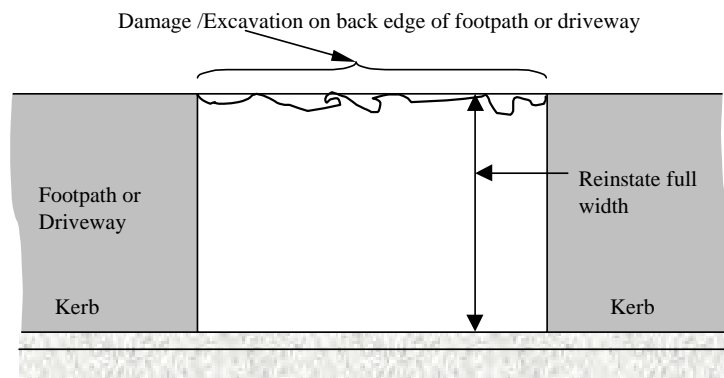


Figure 16 - Excavation/Damage on edge of footpath or driveway

13.1.7.2 Concrete surface minimum panel length

In concrete footpaths, or driveways, a minimum panel length of 1 metre must be achieved. The reinstatement area must also extend to any other surface joint or crack within 1 metre. An example is shown in figure 17.

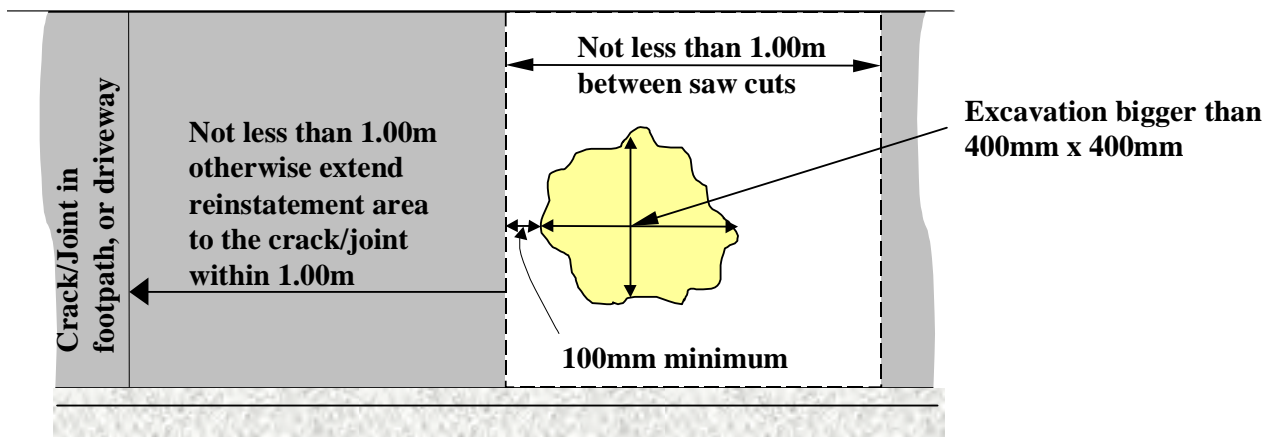


Figure 17 - Reinstatement of concrete footpaths or driveways

13.1.7.3 Exception for small holes

Where an excavation, or pavement damage, is smaller than 400mm long and 400mm wide the reinstatement area may be less but must extend at least beyond the excavated area to provide the trimming allowance of 100mm. If the excavation approaches to within 500mm of the edge of the footpath/driveway, or other surface joint, or crack the remaining area must be removed and included in the area to be reinstated. All such joints must be cut to form a neat simple pattern to include these requirements. An example is shown in figure 18.

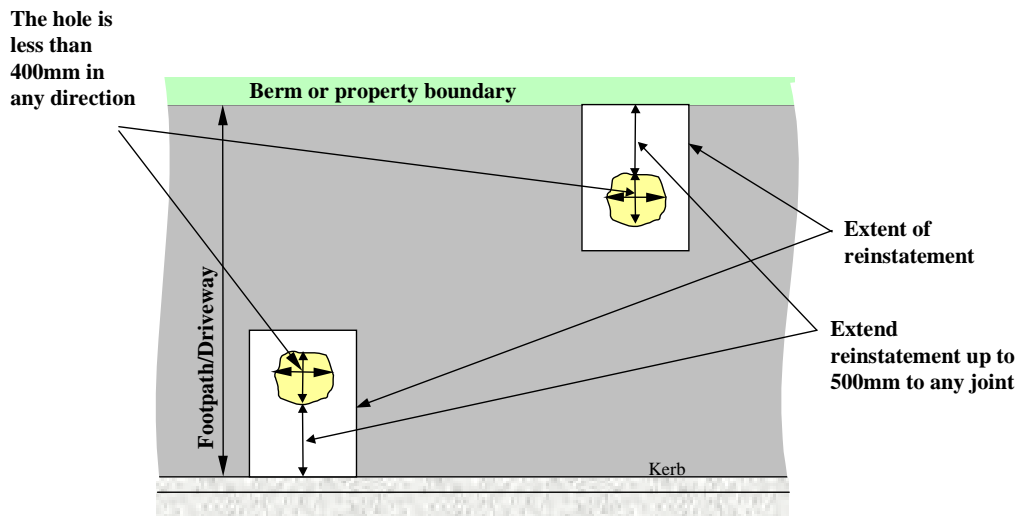


Figure 18 - Reinstatement of small excavation in footpath or driveway

13.2 CARRIAGEWAYS

13.2.1 General

The surface of any excavation in a carriageway is to be reinstated in similar material to the surface around it and in the following manner.

13.2.2 Permanent surface levels

Final surface levels of the pavement and any service covers shall match to within 0 mm below and 5mm above the adjoining surface level and shall be consistent with any camber and longitudinal grades on the adjoining carriageway.

In addition the roughness of the carriageway must not be increased by a factor of more than 15 % as a result of any work. The cost of any roughness tests performed by Council must be paid by the Principal, or their Contractor, if the roughness has increased by more than that amount.

13.2.3 Asphalt surfaces

13.2.3.1 Tack coat

The basecourse layer must be swept free of all loose material before the tack coat is applied.

A tack coat of hot bitumen or emulsion must be sprayed or painted to the vertical joints of the existing pavement and the surface of the basecourse. The rate of application of the tack coat is to be 0.3 litres of residual bitumen per square metre.

13.2.3.2 Asphalt

The asphalt material must be laid and compacted to the requirements of the Transit New Zealand Specification P9 1975 and any amendments. In this respect the compaction must be such that the air voids in the compacted mix are in the range of between 3% and 6% (i.e. between 94% and 97% of the maximum theoretical density).

The minimum depth and type of asphalt must be as follows:

- Main Roads and bus routes - 70 mm (45mm Mix20 bottom layer, and 25mm Mix10 top layer)
Alternatively this may be 90 mm comprising 2 x 45 mm layers of Mix20.
- All other Roads - 30mm of Mix10

In the situation of the carriageway having a Friction Course mix then a matching friction course mix underlain with a grade 2 size chipseal must be laid instead of the tack coat and asphalt. These must be applied by a Contractor suitably skilled in the laying of those materials. The depth of friction course must match the depth of the adjoining friction course. The Road Controller will advise the Principal or the Contractor of situations where this is required.

In the situation of the carriageway having a Macadam asphalt mix (Course asphalt mix) the Road Controller may require the same type of mix to be replaced and be underlain with a grade 2 size chipseal.

13.2.3 Emulsion and sand sealing of joints

All asphalt joints, except where friction course is used must be coated with a 100 mm wide emulsion and sand bandage. The emulsion must be applied by spray or be brushed to produce an uniform application not less than 1.0 litres of residual bitumen per square metre. The bandage must extend for not less than 50 mm on either side of the joint. The sand must be either Plastering Sand or a Coarse Sand and must be applied to completely cover the emulsion.

Any surplus sand must be removed before opened to traffic to avoid any nuisance or hazard to vehicles and/or pedestrians, unless adequate signage is erected and maintained to warn traffic.

Any saw cuts not used are to be filled and bandaged in the same manner.

13.2.4 Reinstatement in chip seal surfaces

Chip seal roads must be reinstated with asphalt as outlined in Section 13.2.3 “Asphalt Surfaces” above. The area of asphalt must then be recorded by the Contractor on the ‘Completion Notice’. A texturing fee will be included in the RWN fee to contribute towards the Council’s re-texturing costs caused by asphalt patches in chip seal road surfaces.

13.2.5 Block Paving surfaces

Any chipped or damaged blocks must be replaced with the same type, both colour and shape. The Road Controller may be able to supply details of block types and Suppliers where replacement blocks are required.

Block paved surfaces are to be reinstated in the same materials, laying patterns, and in a manner consistent with good industry standards such as:

- “Paver Note One – Specifying and Laying Clay Pavers” ISBN 0 947-160 02, 7 July 1993 Revision
- NZS 3116:2002 ‘Concrete segmental paving’

Tolerances that must be achieved are:

- Joint widths between adjacent blocks must not exceed 4mm and should not be less than 2mm
- The final surface of the paving must be within ± 10 mm of the original level provided that the surface level is not below drainage channels or gully entries and continuously graded towards them
- The deviation of the surface from a 3 m straight edge or template must not exceed 8 mm and the difference in level between adjacent paving blocks must not exceed 2 mm

To re-establish a tight interlocking pattern with the above joint widths between blocks it is often necessary to remove all adjoining blocks and relay them up to a bordering physical feature such as the water channel.

Blocks must not be cut in any way unless they are on the outside edge of a block paving area and need to be cut to match the border feature such as a water channel. They may then be cut neatly to match that feature.

Joints must be filled with Pavelok or a similar stabilised block paver jointing sand to prevent removal by street suction cleaners.

Any surplus sand must be removed immediately to avoid any nuisance or hazard to vehicles and/or pedestrians.

Reinstatement of the surface around service chambers, poles, or other street furniture should be consistent with the general practice in that area. Typically this may be block pavers, concrete, or exposed aggregate concrete. A process to achieve an exposed aggregate surface is included in Appendix P. Any concrete border must be at least 100mm wide and must not extend more than one block length in distance from the base of the feature.

13.2.6 Special surfaces

Any special surfaces, such as Imprinted asphalt, or, Coloured asphalt, must be reinstated in the same materials and to a standard at least equivalent to the original surface.

The Road Controller may be able to supply details of special surface materials, suppliers, and specialist contractors for those surfaces.

13.3 FOOTPATHS AND DRIVEWAYS

13.3.1 General

The surface of any excavation in a footpath or driveway must be reinstated in similar material and in the following manner.

13.3.2 Permanent surface levels

Final surface levels of the pavement and any service covers must match to within 2 mm below and 3 mm above the adjoining surface level and must be consistent with any crossfall and longitudinal grades on the adjoining footpath or driveway.

13.3.3 Asphalt surfaces

13.3.3.1 Tack coat

The basecourse layer must be swept free of all loose material before the tack coat is applied.

A tack coat of hot bitumen or emulsion must be sprayed or painted to the vertical joints of the existing pavement and the surface of the basecourse. The rate of application of the tack coat is to be 0.3 litres of residual bitumen per square metre.

13.3.3.2 Asphalt

The asphalt must be laid and compacted to the requirements of the Transit New Zealand Specification P9 1975 and any amendments. In this respect the compaction must be such that the air voids in the compacted mix are in the range of between 3% and 6% (i.e. between 94% and 97% of the maximum theoretical density).

The minimum depth and type of asphalt must be 25mm of Mix 6 or Mix5. Alternatively Mix 10 asphalt may be used but a smooth slurry coat must be applied to achieve a tight waterproof surface.

All cold asphalt joints between stages in the work must be saw-cut to provide a vertical face and straight joint.

13.3.3.3 Emulsion and sand sealing of joints

All asphalt joints must be coated with a 100 mm wide emulsion and sand bandage. The emulsion shall be applied by spray or be brushed to produce an uniform application not less than 1.0 litres of residual bitumen per square metre. The bandage must extend for not less than 50 mm on either side of the joint. The sand must be either Plastering Sand or a Coarse Sand and must be applied to completely cover the emulsion.

Any surplus sand must be removed immediately to avoid any nuisance or hazard to pedestrians.

Any saw cuts not used are to be filled and bandaged in the same manner.

13.3.4 Concrete surfaces

The concrete depth must be not less than 100mm. The concrete must have a strength of not less than a 20 MPa at 28 days. Where there was any reinforcing in the footpath or driveway it must be replaced to the same standard. The finished surface must be smooth with a light brush finish and all joints must be clean and tight. If the length of the affected footpath or driveway is more than 2.5 x width then transverse construction joints must be formed at intervals of not more than 2.5 x width. Transverse construction joints would normally be formed by placing a saw cut across the fresh concrete (within 3 days) to a depth of between 25% and 35% of the total concrete depth.

13.3.5 Block Paving Surfaces

Any chipped or damaged blocks must be replaced with the same type, both colour and shape. The Road Controller may be able to supply details of block types and Suppliers where replacement blocks are required.

Block paved surfaces are to be reinstated in the same materials, laying patterns, and in a manner consistent with good industry standards such as:

- “Paver Note One – Specifying and Laying Clay Pavers” ISBN 0 947-160 02, 7 July 1993 Revision
- NZS 3116:2002 ‘Concrete segmental paving’

Tolerances that must be achieved are:

- Joint widths between adjacent blocks must not exceed 4mm and should not be less than 2mm
- The final surface of the paving must be within ± 10 mm of the original level provided that the surface level is not below drainage channels or gully entries and continuously graded towards them
- The deviation of the surface from a 3 m straight edge or template must not exceed 8 mm and the difference in level between adjacent paving blocks must not exceed 2 mm.

To re-establish a tight interlocking pattern with the above joint widths between blocks it is often necessary to remove all adjoining blocks and relay them up to a bordering physical feature such as the kerb.

Blocks must not be cut in any way unless they are on the outside edge of a block paving area and need to be cut to match the border feature such as a water channel. They may then be cut neatly to match that feature.

Joints must be filled with Pavelok or a similar stabilised block paver jointing sand to prevent removal by street suction cleaners.

Any surplus sand must be removed immediately to avoid any nuisance or hazard to pedestrians.

Reinstatement of the surface around service chambers, poles, or other street furniture should be consistent with the general practice in that area. Typically this may be block pavers, concrete, or exposed aggregate concrete. A process to achieve an exposed aggregate surface is included in Appendix P. Any concrete border must be at least 100mm wide and must not extend more than one block length in distance from the base of the feature. Any concrete used must be not less than 100 mm in depth.

13.3.6 Special Surfaces

Any special surfaces, such as imprinted asphalt, coloured asphalt, or tiles are to be reinstated in the same materials and to a standard at least equivalent to the original surface.

The Road Controller may be able to supply details of special surface materials, suppliers, and specialist contractors for those surfaces.

13.3.7 Steps

Any affected steps must be reinstated in a similar manner consistent with uniform step lengths and heights of adjoining steps. They must also follow any adjoining landing and step configuration.

In respect of reinforced concrete steps they must be built in a manner shown in Appendix N, except that step dimensions must be adjusted to match any adjoining steps.

14. REINSTATEMENT OF BERMS

Any affected berm areas must be reinstated with topsoil and grass to the same level as the adjoining berm.

The topsoil must be firmly compacted so as not to settle and be not less than 100mm deep.

Grass is to be re-established to achieve a good strike. Typically this would involve:

- **A small handful per m² of superphosphate** spread and raked in
- **A large handful per m² of a Fine Rye grass seed** (such as 'Endurance') spread and raked in
- Water the area as necessary to achieve a good grass strike
- Repair any areas damaged by wind, stormwater, pedestrians, animals etc. This may require areas to be fenced off in some situations

A neat 200 mm wide and 75 mm deep concrete mowing strip must be formed around the base of any new above ground structures other than poles and pedestals. This strip must be level with the adjoining berm.

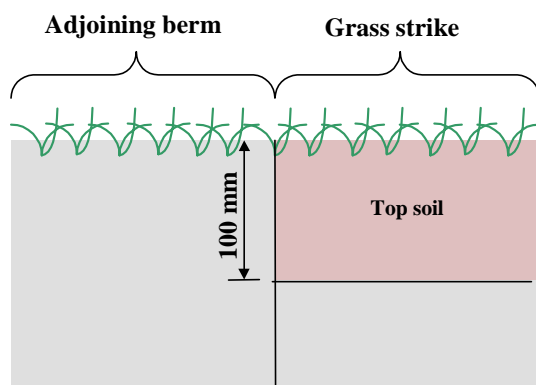


Figure 24 - Reinstatement berms

15. REINSTATEMENT OF GARDEN AREAS, SHRUBS AND TREES

These include areas planted and maintained by either Council, adjoining property owners, or others.

Before work affects a Council garden, the Council Parks & Gardens Horticultural Manager must be contacted by the Contractor. Refer to Section 9.6 "Excavation in a garden area".

Reinstatement of a Council garden area must be done at a full cost to the Contractor and to the standard required by the Council Parks & Gardens Horticultural Manager.

If a garden area is maintained by an adjoining property owner the Contractor must liaise with them to ensure the area is reinstated to their satisfaction.

Any other areas must be reinstated to at least the same standard and nature as existed before.

Reinstatement may require some on going nurturing to fully re-establish them, such as watering, staking and temporary wind shelter. Refer also to Section 9.1 "Excavation near trees" and Section 9.6 "Excavation in a garden area"

16. REINSTATEMENT OF BATTERS

Any affected batters must be reinstated in a similar and stable manner.

17. REINSTATEMENT OF ROAD MARKINGS

Where any job removes or damages any road markings the Contractor must first offset or otherwise record the location of, and replace the road markings with the same type in accordance with TNZ Specification P/12:1995 or TNZ Specification P/14:1995 as appropriate. Various types of road markings include:

- Unreflectorised road marking paint
- Reflectorised road marking paint (Unreflectorised road paint but with glass beads attached to the surface)
- Thermoplastic road markings (Appears as if they were approximately 3 mm thick strong paint)
- Various types of raised pavement markers fixed in an approved manner

All road markings must be reinstated within 48 hours of permanent surfacing.

The Road Controller can supply contact details of some recognised Road Marking Contractors.

18. MAINTENANCE

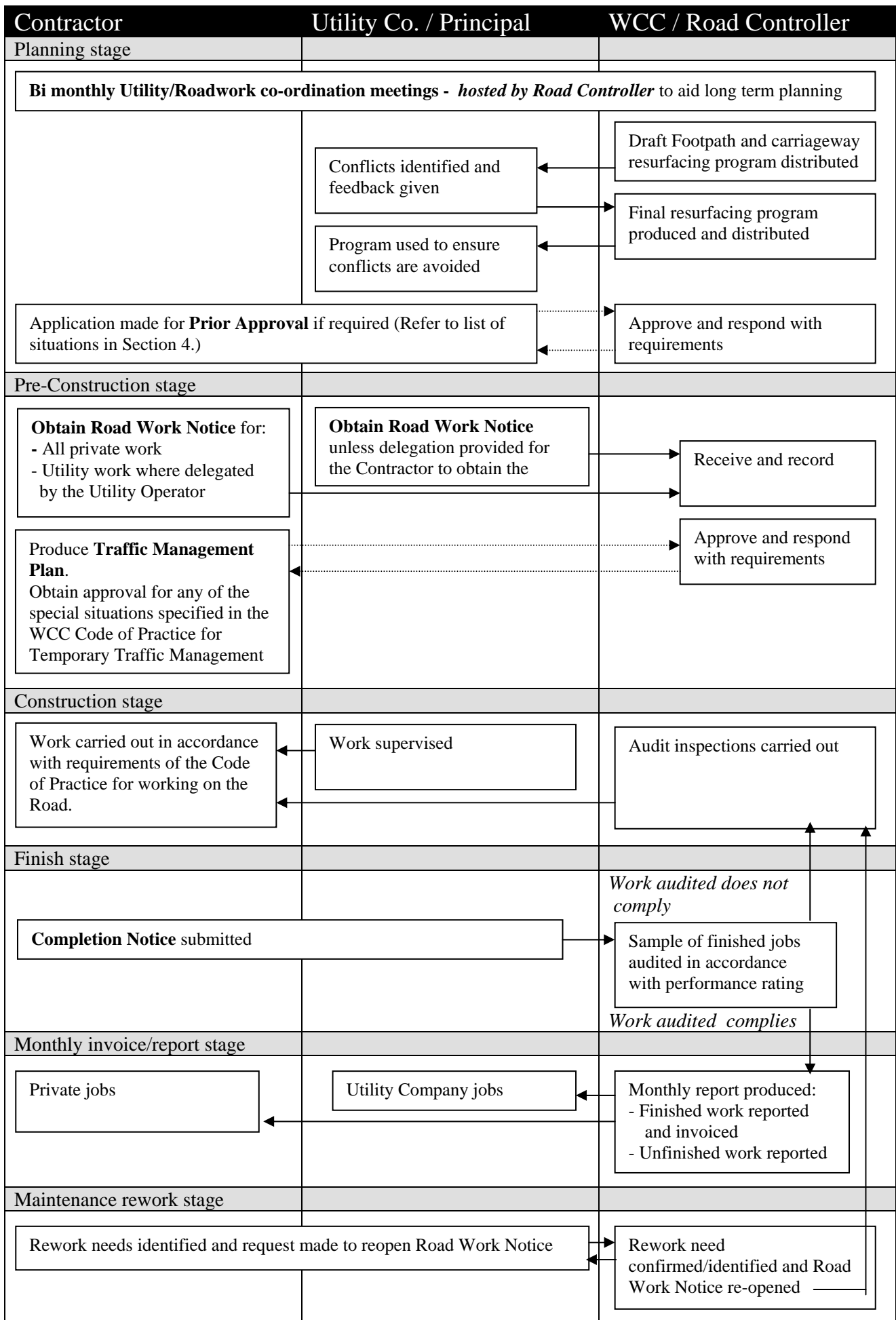
The Principal and the Contractor are responsible for a period of 10 years in respect of any subsidence or pavement surface failure such as cracking. However, the Principal will continue to remain responsible for the maintenance and/or repair of their utility assets, such as service covers, and any other effects caused by their assets and activities.

Should any maintenance or repair be required the Road Work Notice may be reopened by the Road Controller and further Road Work Notice fees may apply.

Service covers and all above ground structures and utilities must be maintained in a safe, secure, sound, clean, and tidy condition, free from graffiti, rubbish and weeds to the satisfaction of the Road Controller.

Should any utility(includes structures) become redundant the Road Controller may require it to be removed and the road reinstated to match the adjoining form and condition of the road.

Appendix A – Road Work Interaction Process



Appendix B – Prior Approval Application Form

APPLICATION FOR PRIOR APPROVAL TO WORK ON ROAD

To: The Road Controller,
Transport Group, Infrastructure Directorate Fax (04) 801 3018
Wellington City Council
P.O. Box 2199
WELLINGTON

From: (The principal provider or their Consultant)

Utility Owner: _____

Date: _____

PRIOR APPROVAL IS SOUGHT FOR THE FOLLOWING WORK

(The plans _____ are attached)

Aspects of the work that require prior approval are:

- A trench, or series of holes, is to extend **more than 20 m along the road**
- A traffic **lane on a Main Road needs to be closed** (Main Roads list in Appendix K)
- A **road** needs to be **closed for more than 2 minutes**
- Work is proposed **on** the carriageway of a **State Highway** (List of Roads in Appendix K)
- Work may **affect** a road structure such as a **bridge, tunnel, or retaining wall**
- A **private underground utility** is to be installed other than private connections to a utility network
- A **financial contribution is sought** for the reinstatement of the road
- Work needs to be done **outside of normal hours of work** (Normal hours given in Section 8.1)
- An **above ground structure** which requires Prior Approval is **proposed** (Outlined in Section 7.4.8)
- An **excavation under the canopy of a tree** (Refer to Section 9.1)
- A **variation** from the Code of Practice is **wanted**

COMMENTS (e.g. about above situations and when the work is intended to start and finish)

Signed, print name, contact details -

Name: _____ Ph: _____ Mobile: _____

Signed: _____ Fax: _____ Email: _____

Appendix C – Road Closure Request Form

To: The Road Controller,
Transport Group, Infrastructure Directorate ,
Wellington City Council
PO Box 2199
WELLINGTON

Fax (04) 801 3018

Road Closure Request Form

Details of proposed closure		
Address or Location of proposed work/activity:		Suburb:
Purpose of proposed work/activity <i>e.g. roadworks, street event:</i>		
Date(s) / Hours of proposed work/activity:		
Details and Special Needs of proposed work/activity i.e. how many people involved? Any parking or equipment requirements?		
Details of applicant		
First Name:	Last Name:	
Phone 1:	Phone 2:	Fax:
Postal address:		
Email:		
Signature:		Date:

To: The Property Owner / Resident / Business

PROPOSED ROAD WORKS

This is to let you know about nearby road work that will soon be carried out.

Location of work:

Description of the work:

This work is being done for:

Expected duration (Dates):

Hours of work: Normally 7.00 a.m. to 6.00 p.m. Mon to Sat.

Any parking restrictions:

Problems you may experience:

We regret any inconvenience that may be caused by this work.

If you have a problem please contact us on the telephone number below.

Contractor:

Telephone: (W). (AHrs)



ROAD WORK NOTICE

NO.

\$\$\$ A Road Work Notice fee applies to the work covered by this notice. Details of the fee are available from where these notices are obtained or from the Road Controller, ph 801 3980, fax 801 3018

This copy for the Obtainer

PROPOSED JOB DETAILS

1. **Location** - Streetname:
 Along road (House Numbers):
 Across road (Please circle): Batter / Berm / Driveway / Footpath / Carriageway
2. **Dimensions of any excavations** - Number of holes:, Total Length: (m)
3. **Description of Work:**

4. **Start Date:** / / **Duration of Job:** days / weeks (delete one)
5. **Principal** (Party/Company paying for the work):
 Supervisor or department of Principal:

- COMMON PRINCIPALS:**
- Cable Car Co.
 - CityLink
 - Novagas
 - Powerco
 - Telecom
 - TelstraClear
 - TransitNZ
 - Vector
 - WCC Drainage - Capacity
 - WCC Roading
 - WCC Street Lighting
 - WCC Traffic Signals
 - WCC Water - Capacity
 - Greater WRC Water
 - Property Owner ..(State)

ACCEPTANCE BY NOTICE OBTAINER

I hereby agree to comply in full with the requirements of the ‘WCC Code of Practice for Working on the Road, August 2006’ together with any amendments and to keep this notice on site while work is in progress and pay the Road Work Notice fee. Failure to comply with these requirements may result in a ‘Stop work’ order being issued or other action by the Council necessary to remedy any problems at a full cost to the Obtainer of this notice.

Signature:, **Name** (Please print):

Role in the job: Principal / Consultant / Property Owner / Contractor (Please circle one or state other)

Company Name:

Postal Address:

Physical Address (If not Postal):

Telephone: (W) (A/Hrs)

Cellular phone: **Fax No:** **Date:** . . . / . . . / . . .

CHECK LIST

- Obtain Prior Approval** for: A long trench (over 20m), Pillar/structure in Commercial area, Work in a Main Road, Work not in Normal Hours, Road to be closed, An independent private utility, Work on State Highway, A Financial contribution is wanted, Near bridge/tunnel/wall, Excavation under a tree canopy, Another variation is wanted
- Obtain a Road Works Notice**
- Mark out underground Services**
- Notify nearby** (within 50m) **Residents/Businesses** at least 48 hrs before work starts where nuisance likely. (Refer to Code)
- Plan Traffic/Pedestrian measures**
- Photograph any damage** before work starts
- Start work** (No areas are to be opened to traffic or pedestrians without a proper temporary surface)
- Report any damage to Water or Drainage services** (Use the standard form in the Code)
- Finish work** (and restore road markings)
- Send/Fax in Completion Notice** to Road Controller.

Main Roads:
 The bus routes, the principal roads that connect the suburbs, and the inner city roads between the Basin Reserve and Ngaio Gorge, Kent Terrace and The Terrace.(Refer to Code of Practice Appendix K)

Normal hours of work:
7.00a.m. to 6.00p.m. Monday to Saturday
No work:

- **Sundays or Public Holidays**
- **In a Main Road** Monday to Friday between 7.00a.m. and 9.00a.m., 4.00p.m. and 6.00p.m.

Different hours of work may be required by Council where Prior Approval is needed. Such as no work 12.00 noon - 2.00 p.m. near shops, or work only at night on a busy street.

ROAD WORK NOTICE



NO.

\$\$\$ A Road Work Notice fee applies to the work covered by this notice. Details of the fee are available from where these notices are obtained or from the Road Controller, ph 801 3980, fax 801 3018

This copy for the Road Controller/This copy to remain in book

PROPOSED JOB DETAILS

1. **Location** - Streetname:
 Along road (House Numbers):
 Across road (Please circle): Batter / Berm / Driveway / Footpath / Carriageway
2. **Dimensions of any excavations** - Number of holes: , Total Length: (m)
3. **Description of Work:**

4. **Start Date:** / / **Duration of Job:** days / weeks (delete one)
5. **Principal** (Party/Company paying for the work):
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 - WCC Street Lighting
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 - WCC Water - Capacity
 - Greater WRC Water
 - Property Owner ..(State)

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Signature: , **Name** (Please print):

Role in the job: Principal / Consultant / Property Owner / Contractor (Please circle one or state other)

Company Name:

Postal Address:

Physical Address (If not Postal):

Telephone: (W) (A/Hrs)

Cellular phone: **Fax No:** **Date:** . . . / . . . / . . .

ROAD CONTROLLER COMMENTS

Notice On Time? Y / N If N explain:

Information OK? Y / N If N explain:

Finish Inspection/s Covers: ALL / PART / NONE

Area of asphalt in chipseal road (For texturising contribution): (m²)

Road marking still required: Urgent (m), Non-urgent (m)

Comments:

Officer: Date: / /



COMPLETION NOTICE

To: **The Road Controller, Transport Group, Infrastructure Directorate** NO.
Wellington City Council
P.O. Box 2199, WELLINGTON OR FAX TO (04) 801 3018

This sheet for the Obtainer

PROPOSED JOB DETAILS

- 1. **Location** - Streetname:
 Along road (House Numbers):
 Across road (Please circle): Batter / Berm / Driveway / Footpath / Carriageway
- 2. **Dimensions of any excavations** - Number of holes:, Total Length: (m)
- 3. **Description of Work:**

- 4. **Start Date:** / / **Duration of Job:** days / weeks (delete one)
- 5. **Principal** (Party/Company paying for the work):
 Supervisor or department of Principal:

- COMMON PRINCIPALS:**
- Cable Car Co.
 - CityLink
 - Novagas
 - Powerco
 - Telecom
 - TelstraClear
 - TransitNZ
 - Vector
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 - WCC Traffic Signals
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ACCEPTANCE BY NOTICE OBTAINER

I hereby agree to comply in full with the requirements of the ‘WCC Code of Practice for Working on the Road, August 2006’ together with any amendments and to keep this notice on site while work is in progress and pay the Road Work Notice fee. Failure to comply with these requirements may result in a ‘Stop work’ order being issued or other action by the Council necessary to remedy any problems at a full cost to the Obtainer of this notice.

Signature: **Name** (Please print):

Role in the job: Principal / Consultant / Property Owner / Contractor (Please circle one or state other)

Company Name:

Postal Address:

Physical Address (If not Postal):

Telephone: (W) (A/Hrs)

Cellular phone: **Fax No:** **Date:** / /

COMPLETION DETAILS (Actual location of work carried out)

Location along Street for each Hole/trench (e.g. House Nos.)	Across the Street (Tick box/es)				Length of work or hole (Metres)
	Berm /Batter	Driveway	Footpath	Carriageway	

(Please attach any more details on a separate sheet)

Total asphalt area in chip seal road for Texturising fee: m²

Details completed by: **on:** / /

Appendix H - Utility damage report form

To: The Road Controller,
Transport Group, Infrastructure Directorate,
Wellington City Council,
P.O. Box 2199,
WELLINGTON.

Fax No.(04) 801 3018

Report on damage to water or drain pipe

Please find below details about a damaged pipe.

Street name:

Utility damaged:

Owner of the Utility:

Location of the damage:

Date when damaged: . . . / . . . / . . .

Date damage identified: . . . / . . . / . . .

Date when repaired: . . . / . . . / . . .

Repairs carried out by:

Road Work Notice number:

(For the road work that was being carried out when damage occurred)

Any other comment
.
.

Reported by: on: / /

Appendix I Scala Penetrometer Test Results Form

Streetname:

Depth (mm)	Location along and across road:				
0					
50					
100					
150					
200					
250					
300					
350					
400					
450					
500					
550					
600					
650					
700					
750					
800					
850					
900					
950					
1000					
1050					
1100					
1150					
1200					
1250					
1300					
1350					
1400					
1450					
1500					

Recorded by: Date: / /

Appendix K- Main Roads

Main roads are the more busy roads of Wellington on which there are restricted hours of work (Section 8.1) and Prior Approval requirements (Section 4.). Main Roads are the principal roads that connect the suburbs to each other, and connect the suburbs to the city. Main Roads also include many central city streets which get busy during peak traffic times. Streets which are part of the Transit New Zealand State Highway Route from The Terrace tunnel to the Airport are also identified by **(State Highway)**. Streets which are part of the Over height route are identified in *bold italics*.

Abel Smith St	Glasgow St	Onslow Rd
Adelaide Rd	Glenmore St	<i>Oriental Pde</i>
<i>Aotea Quay</i>	Grafton Rd	<i>Ottawa Rd</i>
Aro St	Grant Rd	Palliser Rd
Barnard St	Grey St	Panama St
Bassett Rd	Grosvenor Tce	Park St
Bay Rd	Hankey St	Paterson St (State Highway)
Bidwell St	Harriett St	Perth St
Birdwood St	Harris St	Raroa Cres
Blackbridge Rd	Hataitai Rd	Raroa Rd
Boulcott St	Hawker St	Riddiford St
Bowen St	Hawkestone St	Rintoul St
<i>Box Hill</i>	Helston Rd	Rongotai Rd
Bracken Rd	Hunter St	Ruahine St (State Highway)
Brandon St	<i>Hutt Rd</i>	Rugby St (State Highway)
Britomart St	<i>Jervois Quay</i>	Salamanca Rd
Broadway	John St	Station Rd
Broderick Rd	Johnsonville Rd	Stout St
Brooklyn Rd	Johnston St	Sussex St (State Highway)
Brougham St	<i>Kaiwharawhara Rd</i>	Takapu Rd
Buckle St (State Highway)	Karo Dr (State Highway)	Tasman St
Buller St	Karori Rd	Taranaki St (State Highway)
<i>Bunny St</i>	Kelburn Pde	Taurima St (State Highway)
<i>Burma Rd</i>	Kent Tce (State Highway)	The Crescent
<i>Cable St</i>	<i>Kenya St</i>	The Parade
Calabar (State Highway)	<i>Khandallah Rd</i>	The Rigi
Cambridge Tce	Kilbirnie Cres	The Terrace
Carlton Gore Rd	Kupe St	<i>Thorndon Quay</i>
Cashmere Ave	Lambton Quay	Tinakori Rd
Centennial Highway	Lennel Rd	Troy St
Chaffers St	Luxford St	Tory St
Chaytor St	MacDonald Cres	Upland Rd
Childers Tce	Maidavale Rd	<i>Victoria St</i>
Churchill Dr	<i>Main Rd</i>	Vivian St (State Highway)
Cobham Dr (State Highway)	Majoribanks St	Wadestown Rd
<i>Cockayne Rd</i>	Manners St	Waikowhai St
Constable St	Mein St	<i>Wakefield St</i>
Courtenay Pl	<i>Mercer St</i>	Wallace St
Crawford Rd	<i>Middleton Rd</i>	Waring Taylor St
<i>Crofton Rd</i>	Miramar Ave	<i>Waterloo Quay</i>
Cuba St	Molesworth St	Webb St
Curtis St	<i>Moorefield Rd</i>	Wellington Rd (State Highway)
<i>Customhouse Quay</i>	Moxham Ave	Whitehead Rd
Dixon St	Mulgrave St	Whitmore St
Dufferin St (State Highway)	Murphy St	<i>Willeston St</i>
Elizabeth St	Newlands Rd	<i>Willis St</i>
Ellice St (State Highway)	<i>Ngaio Gorge Rd</i>	<i>Willowbank Rd</i>
<i>Evans Bay Pde</i>	Northland Rd	Wilton Rd
Featherston St	Ohiro Rd	
Garden Rd	Old Karori Rd	
Ghuznee St	Onepu Rd	

Appendix L - Heritage And Notable Trees

HERITAGE AND NOTABLE TREES

Street	Number of nearby house	Common name
Abel Smith Street	108	Northern Rata
Abel Smith Street	131-135	Bull Bay Magnolia
Abel Smith Street	140	Tasmanian Blue Gum
Abel Smith Street	144B	English Elm
Abel Smith Street	150	Lombardy Poplar
Abel Smith Street	151	Lillypilly
Adelaide Road	300	Radiata Pine
Aparima Avenue	26	Pohutukawa
Ascot Street	24-24A	Cabbage Tree
Ascot Street	24-24A	Scarlet Oak
Baden Road	2	Norfolk Island Pine
Bay Road		Pohutukawa
Boscobel Lane	1	Norfolk Island Pine
Boscobel Lane	1	Macrocarpa, "the Bucket Tree"
Braithwaite Street	6	Black Beech
Braithwaite Street	8	Monkey Puzzle
Braithwaite Street	8	Hard Beech
Britomart Street	84-84A	Pohutukawa
Broadway	411	Norfolk Island Pine
Brougham Street	46	Norfolk Island Pine
Burnell Avenue	23	Horse Chestnut
Box Hill	3	Norfolk Island Pine
Box Hill	60	Kauri
Chelmsford Street	6	Pohutukawa
Childers Terrace	1	Norfolk Island Pine
Childers Terrace	1	Norfolk Island Pine
Clifton Terrace and San Sebastian	Corner	Tulip Tree
Clyde Street and Avon Street	Corner	Norfolk Island Pine
Collingwood Street	4	Northern Rata
Columbo Street	27	Pohutukawa
Cooper Street	13	Cabbage Tree
Coromandel Street	125	Red Flowering Gum
Coromandel Street	125	European Beech
Coromandel Street	127	Northern Rata
Corunna Avenue	5	Black Beech
Donald Crescent	22	Holly
Duncan Terrace		English Elm
Duncan Terrace		English Elm
Duthie Street	8	Northern Rata
Fairview Crescent	9	Macrocarpa
Fairview Crescent	30	Norfolk Island Pine
Falkirk Avenue	43	Macrocarpa
Finnimore Terrace	12	Norfolk Island Pine
Fitzroy Street	9	Bunya Bunya
Fitzroy Street	9	Hoop Pine

Appendix L (Heritage and notable trees) continued:-

Street	Number of nearby house	Common name
Glenmore Street	137	Douglas Fir
Grafton Road	127-145A	Radiata Pine
Grafton Road	127-145A	Radiata Pine
Grafton Road	127-145a	Radiata Pine
Grafton Road	127-145A	Radiata Pine
Grant Road	53	European Beech
Hadfield Terrace	3	Lawsons Cypress
Hadfield Terrace	5	Lawson Cypress
Hanson Street	180A	Pohutukawa
Harbour View Road	24	Pohutukawa
Harbour View Road	30	Pohutukawa
Hataitai Road	97	Pohutukawa
Hataitai Road	97	Pohutukawa
Hataitai Road	97	Pohutukawa
Hataitai Road	147	Norfolk Island Pine
Hatton Street	24	Macrocarpa tree
Hatton Street	26	Macrocarpa Tree
Hawker Street	49	Pohutukawa
Hawkestone Street		Pohutukawa
Hawkestone Street		English Elm
Hawkestone Street		Norfolk Island Pine
Hobson Crescent	35	Red Flowering Gum
Hobson Street	53	Karaka
Hobson Street	53	Sycamore Tree
Hobson Street	53	Sycamore Tree
Holloway Road and Aro Street	Corner	Pohutukawa
Holloway Road and Aro Street	Corner	Pohutukawa
Holloway Road and Aro Street	Corner	Pohutukawa
Homewood Avenue	10	Kahikatea
Homewood Avenue	10	Kahikatea
Homewood Avenue	12	Matai
Homewood Avenue	12	Kahikatea
Homewood Avenue	12	Kahikatea
Homewood Avenue	12	Kahikatea
Homewood Avenue	64	Totara
Inverlochy Place	3	Norfolk Island Pine
Inverlochy Place	3	London Plane
Inverlochy Place	4	Puriri
Kainui Road	56	Cabbage Tree
Kainui Road	56	Cabbage Tree
Karaka Bay Road	331	Norfolk Island Pine
Karaka Bay Road	465	Karaka
Karaka Bay Road	465	Karaka
Karaka Bay Road	465	Karaka
Karaka Bay Road	465	Karaka
Karori Road	430	European Silver Fir
Kensington Street		Pohutukawa
Larsen Crescent	6 106	Matai

Appendix L (Heritage and notable trees) continued:-

Appendix L (Heritage and notable trees) continued:-

Street	Number of nearby house	Common name
Larsen Crescent	4 104	Totara
Lincoln Avenue	17	Narrow-Leaved Ash
Ludlam Street	17	Pohutukawa
Manley Terrace	9	Rose She-Oak
Marjoribanks Street	78	Pohutukawa
Marjoribanks Street	78	Kermadec Pohutukawa
Marioribanks Street	78	Pohutukawa
Matai Road	58	Red Flowering Gum
Maupuia Road	Opposite 48	Belah
Melbourne Road	22	English Oak
Melbourne Road	22	English Oak
Moxham Avenue	67	European Beech
Moxham Avenue	69	Coral Tree
Moxham Avenue	69	Karaka
Moxham Avenue		Pohutukawa
Moxham Avenue	69	Bull Bay Magnolia
Moxham Avenue	69	Nikau
Moxham Avenue	77	European Beech
Moxham Avenue	176	Pohutukawa
Museum Street		English Oak
Newman Terrace	26	European Ash
Newtown Park		Pohutukawa
Newtown Park		Pohutukawa
Norfolk Street	Opposite 10	Norfolk Island Pine
Orangi Kaupapa Road (Glenmore)		English Oak
Oriental Parade		Norfolk Island Pines
Old Karori Road	62-64	Radiata Pine
Ottawa Road	30	Swamp Cypress
Oxford Street (Tawa Primary)		Oak Tree
Oxford Street & Oxford Street	14	Camellia Trees
Papawai Tce	3	English Elm
Patanga Crescent	31	Pohutukawa
Paterson and Dufferin Street	Corner of	English Elm
Percival Street	Dead end of	London Plane
Plimmer Steps		English Oak
Raroa Road	7	Black Beech
Raroa Road	170	Radiata Pine
Rata & Kainui	Corner of	Douglas Fir
Rata Road	45	English Oak
Roxburgh Street	20	Olive
Sar Street	76	Norfolk Island Pine
Sar Street	76	Norfolk Island Pine
Severn Street	1	Pohutukawa
Scarborough Terrace	2	Pohutukawa
Scarborough Terrace	2	Pohutukawa
Scarborough Terrace	2	Pohutukawa
Sydney Street West	194A	Magnolia

Appendix L (Heritage and notable trees) continued:-

Street	Number of nearby house	Common name
Taranaki Street	75	Pohutukawa
Taranaki Street	75	Pohutukawa
The Terrace	88	Pohutukawa
The Terrace	234	South African Cabbage Tree
The Terrace	255	Norfolk Island Pine
The Terrace	324	Totara
The Terrace	324	Northern Rata
The Terrace	326	2 Elm Trees
Tinakori Road	260	Horse Chestnut
Tinakori Road	260	Common Lime
Tio Tio Road	5	Macrocarpa
Tory Street	133	Kowhai
Trelissick Crescent	126	Puriri
Wadestown Road	1a	Pink Tulip Tree
Wadestown Road	109	Radiata Pine
Wadestown Road	109	Norfolk Island Pine
Waipapa Road		Cork Oak
Waipapa Road		Holm Oak
Wallace Street	63	Belah
Washington Avenue	10	Cabbage Tree
Webb Street	99	Bull Bay Magnolia
Weld Street	50	Macrocarpa
Wellington Road	4	Pohutukawa
Whitmore Street and Waterloo	Corner of	Pohutukawa
Whitmore Street and Waterloo	Corner of	Pohutukawa
Whitmore Street and Waterloo	Corner of	Pohutukawa
Willis Street	335	English Oak
Willis Street	335	English Oak
Willis Street	335	English Oak

Appendix M – Separation Distances Between Utilities

Separation distances from power cables, gas mains, stormwater, sewage, and water supply pipes

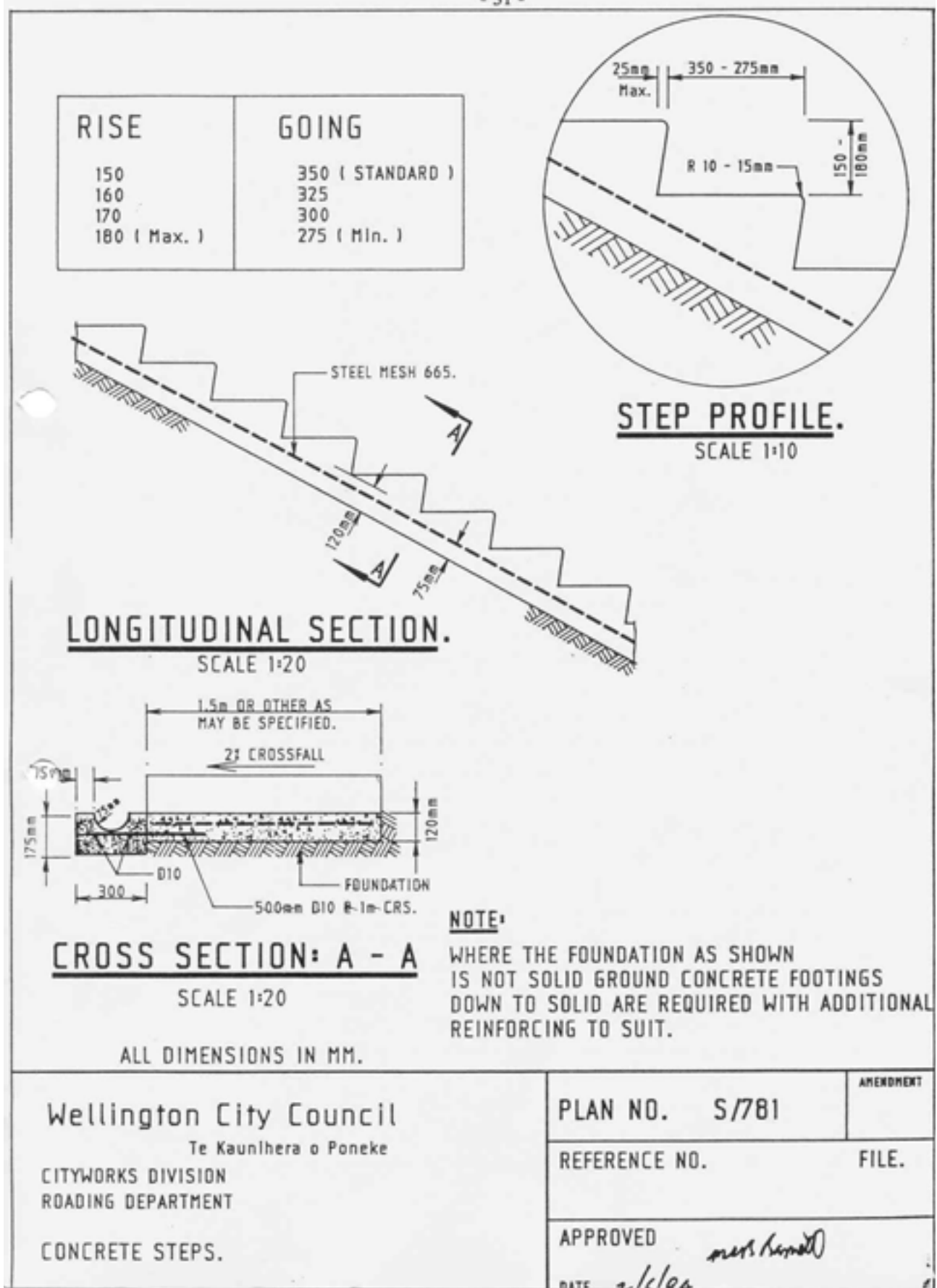
All utilities (mains and service connections) must be laid either parallel or at right angles to the road centreline wherever possible.

Where a utility crosses over or under another utility it should cross over at 90° if possible but never at an angle less than 30°.

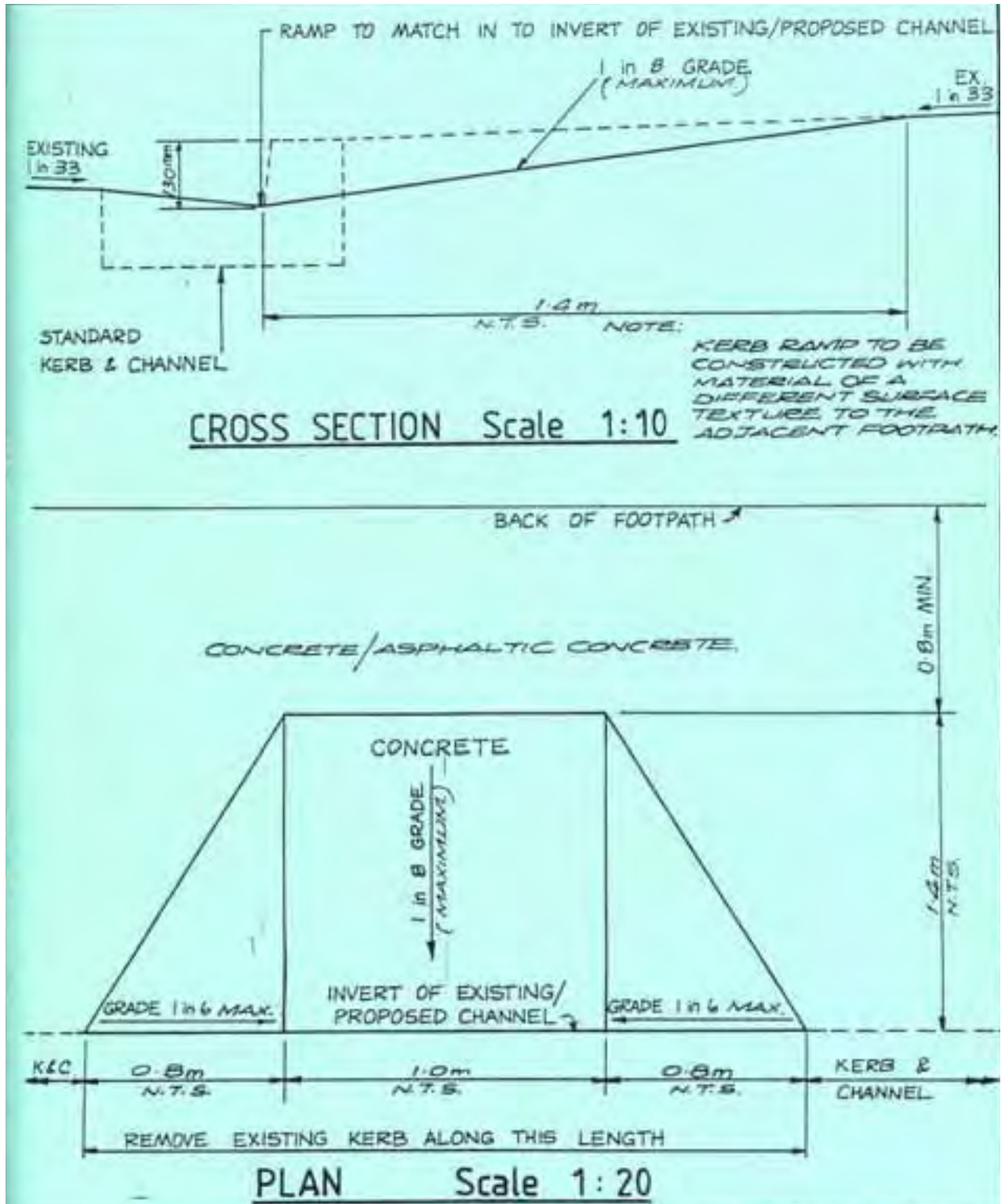
Utilities must only be laid in a manner that reasonably respects the separation requirements of other utility owners. Some of these are summarised in the table below.

Utility		Normal open cut trenching		Thrusting or boring operations	
		Horizontally between parallel utilities (mm)	Vertically where utilities cross over (mm)	Horizontally between parallel utilities (mm)	Vertically where utilities cross over (mm)
UnitedNetworks (Vector) Power Cables	400V cables	400	400	Not allowed	Not allowed
	11kV cables	500	500	Not allowed	Not allowed
	33kV cables	1000	By agreement	Not allowed	Not allowed
Powerco Ltd - Gas	Service connections	150	Subject to adequate protection	On request	On request
	Low-medium pressure mains (7-400kPa)	150	Subject to adequate protection	On request	On request
	Medium-high pressure mains (400-700kPa)	300	Subject to adequate protection	On request	On request
	High pressure mains (>700kPa)	300	Subject to adequate protection	On request	On request
WCC Sewer & Stormwater pipes	Service connections	400	75	400	200 above pipe, 300 below pipe
	Mains	1000	300 above pipe, 500 below pipe	1000	300 above pipe, 500 below pipe
WCC Water pipes	<100mm I.Dia. pipes	300	300	750	On request refer also to Section 7.5.1
	101 – 200mm I.Dia. pipes	300	300	1000	On request
	201 – 400mm I.Dia. pipes	350	300	1000	On request
	>400mm I.Dia. pipes	By agreement e.g. 800mm	300	1000	On request

Appendix N - Concrete Steps



Appendix O – Pedestrian Ramp



<p>Wellington City Council Te Kaunihera o Poneke</p> <p>ROADWORKS DIVISION PAVING DEPARTMENT</p> <p>PEDESTRIAN RAMP FOR ROADWORK.</p>		<p>PLAN NO. S/760</p>	<p>APPENDIX</p>
		<p>REFERENCE NO.</p>	<p>FILE.</p>
		<p>APPROVED <i>[Signature]</i></p> <p>DATE 3/6/92</p>	

Appendix P – Exposed Aggregate Edges to Service Covers/Other areas

Exposed Aggregate Edges to Service Covers/Other areas

This process is provided as an indication only of how an exposed aggregate surface can be achieved. The Contractor is responsible to ensure the materials and methods used achieve a durable and visually acceptable product.

The Mixture

Objective – To Achieve 120 mm slump 20 Mpa strength concrete (at 28 days) with the large aggregate component comprising Mix 14-5mm river rounds (alternatively 13mm river rounds); Rangitikei (grey, some brown, some shell) **OR** Otaki (basically grey). Concrete to be mixed and placed in accordance with NZS 3109:1997.

Suggested proportions

- 1 part cement
- 1 part clean washed concrete sand
- 2 parts round river stone (Available from Winstone's in Belmont, Lower Hutt (alternatively try Firths). River rounds to be mixed thoroughly through the mixture

The Installation

- 1) Pour and trowel to appropriate level. Avoid heavy troweling.
- 2) Within 2 hours - Spray on Ruggersol (Retarding agent).

The Finish

- 1) On following day but within 24 hours - Waterblast using a light water blaster at 12-1500psi as necessary to remove surface cement layer and to achieve the appropriate level of exposure.
- 2) Within the following 3 days - Wash surface lightly with concrete acid (diluted hydrochloric) to clean exposed aggregate of cement deposits.
- 3) Wash immediately with copious water and seal with transparent concrete sealer (Sika product or similar). *Available from most reputable hardware stores.*

This page for notes –