

#### MESSAGE FROM THE DIRECTOR

The Public Works Department under the authority of the amended *Streets By-law 1481/77* has revised many of the processes pertaining to street cuts made in the Right-of-Way. This *Street Cuts Manual* in conjunction with the *Streets By-law* and City of Winnipeg *Standard Construction Specifications* become the guiding documents to the making, maintenance and restoration of street cuts.

The goal of the new By-law amendments and the *Street Cuts Manual* is to make the process of working in the Right-of-Way more straightforward, less frustrating and easier to enforce while better protecting the public interest and safety, as well as minimizing disruptions. The *Street Cuts Manual* will be published to the City's web page annually to assist those working in the Right-of-Way.

Jim Berezowsky,

Director of Public Works

## **MISSION STATEMENT**

The management and effective restoration of excavation in the Right-of-Way, which ensures quality and continued use of our City's street infrastructure to the satisfaction of our customer.

## **VISION STATEMENT**

Our Vision is to continuously improve cut restoration management, achieve fewer disruptions within the Right-of-Way infrastructure and improve quality restoration services.

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#### STREET CUTS MANUAL

The Street Cuts Manual has been prepared by the Public Works Department, Engineering Division to provide information and details on the process of restoring cuts in the City of Winnipeg Right-of-Way.

Compliance with Street Cuts Manual is required as stated under *Streets By-law No. 1481/77 section 4.12.02(1)* and *4.12.02(2)*.

## Streets By-Law 1481/77

The amended *Streets By-law* can be found at the following City of Winnipeg website: <a href="http://www.winnipeg.ca">http://www.winnipeg.ca</a> under Services & programs, choose Bylaws & enforcement, and Bylaw listing. Reference to the *Streets By-law* throughout the *Street Cuts Manual* is always *By-law 1481/77*.

## Disclaimer

Information in this manual is intended to supplement the *Streets By-law 1481-77* including all amending By-laws and the City of Winnipeg *Standard Construction Specifications*.

#### **DEFINITIONS**

- "Area Cut Inspector" means an employee of the City of Winnipeg assigned to a specific city area to assess and inspect street cuts.
- **"Boulevard"** means the grass and/or earth portion within the City Right-of-Way.
- "Capital Project" means any major project on a Regional or Nonregional Street managed and/or supervised by the City of Winnipeg, in the form of reconstruction or rehabilitation of the street or section of the street utilizing Provincial and Capital Tax set aside by the council for the street upgrading per year.
- "City Block" means from a street intersection to the next street intersection. Divided streets will count one (1) city block per direction of traffic.
- "City Street" means any portion of the Right-of-Way under the same identifying name and street suffix authorized by the City of Winnipeg.
- "Construction Season" means the period from May 1 through October 31 in any given calendar year. It only pertains to the time period and not the authorization of street cut repairs, which is weather dependent and accompanied by a notification from Public Works Department – Engineering Division.
- "Director" means the Director of Public Works and any person to whom the Director has delegated authority given to the Director under Streets By-law.
- "Designated Employee" means an employee of the City of Winnipeg to whom the Director has delegated authority to administer or enforce all or part of *Streets By-law* and Street Cuts Manual.

- "Emergency Repair" is defined as using any forces or services to repair a damaged or failed infrastructure, within or below the street surface, that temporarily lost its function or service. The repair is necessary to reinstate the function or service of the infrastructure, and/or to prevent any nuisances or dangerous conditions to the public.
- "Pavement" or the adjective "Paved" when used to describe a street, road, alley, sidewalk, or other area, refers to an area which has a surface constructed of Portland Cement concrete, asphaltic concrete, brick, tile or similar material.
- "Permit Amendment" means any revisions to the original permit such as addition or reduction of repair fees, and changes to permit conditions.
- "Street" means any place part of which has been dedicated as a roadway, lane, footpath, walkway, according to *The Real Property Act* or which the public is ordinarily entitled to use for passage, with or without fee or charge therefore, and includes all the space within the City Right-of-Way.
- "**Street Cut**" means any cut, break, tear or excavation in a street surface or removal of any part of a street surface.
- "Street Cuts Manual" means the *Street Cuts Manual* issued by the Director under clause 4.12.02(1) of the *Streets By-law* and, unless otherwise specified, refers to the most recent edition of the manual posted on the City of Winnipeg website.
- "Standard Construction Specifications" means the Standard Construction Specifications for infrastructure work on City streets approved by the Public Works Department and, unless otherwise specified, refers to the most recent edition at; <a href="https://winnipeg.ca/matmgt/spec/">https://winnipeg.ca/matmgt/spec/</a>.

## **LICENSING**

## **License Requirements**

#### **All Street Cuts**

In order to obtain a permit for a street cut, a person must hold a subsisting and applicable license issued under:

- the Streets By-law, or
- the Water By-law or the Sewer By-law.

#### Street Cut Restoration

Prior to restoring a pavement cut, the permit applicant or their agent must hold a subsisting and applicable *Restoration Contractor's License* issued under the *Streets By-law*.

## Qualifications

Prior to receiving a *Streets By-law License* and/or a *Restoration Contractor's License*, the applicant must:

- Satisfy the Director that they have the knowledge and the ability to meet the requirements of this Street Cuts Manual, and the Streets By-law and other applicable by-laws including the Standard Construction Specifications and the Manual of Temporary Traffic Control. For the applicant to demonstrate this, the Director may:
  - require that the applicant and all field foremen to complete a written examination and in-person interview;
  - rely on observations and reports of the applicant's past work; and

- issue a probationary license to the applicant, and subject the work of a probationary contractor to a specific inspection regime.
- Provide evidence of a policy of commercial general liability insurance consistent with *Section 6* of the *Streets By-law*.

## **Security Option**

At the discretion of the Director, where the applicant is responsible for the permanent restoration of a street cut, the applicant is permitted to provide a *Standby Letter of Credit* in lieu of paying for the street cut repair fees. The *Standby Letter of Credit* must be sufficient to meet the requirements of the Director, and will be utilized in the event that the applicant failed to or did not satisfactorily restore a street cut. A non-refundable Permit Administration Fee is still required. For additional information on the Security Option contact:

## Supervisor of Right-of-Way Management

Public Works Department
Engineering Division
Technology Services Branch
106-155 Pacific Ave.,
Winnipeg, MB, Canada R3E 3P1
OTarasov@winnipeg.ca

#### **PERMITS AND APPROVALS**

## **Submission and Approval of Drawings**

- Prior to issuance of the permit, the applicant must submit drawings to Underground Structures and obtain approval before carrying out any Capital Project, installation or realignment of the utility infrastructure in, on, over or under a street.
- The drawing required must:
  - o be in a form acceptable to the designated employee;
  - include any information reasonably required by the designated employee in order to approve the drawings; and
  - be submitted at least fourteen (14) days prior to the work.
- Where the work results in changes of alignment or grade or when requested by the designated employee to do so, the person carrying out the work must submit "record drawings" to the designated employee within sixty (60) days after the work has been completed.
- Inquiries regarding Capital Projects should be directed to the Supervisor of Right-of-Way Management (see CONTACTS).

## **Underground Structures**

Public Works Department
Engineering Division
Underground Structures Branch
107-1155 Pacific Ave.,
Winnipeg, MB, Canada R3E 3P1
ugsapproval@winnipeg.ca
(Monday to Friday from 08:00 to 16:00)

#### Street Cut Permit

- No person shall cut, break, tear up or remove any street surface or make any excavation in, on, over or under a street for any purpose without first having obtained the appropriate permit(s) from the Director.
- The person responsible for making a street cut must make an application for a Street Cut Permit at least forty-eight (48) hours prior to the commencement of work with the exception of an emergency repair work.
- For **emergency repair**, a permit is to be obtained within fortyeight (48) hours from the start of work or twenty-four (24) hours after work is completed, whichever is earliest.
- Late fee will be charged if a Street Cut Permit has not been obtained prior to commencement of work. Additional charges from an Operations Constable may apply in contravention of the Streets By-law.
- As part of an application, the applicant must pay a Street Cut
  Permit fee and one or more street cut repair fees established by
  Council from time to time. Street cut repair fees shall be
  sufficient to restore the street to a condition satisfactory to the
  Director. Pavement Restoration Guidelines and Boulevard
  Restoration Guideline are provided in this manual.
- Pavement undermining related to the street cut and/or not achieving a proper full-depth cut will increase the repair limits.
- The applicant may contact the designated employee prior or subsequent to issuance of the permit to determine an estimated restoration area. (See CITY AREA BOUNDARIES and CONTACTS)

- The street pavement ratings are available by visiting the City of Winnipeg website at <a href="http://www.winnipeg.ca/">http://www.winnipeg.ca/</a> and by selecting Departments > Public Works > Maps > <a href="https://www.winnipeg.ca/">Street Conditions.</a>
- Permit applicants have up to fourteen (14) calendar days to dispute any permit amendments. To dispute assessment, the applicant must provide clear reasoning, references to rules and photographs as to the reason of dispute via email. The information provided will be reviewed and a decision will be communicated to the applicant. If the request for change is accepted, a revised assessment will be sent to the applicant. If request for change is denied, the latest assessment will remain. In cases where Public Works does not have sufficient photos and/or required information, the applicant will be required to provide the information prior to the end of the dispute time period as indicated on the assessment. (Note: Permit applicants are required to take site photos with timestamp before commencing work and after completing work. Otherwise, the dispute will be invalid.)
- Refunds only apply to street cut repair fees, excluding Latent Sinkage fees if excavation on boulevard occurred. Permit fee is non-refundable.
- The restoration process for multiple cuts related to Major Utilities Capital Projects must be approved by the Supervisor of Right-of-Way Management (see CONTACTS) and will require the applicant to enter into an agreement to contract out the restoration along with hiring a private consultant for engineering services.

- For **planned utility work**, providing the work is continuous with multiple cuts along a city block(s), a single permit shall be issued per City Street, with a permit fee charged per City Block. The applicant must provide to the designated employee the following information prior to issuance of the permit(s):
  - Name of the prime utility for the proposed work
  - Description of the work area
  - Number of city blocks
  - List each City Street affected by work
    - Street Name (i.e. Nairn Ave): From the first street intersection on the first block (i.e. Grey St) - To the last street intersection on the last block (i.e. Keenleyside St) (Note: Divided streets require one (1) permit per direction of traffic)
    - Quantity per block (Mud, Pavement, Curb, etc.)
  - Site Plan Summary
  - o Utility Plan Drawing

#### **Customer Service Permit Clerks**

Public Works Department Customer Services Division 107-1155 Pacific Ave., Winnipeg, MB, Canada R3E 3P1 pwdcspermits@winnipeg.ca 204-986-3184

## **NOTIFYING BUSINESSES**

Utility companies are to provide advance notice containing general construction timelines and information to businesses that will experience a parking and/or loading effect as a result of construction.

Notification is required if all the following parameters are met:

- Planned work
- Duration of work is five (5) business days or longer
- On street parking and/or loading is affected by construction

A standard format notice shall be delivered to affected businesses along the City block(s) five (5) business days prior to commencement of work and/or post a form of notice at the site depending on the challenges presented by the adjacent land use within the same timeframe.

The notice shall include the following information:

- Limits of work
- Description of work
- Timeline of construction
- Contact information of person in charge of work

## **TEMPORARY TRAFFIC CONTROL**

## **Street Lane Closures**

The Contractor is subject to the Construction Agency responsibilities outlined in *Section 2* of the *Manual of Temporary Traffic Control*. This includes, but is not limited to, the requirement to obtain approval from the Traffic Management Branch to work on all City Streets.

If the restoration contractor is different than the permit applicant, the restoration contractor must contact the Traffic Management Branch to ensure that approval has been granted for the lane closure.

## **Work on City Streets**

When deemed necessary by the Director of Public Works, contractors doing work on City Streets are required to do all things necessary to expedite completion of the work. This includes all pavement restorations and is to be achieved through the use of:

- 24-hour activities
- Weekend work activities
- Steel plating of excavations during a.m. and/or p.m. peak rush hour periods

The permit applicant and/or restoration contractor are required to contact the Traffic Management Branch prior to commencing work to ensure the applicable guidelines are followed.

For additional information regarding work duration categories, see *Section 3.03* of the *Manual of Temporary Traffic Control*.

#### Street Lane Closure Form

Visit the City of Winnipeg website at <a href="http://www.winnipeg.ca/">http://www.winnipeg.ca/</a> and select Departments > Public Works > Transportation > Traffic Management > <a href="Request or manage a lane closure in the public right-of-way">Request or manage a lane closure in the public right-of-way</a>.

## **Traffic Management**

Public Works Department
Transportation Division
Traffic Management Branch
101-1155 Pacific Ave.,
Winnipeg, MB, Canada R3E 3P1
PWDLaneClosures@winnipeg.ca
(Monday to Friday from 08:30 to 16:30)

#### CONSTRUCTION

#### **Worksite Protection**

It is the permit applicant's responsibility for all work processes, safety and signing, until the cut has been permanently restored with the inspection and approval of the Area Cut Inspector.

Every excavation in a street shall proceed expeditiously and the permit applicant shall not allow a street cut excavation to remain open, unless the work is actively in progress.

All work within the Right-of-Way must be controlled in accordance with the *Manual of Temporary Traffic Control*.

Vehicular and pedestrian traffic is to be maintained with the structural capacity to maintain safe passage, at any time of the day.

## Site Clean Up

Upon completion of work or activity, all excess material shall be removed from the area of the construction site. The site shall be left in a safe, neat and clean condition to the satisfaction of the Director. The permit applicant or its agent must ensure that traffic flow and/or drainage shall be reinstated before leaving the site.

#### **Protection of Trees**

The Contractor shall take precautionary steps as specified in *Appendix O: Protection of Trees* to prevent damage from construction activities to existing boulevard trees within the limits of the construction area. All damage to existing trees caused by the Contractor's activities shall be repaired to the requirements of the City Forester or the designate.

#### Street Excavation

- All excavations shall be done in accordance with *Standard Construction Specifications CW 2030, CW 2160* and *CW 3230*.
- All pavement cuts must achieve full-depth sawcut in accordance with CW 3230 with the exception of emergency work.
- All utility clearances are the responsibility of the permit applicant or their agent.

## **Pavement Restoration Process**

#### Backfill

- Backfill all cuts under road pavement and/or within 450mm of a road pavement edge, including approaches with Cement-Stabilized Fill (CSF) to a minimum of one (1) meter depth from the underside of the finished pavement in accordance with CW 2030 and Table CW 21601.1.
- No pavement material shall be placed until bleed water has been evaporated from the CSF surface or has been drained or removed from the surface. CSF is not permitted as a temporary driving surface.
- Any voids discovered in the excavation during the course of construction are to be filled with Flowable Cement-Stabilized Fill in accordance with CW 2030 and Table CW 2160.1.

## **Temporary Surface Restoration and Maintenance**

Temporary restoration of utility pavement cuts shall be done in accordance with *CW* 3310.

The permit applicant must ensure that the temporary restoration of all cuts associated with the permit are monitored and maintained at all times in a condition that is safe for which that portion of the street is reasonably expected to be used. This obligation continues until all cuts associated with the permit are permanently restored to the satisfaction of the Director.

If the Director is of the opinion that any temporary restoration has created a hazardous situation which can endanger the public and/or cause damage to a vehicle, the Director may:

- issue charges under the Municipal By-law Enforcement Act for minor offences and under the Provincial Offences Act for dangerous and serious offences; and
- notify the permit applicant of the unacceptable patches/trenches. The applicant is required to respond within three (3) hours upon notification, rectify the hazard within twenty-four (24) hours and provide photographic evidence of work completion. Failure to rectify the hazard within the given timeframe may result in City Forces rectifying the hazard. Any costs incurred by the City for the maintenance of temporary restorations resulting from improper backfill, workmanship or compaction shall be passed on to the permit applicant.

## **Temporary Restoration - Capping Materials**

All Pavement Cuts (Roads, Lanes, Approaches, Sidewalks & Medians):

 Type 7 concrete in accordance with CW 3310 over Cement-Stabilized Fill

or

Minimum 75mm of hot mix asphalt over Cement-Stabilized Fill

## **Temporary Restoration - Winter Capping Materials**

## Sidewalks & Approaches:

• From November 1 to April 30, when hot mix asphalt is not in production, Cement-Stabilized Fill (CSF) will be considered as an acceptable temporary capping material. The CSF shall be in accordance with *CW 2160*. The utility shall be independent and isolated from the surrounding temporary capping material.

## Roads, Lanes & Medians:

• From November 1 to April 30, when hot mix asphalt is not in production, Type 7 concrete in accordance with *CW 3310* is the only acceptable temporary capping material.

## **Restoration Inspection**

Inspection for the work done in preparation for the permanent restoration must be arranged via email with the Area Cut Inspector (see Contacts), at least twenty-four (24) hours prior to placement of any pavement material. If the applicant has failed to arrange an inspection or did not receive an approval from the Cut Inspector, the applicant must either demonstrate that the restoration meets the requirements (compliance with this manual and the Standard Construction Specifications), or remove the restored surface and re-construct it at no cost to the City of Winnipeg within fourteen (14) days of request.

Note: The applicant or their agent must provide the Street Cut Permit Number in the email when requesting for inspection.

#### Permanent Restoration

- All restoration shall be done by a restoration contractor licensed under the Streets By-law No. 1481/77, in accordance with this manual and the City of Winnipeg Standard Construction Specifications.
- Restoration standards and specifications outlined in this manual shall supersede the City of Winnipeg Standard Construction Specifications when permanently restoring pavement cuts. (See Appendices)
- During Construction Season, all pavement cuts made on Regional Streets or permits associated with a regional street address shall be restored by the applicant or their agent no later than seven (7) days after completion of any utility repair or installation activity, weather permitting. While pavement cuts made outside the Construction Season shall be restored by June 30 of the following Construction Season. Applicants who do not hold a restoration license must provide their appointed Licensed Restoration Contractor to the Right-of-Way Management Supervisor (see Contacts).
- All restorations on Regional Streets are to be restored using Early Opening 24-hour concrete (Type 3 concrete in accordance with CW 3310).
- All pavement cuts made on Non-Regional Streets from May 1
  to September 30 in any given calendar year, shall be restored
  within sixty (60) days, weather permitting. Pavement cuts
  made outside of this period shall be restored by June 30 of the
  following construction season.

- Where a project or work requires a series of road cuts, the restoration shall be done in accordance with the *Pavement* Restoration Requirements for Series of Cuts.
- Permit applicant can elect to self-restore all pavement cuts on Non-Regional Streets by requesting approval from the Right-of-Way Management Supervisor. The applicant must hold a subsisting restoration license or hire a Licensed Restoration Contractor to permanently restore pavement cuts.
- Where the perimeter of a road pavement cut is within one (1) meter of a joint or the pavement edge, the area of the restoration shall be extended to the joint or the pavement edge, regardless of the street condition. Repair fees shall be added to the permit for the additional restoration area and for any curb replacement as a result of the extension.
- All utility cut restorations with concrete pavement thickness of 150mm or greater are to install bar mat reinforcements in accordance with CW 3310 and CD-07. (See Appendix G: Bar Mat Reinforcement Layout for Full-Depth Concrete Repair)
- Temporary restored pavement cuts that are not parallel or perpendicular to the direction of travel shall be corrected during permanent restoration. This may increase the size of the restoration area.
- Sidewalk restoration shall be done in accordance with CW 3325,
   CD-12 and CD-14. (See Appendix L: Miscellaneous Sidewalk Isolations and Appendix N: Concrete Sidewalk)
- All restorations around manholes and catch basins shall be separated by bond breaker and shall be done in accordance with CD-09, CD-10 and CD-11 (see Appendix I: Catch Basin and

Manhole Isolation Detail (New Pavements), Appendix J: Manhole Isolation Detail in Existing Pavements and Appendix K: Curb and Gutter Inlet Isolation Detail). A site meeting with BellMTS or Manitoba Hydro shall be required prior to any restorations are around their respective manholes.

- Products and suppliers to be used for pavement restoration must be approved by the City and can be found by visiting www.winnipeg.ca and selecting Departments > Corporate Finance > Materials Management > Standard Construction Specifications > Approved Product Suppliers or Approved Concrete Suppliers, or by using the following links:
  - o <u>Approved Product Suppliers</u>
  - o <u>Approved Concrete Suppliers</u>
- For hot and cold weather conditions, concrete placement shall be done in accordance with *CW 3310 Clause 6.12*.
- For acceptance of permanent restoration, the applicant or its agent must provide photo evidence of the restored pavement surface, that is free from defects or deficiencies. Work site clean-up is also a part of restoration acceptance (see Site Clean Up).

## Warranty for Pavement Cuts Restored by Applicant

The permit applicant is responsible for the repairs undertaken by the restoration contractor or their agents for a warranty period of one (1) year following the date of acceptance of permanent restoration.

The Director shall notify the permit applicant of observed defects or deficiencies, within the warranty period.

The permit applicant shall correct, to the satisfaction of the Director, all defects, deficiencies and damage identified by the designated employee in the manner and within four (4) weeks upon being notified.

If all outstanding defects or deficiencies have not been corrected during the given time period for corrections, or due to unfavorable weather conditions, then the warranty period may receive an extension for up to one (1) more year, or the City may repair any defects or deficiencies, whichever satisfies the Director. Any additional cost incurred by the City for the repair, or any emergency work as a result of improper backfill, compaction or poor workmanship, shall be passed on to the permit applicant.

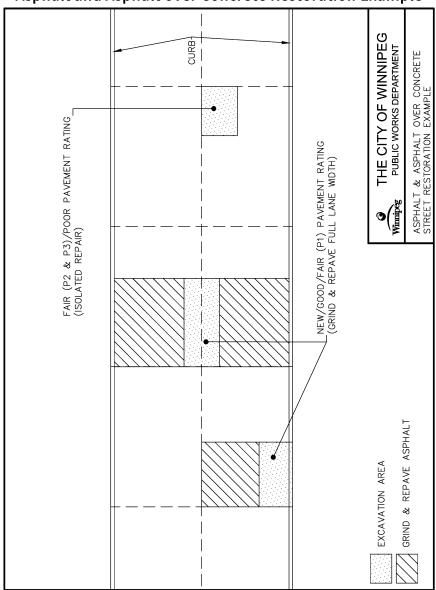
# Pavement Restoration Guidelines for Asphalt and Asphalt over Concrete

Rated Pavement	Regional Streets	Non-Regional Streets	
Condition of Segment	Action Required	Action Required	
New		Grind and repave full lane width, and length of excavation or project	
Good	Grind and repave full lane width, and length of excavation or project (see Pavement Restoration Requirements for Series of Cuts)	(see Pavement Restoration Requirements for Series of Cuts)	
Fair		Decision after inspection by Public Works Department (see Notes A-2, A-3 and Restoration Example)	
Poor	Decision after inspection by Public Works Department (see Notes A-2, A-3 and Restoration Example)	Isolated repairs accepted	

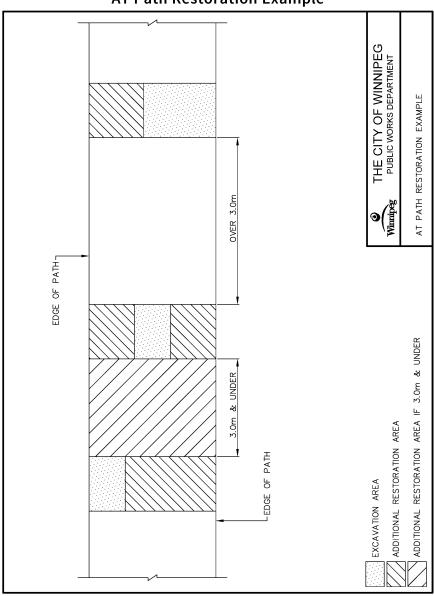
#### NOTES:

- **A-1** This table is only a guide. The actual extents of all pavement restorations are subject to pre-construction inspection and final approval by the Public Works Department.
- **A-2** Factors used by the Public Works Department to determine the extent of pavement restoration (Generally, in order of importance but not limited to):
  - Condition of surrounding pavement prior to start of project
  - Age of pavement
  - Classification of street (e.g. regional vs local)
  - Planned work in the right-of-way (future street projects)
  - Length of project
  - Number of required cuts in the project (see Pavement Restoration Requirements for Series of Cuts)
- A-3 In some cases where renewal work is warranted and/or Streets Maintenance is considering improvements in the current or following construction year, partnering with the Public Works Department may be possible. A pre-construction meeting with the designated employee is required to determine the extent of the work and amount payable by the department.

## **Asphalt and Asphalt over Concrete Restoration Example**



## **AT Path Restoration Example**



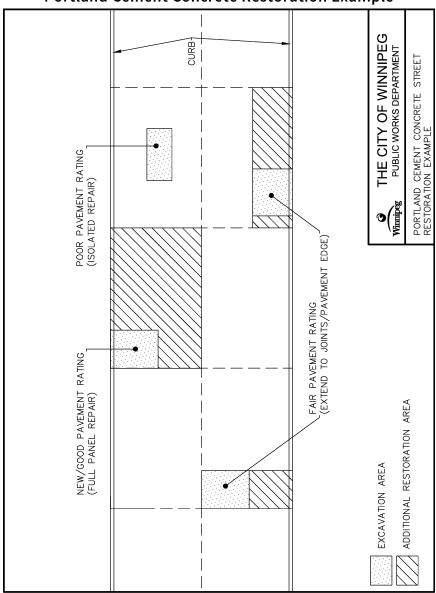
## Pavement Restoration Guidelines for Portland Cement Concrete

Rated Pavement	Regional Streets	Non-Regional Streets
Condition of Segment	Action Required	Action Required
New	Full panel repair	Full panel repair
Good	ruit panet lepan	rutt panet tepan
Fair	Decision after inspection by Public Works Department (see Notes B-2 and Restoration	Decision after inspection by Public Works Department (see Notes B-2 and Restoration Example)
Poor	Example)	Isolated repairs accepted

#### NOTES:

- **B-1** This table is only a guide. The actual extents of all pavement restorations are subject to pre-construction inspection and final approval by the Public Works Department.
- **B-2** Factors used by the Public Works Department to determine the extent of pavement restoration (Generally, in order of importance but not limited to):
  - Condition of surrounding pavement prior to start of project
  - Age of pavement
  - Classification of street (e.g. regional vs local)
  - Planned work in the right-of-way (future street projects)
  - Length of project
  - Number of required cuts in the project

## **Portland Cement Concrete Restoration Example**



## **Pavement Restoration Requirements for Series of Cuts**

Where a series of road cuts occur along asphalt or composite pavements at distances less than those identified in Table 1, the restoration should include milling a minimum depth of 40mm for the full width of the lane and replacing the asphalt surface between the cuts to restore the quality of the driving surface.

Table 1: Minimum Distance Between Cuts

Pavement	Posted Roadway Speed Limit		
Condition	≤ 60 km/hr	> 60 km/hr	
New	12m	20m	
Good	10m	12m	
Fair	8m	10m	
Poor	Decision after inspection by Public Works Department	Decision after inspection by Public Works Department	

#### NOTE:

 The actual extent of all pavement restorations are subject to pre-construction inspection and final approval by the Public Works Department.

#### **Boulevard Restoration Process**

Applicants will have the option for backfill compaction either by mechanical means or by jetting, flooding and tamping.

## **Mechanical Compaction of Backfill**

- All boulevard cuts as Class 2 Backfill: Use Type 1 material, with vibratory compactor in maximum 300mm layers to at least 95% of Standard Proctor Density, in accordance with CW 2030.
- All boulevard cuts as Class 4 Backfill: Use suitable excavated material compacted by mechanical means in maximum 300mm layers to a density equivalent to that of surrounding unexcavated material, in accordance with CW 2030.

## Jetting, Flooding and Tamping of Backfill

- All boulevard cuts made between and including May 15<sup>th</sup> and October 15<sup>th</sup> must be flood tamped immediately following backfilling operations in accordance with CW 2030.
- All boulevard cuts made between and including October 16<sup>th</sup> (of the previous year) and May 14<sup>th</sup> (of the current year) must be flood tamped by June 15<sup>th</sup> of the current year in accordance with CW 2030.

#### Assessment

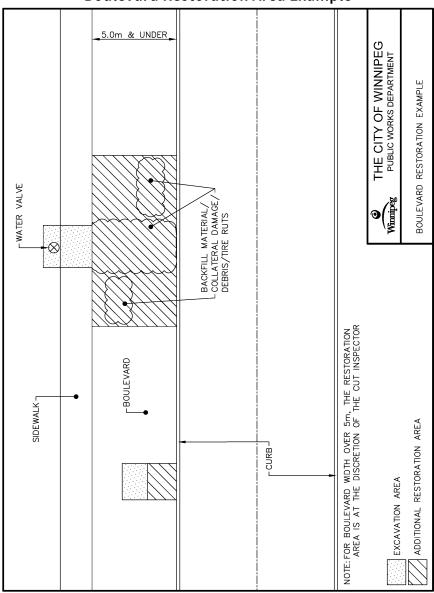
- All boulevard restoration areas shall be rectangular in shape and extended to the back of curb if boulevard width is five (5) meters or less. (See Boulevard Restoration Area Example)
- For ditch and boulevard wider than five (5) meters, the restoration area shall be at the discretion of the designated employee.

- Collateral damages shall be included for the restoration area which encompasses access to the cut area, stored debris and backfill material piles, tire, ruts, concrete work and any other action that may cause damage to the cut location.
- Permit amendment may be issued at any time prior to or during the restoration process.

#### Restoration

- Restoration time frame for boulevard cuts will be at the discretion of the Boulevard Restoration Contract Administrator. Factors involved are the established contract, weather condition, time of the year, site accessibility and pending adjacent pavement cut repair.
- Boulevard cut restoration shall take place from May 15 to September 15. Any restoration beyond these dates must be approved by the Senior Boulevard Cut Inspector (see CONTACTS).

## **Boulevard Restoration Area Example**



#### **APPENDICES**

Cut Details (CD) printed in the appendices section of this manual shall supersede the City of Winnipeg Standard Details (SD) and must be adhered to when restoring street cuts.

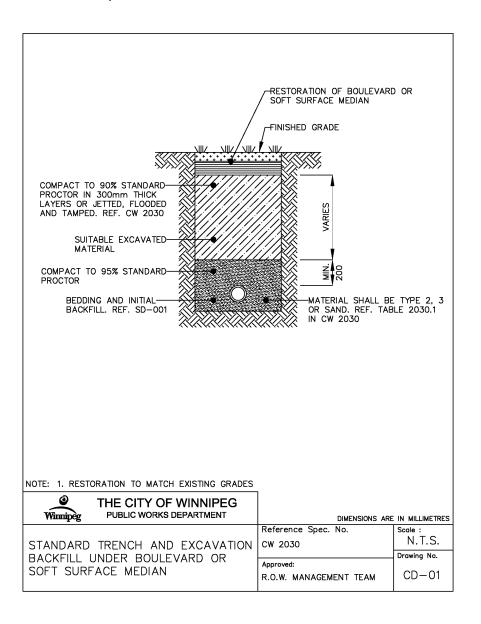
Where a Standard Detail drawing number is referred to within a Cut Detail drawing, the contractor shall adhere to the City of Winnipeg Standard Details found at the following link:

## https://legacy.winnipeg.ca/matmgt/spec/

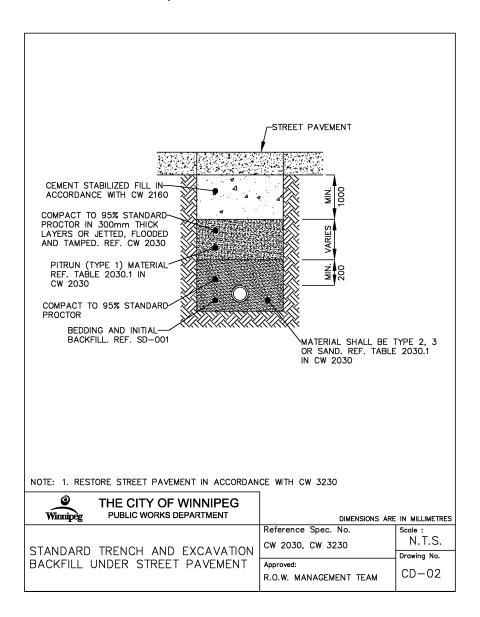
If clarification is needed or any questions regarding the Cut Detail drawings, contact one of the Area Cut Inspectors (see CONTACTS).

## **Appendix A: Standard Trench and Excavation Backfill**

## 1) Under Boulevard or Soft Surface Median

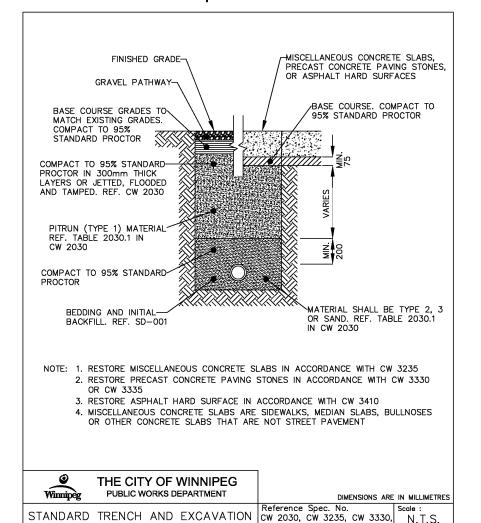


# Appendix B: Standard Trench and Excavation Backfill 2) Under Street Pavement



## **Appendix C: Standard Trench and Excavation Backfill**

## 3) Under Miscellaneous Concrete Slabs, Paving Stones or Asphalt Hard Surface



CW 3335, CW 3410

R.O.W. MANAGEMENT TEAM

Approved:

BACKFILL UNDER MISCELLANEOUS

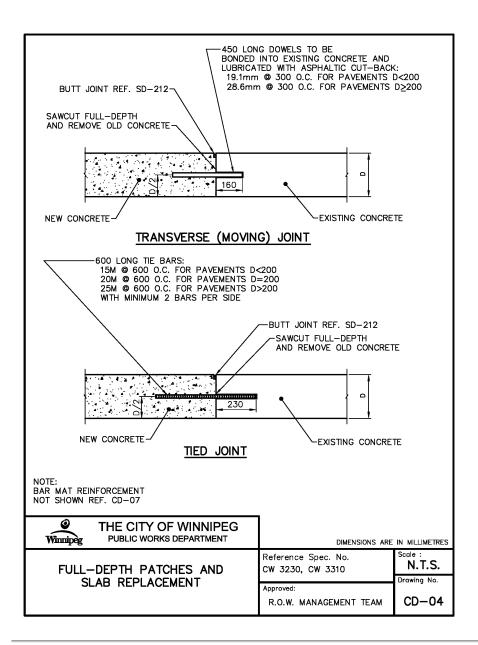
OR ASPHALT HARD SURFACE

CONCRETE SLABS, PAVING STONES

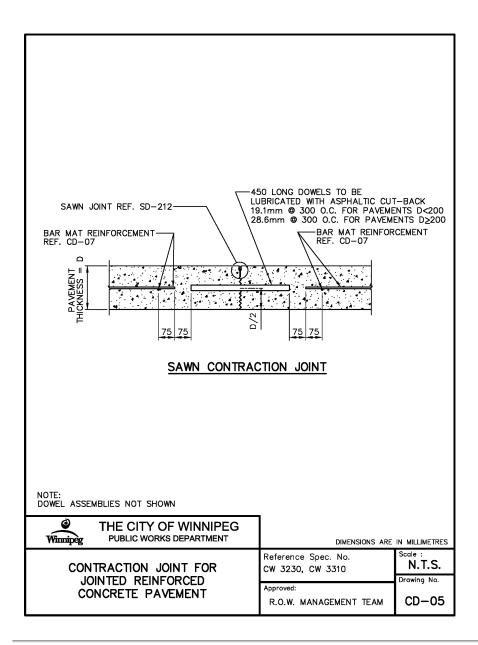
Drawing No.

CD-03

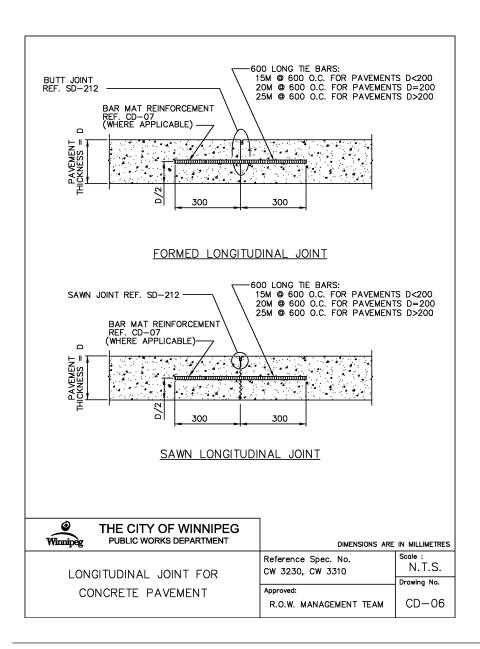
## Appendix D: Full-Depth Patches and Slab Replacement



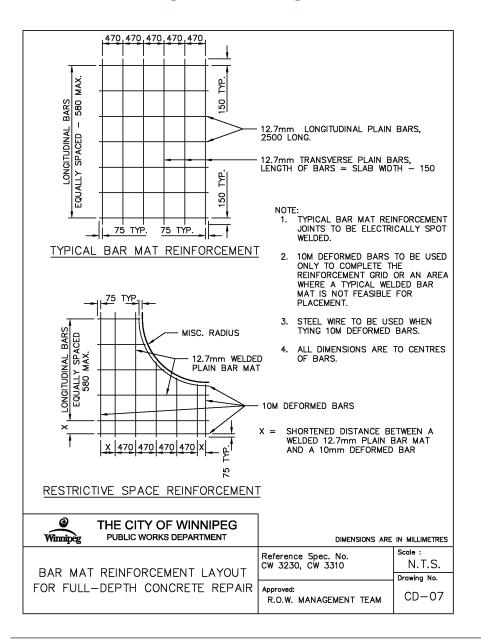
# Appendix E: Contraction Joint for Jointed Reinforced Concrete Pavement



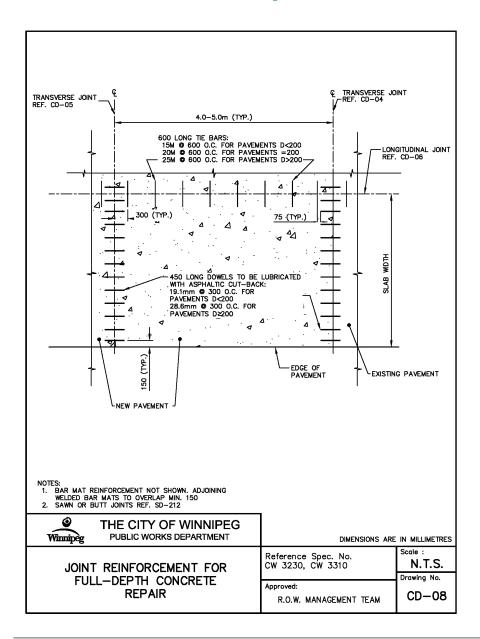
## **Appendix F: Longitudinal Joint for Concrete Pavement**



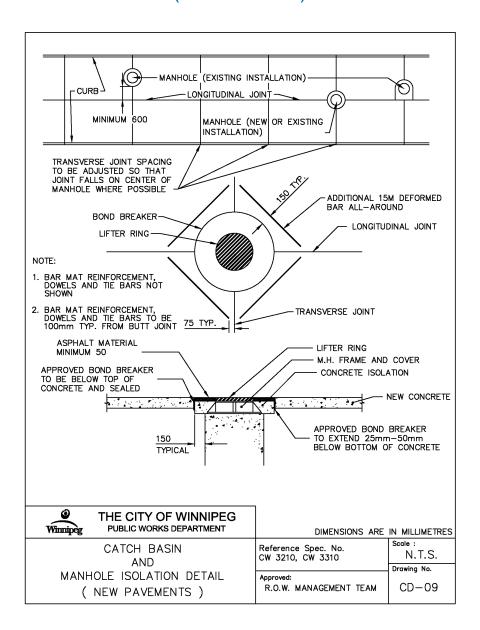
## Appendix G: Bar Mat Reinforcement Layout for Full-Depth Concrete Repair



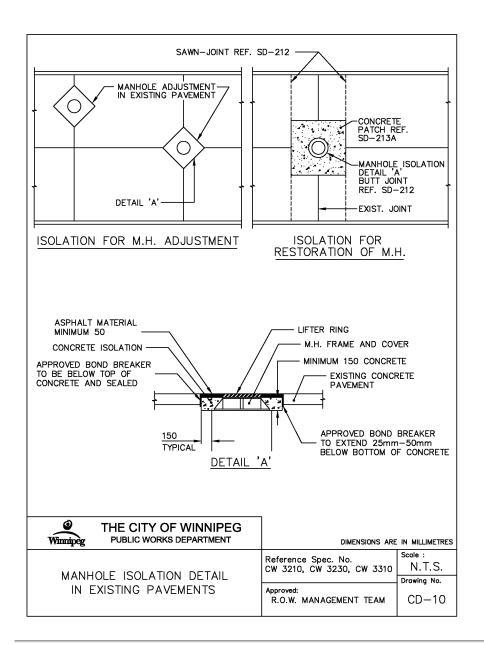
## Appendix H: Joint Reinforcement for Full-Depth Concrete Repair



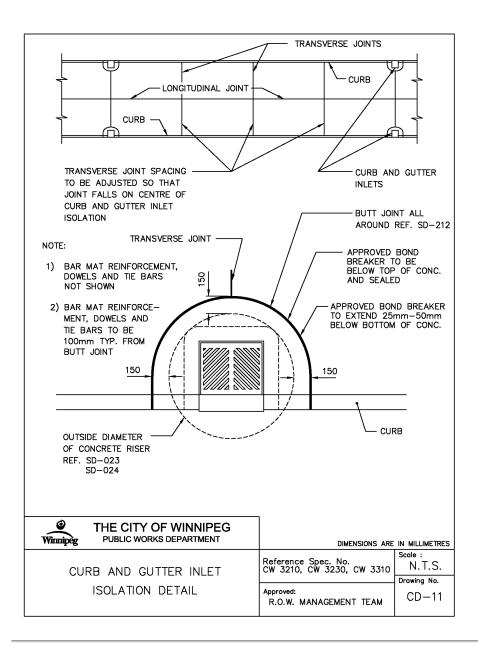
# Appendix I: Catch Basin and Manhole Isolation Detail (New Pavements)



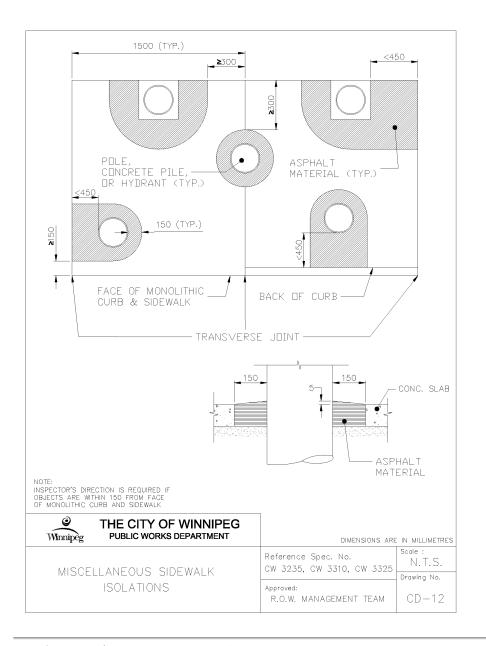
# Appendix J: Manhole Isolation Detail in Existing Pavements



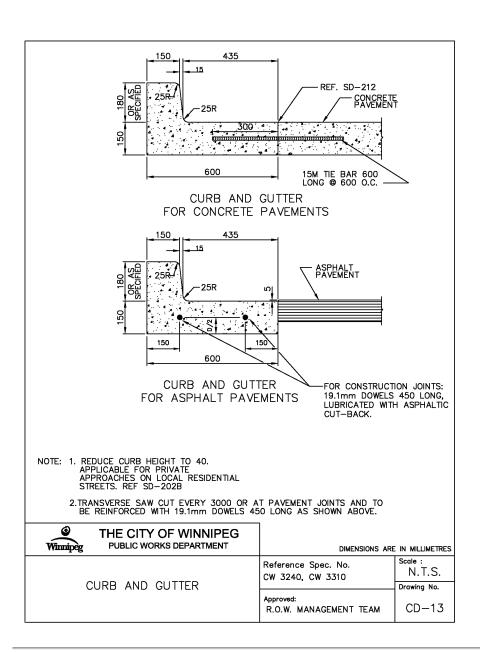
## Appendix K: Curb and Gutter Inlet Isolation Detail



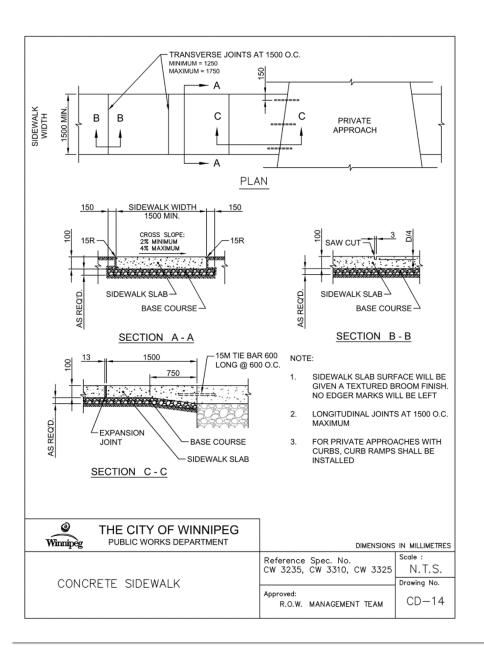
## Appendix L: Miscellaneous Sidewalk Isolations



## Appendix M: Curb and Gutter



## Appendix N: Concrete Sidewalk



## **Appendix O: Protection of Trees**

- The Contractor shall not stockpile materials and soil, or park vehicles and equipment on boulevards within two (2) metres of trees.
- Trees identified to be at risk by the Designated Employee are to be strapped with 25 x 100 x 2400mm wood planks, or suitably protected as approved by the Designated Employee.
- Excavation shall be performed in a manner that minimizes damage to the existing root systems. Where possible, excavation shall be carried out such that the edge of the excavation shall be a minimum of 1.5 times the diameter (measure in inches), with the outcome read in feet, from the closest edge of the trunk. Where roots must be cut to facilitate excavation, they shall be pruned neatly at the face of excavation.
- Operation of equipment within the dripline of the trees shall be kept to the minimum required to perform the work required. Equipment shall not be packed, repaired, refueled; construction materials shall not be stored, and earth materials shall not be stockpiled within the driplines of trees. The dripline of a tree shall be considered to be the ground surface directly beneath the tips of its outermost branches. The Contractor shall ensure that the operations do not cause flooding or sediment deposition on areas where trees are located.
- Work on-site shall be carried out in such a manner so as to minimize damage to existing tree branches. Where damage to branches does occur, they shall be neatly pruned.

#### LINKS

 The City of Winnipeg's Streets By-Law No. 1481/77 and list of Regional Streets available at:

https://clkapps.winnipeg.ca/dmis/docext/ViewDoc.asp?DocumentTypeId=1&DocId=304

 The City of Winnipeg's Manual of Temporary Traffic Control on City Streets available at:

https://legacy.winnipeg.ca/publicworks/transportation/pdf/2 022-ManualOfTemporaryTrafficControl.pdf

 The City of Winnipeg's Standard Construction Specifications including approved product and concrete suppliers available at:

https://legacy.winnipeg.ca/matmgt/spec/default.stm

The City of Winnipeg's Street Conditions map available at:

https://legacy.winnipeg.ca/publicworks/maps/streetconditions.asp

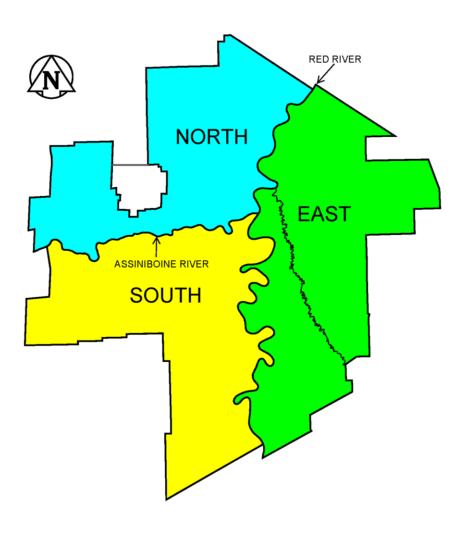
 The City of Winnipeg's Regional Street Network map available at:

https://legacy.winnipeg.ca/publicworks/trafficControl/pdf/regionalStreetNetwork-MAP.pdf

NOTES		

NOTES		

## **CITY AREA BOUNDARIES**



#### **CONTACTS**

### **Supervisor of Right-of-Way Management**

Email: OTarasov@winnipeg.ca

### **Senior Boulevard Cut Inspector**

Email: <u>JWyborn@winnipeg.ca</u>

#### **North Area Cut Inspector**

Email: Pwd-N-Cut@winnipeg.ca

#### **East Area Cut Inspector**

Email: <u>Pwd-E-Cut@winnipeg.ca</u>

#### **South Area Cut Inspector**

Email: Pwd-S-Cut@winnipeg.ca

#### Street Cut Permit Clerks

Email: <a href="mailto:pwdcspermits@winnipeg.ca">pwdcspermits@winnipeg.ca</a>

Phone: 207-986-3184

#### **Underground Structures**

Email: ugsapproval@winnipeg.ca

#### **Traffic Management Branch**

Email: PWDLaneClosures@winnipeg.ca

### **General Inquiries - Customer Service**

Email: 311@winnipeg.ca

Phone: 311 or 1-877-4974 (outside Winnipeg)

