



Schedule “B” - Restoration Guidelines

For complete roadway restoration requirements, please review the City of Edmonton Design and Construction Standards that are available online at: www.edmonton.ca.

Questions regarding restorations standards can also be addressed by calling 311.

Introduction

All work within road right-of-way must be completed as per the City of Edmonton Design and Construction Standards.

If these Guidelines and Condition Summaries differ in agreement from the City of Edmonton Design and Construction Standards, then the Design and Construction Standards will be accepted as correct.

City Operations regularly audits utility work locations to ensure restoration standards are met. Workmanship falling below minimum standards may require removal and restoration of the utility cut volume. Despite best practices being followed for utility cut restoration, infrastructure may still fail. If it is determined that a Utility Cut restoration has failed, City Operations will continue to contact the party responsible to complete repairs until such time they are no longer warranted. This is evaluated on a case by case basis.

In general, road right-of-way must be restored to as near state and condition that existed prior to the construction. These guidelines are written to assist projects in meeting the minimum standards outlined in the City of Edmonton Design and Construction Standards.

Definitions

Utility Cut: Any work undertaken along road right(s)-of-way that involves surface disturbance, cutting of road, sidewalk and boulevard surface, trenching or pushing of infrastructure below existing ground level, or in any other way that would compromise the existing roadway surface infrastructure.

Road Right-of-way: All lands within Municipal Boundary that are not titled parcel and generally form part of the transportation system road network.

Moratorium Road: Roads that have Visual Condition Index (VCI) rating of 5.0 or greater based on the MPMA database, managed by Parks and Roads Services, City Operations. Moratorium roads require a higher restoration than roads with VCI rating less than 5.0.

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Condition Summaries

Condition for Cutting of road right-of-way infrastructure at:

- Minor Collector Road, Residential Road, Alley, Asphalt Walk or Shared Use Path (SUP),
If the edge of utility cut is less than 1.5m from the edge of pavement, then remove pavement structure completely to edge of pavement.
- Major Collector Road, Arterial Road, Expressway Road and Freeway Road,
If the edge of utility cut is less than 1.0m from the edge of pavement, then remove pavement structure completely to edge of pavement.

Condition for Sidewalk Restoration

- Cut at concrete joints.
- If concrete joints are not present, then cut at 1.5m intervals longitudinally along the length of sidewalk panel to be removed

Condition for Daylighting Restoration

- Core holes shall be kept out from vehicle wheel path whenever possible. Keyhole technology shall be used wherever the road structure allows.
- Fill-Crete shall be used for backfill material up to the bottom of the base layer of asphalt.
Do not use Fill-Crete within the roadway structure

Condition for Backfill and Roadway Base Structure Restoration

- Trenching and backfill shall be completed in accordance to Section 2318 of the City of Edmonton Design and Construction Standards requiring uniform horizontal lifts and compaction according to backfill material type.
- Backfill material testing is required on all excavations within the road right-of-way.
Refer to Section 02317 (1.3) & Section 02318 (3.7.4) in the roadway design and construction standards for details.
- Upon completion of work, backfill material testing reports must be sent to **utilitycuttestingdata@edmonton.ca**
Failure to submit report within 10 days of OSCAM Permit expiration will assume that no testing was done or that the material failed. Should the site need restoration at a future date, City Operations may order the backfill material removed and reinstalled complete with testing data submissions.

Condition for Roadway Restoration at Full Depth Reclamation (FDR) Locations

- If a utility cut location is along a road identified as having undergone FDR rehabilitation, then 2 options are available for restoration:
 - Option 1,
The foamed road structure removed can be replaced with new plant mix foam at a 1:1 ratio.
 - Option 2,
The foamed road structure removed can be replaced 20mm-B gravel at a ratio of 1:1.75 with 175mm base gravel, 20mm-B, for every 100mm of foam structure removed and capped with 50mm surface asphalt, 10mm-HT, to complete restoration to grade.

Condition for Roadway Restoration with Concrete base:

- Place concrete base of an equal thickness matching the existing concrete structure.
- Tie the new concrete to the existing concrete structure using 15M deformed bars, 300 mm long, at 750 mm spacing with tie bars extending 150 ±25 mm into the existing concrete at mid-depth.

Condition for Pavement Restoration along Moratorium Road:

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- The utility cut shall be made perpendicular to the longitudinal length of the road, and asphalt removed to the full width of all affected vehicle travel and parking lane(s), and to full paved width for alley(s).
- Mill the adjacent asphalt pavement 50mm deep, and overlay the full width of affected vehicle travel and/or park lane(s) compromised by the utility cut ensuring that milling is extended to 300mm beyond the excavation and running longitudinally with the road.

Condition for Pavement Restoration along VCI Rate Road less than 5.0 (Non- Moratorium):

- Mill the adjacent asphalt pavement 50mm deep extending 300mm past the excavation in all directions from utility cut that is squared perpendicular and longitudinally with the road.

Condition for Pavement Restoration with more than one excavation along the road:

- Utility cut restoration shall be combined into one (1) continuous patch based on the distance between the excavations as per the chart below,

Roadway	New Asphalt < 3yr	Moratorium	VCI less than 6
Arterial	60m or less	30m or less	15m or less
Collector	60m or less	30m or less	15m or less
Residential/Industrial	15m or less	15m or less	Not Applicable
Alley	15m or less	15m or less	Not Applicable

Condition for Replacement Pavement Structure:

Roadway Class	Surface Asphalt	Base Asphalt
Arterial Roadway or Freeway	50mm, 10mm-HT	250mm, 20mm-B
Collector or Industrial Roadway	50mm, 10mm-HT	175mm, 20mm-B
Commercial Alley	50mm, 10mm-HT	175mm, 20mm-B
Residential Street or Alley	150mm, 10mm-LT (minimum)	

Various road segments within the City is composed of Stone Mastic Asphalt (SMA), as shown on the SMA Locations Map attached. Restoration shall be in accordance to Section 2067 of the City of Edmonton Design & Construction Standards. Various road segments within the City is composed of Stone Mastic Asphalt (SMA), as shown on the SMA Locations Map attached. Restoration shall be in accordance to Section 2067 of the City of Edmonton Design & Construction Standards.

Curb, Gutters, Sidewalks and Boulevard

- Curb & Curb & gutter - Remove any length less than 1.5m to the next crack control joint. Remove a minimum length of 600mm on both sides of a catch basin to be moved or installed.
- Sidewalk & crossing pad - remove in full panels, remove any length less than 1.5m to the next crack control joint. Remove to a minimum 1.5m pad by 1.5m pad. Remove remaining crossing with less than 1.5m in least dimension
- Crossings & Curb ramps- remove to the nearest control joint, remove the remaining crossing if it is less than 1.5m in least dimension. Remove entire curb ramp
- Longitudinal construction joints - Use 10M deformed tie bars at 1m spacing and extending 300mm minimum into both sides of the joint
- Boulevard must be restored back to the pre-cut condition. Any damaged turf areas must be re-sodded or seeded landscaped to the satisfaction of the Roads & /Parks. Areas showing deterioration, bare spots or thin areas shall be re-seeded or resodded at the Contractor’s expense.

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Use 10M deformed dowel bars at 300mm spacing and extending 300mm into both sides of the joint. Concrete restoration work is not allowed from November 1st to March 2nd. Permanent repair must be done within 90 days after your temporary restoration or shortly after March 2nd if the 90 days falls within the no concrete work restriction period.

As per Traffic Bylaw 5590 , Part IV, Section 68 of the City of Edmonton Bylaw, ULA and OSCAM permits require that all work is complete as per the City of Edmonton Design and Construction Standards. Failure to complete roadwork as per permit issued may result in ticketing, fines and restoration costs charged back to permit holder.