



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** March 23, 2005
From: Robert Gonzalez, P.Eng. **File:** 8060-20-7869
Director, Engineering
Re: Request Adoption of the Roadway Restoration Regulation Bylaw

Staff Recommendation

That Roadway Restoration Regulation Bylaw No. 7869 be introduced and given first, second and third readings.

Robert Gonzalez, P.Eng.
Director, Engineering
(4150)

FOR ORIGINATING DIVISION USE ONLY									
ROUTED TO:		CONCURRENCE		CONCURRENCE OF GENERAL MANAGER					
Roads & Dykes	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
City Clerk	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
Law	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
Development Applications	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
Water Services	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
Sewerage and Drainage	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>					
REVIEWED BY TAG	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	REVIEWED BY CAO	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>

Staff Report

Origin

Current City road cut restoration practices have several limitations whereby there is direct impact to our operational costs and City beautification. Staff propose adoption of a Roadway restoration Regulation Bylaw to address the negative consequences associated with the present practice, provide benefits to the development community and achieve the City's vision of being the most appealing, livable, and well-managed community in Canada.

Analysis

The City's paved road rights-of-way serve two primary purposes, the most obvious of which is for the conveyance of traffic. Utilities are also contained within roads and typically include water, storm, gas, electric, telephone and cable mainlines and to a more limited extent may contain City sanitary sewers, GVRD trunk mains and Trans Mountain Pipeline transmission facilities.

Access to existing underground utilities resulting in disruption to the asphalt surface is required for numerous reasons with some of the more frequent events being:

- Provision of services to newly created developments and subdivisions;
- Installation of new capital works utilities;
- Operation's maintenance projects and service request responses; and
- Gas, Hydro, Electric and Cable operational needs and capital projects.

The City's current standard for repair of the disrupted asphalt surface is to simply restore only the surface that was directly impacted by the work, no matter what shape it may take. This approach has several negative consequences:

- A reduced life expectancy of the asphalt surface;
- Increased maintenance cost associated with road cut repairs;
- Vibration complaints from the public who reside or work adjacent to or near road cuts;
- The road surface aesthetics are almost always poor and do not support the City's "Appealing" vision;
- Vehicle (particularly motorcycles) and bicycle safety is compromised and City exposure to legal liabilities is increased; and
- Public perception that the City is not properly taking care of road infrastructure.

Tangible City costs associated with the present pavement restoration practice were \$176,000 in 2003 and as of August 2004 were \$76,600. These costs are driven by the City's response to complete repairs to road cuts as well as to respond to public complaints surrounding vibrations and noise associated with the road cut.

The proposed Roadway Regulation Bylaw (Attachment 1) seeks to eliminate or at least mitigate the impact, costs and other negative aspects associated with the present road cut practice. The proposed bylaw has targeted only Collector and Arterial Roads as well as bus routes. It has been

the City's experience that only those roads that contain high volumes of vehicular traffic including materials transport vehicles and buses have had negative impacts to road cuts.

Highlights of the proposed bylaw include:

- Consistency with road restoration practices;
- The opportunity for the organization making the road cut to coordinate with the City's annual paving program (through application) and realize the savings associated with the economy of scale;
- Where road cuts are parallel to the traffic lane, restoration of the entire lane width with new asphalt is required (Attachment 2);
- Where roads cuts are perpendicular to the lanes of traffic, a minimum paved width of 8 metres is required (Attachment 3).

The proposed bylaw will positively affect both the City's daily operations as well as several external stakeholders including the development community and external utility companies. The general public will be indirectly impacted in a positive manner, most noticeably in mitigating vibrations, the more appealing nature of the restoration, an increased roadway life expectancy and a positive impact on the tax base.

Impact on Utility Companies

Through discussion with the Utility companies (Hydro, Gas and Electric), they have been advised of the proposed bylaw including the upgraded pavement restoration requirement and economy associated with the scope of pavement restoration under the City's annual paving program. In general the Utility companies favour the opportunity to realize the cost efficiencies of completing pavement restoration through the City's annual paving program and expressed some concern with the larger paving area.

Impact on Development

Staff anticipate a net positive impact on development in the majority of cases as follows:

- No net cost increases related to the proposed bylaw, i.e., the 2005 connection rates for water, sanitary and drainage which include the cost to complete final restoration have not been changed.
- A quicker turn-around time; and
- A considerably more aesthetically pleasing restoration.

Staff completed information presentations to the Urban Development Institute on November 24, 2004 and February 18, 2005. Feedback was positive as it was recognized that developers would end-up with a much more appealing product with no increases in their cost.

Impact on City Operations

Impacts on City of Richmond Operations crews are anticipated to be as follows:

- A reduced response requirement associated with customer service requests related to vibration complaints, aesthetics and safety related issues;
- Reduced maintenance costs associated with repair of restored road surfaces;
- Reduced demand on City forces to complete development, capital works and utility related pavement restorations;
- Water connection costs potentially may increase while sanitary and drainage rates may potentially decrease.

Implementation

The proposed bylaw effective date is June 1, 2005 in order to allow time to formally advise developers and set-up the internal process. It is intended to provide formal notification to all the identified external stakeholders through direct written correspondence should Council approve the proposed bylaw as well as finalize the internal administrative processes. Other communication initiatives intended include the City website and the local newspaper Notice Board. Staff will also monitor the financial impacts of the implemented bylaw in 2005 and make any adjustments to reflect any savings or increased costs accordingly.

Financial Impact

There is no financial impact anticipated.

Conclusion

The proposed bylaw promotes the City's vision, specifically to be the most appealing, livable, and well managed community in Canada and eliminates or mitigates several negative consequences associated with the present road cut restoration practices. Through coordination with the City's annual paving program, it is anticipated that the development community will realize financial savings while the external utility companies may realize modest cost increases dependant upon the extent of impact to our roads. Staff recommend that the proposed Roadway Restoration Regulation Bylaw No. 7689 be introduced and adopted by Council.



Jim V. Young, P.Eng.
Manager Engineering Design and Construction
(4610)



CITY OF RICHMOND

ROADWAY RESTORATION REGULATION

BYLAW NO. 7869

EFFECTIVE DATE –

ROADWAY RESTORATION REGULATION

BYLAW NO. 7869

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ROADWAY RESTORATION REGULATION BYLAW NO. 7869

The Council of the City of Richmond enacts as follows:

PART ONE: GENERAL PROHIBITION

1.1 Roadway Restoration Obligation

- 1.1.1 Unless specifically exempted under a Municipal Access Agreement, every person making a cut in the **roadway of collector, arterial or bus route highways**, for the purpose of installing underground utilities, must restore the **roadway** according to the requirements specified in this bylaw.
- 1.1.2 Unless specifically exempted under a Municipal Access Agreement, no person shall perform **final restoration** of the **roadway** without first obtaining permission from the **City** as specified in this bylaw.

PART TWO: APPLICATION PROCEDURE

2.1 Application Procedure

- 2.1.1 Where a person wishes to make a cut in the **roadway** in order to install underground utilities, such person must:
 - (a) complete a roadway restoration application form provided by the **General Manager, Engineering & Public Works**; and
 - (b) pay an application fee of \$1.
- 2.1.2 Once a person has fulfilled the requirements in subsection 2.1.1, the **City** will determine whether the person or the **City** will perform the **final restoration** of the **roadway**.
- 2.1.3 If the **City** directs the person to perform the **final restoration** of the **roadway**, the person must:
 - (a) post security based upon the estimated cost of the restoration, as determined by the **General Manager, Engineering & Public Works**;
 - (b) provide proof of insurance naming the **City** as an additional insured;
 - (c) indemnify and save harmless the **City** against all loss and damage related to the restoration; and
 - (d) complete and maintain any temporary pavement restoration until **final restoration** has been completed.

2.1.4 If the **City** will perform the **final restoration** of the **roadway**, the person must:

- (a) pay for the **final restoration** in the amount specified by the **General Manager, Engineering & Public Works**; and
- (b) complete and maintain temporary pavement restoration until the **City** has completed the **final restoration** of such pavement.

2.2 Authorization

- 2.2.1 Once the **City** is satisfied that the steps in subsection 2.1 are complete, the **General Manager, Engineering & Public Works** may give written authorization for the person to proceed with a **roadway** cut and, if applicable, to proceed with **final restoration** of the **roadway**, subject to any additional terms and conditions which the **General Manager, Engineering & Public Works** considers to be appropriate.

PART THREE: ROADWAY RESTORATION TERMS AND CONDITIONS

3.1 Authority of General Manager, Engineering & Public Works

3.1.1 The **General Manager, Engineering & Public Works** may require a person undertaking **final restoration** of the **roadway**, to:

- (a) remove and replace any deficient work; and
- (b) revise such person's schedule to accommodate the **City's** concerns and priorities.

3.2 Pavement Restoration Conditions

3.2.1 Any person granted permission to undertake **final restoration** of the **roadway** must:

- (a) bear all costs for **final restoration** of the **roadway** as determined by the **General Manager, Engineering & Public Works**;
- (b) comply at all times with any directions relating to work scheduling, and any special conditions imposed by the **General Manager, Engineering and Public Works**;
- (c) comply with all applicable Federal and Provincial laws and enactments, with all bylaws and regulations of the City, and with the most current edition of:
 - (i) Workers' Compensation Board Safety Regulations; and
 - (ii) the Ministry of Transportation Traffic Control Manual for Work on Roadways;
- (d) comply with any conditions required by **General Manager, Engineering & Public Works** under subsection 2.2.1;
- (e) repair utility trenches of any dimensions as part of the **final restoration**;

- (f) in the case of a **roadway** cut made that is parallel to the lane lines, mill the existing **roadway** with a finished asphalt surface to the centreline, or the full width of the travelled lane affected by such **roadway** cut, whichever is applicable;
- (g) restore all **cross cuts** in compliance with the latest edition of the Mater Municipal Construction Document, with the exception that the width of the **roadway** restoration must:
 - (i) be a minimum of 8 meters, as measured parallel to the lane lines, and
 - (ii) be perpendicular to the lane line centred at the cross cut centre point;as determined by the General Manager, Engineering and Public Works; and
- (h) restore all other public and private structures affected by the roadway cuts to the satisfaction of the **General Manager, Engineering & Public Works**.

3.3 Deficiencies

- 3.3.1 Where, in the opinion of the **General Manager, Engineering & Public Works**, the **final restoration** being undertaken by a **person** is deficient, the **General Manager, Engineering & Public Works** may notify the person in writing, of the deficiencies, and require such person to remedy such deficiencies.
- 3.3.2 Where the **person** notified in accordance with subsection 3.3.1 does not comply with the requirements specified in the notification within the time indicated, the **General Manager, Engineering & Public Works** is authorized to remedy the deficiencies at such person's expense and may draw upon the **security** provided by the person under subsection 2.1.3(a).
- 3.3.3 If the **security** is insufficient to cover costs incurred by the **City** under subsection 3.3.2, the **City** will provide the person with an invoice which will be due and payable immediately upon receipt.
- 3.3.4 Where the person disputes the deficiencies described in the notice, the matter will be referred to the **General Manager, Engineering & Public Works** for review, and the decision of the **General Manager, Engineering & Public Works** is final.

PART FOUR: VIOLATIONS AND PENALTIES

4.1 Any person who:

- (a) violates or who causes or allows any of the provisions of this bylaw to be violated; or
- (b) fails to comply with any of the provisions of this or any other bylaw or applicable statute; or
- (c) neglects or refrains from doing anything required under the provisions of this bylaw, or

- (d) obstructs, or seeks or attempts to prevent or obstruct a person, who is involved in the execution of duties under this bylaw,

is deemed to have committed an infraction of, or an offence against this bylaw is liable on summary conviction, to the penalties provided for in the *Offence Act*, and each day that such violation is caused, or allowed to continue, constitutes a separate offence.

PART FIVE: INTERPRETATION

5.1 In this bylaw, the following words have the following meanings:

ARTERIAL HIGHWAY	shall be as defined in the latest edition of the Transportation Geometric Design Guide for Canadian Roads and as supplemented by the City's own classification system.
BUS ROUTE	shall be defined as any highway within the City that is used as a regular bus route or may be used as a future bus route.
CITY	means the City of Richmond.
COLLECTOR HIGHWAY	shall be as defined in the latest edition of the Transportation Geometric Design Guide for Canadian Roads and as supplemented by the City's own classification system.
COUNCIL	means the current Council of the City .
CROSS CUT	means any cut to the roadway that are at any other angle to the curb line other than parallel;
FINAL RESTORATION	means the materials, equipment and manpower necessary to bring the highway back to its normal operating condition.
GENERAL MANAGER, ENGINEERING & PUBLIC WORKS	means the person appointed by Council to the position of General Manager, Engineering & Public Works, and includes a person designated as an alternate.
HIGHWAY	includes a developed street, road, lane, bridge, and viaduct, but does not include a private right-of-way on private property.
ROADWAY	means that portion of a highway , which is improved for use by vehicular traffic, and includes paving, underground utilities, curbs and gutters.

SECURITY

means cash, certified cheque, bond or letter of credit in the form as determined by the **City** in favour of the **City**.

PART SIX: SEVERABILITY AND CITATION

6.1 If any part, section, sub-section, clause, or sub-clause of this bylaw is, for any reason, held to be invalid by the decision of a Court of competent jurisdiction, such decision does not affect the validity of the remaining portions of this bylaw.

6.2 This bylaw is cited as “**Roadway Restoration Regulation Bylaw No. 7869**”

FIRST READING

SECOND READING

THIRD READING

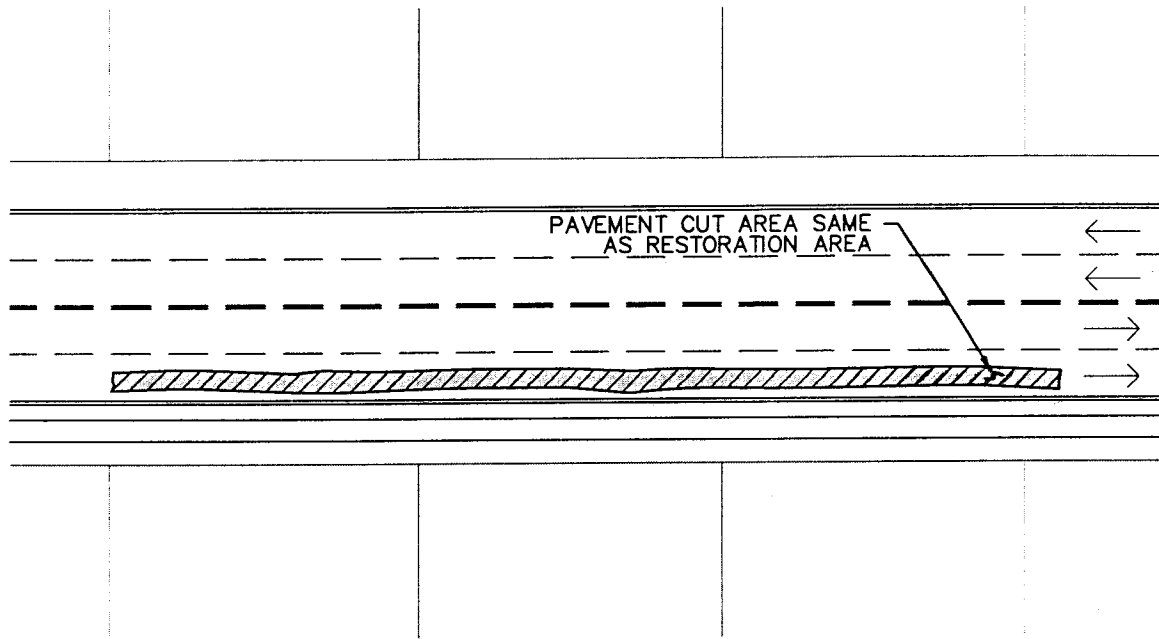
ADOPTED

CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor

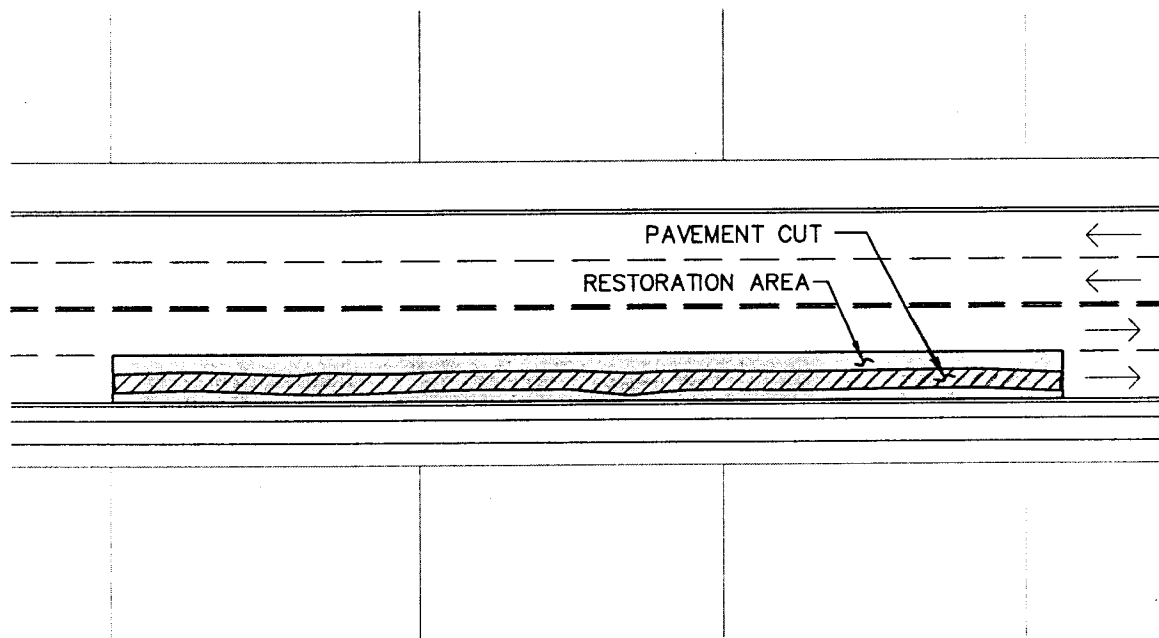
MAYOR

CITY CLERK

PRE-BYLAW ROAD-CUT RESTORATION



PROPOSED BYLAW ROAD-CUT RESTORATION



SCALE : N.T.S.

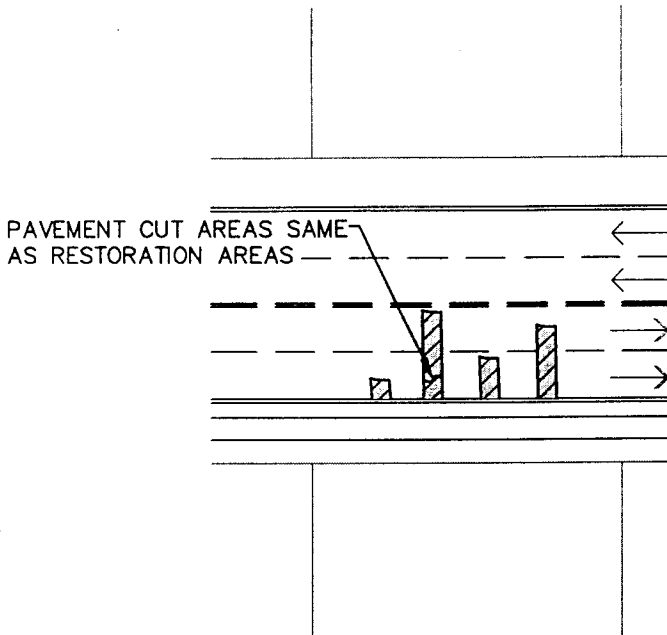
**City of
Richmond**

6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

PROPOSED
ROAD RESTORATION BYLAW

DRAFT

PRE-BYLAW ROAD-CUT RESTORATION (\$3000)



PRE-BYLAW COSTS

ASPHALT UNIT RATE

4 CROSS CUTS

4 CUTS x \$750/CUT = \$3000
BASED ON 20m WIDE LOT FRONTAGE

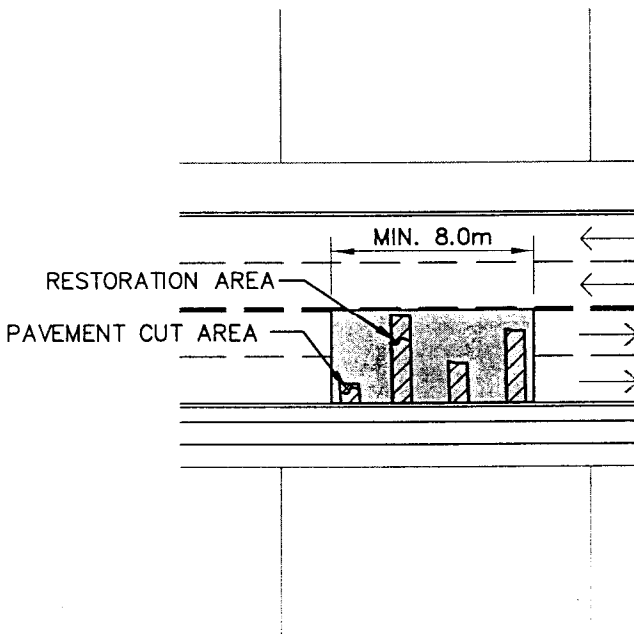
3 CROSS CUTS

3 CUTS x \$750/CUT = \$2250

QUALITY ISSUES

- HAND LAID ASPHALT
- VIBRATION
- ROAD CUT MAINTENANCE
- REDUCED AESTHETIC VALUE

PROPOSED BYLAW ROAD-CUT RESTORATION (\$2000)



PROPOSED BYLAW COSTS

10m x 6.5m x \$30/sq.m
TOTAL COST = \$1950

15m x 6.5m x \$30/sq.m
TOTAL COST = \$2925

QUALITY ISSUES

- MACHINE LAID ASPHALT
- LIKE NEW RIDE QUALITY
- ENHANCED PROPERTY AESTHETICS AND VALUE

SCALE : N.T.S.

City of Richmond

6911 No. 3 ROAD RICHMOND B.C. V6Y 2C1

PROPOSED ROAD RESTORATION BYLAW