

# CITY OF RICHMOND INVITATION TO TENDER

## Contract T.2836

### **Contract: Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange**

The City of Richmond invites tenders for construction work at the above-mentioned locations. Work under the Contract generally comprises:

The widening and upgrading Westminster Highway between McMillan Way and the Hamilton Interchange and the work includes 1,200 cubic metres of sand preload, 28,600 square metres of asphalt paved roadway, 1,330 lineal metres of concrete curb and gutter, 1950 square metres of concrete sidewalk and sidewalk crossings, 120 lineal metres of storm sewers, 90 lineal metres of watermain, ornamental street lights, traffic lights, and street trees.

The *Contract Documents* are available on or after July 10, 2006 during normal business hours at Front of House of the Richmond City Hall at:

6911 No. 3 Road, Richmond, BC, V6Y 2C1

on payment of a **non-refundable** amount of \$50.00 including GST payable to:

#### **City of Richmond**

The *Contract Documents* are available for viewing at:

Front of House, Richmond City Hall, 6911 No. 3 Road, Richmond and Vancouver Regional Construction Association, 3636 East 4th Avenue, Vancouver.

#### **Tenders are scheduled to close at:**

**Tender Closing Time:** 3:00 PM local time

**Tender Closing Date:** Thursday, July 27, 2006 and will be opened publicly immediately thereafter at Richmond City Hall.

**Tender Submission Address:** Manager – Purchasing & Risk  
Front of House, Richmond City Hall  
6911 No. 3 Road, Richmond, BC, V6Y 2C1

A valid tender consists of a submission delivered on time complete with the required Bid Bond, Undertaking of Surety and Undertaking of Liability Insurance.

The lowest or any tender will not necessarily be accepted.

**Manager – Purchasing & Risk**



## City of Richmond

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6911 No. 3 Road, Richmond, BC V6Y 2C1

Telephone (604) 276-4000

www.city.richmond.bc.ca

July 25, 2006

File: 10-6340-20-P.04209/Vol 01

TO THOSE WHO HAVE RECEIVED COPIES OF T.2836

Dear Sir/Madam:

**Re: Contract T.2836  
Addendum No.1  
Westminster Highway Widening Phase 1  
McMillan Way to Hamilton Interchange.**

This addendum forms part of the Contract Documents and shall be read, interpreted and coordinated with all other parts. The cost of all work contained herein shall be included in the Contract price. The following revisions supersede the information contained in the original Contract Document to the extent referenced and shall become part thereof.

Tenderers shall acknowledge receipt of this addendum by inserting its number and date where provided for on the form of Tender.

### 1. INVITATION TO TENDER.

*The Tender Closing Date is changed to Wednesday, August 2, 2006.*

*The Closing Time is not revised.*

Yours Truly,

Roeland Zwaag, P. Eng.  
Project Engineer, Design & Construction  
#4377



## City of Richmond

6911 No. 3 Road, Richmond, BC V6Y 2C1

Telephone (604) 276-4000

www.city.richmond.bc.ca

TO THOSE WHO HAVE RECEIVED COPIES OF T.2836

Dear Sir/Madam:

**Re: Contract T.2836  
Addendum No.2  
Westminster Highway Widening Phase 1  
McMillan Way to Hamilton Interchange.**

This addendum forms part of the Contract Documents and shall be read, interpreted and coordinated with all other parts. The cost of all work contained herein shall be included in the Contract price. The following revisions supersede the information contained in the original Contract Document to the extent referenced and shall become part thereof.

Tenderers shall acknowledge receipt of this addendum by inserting its number and date where provided for on the form of Tender.

### 1. GENERAL REVISION

The document has been revised to use the MMCD term *Optional Work* and to remove the terms *Conditional or Provisional*.

### 2. FORM of TENDER , APPENDIX 1 - SCHEDULE OF QUANTITIES AND PRICES.

*Item B-1 is amended as follows: Replace unit sqm and estimated quantities by Lump Sum*

*Item B-15 is amended as follows: Replace Lump Sum by unit cubic meter and estimated quantities by 2200.*

*Item B-21 is amended as follows: Delete the words "or prime coat".*

*Item B-24a) is amended as follows: Revise estimated quantities to 3350.*

*Item D-9 is added to the schedule: Double catchbasins.*

*Item F-8 is amended as follows: Optional Work and a defined Total Amount of \$5,000.*

A revised Appendix 1 is attached to this addendum.

### 3. SECTION C - AGREEMENT

**Section C- Agreement – Clause 1.2 is revised as follows:**

The *Contractor* will commence the *Work* in accordance with the *Notice to Proceed*. The *Contractor* will proceed with the *Work* diligently, will perform the *Work* generally in accordance with the construction schedules as required by the *Contract Documents* and will achieve *Substantial Performance* of the *Work* on or before April 30, 2007 subject to the provisions of the *Contract Documents* for adjustments to the *Contract Time*. The *Contractor* shall ensure that the *Work* is in a safe condition satisfactory for the intended use no later than December 31, 2006. Work deferred beyond December 31, 2006 is subject to approval of the deferral by the City. Such work may include landscape work, top course asphalt, preload removal if required by the geotechnical engineer. Any Works proposed to be deferred beyond December 31, 2006 shall be included as deferred in the *Construction Schedule*.

## **SECTION D – MEASUREMENT AND PAYMENT FOR WORK**

### **4. MEASUREMENT AND PAYMENT FOR WORK**

#### **Section B – Road Surface Item**

**Supply and Install General Sand Fill – B-9** (page D-23) is revised as follows:

*Revise the item as follows:*

All areas requiring fill to bring to proposed subgrade elevation shall be backfilled with sand.

Payment for this item will be made at the unit price tendered per tonne and shall include supply, placement, compaction, labour and equipment required to complete the work.

Existing granular road materials that must be excavated may be re-used as general fill.

### **5. MEASUREMENT AND PAYMENT FOR WORK**

#### **Section B – Road Surface Item**

**Supply and Install Pre-Load No Post Barriers – B-12** (page D-25) is revised as follows:

*Remove the following:*

810mm high concrete no-post barriers

*And replace with*

690mm high concrete no- post barriers.

### **6. MEASUREMENT AND PAYMENT FOR WORK**

#### **Section B – Drains**

**Supply and Install Temporary Culverts – B-14** (page D-25) is revised as follows:

Payment for this item will be made at the lineal metre price tendered and shall include the supply and placement of any required culverts, 150mm diameter PVC,

DR 35, to ensure adequate drainage to and around the pre-load section as directed by the Contract Administrator.

## **7. MEASUREMENT AND PAYMENT FOR WORK**

### **Section B – Road Surface Item**

**Remove and Dispose of Pre-Load Sand fill to Sub-base Elevation – Item B-15** (page D-26) is amended as follows:

*Remove the following paragraph:*

Payment for this item will be made at the lump sum price tendered and shall include loading, hauling, disposal off-site, grading and compacting of sub-base material remaining on-site.

*And replace with:*

Payment for this item will be made at the unit price tendered per cubic metre measured in place and shall include loading, hauling, disposal off-site, grading and compacting of sub-base material remaining on-site.

## **8. MEASUREMENT AND PAYMENT FOR WORK**

### **Section B- Road Surface Item**

**Supply and Install Tack Coat- Item B-21** (page D-26) is amended as follows.

Delete the words “prime coat”.

## **9. MEASUREMENT AND PAYMENT FOR WORK**

### **Section B- Road Surface Item**

**Supply and Install 230mm Depth of Granular Base Shoulder/Walkway Material- Item B-23** (page D-27) is amended as follows.

Delete the word “limestone” from the last paragraph.

## **10. MEASUREMENT AND PAYMENT FOR WORK**

### **Section C- Concrete Item**

**Supply and Install Concrete Curb and Gutter- Item C-1** (page D-28) is amended as follows.

Substitute the following third paragraph.

The unit price tendered for concrete curb and gutter shall also include: supply, place and compact 230 mm depth of 19mm minus granular base beneath the curb and gutter; these two gravel layers are to extend the full width of curb and gutter plus a minimum of 300 mm beyond both the front of gutter and the back of curb, as shown on the drawings.

## **11. MEASUREMENT AND PAYMENT FOR WORK**

**Section D- Storm Sewer Items**

**Supply and Install Double Catchbasin- Item D-9** is added as follows.

**Supply and Install 600mm dia Reinforced Double Concrete Catch Basins Including all Stubs and Pipe Connections - Item D-9**

Payment for this item will be made at the unit price tendered for each double catch basin of the style shown in the Schedule of Quantities and Prices.

The unit price tendered shall include everything required to supply, complete all excavation, backfill and compaction, and install catch basin and lead as specified and/or directed by the Contract Administrator.

**12. MEASUREMENT AND PAYMENT FOR WORK**

**Section F- Miscellaneous Item**

**Segmental Concrete Block Retaining Wall- Item F-8** (page D-33) is amended as follows.

**Segmental Concrete Block Retaining Wall (Optional Work)- Item F-8**

The Contractor shall supply and install the segmental concrete block retaining wall including geosynthetic layers and drainage system behind the wall as shown or as directed by the manufacturer. The Contractor shall supply shop drawings prior to construction sealed by a BC Professional Engineer for the completed wall system, including geogrid reinforcement.

Payment for this work Optional Work shall be made based on a Change Order if installation is directed by the Contract Administrator. The Contractor shall include a tendered cost of \$5,000.00 as an allowance for this item.

**13. DRAWINGS**

**Roadway Construction Phase 1 - Oc-1011**

The sections that apply to preload works between Nelson Road and McMillan Way will be removed from the construction issue drawings and do not apply to Phase 1.

**14. DRAWINGS**

**Roadway Construction Phase 1 - Oc-1016**

The scale of the cross sections is 1:200.

## **15. DRAWINGS**

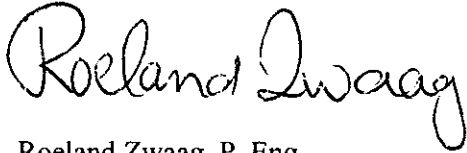
### **Storm Drawing Lc-1116**

Manholes D-6, D-7 and D-8 are revised to 1050mm diameter.

## **16. Contractor Inquiries**

This addendum includes as an attachment a document that responds to all bidder enquiries received as of July 26, 2006.

Yours Truly,

A handwritten signature in black ink that reads "Roeland Zwaag". The signature is written in a cursive style with a large, looped 'R' and a long, sweeping tail on the 'g'.

Roeland Zwaag, P. Eng.  
Project Engineer, Design & Construction  
#4377

**Westminster Highway Widening Phase 1  
McMillan Way to Hamilton Interchange**

**Questions Received from Contractors & Subsequent Answers**

**Progressive (20 July, 2006)**

1. Q: There is no **property impact table** or **soils report** included with the tender package.  
*A: Item F9. Property negotiations are in process but not finalized. An allowance (Optional Work) item F9 has been included to cover this. Soils report is available at City Hall for review.*
2. Q: Are there cores available for depth of existing asphalt? Item B3 does not specify the maximum depth of saw cutting required.  
*A: Item B3. Radar analysis in the geotechnical studies.*
3. Q: Sand supply items B9 and B10 are in tonne. This limits sand supply, since both Mather's and Mike's do not have scales. Can this unit be revised to be measured in place?  
*A: Item B9 and 10 - No.*
4. Q: Item F1 is too wide open with regards to testing. Specifically, what is the contract administrator going to require?  
*A: Item F 1 will remain as is*
5. Does item B23 have to be limestone as per the measurement and payment description?  
*A: Item B23. No, but it must meet the specification for 19mm minus crushed gravel.*
6. Q: Items C2 and C3 refer to including sand fill. Is this not covered under B9?  
*A: Item C2 and 3. No. General sand fill and specific sand fill as part of the sidewalk construction are measured separately. Sidewalk price must include sand fill.*
7. Q: The preload removal item B15 is lump sum. Considering settlement is a variable, this should be measured in place.  
*A: Item B15. Preload removal will be changed. Measurement for preload removal will be per cubic meter measured in place.*
8. Q: Item F8 refers to measurement by square area, but there is no unit or quantity in the tender form. There should be a profile for this work.  
*A: Item F8. Will be considered as Optional Work. The Contractor shall allow a Optional Work of \$5,000 to be used at the discretion of the CA for constructing the wall. See addendum 2.*



9. Q: Can this tender form be made available in Excel?  
A: No. Richmond uses a "Word" format for their documents.
10. Q: the details of B23 for the asphalt shoulder/bike lane do not make sense. There is already asphalt up to the existing chain link or to the existing concrete barriers. If you overlay up to the concrete barriers, you will eliminate the drainage holes in the concrete barrier. Are we excavation any part of the north shoulder? Do we have to relocate the existing chain link or concrete barriers? Exactly how wide is the shoulder strip?  
A: Item B24 a) Additional milling(1250 sq.m.) will be required to lower the road surface to enable drainage through CRB's (see addendum 2)  
b) Yes part of the north shoulder will have to be excavated  
c) No. Relocation of fence and CRBs are not specified. The Contractor may select its method of execution of the Work.  
d) Width of shoulder varies.
11. Q: How is the overlay in front of the existing concrete barriers to be handled with regards to future drainage?  
A: Additional milling will be required to lower the road surface. (See above)
12. Q: Manholes D6-8 are shown as being 900mm diameter, but the tender unit is for 1050mm. Which is correct?  
A: Manholes D6, 7& 8 should all be 1050mm diameter
13. Q: All hydrant work appears to be tying into existing mains (work usually done by the city) and there is no hydrant shown connecting to the proposed water main. Are we installing a hydrant per E2 and, if so, where?  
A: Item E2. Proposed new hydrant at 101+50
14. Q: B13 refers to preload drains. There is only one unit despite there are 2 pipe diameters being used. Also, there is no DR28 in 300mm available.  
A: Item B13. Perforated drains are all to be 300mm DR 35. B14 will be defined by addendum 2.
15. Q: D8 refers to perforated drain. Where is this item and what diameter is it?  
A: Item D8. This is an optional work item and will be applied at the discretion of the CA if required.
16. Q: B12 calls for 810mm barrier, but the drawings specify 690mm. Which is correct?  
A: Item B12. CRB's should be 690mm
17. Item B14 has no details for location or pipe diameter.  
A: Item B14. Is Optional Work item assume 150mm PVC DR 28.

18. Q: What exactly are we doing with the existing lock blocks and the material behind the lock blocks noted from station 110+60 to 111+40?

*A: Relocation of existing lock blocks and disposal of excess material. Location of lock blocks to be directed by CA.*

19. Q: Does the parking lot between 111+40 and 112+40 need to have saw cutting or fence removal? It appears to be beyond the preload and the property pins?

*A: Yes, as per drawing*

20. Q: Where are the existing MOT leads for D7 and what are their diameters?

*A: Item D7. Existing MOT lead is at chainage 106+85. Diameter unknown.*

21. Q: Does the B curb require drain rock? The drawings do not show it but the measurement and payment clause requires it.

*A: Type B Curb does not require drain rock. Addendum 2 clarifies pay item.*

22. Q: With regards to the water main, after we test our portion of the main, who ties it in?

*A: The City will tie the water main in once the test results have been made available and approved.*

23. Q: Items F-3 and F-4 refer to hydrant removal and relocation. Usually the City does this work. Is this included in our scope of work?

*A: Item F3 and F4. Fire hydrant removals are included in the Contractors scope of works.*

### **Imperial Paving (18 July 2006)**

1. Q: Item F-8 Retaining wall, unit, and estimate quantities are not given in schedule of quantities and unit prices.

*A: Item F8. F8 will be considered Optional Work. See addendum 2.*

2. Q: Remove and dispose existing preload sand fill to sub-base elevation; where is this located? Is it to remove and dispose the preload placed in the contract?

*A: Item B15. Measurement of preload removal will be changed. Measurement for preload removal will be per cubic meter measured in place. The item is intended to cover preload placed in this contract.*

### **Bayhill Electrical**

1. Q: Are the lights illuminating the Fraserwood Sign being removed and relocated?

*A: No they are being removed only.*

### **Progressive (21 July, 2006)**

1. B4/B17 – regarding the area of existing asphalt to be removed and subsequently rebuilt. Are we removing only the asphalt and regrading as per measurement and payment or are we excavating as per the drawing and installing new base gravel? The quantities seem to indicate new gravel.

*A: Item B4 / B17- Removal of existing asphalt and excavation as shown on drawings. Installing base gravel in areas of asphalt removal.*

2. The scale on the cross section drawings appears to be 1:200 and not 1:100 as shown.

*A: Scale on Cross Section drawings 1:200*

3. Q: Item B14 would seem to apply to the detail for Boss 1000, 150mm on the preload drawings, but is this not covered under item B13? The drains to the back of the preload would not apply, since there is no swale to drain to.

*A: Item B14. Is an Optional Work item, assume 150mm PVC DR 28.*

### **Imperial Paving (18 July 2006)**

1. Q: Please confirm that river sand is an acceptable product for granular sub-base.

*A: Yes. Only for subbase material, not for embankment fill or trench backfill.*

### **Columbia (21 July 2006)**

1. Q: Pay item B-1 in the schedule of quantities is paid by the sqm but in the Measurement and payment section it states payment as Lump sum.

*A: Item B1- Lump Sum.*

2. Q: Substantial performance in the agreement is stated as Nov 15, 2006, yet SSP3 says 120 working days and item B-10 states the preload could set for 6 months.

*A: Changes by addendum 2.*

### **Columbia (25 July 2006)**

1. Q: Drawing Oc-1011 (Phase 1) shows cross sections of pre-load 450m east of Nelson Road and No. 9 Road to McMillan Way. Is this preload in the scope of work?

*A: No. These sections do not apply and will be removed from the Construction issue Drawings.*

2. Q: Pay item B-9 in the schedule of quantities is paid by the metric tonne but in the Measurement and payment section it states by cubic metre. Can you clarify which is correct?

*A: Tonne will apply.*

3. Please provide more detail for temporary culvert item B-14.

*A: Item B14. Is an Optional Work item assume 150mm PVC DR 28.*



## City of Richmond

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July 27, 2006  
File: 10-6340-20-P.04209/Vol 01

TO THOSE WHO HAVE RECEIVED COPIES OF T.2836

Dear Sir/Madam:

**Re: Contract T.2836  
Addendum No.3  
Westminster Highway Widening Phase 1  
McMillan Way to Hamilton Interchange.**

This addendum forms part of the Contract Documents and shall be read, interpreted and coordinated with all other parts. The cost of all work contained herein shall be included in the Contract price. The following revisions supersede the information contained in the original Contract Document to the extent referenced and shall become part thereof.

Tenderers shall acknowledge receipt of this addendum by inserting its number and date where provided for on the form of Tender.

### **1. SCHEDULE OF QUANTITIES AND PRICES**

See revised Appendix 1 attached in this addendum.

Yours Truly,

Roeland Zwaag, P. Eng.  
Project Engineer, Design & Construction  
#4377

City of Richmond  
 Contract T.2836  
 Westminster Highway Widening Phase I  
 McMillan Way to Hamilton Interchange

**T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange  
 SCHEDULE OF QUANTITIES AND PRICES**

ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE(\$)	TOTAL AMT. (\$)
<b>A.</b>	<b>SITE PREPARATION ITEMS</b>				
A-1	Mobilization/Demobilization		LUMP SUM		
A-2	Traffic Control Plan, Personnel and Equipment		LUMP SUM		
A-3	Survey and Layout		LUMP SUM		
A-4	Bonding and Insurance		LUMP SUM		
<b>TOTAL FOR SITE PREPARATION ITEMS – ITEM A    (Carry forward to Tender Summary)</b>					<b>\$</b>

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE(\$)	TOTAL AMT. (\$)
<b>B.</b>	<b>ROAD SURFACE ITEMS</b>				
B-1	Clear and grub existing vegetation		LUMP SUM		
B-2	Organic Stripping	Cu. m	4600		
B-3	Saw cut asphalt or concrete pavement.	Lin. m	1600		
B-4	Remove and dispose of existing asphalt pavement plus regrade and compact existing granular base	Sq. m	10000		
B-5	Excavate Road right-of-way	Cu.m	13100		
B-6	Excavate existing road shoulder to new subgrade elevation	Cu.m	500		
B-7	Overexcavation of existing subgrade (OPTIONAL WORKS)	Cu.m	350		
B-8	Subgrade preparation	Sq. m	11000		
B-9	Supply and install general sandfill	Tonne	3300		
B-10	Supply and place preload sandfill	Tonne	4800		
B-11	Supply and install settlement gauges		LUMP SUM		
B-12	Supply and place pre-load no post barriers		LUMP SUM		
B-13	Supply and place pre-load drains	Lin. m	160		
B-14	Supply and install temporary culverts for pre-load. (OPTIONAL WORKS)	Lin. m	50		
B-15	Remove and dispose of existing preload sandfill to sub-base elevation	Cu.m.	2200		
B-16	Supply and install granular sub-base material	Sq. m	11000		
B-17	Supply and install granular base material	Sq. m	20500		
B-18	Supply and install 100 mm depth base asphalt concrete pavement (Lower Course #1) over a new gravel base	Tonne	5250		
B-19	Supply and install variable depth surface asphalt over (Upper Course #1) an existing asphalt pavement	Tonne	1575		
B-20	Supply and install 50mm depth surface asphalt (Upper Course #1)	Tonne	2500		
B-21	Supply and install tack coat	Sq. m	27500		
B-22	Supply and install new driveways				
	a) 100 mm Concrete	Sq. m	50		
	b) 50 mm Asphalt	Sq. m	100		
	c) Gravel	Sq. m	100		
B-23	Supply and install 230 mm depth of granular base shoulder/ walkway material	Sq. m	500		
B-24	Asphalt surface removal by Cold Milling				
	a) 30 – 70 mm depth	Sq. m	3350		
	b) >70 mm	Sq. m	250		
B-25	Temporary pavement markings		LUMP SUM		
B-26	Permanent pavement markings		LUMP SUM		
B-27	Traffic Signs	Each	2		
<b>TOTAL FOR ROAD SURFACE ITEMS – ITEM B (Carry forward to Tender Summary)</b>					<b>\$</b>

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
C.	<b>CONCRETE ITEMS</b>				
C-1	Supply and install concrete curb and gutter	Lin. m	1330		
C-2	Supply and install 100mm depth concrete sidewalk	Sq. m	1850		
C-3	Supply and install 200 mm depth of concrete sidewalk crossing	Sq. m	100		
<b>TOTAL FOR CONCRETE ITEMS – ITEM C</b>					
<b>(Carry forward to Tender Summary)</b>					\$

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
D.	<b>STORM SEWER ITEMS</b>				
D-1	Supply and install storm sewer mains (complete)				
	(a) 300 mm dia. pipe	Lin. m	90		
	(b) 375 mm dia. pipe	Lin. m	34		
D-2	Supply and install 1050mm dia. manholes (complete)	Each	3		
D-3	Supply and install 600mm dia. reinforced concrete catch basins including all stubs and pipe connections	Each	25		
D-4	Connect existing storm sewer lateral pipe to new manhole or main	Each	1		
D-5	Break into existing manhole and connect new main	Each	1		
D-6	Install cap on existing 375mm dia. storm sewer	Each	1		
D-7	Extend existing MoT leads	Each	1		
D-8	Supply and install Perforated Drain Pipe (OPTIONAL WORKS)	Lin. m	1100		
D-9	Supply and install 600mm dia. reinforced concrete double catch basins including all stubs and pipe connections	Each	2		
<b>TOTAL FOR STORM SEWER ITEMS – ITEM D (Carry forward to Tender Summary)</b>					<b>\$</b>



**T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange  
SCHEDULE OF QUANTITIES AND PRICES**

ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
<b>E.</b>	<b>WATERMAIN ITEMS</b>				
E-1	Supply and install 300 mm dia. PVC Class 150 (DR18) AWWA C900 watermain (including fittings)	Lin. m	90		
E-2	Supply and install complete fire hydrant (including 150mm lead, fittings, valves and accessories)	Each	1		
E-3	Pressure testing, cleaning, flushing, and disinfecting watermain system	LUMP SUM			
<b>TOTAL FOR WATERMAIN ITEMS- ITEM E (Carry forward to Tender Summary)</b>					<b>\$</b>

Tenderer's Initial \_\_\_\_\_

**T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange**  
**SCHEDULE OF QUANTITIES AND PRICES**

ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
<b>F.</b>	<b>MISCELLANEOUS ITEMS</b>				
F-1	Provision of quality control testing		LUMP SUM		
F-2	Provision of temporary field office (complete)		LUMP SUM		
F-3	Removals		LUMP SUM		
F-4	Relocations and replacements		LUMP SUM		
F-5	Adjustments		LUMP SUM		
F-6	Supply and install seeded topsoil surface behind sidewalk.	Sq. m	2350		
F-7	Overexcavation for utility installations: to remove peat to required depth & backfill with compacted sand. (OPTIONAL WORK)	Cu. m	150		
F-8	Supply and install retaining wall (OPTIONAL WORK)				5,000.00
F-9	Contingency allowance for property restoration works. (OPTIONAL WORK)		LUMP SUM		150,000.00
<b>TOTAL FOR MISCELLANEOUS ITEMS - ITEM F (Carry forward to Tender Summary)</b>					<b>\$</b>

Tenderer's Initial \_\_\_\_\_

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
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ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
<b>G.</b>	<b>ELECTRICAL ITEMS</b>				
G-1	Streetlighting System			LUMP SUM	
G-2	Preduct at McMillan Way			LUMP SUM	
G-3	Preduct at Graybar Road			LUMP SUM	
G-4	Communications Conduit System			LUMP SUM	
G-5	Traffic Signal/Comm/Lighting System			LUMP SUM	
TOTAL FOR ELECTRICAL ITEMS - ITEM G (Carry forward to Tender Summary)					\$

Tenderer's Initial \_\_\_\_\_



## City of Richmond

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August 1, 2006  
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TO THOSE WHO HAVE RECEIVED COPIES OF T.2836

Dear Sir/Madam:

**Re: Contract T.2836  
Addendum No.4  
July 31, 2006  
Westminster Highway Widening Phase 1  
McMillan Way to Hamilton Interchange.**

This addendum forms part of the Contract Documents and shall be read, interpreted and coordinated with all other parts. The cost of all work contained herein shall be included in the Contract price. The following revisions supersede the information contained in the original Contract Document to the extent referenced and shall become part thereof.

Tenderers shall acknowledge receipt of this addendum by inserting its number and date where provided for on the form of Tender.

### **1. Contractor Inquiries**

This addendum includes as an attachment a document that responds to all bidder enquiries received between July 26, 2006 and July 31, 2006.

Regards,

Roeland Zwaag, P. Eng.  
Project Engineer, Design & Construction  
#4377

**Westminster Highway Widening Phase 1  
McMillan Way to Hamilton Interchange**

Addendum #4

**Questions Received from Contractors & Subsequent Answers**

**Progressive (by telephone to City of Richmond)**

1. Q: All hydrant work appears to be tying into existing mains.  
*A: The City confirms that their forces will undertake all new hydrant work and all watermain tie-ins including the supply of fittings, hydrants, etc., to complete the work. Contractor will coordinate all the work and be responsible for schedule.*
  
2. Q: Further clarification is requested for treatment of the existing lock blocks and the material behind the lock blocks noted from station 110+60 to 111+40?  
*A: The tenderers are to assume that the blocks will be removed and stacked on site. The City will attempt to confirm this course of action with the lot Owner and in the event the blocks are to be removed from the site the work will be treated as a Change. Excavated material to be treated as excavation.*
  
3. Regarding the area of existing asphalt to be removed and subsequently rebuilt, further clarification is requested for the removal of the asphalt and regrading as per measurement and payment.  
*A: Item B4. Remove and Dispose Existing Asphalt. This item is to remove and dispose asphalt only. No base or other excavation is included. Regrading and compaction of the existing gravel base is included in this item where required. Excavation, if required to remove insufficient thickness of base gravels will be paid under item under Item B-5.*  
  
*A: Item B17. Supply and Install Granular Base. In the event that the existing base is sufficient in thickness this item may not be paid out in its entirety. Base gravel will be required to adjust existing crossfall immediately south of the saw cut. The Contractor shall confirm in the field the thickness of the existing granular base.*
  
4. Q: Further clarification of the quantities for sidewalk foundation and embankment fill under sidewalk are requested?  
*A: The sidewalk item C-2 includes 150mm of gravel foundation. Embankment fill, if and where required will be paid under item B-9.*
  
5. Q: Does the parking lot between 111+40 and 112+40 need to have saw cutting or fence removal? It appears to be beyond the preload and the property pins? Further clarification is requested.  
*A: Yes, saw cutting and fence removal are required. The road side slope impacts this area. Fence replacement and a new extruded curb will be required. Items are included in the contract.*

**Columbia (27 July 2006)**

1. Q: Can you provide more detail for item D-4? ie. Depth and location of work.  
A: *Item D-4. Station 108+60, 100mm diameter. Depth is unknown but won't likely be any deeper than the storm sewer system in the vicinity.*
  
2. Q: Can you provide more detail for item D-7? ie. Depth and location of work.  
A: *Item D-7. No detail is available on the MoT drainage system.*
  
3. Q: Item D-8 does not specify location, depth or size of pipe. Please clarify.  
A: *Item D-8. This sub-drain, where required and directed by the CA will be installed near the back of the sidewalk in accordance with Richmond Standard R-2-SD. The Work will include the connection of the sub-drain to a catchbasin or storm drain to provide a positive drainage outlet.*



## City of Richmond

6911 No.3 Road, Richmond, BC V6Y 2C1  
 Telephone (604) 276-4000  
 www.city.richmond.bc.ca

August 1, 2006  
 File: 10-6340-20-P.04209/Vol 01

TO THOSE WHO HAVE RECEIVED COPIES OF T.2836

Dear Sir/Madam:

**Re: Contract T.2836  
 Addendum No. 5  
 Westminster Highway Widening Phase 1  
 McMillan Way to Hamilton Interchange.**

This addendum forms part of the Contract Documents and shall be read, interpreted and coordinated with all other parts. The cost of all work contained herein shall be included in the Contract price. The following revisions supersede the information contained in the original Contract Document to the extent referenced and shall become part thereof.

Tenderers shall acknowledge receipt of this addendum by inserting its number and date where provided for on the form of Tender.

### 1. INVITATION TO TENDER

*The Tender Closing Date is changed to Wednesday, August 9th, 2006.  
 The Closing Time is not revised.*

### 2. MEASUREMENT AND PAYMENT FOR WORK

#### Section B – Road Surface Items

**Supply and Install General Sandfill – Item B-9 (page D-24) is amended as follows and supercedes the information provided in item 4 of Addendum #2:**

Revise the item as follows:

*All areas requiring fill to bring to proposed subgrade elevation shall be backfilled with sand.*

*Payment for this item will be made at the unit price tendered per cubic metre and shall include supply, placement, compaction, labour and equipment required to complete the work.*

*Measurement will be by survey cross-sections taken before and after placing of the general sandfill and the volume to be paid will be as calculated from such cross-sections using the end-area method.*

*Existing granular road materials that must be excavated may be re-used as general fill with the approval of the Contract Administrator.*

**Supply and Install Pre-load Sandfill – Item B-10 (page D-24 and D-25) is amended as follows:**

Substitute the following third paragraph

*Payment for this item will be made at the unit price tendered per cubic metre and shall include supply, placement, and compaction of preload sandfill, and all sediment control measures required. Measurement will be by survey cross-sections taken before and after placing of the preload material and the volume to be paid will be as calculated from such cross-sections using the end-area method.*

**Section C – Concrete items**

**Supply and Install Concrete Curb and Gutter – Item C-1 (page D-29) is amended as follows and supercedes the information provided in item 10 of Addendum #2:**

Substitute the following third paragraph

*230mm of 19mm Granular base to extend the full width of curb and gutter plus a minimum of 300mm beyond both the front of gutter and the back of the curb, as shown on the drawings. Granular base materials will be paid for separately under pay item B-17.*

### **3. SCHEDULE OF QUANTITIES AND PRICES**

*Item B-9 is amended as follows: Replace Tonne with unit cubic meter and estimated quantities with 1600.*

*Item B-10 is amended as follows: Replace Tonne with unit cubic meter and estimated quantities with 2400.*

*Item B-17 is amended as follows: Revised estimated quantities to 21500.*

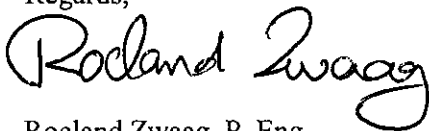
*Item D-7 is deleted: Extending of MoT leads will be done on a negotiated change to the Contract.*

*Item E-2 is deleted: All Hydrant work including removals of existing hydrants to be done by City forces.*

### **4. FORM OF TENDER, APPENDIX 1 – SCHEDULE OF QUANTITIES AND PRICES**

*See Appendix 1 – Rev. 2 attached in this addendum. A Microsoft Excel spreadsheet containing the schedule of quantities and prices (without formulas) is available. Please e-mail me at [rzwaag@richmond.ca](mailto:rzwaag@richmond.ca) to request a copy. The City is not responsible for any errors or omissions in this spreadsheet and is to be used accordingly.*

Regards,



Roeland Zwaag, P. Eng.  
Project Engineer, Design & Construction  
#4377



City of Richmond  
 Contract T.2836  
 Westminster Highway Widening Phase I  
 McMillan Way to Hamilton Interchange

**T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange**  
**SCHEDULE OF QUANTITIES AND PRICES**

ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE(\$)	TOTAL AMT. (\$)
<b>A.</b>	<b>SITE PREPARATION ITEMS</b>				
A-1	Mobilization/Demobilization			LUMP SUM	
A-2	Traffic Control Plan, Personnel and Equipment			LUMP SUM	
A-3	Survey and Layout			LUMP SUM	
A-4	Bonding and Insurance			LUMP SUM	
<b>TOTAL FOR SITE PREPARATION ITEMS – ITEM A (Carry forward to Tender Summary)</b>					<b>\$</b>

**T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange**  
**SCHEDULE OF QUANTITIES AND PRICES**

ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE(\$)	TOTAL AMT. (\$)
<b>B.</b>	<b>ROAD SURFACE ITEMS</b>				
B-1	Clear and grub existing vegetation		LUMP SUM		
B-2	Organic Stripping	Cu. m	4600		
B-3	Saw cut asphalt or concrete pavement.	Lin. m	1600		
B-4	Remove and dispose of existing asphalt pavement plus regrade and compact existing granular base	Sq. m	10000		
B-5	Excavate Road right-of-way	Cu.m	13100		
B-6	Excavate existing road shoulder to new subgrade elevation	Cu.m	500		
B-7	Overexcavation of existing subgrade (OPTIONAL WORKS)	Cu.m	350		
B-8	Subgrade preparation	Sq. m	11000		
B-9	Supply and install general sandfill	Cu.m	1600		
B-10	Supply and place preload sandfill	Cu.m	2400		
B-11	Supply and install settlement gauges		LUMP SUM		
B-12	Supply and place pre-load no post barriers		LUMP SUM		
B-13	Supply and place pre-load drains	Lin. m	160		
B-14	Supply and install temporary culverts for pre-load. (OPTIONAL WORKS)	Lin. m	50		
B-15	Remove and dispose of existing preload sandfill to sub-base elevation	Cu.m.	2200		
B-16	Supply and install granular sub-base material	Sq .m	11000		
B-17	Supply and install granular base material	Sq. m	21500		
B-18	Supply and install 100 mm depth base asphalt concrete pavement (Lower Course #1) over a new gravel base	Tonne	5250		
B-19	Supply and install variable depth surface asphalt over (Upper Course #1) an existing asphalt pavement	Tonne	1575		
B-20	Supply and install 50mm depth surface asphalt (Upper Course #1)	Tonne	2500		
B-21	Supply and install tack coat	Sq. m	27500		
B-22	Supply and install new driveways				
	a) 100 mm Concrete	Sq. m	50		
	b) 50 mm Asphalt	Sq. m	100		
	c) Gravel	Sq. m	100		
B-23	Supply and install 230 mm depth of granular base shoulder/ walkway material	Sq. m	500		
B-24	Asphalt surface removal by Cold Milling				
	a) 30 – 70 mm depth	Sq. m	3350		
	b) >70 mm	Sq. m	250		
B-25	Temporary pavement markings		LUMP SUM		
B-26	Permanent pavement markings		LUMP SUM		
B-27	Traffic Signs	Each	2		
<b>TOTAL FOR ROAD SURFACE ITEMS – ITEM B (Carry forward to Tender Summary)</b>					<b>\$</b>

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
<b>C.</b>	<b>CONCRETE ITEMS</b>				
C-1	Supply and install concrete curb and gutter	Lin. m	1330		
C-2	Supply and install 100mm depth concrete sidewalk	Sq. m	1850		
C-3	Supply and install 200 mm depth of concrete sidewalk crossing	Sq. m	100		
<b>TOTAL FOR CONCRETE ITEMS – ITEM C (Carry forward to Tender Summary)</b>					<b>\$</b>

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
D.	<b>STORM SEWER ITEMS</b>				
D-1	Supply and install storm sewer mains (complete)				
	(a) 300 mm dia. pipe	Lin. m	90		
	(b) 375 mm dia. pipe	Lin. m	34		
D-2	Supply and install 1050mm dia. manholes (complete)	Each	3		
D-3	Supply and install 600mm dia. reinforced concrete catch basins including all stubs and pipe connections	Each	25		
D-4	Connect existing storm sewer lateral pipe to new manhole or main	Each	1		
D-5	Break into existing manhole and connect new main	Each	1		
D-6	Install cap on existing 375mm dia. storm sewer	Each	1		
D-7	<del>Extend existing MoT leads</del>				
D-8	Supply and install Perforated Drain Pipe (OPTIONAL WORKS)	Lin. m	1100		
D-9	Supply and install 600mm dia. reinforced concrete double catch basins including all stubs and pipe connections	Each	2		
TOTAL FOR STORM SEWER ITEMS – ITEM D (Carry forward to Tender Summary)					\$

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
E.	<b>WATERMAIN ITEMS</b>				
E-1	Supply and install 300 mm dia. PVC Class 150 (DR18) AWWA C900 watermain (including fittings)	Lin. m	90		
E-2	Supply and install complete fire hydrant (including 150mm lead, fittings, valves and accessories)				
E-3	Pressure testing, cleaning, flushing, and disinfecting watermain system	LUMP SUM			
<b>TOTAL FOR WATERMAIN ITEMS- ITEM E (Carry forward to Tender Summary)</b>					\$

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
<b>F.</b>	<b>MISCELLANEOUS ITEMS</b>				
F-1	Provision of quality control testing			LUMP SUM	
F-2	Provision of temporary field office (complete)			LUMP SUM	
F-3	Removals			LUMP SUM	
F-4	Relocations and replacements			LUMP SUM	
F-5	Adjustments			LUMP SUM	
F-6	Supply and install seeded topsoil surface behind sidewalk.	Sq. m	2350		
F-7	Overexcavation for utility installations: to remove peat to required depth & backfill with compacted sand. (OPTIONAL WORK)	Cu. m	150		
F-8	Supply and install retaining wall (OPTIONAL WORK)				5,000.00
F-9	Contingency allowance for property restoration works. (OPTIONAL WORK)			LUMP SUM	150,000.00
TOTAL FOR MISCELLANEOUS ITEMS - ITEM F (Carry forward to Tender Summary)					\$

T.2836 – Westminster Highway Widening Phase I - McMillan Way to Hamilton Interchange					
SCHEDULE OF QUANTITIES AND PRICES					
ITEM NO.	DESCRIPTION	UNIT	EST. QTYS.	UNIT PRICE (\$)	TOTAL AMT. (\$)
<b>G.</b>	<b>ELECTRICAL ITEMS</b>				
G-1	Streetlighting System			LUMP SUM	
G-2	Product at McMillan Way			LUMP SUM	
G-3	Product at Graybar Road			LUMP SUM	
G-4	Communications Conduit System			LUMP SUM	
G-5	Traffic Signal/Comm/Lighting System			LUMP SUM	
<b>TOTAL FOR ELECTRICAL ITEMS - ITEM G (Carry forward to Tender Summary)</b>					<b>\$</b>