

CITY OF GUELPH
CONTRACT NO. 2-1315
SUPPLEMENTAL SPECIAL PROVISIONS

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The following listed documents and or drawings form part of this contract and it is the responsibility of the contractor to obtain all relevant current copies.

1. City of Guelph Part "B" Standard Contract Specifications, 2013 as amended
Located on the City's website at
<http://guelph.ca/business.cfm?subCatID=981&smocid=1566>

NOTE: All special provisions are now located in the Part 'B' Standard Contract Specifications

2. Region of Waterloo and Area Municipal Design Guidelines and Supplemental Specifications for Municipal Services (DGSSMS), January 2011

<http://www.regionofwaterloo.ca/en/doingbusiness/municipalstandards.asp>

3. Ontario Provincial Standard Specifications and Ontario Provincial Standard Drawings

It will be the Contractor's responsibility to obtain current copies of the Ontario Provincial Standard Specification (OPS) Forms listed below, which form part of this Contract. The Contract shall include the latest (most recent) edition of the Specification unless otherwise noted.

ONTARIO PROVINCIAL STANDARDS
GENERAL CONDITIONS OF CONTRACT

November, 2006

Specifications for Construction

Weighing of Materials	OPSS 102
Schedule of Rental Rates	OPSS 127
Supply of Pre-Qualified Material and Products	OPSS 128
Management and Disposal of Excess Materials	OPSS 180
Grading (re-issued 2010-11)	OPSS 206
Borrow	OPSS 212
Hot Mixed Asphalt	OPSS 310
Asphalt Sidewalk, Driveway, and Boulevard and for Sidewalk Resurfacing	OPSS 311
Asphalt Curb and Gutter Systems	OPSS 312
Untreated Granular, Sub-base, Base, Surface Shoulder and Stockpiling	OPSS 314
Concrete Sidewalk	OPSS 351
Concrete Curb and Gutter Systems	OPSS 353
Trenching, Backfilling and Compacting (formerly OPSS 514)	OPSS 401
Excavating, Backfilling, and Compacting for Maintenance Holes, Catchbasins, Ditch Inlets and Valve Chambers (formerly OPSS 516)	OPSS 402
Rock Excavation for Pipelines, Utilities, and Associated Structures in Open Cut (formerly OPSS 515)	OPSS 403
Maintenance Hole, Catch Basin, Ditch Inlet and Valve Chamber Installation (re-issued 2010-11)	OPSS 407
Adjusting or Rebuilding Maintenance Holes Catch Basins, Ditch Inlets, and Valve Chambers (re-issued 2010-11)	OPSS 408
Closed Circuit Television Inspection of Pipelines	OPSS 409
Pipe Sewer Installation in Open Cut (re-issued 2010-11)	OPSS 410
Watermain Installation in Open Cut (formerly OPSS 701)	OPSS 441
Corrosion Protection of New and Existing Watermains (formerly OPSS 702)	OPSS 442
Site Preparation for Pipelines, Utilities, and Associated Structures and Associated Structures (formerly OPSS 507)	OPSS 490
Preservation, Protection and Reconstruction of Existing Facilities (formerly OPSS 504)	OPSS 491
Site Restoration Following Installation of Pipelines, Utilities and Associated Structure (formerly OPSS 507)	OPSS 492

Compacting	OPSS 501
Dust Suppressants	OPSS 506
Removal	OPSS 510
Rip Rap, Rock Protection and Granular Sheeting	OPSS 511
Trenching, Backfilling and Compaction	OPSS 514
Traffic Control Signing (formerly OPSS 543)	OPSS 706
Pavement Marking (formerly OPSS 532)	OPSS 710
The Protection of Trees (formerly OPSS 565)	OPSS 801
Topsoil (formerly OPSS 570)	OPSS 802
Sodding (formerly OPSS 571)	OPSS 803
Seed and Cover (formerly OPSS 572)	OPSS 804
Temporary Erosion and Sediment Control Measures (formerly OPSS 577)	OPSS 805
Excavating and Backfilling – Structures	OPSS 902
Steel Reinforcement for Concrete	OPSS 905
Aggregates – General	OPSS 1001
Aggregate – Concrete	OPSS 1002
Aggregate – Hot Mix Asphalt	OPSS 1003
Aggregate – Miscellaneous	OPSS 1004
Aggregate – Base, Subbase, Select Subgrade and Backfill Material	OPSS 1010
Notice to Users of OPSS 1101 (Performance Graded Asphalt Cement)	OPSS 1101
Hot Mix Asphalt	OPSS 1150
Cementing Materials	OPSS 1301
Water	OPSS 1302
Admixtures for Concrete	OPSS 1303
White Pigmented Curing Compounds for Concrete	OPSS 1315
Notice to Users of OPSS 1350 (Concrete – Materials and Productions)	OPSS 1350
Precast Reinforced Concrete Components for Maintenance Holes, Catchbasins, Ditch Inlets and Valve Chambers	OPSS 1351
Steel Reinforcements for Concrete	OPSS 1440
Circular Concrete Pipe	OPSS 1820
Non-Pressure Polyethylene (PE) Plastic Pipe Products	OPSS 1840
Non-Pressure Polyvinyl Chloride (PVC) Pipe Products	OPSS 1841
Frames, Grates, Covers and Gratings	OPSS 1850
Geotextiles	OPSS 1860
Calcium Chloride Flake and Calcium Chloride Solution	OPSS 2501

ONTARIO PROVINCIAL STANDARD DRAWINGS

It will be the Contractor's responsibility to obtain current copies of the Ontario Provincial Standard Drawings listed below, which form part of this Contract.

Drawings for Roads, Barriers, Drainage

Minimum Vertical Clearances for Aerial Cable	OPSD 217.030
Dewatering Trap	OPSD 219.240
Barrier for Tree Protection	OPSD 220.010
Concrete Sidewalk	OPSD 310.010
Concrete Sidewalk Adjacent to Curb and Gutter	OPSD 310.020
Concrete Sidewalk Ramps at Intersections	OPSD 310.030
Utility Isolation in Concrete Sidewalks	OPSD 310.040
Cast Iron, Raised Curb Inlet Frame with Cover for Catch Basins Out of Roadway	OPSD 400.082
Cast Iron, Square Frame with Circular Closed or Open Cover for Maintenance Holes	OPSD 401.010
Safety Platform, Aluminum for Circular Manholes	OPSD 404.020
Concrete Barrier Curb with Standard Gutter	OPSD 600.040

Concrete Barrier Curb	OPSD 600.110
90° Concrete Outlet for Concrete Curb with Gutter	OPSD 604.010
45° Concrete Outlet for Concrete Curb with Gutter	OPSD 605.010
Method of Termination for Concrete Curb and Gutter	OPSD 608.010
Precast Concrete Maintenance Hole – 1200mm Diameter	OPSD 701.010
Precast Concrete Maintenance Hole – 1500mm Diameter	OPSD 701.011
Maintenance Hole Benching and Pipe Opening Alternatives	OPSD 701.021
Precast Concrete Maintenance Hole Components, 1200mm Diameter, Tapered Top and Flat Cap	OPSD 701.030
Precast Concrete Maintenance Hole Components – 1500mm Diameter, Transition Cone and Slabs	OPSD 701.040
Precast Concrete Single Inlet Flat Cap – 1500mm	OPSD 703.011
Precast Concrete Adjustments Units for Maintenance Holes, Catchbasins and Valve Chambers	OPSD 704.010
Catchbasin Connection for Rigid Main Pipe Sewer	OPSD 708.010
Support for Pipe at Catch Basin or Maintenance Hole	OPSD 708.020
Catchbasin Connection for Flex Main Pipe Sewer	OPSD 708.030
Flexible Pipe Embedment and Backfill Earth Excavation	OPSD 802.010
Flexible Pipe Embedment and Backfill Rock Excavation	OPSD 802.013
Rigid Pipe Bedding, Cover and Backfill, Type 1 or 2 Soil – Earth Excavation	OPSD 802.030
Rigid Pipe Bedding, Cover and Backfill, Type 3 Soil – Earth Excavation	OPSD 802.031
Rigid Pipe Bedding, Cover and Backfill Rock Excavation	OPSD 802.033
Internal Drop Structure for New Maintenance Holes	OPSD 1003.031
Sewer Service Connections for Rigid Main Pipe Sewer	OPSD 1006.010
Sewer Service Connections for Flexible Main Pipe Sewer	OPSD 1006.020

1. SCHEDULING OF WORK

- .1 In accordance with Section G.C. 3.03 of the OPS General Conditions, the Contractor shall take instructions from the Engineer regarding the order of performing work under this Contract.
- .2 The work is to be carried out as follows, subject to sufficient working days and suitable weather:
 - a) Installation of all underground services, including sanitary and storm sewers, watermain, and appurtenances (i.e. catch basins, lot laterals, fire hydrants, etc.)
 - b) Earth excavation and grading of roadways
 - c) Placement of Granular 'B' subbase on the roadways
 - d) Construction of concrete curb and gutter
 - e) Placement of Granular 'A' roadbase, and
 - f) Placement of base course asphalt
- .3 The Contractor will be ordered to commence work within two weeks of the Contract award or as stated in the Contract award letter. The Contractor shall complete the works within the working days provided. It is the responsibility of the Contractor to augment additional day light shifts/hours as required to complete the work within the specified time. There will be no additional payment made thereof.
- .4 The Contractor shall commit sufficient equipment and labour to complete the following work:
 - a) Construct Stage 1A, 1B and 1C according to Drawing SG-1.
 - b) Construct Watermain including water service (1m off property line with plug) into 150 Wellington Street.
 - c) Construct Storm Sewer including storm service (1m off property line with plug) into 150 Wellington Street. This work shall include the temporary diversion of flows upstream of EXCB36.
 - d) Construction of Sanitary Sewer including sanitary service (1m off property line with plug). This work shall include the temporary diversion of flows upstream of MH100A.
 - e) Removal of Existing sanitary and watermain, on 150 Wellington property.
 - f) Road Reconstruction to base asphalt

The above works are required to allow the removal of the existing watermain and sanitary sewer from 150 Wellington Street property.

Contractor shall commence on the Sanitary Sewer then complete by connecting into the Existing Sanitary Sewer and installing MH50A and work upstream.

Prior to the connection into EXMH100 at Macdonell Street, the Contractor shall establish Traffic Staging 1C from Drawing SG-1. Once barrels are in place, a by-pass to temporarily divert the upstream sanitary flows of EXMH100 can be completed.

To accommodate for bus traffic reduction, this operation shall occur only on Sunday to Wednesday evenings after 7pm and only if no special event is occurring in the downtown. Events can be viewed on the City website. Once the operation and connection is complete, traffic staging will return back to Stage 1A at Macdonell Street and re-open the intersection for traffic the next morning by 5am.

Then the existing sanitary sewer on the 150 Wellington Street property can then be flushed, removed and disposed off-site.

Contractor shall start the Watermain connection at the Macdonell Street intersection. This shall occur while using Stage 1A from Drawing SG-1.

Prior to the connection on Neeve Street watermain, Contractor to implement Stage 1B from Drawing SG-1.

To accommodate for bus traffic reduction, this operation shall occur only on Sunday to Wednesday evenings after 7pm and only if no special event is occurring in the downtown. Events can be viewed on the City website. Once the operation and connection is complete, traffic staging will return back to Stage 1A at Neeve Street and re-open the intersection for traffic the next morning by 5am.

All testing must be completed and approved prior to initiation of the watermain. Upon approval of the new installation, the existing watermain on 150 Wellington Street property can then be disconnected and disposed off-site.

“Winter” costs shall be included in the unit prices for all roadworks items.

- .5 The Contractor shall commit sufficient equipment and labour to complete the project within 30 working days.
- .6 The contractor shall provide 48 hours notice for scheduling of all watermain shutdowns (i.e. for tie-ins). Any shutdowns will need to be coordinated with the operations of the local commercial establishments in the area and may require off-hours work.
- .7 Notwithstanding the Award Date given above, this Contract shall not be awarded until the Ministry of the Environment approval is obtained. The City shall not entertain any claims due to any resulting delays in beginning this work.
- .8 The contractor, at their own discretion, may propose an alternate construction staging plan in lieu of the supplied construction documents and drawing SG-1. Should an alternative plan be proposed, the contractor shall submit their own construction staging plan with the tender documents for the subsequent review by Stantec Consulting Ltd. and the City of Guelph. For the purpose of this tender, the contractor will accept responsibility for completing the works in accordance to the supplied construction documents and drawings at the tendered price. No additional compensation or payment requests will be accepted.

2. SANITARY SEWERS (Tender Items B1.0 to B7.0)

- .1 The work of these items shall include, without limitation, the supply and installation of sanitary sewer, in the sizes, materials and locations shown on the drawings.
- .2 Work shall be done in accordance with City of Guelph Standard Specifications for Sewers SS-100 and City of Guelph SD-29 Class "B". Bedding shall consist of Granular 'A' conforming to OPSS 1010, compacted to at least 98% SPMDD. Trench backfill shall be native material acceptable for such use, compacted to at least 95% SPMDD. No excavation beyond the road allowance is permitted.
- .3 The Contractor should refer to the City of Guelph Standard Specifications for Sewers SS-100 for a complete listing of all acceptable sewer pipe materials for this project.
- .4 The work of these items shall also include a T.V. camera inspection and report and exfiltration testing, in accordance with City of Guelph Standard SS-100.
- .5 The work of these items shall also include a deflection test, for all sanitary sewer pipes installed under this Contract in accordance with City of Guelph Standard SS-100.
- .6 Measurement for payment for these items shall be per lineal metre, measured from centre of structure to centre of structure in a horizontal plane. Payment at the tendered unit prices shall be compensation in full for all related costs.

3. SEWER MANHOLES (Tender Items B8.0 to B13.0)

- .1 The work of these items shall include, without limitation, the supply, installation, and benching of manholes in the sizes and locations shown on the drawings.
- .2 Work shall be done in accordance with City of Guelph Standard Specification for Sewers SS-100, SP-36, OPSS 1351 and OPSS 1850. The manhole components shall conform to OPSD 701.010, 701.011, 701.012, 701.013 and 701.014 (except as may be modified below) and OPSD 401.04 Manhole Frame and Closed Cover. Bedding for the manhole shall consist of at least 150 mm of Granular 'A' conforming to OPSS 1010 and compacted to 100% SPMDD. Granular surround shall be Granular 'B' conforming to OPSS 1010 (maximum aggregate size 25 mm), shall be placed to a minimum thickness of 300 mm all around the structure, and shall be compacted to at least 98% SPMDD. "Core n' Seal" manhole adapter assemblies shall be used for all PVC pipes entering the manholes.
- .3 The new manholes shall be benched to accommodate existing and new piping in accordance with the City of Guelph SD-44.
- .4 Manhole frames and grates shall be set to base asphalt roadway profile grade in accordance with SP-20, HL8 Asphalt Base Course and City of Guelph SS-14. Payment for the adjustment of frames and grates shall be made under Tender Item E6.
- .5 Measurement for payment shall be per manhole installed. Payment at the tendered unit price shall be compensation in full for all related costs.

4. CONNECT TO EXISTING SANITARY SEWER (Tender Items B14.0 to B15.0)

- .1 The work of these items shall include without limitation, the supply of all labour, equipment, and materials to connect to existing sanitary sewer stubs, knockouts, and manholes, as indicated on the Contract Drawings.
- .2 Work shall be done in accordance with City of Guelph Standard Specifications for Sewers SS-100 and City of Guelph SD-29 Class "B". Bedding shall consist of Granular 'A' conforming to OPSS 1010, compacted to at least 98% SPMDD. Trench backfill shall be native material acceptable for such use, compacted to at least 95% SPMDD.
- .3 The work of this item shall also include the excavation, removal and disposal of existing plugs and knockouts and connect proposed sewers, as indicated on the Contract Drawings.
- .4 There shall be no measurement for payment for this item. Payment at the tendered lump sum price shall be compensation in full for all related work.

5. MAINTAIN SANITARY FLOW (Tender Item B17.0)

- .1 Maintain existing sanitary flow at all times, per SP-32.
- .2 Contractor shall commence on the Sanitary Sewer installation by connecting into the Existing Sanitary Sewer and installing MH50A and work upstream.
- .3 Prior to the connection into EXMH100 at Macdonell Street, the Contractor shall establish Traffic Staging 1C from Drawing SG-1. Once barrels are in place, a by-pass to temporarily divert the upstream sanitary flows of EXMH100 can be completed.

To accommodate for bus traffic reduction, this operation shall occur only on Sunday to Wednesday evenings after 7pm and only if no special event is occurring in the downtown. Events can be viewed on the City website. Once the operation and connection is complete, traffic staging will return back to Stage 1A at Macdonell Street and re-open the intersection for traffic the next morning by 5 am.

- .4 Then the existing sanitary sewer on the 150 Wellington Street property can then be flushed, removed and disposed off-site.
- .5 There is no measurement for payment of this item. Payment at the lump sum price shall be compensation in full for all related works.

6. CONNECT TO EXISTING WATERMAINS (Tender Items C1.0 to C3.0)

- .1 The work of these items shall include, without limitation, the supply of all labour, materials and equipment to complete the connection of the new watermains to the existing watermains as indicated on the Contract Documents and Drawings.
- .2 City of Guelph Standard Specification SS-200 shall apply. City of Guelph Waterworks is to be responsible for operating valves to isolate system, as required, to existing watermain.

- .3 There shall be no measurement for payment for this item. Payment at tendered lump sum prices for each connection shall be compensation in full for all related work.

7. GATE VALVES AND VALVE BOXES (Tender Items C7.0 to C8.0)

- .1 The work of these items shall include, without limitation, the supply and installation of water valves in the sizes and in the locations shown in the Contract Drawings.
- .2 Work shall be done in accordance with the City of Guelph Standard Specifications for Watermains SS-200. In particular, the installation shall conform to City of Guelph SD-24.
- .3 Valves and valve boxes shall be in accordance with current City of Guelph Standard Specifications SS-200.
- .4 Valve boxes shall be adjusted to base asphalt profile and/or grass grade. Payment for the adjustment of valve boxes shall be made under Tender Item F19.0.
- .5 Measurement for payment for these items shall be per gate valve box combination installed. Payment at the tendered unit prices shall be full compensation for all related work.

8. CONTINGENCY ALLOWANCE

- .1 The Contractor shall note that the City of Guelph Supplemental General Conditions of contract shall apply to all extra work performed under this contract.
- .2 The Contractor is advised that all extra work required to complete this project must be authorized by the Contract Administrator prior to starting such extra work and all field force accounts shall be verified and signed by the Resident Inspector prior to the Contractor submitting his invoices for payment. Failure to follow this procedure may result in the rejection of invoices.

9. STORM SEWERS (Tender Items D1.0 to D4.0)

- .1 The work of these items shall include, without limitation, all labour, materials and equipment to install storm sewers, in the sizes, classes and locations shown on the drawings.
- .2 Work shall be done in accordance with the City of Guelph Standard Specifications for Sewers SS-100 and City of Guelph SD-29 Class "B". Bedding shall consist of Granular 'A' conforming to OPSS 1010, compacted to at least 98% SPMDD. Trench backfill shall be native material acceptable for such use, compacted to at least 95% SPMDD.
- .3 The work of these items shall also include a T.V. camera inspection and report, in accordance with City of Guelph Standard SS-100.
- .4 The work of these items shall include a deflection test for all plastic storm sewer pipes installed under this Contract in accordance with City of Guelph Standard SS-100.

- .5 Connections of all plastic pipe to structures and/or other pipes shall be done by means of approved adapters.
- .6 The Contractor should refer to the City of Guelph Standard Specifications for Sewers SS-100 for a complete listing of all acceptable sewer pipe materials for this project.
- .7 Measurement for payment of these items shall be per lineal metre, measured from centre of structure to centre of structure in the horizontal plane. Payment at the tendered unit prices shall be compensation in full for all related work.

10. CATCHBASINS (Tender Item D8.0 – D9.0, D12.0 and F13.0)

- .1 The work of this item shall include, without limitation, excavation for, supply and installation, and backfill of catchbasins, in the sizes and locations indicated on the Contract Drawings.
- .2 The work shall conform to the City of Guelph Specifications for Catchbasins and Laterals SS-13 and City of Guelph Specifications for sewers SS-100. All new catchbasins shall conform to City of Guelph SD-11 and SD-12. The granular base is to consist of at least 150 mm of Granular 'A' conforming to OPSS 1010 and compacted to 100% SPMDD. Granular backfill, to a minimum thickness of 300 mm all around, shall consist of Granular 'B' (maximum aggregate size 25 mm) conforming to OPSS 1010 and compacted to 100% SPMDD.
- .3 All catchbasin lead bedding shall consist of Granular 'A', conforming to OPSS 1010, compacted to 100% SPMDD. Backfill shall consist of approved native material compacted to at least 95% SPMDD.
- .4 Frames and grates shall be in accordance with SSMS E4-03, E4-041 and E4-042 (asphalt areas) and SSMS E4-01 (grassed areas). Frames and grates shall be adjusted to proposed grades in accordance with (SP 31) Asphalt Price Index and City of Guelph SS-13. Payment for the adjustment of frames and grates shall be made under Tender Item E8.0 and E 9.0. Catchbasins shall be provided with filter fabric under the grates and filter fabric shall be maintained in good repair and shall function in the intended purpose.
- .5 For PVC pipe, sand coated manhole adapters shall be used at connections to precast catchbasins. Catchbasin lead connections to mainline sewer shall be made with prefabricated fittings.
- .6 Initially, all roadway catchbasins shall be constructed so that the top of the casting is level with the construction road. The casting need not to be mortared in-place but may otherwise be firmly set on the precast concrete component of the catchbasin. After construction of the curb and gutter, the Contractor shall adjust the casting by means of modular sections. "Flow-by" catchbasins shall be adjusted to surface asphalt grade. These catchbasins shall be ramped upon completion of base course asphalt.
- .7 Catchbasins at all "sag" points of the roadway shall be adjusted to match the base course asphalt grade as outlined under Tender Item E12.0. A temporary asphalt curb shall be constructed at these catchbasins. Payment of the asphalt curb will be made under Tender Item E13.0.

- .8 When adjusting catchbasins, the Contractor will be required to use modular concrete sections manufactured by Moduloc Concrete Products (London) Ltd., under the trade name of "Moduloc", or approved equal. When securing the Moduloc sections on catchbasins, the Contractor will be required to apply Modulast beads (12 mm diameter) in accordance with the manufacturer's recommendations.
- .9 Measurement for payment for this item shall be per catchbasin installed. Payment at the tendered unit price shall be compensation in full for all related work.

11. CONNECT TO EXISTING STORM SEWER (Tender Items D7.0 to D9.0)

- .1 The work of these items shall include without limitation, the supply of all labour, equipment, and materials required to remove and/or adjust existing storm sewer knockout or plug and connect to existing, as indicated on the Contract Drawings.
- .2 Work shall be done in accordance with the City of Guelph Standard Specifications for Sewers SS-100 and City of Guelph SD-29 Class "B". Bedding shall consist of Granular 'A' conforming to OPSS 1010, compacted to at least 98% SPMDD. Trench backfill shall be native material acceptable for such use, compacted to at least 95% SPMDD.
- .3 There shall be no measurement for payment for this item. Payment at the tendered lump sum or each price shall be compensation in full for all related work.

12. MAINTAIN STORM FLOW (Tender Item D11.0)

- .1 Maintain existing storm flows per SP-32.
- .2 Contractor shall maintain Storm Sewer flows upstream of EXCBMH36 until the service connection into MH1000 is completed.
- .3 There is no measurement for payment of this item. Payment at the lump sum price shall be compensation in full for all related works.

13. SUBGRADE PREPARATION (Tender Item E1.0)

- .1 The work of this item shall include, without limitation, fine grading (to tolerances of ± 30 mm), compaction to 95% SPMDD, proof rolling and all other work required to prepare the subgrade for placement of Granular 'B'; rough grading (to tolerances of ± 50 mm) of the boulevards to 150 mm below final grade; the stockpiling or loading or moving of material onsite as directed by the Contract Administrator to grade to the required elevations and the removal and disposal off-site of excess and sub-excavated material at locations arranged and paid for by the Contractor. Boulevards shall be graded so that the curbs are fully "backed-up" with a very short ramp section down to the designated 150 mm below final grade.
- .2 The Contractor shall sub-excavate soft areas within the asphalted portion of the road allowance as identified by the Contract Administrator. Payment for such sub-excavation shall be in accordance with the Special Provision for the item for sub-excavation, or on an hourly basis if no sub-excavation item exists in the Form of Tender.

- .3 Sub-excavated areas shall be backfilled with Granular 'B' conforming to OPSS 1010 and compacted to 100% SPMDD. Payment for Granular 'B' shall be in accordance with (SUP SP-20 below) and made under Item F12.0.
- .4 There will be no measurement for payment for this item. Payment of the tendered lump sum price shall be compensation in full for all related work.

14. ADJUSTMENT OF CATCHBASIN FRAMES AND GRATES (Tender Item E7.0 and E8.0)

- .1 The work of this item shall include, without limitation, all labour, materials and equipment necessary to adjust catchbasins as outlined herein.
- .2 City of Guelph Standard Specification SS-13 shall apply to this work.
- .3 Initially, all roadway catchbasins shall be constructed so that the top of the casting is level with the construction road. The casting need not to be mortared in-place but may otherwise be firmly set on the precast concrete component of the catchbasin. After construction of the curb and gutter, the Contractor shall adjust the casting by means of modular sections. "Flow-by" catchbasins shall be adjusted to surface asphalt grade. These catchbasins shall be ramped upon completion of base course asphalt.
- .4 Catchbasins at all "sag" points of the roadway shall be adjusted to match the base course asphalt grade. A temporary asphalt curb shall be constructed at these catchbasins. Payment of the asphalt curb will be made under Tender Item E23.0
- .5 Catchbasins located in grassed areas shall be adjusted to proposed final grade.
- .6 When adjusting catchbasins, the Contractor will be required to use modular concrete sections manufactured by Moduloc Concrete Products (London) Ltd., under the trade name of "Moduloc" or approved equal. When securing the Moduloc sections on catchbasins, the Contractor will be required to apply Modulast beads (12 mm diameter) in accordance with the manufacturer's recommendations.
- .7 Measurement for payment for these items shall be per catchbasin adjustment. Payment at the tendered unit prices shall be compensation in full for all related work.

15. SUBDRAIN (Tender Item D10)

- .1 The work of these items shall include, without limitation, the excavation for and supply and installation of 150 mm diameter perforated subdrain piping complete with concrete sand encasement, as directed by the Contract Administrator.
- .2 The work shall conform to OPSS 405. Subdrain piping shall be heavy walled, polyethylene subdrain (Big 'O' Boss or equal) in accordance with OPSS 1840 and CSGB 41-GP-29M complete with geotextile sock (Class 1 with filtration opening size of 150 to 450 microns). Subdrain piping shall be completely encased in concrete sand in accordance with OPSS 1002.

- .3 Upstream end of subdrain shall be capped or plugged with approved fitting.
- .4 The work of these items shall include the connection of subdrain outlets to new roadway catchbasins, as directed by the Contract Administrator.
- .5 Measurement for payment shall be per lineal metre of subdrain piping installed. Payment at the tendered unit price shall be compensation in full for all related works.

16. SUB-EXCAVATION (Tender Item F12.0)

- .1 The work of this item shall include, without limitation, the excavation and removal of deficient subgrade materials in areas identified in the field by the Contract Administrator.
- .2 Excavated material shall be disposed of offsite at locations arranged and paid for by the Contractor. No additional payment shall be made for the placement of such material.
- .3 The areas sub-excavated shall be backfilled with onsite stockpiled Granular 'B', compacted to 100% SPMDD, which shall be supplied, placed, compacted, and paid for in accordance with the terms of (SUP SP 17 .0) - Granular 'B'.

17. ADDITIONAL GRANULARS (Tender Item F8.0)

- .1 The work of this item shall include, without limitation, the supply, placement, and compaction to 100% SPMDD of Granular 'B', in accordance with OPSS 1010. This item shall apply to all Granular 'B' used for backfill of sub-excavated areas.
- .2 Placement and compaction of Granular 'B' shall be in accordance with OPSS 314 and 501, respectively.
- .3 Measurement for payment shall be per tonne, as evidenced by weigh scale slips from an approved scale (OPSS 102) and signed by the inspector onsite. Payment at the tendered unit price shall be compensation in full for all related work.

18. DUST AND MUD CONTROL - STREET SWEEPING (Tender Item F4.0)

- .1 The work of this item shall include, without limitation, all material, labour and equipment required to clean the base asphalt as requested by the Contract Administrator.
- .2 Such cleaning shall generally consist of power sweeping and washing the base asphalt and gutter face.
- .3 Measurement for payment will be on an hourly basis. Payment at the tendered unit price shall be compensation in full for all related works. Removal of heavier deposits of mud or other material may, at the sole discretion of the Contract Administrator, be paid additional on a time and materials basis.

19. UTILITY EXPOSURES (Tender Items F14 and F15)

- .1 The final location of certain proposed work is contingent upon the location of the existing services within the limits of work; therefore, it is imperative that the existing services, in close proximity to the proposed work, are exposed to confirm the actual depth and location of these services. Allowances should be made to expose these utilities by non-destructive methods such as, for example, hand digging or hydro-vac excavation.
- .2 This item does not absolve the contractor from their responsibility to pre-locate other utilities that may impact their work while deemed not to be in direct conflict with the proposed work.
- .3 Measurement for payment for this item shall be for each utility exposure completed as identified by the Contract Administrator

20. SUB-EXCAVATION OF EXCESS MATERIALS (Tender Item F10.0)

- .1 The work of this item shall include, without limitation, the excavation and removal of contaminated materials identified by the Contract Administrator.
- .2 Material shall be disposed of offsite at locations arranged and paid for by the Contractor. No additional payment shall be made for the placement of such materials.
- .3 The areas sub-excavated shall be backfilled with Granular 'B', Type II conforming to OPSS 1010, compacted to 100% SPMDD, which shall be supplied, placed, compacted, and paid for in accordance with the appropriate Granular 'B' item in the tender.
- .4 Measurement for payment shall be per tonne of materials removed offsite , as evidenced by weigh tickets. Payment at the tendered unit price shall be compensation in full for all related works.

21. TRENCH EXCAVATION FOR UTILITY DUCTS AND TRAFFIC HANDWELL (Tender Item F5.0)

- .1 The work of this item shall include, without limitation, all trench excavation for the installation of rigid PVC conduit, backfilling, and compacting of backfill in the trench.
- .2 Backfill shall conform to the requirements of OPSS 1010 for Granular 'A' and Granular 'B' Type II, and shall be compacted at 100% SPMDD.
- .3 Measurement for payment shall be per linear metre of excavation. Payment at the tendered unit price shall be compensation in full for all related works.

22. SUPPLY AND INSTALL 100MM DIA or 50MM DIA. RIGID PVC UTILITY DUCT AND TRAFFIC HANDWELL (Tender Items F6.0 TO F7.0)

- .1 The work of this item shall include, without limitation, to supply and installation of utility ducts in conformance with the City of Guelph SP-44, SP-45, SD-209 and the drawings issued at the time of construction. Trenching and excavation for the proposed works shall be done prior to installation as specified in SSP-21.

- .2 Ducts shall be fitted with pull wires and the ends shall be securely wrapped and fitted with solvent-welded caps. The ends shall be contained within pull boxes.
- .3 Measurement for payment shall be per linear metre of installed utility duct and for each pull box installed. Payment at the tendered unit price shall be compensation in full for all related works.

23. REMOVAL AND ABANDONING OF EXISTING WATERMAIN AND APPURTENANCES (Tender Items E19.0)

- .1 The work of this item shall include, without limitation, the watermain flow testing and the removal of watermain and appurtenances in accordance to the City of Guelph Standard Specifications and SP-12.
- .2 The contractor shall perform field flow tests on fire hydrants before and after isolation of watermain related to the works located along Priory Street. Upon the award of contract, coordination shall be made with the City Waterworks Department to determine the specifications and reporting procedure to be used for the testing.
- .3 Measurement for payment shall be per linear metre of removal. Payment at the tendered unit price shall be compensation in full for all related works.

24. RAMPING CATCHBASINS (Tender Items E23.0)

- .1 The work of this item shall include, without limitation, the ramping of all roadway catchbasins adjusted to surface asphalt grade.
- .2 Each catchbasin ramp shall have a minimum width of 1.2 m beyond the three sides of the catchbasin fronting the roadway.
- .3 Asphalt shall be HL-3.
- .4 Measurement for payment for this item shall be per catchbasin ramped. Payment at the tendered unit price shall be compensation in full for all related work.