ADDENDA À LA SOUMISSION	TENDER ADDENDUM
Réfection de l'esplanade du Boulevard de la Confédération **Dossier de soumission de la CCN no. AL1444** **Le 29 juillet 2013** **ADDENDA NO: 1**	**Confederation Boulevard Esplanade Rehabilitation** **NCC tender file # AL1444** **July 29, 2013** **ADDENDUM NO: 1**

Ce qui suit doit être interprété comme faisant partie intégrante de la proposition/appel d'offres et des documents relatifs au contrat :

1. La clôture d'offre est prolongée a jeudi, le 15 août 2013 à 15h00, heure d'Ottawa.

2. Les sections ci-joint du Devis anglais seulement ont été corrigées pour enlever les changements tracés.

The following shall be read in conjunction with and shall form an integral part of the Tender/Proposal and Contract Documents:

1. The bid closing date and time is extended to Thursday, August 15, 2013 at 3pm Ottawa time.

2. The following attached sections of the English Specification only have been corrected to remove the track changes.

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PART 1 - GENERAL

1.1 General

.1 Use new material and products unless otherwise specified.

.2 Within 7 days following a request by the NCC Representative, submit the following information for the supply of proposed materials and products:
- .1 Name and address of manufacturer.
- .2 Product name, model and catalogue number.
- .3 Performance, description and test data.
- .4 Installation or application instructions from the manufacturer.
- .5 Proof of arrangements to purchase materials or products.

.3 Provide material and equipment of the design and specified quality, performing to published ratings and for which replacement parts are readily available.

.4 Use products from one manufacturer for material and equipment of the same type or classification unless otherwise specified.

1.2 Manufacturer's Instructions

.1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.

.2 Notify the NCC Representative in writing of any conflict between these specifications and manufacturer's instructions. The NCC Representative will designate which document is to be followed.

1.3 Delivery and Storage

.1 Transport deliver, and store material and equipment in its original packaging with manufacturer's seals and labels intact.

.2 Prevent damage, falsification and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from the site.

.3 Store material and equipment in accordance with suppliers instructions.

.4 Touch-up damaged surfaces to the NCC Representative's satisfaction. Use primer or enamel to match original finish. Do not paint over name plates.

1.4 Substitution

.1 No substitutions will be permitted without prior written approval from the NCC Representative.

.2 Proposals for substitution may only be submitted after award of contract. Such requests must include statements of respective costs of items originally specified and the proposed substitution.

.3 Proposals will be considered by the NCC Representative only if:
- .1 materials selected by the tenderer are not available;

.2 delivery date of select materials from the materials specified would unduly delay completion of the contract, or;

.3 Alternative materials to those specified, are brought to the attention of and considered by the NCC Representative as equivalent to the materials specified and will result in a credit to the Contract amount.

.4 Should proposed substitution be accepted either in part or in whole, assume full responsibility and costs when substitution affects other work on the project. Pay for design or drawing changes required as a result of substitution.

.5 Amounts of all credits arising from approval of substitutions will be determined by the NCC Representative and the Contract Price will be reduced accordingly.

1.5 Construction and Jobsite Equipment

.1 Upon request, prove to the satisfaction of the NCC Representative that the construction and jobsite equipment are adequate to manufacture, transport, place and finish the work according to the specified quality and timeframe specified. If inadequate, replace or provide additional equipment as directed.

.2 Maintain construction equipment and the jobsite in good operating order.

END OF SECTION

PART 1 - GENERAL

1.1 Related work

.1 Section 00 13 40 Shop Drawings, Product Data, Samples and Mock-Ups

.2 Section 03 10 00 Concrete Formwork

.3 Section 03 20 01 Steel Reinforcing

.4 Section 03 30 00 Cast-in-Place Concrete

.5 Section 04 46 07 Recycled granite for pavers and tree wells

.6 Section 32 11 23 Aggregate Base Course

1.2 Supply of Materials

.1 All granite for curbs, plinths and benches is to be supplied by the Contractor.

.2 All granite for borders and tree wells granite pavers is to be salvaged from the site. Refer to section 04 46 07 – Recycled granite pavers and tree wells.

.3 Provide forklifts or other equipment as required to load and unload granite.

.4 Define adequate areas for storing delivered granite on-site or in the storage area.

.5 Inspect all delivered granite on-site or in the storage area with the NCC Representative and the Supplier at the time of delivery.

.6 Concrete base for granite is included in the curbs, plinths and benches items.

.7 Supply all other materials required to complete the installation.

1.3 Quality Assurance

.1 The Contractor or their granite subcontractor must provide only skilled stone masons, supervised by foremen experienced in type of work specified.

.2 The Contractor or their granite subcontractor must demonstrate that they have completed similar work within the last five (5) years.

.3 Provide sufficient labour and equipment to complete the work quickly.

.4 Only granite installations matching the approved samples will be acceptable for the project.

1.5 Delivery and Storage

.1 Carefully pack finished granite, taking all necessary precautions to prevent damage during loading, transit and storage before installation.

.2 Correctly place the granite together in manageable volumes using slatted hardwood crates or another appropriate packing system approved by the NCC Representative.

.3 Use no blocking or packing material that may cause staining or discolouration of the granite.

.4 Before shipping, store packed granite in a location where it will not be subject to accidental shock, staining or other damage.

.5 Provide the necessary protection for granite stored for prolonged periods to prevent staining or damage.

.6 Establish an inventory of granite pavers to permit delivery upon request by the NCC Representative, with a notice of seven days.

.7 Load granite carefully using all necessary precautions to prevent damage during transit.

.8 Coordinate shipping schedules with the NCC Representative and installation Contractor(s) to ensure uninterrupted timely deliveries and that the product is available on-site as needed.

.9 Determine the exact location for unloading on-site with the NCC Representative and the installation Contractor(s).

.10 Unload the granite only onto stable and safe ground.

.11 Ensure that the granite pieces are stored in a location(s) where they will not be subject to accidental shock, staining or other damage.

PART 2 - PRODUCTS

2.1 Materials

.1 Granite: refer to ASTM C615/C615M-11.

.2 The type and origin of granite supplied by the Contractor to be the following:
- .1 Colour: Beluro or Acajou.
- .2 Confirm granite type and origin with the NCC Representative before placing order.

.3 Granite Characteristics:
- .1 Colour and variegation: in accordance with the typical colour for each type of granite, according to the official list of the Quebec Association of Granite Producers.
- .2 Texture: medium to moderately coarse grained.
- .3 Finish: all finishes saw-cut, split face, flame or thermal are:
  - .1 Curbs and Plinths
    Top - saw-cut /flamed surface
    Bottom - saw-cut
    Exposed Sides - saw-cut/flamed surface
    Ends - saw-cut
    Chamfer - saw-cut with flamed surface

- .4 Flame or Thermal Finish: flat face and upper curb surfaces with a thermal finish produced by burning the granite surface with a mechanically controlled flame. Ensure uniform coarseness of finish texture on the granite surfaces and throughout individual pieces of granite. Ease all edges slightly to prevent chipping. Ensure maximum surface deviation of 4 mm.

.4 Concrete: Refer to Section 03 30 00 and produce a compressive cylinder strength of 30 MPA at 28 days.

.5 Reinforcement: Refer to Section 03 20 01.

.6 Joint Filler: Refer to ASTM D1751-04(2008) 12 mm performed non-extruding, resilient, bituminous type.

.7 Caulking: polyurethane, one-part moisture curing, CAN/CGSB-19.13-M87, Type II, Class 'A' (Tremco Vulkem 116), black and dark bronze colour (submit samples). Colour to match stone. Primer: Tremco, Vulkem Primer No. 171

.8 Epoxy Grout: submit manufacturer's product data for review by the NCC Representative.

.9 Salvaged Granite Border: granite pavers recuperated from site, sawcut down using sizes indicated on the drawings. Refer to Section 04 46 07

.10 Joint Sand: polymeric sand for salvaged granite border only. Refer to Section 04 46 07

PART 3 - EXECUTION

3.1 Granular Base

.1 Restore existing granular base where disturbed by the removal of existing pavement. Add or remove granular base material as necessary to meet specified depths under the curbs.

.2 Obtain the NCC Representative's approval of sub-grade before placing the granular base.

.3 Place granular base material according to specified alignment, widths, and depths or as directed.

.4 Compact the granular base to at least 100% of the maximum dry density, in accordance with ASTM D698-12, Method C.

3.2 Layout and Approval

.1 Layout work and have the NCC Representative approve the alignment and profile of the curbs and plinths before the installation of the granite.

.2 Erect string-lines for assistance in alignment and making minor adjustments if required.

3.3 Granite Curbing

.1 Install granite curbs with string-lines and bricks or concrete blocks to adjust grade.

.2 Supply brick spalls or other approved material for minor adjustments to line and grade. The use of timber wedges will not be permitted.

.3 Trim curbs to require lengths so that they join at the locations specified in the drawings.

.4 Clean all sawn faces to remove rust stains and iron particles.

3.4 Concrete Gutter

.1 Obtain the NCC Representative's approval of granular base before placing formwork, reinforcing steel or concrete.

.2 For reinforcement, refer to Section 03 20 01.

.3 For concrete work, refer to Section 03 30 00 and as specified.

.4 Ensure that curbs are not disturbed during concreting.

.5 Protect the top and face of granite curb from abrasion and concrete spills with securely fastened plastic sheeting or other approved material. Clean up splashes immediately to leave all exposed granite in perfect condition.

3.5 Joints

.1 Granite:
- .1 Minimum width of joint between the granite curbs: 6 mm (except for permeable granite pavers area: larger joints)
- .2 Prepare the ends of the granite curbs and plinth approximately at right angles to the tangent of the top and front face of the curb. For curved alignments, the ends must be exactly at right angles so that when placed end to end with the specified 6-mm minimum spacing, no more than 10 mm shall show in the joint for the full width of the top surface and entire exposed front face.
- .3 Provide a spacing of 100 mm between the curbs and granite benches for the infiltration openings, as shown on the drawings.

3.6 Caulking

.1 Prime surfaces mix and apply caulking in accordance with Manufacturer's directions.

.2 All joints between curbs to be caulked flush with surface.

.3 Clean up spills to the NCC Representative's approval.

.4 Caulk around catchbasin frames as specified.

.5 Caulking must be applied to dry surfaces.

3.7 Curing

.1 Curing of concrete and mortar to be in accordance with Clause 21 of CSA Standard CAN-A23.1-09/A23.2-09, with the exception of curing compounds. This will not be permitted.

3.8 Allowable Tolerances

.1 Curbs and plinths shall be within 12 mm of established alignment and elevation.

END OF SECTION

PART 1 - GENERAL

.1 Related Work

.1	Shop drawings, Product Data (etc.)	Section 00 13 40
.2	Sitework Demolition and Removal	Section 02 41 13.01
.3	Aggregate – General	Section 31 05 16
.4	Geotextiles	Section 31 32 19.01
.5	Concrete Unit Pavers	Section 32 14 13
.6	Structural Soil	Section 32 11 25
.7	Metal Works	Section 05 55 00

.2 Scope of Work

.1 Provide all materials, labor, equipment and services necessary to complete the work of this section, including the cutting of natural stone to sizes, shapes and dimensions indicated on the drawings. This includes the following items:

.1 Cut and place recycled granite pavers for front border

.2 Cut and place recycled granite pavers for tree wells

.3 Provide and place pea gravel, crushed granite, steel collar, and spacers for tree wells

.4 Supply all other materials required to complete the installation of the pavers and borders.

.3 References

.1 CAN/CSA A23.1-M90, Concrete Materials and Methods of Concrete Construction.

.2 CSA A283-1980, Qualification Code for Concrete Testing Laboratories.

.3 CAN3-A231.2-M85, Precast Concrete Pavers.

.4 ASTM C979-82(1986), Standard Specification for Pigments for Integrally Colored Concrete.

.5 ASTM C131-89, Standard Test Method for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

.4 Supply of Materials

.1 Reuse the recycled granite removed from the site.

.2 Supply all other materials and equipment required to complete the work.

.5 Mock-ups

Mock-up : A mock-up area shall be provided on site at the time of paver installation. This mock-up will be the on-site reference for installation and workmanship. The linear length of the sample should be 5 metres, including the band along the edge of the granite curb, as well as the periphery of the tree wells. Coordinate the granite paver mock-up with a unit paver mock-up, as stipulated in the relevant section 00 13 40. Only paver installations matching the approved final mock-up area will be acceptable. The mock-up location to be determined by the NCC Representative.

.6 Product Samples

.1 Provide samples of the cut pavers following the requirements of section 00 13 40.

.2 Provide full size samples for each paver type.

.7 Quality Assurance

.1 The Contractor or their subcontractor to provide only skilled stone masons, supervised by foremen experienced in type of work specified.

.2 The Contractor or their subcontractor must demonstrate that they have completed similar workwithin the last five (5) years.

.3 Provide sufficient labour and equipment to complete the work quickly.

.4 Only granite installations matching the approved sample will be acceptable for the project.

.8 Delivery and Storage

.1 Carefully pack finished granite taking all necessary precautions to prevent damage during loading, transit and storage before installation.

.2 Correctly place granite together in manageable volumes using slatted hardwook crates or another appropriate packing system approved by the NCC Representative.

.3 Use no blocking or packing material that may cause staining or discolouration of the granite.

.4 Before shipping, store packed granite in a location where it will not be subject to accidental shock, staining or other damage.

.5 Provide the necessary protection for granite stored for prolonged periods to prevent staining or damage.

.6 Establish an inventory of granite pavers to permit delivery upon request by the NCC Representative with a notice of seven days.

.7 Load granite carefully using all necessary precautions to prevent damage during transit.

.8 Coordinate shipping schedules with the NCC Representative and installation Contractor(s) to ensure uninterrupted timely deliveries and that the product is available on-site as needed.

.9 Determine the exact location for unloading on-site with the NCC Representative and the installation Contractor(s).

.10 Unload the granite only onto stable and safe ground.

.11 Ensure that granite pavers are stored in location(s) where they will not be subject to accidental shock, staining or other damage.

PART 2 - PRODUCTS

.1 Materials

.1 Granite for tree wells (Type F):

.1 All pavers are recycled granite from granite slabs scheduled for removal from the site. The slabs must be thoroughly cleaned with a jet of water at high pressure.

.2 Recycled paver size (nominal) :

.1 250 x 150 x 50 mm

.3 Finish

.1 Top : saw-cut/flamed surface
.2 Bottom : saw-cut
.3 Sides : split face

.4 Split face finish (type F) : Surface to be broken along a fault. Maximum variation along split face : 6mm.

.2 Setting Bed for pavers and front borders: Clean sand conforming to CSA A23.1-06, section 5.3.2.

.3 Setting Bed for tree wells : Crushed granite, 6 mm.

.4 Provide a sample for approval before installation.

.5 Non-woven geotextile, "Texel" type no. 7609 or approved equivalent.

.6 Crushed granite, 3-6 mm diameter to fill joints with similar color to granit pavers. Provide a sample for approval.

.7 Granite for front border (Type G) :

.1 Granite border pavers must be recycled from existing granite. They are to be cleaned with a jet of water at high pressure.

.2 Dimensions

.1 Dimension : 750 x 400 x 50 mm

.3 Finish :

.1 Top : saw-cut, flamed and chamfered esplanade side
.2 Bottom : saw-cut
.3 Sides : saw-cut
.4 Ends : saw-cut

.4 Joint Filler for granite border: In accordance with section 31 05 16.

.8 Granite for paver lights border (Type H) :

.1 Granite border pavers must be recycled from existing granite. They are to be cleaned with a jet of water at high pressure.

.2 Dimensions

.1 Dimension : lenght varies x 154 x 50 mm

.3 Finish :

.1 Top : saw-cut, flamed and chamfered esplanade side
.2 Bottom : saw-cut
.3 Sides : saw-cut
.4 Ends : saw-cut

.4 Joint Filler for granite border: In accordance with section 31 05 16.

.9 **Granite for tree grids**:

.1 Granite pieces for tree grids must be recycled from existing granite. The granite pieces should be assembled following specifications and steel collar installation.

.2 Nominal dimensions

.1 Dimensions : 250 x 65 x 50 mm

.3 Finish :

.1 Top : saw-cut/flamed surface
.2 Bottom : saw-cut
.3 Sides : split face

.4 Natural pea gravel 10 mm diameter to fill joints with color similar to granit pavers. Provide a sample for approval.

.2 Material for Setting Bed and Joint Filler

.1 Hardness : In accordance with ASTMC 131, « A » caliber. 50% maximum mass loss.

.2 Concrete sand : Clean, related to silica, not plastic, free of foreign or harmful material, stabilized with cement powder.

.3 Granulometry : Selon CAN/CS-23.1, Tableau 1 – « Grading Limits for Fine Aggregate », comme suit :

Sieve Designation	% passing
10 mm	100
5 mm	90 – 100
2.5 mm	80 – 100
1.25 mm	50 – 85
630 microns	25 – 60

315 microns	10 – 30
160 microns	5 – 15
75 microns	0 – 8

.4 Cleaning Product: Colourless organic solvent, designed and recommended by the manufacturer for cleaning granite pavers from incurred contamination.

PART 3 - EXECUTION

.1 Allowable Tolerances

.1 Finish pavement surfaces within 6mm of established elevations, within 1.5mm of adjacent surfaces at joints between pavers, manholes and other features within paved areas, and within 3mm under a 3m long straightedge.

.2 Tolerance for filling granite paver joints around trees wells to comply with relevant drawing details.

.2 On-site conditions

.1 Start the work of this section only when the surface temperature is at least 2 degrees C and is on the rise.

.2 Interrupt paving when the temperature falls below the prescribed minimum.

.3 Granular Base

.1 Ensure that the granular base complies with the grading and compaction requirements for installing pavers. If there is a discrepancy, notify the NCC Representative and do not start work without approval.

.2 Verify that the surface does not exceed structural differences of ± 10 mm, measured on a rule of three (3) meters.

.3 Do not install on a frozen structural surface.

.4 Cutting Granite on the Jobsite

.1 The conversion of existing granite pavers, slabs and edging strips must be performed off-site at an appropriate facility.

.2 Provide appropriate equipment for cutting granite pavers with precision so that they blend well with the existing conditions and layout patterns prescribed for pavers.

.3 Perform all required cuts to on-site adjustments, nearby or within the paved areas.

.4 Make all circular or other cuts as required in an approved manner.

.5 When the granite pavers cut on-site are in place, there should be no more than a 6 mm gap between the pavers and adjacent surfaces.

.6 Clean all sawn faces to remove rust stains and iron particles.

.7 Cut only what is prescribed or required so that the stones can be arranged according to prescribed patterns and adjusted to existing structures. Unnecessary cuts are prohibited.

.5 Sand Setting Bed

.1 Place and tamp the sand using approved methods while respecting specified depths and tolerances.

.2 Install a geotextile directly on the ground before installing the setting bed.

.6 Granite pavers installation around tree wells

.1 Place, lightly tamp and carefully level the crushed granite setting bed, to the specified depth.

.2 Install spacers strips 20 mm, as specified on drawings.

.3 Install recycled granite pavers for tree wells as indicated on the drawings, taking care to install the spacers correctly before. A sample tree wells is to be submitted to the NCC Representative for approval.

.4 Place a 50 mm thick layer of crushed granite 3 – 6 mm diameter inside the paver gaps as shown in the detail and following the instructions of the NCC Representative.

.5 Install recycled granite tree grids for tree wells as indicated on the drawings after tree installation, taking care to install the steel collar correctly before. A sample tree grid is to be submitted to the NCC Representative for approval.

.6 Place a 50 mm thick layer of natural pea gravel 10 mm diameter inside the tree grid gaps as shown in the detail and following the instructions of the NCC Representative.

.7 Install pavers as indicated on the drawings making sure they fit well.

.7 Placing granite edge borders

.1 Place the pavers by hand, following the patterns and alignment, according to the directions of the NCC Representative.

.2 Use appropriate pavers for the ends, edges and corners. Sawcut the pavers to adjust for obstacles or adjacent structures.

.3 Inspect, remove and replace chipped, broken or damaged pavers.

.4 Sweep joint filler material until joints are full and pass the plate tamper over the pavers.

.5 Continue applying the joint filling material and passing the plate tamper until joints are full.

.6 Sweep and rid the site of joint filling material when the installation is complete.

.8 Filling joints for granite edge border pavers

.1 Use sand filler: polymer sand, in accordance with manufacturer's instructions.

.2 Fill joints to the level indicated on the drawings, tamping the premixed filler in the joints.

.3 Add the required amount of material until the joints are filled to the prescribed level.

.9 Cleaning

.1 Perform cleaning at the time and conditions recommended by the manufacturer of the cleaning product and as directed by the NCC Representative.

.2 Remove materials from the cleaning surface and dispose of the excess material.

.3 Apply a cleaner suitable for removing various contaminants encountered, in accordance with the manufacturer's recommendations.

.4 The final surface must be free of contamination.

END OF SECTION