City of Cambridge

Purchasing Department

Cynthia H. Griffin
Purchasing Agent

TO: All Bidders

FROM: City of Cambridge

DATE: August 28, 2012

RE: File No. 5890 – Cambridge City Hall Roof Replacement
Addendum NO. 1

The following questions were submitted and answered.

Please see attachments which include: Pre-bid Agenda, Sign in Sheet and complete section 08600.

1. Permit Fees – please confirm if Building and Sidewalk permit fees will be waived for this project.

Answer: Any projects the City of Cambridge is running, the City of Cambridge permit fees are waived

2. General Terms and Conditions:

- **Article 5.17 – please confirm if photos are required.**
  Answer: Yes, Digital pictures on a CD only

- **Article 5.22.12 – Is security required, and if so, will space be made available in the building for a Security guard.**
  Answer: Security not required

- **Article 8.8 – Please confirm if the Pollution Liability and Excess Umbrella Liability limits, both single and aggregate, listed are correct for this project**
  Answer: Pollution Liability is $1 million and Excess Liability is not required. Contractors can purchase if they choose to.

- **Article 9.0 – will Testing and Inspection be provided by the Owner?**
  Answer: Please see section 9.2.2, the contractor is responsible

3. New slate installed as part of the recent slate repair project (that can remain) – is it possible to get information (product submittal data) on the existing slate so it can be matched with the new slate for this project.

Answer: The final selection of replacement roof slate will be made by the City from samples provided by the contractor. Information on existing slate shingles to remain will be provided to the successful bidder.

4. Sec. 08600 – missing last three pages of specifications.

Answer: Attached is a complete set of pages for section 08600 pages 1-10

All other details remain the same.

Cynthia H. Griffin

CYNTHIA H. GRIFFIN
PURCHASING AGENT

Addendum No. 1

Cambridge City Hall Roof Replacement
PRE-BID AGENDA
Wednesday, August 22, 2012
10:00am

1) Sign in sheet

2) Introductions

3) Agenda

4) Bid due date: **Sealed General Bids – Thursday, August 30, 2012 @ 2:00pm**

5) Forms to be submitted: Make sure that all of the correct forms (colored ones in your package) are submitted with your bids. If not, they may be disqualified.

6) RFI's (request for information)- All questions shall be addressed to the Cynthia Griffin, Purchasing Agent, City of Cambridge, 795 Mass. Ave or Fax to: (617) 349-4008. **They must be in no later 4:00pm, Thursday, August 23, 2012.** Any RFI's received after that time will be answered at the discretion of the City.

7) The Massachusetts State prevailing wage rates are to be used in this contract.

8) Parking: The City will not pay for parking tickets you may receive while performing this work. To avoid tickets, you can go to the City Hall Annex, located at 344 Broadway (the intersection of Inman Street and Broadway) or call the Parking office at (617) 349-4721 to apply for a "Tool Truck Permit". This only applies to "Commercial Plate" vehicles. Non-commercial plate vehicles cannot apply for the permit.

9) Sidewalk obstruction permits, are to be filed for at the Permit Desk, located at the DPW main office at 147 Hampshire St. The permit fee is waived for City projects. If a police detail is needed, you will be notified through the permit process. All police details will be paid by the DPW directly.

10) Work needs to be performed in such a way that it does not effect the normal operation of City Hall and its building occupants. It will remain open and operational. The back entrance to City Hall is the only handicap accessible entrance and it must be protected as well as accessible at all times.

11) Work is to be performed during the normal working hours unless otherwise agreed upon.

12) Project Introduction – This project is for the complete removal and legal disposal of the exiting steep sloped slate roofing systems, existing counter flashings, existing skylight and chimney mortar joints as required to accomplish the work as specified and detailed. All roof areas are to be replaced as a "tear off" application, therefore the demolition work shall consist of complete removal and legal disposal of the existing roofing system and associated components down to the roof deck level. There are several locations where finials are to be replaced. The gutters and associated components are new, will remain, and need to be protected. There is a requirement for extensive overhead protection including the electric car recharging station.

13) Asbestos – the roof underlayment has been tested and found to contain no asbestos containing material.

14) Temporary Facilities – Toilets: The public toilets on the first floor (ground level) may be utilized as long as the users are neat about their usage.

15) Comments from RussoBarr, the Engineers of Record.

16) Completion Time: it is the intent of this contract to have the work completed on or by November 30, 2012

17) Full Time Licensed Construction Supervisor is required

SIGN IN SHEET

PROJECT: Pre-bid - Cambridge City Hall Roof Replacement
DATE/TIME: Wednesday, August 22, 2012, @ 10:00am
LOCATION: City Hall
795 Mass Ave, Cambridge, MA

NAME: Paul Lyle	COMPANY: City of Cambridge- DPW	ADDRESS: 147 Hampshire St, Cambridge, MA 02139	RECEIVED AGENDA
PHONE NO.: 617-349-4852	FAX NO.: 617-349-4881	E-MAIL ADDRESS: plyle@cambridgema.gov	(Y) (N)
NAME: James Russo	COMPANY: RussoBarr Associates	ADDRESS: 33 Center St., 2nd Floor, Burlington, MA 01803	RECEIVED AGENDA
PHONE NO.: 781-273-1537	FAX NO.: 781-273-1695	E-MAIL ADDRESS: jrusso@russobarr.com	(Y) (N)
NAME: Michael Flahery	COMPANY: RussoBarr Associates	ADDRESS: 33 Center St., 2nd Floor, Burlington, MA 01803	RECEIVED AGENDA
PHONE NO.: 781-273-1537	FAX NO.: 781-273-1695	E-MAIL ADDRESS: mflaherty@russobarr.com	(Y) (N)
NAME: Scot Robert	COMPANY: Greenwood Ind.	ADDRESS: 50 Howe Ave, Millbury MA 01527	RECEIVED AGENDA
PHONE NO.: 508-865-4040	FAX NO.: 508-865-8016	E-MAIL ADDRESS: srobert@greenwood-industries.com	(Y) (N)
NAME: Douglas Aust	COMPANY: TITAN ROOFING, INC.	ADDRESS: 70 Orange St. Chicopee, MA 01013	RECEIVED AGENDA
PHONE NO.: 413-536-1624	FAX NO.: 413-533-2560	E-MAIL ADDRESS: Evazquez@titanroofing.com	(Y) (N)
NAME: Zbigniew Mwat	COMPANY: MDM	ADDRESS: 51 Sawmill Rd. Dracut	RECEIVED AGENDA
PHONE NO.: 508-999-1616	FAX NO.: 508-999-3176	E-MAIL ADDRESS: MDMENGINC@yahoo.com	(Y) (N)

SECTION 08600
SKYLIGHTS

PART 1 – GENERAL

1.01 GENERAL REQUIREMENTS

A. The General Conditions of the Contract for Construction and the General Requirements are hereby made part of this specification.

1.02 SECTION INCLUDES

A. The work of this Section consists of furnishing and installing all skylight system components as indicated on the Drawing and specified herein, required to complete the work. The work includes the following:

1. Installation of a new skylight assembly to replace the existing skylight assembly that exists on the steep-sloped slate roof area.

B. All materials shall be verified by Contractor to be proper for each intended use, and the entire work of this Section shall be done in such a manner that each installation will perform its intended purpose as applicable, in the finished work.

C. The drawings indicate and show the limits of construction for this project. The specifications specify materials and work required for this project. Both are complementary to each other and both shall be followed to complete the work.

D. Plans and dimensions under which the Work is to be performed are derived from a variety of sources. The existing conditions are provided for information only. Actual conditions may vary. Contractor is required to verify existing roofing system and skylight system composition, conditions, and dimensions prior to submitting his bid. No additional compensation or time extension will be made for dimensional errors or discoverable inaccuracies related to existing conditions in the contract documents.

1.03 RELATED WORK

A. Section 02050 – Demolition
B. Section 07321 – Slate Roofing

1.04 QUALITY ASSURANCE

A. All materials and equipment utilized for the roofing work shall be approved in writing by the Engineer prior to their use. All materials shall be installed to serve their intended function.

B. The work shall be completed by a Roofing Contracting Company experienced and skilled in this type of work. The Company shall have a minimum of ten (10) years experience with this type of work and shall provide proper documentation to the Engineer for review. The Company shall be experienced in installing large sloped skylights and associated flashings of the type and scope specified in this section and employing persons with not fewer than ten (10) years of documented experience. The Company shall provide skilled workers, thoroughly trained and experienced in the craft and who are familiar with this specification and methods required for a warrantable installation. All personnel concerned with the shop fabrication and field installation of copper metal flashing systems must be qualified sheetmetal journeymen who may be assisted by sheetmetal apprentices qualifying for their journeyman status. The foreman of the crew must have at least ten years experience in copper sheetmetal work and in particular with fabrication and installation.

C. Use skilled workmen who are trained especially in properly installation of skylight assemblies, and who are completely familiar with the specified requirements and methods needed for proper performance of the work of this section.

D. All work shall be applied in strict accordance with the provisions of this technical specification and associated details. No deviations shall be permitted without written consent from the Engineer. Should a conflict between this specification (and the associated details) and the manufacturer's requirements arise, the most restrictive provision, as determined by the Engineer, shall govern.

E. Conform to the regulations of public agencies, including any specific requirements of the town and/or state of jurisdiction.

F. At least one week prior to commencement of the construction work, a conference (preconstruction meeting) shall be held and attended by the Engineer, Contractor, Owner, Owner's Project Manager, MSBA Commissioning Agent, and a technical representative of the slate roofing material provider. The purpose of this conference is to review the specifications, details, application requirements, and schedule before construction operations begin.

G. No member of the roof shall be overstressed due to construction loads.

H. Contractor is to provide any necessary protection to the installed work prior to acceptance by the Owner and Engineer. The Contractor at no additional cost to the Owner shall correct any damage incurred during this period.

I. Contractor is to provide any and all necessary protection to the entire roof area to maintain watertightness during the project duration, including existing roof areas not yet roofed. Any interior damages that occur as a result of the Contractor's negligence shall become the Contractor's responsibility and he shall promptly repair and/or replace the damaged items.

J. The Engineer and Owner's Project Manager will be on site periodically to observe the work progress and to monitor contract compliance. Any items observed not in compliance with the contract documents will be identified and shall be promptly corrected by the Contractor.

K. Prior to the final project completion, inspections and testing shall be made by representatives of the Engineer and Owner's Project Manager in order to ascertain that the work has been installed properly. A punch list will be developed by each and copies will be forwarded to the Contractor. Contractor shall immediately correct all punch list items. Deviations from the specifications and/or details must be corrected immediately. Warranty shall be issued upon final acceptance of the work.

L. Prior to the commencement of work, the Contractor shall inspect all roof surfaces to ensure their compliance with the provisions of this specification and the manufacturer's published literature.

M. All surfaces shall be smooth, dry, clean, free of fins or sharp edges, loose or foreign materials, oil or grease.

1.05 CODES AND STANDARDS

A. Except as modified by the requirements of other governing codes and by this specification, conform to the provisions, recommendations and requirements of the following codes and industry standards:

1. Sheet Metal and Air Conditioning Contractor's National Association, Inc. (SMACNA), 5811 Amaya Drive #100, La Mesa, CA 91942 (619) 460-5362

2. Roofing and Waterproofing Manual (5th edition) published by the National Roofing Contractors Association (NRCA), 10255 W. Higgins Road, Suite 600, Rosemont, Ill. 60018-5607.

3. Conform to Massachusetts State Building Code, latest revision, and any local building code requirements.

4. ASTM B32 – Standard Specification for Solder Metal.

5. ASTM B370 – Standard Specification for Copper Sheet and Strip for Building Construction.

6. AAMA 605.2 - Specification for High Performance Organic Coatings on Architectural Extrusions and Panels; American Architectural Manufacturers Association.

7. ASTM D 1435 - Standard Practice for Outdoor Weathering of Plastics.

8. NFRC 100-97 - Thermal Properties; National Fenestration Rating Council.

1.06 SUBMITTALS

A. Submit the following under the provisions of Section 01300.

1. Manufacturer's data sheet for each specified product in this section. Manufacturer's printed descriptive literature, specifications, and installation instructions; show compliance with specified performance requirements.

2. Manufacturer's Material Safety Data Sheets for all products specified in this Section.

3. Shop Drawings: Include layouts, measurements, type and thickness of flashing and closures, jointing methods, securement methods including fasteners, clips, anchors, and sealants.

   A. Skylight assembly installation drawing.
   B. Shop drawing of skylight seal and interior trim to existing curb.

4. Warranty: Sample warranties.

5. Applicator's Quality Assurance: Submit list of a minimum of 5 completed projects of similar size and complexity to this Work. Include for each project: Project name, location, description of the work, and dates when project occurred; Owner; Contractor; Architect; Skylight product.

1.07 TRANSPORTATION AND HANDLING

A. Transport and handle products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

D. Deliver products to project site in distributor's crates/pallets, labeled with data indicating source.

E. Handle products to prevent chipping, breakage, soiling, or other damage. Protect edges with wood or other rigid material.

F. Stage products materials on the building in a manner to avoid significant or permanent damage to the roof deck or structural supporting members.

1.08 STORAGE AND PROTECTION

A. Contractor shall follow the recommended storage procedures of the manufacturer of the materials being used. No storage on or within the building will be allowed without written permission from the Owner. Any materials brought to the roof for daily operations or storage shall be evenly distributed on the roof to prevent concentrated loads and shall not overload the structure.

B. All moisture sensitive materials shall be stored in weatherproof trailers or temporary protective shelters and shall be stored at least 4 inches above the ground on stable pallets or skids and shall at all times be completely covered and secured. Tarpaulins or a similar "breathable" material shall be used to cover materials. Rubber or plastic materials shall not be acceptable. Factory applied "shrink packs" or plastic wrappings shall not be acceptable.

C. Materials stored on the ground shall be thoroughly secured against moisture and wind. Materials and their coverings shall be tied and/or weighted to prevent uncovering or blowing of material by the wind. Contractor shall be responsible for damages caused by blowing and improperly stored material and equipment.

E. Materials shall be handled with care and shall not be installed if they have been damaged in any way due to handling, storage or manufacturing defects. Contractor shall promptly mark and remove from the site any damaged or improperly stored materials when so requested by the Engineer.

F. All materials are to be stored at the recommended temperature range as specified by the manufacturer. Contractor shall provide manufacturer's information to the Engineer concerning storage and handling of flammable or volatiles materials. The "shelf life" materials shall be provided with the date of manufacturer of all perishables. Materials that become congealed, thick, non-uniform or otherwise unsuitable for proper application shall be removed from the project site and replaced with new, properly stored and tested materials.

G. Provisions for placement of the Contractor's equipment must be planned by the Contractor and submitted to the Owner and the Engineer for approval.

H. Provide off-site storage and protection when site does not permit on-site storage or protection.

1.09 WEATHER AND TEMPERATURE REQUIREMENTS

A. Work shall not commence or proceed, with the exception of the completion of necessary temporary measures to make the building weathertight, when the ambient air temperature is below 32°F unless otherwise specified.

B. Work shall not commence or proceed, with the exception of the completion of necessary temporary measures to make the building weathertight, when precipitation of any kind, or winds in excess of 20 miles per hour are present or imminent or when, in the sole judgment of the Engineer or his authorized representatives, conditions are unfavorable or detrimental to the proper installation of the systems.

C. Work shall not commence or proceed, with the exception of the completion of necessary temporary measure to make the building weathertight, when water, ice or frost is present on or within the materials or surfaces to which materials are to be applied.

D. Work shall not commence or proceed with the exception of the completion of necessary temporary measures to make the building weathertight when the temperature is too hot to allow proper installation, or when existing or previously installed work is being damaged by the application, or when temperature conditions present a health or safety hazard to the workers on the site.

1.10 CONTRACTOR'S USE OF PREMISES

A. Contractor shall limit its use of the site for work and for storage to allow for:

1. Owner occupancy and use of the building during construction.

2. Public use of walks, parking lots, and driveways.

B. Do not block exits at any time. Provide protected entranceways at each entrance at all times.

C. Coordinate work on the roof, use of the site, storage areas, and staging areas with the Owner. Limit use of the site and working hours to dates, times, and locations approved by the Owner.

D. Cooperate with the Owner's scheduling requirements for working at an occupied building. Work under this Section shall not interfere with the operation of the building or building occupants at any time.

E. The Contractor is responsible for protecting all materials and equipment stored on the site.

F. Smoking is not permitted on the grounds.

G. Dispose of all trash and debris in a legal manner off-site. Do not throw debris from access equipment or staging. Conduct debris to approved containers on the ground. Locate debris containers only in locations approved by the Owner in advance.

1.11 COORDINATION

A. Coordinate all work of this section with other trades. Perform all flashing and sheetmetal work in a timely manner as not to delay other trades. The Contractor shall coordinate all work with the roofing and waterproofing trades, to prevent exposure of the building to inclement weather and leaks, at all times.

1.12 WARRANTY

A. Skylight Manufacturers Warranty: Submit skylight manufacturers warranty, signed by the manufacturing and covering the products described in this section, in which the manufacturer agrees to replace slate shingles that fail in materials. The duration of this warranty shall be 10-years for all components.

B. Contractor Warranty: Submit Contractor warranty, covering Work of this Section, in which Contractor warrants the slate roofing and associated copper components and copper flashings, and the skylight installation work to be watertight and leak free. In the event any work is found to be defective, is not watertight, or otherwise not in accordance with the contract documents within two (2) years of final completion, the Contractor shall repair and/or remove and replace at no cost to the Owner.

PART 2 - PRODUCTS

2.01 SKYLIGHT MATERIALS

A. Skylight unit shall replace existing skylight unit at same location and shall be Low Profile Glass Glazed Skylight, Factory-assembled, Curb-mounted unit consisting of insulated glass, gasketing, inner frame designed to mount directly on existing curb with flashing as detailed. The shape and size of the skylight unit shall be as required to be properly fit and secured to the existing curb. Provide integral condensation gutter system with corners fully welded for waterproof quality. Poured and de-bridged polyurethane thermal break.

B. Retainer Frame: Extruded aluminum alloy 6063-T5 (min). ASTM B 221 (ASTM B 221 M) with minimum effective thickness of 0.60 inches.

C. All exterior surfaces and components shall be fabricated of minimum 20 oz. cold rolled copper conforming to ASTM B 370. Galvanic separation of dissimilar metals shall be provided.

D. Support Structure Curb Mounted: Minimum 1 1/2" wide at perimeter and under all rafters and purlins. Purlins can be self supporting consult manufacturer for limitations.

E. Glazing Components:

1. Insulated glass; 1-1/8 inch thick consisting of 1/2 inch clear tempered exterior lite, 1/2 inch sealed air space and 3/8 inch clear laminated safety glass interior lite. Glass must meet the requirements of AAMA for the project.

2. Glazing Gaskets: Pressure-glazing gaskets of elastomer type and hardness provided by the skylight manufacturer to comply with requirements. Glazing gaskets to be extruded thermoplastic elastomer by the skylight manufacturer.

3. Spacers, Edge Blocks and Setting Blocks: Manufacturer's standard permanent non-migrating type of elastomer type and hardness selected to comply with requirements. Spacers, Edge Blocks, and Setting Blocks to be extruded thermoplastic elastomer by the skylight manufacturer.

4. Glazing Weatherseal Sealant: Neutral-curing silicone sealant recommended by skylight and sealant manufacturers for this use and furnished by the skylight manufacturer.

5. Sealant to be capable of withstanding 50 percent movement in both extension and compression (total of 100 percent movement) when tested for adhesion and cohesion under maximum cyclic movement according to ASTM C 719.

6. Sealant to comply with ASTM C 920 for Type S, Grade NS, Class 25, Uses NT, G, A, and O, as applicable to substrates including other sealants with which it comes in contact. Color: Black

F. Fasteners: Same metal as metals being fastened, or non-magnetic stainless steel or other non-corrosive metal as recommended by manufacturer.

G. Bituminous Coating: SSPC-Paint 12, solvent-type, bituminous mastic, nominally free of sulfur and containing no asbestos fibers, compounded for 15-mil (0.4 mm) dry film thickness per coating.

G. Condensation Control: Fabricate skylight units with integral internal gutters and weeps to collect and dispose of condensation to the outside.

H. Framing Components as follows:

1. Factory fit and assemble components.

2. Fabricate components that, when assembled, will have accurately fitted joints with ends coped or mitered to produce hairline joints free of burrs and distortion.

3. Fabricate components to drain water passing joints and to drain condensation and moisture occurring or migrating within skylight system to the exterior.

4. Fabricate components to accommodate expansion, contraction, and field adjustment, and to provide for minimum clearance and shimming at skylight perimeter.

5. Form shapes with sharp profiles, straight and free of defects or deformations, before finishing.

6. Fit and secure joints by heliarc welding.

I. Interior Finish: Manufacturer's Fluoropolymer Kynar 500 finish. Color to be selected by the Owner

2.03 TEMPORARY STAGING AND SCAFFOLDING

A. The Contractor shall furnish, erect, and maintain in safe condition all staging, planking, and scaffolding required for their own use and for the use of any of their Subcontractors on the project to properly carry out and complete the work. All staging, planking, and scaffolding shall be maintained in a safe condition. Scaffolds shall have solid backs and floors to prevent materials dropping to the floors or grounds. Staging and Scaffolding shall comply in all respects to the governing laws and codes. Do not block means of egress at any time. Provide protected entranceways at each means of egress at all times.

B. The Contractor shall provide a staging/scaffolding plan prepared and stamped by a licensed Commonwealth of Massachusetts registered structural engineer.

PART 3 - EXECUTION

3.01 GENERAL PREPARATION

A. Surface on which the system is to be applied shall be clean, smooth, dry, free of fins, sharp edges, loose and foreign materials, oil and grease. Before beginning work, Contractor shall examine the surfaces in order to ensure that the substrate is acceptable. Prior to starting the work, the Contractor shall notify the Engineer that the substrate is acceptable and ready .

B. Material with imperfections such as pinholes, cracks, incorrect thickness (less than specified), etc. shall be rejected and removed immediately from job site.

C. No work shall take place when moisture is present on the roof or in any of the materials. The Engineer may order the work to stop when, in his opinion, the weather conditions warrant him to do so. Contractor shall take such measures as the work can continue with minimum delay so the exposure of building and its contents is minimum.

D. After the existing skylight components are removed, the existing curb shall be dried out before installation of new materials. After materials have been removed, the substrate shall be scraped clean of all surface imperfections. Contractor shall inspect the surface to determine that it is smooth and uniform to receive the new work.

3.02 UNDERLAYMENT INSTALLATION

A. Turn all underlayments extending from the roof decking up and on top of the existing skylight curb. Trim the underlayments back from the inside edge of the skylight curb.

3.03 SKYLIGHT INSTALLATION

A. Materials for use shall be as supplied and/or recommended by system manufacturer. Materials shall be delivered in their original, unopened containers, clearly labeled with manufacturer's name, brand name, and such identifying numbers as are appropriate. Materials with imperfections shall be rejected and removed immediately from the site.

B. Surface on which the skylight system is to be installed shall be clean, smooth, dry, and free of fins, sharp edges, loose and foreign materials, oil and grease. Tops of curbs shall be properly flashed to form watertight seal between skylight curb frame and curbing. Install the skylight assemblies in accordance with the manufacturer's instructions, to form a watertight seal.

C. No work shall take place when the weather prohibits safe and correct installation.

D. Install sheet metal trim as required to seal the skylight to the existing curb and to provide a neat interior appearance as judged by the Owner.

3.04 CLEANING

A. All interior and exterior surfaces of theskylight shall be claened to the Owner's satisfaction prior to removal of access staging.

END OF SECTION