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PURCHASING DEPARTMENT

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TO: All Bidders

FROM: City of Cambridge

DATE: June 9, 2023

**RE: File No. 10953A – Rebid: War Memorial Pool Repair and Replacement of Tile, Grout,
and Drains - Addendum No. 1**

This addendum is comprised of the following:

- 1. Pre-bid sign in sheet (attached)**
- 2. Questions and Answers**
- 3. Reissued specification section 093013 (attached)**

The following questions were asked answered:

QUESTION 1: Can the City add “General Building” as an approved DCAMM Category? Significantly more than half this work is within the swimming pools, which is not a floor covering.

ANSWER: The City will not be adding “General Building” as an approved DCAMM Category.

QUESTION 2: Confirm that solid/sound grout must be removed from all joints before re-grouting. This adds a large expense and is a major variable in pricing the work.

ANSWER: See reissued specification section 093013 – Ceramic Tiling and Regrouting.

All other details remain the same.

Elizabeth Unger
Purchasing Agent

Addendum No. 1



Sign-in Sheet
Pre-Bid Conference
Wednesday, June 7, 2023 @ 10:00 AM
File No. 10953: War Memorial Pool Repair and Replacement of Tile, Grout, and Drains
City of Cambridge, MA

Name	Company	Address	Contact Information (Tel/Email)
Mike Dodson	CDM Smith	670 N. Commercial St. Manchester NH	603.222.8311 cdodsonma@cdm.com
Dan Hazen	Pavilion Floors	90 Commence Way Woburn, MA	(508) 455-7724 dan.hazen@pavilionfloors.com
RICARDO LIMA	CAPITAL CARPET		
Aldan Corbell	Recreation	1640 Cambridge St.	617 349 6229
Vladimir Pierre	Recreation	1640 Cambridge St	617 349 6228

SECTION 093013 - CERAMIC TILING AND REGROUTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Cleaning Existing tile
 - 2. Removal of existing damaged tile
 - 3. Removal of mortar at missing tile
 - 4. Ceramic mosaic tile.
 - 5. Regrouting of existing tile
 - 6. Regrouting of existing gutter tiles
 - 7. Cleaning and Protecting Existing Gutter Drains

1.2 DEFINITIONS

- A. General: Definitions in the ANSI A108 series of tile installation standards and in ANSI A137.1 apply to Work of this Section unless otherwise specified.
- B. Face Size: Actual tile size, excluding spacer lugs.
- C. Module Size: Actual tile size plus joint width indicated.
- D. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- E. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- F. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- G. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 PRE CONSTRUCTION

- A. After the pools are drained, schedule a site meeting with the Owner and Architect to inspect the pool tile to determine locations of damaged and loose tiles.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Samples for Selection: For tile, grout, and accessories involving color selection.
 - 1. Full-size units of each type and composition of tile and for each color and finish required. For ceramic mosaic tile in color blend patterns, provide full sheets of each color blend.
 - 2. Assembled samples mounted on a rigid panel, with grouted joints, for each type and composition of tile and for each color and finish required. Make samples at least 12 inches square, but not fewer than four tiles. Use grout of type and in color or colors approved for completed Work.
 - 3. Full-size units of each type of trim and accessory for each color and finish required.
 - 4. Stone thresholds in 6-inch (150-mm) lengths.
 - 5. Metal edge strips in 6-inch (150-mm) lengths.

1.6 INFORMATIONAL SUBMITTALS

- A. Product Certificates: For each type of product.
- B. Product Test Reports: For tile-setting and -grouting products.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match and are from the same production runs as products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Tile and Trim Units: Furnish 16 square feet of full-size for each type, color and size indicated. Provide 12 full size specialty units of nosings, corners and similar special shapes.

1.8 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Build mockup of floor tile installation.
 - 2. Build mockup of pool tile installation.
 - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirements in ANSI A137.1 for labeling tile packages.

- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained, and contamination can be avoided.
- D. Store liquid materials in unopened containers and protect them from freezing.

1.10 FIELD CONDITIONS

- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

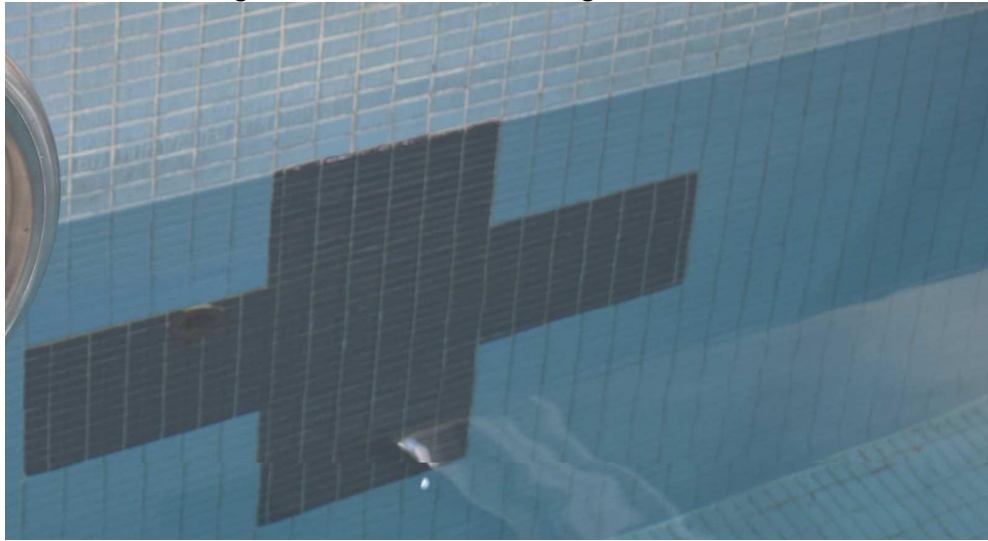
- A. Source Limitations for Tile: Obtain tile of each type and color or finish from single source or producer.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from single manufacturer and each aggregate from single source or producer.

2.2 PRODUCTS, GENERAL

- A. ANSI Ceramic Tile Standard: Provide tile that complies with ANSI A137.1 for types, compositions, and other characteristics indicated.
- B. ANSI Standards for Tile Installation Materials: Provide materials complying with ANSI A108.02, ANSI standards referenced in other Part 2 articles, ANSI standards referenced by TCNA installation methods specified in tile installation schedules, and other requirements specified.
- C. Factory Blending: For tile exhibiting color variations within ranges, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.
- D. Mounting: For factory-mounted tile, provide back- or edge-mounted tile assemblies as standard with manufacturer unless otherwise indicated.
 - 1. Where tile is indicated for installation in swimming pools and in wet areas, do not use back- or edge-mounted tile assemblies unless tile manufacturer specifies in writing that this type of mounting is suitable for installation indicated and has a record of successful in-service performance.

2.3 TILE PRODUCTS

- A. Size: 1 by 1 , 2 by 1, and 2 by 2 inch to match existing patterns. Nominal thickness is 1/4 inch. Provide bullnose, cone and special shapes to match existing.
 - 1. Composition: Vitreous or impervious porcelain.
 - 2. Certification: Porcelain tile certified by the Porcelain Tile Certification Agency.
- B. Type 1: Pool Tiles: 1x2 glazed Blue to match existing
- C. Type 2: Pool Tiles 1x2 unglazed Black to match existing



1.



2.

- D. Type 3 Pool Platform Tiles : 1x1 unglazed blue/gray



1.

E. Floor Tile: 1x1 color blend unglazed



1.

F. Provide full range of colors contained in manufacturer's standard and premium groups required to match existing. Colors shall be selected by Architect.

G. Acceptable manufacturers: American Olean Tile Company, Dal-Tile Corporation, United States Tile Company, or approved equal.

H. Special Shapes include

1. Base Cove: Cove, module size 1 by 1 inch .
2. External Corners for Portland Cement Mortar Installations: Bead (bullnose), module size 1 by 1 inch or 2 by 1 inch .
3. Cove, module size 1 by 1 inch .
4. Field-butted square corners. For coved base and cap, use angle pieces designed to fit with stretcher shapes.

2.4 MORTAR AND GROUT FOR TILE

- A. All materials in accordance with Tile Council of America (TCA) installation system P601-Swimming Pools.
- B. Portland Cement: ASTM C-150, Type 1.
- C. Sand: ASTM C-144.
- D. Lime: ASTM C-206 Type S or ASTM C-207 Type S.
- E. Water: Potable.
- F. Scratch Coat and Mortar Bed (Pool Walls and Gutter) : 1 part Portland cement, 1/2 part lime, and 4 parts dry sand or 5 parts damp sand.
- G. Bond Coat: Latex modified Portland cement mortar for pools.
- H. Pool Grout: Latex modified Portland cement mortar, ANSI A118.6. color shall be white.
- I. Floor Grout: Dry set mortar, ANSI A118.6. Color of grout shall be selected.

2.5 MISCELLANEOUS MATERIALS

- A. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers. Available products:
 - 1. Bona Stone, Tile and Laminate Cleaner
 - 2. Zep Ceramic Tile Cleaner
 - 3. Aqua Mix Concentrated Stone & Tile Cleaner
 - 4. Or equal
- ~~B. Acidic Tile Cleaner Grout Removal: An acid based cleaner to remove surface of grout, stains and other discolorations not removed with tile cleaning; Products include~~
 - ~~1. Miracle Heavy Duty Acidic Cleaner~~
 - ~~2. Mapei Acid Tile and Grout Cleaner~~
 - ~~3. Stonetech Acidic Cleaner~~
 - ~~4. Zep Acidic Tile and Grout Cleaner~~
 - ~~5. Or equal~~
- C. Bronze Cleaner: Liquid cleaners specifically made for cleaning bronze including:
 - 1. Bar Keeper's Friend Soft Cleanser
 - 2. Brasso Metal Cleaner & Polish
 - 3. Wright's Brass Polish
 - 4. Or equal

2.6 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.
- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing tile only to the extent required by new tile and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Dispose of demolished items and materials promptly.
- B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.2 GUTTER DRAINS AND MAIN DRAINS

- A. Remove each tile gutter drain cover and save. Plug drains to prevent tile cleaner and grout from entering the pool recirculation lines.
- B. Clean face of embedded drain frame and drain cover with bronze cleaner.
- C. Remove existing main drain grate covers and plug drain outlets using inflatable bladder plugs to prevent pool cleaners and water from entering the pool drain lines.

3.3 PREPARATION FOR NEW TILE

- A. Prepare substrate to receive new tile by removing mortar material to a sufficient depth required to install new mortar and tile. All loose mortar shall be removed. Provide scarified or textured surface to improve mortar bond.

3.4 SITE OBSERVATION

- A. Notify the Architect and Owner of completion of tile removal and preparation. Arrange and provide access to allow inspection of the tile prior to regrouting.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

3.6 TILE INSTALLATION, GENERAL

- A. Tile Blending: For tile exhibiting color variations within the ranges selected during sample submittals, verify that tile has been blended in factory and packaged accordingly so that tile units taken from one package show the same range in colors as those taken from other packages and match approved samples.
- B. ANSI Tile Installation Standard: Comply with parts of ANSI 108 series of tile installation standards included under "American National Standard Specifications for the Installation of Ceramic Tile" that apply to type of setting and grouting materials and methods indicated.
- C. TCA Installation Guidelines: TCA "Handbook for Ceramic Tile Installation method P-601.
- D. Grout tile to comply with the requirements of ANSI A108.10.

3.7 CLEANING AND REGROUTING

- A. The training pool, lap pool, diving pool and the entire pool deck shall be cleaned and regouted.
- B. Note that in the pool, all of the cleaning compounds and rinse water used for the work must be pumped out of the bottom of the pool and out of the scum gutters and discharged into the sanitary drains. Cleaning water shall be prevented from entering the pool drains. Solid waste shall be prevented from going to the building drain lines and shall be properly disposed of separately. Place filters or screen over drain to collect solids. Pool main drains and overflow gutter drains shall be plugged throughout the execution of the work.
- C. Regrouting
 - 1. Use a medium (1,000 – 2,000 psi/6.9 – 13.8 MPa) to high pressure (>2,000 psi/>13.8 MPa) power washer system to carefully remove the grout from between the tile. Care must be taken to make sure that the pressurized water does not dwell on a particular area and that damage is not done to the tile installation. Start with a lower pressure
 - a. Direct the pressurized water at all the joints, moving continuously, to first clean, then remove the existing grout. Refer to subparagraph C.b. below regarding existing solid grout. The existing grout should be removed to a sufficient depth of the grout joint down to stable and sound existing grout or bedding mortar. 1/8 inch maximum except at locations of loose grout and voids.
 - b. Where existing grout is solid, reduce the water pressure to clean the surface of the existing grout to remove residue and grime.
 - c. Remove any excess water and loose material using a wet vacuum.
- D. Cleaning. At areas of discoloration or residue not removed during pressure washing:

1. Use tile cleaners and stiff brushes to scrub pool and deck tile to remove discoloration and residue. Rinse thoroughly and dispose of water in accordance with Paragraph B above. Cleaning water may discharge into the deck floor drains.
 - a. Use a wet vacuum to remove any remaining residue and water.
 - b. Allow the joints to completely dry prior to re-grouting.
2. Before proceeding with the re-grout, ensure that joints are clean, free of loose residue and debris.

E. Inspection before Regrouting: Notify the Architect and Owner of completion of pressure washing. Arrange and provide access to allow inspection of the tile prior to regrouting.

1. Portions of the existing grout may be in satisfactory condition and appearance. The inspection will determine if the existing grout can remain without re-grouting: Criteria for not re-grouting shall be:
 - a) The grout is solid and firm.
 - b) Pressure washing removes residue and restores the grout to its original color and appearance.
2. Where areas are not re-grouted, a mutually agreed upon quantity and Contract adjustment will be made in accordance with provisions included in the Contract Documents.

F. Re-grout with materials and methods specified and approved.

1. Apply grout over entire surface of the three pools and pool deck.
2. Work grout into joints using tile grout float.
3. Once grout is sufficiently set, wipe surface with grout sponge to remove residual grout from tile.
4. Work grout from top to bottom of pools.

G. Remove plugs from gutter drains and install existing bronze gutter drain covers.

H. Remove plugs from main drains.

I. Coordinate installation of new main drain covers.

3.8 PUNCHLIST

A. Arrange for inspection with Architect and Owner Prior to filling pools.

END OF SECTION 093013