

**SECTION 04 21 26
STRUCTURAL GLAZED FACING TILE**

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PART 1 GENERAL

3.01 REFERENCE STANDARDS

- A. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar; 2018.

3.02 1.01 RELATED DOCUMENTS

- A. The "General Conditions, NYCHA Contracts", latest edition; "Division 01, General Requirements" and all amendments and addenda, govern the work of this Section.

1.02 SCOPE OF WORK

4.01 THE CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, SERVICES, TOOLS AND ANY OTHER INCIDENTALS NECESSARY FOR THE FOLLOWING:

- A. Contractor shall patch, replace and clean existing glazed tiles in the first floor lobbies.
 - 1. All cracked or chipped tile shall be replaced and keyed into old. Contractor shall assume 75 sf per lobby to be replaced, to be verified in the field.
 - 2. All existing exposed glazed tile shall be cleaned as per the specifications outlined herein.
 - 3. All existing painted tile shall be re-painted. This includes all exposed glazed tile in the low-rise lobbies, with the exception of the wall currently housing the mailboxes. Existing mailboxes are to remain.
 - 4. All tiles with holes from previous handrails or removed handrails shall be replaced.

4.02 RESIDENTS SHALL BE GIVEN A MINIMUM OF 48 HOURS NOTICE PRIOR TO ANY WORK IN THE LOBBIES.

- A. Provide all other labor and materials as may be reasonably inferred to be required to make the work of this Section complete.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. 02 41 00 SELECTIVE DEMOLITION AND REMOVALS

B. 02 56 23 DUST CONTROL

C. 04 01 20 MASONRY CLEANING AND REPAIR

D. 09 66 16 RESILIENT TERRAZZO TILE

E. 09 91 00 PAINTING AND FINISHING

1.04 SUBMITTALS

SEE SECTION 01 33 00 SUBMISSIONS.

1.05 REQUIREMENTS AND RESTRICTIONS

NEW GLAZED BLOCK WORK SHALL MATCH EXISTING IN SIZE, COLOR, SURFACE TEXTURE, COLOR OF MORTAR JOINT, AND COURSING.

PART 2 PRODUCTS

2.01 MATERIALS

ONLY THE LATEST EDITIONS AND/OR REVISIONS OF REFERENCED STANDARDS, CODES AND SPECIFICATIONS SHALL BE APPLICABLE UNLESS OTHERWISE SPECIFICALLY NOTED. ALL MATERIALS SHALL FULFILL THE REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE, BE TRADEMARKED AND GRADEMARKED.

B. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM STANDARD SPECIFICATIONS FOR PORTLAND CEMENT, DESIGNATION C-150, TYPE 1.

C. LIME FOR MASONRY MORTAR SHALL BE GRANULAR, PULVERIZED OR PEBBLE QUICKLIME, CONFORMING TO ASTM DESIGNATION C-5; OR PRESSURE HYDRATED LIME NOT LESS THAN 92 PERCENT HYDRATED AND MEETING THE REQUIREMENTS OF ASTM DESIGNATION C-207, TYPE S.

D. THE PUTTY MADE FROM THE QUICKLIME OR FROM THE PRESSURE HYDRATED LIME SHALL HAVE A PLASTICITY FIGURE OF FROM 300 TO 500. NO LIME SHOWING A PLASTICITY FIGURE OF LESS THAN 300 WILL BE ACCEPTED. QUICKLIME SHALL BE SLAKED UNTIL COLD IN ACCORDANCE WITH ASTM COMMITTEE C-7 AND THE MANUFACTURER'S RECOMMENDATIONS BEFORE USE. PRESSURE-HYDRATED LIME SHALL BE USED IN STRICT ACCORDANCE WITH THE APPROVED MANUFACTURER'S DIRECTIONS.

20.01 1. MORTAR SHALL MATCH EXISTING. SUBMIT SAMPLE OF MORTAR FOR EACH LOCATION PRIOR TO INSTALLION OF NEW GLAZED TILES.

E. SAND: CLEAN, SHARP, COARSE, STRONG AND DURABLE MASON'S AND CONFORMING TO ASTM C144.

F. WATER: CLEAN, FRESH, FREE FROM INJURIOUS AMOUNTS OF OILS, ACIDS, ALKALIS, OR ORGANIC MATTER.

G. THE MORTAR FOR THE ENTIRE WORK: COMPOSED OF VOLUME 1 PART PORTLAND CEMENT, 1 PART LIME PUTTY AND 6 PARTS SAND. SAND SHALL BE MEASURED LOOSE AND DAMP. COMPRESSIVE STRENGTH OF MORTAR, 2 INCH CUBE TEST, AT END OF 28 DAYS, DAMP STORAGE SHALL BE NOT LESS THAN 750 POUNDS PER SQUARE INCH. THE INGREDIENTS, MEASURED BY VOLUME, SHALL BE THOROUGHLY MIXED IN THE EXACT PROPORTIONS SPECIFIED. NO ADMIXTURE SHALL BE USED WITH MORTAR. THE MORTAR SHALL BE MIXED IN A BATCH MIXER OR BY HAND, SO AS TO BE OF UNIFORM COLOR AND CONSISTENCY. READY MIX MORTAR SHALL NOT BE PERMITTED.

H. STRUCTURAL GLAZED FACING TILE SHALL BE BY ELGIN-BUTLER, OR EQUAL, FINAL SHADE AND TEXTURE AS APPROVED BY ARCHITECT FROM THE MANUFACTURER'S STANDARD LINE. TILES SHALL BE SIZE 6T4B, NOMINAL SIZE 5" X 11-11/16" X 4", FULL 4" DEEP WITH 2" DEEP SOAPS AS REQUIRED. SUBMIT SAMPLES OF ALL TILE FOR APPROVAL PRIOR TO INSTALLATION.

24.01 1. STRUCTURAL GLAZED FACING TILE/BLOCK SHALL MATCH EXISTING IN SIZE, COLOR AND SHAPE IN EVERY MATERIAL RESPECT. GENERALLY, TILE SHALL BE "STANDARD QUALITY" CONFORMING TO THE STANDARD SPECIFICATIONS OF THE FACING TILE INSTITUTE FOR QUALITY, FINISH, SIZE, SHAPE AND VARIATION FROM STANDARD DIMENSIONS. FACING TILE/BLOCK SHALL BE MANUFACTURED FROM FIRE CLAY, FREE FROM DEFECTS THAT WOULD MAR THE APPEARANCE OR AFFECT THE STRUCTURAL STRENGTH OF THE WALL.

I. PROVIDE BULLNOSES AT ALL EXTERIOR CORNERS AND COVE BASES AS SHOWN ON CONTRACT DRAWINGS. PROVIDE SPECIAL SHAPES SUCH AS CAPS, DOUBLE BULL NOSE, INSIDE AND OUTSIDE CORNER COVE BASES, SQUARE JAMBS AND CORNERS AS NECESSARY TO DUPLICATE ORIGINAL DETAILS REGARDLESS OF WHETHER SHOWN OR NOT ON CONTRACT DRAWINGS.

J. METAL TIES SHALL BE FURNISHED AND INSTALLED WHERE REQUIRED TO ANCHOR SOAPS TO PRECAST MASONRY UNITS. TIES SHALL BE ZINC COATED 24 GAUGE SHEET STEEL NOT LESS THAN 3/4 INCH WIDE, OF PROPER LENGTH AND TYPE TO FIT THE JOINT AND PROVIDE GOOD BOND TO MASONRY.

PART 3 EXECUTION

27.01 INSTALLATION NEW INTERIOR GLAZED STRUCTURAL TILE

ALL NEW FACING TILE MUST BE KEYED INTO EXISTING ADJACENT TILE.

ALL JOINTS MUST BE PLUMB, TRUE TO LINE AND MATCHING EXISTING COURSING.

ALL TILE DAMAGED AND UNFINISHED SURFACES EXPOSED DURING DEMOLITION SHALL HAVE NEW TILE INSTALLED USING FULL SIZE UNITS WHEN DIRECTED.

CUT OUT AND REPLACE OF UNITS THAT ARE CRACKED FROM STRUCTURAL MOVEMENT WITH FULL BED UNIT. CARE SHALL BE TAKEN TO PROTECT ADJACENT TILE. ANY SOUND ADJACENT TILE DAMAGED DURING TILE CLEANING OR REPAIR WORK SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE AUTHORITY.

UNITS WITH NON-STRUCTURAL CRACKS AND/OR CHIPS LARGER THAN 1/2" IN DIAMETER SHALL BE CUT OUT AND REPLACED WITH A 2 INCH SOAP UNIT.

RANDOM MISMATCHED IN-FILLS SHALL BE CUT OUT AND REPLACED WITH 2" SOAP UNITS OR FULL UNITS.

33.01 CLEANING INTERIOR STRUCTURAL GLAZED TILE

THE FOLLOWING PROCEDURES SHALL BE FOLLOWED FOR CLEANING THE INTERIOR GLAZED BLOCK.

PREPARATION

35.01 SUBMIT A SCHEDULE OF CLEANING ACTIVITIES FOR EACH TYPE OF MASONRY TO BE CLEANED. INCLUDE LOCATION AND A DESCRIPTION OF THE CLEANING SEQUENCE, ALL PRODUCTS, EQUIPMENT AND SCAFFOLDING, ETC. TO BE USED.

35.02 SUBMIT A DESCRIPTION OF PROTECTION PROCEDURES FOR EACH CONDITION AND SURFACE WHICH REQUIRES PROTECTION. NOTE THAT ALL RESIDENTS SHALL HAVE UNRESTRICTED ACCESS TO THE BUILDING, LOBBY, ELEVATORS, MAILBOXES, AND THEIR UNITS AT ALL TIMES.

35.03 A MINIMUM OF 72 HOURS SHALL BE GIVEN TO ALL RESIDENTS OF THE BUILDING PRIOR TO CLEANING OR ANY WORK IN THE LOBBIES. NO WORK SHALL COMMENCE WITHOUT THE APPROVAL OF THE DEVELOPMENT MANAGEMENT.

35.04 PROTECT WINDOWS, DOORS, FIXTURES, AIR CONDITIONERS, ROOFING, FLASHINGS, PAINTED SURFACES AND OTHER ADJACENT SURFACES NOT REQUIRED TO BE CLEANED.

35.05 MOCKUP: CLEAN ONE AREA 4' X 4' AT EACH BUILDING, LOCATION SELECTED BY THE AUTHORITY.

PROJECT CONDITIONS

36.01 MAKE NECESSARY PROVISIONS FOR THE DIVERSION AND DISPOSAL OF CLEANING WATER AND SOLUTIONS. TAKE PRECAUTIONS AS REQUIRED TO PREVENT DAMAGE AND CONTAMINATION RESULTING FROM RUNOFF OF CLEANING SOLUTION.

36.02 PUMPING EQUIPMENT WILL NOT BE ALLOWED IN OR ON THE BUILDING.

36.03 DO NOT USE ABRASIVE BLASTING AGGREGATE CLEANING METHOD, OR LOW PRESSURE MICRO-ABRASIVE POWDER PROCESS OR ANY OTHER ABRASIVE CLEANING METHOD.

36.04 ENSURE THAT PAINTED SURFACES (SUCH AS DOORS, WINDOWS, ETC.) ARE NOT AFFECTED BY THE WASHING, EXCEPT FOR THOSE SURFACES DESIGNATED BY THE AUTHORITY FOR CLEANING.

CLEANING PROCESS:

37.01 PRE-WET THE MASONRY SURFACES WITH WATER, BRISTLE BRUSH APPLICATIONS ONLY. NO POWER WASHING WILL BE PERMITTED.

37.02 PREPARE CLEANING SOLUTIONS IN ACCORDANCE WITH CLEANING MATERIALS MANUFACTURER'S RECOMMENDATIONS.

37.03 CLEAN MASONRY FREE OF DIRT, GRIME, SOOT, GRAFFITI AND OTHER FOREIGN MATERIALS. LEAVE MASONRY UNIFORMLY CLEAN AND UNDAMAGED.

37.04 THOROUGHLY RINSE OFF THE MASONRY SURFACES WITH WATER.

37.05 PRE-CLEAN: CHEMICAL OR DETERGENT WASH ALL BIOLOGICAL GROWTH AND STAINS AS INDICATED IN THE DRAWINGS AND AS NECESSARY.

37.06 SMALL SCRATCHES IN GLAZE FACING:

- A. Using a clean white cloth apply either Armor All Protectant or WD-40 to the block and polish until the face is clean. This will clean and help remove the small imperfections. This step may also be used after final clean down of wall is complete to help finish the units and enhance the color.

37.07 CHIPS OR GOUGES IN GLAZE FACING:

- A. Thoroughly clean the area to be repaired.
- B. Mix grout filler to match block color according to manufacturer directions and apply to area to be repaired. Leave the filler slightly higher than face of unit. Once the filler is dry, lightly sand the filler flush to the face of the block. Take a piece of the glazed face to any automotive paint supply store, they can do a match to the color and prepare a small touch-up bottle of color. Apply paint to filler, when dry wipe entire unit with WD-40 and a clean white cloth. This will blend everything together and finish the repair of the unit.

37.08 FINAL WASH-DOWN: CHEMICAL OR DETERGENT WASH EACH AREA IN ITS ENTIRETY.

CLEAN UP:

38.01 CLEAN AND RESTORE ALL AREAS WHICH MIGHT BE DAMAGED AS A RESULT OF THE CLEANING OPERATIONS. REMOVE ALL PROTECTIVE MATERIALS.

38.02 DRY ALL SURFACES COMPLETELY BEFORE THE END OF THE WORK DAY.

38.03 INSPECTION

A. ALL REPAIR, MOLD REMOVAL, CLEANING, AND POINTING OF MORTAR MUST BE APPROVED BY THE ARCHITECT PRIOR TO ACCEPTANCE BY THE AUTHORITY. ANY SUCH WORK NOT CONFORMING TO THE SPECIFICATIONS, IN THE OPINION OF THE ARCHITECT, SHALL BE REPAIRED OR REPLACED AT THE DISCRETION OF THE ARCHITECT AT NO COST TO THE OWNER.

END OF SECTION 04 21 26