PROJECT:

Lobby Renovations
11 Lake Avenue, 40 Belmont Street,
1050 Main Street, 1060 Main Street &
275 Pleasant Street
Worcester, MA 01604
Project No. 2022-07

ADDENDUM NO. 4 01/17/2023

Posted: 01/17/2023 at 12:23PM EST

Awarding Authority/Owner:

Worcester Housing Authority 630A Plantation Street Worcester, MA 01605

Reference Contract Documents (drawings and specifications) dated 12/01/2022

The attention of Bidders submitting proposals for the above subject project is called to the following addendum to the specifications and drawings. The items set forth herein, whether of omission, addition, substitution, or clarifications are all to be included in and form a part of the proposal submitted.

THE NUMBER OF THIS ADDENDUM (4) MUST BE ENTERED IN THE APPROPRIATE SPACE "B" PROVIDED AFTER THE WORD "NUMBERS" OF THE CONTRACT FORM ENTITLED "FORM FOR GENERAL BID," AND IN SPACE "B" OF THE "FORM FOR SUB-BID."

BID DOCUMENT MODIFICATIONS ARE AS FOLLOWS.

Other Modifications / Attachments:

The following attachment includes additional modifications, clarifications and/or provisions not included in the items above in this Addendum.

See document at the end of document.

All other of the portions of the Contract Documents remain <u>unchanged</u>. Please be reminded to acknowledge this Addendum on the bid forms.

ATTACHMENTS

Addendum #4 combined.pdf

--- End of Addendum No. 4 ---

ADDENDUM NO.4 RESPONSE TO BIDDER QUESTIONS January 17, 2023

To all Bidders on the Project titled: Worcester Housing Authority- Lobby Renovations and Upgrades, 12-5 Pleasant Tower, 12-8 Lincoln Park Tower, 12-12 Belmont Tower, 12-13 Webster Tower West, 12-15 Webster Tower East, Worcester, MA 01605

WORCESTER HOUSING AUTHORITY

630 Plantation Street Worcester. MA 01605

Reference Contract Documents dated December 7. 2022.

The attention of bidders submitting proposals for the above subject project is called to the following addendum to the project manual. The items set forth herein, whether of omission. addition, substitution, or clarification are all to be included- in and form a part of the proposal submitted.

THE NUMBER OF THIS ADDENDUM (4) MUST BE ENTERED IN THE APPROPRIATE SPACE PROVIDED AFTER THE WORD "ADDENDUM #" OF THE CONTRACT FORM ENTITLED "ACKNOWLEDGEMENT OF ADDENDA." *Please note that Addendum Number (4) must be acknowledged.*

AMMENDMENTS TO THE DRAWINGS

Sketch SK4 – 1060 Main St., LOWER LEVEL FLOOR PATTERN. is attached and uploaded.

Sketch SK5 – 275 Pleasant St., OFFICE EXTENT is attached and uploaded.

Sketch SK6 – 1050 Main St., LOBBY FLOOR PATTERN. is attached and uploaded.

AMMENDMENTS TO THE SPECIFICATIONS

Sections 093000 and 096516 are attached and uploaded.

RESPONSE TO BIDDER'S QUESTIONS (Received as of 1/17/23)

1. Question: Please provide a Ceramic Tile and Walk off Mat specification if they are to be bid

by a general contractor; several locations call out both of these types of materials to

be installed but there is no specification or product information provided.

Answer: Ceramic Tile and Walk-off Mats are not resilient floorings and are therefore not to

be included in the filed sub-bid for that trade.

2. Question: The specification has no callout for sheet vinyl. As listed below in my individual

scope questions, sheet vinyl is mentioned in several areas.

Answer: The sheet vinyl specification section is attached to this addendum. B.O.D. for sheet

vinyl is included in the specification.

3. Question: Please provide a BOD for the Walk Off Mat being installed in building vestibules.

Answer: The sheet vinyl specification section is attached to this addendum. B.O.D. for sheet

vinyl is included in the specification.

4. Question: Please provide a BOD for the wall tile. Is the top of the wainscot to be a bullnose

4"x4" piece or a metal trim.

Answer: The ceramic tile specification section is attached to this addendum. B.O.D. for

ceramic wall tile is included in the specification. The top of the wainscot is to be in

metal trim.

5. Question: A 2.1 mentions 2 VCT patterns. There is no shown VCT patterns or BOD for

materials for these 2 patterns. Please qualify.

Answer: The finish schedule references to 'VCT-Patt 1' should be changed to '12"x24" LVT

flooring'. This flooring will be a single color – TBD per the note on the drawings. The flooring in room 11-Rear Corridor should also be corrected to '12"x24" LVT flooring'. "VCT-Patt 2' in room 5-Package Room should match the existing in the

portion of the room moved into the Package Room by the relocated partition.

6. Question: A 2.1/3 calls out 5 colors of ARMSTRONG EXCHANGE or equal. They clearly

show patterns for 3 of the 5 materials, CATHODE GREY and THUNDERSTORMs

design designations are not in the pattern exhibition.

Answer: The patterns CATHODE GREY and THUNDERSTORM alternate in the white

bands of the detail A2.1/3, subject to final review by WHA per the note on the

drawing.

7. Question: Is wall tile shown in Restroom Elevations 9&10/A2.4 plus 5&6/A4.6 part of this

scope? It is not on the finish schedule but is shown on exhibits If so, please qualify

the wainscot trim, outside corner trim, and BOD on the ceramic tile.

Answer: The ceramic wall tile specification shown in elevations 9 & 10/A2.4 are part of the

scope. All trim is to be metal, BOD is in the attached specifications.

8. Question: Floor Tile Pattern on A3.1/2 calls out 4 ARMSTRONG EXCHANGE tiles and one

of the hashings provided does not line up with any of the ones provided for color, I

want to assume that the "+" texture is meant to implicate ST974 SOLARIS

GRADIENT as this color is not shown in the pattern details. Please verify or correct.

Answer: This is correct.

9. Question: Office (6) mentions New LVT over exist VAT/VCT - the finish schedule calls it out

as VCT-PATT 1. Please verify which is correct. If LVT, please verify which color

is to be installed.

Answer: The note for LVT is correct. The color should be ST974 SOLARIS GRADIENT,

subject to final review by WHA. Note also the attached SK-2 for the extent of the

office remodel.

10. Question: A3.3 has Lower Corridor receiving VCT and mentions an A3.2 drawing for pattern.

A3.2 was not released in our drawing package (up to addenda 2) - please provide

this page.

Answer: Detail 3/A3.2 shows the pattern. Sheet A3.2 is confirmed to be page 12 of the

drawing set dated 12/01/2022.

11. Question: Rear Vestibule (is shown as receiving VCT PATT 2 on the finish schedule, but there

is a note that says its getting a mat on A3.3 - Please qualify which is correct..

Answer: 12- Rear Vestibule will receive a floor mat.

12. Question: 5/A3.1 Finish Schedule lists numbers for the 3 corridors that do not align with rooms

on the floor plans. Please verify if the finish schedule is correct in terms of product

assignment to ensure correct pricing.

Answer: The East, West and North Corridors should show 'VCT-Exist.'

13. Question: Please qualify the patch and match material and scope required at North Corridor

and East Corridor.

Answer: Mis-matched patched tile to be replaced with closest new tile. Information on field

conditions subject to instructions in form HUD-5369.

14. Question: Detail 3/A4.1 Flooring Color Pattern Key @ Lobby is very difficult to perceive

design intent as hashings for products are overlapping tiles and other pattern

hashings. Please provide a clean revision of this for accurate pricing..

Answer: Refer to SK-4 attached to this Addendum.

15. Question: Lower Level Lobby (10) has a 6" stripe leading into corridor 11, is the intent for the

pattern shown on exhibit A4.2/3 to rotate and continue/be repeated going toward the

corridor?.

Answer: Yes, subject to final review by WHA per the note on the drawing.

16. Question: Bathroom elevations 2 & 3/A5.6 show a 4' elevation marker on the wall, but tile is

drawn to go to 3'4 wainscot height. Given every other tile wall shown is 4', are these

walls intended to have a 4' wainscot height?.

Answer: The elevation dimension refers to the mounting height of the towel dispenser.

17. Question: Please provide patterns for VCT-PATT1 and VCT-PATT2 in the respective Lwr

Level Corridor (7) and Community Room (11).

Answer: Refer to SK-4 attached to this Addendum.

18. Question: For the LVT pattern key, there are 2 exhibits. What is the purpose of the right

exhibit, is the intent to have a staggered pattern like shown at walls? The center line

to door on the left exhibit makes sense.

Answer: The second (right) fragment of the floor shows the pattern at the perimeter of the

space, subject to final review by WHA.

19. Question: Finish schedule says floor finish in Womens Restroom (9) and Mens Restroom (10)

is ETR tile, but there is a sheet vinyl installation note on the finish plan. What is the

design intent in this room?

Answer: Replace existing VCT with sheet vinyl.

20. Question: For the lobby work at 275 Pleasant Street, it notes to provide new Parcel Boxes, is

there a model number or specification for the parcel boxes?

Answer: Basis of design is Automation Solutions Inc. Boston Ma, (AF Florence-std 4c,

model 4c16d-20). www.automationsolutionsinc.com. Substitutions should follow

procedure in general conditions.

21. Question: Lathing and Plastering are listed as a filed sub bid trade in spec section 00 40 00 -

Wage Rates, but is not listed in the table of contents.

Answer: Lathing and Plastering should be struck as a filed sub-bid trade in spec sedtion

004000..

22. Question: Finish schedule says floor finish in Womens Restroom (9) and Mens Restroom (10)

is ETR tile, but there is a sheet vinyl installation note on the finish plan. What is the

design intent in this room?

Answer: Replace existing VCT with sheet vinyl.

All other portions of the Contract Documents remain **unchanged**.

SECTION 09 30 00 - CERAMIC TILE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Furnish all labor, materials, tools, equipment and services necessary for and reasonably incidental to complete the tile work as shown on the drawings or specified.
- B. Related documents, drawings and general provisions of contract, including General and Supplementary Conditions and Division 1 Specification Sections apply to work of this section.

Related Sections:

- 1.
- 2.

1.2 REFERENCE STANDARDS

Comply with current editions and applicable Specifications of the following:

- 1. American Society for Testing and Materials (ASTM).
- 2. American National Standards Institute (ANSI).
- 3. Tile Council of North America (TCNA) Handbook for Ceramic Tile Installation.

1.3 QUALITY ASSURANCE

- A. Provide tile materials of each type, color and finish from Crossville Porcelain Stone, Daltile, American Olean or Equal. Provide setting, grouting and related materials of each type, color and finish obtained from one source.
- B. Deliver, store and handle materials in accordance with manufacturer's instructions.
- C. Tile contractor, by commencing the work of this section, assumes overall responsibility to assure that all assemblies, components and parts shown or required within the work of this section comply with contract documents and are compatible with each other and with the conditions and expected use.
- D. Qualified Labor (Because tile is a permanent finish, the lowest bid should not be the deciding factor but rather, but who is the most qualified to perform the scope of the work being

specified. See TCNA Handbook for a list of recognized programs). Engage an installer with a minimum of five (5) commercial tile installations similar in material, design and scope to that indicated.

- E. Pre-Installation Meeting: Prior to tile installation, conduct a pre-installation project meeting. Contractor, Subcontractor, Material Suppliers, Architect and Owner representative shall be notified of the meeting.
- F. Field Mock Up: Recommended scaled to appropriate size of the scope of the work _____ sq ft (Insert) and will be reviewed for joint quality, color range, pattern and workmanship.
- G. Extra Stock: Furnish extra stock of quantity equal to __15___% of amount installed, in full-size units, for each type, color, size and finish of tile.

1.4 SUBMITTALS

- A. Verification Samples: Submit the following for each type, color, size, and finish included in the work.
- 1. Full size tile and trim shapes, (indicate number of pieces required).
- 2. Grout color samples.
- 3. Sealant color samples or Prefabricated Joint/Transition Strip Samples
- B. Product and Installation Data:
- 1. Porcelain tile manufacturer's product and technical data indicating compliance with applicable standards.
- 2. Master Grade Certificates for each type of tile issued by tile manufacturer and signed by the installer, only available after the material has shipped from the manufacturer.
- 3. Mortar and grout manufacturer's technical data sheets indicating suitability for the installation specified and compliance with applicable standards.
- 4. Sealant or prefabricated joint manufacturer's product and technical data.

1.5 ENVIRONMENTAL

- A. Comply with requirements of referenced standards and recommendations of material manufacturers for environmental conditions before, during and after installation.
- B. Maintain environmental conditions and protect work during and after installation to comply with referenced standards and manufacturer's printed recommendations.
- C. Maintain minimum and maximum temperature limits as recommended by manufacturers.

- D. Protect adjacent surfaces during progress of the work in this section.
- E. Illuminate the work area during installation providing the same level and angle of illumination as will be available for final inspection. The use grazing or cove type lighting where lights are located either at the wall/ceiling interface, or mounted directly to the wall prompts the light to strike the tile finish at a straight down angle, creating unwanted shadows from grout lines giving the tile layout an un-flat irregular appearance. Installing overhead lighting at a wide downward angle 18"-24" away from the tiled wall will provide a flatter more uniform appearance to the tiled surface.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

- A. Furnish tile complying with "Standard/First Grade" requirements per ANSI A137.1 2012, for types of tile indicated.
- B. Comply with ANSI Standard for Tile Installation Material and current Tile Council of North America (TCNA) Handbook for products and materials indicated for setting and grouting.

2.2 TILE

A.	Unglazed and glazed porcelain tile shall be standard/first grade quality as manufactured by
	Crossville Inc., Crossville, Tennessee, and shall conform to the requirements of ANSI A137.1
	2012.

1.	Size: Porcelain and ceramic tile shall be manufactured to specific size after firing and shall be Nominal - 4"x4" (Insert). All measurements are in inches unless otherwise specified.				
2.	Type: Porcelain tile shall be				
3.	Thickness: Porcelain tile shall be manufactured to specific thickness after firing and shall be nominal				
4.	Color: _white-glazed				
5.	Product Test Data:				
	a. Water Absorption (ASTM C373):%.				
	b. Breaking Strength (ASTM C648):lbs.				
	c. Bond Strength (ASTM C482):psi.				
	d. DCOF Dynamic Coefficient of Friction (ANSI 137.1-2013) wet.				

- 6. According to availability, provide matching trim shapes such as bullnose, corners, borders and cove base when specified.
- 7. Environmental Properties
 - a. ANSI 138.1 Green Squared Certified

2.3 SETTING AND GROUTING MATERIALS:

- A. Use appropriate installation mortars according to ANSI A118-2014.
- B. Grouting Materials: Select grouting materials according to the following types: Tile setting and grouting epoxy: A118.6-2010 Standard Cement Grout, A118.7-2010, High Performance Cement Grout or A118.8-2010, Modified Epoxy Emulsion Grout. Provide grout in colors selected by the Architect from standard colors available from the approved manufacturers.
- C. Use waterproofing/Anti Fracture Membrane as required according to ANSI A118.12.

2.4 EXPANSION JOINTS, CONTROL, CONTRACTION, AND ISOLATION JOINTS:

- A. Refer to most current TCNA Handbook, Method EJ171 for recommendations on locating, treating and detailing various types of construction joints. NOTE: Architect must specify type of expansion joints and show location and details on drawings.
- B. Use sealant complying with ASTM C920 according to Type, Grade, Class and Uses required.
- D. Prefabricated expansion joints can also be used when suitable for installation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates where tile will be installed for compliance with requirements for installation tolerances and other conditions effecting performance of installed tile. Before tiling concrete surfaces saturated dry (SSD), free of standing water verify that substrates for setting tile are well cured, structurally sound dry, clean, and free from oil or waxy films, curing compounds or other coatings and surface treatments. Nonstructural shrinkage cracks should be pretreated with a crack suppression membrane (to prevent telegraphing of cracks through the finished tile installation) ANSI A118.12.
- B. Do not proceed with installation until unsatisfactory conditions have been corrected. Commencement of work signifies acceptance of substrate and installation conditions.

3.2 PREPARATION

- A. Substrate Preparation: Prepare and clean substrate in accordance with installation standards and manufacturer's instructions, and as follows:
- 1. Remove protrusions, bumps and ridges by grinding or chipping.
- 2. Repair, fill, and level cracks, holes, depressions and rough or chipped areas in substrate using patching material recommended by setting materials manufacturer.
- 3. Slab to have light broom finish when tile is installed by thin-set method.
- 4. Before tiling, verify that all surfaces to be tiled are structurally sound true to plane, and fall within maximum variations shown below: Ensure that the substrate is within the following tolerances:
 - a. Horizontal surfaces (floors) Maximum variation in substrate shall not exceed 1/4 " in ten feet* from required plane, depending on substrate.
 - b. Vertical surfaces (walls) Maximum variation in substrate shall not exceed1/4 " in ten feet* from the required plane, depending on substrate.
 - * When using large format defined by TCNA Handbook as tiles with at least one edge 15" in length or greater; a more stringent tolerance 1/8" in 10' or 1/16" in 24" when measure from the high points on the surface is required.

Report all unacceptable surfaces to the architect in writing, and do not tile such surfaces until they are leveled enough to meet above requirements.

B. Jobsite Blending: Blend tiles before installing in accordance with reference standards to produce an even range and distribution of color and finish.

3.3 INSTALLATION

- A. Manufacturers' Instructions: Perform work in compliance with standard accepted installation guidelines, tile manufacturers' instructions and setting materials manufacturers' instructions.
- B. Comply with appropriate ANSI A108-2014 specification and current Tile Council of North America Handbook (TCNA) for appropriate method of installation for each specification. For thin set adhesive mortar application use following technique:
 - With the flat side of trowel, key mortar into substrate.
 - Using the appropriate size trowel, comb mortar in one direction with notched side of the trowel.
 - Set tile with a sliding motion, perpendicular to the mortar ridges.
 - Obtain as near 100% coverage as possible of mortar to tile.
 - Mortar coverage shall be no less than 85% and shall be sufficiently distributed to give full support under all corners and edges of the tile.

- Note: 95-100% coverage is mandatory for wet and exterior areas. Periodically, remove sheets or individual tiles to assure proper bond coverage consistent with industry specifications.
- C. Installing Tile:
- 1. Install tile in pattern indicated. Align joints when adjoining tiles on floor, base, walls, and trim are same size. Adjust to minimize tile cutting and to avoid tile less than half size.
- 2. When possible, smooth cut edges of tile and/or use appropriate cutter or wet saw to produce smooth cuts. Provide straight cuts which align with adjacent materials.
- 3. Extend tile into recesses and under equipment and fixtures to form a complete covering without interruption.
- 4. Terminate tile neatly at obstructions, edges, and corners, without disruption of pattern or joint alignment.
- 5. Provide tile joints uniform in width, subject to variance in tolerance allowed in tile size. Make joints smooth and even, without voids, cracks, or excess mortar or grout.
- 6. Mix mortar in strict accordance with manufacturer's recommendations.
- 7. Apply setting material in accordance with manufacturer's directions and install tile before mortar has started initial cure. For thin set mortar application, use a notch trowel that will achieve the recommended coverage of mortar after tiles have been installed. Reference standard coverage information and follow manufacturer's recommendations for trowel size when using mortar.
- 8. Do not spread more material than can be covered within 10 to 15 minutes. If "skinning" occurs, remove mortar and spread fresh material. Spread mortar with notches running in one direction that shall be perpendicular to the pressing, pushing and pulling of tile during placement.
- 9. Place tile in fresh mortar, press, push and pull the tile slightly to achieve as near 100% coverage and contact of tile with setting material and substrate as possible. The coverage shall be no less than 85% and be sufficiently distributed to give full support of the tile. Make sure that all corners and edges are well supported with mortar. Leave no hollow corners or edges. NOTE: 95-100% coverage is mandatory for wet or exterior areas. A skim coat ("back-butter") of mortar can be placed onto the entire back of the tile using a trowel in order to assist in optimum adhesion and coverage of the mortar being used.
- 10. Ensure there is a minimum 1/8" of mortar between tile and substrate after proper bedding. Installer must periodically remove sheets or individual tiles to assure proper bond coverage consistent with industry specifications. If coverage is found to be insufficient, use a larger size notch trowel.
- 11. Use a beating block and hammer or rubber mallet so that faces and edges of individual tiles are flush and level with faces and edges of adjacent tiles, and to reduce lippage.
- 12. For running bond/brick joint patterns utilizing tiles (square or rectangular) where the side being offset is greater than 18" (nominal dimension), the running bond offset will be a maximum of

33% unless otherwise specified by the tile manufacturer. If an offset greater than 33% is specified, specifier and owner must approve mock-up and lippage.

D. Grouting:

- 1. Install grout in accordance with ANSI A108.10, A108.6, A108.8, A108.9-2010 correlating to grout type chosen and manufacturer's recommendations.
- 2. Mix grout material in strict accordance with manufacturer's directions.
- 3. Apply grout to produce full, smooth grout joints of uniform width, and free of voids and gaps.
- 4. Before grouting entire area do a test area to assure there will be no permanent staining or discoloration of the tile and to verify that the grout is easily removed from the surface. If necessary, pre-coat exposed surfaces of tile with a grout release as recommended by the manufacturer, as this will facilitate removal of the grout.
- 5. Cure all setting and grouting materials in accordance with manufacturer's recommendations.

E. Cleaning and Protection:

- 1. If one has been used, remove grout release and clean tile surfaces so they are free of grout residue and foreign matter, in accordance with manufacturer's instructions. If a grout haze or residue remains, use a suitable grout haze remover or cleaner and contact grout manufacturer for recommendations. Flush surface with clean water before and after cleaning. Do not use harsh hydrochloric, muriatic or sulfuric acid or acid-based cleaners to clean glazed tiles or tiles grouted with latex modified grout.
- 2. When a heavy residue of Portland cement grout is present, acceptable tile cleaning acids may be used. However, the grout should be allowed to cure a minimum of 10 days before this aggressive cleaning method is employed. Tile and grout shall be soaked with water before cleaning. In the absence of a recommendation from the grout manufacturer, acid cleaning may be done with a saturated solution of phosphoric or sulfamic acid, mixed in accordance with manufacturer's recommendations.
- 3. Protect all floor tile installations with clean construction paper or other heavy covering during construction period to prevent staining or damage. After cleaning, provide protective covering and maintain conditions to protect tile work from damage or deterioration. Where tiled surfaces will be subject to equipment or wheel traffic or heavy construction traffic, and during move-in of furniture and equipment, cover protective covering with 1/4" hardboard, plywood or similar material. No foot or wheel traffic permitted on floor for at least 3 days after grouting. Owner/specifier is responsible for protecting tile from damage including allowing sufficient time for installed materials to cure properly typically 30-45 days is required for full cure of thin set bonding mortars.

4.	Leave finished installation clean and free of cracked, chipped, broken, un-bonded, and otherwise defective tile work.
	END OF SECTION

SECTION 09 65 16.23

Resilient Flooring - Vinyl Sheet Flooring

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Flooring and accessories as shown on the drawings and schedules and as indicated by the requirements of this section.
- B. Related Documents
 - Drawings and General Provisions of the Contract (including General and Supplementary Conditions and Division 1 sections) apply to the work of this section.

1.02 REFERENCES

- A. Flooring Technical Manuals
 - 1. (none)
- B. ASTM International:
 - ASTM E 648 Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source
 - 2. ASTM E 662 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials
 - ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
 - 4. ASTM F 1482, Standard Guide to Wood Underlayment Products Available for Use Under Resilient Flooring
 - 5. ASTM F 1861 Standard Specification for Resilient Wall Base
 - 6. ASTM F 1869 Standard Test Method for Measuring Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride
 - 7. ASTM F 1913 Standard Specification for Vinyl Sheet Floor Covering Without Backing
 - 8. ASTM F 2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes
- C. National Fire Protection Association (NFPA):
 - NFPA 253 Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source
 - 2. NFPA 258 Standard Test Method for Measuring the Smoke Generated by Solid

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide flooring which has been manufactured, fabricated and installed to performance criteria certified by manufacturer without defects, damage, or failure.
- B. Administrative Requirements
 - 1. Pre-installation Meeting: Conduct an on-site pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination (Project Meetings) Section.

- 2. Pre-installation Testing: Conduct pre-installation testing as follows: [Specify testing (i.e. moisture tests, bond test, pH test, etc)
- C. Test Installations/ Mock-ups: Install at the project site a job mock-up using acceptable products and manufacturer approved installation methods, including concrete substrate testing. Obtain Owner's and Consultant's acceptance of finish color, texture and pattern, and workmanship standards.
 - 1. Mock-Up Size: 4'x4'.
 - 2. Maintenance: Maintain mock-up during construction for workmanship comparison; remove and legally dispose of mock-up when no longer required.
 - 3. Incorporation: Mock-up may be incorporated into the final construction with Owner's approval.
- D. Sequencing and Scheduling
 - 1. Install flooring and accessories after the other finishing operations, including painting, have been completed. Close spaces to traffic during the installation of the flooring.
 - 2. Do not install flooring over concrete slabs until they are sufficiently dry to achieve a bond with the adhesive, in accordance with the manufacturer's recommended bond, moisture tests and pH test.

1.04 SUBMITTALS

- A. Submit shop drawings, seaming plan, coving details, and manufacturer's technical data, installation and maintenance instructions for flooring and accessories.
- B. Submit the manufacturer's standard samples showing the required colors for flooring, welding rods, and applicable accessories.
- C. Submit Safety Data Sheets (SDS) available for flooring products, adhesives, weld rod, patching/leveling compounds, floor finishes (polishes) and cleaning agents.
- D. If required, submit the manufacturer's certification that the flooring has been tested by an independent laboratory and complies with the required fire tests.
- E. Closeout Submittals: Submit the following:
 - Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products, and precautions against cleaning materials and methods detrimental to finishes and performance.
 - 2. Warranty: Warranty documents specified herein

1.05 QUALITY ASSURANCE

- A. Single-Source Responsibility: provide types of flooring and accessories supplied by one manufacturer, including leveling and patching compounds, and adhesives.
- B. Select an installer who is competent in the installation of resilient sheet flooring using Seam Adhesive method.
 - 1. Engage installers certified as Commercial Flooring Certified Installers
 - 2. Confirm installer's certification by requesting their credentials
- C. Fire Performance Characteristics: Provide resilient vinyl sheet flooring with the following fire performance characteristics as determined by testing material in accordance with ASTM test methods indicated below by a certified testing laboratory or other testing agency acceptable to authorities having jurisdiction:

- 1. ASTM E 648 Critical Radiant Flux of 0.45 watts per sq. cm. or greater, Class I
- 2. ASTM E 662 (Smoke Generation) Maximum Specific Optical Density of 450 or less
- 3. CAN/ULC-S102.2 Flame Spread Rating and Smoke Developed Results as tested

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Division 1 Product Requirements Sections
- B. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Deliver materials in good condition to the jobsite in the manufacturer's original unopened containers that bear the name and brand of the manufacturer, project identification, and shipping and handling instructions.
- D. Store materials in a clean, dry, enclosed space off the ground, protected from harmful weather conditions and at temperature and humidity conditions recommended by the manufacturer. Protect adhesives from freezing. Store flooring, adhesives and accessories in the spaces where they will be installed for at least 48 hours before beginning installation.

1.07 PROJECT CONDITIONS

A. Maintain a minimum temperature in the spaces to receive the flooring and accessories of 65°F (18°C) and a maximum temperature of [100°F (38°C)][85°F (29°C)] for at least 48 hours before, during, and for not less than 48 hours after installation. Thereafter, maintain a minimum temperature of 55°F (13°C) in areas where work is completed. Protect all materials from the direct flow of heat from hot-air registers, radiators, or other heating fixtures and appliances.

1.08 LIMITED WARRANTY

- A. Resilient Flooring: Submit a written warranty executed by the manufacturer, agreeing to repair or replace resilient flooring that fails within the warranty period.
- B. Limited Warranty Period: 10 years
- C. The Limited Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.
- D. For the Limited Warranty to be valid, this product is required to be installed using the appropriate Flooring Guaranteed Installation System. Product installed not using the specific instructions from the Guaranteed Installation System will void the warranty.

1.09 MAINTENANCE

- A. Extra Materials: Deliver extra materials to Owner. Furnish extra materials from same production run as products installed. Packaged with protective covering for storage and identified with appropriate labels.
 - 1. Quantity: Furnish quantity of flooring units equal to 10% of amount installed.
 - 2. Delivery, Storage and Protection: Comply with Owner's requirements for delivery, storage and protection of extra material.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Resilient sheet flooring, wall base, adhesives and accessories:
 - 1. Armstrong Flooring Inc., ; AHF Products; Mannington Commercial
 - 2. Manufacturer must have a headquarters in the United States of America

2.02 RESILIENT SHEET FLOORING MATERIALS

- A. Provide Homogeneous Sheet Vinyl Flooring: ColorArt™ Medintech® with Diamond 10™ Coating manufactured by Armstrong Flooring Inc. or Equal
 - Description: An unbacked, nonlayered, homogeneous sheet vinyl flooring. Protected by a diamond-infused UV-cured polyurethane finish, the colors and pattern detail are dispersed uniformly throughout the thickness of the product. Color pigments are insoluble in water and resistant to cleaning agents and light.
 - 2. Homogeneous sheet flooring shall conform to the requirements of ASTM F1913 Standard Specification for Vinyl Sheet Floor Covering Without Backing
 - 3. Pattern and Color: color selected from the range currently available from manufacturer.
 - 4. Width: 6 ft. 7 in. (2.0 m).
 - 5. Length: up to 65.6 lineal feet (20 meters)
 - 6. Thickness: 0.080 in. (2.0 mm)

B. Vinyl Weld Rod:

- 1. Provide solid color vinyl weld rod intended for heat welding of seams. Color shall be compatible with field color of flooring or as selected by Architect to contrast with field color of flooring. Color selected from the range currently available from manufacturer Inc.
- C. Seam Adhesive:
 - Provide Seam Adhesive at seams as recommended by the resilient flooring manufacturer.

2.03 PRODUCT SUBSTITUTION

A. Requests for substitutions will be considered in accordance with provisions of Section 01 25 00 - Substitution Procedures.

2.04 WALL BASE MATERIALS

A. For integral flash cove base: Provide integral flash cove wall base by extending sheet flooring 6 in. (15.24 cm) up the wall using adhesive, welding rod, and accessories recommended and approved by the flooring manufacturer.

2.05 ADHESIVES

- A. Provide Vinyl Sheet Flooring Adhesive Premium Commercial for field areas and Flash Cove Adhesive at flash coving as recommended by the flooring manufacturer.
- B. For High-Moisture Installation Warranty, Full Spread: Provide Commercial Sheet Flooring and LVT Adhesive for field areas and Flash Cove Adhesive at flash coving as recommended by the flooring manufacturer.
- C. For non-heat welded seams: Provide Seam Adhesive at seams as recommended by the resilient flooring manufacturer.

2.06 ACCESSORIES

- A. For patching, smoothing, and leveling monolithic subfloors (concrete, terrazzo, quarry tile, ceramic tile, and certain metals), provide Fast-Setting Cement-Based Patch and Underlayment.
- B. For sealing joints between the top of wall base or integral cove cap and irregular wall surfaces such as masonry, provide plastic filler applied according to the manufacturer's recommendations.
- C. Provide top edge trim caps of anodized aluminum for integral flash cove as approved by the Architect.
- D. Provide a fillet support strip for integral cove base with a minimum radius of 1 in. (2.54 cm) of plastic.
- E. Provide transition/reducing strips tapered to meet abutting materials.
- F. Provide threshold of thickness and width as shown on the drawings.
- G. Provide resilient edge strips of width shown on the drawings, of equal gauge to the flooring, homogeneous vinyl or rubber composition, tapered or bullnose edge, with color to match or contrast with the flooring, or as selected by the Architect from standard colors available.
- H. Provide metal edge strips of width shown on the drawings and of required thickness to protect exposed edges of the flooring. Provide units of maximum available length to minimize the number of joints. Use butt-type metal edge strips for concealed anchorage, or overlaptype metal edge strips for exposed anchorage. Unless otherwise shown, provide strips made of extruded aluminum with a mill finish.

PART 3 - EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including technical bulletins, product catalog, installation instructions, and product carton instructions for installation and maintenance procedures as needed.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions (which have been previously installed under other sections) are acceptable for product installation in accordance with manufacturer's instructions (i.e. moisture tests, bond test, pH test, etc.).
- B. Visually inspect flooring materials, adhesives and accessories prior to installation. Flooring material with visual defects shall not be installed and shall not be considered as a legitimate claim.

- C. Examine subfloors prior to installation to determine that surfaces are smooth and free from cracks, holes, ridges, and other defects that might prevent adhesive bond or impair durability or appearance of the flooring material.
- D. Inspect subfloors prior to installation to determine that surfaces are free from curing, sealing, parting and hardening compounds; residual adhesives; adhesive removers; and other foreign materials that might prevent adhesive bond. Visually inspect for evidence of moisture, alkaline salts, carbonation, dusting, mold, or mildew.
- E. Report conditions contrary to contract requirements that would prevent a proper installation. Do not proceed with the installation until unsatisfactory conditions have been corrected.
- F. Failure to call attention to defects or imperfections will be construed as acceptance and approval of the subfloor. Installation indicates acceptance of substrates with regard to conditions existing at the time of installation.

3.03 PREPARATION

- A. Subfloor Preparation: Smooth concrete surfaces, removing rough areas, projections, ridges, and bumps, and filling low spots, control or construction joints, and other defects with Fast-Setting Cement-Based Patch and Underlayment as recommended by the flooring manufacturer.
- B. Subfloor Cleaning: The surface shall be free of dust, solvents, varnish, paint, wax, oil, grease, sealers, release agents, curing compounds, residual adhesive, adhesive removers and other foreign materials that might affect the adhesion of resilient flooring to the concrete or cause a discoloration of the flooring from below. Remove residual adhesives as recommended by the flooring manufacturer. Remove curing and hardening compounds not compatible with the adhesives used, as indicated by a bond test or by the compound manufacturer's recommendations for flooring. Avoid organic solvents. Spray paints, permanent markers and other indelible ink markers must not be used to write on the back of the flooring material or used to mark the concrete slab as they could bleed through, telegraphing up to the surface and permanently staining the flooring material. If these contaminants are present on the substrate they must be mechanically removed prior to the installation of the flooring material.
- C. Moisture Testing: [When using S-599 Adhesive, perform subfloor moisture testing in accordance with [ASTM F 2170, Standard Test Method for Determining Relative Humidity in Concrete Slabs Using *in-situ* Probes][ASTM F 1869,Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride] and Bond Tests to determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring. [Internal relative humidity of the concrete shall not exceed 85%.][MVER shall not exceed 5 lbs./1000 sq. ft./24 hrs.] On installations where both the Percent Relative Humidity and the Moisture Vapor Emission Rate tests are conducted, results for both tests shall comply with the allowable limits listed above. Do not proceed with flooring installation until results of moisture tests are acceptable. All test results shall be documented and retained]
- D. Moisture Testing: For High-Moisture Installation Warrantyperform subfloor moisture testing in accordance with ASTM F 2170, Standard Test Method for Determining Relative Humidity in Concrete Slabs Using *in-situ* Probes ASTM F 1869, Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride] and Bond Tests

determine if surfaces are dry; free of curing and hardening compounds, old adhesive, and other coatings; and ready to receive flooring. [Internal relative humidity of the concrete shall not exceed 90%.MVER shall not exceed 5 lbs./1000 sq. ft./24 hrs. On installations where both the Percent Relative Humidity and the Moisture Vapor Emission Rate tests are conducted, results for both tests shall comply with the allowable limits listed above. Do not proceed with flooring installation until results of moisture tests are acceptable. All test results shall be documented and retained].

E. Concrete pH Testing: Perform pH tests on concrete floors regardless of their age or grade level. All test results shall be documented and retained.

3.04 INSTALLATION OF FLOORING

- A. Install flooring in strict accordance with the latest edition of manufacturer's instructions. Failure to comply may result in voiding the manufacturer's warranty.
- B. Install flooring wall to wall before the installation of floor-set cabinets, casework, furniture, equipment, movable partitions, etc. Extend flooring into toe spaces, door recesses, closets, and similar openings as shown on the drawings.
- C. If required, install flooring on pan-type floor access covers. Maintain continuity of color and pattern within pieces of flooring installed on these covers. Adhere flooring to the subfloor around covers and to covers.
- D. Scribe, cut, and fit or flash cove to permanent fixtures, columns, walls, partitions, pipes, outlets, and built-in furniture and cabinets.
- E. Adhere flooring to the subfloor without cracks, voids, raising and puckering at the seams. Roll with a 100-pound (45.36 kilogram) roller in the field areas. Hand-roll flooring at the perimeter and the seams to assure adhesion. Refer to specific rolling instructions of the flooring manufacturer.
- F. Lay flooring to provide a minimum number of seams. Avoid cross seams, filler pieces, and strips. Match edges for color shading and pattern at the seams in compliance with the manufacturer's recommendations.
- G. Install flooring with adhesives, tools, and procedures in strict accordance with the manufacturer's written instructions. Observe the recommended adhesive trowel notching, open times, and working times.
- H. Prepare heat-welded seams with special routing tool supplied for this purpose and heat weld with vinyl welding rod in seams. Use methods and sequence of work in conformance with written instructions of the flooring manufacturer. Finish all seams flush and free from voids, recesses, and raised areas.
- I. Provide integral flash cove wall base where shown on the drawings, including cove fillet support strip and top edge cap trim. Construct flash cove base in accordance with the flooring manufacturer's instructions. Heat-weld seams as specified for those on the floor.

3.05 INSTALLATION OF ACCESSORIES

- A. Apply top set wall base to walls, columns, casework, and other permanent fixtures in areas where top-set base is required. Install base in lengths as long as practical, with inside corners fabricated from base materials that are mitered or coped. Tightly bond base to vertical substrate with continuous contact at horizontal and vertical surfaces.
- B. Fill voids with plastic filler along the top edge of the resilient wall base or integral cove cap on masonry surfaces or other similar irregular substrates.

- C. Place resilient edge strips tightly butted to flooring, and secure with adhesive recommended by the edge strip manufacturer. Install edge strips at edges of flooring that would otherwise be exposed.
- D. Apply butt-type metal edge strips before flooring installation. Secure units to the substrate, complying with the edge strip manufacturer's recommendations.

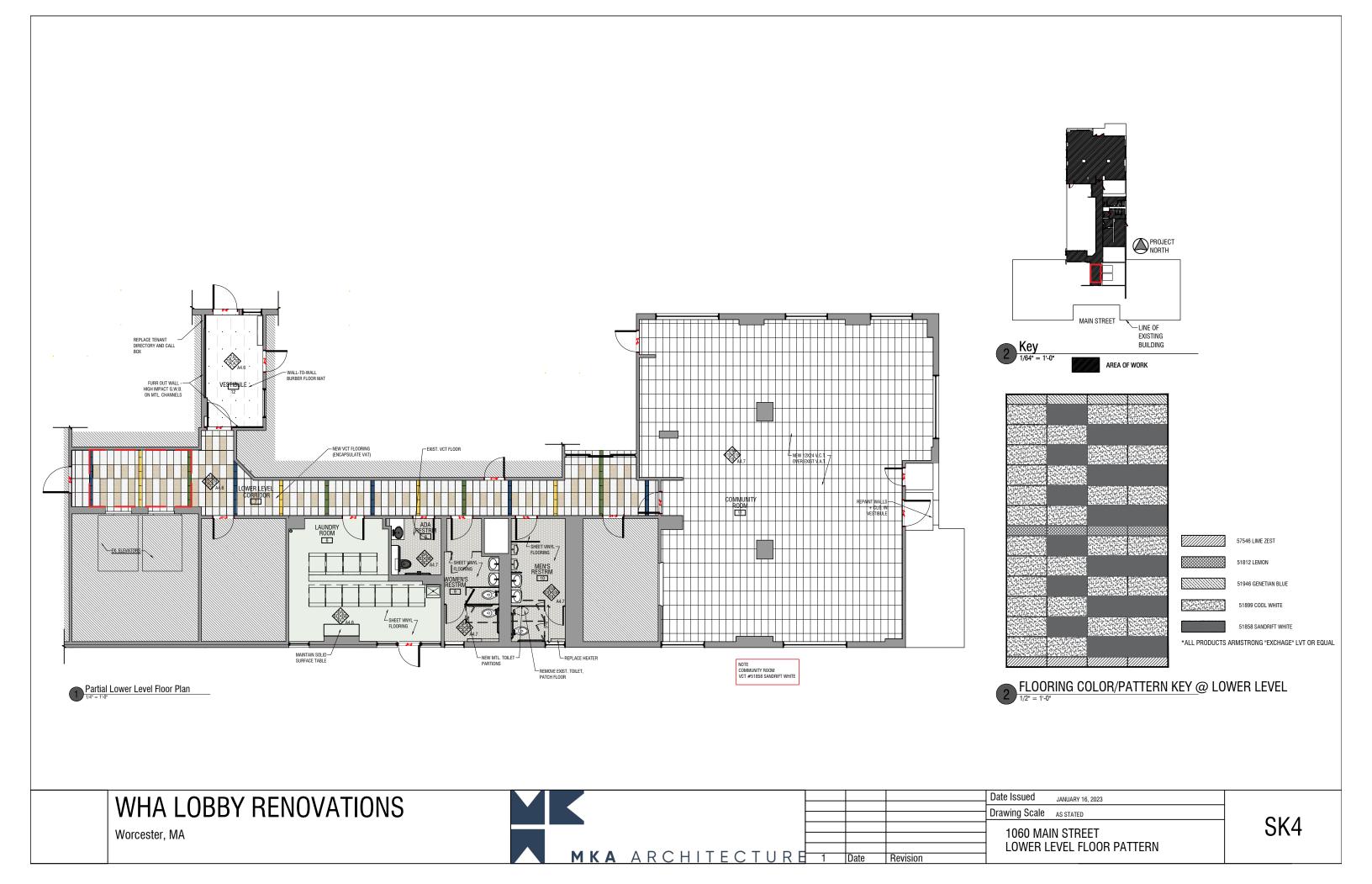
3.06 CLEANING

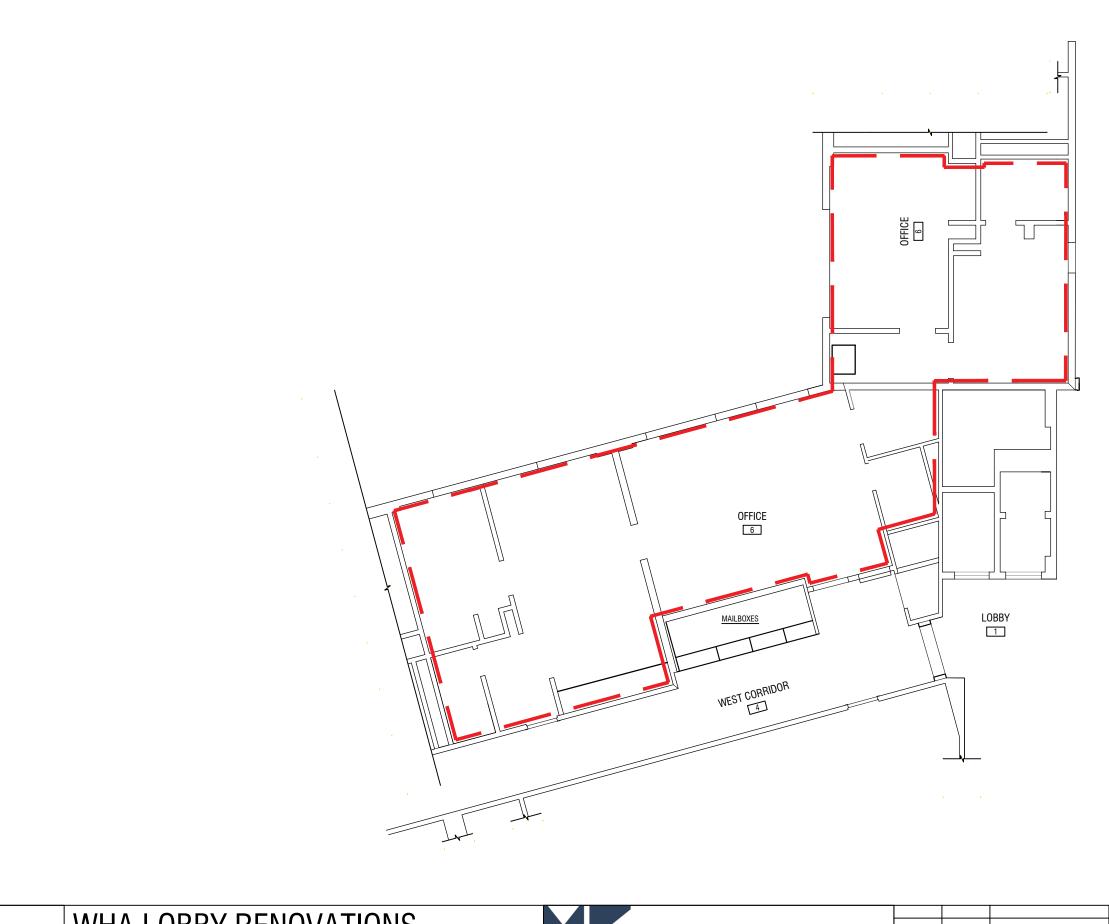
A. Perform initial and on-going maintenance according to manufacturer's manual.

3.07 PROTECTION

A. Protect installed flooring as recommended by the flooring manufacturer against damage from rolling loads, other trades, or the placement of fixtures and furnishings.

END OF SECTION





WHA LOBBY RENOVATIONS

Worcester, MA

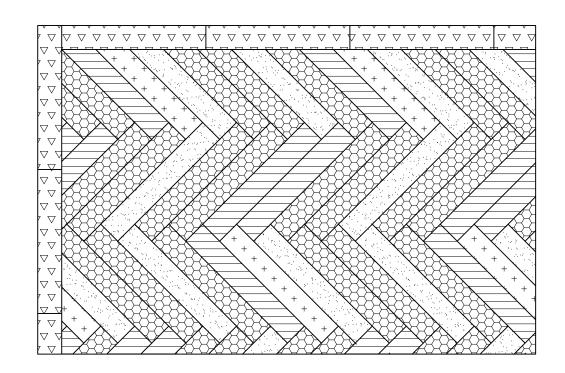


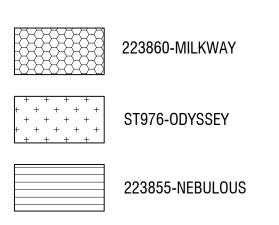
Date Issued JANUARY 16, 2023

Drawing Scale 1/8" = 1'-0"

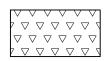
275 PLEASANT AVENUE
OFFICE EXTENT

SK5





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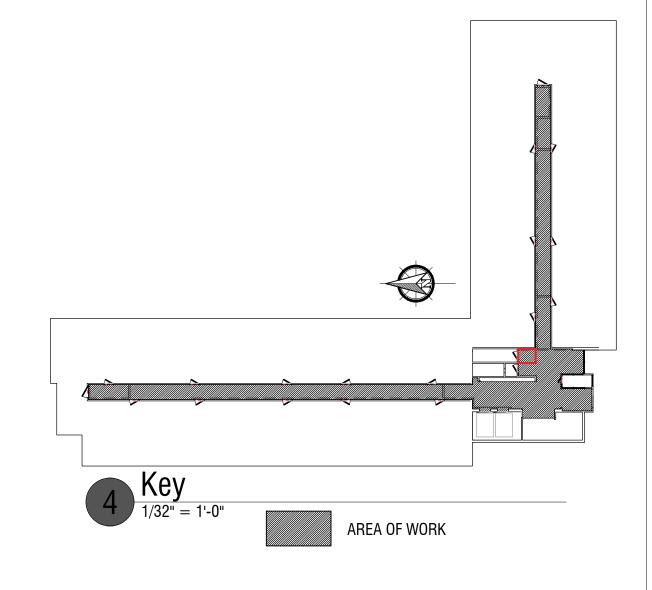
ST965-BLUE



FLOORING COLOR/PATTERN KEY @ LOBBY

*ALL PRODUCTS ARMSTRONG "EXCHAGE" LVT OR EQUAL

NOTE: CONTRACTOR TO CONSTRUT A 'DRY MOCKUP OF THIS CORNER INCLUDING PAINT COLORS AND COMPONENTS FOR REVIEW BY W.H.A. & ARCHITECT



WHA LOBBY RENOVATIONS

Worcester, MA



			Date Issued JANUARY 16, 2023	
			Drawing Scale AS STATED	
			1050 MAIN STRET	
			LOBBY FLOOR PATTERN	
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