#### ADDENDUM #1

DATE: 09.16.2022

#### TO CONTRACT DOCUMENTS ENTITLED:

**PROJECT MANUAL FOR:** CP221951 UMPB Ground Floor Renovation

**ADVERTISEMENT DATE:** 09.16,2022

**PREPARED FOR:** The Curators of the University of Missouri

CONSULTANTS: CP221951

**bcDESIGN**GROUP

12101 110th Street, Suite 100 Overland Park, KS 66213 913.232.2123 x 809

Drawings and Specifications for the above noted project and the work covered thereby are herein modified as follows, and except as set forth herein, otherwise remain unchanged and in full force and effect:

#### **CLARIFICATIONS, QUESTIONS, ANSWERS:**

- 1. Do existing walls go to deck?
  - a. Yes.
- 2. If there is underslab plumbing run near a column then will spread footings be a problem?
  - a. Question to be addressed in a forthcoming addendum.
- 3. Clarify extent of new finishes in the Copy/Alcove area. This area is hatched gray which means "No work" but there is scope called out.
  - a. Added a note to the legend of each drawing. Grey hatch in Code Plan Legend now means "No Work, U.N.O."
- 4. Wage Order 29 has been added and should replace Wage Order 27 in the project manual

#### CP221951 DRAWINGS:

- 1. G100 Added building risk category to Code Information per GBA comment. Grey hatch label updated to "No work, U.N.O."
- 2. G101 Grey hatch added to Floor Plan Legend.
- 3. A100 Grey hatch added to Floor Plan Legend.
- 4. A101 Grey hatch added to Floor Plan Legend.
- 5. A200 Grey hatch added to Reflected Ceiling Plan Legend and Finish Legend.

#### **ATTACHMENTS:**

- 1. Ross and Baruzzini Narrative
- 2. Wage Order 29.
- 3. Specification 23 3300
- **4.** G100, G101, A100, A101, A200, M100, M500, and E100

#### **ISSUED BY:**

Jackie Dinkins bc**DESIGN**GROUP





#### CP221951 UPMB Addendum # 1

**PROJECT:** UPMB Ground Floor Renovations

**PROJECT NO:** MUHC – CP221951, R&B - 1202.0011414.000

DATE: September 16, 2022

BY: Tori Gillespie, Chris Philipp

RE: Addendum #1

DWG REF: See below

SPEC REF: See below

CC: Central File

The following additions, revisions and modifications are hereby made part of the contract documents, which shall be amended accordingly. Acknowledge receipt of addenda on bid form. Failure of your acknowledgement of receipt of this addendum may result in rejection of your offer.

#### **INSTRUCTIONS**

#### **Specifications**

- 1. Delete spec section 233300 Duct Accessories in its entirety and replace with attached revised spec section 233300 Duct Accessories.
  - a. Revisions include deleting references to combination fire/smoke dampers and inserting spec section for fire dampers.

#### **Drawings**

#### **MECHANICAL**

- 1. M100
  - a. REVISED keyed notes 7 and 8.
  - b. ADDED keyed notes 11, 12, and 13.
  - c. ADDED images 3, 4, and 5.
  - d. Refer to reissued sheet dated 09-16-2022.
  - 2. M500
    - a. ADDED Fire Damper Schedule.
    - b. REMOVED Fan Coil Unit detail #8.
    - c. ADDED Fire Damper Detail #8.
    - d. Refer to reissued sheet dated 09-16-2022.

Date: 09-16-2022

#### **ELECTRICAL**

- 1. E100
  - a. ADDED fire alarm strobe in Exam 102M
  - b. REVISED receptacle in Exam 102D to GFCI.
  - c. ADDED keyed note 3 to rooms 102A, 102B, 102C, 102D, 102E, 102F, 102G, 102H, 102L & 102M.
  - d. Refer to reissued sheet dated 09-16-2022

SIGNED: Tori Gillespie, Chris Philipp



#### SECTION 23 3300 - DUCT ACCESSORIES

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Manual volume dampers.
  - 2. Automatic control dampers.
  - 3. Fire dampers.
  - 4. Turning vanes.
  - 5. Duct-mounted access doors.
  - 6. Flexible connectors.
  - 7. Duct accessory hardware.

#### 1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 20 0800 "Seismic Protection," Section 23 0100 "Basic Mechanical Requirements," and Section 23 0500 "Basic Mechanical Materials and Methods" all apply to the work of this Section as if fully repeated herein.
- C. The following Sections contain requirements that relate to this Section:
  - 1. Division 23 Section "Control Systems" for actuators associated with automatic control dampers.
  - 2. Division 26 Section "Fire Alarm Systems" for duct-mounted fire detectors.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Operation and Maintenance Data: For air duct accessories to include in operation and maintenance manuals.

#### 1.4 QUALITY ASSURANCE

- A. Comply with NFPA 90A, "Installation of Air Conditioning and Ventilating Systems."
- B. Comply with AMCA 500-D testing for damper rating. All manufactured dampers of every type shall bear the AMCA Certified Ratings Program seal for Air Performance, Air Leakage, and Efficiency.

#### 1.5 REFERENCED STANDARDS

A. Sheet Metal and Air Conditioning Contractors' National Association. HVAC Duct Construction Standards – Metal and Flexible. 3rd ed. Chantilly, VA: SMACNA, 2005.

#### 1.6 EXTRA MATERIALS

A. Furnish extra fusible links that match products installed and that are packaged with protective covering for storage and identified with labels describing contents. Furnish quantity equal to 10 percent of amount installed, but not less than two (2).

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. HVAC Dampers (all types):
    - a. Air Balance Inc.; a division of Mestek, Inc.
    - b. Greenheck Inc.
    - c. Nailor Industries Inc.
    - d. Pottorff; a division of PCI Industries, Inc.
    - e. Ruskin Company.
    - f. Vibro-Acoustics.
  - 2. Turning Vanes:
    - a. Ductmate Industries, Inc.
    - b. DuroDyne Inc.
    - c. Metalaire, Inc.
    - d. Semco Incorporated.
    - e. Ward Industries, Inc.; a division of Hart & Cooley, Inc.
  - 3. Duct-Mounted Access Doors:
    - a. American Warming and Ventilating; a division of Mestek, Inc.
    - b. Cesco Products; a division of Mestek, Inc.
    - c. Ductmate Industries, Inc.
    - d. Flexmaster U.S.A., Inc.
    - e. Greenheck Fan Corporation.
    - f. McGill AirFlow LLC.
    - g. Nailor Industries Inc.
    - h. Pottorff; a division of PCI Industries, Inc.
    - i. Ventfabrics, Inc.
    - j. Ward Industries, Inc.; a division of Hart & Cooley, Inc.
    - k. Ruskin Company.
  - 4. Flexible Connectors:
    - a. Ductmate Industries, Inc.
    - b. Duro Dyne Inc.
    - c. JP Lamborn Co.
    - d. Ventfabrics, Inc.
    - e. Ward Industries, Inc.; a division of Hart & Cooley, Inc.

#### 2.2 MATERIALS

- A. Comply with SMACNA's "HVAC Duct Construction Standards Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.
- B. Galvanized Sheet Steel: Lock-forming quality; complying with ASTM A653/A653M and having G60 (Z180) or G90 (Z275) coating designation; ducts shall have mill-phosphatized finish for surfaces exposed to view.
- C. Minimum Thickness: All sheet steel used on this project shall be a minimum of 24-gage thickness, and all aluminum sheets shall be a minimum of 0.04-inch thickness, regardless of whether or not SMACNA standards permit thinner gage material.
- D. Reinforcement Shapes and Plates: Galvanized-steel reinforcement where installed on galvanized sheet metal ducts; compatible materials for aluminum and stainless-steel ducts.
- E. Tie Rods: Comply with Articles 2.5 through 2.9, including all accompanying Tables and Figures, of the SMANCA HVAC Duct Construction Standards.

#### 2.3 MANUAL VOLUME DAMPERS

- A. Manual volume dampers shall be standard leakage rating, with linkage outside airstream, suitable for horizontal or vertical applications. Volume dampers may be factory-manufactured or contractor-fabricated per SMACNA Fig. 7-4/7-5.
- B. Material: Match material options throughout this subsection to the material of adjacent ductwork. For duct material, refer to Division 23 Section "Metal Ducts."
- C. Frames: Hat-shaped channels with mitered and welded corners, flanges for attaching to walls, and flangeless frames for installing in ducts.
  - 1. Galvanized-steel, 16-gage or 0.064-inch (1.62-mm) minimum thickness, for use in galvanized steel ducts.
  - 2. The above requirements may be reduced to 20-gage for round dampers installed in round ducts.
- D. Blades: Multiple-blade; single-blade if duct dimension is 12-inch or less in the direction perpendicular to damper axis. Parallel or opposed-blade design (contractor's choice, unless a specific type is indicated). Stiffen damper blades for stability.
  - 1. Galvanized-steel, 16-gage or 0.064-inch (1.62 mm) thick, for use in galvanized steel ducts.
  - 2. The above requirements may be reduced to 20-gage for round dampers installed in round ducts.
- E. Blade Axles: Galvanized steel, aluminum, or stainless steel, as required to match blade material. Dampers shall have axles full length of damper blades, and bearings at both ends of operating shaft.

- F. Bearings: Oil-impregnated bronze, molded synthetic, and stainless-steel sleeve-type are acceptable.
- G. Tie Bars and Brackets: Galvanized steel or aluminum.

#### H. Jackshaft:

- 1. Size: 1-inch (25-mm) diameter.
- 2. Material: Galvanized-steel pipe rotating within pipe-bearing assembly mounted on supports at each mullion and at each end of multiple-damper assemblies.
- 3. Length and Number of Mountings: As required to connect linkage of each damper in multiple-damper assembly.

#### I. Damper Hardware:

- 1. Zinc-plated, die-cast core with dial and handle made of 3/32-inch- (2.4-mm-) thick zinc-plated steel, and a ¾-inch (19-mm) hexagon locking nut.
- 2. Include center hole to suit damper operating-rod size.
- 3. Include elevated platform for insulated duct mounting.

#### 2.4 AUTOMATIC CONTROL DAMPERS

A. Refer to specification section 230900 "Control Systems".

#### 2.5 FIRE DAMPERS

- A. Type: Dynamic; rated and labeled according to UL 555. Label according to UL 555C if used in a rated ceiling application.
- B. Closing rating in ducts up to 4-inch wg (1-kPa) static pressure class and 2000-fpm (10-m/s) velocity.
- C. Fire Rating: 1½ hours.
- D. Frame: SMACNA Type B; fabricated with roll-formed, 20-gage galvanized steel; with mitered and interlocking corners.
- E. Mounting Orientation: Vertical or horizontal as indicated.
- F. Blades: Roll-formed, interlocking, galvanized sheet steel.
- G. Horizontal Dampers: Include blade lock and stainless-steel negator closure spring.
- H. Single-use Fusible Link: Replaceable, 165°F (74°C) rated, fusible links.
- I. Mounting Sleeve: Factory-supplied, factory or field-installed, galvanized sheet steel sleeve; length as indicated. Include factory-supplied, field-installed two-piece "picture-frame" mounting angles with pre-punched fastener holes.

#### 2.6 TURNING VANES

A. All turning vanes, where required, shall be single-thickness type, 2-inch (50-mm) radius, 1½-inch (38-mm) spacing, at least 24-gauge thickness, and curved through an arc

matching the change of direction (i.e., a vane curved through 90-degrees for a 90-degree elbow). Construct of material matching that of the adjacent duct (i.e., galvanized steel turning vanes in a galvanized steel duct, stainless steel turning vanes in a stainless steel duct, etc.).

- B. Where two or more changes of direction occur with less than four duct widths (measured in the plane of the change of direction) between each elbow, each turning vane shall also include a straight trailing edge extension of 1-inch (25 mm). At contractor's option, all turning vanes may include this straight trailing edge extension even if not required.
- C. Include vane rails or runners for attachment of vane blades to duct.
- D. Either contractor-fabricated or factory-manufactured turning vanes meeting these specifications will be acceptable.

#### 2.7 DUCT-MOUNTED ACCESS DOORS

- A. Duct-Mounted Access Doors: Factory-manufactured doors, airtight and suitable for duct pressure class.
- B. Door: Double wall, rectangular, galvanized sheet metal with insulation fill and thickness as indicated for duct pressure class.
- C. Insulation: 1-inch (25-mm-) thick, fibrous-glass or polystyrene-foam board.
- D. Hinges and Latches: 1-by-1-inch (25-by-25-mm) butt or piano hinge and cam latches.
- E. Frame: Galvanized sheet steel, with bend-over tabs and foam gaskets. Seal around frame attachment to duct and door to frame with neoprene or foam rubber.
- F. Number of Hinges and Locks: Two hinges, or continuous piano hinge, and two sash locks.
- G. Size: 18 by 10-inches (460 by 250 mm) unless noted otherwise

#### 2.8 FLEXIBLE CONNECTORS

- A. Materials: Flame-retardant or noncombustible fabrics.
- B. Coatings and Adhesives: Comply with UL 181, Class 1.
- C. Metal-Edged Connectors: Factory fabricated with a fabric strip 5%-inches (146 mm) wide attached to 2 strips of 2%-inch- (70-mm-) wide, 0.028-inch- (0.7-mm-) thick, galvanized sheet steel or 0.032-inch- (0.8-mm-) thick aluminum sheets. Provide metal compatible with connected ducts.
- D. Fabric: Glass fabric double-coated with neoprene or polychloroprene. Fabric layers shall be shielded with metal on both sides at the seam, attached with a mechanical metal-to-fabric bond.
  - 1. Minimum Weight: 26 oz./sq. yd. (880 g/sq. m).

- 2. Tensile Strength: 480 lbf/inch (84 N/mm) in the warp and 360 lbf/inch (63 N/mm) in the filling.
- 3. Service Temperature: Minus 40 to plus 200°F (Minus 40 to plus 93°C).
- 4. Insulated Service: Flexible ductwork connections shall be constructed of two layers of fabric as specified above, encapsulating 1-inch nominal thickness of R-4.2 fiberglass insulation. Required if the adjacent ductwork is specified to be insulated or internally lined.

#### 2.9 DUCT ACCESSORY HARDWARE

- A. Instrument Test Holes: Cast iron or cast aluminum to suit duct material, including screw cap and gasket. Size to allow insertion of pitot tube and other testing instruments and of length to suit duct-insulation thickness.
- B. Adhesives: High strength, quick setting, neoprene based, waterproof, and resistant to gasoline and grease.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install duct accessories according to applicable details in SMACNA's "HVAC Duct Construction Standards Metal and Flexible."
- B. Install duct accessories of materials suited to duct materials; use galvanized-steel accessories in galvanized-steel ducts.
- C. Install volume dampers at points on supply and exhaust systems where branches extend from larger ducts.
  - 1. Locate dampers at least two duct diameters from fittings and as far away as possible from outlets.
  - 2. Install steel volume dampers in steel ducts.
- D. Set dampers to fully open position before testing, adjusting, and balancing.
- E. Install test holes at fan inlets and outlets and elsewhere as indicated.

#### F. Install fire dampers according to UL listing.

- G. Install duct access doors on sides of ducts to allow for inspecting, adjusting, and maintaining accessories and equipment at the following locations:
  - 1. Adjacent to and close enough to fire dampers, to reset or reinstall fusible links.
  - 2. Elsewhere as indicated.
- H. Install access doors with swing against duct static pressure.
- I. Label access doors according to Division 23 Section "Basic Mechanical Materials and Methods" to indicate the purpose of access door.

- J. Install flexible connectors to connect ducts to equipment using metal-edged connections or flanges.
- K. For fans developing static pressures of 5-inch wg (1250 Pa) and more, cover flexible connectors with loaded vinyl sheet held in place with metal straps.
- L. Install duct test holes where required for testing and balancing purposes.

#### 3.2 FIELD QUALITY CONTROL

- A. Operate dampers to verify full range of movement.
- B. Inspect locations of access doors and verify that purpose of access door can be performed.
- C. Operate fire dampers to verify full range of movement and verify that proper heat-response device is installed.
- D. Inspect turning vanes for proper and secure installation.

END OF SECTION 23 3300

# Missouri Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

### Annual Wage Order No. 29

Section 010 **BOONE COUNTY** 

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by
Todd Smith, Director
Division of Labor Standards

Filed With Secretary of State: March 10, 2022

Last Date Objections May Be Filed: April 11, 2022

**Prepared by Missouri Department of Labor and Industrial Relations** 

	**Prevailing
OCCUPATIONAL TITLE	Hourly
OCCOPATIONAL TITLE	Rate
Asbestos Worker	\$58.66
Boilermaker	\$30.87*
Bricklayer	\$51.43
Carpenter	\$48.35
-	φ46.33
Lather	
Linoleum Layer	
Millwright	
Pile Driver	0.11.0.1
Cement Mason	\$41.91
Plasterer	4== 00
Communications Technician	\$55.88
Electrician (Inside Wireman)	\$55.87
Electrician Outside Lineman	\$75.58
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	\$30.87*
Glazier	\$47.32
Ironworker	\$62.10
Laborer	\$41.12
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$48.56
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$60.81
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$37.40
Plumber	\$67.36
Pipe Fitter	
Roofer	\$52.11
Sheet Metal Worker	\$53.28
Sprinkler Fitter	\$62.30
Truck Driver	\$30.87*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

<sup>\*</sup>The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

<sup>\*\*</sup>The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in Section 290.210 RSMo.

	**Prevailing
OCCUPATIONAL TITLE	Hourly
	Rate
Carpenter	\$51.63
Millwright	
Pile Driver	
Electrician (Outside Lineman)	\$75.58
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$46.46
General Laborer	
Skilled Laborer	
Operating Engineer	\$58.48
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$30.87*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

\*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

\*\*The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in Section 290.210 RSMo.

## OVERTIME and HOLIDAYS

#### **OVERTIME**

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

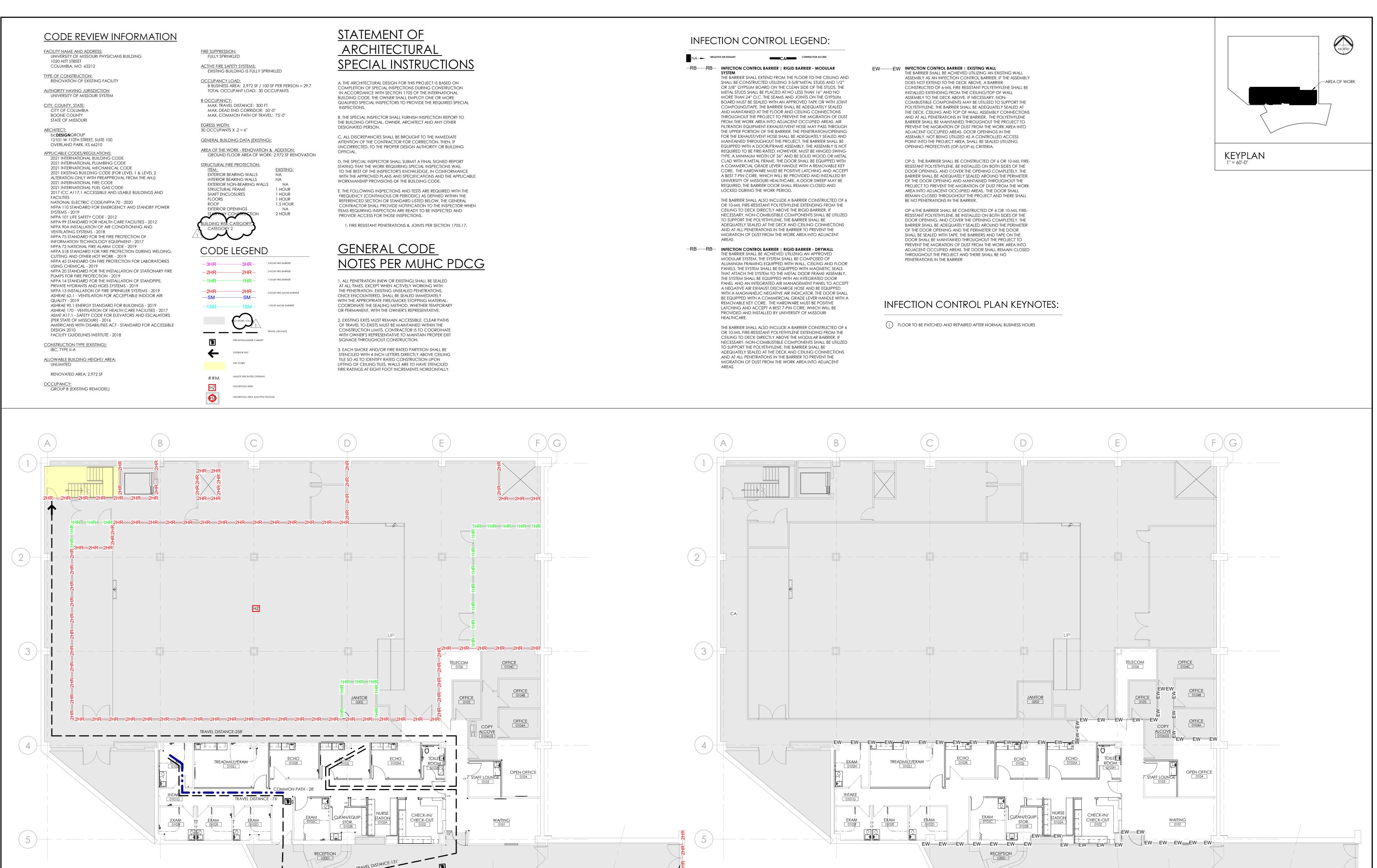
For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, "overtime work" shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

#### **HOLIDAYS**

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.



RC(R14) (RE)

(R5)

GROUND FLOOR - CODE PLAN

12' 6' 0' 12'

RA

bcdesign Group

12101 W 110th Street, Suite 100
Overland Park, K\$ 66210

913.232.2123

MO Certificate of Authority Number
A-2011037290

Project Team:

ROSS & BARUZZINI, INC.
6 SOUTH OLD ORCHARD | ST. LOUIS, MO
63119

OUTH OLD ORCHARD | ST. 19

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arsity Physicians Medical Building - Ground Floor CHCC

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ACCOUNTS

AC

 Issue Date:
 08.29.2022

 ∠₩ Issue:
 Date:

 1 Addendum #1
 09.16.2022

1 Addendum #1 09.16.2022

Drawn by: CG

bcdg Project #: 12275.27
MU Project #: CP202091

RC(R14) RE

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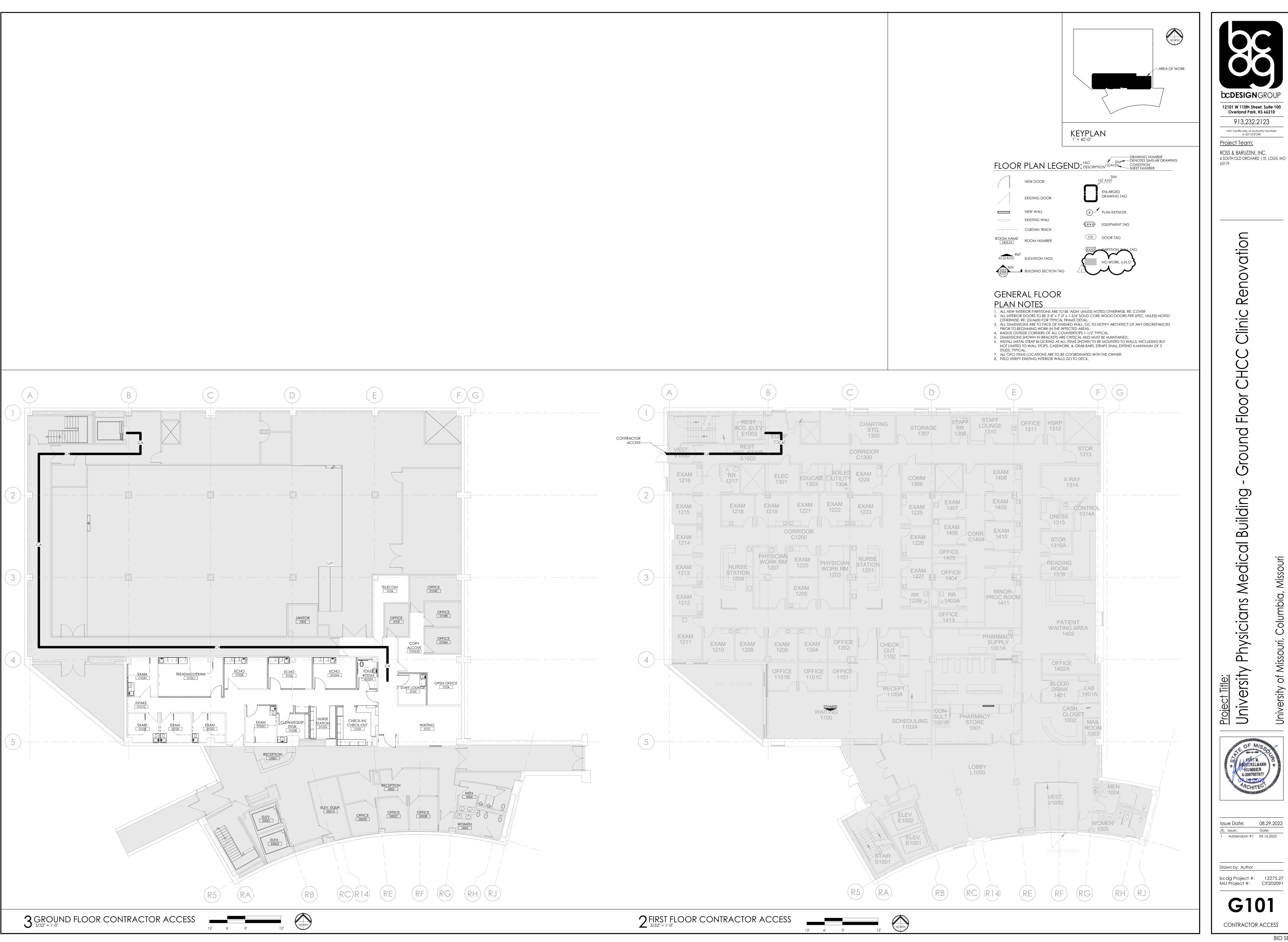
R5

2 GROUND FLOOR - INFECTION CONTROL

12' 6' 0' 12'

RA

G100 CODE PLAN + IC





Overland Park, KS 66210

913.232.2123

MO Certificate of Authority Number

G101 CONTRACTOR ACCESS

08.29.2022





12101 W 110th Street, Suite 100 Overland Park, KS 66210 913.232.2123

MO Certificate of Authority Number

<u>Project Team:</u> ROSS & BARUZZINI, INC. 6 SOUTH OLD ORCHARD | ST. LOUIS, MO 63119

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 Issue Date:
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 Date:

 1 Addendum #1
 09.16.2022

 08.29.2022

Drawn by: CG bcdg Project #: 12275.27 MU Project #: CP202091

A100

12101 W 110th Street, Suite 100 Overland Park, K\$ 66210

913.232.2123

MO Certificate of Authority Number A-2011037290

6 SOUTH OLD ORCHARD | ST. LOUIS, MO

<u>Project Team:</u>

63119

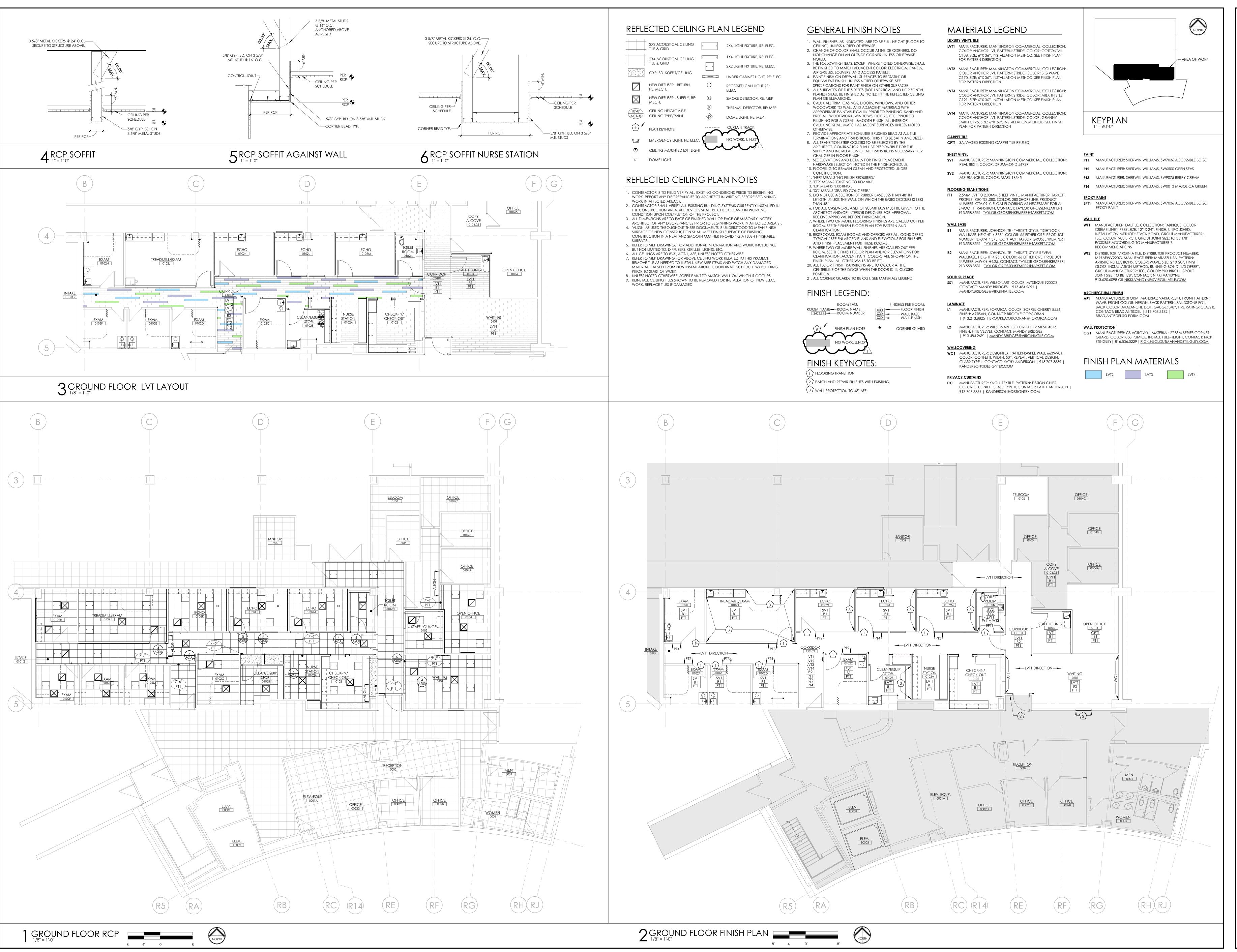
ROSS & BARUZZINI, INC.

Issue Date: 08.29.2022 <u>∠#\</u> Issue: Date:
1 Addendum #1 09.16.2022

Drawn by: Author bcdg Project #: 12275.27 MU Project #: CP202091

A101 GROUND FLOOR PLAN -DIMENSIONED



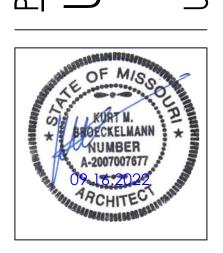


12101 W 110th Street, Suite 100 Overland Park, KS 66210 913.232.2123

MO Certificate of Authority Number <u>Project Team:</u>

ROSS & BARUZZINI, INC. 6 SOUTH OLD ORCHARD | ST. LOUIS, MO

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Issue Date: <u>∠</u>#\ Issue: Date:
1 Addendum #1 09.16.2022

Drawn by: CG

bcdg Project #: 12275.27 MU Project #: CP202091 **A200** 

RCP + FINISH PLAN

ELECTRICAL NEW WORK FLOOR PLAN

1/8" = 1'-0"

8'

4'

0'

8'

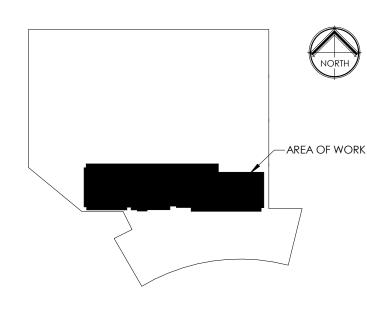
LEGEND: F: FURNISHED I: INSTALLED

GENERAL LOW VOLTAGE ITEMS		_
LOW VOLTAGE RACKS	F,I	
RACK CABLE MANAGEMENT	F,I	
CONDUIT SLEEVES		
GROUNDING AND BONDING (GROUND BARS, CONDUCTORS, TERMINATIONS, ETC.)		
CABLE PATHWAYS, CABLE TRAY, LADDER TRAY		
LADDER RACK		
FIRESTOPPING FOR LOW VOLTAGE SYSTEMS		Ĺ
FIRE RATED PATHWAYS		
EQUIPMENT, CABLE, AND OUTLET FACEPLATE LABELING	F	
CORE DRILLING FLOOR/WALL SLEEVES		
TELECOMMUNICATIONS SYSTEMS		
FIBER SERVICE AND HORIZONTAL DISTRIBUTION FROM HOSPITAL	F,I	
FIBER SWITCH AND TERMINATIONS	F,I	
EQUIPMENT (SERVERS, SWITCHES, PDU, ETC.)	F,I	
TELECOM ROOM LADDER RACK	F,I	
PATCH PANELS	F,I	$\vdash$
PATCH CABLES	F,I	$\vdash$
HORIZONTAL CABLING AND TERMINATIONS	F	$\vdash$
BACKBOXES AND CONDUITS		$\vdash$
OUTLET FACEPLATES AND TERMINATIONS	-	
WIRELESS ACCESS POINTS	F,I	+
COMMUNITY ACCESS TELEVISION SYSTEM (CATV)		$\vdash$
CABLE DISTRIBUTION (BETWEEN TELECOM ROOMS)	F,I	<u> </u>
AMPLIFIERS AND SPLITTERS	F,I	<u> </u>
EQUIPMENT: HEAD-END ELECTRONICS	F,I	<u> </u>
HORIZONTAL CABLING AND TERMINATIONS	F,I	_
BACKBOXES AND CONDUITS		$\vdash$
OUTLET FACEPLATES AND TERMINATIONS	-	-
		<u> </u>
ACCESS CONTROL	_	<u> </u>
HEAD-END EQUIPMENT	F	
BACKBOXES AND CONDUITS		
DEVICES (CARD READERS, KEYPADS, ETC.)	F,I	-
INTERCONNECTION WIRING AND TERMINATIONS	F	<u> </u>
VIDEO SURVEILLANCE		<u> </u>
HEAD-END EQUIPMENT (HARDWARE, SOFTWARE, DISPLAYS, ETC.)	F	
CAMERAS AND SUPPORTS	F,I	
HORIZONTAL WIRING AND TERMINATIONS	F	_
BACKBOXES AND CONDUITS		<u> </u>
NURSE CALL		<u> </u>
HEAD-END EQUIPMENT, UPS, AND PROGRAMMING	F	_
HORIZONTAL CABLING AND TERMINATIONS	F	_
BACKBOXES AND CONDUITS		
DEVICES	F,I	
INTERCONNECTION WIRING AND TERMINATIONS TO PERIPHERALS	F,I	
PUBLIC ADDRESS SYSTEM		
HEAD-END EQUIPMENT	F,I	
HORIZONTAL CABLING AND TERMINATIONS	F	
BACKBOXES AND CONDUITS		
SPEAKERS	F,I	
SOUND MASKING SYSTEM - <u>ALTERNATE #7</u>		
SYSTEM CONTROLLER		F
HORIZONTAL CABLING AND TERMINATIONS		$\vdash$
MOUNTING COMPONENTS AND CONDUITS		
	<b>[</b>	$\vdash$

THE PARTY RESPONSIBLE FOR INSTALLING THE RESPECTIVE EQUIPMENT SHALL ALSO BE RESPONSIBLE FOR CONNECTING, PROGRAMMING AND TESTING THE SYSTEM, UNLESS OTHERWISE SPECIFICALLY NOTED. CONTRACTOR TO COORDINATED TESTING WITH ALL THIRD PARTY VENDORS.

- ITEMS INDICATED AS FURNISHED AND/OR INSTALLED BY THE OWNER MAY BE PROVIDED BY A THIRD-PARTY
- VENDOR. CONTRACTOR IS REQUIRED TO COORDINATE ALL INSTALLATIONS.
- ALL LINE VOLTAGE RECEPTACLE AND HARD-WIRED CONNECTIONS WILL BE PROVIDED BY THE CONTRACTOR. FIRESTOPPING TO BE PROVIDED BY A SINGLE ENTITY. REFER TO DIVISION 07 SPECIFICATIONS FOR

2 LOW VOLTAGE RESPONSIBILITY MATRIX



KEYPLAN

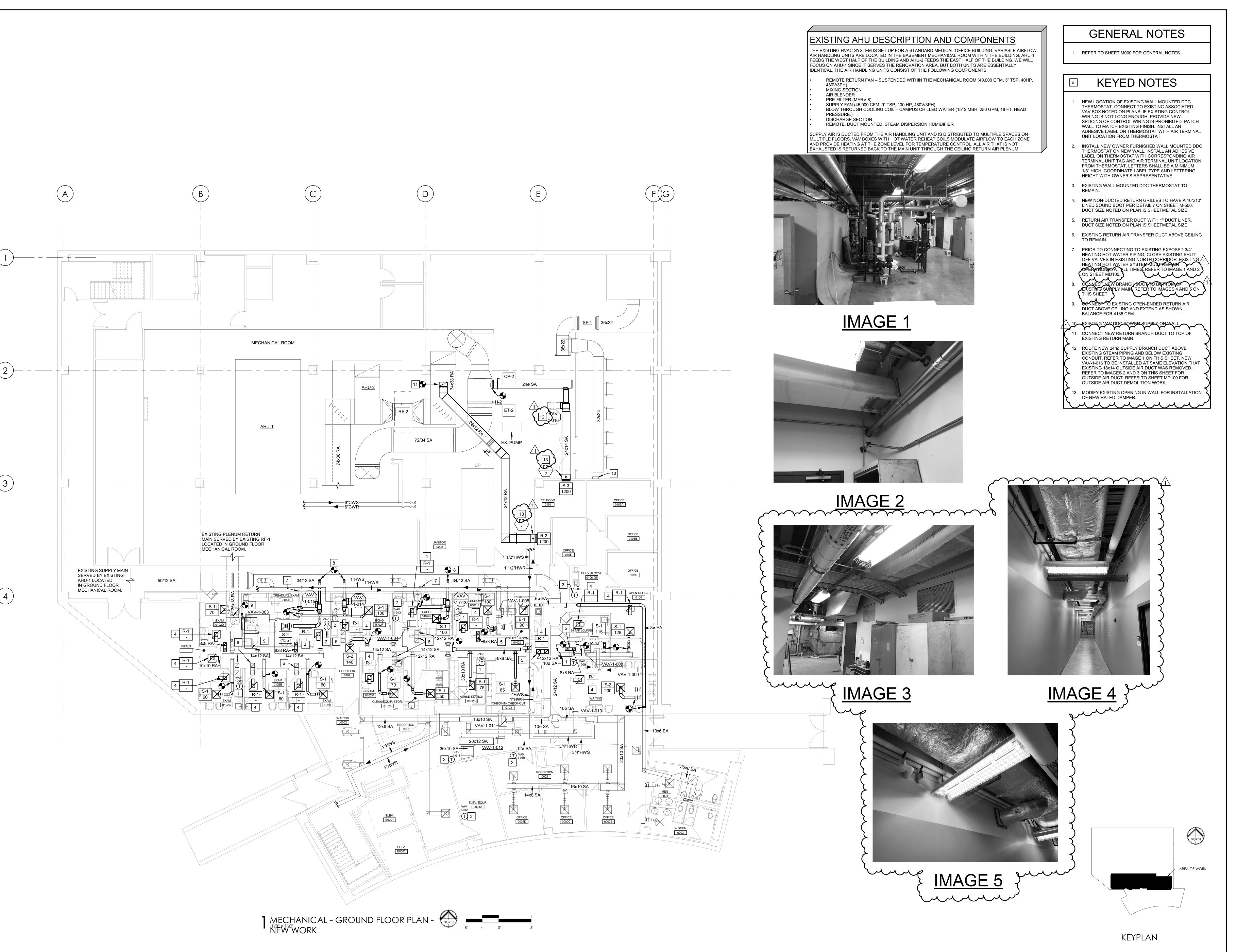
**CDESIGN**GROUP 12101 W 110th Street, Suite 100 Overland Park, K\$ 66210

913.232.2123

MO Certificate of Authority Number <u>Project Team:</u> ROSS & BARUZZINI, INC. 6 SOUTH OLD ORCHARD | ST. LOUIS, MO

Drawn by: Author

bcdg Project #: 12275.27 MU Project #: CP202091 E100 ELECTRICAL - GROUND FLOOR - NEW WORK



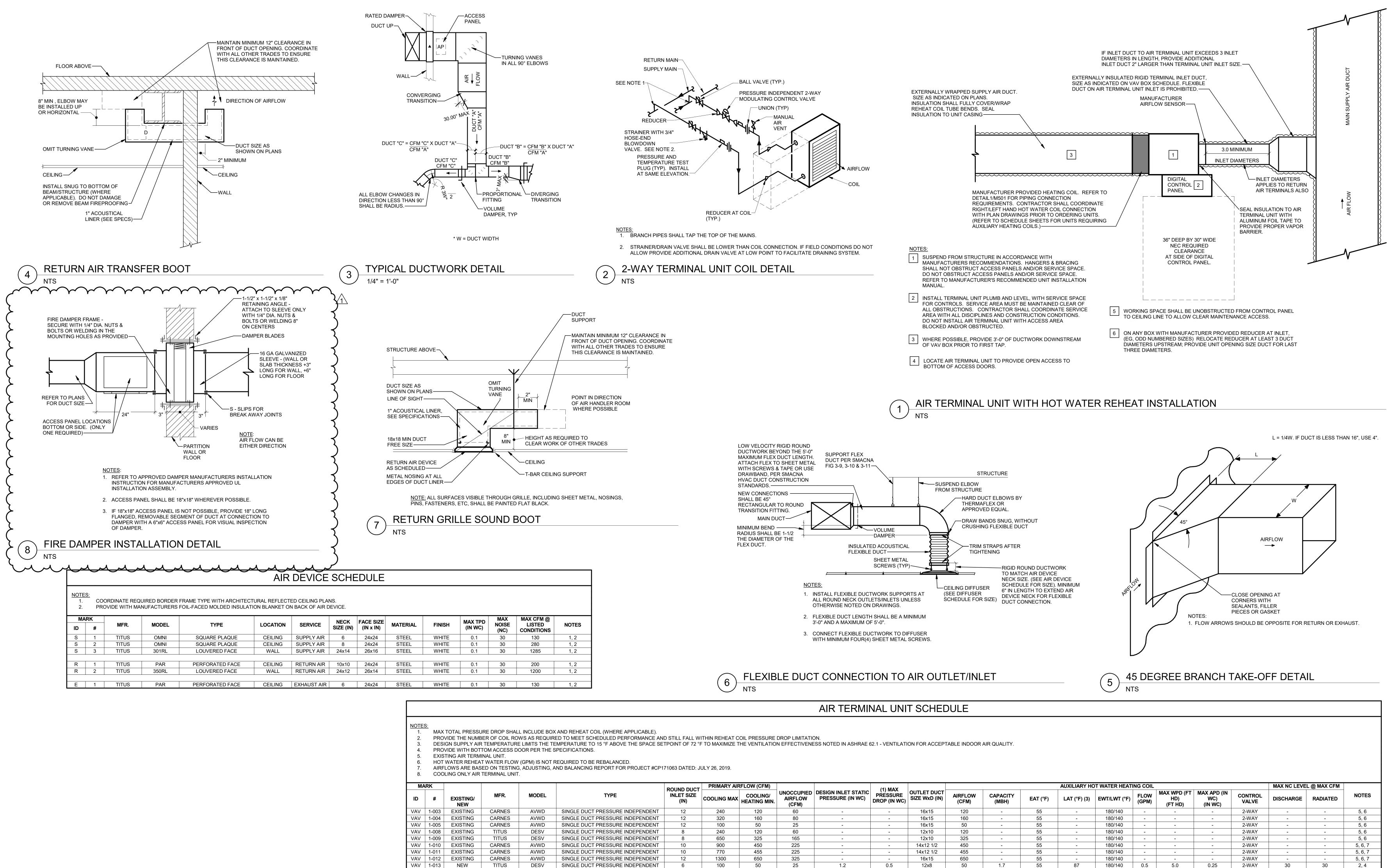
**CDESIGN**GROUP 12101 W 110th Street, Suite 100 Overland Park, KS 66210 913.232.2123

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<u>Project Team:</u> ROSS & BARUZZINI, INC. 6 SOUTH OLD ORCHARD | ST. LOUIS, MO

Drawn by: Author bcdg Project #: 12275.27 MU Project #: CP202091

M100 MECHANICAL - GROUND FLOOR - NEW WORK



		VAV 1-008 EXISTING	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	8	240	120	60	-	-	12x1	0 120	-	55	-	180/140	-	-	-	2-WAY	-
		VAV 1-009 EXISTING	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	8	650	325	165	-	-	12x1	0 325	-	55	-	180/140	-	-	-	2-WAY	-
		VAV 1-010 EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	10	900	450	225	-	-	14x12	1/2 450	-	55	-	180/140	-	-	-	2-WAY	-
		VAV 1-011 EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	10	770	455	225	-	-	14x12	1/2 455	-	55	-	180/140	-	-	-	2-WAY	-
		VAV 1-012 EXISTING	CARNES	AVWD	SINGLE DUCT PRESSURE INDEPENDENT	12	1300	650	325	-	-	16x1	5 650	-	55	-	180/140	-	-	-	2-WAY	-
		VAV 1-013 NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	6	100	50	25	1.2	0.5	12x8	3 50	1.7	55	87	180/140	0.5	5.0	0.25	2-WAY	30
		VAV 1-014 NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	6	100	50	25	1.2	0.5	12x8	3 50	1.7	55	87	180/140	0.5	5.0	0.25	2-WAY	30
		VAV 1-015 NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	6	100	50	25	1.2	0.5	12x8	3 50	1.7	55	87	180/140	0.5	5.0	0.25	2-WAY	30
		VAV 1-016 NEW	TITUS	DESV	SINGLE DUCT PRESSURE INDEPENDENT	14	1200	1200	1200	1.2	0.5	20x17	1/2 -	-	-	-	-	-	-	-	-	30
1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	~~~~~	~~~	~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~																
(	FIRE DAMPER SCHEDULE													,	AIR CHANGE RATE S	CHEDULE						
										OFILING.	ROOM		SUPPLY AIR			OUTSIDE AIF			AIR		EXHAU	
(	NOTES:				1)	ROOM#	1# ROOM NAME		AREA (SF)	CEILING HEIGHT (FT)	VOLUME	ASHRAE	170-2017	DESIGN		ASHRAE 1	70-2017	DE	SIGN	ASHRAE	170-2017	
9	1. DYNAMIC TYPE "B" WITH BLAD	DES OUTSIDE OF AIRSTREAM.				I  eq						(CU.FT.)	AC/ HOUR	SA CFM	SA CFM AC	/ HOUR	AC/ HOUR	OA CFM	OA CFM	AC/ HOUR	AC/ HOUR	EA CFM

	FIRE DAMPER SCHEDULE													
1.	_	AMIC TYPE "B" WI	TH BLADES OU	TSIDE OF AIRST	REAM.		DUCT SIZE	DAMPER	FUSIBLE LINK					
ID	#	MFR.	MODEL	TYPE	SERVICE	ORIENTATION	WxH (IN)	RATINGS (HR)	TEMP (°F)	NOTES				
שו	4	GREENHECK	DFD-150	DYNAMIC	RETURN	VERTICAL	24x12	1.5	165	1				
FD	1			DYNAMIC	SUPPLY	VERTICAL	24x14	1.5	165	4				

ROOM # ROOM NAME		05111110	ROOM		SUPP	LY AIR			OUTSI	DE AIR		EXHAUST AIR				
	ROOM NAME	AREA (SF)	CEILING HEIGHT (FT)	VOLUME	ASHRAE 170-2017		DESIGN		ASHRAE 170-2017		DESIGN		ASHRAE 170-2017		DESIGN	
			TILIOTTI (I I)	(CU.FT.)	AC/ HOUR	SA CFM	SA CFM	AC/ HOUR	AC/ HOUR	OA CFM	OA CFM	AC/ HOUR	AC/ HOUR	EA CFM	EA CFM	AC/ HOUR
0102A	EXAM	104	8'-3"	853	4	57	60	4.2	2	28	28	2	0	0	0	0
0102B	EXAM	102	8'-3"	837	4	56	60	4.3	2	28	28	2	0	0	0	0
0102C	EXAM	102	8'-3"	837	4	56	60	4.3	2	28	28	2	0	0	0	0
0102D	EXAM	127	8'-3"	1042	4	70	70	4.0	2	35	35	2	0	0	0	0
0102E	TREADMILL/EXAM	281	8'-3"	2305	4	155	155	4.0	2	77	77	2	0	0	0	0
0102F	ECHO	150	8'-3"	1230	4	82	100	4.9	2	41	41	2	0	0	0	0
0102G	ECHO	150	8'-3"	1230	4	82	100	4.9	2	41	41	2	0	0	0	0
0102H	ECHO	150	8'-3"	1230	4	82	100	4.9	2	41	41	2	0	0	0	0
0102L	CLEAN/ EQUIP STORAGE	89	8'-3"	730	4	49	50	4.1	2	25	25	2	0	0	0	0
0102M	EXAM	128	8'-3"	1050	4	70	70	4	2	35	35	2	0	0	0	0
0102	CORRIDOR	510	8'-3"	4182	0	0	140	2	2	140	140	2	0	0	0	0
0102J	TOILET ROOM	63	8'-3"	517	0	0	0	0	0	0	0	0	10	87	90	10.4

bcdesign group

12101 W 110th Street, Suite 100
Overland Park, KS 66210

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MO Certificate of Authority Number
A-2011037290

Project Team:

ROSS & BARUZZINI, INC.
6 SOUTH OLD ORCHARD | ST. LOUIS, MO

OSS & BARUZZINI, INC.
SOUTH OLD ORCHARD | ST. LOUIS,
119

Ground Floor Renovation

65212

St,

020

| Issue Date: 08.29.2022

Drawn by: Author

bcdg Project #: 12275.27

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M500
DETAILS & SCHEDULES