

HISTORIC PRESERVATION COMMISSION

Marc Elrich
County Executive

Robert Sutton
Chairman

Date: March 21, 2024

MEMORANDUM

TO: Rabbiah Sabbakhan

Department of Permitting Services

FROM: Chris Berger

Historic Preservation Section

Maryland-National Capital Park & Planning Commission

SUBJECT: Historic Area Work Permit # 1060954 - new lighting equipment, HVAC

equipment, associated electrical and mechanical work, new attached rooftop ladder

The Montgomery County Historic Preservation Commission (HPC) has reviewed the attached application for a Historic Area Work Permit (HAWP). This application was **approved** at the March 20, 2024, HPC meeting.

The HPC staff has reviewed and stamped the attached construction drawings.

THE BUILDING PERMIT FOR THIS PROJECT SHALL BE ISSUED CONDITIONAL UPON ADHERENCE TO THE ABOVE APPROVED HAWP CONDITIONS AND MAY REQUIRE APPROVAL BY DPS OR ANOTHER LOCAL OFFICE BEFORE WORK CAN BEGIN.

Applicant: Mike Houston

Address: 201 Ethan Allen Avenue, Takoma Park

This HAWP approval is subject to the general condition that the applicant will obtain all other applicable Montgomery County or local government agency permits. After the issuance of these permits, the applicant must contact this Historic Preservation Office if any changes to the approved plan are made. Once work is complete the applicant will contact Chris Berger at 301-495-4571 or chris.berger@montgomeryplanning.org to schedule a follow-up site visit.





For Staff only:

HAWP# 1060954

Date assigned



APPLICANT:

Name: Mike Houston	E-mail: mhouston@tpss.coop_
Address: 201 Ethan Allen Ave	city: Takoma Park zip: 20912
Daytime Phone: 301-891-2667	Tax Account No.:
AGENT/CONTACT (if applicable):	
Name: Marty Bates, Bates Architects LLC	E-mail: info@batesarchitectspc.com
Address: 121 N. Court Street	city: Frederick zip: 21701
Daytime Phone: 301-644-0444 (x700)	Contractor Registration No.:
LOCATION OF BUILDING/PREMISE: MIHP # of I	Historic Property 37/03
Is the Property Located within an Historic District Is there REVIEWED vation/Land Trust/Envi map of By Chris Berger at 12:29 pm, Mar 21,	? X Yes/Dis APPROVED No/Indiversital Ea Montgomery County ude a
Are other Planning and/or Hearing Examiner App (Conditional Use, Variance, Record Plat, etc.?) If N supplemental information.	(ES, include in Rama La Matter
	Ethan A
Town/City: Takoma Park Neares	st Cross Street: Sycamore Ave
Lot: 38 Block: 19 Subdiv	
for proposed work are submitted with this a be accepted for review. Check all that apply: New Construction Deck/Porch Addition Fence Demolition Hardscape/ Grading/Excavation Roof I hereby certify that I have the authority to make and accurate and that the construction will comp	Shed/Garage/Accessory Structure Solar Tree removal/planting

Building Owner:

R&D TURNER FAMILY LLC (81-2509891)

18341 CARRICO MILLS RD STEVENSBURG VA 22741

Phone: 540-229-0116 (ATTN: Dianne Matthews)

Applicant (Tenant & Owner's Representative):

Mike Houston, of TAKOMA PARK SILVER SPRING CO-OP

201 Ethan Allen Avenue

Takoma Park, MD 20912

Phone: 301-891-2667

Tax Account No: 52-1194672

Agent/Primary Contact (for Tenant & Owner):

Marty Bates, of BATES ARCHITECTS, LLC

121 N. Court Street, Frederick, MD 21701

Phone: 301-644-0440 (x700)

Maryland State License No.: 5933A

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County

Historic Preservation Commission

Routh / hou

HAWP APPLICATION: MAILING ADDRESSES FOR NOTIFING

[Owner, Owner's Agent, Adjacent and Confronting Property Owners]

Owner's mailing address
R&D Turner Family LLC
18341 Carrico Mills Road
Stevensburg, VA 22741

Owner's Agent's mailing address Mike Houston via TPSS Co-Op 201 Ethan Allen Avenue Takoma Park, MD 20912

Adjacent and confronting Property Owners mailing addresses

7126 Sycamore Avenue	
Takoma Park, Md. 20912	

7129 Sycamore Avenue Takoma Park, Md. 20912

7131 Sycamore Avenue Takoma Park, Md. 20912 7133 Sycamore Avenue Takoma Park, Md. 20910

7302 Carrol Avenue Takoma Park, Md. 20912 7304 Carrol Avenue Takoma Park, Md. 20912

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County

Historic Preservation Commission



Description of Property: Please describe the building and surrounding environment. Include information on significant structures, landscape features, or other significant features of the property:

The structure is a one story commercial building with a dark red brick and terra cotta tile exterior with gray stone quoining on the front comers. The building has a flat roof with parapet walls. The store front is aluminum and glass extending the width of the front facade with one entrance on the right side of the front facade. There is colored tile set below the front windows. The left side wall is plain brick with simple buttresses, the right side wall is red terra cotta tile. To the right of the building is a paved parking lot, loading dock and storage shed. To the left is a paved parking lot that is the corner feature of Sycamore and Ethan Allen Avenues and has a rear retaining wall with a pipe guardrail as the grade slopes steeply to the rear of the store. The rear facade is two story and faces out on Columbia Avenue. There are two doors on the lower level and four window openings on the upper level. A second retaining wall with a guardrail marks the rear edge of the property line where Columbia Avenue drops off steeply to the left.

Description of Work Proposed: Please give an overview of the work to be undertaken:

Rooftop work shall include removal of rooftop condensers for kitchen equipment and the installation of three (3) new HVAC rooftop units to replace existing rooftop units. These units will be painted to match the building walls as required by Takoma Park's HPC guidelines.

Work on east wall of building to include installation of new condenser for kitchen equipment to be located on east wall next to the egress stair. This condenser will sit on a 10" concrete pad & shall be secured by a 7'-0" tall chain link fence that is to match the existing fence surrounding the generator on the south elevation. The condenser's condensation lines/conduit will travel up and through existing east wall, this condenser will also require a separate disconnect switch that will be installed on the east wall. This disconnect switch will be the same size and visual appearance as the existing disconnect switch located on the south wall.

Work on the west wall consists of the installation of a steel access ladder from the existing loading dock for rooftop access.

Work on south elevation of building regarding required electrical service upgrade. This work will consist of removing the existing ground mounted transformer, the transformer will be replaced by Pepco Power company and located on the pole across Columbia Avenue. The upgrade will also include replacing the existing wall mounted CT Cabinet & Disconnect Switch, while this upgrade increases the CT Cabinet & Disconnect capacity, the devices themselves will be replaced in kind (same size & visual appearance). We will follow up with further information once received/confirmed by PEPCO.

Please see the attached photos for existing conditions, the attached specifications for mechanical & electrical equipment, etc.

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County

Historic Preservation Commission

Rankh /1

8

Work Item 1: Rooftop Equipment demo & HVAC Unit Replacement

Description of Current Condition:

There are currently three (3) rooftop units that are undersized and do not meet current code, there are also several condenser units that serve the existing refrigeration equipment for the store. Please see the attached photos.

Proposed Work:

Rooftop work shall include removal of rooftop condensers for existing kitchen equipment and the installation of three (3) new HVAC rooftop units to replace existing rooftop units. Please see the attached specifications for the HVAC units.

Work Item 2: New Equipment Condenser (on east wall)

& rooftop access ladder (on west wall)

Description of Current Condition:

The west wall currently has a wooden loading dock/deck that provides access to the back of the store.

The east wall currently has an egress stair from the main store level to the parking lot.

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024 sual ap

Proposed Work:

Work on east wall of building to include installation of new condenser for kitchen equipment to be located on east wall next to the egress stair. This condenser will sit on a 10" thick concrete pad & shall be secured by a 7'-0" tall chain link fence

that is to mate the south elev will travel up a also require a on the east w

on the south was

access ladde

Montgomery County

APPROVED

Historic Preservation Commission

Muth ham el access.

Work Item 3: _____

Replacement of transformer & CT Cabinet/Disconnect Switch

Description of Current Condition:

The existing CT cabinet and disconnect switch are located on the east of the south wall. The existing transformer is ground mounted just to the right of the CT cabinet in front of the retaining wall.

Proposed Work:

Work on south elevation of building regarding required electrical service upgrade. This work will consist of removing the existing ground mounted transformer, the transformer will be replaced by Pepco Power company and located on the pole across Columbia Avenue. The upgrade will also include replacing the existing wall mounted CT Cabinet & Disconnect Switch, while this upgrade increases the CT Cabinet & Disconnect capacity, the devices themselves will be replaced in kind (same size & visual appearance). We will follow up with further information once received/confirmed by PEPCO.

ator on

/conduit

ser will

talled

size

located

HISTORIC AREA WORK PERMIT CHECKLIST OF APPLICATION REQUIREMENTS

	Required Attachments						
Proposed Work	I. Written Description	2. Site Plan	3. Plans/ Elevations	4. Material Specifications	5. Photographs	6. Tree Survey	7. Property Owner Addresses
New Construction	*	*	*	*	*	*	*
Additions/ Alterations	*	*	*	*	*	*	*
Demolition	*	*	*		*		*
Deck/Porch	*	*	*	*	*	*	*
Fence/Wall	*	*	*	*	*	*	*
Driveway/ Parking Area	*	*		*	*	*	*
Grading/Exc avation/Land scaing	*	*		*	*	*	*
Tree Removal	*	*		*	*	*	*
Siding/ Roof Changes	*	*	*	*	*		*
Window/ Door Changes	*	*	*	*	*		*
Masonry Repair/ Repoint	*	*	*	*	*		*
Signs	*	*	*	*	*		*

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County

Historic Preservation Commission

Robert L. Man

(X) BOTH OF ABOVE.

GENERAL CONDITIONS / REQUIREMENTS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 1. AMERICAN INSTITUTE OF ARCHITECTS' DOCUMENT A201, 2017 EDITION:

3. THE ADOPTED CODES AND REGULATIONS OF MONTGOMERY COUNTY

EXIST CONDITION EVALUATION: INFORMATION SHOWN ON THESE DRAWINGS CONCERNING EXIST. CONDITION IS BASED ON: (CHECK APPLIED ITEMS () BRIEF FIELD OBSERVATIONS BY THIS OFFICE.

() DRAWINGS PREPARED BY OTHERS FOR PREVIOUSLY COMPLETED IMPROVEMENTS.

- DRAWINGS: THESE DRAWINGS HAVE BEEN PREPARED IN ACCORDANCE WITH GENERALLY ACCEPTED PRACTICES AND STANDARDS OF THE PROFESSION, AND SUCH ARE DIAGRAMMATIC IN NATURE ONNECTION AND ANCHORAGE OF MATERIALS, EQUIPMENT AND ACCESSORIES NECESSARY TO THE OPERATION AND/ OR PERFORMANCE OF ANY SYSTEM NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE SELECTED BY THE CONTRACTOR TO SUIT THE REQUIREMENTS OF THE SYSTEM/ ITEM UNDER CONSIDERATION, LOCATION OF ITEMS SHALL GENERALLY BE IN COORDINATION WITH DIMENSIONED ARCHITECTUR. DRAWINGS. DUCTWORK, PIPING, CONDUIT AND OTHER SUCH SCHEMATIC SYSTEMS INDICATED IN MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, AND OTHER DRAWINGS SHALL BE COORDINATED B THE CONTRACTOR WITH THE DIMENSIONED ARCHITECTURAL ITEMS. WHENEVER A DOUBT IS PRESENT AS TO THE SPECIFIC MEANING OR INTENT OF THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ARCHITECT/ ENGINEER IN WRITING FOR CLARIFICATION. IF THE CONTRACTOR PROCEEDS WITH THE AFFECTED WORK WITHOUT THE ARCHITECT'S/ ENGINEER'S CLARIFICATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING/ MODIFYING THE WORK. IF THE CONTRACTOR BELIEVES TWO OR MORE DETAILS, OR NOTES OR OTHER PARTS OF THE DRAWINGS ARE IN CONFLICT, THE MOST RESTRICTIVE WILL GOVERN UNLESS CLARIFIED OR OTHERWISE APPROVED BY THE ARCHITECT. ABBREVIATIONS USED FOLLOW AS CLOSELY AS POSSIBLE TO THOSE OF THE CONSTRUCTION SPECIFICATIONS
- PRODUCTS: PRODUCTS NOTED HEREIN MAY BE SUBSTITUTED FOR, SUBJECT TO THE ARCHITECT'S WRITTEN APPROVAL. DO NOT BASE BIDS/PROPOSALS ON AN ASSUMPTION OR BRIEF VERBAL DISCUSSION THAT A SUBSTITUTED PRODUCT WILL BE ACCEPTABLE. PROVIDE ALL PRODUCTS IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN DIRECTIONS AND RECOMMENDATIONS DO NOT SCALE DRAWINGS. USE INDICATED DIMENSIONS ONLY. DIMENSIONS SHOWN ON LARGER SCALE DRAWINGS GOVERN
- SUBMITTALS (a.k.a. "SHOP DRAWINGS"): WHERE SUBMITTALS ARE REQUIRED. WE WILL REVIEW SUBMITTALS IN ACCORDANCE WITH AIA 201 AND WILL RETURN ONE COPY AND ONE COPY OF THE PRODUCT DATA IF PRODUCT DATA WAS SUBMITTED. NO SUBMITTALS WILL BE REVIEWED BY THIS OFFICE THAT ARE NOT REQUIRED BY THESE DRAWINGS AND THAT DO NOT BEAR EVIDENCE OF THE GENERAL / PRIME
- DIMENSIONED OR DETAILED. SALVAGE: ALL RE-USABLE ITEMS (SUCH AS DOORS/FRAMES/ HARDWARE, LIGHTS, DIFFUSERS, CIRCUIT BREAKERS AND OTHER SUCH ITEMS) REMOVED UNDER CONTRACT ARE TO BE TURNED OVER TO THE
- PATCH WALLS: WHERE WALLS OR FINISHES ARE REMOVED, PATCH THE REMAINING WALL SURFACES WITH GYPSUM BOARD MATERIALS TO PROVIDE A SMOOTH FINISH APPEARANCE SUITABLE TO RECEIVE THE NOTED FINISHES. SUCH PATCHES ARE NOT TO BE VISIBLE FROM A DISTANCE OF TEN FEET AFTER THE FINISH IS APPLIED TO THE WALL SURFACE.
- INFILL CEILING: WHERE EXIST LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING MOUNTED ITEMS ARE REMOVED, EXTEND METAL SUSPENSION SYSTEM FOR CEILING AS REQUIRED AND PROVIDE CEILING MATERIAL CEILING PLENUM RESTRICTION: DO NOT INSTALL ANY MATERIALS ABOVE THE CEILING, AS PART OF THE CEILING OR EXPOSED TO THE CEILING PLENUM THAT ARE NOT RATED FOR USE IN A RETURN AIR CEILING
- CEILING HEIGHT DIFFERENCES: UNLESS OTHERWISE DETAILED, WHERE EXISTING WALLS OR PARTITIONS ARE REMOVED AND A DIFFERENCE IN CEILING HEIGHTS EXISTS IN ONE ROOM OR AREA, THE SPACE Between the ceilings shall be squared off horizontally and vertically with the ceiling material indicated for the area and adjacent existing condition:
- CEILING INSTALLATION: INSTALL ALL CEILING MATERIALS IN STRICT ACCORDANCE WITH UL AND MANUFACTURER'S WRITTEN DIRECTIONS AND RECOMMENDATIONS. SUSPENDED ACOUSTICAL TILE CEILINGS SHALL ALSO BE INSTALLED IN ACCORDANCE WITH ASTM C636. NOTE THAT THE FREE ENDS OF THE HANGER WIRES SHALL BE WRAPPED TIGHTLY 3 FULL TURNS AROUND THE SAME WIRE ON THE OTHER SIDE OF THE COMPONENTS TO WHICH THE HANGERS ARE ATTACHED. WALL ANGLES TO BE NOM. 1 X 1 UNLESS OTHERWISE NOTED WITH HEMMED EDGES AND SHALL MATCH THE OTHER EXPOSED PORTIONS OF THE SUSPENSION SYSTEM. PROVIDE NOM 1/8" CONTINUOUS SEALANT BEAD TO CLOSE THE GAP BETWEEN THE VERTEX (CORNER) OF THE WALL ANGLE AND THE VERTICAL SURFACE TO WHICH THE ANGLE ABUTS
- THROUGHOUT THE PROJECT NOT OTHERWISE ENCASED IN MASONRY, CONCRETE, OR FIRE TREATED WOOD CONSTRUCTION SHALL BE CONCEALED FROM VIEW IN FINISHED SPACES WITH FURRED-IN GYPSUM BOARD CONSTRUCTION FINISHED TO MATCH THE FINISH OF THE SPACE IN WHICH SUCH CONSTRUCTION IS LOCATED. PROVIDE POLISHED CHROME OR OTHER ARCHITECT'S APPROVED ESCUTCHEONS WHERE PIPES, CONDUITS, AND/OR CABLE PENETRATES FINISH MATERIALS SUCH AS GYPSUM BOARD OR ACOUSTICAL TILE OR OTHER FINISH MATERIALS
- SEALANT/CAULK AT GYPSUM BOARD INSERTS: ALL ITEMS INSTALLED IN GYPSUM BOARD CONSTRUCTION ARE TO BE CAULKED ALL AROUND TO THE GYPSUM BOARD PRIOR TO THE APPLICATION OF PAINT FLOORING SEPARATION: PROVIDE SEPARATION BETWEEN ABUTTING NEW AND EXISTING FINISH FLOOR MATERIALS WHERE MATERIALS ARE DIFFERENT OR ABUT AT DIFFERENT LEVELS. SEPARATION TO BE
- WALL FINISH: PAINT TO BE THE BEST QUALITY PRODUCT OF A SINGLE SOURCE GLIDDEN, DURON, MAB OR APPROVED EQUAL. PAINT PRODUCTS ARE TO BE APPLIED AND RECEIVING SURFACES ARE TO BE PREPARED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN DIRECTIONS AND RECOMMENDATIONS/ GUIDE SPECIFICATIONS. PAINT TO BE AS FOLLOW
- -FOR GYPSUM BOARD SURFACES (INTERIOR): TWO COATS LATEX LO LUSTER. ROLLER OR BRUSH APPLICATIONS ONLY. GLIDDEN UH 5800 SERIES. (OR APPROVED EQUAL) -FOR STEEL SURFACE IN AN EXTERIOR ENVIRONMENT: TOUCH UP SHOP COAT AS REQUIRED AT CONNECTIONS, AT AREAS NOT YET PRIMED, AND AREAS WHERE RUST HAS OCCURRED AFTER FIRST REMOVING RUST, SCALE, DUST AND DEBRIS, THEN PRIME COAT. THEN TOP COAT OF GLIDDEN 4550 SERIES. -FOR STEEL SURFACES IN AN INTERIOR ENVIRONMENT: TOUCH-UP SHOP COAT AS REQUIRED AT CONNECTIONS, AT AREA NOT YET PRIMED, AND AREAS WHERE RUST HAS OCCURRED AFTER FIRST REMOVING -FOR ALUMINUM SURFACES IN AN INTERIOR ENVIRONMENT: REMOVE OILS, LUBRICANTS, DIRT AND OTHER FOREIGN MATERIALS. PRIME W/ GLIDDEN 5229 OR EQUAL. TWO TOP COATS WITH GLIDDEN 5950
- -FOR WOOD SURFACES IN AN INTERIOR ENVIRONMENT: FIRST COAT GLIDDEN 310 ALKYD UNDERCOATER; THEN TOP COAT OF GLIDDEN UH 8000 SERIES -FOR STAINED DOORS: PROVIDE FINISH EQUAL TO AWI #3 PREMIUM GRADE "CONVERSION VARNISH ALKYD-UREA". SATIN FINISH REQUIRED. SHERWIN WILLIAMS OR EQUAL
- -PAINT GYPSUM BOARD WORK: PAINT THE VISABLE SURFACES (BOTH INSIDE AND OUTSIDE ROOM) OF ALL EXIST DOORS/FRAMES BEING RELOCATED OR OF THOSE EXIST DOORS/FRAMES LOCATED IN EXST WALLS THAT ARE BEING PAINTED. FINISH ALL SIX SIDES OF NEW WOOD DOORS. WHERE AN EXISTING SURFACE OUTSIDE THE SUBJECT AREA IS PATCHED, PAINT ENTIRE SURFACE FROM CORNER TO -PRIME ALL SURFACES RECEIVING WALL COVERING IN ACCORDANCE WITH THE WRITTEN RECOMMENDATIONS OF THE WALL COVERING MANUFACTURER. PRODUCTS TO BE GLIDDEN ULTRA-HYDE PRIMER
- FLOOR COVERING: WHERE CARPET REMOVAL INDICATED, REMOVE AND DISPOSE OF CARPET AND ITS ADHESIVE. PROVIDE ALL TOOLS MATERIALS, ADHESIVES AND ACCESSORIES REQUIRED.
- WALL BASE: 4" HIGH BY 1/8" GAUGE VINYL BASE UNO ON ALL GYPSUM BOARD WORK THAT ABUTS A FLOOR SURFACE. BASE TO MATCH BUILDING STANDARD COLOR.
- INTERIOR FINISHES: INTERIOR FINISHES ARE TO BE IN ACCORDANCE WITH CURRENT IBC & NEPA STANDARDS. SUBMIT FLAME CERTIFICATES TO THIS OFFICE FOR ALL INTERIOR FINISHES SUPPLIED UNDER THI RACT PRIOR TO PURCHASING SUCH MATERIALS. PROVIDE INDICATED WALL, FLOOR AND BASE FINISH MATERIALS UNDER AND BEHIND ALL SHELVING, COUNTERS, CABINETS, LOCKERS AND OTHER SUCH ITEMS IN ADDITION TO PROVIDING SUCH MATERIALS IN OPEN AREAS, ROOMS AND CLOSETS. REPAIR OF EXISTING FINISHES IN WORK AREAS WHEN COMPLETED IS TO BE AT LEAST EQUAL TO THE EXIST CONDITION. THE AREA SO REPAIRED IS NOT TO BE DISCERNIBLE WHEN VIEWED FROM A DISTANCE OF TEN FEET. NOTE: ADHESIVES USED FOR INSTALLATION OF CARPET, VINYL FLOORING OR BASE, OR OTHER ITEMS TO HAVE THE LOWEST VOC CONTENT AVAILBLE AMONG THOSE RECOMMENDED BY THE MANUFACTURER
- REINFORCE OPENINGS: ANY OPENING IN MASONRY WALLS, FLOORS OR ROOF STRUCTURE IS TO BE REINFORCED WITH STEEL LINTELS AND/ OR FRAMING. THIS INCLUDES BUT IS NOT LIMITED TO OPENINGS FOR DUCTS, GRILLES, OTHER HVAC RELATED OPENINGS, FOR ELECTRICAL CONDUITS/ EQUIPMENT, DOORS AND OTHER SUCH PENETRATIONS OF EXISTING CONSTRUCTION. CONTACT THIS OFFICE IMMEDIATE
- IN WRITING FOR ANY SUCH OPENINGS WHERE LINTEL SIZE IS NOT INDICATED. SUPPORT FOR WALL MOUNTED ITEMS: AT EVERY WALL MOUNTED ITEM INDICATED, PROVIDE CMU OR METAL FRAMED PARTITION INDICATED ON PLAN BRACED TO STRUCTURE AND WITH CONCEALED FIRE APPLIED AT ANY LOCATION ON THE ITEM. REMOVE EXISTING GYPSUM BOARD AS REQUIRED TO INSTALL BLOCKING. AFTER BLOCKING IS INSTALLED, PATCH AND FINISH GYPSUM BOARD TO MATCH EXISTING
- CONSTRUCTION. ACCESS DOORS/ PANELS IN GYPSUM BOARD CONSTRUCTION ARE TO HAVE A "MUD" FLANGE WHICH IS TO BE CONCEALED UPON THE INSTALLATION OF THE ACCESS DOOR/ PANEL WITH COORDINATE PARTITION FRAMING: NO FRAMING FOR ANY PARTITION IS TO BE ATTACHED TO ANY DUCTWORK OR OTHER MECHANICAL OR ELECTRICAL ITEM. WHERE DUCTWORK PREVENTS PARTITION FROM

ACCESS DOORS: PROVIDE HINGED STEEL CEILING AND/OR WALL MOUNTED ACCESS PANELS TO ACCESS CONCEALED MECHANICAL, ELECTRICAL, PLUMBING OR OTHER SUCH UTILITY ITEMS. GC TO

COORDINATE THE LOCATION OF SUCH ITEMS REQUIRING ACCESS DOORS AND SUBMIT TO AND OBTAIN ARCHITECT'S APPROVAL OF ACCESS DOORS / PANELS TYPES AND LOCATIONS PRIOR TO THE

- RUNNING STRAIGHT FROM SLAB, TO SLAB, THE FRAMING SHALL BE HEADED-OFF AND EXTENDED AROUND THE DUCTWORK, AND BRACED TO THE ADJACENT STRUCTURE AS REQUIRED TO MEET THE DEFLECTION LIMITATIONS NOTED IN THE GENERAL PARTITION NOTES LISTED ELSEWHERE IN THIS DRAWINGS.
- UNDERCUT EXISTING DOORS: UNDERCUT EXISTING UNLABELLED DOORS AS REQUIRED TO CLEAR FINISH FLOOR MATERIALS PROVIDED UNDER THIS CONTRACT. AA. SAFETY GLAZING: PROVIDE TEMPERED GLASS TO MEET CURRENT IBC STANDARDS IN EXISTING GLAZED OPENINGS WHERE REQUIRED BY CODE AND IN ANY NEW GLAZED OPENINGS AND/ OR DOOR VISION

RESULT OF OUR AGREEMENT WITH OUR CLIENT OR FOR THE PERFORMANCE OR NON-PERFORMANCE OF ARCHITECTURAL SERVICES ON THIS PROJECT

- IB. DUCTWORK: DUCTWORK SHALL BE INSTALLED ABOVE THE LEVEL OF THE CEILING AND ITS FRAMING AND ABOVE THE TOPS OF RECESSED LIGHT FIXTURES AND OTHER ITEMS RECESSED INTO THE CEILING. DUCTWORK LOCATIONS MUST BE COORDINATED WITH THE LOCATIONS OF OTHER ITEMS AND ASSEMBLIES LOCATED IN THE CEILING SPACE.
- C. MECHANICAL COORDINATION: PRIOR TO PURCHASE AND OR FABRICATION OF DUCTWORK OR PIPING. CONTRACTOR SHALL COORDINATE THE LOCATIONS OF CEILING DIFFUSERS, SPRINKLER HEADS AND OTHER MECHANICAL ITEMS IN THE CEILING SPACE WITH THE LOCATIONS OF WALLS, LIGHTS AND STRUCTURAL MEMBERS. REFLECT SUCH COORDINATION ON SHEET METAL SHOP DRAWINGS. AD. SERVICES OF *BATES* ARCHITECTS: THE SERVICES OF THIS OFFICE ARE LIMITED TO THOSE NOTED IN OUR AGREEMENT WITH OUR CLIENT. THESE SERVICES ARE BEING PERFORMED SOLELY FOR THE BENEFIT OF OUR CLIENT. NO OTHER PERSON OR ENTITY SHOULD RELAY UPON OUR PERFORMANCE OF THESE SERVICES TO OUR CLIENT, AND NO CLAIM AGAINST THIS OFFICE SHALL ACCRUE TO ANY THIRD PARTY AS A
- AE. REVIEW OF CONTRACT DOCUMENTS: THE CONTRACTOR SHALL BE LIABLE FOR DAMAGE RESULTING FROM ERRORS, INCONSISTENCIES, OR OMISSIONS INCLUDING BUT NOT LIMITED TO DIMENSIONS AND Quantities, when such deficiencies could have been detected by the contractors' drawing check and/ or shown drawing preparation.
- AUTHORIZATION/ NOTICE TO PROCEED: NO WORK OR SERVICES OF ANY TYPE IS TO BE PERFORMED UNLESS AUTHORIZED IN WRITING BY THE OWNER. BY FORWARDING REVISED DRAWINGS, SKETCHES, OR OTHER WRITTEN OR VERBAL COMMUNICATIONS TO THE CONTRACTOR, THIS OFFICE IS NOT AUTHORIZING ANY CHANGE TO THE SCOPE OF THE OWNER-CONTRACTOR AGREEMENT OR TO THE COMPENSATION DUE TO THE CONTRACTOR. SUCH AUTHORIZATION CAN BE ONLY BE ISSUED BY THE OWNER.
- AG. PROTECTION OF FIRE RATED ASSEMBLIES: ALL OPENINGS IN FIRE RATED ASSEMBLIES (INCLUDING BUT NOT LIMITED TO WALLS, FLOORS, AND CEILINGS) SHALL BE PROTECTED WITH UL LABELED OR WHI CERTIFIED FIRE RATED OPENING PROTECTIVES THAT ARE EQUAL TO OR EXCEED THE FIRE RATING OF THE ASSEMBLY IN WHICH THE OPENING IS LOCATED. THIS INCLUDES BUT IS NOT LIMITED TO DOORS, WINDOWS, FIRE MPERS, DIFFUSERS, GRILLES, REGISTERS, AND OTHER SUCH ITEMS. ALL PENETRATIONS OF FIRE RATED CONSTRUCTION ASSEMBLIES BY PIPING, DUCTS, CABLES, WIRES, CONDUITS, BUSWAYS AND OTHER SUCH ITEMS ARE TO BE PROTECTED IN ACCORDANCE WITH THE SYSTEMS IN THE CURRENT UL FIRE RESISTANCE DIRECTORY FOR THE PENETRATING ITEM AND ASSEMBLY BEING PENETRATED. THE RATING OF THE PENETRATION PROTECTIVE DEVICE/ SYSTEM MUST EQUAL OR EXCEED THE FIRE RATING OF THE ASSEMBLY IN WHICH THE PENETRATION IS LOCATED. GC TO SELECT SYSTEM BASED ON EXISTING FIRE RATED ASSEMBLY AND TYPE OF ITEM PENETRATING ASSEMBLY. GC TO SUBMIT SYSTEM TO ARCHITECT/ ENGINEER FOR APPROVAL. THIS ALSO APPLIES WHEN PATCHING AN ABANDONED PENETRATION OF A FIRE
- AH. FIRE PROTECTION SYSTEMS: MODIFY EXISTING SYSTEMS AS NOTED BELOW. DETAILED SYSTEM DESIGN TO BE PERFORMED BY THE INSTALLING SUBCONTRACTORS OF THOSE SYSTEMS INCLUDING BUT NOT MITED TO PROVIDING PROFESSIONAL ENGINEER CERTIFIED DRAWINGS. ALL MODIFICATIONS AND WORK TO BE IN ACCORDANCE WITH THE ADOPTED CODES AND REGULATIONS OF THE LOCAL JURISDICTIO AND THE IBC. IN GENERAL DEVICES, METHODS, MATERIALS AND WORKMANSHIP TO BE AT LEAST EQUAL TO AND COMPATIBLE WITH EXISTING ITEMS EXCEPT AS NOTED BELOW: -THE EXISTING WET PIPE SYSTEM SHALL BE MODIFIED TO MEET CODE IN THE SUBJECT SUITE. JURISDICTIONAL APPROVAL OF CHANGES REQUIRED
- -PROVIDE STROBES AND AUDIBLE DEVICES IN ALL SPACES IN THE PROJECT AREA AS REQUIRED BY CURRENT LOCAL CODES AND IBC REGULATIONS. MODIFY THE EXISTING BASE BUILDING FIRE ALARM CONTRO PANEL TO ACCOMMODATE SUCH DEVICES IF REQUIRED.
- -FIRE ALARM AND SMOKE DETECTION SYSTEM TO BE ADDRESSABLE DIGITAL SYSTEMS. MODIFY AS REQUIRED BY CODE AND FIRE MARSHAL -FIRE EXTINGUISHERS TO BE PROVIDED BY THE TENANT WITHIN THE SUITE.

COMMON PATH OF TRAVEL REQUIRED/PROVIDED

MAXIMUM DEAD END CORRIDOR

NUMBER OF DEAD END CORRIDORS

TRAVEL DISTANCE LIMIT REQUIRED/PROVIDED

MAJOR DIAGONAL/EXIT SEPARATION DISTANCE

FLOOR AREA

- AI. PROVIDE: AS USED IN THESE DOCUMENTS. THE TERM "PROVIDE" MEANS TO FURNISH AND INSTALL.
- I. ROOFING: UNLESS OTHERWISE NOTED OR SHOWN ON THESE DRAWINGS. ALL ROOFING WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL ROOFING CONTRACTORS' ASSOCIATION DETAILS FOR THE TYPE OF EXISTING ROOF PRESENT, AND IN ACCORDANCE WITH THE STANDARD DETAILS OF THE MANUFACTURER OF THE EXISTING ROOFING SYSTEM. IN CASE OF CONFLICT, THE MANUFACTURER'S STANDARD DETAILS WILL APPLY. ROOFING WORK SHALL BE PERFORMED BY FULL-TIME MECHANICS WITH A MINIMUM OF FIVE YEARS FULL-TIME EXPERIENCE IN ROOFING WORK.
- AK. PENETRATIONS: ANY PENETRATIONS OF THE BUILDING EXTERIOR WALLS ARE TO BE NEATLY MADE AND AS SMALL AS POSSIBLE. SUCH PENETRATIONS SHALL BE SEALED WEATHER AND WATER TIGHT USING PONGE TYPE DAM AND TREMCO DYMERIC SEALANT OR APPROVAL EQUAL. COLOR TO BE SELECTED BY ARCHITECT. SEALANT SHALL BE INSTALLED PER SEALANT MANUFACTURER'S WRITTEN RECOMMENDATIONS. JOINT SIZE SHALL NOT EXCEED LIMITS RECOMMENDED BY SEALANT MANUFACTURER. IL. TEMPORARY PROTECTION: PROVIDE TEMPORARY PROTECTION AS REQUIRED TO PROTECT ALL EXISTING INTERIOR AND FINISHES FROM CONSTRUCTION OPERATIONS. REPAIR ANY AND ALL DAMAGE CAUSED B'
- AM. AS-BUILT DRAWINGS: AT PROJECT COMPLETION, GC TO FURNISH ONE ORIGINAL AND TWO COPIES OF AS-BUILT DRAWINGS. SUCH DRAWINGS ARE TO BE BASED ON THE SUPERINTENDENT'S RED-MARKED FIELD SET OF DRAWINGS INDICATING WHERE ACTUAL CONSTRUCTION OR EXISTING CONDITIONS HAVE VARIED FROM THE CONTRACT SET OF DRAWINGS. THE FIELD SET OF DRAWINGS IS TO BE UPDATED A
- AN. SECURITY: COMPLY FULLY WITH LANDLORD'S SECURITY REQUIREMENTS INCLUDING BUT NOT LIMITED TO ADVANCE NOTICE OF CONSTRUCTION OPERATIONS AND ADVANCE IDENTIFICATION IN WRITING OF ALL CONSTRUCTION PERSONNEL. USE OF TOBACCO, ALCOHOL AND ILLEGAL DRUGS AT ANYTIME ON THE PREMISES (MEANING IN THE BUILDINGS OR ON THE PROPERTY) AND CARRYING OF ANY WEAPON A

IBC TABLE 1017.2, NFPA TABLE A7.6

IBC 1007.1.1 EXC. #2, NFPA 7.5.1.3.3

N/A

AO. EXISTING DEMISING WALLS: GENERAL CONTRACTOR SHALL VERIFY IN FIELD THAT THE EXISTING DEMISING WALLS ARE SLAB-TO-SLAB AND SMOKE-TIGHT. REPAIR OR REPLACE AS REQUIRED.

APPROVED Montgomery County listoric Preservation Commission REVIEWED By Chris Berger at 2:56 pm, Mar 26, 2024

TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVE, TAKOMA PARK, MARYLAND 20912



BATES ARCHITECTS 121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446

WEB WWW BATESARCHITECTSPC COM

PROFESSIONAL CERTIFICATION

APPROVED BY ME, AND THAT I AM DULY

LICENSED ARCHITECT UNDER THE LAWS

OF THE STATE OF MARYLAND, LICENSE

EXPIRATION DATE: APRIL 14, 2026.

I, CLIFFORD BATES, CERTIFY THAT THIS

DOCUMENT WAS PREPARED OR

NUMBER: 5933A,

PROJECT INFORMATION **JURISDICTION**

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES 2425 REEDIE DR., 7TH FLOOR WHEATON, MD 20902 240-777-0311

BUILDING CODE

2018 INTERNATIONAL BUILDING CODE (IBC 2018 INTERNATIONAL PLUMBING CODE (IPC) 2018 INTERNATIONAL MECHANICAL CODE (IMC) 2018 INTERNATIONAL FUEL/GAS CODE (IFGC) 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018 INTERNATIONAL EXISTING BUILDING CODE (IEBC) 2015 INTERNATIONAL GREEN CONSTRUCTION CODE (IGCC) 2010 AMERICANS WITH DISABILITIES ACT COMOR 09.12.53 MARYLAND ACCESSIBILITY CODE

2018 NFPA 1 FIRE CODE 2018 NFPA 101 LIFE SAFETY CODE 2013 NFPA 13, 13R, 13D FIRE SPRINKLER CODES 2013 NFPA 72 FIRE ALARM CODE 2017 NFPA 70 NATIONAL ELECTRICAL CODE MONTGOMERY COUNTY AMENDMENTS

EXISTING USE: M - MERCANTILE /

ABBREVIATIONS

ALTERNATE ALTERNATE CURRENT

EACH ELECTRIC, ELECTRICAL

EMERGENCY POWER

EXISTING FLOOR

M/B/S-2

300' / NO CHANGE

6,901 TOTAL SF

ENGINEER ENGK ELECTRIC WATER COOLER EWC

S-2 - LOW HAZARD STORAGE / B - BUSINESS

BUILDING CONSTRUCTION TYPE

EXTINGUISHER CAB.

JÚNČTION BOX

MISCELLANEOUS MOUNTED

EXISTING SPACE

M/B/S-2

300' / 82'-5"

136'-0 1/4"/114'-11 3/4"

5,546 SF [FIRST FLOOR] + 1,355 SF [PARTIAL BASEMENT] = | 5,546 SF [FIRST FLOOR] + 1,355 SF [PARTIAL BASEMENT] = | 5,546 SF [FIRST FLOOR] + 1,355 SF [PARTIAL BASEMENT] =

6,901 TOTAL SF

'VB" CONSTRUCTION. UNPROTECTED WOOD FRAME, 2 STORY BUILDING

PERFORMED

BUILDING OWNER R&D TURNER FAMILY LLC 18341 CARRICO MILLS ROAD STEVENSBURG, VA 22741 301-891-2667

PROPERTY MNGR. TAKOMA PARK SILVER SPRING CO-OP 201 ETHAN ALLEN AVE,

PROJECT TEAM

301-891-2667 TENANT TAKOMA PARK SILVER SPRING CO-OP

TAKOMA PARK, MD 20912

201 ETHAN ALLEN AVE,

TAKOMA PARK, MD 20912 301-891-2667 STRUCTURAL

SK&A STRUCTURAL ENGINEERS, PLLO

1155 CONNECTICUT AVE NW #800

202-659-2520 BATES ARCHITECTS, LLC

301-644-0444 MEP ENGINEER

121 NORTH COURT STREET

FREDERICK, MD 21701

ASTIC LAMINATE

QUARRY TILI

ROUGH OPENING

LYVINYL CHLORIDE

OUNDS/SQUARE INCH

CJL ENGINEERING 5285 WESTVIEW DR., SUITE 203 FREDERICK, MD 21703 (301) 695-9424

O BE SELECTED ONGUE & GROOVE

WALLBOARD WELDED WIRE FABRIC

SCOPE OF WORK

M/B/S-2

1 (2 STORY BUILDING)

300'-0" / 75'-10"

136'-10 3/8" / 111'-8 1/8"

6,901 TOTAL SF

VERTICAL

DESCRIPTION OF WORK TO BE

GENERAL - INTERIOR ALTERATION OF INTERIOR MERCANTILE SPACES GROCERY SALES, FOOD STORAGE AND PROCESSING, & SUPPORT SPACE AND PREPARATION/STORAGE SPACES, OF AN EXISTING FOOD CO-OP. DEMOLITION WORK TO INCLUDE INTERIOR WALLS, DOORS, LIGHTING, POWER, & ROOFTOP EQUIPMENT. NEW WORK IS COMPRISED OF NEW WALLS, DOORS, CEILINGS AND LIGHTING, POWER, BUILT IN MILLWORK, FINISHES, GROCERY EQUIPMENT, AND ROOFTOP EQUIPMENT.

STRUCTURAL - STRUCTURAL REINFORCEMENT DESIGN WILL BE PROVIDED AND COMPRISED OF SELECTIVE DEMOLITION OF EXISTING CEILING FOR REINFORCEMENT OF EXISTING ROOF TRUSSES AS REQUIRED FOR NEW ROOFTOP LOADS.

MECHANICAL - NEW MECHANICAL DESIGN WILL BE PROVIDED AND COMPRISED OF NEW/EXISTING/RELOCATED RETURN & SUPPLY GRILLES COORDINATED WITH NEW CEILING GRID. NEW ROOFTOP UNITS AND CONNECTIONS.

PLUMBING - NEW OR MODIFIED PLUMBING WILL BE PROVIDED AND

INSTALLED INCLUDING MOP SINKS, PUBLIC AND EMPLOYEE RESTROOM FIXTURES, DRINKING FOUNTAINS, FOOD PREP EQUIPMENT AND DISPLAY ELECTRICAL - NEW ELECTRICAL DESIGN WILL BE PROVIDED AND COMPRIS

OF NEW SERVICE EQUIPMENT, EMERGENCY POWER, NEW/EXISTING/RELOCATED WALL/FLOOR OUTLETS & LIGHTING FIXTURES SWITCHING AND CONTROLS, AND EQUIPMENT CONNECTIONS. SPRINKLER - N/A

NOTES

SYMBOLS

FIRE ALARM - N/A

THIS IS A NON- SEPARATED MIXED USE OCCUPANCY PER IBC 2018 508.4 PER IBC 2018 TABLE 506.2 (CONSTRUCTION TYPE VB, NON-SPRINKLERED (B): 9,000 SQUARE FOOT MAX MERCANTILE (M): 9,000 SQUARE FOOT MAX (S-2): 13,500 SQUARE FOOT MAX STORAGE

THIS BUILDING IS 6,899 GROSS SQUARE FOOT

EXISTING WAL

DEMO WALL

EXISTING DOOR

DEMO DOOR

NEW DOOR

2X4 LIGHT

2X2 LIGHT

LINEAR SUPPLY DIFFUSER

DEMO CEILING GRID & TILE

SUPPLY DIFFUSER

RETURN GRILLE

NEW WAL

GENERAL:

CS1.0 - COVER SHEET & DATA CS1.1 - EGRESS PLAN & CALCS STRUCTURAL:

S-1.4 ROOF FRAMING PLAN

DRAWING LIST

ARCHITECTURAL: A1.0 DEMOLITION PLAN & REFLECTED CEILING DEMOLITION PLAN A1.1 NEW WORK PLAN & NEW EQUIPMENT PLAN

A1.2 NEW REFLECTED CEILING PLAN & NEW POWER/DATA PLAN **MECHANICAL:** M0.1 MECHANICAL COVER SHEET M1.0 FIRST FLOOR DEMOLITION

PLAN-MECHANICAL M1.1 PARTIAL BASEMENT DEMOLITION PLAN-MECHANICAL M1.2 ROOF DEMOLITION

PLUMBING: PO.1 PLUMBING COVER SHEET P1.0 FIRST FLOOR DEMOLITION PLAN-PLUMBING P1.1 BASEMENT DEMOLITION

PLAN-PLUMBING **ELECTRICAL:** E-0.1 ELECTRICAL COVER SHEET E-1.0 FIRST FLOOR DEMOLITION PLAN-ELECTRICAL

E-1.1 BASEMENT FLOOR DEMOLITION E-2.0 FIRST FLOOR PLAN-LIGHTING E-2.1 BASEMENT FLOOR PLAN-LIGHTING ALTERNATE

NEW CEILING GRID & TILE

NEW GYPBOARD CEILING

THERMOSTAT

EMERGENCY CIRCUIT

NEMA RECEPTACLE

RECESSED DOWN LIGHT

LINEAR LIGHT FIXTURE

CEILING MOUNTED LIGHT

CARD READER (BY TENANT)

EXIT SIGN

FIRE RESISTANCE RATING OF STRUCTURAL ELEMENTS

BASE SHELL BUILDING, SEE 2018 IBC TABLE 601 U.N.O.

① ① JUNCTION BOX

 \mathbb{H}

 \oplus \Box

A2.0 INTERIOR ELEVATIONS & DETAILS _____ 3 5/8" METAL STUD M2.0 FIRST FLOOR PLAN-MECHANICAL _____5/8" GYPSUM M2.1 PARTIAL BASEMENT FLOOR BASE- SEE SCHEDULE - FLOOR TRACK SECURE M5.1 MECHANICAL DETAILS SHEET M7.1 MECHANICAL SCHEDULES SHEET ROD BOTH SIDES

WALL TYPES

P2.0 FIRST FLOOR PLAN-PLUMBING P2.1 BASEMENT PLAN-PLUMBING P7.1 PLUMBING DETAILS

A1.3 SCHEDULES, NOTES & FINISH PLAN

A1.4 ROOF DEMOLITION PLAN & NEW

A2.1 ELEVATIONS & DETAILS

M2.2 ROOF PLAN-MECHANICAL

PLAN-MECHANICAL

E-3.0 FIRST FLOOR PLAN-POWER & DATA

ROOF PLAN

E-3.1 BASEMENT FLOOR PLAN-POWER & E-3.2 ROOF PLAN - POWER & DATA E-6.1 ELECTRICAL DETAILS E-7.1 ELECTRICAL SCHEDULES

WALL TAG

EXISTING

RELOCATED

KEYED NOTE

DOOR TAG

ROOM TAG

CEILING HEIGHT TAG

RATING

UL. NO.

201

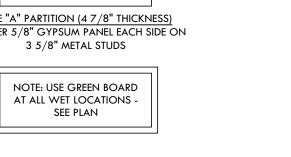
CLNG

RM #

FLOOR BASE

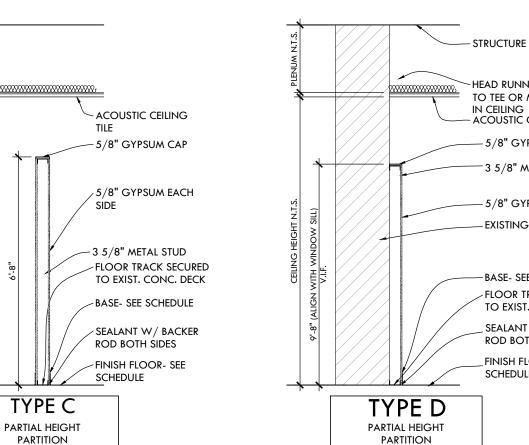
DEMO

TO EXIST. CONC. DECK -FINISH FLOOR- SEE SCHEDULE TYPE A FLOOR TO CELLING PARTITION - STANDARD TYPE "A" PARTITION (47/8" THICKNESS) 1 LAYER 5/8" GYPSUM PANEL EACH SIDE OF 3 5/8" METAL STUDS NOTE: USE GREEN BOARD AT ALL WET LOCATIONS -SEE PLAN



HEAD RUNNER ATTACHED

TO TEE OR METAL STUD



GENERAL NOTES:

KEY PLAN (NTS)

ALL WET WALLS OR ANY UNITS IN FRONT OF GYPSUM BOARD SHALL RECEIVE GREEN BOARD.

FLOOR TO CEILING PARTITION ype "b" partition (7" thickness) 1/2" GYPSUM BOARD EACH SIDE ON 6 METAL STUDS - STRUCTURE ABOVE HEAD RUNNER ATTACHED TO TEE OR METAL STUD - ACOUSTIC CEILING TILE - 5/8" GYPSUM -3 5/8" METAL STUD -5/8" GYPSUM - EXISTING EXTERIOR WALL — BASE- SEE SCHEDULE FLOOR TRACK SECURED SEALANT W/ BACKER TPSS CO-OP **ROD BOTH SIDES** FINISH FLOOR- SEE PARTITION

— STRUCTURE ABOVE

HEAD RUNNER ATTACHED

TO TEE OR METAL STUD

_____6" METAL STUD @ 16" OC

-BASE- SEE SCHEDULE

FLOOR TRACK SECURED

TO EXIST. CONC. DECK

SEALANT W / BACKER

FINISH FLOOR- SEE

SCHEDULE

__1/2" GYPSUM EACH SIDE

-1 LAYER 5/8" GYPSUM BOARD EACH SIDE ON 3 5/8"

METAL STUDS

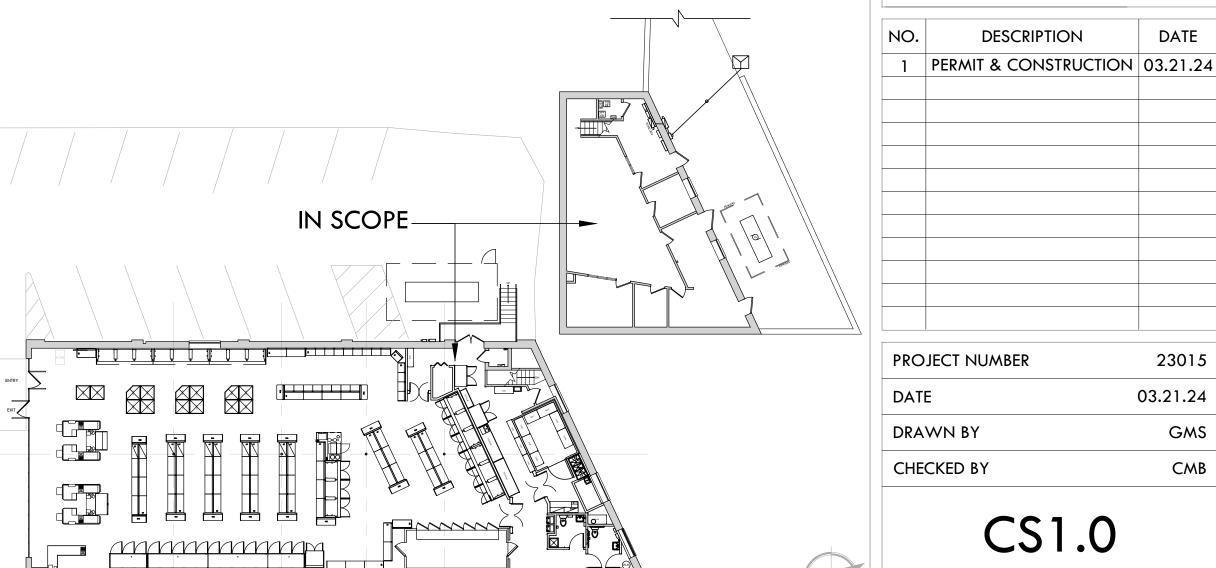
COVERSHEET &

1 LAYER 5/8" GYPSUM BOARD ON 3 5/8" METAL

NOTE: USE GREEN BOARD

AT ALL WET LOCATIONS -

SEE PLAN



201 ETHAN ALLEN AVENUE

TAKOMA PARK, MARYLANI

DATE

23015

03.21.24

 CMB

© 2024 - BATES ARCHITECTS LLC

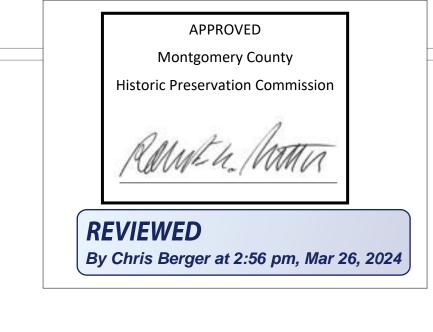
CURRENT CODE INFORMATION: CODE (2018 IBC / NFPA 101) OCCUPANCY CLASSIFICATION IBC 304, NFPA 6.1.11

CONSTRUCTION TYPE IBC TABLE 601 1 (2 STORY BUILDING) 1 (2 STORY BUILDING) NUMBER OF STORIES ABOVE GRADE IBC TABLE 504.3 IBC TABLE 403, NFPA 11.8 HIGH RISE (Y/N)COVERED MALL (Y/N) IBC 402, NFPA 3.3.169 FIRE ALARM (Y/N) 1BC 907.2, NFPA 9.6 1BC 907.5.2.1, NFPA 9.6.7 VOICE EVACUATION SYSTEM (Y/N) SMOKE EVACUATION SYSTEM (Y/N) IBC 404.5, NFPA 8.6.7 FULLY SPRINKLERED & MONITORED (Y/N) IBC CH. 9, NFPA CH. 39 Ν STANDPIPE (Y/N) IBC905, NFPA 9.10 ATRIUM (Y/N)IBC 404, NFPA 3.3.27

IBC TABLE 1006.2.1, NFPA TABLE A.7.6 100'-0" / 27'-8" 100'-0" / 22'-9" 100'-0" / NO CHANGE 50'-0" / NO CHANGE IBC CH. 10, NFPA CH. 7 50'-0" / NO CHANGE 50'-0" / NO CHANGE IBC 1020.4 EXC. #2, NFPA TABLE A.7.6 N/A

EXTERIOR WALLS - NON LOAD BEARING O HR N/A INTERIOR WALLS - NON LOAD BEARING O HR N/A FIRE SEPARATION WALLS N/A N/A FIRE ENCLOSURE OF EXIT STAIRS (2018 IBC SECTION 1023.2) N/A EXIT ENCLOSURE (2018 IBC SECTION 1024.3) N/A SHAFT ENCLOSURES CONNECTING 4+ STORIES (2018 IBC SECTION 713.4) SHAFT ENCLOSURES CONNECTING FEWER THAN 4 STORIES (2018 IBC SECTION 713.4) N/A INTERIOR LOAD BEARING WALLS, COLUMNS STRUCTURAL MEMBERS SUPPORTING WALLS 0 HR FLOOR CONSTRUCTION INCLUDING BEAMS ROOF CONSTRUCTION 15' OR LESS TO LOWEST MEMBER O HR N/A ROOF CONSTRUCTION 15' OR MORE O HR N/A CORRIDOR WALLS O HR N/A TENANT SEPARATION WALLS O HR N/A 1.5 & 2 HR (F RTG) C-AJ-5303 THROUGH-PENETRATION FIRESTOP SYSTEMS 0.5 & 1 HR (T RTG)

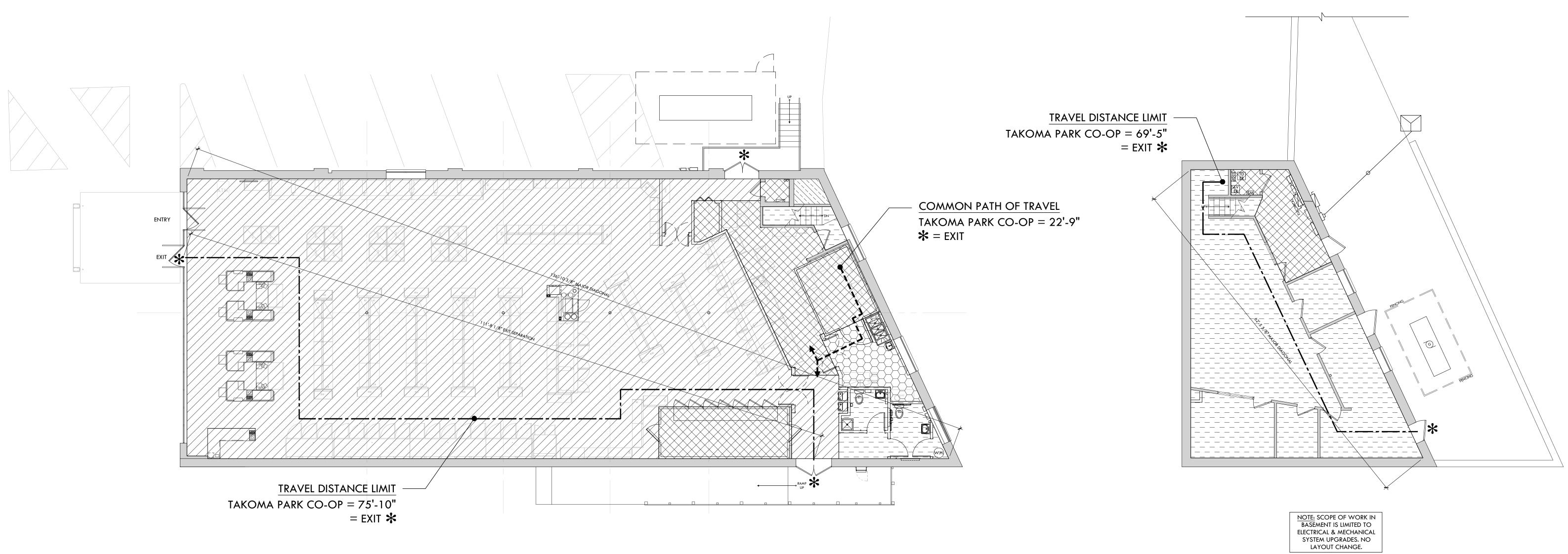
ALLOWABLE COMBUSTIBLE MATERIALS IN TYPE I/II CONSTRUCTION (IBC 2018 603.1) = SEE CODE FOR MATERIAL CLASSIFICATION REQUIREMENT FLAME SPREAD RATINGS, INTERIOR WALL & CEILING FINISHES (IBC 2018 TABLE 803.13 & 2015 NFPA 101 TABLE A.10.2.2) = CLASS C FLAME SPREAD RATINGS, INTERIOR FLOOR FINISHES (IBC 2018 TABLE 804 & 2015 NFPA 101 TABLE A.10.2.2) = CLASS II FLAME SPREAD RATINGS, CONTENTS & FURNISHINGS (2015 NFPA 101 CHAPTER 10.3) = MEETS SECTION





PROFESSIONAL CERTIFICATION

I, CLIFFORD BATES, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER: 5933A, EXPIRATION DATE: APRIL 14, 2026.



EGRESS PLAN - GROUND FLOOR
SCALE: 1/8"=1'-0"

2 EGRESS PLAN - BASEMENT
SCALE: 1/8"=1'-0"

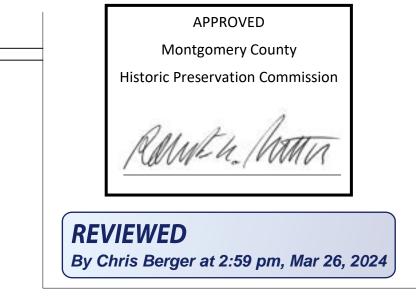
EGRESS PLAN LEGEND	PLUMBING FIXTURE CALCULATIONS (OCCUPANCY T)	$\frac{\text{YPE M/B/S-2)}}{\text{EGRESS CALCULATIONS (OCCUPANCY)}}$	TYPE M/B/S-2)	-		
	PLUMBING CALCULATIONS FOR FIRST FLOOR:	USE/FUNCTION TYPE	AREA (SF)	SF PER	OCCUPANT	- TP
MERCANTILE OCCUPANT LOAD (60sf / PERSON GROSS)	OFFICE USE = $228 \text{ SF} / 150 \text{ SF/OCC} = 1.52^{\text{A}} = 2 \text{ OCCUPANTS}$ MERCANTILE = $4,498 \text{ SF} / 60 \text{ SF/OCC} = 74.96^{\text{A}} = 75 \text{ OCCUPANTS}$	TAKOMA PARK CO-OP - FIRST FLOOR		OCCOLAINI	LOAD	RE
	KITCHEN = $138 \text{ SF} / 200 \text{ SF/OCC} = 0.69^{\text{A}} = 1 \text{ OCCUPANT}$ STORAGE = $653 \text{ SF} / 300 \text{ SF/OCC} = 2.17^{\text{A}} = 3 \text{ OCCUPANTS}$		228	150	2	4 - ` -
	TOTAL # OF OCCUPANTS - FIRST FLOOR = $2+75+1+3=81$ OCCUPANTS			60	75	+
BUSINESS OCCUPANT LOAD (130st / PERSON GROSS)				200	1	-
	PLUMBING CALCULATIONS FOR EXISTING ADMIN SPACE (PARTIAL BASEMENT):				3	1
KITCHEN OCCUPANT LOAD (200sf / PERSON GROSS)	OFFICE USE = $1,192 \text{ SF} / 150 \text{ SF/OCC} = 7.94^{\circ} = 8 \text{ OCCUPANTS}$ STORAGE = $163 \text{ SF} / 300 \text{ SF/OCC} = 0.54^{\circ} = 1 \text{ OCCUPANT}$		29	0	0	7
	TOTAL # OF OCCUPANTS - PARTIAL BASEMENT = 8+1 = 9 OCCUPANTS		5,546		81	20
						TAI
STORAGE OCCUPANT LOAD (300sf / PERSON GROSS)	TOTAL # OF OCCUPANTS - TOTAL BUILDING = $81+9=90$ OCCUPANTS TOTAL		1,192	150	8	41
	WATER CLOSET COUNT			300	1	1
UNOCCUPIABLE AREA (0sf / PERSON NET)	MEN: (1 FIXTURE PER 500 OCC REQUIRED) = $45/500 = 0.09$	EXISTING ADMIN. SPACE TOTALS			9	-
	WOMEN: (1 FIXTURE PER 500 OCC REQUIRED) = $45/500 = 0.09$ REQUIRED: 0.09 MEN + 0.09 WOMEN = $0.18^{\circ} = 1$ WATER CLOSET	TOTAL BUILDING SE				
	PROVIDED: 2 WATER CLOSETS		6901 SE		90	4 .
	LAVATORY:		0701 61			■ PL
	MEN: (1 FIXTURE PER 750 OCC REQUIRED) = $45/750 = 0.06$					4
	REQUIRED: $0.06 \text{ MEN} + 0.06 \text{ WOMEN} = 0.12^{\text{A}} = 1 \text{ LAVATORY}$				2	- L
	PROVIDED: 2 LAVATORIES				22' 0"	-
	DRINKING FOUNTAIN: 90 OCC (1 FIXTURE PER 1,000 REQUIRED = 90/1,000 = 0.09				22-7	NO.
	REQUIRED: $0.09^{A} = 1$ drinking fountain provided: 1 drinking fountain					4 1
	OTHER				2	-
	REQUIRED: 1 SERVICE SINK PROVIDED: 1 SERVICE SINK				3 4.4"AAINI	-
						1
						-
						_
						-
					_	_
						-
			ASEMENT) (9 OCC.)		77	d
					1	1
					1	-
					36"MIN.	PRC
						DAT
		REQUIRED TOTAL WIDTH OF DOORS @ EGRESS COMPONENTS (IBC 1005.3.2)			1.8"MIN.	DRA
		PROVIDED TOTAL WIDTH OF DOORS @ EGRESS COMPONENTS			34"	CHE
		REQUIRED MIN. WIDTH OF CORRIDOR (IBC 1020.2)				
						\dashv
		REQUIRED MIN. WIDTH OF CORRIDOR (PER TOTAL OCCUPANTS)			1.8"MIN.	
	MERCANTILE OCCUPANT LOAD (60sf / PERSON GROSS) BUSINESS OCCUPANT LOAD (150sf / PERSON GROSS) KITCHEN OCCUPANT LOAD (200sf / PERSON GROSS) STORAGE OCCUPANT LOAD (300sf / PERSON GROSS) UNOCCUPIABLE AREA (0sf / PERSON NET)	MERCANTILLE OCCUPANT LOAD (60H / PERSON GROSS) MERCANTILLE OCCUPANT LOAD (150H / PERSON GROSS) BUSINESS OCCUPANT LOAD (150H / PERSON GROSS) BUSINESS OCCUPANT LOAD (150H / PERSON GROSS) RICHEN OCCUPANT LOAD (150H / PERSON GROSS) RICHEN OCCUPANT LOAD (150H / PERSON GROSS) RICHEN OCCUPANT LOAD (200H / PERSON GROSS) TOTAL E OF OCCUPANT - THE TROOP = 3*79*+143 = ET COLOMATS TOTAL E OF OCCUPANT - THE TROOP = 3*79*+143 = ET COLOMATS TOTAL E OF OCCUPANT - THE TROOP = 3*79*+143 = ET COLOMATS TOTAL E OF OCCUPANT - THE TROOP = 3*79*+143 = ET COLOMATS TOTAL E OF OCCUPANT - THE TROOP = 3*79*+143 = ET COLOMATS TOTAL E OF OCCUPANT - TOTAL BUILDING = ET +9 = 0 OCCUPANTS TOTAL E OF OCCUPANTS - TOTAL	### ### ### ### ### ### ### ### ### ##	### CHEMICAL PRICE STORY MINISTRE COLLEGE AND A PRICE STORY MINISTRE COLLEGE AND	Micros Part Grown Micr	######################################

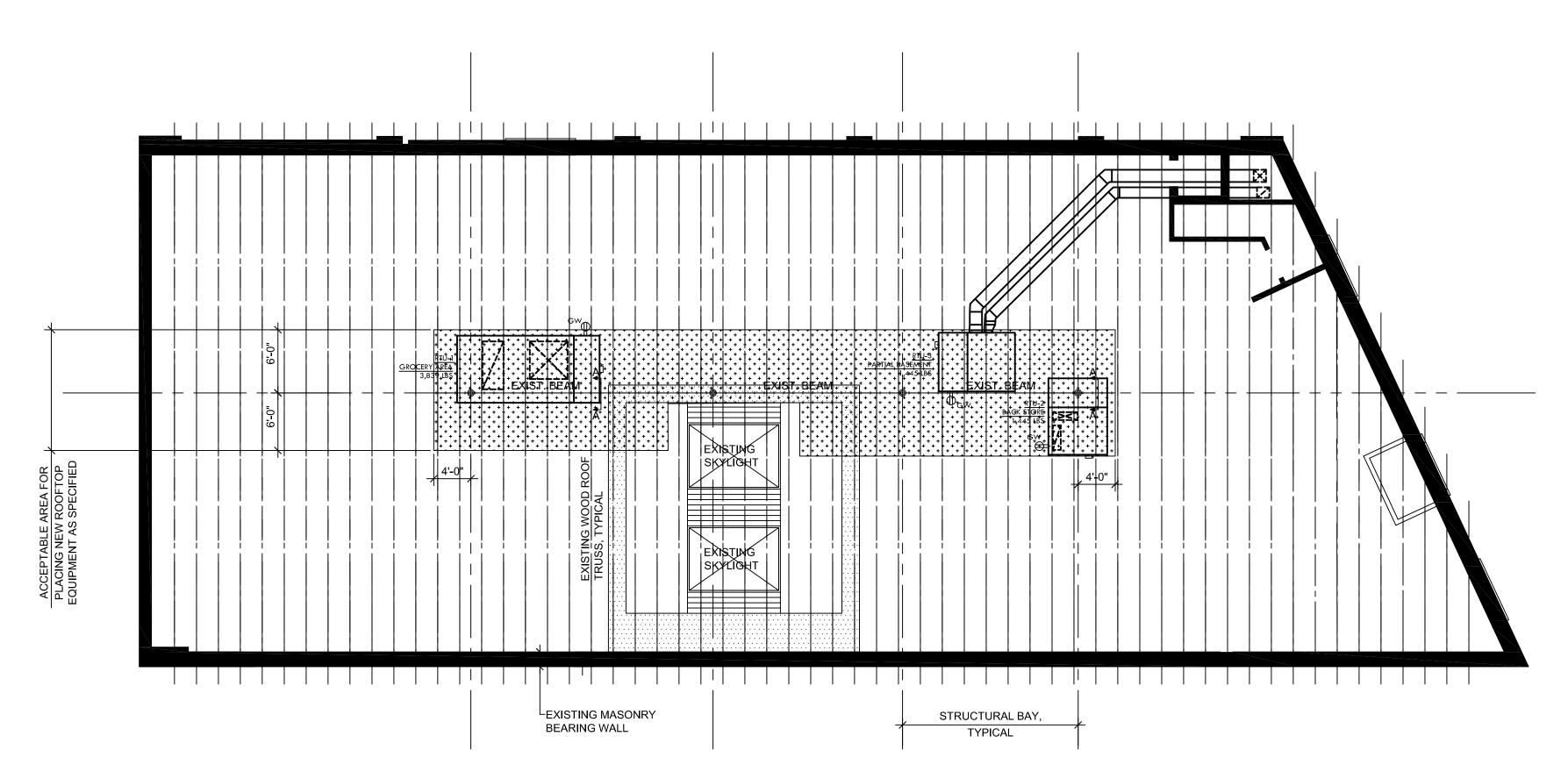
TPSS CO-OP RENOVATION

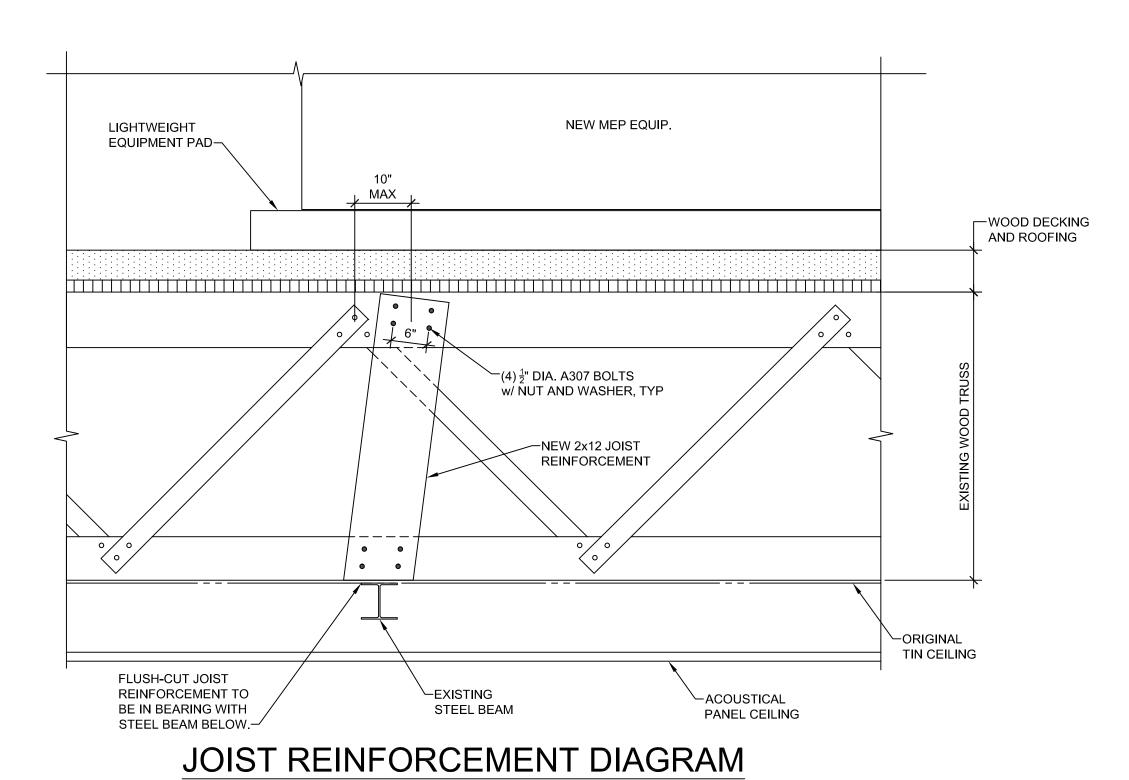
201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

EGRESS PLAN &
OCCUPANCY CALCS &
PLUMBING FIXTURE CALCS

NO.	DESCRIPTION	DATE
1	PERMIT & CONSTRUCTION	03.21.24
PRO	JECT NUMBER	23015
DAT	E	03.21.24
DRA	WN BY	GMS
CHE	CKED BY	CMB
	CS1.1	
	U 31.1	







NOTES: 1. PROVIDE TRUSS REINFORCEMENT FOR EACH TRUSS SUPPORTING NEW MECHANICAL LOADING.

2. BOTTOM OF NEW TRUSS WEB MEMBER IS TO ALIGN WITH STEEL BEAM LOCATION BELOW.

DESIGN CRITERIA CODES:

FLOOR LIVE LOAD (SECTION 1607)

STAIRS AND EXIT WAYS

INTERNATIONAL BUILDING CODE, 2018 EDITION (IBC-2018) AND COUNTY EXECUTIVE REGULATION 31-19.

<u>DESIGN LOADS</u> THE FOLLOWING DESIGN LOADS HAVE BEEN USED, AS SPECIFIED IN THE INTERNATIONAL BUILDING CODE, 2018 EDITION (IBC-2018), CHAPTER 16, SECTIONS 1603.1.1 THROUGH 1603.1.8, AND LOCAL AMENDMENTS WHERE APPLICABLE.

OFFICE FLOORS 100 PSF OR 2000 LBS CONCENTRATED RETAIL, 1ST FLOOR 100 PSF OR 1000 LBS CONCENTRATED

FLOORS ARE DESIGNED TO SUPPORT THE UNIFORMLY DISTRIBUTED LIVE LOADS OR CONCENTRATED LIVE LOADS NOTED ABOVE, WHICHEVER PRODUCES THE GREATER LOAD EFFECTS.

100 PSF, OR 300 LBS CONCENTRATED

LIVE LOAD REDUCTION: AS PER THE INTERNATIONAL BUILDING CODE REQUIREMENTS (SECTION 1607.11).

ROOF LIVE LOAD (NON-OCCUPIABLE PER SECTION 1607): UNIFORM LOAD

CONCENTRATED LOAD (TABLE 1607.1) 300 LBS MINIMUM.

FLAT ROOF SNOW LOAD (SECTION 1608) GROUND SNOW LOAD:

Ce = 0.9 (ASCE 7-16, TABLE 7.3-1, FULLY EXPOSED ROOF) EXPOSURE FACTOR IMPORTANCE FACTOR: I = 1.0 (ASCE 7-16, TABLE 1.5-2) THERMAL FACTOR Ct = 1.0 (ASCE 7-16, TABLE 7.3-2)

REQUIRED FLAT ROOF SNOW LOAD: Pf = 0.7(0.9)(1)(1)(30)=18.90 PSF <Pg * I = 30 PSF USED

WIND LOADS (SECTION 1609) ULTIMATE DESIGN WIND SPEED: V(ult) = 115 MPH (3-SECOND GUST, FIGURES 1609.3(1), (2), (3) & (4)) NOMINAL DESIGN WIND SPEED: V(asd) = 89 MPH (TABLE 1609.3.1) (IBC TABLE 1604.5; ASCE 7-16, TABLE 1.5-1) RISK CATEGORY

WIND EXPOSURE CATEGORY: EXPOSURE B (SECTION 1609.4) INTERNAL PRESSURE COEFFICIENT (ENCLOSED BUILDING): +/-0.18 (ASCE 7-16, TABLE 26.13-1)

EXISTING CONDITIONS

EXISTING FRAMING INCLUDING SLABS, BEAMS, COLUMNS, LINTELS, ANGLES, DECKING, TRUSSES AND BRACING TO REMAIN INTACT UNLESS SPECIFICALLY NOTED TO BE REMOVED BY MOST RECENT DEMOLITION DOCUMENTS OR OTHERWISE NOTED ON

INFORMATION PROVIDED ON THESE DRAWINGS RELATED TO EXISTING CONDITIONS IS BASED ON AVAILABLE DESIGN DOCUMENTS AND FIELD OBSERVATION. CONTACT STRUCTURAL ENGINEER UPON DISCOVERY OF ANY DISCREPANCY BETWEEN CONTRACT DRAWINGS AND ACTUAL EXISTING CONDITIONS.

THE PORTIONS OF THE BUILDING THAT ARE SHOWN TO BE STRUCTURALLY MODIFIED HAVE BEEN DESIGNED IN ACCORDANCE

WITH RECOGNIZED ENGINEERING PRACTICE. HOWEVER, WE CANNOT ASSUME RESPONSIBILITY FOR ANY DAMAGE THAT MAY ARISE FOR ANY PORTION OF THE BUILDING NOT REDESIGNED, ALTERED OR CONSTRUCTED UNDER THIS SET OF DESIGN DRAWINGS OR OF DEFICIENCIES IN THE CONDITION OF THE BUILDING PRIOR TO RENOVATION.

FIELD VERIFY ALL EXISTING CONDITIONS (DIMENSIONS, ELEVATIONS, UTILITIES) PRIOR TO COMMENCING WORK OR FABRICATION

<u>LUMBER</u>

WOOD CONSTRUCTION, INCLUDING LUMBER, CONNECTIONS, AND DETAILS SHALL COMPLY WITH THE REQUIREMENTS OF AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST AND PAPER ASSOCIATION'S CURRENT "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION".

SPECIES AND GRADES: LUMBER FOR BEAMS, LINTELS, JOISTS AND BRACES SHALL BE SPF #1/#2, U.N.O. [ENGINEER TO SPECIFY OTHER SPECIES AS APPLICABLE] OR BETTER, WITH MAXIMUM MOISTURE CONTENT OF 19% (NOTED AS S-DRY OR MC-19). SEE IBC SECTION 2304 AND TYPICAL DETAIL SCHEDULES FOR FASTENING REQUIREMENTS, UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR ALL CONNECTION HARDWARE FOR REVIEW AND

SHOP DRAWINGS / SUBMITTALS

REPRODUCTIONS OF STRUCTURAL DOCUMENTS WILL NOT BE ACCEPTED AS SHOP DRAWINGS.

PROVIDE SHOP DRAWINGS / SUBMITTALS FOR ALL STRUCTURAL ELEMENTS SHOWN ON THE CONTRACT DOCUMENTS FOR APPROVAL. INDICATE THE REFERENCE DRAWINGS OR SPECIFICATIONS APPLICABLE TO SUBMITTAL PREPARATION. STRUCTURAL ENGINEER WILL NOT BE RESPONSIBLE FOR THE STRUCTURAL CERTIFICATION OF THE PROJECT IF THE CONTRACTOR FAILS TO OBTAIN APPROVAL OF REQUIRED SUBMITTALS.

PRIOR TO SUBMITTING TO ARCHITECT/ENGINEER, REVIEW SUBMITTAL THOROUGHLY AND: MAKE CORRECTIONS DEEMED NECESSARY.

 INFORM ARCHITECT AND ENGINEER IN WRITING OF DEVIATIONS AND/OR OMISSIONS FROM THE CONTRACT DOCUMENTS AT THE TIME OF SHOP DRAWING SUBMISSION. STATE ON THE SUBMITTAL THAT CONTRACT DOCUMENT REQUIREMENTS HAVE BEEN MET AND THAT ALL DIMENSIONS, CONDITIONS AND QUANTITIES HAVE BEEN REVIEWED AND VERIFIED AS SHOWN AND/OR CORRECTED ON THE SHOP

SUBSTITUTIONS SHALL BE SUBMITTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS, DIVISION 1.

SPECIAL INSPECTIONS

AN INDEPENDENT INSPECTION AGENCY SHALL BE RETAINED BY THE OWNER TO INSPECT/ MONITOR/ TEST THE FOLLOWING STRUCTURAL MATERIALS IN ACCORDANCE WITH IBC CHAPTER 17, AND THE STATEMENT OF SPECIAL INSPECTIONS PREPARED WOOD FRAMING

IN ADDITION TO TESTING AND INSPECTION, AGENCY SHALL:

NOTIFY ARCHITECT, ENGINEER AND CONTRACTOR PROMPTLY OF IRREGULARITIES AND DEFICIENCIES OBSERVED IN THE WORK DURING TESTING AND INSPECTION.

SUBMIT A CERTIFIED WRITTEN REPORT OF EACH TEST, INSPECTION, AND SIMILAR QUALITY-CONTROL SERVICE TO ARCHITECT AND ENGINEER WITH COPY TO CONTRACTOR AND TO AUTHORITIES HAVING JURISDICTION.

INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER TESTED AND INSPECTED WORK COMPLIES WITH OR DEVIATES FROM THE CONTRACT DOCUMENTS.

RE-TEST AND RE-INSPECT CORRECTED WORK.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



P 202.659.2520 **F** 202.659.1097 **W** skaengineers.com

PROFESSIONAL CERTIFICATION

I, JOSH WOOKCOCK, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER: 55225, EXPIRATION DATE: NOV 14, 2025.

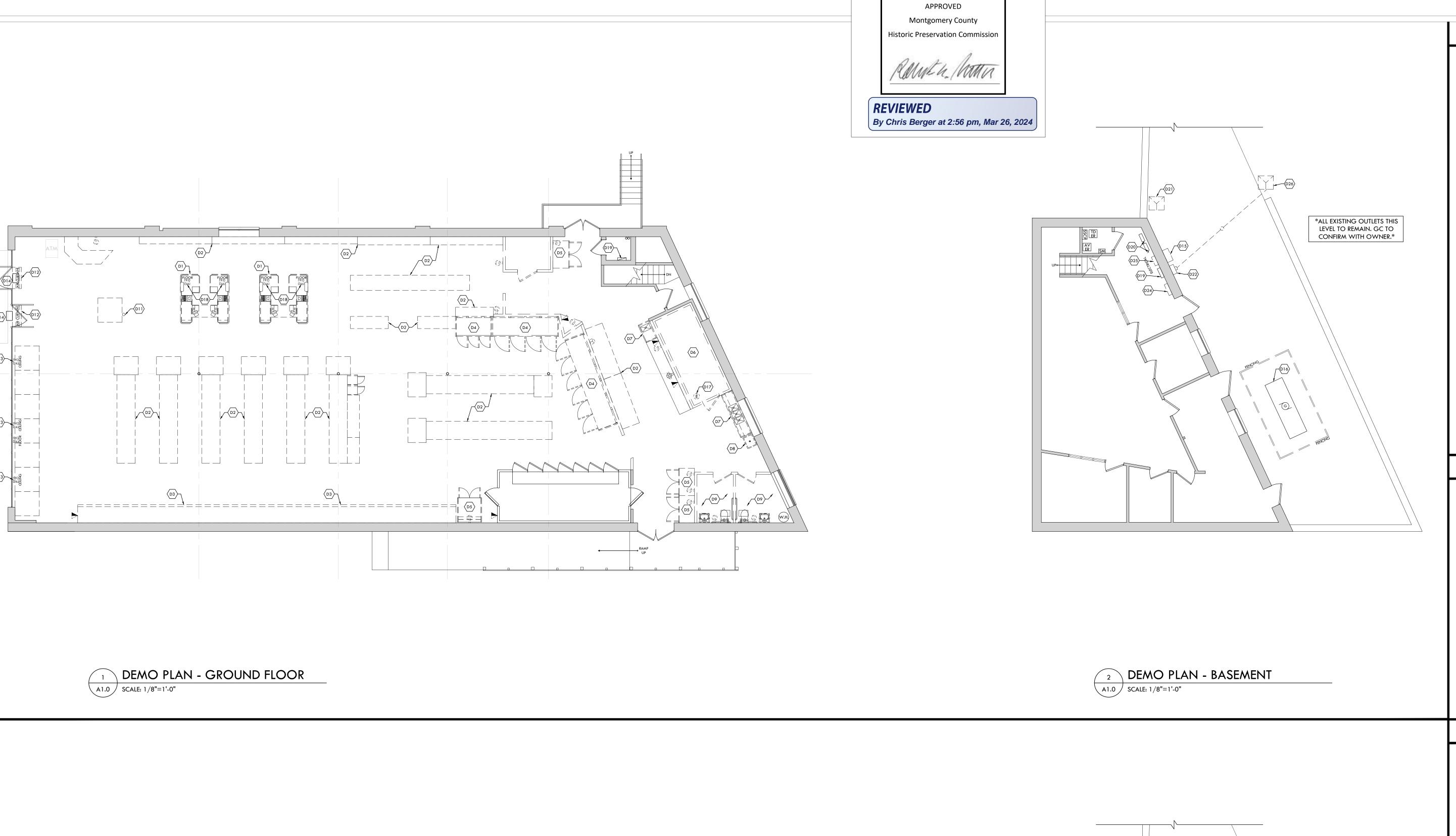


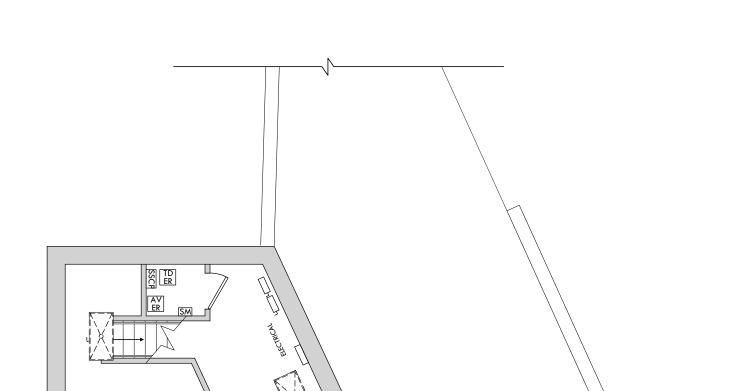
TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ROOF FRAMING PLAN

DESCRIPTION DATE PERMIT & CONSTRUCTION 03.21.24 2-24005-00 PROJECT NUMBER 03.21.24 DRAWN BY CHECKED BY





ALTERNATE FOR REMOVING REPLACING EXISTING BASEMENT LIGHTING.

REFLECTED CEILING DEMO PLAN - BASEMENT A1.0 SCALE: 1/8"=1'-0"

KEYED DEMO NOTES

- $\langle D1 \rangle$ EXISTING CHECKOUT STAND TO BE REMOVED.
- $\langle D2 \rangle$ EXISTING SHELVING TO BE REMOVED.
- $\langle D3 \rangle$ EXISTING REFRIGERATED REACH-IN DISPLAY TO BE REMOVED.
- (D4) EXISTING REFRIGERATED REACH-IN CASE TO BE REMOVED.
- EXISTING 2 DOOR REACH-IN FREEZER TO BE REMOVED AND SALVAGED FOR POSSIBLE REUSE. COORDINATE STORAGE W/ TENANT.
- (D6) EXISTING WALK-IN FREEZER TO BE REMOVED.
- $\langle D7 \rangle$ EXISTING COMPARTMENT SINK TO BE REMOVED. CAP PLUMBING AT SOURCE AS REQD. $\langle {
 m D8} \rangle$ Existing mop sink to be removed. Cap plumbing at source as reqd.
- (D9) EXISTING TOILET AND SINK TO BE REMOVED. CAP PLUMBING AT SOURCE AS REQD. (DID) EXISTING CEILING EXHAUST FAN TO BE REMOVED. REFERENCE MECHANICAL.
 - EXISTING POWER POLE AND TELEVISION TO BE REMOVED. TELEVISION TO RETURN TO
- TENANT. COORDINATE TV STORAGE W/ TENANT. (012) EXISTING AIR CURTAIN TO BE REMOVED.
- (013) EXISTING CEILING MOUNTED RECEPTACLES TO BE REMOVED AND SALVAGED FOR RELOCATION. REFERENCE POWER/DATA PLAN FOR ADDITIONAL INFORMATION.
- (014) EXISTING 3'-6" X 7'-0" AUTOMATIC STOREFRONT DOOR, DOOR HANDRAILS, AND ASSOCIATED POWER FOR SENSOR TO BE REMOVED AND SALVAGED FOR REUSE. PATCH FRAME AS REQD. REFERENCE NEW WORK PLAN & ELECTRICAL FOR ADDITIONAL
- (0) EXISTING FUSED DISCONNECT TO BE REMOVED. REFERENCE ELECTRICAL DRAWINGS
- FOR ADDITIONAL INFORMATION. (016) EXISTING GENERATOR TO REMAIN.
- (D17) EXISTING EQUIPMENT CONNECTION TO BE REMOVED.

DRAWINGS FOR ADDITIONAL INFORMATION.

- (018) EXISTING FLOOR MOUNTED RECEPTACLE TO BE REMOVED. PATCH AND REPAIR SLAB ACCORDINGLY.
- ©19 EXISTING WALL MOUNTED ELECTRICAL PANEL TO REMAIN. REFERENCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- (D20) EXISTING ELECTRICAL EQUIPMENT TO REMAIN. REFERENCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- (D21) EXISTING BUILDING UTILITY TRANSFORMER TO BE REMOVED. REFERENCE ELECTRICAL
- DRAWINGS FOR FULL SCOPE OF ELECTRICAL EQUIPMENT DEMOLITION. (D22) EXISTING BUILDING UTILITY METER AND CT CABINET TO BE REMOVED. REFERENCE
- ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL EQUIPMENT DEMOLITION. (D23) EXISTING MILLWORK TO BE REMOVED.
- ©24) EXISTING WALL MOUNTED ELECTRICAL PANEL TO BE REMOVED. REFERENCE ELECTRICAL
- (\$\overline{\phi}_25\$) EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL EQUIPMENT DEMOLITION.
- ©26) EXISTING POLE MOUNTED TRANSFORMER AND ASSOC. UNDERGROUND CONDUIT TO BE REMOVED. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL EQUIPMENT DEMOLITION.

GENERAL DEMO NOTES

- GC TO COORDINATE HAUL ROUTE WITH LANDLORD PRIOR TO START OF WORK. RAISE BLINDS AND PROTECT ALL EXISTING WINDOW TREATMENTS PRIOR TO STARTING WORK AND TAKE CARE TO PROTECT DURING CONSTRUCTION. GC TO POINT OUT ANY
- DAMAGED WINDOW BLINDS PRIOR TO THE START OF CONSTRUCTION. GC TO PROVIDE COST FOR THE DEMOLITION OF THE ALL EXISTING DRYWALL BULKHEADS
- OR SOFFITS, MISCELLANEOUS DATA, AND LOW VOLTAGE WIRING IN AREA OF DEMO
- REMOVE ALL EXISTING WALL COVERING AND BASE AND REPAIR, PREP AND SAND ALL EXISTING WALLS UNTIL SMOOTH FOR NEW FINISH THROUGHOUT SUITE.
- LEAVE ALL FIRE ALARM DEVICES AND WIRING IN PLACE AND PROTECTED. ALL FIRE ALARM DEVICES TO BE COILED AT CEILING HEIGHT IF REMOVED FROM WALL OR CEILING.
- DEMO MILLWORK AND ITS ASSOCIATED FIXTURES AS SHOWN. WHEN PLUMBING IS PRESENT, CAP PLUMBING ABOVE CEILING OR BELOW FLOOR LINE WHERE APPLICABLE.
- FOLLOWING DEMOLITION, REPAIR REMAINING WALLS, COLUMN WRAPS, SILLS, MULLIONS, CEILING COMPONENTS, ETC. TO "LIKE NEW" CONDITION. ENTIRE SUITE PERIMETER WALLS
- DO NOT DAMAGE EXISTING AREAS THAT ARE OUTSIDE THE SCOPE OF WORK. WHERE
- SUBFLOOR MEETS ALL NEW FLOOR FINISH MANUFACTURER REQUIREMENTS FOR LEVELNESS COORD. REMOVAL OF EXISTING HVAC DUCTS, VAV, ETC. ABOVE EXISTING CEILING LINE
- ONLY AS SHOWN PER MECHANICAL DRAWINGS THROUGHOUT SUITE. ALL HVAC CONTROLS (TSTATS, SENSORS, ETC.), WIRING, AND DEVICES SHALL REMAIN AND
- SHALL BE PLACED COILED UP FOR PROTECTION AS THE UNITS WILL REMAIN IN OPERATION
- DEMO DOORS/FRAMES, ASSOCIATED DOOR HARDWARE, TRANSOMS, AND SIDELITES AS SHOWN ON DEMO PLANS.
- ELECTRICAL CIRCUITS TO BE REMOVED (IN WALLS, CEILINGS OR FLOORS) ONLY AS SHOWN AND TERMINATED AT THE ELECTRICAL PANEL OF ORIGIN.
 SALVAGE EXISTING DOOR AND FRAME FOR REUSE, TYPICAL.

KEYED REFLECTED CEILING DEMO NOTES

- EXISTING CEILING GRID & TILE TO BE REMOVED. PATCH AND REPAIR ADJACENT SURFACES AS REQD. ALL EXISTING 2'X2' & 2'X4' LIGHT FIXTURES TO BE REMOVED.
- (RD2) EXISTING PENDANT STRIP FIXTURE TO BE REMOVED.
- (RD3) EXISTING TRACK LIGHT FIXTURE TO BE REMOVED.
- EXISTING GYPSUM CEILING AND ASSOCIATED LIGHTING TO BE REMOVED.
- (RDS) EXISTING GYPSUM BULKHEAD TO BE REMOVED. PATCH AND REPAIR ADJACENT SURFACES AS REQD.
- GC TO PROVIDE PRICE FOR REPLACEMENT OF PARTIAL BASEMENT LIGHTS AS
- EXISTING WALL MOUNTED LIGHT FIXTURE TO BE REMOVED.
- (RDB) EXISTING PENDANT LIGHT FIXTURE TO BE REMOVED AND SALVAGED FOR POSSIBLE REUSE. COORDINATE STORAGE W/ TENANT.
- (RD9) EXISTING PENDANT LIGHT FIXTURE TO BE REMOVED. PATCH AND REPAIR ADJACENT SURFACES AS REQD.
- REFERENCE MECHANICAL FOR FULL SCOPE OF HVAC DEMOLITION.
- EXISTING RESTROOM EXHAUST VAN TO BE REMOVED. REFERENCE MECHANICAL FOR FULL SCOPE OF DEMOLITION.
- (D1) EXISTING EXIT SIGN TO BE REMOVED. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF EMERGENCY LIGHTING. EXISTING EMERGENCY LIGHT TO BE REMOVED. REFERENCE ELECTRICAL DRAWINGS
- FOR FULL SCOPE OF EMERGENCY LIGHTING. EXISTING EXTERIOR WALL MOUNTED LIGHT FIXTURE TO BE REMOVED. REFERENCE
- EXISTING EXIT SIGN TO BE REMOVED.

2/A1.2 FOR ADDITIONAL INFORMATION.

AT EACH ROOF TRUSS ALONG CENTER COLUMN LINE, SELECTIVE DEMOLITION OF TIN CEILING AS REQD. FOR NEW STRUCTURAL BRACING. REFERENCE STRUCTURAL DIAGRAM AS REQD.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

PROFESSIONAL CERTIFICATION

I, CLIFFORD BATES, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER: 5933A, EXPIRATION DATE: APRIL 14, 2026.



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

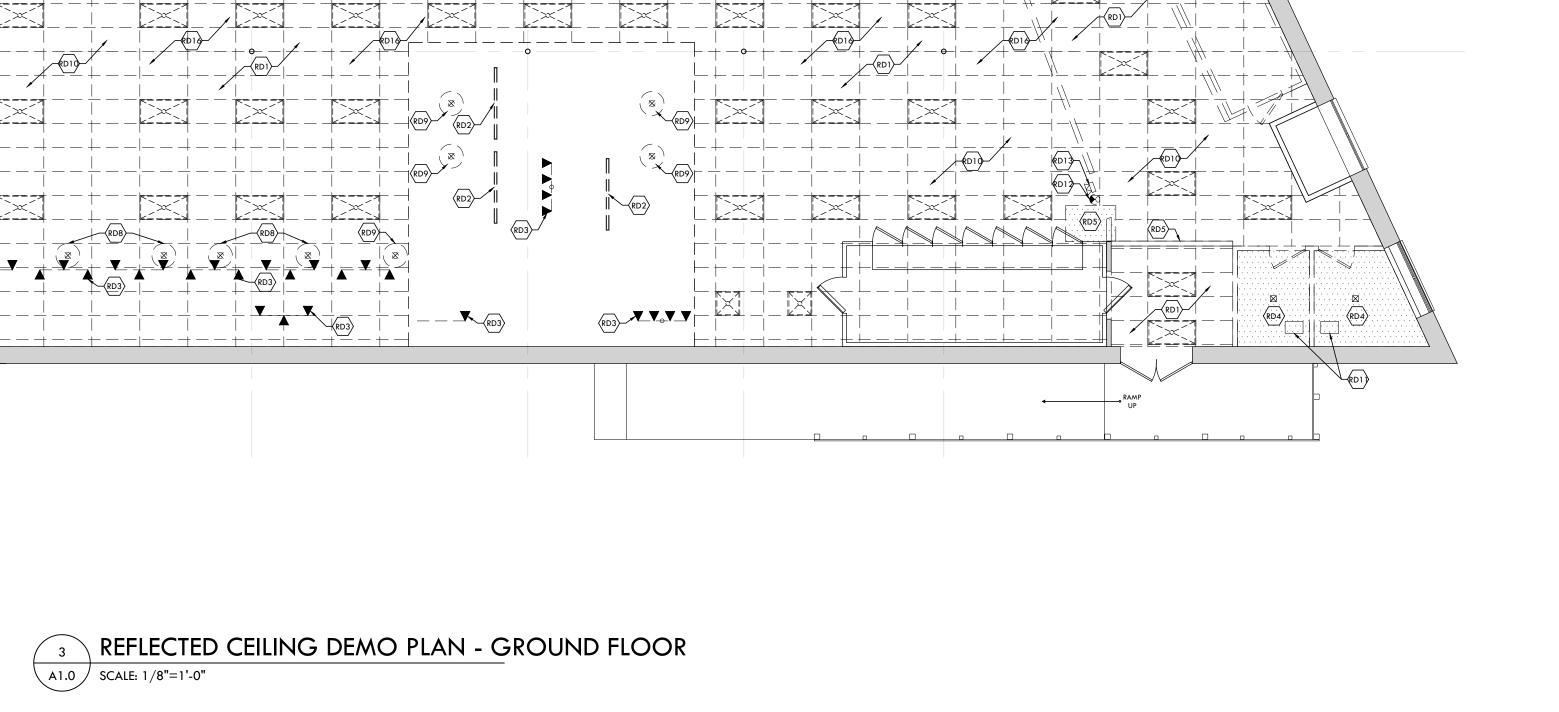
DEMOLITION PLAN & REFLECTED CEILING DEMOLITION PLAN

NO.	DESCRIPTION		DATI
1	PERMIT & CONSTRUC	CTION	03.21.
PRO	JECT NUMBER		2301
DAT			03.21.2

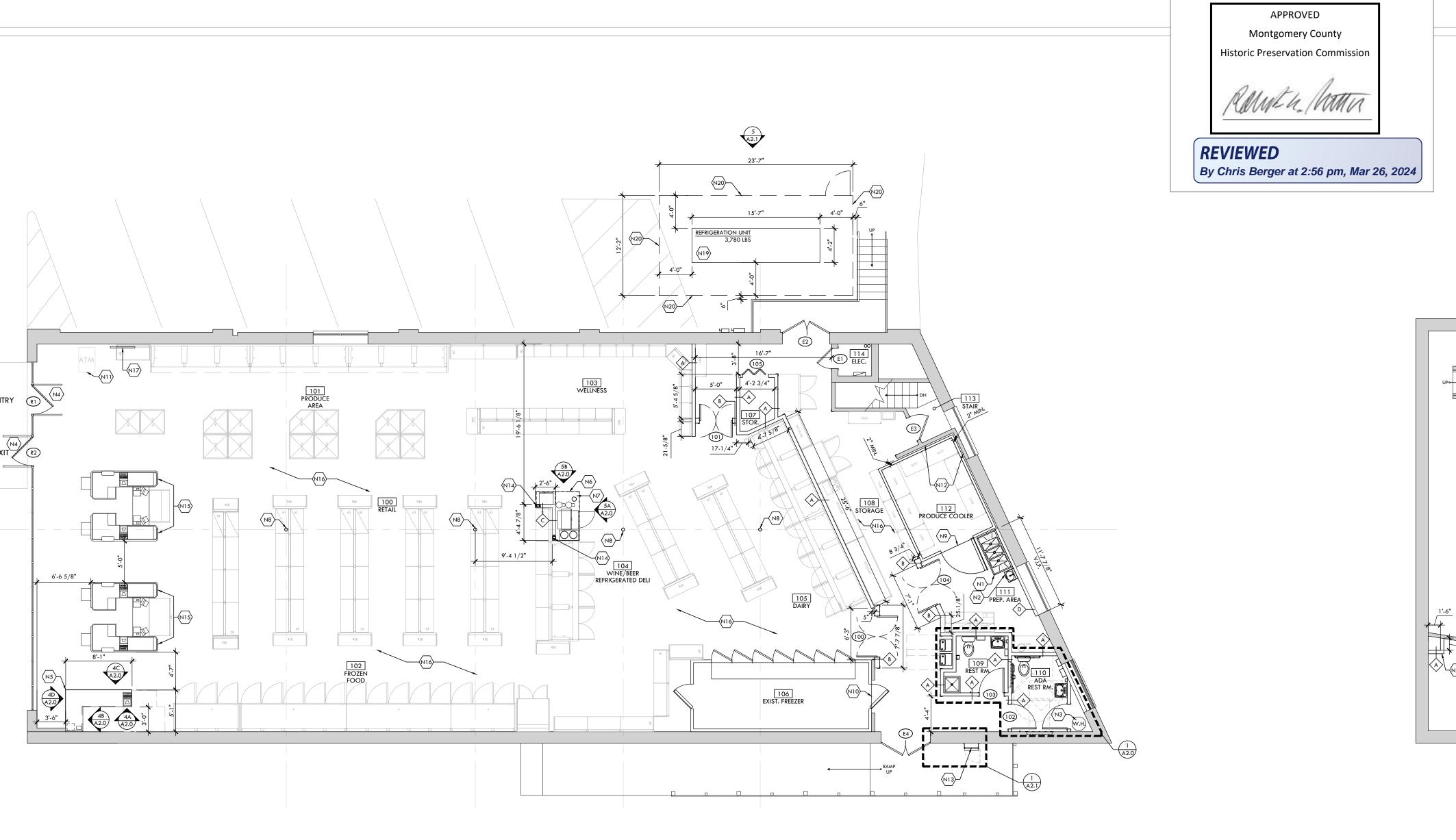
DRAWN BY CHECKED BY

A1.0

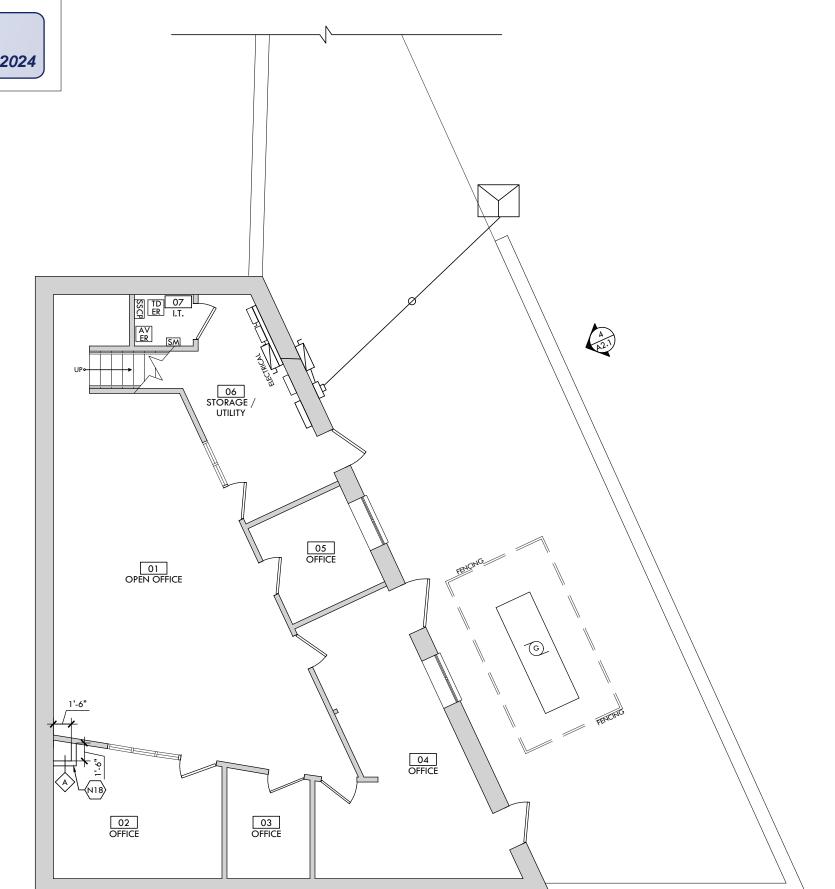
© 2024 - BATES ARCHITECTS LLC



NOTE: GC TO PROVIDE PRICE



EXIST. FREEZER



NOTE: SCOPE OF WORK IN BASEMENT IS LIMITED TO **ELECTRICAL & MECHANICAL** SYSTEM UPGRADES. NO LAYOUT CHANGE.

NEW WORK PLAN - BASEMENT \ A1.1 \int SCALE: 1/8"=1'-0"

KEYED NEW WORK NOTES

- WALL MOUNT SS 3-COMPARTMENT SINK W/ 9" BACK SPLASH. (3) 12"X24"X12" DEEP SS SINK BASIN WITH 3-1/2" BASKET DRAIN AND (1) PRE-RINSE FAUCET WITH 12" ADD-ON SWING FAUCET. MODEL WS3T1224D12-SS-KT. SEE GENERAL PLUMBING NOTES ON SHEET A1.3 & PLUMBING DRAWINGS.
- WALL MOUNT SS HAND SINK WITH 8" BACK SPLASH AND LEFT & RIGHT SIDE SPLASH, 12" GOOSENECK FAUCET, 1-1/2" BASKET DRAIN, AND ST SERIES KNEE VALVE. MODEL HSW1715KVD-W. SEE GENERAL PLUMBING NOTES ON SHEET A1.3 &
- (N3) EXISTING WATER HEATER TO REMAIN. REFERENCE MEP FOR ADDITIONAL INFORMATION. RELOCATED 3'-6" X 7'-0" AUTOMATIC DOOR AND DOOR HANDRAILS. MODIFY HARDWARE AND FRAME AS REQD. GC TO PROVIDE ALTERNATE FOR NEW ALUMINUM
- STOREFRONT DOORS AND HARDWARE TO MATCH EXISTING. REFERENCE DOOR SCHEDULE ON A1.3 AS REQD. NEW BUILT-IN ARCHITECTURAL VENEER PLYWOOD SERVICE COUNTER, REFERENCE
- MILLWORK DETAIL 4/A2.0. NEW BUILT IN P-LAM SELF-SERVICE COUNTER ADJUSTABLE SHELVING, REFERENCE
- MILLWORK DETAIL 5/A2.0. PROVIDE BLOCKING AS REQUIRED. $\langle N7 \rangle$ NEW STAINLESS STEEL TRASH GROMMET TO BE SELECTED.
- EXISTING COLUMNS TO REMAIN. PROTECT DURING CONSTRUCTION AS REQD.
- (N9) STEP UP @ FREEZER.
- (10) EXISTING STEP UP @ FREEZER. EXISTING ATM TO REMAIN.
- (112) INSTALL NEW GREEN BOARD OVER EXISTING METAL STUD UP TO 4' ABOVE THE NEW
- FREEZER AND REGULAR GYPSUM BOARD UP TO CEILING AS REQD. (VI) NEW FIXED ROOF ACCESS LADDER W/ PARAPET RETURN AND SECURITY DOOR BY ALACO LADDER COMPANY, MODEL #563, OR APPROVED EQUAL. INSTALL PER MANUFACTURERS SPECIFICATIONS AS REQUIRED.
- NEW 3-1/2" PARTIAL HEIGHT STEEL POST. REFERENCE DETAIL 9/A2.0 FOR ADDITIONAL
- INFORMATION. (NIS) NEW CHECK STANDS PROVIDED BY TENANT.
- 🚧 EQUIPMENT SHOWN FOR SPACE PLANNING PURPOSES. REFERENCE EQUIPMENT PLAN FOR ALL TENANT PROVIDED EQUIPMENT.
- TENANT PROVIDED TELEVISION (RELOCATED) TO BE MOUNTED TO WALL W/ ADJUSTABLE TELEVISION MOUNT BRACKET. PROVIDE IN WALL FIRE-RATED BLOCKING. COORDINATE WITH TENANT AS REQD.
- PROVIDE NEW CHASE AND ACCESS PANEL FOR NEW DOMESTIC WATER ENTRANCE. REFERENCE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- NEW HUSSMAN PROTO-AIRE REFRIGERATION UNIT, 187"L x 50"W x 58"H. MODEL #6F6R. INSTALL PER MANUFACTURER SPECIFICATIONS.
- (12) NEW CHAIN LINK FENCING WITH MAN GATE. MATCH EXISTING BUILDING STANDARD

GENERAL NEW WORK NOTES

- IF NEW DEMISING WALLS ARE REQUIRED THEY SHALL EXTEND TO UNDERSIDE OF THE STRUCTURAL DECK ABOVE & SHALL BE INSULATED AS SHOWN ON CSI.O.
- PATCH ANY EXISTING HOLES WITH NEW MATERIALS TO MATCH ADJACENT MATERIALS. PAINT ALL WALLS EGGSHELL. PAINT ALL DOOR/DOOR FRAMES SEMI-GLOSS. REFER TO
- FINISH SCHEDULE & NOTES ON A1.3 FOR MORE INFORMATION. RAISE BLINDS AND PROTECT ALL EXISTING WINDOW TREATMENTS PRIOR TO STARTING WORK AND TAKE CARE TO PROTECT DURING CONSTRUCTION. GC TO POINT OUT ANY DAMAGED OR MISSING WINDOW BLINDS PRIOR TO THE START OF CONSTRUCTION AND INCLUDE REPLACEMENT OR REPAIR OF ANY DAMAGED OR MISSING BLINDS IN THEIR
- SCOPE OF WORK. REPLACE ANY EXISTING HARDWARE THAT IS NOT ADA COMPLIANT WITH NEW, ADA
- COMPLAINT BUILDING STANDARD HARDWARE. EXISTING TO REMAIN DRYWALL PARTITIONS, KNEEWALLS, COLUMN COVERS, ETC. SHOULD BE PATCHED, REPAIRED, OR REPLACED AS NEEDED AN PREPPED TO RECEIVE NEW
- SCHEDULED FINISHES. WHERE INFILL OF GYP. BD. IS REQUIRED, PROVIDE J-BEAD WHERE NEW AND EXISTING GYP. BD. MEET. FINISH AND PAINT TO HAVE UNIFORM APPEARANCE.
- PROVIDE EXIT SIGNS AS REQUIRED AS BY CURRENT IBC & NFPA CODES. ALL FURNITURE TO HAVE CLASS A FLAME SPREAD RATING.
- EXISTING EXTERIOR WINDOW SILL & BULKHEAD TO REMAIN THROUGHOUT SUITE. GC TO POINT OUT ANY DAMAGED OR MISSING WINDOW SILLS PRIOR TO THE START OF CONSTRUCTION AND INCLUDE REPLACEMENT OR REPAIR OF ANY DAMAGED OR
- MISSING SILLS AS A SEPARATE LINE ITEM IN THEIR SCOPE OF WORK. PATCH, REPAIR, REPLACE & REPAINT ANY DAMAGED AREAS AS REQUIRED. PRIOR TO CUTTING CONCRETE, GC TO USE GPR TO DETERMINE THE LOCATION AND
- DEPTH OF REBAR, CONDUIT AND ALL OTHER OBSTRUCTIONS. PROVIDE NEW VINYL BASE THROUGHOUT SUITE. (U.N.O.). REFER TO FINISH SCHEDULE. PROVIDE NEW FINISHES THROUGHOUT. REFER TO FINISH SCHEDULE ON 'A1.3' FOR ADDITIONAL INFORMATION.

KEYED EQUIPMENT PLAN NOTES

- MERCHANDISE DISPLAY GONDOLA SHELVING BY LOZIER, 48"X16"X78" BASE WITH 6 SHELVES PER SECTION.
- MERCHANDISE DISPLAY GONDOLA SHELVING BY LOZIER, 36"X16"X78" BASE WITH 6 SHELVES PER SECTION.
- MERCHANDISE DISPLAY GONDOLA SHELVING BY LOZIER. 36"X16"X78" BASE END CAP WITH 6 SHELVES.
- MERCHANDISE DISPLAY GONDOLA SHELVING BY LOZIER, 48"X19"X78" BASE WITH 6 SHELVES PER SECTION.
- MERCHANDISE DISPLAY GONDOLA SHELVING BY LOZIER, 36"X19"X78" BASE WITH 6 SHELVES PER SECTION.
- MERCHANDISE DISPLAY GONDOLA SHELVING BY LOZIER. 48"X16"X78" BASE END CAP WITH 6 SHELVES.
- 48"X16"X84" HIGH PROFILE WINE DISPLAY BY JSI STORE FIXTURES INC, MODEL WD1625. SHELVES WITH PTM, LINERS & ACRYLIC BOX DIVIDERS.
- 48"X18"X84" HIGH PROFILE WINE DISPLAY BY JSI STORE FIXTURES INC, MODEL WD1625. SHELVES WITH PTM, LINERS & ACRYLIC BOX DIVIDERS.
- 4.0 ROUGH MAPLE DRY PRODUCE DISPLAY BINS (3'X3') BY THE MARCO COMPANY.
- ROUGH MAPLE DRY PRODUCE DISPLAY WEDGE BIN (3'X3') BY THE MARCO
- ... INSIGHT MULTI-DECK MERCHANDISER BY HUSSMANN, NARROW DEPTH, 6 DISPLAY LEVELS FOR PRODUCE. MODEL 1D6NL - 12'
- 6.0) REACH-IN MERCHANDISER BY HUSSMANN, NARROW DEPTH, 5 DISPLAY LEVELS FOR FROZEN FOOD. MODEL RLN - 5 DOOR
- REACH-IN MERCHANDISER BY HUSSMANN, NARROW DEPTH, 5 DISPLAY LEVELS FOR FROZEN MEAT. MODEL RLN - 3 DOOR
- REACH-IN MERCHANDISER BY HUSSMANN, NARROW DEPTH, 5 DISPLAY LEVELS FOR FROZEN FOOD & ICE CREAM. MODEL RLN - 3 DOOR

DEPTH, DAIRY DISPLAY. MODEL 1DD6NL - 12'

INSIGHT FRENCH DOOR, MULTI-DECK MERCHANDISER BY HUSSMANN. NARROW DEPTH, 5 DISPLAY LEVELS FOR DELI. MODEL 1DD6NL - 12'

INSIGHT FRENCH DOOR, MULTI-DECK MERCHANDISER BY HUSSMANN. NARROW

- (8.0) 48"X19"X78" DISPLAY SHELVING (12' LONG) WITH 6 SHELVES (FOR DRY BULK
- (8.1) 48"X16"X78" DISPLAY SHELVING END CAP WITH 6 SHELVES (FOR DRY BULK
- (£9.0) 48"X19"X78" DISPLAY SHELVING (16' LONG) WITH 5 SHELVES (FOR BAKERY &
- \$10.\ 24"X16"X60" DISPLAY SHELVING WITH 6 SHELVES (FOR WELLNESS ITEMS).

36"X16"X60" DISPLAY SHELVING END CAP WITH 6 SHELVES (FOR WELLNESS

- (11.) (2) 48"X19"X78" PRODUCE DISPLAY WITH (10) ANGLED FRONT SHELF BINS BY THE
- MARCO COMPANY. (1) (2) 48"X19" PRODUCE CANOPY LIGHTS. HIGH OUTPUT WALL WASHER, BLACK, BY LIGHTING FOR IMPACT. STAND ALONE SHROUD MOUNT.
- FLORAL/PROMO DISPLAY SHELVING BY LOZIER. 48"X19"X78" BASE WITH 6
- (2) CUSTOM CHECKOUT CASHIER REGISTER & COUNTER BY PROCESS RETAIL

- (14.) REFRIGERATED ORCHARD BIN BY THERMAL REFRIGERATION. MODEL TM ROB 4X3-SLT HBM DL. ELEC 115 VOLTS DEDICATED 20AMP NEMA L520
- REFRIGERATED TWO SECTION MERCHANDISER BY TRUE MANUFACTURING CO. MODEL FLM-54-TSL01. POWDER COATED BLACK EXTERIOR. (2) DOUBLE PANE THERMAL INSULATED GLASS SWING DOORS, LED INTERIOR LIGHTS.
- (16.) EXISTING RELOCATED INSIGHT FRENCH DOOR, MULTI-DECK MERCHANDISER BY HUSSMANN. NARROW DEPTH, 5 DISPLAY LEVELS FOR FRESH MEAT. MODEL
- (1) 48"X18" WIRE EPOXY SHELVING BY QUANTUM FOOD SERVICE. MODEL
- (3) 48"X14" WIRE EPOXY SHELVING BY QUANTUM FOOD SERVICE. MODEL
- (1) 48"X24" WIRE EPOXY SHELVING BY QUANTUM FOOD SERVICE. MODEL WR74-2448P. 11 qt. SINAQUA SOUPER SOUP KETTLE BY COOKTEK, MODEL
- (18.) COFFEE BREWER BY BUNN. MODEL 53200.0101.
- (1) 48"X18"X96" HAND STACK PALLET RACKING, SPEC T.B.D.

(2) 96"X30"X96" HAND STACK PALLET RACKING BY A&K EQUIPMENT CO. INC.

- (2) 48"X24"X79 3/4 " UNIVERSAL MOBILE PRODUCE RACK BY WIN-HOLT EQUIPMENT GROUP. MODEL AL-3207CR/M.
- (3) 48"X24"X84" WIRE EPOXY SHELVING BY QUANTUM FOOD SERVICE. MODEL
- (2) 36"X24"X84" WIRE EPOXY SHELVING BY QUANTUM FOOD SERVICE. MODEL
- CUSTOM 12'-6"X10'X10' INDOOR PRODUCE COOLER W/ FLOOR & 54"x86" DOOR STRIP BY KPS GLOBAL. KRACK HUSSMANN EVAPORATOR COIL, MODEL GLD36D-135SDAA. INSTALL PER MANUFACTURERS SPECIFICATIONS. COORD. WITH TENANT'S EQUIPMENT REPRESENTATIVE AS REQD.
- (4) 36"X15" WALL-MOUNTED STAINLESS STEEL SHELF BY WINHOLT. MODEL SSWMS153. MOUNTING HEIGHT TO BE SPECIFIED BY OWNER.
- 72"X30"X41" STAINLESS STEEL (16GA) PREP TABLE WITH 6" BACKSPLASH AND STAINLESS STEEL UNDERSHELF BY WINHOLT.
- TABLE SCALE/PRINTER BY METTLER. MODEL FRESHBASE-C3
- \$26. NEW/EXISTING FOOD WARMER DISPLAY BY HEATMAX. MODEL HEATMAX301524
- \$27.\$ ADA COMPLIANT UNDER COUNTER REFRIGERATOR BY TRUE MANUFACTURING CO., INC. ADA COMPLIANT MODEL TUC-27-HC (MUST FIT WITHIN CABINET
- DIMENSIONS: 32-7/8" W X 35" D X 32-1/2" H). (2) 1.5Gal. AIRPOT/GRAVITY POT BY BUNN. MODEL DSGGEN3(42750.0200).
- (29.) MICROWAVE OVEN BY VOLLRATH. MODEL MWA7025.
- TRASH RECEPTACLE WITH UNTOUCHABLE TOP BY HUBERT COMPANY LLC. GRAY
- (2) 11 qt. SINAQUA SOUPER INDUCTION SOUP KETTLE BY COOKTEK, MODEL
- (1) 48"X16" WIRE EPOXY SHELVING BY QUANTUM FOOD SERVICE. SPEC T.B.D. EXISTING RELOCATED 2 DOOR REACH-IN FREEZER BY MIGALI. MODEL C-2FB-HC.
- (33.) EXISTING RELOCATED 2 DOOR REACH-IN FREEZER BY CENTRAL EXCLUSIVE.
- \$34. SOILED LINEN STORAGE CONTAINER.

GENERAL EQUIPMENT PLAN NOTES

- COORDINATE WITH EQUIPMENT VENDOR FOR THE SHELVING LAYOUT.
- ALL EQUIPMENT TO BE PROVIDED BY OWNER & INSTALLED BY GENERAL CONTRACTOR. ALL PLUMBING FIXTURES TO BE PROVIDED & INSTALLED BY GENERAL CONTRACTOR. ALL EQUIPMENT AND PLUMBING CONNECTIONS TO BE MADE BY GENERAL CONTRACTOR.



FREDERICK, MARYLAND 21701

TEL 301.644.0444 | FAX 301.644.0446

WEB WWW BATESARCHITECTSPC COM

PROFESSIONAL CERTIFICATION

I, CLIFFORD BATES, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER: 5933A, EXPIRATION DATE: APRIL 14, 2026.



TPSS CO-OP **RENOVATION**

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

NEW WORK PLAN & NEW **EQUIPMENT PLAN**

DESCRIPTION

NO.

DATE

1	PERMIT & CONSTRUCTION	03.21.24
PRO	JECT NUMBER	23015
		1 PERMIT & CONSTRUCTION PROJECT NUMBER

DATE 03.21.24 GMS DRAWN BY CMB CHECKED BY

A1.1

© 2024 - BATES ARCHITECTS LLC



NEW WORK PLAN - GROUND FLOOR

\ A1.1 \int SCALE: 1/8"=1'-0"

ENTRY

6'-6 5/8"

				LIGHTING SCHEDULE		
TYPE	QUANTITY	SIZE	MANUFACTURER (NAME)	STYLE	ELEVATION @ BOTTOM OF FIXTURE	COMMENTS
A	53 (+17 BASEMENT)	2'-0" X 4'-0"	LITHONIA LIGHTING 2VTL4	LED TROFFER (DIRECT/INDIRECT)	REFERENCE REFLECTED CEILING PLAN	4000K (OR EQUAL)
В	4	2'-0" X 2'-0"	LITHONIA LIGHTING 2VTL2	LED TROFFER (DIRECT/INDIRECT)	REFERENCE REFLECTED CEILING PLAN	4000K (OR EQUAL)
С	6	5" DIA. (12'-0" TRACK)	LITHONIA LIGHTING BR30	LED BAFFLE LED TRACK	REFERENCE REFLECTED CEILING PLAN	2700K
D	2	1'-0" X 4'-0"	LITHONIA LIGHTING 1VTL4	LED TROFFER (DIRECT/INDIRECT)	11'-5" A.F.F	4000K (OR EQUAL)
Е	14		SURE-LIGHTS	EXIT SIGN		WHITE FINISH, RED LETTERS, TWO FACES, REFERENCE ELECTRICAL DRAWINGS
F	6		SURE-LIGHTS AP2SQLED	UL 924 LISTED EMERGENCY LIGHT		REFERENCE ELECTRICAL DRAWINGS
G	1	4'-0"	EXISTING	WALL MOUNTED STRIP FIXTURE		existing to remain
Н	5	6" DIA.	LITHONIA LIGHTING LDN6	LED SURFACE MOUNT RECESSED DOWN LIGHT	8'-10" A.F.F.	4000K (OR EQUAL)
I	1	1'-0"W X 1'-4"H, V.I.F. (EXISTING)	EXISTING	EXISTING EXTERIOR WALL MOUNTED LIGHT FIXTURE		EXISTING TO REMAIN
J	2	1'-0"W X 1'-4"H, V.I.F. (MATCH EXISTING)	T.B.D.	NEW EXTERIOR WALL MOUNTED LIGHT FIXTURE	MATCH EXISTING	MATCH EXISTING EXTERIOR WALL MOUNTED LIGHT FIXTURE. REFERENCE ELECTRICAL DRAWINGS.

(X)

A1.2 | SCALE: 1/8"=1'-0"

(X) R1 X

NEW REFLECTED CEILING PLAN - GROUND FLOOR

NEW POWER/DATA PLAN - GROUND FLOOR

 $A1.2 \int \frac{}{\text{SCALE: } 1/8"=1'-0"}$



	NOTE: GC TO PROVIDE PRICE ALTERNATE FOR REMOVING / REPLACING EXISTING BASEMENT LIGHTING.
O _H	
O _H 8'-10' AFF R6	E110) FERMING



A1.2 | SCALE: 1/8"=1'-0"

*ALL EXISTING OUTLETS THIS

LEVEL TO REMAIN. GC TO

CONFIRM WITH OWNER.*

106 EXIST. FREEZER

11'-5" AFF

01 OPEN OFFICE

NOTE: SCOPE OF WORK IN BASEMENT IS LIMITED TO **ELECTRICAL & MECHANICAL** SYSTEM UPGRADES. NO LAYOUT CHANGE.

A NEW POWER/DATA PLAN - BASEMENT A1.2 SCALE: 1/8"=1'-0"

KEYED REFLECTED CEILING PLAN NOTES

- EXISTING RELOCATED PENDANT LIGHT FIXTURE. LETTER "R" FOR RELOCATED.
- $\langle R2 \rangle$ NEW 2'-0"X2'-0" TYPE B LIGHT FIXTURE TO BE CENTERED IN ROOM.
- NEW DRYWALL CEILING. REFERENCE FINISH SCHEDULE ON 'A1.3' FOR PAINT SPECIFICATION.
- $\langle R4 \rangle$ ACT-1 NEW 2'X4' ACT SYSTEM (11'-5" A.F.F.) BY ARMSTRONG. PRODUCT: KITCHEN ZONE #672, COLOR - WHITE, TEXTURE - VINYL FACED. EDGE PROFILE: SQUARE LAY-IN. ARMSTRONG PRELUDE 15/16" CEILING GRID. REFERENCE FINISH SCHEDULE ON 'A1.3' FOR ADDITIONAL INFORMATION.
- POINT OF ORIGIN FOR CEILING GRID.
- GC TO PROVIDE PRICING ALTERNATE TO REPLACE ALL 2X4 FLUORESCENT LIGHTING & RECESSED DOWN LIGHTS W/ LED FIXTURES IN BASEMENT.
- $\langle R7 \rangle$ EXISTING DRYWALL BULKHEAD TO REMAIN, REFERENCE DETAIL 7/A2.0 FOR ADDITIONAL INFORMATION. REFERENCE FINISH SCHEDULE ON 'A1.3 FOR PAINT
- (R8) EXISTING RECESSED STRIP LIGHT FIXTURE TO REMAIN (DENOTED BY DASHED LINE).
- NEW RESTROOM EXHAUST FAN. REFERENCE MECHANICAL FOR ADDITIONAL INFORMATION.
- (RIO) NEW EXTERIOR WALL MOUNTED LIGHT FIXTURE TO MATCH EXISTING BUILDING STANDARD. MOUNTING HEIGHT TO MATCH EXISTING. REFERENCE ELECTRICAL FOR ADDITIONAL INFORMATION.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

GENERAL REFLECTED CEILING PLAN NOTES

EXIT SIGN

- IN ANY OPEN CEILING AREAS, GC TO REMOVE ANY EXPOSED & UNUSED JUNCTION BOXES & FILL ANY HOLES OR PENETRATIONS IN THE FLOOR STRUCTURE ABOVE AS REQUIRED. ALL MISCELLANEOUS UNUSED FRAMING/CLIPS/ETC. SHALL ALSO BE REMOVED. ANY OF THE ABOVE ITEMS THAT ARE EXISTING TO REMAIN OR NEW SHALL BE INSTALLED IN AN
- REPAIR AND REPAINT DRYWALL SOFFITS TO REMAIN AS REQUIRED. PROVIDE OCCUPANCY SENSORS AS REQUIRED.
- ALL EXISTING LIGHT FIXTURES ARE TO REPLACED WITH LED FIXTURES OF SIMILAR
- CONFIGURATION OR AS RECOMMENDED FOR THEIR CURRENT LOCATIONS. GC TO COORDINATE A.V. SPEAKERS W/ TENANTS LOW VOLTAGE SUBCONTRACTOR AS
- GC TO COORDINATE TENANT SECURITY SYSTEM W/ TENANTS LOW VOLTAGE
- SUBCONTRACTOR AS REQUIRED. REFERENCE MPE DRAWINGS FOR ALL EMERGENCY LIGHTING LOCATIONS AS REQD.

KEYED POWER/DATA NOTES

- PROVIDE POWER OVER DOOR FOR NEW LOPRO 2 AIR CURTAIN BY MARS, MODEL #LPV242-1UA-OB. INSTALL PER MANUFACTURER SPECIFICATIONS. REFERENCE ELECTRICAL FOR ADDITIONAL INFORMATION.
- PROVIDE POWER & DATA TO CASH REGISTERS FROM POWER POLE. REFER TO ELECTRICAL PLANS AND SCHEDULE. COORDINATE WITH TENANT AS REQD.
- P3 EXISTING RELOCATED CEILING MOUNTED RECEPTACLES.
- EXISTING WALL MOUNTED ELECTRICAL PANEL TO REMAIN. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF NEW ELECTRICAL WORK.
- GC TO INSTALL NEW ELECTRICAL EQUIPMENT PER ELECTRICAL DRAWINGS. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF NEW ELECTRICAL WORK.
- (P6) EXISTING EQUIPMENT CONNECTION TO REMAIN.
- $\langle P7 \rangle$ EXISTING AUDIO/VISUAL SYSTEM EQUIPMENT RACK TO REMAIN.
- TELEPHONE/DATA SYSTEM DISTRIBUTION EQUIPMENT RACK TO REMAIN.
- (P9) EXISTING SECURITY MONITOR TO REMAIN.
- (P10) EXISTING SECURITY SYSTEM CONTROL PANEL TO REMAIN. (P1) EXISTING RELOCATED AUDIO MANAGER BY MOOD MEDIA.
- MODEL- MOOD:PROFUSION 10. COORDINATE W/ TENANT AS REQD.
- (P12) EXISTING RELOCATED AUDIO INTEGRATED AMPLIFIER BY PASO. MODEL #T3130BGM. COORDINATE W/ TENANT AS REQD.

(P13) EXISTING ELECTRICAL EQUIPMENT TO REMAIN. REFERENCE ELECTRICAL DRAWINGS FOR

- ADDITIONAL INFORMATION. (P14) GC TO INSTALL NEW WALL MOUNTED ELECTRICAL PANEL PER ELECTRICAL DRAWINGS.
- REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK. EXISTING TIME CLOCK TO CONTROL STORE LIGHTING DURING NORMAL OPERATING HOURS. REFERENCE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- (P16) EXISTING RELOCATED SENSOR FOR AUTOMATIC DOOR.
- NEW POLE MOUNTED TRANSFORMER BY UTILITY COMPANY.
- (P18) NEW UTILITY METER & CT CABINET. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK.
- NEW 800A NEMA 3R, FUSED TO 800A DISCONNECT. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK.
- PROVIDE NEW OUTLET/DATA AT 96" A.F.F. FOR TENANT PROVIDED TELEVISION. VERIFY FINAL LOCATION WITH TENANT.
- (P21) UNDERGROUND CONDUIT. COORDINATE ALL INSTALLATION WITH UTILITY COMPANY.
- 200A, NEMA 3R, NON-FUSED DISCONNECT. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK. (P23) 100A, NEMA 3R, NON-FUSED DISCONNECT. REFERENCE ELECTRICAL DRAWINGS FOR
- FULL SCOPE OF ELECTRICAL WORK.
- (P24) NEW WEATHER RESISTANT GFCI DUPLEX RECEPTACLE. (P25) RUN CONDUIT FROM NEARBY POWER POLE ALONG MILLWORK TO END CAP.

GENERAL POWER/DATA NOTES

- ARCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL DRAWINGS RELATED TO OTHER TRADES. THE GENERAL CONTRACTOR IS RESPONSIBLE TO CHECK AND
- REFER TO ELECTRICAL PLANS AND SCHEDULES FOR POWER CONNECTIONS TO ALL EQUIPMENT AND WALK-INS
- FOR THE WALK-IN: ALL CONDUITS MUST BE SEALED TO STOP MOISTURE TRANSFER
- THROUGH ELECTRICAL RACEWAYS. FAILURE TO SEAL DEVICE PER NEC CODES WILL VOID
- TO PREVENT CONDENSATION, A MINIMUM 2" FROM THE WALK-IN EXTERIOR SURFACE IS REQUIRED. HIGH HUMIDITY CONDITIONS MAY REQUIRE FORCE VENTILATION IN ADDITION
- TO CLEARANCE. PROVIDE NEW OCCUPANCY SENSORS AS REQUIRED.
- PROVIDE EXIT SIGNS AS REQUIRED.
- ALL ELECTRONIC DOORS TO HAVE FREE EXIT AT ALL TIMES. PROVIDE FRT PLYWOOD AT ALL ELECTRICAL AND IT EQUIPMENT MOUNTING LOCATIONS. PHONE/DATA/SECURITY WORK BY GC WILL BE LIMITED TO PROVIDING A "RING &
- STRING" IN THE WALL. PHONE/DATA/SECURITY WIRING, DEVICES AND CONNECTIONS WILL BE BY THE TENANT'S
- NEW ELECTRICAL AND PHONE/DATA OUTLETS SHOWN ON THE PLAN (18" A.F.F. U.N.O.).

PROFESSIONAL CERTIFICATION

APPROVED BY ME, AND THAT I AM DULY

LICENSED ARCHITECT UNDER THE LAWS

OF THE STATE OF MARYLAND, LICENSE

EXPIRATION DATE: APRIL 14, 2026.

I, CLIFFORD BATES, CERTIFY THAT THIS

DOCUMENT WAS PREPARED OR

NUMBER: 5933A,

TPSS CO-OP **RENOVATION**

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

REFLECTED CEILING PLAN &

POWER/DATA PLAN

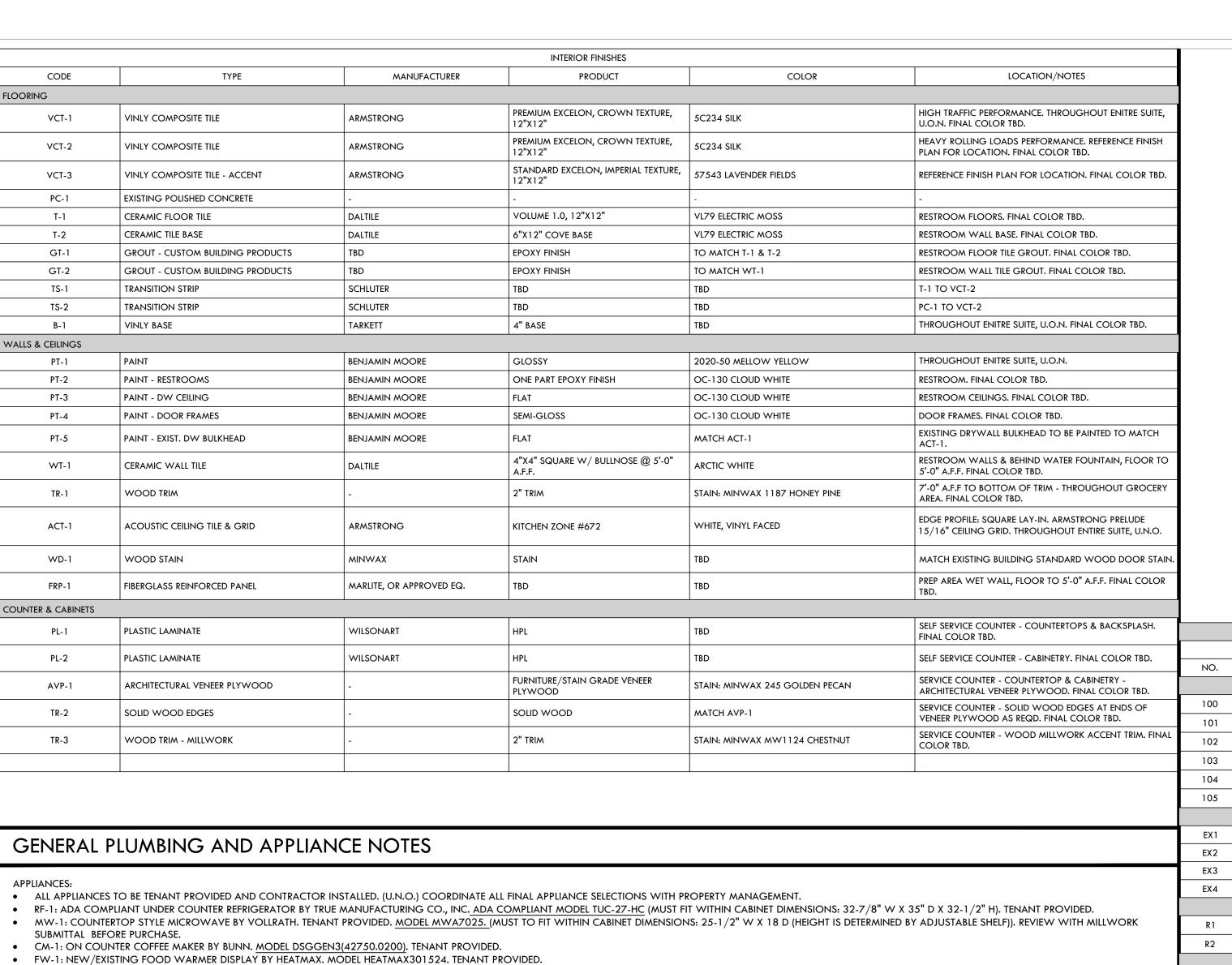
DATE

	200A, NEMA 3R, NON-FUSED DISCONNECT. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK.	1	PERMI	F & CONSTRUCTION	03.21.24
_	100A, NEMA 3R, NON-FUSED DISCONNECT. REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK.				
<u>4</u>	NEW WEATHER RESISTANT GFCI DUPLEX RECEPTACLE.				
	RUN CONDUIT FROM NEARBY POWER POLE ALONG MILLWORK TO END CAP. REFERENCE ELECTRICAL.				
ЭEN	NERAL POWER/DATA NOTES				
RE C	RCHITECTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL DRAWINGS LATED TO OTHER TRADES. THE GENERAL CONTRACTOR IS RESPONSIBLE TO CHECK AND CORDINATE DIMENSIONS, CLEARANCES, ETC., WITH THE WORK OF THE OTHER TRADES. FER TO ELECTRICAL PLANS AND SCHEDULES FOR POWER CONNECTIONS TO ALL				

DESCRIPTION

23015 PROJECT NUMBER 03.21.24 DATE DRAWN BY GMS CHECKED BY CMB

A1.2



• RESTROOM LAVATORY: AMERICAN STANDARD WALL MOUNTED SINK 9024.904EC WITH ZURN Z6915-XL SENSOR FAUCET (OR APPROVED EQ.). REFERENCE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

• RESTROOM ACCESSORIES: MIRROR, PAPER TOWEL DISPENSER, SURFACE MOUNTED HAND DRYER, SOAP DISPENSER, TOILET TISSUE DISPENSER, SANITARY NAPKIN DISPOSAL, COAT HOOK BABY CHANGING STATION.

• COMPARTMENT SINK: WALL MOUNT SS 3-COMPARTMENT SINK W/9" BACK SPLASH. (3) 12"X24"X12" DEEP SS SINK BASIN WITH 3-1/2" BASKET DRAIN AND (1) PRE-RINSE FAUCET WITH 12" ADD-ON SWING FAUCET. MODEL

• HAND SINK: WALL MOUNT SS HAND SINK WITH 8" BACK SPLASH AND LEFT & RIGHT SIDE SPLASH, 12" GOOSENECK FAUCET, 1-1/2" BASKET DRAIN, AND ST SERIES KNEE VALVE. MODEL HSW1715KVD-W. REFERENCE PLUMBING DRAWINGS FOIL

ſ	APPROVED	
١	Montgomery County	
١	Historic Preservation Commission	
	Relite home	
	EVIEWED Chris Berger at 2:56 pm, Mar 26, 2024	

DOOR TYPES ALUMINUM DOUBLE SWING DOOR WITH 8"X14" VISION ALUMINUM STOREFRONT DOOR W/ TEMPERED STAIN GRADE SOLID STAIN GRADE SOLID CORE

(DOORS SWING BOTH WAYS)

BATES ARCHITECTS

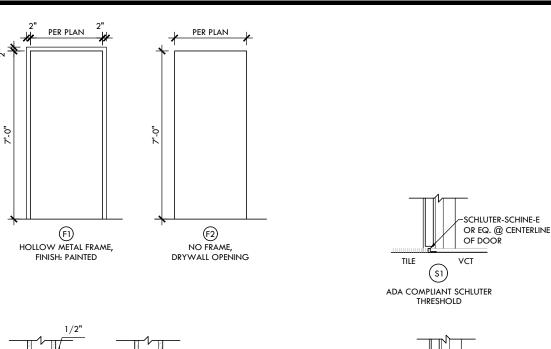
121 NORTH COURT STREET FREDERICK, MARYLAND 21701 L 301.644.0444 | FAX 301.644.0446 VEB WWW BATESARCHITECTSPC COM

FRAME TYPES

CORE WOOD DOOR TO

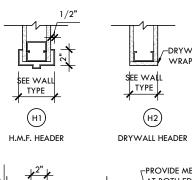
MATCH EXIST, BUILDING

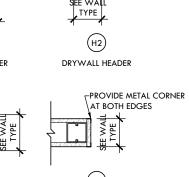
STANDARD; SEE FINISH



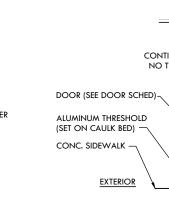
WOOD BIFOLD DOOR; SEE

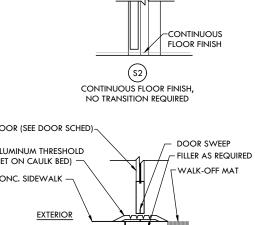
FINISH SCHEDULE FOR FINISH





DRYWALL JAMB





ADA COMPLIANT ALUMINUM

HARDWARE SET #4

THRESHOLD

HARDWARE TYPES

H.M.F. JAMB

HARDWARE SET #1	HARDWARE SET #2	HARDWARE SET #	
PRIVACY LOCKSET ADA COMPLIANT LEVER HANDLE (4) BUTT HINGES FLOOR STOP (3) SILENCERS S.S. KICK PLATE ON EXTERIOR OF DOOR S.S. MOP PLATE ON INTERIOR OF DOOR	PUSH PLATES KICK PLATES UPPER V-CAM HINGE ASSEMBLY AND LOWER HINGE GUARD W/ ALL NECESSARY MOUNTING HARDWARE FOR TOP AND BOTTOM MOUNTING DOOR SWINGS BOTH WAYS REFERENCE MANUFACTURER	ONE SIDED KI DEADBOLT LC ADA COMPLI PULL (ONE SII (4) BUTT HINC (3) SILENCERS BI-FOLD TRAC	

SPECIFICATIONS FOR
ADDITIONAL INFORMATION

 MS CYLINDRICAL LOCK PUSH/PULL SET.
• TOP & BOTTOM PIVOT HINGES

• DOOR SWEEP

HARDWARE MANUFACTURER HERCULITE HARDWARE MATCH BUILDING STANDARD BUTT HINGE STANLEY OR EQUAL LEVER HANDLE/LOCK STANLEY OR EQUAL FLOOR STOP STANLEY OR EQUAL STANLEY OR EQUAL DOOR SILENCER IVES OR EQUAL HARDWARE FINISH TO BE DETERMINED

PROFESSIONAL CERTIFICATION

I, CLIFFORD BATES, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER: 5933A, EXPIRATION DATE: APRIL 14, 2026.



EXISTING RELOCATED STOREFRONT DOOR & ALL ASSOC. HARDWARE/POWER. MODIFY & PATCH EXISTING FRAME AS REQD. EXISTING RELOCATED STOREFRONT DOOR & ALL ASSOC. HARDWARE/POWER. MODIFY & PATCH EXISTING FRAME AS REQD. HARDWARE SET #1

REMARKS

NOTES

2 DURULIGHT RETAILER MODEL R25D DOUBLE SWING TRAFFIC DOORS, INSTALL PER MANUF. INSTRUCTIONS.

2 DURULIGHT RETAILER MODEL R25D DOUBLE SWING TRAFFIC DOORS. INSTALL PER MANUF. INSTRUCTIONS.

DURULIGHT RETAILER MODEL R25D DOUBLE SWING TRAFFIC DOORS. INSTALL PER MANUF. INSTRUCTIONS.

									ALTERNATE	
ALT1	3'-6"	7'-0"	1 3/4"	D4	-	-	-	\$3	4	NEW ADA COMPLIANT STOREFRONT DOOR & HARDWARE TO MATCH EXISTING. INSTALL IN EXISTING FRAME. MODIFY & PATCH EXISTING FRAME AS REQD. KAWNEER ADA COMPLIANT 350 MEDIUM STILE ALUMINUM STOREFRONT DOOR, OR EQ. 10" BOTTOM RAIL.
ALT2	3'-6"	7'-0"	1 3/4"	D4	-	-	-	\$3	4	NEW ADA COMPLIANT STOREFRONT DOOR & HARDWARE TO MATCH EXISTING. INSTALL IN EXISTING FRAME. MODIFY & PATCH EXISTING FRAME AS REQD. KAWNEER ADA COMPLIANT 350 MEDIUM STILE ALUMINUM STOREFRONT DOOR, OR EQ. 10" BOTTOM RAIL.

DOOR SCHEDULE

HARDWARE

EXISTING TO REMAIN

EXISTING TO BE RELOCATED

3 BIFOLD DOOR

NO.

S1

S2

FRAME

JAMB

J2

HEAD

H1

H2

Н3

GENERAL DOOR NOTES

ALL DOORS SHALL HAVE "FREE EXIT" (UNLOCKED) IN EXIT DIRECTION.

DOOR

HEIGHT

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

7'-0"

2'-0" (x2)

3'-0"

3'-0"

2'-6" (x2)

3'-6"

2'-6"

2'-8" (x2)

3'-0"

3'-0" (x2)

3'-6"

THICKNESS

1 3/4"

1 3/4"

3 3/4"

1 3/4"

TYPE

TYPE

F1

F2

F2

- ALL NEW HARDWARE SHALL BE ADA COMPLIANT.

 ALL NEW HARDWARE SHALL MATCH EXISTING BUILDING STANDARDS STYLE & FINISHES. NEW LOCKS SHALL BE KEYED TO BUILDING MASTER. OFFICE DOOR KEYING TO BE COORDINATED WITH TENANT.
- REUSE EXISTING DOOR & FRAME AS POSSIBLE. REPAIR, REPAINT OR/& RESTAIN AS REQUIRED. SUITE ENTRY/ EXIT DOOR TO BE FREE EXIT AT ALL TIMES REQUIRED. ALL EGRESS DOORS REQUIRE SURFACE MOUNTED CLOSERS PER IBC REQUIREMENTS.

B-1 PT-1 103 113 **ENTRY** VCT-2 PT-1 PT-1 100 N/A B-1 PT-1 VCT-1 PT-1 PT-1 PT-1

KEYED FINISH PLAN NOTES

- $\langle F1 \rangle$ Provide ada compliant schluter threshold (TS-1) at flooring change. PLACE AT CENTERLINE OF OPENING.
- $\langle F2 \rangle$ Provide ada compliant schluter threshold (TS-2) at flooring change. PLACE AT CENTERLINE OF OPENING.
- $\langle F3 \rangle$ GC TO INSTALL 3-1/2" FLANGE WIDTH X 48" HEIGHT STAINLESS STEEL CORNER
- GUARD ABOVE WALL BASE AS REQD. $\langle F4 \rangle$ EXISTING PARKING SPACE TO BE HATCHED DUE TO NEW EQUIPMENT.

TPSS CO-OP **RENOVATION**

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

DESCRIPTION

SCHEDULES, NOTES & FINISH PLAN

DATE

 CMB

1	PERMIT & CONSTRUCTION	03.21.24

GENERAL FINISH NOTES

- ALL INTERIOR FINISHES AND MILLWORK ITEMS REQUIRE FINISH SAMPLE SUBMITTALS AND SHOP DRAWINGS FOR ARCHITECT OR OWNER APPROVAL PRIOR TO FABRICATION. ALL INTERIOR WALL AND CEILING FINISHES SHALL BE CLASSIFIED AS "CLASS C" OR GREATER
- RATING (PER 2018 IBC TABLE 803.13) ALL WOOD SURFACES SHALL BE SEALED, PAINTED OR STAINED AS SCHEDULED. PAINT FINISHES SHALL BE AS FOLLOWS, UON, WALLS - EGGSHELL; DOORS/FRAMES/WALL BASE - SEMI-GLOSS; CEILINGS - FLAT. NOTE: ALL PAINTED SURFACES IN MAIN LOBBIES SHALL BE LEVEL 5. FOR ALL "ACCENT" PAINTS, PROVIDE 1 COAT PRIMER, 3 COATS
- FINISHING. REVIEW THE FULL SET OF DRAWINGS FOR COMPLETE INFORMATION REGARDING THE SCOPE OF FINISH INSTALLATION.
- CONTACT THE ARCHITECT FOR "ARCHITECTS/CONTROL" SAMPLES. PROVIDE (4) SAMPLES OF ALL VENEERED & NATURAL PRODUCTS W/ A CONTROLLED RANGE OF SHADE VARIATIONS (AS APPLICABLE) FOR OWNER REVIEW/ APPROVAL. PATCH/REPAIR & REPAINT ALL NAIL HOLES & DAMAGED AREAS FROM DEMO & EXT'G.
- CLEAN ALL FLOORING THAT IS ETR. PATCH/REPAIR AS REQ'D. REMOVE ANY EXT'G WALL COVERING, SKIM COAT AS REQ'D. PROVIDE NEW ADA COMPLIANT TRANSITION STRIPS WHERE REQ'D. AT VCT TO CPT, NEW RESILIENT STRIPS SHALL MATCH VINYL BASE. AT OTHER WOOD OR TILE SURFACES PROVIDE SCHLUTER TYPE METAL EDGE STRIPS, FLUSH WITH FLOOR. COORDINATE WITH ARCH.
- ALL FINISHES SHALL COMPLY WITH FLAME/SMOKE RATING REQUIREMENTS PER 2018 IBC 803.13, AND 804.2 THROUGH 804.4.2.
- ENSURE FLOOR IS SMOOTH TO RECEIVE NEW FINISHES. PROVIDE SIGNAGES FOR MEN & WOMEN'S, AND ELECTRICAL CLOSET. REMOVE ALL EXISTING FLOOR FINISH AND ADHESIVE THROUGHOUT SUITE. GC TO ENSURE SUBFLOOR MEETS ALL NEW FLOOR FINISH MANUFACTURER REQUIREMENTS FOR LEVELNESS

AND FLATNESS. GC TO SUBMIT RFI'S TO THE ARCHITECTS FOR ANY AREAS OF CONCERN.

23015 PROJECT NUMBER DATE 03.21.24 GMS DRAWN BY

CHECKED BY

© 2024 - BATES ARCHITECTS LLC

• SK-1: 11 qt. SINAQUA SOUPER INDUCTION SOUP KETTLE BY COOKTEK, MODEL SAS081-11. TENANT PROVIDED.

• WATER CLOSET: ZURN ADA HEIGHT ELONGATED PRESSURE ASSISTED TOILET. MODEL #Z5560, 1.6 GPF, (WHITE). SEE PLUMBING DRAWINGS.

• MOP SINK: WHITE, (24"X24"), Z1996-24, WITH SERVICE SINK FAUCET Z1996-SF. REFERENCE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

• ADA-COMPLIANT WATER FOUNTAIN: OASIS, MODEL PG8ACSL (OR APPROVED EQUAL). REFERENCE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

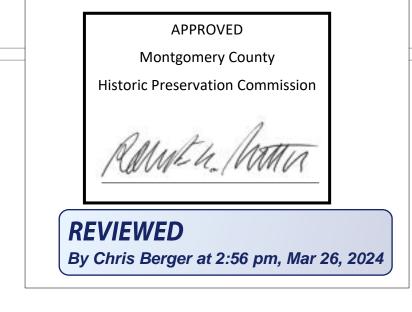
ALL PLUMBING FIXTURES TO BE SPECIFIED, PROPERTY MANAGEMENT HAS FINAL APPROVAL.

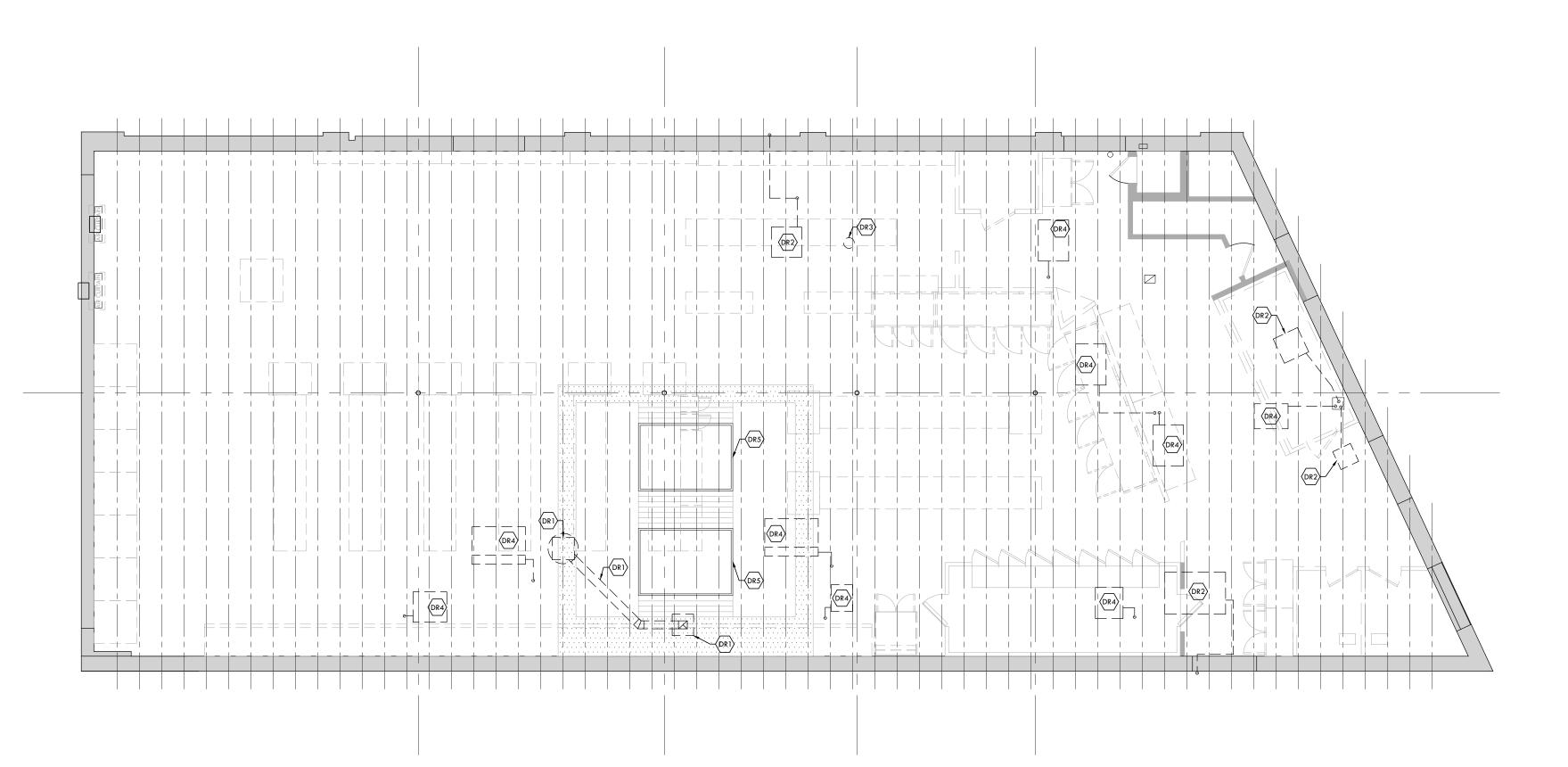
WS3T1224D12-SS-KT. REFERENCE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

REFER TO PLUMBING DRAWINGS FOR ALL OTHER PLUMBING RELATED SPECIFICATIONS

ADDITIONAL INFORMATION.

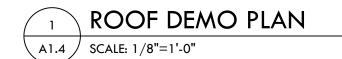
NEW FINISHES PLAN - GROUND FLOOR

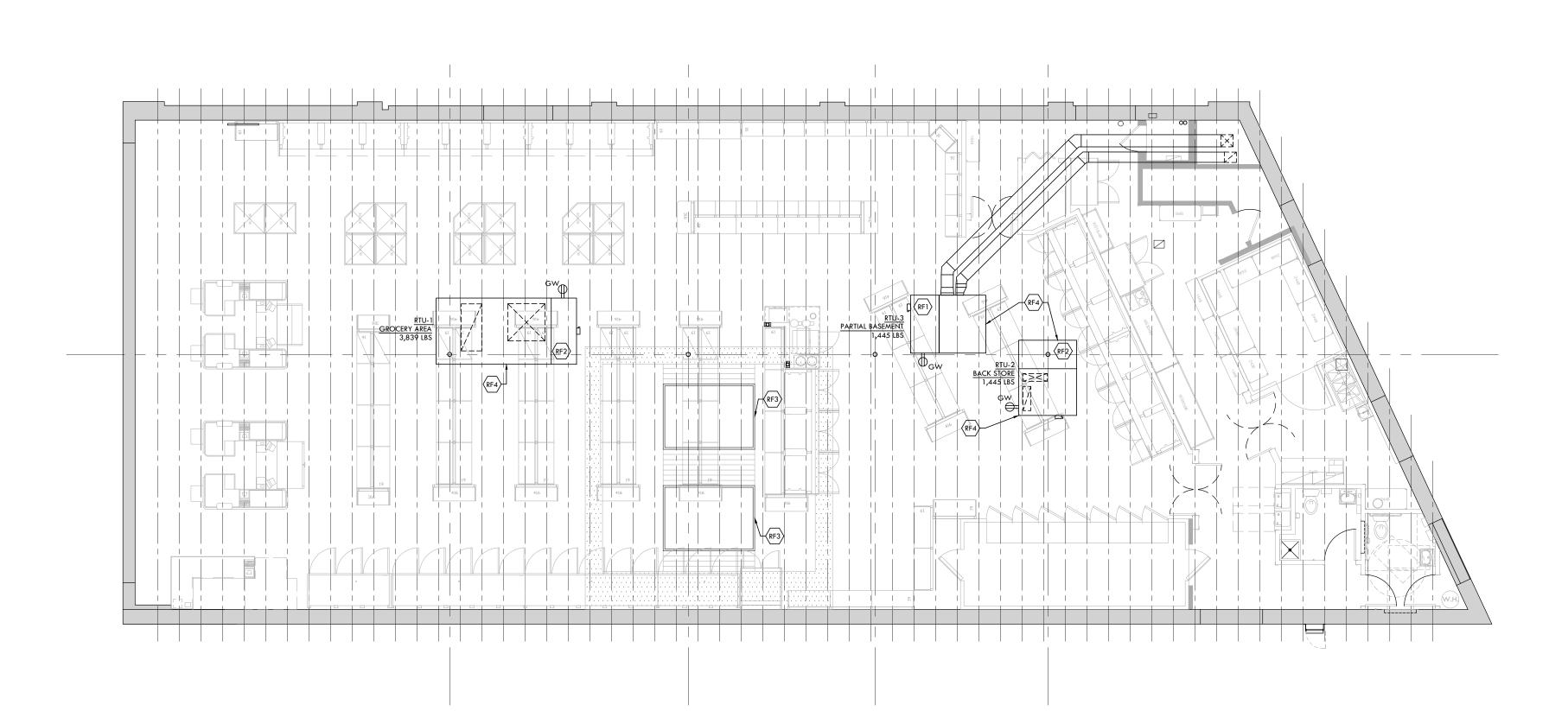




NOTE: PROTECT EXISTING ROOF TRUSSES AS REQD.

DURING DEMO /
CONSTRUCTION.





NOTE: PROTECT EXISTING
ROOF TRUSSES AS REQD.
DURING DEMO /
CONSTRUCTION.



KEYED ROOF DEMO NOTES

- EXISTING EXHAUST FAN AND ASSOCIATED SUPPORTS, DUCTWORK AND CONTROLS TO BE REMOVED. PATCH AND SEAL ROOF AS REQD. REFERENCE MECHANICAL FOR ADDITIONAL INFORMATION.
- (DR2) EXISTING HEAT PUMP TO BE REMOVED. PATCH AND SEAL ROOF AS REQD. REFERENCE MECHANICAL FOR ADDITIONAL INFORMATION.
- MECHANICAL FOR ADDITIONAL INFORMATION.

 (DR3) EXISTING CONCENTRIC VENT TO BE REMOVED. PATCH AND SEAL ROOF AS REQD. REFERENCE
- MECHANICAL FOR ADDITIONAL INFORMATION.

 FXISTING REFRIGERATION CONDENSER LINIT & ASSOCIATED SUPPORTS AND CONTROLS TO
- EXISTING REFRIGERATION CONDENSER UNIT & ASSOCIATED SUPPORTS AND CONTROLS TO BE REMOVED.
- (DRS) EXISTING SKYLIGHT TO REMAIN.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

PROFESSIONAL CERTIFICATION

I, CLIFFORD BATES, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER: 5933A, EXPIRATION DATE: APRIL 14, 2026.



KEYED ROOF PLAN NOTES

- NEW RTU WITH ASSOCIATED RETURN AND SUPPLY DUCTS. INSTALL DISCONNECT SWITCH AND WEATHER RESISTANT GFCI DUPLEX RECEPTACLE. REFERENCE MPE FOR ADDITIONAL INFORMATION.
- NEW RTU. INSTALL DISCONNECT SWITCH AND WEATHER RESISTANT GFCI DUPLEX RECEPTACLE. REFERENCE MPE FOR ADDITIONAL INFORMATION.
- (RF3) EXISTING SKYLIGHT TO REMAIN.
- NEW ROOFTOP EQUIPMENT TO BE PAINTED SOLID COLOR TO MATCH BUILDINGS FRONT FACADE AS REQD.

TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ROOF DEMO PLAN & ROOF PLAN

10.	DESCRIPTION	DATE
1	PERMIT & CONSTRUCTION	03.21.24

GENERAL ROOF PLAN NOTES

- PROVIDE ROOF PENETRATION BOOT FOR ALL PIPES THRU ROOF, TYPICAL.
 SEE MPE FOR ANY COLD PIPES PENETRATE. PROVIDE PRE MOLDED PIPE FLASHING PER
- MANUFACTURER'S SPECIFICATIONS.

 REFER TO MECHANICAL AND ELECTRICAL FOR LOCATIONS OF VENTS, EQUIPMENT, WATER
- HEATER EXHAUST AND OTHER ROOF PENETRATIONS.

 ONTRACTOR SHALL COORDINATE EXACT UNIT PLACEMENT AND ROOF PENETRATIONS WITH STRUCTURAL DRAWINGS AS REQD.

PROJECT NUMBER 23015

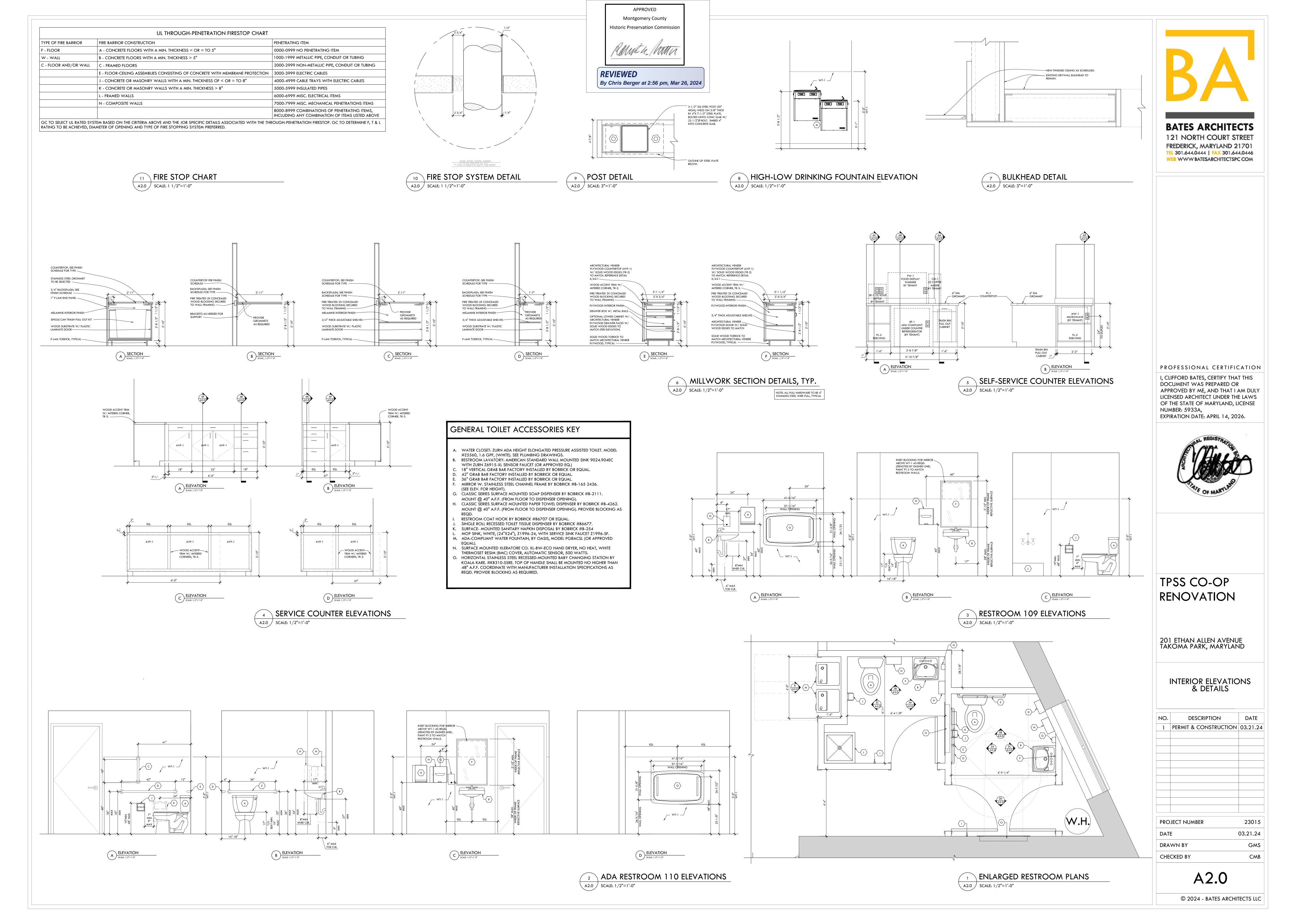
DATE 03.21.24

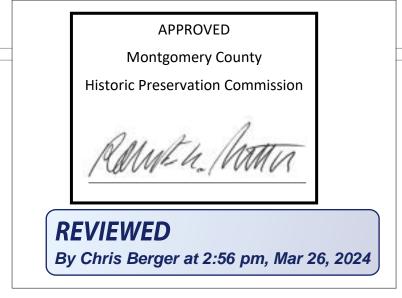
DRAWN BY GMS

Δ1 /

 CMB

CHECKED BY





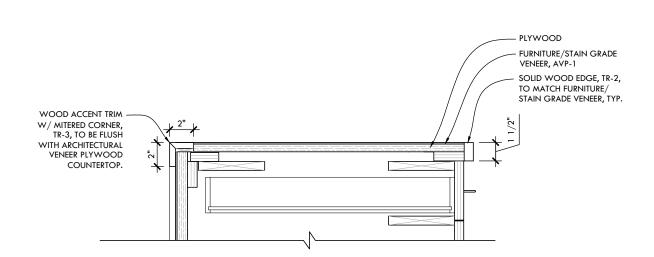
KEYED ELEVATION & DETAIL NOTES

FIXED ROOF ACCESS LADDER W/ PARAPET RETURN AND SECURITY DOOR BY ALACO LADDER COMPANY, MODEL #563, OR APPROVED EQUAL. INSTALL PER MANUFACTURERS SPECIFICATIONS AS REQUIRED.

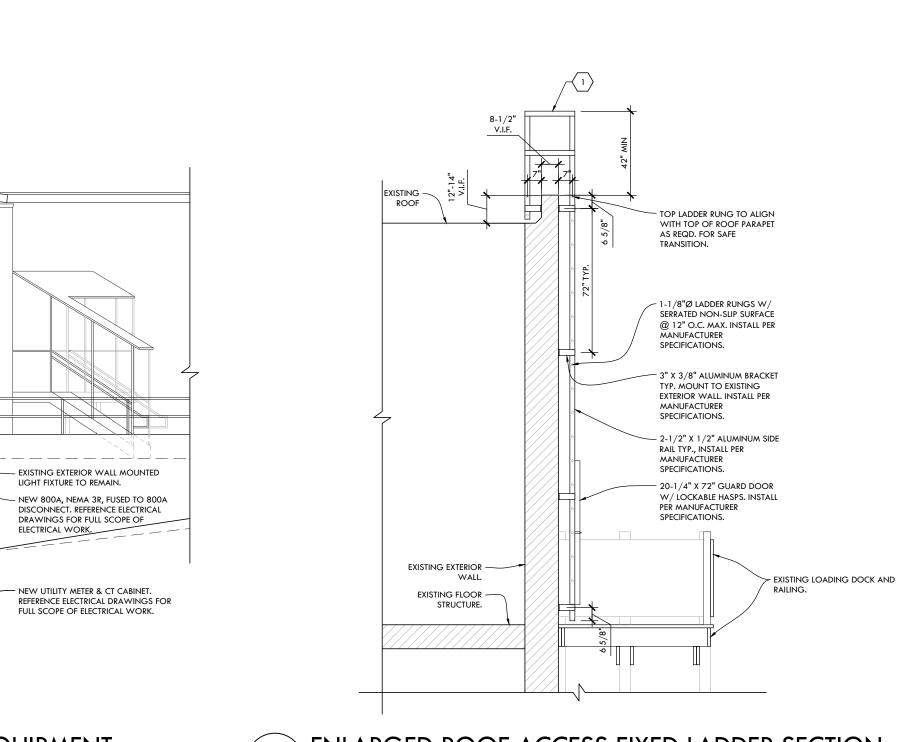


BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



SERVICE COUNTER MILLWORK SECTION DETAIL A2.1 SCALE: 1-1/2"=1'-0"

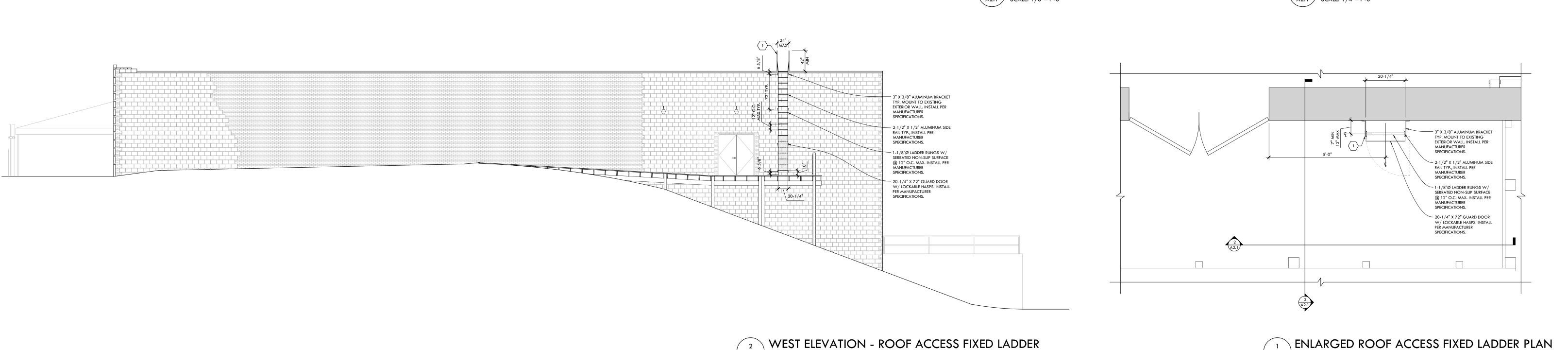


SOUTH ELEVATION - NEW EQUIPMENT A2.1 SCALE: 1/8"=1'-0"

POWER COMPANY TO INSTALL ALL NEW ELECTRIC SERVICE AS REQD.

EXISTING BUILDING GENERATOR AND FENCING TO REMAIN.





A2.1 SCALE: 1/8"=1'-0"

NEW EXTERIOR WALL MOUNTED LIGHT — FIXTURE TO MATCH EXISTING BUILDING STANDARD. REFERENCE ELECTRICAL FOR ADDITIONAL INFORMATION.

NEW 200A, NEMA 3R, NON-FUSED DISCONNECT REFERENCE ELECTRICAL DRAWINGS FOR FULL SCOPE OF ELECTRICAL WORK.

NEW 10DA, NEMA 3R, NON-FUSED DISCONNECT.
REFERENCE ELECTRICAL DRAWINGS FOR FULL
SCOPE OF ELECTRICAL WORK.

NEW REFRIGERATION CONDENSER LINES.

NEW CHAIN LINK FENCING W/ MAN GATE.

MATCH EXISTING BUILDING STANDARD AS

REINFORCED CONCRETE SLAB. TURN DOWN EDGES AS REQD.

A2.1 SCALE: 1/8"=1'-0"

5 EAST ELEVATION - NEW EQUIPMENT

NEW HUSSMAN PROTO-AIRE REFRIGERATION UNIT, 187"L x 50"W x 58"H. MODEL #6F6R. INSTALL PER MANUFACTURER SPECIFICATIONS.

A2.1 SCALE: 1/2"=1'-0"

OF THE STATE OF MARYLAND, LICENSE

I, CLIFFORD BATES, CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM DULY LICENSED ARCHITECT UNDER THE LAWS NUMBER: 5933A, EXPIRATION DATE: APRIL 14, 2026.

PROFESSIONAL CERTIFICATION



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ELEVATIONS & DETAILS

NO.	DESCRIPTION	DATE
1	PERMIT & CONSTRUCTIO	N 03.21.24
PRO	JECT NUMBER	23015
DAT	E	03.21.24
DRA	WN BY	GMS
CHE	CKED BY	СМВ

A2.1

MECHANICAL ABBREVIATIONS

ALTERNATING CURRENT ABOVE FINISH FLOOR AUTHORITY HAVING JURISDICTION AMERICAN NATIONAL STANDARDS INSTITUTE AUTOMATIC TEMPERATURE CONTROL AUTOMATIC APPROX APPROXIMATELY AIR PRESSURE DROP AMERICAN SOCIETY OF HEATING. ASHRAE REFRIGERANT AND AIR CONDITIONING

AMERICAN SOCIETY OF MECHANICAL **ENGINEERS** BUILDING AUTOMATION SYSTEM BACKDRAFT DAMPER BREAK HORSE POWER BRITISH THERMAL UNIT CAP CAPACITY

CUBIC FEET PER MINUTE COND CONDENSATE DRY BULB TEMPERATURE DIRECT CURRENT DEGREE DIAMETER DIFFUSER

DISCH DISCHARGE DOWN DAMPER DRAIN DISCONNECT SWITCH DIRECT EXPANSION EXHAUST AIR

ENTERING AIR TEMPERATURE ELECTRICAL CONTRACTOR ENTERING DRY BULB ENERGY EFFICIENCY RATIO **EFFICIENCY** FI EVATION ELECT ELECTRIC **ENCLOS ENCLOSURE** ENTERING EQUIP **EQUIPMENT**

ETCETERA EXTERNAL STATIC PRESSURE **EWB ENTERING WET BULB** EXHAUST EXIST **EXISTING** FAHRENHEIT

FLEXIBLE CONNECTION FEET PER MIN **GENERAL CONTRACTOR**

HEADER

MERCURY HORSE POWER HEATING FREQUENCY (HERTZ) INVERTED BUCKET TRAP INSIDE DIAMETER

INVERTED ECCENTRIC REDUCER INSULATED INTEGRATED PART LOAD VALUE LEAVING AIR TEMPERATURE POUNDS LBS LEAVING DRY BULB LOW PRESSURE

LEAVING WET BULB MAX MAXIMUM THOUSAND BTU'S MECHANICAL CONTRACTOR MANUFACTURER MINIMUM MANHOLE MILES PER HOUR MOUNTED

MTR MOTOR NOT APPLICABLE NOISE CRITERIA NOT IN CONTRACT NOT TO SCALE OUTSIDE AIR

MIN

SENS

SQ FT

QUANTITY RETURN AIR REQUIRED

REQD RETURN REVOLUTIONS PER MINUTE SUPPLY AIR SCHEDULE SEER

SEASONAL ENERGY EFFICIENCY RATIO SENSIBLE STATIC PRESSURE SPECIFICATION SQUARE FEET STANDARD

STD SUPPLY SWITCH TEST, ADJUST AND BALANCE TEMPERATURE TRANSITION

TEMP TOT **TRANS** T'STAT **THERMOSTAT** TSP TOTAL STATIC PRESSURE TYPICAL

WET BULB EXISTING TO REMAIN

MECHANICAL EQUIPMENT **ABBREVIATIONS**

AIR CURTAIN AIR HANDLING UNIT EXHAUST FAN HEAT PUMP

ROOF TOP UNIT

SOUND ATTENUATOR

REVIEWED By Chris Berger at 2:56 pm, Mar 26, 2024

APPROVED

Montgomery County Historic Preservation Commission

MECHANICAL SYMBOLS

THERMOSTAT CONNECTION POINT -NEW TO EXISTING DISCONNECT POINT -EXTENT OF DEMOLITION X NECK SIZE **GRILLE, REGISTER &** DIFFUSER TAG CFM

SUPPLY DIFFUSER - 4-WAY BLOW RETURN GRILLE OR REGISTER INTERIOR CLEAR DUCTWORK 24x12 DIMENSIONS: WxH

RETURN DUCT AWAY

FROM VIEWER

EXHAUST DUCT

FROM VIEWER

FLEXIBLE DUCT

TOWARD VIEWER

EXHAUST DUCT AWAY

FLEXIBLE CONNECTION

MANUAL VOLUME DAMPER

TRANSITION: SYMMETRIC

TRANSITION: ASYMMETRIC

RECTANGULAR TO ROUND

90 DEGREE RADIUS ELBOW

MITERED ELBOW WITH

TEE, 45 DEG ENTRY BRANCH

TEE, CONICAL ROUND BRANCH

DUCT MOUNTED SMOKE

DETECTOR

TURNING VANES

MECHANICAL

ELECTRICAL SYMBOLS

E. IT SHALL BE THE RESPONSIBILITY OF THE HEATING AND SUPPLY DUCT ELECTRICAL CONTRACTORS TO CHECK FOR TOWARD VIEWER ADEQUACY OF SUPPLY WIRING, OVERCURRENT PROTECTION, PROPER VOLTAGE, PHASE ROTATION AND FINAL LOCATION OF EQUIPMENT PROVIDED PRIOR SUPPLY DUCT AWAY TO THE RUNNING OF ANY CONDUIT OR WIRING. FROM VIEWER COORDINATE WITH DIVISION 26 TO ASSURE PROPER ELECTRICAL SERVICE IS PROVIDED TO EQUIPMENT UNDER DIVISION 23. RETURN DUCT TOWARD VIEWER

F. EQUIPMENT CONNECTIONS SHALL BE MADE THROUGH CONDUIT OR RACEWAYS IN ACCORDANCE WITH DIVISION 26, WITH THE EXCEPTION THAT CONNECTIONS TO MOTORS SHALL BE MADE THROUGH LIQUID TIGHT FLEXIBLE METAL CONDUIT WITH EQUIPMENT GROUNDING CONDUCTOR.

ELECTRICAL REQUIREMENTS FOR

A. HVAC CONTRACTOR SHALL PROVIDE MECHANICAL

B. ALL STARTERS, DISCONNECT SWITCHES, MOTOR

CONTROL CENTERS, AND VARIABLE FREQUENCY

DRIVES, FOR EQUIPMENT PROVIDED UNDER DIVISION

INSTALLED UNDER DIVISION 26. FACTORY MOUNTED

STARTERS, DISCONNECTS SWITCHES, AND VARIABLE

C. HVAC CONTRACTOR SHALL SUBMIT WIRING DIAGRAMS

TO THE ARCHITECT/ENGINEER FOR APPROVAL AND

PROVIDE APPROVED DIAGRAMS TO THE ELECTRICAL

D. HVAC CONTRACTOR SHALL FULLY COOPERATE WITH

COORDINATION OF MOTOR PROTECTION, CONTROL

THE INFORMATION REQUIRED FOR PROPER

EQUIPMENT AND WIRING, AND THE OTHER

CHARACTERISTICS OF THE EQUIPMENT.

CONTRACTOR SO THAT THE ELECTRICAL WORK MAY BE

23, SHALL BE FURNISHED UNDER DIVISION 23 AND

FREQUENCY DRIVES SHALL BE FURNISHED AND

MOTOR CONTROL CENTERS AND VARIABLE

PROPERLY ACCOMPLISHED.

EQUIPMENT WITH VOLTAGES AND OTHER ELECTRICAL

CHARACTERISTICS AS INDICATED ON THE DRAWINGS

MECHANICAL EQUIPMENT

AND WITHIN THE SPECIFICATIONS.

GENERAL REQUIREMENTS

2. POWER REQUIREMENTS A. ALL POWER WIRING FOR MECHANICAL EQUIPMENT PROVIDED UNDER DIVISION 23 SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 26 TO THE POINT OF FINAL CONNECTION (FROM THE SOURCE TO THE STARTERS, DISCONNECT SWITCHES, MCC'S OR VFD'S AND TO EQUIPMENT, MOTOR, OR OTHER CONNECTION POINT). EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE, ALL POWER WIRING TO THE POINT OF FINAL CONNECTION FOR EQUIPMENT PROVIDED UNDER DIVISION 23 SHALL BE ACCOMPLISHED UNDER DIVISION

B. FINAL ELECTRICAL POWER CONNECTIONS TO ALL EQUIPMENT SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 26. IN GENERAL, THE POINT OF FINAL CONNECTION SHALL BE THE TERMINAL HOUSING ON THE EQUIPMENT, MOTOR, OR AN INTERNAL JUNCTION BOX ON THE EQUIPMENT OR ITEM. IF NO JUNCTION BOX IS FURNISHED, A JUNCTION BOX SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 26. WIRE LEADS OF ADEQUATE LENGTH TO ENSURE A PROPER CONNECTION AT THE FINAL LOCATION SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 26.

C. WIRING, OVERCURRENT PROTECTION DEVICES, VOLTAGE, PHASE, ROTATION AND FINAL LOCATION OF ALL EQUIPMENT PROVIDED UNDER DIVISION 23 SHALL BE COORDINATED WITH ALL SIMILAR DEVICES AND POWER WIRING FURNISHED AND INSTALLED UNDER DIVISION 26. COORDINATION SHALL BE ACCOMPLISHED PRIOR TO THE RUNNING OF ANY CONDUIT OR WIRING.

3. CONTROL REQUIREMENTS A. ALL CONTROL WIRING (LINE VOLTAGE AND/OR LOW VOLTAGE) FOR MECHANICAL EQUIPMENT PROVIDED UNDER DIVISION 23, SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23. WIRING FROM THE POWER SOURCE TO ALL CONTROL PANELS, DDC CONTROL PANELS, STARTERS, OPERATOR WORK STATIONS (PC'S, PRINTERS, MONITORS, AND OTHER WORK STATION EQUIPMENT) AND OTHER CONTROL EQUIPMENT REQUIRED FOR A COMPLETE AND OPERABLE CONTROL SYSTEM SERVING MECHANICAL EQUIPMENT PROVIDED UNDER DIVISION 23 SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23.

> B. ALL WIRING FROM CONTROL PANELS TO CONTROL DEVICES FOR MECHANICAL EQUIPMENT PROVIDED UNDER DIVISION 23 SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND DIVISION 26 OF THE SPECIFICATIONS. ALL CONTROL WIRING SHALL BE IN

C. UNLESS OTHERWISE NOTED, ALL TEMPERATURE CONTROL DEVICES, INSTALLED PILOT DEVICES, AND ALL ASSOCIATED PILOT CONTROL EQUIPMENT, FOR ALL EQUIPMENT PROVIDED UNDER DIVISION 23, SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23.

D. ELECTRICAL CONTROL WIRING FOR CONNECTION OF TEMPERATURE CONTROLLERS, PUSH BUTTONS, INTERLOCKS IN MOTOR CONTROLLERS, PNEUMATIC SWITCHES AND LIKE ITEMS IS SPECIFIED UNDER THE CONTROL SECTION(S) IN DIVISION 23 AND INSTALLED BY DIVISION 23.

E. ALL MOTORS, MOUNTS, REMOTE MOUNTED PUSH BUTTON CONTROLS AND ALL SPEED CONTROL SWITCHES FOR MULTI-SPEED MOTORS FOR ALL EQUIPMENT PROVIDED UNDER DIVISION 23 SHALL BE FURNISHED AND INSTALLED UNDER DIVISION 23.

SPECIALTIES

A. DUCT MOUNTED SMOKE DETECTORS SHALL BE FURNISHED UNDER DIVISION 28 AND INSTALLED UNDER DIVISION 23. HVAC CONTRACTOR SHALL COORDINATE VELOCITY, TUBE LENGTH, AND OTHER SMOKE DETECTOR SELECTION CRITERIA WITH THE ELECTRICAL CONTRACTOR.

PROJECT GENERAL NOTES

PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.

CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.

INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. CONTRACT DOCUMENTS AND APPLICABLE CODES AND REGULATIONS.

PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.

INSTALLED UNDER DIVISION 23. HVAC CONTRACTOR PROVIDE VIBRATION ISOLATORS FOR ALL PIPING SUPPORTS SHALL PROVIDE STARTERS, DISCONNECT SWITCHES, CONNECTED TO, AND WITHIN 50 FT OF ISOLATED EQUIPMENT (EXCEPT AT BASE ELBOW SUPPORTS AND ANCHOR POINTS) FREQUENCY DRIVES IN ACCORDANCE WITH DIVISION THROUGHOUT MECHANICAL EQUIPMENT ROOMS.

> THE LOCATION OF EXISTING EQUIPMENT AND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PAY FOR AND REPAIR ALL DAMAGES CAUSED BY FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES UNLESS OTHERWISE INDICATED.

COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH THE OTHER DIVISIONS AND TRADES ON THE PROJECT, ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., AND THEIR MANUFACTURERS, IN PROMPTLY PROVIDING SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.

MAINTAIN A MINIMUM OF 6'-8" CLEARANCE TO THE UNDERSIDE OF PIPES, DUCTS, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.

10. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING

ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.

DEVICES IN ACCESSIBLE LOCATIONS WITH THE STRAIGHT SECTION OF PIPE OR DUCT UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR PROPER ACCURACY. . TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A

MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC STANDARDS.

12. WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL

13. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL DUCT AND PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCT AND PIPING DIMENSIONS BEFORE FABRICATION.

14. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND DIVISION 26 OF THE SPECIFICATION.

15. SEE STRUCTURAL DRAWINGS FOR REINFORCEMENT, DETAILING, AND PLACEMENT OF CONCRETE HOUSEKEEPING PADS.

 WHEN MECHANICAL WORK IS SUBCONTRACTED. IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUBCONTRACTORS AND THE ASSOCIATED CONTRACTS. WHEN DISCREPANCIES ARISE PERTAINING TO WHICH CONTRACTOR PROVIDED A PARTICULAR ITEM OF THE MECHANICAL CONTRACT OR WHICH CONTRACTOR PROVIDES FINAL CONNECTIONS FOR A PARTICULAR ITEM OF THE MECHANICAL CONTRACT. IT SHALL BE BROUGHT TO THE ATTENTION OF THE MECHANICAL CONTRACTOR, WHOSE DECISION SHALL BE FINAL.

17. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.

18. ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING, DUCTWORK AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

19. PROVIDE ACCESS PANELS FOR INSTALLATION IN WALLS AND CEILINGS, WHERE REQUIRED TO SERVICE DAMPERS, VALVES, SMOKE DETECTORS AND OTHER CONCEALED MECHANICAL EQUIPMENT. ACCESS PANELS SHALL BE TURNED OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION.

20. ALL EQUIPMENT, PIPING, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED, SPECIFIED AND REQUIRED TO PROVIDE A VIBRATION-FREE INSTALLATION.

21. ALL DUCTWORK, PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOISTS GIRDERS SHALL BE AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED. THE USE OF C-CLAMPS SHALL NOT BE PERMITTED.

2. MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHALL NOT SUPPORTED FROM A METAL DECK.

23. ALL ROOF-MOUNTED EQUIPMENT CURBS FOR EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.

24. LOCATIONS AND SIZES OF FLOOR, WALL AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.

25. ALL OPENINGS IN FIRE AND/OR SMOKE RATED CONSTRUCTION DUE TO DUCTWORK, PIPING, CONDUIT, ETC. SHALL BE FIRE STOPPED WITH AN APPROVED LISTED AND LABELED FIRE STOPPING MATERIAL.

26. CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING EQUIPMENT AND UTILITIES BEFORE COMMENCING

SHEET METAL GENERAL NOTES

1. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR DUCT LINING THICKNESS WHERE SPECIFIED.

2. CERTAIN ITEMS SUCH AS RISES AND DROPS IN DUCTWORK, ACCESS DOORS, VOLUME DAMPERS, ETC. ARE INDICATED ON THE CONTRACT DOCUMENT DRAWINGS FOR CLARITY FOR A SPECIFIC LOCATION REQUIREMENT AND SHALL NOT BE INTERPRETED AS THE EXTENT OF THE REQUIREMENTS FOR THESE ITEMS.

3. ALL DUCTWORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS, INCLUDING DIVIDED DUCTS AND TRANSITIONS AROUND OBSTRUCTIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

4. UNLESS OTHERWISE NOTED, ALL DUCTWORK SHALL BE OVERHEAD, TIGHT TO THE UNDERSIDE OF THE STRUCTURE, WITH SPACE FOR INSULATION IF REQUIRED.

5. PROVIDE ALL 90-DEGREE SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES UNLESS OTHERWISE INDICATED. PROVIDE ACCESS DOORS UPSTREAM OF ALL ELBOWS WITH TURNING VANES.

ALL SMOKE DETECTORS, FIRE DAMPERS, SMOKE DAMPERS, VOLUME DAMPERS, HUMIDIFIERS, COILS, AND OTHER ITEMS LOCATED IN THE DUCTWORK THAT REQUIRE SERVICE AND/OR INSPECTION. PROVIDE ACCESS DOORS IN DUCTWORK FOR THE OPERATION,

ADJUSTMENT, AND MAINTENANCE OF ALL FANS, VALVES, AND

6. PROVIDE ACCESS DOORS IN DUCTWORK TO PROVIDE ACCESS FOR

MECHANICAL EQUIPMENT. 8. SEE SPECIFICATIONS FOR DUCTWORK GAUGES, BRACING, HANGERS,

AND OTHER REQUIREMENTS.

9. RUNS OF FLEXIBLE DUCT SHALL NOT EXCEED 5 FEET. 10. LOCATE ALL MECHANICAL EQUIPMENT FOR UNOBSTRUCTED ACCESS

INDICATED.

TO UNIT ACCESS PANELS, CONTROLS, AND VALVES. 11. ALL AIR HANDING UNITS SHALL OPERATE WITHOUT MOISTURE

12. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK SYSTEMS (SUPPLY, RETURN, AND EXHAUST) CONNECTED TO AIR HANDLING UNITS, FANS, AND OTHER EQUIPMENT THAT REQUIRE VIBRATION ISOLATION. FLEXIBLE CONNECTIONS SHALL BE PROVIDED AT THE POINT OF CONNECTION TO THE EQUIPMENT UNLESS OTHERWISE

13. ALL DUCTS SHALL BE GROUNDED ACROSS FLEXIBLE CONNECTIONS WITH FLEXIBLE COPPER GROUNDING STRAPS. GROUNDING STRAPS SHALL BE BOLTED OR SOLDERED TO BOTH THE EQUIPMENT AND THE

14. COORDINATE DIFFUSERS, REGISTER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING AND OTHER CEILING ITEMS AND MAKE MINOR DUCT MODIFICATIONS TO SUIT.

15. UNLESS OTHERWISE SHOWN, LOCATE ALL ROOM THERMOSTATS AND HUMIDISTATS 42" (CENTERLINE) ABOVE THE FINISHED FLOOR. NOTIFY THE PROFESSIONAL OF ANY ROOMS WHERE THE PRECEDING LOCATION CANNOT BE MAINTAINED OR WHERE THERE IS A QUESTION ON LOCATION.

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP **RENOVATION**

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

MECHANICAL COVER

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

DATE DRAWN BY

PROJECT NUMBER

CHECKED BY

© 2024 - BATES ARCHITECTS LLC

23-0742.01

03.21.24

GMS

 CMB

CONDITIONS OR THE TECHNICAL SPECIFICATIONS. SHOULD ANY CONFLICTS BE FOUND BETWEEN THE NOTES ON THIS SHEET AND OTHER CONTRACT DOCUMENTS, NOTIFY THE ENGINEER IN WRITING PRIOR TO BIDDING OR INSTALLATION. THIS SHEET HAS BEEN ADAPTED TO BE PROJECT SPECIFIC, HOWEVER, NOT ALL

THE REQUIREMENTS OF THE PROJECT'S GENERAL OR SUPPLEMENTAL

THIS SHEET IS PROVIDED FOR EASE OF REFERENCE AND SHALL NOT SUPERSEDE

SYMBOLS, ABBREVIATIONS OR GENERAL NOTES MAY APPLY TO THIS PROJECT.



GENERAL NOTES

CONTRACTOR SHALL PATCH AND SEAL ALL WALLS AND ROOF PENETRATIONS AS REQUIRED

NUMBERED NOTES

- TREMOVE EXISTING AIR HANDLING UNIT AND ALL ASSOCIATED SUPPORTS, DUCTWORK, PIPING AND CONTROLS.
- 2 REMOVE EXISTING AIR CURTAINS. REMOVE ALL ASSOCIATED SUPPORTS.
- (3) REMOVE EXISTING OUTSIDE AIR WALL CAP. PATCH AND SEAL WALL AS REQUIRED.
- REMOVE EXISTING FLUE VENT AND COMBUSTION AIR DUCTWORK. PATCH AND SEAL ROOF AS REQUIRED.
- ALL ASSOCIATED SUPPORTS, DUCTWORK AND CONTROLS. PATCH AND SEAL WALL AS REQUIRED.

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

ENGINEERING

5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

FIRST FLOOR DEMOLITION PLAN - MECHANICAL

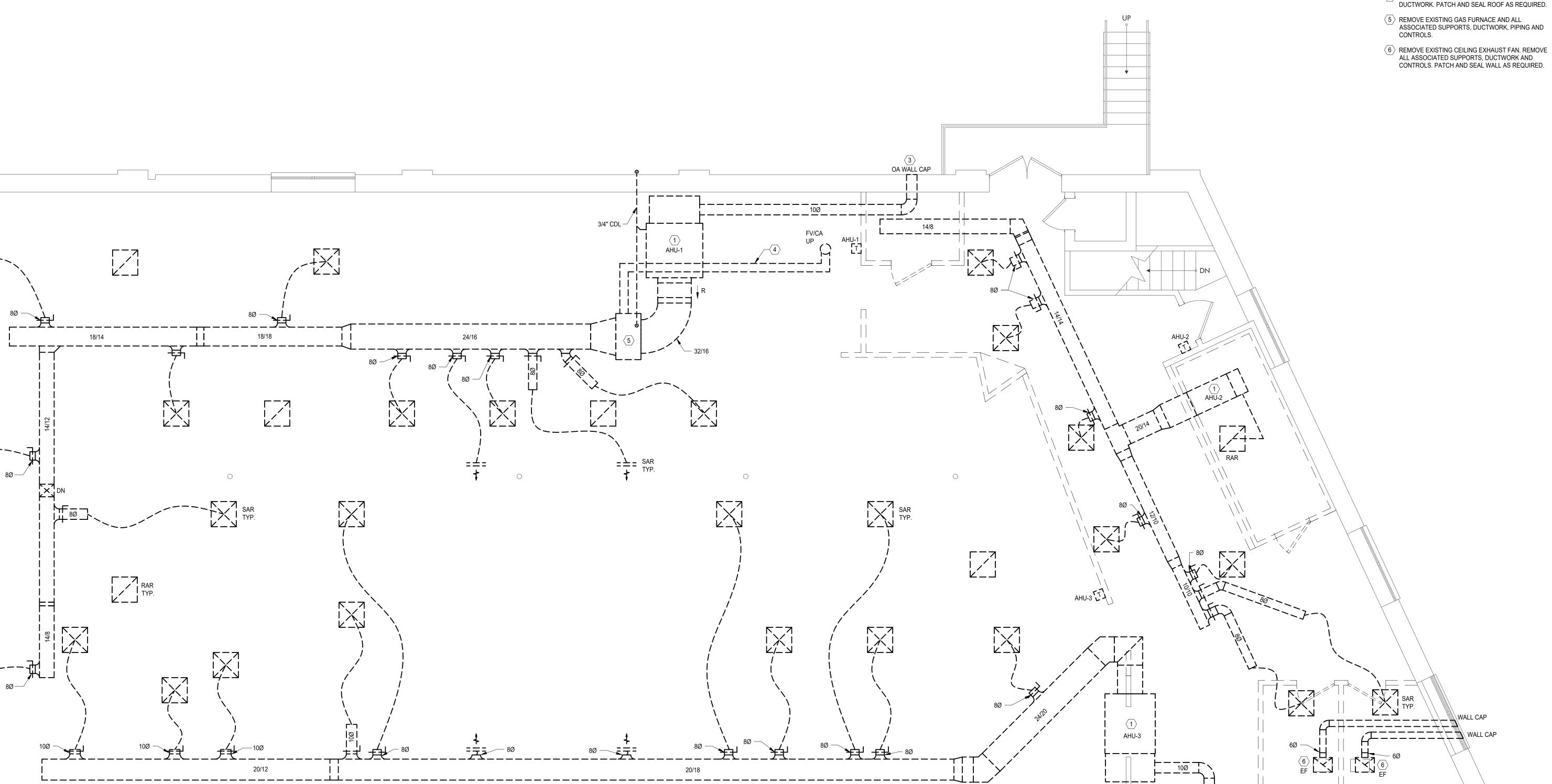
NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

23-0742.01 PROJECT NUMBER 03.21.24

DRAWN BY GMS CHECKED BY CMB

M1.0

© 2024 - BATES ARCHITECTS LLC



FIRST FLOOR DEMOLITION PLAN - MECHANICAL

1/4" = 1'-0"

18/18



NUMBERED NOTES

1 REMOVE EXISTING AIR HANDLING UNIT. REMOVE ALL ASSOCIATED SUPPORTS, DUCTWORK, PIPING AND CONTROLS.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

PARTIAL BASEMENT DEMOLITION PLAN -MECHANICAL

_			
1	۷٥.	DESCRIPTION	DATE
		PERMIT & CONSTRUCTION	03.21.24
╽┝			
l ⊢			
١H			
╟			
\parallel			
1 1			

 PROJECT NUMBER
 23-0742.01

 DATE
 03.21.24

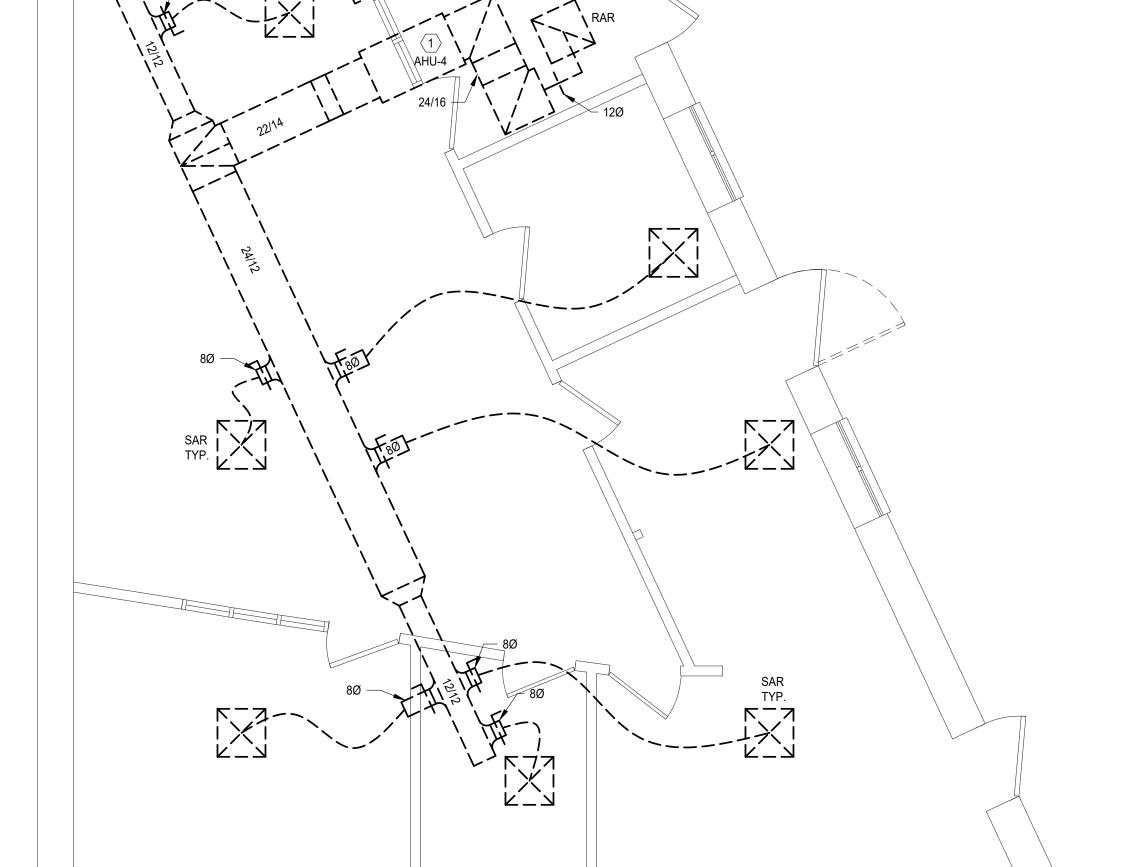
 DRAWN BY
 GMS

CHECKED BY

M1.1

© 2024 - BATES ARCHITECTS LLC

 CMB



PARTIAL BASEMENT DEMOLITION PLAN - MECHANICAL

1/4" = 1'-0"



GENERAL NOTES

 CONTRACTOR SHALL PATCH AND SEAL ROOF AS REQUIRED.

NUMBERED NOTES

- REMOVE EXISTING EXHAUST FAN. REMOVE ALL ASSOCIATED SUPPORTS, DUCTWORK AND CONTROLS. PATCH AND SEAL ROOF AS REQUIRED.
- 2 REMOVE EXISTING HEAT PUMP. REMOVE ALL ASSOCIATED SUPPORTS PIPING AND CONTROLS. PATCH AND SEAL ROOF AS REQUIRED.
- REMOVE EXISTING CONCENTRIC VENT. PATCH AND SEAL ROOF AS REQUIRED.

BA

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ROOF DEMOLITION PLAN -MECHANICAL

	NO.	DESCRIPTION	DATE
		PERMIT & CONSTRUCTION	03.21.24
١.			

 PROJECT NUMBER
 23-0742.01

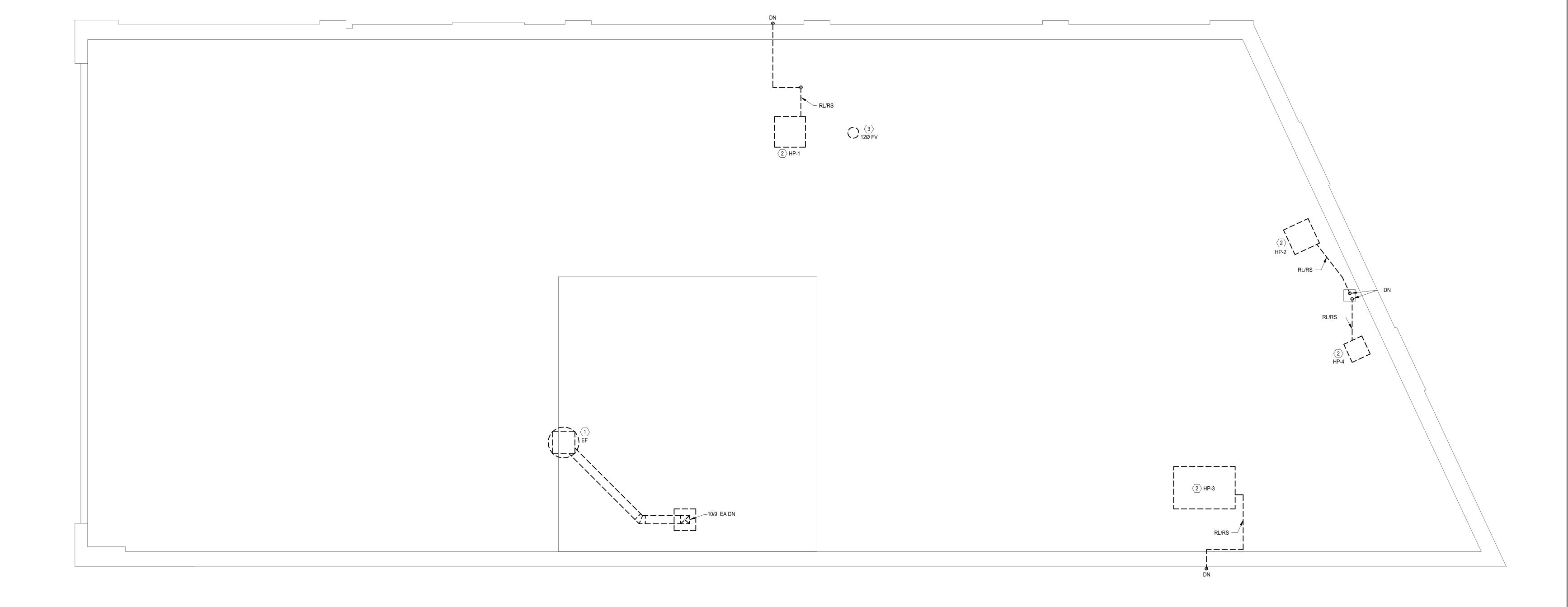
 DATE
 03.21.24

DRAWN BY GMS

CHECKED BY CMB

M1.2

© 2024 - BATES ARCHITECTS LLC



ROOF DEMOLITION PLAN - MECHANICAL

1/4" = 1'-0"



NUMBERED NOTES

REQUIREMENTS.

- PROVIDE NEW CEILING EXHAUST FAN. INSTALL ALL ASSOCIATED SUPPORTS, DUCTWORK, CONTROLS, AND WALL CAP PER MANUFACTURER'S REQUIREMENTS.
- PROVIDE NEW AIR CURTAIN. INSTALL ALL ASSOCIATED SUPPORTS PER MANUFACTURER'S
- 3 SIDE CONNECTION FROM MAIN VERTICAL DUCT TO SIDE TAKEOFF. MAKE ALL FINAL CONNECTIONS IN FIELD. REFER TO M2.0 #2 FOR ADDITIONAL INFORMATION.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

FIRST FLOOR PLAN -MECHANICAL

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

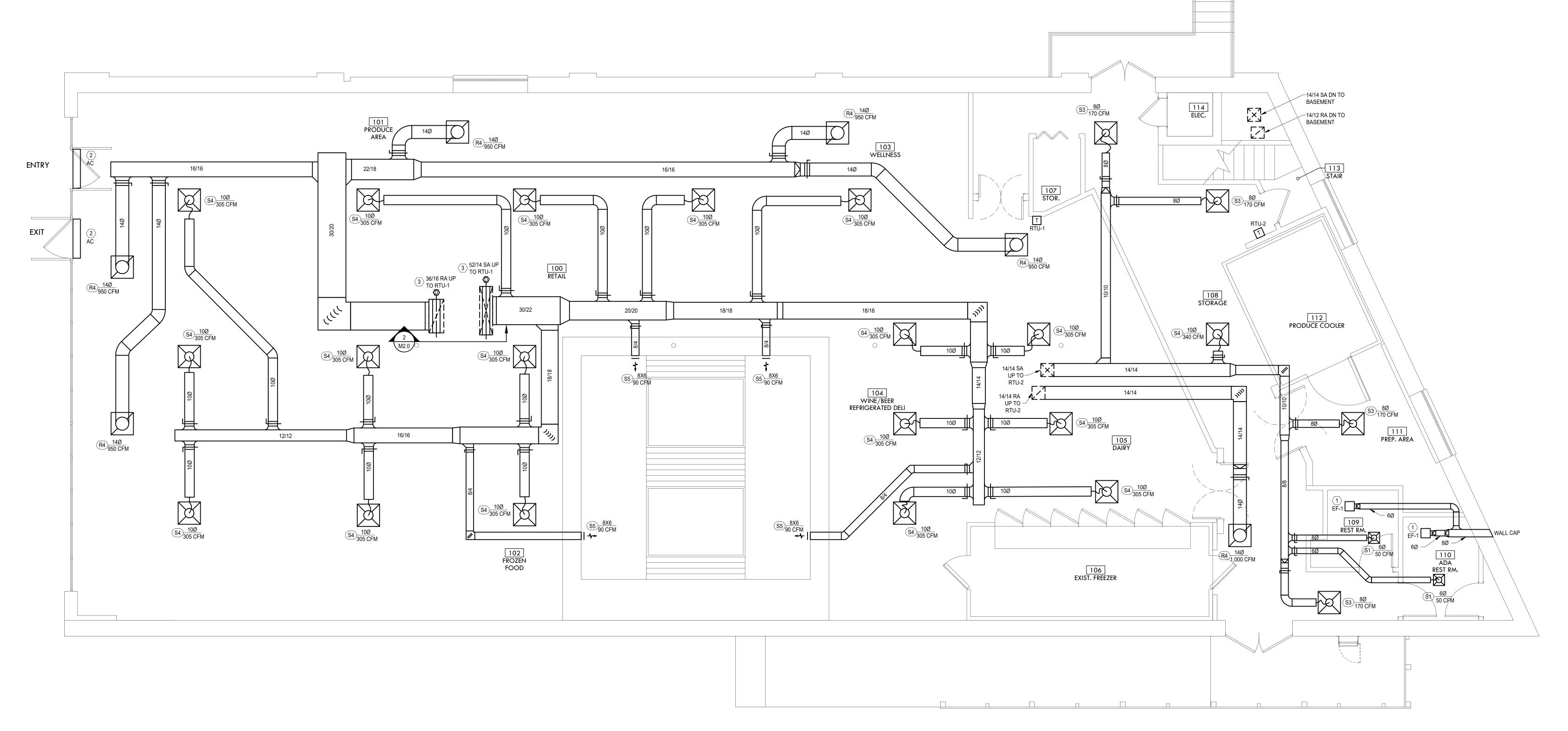
 PROJECT NUMBER
 23-0742.01

 DATE
 03.21.24

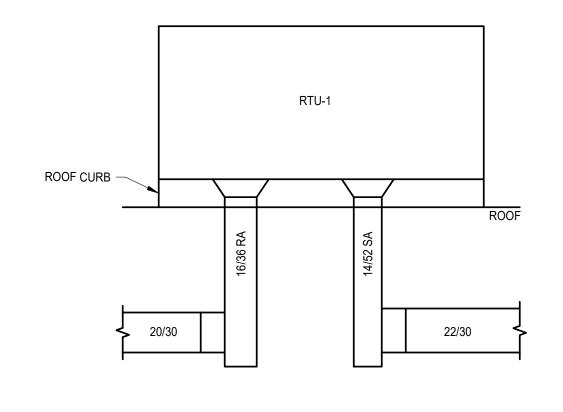
DRAWN BY GMS
CHECKED BY CMB

M2.0

© 2024 - BATES ARCHITECTS LLC

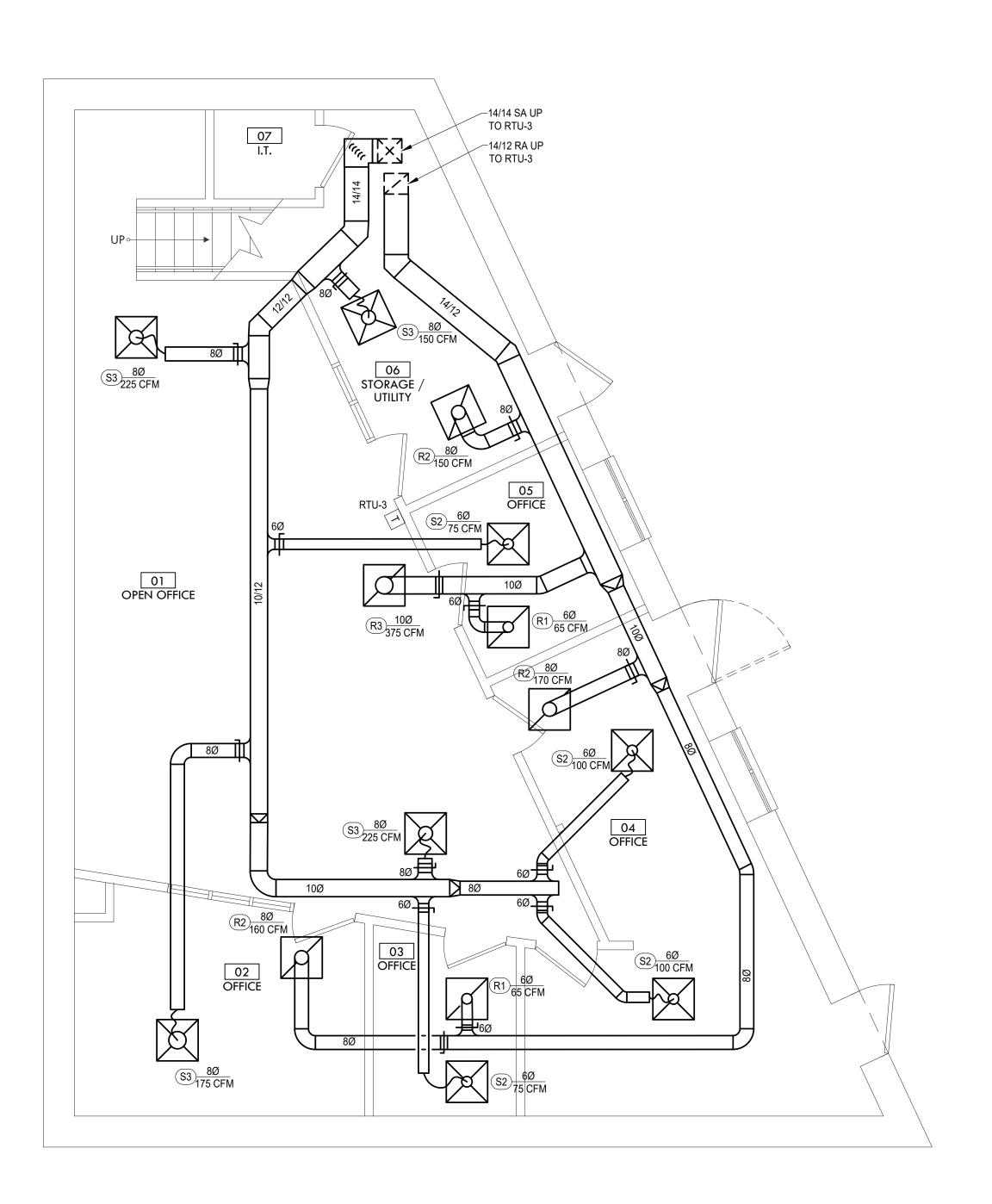


FIRST FLOOR PLAN - MECHANICAL



2 RTU-1 SECTION - MECHANICAL
M2.0 NO SCALE





PARTIAL BASEMENT PLAN - MECHANICAL

1/4" = 1'-0"



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511
Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

SECOND FLOOR PLAN -MECHANICAL

NO.	DESCRIPTION	DATE		
	PERMIT & CONSTRUCTION	03.21.24		

PROJECT NUMBER 23-0742.01

DATE 03.21.24

DRAWN BY GMS

CHECKED BY CMB

M2.1



GENERAL NOTES

- ALL EXTERIOR DUCTWORK SHALL BE THREMODUCT. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. MAKE ALL FINAL CONNECTIONS IN FIELD. INSTALL PER MANUFACTURER'S REQUIREMENTS.
- CONTRACTOR SHALL COORDINATE EXACT UNIT PLACEMENT AND ROOF PENETRATIONS WITH STRUCTURAL DRAWINGS.

NUMBERED NOTES

PROVIDE NEW ROOF TOP UNIT. INSTALL ALL ASSOCIATED SUPPORTS, DUCTWORK, PIPING, AND CONTROLS. INSTALL PER MANUFACTURER'S REQUIREMENTS.

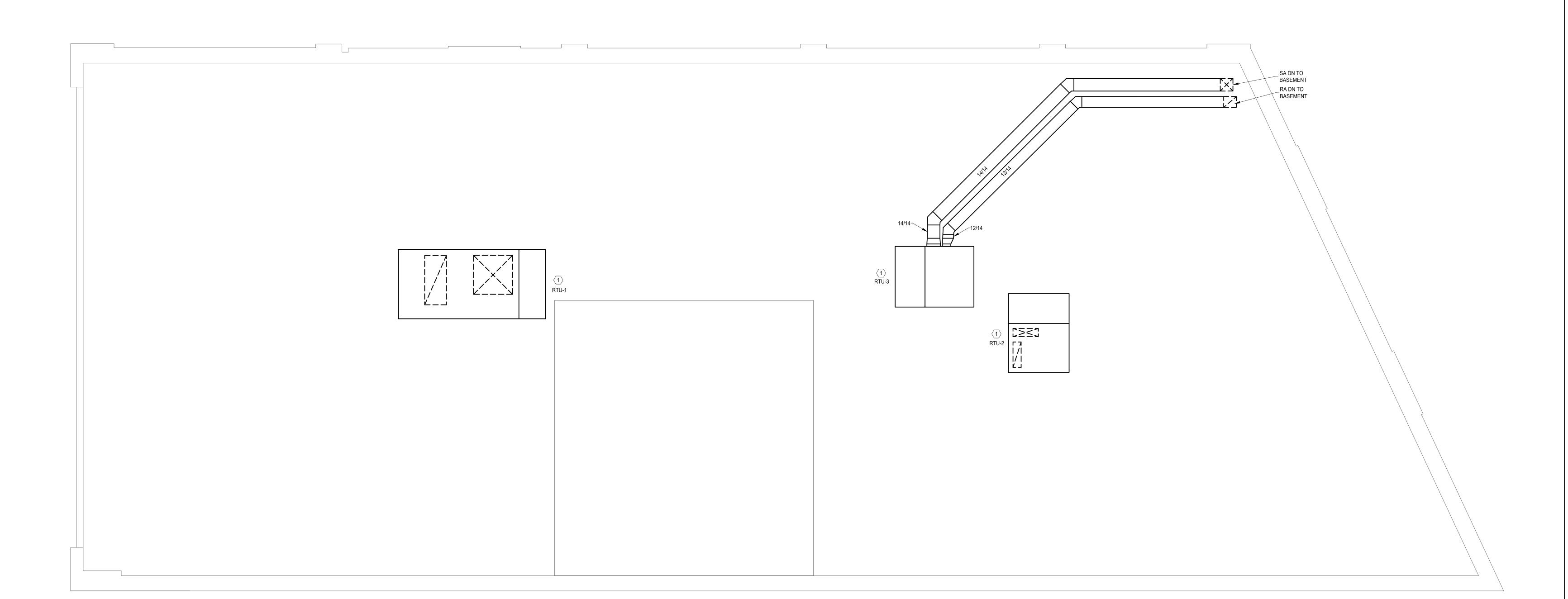


BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01



PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ROOF PLAN -MECHANICAL

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

 PROJECT NUMBER
 23-0742.01

 DATE
 03.21.24

 DRAWN BY
 GMS

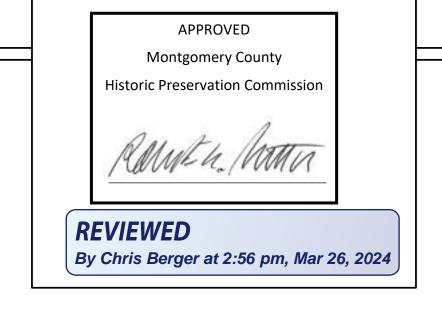
DRAWN BY GMS
CHECKED BY CMB

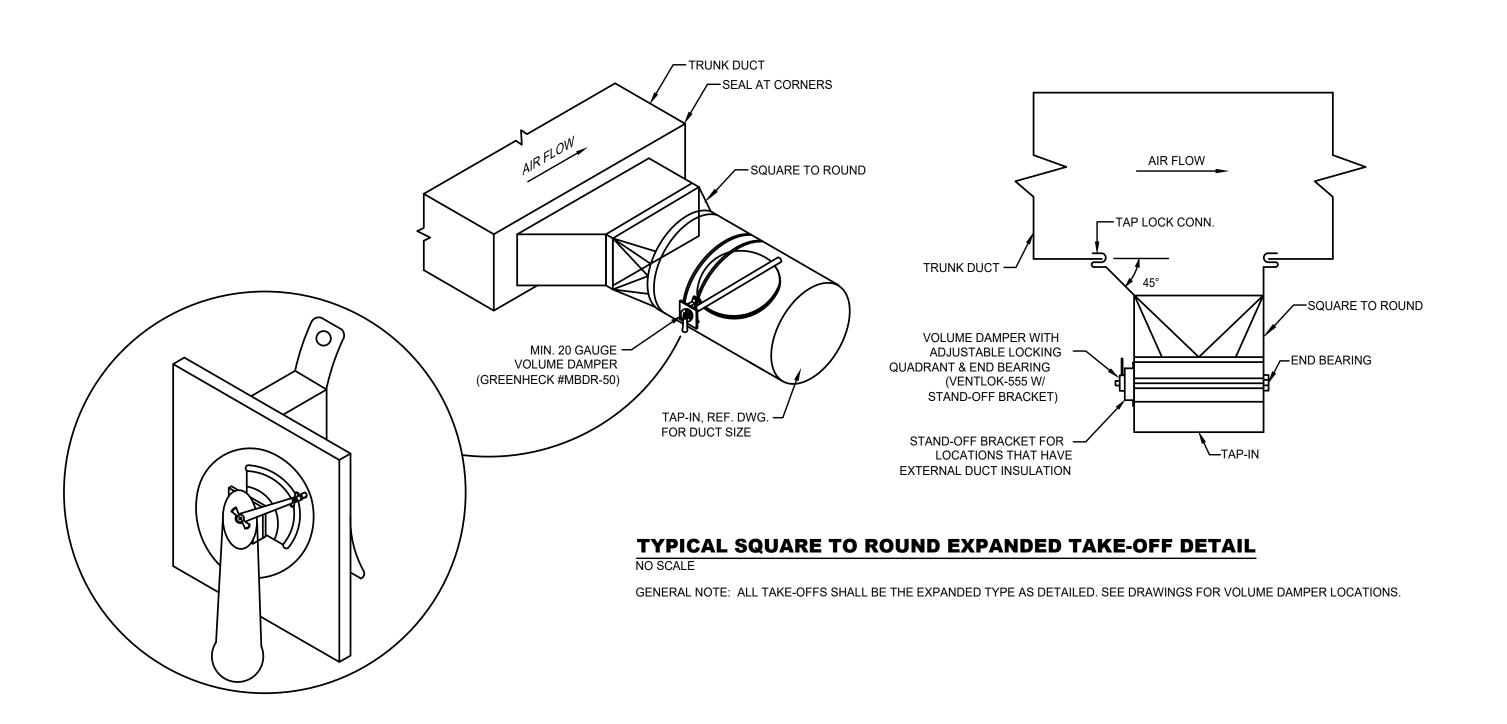
M2.2

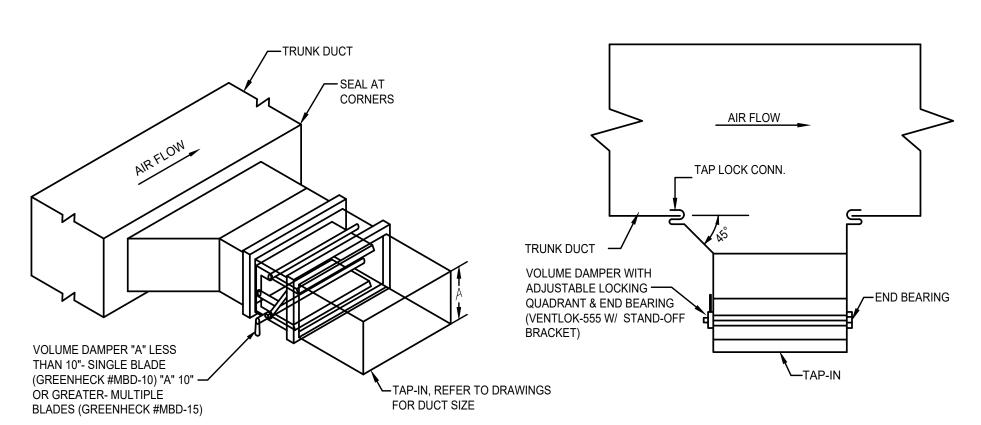
© 2024 - BATES ARCHITECTS LLC

ROOF PLAN - MECHANICAL

1/4" = 1'-0"

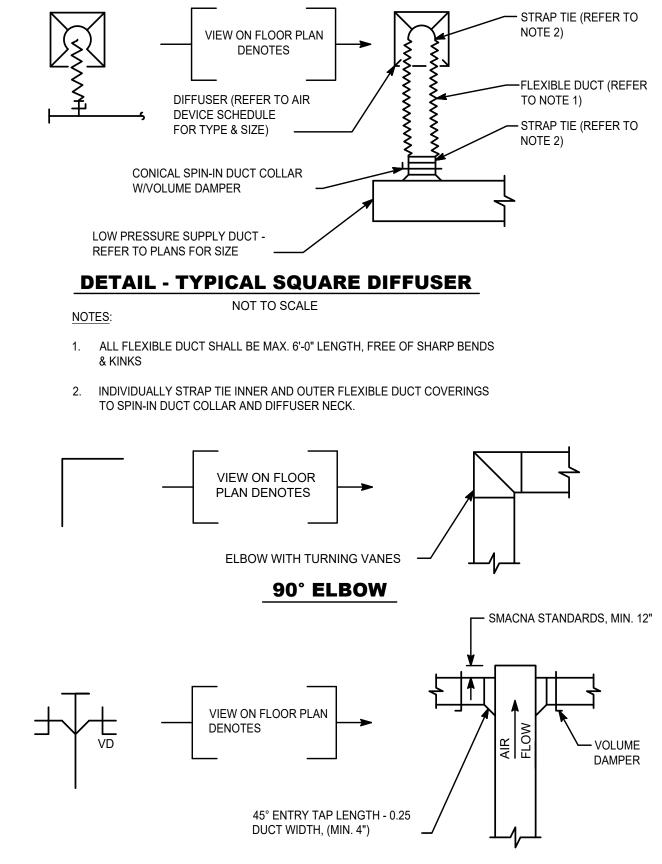






TYPICAL RECTANGULAR EXPANDED TAKE-OFF DETAIL

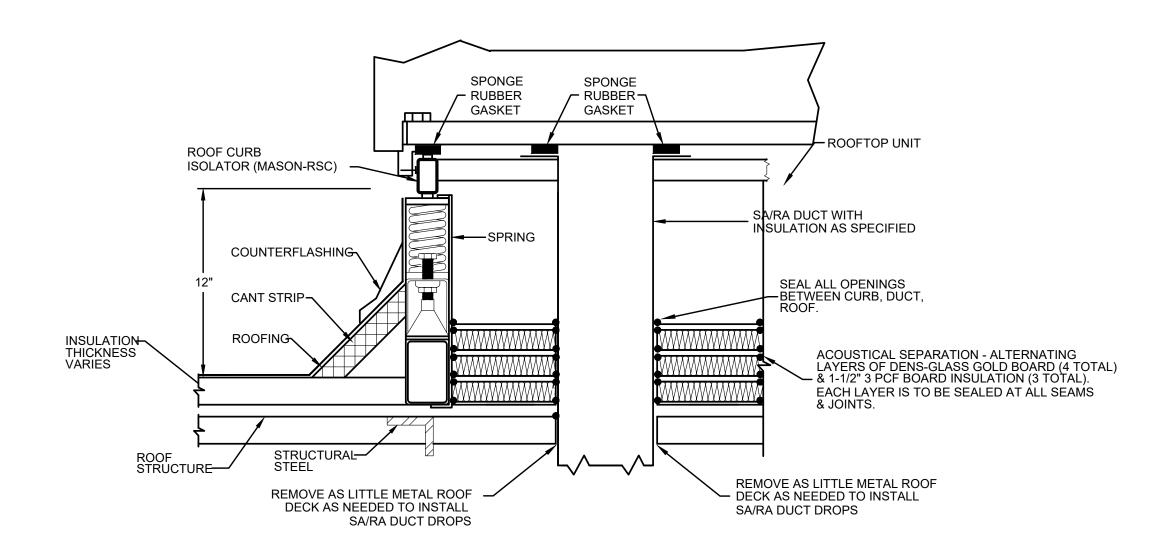
GENERAL NOTE: A. ALL TAKE-OFFS SHALL BE THE EXPANDED TYPE AS DETAILED. SEE DRAWINGS FOR VOLUME DAMPER LOCATIONS.



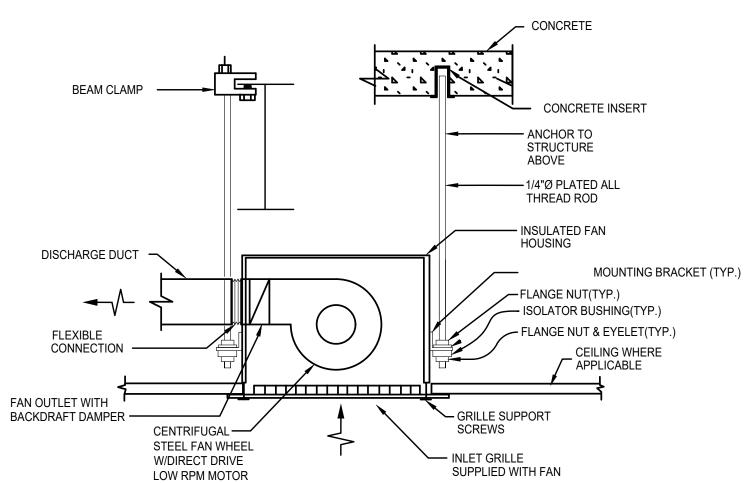
BRANCH CONNECTION

DETAIL - DUCT CONNECTIONS

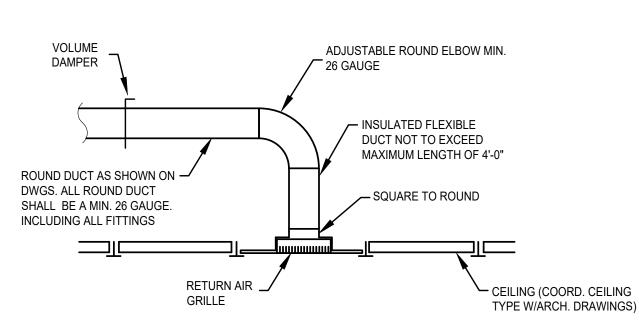
NOT TO SCALE



ROOF TOP UNIT WITH VIBRATION ISOLATION CURB - DETAIL NO SCALE



CEILING FAN DETAIL W/ GEMINI ISOLATOR KIT



DUCTWORK DETAIL - RETURN



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:<u>45511</u> Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

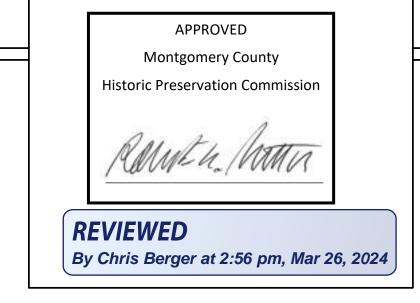
MECHANICAL DETAILS

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24
PRO	JECT NUMBER 23	-0742.01

03.21.24

GMS DRAWN BY CHECKED BY CMB

M5.1



		V1 .											ia.	R	OOFT	OP U	NIT S	CHEDU	LE		567			199			13			200	į
DESIG.	LOCATION	SERVICE		SUPPLY	AIR		OUTSIDE AIR		DX	COOLING						GAS	HEATING				HOT	GAS REH	EAT	8	LECTRICA	L)	SEER/	MAX UNIT	100,000-000-0	Lance of the second	A1193.034
			MAX CFM	MIN CFM	ESP	HP	CFM	TC/SC (MBH)	EAT "F DB	EAT °F WB	LAT •F DB	LAT °F WB	TYPE	CFM	EAT °F DB	LAT +F DB	INTPUT (MBH)	OUTPUT (MBH)	TEMP RISE	STAGES	TOTAL (MBH)	LAT *F WB	LAT *F DB	V/PH/HZ	MCA	МОСР	EER	WEIGHT (LBS)	REMARKS	MANUFACTURER	MODEL
RTU-1	ROOF	GROCEREY	5,600	2,240	1.50	5.0	845	249.7/169.5	80	67	52.3	52.3	NATURAL	5,600	60	99.5	300	240	60	4	120	60	72	208/3/60	112	150	19.5/10.4	3,839	1,2,3,4,5,6,7	DAIKIN	DPS020A
RTU-2	ROOF	BACK OF HOUSE	1,125	485	0.60	4.0	115	47.1/32.8	80	67	53.3	53.3	NATURAL	1,125	60	112.4	80	64	100	2	22.8	60.3	72	208/3/60	30.2	40	16.2/11.8	1,445	1,2,3,5,6,7	DAIKIN	DPS004A
RTU-3	ROOF	BASEMENT OFFICES	1,125	535	0.60	4.0	130	47.1/32.8	80	67	53.3	53.3	NATURAL	1,125	60	112.4	80	64	100	2	22.8	60.3	72	208/3/60	30.2	40	16.2/11.8	1,445	1,2,3,5,6,7,8	DAIKIN	DPS004A
							70																								

1. U.L LISTED.
2. MECHANICAL CONTRACTOR SHALL PROVIDE STARTER AND DISCONNECT.
3. SINGLE ZONE VARIABLE AIR VOLUME UNIT WITH DX COOLING, GAS FIRED HEATING, BAROMETRIC RELIEF, HOT GAS REHEAT, 14" NEW ROOF CURB

 PROVIDE ECONOMIZER WITH COMPARATIVE ENTHALPY CONTROL. PROVIDE MERV 13 FILTERS AND BIPOLAR IONIZATION.

PROVIDE DUCT SMOKE DETECTORS FOR EMERGENCY UNIT SHUTOFF.

7. PROVIDE ALL NEW PITCHPOCKETS FOR ELECTRICAL AND GAS PIPING. PROVIDE SIDE DISCHARGE, SUPPLY AND RETURN AIR.

		AIRFLOW		MOTOR	
DESIG	SERVICE	(CFM) (NOTE 2)	HP	VOLTS / PHASE / HZ	REMARKS (NOTE 2
AC-1	FRONT ENTRANCE	1050	1/6	120V/1Ø/60HZ	
AC-2	FRONT ENTRANCE	1050	1/6	120V/1Ø/60HZ	

1. U.L LISTED. 2. AIRFLOW SCHEDULED AT HIGH SPEED SETTING.

	EXHAUST FAN SCHEDULE												
DESIG.	SERVICE	AIR FLO	W (CFM)	S.P. (INCHES	RPM	DRIVE TYPE	HP/ WATTS	V/ PH/ HZ	NOTES	MANUFACTURER	MODEL		
		MAX.	MIN.	W.G.)		1,33,50							
EF-1	TOILETS	75	75	0.375	1,725	DIRECT	1/3 HP	115V/1Ø/60HZ	1,2,3,4,5	GREENHECK	SP-LP0511-1		

- U.L LISTED.
- 2. PROVIDE BACKDRAFT DAMPER. 3. PROVIDE ISOLATION KIT.
- 4. PROVIDE FAN SPEED CONTROL. 5. FAN TO OPERATE ON OCCUPANCY SENSOR.

				In	VIC Vent	ilation Tak	ole							
System	RTU-1													
Room	· ·		Area Outdoor Air Rate Per IMC Table 403.3 RA	Outdoor RaAz	Occupant Load Rate Per IMC Table 403.3 (People/ 1000 ft2)	C * F/1000 PZ	Outdoor	Outdoor Air RpPz	Zone	Zone Air Distribution Effectiveness Ez	Outdoor Air	Supply Air Design Vpz	Outdoor Air Fraction = Voz/ Vpz	Zρ
100 Retail	Supermarkets	4254	0.06	255.24	— ·	75	7.5	562.5	817.74	0.8	1022.175	5600		0.1
Totals		4254		255.24		75		562.5	817.74			5600		
	Occupancy:	75		,		,						•	•	
	Uncorrected Outdoor Air (Vou)	817.74							Total Requ	uired Outdoor Air (Vot)		Total Out	door Air Prov	ideo
	System Ventilation Efficiency: (IMC 2021 Table 403.3.1.1)	0.97	Max Zp=	0.18						843.03	3		84	15.00

DESIG.	SERVICE	DESCRIPTION	NOMINAL SIZE (INCHES)	# OF SLOTS/ SLOT WIDTH (INCHES)	INLET/NECK SIZE (INCHES)	MAX N.C. LEVEL	FINISH	REMARKS
S1	SUPPLY	LOUVERED CEILING DIFFUSER	12"x12"	1740	6"Ø	23	#26 FINISH	TITUS TDC, 12"x12" MODULE, TYPE 1, (NOTE 1)
S2	SUPPLY	LOUVERED CEILING DIFFUSER	18"x 18"	-	6"Ø	24	#26 FINISH	TITUS TDC, 24"x24" MODULE, TYPE 3, (NOTE 1)
S3	SUPPLY	LOUVERED CEILING DIFFUSER	18"x 18"	(45)	8"Ø	24	#26 FINISH	TITUS TDC, 24"x24" MODULE, TYPE 3, (NOTE 1)
S4	SUPPLY	LOUVERED CEILING DIFFUSER	18"x 18"	34.3	10°Ø	24	#26 FINISH	TITUS TDC, 24"x24" MODULE, TYPE 3, (NOTE 1)
S5	SUPPLY	SUPPLY AIR REGISTER	8"x 6"	843	243	24	#26 FINISH	TITUS 301RL, 8"x 6" MODULE, TYPE A
R1	RETURN	RETURN AIR REGISTER	22"x22"	548	6°Ø	24	#26 FINISH	TITUS 350RL, TYPE 3, 24"x24" MODULE (NOTE 1)
R2	RETURN	RETURN AIR REGISTER	22"x 22"		8"Ø	24	#26 FINISH	TITUS 350RL, TYPE 3, 24"x24" MODULE (NOTE 1)
R3	RETURN	RETURN AIR REGISTER	22"x22"	100	10"Ø	24	#26 FINISH	TITUS 350RL, TYPE 3, 24"x24" MODULE (NOTE 1)
R4	RETURN	RETURN AIR REGISTER	22"x22"	1000	14"Ø	24	#26 FINISH	TITUS 350RL, TYPE 3, 24"x24" MODULE (NOTE 1)

PROVIDE SQUARE TO ROUND ADAPTOR.

				11	MC Vent	ilation Tal	ole						
System	RTU-2												
Room	Description			Area	1	Occupancy	,	l '			Zone		Outdoor Air
		AZ				C * F/1000		Outdoor		Effectiveness Ez		Air	Fraction Z
				RaAz	Rate Per	PZ		Air RpPz			Air	Design	= Voz/ Vpz
			Per IMC		IMC		Per Table		Air			Vpz	
			Table		Table		403.3		Vbz =		Vbz/ Ez		
			403.3		403.3		Rp		RpPz +				
			RA		(People/				RaAz				
		<u> </u>			1000 ft2)	1	<u> </u>	1					
108 Storage	Supermarkets	113		6.78	8	0.904	7.5	6.78	13.56			 	!
109 Rest Rm.	Toilet rooms - public	30	0	0	0	O C	0	0	0	0.8	0	50	0.0
110 ADA Rest Rm.	Toilet rooms - public	66	0	0	0	0	0	0	0	0.8	0	50	0.0
111 Prep. Area	Supermarkets	422	0.06	25.32	. 8	3.376	7.5	25.32	50.64	0.8	63.3	800	0.0
Totals		631		32.1		4.28		32.1	64.2			1125	
	Occupancy:	6											
	Uncorrected Outdoor Air (Vou)	77.1							Total Requ	uired Outdoor Air (Vot)]	Total Out	door Air Provide
	System Ventilation Efficiency:	1	Max Zp=	0.08						77.10			115.0
	(IMC 2021 Table 403.3.1.1)		-	•	_						•		
	,								Percen	tage of Outdoor Air	1	Percentas	ge of Outdoor A
										6.9%	1		10.2

	•		•	11	MC Vent	ilation Tak	le						
System	RTU-3												
Room	Description	AZ	Area Outdoor Air Rate Per IMC Table 403.3 RA	Area Outdoor RaAz	•	C * F/1000 PZ	Outdoor	Outdoor Air RpPz	Zone	Zone Air Distribution Effectiveness Ez		Supply Air Design Vpz	Outdoor Air Fraction Zp = Voz/ Vpz
01 Open Office	Office space	572	0.06	34.32	5	2.86	5	14.3	48.62	0.8	60.775	450	0.14
02 Office	Office space	126	0.06	7.56	5	0.63	5	3.15	10.71	0.8	13.3875	175	0.08
03 Office	Office space	47	0.06	2.82	5	0.235	5	1.175	3.995	0.8	4.99375	75	0.07
04 Work Room	Office space	225	0.06	13.5	5	1.125	5	5.625	19.125	0.8	23.90625	200	0.12
05 Office	Office space	63	0.06	3.78	5	0.315	5	1.575	5.355	0.8	6.69375	75	0.09
06 Storage/Utility	Office space	144	0.06	8.64	5	0.72	5	3.6	12.24	0.8	15.3	150	0.10
Totals		1177		70.62		5.885		29.425	100.045			1125	
	Occupancy: Uncorrected Outdoor Air (Vou) System Ventilation Efficiency: (IMC 2021 Table 403.3.1.1)	12 130.62 1	4	0.14]					uired Outdoor Air (Vot) 130.62 utage of Outdoor Air 11.6%]]		door Air Provided 130.00 ge of Outdoor Air 11.6%



BATES ARCHITECTS 121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446

CILENGINEERING
5285 Westview Drive 5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

WEB WWW BATESARCHITECTSPC COM

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No: 45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

MECHANICAL SCHEDULES SHEET

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

PROJECT NUMBER 23-0742.01 03.21.24

DRAWN BY GMS CHECKED BY CMB

M7.1



PLUMBING ABBREVIATIONS

AUTOMATIC AIR VENT ABOVE CEILING ABOVE FINISHED FLOOR AS HIGH AS POSSIBLE AUTHORITY HAVING JURISDICTION AMERICAN NATIONAL STANDARDS INSTITUTE ACCESS PANEL AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS AMERICAN SOCIETY OF MECHANICAL ENGINEERS AMERICAN SOCIETY OF PLUMBING ENGINEERS ACID VENT AVTR ACID VENT THRU ROOF

ACID WASTE BACKFLOW PREVENTER BALANCING STATION BRITISH THERMAL UNIT COMPRESSED AIR

CFM CIRC CLG CUBIC FEET PER MINUTE CIRCULATING CEILING CLEAN OUT COND CONT CONDENSATE CONTINUATION

CO2 CU FT CARBON DIOXIDE CUBIC FEET CUBIC INCH CU IN COLD WATER DEIONIZED WATER

DEG (°) DEGREE DISTILLED WATER DIA (Ø) DIAMETER DEMOLISH DWG DRAWING

EXIST

ELECTRICAL CONTRACTOR EFFICIENCY ELEVATION EQUIPMENT ETC ETCETERA ELECTRONIC TRAP PRIMER ETP

EXISTING

EXPANSION

FAHRENHEIT FROM ABOVE FROM BELOW FLOW CONTROL VALVE FLOOR DRAIN FFD FLR FUNNEL FLOOR DRAIN FLOOR FP FIRE PROTECTION FPC FIRE PROTECTION CONTRACTOR FEET PER MINUTE

FPM FPS FT FEET PER SECOND FTG FOOD SERVICE CONTRACTOR FSC NATURAL GAS GAUGE GALLONS

GENERAL CONTRACTOR GPH GALLONS PER HOUR GPD GALLONS PER DAY **GALLONS PER MINUTE** GPM HEADER

HDR MERCURY HORSEPOWER HORIZ HORIZONTAL HR HOUR HTG HEATING HW HOT WATER HOT WATER RETURN FREQUENCY (HERTZ)

INSIDE DIAMETER INVERT ELEVATION INSUL INSULATION INTERNATIONAL PIPE STANDARD IPS

PLUMBING ABBREVIATIONS (CONT)

JOINT KILOWATT KILOWATT HOUR LINEAR FEET LATENT HEAT LIQUID LIGHTING LAB VACUUM

MEDICAL AIR MAXIMUM THOUSAND BTU's MECHANICAL CONTRACTOR THOUSAND CUBIC FEET MFGR MANUFACTURER MIN MH MANHOLE

MTD MTR MOUNTED MOTOR NITROGEN NOT APPLICABLE NORMALLY CLOSED NOT IN CONTRACT NORMALLY OPEN NTS NOT TO SCALE N2O

NITROUS OXIDE **OUTSIDE DIAMETER** OUNCES PERCENT PLUMBING CONTRACTOR

PRESSURE DROP PRESSURE GAUGE WITH COCK PPM PARTS PER MILLION PRESS PRESSURE PRESSURE REDUCING VALVE POUNDS PER SQUARE FOOT PSIA POUNDS PER SQUARE INCH ABSOLUTE PSIG POUNDS PER SQUARE INCH GAUGE

ROOF DRAIN REVOLUTIONS REQD REQUIRED REVERSE OSMOSIS RPM REVOLUTIONS PER MINUTE REVOLUTIONS PER SECOND RELIEF VALVE RWC RAIN WATER CONDUCTOR

QUANTITY

QNTY

SECOND SANITARY SCFM CFM AT STANDARD CONDITIONS SCH SCHEDULE SPECIFIC GRAVITY SHUT-OFF VALVE SPECIFICATION SQUARE FEET STAINLESS STEEL STORM

STD STR STRAINER SUCT SUCTION SW SWITCH TOP ELEVATION TEMP TRANS TYP TEMPORARY TRANSITION TYPICAL

STANDARD

UNDERGROUND UNLESS NOTED OTHERWISE VOLT OR VENT VAC VACUUM VEL VFS VELOCITY VENTURI VOL VOLUME VENT THRU ROOF VTR

WATT OR UNDERGROUND WATER WAGD WASTE ANESTHESIA GAS DISPOSAL W/ WITH WATER COLUMN

EXISTING TO REMAIN

PLUMBING PIPING GENERAL NOTES

1. ALL SANITARY PIPING BELOW SLAB SHALL BE A MINIMUM OF 4" Ø, UNLESS NOTED OR AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.

2. ALL SANITARY AND STORM PIPING 2" AND SMALLER SHALL BE SLOPED AT A MINIMUM 1/4" PER FOOT, AND ALL SANITARY AND STORM PIPING 3" AND LARGER SHALL BE SLOPED AT A MINIMUM OF 1/8" PER FOOT, UNLESS OTHERWISE NOTED OR AS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION. 3. ALL PIPING WORK SHALL BE COORDINATED WITH ALL TRADES

INVOLVED. OFFSETS IN PIPING AROUND OBSTRUCTIONS SHALL

BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER. 4. PROVIDE HOSE END DRAIN VALVES AT THE BOTTOM OF ALL RISERS AND LOW POINTS.

5. UNLESS OTHERWISE NOTED, ALL PIPING IS OVERHEAD, TIGHT TO THE UNDERSIDE OF THE STRUCTURE OR SLAB, WITH SPACE FOR INSULATION IF REQUIRED.

6. INSTALL PIPING SO ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.

IN SERVICE WHEN EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED. 8. ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE

7. ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS

PROVIDED WITH POSITION INDICATORS AND THE MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS). 9. PROVIDE CHAINWHEEL OPERATORS FOR ALL VALVES IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7'-0" ABOVE

FLOOR LEVEL; CHAIN SHALL EXTEND TO 7'-0" ABOVE FLOOR

10. ALL VALVES (EXCEPT CONTROL VALVES) AND STRAINERS SHALL BE THE FULL SIZE OF THE PIPE BEFORE REDUCING IN SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS.

11. PROVIDE A LINE SIZE STRAINER UPSTREAM OF EACH AUTOMATIC VALVE. PROVIDE A SHUTOFF VALVE ON EACH SIDE

OF A STRAINER. 12. UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT. IN BYPASSES, AND IN LONG PIPING RUNS (100 FT OR MORE) TO PERMIT DISASSEMBLY FOR ALTERNATION AND

13. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING. 14. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY

OPERATION.

15. PLUMBING CONTRACTOR SHALL ROUGH-IN AND CONNECT ALL EQUIPMENT REQUIRING GAS, WATER, WASTE, VENT, AND/OR COMPRESSED AIR WHETHER OR NOT EQUIPMENT IS FURNISHED UNDER THIS CONTRACT. ALSO, PLUMBING CONTRACTOR TO FURNISH AND INSTALL ALL NECESSARY PIPE, FITTINGS, VALVES, TRAPS, ETC., REQUIRED FOR A COMPLETE INSTALLATION, LEAVING SAME READY FOR SERVICE.

GENERAL PLUMBING KITCHEN NOTES

1. ALL ROUGH-INS AND FINAL PLUMBING CONNECTIONS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST STATE AND/OR LOCAL CODE REQUIREMENTS. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION AND COMPLIANCE WITH ALL APPLICABLE CODE

2. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL FAUCETS, VACUUM BREAKERS, CHECK VALVES, ETC., REQUIRED FOR ITEMS OF FOOD SERVICE EQUIPMENT THAT ARE NOT SUPPLIED AS PART OF THE EQUIPMENT, AND FOR PROVIDING FINAL

CONNECTIONS TO SAME. 3. PLUMBING CONTRACTOR SHALL PROVIDE ALL FLOOR DRAINS, P-TRAPS, FLOOR SINKS, TRAPS, SHUT-OFF VALVES, WATER HAMMER ARRESTORS, PIPING, GAUGES, FITTINGS AND ANY ADDITIONAL PIPING AND/OR FITTINGS REQUIRED FOR

EQUIPMENT INSTALLATION. 4. PLUMBING CONTRACTOR SHALL REDUCE INCOMING GAS PRESSURE TO COOKING EQUIPMENT, AS REQUIRED, TO WITHIN THE INDIVIDUAL TOLERANCES OF EACH PIECE OF EQUIPMENT. EXCESS GAS PRESSURE CAN AND WILL DAMAGE COOKING EQUIPMENT IF INCOMING SUPPLY PIPE IS LEFT UNREGULATED. FURNISH AND INSTALL GAS PRESSURE REGULATORS AND AND FITTINGS, ETC., AS REQUIRED. MAXIMUM GAS PRESSURE FOR COOKING EQUIPMENT SHALL

BE NO GREATER THAN 7.0" OF WATER COLUMN.

PLUMBING PIPING ABBREVIATIONS

DOMESTIC COLD WATER DOMESTIC HOT WATER _---GAS (NATURAL GAS) _____ G _____ ------ SAN ------STORM - SECONDARY

PLUMBING SYMBOLS

DOMESTIC HOT WATER RETURN

UNION, SCREWED CAPPED PIPE PIPE ELBOW UP PIPE ELBOW DOWN PIPE TEE UP PIPE TEE DOWN CLEANOUT DIRECTION OF FLOW PIPE BREAK ISOLATION VALVE BALANCING VALVE CHECK VALVE PRESSURE REDUCING VALVE SAFETY OR RELIEF VALVE THERMOSTATIC MIXING VALVE SOLENOID VALVE NATURAL GAS COCK STRAINER PRESSURE / FLOW SWITCH WATER HAMMER ARRESTOR PRESSURE GAUGE WITH SHUT OFF COCK THERMOMETER WITH SEPARABLE WELL BALANCING STATION ASSEMBLY REFER TO DETAIL DUALCHECK BACKFLOW PREVENTER REFER TO DETAIL REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER REFER TO DETAIL EXTERIOR WALL HYDRANT HOSE-BIBB HOT & COLD WATER HOSE-BIBB ROOF PENETRATION ROOF PENETRATION ON ROOF SITE CURB BOX FLOOR DRAIN (FD) FLOOR SINK (FS) ∞ FUNNEL FLOOR DRAIN (FFD) NUMBERED NOTE PER DRAWING **EQUIPMENT BY OTHERS**

> DISCONNECT POINT-EXTENT OF DEMOLITION

CONNECTION POINT-NEW TO EXISTING

REVISION SEQUENCE NUMBER

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

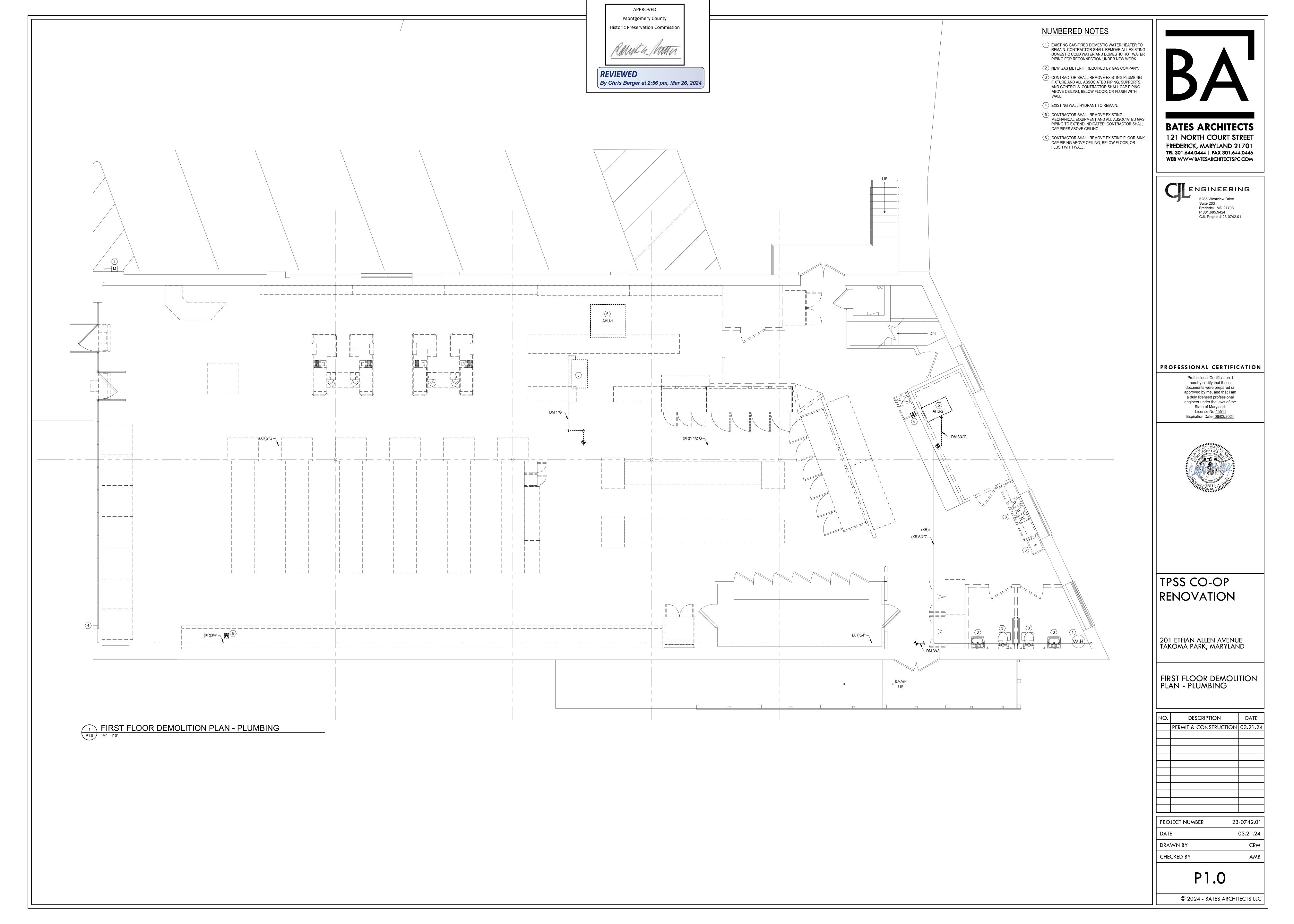
PLUMBING COVER SHEET

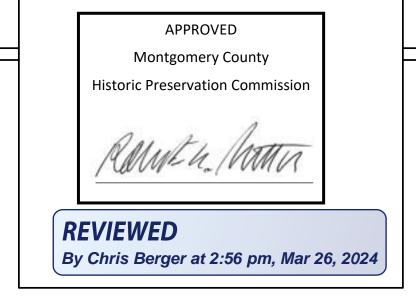
	NO.	DESCRIPTION	DATE
		PERMIT & CONSTRUCTION	03.21.24
	PRO	JECT NUMBER 23	-0742.01
1			

03.21.24 DRAWN BY CRM

AMB

CHECKED BY





GENERAL NOTES

 ALL PIPING SHOWN ON PLAN IS ABOVE CEILING, UNLESS NOTED OTHERWISE.

NUMBERED NOTES

- (1) EXISTING GAS METER TO BE ABANDONED AND REMOVED BY GAS COMPANY.
- (2) EXISTING WALL HYDRANT TO REMAIN.
- 3 CONTRACTOR SHALL REMOVE EXISTING
 MECHANICAL EQUIPMENT AND ALL ASSOCIATED GAS
 PIPING. CONTRACTOR SHALL CAP PIPES ABOVE
 CEILING.
- $\overline{\langle 4 \rangle}$ EXISTING GAS METER TO REMAIN.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

ENGINEERING 5285 Westview Drive

5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

BASEMENT DEMOLITION PLAN - PLUMBING

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.2

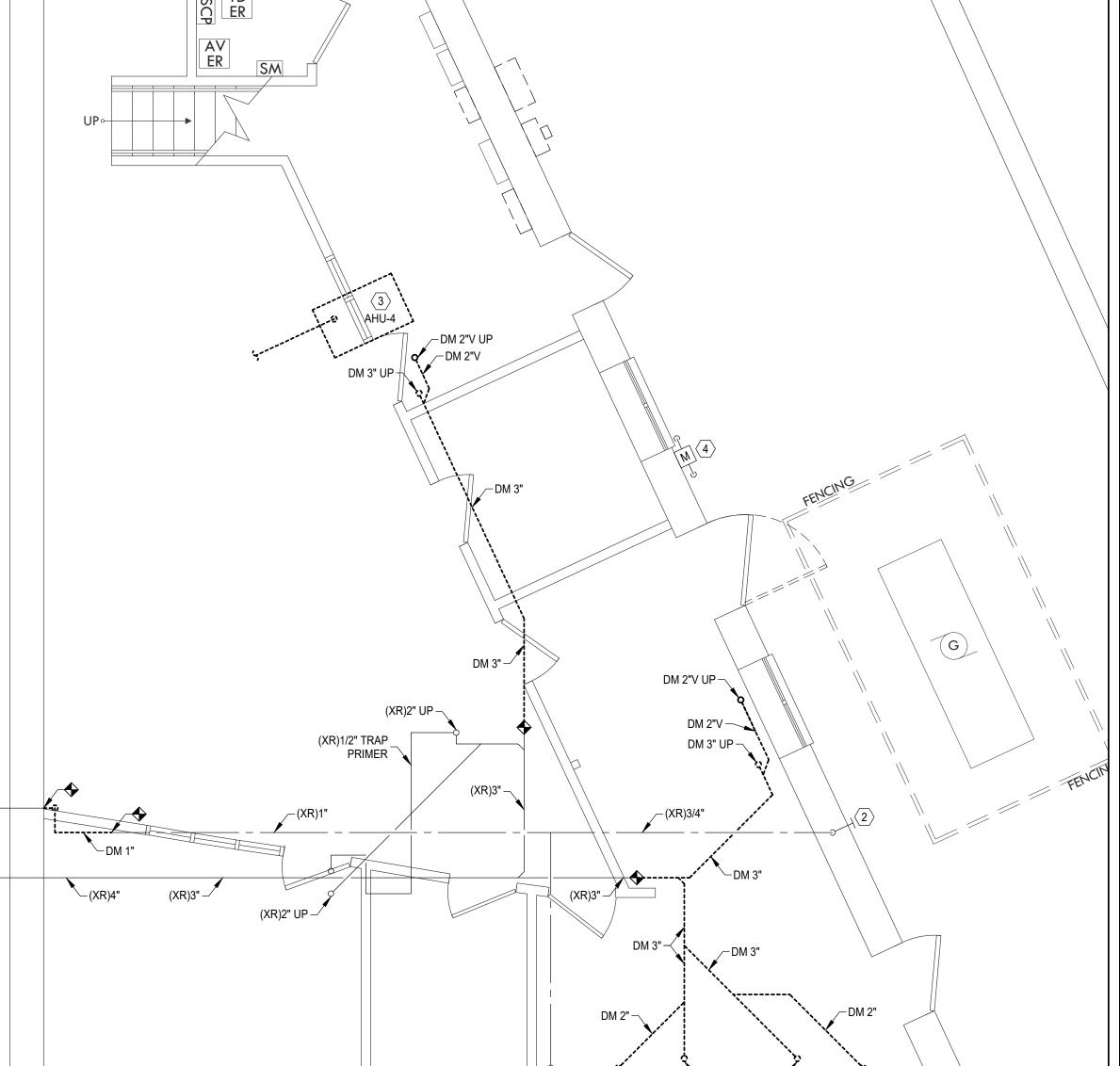
 PROJECT NUMBER
 23-0742.01

 DATE
 03.21.24

DRAWN BY CRM
CHECKED BY AMB

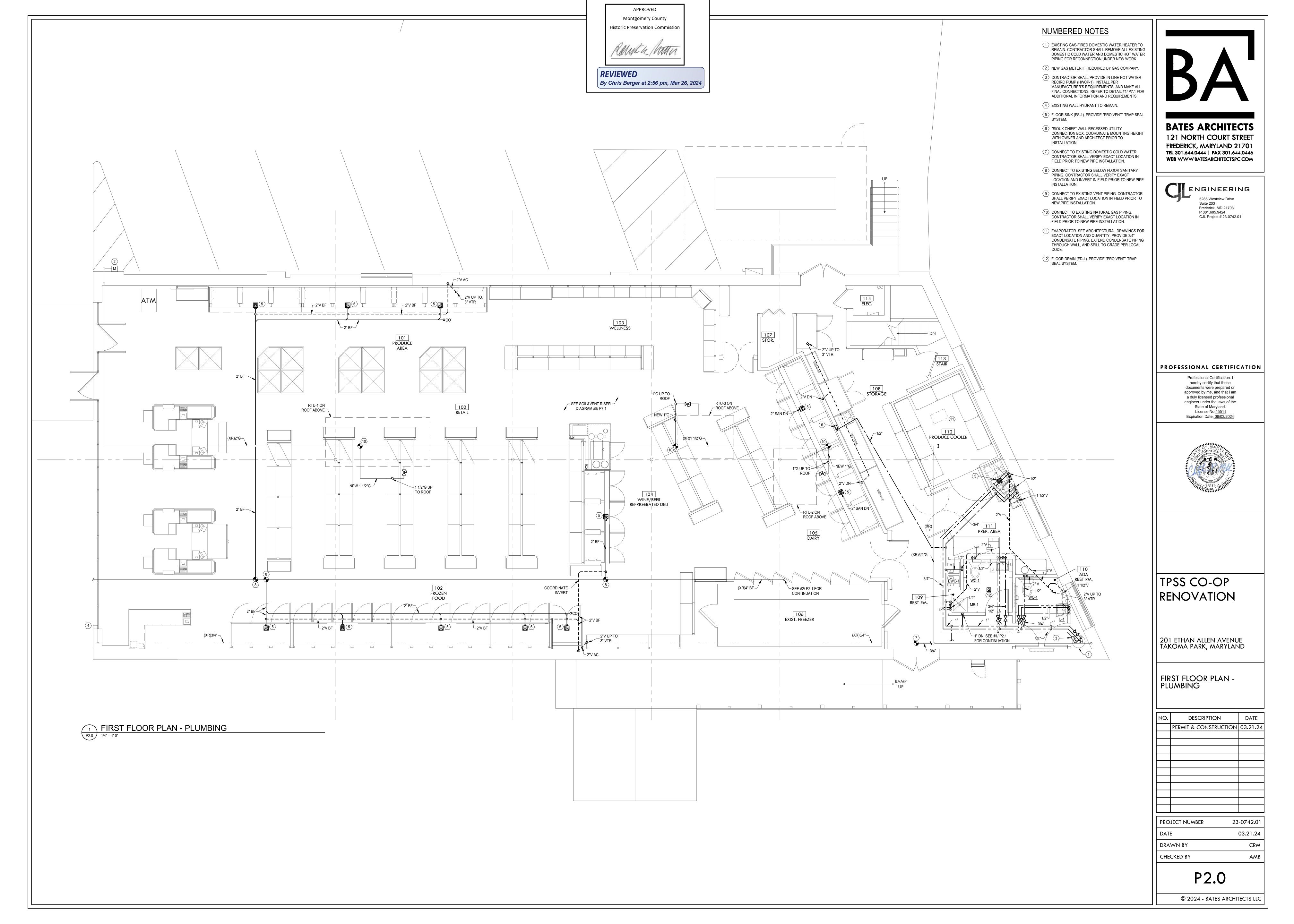
P1 1

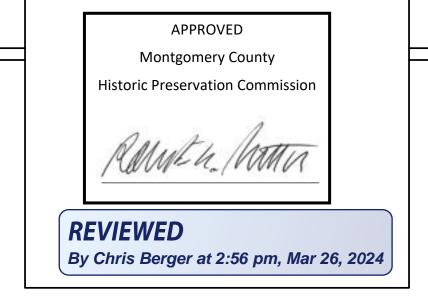
© 2024 - BATES ARCHITECTS LLC



BASEMENT DEMOLITION PLAN - PLUMBING

1/4" = 1'-0"





GENERAL NOTES

 ALL PIPING SHOWN ON PLAN IS ABOVE CEILING, UNLESS NOTED OTHERWISE.

NUMBERED NOTES

- PROVIDE ARCHITECTURAL CHASE WITH ACCESS PANEL FOR NEW WATER ENTRANCE.
 - $\overline{\langle 2 \rangle}$ EXISTING WALL HYDRANT TO REMAIN.
- 3 NEW DOMESTIC WATER ENTRANCE. REFER TO DETAIL #5/ P7.1 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- CONNECT TO EXISTING DOMESTIC COLD WATER PIPING ABOVE CEILING. CONTRACTOR SHALL VERIFY EXACT LOCATION IN FIELD PRIOR TO NEW PIPE INSTALLATION.
- 5 CONNECT TO EXISTING SANITARY PIPING ABOVE CEILING. CONTRACTOR SHALL VERIFY EXACT LOCATION AND INVERT IN FIELD PRIOR TO NEW PIPE INSTALLATION.
- igg(6igg) EXISTING GAS METER TO REMAIN.

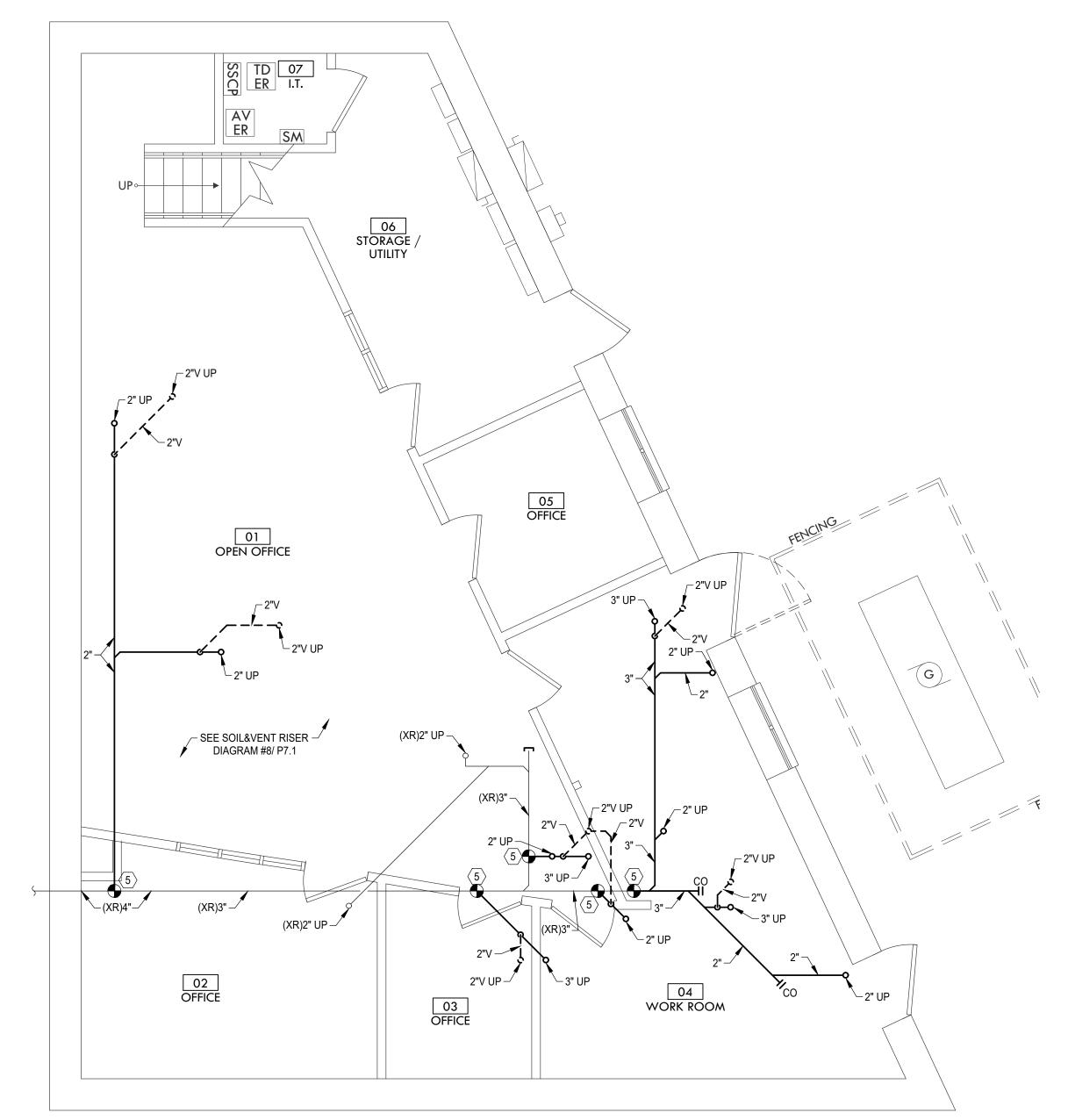


BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01



PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

BASEMENT PLAN -PLUMBING

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

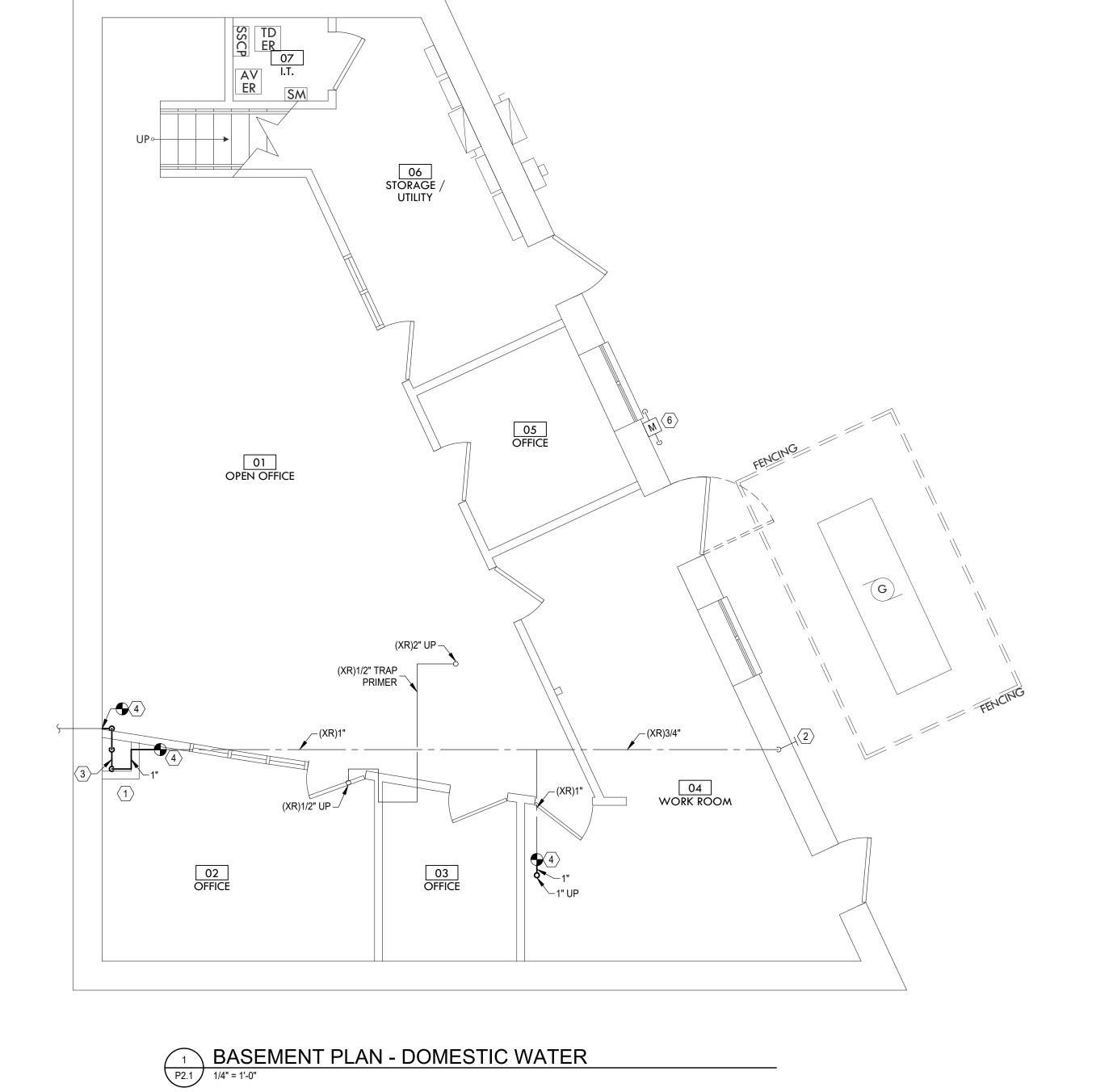
PROJECT NUMBER 23-0742.01

DATE 03.21.24

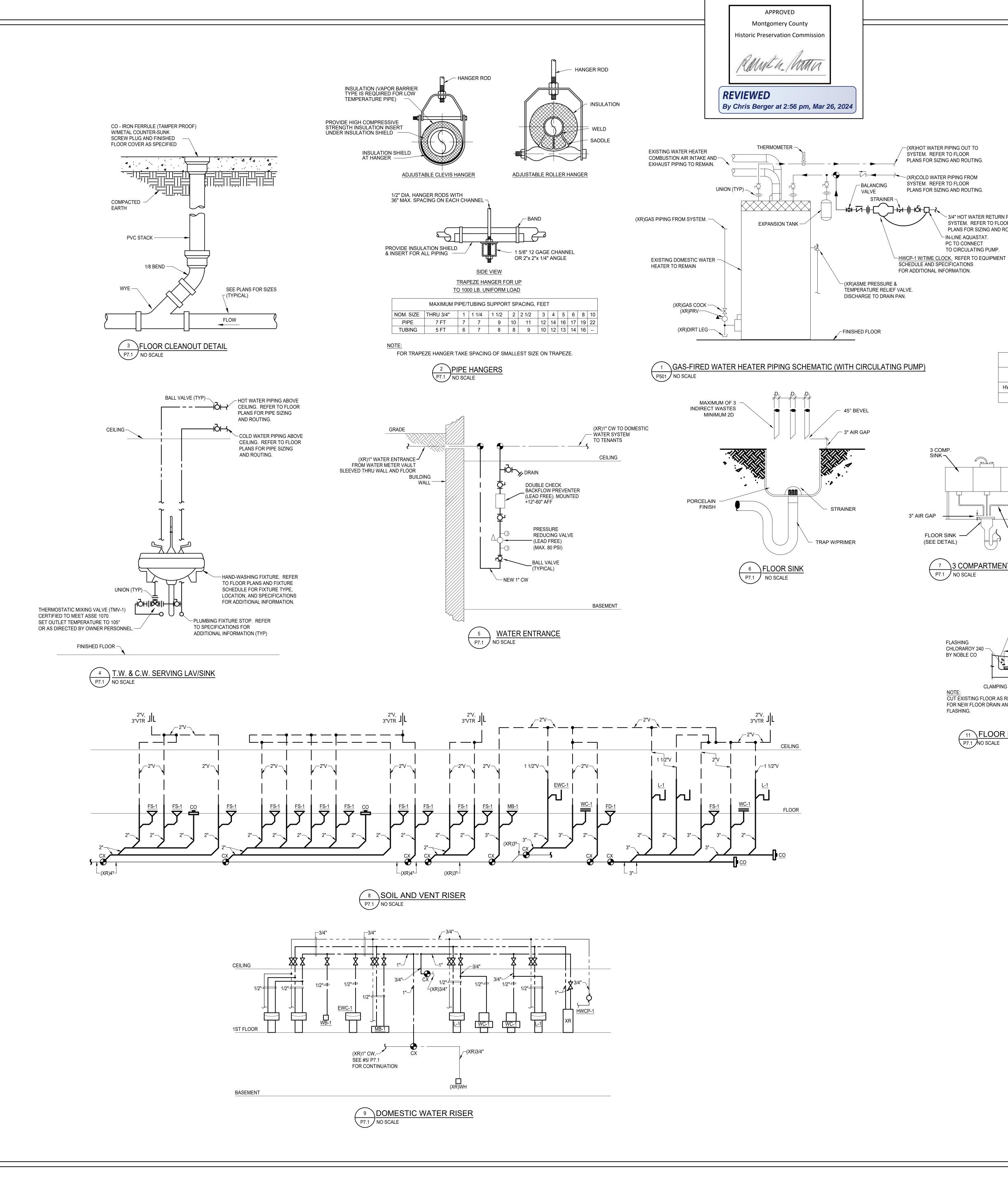
DRAWN BY CRM
CHECKED BY AMB

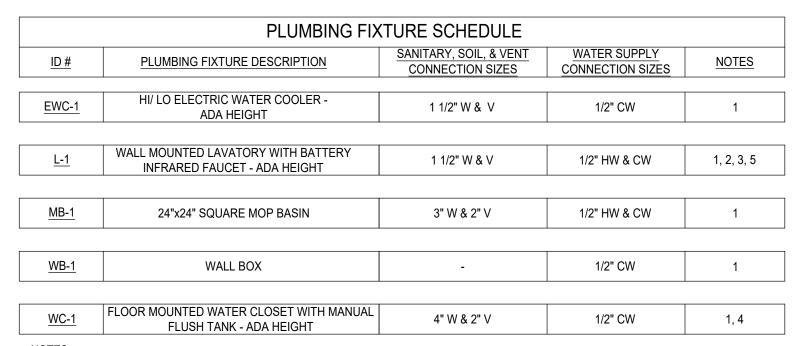
P2.1

© 2024 - BATES ARCHITECTS LLC



BASEMENT PLAN - SOIL AND VENT
1/4" = 1'-0"



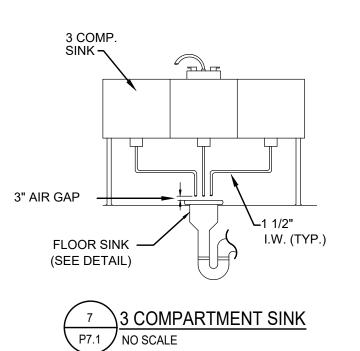


- REFER TO SPECIFICATIONS FOR MANUFACTURER INFORMATION, TRIM INFORMATION, ACCESSORIES, AND ADDITIONAL INFORMATION.
- PROVIDE PREFORMED PVC JACKETED INSULATION KIT, ON SUPPLIES & TRAP. GRID STRAINER.
- 4. COORDINATE LH/RH LEVER LOCATION WITH HANDICAPPED TOILET. 5. PROVIDE GARBAGE DISPOSAL, SEE SPECIFICATIONS FOR MANUFACTURER AND MODEL.

PLUMBING DRAIN SCHEDULE							
<u>ID#</u>	PLUMBING FIXTURE DESCRIPTION	DRAINAGE & VENT CONNECTION SIZES	WATER SUPPLY CONNECTION SIZES	NOTES			
<u>FD-1</u>	FLOOR DRAIN FOR FINISHED AREAS	2" W		NOTE 1			
<u>FS-1</u>	FLOOR SINK FOR FINISHED AREAS	4" W		NOTE 1			

1. REFER TO SPECIFICATIONS FOR MANUFACTURER INFORMATION, ACCESSORIES, AND ADDITIONAL INFORMATION.

PUMP SCHEDULE									
ID#	SYSTEM	GPM	FT. HD	HP	RPM	VOLTAGE	REMARKS	MANUF	MODEL
HWCP-1	DOMESTIC RECIRC. PUMP 140°	8	15	FRAC	1750	115V/1Ø	ALL BRONZE - "IN-LINE"	B & G	NBF 33



~3/4" HOT WATER RETURN PIPING FROM

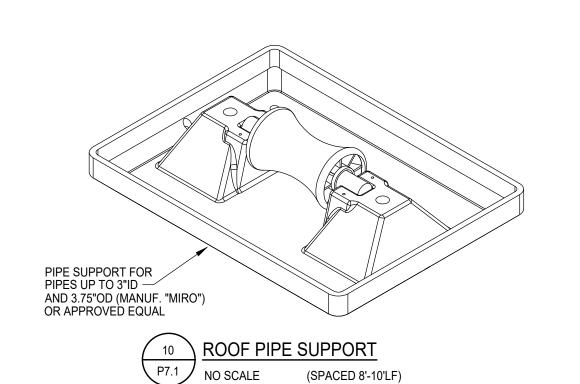
SYSTEM. REFER TO FLOOR

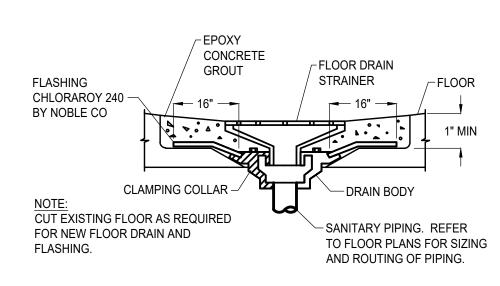
└ IN-LINE AQUASTAT.

TO CIRCULATING PUMP.

PC TO CONNECT

PLANS FOR SIZING AND ROUTING.





FLOOR DRAIN FLOOR SLAB DETAIL
P7.1 NO SCALE



BATES ARCHITECTS 121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

PLUMBING SCHEDULES AND DETAILS

		•			
NO.	DESCRIPTION		DATE		
	PERMIT & CONSTRUCTI	ON	03.21.24		
PROJECT NUMBER 23-0742.0			-0742.01		

03.21.24 CRM DRAWN BY

CHECKED BY

© 2024 - BATES ARCHITECTS LLC

AMB

ELECTRICAL GENERAL NOTES

UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS IS NEW WORK TO BE PROVIDED UNDER THIS CONTRACT. THE CONTRACTOR IS RESPONSIBLE FOR THE ENTIRE PROJECT DOCUMENT SET, INCLUDING ALL SPECIFICATIONS, CONTRACT DRAWINGS, ADDENDUMS, ETC. PRIOR TO THEIR BID, THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS. IF WORK ON OTHER TRADE DRAWINGS OR WITHIN OTHER DIVISION SPECIFICATIONS HAS EQUIPMENT, DEVICES, APPURTENANCES, ETC. INCLUDED WITHIN THEM REQUIRING ELECTRICAL EQUIPMENT OR POWER FEEDS IN ORDER TO PROVIDE A COMPLETE OPERATIONAL SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE WITHIN THEIR BID AND PAY FOR ALL ELECTRICAL WORK REQUIRED TO COMPLETE THOSE SYSTEMS THE CONTRACTOR SHALL SUBMIT REQUESTS FOR INFORMATION DURING THE BIDDING PHASE FOR ALL DISCREPANCIES, CONFLICTS, CONSTRUCTABILITY ISSUES, AND CLARIFICATIONS NEEDED IN ORDER FOR THE CONTRACTOR TO PROVIDE COMPLETE OPERATIONAL SYSTEMS FOR THIS PROJECT.

COORDINATE AND COOPERATE WITH ALL TRADES ON THE

RECORD DRAWINGS SECURE AN EXTRA SET OF ELECTRICAL DRAWINGS TO BE KEPT ON SITE AND MARK, DAILY, THE DRAWINGS IN RED AS THE PROJECT PROGRESSES IN ORDER TO KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE WORK SHOWN ON THE DRAWINGS AND THE WORK WHICH IS ACTUALLY INSTALLED. THESE MARKED DRAWINGS SHALL REFLECT ANY AND ALL CHANGES AND REVISIONS TO THE ORIGINAL DESIGN WHICH EXISTS IN THE COMPLETED WORK. DELIVER THE MARKED DRAWINGS TO THE OWNER AT PROJECT CLOSE OUT.

TEST ALL WIRING FOR CONTINUITY AND GROUNDS BEFORE CONNECTING ANY FIXTURES OR DEVICES. PERFORM INSULATION RESISTANCE TESTS ON ALL WIRING #8 OR LARGER TO ENSURE THAT ALL PORTIONS ARE FREE FROM SHORT-CIRCUITS AND GROUNDS. PROVIDE TYPEWRITTEN SIGNED REPORTS TO ENGINEER WITH RESULTS.

ARRANGE ALL NECESSARY INSPECTIONS. DELIVER ALL REQUIRED INSPECTION CERTIFICATES TO THE OWNER.

ROVIDE GROUNDING IN ACCORDANCE WITH THE NEC FOR THE ELECTRICAL SYSTEM INCLUDING EQUIPMENT FRAMES, CONDUITS, SWITCHES, CONTROLLERS, WIRE-WAYS, NEUTRAL CONDUCTORS, AND OTHER EQUIPMENT. PROVIDE A GROUNDING CONDUCTOR IN ALL POWER CIRCUITS.

PROVIDE LABELS FOR ALL PANELBOARDS, CABINETS, SAFETY SWITCHES, MOTOR-DISCONNECT SWITCHES, AND MOTOR CONTROLLERS. LABELS SHALL BE MACHINE ENGRAVED LAMINATED PLASTIC, PERMANENTLY ATTACHED WITH SELF-TAPPING SCREWS OR RIVETS. DO NOT USE SELF ADHESIVE LABELS. PROVIDE ADDITIONAL LABELS FOR CLARITY AT THE ENGINEER'S REQUEST.

ABEL ALL JUNCTION BOXES WITH PERMANENT MARKER IDENTIFYING CIRCUIT NUMBER AND PANELBOARD OF CIRCUITS

CONDUCTOR SIZE

JSE #10 AWG CONDUCTORS (MINIMUM) FOR ALL 20 AMP, 120 VOLT CIRCUIT RUNS GREATER THAN 50' ONE WAY FROM PANELBOARD TO FIRST DEVICE/FIXTURE. USE #10 AWG CONDUCTORS (MINIMUM) FOR ALL 20 AMP, 277 VOLT CIRCUIT RUNS GREATER THAN 100' ONE WAY FROM PANELBOARD TO FIRST DEVICE/FIXTURE.

PROVIDE TYPEWRITTEN PANELBOARD DIRECTORY CARD IN EACH PANELBOARD INCLUDING EXISTING PANELBOARDS MODIFIED FOR THIS PROJECT WITH CIRCUIT LOAD INFORMATION AND ROOM NUMBER CLEARLY IDENTIFIED. USE ACTUAL ROOM NUMBERS IN THE BUILDING, NOT THE ROOM NUMBERS SHOWN ON THE CONTRACT DRAWINGS, AS THEY ARE OFTEN DIFFERENT.

MOTOR COORDINATION MOTORS, MOTOR STARTERS, CONTROLLERS, INTEGRAL DISCONNECT SWITCHES, AND CONTACTORS SHALL BE PROVIDED WITH THEIR RESPECTIVE PIECES OF EQUIPMENT BY THE EQUIPMENT SUPPLIER. COMMUNICATE WITH THE TRADES PROVIDING THE EQUIPMENT, VERIFYING ALL REQUIREMENTS. PROVIDE ALL ELECTRICAL CONNECTIONS REQUIRED THEREIN, AND INSTALL MOTOR STARTERS.

MOTOR DISCONNECTS ALL MOTORS SHALL HAVE DISCONNECTING MEANS.

WHERE FUSE PROTECTION IS SPECIFICALLY REQUIRED BY THE EQUIPMENT MANUFACTURER, PROVIDE FUSED SWITCHES IN LIEU OF NON-FUSED SWITCHES OR IN LIEU OF ENCLOSED CIRCUIT BREAKERS, OR OTHER DEVICES INDICATED.

SECURE APPROVED SHOP DRAWINGS SHOWING WIRING DIAGRAMS, ROUGH-IN AND HOOK UP DETAILS FROM OTHER INVOLVED CONTRACTORS FOR EQUIPMENT WHICH MUST BE

CONNECTED ELECTRICALLY.

IECHANICAL EQUIPMENT WILL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. THE LOCATIONS SHOWN ON THE ELECTRICAL DRAWINGS ARE APPROXIMATE. COORDINATE WITH THE MECHANICAL CONTRACTOR TO DETERMINE THE EXACT LOCATION OF EACH PIECE OF EQUIPMENT AND DETERMINE THE EXACT ROUGH-IN AND CONNECTION REQUIREMENTS.

WHERE AN INDIVIDUALLY MOUNTED SAFETY SWITCH, STARTER, OR CIRCUIT BREAKER IS SHOWN ADJACENT TO ITS RESPECTIVE LOAD AND NOT MOUNTED ON A WALL, PROVIDE ALL SUPPORTS, BRACKETS, ANCHORING, ETC. NECESSARY TO PROPERLY SUPPORT THE DEVICE.

GENERAL DEMOLITION NOTES

DEMOLITION DRAWINGS ARE BASED ON EXISTING PLANS AND FIELD INVESTIGATION PRIOR TO DEMOLITION, VISIT THE EXISTING BUILDING PRIOR TO BID IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND IN ORDER TO AVOID CONFLICTS.

ALL ITEMS SHOWN DASHED ON DEMOLITION PLANS, AND/OR TAGGED WITH 'DM', ARE EXISTING, AND SHALL BE REMOVED COMPLETE INCLUDING: BOXES, CONDUIT, WIRE, FASTENERS, AND ASSOCIATED APPURTENANCES, UON.

ALL ITEMS SHOWN SOLID ON DEMOLITION PLANS, AND/OR TAGGED WITH 'XR', ARE EXISTING TO REMAIN.

EXISTING CIRCUITING TO REMAIN SHALL BE REROUTED OR

RECONNECTED, AS REQUIRED, WHERE AFFECTED BY NEW WORK IN ORDER TO MAINTAIN CONTINUITY OF CIRCUIT.

EXISTING CIRCUITRY SERVING LIGHTING FIXTURES AND/OF RECEPTACLES FOR A GIVEN AREA SHALL BE REUSED WHERE CONVENIENT TO SERVE THE NEW LAYOUT. PROVIDE CIRCUIT MODIFICATIONS INDICATED OR AS OTHERWISE REQUIRED TO MAINTAIN THE CONTINUITY OF THE EXISTING CIRCUIT THAT

EXTENSION OF EXISTING CIRCUITS
WHERE AN EXISTING CIRCUIT IS NOTED TO BE SAVED AND REUTILIZED, EXTEND EXISTING CIRCUIT SAVED DURING DEMOLITION AS REQUIRED TO SERVE EQUIPMENT IN NEW

EXISTING CONDUIT
ALL EXISTING CONDUITS AND WIRING THAT WILL NOT BE REUSED SHALL BE REMOVED WHERE THEY WILL BE EXPOSED UPON COMPLETION OF NEW WORK, EXISTING CONDUIT TO REMAIN CONCEALED IN WALLS SHALL BE ABANDONED. EXISTING CONDUIT TO REMAIN BELOW FLOOR SLAB SHALL BE CUT OFF ONE INCH BELOW ROUGH FLOOR AND GROUTED FLUSH. ALL EXISTING WIRING IN CONDUITS TO BE ABANDONED SHALL BE DISCONNECTED FROM POWER SOURCE AND

ARRANGE LIGHTING FIXTURES IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS.

COORDINATE LIGHTING FIXTURES WITH GRILLES, DIFFUSERS,

SPRINKLER HEADS, AND ACCESS PANELS, ETC.

VERIFY CEILING AND WALL CONSTRUCTION AND MATERIAL PRIOR TO ORDERING LIGHT FIXTURES OR OTHER DEVICES TO ENSURE PROPER FIXTURE OR DEVICE IS FURNISHED TO MATCH CONSTRUCTION

MOUNTING HEIGHTS INDICATED ARE FROM THE FINISHED FLOOR TO THE CENTERLINE OF THE WIRING DEVICE UNLESS OTHERWISE NOTED. MOUNTING HEIGHTS OF LIGHTING FIXTURES ARE TO THE BOTTOM OF THE FIXTURE UNLESS OTHERWISE NOTED.

COORDINATE LOCATIONS OF SWITCHES, RECEPTACLES, AND TELE/DATA OUTLETS WITH OTHER WALL MOUNTED DEVICES SUCH AS THERMOSTATS AND CONTROL STATIONS. DO NOT MOUNT WIRING DEVICES BACK TO BACK. PROVIDE MINIMUM OF ONE STUD

RECEPTACLES FOR ELECTRIC WATER COOLERS (EWC) SHALL BE INSTALLED OUT OF VIEW AND BEHIND THE EWC ENCLOSURE. VERIFY THE MOUNTING HEIGHT WITH THE EQUIPMENT SUPPLIER

DEVICE COORDINATION: THOROUGHLY REVIEW AND COORDINATE LL CASEWORK, DOOR SWINGS, AND CABINET DRAWINGS AND ARCHITECTURAL ELEVATIONS WITH DEVICE LOCATIONS PRIOR TO ROUGH-IN OF OUTLET BOXES.

WHERE A MULTIPLE GANG BOX HAS CIRCUITS OF DIFFERENT VOLTAGES OR SYSTEMS WHICH ARE REQUIRED TO BE SEPARATED, PROVIDE THE CODE-REQUIRED SEPARATION USING A FULL HEIGHT AND DEPTH BARRIER PLATE.

FOR ANY WALL OR FLOOR PENETRATIONS THROUGH FIRE RATED STRUCTURES, PROVIDE FIRE-PROOFING TO SEAL ALL THE PENETRATIONS AFTER THE RACEWAY HAS BEEN INSTALLED. FIRE PROOFING FOR PENETRATIONS SHALL BE UL APPROVED PER THE PENETRATION MADE IN ORDER TO MAINTAIN FIRE RATED INTEGRITY OF THE STRUCTURE.

ON PROJECT CLOSE-OUT, CLEAN ALL ELECTRICAL DEVICES. LIGHTING FIXTURES, LAMPS AND LENSES, AND REMOVE ALL PAINT SPATTERS FROM DEVICES, FIXTURES, AND PLATES. REPLACE ALL

INOPERATIVE LAMPS. CONTRACTOR SHALL OBTAIN CUT SHEETS, INSTALLATION DATA. AND ROUGH-IN REQUIREMENTS FOR OWNER FURNISHED, CONTRACTOR INSTALLED EQUIPMENT AND COORDINATE ROUGH-IN AND POWER REQUIREMENTS WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY ASSOCIATED WORK.

LL CONDUIT RUN OVERHEAD SHALL BE RUN AT THE BOTTOM OF THE FLOOR, ROOF STRUCTURE, OR LOWEST CHORD OF JOIST WITH OTHER TRADES. ALL CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES AND USE RIGHT ANGLE

<u>MIRING DEVICES</u>
ALL RECEPTACLES AND SWITCHES SHALL BE LABELED WITH PLASTIC LAMINATED LABEL WITH THE PANELBOARD DESIGNATION AND CIRCUIT NUMBER FROM WHICH IT IS FED.

OFFSETS TO CHANGE DIRECTION.

PROVIDE A DEMONSTRATION OF THE OPERATION OF ALL ELECTRICAL COMPONENTS UPON REQUEST OF THE OWNER. REFER TO SPECIFICATION SECTION 260501 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

CEILING PLENUM
ALL WIRING THAT WILL NOT BE RUN IN CONDUIT SHALL BE PLENUM

PROVIDE TEMPORARY ELECTRICAL SERVICE AS REQUIRED FOR CONSTRUCTION PROJECT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

HE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES WITHIN THE CONSTRUCTION AREA THREE WORKING DAYS PRIOR TO DIGGING. NOTIFY THE STATE AUTHORITY HAVING JURISDICTION AND AWAIT THE REQUIRED TIME BEFORE COMMENCING EXCAVATION.

CONFLICT NOTIFICATION NOTIFY THE OWNER'S REPRESENTATIVE, ARCHITECT, AND ENGINEER PRIOR TO PROCEEDING WITH WORK IF A CONFLICT IS FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, AND/OR FIELD CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS AND CONSEQUENCES IF THE ABOVE LISTED PARTIES ARE NOT CONTACTED FOR A RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.

<u>WIRE SIZE NOTE</u> ALL 15A AND 20A BRANCH AND LIGHTING CIRCUITS OVER 100 FEET IN LENGTH SHALL UTILIZE #10 AWG FOR HOT CONDUCTORS AND #12 FOR GROUND CONDUCTORS UNLESS OTHERWISE NOTED ON

DRAWINGS OR SPECIFICATIONS.

EXERCISE CARE IN REMOVAL OF DEMOLITION ITEMS. REPAIR. AT NO ADDITIONAL COST TO OWNER, AND DAMAGE CAUSE TO

EXISTING CONSTRUCTION AND/OR EQUIPMENT TO REMAIN. REMOVE ALL ELECTRICAL APPURTENANCES (DISCONNECTS, STARTERS, WIRING, CONDUIT, ETC.) ASSOCIATED WITH EQUIPMENT TO BE REMOVED BY OTHERS.

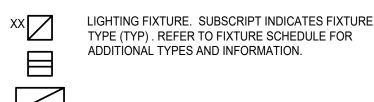
ALL CONDUIT REMOVED SHALL BE REMOVED IN ITS ENTIRETY, INCLUDING FITTINGS, MOUNTING DEVICES, MOUNTING HARDWARE, ETC. PROVIDE CONDUIT PLUGS AND BLANKS FOR ALL OPENINGS CREATED BY THE REMOVAL OF CONDUIT. PROVIDE BLANK COVER PLATES FOR ALL OPENED OUTLET BOXES CREATED BY THE REMOVAL OF THE EQUIPMENT AND/OR DEVICES.

ALL MATERIALS REMOVED UNDER DEMOLITION. NOT TO BE RELOCATED OR DESIGNATED TO BE TURNED OVER TO THE OWNER, SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE.

SCHEDULE OUTAGES
ALL WORK AND ALL POWER OUTAGES IN THE EXISTING BUILDING SHALL BE SCHEDULED AT TIMES CONVENIENT TO THE OWNER.

NOTIFICATION NOTIFY THE OWNER PRIOR TO TURNING OFF ANY CIRCUITS. EXISTING CIRCUITS
IF DURING THE COURSE OF CONSTRUCTION, IT ITS DETERMINED BY THE CONTRACTOR THAT AN EXISTING CIRCUIT BECOMES SPARE. THE CONTRACTOR SHALL UPDATE THE PANELBOARD DIRECTORY TO INDICATE SUCH, EVEN IF IT IS NOT EXPLICITLY MARKED ON THE

LIGHTING



NORMAL/EMERGENCY LIGHTING FIXTURE. SUBSCRIPT "NL", WHERE USED, INDICATES NIGHT LIGHT CONNECTED AHEAD OF LIGHTING CONTROLS.

□ O DOWNLIGHT FIXTURE "NL", WHERE USED, INDICATES NIGHT LIGHT

NORML/EMERGENCY DOWNLIGHT FIXTURE. SUBSCRIPT CONNECTED AHEAD OF LIGHTING CONTROLS WALL WASH LIGHTING FIXTURE WALL MOUNTED LIGHTING FIXTURE

WALL MOUNTED LIGHTING FIXTURE ON EMERGENCY CIRCUIT. SUBSCRIPT "NL", WHERE USED, INDICATES NIGHT LIGHT CONNECTED AHEAD OF LIGHTING CONTROLS PENDANT MOUNTED LIGHTING FIXTURE

• • TRACK LIGHTING FIXTURE(S) POLE MOUNTED SITE LIGHTING FIXTURE

EMERGENCY BATTERY LIGHTING UNIT, CONNECT AHEAD OF LOCAL SWITCH

REMOTE HEAD FOR BATTERY PACK EXIT LIGHTING FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA DENOTES LIGHTED FACE SINGLE POLE SWITCH, 20A, 120/277V THREE-WAY SWITCH, 20A, 120/277V

FOUR-WAY SWITCH, 20A, 120/277V SINGLE POLE KEYED SWITCH, 20A, 120/277V SINGLE POLE SWITCH WITH PILOT LIGHT, 20A, 120/277V

DIMMER SWITCH, 20A, 120/277V TIMER SWITCH, 20A, 120/277V, REFER TO LIGHTING DETAILS FOR ADDITIONAL INFORMATION

WALL SWITCH OCCUPANCY SENSOR, 120/277V, REFER TO LIGHTING DETAILS FOR ADDITIONAL INFORMATION LOW VOLTAGE SWITCH, REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION

LOW VOLTAGE LIGHTING FIXTURE POWER SUPPLY. MOUNT ABOVE ACCESSIBLE CEILING CEILING MOUNTED OCCUPANCY SENSOR. REFER TO OCCUPANCY SENSOR SCHEDULE AND LIGHTING

DETAILS FOR ADDITIONAL INFORMATION WALL MOUNTED OCCUPANCY SENSOR. REFER TO OCCUPANCY SENSOR SCHEDULE AND LIGHTING DETAILS FOR ADDITIONAL INFORMATION

DAYLIGHT SENSOR, CEILING MOUNTED, REFER TO LIGHTING CONTROLS FOR ADDITIONAL INFORMATION PHOTOCELL. MOUNT ON ROOF OF BUILDING AND AIM

NORTH. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION LIGHTING ZONE CONTROLLER, MOUNT ABOVE ACCESSIBLE CEILING. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION

EMERGENCY TRANSFER DEVICE, MOUNT ABOVE ACCESSIBLE CEILING. DEVICE SHALL BE UL 924 LISTED. REFER TO LIGHTING CONTROL DETAILS FOR

ADDITIONAL INFORMATION DIMMING PANEL, RECESS MOUNTED IN WALL. REFER TO LIGHTING CONTROL DETAILS FOR ADDITIONAL INFORMATION

GENERAL



NUMBERED NOTE DETAIL OR SECTION NOTATION

INDICATES CONTINUATION OF LINE

BRANCH CIRCUIT WIRING NORMAL EMERGENCY CIRCUIT WIRING

UNINTURRUPTIBLE POWER SUPPLY CIRCUIT WIRING HOMERUN BACK TO PANELBOARD

INDICATES MOUNT DEVICES ABOVE COUNTER TOP

QUAD RECEPTACLE, CEILING MOUNTED, 20A/120V POKE-THRU, X INDICATES TYPE, REFER TO POKE-THRU SCHEDULE FOR ADDITIONAL INFORMATION DEAD FRONT GFCI DEVICE

POWER

SIMPLEX RECEPTACLE, 20A/120V

DUPLEX RECEPTACLE, 20A/120V

CIRCUIT, GFCI TYPE, 20A/120V

CIRCUIT, 20A/120V

FACE OF DEVICE

COVER. 20A/120V

QUAD RECEPTACLE, 20A/120V

MPERAGE AS NOTED

DUPLEX RECEPTACLE, GFCI TYPE, 20A/120V

DUPLEX RECEPTACLE ON EMERGENCY POWER

DUPLEX RECEPTACLE ON EMERGENCY POWER

DUPLEX RECEPTACLE, EXPLOSION PROOF TYPE,

DUPLEX RECEPTACLE, TAMPER RESISTANT TYPE,

DUPLEX RECEPTACLE ON UPS POWER CIRCUIT,

ELECTRIC WATER COOLER CONNECTION, PROVIDE

DUPLEX RECEPTACLE, DOUBLE USB PORT, 20A/120V

RESISTANT WITH "WHILE-IN-USE" WEATHERPROOF

QUAD RECEPTACLE ON EMERGENCY POWER CIRCUIT,

QUAD RECEPTACLE, DOUBLE USB PORT, 20A, 120V

SPECIAL RECEPTACLE, NEMA CONFIGURATION AND

SIMPLEX RECEPTACLE, CEILING MOUNTED, 20A/120V

DUPLEX RECEPTACLE, CEILING MOUNTED, 20A/120V

DUPLEX RECEPTACLE, GFCI TYPE, WEATHER

COORDINATE WITH EWC MANUFACTURER'S ROUGH-IN

20A/120V GFCI TYPE DUPLEX RECEPTACLE.

20A/120V. RECEPTACLE SHALL HAVE "TR" STAMPED ON

ISOLATED GROUND DUPLEX RECEPTACLE, 20A/120V

FLEXIBLE FURNITURE CONNECTION FLOOR BOX, X INDICATES TYPE, REFER TO FLOOR BOX SCHEDULE FOR ADDITIONAL INFORMATION MEDIA BOX, PROVIDE WIREMOLD MODEL EFSB4 BOX WITH (1) 20A/120V DUPLEX RECEPTACLE AND (2) 1"C

WITH PULL STRING STUBBED TO ABOVE ACCESSIBLE CEILING FOR A/V CABLING. TERMINATE CONDUITS WITH INSULATING BUSHING JUNCTION BOX FLUSH IN WALL JUNCTION BOX ABOVE CEILING

EQUIPMENT CONNECTION MOTOR CONNECTION (CR) CORD REEL CEILING FAN CONNECTION

MOTOR STARTING SWITCH ELECTRICAL DOOR PUSH PAD, MOUNT 46" AFF LECTRICAL DOOR OPERATOR AND DOOR CONTROLLERS SHALL BE PROVIDED BY DOOR HARDWARE SUPPLIER. PROVIDE 120V POWER TO

DOOR POWER SUPPLY AND OUTLET BOX AND CONDUIT FOR CONTROLS. COORDINATE WITH DOOR HARDWARE PULL BOX GROUND BAR, REFER TO DETAIL

VARIABLE FREQUENCY DRIVE, FURNISHED BY MECHANICAL EQUIPMENT SUPPLIER, INSTALLED AND POWERED BY EC

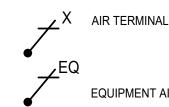
SURGE PROTECTIVE DEVICE SURFACE RACEWAY. MOUNT 46" AFF, UON EMERGENCY POWER OFF BUTTON

DISCONNECT SWITCH. FRAME AND FUSE AS NOTED FUSED DISCONNECT SWITCH. FRAME AND FUSE AS ENCLOSED CIRCUIT BREAKER. FRAME AND TRIP AS

EXISTING PANELBOARD PANELBOARD

MOTOR STARTER oxtimesMOTOR STARTER AND DISCONNECT SWITCH TRANSFORMER

LIGHTNING PROTECTION



EQUIPMENT AIR TERMINAL

TEST WELL WITH GROUND ROD(S)

GROUND ROD **GROUND PLATE**

MAIN GROUND CONDUCTOR CONCEALED WITHIN CONSTRUCTION

GROUND CONDUCTOR CAD WELDED TO BUILDING STEEL COLUMN

GROUND CONDUCTOR CAD WELDED TO GROUND CABLE OR EQUIPMENT



GROUND ROD TRIPOD, SPACED 10 FEET APART



REVIEWED By Chris Berger at 2:56 pm, Mar 26, 2024

FIRE ALARM FIRE ALARM CONTROL PANEL FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM TRANSPONDER PANEL AUTOMATED DIALER COMMUNICATOR ANSUL SYSTEM, FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR. PROVIDE CONNECTION FOR POWER AND FIRE ALARM SYSTEM AS REQUIRED ZONE ADDRESSABLE MODULE

CMR CONTROL MODULE RELAY MONITOR INPUT MODULE FIRE ALARM MANUAL PULL STATION FIRE ALARM MANUAL PULL STATION, WEATHER RESISTANT. PULL STATION SHALL BE RATED FOR WET LOCATIONS AND COLD TEMPERATURES

> FIRE ALARM SYSTEM PHOTO-ELECTRIC SMOKE DETECTOR, CEILING MOUNTED. DETECTOR SHALL BE MOUNTED NO CLOSER THAN 36" TO NEAREST GRILL/REGISTER/DIFFUSER OR CEILING FAN FIRE ALARM SYSTEM PHOTO-ELECTRIC SMOKE DETECTOR, CEILING MOUNTED, WITH ELEVATOR

> > RECALL. COORDINATE TIE IN WITH ELEVATOR

FIRE ALARM SYSTEM DUCT MOUNTED PHOTO-ELECTRIC SMOKE DETECTOR, PROVIDE REMOTE INDICATOR IN NEAREST ACCESSIBLE LOCATION.

FIRE ALARM SYSTEM ADDRESSABLE HEAT DETECTOR, FIXED TEMPERATURE/RATE OF RISE TYPE, CEILING FIRE ALARM SYSTEM CARBON MONOXIDE DETECTOR, CEILING MOUNTED

FIRE ALARM SYSTEM AUDIBLE (HORN), CEILING MOUNTED, RECESSED FIRE ALARM SYSTEM AUDIBLE/VISUAL (HORN/STROBE), CEILING MOUNTED. SUBSCRIPT INDICATES MINIMUM CANDELA RATING

FIRE ALARM SYSTEM SPEAKER, CEILING MOUNTED, RECESSED FIRE ALARM SYSTEM SPEAKER/STROBE, CEILING MOUNTED, RECESSED. SUBSCRIPT INDICATES

MINIMUM CANDELA RATING FIRE ALARM SYSTEM VISUAL (STROBE) APPLIANCE, CEILING MOUNTED. SUBSCRIPT INDICATES MINIMUM CANDELA RATING

FIRE ALARM SYSTEM AUDIBLE (HORN), WALL MOUNTED FIRE ALARM SYSTEM AUDIBLE/VISUAL (HORN/STROBE), WALL MOUNTED. SUBSCRIPT INDICATES MINIMUM CANDELA RATING FIRE ALARM SYSTEM SPEAKER, WALL MOUNTED

FIRE ALARM SYSTEM SPEAKER/STROBE, WALL MOUNTED. SUBSCRIPT INDICATES MINIMUM CANDELA FIRE ALARM SYSTEM VISUAL (STROBE) APPLIANCE, WALL MOUNTED. SUBSCRIPT INDICATES MINIMUM

CANDELA RATING SPRINKLER SYSTEM SUPERVISORY VALVE TAMPER SWITCH CONNECTION SPRINKLER SYSTEM SUPERVISORY VALVE FLOW

SWITCH CONNECTION SPRINKLER SYSTEM PRESSURE SWITCH CONNECTION SPRINKLER SYSTEM LOW/HIGH AIR PRESSURE SWITCH CONNECTION FIRE FIGHTER'S TELEPHONE JACK

FIRE ALARM MAGNETIC DOOR HOLD OPEN DEVICE, POWERED THROUGH FIRE ALARM SYSTEM. COORDINATE MOUNTING HEIGHT WITH ASSOCIATED DOOR MOUNTED DEVICE DAMPER MOTOR CONNECTION

SPRINKLER SYSTEM BELL ALARM APPLIANCE, WEATHERPROOF AREA OF RESCUE MASTER PANEL

AREA OF RESCUE REMOTE CALL STATION PROJECTED BEAM SMOKE DETECTOR TRANSMITTER PROJECTED BEAM SMOKE DETECTOR REFLECTOR

TELE/DATA

WALL MOUNTED TELE/DATA OUTLET, 4"X4"X2 1/4" BOX WITH SINGLE GANG PLASTER RING, WITH 1"C STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH INSULATED BUSHING. XD INDICATES DATA CABLE COUNT. XV INDICATES VOICE CABLE COUNT

WALL MOUNTED VOICE OUTLET, 4"X4"X2 1/4" BOX WITH SINGLE GANG PLASTER RING, WITH 3/4"C STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH INSULATED BUSHING. XV INDICATES VOICE CABLE COUNT FROM OUTLET TO

WITH SINGLE GANG PLASTER RING. WITH 3/4"C STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH INSULATED BUSHING. XD INDICATES DATA CABLE COUNT FROM OUTLET TO PATCH PANEL

STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH INSULATED BUSHING TELE/DATA POKE-THRU. XD INDICATES DATA CABLE COUNT. XV INDICATES VOICE CABLE COUNT

THE COUNT STATE OF THE C

COMMUNICATIONS

VOLUME CONTROL FOR PAGING SYSTEM. PROVIDE BOX PER MANUFACTURER'S RECOMMENDATION WITH 3/4"C WITH PULL STRING STUBBED ABOVE ACCESSIBLE CEILING AND TERMINATED WITH

PAGING SYSTEM SPEAKER, WALL MOUNTED. COORDINATE MOUNTING HEIGHT WITH A/V

SOUND SYSTEM SPEAKER, RECESSED, CEILING SOUND SYSTEM SPEAKER, WALL MOUNTED.

CABLE ANTENNA TELEVISION OUTLET

PAGING SYSTEM HANDSET PAGING SYSTEM EQUIPMENT RACK

AUDIO/VISUAL SYSTEM EQUIPMENT RACK

RECOMMENDATION. WITH 3/4"C STUBBED TO ACCESSIBLE CEILING. PROVIDE WIRING PER MANUFACTURER'S RECOMMENDATION.

12" DIAMETER WALL MOUNTED CLOCK.

SECURITY SYSTEM CONTROL PANEL, 120V AUTOMATED DIALER COMMUNICATOR.

DOOR / SECURITY ANNUNCIATOR PANEL INSULATING BUSHING.

ACCESSIBLE CEILING. TERMINATE WITH INSULATING BUSHING. REQUEST FOR EXIT MOTION SENSOR. MOUNT

ACCESSIBLE CEILING. TERMINATE WITH INSULATING BUSHING. HOLD UP INDICATOR LIGHT. PROVIDE SINGLE GANG

INSULATING BUSHING. INTERCOM SLAVE STATION. **GLASS BREAK SENSOR**

MOTION SENSOR. SECURITY MONITOR SOUND SENSOR.

WITH ARCHITECTURAL DOOR SCHEDULE.

ELECTRIC LATCH. COORDINATE WITH ARCHITECTURAL DOOR SCHEDULE.

ARCHITECTURAL DOOR SCHEDULE. ELECTROMAGNETIC DOOR LOCK. COORDINATE WITH ARCHITECTURAL DOOR SCHEDULE.

POWER RISER DIAGRAM

DISCONNECT SWITCH

MOTOR STARTER DISCONNECT SWITCH

DATA OUTLET FOR WIRELESS ACCESS POINT, PROVIDE 4"X4"X2 1/4"D BOX SECURED IN CEILING OR WALL FOR CONNECTION OF WAP WITH 1"C

WALL MOUNTED DATA OUTLET, 4"X4"X2 1/4" BOX

TELEPHONE/DATA SYSTEM DISTRIBUTION

EQUIPMENT RACK

PLASTIC BUSHING

PAGING SYSTEM SPEAKER, RECESSED, CEILING

COORDINATE MOUNTING HEIGHT WITH A/V VENDOR MICROPHONE JACK

BULL HORN TYPE SPEAKER

LOCAL SOUND SYSTEM EQUIPMENT RACK

EMERGENCY CALL SYSTEM POWER SUPPLY, 120V EMERGENCY CALL SYSTEM CALL STATION EMERGENCY CALL SYSTEM MASTER STATION, 46"

DOOR BELL PUSH BUTTON. PROVIDE SINGLE GANG BOX WITH 3/4"C STUBBED TO ACCESSIBLE CEILING. PROVIDE WIRING PER MANUFACTURER'S DOOR BELL CHIME. PROVIDE SINGLE GANG BOX

SECURITY

KEYPAD. PROVIDE DOUBLE GANG BACK BOX 42" AFF UON WITH 3/4"C WITH PULL STRING STUBBED TO ABOVE ACCESSIBLE CEILING. TERMINATE WITH

CARD READER. PROVIDE DOUBLE GANG BOX WITH 3/4"C WITH PULL STRING STUBBED ABOVE ELECTRICAL DOOR OPERATOR CONNECTION, 120V

CENTERED ABOVE DOOR. HOLD UP BUTTON. PROVIDE SINGLE GANG BOX WITH 3/4"C WITH PULL STRING STUBBED ABOVE

BOX WITH 3/4"C WITH PULL STRING STUBBED ABOVE ACCESSIBLE CEILING. TERMINATE WITH INTERCOM MASTER STATION.

DOOR CONTACT (FLUSH IN DOOR). COORDINATE

ELECTROMAGNETIC DOOR HOLDER. COORDINATE

WITH ARCHITECTURAL DOOR SCHEDULE.

ELECTRIC STRIKE DOOR LOCK. COORDINATE WITH ARCHITECTURAL DOOR SCHEDULE.

ELECTRIFIED HINGE. COORDINATE WITH

FIXED POSITION CCTV CAMERA. PAN-TILT-ZOOM (PTZ) CCTV CAMERA.

FUSED DISCONNECT SWITCH MOTOR STARTER

VARIABLE FREQUENCY DRIVE SURGE PROTECTIVE DEVICE CIRCUIT BREAKER

FUSED SWITCH DRAW OUT CIRCUIT BREAKER

GENERATOR ---(KK) KIRK KEY GROUND FAULT INTERRUPTOR

CURRENT TRANSFORMER

LIGHTNING ARRESTER BATTERY CONVERTER RECTIFIER INVERTER

ENCLOSED CIRCUIT BREAKER

TRANSFORMER

PAD MOUNTED TRANSFORMER **WWW**

WWW

PANEL

MCB or MLO?

ISOLATION TRANSFORMER $\overline{\mathsf{W}}$ MCOV LIGHTNING ARRESTER

GROUNDING RESISTOR

AUTOMATIC TRANSFER SWITCH

STATIC SWITCH

ISOLATION BYPASS AUTOMATIC TRANSFER SWITCH

PANELBOARD

NFSS NON-FUSED SAFETY SWITCH NIC NOT IN CONTRACT NIGHT LIGHT NTS NOT TO SCALE OC ON CENTER OFCI OWNER FURNISHED CONTRACTOR INSTALLED PAGING SYSTEM PLUMBING CONTRACTOR POWER FACTOR PHASE

> RELOCATED EXISTING DEVICE REFRIGERATOR REL RELOCATE SOUND SYSTEM SERVICE ENTRANCE

PILOT LIGHT

PANEL

ABBREVIATIONS

AMPERE

ADM ADMINISTRATOR

AUDIO/VISUAL

CB CIRCUIT BREAKER

CIRCUIT

CENTER OFF

DEMOLISH

EMERGENCY

EXHAUST FAN

FIRE ALARM

FLUORESCENT

FIBER OPTIC

GND GROUND

HP HORSE POWER

INFRARED

JB JUNCTION BOX

KW KILO-WATT

LTG LIGHTING

IG ISOLATED GROUND

KVA KILO-VOLT AMPERE

LOW VOLTAGE

MCA MINIMUM CIRCUIT AMPS

MCB MAIN CIRCUIT BREAKER

MULTI-LINE

NURSE CALL

NON-FUSED

NORMAL / EMERGENCY

NATIONAL ELECTRICAL CODE

NFPA NATIONAL FIRE PROTECTION AGENCY

MLO MAIN LUGS ONL'

MTD MOUNTED

MW MICROWAVE

LVC LOW VOLTAGE CONTRACTOR

MECHANICAL CONTRACTOR

FULL LOAD AMPS

EWC ELECTRIC WATER COOLER

EXPLOSION PROOF

ELECTRICAL CONTRACTOR

EMERGENCY POWER OFF

FLUSH FLOOR MOUNTED

FPC FIRE PROTECTION CONTRACTOR

GROUND FAULT CIRCUIT INTERRUPTER

HVAC HEATING VENTILATING, AND AIR CONDITIONING

FUSED SAFETY SWITCH

GENERAL CONTRACTOR

HOA HAND-OFF INTERRUPTER

FRACTIONAL HORSE POWER

DO DOOR OPEN

COFFEE MAKER

CEILING MOUNTED

AFF ABOVE FINISHED FLOOR

BFG BELOW FINISHED GRADE

CATV CABLE ANTENNA TELEVISION

CCTV CLOSED CIRCUIT TELEVISION

ABOVE FINISHED GRADE

AMPERE INTERRUPTING CURRENT

SURGE PROTECTIVE DEVICE SWITCH TELEPHONE TELEPHONE BACKBOARD TWIST LOCK TAMPER RESISTANT TYP TYPICAL

ULTRASONIC UNDERGROUND COMMUNICATIONS UNDERGROUND ELECTRIC UNDERGROUND FIBER UNINTERRUPTED POWER SUPPLY UNIVERSAL SERIAL BUS UNDERGROUND TELEPHONE

UNLESS OTHERWISE NOTED

XRN EXISTING TO BE REPLACED WITH NEW

VFD VARIABLE FREQUENCY DRIVE WATTS WM WALL MOUNTED WG WIRE GUARD WEATHER RESISTANT WT WATER TIGHT

XFMR TRANSFORMER

XR EXISTING TO REMAIN

BATES ARCHITECTS 121 NORTH COURT STREET FREDERICK, MARYLAND 21701

TEL 301.644.0444 | FAX 301.644.0446

WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.



TPSS CO-OP **RENOVATION**

TAKOMA PARK, MARYLAND

ELECTRICAL COVER SHEET

PROJECT NUMBER DATE

EO. ⁷

© 2024 - BATES ARCHITECTS LLC

PROFESSIONAL CERTIFICATION

License No:45511 Expiration Date: <u>06/03/2024</u>

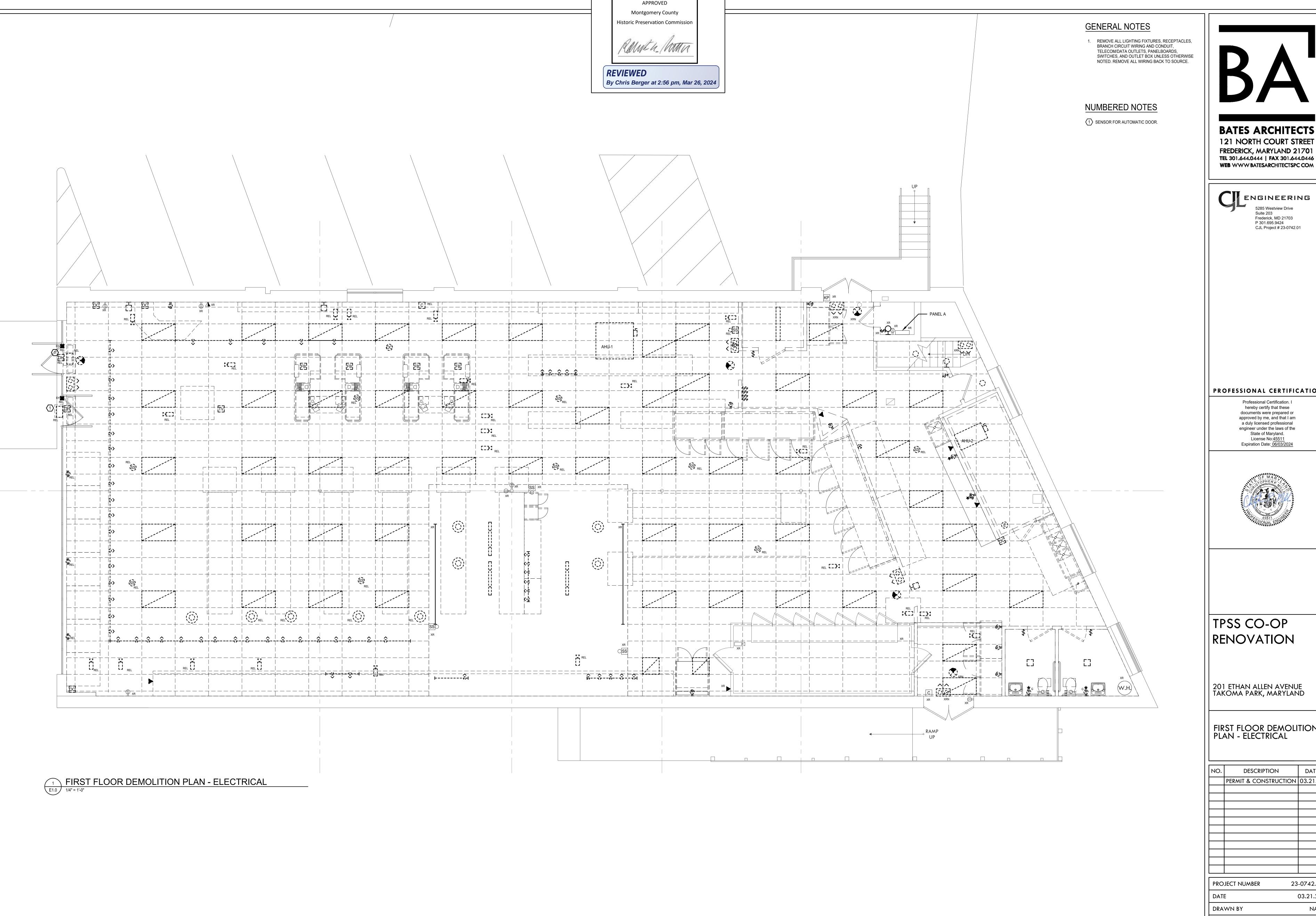


201 ETHAN ALLEN AVENUE

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

03.21.24 DRAWN BY NAD CHECKED BY ALD

23-0742.01



BATES ARCHITECTS 121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446

ENGINEERING

Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

FIRST FLOOR DEMOLITION PLAN - ELECTRICAL

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

PROJECT NUMBER 23-0742.01 03.21.24

DRAWN BY CHECKED BY



NUMBERED NOTES 1 POLE MOUNTED TRANSFORMER. 2 REMOVE EXISTING UNDERGROUND CONDUIT. 05 OFFICE 01 OPEN OFFICE 03 OFFICE 02 OFFICE

BASEMENT FLOOR DEMOLITION PLAN - ELECTRICAL

1/4" = 1'-0"

ALL LIGHTING FIXTURES, RECEPTACLES, BRANCH CIRCUIT WIRING AND CONDUIT, TELECOM/DATA OUTLETS, SWITCHES, AND OUTLET BOX ARE EXISTING TO REMAIN UNLESS OTHERWISE NOTED.

GENERAL NOTES

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

ENGINEERING

5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

BASEMENT FLOOR DEMOLITION PLAN -ELECTRICAL

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

PROJECT NUMBER 23-0742.01 03.21.24 NAD

DRAWN BY CHECKED BY

© 2024 - BATES ARCHITECTS LLC

BASEMENT FLOOR DEMOLITION PLAN - LIGHTING ALTERNATE

1/4" = 1'-0"



GENERAL NOTES

 REMOVE ALL DISCONNECTS, REMOVE ALL WIRING BACK TO SOURCE.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

CILENGINEERING

5285 Westview Drive

5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No: 45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ROOF DEMOLITION PLAN - ELECTRICAL

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24
l		

 PROJECT NUMBER
 23-0742.01

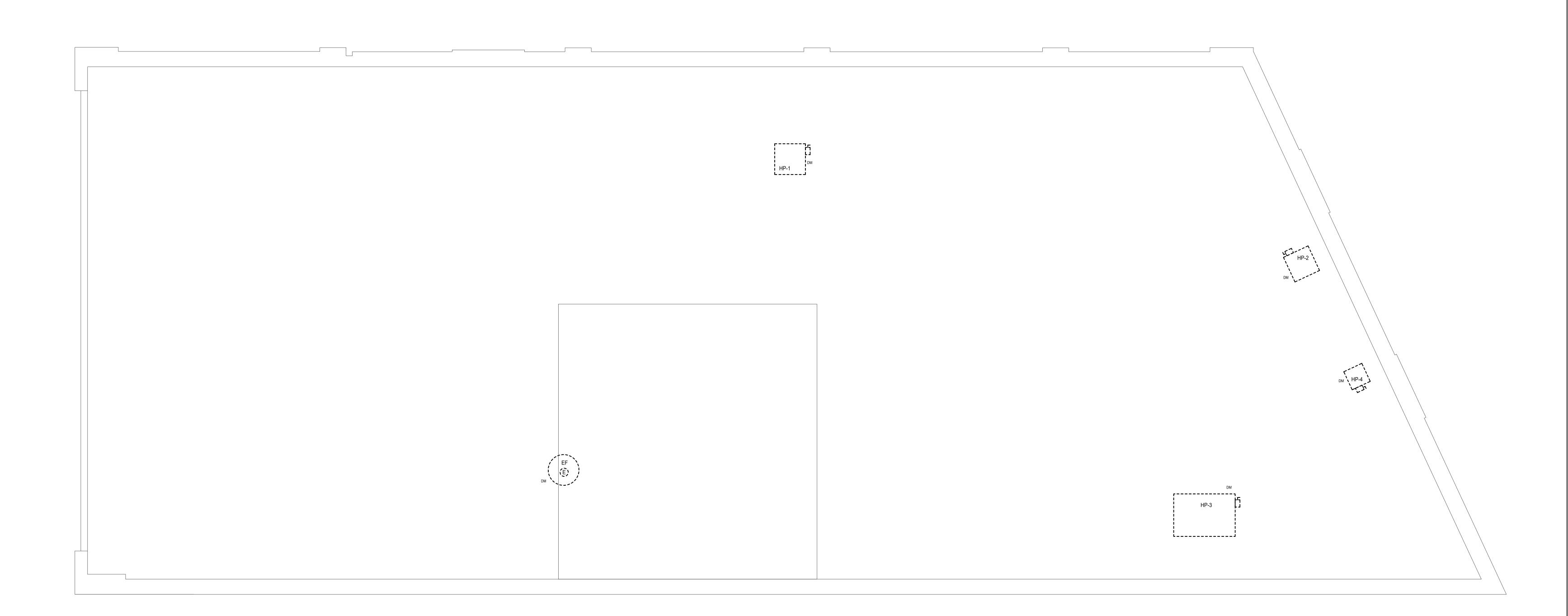
 DATE
 03.21.24

 DRAWN BY
 NAD

CHECKED BY

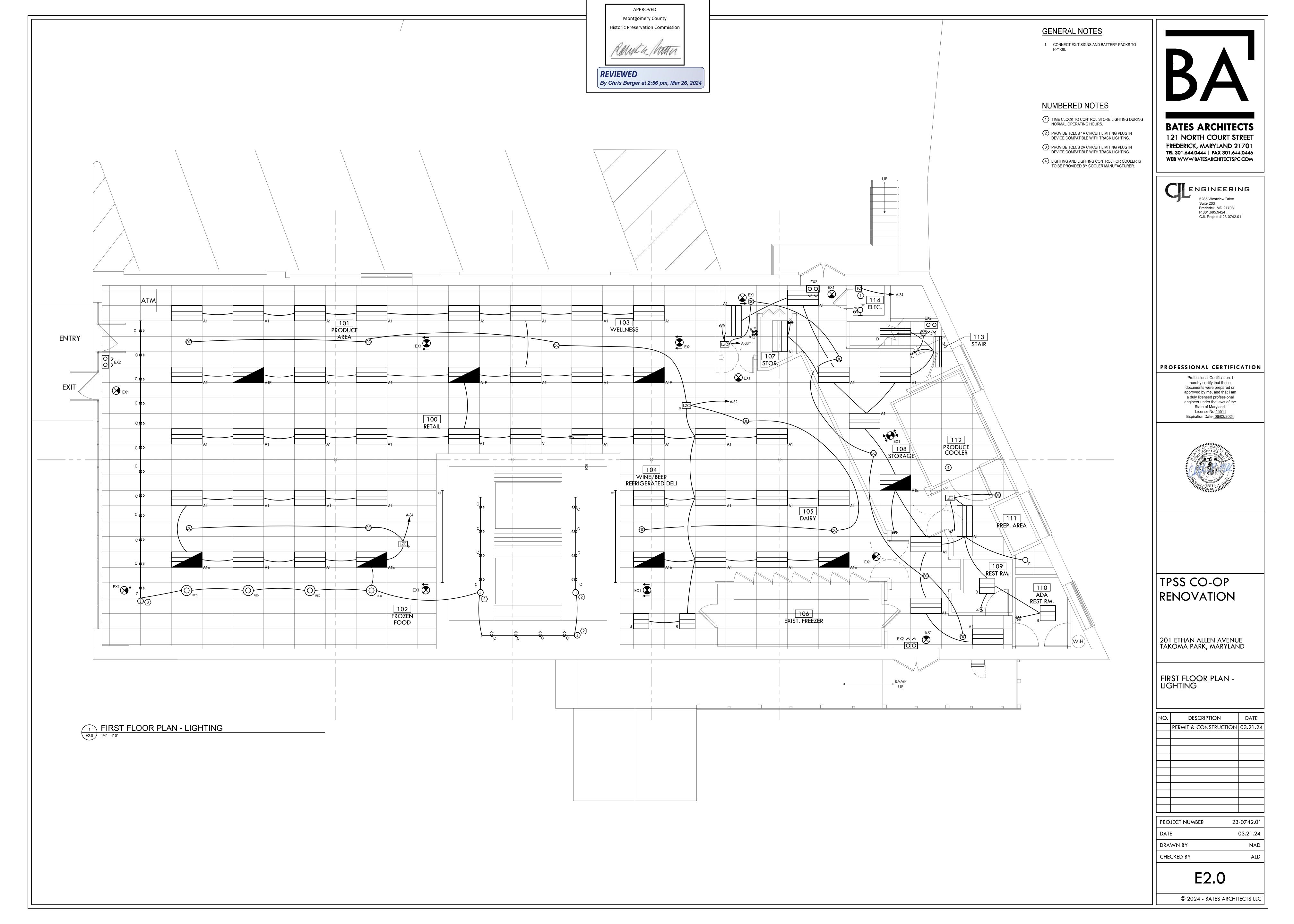
E1.2

© 2024 - BATES ARCHITECTS LLC



ROOF DEMOLITION PLAN - ELECTRICAL

1/4" = 1'-0"

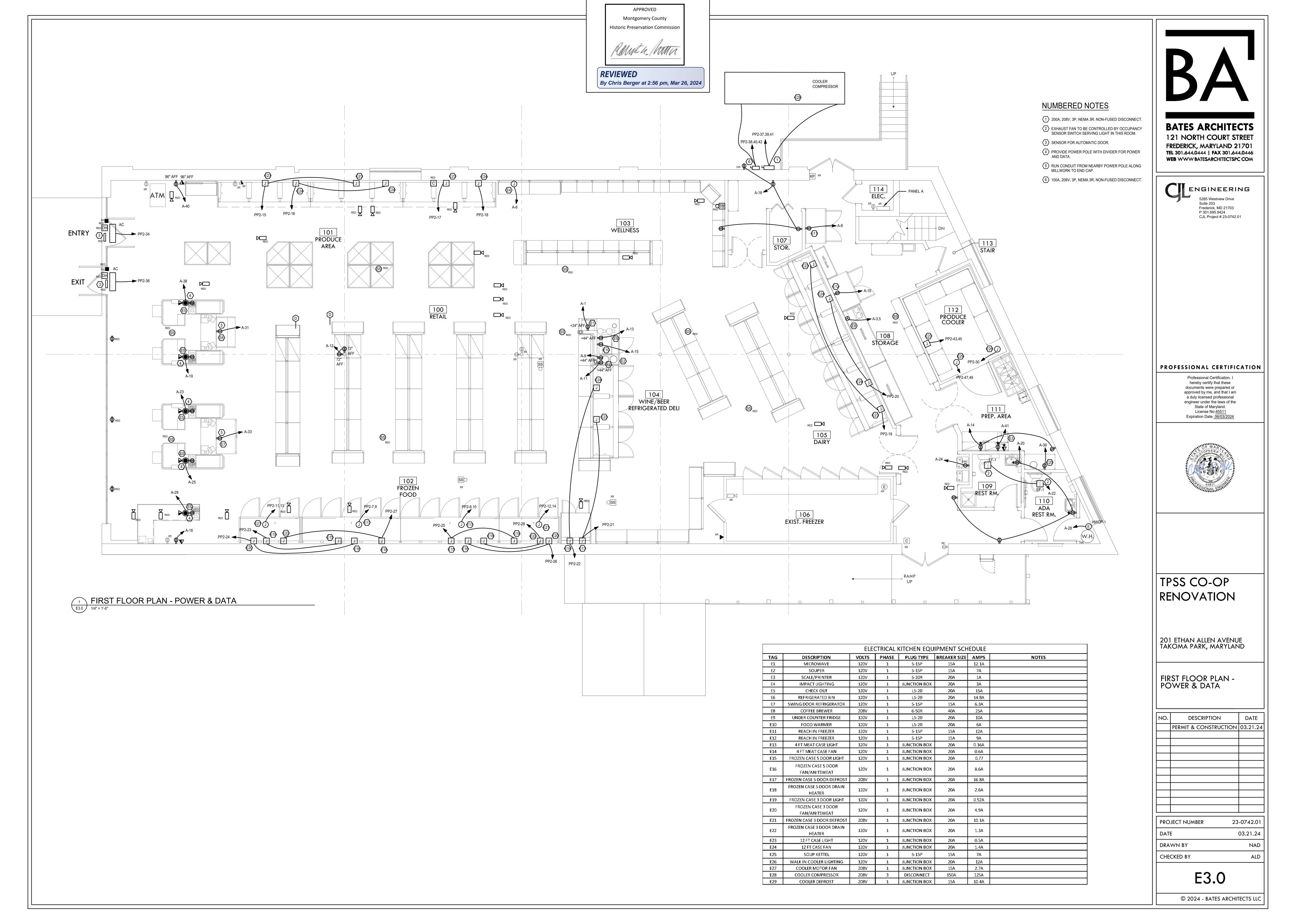


APPROVED Montgomery County			
Historic Preservation Commission Ranker American	GENERAL NOTES 1. ALL LIGHTING SHALL BE CONNECTED TO EXISTING LIGHTING CIRCUIT IN SPACE.		
Chris Berger at 2:56 pm, Mar 26, 2024	KIND TO LIGHTING BRANCH CIRCUIT RETAINED FROM REMOVAL WORK. PANEL "PP2-32".	BATES ARCHITECT 121 NORTH COURT STR FREDERICK, MARYLAND 217 TEL 301.644.0444 FAX 301.644.0444 WEB WWW BATESARCHITECTSPC	REET 701
		5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01	
	STORAGE / UTILITY A 2 2	Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:45511 Expiration Date: 06/03/2024	ATIO
	O _F O _F OPEN OFFICE O _F	OF MAR OPHER OF THE STATE OF TH	
	A2 A	PSS CO-OP ENOVATION	
	OFFICE 2 OFFICE 2 OFFICE 2 OFFICE 2	01 ETHAN ALLEN AVENUE AKOMA PARK, MARYLANI	<u>:</u> D
		ASEMENT FLOOR PLA IGHTING ALTERNATE	\N -
	BASEMENT FLOOR PLAN - LIGHTING ALTERNATE NC NC NC NC NC NC NC N	DESCRIPTION PERMIT & CONSTRUCTION (DAT 03.21
			0742.0
		RAWN BY	03.21.2 NA

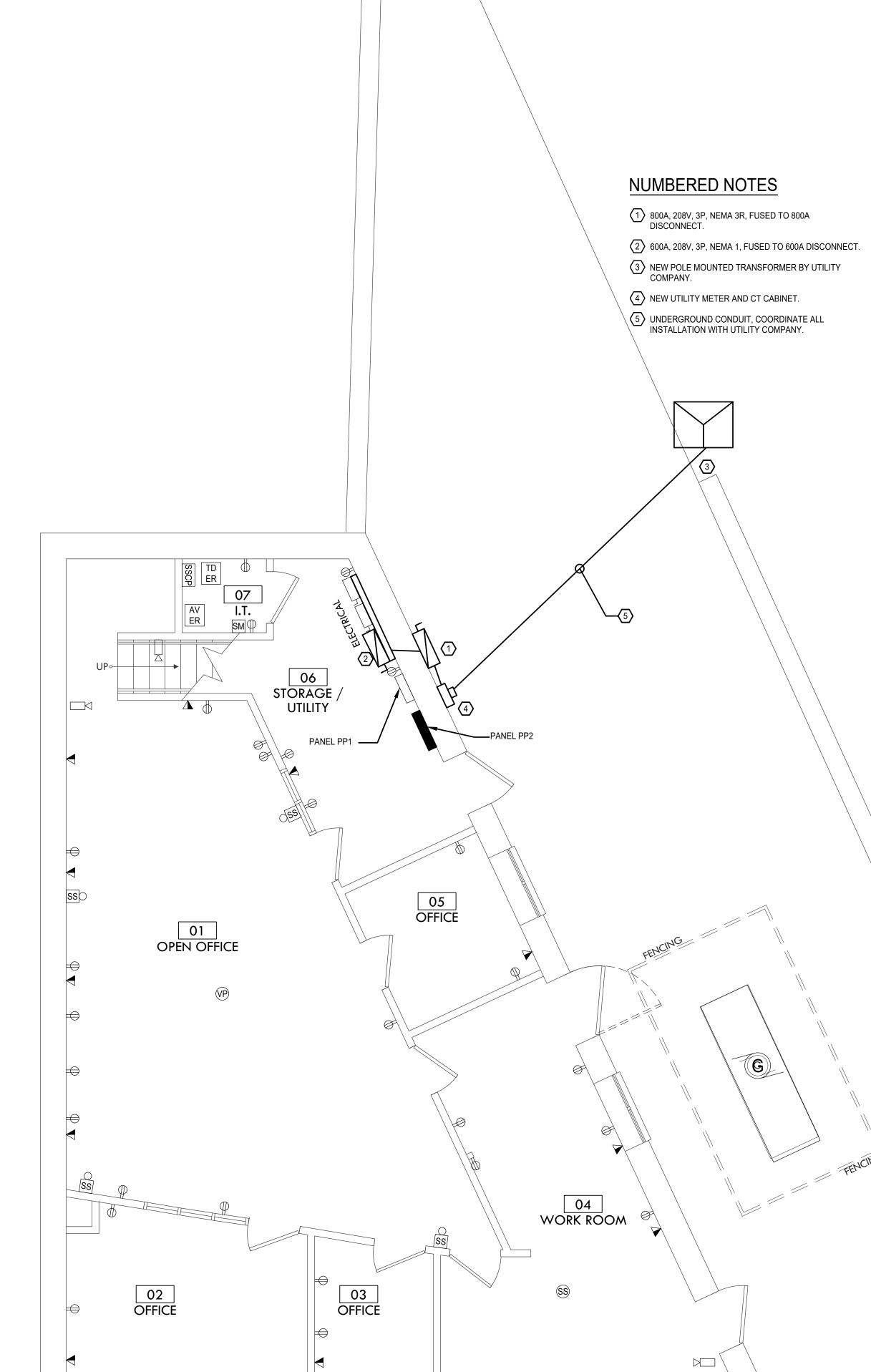
NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

CHECKED BY E2.1

© 2024 - BATES ARCHITECTS LLC







BASEMENT FLOOR PLAN - POWER & DATA

1/4" = 1'-0"

ВА

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

ENGINEERING
5285 Westview Drive

5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

BASEMENT FLOOR PLAN -POWER & DATA

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24

 PROJECT NUMBER
 23-0742.01

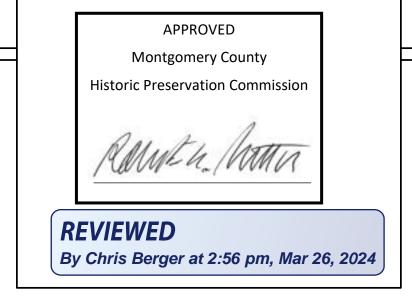
 DATE
 03.21.24

 DRAWN BY
 NAD

CHECKED BY

E3.1

© 2024 - BATES ARCHITECTS LLC



NUMBERED NOTES

200A, 208V, 3P, NEMA 3R, NON-FUSED DISCONNECT.
 60A, 208V, 3P, NEMA 3R, NON-FUSED DISCONNECT.



BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM



5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ROOF PLAN - POWER & DATA

	NO.	DESCRIPTION	DATE
		PERMIT & CONSTRUCTION	03.21.24
l,			

PROJECT NUMBER 23-0742.01

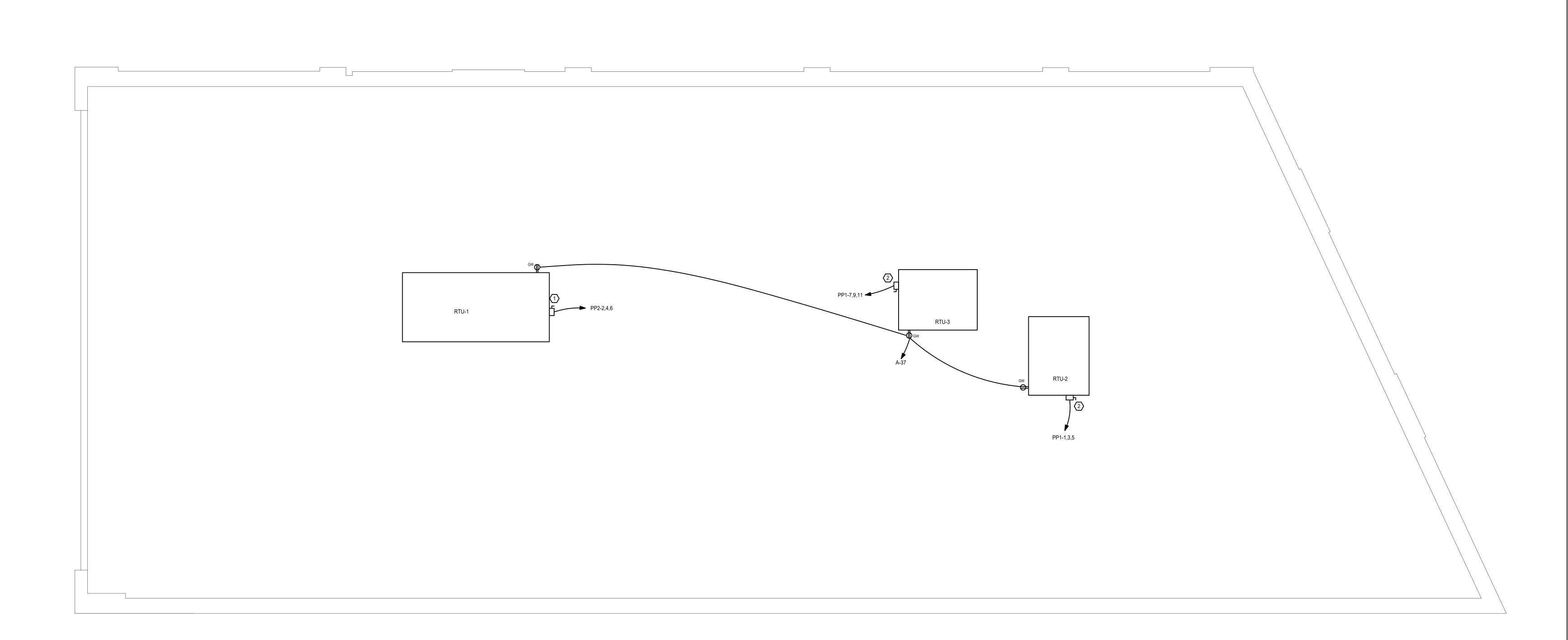
DATE 03.21.24

DRAWN BY NAD

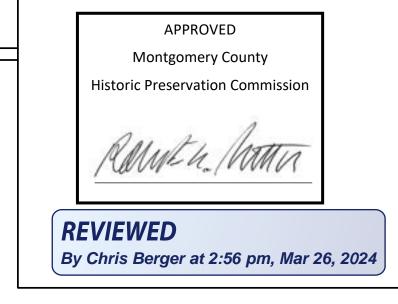
CHECKED BY ALD

E3.2

© 2024 - BATES ARCHITECTS LLC



1 ROOF PLAN - POWER & DATA
E3.2 1/4" = 1'-0"



LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	CATALOG / MODEL NUMBER	BEAM DIST	LUMENS	COLOR TEMP	CRI	WATTS	VOLTS	CONTROL	MOUNTING	ACCESSORIES
A1	2X4 LED TROFFER	LITHONIA	2VLT4 48L ADP GZ10 LP840	NA	4,800	4000K	80	38.4W	MVOLT	0-10V	RECESSED	7,0000000000000000000000000000000000000
A1E	2X4 LED TROFFER WITH BATTERY	LITHONIA	2VLT4 48L ADP GZ10 LP840 EL14L	NA	4,800	4000K	80	38.4W	MVOLT	0-10V	RECESSED	
A2	2X4 LED TROFFER	LITHONIA	2VLT4 30L ADP GZ10 LP840	NA	3,000	4000K	80	23.2W	MVOLT	0-10V	RECESSED	
В	2X2 LED TROFFER	LITHONIA	2VLT2 30L ADP GZ10 LP840	NA	3,000	4000K	80	23.2W	MVOLT	0-10V	RECESSED	
С	LED TRACK HEADS	LITHONIA	BR30	NA	NA	2700K	NA	12.5W	120V	NA	TRACK	TRACK LTKNSTBF BR30
D	1X4 LED TROFFER	LITHONIA	VLT4 30L ADP EZ1 LP840	NA	3,000	4000K	80	26.6W	MVOLT	0-10V	RECESSED	
EX1	LED EXIT SIGN	SURE LITES	APX6RG	NA	NA	NA	NA	1.2W	MVOLT	NA	UNIVERSAL	
EX2	LED WALL PACK	SURE LITES	AP2SQLED	NA	NA	NA	NA	1.8W	MVOLT	NA	SURFACE	
F	LED DOWNLIGHT	LITHONIA	LDN4RV 40/15 LR4AR LSS MVOLT GZ10	NA	1,500	4000K	80	20W	MVOLT	0-10V	RECESSED	
w	LED EXTERIOR WALL LIGHT	LITHONIA	ARC1 LED P2 40K MVOLT E4WH PE DDBXD	NA	2,000	4000K	80	17W	MVOLT	PHOTOCELL	WALL	WSBBW DDBXD U

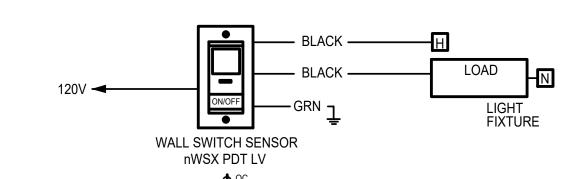
LIGHTING FIXTURE SCHEDULE NOTES:

1. ALL LEDS SHALL HAVE A CRI MINIMUM OF 80 AND A COLOR TEMPERATURE OF 3500K UNLESS OTHERWISE NOTED.

2. ALTERNATES MUST BE SUBMITTED TO AND APPROVED BY ENGINEER AND ARCHITECT PRIOR TO BID DATE.

3. VERIFY FIXTURE FINISHES AND COLOR WITH ARCHITECT.

4. THE EC SHALL PROVIDE AN ADDITIONAL NON-SWITCHED HOT WIRE FOR VOLTAGE SENSING TO ALL FIXTURES PROVIDED WITH AN EMERGENCY BATTERY BACKUP.

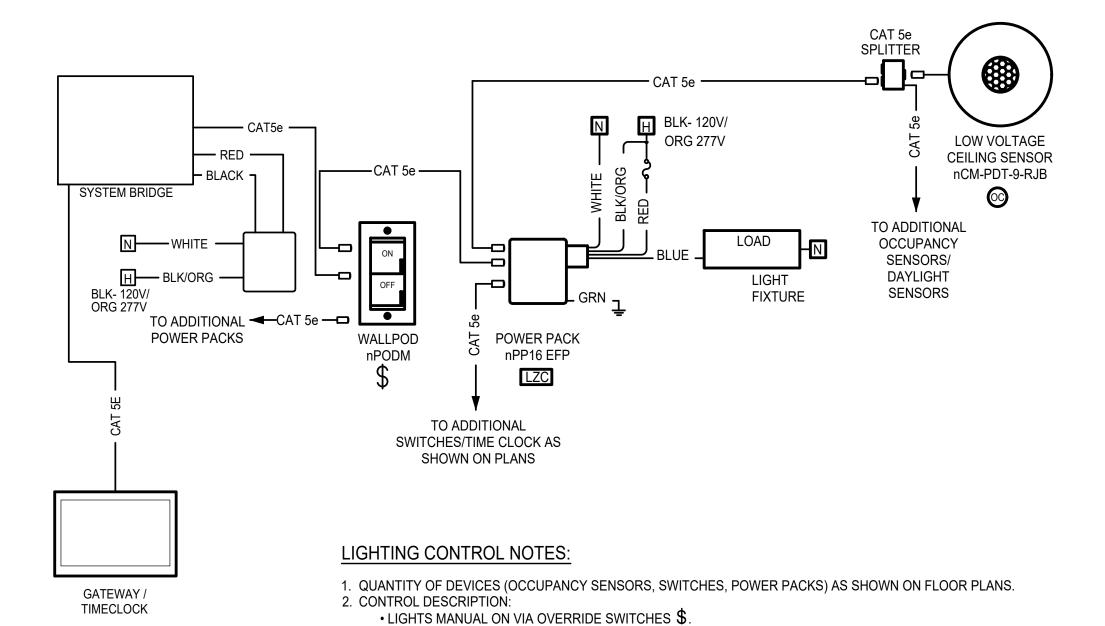


LIGHTING CONTROL NOTES:

1. QUANTITY OF DEVICES AS SHOWN ON FLOOR PLANS.

2. CONTROL DESCRIPTION: LIGHTS MANUAL ON/OFF VIA LOCAL SWITCH.

• LIGHTS AUTO OFF AUTOMATICALLY WITHIN 20 MINUTES VIA WALL MOUNTED OCCUPANCY SENSOR. 3. THIS DETAIL APPLIES TO ROOMS WITH A SWITCH DESIGNATION \P $^{\circ c}$



• LIGHTS CONTROLLED BY TIME CLOCK DURING NORMAL OPERATING HOURS, LIGHTS TO

• LIGHTS AUTO OFF VIA VACANCY SENSOR WITHIN THE SPACE (AUTO OFF WITHIN 20 MINUTES) 3. UPON LOSS OF POWER THE LIGHT FIXTURES WITH BATTERY PACKS SHALL TURN ON TO FULL OUTPUT.

4. THIS DETAIL APPLIES TO MAIN STORE AND KITCHEN WITH OVERRIDE LOW VOLTAGE SWITCHES AS SHOWN ON DRAWINGS.

BE CONTROLLED BY OCCUPANCY SENSOR AFTER NORMAL OPERATING HOURS.

BATES ARCHITECTS

121 NORTH COURT STREET FREDERICK, MARYLAND 21701 TEL 301.644.0444 | FAX 301.644.0446 WEB WWW BATESARCHITECTSPC COM

ENGINEERING

5285 Westview Drive Suite 203 Frederick, MD 21703 P 301.695.9424 CJL Project # 23-0742.01

PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License No:45511 Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ELECTRICAL DETAILS

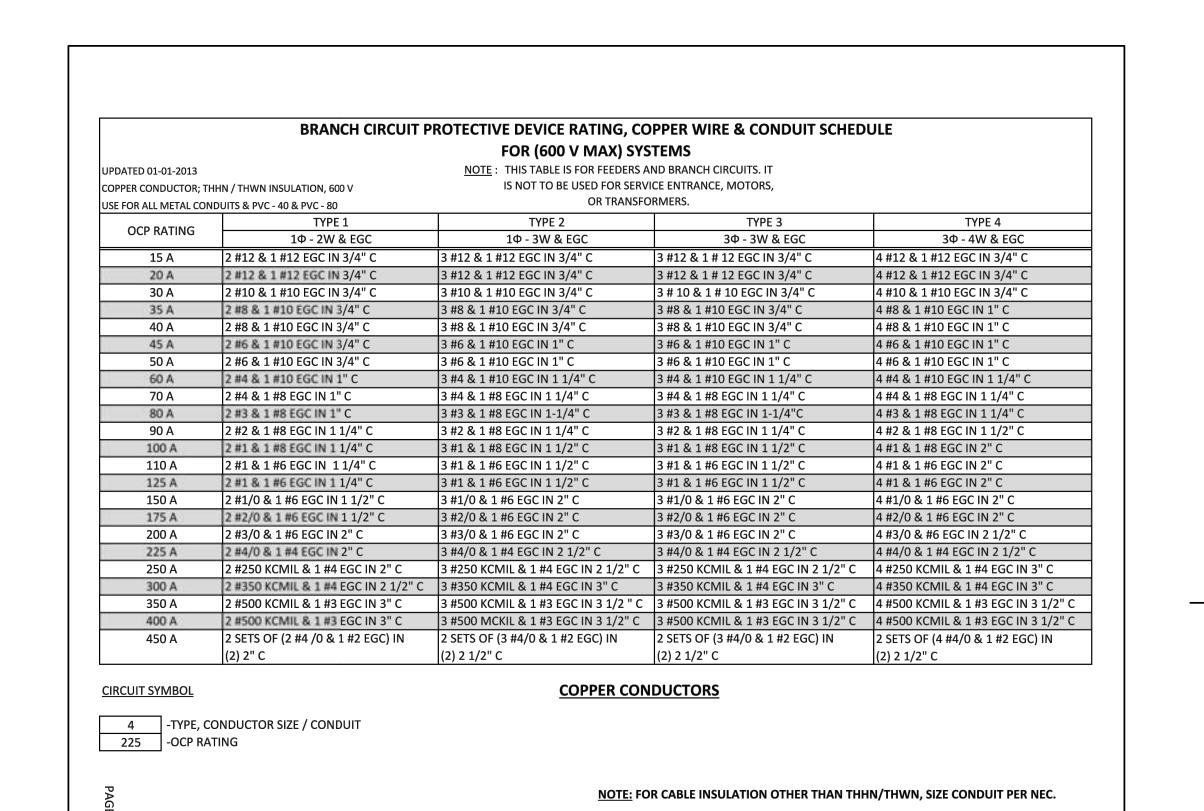
NC	Э.	DESCRIPTION	DATE
		PERMIT & CONSTRUCTION	03.21.24
<u> </u>			
 			
 			
 			
l⊢			
	_	JECT VIII JAARER 03	074001

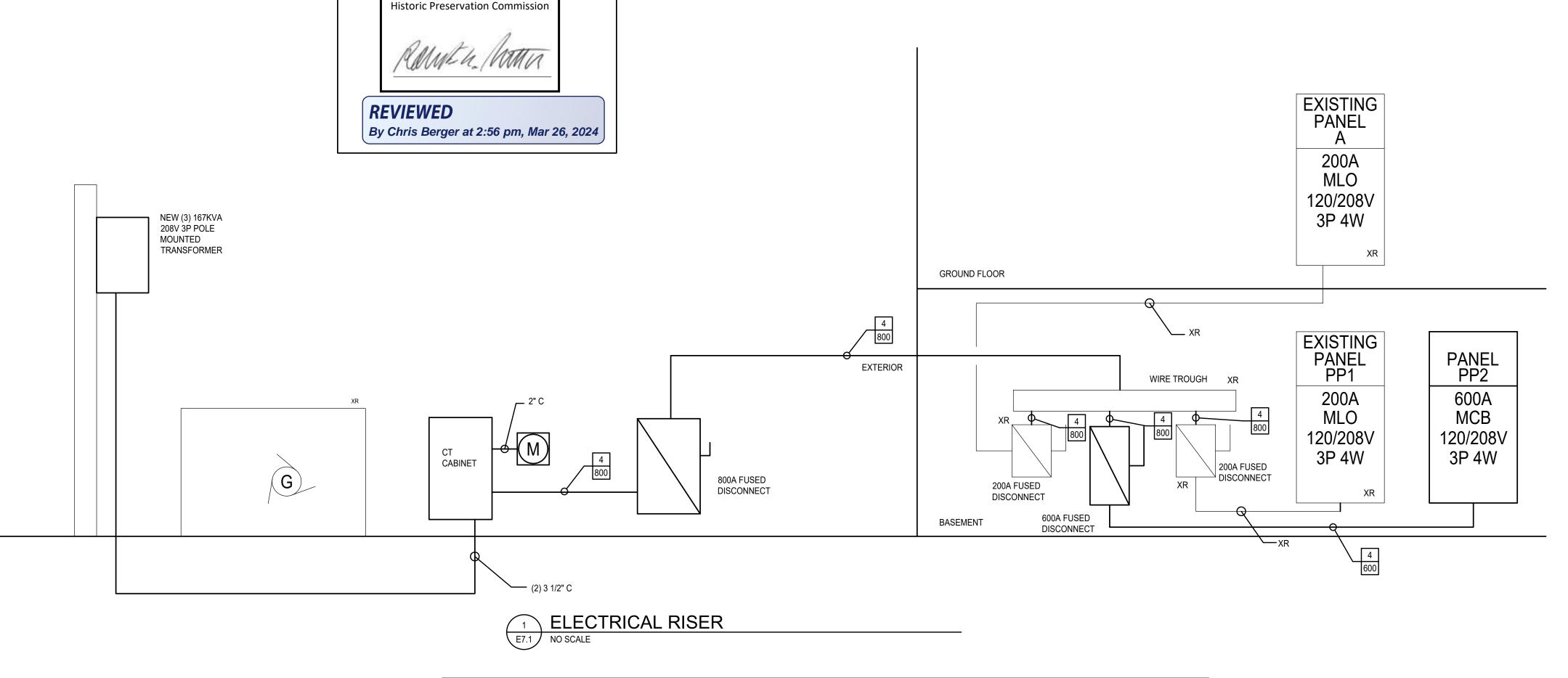
PROJECT NUMBER 23-0742.01 03.21.24 NAD

DRAWN BY CHECKED BY

E6.1

© 2024 - BATES ARCHITECTS LLC





APPROVED

Montgomery County

	200		A (EXIST AMP MAI KER TYPE	N LUGS	ONLY	208 7 120 V 3 Phase 4 Wire	60	HZ	^r 225	AMP B	us		EXISTING "	10,000		ACE MOU	NTE)	
CKT.	СК	100000	WIRE	GND	CON	LOAD SERVED	L	OAD [kV		LC	AD [k		LOAD SERVED	CON	GND	WIRE	1 6	KT.	CKT.
	BK						A	В	С	A	В	С					В	KR.	-
1	15	1	12	12	3/4"	**MICROWAVE	1.00			0.72			EXISTING LOAD	3/4"	12	12	1	20	2
3	40	2	8	10	3/4"	**COFFEE		3.00			1.50		PARKING LOT LIGHTS (XR)	3/4"	12	12	1	20	4
5		100			2111	2002 0051157 (VD)			3.00	4.55		0.30	***IMPACT LIGHTING	3/4"	12	12	1	20	6
7	20	1	12	12	3/4"	DOOR OPENER (XR)	0.40			1.30			***REACH IN FREEZER	3/4"	12	12	1	15	8
9	15	1	12	12	3/4"	**SOUPER		0.80			1.00		***REACH IN FREEZER	3/4"	12	12	1	15	10
11	15	1	12	12	3/4"	**SOUPER			0.80			0.36	**RECEPT	3/4"	12	12	1	20	12
13	20	1	12	12	3/4"	***FRIDGE	1.00			0.36			**RECEPT	3/4"	12	12	1	20	14
15	20	1	12	12	3/4"	***FOOD WARMER		0.60			0.18		***STORE RECEPT	3/4"	12	12	1	20	16
17	20	1	12	12	3/4"	EXISTING LOAD			0.50			0.54	***BACK ROOM RECEPT	3/4"	12	12	1	20	18
19	20	1	12	12	3/4"	***CHECK OUT	0.50			0.90			***RESTROOM RECEPT	3/4"	12	12	1	20	20
21	20	1	12	12	3/4"	ENTRY OUTLET (XR)		0.54	Program		0.20		**EF-1	3/4"	12	12	1	15	22
23	20	1	12	12	3/4"	***CHECK OUT			0.50	3		0.30	***WATER COOLER	3/4"	12	12	1	20	24
25	20	1	12	12	3/4"	***CHECK OUT	0.50			0.30			FREZZER LIGHTS (XR)	3/4"	12	12	1	20	26
27	20	1	12	12	3/4"	UTILITY RM LIGHT AND RECEPT (XR)		0.30			0.20		**HWCP-1	3/4"	12	12	1	15	28
29	20	1	12	12	3/4"	***CHECK OUT			0.50			0.72	EXISTING LOAD	3/4"	12	12	1	20	30
31	20	1	12	12	3/4"	***REFRIGERATED BIN	1.50		i mini	1.50		million	***LIGHTING	3/4"	12	12	1	20	32
33	15	1	12	12	3/4"	**SWING DOOR REFRIGERATOR	10	0.80			1.30		***LIGHTING	3/4"	12	12	1	20	34
35	20	1	12	12	3/4"	ATM (XR)			0.50			0.52	***LIGHTING	3/4"	12	12	1	20	36
37	20	1	12	12	3/4"	**ROOF RECEPT	0.54			0.50			***CHECK OUT	3/4"	12	12	1	20	38
39	15	1	12	12	3/4"	**SOUP KETTLE		0.80			0.20		***TV	3/4"	12	12	1	20	40
41	20	1	12	12	3/4"	**SCALE/PRINTER			0.20			0.50	EXISTING LOAD	3/4"	12	12	1	20	42
							5.44	6.84	6.00	5.58	4.58	3.24	NON-CONTINUOUS LOAD [kVA]	0 100%	-	0.0	00		1
						PHASE CONNECTED LOAD [kVA]	A	11.02	-	11.42	-	9.24	CONTINUOUS LOAD [kVA] @1			15.			
						TOTAL CONNECTED LOAD [kVA]		1	_	.68			RECEPTACLE LOAD [kVA]			14.			
						TOTAL CONNECTED LOAD [A]	_		-	.93		$\overline{}$	LARGER LOAD [KVA] AC OR I	\$1.05 kg		0.0	-		
						101112011112012012012012	-						KITCHEN LOAD [KVA] @	100%		0.0	_		_
	**.RF	MOV	E EXISTIN	IG BREA	KER PR	OVIDE NEW BREAKER COMPATIBLE	WITH	CUTLER	-HAMN	IER PAN	IFL		MOTORS [KVA]	100 /6	_	0.0	-		_
						ER MADE SPARE THROUGH REMOVA			· III	LICIAN			LARGEST MOTOR [KVA] @12	5%		0.0	_		_
	-01	OMM	LOT TO E	MIJING	DREAKE	TOTAL DIVERSIFIED LOAD [A]	LHUK			.08			TOTAL DIVERSIFIED LOAD [K	-		29.	_		_

	•••-с	ONNE	CT TO E	CISTING	BREAKE	TOTAL DIVERSIFIED LOAD [A]	L WORK		83.	08			TOTAL DIVERSIFIED LOAD [K			29.9	_		
	200		PP1 (EXI AMP MAI KER TYPI	N LUGS	ONLY	208 / 120 V 3 Phase 4 Wire	60	нz	225	АМР В	US		EXISTING	10,000		ACE MOU	NTEC)	
ŧΤ	СК	т.	wine			1010 000000	LC	DAD [kV	/A]	LO	AD [k\	/A]	1010 050050				С	KT.	T
CKT.	BK	R.	WIRE	GND	CON	LOAD SERVED	A	В	С	A	В	C	LOAD SERVED CON		GND	WIRE	BKR.		1
1							3.62			5.00									-
3	40	3	8	10	1"	*RTU-2		3.62			5.00		*EXISTING FREEZER	1 1/4"	10	4	3	60	ľ
5		100		87518		100000000			3.62			5.00		100000	50508	400	220	63600	ľ
7			-				3.62												T
,	40	3	8	10	1"	*RTU-3		3.62		1			**SPARE				3	40	
1								f	3.62		in min								
13	7										2		/#501.01071/2/AN				20	1000	1
15	40	3				**SPARE						1000	**SPARE				2	20	ı
17							3 100 110	6			0. 11	0.72	EXISTING RECEPTACLE	3/4"	12	12	1	20	-
19	20	1	12	12	3/4"	EXISTING RECEPTACLE	0.72		and a second	0.72			EXISTING RECEPTACLE	3/4"	12	12	1	20	-
21	20	1	12	12	3/4"	EXISTING RECEPTACLE		0.72			0.72		EXISTING RECEPTACLE	3/4"	12	12	1	20	-
23	20	1	12	12	3/4"	EXISTING RECEPTACLE			0.72			0.72	EXISTING RECEPTACLE	3/4"	12	12	1	20	-
25	20	1	12	12	3/4"	EXISTING RECEPTACLE	0.72			0.72			EXISTING RECEPTACLE	3/4"	12	12	1	20	-+
27	20	1	12	12	3/4"	EXISTING RECEPTACLE	milmi	0.72		milita	1.00			1 1197333	800	3033		100	7
29	20	1	12	12	3/4"	EXISTING RECEPTACLE	(DOM: 100		0.72			1.00	EXISTING LOAD	3/4"	10	10	2	30	ŀ
31	*>							2		0.72			EXISTING PARKING LIGHTS	3/4"	12	12	1	20	-
33	60	3				**SPARE					0.72		EXISTING RECEPTACLE	3/4"	12	12	1	20	-
35							ST 7119	S11111119			8 1111111111111111111111111111111111111	0.72	EXISTING RECEPTACLE	3/4"	12	12	1	20	-
37									110001100	0.10			***EXIT SIGNS	3/4"	12	12	1	20	-
39	60	3				**SPARE					0.72		EXISTING RECEPTACLE	3/4"	12	12	1	20	-+
11						\$4500m.45							SPACE				1	20	-
		_				·	8.68	8.68	8.68	7.26	8.16	8.16	NON-CONTINUOUS LOAD [kVA]	@ 100%		0.0	00		_
						PHASE CONNECTED LOAD [kVA]	A	15.94		16.84	С	16.84	CONTINUOUS LOAD [kVA] @1			18.	75		
						TOTAL CONNECTED LOAD [kVA]				.62			RECEPTACLE LOAD [kVA			11.			
						TOTAL CONNECTED LOAD [A]				7.73			LARGER LOAD [KVA] AC OR			21.			_
	*-CON	INEC	T TO EXIS	STING B	REAKER	MADE SPARE THROUGH REMOVAL	WORK		21.00				KITCHEN LOAD [KVA] @	100%		0.0	00		

144.12

MOTORS [KVA]

LARGEST MOTOR [KVA] @125%

TOTAL DIVERSIFIED LOAD [KVA]

**-BREAKER MADE SPARE THROUGH REMOVAL WORK

TOTAL DIVERSIFIED LOAD [A]

***-CONNECT TO EXISTING SPARE

0.00

0.00

51.92

		CTIVE DEVICE RATING, COPPER WI FOR (600 V MAX) SYS		
UPDATED 01-01-2013		NOTE: THIS TABLE IS FOR FEEDERS A	ND BRANCH CIRCUITS. IT	
COPPER CONDUCTOR; THHN / T	HWN INSULATION, 600 V	IS NOT TO BE USED FOR SERVI	ICE ENTRANCE, MOTORS,	
USE FOR ALL METAL CONDUITS	& PVC - 40 & PVC - 80	OR TRANSFO	RMERS.	
OCP RATING	TYPE 1	TYPE 2	TYPE 3	TYPE 4
OCF NATING	1Ф - 2W & EGC	1Φ - 3W & EGC	3Ф - 3W & EGC	3Ф - 4W & EGC
500 A			,	2 SETS OF (4 #250 KCMIL & 1 #2 EGC)
	<u> </u>	IN (2) 2 1/2" C		IN (2) 3" C
600 A		2 SETS OF (3 # 350 KCMIL & 1 #1 EGC)		2 SETS OF (4 # 350 KCMIL & 1 #1 EGC)
		IN (2) 3" C	IN (2) 3" C	IN (2) 3" C
700 A		2 SETS OF (3 #500 KCMIL & 1 #1/0	2 SETS OF (3 #500 KCMIL & 1 #1/0 EGC)	
		EGC) IN (2) 3 1/2" C		IN (2) 3 1/2" C
800 A		2 SETS OF (3 #500 KCMIL & 1 #1/0	2 SETS OF (3 #500 KCMIL & 1 #1/0 EGC)	
1000 4		EGC) IN (2) 3 1/2" C		IN (2) 3 1/2" C
1000 A		3 SETS OF (3 #500 KCMIL & 1 #2/0	3 SETS OF (3 #500 KCMIL & 1 #2/0 EGC)	1
1200 A		EGC) IN (3) 3 1/2" C 3 SETS OF (3 #600 KCMIL & 1 #3/0	IN (3) 3 1/2" C 3 SETS OF (3 #600 KCMIL & 1 #3/0 EGC)	IN (3) 3 1/2" C
1200 A		EGC) IN (3) 3 1/2" C	IN (3) 3 1/2" C	IN (3) 4" C
1600 A		[EGC) IN (3) 3 1/2 C	4 SETS OF (3 #600 KCMIL & 1 #4/0 EGC)	
1000 A				IN (4) 4" C
2000 A			5 SETS OF (3 #600 KCMIL & 1 #250	5 SETS OF (4 #600 KCMIL & 1 #250
2000 //				KCMIL EGC) IN (5) 4" C
2500 A				6 SETS OF (4 #600 KCMIL & 1 #350
25557.			·	KCMIL EGC) IN (6) 4" C
3000 A				8 SETS OF (4 #500 KCMIL & 1 #400
			KCMIL EGC) IN (8) 3 1/2" C	KCMIL EGC) IN (8) 3 1/2" C
3500 A			9 SETS OF (3 #600 KCMIL & 1 #500	9 SETS OF (4 #600 KCMIL & 1 #500
			KCMIL EGC) IN (9) 3 1/2" C	KCMIL EGC) IN (9) 4" C
4000 A			10 SETS OF (3 #600 KCMIL & 1 #500	10 SETS OF (4 #600 KCMIL & 1 #500
-			KCMIL EGC) IN (10) 3 1/2" C	KCMIL EGC) IN (10) 4" C
CIRCUIT SYMBOL		<u>COPPER CON</u>	<u>DUCTORS</u>	
	ICTOR SIZE / CONDUIT			
225 -OCP RATING				
PAGE		NOTE: FO	R CABLE INSULATION OTHER THAN THHI	N/THWN, SIZE CONDUIT PER NEC.
ω m				
1.2.1				

	600 UIT E		AMP MAI KER TYPI		JIT BREA	AKER 208 / 120 V 3 Phase 4 Wire	60	HZ		AMP T			PROVIDE	10,000		ACE MOU			
÷ I	СК	т.	wee	ava l	001	1010000000	LC	DAD [kV	Α]	LC	AD [kV	/A]	101000000			wine	С	KT.	E
CKT.	BK	R.	WIRE	GND	CON	LOAD SERVED	A	В	С	A	В	С	LOAD SERVED	CON	GND	WIRE	В	KR.	CKT.
1	20	1	12	12	3/4"	EXISTING RECEPTACLE	0.72			13.30									2
3	20	1	12	12	3/4"	EXISTING RECEPTACLE		0.72			13.30		RTU-1	2"	6	1/0	3	150	4
5	15	1	12	12	3/4"	EXISTING CHARGER			0.72			13.30						1	6
7	20	2	12	12	3/4"	DEFROST	1.70	1.70		1.70	1.70		DEFROST	3/4"	12	12	2	20	8 10
1	20	2	12	12	3/4"	DEFROST	1.00		1.00	1.00		1.00	DEFROST	3/4"	12	12	2	20	12
5	20	1	12	12	3/4"	CASE LIGHTING		0.20			0.40		CASE FAN	3/4"	12	12	1	20	16
17	20	1	12	12	3/4"	CASE LIGHTING			0.10			0.20	CASE FAN	3/4"	12	12	1	20	18
9	20	1	12	12	3/4"	CASE LIGHTING	0.20			0.40		-120	CASE FAN	3/4"	12	12	1	20	20
21	20	1	12	12	3/4"	CASE LIGHTING		0.20			0.40		CASE FAN	3/4"	12	12	1	20	22
3	20	1	12	12	3/4"	CASE LIGHTING			0.20			1.50	CASE FAN	3/4"	12	12	1	20	24
25	20	1	12	12	3/4"	CASE LIGHTING	0.20			1.50			CASE FAN	3/4"	12	12	1	20	26
27	20	1	12	12	3/4"	DRAIN HEATER		0.50			0.50		DRAIN HEATER	3/4"	12	12	1	20	28
29	20	1	12	12	3/4"	EXISTING RECEPTACLE			0.72			0.20	COOLER LIGHTING	3/4"	12	12	1	20	30
31	20	1	12	12	3/4"	EXISTING RECEPTACLE	0.72			0.60			EXISTING BASEMENT LIGHTING	3/4"	12	12	1	20	32
33	20	1	12	12	3/4"	EXISTING RECEPTACLE		0.72			0.30		AC	3/4"	12	12	1	15	34
35	20	1	12	12	3/4"	EXISTING RECEPTACLE			0.72			0.30	AC	3/4"	12	12	1	15	36
37							15.00			5.70									38
39	150	3	1/0	6	2"	COMPRESSOR		15.00			5.70		COMPRESSOR DEFROST	1 1/4" 1	10	4	3	60	40
41									15.00			5.70							42
13					1		0.10						SPARE				1	20	44
45	15	2	12	12	3/4"	COOLER MOTOR FAN		0.10					SPARE				1	20	46
47			7.2						1.10				SPARE				1	20	48
49	15	2	12	12	3/4"	COOLER ELECTRIC DEFROST	1.10						SPARE				1	20	50
51		1				SPACE							SPARE				1	20	52
53		1				SPACE							SPARE				1	20	54
							20.74	19.14	19.56	24.20	22.30	22.20	NON-CONTINUOUS LOAD [kVA]	0 100%		0.6	50		-
						PHASE CONNECTED LOAD [kVA]	A	44.94	В	41.44		41.76	CONTINUOUS LOAD [kVA] @12	25%		102	.50		
						TOTAL CONNECTED LOAD [kVA]			128	3.14			RECEPTACLE LOAD [kVA]			5.0)4		
						TOTAL CONNECTED LOAD [A]			355	5.68			LARGER LOAD [KVA] AC OR H	ITG		40.	50		
													KITCHEN LOAD [KVA] @	100%		0.0	00		
													MOTORS [KVA]			0.0	00		
													LARGEST MOTOR [KVA] @12	5%		0.0	00		
						TOTAL DIVERSIFIED LOAD [A]			412	2.58			TOTAL DIVERSIFIED LOAD [K			148	64		



BATES ARCHITECTS
121 NORTH COURT STREET
FREDERICK, MARYLAND 21701
TEL 301.644.0444 | FAX 301.644.0446
WEB WWW BATESARCHITECTSPC COM



PROFESSIONAL CERTIFICATION

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No:45511

Expiration Date: 06/03/2024



TPSS CO-OP RENOVATION

201 ETHAN ALLEN AVENUE TAKOMA PARK, MARYLAND

ELECTRICAL SCHEDULES

NO.	DESCRIPTION	DATE
	PERMIT & CONSTRUCTION	03.21.24
PRO	-0742.01	
		00 01 04

DATE 03.21.24

DRAWN BY NAD

CHECKED BY ALD

F7.1

© 2024 - BATES ARCHITECTS LLC



Catalog 256-18

Rebel® Commercial Packaged Rooftop Systems

Heating & Cooling Models DPS 003 – 028 3 to 28 Tons R-410A Refrigerant Energy Recovery Wheel





Table	of	Con	itents
-------	----	-----	--------

Introduction3
Features and Options
Filters8
Heating Section8
Outdoor Air (OA) Monitor and Controller9
Outdoor/Return Air Section
Energy Recovery CORE®10
Energy Recovery Wheel
Electrical
Refrigeration Only Controls11
SiteLine™ Building Controls
Optional Modulating Hot Gas Reheat13
Application Considerations15
Acoustical Considerations21
Ductwork Considerations
Smoke and Fire Protection
Variable Air Volume Application22
Single Zone Variable Air Volume Application 22
Fan Operating Range
Indoor Fan and Motor Heat

Physical Data28
Performance Data27
Fan Curves
Heating Capacity3
Air Pressure Drops
Dimensional Data
Electrical Data45
Engineering Specifications

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County
Historic Preservation Commission

©2023 Daikin Applied, Minneapolis, MN. All rights reserved throughout the world. This document contains the most current product information as of this printing. Daikin Applied Americas Inc. has the right to change the information, design, and construction of the product represented within the document without prior notice. For the most up-to-date product information, please go to www.DaikinApplied.com.

™® Rebel, MicroTech, SiteLine, RapidRestore, and Daikin Applied are trademarks or registered trademarks of Daikin Applied Americas Inc. The following are trademarks or registered trademarks of their respective companies: BACnet from American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.; Echelon, LonWorks, LonMark, and LonTalk from Echelon Corporation; Modbus from Schneider Electric; and Windows from Microsoft Corporation..



Introduction

Rebel, the most energy efficient packaged rooftop unit

Daikin Applied Rebel commercial rooftop systems provide building owners with energy savings of up to 43% above ASHRAE's 90.1 2016 standard, enabling for complete system payback in under two years. Combining quality manufactured Daikin Applied equipment with advanced Daikin Applied technologies, Rebel delivers a superior commercial rooftop part-load rating of up to 20.6 IEER, making these units ideal for any low-rise commercial building like schools, retail, medical offices, and dedicated outdoor air systems.

Rebel's innovative design utilizes an industry first variable speed Daikin Applied heat pump with hybrid heat (gas, electric, or hot water) options, variable speed ECM motors on all fans, ultra-quiet composite condenser fans, and an advanced modulating variable speed inverter scroll compressor to achieve unprecedented rooftop energy efficiencies.

Configurable as an industry-first inverter compressor heat pump, Rebel offers further configuration flexibility for adverse weather conditions. For much of winter, Rebel's heat pump provides a more economical solution than gas heat. During extreme cold weather, back-up hybrid heat options can be used for additional heat and defrost operation.

Variable speed ECM motors or VFDs on all fans greatly increase system reliability and efficiency by eliminating use of belts. These motors incorporate built-in inverters and ultra-efficient magnetic property as yellow and save energy at light load conditions.

Daikin
UV and saving a Chris Berger at 12:29 pm, Mar 21, 2024

Rebel's variable speed Daikin Applied inverter scroll compressor delivers higher energy efficiency ratios and lower energy costs than typical fixed speed, digital scroll, or 2-stage scroll compressors. The Daikin Applied inverter scroll compressor provides true modulating capacity and unsurpassed comfort control.

by continuously monitoring and adjusting that temperature. Because the inverter operates and adjusts room temperature only when needed, energy consumption (and noise) drops drastically compared to traditional ON/OFF compressor systems.

Modulating hot gas reheat, electronic expansion valves, economizer, MicroTech® controls, 100% OA, and more, further contribute to superior efficiencies, enhanced comfort, quiet operation, quality, reliability, and serviceability you expect from the world's leading HVAC manufacturer.

An optional energy recovery module transfers both heat and moisture energy between the exhaust and ventilation air. In doing so, it conditions the incoming ventilation air. This total energy device offers a cost-effective and efficient method for containing energy costs while meeting ventilation requirements of ASHRAE Standard 62.1.

Award-winning performance

Since introduction, Rebel's use of those advanced technologies have led numerous system performance awards, such as:

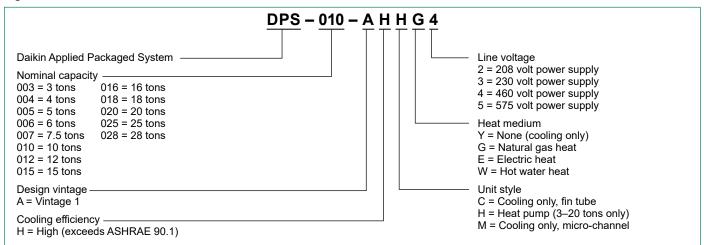
- Consulting Specifying Engineer Product of the Year Finalist
- · ACHR The News Dealer Design Gold Award
- Buildings Top Money Saving Products
- · Minnesota Business Innovator of the Year

ACHR The News Dealer Design Silver Award

APPROVED

Firs
Firs
Firs
Firs
Firs
Firs
Internal

Figure 1: Nomenclature





Rebel[™] Packaged Singlezone Heating and Cooling Units—Features and Options



1 Variable speed Daikin Applied

4 MicroTech® unit control
Open Choices™ feature pro

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

industry

- · Dependable and quiet operation
- Superior discharge air temperature control

2 Variable speed Daikin Applied heat pump

- More economic than gas heat during winter
- Hybrid backup heat options for extreme cold weather and defrost operation
- Modulating capacity delivers the industry's best heat pump control

3 Electronic expansion valves

- · Optimum control of superheat
- Protects compressor from liquid refrigerant
- Increases efficiency by safely lowering head pressure

, Mar 21, 2024 and Low ions for integration with building au systems

interoperability with BACne

- Unit diagnostics for easy serviceability
- Outdoor air and humidity c logic maintains minimum fr intake and optimum humidity levels
- Optionally add the SiteLine[™]
 Building Controls solution, which
 provides real-time data streams
 for benchmarking performance,
 monitoring system operations and
 implementing remote diagnostics
 and control

5 Hinged access doors

 ¼-turn latch door provide easy access to system components for maintenance and service

6 Ultra-quiet Daikin Applied condenser fans

- UV and corrosion resistant
- Variable speed ECM motors provide tremendous energy savings at lower ambient

APPROVED

Montgomery County

Historic Preservation Commission

Routh home

as 12:1

 Electric heat option with SCR for precise temperature control

's or

ability

s and

ntrol

IS

s high

Hot water heat

9 Refrigeration only controller

 Allows for the use of a thirdparty RTU controller to run the Rebel's functions while Daikin Applied optimizes and protects the refrigeration system



Rebel[™] Packaged Singlezone Heating and Cooling Units—Features and Options



10 PREVIEWED in et

By Chris Berger at 12:29 pm, Mar 21, 2024 or 13 (

· Better thermal seal than fiberglass

Dehumidification Control

- · Hot gas used for "free" reheat
- Tight humidity control without over cooling the space
- Modulating hot gas reheat coil
- Independent reheat and cooling control

2 Stainless steel, double sloped drain pan

- · Prevents corrosion
- · Avoids standing water for high IAQ

100% outdoor air option

- · Low-leak dampers
- Double-wall blades, edge and jam
 seals
- Modulating 100° temperature rise furnace
- · Modulating compressor
- · Modulating hot gas reheat

 Increased insulation value increased system efficience

Double-wall construction for increased indoor air quality

15 Low radiated noise

14 Durable construction

- · Enclosed compressor
- · Quiet outdoor fan
- · Exellent acoustics at lower speeds

6 Economizer

- Provides free-cooling when outdoor conditions are suitable
- Provides fresh air to meet local requirements
- Integrated economizer operating with mechanical cooling
- Optional demand control ventilation for increased system efficiency

APPROVED

Montgomery County

Historic Preservation Commission

Eduth / homes

Single-point power and controls

cks

ick

h

Optional energy CORE®

- Meets ASHRAE 90.1 2016 effectiveness requirement
- · Less than 0.5% EATR
- · No moving parts
- · Factory installed and tested
- · Single-point power and control

AHRI 340/360 Certified

Rebel capacity and efficiency is independently certified by rigorous annual witness testing.



Features and Options

Daikin Applied Rebel rooftop units are built to perform, with features and options that provide for lower installed and operating costs, superior indoor air quality, quiet operation and longevity.

Cabinet, Casing, and Frame

Unit Panel construction includes double-wall with galvanized steel liner to enhance performance and satisfy IAQ requirements.

Figure 2: Durable, Double-wall Construction



- Heavy-duty lifting brackets are strategically placed for balanced cable or chain hook lifting.
- It substead from namels have a solid galvanized steel inner line REVIEWED to of the unit to protect insulation during service and maintenance By Chris Berger at 12:29 pm, Mar 21, 2024

(3–15 ton) or 13.0 (16–28 ton) for long equipment life and better acoustics.

- · Panel design includes no exposed insulation edges.
- Unit cabinet can operate at total static pressures up to 5.0 inches of water.
- Pre-painted galvanized steel exterior surfaces withstand a minimum 1000-hour salt spray as per ASTM B117 provides unit for long term durability.
- Access doors include multiple, stainless steel hinges and ¼ turn latch system for easy access.
- The unit base overhangs the roof curb for positive water runoff and seats on the roof curb gasket to provide a positive, weather tight seal.

Compressor

High performance, low noise inverter scroll compressors, adjust the speed to match required total cooling and heating load for efficient part load control.

Figure 3: Inverter Scroll Compressor Technology



- The inverter scroll compressor has permanent magnets for high torque and maximum efficiency. At complete stop of the compressor, the magnets will position the rotor into the optimum position for a low torque start.
- Refrigeration circuit includes both a low and high pressure transducer, high pressure safety switch and temperature sensors for the suction and discharge. All of the above devices are input to the unit controller and



discharge piping of each compressor.16–28 tons, the inverter compressor has a low oil safety control.

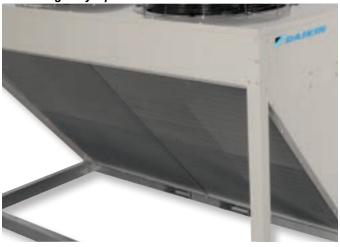
Outdoor Coil

All heat pump units use large face area outdoor coils, with integral sub-cooling circuit, are constructed with seamless copper tubes, mechanically bonded into aluminum plate-type fins with full drawn collars to completely cover the tubes for high operating efficiencies.

Most non-heat pump units use large face area, all aluminum, micro-channel coils with integral subcooling circuits. Size 5 and 6 units use fin tube coils. Micro-channel coils allow significant charge reduction and reduced maintenance costs.



Figure 4: Flexible Outdoor Coils Designed for Heat Pump or Cooling Only Operation



- Each outdoor air coil is factory leak tested with highpressure air under water for reliable operation.
- Units are shipped with full operating charge of R-410A for quick start up.
- The condensing unit consists of one or more direct drive condenser fans with low noise, patented profile blade design for quieter operation.
- Fan motors have an ECM type motor for proportional control to make sure the space condition are met at
- A REVIEWED ded, steel wire, coil guard is offered to provide protection for outdoor coil fine as an offered to provide protection for outdoor coil fine as a f
- Thermal overload and phase failure protection are provided for dependable and long lasting motor operation.
- The fan motor, include permanently lubricated bearings to reduce maintenance cost.
- Sloped condenser coil design provides better hail protection for durability and reliable performance.

Indoor Coil

Indoor coil section is installed in a draw through configuration to provide better dehumidification.

- Direct expansion cooling coils are fabricated of seamless riffled copper tubing that is mechanically expanded into enhanced aluminum plate fins for high efficiency.
- Multi-row, staggered tube design coils with a minimum of 3 rows allow unbeatable part load and full load efficiencies.
- Cooling coil includes an electronic controlled expansion valve to maintain the liquid sub-cooling and the superheat of the refrigerant system for extreme ambient conditions.
- Each indoor air coil is factory leak tested with highpressure air under water and completely piped and charged for quick start up and reliable operation.
- Cooling coil is mounted in a stainless steel and positively sloped, ASHRAE 62.1 compliant, double sloped drain pan to improve IAQ.

Figure 5: Rebel Indoor Coil Section



Heat Pump Heating

Evaporator coil, condenser coil, compressors and refrigerant circuit are designed for heat pump operation.

- The refrigerant circuit contains a 4 way reversing valve to provide heat
- The outdoor coil includes an electronic controlled expansion valve to control the refrigerant flow during heat



- Hot bhannel design with high efficiency brazed aluminum fins for direct bonding and provides better heat transfer.
- Modulating reheat coil provides precise temperature and humidity control to maintain required space conditions and reduces the chances of mold growth, sick building syndrome.
- MicroTech integrated controls with compressor and reheat coil energizes whenever dehumidification is needed without using additional energy.
- Each indoor air coil is factory leak tested with highpressure air under water and completely piped and charged for quick start up and reliable operation.



Supply Fan

The airfoil single width, single inlet (SWSI) Class II construction supply fan provides efficient and quiet operation at wide ranging static pressure and air flow requirements.

- Fan wheel is continuously welded to the hub plate and end rim for long lasting reliable operation.
- Direct drive fan with no belts, sheaves, or bearings and permanently lubricated motors provides low maintenance cost.
- Each fan assembly is dynamically trim balanced at the factory before shipment for quick start up and efficient operation.
- MicroTech integrated controls modulate the supply fan motor.
 - 3–15 ton units use ECM motors.
 - 16-28 ton units use VFDs.
- Motor with thermal overload and phase failure protection is provided for motor long lasting operation.

Variable Air Volume Control

MicroTech proportionally controls the ECM motors or VFDs on the supply and exhaust fans, not only reduce fan energy and operating cost at part load conditions but also improves sound levels. Two supply fan control methods are offered:

 Fan motor speed is controlled by the unit controller based on space temperature for singlezone VAV applications.

REVIEWED essure sensor for traditional VAV applications.

By Chris Berger at 12:29 pm, Mar 21, 2024

Exhaust ran

Single width, single inlet (SWSI) Class II airfoil fans with aluminum blades provide efficient and quiet operation at wide ranging static pressure and air flow requirements.

- Fan wheel is continuously welded to the hub plate and end rim for long lasting, reliable operation.
- Direct drive fan with no belts, sheaves, or bearings and permanently lubricated motors provides low maintenance cost.
- Each fan assembly is dynamically trim balanced at the factory before shipment for quick start up and efficient operation.
- MicroTech integrated controls modulate the totally enclosed EC premium efficiency motor for efficient part load control.
- Motor with thermal overload and phase failure protection is are provided for motor long lasting operation.

Filters

Unit provides a draw-through filter section:

- Both 2" 4" filter tracks are provided to accept a 2"pre filter and a 4"after filter. MERV 8 prefilters are provided.
- The filter section includes hinged access door equipped with ¼ turn latch for easy access.

Figure 6: Easy Access Filters



Heating Section

Wide ranging natural gas, electric, hot water heat selections effectively handle almost any heating demand from morning warm-up

APPROVED

Montgomery County

Historic Preservation Commission

Gas Furnace

ETL certified heating modules provide a custom match to specific design requirement.

- Two stages, 5:1, 10:1 or 12:1 modulating heating control provides the flexibility to solve diverse needs.
- Tubes are 20 Gauge, G160, stainless steel to meet your application needs.
- The furnace has a tubular design with in-shot gas burner manifold and is installed downstream of the supply fan.



- The module contains an induced draft fan that will maintain a negative pressure in the heat exchanger tubes for the removal of the flue gases to protect indoor air quality.
- Each burner module provides flame roll-out safety protection switches and a high temperature limit switch for reliable operation.
- Induced draft fan includes an airflow safety switch to prevent heating operation in the event of no airflow for occupant safety.
- All burner assemblies are factory tested and adjusted prior to shipment.
- Heating control is fully integrated into the unit's MicroTech control system for quick startup and reliable control.
- Optional field installed LP kits are available for staged heating modules.
- Large gas burners can be factory LP in staged or modulating configuration.

Electric Heat

ETL approved electric heat is factory assembled, installed and tested.

- Heating control is fully integrated into the unit's MicroTech control system for quick startup and reliable control.
- Multi-stage or SCR capability for application flexibility.
- Durable low watt density, nickel chromium elements provide longer life
- For operational safeties electric heat includes automatic
 resBy Chris Berger at 12:29 pm; Mar 21, 2024

the event of no airflow.

Figure 8: Electric Heat Coils



Hot Water Coil

1 and 2-row, low and high output options (3-row available for 16–28 ton units).

- · Fully cased coil for better serviceability.
- · Factory installed coil vent and drain.
- · Piping vestibule for field installed piping control package

- Unit DDC control provides freeze protection and remote alarm signal.
- DDC control ready with 2–10 volt wiring harness for field supplied and installed valve.
- Each indoor air coil is factory leak tested with highpressure air under water for reliable operation.

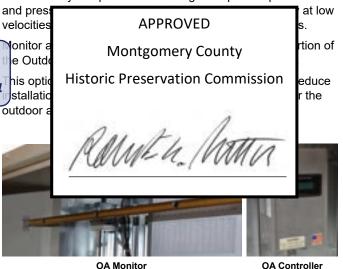
Outdoor Air (OA) Monitor and Controller

Directly measures and controls outdoor ventilation air flow as low as 15 CFM per ton in order to improve indoor air quality (IAQ).

Model	Unit Size (tons)	Minimum CFM
	3–6	100
Rebel	7–15	200
	16–28	400

Thermal dispersion technology, independently calibrated sensors using NIST traceable standards, and laboratory testing of the entire assembly allow ventilation control accuracy of +/-15%.

This outdoor air monitor is ideal for low velocity ventilation control, sensitivity to air flow increases as flow rate decreases, and accuracy is a percent of reading. Competitive pitot tube



OA Monitor/Controller Application

The outdoor air monitor measures the airflow and sends the appropriate analog signal to the MicroTech unit controller, which in turn modulates the outdoor air damper to maintain proper ventilation levels. The desired outdoor air flow set point is directly entered at the MicroTech unit controller keypad or is read from the BAS.

Measured outdoor air CFM can be displayed on the MicroTech unit controller, as well as the outdoor air monitor, and MicroTech writes this value to the BAS.

All BAS communication is done through the optional, MicroTech, LON®, or BACnet® communication cards.



The outdoor air monitor option is available on all economizer, 100% outdoor air, and energy recovery options as well as the 0-30% outdoor air option.

Control accuracy may exceed +/- 15% when the energy recovery wheel bypass dampers are open. This only occurs during economizer operation, at which time more than enough ventilation air is provided.

Outdoor/Return Air Section

Rebel units are available with a 0% to 30% outdoor air damper or a 0% to 100% economizer or also a 100% outdoor air option.

- Outside air intake hood constructed from painted galvanized steel for longer equipment life.
- Outside air hood includes moisture eliminator filters to prevent water from entering the unit for better IAQ.
- Vinyl gasketed, motorized blade dampers provides efficient operation by reducing leakage during OFF cycles.
 - Damper leakage is 1.5 cfm per square foot at 1" pressure. ASHRAE 90.1 minimum damper leakage is 267% greater than Rebel's damper leakage.
- 0% to 30% damper is field adjusted to a fixed open position that is easily set using the MicroTech keypad, allowing for a balance between IAQ and energy savings.
- 0% to 100% option includes outside and return air

REVIEWED 100% of the supply air volume

⁰ By Chris Berger at 12:29 pm, Mar 21, 2024

and operating cost.

- Economizer control is fully integrated into the unit's MicroTech unit control system and features a springreturn actuator, adjustable minimum outside air set point and adjustable changeover.
- Dry bulb or comparative enthalpy economizer changeover control is available to provide the most economical amount of outside air for "free" cooling.
- Barometric relief dampers are standard for exhaust control and exhaust air out of the back of the unit and also include bird screen to prevent infiltration.

Energy Recovery CORE®

CORE full enthalpy energy recovery heat exchangers recover 50% of both sensible and latent energy. Considerable energy savings can result:

- · Low and high airflow configurations available.
- Provide twice as much summer energy recovery as sensible-only alternatives such as run-around loops.
- Less than 0.5% exhaust air transfer ratio (EATR) crossover.
- Easily field cleanable with no mold or bacteria growth.
- · No moving parts for low lifetime maintenance.

 MERV 8 prefilters provided on outdoor and return air paths to minimize dirt and cleaning.

Energy Recovery Wheel

Daikin Applied energy wheels normally recover 70-75% of both sensible and latent energy. Considerable energy savings can result:

- Provide twice as much summer energy recovery as sensible-only alternatives, such as run-around loops.
- Energy recovery can increase the air conditioning capacity by 25% if the minimum outdoor air design is 33%. The cost savings on mechanical heating and cooling components offset the additional investment of energy recovery.
- Winter humidification energy costs may be cut up to 60%.
- Winter latent energy recovery lowers the dew point of exhaust air, compared to sensible-only alternatives, and allows frost-free operation to a lower ambient temperature.
- Optional energy recovery wheel for increase efficiency for conditioning minimum outdoor air.
- · Unitary design for installation/rigging cost savings.
- Single point power connection for decreased installation cost.



 MERV 8 prefilters provided on outdoor and return air paths minimize dirt and cleaning.

Figure 9: Energy Recovery Wheel

VFD speed modulation.





Electrical

Units are completely wired and tested at the factory to provide faster commissioning and start-up.

- Customer connection points comply with applicable NEC requirements.
- Internal wiring adheres to all applicable third party (i.e. UL) standards.
- For ease of use, wiring and electrical components are number coded and labeled according to the electrical diagram.
- An optional 120 V GFCI convenience receptacle requiring independent power supply for the receptacle.
- An optional unit powered 15 amp 120 V convenience receptacle, complete with factory mounted transformer, disconnect switch, and primary and secondary overload protection, eliminates the need to pull a separate 120 V power source.
- A single point power connection with power block is standard and a terminal board is provided for connecting low voltage control wiring.
- 120-volt control circuit transformer and fuse, system switches, and a high temperature sensor are for provided with the unit.
- For better serviceability an optional non-fused disconnect switch is optionally mounted inside the control panel and operated by an externally mounted handle for disconnecting electrical power at the unit.

Refrigeration Only Controls

Units are available with an optional controller that operates only the inverter compressor refrigeration system.

- Terminal strip is provided for field input and output to control the overall function of the Rebel unit.
- Field determined sequences allow for the Rebel to operate to site specific operation.
- Ideal for integrating into a preferred RTU controls system.

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

SiteLine™ Building Controls

Daikin Applied makes building automation simpler, more effective and easier to scale than any other controls solution on the market today.

Whether you're overseeing a complex HVAC ecosystem of equipment and buildings or monitoring standalone units, SiteLine Building Controls and Service Solutions will help you create comfortable and sustainable environments where tenants work and live.

Daikin Applied's scalable, cloud-based building automation systems (BAS) instantly and easily optimize the performance of any HVAC ecosystem—including other makes and existing building systems. Plus, our real-time analytics provide effortless insight and enable optimization for energy, indoor air quality (IAQ) and sustainability.

Benefits

- Easy installation with out-of-the box functionality for both new and retrofit applications.
- Simple operation that brings insight to system performance and is intuitive to manage.
- Low upfront costs that enable you to work with other equipment systems
- Scalable solutions for both standalone equipment and building systems.
- Advanced security that protects customer data.

APPROVED

Montgomery County

Historic Preservation Commission

Rauta home



Figure 10: SiteLine Building Controls Dashboards





Optional Modulating Hot Gas Reheat

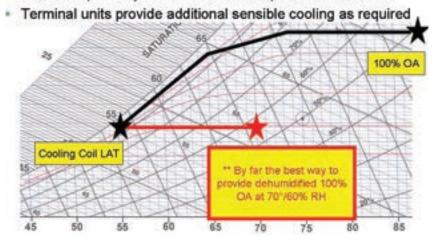
The reheat coil option comes complete with an aluminum micro-channel coil and modulating hot gas valves for leaving air temperature control. On a call for dehumidification, the unit controls will modulate the compressor to maintain desired DX coil leaving air temperature and dew point. Hot gas from the unit condenser will be routed to an indoor coil downstream of the DX coil to reheat the air. Hot gas reheat valves (Figure 11) will control how much hot gas is routed to the indoor coil to maintain desired discharge air temperature from the unit.

STEP VALVE STEP VALVE **APPROVED** Montgomery County REVIEWED **Historic Preservation Commission** By Chris Berger at 12:29 pm, Mar 21, 2024 LIGUID LINE Rowe 4. M DISTRIBUTOR

Figure 11: Dual 2-Way Modulating Valve Refrigeration Schematic (Cooling Model Shown)



The rooftop mainly dehumidifies the required ventilation air





Dehumidification Initiation

An analog sensor is mounted in the return duct, the space, or outdoors to sense relative humidity. The location is selected by setting the sensor location value on the keypad to return, space, or Outdoor Air Temperature. Outdoor Air Temperature can only be selected for units with Discharge Air Temperature control. Dehumidification is disabled when the unit is in either the heating or minimum Discharge Air Temperature state. When dehumidification is enabled, dehumidification operation is initiated when humidity control is set to either relative humidity or dew point and that value rises above the appropriate setpoint by more than half of its deadband. Economizer operation is disabled in the dehumidification mode so the unit immediately transitions to cooling if dehumidification is initiated in economizer state.

Dehumidification Termination

Dehumidification is terminated if the selected variable, relative humidity or dew point, drops below the appropriate humidity setpoint by more than half its deadband. Dehumidification is also terminated if cooling is disabled for any reason or the unit enters either the heating or minimum Discharge Air Temperature state. Compressor capacity is reduced and eventually shut off when compressor cycle timers are satisfied.

Control & Arrangement

described below.

In conjunction with dehumidification, MHGRH is used to raise the temperature of the cooled air to a desirable value.

MHGR REVIEWED allel coil arrangement, with dual modulating the modulating another by Chris Berger at 12:29 pm, Mar 21, 2024

During denumidation control with modulating hot gas reheat (MHGRH), an analog signal (0-10Vdc) is controlled as

- A PI loop is used to control the HGRH valves to maintain the discharge air temperature from the reheat coil.
- Compressor staging and speed during reheat (or dehumidification) will be controlled by the leaving DX coil temperature. For increased dehumidification during reheat, the standard default compressor staging range is 45–52°F
- When dehumidification is active in the cooling state, the reheat set point equals the Discharge Air Temperature cooling setpoint. For Discharge Air Temperature units, this is the normal Discharge Air Temperature set point resulting from any reset. For zone control units, this set point is the result of a PI loop based on the control temperature.
- Communication with the reheat control valves is accomplished by providing a 0–10 Vdc signal to a pair of interface boards which in turn supply the control signal to the reheat valves (step type).

- In the fan only state, no sensible cooling is required, but dehumidification mode will still be enabled if the dew point or humidity sensor is not satisfied. Reheat set point varies from a maximum value (default 65°F) when the control temperature is at or below the heating changeover setpoint to a minimum value (default 55°F) when the control temperature is at or above the cooling changeover setpoint.
- In the reheat mode, the minimum position for the reheat valves is 10% (1.0 Vdc). The controller will modulate the reheat valves from this starting position.
- Reheat valve(s) must be at 0% (0 Vdc) position before starting the first compressor in the reheat circuit to prevent pressure spikes.
- Upon termination of dehumidification (reheat), the maximum ramp down or decay rate of the reheat control valves shall be 1% per sec (or 0.1V per sec).
- Upon termination of dehumidification (reheat), staging of compressor(s) is delayed for 1 minute after reheat capacity = 0% (0 Vdc).
- Every 24 hours, the reheat control valves will be driven to their maximum position (10Vdc) and then returned to their normal operating position (0Vdc). If unit is operating in cooling or dehumidification (reheat) at the prescribed time it will be deferred to the next time.





Application Considerations

Daikin Applied Rooftop units are intended for use in normal heating, ventilating, and air conditioning applications. Consult your local Daikin Applied sales representative for applications involving operations at high ambient temperatures, high altitudes, non-cataloged voltages, or for job specific unit selections that fall outside of the range of the catalog tables.

For proper operation, units should be rigged in accordance with instructions stated in IM 1125. Fire dampers, if required, must be installed in the ductwork according to local and/or state codes. No space is allowed for these dampers in the unit. Follow factory check, test and start procedures explicitly to achieve satisfactory start-up and operation (see IM 1125). Most rooftop applications take advantage of the significant energy savings provided with economizer operation. When an economizer system is used, mechanical refrigeration is typically not required below an ambient temperature of 50°F. Standard DPS refrigeration systems are designed to operate in ambient temperatures down to 25°F.

Unit Location

The structural engineer must verify that the roof has adequate strength and ability to minimize deflection. Take extreme caution when using on a wooden roof structure. Unit condenser coils should be in a location that avoids any heated exhaust air.

Allow suffic clearance. clearances available cl

REVIEWED age 16 for recommended The By Chris Berger at 12:29 pm, Mar 21, 2024

Where code considerations, such as the NEC, require extended clearances, these take precedence.

Service Clearance

Allow for recommended service clearances as shown in Figure 13. Provide a roof walkway along the sides of the unit for service and access to controls and components. Contact your Daikin Applied sales representative for service requirements less than those recommended.

Reasons for clearance:

- Door swings all hinged access doors need space to freely swing to accomodate standard service, such as filter replacement.
- Components pulls on the off chance a component such as an energy recovery wheel fails, space to the side of the unit to allow for full removal will be required.
- 3. Condenser flow packaged equipment reject heat via proper airflow pulled across the condenser coil. If airflow is is restricted, the unit may not operate properly.
- Air recirculation whether it is the building exhaust or gas burner flue, there is a reqired clearance to allow those undesired airstreams from approaching the outdoor intake.

Pertinant codes – whether it is an electrical or other code, many manisimalities distate minimum electroness excured powere

APPROVED

Historic Preservation Commission

Montgomery County

roofs. Gaskets unit and curb. Typical curb ir and Figure 15

Curb Ins

of curb

1/16"

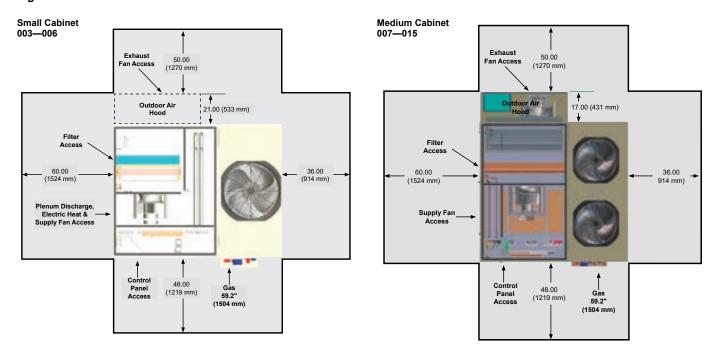
In applications securely mount

securely mounted on manage posts should support the unit each side. In addition, the insulation on the underside of the unit should be protected from the elements.

Applications in geographic areas subjected to seismic or hurricane conditions must meet code requirements for fastening the unit to the curb and the curb to the building structure.



Figure 13: Service Clearances



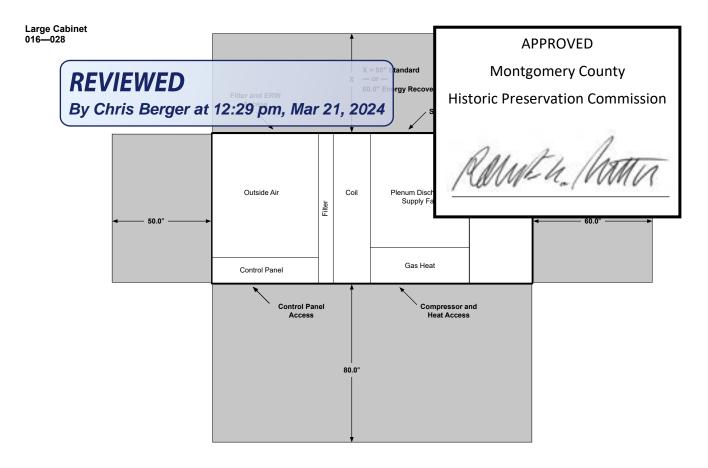
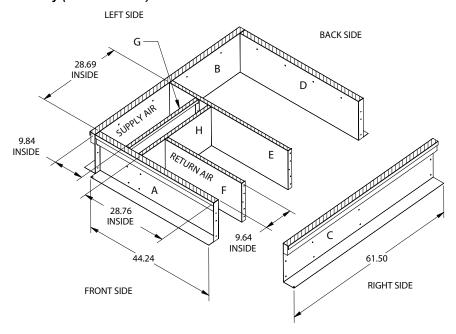




Figure 14: Roof Curb Assembly (DPS 003-006)1



- NOTE: 1. Check submittal drawing for gas/water/electrical/supply/return air opening.
 - 2. Horizontal above the roof gas connection only.
 - 3. All dimensions in inches.

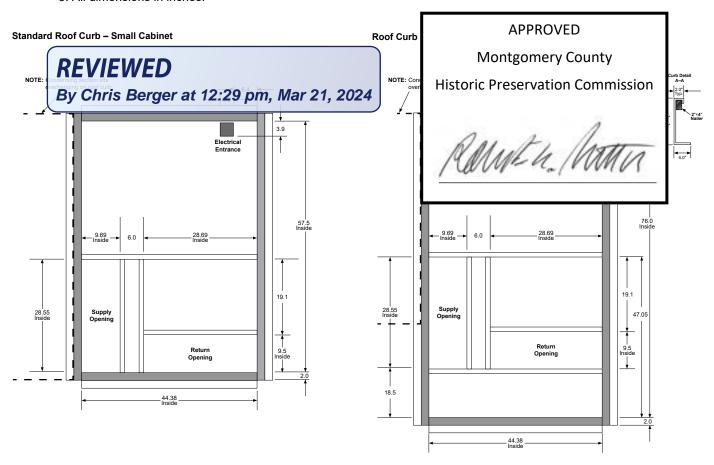
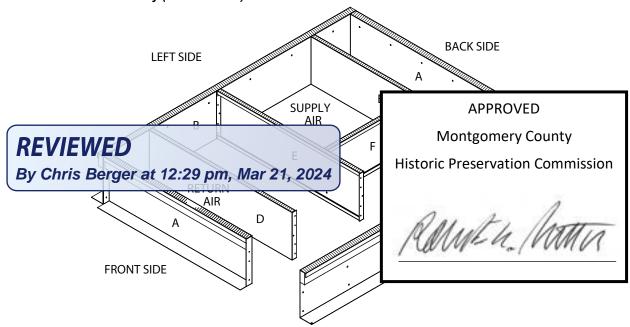




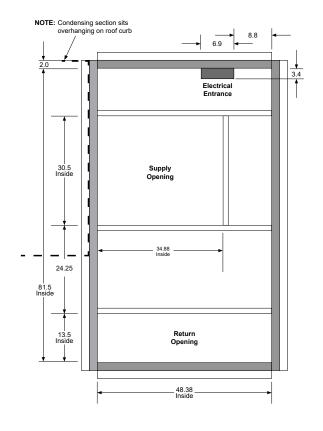
Figure 15: Roof Curb Assembly (DPS 007-015)1



- NOTE: 1. Check submittal drawing for gas/water/electrical/supply/return air opening.
 - 2. Horizontal above the roof gas connection only.
 - 3. All dimensions in inches.

Standard Roof Curb - Medium Cabinet

Roof Curb for ERW - Medium Cabinet



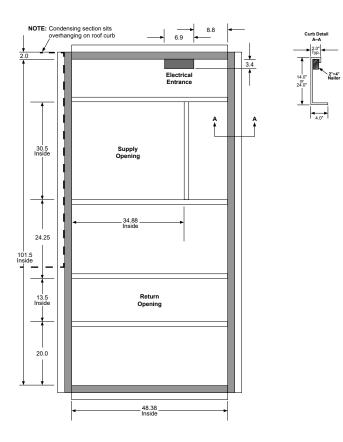
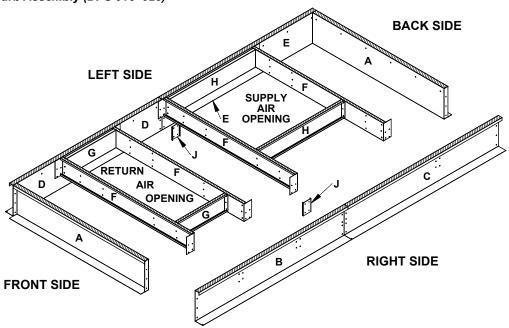




Figure 16: Roof Curb Assembly (DPS 016-028)1



- NOTE: 1. Check submittal drawing for gas/water/electrical/supply/return air opening.
 - 2. Horizontal above the roof gas connection only.
 - 3. All dimensions in inches.

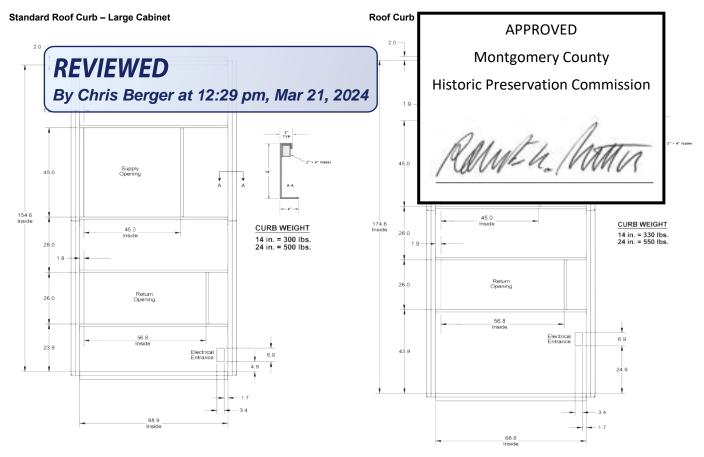




Figure 17: Roof Curb Assembly (DPS 007-015, 016-028) with CORE ERV

CORE Roof Curb - Medium Cabinet (DPS 007 - 015) CORE Roof Curb - Large Cabinet (DPS 016 - 028) 13.2 31.7 35.5 teate 45.0 Ĭ 45.0 20.0 34.3 20.0 **APPROVED** 12 **Montgomery County REVIEWED Historic Preservation Commission** By Chris Berger at 12:29 pm, Mar 21, 2024 Ranth /h



Acoustical Considerations

Good acoustical design is critical for any installation and should start at the earliest stages in the design process. Common sound paths for rooftop equipment must be addressed are:

- Radiated sound through the bottom of the unit (air handling section and condensing section) and into the space.
- Radiated sound to the property line.
- · Structure-borne vibration from the unit to the building.
- · Airborne sound through the supply air duct.
- · Airborne sound through the return air duct.

Locating rooftop equipment away from sound sensitive areas is critical and the most cost effective means of avoiding sound problems. If possible, rooftop equipment should always be located over less sensitive areas such as corridors, toilet facilities or auxiliary spaces and away from office areas, conference rooms and classrooms. Some basic guidelines for good acoustical performance are:

- Provide proper structural support under all areas of the unit
- Always locate the unit's center of gravity close to a main support to minimize roof deflection.
- Use a concrete deck or pad when a unit has to be located over an occupied space where good acoustics are essential.

Only the supply and return air ducts should penetrate the

REVIEWED e sealed once the duct is

By Chris Berger at 12:29 pm, Mar 21, 2024

"line of sight" into a return or exhaust fan; always include some duct work (acoustically lined tee) at the return inlet.

- Place acoustical material in the area directly beneath the condensing section.
- Select acoustical material that discourages microbial growth.
- Minimize system static pressure losses to reduce fan sound generation.
- · Design duct systems to minimize turbulence.
- Account for low frequency duct breakout in system design. Route the first 20 ft. of rectangular duct over non-sensitive areas and avoid large duct aspect ratios. Consider round or oval duct to reduce breakout.

There are many sound sources in rooftop systems. Fans, compressors, condenser fans, duct take-offs, etc., all generate sound. For guidelines on reducing sound generation in the duct system, refer to the ASHRAE Applications Handbook. Contact your local Daikin Applied sales representative for equipment supply, return and radiated sound power data specific to your application.

Ductwork Considerations

A well-designed duct system is required to allow the rooftop equipment to provide rated performance and to minimize system resistance and sound generation. Duct connections to and from units should allow straight, smooth airflow transitions. Avoid any abrupt change in duct size and sharp turns in the fan discharge. Avoid turns opposed to wheel rotation since they generate air turbulence and result in unwanted sound. If 90° turns are necessary, use turning vanes. Refer to the ASHRAE Applications Handbook for specific guidelines relevant to rooftop equipment.

Return Duct

The return path is the most often overlooked. A section of return duct is required to avoid a "line of sight" to the return air opening and to provide attenuation of return air sound. Install an insulated tee with a maximum duct velocity of 1000 to 1200 feet per minute. Extend the duct 15 feet to provide adequate attenuation.

Supply Duct

Insulate supply air ductwork for at least the first 20 feet from the unit. Consider the use of round or oval ductwork, as it significantly reduces low frequency breakout noise near the equipment. If rectangular duct is used, keep the aspect ratio of



Make duct attachments to the unit with a flexible connection. Economizer and Exhaust Fan Application Rooftop economizer applications usually require exhaust fans to properly control building pressure and maintain minimum ventilation. The air balancer must adjust the outdoor air damper to provide minimum ventilation settings. The EAF is normally-off during non-economizer operation. During these minimum outdoor air conditions, the system essentially acts like a supply fan only system.



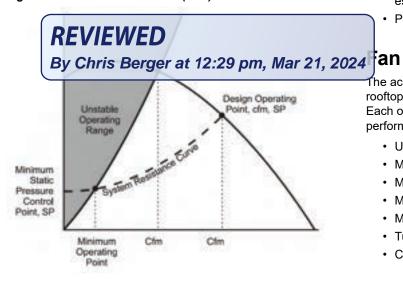
Smoke and Fire Protection

Due to the wide variation in building design and ambient operating conditions our units are applied, we do not represent or warrant that our products are fit and sufficient for smoke, fume, and fire control purposes. The owner and a fully qualified building designer are responsible for meeting all local and NFPA building code requirements with respect to smoke, fume, and fire control. The unit's control panel has a terminal block that a supply air and return air smoke detector can be wired to. An optional return air smoke detector is offered. Any other smoke detector, its installation, and the wiring to the unit controller are all field supplied.

Variable Air Volume Application

Rebel units include ECM supply and exhaust fans to provide variable air volume (VAV) control as shown in Figure 18. Daikin Applied Rebel variable air volume systems (VAV) employ the concept of varying the air quantity to a space at a constant temperature, thereby balancing the heat gains or losses and maintaining the desired room temperature. This ability to reduce supply air quantities not only provides substantial fan energy savings at partial load conditions, but it also minimizes equipment sizing. Variable volume systems offer the following advantages:

Figure 18: Variable Air Volume (VAV) Control



- Lower system first cost by using system diversity to reduce equipment and duct sizes.
- Lower operating costs by reducing fan energy demands, especially at part load conditions.
- · Provides excellent acoustics at lower air flows.

In placing a duct static pressure sensor, locate a pressure tap near the end of the main duct trunk. Adjust the static pressure setpoint so that at minimum airflow all of the terminals receive the minimum static pressure required plus any downstream resistance. Locate the static pressure sensor tap in the ductwork in an area free from turbulence effects and at least ten duct diameters downstream and several duct diameters upstream from any major interference, including branch takeoffs.

Single Zone Variable Air Volume Application

A unit configured for single zone VAV will use discharge air control for mechanical cooling and heat, with VAV control of the supply air fan based upon the space or return air temperature. During cooling, the MicroTech unit controller increases the ECM fan motor speed when the space temperature rises above the setpoint, and it decreases fan speed when space temperatures approach the setpoint. Mirror-image heating control is also provided. The MicroTech unit controller will also use the control temperature to transition between cooling, fan only, and heating modes. Singlezone variable volume systems offer the following advantages:

· Lower system first cost.



- · Maximum cabinet static pressure.
- Maximum face velocity (cooling coil is most important).
- · Minimum furnace velocity.
- · Turndown capability on VAV applications.
- · Compressor operating pressures.

Indoor Fan and Motor Heat

The indoor fan and motor electrical consumption is a sensible cooling load approximately equal to 2.8 MBh per bhp (depending slightly on motor efficiency). The fan and motor temperature rise is equal to Btuh/(1.08 × cfm) and is typically about 3°F



Altitude Adjustments

Fan Curve Performance

Fan curve performance is based on 70°F air temperature and sea level elevation. Selections at any other conditions require adjustment for air densities listed in Table 1 on page 23. Higher elevations generally require more rpm to provide a given static pressure but less bhp due to the decrease in air density.

Example:

Assume 2,000 cfm is required at 1.00" TSP. The elevation is 5000 ft. and 70°F average air temperature is selected. A 14" SWSI airfoil fan is selected.

- 1. The density adjustment factor for 5000 ft. and 70°F is 0.83.
- 2. TSP must be adjusted as follows: 1.0" / 0.83 = 1.20".
- Locate 2,000 cfm and 1.2 on the fan curve.Rpm = 1720 and bhp = 0.53.
- Consumed fan power at design = 0.53 bph × 0.83 = 0.44 bhp.

Table 1: Temperature and Altitude Conversion Factors

Air	Altitude (feet)										
temp (°F)	0	1000	2000	3000	4000	5000	6000	7000	8000		
-20	1RF	VII	=W/	FD	1.04	1.00	0.97				
0	1.15	1.10	1.08	1.02							
20	Bv	Chri	s¹Be	raer	at 12	2:29	om:	Mar 2	21.2	02	
40	1.06	1.02	0.98	0.94	0.91	0.88	0.84	0.81	0.78		
60	1.02	0.98	0.94	0.91	0.88	0.85	0.81	0.79	0.76		
70	1.00	0.96	0.93	0.89	0.86	0.83	0.80	0.77	0.74		
80	0.98	0.94	0.91	0.88	0.84	0.81	0.78	0.75	0.72		
100	0.94	0.91	0.88	0.84	0.81	0.78	0.75	0.72	0.70		
120	0.92	0.88	0.85	0.81	0.78	0.76	0.72	0.70	0.67	1	
140	0.89	0.85	0.82	0.79	0.76	0.73	0.70	0.78	0.65]	

Condenser Performance

Altitudes greater than sea level require a derate in condenser and cooling performance that can be estimated as follows:

For altitudes up to 6000 feet:

- Cooling capacity decrease factor (all sizes) = 0.5% per 1000 feet.
- Compressor kW increase factor = 0.6% per 1000 feet.

For altitudes above 6000 feet, consult the factory. The actual derate varies with each individual unit and design conditions. Your local Daikin Applied representative can provide exact performance data.

Furnace Performance

Gas heat performance data is based on standard 70°F air temperature and zero feet altitude (sea level).

For altitudes between 2000 to 6000 feet, the gas burner must be derated 4% for every 1000 feet of altitude.

Example:

A 400 MBh furnace at an altitude of 3000 feet is derated (0.04 \times 3 = 0.12). At 400 MBh input (400 \times 0.12 MBh), the actual input is (400 - 48 = 352 MBh) at 3000 feet.

For altitudes above 6000 feet, consult the factory.

System Operating Limits

Daikin Applied DPS systems are designed to operate over an extensive operating range. However, for proper system operation some limits do apply.

To help prevent moisture blow-off, design guidelines have been established for cooling coil selection. For applications outside of these limits, consult your Daikin Applied sales representative.

In addition to maximum face velocity limitations, minimum velocity guidelines must also be followed. In order to maintain proper refrigeration performance, the minimum coil face



proper and economical operation of the heating and cooling system. It is generally recommended that the space sensor be located on an inside wall (3 to 5 feet from an outside wall) in a space having a floor area of at least 400 square feet. Do not locate the sensor below the outlet of a supply diffuser, in the direct rays of the sun, on a wall adjacent to an unheated or abnormally warm room (boiler or incinerator room), or near any heat producing equipment. Where zone sensor placement is a problem, all zone control systems, as standard, have the capability to use a return air sensor for heating and cooling.



Unit Wiring

All units require three phase, 60 Hz, 208, 230, 460, or 575 volt power supply. All units include branch circuits and short circuit protection and are available with a power block or nonfused disconnect switch. Each unit is provided with a 115 V convenience outlet. Per the NEC, this circuit must be fed independent of the main unit power supply.

All wiring must be installed in accordance with the National Electric Code (NEC) and local codes.

Winter Shipment

Glyd

Flat bed shipment in winter can expose units to harsh road chemicals. Since equipment size and configuration precludes covering during transit, wash units free of these chemicals as soon as possible to help prevent corrosion.

Coil Freeze Protection

When applying roof-mounted equipment in areas that experience subfreezing conditions, coil freeze protection measures must be provided. Subfreezing temperatures can adversely affect water and steam coils during controlled or uncontrolled unit shutdowns and even during unit operation. Daikin Applied economizer dampers are arranged to direct the outside and return air streams toward each other, however, there may not always be a uniform unit temperature profile

stratifi**REVIEWED** cularly at low ambient temperatures and tribute temperatures and tribute temperatures.

By Chris Berger at 12:29 pm, Mar 21, 2024

protection for water coils. No control sequence can prevent coil freezing in the event of a power failure or equipment malfunction. During those periods, glycol is the only positive means of freeze protection. When selecting water coils, specify glycol to account for performance differences.

Parallel Air Paths on Energy Recovery Wheel Applications

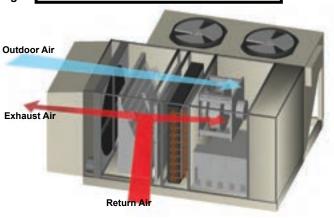
Economizer Units

There are three sets or parallel air flow paths on economizer units:

Set 1: OA and RA paths to the SAF

- The OA path APD is normally greater than the RA path APD. Therefor, the air balancer must adjust the RA dampers to not open fully so that sufficient OA is achieved.
- The RA path includes return duct ESP. Normally, the SAF handles both of these paths. Therefore, the EAF need not handle the return duct ESP. However:
 - The RA path is not open during economizer operation, so the EAF must handle return duct ESP during economizer operation or excessive positive building pressure will occur.
- For VAV units, note that RA cfm during economizer operation normally is less that design return cfm.
- An energy analysis must be careful not to overwhelm the EAF with return duct ESP except during economizer







Physical Data

Table 2: Physical Data—Standard Units DPS 003 through 028

	Small cabinet				Medium cabinet				Large cabinet				
Model	Small cabinet				Medium cabinet				Large capinet				
	003	004	005	006	007	010	012	015	016	018	020	025	028
Cooling only performance	T -		_										
Gross cooling capacity (tons)	3	4	5	6	7.5	10	12	15	15.5	17.5	20.1	25	27.5
Nominal airflow (cfm)	1125	1500	1875	2100	2450	3500	4200	5250	5900	6600	7600	9500	10400
EER ^{1,7}	13.5	12.4	13.0	11.6	12.5	12.4	11.6	11.0	12.2	11.9	11.3	11.3	10.5
IEER ^{1,7} or SEER	16.9	17.0	17.5	19.8	20.6	19.3	18.0	18.0	21.0	20.8	20.4	18.3	17.9
Heat pump performance ⁴	00	40	54	0.4	70	405	404	404	450	470	040	1	
High temperature capacity @ 47°F (MBh)	32	43	54	64	78	105	134	164	158	172	218	_	_
COP @ 47°F or HSPF ⁵	9.2	8.9	8.5	3.69	3.66	3.42	3.33	3.64	3.67	3.6	3.40		-
Low temperature capacity @ 17°F (MBh)	20	24	33	39	47	61.5	77	91	93	104	132	_	_
COP @ 17°F5	N/A	N/A	N/A	2.54	2.42	2.38	2.32	2.25	2.34	233	2.20		
Electric heat performance		2/4 040	ge/SCR			A oto-	a/SCP			4	etage/SCI	D	
Control options kW (low/medium/high heat)		6/12/18			-		e/SCR /54/72		4.	0, 20, 30, 4	stage/SCI		50
Gas heating performance		0/12/18	DI 2413U			10/30	134112		10	0, 20, 30, 4	+5, 00, 72	50, 120, T	JU
Input capacity (MBh)		80/42	0/160			200/2	00/400			2	00/450/60	0	
Number of stages (staged option)		200/12					2				4	0	
Turndown (modulating options)							10:1				12:1		
Gas connection size (mpt)			2"				/4"				3/4"		
Steady state efficiency		80)%				80%		
Heating coil			170			01	770				0070		
Type		Hota	vater		<u> </u>	Hot	water				Hot water		
Rows/FPI (high heat/low heat)			/ (1/8)			Hot	water				TIOL Water		
Face area (sq. ft.)			.5			_		ΔΕ	PROV	/FD		ŀ	
Compressors	<u> </u>		.5					Α.	FICOV	LD			
	(1) Inverter scroll Modulating 29 pm Mar 21 2024												
Quantity Number Refrigera By Chris Berger at 12:	29 pm	Modu		2024		(<u>(1)</u> Hi	N storic	_	-	Cour Con	-	ion	scroll
Quantity Number Refrigera Indoor c Refrigera		Modu n, Mai	lating 21, 2			`-		_	-		-	ion	
Quantity Number Refrigera Indoor c Rows/FPI RevieweD	3/16	Modu 1, Mai	lating 21, 2	4/14	3/15	`-		_	-		-	ion	4/15
Quantity Number Refrigera Indoor c Rows/FPI Face area (sq. ft.)	3/16	Modulation Main 4/16 4.8	10 21, 24/14 6.0	4/14 6.0	3/15 14.0	Hi	storic	Prese	rvatic	on Con	-	ion	
Quantity Number Refrigera Indoor c Rows/FPI Face area (sq. ft.) Capacity control	3/16	Modu 1, Mai	10 21, 24/14 6.0	4/14 6.0	3/15	Hi	storic	Prese	rvatic	on Con	-	ion	4/15
Quantity Number Refrigera Indoor c Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil	3/16	Modulation Main 4/16 4.8	10 21, 24/14 6.0	4/14 6.0	3/15 14.0 Electro	Hi	storic	Prese	rvatic	on Con	-	ion	4/15
Quantity Number Refrigera Indoor c Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶	3/16 4.8 Electro	4/16 4.8 onic Expan	21, 4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro	Hi	storic	Prese	-	on Con	-	ion	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Indoor coll Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump	3/16 4.8 Electro	Modulary Man (16) 4/16 4.8 ponic Expan	4/14 6.0 sion Valve	4/14 6.0 (EEV)	3/15 14.0 Electro Aluminum 3/16	Hi	storic	Prese	rvatic	on Con	-	ion	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Indoor Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump	3/16 4.8 Electro	4/16 4.8 onic Expan	4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro	Hi	storic	Prese	rvatic	on Con	-	ion	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor	3/16 4.8 Electro	4/16 4.8 onic Expan	4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminum 3/16	Hi	storic M	Prese	rvatic	on Con	nmiss	ion	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Indoor Coll Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump® Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity	3/16 4.8 Electro	Modulary Market 16 4.8 onic Expan	4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminum 3/16	Hi	storic	Prese	rvatic	on Con	nmiss	ion	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor	3/16 4.8 Electro	4/16 4.8 onic Expan	4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminum 3/16	Hi	storic M	Prese	rvatic	on Con	nmiss	ion	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Indoor Coll Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump® Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity	3/16 4.8 Electro	Modulary Market 16 4.8 onic Expan	4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminum 3/16	Hi	storic	Prese	rvatic	on Con	nmiss	ion	4/15
Quantity Number Refrigera Indoor o Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity	3/16 4.8 Electro 2/ 1/ 2/ 2/ 2/ 2/ 2/ 2/ 2/ 2/ 2/ 2/ 2/ 2/ 2/	Modulary Market 16 4.8 onic Expan	4/14 6.0 sion Valve	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21	Hi	storic	Prese	rvatic	on Con	nmiss	1	4/15
Quantity Number Refrigera Indoor Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan	3/16 4.8 Electro 2/ 1/ 0.3	4/16 4.8 onic Expan	4/14 6.0 sion Valve 3/ 3/ 1. 2:	4/14 6.0 6 (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16"	Hi	storic	Prese	rvatio	on Con	3.5/1 39/1	(swsi)	4/15
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ²	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Main 4/16 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8 4.8	3/ 3/ 3/ 3/ 1. 2: 2:	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi	storic 0/2 0/2 7/2 airfoil (SWS	Prese	rvatio	Centrifu	3.5/1 39/1 ugal airfoil	(SWSI)	4/15 21.4 /)
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump6 Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter² Quantity/diameter³	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Main 4/16 4.8 onic Expanded 4/16 4.0	4/14 6.0 sion Valve 3/ 3/ 11. 27 airfoil (SW3 14", (1) 16	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal	0/2 0/2 (1) 22" 16", (1) 22	Prese	rvatio	Centrifu	3.5/1 39/1 ugal airfoil 4	(SWSI)	4/15 21.4 /)
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump Rows/FPI — heat pump Quantity/PI — non-heat pump Outdoor fan and motor HP/Quantity Indoor fan Type Quantity/diameter² Quantity/diameter³ Drive type	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Main (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	4/14 6.0 sion Valve 3/ 3/ 1. 27 4/17 14", (1) 16	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direct	0/2 7/2 (1) 22" 16", (1) 22 t drive	Prese	rvatio	Centrifu	3.5/1 39/1 ugal airfoil 4 l/16 or 1/20 Direct drive	(SWSI)	4/15 21.4 /) —
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Indoor Coll Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump® Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter² Quantity/diameter³ Drive type Motor HP range	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Main (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	4/14 6.0 sion Valve 3/ 3/ 11. 27 airfoil (SW3 14", (1) 16	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direct	0/2 0/2 (1) 22" 16", (1) 22	Prese	rvatio	Centrifu	3.5/1 39/1 ugal airfoil 4 l/16 or 1/20 Direct drive	(SWSI)	4/15 21.4 /) —
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Indoor Coll Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump [®] Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter [®] Quantity/diameter [®] Drive type Motor HP range Hot gas reheat coil	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Mail 4/16 4.8 conic Expan 16 21 5/1 7/1 entrifugal a (1) 12", (1) Direct 1.3 / 2	3/ 4/14 6.0 sion Valve 3/ 3/ 11. 21. 21. 21. 21. 21. 21. 21. 21. 21.	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direc 4.0	0/2 0/2 airfoil (SWS (1) 22" 16", (1) 22 t drive / 8.0	Prese	rvatio	Centrifu 1/20 or 1/2:	3.5/1 39/1 Jugal airfoil 4 1/16 or 1/20 Direct drive / 7.5 / 10.0	(SWSI) 1/ 0 0 / 15.0 / 2	4/15 21.4 /) —
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI Brace area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ² Quantity/diameter ³ Drive type Motor HP range Hot gas reheat coil Coil type	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Maria (1) 12", (1) 12", (1) Direct 1.3 / 2	3/4/14 6.0 sion Valve 3/4/14 6.0 sion Valve 14", (1) 16 d drive 3/4.0 hannel	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direc 4.0	0/2 0/2 airfoil (SWS (1) 22" 16", (1) 22' t drive / 8.0	Prese	rvatio	Centriful/20 or 1/2-	3.5/1 39/1 ugal airfoil 4 1/16 or 1/2/ Direct drive / 7.5 / 10.0	(SWSI) 1/ 0 e 0 / 15.0 / 2	4/15 21.4 /) —
Quantity REVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI By Chris Berger at 12:2 Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ² Quantity/diameter ³ Drive type Motor HP range Hot gas reheat coil Coil type Control type	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Maria 4/16 4.8 21 4/16 21 5/1 entrifugal a 11) 12", (1) Direct 1.3 / 2 Microc Modulary Maria 1.3	3/4/14 6.0 sion Valves 3/4/14 6.0 sion Valves 14", (1) 16 14", (4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direc 4.0 Microc	on/2 on/2 on/2 on/2 on/2 on/2 on/2 on/2	Prese	rvatio	Centriful/20 or 1/2-	3.5/1 39/1 Jugal airfoil 4 Jugal airfoil 4	(SWSI) 1/ 0 e 0 / 15.0 / 2	4/15 21.4 /) —
Quantity PREVIEWED Refrigera By Chris Berger at 12:2 Rows/FPI By Chris Berger at 12:2 Capacity control Outdoor coil Type: non-heat pump/heat pump ⁵ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ² Quantity/diameter ³ Drive type Motor HP range Hot gas reheat coil Coil type Control type Temperature rise	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Maria 4/16 4.8 21 4/16 4.8 21 5/1 7/1 entrifugal a (1) 12", (1) Direct 1.3 / 2 Microc	3/4/14 6.0 sion Valves 3/4/14 6.0 sion Valves 14", (1) 16 14", (4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direc 4.0 Microc	0/2 0/2 airfoil (SWS (1) 22" 16", (1) 22' t drive / 8.0	Prese	rvatio	Centriful/20 or 1/2-	3.5/1 39/1 ugal airfoil 4 1/16 or 1/2/ Direct drive / 7.5 / 10.0	(SWSI) 1/ 0 e 0 / 15.0 / 2	4/15 21.4 /) —
Quantity PREVIEWED Refrigeral By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ² Quantity/diameter ³ Drive type Motor HP range Hot gas reheat coil Coil type Control type Temperature rise Filters	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Marian (1) 12", (1) 12", (1) Direct 1.3 / 2 Microc Modulary Marian (2) 10 10 10 10 10 10 10 10 10 10 10 10 10	3/4/14 6.0 sion Valve 3/4/14 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	entrifugal 1. 2 entrifugal 1) 14", (1) Direc 4.0 Microc Modu	storic 0/2 0/2 16", (1) 22" 16", (1) 22 t drive / 8.0 channel slating 0°	Prese	rvatio	Centrifu 1/20 or 1/2-	3.5/1 39/1 ugal airfoil 4 1/16 or 1/20 Direct drives / 7.5 / 10.0 Aicrochann Modulating 20°	(SWSI) 1/ 0 9 0 / 15.0 / 2	4/15 21.4 /) —
Quantity PREVIEWED Refrigeral By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ² Quantity/diameter ³ Drive type Hot gas reheat coil Coil type Control type Temperature rise Filters Type	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Marian (1) 12", (1) 12", (1) 12", (1) 12", (1) 12", (1) 12", (2) Microe Modulary 2",	3/414 6.0 sion Valve 3/3/3/ 1. 21 14", (1) 16 14", (1) 16 14", (1) 16 14 drive 3 / 4.0 hannel llating 0° 4"	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	Hi 1. 2 entrifugal 1) 14", (1) Direc 4.0 Microo Modd	storic 00/2 77/2 16", (1) 22" 16", (1) 22 t drive 7 8.0 channel sllating 0° 4"	Prese	rvatio	Centrifu 1/20 or 1/2-	3.5/1 39/1 ugal airfoil 4 l/16 or 1/20 Direct drive / 7.5 / 10.0 Alicrochann Modulating 20°	(SWSI) 1/ 0 9 0 / 15.0 / 2	4/15 21.4 /) —
Quantity PREVIEWED Refrigeral By Chris Berger at 12:2 Rows/FPI Face area (sq. ft.) Capacity control Outdoor coil Type: non-heat pump/heat pump ⁶ Rows/FPI — heat pump Rows/FPI — non-heat pump Outdoor fan and motor HP/Quantity Fan Diameter (in)/quantity Indoor fan Type Quantity/diameter ² Quantity/diameter ³ Drive type Motor HP range Hot gas reheat coil Coil type Control type Temperature rise Filters	3/16 4.8 Electro 2// 1// 1// 0.:	Modulary Marian (1) 12", (1) 12", (1) 12", (1) 12", (1) 12", (1) 12", (1) 12", (1) 7, (1) 12", (1) 12", (1) 12", (1) 12", (1) 13 12", (1) 14 13 12", (1) 15 13 12", (1) 15 13 12", (1) 15 13 12", (1) 15 13 12", (1) 15 13 13 13 13 13 13 13 13 13 13 13 13 13	3/4/14 6.0 sion Valve 3/4/14 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1.1 1	4/14 6.0 e (EEV)	3/15 14.0 Electro Aluminur 3/16 1/21 CC (1) 14" (1) 16" (1) 22"	entrifugal 1) 14", (1) Direc 4.0 Microo Modu 2"	storic 0/2 0/2 16", (1) 22" 16", (1) 22 t drive / 8.0 channel slating 0°	Prese	rvatio	Centrifu 1/20 or 1/2-	3.5/1 39/1 ugal airfoil 4 1/16 or 1/20 Direct drives / 7.5 / 10.0 Aicrochann Modulating 20°	(SWSI) 1/ 0 e 0 / 15.0 / 2 liel 3	4/15 21.4 /) —

- NOTE:

 1. EER and IEER/SEER for cooling only VAV, 460 volt unit, largest SAF.

 2. Mixed outside air and return air units.

 3. 100% outside air unit only.

 4. Heat pump performance for units with back up electric heat.

 5. HSPF for 3-5 ton units only.

 6. Size 5 and 6 non-heat pump models use copper tube aluminum fin.

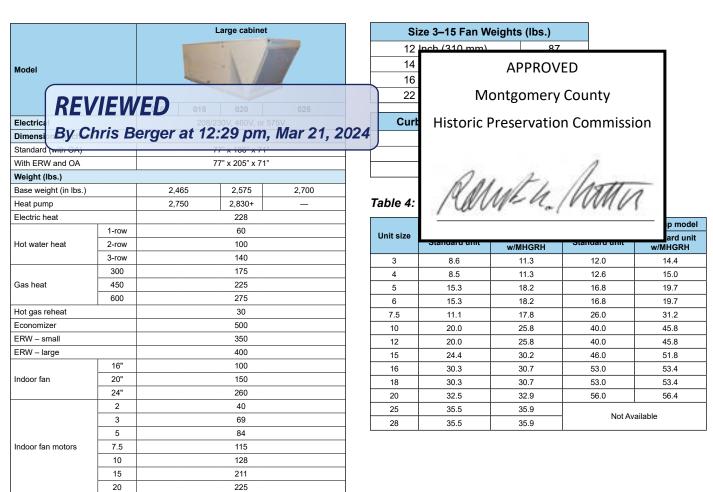
 7. Down discharge.



Table 3: Physical Data—Unit Weights DPS 003 through 028

		Small	cabinet		Medium cabinet				
Model									
	003	004	005	006	007	010	012	015	
Electrical		208/230	V or 460V			208/230V, 4	60V, or 575V		
Dimensions (inches)									
Standard (with OA)		87" x 8	5" x 41"			87" x 85" x 41"		97" x 107" x 56"	
With ERW and OA		87" x 1	03" x 41"			97" x 133" x 56"		97" x 150" x 56"	
Weight (lbs.)									
Base weight ¹	1000	1000	1025	1058	1600	1600	1600	1763	
Heat pump	1030	1030	1058	1058	1660	1660	1660	1823	
Electric heat	45	45	45	45	100	100	100	100	
Hot water 1 row	11	11	11	11	32	32	32	32	
Hot water 2 row	16	16	16	16	41	41	41	41	
Gas heat	93	93	93	93	186	186	186	186	
Hot gas reheat	8	8	12	12	28	31	31	31	
Economizer	163	163	163	163	308	308	308	308	
Energy wheel weight add (lbs.)									
100% OA	160	160	160	160	300	300	300	300	
Mixed air	175	175	175	175	250	250	250	250	
CORE® Recovery	- 1,460								

^{1.} Includes standard cooling coil



Exhaust fan

CORE® Recovery

Up to 230

2.260



Performance Data

Fan Curves

Figure 20: Fan Curve - 12 inch Fan

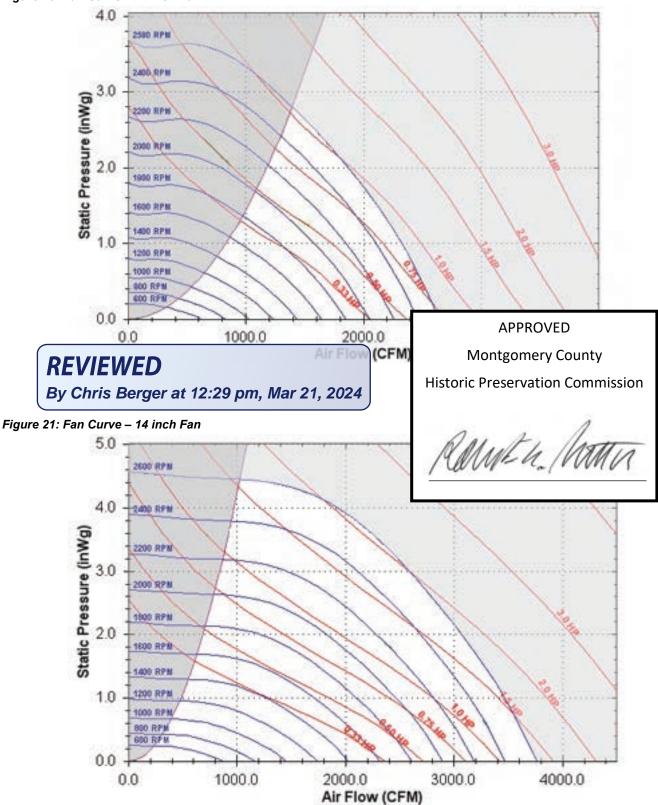




Figure 22: Fan Curve - 16 inch Fan

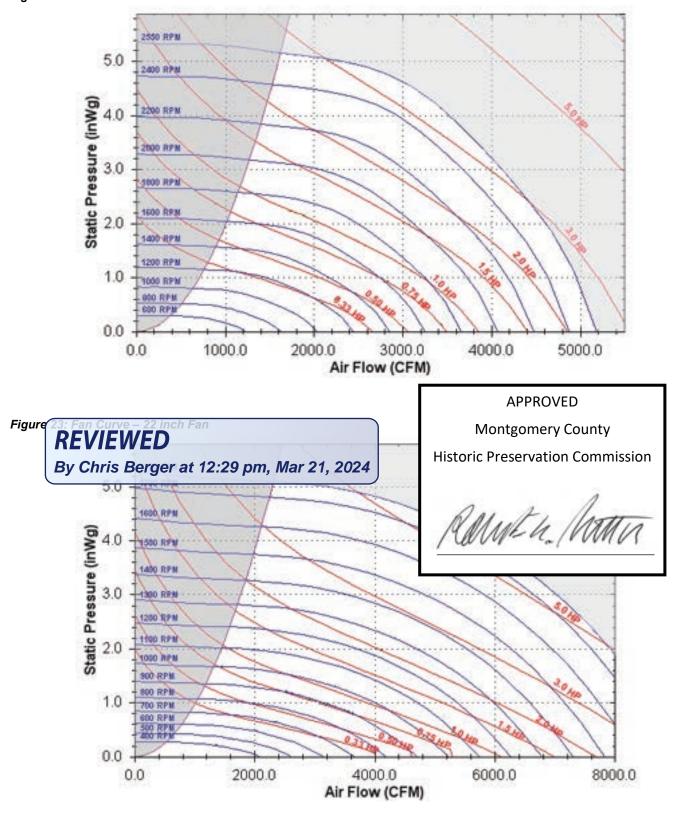




Figure 24: Fan Curve - DDPL-16 - Size 16-28

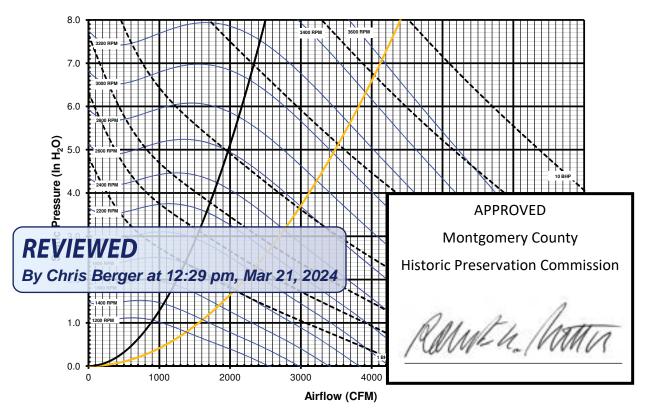


Figure 25: Fan Curve - DDPL-20 - Size 16-28

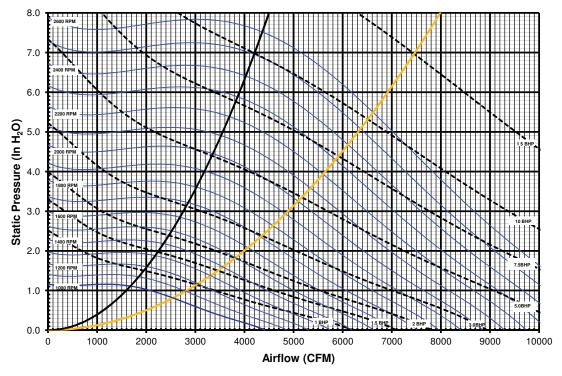
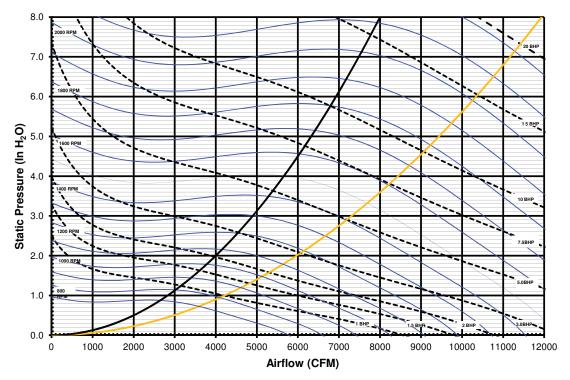




Figure 26: Fan Curve - DDPL-24 - Size 16-28



REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024





Heating Capacity

Table 5: Heating Capacity - Electric Heaters

	Option #1			Option #2				on #3		Option #4					on #5				on #6			Optio			Option #8				Optio	on #9							
Unit	Stage	ĸw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	Min cfm	кw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	Min cfm	ĸw	мвн	Delta T¹	
003, 004	2, SCR	6	20.5	12.6 9.4	316	12	40.9	25.1 18.8	632	18	61.4	37.7 28.3	948	30	102.4	62.9 47.2	316	_	_	_	_	_	_	_	_	_					1	_		1	1	-	_
006				7.6				15.1				22.6				37.8																					
007 010, 012 015	2, SCR	18	61.4	16.2 12.6 10.3	948	36	122.8	32.3 25.2 20.6	1896	54	184.3	48.5 37.7 30.9	2844	72 2	245.7	64.7 50.3 41.2	948	Ī		_	-	_	_	_	1	_	1	ı	1	1	1	-	l l			-	-
016, 018 020 025,	4, SCR	10	34.1	4.2	_	20	68.2	8.4	_	30	102.4		1580	45	153.5		2369	60	204.7	25.2 19.9	3159	72	245.7		3774	90			4739	120 2	409.5		6319	150 2	511.8	62.9	7898
028				3				6				9				13.5				18				21.6				27				35.9				44.9	

^{1.} Temperature is calculated at nominal air flow

Table 6: Heating Capacity and Water Pressure Drop – Hot Water Coils

Unit	МВН		GPM	WPD		
3	61.4		6.1	1.0		
4	72.9		7.3	1.4		
5	82.6		8.2	1.7		
6	91.6		9.2	2.2		
7.5	149.7		15.0	2.1		
10	176.9		APP	ROVED		
12	195.9		,			
REVIEWED	221.4		Montgon	nery County		
REVIEWED	347		Illiana da Bassasa			
By Chris Berger a	at 12:29 pm, Mar 21, 202	24	HISTORIC Preserv	vation Commission		
25	464		220	1		
28	497		DAL. A	1/100		
nal airflow, 60°EAT, approximately 180°–16	0° water. WPD does not include a field supplied	valve pressure dro	Meme.	u_/VVMN		

Table 7: Heating Capacity – Gas Furnaces

	Unit Size												
Data		DPS003-006			DPS007-015		DPS016-028						
	Low Heat	Med Heat	High Heat	Low Heat	Med Heat	High Heat	Low Heat	Med Heat	High Heat				
Heating Input	50	100	150	200	300	400	300	450	600				
Heating Output	40	80	120	160	240	320	240	360	480				
Steady State Efficiency					80%								
Number of Stages			:	2				4					
Turndown ¹		5:1			5:1 or 10.1		12:1						
Maximum Temperature Rise					100								

^{1.} Modulating Heat Only

^{2.} Not available in 208 & 230 Volt

^{3. 60} degree max rise



Air Pressure Drops

Table 8: Pressure Drop – Electric Heaters, Vertical

Unit	Size		Unit Airflow												
Unit	Size	1000	2000	3000	4000	5000	6000	8000	10000						
003 – 006	All	0.11	0.36	0.77	_	_	_	_	_						
007 – 015	All	_	0.07	0.14	0.23	0.34	0.48	_	_						
016 – 028	All	_	_	_	0.12	0.16	0.20	0.27	36						

Table 9: Pressure Drop - Hot Water Coils, Vertical

Unit	Heat Type		Unit Airflow												
Unit	пеат туре	1000	2000	3000	4000	5000	6000	8000	10000						
003 – 006	Low (1 Row)	0.04	0.15	0.32	_	_	_	_	_						
003 – 006	High (2 Row)	0.11	0.37	0.83	_	_	_	_	_						
007 – 015	Low (1 Row)	_	0.05	0.10	0.17	0.26	0.37	_	_						
007 - 013	High (2 Row)	_	0.11	0.23	0.39	0.59	0.83	_	_						
	Low (1 Row)	_	_	_	0.09	0.12	0.17	0.27	0.42						
016 – 028	Med (2 Row)	_	_	_	0.16	0.23	0.31	0.51	0.74						
	High (3 Row)	_	_	_	0.25	0.37	0.50	0.80	1.16						

Table 10: Pressure Drop - Gas Furnaces, Vertical

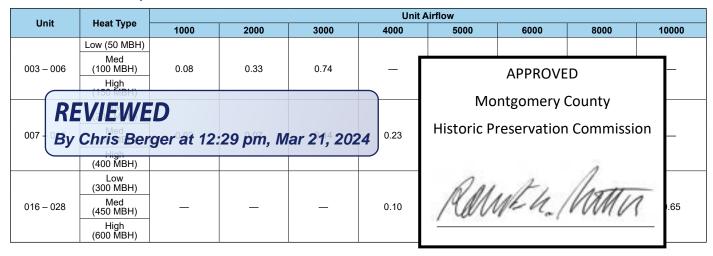
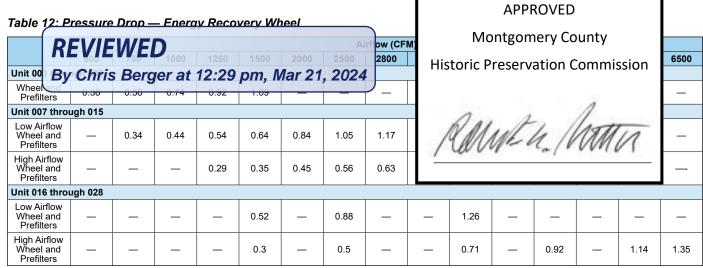




Table 11: Pressure Drop - Components

0	Unit	Unit Airflow											
Component	Unit	1000	2000	3000	4000	5000	6000	8000	10000				
Economizer													
	003-006	0.01	0.05	_	_	_	_	_	_				
	007-015	_	0.03	0.08	0.13	0.20	_	_	_				
	016-028	_	_	_	0.08	0.12	0.18	0.31	0.49				
Filter			,					,					
	003-006	0.03	0.12	_	_	_	_	_	_				
	007-015	_	0.02	0.06	0.09	0.15	_	_	_				
	016-028	_	_	_	0.11	0.13	0.19	0.27	0.38				
Standard Cooli	ng Coil	'					•						
	003	0.15	0.34	_	_	_	_	_	_				
	004	0.21	0.52	_	_	_	_	_	_				
	005	0.13	0.33	0.55	_	_	_	_	_				
	006	_	0.46	0.8	_	_	_	_	_				
	007	_	0.09	0.15	0.21	0.26	0.33	_	_				
	010, 012	_	0.10	0.17	0.25	0.34	0.42	_	_				
	015	_	_	0.2	0.3	0.42	0.53	_	_				
	016, 018	_	_	_	0.2	0.26	0.33	_	_				
	020-028	_	_	_	_	0.23	0.29	0.44	0.59				
Hot Gas Rehea	t Coil												
	003	0.05	0.22	_	_	_	_	_	_				
	004-006	0.02	0.07	0.17	_	_	_	_	_				
	007	_	0.02	0.05	0.09	0.14	0.2	_	_				
	010-015	_	0.02	0.04	0.06	0.10	0.15	_	_				
	016-028	_	_	_	0.03	0.04	0.05	0.08	0.11				





Dimensional Data

Figure 27: DPS 003-006, No Energy Recovery, 0-30% or 100% Outdoor Air

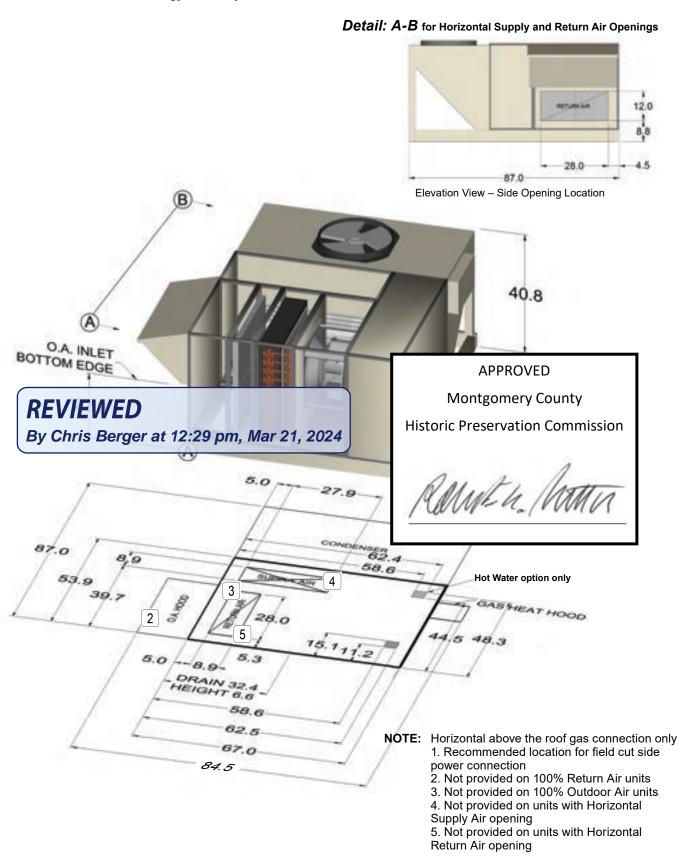




Figure 28: DPS 003-006, Economizer, No Energy Recovery

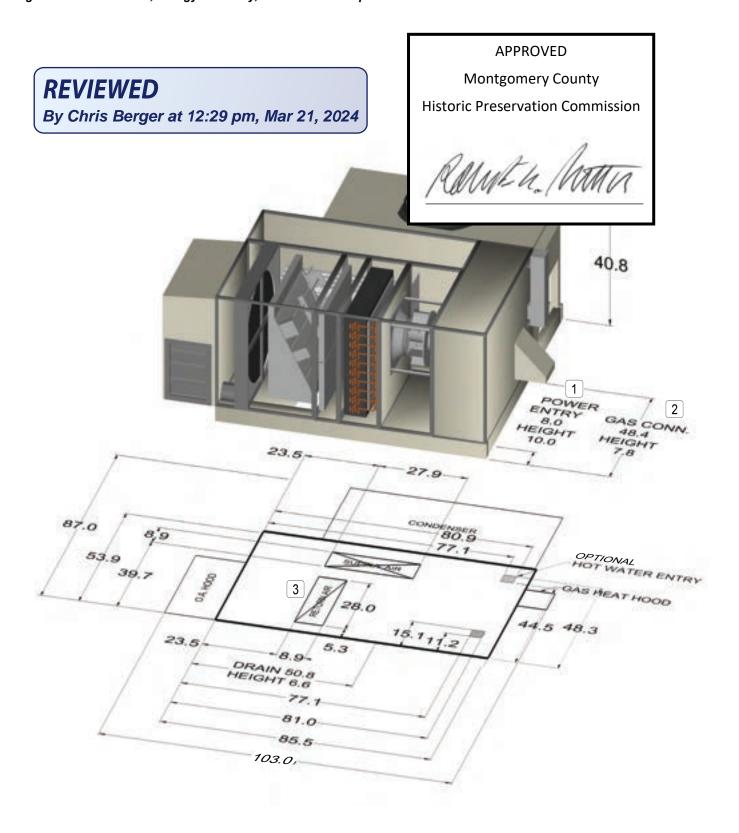
Detail: A-B for Horizontal Supply and Return Air Openings 18.4 16.6 36.7 87.0 40.8 O.A. INLET BOTTOM EDGE 24.8 **APPROVED** Montgomery County **REVIEWED Historic Preservation Commission** By Chris Berger at 12:29 pm, Mar 21, 2024 CONDENSER 62.4 8,9 58.6 53.9 URB FOOTPRINT GAS HEAT HOOD 2 15.111.2 8.9 DRAIN 32.4 HEIGHT 6.6 58.6 62.5 67.0 84.5

NOTE: Horizontal above the roof gas connection only

- 1. Recommended location for field cut side power connection
- 2. Not provided on 100% Return Air units
- 3. Not provided on 100% Outdoor Air units
- 4. Not provided on units with Horizontal Supply Air opening
- 5. Not provided on units with Horizontal Return Air opening



Figure 29: DPS 003-006, Energy Recovery, All Outdoor Air Options



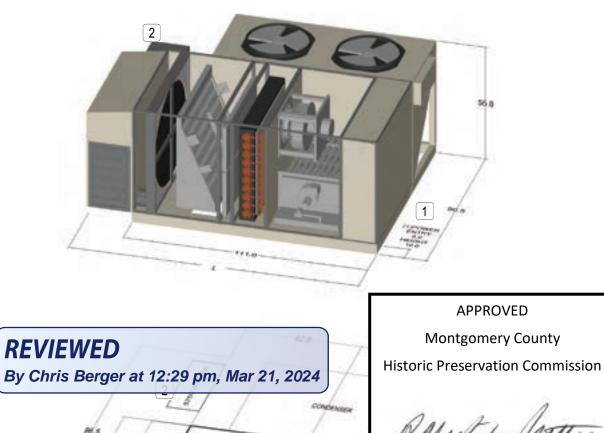
NOTE: 1. Recommended location for field cut side power connection

- 2. Horizontal gas connection only. Gas pipe routing within roof curb is not available
- 3. Not supplied on 100% OA units



Figure 30: DPS 007-015, Energy Recovery, All Outdoor Air Options

Size (tons)	L
7–12	132.7
15	149.7



3 DRAW 59.3 HEIGHT 6.6 PIGAS CONNEZS HEIGHT 68 185 5

- **NOTE:** 1. Recommended location for field-cut, side power opening.
 - 2. Only provided on 575 volt units.
 - 3. Not supplied on horizontal return or 100% OA units.
 - 4. Horizontal, above the roof, gas connection only.
 - 5. Optional field-cut hot water piping entrance.
 - 6. DPS 015 comes with a double "V" bank condenser.



Figure 31: DPS 007-015, Economizer, No Energy Recovery

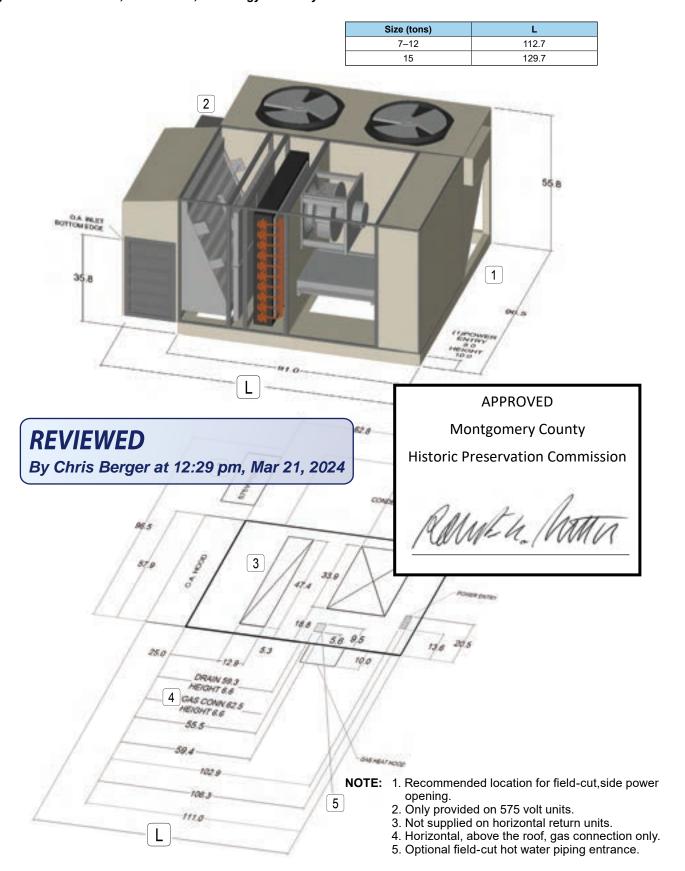




Figure 32: DPS 007-015, No Energy Recovery, 0-30% or 100% Outdoor Air

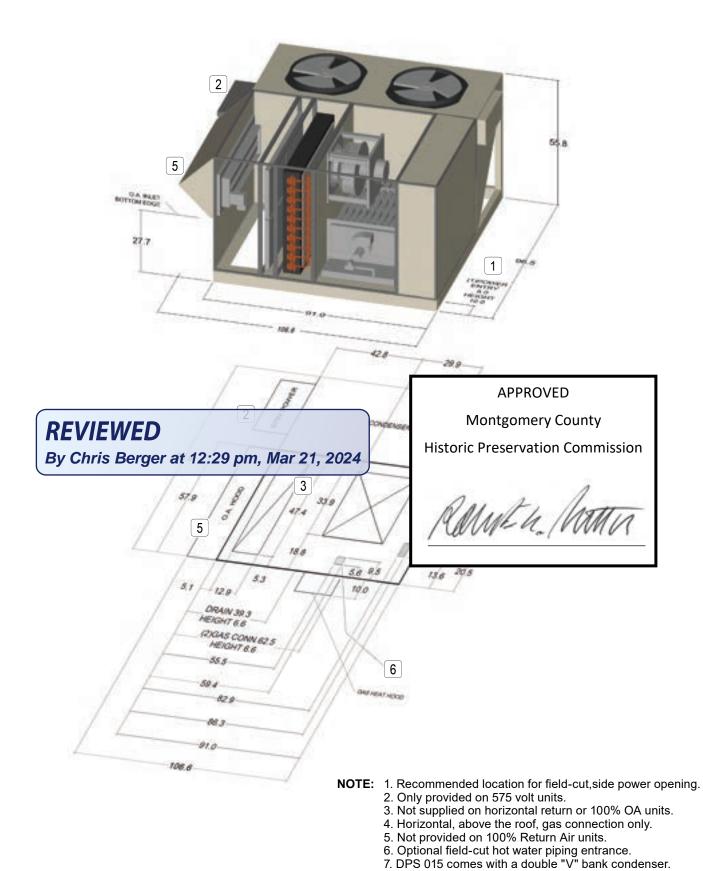
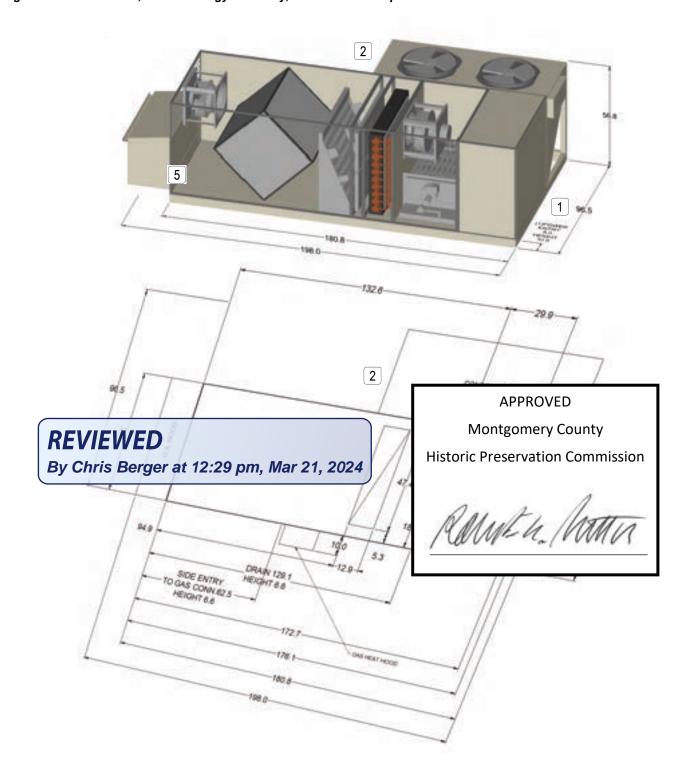




Figure 33: DPS 007-015, CORE® Energy Recovery, All Outdoor Air Options



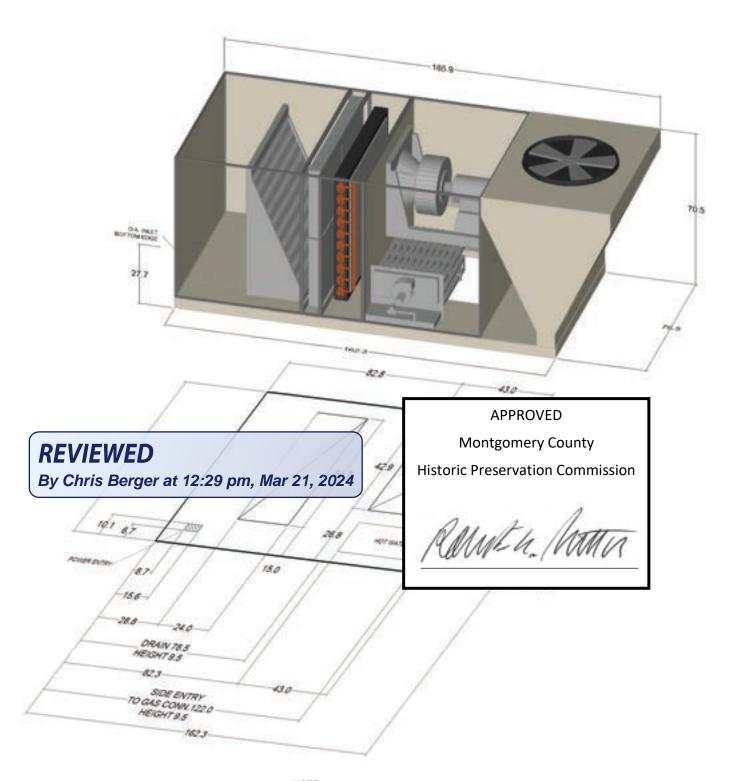
NOTE: 1. Recommended location for field-cut, side power opening.

- 2. Only provided on 575 volt units.
- 3. Horizontal, above the roof, gas connection only.
- 4. Horizontal gas connection only. Gas pipe routing within the roof curb is not available.
- within the roof curb is not available.

 5. DPS 015 comes with a double "V" bank condenser.



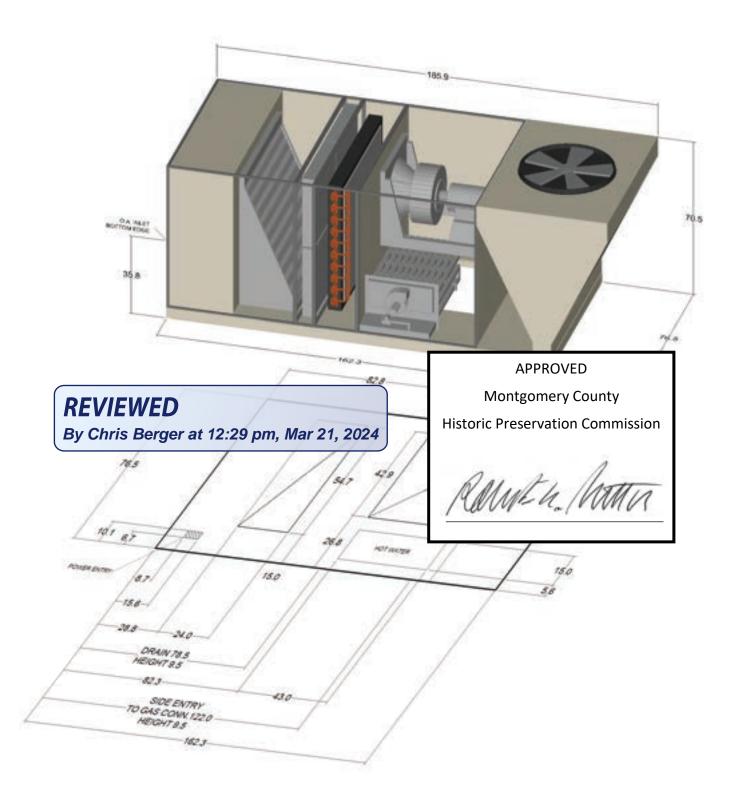
Figure 34: DPS 016-028, 30% or 100% Outdoor Air, No Energy Recovery



^{1.} Recommended location for optional field-cut side power connection.



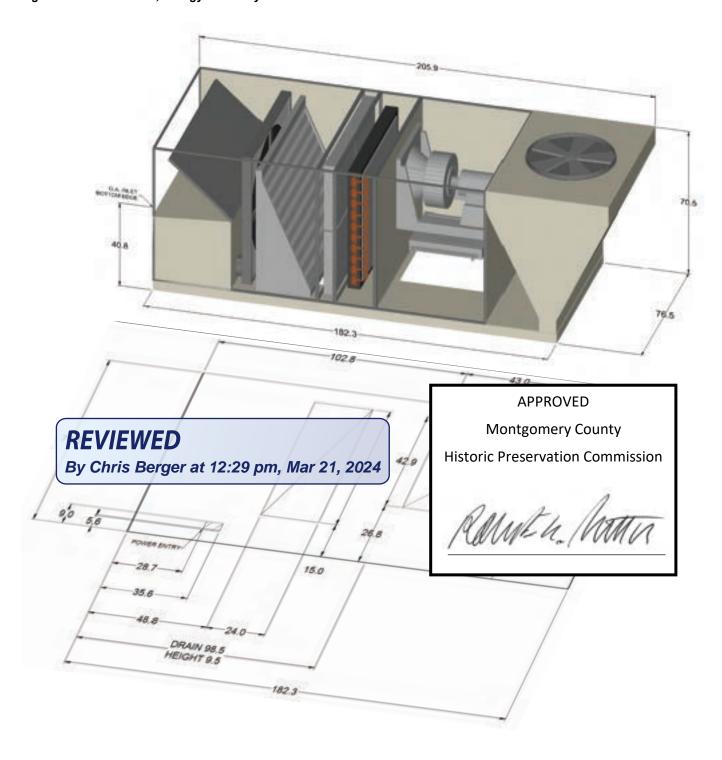
Figure 35: DPS 016-028, Economizer, No Energy Recovery



- Recommended location for optional field-cut side power connection.
 Horizontal gas connection only. Gas pipe routing within the roof curb is not available.



Figure 36: DPS 016-028, Energy Recovery



- Recommended location for optional field-cut side power connection.
 Horizontal gas connection only. Gas pipe routing within the roof curb is not available.



Figure 37: DPS 016-028, CORE Energy Recovery



- Recommended location for optional field-cut side power connection.
 Horizontal gas connection only. Gas pipe routing within the roof curb is not available.



Electrical Data

Table 13: DPS 003-015 Electric Heat Data¹

KW	Voltage	Amps			
	208	16.7			
6	240	14.4			
O	480	7.2			
	_	_			
	208	33.3			
12	240	28.9			
12	480	14.4			
	_	_			
	208	50.0			
18	240	43.3			
10	480	21.7			
	600	17.3			
	208	83.3			
30	240	72.2			
30	480	36.1			
	600	28.9			
	208	99.9			
36	240	86.6			
30	480	43.3			
	600	34.6			
	208	149.9			
54	240	129.9			
9 4	480	65.0			
	600	52.0			
	208	199.9			
72	240	173.2			
12	480	86.6			
	600	69.3			

^{1.} Maximum temperature rise equals 60°F

Table 14: DPS 016-028 Electric Heat Data¹

KW	Voltage	Amps				
	208	27.8				
40	240	24.1				
10	480	12.0				
	600	9.6				
	208	55.5				
00	240	48.1				
20	480	24.1				
	600	19.2				
	208	83.3				
	240	72.2				
30	480	36.1				
	600	28.9				
	208	124.9				
	240	108.3				
45	480	54.1				
	600	43.3				
	208	166.5				
	240	144.3				
60	480	72.2				
	600	57.7				
	208	199.9				
70	240	173.2				
72	480	86.6				
	600	69.3				
	208	249.8				
00	240	216.5				
90	480	108.3				
	600	86.6				
	_	_				
400	_	_				
120	480	144.3				
	600	115.5				
	_	_				
450	_	_				
150	480	180.4				
	600	144.3				

^{1.} Maximum temperature rise equals 60°F

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County

Historic Preservation Commission

Rather homes



Rebel Minimum Circuit Ampacity [MCA] or Wire Sizing Amps

No electric heat

MCA = 1.25 × largest motor FRLA + sum of all other motor FRLA

Heat Pump with electric heat where electric heat > 50 kW

MCA = 1.25 × largest motor FRLA + sum of all other motor FRLA + heater FLA

Heat Pump with electric heat where electric heat is less than or equal to 50 kW

MCA = 1.25 × [heater FLA + largest motor FRLA] + sum of all other motor FRLA

Not a heat pump with electric heat

Must calculate heat mode MCA and cool mode MCA and use the greater value.

Do not include compressors or condenser fans in the heat mode MCA.

Cooling mode MCA = 1.25 × largest motor FRLA + sum of all other motor FRLA

Heating mode MCA where electric heat > 50 kW

MCA = 1.25 × largest motor FLA + sum of all other motor FLA + heater FLA

Heating mode MCA where electric heat is less than or equal to 50 kW

1.25 × [heater FLA + largest motor FLA] + sum of all other motor FLA

NOTE: FRLA = fan motor or controls full load amps or compressor rated load amps FLA = fan motor or electric heat or controls full load amps

Voltage 208 230 460 575

Control amps are:

		Voltage	е	208	2	30	460	51	/5											
	Ga	as Heat	Units	2.36	2.	16	1.08	0.8	86										-	
	All	l Other l	Jnits	1.18	1.	80	0.54	0.4	43				,	APPR	OVED)				
Table	¹⁵ RF	WII	EWI	FD									Mont	gome	ery Co	ounty	•			
Unit					at 12	2:29	pm,	Mar i	21, 2	024	Compres	Histori	c Pre	serva	tion (Comn	nissi	ion	er F	
Size (Tons)		Joinpre	Voltage	variabi	e	001	Volt	age	xeu		Volta					155			30	460
	208	230	460	575	[%]	208	230	460	575	208	230	1				1				
3	7.7	7.0	3.5	_	45%	0.0	0.0	0.0	_			N	11,	1	1 /	115	11	-	0.8	0.4
4	10.0	9.0	4.5	_	55%	0.0	0.0	0.0	_			1400	W	1-11	1/1	W	10	7	8.0	0.4
5	11.9	10.8	5.4	_	68%	0.0	0.0	0.0				1 000		-	40.7	913500	32%	511	1.8	0.9
6	15.0	13.6	6.8	_	89%	0.0	0.0	0.0	_										8.1	0.9
7.5	11.9	10.8	5.4	_	68%	8.6	7.8	3.9	_				67.5	73.7	37.1	_	Z	2.0	1.8	0.9
10	10.0	9.0	4.5	_	59%	17.5	15.8	7.9	_				93.1	84.2	42.1	_	2	2.0	1.8	0.9
12	15.0	13.6	6.8	_	89%	17.5	15.8	7.9	_		See No	ote	93.1	84.2	42.1	_	2	2.0	1.8	0.9
15	28.3	25.6	12.8	_	100%	17.5	15.8	7.9	_				93.1	84.2	42.1	_	2	2.0	1.8	0.9
16	47.0	42.5	22.9	20.5	_	0	0	0	0								1	8.0	8.0	4.0
18	47.0	42.5	22.9	20.5	_	0	0	0	0								1	8.0	8.0	4.0
20	47.0	42.5	22.9	20.5	_	0	0	0	0					See	Note		1	8.0	8.0	4.0
25	47.0	42.5	22.9	20.5	_	39.1	35.4	18.6	15.4								1	8.0	8.0	4.0
28	47.0	42.5	22.9	20.5	_	39.1	35.4	18.6	15.4								1	8.0	8.0	4.0

NOTE: The inverter compresor is controlled to have a soft start and an LRA <1.0

		Supply	Fan FLA		Exhaust Fan FLA Voltage							
Horse Power		Volt	age									
	208	230	460	kW	208	230	460	kW				
1.3	3.1	2.8	1.4	1.0	3.1	2.8	1.4	1.0				
2.3	5	4.6	2.3	1.7	5	4.6	2.3	1.7				
4	8.8	7.4	4.0	3.0	8.8	7.4	4.0	3.0				
8	13.5	12.2	6.1	6.0	_	_	_	_				

575V Amp Draws: Compressors and motors will be run off a 575 to 460V transformer. Motors will be nameplated at 460V. 575 voltage is for large cabinet only.



Engineering Specifications

PART 1: GENERAL

1.01 SECTION INCLUDES

A. Packaged Rooftop air conditioners

1.02 REFERENCES

- A. AFBMA 9—Load Ratings and Fatigue Life for Ball Bearings.
- B. AMCA 99—Standards Handbook
- C. AMCA 500—Test Methods for Louver, Dampers, and Shutters.
- D. AHRI 340/360—Unitary Large Equipment
- E. NEMA MG1—Motors and Generators
- F. National Electrical Code.
- G. NFPA 70—National Fire Protection Agency.
- H. SMACNA—HVAC Duct Construction Standards— Metal and Flexible.
- I. UL 900—Test Performance of Air Filter Units.

1.03 SUBMITTALS

A. Shop Drawings: Indicate assembly, unit dimensions, weight loading, required clearances, construction



weights, capacities, ratings, fan performance, and electrical characteristics and connection requirements.

- 2. Provide computer generated fan curves with specified operating point clearly plotted.
- 3. Manufacturer's Installation Instructions.

1.04 OPERATION AND MAINTANENCE DATA

A. Maintenance Data: Provide instructions for installation, maintenance and service

1.05 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum five years documented experience, who issues complete catalog data on total product.
- B. Startup must be done by trained personnel experienced with rooftop equipment.
- C. Do not operate units for any purpose, temporary or permanent, until ductwork is clean, filters and remote controls are in place, bearings lubricated, and manufacturers' installation instructions have been followed.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site.
- B. Accept products on site and inspect for damage.
- C. Store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

PART 2: PRODUCTS

2.01 MANUFACTURERS

- A. Basis of Design: Daikin Applied
 - Approved Alternates, with inveter compressor cooling
 - a. Aaon RQ/RN
 - b. Valent VPR
 - c. Trane Horizon

2.02 GENERAL DESCRIPTION

- A. Furnish as shown on plans, Daikin Applied Rebel Single zone Heating and Cooling Unit(s) model DPS. Unit performance and electrical characteristics shall be per the job schedule.
- B. Configuration: Fabricate as detailed on prints and



cabinet. Each unit shall be completely factory assembled and shipped in one piece. Packaged units shall be shipped fully charged with R-410 Refrigerant and oil.

- F. The unit shall undergo a complete factory run test prior to shipment. The factory test shall include a refrigeration circuit run test, a unit control system operations checkout, a unit refrigerant leak test and a final unit inspection.
- G. All units shall have decals and tags to indicate caution areas and aid unit service. Unit nameplates shall be fixed to the main control panel door. Electrical wiring diagrams shall be attached to the control panels. Installation, operating and maintenance bulletins and start-up forms shall be supplied with each unit.



- H. Performance: All scheduled EER, IEER, capacities and face areas are minimum accepted values. All scheduled amps, kW, and HP are maximum accepted values that allow scheduled capacity to be met
- Warranty: The manufacturer shall provide 12-month parts only warranty. Defective parts shall be repaired or replaced during the warranty period at no charge. The warranty period shall commence at startup or six months after shipment, whichever occurs first.

2.03 CABINET, CASING, AND FRAME

- A. Panel construction shall be double-wall construction for all panels. All floor panels shall have a solid galvanized steel inner liner on the air stream side of the unit to protect insulation during service and maintenance. Insulation shall be a minimum of 1" thick with an R-value of 7.0, and shall be 2 part injected foam. Panel design shall include no exposed insulation edges. Unit cabinet shall be designed to operate at total static pressures up to 5.0 inches w.g.
- B. (OR) Panel construction shall be double-wall construction for all panels. All floor panels shall have a solid galvanized steel inner liner on the air stream side of the unit to protect insulation during service and maintenance. Insulation shall be a minimum of 2" thick with an R-value of 13.0, and shall be 2 part injected foam. Panel design shall include no exposed insulation edges. Unit cabinet shall be

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

- a high-quality polyester resin topcoat. Finished, unabraded panel surfaces shall be exposed to an ASTM B117 salt spray environment and exhibit no visible red rust at a minimum of 3,000 hours exposure. Finished, abraded surfaces shall be tested per ASTM D1654, having a mean scribe creepage not exceeding 1/16" at 1,000 hours minimum exposure to an ASTM B117 salt spray environment. Measurements of results shall be quantified using ASTM D1654 in conjunction with ASTM D610 and ASTM D714 to evaluate blister and rust ratings.
- D. Service doors shall be provided on the fan section, filter section, control panel section, and heating vestibule in order to provide user access to unit components. All service access doors shall be mounted on multiple, stainless steel hinges and shall be secured by a latch system. Removable service panels secured by multiple mechanical fasteners are not acceptable.
- E. The unit base shall overhang the roof curb for positive water runoff and shall seat on the roof curb gasket to provide a positive, weathertight seal. Lifting brackets shall be provided on the unit base to accept cable or chain hooks for rigging the equipment.

2.04 OUTDOOR/RETURN AIR SECTION

- A. (Option) Unit shall be provided with an outdoor air economizer section. The economizer section shall include outdoor, return, and exhaust air dampers. The economizer operation shall be fully integral to the mechanical cooling and allow up to 100% of mechanical cooling if needed to maintain the cooling discharge air temperature. The outdoor air hood shall be factory installed and constructed from galvanized steel finished with the same durable paint finish as the main unit. The hood shall include moisture eliminator filters to drain water away from the entering air stream. The outside and return air dampers shall be sized to handle 100% of the supply air volume. The dampers shall be parallel blade design. Damper blades shall be gasketed with side seals to provide an air leakage rate of 1.5 cfm / square foot of damper area at 1" differential pressure in according with testing defined in AMCA 500. A barometric exhaust damper shall be provided to exhaust air out of the back of the unit. A bird screen shall be provided to prevent infiltration of rain and foreign materials. Exhaust damper blades shall be lined with vinyl gasketing on contact edges.
- B. Control of the dampers shall be by a factory installed direct coupled actuator. Damper actuator shall be of the modulating, spring return type. A comparative enthalpy control shall be provided to sense and

nare enthalny in both the outdoor and return ble **APPROVED** 'free" ite in Montgomery County tem. С utdoor **Historic Preservation Commission** ow at the od le clude om the

D. (Option)Provide factory installed and tested, outdoor air monitor that controls outdoor air +/- 15% accuracy down to 40 cfm per ton.



2.05 ENERGY RECOVERY (Option)

- A. The rooftop unit shall be provided with an AHRI certified rotary wheel air-to-air heat exchanger in a cassette frame complete with seals, drive motor and drive belt. The energy recovery wheel shall be an integral part of the rooftop unit with unitary construction and does not require field assembly. Bolt-on energy recovery units that require field assembly and section to section gasketing and sealing are not acceptable.
- B. The wheel capacity, air pressure drop and effectiveness shall be AHRI certified per AHRI Standard 1060. Thermal performance shall be certified by the manufacturer in accordance with ASHRAE Standard 84, Method of Testing Air-to-Air Heat Exchangers and AHRI Standard 1060, Rating Air-to-Air Heat Exchangers For Energy Recovery Ventilation Equipment.
- C. The rooftop unit shall be designed with a track so the entire energy recovery wheel cassette can slide out from the rooftop unit to facilitate cleaning.
- D. The unit shall have 2" Merv 7 filters for the outdoor air before the wheel to help keep the wheel clean and reduce maintenance. Filter access shall be by a hinged access door with ¼ turn latches.
- E. The matrix design shall have channels to reduce cross contamination between the outdoor air and the exhaust air. The layers shall be effectively captured in aluminum and stainless steel segment frames that provide a rigid and self-supporting matrix. All

REVIEWED assembly and shall be factory set. Drive belits) of stretch urethane shall be By Chris Berger at 12:29 pm, Mar 21, 2024

- F. The total energy recovery wheel shall be coated with silica gel desiccant permanently bonded without the use of binders or adhesives, which may degrade desiccant performance. The substrate shall be lightweight polymer and shall not degrade nor require additional coatings for application in marine or coastal environments. Coated segments shall be washable with detergent or alkaline coil cleaner and water. Desiccant shall not dissolve nor deliquesce in the presence of water or high humidity.
- G. Wheels shall be provided with removable energy transfer matrix. Wheel frame construction shall be a welded hub, spoke and rim assembly of stainless, plated and/or coated steel and shall be self-supporting without matrix segments in place. Segments shall be removable without the use of tools to facilitate maintenance and cleaning.
- H. Wheel bearings shall be selected to provide an L-10 life in excess of 400,000 hours. Rim shall be continuous rolled stainless steel. Wheels shall be connected to the shaft by means of taper lock hubs.

- I. The exhaust air fan shall be a direct drive SWSI plenum fan. The exhaust fan shall be sized for the airflow requirements per the construction schedule. The unit controller shall control the exhaust fan to maintain building pressure. A VFD shall be provided for the exhaust fan motor or the exhaust fan motor shall be an ECM motor. The rooftop unit shall have single point electrical power connection and shall be ETL listed.
- J. The control of the energy recovery wheel shall be an integral part of the rooftop unit's DDC controller. The DDC controller shall have visibility of the outdoor air temperature, leaving wheel temperature, return air temperature, and exhaust air temperature. These temperatures shall be displayed at the rooftop units DDC controller LCD display. All of these temperatures shall be made available through the BACnet interface.
- K. The rooftop unit DDC controller shall provide frost control for the energy recovery wheel. When a frost condition is encountered the unit controller shall (stop, slow down) the wheel. When in the frost control mode the wheel shall be jogged periodically and not be allowed to stay in the stationary position.

2.06 ENERGY RECOVERY (Option)

A. The fixed plate energy recovery core is equipped with a bypass damper on the outside air path. the **APPROVED** the ne unit Montgomery County В e) the Historic Preservation Commission table) air me to С d latent and

counter cross-flow orientation and have no moving parts.

- E. The ERV core shall be certified by AHRI under its Standard 1060 for Energy Recovery Ventilators. Products not currently AHRI certified will not be accepted.
- F. The ERV core shall achieve the minimum effectiveness value as indicated in the schedule.
- G. The fresh air stream must have complete separation from the stale air stream to prevent cross contamination.
- H. The ERV core shall have Exhaust Air Transport Ratio of 0.5% as tested to AHRI 1060 (EATR) to prevent cross-over of gases, contaminants or odors.
- The ERV core's Outdoor Air Correction Factor (OACF) shall not exceed 1.0 as tested to AHRI 1060 (OACF) Standard.



- J. The ERV core shall not be degraded or promote the growth of mold and bacteria with a rating of zero in testing according to ISO846 A and C.
- K. The ERV core must be able to tolerate freezing temperatures of -30°C (-22°F and not have an increase in EATR or decrease in performance after being frozen.
- L. The ERV core must be able to tolerate high temperatures of +60°C and not have an increase in EATR or decrease in performance at these elevated temperatures.
- M. The ERV core must be freeze tolerant tested to 40 freeze thaw cycles from -20°C to +20°C while maintaining the energy recovery effectiveness and EATR rating of 0.5%.



- P. The ERV cores should have particulate filters positioned before the incoming air streams.
- Q. Accepted manufacturer: CORE Energy Recovery Solutions or approved equal, subject to compliance with requirements

2.07 EXHAUST FAN (Option)

- A. Exhaust fan shall be a single width, single inlet (SWSI) airfoil centrifugal fan. The fan wheel shall be Class II construction with aluminum fan blades that are continuously welded to the hub plate and end rim. The exhaust fan shall be a direct drive fan mounted to the motor shaft. Belts and sheaves are not acceptable due to the additional maintenance.
- B. The fan motor shall be a totally enclosed EC motor that is speed controlled by the rooftop unit controller. The motor shall include thermal overload protection and protect the motor in the case of excessive motor temperatures. The motor shall have phase failure protection and prevent the motor from operation in the event of a loss of phase. Motors shall be premium efficiency.
- C. The unit DDC controller shall provide building static pressure control. The unit controller shall provide proportional control of the exhaust fans from 25% to 100% of the supply air fan designed airflow to maintain the adjustable building pressure setpoint. The field shall mount the required sensing tubing from the building to the factory mounted building static pressure sensor.

2.08 FILTERS

A. Unit shall be provided with a draw-through filter section. The filter rack shall be designed to accept a 2" prefilter and a 4" post filter. The unit design shall have a hinged access door for the filter section. The manufacturer shall ship the rooftop unit with 2" MERV 8 construction filters. The contractor shall furnish and install, at building occupancy, the final set of filters per the contract documents.

2.09 COOLING COIL

A. The indoor coil section shall be installed in a draw through configuration, unstream of the supply air

APPROVED

Montgomery County

Historic Preservation Commission

coils shall be cy copper tubing nigh efficiency a multi-row, um of 3 rows. All d coil circuiting all load leak tested with

ete with a factory

62.1 compliant

onic controlled

expansion valve. The unit controller shall control the expansion valve to maintain liquid subcooling and the superheat of the refrigerant system.

- D. The refrigerant suction lines shall be fully insulated from the expansion valve to the compressors.
- E. The drain pan shall be stainless steel and positively sloped. The slope of the drain pan shall be in two directions and comply with ASHRAE Standard 62.1. The drain pan shall have a minimum slope of 1/8" per foot to provide positive draining. The drain pan shall extend beyond the leaving side of the coil. The drain pan shall have a threaded drain connection extending through the unit base.



2.010 HOT GAS REHEAT (Option)

- Unit shall be equipped with a fully modulating hot gas reheat coil with hot gas coming from the unit condenser
- B. Hot gas reheat coil shall be a microchannel design. The aluminum tube shall be a microchannel design with high efficiency aluminum fins. Fins shall be brazed to the tubing for a direct bond. The capacity of the reheat coil shall allow for a 20°F temperature rise at all operating conditions.
- C. The modulating hot gas reheat systems shall allow for independent control of the cooling coil leaving air temperature and the reheat coil leaving air temperature. The cooling coil and reheat coil leaving air temperature setpoints shall be adjustable through the unit controller. During the dehumidification cycle the unit shall be capable of 100% of the cooling capacity. The hot gas reheat coil shall provide discharge temperature control within +/- 2°F.
- Each coil shall be factory leak tested with highpressure air under water.

2.011 SUPPLY FAN

A. Supply fan shall be a single width, single inlet (SWSI) airfoil centrifugal fan. The fan wheel shall be Class II construction with fan blades that are continuously welded to the hub plate and end rim. The supply fan shall be a direct drive fan mounted to the motor shaft. Belts and sheaves are not

REVIEWED entire fan assembly shall be isolated from the fan bulkhead with a flexible collar By Christ Berger at 12:29 pm, Mar 21, 2024

- Air ian assemblies shall be statically and dynamically balanced at the factory, including a final trim balance, prior to shipment.
- D. Supply fan and motor assembly combinations larger than 8 hp or 22" diameter shall be internally isolated on 1" deflection, spring isolators and include removable shipping tie downs.
- E. (DPS016-028)The motor shall be T Frame and open drip proof. Ovrload protection and speed control is provided by the factory installed VFD and rooftop unit controller. The motor shall have phase failure protection and prevent the motor from operation in the event of a loss of phase. Motors shall be premium efficiency.
- F. (DPS003-DPS015) The fan motor shall be a totally enclosed EC motor that is speed controlled by the rooftop unit controller. The motor shall include thermal overload protection and protect the motor in the case of excessive motor temperatures. The motor shall have phase failure protection and prevent the motor from operation in the event of a loss of phase. Motors shall be premium efficiency.
- G. The supply fan shall be capable of airflow modulation from 30% to 100% of the scheduled designed airflow. The fan shall not operate in a state of surge at any point within the modulation range.

2.012 VARIABLE AIR VOLUME CONTROL

- A. (DPS016-DPS028)An electronic variable frequency drive shall be provided for the supply air fan. Each drive shall be factory installed out of the air stream in a conditioned cabinet. Drives shall meet UL Standard 95-5V. The completed unit assembly shall be listed by a recognized safety agency, such as ETL. Drives are to be accessible through a hinged door assembly. Mounting arrangements that expose drives to high temperature unfiltered ambient air are not acceptable.
- B. The unit manufacturer shall install all power and control wiring.
- C. (DPS016-DPS028)The supply air fan drive output shall be controlled by the factory installed main unit control system and drive status and operating speed shall be monitored and displayed at the main unit control panel.
- D. (DPS003-DPS015) The unit controller shall proportional control the ECM motors on the supply fan based on space temperature. The unit controller shall increase/decrease the speed of the supply fan in order to maintain the space temperature within its setpoint and deadband. The unit controller shall provide discharge air temperature control with the compressor modulation.

A. APPROVED

Montgomery County

Historic Preservation Commission

ating all

- ediate
ne
- egs
re

be designed with copper conductors, aluminum wires are not acceptable. Heating element branch circuits shall be individually fused to a maximum of 48 Amps per NEC requirements. The power supply for the electric heater shall be factory wired into the units main power block or disconnect switch.

- The heating modules shall have an automatic reset, high temperature limit safety protection. A secondary high limit protection shall also be provided that requires a manual reset. An airflow switch shall be provided with the heating module to prevent the electric heater from operating in the event of no airflow.
- The electric heater elements shall be controlled by the factory installed DDC unit control system. The heater shall have (2 stages of, 4 stages of, SCR) control.



4. Field installed heating modules shall require a field ETL certification. Duct heaters mounted within the rooftop unit in the field shall not be acceptable. The manufacturer's rooftop unit ETL certification shall cover the complete unit including the electric heating modules

B. Gas Heat (Optional)

- The rooftop unit shall include a natural gas heating section. The gas furnace design shall be one natural gas fired heating module factory installed downstream of the supply air fan in the heat section. The heating module shall be a tubular design with in-shot gas burners.
- 2. Each module shall have (two stages of, four stages of, modulating) heating control.
- 3. The heat exchanger tubes shall be constructed of (aluminized, stainless) steel.
- The module shall have an induced draft fan that will maintain a negative pressure in the heat exchanger tubes for the removal of the flue gases.
- 5. Each burner module shall have two flame roll-out safety protection switches and a high temperature limit switch that will shut the gas valve off upon detection of improper burner manifold operation. The induced draft fan shall have an airflow safety switch that will prevent the heating module from turning on in the event of no airflow in the flue chamber.



including the gas heating modules.

C. Hot Water (Optional)

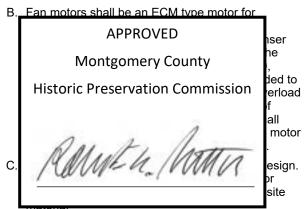
- A hot water heating coil shall be factory installed in the heat section. The hot water heat section shall be installed downstream of the supply air fan. A factory-tested diffuser shall be used in order to provide air distribution across the coil. The rooftop unit shall include a piping vestibule. The coil connection shall terminate in the vestibule. All coil connections shall be copper, steel connections shall not be allowed in order to prevent dielectrics and corrosion.
- Coils shall be fabricated of seamless 3/8"
 diameter copper tubing that is mechanically
 expanded into high efficiency rippled and
 corrugated aluminum plate fins. All coil vents and
 drains shall be factory installed. Hot water coil
 shall be fully cased to allow for easy replacement.
- The coil shall have freeze protection and shall be controlled by the unit DDC controller. With the detection of a freeze condition the heating coil valve shall be driven fully open. The unit controller shall indicate an alarm.
- Coil shall be factory leak tested with high pressure air under water.

2.014 HEAT PUMP HEATING (OPTIONAL)

- A. The evaporator coil, condenser coil, compressors and refrigerant circuit shall be designed for heatpump operation. The refrigerant circuit shall contain a 4 way reversing valve for the heatpump operation. The outdoor coil shall have an electronic expansion valve to control the refrigerant flow. The unit controller shall modulate the expansion valve to maintain compressor operation within the compressor operational envelope.
- B. The refrigerant system shall have a pump-down cycle.
- C. The unit shall have a natural gas furnace for hybrid heating. When the heatpump operation cannot maintain the discharge air temperature setpoint the natural gas furnace shall temper the airstream to the discharge air temperature setpoint.

2.015 CONDENSING SECTION

A. Outdoor coils shall be cast aluminum, micro-channel coils. Plate fins shall be protected and brazed between adjoining flat tubes such that they shall not extend outside the tubes. A sub-cooling coil shall be an integral part of the main outdoor air coil. Each outdoor air coil shall be factory leak tested with highpressure air under water.



- D. The unit shall have scroll compressors. One of the compressors shall be an inverter compressor providing proportional control. The unit controller shall control the speed of the compressor to maintain the discharge air temperature. The inverter compressor shall have a separate oil pump and low oil safety protection.
- E. Pressure transducers shall be provided for the suction pressure and head pressure. Temperature sensor shall be provided for the suction temperature and the refrigerant discharge temperature of the compressors. All of the above devices shall be an input to the unit controller and the values be displayed at the unit controller.
- F. Each circuit shall be dehydrated and factory charged with R-410A Refrigerant and oil.



2.016 ELECTRICAL

- A. Unit wiring shall comply with NEC requirements and with all applicable UL standards. All electrical components shall be UL recognized where applicable. All wiring and electrical components provided with the unit shall be number and colorcoded and labeled according to the electrical diagram provided for easy identification. The unit shall be provided with a factory wired weatherproof control panel. Unit shall have a single point power terminal block for main power connection. A terminal board shall be provided for low voltage control wiring. Branch short circuit protection, 120volt control circuit transformer and fuse, system switches, and a high temperature sensor shall also be provided with the unit. Each compressor and condenser fan motor shall be furnished with contactors and inherent thermal overload protection. Supply fan motors shall have contactors and external overload protection. Knockouts shall be provided in the bottom of the main control panels for field wiring entrance.
- B. (Option) An optional fused disconnect and 65,000 amp SCCR capability shall be provided.
- C. (Option) A single non-fused disconnect switch shall be provided for disconnecting electrical power at the unit. Disconnect switches shall be mounted internally to the control panel and operated by an externally mounted handle.

2.017/

REVIEWED integrated microprocessor based Direct Digital Control (DDC) system to control By Chris Berger at 12:29 pm, Mar 21, 2024

including compressor minimum run and minimum off times, and diagnostics. This system shall consist of all required temperature sensors, pressure sensors, controller and keypad/display operator interface. All MCBs and sensors shall be factory mounted, wired and tested.

- B. The stand-alone DDC controllers shall not be dependent on communications with any on-site or remote PC or master control panel for proper unit operation. The microprocessor shall maintain existing set points and operate stand alone if the unit loses either direct connect or network communications. The microprocessor memory shall be protected from voltage fluctuations as well as any extended power failures. All factory and user set schedules and control points shall be maintained in nonvolatile memory. No settings shall be lost, even during extended power shutdowns.
- C. The DDC control system shall permit starting and stopping of the unit locally or remotely. The control system shall be capable of providing a remote alarm indication. The unit control system shall provide for outside air damper actuation, emergency shutdown, remote heat enable/disable, remote cool enable/ disable, heat indication, cool indication, and fan operation.

- D. All digital inputs and outputs shall be protected against damage from transients or incorrect voltages. All field wiring shall be terminated at a separate, clearly marked terminal strip.
- E. The DDC controller shall have a built-in time schedule. The schedule shall be programmable from the unit keypad interface. The schedule shall be maintained in nonvolatile memory to insure that it is not lost during a power failure. There shall be one start/stop per day and a separate holiday schedule. The controller shall accept up to sixteen holidays each with up to a 5-day duration. Each unit shall also have the ability to accept a time schedule via BAS network communications.
- F. The keypad interface shall allow convenient navigation and access to all control functions. The unit keypad/display character format shall be 4 lines × 20 characters. All control settings shall be password protected against unauthorized changes. For ease of service, the display format shall be English language readout. Coded formats with lookup tables will not be accepted. The user interaction with the display shall provide the following information as a minimum:
 - 1. Return air temperature.
 - 2. Discharge air temperature.
 - 3. Outdoor air temperature.

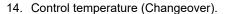
APPROVED

sure

Montgomery County

ıre

Historic Preservation Commission



- 15. VAV box output status.
- 16. Cooling status/capacity.
- 17. Unit status.
- 18. All time schedules.
- 19. Active alarms with time and date.
- 20. Previous alarms with time and date.
- 21. Optimal start
- 22. Supply fan and exhaust fan speed.



- 23. System operating hours.
 - a. Fan
 - b. Exhaust fan
 - c. Cooling
 - d. Inndividual compressor
 - e. Heating
 - f. Economizer
 - g. Tenant override
- G. The user interaction with the keypad shall provide the following:
 - 1. Controls mode
 - a. Off manual
 - b. Auto
 - c. Heat/Cool
 - d. Cool only
 - e. Heat only
 - f. Fan only
 - 2. Occupancy mode
 - a. Auto
 - b. Occupied
 - c. Unoccupied
 - d. Tenant override
 - 3 Unit operation changeover control

REVIEWED^{nperature}

By Chris Berger at 12:29 pm, Mar 21, 2024

- Cooling and heating change-over temperature with deadband
- 5. Cooling discharge air temperature (DAT)
- 6. Supply reset options
 - a. Return air temperature
 - b. Outdoor air temperature
 - c. Space temperature
 - d. Airflow (VAV)
 - e. Network signal
 - f. External (0-10 vdc)
 - g. External (0-20 mA)
- 7. Temperature alarm limits
 - a. High supply air temperature
 - b. Low supply air temperature
 - c. High return air temperature

- 8. Lockout control for compressors.
- 9. Compressor interstage timers
- 10. Night setback and setup space temperature.
- 11. Building static pressure.
- 12. Economizer changeover
 - a. Enthalpy
 - b. Drybulb temperature
- 13. Currently time and date
- 14. Tenant override time
- 15. Occupied/unoccupied time schedule
- 16. One event schedule
- 17. Holiday dates and duration
- 18. Adjustable set points
- 19. Service mode
 - a. Timers normal (all time delays normal)
 - b. Timers fast (all time delays 20 sec)
- H. If the unit is to be programmed with a night setback or setup function, an optional space sensor shall be provided. Space sensors shall be available to support field selectable features. Sensor options shall include:
 - 1. Zone sensor with tenant override switch



- Space temperature
- 4. Return air temperature
- 5. External signal of 1-5 vdc
- 6. External signal of 0-20 mA
- 7. Network signal



2.018 CLOUD-ENABLED EQUIPMENT (Optional)

A. SYSTEM DESCRIPTION

1. The manufacturer shall provide an equipment management solution, which is factory-installed on the HVAC unit. Equipment hardware shall include integrated equipment power measurement and consist of all components necessary to deliver unit controller and power data directly to the cloud. The subscriptionbased Software as a Service (SaaS) shall allow remote HVAC monitoring, remote HVAC control, preventative maintenance recommendations, and unit commissioning/re-commissioning capabilities using secure, cloud-communicating hardware. The solution shall be capable of communicating to a user device (smart phone, tablet, etc.) via both wireless (cellular, Wi-Fi) and local area network (LAN) connection. All data is stored in the cloud for a minimum of 2 years.

B. CLOUD-COMMUNICATING SMART DEVICE

- A factory-installed, tested and commissioned cloud-communicating smart device shall deliver data to the cloud via wireless (Wi-Fi, cellular) or local area network (LAN) connection.
- 2. The cloud-communicating smart device shall implement security, to include:
 - a. Data delivery via secure HTTPS using SSL
 - b. Virus and Malware protection

a Root lovel security

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

c. UL60950 Carrier Approved

C. INTEGRATED POWER METER

- A factory-installed, tested and commissioned power meter shall monitor unit voltage, current, and power and transmit this data to the cloudcommunicating smart device, for delivery to the cloud or shall deliver directly to the cloud.
- 2. Hardware shall:
 - Allow monitoring of single-phase, split-phase and 3-phase Y & Delta connections up to 600VAC (45-65 Hz) and up to 1000 A
 - b. Be UL61010-1/CSA C22.2 No. 61010-1 and UL/CSA 61010-2-030UL recognized

D. INSTALLATION

- Antennas, or equivalent, if needed shall be shipped loose from the factory, and shall be mounted and electrically-connected in the field by the contractor providing unit start-up and commissioning, per factory-supplied installation literature.
- For sites using Local Area Network (LAN)
 connection to provide cloud access, appropriate
 trades should coordinate to supply all necessary
 roof penetrations, conduit, network cable,
 network infrastructure, and termination to the
 network.

E. START-UP AND COMMISSIONING

- Initial programming of cloud-communicating smart device and integrated power meter shall be performed at the factory.
- Commissioning technician will submit the startup and commission documentation through the User Interface.

2.019 ROOF CURB (Optional)

A. A prefabricated heavy gauge galvanized steel, mounting curb shall be provided for field assembly on the roof decking prior to unit shipment. The roof curb shall be a full perimeter type with complete



REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County

Historic Preservation Commission





Daikin Applied Training and Development

Now that you have made an investment in modern, efficient Daikin Applied equipment, its care should be a high priority. For training information on all Daikin Applied HVAC products, please visit us at www. DaikinApplied.com and click on Training, or call 540-248-9646 and ask for the Training Department.

Warranty

All Daikin Applied equipment is sold pursuant to its standard terms and conditions of sale, including Limited Product Warranty. Consult your local Daikin Applied representative for warranty details. To find your local Daikin Applied representative, go to www.DaikinApplied.com.

Aftermarket Services

To find your local parts office, visit www.DaikinApplied.com or call 800-37PARTS (800-377-2787). To find your local service office, visit www.DaikinApplied.com or call 800-432-1342.

This document contains the most current product information as of this printing. For the most up-to-date product information, please go to www.DaikinApplied.com.

Products manufactured in an ISO Certified Facility.

HUSSMANN®

Proto-Aire Outdoor Protocol

Environmental Benefits Compared to Traditional Rack Systems.

- Better energy efficiency reduces use of fossil fuels, reduces air pollution.
- Significantly smaller refrigerant charge reduces use of HFCs.
- Significantly lower refrigerant leak rate.



www.hussmann.com

PROTO-AIRE

Outdoor Small Footprint Protocol Solution.

Proto-Aire is a compact footprint outdoor Protocol unit with an integrated air-cooled condenser and weatherproof skins. Units can be installed outside next to the store or on the roof. This allows for more flexibility with Protocol store designs and reduces space requirements for equipment inside the store.



Sustainable Solutions. Protocol is the most widely used

REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

Protocol's important role in helping address environmental issues.

Hussmann is committed to developing advanced technologies that reduce the use of HFCs and improve energy efficiency. Protocol is just one of many alternatives we offer to promote sustainable solutions.

Several condenser sizes.

Proto-Aire is sized based on the compressor load and the heat of rejection requirements for the compressors. The largest condenser can support up to 450 MBH at a 20°F TD.

Features and options.

- Weatherproof outdoor enclosure.
- Factory installed suction filters and liquid driers.
- Optional factory-installed gas defrost valves and winter

- Optional

otional o and insula

tional

stand

Since the F

all standard options are

APPROVED

Montgomery County

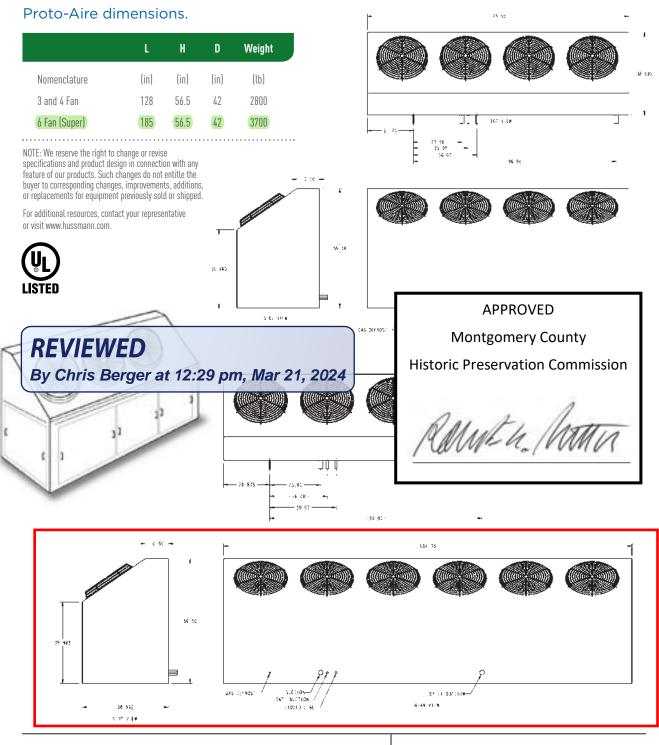
Historic Preservation Commission

Proto-Air

- Significant reduction in refrigerant charge.
- Significant reduction in greenhouse gas emissions.
- Better energy efficiency in virtually all applications.
- Less copper refrigerant piping.
- Fewer braze joints for fewer leaks.

Other advantages.

- Easy to install.
- No machine room needed.
- Lower installation costs.
- Decreases or eliminates the need for EPRs.
- Compact footprint.



Enabling excellence in food retailing.



REVIEWED

By Chris Berger at 12:29 pm, Mar 21, 2024

APPROVED

Montgomery County
Historic Preservation Commission



Hussmann Corporation 12999 St. Charles Rock Rd.

Bridgeton, MO 63044-2483 Ph: 314.291.2000

www.hussmann.com