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Smith Sinnett Architecture, P.A. 2023
THIS DRAWING IS FORMATTED TO BE PRINTED ON A 24" X 36" SHEET

ROANOKE RAPIDS SCHOOL DISTRICT
CHALONER MIDDLE SCHOOL HVAC REPLACEMENT
2100 Virginia Ave, Roanoke Rapids, NC 27870

| ID | DATE | DESCRIPTION |
|----|------|-------------|
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DRAWN BY: RS/AC
CHECKED BY: DW
BUILDING CODE SUMMARY

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:
Importance Factors: Wind (Iw) _____
Snow (Is) _____
Seismic (Ie) _____
Live Loads: Roof _____ psf
Mezzanine _____ psf
Floor _____ psf
Ground Snow Load: _____ psf
Wind Load: Basic Wind Speed _____ mph (ASCE-7)
Exposure Category _____

SEISMIC DESIGN CATEGORY: A B C D
Provide the following Seismic Design Parameters:
Risk Category (ASCE 18.4.5) I II III IV
Spectral Response Acceleration: %g %g %g
Site Classification (ASCE 7) A B C D E F
Data Source: Field Test Presumptive Historical Data
Basic structural system (check one)
 Bearing Wall Dual w/Special Moment Frame
 Building Frame Dual w/Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum
Analysis Procedure: Simplified Equivalent Lateral Force Dynamic
Architectural, Mechanical, Components anchored? Yes No
LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) _____ psf
Presumptive Bearing capacity _____ psf
Pile size, type, and capacity _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT
Thermal Zone
Winter dry bulb: _____
Summer dry bulb: _____
Interior design conditions
Winter dry bulb: _____
Summer dry bulb: _____
Relative humidity: _____
Building heating load: _____
Building cooling load: _____
Mechanical Heating/Cooling System
Description of unit: _____
Heating efficiency: _____
Cooling efficiency: _____
Size category of unit: _____
Boiler
Size category If oversized, state reason: _____
Chiller
Size category If oversized, state reason: _____
List equipment efficiencies: _____

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY
ELECTRICAL SYSTEM AND EQUIPMENT
Method of Compliance:
Energy Code: Prescriptive Performance
ASHRAE 90.1: Prescriptive Performance
Lighting schedule (each fixture type)
Lamp type: _____
Number of lamps per fixture: _____
Ballast type: _____
Number of ballasts per fixture: _____
Total wattage per fixture: _____
Total interior wattage specified vs. allowed (whole building or space by space): _____
Total exterior wattage specified vs. allowed: _____
Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
 C406.2 More Efficient HVAC Equipment Performance
 C406.3 Reduced Lighting Power Density
 C406.4 Enhanced Digital Lighting Controls
 C406.5 On-Site Renewable Energy
 C406.6 Dedicated Outdoor Air System
 C406.7 Reduced Energy Use in Service Water Heating

ACCESSIBLE DWELLING UNITS (SECTION 1107)

| TOTAL UNITS | ACCESSIBLE UNITS REQUIRED | ACCESSIBLE UNITS PROVIDED | TYPE A UNITS REQUIRED | TYPE A UNITS PROVIDED | TYPE B UNITS REQUIRED | TYPE B UNITS PROVIDED | TOTAL ACCESSIBLE UNITS PROVIDED |
|-------------|---------------------------|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------------------------|
| | | | | | | | |

ACCESSIBLE PARKING (SECTION 1106)

| LOT OR PARKING AREA | TOTAL # OF ACCESSIBLE SPACES PROVIDED | # OF ACCESSIBLE SPACES PROVIDED | | | TOTAL # ACCESSIBLE UNITS PROVIDED |
|---------------------|---------------------------------------|---------------------------------|-----------------|---------------|-----------------------------------|
| | | REGULAR WITH 5' ACCESSIBLE | 132' ACCESSIBLE | 8' ACCESSIBLE | |
| | | | | | |
| TOTAL | | | | | |

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1)

| SPACE | USE | EXIST'G | NEW | REQ'D | WATERCLOSETS | | | URINALS | | | LAVATORIES | | | SHOWERS/TUBS | | DRINKING FOUNTAINS | |
|-------|-----|---------|-----|-------|--------------|--------|-------|---------|--------|-------|------------|------------|--|--------------|--|--------------------|--|
| | | | | | MALE | FEMALE | UNSEX | MALE | FEMALE | UNSEX | REGULAR | ACCESSIBLE | | | | | |
| | | | | | | | | | | | | | | | | | |

SPECIAL APPROVAL
Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)

2018 NC Administrative Code and Policies

ENERGY REQUIREMENTS: ENERGY SUMMARY

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.
Existing building envelope complies with code: (If checked the remainder of this section is not applicable.)
Exempt Building: Provide code or statutory reference:
Climate Zone: 3A 4A 5A
Method of Compliance:
Energy Code: Performance Prescriptive
ASHRAE 90.1: Performance Prescriptive
Other: Performance (specify source) _____

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Skylights in each assembly:
U-Value of skylight: _____
total square footage of skylights in each assembly: _____
Exterior Walls (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Openings (windows or doors with glazing)
U-Value of assembly: _____
Solar heat gaincoefficient: _____
Projection factor: _____
Door R-Values: _____
Walls below grade (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of total assembly: _____
Floors over unconditioned space (each assembly)
Description of assembly: _____
U-Value of total assembly: _____
R-Value of total assembly: _____
Floors slab on grade
Description of assembly: _____
U-Value of total assembly: _____
R-Value of insulation: _____
Horizontal/vertical requirement: _____
Slab heated: _____

ALLOWABLE HEIGHT

| BUILDING HEIGHT IN FEET (TABLE 504.3) | BUILDING HEIGHT IN STORIES (TABLE 504.4) |
|---------------------------------------|--|
| | |

FIRE PROTECTION REQUIREMENTS

| BUILDING ELEMENT | FIRE SEPARATION DISTANCE (FEET) | RATING PROVIDED (W - REDUCTION) | DETAIL # AND SHEET # | DESIGN # FOR RATED ASSEMBLY | DESIGN # FOR RATED PENETRATION | DESIGN # FOR RATED JOINTS |
|--|---------------------------------|---------------------------------|----------------------|-----------------------------|--------------------------------|---------------------------|
| Structural Frame, including columns, girders, trusses | | | | | | |
| Bearing Walls | | | | | | |
| Exterior | | | | | | |
| North | | | | | | |
| East | | | | | | |
| West | | | | | | |
| South | | | | | | |
| Interior | | | | | | |
| Nonbearing Walls and Partitions | | | | | | |
| Exterior walls | | | | | | |
| North | | | | | | |
| East | | | | | | |
| West | | | | | | |
| South | | | | | | |
| Interior walls and partitions | | | | | | |
| Floor Construction including supporting beams and joists | | | | | | |
| Floor Ceiling Assembly | | | | | | |
| Columns Supporting Floors | | | | | | |
| Roof Construction, including supporting beams and joists | | | | | | |
| Roof Ceiling Assembly | | | | | | |
| Columns Supporting Roof | | | | | | |
| Shaft Enclosures - Exit | | | | | | |
| Shaft Enclosures - Other | | | | | | |
| Corridor Separation | | | | | | |
| Occupancy/Fire Barrier Separation | | | | | | |
| Party/Fire Wall Separation | | | | | | |
| Smoke Barrier Separation | | | | | | |
| Smoke Partition | | | | | | |
| Tenant/Dwelling Unit/Sleeping Unit Separation | | | | | | |
| Incidental Use Separation | | | | | | |

2018 NC Administrative Code and Policies

PERCENTAGE OF WALL OPENING CALCULATIONS

| FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES | DEGREE OF OPENINGS PROTECTION (TABLE 705.8) | ALLOWABLE PERCENTAGE (%) | ACTUAL SHOWN ON PLANS (%) |
|---|---|--------------------------|---------------------------|
| | | | |

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: No Yes (-)
Exit Signs: No Yes
Fire Alarm: No Yes
Smoke Detection Systems: No Yes Partial (-)
Carbon Monoxide Detection: No Yes (-)

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: (-)
 Fire and/or smoke rated wall locations (Chapter 7)
 Assumed and real property line locations (if not on the site plan)
 Exterior wall opening area with respect to distance to assumed property lines (705.8)
 Occupancy Use for each area as it relates to occupant load calculation (Table 504.1.2)
 Occupant loads for each area
 Exit access travel distances (1017)
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2)
 Dead end lengths (1020.4)
 Clear exit widths for each exit door
 Maximum calculated occupant load capacity for each exit door can accommodate based on egress width (1005.3)
 Actual occupant load for each exit door
 A separate schematic plan indicating where fire-rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
 Location of doors with panic hardware (1010.1.10)
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
 Location of doors with electromagnetic egress locks (1010.1.10)
 Location of doors equipped with hold-open devices
 Location of emergency escape windows (1030)
 The square footage of each fire area (202)
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
 Note any code exceptions or table notes that may have been utilized regarding the items above

| Section/Table/Note | Title |
|--------------------|-------|
| | |
| | |
| | |

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)

(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Chaloner Middle HVAC Replacement
Address: 2100 Virginia Ave, Roanoke Rapids, NC
Owner/Authorized Agent: Robbie Clements
City/County: RR
Code Enforcement Jurisdiction: City Roanoke Rapids

CONTACT: ED GORDON, SMITH SINNETT, PA
DESIGNER FIRM NAME LICENSE# TELEPHONE# E-MAIL
Architectural SMITH SINNETT ARCHITECTURE DREW WILGUS 12017 (919) 781.8592 dwilgus@smithsinnett.com
Civil N/A
Electrical PROGRESSIVE DESIGN COLLABORATIVE STEVE CAMPBELL 025020 (919) 790.9989 scampbell@pdcengineers.com
Fire Alarm
Plumbing
Mechanical PROGRESSIVE DESIGN COLLABORATIVE STEVE CAMPBELL 025020 (919) 790.9989 scampbell@pdcengineers.com
Sprinkler-Standpipe
Structural
Retaining Walls >5' High
Other

2018 NC BUILDING CODE: New Building Addition Renovation
 1st Time Interior Completions Shell/Core* Phased Construction*
*Contact the local inspection jurisdiction for possibiltional procedures and requirements.
2018 NC EXISTING BUILDING CODE: Prescriptive Alteration Level I Historic Property (check all that apply)
 Repair Alteration Level II Change of Use
 Chapter 14 Alteration Level III
CONSTRUCTED: (date) 1977 CURRENT OCCUPANCY(S) (Ch.3): EDUCATION
RENOVATED: (date) N/A PROPOSED OCCUPANCY(S) (Ch.3): EDUCATION
RISK CATEGORY (Table 1604.5): Current: 137 Proposed: 137

BASIC BUILDING DATA
Construction Type: I-A II-A III-A IV V-A
 I-B II-B III-B V-B
Sprinklers: No Partial NFPA 13 NFPA 13R NFPA 13D
Standpipes: No Class I II III Wet Dry
Primary Fire District: No Yes Flood Hazard Area: No Yes
Special Inspections Required: Yes No
If special inspections are required, contact the local inspection jurisdiction for additional procedures and requirements.

2018 NC Administrative Code and Policies

Gross Building Area Table

| FLOOR | EXISTING (SQ FT) | RENOVATION/ | EW(SQ FT) | SUB-TOTAL |
|-----------|------------------|-------------|-----------|-----------|
| 3rd Floor | | | | |
| 2nd Floor | | | | |
| Mezzanine | | | | |
| 1st Floor | | | | |
| Basement | | | | |
| TOTAL | | | | |

ALLOWABLE AREA

Primary Occupancy Classification(s)
Assembly A-1 A-2 A-3 A-4 A-5
Business
Educational
Factory F-1 Moderate F-2 Low
Hazardous H-1 Detonate H-2 Deflagrate H-3 Combust H-4 Health H-5 HPM
Institutional I-1 I-2 I-1 & I-2 Condition I-3 I-4 I-3 Condition I-1 I-2 I-3 I-4
Mercantile
Residential R-1 R-2 R-3 R-4
Storage S-1 Moderate S-2 Low High-piled
 Parking Garage Open Enclosed Repair Garage
Utility and Miscellaneous

Accessory Occupancy Classification(s):
Incidental Uses (Table 509):
Special Uses (Chapter 4 - List Code Sections):
Special Provisions: (Chapter 5 - List Code Sections):
Mixed Occupancy: No Yes Separation: ___ Hr. Exception: ___

Non-Separated Use (508.3)
Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.
Actual Area of Occupancy A + Actual Area of Occupancy B
Allowable Area of Occupancy A + Allowable Area of Occupancy B ≤ 1

| STORY | DESCRIPTION AND USE | (A) BLDG AREA PER STORY (ACTUAL) | (B) TABLE 506.2.4 AREA | (C) AREA FOR FRONTAGE PER STORY OR UNLIMITED | (D) ALLOWABLE AREA PER STORY |
|-------|---------------------|----------------------------------|------------------------|--|------------------------------|
| | | | | | |
| | | | | | |
| | | | | | |

1 Frontage area increases from Section 506.2.4 for compound lots:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
b. Total Building Perimeter = _____ (P)
c. Ratio (F/P) = _____ (F/P)
d. W = Minimum width of public way = _____ (W)
e. Percent of frontage increase $I_f = 100[(F/P) - 0.25] \times W/30 = \text{_____} (\%)$
2 Unlimited area shall be under conditions of Section 5.07.
3 Maximum Building Height = total number of stories in the building x E (maximum 3 stories (506.2.))
4 The maximum area of open parking garages must comply with Table 406.5.4. The maximum area of air traffic control towers must comply with Table 412.3.1.
5 Frontage increase is based on the un-sprinklered area value in Table 506.2.
2018 NC Administrative Code and Policies



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ROANOKE RAPIDS SCHOOL DISTRICT
CHALONER MIDDLE SCHOOL HVAC
REPLACEMENT
2100 Virginia Ave, Roanoke Rapids, NC 27870

| ID | DATE | DESCRIPTION |
|----|------|-------------|
| 4 | | |

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|-------------|-------|
| DRAWN BY: | RS/AC |
| CHECKED BY: | DW |

UL RATINGS

METAL INDUSTRIES INC. – Model ANV-4, ANV-5, ANV-6
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada, respectively).
Last Updated on 2021-06-24

12A. Air Terminal Units – (Not Show) – May be used as an alternate to air duct outlets with surface mounted diffusers (Item 11) for the 1 hr. **Assembly Rating Only.** A max of 16 sq ft of diffuser shall be allowed for each 100 sq ft of ceiling area. Units must be supported from the structural steel or from cold-rolled steel channels set to the structural steel and installed in accordance with accompanying installation instructions.

13. Fixtures, Recessed Light – (Bearing the UL Listing Mark, Recessed Light fixture with steel housing, non 2 by 4 ft 20 by 60 in. size. Fixtures spaced so their area does not exceed 24 sq ft per 100 sq ft of ceiling area. When 20 by 60 in. fixtures are used, fixture spacers must be used in addition to the hanger wires at midspan of the cross tees. Wired in conformance with the National Electrical Code. Fixture and ballasts must be considered for three ambient-temperature conditions before installation.

13A. Fixture Stabilizer – (Not Show) – Required for 2 by 4 ft and 20 by 60 in. size light fixtures when metal pans (Item 15B) are used and only for 2 by 4 ft in. size fixtures when metal pans are not used. One 16 MSG painted steel channel formed as a yoke, secured to the web at midspan of cross tee on each side of fixture.

13B. Fixtures, Recessed Light – (Bearing the UL Listing Mark, Recessed Light fixture with steel housing, non 2 by 4 ft 20 by 60 in. size. Fixtures spaced so their area does not exceed 24 sq ft per 100 sq ft of ceiling area. When 20 by 60 in. fixtures are used, fixture spacers must be used in addition to the hanger wires at midspan of the cross tees. Wired in conformance with the National Electrical Code. Fixture and ballasts must be considered for three ambient-temperature conditions before installation.

13C. Alternate Recessed Light Fixtures – (Not Show) – As an alternate to the recessed light fixture, High Intensity Discharge (HID) lighting fixture may be used at a spacing of three per min 100 sq ft of ceiling area. These fixtures are used in conjunction with the non 24 by 24 in. acoustical panels. The fixture consists of 23 MSG or heavier steel mounting pan having 23/34 by 23/34 in. outside dimensions and a 1/2 in. diam opening at its center with 5/8 in. high stiffening return flange at four sides. The reflector and reflector top are made of spun aluminum. The total height of the reflector and the reflector top is 17/16 in. The total weight of the fixture with ballast shall not exceed 6 lb. The 24 by 24 in. suspension system module containing the HID fixture shall be supported at each corner by a hanger wire. Electrical wiring of the fixture shall conform with the National Electrical Code.

14. Fixture Protection – **Acoustical Material** – 5/8 in. thick, cut to form a five sided enclosure, trapezoidal in cross-section, approx. 1/2 in. longer and wider and 5/8 in. higher than the light fixture housing. For 2 by 4 ft 4 ft fixture the protection consists of a 23/34 by 23/34 in. top piece, two 5/8 by 47/32 in. side pieces, and two 4/12 by 23/34 in. end pieces. For 20 by 60 in. fixture the protection consists of a 20 by 60 in. top piece, two 60 by 60 in. side pieces, and two 60 by 4/12 by 20 in. end pieces. The top edge of each fixture protection side piece may be provided with a 1 in. deep by max 20 in. long notch near its midpoint. The side and top pieces are laid in place and the pieces are held in place with three 8d nails spaced 6 in. OC. (D)-Surface performance. **ARMSTRONG WORLD INDUSTRIES INC.** – Type 5/8 in. P (2), 5/8 in. P (3).

14A. Fixture Protection – **Acoustical Material** – For use with "high bay" light fixtures (Item 13B). Five sided enclosure, rectangular in cross section, approx. 1 in. longer and wider than fixture with sufficient depth to provide 1 in. clearance to the top of the fixture. Pieces cut from same acoustical material used in the ceiling (Item 14) and assembled using Type 100 nails. One side of the fixture protection enclosure may be cut 1 in. shorter than the height of the enclosure such that a 1 in. high clearance is maintained between it to top and the top of the enclosure.

14B. Fixture Protection For Alternate Fixture (Item 13C) – **Acoustical Material** – (Not Show) – Five sided pipe enclosure with 1 in. high opening at top of two opposite sides. Pieces cut from same acoustical material as Item 14. Top piece is 23/34 by 23/34 in. and two opposite side pieces are 5/8 by 47/32 in. long by the height of the fixture plus 1 in.; remaining two opposite side pieces each is 4/12-1/2 in. long by the height of the fixture. Pieces assembled with 8d nails spaced 6 in. OC.

15. Steel Framing Members – Main runners and cross tees in combinations listed below. A. Main runners non 12 lb long, spaced 4 ft OC. Cross tees non 4 ft long, installed perpendicular to main runners and spaced 2 ft OC. Cross tees non 2 ft long, installed perpendicular to 4 ft cross tees and spaced 4 ft OC. For non 24x24 and 24x48 in. panels.

ARMSTRONG WORLD INDUSTRIES INC. – Types A7G, A7G-A, For the 1 hr Assembly and Beam Ratings only. Type A7G-A steel framing members may be used. Type A7G-A and A7G-AH steel framing members may be used with 24 by 24 in. panels. Type G3R (consisting of main runners, 4 ft cross tees and steel straps) can use with 24 by 48 in. Type P-PC w/lyr panels.

BAILY METAL PRODUCTS LTD. – Type 107
CEMENTED CORP. – Types FES2-10, FES4-10, FES10-10, FES10-12, FES10-12-16, FES4-10-16, FES2-10-16
OC INC. – Types DXL, DXZ, S2XL

ROKUL USA INC./DVA ROCKFON – Types 150, 260, 1250, 1260, 1850, 1860 When Types 260, 1250, 1860 steel framing members are used, the Assembly and Beam Ratings are 1 hr
R. Main runners non 10 lb long spaced 60 in. OC. Cross tees non 5 ft long, installed perpendicular to main runners and spaced 20 in. OC. For non 20x60 in. panels.
C. Main runners 10 or 12 lb long, spaced 4 ft OC. Cross tees non 4 ft long, installed perpendicular to main runners and spaced 2 ft OC. When non 2 by 2 ft 8 in. panels are used, non 2 ft long cross tees installed perpendicular to 4 ft cross tees at midspan, spaced 4 ft OC. Border panels supported at walls by min. 0.016 in. thick painted steel angle with 7/8 in. legs or min. 0.016 in. thick painted steel channel with 1 by 1/8 in. profile, spaced 600 or 1200 mm leg to panel.

15A. Steel Framing Members – For use with metric size panels described under Item 16. Main runners non 3000 or 3600 mm long, spaced 1200 mm OC. Cross tees non 1200 mm long, installed perpendicular to main runners and spaced 600 mm OC. Cross tees non 600 mm long, installed perpendicular to 1200 mm cross tees midway between main runners spaced 1200 mm OC. Border panels supported at walls by min. 0.016 in. thick painted steel angle with 7/8 in. legs or min. 0.016 in. thick painted steel channel with 1 by 1/8 in. profile, spaced 600 or 1200 mm leg to panel.
OC INC. – Types DXL, DXZ, S2XL

15B. Steel Framing Members – **Metal Pans** – (Not Show) – (Optional) – Channel shaped metal pans in various colors and finishes, installed perpendicular to cross tees of main runners and spaced 4 ft OC. The flange edges of the metal pans engage and interlock with the vertical tabs of the corresponding grid adapters with tabs 4 or 6 in. OC. (See Item 15C). End joints of the metal pans shall occur adjacent to main runners or cross tees. The metal pans shall also be supported by at least two main runners or cross tees.
ROKUL USA INC./DVA ROCKFON – Type 1650

15C. Steel Framing Members – **Grid Adapter** – (Not Show) – (Optional) – For use with Type 1650 metal pans (See Item 15B). Angle shaped adapter with a beveled return flange. Installed parallel to cross tees or main runners by engaging return flange of the adapter to the flange of the main runner or main runner. The 48 or 24 in. dimensions are intended for use with cross tees or main runners, respectively.
ROKUL USA INC./DVA ROCKFON – Type 1650

15D. Steel Framing Members – **Filler Strip** – (Not Show) – (Optional) – For use with Type 1650 metal pans. Filler strips are 0.016 to 0.024 in. thick, steel or aluminum, 13/32 or 5/8 in. deep by 3/4 in. wide, placed between the metal pans.
ROKUL USA INC./DVA ROCKFON – Type 1650

15E. Steel Framing Members – 5/16 in. wide narrow flange grid may be used as an alternate to 15/16 in. wide flange grid system. Main runners, non 12 lb long spaced 4 ft OC. Cross tees, non 4 ft long, installed perpendicular to main runners and spaced 2 ft OC. Cross tees, non 2 ft long, installed perpendicular to 4 ft cross tees and spaced 4 ft OC. Type P3X or P3X-LR for use with 2 ft, non 24 by 24 in. square edge or end edge light by panels. Type P for use with Type 24 by 24 in. square edge light by panels. Grid modules containing light fixtures must employ a fixture centering clip at each corner. The 24 gauge electrogalvanized steel clip is nested on the flange of the intersecting grid tee, has two 1/716 in. high legs with its sides perpendicular to each other and a U-shaped return at the top of each leg for engaging over the bulb of the intersecting grid tee. When 5/16 in. wide flange grid is used, main Assembly and Beam Ratings are 1 hr.
ARMSTRONG WORLD INDUSTRIES INC. – Types FSU, FSX for 1 hr assembly and beam ratings only

15F. Steel Framing Members – 3/16 in. wide narrow flange grid may be used as an alternate to 15/16 in. wide flange grid system. Main runners, non 12 lb long, spaced 4 ft OC. Cross tees, non 4 ft long, installed perpendicular to main runners and spaced 2 ft OC. Cross tees, non 2 ft long, installed perpendicular to 4 ft cross tees and spaced 4 ft OC. For use with Type 24 by 24 in. square edge light by panels. When 3/16 in. wide flange grid is used, main Assembly and Beam Ratings are 1 hr.
ROKUL USA INC./DVA ROCKFON – Types 4050 for 1 hr assembly and beam ratings only

16. Acoustical Material – Non 24 by 24 or 48 in. or 20 by 60 in. lay-in panels. Border panels supported at walls by min. 0.016 in. thick (26 gauge) painted steel angle with 7/8 in. legs or, min 0.016 in. thick (26 gauge) painted steel channel, 1/8 in. deep with 7/8 in. flanges. (D)-Surface performance.

| Non Panel Size | Retrained Rating Hr | Unrestrained Assembly Rating Hr | Acoustical MFI Type |
|--------------------|---------------------|---------------------------------|---------------------|
| 24 x 24 | 1 hr. | 1 hr. | BF, P or PC |
| 24 x 48 or 20 x 60 | 1-1/2 hr. | 1 hr. | PC |
| 24 x 48 or 20 x 60 | 1-1/2 hr. | 1-1/2 hr. | P |

ARMSTRONG WORLD INDUSTRIES INC. – Type 5/8 in. P (3), 5/8 in. P (3), 3/4 in. P (3)

Type P or PC, 15 in. min. R15 R0600 or 1000 in. These metric size panels may only be used with metric size grid distributed under Item 15A. Hourly ratings shown for 24x24 in. size panels apply to 600x600 mm size panels with ratings shown for 24x24 in. panels apply to 600x1200 mm size panels.

16A. Acoustical Material – **Antenna Panel** – (Optional, Not Show) – When the ceiling is composed of non 24 by 24 in. lay-in panels, a 1200 mm OC. double channel installed perpendicular to the main runners adjacent to cross tee intersections. Hanger wires are located at each corner of light fixtures, a midspan of cross tees adjacent to a 4 ft light fixture, air duct outlets, and adjacent to each main runner adjacent to the main runner. When the ceiling consists of non 20 by 60 in. panels, hanger wires shall be spaced 4 ft OC. Along main runners, one wire shall occur at each corner of light fixtures, at midspan of all cross tees, and adjacent to each main runner every 10 ft.

17. Speaker Assemblies For Fire Resistance – (Optional, Not Show) – The speaker assemblies consist of speakers, speaker enclosures and their accessories. The ceiling penetration from the speaker enclosure shall not exceed 11/8 by 11/8 in. for the square speaker enclosures and 12 in. in diam for the round speaker enclosures. All speaker enclosures are installed in accordance with the installation instructions provided. A max of two 16 sq ft in. speaker assemblies per 100 sq ft of ceiling area is allowed.
ATLAS SOUNDING LP

17A. Speaker Assemblies For Fire Resistance (CMAI) for Specialty Applications – (Optional, Not Show) – As an alternate to Item 17, speaker panels may be included in the ceiling when the ceiling is composed of non 24 by 24 or 48 in. lay-in panels. Non 24 by 24 in. metal framed lay-in speaker panels installed in accordance with the accompanying installation instructions. Hanger wires are required under the main runners and on the non 4 ft long cross tees at all four corners of the speaker panel. Each speaker panel is covered with a non 24 by 24 in. panel of the same acoustical material used in the ceiling. Acoustical material shall be centered over and supported by the metal "bridge" of the speaker panel. A max of one speaker panel is allowed per 100 sq ft of ceiling area with a min center-to-center spacing of 10 ft between speaker panels.

18. Hold-Down Clips – (Not Show) – No. 24 MSG spring steel, places over cross tees or 4 ft OC.

19. Ducture Products Installed in Air-handling Systems – Automatic balancing Valve/Damper (Not Show) – (Optional) – For use with Item 12. Valve/Damper to be provided with duct installation with steel duct damper manufacturer's instructions. Automatic balancing Valve/Damper shall be installed without duct such that it is not directly above the ceiling radiation damper.

20. Building Units – As an alternate to Item 2A, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the underside surface with particle composite board. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed over the gypsum wallboard (Item 4) with end joints staggered a min of 6 in. in adjacent rows.

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC – H-9SHd-9, H-9SHd-9T, H-9SHd-9T-NH, H-9SHd-9T-NH
CARLISLE SYNTHIC SYSTEMS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC – Nyloxy IPI-HDD, Nyloxy IPI-HDD-NH
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC – H-9SHd-9D, H-9SHd-9D-NH

21. Building Units – As an alternate to Item 2A, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the top surface with glass mat faced gypsum panel. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed over the gypsum wallboard (Item 4) with end joints staggered a min of 6 in. in adjacent rows.

CARLISLE SYNTHIC SYSTEMS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC – Nyloxy IPI-HDD, Nyloxy IPI-HDD-NH
HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC – H-9SHd-9D, H-9SHd-9D-NH

22. Building Units – As an alternate to Item 2A, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the top surface with glass mat faced gypsum panel. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed over the gypsum wallboard (Item 4) with end joints staggered a min of 6 in. in adjacent rows.

23. Building Units – As an alternate to Item 2 through 20, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the top surface with mineral fiber board. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows.

24. Roof Insulation – As an alternate to Item 2 through 20, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the top surface with gypsum board. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows.

25. Roof Insulation – As an alternate to Item 2 through 20, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the top surface with gypsum board. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows.

26. Roof Insulation – As an alternate to Item 2 through 20, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or 96 in., faced on the top surface with gypsum board. Min. thickness of the polyisocyanurate core is 1.3 in. for the 1 hr ratings and 2.0 in. for the 1-1/2 hr ratings. No limit on max overall thickness. Boards to be installed with end joints staggered a min of 6 in. in adjacent rows.

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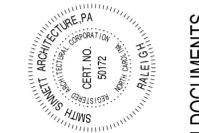
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55. Roof Insulation – As an alternate to Item 2 through 20, polyisocyanurate foamed plastic insulation boards, non 48 by 48 or



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Smith Sinnett Architecture, P.A. 2023
THIS DRAWING IS FORMATTED TO BE PRINTED ON A 24" X 36" SHEET

ROANOKE RAPIDS SCHOOL DISTRICT
CHALONER MIDDLE SCHOOL HVAC REPLACEMENT
2100 Virginia Ave, Roanoke Rapids, NC 27870

| ID | DATE | DESCRIPTION |
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DRAWN BY: RS/AC
CHECKED BY: DW

FIRST FLOOR DEMO & RENOVATION PLANS

2023020 2 OCTOBER 2023

A1-01

DEMOLITION LEGEND:

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|--------|---|--------|--|
| | NOTE THE PRESENCE OF ASBESTOS CONTAINING ITEMS. REFER TO ASBESTOS REMOVAL DESIGN & SPECIFICATIONS FOR REMOVAL INSTRUCTIONS. | | DEMOLITION KEYED NOTE |
| | | | EXISTING TO REMAIN |
| | | | EXISTING TO BE REMOVED DURING DEMOLITION |

DEMOLITION SPECIFIC AREA NOTES:

- REMOVE EXISTING WINDOW, GLAZING, BLINDS, FRAME AND ITS ASSOCIATED PARTS IN ITS ENTIRETY. EXISTING WINDOWS CONTAIN AGGREGATE ASBESTOS PANEL (SEE 4A1-01). REFER TO ASBESTOS REMOVAL DESIGN AND SPECIFICATIONS FOR INSTRUCTIONS ON THE ASBESTOS WINDOW GLAZING AND FRAME CAULK. WINDOW OPENING SHALL BE SECURED WITH EITHER A WEATHER PROOF TEMPORARY PARTITION OR THE PERMANENT FRAME AND GLAZING. ALL MASONRY TO REMAIN.
- REMOVE EXISTING LAY-IN CEILING TILE, GRID, HANGERS AND ASSOCIATED PARTS IN ITS ENTIRETY. PREP AREA TO RECEIVE NEW CEILING. ALL LIGHTS AND LIFE SAFETY DEVICES, SECURITY FIXTURES, ETC. TO REMAIN - PROTECT IN PLACE OR REMOVE AND REINSTALL AS NEEDED.
- REMOVE EXISTING GYP CEILING, FRAMING, HANGERS AND ASSOCIATED PARTS IN ITS ENTIRETY. PREP AREA TO RECEIVE NEW CEILING. FIXTURES TO REMAIN.

GENERAL DEMOLITION NOTES:

- ALL CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR WHERE DEMOLITION IS TO OCCUR. THE CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY INCONSISTANCIES IN WRITING PRIOR TO STARTING ANY WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR WEEKLY AND/OR DAILY REMOVAL AND PROPER DISPOSAL OF ALL DEBRIS ACCUMULATED DURING DEMOLITION AND CONSTRUCTION.
- REMOVAL OF HAZARDOUS MATERIAL AND DEBRIS SHALL BE AS FOLLOWS:
 - ALL HAZARDOUS SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO PROJECT COMPLETION. CONTRACTOR SHALL FOLLOW ALL THE REQUIREMENTS TO LEGALLY DISPOSE OF ALL HAZARDOUS MATERIALS.
 - THE CONTRACTOR IS REQUIRED TO PERFORM ABATEMENT AND REMEDIATION ACTIVITIES INSIDE NEGATIVE AIR PRESSURIZED ENCLOSURES.
 - ABATEMENT OF ALL HAZARDOUS MATERIALS SHALL OCCUR PRIOR TO BUILDING DEMOLITION. BOTH ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE PROJECT SHALL BE PHASED SUCH THAT DEMOLITION CAN FOLLOW ABATEMENT IN THE FIRST AREA OF THE BUILDING WHILE ABATEMENT IS OCCURRING IN THE NEXT AREA OF THE BUILDING. ASBESTOS - REFER TO ASBESTOS REMOVAL DESIGN AND SPECIFICATIONS
- ANY FLOOR, CEILING, WALL OR OTHER MATERIALS INCLUDING FINISHES IN AREAS TO REMAIN ARE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT. ANY MATERIALS DAMAGED DURING CONSTRUCTION OR DEMOLITION, SHALL BE RETURNED TO THEIR ORIGINAL STATE, OR IMPROVED AS INDICATED BY THE OWNER OR ARCHITECT, OR REPLACED WITH A NEW MATERIAL TO MATCH ADJACENT MATERIALS, TYPICAL.
- CONTRACTOR SHALL PATCH AND REPAIR ALL EXISTING SURFACES TO REMAIN AND MATERIALS EXPOSED TO VIEW WHERE OTHER ITEMS OR MATERIALS HAVE BEEN REMOVED.
- REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL AND COMPLETE SCOPE OF DEMOLITION THAT MAY OR MAY NOT BE NOTED ON THE ARCHITECTURAL DEMOLITION PLAN AND NOTES.
- CONTRACTOR SHALL REMOVE ALL WALL MOUNTED FIXTURES OR ITEMS UNLESS OTHERWISE NOTED. ALL WALLS SHALL BE REPAIRED, AND VOIDS FILLED AFTER FIXTURE REMOVAL. ALL FINISHES SHALL MATCH ADJACENT SURFACES. REMOVE ALL FOREIGN MATTER, SHELVING, LOOSE DEBRIS INCLUDING TAPE, ADHESIVE, NAILS, SCREWS, ETC. FROM WALLS. SCRAPE, WIRE BRUSH, AND SAND SMOOTH. WASH ALL PAINTED SURFACES TO REMOVE ANY "FILM OR RESIDUE". PREPARE SURFACES TO PROVIDE A MAXIMUM DEGREE OF NEW PAINT ADHESION. PATCH AND REPAIR ALL VOIDS IN PREPARATION FOR NEW FINISHES. CONTRACTOR RESPONSIBLE FOR PAINT COMPATIBILITY AND APPROPRIATE PREP TO ACHIEVE DURABLE ADHESION.
- ALL FIXTURES, WALLS AND PORTIONS OF WALLS SHOWN AS DASHED LINES OR LABELED SHALL BE DEMOLISHED UNLESS ELEMENTS REMOVED OR REPLACED. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING AND IS RESPONSIBLE FOR ANY FAILURE DUE TO LACK OF PROPER BRACING.
- DURING THE BIDDING PROCESS, CONTRACTORS SHALL TAKE NOTE OF EXISTING PLUMBING MECHANICAL, AND ELECTRICAL ITEMS IN AREAS TO BE RENOVATED. ITEMS INCLUDE BUT ARE NOT LIMITED TO WIRES, CONDUITS, PIPES, THERMOSTATS, FIRE ALARM DEVICES, PANEL CANS, ETC. THESE HAVE BEEN IDENTIFIED IN THE DEMOLITION DRAWINGS FOR ARCHITECTURE, PLUMBING, MECHANICAL AND/OR ELECTRICAL. FOR ITEMS NOT SHOWN, CONTRACTOR SHALL WORK WITH THE ARCHITECT AND OWNER TO DETERMINE IF THE ITEM IS STILL IN USE ITEMS WHICH ARE NOTED TO BE REMOVED AND STORED FOR LATER REINSTALLATION SHALL BE TAGGED AND LISTED ON AN ITEMIZED LIST GIVEN TO THE OWNER AND ARCHITECT.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE DEMOLITION OF THE EXISTING BUILDING AREAS WITH THE ARCHITECT AND OWNER. THE CONTRACTOR SHALL COORDINATE AFTER HOURS WORK AND OBTAIN WRITTEN OWNER PERMISSION FOR NIGHT AND WEEKEND WORK.
- CONTRACTOR SHALL ENSURE WATER-TIGHT INTEGRITY OF THE TEMPORARY ENCLOSURE SYSTEMS AND MAINTAIN THEM THROUGH THE ENTIRETY OF CONSTRUCTION TO PREVENT THE INTRUSION OF WATER AND THE ELEMENTS INTO THE BUILDING.
- ALL EXISTING FIRE EXTINGUISHER AND BRACKETS SHALL REMAIN AND BE INSTALLED IN THEIR CURRENT LOCATION UNLESS SHOWN ON THE PLANS TO RELOCATE.
- CONTRACTOR SHALL PATCH AND FILL IN ANY VOIDS LEFT FROM THE DEMOLITION OF ANY PLUMBING, MECHANICAL, OR ELECTRICAL ITEMS. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR COMPLETE SCOPE OF DEMOLITION.

GENERAL LEGEND:

| SYMBOL | DESCRIPTION |
|--------|---|
| | NO WORK IN THIS AREA. EXISTING CONDITIONS TO REMAIN |

NOTE:
ALL DIMENSIONS ARE TO BE VERIFIED IN FIELD

REFLECTED CEILING LEGEND AND NOTES

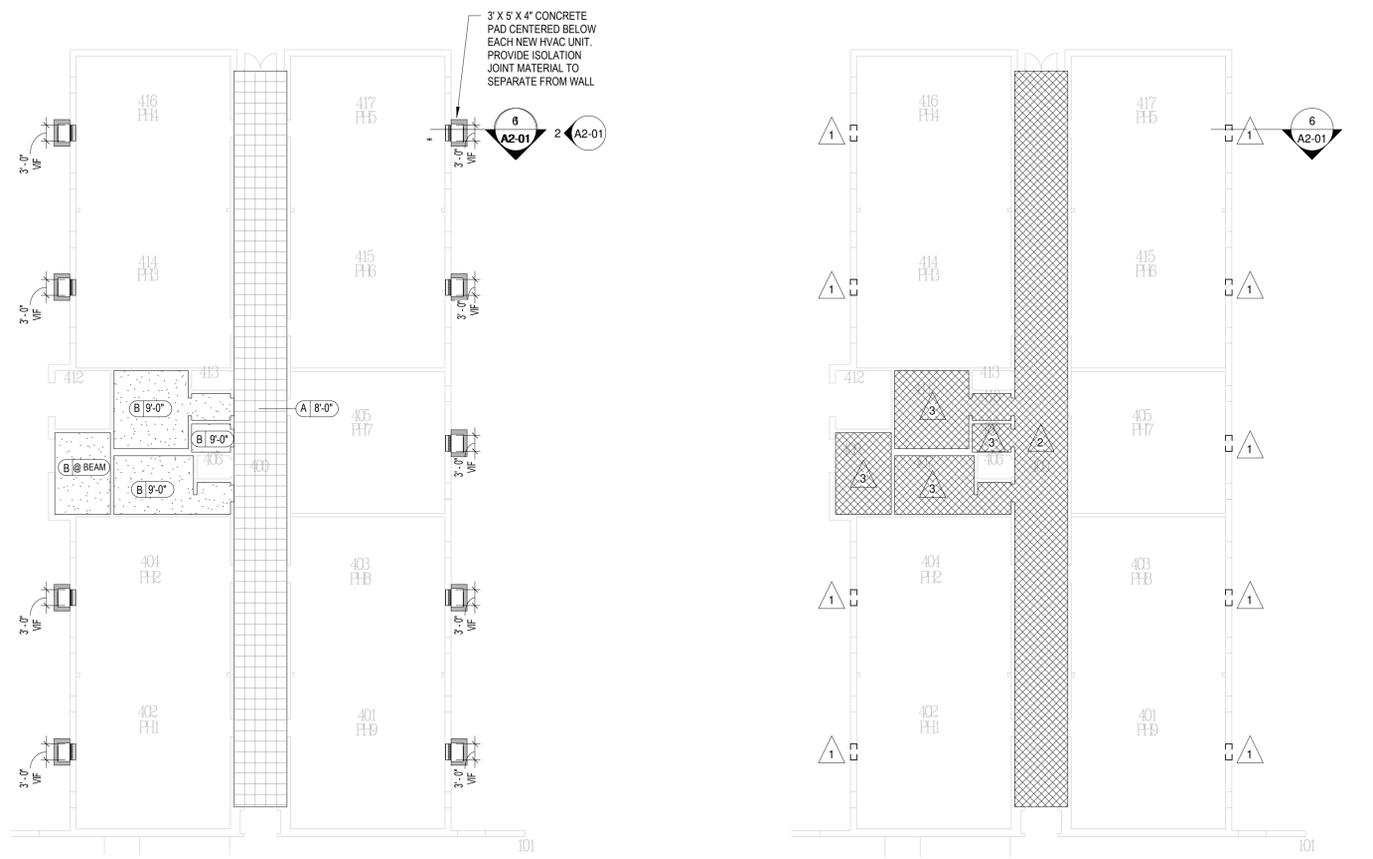
CEILING TYPE
A 10'-0" CEILING HEIGHT

| SYMBOL | TYPE | DESCRIPTION |
|--------|------|---|
| | A | ACT-1, 2x2 CEILING TILE, WHITE FINISH - 1HR RATED, REFER TO UL-P225 |
| | B | GYPSUM WALLBOARD CEILING SYSTEM - 1HR RATED, REFER TO UL-P510 |

- REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR COMPLETE SCOPE OF CEILING PENETRATIONS AND FIXTURES.
- REFER TO PROJECT SPECIFICATIONS FOR COMPLETE DESCRIPTION OF CEILING MATERIAL

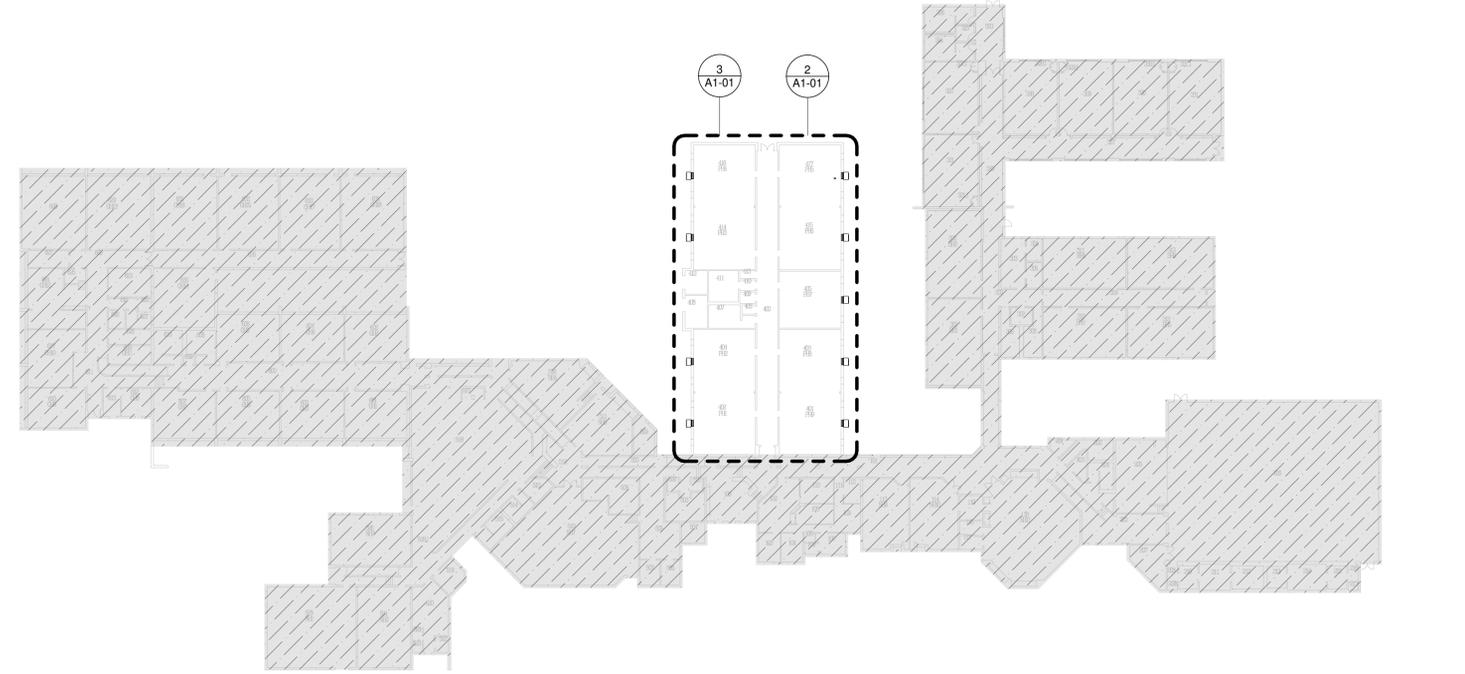


4
A1-01 EXISTING WINDOW TO BE REMOVED
12" = 1'-0"



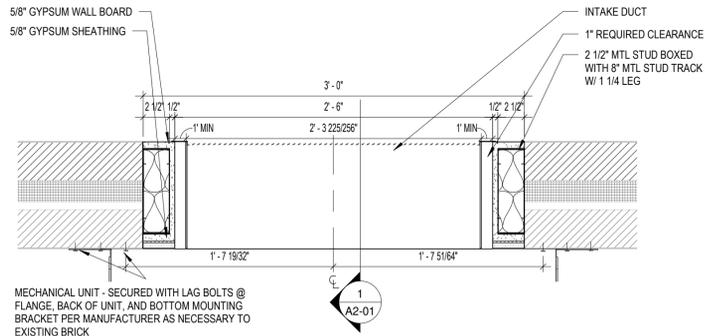
3
A1-01 NEW FLOOR PLAN
1/16" = 1'-0"

2
A1-01 DEMO FLOOR PLAN
1/16" = 1'-0"

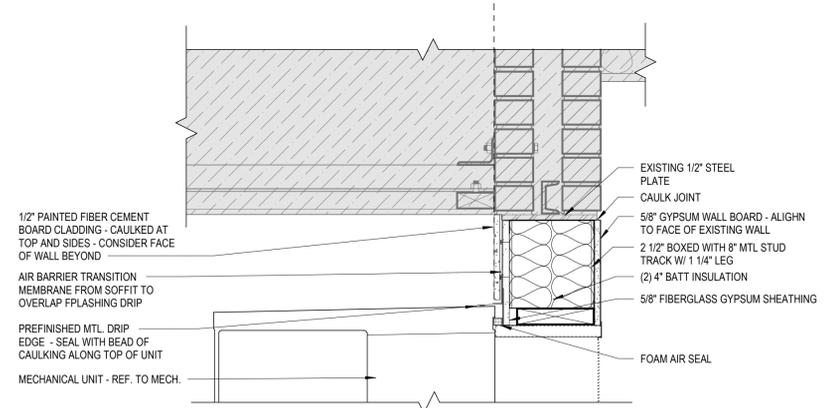


1
A1-01 OVERALL FLOOR PLAN
1" = 40'-0"

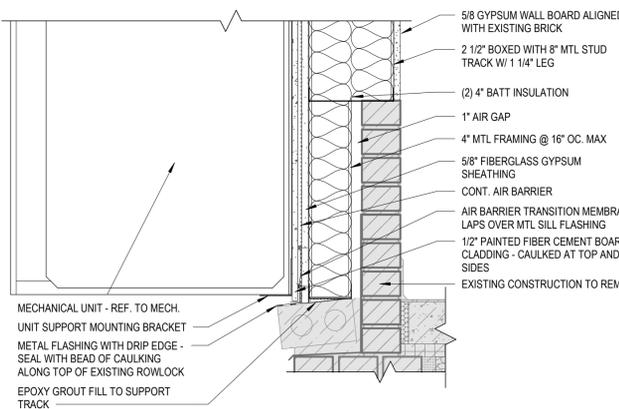
| GENERAL LEGEND: | | DEMOLITION SPECIFIC AREA NOTES: | |
|--|---|---------------------------------|---|
| SYMBOL | DESCRIPTION | 1 | REMOVE EXISTING WINDOW, GLAZING, BLINDS, FRAME AND ITS ASSOCIATED PARTS IN ITS ENTIRETY. EXISTING WINDOWS CONTAIN AGGREGATE ASBESTOS PANEL (SEE 4/A1-01). REFER TO ASBESTOS REMOVAL DESIGN AND SPECIFICATIONS FOR INSTRUCTIONS ON THE ASBESTOS WINDOW GLAZING AND FRAME CAULK. WINDOW OPENING SHALL BE SECURED WITH EITHER A WEATHER PROOF TEMPORARY PARTITION OR THE PERMANENT FRAME AND GLAZING. ALL MASONRY TO REMAIN. |
| | NO WORK IN THIS AREA, EXISTING CONDITIONS TO REMAIN | 2 | REMOVE EXISTING LAY-IN CEILING TILE, GRID, HANGERS AND ASSOCIATED PARTS IN ITS ENTIRETY. PREP AREA TO RECEIVE NEW CEILING. ALL LIGHTS AND LIFE SAFETY DEVICES, SECURITY FIXTURES, ETC. TO REMAIN - PROTECT IN PLACE OR REMOVE AND REINSTALL AS NEEDED. |
| NOTE: | | 3 | REMOVE EXISTING GYP CEILING, FRAMING, HANGERS AND ASSOCIATED PARTS IN ITS ENTIRETY. PREP AREA TO RECEIVE NEW CEILING. FIXTURES TO REMAIN |
| ALL DIMENSIONS ARE TO BE VERIFIED IN FIELD | | | |
| DEMOLITION LEGEND: | | | |
| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
| | NOTE THE PRESENCE OF ASBESTOS CONTAINING ITEMS. REFER TO ASBESTOS REMOVAL DESIGN & SPECIFICATIONS FOR REMOVAL INSTRUCTIONS. | # | DEMOLITION KEYED NOTE |
| | | --- | EXISTING TO REMAIN |
| | | - - - - - | EXISTING TO BE REMOVED DURING DEMOLITION |



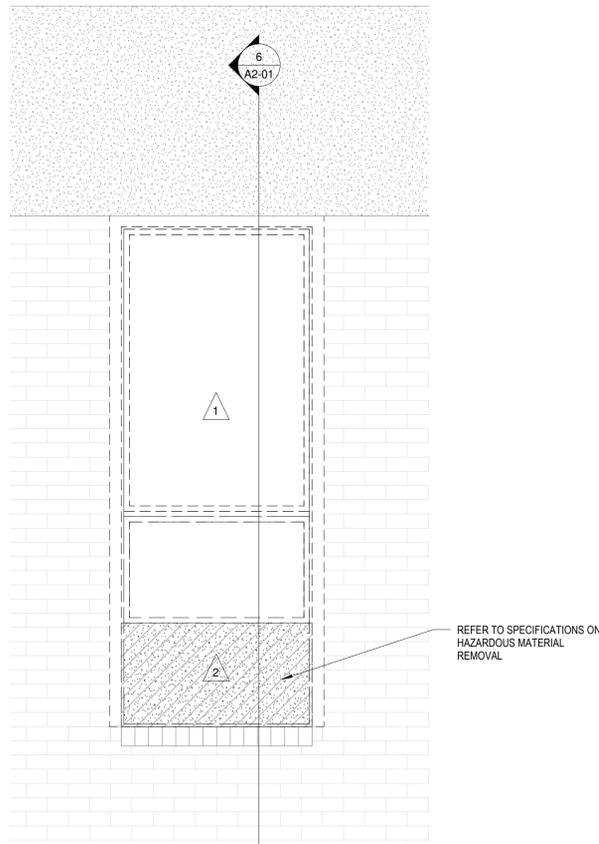
7 JAMB DETAIL
A2-01 1 1/2" = 1'-0"



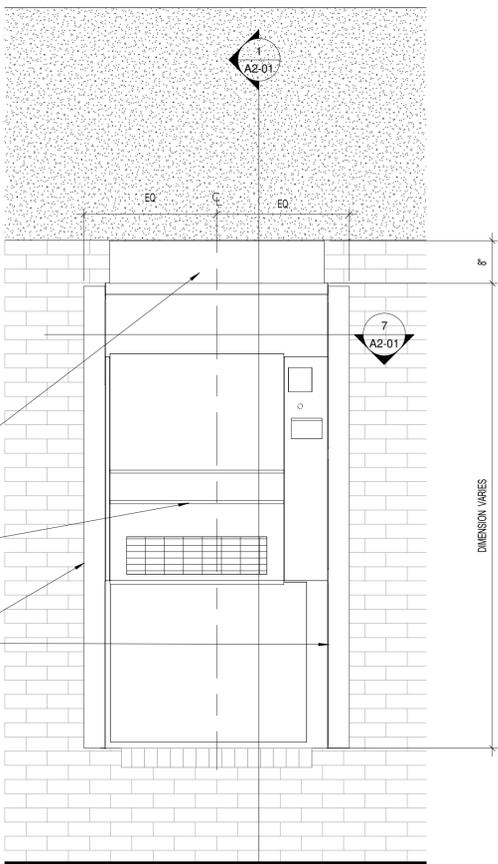
4 TOP OF MECHANICAL UNIT @ NEW WALL DETAIL
A2-01 1 1/2" = 1'-0"



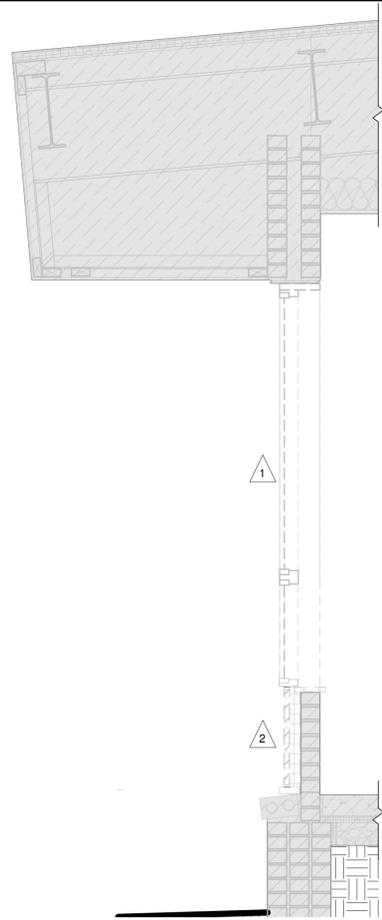
3 BOTTOM OF MECHANICAL UNIT @ NEW WALL DETAIL
A2-01 1 1/2" = 1'-0"



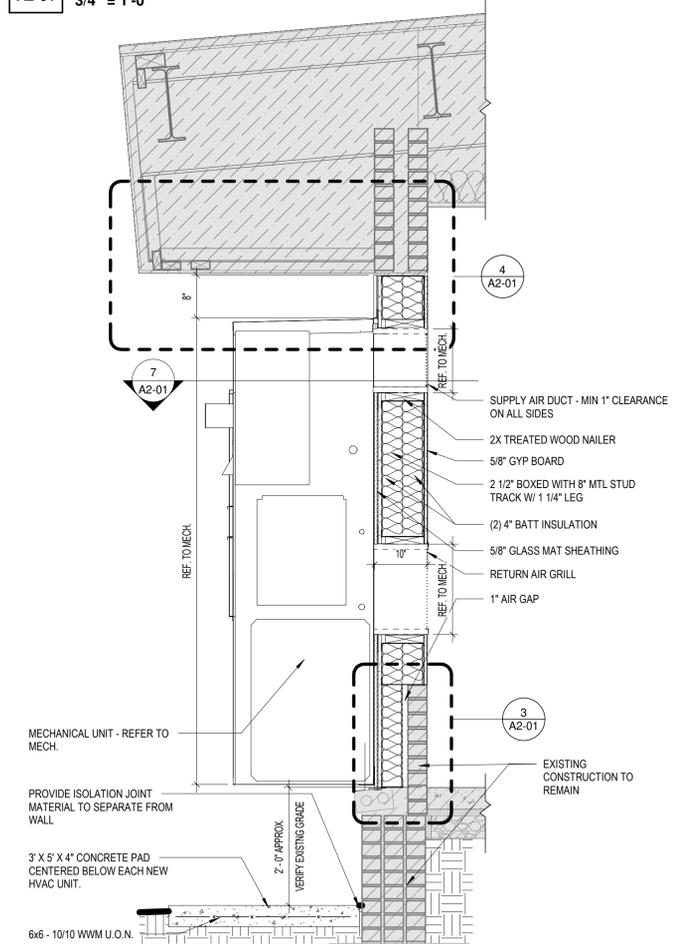
5 ELEVATION - DEMO
A2-01 3/4" = 1'-0"



2 MECHANICAL UNIT ELEVATION
A2-01 3/4" = 1'-0"



6 WALL SECTION - DEMO
A2-01 3/4" = 1'-0"



1 WALL SECTION THROUGH MECHANICAL UNIT INSTALATION
A2-01 3/4" = 1'-0"



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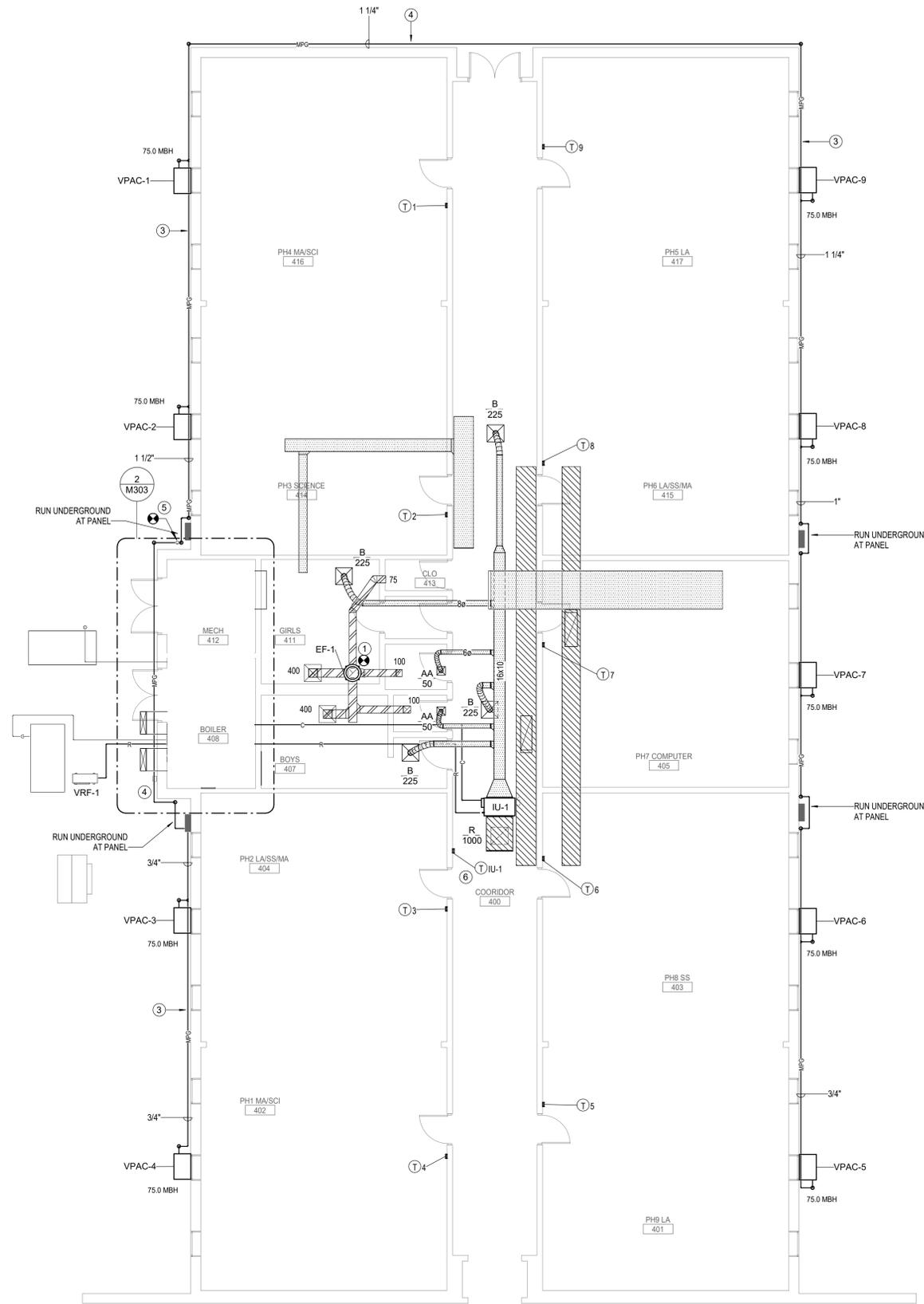
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DRAWN BY: RS, AS
CHECKED BY: DW

EXTERIOR
ELEVATION, WALL
SECTION, &
DETAILS

2023020 2 OCTOBER 2023



KEYNOTES:

1. PROVIDE NEW ROOF EXHAUST FAN AND CURB ADAPTER ON EXISTING CURB.
2. PROVIDE CEILING CASSETTE UNIT IN EXISTING CEILING. PROVIDE CEILING TRIM PIECES FROM MANUFACTURER AS REQUIRED.
3. RUN GAS PIPING TIGHT TO WALL, BELOW BOTTOM OF UNITS.
4. RUN GAS PIPING UP HIGH, TIGHT TO WALL.
5. CONNECT TO EXISTING 5 PSI NATURAL GAS LINE.
6. PROVIDE WIRE COVER FOR THERMOSTAT PROTECTION.

GENERAL NOTES:

- A. SLEEVE ALL PIPING PENETRATIONS THROUGH WALLS.
- B. ALL THERMOSTATS FOR VPACs ARE COMBINATION TEMPERATURE/HUMIDITY SENSORS.

NATURAL GAS LOAD SUMMARY

| | |
|------------------------------|-------------------|
| EXISTING BOILER REMOVED | -2,009 MBH |
| BARDS ADDED | + 675 MBH |
| TOTAL NET LOAD CHANGE | -1,334 MBH |

PER TABLE 402.4(7) OF NC FUEL GAS CODE

FOR TOTAL DEVELOPED LENGTH OF 1200 FT

- 1-1/2" WILL CARRY 2,900 CFH
- 1-1/4" WILL CARRY 1,930 CFH
- 1" WILL CARRY 941 CFH
- 3/4" WILL CARRY 500 CFH

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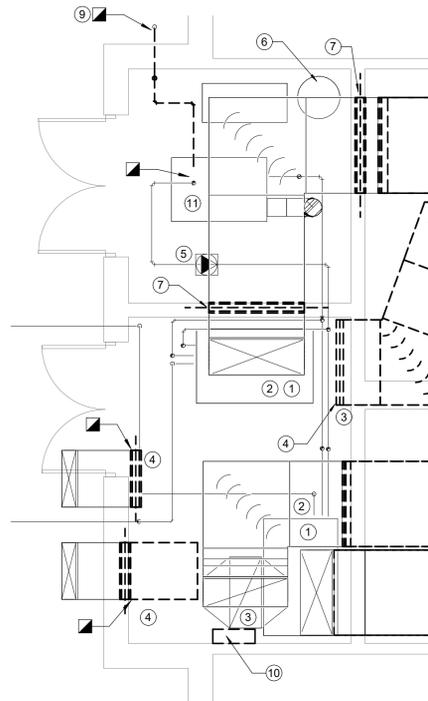
Roanoke Rapids City Schools
Chaloner MS HVAC Upgrades
 2100 Virginia Ave
 Roanoke Rapids, NC 27870

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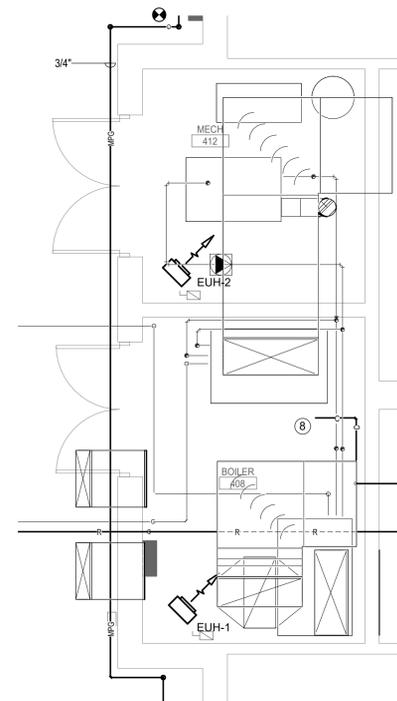
DRAWN BY: JAV
CHECKED BY: SWC

DUCTWORK AND PIPING PLAN

1 DUCTWORK AND PIPING PLAN
1/8" = 1'-0"



1 ENLARGED DEMOLITION PLAN



2 ENLARGED DUCTWORK AND PIPING PLAN



GENERAL NOTES:

- A. WHERE EXISTING EQUIPMENT, DUCT, AND PIPING IS BEING REMOVED, REMOVE ALL EXISTING HANGERS, RODS, AND SUPPORTING HARDWARE.
- B. PATCH AND PAINT ALL SURFACES AND FINISHES IMPACTED BY THE WORK.
- C. REMOVE ALL EXISTING CONDENSATE PIPING IN MECHANICAL ROOMS.

KEYNOTES:

- 1. DISCONNECT EXISTING AHU FROM ELECTRICAL CONNECTIONS AND ABANDON UNIT IN PLACE.
- 2. REMOVE ALL EXISTING CONDENSATE PIPING.
- 3. DISCONNECT EXISTING DUCT SMOKE DETECTOR IN RETURN DUCT AND REMOVE. COORDINATE WITH FIRE ALARM CONTRACTOR.
- 4. DEMO AIR DUCT BACK TO WALL AND CAP. REMOVE EXISTING FIRE DAMPER.
- 5. DISCONNECT EXISTING BOILER PUMP FROM ELECTRICAL CONNECTIONS AND ABANDON IN PLACE.
- 6. EXISTING WATER HEATER TO REMAIN.
- 7. REMOVE EXISTING FIRE DAMPER. REFER TO ARCHITECTURAL DRAWINGS FOR PATCHING WALL OPENING.
- 8. TERMINATE CONDENSATE AT FLOOR DRAIN.
- 9. DISCONNECT NATURAL GAS FROM BOILER AND REMOVE PIPING BACK TO BUILDING EXTERIOR.
- 10. DISCONNECT AND REMOVE EXISTING CONTROLS. REMOVE ENCLOSURE.
- 11. EXISTING BOILER TO REMAIN. DISCONNECT ALL POWER, CONTROLS, AND FUEL SOURCE AND ABANDON IN PLACE.

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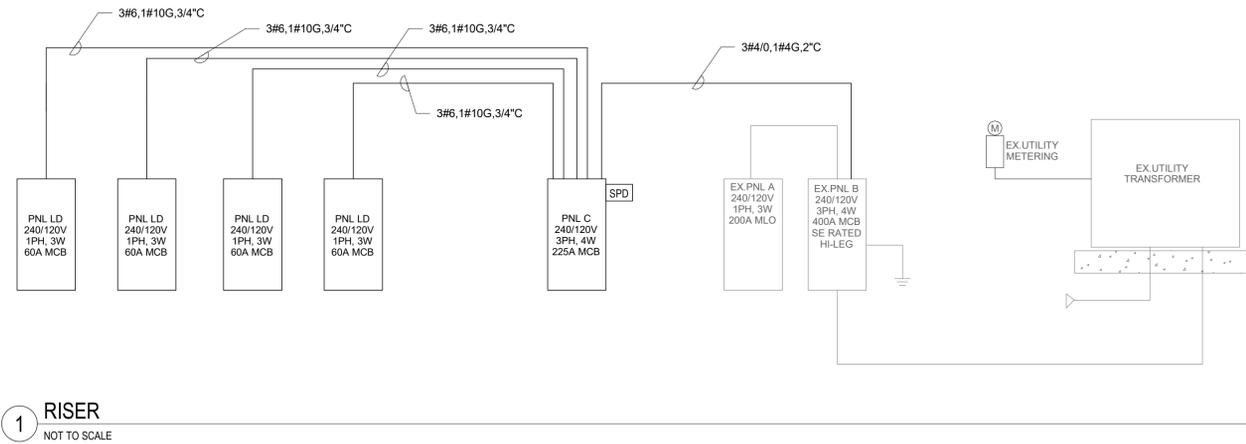
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DRAWN BY: JAV
CHECKED BY: SWC

ENLARGED PLANS



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1 RISER
NOT TO SCALE

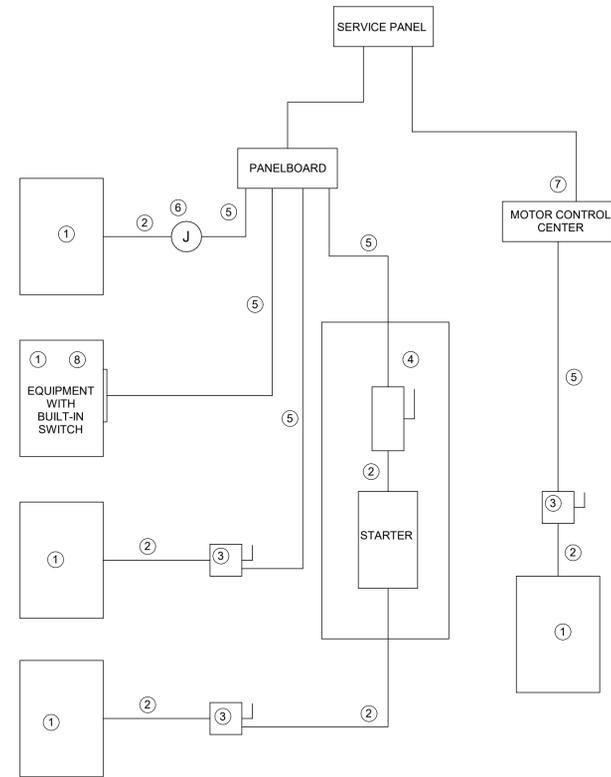
| ELECTRIC SERVICE LOAD SUMMARY | | | |
|-------------------------------|--|-----------------|------------|
| | CONNECTED KVA | TOTAL DIVERSITY | DEMAND KVA |
| HVAC | XX | x1.0 | XX |
| RECEPTACLE | XX | (10 + X*0.5) | XX |
| LIGHTING | XX | x1.0 | XX |
| MOTOR | XX | x1.0 | XX |
| OTHER | XX | x1.0 | XX |
| KITCHEN | XX | x0.65 | XX |
| | 113 KVA | | XXX KVA |
| | $I = \frac{113 \times 1000}{240 \times \sqrt{3}} = 271 \text{ AMPS}$ | | |

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DRAWN BY: TWB
CHECKED BY: JTB

RISER



GENERAL NOTES:

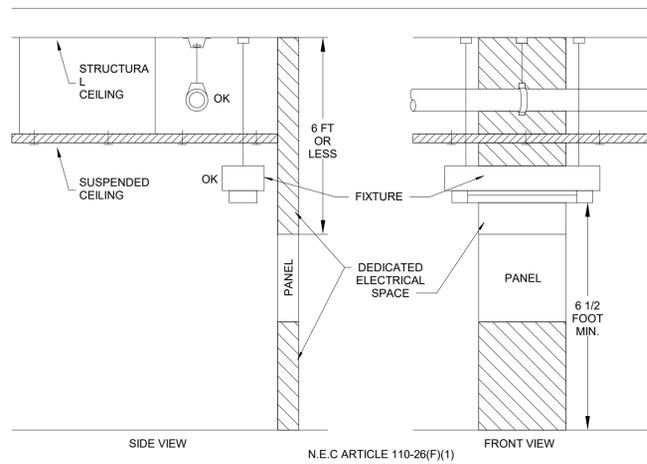
- A. IN A SINGLE PRIME CONTRACT IT IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR TO COORDINATE BETWEEN THE ELECTRICAL AND OTHER TRADES.
- B. IN ALL CASES, THE EQUIPMENT CONTRACTOR SHALL MAKE THE FINAL CONNECTIONS, START UP, AND TEST AND COMMISSION THE EQUIPMENT.

KEYNOTES:

1. EQUIPMENT OF TRADES OTHER THAN ELECTRICAL.
2. CONDUIT AND WIRING BY HVAC, PLUMBING CONTRACTOR OR TRADES.
3. IF AN ADDITIONAL DISCONNECT IS REQUIRED BY NEC, IT SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR.
4. A COMBINATION STARTER OR VFD MAY BE USED IN LIEU OF A SEPERATE DISCONNECT SWITCH AND STARTER, PROVIDE ADJACENT TO EQUIPMENT. THIS SHALL BE PROVIDED AND INSTALLED BY THE EQUIPMENT CONTRACTOR. (VFDs SHALL BE PROVIDED BY CONTROLS CONTRACTOR FOR NON-PACKAGED EQUIPMENT).
5. FEEDER CIRCUIT WIRING AND CONDUIT PROVIDED IN ELECTRICAL WORK. REFER TO PANELBOARD SCHEDULES FOR WIRE AND BREAKER SIZES.
6. JUNCTION BOX MAY BE INDICATED ON THE ELECTRICAL DRAWINGS FOR SOME EQUIPMENT. IF NO STARTER OR DISCONNECT IS FURNISHED BY THE EQUIPMENT MANUFACTURER, A JUNCTION BOX SHALL BE INSTALLED ADJACENT TO THE EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE LINE SIDE WIRING TO THE JUNCTION BOX. LOAD SIDE WIRING SHALL BE PROVIDED BY MECHANICAL CONTRACTOR OR OTHER TRADES.
7. FOR PROJECTS UTILIZING A MOTOR CONTROL CENTER (MCC), THE STARTER, CIRCUIT BREAKER, OR VFD IN THE MCC ARE PROVIDED BY THE ELECTRICAL CONTRACTOR.
8. IF THE EQUIPMENT IS NOT PROVIDED WITH A BUILT-IN DISCONNECT SWITCH, THE ELECTRICAL CONTRACTOR SHALL PROVIDE A DISCONNECT SWITCH.

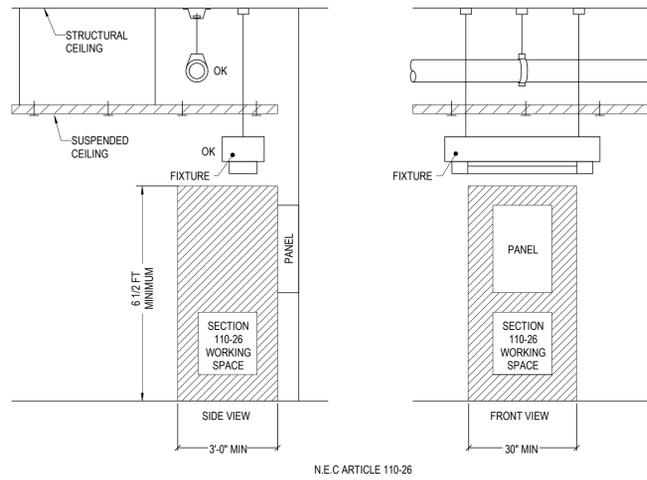
10 ELECTRICAL EQUIPMENT CONNECTIONS

NOT TO SCALE



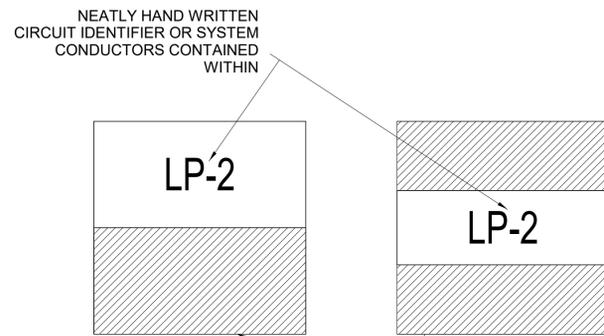
8 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT

NOT TO SCALE



7 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT

NOT TO SCALE

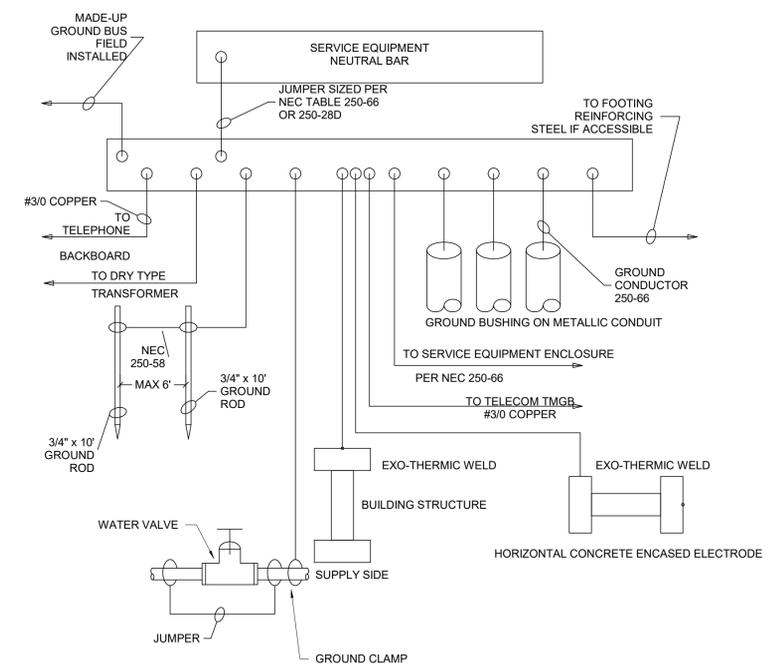
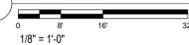


NOTE:

CONTRACTOR SHALL IDENTIFY JUNCTION BOX COVERS WITH ONE OF THE TWO METHODS SHOW ABOVE, BUT **NOT** BOTH. ALL JUNCTION BOX COVERS SHALL BE CONSISTENTLY IDENTIFIED ACROSS THE ENTIRE PROJECT.

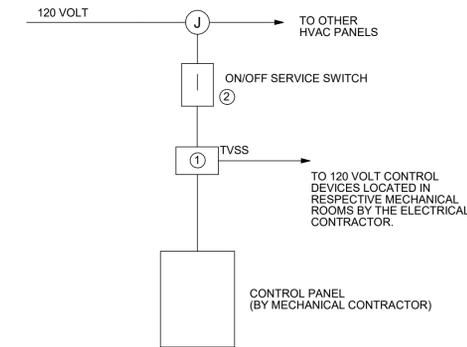
JUNCTION BOX LABELING

1 JUNCTION BOX LABELING



5 SERVICE EQUIPMENT GROUNDING

NOT TO SCALE



DETAIL KEYED NOTES:

1. TRANSIENT VOLTAGE SURGE SUPPRESSOR, PROVIDED AND BY THE MECHANICAL CONTROLS CONTRACTOR.
2. SINGLE POLE TOGGLE SWITCH WITH HUBBELL #96061 COVER TO BE USED AS ON/OFF SERVICE SWITCH FOR CONTROLS. LABEL COVER "MECHANICAL CONTROLS".

3 DETAIL - CONTROLS SURGE PROTECTION

NOT TO SCALE

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10/02/2023

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DETAILS

