



Elizabeth Unger
Purchasing Agent

City of Cambridge

PURCHASING DEPARTMENT

SHUO WANG
Assistant Purchasing Agent for
Goods & Services

NATALIE SULLIVAN
Assistant Purchasing Agent for
Design & Construction

TO: All Bidders

FROM: City of Cambridge

DATE: November 13, 2023

RE: File No. 11239 – Rindge Commons Pre-K Interior Fit-Out - Addendum No. 2

This addendum is comprised of the following:

1. Questions and Answers (Attached)
2. Updates to Specifications (Attached)
3. Updates to Drawings (Attached)

All other details remain the same.

Elizabeth Unger
Purchasing Agent

Addendum No. 2



Rindge Commons Pre-K Interior Fit-Out

Cambridge, Massachusetts

ADDENDUM # 2

November 13, 2023

BIDDER QUESTIONS

- **ITEM 2.1** Question: Do you have an existing conditions drawing, as well as demo drawings for the project?
Response: Demo drawings were included in Addendum 1. Because the base building work has not yet been completed, as-built drawings for the base building are not available. We are attaching the latest base building HVAC plans, base building fire alarm submittal shop drawings, and base building fire protection submittal shop drawings for reference with this Addendum.
- **ITEM 2.2** Question: Please confirm the electrical permit fee will be waived.
Response: Electrical permit fee will be waived by the City of Cambridge.
- **ITEM 2.3** Question: Drawing E0.3 - Electrical Riser: Please provide the location of the existing MSB indicated on the floor plan. Please confirm the existing MSB has an available 400 amp breaker.
Response: Switchboard "MSB" is located in Electric Room 111. The 400A breaker is provided in the "MSB" and the meter socket is existing located in Electric Room E201 on the second floor. Refer to Drawing E0.3
- **ITEM 2.4** Question: Drawing E0.3 - Electrical Riser: Please provide the location of new panels MDP, LP1, PP1, and MP1.
Response: Refer to Drawing E2.1.

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- **ITEM 2.5** Question: Drawing E0.3 - Electrical Riser: Please provide the location of the new proposed shaft to serve the rooftop units.
Response: Refer to Drawing E2.1.
- **ITEM 2.6** Question: Drawing E0.2 – Fire Alarm Riser: Please advise on the existing make/ model of the FACP.
Response: Existing fire alarm control panel is Kidde VS4-RD. See attached product data for reference.
- **ITEM 2.7** Question: Please provide an electrical specification for the panelboard SPD's.
Response: Refer to specification revisions for added SPD section.
- **ITEM 2.8** Question: Section 260000 electrical, 2.12 Fire alarm detection system. The specified part #'s appears to be that of simplex; however, JCI/Simplex does not have any records indicating a simplex fire alarm system at this address. Please clarify / advise. If simplex is not the current fire alarm system, please update specification part #'s.
Response: Refer to specification revisions.
- **ITEM 2.9** Question: Drawing T1.2: low voltage riser, please provide the location of the main building demarc panel. Required for the fiber cabling
Response: Communication demarc is located in Electric Room 111.
- **ITEM 2.10** Question: Drawing E0.1, Lighting fixture schedule, does not indicate Types LR24, LR4
Response: Refer to revised drawing E0.1.
- **ITEM 2.11** Question: Drawing E0.1, Lighting fixture schedule, lighting drawings do not indicate any Type LS6 lights. Please confirm this is correct
Response: Refer to revised drawing E0.1
- **ITEM 2.12** Question: Please provide a lighting control specification
Response: Refer to Drawing E0.4 of Addendum #1 for lighting control requirements.
- **ITEM 2.13** Question: On drawing A8.2 Room Finish Schedule and Floor Plans the following rooms have a base finish indicated as Coved CT, 117 Staff Toilet, 122 Toilet (CH), 213A CLRM 213 Toilet, 214A CLRM 214 Toilet, 217A CLRM 217 Toilet, 218A CLRM 218 Toilet, and 220 Staff Toilet. The toilet room elevations on drawing A7.1 have the base in these toilet rooms as (096700) Epoxy Cove Base, which matches the Epoxy Floor in these toilet rooms. Please clarify if the base in these toilet rooms is Coved CT to match the CT wall or (096700) Epoxy Cove Base to match the Epoxy Floor?
Response: Toilet Rooms should have Epoxy Floor with Integral Coved Epoxy Base (by 096700),
- **ITEM 2.14** Question: If the base in the toilet rooms listed in question 1 is Epoxy Cove Base, will a metal cap trim piece be required at the top of the of the 4" Epoxy Cove Base and who will be responsible for said metal cap trim. Please clarify if metal cap trim is required at said base and who is responsible for this metal trim?
Response: Metal cap trim is not required.

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- **ITEM 2.15** Question: On drawing A8.2 Room Finish Schedule and Floor Plans the following room, 215 Custodian is scheduled to receive Coved CT base, and CT walls on all walls. Room 119A Custodian has Epoxy Floor, Coved Epoxy, and Epoxy Painted walls. The room elevations on A6.3, elevations 21A, 21B, 21C, and 21D indicate Epoxy Cove Base and P-Lam Walls. Please clarify if room 215 Custodian requires Coved CT base and CT walls?

Response: Custodian Rooms 119A and 215 should have Epoxy Floor with Integral Coved Epoxy Base (by 096700), and P-Lam Walls.
- **ITEM 2.16** Question: Is a completing Temporary Heating Plan and System required? (Ref. 015000 1.01 G and 1.04 C)

Response: The Work Area will have space heaters provided by the base building. This contract includes removing the space heaters and furnishing and installing a permanent heating system. Contractor is responsible for maintaining continuous heating 015000. See Items 2.36, 2.39, and 2.40 below.
- **ITEM 2.17** Question: Please advise what Security and Protection will be in place by the existing Contractor or Owner of the building? (Ref. 015000 1.02 A)

Response: Entrances to the Work Area/ Tenant Fit-out space will be secured upon execution of the base bid contract. Pre-K Fit-out Contractor is responsible for maintaining that security.
- **ITEM 2.18** Question: Please identify what areas will remain occupied by "others" or what areas will be made available for us to utilize? If occupied, will there will be need for temporary walls/doors to separate occupants. (Ref. 015000 1.02C and 017390 1.21)

Response: The GC will have sole control for all areas within the work area. See Item 2.37 below.
- **ITEM 2.19** Question: Please confirm the GC is to only plow its laydown area, no Snow removal (offsite) is required? (Ref. 015000 1.02J and 017390 1.17)

Response: No exterior laydown area will be provided. See Items 2.38 and 2.42 below.
- **ITEM 2.20** Question: Please confirm the GC has access to onsite parking and that no offsite (rental) is required? (Ref. 015000 1.11 and 017390 1.20)

Response: No exterior laydown area will be available for construction personnel.
- **ITEM 2.21** Question: Should the GC carry the costs for Police Details? (Ref. 015000 1.13)

Response: Required police details shall be coordinated between the GC and the City. Associated costs will be by the City.
- **ITEM 2.22** Question: Please advise on exterior GC logistics/laydown area size and location.

Response: No exterior laydown area will be provided.
- **ITEM 2.23** Question: Is any temporary fire protection or fire alarm required?

Response: Temporary Fire Alarms will be provided by the base building. GC is required to maintain code required continuous fire alarm coverage in accordance with 015000.

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- **ITEM 2.24** Question: Level 4, Aluminum Guardian Screen Model A-GRD-Z exceeds the max size for that product. Please confirm fixed security screen, model A-Pro-28X-Z will be acceptable. (Ref 055314)

Response: If the specified basis of design model cannot be fabricated to fit in the window size, the proposed model with a reveal edge attachment, is acceptable.
- **ITEM 2.25** Question: Throughout the document there is reference to "Fire Watches", we want to confirm that these are "non-uniformed", but certified/trained internal personnel, correct?

Response: Fire watches shall be provided in formats(s) as required by City of Cambridge/ Cambridge Fire Department.
- **ITEM 2.26** Question: Will all materials, scheduled for installation on the 2nd Floor, have to be brought up through the stair case...? or will there be window/loading access directly on the 2nd Floor?

Response: All materials will need to be loaded through exterior and interior doors and brought up to the 2nd level through the interior staircase in the Work Area. No window access will be provided.
- **ITEM 2.27** Question: We are assuming there is no requirements for an onsite Office Trailer and both the GC and City Clerk will be located within the existing building?

Response: Yes. Temporary office facilities for the GC and City Clerk shall be located within the Work Area.
- **ITEM 2.28** Question: There appears to be below grade MEP work, is slab demolition and repair required, if so what is the scope of that work?

Response: No under-slab work is anticipated. Please refer to the Contract Documents for the scope of all work.
- **ITEM 2.29** Question: With regards to the wall pads needed in the Gross Motor room. At the windows, should the wall pads stop short or wrap the corners? I see there are window screens being supplied but not sure how they attach. (Ref. 116623)

Response: The gym safety pads should align with the edge of the window edges, but not wrap the corners. See 9/A4.1 for screen attachment details.
- **ITEM 2.30** Question: With regards to the divider curtain, will additional steel be required or will attachment to soffit studs and at what spacing will be acceptable? (Ref. 116653)

Response: Steel is not expected to be required. Coordinate with manufacturer's requirements.
- **ITEM 2.31** Question: Lower Curtain, Solid...height above the floor as indicated on the drawings. The height doesn't seem to be indicated. Standard is 8'-0" for the vinyl portion. Please advise. (Ref. 116653 2.02C)

Response: Please provide 9'-0" high solid curtain with mesh approximately 6" above.
- **ITEM 2.32** Question: Please confirm floor to floor heights of floors 1 and 2.

Response: Per the base bid drawings, the floor to floor heights of floors 1 and 2 are 12'-0".

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- **ITEM 2.33** Question: Wall types indicate impact board at protection mats. A lot of these mats are on existing walls. Is the drywall going to be removed to install the impacted board? Please clarify.

Response: The perimeter or existing walls do not need to be replaced with impact resistant board. Provide impact resistant wallboard at new walls in the work area where indicated.

PROJECT MANUAL

PART B - SPECIFICATIONS

- **ITEM 2.34** SECTION 015000 - 1.01.D.2: DELETE this line in its entirety, RE-NUMBER successive lines accordingly.
- **ITEM 2.35** SECTION 015000 - 1.01.E.1: DELETE this line in its entirety, RE-NUMBER successive lines accordingly.
- **ITEM 2.36** SECTION 015000 - 1.01.G: DELETE this line in its entirety, RE-NUMBER successive lines accordingly.
- **ITEM 2.37** SECTION 015000 - 1.02.C: DELETE this paragraph in its entirety, RE-NUMBER successive paragraphs accordingly.
- **ITEM 2.38** SECTION 015000 - 1.02.J: DELETE this paragraph in its entirety.
- **ITEM 2.39** SECTION 015000 - 1.04.C.1: At the beginning of this paragraph, ADD the following: "If required by the Work of this Contract, " The rest of the paragraph shall remain unchanged.
- **ITEM 2.40** SECTION 015000 - 1.04.C.2: At the beginning of this paragraph, ADD the following: "There is temporary a temporary heating system in place for this space. If needed, supplement the existing system as required by the Work of this Contract.". The rest of the paragraph shall remain unchanged.
- **ITEM 2.41** SECTION 015000 - 1.04.K: At the end of this paragraph, ADD the following line "3. All chemical toilets shall be located in an exterior location as confirmed by the building owner."
- **ITEM 2.42** SECTION 017390 - 1.17: DELETE this paragraph in its entirety, re-number successive paragraphs accordingly.
- **ITEM 2.43** SECTION 017390 - 1.18: DELETE this paragraph in its entirety, re-number successive paragraphs accordingly.
- **ITEM 2.44** SECTION 017390 - 1.19: DELETE paragraphs A., B., C., D., E., F., & I., RE-NUMBER successive paragraphs accordingly.
- **ITEM 2.45** SECTION 260000 ELECTRICAL, Paragraph 2.12, Sub-Paragraph A.1: ADD "Kidde VS4-RD" after "Provide extension of existing addressable..."

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- **ITEM 2.46** SECTION 260000 ELECTRICAL, Paragraph 2.12, Sub-Paragraph E.1: REVISE “....existing FACP model #4098-9714 with #4098-9792 base.” to read “....existing Kidde FACP model VS4-RD with KI-OSD and KI-SB4 base.”

- **ITEM 2.47** SECTION 260000 ELECTRICAL, Part 2 – Products: ADD the following Paragraph:

“2.15 SURGE PROTECTION

A. Scope

1. This section describes the materials and installation requirements for surge protective devices (SPD) for the protection of all main service and panelboards.

B. Submittals

1. Submit shop drawings and product information for approval and final documentation in the quantities listed according to the Conditions of the Contract. All submittals shall be identified by customer name, customer location, and customer order number.
2. Submittals shall include UL 1449 3rd Edition Listing documentation verifiable by visiting www.UL.com, clicking “Certifications” link, searching using UL Category Code: VZCA and VZCA2:
 - a. Short Circuit Current Rating (SCCR)
 - b. Voltage Protection Ratings (VPRs) for all modes
 - c. Maximum Continuous Operating Voltage rating (MCOV)
 - d. I-nominal rating (I-n)
 - e. SPD shall be UL listed and labeled as Type 1 or Type 4 intended for Type 1 or Type 2 applications
3. Upon request, an unencapsulated but complete SPD formally known as TVSS shall be presented for visual inspection.
4. Minimum of ten year warranty

C. Related Standards

1. IEEE C62.41.1, IEEE Guide on the Surge Environment in Low-Voltage (1000 V and Less) AC Power Circuits,
2. IEEE C62.41.2, IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and Less) AC Power Circuits,
3. IEEE C62.45, IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and Less) AC Power Circuits.
4. National Electrical Code: Article 285
5. UL 1283 - Electromagnetic Interference Filters

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6. UL 1449, Third Edition, effective September 29, 2009 – Surge Protective Devices

D. Quality Assurance

1. Manufacturer Qualifications: Engage a firm with at least 5 years experience in manufacturing transient voltage surge suppressors.
2. Manufacturer shall be ISO 9001 or 9002 certified.
3. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of ten years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.
4. The SPD shall be compliant with the Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC.

E. Delivery, Storage And Handling

1. Handle and store equipment in accordance with manufacturer's Installation and Maintenance Manuals. One copy of this document to be provided with the equipment at time of shipment.

F. Manufacturers

1. Provide an internally mounted Surge Protective Devices (SPD) formerly called Transient Voltage Suppressor (TVSS) by:
 - a. Siemens Industry.
 - b. Current Technology
 - c. LEA
 - d. Liebert
 - e. APT
 - f. Or equal

G. Electrical Distribution Equipment

1. Distribution Panel
 - a. SPD shall be UL 1449 labeled as Type 4 intended for Type 1 or Type 2 applications, verifiable at UL.com, without need for external or supplemental overcurrent controls. Every suppression component of every mode, including N-G, shall be protected by internal overcurrent and thermal overtemperature controls. SPDs relying upon external or supplementary installed safety disconnectors do not meet the intent of this specification.
 - b. SPD shall be factory installed integral to electrical distribution equipment.

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- c. SPD shall be UL labeled with 20kA I-nominal (I-n)
- d. SPD shall be UL labeled with 200kA Short Circuit Current Rating (SCCR).
- e. Standard 7 Mode Protection paths: SPD shall provide surge current paths for all modes of protection: L-N, L-G, L-L, and N-G for Wye systems; L-L, L-G in Delta and impedance grounded Wye systems.
- f. SPD shall be connected to the buss of the distribution equipment with an appropriately sized 200kA SCCR rated disconnect.
- g. SPD shall meet or exceed the following criteria:
 - 1. Maximum 7-Mode surge current capability shall be 100kA per phase.
 - 2. Maximum 10-Mode surge current capability shall be 150kA per phase.
- 2. UL 1449 - Third Edition Revision; effective September 29, 2009, Voltage Protection Ratings shall not exceed the following:

VOLTAGE	L-N	L-G	N-G	L-L	MCOV
240V/120	800V	800V	800V	1200V	150V

- a. UL 1449 Listed Maximum Continuous Operating Voltage (MCOV) (verifiable at UL.com):

System Voltage	Allowable System Voltage Fluctuation (%)	MCOV
240V/120	25%	150V

- b. SPD shall incorporate a UL 1283 listed EMI/RFI filter with minimum attenuation of - 50dB at 100 kHz.
- c. Suppression components shall be heavy duty 'large block' MOVs, each exceeding 30mm diameter.
- d. SPD shall include a serviceable, replaceable module.
- e. SPD shall be equipped with the following diagnostics:
 - 1. Visual LED diagnostics including a minimum of one green LED indicator per phase, and one red service LED.
 - 2. Audible alarm with on/off silence function and diagnostic test function (excluding branch).
 - 3. Form C dry contacts
 - 4. Optional – Surge Counter

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No other test equipment shall be required for SPD monitoring or testing before or after installation.

- f. SPD shall have a response time no greater than 1/2 nanosecond.
- g. SPD shall have a 10 year warranty.

H. Installation

- 1. Install per manufacturer's recommendations and contract documents.

I. Adjustments And Cleaning

- 1. Remove debris from installation site and wipe dust and dirt from all components.
- 2. Repaint marred and scratched surfaces with touch up paint to match original finish.

J. Testing

- 1. Check tightness of all accessible mechanical and electrical connections to assure they are torqued to the minimum acceptable manufacturer's recommendations.
- 2. Check all installed panels for proper grounding, fastening and alignment.

K. Warranty

- 1. Equipment manufacturer warrants that all goods supplied are free of non-conformities in workmanship and materials for one year from date of initial operation, but not more than eighteen months from date of shipment.

DRAWINGS

MECHANICAL (M-) DRAWINGS

- **ITEM 2.48** Sheet A8.2 ROOM FINISH SCHEDULE AND FLOOR PLANS: Replace sheet in its entirety.

DRAWINGS

MECHANICAL (M-) DRAWINGS

- **ITEM 2.49** Sheet M0.2 HVAC – DETAILS I: Replace sheet in its entirety.
- **ITEM 2.50** Sheet M1.2 HVAC – 2ND FLOOR DUCTWORK: Replace sheet in its entirety.
- **ITEM 2.51** Sheet M2.1 HVAC – 1ST FLOOR PIPING: Replace sheet in its entirety.

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- **ITEM 2.52** Sheet M2.2 HVAC – 2ND FLOOR PIPING: Replace sheet in its entirety.

DRAWINGS

ELECTRICAL (E-) DRAWINGS

- **ITEM 2.53** Sheet E0.1 SYMBOL LIST/FIXTURE SCHEDULE: Replace sheet in its entirety.
- **ITEM 2.54** Sheet E0.3 ONE LINE RISER: Add sheet in its entirety.
- **ITEM 2.55** Sheet E2.1 LEVEL 1 POWER/LIGHTING FLOOR PLANS: Add sheet in its entirety.
- **ITEM 2.56** Sheet E2.2 LEVEL 2 POWER/LIGHTING FLOOR PLANS: Replace sheet in its entirety.

ATTACHMENTS

CONTRACT DOCUMENTS

Sheet A8.2 ROOM FINISH SCHEDULE AND FLOOR PLANS
Sheet M0.2 HVAC – DETAILS I:
Sheet M1.2 HVAC – 2ND FLOOR DUCTWORK
Sheet M2.1 HVAC – 1ST FLOOR PIPING
Sheet M2.2 HVAC – 2ND FLOOR PIPING
Sheet E0.1 SYMBOL LIST/FIXTURE SCHEDULE
Sheet E0.3 ONE LINE RISER
Sheet E2.1 LEVEL 1 POWER/LIGHTING FLOOR PLANS
Sheet E2.2 LEVEL 2 POWER/LIGHTING FLOOR PLANS

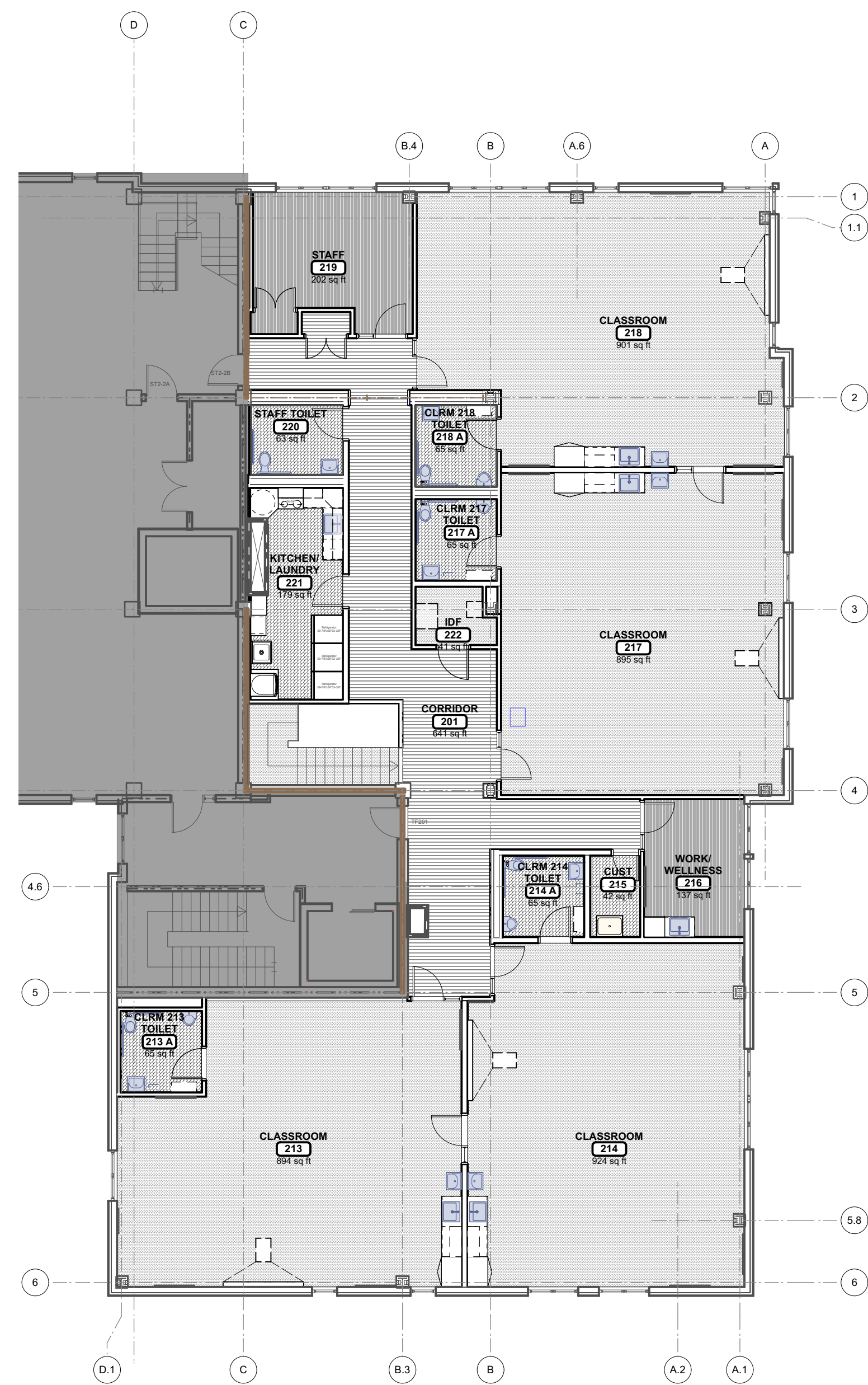
FOR REFERENCE ONLY

BASE BUILDING SITE PLAN A-100
BASE BUILDING HVAC PLANS H-101, H-102, H-107
BASE BUILDING FIRE ALARM SUBMITTAL EXCERPT
BASE BUILDING FIRE PROTECTION SHOP DRAWINGS EXCERPT

End of Addendum No. 2

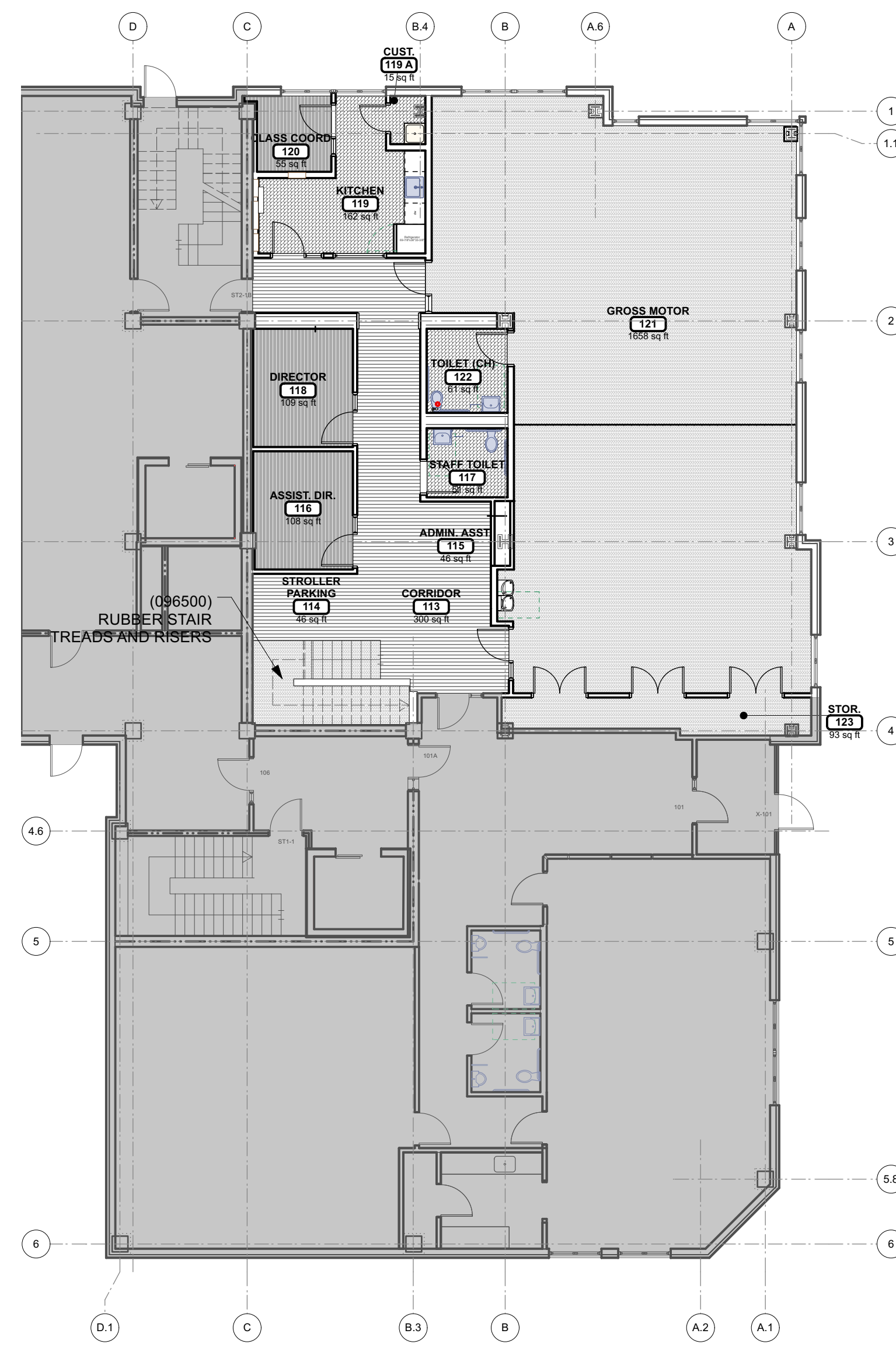
ROOM FINISH SCHEDULE

Room No.	Room Name	Floor	Base		Walls				Ceiling				Notes		
			Mat'l	Fin.	North(A)	East(B)	South(C)	West(D)	Mat'l	Fin.	Mat'l	Fin.			
113	CORRIDOR		VQT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT/GWB	PAINT(GWB)	P-LAM WAINSCOTING 4', GWB CEILING AND SOFFIT IS PAINTED
114	STROLLER PARKING		VQT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
115	ADMIN. ASST.		VQT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
116	ASSIST. DIR.		CPT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
117	STAFF TOILET		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
118	DIRECTOR		CPT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
119	KITCHEN		EPOXY	COVERED EPOXY	GWB	EPOXY PAINT	GWB	EPOXY PAINT	GWB	EPOXY PAINT	GWB	EPOXY PAINT	ACT	-	
119 A	CUST.		EPOXY	COVERED EPOXY	PLAM	-	PLAM	-	PLAM	-	PLAM	-	ACT	-	
120	CLASS COORD		CPT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
121	GROSS MOTOR		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	SOFT WALL PANELS/ ACOUSTIC WALL PANELS
122	TOILET (CH)		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
123	STOR.		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
201	CORRIDOR		VQT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
201	CORRIDOR		-	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
201A	CLOS.		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
213	CLASSROOM		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
213	CLASSROOM														
213 A	CLRM 213 TOILET		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
214	CLASSROOM		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
214 A	CLRM 214 TOILET		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
215	CUST		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
216	WORK/ WELLNESS		CPT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
217	CLASSROOM		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
217 A	CLRM 217 TOILET		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
218	CLASSROOM		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	P-LAM WAINSCOTING 4'
218 A	CLRM 218 TOILET		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
219	STAFF		CPT	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
219A	CLOS.		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	
220	STAFF TOILET		EPOXY	COVERED EPOXY	CT	-	CT	-	CT	-	CT	-	ACT	-	
221	KITCHEN/ LAUNDRY		EPOXY	COVERED EPOXY	PLAM	-	PLAM	-	PLAM	-	PLAM	-	ACT	-	
222	IDF		RUBBER	RESIL	GWB	PAINT	GWB	PAINT	GWB	PAINT	GWB	PAINT	ACT	-	



3 LEVEL 2 FLOOR FINISHES
Scale: 3/32" = 1'-0"

LEGEND:
 ■ BASE BUILDING/NOT IN SCOPE
 ■ CPT
 ■ EPOXY
 ■ RUBBER
 ■ VQT



2 LEVEL 1 FLOOR FINISHES
Scale: 3/32" = 1'-0"

LEGEND:
 ■ BASE BUILDING/NOT IN SCOPE
 ■ CPT
 ■ EPOXY
 ■ RUBBER
 ■ VQT

**JOHNSON
ROBERTS**
ASSOCIATES INC.
ARCHITECTS

24 DANE STREET
SOMERVILLE, MA
02143 - 3228

REV.	DATE	DESCRIPTION
01	30-Oct-2023	Addendum #1
02	10-Nov-2023	Addendum #2

**Rindge
Commons
Pre-K**
430 & 432 RINDGE AVE,
Cambridge, MA 02140

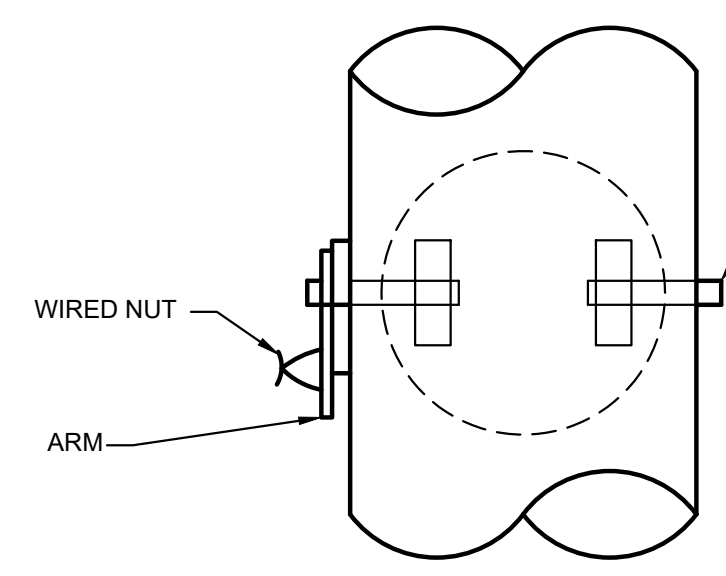
Sheet Title
**ROOM FINISH
SCHEDULE AND
FLOOR PLANS**

Date: 10/12/2023 Drawn By: SH
Project No: 23006

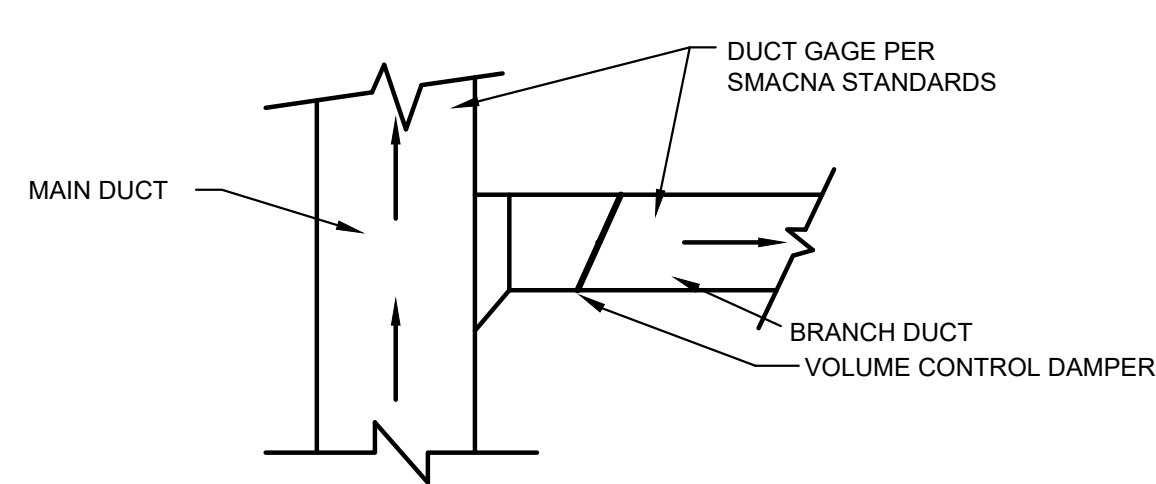
Sheet No.

A8.2

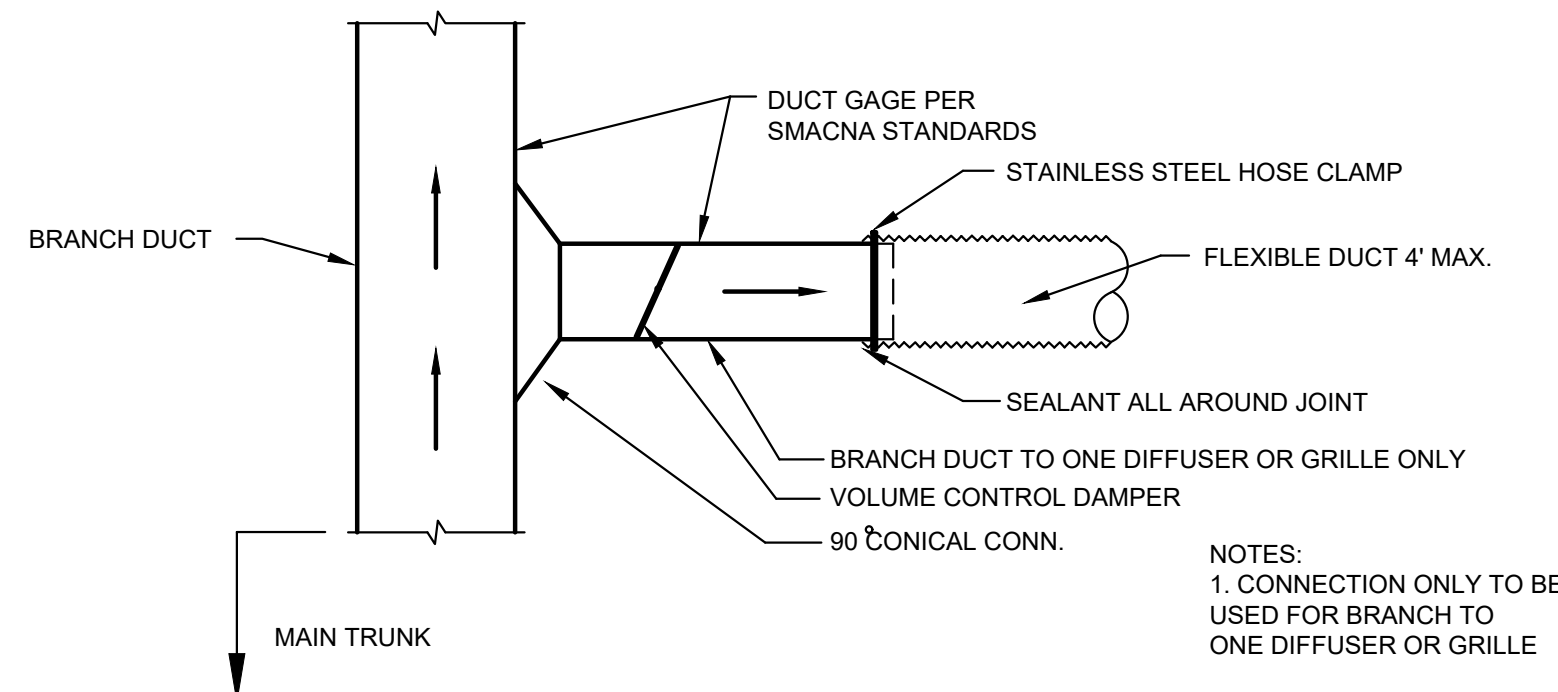
BID DOCUMENTS



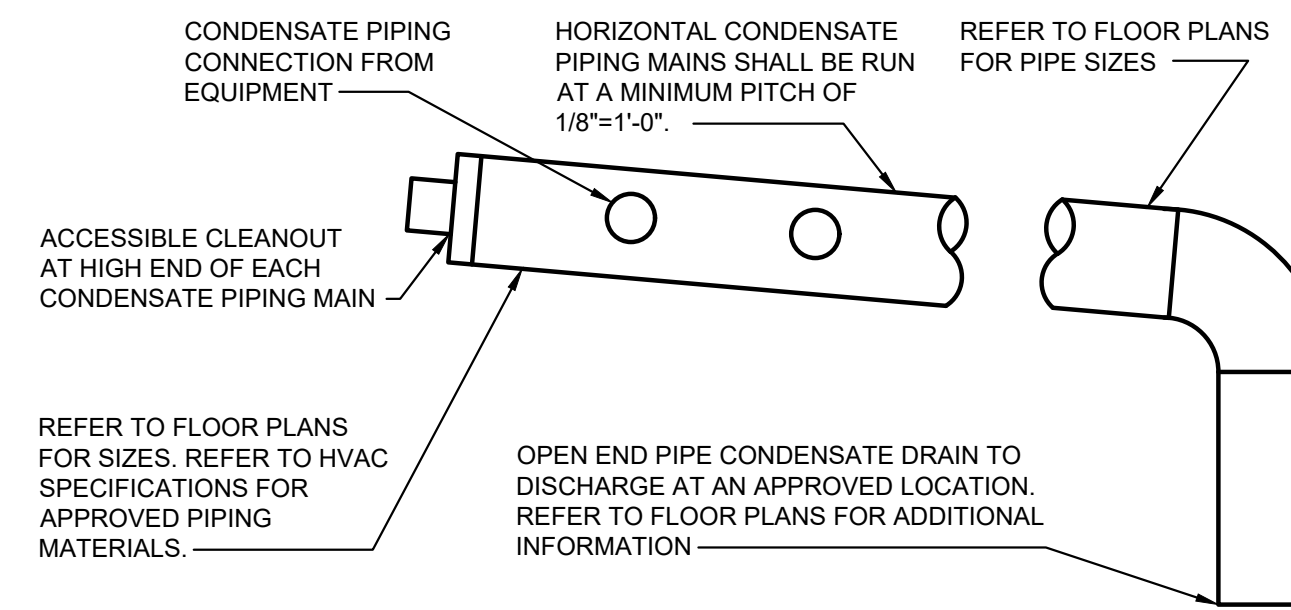
VOLUME DAMPER
(NOT TO SCALE)



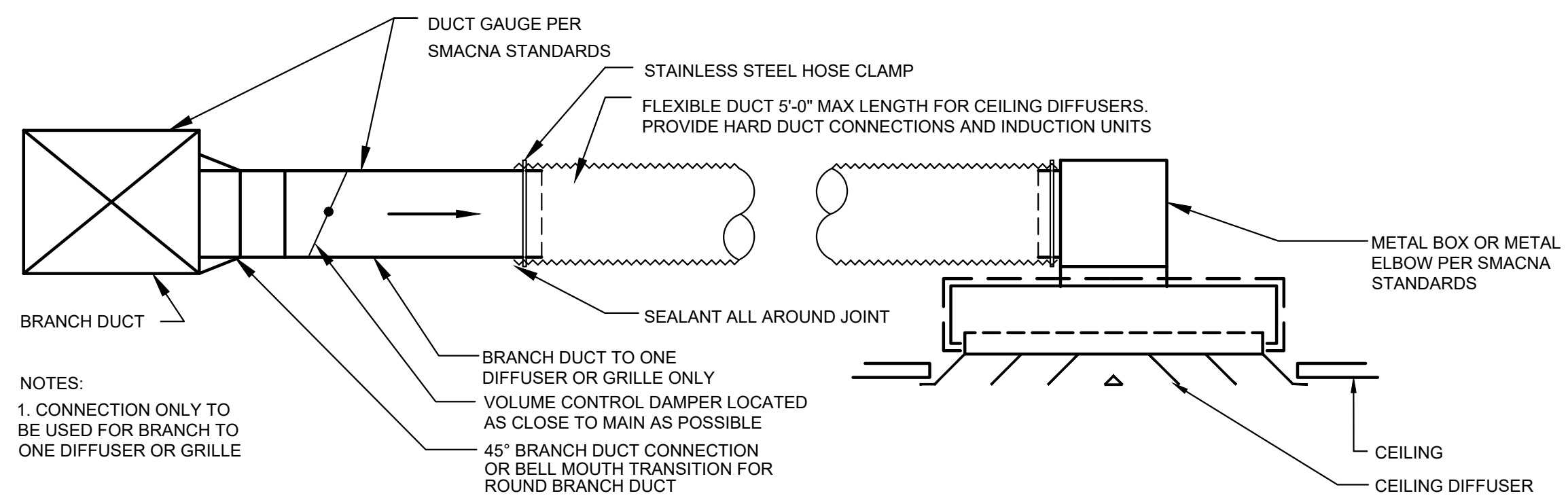
BRANCH DUCT CONNECTION TO MAIN
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DIFFUSER/GRILLE CONNECTION TO BRANCH
(NOT TO SCALE)



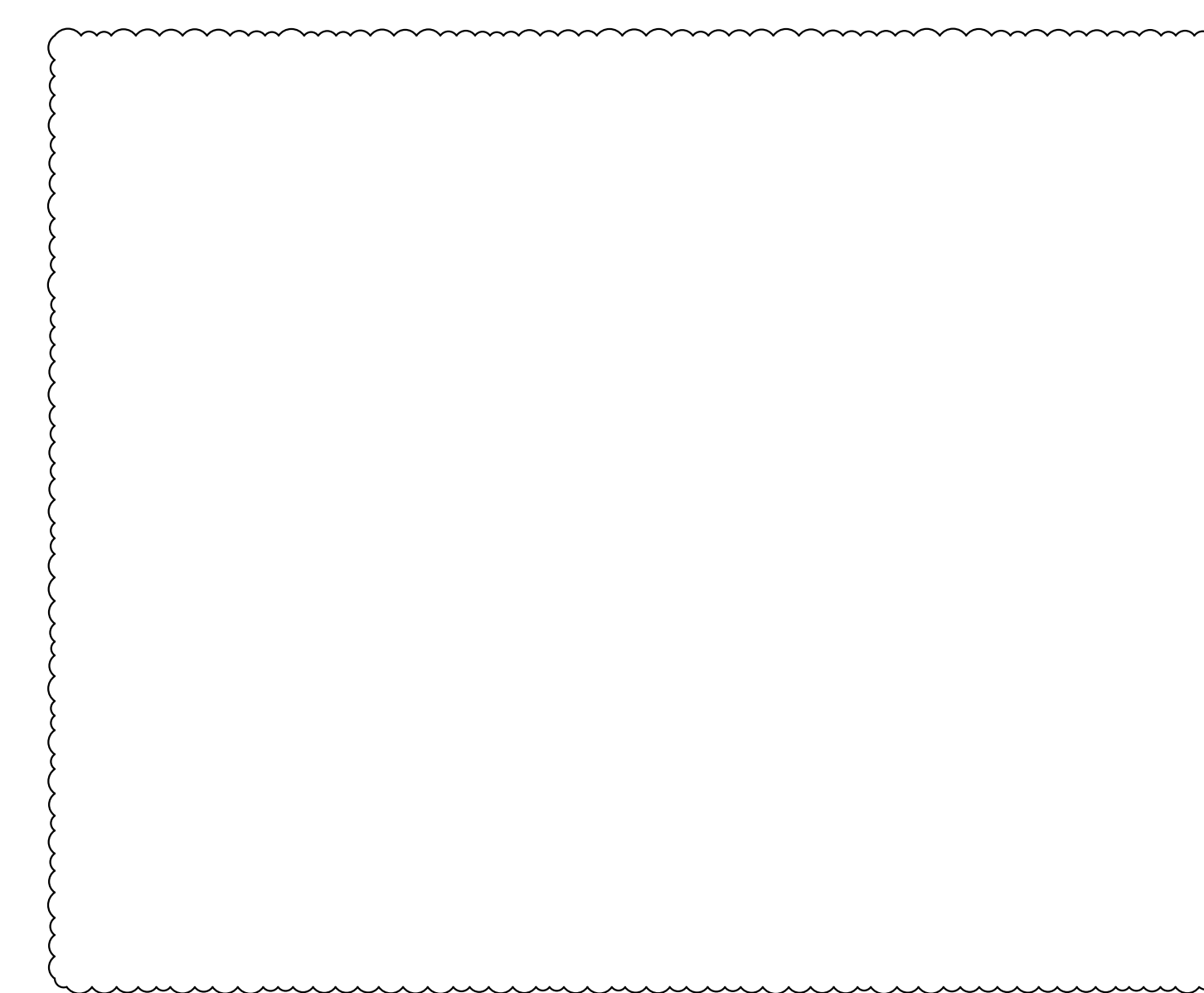
CONDENSATE PIPING DETAIL
NO SCALE



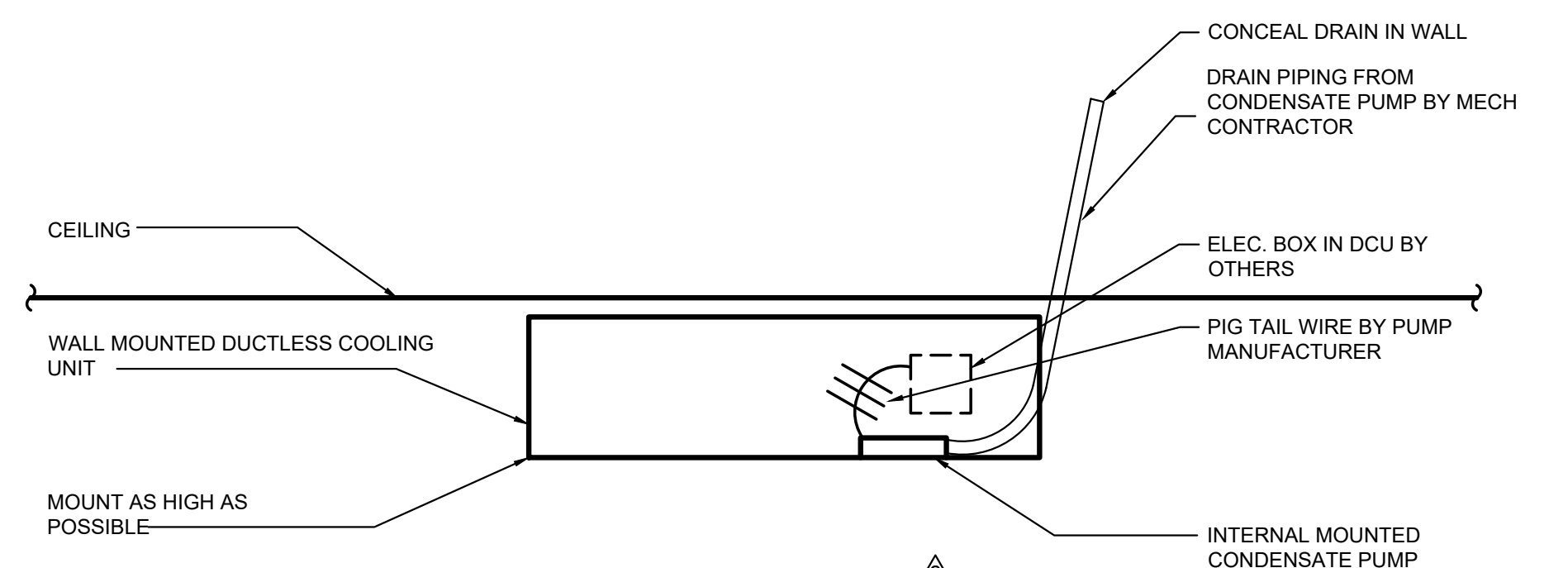
DIFFUSER/GRILLE CONNECTION TO BRANCH
(NOT TO SCALE)



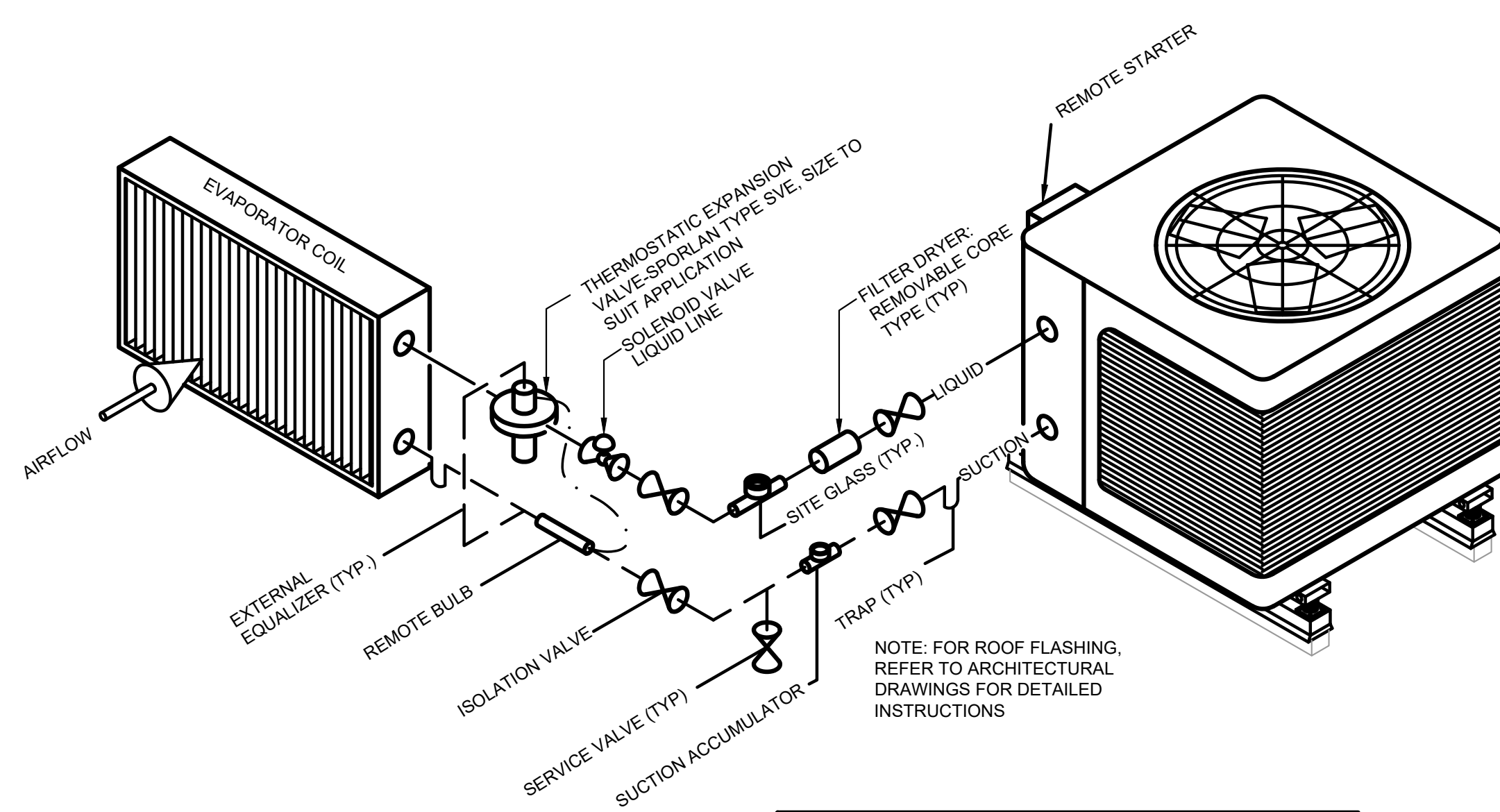
REFRIGERANT PIPE ROOF PENETRATION HOUSING
(NOT TO SCALE)



TYPICAL TEE DUCT CONNECTION
(NOT TO SCALE)



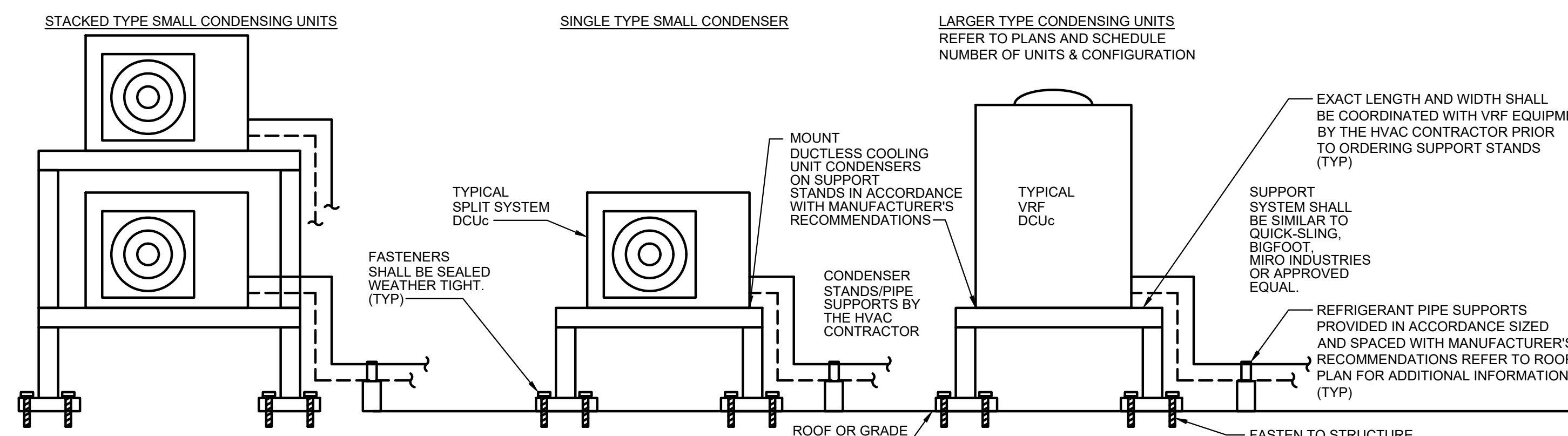
HEAT PUMP UNIT DRAIN DETAIL (HPU)
NOT TO SCALE



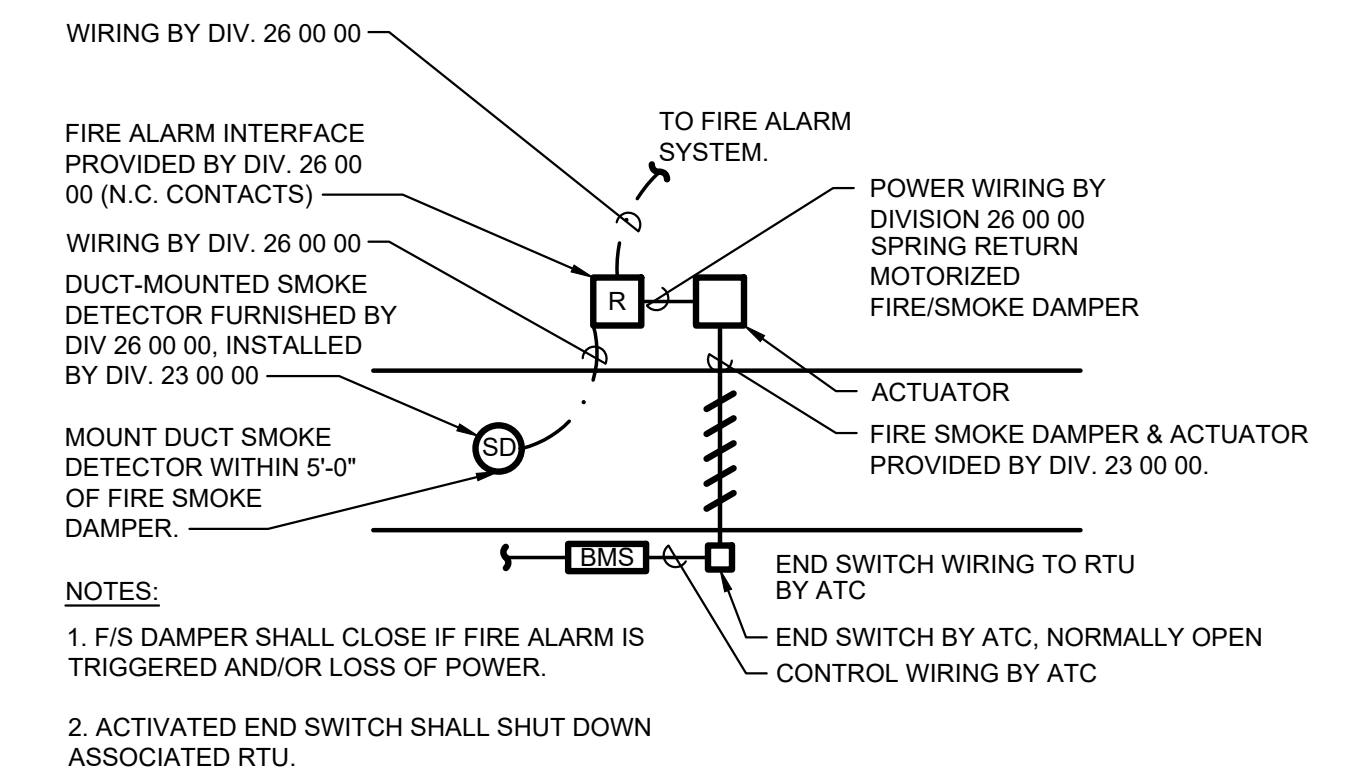
REFRIGERANT PIPING DIAGRAM
(NOT TO SCALE)

REFRIGERANT PIPING: PROVIDE SUCTION LINES WITH ISOLATION VALVE, SUCTION ACCUMULATOR AND CHARGING CONNECTION. LIQUID LINE WITH SITE GLASS HAVING DOUBLE PORTS WITH GAPS, FILTER DRYER, ISOLATION VALVES AND CHARGING CONNECTION. INSULATE PER SPECIFICATIONS. SIZING PER MANUFACTURER. PROVIDE ALUMINUM JACKET ON EXTERIOR PIPING.

PIPING INDICATED IS FOR SINGLE CIRCUIT. CONTRACTOR SHALL PROVIDE ADDITIONAL PIPING, VALVES, INSULATION, ETC FOR ADDITIONAL CIRCUITS & HOT GAS BYPASS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GUIDELINE REQUIREMENTS. CONFIRM, VERIFY & COORDINATE W/ UNIT MANUFACTURER FOR ALL PIPING & INSTALLATION REQUIREMENTS.



VRF OUTDOOR EQUIPMENT SUPPORT SYSTEM
(NOT TO SCALE)



FIRE/SMOKE DAMPER DETAIL
(NOT TO SCALE)



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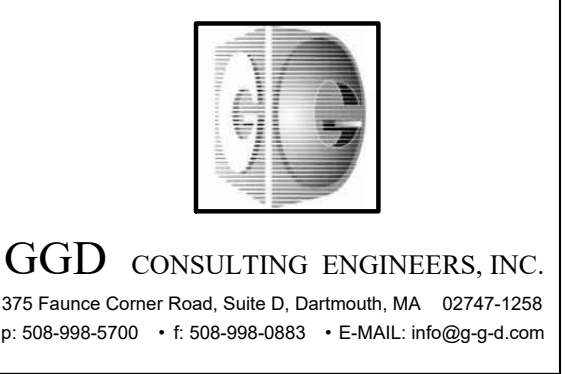
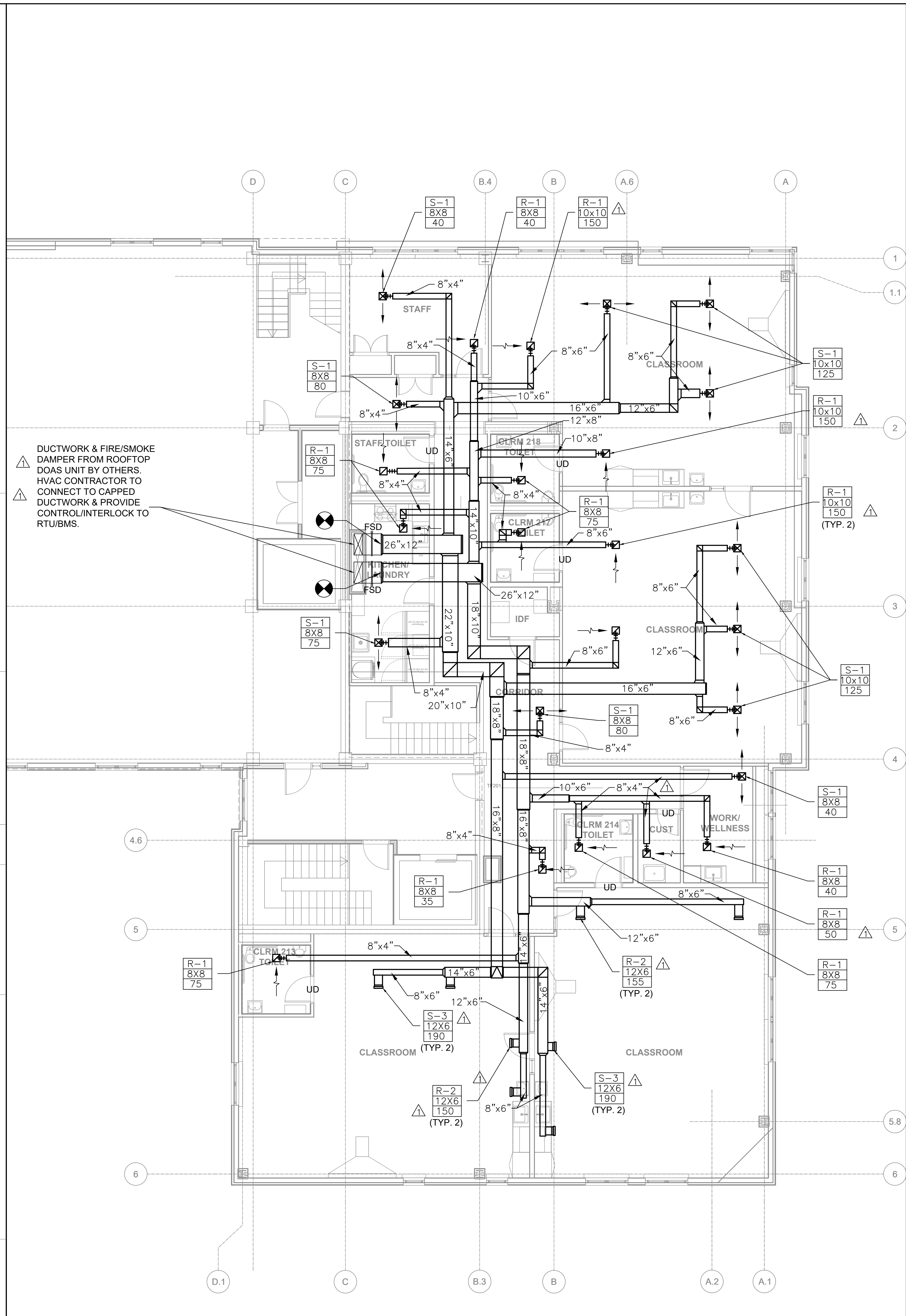
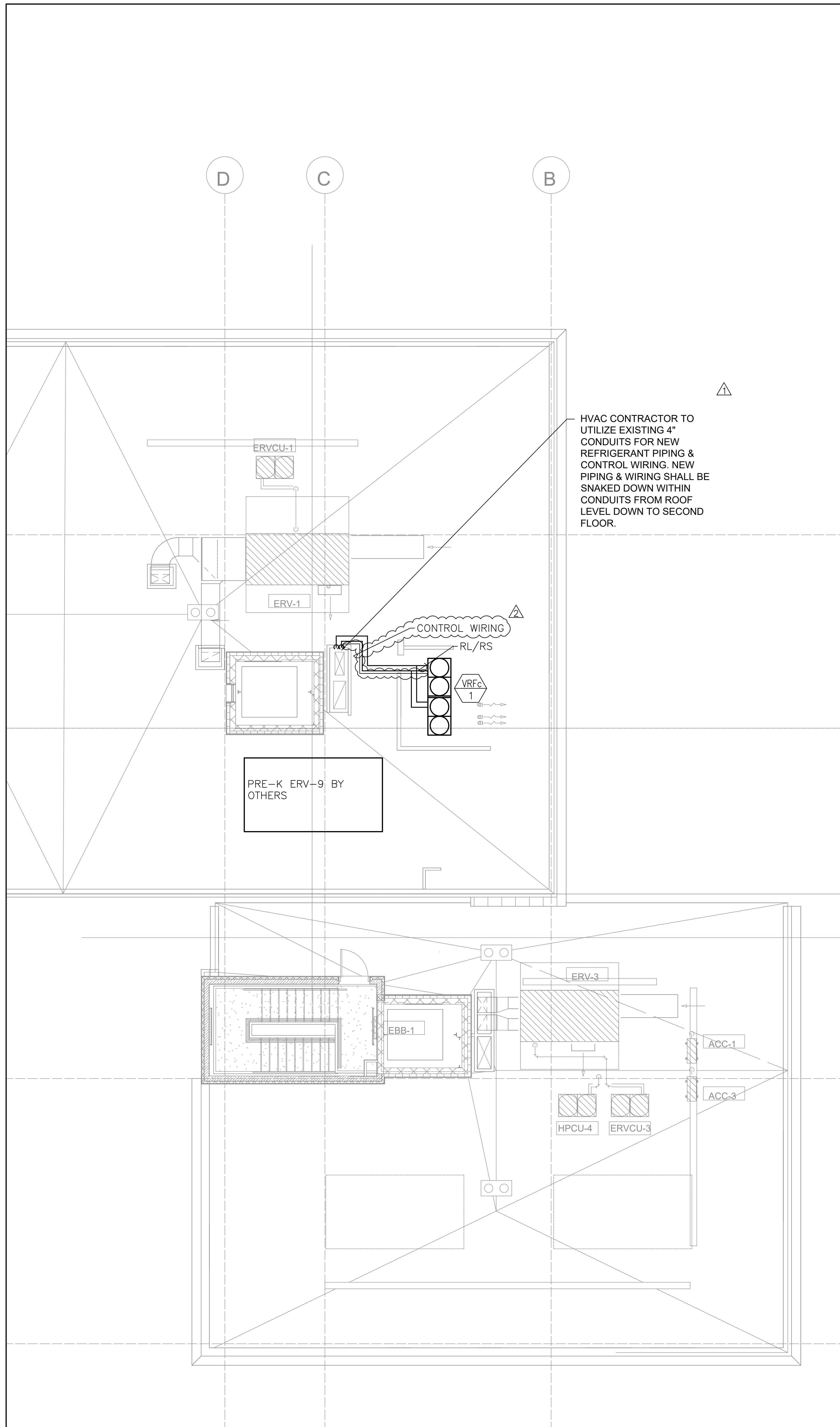
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2	11-10-2023	ADDENDUM #2

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Sheet Title
HVAC - DETAILS I

Date: 12-Oct-2023 Drawn By: MJM
Project No: 23006 Scale: NTS

Sheet No.
M0.2



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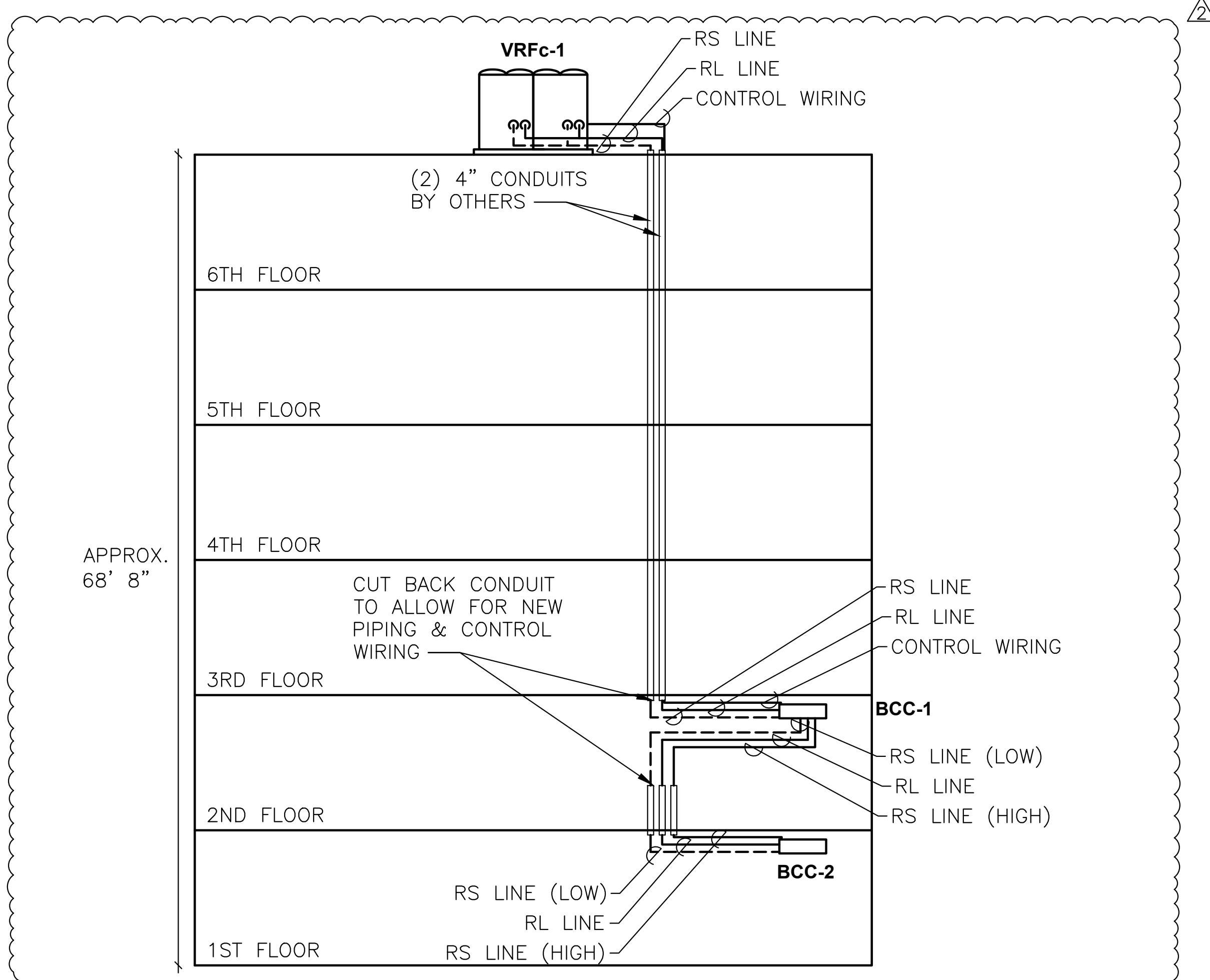
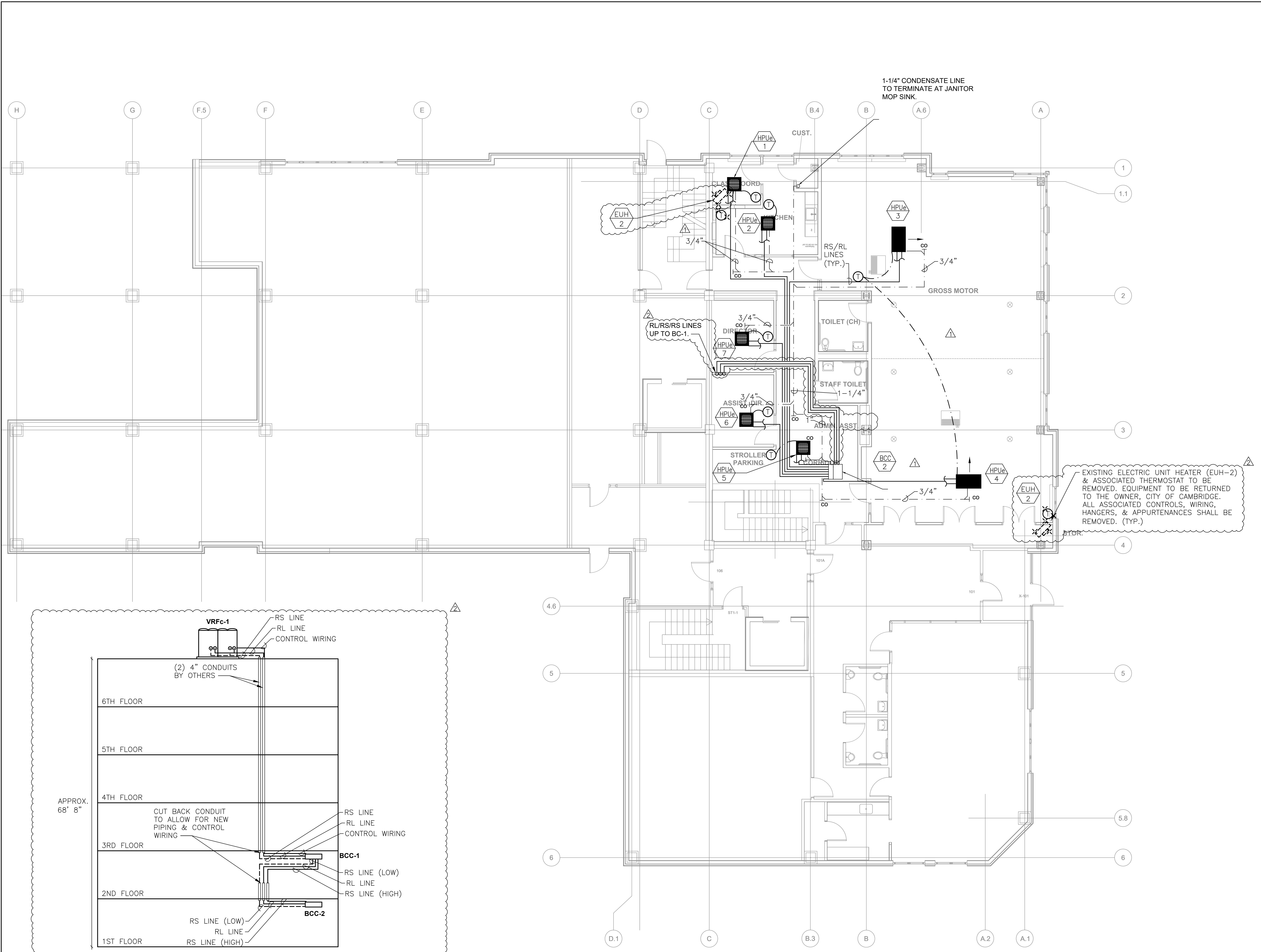
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Commons
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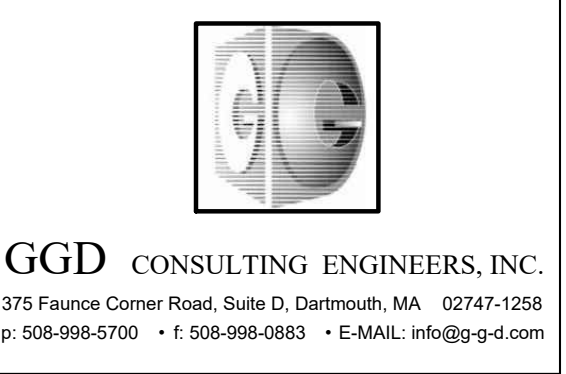
Sheet Title
**HVAC - 2ND
FLOOR
DUCTWORK**

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Project No: 23006 Scale: 3/16" = 1' 0"

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M1.2



REFRIGERANT RISER DIAGRAM
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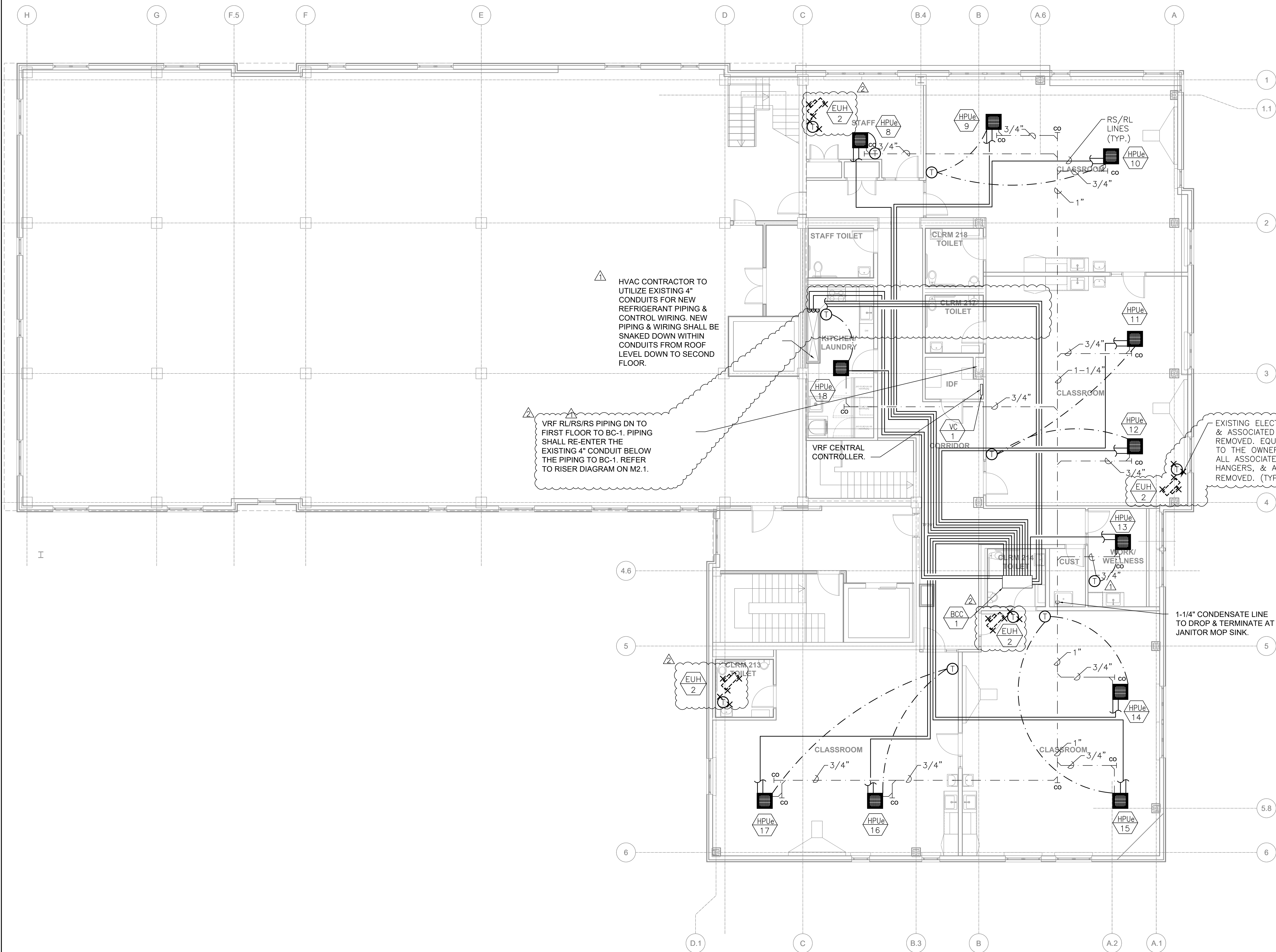
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Sheet Title
**HVAC - 1ST
FLOOR PIPING**

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Sheet No.
M2.1

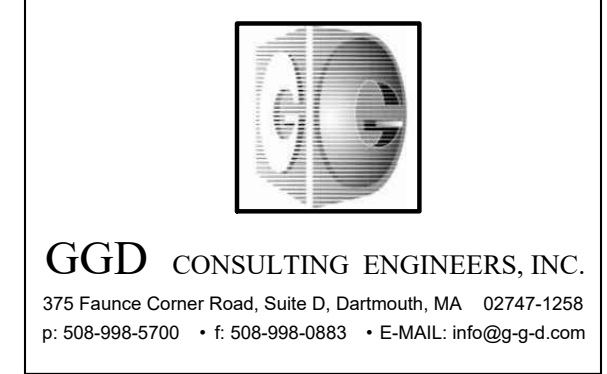


HVAC CONTRACTOR TO UTILIZE EXISTING 4" CONDUITS FOR NEW REFRIGERANT PIPING & CONTROL WIRING. NEW PIPING & WIRING SHALL BE SNAKED DOWN WITHIN CONDUITS FROM ROOF LEVEL DOWN TO SECOND FLOOR.

VRF RL/RS/RS PIPING DN TO FIRST FLOOR TO BC-1. PIPING SHALL RE-ENTER THE EXISTING 4" CONDUIT BELOW THE PIPING TO BC-1. REFER TO RISER DIAGRAM ON M2.1.

EXISTING ELECTRIC UNIT HEATER (EUH-2) & ASSOCIATED THERMOSTAT TO BE REMOVED. EQUIPMENT TO BE RETURNED TO THE OWNER, CITY OF CAMBRIDGE. ALL ASSOCIATED CONTROLS, WIRING, HANGERS, & APPURTENANCES SHALL BE REMOVED. (TYP.)

1-1/4" CONDENSATE LINE TO DROP & TERMINATE AT JANITOR MOP SINK.



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HVAC - 2ND FLOOR PIPING

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Project No: 23006 Scale: 3/16" = 1' 0"

Sheet No.
M2.2

SYMBOL LIST

LEGEND NOTES:

A. THIS SHEET IS A GENERAL LIST OF SYMBOLS AND ABBREVIATIONS AND SHALL BE USED AS A DICTIONARY TO DEFINE ITEMS INDICATED ON DRAWINGS. NOT ALL SYMBOLS OR ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT. ALL EQUIPMENT IS TO BE PROVIDED UNDER THIS SECTION UNLESS SPECIFICALLY INDICATED OTHERWISE.

LIGHTING FIXTURES (see lighting fixture schedule)

LED LIGHT FIXTURE, CEILING MOUNTED SURFACE OR RECESSED.

EMERGENCY BATTERY UNIT WITH INTEGRAL HEADS.

SINGLE FACE INTERNALLY LIT EXIT SIGN, DIRECTIONAL INDICATORS OF THE 'CHEVRON' TYPE AS INDICATED ON DRAWINGS.

SWITCHES (typically mtd 48" AFF @ u.n.o)

SINGLE POLE SWITCH-"a" DESIGNATES SWITCH CONTROL (LOWER CASE).

LIGHTING CONTROLS

- ALCS LOCAL SWITCHING / DIMMING STATION - REFER TO DETAIL SHEET E0.4.
- ALCS LOCAL ZONE SWITCHING / DIMMING STATION - REFER TO DETAIL SHEET E0.4.
- ALCS CEILING OCCUPANCY SENSOR - REFER TO DETAIL SHEET E0.4.
X = SPECIAL TYPE DESIGNATION E.G. (WG) WIRE GUARD)
a = OCCUPANCY SENSOR ZONE CONTROL
- ALCS CEILING PHOTO SENSOR - REFER TO DETAIL SHEET E0.4.

WIRE AND RACEWAYS

WIRING AND RACEWAY - NO. OF DIAGONAL LINES INDICATES NO. #12 AWG CONDUCTORS. ABSENCE OF DIAGONAL LINES INDICATES 2 #12 AWG+#12AWG GROUND UNLESS NOTED OTHERWISE. GROUND WIRE IS NOT SHOWN IN COUNT BUT SHALL BE PROVIDED.

HOMERUN TO PANEL - NO. OF ARROWS INDICATES NO. OF 20 AMP/1 POLE CIRCUITS TO PANEL - UNLESS NOTED OTHERWISE.

FLEXIBLE CONNECTION TO EQUIPMENT

EXISTING EQUIPMENT

DOTTED DENOTES EXISTING EQUIPMENT.

X EXISTING EQUIPMENT & ASSOCIATED RACEWAY TO BE REMOVED AND CIRCUIT PULLED BACK TO NEXT ACTIVE OUTLET/BACK TO PANEL.

XM EXISTING EQUIPMENT TO REMAIN.

XR EXISTING EQUIPMENT TO BE REMOVED AND RELOCATED.

XL NEW LOCATION OF RELOCATED EXISTING EQUIPMENT.

XN EXISTING EQUIPMENT TO BE REMOVED AND NEW EQUIPMENT INSTALLED IN SAME LOCATION.

POWER

120/208 VOLT, 3 PHASE, 4 WIRE PANELBOARD.

JUNCTION BOX - SIZE AS REQUIRED.

EQUIPMENT CONTROL PANEL.

PULL BOX - SIZE AS REQUIRED.

JUNCTION BOX - SIZE AS REQUIRED.

FUSED DISCONNECT SWITCH HEAVY DUTY TYPE-"3R" INDICATES NEMA 3R

20—INDICATES TIME DELAY FUSE SIZE.
30—INDICATES SAFETY SWITCH SIZE

HORSEPOWER RATED THERMAL SWITCH WITH PILOT LIGHT

MOTORIZED FIRE/SMOKE DAMPER-F&I BY HVAC, WIRED BY E.C. TO POWER & FIRE ALARM SYSTEM.

SECURITY SYSTEM

DOME HIGH RESOLUTION IP CAMERA BY OWNERS SECURITY VENDOR. E.C. TO PROVIDE SINGLE GANG OPENING AND 4"SQ.X2 1/2"DP. J.B. & 3/4" CONDUIT WITH PULL STRING TO ACCESSIBLE ABOVE CEILING SPACE AT EACH LOCATION.
WP=WEATHERPROOF
180= MULTI-HEAD CAMERA
M=MICROPHONE
C=CELL CORNER MOUNT CAMERA
LPR = LICENCE PLATE READER

EXTERIOR DOOR VIDEO INTERCOM STATION AND LICENSE BY EC, INTERFACE TO INTERCOM SYSTEM TO ALLOW FOR RECORDING, CAMERA CALL-UP IF EXTERIOR INTERCOM STATIONS ARE ACTIVATED. COORDINATE AS REQUIRED WITH SUPPLIER. DUAL GANG BOX, 3/4" CONDUIT & PULL STRING TO NEAREST ACCESSIBLE CEILING SPACE BY E.C.

DOOR INTERCOM MASTER STATION AND LICENSE, PROVIDED BY EC. SINGLE GANG BOX, 3/4" CONDUIT & PULL STRING TO NEAREST ACCESSIBLE CEILING SPACE BY E.C.

FIRE ALARM SYSTEM

MANUAL PULL STATION - MTD 48" AFF TO C.

VISUAL "ADA" COMPLIANT SIGNAL - MTD 80" AFF TO C.

HORN/VISUAL "ADA" COMPLIANT SIGNAL - MTD 80" AFF TO C.

ADDRESSABLE CEILING MOUNTED PHOTOELECTRIC SMOKE DETECTOR.

ADDRESSABLE CEILING MOUNTED PHOTOELECTRIC SMOKE DETECTOR ALSO USED FOR ELEVATOR RECALL.

FIRE ALARM CONTROL PANEL.

MONITOR MODULE

CONTROL MODULE

ISOLATION MODULE

RECEPTACLES (typically mtd. at 18" a.f.f., uno)

TYPICAL OUTLET NOTATIONS

"a" = SWITCHED OUTLET, "a" - INDICATES SWITCH CONTROL.

"C" = MOUNTED 6" ABOVE COUNTER OR 42" AFF. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECTURAL DRAWINGS.

"F" = FURNITURE MTD, COORDINATE EXACT LOCATION WITH FURNITURE PLANS.

"GFI" = GROUND FAULT INTERRUPTER TYPE.

"TL" = TWIST LOCK TYPE.
"WP" = WEATHERPROOF RECEPTACLE WITH "NRTL" LISTED COVERPLATE FOR WET LOCATION WITH GFI TYPE RECEPTACLE INSTALLED IN NEMA 4 ENCLOSURE W/KEY LOCK.

"P" = PEDESTAL MOUNTED ON CASEWORK WITH GFI RECEPTACLE. COORDINATE WITH EQUIPMENT DRAWINGS FOR EXACT LOCATION.

20 AMP, 120 VOLT DUPLEX RECEPTACLE; "2" INDICATES CIRCUIT NUMBER. TAMPER RESISTANT, CHILDPROOF

MISCELLANEOUS-DEVICES

DETAIL IDENTIFIER-INDICATES DETAIL #1 ON DWG. E-3.

GENERAL NOTES: (APPLIES TO ALL DRAWINGS)

- ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH OSHA, NFPA STANDARDS, THE ELECTRICAL CODE AND THE LOCAL GOVERNING AUTHORITIES. THE DRAWINGS AND SPECIFICATIONS DO NOT ATTEMPT TO INDICATE ALL WORK REQUIRED BY CODES AND AUTHORITIES.
- TEST ALL EQUIPMENT AND SYSTEMS INSTALLED TO CERTIFY COMPLIANCE WITH DRAWINGS, SPECIFICATIONS, CODES, LOCAL AUTHORITIES AND REGULATIONS. INCLUDE LABOR AND COSTS FOR TESTING, REVIEWS, APPROVALS AND CERTIFICATIONS.
- DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION, MOUNTING HEIGHTS OF EQUIPMENT AND ROUTING OF RACEWAYS SHALL BE COORDINATED WITH THE EQUIPMENT REQUIREMENTS AND FIELD CONDITIONS.
- FURNISH AND INSTALL ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE ELECTRICAL WORK COMPLETE AND READY FOR OPERATION.
- SUPPORT ALL WORK FROM THE BUILDING STRUCTURE.
- ALL MOUNTING HEIGHTS ARE TO CENTERLINE UNLESS OTHERWISE INDICATED.
- IF EXACT MOUNTING OR RACEWAY ROUTINGS ARE NOT INDICATED (LOCATION OR HEIGHT) REQUEST CLARIFICATION PRIOR TO ROUGHING, OR INSTALLATION.
- DO NOT INSTALL OUTLETS BACK TO BACK. PROVIDE 24 INCH SPACING IN FIRE RATED WALLS.
- PROVIDE ELECTRICAL OUTLET PLATE GASKET SEALS AT RECEPTACLES, SWITCHES AND OTHER ELECTRICAL BOXES ON EXTERIOR WALLS AND INTERIOR WALLS BETWEEN CONDITIONED AND NON-CONDITIONED SPACES.
- INSTALL A GREEN GROUNDING CONDUCTOR WITHIN EACH RACEWAY SIZED IN ACCORDANCE WITH THE ELECTRIC CODE.
- PROVIDE WATERTIGHT AND GAS TIGHT SEALS INSIDE AND OUTSIDE OF CONDUITS THAT PENETRATE THE BUILDING BELOW GRADE, O.Z. GEDNEY OR APPROVED EQUAL. PROVIDE WEATHER TIGHT SEAL AT PENETRATIONS ABOVE GRADE.
- PROVIDE NRTL LISTED SMOKE AND FIRE SEALS AT ALL PENETRATIONS THROUGH FLOORS OR FULL HEIGHT (SLAB TO SLAB) WALLS.
- PROVIDE A PULL LINE IN EVERY EMPTY CONDUIT PROVIDED UNDER THIS SECTION.

ABBREVIATIONS

A AMPERE
AF AMP, FRAME
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AIC INTERRUPTING CAPACITY
ARCH ARCHITECT
AT AMP TRIP
ATC AUTO-TEMP CONTROL CONTRACTOR
ATS AUTOMATIC TRANSFER SWITCH
AWG AMERICAN WIRE GAUGE
C CONDUIT (GENERIC TERM FOR RACEWAY. PROVIDE AS SPECIFIED)
CATV CABLE TELEVISION
CB CIRCUIT BREAKER
CKT CIRCUIT
CLG CEILING
CU COPPER
C CENTERLINE
DP DEEP
DWG DRAWING
EC ELECTRICAL CONTRACTOR
EMT ELECTRIC METALLIC TUBING
FA FIRE ALARM
F&I FURNISHED AND INSTALLED
G.GND GROUND
GC GENERAL CONDITIONS
GFI GROUND FAULT INTERRUPTER
HVAC HEATING, VENTILATING, AND AIR CONDITIONING CONTRACTOR
HP HORSEPOWER
IMC INTERMEDIATE METALLIC CONDUIT
IT INFORMATION TECHNOLOGY CONTRACTOR
JB JUNCTION BOX
KCMIL THOUSAND CIRCULAR MILS
KVA KILO-VOLT AMPERE
KW KILO-WATT
LTG LIGHTING
MCB MAIN CIRCUIT BREAKER
MCC MOTOR CONTROL CENTER
MCM THOUSAND CIRCULAR MILS
MDP MAIN DISTRIBUTION PANEL
MH MOUNTING HEIGHT
MLO MAIN LUGS ONLY
MTD MOUNTED
MTG MOUNTING
NIC NOT IN CONTRACT
NO.# NUMBER
NTS NOT TO SCALE
P POLE(S)
PB PULL BOX
PH,Ø PHASE
PVC POLY-VINYL CHLORIDE CONDUIT
PWR POWER
RGS RIGID GALVANIZED STEEL CONDUIT
SN SOLID NEUTRAL
SWBD SWITCHBOARD
T/D TELEPHONE/DATA
TYP TYPICAL
UNO UNLESS NOTED OTHERWISE
WG WIRE GUARD
WP WEATHERPROOF
XFMR TRANSFORMER
@72" MOUNT 72 INCHES TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE

LIGHTING FIXTURE SCHEDULE

ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH ALL HARDWARE, LAMPS, HANGERS, FITTING, ETC., FOR A COMPLETE AND PROPER INSTALLATION.

TYPE	MANUFACTURER	CATALOG NO.	MTG.	VOLTAGE	LIGHT SOURCE			REMARKS
					LUMENS	WATTS	TYRE	
LR4	ELITE	4-OC1-LED-3000L-DIM10-MVOLT-35K-85	R	UNIVERSAL	500/ft	4.5/ft	LED/3500K	4" LINEAR RECESSED LED FIXTURE.
LR22	TCP	DTF2UZD2335K	R	UNIVERSAL	2600	23	LED/3500K	2' X 2' RECESSED LED FIXTURE.
LR24	TCP	DTF4UZD4635K	R	UNIVERSAL	5100	46	LED/3500K	2' X 4' RECESSED LED FIXTURE.
LS2	TCP	TCPGPS2UZDA835K	S	UNIVERSAL	2600	20	LED/3500K	2' UTILITY FIXTURE WITH FROSTED ACRYLIC DIFFUSING LENS. PROVIDE CHAIN FOR PENDANT MOUNTING WHERE NECESSARY.
LS4	TCP	TCPGPS4UZDA835K	S	UNIVERSAL	4200	32	LED/3500K	4' UTILITY FIXTURE WITH FROSTED ACRYLIC DIFFUSING LENS. PROVIDE CHAIN FOR PENDANT MOUNTING WHERE NECESSARY.
	EVENLITE LIGHTING	SOV-AC-G-1M-XX-XX-XX-FT-XX	U	UNIVERSAL	-	-	LED/3500K	SINGLE FACED LED EDGE LIT EXIT SIGN WITH GREEN LETTERING COORDINATE CHEVRONS WITH ARCHITECTURAL CODE PLAN.
	MULE LIGHTING	SO-LED-W-SD	W	120	N/A	-	LED	EMERGENCY BATTERY UNIT

FIXTURE MANUFACTURER OPTIONS (OR EQUAL)

(A) WILLIAMS, PHILIPS, LITHONIA (B) KENALL, PINNACLE, BIRCHWOOD

NO.	TRIP FRAME		CIRCUIT	FEEDER SIZE	COND. SIZE	REMARKS
	TRIP	FRAME				
1	100	100	PANEL LP1	#1 & #0G	1 1/2"	-
2	200	225	PANEL MP1	#3/0 & #4G	2"	-
3	200	225	PANEL PP1	#3/0 & #4G	2"	-
4	50	60	VRF-1	#8 & #10G	1"	-
5	100	100	ROOF VRF	SEE RISER	2"	-
6	100	100	ROOF VRF	SEE RISER	2"	-
7	100	100	SPARE	-	-	-

① SEE TRANSFORMER SCHEDULE FOR CONDUIT AND WIRE SIZE.

PANEL NO.	LOCATION	MTG	MAIN BUS AMPS	MAIN CB	BRANCH CKT BREAKER (AMPS)									TOTAL POLES	OTHERS	
					1 POLE			2 POLE			3 POLE					
					15	20	30	15	20	30	15	20	30			60
PP1	MAIN ELEC RM 139	R	225	200	-	35	-	-	-	-	-	-	-	1	42	-
MP1	MAIN ELEC RM 139	R	225	200	-	22	-	-	4	4	-	-	-	1	84	(14) 50/2
LP1	ELECTRIC ROOM 144	R	100	100	-	20	-	-	-	-	-	-	-	1	30	-

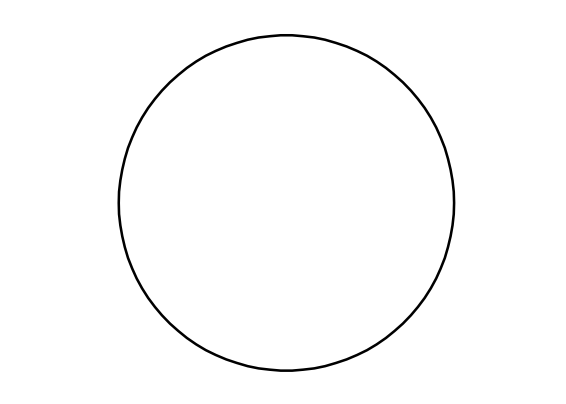
① SINGLE TUB DOUBLE HEIGHT PANEL



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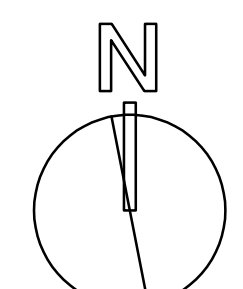
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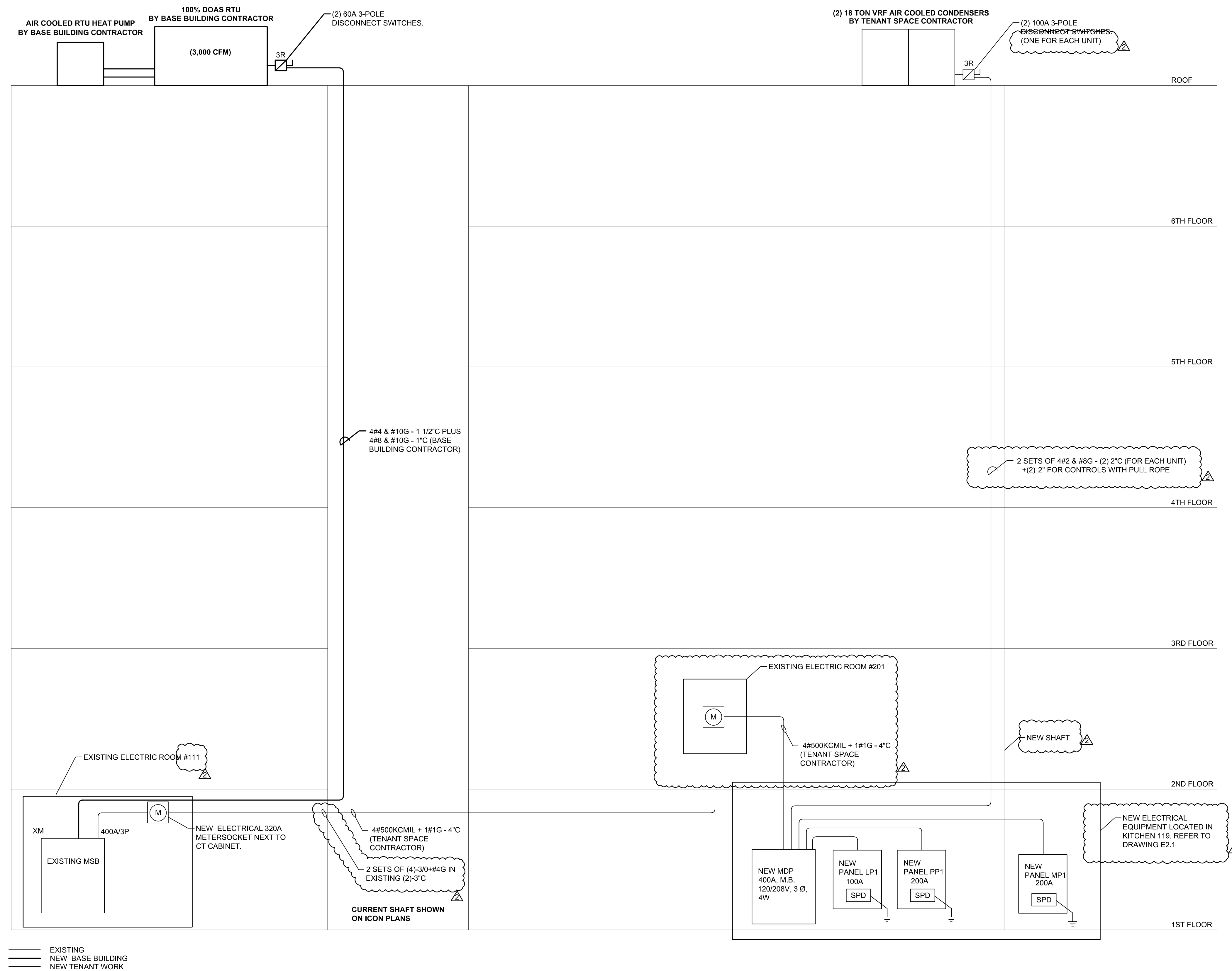
SYMBOL LIST/ FIXTURE SCHEDULE

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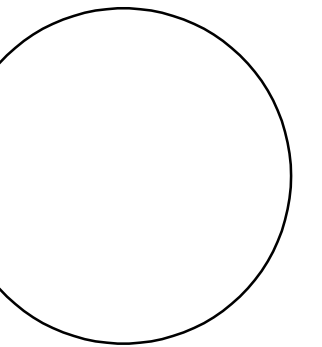
1 ELECTRICAL ONE LINE RISER
E0.3 SCALE: NTS



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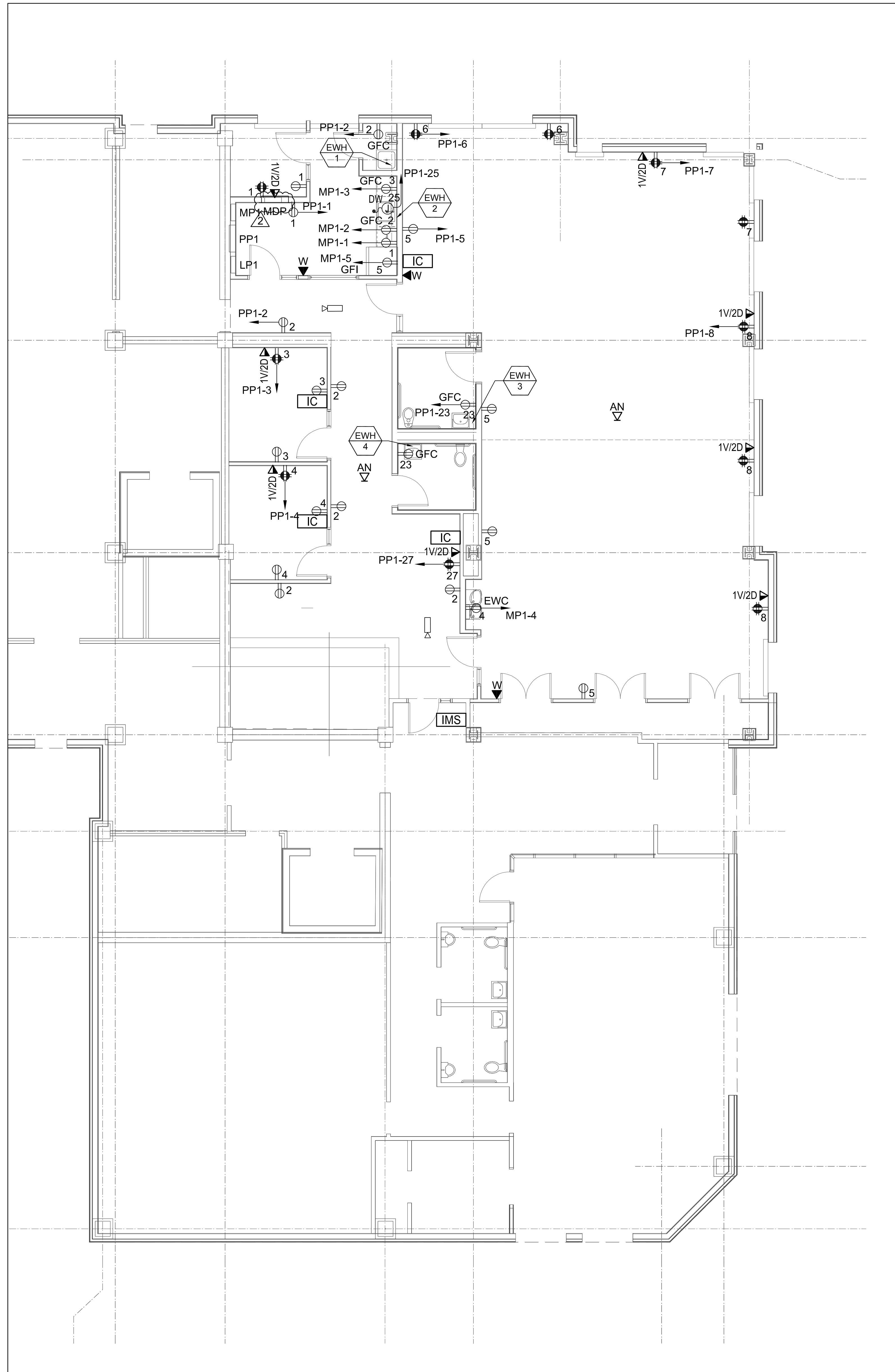
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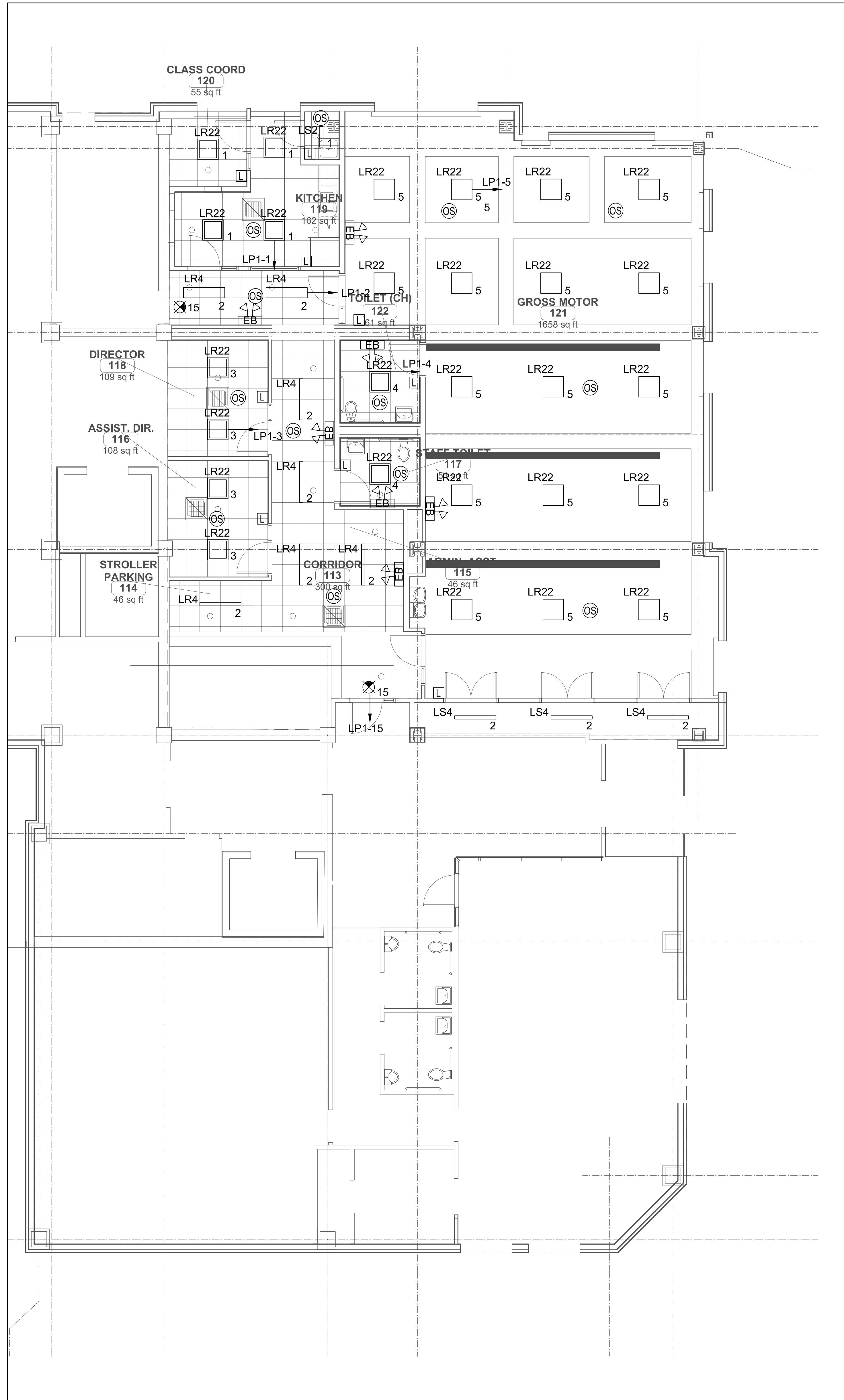
Sheet Title
ONE LINE RISER

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Sheet No.
E0.3



1 LEVEL 1 - POWER PLAN
E2.1 SCALE: 3/16"=1'-0"



2 LEVEL 1 - RCP
E2.1 SCALE: 3/16"=1'-0"

GENERAL POWER NOTES

- COORDINATE EXACT LOCATION OF ALL DEVICES AND EQUIPMENT WITH ARCHITECT PRIOR TO INSTALLATION.
- REFER TO MECHANICAL AND PLUMBING PLANS FOR ANY CHANGES AND FOR EXACT LOCATION OF ALL HVAC EQUIPMENT.
- WIRING IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
- WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
- ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
- ALL BRANCH CIRCUIT CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER MINIMUM #12 AWG SIZE, THW/THHN INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED. MC CABLE IS ALLOWED WHERE CONCEALED AND ALLOWED BY CODE.
- REFER TO FIRE PROTECTION PLANS FOR ANY CHANGES AND FOR EXACT LOCATION OF ALL FLOW SWITCH, TAMPER SWITCH, ETC.
- DO NOT PENETRATE STAIRS WITH ANY UTILITIES EXCEPT FOR UTILITIES SPECIFICALLY SERVING THAT STAIR.
- WHERE CONDUITS AND/OR BOXES CANNOT BE FLUSH MOUNTED IN BUILDING PROVIDE A SYSTEM OF SURFACE METAL RACEWAYS AND BOXES IN ACCORDANCE WITH ARTICLE 386, EQUAL TO WIREMOLD FOR ALL FINISH SPACES WHERE PUBLIC HAS ACCESS, INCLUDING CORRIDORS, TOILETS, OFFICES, CONFERENCE ROOMS, ETC.
- CONFIRM RATINGS & FINAL LOCATIONS OF EQUIPMENT WITH OWNER PRIOR TO ROUGHING.
- ALL OUTLETS ON EXTERIOR WALLS WITH CASEWORK SHALL BE MOUNTED ABOVE CASEWORK, CONFIRM HEIGHT OF CASEWORK WITH HVAC AND ARCHITECT PRIOR TO ROUGHING.
- TYPICALLY PROVIDE GROUND FAULT INTERRUPTER TYPE RECEPTACLES WITH 6 FEET OF WATER SOURCES.
- PROVIDE ALL EMPTY CONDUITS WITH PULL-STRINGS.
- TYPICALLY PROVIDE (3) 4" SLEEVES OVER EACH CORRIDOR DOOR, PROVIDE (2) 2" THROUGHWALL SLEEVE ABOVE CEILING OVER THE DOORS INTO EACH ROOM LEADING FROM THE CORRIDOR OR OPEN AREAS FOR COMMUNICATIONS/DATA WIRING.

GENERAL LIGHTING NOTES

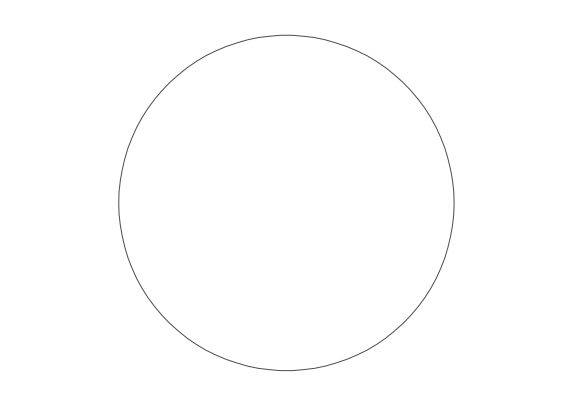
- EXACT LOCATIONS OF ALL FIXTURES AND DEVICES SHALL BE FULLY COORDINATED WITH ARCHITECTURAL PLANS, ELEVATIONS, SECTIONS AND THE WORK OF OTHER TRADES PRIOR TO ROUGH-IN.
- WIRING AND CONDUIT OR MC CABLE SHALL BE REQUIRED BETWEEN ALL LIGHTING FIXTURES, SWITCHES, DIMMERS, SENSORS, POWER PACKS, RELAYS, AND OTHER AUXILIARY DEVICES. WIRING AND CONDUIT OR MC CABLE IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS. IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT AND CONTROL WIRING SYSTEM BE INSTALLED.
- ALL BRANCH CIRCUIT CONDUCTORS SHALL BE 98% CONDUCTIVITY, COPPER MINIMUM #12 AWG SIZE, THW/THHN INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED.
- UTILITIES SHALL NOT PENETRATE STAIR ENCLOSURES, ELEVATOR SHAFTS, AND MACHINE ROOMS EXCEPT WHERE SPECIFICALLY SERVING THAT STAIR OR ELEVATOR.
- METAL ROOF DECKS SHALL NOT BE TAPPED FOR SUPPORT OF ANY LIGHTING FIXTURES OR ELECTRICAL EQUIPMENT. PROVIDE UNISTRUT OR OTHER SUPPLEMENTAL SUPPORT FITTINGS TO BE ATTACHED TO BUILDING STRUCTURAL FRAMING AS REQUIRED FOR SUPPORT OF ALL LIGHTING FIXTURES AND ELECTRICAL EQUIPMENT.
- ALL EXPOSED CONDUITS, RACEWAYS, WIREWAYS, BOXES, FITTINGS AND SIMILAR COMPONENTS SHALL BE PAINTED TO MATCH SURROUNDING FINISH WITH EQUAL TYPE PRODUCT(S).
- ALL OCCUPANCY AND DAYLIGHT HARVESTING PHOTOSENSORS SHALL BE LOCATED IN COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR EACH INDIVIDUAL SPACE. E.C. SHALL PROVIDE A CEILING PLAN LOCATING ALL SENSORS WHICH HAS BEEN FULLY COORDINATED WITH THE WORK OF OTHER TRADES FOR FINAL REVIEW AND APPROVAL. E.C. SHALL PROVIDE THE SENSOR VENDOR(S) WITH ALL INFORMATION REQUIRED TO FULLY UNDERSTAND THE CONDITIONS OF EACH SPACE.
- INDIRECT AND DIRECT/INDIRECT FIXTURES SHALL BE SUSPENDED WITH AIRCRAFT CABLE TO PROVIDE A MINIMUM CLEARANCE 18" FROM THE CEILING TO TOP OF EACH FIXTURE. FIELD CONDITIONS REQUIRING A SHORTER SUSPENSION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER PRIOR TO COMMENCING WITH FIXTURE INSTALLATIONS.
- FIXTURES ON PLANS SHALL BE PROVIDED WITH 0-10V DIMMING DRIVER(S) OR LIGHT ENGINE(S) AS REQUIRED FOR LED SOURCES SPECIFIED TO BE CONTROLLED VIA A 0-10V SIGNAL FROM THE ALCS, DAYLIGHT HARVESTING PHOTOSENSORS, THEATRICAL DIMMING SYSTEM OR OTHER CONTROLS.
- REFER TO "LIGHTING CONTROL SYSTEM (LCS) - TYPICAL ONE LINE DIAGRAM" AND SPECIFICATIONS FOR DETAILED LIGHTING CONTROL REQUIREMENTS.
- ALL EXTERIOR EQUIPMENT, FIXTURES, AND DEVICES SHALL BE RATED IP65 (MINIMUM) AND BE CONSTRUCTED OF STAINLESS STEEL AND/OR MARINE GRADE ALUMINUM SUITABLE FOR COASTAL ENVIRONMENT APPLICATION. PAINTED FINISHES SHALL HAVE PASSED A MINIMUM 5,000 HOUR SALT SPRAY TEST.
- ALL EXTERIOR EQUIPMENT, FIXTURES, AND DEVICES SHALL BE RATED IP65 (MINIMUM) AND BE CONSTRUCTED OF STAINLESS STEEL AND/OR MARINE GRADE ALUMINUM SUITABLE FOR COASTAL ENVIRONMENT APPLICATION. PAINTED FINISHES SHALL HAVE PASSED A MINIMUM 5,000 HOUR SALT SPRAY TEST.
- CENTER OCCUPANCY & PHOTO SENSORS IN CEILING TILES.
- CIRCUIT ALL EXIT SIGNS & EBUS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ALL SWITCHING.
- ALL EXIT SIGN SHOWN ON THIS PLAN SHALL BE CIRCUITED TO "LP-23"



GGD CONSULTING ENGINEERS, INC.
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p: 508-998-5700 • f: 508-998-0853 • e:MAIL: info@ggd.com

JOHNSON ROBERTS ASSOCIATES INC.
ARCHITECTS

24 DANE STREET
SOMERVILLE, MA
02143 - 3228



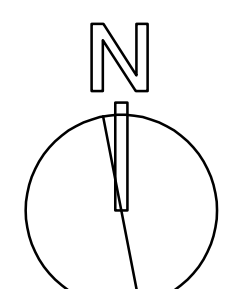
REV.	DATE	DESCRIPTION
-	10-10-2023	BID DOCUMENTS
1	10-26-2023	ADDENDUM #1
2	11-10-2023	ADDENDUM #2

Rindge Commons Pre-K
430 & 432 RINDGE AVE,
Cambridge, MA 02140

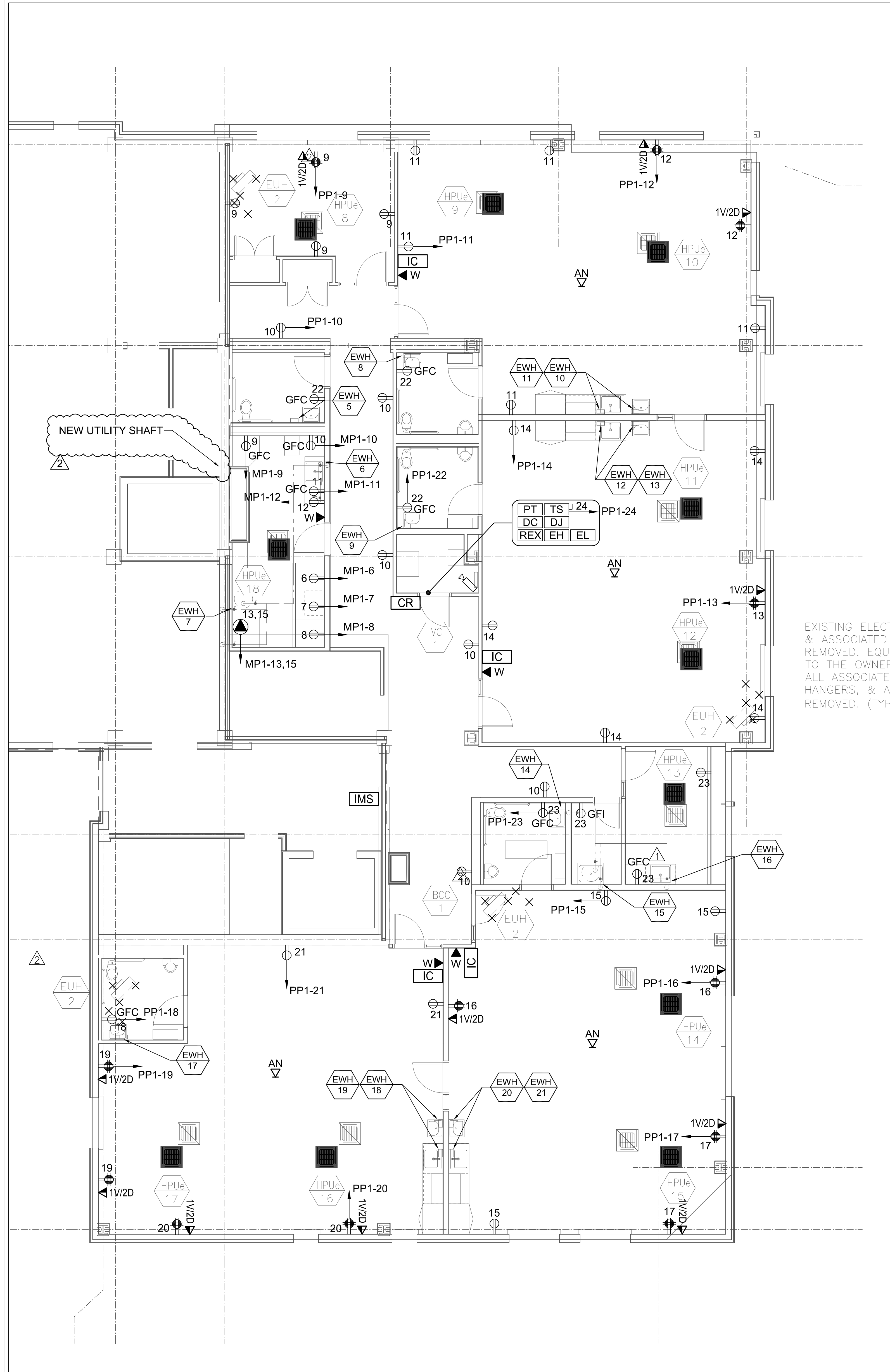
Sheet Title
**LEVEL 1
POWER/LIGHTING
FLOOR PLANS**

Date: 12-Oct-2023 Drawn By: TV
Project No: 23006 Scale:

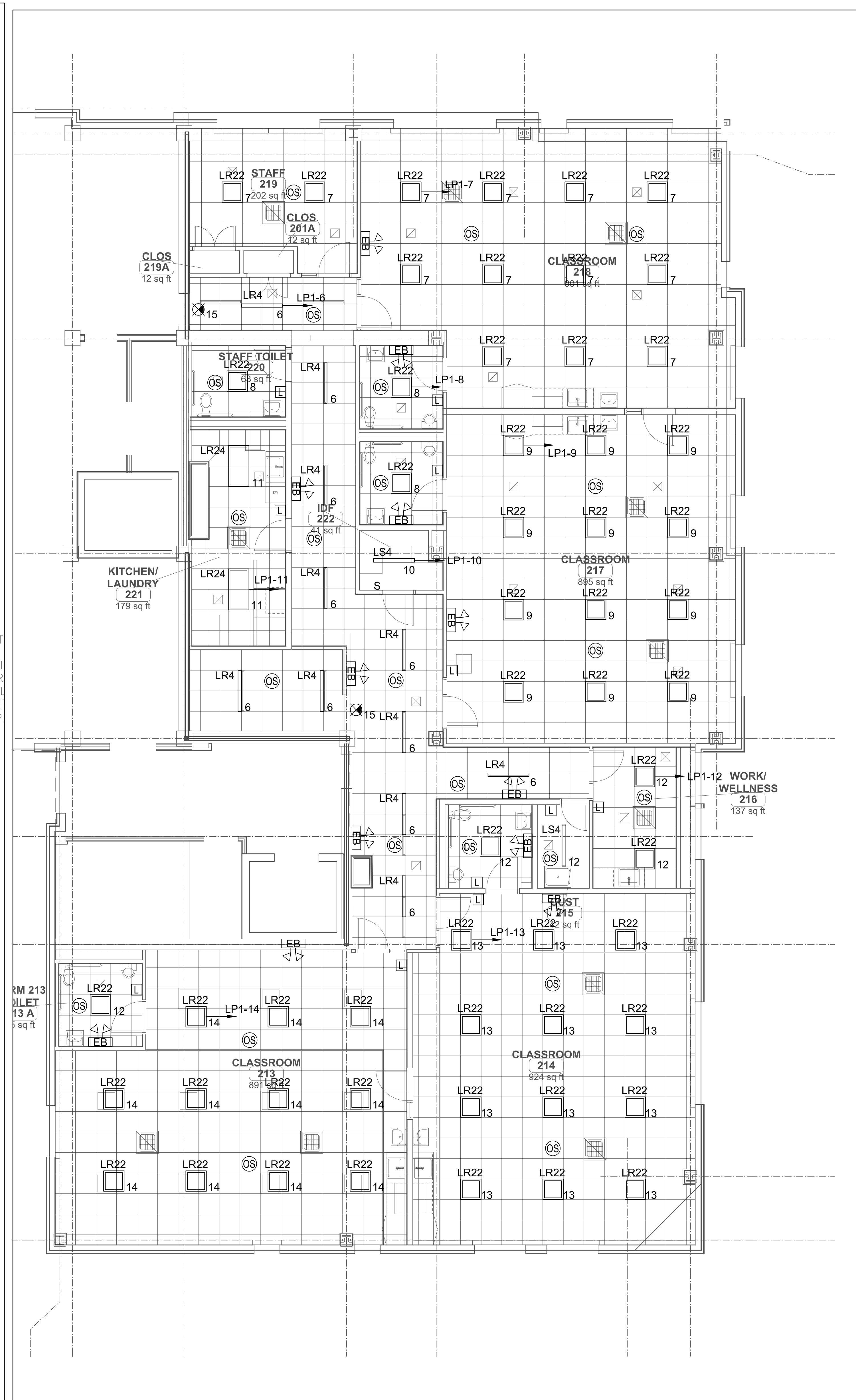
Sheet No.



E2.1



1 LEVEL 2 - POWER PLAN
E2.2 SCALE: 3/16"=1'-0"



2 LEVEL 2 - RCP
E2.2 SCALE: 3/16"=1'-0"

GENERAL POWER NOTES

- COORDINATE EXACT LOCATION OF ALL DEVICES AND EQUIPMENT WITH ARCHITECT PRIOR TO INSTALLATION.
- REFER TO MECHANICAL AND PLUMBING PLANS FOR ANY CHANGES AND FOR EXACT LOCATION OF ALL HVAC EQUIPMENT.
- WIRING IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS.
- WIRING AND CONDUIT SHALL BE REQUIRED BETWEEN ALL OUTLETS INDICATED WITH CIRCUIT NUMBERS AND PANEL DESIGNATIONS.
- ALTHOUGH ALL BRANCH CIRCUIT WIRE AND CONDUIT IS NOT SHOWN, IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT WIRING SYSTEM BE INSTALLED.
- ALL BRANCH CIRCUIT CONDUCTORS SHALL BE 8% CONDUCTIVITY, COPPER MINIMUM #12 AWG SIZE, THW/THHN INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED. MC CABLE IS ALLOWED WHERE CONCEALED AND ALLOWED BY CODE.
- REFER TO FIRE PROTECTION PLANS FOR ANY CHANGES AND FOR EXACT LOCATION OF ALL FLOW SWITCH, TAMPER SWITCH, ETC.
- DO NOT PENETRATE STAIRS WITH ANY UTILITIES EXCEPT FOR UTILITIES SPECIFICALLY SERVING THAT STAIR.
- WHERE CONDUITS AND/OR BOXES CANNOT BE FLUSH MOUNTED IN BUILDING PROVIDE A SYSTEM OF SURFACE METAL RACEWAYS AND BOXES IN ACCORDANCE WITH ARTICLE 386, EQUAL TO WIREMOLD FOR ALL FINISH SPACES WHERE PUBLIC HAS ACCESS, INCLUDING CORRIDORS, TOILETS, OFFICES, CONFERENCE ROOMS, ETC.
- CONFIRM RATINGS & FINAL LOCATIONS OF EQUIPMENT WITH OWNER PRIOR TO ROUGHING.
- ALL OUTLETS ON EXTERIOR WALLS WITH CASEWORK SHALL BE MOUNTED IF ABOVE CASEWORK. CONFIRM HEIGHT OF CASEWORK WITH HVAC AND ARCHITECT PRIOR TO ROUGHING.
- TYPICALLY PROVIDE GROUND FAULT INTERRUPTER TYPE RECEPTACLES WITH 6 FEET OF WATER SOURCES.
- PROVIDE ALL EMPTY CONDUITS WITH PULL-STRINGS.
- TYPICALLY PROVIDE (3) 4" SLEEVES OVER EACH CORRIDOR DOOR. PROVIDE (2) 2" THROUGHWALL SLEEVE ABOVE CEILING OVER THE DOORS INTO EACH ROOM LEADING FROM THE CORRIDOR OR OPEN AREAS FOR COMMUNICATIONS/DATA WIRING.

GENERAL LIGHTING NOTES

- EXACT LOCATIONS OF ALL FIXTURES AND DEVICES SHALL BE FULLY COORDINATED WITH ARCHITECTURAL PLANS, ELEVATIONS, SECTIONS AND THE WORK OF OTHER TRADES PRIOR TO ROUGH-IN.
- WIRING AND CONDUIT OR MC CABLE SHALL BE REQUIRED BETWEEN ALL LIGHTING FIXTURES, SWITCHES, DIMMERS, SENSORS, POWER PACKS, RELAYS, AND OTHER AUXILIARY DEVICES. WIRING AND CONDUIT OR MC CABLE IS SHOWN ON DRAWINGS ONLY FOR SPECIFIC ROUTES OR SPECIAL CONDITIONS. IT IS THE INTENT OF THESE DOCUMENTS THAT A COMPLETE BRANCH CIRCUIT AND CONTROL WIRING SYSTEM BE INSTALLED.
- ALL BRANCH CIRCUIT CONDUCTORS SHALL BE 8% CONDUCTIVITY, COPPER MINIMUM # 12 AWG SIZE, THW/THHN INSULATION, 600 VOLTS RATED UNLESS OTHERWISE NOTED.
- UTILITIES SHALL NOT PENETRATE STAIR ENCLOSURES, ELEVATOR SHAFTS, AND MACHINE ROOMS EXCEPT WHERE SPECIFICALLY SERVING THAT STAIR OR ELEVATOR.
- METAL ROOF DECKS SHALL NOT BE TAPPED FOR SUPPORT OF ANY LIGHTING FIXTURES OR ELECTRICAL EQUIPMENT. PROVIDE UNISTRUT OR OTHER SUPPLEMENTAL SUPPORT FITTINGS TO BE ATTACHED TO BUILDING STRUCTURAL FRAMING AS REQUIRED FOR SUPPORT OF ALL LIGHTING FIXTURES AND ELECTRICAL EQUIPMENT.
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- ALL OCCUPANCY AND DAYLIGHT HARVESTING PHOTOSENSORS SHALL BE LOCATED IN COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR EACH INDIVIDUAL SPACE. E.C. SHALL PROVIDE A CEILING PLAN LOCATING ALL SENSORS WHICH HAS BEEN FULLY COORDINATED WITH THE WORK OF OTHER TRADES FOR FINAL REVIEW AND APPROVAL. E.C. SHALL PROVIDE THE SENSOR VENDOR(S) WITH ALL INFORMATION REQUIRED TO FULLY UNDERSTAND THE CONDITIONS OF EACH SPACE.
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- FIXTURES ON PLANS SHALL BE PROVIDED WITH 0-10V DIMMING DRIVER(S) OR LIGHT ENGINE(S) AS REQUIRED FOR LED SOURCES SPECIFIED TO BE CONTROLLED VIA A 0-10V SIGNAL FROM THE ALCS, DAYLIGHT HARVESTING PHOTOSENSORS, THEATRICAL DIMMING SYSTEM OR OTHER CONTROLS.
- REFER TO LIGHTING CONTROL SYSTEM (LCS) - TYPICAL ONE LINE DIAGRAM AND SPECIFICATIONS FOR DETAILED LIGHTING CONTROL REQUIREMENTS.
- ALL EXTERIOR EQUIPMENT, FIXTURES, AND DEVICES SHALL BE RATED IP65 (MINIMUM) AND BE CONSTRUCTED OF STAINLESS STEEL AND/OR MARINE GRADE ALUMINUM SUITABLE FOR COASTAL ENVIRONMENT APPLICATION. PAINTED FINISHES SHALL HAVE PASSED A MINIMUM 5,000 HOUR SALT SPRAY TEST.
- ALL EXTERIOR EQUIPMENT, FIXTURES, AND DEVICES SHALL BE RATED IP65 (MINIMUM) AND BE CONSTRUCTED OF STAINLESS STEEL AND/OR MARINE GRADE ALUMINUM SUITABLE FOR COASTAL ENVIRONMENT APPLICATION. PAINTED FINISHES SHALL HAVE PASSED A MINIMUM 5,000 HOUR SALT SPRAY TEST.
- CENTER OCCUPANCY & PHOTO SENSORS IN CEILING TILES.
- CIRCUIT ALL EXIT SIGNS & EBUS TO LOCAL AREA LIGHTING CIRCUIT AHEAD OF ALL SWITCHING.
- ALL EXIT SIGN SHOWN ON THIS PLAN SHALL BE CIRCUITED TO 'LP-23'.



GGD CONSULTING ENGINEERS, INC.
375 Franklin Center Road, Suite 0, Danvers, MA 01923-1258
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JOHNSON ROBERTS ASSOCIATES INC.
ARCHITECTS

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SOMERVILLE, MA
02143 - 3228

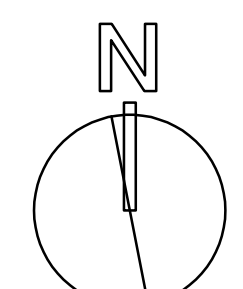
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-	10-10-2023	BID DOCUMENTS
1	10-26-2023	ADDENDUM #1
2	11-10-2023	ADDENDUM #2

Rindge Commons Pre-K
430 & 432 RINDGE AVE,
Cambridge, MA 02140

Sheet Title
**LEVEL 2
POWER/LIGHTING
FLOOR PLANS**

Date: 12-Oct-2023 Drawn By: TV
Project No: 23006 Scale:

Sheet No.



E2.2

RINDGE COMMONS: BUILDING A PHASE 1

@ 402 RINDGE AVE,
CAMBRIDGE, MA
JUST-A-START

ARCHITECT



101 SUMMER ST BOSTON MA 02110

CONSULTANT

STAMP

KEY PLAN

6/11/2021	BID SET	
1/14/2021	DHCD SUBMISSION	
10/5/2020	DD SUBMISSION	
MARK	DATE	DESCRIPTION

PROJECT NUMBER: 217003
DRAWN BY: Author
CHECKED BY: Checker

SHEET TITLE

SITE PLAN

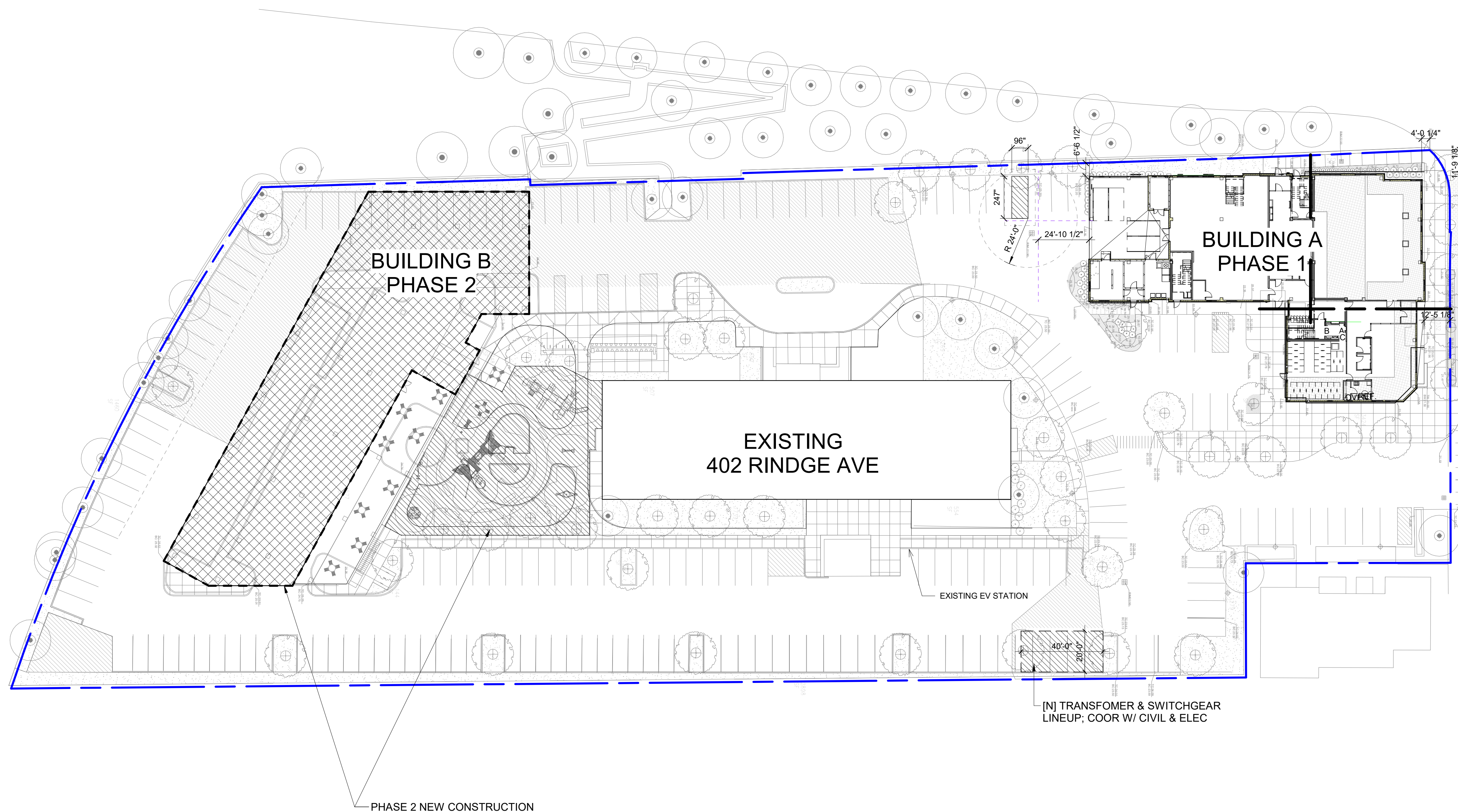
A-100

Parking	AUTO				TOTAL	BICYCLE		
	Surface	[Accessible]	Covered	[Accessible]		Long-Term	Short-Term	Total
Existing	273	10			273	26		26
Proposed					220	134	22	156
Required					374	160	22	182
Ratio Parking:Unit					0.59			

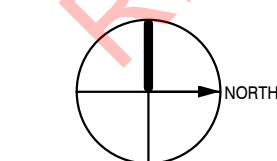
Unit Mix	STUDIO	1-BR	2BR	3BR	TOTAL
EXISTING	21	84	168	0	273
BUILDING A		10	14	0	24
BUILDING B		16	39	22	77
	21	110	221	22	374
Percentage (%)	6%	29%	59%	6%	100%

Units	1BR A1	1BR A1.1	1BR A1.2	1BR A2	1BR A3 BF	2BR B1	2BR B1.1	2BR B2	2BR B2.1	2BR B2.2	2BR B3	2BR B4BF	Total Units
AVG NSF	642	620	635	605	717	834	855	893	833	851	902	880	
BUILDING A													
4th Floor	2	0	0	0	0	1	1	1	0	0	1	0	6
5th Floor	2	1	0	1	0	1	1	1	1	0	1	1	10
6th Floor	0	2	1	0	1	1	1	0	0	1	1	0	8
													24
Total Units	4	3	1	1	1	3	3	2	1	1	3	1	24
													24
Total NSF	2,568	1,860	635	605	717	2,502	2,565	1,786	833	851	2,706	880	18,508
AVG NSF	644	620	635	605	717	834	855	893	833	851	902	880	771
	41.7%					58.3%				100.0%			

BUILDING A	1BR	2BR
Barrier-free Units (5%) - CBH	1	1
Hearing Impaired Units (2%)	1	0



BASE BUILDING DOCUMENTS FOR REFERENCE ONLY



SITE PLAN SCALE 1:30

SHEET NOTES

- ① SCOPE IN THIS AREA SHALL BE PRICED AS EDUCATION & TRAINING SCOPE. REFER TO DRAWING H-901.
- ② PRESERVATION HEAT & PROVISIONAL VENTILATION DUCTWORK ONLY IN THIS AREA. FULL HVAC BY FUTURE TENANT.

GENERAL NOTES

- 1. SIZE OF BRANCH DUCTWORK FROM DUCT MAINS TO EACH SPACE SHALL MATCH RGD CONNECTION SIZE, UNLESS NOTED OTHERWISE.
- 2. PENETRATIONS, CRACKS, JOINTS AND EDGES IN EXTERIOR ENVELOPE SHALL BE SEALED AGAINST PEST INTRUSION BY CAULK OR EQUIVALENT ELASTOMERIC SEALANT WITH APPROPRIATE FIRE RATING WHERE REQUIRED. PROVIDE RODENT AND CORROSION-PROOF SCREENS ON ALL OPENINGS GREATER THAN 1/4".

RINDGE COMMONS - BUILDING A PHASE 1

@ 402 RINDGE AVE
CAMBRIDGE, MA
JUST-A-START

ARCHITECT



101 SUMMER ST BOSTON MA 02110

CONSULTANT



STAMP

KEY PLAN

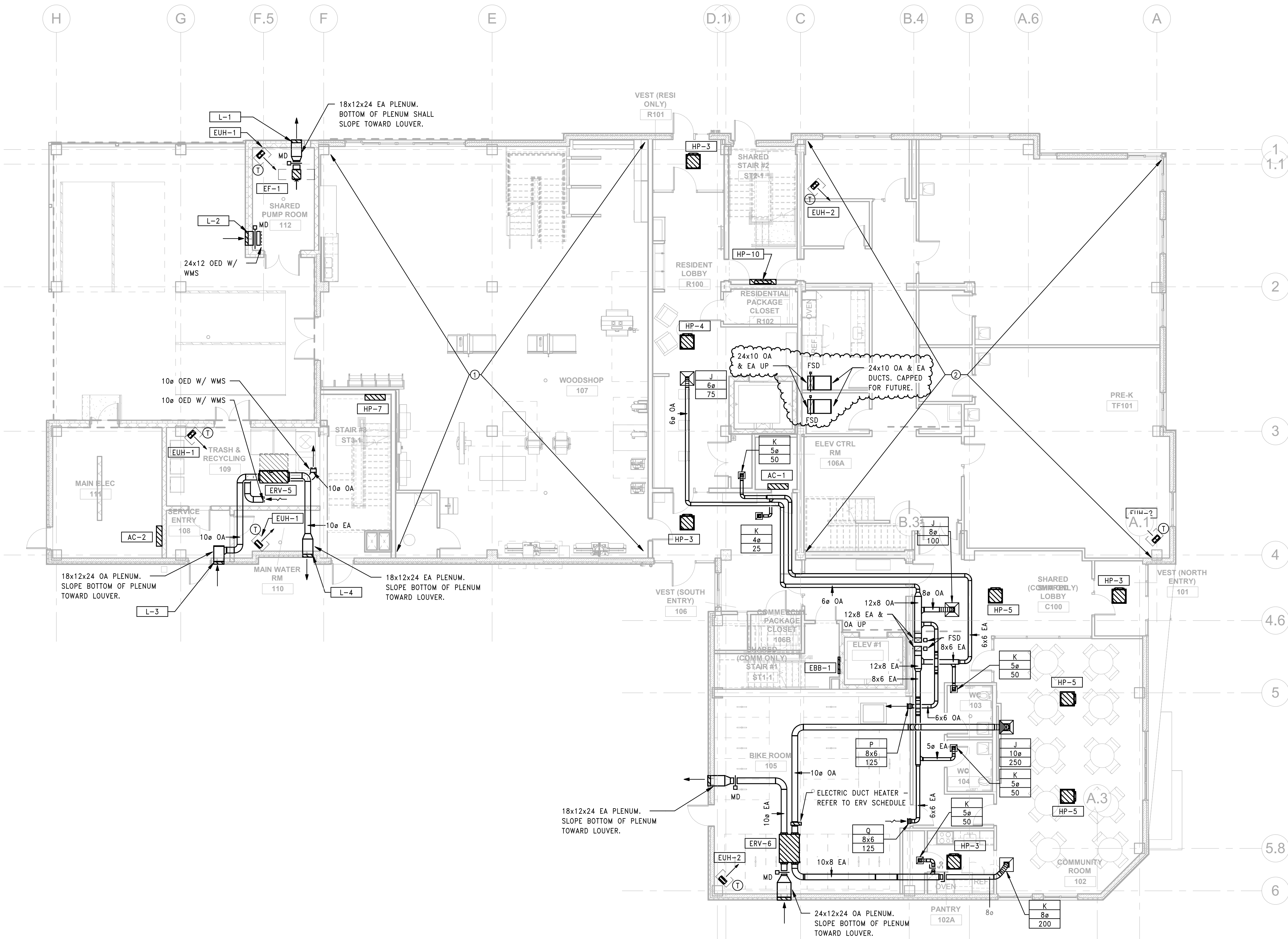
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	8/12/2022	BULLETIN 03
	MAY 2022	BULLETIN 01
	11/29/2021	PERMIT SET
	6/11/2021	BID SET
	1/14/2021	DHCD SUBMISSION
	10/5/2020	DD SUBMISSION

PROJECT NUMBER: 217003 (PEI #1937)
DRAWN BY: CB/PW
CHECKED BY: AK

SHEET TITLE

HVAC DUCTWORK
FIRST FLOOR PLAN

H-101



BASE BUILDING DOCUMENTS ONLY
REFERENCE ONLY

5/10/2023 10:41:15 AM

① HVAC DUCTWORK FIRST FLOOR PLAN
1/8" = 1'-0"

SHEET NOTES

- ① SCOPE IN THIS AREA SHALL BE PRICED AS EDUCATION & TRAINING SCOPE. REFER TO DRAWING H-902.
- ② PRESERVATION HEAT & PROVISIONAL VENTILATION DUCTWORK ONLY IN THIS AREA. FULL HVAC BY FUTURE TENANT.

GENERAL NOTES

- 1. SIZE OF BRANCH DUCTWORK FROM DUCT MAINS TO EACH SPACE SHALL MATCH RGD CONNECTION SIZE, UNLESS NOTED OTHERWISE.
- 2. PENETRATIONS, CRACKS, JOINTS AND EDGES IN EXTERIOR ENVELOPE SHALL BE SEALED AGAINST PEST INTRUSION BY CAULK OR EQUIVALENT ELASTOMERIC SEALANT WITH APPROPRIATE FIRE RATING WHERE REQUIRED. PROVIDE RODENT AND CORROSION-PROOF SCREENS ON ALL OPENINGS GREATER THAN 1/4".

RINDGE COMMONS - BUILDING A PHASE 1

@ 402 RINDGE AVE
CAMBRIDGE, MA
JUST-A-START

ARCHITECT



101 SUMMER ST BOSTON MA 02110

CONSULTANT



STAMP

KEY PLAN

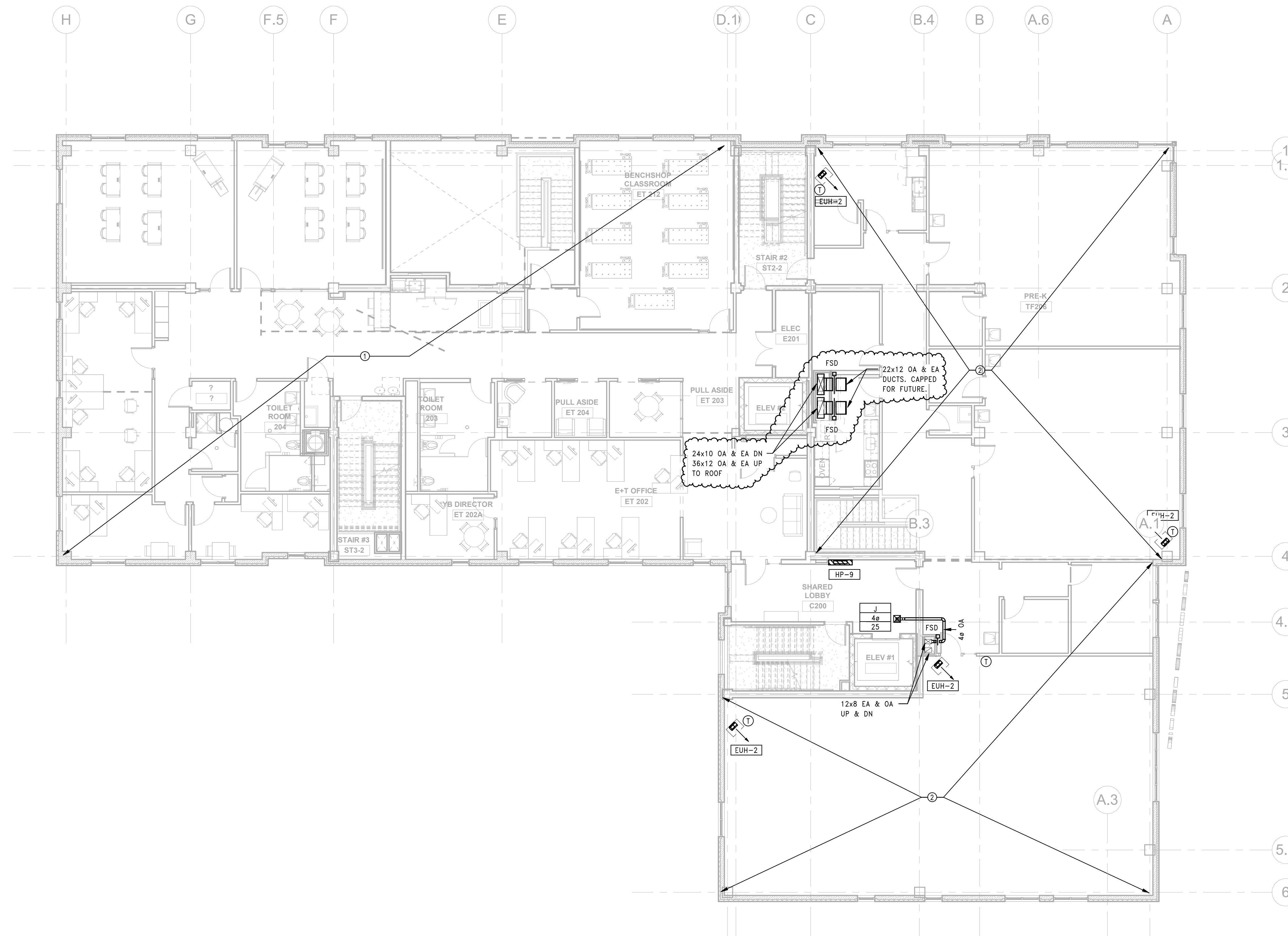
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	MAY 2022	BULLETIN 01
	11/29/2021	PERMIT SET
	6/11/2021	BID SET
	1/14/2021	DHCD SUBMISSION
	10/5/2020	DD SUBMISSION

PROJECT NUMBER: 217003 (PEI #1937)
DRAWN BY: CB/PW
CHECKED BY: AK

SHEET TITLE

HVAC DUCTWORK
SECOND FLOOR
PLAN

H-102



5/10/2023 10:41:19 AM

① HVAC DUCTWORK SECOND FLOOR PLAN
1/8" = 1'-0"

BASE BUILDING DOCUMENTS
REFERENCE ONLY

RINDGE COMMONS - BUILDING A PHASE 1

@ 402 RINDGE AVE
CAMBRIDGE, MA
JUST-A-START

ARCHITECT



101 SUMMER ST BOSTON MA 02110

CONSULTANT



STAMP

KEY PLAN

MARK	DATE	DESCRIPTION
	5/12/2023	BULLETIN 20
	2/15/2023	BULLETIN 13
	10/07/2022	BULLETIN 05
	MAY 2022	BULLETIN 01
	11/29/2021	PERMIT SET
	6/11/2021	BID SET
	1/14/2021	DHCD SUBMISSION
	10/5/2020	DD SUBMISSION

PROJECT NUMBER: 217003 (PEI #1937)
DRAWN BY: CB / PW
CHECKED BY: AK

SHEET TITLE

HVAC ROOF PLAN

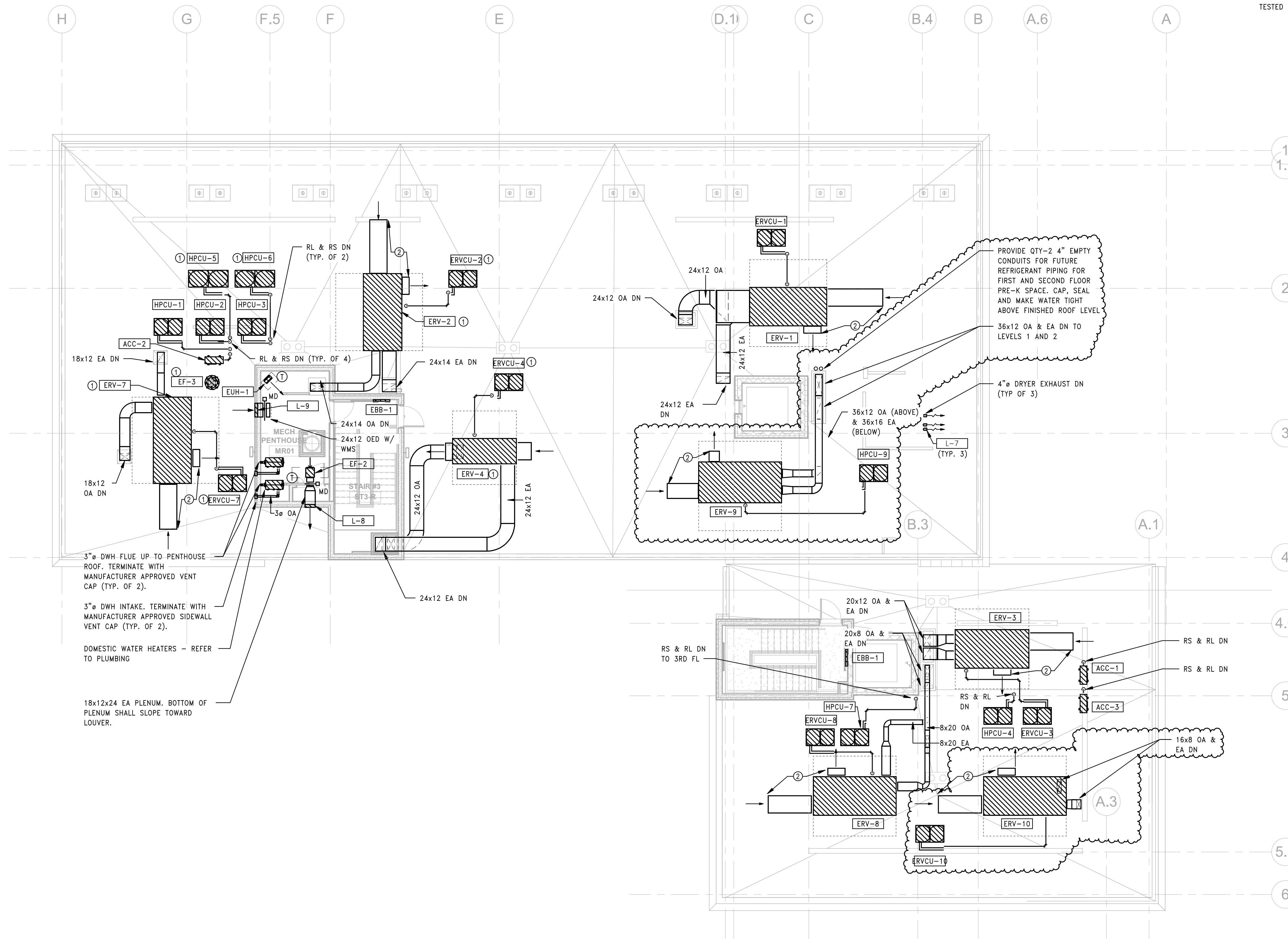
H-107

SHEET NOTES

- ERV-2, ERVCU-2, ERV-4, ERVCU-4, ERV-7, ERVCU-7, EF-3, HPCU-5, HPCU-6 SHALL BE PART OF EDUCATION & TRAINING SCOPE.
- EA SHALL TERMINATE MIN 10'-0" AWAY FROM OA INTAKE. PROVIDE OA HOOD EXTENSION TO MAINTAIN SEPERATION.

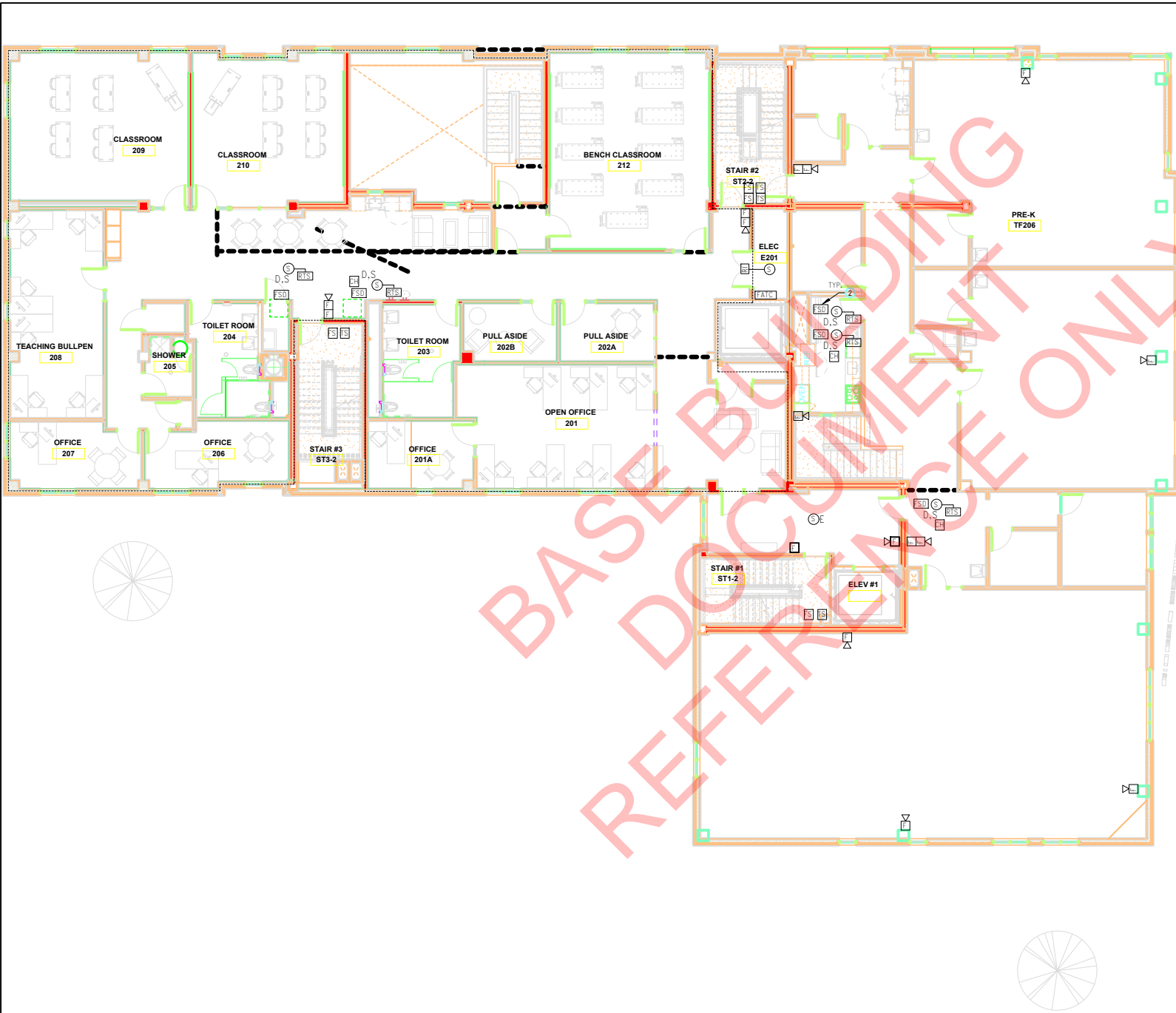
GENERAL NOTES

- A SINGLE LINE IS SHOWN ON THIS DRAWING TO INDICATE BOTH THE REFRIGERANT SUCTION (RS) AND REFRIGERANT LIQUID (RL) PIPING FOR DRAWING CLARITY. PROVIDE BOTH RS & RL PIPING TO CONNECT EQUIPMENT AS SHOWN.
- REFRIGERANT PIPING IS SHOWN WITH CONCEPTUAL ROUTING ONLY. FIELD VERIFY AND OPTIMIZE EXACT ROUTING PER MANUFACTURER'S LITERATURE.
- ROOFTOP EXTERIOR DUCTWORK SHALL BE R-16 PTM DUAL-TECH PRODUCT.
- PENETRATIONS, CRACKS, JOINTS AND EDGES IN EXTERIOR ENVELOPE SHALL BE SEALED AGAINST PEST INTRUSION BY CAULK OR EQUIVALENT ELASTOMERIC SEALANT WITH APPROPRIATE FIRE RATING WHERE REQUIRED. PROVIDE RODENT AND CORROSION-PROOF SCREENS ON ALL OPENINGS GREATER THAN 1/4".
- REFER TO SPECIFICATION SECTION 230593 FOR DUCT LEAKING TESTING REQUIREMENTS. IT IS CRITICAL THAT ALL SECTIONS OF DUCTWORK ARE TESTED PRIOR TO SYSTEM BALANCING.



1 HVAC ROOF PLAN
1/8" = 1'-0"

BASE BUILDING DOCUMENTS ONLY REFERENCE ONLY



REVISIONS

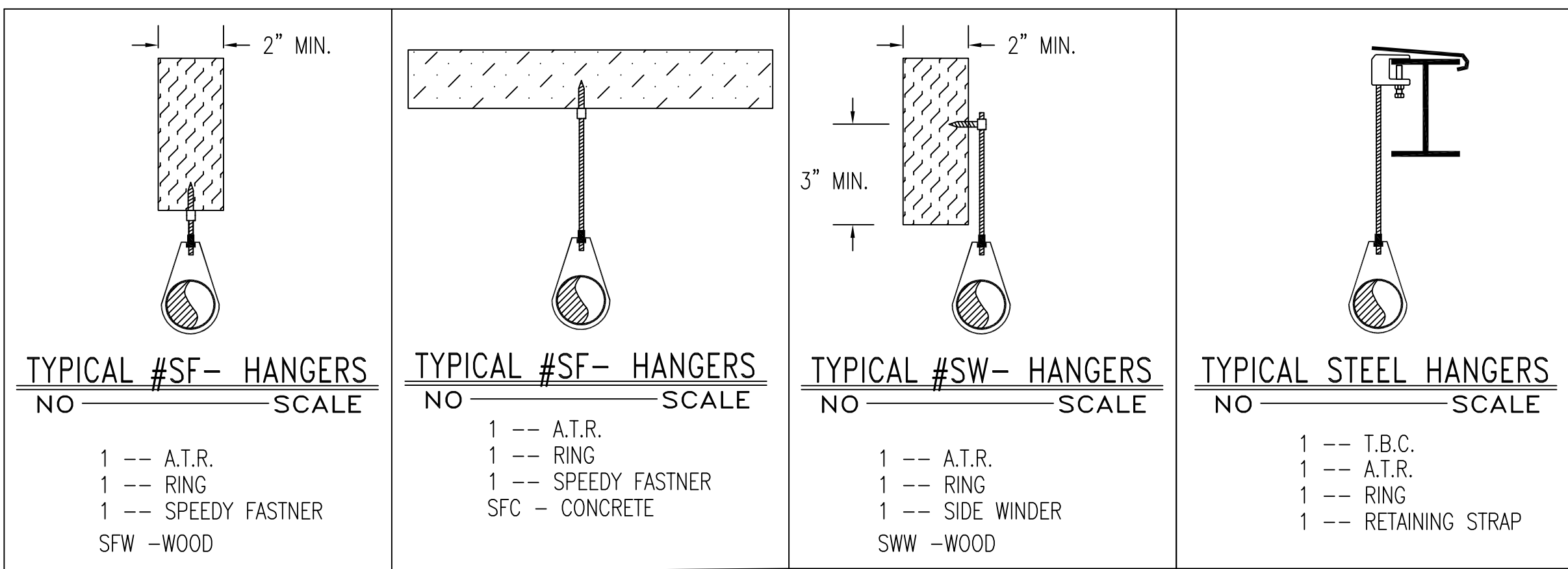
NO.	DESCRIPTION	DATE	PREPARED	APPROVED

DEVELOPED BY:
 PROJECT ENGINEER:
 JOB NUMBER:
 SUBMITTAL DATE: 3-20-2023

PROJECT:
 RINDGE COMMONS
 BUILDING 1 PHASE 1
 402 RINDGE AVE
 CAMBRIDGE, MA 02140

TITLE:
 FIRE ALARM
 2ND FLOOR PLAN

FA-102



STANDPIPE CALCULATION RESULTS:

250 GPM REQUIRED AT EACH OF THE THREE MOST REMOTE 2-1/2" FIRE HOSE VALVES (HV1, HV2, HV3, HV4) @ 100 PSI.

TOTAL REQUIREMENT AT FIRE DEPARTMENT CONNECTION (FDC):

1000 GPM @ 149.698 PSI

GENERAL NOTES:

ALL NEW PIPING TO BE HYDROSTATICALLY TESTED AT NOT LESS THAN 200 PSI FOR 2 HOURS, OR AT 50 PSI IN EXCESS OF THE MAXIMUM PRESSURE, WHEN THE MAXIMUM PRESSURE TO BE MAINTAINED IS IN EXCESS OF 150 PSI, PER N.F.P.A. 13.

WHETHER OR NOT INDICATED ON THE DRAWINGS, THE FOLLOWING ITEMS ARE TO BE PROVIDED:

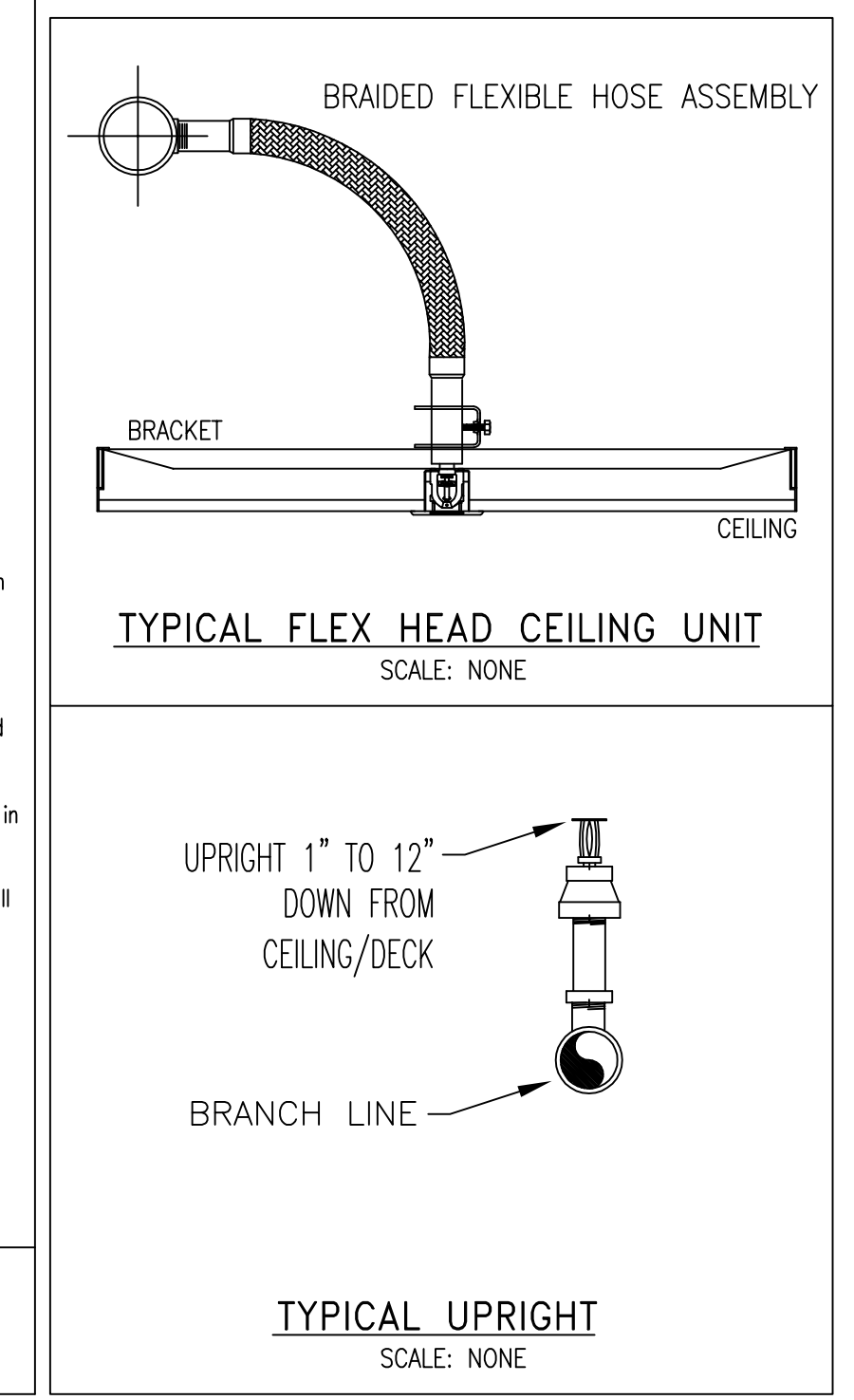
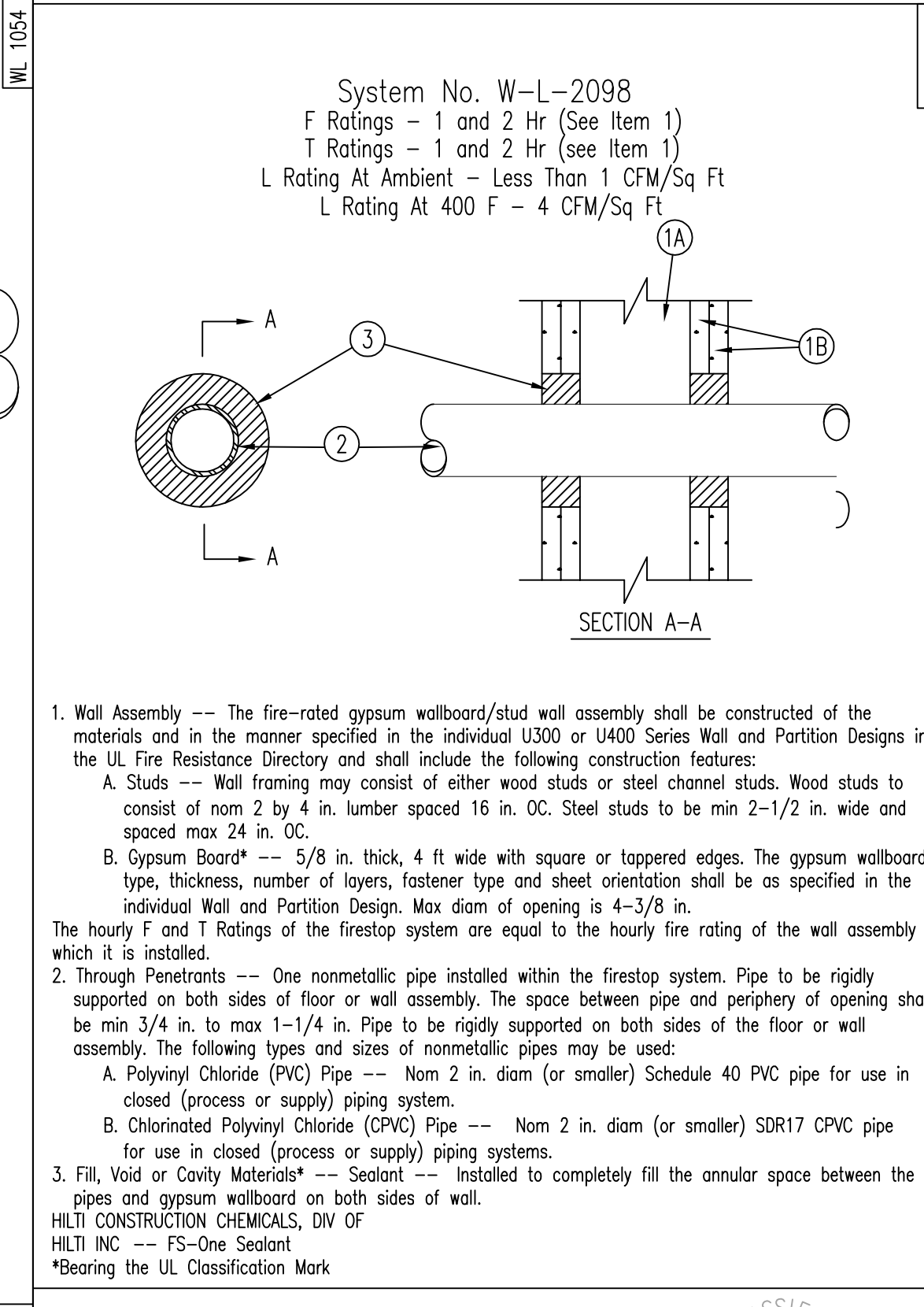
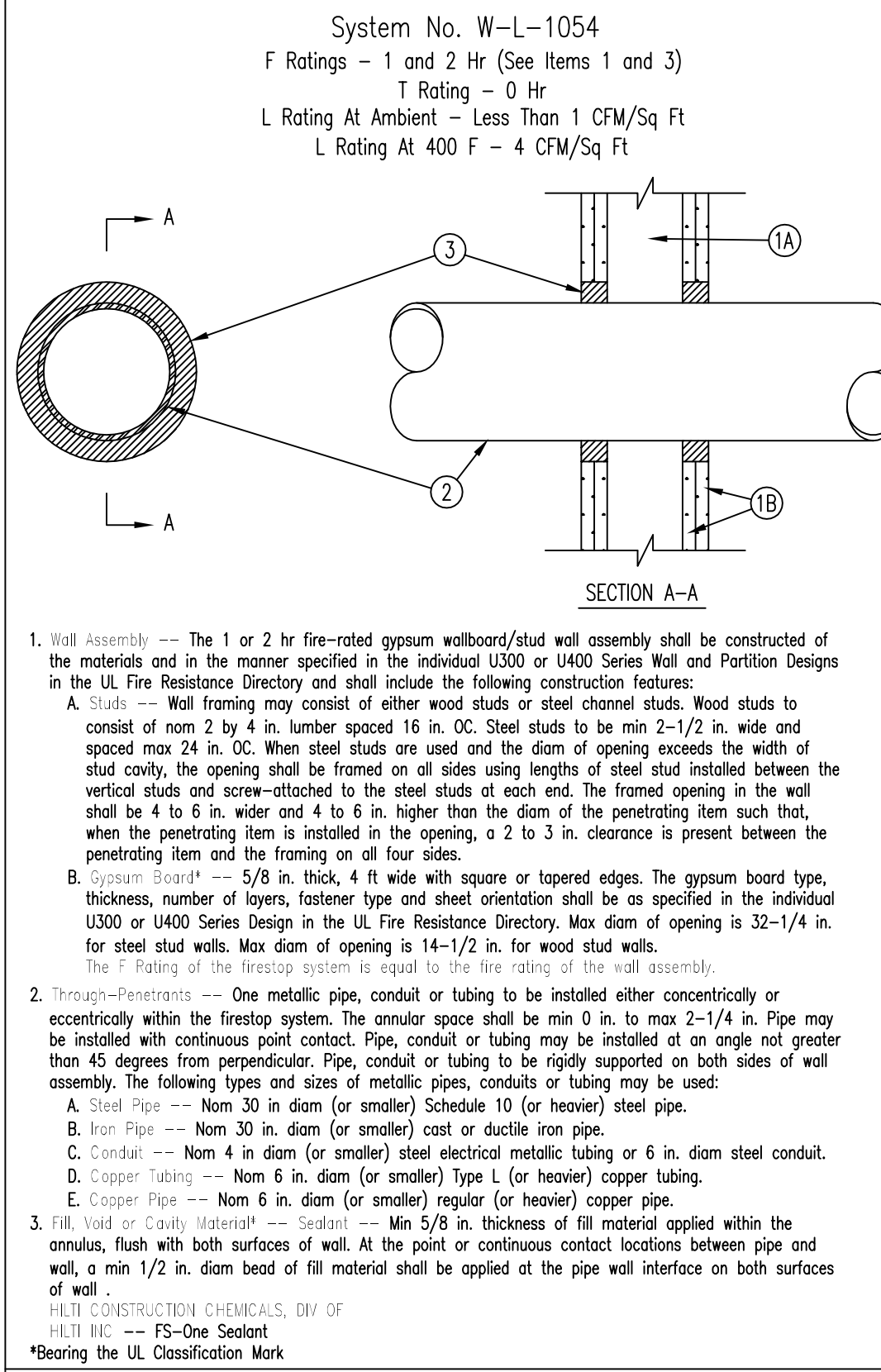
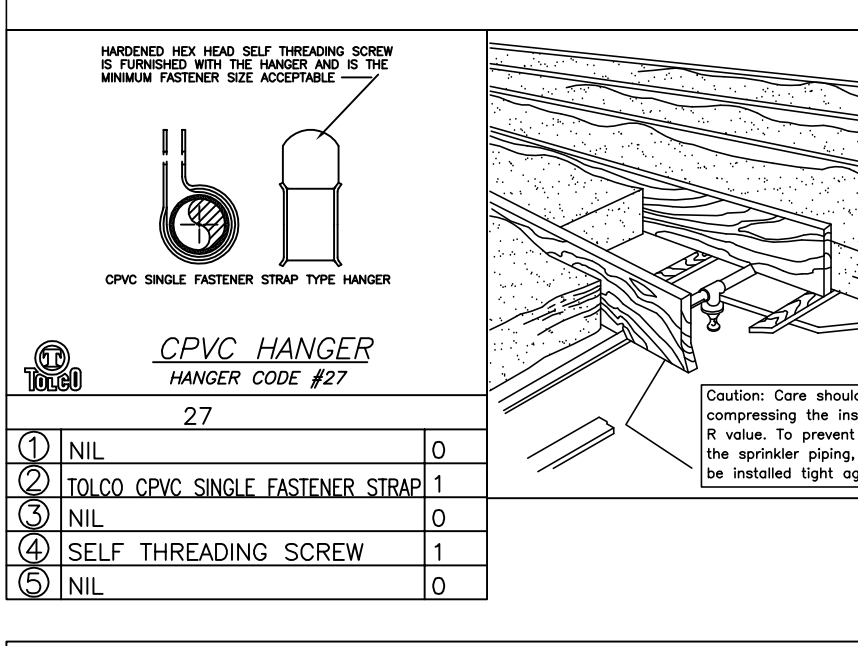
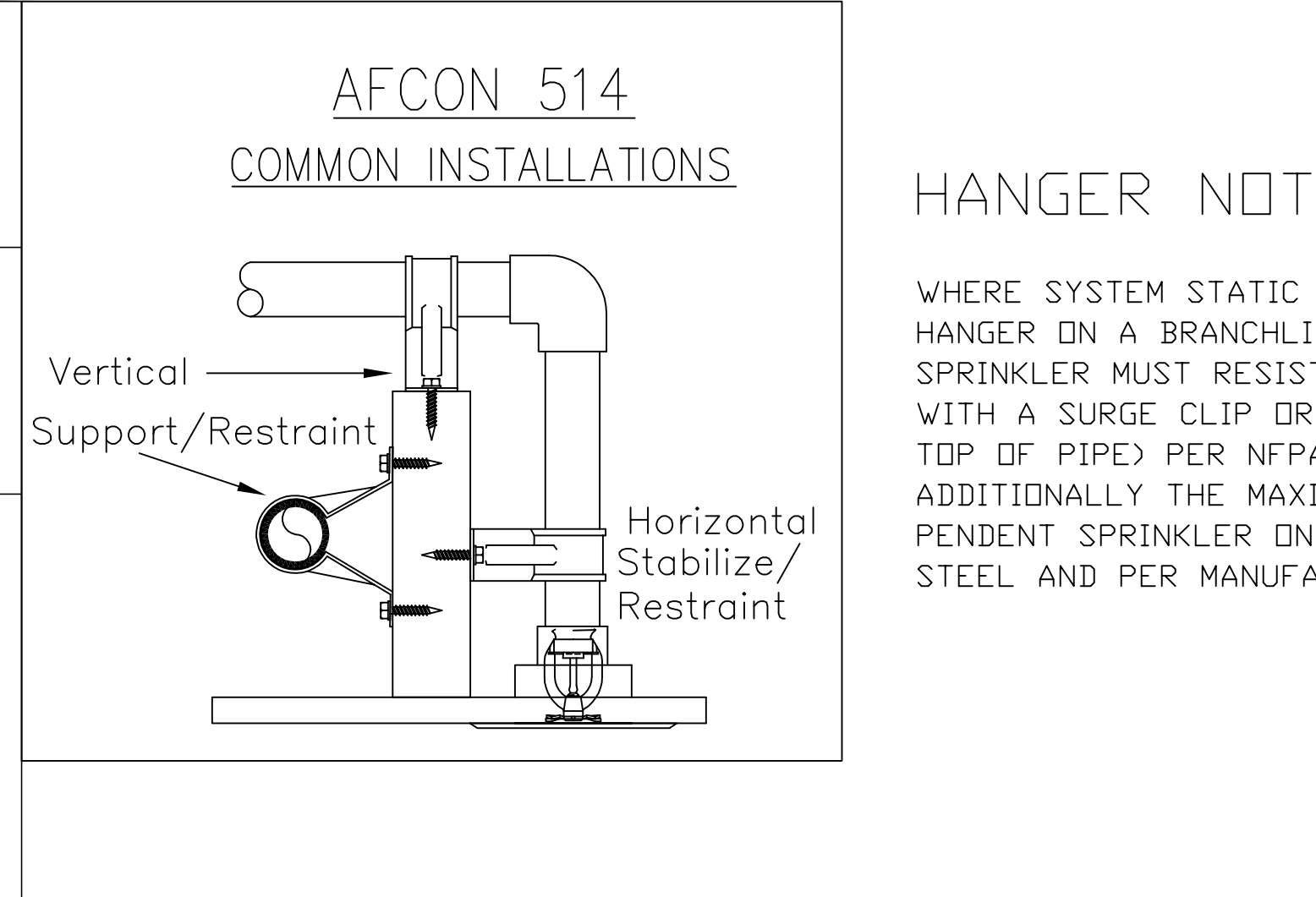
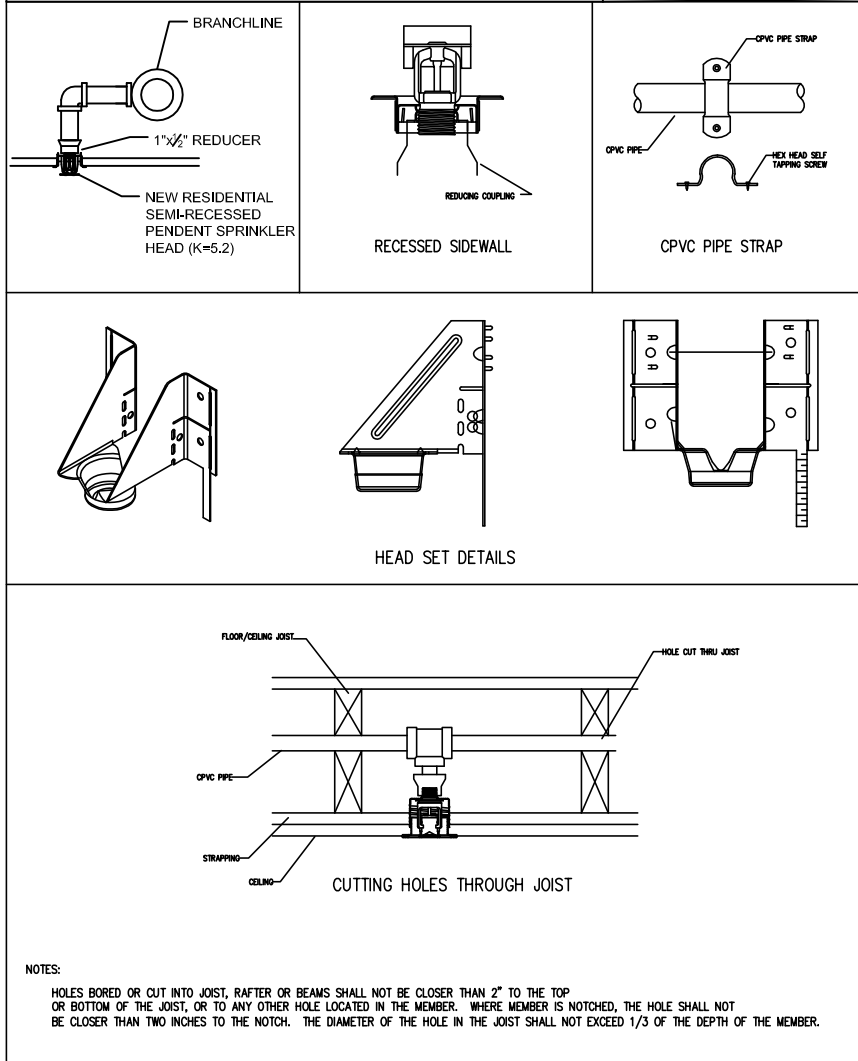
- SPARE HEAD CABINET WITH WRENCH
- PROVISIONS FOR FLUSHING CONNECTIONS AND DRAINING OF ALL PIPE
- INSPECTORS TEST CONNECTION FOR EACH SYSTEM

DRY SPRINKLER SYSTEM PIPING: - - - - -

WET SPRINKLER SYSTEM PIPING: _____

COVENANT FIRE PROTECTION

62 WEST BROOK STREET
MANCHESTER, NH 03101
PHONE: (603) 517-7621
FAX: (603) 232-1622
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ALL THREADED PIPING TO BE SCHEDULE 40 GALVANIZED STEEL THREADED WITH GALVANIZED SCREWED FITTINGS.

ALL GROOVED 1 1/2" PIPING AND LARGER TO BE SCHEDULE 40 GALVANIZED STEEL GROOVED WITH GALVANIZED GROOVED COUPLINGS AND FITTINGS AND WELDED OUTLETS.

DRY PIPE TO BE PITCHED PER N.F.P.A. 13(2013).
MAINS SHALL BE AT LEAST 1/4" PER 10'-0".
BRANCH LINES SHALL BE AT LEAST 1/8" PER 10'-0"

PARKING GARAGE SYSTEM VOLUME = 25 GALLONS

ALL THREADED PIPING TO BE SCHEDULE 40 BLACK STEEL THREADED WITH CAST IRON SCREWED FITTINGS.

ALL GROOVED PIPING 1 1/2" TO BE SCHEDULE 40 BLACK STEEL GROOVED WITH GROOVED COUPLINGS AND FITTINGS AND WELDED OUTLETS.

ALL GROOVED PIPING 2" AND LARGER TO BE SCHEDULE 10 BLACK STEEL GROOVED WITH GROOVED COUPLINGS AND FITTINGS AND WELDED OUTLETS.

WET SPRINKLER PIPING ON FLOORS WITH WOOD JOIST CONSTRUCTION:

ALL PIPE ABOVE CEILINGS IN CORRIDORS AND ALL UNITS TO BE C.P.V.C. WITH C.P.V.C. FITTINGS.

RESIDENTIAL SPRINKLER HEADS INSIDE DWELLING UNITS TO BE SPACED PER THE LISTING OF THE SPRINKLER HEADS.

SPRINKLER SYSTEM DESIGN AND INSTALLATION TO CONFORM WITH N.F.P.A. 13(2013) AND THE 9th ED. MASS. BUILDING CODE AND ALL OTHER APPLICABLE CODES.

ALL SYSTEM PIPING TO BE HUNG PER N.F.P.A. 13(2013).

THE STRUCTURAL DRAWINGS INDICATE SEISMIC DESIGN CATEGORY B AND SEISMIC PROTECTION IS NOT REQUIRED.

SPRINKLER HEADS TO BE LINED UP WITH CEILING FIXTURES WHERE THE BUILDING STRUCTURE AND MECHANICAL EQUIPMENT ABOVE THE CEILING ALLOWS.

PLANS ARE SUBJECT TO MINOR DEVIATIONS ARISING FROM FIELD CONDITIONS AND/OR COORDINATION. MINOR DEVIATIONS WILL NOT AFFECT CODE COMPLIANCE OR SCOPE OF WORK.

OWNER TO PROVIDE ADEQUATE HEAT TO ALL AREAS OF THE BUILDING THAT CONTAIN WET SPRINKLER PIPING. COVENANT FIRE PROTECTION CO. INC. WILL NOT BE HELD LIABLE, NOW, NOR IN THE FUTURE, FOR ANY DAMAGES THAT ARISE DUE TO THE FREEZING, AND SUBSEQUENT BURSTING OF WATER FILLED SPRINKLER PIPING.

WHERE HORIZONTAL COMBUSTIBLE CONCEALED SPACES REQUIRE SPRINKLER HEADS PER N.F.P.A.-13, DRAFT-CURTAINS OR FULL HEIGHT WALLS MUST BE PROVIDED AT 1,000 SQ. FT. AREAS FOR 4.2K SPRINKLER HEADS AND 2,000 SQ. FT. AREAS FOR 5.6K SPRINKLER HEADS. THE DRAFT CURTAIN SHALL BE AT LEAST 1/3 THE DEPTH OF THE CONCEALED SPACE OR 8" WHICHEVER IS GREATER.

IF HEAT TAPE IS REQUIRED IT IS TO BE PROVIDED AND INSTALLED BY OTHERS.

ALL WIRING TO BE DONE BY OTHERS.

Sprinkler Head Schedule

Symbol	Count	Thread	K-Factor	Description	Note
⊙	217	1/2"	4.9	VIKING, 200' RESIDENTIAL CONCEALED PENDENT (VK494)(WHITE)	ON DROP
⊙	160	1/2"	5.6	TYCO, 200' CC3 UPRIGHT (TY3199)(BRASS)	ON SPRIG
⊙	230	1/2"	5.6	TYCO, 155' UPRIGHT (TY3131)(BRASS)	ON SPRIG
⊙	17	1"	5.6	VICTAULIC, 200' DRY CONCEALED PENDENT (V3302)(WHITE)	ON DROP
⊙	42	1/2"	4.9	VIKING, 175' RESIDENTIAL RECESSED PENDENT (VK468)(WHITE)	ON DROP
●	223	1/2"	5.6	TYCO, 155' CONCEALED PENDENT (TY3531)(WHITE)	ON DROP

889 = Total Number of Heads This Project

WATER SUPPLY DATA

Static pressure	62	psi
Residual pressure	59	psi
Flow	1325	gpm
Location	366 RINDGE AVE	
Elevation	0	
Date	10/17/2022	
Time		
Information by		
Cambridge Water Dept.		

Revisions:

1. Shop Drawings	07/06/23
2. Revised Shop Drawings	07/21/23
3	

RINDGE COMMONS: BUILDING A

PROJECT NAME

430 & 432 RINDGE AVE, CAMBRIDGE, MA

PROJECT ADDRESS

FIRE PROTECTION NOTES & DETAILS

SHEET TITLE

PROJECT NO. 22032

DATE 11/30/2022

SCALE AS NOTED

DRAWN BY SRS

CHECKED BY MJ

HLTI FIRESTOP SYSTEMS

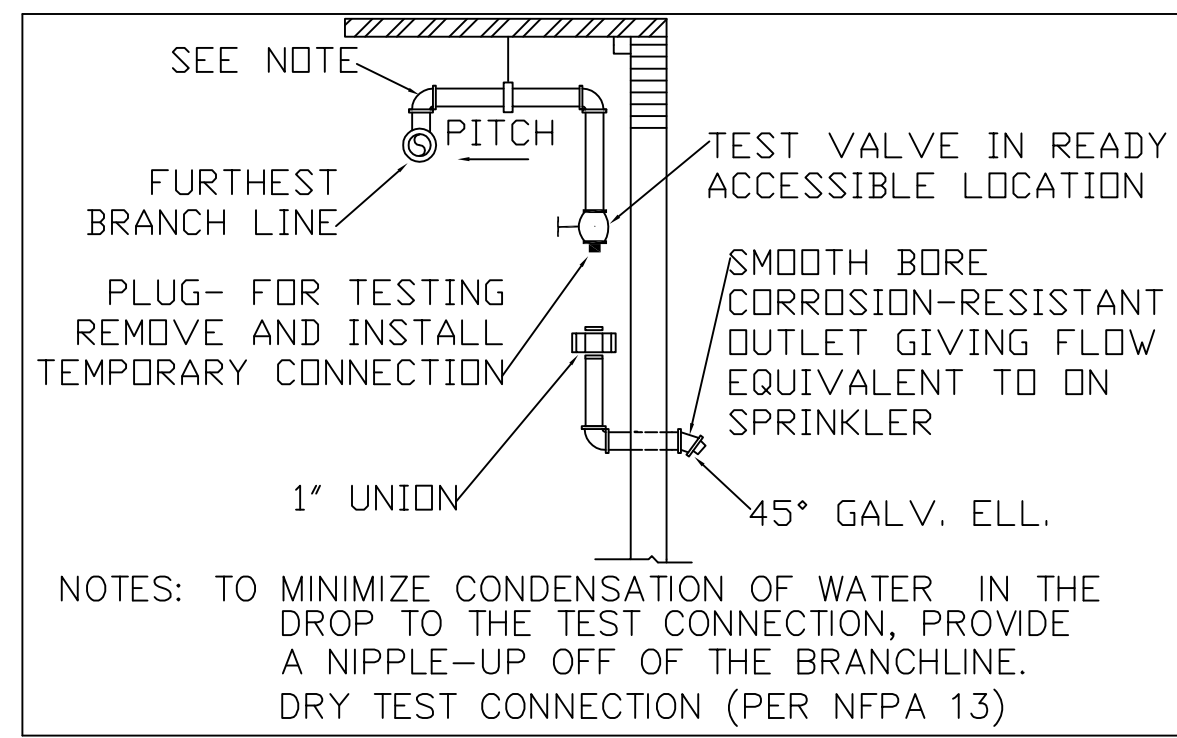
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HLTI FIRESTOP SYSTEMS

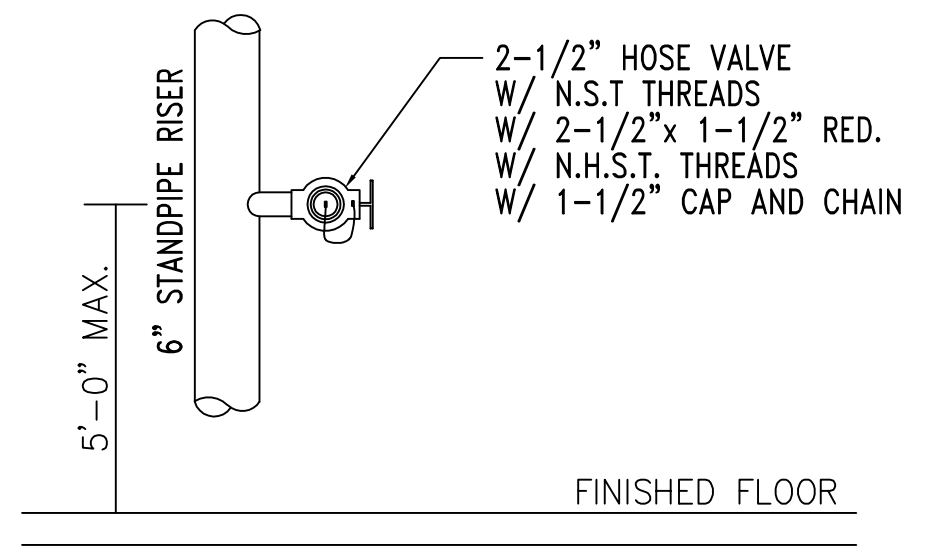
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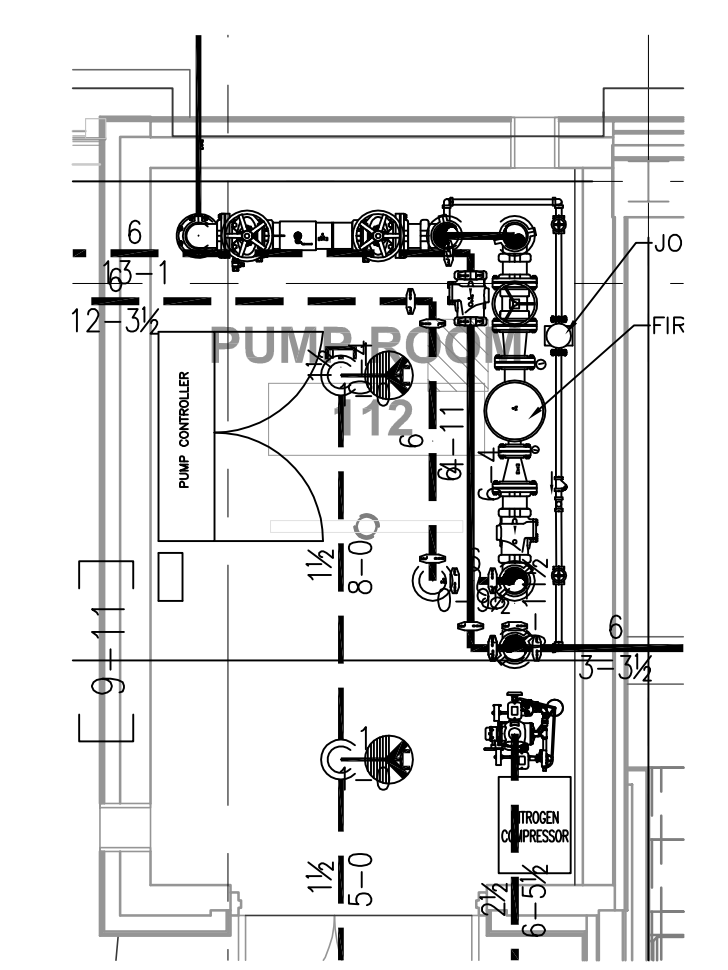
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5 DRY SYSTEM INSPECTOR'S TEST
SCALE: N.T.S.



4 HOSE VALVE
SCALE: N.T.S.

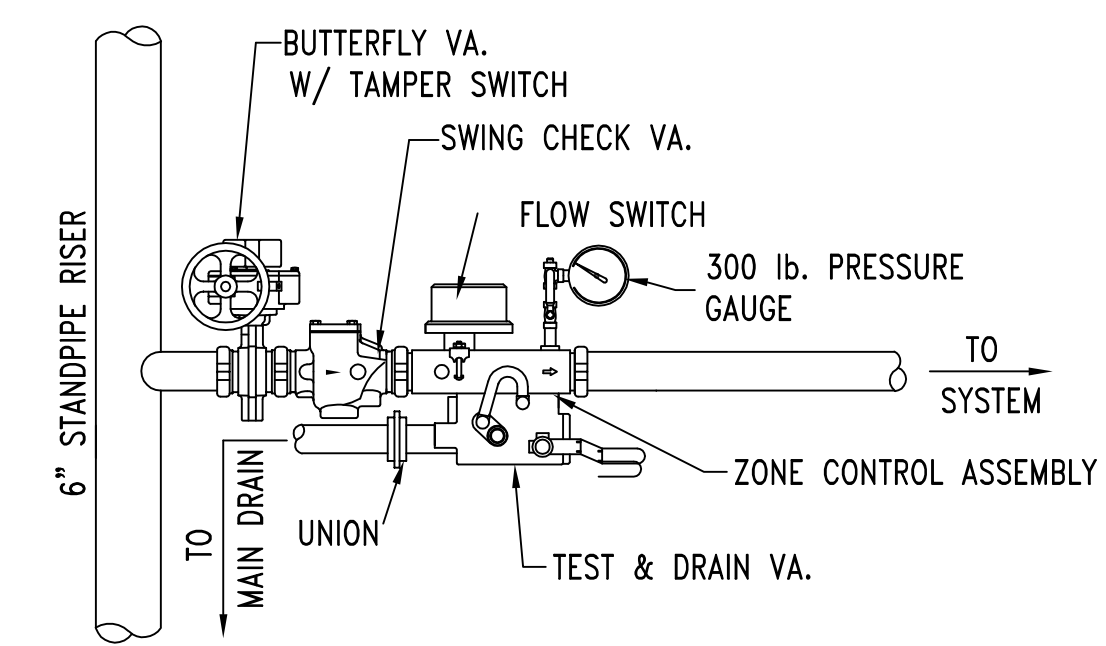


PUMP ROOM 112 FIRE PUMP PLAN

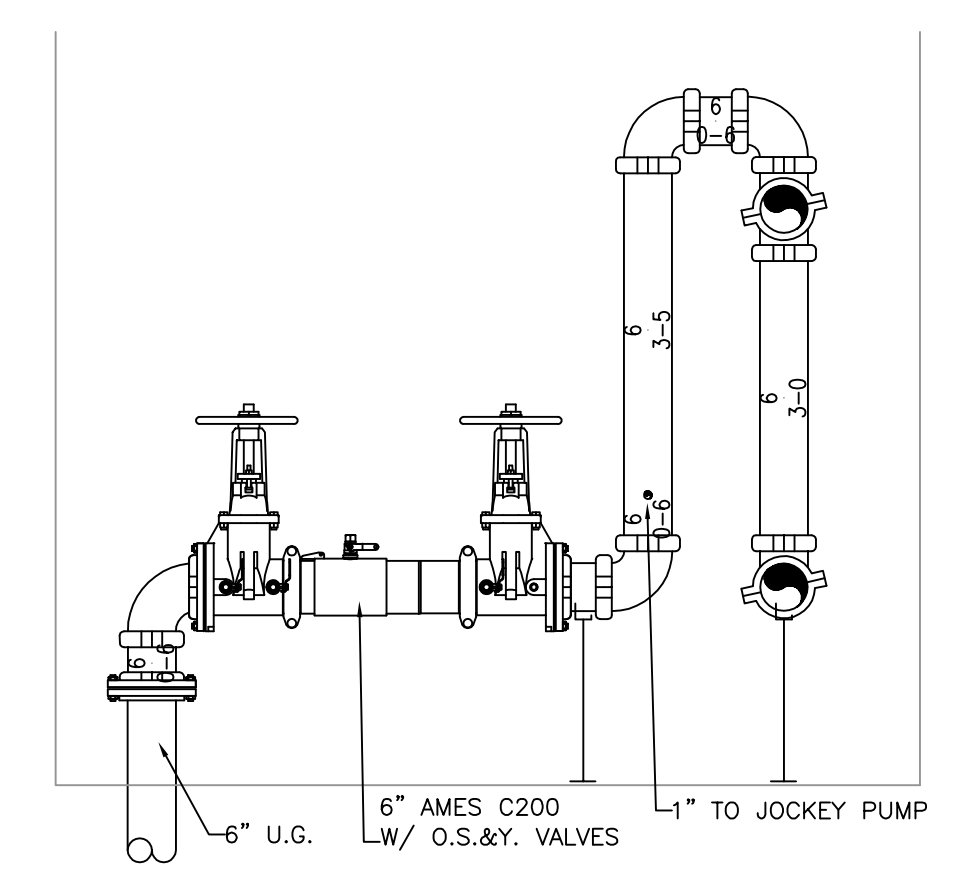
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PUMP NOTES:

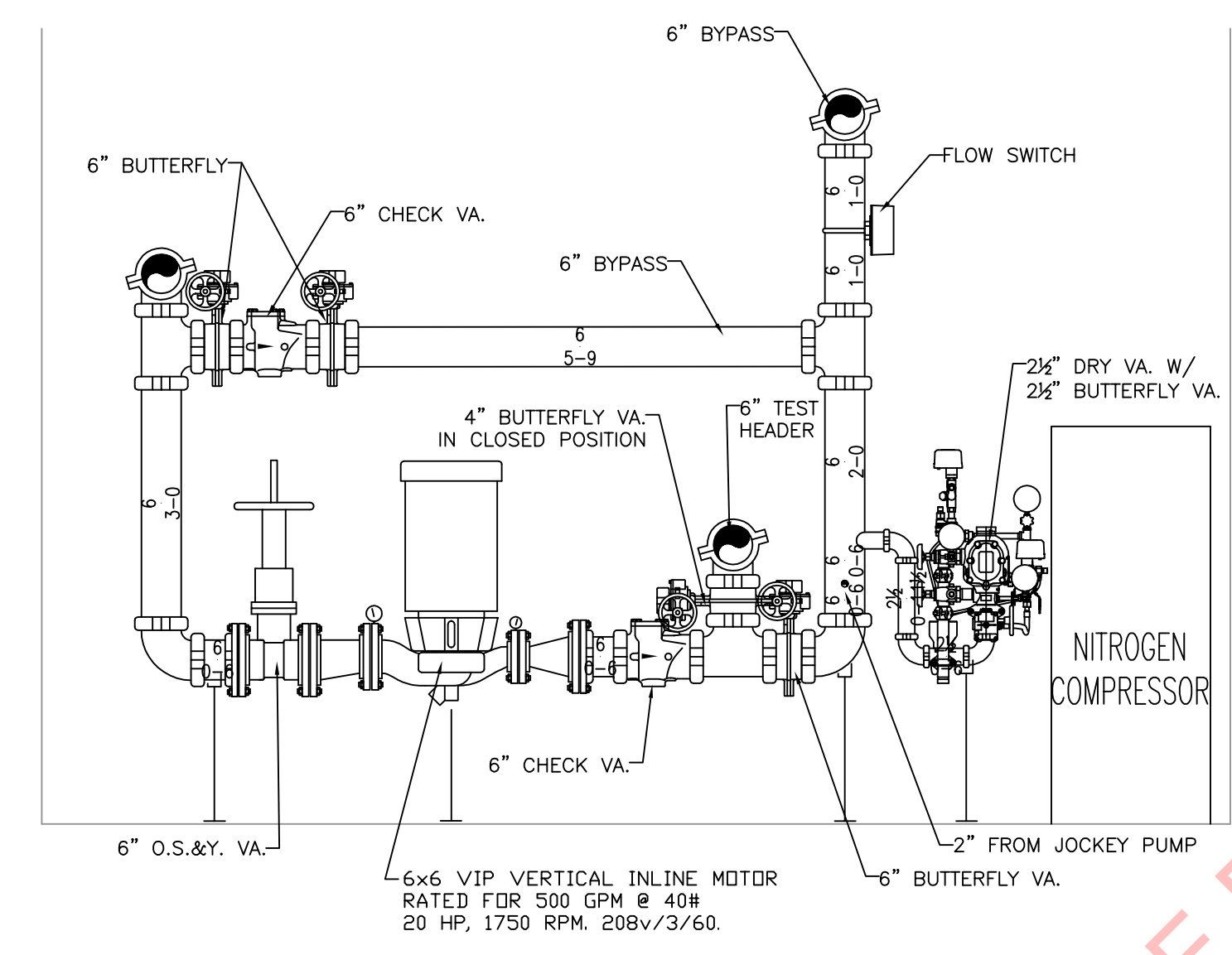
- THE PUMP ROOM SHALL MEET THE REQUIREMENTS OF N.F.P.A.-20, 2013 EDITION, SECTION 4.12.
- PUMP ROOM SHALL BE 2 HOUR FIRE-RATED.
- THE PUMP ROOM SHALL BE DIRECTLY ACCESSIBLE FROM THE OUTSIDE (DOOR TO BE PROVIDED BY OTHERS). IF DIRECT ACCESS CANNOT BE PROVIDED AN ENCLOSED PASSAGEWAY SHALL BE PROVIDED WITH THE SAME FIRE-RATING AS THE PUMP ROOM.
- THE PUMP ROOM SHALL HAVE A FLOOR DRAIN SIZED TO PROVIDE ADEQUATE DRAINAGE.
- THE PUMP ROOM SHALL HAVE BOTH ARTIFICIAL AND EMERGENCY LIGHTING PROVIDED BY OTHERS.
- THE PUMP ROOM SHALL HAVE HEATING AND MAINTAIN A TEMPERATURE ABOVE 40 DEGREES. PROVIDED BY OTHERS.
- PROVISIONS SHALL BE MADE FOR VENTILATION OF THE PUMP ROOM. PROVIDED BY OTHERS.
- THE FIRE PUMP IS EQUIPPED WITH A TRANSFER SWITCH AND EMERGENCY POWER FROM THE GENERATOR.
- ALL WIRING TO BE DONE BY OTHERS.



3 ZONE CONTROL ASSEMBLY
SCALE: N.T.S.

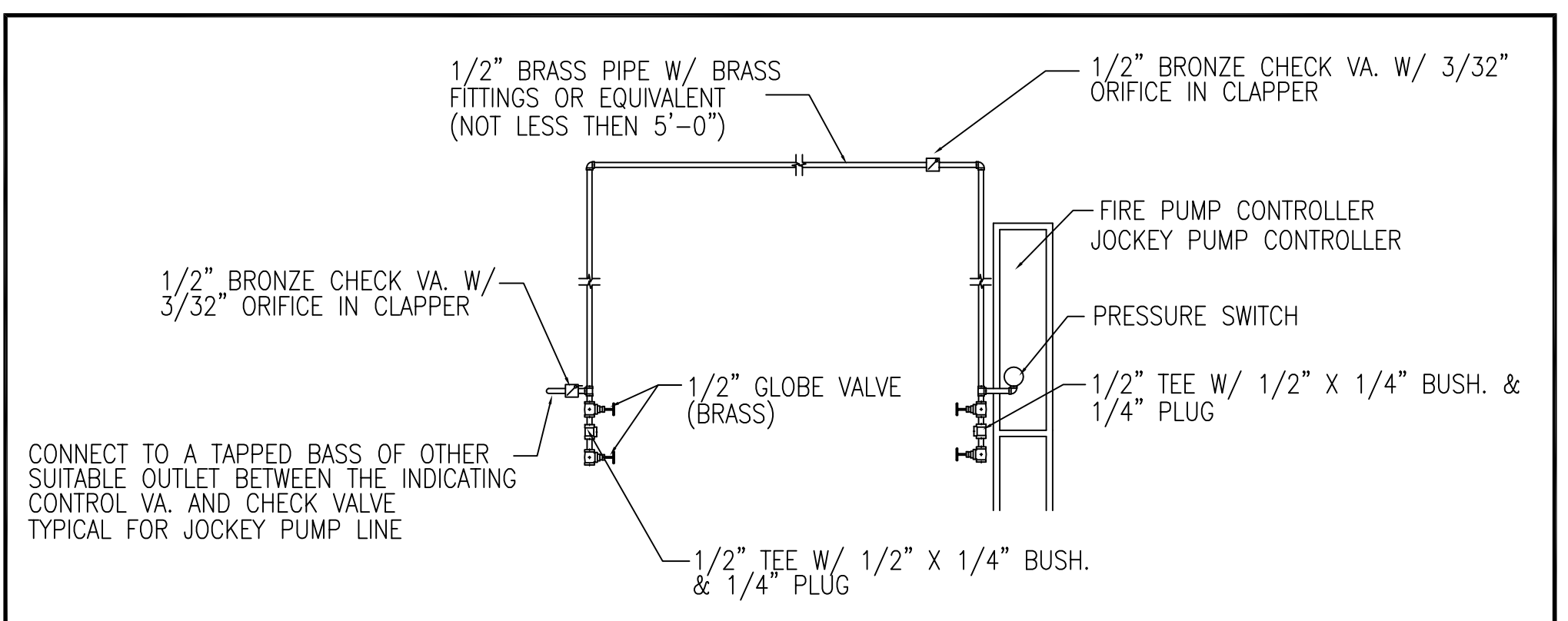


2 FLOOR CONTROL ASSEMBLY
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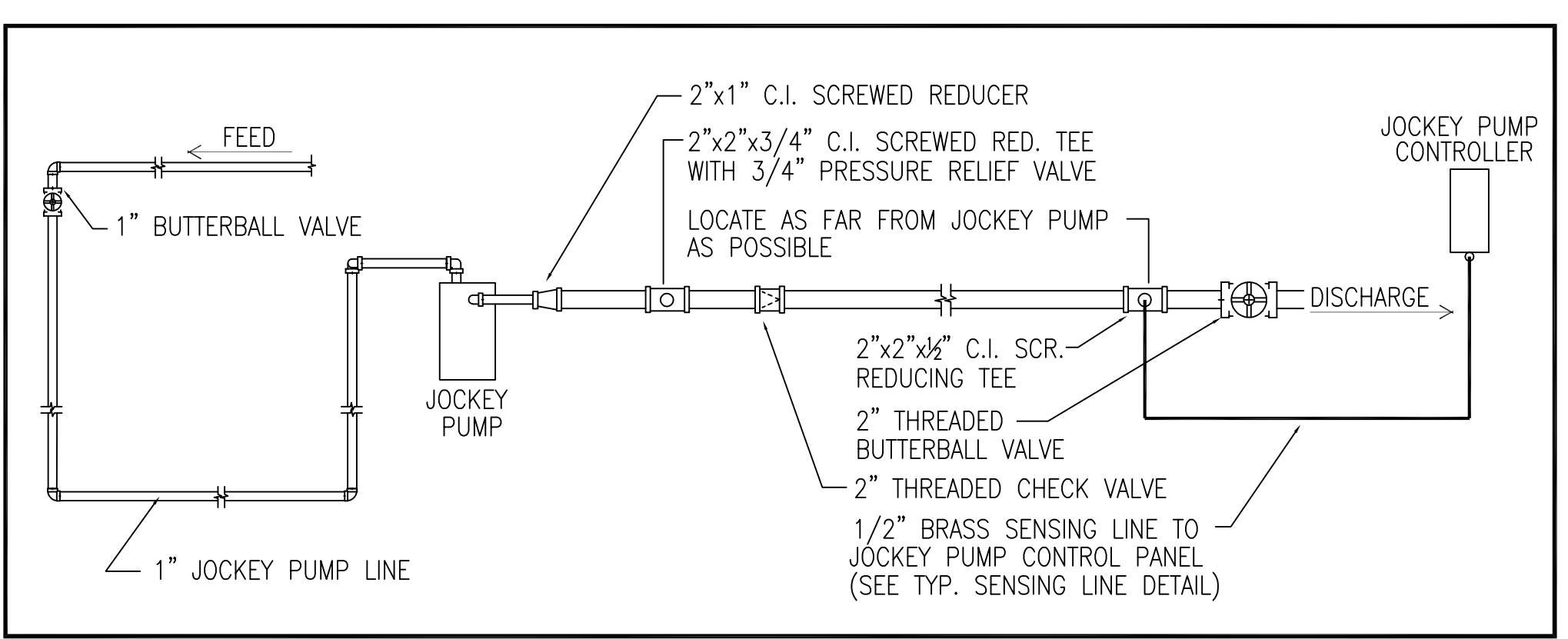


PUMP ROOM 112 FIRE PUMP DETAIL

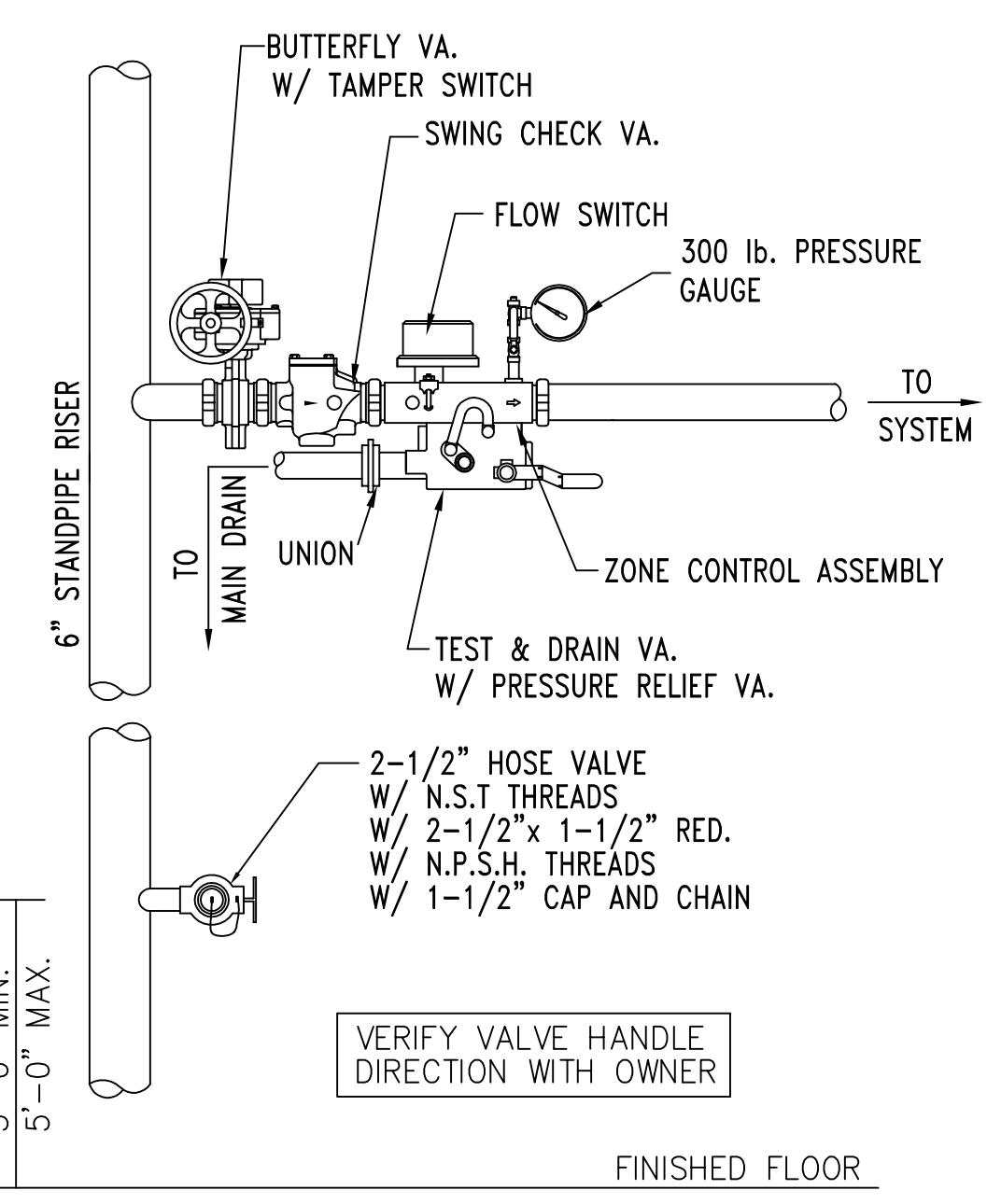
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TYPICAL SENSING LINE DETAIL
NOT TO SCALE



JOCKEY PUMP - DETAIL
NOT TO SCALE



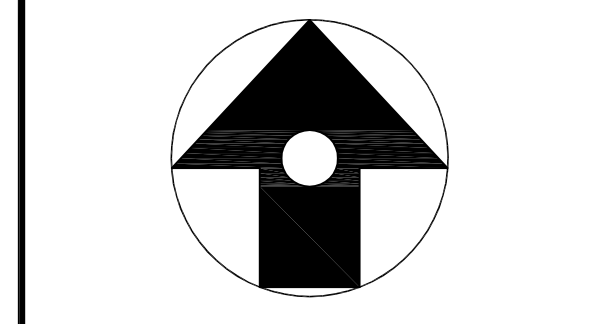
1 FLOOR CONTROL ASSEMBLY
SCALE: N.T.S.

NITROGEN GENERATOR SCHEDULE										
AREA / SYSTEM	LOCATION	MANUFACTURER	MODEL	HP	AMP	VOLTAGE	PH	PRESSURE (PSI)	MAX SYSTEM VOLUME (GALLONS)	COMMENTS / DESCRIPTION
LOADING AREA	PUMP ROOM	South-Tek	FPS-500	1/2	2.8	120	1	120	160 FILL, 500 TOTAL CONNECTED VOLUME	AIR COMPRESSOR AND NITROGEN GENERATOR AIR MAINTENANCE DEVICE. VIBRATION PADS, PRE AND POST FILTERS, REGULATOR, HOUR METER, CONTROL PANEL, FM APPROVED, UL LISTED. FINAL SIZING SHALL BE COORDINATED WITH THE DRY SYSTEM VOLUMES. CONNECTED MOST REMOTE POINT IN EACH DRY PIPE SYSTEM SHALL HAVE A NITROGEN AUTOPURGE STATION, SOUTH-TEK MODEL #A03-APS2.



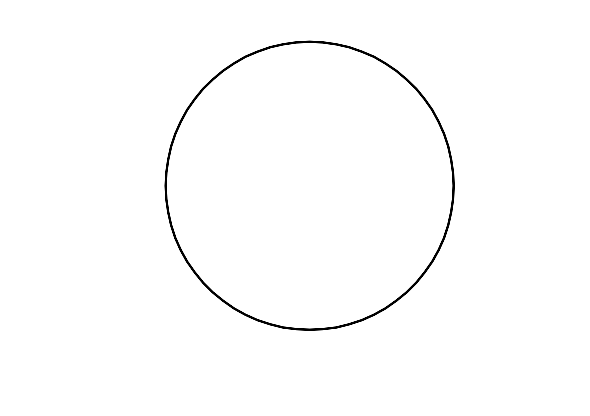
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WATER SUPPLY DATA	
Static pressure	62 psi
Residual pressure	59 psi
Flow	1325 gpm
Location	366 RINDGE AVE
Elevation	0
Date	10/17/2022
Time	
Information by	
Cambridge Water Dept.	



Revisions:	Date:
1. Shop Drawings	07/06/23
2. Revised Shop Drawings	07/21/23
3	

PROJECT NAME	RINDGE COMMONS: BUILDING A	PROJECT ADDRESS	430 & 432 RINDGE AVE, CAMBRIDGE, MA	SHEET TITLE	FIRE PROTECTION FIRE PUMP NOTES & DETAILS
PROJECT NO.	22032	DATE	11/30/2022	SCALE	AS NOTED
DRAWN BY	SRS	CHECKED BY	MJ		



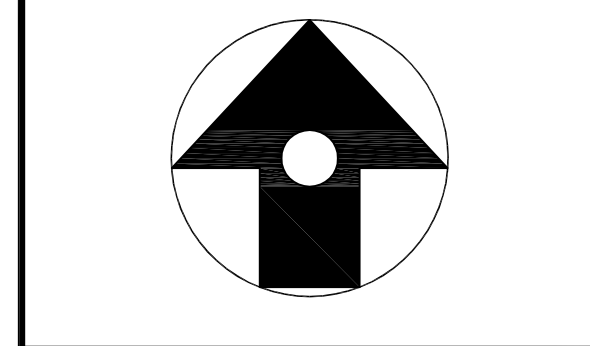
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BASE BUILDING DOCUMENT ONLY REFERENCE ONLY



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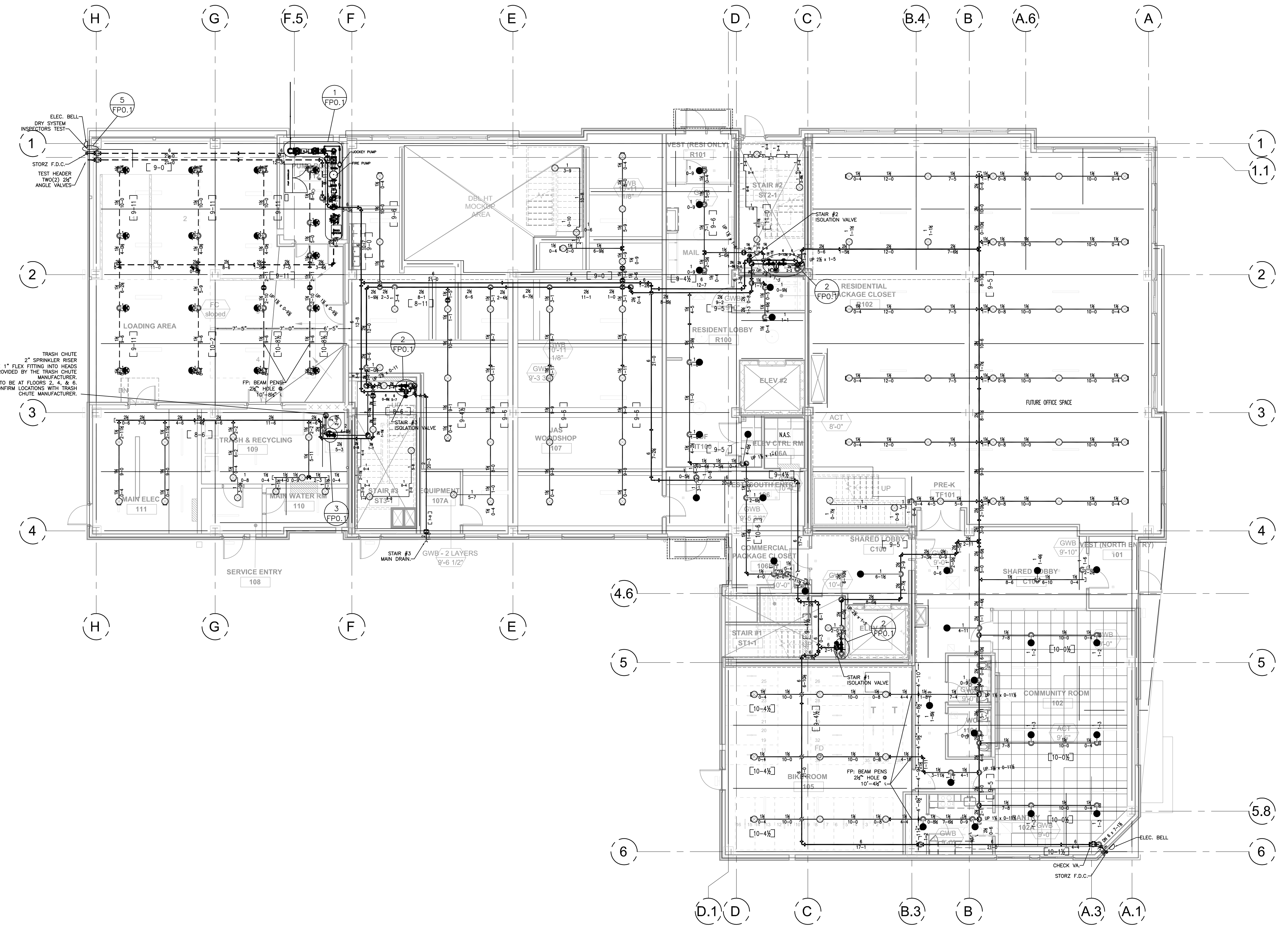
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Residual pressure	59 psi
Flow	1325 gpm
Location	366 RINDGE AVE
Elevation	0
Date	10/17/2022
Time	
Information by	
Cambridge Water Dept.	



Revisions:	Date:
1. Shop Drawings	07/06/23
2. Revised Shop Drawings	07/21/23
3	

PROJECT NAME	RINDGE COMMONS: BUILDING A
PROJECT ADDRESS	430 & 432 RINDGE AVE, CAMBRIDGE, MA
SHEET TITLE	FIRST FLOOR FIRE PROTECTION PLAN

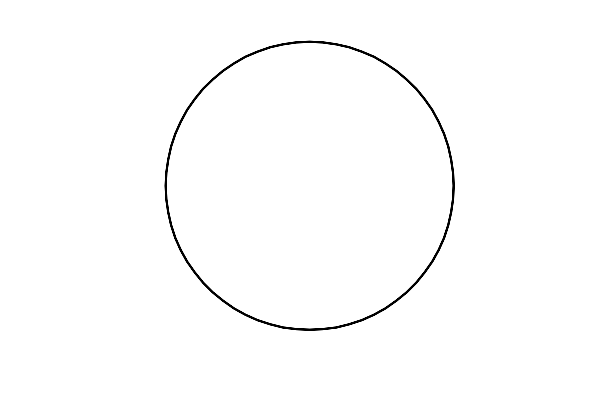
PROJECT NO.	22032
DATE	11/30/2022
SCALE	1/8"=1'-0"
DRAWN BY	SRS
CHECKED BY	MJ



FIRST FLOOR
 FIRE SPRINKLER PLAN



BASE BUILDING DOCUMENT ONLY REFERENCE ONLY

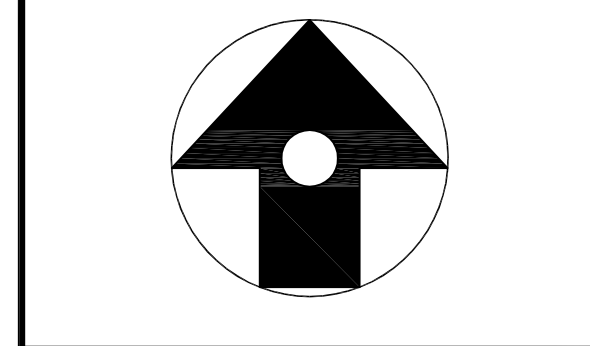


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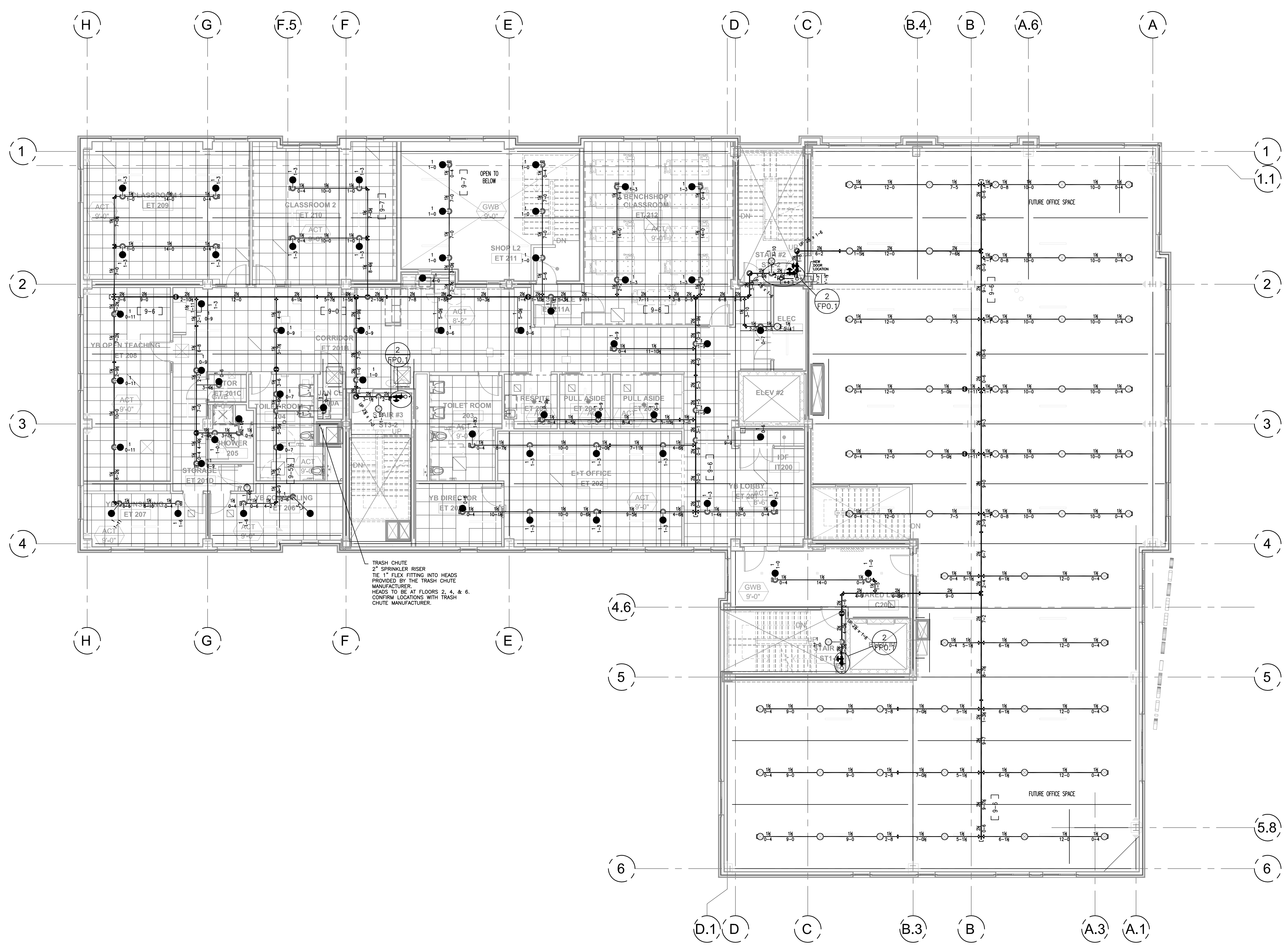
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Residual pressure	59 psi
Flow	1325 gpm
Location	366 RINDGE AVE
Elevation	0
Date	10/17/2022
Time	
Information by	
Cambridge Water Dept.	



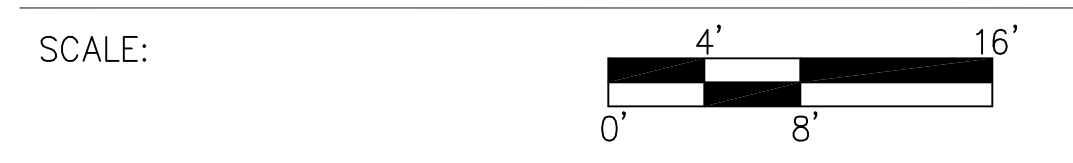
Revisions:	Date:
1. Shop Drawings	07/06/23
2. Revised Shop Drawings	07/21/23
3	

PROJECT NAME RINDGE COMMONS: BUILDING A	PROJECT ADDRESS 430 & 432 RINDGE AVE, CAMBRIDGE, MA	SHEET TITLE SECOND FLOOR FIRE PROTECTION PLAN
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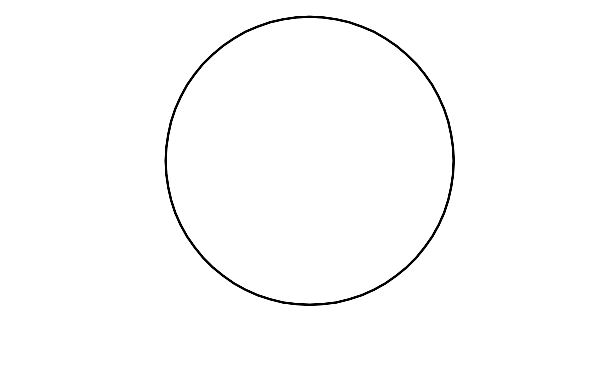
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DATE	11/30/2022
SCALE	1/8"=1'-0"
DRAWN BY	SRS
CHECKED BY	MJ



SECOND FLOOR
 FIRE SPRINKLER PLAN



BASE BUILDING DOCUMENT ONLY REFERENCE ONLY



FP 2.0