

**THE SCHOOL DISTRICT OF PHILADELPHIA
SCHOOL REFORM COMMISSION
Office of Capital Programs
440 North Broad Street, 3rd Floor – Suite 371
Philadelphia, PA 19130**

TELEPHONE: (215) 400-4730

Addendum No. 001

Subject: Mechanical Plant Replacement Bid Package
Mechanical
SDP Contract No. B-045 (c) of 2017/18

Location: Arts Academy at Benjamin Rush
11081 Knights Road
Philadelphia, Pennsylvania 19154

This Addendum, dated July 3, 2018, shall modify and become part of the Contract Documents for the work of this project. Any items not mentioned herein, or affected by, shall be performed strictly in accordance with the original documents.

Revise as indicated below or by attachment

1.1 Bid date has been changed to 2:00 PM, July 12, 2018

2.1 Drawings – All drawings have been reissued due to the insertion of a new sheet. Be advised only clouded areas indicated on the drawings and noted below are actual changes.

- 2.1.1** Drawing revision CS-001 – Revised Drawing Updated drawing list and issue log.
- 2.1.2** Drawing revision A100 – Revised Sheet Notes 1 to include noting for carpet repair/infill.
- 2.1.3** Drawing revision M001 – Revised Drawing Changed Drawing Number System legend.
- 2.1.4** Drawing revision MD100 – Revised Drawing Key Note 1 to include Mechanical Contractor shall paint the entire affected wall with 2 coats of paint.
- 2.1.5** Drawing revision M100 – Added noting for M.C. responsibility for all roof work associated with the installation of the roof curbs and rooftop units. Added noting for pipe roof supports.
- 2.1.6** Drawing revision M101 – Revised note for asphalt patching/repair to be by PGW. Added noting for chain link enclosure around meter and bollard protection.
- 2.1.7** Added Sheet M501 – New detail sheet for chain link enclosure and bollard requirements.
- 2.1.8** Drawing revision E001 – Revised Life Safety Scope of Work Note 6 to indicate manufacturer of Fire Alarm system.
- 2.1.9** Drawing revision E100 – Added convenience receptacles to roof top units. Added Sheet Notes 7 to indicate scope of work.

3.1 Contractor questions:

3.1.1 Are GFCI receptacles required at the two RTU's on the roof?

- Refer to 2.1.9 above.

3.1.2 Can you provide a manufacturer and model number of the existing fire alarm for connection of the four duct detectors?

- Refer to 2.1.8 above.

3.1.3 Is the roof under warranty and if so, who with?

- Roof is not under warranty.

3.1.4 Is floor patching required at the unit ventilator locations? If so, what is the manufacturer, model and color of the flooring?

- Refer to 2.1.2 above; carpeting specification attached.

3.1.5 Please confirm that the mechanical contractor is responsible to paint walls to match in areas where equipment/piping is removed.

- Refer to 2.1.4 above.

3.1.6 Please extend the bid date due to the holiday.

- Refer to 1.1 above.

3.1.7 Please confirm that all work from the street to the downstream side of the gas meter is by the gas utility company with the exception that the mechanical contractor is responsible to patch the asphalt.

- Refer to 2.1.6 above. Asphalt patching repair to be by PGW

END OF ADDENDUM #001



Installation Method



Non Directional

All product specifications reflect averages derived from product sample testing, are subject to normal manufacturing and testing tolerances and inherent pattern variances, and may be changed without notice. For more information about these and other important attributes of the product(s) described herein, including recycled content and product warranty information, please see www.interface.com/disclaimer.

Product Cubic **Color** 4291 Square **Backing** GlasBac®

Product Specifications

| | |
|-------------------------|------------------------------------|
| Product Number | 1380102500 |
| Product Construction | Tufted Textured Loop |
| Yarn System | 100% Recycled Content Type 6 Nylon |
| Yarn Manufacturer | Aquafil |
| Dye Method | 100% Solution Dyed |
| Dye Lots | Mergeable |
| Soil/Stain Protection | Protekt® |
| Preservative Protection | Intersept® |

| | Imperial | Metric |
|--------------------|--------------------------|------------------------|
| Tufted Yarn Weight | 18 oz/yd ² | 610 g/m ² |
| Machine Gauge | 1/12 in | 47.2 ends/10cm |
| Pile Height | 0.14 in | 3.7 mm |
| Pile Thickness | 0.093 in | 2.4 mm |
| Stitches | 8.2 /in | 32.1 ends/10cm |
| Pile Density | 6,968 oz/yd ³ | 254.3 g/m ³ |
| Total Thickness | 0.28 in | 6.98 mm |
| Size | 19.69 in x 19.69 in | 50cm x 50cm |

Performance Specifications

| | |
|--------------------------|--|
| Flooring Radiant Panel | (ASTM E-648) Class 1 |
| Smoke Density | (ASTM E 662) ≤ 450 |
| Lightfastness | (AATCC 16 - E) ≥ 4.0 @ 60 AFU's |
| Static | (AATCC - 134) < 3.0 KV |
| Dimensional Stability | AACHEN Din 54318 <.10% |
| Traffic Classification | Severe |
| Fiber Modification Ratio | 1.9 to 2.2 |
| Preservative Efficacy | (AATCC 174 Parts 2&3) 99% Reduction/No Mold 7 Days (ASTM E-2471) Complete Inhibition |

Environmental Specifications

| | |
|------------------------------------|--|
| Total Recycled Content | 71% |
| Recycled Content (Post Industrial) | 63% |
| Recycled Content (Post Consumer) | 8% |
| Indoor Air Quality | Green Label Plus #GLP0820 |
| Ingredients and Life Cycle Impacts | Environmental Product Declaration |
| Other Environmental Claims | 3rd Party Verified Carbon Neutral NSF/ANSI 140 Gold - Sustainability Assessment |
| End of Life | Carpet to Carpet Recycling |

Technical Information

| | |
|------------------------|--|
| Installation | See Interface Installation Guidelines online . Ver la Guia Interface de Recomendaciones para Instalación . |
| Maintenance | See recommended Interface Maintenance Guidelines online |
| Reclamation | Recyclable through ReEntry® - Call 1.888.733.6873 (U.S.) / 1.866.398.3191 (Canada) |
| Warranty | 15 Year Standard Carpet Warranty |
| Standard Backing | GlasBac® |
| Backing Options | GlasBac®, CushionBac Renew™, GlasBac®RE |
| Tile Size Options | 50cm x 50cm |
| Manufacturing Location | ISO 9001 & 14001 Certified facilities in Troup County, Georgia, United States |

ARTS ACADEMY AT BENJAMIN RUSH ANNEX MECHANICAL SYSTEM

11081 KNIGHTS ROAD

PREPARED FOR:
**SCHOOL DISTRICT OF PHILADELPHIA
THE SCHOOL REFORM COMMISSION**

OFFICE OF DESIGN AND CONSTRUCTION SERVICES

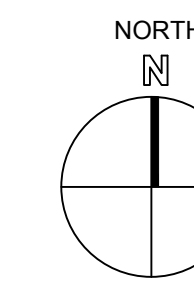
440 NORTH BROAD STREET
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PREPARED BY:

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Architecture - Interior Design - Engineering



PROJECT SITE
SCALE: NONE

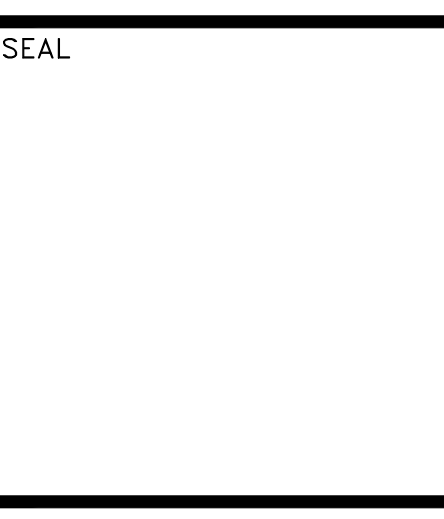
DRAWING LIST AND ISSUE LOG

| | | ISSUE HISTORY: | | | | | |
|----------------------|-------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------|
| | | 2017/04/14 | 2017/05/13 | 2017/05/09 | 2017/04/06 | 2017/06/28 | |
| | | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ADDITIONAL 1 |
| ARCHITECTURAL | | | | | | | |
| A001 | ARCHITECTURAL COVER SHEET | • | • | • | • | • | • |
| A100 | ARCHITECTURAL FLOOR PLAN | • | • | • | • | • | • |
| A200 | ARCHITECTURAL DEMOLITION FLOOR PLAN | • | • | • | • | • | • |
| A200 | ARCHITECTURAL CEILING PLAN | • | • | • | • | • | • |

| | | ISSUE HISTORY: | | | | | |
|-------------------|----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------|
| | | 2017/04/14 | 2017/05/13 | 2017/05/09 | 2017/04/06 | 2017/06/28 | |
| | | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ADDITIONAL 1 |
| MECHANICAL | | | | | | | |
| M001 | MECHANICAL COVER SHEET | • | • | • | • | • | • |
| MD100 | MECHANICAL ROOM DEMOLITION PLAN | • | • | • | • | • | • |
| M100 | MECHANICAL ROOM FLOOR PLAN | • | • | • | • | • | • |
| M101 | MECHANICAL SITE PLAN | • | • | • | • | • | • |
| M500 | MECHANICAL SCHEDULES AND DETAILS | • | • | • | • | • | • |
| M501 | MECHANICAL SCHEDULES AND DETAILS | • | • | • | • | • | • |

| | | ISSUE HISTORY: | | | | | |
|-------------------|----------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------|
| | | 2017/04/14 | 2017/05/13 | 2017/05/09 | 2017/04/06 | 2017/06/28 | |
| | | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ADDITIONAL 1 |
| ELECTRICAL | | | | | | | |
| E001 | COVER SHEET | • | • | • | • | • | • |
| E100 | FIRST FLOOR AND ROOF PLANS | • | • | • | • | • | • |

| | | ISSUE HISTORY: | | | | | |
|-------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------|
| | | 2017/04/14 | 2017/05/13 | 2017/05/09 | 2017/04/06 | 2017/06/28 | |
| | | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ISSUE FOR RFP Q2'S | ADDITIONAL 1 |
| STRUCTURAL | | | | | | | |
| S100 | STRUCTURAL FLOOR PLAN | • | • | • | • | • | • |



| | |
|-------------------|---|
| SCHOOL & LOCATION | ARTS ACADEMY AT BENJAMIN RUSH SCHOOL 11081 KNIGHTS ROAD PHILADELPHIA, PA 19154 |
| PROJECT TITLE | ANNEX HVAC |
| DRAWING TITLE | COVER SHEET |
| APPROVED BY | |

| | |
|---|---|
| SCHOOL DISTRICT OF PHILADELPHIA THE SCHOOL REFORM COMMISSION | DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES 1617 JFK BLVD, SUITE 1600 PHILADELPHIA, PA 19103 215.400.4230 FAX 215.400.4751 www.phila.edu |
| CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE | |

| | | |
|-----|------------|------------------|
| NO. | DATE | REVISION |
| 1 | 06.28.2018 | ADDITIONAL NO. 1 |
| 2 | | |
| 3 | | |
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| 8 | | |
| 9 | | |

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|------------|--------------|
| SPEC NO. | DATE |
| B-066/067 | 04/06/2018 |
| SCALE | LOCATION NO. |
| NONE | 8040 |
| DRAWN BY | TYPE NO. |
| JO | 239 |
| CHECKED BY | FILE NO. |
| JO | 247 |

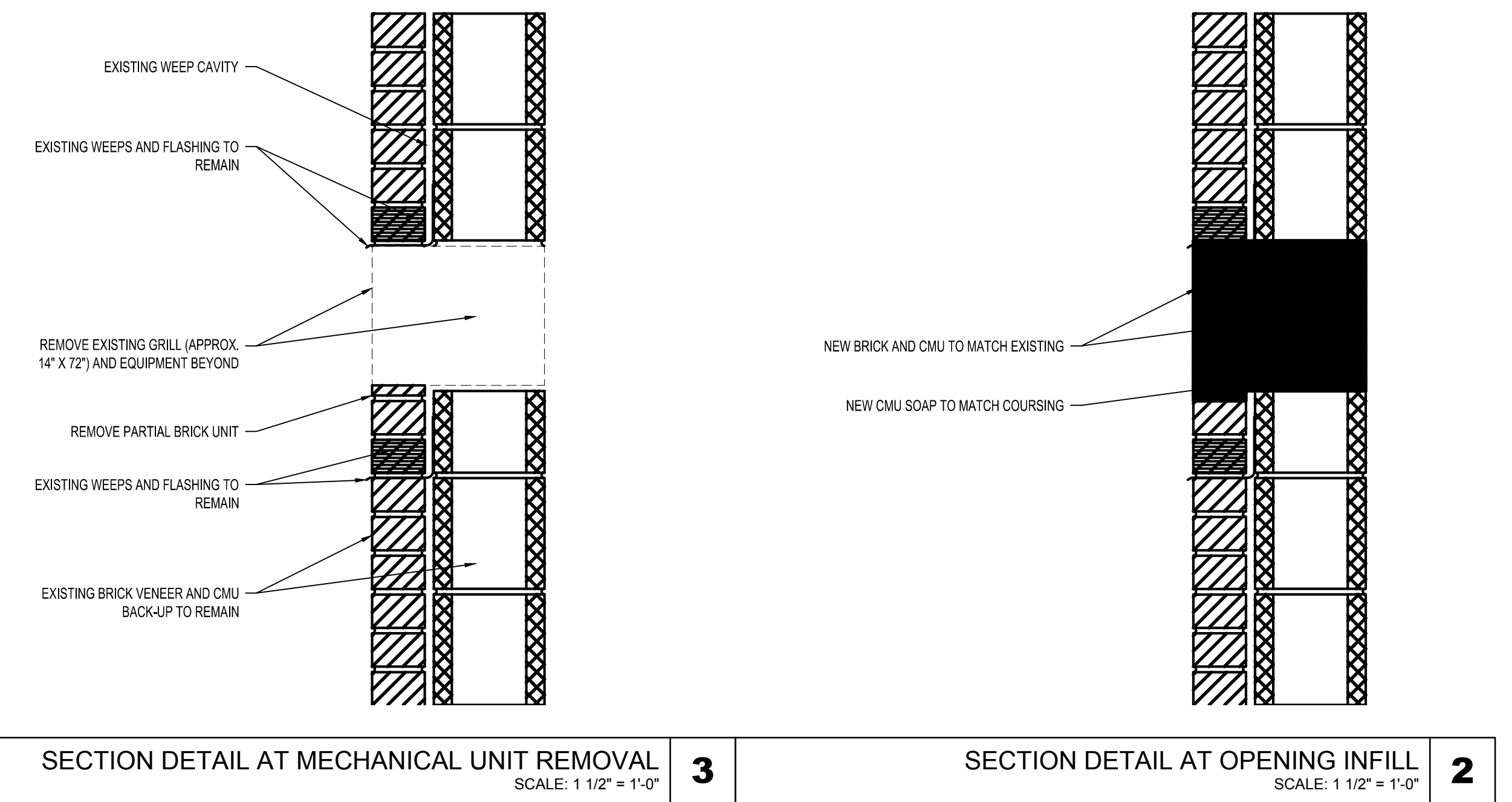
DRAWING NO.
CS-001

FLOOR PLAN DEMOLITION AND CONSTRUCTION NOTES

- COORDINATE THRU-WALL UNIT REMOVAL WITH MECHANICAL PLANS.
- COORDINATE THE WORK OF ALL TRADES INVOLVED IN THE REMOVAL OF THE THRU-WALL UNITS. TERMINATE ALL UTILITY CONNECTIONS AND REMOVE BACK TO SOURCE.
- NEW MASONRY TO MATCH EXISTING IN SIZE, COLOR, TEXTURE AND FINISH.

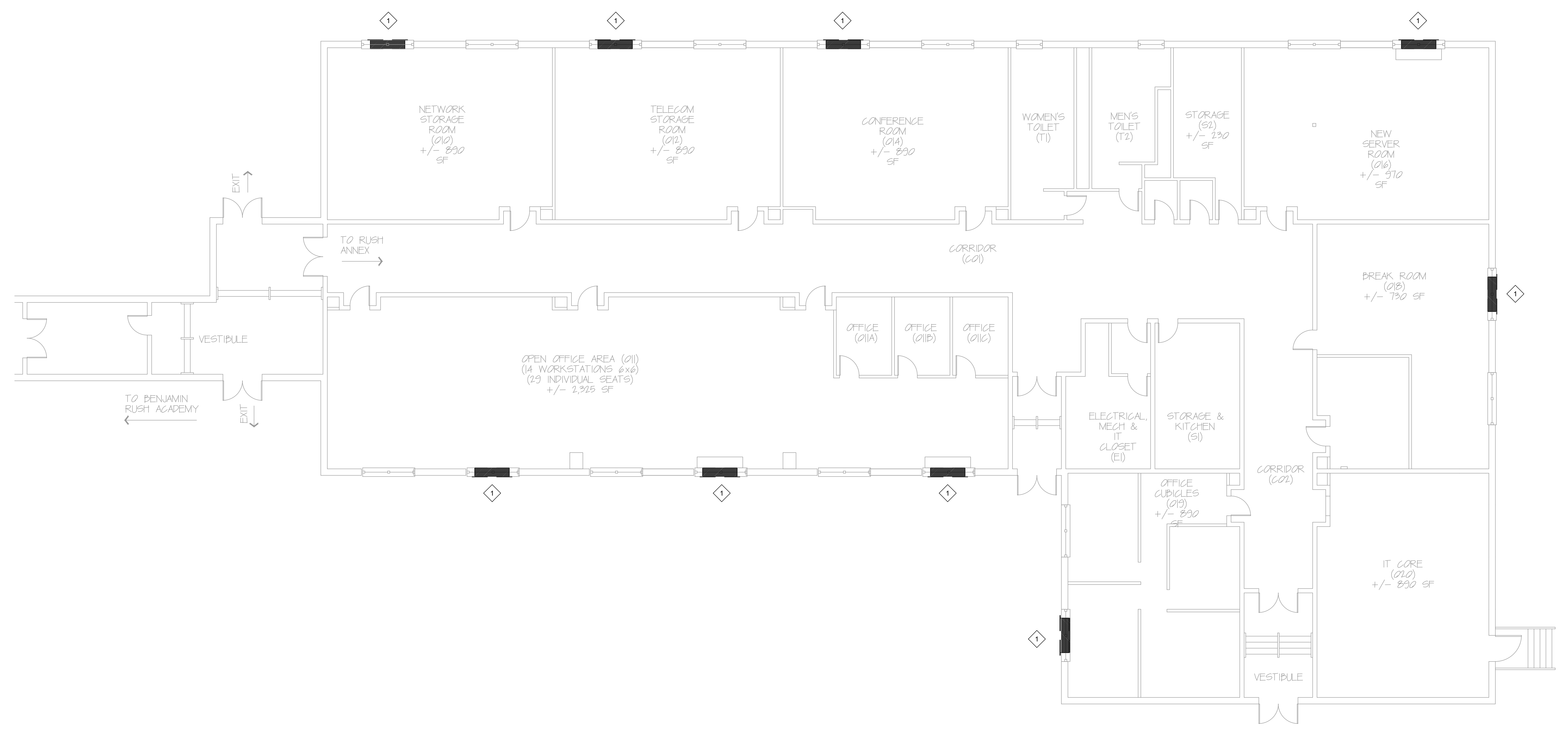
SHEET NOTES

1 REMOVE THRU-WALL MECHANICAL UNITS AND GRILLS. INFILL EXISTING OPENING WITH BRICK AND CMU TO MATCH EXISTING MASONRY. FOLLOW EXISTING COURSING. SEE SECTIONS 2 AND 3A100 FOR DETAILS. PAINT INTERIOR TO MATCH EXISTING IN COLOR, TEXTURE AND SHEEN. INFILL EXPOSED FLOOR AREA WITH CARPET TILES TO MATCH EXISTING. REPLACE PARTIALLY CUT EXISTING TILES WITH WHOLE TILES WHERE APPROPRIATE TO EFFECT A CONSISTENT APPEARANCE.



SECTION DETAIL AT MECHANICAL UNIT REMOVAL SCALE: 1 1/2" = 1'-0" **3**

SECTION DETAIL AT OPENING INFILL SCALE: 1 1/2" = 1'-0" **2**



ARCHITECTURAL FLOOR PLAN SCALE: 1/8" = 1'-0" **1**



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ARTS ACADEMY AT BENJAMIN RUSH SCHOOL
1101 KNIGHTS ROAD PHILADELPHIA, PA 19154

PROJECT TITLE
ANNEX HVAC

DRAWING TITLE
ARCHITECTURAL FLOOR PLAN

APPROVED BY

SCHOOL DISTRICT OF PHILADELPHIA
THE SCHOOL REFORM COMMISSION

DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES
PHILADELPHIA, PA 19107-4015
215.400.4230 FAX 215.400.4751
www.phila.edu

CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE

| NO. | DATE | REVISION |
|-----|------------|----------------|
| 1 | 06.28.2018 | ADDENDUM NO. 1 |
| 2 | | |
| 3 | | |
| 4 | | |
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| 8 | | |
| 9 | | |

SPEC NO. B-066/067 DATE 04/06/2018
SCALE 8040 LOCATION NO. 239
DRAWN BY JD TYPE NO. 250
CHECKED BY MS FILE NO. 250

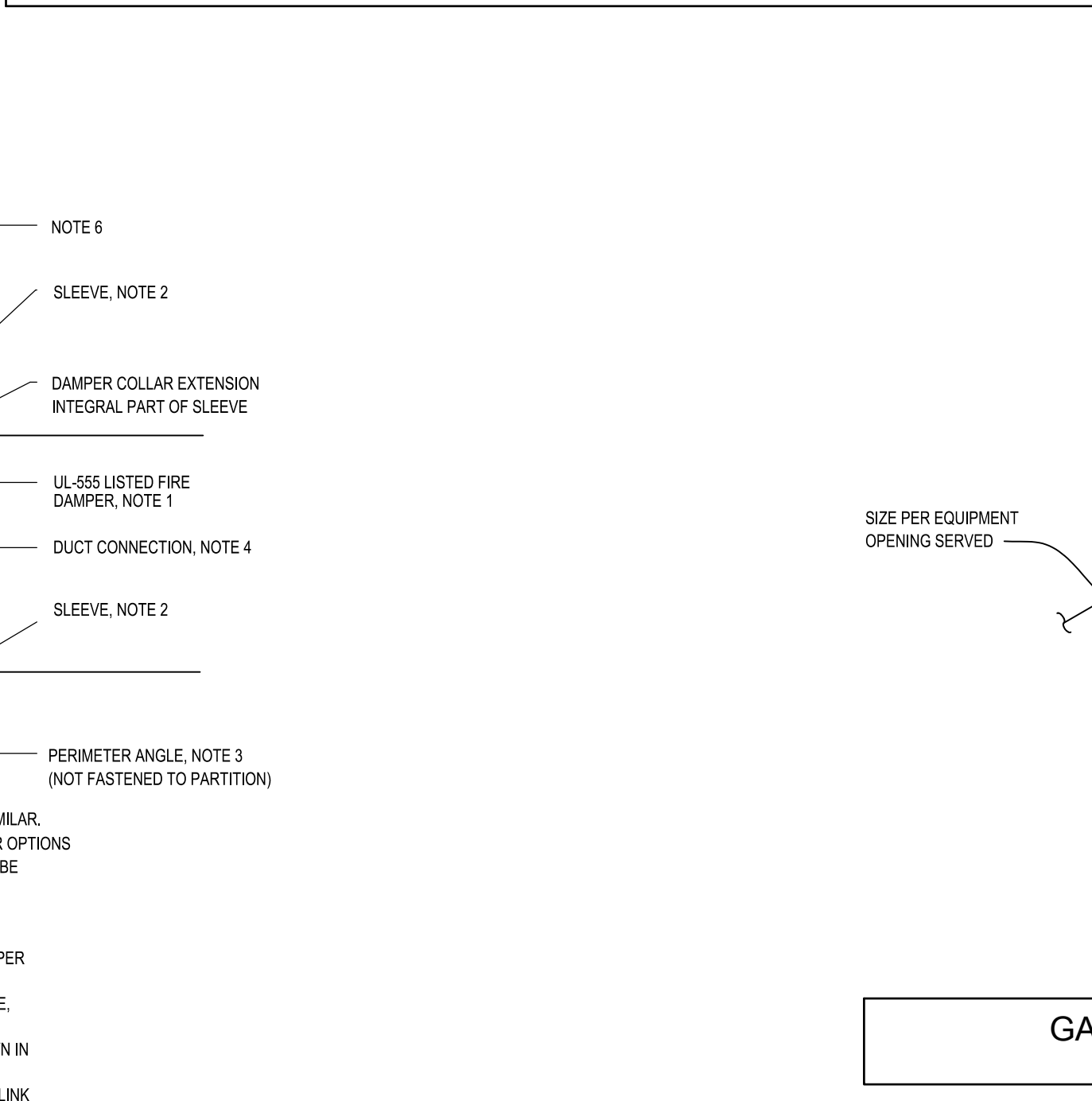
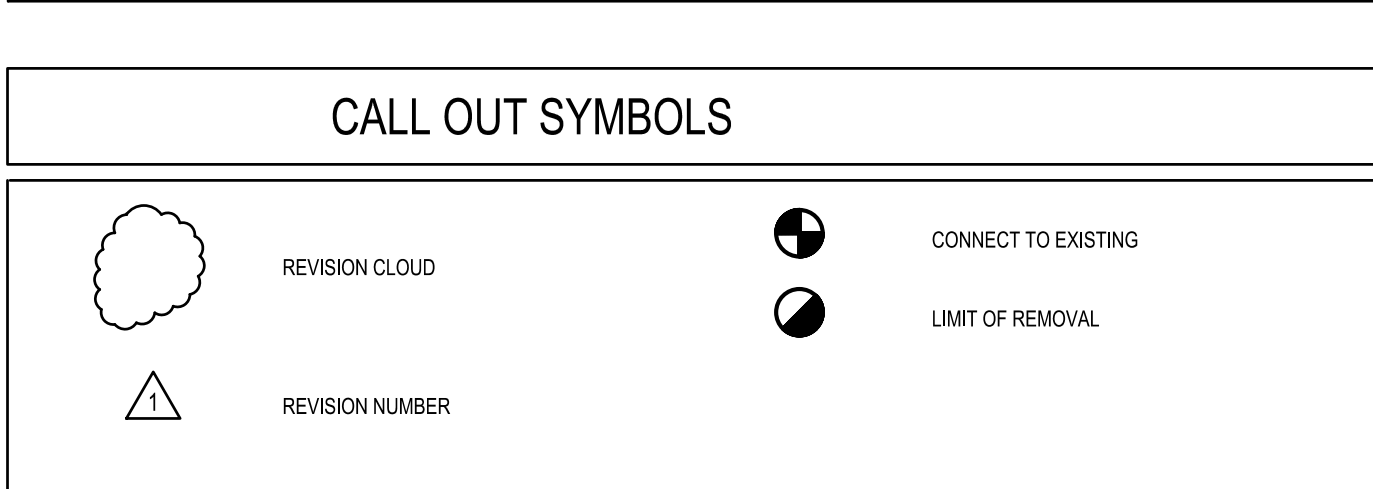
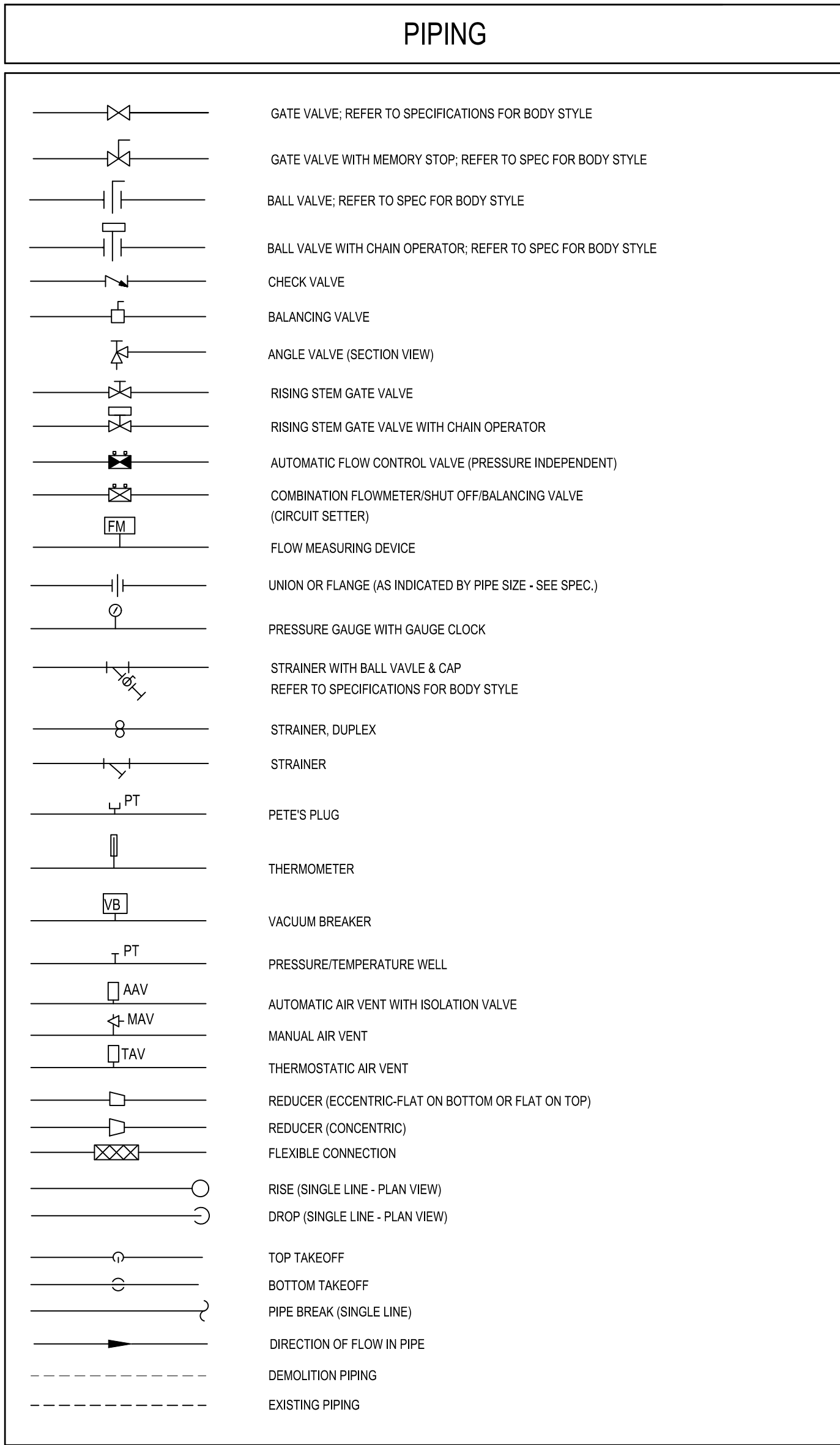
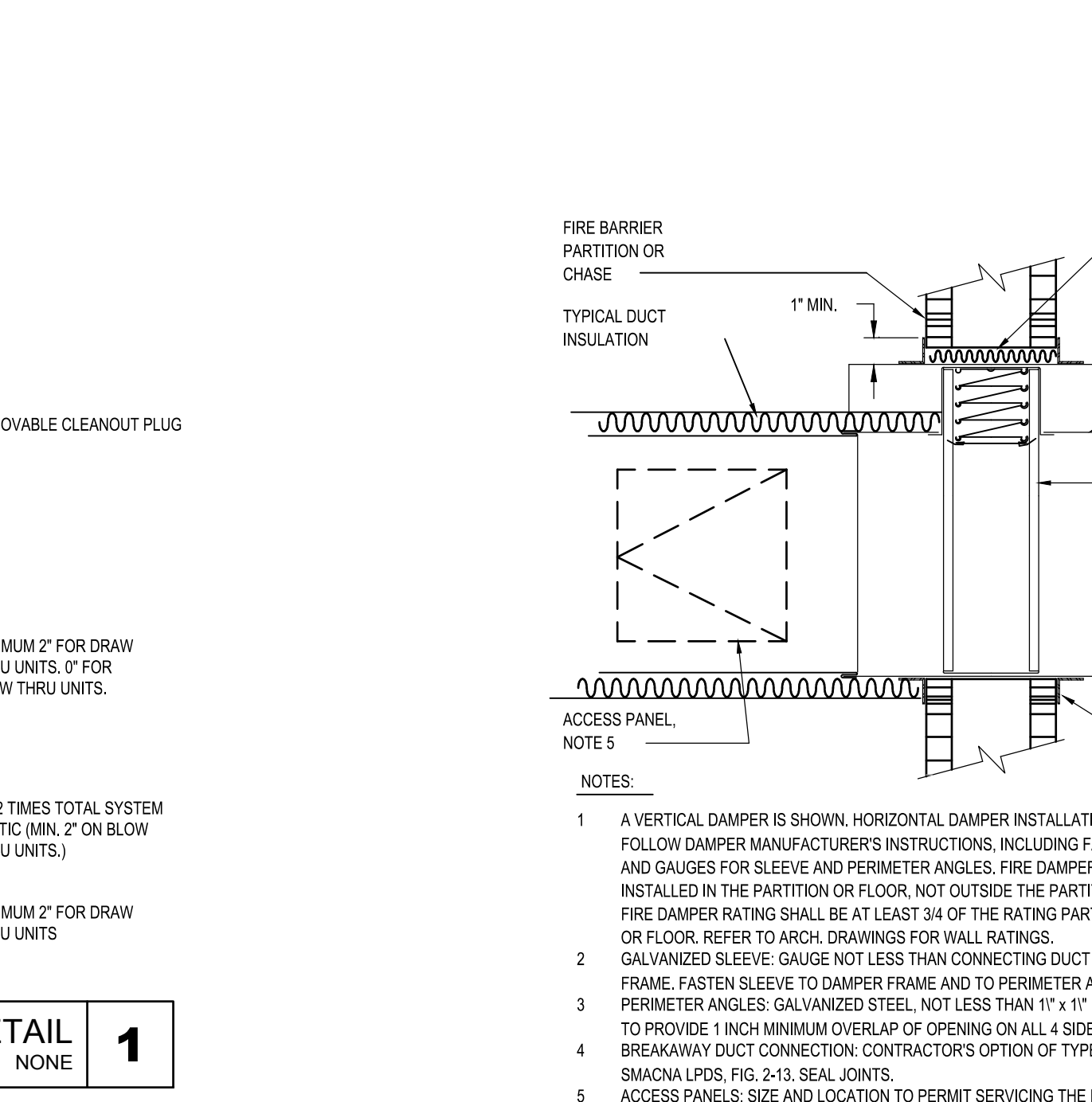
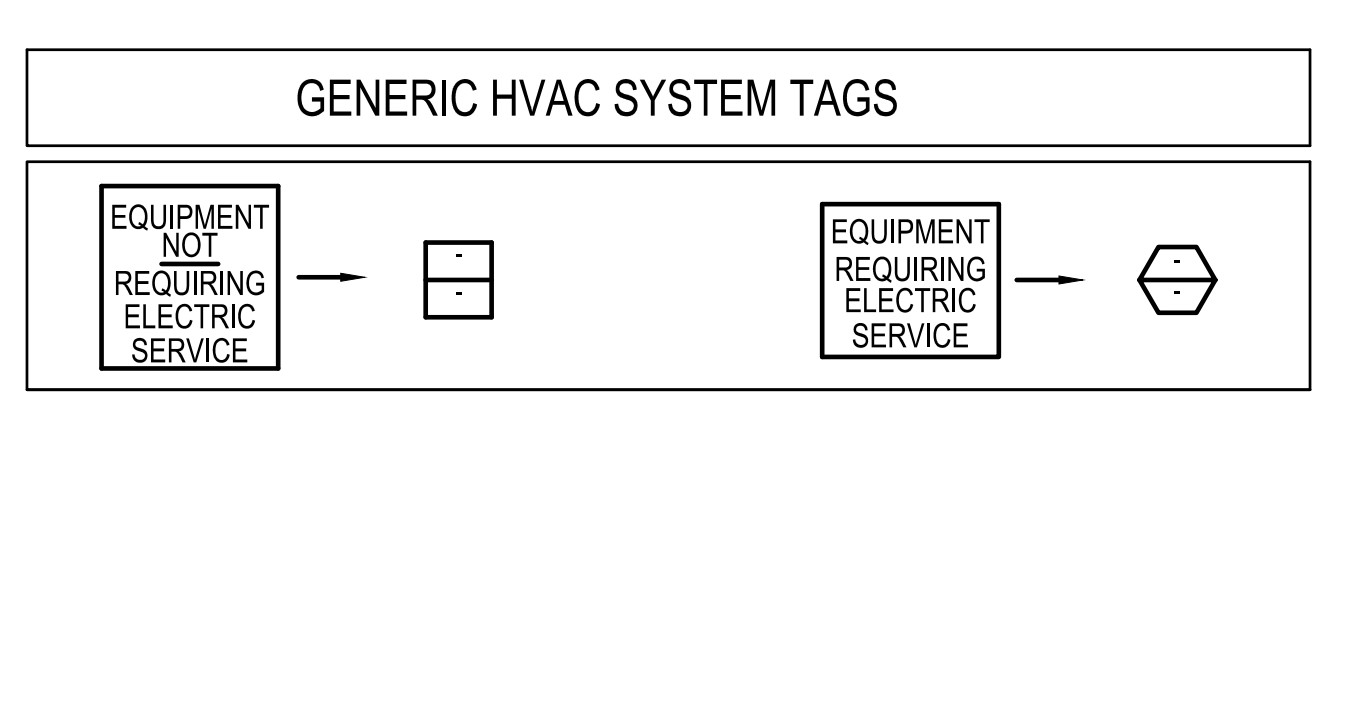
DRAWING NO.
A100

| DUCTWORK | | | |
|---|-------------|--|-------------|
| SINGLE LINE | DOUBLE LINE | SINGLE LINE | DOUBLE LINE |
| ROUND SUPPLY DUCT UP | | ROUND RETURN OR EXHAUST DUCT UP | |
| SUPPLY DUCT UP | | RETURN/EXHAUST DUCT UP | |
| ROUND SUPPLY DUCT DN | | RETURN/EXHAUST DUCT DOWN | |
| SUPPLY DUCT DOWN | | ROUND RETURN OR EXHAUST DUCT DOWN | |
| STANDARD RADIUS ELBOW (R = W) | | HORIZONTAL OFFSET SUPPLY, RETURN, OR EXHAUST | |
| SPLIT TAKE-OFF W/ BRANCH DAMPERS SUPPLY | | RISE/DROP | |
| BULLHEAD SPLIT SUPPLY | | 90° TAKE-OFF W/ BRANCH TAKE-OFF VOLUME DAMPER (VD) | |
| CEILING DUCT MTD DIFF/GRILLE W/ BRANCH TAKE-OFF VOLUME DAMPER | | IN LOW PRESSURE SYSTEMS ONLY | |
| CEILING DUCT MTD DIFF/GRILLE W/ BRANCH TAKE-OFF VOLUME DAMPER | | BULLHEAD CONVERGE RETURN/EXHAUST/SUPPLY W/ BRANCH TAKE-OFF VOLUME DAMPER | |
| ROUND SUPPLY DUCT DN TO DIFFUSER WITH FLEX DUCT AND VOLUME DAMPER | | SIDEWALL DUCT MTD REGISTER/GRILLE W/ BRANCH TAKE-OFF VOLUME DAMPER | |
| ACOUSTICALLY LINED DUCT | | SUPPLY SIDEWALL LINEAR DIFFUSER (W/ 1" INTERNALLY LINED SM PLENUM) BRANCH CONN W/VD FOR EVERY 4' OF LINEAR | |
| ROUND FLEXIBLE DUCT | | OPEN END DUCT W/VD & 1/2"x1/2" WMS | |
| TRANSFER AIR VIA UNDERCUT DOOR | | TRANSFER AIR VIA LOUVERED DOOR | |

| | |
|---|----------------------------|
| AIR VOLUME TRAVERSE STATION | SUPPLY DUCTWORK |
| AUTOMATIC CONTROL DAMPER W/ACCESS DOOR | RETURN DUCTWORK |
| AUTOMATIC SMOKE DAMPER W/ACCESS DOOR | DEMOLITION WORK |
| BACKDRAFT DAMPER | EXISTING TO REMAIN |
| COMBINATION SMOKE/FIRE DAMPER W/ACCESS DOOR | 4-WAY BLOW SUPPLY DIFFUSER |
| MANUAL VOLUME DAMPER | 3-WAY BLOW SUPPLY DIFFUSER |
| MOTORIZED DAMPER | 2-WAY BLOW SUPPLY DIFFUSER |
| SELF-CLOSING FIRE DAMPER W/ACCESS DOOR | 1-WAY BLOW SUPPLY DIFFUSER |
| SUPPLY LINES (CHWS, HWS, CWS, ETC...) | RETURN AIR GRILLE |
| RETURN LINES (CHWR, HWR, CWR, ETC...) | RETURN AIR GRILLE |
| CONDENSATE LINE | |



| GENERIC HVAC ABBREVIATIONS | | | |
|----------------------------|---|-------|-------------------------------------|
| ACV | AUTOMATIC CONTROL VALVE | °F | DEGREES FAHRENHEIT |
| AD | ACCESS DOOR | °C | DEGREES CELSIUS |
| AFG | ABOVE FINISHED FLOOR | Ø | DIAMETER |
| AFG | ABOVE FINISHED GRADE | HZ | HERTZ |
| AF | ACCESS PANEL | HK | HEAT EXCHANGER |
| ATC | AUTOMATIC TEMPERATURE CONTROL | ID | INSIDE DIAMETER |
| AS | AIR SEPARATOR | IN | INCHES |
| AVG | AVERAGE | INSUL | INSULATION |
| BD | BAROMETRIC DAMPER | KW | KILOWATT |
| BF | BOILER FEEDWATER | KVA | KILOVOLT AMPERE |
| BHP | BRAKE HORSEPOWER | L | LENGTH |
| BLR | BOLTER | LB | POUND |
| BOD | BOTTOM OF DUCT | LVG | LEAVING |
| BOP | BOTTOM OF PIPE | M | ONE THOUSAND |
| BSMT | BASEMENT | MAX | MAXIMUM |
| BTU | BRITISH THERMAL UNIT PER HOUR | MBH | THOUSAND BRITISH THERMAL UNITS / HR |
| BTUH | BRITISH THERMAL UNIT PER HOUR | MCA | MINIMUM CIRCUIT AMPS |
| CL | CENTERLINE | MCC | MOTOR CONTROL CENTER |
| CD | CLEAN-OUT | MECH | MECHANICAL |
| COL | COLUMN | MEZZ | MEZZANINE |
| CONC | CONCRETE | MIN | MINIMUM |
| CONTR | CONTRACTOR | MTD | MOUNTED |
| CORR | CORRODOR | MU | MAKEUP WATER |
| CW | COLD WATER | (N) | NEW |
| CUH | CABINET UNIT HEATER | N/A | NOT APPLICABLE |
| D | DRAIN | NC | NOISE CRITERIA |
| DB | DRY BULB TEMPERATURE | ND | NOT IN CONTRACT |
| DDC | DIRECT DIGITAL CONTROL | NTS | NOT TO SCALE |
| DIM | DIMENSION | OB | OCTAVE BAND |
| DN | DOWN | ODP | OPEN DROP PROOF |
| DWG | DRAWING | PCF | POUNDS PER CUBIC FOOT |
| (E) | EXISTING | PD | PRESSURE DROP |
| EAT | ENTERING AIR TEMPERATURE | PH | PHASE |
| EFF | EFFICIENCY | PRESS | PRESSURE |
| EQUH | ELECTRIC CABINET UNIT HEATER | PSIA | POUNDS PER SQUARE INCH ABSOLUTE |
| ELEC | ELECTRICAL | PSIG | POUNDS PER SQUARE INCH GAUGE |
| ELEV | ELEVATION | (RE) | RELOCATED EXISTING |
| ENT | ENTERING | RET | RETURN |
| EQUIP | EQUIPMENT | RH | RELATIVE HUMIDITY |
| (ER) | EXISTING TO BE REMOVED | RPM | REVOLUTIONS PER MINUTE |
| EXH | ELECTRIC UNIT HEATER EXHAUST | SPCS | SPECIFICATIONS |
| FTR | FINED TUBE RADIATION FLOW CONTROL VALVE | SQFT | SQUARE FEET |
| FCV | FLOW CONTROL VALVE | SS | STAINLESS STEEL |
| FLEX | FLEXIBLE | STD | STANDARD |
| FLR | FLOOR | SUP | SUPPLY |
| FP | FIRE PROTECTION | TEMP | TEMPERATURE |
| FPM | FEET PER MINUTE | TOP | TOP OF DUCT |
| FT | FEET | TOP | TOP OF PIPE |
| FT/SEC | FEET PER SECOND | TYP | TYPICAL |
| FOS | FUEL OIL SUPPLY | UH | UNIT HEATER |
| FOR | FUEL OIL RETURN | V | VENT |
| FOV | FUEL OIL VENT | VEL | VELOCITY |
| G | GAS | VFD | VARIABLE FREQUENCY DRIVE |
| GALV | GALVANIZED | | |
| GC | GENERAL CONTRACTOR | | |
| GPM | GALLONS PER MINUTE | | |



HVAC GENERAL NOTES

INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL UNITS PLUMB AND LEVEL. FIRMLY ANCHORED IN LOCATIONS INDICATED, AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES.

ALL MATERIAL SHALL BE SUBMITTED TO THE A/E VERIFYING IT IS ADEQUATE FOR INSTALLATION PER THE SPECIFICATIONS AND DRAWING. VERIFY DIMENSIONS AND CLEARANCES AT BUILDING BEFORE COMMENCING WORK.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL LOCATION OF EXISTING STRUCTURAL MEMBERS AND COORDINATE INSTALLATION OF THE EQUIPMENT ACCORDINGLY.

THE CONTRACTOR SHALL FULFILL ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SHALL COMPLETE THE IMPROVEMENTS SHOWN ON THE DRAWINGS. ALL SYSTEMS SHALL BE FINISHED, TESTED, AND BALANCED, ADJUSTED, AND PROVEN FULLY OPERATIONAL AND USEABLE.

EXCEPT WHERE SPECIFICALLY SHOWN OR SPECIFIED OTHERWISE, EXISTING WORK IS TO REMAIN.

WHERE PIPES, CONTROL DEVICES AND WIRING WHICH ARE TO REMAIN IN SERVICE ARE DISCONNECTED FOR THE REMOVAL OR RELOCATION OF EQUIPMENT OR BECAUSE OF BUILDING ALTERATIONS, THEY SHALL BE RE-CONNECTED.

CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.

COORDINATE DUCTWORK AND PIPING WITH PLUMBING, FIRE PROTECTION AND ELECTRICAL.

MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

THE CONTRACTOR SHALL PAINT ALL UNINSULATED PIPING, IRON OR STEEL VALVES, EQUIPMENT FOUNDATIONS AND ALL SUPPORTS AS SPECIFIED. CONTRACTOR SHALL PRIME PAINT ALL INSULATED PIPING AND VALVES PRIOR TO APPLICATION OF INSULATION.

REMOVE ALL EXISTING INSULATION AND INSTALL NEW IN ACCORDANCE WITH SPECIFICATIONS.

OWNER MAY RESTRICT WORK DURING THE SCHOOL DAY IN THE NORMAL SCHOOL YEAR.

CONTRACTOR SHALL VERIFY OTHER PIPING UTILITIES NOT ASSOCIATED WITH THIS WORK BUT LYING WITHIN THE WORK AREA AND WILL NOT DISTURB THESE. THESE PIPING UTILITIES SHALL BE PROTECTED SO THAT SERVICE IS NOT INTERRUPTED. THE CONTRACTOR SHALL REPAIR ANY DAMAGE DONE TO THE PIPING UTILITIES IN THE PERFORMANCE OF THE CONTRACT WORK.

PROJECT NOTES:

THE SCOPE OF WORK SHALL INCLUDE PROVIDING ALL WORK INDICATED, AND COORDINATION WITH ALL TRADES. SCOPE OF WORK IS INDICATED ON THE CONTRACT DOCUMENTS INCLUDING THE DRAWINGS AND THE SPECIFICATIONS, WHICH ARE COMPLIMENTARY. WORK INDICATED IN ANY CONTRACT DOCUMENT SHALL BE CONSIDERED PART OF THE SCOPE OF WORK. IN GENERAL, WORK REQUIREMENTS ARE NOT INDICATED IN BOTH DOCUMENTS, WHERE DOCUMENTS CONFLICT WITHIN THEMSELVES OR WITH CODES AND REGULATIONS, PROVIDE THE HIGHER QUANTITY AND QUALITY AND FOLLOW THE STRICTER REQUIREMENTS.

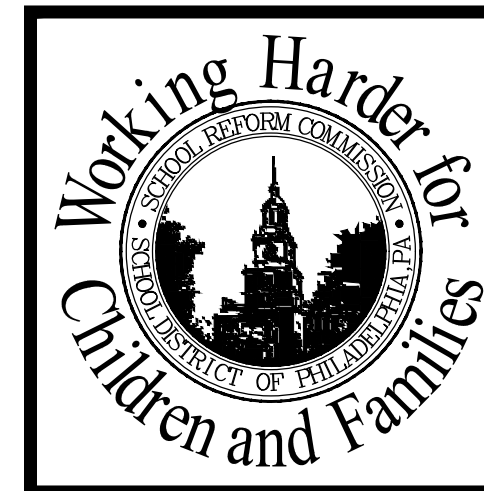
CONTRACTOR SHALL CLEAN ALL FIN RADIATION COILS TO REMAIN.

LEGEND NOTES:

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.

DRAWING NUMBER SYSTEM

| | |
|-------|----------------------------------|
| M001 | MECHANICAL COVER SHEET |
| M0100 | MECHANICAL DEMOLITION PLAN |
| M1000 | MECHANICAL FLOOR PLAN |
| M101 | MECHANICAL SITE PLAN |
| M000 | MECHANICAL SCHEDULES AND DETAILS |
| M01 | MECHANICAL SCHEDULES AND DETAILS |



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Architecture - Interior Design - Engineering

SCHOOL & LOCATION
ARTS ACADEMY AT BENJAMIN RUSH SCHOOL
1101 KNIGHTS ROAD PHILADELPHIA, PA 19154

PROJECT TITLE
ANNEX HVAC
DRAWING TITLE
MECHANICAL COVER SHEET

APPROVED BY

SCHOOL DISTRICT OF PHILADELPHIA
THE SCHOOL REFORM COMMISSION

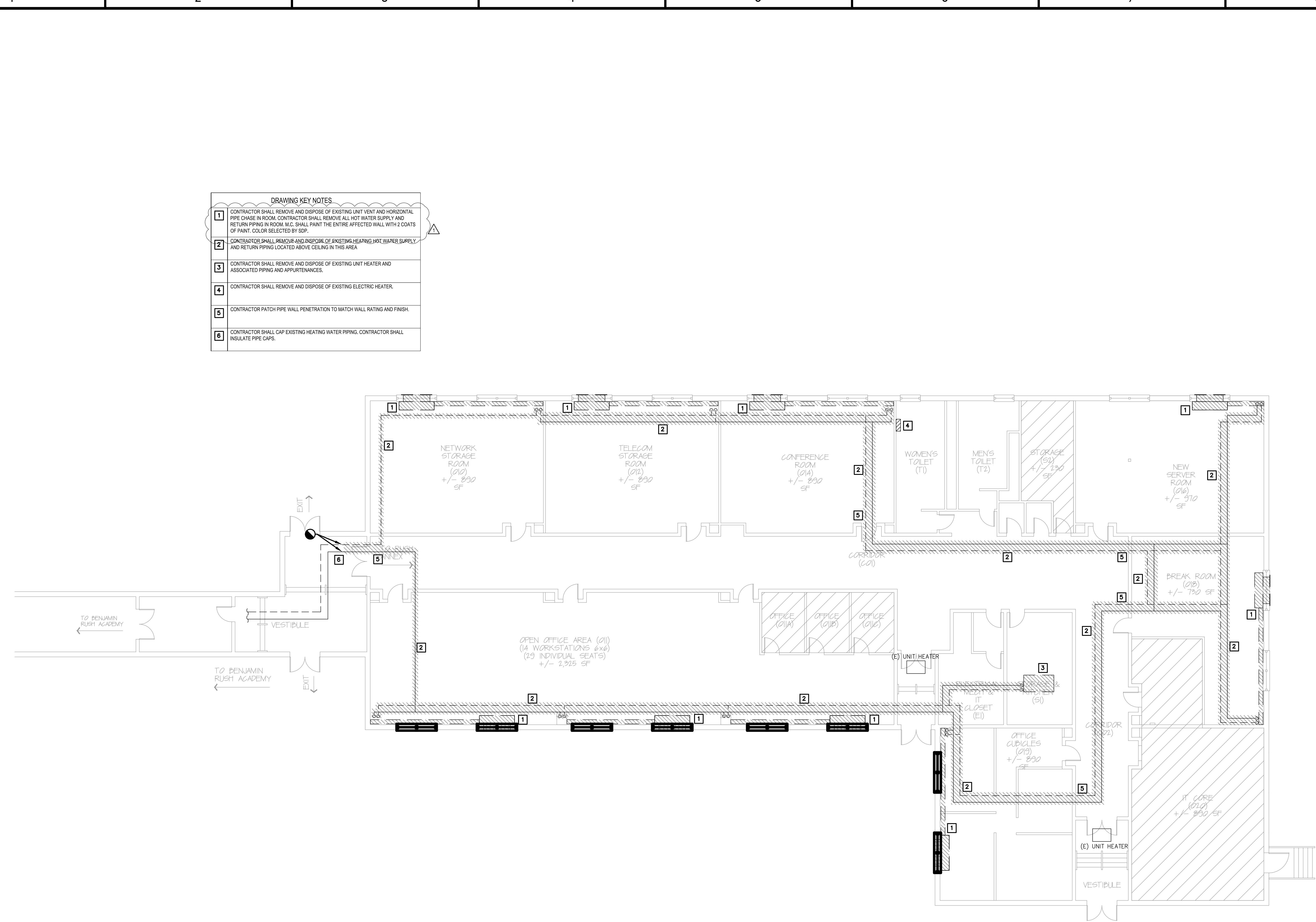
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CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AT SITE

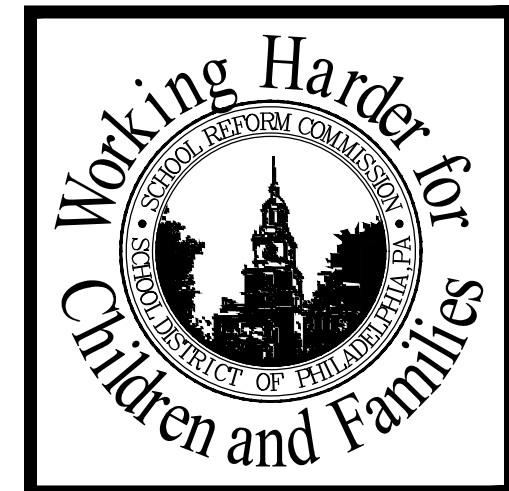
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| SPEC NO. | B-066/067 | DATE | 04/06/2018 |
| SCALE | 8040 | LOCATION NO. | 239 |
| DRAWN BY | JO | TYPE NO. | 252 |
| CHECKED BY | MS | FILE NO. | |

DRAWING NO.
M001



- DRAWING KEY NOTES**
- 1** CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING UNIT VENT AND HORIZONTAL PIPE CHASE IN ROOM. CONTRACTOR SHALL REMOVE ALL HOT WATER SUPPLY AND RETURN PIPING IN ROOM. M.C. SHALL PAINT THE ENTIRE AFFECTED WALL WITH 2 COATS OF PAINT. COLOR SELECTED BY SDP.
 - 2** CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING HEATING HOT WATER SURPLY AND RETURN PIPING LOCATED ABOVE CEILING IN THIS AREA.
 - 3** CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING UNIT HEATER AND ASSOCIATED PIPING AND APPURTENANCES.
 - 4** CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING ELECTRIC HEATER.
 - 5** CONTRACTOR PATCH PIPE WALL PENETRATION TO MATCH WALL RATING AND FINISH.
 - 6** CONTRACTOR SHALL CAP EXISTING HEATING WATER PIPING. CONTRACTOR SHALL INSULATE PIPE CAPS.



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ARTS ACADEMY AT BENJAMIN RUSH SCHOOL
 11081 KNIGHTS ROAD PHILADELPHIA, PA 19154

PROJECT TITLE
ANNEX HVAC

DRAWING TITLE
MECHANICAL DEMOLITION PLAN

APPROVED BY

SCHOOL DISTRICT OF PHILADELPHIA
 THE SCHOOL REFORM COMMISSION

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SPEC NO. B-066/067 DATE 04/06/2018
 SCALE 8040 LOCATION NO. 8040
 DRAWN BY JO TYPE NO. 239
 CHECKED BY MS FILE NO. 001

DRAWING NO.
MD100

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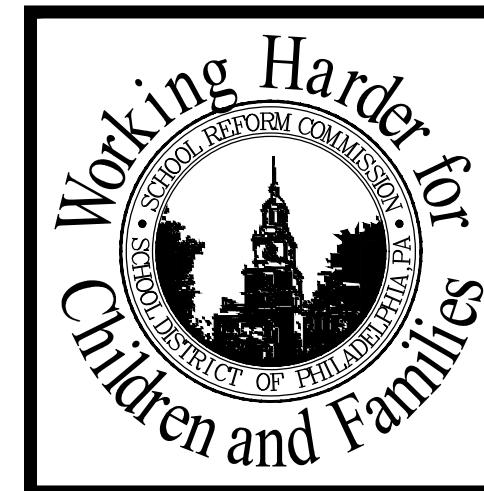
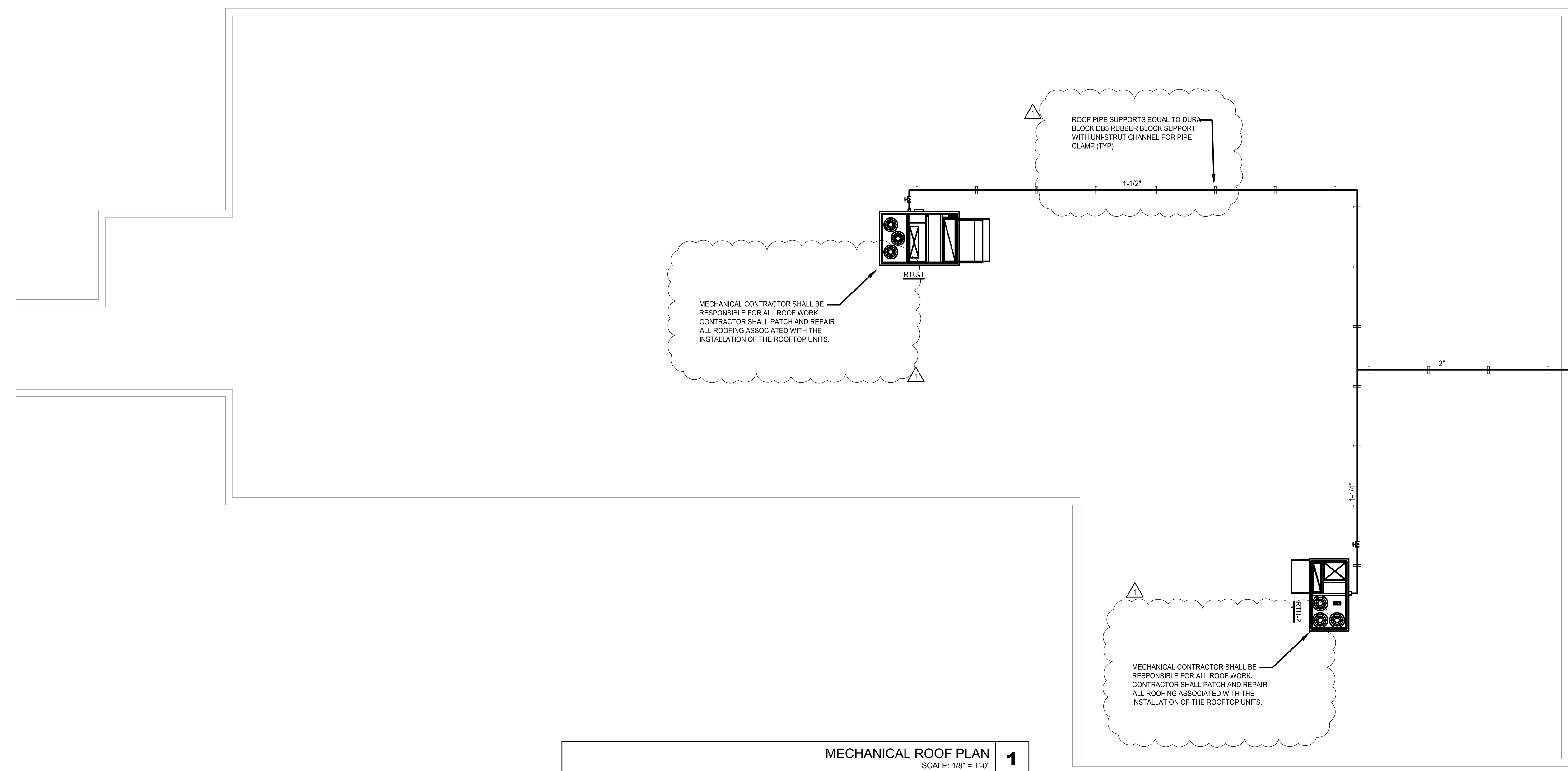
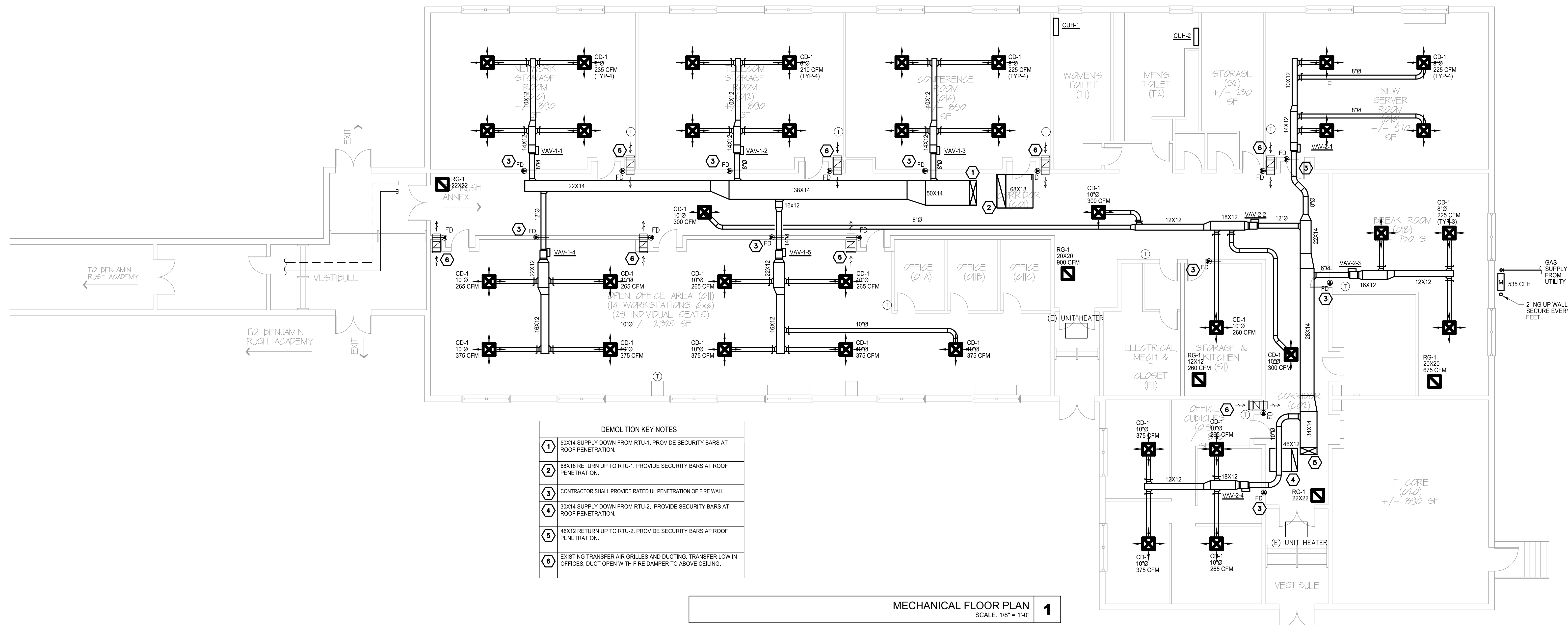
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PROJECT TITLE
ANNEX HVAC

DRAWING TITLE
MECHANICAL FLOOR PLAN

APPROVED BY

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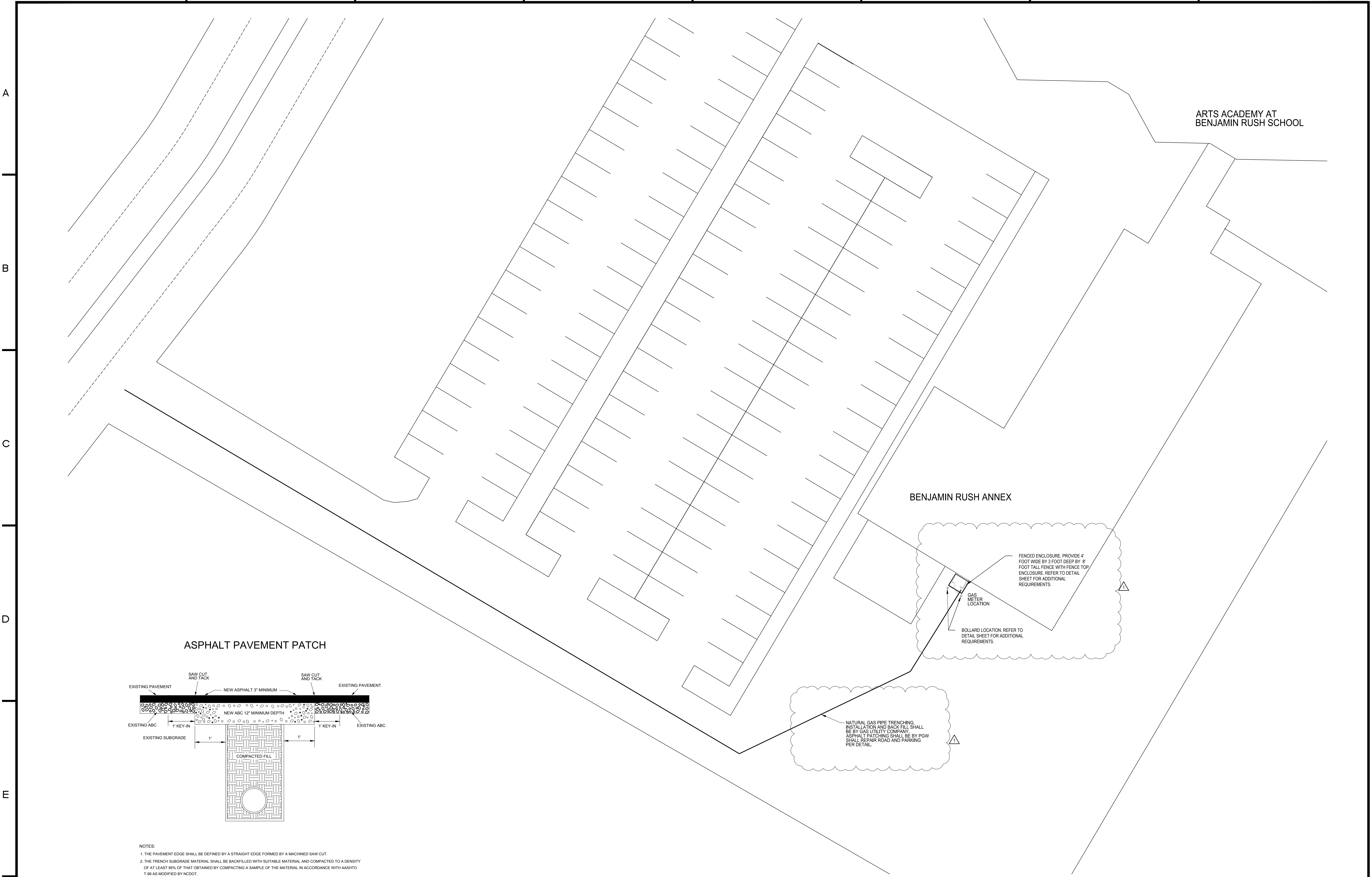
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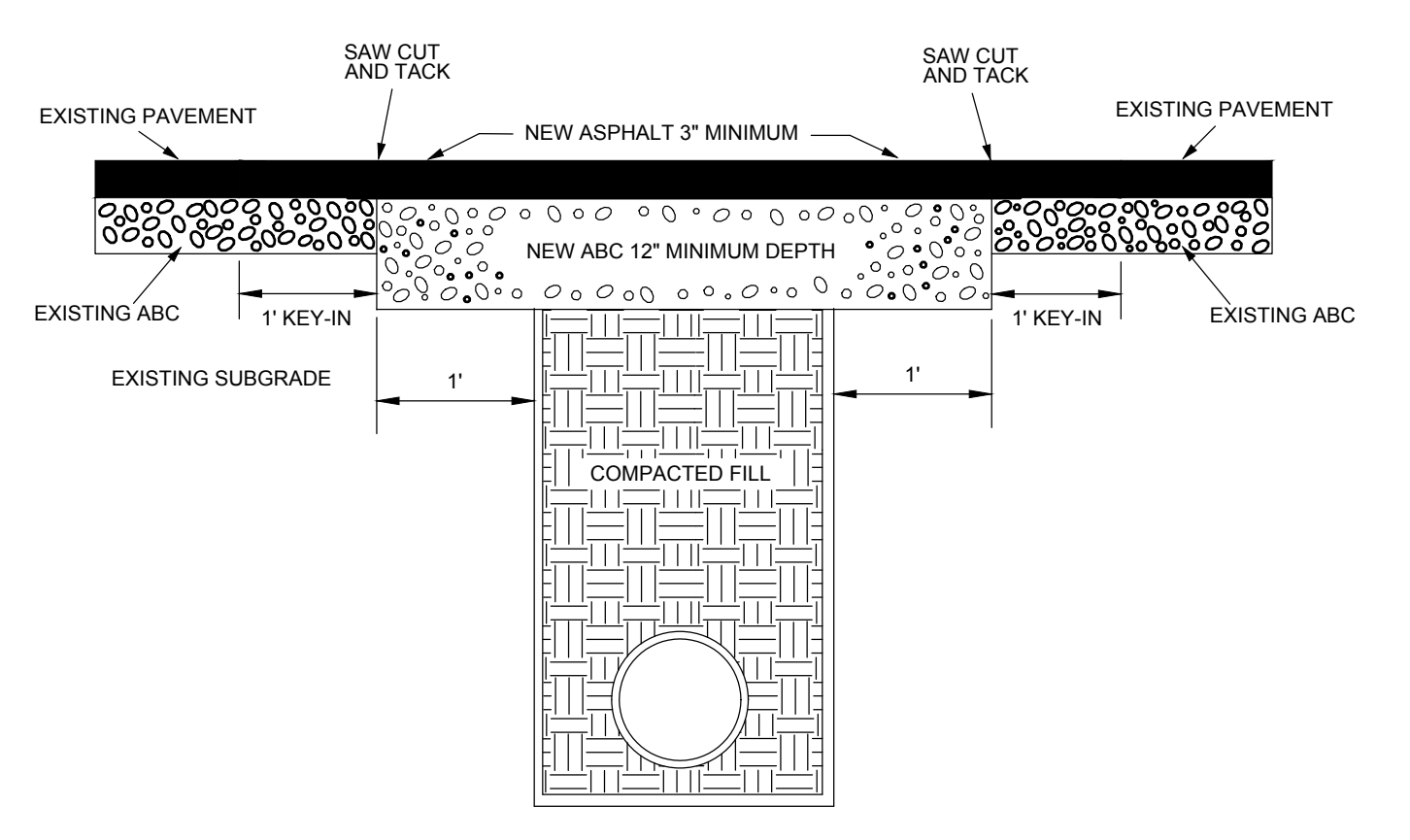
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SPEC NO. B-066/067 DATE 04/06/2018
SCALE 8040 LOCATION NO. 239
DRAWN BY JO TYPE NO. 239
CHECKED BY MS FILE NO. 254

DRAWING NO.
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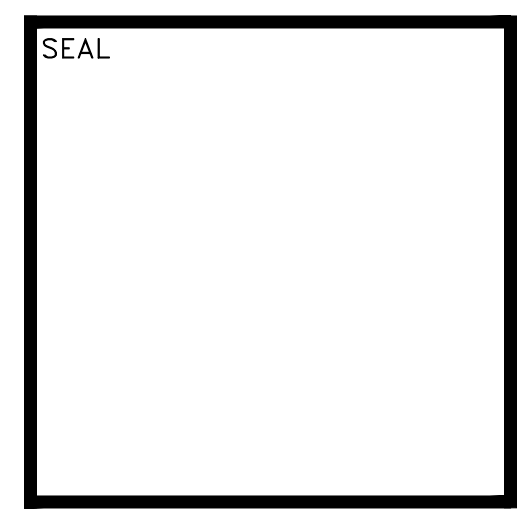
ASPHALT PAVEMENT PATCH



- NOTES:
1. THE PAVEMENT EDGE SHALL BE DEFINED BY A STRAIGHT EDGE FORMED BY A MACHINED SAW CUT.
 2. THE TRENCH SUBGRADE MATERIAL SHALL BE BACKFILLED WITH SUITABLE MATERIAL AND COMPACTED TO A DENSITY OF AT LEAST 90% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT.
 3. THE FINAL 1" OF FILL SHALL CONSIST OF ABC MATERIAL COMPACTED TO A DENSITY EQUAL TO 100% OF THAT OBTAINED BY COMPACTING A SAMPLE OF THE MATERIAL IN ACCORDANCE WITH AASHTO T-99 AS MODIFIED BY NCDOT. BITUMINOUS BASE OR BINDER MAY BE SUBSTITUTED IF APPROVED BY CITY OF RALEIGH ENGINEER.
 4. THE ENTIRE THICKNESS/VERTICAL EDGE OF THE CUT SHALL BE TACKED.
 5. THE SAME DEPTH OF PAVEMENT MATERIAL WHICH EXISTS SHALL BE REINSTALLED, BUT IN NO CASE SHALL THE ASPHALT BE LESS THAN 3" THICK.
 6. THE ASPHALT PAVEMENT MATERIAL SHALL BE INSTALLED AND COMPACTED THOROUGHLY AND ROLLED WITH A SMOOTH DRUM ROLLER TO ACHIEVE A SMOOTH, LEVEL PATCH.

ASPHALT PATCH DETAIL
SCALE: 1/8" = 1'-0" **2**

MECHANICAL SITE PLAN
SCALE: 1/8" = 1'-0" **1**



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PROJECT TITLE
ANNEX HVAC

DRAWING TITLE
MECHANICAL SITE PLAN

APPROVED BY

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DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES
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| B-066/067 | 04/06/2018 |
| SCALE | LOCATION NO. |
| 8040 | 239 |
| DRAWN BY | TYPE NO. |
| JO | 239 |
| CHECKED BY | FILE NO. |
| MS | 255 |

DRAWING NO.
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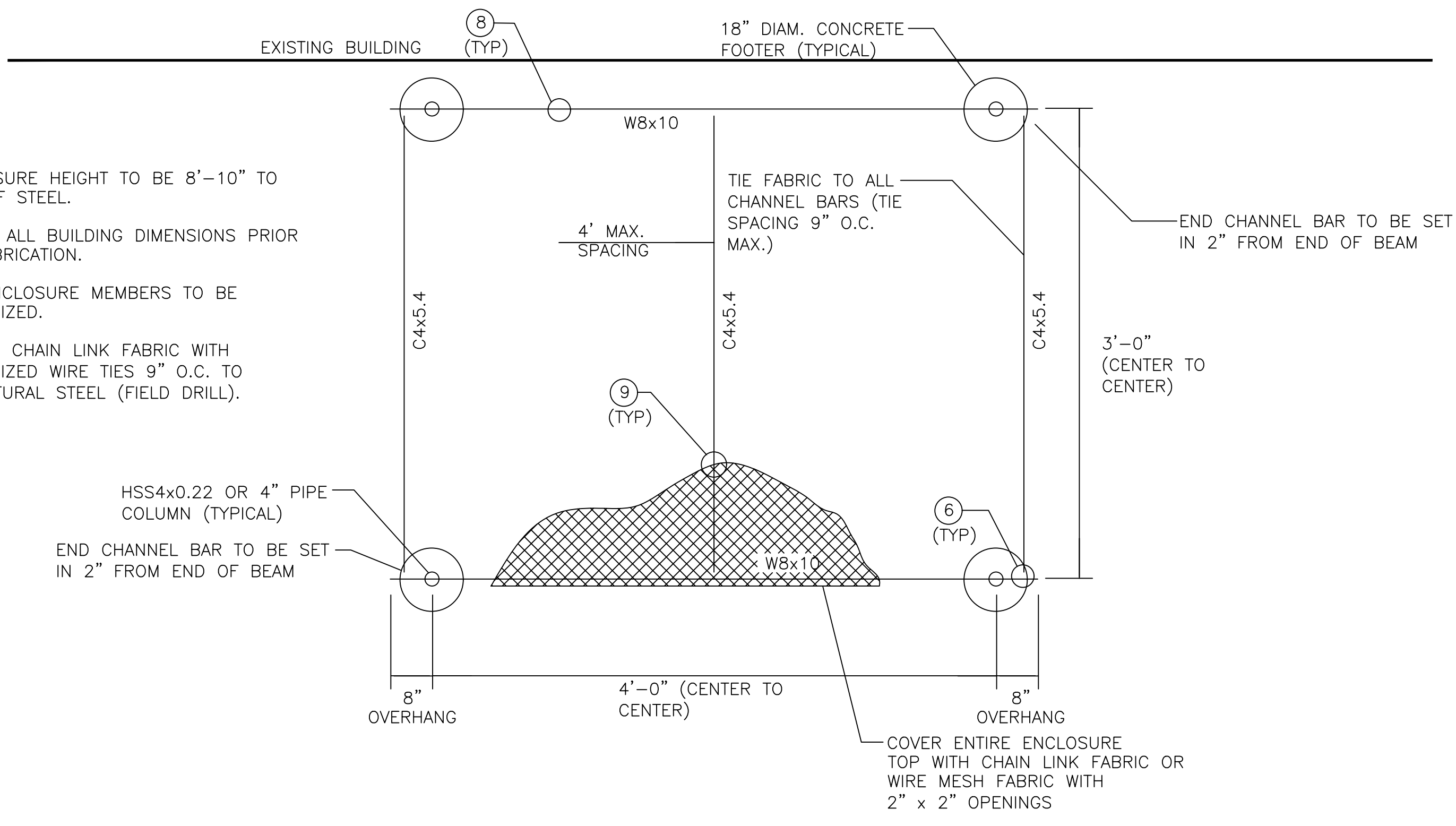
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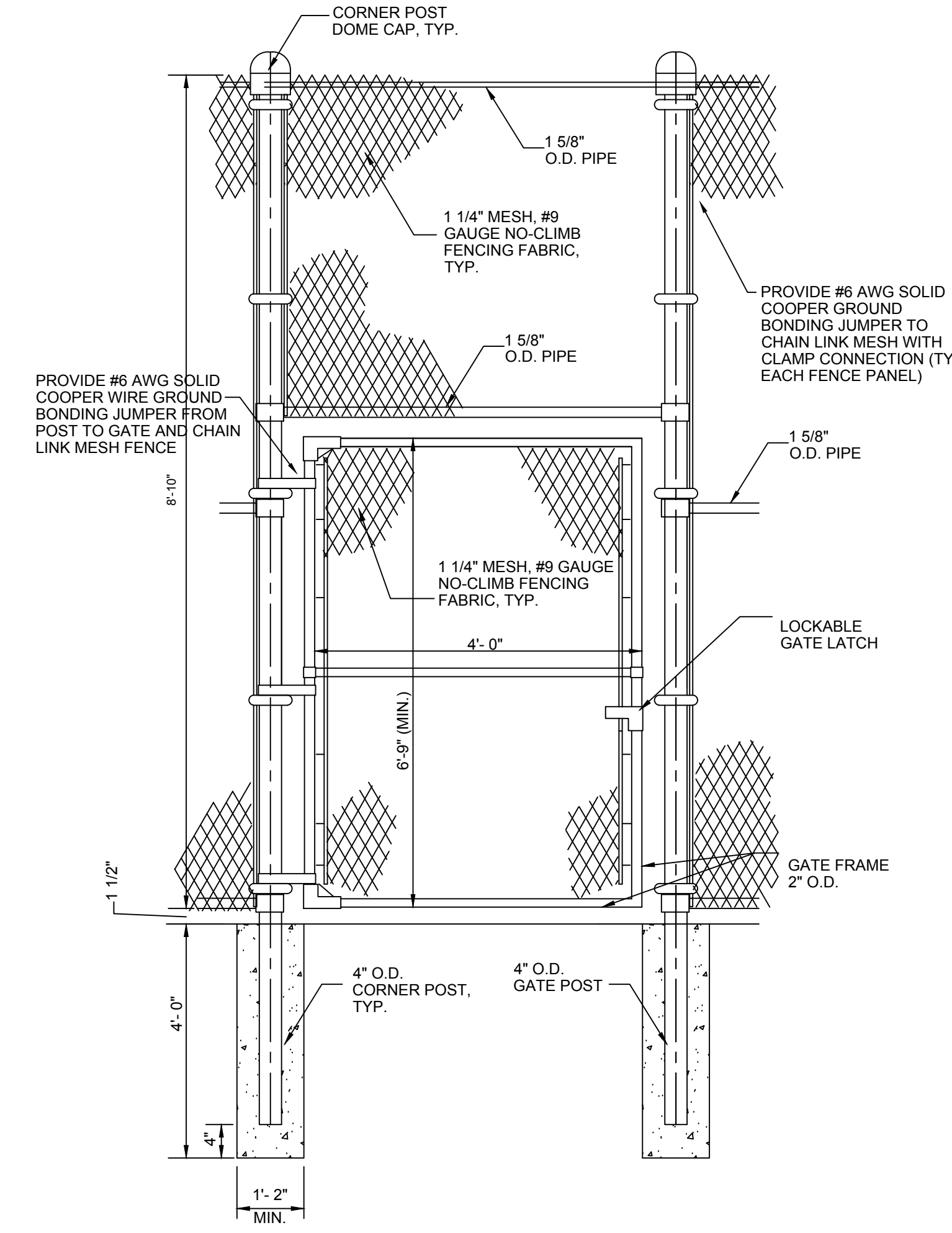
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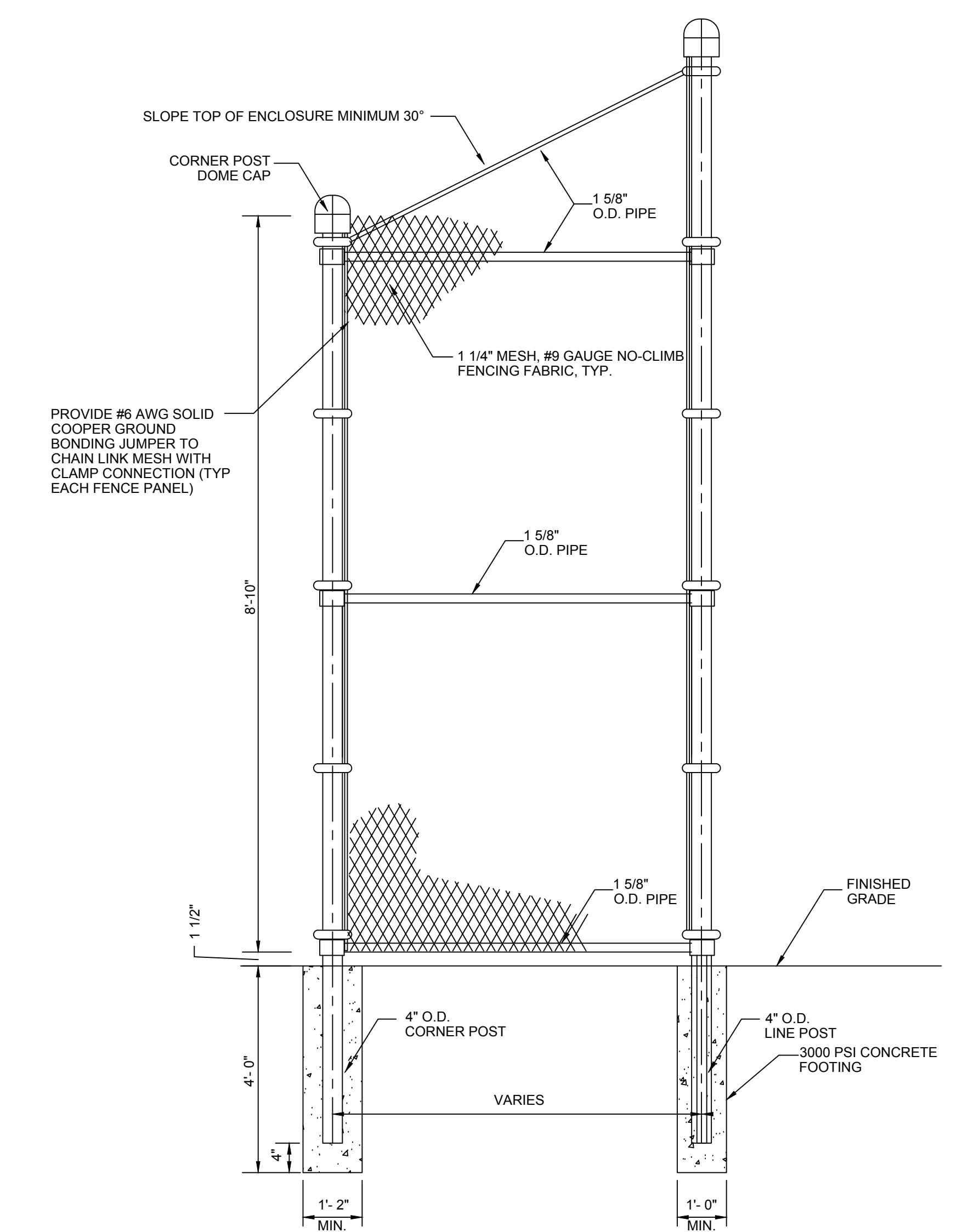
- NOTES:**
- ENCLOSURE HEIGHT TO BE 8'-10" TO TOP OF STEEL.
 - VERIFY ALL BUILDING DIMENSIONS PRIOR TO FABRICATION.
 - ALL ENCLOSURE MEMBERS TO BE GALVANIZED.
 - ATTACH CHAIN LINK FABRIC WITH GALVANIZED WIRE TIES 9" O.C. TO STRUCTURAL STEEL (FIELD DRILL).



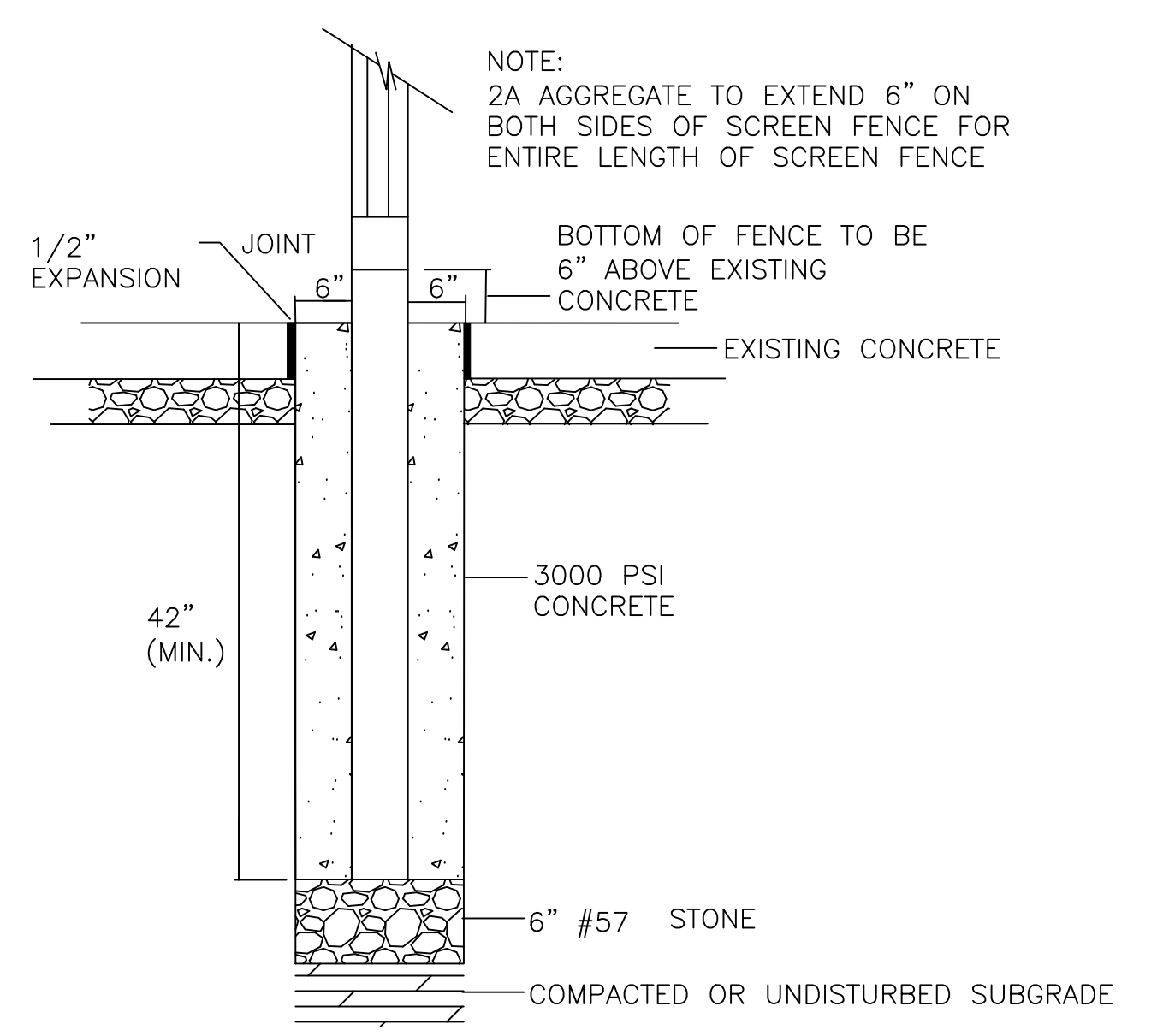
GAS METER ENCLOSURE FRAMING DETAIL
NOT TO SCALE **1**



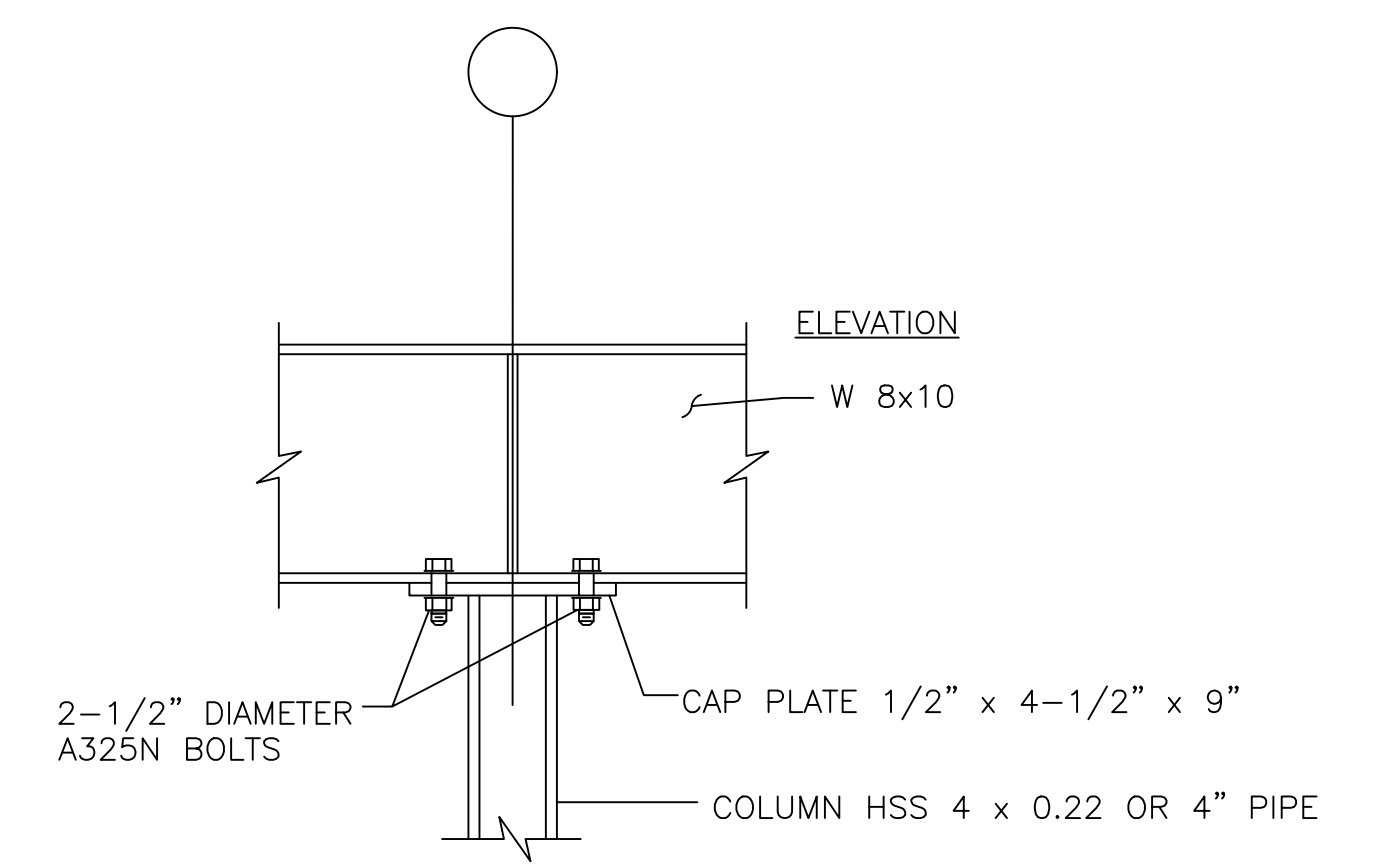
CHAIN LINK FENCE GATE DETAIL
NOT TO SCALE **2**



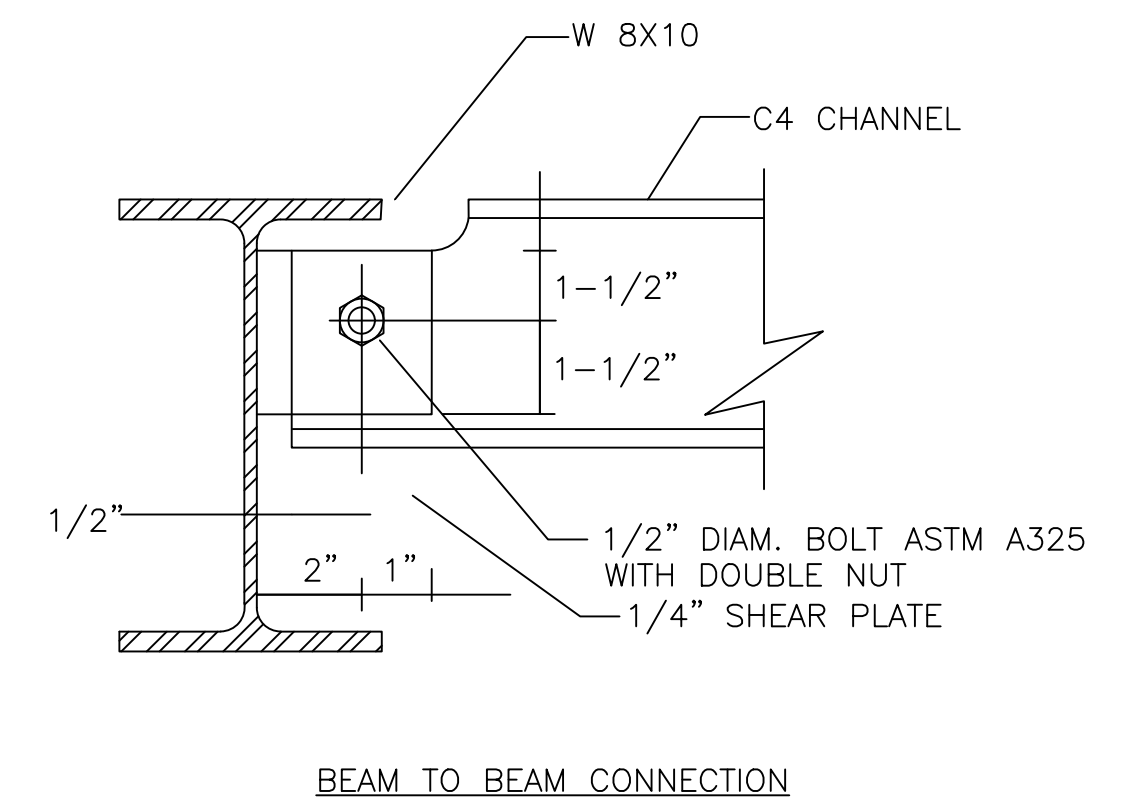
CHAIN LINK FENCE DETAIL
NOT TO SCALE **2**



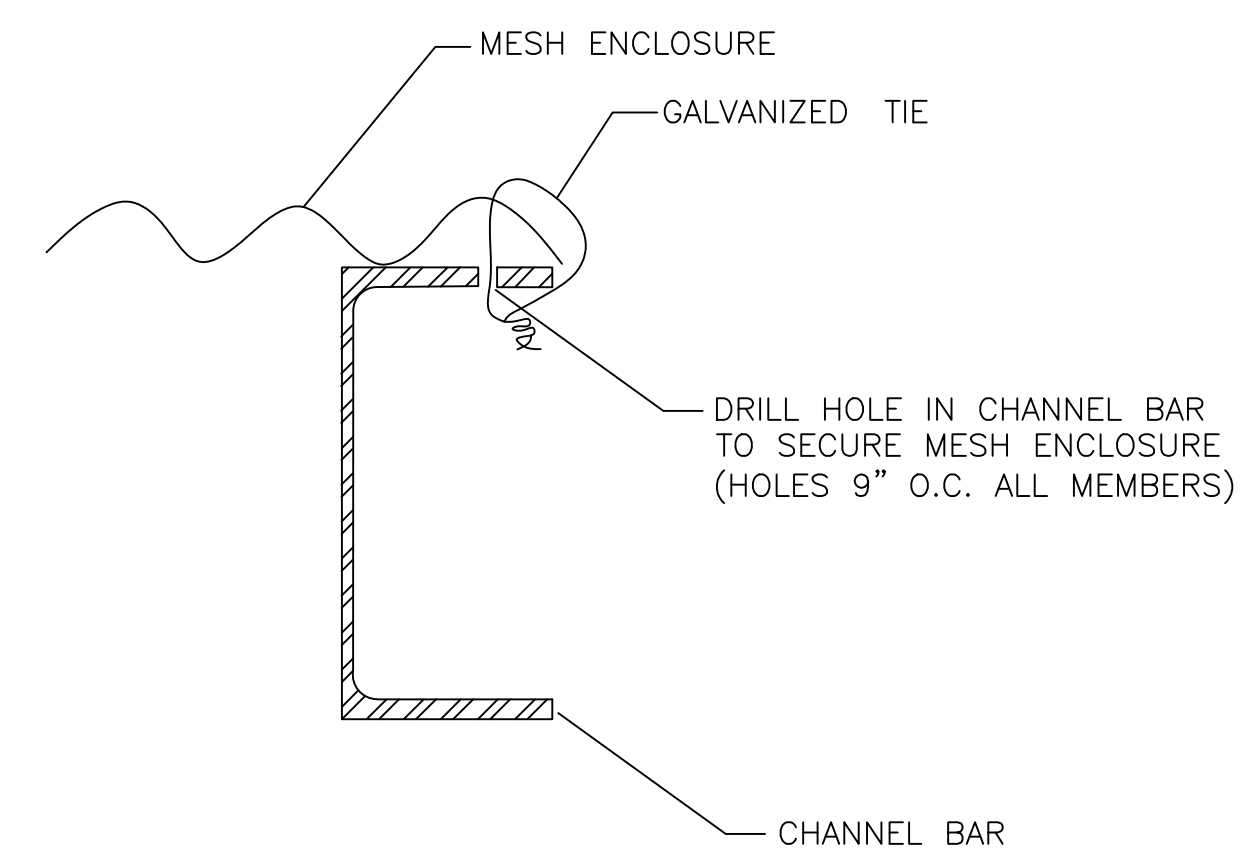
SCREEN FENCE POST FOOTER DETAIL
NOT TO SCALE **4**



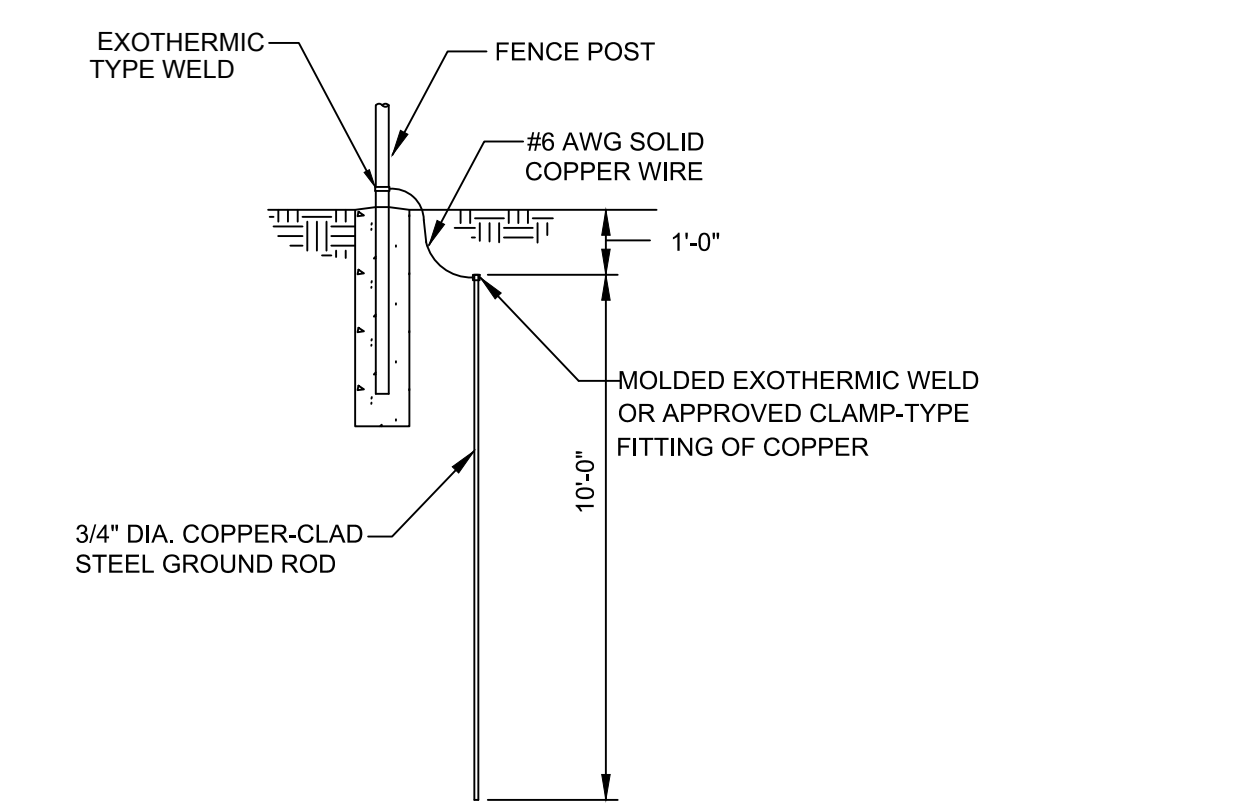
CONTINUOUS BEAM OVER COLUMN DETAIL
NOT TO SCALE **5**



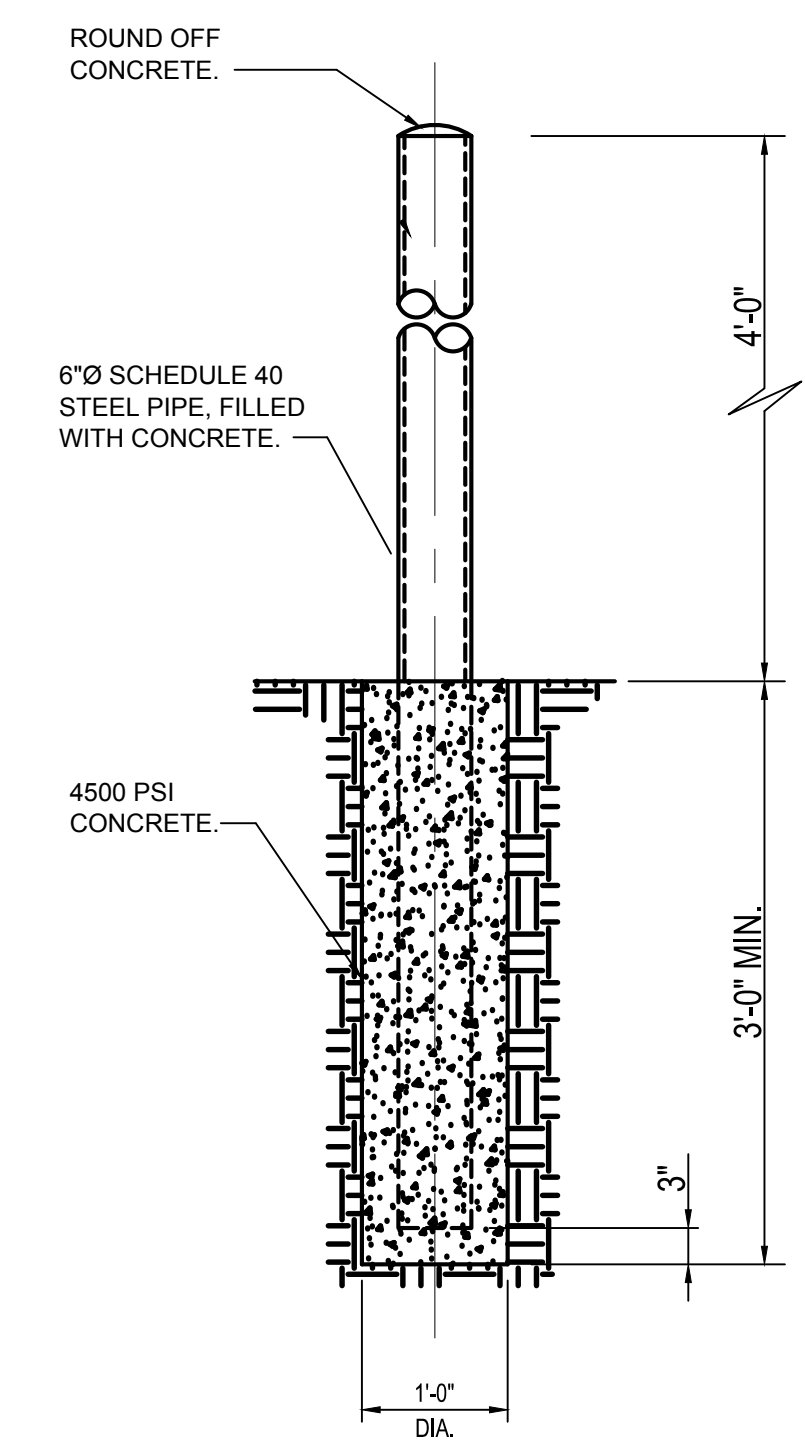
SINGLE SHEAR PLATE CONNECTION DETAIL
NOT TO SCALE **6**



STEEL TO ENCLOSURE TOP CONNECTION DETAIL
NOT TO SCALE **6**



FENCE GROUNDING DETAIL
NOT TO SCALE **8**



TYPICAL BOLLARD DETAIL
NOT TO SCALE **9**



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PROJECT TITLE
ANNEX HVAC

DRAWING TITLE
MECHANICAL SCHEDULES AND DETAILS

APPROVED BY

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THE SCHOOL REFORM COMMISSION

DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES
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SPEC NO. B-066/067 DATE 04/06/2018
SCALE 8040 LOCATION NO. 239
DRAWN BY JO TYPE NO. 257
CHECKED BY MS FILE NO. 257

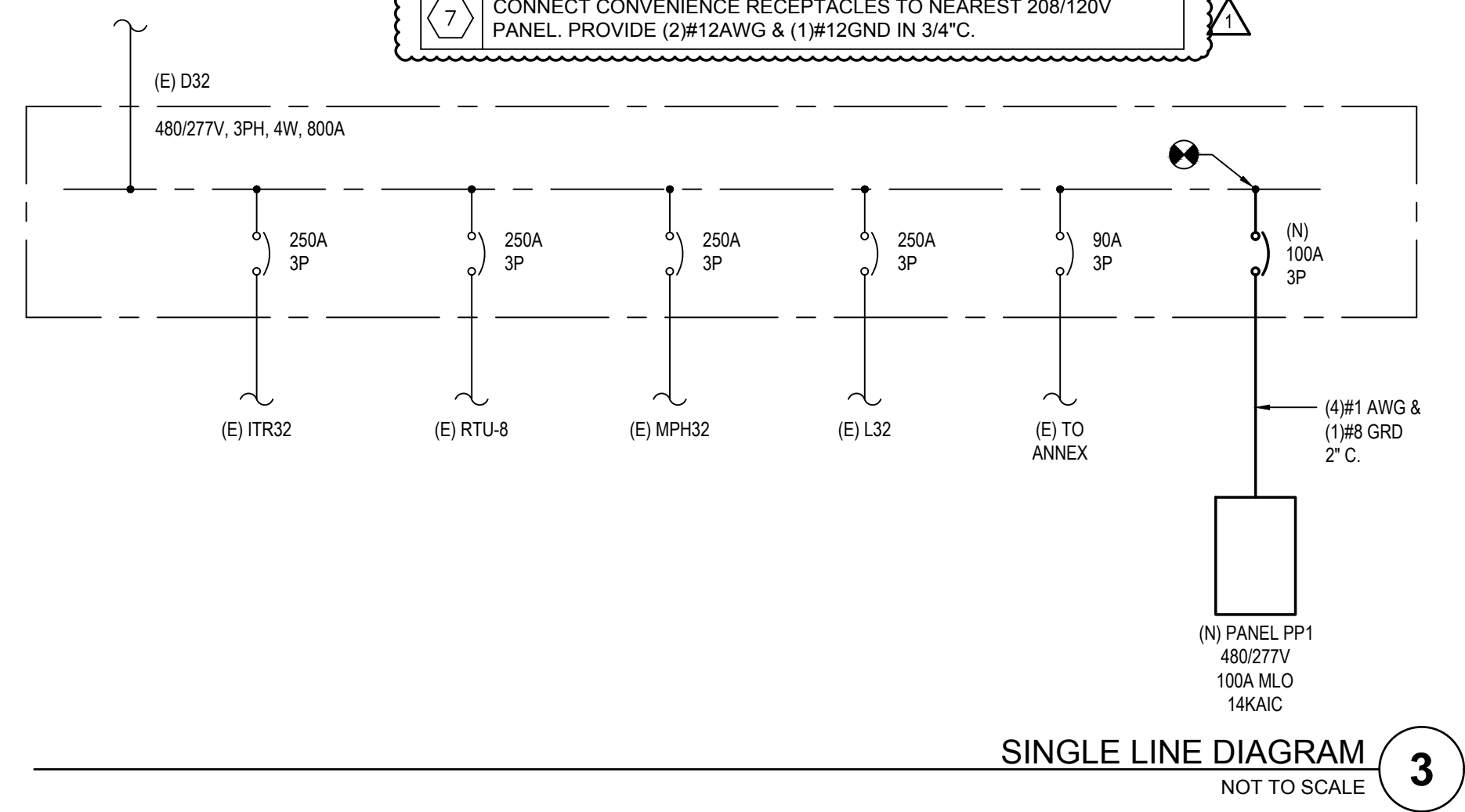
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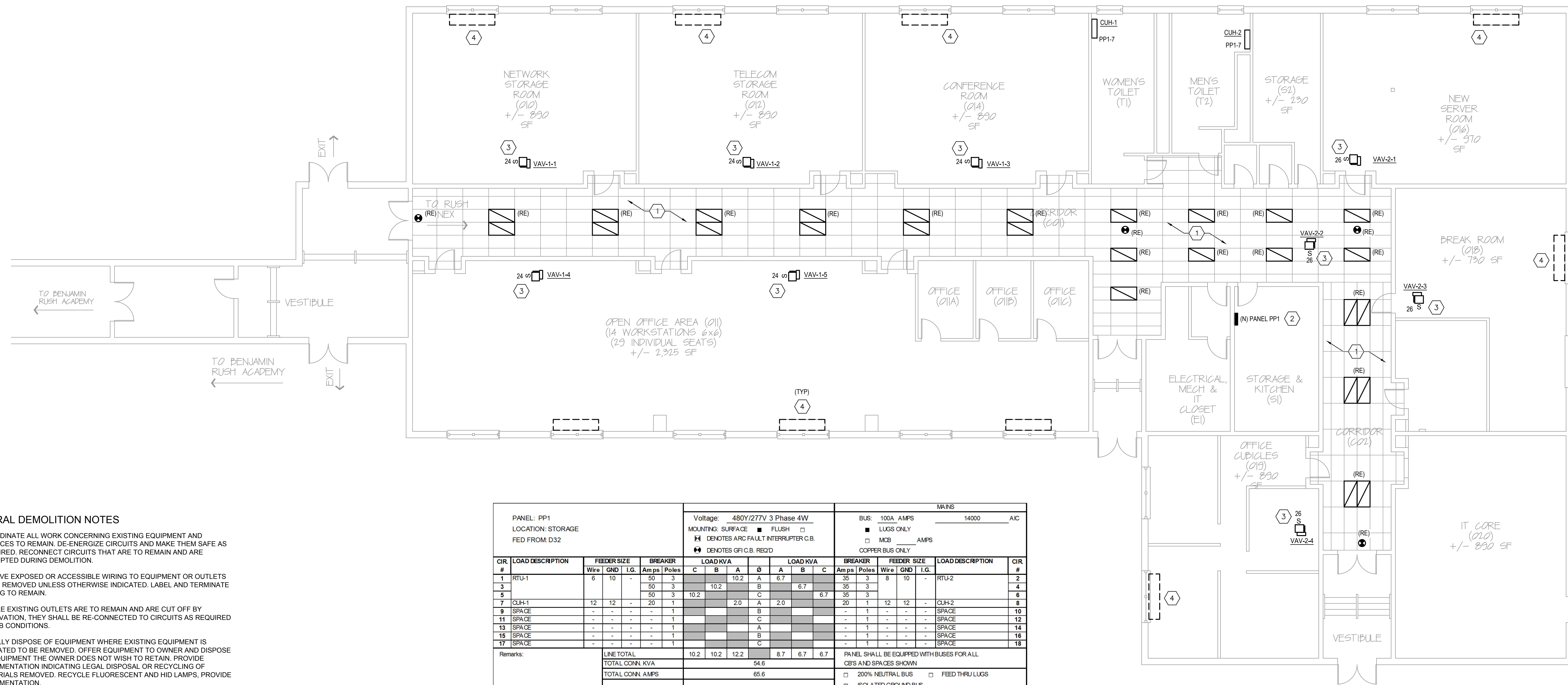
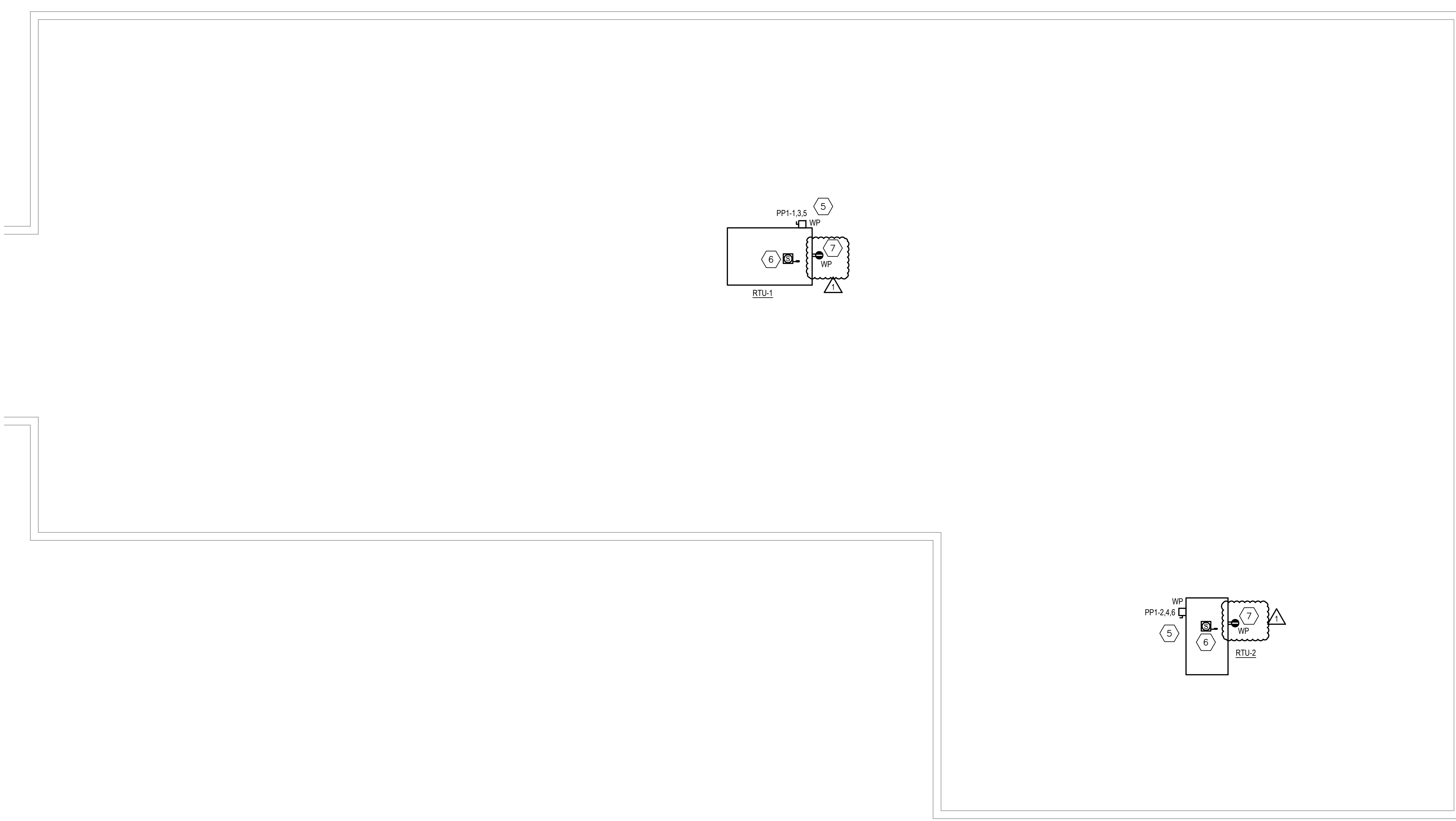
GENERAL DEMOLITION NOTES

- A. COORDINATE ALL WORK CONCERNING EXISTING EQUIPMENT AND SERVICES TO REMAIN. DE-ENERGIZE CIRCUITS AND MAKE THEM SAFE AS REQUIRED. RECONNECT CIRCUITS THAT ARE TO REMAIN AND ARE DISRUPTED DURING DEMOLITION.
- B. REMOVE EXPOSED OR ACCESSIBLE WIRING TO EQUIPMENT OR OUTLETS TO BE REMOVED UNLESS OTHERWISE INDICATED. LABEL AND TERMINATE WIRING TO REMAIN.
- C. WHERE EXISTING OUTLETS ARE TO REMAIN AND ARE CUT OFF BY RENOVATION, THEY SHALL BE RE-CONNECTED TO CIRCUITS AS REQUIRED BY JOB CONDITIONS.
- D. LEGALLY DISPOSE OF EQUIPMENT WHERE EXISTING EQUIPMENT IS INDICATED TO BE REMOVED. OFFER EQUIPMENT TO OWNER AND DISPOSE OF EQUIPMENT THE OWNER DOES NOT WISH TO RETAIN. PROVIDE DOCUMENTATION INDICATING LEGAL DISPOSAL OR RECYCLING OF MATERIALS REMOVED. RECYCLE FLUORESCENT AND HID LAMPS, PROVIDE DOCUMENTATION.
- E. WIRING INDICATED TO BE REMOVED OR SERVING EQUIPMENT TO BE REMOVED SHALL BE REMOVED BACK TO THE SOURCE OR TO THE NEXT JUNCTION POINT IF THE WIRING SERVES OTHER DEVICES THAT WILL REMAIN. CONDUIT OVER UNDISTURBED CEILINGS SHALL BE REMOVED UNLESS OTHERWISE INDICATED.
- F. RECONNECT EXISTING CIRCUITRY WHICH ORIGINATES OR PASSES THROUGH THE RENOVATED AREAS BUT SERVES OTHER AREAS NOT BEING RENOVATED. EXTEND THESE CIRCUITS AS NECESSARY TO EXISTING PANELBOARDS.
- G. COORDINATE WORK CONCERNING EXISTING EQUIPMENT AND SERVICES IN THE BUILDING. COORDINATE REQUIRED POWER INTERRUPTION WITH OWNER. INCLUDE COSTS FOR REQUIRED PREMIUM/OFF-HOURS TIME.
- H. VERIFY THE INTEGRITY AND CONDITION OF THE EXISTING BRANCH CIRCUIT WIRING THAT IS TO BE RE-USED. REPLACE WIRING FOUND TO BE NON-FUNCTIONAL.

| SHEET NOTES | |
|-------------|---|
| 1 | DISCONNECT AND RETAIN ALL ELECTRICAL DEVICES, LIGHTING FIXTURES, FIRE ALARM DEVICES, COMMUNICATIONS DEVICES, AND SECURITY DEVICES MOUNTED TO CEILING AND ON WALL WITHIN 6" OF CEILING. RETAIN ALL ASSOCIATED WIRING AND CONDUIT IN AREA FOR RECONNECTION TO DEVICES. ALL DEVICES SHALL BE RE-INSTALLED WITH NEW CEILING AT NEW HEIGHT. MATCH NEW MOUNTING LOCATIONS TO PREVIOUS MOUNTING LOCATIONS TO THE GREATEST EXTENT POSSIBLE. EXTEND WIRING AND CONDUIT AS NECESSARY. |
| 2 | PROVIDE NEW PANELBOARD. COORDINATE EXACT MOUNTING LOCATION WITH OWNER. PANELBOARD SHALL BE FED FROM PANEL D32 ON SECOND FLOOR OF MAIN BUILDING. ESTIMATED DISTANCE 300 FEET. PROVIDE NEW 100A/3P BREAKER WITHIN D32 MATCHING EXISTING IN MANUFACTURER, TYPE, AND A.I.C. RATING. COORDINATE EXACT CONDUIT PATH IN FIELD. |
| 3 | UTILIZE INDICATED EXISTING SPARE BREAKER FROM UNLABELED 208/120V PANEL WITHIN ELEC & MECH ROOM FOR FEED TO NEW VAV BOX. PROVIDE (2)#12AWG & (1)#12GRD IN 3/4" C. COORDINATE EXACT LOCATION OF VAV BOX WITH MECHANICAL DRAWINGS. |
| 4 | DISCONNECT AND REMOVE ELECTRICAL SERVICE TO UNIT HEATERS WITHIN ROOM. PULL WIRE AND CONDUIT BACK TO SOURCE AND LABEL AS 'SPARE'. |
| 5 | DISCONNECT SWITCH IS INTEGRAL TO RTU, PROVIDED BY MANUFACTURER. |
| 6 | CONNECT SMOKE DETECTOR WITHIN RTU TO EXISTING FIRE ALARM SYSTEM. |
| 7 | CONNECT CONVENIENCE RECEPTACLES TO NEAREST 208/120V PANEL. PROVIDE (2)#12AWG & (1)#12GRD IN 3/4" C. |



| PANEL: PP1 LOCATION: STORAGE FED FROM: D32 | | Voltage: 480Y/277V 3 Phase 4W | | | | | | | | | | | | MAINS | | | | | | | | | | | | | |
|--|------------------|-------------------------------|-----|------|---------|-------|------|----------|---|-----|-----|---|---|---------|-------|-------------|-----|------------------|-------|------|--|-----|--|-----|--|---|--|
| CIR # | LOAD DESCRIPTION | FEEDER SIZE | | | BREAKER | | | LOAD KVA | | | | | | BREAKER | | FEEDER SIZE | | LOAD DESCRIPTION | CIR # | | | | | | | | |
| | | Wire | GND | I.G. | Amps | Poles | C | B | A | Ø | A | B | C | Amps | Poles | Wire | GND | | | I.G. | | | | | | | |
| 1 | RTU-1 | 8 | 10 | - | 50 | 3 | | 10.2 | A | 8.7 | | | | 35 | 3 | 8 | 10 | - | RTU-2 | 2 | | | | | | | |
| 3 | | | | | 50 | 3 | | 10.2 | B | 6.7 | | | | 35 | 3 | | | | | 4 | | | | | | | |
| 5 | | | | | 50 | 3 | 10.2 | | C | | 6.7 | | | 35 | 3 | | | | | 6 | | | | | | | |
| 7 | CUH-1 | 12 | 12 | - | 20 | 1 | | | A | 2.0 | | | | 20 | 1 | 12 | 12 | - | CUH-2 | 10 | | | | | | | |
| 9 | SPACE | - | - | - | - | - | - | - | B | | | | | - | - | - | - | - | SPACE | 12 | | | | | | | |
| 11 | SPACE | - | - | - | - | - | - | - | C | | | | | - | - | - | - | - | SPACE | 14 | | | | | | | |
| 13 | SPACE | - | - | - | - | - | - | - | A | | | | | - | - | - | - | - | SPACE | 16 | | | | | | | |
| 15 | SPACE | - | - | - | - | - | - | - | B | | | | | - | - | - | - | - | SPACE | 18 | | | | | | | |
| 17 | SPACE | - | - | - | - | - | - | - | C | | | | | - | - | - | - | - | SPACE | 20 | | | | | | | |
| Remarks: | | LINE TOTAL | | | | | | | | | | | | 10.2 | | 10.2 | | 12.2 | | 8.7 | | 6.7 | | 6.7 | | PANEL SHALL BE EQUIPPED WITH BUSES FOR ALL CBS AND SPACES SHOWN | |
| | | TOTAL CONN. KVA | | | | | | | | | | | | 54.6 | | | | | | | | | | | | □ 200% NEUTRAL BUS □ FEED THRU LUGS | |
| | | TOTAL CONN. AMPS | | | | | | | | | | | | 66.6 | | | | | | | | | | | | □ ISOLATED GROUND BUS □ GROUND BUS | |



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PROJECT TITLE
ANNEX HVAC

DRAWING TITLE
FIRST FLOOR AND ROOF PLANS

APPROVED BY

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SCALE 8040 **LOCATION NO.** 239
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B-066/067 OF 2016/17
SHEET 11 OF 12