ADDENDUM # 3

DATE: July 18, 2022

PROJECT: RCPS Career and Technical Education Center

TO: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated June 17, 2022 as noted below. Acknowledge receipt of this addendum in the space on the Bid Proposal. Failure to do so may subject bidder to disqualification.

GENERAL:

1. **Specification sections 221113 and 221313 were inadvertently located in Division 2 – EXISTING CONDITIONS and between sections of Division 28 ELECTRONIC SAFETY & SECURITY and Division 31 – EARTH WORK of the Project Manual. The correct location for these sections is Division 22 – PLUMBING.**
2. **See attached Appendix A – Revised/Added Project Drawings and Specifications**
3. **See attached Appendix B - Hazardous Material Reports**
4. **See attached Appendix C – Site Storage Building Construction Documents for requirements associated with constructing foundation and slabs for site storage buildings as outlined in civil drawings.**

PROJECT MANUAL:

PROJECT MANUAL – TABLE OF CONTENTS

ADD:

1)	Specification Section	099114	Exterior Painting
2)	Specification Section	099124	Interior Painting
3)	Specification Section	101400	Signage
4)	Specification Section	102800	Toilet, Bath and Laundry Accessories
5)	Specification Section	323113	Chain Link Fences and Gates
6)	Specification Section	323223	Segmental Retaining Walls
7)	Specification Section	329200	Turf and Grasses

OMIT:

1)	Specification Section	123616	Metal Countertops
2)	Specification Section	271500	Horizontal Cabling
3)	Specification Section	280528	Security Pathways

REVISE:

1) Specification Section "280544 Sleeves and Sleeve Seals for Communication Pathways and Cabling" to read "270544 Sleeves and Sleeve Seals for Communication Pathways and Cabling

PROJECT MANUAL, SPECIFICATION SECTION 005000 – CONTRACTING FORMS AND SUPPLEMENTS:

OMIT:

1) Part 1 General; Section 2.03; paragraph A.

PROJECT MANUAL, SPECIFICATION SECTION 007200 GENERAL CONDITIONS:

REVISE:

1) Part 1 General; Section 1.2; paragraph A as follows:

The General Conditions applicable to this contract are included by reference as if bound herein: AIA Document A201-2017, General Conditions of the Contract for Construction.

PROJECT MANUAL, SPECIFICATION SECTION 007300 SUPPLEMENTARY CONDITIONS:

OMIT:

1) Part 1 General; Section 3.06; paragraph A.

PROJECT MANUAL, SPECIFICATION SECTION 011000 – SUMMARY:

OMIT:

1) Part 1 General; Section 1.04; paragraph A.
2) Part 1 General; Section 1.04; paragraph D.
3) Part 1 General; Section 1.04; paragraph E.
4) Part 1 General; Section 1.04; paragraph Items 2 and 3.

REVISE:

1) Part 1 General; Section 1.04; paragraph 1 as follows:

E. Owner will supply the following for installation by Contractor:

1. All toilet accessories including mirrors and soap dispensers.

OMIT:

1) Part 1 General; Section 1.04; paragraph 2, item B, Number 5.
2) Part 1 General; Section 1.04; paragraph 3, Item D.

PROJECT MANUAL, SPECIFICATION SECTION 012100 – ALLOWANCES

OMIT:

1) Part 1 General; Section 1.01; paragraph A.
2) Part 1 General; Section 1.03 – Cash Allowances

REVISE:

1) Part 1 General; Section 1.05 as follows

1.01 ALLOWANCES SCHEDULE

A. Contingency Allowance: Include the stipulated sum of $3,000,000 for use upon Owner's instructions.

B. Western Virginia Water Authority: No fee.

C. VSMP Fee: Include the stipulated sum of $ 500.00.

D. Erosion and Sediment Control Agreement: Include the stipulated sum of $150.00

E. Erosion and Sediment Control Surety: Include the calculated sum to provide a surety based on a principal amount of $102,250.00 (includes new stormwater pipes and quantity quality measures).

   a. Principal amount is subject to adjustment, pending review by City of Roanoke.

F. Storm Water Pollution Prevention Plan: No cost.

PROJECT MANUAL, SPECIFICATION SECTION 012200– UNIT PRICES

OMIT:

1) Part 1 General; Section 6; paragraph D.
2) Part 1 General; Section 6; paragraph E.
3) Part 1 General; Section 6; paragraph F.

PROJECT MANUAL, SPECIFICATION SECTION 012300 – ALTERNATES

OMIT specification section.

PROJECT MANUAL, SPECIFICATION SECTION 014000– QUALITY REQUIREMENTS

OMIT:

1) Part 1 General; Section 1.05; paragraph C; ITEMS 5, 6 and 7.

PROJECT MANUAL, SPECIFICATION SECTION 014533 – CODE-REQUIRED SPECIAL INSPECTIONS AND PROCEDURES

REVISE:

1) Part 1 General; Section 1.05; paragraph A as follows:

A. Code or Building Code: ICC (IBC), International Building Code, 2015 Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements and specifically, Chapter 17 - Special Inspections and Tests.

OMIT:

1) Part 3 Execution; Section 3.08.

PROJECT MANUAL, SPECIFICATION SECTION 015000 – TEMPORARY FACILITIES AND CONTROLS

OMIT:

2) Part 1 General; Section 1.04; paragraph D and E.

OMIT:

1) Part 1 General; Section 1.06 – Fencing.

REVISE:

1) Part 1 General; Section 1.12; paragraph A as follows:

1.12 PROJECT IDENTIFICATION

A. Provide project identification sign of size, design and construction and location as approved by Owner.
B. No other signs are allowed without Owner permission except those required by law.

PROJECT MANUAL, SPECIFICATION SECTION 017000 – EXECUTION AND CLOSEOUT REQUIREMENTS

OMIT:

1) Part 3 Execution; Section 3.06; paragraph G, Item 4.

PROJECT MANUAL, SPECIFICATION SECTION 002419 – SELECTIVE DEMOLITION

REVISE:

1) Part 1 General; Section 1.5; paragraph B; delete the following sentence:

"Comply with Section 013233 "Photographic Documentation."

REVISE:

1) Part 3 Execution; Section 3.5; paragraph A; Item 10; delete the following sentence:

"Comply with requirements in Section 017419 "Construction Waste Management and Disposal.""

REVISE:

1) Part 3 Execution; Section 3.7; paragraph A; delete the following sentence:

"[and recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."]

OMIT:

1) Part 3 Execution; Section 3.7; paragraph A; Item 4.

PROJECT MANUAL, SPECIFICATION SECTION 033000 – CAST-IN-PLACE CONCRETE

REVISE: Part 3 Execution, Section 3.7; paragraph C; item 5; sub-item a; 1) as follows:

1) Specified overall values of flatness, F_F 45; and of levelness, F_L 35; with minimum local values of flatness, F_F 30; and of levelness, F_L 24.

ADD: to Part 2 Products:

2.4 VAPOR RETARDERS

A. Sheet Vapor Retarder, Class A: ASTM E1745, Class A not less than 10 mils (0.25 mm) thick. Include manufacturer's recommended adhesive or pressure-sensitive tape. Install vapor barrier beneath new concrete slab at all locations within buildings where existing concrete slab and floor finish are removed exposing gravel base. Do not install vapor barrier over existing concrete sub-slab remaining after removal of wood flooring within existing gymnasium.

a. Manufacturers: Subject to compliance with requirements, provide products by one of the following or equal:

Poly-America, L.P.
Stego Industries, LLC.
W. R. Meadows, Inc.

PROJECT MANUAL, SPECIFICATION SECTION 042000 – UNIT MASONRY

ADD: Following to Part 2 Products; Section 2.9:

D. Metal Drip Edge: Provide continuous drip edge complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:

1. Fabricate metal drip edges from stainless steel. Extend at least 3 inches (76 mm) into wall and 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed. Install at all steel lintels in new exterior masonry wall openings. Lap through wall membrane flashing over metal drip. Embed drip edge into mortar joint at sides of opening.

PROJECT MANUAL, SPECIFICATION SECTION 053100 – STEEL DECKING

REVISE: Part 2 Products, Section 2.2; paragraph A; items 3 through 6 as follows:

3. Galvanized- and Shop-Primed Steel Sheet: ASTM A653/A653M, Structural Steel (SS)
4. Deck Profile: To match existing.
5. Profile Depth: To match existing

6. Design Uncoated-Steel Thickness: As indicated on drawings

PROJECT MANUAL, SPECIFICATION SECTION 061000 – ROUGH CARPENTRY

REVISE: Part 2 PRODUCTS, Section 2.4; paragraph A as follows:

A. Equipment Backing Panels: Plywood, DOC PS 1 fire-retardant treated, in thickness indicated or, if not indicated, not less than 3/4-inch (19-mm)] nominal thickness.

PROJECT MANUAL, SPECIFICATION SECTION 072100 – THERMAL INSULATION

REVISE: Part 2 PRODUCTS, Section 2.1; paragraph D as follows:

D. Thermal-Resistance Value (R-Value): R-value as indicated below in accordance with ASTM C518.

REVISE: Part 2 PRODUCTS, Section 2.2; paragraph A, item 1. as follows:

1. Extruded Polystyrene Board Insulation, Type VI: ASTM C578, Type VI, 40-psi (276-kPa) minimum compressive strength.

PROJECT MANUAL, SPECIFICATION SECTION 072500 – ROOF SPECIALTIES

REVISE: Part 2 PRODUCTS, Section 2.3; paragraph B; item 1. as follows:

1. Aluminum Sheet: 0.050 inch (1.27 mm) thick.

REVISE: Part 2 PRODUCTS, Section 2.3; paragraph C; item 1. as follows:

1. Formed Aluminum: 0.050 inch (1.27 mm) thick.

PROJECT MANUAL, SPECIFICATION SECTION 079200 – JOINT SEALANTS

OMIT: Part 2 PRODUCTS; Section 2.3.

OMIT: Part 2 PRODUCTS; Section 2.4; paragraphs B, D and E.

PROJECT MANUAL, SPECIFICATION SECTION 081113 – HOLLOW METAL DOORS AND FRAMES

ADD: to 1.1 SUMMARY; paragraph A:

1) Interior standard steel doors and frames.

ADD: to PART 2 – PRODUCTS; 2.3 INTERIOR STANDARD STEEL DOORS AND FRAMES:

C. Construct hollow-metal doors to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified. All astragals shall be removable.

1. Standard-Duty Doors and Frames: ANSI/SDI A250.8, Level 1; ANSI/SDI A250.4, Level C.

   a. Type: As indicated in the Door and Frame Schedule.
   b. Thickness: 1-3/4 inches
   c. Face: Uncoated steel sheet, minimum thickness of 0.032 inch.
   d. Edge Construction: Model 2, Seamless.
   e. Edge Bevel: Provide manufacturer's standard beveled or square edges.
   f. Core: Manufacturer's standard
   g. Fire-Rated Core: Manufacturer's standard core for fire-rated.
   h. Glazed Lights: Non-removable stops on non-secure side; sizes and configurations as indicated on drawings. Style: Security.

2. Exposed Finish: Prime.

REVISE: Part 2 PRODUCTS; Section 2.4; paragraph A; as follows:

A. Construct hollow-metal doors and frames to comply with standards indicated for materials, fabrication, hardware locations, hardware reinforcement, tolerances, and clearances, and as specified. All astragals shall be removable.

PROJECT MANUAL, SPECIFICATION SECTION 081416 – FLUSH WOOD DOORS

OMIT: Part 2 PRODUCTS; Section 2.2.

OMIT: Part 2 PRODUCTS; Section 2.4; paragraph A; item 7.

OMIT: Part 2 PRODUCTS; Section 2.5; paragraph B.

OMIT: Part 3 EXECUTION; Section 3.3; paragraph C.

PROJECT MANUAL, SPECIFICATION SECTION 088000 – GLAZING

ADD: to PART 2 – PRODUCTS; Section 2.4; paragraph C; the following:

4. Type GL-6 – Single Casework Shelving and Door Panels:

   a. Application: Vestibule showcase casework glazing.
   b. Type: Fully tempered float glass.
   c. Thickness: 1/4 inch at operable door panels; 3/8 inch minimum at shelving

PROJECT MANUAL, SPECIFICATION SECTION 093013 – CERAMIC TILING

REVISE: Part 2 PRODUCTS, Section 2.5; paragraph A as follows:

1. Apply to face of existing masonry walls with residual thin-set mortar or adhesive.

PROJECT MANUAL, SPECIFICATION SECTION 099114 – EXTERIOR PAINTING

ADD: Specification Section 099114 included with this Addendum.

PROJECT MANUAL, SPECIFICATION SECTION 099124 – INTERIOR PAINTING

ADD: Specification Section 099124 included with this Addendum.

PROJECT MANUAL, SPECIFICATION SECTION 101400 – SIGNAGE

ADD: Specification Section 101400 included with this Addendum.

PROJECT MANUAL, SPECIFICATION SECTION 102800 – TOILET, BATH AND LAUNDRY ACCESSORIES

ADD: Specification Section 102800 included with this Addendum.

PROJECT MANUAL, SPECIFICATION SECTION 104416 – FIRE EXTINGUISHERS

OMIT: Part 2 – PRODUCTS, Section 2.2. EQUIPMENT

ADD: IN SECTION 1.1; D. Related Requirements the following:

1. SECTION 104413 - FIRE PROTECTION CABINETS

PROJECT MANUAL, SPECIFICATION SECTION 105113 – METAL LOCKERS

ADD: to PART 2 – PRODUCTS; Section 2.4; paragraph C; the following:

B. <u>Manufacturers and Types:</u>

1. Manufacturers:
   a. Provide products by one of the following or equal:
      Art Metal Products.
      LockersMFG.
      Penco Products, Inc.

2. Locker Type:
   a. 15 inch wide Double Tiered metal locker unless otherwise indicated in drawings.

PROJECT MANUAL, SPECIFICATION SECTION 122413 – ROLLER WINDOW SHADES

OMIT:

1) Part 2 – PRODUCTS; paragraph 2.2; sub-paragraph G; Item “2. Recessed Shade Pocket” and Item “3. Closure Panel and Wall Clip”

PROJECT MANUAL, SPECIFICATION SECTION 211313– WET PIPE SPRINKLER SYSTEMS, FIRE PROTECTION

OMIT: ~~2. Sprinkler System Installer~~

~~a. The sprinkler system installation must be regularly engaged in the installation of the type and complexity of system specified in the contract documents, and must be certified as a Level II Technician by National Institute for Certification in Engineering Technologies (NICET) in the Water-Based Systems Layout subfield of Fire Protection Engineering Technology in accordance with NICET 1014-7.~~

REPLACE WITH: 2. Sprinkler System Installer

a. The sprinkler system installation must be regularly engaged in the installation of the type and complexity of system specified in the contract documents.

PROJECT MANUAL, SPECIFICATION SECTION 230713 – DUCT INSULATION

OMIT: Part 3 – EXECUTION; Paragraph 3.12; Items C and D

PROJECT MANUAL, SPECIFICATION SECTION 230800 – COMMISSIONING OF HVAC

OMIT: All references to “Section 019113 – General Commissioning Requirements”

PROJECT MANUAL, SPECIFICATION SECTION 233113 – METAL DUCTS

ADD: Part 3 – EXECUTION; paragraph 3.11.B.2 as follows:

THE VAV DUCTWORK BETWEEN THE ROOFTOP UNIT AND THE VAV BOXES, THE WELDING EXHAUST SYSTEM, DUST COLLECTION SYSTEM, VEHICLE EXHAUST SYSTEM AND KITCHEN HOOD EXHAUST SYSTEMS SHALL BE LEAK TESTED IN ACCORDANCE WITH SMACNA'S "AIR DUCT LEAKAGE TEST MANUAL". REPRESENTATIVE SECTIONS TOTALING NOT LESS THAT 25 PRECENT OF THE TOTAL INSTALLED DUCT AREA SHALL BE TESTED.

PROJECT MANUAL, SPECIFICATION SECTION 323113 – CHAIN LINK FENCES AND GATES

ADD Specification Section 323113 included with this Addendum.

PROJECT MANUAL, SPECIFICATION SECTION 323223 – SEGMENTAL RETAINING WALLS

ADD Specification Section 323223 included with this Addendum.

PROJECT MANUAL, SPECIFICATION SECTION 329200 – TURF AND GRASSES

ADD Specification Section 329200 included with this Addendum.

PROJECT MANUAL:

ADD: "Appendix B - Hazardous Material Survey Reports (March 2022 and May 2022) included in this addendum.

PROJECT MANUAL:

Add: "Appendix C – Site Storage Building Construction Documents" for requirements associated with constructing foundation and slabs for site storage buildings as outlined in civil drawings.

PROJECT DRAWINGS:

PROJECT DRAWINGS

REPLACE:

i. Replace following drawings with the revised drawings noted in Revision table as "Revision 1, 7/18/22, Addendum 3" included in Appendix A within this Addendum:

G1
G2

C04
C05
C06
C08
C09
C10
C11
C13
C14
C25
C26

S1.0
S1.1
S1.2
S1.3
S1.4
S1.5
S1.6
S2.1

A1.1
A1.101
A1.102
A1.103
A1.104
A1.105
A1.106
A1.107
A1.108
A1.2
A1.201
A1.202

A1.203
A1.204
A1.205
A1.206
A1.301
A1.302
A1.305
A1.306
A1.307
A1.308
A1.309
A1.310
A1.311
A1.4
A4.4
A5.101
A6.2
A7.1
A7.2
A7.3
A7.4
A8.1

ID2.2
ID2.3
ID3.5
ID4.2
ID4.3
ID4.4
ID4.5

M0.1
M2.2
M2.3
M2.4
M2.5
M2.6
M2.7
M3.2
M3.3
M3.4
M3.5
M3.6
M3.7

M4.2

P0.1
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
P2.7
P3.2
P3.3
P3.4
P3.5
P3.6
P3.7
P4.1

E001
E200
E201
E202
E203
E204
E301
E302
E303
E304
E305
E401
E402
E403
E404
E501
E502
E503
E504
E505
E506
E507
E508

G-001
G-101

G-102
FA002
FA101.4
FA101.5
FA101.7
FA101
FA102.1
FA102.4
FA102
FA103
FA301
FX001
FX101
FX102
FX201

ADD:

i. Add the following drawings included in Appendix A within this Addendum noted in Revision table as "Revision 1, 7/18/22, Addendum 3":

A1.109
A1.207
A4.5
A8.2

E-306
E-307

APPENDIX A – REVISED/ADDED PROJECT DRAWINGS AND SPECIFICATIONS

FAN SCHEDULE

UNIT	CFM	S.P.	RPM	MOTOR WATTS	MOTOR VOLTS	MOTOR PH	SELECTION BASED ON GREENHECK	CONTROL	NOTES
EF-1	300	0.25	1120	80	120	1	CSP-A390	RUN DURING OCCUPANCY	1
EF-2	225	0.25	830	132	120	1	CSP-A200	RUN DURING OCCUPANCY	1
EF-3	600	0.50	1288	1/4 HP	120	1	CUBE-099	INTERLOCK WITH HOOD	2
EF-4	200	0.375	989	57	120	1	CSP-A250	WALL SWITCH	1
EF-5	NOT USED								
EF-6	150	0.25	1250	33	120	1	SP-A190	RUN DURING OCCUPANCY	1
EF-7	1525	0.25	1380	1/4 HP	120	1	GB-120	RUN DURING OCCUPANCY	3
EF-8	250	0.25	1010	82	120	1	CSP-A290	RUN DURING OCCUPANCY	1
EF-9	1200	0.25	1140	1/4 HP	120	1	GB-120	RUN DURING OCCUPANCY	3
EF-10	400	0.25	1350	146	120	1	CSP-A390	WALL SWITCH	1
EF-WELD	NOT USED								
EF-VE	1200	4.0	3700	2 HP	460	3	MONOXIVENT BI-100	WALL SWITCH	4
EF-KH	10928	2.0	794	7.5 HP	460	3	CUBE-360HP-VGD	INTERLOCK WITH HOOD	3
EF-BH	2350	1.6	1349	1.5 HP	460	3	CUBE-180HP-VGD	INTERLOCK WITH HOOD	3
EF-SH	1125	0.50	1608	1/4 HP	120	1	CUBE-100	WALL SWITCH	3

REQUIREMENTS. EQUALS SHALL BE ACCEPTEDSCHEDULE NOTES:
1. PROVIDE WITH SPEED CONTROLLER, ELECTRICAL DISCONNECT AND WALL CAP. CONTROL AS INDICATED IN SCHEDULE.
2. PROVIDE WITH DISCONNECT, MOTOR OPERATED DAMPER, CONFIGURED FOR SIDEWALL MOUNTING.
3. PROVIDE WITH DISCONNECT, MOTOR OPERATED DAMPER, ROOF CURB.
4. PROVIDE WITH DISCONNECT, NO LOSS STACK HEAD, VIBRATION ISOLATION.
5. MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

DUCTLESS SPLIT AIR CONDITIONING SYSTEM

MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

DSS-1: INDOOR WALL MOUNTED UNIT – MITSUBISHI PKA-A36KA7,
OUTDOOR CONDENSING UNIT – MITSUBISHI PUY-A36NKA7
A. 36,000 BTU/HR COOLING, 920 CFM, 18.8 SEER, R-410A.
B. 208 VOLTS, SINGLE PHASE, 31A MOCP, FEED TO OUTDOOR UNIT.
C. DC INVERTER COMPRESSOR.
D. WALL MOUNTED, HARD WIRED CONTROLLER.
E. PROVIDE LOW AMBIENT CONTROL TO 0 DEGREES F.
F. PROVIDE CONDENSATE PUMP AS REQUIRED.
G. AUTO RESTART ON POWER FAILURE.
H. COORDINATE INDOOR UNIT LOCATION WITH EQUIPMENT.

DSS-2: INDOOR WALL MOUNTED UNIT – MITSUBISHI PKA-A18HA,
OUTDOOR CONDENSING UNIT – MITSUBISHI PUY-A18NHA3
A. 18,000 BTU/HR COOLING, 425 CFM, 15.3 SEER, R-410A.
B. 208 VOLTS, SINGLE PHASE, 15A MOCP, FEED TO OUTDOOR UNIT.
C. DC INVERTER COMPRESSOR.
D. WALL MOUNTED, HARD WIRED CONTROLLER.
E. PROVIDE LOW AMBIENT CONTROL TO 0 DEGREES F.
F. PROVIDE CONDENSATE PUMP AS REQUIRED.
G. AUTO RESTART ON POWER FAILURE.
H. COORDINATE INDOOR UNIT LOCATION WITH EQUIPMENT.

DSS-3: INDOOR WALL MOUNTED UNIT – MITSUBISHI PKA-A18HA,
OUTDOOR CONDENSING UNIT – MITSUBISHI PUY-A18NHA3
A. 18,000 BTU/HR COOLING, 425 CFM, 15.3 SEER, R-410A.
B. 208 VOLTS, SINGLE PHASE, 15A MOCP, FEED TO OUTDOOR UNIT.
C. DC INVERTER COMPRESSOR.
D. WALL MOUNTED, HARD WIRED CONTROLLER.
E. PROVIDE LOW AMBIENT CONTROL TO 0 DEGREES F.
F. PROVIDE CONDENSATE PUMP AS REQUIRED.
G. AUTO RESTART ON POWER FAILURE.
H. COORDINATE INDOOR UNIT LOCATION WITH EQUIPMENT.

LEGEND

- REFRIGERANT
- 12 x 6 — RECTANGULAR DUCT
- FLEXIBLE CONNECTION
- VD — VOLUME DAMPER
- D — DROP IN DIRECTION OF AIRFLOW
- R — RISE IN DIRECTION OF AIRFLOW
- SUPPLY DUCT UP (OR FROM ABOVE)
- SUPPLY DUCT DOWN (OR FROM BELOW)
- RETURN OR EXHAUST DUCT UP
- RETURN OR EXHAUST DUCT DOWN
- FLEXIBLE DUCT
- MOD — MOTOR OPERATED DAMPER
- REDUCER
- SDR — SMOKE DETECTOR, DUCT MOUNTED
- T — THERMOSTAT OR TEMPERATURE SENSOR

ABBREVIATIONS

BTU	BRITISH THERMAL UNIT
CD	CEILING DIFFUSER
CFD	CEILING FIRE DAMPER
CFM	CUBIC FEET PER MINUTE
CG	CEILING GRILLE
COP	COEFFICIENT OF PERFORMANCE
CR	CEILING REGISTER
DB	DRY BULB TEMPERATURE
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EFF	EFFICIENCY
EXT	EXTERNAL
F	DEGREES FAHRENHEIT
FPM	FEET PER MINUTE
FT	FEET
HP	HORSEPOWER
IN	INCH, INCHES
LAT	LEAVING AIR TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
VD	VOLUME DAMPER
MH	MOUNTING HEIGHT
MIN	MINIMUM
MOD	MOTOR OPERATED DAMPER
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
OA	OUTSIDE AIR
PD	PRESSURE DROP
PS	PRESSURE SENSOR
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAGE
RA	RETURN AIR
SP	STATIC PRESSURE
TEMP	TEMPERATURE
TG	TOP GRILLE
TR	TOP REGISTER
TYP	TYPICAL
WB	WET BULB TEMPERATURE
WC, WG	WATER COLUMN
AFF	ABOVE FINISHED FLOOR
ABV	ABOVE
AD	ACCESS DOOR
BEL	BELOW
BET	BETWEEN
CLG	CEILING
CONN	CONNECT, CONNECTION
CONT	CONTINUED
DN	DOWN
EA	EACH
FL	FLOOR
FLEX	FLEXIBLE
FR	FROM
GALV	GALVANIZED
REQD	REQUIRED
SH	SHEET
SDR	DUCT MOUNTED SMOKE DETECTOR

ELECTRIC WALL HEATER SCHEDULE

MARK	MANUFACTURER & MODEL NO.	MBH	CFM	KW	VOLT/PH
WH-1	MARKEL E3323TTD-RP	5.1	400	1.5	120/1

NOTES:
- PROVIDE WITH DISCONNECT SWITCH & IN-BUILT THERMOSTAT
- MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

MAKE-UP AIR UNIT SCHEDULE

MARK	MANUFACTURER & MODEL NO.	CFM	EVAP. FAN HP	VOLTS ø	S.P. IN WG EXT.	HEATING CAP INPUT, MBH	HEATING CAP OUTPUT, MBH	MCA/MOCP	WEIGHT
MAU-KH	GREENHECK DGX-118-H32	8742	7.5	460/3	0.75	572.6	526.8	14.6/25	1840 LBS.
MAU-KH	GREENHECK DGX-109-H12	1878	1.5	460/3	0.7	123.0	113.2	4.1/15	840 LBS.

NOTES:
- INCLUDE DISCHARGE AIR TEMPERATURE CONTROL KIT
- MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

DUST COLLECTOR

DONALDSON UNIMASTER UMA450, 3900 CFM, 15 HP, 460/3ø, PROVIDE WITH EXPLOSION VENTS, BIN BASE WITH QUICK RELEASE LEVEL AND NON RETURN VALVE, EASY DUCT DUCT SYSTEM AS INDICATED.
MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS.
EQUALS SHALL BE ACCEPTED

WELDING DUST COLLECTOR

DONALDSON POWERCORE TG12, 7840 CFM, 20 HP, 460/3ø, PROVIDE WITH LOW INLET DROP BOX, SIDE MOUNT EXPLOSION VENTS, EASY DUCT DUCT SYSTEM AS INDICATED
MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS.
EQUALS SHALL BE ACCEPTED

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

MARK	MANUFACTURER & MODEL NO.	DESCRIPTION	MATERIAL	FINISH	ACCESSORIES & FEATURES
SUPPLY DIFFUSERS					
CD-1	METALAIRE 5700-6	24"X24" CEILING DIFFUSER WITH 6"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	MODEL BDS DAMPER
CD-2	METALAIRE 5700-6	24"X24" CEILING DIFFUSER WITH 8"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	MODEL BDS DAMPER
CD-3	METALAIRE 5700-6	24"X24" CEILING DIFFUSER WITH 10"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	MODEL BDS DAMPER
CD-4	METALAIRE 5000-1	9"X9" DIRECTIONAL DIFFUSER FOR SURFACE MOUNTING	STEEL	WHITE	MODEL D5 DAMPER
SD-1	METALAIRE 6675-12-1	LINEAR SLOT DIFFUSER, 3'-0" LONG, 1 SLOT @ 3/4" WIDE EACH, 6"ø	ALUMINUM	WHITE	INSULATED BOOT PLENUM
SD-2	METALAIRE 6675-12-1	LINEAR SLOT DIFFUSER, 6'-0" LONG, 2 SLOTS @ 3/4" WIDE EACH, 10"ø	ALUMINUM	WHITE	INSULATED BOOT PLENUM
GRILLES & REGISTERS					
TR-1	METALAIRE V4004-1	6"X4" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-2	METALAIRE V4004-1	10"X6" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-3	METALAIRE V4004-1	6"X6" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-4	METALAIRE V4004-1	10"X8" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-5	METALAIRE V4004-1	12"X8" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
TR-6	METALAIRE V4004-1	14"X8" SIDEWALL SUPPLY REGISTER	STEEL	WHITE	MODEL OBD DAMPER
CR-1	METALAIRE 7500R-6	24"X24" CEILING GRILLE WITH 6"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	--
CR-2	METALAIRE SRH-1	12"X8" CEILING EXHAUST REGISTER	STEEL	WHITE	OPPOSED BLADE DAMPER
CR-3	METALAIRE 7500R-6	24"X24" CEILING GRILLE WITH 8"ø NECK FOR LAY-IN CEILING	STEEL	WHITE	--
FCG-1	METALAIRE SRHF-6	24"X24" FILTER CLG GRILLE WITH 12"X12" NECK FOR LAY-IN CLG	STEEL	WHITE	1" MERV 13 FILTER
FCG-2	METALAIRE SRHF-6	24"X24" FILTER CLG GRILLE WITH 22"X22" NECK FOR LAY-IN CLG	STEEL	WHITE	1" MERV 13 FILTER

NOTES:
- MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

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1	07/18/22	ADDENDUM 3

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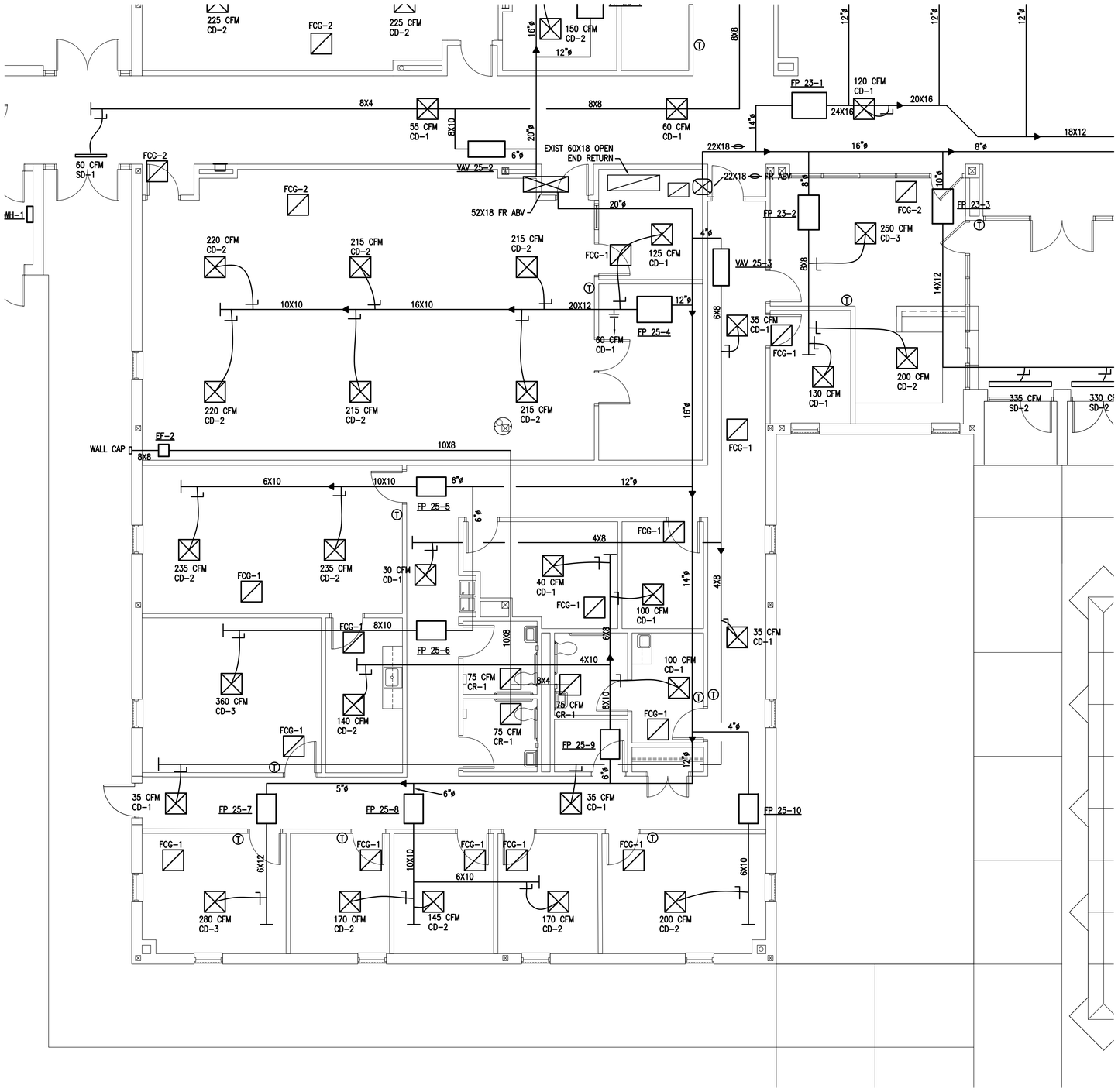
SCALE:	AS SHOWN

MECHANICAL LEGEND & SCHEDULES

M0.1

SHEET _____ of X



1 M2.2 GROUND FLOOR ENLARGED PARTIAL MECHANICAL NEW WORK PLAN

SCALE: 3/16" = 1'-0"

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NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.

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KEYPLAN

0 3' 6' 12'

N
PLAN NORTH
TRUE NORTH

REVISIONS

No.	DATE	DESCRIPTION
1	07/18/22	ADDENDUM 3

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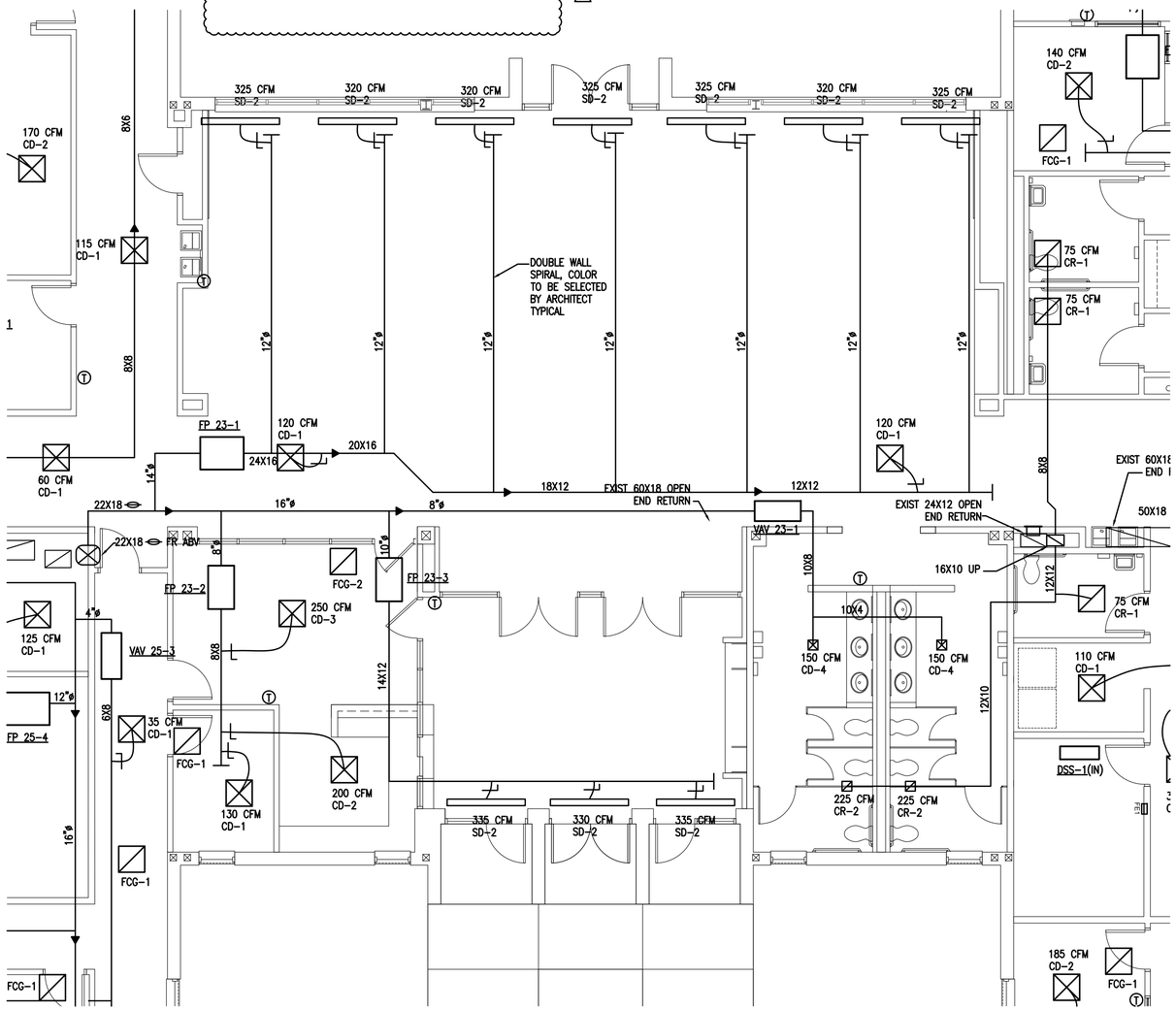
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA B

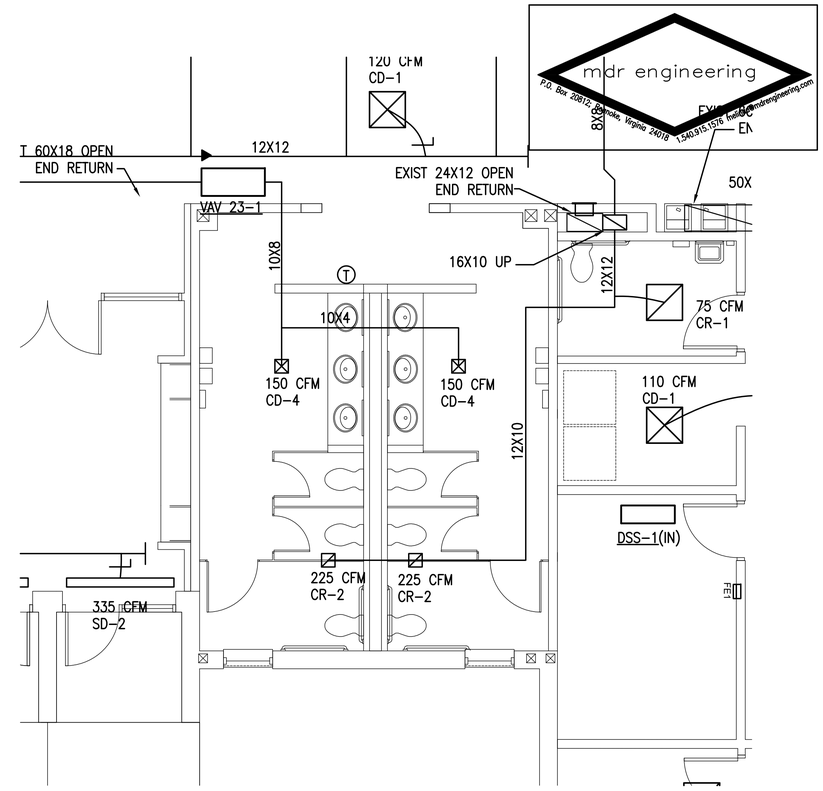
M2.2

SHEET _____ of X

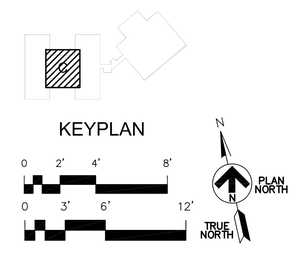
NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.



1 M2.3 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C
SCALE: 3/16" = 1'-0"



2 M2.3 TOILET ROOM ENLARGED NEW WORK PLAN
SCALE: 1/4" = 1'-0"



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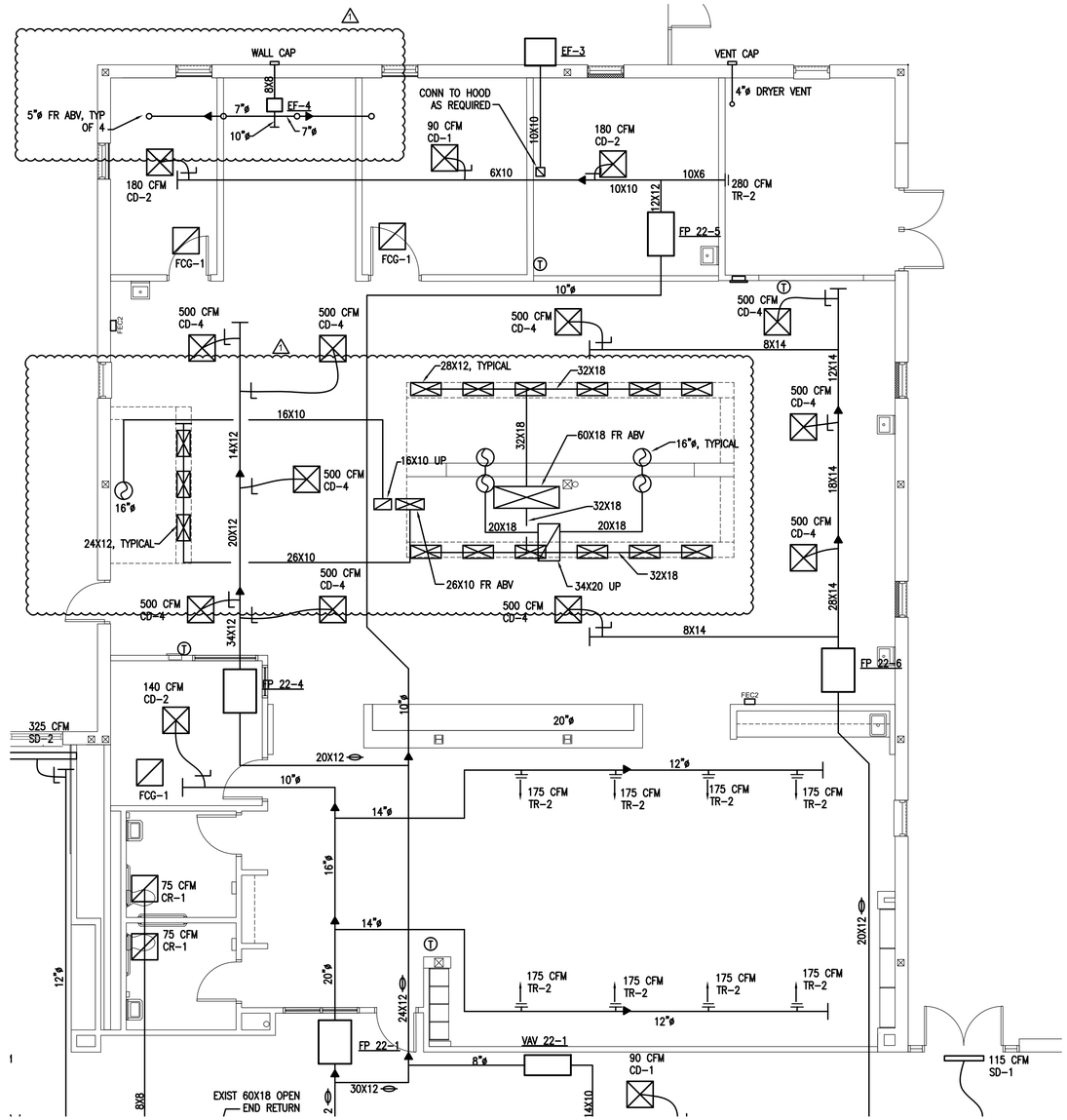
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

M2.3

SHEET _____ of X

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM. 1



1 M2.4 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA D

SCALE: 3/16" = 1'-0"

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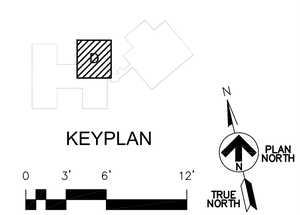
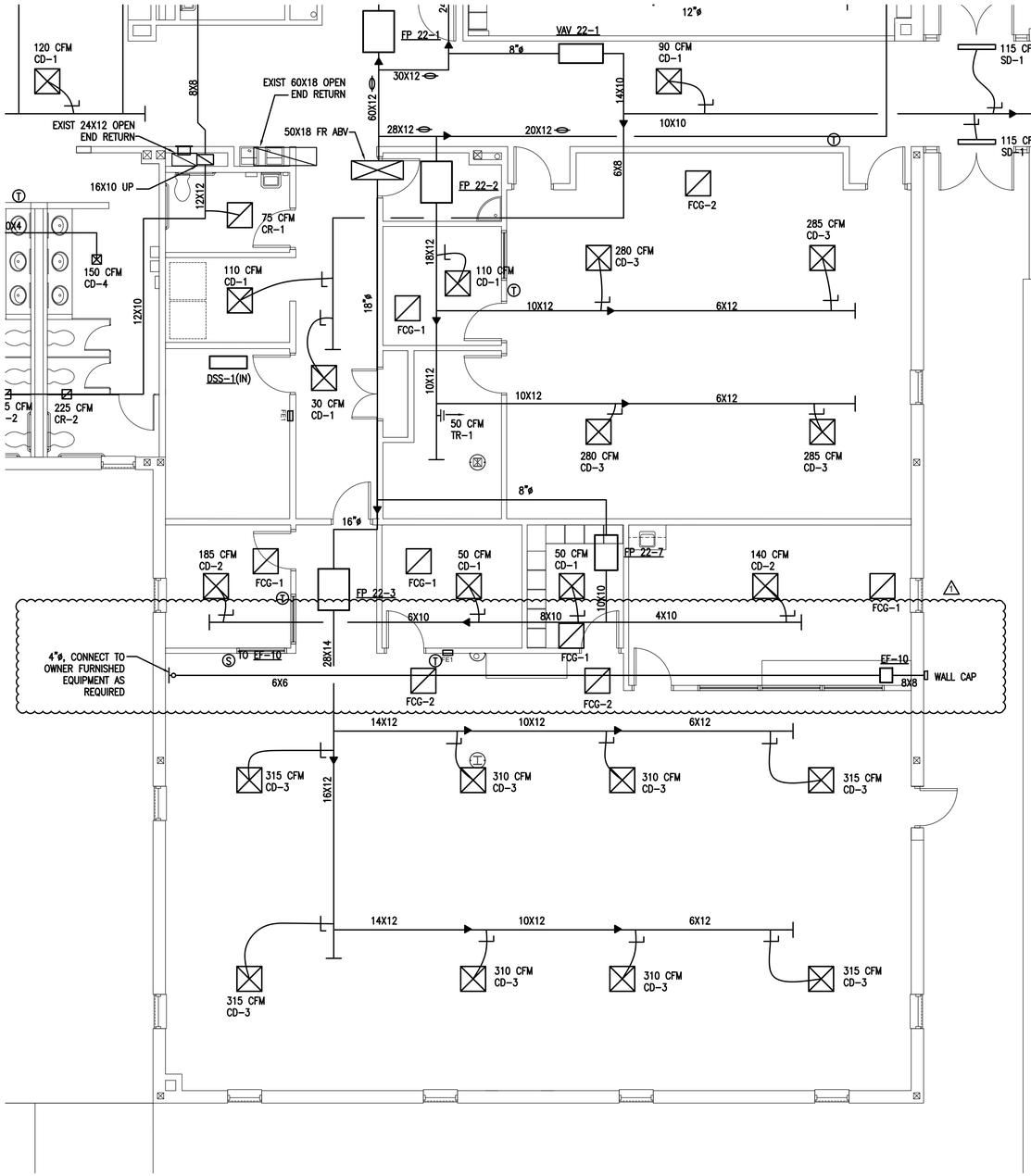
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL NEW WORK PLAN - AREA D

M2.4

SHEET _____ of X

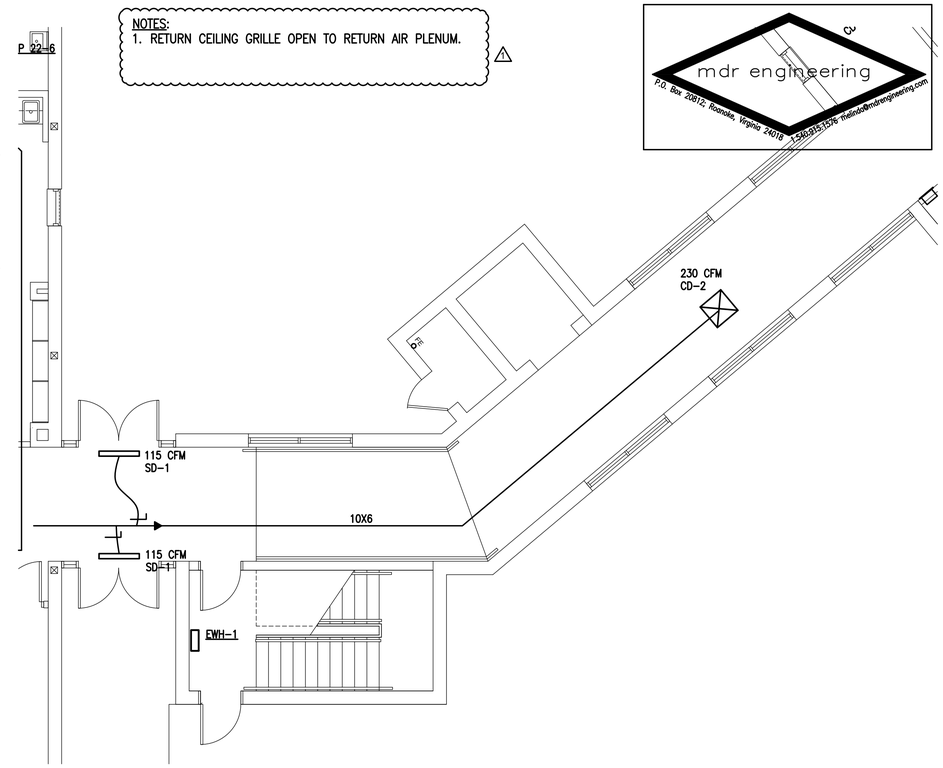




2 M2.5 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

SCALE: 3/16" = 1'-0"

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.



2 M2.5 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

SCALE: 1/4" = 1'-0"

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DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

M2.5

SHEET _____ of ___X___

KEYPLAN

0 4' 8' 16'

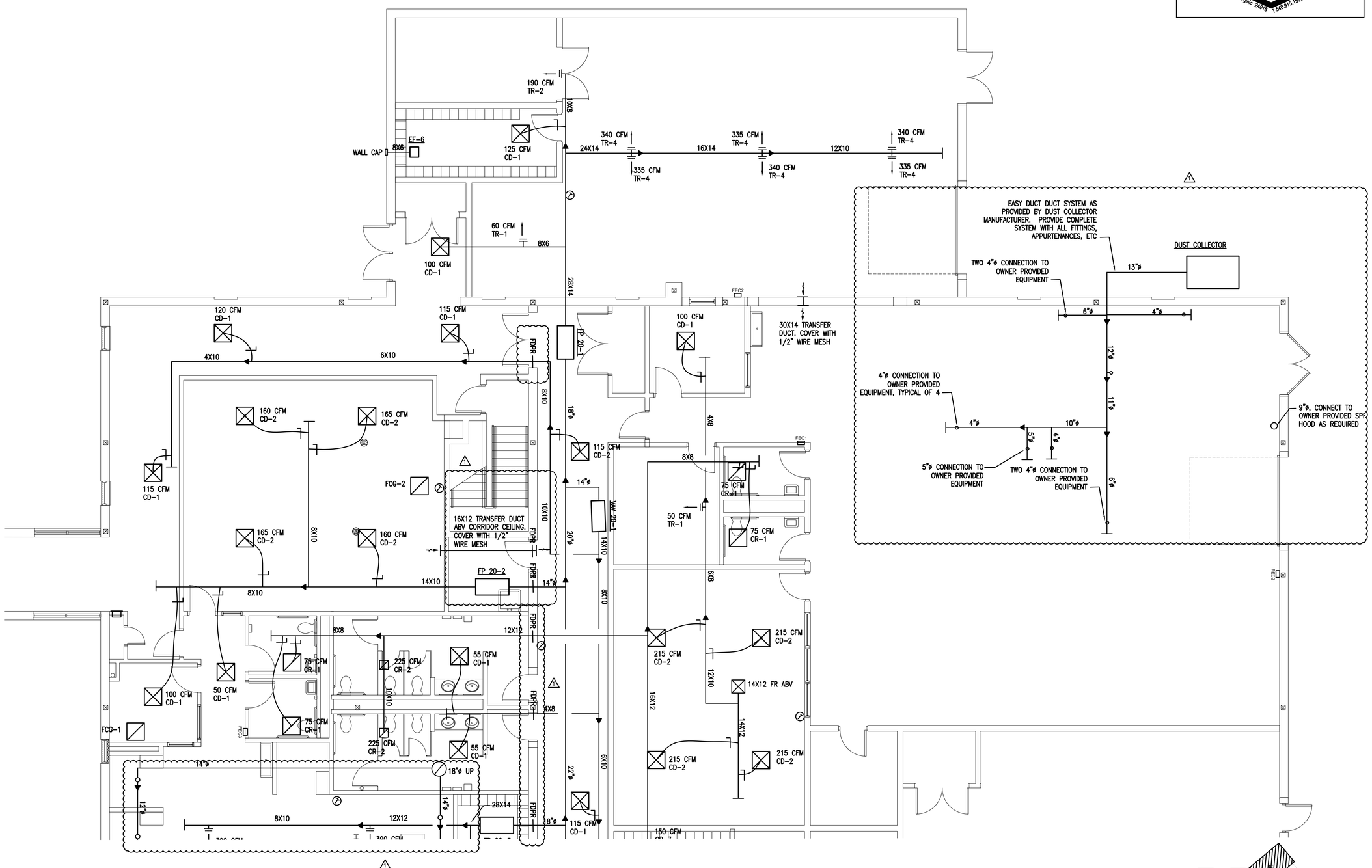
0 3' 6' 12'

N

PLAN NORTH

TRUE NORTH

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.



1 M2.6 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA F

SCALE: 3/16" = 1'-0"

KEYPLAN

0 3' 6' 12'

N PLAN NORTH

TRUE NORTH

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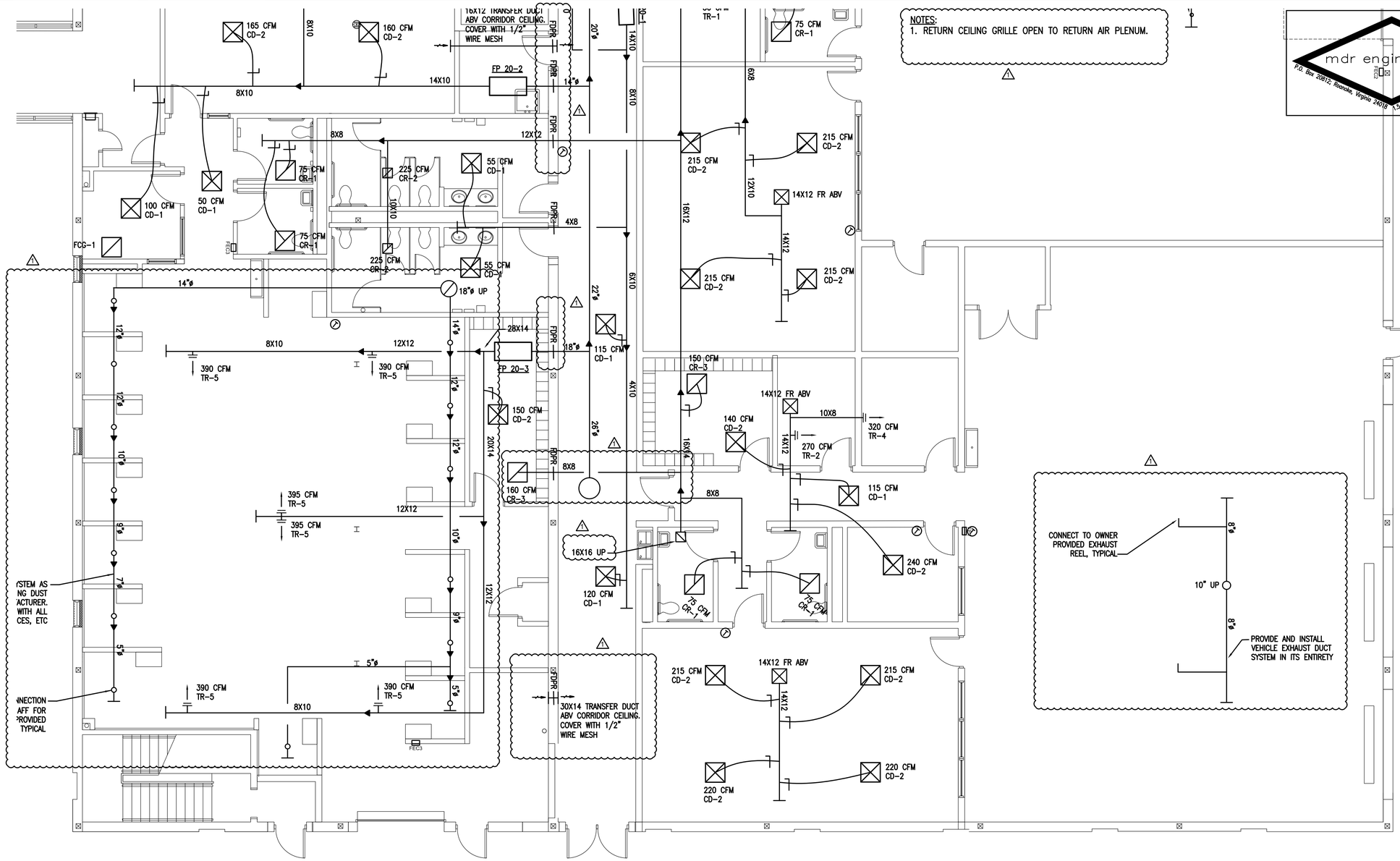
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL NEW WORK PLAN - AREA F

M2.6

SHEET _____ of X

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.



1 M2.7 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA G

SCALE: 3/16" = 1'-0"

KEYPLAN

0 3' 6' 12'

N PLAN NORTH TRUE NORTH

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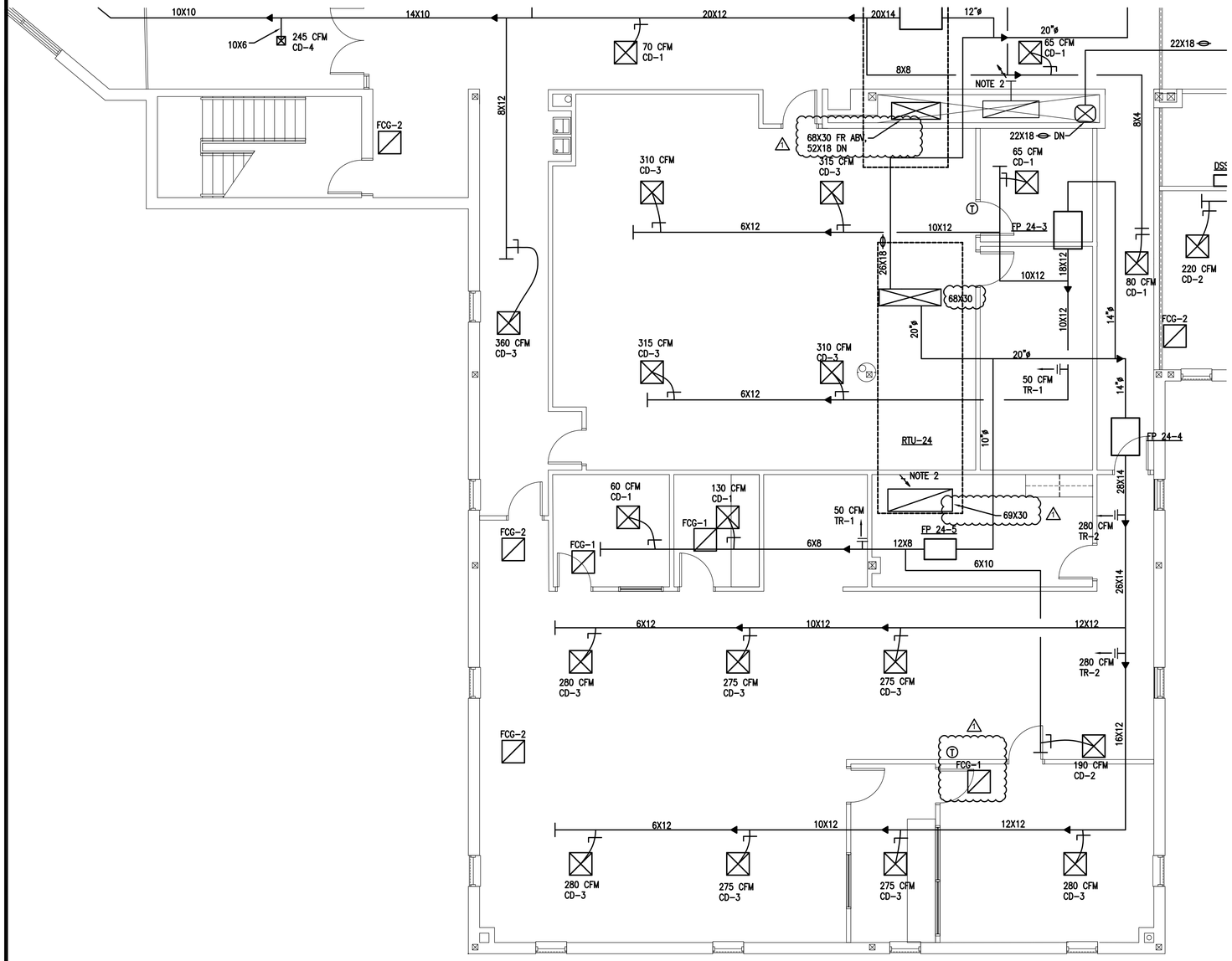
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA G

M2.7

SHEET _____ of X



1 M3.2 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA B

SCALE: 3/16" = 1'-0"

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NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.
2. OPEN END RETURN DUCT ABOVE CEILING. COVER WITH 1/2" WIRE MESH.

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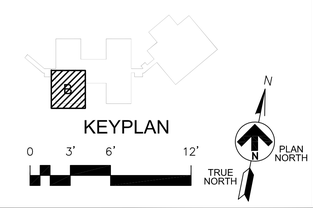

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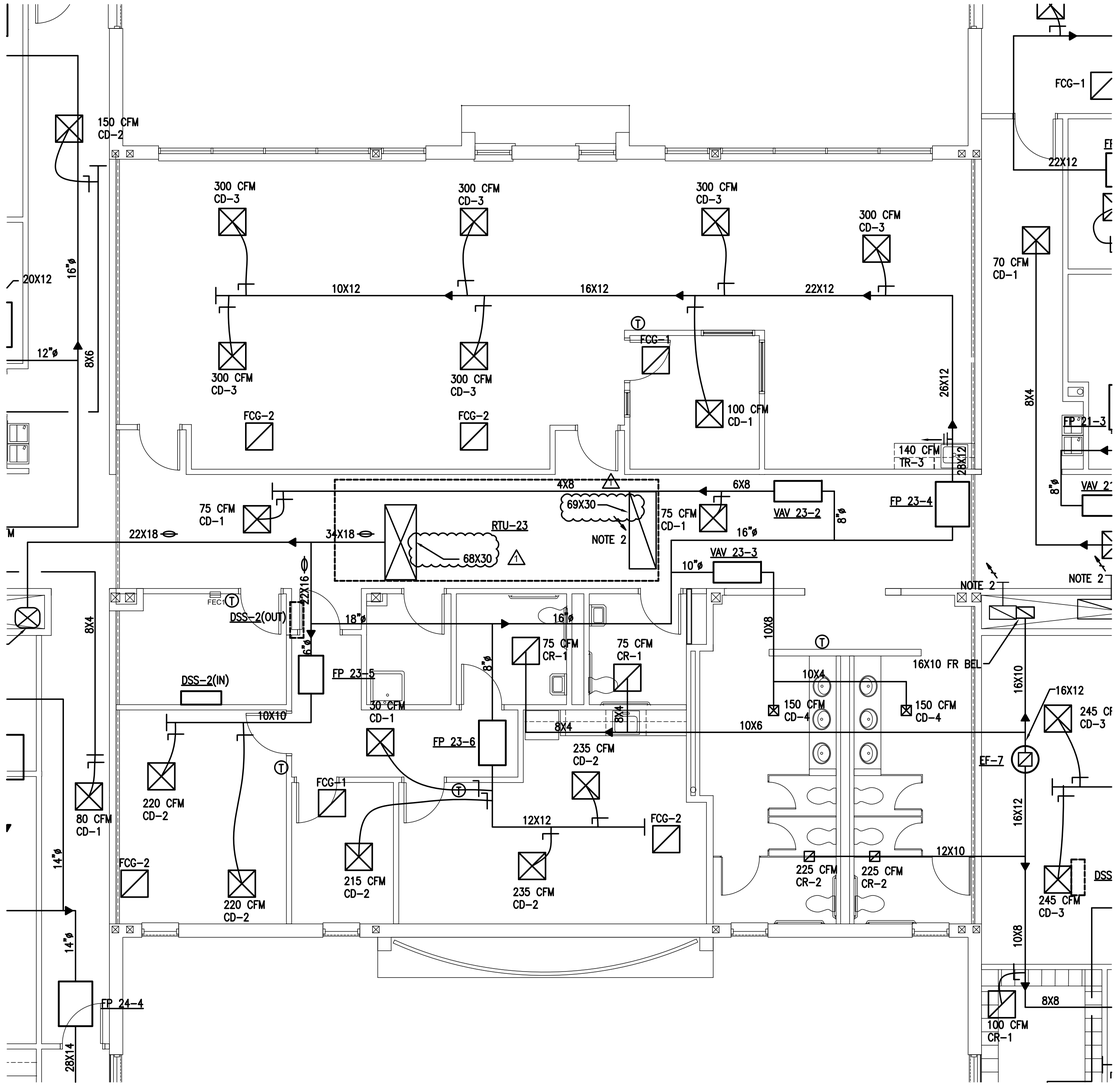
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA B

M3.2

SHEET _____ of ___X___



1 M3.3 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

SCALE: 3/16" = 1'-0"

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NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.
2. OPEN END RETURN DUCT ABOVE CEILING. COVER WITH 1/2" WIRE MESH.

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SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

M3.3

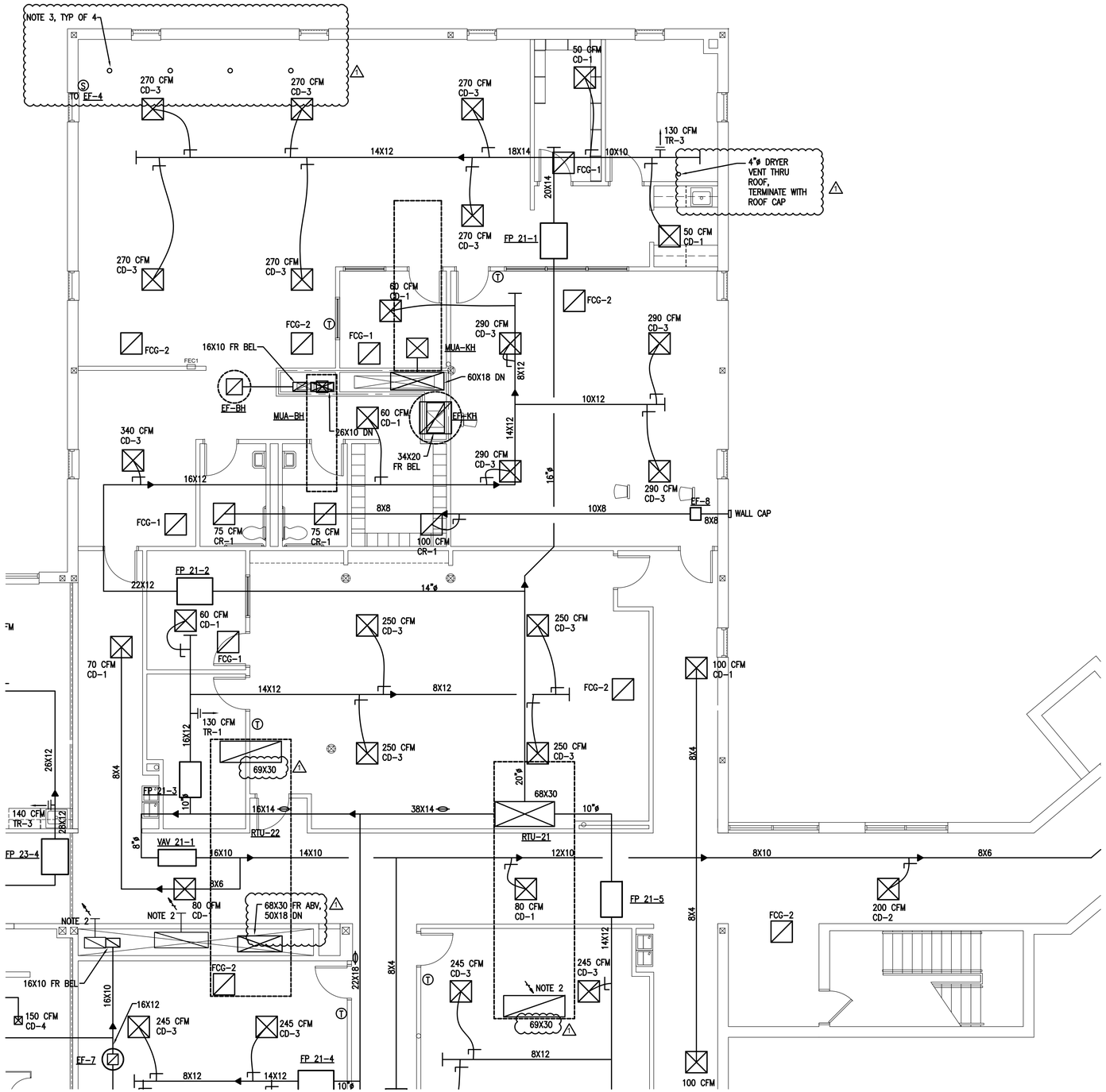
SHEET _____ of X

KEYPLAN

0 3' 6' 12'

TRUE NORTH

N PLAN NORTH



1 M3.4 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA D

SCALE: 3/16" = 1'-0"

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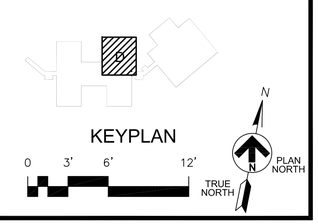
NOTES:

1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.
2. OPEN END RETURN DUCT ABOVE CEILING. COVER WITH 1/2" WIRE MESH.
3. CONTRACTOR TO CONNECT TO MANICURE TABLE GRILLE AS REQUIRED. EXTEND 5"ø EXHAUST DUCT DOWN TO FIRST FLOOR.



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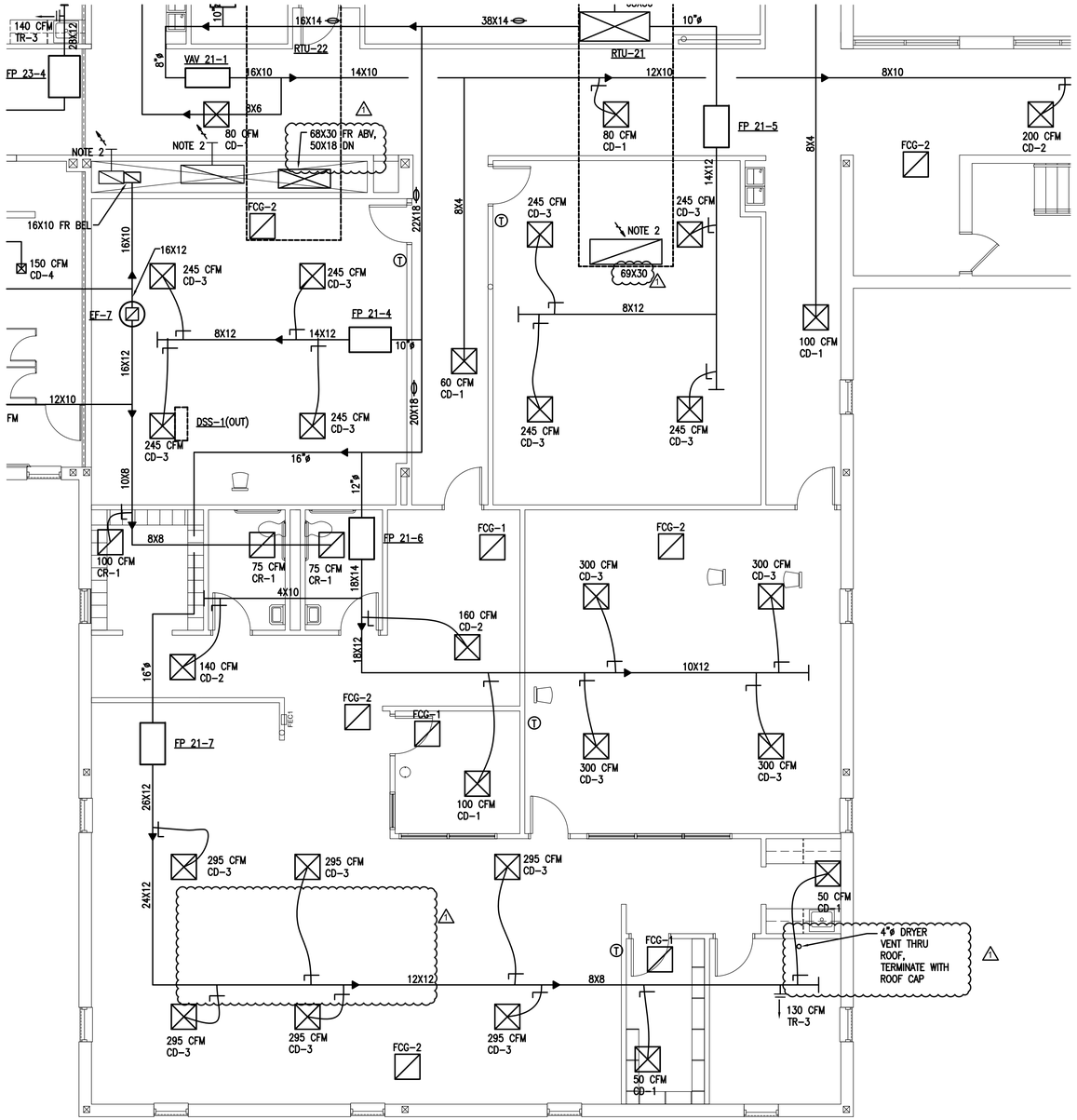
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA D

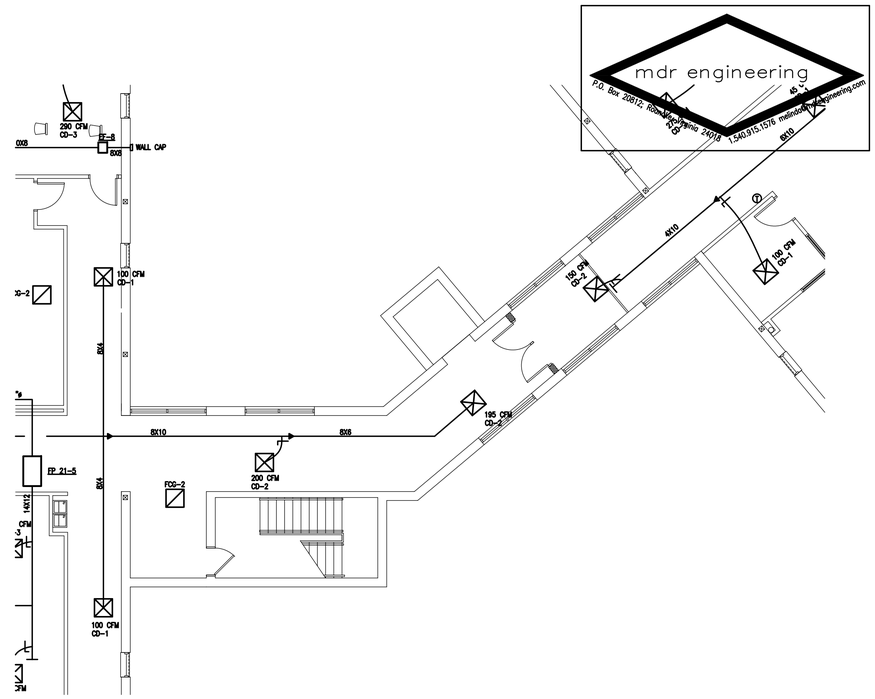
M3.4

SHEET _____ of X



1 M3.5 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

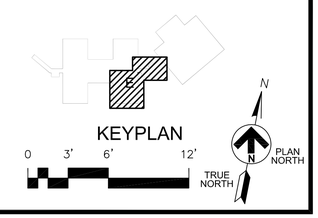
SCALE: 3/16" = 1'-0"



2 M3.5 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

SCALE: 3/16" = 1'-0"

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.
2. OPEN END RETURN DUCT ABOVE CEILING. COVER WITH 1/2" WIRE MESH.



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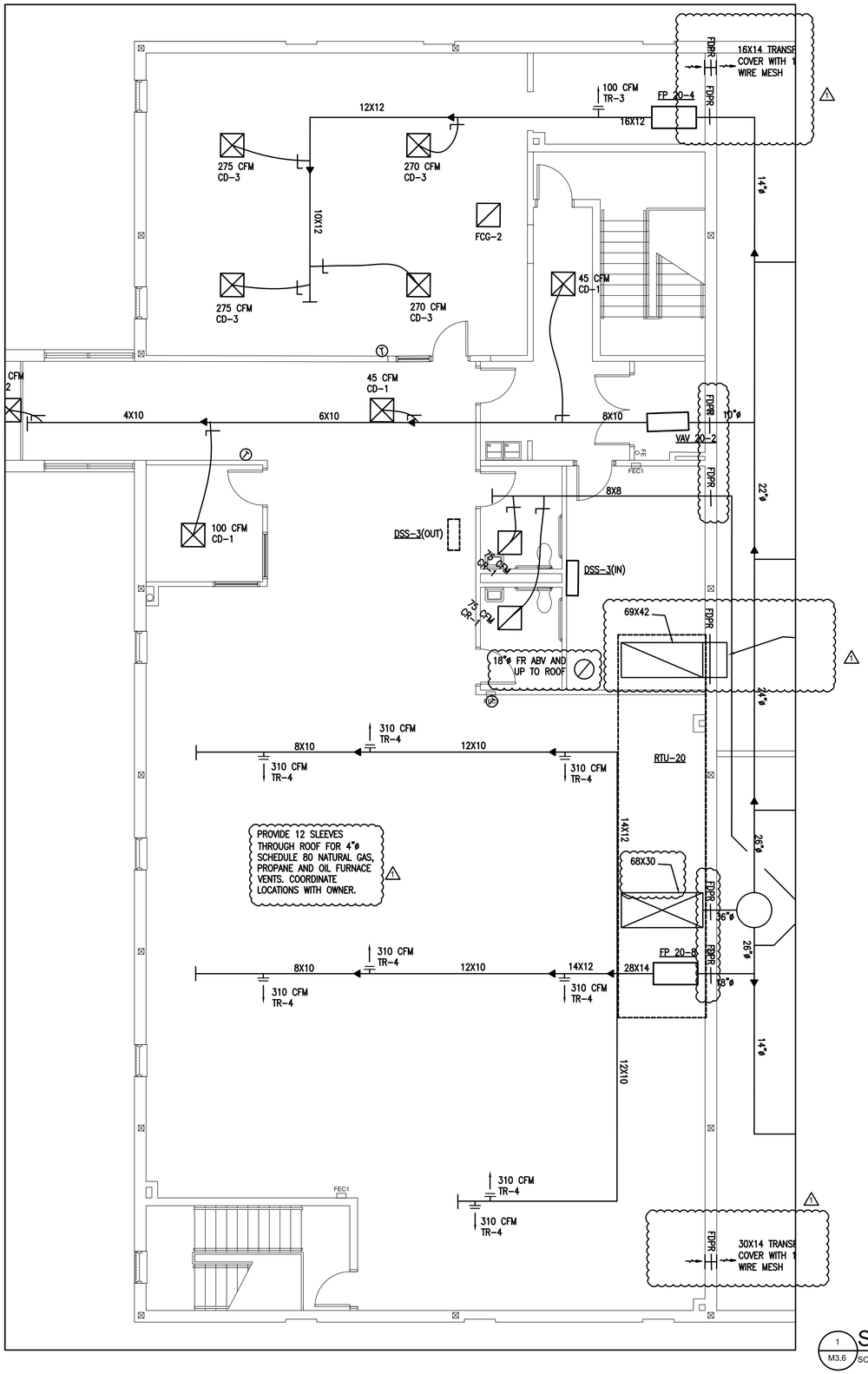
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E

M3.5

SHEET _____ of X



1 M3.6 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA F

SCALE: 3/16" = 1'-0"

NOTES:
1. RETURN CEILING GRILLE OPEN TO RETURN AIR PLENUM.
2. OPEN END RETURN DUCT ABOVE CEILING. COVER WITH 1/2" WIRE MESH.

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DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA F

M3.6

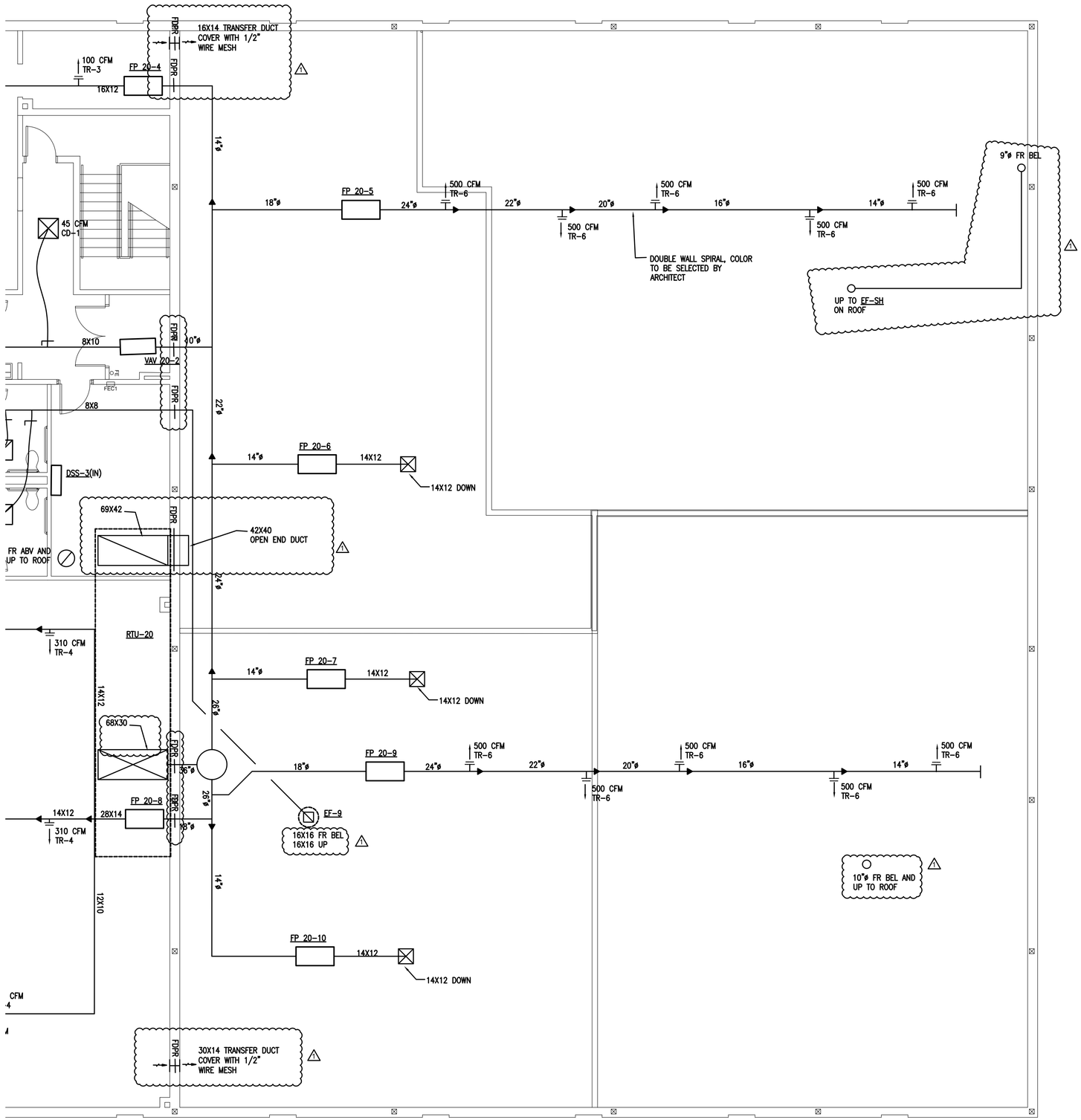
SHEET _____ of X

KEYPLAN

0 3' 6' 12'

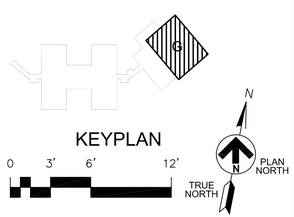
N PLAN NORTH

TRUE NORTH



1 M3.7 SCALE: 3/16" = 1'-0"

SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G



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PLANNING

COMMONWEALTH OF VIRGINIA
MELINDA D. RUBLE
No. 028163
06.17.2022
PROFESSIONAL ENGINEER

RUFFNER CAREER AND TECHNICAL EDUCATION CENTER

ROANOKE, VIRGINIA

ROANOKE CITY PUBLIC SCHOOLS
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REVISIONS

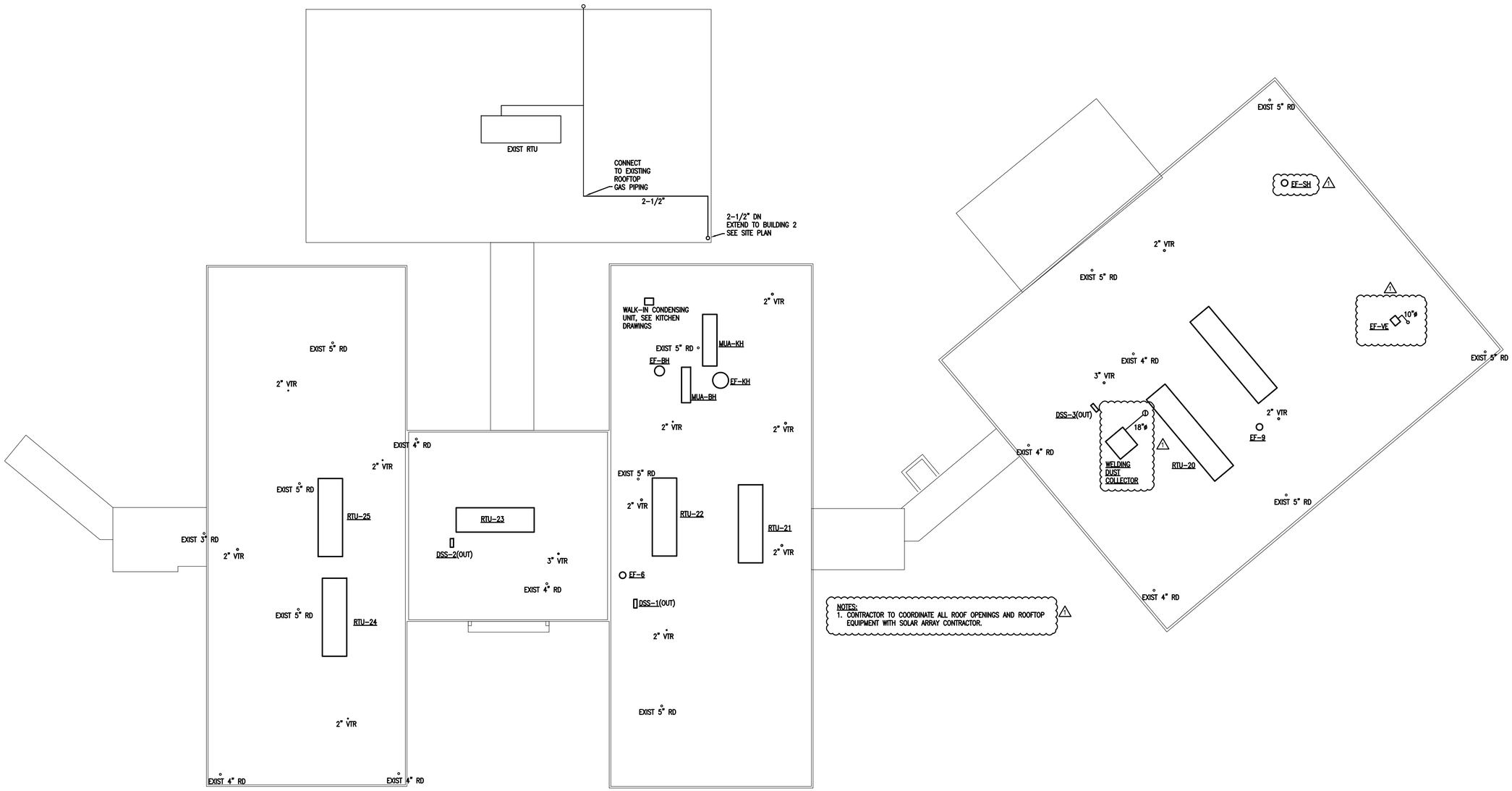
No.	DATE	DESCRIPTION
1	07/18/22	ADDENDUM 3

DRAWN BY:	MDR
REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G

M3.7

SHEET _____ of __X__



NOTES:
1. CONTRACTOR TO COORDINATE ALL ROOF OPENINGS AND ROOFTOP EQUIPMENT WITH SOLAR ARRAY CONTRACTOR.

1 M4.1 MECHANICAL NEW WORK ROOF PLAN
SCALE: 1/16" = 1'-0"

0 3' 6' 12'

N TRUE NORTH PLAN NORTH

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GA Architecture
ARCHITECTURE INTERIORS PLANNING

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MECHANICAL NEW WORK ROOF PLAN

M4.2

SHEET _____ of X

PLUMBING EQUIPMENT SCHEDULE

MODEL NUMBERS ARE USED TO ESTABLISH PERFORMANCE REQUIREMENTS. EQUALS SHALL BE ACCEPTED

WC-1 TOTO CT708E, ELONGATED VITREOUS CHINA WATER CLOSET (FLUSH VALVE WALL MTD., 1.28 GPF); SIPHON JET, BEMIS 1955SSCT ELONGATED SEAT, TOTO TET1LA32 SENSOR TOILET FLUSH VALVE; SIPHON JET CARRIER.

WC-2 TOTO CT708E, ELONGATED VITREOUS CHINA WATER CLOSET (FLUSH VALVE WALL MTD., 1.28 GPF); SIPHON JET, BEMIS 1955SSCT ELONGATED SEAT, TOTO TET1LA32 SENSOR TOILET FLUSH VALVE; SIPHON JET CARRIER.

L-1 AMERICAN STANDARD LUCERNE #0356.041, VITREOUS CHINA; MOEN 8210F15 FAUCET WITH WHEELCHAIR OFFSET GRID DRAIN STRAINER AND ANGLE SUPPLIES WITH LOOSE KEY STOPS; PROVIDE ZURN Z1231 CARRIER. PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070 AND P-TRAP.

L-2 AMERICAN STANDARD AQUALYN 0475.020, VITREOUS CHINA; MOEN FAUCET MODEL NO. 8210F15 WITH WHEELCHAIR OFFSET; GRID DRAIN STRAINER, AND ANGLE SUPPLIES WITH LOOSE KEY STOPS. PROVIDE TRUBRO #102W PRE-MOLDED INSULATION KIT INSULATING BOTH SUPPLIES AND DRAIN. PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070, ASSE 1070 COMPLIANT.

S-1 FIAT FL-1 MOLDED STONE SERV-A-SINK; FIAT A-1 DECK MOUNTED FAUCET, CHROME P-TRAP AND SUPPLIES.

S-2 ELKAY #LRAD-2522 LUSTERSTONE STAINLESS STEEL SINGLE BOWL HANDICAP KITCHEN SINK, 18 GA., TYPE 304 STAINLESS SELF RIM, 4-HOLE, 6-1/2 DEEP; #420 DELTA FAUCET WITH 8" SPOUT, SINGLE LEVER CONTROL AND SPRAY ATTACHMENT, CHROME P-TRAP AND SUPPLIES, #LK35 STRAINERS.

S-3 BUY-RITE ICON BACKWASH UNIT, BLACK BOWL; WITH DUAL FUNCTION NOZZLE, VACUUM BREAKER, #8750 JR SMITH HAIR INTERCEPTOR, CHROME P-TRAP AND SUPPLIES, PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070, ASSE 1070 COMPLIANT

S-4 ELKAY #LRAD-2522 LUSTERSTONE STAINLESS STEEL SINGLE BOWL HANDICAP KITCHEN SINK, 18 GA., TYPE 304 STAINLESS SELF RIM, 4-HOLE, 6-1/2 DEEP; #420 DELTA FAUCET WITH 8" SPOUT, SINGLE LEVER CONTROL, CHROME P-TRAP AND SUPPLIES, #LK35 STRAINERS, WILKINS ZW1070 TMV, HAWS 7610 EYE WASH. 1

S-5 ELKAY #EWMA4820C STAINLESS STEEL MULTIPLE STATION HAND WASH SINK 14 GA., WALL MOUNT WITH LK18B DRAIN AND TWO LK940GN05T4H FAUCETS; OFFSET TAIL PIECE, CHROME P-TRAP AND SUPPLIES

SH-1 FREEDOM SHOWERS APF06337BF875, 63X38 SHOWER COMPLETE PACKAGE TO INCLUDE CURTAIN ROD, SEAT, GRAB BARS, DRAIN; MOEN 2352 SINGLE HANDLE SHOWER VALVE WITH SHOWER HEAD, PRESSURE BALANCED. COLOR TO BE WHITE.

JS-1 FIAT #MSB-2424 MOLDED STONE MOP SERVICE BASIN, 24"x24"x10"; #830-AA WALL MTD FAUCET W/VACUUM BREAKER & BUCKET HOOK; #832-AA HOSE & BRACKET, #E-77-AA VINYL BUMPER GUARD. #889-CC MOP HANGER & #QDC-3-2 QUICK DRAIN CONNECTOR, #MSG2424 STAINLESS STEEL WALL GUARDS.

EWC-1 OASIS #PGFBEBFSLTT TOUCHLESS TWO STATION ELECTRIC WATER COOLER, STAINLESS STEEL, LEAD FREE WORKING COMPONENTS; 8.0 GPH CAPACITY AND 4.6 AMPS. 1

HB-1 CHICAGO FAUCETS 293-E27CP INSIDE SILL FITTING, POLISHED CHROME PLATED FINISH SOLID BRASS BODY CONSTRUCTION, 2-1/4" TEE HANDLE, 1/2", NPT FEMALE INLET, 3/4" MALE GARDEN HOSE THREAD OUTLET, SLOW COMPRESSION RENEWABLE CARTRIDGE, VACUUM BREAKER.

FD-1 JOSAM #30000-5A-2-17 FLOOR DRAIN, SATIN FINISH BRONZE TOP, NON-CLOG STRAINER, SECURED GRATE; 4"DEEP SEAL TRAP. SET RIM FLUSH WITH FINISH FLOOR.

FD-2 JOSAM #30000-5A-2-17 FLOOR DRAIN, SATIN FINISH BRONZE TOP, NON-CLOG STRAINER, SECURED GRATE; 4"DEEP SEAL TRAP, CLAMPING RING. SET RIM FLUSH WITH FINISH FLOOR.

FS-1 JOSAM #49300 FLOOR SINK, 8" SQUARE CAST IRON WITH 5-7/8" DEEP SUMP, CLAMPING RING

CO JOSAM CLEANOUT
- FLOOR — ROUND, SATIN BRONZE TOP, RECESSED PLUG.
- WALL — CHROME FLUSH WALL PLATE, RECESSED PLUG.

OIL/ SEDIMENT TRAP ZURN Z1188 OIL INTERCEPTOR, 100 GPM. 110 GALLON

ST-1 ZURN Z1187-SI SEDIMENT INTERCEPTOR, 20 GPM FLOW RATE, 60 GALLON STATIC CAPACITY

EW-1 HAWS MODEL 7360B-7460B EMERGENCY EYE WASH OR EQUAL WITH THERMOSTATIC MIXING VALVE

WMB ABS BOXES, ONE BOX WITH CENTER DRAIN AND ONE BOX WITH TWO WATER VALVES & WATER HAMMER ARRESTORS. PROVIDE FLANGED BOXES SUITABLE FOR DRYWALL INSTALLATION.

TD-1 ZURN Z884 4" WIDE TRENCH DRAIN SYSTEM, 3.25" THROAT; CHANNEL TO HAVE 1.04% BUILT-IN SLOPE & INVERT TO BE DETERMINED BY CONTRACTOR; PROVIDE WITH 2" END OUTLET, CAST IRON SLOTTED GRATE AND END CAP. TRENCH DRAIN TOTAL LENGTH SHALL BE 8'-0".

HWH-1 STATE PCE-6-10MSA-25 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 10 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 2500 W; 230/1; T&P RELIEF VALVE.

HWH-2 STATE PCE-6-10MSA-15 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 6 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 1500 W; 230/1; T&P RELIEF VALVE.

HWH-3 STATE PCE-20-10MSA-35 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 14 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 3500 W; 230/1; T&P RELIEF VALVE.

HWH-4 STATE SUF119-400E GAS FIRED WATER HEATER, 119 GALLON CAPACITY TANK, 460 GAL/HR RECOVERY AT 40 DEG. F. ENT. AND 100 DEG.F. RISE, 120V/1#; 399.9 MBH; ASME RATED, T&P RELIEF VALVE.

HWH-5 STATE CSB-53-135-SFE ELECTRIC WATER HEATER, THREE ELEMENTS, 50 GAL. CAPACITY TANK, 55 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 13500 W; 230/1; T&P RELIEF VALVE. 1

HWH-6 STATE PCE-20-10MSA-4 ELECTRIC WATER HEATER, SINGLE ELEMENT, 20 GAL. CAPACITY TANK, 17 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 4000 W; 230/1; T&P RELIEF VALVE.

HWH-7 STATE PCE-40-20LSA-5 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 21 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5000 W; 230/1; T&P RELIEF VALVE.

HWH-8 STATE PCE-40-20LSA-5 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 21 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5000 W; 230/1; T&P RELIEF VALVE.

SP-1 ZOELLER N153 SUMP PUMP, 1/2 HP., 120/1 PHASE, 50 GPM AT 20 FT. HEAD, 1-1/2" EFFLUENT, DIAPHRAGM PRESSURE SWITCH, PROVIDE DISCONNECT. UNIT TO BE HYDRAULIC FLUID SENSING TYPE WITH ALARM PANEL.

RPZ WATTS #909 REDUCED PRESSURE ZONE BACKFLOW PREVENTOR, BRONZE CONSTRUCTION, EPOXY COATED CAST IRON CHECK VALVE BODY WITH BRONZE SEATS, FDA APPROVED EPOXY COATED CAST IRON RELIEF VALVE WITH TRIM.

HWRP-1 BELL & GOSSET #100 CIRCULATING PUMP, 1/12 HP., 120 VOLT, 15 GPM AT 7 FT. HEAD, BRONZE TOP. 1

LEGEND

- BRANCH CONNECTION – BOTTOM OF MAIN
- BRANCH CONNECTION – SIDE OF MAIN
- BRANCH CONNECTION – TOP OF MAIN
- PIPE DOWN OR PIPE FROM BELOW
- PIPE UP OR PIPE FROM ABOVE
- DIRECTION OF FLOW
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- SPRINKLER HEAD
- SANITARY SEWER OR DRAIN
- SANITARY VENT
- RL — RAIN LEADER ABOVE LOWEST FLOOR
- SD — STORM SEWER OR DRAIN
- CO — CLEANOUT FLUSH WITH FLOOR
- CO — CLEANOUT BELOW FLOOR
- HOSE BIBBS (PLAN & ELEVATION)
- GATE VALVE
- BALL VALVE
- THERMOMETER
- PRESSURE REDUCING VALVE (PRV)
- R — RELIEF VALVE
- BACKFLOW PREVENTER (BFP)
- CONNECT TO EXISTING

ABBREVIATIONS

ABV	ABOVE
BTU	BRITISH THERMAL UNIT
BEL	BELOW
BET	BETWEEN
CLG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CW	COLD WATER
CONT	CONTINUED
DN	DOWN
EA	EACH
EWC	ELECTRIC WATER COOLER
F	DEGREES FARENHEIT
FD	FLOOR DRAIN
FL	FLOOR
FR	FROM
FT	FEET
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HB	HOSE BIBB
HW	HOT WATER
IN	INCH, INCHES
MAX	MAXIMUM
MIN	MINUMUM
RD	ROOF DRAIN
REQD	REQUIRED
RL	ROOF LEADER
SH	SHEET
TEMP	TEMPERATURE
TYP	TYPICAL
V	SANITARY VENT
VTR	VENT THRU ROOF
W	SANITARY WASTE
WH	WALL HYDRANT

PLUMBING FIXTURE INSTALLATION SCHEDULE

FIXTURE	MARK	MH	CW	HW	VENT	WASTE
WATER CLOSET(HC)	WC-1	17"	1"	--	2"	4"
WATER CLOSET	WC-2	15"	1"	--	2"	4"
LAVATORY	L-1	34"	1/2"	1/2"	1-1/2"	2"
LAVATORY	L-2	COUNTER	1/2"	1/2"	1-1/2"	2"
JANITOR SINK	JS-1	FLOOR	1/2"	1/2"	1-1/2"	2"
SHOWER	SH-1	72"(A)	1/2"	1/2"	-	-
ELECTRIC WATER COOLER	EWC-1	36"(B)	1/2"	--	1-1/2"	2"
SINK	S-1	FLOOR	1/2"	1/2"	1-1/2"	2"
SINK	S-2	COUNTER	1/2"	1/2"	1-1/2"	2"
SINK	S-3	FLOOR	1/2"	1/2"	1-1/2"	2"
SINK	S-4	COUNTER	1/2"	1/2"	1-1/2"	2"
SINK	S-5	34"	1/2"(2)	1/2"(2)	1-1/2"	2"

1

NOTES

1. SIZE GIVEN ARE FOR FIXTURE ONLY. EXCEPTIONS, IF ANY, ARE SHOWN ON PLANS.
2. MOUNTING HEIGHT DIMENSIONS ARE TO FLOOD LEVEL RIM OF FIXTURE, UNLESS NOTED OTHERWISE.
   - (A) MOUNTING HEIGHT TO SHOWER HEAD
   - (B) MOUNTING HEIGHT TO LOWER SPOUT OUTLET.
3. ALL PUBLIC FAUCETS SHALL BE PROVIDED WITH TEMPERING VALVE, WILKINS MODEL #ZW1070 OR EQUAL AS REQUIRED.

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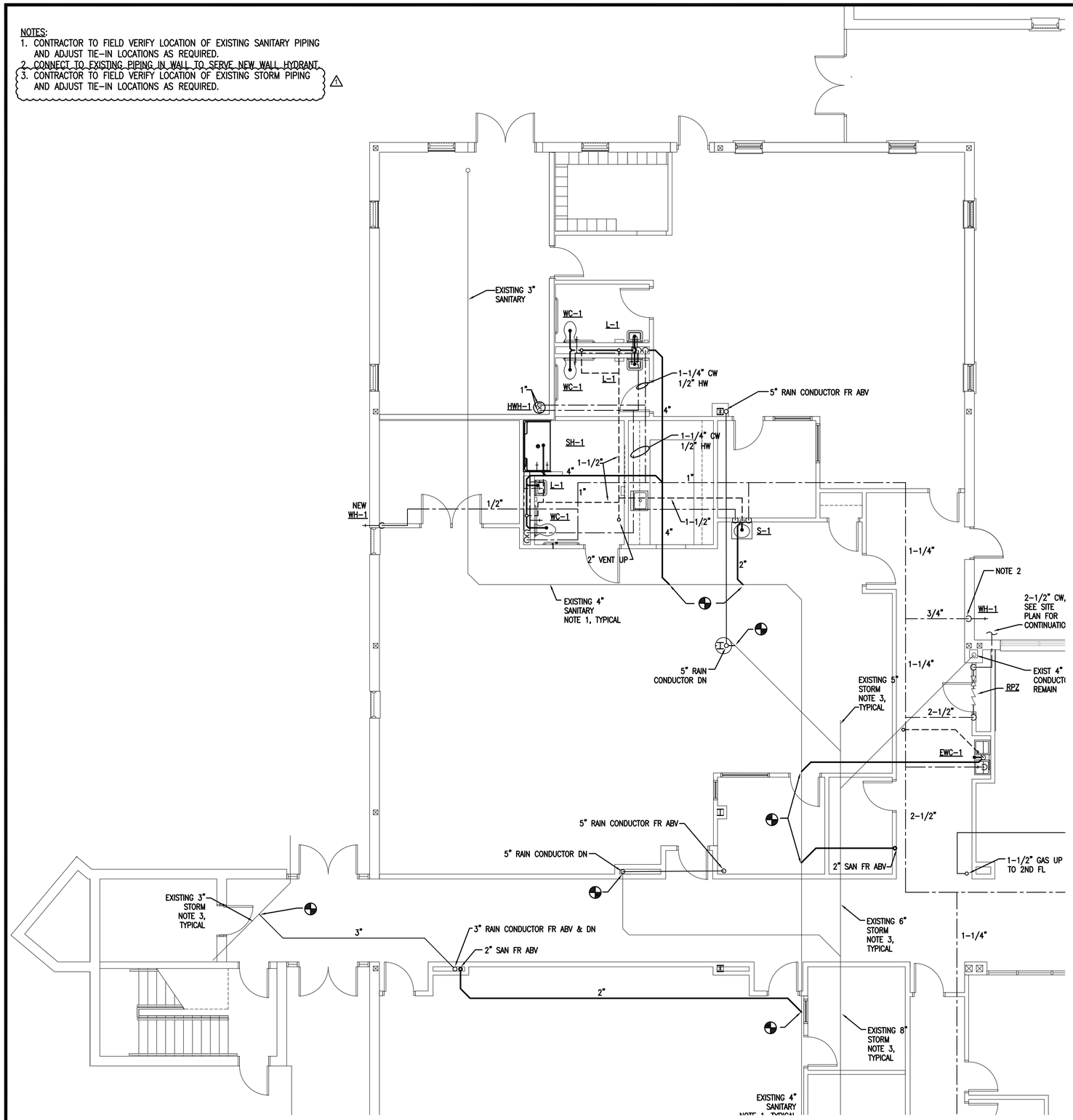
PLUMBING LEGEND & SCHEDULES

P0.1

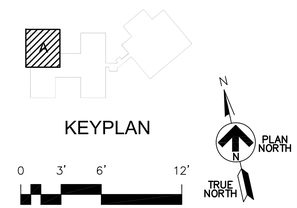
SHEET _____ of __X__

NOTES:
1. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING SANITARY PIPING AND ADJUST TIE-IN LOCATIONS AS REQUIRED.
2. CONNECT TO EXISTING PIPING IN WALL TO SERVE NEW WALL HYDRANT.
3. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING STORM PIPING AND ADJUST TIE-IN LOCATIONS AS REQUIRED.



1 P2.1 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A

SCALE: 3/16" = 1'-0"



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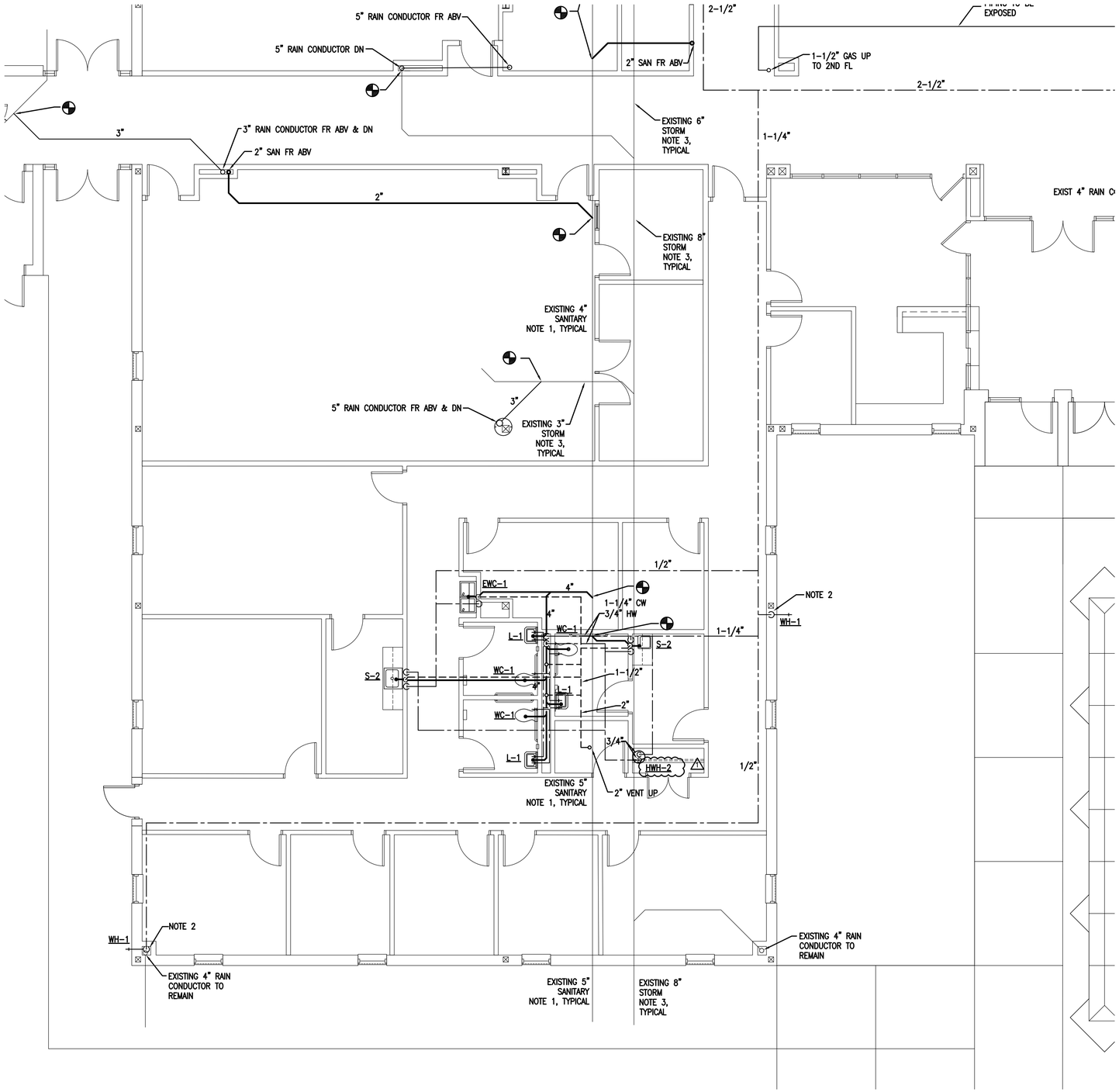
GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A

P2.1

SHEET _____ of X



1 / P2.2 GROUND FLOOR ENLARGED PARTIAL PLUMBING NEW WORK PLAN

SCALE: 3/16" = 1'-0"

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NOTES:
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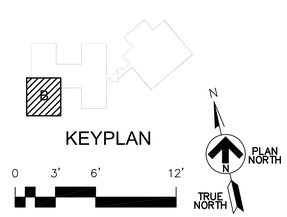
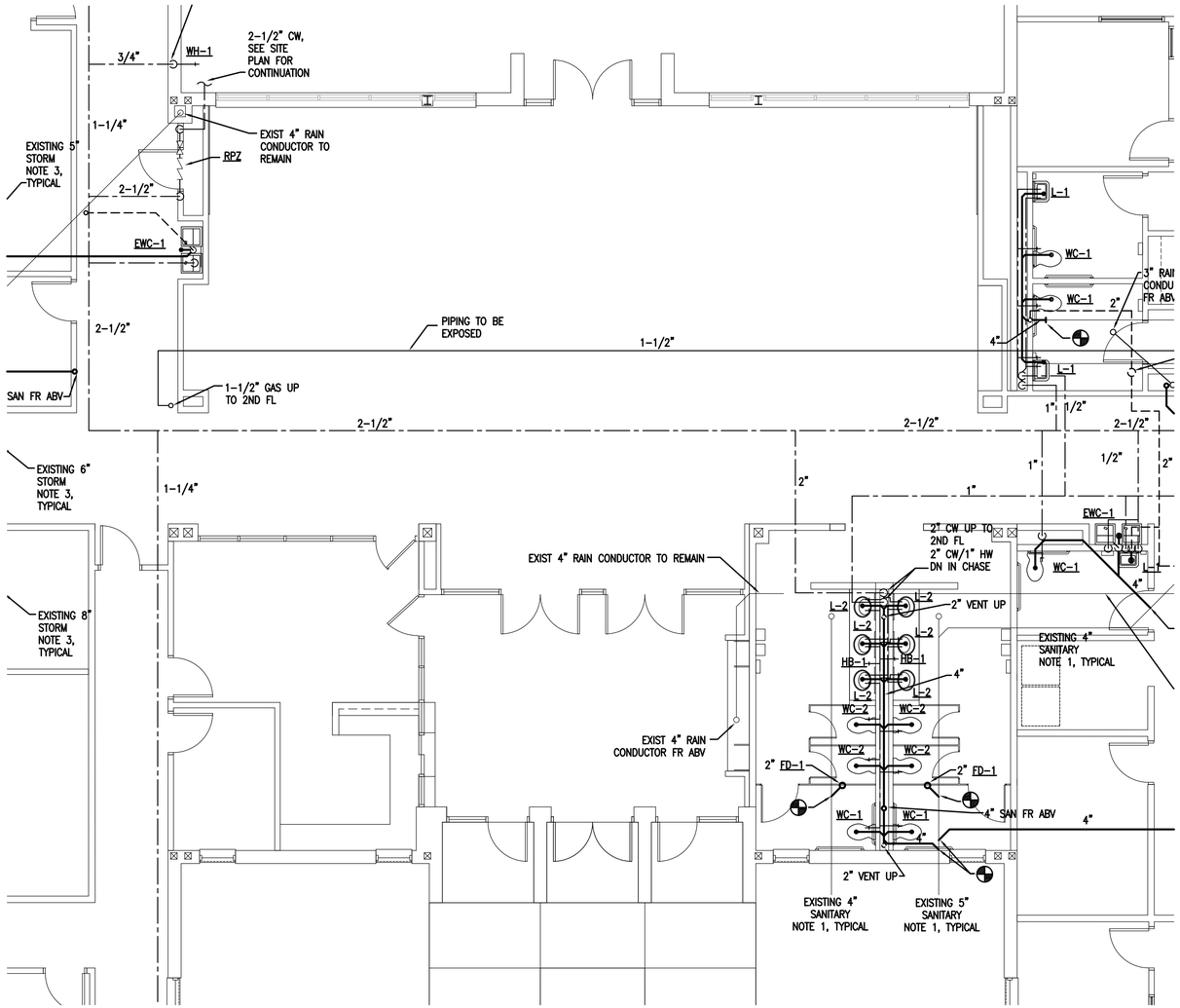
GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA B

P2.2

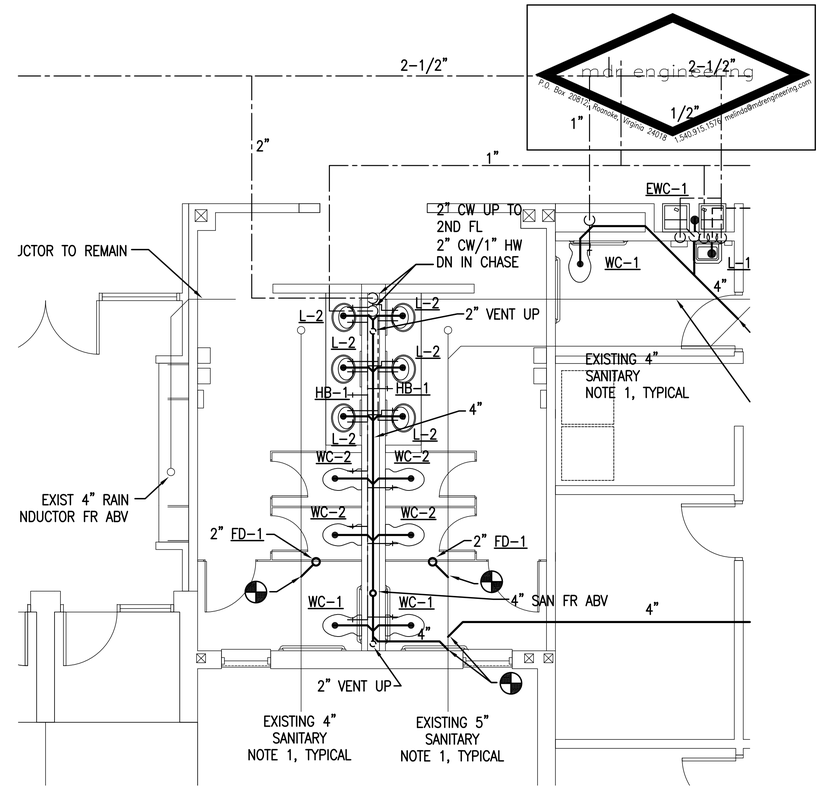
SHEET _____ of ___X___





1 P2.3 GROUND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA C

SCALE: 3/16" = 1'-0"



2 P2.3 TOILET ROOM ENLARGED NEW WORK PLAN

SCALE: 1/4" = 1'-0"

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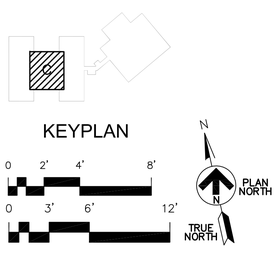

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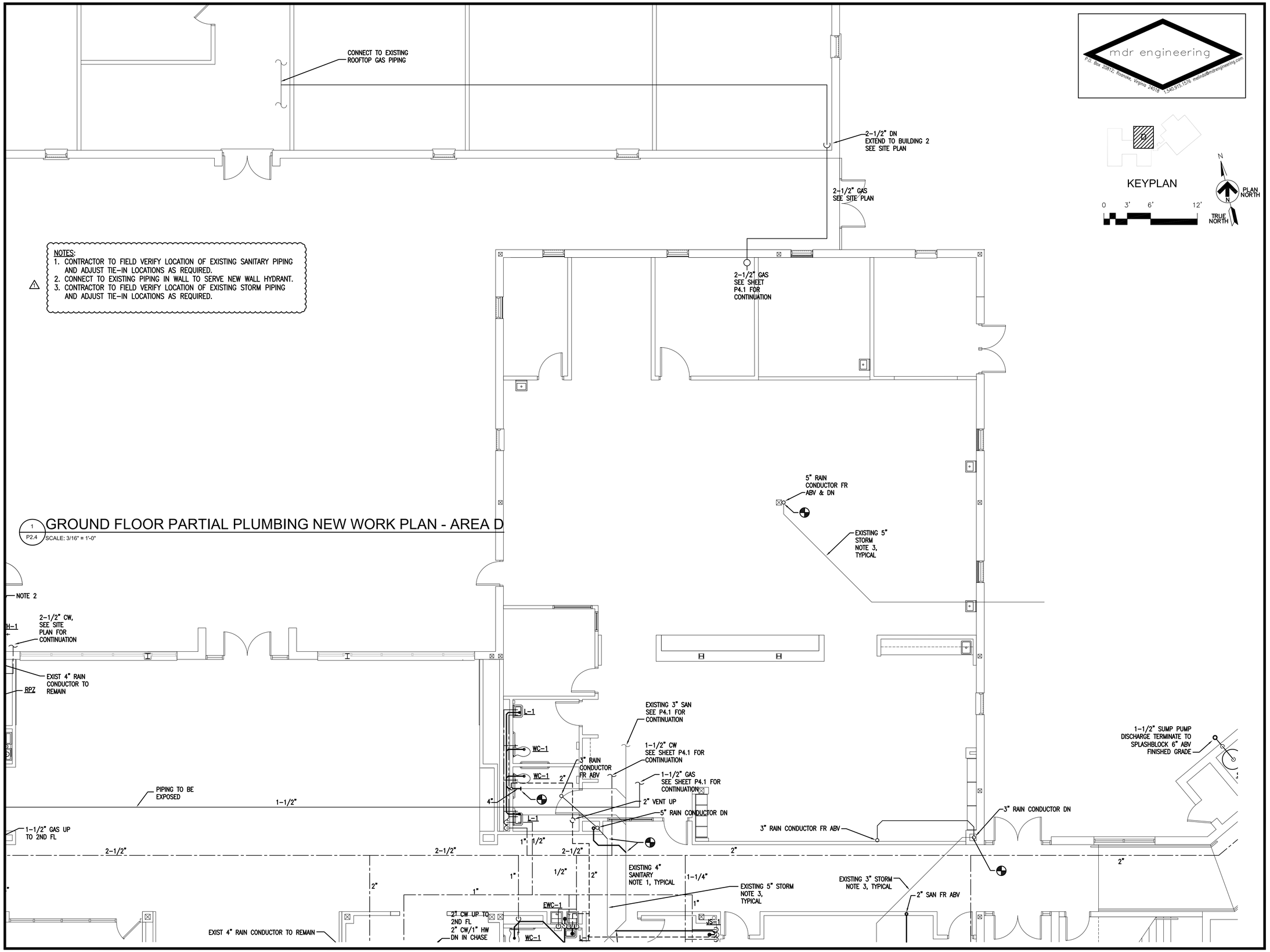
GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA C

P2.3

SHEET _____ of X



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1 / P2.4 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D
SCALE: 3/16" = 1'-0"

KEYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

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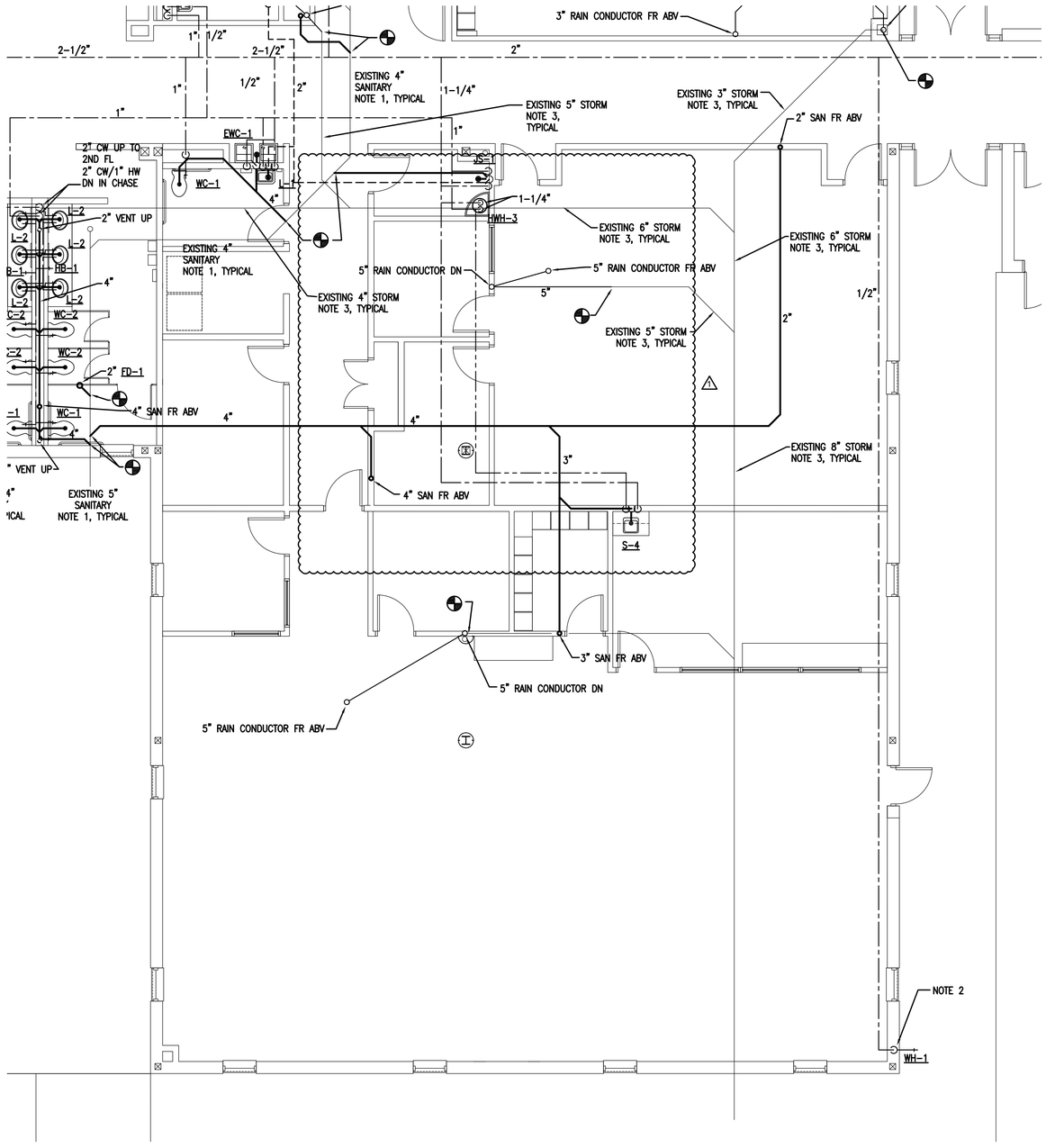
GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D

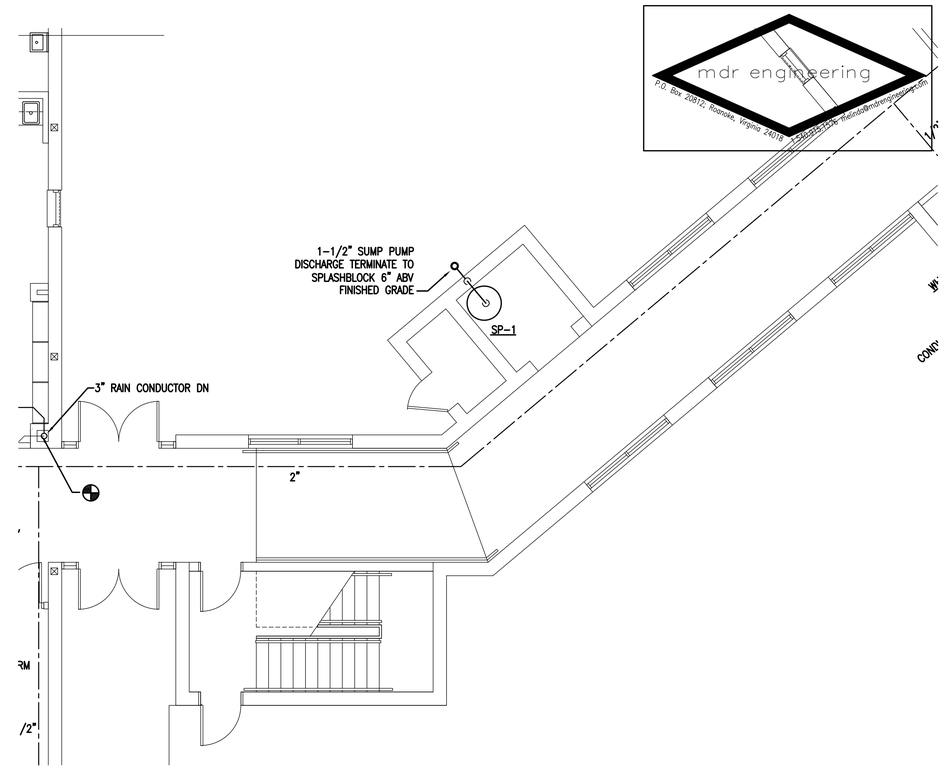
P2.4

SHEET _____ of X



1 P2.5 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

SCALE: 3/16" = 1'-0"



2 P2.5 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

SCALE: 1/4" = 1'-0"

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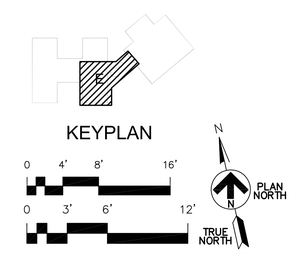

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REVISIONS

No.	DATE	DESCRIPTION
1	07/18/22	ADDENDUM 3

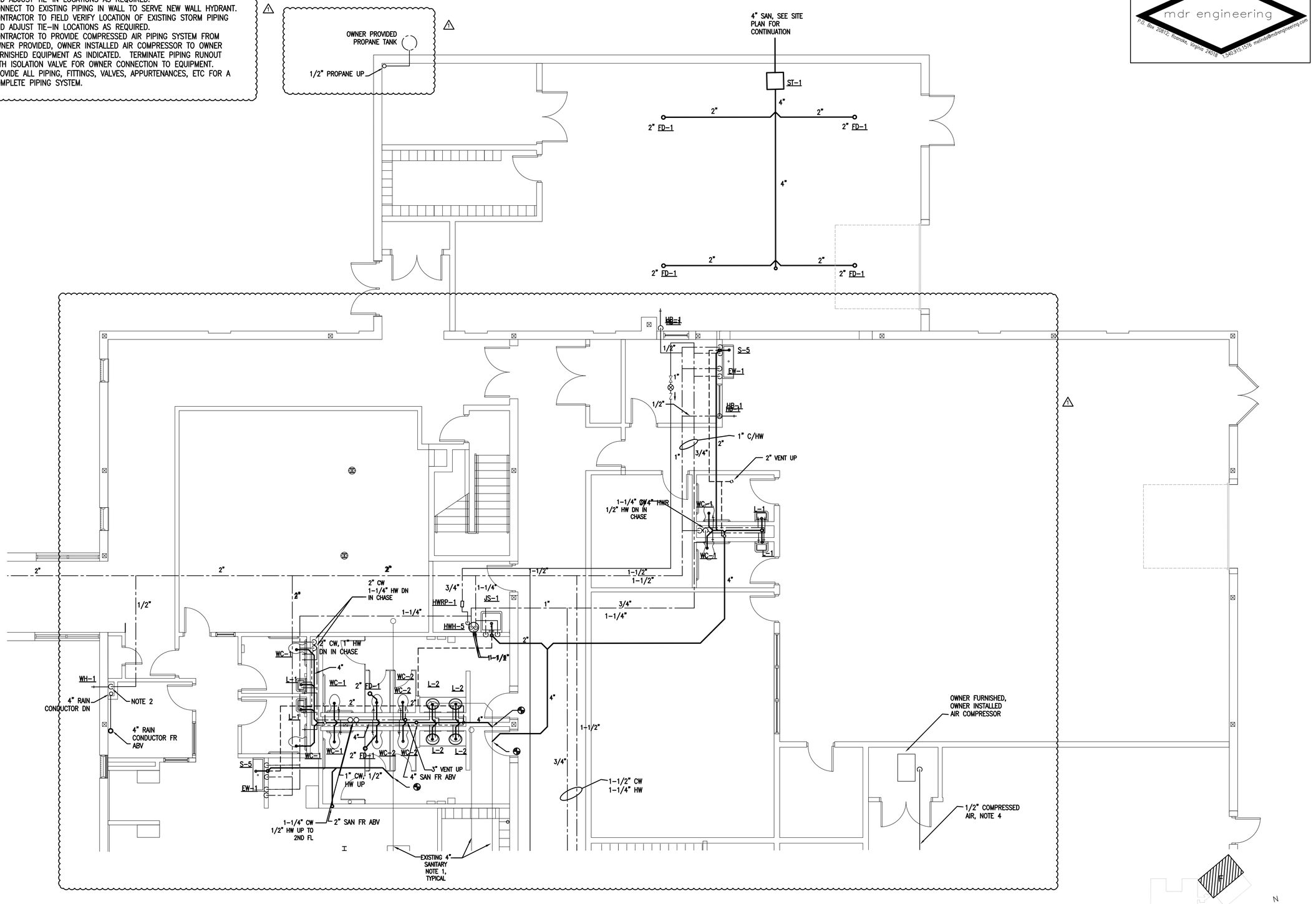
DRAWN BY:	MDR
REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

P2.5

SHEET _____ of X

NOTES:
1. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING SANITARY PIPING AND ADJUST TIE-IN LOCATIONS AS REQUIRED.
2. CONNECT TO EXISTING PIPING IN WALL TO SERVE NEW WALL HYDRANT.
3. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING STORM PIPING AND ADJUST TIE-IN LOCATIONS AS REQUIRED.
4. CONTRACTOR TO PROVIDE COMPRESSED AIR PIPING SYSTEM FROM OWNER PROVIDED, OWNER INSTALLED AIR COMPRESSOR TO OWNER FURNISHED EQUIPMENT AS INDICATED. TERMINATE PIPING RUNOUT WITH ISOLATION VALVE FOR OWNER CONNECTION TO EQUIPMENT. PROVIDE ALL PIPING, FITTINGS, VALVES, APPURTENANCES, ETC FOR A COMPLETE PIPING SYSTEM.



1 P2.6 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA F

SCALE: 3/16" = 1'-0"

KEYPLAN

0 3' 6' 12'

N PLAN NORTH

TRUE NORTH

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GA Architecture
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COMMONWEALTH OF VIRGINIA
MELINDA D. RUBLE
No. 028163
06.17.2022
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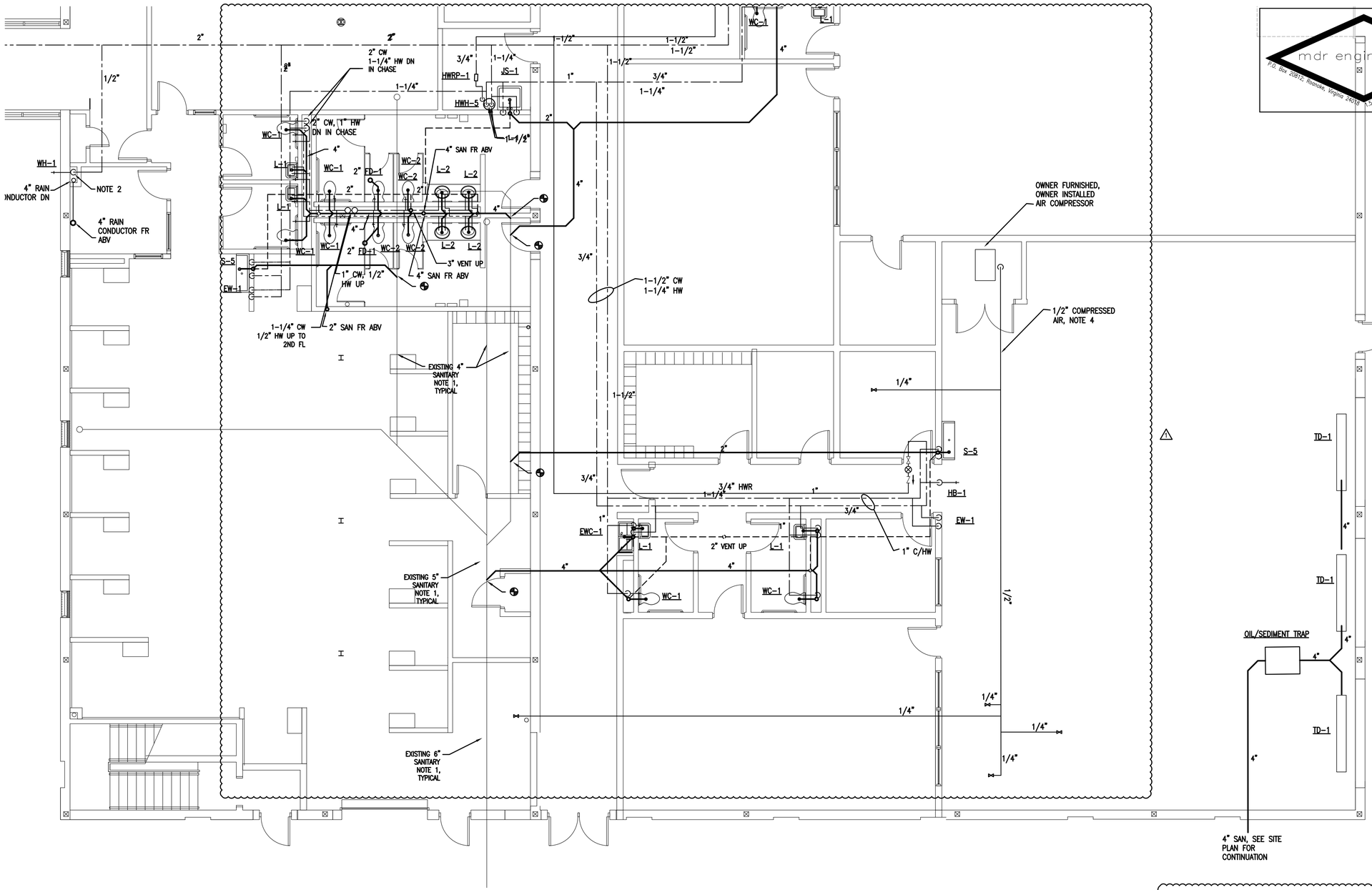
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING PLAN - AREA F

P2.6

SHEET _____ of X



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KEYPLAN

0 3' 6' 12'

PLAN NORTH

TRUE NORTH

1 / P2.7 GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G

SCALE: 3/16" = 1'-0"

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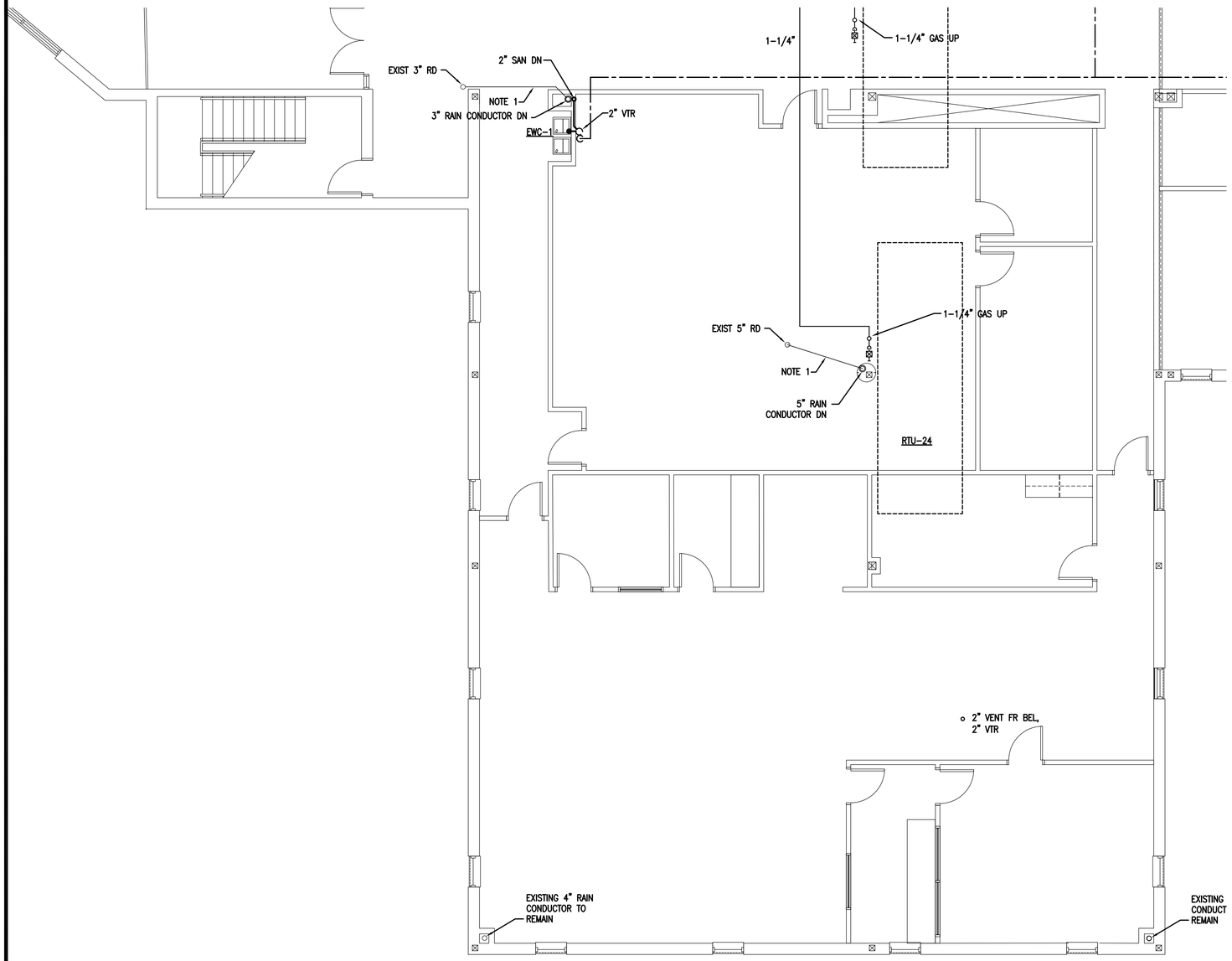
DATE:	6/17/22
SCALE:	AS SHOWN

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G

P2.7

SHEET _____ of X



1 P3.2 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA B

SCALE: 3/16" = 1'-0"

NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.

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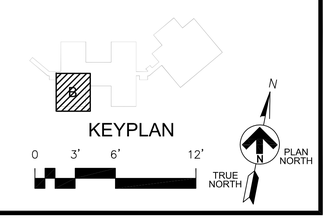

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No.	DATE	DESCRIPTION
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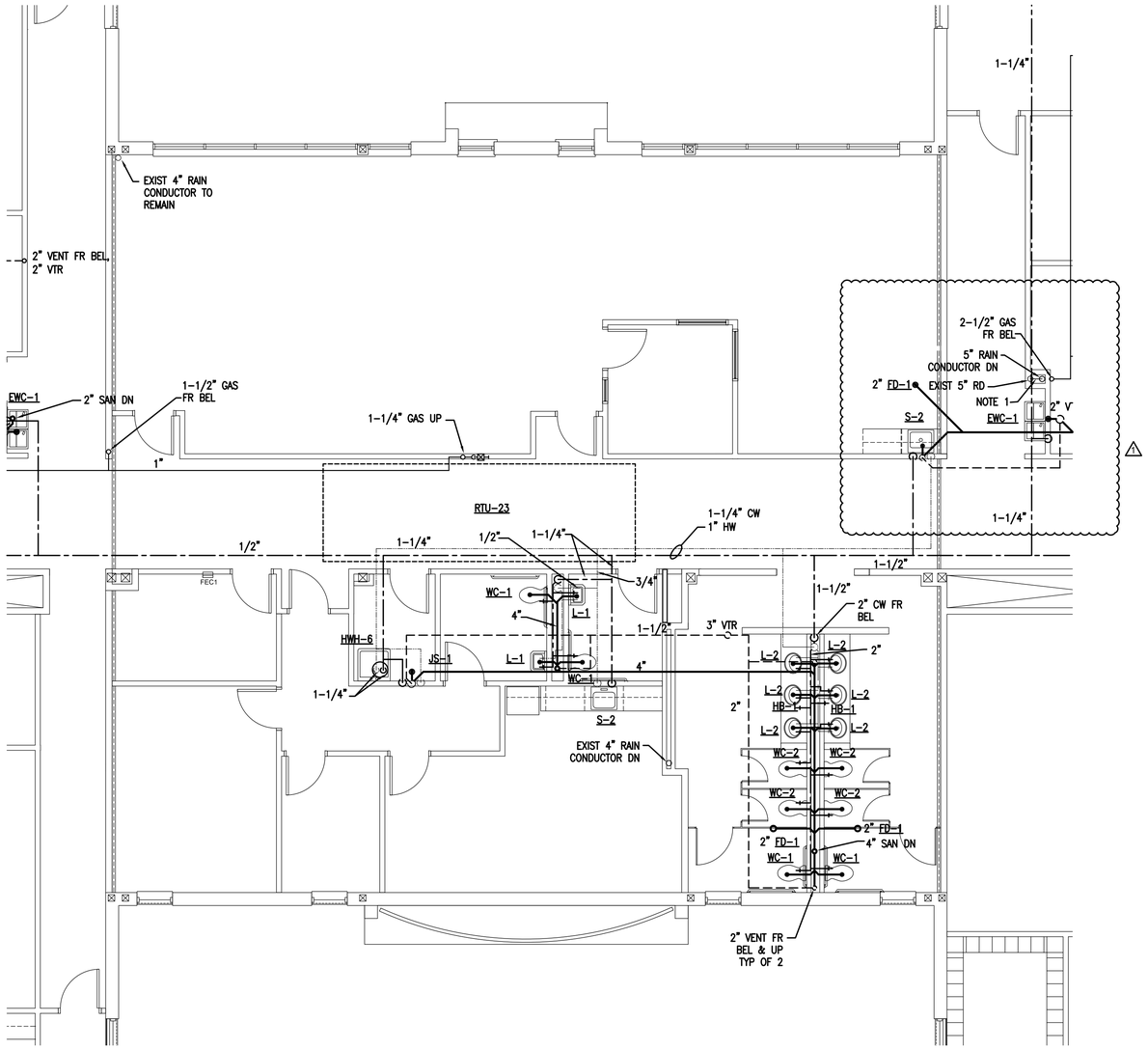
DATE:	6/17/22
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA B

P3.2

SHEET _____ of X



1 / P3.3 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA C

SCALE: 3/16" = 1'-0"

NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.

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SCALE:	AS SHOWN

SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA C

P3.3

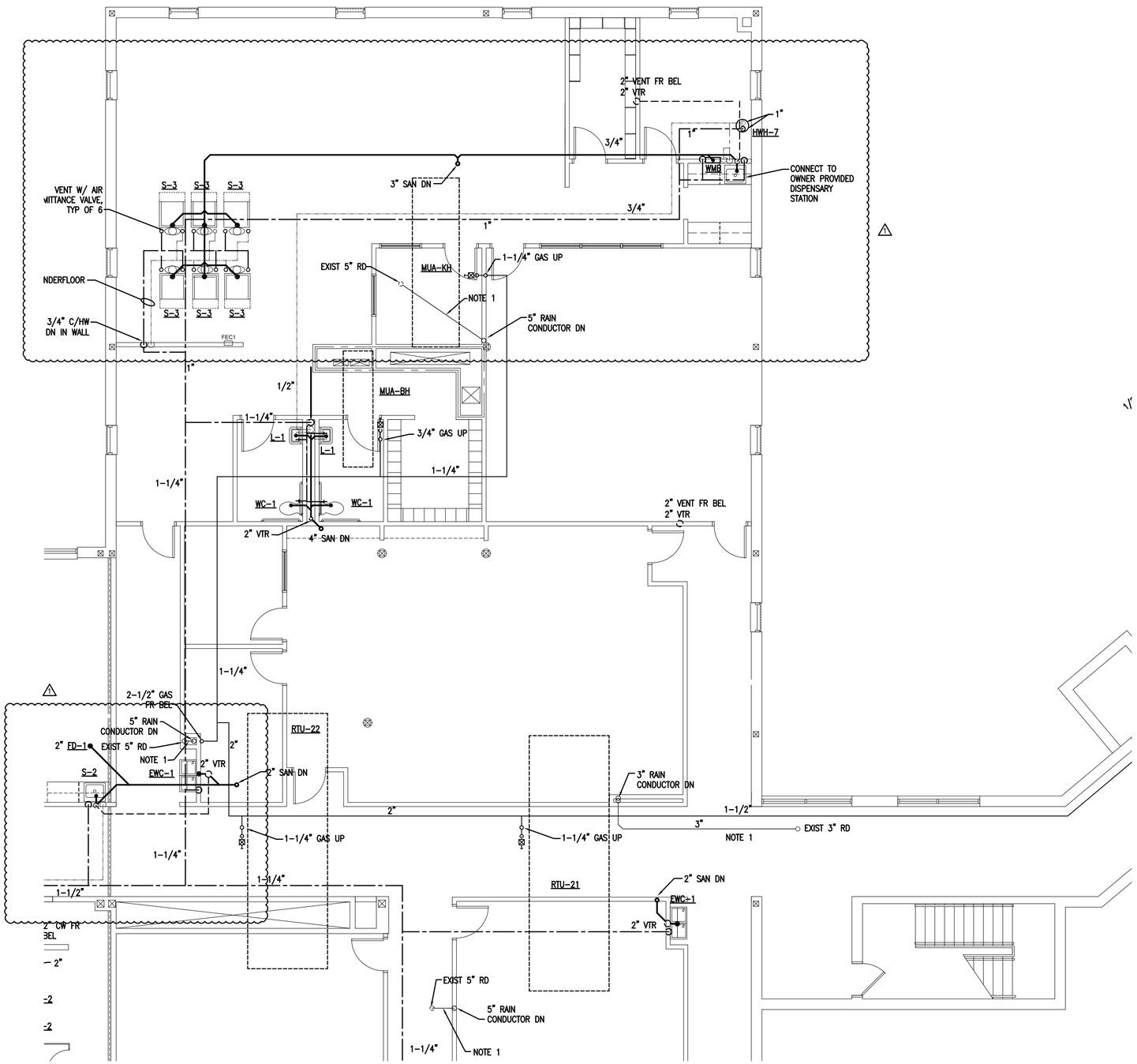
SHEET _____ of X

KEYPLAN

0 3' 6' 12'

N PLAN NORTH

TRUE NORTH



1 P3.4 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D

SCALE: 3/16" = 1'-0"

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NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.

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SCALE:	AS SHOWN

SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D

P3.4

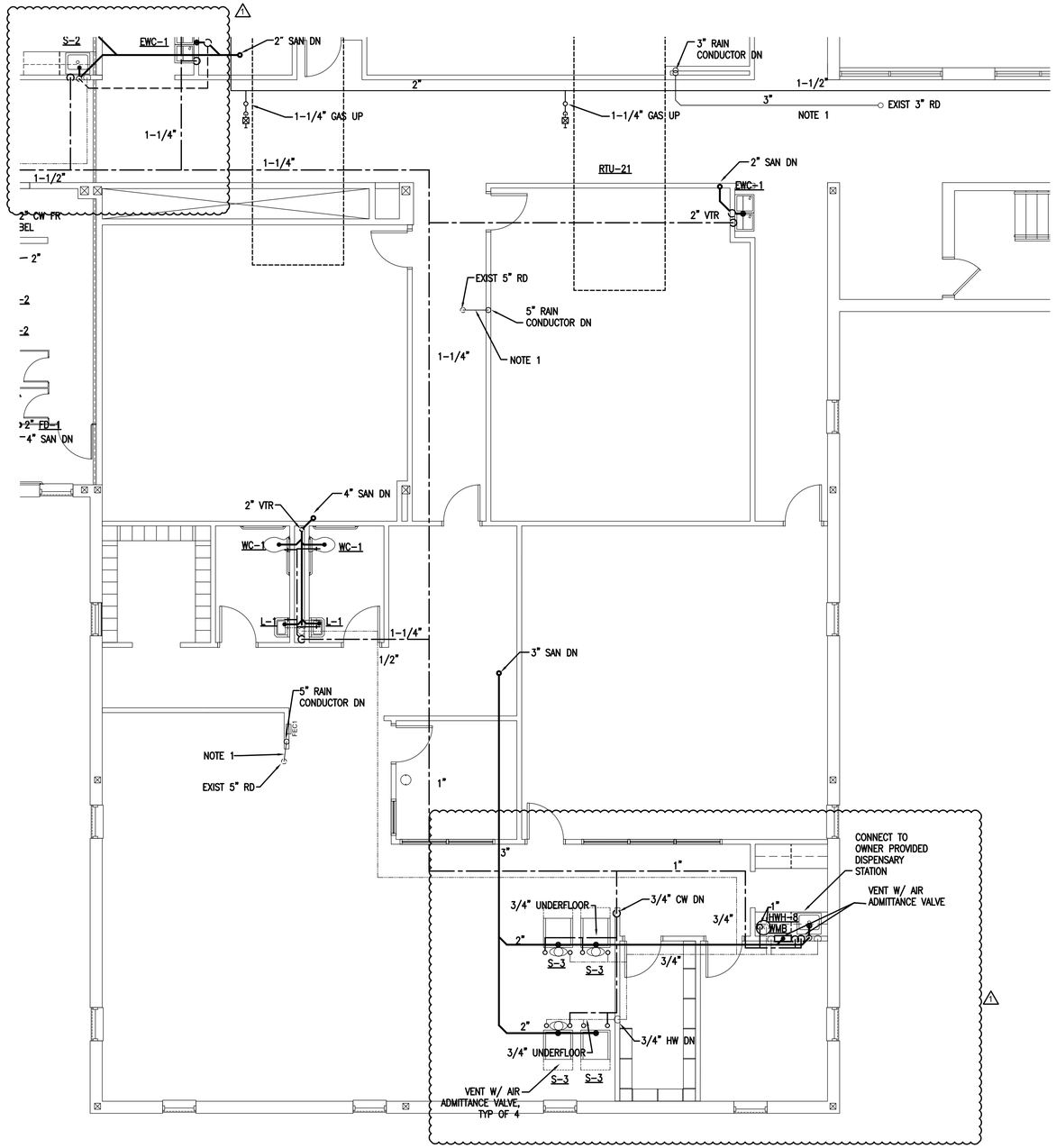
SHEET _____ of X

KEYPLAN

0 3' 6' 12'

TRUE NORTH

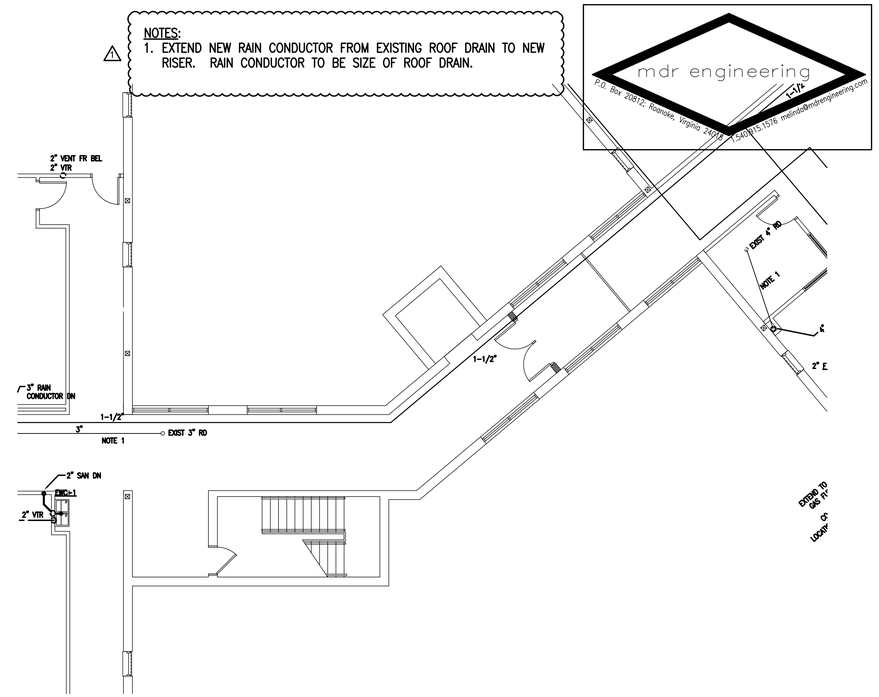
PLAN NORTH



1 P3.5 SCALE: 3/16" = 1'-0"

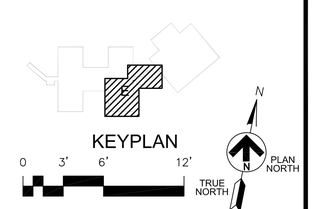
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.



2 M3.5 SCALE: 3/16" = 1'-0"

SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E



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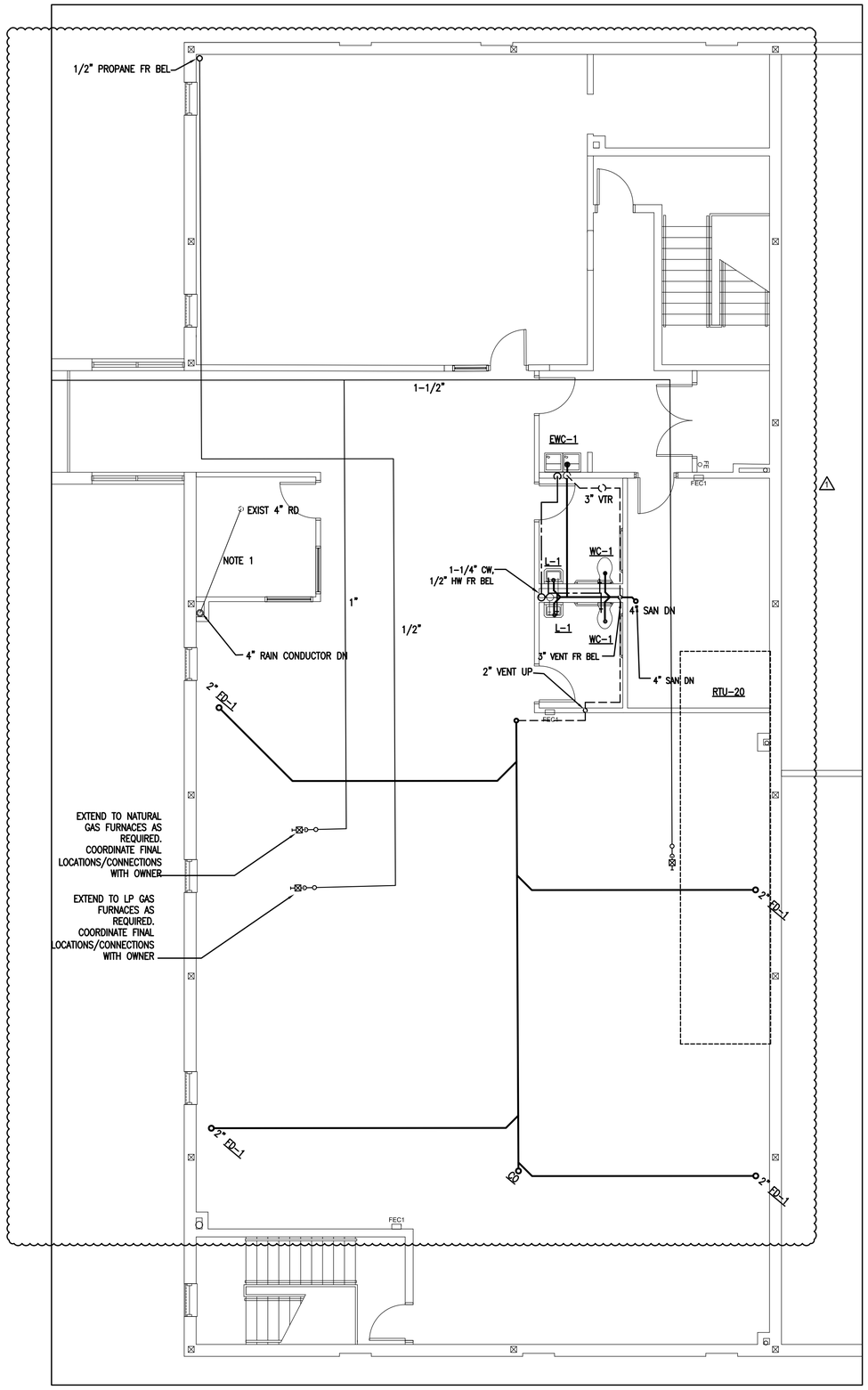
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

P3.5

SHEET _____ of X



1 P3.6 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA F

SCALE: 3/16" = 1'-0"

NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.

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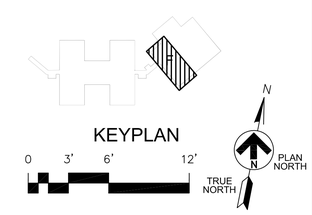

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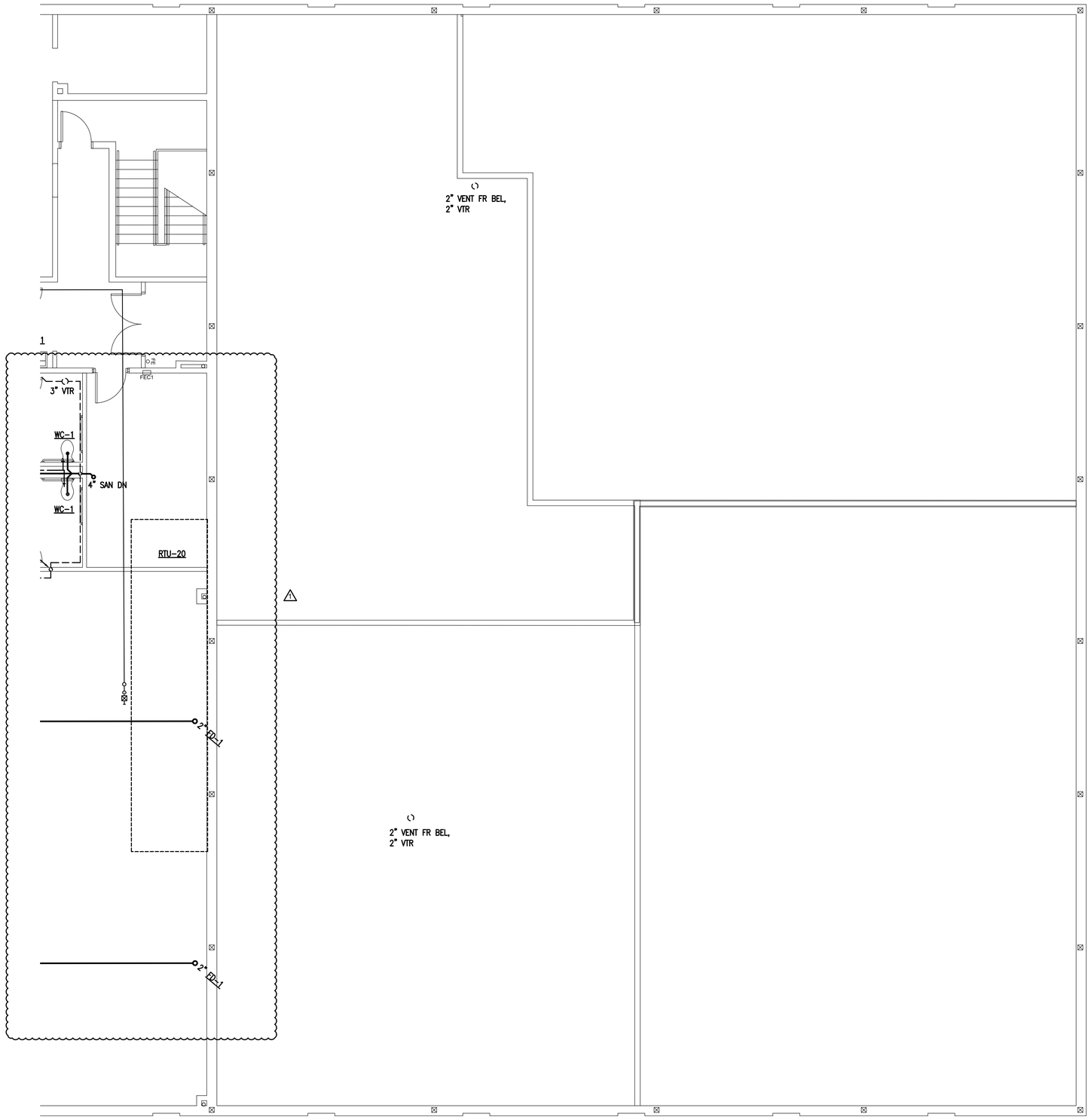
SCALE:	AS SHOWN

SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA F

P3.6

SHEET _____ of X



1 P3.7 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G

SCALE: 3/16" = 1'-0"

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KEYPLAN

0 3' 6' 12'

TRUE NORTH

PLAN NORTH

REVISIONS

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SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G

P3.7

SHEET _____ of __X__

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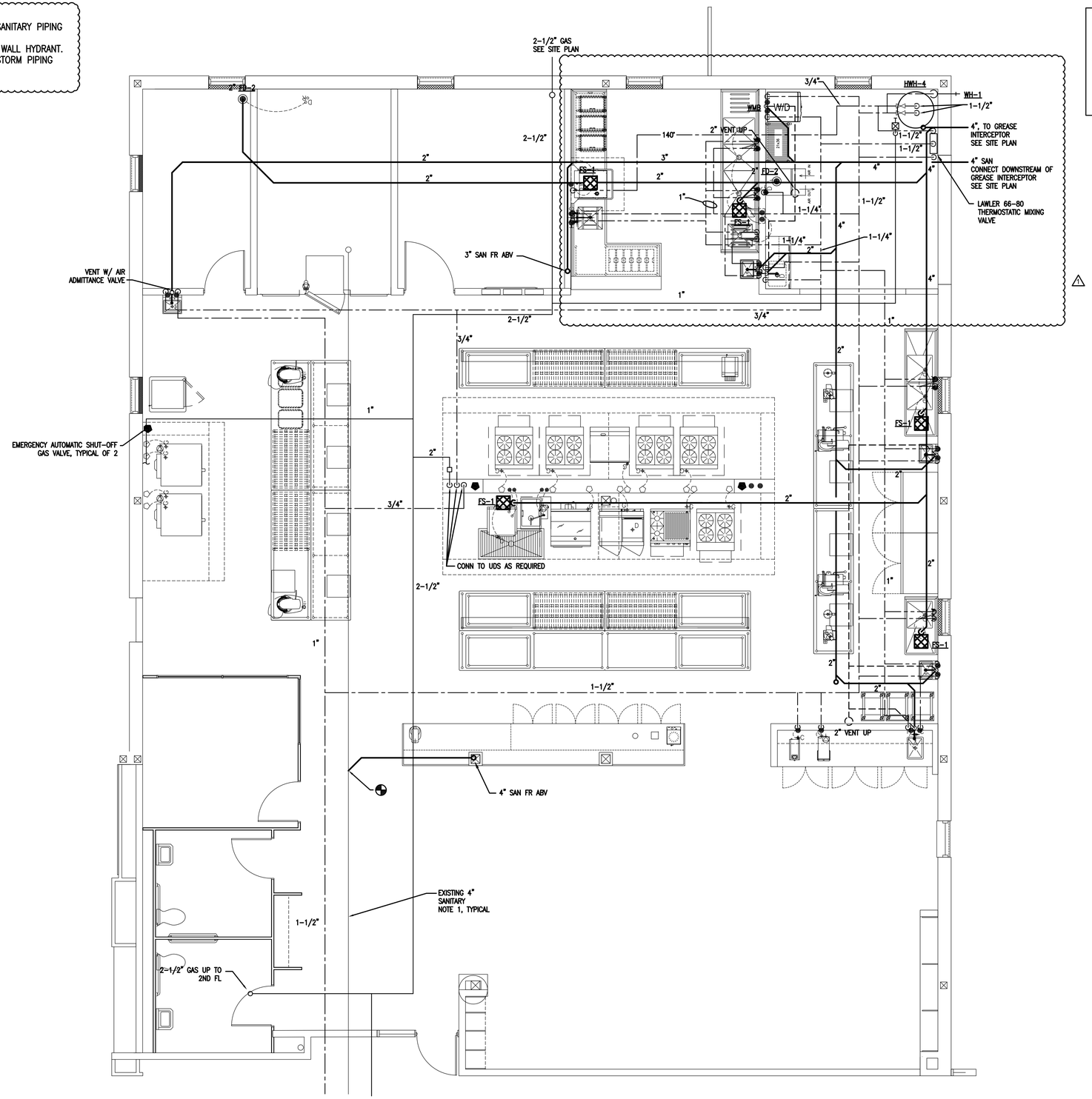
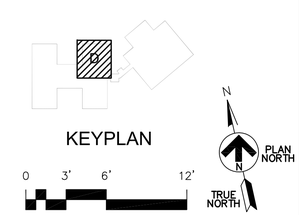


1 P4.1 GROUND FLOOR ENLARGED PLUMBING NEW WORK PLAN - AREA D

SCALE: 3/16" = 1'-0"



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GROUND FLOOR ENLARGED PLUMBING NEW WORK PLAN - AREA D

P4.1

SHEET _____ of X