

FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR ALL INSPECTIONS (MIN. PLAN SIZE 24" X 36")

REFERENCE STRUCTURAL CALCULATIONS FOR EQUIPMENT BEING INSTALLED ON ROOF FOR INSTALLATION AND INSPECTIONS.

HVAC ABBREVIATIONS

| | |
|------|---------------------------------|
| AFF | ABOVE FINISHED FLOOR |
| BDD | BACKDRAFT DAMPER |
| BTUH | BRITISH THERMAL UNIT PER HOUR |
| CD | CEILING DIFFUSER |
| CFM | CUBIC FEET PER MINUTE |
| CU | CONDENSING UNIT |
| DB | DECIBEL |
| DH | DUCT HEATER |
| DOAS | DEDICATED OUTSIDE AIR SYSTEM |
| DN | DOWN |
| EC | EVAPORATOR COIL |
| EER | ENERGY EFFICIENCY RATIO |
| EF | EXHAUST FAN |
| EG | EXHAUST GRILLE |
| ERV | ENERGY RECOVERY VENTILATOR |
| ESP | EXTERNAL STATIC PRESSURE |
| EXH | EXHAUST |
| FCU | FAN COIL UNIT |
| FD | FIRE DAMPER, FLOOR DRAIN |
| FPM | FEET PER MINUTE |
| FSD | FIRE AND SMOKE DAMPER |
| GA | GAUGE |
| GF | GAS FURNACE |
| GRD | GRILLE, REGISTER, DIFFUSER |
| HP | HORSEPOWER, HEAT PUMP |
| ID | INSIDE DIMENSION |
| IHP | INDOOR (SECTION) HEAT PUMP |
| IRH | INFRARED HEATER |
| KW | KILOWATT |
| MBH | THOUSAND BTU PER HOUR |
| MCD | MOTORIZED CONTROL DAMPER |
| NC | NOISE CRITERIA |
| NIC | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| OB | OPPOSED BLADE DAMPER |
| OC | ON CENTER |
| OD | OUTSIDE DIMENSION OR DIAMETER |
| OHP | OUTDOOR HEAT PUMP |
| OSA | OUTSIDE AIR |
| OSCI | OWNER SUPPLIED CONTR. INSTALLED |
| POC | POINT OF CONNECTION |
| RA | RETURN AIR |
| RAG | RETURN AIR GRILLE |
| RPM | REVOLUTIONS PER MINUTE |
| RTU | ROOFTOP UNIT |
| SA | SUPPLY AIR |
| SG | SUPPLY GRILLE |
| SP | STATIC PRESSURE |
| SSG | SIDEWALL SUPPLY GRILLE |
| TBD | TO BE DETERMINED |
| TG | TRANSFER GRILLE |
| TYP | TYPICAL |
| UH | UNIT HEATER |
| VFD | VARIABLE FREQUENCY DRIVE |
| VTR | VENT TO ROOF |
| VTV | VARIABLE VOLUME AND TEMPERATURE |

HVAC LEGEND

| | |
|--|-------------------------|
| | INLINE EXHAUST FAN(S) |
| | ROOFTOP EXHAUST FAN |
| | SIDEWALL EXHAUST FAN |
| | VAV FAN BOX |
| | CEILING EXHAUST FAN |
| | GAS METER |
| | VVT DAMPER |
| | THERMOSTAT |
| | T-BAR SUPPLY DIFFUSER |
| | T-BAR RETURN GRILLE |
| | HARDLID SUPPLY DIFFUSER |
| | HARDLID RETURN GRILLE |
| | FIRE DAMPER |
| | FIRE SMOKE DAMPER |
| | VOLUME DAMPER |
| | SMOKE DETECTOR |
| | FLEXIBLE DUCT SA/RA |
| | ROUND DUCT UP |
| | ROUND DUCT DOWN |
| | DIFFUSER TAG |

HVAC NOTES

- DUCT INSULATION TO MEET THE REQUIREMENTS OF SECTION C403.10 OF THE 2018 WSEC AND SECTION 604 OF THE IECC (INTERNATIONAL ENERGY CONSERVATION CODE).
- SMOKE DETECTOR(S) INSTALLED IN MAIN RETURN AIR DUCTS PER SECTION 606 OF THE 2018 IMC. HVAC SMOKE DETECTORS SHALL SHUT DOWN POWER TO THE UNIT UPON ACTIVATION AND A "SUPERVISORY" ZONE SHALL BE INITIATED AT FIRE ALARM PANEL UPON SMOKE DETECTOR ACTIVATION. 2018 IMC SECTION 606.4 & 604.6.1.
- SUPPLY & RETURN AIR DUCT IS MIN. R-6 IN UNCONDITIONED SPACES & MIN. R-8 WHEN LOCATED OUTSIDE OF BUILDING AS PER THE 2018 WSEC C403.10.1.2.
- ALL SINGLE PACKAGE HVAC UNITS SHALL BE INSTALLED WITH ECONOMIZERS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS PER 2018 IMC, SECTION 403 AND SHALL OPERATE PER 2018 WSEC, SECTION C403.5.1.
- EQUIPMENT INSTALLATION INSTRUCTIONS TO BE ON-SITE FOR INSPECTIONS.
- ALL HVAC EQMT. TO BE LABELED TO THE SPACE SERVED.
- DUCTS TO BE SUPPORTED AT EACH DIRECTION CHANGE VERTICAL AT 12'-0" MAX. HORIZONTAL AT 10'-0" MAX. WITH STRAP, OR 8'-0" MAX. TRAPEZE SUPPORT.
- THERMOSTAT TO BE SEVEN-DAY TYPE AND HAVE NIGHT SETBACK WITH 5 DEGREE DEADBAND.
- THE HVAC INSTALLATION SHALL BE COMPLETE WHEN ALL SECTIONS OF 2018 WSEC C408 HAVE BEEN SATISFIED. THIS SHALL INCLUDE AS-BUILT DRAWINGS, SUBMITTALS, O&M MANUALS, SYSTEM BALANCE REPORT, AND A COMMISSIONING REPORT.
- DUCT SEALING SHALL MEET REQUIREMENTS OF 2018 WSEC C403.10.2. DUCT WORK WHICH IS DESIGNATED TO OPERATE AT PRESSURES ABOVE 1/2" WATER COLUMN STATIC PRESSURE SHALL BE SEALED AS FOLLOWS:
 - STATIC PRESSURE 1/2 INCH TO 2 INCHES: SEAL ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS. SPIRAL LOCK SEAMS IN ROUND AND FLAT OVAL DUCT WORK DO NOT REQUIRE SEALING; HOWEVER, OTHER SEAMS SHALL BE SEALED.
 - 2018 WSEC FORMS, DUCT PLANS, BALANCING FEATURES, AS WELL AS VENTILATION REQUIREMENTS (AS PER TABLE 403.3.1.1, 2018 IMC MINIMUM VENTILATION RATES) AND OCCUPANCY, ALONG WITH A MECHANICAL PERMIT AT THE TIME OF THE TENANT IMPROVEMENT PERMIT.

SCOPE OF WORK JOB# 23101

- INSTALL (3) ENERGY RECOVERY VENTILATORS.
- INSTALL (2) ROOFTOP EXHAUST BLOWERS.
- INSTALL (1) OUTDOOR SECTION HEAT PUMP UNIT.
- INSTALL (5) INDOOR FAN COIL UNITS.
- INSTALL DUCTWORK, GRILLES & REGISTERS.

FAN SCHEDULE

| ID | BRAND NAME | MODEL NUMBER | CFM | SP | HP/AMP | FLOW | V/PH | DUCT | LOCATION | WEIGHT |
|------|------------|--------------|-------|----|--------|------|-------|------|----------|---------|
| EF-1 | DELHI | BR-22RM | 5,550 | 5" | 3 HP | CV | 460/3 | 22" | ROOF | 420 LBS |
| EF-2 | DELHI | BR-22RM | 5,550 | 5" | 3 HP | CV | 460/3 | 22" | ROOF | 420 LBS |

ERV (DOAS) SCHEDULE

| ID | BRAND NAME | MODEL NUMBER | FAN SPEED | CFM | SP | HP/AMP | V/PH | SOUND RATING | LOCATION | WEIGHT |
|-------|------------|--------------|-----------|-----|------|--------|-------|--------------|-------------------|--------|
| ERV-1 | DAIKIN | VAM300GVJU | L | 90 | .64" | 1.6 A | 208/1 | 37 dB | ABOVE ACT CEILING | 71 LBS |
| ERV-2 | DAIKIN | VAM300GVJU | L | 130 | .64" | 1.6 A | 208/1 | 37 dB | ABOVE ACT CEILING | 71 LBS |
| ERV-3 | DAIKIN | VAM300GVJU | L | 170 | .64" | 1.6 A | 208/1 | 37 dB | ABOVE ACT CEILING | 71 LBS |

VRF INDOOR HEAT PUMP SCHEDULE

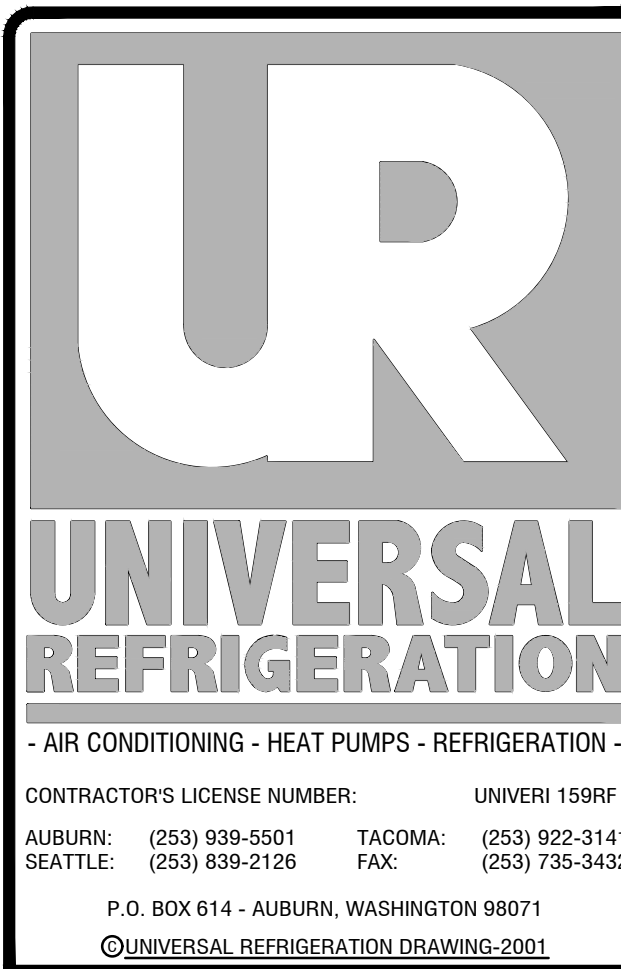
| ID | BRAND NAME | MODEL NUMBER | AREA SERVED | SUCTION LINE | LIQUID LINE | RATED CAPACITY (BTU/HR) | | CFM | S.P. | ELECTRICAL | | | WEIGHT (LBS) |
|-------|------------|--------------|---------------------------|--------------|-------------|-------------------------|---------|-------|------|------------|------|------|--------------|
| | | | | | | HEATING | COOLING | | | V/PH | MCA | MOCP | |
| FCU-1 | DAIKIN | 40VMC012A--3 | ENGINE TEST OFFICE(MOD 4) | 1/2" | 1/4" | 13,000 | 12,170 | 359 | - | 208/230/1 | .53 | 15.0 | 43 LBS |
| FCU-2 | DAIKIN | 40VMC009A--3 | MOD 4 STORAGE | 1/2" | 1/4" | 10,000 | 9,130 | 306 | - | 208/230/1 | .38 | 15.0 | 40 LBS |
| FCU-3 | DAIKIN | 40VMM030A--3 | ENGINE TEST OFFICE(MOD 6) | 5/8" | 3/8" | 34,000 | 30,000 | 1,070 | .6" | 208/230/1 | 3.13 | 15.0 | 124 LBS |
| FCU-4 | DAIKIN | 40VMM030A--3 | ENGINE TEST OFFICE(MOD 6) | 5/8" | 3/8" | 34,000 | 30,000 | 1,070 | .6" | 208/230/1 | 3.13 | 15.0 | 124 LBS |
| FCU-5 | DAIKIN | 40VMC009A--3 | MOD 6 STORAGE | 1/2" | 1/4" | 10,000 | 9,130 | 306 | - | 208/230/1 | .38 | 15.0 | 40 LBS |

SPLIT SYSTEM HEAT PUMP SCHEDULE

| ID | BRAND NAME | MODEL NUMBER | COOLING(BTUH) | | HEATING(BTUH) | | LIQUID LINE | SUCTION LINE | IEER | EER | COP | VOLTAGE/PHASE | MCA | MOCP | WEIGHT | LOCATION & NOTES |
|-------|------------|----------------|---------------|-------|---------------|-------|-------------|--------------|------|------|------|---------------|-----|------|---------|------------------|
| | | | NOMINAL | RATED | NOMINAL | RATED | | | | | | | | | | |
| OHP-1 | CARRIER | 38VMA096RDL6-1 | 96,000 | - | 108,000 | - | 3/8" | 7/8" | 23.0 | 11.8 | 3.63 | 460/3 | 46 | 50 | 659 LBS | ROOF |

ZONE LOAD CALCULATIONS:

| | Rp - CFM PER PERSON | | Ra - CFM PER SQ FT | | DELIVERED |
|-----------------------------|------------------------------|----|--------------------|----------|-----------|
| | Pz - # OF PEOPLE/1,000 SQ FT | | Az - SQ FT OF ROOM | | |
| Vbz = (Rp x Pz) + (Ra x Az) | | | | | |
| ZONE 1: | 5 | 8 | 0.06 | 800 | |
| WARRANTY/Q/A AREA | 40 | | 48 | Vbz= 88 | 90 |
| ZONE 2: | 5 | 10 | 0.06 | 1200 | |
| BRAZING STATIONS | 50 | | 72 | Vbz= 122 | 135 |
| ZONE 3: | 5 | 10 | 0.06 | 1900 | |
| DETAILED ASSEMBLY | 50 | | 114 | Vbz= 164 | 170 |



REVISION DESCRIPTION

| REV. | DATE | REVISION DESCRIPTION |
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| 1 | 6/28/23 | PERMIT ISSUE |
| 2 | 8/11/23 | COMMENT REVISIONS |

PROJECT TITLE:

RED DOT T.I. - PUYALLUP LOGISTICS

2504 EAST MAIN AVE. PUYALLUP, WA. 98372

PRINT/PLOT DATE:

DRAFTER: ARW

DESIGNER: HH

PROJECT MANAGER: HH

JOB NUMBER: 22xxx

SHEET NUMBER:

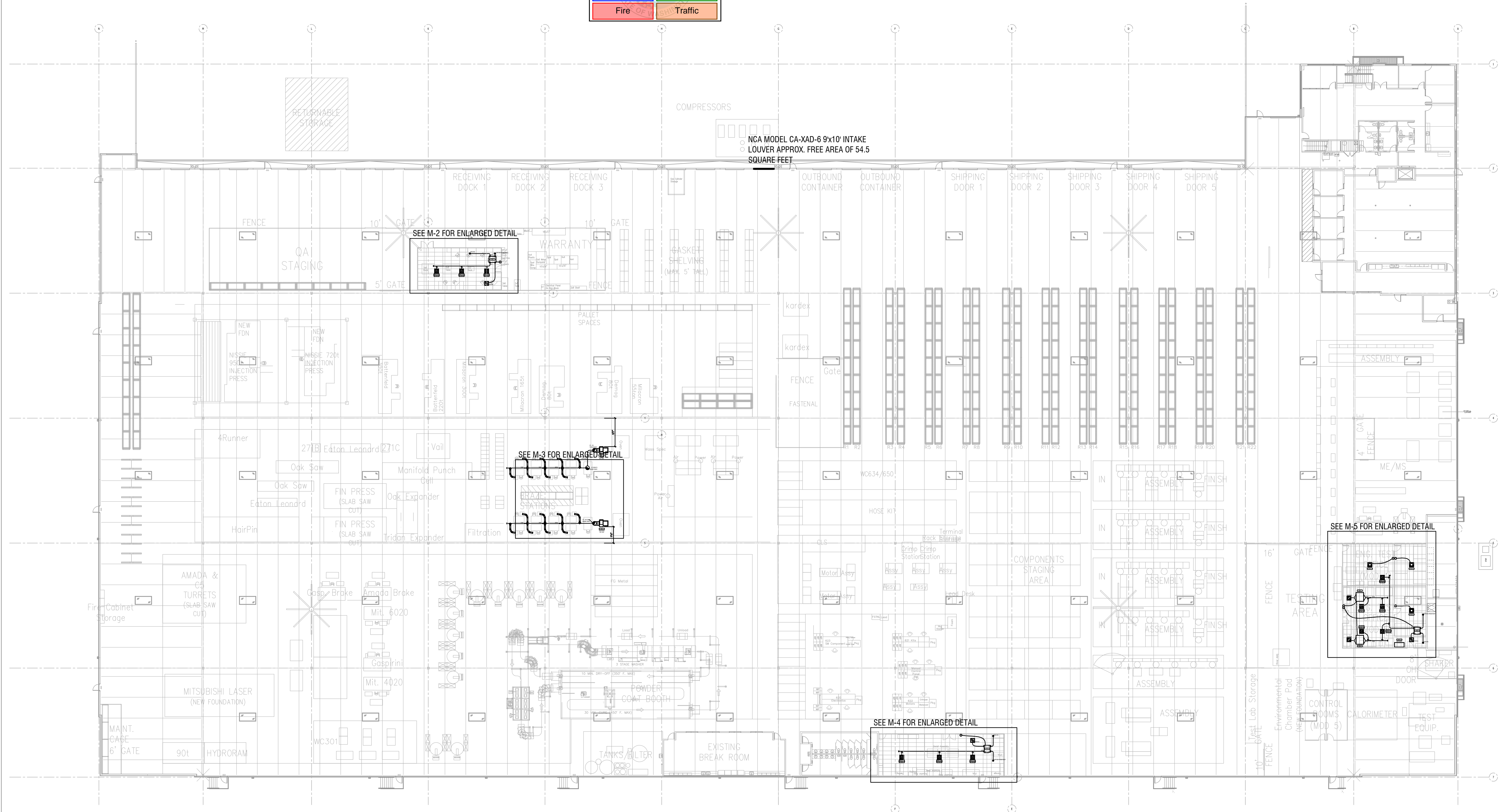
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NOTE: These plans are diagrammatical only. Please verify all dimensions at job site.

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10'

GATE

K

RECEIVING DOCK 1

RECEIVING DOCK 2

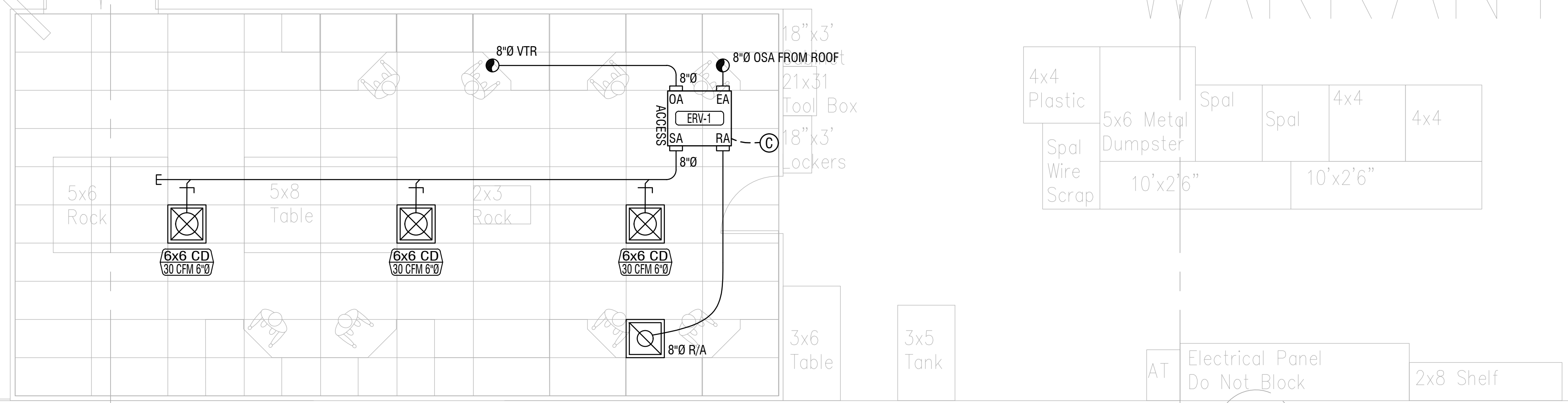
RECEIVING DOCK

48x18" 48x18" 48x18" 3'x6" Table 48x18" 16'x3'3"

J

WARRANTY

5' GATE



3



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08/11/2023

EXPIRES JULY 18, 2024

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WARRANTY/Q/A AREA HVAC PLAN
SCALE: 1/4" = 1'-0"

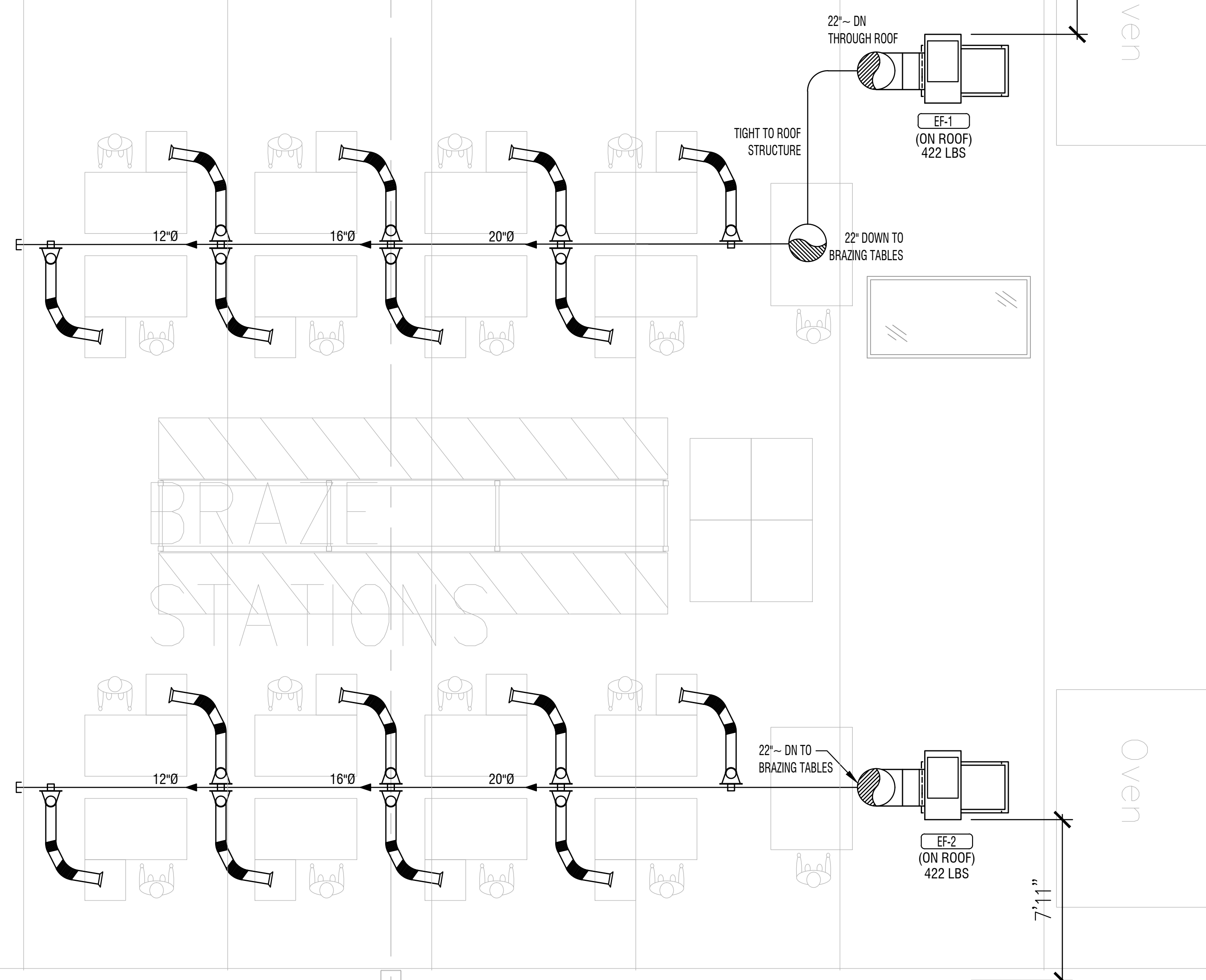
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BRAZING STATIONS HVAC PLAN
SCALE: 1/4" = 1'-0"

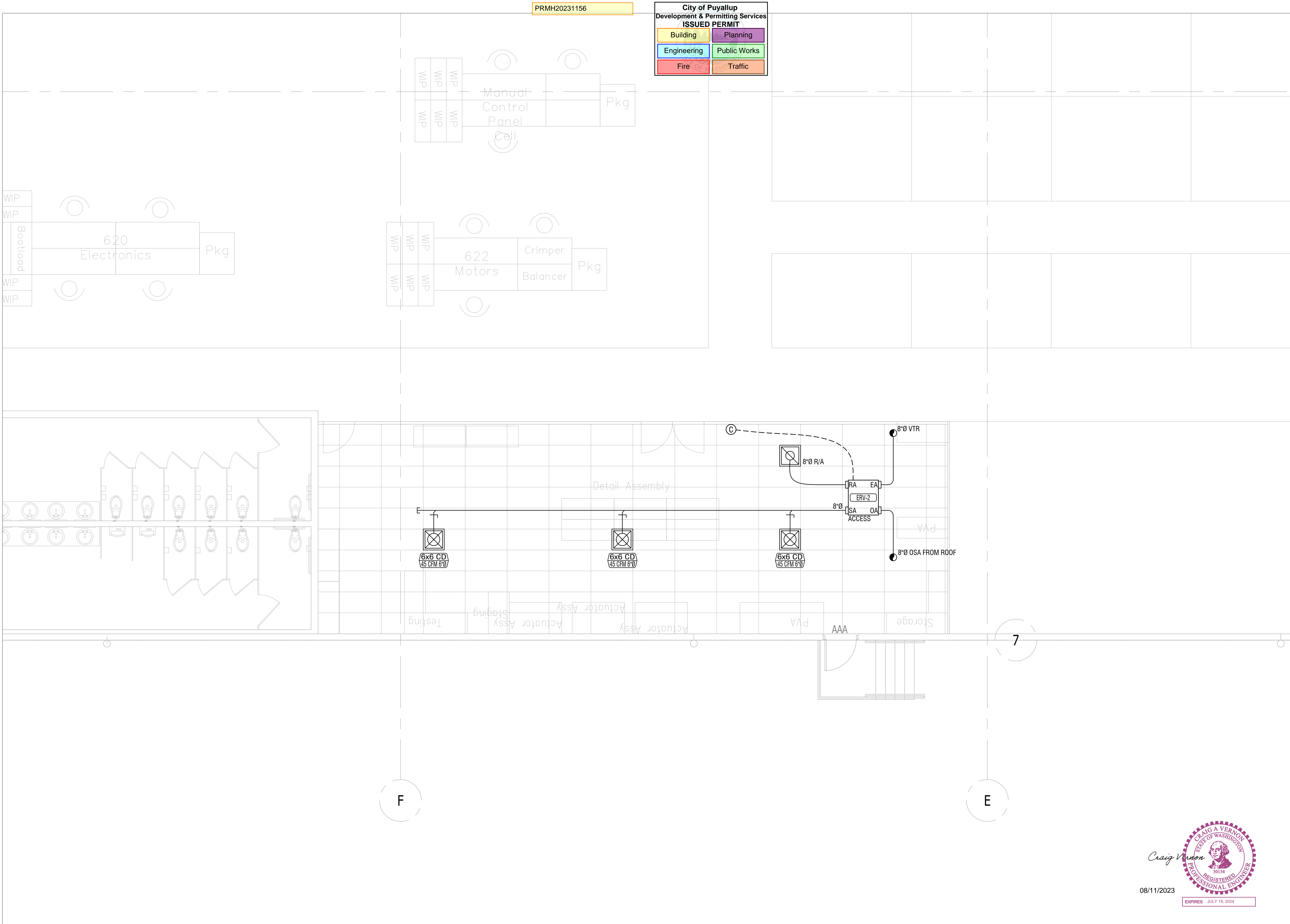
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DETAILED ASSEMBLY HVAC PLAN
SCALE: 1/4" = 1'-0"

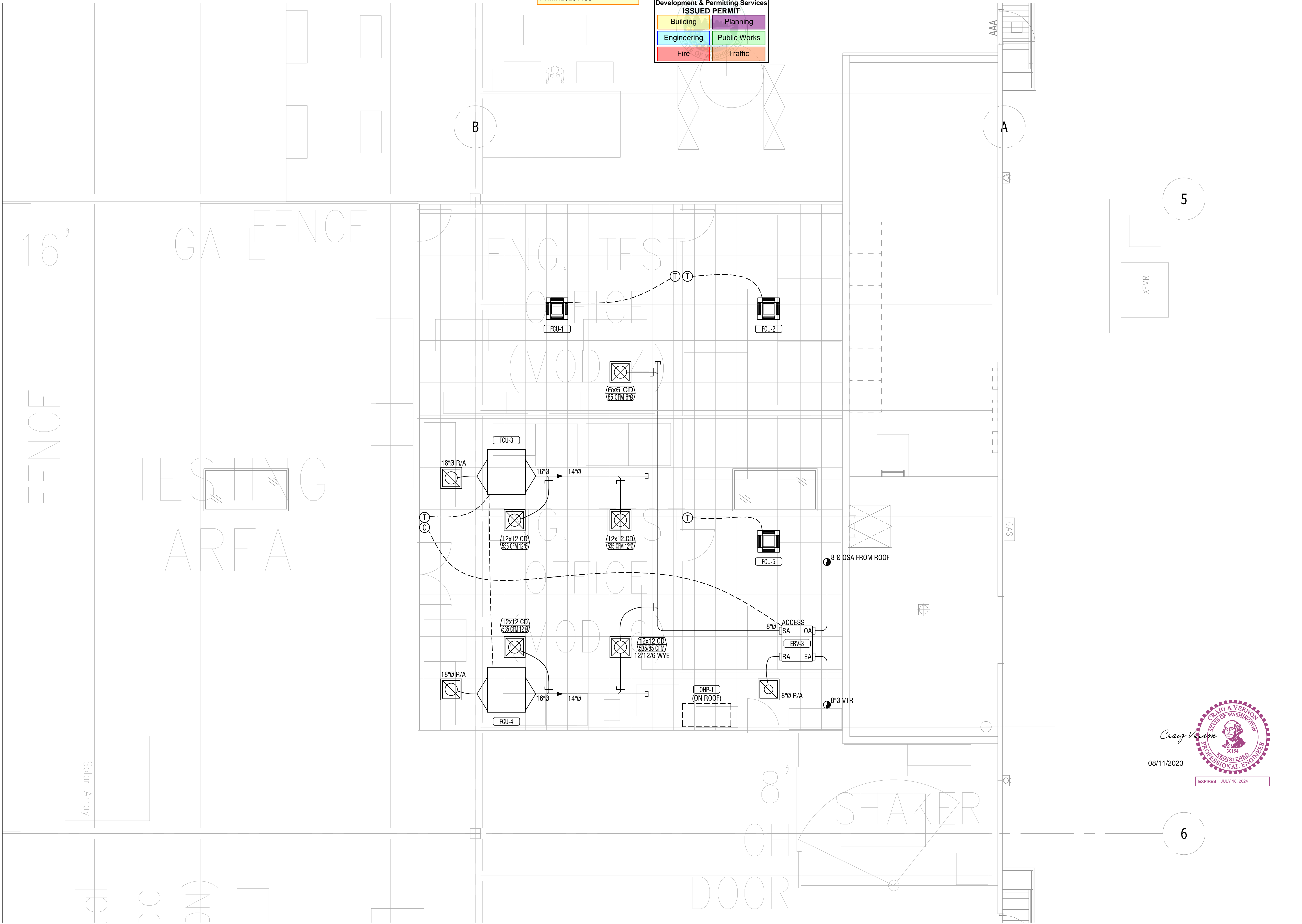
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08/11/2023

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ENGINE TESTING AREA HVAC PLAN SCALE: 1/4" = 1'-0"

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