PRCA20220091

## GENERAL MECHANICAL NOTES

1. ALL THERMOSTATS USED FOR BOTH HEATING AND COOLING SHALL PROVIDE A RANGE OR DEADBAND OF AT LEAST 5°F. WSEC SECTION C403.4.1.2
2. ALL THERMOSTATS ARE TO BE SEVEN DAY PROGRAMMABLE, MICRO-PROCESSOR BASED.
3. ALL HEATING AND COOLING SYSTEMS SHALL HAVE AUTOMATIC START CONTROLS FOR EACH HVAC SYSTEM WSEC SECTION C403.4.2.3
4. ALL DUCTWORK SHALL BE CONSTRUCTED AND SEALED PER SMACNA STANDARDS.
5. ALL DUCTWORK SHALL BE BRACED PER 2018 IMC. DUCT SUPPORT PER SECTION 603.10.
6. ALL REFRIGERANT USED SHALL BE PURON (R-410A).
7. ALL FLUES SHALL BE LOCATED A MINIMUM OF 10' FROM OUTDOOR AIR INTAKES.
8. ALL EXHAUST TERMINATIONS SHALL BE A MINIMUM OF 10' HORIZONTALLY FROM, OR 3' ABOVE OUTDOOR INTAKES.
9. ALL AIR-ECONOMIZERS SHALL HAVE MODULATING OUTDOOR AIR AND RETURN AIR DAMPERS CAPABLE OF PROVIDING 100% OUTDOOR AIR FOR COOLING. WSEC SECTION C403.5.1
10. ALL AIR-ECONOMIZERS SHALL BE FULLY MODULATING AND CAPABLE OF PARTIAL COOLING (INTEGRATED OPERATION). WSEC SECTION C403.5.1
11. AIR HANDLERS WHICH SUPPLY IN EXCESS OF 2,000 CFM SHALL HAVE A RETURN MOUNTED SMOKE DUCT DETECTOR.
12. ALL ADDRESSABLE FUNCTIONS OF DUCT SMOKE DETECTORS, AND WIRING FOR SHUTDOWN, SHALL BE BY OTHERS.
13. ALL ROOF MOUNTED UNITS SHALL BE SECURED TO THEIR RESPECTIVE ROOF CURBS.
14. ALL EXPOSED EDGES OF INTERNAL DUCT LINER SHALL BE SEALED WITH A MASTIC COATING.
15. ALL COMPLETION REQUIREMENTS MUST COMPLY WITH WSEC SECTION C408.1
16. TO COMPLY WITH WSEC SECTION C408.1.1 & C403.13 SYSTEMS DOCUMENTATION, RECORD DOCUMENTS AND TRAINING WILL BE COMPLETED AND COORDINATED WITH OWNER.
17. TO COMPLY WITH WSEC SECTION C408.2 PRELIMINARY COMMISSIONING REPORT WILL BE SUBMITTED TO OWNER AFTER BEING CERTIFIED BY REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY. EXCEPTION: MECHANICAL SYSTEMS COMMISSSIONING NOT REQUIRED FOR BUILDINGS WITH TOTAL EQUIPMENT CAPACITY LESS THAN 240,000 BTU/H COOLING & 300,000 BTU/H HEATING
18. ALL THERMOSTATS TO BE MOUNTED SUCH THAT THE TOP OF THE DEVICE IS 48" ABOVE FINISHED FLOOR.
19. ALL GAS PIPING SHALL BE SIZED PER 2018 IFGC.
20. ALL HVAC SYSTEMS SHALL BE AIR BALANCED AND ADJUSTED TO DELIVER FINAL FLOW RATES WITHIN 10% OF DESIGN RATES.
21. OUTDOOR AIR SUPPLY AND EXHAUST DUCTS SHALL SHUT AUTOMATICALLY WHEN THE SYSTEM OR SPACES SERVED ARE NOT IN USE OR DURING BUILDING WARM-UP, COOLDOWN, AND SETBACK. WSEC SECTION C403.7.8
22. OUTDOOR AIR SUPPLY AND EXHAUST DUCTS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS ACCORDING TO WSEC SECTION C403.7.8
23. EQUIPMENT SHALL MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF WSEC SECTION C403.3.2
24. SYSTEM SIZING TO COMPLY WITH WSEC SECTION C403.3.1
25. DAMPER LEAKAGE RATES SHALL COMPLY WITH WSEC SECTION C403.7.8
26. ALL GAS FIRED EQUIPMENT GREATER THAN 225,000 BTU/H SHALL HAVE AN INTERMITTENT IGNITION DEVICE.

## DUCT INSULATION SCHEDULE

| DUCT TYPE: | LOCATION | INSULATION R-TYPE | TYPE |
|---|---|---|---|
| SUPPLY/RETURN | OUTSIDE THE BUILDING (INCLUDES ATTICS ABOVE INSULATION, CRAWLSPACES, PARKING GARAGES) | R-8 | 2" WRAP OR LINER |
| SUPPLY/RETURN | UNCONDITIONED SPACE (ENCLOSED BUT NOT IN CONDITIONED ENVELOPE) | R-6 | 2" WRAP OR LINER |
| OSA | NOT WITHIN CONDITIONED SPACE | R-0 | - |
| OSA (< 2800 CFM) | WITHIN CONDITIONED SPACE | R-7 | 2" WRAP OR LINER |
| OSA (≥ 2800 CFM) | WITHIN CONDITIONED SPACE, UPSTREAM OF MOTORIZED DAMPER | R-16 | |
| OSA (≥ 2800 CFM) | WITHIN CONDITIONED SPACE, DOWNSTREAM OF MOTORIZED DAMPER | R-8 | 2" WRAP OR LINER |
| SUPPLY (< 55 °F OR > 105 °F) | WITHIN CONDITIONED SPACE, NOT EXPOSED TO SPACE SERVED. | R-3.3 | 1" WRAP OR LINER |
| SUPPLY (< 55 °F OR > 105 °F) | WITHIN CONDITIONED SPACE, EXPOSED TO SPACE SERVED. | R-0 | - |
| SUPPLY (≥ 55 °F OR ≤ 105 °F) | WITHIN CONDITIONED SPACE | R-0 | - |
| RETURN | WITHIN CONDITIONED SPACE, OTHER THAN BELOW | R-0 | - |
| EXHAUST | OTHER THAN BELOW | R-0 | - |
| EXHAUST/RETURN | WITHIN CONDITIONED SPACE, DOWNSTREAM OF ERV & UPSTREAM OF MOTORIZED DAMPED | R-8 | 2" WRAP OR LINER |
| EXHAUST/RELIEF | WITHIN CONDITIONED SPACE, DOWNSTREAM OF MOTORIZED DAMPER | R-16 | |

## MECHANICAL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | SUPPLY - SUSPENDED CEILING |
| | SUPPLY - HARD CEILING |
| | RETURN - SUSPENDED CEILING |
| | RETURN - HARD CEILING |
| | SUPPLY - ROUND DIFFUSER |
| | SUPPLY - SIDE WALL |
| | RETURN - SIDE WALL |
| | CEILING EXHAUST FAN |
| CO | CO SENSOR |
| M | MOTORIZED DAMPER |
| FD | FIRE DAMPER |
| F/SD | COMBINATION FIRE/SMOKE DAMPER |
| DSD | DUCT SMOKE DETECTOR |
| | MOTORIZED ZONE DAMPER |
| | MANUAL VOLUME DAMPER |
| T | THERMOSTAT |
| S | TEMPERATURE SENSOR |
| | SUPPLY DUCT UP OR DOWN |
| | RETURN DUCT UP OR DOWN |
| | RECTANGULAR OR ROUND DUCT |
| | SOUNDLINED DUCT* *SIZES ARE CLEAR INSIDE DIMENSION |
| 12/10 | RECTANGULAR DUCT CALLOUT |
| 8"Ø | ROUND DUCT CALLOUT |
| | RECTANGULAR OR ROUND TRANSITION |
| | SQUARE TO ROUND TRANSITION |
| | TRANSITION |
| | RECTANGULAR OR ROUND TAP |
| | WYE DUCT FITTING |
| | DUCT UP OR DOWN |
| | GAS LINE |
| | CAR DAMPER |

## 2018 IMC WITH WA AMENDMENTS
## Ventilation & Indoor Air Quality - Worksheet

| Description | Space (SQFT/Rooms) | Occupancy Classification (From ASHRAE Std 62.1) | NOTES | People OSA Rate CFM/Person | OSA/SQFT CFM/SF | Default Occupant Density #/1000 SF | Default Occupant Count (People) | Actual Occupant Count People (if Known) | V bz CFM |
|---|---|---|---|---|---|---|---|---|---|
| **HRV-1** | | | | | | | | | |
| **Showroom** | 3,364 | Sales | | 7.5 | 0.12 | 15 | 50 | 5.0 | 441 |
| **Lounge** | 2,160 | Sales | | 7.5 | 0.12 | 15 | 32 | 8.0 | 319 |
| **Service recep** | 1,046 | Office Space | H | 5 | 0.06 | 5 | 5 | 0.0 | 89 |
| **Managers** | 723 | Office Space | H | 5 | 0.06 | 5 | 4 | 2.0 | 53 |
| **Sales** | 484 | Office Space | H | 5 | 0.06 | 5 | 2 | 3.0 | 44 |
| **F&I** | 412 | Office Space | H | 5 | 0.06 | 5 | 2 | 8.0 | 55 |
| **New vehicle** | 920 | Office Space | H | 5 | 0.06 | 5 | 5 | 3.0 | 70 |
| **Total** | **9,109** | | | | | | **100.8** | | **1,072** |
| **HRV-3** | | | | | | | | | |
| **Parts Mgr** | 170 | Office Space | H | 5 | 0.06 | 5 | 1 | 0.0 | 14 |
| **EF-1** | | | | | | | | | |
| **Exhaust Flow Rates** | **Space** (SQFT/Rooms) | **Occupancy** (From ASHRAE Std 62.1) | | **Units** (Toilets etc) | **OSA/SQFT** (Per 1000 SQFT) | **N/A** Continious | **CFM/Unit** Intermitant | **N/A** n/A | **V bz** CFM |
| | 1,819 | Repair/parking garage | b, d | 0 | 0.75 | 0 | 0 | 0.0 | 1,364 |
| **Total** | **1,819** | | | | | | | | **1,364** |
| **EF-2** | | | | | | | | | |
| | 2,746 | Repair/parking garage | | 0 | 0.75 | 0 | 0 | 0.0 | 2,060 |
| **Total** | **2,746** | | | | | | | | **2,060** |
| **EF-3** | | | | | | | | | |
| | 850 | Repair/parking garage | | 0 | 0.75 | 0 | 0 | 0.0 | 638 |
| **Total** | **850** | | | | | | | | **638** |
| **HRV-2** | | | | | | | | | |
| | 283 | Kitchenette | | 0 | 0.3 | 0 | 0 | 0.0 | 85 |
| | 180 | Locker/dressing rooms | | 0 | 0.25 | 0 | 0 | 0.0 | 45 |
| | N/A | Toilets (Public) - Cont | | 4 | 0 | 50 | 0 | 0.0 | 200 |
| **Total** | **463** | | | | | | | | **330** |

## UNIT HEATER SCHEDULE

| MARK | MAKE | MODEL | AREA SERVED | HEAT CAP Input (BTU/H) | HEAT CAP Output | (AFUE) | FUEL | FLA (Amps) | MOTOR HP | Voltage (Volt - Phase) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UH-1 | STERLING | XF 125 | SERVICE BAYS | 125,000 | 103,750 | 83% | NG | 6.9 | 0.25 | 115 - 1 | |
| UH-2 | STERLING | XF 125 | SERVICE BAYS | 125,000 | 103,750 | 83% | NG | 6.9 | 0.25 | 115 - 1 | |
| UH-3 | STERLING | XF 150 | SERVICE BAYS | 150,000 | 124,500 | 83% | NG | 6.9 | 0.25 | 115 - 1 | |
| UH-4 | STERLING | XF 150 | SERVICE BAYS | 150,000 | 124,500 | 83% | NG | 6.9 | 0.25 | 115 - 1 | |
| UH-5 | STERLING | GG 060 | SERVICE DRIVE | 60,000 | 49,800 | 83% | NG | 4.1 | 0.08 | 115 - 1 | |
| UH-6 | STERLING | GG 060 | DETAIL | 60,000 | 49,800 | 83% | NG | 4.1 | 0.08 | 115 - 1 | |
| UH-7 | STERLING | XF 100 | TOOLS | 100,000 | 96,000 | 83% | NG | 6.4 | 0.10 | 115 - 1 | |

## DUCT HEATER SCHEDULES

| MARK | MAKE | MODEL | Kw | MCA (AMPS) | Voltage (Volt - Phase) | Control (Stages \| SCR) | WT | Comments |
|---|---|---|---|---|---|---|---|---|
| DH-1 | THERMOLEC | | 8.0 | 27.8 | 208-3 | SCR | | |
| DH-2 | THERMOLEC | | 3.0 | 18.0 | 208-1 | SCR | | |

## GRILLE SCHEDULE

| MARK | MAKE | MODEL | Comments |
|---|---|---|---|
| A | SHOEMAKER | 700 MA | LAY IN SUPPLY |
| B | SHOEMAKER | MA | HARD LID SUPPY |
| C | SHOEMAKER | 645T | LAY IN RETURN/EXHAUST/TRANSFER |
| D | SHOEMAKER | 645 | HARD LID RETURN/EXHAUST/TRANSFER |
| E | SHOEMAKER | 903 | SIDEWALL SUPPLY |
| F | SHOEMAKER | 905 | SIDEWALL RETURN/TRANSFER |
| G | SHOEMAKER | RS34-SC | SPIRAL SUPPLY W/ SCOOP |
| H | SHOEMAKER | RS52 | SPIRAL RETURN/EXHAUST |

## FAN SCHEDULE

| MARK | MAKE | MODEL | LOCATION | STYLE | FLOW (Constant \| VFD) | CFM | ESP (IN H20) | BDD (Yes \| No) | MOTOR HP | BHP | FLA (Amps) | WATTS | Voltage (Volt - Phase) | WEIGHT (Lbs) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | FANTECH | FADE 14-4 | SERVICE BAYS - WEST | WALL EXH | VARIABLE | 1,375 | 0.125 | N | - | - | 1.2 | 197 | 120-1 | 20 | W/ SPEED CONTROL |
| EF-2 | FANTECH | FADE 16-4 | SERVICE BAYS - EAST | WALL EXH | VARIABLE | 2,075 | 0.125 | N | - | - | 2.7 | 290 | 120-1 | 32 | W/ SPEED CONTROL |
| EF-3 | ACME | PRN110EC | SERVICE DRIVE | DOWNBLAST | VARIABLE | 650 | 0.125 | N | 1/4 | 0.07 | 5.8 | 667 | 115 - 1 | 25 | ECVM, 0-10V SPEED CONTROL |

## LOUVER SCHEDULE

| MARK | LOCATION | SERVICE | MAKE | MODEL | SIZE WIDTH (IN.) | SIZE HEIGHT (IN.) | FREE AREA SF | CFM | FREE AIR VEL. FPM | CONTROL DAMPER | VOLTAGE | FINISH | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L-1 | SERVICE BAYS WEST | OSA | C&S | EX-656 | 30 | 30 | 2.5 | 1375 | 550 | YES | 120 | MILL | |
| L-2 | SERVICE BAYS WEST | EXH | C&S | EX-656 | 30 | 30 | 2.5 | 1375 | 550 | YES | 120 | MILL | |
| L-3 | SERVICE BAYS EAST | OSA | C&S | EX-656 | 36 | 36 | 3.6 | 2075 | 576 | YES | 120 | MILL | |
| L-4 | SERVICE BAYS EAST | EXH | C&S | EX-656 | 36 | 36 | 3.6 | 2075 | 576 | YES | 120 | MILL | |
| L-5 | SERVICE DRIVE | OSA | C&S | EX-656 | 20 | 20 | 1.09 | 650 | 596 | YES | 120 | MILL | |
| L-6 | HRV-2 | OSA | C&S | EX-656 | 18 | 18 | 0.7 | 470 | 671 | YES | 120 | MILL | |

## HEAT RECOVERY UNIT SCHEDULES

| MARK | MAKE | MODEL | OSA CFM | EXHAUST (CFM) | ESP (IN H20) | FLOW CNTRL | SUPPLY FAN HP \| BHP | EXHUAST FAN HP \| BHP | MCA (AMPS) | MOCP (AMPS) | WATTS | FLA (AMPS) | Voltage (Volt - Phase) | HEAT EX CORE | TEMP. EFFICIENCY | FILTRATION | WT (lbs) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HRV-1 | ConsERV | N2XH | 1,200 | 1,200 | 0.75 | CONSTANT | | | | | | | TBD | | | MERV 8 (2") | 750 | EC MOTOR |
| HRV-2 | DAIKIN | VAM470GVJU | 470 | 470 | 0.73 | CONSTANT | FRACTIONAL | FRACTIONAL | 3.9 | 15 | 776 | 3.5 | 208/230-1 | PROCESSED PAPER | 62% | MERV 8 (2") | 121 | DISCARD FACTORY FILTER. FIELD SUPPLY 16"x16" FILTER RACK |
| HRV-3 | VENTS-US | RA1-50-2 | 30 | 30 | 0.00 | CONSTANT | FRACTIONAL | FRACTIONAL | 0.1 | 15 | 7 | 3.5 | 120-1 | | 88% | MERV 5 | | |

1

## GAS FURNACE SCHEDULE

| MARK | MAKE | MODEL | AREA SERVED | FLOW (Constant \| VFD) | FLOW DIRECTION | CFM | OSA (CFM) | ESP (IN H20) | HEAT CAP Input (BTU/H) | HEAT CAP Output | (AFUE) | FUEL | MOTOR HP | MCA (Amps) | MOCP (Amps) | FLA (Amps) | Voltage (Volt - Phase) | WT | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GF-1 | CARRIER | 59SC2D040E14--10 | VEHICLE DELIVERY | CONSTANT | HORIZONTAL | 1,000 | - | 0.50 | 40,000 | 37,000 | 92% | NG | 1/2 | 9.8 | 15 | 7.1 | 120 - 1 | 112 | |

## PACKAGED HEAT PUMP SCHEDULE

| MARK | MAKE | MODEL | AREA SERVED | DISCHARGE | CFM | ESP (IN H20) | FLOW (Constant \| VFD) | OSA (CFM) | COOLING CAP Total (BTU/H) | COOLING CAP Sens. | HEAT CAP (BTU/H @ 17F) | BHP | AUX HEAT (kW - Steps) | SEER | EER | IEER | COP @47F | COP @17F | HSFP | MCA (Amps) | MOCP (Amps) | Voltage (Volt - Phase) | WT | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-1 | CARRIER | 48TCQD08 | SHOWROOM | HORIZONTAL | 3,000 | 1.00 | 2 SPD | 0 | 88,000 | 70,400 | 44,000 | 1.19 | | - | 11.2 | 12.5 | 3.4 | 2.25 | - | | | TBD | 1250 | POWER EXHAUST, 18" CURB, ECONO |
| RTU-2 | CARRIER | 48FCQA05 | LOUNGE/CAFE | VERTICAL | 1,600 | 1.00 | CONSTANT | 0 | 48,000 | 38,400 | 23,600 | 0.78 | | 14.3 | 11.8 | - | 3.7 | 2.28 | 8.2 | | | TBD | 750 | 18" CURB, ECONO |

## WALL HEATER SCHEDULE

| MARK | MAKE | MODEL | QUANTITY | WATTAGE | VOLTAGE | THERMOSTAT (INTEGRAL/REMOTE) |
|---|---|---|---|---|---|---|
| WH-1 | KING | PAW1215 | 1 | 500 | 120-1 | INTEGRAL |

## DAIKIN SPLIT SYSTEM SCHEDULES

| MARK ODU | MARK IDU | MAKE | MODEL ODU | MODEL IDU | AREA SREVED | CFM | ESP (IN WG) | SEER | HSPF | COOLING CAP. (BTU/h) | HEATING CAP. @ 47°F (BTU/h) | HEATING CAP. @ 17°F (BTU/h) | MAX LINE LENGTH | MAX LINE HEIGHT | COOLING TEMP RANGE | Refrigerant Line Size | MCA (Amps) | MOCP (Amps) | Voltage (Volt - Phase) | WT IDU (lbs) | WT ODU (lbs) | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HP-1 | FC-1 | DAIKIN | RX24RMVJU | FDMQ24RVJU | SERVICE RECEP | 800 | 0.6 | 18.6 | 10 | 21,800 | 24,000 | 15,000 | 98' | 65' | -4°F - 115°F | 1/4"-L, 5/8"-G | 16.9 | 20 | 208-230/60/1 | 82 | 108 | DAIKIN SUPPLIED FILTER. |
| HP-2 | FC-2 | DAIKIN | RX15RMVJU | FDMQ15RVJU | BREAK | 500 | 0.6 | 20.2 | 10.3 | 14,400 | 18,000 | 11,500 | 98' | 65' | -4°F - 115°F | 1/4"-L, 1/2"-G | 9.1 | 15 | 208-230/60/1 | 77 | 97 | DAIKIN SUPPLIED FILTER. |
| HP-3 | FC-3 | DAIKIN | RX09AXVJU | FTX12AXVJU | PARTS MGR | - | - | 19.0 | 10.0 | 8,900 | 10000 | 5700 | 65' | 49' | -4°F - 115°F | 1/4"-L, 3/8"-G | 9.7 | 15 | 208-230/60/1 | 20 | 57 | |
| HP-4 | FC-4A | DAIKIN | 3MXS24NMVJUA | FFF09Q2VJU | F&I | - | - | 18 | 12.7 | 24000 | 24000 | 15000 | 82' | 49' | 14°F - 115°F | 1/4"-L, 3/8"-G | 21.9 | 25 | 208-230/60/1 | 36 | 137 | |
| | FC-4B | DAIKIN | | FFF09Q2VJU | | - | - | | | | | | | | | 1/4"-L, 3/8"-G | | | | 36 | | |
| | FC-4C | DAIKIN | | FFF09Q2VJU | | - | - | | | | | | | | | 1/4"-L, 3/8"-G | | | | 36 | | |
| HP-5 | FC-5A | DAIKIN | 2MXS18NMVJUA | FFF09Q2VJU | MGR'S | - | - | 18.9 | 10.7 | 18000 | 18900 | 12000 | 82' | 49' | 14°F - 115°F | 1/4"-L, 3/8"-G | 15.8 | 20 | 208-230/60/1 | 36 | 123 | |
| | FC-5B | DAIKIN | | FFF09Q2VJU | | - | - | | | | | | | | | 1/4"-L, 3/8"-G | | | | 36 | | |
| HP-6 | FC-6A | DAIKIN | 3MXS24NMVJUA | FFF09Q2VJU | SALES | - | - | 18 | 12.7 | 24000 | 24000 | 15000 | 82' | 49' | 14°F - 115°F | 1/4"-L, 3/8"-G | 21.9 | 25 | 208-230/60/1 | 36 | 137 | |
| | FC-6B | DAIKIN | | FFF09Q2VJU | | - | - | | | | | | | | | 1/4"-L, 3/8"-G | | | | 36 | | |
| | FC-6C | DAIKIN | | FFF09Q2VJU | | - | - | | | | | | | | | 1/4"-L, 3/8"-G | | | | 36 | | |

## SEQUENCE OF OPERATIONS

**Rooftop Packaged Heat Pumps**
System shall be controlled by a local zone thermostat. The supply fan shall run on a call for heating or cooling. When outside air enthalpy is acceptable, the modulating economizer shall be the first stage of cooling. The power exhaust fan shall modulate to maintain constant static pressure.

**Daikin Split Systems**
System shall be controlled by a local zone thermostat. The system fan shall run on a call for heating or cooling.

**Heat Recovery Units**
The system fans shall run in the occupied mode. The electric duct heater shall modulate to maintain 65 deg F supply air temperature.

**Unit Heaters**
System shall be controlled by a local zone thermostat.

**EF-1**
Fan shall run during occupied mode. Speed controller shall be set to 100 CFM. Speed controller shall be bypassed to run at full speed to maintain CO2 setpoint of 35 ppm and NO2 setpoint of 5 ppm.

**EF-2**
Fan shall run during occupied mode. Speed controller shall be set to 150 CFM. Speed controller shall be bypassed to run at full speed to maintain CO2 setpoint of 35 ppm and NO2 setpoint of 5 ppm.

**EF-3**
Fan shall run during occupied mode. Fan speed shall modulate between 50 CFM and full speed to maintain carbon monoxide set point of 35 ppm and NO2 setpoint of 5 ppm.

2

**City of Puyallup Building ACCEPTED**
JMontgomery
04/12/2022
2:55:12 PM
CITY OF PUYALLUP STATE OF WASHINGTON

THE APPROVED CONSTRUCTION PLANS, DOCUMENTS AND ALL ENGINEERING MUST BE POSTED ON THE JOB AT ALL INSPECTIONS IN A VISIBLE AND READILY ACCESSIBLE LOCATION.

FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITEE ON SITE FOR INSPECTION

**City of Puyallup**
**Development & Permitting Services**
**ISSUED PERMIT**
Building | Planning | Engineering | Public Works | Fire | Traffic


Sunset Air
INCORPORATED
5210 LACEY BLVD, LACEY WA 98503 SUNSETAIR.COM (360) 456-4956





EXPIRES: 08-11-22

**300 BLDG**
**LARSON AUTOMOTIVE GROUP**
300 RIVER ROAD
PUYALLUP, WA 98371

DESIGNED BY: ZMD
DRAWN BY: ZMD
REVIEWED BY: RJP

REVISIONS

| | | |
|---|---|---|
| 0 | 01/21/22 | PERMIT SET |
| 1 | 02/22/22 | DOAS REV |
| 2 | 03/30/22 | PERMIT RESUBMITTAL |

GENERAL MECHANICAL NOTES & EQUIPMENT SCHEDULES

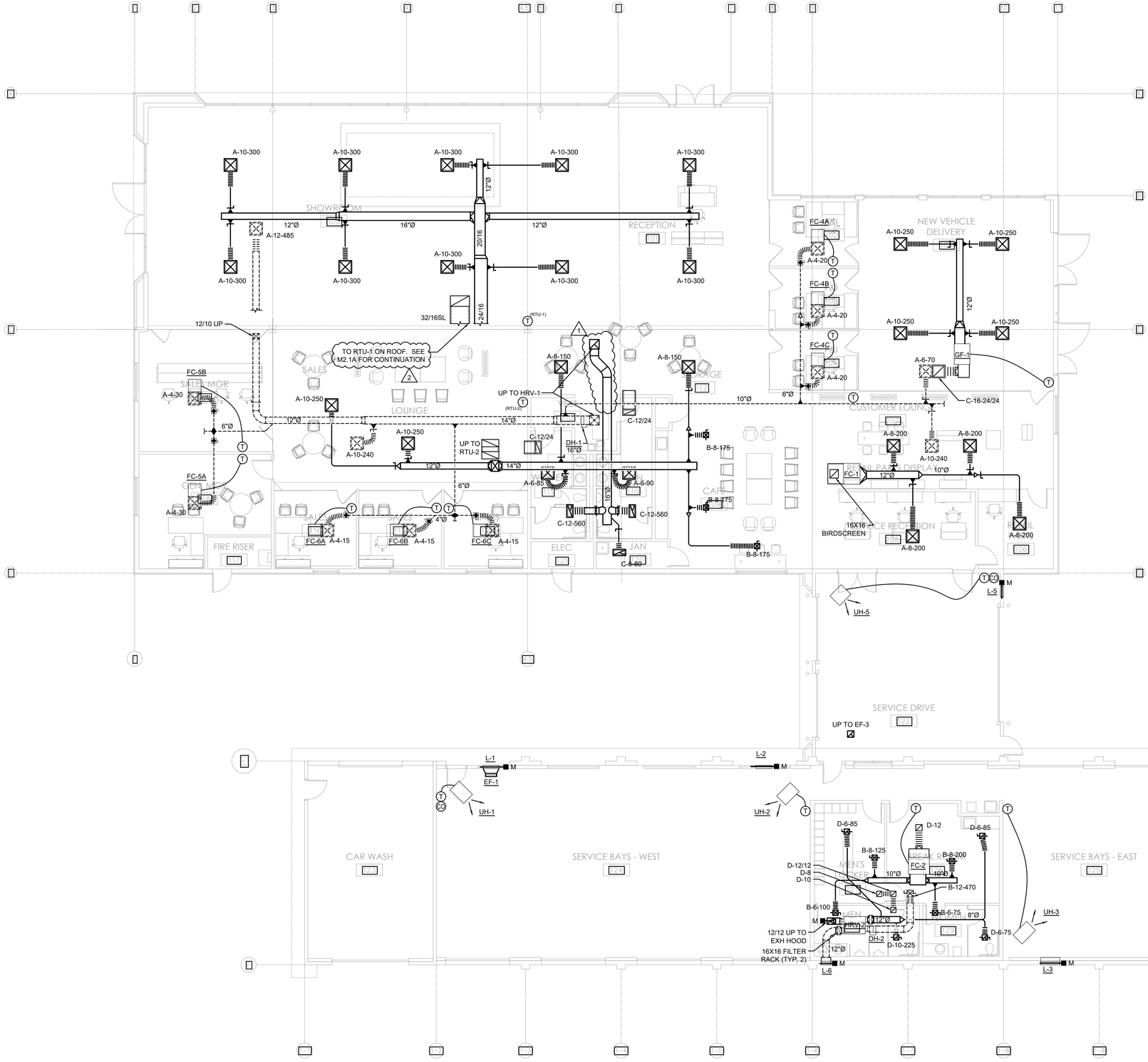
SHEET NUMBER

M1.0

PRCA20220091

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

| | |
|---|---|
| Building | Planning |
| Engineering | Public Works |
| Fire | Traffic |




# FLOOR PLAN - HVAC WEST

SCALE: 1/8" = 1' - 0"

8' 0 4' 8'


Sunset Air
INCORPORATED
5210 LACEY BLVD, LACEY WA 98503 SUNSETAIR.COM (360) 456-4956




EXPIRES: 08-11-22

**300 BLDG**
**LARSON AUTOMOTIVE GROUP**
300 RIVER ROAD
PUYALLUP, WA 98371

DESIGNED BY: ZMD
DRAWN BY: ZMD
REVIEWED BY: RJP

REVISIONS

| | | |
|---|---|---|
| 0 | 01/21/22 | PERMIT SET |
| 1 | 02/22/22 | DOAS REV |
| 2 | 03/30/22 | PERMIT RESUBMITTAL |

FLOOR PLAN - HVAC WEST

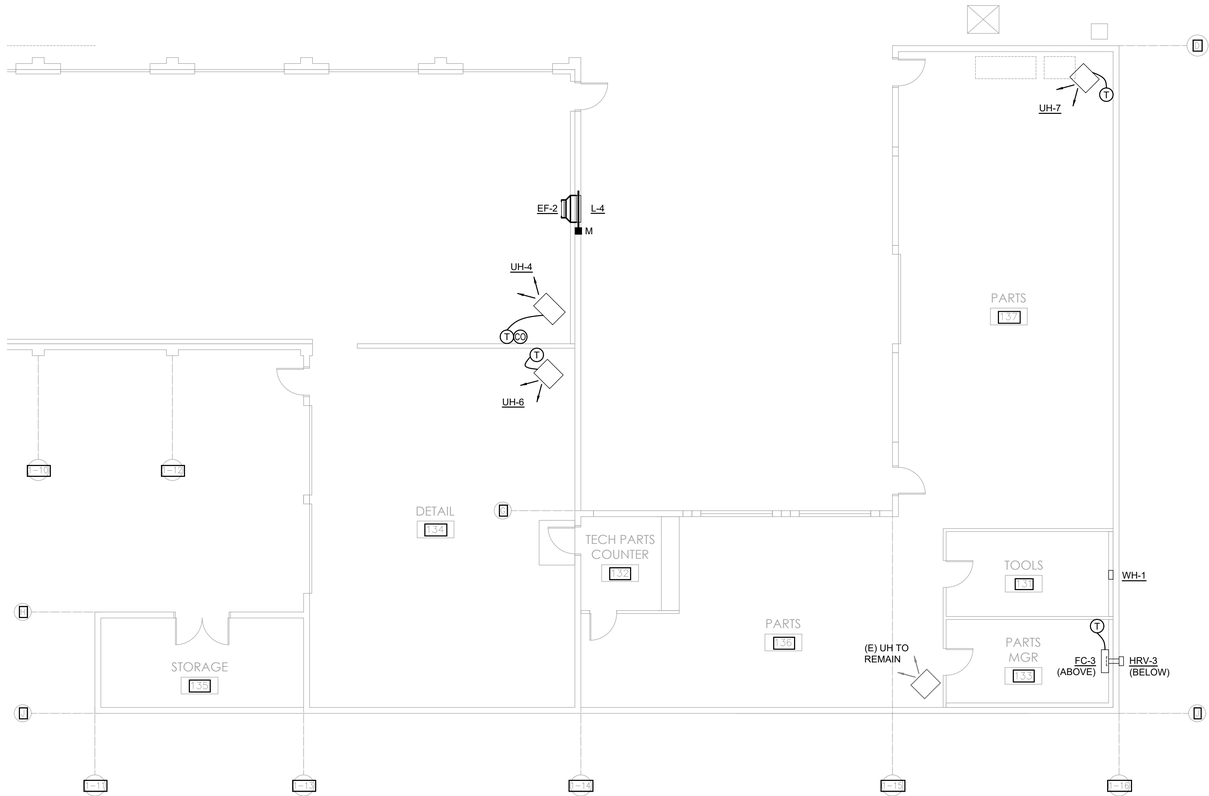
SHEET NUMBER

M2.0A

PRCA20220091

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

| | |
|---|---|
| Building | Planning |
| Engineering | Public Works |
| Fire | Traffic |




N

## FLOOR PLAN - HVAC EAST

SCALE: 1/8" = 1' - 0"

8' 0 4' 8'


Sunset Air
INCORPORATED
5210 LACEY BLVD, LACEY WA 98503 SUNSETAIR.COM (360) 456-4956




RYAN J. PRICE 53359 REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 08-11-22

# 300 BLDG
# LARSON AUTOMOTIVE GROUP

300 RIVER ROAD
PUYALLUP, WA 98371

DESIGNED BY: ZMD
DRAWN BY: ZMD
REVIEWED BY: RJP

REVISIONS

| | | |
|---|---|---|
| 0 | 01/21/22 | PERMIT SET |
| 1 | 02/22/22 | DOAS REV |
| 2 | 03/30/22 | PERMIT RESUBMITTAL |

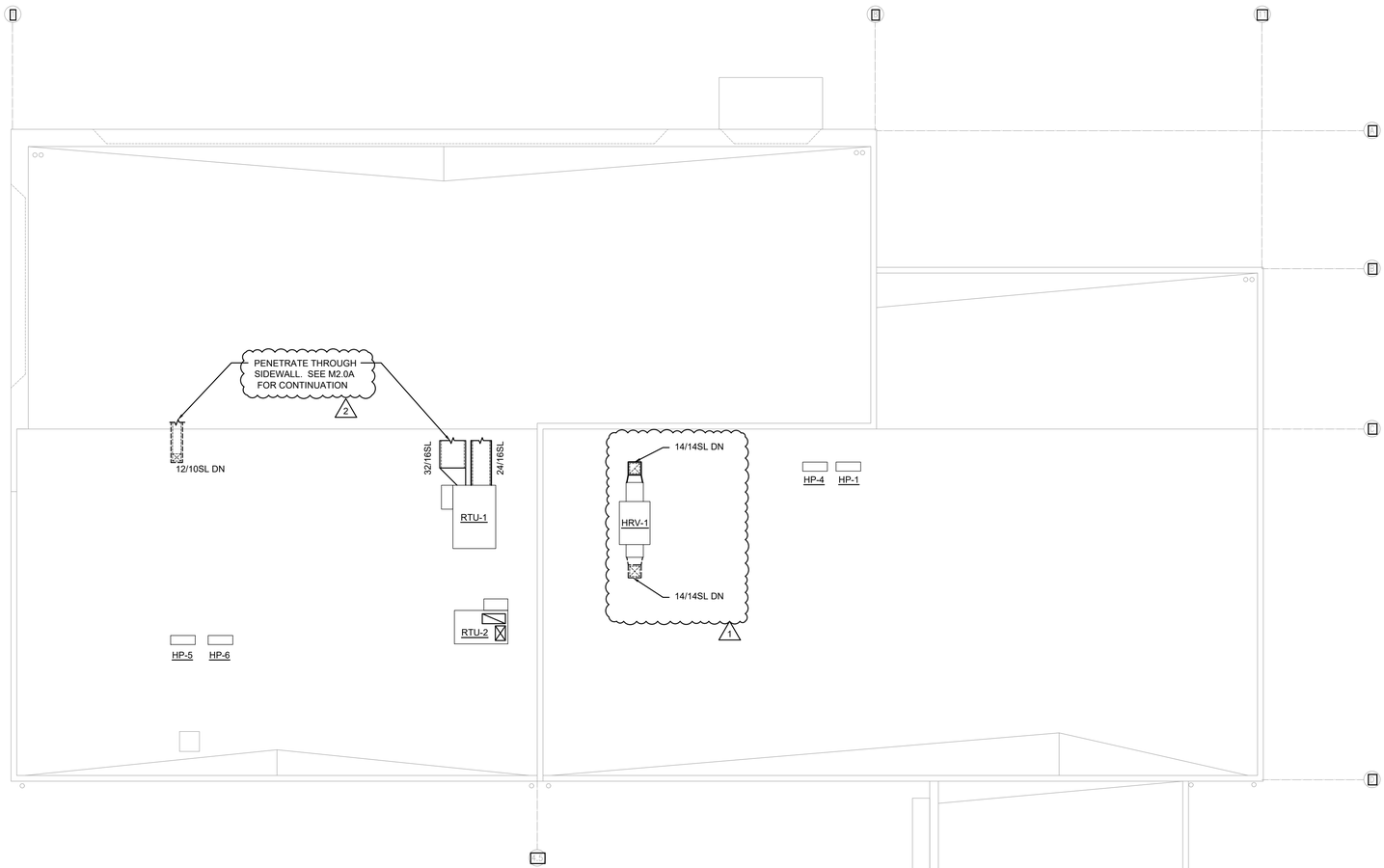
FLOOR PLAN - HVAC EAST

SHEET NUMBER

M2.0B

PRCA20220091

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building | Planning
Engineering | Public Works
Fire | Traffic




# ROOF PLAN - HVAC WEST

SCALE: 1/8" = 1' - 0"

8' 0 4' 8'


Sunset Air
INCORPORATED
5210 LACEY BLVD, LACEY WA 98503 SUNSETAIR.COM (360) 456-4956




REGISTERED PROFESSIONAL ENGINEER
RYAN J. PRICE
53359
STATE OF WASHINGTON

EXPIRES: 08-11-22

## 300 BLDG
## LARSON AUTOMOTIVE GROUP
300 RIVER ROAD
PUYALLUP, WA 98371

DESIGNED BY: ZMD
DRAWN BY: ZMD
REVIEWED BY: RJP

REVISIONS

| | | |
|---|---|---|
| 0 | 01/21/22 | PERMIT SET |
| 1 | 02/22/22 | DOAS REV |
| 2 | 03/30/22 | PERMIT RESUBMITTAL |

ROOF PLAN - HVAC WEST

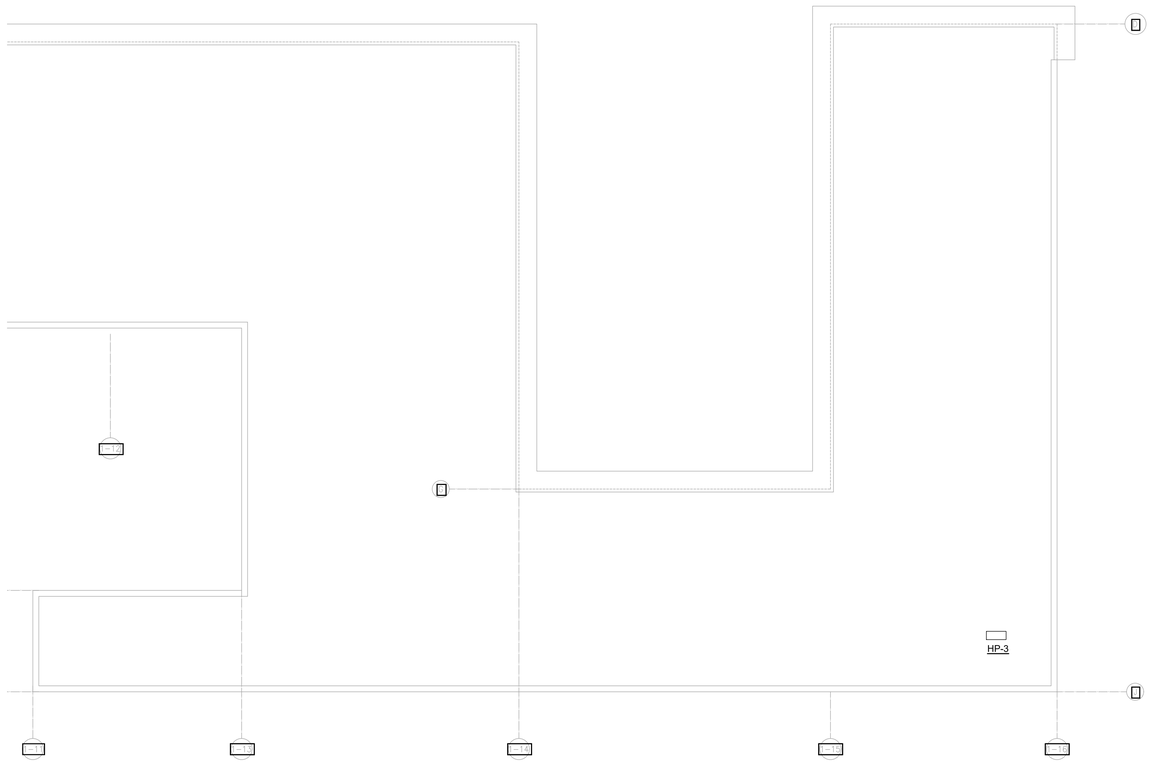
SHEET NUMBER

M2.1A

PRCA20220091

City of Puyallup
Development & Permitting Services
ISSUED PERMIT

| | |
|---|---|
| Building | Planning |
| Engineering | Public Works |
| Fire | Traffic |





ROOF PLAN - HVAC EAST

SCALE: 1/8" = 1' - 0"

Sunset Air
INCORPORATED
5210 LACEY BLVD, LACEY WA 98503 SUNSETAIR.COM (360) 456-4956



STATE OF WASHINGTON
ROBERT J. PARKER
53359
REGISTERED PROFESSIONAL ENGINEER

EXPIRES: 08-11-22

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ROOF PLAN - HVAC EAST

SHEET NUMBER

M2.1B