

SYMBOLS AND ABBREVIATIONS

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| | RETURN REGISTER/GRILLE WITH VOLUME DAMPER |
| | NEW CEILING DIFFUSER |
| | NEW CEILING REGISTER |
| | SUPPLY/RETURN DUCT UP |
| | SUPPLY/RETURN DUCT DOWN |
| | NEW THERMOSTAT |
| | DOOR WITH 1" UNDER CUT |
| | DOOR LOUVER |
| | PIPE UP/DUCT UP |
| | PIPE DOWN/DUCT DOWN |
| | DUCT TRANSITION |
| | POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK |
| | LINER DIFFUSER W/ VOLUME DAMPER |
| | VOLUME DAMPER |
| | DUCT SMOKE DETECTOR |
| | MOTORIZED DAMPER |
| AC | AIR CONDITIONING UNIT |
| AEF | ABOVE THE CEILING EXHAUST FAN |
| A.F.F. | ABOVE FINISHED FLOOR |
| BDD | BACK DRAFT DAMPER |
| BJ | BETWEEN JOIST |
| CD | CEILING DIFFUSER |
| CFM | CUBIC FEET PER MINUTE |
| CR | CEILING REGISTER |
| CU | CONDENSING UNIT |
| EF | EXHAUST FAN |
| EG | EXHAUST GRILL |
| EWH | ELECTRIC WALL HEATER |
| HP | HEAT PUMP |
| LD | LINER DIFFUSER |
| | MOTORIZED DAMPER |
| NK | NECK |
| O.A. | OUTSIDE AIR |
| RG | RETURN GRILLE |
| RL/RS | REFRIGERANT PIPES |
| RR | RETURN REGISTER |
| SR | SUPPLY REGISTER |
| T.G. | TRANSFER GRILLE |
| TYP. | TYPICAL |
| UTR | UP THROUGH ROOF |
| V.D. | VOLUME DAMPER |
| WR | WALL REGISTER |

MECHANICAL NOTES:

- ALL WORK EQUIPMENT SHALL MEET THE REQUIREMENT OF THE MOST RECENTLY REVISED VERSION OF ALL APPLICABLE LAWS, RULES, REGULATION, AND ORDINANCES OF FEDERAL, STATE, AND LOCAL AUTHORITIES, WHETHER INDICATED ON THE DRAWINGS OR NOT.
- ADHERE TO THE DRAWINGS WHEN REQUIREMENTS ARE STRICTER THAN CODE REQUIREMENTS AND ARE PERMITTED UNDER THE CODE.
- REPORT ANY ALTERATION TO AND/OR DEVIATIONS FROM THE DRAWINGS AS REQUIRED BY THE ABOVE AUTHORITIES TO THE OWNER AND SECURE HIS APPROVAL BEFORE STARTING ALTERATIONS.
- THE CONTRACTOR SHALL REQUEST SUPPLEMENTARY INSTRUCTIONS FROM THE ARCHITECT IN ALL CASES OF DOUBT AS TO THE WORK INTENDED, OR IF ADDITIONAL EXPLANATION IS NEEDED.
- REFER TO SPECIFICATIONS IF ANY DISCREPANCY OCCURS. ALL MATERIALS/EQUIPMENT TO BE USED IN THIS PROJECT SHALL BE AS PER SPECIFICATIONS.
- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITION PRIOR TO CONSTRUCTION. ALL WORK AND SCHEDULING DURING CONSTRUCTION SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
- ALL SUPPLY/RETURN DUCTWORK AND SHEET METAL INSIDE CEILING SPACE SHALL BE FULLY INSULATED.
- THE DRAWINGS WERE PREPARED FROM THE BEST INFORMATION AVAILABLE, BUT DO NOT ATTEMPT TO INDICATE THE EXACT LOCATION OF ALL EQUIPMENT. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE CONDITIONS SURROUNDING THE INSTALLATION OF HIS WORK PRIOR TO PROCEEDING WITH THE INSTALLATION. CHANGES REQUIRED TO THE DESIGN SHOWN ON THIS DRAWINGS DUE TO SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE A/E AND BUILDING OWNER FOR REVIEW BY WAY OF SHOP DRAWINGS OR SKETCHES DETAILING THE CONDITIONS AND THE PROPOSED CHANGES.
- PROVIDE 1" LINING ON ALL NEW SUPPLY AND RETURN DUCTS UP TO 10' FROM THE AC UNITS. LINED DUCTWORK DON'T HAVE TO BE INSULATED. ALL DUCT SIZES INDICATE CLEAR INSIDE DIMENSIONS. (FOR RETURN, PLENUM ONLY)
- REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION EQUIPMENT, WHERE APPLICABLE.
- PROVIDE VOLUME DAMPERS AT EACH AIR TERMINAL, WHERE MISSING. CONTRACTOR SHALL COORDINATE ACCESS WITH THE PROJECT MANAGER. ALL BRANCH TAKEOFFS ON RECTANGULAR DUCT SHALL BE PROVIDED WITH SHOE TAP CONNECTION.
- COORDINATE ALL DUCTWORK/PLUMBING PIPE ROUTING W/OTHER TRADES BEFORE CONSTRUCTION BEGINS. IF OTHER WORK INTERFERES WITH NEW WORK, REROUTE/REWORK NEW DUCTWORK/PIPE WHICHEVER HAVE LESS WORK AND LESS COST.
- ALL PIPE PENETRATIONS THROUGH WALLS AND FLOORS SHALL BE PROVIDE WITH SLEEVES AND ESCUTCHEON PLATES. PIPES SHALL BE CENTERED TO ALLOW FOR EXPANSION AND CONTRACTION; ALSO PROVIDE CAULKING AND WATERPROOFING WHERE REQUIRED.
- ALL THERMOSTATS (AND SIMILAR DEVICES) SHALL BE MOUNTED 54" ABOVE FINISH FLOOR UNLESS NOTED. DO NOT INSTALL THERMOSTAT ABOVE LIGHT SWITCH LOCATION OF ALL DEVICES SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO INSTALLATION.
- ALL VOLUME DAMPERS, VALVES AND OTHER MECHANICAL EQUIPMENT SHALL BE ACCESSIBLE FOR PROPER MAINTENANCE. PROPER SIZE ACCESS DOOR SHALL BE PROVIDED. CONTRACTOR SHALL COORDINATE WITH ENGINEER.
- ALL DUCT PENETRATIONS, PIPE PENETRATIONS THROUGH ROOF SHALL BE PROVIDED WITH PROPER FLASHING PER ARCHITECTURAL DETAILS.
- ALL LOCATION OF ROOF MOUNTED EQUIPMENT SHALL BE APPROVED WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION.
- ALL SUPPLY AND RETURN DUCTS SHALL RUN AS HIGH AS POSSIBLE, WHERE POSSIBLE.
- ALL DUCT SIZES INDICATED ON THE DRAWINGS ARE THE CLEAR INSIDE NET DIMENSIONS. INTERNALLY INSIDE DUCTWORK SHALL BE INCREASED IN BOTH DIMENSIONS BY TWICE THE THICKNESS OF THE LINER.
- PROVIDE 4" TO 6" FLEXIBLE CONNECTION BETWEEN, AIR CONDITIONING UNIT, AND SECONDARY DUCTWORK.
- PROVIDE TURNING VANES AT ALL ELBOWS.
- DOMESTIC HOT AND COLD WATER SUPPLY SHALL BE INSULATED WITH 1" THICK GLASS FIBER PIPE INSULATION WITH K FACTOR OF 0.23 BTU/INCH PER DEGREE F PER HOUR AT 75 DEGREES F MEAN.
- ALL PLUMBING PIPE SHALL BE SLOPED AS FOLLOWS:
SANITARY - 1/8 INCH PER FOOT (MIN.)
STORM - 1/8 INCH PER FOOT (MIN.)
- ALL REFRIGERANT PIPES SHALL BE SIZED BY HEAT PUMP UNIT MANUFACTURERS.
- CONTRACTOR SHALL COORDINATE REGISTERS, GRILLES AND DIFFUSERS WITH TYPE OF CEILING IN EACH ROOM.
- ALL FINISHED MATERIAL AND COLOR SHALL BE APPROVED BY THE PROJECT MANAGER.
- AIR DISTRIBUTION SHALL BE BALANCED BY A BALANCING CONTRACTOR.

SPLIT SYSTEM SPECIFICATION AND SCHEDULE:

OUTDOOR UNITS

CU-1: 4 TON CAPACITY, 48 MBH COOLING, ONE (1) COMPRESSOR (21.8 RLA, 117 LRA), ONE (1) OUTDOOR FAN (1/5HP, 1.2 FLA). MINIMUM CIRCUIT AMPACITY 28, 50 AMPS. 13.0 SEER, MAXIMUM FUSE SIZE CIRCUIT BREAKER SIZE, 208V/60HZ/1PH, UNIT SHALL BE TRANE 4TTB3048 OR APPROVED EQUAL.

CU-2: 5 TON CAPACITY, 60 MBH COOLING, ONE (1) COMPRESSOR (25.1 RLA, 120 LRA), ONE (1) OUTDOOR FAN (1/5HP, 0.93 FLA). MINIMUM CIRCUIT AMPACITY 35, 60 AMPS. 13.0 SEER, MAXIMUM FUSE SIZE CIRCUIT BREAKER SIZE, 208V/60HZ/1PH, UNIT SHALL BE TRANE 4TTB3060 OR APPROVED EQUAL.

INDOOR UNITS

AC-1: HORIZONTAL GAS FIRED FURNACE, 1600 CFM SUPPLY AIR @ 0.50 ESP, 320 CFM OUTSIDE AIR, 3/4 HP, 8.4 FLA EVAPORATOR MOTOR, 1/50HP, 1.09 FLA COMBUSTION FAN, DX COOLING (80° FDB/67° FWB EAT AND 55° FDB LAT) 80,000 BTUH INPUT, 64,000 BTUH OUTPUT, MINIMUM CIRCUIT AMPACITY 12.3, MAXIMUM CIRCUIT BREAKER SIZE 15 AMPS. 80% EFFICIENCY 208V/60 HZ/1PH, SINGLE POINT POWER CONNECTION. 1" FILTER AND PROGRAMMABLE THERMOSTAT. UNIT SHALL BE TRANE TUD1C080 OR EQUAL.

AC-2: HORIZONTAL GAS FIRED FURNACE, 2000 CFM SUPPLY AIR @ 0.5 ESP, 400 CFM OUTSIDE AIR, 1 HP - 10.9 FLA EVAPORATOR MOTOR, 1/5HP, 1.09 FLA COMBUSTION FAN, DX COOLING (80° FDB/67° FWB EAT AND 55° FDB LAT) 100,000 BTUH INPUT, 79,000 BTUH OUTPUT, MINIMUM CIRCUIT AMPACITY 15.4, MAXIMUM CIRCUIT BREAKER SIZE 20 AMPS. 80% EFFICIENCY 208V/60HZ/1PH, SINGLE POINT POWER CONNECTION. 1" FILTER AND PROGRAMMABLE THERMOSTAT. UNIT SHALL BE TRANE TUD1CC100 OR EQUAL.

CONTROL NOTES

HVAC SYSTEMS ARE PROVIDED WITH AIRSIDE ECONOMIZER. WHEN SPACE THERMOSTAT IS INDEXED ON COOLING AND OUTSIDE AIR ENTHALPY IS LOWER THAN RETURN AIR ENTHALPY, ECONOMIZER IS ENABLED, DAMPER MD-2 SHALL BE FULLY CLOSED AND DAMPER MD-3 SHALL BE FULLY OPEN. MECHANICAL COOLING SHALL BE ENGAGED IN OPERATION, IF FULL ECONOMIZER IS NOT ABLE TO MAINTAIN ZONE TEMPERATURE SETPOINT. DAMPERS MD-2 AND MD-3 SHALL REVERSE POSITIONS WHEN ECONOMIZER IS DISABLED.

HEATER SCHEDULE

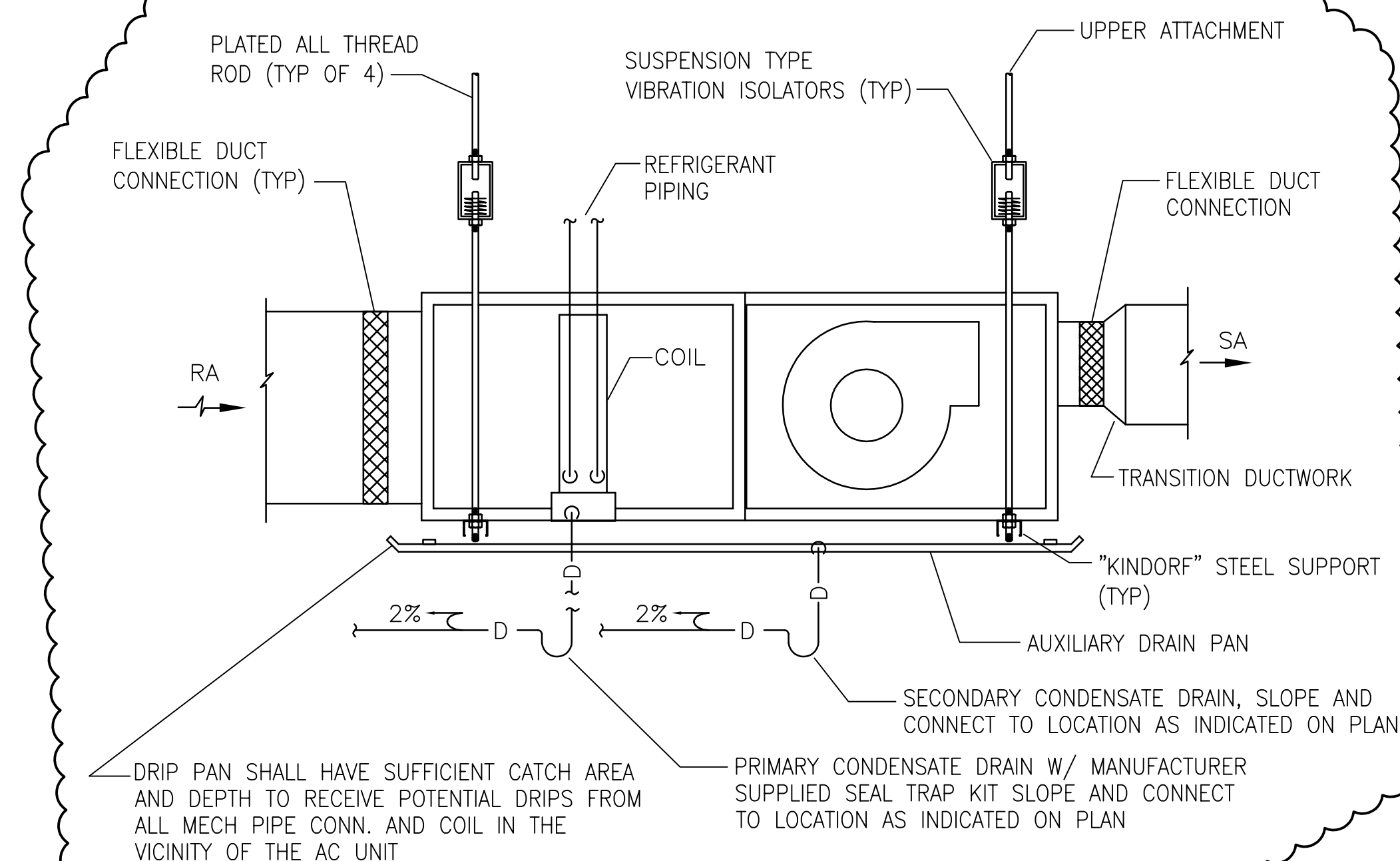
EWH-1: 1KW 120V/1Ø/60HZ
UNIT SHALL BE INDUSTRIAL TYPE, SURFACE MOUNTED AND INTEGRAL THERMOSTAT. UNIT SHALL BE QMARK LFK OR EQUAL.

FAN SCHEDULE

EF-1 & 2:
BATHROOM CEILING FAN, 120V/1Ø/60HZ, 7.7 WATTS, 110CFM WITH VENT CAP. UNITS SHALL BE CONTROLLED BY WALL SWITCH BROAN MODEL XB11Ø OR EQUAL

EF-3 & 4:
UTILITY FAN, WALL MOUNTED, 70CFM, 120V/1Ø/60HZ, 8 WATTS WITH VENT CAP. UNITS SHALL RUN ALL TIMES WITH MANUAL SWITCH OVERRIDE. BROAD MODEL 512M OR EQUAL

AEF-1 & 2:
ABOVE THE CEILING EXHAUST FAN, 500CFM, 1/32HP, 120V/1Ø/60HZ, 1500 RPM, 10" DIAMETER DIRECT DRIVE. UNIT SHALL BE CONTROLLED BY THERMOSTAT UP ABOVE THE CEILING OR SPACE PRESSURE REACH 0.10"WC



AC UNIT DETAIL

SCALE: NOT TO SCALE

LEASING OFFICE CLUB HOUSE

Walker Mill Apartments

1926 Rochelle Avenue
Forestville, Maryland 20747

FEDERAL CAPITAL PARTNERS

5425 Wisconsin Avenue • Suite 202
Chevy Chase MD 20815
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NOVITSKE ARCHITECTS

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I CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
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phase: Permit
date: 17 April 2015
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SYMBOLS, ABBREVIATIONS AND MECHANICAL NOTES

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