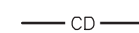
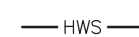
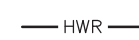




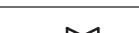
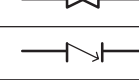

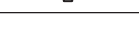
















| MECHANICAL EQUIPMENT SCHEDULE  |                       |                |   |
|--|-----------------------|----------------|---|
| SYMBOL   | MANUFACTURER          | CATALOG #      | DESCRIPTION   |
|   |                       |                | CONDENSATE DRAIN PIPING. SCHEDULE 40 PVC  |
| <br> |                       |                | HYDRONIC PIPING, COPPER TYPE "L" UP TO 2". ABOVE 2" USE SCHEDULE 40 STEEL WITH SCREWED JOINTS. BOILER HEADER SHALL BE PIPED WITH SCHEDULE 40 STEEL. INSULATE WITH FIBERGLASS PIPE INSULATION WITH VAPOR PROOF JACKET, TAPED JOINTS AND PVC FITTING COVERS. EXPOSED PIPING SHALL BE COVERED WITH PVC PIPE COVER AND PAINTED. SEE THIS DRAWING FOR INSULATION THICKNESS SCHEDULE.   |
|   |                       |                | REFRIGERANT PIPING SHALL BE COPPER TUBING TYPE ACR HARD DRAWN. WROUGHT COPPER FITTINGS, SILVER BRASS JOINTS. SIZE REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS BASED ON ELEVATION AND LENGTH. INSULATE SUCTION LINE WITH 1 1/2" ELASTOMETRIC CELLULAR FOAM. CONCEAL REFRIGERATION PIPING IN EXTERIOR WALL PARTITION AND ABOVE CEILING.   |
|   |                       |                | NATURAL GAS PIPING, SCHEDULE 40 STEEL WITH SCREWED JOINTS UP TO 3" DIAMETER. WELDED JOINTS ON ALL PIPE SIZES ABOVE 3" DIAMETER.   |
|   |                       |                | GAS VALVE FULL PORT, AGA APPROVED.  |
|   | NIBCO                 |                | BALL VALVE, BRONZE BODY, FULL PORT.   |
|   | NIBCO                 |                | CHECK VALVE, BRONZE BODY SWING.   |
|   |                       |                | MOTORIZED DAMPER, SEE SPECIFICATION SECTION 23 33 00 AIR DUCT ACCESSORIES & 23 09 00 INSTRUMENTATION & CONTROL.   |
|   |                       |                | FIRE DAMPER   |
|   |                       |                | GAS VALVE FULL PORT, AGA APPROVED.  |
|   |                       |                | TRAP.   |
|   |                       |                | TURNING VALVES.   |
|   |                       |                | DUCTWORK, GALVANIZED STEEL, THICKNESS PER SMACNA STANDARDS. MINIMUM 26 GAUGE  |
|   |                       |                | VOLUME DAMPER, SEE SPECIFICATION SECTION 23 33 00 AIR DUCT ACCESSORIES & 23 09 00 INSTRUMENTATION & CONTROL.  |
|   | FLEXMASTER USA, INC.  | TYPE 4M        | FLEXIBLE DUCTWORK, MECHANICAL LOCK HELIX, FIBERGLASS INSULATION, FIRE RETARDANT ALUMINUM OUTER JACKET, UL 181 CLASS I AIR DUCT, MAXIMUM LENGTH (6'-0')  |
| UH-1,2,3,4   | BEACON MORRIS         | HB-204         | HORIZONTAL UNIT HEATER, HOT WATER, OUTPUT 150/170 BTU/HR @ 180°F E.I.T., 14.9 GPM, 2400 CFM, WITH DISCONNECT SWITCH, AQUASTAT FAN START, 120V/1   |
| CH-1, 2  | BEACON MORRIS         | W120           | CABINET HEATER TWIN-FLO III RECESSED WALL MOUNT, AQUASTAT FAN START, TAMPER PROOF FASTENERS AND CONTROLS. HEATING CAPACITY 11,755 BTU/HR @ 180°F E.I.T. - 2.0 GPM - 121 CFM - 120V/1.   |
| EF-1, 3  | GREENHECK             | SP-A290-QD     | CABINET EXHAUST FAN, BACKDRAFT DAMPER, DISCONNECT SWITCH, BACKDRAFT DAMPER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTOR, WALL MOUNTED SPEED SWITCH, 251 CFM @ .25" W.C., - 120V/1  |
| EF-2   | GREENHECK             | SP-A200-QD     | CABINET EXHAUST FAN, BACKDRAFT DAMPER, DISCONNECT SWITCH, BACKDRAFT DAMPER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTOR, WALL MOUNTED SPEED SWITCH, 224 CFM @ .25" W.C., - 120V/1  |
| EF-4, 6  | GREENHECK             | SQ-80-V6       | INLINE CABINET EXHAUST FAN, BACKDRAFT DAMPER, VARI-GREEN REMOTE DIAL MOUNTED IN ROOM, VARI-GREEN TRANSFORMER FIELD MOUNTED AND WIRED, DISCONNECT SWITCH, BACKDRAFT DAMPER, MOTOR COVER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTORS, 200 CFM @ .5" W.C., 1/8 HP - 120V/1  |
| EF-5   | GREENHECK             | SQ-80-V6       | INLINE CABINET EXHAUST FAN, BACKDRAFT DAMPER, VARI-GREEN REMOTE DIAL MOUNTED ON FAN, VARI-GREEN TRANSFORMER FIELD MOUNTED AND WIRED, DISCONNECT SWITCH, BACKDRAFT DAMPER, MOTOR COVER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTORS, 140 CFM @ .4" W.C., 1/8 HP - 120V/1   |
| EF-7, 8  | GREENHECK             | SQ-80-V6       | INLINE CABINET EXHAUST FAN, BACKDRAFT DAMPER, VARI-GREEN REMOTE DIAL MOUNTED ON FAN, VARI-GREEN TRANSFORMER FIELD MOUNTED AND WIRED, DISCONNECT SWITCH, BACKDRAFT DAMPER, MOTOR COVER, ISOLATORS & BRACKETS & SPRING HANGING KIT, FLEXIBLE DUCT CONNECTORS, 170 CFM @ .5" W.C., 1/8 HP - 120V/1   |
| DF-1   | FANTECH               | DEDPV-705 UL   | UL LISTED DRYER EXHAUST FAN. PRESSURE-SENSING SWITCH AUTOMATICALLY TURNS ON THE FAN, ABLE TO EXHAUST UP TO 120'-0" OF 4"Ø GALVANIZED STEEL DUCT, AND WALL MOUNTED OPERATION INDICATOR SIGN. FAN MUST BE INSTALLED 5'-0" FROM DRYER OUTLET, PROVIDE AND INSTALL SECONDARY LINT TRAP (ØBLT 4W) BEFORE THE FAN. PROVIDE FC VIBRATION ISOLATION CLAMPS FOR DUCT CONNECTIONS AND MOUNTING BRACKET. INDICATOR SIGN SHALL BE INSTALLED WITHIN LAUNDRY ROOM FAN IS SERVING. |
|  | TAMARACK TECHNOLOGIES | CAPE BACKDRAFT | 4" DIAMETER CAPE BACKDRAFT ULTIMATE AIRFLOW DAMPER  |
| ERV-1  | RENEHAIRE             | EV450          | ENERGY RECOVERY UNIT, 315 CFM @ .4" W.C. TOTAL EFF % WINTER/SUMMER (%W) WITH TWO POSITION DAMPER MOTORIZED DAMPERS ON INTAKE AND EXHAUST AIR DUCT, SOLID STATE SPEED CONTROLLER MOUNTED NEAR UNIT. (1) - 5 HP ECM MOTOR - 120V/1  |
| RH-1   | FRIGIDAIRE            | FHW3640MS      | RANGE HOOD 36" UNDER-CABINET STAINLESS STEEL FINISH, BACKDRAFT DAMPER, 1"Ø EXHAUST DUCT CONNECTION - 300 CFM, WITH HANDICAP ACCESSIBLE SWITCHES, LAMPS: (2) HALOGEN 50 WATT - 120V/1  |
| RC-1   | GREENHECK             | RJ - 10x10     | PITCHED ROOF CAP CONSTRUCTED OF STEEL, THROAT (10'W x 10'L) WITH INTEGRAL FLASHING, BUILT-IN BIRDSCREEN AND DAMPER. POWDER COAT PAINT COLOR AS DIRECTED BY ARCHITECT.   |
| HX-1   | BELL & GOSSETT        | BP423-30       | BRAZED PLATE HEAT EXCHANGER, 1 PASS, 24 CHANNELS, PLATE MATERIAL 316L SS, BRAZING MATERIAL COPPER, DESIGN PRESSURE 435 PSI, BOILER SIDE: WATER FLOW 40 GPM, INLET TEMP 180°F, OUTLET TEMP 160°F, PRESSURE DROP 2.35 PSI. SNOW MELT SIDE: 35% PROPYLENE GLYCOL FLOW 40 GPM, INLET TEMP 130°F, OUTLET TEMP 110°F, PRESSURE DROP 2.07 PSI. TOTAL HEAT EXCHANGED 412,482 BTU/HR WITH FIELD FABRICATED STAND.  |

| MECHANICAL EQUIPMENT SCHEDULE CONT |              |                                     |  |
|------------------------------------|--------------|-------------------------------------|--|
| SYMBOL                             | MANUFACTURER | CATALOG #                           | DESCRIPTION  |
| P-1, 2                             | GRUNDFOS     | TPE3 65-150<br>S-A-G-A-BQGE<br>-GBB | SINGLE STAGE, CLOSED COUPLE, VOLUTE PUMP INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 86 GPM @ 40 FT. HEAD, 1.5 HP - 208V/3 |
| P-3, 4                             | GRUNDFOS     | MAGNA3<br>40-180 F                  | MAGNA SERIES INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 40 GPM @ 14 FT. HEAD, POWER INPUT 16 - 285 WATTS - 120V/1         |
| P-5, 6                             | GRUNDFOS     | MAGNA3<br>40-180 F                  | MAGNA SERIES INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 29 GPM @ 38 FT. HEAD, POWER INPUT 16 - 606 WATTS - 120V/1         |
| P-7, 8                             | GRUNDFOS     | MAGNA3<br>32-120 F                  | MAGNA SERIES INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 14 GPM @ 15 FT. HEAD, POWER INPUT 9.1 - 181 WATTS - 120V/1        |
| P-9, 10                            | GRUNDFOS     | TPE3 40-150<br>S-A-G-A-BQGE<br>-GBB | SINGLE STAGE, CLOSED COUPLE, VOLUTE PUMP INLINE VARIABLE SPEED PUMP WITH WIRELESS REMOTE CONTROL, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 73 GPM @ 15 FT. HEAD, 1.5 HP - 208V/3 |
| P-11, 12                           | GRUNDFOS     | TPE 50-240/2<br>A-G-Z-BUBE<br>-HBB  | SINGLE STAGE, CLOSED COUPLE, INLINE VARIABLE SPEED PUMP WITH INTEGRATED FREQUENCY CONVERTER, FACTORY START-UP, AUTO ADAPT, FLOWADAPT, AND FLOW LIMIT. PROPORTIONAL-PRESSURE CONTROL, CONSTANT PRESSURE CONTROL, AND CONSTANT-TEMPERATURE CONTROL. SEALS COMPATIBLE WITH 35% PROPYLENE GLYCOL. MAX. WORKING PRESSURE 174 PSI, MAX. OPERATING TEMPERATURE 230°F. MOTOR STARTER H-O-A W/OVERLOADS. 40 GPM @ 57 FT. HEAD, 2.0 HP - 208V/3      |
| ET-1                               | AMTROL       | 500-L                               | HYDRONIC EXPANSION TANK, HEAVY DUTY BUTYL BLADDER, TANK VOLUME 132 GALLONS   |
| ① <sub>h/c</sub>                   | DAIKIN       | BACRC-THOC-POI                      | ADAPTIVE TOUCH CONTROLLER, BUILT IN TEMPERATURE SENSOR, HUMIDITY SENSOR, CO2 SENSOR AND OCCUPANCY SENSOR PROGRAMMABLE MULTI-STAGE REMOTE SENSING, PROGRAMMABLE FAN, OUTDOOR DAMPER CONTROL, EMERGENCY HEAT SWITCH, LOW VOLTAGE (24V). WITH CLEAR LOCKING COVER UNLESS OTHERWISE NOTED.   |
| ① <sub>li</sub>                    | —            | —                                   | RADIANT HEAT THERMOSTAT, NON-PROGRAMMABLE, SLAB SENSOR/ROOM TEMPERATURE ACTIVATION, LOW VOLTAGE (24V). WITH CLEAR LOCKING COVER UNLESS OTHERWISE NOTED.  |
| ① <sub>li</sub>                    | —            | —                                   | PROGRAMMABLE MULTI-STAGE THERMOSTAT, HEAT/COOL WITH ON/OFF/AUTO FAN SWITCH, 5-1-1 DAY, PROGRAMMABLE WITH SET BACK CAPABILITIES, LOW VOLTAGE (24V). WITH CLEAR LOCKING COVER UNLESS OTHERWISE NOTED.  |

| REGISTER/GRILLE SCHEDULE   |              |           |   |   |
|--|--------------|-----------|---|---|
| SYMBOL   | MANUFACTURER | CATALOG # | DESCRIPTION   |   |
| <br><b>CD-A</b> | PRICE        | SCDA      | CEILING DIFFUSER, CONSTRUCTED OF STEEL LAY-IN (24" x 24") COORDINATE WITH CEILING GRID TYPE, ADJUSTABLE AIR PATTERN, ROUND NECK, 4-WAY DEFLECTION, BUTTERFLY DAMPER, WHITE                            | <b>NECK SIZE</b> <b>CFM RANGE</b><br>6"φ → 0-100 CFM<br>8"φ → 101-230 CFM<br>10"φ → 231-300 CFM<br>12"φ → 301-400 CFM<br>14"φ → 401-500 CFM |
| <br><b>CD-B</b> | PRICE        | SMDA      | CEILING DIFFUSER, CONSTRUCTED OF STEEL, SURFACE MOUNTED 2-WAY DEFLECTION, ADJUSTABLE AIR PATTERN AND OPPOSED BLADE DAMPER, LAY-IN CEILING MODULE (24" x 24") COORDINATE WITH CEILING GRID TYPE, WHITE | <b>NECK SIZE</b> <b>CFM RANGE</b><br>6" x 6" → 0-100 CFM<br>9" x 9" → 101-200 CFM<br>12" x 12" → 201-300 CFM                                |
| <br><b>RG-C</b> | PRICE        | 535       | RETURN GRILLE, CONSTRUCTED OF STEEL, SURFACE MOUNTED 45° DEFLECTION, 1/2" BLADE SPACING (14" x 10"), WHITE  | 14" x 10" → 0-165 CFM   |
| <br><b>RG-D</b> | PRICE        | 535       | RETURN GRILLE, CONSTRUCTED OF STEEL, SURFACE MOUNTED 45° DEFLECTION, 1/2" BLADE SPACING (18" x 14"), WHITE  | 18" x 14" → 0-320 CFM   |
| <br><b>SG-E</b> | PRICE        | 520       | SUPPLY REGISTER, CONSTRUCTED OF STEEL, SURFACE MOUNTED DOUBLE DEFLECTION, 3/4" BLADE SPACING (16" x 14"), WHITE   | 16" x 14" → 0-320 CFM   |
| <br><b>RG-F</b> | PRICE        | 80        | RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, 1/2" ESG GRATE TYPE ALUMINUM CONSTRUCTION, 24" x 12", WHITE.   | 24" x 12" → 0-400 CFM   |
| <br><b>RG-G</b> | PRICE        | 80        | RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, 1/2" ESG GRATE TYPE ALUMINUM CONSTRUCTION, LAY-IN 24" x 24", WHITE.  | 24" x 24" → 0-1800 CFM  |
| <br><b>RG-H</b> | PRICE        | 80        | RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, 1/2" ESG GRATE TYPE ALUMINUM CONSTRUCTION WITH OPPOSED BLADE DAMPER, 24" x 12", WHITE.   | 24" x 12" → 0-400 CFM   |
| <br><b>RG-I</b> | PRICE        | 80        | RETURN REGISTER, WALL OR CEILING MOUNTED AS SHOWN, 1/2" ESG GRATE TYPE ALUMINUM CONSTRUCTION WITH OPPOSED BLADE DAMPER, 8" x 8", WHITE.   | 8" x 8" → 0-80 CFM  |

**NOTES:**

- HVAC CONTRACTOR SHALL INSULATE THE BACKS OF ALL DIFFUSERS AND GRILLES WITH 1" THICK FIBERGLASS INSULATION W/VAPOR JACKET TO PREVENT CONDENSATION.
- HVAC CONTRACTOR SHALL INTERNALLY INSULATE THE INTERIOR OF ALL PLENUM BOXES AND PAINT ALL INTERIOR SURFACES BLACK.

|  |  |   |
|--|--|---|
|  |  |   |
| No.  | REVISION/SUBMISSION  | DATE  |
| Mechanical/Electrical/Plumbing Engineer  |  |   |
|  <p><b>CONSULTING ENGINEERS, D.P.C.</b><br/> 223 MAIN STREET, GOSHEN NY 10924<br/> TEL: (845) 291 1272<br/> <a href="mailto:info@GerardAssociates.com">info@GerardAssociates.com</a> <a href="http://www.GerardAssociates.com">www.GerardAssociates.com</a></p> |  |   |
| GA21063  |  |   |
| Structural Engineer  |  |   |
| <h1>SZEWCAK ASSOCIATES</h1> <p>CONSULTING ENGINEERS</p> <p>200 Fisher Drive<br/> phone 860.677.4570</p> <p>Avon, Connecticut<br/> fax 860.676.0814</p>   |  |   |
|  <p><b>Liscum<br/>McCormack<br/>VanVoorhis LLP</b></p> <p>181 CHURCH STREET<br/> POUGHKEEPSIE, NEW YORK 12601<br/> PHONE 845-452-2268 FAX 845-452-3752</p>  |  |   |
| <p>ARCHITECTURE<br/> PLANNING INTERIORS</p>  |  |   |
| PROJECT  |  |   |
| NEW FIRE STATION FOR<br>ROMBOUT FIRE DISTRICT - STATION 2<br>NYS ROUTE 52, FISHKILL, NY  |  |   |
| DRAWING  |  |   |
| MECHANICAL:<br>EQUIPMENT SCHEDULES   |  |   |
| SEAL   | DRAWN BY<br>RL/KC<br>CHECKED BY<br>JT/GH<br>DRAWING NUMBER | PROJECT NUMBER<br>10142<br>DATE<br>11-30-22 |
|  |  | M602  |
| FILE   |  | H:\2021\GA21063                             |