DX SPLIT SYSTEMS – ELECTRIC HEAT

INDOOR FAN COIL UNIT

MARK	SERVICE	SUPPLY FAN CFM	SUPPLY FAN ESP (W.G.)	COOLING TOTAL MBH	COOLING SENS MBH	COOLING EAT °Fdb	COOLING EAT °Fwb	COOLING LAT °Fdb	COOLING LAT °Fwb	HOT GAS REHEAT TOTAL MBH	HOT GAS REHEAT EAT °Fdb	HOT GAS REHEAT LAT °Fdb	HEAT PUMP HEATING TOTAL MBH	HEAT PUMP HEATING EAT °Fdb	HEAT PUMP HEATING LAT °Fwb	ELEC HEAT kW	ELEC HEAT # STEPS	ELEC (60HZ) V/PH	ELEC (60HZ) DISC BY	HEIGHT (IN)	OPER WEIGHT (LBS)	BASIS OF DESIGN (4) MFGR	BASIS OF DESIGN (4) MODEL
FCU-1, FCU-2	FIRST FLOOR	1,500	0.75	61.9	45.7	76.1	63.0	48.0	47.8	37.3	48.0	71.0	33.0	65.0	85.4	6.0	1	240/1	E.C.	26	250	iAIRE	FV6

OUTDOOR CONDENSING UNIT/HEAT PUMP

MARK	COOLING NOM TONS	COOLING TURNDOWN	HEATING MBH	HEATING TURNDOWN	ELEC (60HZ) V/PH	ELEC (60HZ) DISC BY	HEIGHT (IN)	OPER WEIGHT (LBS)	BASIS OF DESIGN (4) MFGR	BASIS OF DESIGN (4) MODEL	REMARKS
HPU-1, HPU-2	5	50%	33.0	50%	240/1	E.C.	32	262	iAIRE	UPC-HC60	(1)(2)(3)(4)

(1) FAN COIL UNIT: HORIZONTAL DRAW-THRU INDOOR UNIT; HEAVY GAUGE GALVANIZED STEEL CABINET WITH POWDER COAT FINISH AND REMOVABLE, GASKETED ACCESS PANELS; 1" THICK, POLY INTERNAL LINER; FORWARD CURVED, FACTORY BALANCED CENTRIFUGAL FAN WITH ECM MOTOR; ALUMINUM FIN/COPPER TUBE COOLING COIL; ALUMINUM FIN/COPPER TUBE HOT GAS REHEAT COIL DOWNSTREAM OF COOLING COIL; UL LISTED OPEN WIRE HEATER WITH LIMIT CONTROLS AND THERMAL CUT-OUT SAFETIES; FILTER RACK WITH 1" MERV-8 FILTERS; HARD-SHUTOFF TXV; RAWAL APR VALVE FOR CAPACITY MODULATION DOWN TO 50%; CONTROL PACKAGE; SINGLE POINT ELECTRICAL CONNECTION; R-410A.

(2) HEAT PUMP UNIT: OUTDOOR UNIT; HEAVY GAUGE GALVANIZED STEEL CABINET WITH POWDER COAT; SCROLL COMPRESSOR; ALUMINUM FIN COPPER TUBE REFRIGERANT COIL WITH HAIL GUARD; FACTORY BALANCED PROPELLER TYPE FAN; REVERSING VALVE; EXTERNAL SERVICE VALVES; REFRIGERANT FILTER DRYER; LOW AMBIENT OPERATION KIT FOR COOLING OPERATION DOWN TO 0 DEGREES F; WINTER START CONTROL; CRANKCASE HEATER; COMPRESSOR START ASSIST; SHORT CYCLE PROTECTION; THERMAL AND PRESSURE COMPRESSOR OVERLOAD PROTECTION; SINGLE POINT ELECTRICAL CONNECTION; R-410A.

(3) CONTROLS: DIRECT DIGITAL CONTROLS PACKAGE BY EQUIPMENT MANUFACTURER PRE-PROGRAMMED IN STAND-ALONE CONFIGURATION TO CONTROL COMPRESSOR, INDOOR FAN, OUTDOOR FAN, HOT GAS REHEAT, AND ELECTRIC HEAT TO MAINTAIN SPACE TEMPERATURE AND HUMIDITY SETPOINT. SPACE SENSOR SHALL HAVE BACKLIT LCD SCREEN WITH TACTILE BUTTONS.

(4) ACCEPTABLE ALTERNATE MANUFACTURES: AAON, DESERT AIRE, MODINE. ALL SYSTEM COMPONENTS SHALL BE OF A SINGLE MANUFACTURER.

FANS

MARK	TYPE	SERVICE	CFM	ESP (W.G)	FAN RPM	MOTOR HP	ELEC (60 HZ) V/PH	ELEC (60 HZ) DISC BY	DRIVE (D)IRECT (B)ELT	MAX dBA	HEIGHT (IN)	OPER WEIGHT (LBS)	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	REMARKS
EF-3	WALL-MTD FAN	BASEMENT	3,000	0.25	1160	1/2	120/1	16	D	62	26	150	GREENHECK	SE1-20	(1)(2)

(1) PROPELLER FAN; ALUMINUM BLADES; GALVANIZED STEEL FRAME; MOTOR AND DRIVE GUARD; WALL MOUNTING SLEEVE; INLET VENTURI; PREWIRED MOTORIZED DISCHARGE DAMPER; SOLID STATE SPEED CONTROLLER SWITCH MTD. ON FAN FOR BALANCING.

(2) CONTROL WITH LINE VOLTAGE DEHUMIDIFICATION SENSOR (SET TO 60%RH, ADJUSTABLE) AND LINE VOLTAGE COOLING THERMOSTAT (SET TO 70F, ADJUSTABLE). FAN SHALL TURN ON WHEN TEMPERATURE AND HUMIDITY ARE BOTH ABOVE SETPOINT AND SHALL BE OFF AT ALL OTHER TIMES.

DIFFUSERS, REGISTERS, AND GRILLES

MARK	TYPE	MOUNTING	NECK DAMPER	MAX NC	MAX ΔP	SIZE NECK	SIZE FRAME	MAT'L	FINISH	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	REMARKS
S	WOOD SUPPLY REGISTER	FLOOR	N	25	0.1"	AS NOTED	1"W	WOOD	(3)	CUSTOM	CUSTOM	(1) (3)
R	WOOD RETURN GRILLE	FLOOR	N	25	0.1"	AS NOTED	1"W	WOOD	(3)	CUSTOM	CUSTOM	(2)(3)

(1) SUPPLY REGISTER; FIXED 30 DEGREE DEFLECTION BLADES, 50% FREE AREA; TWO-WAY THROW; MOUNTED WITH FACE FLUSH TO FLOOR; REINFORCED AS REQUIRED FOR FOOT TRAFFIC AND FURNITURE LOADING; WOOD SPECIES, STAIN, AND FINISH TO BE APPROVED BY THE ARCHITECT.

(2) RETURN GRILLE; FIXED 30 DEGREE DEFLECTION BLADES, 50% FREE AREA; MOUNTED WITH FACE FLUSH TO FLOOR; REINFORCED AS REQUIRED FOR FOOT TRAFFIC AND FURNITURE LOADING; WOOD SPECIES, STAIN, AND FINISH TO BE APPROVED BY THE ARCHITECT.

(3) AIR DEVICE SHALL BE STAINED AND FINISHED TO MATCH FLOORING SYSTEM. PROVIDE FINISHED SAMPLES TO ARCHITECT FOR APPROVAL.

Roswell georgia

June 24 2016

Richard E. Todd, AIA
President
Todd Architects, Inc.
4803 Dalhousie Place
Marietta, GA 30068

Re: Historic Roswell Mill Machine Shop (Circa 1854)
Old Mill Park
95 Mill Street
Roswell, Georgia 30075

The referenced building and property has been determined by the City of Roswell, the Roswell Historic Preservation Commission, and the Roswell Historical Society, to be compliant with a historical building, and will fall within the guidelines established by the 2012 IBC (International Building Code) Section 3409 Historic Buildings (page 573). As of 2016, the building is 162 years old.

3409.01 Historic Buildings. The provisions of this code relating to construction *repair, alteration, addition*, restoration and movement of structures, and change of occupancy shall not be mandatory for *historic buildings* where such buildings are judged by the *building official* to not constitute a distinct life safety hazard.

Exception:

1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places;

Sincerely,

Jeff Pruitt

Jeff Pruitt, APRP, Deputy Director
Recreation, Parks, Historic & Cultural Affairs Department
City of Roswell
38 Hill Street Suite 100
Roswell, GA 30075

cc: Keith Mikulka, PE, Lead Mechanical Engineer / Ray Group Consulting Engineers, Inc.

ROSWELL GEORGIA SINCE 1854

July 15, 2016

Mr. Richard Todd, AIA
Richard Todd Architects
4803 Dalhousie Place
Marietta, GA 30068

Subject: HPC 201603434, 95 Mill Street

Dear Mr. Todd,

Your minor application for the HVAC enclosure at 95 Mill Street was approved, as submitted.

The Historic Preservation Commission Chairman and the staff determined the following:

1. The proposal meets the requirements of the UDC.
2. The proposal is consistent with the UDC Design Guidelines.
3. The proposal will not result in a development that is architecturally or aesthetically unpleasing.

Please acquire any necessary permits before you begin any work. If you have any questions, please contact me at (770) 594-6413.

Thank you,

Julie Martin
Planner II
cc: rtodd@adamstoddassociates.com

CITY OF ROSWELL 38 HILL STREET ROSWELL, GEORGIA 30075 TELEPHONE 770-641-3727 www.roswellgov.com

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GENERAL NOTES

1. WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODES AND STANDARDS ADOPTED BY THE AUTHORITY HAVING JURISDICTION AND ALL APPLICABLE LOCAL ORDINANCES.
2. CONTRACTOR SHALL OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, ETC., AND PAY ALL INCIDENTAL FEES, AS REQUIRED TO OBTAIN A PERMIT AND A PERMANENT CERTIFICATE OF OCCUPANCY.
3. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO AVOID CONFLICTS. CONFLICTS WHICH ARISE DUE TO LACK OF PROPER COORDINATION SHALL BE CORRECTED AT THE CONTRACTOR'S COST.
4. DESIGN INDICATED IS SCHEMATIC AND MAY NOT REFLECT ALL CONSTRAINTS IMPOSED BY ACTUAL PROJECT CONDITIONS. CONTRACTOR SHALL VISIT SITE AND REVIEW CONSTRUCTION DOCUMENTS (INCLUDING ALL TRADES) TO FAMILIARIZE HIMSELF WITH THE PROJECT PRIOR TO BID. CONTRACTOR'S BID SHALL INCLUDE ANY AND ALL COSTS REQUIRED TO REWORK THE DESIGN TO FIT WITHIN THE PHYSICAL CONSTRAINTS WHILE ACHIEVING THE DESIGN INTENT.
5. THE BASIS-OF-DESIGN PRODUCTS WERE USED TO DETERMINE DIMENSIONS, INSTALLATION AND ACCESS CLEARANCES, SUPPORTS, ELECTRICAL SERVICE, CONNECTION ARRANGEMENTS, ETC. WHERE ALTERNATE PRODUCTS ARE PROVIDED, IT IS THE ESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL REQUIREMENTS AND RECTIFY ANY CONFLICTS AT THE CONTRACTOR'S COST.
6. MECHANICAL CONSTRUCTION SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. ALL WORK SHALL BE INSTALLED TO AVOID CONFLICT WITH ELECTRICAL EQUIPMENT "DEDICATED SPACE" AS REQUIRED BY NEC AND LOCAL ORDINANCES. COORDINATE LOCATIONS OF ALL ELECTRICAL PANELS WITH ELECTRICAL CONTRACTOR PRIOR TO FABRICATION AND INSTALLATION.
7. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL EQUIPMENT AND DEVICES WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
8. SUBMIT ALL MATERIALS AND EQUIPMENT TO ENGINEER FOR APPROVAL PRIOR TO ORDERING. CONTRACTOR ASSUMES LIABILITY AND COSTS FOR ANY PRODUCT WHICH IS ORDERED PRIOR TO RECEIPT OF APPROVED SUBMITTALS.
9. ALL MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A MINIMUM PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE AND AS OTHERWISE NOTED.
10. EQUIPMENT START-UP AND COMMISSIONING SHALL BE PERFORMED BY FACTORY-AUTHORIZED AGENTS ONLY. SUBMIT WRITTEN START-UP PROCEDURES TO OWNER FOR APPROVAL PRIOR TO PERFORMANCE OF START-UP ACTIVITIES. FINAL REPORTS SHALL BE APPROVED BY OWNER.
11. ALL PENETRATIONS OF FIRE AND/OR SMOKE RATED ASSEMBLIES SHALL BE FIRE STOPPED WITH UL-LISTED SYSTEM APPROVED FOR THE APPLICATION.
12. FLASH AND SEAL ALL PENETRATIONS OF BUILDING EXTERIOR, WALLS AND ROOF WITH APPROVED SEALANT.
13. ALL EQUIPMENT SHALL BE NEW, UL OR ETL LISTED AND LABELED FOR THE APPLICATION. INSTALL ALL EQUIPMENT PER THESE DOCUMENTS, MANUFACTURER'S RECOMMENDATIONS, AND CODE REQUIREMENTS FOR SPECIFIC APPLICATION.
14. EXCEPT WHERE SPECIFIED OTHERWISE, MECHANICAL CONTRACTOR SHALL PROVIDE STARTERS AND ELECTRICAL DISCONNECTS FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
15. PROVIDE PERMANENT LABELS FOR ALL EQUIPMENT, CONTROLS, AND PIPING.
16. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
17. PROVIDE VIBRATION ISOLATION FOR ALL EQUIPMENT WITH ROTATING PARTS.
18. PROVIDE COMPLETE TESTING, ADJUSTING, AND BALANCING (TAB) REPORT FOR ALL MECHANICAL CONSTRUCTION SERVING AREAS UNDER THIS SCOPE OF WORK. TAB SHALL BE PERFORMED BY NEBB OR AABC CERTIFIED AGENT, USING PROCEDURES COMPLYING WITH CERTIFYING AUTHORITY. BALANCE ALL FLUID QUANTITIES TO WITHIN +/-5% OF DESIGN QUANTITIES INDICATED.
19. DUCTWORK SHALL BE G90 GALVANIZED STEEL, LOCK FORMING QUALITY, FABRICATED AND INSTALLED PER SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", LATEST EDITION. ALL JOINTS AND SEAMS SHALL BE SEALED WITH WATER-BASED MASTIC. DUCT SIZES SHOWN ARE NET FREE AREA, ADJUST SHEET METAL SIZES TO ACCOMMODATE INTERNAL LINER.
20. INTERNALLY LINE DUCTWORK WITH 1" THICK ELASTOMERIC FOAM SHEET INSULATION EQUAL TO ARMACEL AP ARMAFLEX FS. INSULATION SHALL BE PLUENUM RATED (ASTM E84 25 FLAME SPREAD / 50 SMOKE DEVELOPED).
21. WRAP ALL DUCTWORK WITH, ELASTOMERIC FOAM SHEET INSULATION EQUAL TO ARMACEL AP ARMAFLEX. ALL JOINTS AND SEAMS SHALL BE SEALED WITH INSULATION MANUFACTURER'S CONTACT CEMENT FOR A CONTINUOUS VAPOR BARRIER. PROVIDE 2" THICK INSULATION FOR UNLINED DUCTWORK AND 1" THICK INSULATION FOR LINED DUCT.
22. REFRIGERANT SUCTION AND LIQUID PIPING SHALL BE TYPE ACR COPPER, HARD OR ANNEALED, WITH WROUGHT COPPER FITTINGS AND BRAZED JOINTS.
23. INSULATE REFRIGERANT SUCTION PIPE WITH 1.5" THICK ELASTOMERIC PIPE INSULATION EQUAL TO ARMACEL AP ARMAFLEX. ALL JOINTS AND SEAMS SHALL BE SEALED WITH INSULATION MANUFACTURER'S CONTACT CEMENT FOR A CONTINUOUS VAPOR BARRIER.

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Proposed
ROSWELL MILL
MACHINE SHOP
RENOVATION
circa 1854
Roswell, Georgia
30075

for:
City of Roswell
Parks & Recreation
Department

Print Record

Revisions

GEORGIA REGISTERED No.27453 PROFESSIONAL ENGINEER KEITH S. MIKULKA
08-25-16

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Date: 8-25-2016
Job No.: 2016.30

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