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LOCATION	TYPE	MATERIAL	INSULATION
ALL	FLAT DVAL	SHEET METAL	SEE DRAWINGS SEE NOTES
ALL	SPINAL	SHEET METAL	SEE DRAWINGS SEE NOTES
ALL	RECTANGULAR SUPPLY RETURN & OUTSIDE AIR	SHEET METAL	2" THICK DUCT WRAP/TAPE SEE NOTE #2 & 4
ALL	ROUND	SHEET METAL	2" THICK DUCT WRAP/TAPE SEE NOTE #2 & 4
ALL	FLEXIBLE	ATCO 36 SERIES	2" THICK
ALL	T/LT EXHAUST	SHEET METAL	-----

- DUCTWORK NOTES**
1. ALL RECTANGULAR DUCT ELBOWS TO BE SQUARE THROAT WITH TURNING VANES.
 2. INSTALL DOWN PRODUCTS CO. INC., #3300'S RECTANGULAR TO ROUND TAKE-OFF AT ALL ROUND SUPPLY, RETURN & EXHAUST TAKE-OFFS. SEE DETAIL SHEET #1.1.
 3. 4" PIPING LENGTH FOR ALL FLEXIBLE DUCTS.
 4. INSULATE SUPPLY AND RETURN AIR DUCTS OUTSIDE BUILDING THERMAL ENVELOPE WITH 8" R-8, OR R-6 WHERE INSTALLED WITHIN BUILDING THERMAL ENVELOPE. USE BLANKET INSULATION WITH FOIL WINDSTOP BARRIER. SEAL ALL JOINTS AND SEAMS.
 5. ALL SUPPLY RECTANGULAR DUCT TEES WILL BE FINISHED WITH SPITTER DAMPER.
 6. VERIFY ALL DIFFUSERS, GRILLES, PAINT LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN.
 7. SEE SPECIFICATIONS FOR DUCT SEALING. SEALER SHALL BE SMAOXA CLASS 'A'.
 8. ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH 3rd EDITION, 2005 SMAOXA, HVAC DUCT CONSTRUCTION STANDARDS METAL & FLEXIBLE.
 9. MAKE ARRANGEMENTS WITH INDEPENDENT BALANCING AGENCY TO BALANCE ALL AIR FLOW SYSTEMS TO WITHIN 5% OF THE FLOW RATES INDICATED ON THE DRAWINGS. THIS SHALL INCLUDE ALL AIR HANDLING UNIT FANS, SUPPLY FANS, AND EXHAUST FANS. THE BALANCING AGENCY SHALL BE ONE NORMALLY ENGAGED IN SUCH WORK. THE AGENCY SHALL BE AEC&E AND NEBE CERTIFIED SUCH AS UNITED TESTING AND BALANCING, INC. OR AS APPROVED BY THE ENGINEER OR APPROVED SUBSTITUTE. ATTENTION IS CALLED TO THE FACT THAT THE OUTSIDE AIR QUANTITIES AND EXHAUST AIR QUANTITIES ARE VITAL TO PROPER OPERATION OF THE SYSTEM, AND CARE MUST BE EXERCISED TO INSURE THAT THESE AIR QUANTITIES ARE CALLED FOR, AND AS INDICATED.
 10. ALL DUCTS PENETRATING 1-HOUR RATED WALLS SHALL BE SHEET METAL WITH 2" (3/4 LBS. DENSITY) THICK DUCT WRAP/TAPE.
 11. INSTALL AIR EXTRACTORS AT ALL RECTANGULAR DUCT ENDINGS (AIR TRAC 8018 IN WELDING DIVISION).
 12. SEAL ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS WITH THE APPROPRIATE DUCT SEALANT. EXTERNALLY INSULATED DUCTS SHALL BE SEALED PRIOR TO INSULATION INSTALLATION.
 13. ALL CONCEALED DUCTWORK SHALL BE SUPPORTED WITH UNISTRUT & ALL-THREAD RODS.
 14. ALL EXPOSED DUCTWORK SHALL BE SUPPORTED WITH "DYWIDAG" HANG FAST CABLE SYSTEM.
 15. FLEXIBLE DUCT IS NOT ACCEPTABLE FOR USE IN THE "SPITE OF THE RISK".
 16. ALL CONCEALED DUCTWORK SHALL BE INSULATED.
 17. ALL FLEXIBLE DUCTWORK SHALL BE SINGLE WALL AND AS MANUFACTURED BY "SEMCO" INC., "LASTON", OR "SPIRAL MFG". DRAWING SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.

- GENERAL MECHANICAL NOTES**
1. NOTE THAT EXISTING WORK SHOWN ON PLANS IS FROM PREVIOUS ENGINEERING DOCUMENTS AND FIELD OBSERVATION. ACTUAL CONDITIONS MAY VARY, AND THIS CONTRACTOR MUST FIELD VERIFY EXISTING WORK (WHETHER INDICATED ON DRAWINGS OR NOT) AND MAKE MINOR ADJUSTMENTS NECESSARY TO COMPLETE NEW WORK. IF EXISTING CONDITIONS DIFFER FROM NEW WORK, NOTIFY THE CONSTRUCTION MANAGER FOR REDIRECTION AS REQUIRED.
 2. PROVIDE WATER-TIGHT PIPE SLEEVE AND CAULKING FOR ALL PIPING PASSING THROUGH WALLS, FLOORS & ROOF.
 3. MECHANICAL CONTRACTOR TO FURNISH ALL MOTORS AND STARTERS FOR INSTALLATION BY ELECTRICAL CONTRACTOR.
 4. MECHANICAL CONTRACTOR TO RUN ALL CONTROL WIRING TO HVAC UNITS. ELECTRICAL CONTRACTOR TO RUN ALL REQUIRED CONDUIT & POWER WIRING.
 5. MECHANICAL CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL HIS EQUIPMENT AND WORK WITH ALL OTHER TRADES.
 6. MECHANICAL CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING AND RESTORING TO MATCH ALL NEW WITH ALL EXISTING WALLS, FLOORS AND CEILING DAMAGED BY HIS WORK.
 7. IT IS MANDATORY THAT THIS CONTRACTOR SHALL VISIT JOB SITE FOR VISUAL INSPECTION PRIOR TO BID DATE.
 8. ALL EXISTING HVAC EQUIPMENT NOT REUSED OR REMOVED WILL REMAIN THE PROPERTY OF THE OWNER AND BE DISPOSED OF AS DIRECTED BY OWNER.
 9. MECHANICAL CONTRACTOR SHALL REMOVE ALL DEBRIS CREATED BY HIS WORK. THE JOB SITE SHALL BE LEFT CLEAN AND AS REUSED OR NEW EQUIPMENT SHALL BE LEFT IN FIRST CLASS WORKING CONDITION.
 10. GUARANTEE: MECHANICAL WORK SHALL BE GUARANTEED AGAINST DEFECTS AND WORKMANSHIP FOR MATERIALS FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF SUBSTANTIAL COMPLETION. EQUIPMENT SHALL BE TURNED OVER TO OWNER IN SATISFACTORY CONDITION.
 11. OBTAIN ALL PERMITS & PAY ALL FEES IN CONNECTION WITH THIS WORK.
 12. SPACING OF PIPE HANGERS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE PIPING SHALL BE INSTALLED SUCH THAT EQUIPMENT DOES NOT TAKE THE LOAD OF ANY PIPE.
 13. IN CASE OF DISCREPANCIES BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL PREVAIL.
 14. REFER TO ARCHITECTURAL DOCUMENTATION FOR ADDITIONAL INFORMATION REGARDING DEMOLITION/REMODELING WORK.
 15. UNLESS NOTED OTHERWISE, EXISTING ITEMS THAT OBSTRUCT NEW WORK SHALL BE REVISED AS REQUIRED.
 16. UNLESS NOTED OTHERWISE, EXISTING HVAC ITEMS THAT ARE TO REMAIN IN USE AFTER COMPLETION OF THIS PROJECT SHALL BE MAINTAINED. DUCTWORK AND PIPING TO BE REMOVED SHALL BE REMOVED BACK TO NEAREST ACTIVE MAIN BRANCH, CAPPED AND SEALED AIR TIGHT.
 17. VERIFY ALL HVAC CONNECTIONS, TEST PRESSURES AND VERIFY ALL MEASUREMENTS AND CONDITIONS AT JOB BEFORE PROCEEDING WITH INSTALLATION WORK.
 18. CONTRACTOR IS TO PROVIDE ALL ADDITIONAL STEEL, HANGER MATERIAL, S, RODS AND CLAMPS AS REQ'D FOR ALL PENETRATIONS OF FIRE AND SMOKE RATED FLOORS, WALLS AND CEILING. REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCATIONS OF ALL RATED STRUCTURES.
 19. THE HVAC CONTRACTOR IS RESPONSIBLE FOR FIRESTOPPING AT ALL HVAC RELATED PENETRATIONS OF FIRE AND SMOKE RATED FLOORS, WALLS AND CEILING. REFER TO ARCHITECTURAL FLOOR PLANS FOR LOCATIONS OF ALL RATED STRUCTURES.
 20. PIPING AND DUCTWORK IS ONLY SCHEMATIC. EXACT LOCATION OF PIPES AND DUCTS TO BE COORDINATED ON JOB WITH BUILDING STRUCTURE, AND WITH ALL OTHER CONTRACTORS.
 21. SUPPORT ALL PIPE AT INTERVALS PER SPECIFICATION.
 22. RUN ALL DRAIN LINES INDIRECT TO NEAREST FLOOR/ROOF DRAIN WITH (2) PIPE DIA. AIR GAP.
 23. CAULK SPACE BETWEEN SLEEVES, DUCTS AND PIPES WHERE DUCTS AND PIPES PASS THROUGH WALLS. CAULKING TO BE AIR-TIGHT.
 24. ALL DUCTS AND PIPES ABOVE CEILING UNLESS OTHERWISE NOTED.
 25. OFFSET DUCTS INTO JOIST SPACE FOR CLEARANCE WHERE SPACE ABOVE CEILING IS NOT SUFFICIENT FOR DUCTS TO CROSS OTHER DUCTS OR WORK OF OTHER CONTRACTORS.
 26. INSTALL BALANCING DAMPERS AS SHOWN AND AS REQ'D FOR PROPER BALANCING OF AIR HANDLING SYSTEMS.
 27. REFER TO ARCHITECT REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS, GRILLES, ETC.
 28. NO DUCTS OR PIPING IS TO RUN THROUGH ABOVE ELECTRICAL UTILITY, TELEPHONE EQUIPMENT, EXCEPT FOR PIPING SERVING EQUIPMENT OR DEVICES FOR THAT SPECIFIC AREA. PROVIDE DRIP PANS BELOW ANY LIQUID TRANSMISSION PIPING THAT IS REQ'D IN THESE AREAS.
 29. THERMOSTATS SHALL BE MOUNTED 4" ABOVE FINISHED FLOOR UNLESS INDICATED OTHERWISE.
 30. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH CODE REQUIREMENTS AND MANUFACTURER'S INSTRUCTIONS.

- MECHANICAL NOTES**
1. ALL REGISTERS, GRILLES AND DIFFUSERS SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF NOT OVER 25 AND A SMOKE DEVELOPED INDEX OF NOT OVER 50 AND SHALL BE IN COMPLIANCE WITH SPECIFICATIONS.
 2. COORDINATE EXACT CEILING DIFFUSERS, REGISTERS, ETC. LOCATIONS WITH CEILING TILE AND LIGHTING LAYOUTS. NOTIFY ARCHITECT IMMEDIATELY OF ANY CONFLICTS BETWEEN MECHANICAL AND OTHER TRADES.
 3. DUCT SIZES SHOWN ARE INSIDE DIMENSIONS. INSULATION WITH FOIL BACKING ON ALL SUPPLY AND RETURN DUCTS AND ON THE BACKS OF DIFFUSERS. THE R VALUE OF ALL DUCT INSULATIONS SHALL MEET LATEST ENERGY CODE.
 4. INSTALL ALL EQUIPMENT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 5. TRANSITION MAIN DUCTS TO AIR HANDLING UNIT INLET OR DISCHARGE SIZES. PROVIDE FLEXIBLE CONNECTIONS ON SUPPLY AND RETURN UNIT CONNECTIONS.
 6. DO NOT ENERGIZE AIR CONDITIONING FANS DURING ANY CEMENT WORK OR DRYWALL WORK OR WHEN ANY DUST FROM THESE OPERATIONS IS PRESENT. TAPE ALL OPENINGS CLOSED DURING WORK. CLEANING OF DUCT IS MECHANICAL CONTRACTOR'S RESPONSIBILITY.
 7. COORDINATE PATHS AND VERIFY SPACE BEFORE FABRICATION OF ANY DUCT. SUPPORT ALL DUCTS WITH 2" WIDE GALV. STRAPPING TO BUILDING STRUCTURE. MINIMUM 5" ON CENTER.
 8. 4'-0" MAXIMUM LENGTH OF FLEX DUCT. ALL FLEXIBLE DUCT RUNOUTS TO BE SAME SIZES AS DIFFUSER NOCK AND NOT BE GREATER THAN 4'-0" LONG.
 9. GENERAL CONTRACTOR TO COORDINATE T-STAT LOCATIONS WITH MECHANICAL AND ELECTRICAL SUB CONTRACTORS.
 10. PAINT EXPOSED DUCTWORK WITH MANUFACTURER'S APPROVED PAINT. PAINT EXPOSED REFRIGERANT PIPE INSULATION WITH MANUFACTURER'S APPROVED PAINT.
 11. HOLD EXHAUST DUCT TIGHT TO BOTTOM OF ROOF STRUCTURE.
 12. INSTALL DUCTWORK AS HIGH AS POSSIBLE.
 13. ALL EXHAUST FANS SHALL BE A MINIMUM OF 10'-6" FROM ROOF EDGE.
 14. DUCT INSULATION SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 604.2 THROUGH 604.13 AND THE INTERNATIONAL ENERGY CONSERVATION CODE. COVERINGS AND LININGS, COVERINGS AND LININGS, INCLUDING ADHESIVES WHEN USED, SHALL HAVE A FLAME SPREAD INDEX NOT MORE THAN 24 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50, WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 724, USING THE SPECIFIED PREPARATION AND MOUNTING PROCEDURES OF ASTM E 2231. DUCT COVERINGS AND LININGS SHALL NOT FLAME, GLOW, SMOLDER OR SMOKE WHEN TESTED IN ACCORDANCE WITH ASTM C 411 AT THE TEMPERATURE TO WHICH THEY ARE EXPOSED IN SERVICE. THE TEST TEMPERATURE SHALL NOT FALL BELOW 250°F. COVERS AND LININGS SHALL BE LISTED AND LABELED.

MINI SPLIT HEAT PUMP SCHEDULE - MULTI-ZONE

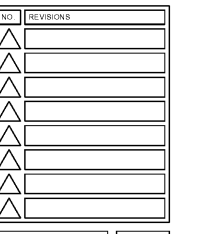
DESIGNATION	00-1 - OUTDOOR SECTION	01-1 - INDOOR SECTION	01-2 - INDOOR SECTION
CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED	CEILING MOUNTED
AIR FLOW (CFM)	---	390 TO 600	390 TO 600
DRY CFM RANGE	---	---	---
COOLING CAP @ 95°F AHD	TOTAL BTUH	46,200	18,200
E.A.T.	80 / 67	80 / 67	80 / 67
SEER @ ARI CONDITIONS	18.9	---	---
CONDENSER	CONDENSER	CONDENSER	CONDENSER
HEATING CAP @ 35°F AHD	HATWAT 4PP	9400	7500
HSP	HATWAT 4PP	3600	---
ESP	---	12.4	---
ELECTRICAL	---	---	---
SELECT CHAR	INDOOR	---	FEED FROM OUTDOOR UNIT
MULTI-SPLIT	OUTDOOR	208/1/60	---
MCA	INDOOR - MCA/FIA	---	1.0 / 0.51
OUTDOOR MCA/MOCP	---	37.0 / 40.0	---
WEIGHT - INDOOR/OUTDOOR	0 / 270	49 / 0	49 / 0
MANUFACTURER	MITSUBISHI	MITSUBISHI	MITSUBISHI
INDOOR MODEL NO. (KROGER #)	---	---	PLA1-060A (K-0019035)
OUTDOOR MODEL NO. (KROGER #)	MX2-RC94A (K-05282)	---	---
CONTROL	DISCONNECT	DISCONNECT	WIRE T-STAT
OPERATING	RETURN	NO	NO
FIRE/SMOKE SUPPLY	NO	NO	NO
NOTES	See Notes	See Notes	See Notes

- ALTERNATE NO. 2**
1. THESE DRAWINGS ARE BASED ON ORIGINAL STORE DRAWINGS. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING OF PROJECT. WHERE ANY EQUIPMENT ON ROOF IS DISTURBED, IT IS THE HVAC CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE G.C. FOR THE REPAIR OF ANY ROOFING ITEMS AFTER THE COMPLETION OF HVAC WORK.
 2. ALL EQUIPMENT SHALL BE CONSIDERED EXISTING UNLESS OTHERWISE NOTED. EXISTING EQUIPMENT NOT SHOWN SHALL REMAIN UNCHANGED.
 3. DAMAGED DIFFUSERS: IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND REPAIR ANY DAMAGED DIFFUSERS.
 4. PRE-BID: LOCATE AND ITEMIZE EXPECTED QUANTITY OF DAMAGED DIFFUSERS TO BE REPLACED.
 5. CONSTRUCTION: COORDINATE WITH KROGER ENGINEER FOR REPLACING OF DAMAGED DIFFUSERS.
 6. EXISTING DIFFUSERS TO REMAIN: IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN ALL EXISTING DIFFUSERS AND RETURN GRILLES THAT ARE NOT REPLACED.
 7. UNUSED DUCTWORK & DIFFUSERS SHALL BE TAKEN DOWN AND PROPERLY DISPOSED OF.

EXHAUST FAN SCHEDULE

DESIGNATION	01-1
TYPE	800T
WEIGHT	71 LBS.
CFM	600
SP-IN W.G.	1/8"
RPM	1376
BHP	0.125
SCORES	8.2
ELECTRICAL	120/1/60
CONTROL	DISCONNECT
INTERLOCK WITH	---
MANUFACTURER	CAPTIVE-AIRE
MODEL NO.	DR12HFA
ACCESSORIES	FURNISH WITH BACKDRAFT DAMPER, BIRDSCREEN, DISCONNECT and ROOF CURB.
ERICP	K-3002359
AES CURB MODEL #	42408
NOTES	1,2,3

1. FANS ARE PROVIDED BY KROGER. CONTRACTOR IS RESPONSIBLE FOR PROVIDING CURBS, SCHEDULING, RECEIPT AND COMPLETE INSTALLATION OF FANS.
2. ALL FANS SHALL BE FURNISHED WITH PROPERLY SIZED VARIABLE SPEED CONTROLLERS, FOR MOUNTING ON FAN FOR BALANCING ONLY.
3. THE STRUCTURAL ENGINEER SHOULD BE RESPONSIBLE FOR THE REVIEW AND APPROVAL OF THE SEISMIC BRACING, RESTRAINTS, ISOLATORS AND INSULATION MATERIALS.



REVISIONS

NO.	REVISIONS

A With-in-the-Walls Remodel for:
KROGER STORE #GA-483 SNELLVILLE
 1670 STATE HWY 124, SUITE 'F', SNELLVILLE, GEORGIA 30078

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