

HEATING / COOLING SYSTEM PERFORMANCE SPECIFICATION:

- NEW WORK FOR NEW SECOND FLOOR: INSTALL NEW GAS FIRED HOT AIR FURNACE WITH ELECTRIC AIR CONDITIONING. NEW FURNACE TO HAVE SEALED COMBUSTION AIR INTAKE AND EXHAUST. SEE DRAWINGS FOR EQUIPMENT LOCATIONS.
- GENERAL: HVAC CONTRACTOR SHALL COMPLETE HIS PART OF THE BUILDING PERMIT APPLICATION. IF MUNICIPALITY REQUIRES SCHEMATICS, CALCULATIONS, DIAGRAMS, OR CATALOG CUTS, THEN HVAC CONTRACTOR SHALL PROVIDE.
- SUBMITTALS: CONTRACTOR WILL PROVIDE HEAT GAIN AND HEAT LOSS CALCULATIONS TO DETERMINE EQUIPMENT AND DUCT SYSTEM SIZING. REVIEW WITH OWNER.
- DUCTWORK: ALL DUCTWORK "MANS" SHALL BE SHEET METAL. BRANCH DUCTWORK IS PREFERRED TO BE SHEET METAL, HOWEVER FLEX DUCT WILL BE ACCEPTED IN LIMITED RUNS DIRECT TO DIFFUSERS. ALL SHEET METAL DUCTWORK SHALL BE CAPABLE OF FUTURE "CLEANING," THUS IT SHALL NOT BE INTERNALLY "LINED" WITH ANY SOFT MATERIALS.
- DUCTWORK: THE IBC ENERGY CONSERVATION CODE NOW REQUIRES THE SEALING OF ALL TRANSVERSE AND LONGITUDINAL DUCT JOINTS TO PREVENT AIR LEAKAGE. USE ROLL PRODUCTS WHICH HAVE VOC FREE BUTYL LAMINATED TO A FACING WHICH HAS A UL 181 LISTING. STANDARD "DUCT TAPE" IS NOT ACCEPTABLE.
- THERMOSTATS: PROVIDE LUX MOD# P5PA711. THESE ARE DUAL SETBACK, 7-DAY PROGRAMMABLE, HEATING AND COOLING, WITH BATTERY BACKUP. MAKE SURE CONTROL WIRING FOR BOTH HEATING AND COOLING GETS TO STAT LOCATIONS.
- INSULATION OF DUCTWORK: ALL DUCTWORK INSTALLED IN NON-CONDITIONED SPACE SHALL BE WRAPPED WITH FIBERGLASS INSULATION BATT WITH VAPOR BARRIERS. MIN. INSUL. VALUE SHALL BE R-19.
- AIR HANDLER FILTER RACKS: ALL FILTERS SHALL BE AT THE UNIT, SLIDE IN (LIKE DRAWERS) AND DESIGNED FOR EASY CHANGING. UNIT SHALL HAVE SPACE FOR TWO FILTERS: A) TYPICAL DUST AND PARTICULATE FILTER; B) CARBON FILTER FOR ODOR CONTROL.
- AIR HANDLER FANS: MAKE SURE FANS AND AIR VELOCITY ARE DESIGNED FOR THE ADDITIONAL FILTER RESISTANCE.
- EXHAUST FANS AND VENTS: ALL VENTS SHALL BE DIRECT TO THE EXTERIOR THROUGH WALL CAPS PROVIDED WITH BACK DRAFT PREVENTION. ALL DUCTWORK SHALL BE METALLIC. NO VENTING INTO ATTICS OR SOFFITS ALLOWED.

PLUMBING: WITH PUBLIC WATER AND SANITARY SERVICE

- PLUMBING SHALL BE DONE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND CODE. VERIFY MUNICIPAL REQUIREMENTS. PLUMBER SHALL COMPLETE HIS PART OF THE BUILDING PERMIT APPLICATION. IF MUNICIPAL REQUIRES PLUMBING RISER DIAGRAMS OR SCHEMATICS THEN PLUMBING CONTRACTOR SHALL PROVIDE.
- THIS IS AN ADDITION, EXTEND EXISTING SYSTEMS.
- PROVIDE FULL 3/4" MANS ALL THE WAY TO EACH FIXTURE WITH 1/2" RISERS AT INDIVIDUAL FITTINGS AS REQUIRED. PROVIDE SHUT-OFF VALVES FOR EACH FIXTURE SUPPLY.
- USE "BALL VALVES" ONLY FOR ABSOLUTELY EVERYTHING. NO GATE TYPE VALVES. TAKE PRECAUTIONS NOT TO LIMIT PRESSURE TO REMOTE LOCATIONS.
- PROVIDE "SHOCK" RISERS AT ENDS OF MANS. PROVIDE EXPANSION TANK ON HOT WATER SUPPLY.
- ALL WASTE PLUMBING IN AND BELOW THE SECOND FLOOR DECK AND BUILT INTO WALL CAVITIES SHALL BE COMPLETELY SURROUNDED WITH FIBERGLASS SOUND INSULATION.
- TAKE SPECIAL PRECAUTIONS WITH CUTTING AND PATCHING JOISTS. DO NOT NOTCH JOISTS, DRILL HOLES ONLY IN PROPER LOCATIONS AT CENTER OF JOISTS, SEE CODE AND SEE SPECIFIC DETAILS PROVIDED IN THE ENGINEERED TIMBER CATALOG.
- ALL PIPES LOCATED IN EXTERIOR WALLS SHALL BE INSULATED. AFTER INSTALLATION, SEAL THE PASSAGE OF ALL PIPES THROUGH WALL PLATES (TOP AND BOTTOM, INTERIOR OR EXTERIOR WALLS) WITH EXPANDABLE URETHANE FOAM TO PREVENT VERTICAL PASSAGE OF AIR.
- VENT STACKS SHALL NOT BE VISIBLE FROM THE STREET. ROUTE TO EXIST ROOFS ON BACK SIDE SLOPES. ALL STACKS SHALL BE FLASHED INTO THE BASIC SYSTEM, THEN INSTALL A FINISHED COVER, CAPMASTER BY TAPCO, THIS COLOR COORDINATES WITH ROOF, AND IS A SACRIFICIAL COVER PROTECTING THE NEOPRENE FLASHING BELOW.

ELECTRICAL SYSTEM NOTES:

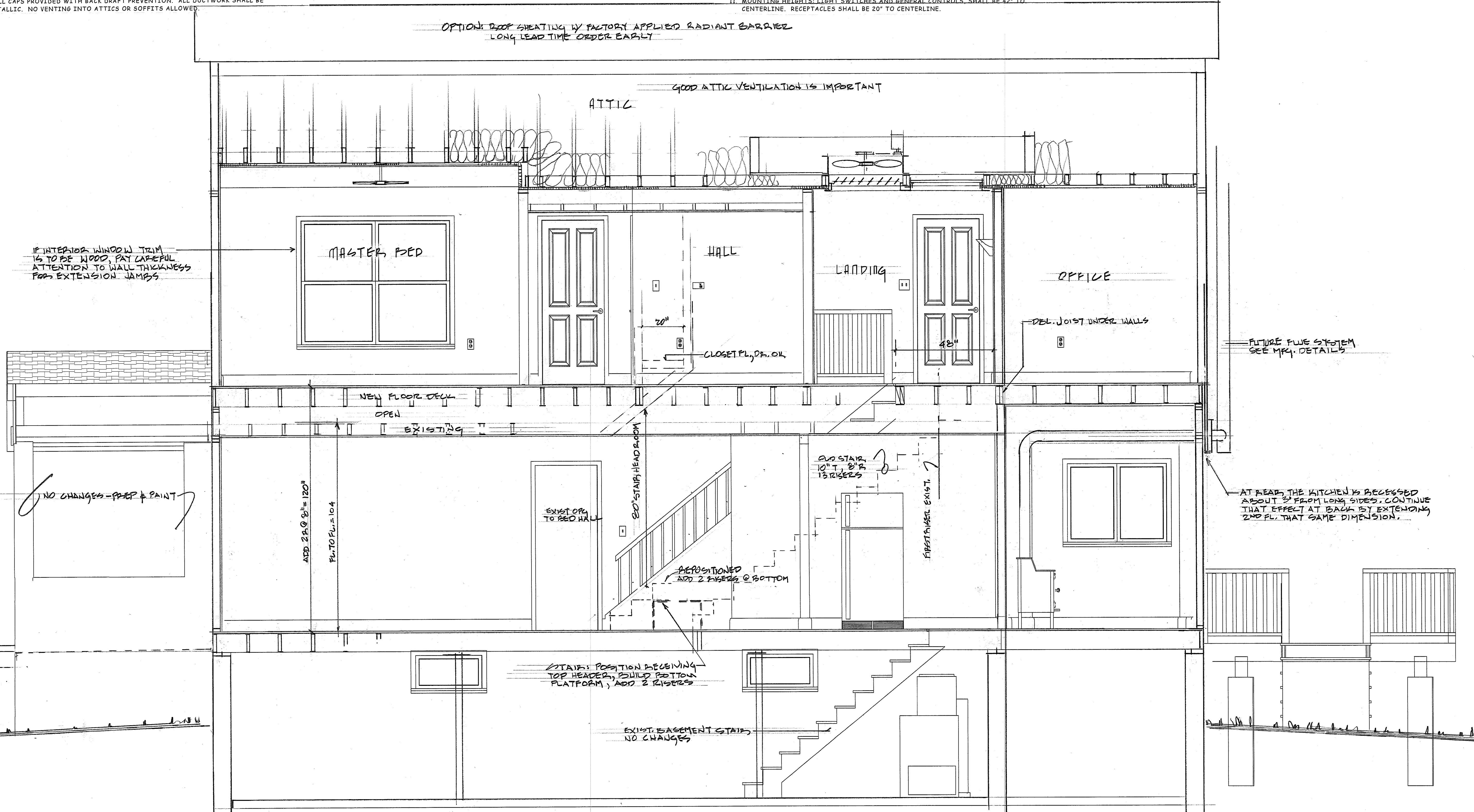
- DO ALL WORK IN ACCORDANCE WITH THE LOCAL AND NATIONAL ELECTRICAL CODE. ELECTRICIAN SHALL PROVIDE AN UNDERWRITER'S CERTIFICATE AT THE CONCLUSION OF WORK.
- ELECTRICIAN SHALL COMPLETE HIS PART OF THE BUILDING PERMIT APPLICATION. IF MUNICIPALITY REQUIRES LOAD CALCULATIONS OR DIAGRAMS, THEN ELECTRICAL CONTRACTOR SHALL PROVIDE.
- SOME RECEPTACLES ARE INDICATED TO BE "ISOLATED HOME RUNS" FOR SPECIAL USE. THESE CIRCUITS, GENERALLY FOR AUDIO-VIDEO OR COMPUTER LOCATIONS, SHALL BE LOCATED "FIRST" OR AT THE TOP OF THE DISTRIBUTION PANEL TO MINIMIZE INTERFERENCE OR "ELECTRICAL NOISE".
- THE MINIMUM WIRE SIZE FOR RECEPTACLES SHALL BE 12 GA., THE MINIMUM WIRE SIZE FOR LIGHTING SHALL BE 14 GA., ALL COPPER. ALL CIRCUITS SHALL BE GROUNDED.
- LAMPING: ALL NEW FIXTURES SHALL HAVE THE APPROPRIATE LAMP INSTALLED.
- THE ELECTRICIAN SHALL DO ALL CIRCUIT & LOAD DISTRIBUTION DESIGN. DISTRIBUTION PANEL SHALL BE CLEARLY LABELED. SEPARATE POWER CIRCUITS FROM LIGHTING CIRCUITS. DO NOT MAXIMIZE CIRCUIT CAPACITY; INSTEAD MAXIMIZE CLARITY OF ORGANIZATION FOR THE OWNER. DESIGN CIRCUITS SUCH THAT THERE IS 1 BREAKER PER ROOM FOR POWER, LIGHTING MAY BE MORE THAN A SINGLE ROOM, BUT SHALL BE INTELLIGENT ZONES. MAJOR EQUIPMENT TO HAVE DEDICATED CIRCUITS. PROVIDE PANEL LARGE ENOUGH FOR THE WORK SHOWN, AND PROVIDE MINIMUM 6 SPARE 20 AMP BREAKERS. ALL BREAKERS SHALL BE FULL SIZE, NOT HALF-SIZE.
- FOR OWNER'S APPROVAL, BEFORE WORK BEGINS, SUBMIT CATALOG CUTS FOR ALL FIXTURES, APPLIANCES, DEVICES, SWITCHES, ETC.
- COORDINATE WITH THE HVAC CONTRACTOR AND PLUMBING CONTRACTOR TO PROVIDE SERVICE TO ALL EQUIPMENT AS REQUIRED.
- ALL HOLES DRILLED INTO TOP OR BOTTOM WALL PLATES, INTERIOR AND EXTERIOR, SHALL BE SEALED. USE EXPANDABLE FOAM TO PREVENT VERTICAL PASSAGE OF AIR.
- CIRCUIT BREAKER PANEL SHALL HAVE A MANUAL TRANSFER SWITCH TO ACCEPT INPUT FROM EMERGENCY GENERATOR. PANEL SHALL BE SEPARATED INTO TWO PARTS, ONE BEING THE CRITICAL LOAD FOR THE GENERATOR, COORDINATE WITH OWNER.
- MOUNTING HEIGHTS: LIGHT SWITCHES AND GENERAL CONTROLS, SHALL BE 42" TO CENTERLINE. RECEPTACLES SHALL BE 20" TO CENTERLINE.

SMOKE DETECTOR SYSTEM:

- LOCATIONS SHOWN ARE THE GENERALLY PERCEIVED MINIMUM TO SECURE A BUILDING PERMIT. LOCAL AMENDMENTS MAY REQUIRE ADDITIONAL LOCATIONS AND REQUIREMENTS.
- INTERNATIONAL RESIDENTIAL CODE SECTION 813 REQUIRED LOCATIONS: IN EACH SLEEPING ROOM AND OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, PLUS ONE ON EACH ADDITIONAL STORY.
- SYSTEM SPECIFICATIONS: DETECTORS MUST BE HARDWIRED TO A CONSTANT POWER SOURCE AND MUST BE ELECTRONICALLY INTERCONNECTED, SO THAT IF ANY DETECTOR SENDS AN ALARM SIGNAL, THEN ALL DETECTORS SOUND THE ALARM. DETECTORS SHALL HAVE AN EMERGENCY BACKUP POWER SOURCE, GENERALLY BATTERIES. SYSTEMS ARE AVAILABLE USING EITHER 100V DEDICATED LINE VOLTAGE CIRCUITS OR LOW VOLTAGE.
- FOR MUNICIPAL AND OWNER'S APPROVAL, BEFORE WORK BEGINS, SUBMIT CATALOG CUTS FOR ALL FIXTURES, APPLIANCES, DEVICES, SWITCHES, ETC.

DATA & TV WIRING:

- DATA AND TV: DATA AND TV PROBABLY COME FROM THE SAME HIGH SPEED SOURCE. EACH LOCATED "DATA JACK" TO BE A DEDICATED HOME RUN CONDUIT WITH PULL WIRE TO A CENTRAL BACKBOARD WHERE THE SOURCE ROUTER/MODEM WILL BE LOCATED. CONDUIT IS REQUESTED BECAUSE DATA WIRING IS ALSO THE MOST SUBJECT TO FUTURE CHANGE.



CONSTRUCTION SECTION FRONT to BACK

SCALE 1/2" = 1'-0"

DATE	REVISION DESCRIPTION
04/29/2016	
07/04/2016	

ONLY VALID FOR PERMITS w/ EMBOSSED SEAL & ORIGINAL SIGNATURE IN "RED"

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