

Ohio Residential Plan Submittal Form *Part A*

Address of Project	City/Township	Project Description		
<i>200 N Main St</i>	<i>Clifton</i>	<i>HVAC for new dwelling</i>		
Contractor/DBA	Address	State License No	Phone No	Cell Phone No
<i>Ray Heating Co</i>	<i>10 North St, Clifton</i>	<i>58975</i>	<i>937-555-1111</i>	<i>937-605-4545</i>
Owner	Address	Phone No		Cell Phone No
<i>John Doe</i>	<i>101 Western, Clifton</i>	<i>937-555-4545</i>		<i>937-565-8989</i>

Electrical Design

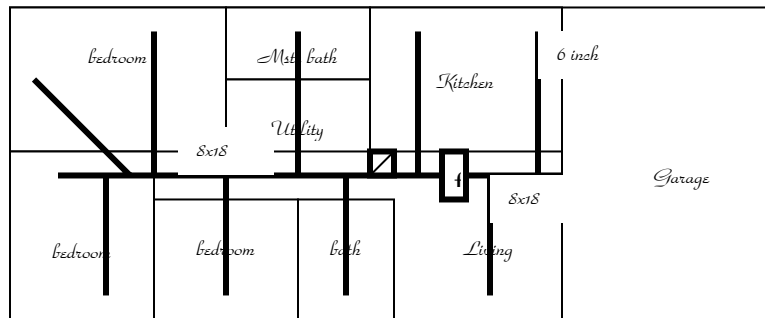
Service Size	Panel Location in dwelling	Size of Service Entrance Cable	<input type="checkbox"/> Overhead
			<input type="checkbox"/> Underground

Provide additional details or drawings below

HVAC Design

Equipment Type/Size	Location of Equipment	Type of Fuel	Heat Loss/Gain
<i>Force air/80,000 input</i>	<i>Basement</i>	<i>Natural Gas</i>	<i>65,000/18,000</i>

Provide additional details or drawings below



As the legal owner/agent of the property above, I am performing the electrical/HVAC work described above.

Jerry Ray

Date **4/26/06**

NOTE: Per section 106.1 the Residential Building Official may require additional drawings, technical data or documentation in order to verify compliance.

Building Department Only

Residential Plans Examiner/Building Official	Date of Approval	Application/Permit No
<i>Bob Jones</i>	<i>04/26/06</i>	<i>20060236</i>

Ohio Residential Plan Submittal Form *Part B*

Referenced Code Text

ELECTRICAL				MECHANICAL																			
NEC 110.3 All electrical equipment shall be installed and used in accordance with the listing requirements and manufacturer's instructions.				M1401.1 Heating and cooling equipment and appliances shall be installed in accordance with the manufacturer's installation instructions and the requirement's of the Residential Code.																			
Service				Sizing																			
Size of Service in Amperes:				M1401. 3 Heating and cooling equipment shall be sized based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.																			
	Copper	Aluminum	Service Rating						NEC 310-15 Conductor Sizes 120/240 VOLT 3-Wire, Single-Phase, Dwelling Services/Feeders														
<input type="checkbox"/>	4 AWG	2 AWG	100 Amps																				
<input type="checkbox"/>	1 AWG	2/0 AWG	150 Amps																				
<input type="checkbox"/>	2/0 AWG	4/0 AWG	200 Amps																				
NEC 250.50 All grounding electrodes that are present at each building or structure served shall be bonded together to form the grounding electrode system. Conductor size per NEC 250.66. NEC 250.52 Permitted Electrodes include: 1. Metal underground water pipe in direct contact with earth for 10 feet or more 2. Metal frame of the building 3. Concrete-encased electrode 4. Rod, pipe & plate electrodes				Gages of Metal Ducts & Plenums Used for Htg/Cooling																			
				<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Types of Ducts</th> <th style="text-align: center;">Size (inches)</th> <th style="text-align: center;">Minimum Thickness (inch)</th> <th style="text-align: center;">Equiv. Galvanized Sheet Gage</th> <th style="text-align: center;">Approx. Aluminum B & S Gage</th> </tr> </thead> <tbody> <tr> <td style="text-align: left;">Round Ducts & Enclosed Rectangular</td> <td style="text-align: center;">14 or less over 14</td> <td style="text-align: center;">0.013 0.016</td> <td style="text-align: center;">30 28</td> <td style="text-align: center;">26 24</td> </tr> <tr> <td style="text-align: left;">Exposed Rectangular Ducts</td> <td style="text-align: center;">14 or less over 14</td> <td style="text-align: center;">0.016 0.019</td> <td style="text-align: center;">28 26</td> <td style="text-align: center;">24 22</td> </tr> </tbody> </table>					Types of Ducts	Size (inches)	Minimum Thickness (inch)	Equiv. Galvanized Sheet Gage	Approx. Aluminum B & S Gage	Round Ducts & Enclosed Rectangular	14 or less over 14	0.013 0.016	30 28	26 24	Exposed Rectangular Ducts	14 or less over 14	0.016 0.019	28 26	24 22
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General Circuitry				Access & Installation																			
NEC 210.11 and 422.12 In addition to the branch circuits installed to supply general illumination and receptacle outlets in dwelling units, the following minimum requirements apply: Two 20-amp circuits for the kitchen receptacles, One 20-amp circuit for the laundry receptacles, One 20-amp circuit for the bathroom receptacles and One separate, individual branch circuit for central heating equipment				M1401.2 Heating and cooling equipment shall be located with respect to building construction and other equipment to permit maintenance, servicing and replacement. Clearances shall be maintained to permit cleaning of heating and cooling surfaces; replacement of filters, blowers, motors, controls and vent connections; lubrication of moving parts; and adjustments																			
NEC 210.52 Receptacles installed in the kitchen to serve countertop surfaces shall be supplied by not less than two separate small appliance branch circuits.																							
NEC 210.52 Generally, receptacle outlets in habitable rooms shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6' from a receptacle outlet. A receptacle shall be installed in each wall space 2 feet or more in width.				M1601.3.2 Metal ducts shall be supported by 0.5-inch (12.7 mm) wide 18-gage metal straps or 12-gage galvanized wire at intervals not exceeding 10 feet (3048 mm) or other approved means. Nonmetallic ducts shall be supported in accordance with manufacturer's installation instructions.																			
NEC 210.52 At kitchen countertops, receptacle outlets shall be installed so that no point along the wall line is more than 24 inch measured horizontally from a receptacle outlet in that space. Countertop spaces separated by range tops, sinks or refrigerators are separate spaces.																							
NEC 210.52 & 406.8 At least one receptacle, accessible at grade level and no more than 6.5' above grade, shall be installed at the front and back of a dwelling				M1401.4 Equipment installed outdoors shall be listed and labeled for outdoor installation.. Supports and foundations shall prevent excessive vibration, settlement or movement of equipment. Supports and foundations shall be level and conform to manufacturer's installation instructions.																			
NEC 210.12 All branch circuits supplying 125-volt, 15 and 20 ampere outlets in dwelling unit bedrooms shall be protected by a listed arc-fault circuit interrupter device.																							
NEC 210.8 Ground-fault circuit-interrupter (GFCI) protection shall be provided for all 125-volt, 15 and 20 amp receptacle outlets installed outdoors, in boathouses, garages, unfinished accessory buildings, crawl spaces at or below grade level, unfinished basements, bathrooms, at kitchen countertops and within 6' of the outside edge of the sink in laundry rooms, utility rooms, and at wet-bars.				Plumbing																			
				Provide layout of plumbing fixtures on floor plan. Plumbing shall conform to the Residential Code.																			