



Miami-Dade County  
Department of Regulatory and Economic Resources  
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[www.miamidade.gov/development](http://www.miamidade.gov/development)

## Commercial Plan Review Guidelines (Mechanical Review)

Project Address: \_\_\_\_\_  
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### Instructions for using this form:

1. This form provides a list of code requirements that must be verified by the Building Official before the issuance of a building permit.
2. Code references are to the 2010 Florida Building Code (unless otherwise noted). Suffixes identify the code volume as follows:  
  - Accessibility (Ac) - Building (BI) – Energy Conservation (Ec) - Existing (Ex) – Fuel/Gas (Gs) – Mechanical (Me) – National Electric Code (NEC) - Plumbing (Pl) – Residential (Re)
3. Provide the drawing number (Dwg. No.) where compliance with the referenced code section may be verified or check the N.A. box whenever the code provision is not applicable.

General Requirement	Specific Code Requirement	Code Section(s)	Dwg. No.	N.A.	Other Information
General Regulations	Construction documents	107.3, 107.6 (B)			
	Efficient utilization of energy	301.2 (Me), FBC 2010 Energy Conservation			
	Equipment approval	301.3-301.6 (Me)			
	Prohibited location of fuel fired appliances	303.3 (Me)			
	Equipment installation	301.10-301.14 303.4-303.8 304, 306 (Me) 301.8-301.15, 305 (Gs)			
Energy Efficiency		FBC 2010 Energy Conservation			
• Applicability	Commercial buildings	501.2 (Ec)			
	Residential buildings	401.2 (Ec)			
	Changes in occupancy	101.4.5 (Ec)			
	Existing buildings	101.4.1 (Ec)			
	Exempt buildings	101.4.8 (Ec)			
	Building systems	101.4.7 (Ec)			
	Additions, Alterations, Renovations or Repairs	101.4.3 (Ec)			
	Historic Buildings	101.4.2 (Ec)			
	Shell Buildings	101.4.9 (Ec)			
• Compliance methods		Chapter 5 (Ec)			Identify compliance method
• Commercial Buildings					Identify procedure: Prescriptive Performance
	Fenestrations	303.1.3, 502.1.1, 502.2.5 (Ec)			
	Walls	502.1.1, 502.2.2, 506 (Ec)			
	Doors	502.4, 506 (Ec)			
	Roof/ceilings	502.2.1, 506 (Ec)			
	Floors	502.2.3, 506 (Ec)			
	Air leakage	502.3, 506 (Ec)			
	Space cooling & heating	503, 506 (Ec)			
	Systems	503, 506 (Ec)			
	Ventilation systems	503.2.10.5 (Ec)			
	Air distribution system	503.2.7, 503.2.9 (Ec)			
	Pumps and piping	503.2.9.2, 503.4.3, 504.6, 504.7.2, 503.2.8 & 504.5 (B)			
	Water heating system	504, 506 (Ec)			



Exhaust Systems					
• Required systems	General	401.1, 502.1, 502.2, 502.5, 502.10, 502.11, 502.14-502.17 (Me)			
	Battery-charging areas	502.3, 502.4 (Me)			
	Application of flammable finishes	502.7 (Me)			
	Hazardous materials	502.8-502.10 (Me)			
	Motor vehicle operation	502.14 (Me)			
	Motors and fans	503 (Me)			
	Clothes dryer exhaust	504 (Me), 613 (Gs)			
	Domestic kitchen exhaust equipment	505 (Me)			
	Hazardous exhaust systems	510 (Me)			
	Dust, stock and refuse conveyor systems	511 (Me)			
	Sub slab soil exhaust systems	512 (Me)			
	Smoke control systems				
	• Where required	403.4.6, 403.4.8, 402.10, 404.5, 404.7, 405.5, 405.8, 408.6, 408.8, 410.3.7.2 (Bl), 513.1 (Me)			
	• Design requirements	909.1-909.4 (Bl), 513.2 (Me)			
	• Smoke barriers	909.5 (Bl), 513.5 (Me)			
	• Control methods of smoke migration	909.6-909.8 (Bl) 716 (Bl) 513.6-513.8 (Me)			
	• Detection and control systems	909.12-909.18 (Bl)			
	• Smoke proof enclosures	909.20 (Bl)			
	• Underground buildings	405.5 (Bl)			
	Smoke and heat vents	910 (Bl)			
	Exhaust fans	506.5.1 (Me)			
• Commercial Kitchen Grease Ducts and Exhaust Equipment					
	Duct materials	506.3.1 (Me)			
	Duct design and velocity	506.3.4, 507.13 (Me)			
	Duct construction	506.2, 506.3.3, 506.3.4, 506.3.8 (Me)			
	Cleanouts	506.3.8 & 506.3.9 (Me)			

<ul style="list-style-type: none"> <li>Commercial Grease Exhaust Equipment (cont'd)</li> </ul>	<ul style="list-style-type: none"> <li>Kitchen Ducts and Exhaust Equipment</li> </ul>					
	Duct enclosure				506.3.10, 507.10 (Me)	
	Clearance to combustibles				506.3.6 (Me)	
	Exhaust outlets				506.3.12 (Me)	
<ul style="list-style-type: none"> <li>Commercial Type I Hoods</li> </ul>	Where required				507.1, 507.2 (Me)	
	Factory-built commercial kitchen hoods				507.1, 304.1 (Me)	
	Hood construction				507.4, 507.6, 507.8, 507.16 (Me)	
	Clearance to combustibles				507.9 (Me)	
	Grease filters				507.11 (Me)	
	Canopy-type hoods				507.12, 507.13 (Me)	
	Noncanopy-type hoods				507.14, 507.15 (Me)	
	Make-up Air				508 (Me)	
<ul style="list-style-type: none"> <li>Commercial Type II Hoods and Ducts</li> </ul>	Where required				507.1 (Me)	
	Duct construction				507.5 (Me)	
	Hood construction				507.5, 507.6, 507.7.2 (Me)	
	Design				507.13.4 (Me)	
<ul style="list-style-type: none"> <li>Fire Suppression Systems</li> </ul>	Where required				509.1 (Me)	
	Type of system				904.5, 904.6, 904.7, 904.8, 904.11 (BI)	
Duct Systems	Actuation and interconnection				904.11, 904.11.2 (BI)	
	Plenums, general				602.1, 602.2, 602.3 (Me)	
	Air movement in corridors				716.5.4.1 (BI)	
	Duct construction and insulation				603.1-603.5, 604 (Me)	
	Flexible air ducts and air connections				603.6 (Me)	
	Duct installation				603.7-603.17 (Me)	
	Air filters				605 (Me)	
	Duct smoke detectors				606 (Me)	
	Fire and smoke dampers				302.2, 607 (Me)	

Opening Protection	Penetration by air ducts and air transfer openings fire rated exterior walls	705.10 (Bi)		
Combustion Air				
• Inside Air	Unusually tight construction	202 (Me)		
	Unconfined space	202, 304.5.1 (Gs)		
• Outdoor Air	Openings and adjacent spaces	304.5, 304.10 (Gs)		
	Openings (number and location)	304.6, 304.11 (Gs)		
	Size of direct, horizontal or vertical openings	304.6, 304.10 (Gs)		
• Combined Use of Inside and Outdoor Air	Openings (number and location)	304.7.1-304.7.3 (Gs)		
	Ratio of direct, horizontal or vertical openings	304 (Gs)		
	Ratio of interior spaces, prorating of inside and outdoor air	304 (Gs)		
• Other	Forced combustion air supply	304.9 (Gs)		
	Direct connection/direct vent	304.1 (Gs) 503.2.3, 503.8, 505.1 (Gs), 804.1 (Me)		
	Combustion air ducts	304.11 (Gs)		
	Opening obstructions, location and protection	304.2 (Gs)		
Chimneys and Vents				
• Vents (gas-fired appliances)	Where required	503.2, 503.3 (Gs)		
	Approval	502.1 (Gs)		
	Vent application	502.3, 503.4 (Gs)		
	Insulation	502.4-502.6 (Gs)		
	Gas vent termination	503.6.3, 503.6.6, 503.6.8 503.8 (Gs)		
	Minimum vent height	503.6.5 (Gs)		
	Single wall vent	503.7 (Gs)		
	Sizing of venting system for single gas appliance	503.6.9, 504.2 (Gs)		
	Sizing of venting system for two or more gas appliances	504.3 (Gs)		
	Multistory gas vents	503.6.10 (Gs)		

<i>Chimneys and Vents (cont'd)</i>					
• Connectors (gas-fired appliances)	Materials, size, location	503.10.2, 503.10.3.1, 503.10.3.2, 504.2.10 (Gs)			
	Connectors serving multiple appliances	503.10.3.3, 503.10.4, 504.3.2-504.3.4, 504.3.19 (Gs)			
	Installation	503.10.9-503.10.11, 503.10.15-503.10.16, 503.13-503.15 (Gs)			
• Vents (appliances other than gas-fired)	Approval	802.1 (Me)			
	Vent application	802.2 (Me)			
	Sizing and installation	802.3, 802.7, 802.8 (Me)			
	Vent terminations	802.4, 802.5, (Me)			
	Minimum vent heights	802.6 (Me)			
	Multistory vents	801.19 (Me)			
• Connectors (All appliances except gas-fired appliances)					
	Size/location	803.2, 803.3 (Me)			
	Connectors serving two or more appliances	803.7 (Me)			
	Construction	803.8, 803.9 (Me)			
	Installation	803.5, 803.6, 803.10 (Me)			
• Direct vent, integral vent, mechanical vent and ventilation/exhaust hood venting	Direct vent	804.1 (Me), 503.2.3, 503.8, 505.1 (Gs)			
	Appliances with integral vents	804.2 (Me), 503.2.4, 505.1 (Gs)			
	Mechanical draft systems	804.3 (Me)			
	Ventilation/exhaust hood venting	503.3.4, 505.1 (Gs)			
• Factory-built chimneys	Approval and installation	805 (Me), 503.5.1, 506.1 (Gs)			
	Solid fuel appliances	805.2 (Me)			
	Factory-built fireplaces	805.3(Me)			

Specific Appliances, Fireplaces and Solid Fuel-Burning Equipment	Factory-built fireplaces	903 (Me)			
	Pellet fuel-burning appliances	904 (Me)			
	Fireplace stoves and room heaters	905 (Me)			
	Factory-built barbecue appliances	906 (Me)			
	Decorative appliances, in vented fire places	602, 604 (Gs)			
	Log lighters	603 (Gs)			
	Incinerators and crematories	907 (Me), 606, 607 (Gs)			
	Cooling towers, evaporative condensers and fluid coolers	908 (Me)			
	Vented wall furnaces	909 (Me)			
	Floor furnaces	910 (Me)			
	Duct furnaces	911 (Me), 610 (Gs)			
	Direct fired gas air heaters	611, 612 (Gs)			
	Infrared radiant heaters	912 (Me)			
	Clothes dryers	913 (Me), 613, 614 (Gs)			
	Illuminating appliances	628 (Gs)			
	Sauna heaters	914 (Me)			
	Engine and gas turbine-powered equipment and appliances	915 (Me), 616 (Gs)			
	Pool and spa heaters	916 (Me), 617 (Gs)			
	Cooking appliances	917 (Me), 623 (Gs)			
	Forced-air warm-air furnaces	918 (Me), 618 (Gs)			
	Conversion burners	919 (Me), 619 (Gs)			
	Unit heaters	920 (Me), 620 (Gs)			
	Vented room heaters	921 (Me), 621-622 (Gs)			
	Kerosene and oil-fired stoves	922 (Me)			
	Small ceramic kilns	923 (Me)			
	Stationary fuel cell power plants	924 (Me), 633 (Gs)			
	Refrigerators	625 (Gs)			
	Gas fired toilets	626 (Gs)			
	AC equipment	627 (Gs)			



Boilers, Water Heaters and Pressure Vessels	Water heaters	1002 (Me), 624 (Gs)		
	Pressure vessels	1003 (Me)		
• Boilers	Approval	1004.1 (Me) 631 (Gs)		
	Working clearance	1004.3 (Me)		
	Boiler connections	1005 (Me)		
	Safety and pressure relief valves and controls	1006 (Me)		
	Low-water cutoff	1007 (Me)		
	Steam blow off valve	1008 (Me)		
	Hot water expansion tank	1009 (Me)		
	Gauges	1010 (Me)		
Refrigeration	Factory-built equipment	1101.2 (Me)		
	Refrigerant system classification	1103.3 (Me)		
	Refrigerant classification	1103.1 (Me)		
	Occupancy classification	1103.2 (Me)		
	Quantity and application of refrigerant	Table 1104.3.2, 1104.3 (Me)		
	Machinery room, general requirements	1105 (Me)		
	Machinery room, special requirements	1106 (Me)		
	Refrigerant piping	1107 (Me)		
Hydronic Piping	Materials	1202 (Me)		
	Joints and connections	1203(Me)		
	Pipe insulation	1204 (Me)		
	Valves	1205 (Me)		
	Piping installation	1206 (Me)		
	Transfer fluid	1207 (Me)		
	Embedded piping	1209 (Me)		
Fuel Oil Piping and Storage	Storage system	1301.2 (Me)		
	Materials	1302 (Me)		
	Joints and connections	1303 (Me)		
	Fuel oil system installation	1305 (Me)		
	Oil gauging	1306 (Me)		
	Fuel oil valves	1307 (Me)		



**CODE OF MIAMI-DADE COUNTY, FLORIDA CHAPTER 8 SEC. 8-10. PERMITS**

**HVAC DESIGN REQUIREMENTS**

HVAC DESIGN REQUIRES	YES	NO
DUCT SMOKE DETECTOR		
FIRE DAMPER (S)		
SMOKE DAMPER (S)		
FIRE RATED ENCLOSURE		
FIRE RATED ROOF/ FLOOR CEILING ASSEMBLY		
FIRE STOPPING		
SMOKE CONTROL		