

COMcheck Software Version 4.1.2.2  
Mechanical Compliance Certificate

Project Information

Energy Code: 2012 IECC  
Project Title: Popeye's  
Location: Bowling Green, Kentucky  
Climate Zone: 4a  
New Construction

Construction Site: Dishman Lane, Bowling Green, KY 42101  
Owner/Agent: Designer/Contractor

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly addressed within interior lighting allowance calculations.

Mechanical Systems List

Quantity System Type & Description

- 1 RTU-1 (Single Zone)  
Heating: 1 each - Other, Gas, Capacity = 68 MBtu/h  
No minimum efficiency requirement applies  
Cooling: 1 each - Single Package DX Unit, Capacity = 67 MBtu/h, Air-Cooled Condenser, Air Economizer  
Proposed Efficiency = 13.00 EER, Required Efficiency = 13.00 EER  
Fan System: None
- 1 RTU-2 (Single Zone)  
Heating: 1 each - Other, Gas, Capacity = 68 MBtu/h  
No minimum efficiency requirement applies  
Cooling: 1 each - Single Package DX Unit, Capacity = 70 MBtu/h, Air-Cooled Condenser, Air Economizer  
Proposed Efficiency = 12.00 EER, Required Efficiency = 11.00 EER  
Fan System: None
- 1 RTU-3 (Single Zone)  
Heating: 1 each - Other, Gas, Capacity = 148 MBtu/h  
No minimum efficiency requirement applies  
Cooling: 1 each - Single Package DX Unit, Capacity = 123 MBtu/h, Air-Cooled Condenser, Air Economizer  
Proposed Efficiency = 12.00 EER, Required Efficiency = 11.00 EER  
Fan System: None
- 2 Water Heater 1  
Gas Instantaneous Water Heater, Capacity: 0 gallons, Input Rating: 198 MBtu/h  
Proposed Efficiency: 0.50 EF, Required Efficiency: 0.52 EF

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2012 IECC requirements in COMcheck version 4.1.2.2 and to comply with any applicable mandatory requirements listed in the inspection checklist.

John J. Graves, PE  
Name - Title Signature Date 05/12/2020

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Inspection Checklist

Energy Code: 2012 IECC

Requirements: 70.0% were addressed directly in the COMcheck software  
Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section & Req. ID	Plan Review	Complies?	Comments/Assumptions
C103.2 (R101)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. List calculations per acceptable engineering standards and handbooks.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C103.2 (R101)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the potable water heating systems and equipment and document where exceptions to the standard are claimed. Hot water systems sized per manufacturer's sizing guide.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C405 (R101)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package systems.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

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Section & Req. ID	Fielding / Photograph Inspection	Complies?	Comments/Assumptions
C403.2.4 (M552)	Freeze protection and sensor/wiring connections for future connection to controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.8 (R101)	Bottom surface of floor structures incorporating radiant heating insulated to $\geq R-3.5$ .	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply. See the Envelope Assessor table for values.

Additional Comments/Assumptions:

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Section & Req. ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.3 (M552)	HVAC equipment efficiency verified.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	See the Mechanical Systems list for values.
C403.2.5 (M59P)	Demand control ventilation provided for spaces $\geq 500$ sq. ft. and $\geq 7.5$ people/1000 sq. ft. include density and served by systems with at least economizer, auto modulating outside air damper control, or design outdoor air $> 3,000$ cfm.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.7 (M60P)	HVAC ducts and plenums insulated where ducts or plenums are installed in or under a slab. Verification may need to occur during foundation inspection.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.8 (M61P)	Thermally ineffective panel surfaces of sensible heating panels have insulation $\geq R-3.5$ .	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.9 (M62P)	Ducts and plenums tested based on static pressure and leakage.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.10 (M63P)	Ductwork operating $\geq 3$ in. water column requires air leakage testing.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.11 (M63P)	Ductwork operating $\geq 3$ in. water column requires air leakage testing.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.12 (M64P)	Air economizers provide where required, meet the requirements for design capacity, control signal, integration with economizer control, and provide a means to relieve excess outdoor air during operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.13 (M65P)	Air economizers provide where required, meet the requirements for design capacity, control signal, integration with economizer control, and provide a means to relieve excess outdoor air during operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.

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Section & Req. ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.1 (M66P)	AV units provided where required, meet the requirements for design capacity, control signal, integrated economizer control, and provide a means to relieve excess outdoor air during operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.2 (M66P)	AV units and zone terminal devices have means for air balancing.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.4 (M66P)	VAV fan motors $\geq 7.5$ hp to be driven by variable speed drive, have a variable fan with variable pitch blades, or have controls to limit fan motor demand.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.5 (M66P)	VAV fan motors $\geq 7.5$ hp to be driven by variable speed drive, have a variable fan with variable pitch blades, or have controls to limit fan motor demand.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.6 (M66P)	VAV fan motors $\geq 7.5$ hp to be driven by variable speed drive, have a variable fan with variable pitch blades, or have controls to limit fan motor demand.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.7 (M66P)	Exhaust air energy recovery systems meeting Table C403.2.6.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.
C403.2.11 (M67P)	Unenclosed spaces that are heated use only radiant heat.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Exception: Requirement does not apply.

Additional Comments/Assumptions:

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Section & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C403.2.4 (M67P)	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.6 (M67P)	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.7 (M67P)	Thermostat controls have a 5°F deadband.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.8 (M67P)	Temperature controls have setpoint override restrictions.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.14 (M68P)	Each zone equipped with setback controls using automatic time clock or programmable control system.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.3 (M69P)	Automatic Controls check to 5°F (heat) and 5°F (cool) day comfort heat economizer backup.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.1 (M70P)	Final HVAC unit performance tested within 14 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.2 (M70P)	Final HVAC unit performance tested within 14 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.3 (M70P)	An air and/or hydronic system balancing report is provided for HVAC systems.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.3 (M70P)	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.3 (M71P)	Public lavatory faucet water temperature $\leq 110^\circ\text{F}$ .	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.

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Section & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C403.2.1 (M72P)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.4 (M73P)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.5 (M73P)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.6 (M73P)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.7 (M73P)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

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Section & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C403.2.8 (M74P)	HVAC systems and equipment capacity does not exceed calculated loads.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.9 (M74P)	Commissioning plan developed by registered design professional or approved agency.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.10 (M74P)	Preliminary commissioning report completed and certified by registered design professional or approved agency.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.11 (M74P)	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.12 (M74P)	HVAC equipment has been tested to ensure proper operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.
C403.2.13 (M74P)	Economizers have been tested to ensure proper operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	Requirement will be met.

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JPL MANAGEMENT

ISSUE INFORMATION

REVISIONS

Nelco Architecture, Inc.



PROJECT INFORMATION

**BOWLING GREEN, KY**  
DISHMAN LANE  
BOWLING GREEN, KY 42101

PROJECT #

11352

SHEET INFORMATION

ENERGY COMPLIANCE

DRAWN BY:  
Designer  
REVIEWED BY:  
Checker  
SCALE:

AUTHORIZED FOR:  
PERMIT

M10

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