

## **Project Information**

**Energy Code:** 2015 IECC

Project Title: 32-0312 Lillington, NC - 4584-WW BB20

Lillington, North Carolina Location:

Climate Zone:

**New Construction** Project Type:

Vertical Glazing / Wall Area: 13%

Construction Site: 102 W Cornelius Harnett Blvd Lillington, North Carolina 27546 Owner/Agent: McDonald's USA LLC 110 N Carpenter Street

Chicago, Illinois 60607-2101

Designer/Contractor: **AECOM** 300 Broadacress Drive, Suite 250 Bloomfield, New Jersey 07003 973-883-8669 aaron.c.smith@aecom.com

#### Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed Reduced Lighting Power, 1.0 credit

**Building Area** Floor Area

1-McDonald's Restaurant (Dining: Cafeteria/Fast Food) : 3820

Nonresidential

#### **Envelope Assemblies**

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor <sub>(a)</sub>
Main Roof: Insulation Entirely Above Deck, [Bldg. Use 1 - McDonald's Restaurant]	3540		30.0	0.032	0.032
Floor: Unheated Slab-On-Grade, Horizontal with vertical 4 ft., [Bldg. Use 1 - McDonald's Restaurant] (c)	255		15.0	0.630	0.540
<u>NORTH</u>					
Ext. Wall - Rear: Wood-Framed, 16in. o.c., [Bldg. Use 1 - McDonald's Restaurant]	664	21.0	3.8	0.048	0.064
Crew Window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, [Bldg. Use 1 - McDonald's Restaurant] (b)	11			0.400	0.380
Rear Door: Insulated Metal, Swinging, [Bldg. Use 1 - McDonald's Restaurant]	24			0.380	0.610
<u>EAST</u>					
Ext. Wall - Non DT: Wood-Framed, 16in. o.c., [Bldg. Use 1 - McDonald's Restaurant]	1227	21.0	3.8	0.048	0.064
Side Entry Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.32, [Bldg. Use 1 - McDonald's Restaurant] (b)	22			0.770	0.770
Sidelight Window & Transom: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.40, [Bldg. Use 1 - McDonald's Restaurant] (b)	58			0.400	0.380
Window: Metal Frame with Thermal Break: Fixed, Perf. Specs.:	127			0.400	0.380

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Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor <sub>(a)</sub>
Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.40, [Bldg. Use 1 - McDonald's Restaurant] (b)					
SOUTH Ext. Wall - Front: Wood-Framed, 16in. o.c., [Bldg. Use 1 - McDonald's Restaurant]	662	21.0	3.8	0.048	0.064
Entry Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.32, [Bldg. Use 1 - McDonald's Restaurant] (b)	22			0.770	0.770
Sidelight Window & Transom: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.40, [Bldg. Use 1 - McDonald's Restaurant] (b)	58			0.400	0.380
Storefront: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.40, [Bldg. Use 1 - McDonald's Restaurant] (b)	127			0.400	0.380
<u>WEST</u> Ext. Wall - Drive Thru: Wood-Framed, 16in. o.c., [Bldg. Use 1 - McDonald's Restaurant]	1227	21.0	3.8	0.048	0.064
DT Window: Metal Frame with Thermal Break: Operable, Perf. Specs.: Product ID solar ultra-clear low-E Clear Insulating Glass, SHGC 0.33, PF 0.55, [Bldg. Use 1 - McDonald's Restaurant] (b)	60			0.450	0.450

- (a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
- (b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.
- (c) Slab-On-Grade proposed and budget U-factors shown in table are F-factors.

## Envelope PASSES: Design 4% better than code

#### **Envelope Compliance Statement**

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed envelope systems have been designed to meet the 2015 IECC requirements in COMcheck Version COMcheck Version Comply with any applicable mandatory requirements listed in the Inspection Checklist.

ARCHITECT ARCHIT

Abigail Benjamin, RA

Name - Title

Signature

*9/6/2024* Date

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## **COMcheck Software Version COMcheckWeb**

# **Interior Lighting Compliance Certificate**

#### **Project Information**

**Energy Code:** 2015 IECC

32-0312 Lillington, NC - 4584-WW BB20 Project Title:

**New Construction** Project Type:

Construction Site: 102 W Cornelius Harnett Blvd

Lillington, North Carolina 27546

Owner/Agent: McDonald's USA LLC 110 N Carpenter Street Chicago, Illinois 60607-2101 Designer/Contractor: **AECOM** 300 Broadacress Drive, Suite 250 Bloomfield, New Jersey 07003 973-883-8669 aaron.c.smith@aecom.com

#### Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed Reduced Lighting Power, 1.0 credit

#### **Allowed Interior Lighting Power**

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-McDonald's Restaurant (Dining: Cafeteria/Fast Food)	3820	0.81	3094
		Total Allowed Motto	2004

#### **Proposed Interior Lighting Power**

Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	(C X D)
1-McDonald's Restaurant (Dining: Cafeteria/Fast Food)				
LED 1: F2: 2'x4' Grid Troffer: LED Panel 44W:	1	30	44	1320
LED 2: L2R: 4" LED Down Light: LED PAR 16W:	1	41	16	656
LED 3: L4: 3" LED Down Light: LED A Lamp 7W:	1	15	7	105
LED 4: C: Cove Light: Other:	1	1	54	54
LED 5: D: Orbit Pendant: Other:	1	2	19	38
LED 6: A1: Fries Wall Light: Other:	1	4	10	40
		Total Propo	sed Watts -	2213

#### Interior Lighting PASSES: Design 28% better than code

#### **Interior Lighting Compliance Statement**

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

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Name - Title

9/6/2024

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# COMcheck Software Version COMcheckWeb Exterior Lighting Compliance Certificate

#### **Project Information**

Energy Code: 2015 IECC

Project Title: 32-0312 Lillington, NC - 4584-WW BB20

Project Type: New Construction

Exterior Lighting Zone 2 (Residential mixed use area (LZ2))

Construction Site:

102 W Cornelius Harnett Blvd Lillington, North Carolina 27546 Owner/Agent: McDonald's USA LLC 110 N Carpenter Street Chicago, Illinois 60607-2101 Designer/Contractor:

**AECOM** 

300 Broadacress Drive, Suite 250 Bloomfield, New Jersey 07003 973-883-8669

aaron.c.smith@aecom.com

#### **Allowed Exterior Lighting Power**

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Main & Employee Entrances (Main entry)	15 ft of	20	Yes	300
Drive-Thru (Drive-up windows/doors)	3 windows	400	No	1200
Soffit Lighting (Illuminated area of facade wall or surface)	216 ft2	0.1	No	22
		Total Trada	ble Watts (a) =	300
		Total A	llowed Watts =	1522
	Total Allo	wed Supplemer	ntal Watts (b) =	600

<sup>(</sup>a) Wattage tradeoffs are only allowed between tradable areas/surfaces.

#### **Proposed Exterior Lighting Power**

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	(C X D)
Main & Employee Entrances (Main entry, 15 ft of door width): Tradable Wa	ttage			
LED 1: F12G: 6" LED Downlight: LED PAR 12W:	1	4	12	48
LED 2: S1H: Radial Wall Sconce (Down Only): Other:	1	3	14	42
Drive-Thru (Drive-up windows/doors, 3 windows or doors): Non-tradable Wa	<u>attage</u>			
LED 1: F12G: 6" LED Downlight: LED PAR 12W:	1	6	12	72
LED 2: S1H: Radial Wall Sconce (Down Only): Other:	1	3	14	42
Soffit Lighting (Illuminated area of facade wall or surface, 216 ft2): Non-tra	dable Watta	<u>ge</u>		
LED 1: F12W: 6" LED Downlight: Other:	1	5	12	62
LED 2: S1H: Radial Wall Sconce (Down Only): Other:	1	1	14	14
LED 4: FL1: Floodlights: Other:	1	4	16	Exempt
Exemption:Advertising or directional signage				
LED 5: SLED2-HE: Down Only Accent Lighting: Other:	1	11	10	Exempt
Exemption:Advertising or directional signage				
LED 6: SLED3-HE: Down Only Accent Lighting: Other:	1	1	14	Exempt
Exemption:Advertising or directional signage				

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<sup>(</sup>b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	(C X D)
LED 7: SLED4-HE: Down Only Accent Lighting: Other:	1	2	19	Exempt
Exemption:Advertising or directional signage				
	Total Trac	lable Propos	sed Watts =	90

#### Exterior Lighting PASSES: Design 89% better than code

#### **Exterior Lighting Compliance Statement**

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Faruk Anavdin PE

Faruk Apaydin, PE

Name - Title

9/6/2024 Date

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## **COM***check* **Software Version COM***checkWeb*

## **Mechanical Compliance Certificate**

#### **Project Information**

2015 IECC **Energy Code:** 

32-0312 Lillington, NC - 4584-WW BB20 Project Title:

Location: Lillington, North Carolina

Climate Zone:

Project Type: **New Construction** 

Construction Site: Owner/Agent: Designer/Contractor:

102 W Cornelius Harnett Blvd McDonald's USA LLC **AECOM** Lillington, North Carolina 27546 110 N Carpenter Street 300 Broadacress Drive, Suite 250 Chicago, Illinois 60607-2101 Bloomfield, New Jersey 07003

973-883-8669

aaron.c.smith@aecom.com

## Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed Reduced Lighting Power, 1.0 credit

#### **Mechanical Systems List**

#### **Quantity System Type & Description**

RTU-1 (Single Zone):

Heating: 1 each - Central Furnace, Gas, Capacity = 250 kBtu/h Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et

Cooling: 1 each - Single Package DX Unit, Capacity = 259 kBtu/h, Air-Cooled Condenser, Air Economizer

Proposed Efficiency = 11.00 EER, Required Efficiency = 9.80 EER

Proposed Part Load Efficiency = 11.70 IEER, Required Part Load Efficiency = 11.40 IEER Fan System: RTU1 -- Compliance (Motor nameplate HP and fan efficiency method): Passes

Fans:

RTU1 Supply, Constant Volume, 8000 CFM, 7.5 motor nameplate hp, 70.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency

RTU-2 (Single Zone):

Heating: 1 each - Central Furnace, Gas, Capacity = 60 kBtu/h Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et or 78% AFUE

Cooling: 1 each - Single Package DX Unit, Capacity = 64 kBtu/h, Air-Cooled Condenser, Air Economizer

Proposed Efficiency = 15.00 SEER, Required Efficiency = 14.00 SEER

Proposed Part Load Efficiency = 0.00, Required Part Load Efficiency = 0.00

Fan System: RTU2 -- Compliance (Motor nameplate HP and fan efficiency method): Passes

RTU2 Supply, Constant Volume, 2000 CFM, 0.8 motor nameplate hp, 70.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency

RTU-3 (Single Zone):

Heating: 1 each - Central Furnace, Gas, Capacity = 250 kBtu/h

Proposed Efficiency = 80.00% Et, Required Efficiency: 80.00 % Et

Cooling: 1 each - Single Package DX Unit, Capacity = 182 kBtu/h, Air-Cooled Condenser, Air Economizer

Proposed Efficiency = 12.00 EER, Required Efficiency = 10.80 EER

Proposed Part Load Efficiency = 13.30 IEER, Required Part Load Efficiency = 12.20 IEER Fan System: RTU3 -- Compliance (Motor nameplate HP and fan efficiency method): Passes

RTU3 Supply, Constant Volume, 6000 CFM, 3.0 motor nameplate hp, 70.0 fan efficiency grade, 0.0 total fan efficiency, 0.0 design fan efficiency

Water Heater:

Gas Storage Water Heater, Capacity: 100 gallons, Input Rating: 54 kBtu/h No minimum efficiency requirement applies

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#### **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 2015 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Faruk Apaydin, PE

9/6/2024

Faruk Apaydin, PE

Name - Title

Date

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## **COM***check* **Software Version COM***checkWeb*

# **Inspection Checklist**

Energy Code: 2015 IECC

Requirements: 100.0% 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 [PR1] <sup>1</sup>	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C103.2 [PR2] <sup>1</sup>	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. Load calculations per acceptable engineering standards and handbooks.	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C103.2 [PR3] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C103.2 [PR4] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C103.2 [PR8] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	MComplies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C402.4.1 [PR10] <sup>1</sup>	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
	1 High Impact (Tier 1)	2 Medium Impa	act (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C402.4.1 [PR11] <sup>1</sup>	The skylight area <= 3 percent of the gross roof area.	lueComplies $lue$ Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C402.4.2 [PR14] <sup>1</sup>	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C406 [PR9] <sup>1</sup>	>= 1 percent.  Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2 [FO4] <sup>2</sup>	Slab edge insulation installed per manufacturer's instructions.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C303.2.1 [FO6] <sup>1</sup>	Exterior insulation protected against damage, sunlight, moisture, wind,	☑Complies □Does Not	Requirement will be met.
	landscaping and equipment maintenance activities.	□Not Observable □Not Applicable	
C104 [FO3] <sup>2</sup>	Installed slab-on-grade insulation type and R-value consistent with insulation	☑Complies □Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.2.6 [FO12] <sup>3</sup>	Radiant heating systems panels insulated to >=R-3.5 on face opposite	☑Complies □Does Not	Requirement will be met.
	space being heated.	□Not Observable □Not Applicable	See the Envelope Assemblies table for values.
5,	Snow/ice melting system sensors for future connection to controls. Freeze	□Complies □Does Not	Exception: Requirement does not apply.
C403.2.4. 6 [FO9] <sup>3</sup>	protection systems have automatic controls installed.	□Not Observable ☑Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 [FR12] <sup>2</sup>	Fenestration products rated in accordance with NFRC.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C303.1.3 [FR13] <sup>1</sup>	Fenestration products are certified as to performance labels or certificates	lueComplies $lue$ Does Not	Requirement will be met.
	provided.	□Not Observable □Not Applicable	
C402.4.3 [FR10] <sup>1</sup>	Vertical fenestration SHGC value.	☑Complies □Does Not	See the Envelope Assemblies table for values.
		□Not Observable □Not Applicable	
C402.4.3, C402.4.3.	Vertical fenestration U-Factor.	☑Complies □Does Not	See the Envelope Assemblies table for values.
4 [FR8] <sup>1</sup>		□Not Observable □Not Applicable	
C402.4.4 [FR14] <sup>2</sup>	U-factor of opaque doors associated with the building thermal envelope	☑Complies □Does Not	See the Envelope Assemblies table for values.
	meets requirements.	□Not Observable □Not Applicable	
2.1	The building envelope contains a continuous air barrier that is sealed in	☑Complies □Does Not	Requirement will be met.
[FR19] <sup>1</sup>	an approved manner and material permeability <= 0.004 dfm/ft2. Air barrier penetrations are sealed in an approved manner.	□Not Observable □Not Applicable	
C402.5.4	Factory-built fenestration and doors are labeled as meeting air leakage	☑Complies □Does Not	Requirement will be met.
[FR18] <sup>3</sup>	requirements.	□Not Observable □Not Applicable	
C402.5.7 [FR17] <sup>3</sup>	Vestibules are installed on all building entrances. Doors have self-closing	□Complies □Does Not	Exception: Requirement does not apply.
	devices.	□Not Observable ☑Not Applicable	

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6] <sup>3</sup>	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☑Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.3 [PL7] <sup>3</sup>	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☑Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.7 [PL8] <sup>3</sup>	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to $104^{\circ}F$ .	☑Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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Section #	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
& Req.ID			
C402.2.6 [ME41] <sup>3</sup>	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	□Does Not	Exception: Requirement does not apply.
	msdid:1011 > = 1( 3.3.	□Not Observable ☑Not Applicable	
C403.2.4.	motorized dampers that automatically	□Complies □Does Not	Exception: Requirement does not apply.
3 [ME3] <sup>3</sup>	close.	□Not Observable ☑Not Applicable	
C403.2.4.	motorized dampers that automatically	□Complies □Does Not	Exception: Requirement does not apply.
3 [ME58] <sup>3</sup>	shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.	□Not Observable ☑Not Applicable	
	HVAC fan systems at design conditions do not exceed allowable	☑Complies	Requirement will be met.
.1 [ME65] <sup>3</sup>	fan system motor nameplate hp or fan system bhp.	□Does Not □Not Observable □Not Applicable	See the Mechanical Systems list for values.
.3	67. The total efficiency of the fan at	☑Complies □Does Not	Requirement will be met.
[ME117] <sup>2</sup>	the design point of operation <= 15% of maximum total efficiency of the fan.	□Not Observable □Not Applicable	
C403.2.13 [ME71] <sup>2</sup>	Unenclosed spaces that are heated use only radiant heat.	□Complies □Does Not	Exception: Requirement does not apply.
		□Not Observable ☑Not Applicable	
7	installed with air-cooled unitary DX	☑Complies □Does Not	Requirement will be met.
[ME113] <sup>2</sup>	units having economizers.	□Not Observable □Not Applicable	
1	for spaces >500 ft2 and >25	□Complies □Does Not	Exception: Requirement does not apply.
[ME59] <sup>1</sup>	people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	□Not Observable ☑Not Applicable	
2	Enclosed parking garage ventilation has automatic contaminant detection	☐Complies ☐Does Not	Exception: Requirement does not apply.
[ME115] <sup>3</sup>	and capacity to stage or modulate fans to 50% or less of design capacity.	□Not Observable ☑Not Applicable	
C403.2.7 [ME57] <sup>1</sup>	systems meeting Table C403.2.7(1)	□Complies □Does Not	Exception: Requirement does not apply.
		□Not Observable ☑Not Applicable	
C403.2.8 [ME116] <sup>3</sup>	replacement air and conditioned	☑Complies □Does Not	Requirement will be met.
	supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	□Not Observable □Not Applicable	
C403.2.9 [ME60] <sup>2</sup>	Where ducts or plenums are installed	□Complies □Does Not	Exception: Requirement does not apply.
	in or under a slab, verification may need to occur during Foundation Inspection.	□Not Observable ☑Not Applicable	

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1 High Impact (Tier 1)

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2 Medium Impact (Tier 2)

3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.9 [ME10] <sup>2</sup>	Ducts and plenums sealed based on static pressure and location.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
1.3	Ductwork operating >3 in. water column requires air leakage testing.	□Complies □Does Not	Exception: Requirement does not apply.
[ME11] <sup>3</sup>		□Not Observable ☑Not Applicable	
C403.3 [ME62] <sup>1</sup>	Air economizers provided where required, meet the requirements for	☑Complies □Does Not	Requirement will be met.
	design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	□Not Observable □Not Applicable	
C403.4.4. 6 [ME110] <sup>3</sup>	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	□Complies □Does Not □Not Observable ☑Not Applicable	<b>Exception:</b> Requirement does not apply.  See the Mechanical Systems list for values.
C404.2.1 [ME111] <sup>2</sup>	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency >= 90 Et. Where multiple pieces of water-heating equipment serve the building with combined rating >= 1,000 kBtu/h, the combined input-capacity-weighted-average thermal efficiency >= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h.		Requirement will be met.
C408.2.2. 1 [ME53] <sup>3</sup>	Air outlets and zone terminal devices have means for air balancing.	<ul><li>MComplies</li><li>□Does Not</li><li>□Not Observable</li><li>□Not Applicable</li></ul>	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME123] <sup>3</sup>	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2	□Complies □Does Not □Not Observable ☑Not Applicable	Exception: Requirement does not apply.

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15] <sup>1</sup>	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C405.2.1 [EL18] <sup>1</sup>	Occupancy sensors installed in required spaces.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C405.2.1, C405.2.2.	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and	☑Complies □Does Not	Requirement will be met.
[EL23] <sup>2</sup>	visible to occupants.	□Not Observable □Not Applicable	
1	building lighting installed in all	☑Complies □Does Not	Requirement will be met.
[EL22] <sup>2</sup>	buildings.	□Not Observable □Not Applicable	
C405.2.3 [EL16] <sup>2</sup>	Daylight zones provided with individual controls that control the	☑Complies □Does Not	Requirement will be met.
	lights independent of general area lighting.	□Not Observable □Not Applicable	
C405.2.3, C405.2.3.	Primary sidelighted areas are equipped with required lighting	☑Complies □Does Not	Requirement will be met.
1, C405.2.3. 2	controls.	□Not Observable □Not Applicable	
[EL20] <sup>1</sup>			
C405.2.3, C405.2.3.	under skylights and rooftop monitors	□Complies □Does Not	Exception: Requirement does not apply.
1, C405.2.3. 3	are equipped with required lighting controls.	□Not Observable ☑Not Applicable	
[EL21] <sup>1</sup>			
C405.2.4 [EL4] <sup>1</sup>	Separate lighting control devices for specific uses installed per approved	☑Complies □Does Not	Requirement will be met.
	lighting plans.	□Not Observable □Not Applicable	
C405.2.4 [EL8] <sup>1</sup>	Additional interior lighting power allowed for special functions per the	$lue{\mathbb{D}}$ Complies $lue{\mathbb{D}}$ Does Not	Requirement will be met.
	approved lighting plans and is automatically controlled and separated from general lighting.	□Not Observable □Not Applicable	
C405.2.5 [EL25] <sup>null</sup>	Automatic lighting controls for exterior lighting installed. Controls will be	☑Complies □Does Not	Requirement will be met.
	daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	□Not Observable □Not Applicable	
C405.3 [EL6] <sup>1</sup>	Exit signs do not exceed 5 watts per face.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	

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Section #	Inculation Increastion	Complies?	Commonts/Assumptions
& Req.ID	Insulation Inspection	Compiles	Comments/Assumptions
C303.1 [IN3] <sup>1</sup>	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed	$lue{\mathbb{D}}$ Complies $lue{\mathbb{D}}$ Does Not	Requirement will be met.
	only where the roof slope is <=3 in 12.	□Not Observable □Not Applicable	
C303.1 [IN10] <sup>2</sup>	with R-value or insulation certificate	☑Complies □Does Not	Requirement will be met.
	providing R-value and other relevant data.	□Not Observable □Not Applicable	
C303.2 [IN7] <sup>1</sup>	Above-grade wall insulation installed per manufacturer's instructions.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C303.2.1 [IN14] <sup>2</sup>	Exterior insulation is protected from damage with a protective material.	☑Complies □Does Not	Requirement will be met.
	Verification for exposed foundation insulation may need to occur during Foundation Inspection.	□Not Observable □Not Applicable	
C402.2.1 [IN17] <sup>3</sup>	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed	☑Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C104	accordingly.  Installed above-grade wall insulation	<b>☑</b> Complies	See the Envelope Assemblies table for values.
[IN6] <sup>1</sup>	type and R-value consistent with insulation specifications reported in	$\square$ Does Not	
	plans and COMcheck reports.	□Not Observable □Not Applicable	
C104 [IN8] <sup>2</sup>	Installed floor insulation type and R-value consistent with insulation	lueComplies $lue$ Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports.	□Not Observable □Not Applicable	
C402.2.6 [IN18] <sup>3</sup>	Radiant panels and associated components, designed for heat	☑Complies □Does Not	Requirement will be met.
	transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	□Not Observable □Not Applicable	
C104 [IN2] <sup>1</sup>	Installed roof insulation type and R-value consistent with insulation	☑Complies □Does Not	See the Envelope Assemblies table for values.
	specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	□Not Observable □Not Applicable	
C402.5.1.	All sources of air leakage in the building thermal envelope are sealed,	☑Complies □Does Not	Requirement will be met.
[IN1] <sup>1</sup>	caulked, gasketed, weather stripped or wrapped with moisture vaporpermeable wrapping material to minimize air leakage.	□Not Observable □Not Applicable	

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Section			
# & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.	Furnished O&M instructions for systems and equipment to the	☑Complies □Does Not	Requirement will be met.
2 [FI17] <sup>3</sup>	building owner or designated	□Not Observable	
[1117]	representative.		
C303.3, C408.2.5.	Furnished O&M manuals for HVAC systems within 90 days of system	☑Complies □Does Not	Requirement will be met.
3 [FI8] <sup>3</sup>	acceptance.	□Not Observable	
[[10]		□Not Applicable	
C402.5.3 [FI51] <sup>3</sup>	Where open combustion air ducts provide combustion air to open	☑Complies □Does Not	Requirement will be met.
	combustion fuel burning appliances, the appliances and combustion air	□Not Observable	
	opening are located outside the	□Not Applicable	
	building thermal envelope or enclosed in a room, isolated from inside the	 	
	thermal envelope. Such rooms are sealed and insulated.		
C402.5.6 [FI37] <sup>1</sup>	Weatherseals installed on all loading dock cargo doors.	☐Complies ☐Does Not	Exception: Requirement does not apply.
		□Not Observable	
C402 F 0	Decembed type in the speed	☑Not Applicable ☑Complies	Description and will be made
C402.5.8 [FI26] <sup>3</sup>	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	Does Not	Requirement will be met.
		□Not Observable	
C403.2.2	HVAC systems and equipment	□Not Applicable ☑Complies	Requirement will be met.
[FI27] <sup>3</sup>	capacity does not exceed calculated loads.	□Does Not	
	100051	□Not Observable □Not Applicable	
C403.2.4.	Heating and cooling to each zone is controlled by a thermostat control.	<b>☑</b> Complies	Requirement will be met.
[FI47] <sup>3</sup>	Minimum one humidity control device	□Does Not □Not Observable	
	per installed humidification/dehumidification	□Not Applicable	
C402.2.4	system.	W.Complies	Deguirement will be met
1.2	Thermostatic controls have a 5 °F deadband.	☑Complies □Does Not	Requirement will be met.
[FI38] <sup>3</sup>		□Not Observable □Not Applicable	
C403.2.4.	Temperature controls have setpoint	☑Complies □Does Not	Requirement will be met.
[FI20] <sup>3</sup>	overlap restrictions.	□Not Observable	
		□Not Applicable	
C403.2.4.		□Complies □Does Not	Exception: Zones operated continuously.
[FI39] <sup>3</sup>		□Not Observable	
C402.2.4	Automotic Controls Catharda 5505	Not Applicable     □Complies	Frankling Denviron ant description
C403.2.4. 2.1,		□Complies □Does Not	Exception: Requirement does not apply.
C403.2.4. 2.2	hour occupant override, 10-hour backup	□Not Observable	
[FI40] <sup>3</sup>	·	☑Not Applicable	

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C403.2.4. 2.3 [FI41] <sup>3</sup>	Systems include optimum start controls.	☑Complies □Does Not	Requirement will be met.
[F141]		□Not Observable □Not Applicable	
C404.3 [FI11] <sup>3</sup>	Heat traps installed on supply and discharge piping of non-circulating	□Complies □Does Not	Exception: Requirement does not apply.
	systems.	□Not Observable ☑Not Applicable	
C404.4 [FI25] <sup>2</sup>	All piping insulated in accordance with section details and Table C403.2.10.	☑Complies □Does Not	Requirement will be met.
		□Not Observable □Not Applicable	
C405.4.1 [FI18] <sup>1</sup>		☑Complies □Does Not	See the Interior Lighting fixture schedule for values.
	is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Not Observable □Not Applicable	
C405.5.1 [FI19] <sup>1</sup>	Exterior lighting power is consistent with what is shown on the approved	☑Complies □Does Not	See the Exterior Lighting fixture schedule for values.
	lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Not Observable □Not Applicable	
C408.2.1 [FI28] <sup>1</sup>	Commissioning plan developed by registered design professional or	☑Complies □Does Not	Requirement will be met.
	approved agency.	□Not Observable □Not Applicable	
C408.2.3. 1 [FI31] <sup>1</sup>	HVAC equipment has been tested to ensure proper operation.	☑Complies □Does Not	Requirement will be met.
[1131]		□Not Observable □Not Applicable	
C408.2.3. 2 [FI10] <sup>1</sup>	HVAC control systems have been tested to ensure proper operation,	☑Complies □Does Not	Requirement will be met.
[FIIO] <sup>2</sup>	calibration and adjustment of controls.	□Not Observable □Not Applicable	
C408.2.3.	Economizers have been tested to ensure proper operation.	☑Complies □Does Not	Requirement will be met.
[FI32] <sup>1</sup>		□Not Observable □Not Applicable	
C408.2.4 [FI29] <sup>1</sup>	Preliminary commissioning report completed and certified by registered	☑Complies □Does Not	Requirement will be met.
	design professional or approved agency.	□Not Observable □Not Applicable	
C408.2.5.	submitted within 90 days of system	☑Complies □Does Not	Requirement will be met.
[FI7] <sup>3</sup>	acceptance.	□Not Observable □Not Applicable	
C408.2.5.	Furnished as-built drawings for electric power systems within 90 days	☑Complies □Does Not	Requirement will be met.
[FI16] <sup>3</sup>	of system acceptance.	□Not Observable □Not Applicable	

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.5.	An air and/or hydronic system balancing report is provided for HVAC	☑Complies □Does Not	Requirement will be met.
[FI43] <sup>1</sup>	systems.	□Not Observable □Not Applicable	
C408.2.5.	Final commissioning report due to building owner within 90 days of	☑Complies □Does Not	Requirement will be met.
[FI30] <sup>1</sup>	receipt of certificate of occupancy.	□Not Observable □Not Applicable	
C408.3 [FI33] <sup>1</sup>	Lighting systems have been tested to ensure proper calibration, adjustment,	☑Complies □Does Not	Requirement will be met.
	programming, and operation.	□Not Observable □Not Applicable	

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