## COMcheck Software Version 4.1.4.3 Interior Lighting Compliance Certificate

#### **Project Information**

Energy Code:	90.1 (2016) Standard
Project Title:	Hermoso mixed use
Project Type:	New Construction

Construction Site:	Owner/Agent:	Designer/Contractor:
7420 SW Hermoso Way	Axiotecture	MFIA
Tigard, OR	12620 SW Farmington Rd	2007 SE Ash St
5	Beaverton, OR	Portland, OR 97214
		503-234-0548

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

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Common Spaces (Multifamily)	7570	0.68	5148
2-Shell Space (Retail)	1925	1.06	2040
		Total Allowed Watts	= 7188

Proposed Interior Lighting Power					
Α	В	С	D	E	
Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	Lamps/ Fixture	# of Fixtures	Fixture Watt.	(C X D)	
<u>1-Common Spaces (Multifamily)</u>					
LED 2: A1: 4FT GEN PURP STRIP: LED Linear 22W:	1	14	25	350	
LED 3: B1: 4FT WRAP: LED Linear 17W:	1	20	18	360	
LED 4: C1: 4" DOWNLIGHT: LED PAR 10W:	1	73	10	730	
2-Shell Space (Retail)					
LED 1: A1: 4FT GEN PURP STRIP: LED Linear 22W:	1	10	25	250	
		Total Propos	ed Watts =	1690	

#### Interior Lighting PASSES: Design 76% 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 90.1 (2016) Standard requirements in COM*check* Version 4.1.4.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

#### Denise Taylor, Electrical Desgner

Name - Title

Denise Taylor Signature

03.30.2021

Date

# COMcheck Software Version 4.1.4.3 **Exterior Lighting Compliance Certificate**

#### **Project Information**

Energy Code:
Project Title:
Project Type:
Exterior Lighting Zone

90.1 (2016) Standard Hermoso mixed use **New Construction** 2 (Neighborhood business district)

Construction Site: 7420 SW Hermoso Way Tigard, OR

Owner/Agent: Axiotecture 12620 SW Farmington Rd Beaverton, OR

Designer/Contractor: MFIA 2007 SE Ash St Portland, OR 97214 503-234-0548

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

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Parking Area (Parking area)	5400 ft2	0.04	Yes	216
Driveway (Driveway)	1165 ft2	0.04	Yes	47
Commercial Entry (Entry canopy)	533 ft2	0.25	Yes	133
Community Patio (Plaza area)	390 ft2	0.1	Yes	39
		Total Tradab	ole Watts (a) =	435
		Total All	owed Watts =	435
Total Allowed Supplemental V		tal Watts (b) =	400	

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

(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

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

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Parking Area (Parking area 5400 ft2): Tradable Wattage LED 1: A2: 4FT ENCLOSED: LED Linear 22W: LED 6: S2: EXTERIOR SCONCE: LED PAR 20W:	1 1	9 7	23 21	207 147
Driveway (Driveway 1165 ft2): Tradable Wattage LED 2: S2: EXTERIOR SCONCE: LED PAR 20W: LED 3: S3: AREA LIGHT: LED Panel 38W:	1 1	2 1	21 38	42 38
Commercial Entry (Entry canopy 533 ft2): Tradable Wattage LED 4: S1: 4" DOWNLIGHT: LED PAR 15W:	1	8	15	120
Community Patio (Plaza area 390 ft2): Tradable Wattage LED 5: S1: 4" DOWNLIGHT: LED PAR 15W:	1 Total Tra	3 dable Propos	15 sed Watts =	45 599

Total Tradable Proposed Watts =

#### **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 90.1 (2016) Standard requirements in COM*check* Version 4.1.4.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Denise Taylor, Electrical Designer	Denise Taylor	03.30.2021
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Name - Title

Signature

Date

### COMcheck Software Version 4.1.4.3 Inspection Checklist

### Energy Code: 90.1 (2016) Standard

#### Requirements: 69.0% 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
4.2.2, 8.4.1.1, 8.4.1.2, 8.7 [PR6] <sup>2</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.	Complies Does Not Not Observable Not Applicable	
4.2.2, 9.4.3, 9.7 [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.	<sup>™</sup> Complies □Does Not □Not Observable □Not Applicable	
9.7 [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.	⊠Complies □Does Not □Not Observable □Not Applicable	

Additional Comments/Assumptions:

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

3 Low Impact (Tier 3)

Section #	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
& Req.ID	5	-	Comments/Assumptions
8.4.2 [EL10] <sup>2</sup>	At least 50% of all 125 volt 15- and 20-Amp receptacles are controlled by an automatic control device.	□Complies □Does Not □Not Observable ☑Not Applicable	
8.4.3 [EL11] <sup>2</sup>	New buildings have electrical energy use measurement devices installed. Where tenant spaces exist, each tenant is monitored separately. In buildings with a digital control system the energy use is transmitted to to control system and displayed graphically.	⊠Complies □Does Not □Not Observable □Not Applicable	
9.4.1.1 [EL1] <sup>2</sup>	Automatic control requirements prescribed in Table 9.6.1, for the appropriate space type, are installed. Mandatory lighting controls (labeled as 'REQ') and optional choice controls (labeled as 'ADD1' and 'ADD2') are implemented.	⊠Complies □Does Not □Not Observable □Not Applicable	
9.4.1.1 [EL2] <sup>2</sup>	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	⊠Complies □Does Not □Not Observable □Not Applicable	
9.4.1.1f [EL13] <sup>1</sup>	Daylight areas under skylights and roof monitors that have more than 150 W combined input power for general lighting are controlled by photocontrols.	□Complies □Does Not □Not Observable ⊠Not Applicable	
9.4.1.4 [EL3] <sup>2</sup>	Automatic lighting controls for exterior lighting installed.	<sup>™</sup> Complies □Does Not □Not Observable □Not Applicable	
9.4.1.4d [EL21] <sup>2</sup>	Outdoor parking area luminaires >= 78W and <= 24 ft height controlled to reduce wattage by 50% when area unoccupied over 15 minutes. Controlled power limited to <= 1500W.	□Complies □Does Not □Not Observable ⊠Not Applicable	
9.4.1.3 [EL4] <sup>1</sup>	Separate lighting control devices for specific uses installed per approved lighting plans.	⊠Complies □Does Not □Not Observable □Not Applicable	
9.6.2 [EL8] <sup>1</sup>	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	□Complies □Does Not □Not Observable ☑Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Im

2 Medium Impact (Tier 2)

3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
8.7.1 [FI16] <sup>3</sup>	5	Complies	Delivered by EC upon project completion
	of system acceptance.	□Not Observable □Not Applicable	
8.7.2 [FI17] <sup>3</sup>	Furnished O&M instructions for systems and equipment to the	☐Complies □Does Not	Delivered by EC upon project completion
	building owner or designated representative.	□Not Observable □Not Applicable	
9.2.2.3 [FI18] <sup>1</sup>	lighting power is consistent with what	Complies	See the Interior Lighting fixture schedule for values. Sheet E1.21
	is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Not Observable □Not Applicable	
9.4.2 [FI19] <sup>1</sup>	Exterior lighting power is consistent with what is shown on the approved	Complies	See the Exterior Lighting fixture schedule for values. See sheet E1.21
	lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	□Not Observable □Not Applicable	
9.4.4 [FI20] <sup>1</sup>	[FI20] <sup>1</sup> installed lighting fixtures in dwelling	Complies	
	units have $>= 55$ lm/W efficacy or a $>= 45$ lm/W total luminaire efficacy.	□Not Observable □Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2

2 Medium Impact (Tier 2)

3 Low Impact (Tier 3)