COMcheck Software Version 4.1.4.1

Envelope Compliance Certificate

Project Information

Energy Code:	90.1 (2013) Standard
Project Title:	Jackson County Animal Rescue Center
Location:	Dillsboro, North Carolina
Climate Zone:	4a
Project Type:	New Construction
Vertical Glazing / Wall Area:	8%
Performance/ ERI Special:	EnergyPlus 8.1.0.009 (EPW, USA_NC_Asheville.Rgnl.AP.723150_TMY3.epw)

Construction Site: Owner/Agent: Designer/Contractor:

Building Area

Building Area	Floor Area
1 Office Nonresidential	6164

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Roof 1: Metal Building, Standing Seam, Liner System with Thermal Blocks [c], [Bldg. Use 1 - Office]	6164	30.0	0.0	0.027	0.027
Floor 1: Slab-On-Grade/Perimeter, Horizontal with Vertical 2 ft., [Bldg. Use 1 - Office] [d]	333	--	10.0	0.550	0.720
NORTH					
Exterior Wall 1: Steel-Framed, 16" o.c., [Bldg. Use 1 - Office]	1071	13.0	10.0	0.055	0.064
Window 1: Metal Frame Fixed, Perf. Specs.: Product ID Guardian SN 54, SHGC 0.25, PF 0.42, VT 0.54, [Bldg. Use 1 - Office] - Dominant: [e]	102	--	--	0.290	0.480
Door 1: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	78	--	--	0.500	0.500
Door 4: Glass (> 50% glazing) Metal Frame, Entrance Door, Perf. Specs.: Product ID pending 30, SHGC 0.40, PF 0.42, VT 0.73, [Bldg. Use 1 - Office] - Dominant: [e]	99	--	--	0.570	0.770
EAST					
Exterior Wall 4: Steel-Framed, 16" o.c., [Bldg. Use 1 - Office]	666	13.0	10.0	0.055	0.064
Window 2: Metal Frame Fixed, Perf. Specs.: Product ID Guardian SN 54, SHGC 0.25, PF 0.42, VT 0.54, [Bldg. Use 1 - Office] [e]	66	--	--	0.290	0.480
Window 3: Metal Frame Fixed, Perf. Specs.: Product ID Guardian SN 54, SHGC 0.25, PF 0.58, VT 0.54, [Bldg. Use 1 - Office] [e]	77	--	--	0.290	0.480
Door 3: Glass (> 50% glazing) Metal Frame, Entrance Door, Perf. Specs.: Product ID pending 30, SHGC 0.40, PF 0.60, VT 0.73, [Bldg. Use 1 - Office] [e]	79	--	--	0.570	0.770
SOUTH					
Exterior Wall 2: Steel-Framed, 16" o.c., [Bldg. Use 1 - Office]	470	13.0	10.0	0.055	0.064
Window 2: Metal Frame Fixed, Perf. Specs.: Product ID Guardian SN 54, SHGC 0.25, PF 0.20, VT 0.54, [Bldg. Use 1 - Office] [e]	4	--	--	0.290	0.480
Door 2: Insulated Metal, Swinging, [Bldg. Use 1 - Office] [e]	28	--	--	0.500	0.500
Exterior Wall 3: Other Mass Wall, Heat capacity > 5, [Bldg. Use 1 - Office] [g]	902	--	--	0.070	0.064

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Door 5: Insulated Metal, Swinging, [Bldg. Use 1 - Office] - Dominant:	48	--	--	0.500	0.500
WEST					
Exterior Wall 5: Steel-Framed, 16" o.c., [Bldg. Use 1 - Office]	668	13.0	10.0	0.055	0.064
Door 6: Insulated Metal, Swinging, [Bldg. Use 1 - Office]	28	--	--	0.500	0.500
Exterior Wall 6: Other Mass Wall, Heat capacity 1-5, [Bldg. Use 1 - Office] [g]	627	--	--	0.070	0.064
Window 6: Metal Frame Fixed, Perf. Specs.: Product ID Glasslon SN 54, SHGC 0.39, PF 3.05, VT 0.54, [Bldg. Use 1 - Office] [e]	8	--	--	0.290	0.480

[a] Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
[b] Other exemptions require supporting documentation for proposed U-factors.
[c] Fenestration product performance must be verified in accordance with NFRC and requires supporting documentation.
[d] Slab-On-Grade proposed and budget U-factors shown in table are F-Factors.
[e] Thermal spacers block with minimum R-3.5 must be provided across the perimeter, and the roof deck exposed on the inside.

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 90.1 (2013) Standard requirements in COMcheck Version 4.1.4.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Caroline (Cary) Perkins, AIA, Architect — 9/2/2020
Name - Title — Signature — Date

NOTE: FLOOR AREA FOR ENVELOPE COMPLIANCE CONSISTS OF BUSINESS (100 GROSS), STORAGE (S-1) AND SHORT TERM INTAKE HOLDING. PLEASE SEE SHEET G012 FOR LOCATION AND DISTRIBUTION OF AREAS.

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