



Envelope Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title: CCW - Lee's Summit, MO - Lot 9
Location: Lees Summit, Missouri
Climate Zone: 4a
Project Type: New Construction
Vertical Glazing / Wall Area: 6%

Construction Site:

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

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

Building Area

Floor Area

1-tunnel car wash (Automotive Facility) : Nonresidential

5395

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor ^(a)
Roof: Insulation Entirely Above Deck, [Bldg. Use 1 - tunnel car wash]	4184	---	30.0	0.032	0.032
Roof: Attic Roof, Steel Joists, [Bldg. Use 1 - tunnel car wash]	1156	30.0	0.0	0.041	0.027
Floor: Unheated Slab-On-Grade, [Bldg. Use 1 - tunnel car wash] (c)	368	---	---	0.730	0.540
NORTH					
Side 2 - Equipment side: Concrete Block, 8in., Partially Grouted, Cells Ins., Light Density, Furring: None, [Bldg. Use 1 - tunnel car wash]	2822	---	6.6	0.097	0.104
restroom door: Insulated Metal, Swinging, [Bldg. Use 1 - tunnel car wash]	25	---	---	0.500	0.610
equipment door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	46	---	---	0.250	0.770
office windows: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	56	---	---	0.250	0.380
EAST					
Side 4 - Tunnel Exit: Concrete Block, 8in., Partially Grouted, Cells Ins., Light Density, Furring: None, [Bldg. Use 1 - tunnel car wash]	1070	---	6.6	0.097	0.104
cashier window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	16	---	---	0.250	0.380
garage door: Insulated Metal, Non-Swinging, [Bldg. Use 1 - tunnel car wash]	140	---	---	0.250	0.179
equipment door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	46	---	---	0.250	0.770

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor ^(a)
SOUTH					
Side 1 - Tunnel Side: Concrete Block, 8in., Partially Grouted, Cells Ins., Light Density, Furring: None, [Bldg. Use 1 - tunnel car wash]	2822	---	6.6	0.097	0.104
cashier door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	56	---	---	0.250	0.770
tunnel windows: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	224	---	---	0.250	0.380
WEST					
side 3 - Tunnel Entry: Concrete Block, 8in., Partially Grouted, Cells Ins., Light Density, Furring: None, [Bldg. Use 1 - tunnel car wash]	1070	---	6.6	0.097	0.104
lobby door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Guardian Midnight Gray over clear, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	23	---	---	0.250	0.770
garage door: Insulated Metal, Non-Swinging, [Bldg. Use 1 - tunnel car wash]	160	---	---	0.250	0.179
lobby window: Metal Frame with Thermal Break: Fixed, Perf. Specs.: Product ID Guardian Midnight Gray, SHGC 0.11, [Bldg. Use 1 - tunnel car wash] (b)	30	---	---	0.250	0.380

(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 5% 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 2018 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title

Signature

Date