



COMcheck Software Version COMcheckWeb Envelope Compliance Certificate

Project Information

Energy Code: 2018 IECC
 Project Title: Circle K 22130 Angier NC (BG 29894)
 Location: Angier, North Carolina
 Climate Zone: 4a
 Project Type: New Construction
 Vertical Glazing / Wall Area: 6%

Construction Site: 9706 Kennebec Church Road
 Angier, North Carolina
 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-Retail store (Retail) : Nonresidential	4070
2-Carwash (Automotive Facility) : Nonresidential	1457

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor ^(e)
Floor: Unheated Slab-On-Grade, [Bldg. Use 1 - Retail store] (d)	251	---	---	0.730	0.540
Floor: Unheated Slab-On-Grade, [Bldg. Use 2 - Carwash] (d)	163	---	---	0.730	0.540
Roof: Insulation Entirely Above Deck, [Bldg. Use 1 - Retail store]	3231	---	33.0	0.030	0.032
Roof: Insulation Entirely Above Deck, [Bldg. Use 2 - Carwash]	1465	---	33.0	0.030	0.032
<u>NORTH</u>					
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 1 - Retail store] (b)	579	---	---	0.040	0.064
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 2 - Carwash] (b)	1095	---	---	0.040	0.064
<u>EAST</u>					
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 1 - Retail store] (b)	1428	---	---	0.040	0.064
Window: Metal Frame: Fixed, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Retail store] (c)	348	---	---	0.270	0.380
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 2 - Carwash] (b)	535	---	---	0.040	0.064
Door: Insulated Metal, Garage door 14% glazing, [Bldg. Use 2 - Carwash]	120	---	---	0.310	0.310
<u>SOUTH</u>					
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 1 - Retail store] (b)	579	---	---	0.040	0.064
Window: Metal Frame: Fixed, Perf. Specs.: Product ID NA, SHGC 0.25, [Bldg. Use 1 - Retail store] (c)	49	---	---	0.270	0.380
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 2 - Carwash] (b)	1095	---	---	0.040	0.064

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor ^(a)
Door: Insulated Metal, Swinging, [Bldg. Use 2 - Carwash]	21	---	---	0.370	0.610
WEST					
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 1 - Retail store] (b)	1428	---	---	0.040	0.064
Ext. Wall: Other Exterior Wall, Heat capacity 0.0, [Bldg. Use 2 - Carwash] (b)	535	---	---	0.040	0.064
Door: Insulated Metal, Garage door 14% glazing, [Bldg. Use 2 - Carwash]	120	---	---	0.310	0.310

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

Envelope PASSES: Design 13% 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.

Ralph Watson, Senior Associate
 Name - Title


 Signature

2.17.2023
 Date