



Envelope Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: Tidal Wave Autospa - Lake City FL
Location: Lake City, Florida
Climate Zone: 2a
Project Type: New Construction
Vertical Glazing / Wall Area: 29%

Construction Site:
3039 W. US-90
Lake City, Florida 32055

Owner/Agent:
Rick Olson
Tidal Wave OLP

Designer/Contractor:
Phillip Kern, AIA
Kern Architects, LLC
11822 Justice Ave., Ste. B7
Baton Rouge, Louisiana 70816
2255721819
phillip.kern@kernarchitects.com

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Enhanced Interior Lighting Controls, 1.0 credit

Building Area

Floor Area

1-Office : Nonresidential

50

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor ^(a)
Roof: Metal Building, Standing Seam, Liner System without Thermal Blocks, High Albedo Roof Exemption = Steep Sloped Roof, [Bldg. Use 1 - Office]	50	10.0	11.0	0.082	0.035
Floor: Unheated Slab-On-Grade, [Bldg. Use 1 - Office] (c)	29	---	---	0.730	0.730
<u>NORTH</u>					
NORTH WALL: Concrete Block, 8in., Partially Grouted, Cells Ins., Normal Density, Furring: None (d), [Bldg. Use 1 - Office]	54	---	0.0	0.151	0.151
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Impact Rated, SHGC 0.25, [Bldg. Use 1 - Office] (b)	9	---	---	0.600	0.500
<u>EAST</u>					
EAST WALL: Concrete Block, 8in., Partially Grouted, Cells Ins., Normal Density, Furring: None (d), [Bldg. Use 1 - Office]	112	---	0.0	0.151	0.151
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Impact Rated, SHGC 0.25, [Bldg. Use 1 - Office] (b)	12	---	---	0.600	0.500
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Impact Rated, SHGC 0.25, [Bldg. Use 1 - Office] (b)	22	---	---	0.600	0.830
<u>SOUTH</u>					
SOUTH WALL: Concrete Block, 8in., Partially Grouted, Cells Ins., Normal Density, Furring: None (d), [Bldg. Use 1 - Office]	54	---	0.0	0.151	0.151
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Impact Rated, SHGC 0.25, [Bldg. Use 1 - Office] (b)	9	---	---	0.600	0.500
<u>WEST</u>					
WEST WALL: Concrete Block, 8in., Partially Grouted, Cells Ins.,	81	---	0.0	0.151	0.151

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U- Factor ^(a)
Normal Density, Furring: None (d), [Bldg. Use 1 - Office]					
Window: Metal Frame: Fixed, Perf. Specs.: Product ID Impact Rated, SHGC 0.25, [Bldg. Use 1 - Office] (b)	12	---	---	0.600	0.500
Door: Glass (over 50% glazing): Metal Frame, Entrance Door, Perf. Specs.: Product ID Impact Rated, SHGC 0.25, [Bldg. Use 1 - Office] (b)	22	---	---	0.600	0.830

- (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.
- (d) CMU insulated cells must be filled with a material having a maximum thermal conductivity of 0.44 Btu in./h-ft²-degrees F. Perlite, vermiculite, polystyrene beads, or spray foam as defined in ASHRAE 2009 Handbook of Fundamentals meet this requirement. Other materials require documentation of thermal conductivity.

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

<u>Phillip E. Kern - Architect</u>		<u>3/11/2022</u>
Name - Title	Signature	Date



COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2020 Florida Building Code, Energy Conservation
Project Title: Tidal Wave #00197 Lake City, FL
Project Type: New Construction

Construction Site:
3039 W. US-90
Lake City, Florida 32055

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Enhanced Interior Lighting Controls, 1.0 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts
1-Automotive Facility	3700	0.71	2627
Total Allowed Watts =			2627

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Automotive Facility				
LED: A: Other:	1	9	115	1035
LED: B: Other:	1	19	41	779
LED: C: Other:	1	2	27	54
LED: D: Other:	1	2	24	48
LED: G: Other:	1	1	7	7
Total Proposed Watts =				1923

Interior Lighting PASSES: Design 27% 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 2020 Florida Building Code, Energy Conservation requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Michael Doyle, P.E.
Name - Title

Michael Doyle
Signature

3/1/22
Date

Michael D Doyle

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DN: cn=Michael D Doyle,
o=Qualifiers-A01410C200001797BA0FB22000026AB,
o=Louisiana, C=US
Reason: I am the author of this document
Date: 2022.03.01 10:14:14-06'00'



Project Title: Tidal Wave #00197 Lake City, FL
Data filename:

Report Date: 03/01/22
Page 2 of 13



COMcheck Software Version COMcheckWeb

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2020 Florida Building Code, Energy Conservation
Project Title: Tidal Wave #00197 Lake City, FL
Project Type: New Construction
Exterior Lighting Zone: 2 (Residential mixed use area (LZ2))

Construction Site:
3039 W. US-90
Lake City, Florida 32055

Owner/Agent:

Designer/Contractor:

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Free standing/attached sales canopy	450 ft2	0.4	Yes	180
Free standing/attached sales canopy	656 ft2	0.4	Yes	262
Free standing/attached sales canopy	4300 ft2	0.4	Yes	1720
Illuminated area of facade wall or surface	900 ft2	0.07	No	68
Driveway	33000 ft2	0.04	Yes	1320
Total Tradable Watts (a) =				3482
Total Allowed Watts =				3550
Total Allowed Supplemental 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 Fixture	D Fixture Watt.	E (C X D)
<u>Free standing/attached sales canopy (450 ft2): Tradable Wattage</u>				
LED: J: Other:	1	4	38	152
<u>Free standing/attached sales canopy (656 ft2): Tradable Wattage</u>				
LED: H: Other:	1	2	98	196
<u>Free standing/attached sales canopy (4300 ft2): Tradable Wattage</u>				
LED: H: Other:	1	21	98	2058
<u>Illuminated area of facade wall or surface (900 ft2): Non-tradable Wattage</u>				
LED: F: Other:	1	5	25	125
<u>Driveway (33000 ft2): Tradable Wattage</u>				
LED: P3, P5: Other:	1	5	180	900
LED: S: Other:	1	12	8	96
Total Tradable Proposed Watts =				3402

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 2020 Florida Building Code, Energy Conservation requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Michael Doyle, P.E.
Name - Title

Michael Doyle
Signature

3/1/22
Date





COMcheck Software Version COMcheckWeb Mechanical Compliance Certificate

Project Information

Energy Code: 2020 Florida Building Code, Energy Conservation
Project Title: Tidal Wave #00197 Lake City, FL
Location: Lake City, Florida
Climate Zone: 2a
Project Type: New Construction

Jordan H Fish

Digitally signed by Jordan H Fish
DN: cn=Jordan H Fish,
o=Qualtrics, ou=1410CO00001797AB8254500002084,
c=US
Reason: I am approving this document
Date: 2022.02.28 16:09:44-06'00'

Construction Site:
3039 W. US-90
Lake City, Florida 32055

Owner/Agent:

Designer/Contractor:

Additional Efficiency Package(s)

Credits: 1.0 Required 1.0 Proposed
Enhanced Interior Lighting Controls, 1.0 credit

Mechanical Systems List

Quantity System Type & Description

- 1 HVAC System (Single Zone):
Split System Heat Pump
Heating Mode: Capacity = 9 kBtu/h,
Proposed Efficiency = 8.20 HSPF, Required Efficiency = 8.20 HSPF
Cooling Mode: Capacity = 9 kBtu/h,
Proposed Efficiency = 16.00 SEER, Required Efficiency: 14.00 SEER
Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN 1 Supply, Single-Zone VAV, 300 CFM, 0.5 motor nameplate hp, 0.95 fan energy index
- 1 Water Heater:
Electric Storage Water Heater, Capacity: 20 gallons
No minimum efficiency requirement applies



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 2020 Florida Building Code, Energy Conservation requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

JORDAN FISH, P.E. - PARTNER
Name - Title

Signature

Date