

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

Florida Department of Business and Professional Regulation - Residential Performance Method

Project Name: Burk Residence-Amira  
 Street: 650 Rock Way  
 City, State, Zip: Ft. White, FL,  
 Owner: Burk  
 Design Location: FL, Gainesville

Builder Name: Amira Custom Homes  
 Permit Office: Columbia County Building Dept  
 Permit Number:  
 Jurisdiction:  
 County: Columbia (Florida Climate Zone 2)

1. New construction or existing New (From Plans)  
 2. Single family or multiple family Single-family  
 3. Number of units, if multiple family 1  
 4. Number of Bedrooms 3  
 5. Is this a worst case? No  
 6. Conditioned floor area above grade (ft²) 2188  
 Conditioned floor area below grade (ft²) 0  
 7. Windows(268.2 sqft.) Description Area  
 a. U-Factor: Dbl, U=0.33 268.17 ft²  
 SHGC: SHGC=0.27  
 b. U-Factor: N/A ft²  
 SHGC:  
 c. U-Factor: N/A ft²  
 SHGC:  
 d. U-Factor: N/A ft²  
 SHGC:  
 Area Weighted Average Overhang Depth: 1.500 ft.  
 Area Weighted Average SHGC: 0.270  
 8. Floor Types (2188.0 sqft.) Insulation Area  
 a. Slab-On-Grade Edge Insulation R=0.0 2188.00 ft²  
 b. N/A R= ft²  
 c. N/A R= ft²

9. Wall Types(2374.3 sqft.) Insulation Area  
 a. Frame - Wood, Exterior R=19.0 1964.80 ft²  
 b. Frame - Wood, Adjacent R=13.0 409.50 ft²  
 c. N/A R= ft²  
 d. N/A R= ft²  
 10. Ceiling Types (2188.0 sqft.) Insulation Area  
 a. Roof Deck (Unvented) R=19.0 2188.00 ft²  
 b. N/A R= ft²  
 c. N/A R= ft²  
 11. Ducts R ft²  
 a. Sup: Attic, Ret: Attic, AH: Garage 6 437.6  
 12. Cooling systems kBtu/hr Efficiency  
 a. Central Unit 33.0 SEER:14.00  
 13. Heating systems kBtu/hr Efficiency  
 a. Electric Heat Pump 33.8 HSPF:8.20  
 14. Hot water systems  
 a. Electric Cap: 40 gallons  
 b. Conservation features EF: 0.940  
 None  
 15. Credits Pstat

Glass/Floor Area: 0.123

Total Proposed Modified Loads: 60.09

Total Baseline Loads: 60.60

**PASS**

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.

PREPARED BY: **JRDing**  
 DATE:

I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.

OWNER/AGENT:  
 DATE:

Review of the plans and specifications covered by this calculation indicates compliance with the Florida Energy Code. Before construction is completed this building will be inspected for compliance with Section 553.908 Florida Statutes.



BUILDING OFFICIAL:  
 DATE:

- Compliance requires certification by the air handler unit manufacturer that the air handler enclosure qualifies as certified factory-sealed in accordance with R403.3.2.1.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires an envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).
- Compliance with a proposed duct leakage Qn requires a Duct Leakage Test Report confirming duct leakage to outdoors, tested in accordance with ANSI/RESNET/ICC 380, is not greater than 0.030 Qn for whole house.

## INPUT SUMMARY CHECKLIST REPORT

## PROJECT

|                |                             |                    |      |                    |                     |
|----------------|-----------------------------|--------------------|------|--------------------|---------------------|
| Title:         | Burk Residence-Amira        | Bedrooms:          | 3    | Address Type:      | Street Address      |
| Building Type: | User                        | Conditioned Area:  | 2188 | Lot #              |                     |
| Owner Name:    | Burk                        | Total Stories:     | 1    | Block/Subdivision: |                     |
| # of Units:    | 1                           | Worst Case:        | No   | PlatBook:          |                     |
| Builder Name:  | Amira Custom Homes          | Rotate Angle:      | 0    | Street:            | 650 Rock Way        |
| Permit Office: | Columbia County Building De | Cross Ventilation: |      | County:            | Columbia            |
| Jurisdiction:  |                             | Whole House Fan:   |      | City, State, Zip:  | Ft. White ,<br>FL , |
| Family Type:   | Single-family               |                    |      |                    |                     |
| New/Existing:  | New (From Plans)            |                    |      |                    |                     |
| Comment:       |                             |                    |      |                    |                     |

## CLIMATE

| ✓     | Design Location | TMY Site            | Design Temp |       | Int Design Temp |        | Heating     | Design   | Daily Temp |
|-------|-----------------|---------------------|-------------|-------|-----------------|--------|-------------|----------|------------|
|       |                 |                     | 97.5 %      | 2.5 % | Winter          | Summer | Degree Days | Moisture | Range      |
| _____ | FL, Gainesville | FL_GAINESVILLE_REGI | 32          | 92    | 70              | 75     | 1305.5      | 51       | Medium     |

## BLOCKS

| Number | Name   | Area | Volume |
|--------|--------|------|--------|
| 1      | Block1 | 2188 | 20786  |

## SPACES

| Number | Name | Area | Volume | Kitchen | Occupants | Bedrooms | Infil ID | Finished | Cooled | Heated |
|--------|------|------|--------|---------|-----------|----------|----------|----------|--------|--------|
| 1      | Main | 2188 | 20786  | Yes     | 4         | 3        | 1        | Yes      | Yes    | Yes    |

## FLOORS

| ✓     | # | Floor Type                   | Space | Perimeter | R-Value | Area     |      | Tile | Wood | Carpet |
|-------|---|------------------------------|-------|-----------|---------|----------|------|------|------|--------|
| _____ | 1 | Slab-On-Grade Edge Insulatio | Main  | 251.5 ft  | 0       | 2188 ft² | ---- | 0.33 | 0.34 | 0.33   |

## ROOF

| ✓     | # | Type | Materials            | Roof Area | Gable Area | Roof Color | Rad Barr | Solar Absor. | SA Tested | Emitt | Emitt Tested | Deck Insul. | Pitch (deg) |
|-------|---|------|----------------------|-----------|------------|------------|----------|--------------|-----------|-------|--------------|-------------|-------------|
| _____ | 1 | Hip  | Composition shingles | 2630 ft²  | 0 ft²      | Medium     | N        | 0.96         | No        | 0.9   | No           | 19          | 33.7        |

## ATTIC

| ✓     | # | Type       | Ventilation | Vent Ratio (1 in) | Area     | RBS | IRCC |
|-------|---|------------|-------------|-------------------|----------|-----|------|
| _____ | 1 | Full attic | Unvented    | 0                 | 2188 ft² | N   | N    |

## CEILING

| ✓     | # | Ceiling Type           | Space | R-Value | Ins Type | Area     | Framing Frac | Truss Type |
|-------|---|------------------------|-------|---------|----------|----------|--------------|------------|
| _____ | 1 | Under Attic (Unvented) | Main  | 0       | Blown    | 2188 ft² | 0.11         | Wood       |

## INPUT SUMMARY CHECKLIST REPORT

## WALLS

| ✓ #    | Ornt | Adjacent To | Wall Type    | Space | Cavity R-Value | Width Ft | In | Height Ft | In | Area      | Sheathing R-Value | Framing Fraction | Solar Absor. | Below Grade% |
|--------|------|-------------|--------------|-------|----------------|----------|----|-----------|----|-----------|-------------------|------------------|--------------|--------------|
| ___ 1  | E    | Exterior    | Frame - Wood | Main  | 19             | 8        |    | 10        |    | 80.0 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 2  | N    | Exterior    | Frame - Wood | Main  | 19             | 4        |    | 10        |    | 40.0 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 3  | E    | Exterior    | Frame - Wood | Main  | 19             | 12       | 4  | 10        |    | 123.3 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 4  | S    | Exterior    | Frame - Wood | Main  | 19             | 2        | 6  | 9         |    | 22.5 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 5  | E    | Exterior    | Frame - Wood | Main  | 19             | 9        | 8  | 9         |    | 87.0 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 6  | S    | Garage      | Frame - Wood | Main  | 13             | 15       |    | 9         |    | 135.0 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 7  | E    | Garage      | Frame - Wood | Main  | 13             | 5        | 6  | 9         |    | 49.5 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 8  | S    | Garage      | Frame - Wood | Main  | 13             | 3        | 2  | 9         |    | 28.5 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 9  | E    | Garage      | Frame - Wood | Main  | 13             | 8        | 4  | 9         |    | 75.0 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 10 | N    | Garage      | Frame - Wood | Main  | 13             | 3        | 2  | 9         |    | 28.5 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 11 | E    | Garage      | Frame - Wood | Main  | 13             | 10       | 4  | 9         |    | 93.0 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 12 | S    | Exterior    | Frame - Wood | Main  | 19             | 27       | 2  | 9         |    | 244.5 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 13 | W    | Exterior    | Frame - Wood | Main  | 19             | 24       | 4  | 10        |    | 243.3 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 14 | N    | Exterior    | Frame - Wood | Main  | 19             | 3        | 4  | 10        |    | 33.3 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 15 | W    | Exterior    | Frame - Wood | Main  | 19             | 12       | 6  | 10        |    | 125.0 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 16 | N    | Exterior    | Frame - Wood | Main  | 19             | 7        | 4  | 10        |    | 73.3 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 17 | NW   | Exterior    | Frame - Wood | Main  | 19             | 2        |    | 10        |    | 20.0 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 18 | W    | Exterior    | Frame - Wood | Main  | 19             | 16       |    | 10        |    | 160.0 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 19 | S    | Exterior    | Frame - Wood | Main  | 19             | 8        | 10 | 9         |    | 79.5 ft²  |                   | 0.23             | 0.75         | 0            |
| ___ 20 | W    | Exterior    | Frame - Wood | Main  | 19             | 12       | 6  | 9         |    | 112.5 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 21 | N    | Exterior    | Frame - Wood | Main  | 19             | 41       | 4  | 9         |    | 372.0 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 22 | E    | Exterior    | Frame - Wood | Main  | 19             | 12       | 6  | 9         |    | 112.5 ft² |                   | 0.23             | 0.75         | 0            |
| ___ 23 | S    | Exterior    | Frame - Wood | Main  | 19             | 4        |    | 9         |    | 36.0 ft²  |                   | 0.23             | 0.75         | 0            |

## DOORS

| ✓ #   | Ornt | Door Type | Space | Storms | U-Value | Width Ft | In | Height Ft | In | Area     |
|-------|------|-----------|-------|--------|---------|----------|----|-----------|----|----------|
| ___ 1 | E    | Insulated | Main  | None   | .46     | 6        |    | 8         |    | 48 ft²   |
| ___ 2 | E    | Insulated | Main  | None   | .46     | 2        | 8  | 6         | 8  | 17.8 ft² |
| ___ 3 | N    | Insulated | Main  | None   | .46     | 2        | 8  | 6         | 8  | 17.8 ft² |

## WINDOWS

Orientation shown is the entered, Proposed orientation.

| ✓ #   | Ornt | Wall ID | Frame | Panes        | NFRC | U-Factor | SHGC | Imp | Area     | Overhang Depth | Separation | Int Shade     | Screening  |
|-------|------|---------|-------|--------------|------|----------|------|-----|----------|----------------|------------|---------------|------------|
| ___ 1 | E    | 3       | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 36.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 2 | E    | 5       | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 15.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 3 | S    | 12      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 9.0 ft²  | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 4 | W    | 13      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 11.7 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 5 | W    | 13      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 30.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 6 | W    | 15      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 54.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 7 | W    | 18      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 54.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 8 | W    | 20      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 15.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |
| ___ 9 | N    | 21      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 7.5 ft²  | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |

## INPUT SUMMARY CHECKLIST REPORT

## WINDOWS

Orientation shown is the entered, Proposed orientation.

| ✓ | #  | Ornt | Wall ID | Frame | Panes        | NFRC | U-Factor | SHGC | Imp | Area     | Overhang Depth | Separation | Int Shade     | Screening  |
|---|----|------|---------|-------|--------------|------|----------|------|-----|----------|----------------|------------|---------------|------------|
| ✓ | 10 | E    | 22      | Vinyl | Low-E Double | Yes  | 0.33     | 0.27 | N   | 36.0 ft² | 1 ft 6 in      | 1 ft 0 in  | Drapes/blinds | Exterior 5 |

## GARAGE

| ✓ | # | Floor Area | Ceiling Area | Exposed Wall Perimeter | Avg. Wall Height | Exposed Wall Insulation |
|---|---|------------|--------------|------------------------|------------------|-------------------------|
| ✓ | 1 | 559.12 ft² | 559.12 ft²   | 59.7 ft                | 9 ft             | 1                       |

## INFILTRATION

| # | Scope      | Method           | SLA     | CFM 50 | ELA   | EqLA   | ACH   | ACH 50 |
|---|------------|------------------|---------|--------|-------|--------|-------|--------|
| 1 | Wholehouse | Proposed ACH(50) | .000302 | 1732.2 | 95.09 | 178.84 | .1216 | 5      |

## HEATING SYSTEM

| ✓ | # | System Type         | Subtype | Speed | Efficiency | Capacity     | Block | Ducts |
|---|---|---------------------|---------|-------|------------|--------------|-------|-------|
| ✓ | 1 | Electric Heat Pump/ | None    | Singl | HSPF:8.2   | 33.8 kBtu/hr | 1     | sys#1 |

## COOLING SYSTEM

| ✓ | # | System Type   | Subtype | Subtype | Efficiency | Capacity   | Air Flow | SHR  | Block | Ducts |
|---|---|---------------|---------|---------|------------|------------|----------|------|-------|-------|
| ✓ | 1 | Central Unit/ | None    | Singl   | SEER: 14   | 33 kBtu/hr | 1100 cfm | 0.85 | 1     | sys#1 |

## HOT WATER SYSTEM

| ✓ | # | System Type | SubType | Location | EF   | Cap    | Use    | SetPnt  | Conservation |
|---|---|-------------|---------|----------|------|--------|--------|---------|--------------|
| ✓ | 1 | Electric    | None    | Garage   | 0.94 | 40 gal | 60 gal | 120 deg | None         |

## SOLAR HOT WATER SYSTEM

| ✓ | FSEC Cert # | Company Name | System Model # | Collector Model # | Collector Area | Storage Volume | FEF |
|---|-------------|--------------|----------------|-------------------|----------------|----------------|-----|
| ✓ | None        | None         |                |                   | ft²            |                |     |

## DUCTS

| ✓ | # | Location | Supply R-Value | Area     | Location | Return Area | Leakage Type    | Air Handler | CFM 25 TOT | CFM25 OUT | QN   | RLF  | HVAC # Heat | Cool |
|---|---|----------|----------------|----------|----------|-------------|-----------------|-------------|------------|-----------|------|------|-------------|------|
| ✓ | 1 | Attic    | 6              | 437.6 ft | Attic    | 109.4 ft    | Prop. Leak Free | Garage      | --- cfm    | 65.6 cfm  | 0.03 | 0.50 | 1           | 1    |

**INPUT SUMMARY CHECKLIST REPORT****TEMPERATURES**

Programable Thermostat: Y

Ceiling Fans:

|         |                                         |                                         |                                         |                                         |                              |                                         |                                         |                                         |                                         |                                         |                                         |                                         |
|---------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Cooling | <input type="checkbox"/> Jan            | <input type="checkbox"/> Feb            | <input type="checkbox"/> Mar            | <input type="checkbox"/> Apr            | <input type="checkbox"/> May | <input checked="" type="checkbox"/> Jun | <input checked="" type="checkbox"/> Jul | <input checked="" type="checkbox"/> Aug | <input checked="" type="checkbox"/> Sep | <input type="checkbox"/> Oct            | <input type="checkbox"/> Nov            | <input type="checkbox"/> Dec            |
| Heating | <input checked="" type="checkbox"/> Jan | <input checked="" type="checkbox"/> Feb | <input checked="" type="checkbox"/> Mar | <input type="checkbox"/> Apr            | <input type="checkbox"/> May | <input type="checkbox"/> Jun            | <input type="checkbox"/> Jul            | <input type="checkbox"/> Aug            | <input type="checkbox"/> Sep            | <input checked="" type="checkbox"/> Oct | <input checked="" type="checkbox"/> Nov | <input checked="" type="checkbox"/> Dec |
| Venting | <input type="checkbox"/> Jan            | <input type="checkbox"/> Feb            | <input checked="" type="checkbox"/> Mar | <input checked="" type="checkbox"/> Apr | <input type="checkbox"/> May | <input type="checkbox"/> Jun            | <input type="checkbox"/> Jul            | <input type="checkbox"/> Aug            | <input type="checkbox"/> Sep            | <input checked="" type="checkbox"/> Oct | <input checked="" type="checkbox"/> Nov | <input checked="" type="checkbox"/> Dec |

Thermostat Schedule: HERS 2006 Reference

| Schedule Type |    | Hours |    |    |    |    |    |    |    |    |    |    |    |
|---------------|----|-------|----|----|----|----|----|----|----|----|----|----|----|
|               |    | 1     | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| Cooling (WD)  | AM | 78    | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 80 | 80 | 80 | 80 |
|               | PM | 80    | 80 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| Cooling (WEH) | AM | 78    | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
|               | PM | 78    | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| Heating (WD)  | AM | 66    | 66 | 66 | 66 | 66 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
|               | PM | 68    | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 66 | 66 |
| Heating (WEH) | AM | 66    | 66 | 66 | 66 | 66 | 68 | 68 | 68 | 68 | 68 | 68 | 68 |
|               | PM | 68    | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 66 | 66 |

**MASS**

| Mass Type            | Area  | Thickness | Furniture Fraction | Space |
|----------------------|-------|-----------|--------------------|-------|
| Default(8 lbs/sq.ft. | 0 ft² | 0 ft      | 0.3                | Main  |