

**FLORIDA ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION**

## Florida Department of Business and Professional Regulation - Residential Performance Method

|                                                                                                                                                                            |                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Project Name: Megan Cady Residence<br>Street: 433 SW Finley Little Lane<br>City, State, Zip: Lake City, FL, 32024<br>Owner: Megan Cady<br>Design Location: FL, Gainesville | Builder Name:<br>Permit Office: Columbia County<br>Permit Number:<br>Jurisdiction:<br>County: Columbia(Florida Climate Zone 2) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| 1. New construction or existing      New (From Plans)<br>2. Single family or multiple family      Detached<br>3. Number of units, if multiple family      1<br>4. Number of Bedrooms      3<br>5. Is this a worst case?      No<br>6. Conditioned floor area above grade (ft²)      2232<br>Conditioned floor area below grade (ft²)      0<br>7. Windows(394.0 sqft.)      Description      Area<br>a. U-Factor:      Dbl, U=0.36      394.00 ft²<br>SHGC:      SHGC=0.25<br>b. U-Factor:      N/A      ft²<br>SHGC:      N/A<br>c. U-Factor:      N/A      ft²<br>SHGC:      N/A<br>Area Weighted Average Overhang Depth:      6.261 ft<br>Area Weighted Average SHGC:      0.250<br>8. Skylights      Description      Area<br>U-Factor:(AVG)      N/A      N/A ft²<br>SHGC(AVG):      N/A<br>9. Floor Types      Insulation      Area<br>a. Slab-On-Grade Edge Insulation      R= 0.0      2232.00 ft²<br>b. N/A      R=      ft²<br>c. N/A      R=      ft² | 10. Wall Types(2433.7 sqft.)      Insulation      Area<br>a. Frame - Wood, Exterior      R=13.0      2073.70 ft²<br>b. Frame - Wood, Adjacent      R=13.0      360.00 ft²<br>c. N/A<br>d. N/A<br>11. Ceiling Types(2455.0 sqft.)      Insulation      Area<br>a. Flat ceiling under att (Vented)      R=38.0      2455.00 ft²<br>b. N/A<br>c. N/A<br>12. Roof(Comp. Shingles, Vented) Deck R=0.0      2906 ft²<br>13. Ducts, location & insulation level      R      ft²<br>a. Sup: Attic, Ret: Attic, AH: Garage      6      558<br>b.<br>c.<br>14. Cooling Systems      kBtu/hr      Efficiency<br>a. Central Unit      30.2      SEER:15.00<br><br>15. Heating Systems      kBtu/hr      Efficiency<br>a. Electric Heat Pump      37.8      HSPF:8.80<br><br>16. Hot Water Systems<br>a. Electric      Cap: 50 gallons<br>EF: 0.920<br>b. Conservation features<br>None<br>17. Credits      CV, Pstat |
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|                        |                                      |             |
|------------------------|--------------------------------------|-------------|
| Glass/Floor Area:0.177 | Total Proposed Modified Loads: 53.90 | <b>PASS</b> |
|                        | Total Baseline Loads: 55.64          |             |

|                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code.<br><br>PREPARED BY: <u>Wm C. My</u><br>DATE: <u>3 / 3 / 2023</u><br><br>I hereby certify that this building, as designed, is in compliance with the Florida Energy Code.<br>OWNER/AGENT: _____<br>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.<br><br><div style="text-align: center;">  </div> BUILDING OFFICIAL: _____<br>DATE: _____ |
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- 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.
- Default duct leakage does not require a Duct Leakage Test Report.
- Compliance requires an Air Barrier and Insulation Inspection Checklist in accordance with R402.4.1.1 and this project requires a PERFORMANCE envelope leakage test report with envelope leakage no greater than 5.00 ACH50 (R402.4.1.2).

## INPUT SUMMARY CHECKLIST REPORT

| PROJECT                                    |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
|--------------------------------------------|----------------------------------|----------------------|--------------------|-------------------|-----------------|--------------------|---------------------------|------------|-----------------|--------------|------------------|-------------|
| Title:                                     | Megan Cady Residence             |                      |                    |                   | Address type:   |                    | Street Address            |            |                 |              |                  |             |
| Building Type:                             | User                             |                      | Bedrooms:          | 3                 |                 | Lot #:             | ---                       |            |                 |              |                  |             |
| Owner:                                     | Megan Cady                       |                      | Conditioned Area:  | 2232              |                 | Block/SubDivision: | ---                       |            |                 |              |                  |             |
| Builder Name:                              |                                  |                      | Total Stories:     | 1                 |                 | PlatBook:          | ---                       |            |                 |              |                  |             |
| Permit Office:                             | Columbia County                  |                      | Worst Case:        | No                |                 | Street:            | 433 SW Finley Little Lane |            |                 |              |                  |             |
| Jurisdiction:                              |                                  |                      | Rotate Angle:      | 0                 |                 | County:            | Columbia                  |            |                 |              |                  |             |
| Family Type:                               | Detached                         |                      | Cross Ventilation: | Yes               |                 | City, State, Zip:  | Lake City, FL, 32024      |            |                 |              |                  |             |
| New/Existing:                              | New (From Plans)                 |                      | Whole House Fan:   | No                |                 |                    |                           |            |                 |              |                  |             |
| Year Construct:                            | 2023                             |                      | Terrain:           | Suburban          |                 |                    |                           |            |                 |              |                  |             |
| Comment:                                   |                                  |                      | Shielding:         | Suburban          |                 |                    |                           |            |                 |              |                  |             |
| CLIMATE                                    |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ Design Location                          | Tmy Site                         |                      | Design Temp        |                   | Int Design Temp |                    | Heating Degree Days       |            | Design Moisture |              | Daily temp Range |             |
|                                            |                                  |                      | 97.5%              | 2.5%              | Winter          | Summer             |                           |            |                 |              |                  |             |
| ___ FL, Gainesville                        | FL_GAINESVILLE_REGIONA           |                      | 32                 | 92                | 70              | 75                 | 1305.5                    | 51         | Medium          |              |                  |             |
| BLOCKS                                     |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ Number                                   | Name                             | Area                 | Volume             |                   |                 |                    |                           |            |                 |              |                  |             |
| ___ 1                                      | Block1                           | 2232                 | 20088 cu ft        |                   |                 |                    |                           |            |                 |              |                  |             |
| SPACES                                     |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ Number                                   | Name                             | Area                 | Volume             | Kitchen           | Occupants       | Bedrooms           | Finished                  | Cooled     | Heated          |              |                  |             |
| ___ 1                                      | 1st Floor                        | 2232                 | 20088              | Yes               | 8               | 3                  | Yes                       | Yes        | Yes             |              |                  |             |
| FLOORS (Total Exposed Area = 2232 sq.ft.)  |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ #                                        | Floor Type                       | Space                | Exposed Perim      | Perimeter R-Value | Area            | U-Factor           | Joist R-Value             | Tile       | Wood            | Carpet       |                  |             |
| ___ 1                                      | Slab-On-Grade Edge Ins           | 1st Floor            | 267.33             | 0                 | 2232 ft         | 0.304              | ---                       | 0.00       | 0.00            | 1.00         |                  |             |
| ROOF                                       |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ #                                        | Type                             | Materials            | Roof Area          | Gable Area        | Roof Color      | Rad Barr           | Solar Absor.              | SA Tested  | Emitt           | Emitt Tested | Deck Insul.      | Pitch (deg) |
| ___ 1                                      | Gable or shed                    | Composition shingles | 2906 ft²           | 520 ft²           | Medium          | Y                  | 0.96                      | No         | 0.9             | No           | 0                | 39.81       |
| ATTIC                                      |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ #                                        | Type                             | Ventilation          | Vent Ratio (1 in)  |                   | Area            | RBS                | IRCC                      |            |                 |              |                  |             |
| ___ 1                                      | Partial cathedral ceiling        | Vented               | 300                |                   | 2232 ft²        | Y                  | N                         |            |                 |              |                  |             |
| CEILING (Total Exposed Area = 2455 sq.ft.) |                                  |                      |                    |                   |                 |                    |                           |            |                 |              |                  |             |
| ✓ #                                        | Ceiling Type                     | Space                | R-Value            | Ins. Type         | Area            | U-Factor           | Framing Frac.             | Truss Type |                 |              |                  |             |
| ___ 1                                      | Flat ceiling under attic(Vented) | 1st Floor            | 38.0               | Double Batt       | 2455.0ft²       | 0.024              | 0.11                      | Wood       |                 |              |                  |             |

# INPUT SUMMARY CHECKLIST REPORT

| WALLS  |      |             |              |           |                |          |    |           |    |             |          |                |            |              | (Total Exposed Area = 2434 sq.ft.) |  |  |  |  |
|--------|------|-------------|--------------|-----------|----------------|----------|----|-----------|----|-------------|----------|----------------|------------|--------------|------------------------------------|--|--|--|--|
| ✓ #    | Ornt | Adjacent To | Wall Type    | Space     | Cavity R-Value | Width Ft | In | Height Ft | In | Area sq.ft. | U-Factor | Sheath R-Value | Frm. Frac. | Solar Absor. | Below Grade                        |  |  |  |  |
| ___ 1  | S    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 32.0     | 0  | 10.0      | 0  | 320.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 2  | E    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 3.0      | 8  | 10.0      | 0  | 36.7        | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 3  | S    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 8.0      | 0  | 9.0       | 0  | 72.0        | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 4  | E    | Garage      | Frame - Wood | 1st Floor | 13.0           | 15.0     | 4  | 9.0       | 0  | 138.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 5  | S    | Garage      | Frame - Wood | 1st Floor | 13.0           | 24.0     | 8  | 9.0       | 0  | 222.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 6  | E    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 37.0     | 0  | 9.0       | 0  | 333.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 7  | N    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 24.0     | 8  | 9.0       | 0  | 222.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 8  | W    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 15.0     | 8  | 9.0       | 0  | 141.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 9  | W    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 10.0     | 0  | 9.0       | 0  | 90.0        | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 10 | N    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 28.0     | 0  | 10.0      | 0  | 280.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 11 | E    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 11.0     | 0  | 9.0       | 0  | 99.0        | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 12 | N    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 12.0     | 0  | 9.0       | 0  | 108.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |
| ___ 13 | W    | Exterior    | Frame - Wood | 1st Floor | 13.0           | 41.0     | 4  | 9.0       | 0  | 372.0       | 0.084    |                | 0.23       | 0.75         | 0 %                                |  |  |  |  |

| DOORS |      |             |           |           |        |         |          |    |           | (Total Exposed Area = 48 sq.ft.) |         |  |  |
|-------|------|-------------|-----------|-----------|--------|---------|----------|----|-----------|----------------------------------|---------|--|--|
| ✓ #   | Ornt | Adjacent To | Door Type | Space     | Storms | U-Value | Width Ft | In | Height Ft | In                               | Area    |  |  |
| ___ 1 | S    | Exterior    | Insulated | 1st Floor | None   | 0.46    | 3.00     | 0  | 8.00      | 0                                | 24.0ft² |  |  |
| ___ 2 | S    | Garage      | Insulated | 1st Floor | None   | 0.46    | 3.00     | 0  | 8.00      | 0                                | 24.0ft² |  |  |

| WINDOWS |      |         |       |              |               |      |      |       |                  |            |            |             |                         |           | (Total Exposed Area = 394 sq.ft.) |        |      |  |
|---------|------|---------|-------|--------------|---------------|------|------|-------|------------------|------------|------------|-------------|-------------------------|-----------|-----------------------------------|--------|------|--|
| ✓ #     | Ornt | Wall ID | Frame | Panes        | NFRC U-Factor | SHGC | Imp  | Storm | Total Area (ft²) | Same Units | Width (ft) | Height (ft) | --Overhang-- Depth (ft) | Sep. (ft) | Interior Shade                    | Screen |      |  |
| ___ 1   | S    | 1       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 60.0       | 4          | 2.50        | 6.00                    | 9.5       | 1.0                               | None   | None |  |
| ___ 2   | S    | 1       | TIM   | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 16.0       | 2          | 1.00        | 8.00                    | 9.5       | 1.0                               | None   | None |  |
| ___ 3   | S    | 3       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 8.0        | 1          | 2.00        | 4.00                    | 1.5       | 1.0                               | None   | None |  |
| ___ 4   | E    | 6       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 12.0       | 3          | 2.00        | 2.00                    | 1.5       | 3.0                               | None   | None |  |
| ___ 5   | E    | 6       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 20.0       | 2          | 2.50        | 4.00                    | 1.5       | 3.0                               | None   | None |  |
| ___ 6   | E    | 6       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 8.0        | 1          | 4.00        | 2.00                    | 1.5       | 3.0                               | None   | None |  |
| ___ 7   | N    | 7       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 24.0       | 2          | 2.00        | 6.00                    | 1.0       | 4.0                               | None   | None |  |
| ___ 8   | W    | 8       | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 36.0       | 2          | 3.00        | 6.00                    | 1.5       | 3.0                               | None   | None |  |
| ___ 9   | W    | 9       | TIM   | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 24.0       | 1          | 3.00        | 8.00                    | 7.5       | 1.0                               | None   | None |  |
| ___ 10  | N    | 10      | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 20.0       | 2          | 2.50        | 4.00                    | 11.5      | 1.0                               | None   | None |  |
| ___ 11  | N    | 10      | TIM   | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 96.0       | 4          | 3.00        | 8.00                    | 11.5      | 1.0                               | None   | None |  |
| ___ 12  | N    | 12      | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 48.0       | 2          | 3.00        | 8.00                    | 1.0       | 2.0                               | None   | None |  |
| ___ 13  | W    | 13      | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 4.0        | 1          | 2.00        | 2.00                    | 1.5       | 1.0                               | None   | None |  |
| ___ 14  | W    | 13      | Vinyl | Low-E Double | Y             | 0.36 | 0.25 | N     | N                | 18.0       | 1          | 3.00        | 6.00                    | 1.5       | 1.0                               | None   | None |  |

| INFILTRATION |            |                  |         |       |       |        |        |       |          |                          |
|--------------|------------|------------------|---------|-------|-------|--------|--------|-------|----------|--------------------------|
| ✓ #          | Scope      | Method           | SLA     | CFM50 | ELA   | EqLA   | ACH    | ACH50 | Space(s) | Infiltration Test Volume |
| ___ 1        | Wholehouse | Proposed ACH(50) | 0.00029 | 1674  | 91.84 | 172.42 | 0.1027 | 5.0   | All      | 20088 cu ft              |

| GARAGE |            |           |                        |                  |                         |
|--------|------------|-----------|------------------------|------------------|-------------------------|
| ✓ #    | Floor Area | Roof Area | Exposed Wall Perimeter | Avg. Wall Height | Exposed Wall Insulation |
| ___ 1  | 584 ft²    | 584 ft²   | 57 ft                  | 9 ft             | 1                       |

## INPUT SUMMARY CHECKLIST REPORT

| MASS  |                       |       |           |                    |           |  |  |  |  |  |  |  |  |
|-------|-----------------------|-------|-----------|--------------------|-----------|--|--|--|--|--|--|--|--|
| ✓ #   | Mass Type             | Area  | Thickness | Furniture Fraction | Space     |  |  |  |  |  |  |  |  |
| ___ 1 | Default(8 lbs/sq.ft.) | 0 ft² | 0 ft      | 0.30               | 1st Floor |  |  |  |  |  |  |  |  |

| HEATING SYSTEM |                    |               |        |            |                     |                        |                      |      |         |       |       |
|----------------|--------------------|---------------|--------|------------|---------------------|------------------------|----------------------|------|---------|-------|-------|
| ✓ #            | System Type        | Subtype/Speed | AHRI # | Efficiency | Capacity<br>kBtu/hr | ---Geothermal<br>Entry | HeatPump---<br>Power | Volt | Current | Ducts | Block |
| ___ 1          | Electric Heat Pump | None/Single   |        | HSPF: 8.80 | 37.8                |                        | 0.00                 | 0.00 | 0.00    | sys#1 | 1     |

| COOLING SYSTEM |              |               |        |            |                     |                 |      |       |       |
|----------------|--------------|---------------|--------|------------|---------------------|-----------------|------|-------|-------|
| ✓ #            | System Type  | Subtype/Speed | AHRI # | Efficiency | Capacity<br>kBtu/hr | Air Flow<br>cfm | SHR  | Duct  | Block |
| ___ 1          | Central Unit | None/Single   |        | SEER:15.0  | 30.2                | 900             | 0.70 | sys#1 | 1     |

| HOT WATER SYSTEM |                         |                        |                |                  |               |        |                         |               |             |               |
|------------------|-------------------------|------------------------|----------------|------------------|---------------|--------|-------------------------|---------------|-------------|---------------|
| ✓ #              | System Type             | Subtype                | Location       | EF(UEF)          | Cap           | Use    | SetPnt                  | Fixture Flow  | Pipe Ins.   | Pipe length   |
| ___ 1            | Electric                | None                   | Garage         | 0.92 (0.92)      | 50.00 gal     | 40 gal | 120 deg                 | Standard      | None        | 12            |
|                  | Recirculation<br>System | Recirc Control<br>Type | Loop<br>length | Branch<br>length | Pump<br>power | DWHR   | Facilities<br>Connected | Equal<br>Flow | DWHR<br>Eff | Other Credits |
| ___ 1            | No                      |                        | NA             | NA               | NA            | No     | NA                      | NA            | NA          | None          |

| DUCTS       |          |                             |         |          |                             |         |                 |                |               |               |    |     |                     |
|-------------|----------|-----------------------------|---------|----------|-----------------------------|---------|-----------------|----------------|---------------|---------------|----|-----|---------------------|
| ✓ Duct<br># | Location | -----Supply-----<br>R-Value | Area    | Location | -----Return-----<br>R-Value | Area    | Leakage Type    | Air<br>Handler | CFM 25<br>TOT | CFM 25<br>OUT | QN | RLF | HVAC #<br>Heat Cool |
| ___ 1       | Attic    | 6.0                         | 558 ft² | Attic    | 6.0                         | 112 ft² | Default Leakage | Garage         | (Default)     | (Default)     |    |     | 1 1                 |

| TEMPERATURES                             |          |          |          |                 |          |          |          |          |          |          |          |          |          |
|------------------------------------------|----------|----------|----------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Programable Thermostat: Y                |          |          |          | Ceiling Fans: N |          |          |          |          |          |          |          |          |          |
| Cooling                                  | [ ] Jan  | [ ] Feb  | [ ] Mar  | [ ] Apr         | [ ] May  | [X] Jun  | [X] Jul  | [X] Aug  | [X] Sep  | [ ] Oct  | [ ] Nov  | [ ] Dec  |          |
| Heating                                  | [X] Jan  | [X] Feb  | [X] Mar  | [ ] Apr         | [ ] May  | [ ] Jun  | [ ] Jul  | [ ] Aug  | [ ] Sep  | [ ] Oct  | [X] Nov  | [X] Dec  |          |
| Venting                                  | [ ] Jan  | [ ] Feb  | [X] Mar  | [X] Apr         | [ ] May  | [ ] Jun  | [ ] Jul  | [ ] Aug  | [ ] Sep  | [X] Oct  | [X] Nov  | [ ] Dec  |          |
| Thermostat Schedule: HERS 2006 Reference |          |          |          |                 |          |          |          |          |          |          |          |          |          |
| ✓ Schedule Type                          | 1        | 2        | 3        | 4               | 5        | 6        | 7        | 8        | 9        | 10       | 11       | 12       |          |
| ___ Cooling (WD)                         | AM<br>80 | PM<br>80 | 78<br>78 | 78<br>78        | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 80<br>78 | 80<br>78 | 80<br>78 | 80<br>78 |
| ___ Cooling (WEH)                        | AM<br>78 | PM<br>78 | 78<br>78 | 78<br>78        | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 | 78<br>78 |
| ___ Heating (WD)                         | AM<br>68 | PM<br>68 | 66<br>68 | 66<br>68        | 66<br>68 | 66<br>68 | 68<br>68 | 68<br>68 | 68<br>68 | 68<br>68 | 68<br>68 | 68<br>66 | 68<br>66 |
| ___ Heating (WEH)                        | AM<br>68 | PM<br>68 | 66<br>68 | 66<br>68        | 66<br>68 | 66<br>68 | 68<br>68 | 68<br>68 | 68<br>68 | 68<br>68 | 68<br>68 | 68<br>66 | 68<br>66 |

# ENERGY PERFORMANCE LEVEL (EPL) DISPLAY CARD

## ESTIMATED ENERGY PERFORMANCE INDEX\* = 97

The lower the EnergyPerformance Index, the more efficient the home.

433 SW Finley Little Lane,Lake City,FL,32024

|                                                          |                  |                                        |                 |                         |
|----------------------------------------------------------|------------------|----------------------------------------|-----------------|-------------------------|
| 1. New construction or existing                          | New (From Plans) | 10. Wall Types(2433.7 sqft.)           | Insulation      | Area                    |
| 2. Single family or multiple family                      | Detached         | a. Frame - Wood, Exterior              | R=13.0          | 2073.70 ft <sup>2</sup> |
| 3. Number of units, if multiple family                   | 1                | b. Frame - Wood, Adjacent              | R=13.0          | 360.00 ft <sup>2</sup>  |
| 4. Number of Bedrooms                                    | 3                | c. N/A                                 |                 |                         |
| 5. Is this a worst case?                                 | No               | d. N/A                                 |                 |                         |
| 6. Conditioned floor area above grade (ft <sup>2</sup> ) | 2232             | 11. Ceiling Types(2455.0 sqft.)        | Insulation      | Area                    |
| Conditioned floor area below grade (ft <sup>2</sup> )    | 0                | a. Flat ceiling under att (Vented)     | R=38.0          | 2455.00 ft <sup>2</sup> |
| 7. Windows**                                             | Description      | b. N/A                                 |                 |                         |
| a. U-Factor:                                             | Dbl, U=0.36      | c. N/A                                 |                 |                         |
| SHGC:                                                    | SHGC=0.25        | 12. Roof(Comp. Shingles, Vented) Deck  | R=0.0           | 2906 ft <sup>2</sup>    |
| b. U-Factor:                                             | N/A              | 13. Ducts, location & insulation level | R               | ft <sup>2</sup>         |
| SHGC:                                                    |                  | a. Sup: Attic, Ret: Attic, AH: Garage  | 6               | 558                     |
| c. U-Factor:                                             | N/A              | b.                                     |                 |                         |
| SHGC:                                                    |                  | c.                                     |                 |                         |
| Area Weighted Average Overhang Depth:                    | 6.261 ft         | 14. Cooling Systems                    | kBtu/hr         | Efficiency              |
| Area Weighted Average SHGC:                              | 0.250            | a. Central Unit                        | 30.2            | SEER:15.00              |
| 8. Skylights                                             | Description      | 15. Heating Systems                    | kBtu/hr         | Efficiency              |
| U-Factor:(AVG)                                           | N/A              | a. Electric Heat Pump                  | 37.8            | HSPF:8.80               |
| SHGC(AVG):                                               | N/A              |                                        |                 |                         |
| 9. Floor Types                                           | Insulation       | 16. Hot Water Systems                  |                 |                         |
| a. Slab-On-Grade Edge Insulation                         | R= 0.0           | a. Electric                            | Cap: 50 gallons |                         |
| b. N/A                                                   | R=               |                                        | EF: 0.920       |                         |
| c. N/A                                                   | R=               | b. Conservation features               |                 |                         |
|                                                          |                  |                                        |                 | None                    |
|                                                          |                  | 17. Credits                            |                 | CV, Pstat               |

I certify that this home has complied with the Florida Energy Efficiency Code for Building Construction through the above energy saving features which will be installed (or exceeded) in this home before final inspection. Otherwise, a new EPL Display Card will be completed based on installed Code compliant features.

Builder Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Address of New Home: 433 SW Finley Little Lane

City/FL Zip: Lake City,FL,32024



\*Note: This is not a Building Energy Rating. If your Index is below 70, your home may qualify for energy efficient mortgage (EEM) incentives if you obtain a Florida Energy Rating. For information about the Florida Building Code, Energy Conservation, contact the Florida Building Commission's support staff.

\*\*Label required by Section R303.1.3 of the Florida Building Code, Energy Conservation, if not DEFAULT.

**Envelope Leakage Test Report (Blower Door Test)**  
**Residential Prescriptive, Performance or ERI Method Compliance**  
**2020 Florida Building Code, Energy Conservation, 7th Edition**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
| Jurisdiction:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Permit #:  |            |
| <b>Job Information</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |            |
| Builder:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Community: | Lot: NA    |
| Address: 433 SW Finley Little Lane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |            |
| City: Lake City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | State: FL  | Zip: 32024 |
| <b>Air Leakage Test Results</b> <i>Passing results must meet either the Performance, Prescriptive, or ERI Method</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |            |
| <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"><input type="radio"/> <b>PRESCRIPTIVE METHOD</b>-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 7 air changes per hour at a pressure of 0.2 inch w.g. (50 Pascals) in Climate Zones 1 and 2.</div> <div style="border: 1px solid black; padding: 5px;"><input checked="" type="radio"/> <b>PERFORMANCE or ERI METHOD</b>-The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding the selected ACH(50) value, as shown on Form R405-2020 (Performance) or R406-2020 (ERI), section labeled as infiltration, sub-section ACH50.<br/><div style="display: flex; justify-content: space-between; align-items: center;"><span>ACH(50) specified on Form R405-2020-Energy Calc (Performance) or R406-2020 (ERI):</span><div style="border: 1px solid black; padding: 2px 10px; text-align: center;">5.000</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |            |
| <div style="display: flex; justify-content: space-between; align-items: flex-start;"><div style="width: 60%;"><math display="block">\frac{\text{CFM}(50) \times 60 \div 20088}{\text{Building Volume}} = \text{ACH}(50)</math><div style="border: 1px solid black; width: 40px; height: 40px; margin: 10px auto; text-align: center; line-height: 40px;"><b>PASS</b></div><div style="margin-top: 10px;"><input type="checkbox"/> When ACH(50) is less than 3, Mechanical Ventilation installation must be verified by building department.</div></div><div style="width: 35%;"><p>Method for calculating building volume:</p><div style="margin-top: 5px;"><input type="radio"/> Retrieved from architectural plans</div><div style="margin-top: 5px;"><input checked="" type="radio"/> Code software calculated</div><div style="margin-top: 5px;"><input type="radio"/> Field measured and calculated</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |            |
| <p><b>R402.4.1.2 Testing.</b> Testing shall be conducted in accordance with ANSI/RESNET/ICC 380 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Testing shall be conducted by either individuals as defined in Section 553.993(5) or <i>(7) Florida Statutes</i> or individuals licensed as set forth in Section 489.105(3)(f), (g), or (i) or an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the <i>code official</i>. Testing shall be performed at any time after creation of all penetrations of the <i>building thermal envelope</i>.</p> <p>During testing:</p> <ol style="list-style-type: none"><li>1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.</li><li>2. Dampers including exhaust, intake, makeup air, back draft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.</li><li>3. Interior doors, if installed at the time of the test, shall be open.</li><li>4. Exterior doors for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.</li><li>5. Heating and cooling systems, if installed at the time of the test, shall be turned off.</li><li>6. Supply and return registers, if installed at the time of the test, shall be fully open.</li></ol> |            |            |
| <b>Testing Company</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |            |
| <div style="display: flex; justify-content: space-between;"><div>Company Name: _____</div><div>Phone: _____</div></div> <p>I hereby verify that the above Air Leakage results are in accordance with the 2020 7th Edition Florida Building Code Energy Conservation requirements according to the compliance method selected above.</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div>Signature of Tester: _____</div><div>Date of Test: _____</div></div> <div style="margin-top: 10px;">Printed Name of Tester: _____</div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"><div>License/Certification #: _____</div><div>Issuing Authority: _____</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |            |

# Residential System Sizing Calculation

## Summary

Megan Cady  
433 SW Finley Little Lane  
Lake City, FL 32024

Project Title:  
Megan Cady Residence

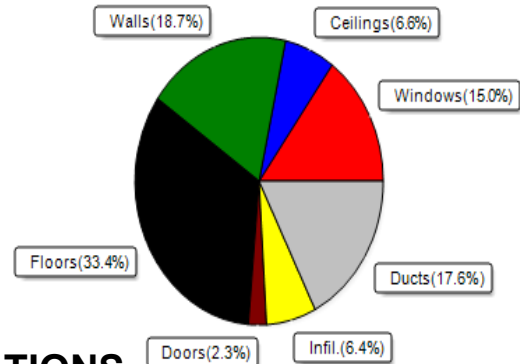
3/3/2023

|                                                                                                       |                   |                                       |                   |
|-------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|-------------------|
| Location for weather data: Gainesville, FL - Defaults: Latitude(29.7) Altitude(152 ft.) Temp Range(M) |                   |                                       |                   |
| Humidity data: Interior RH (50%) Outdoor wet bulb (77F) Humidity difference(51gr.)                    |                   |                                       |                   |
| Winter design temperature(TMY3 99%)                                                                   | 30 F              | Summer design temperature(TMY3 99%)   | 94 F              |
| Winter setpoint                                                                                       | 70 F              | Summer setpoint                       | 75 F              |
| Winter temperature difference                                                                         | 40 F              | Summer temperature difference         | 19 F              |
| <b>Total heating load calculation</b>                                                                 | <b>37783 Btuh</b> | <b>Total cooling load calculation</b> | <b>30168 Btuh</b> |
| Submitted heating capacity                                                                            | % of calc Btuh    | Submitted cooling capacity            | % of calc Btuh    |
| Total (Electric Heat Pump)                                                                            | 100.0 37783       | Sensible (SHR = 0.70)                 | 82.8 21118        |
| Heat Pump + Auxiliary(0.0kW)                                                                          | 100.0 37783       | Latent                                | 193.6 9050        |
|                                                                                                       |                   | Total (Electric Heat Pump)            | 100.0 30168       |

## WINTER CALCULATIONS

Winter Heating Load (for 2232 sqft)

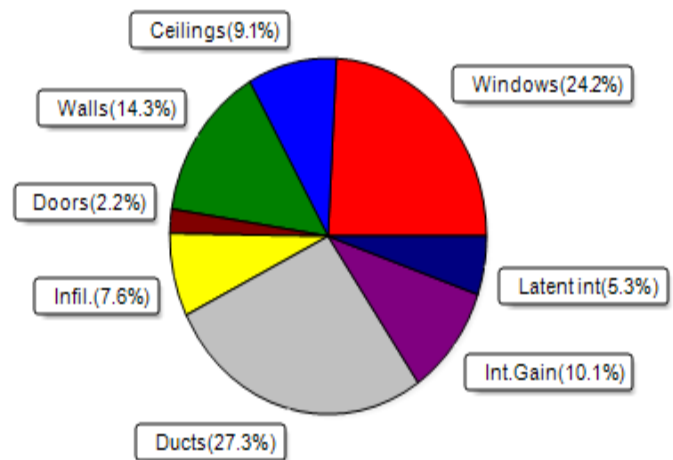
| Load component         |                     | Load         |             |
|------------------------|---------------------|--------------|-------------|
| Window total           | 394 sqft            | 5674         | Btuh        |
| Wall total             | 1992 sqft           | 7071         | Btuh        |
| Door total             | 48 sqft             | 883          | Btuh        |
| Ceiling total          | 2455 sqft           | 2492         | Btuh        |
| Floor total            | 2232 sqft           | 12618        | Btuh        |
| Infiltration           | 55 cfm              | 2409         | Btuh        |
| Duct loss              |                     | 6635         | Btuh        |
| <b>Subtotal</b>        |                     | <b>37783</b> | <b>Btuh</b> |
| Ventilation            | Ex:0 cfm; Sup:0 cfm | 0            | Btuh        |
| <b>TOTAL HEAT LOSS</b> |                     | <b>37783</b> | <b>Btuh</b> |



## SUMMER CALCULATIONS

Summer Cooling Load (for 2232 sqft)

| Load component                        |                     | Load         |             |
|---------------------------------------|---------------------|--------------|-------------|
| Window total                          | 394 sqft            | 7290         | Btuh        |
| Wall total                            | 1992 sqft           | 4314         | Btuh        |
| Door total                            | 48 sqft             | 662          | Btuh        |
| Ceiling total                         | 2455 sqft           | 2742         | Btuh        |
| Floor total                           |                     | 0            | Btuh        |
| Infiltration                          | 41 cfm              | 858          | Btuh        |
| Internal gain                         |                     | 3040         | Btuh        |
| Duct gain                             |                     | 6587         | Btuh        |
| Sens.Ventilation                      | Ex:0 cfm; Sup:0 cfm | 0            | Btuh        |
| Blower Load                           |                     | 0            | Btuh        |
| <b>Total sensible gain</b>            |                     | <b>25493</b> | <b>Btuh</b> |
| Latent gain(ducts)                    |                     | 1651         | Btuh        |
| Latent gain(infiltration)             |                     | 1424         | Btuh        |
| Latent gain(ventilation)              |                     | 0            | Btuh        |
| Latent gain(internal/occupants/other) |                     | 1600         | Btuh        |
| <b>Total latent gain</b>              |                     | <b>4675</b>  | <b>Btuh</b> |
| <b>TOTAL HEAT GAIN</b>                |                     | <b>30168</b> | <b>Btuh</b> |



8th Edition

EnergyGauge® System Sizing

PREPARED BY: \_\_\_\_\_

DATE: 3 / 3 / 2023

# System Sizing Calculations - Winter

## Residential Load - Whole House Component Details

Megan Cady  
433 SW Finley Little Lane  
Lake City, FL 32024

Project Title:  
Megan Cady Residence  
Building Type: User

3/3/2023

Reference City: Gainesville, FL (Defaults) Winter Temperature Difference: 40.0 °F (TMY3 99%)  
Winter Setpoint: 70 °F (Required Manual J default)

### Component Loads for Whole House

| Window        | Panes/Type              | Frame | U       | Orientation         | Area(sqft)       | X | HTM= | Load       |
|---------------|-------------------------|-------|---------|---------------------|------------------|---|------|------------|
| 1             | 2, NFRC 0.25            | Vinyl | 0.36    | S                   | 60.0             |   | 14.4 | 864 Btuh   |
| 2             | 2, NFRC 0.25            | TIM   | 0.36    | S                   | 16.0             |   | 14.4 | 230 Btuh   |
| 3             | 2, NFRC 0.25            | Vinyl | 0.36    | S                   | 8.0              |   | 14.4 | 115 Btuh   |
| 4             | 2, NFRC 0.25            | Vinyl | 0.36    | E                   | 12.0             |   | 14.4 | 173 Btuh   |
| 5             | 2, NFRC 0.25            | Vinyl | 0.36    | E                   | 20.0             |   | 14.4 | 288 Btuh   |
| 6             | 2, NFRC 0.25            | Vinyl | 0.36    | E                   | 8.0              |   | 14.4 | 115 Btuh   |
| 7             | 2, NFRC 0.25            | Vinyl | 0.36    | N                   | 24.0             |   | 14.4 | 346 Btuh   |
| 8             | 2, NFRC 0.25            | Vinyl | 0.36    | W                   | 36.0             |   | 14.4 | 518 Btuh   |
| 9             | 2, NFRC 0.25            | TIM   | 0.36    | W                   | 24.0             |   | 14.4 | 346 Btuh   |
| 10            | 2, NFRC 0.25            | Vinyl | 0.36    | N                   | 20.0             |   | 14.4 | 288 Btuh   |
| 11            | 2, NFRC 0.25            | TIM   | 0.36    | N                   | 96.0             |   | 14.4 | 1382 Btuh  |
| 12            | 2, NFRC 0.25            | Vinyl | 0.36    | N                   | 48.0             |   | 14.4 | 691 Btuh   |
| 13            | 2, NFRC 0.25            | Vinyl | 0.36    | W                   | 4.0              |   | 14.4 | 58 Btuh    |
| 14            | 2, NFRC 0.25            | Vinyl | 0.36    | W                   | 18.0             |   | 14.4 | 259 Btuh   |
| Window Total  |                         |       |         |                     | 394.0(sqft)      |   |      | 5674 Btuh  |
| Walls         | Type                    | Ornt. | Ueff.   | R-Value<br>(Cav/Sh) | Area             | X | HTM= | Load       |
| 1             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 220              |   | 3.55 | 781 Btuh   |
| 2             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 37               |   | 3.55 | 130 Btuh   |
| 3             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 64               |   | 3.55 | 227 Btuh   |
| 4             | Frame - Wood            | - Adj | (0.089) | 13.0/0.0            | 138              |   | 3.55 | 490 Btuh   |
| 5             | Frame - Wood            | - Adj | (0.089) | 13.0/0.0            | 198              |   | 3.55 | 703 Btuh   |
| 6             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 293              |   | 3.55 | 1040 Btuh  |
| 7             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 198              |   | 3.55 | 703 Btuh   |
| 8             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 105              |   | 3.55 | 373 Btuh   |
| 9             | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 66               |   | 3.55 | 234 Btuh   |
| 10            | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 164              |   | 3.55 | 582 Btuh   |
| 11            | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 99               |   | 3.55 | 351 Btuh   |
| 12            | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 60               |   | 3.55 | 213 Btuh   |
| 13            | Frame - Wood            | - Ext | (0.089) | 13.0/0.0            | 350              |   | 3.55 | 1243 Btuh  |
| Wall Total    |                         |       |         |                     | 1992(sqft)       |   |      | 7071 Btuh  |
| Doors         | Type                    | Storm | Ueff.   |                     | Area             | X | HTM= | Load       |
| 1             | Insulated - Exterior, n |       | (0.460) |                     | 24               |   | 18.4 | 442 Btuh   |
| 2             | Insulated - Garage, n   |       | (0.460) |                     | 24               |   | 18.4 | 442 Btuh   |
| Door Total    |                         |       |         |                     | 48(sqft)         |   |      | 883Btuh    |
| Ceilings      | Type/Color/Surface      |       | Ueff.   | R-Value             | Area             | X | HTM= | Load       |
| 1             | Flat ceil/M/Shing       |       | (0.025) | 38.0/0.0            | 2455             |   | 1.0  | 2492 Btuh  |
| Ceiling Total |                         |       |         |                     | 2455(sqft)       |   |      | 2492Btuh   |
| Floors        | Type                    |       | Ueff.   | R-Value             | Size             | X | HTM= | Load       |
| 1             | Slab On Grade           |       | (1.180) | 0.0                 | 267.3 ft(perim.) |   | 47.2 | 12618 Btuh |
| Floor Total   |                         |       |         |                     | 2232 sqft        |   |      | 12618 Btuh |

# Manual J Winter Calculations

## Residential Load - Component Details (continued)

Megan Cady  
433 SW Finley Little Lane  
Lake City, FL 32024

Project Title:  
Megan Cady Residence  
Building Type: User

3/3/2023

|                     |                                                               |                        |                       |                    |              |  |                   |
|---------------------|---------------------------------------------------------------|------------------------|-----------------------|--------------------|--------------|--|-------------------|
|                     | Envelope Subtotal:                                            |                        |                       |                    |              |  | 28738 Btuh        |
| <b>Infiltration</b> | Type<br>Natural                                               | Wholehouse ACH<br>0.16 | Volume(cuft)<br>20088 | Wall Ratio<br>1.00 | CFM=<br>55.0 |  | 2409 Btuh         |
| <b>Duct load</b>    | Average sealed, R6.0, Supply(Att), Return(Att) (DLM of 0.213) |                        |                       |                    |              |  | 6635 Btuh         |
| <b>All Zones</b>    | <b>Sensible Subtotal All Zones</b>                            |                        |                       |                    |              |  | <b>37783 Btuh</b> |

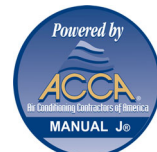
### WHOLE HOUSE TOTALS

|                           |                                                                                                     |  |  |  |  |  |                                    |
|---------------------------|-----------------------------------------------------------------------------------------------------|--|--|--|--|--|------------------------------------|
| <b>Totals for Heating</b> | Subtotal Sensible Heat Loss<br>Ventilation Sens. Heat Loss (Ex:0 cfm; Sup:0 cfm)<br>Total Heat Loss |  |  |  |  |  | 37783 Btuh<br>0 Btuh<br>37783 Btuh |
|---------------------------|-----------------------------------------------------------------------------------------------------|--|--|--|--|--|------------------------------------|

### EQUIPMENT

|                       |   |            |
|-----------------------|---|------------|
| 1. Electric Heat Pump | # | 37783 Btuh |
|-----------------------|---|------------|

Key: Window types - NFRC (Requires U-Factor and Shading coefficient(SHGC) of glass as numerical values)  
or - Glass as 'Clear' or 'Tint' (Uses U-Factor and SHGC defaults)  
U - (Window U-Factor)  
HTM - (ManualJ Heat Transfer Multiplier)



Version 8

# System Sizing Calculations - Summer

## Residential Load - Whole House Component Details

Megan Cady  
433 SW Finley Little Lane  
Lake City, FL 32024

Project Title:  
Megan Cady Residence

3/3/2023

Reference City: Gainesville, FL (Defaults)  
Humidity difference: 51gr.

Temperature Difference: 19.0F(TMY3 99%)  
Summer Setpoint: 75 °F (Required Manual J default)

### Component Loads for Whole House

| Window             | Type*                       |            |    |      |    |      | Overhang    |          | Window Area(sqft)   |        |          | HTM    |            | Load |      |
|--------------------|-----------------------------|------------|----|------|----|------|-------------|----------|---------------------|--------|----------|--------|------------|------|------|
|                    | Panes                       | SHGC       | U  | InSh | IS | Ornt | Len         | Hgt      | Gross               | Shaded | Unshaded | Shaded | Unshaded   |      |      |
| 1                  | 2 NFRC                      | 0.25, 0.36 | No | No   | S  |      | 9.5ft.      | 1.0ft.   | 60.0                | 60.0   | 0.0      | 12     | 14         | 726  | Btuh |
| 2                  | 2 NFRC                      | 0.25, 0.36 | No | No   | S  |      | 9.5ft.      | 1.0ft.   | 16.0                | 16.0   | 0.0      | 12     | 14         | 194  | Btuh |
| 3                  | 2 NFRC                      | 0.25, 0.36 | No | No   | S  |      | 1.5ft.      | 1.0ft.   | 8.0                 | 8.0    | 0.0      | 12     | 14         | 97   | Btuh |
| 4                  | 2 NFRC                      | 0.25, 0.36 | No | No   | E  |      | 1.5ft.      | 3.0ft.   | 12.0                | 0.0    | 12.0     | 12     | 31         | 371  | Btuh |
| 5                  | 2 NFRC                      | 0.25, 0.36 | No | No   | E  |      | 1.5ft.      | 3.0ft.   | 20.0                | 0.0    | 20.0     | 12     | 31         | 619  | Btuh |
| 6                  | 2 NFRC                      | 0.25, 0.36 | No | No   | E  |      | 1.5ft.      | 3.0ft.   | 8.0                 | 0.0    | 8.0      | 12     | 31         | 248  | Btuh |
| 7                  | 2 NFRC                      | 0.25, 0.36 | No | No   | N  |      | 1.0ft.      | 4.0ft.   | 24.0                | 0.0    | 24.0     | 12     | 12         | 290  | Btuh |
| 8                  | 2 NFRC                      | 0.25, 0.36 | No | No   | W  |      | 1.5ft.      | 3.0ft.   | 36.0                | 0.0    | 36.0     | 12     | 31         | 1114 | Btuh |
| 9                  | 2 NFRC                      | 0.25, 0.36 | No | No   | W  |      | 7.5ft.      | 1.0ft.   | 24.0                | 15.7   | 8.3      | 12     | 31         | 447  | Btuh |
| 10                 | 2 NFRC                      | 0.25, 0.36 | No | No   | N  |      | 11.5f       | 1.0ft.   | 20.0                | 0.0    | 20.0     | 12     | 12         | 242  | Btuh |
| 11                 | 2 NFRC                      | 0.25, 0.36 | No | No   | N  |      | 11.5f       | 1.0ft.   | 96.0                | 0.0    | 96.0     | 12     | 12         | 1161 | Btuh |
| 12                 | 2 NFRC                      | 0.25, 0.36 | No | No   | N  |      | 1.0ft.      | 2.0ft.   | 48.0                | 0.0    | 48.0     | 12     | 12         | 581  | Btuh |
| 13                 | 2 NFRC                      | 0.25, 0.36 | No | No   | W  |      | 1.5ft.      | 1.0ft.   | 4.0                 | 0.5    | 3.5      | 12     | 31         | 115  | Btuh |
| 14                 | 2 NFRC                      | 0.25, 0.36 | No | No   | W  |      | 1.5ft.      | 1.0ft.   | 18.0                | 0.7    | 17.3     | 12     | 31         | 543  | Btuh |
| Excursion          |                             |            |    |      |    |      |             |          |                     |        |          |        |            | 543  | Btuh |
| Window Total       |                             |            |    |      |    |      |             |          | 394 (sqft)          |        |          |        |            | 7290 | Btuh |
| Walls              | Type                        |            |    |      |    |      | U-Value     | R-Value  | Area(sqft)          |        |          | HTM    |            | Load |      |
|                    |                             |            |    |      |    |      | Cav/Sheath  |          |                     |        |          |        |            |      |      |
| 1                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 220.0               |        |          | 2.3    |            | 498  | Btuh |
| 2                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 36.7                |        |          | 2.3    |            | 83   | Btuh |
| 3                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 64.0                |        |          | 2.3    |            | 145  | Btuh |
| 4                  | Frame - Wood - Adj          |            |    |      |    |      | 0.09        | 13.0/0.0 | 138.0               |        |          | 1.7    |            | 233  | Btuh |
| 5                  | Frame - Wood - Adj          |            |    |      |    |      | 0.09        | 13.0/0.0 | 198.0               |        |          | 1.7    |            | 334  | Btuh |
| 6                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 293.0               |        |          | 2.3    |            | 663  | Btuh |
| 7                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 198.0               |        |          | 2.3    |            | 448  | Btuh |
| 8                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 105.0               |        |          | 2.3    |            | 238  | Btuh |
| 9                  | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 66.0                |        |          | 2.3    |            | 149  | Btuh |
| 10                 | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 164.0               |        |          | 2.3    |            | 371  | Btuh |
| 11                 | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 99.0                |        |          | 2.3    |            | 224  | Btuh |
| 12                 | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 60.0                |        |          | 2.3    |            | 136  | Btuh |
| 13                 | Frame - Wood - Ext          |            |    |      |    |      | 0.09        | 13.0/0.0 | 350.0               |        |          | 2.3    |            | 792  | Btuh |
| Wall Total         |                             |            |    |      |    |      |             |          | 1992 (sqft)         |        |          |        |            | 4314 | Btuh |
| Doors              | Type                        |            |    |      |    |      | Area (sqft) |          |                     | HTM    |          | Load   |            |      |      |
|                    |                             |            |    |      |    |      |             |          |                     |        |          |        |            |      |      |
| 1                  | Insulated - Exterior        |            |    |      |    |      | 24.0        |          |                     | 13.8   |          | 331    | Btuh       |      |      |
| 2                  | Insulated - Garage          |            |    |      |    |      | 24.0        |          |                     | 13.8   |          | 331    | Btuh       |      |      |
| Door Total         |                             |            |    |      |    |      | 48 (sqft)   |          |                     |        |          | 662    | Btuh       |      |      |
| Ceilings           | Type/Color/Surface          |            |    |      |    |      | U-Value     | R-Value  | Area(sqft)          |        |          | HTM    |            | Load |      |
|                    |                             |            |    |      |    |      |             |          |                     |        |          |        |            |      |      |
| 1                  | Vented Attic/Med/Shingle/RB |            |    |      |    |      | 0.025       | 38.0/0.0 | 2455.0              |        |          | 1.12   |            | 2742 | Btuh |
| Ceiling Total      |                             |            |    |      |    |      |             |          | 2455 (sqft)         |        |          |        |            | 2742 | Btuh |
| Floors             | Type                        |            |    |      |    |      | R-Value     |          | Size                |        |          | HTM    |            | Load |      |
|                    |                             |            |    |      |    |      |             |          |                     |        |          |        |            |      |      |
| 1                  | Slab On Grade               |            |    |      |    |      | 0.0         |          | 2232 (ft-perimeter) |        |          | 0.0    |            | 0    | Btuh |
| Floor Total        |                             |            |    |      |    |      |             |          | 2232.0 (sqft)       |        |          |        |            | 0    | Btuh |
| Envelope Subtotal: |                             |            |    |      |    |      |             |          |                     |        |          |        | 15008 Btuh |      |      |

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Megan Cady  
433 SW Finley Little Lane  
Lake City, FL 32024

Project Title: Climate:FL\_GAINESVILLE\_REGIONAL\_A  
Megan Cady Residence

3/3/2023

|                      |                                                       |                     |                        |                 |                                |                   |
|----------------------|-------------------------------------------------------|---------------------|------------------------|-----------------|--------------------------------|-------------------|
| <b>Infiltration</b>  | Type<br>Natural                                       | Average ACH<br>0.12 | Volume(cuft)<br>20088  | Wall Ratio<br>1 | CFM=<br>41.3                   | Load<br>858 Btuh  |
| <b>Internal gain</b> |                                                       | Occupants<br>8      | Btuh/occupant<br>X 230 | Appliance<br>+  | 1200                           | Load<br>3040 Btuh |
|                      |                                                       |                     |                        |                 | Sensible Envelope Load:        | 18906 Btuh        |
| <b>Duct load</b>     | Average sealed,Supply(R6.0-Attic), Return(R6.0-Attic) |                     |                        |                 | (DGM of 0.348)                 | 6587 Btuh         |
|                      |                                                       |                     |                        |                 | <b>Sensible Load All Zones</b> | <b>25493 Btuh</b> |

# Manual J Summer Calculations

## Residential Load - Component Details (continued)

Megan Cady  
433 SW Finley Little Lane  
Lake City, FL 32024

Project Title: Climate:FL\_GAINESVILLE\_REGIONAL\_A  
Megan Cady Residence

3/3/2023

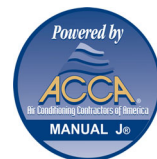
### WHOLE HOUSE TOTALS

|                                           |                                                           |                   |
|-------------------------------------------|-----------------------------------------------------------|-------------------|
| <b>Whole House<br/>Totals for Cooling</b> | <b>Sensible Envelope Load All Zones</b>                   | <b>18906 Btuh</b> |
|                                           | Sensible Duct Load                                        | 6587 Btuh         |
|                                           | <b>Total Sensible Zone Loads</b>                          | <b>25493 Btuh</b> |
|                                           | Sensible ventilation (Ex:0 cfm; Sup:0 cfm)                | 0 Btuh            |
|                                           | Blower                                                    | 0 Btuh            |
|                                           | <b>Total sensible gain</b>                                | <b>25493 Btuh</b> |
|                                           | Latent infiltration gain (for 51 gr. humidity difference) | 1424 Btuh         |
|                                           | Latent ventilation gain                                   | 0 Btuh            |
|                                           | Latent duct gain                                          | 1651 Btuh         |
|                                           | Latent occupant gain (8.0 people @ 200 Btuh per person)   | 1600 Btuh         |
|                                           | Latent other gain                                         | 0 Btuh            |
|                                           | <b>Latent total gain</b>                                  | <b>4675 Btuh</b>  |
|                                           | <b>TOTAL GAIN</b>                                         | <b>30168 Btuh</b> |

### EQUIPMENT

|                 |   |            |
|-----------------|---|------------|
| 1. Central Unit | # | 30168 Btuh |
|-----------------|---|------------|

\*Key: Window types (Panels - Number and type of panes of glass)  
(SHGC - Shading coefficient of glass as SHGC numerical value)  
(U - Window U-Factor)  
(InSh - Interior shading device: none(No), Blinds(B), Draperies(D) or Roller Shades(R))  
- For Blinds: Assume medium color, half closed  
For Draperies: Assume medium weave, half closed  
For Roller shades: Assume translucent, half closed  
(IS - Insect screen: none(N), Full(F) or Half(½))  
(Ornt - compass orientation)



Version 8