



REScheck Software Version 4.6.0

# Compliance Certificate

Project Ries\_Cowan Residence

Energy Code: **2009 IECC**  
 Location: **Kings County, New York**  
 Construction Type: **Single-family**  
 Project Type: **Alteration**  
 Climate Zone: **4 (4999 HDD)**  
 Permit Date:  
 Permit Number:

Construction Site:  
 2003 Kimball Street  
 Brooklyn, NY 11234

Owner/Agent:  
 Timothy Ries  
 N/A  
 2003 Kimball Street  
 Brooklyn, NY 11234  
 718-252-4868  
 timreis@gmail.com

Designer/Contractor:  
 Michelle Todd  
 M.Todd Architect, LLC  
 740 Halsey Street  
 Brooklyn, NY 11233  
 917-685-8775  
 michelle@mtoddarchitects.com

## Compliance: Passes

Compliance: **3.5% Better Than Code** Maximum UA: **113** Your UA: **109**

The % Better or Worse Than Code Index reflects how close to compliance the house is based on code trade-off rules.  
 It DOES NOT provide an estimate of energy use or cost relative to a minimum-code home.

## Envelope Assemblies

| Assembly                                                                                        | Gross Area<br>or<br>Perimeter | Cavity<br>R-Value | Cont.<br>R-Value | Glazing<br>or Door<br>U-Factor | UA  |
|-------------------------------------------------------------------------------------------------|-------------------------------|-------------------|------------------|--------------------------------|-----|
| Wall 1: Solid Concrete or Masonry:Exterior Insulation                                           | 416                           | 0.0               | 0.0              | 0.333                          | 99  |
| Window 1: Wood Frame:Double Pane with Low-E                                                     | 19                            |                   |                  | 0.075                          | 1   |
| Window 2: Wood Frame:Double Pane with Low-E                                                     | 19                            |                   |                  | 0.075                          | 1   |
| Window 3: Wood Frame:Double Pane with Low-E                                                     | 4                             |                   |                  | 0.046                          | 0   |
| Window 4: Wood Frame:Double Pane with Low-E                                                     | 8                             |                   |                  | 0.092                          | 1   |
| Window 5: Wood Frame:Double Pane with Low-E                                                     | 8                             |                   |                  | 0.092                          | 1   |
| Window 6: Wood Frame:Double Pane with Low-E                                                     | 20                            |                   |                  | 0.035                          | 1   |
| Window 7: Wood Frame:Double Pane with Low-E                                                     | 4                             |                   |                  | 0.046                          | 0   |
| Door 1: Glass                                                                                   | 16                            |                   |                  | 0.037                          | 1   |
| Door 2: Solid                                                                                   | 21                            |                   |                  | 0.043                          | 1   |
| Wall 2: Solid Concrete or Masonry:Exterior Insulation<br>Exemption: Framing cavity not exposed. | ---                           | ---               | ---              | ---                            | --- |
| Window 8: Wood Frame:Double Pane with Low-E                                                     | 25                            |                   |                  | 0.035                          | 1   |
| Window 9: Wood Frame:Double Pane with Low-E                                                     | 33                            |                   |                  | 0.035                          | 1   |
| Window 10: Wood Frame:Double Pane with Low-E                                                    | 4                             |                   |                  | 0.046                          | 0   |
| Door 3: Solid                                                                                   | 21                            |                   |                  | 0.043                          | 1   |

*Compliance Statement:* The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2009 IECC requirements in REScheck Version 4.6.0 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

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Name - Title

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Signature

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Date



# Inspection Checklist

Energy Code: 2009 IECC

Requirements: 100.0% were addressed directly in the REScheck software

Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

| Section # & Req.ID                                                                                                   | Pre-Inspection/Plan Review                                                                                                                                                                                    | Plans Verified Value                       | Field Verified Value                       | Complies?                                                                                                                                                    | Comments/Assumptions     |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 103.2 [PR1] <sup>1</sup><br>        | Construction drawings and documentation demonstrate energy code compliance for the building envelope.                                                                                                         |                                            |                                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |
| 103.2, 403.7 [PR3] <sup>1</sup><br> | Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the commercial code. |                                            |                                            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |
| 403.6 [PR2] <sup>2</sup><br>        | Heating and cooling equipment is sized per ACCA Manual S based on loads per ACCA Manual J or other approved methods.                                                                                          | Heating: Btu/hr____<br>Cooling: Btu/hr____ | Heating: Btu/hr____<br>Cooling: Btu/hr____ | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |

**Additional Comments/Assumptions:**

| 2009 IECC                                                                                                           | Foundation Inspection                                                                                                 | Complies?                                                                                                                                                    | Comments/Assumptions                             |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 303.2.1<br>[FO11] <sup>2</sup><br> | A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable. |
| 403.8<br>[FO12] <sup>2</sup><br>   | Snow- and ice-melting system controls installed.                                                                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable. |

**Additional Comments/Assumptions:**

| Section # & Req.ID                                                                                                                       | Framing / Rough-In Inspection                                                                                                                                                                                 | Plans Verified Value | Field Verified Value | Complies?                                                                                                                                                    | Comments/Assumptions                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 402.1.1, 402.3.4 [FR1] <sup>1</sup><br>                 | Door U-factor.                                                                                                                                                                                                | U-____               | U-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values.                            |
| 402.1.1, 402.3.1, 402.3.3, 402.5 [FR2] <sup>1</sup><br> | Glazing U-factor (area-weighted average).                                                                                                                                                                     | U-____               | U-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values.                            |
| 303.1.3 [FR4] <sup>1</sup><br>                          | U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.                                                                                 |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                 |
| 402.1.1 [FR10] <sup>1</sup><br>                         | Mass wall exterior insulation R-value. If more than ½ of the insulation is on the wall interior, the interior insulation requirement applies and verification may need to occur during Insulation Inspection. | R-____               | R-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | See the Envelope Assemblies table for values.                            |
| 303.2 [FR11] <sup>1</sup><br>                           | Mass wall exterior insulation installed per manufacturer's instructions.                                                                                                                                      |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                 |
| 402.4.4 [FR20] <sup>1</sup><br>                         | Fenestration that is not site built is listed and labeled as meeting AAMA/WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.                                      |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                 |
| 402.4.5 [FR16] <sup>2</sup><br>                       | IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.                                                                                      |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable.                         |
| 403.2.1 [FR12] <sup>1</sup><br>                       | Supply ducts in attics are insulated to ≥R-8. All other ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6.                                                                 | R-____<br>R-____     | R-____<br>R-____     | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Ducts located completely inside the building envelope. |
| 403.2.2 [FR13] <sup>1</sup><br>                       | All joints and seams of air ducts, air handlers, filter boxes, and building cavities used as return ducts are sealed.                                                                                         |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                 |
| 403.2.3 [FR15] <sup>3</sup><br>                       | Building cavities are not used for supply ducts.                                                                                                                                                              |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                 |
| 403.3 [FR17] <sup>2</sup><br>                         | HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3.                                                                                                                | R-____               | R-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable.                         |
| 403.4 [FR18] <sup>2</sup><br>                         | Circulating service hot water pipes are insulated to R-2.                                                                                                                                                     | R-____               | R-____               | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable.                         |

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)

| Section # & Req.ID                                                                                             | Framing / Rough-In Inspection                                                       | Plans Verified Value | Field Verified Value | Complies?                                                                                                                                                    | Comments/Assumptions     |
|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 403.5 [FR19] <sup>2</sup><br> | Automatic or gravity dampers are installed on all outdoor air intakes and exhausts. |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |

**Additional Comments/Assumptions:**

| 2009 IECC                                                                                                         | Insulation Inspection                                                   | Complies?                                                                                                                                                    | Comments/Assumptions     |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 303.1<br>[IN13] <sup>2</sup><br> | All installed insulation is labeled or the installed R-values provided. | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met. |

**Additional Comments/Assumptions:**

|   |                      |   |                        |   |                     |
|---|----------------------|---|------------------------|---|---------------------|
| 1 | High Impact (Tier 1) | 2 | Medium Impact (Tier 2) | 3 | Low Impact (Tier 3) |
|---|----------------------|---|------------------------|---|---------------------|

| Section # & Req.ID                                                                                                          | Final Inspection Provisions                                                                                                                                                                                                                                                     | Plans Verified Value | Field Verified Value | Complies?                                                                                                                                                    | Comments/Assumptions                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 402.2.3 [FI3] <sup>1</sup><br>             | Attic access hatch and door insulation $\geq$ R-value of the adjacent assembly.                                                                                                                                                                                                 | R- _____             | R- _____             | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.<br><br><b>Location on plans/spec:</b> A-100.00, A200.00   |
| 402.4.2, 402.4.2.1 [FI17] <sup>1</sup><br> | Building envelope tightness verified by blower door test result of $<7$ ACH at 50 Pa. This requirement may instead be met via visual inspection, in which case verification may need to occur during Insulation Inspection.                                                     | ACH 50 = _____       | ACH 50 = _____       | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                           |
| 403.2.2 [FI4] <sup>1</sup><br>             | Post construction duct tightness test result of $\leq 8$ cfm to outdoors, or $\leq 12$ cfm across systems. Or, rough-in test result of $\leq 6$ cfm across systems or $\leq 4$ cfm without air handler. Rough-in test verification may need to occur during Framing Inspection. | _____ cfm            | _____ cfm            | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> All ducts and air handlers are located within conditioned space. |
| 403.1.1 [FI9] <sup>2</sup><br>             | Programmable thermostats installed on forced air furnaces.                                                                                                                                                                                                                      |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable.                                   |
| 403.1.2 [FI10] <sup>2</sup><br>            | Heat pump thermostat installed on heat pumps.                                                                                                                                                                                                                                   |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable.                                   |
| 403.4 [FI11] <sup>2</sup><br>            | Circulating service hot water systems have automatic or accessible manual controls.                                                                                                                                                                                             |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | <b>Exception:</b> Requirement is not applicable.                                   |
| 404.1 [FI6] <sup>1</sup><br>             | 50% of lamps in permanent fixtures are high efficacy lamps.                                                                                                                                                                                                                     |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                           |
| 401.3 [FI7] <sup>2</sup><br>             | Compliance certificate posted.                                                                                                                                                                                                                                                  |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                           |
| 303.3 [FI18] <sup>3</sup><br>            | Manufacturer manuals for mechanical and water heating equipment have been provided.                                                                                                                                                                                             |                      |                      | <input type="checkbox"/> Complies<br><input type="checkbox"/> Does Not<br><input type="checkbox"/> Not Observable<br><input type="checkbox"/> Not Applicable | Requirement will be met.                                                           |

**Additional Comments/Assumptions:**

1 High Impact (Tier 1)    2 Medium Impact (Tier 2)    3 Low Impact (Tier 3)



# 2009 IECC Energy Efficiency Certificate

| Insulation Rating                | R-Value |
|----------------------------------|---------|
| Above-Grade Wall                 | 0.00    |
| Below-Grade Wall                 | 0.00    |
| Floor                            | 0.00    |
| Ceiling / Roof                   | 0.00    |
| Ductwork (unconditioned spaces): | _____   |

| Glass & Door Rating | U-Factor | SHGC |
|---------------------|----------|------|
| Window              | 0.04     |      |
| Door                | 0.04     |      |

| Heating & Cooling Equipment | Efficiency |
|-----------------------------|------------|
| Heating System: _____       | _____      |
| Cooling System: _____       | _____      |
| Water Heater: _____         | _____      |

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Comments