



# Clark County Department of Building & Fire Prevention

4701 West Russell Road, Las Vegas, NV 89118 ~ (702) 455-3000

## IECC Submittal Requirements Building Permit Guide

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### Part I. General Information

This guide outlines the energy code submittal requirements for all conditioned structures required to be in compliance with the International Energy Conservation Code.

### Part II. Applicant's Responsibility

It is the applicant's responsibility to provide all information and calculations to show compliance with the International Energy Conservation Code and the Southern Nevada IECC Amendments.

### Part III. Prerequisites

Provide the approach being used to show compliance with the IECC and the Southern Nevada IECC Amendments.

If using software to show compliance only approved software may be used when using this method. Approved software is listed below in this guide.

If software is used in the design two copies of the input and output data, and compliance report must be provided. The data and compliance report shall be stamped and signed by the appropriate design professional.

The compliance report shall also be shown on the plans.

It is the applicant's responsibility to insure that all information is provided and all requirements of the method being used are transferred to the construction documents; such as R values for insulation, U Factor and SHGC for glazing and certificate for mechanical compliance.

### Part IV. Applicable Codes

Current adopted edition of the:

- International Energy Conservation Code
- Southern Nevada IECC Code Amendments.

## Part V. Residential Requirements

### Prescriptive Method:

- Use Chapter 4 as amended. This approach is limited to 15% of the exterior wall surface being glazed. See Table 402.1.1 (below) for prescriptive requirements.
- Air Conditioning SEER rating shall not be less than 13.
- Duct Insulation shall be a minimum of R-6.
- Water heater minimum energy factor of 0.65.

Prescriptive Method Table 402.1.1

	Glazing U-Factor	Skylight U-Factor	SHGC	Ceiling R-Value	Wood Framed Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab Edge R-Value	Crawl Space Wall R-Value
Las Vegas	.65	.65	.40	R-30	R-13	R-5	R-19	R-0	R-0	R-5
Spring Mountain Range	.35	.30	NR	R-49	R-19	R-19	R-30	R-13	R-10 for 4 feet	R-13

- Residential structures exceeding 15% glazing in the conditioned space shall utilize one of the methods listed below in Software Design Method.

### Software Design Method:

- Must use one of the following Approved Software Tools:
  - REScheck™: <http://www.energycodes.gov/>
  - MicroPas® v7.1: <http://www.micropas.com/>
  - Rem/Rate™: <http://www.archenergy.com/products>
- Submit the software-generated input/output data and the Compliance Report.
- The Compliance Report must be signed & sealed by the appropriate design professional in charge.
- Duct pressure testing will require a qualified individual and a report provided to inspections.
- Provide the energy summary information or a copy of the Compliance Report on the Code Analysis sheet of the building plans.
- Reflect all energy requirements on the construction detail sheets, cross sections, mechanical sheets, plumbing sheets, and electrical sheets, as applicable.
- HVAC load calculations are NOT required to be submitted.

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## Part VI. Commercial Requirements

Commercial Buildings must meet the requirements of Chapter 5 of the International Energy Conservation Code (IECC) or ASHRAE/IESNA 90.1, 2004 Edition.

### Prescriptive Method:

- IECC Sections 502, 503, 504 & 505 must each be satisfied on an individual basis. If one (1) or more of these sections is not satisfied, compliance must be demonstrated in accordance to ASHRAE/IESNA 90.1, 2004 Edition.
- Provide window to gross wall area calculations.
- Window to opaque wall ratios.
  - ≤10% - Use Table 502.2(1)
  - >10% to 25% - Use Table 502.2(1)
  - >25% to 40% - Use Table 502.2(1)
  - >40% - Use ASHRAE/IESNA 90.1
- Use Section 503 of IECC for mechanical system requirements and show all information on the mechanical plans.
- Use Section 504 for service water heating requirements and show all information on the plumbing plans.
- Use Section 505, as amended for electrical power and lighting system requirements and show all information on the electrical plans.
- Store front glazing assembly compliance letter to NFRC 100 and 200 will be provided to inspections (IECC Section 103.1.3).

### Software Design Method:

- May use COMcheck™ software <http://www.energycodes.gov/>. This software must be used for all building elements; i.e. envelope, mechanical, plumbing and electrical.
- Submit the software-generated input/output data and the Compliance Report. The individual element components may be signed & sealed by the design professional responsible for that particular element.
- The Compliance Report must be signed & sealed by the design professional responsible for the design.
- Provide the energy summary information or a copy of the Compliance Report on the Code Analysis sheet of the building plans.
- Show all energy compliance information on the applicable architectural, mechanical, plumbing and electrical plan sheets.
- HVAC load calculations are NOT required to be submitted.

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## **Part VII. Commercial Shell Buildings**

- Same as above (as applicable).
- Shell building must have complete envelope compliance with Section 502 of the IECC.

## **Part VIII. Tenant Improvements/Remodeling**

- If the exterior envelope is not altered, only electrical, mechanical and plumbing shall comply, as determined by the scope of work.
- If the exterior envelope is altered, only the elements modified must comply. Vestibules will be required for all initial (new) tenant improvements.

## Department Of Building & Fire Prevention Locations & Services

<b>MAIN OFFICE</b> 4701 W. Russell Road Las Vegas, NV 89118 (702)455-3000	On-Site Plan Submittals All "Walk-Through" Plan Review / Permitting Functions Residential Tract Submittal / Permitting All Sub-Trade (Electrical, Plumbing & Mechanical) Permitting Building Inspection Scheduling Functions Fire Prevention Inspection Services Records	Temporary Certificate of Occupancy Submittals Building Inspections Building Inspector Inquiries Amusement / Transportation Systems Operation Certificates Approved Fabricators Quality Assurance Agency Listing
<b>LAUGHLIN OFFICE</b> Regional Government Center 101 Civic Way Laughlin, NV 89029 (702)298-2436	Building Inspection Services Fire Prevention Inspection Services	
<b>OVERTON OFFICE</b> 320 North Moapa Valley Blvd. Overton, NV 89040 (702)397-8089	Building Inspection Services Fire Prevention Inspection Services	

### Automated Phone System (702) 455-3000

- Option 1:** For all Inspection services or to report a building code violation.
- Option 2:** For information regarding on-site permits or new plan submittals.
- Option 3:** For the Building Plans Examination division or QAA information.
- Option 4:** For the Zoning Plans Examination division.
- Option 5:** For information or copies regarding land development, construction documents, plans or permits.
- Option 6:** To speak with Management staff.
- Option #:** For hours of operation, Office location and website information.

### Other Clark County Departments/Divisions/Districts

Air Quality & Environmental Management	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-5942
Public Works, Development Review Services	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-6000
Comprehensive Planning	500 S. Grand Central Parkway, Las Vegas NV	(702) 455-4314
Fire Department	575 E. Flamingo Road, Las Vegas NV	(702) 455-7316
Las Vegas Valley Water District	1001 S. Valley View Boulevard, Las Vegas NV	(702) 870-2011
Southern Nevada Health District	625 Shadow Lane, Las Vegas NV	(702) 759-1000
Water Reclamation District	5857 E. Flamingo Road, Las Vegas NV	(702) 668-8888

### State of Nevada

Division of Water Resources	400 Shadow Lane, Suite 201, Las Vegas NV	(702) 486-2770
Nevada State Contractors Board	2310 Corporate Circle, Suite 200, Henderson NV	(702) 486-1100

### Utilities

Nevada Power	6226 W. Sahara Avenue, Las Vegas NV	(702) 402-5555
Southwest Gas	5241 Spring Mountain Road, Las Vegas NV	(877) 860-6020

[www.clarkcountynv.gov/building](http://www.clarkcountynv.gov/building)