

TOWN OF CLAY

4401 Route 31, Clay, NY 13041

(315) 652-3800

COMMERCIAL

BUILDING PERMIT APPLICATION

Department of Planning and Development

App. Approved _____ Date _____ Authorized Official _____

App. Disapproved _____ Date _____ Authorized Official _____

Sewer Permit No. _____

Electrical Permit No. _____ Date _____

Board Decisions _____ Case # _____ Date _____

Plans in box _____

Permit Number _____

Date Filed _____

Tax Map Number _____ - _____ - _____

Applicant - do not write above this line

Visit us online at: www.townofclay.org

Nature of Work (Please check applicable item)

Property Information

New Building * _____ SF Construction Type _____
Addition * _____ SF Occupancy- _____
Alteration * _____ SF Classification _____
Accessory Structure _____ SF
Antenna _____
Sign _____
Demolition _____
Fuel tanks: _____ installed _____ removed
Other _____
Fire Inspection - \$50.00 FEE - INTERIOR
Special Event - EXTERIOR with Administrative
Site Plan- \$125.00

Address or Tract/Lot _____
Zip _____
Zoning District _____
Present Use & Occupancy _____

Owner Information - PLEASE PRINT

Property Owner _____
Owner's Address _____
Owner's Phone No. (H) _____ (W) _____
Owner's Email _____
Owner's Signature: _____

Total Value: \$ _____

Permit Fee: \$ _____ (Cash or Check Only)

Building Permit Fees. Where the TOTAL VALUATION of the work is:

\$1 - \$1000..... \$100.00

For each additional \$1,000.00 or fraction thereof \$ 7.00

Project Description: _____

Approved Plan Reference: Company _____ Phone _____ Email _____

Architect or Engineer _____ Plan Title _____

Applicant Information: (if different from owner)

x _____ is the _____ (agent, contractor, corporate officer, etc.)
(Name of individual signing application)

x _____ Zip _____
(Address) _____ (City) _____ (State) _____

Phone _____ Email _____
(Signature)

APPLICATION IS HEREBY MADE to the commissioner for the issuance of a Building Permit pursuant to the New York State Uniform Fire Prevention and Building Code for the construction of buildings, additions or alterations, or for removal or demolition, as herein described. The applicant agrees to comply with all applicable laws, ordinances and regulations.

Contractor Information:

Name of Contractor _____ Site Contact Person _____ Phone _____

Address _____ State _____ Zip _____

Contractors Liability Insurance: _____ ATTACHED, OR _____ ON FILE

Workers' Compensation Insurance and Disability Insurance: _____ ATTACHED, OR _____ ON FILE

Electrical work to be inspected by, and Certificate of Approval obtained from, the CNY Electrical Inspection Service, Middle Dept. Inspection Agency or The Inspector.

Plumbing work to be inspected by, and Certificate of Approval obtained from, The Onondaga County Dept. of Health.

Please attach separate drawing (survey) showing clearly and distinctly all buildings, whether existing or proposed, and indicate all set-back dimensions from property lines. Show street names and indicate whether interior or corner lot.

SPECIAL INSPECTION AGENCY _____

OFFICE USE: () Applicant () Assessor () File

COMMERCIAL

TOWN OF CLAY
PLANNING & DEVELOPMENT
4401 State Route 31
Clay, New York 13041-8707
(315) 652-3800
(315) 622-7259(fax)
planning@townofclay.org

NEW COMMERCIAL BUILDINGS, COMMERCIAL ADDITIONS, COMMERCIAL ALTERATIONS,
RESIDENTIAL APARTMENTS (BUILDINGS, ADDITIONS & ALTERATIONS)
PERMIT PROCEDURES

****THERE WILL BE A 25% ADDITIONAL FEE CHARGE FOR INCOMPLETE PLANS****

1.) Site Plans and final plat maps must be filed and stamped approved prior to submitting permit. *Permit Approval time will be based on the extent of the project. Additional time may be required when plans are referred to a third party plan reviewer at the discretion of the Department of Planning & Development. There will be a minimum of 15 business days for in house review. To make this transition go as smoothly as possible we ask that you call for an appointment prior to submitting permit.*

2.) PERMIT APPLICATION with fee.

Sprinkler and alarm plans that are not submitted at the time of permit application will then require a separate permit/fee.

3.) 2 FULL Sets of **COMPLETE** stamped architect plans along with one digital copy, or one 11X17 copy set, and one spec book or project manual when applicable.

Plan submittals must meet the APPLICABLE CODES:

2015 International Building Code

2015 International Residential Code

2015 International Existing Building Code

2015 International Fire Code

2015 International Plumbing Code

2015 International Mechanical Code

2015 International Fuel Gas Code

2015 International Property Maintenance Code

2016 NYS Uniform Code Supplement

2015 International Energy Conservation Code

2016 NYS Energy Code Supplement

2013 ASHRAE 90.1

2009 Ansi Standards

NFPA 70 2014 National Electrical Code

4. Code compliance review sheets must include the following:

- ❑ List all applicable codes to be shown on plans.
- ❑ Classification(s) of work (new building, addition, alteration, change of occupancy)
- ❑ Occupancy classifications: Designate the buildings use and occupancy. If the building has multiple uses, indicate if they are separated or non-separated uses.
- ❑ List any incidental and accessory use areas and their respective fire barrier requirements. Storage areas must show height, racking, layout, commodities being stored and how they are packaged.
- ❑ Sprinkler systems, carbon monoxide detectors, smoke alarms, anslul systems, hood, duct, dampers, alarm systems.
- ❑ List any special detailed requirements based on use and occupancy.
- ❑ Provide building height and area calculations.
- ❑ Provide the type of construction & fire resistive ratings of building elements.
- ❑ Provide an interior finish schedule, finishes requiring fire proof materials.
- ❑ List all fire protection systems required for the proposed use and occupancy.
- ❑ Provide building egress and occupant load calculations for each room or area.
(Occupant load(s), common path of egress travel distance, exit access travel distance, number of exits provided & required, exit door & stairway widths & etc.)

- ❑ Provide a schedule showing the required number of fixtures and provided fixtures.

Elevation drawings for each and every accessible requirement, Exposed pipes in bathrooms configured to protect against contact, grab bars installed per code, signage, paper towel dispensers, soap dispensers, mirrors, hooks, door hardware, walkways, and parking lot signage.

5.) Mandatory Fire Flow & data sheets must be provided.

6.) Statement of Special Inspections required. To be listed on a separate document along with the agency providing these.

7.) Truss identification sign-please provide sample on drawings. (Title 19NYCRR part 1264&1265)

8.) Driveway permit required for all new curb cuts and modifications.

8.) Contractors Certificate of Liability, N.Y.S. Workman's Compensation and Disability insurance.

9.) Onondaga County Plumbing permits. 315-435-6614.

10.) Electrical Inspections Agencies: choose one: CNY Electrical Larry Kinne 315-633-0027

The Inspector Tim Willsey 800-487-0535; 315-247-9162; Middle Dept. Inspection Agency 1-315-452-5304; Common Wealth Inspection Agency 1-800-801-0309/315-427-4864

10) Elevator Inspectors; NEIS 1-800-886-8316, CNY 425-0428, or

American Loss Prevention Services 1-716-842-6117.

10/03/2016

COMMERCIAL

Town Of Clay - Building Permit Fees

Partial Schedule

\$1,00-\$1,000 - \$100	\$21,000 - \$240	\$41,000 - \$380	\$61,000 - \$520	\$81,000 - \$660
\$2,000 - \$107	\$22,000 - \$247	\$42,000 - \$387	\$62,000 - \$527	\$82,000 - \$667
\$3,000 - \$114	\$23,000 - \$254	\$43,000 - \$394	\$63,000 - \$534	\$83,000 - \$674
\$4,000 - \$121	\$24,000 - \$261	\$44,000 - \$401	\$64,000 - \$541	\$84,000 - \$681
\$5,000 - \$128	\$25,000 - \$268	\$45,000 - \$408	\$65,000 - \$548	\$85,000 - \$688
\$6,000 - \$135	\$26,000 - \$275	\$46,000 - \$415	\$66,000 - \$555	\$86,000 - \$695
\$7,000 - \$142	\$27,000 - \$282	\$47,000 - \$422	\$67,000 - \$562	\$87,000 - \$702
\$8,000 - \$149	\$28,000 - \$289	\$48,000 - \$429	\$68,000 - \$569	\$88,000 - \$709
\$9,000 - \$156	\$29,000 - \$296	\$49,000 - \$436	\$69,000 - \$576	\$89,000 - \$716
\$10,000 - \$163	\$30,000 - \$303	\$50,000 - \$443	\$70,000 - \$583	\$90,000 - \$723
\$11,000 - \$170	\$31,000 - \$310	\$51,000 - \$450	\$71,000 - \$590	\$91,000 - \$730
\$12,000 - \$177	\$32,000 - \$317	\$52,000 - \$457	\$72,000 - \$597	\$92,000 - \$737
\$13,000 - \$184	\$33,000 - \$324	\$53,000 - \$464	\$73,000 - \$604	\$93,000 - \$744
\$14,000 - \$191	\$34,000 - \$331	\$54,000 - \$471	\$74,000 - \$611	\$94,000 - \$751
\$15,000 - \$198	\$35,000 - \$338	\$55,000 - \$478	\$75,000 - \$618	\$95,000 - \$758
\$16,000 - \$205	\$36,000 - \$345	\$56,000 - \$485	\$76,000 - \$625	\$96,000 - \$765
\$17,000 - \$212	\$37,000 - \$352	\$57,000 - \$492	\$77,000 - \$632	\$97,000 - \$772
\$18,000 - \$219	\$38,000 - \$359	\$58,000 - \$499	\$78,000 - \$639	\$98,000 - \$779
\$19,000 - \$226	\$39,000 - \$366	\$59,000 - \$506	\$79,000 - \$646	\$99,000 - \$786
\$20,000 - \$233	\$40,000 - \$373	\$60,000 - \$513	\$80,000 - \$653	\$100,000 - \$793

\$1,00-\$1,000.00-\$100
For each additional
\$1,000 or fraction
thereof - ADD \$7

\$225,000 = \$1,668
\$250,000 = \$1,843
\$275,000 = \$2,018

\$300,000 = \$2,193	\$101,000 - \$800	\$121,000 - \$940	\$161,000 - \$1,220	\$181,000 - \$1,360
\$325,000 = \$2,368	\$102,000 - \$807	\$122,000 - \$947	\$162,000 - \$1,227	\$182,000 - \$1,367
\$350,000 = \$2,543	\$103,000 - \$814	\$123,000 - \$954	\$163,000 - \$1,234	\$183,000 - \$1,374
\$375,000 = \$2,718	\$104,000 - \$821	\$124,000 - \$961	\$164,000 - \$1,241	\$184,000 - \$1,381
\$400,000 = \$2,893	\$105,000 - \$828	\$125,000 - \$968	\$165,000 - \$1,248	\$185,000 - \$1,388
\$425,000 = \$3,068	\$106,000 - \$835	\$126,000 - \$975	\$166,000 - \$1,255	\$186,000 - \$1,395
\$450,000 = \$3,243	\$107,000 - \$842	\$127,000 - \$982	\$167,000 - \$1,262	\$187,000 - \$1,402
\$475,000 = \$3,418	\$108,000 - \$849	\$128,000 - \$989	\$168,000 - \$1,269	\$188,000 - \$1,409
\$500,000 = \$3,593	\$109,000 - \$856	\$129,000 - \$996	\$169,000 - \$1,276	\$189,000 - \$1,416
\$1,000,000 = \$7,093	\$110,000 - \$863	\$130,000 - \$1,003	\$170,000 - \$1,283	\$190,000 - \$1,423
\$2,000,000 = \$14,093	\$111,000 - \$870	\$131,000 - \$1,010	\$171,000 - \$1,290	\$191,000 - \$1,430
	\$112,000 - \$877	\$132,000 - \$1,017	\$172,000 - \$1,297	\$192,000 - \$1,437
	\$113,000 - \$884	\$133,000 - \$1,024	\$173,000 - \$1,304	\$193,000 - \$1,444
	\$114,000 - \$891	\$134,000 - \$1,031	\$174,000 - \$1,311	\$194,000 - \$1,451
	\$115,000 - \$898	\$135,000 - \$1,038	\$175,000 - \$1,318	\$195,000 - \$1,458
	\$116,000 - \$905	\$136,000 - \$1,045	\$176,000 - \$1,325	\$196,000 - \$1,465
	\$117,000 - \$912	\$137,000 - \$1,052	\$177,000 - \$1,332	\$197,000 - \$1,472
	\$118,000 - \$919	\$138,000 - \$1,059	\$178,000 - \$1,339	\$198,000 - \$1,479
	\$119,000 - \$926	\$139,000 - \$1,066	\$179,000 - \$1,346	\$199,000 - \$1,486
	\$120,000 - \$933	\$140,000 - \$1,073	\$180,000 - \$1,353	\$200,000 - \$1,493



Onondaga County Health Department

Joanne M. Mahoney, County Executive
Indu Gupta, MD, MPH, Commissioner of Health

John H. Mulroy Civic Center • 421 Montgomery Street, Syracuse, NY 13202



Division of Environmental Health
Lisa A. Letteney, P.E., Director

Bureau of Public Health Engineering
Phone (315) 435-6600
Fax (315) 435-6606

Onondaga County Health Department (OCHD) Cross Connection Control Plan Submittal

A complete Backflow Prevention (BFP) Installation Design submitted to this office would include the following:

- 1) DOH Form 347 - Application for Approval of Backflow Prevention Devices with Water Supplier signature
- 2) Site Plan showing water line(s) to building and with general location map inset
- 3) Plumbing Floor Plan with dimensions surrounding device
- 4) Vertical Cross-Section with dimensions surrounding device
- 5) Engineering Report Form completed
- 6) Cut sheets (manufacturer's spec sheets) for device and Cut sheets for "hot box", if applicable. (make sure that cut sheets show that device is approved by University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (FCCCHR))

Review of the following information is recommended for designing a BFP device installation:

- NYS DOH 10 NYCRR Section 5-1.31 – Cross Connection Control, Articles (c) and (d)
<http://www.health.ny.gov/environmental/water/drinking/cross/part5.htm>
- Guidelines for Designing Backflow Prevention Assembly Installations - Supplement to the 1981 Cross-Connection Control Manual, January 1992
<http://www.health.ny.gov/environmental/water/drinking/cross/cross.htm>
- NYS DOH Form 347 - Application for Approval of Backflow Prevention Devices
<http://www.health.ny.gov/environmental/water/drinking/cross/doh347.pdf>
- Guidelines for Designing Backflow Assembly Installations
<http://www.health.ny.gov/environmental/water/drinking/cross/guide.htm>
- Approved Backflow Prevention Devices: Fact Sheet
http://www.health.ny.gov/environmental/water/drinking/cross/approved_backflow_prevention_devices_fact_sheet.htm
- Technical Reference - PWS 12 - CCC Policy for Single Family and Dual Family Residential Customers
<http://www.health.ny.gov/environmental/water/drinking/cross/pws12.htm>

Steps for Approving an Installation

- 1) Consumer required to install a backflow prevention device hires a New York State Licensed Engineer or Architect.
- 2) The engineer/architect designs an installation.
- 3) The engineer/architect contacts the Onondaga County Plumbing Control Section for a cursory review of BFP device drainage (as well as to submit plumbing plans and to apply for appropriate permits). Receives drainage approval letter.
- 4) The engineer/architect owner contacts Local Codes Officer for instructions on codes requirements on the local level.
- 5) The engineer/architect contacts water supplier. Sends one copy of preliminary plans (via email or per water supplier instructions) to the water supplier.
- 6) The water supplier reviews the design; requests needed corrections, and then will request the submission of 4 sets of final plans/application documents. The water supplier will sign, then forward the plans to the local health department.

Steps for Approving an Installation (Continued)

- 7) The OCHD reviews the plans and approves the design. Sends one copy to consumer, one copy to the water supplier, and one copy to Plumbing Control. OCHD retains a file copy.
- 8) A contractor (plumber) is hired to install the device per the approved design.
- 9) Plumbing Control inspects and approves installation, then releases Occupancy Permit.
- 10) A New York State certified tester tests the device.
- 11) The design engineer verifies that the device was installed as per the approved plans. This is recorded on the tester's form.
- 12) Device must be tested annually.

TOWN OF CLAY

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

Based on the 2015 Edition of the International Fire Code

One of the basic essentials needed to control and extinguish a structure fire is an adequate water supply. Designing the water supply for new buildings is an important part of the initial planning for new development projects whether the new building is a 1500 square foot house or a 200,000 square foot retail store.

The International Fire Code for New York State requires that an approved water supply capable of supplying the required fire flow for fire protection to be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction. There are three exceptions to this requirement if the area of development lacks fixed fire protection water supplies.

The Town of Clay has approved the Appendix B of the 2015 edition of the International Fire Code as the method for determining the required fire flow. These standards are based on fire flow calculations originally developed by the Insurance Services Office (ISO). The Fire Code standard is a modified version of the ISO calculation method and it utilizes a table of fire flows to simplify the calculation procedure. This guide is intended for developers of new projects to help explain how to calculate the required fire flows for new buildings and for additions to existing buildings.

Included at the end of this guide are the text and a table from Appendix B of the International Fire Code, 2015 Edition. Also included is a copy of the **New Development Fire Flow Form**. This form must be completed for new developments and submitted with the site plan or preliminary subdivision application. To complete the form:

1. The developer must fill out Part 1.
2. The developer then has his design professional fill out Part 2.

Note: Substitute the following: Commissioner of Planning & Development in place of the Fire Chief where it appears in Appendix B of the International Fire Code.

DETERMINING REQUIRED FIRE FLOW FOR NEW DEVELOPMENTS

Follow these steps to determine required flows:

1. Determine the use of the buildings -- all buildings will be either:

- One- and two-family dwellings
- Buildings other than one and two-family dwellings.

A. For buildings that are one and two-family dwellings:

- For all dwellings with a **fire area** up to 3,600 square feet, the required fire flow is 1,000 gallons per minute.
- For all dwellings with a **fire area** larger than 3,600 square feet, use Table B105.1 to determine the required flow (look under the column heading Type VB). Find the number in the column
- For all dwellings with a **fire area** larger than 3,600 square feet, use Table B105.1 to determine the required flow (look under the column heading Type VB). Find the number in the column corresponding to the fire area. The fire flow is the number under the Fire Flow heading corresponding to the fire area. For example: a 4,500 square foot home would have a required fire flow of 1,750 gallons per minute.

B. For buildings other than one or two family dwellings:

1. Determine the **fire area** and **type of construction** for each building. If you don't know the construction type, consult your architect.
2. Use Table B105.1 (2) to determine the fire flow. Some examples:
 - A 25,000 square foot Type V-B building has a fire flow requirement of 4,250-gallons/ minute.
 - A 10,000 square foot Type IIIB building has a fire flow requirement of 2,250 gallons/minute.
 - A 100,000 square foot Type IIB building has a fire flow requirement of 6,750 gallons/minute.

3. *The required fire flow for a building can be reduced by two methods:*

- A. Installing an approved fire sprinkler system:
- For one- and two-family dwellings, the required fire flow is reduced by 50% in sprinkled buildings.
 - For buildings other than one- and two-family dwellings, the fire flow can be reduced up to 75%, **but the resulting fire flow cannot be reduced below 1,500 gallons per minute**. For example: a 50,000 square foot Type IIIB building has a fire flow of 4,750 gallons per minute. If equipped with a fire sprinkler system, the fire flow can be reduced by up to 75% to 1,188 gallons per minute. But, the minimum fire flow in this case is 1,500 GPM because this is the minimum allowed by the code.
- B. Dividing the building into separate **fire areas**, by the installation of firewalls without openings, constructed in accordance with the New York State Building Code.
- The fire flow for each **fire area** within the building is then calculated according to Table B105.1(2) For example, if a 50,000 square foot Type IIIB building is separated into two 25,000 square foot **fire areas** by a firewall, the fire flow for each area is 3,250 gallons per minute. Without the firewall, the 50,000 square foot **fire area** has a fire flow of 4,750 gallons per minute.

TOWN OF CLAY'S APPROVED METHOD OF DETERMINING FIRE FLOW
International Fire Code Appendix B

Fire Flow: The flow rate of water supply, measured at 20-psi residual pressure that is available for fire fighting.

Fire Wall: A fire-resistance-rated wall having protected openings, which restricts the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.

Fire Area: The portion of the building being accounted for when applying table B105.1(2). This definition allows a fire area, for the purpose of defining fire flow, to be divided only by a firewall with no openings. Fire barriers and partitions could not be used to create separate fire areas.

Fire Flow Reduction: A 75% reduction in the fire flow is allowed were the building is equipped throughout with an approved automatic sprinkler system in accordance with chapter 9 of the FCNYS. The resulting fire flow shall not be less than 1500 gpm.

TABLE B105.1(2)
MINIMUM REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS

FIRE AREA (square feet)					FIRE FLOW (gallons per minute) ^c	FLOW DURATION (hours)
Type IA and IB ^b	Type IIA and IIIA ^b	Type IV and V-A ^b	Type IIB and IIIB ^b	Type V-B ^b		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901 -Greater	166,501 -Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
		135,501-145,800	97,901-106,800	60,201-64,800	6,750	
		145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
		179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401 -Greater	138,301 -Greater	85,101 -Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

b. Types of construction are based on the *International Building Code*.

c. Measured at 20 psi.

NEW DEVELOPMENT FIRE-FLOW FORM

PROJECT INFORMATION (To Be Completed By Applicant)

PART 1

Property Owner _____

Property Address _____

Nearest Cross Street _____

Distance to Nearest Cross Street _____

Applicant _____ Telephone () _____

Address _____

City _____ State _____ Zip Code _____

Occupancy (Use of Building) _____ Sprinkler System: Yes No

Type of Construction _____

Square Footage _____ Number of Stories: _____

List the minimum fire flow required for this project
(Table B105.1 (2)) _____

Applicant's Signature

Date

Part 2 (To Be Completed By Design Professional)

1. Circle the name of the water supplier: Town of Clay OCWA
2. List the approximate location, type and size of supply lines for this project, or attach a map with the same information:
3. List the g.p.m. at 20 p.s.i. residual pressure at the point that the development/project will be connected to the existing water system: _____.
Note: This is the available fire flow and must be equal to or greater than the required fire flow.
4. Attach fire flow test data for the fire hydrants nearest to the development/project that must be used to determine available fire flow.
5. If new lines are needed (or if existing lines must be looped) to supply the required fire flows, or if more information is needed to state the available minimum gpm @ 20 psi residual pressure, please list what the applicant/developer must do or obtain: _____

Print Name of Design Professional _____

Signature of Design Professional

Date

Get Free Help from Energy Code Experts



CLIMATE ZONE 5

Commercial Plan Review Checklist (Non-residential)

2015 IECC Commercial Provisions as amended by the 2016 Energy Code Supplement

Project #: 43.6220.02- _____ Date: _____ Name of Evaluator(s): _____

Building Contact: Name: _____ Phone: _____ Email: _____

Building Name & Address: _____

Jurisdiction: _____ Lot #: _____ Conditioned Floor Area: _____ ft²

Climate Zone: 5 County: _____ Jurisdiction Contact: _____

Jurisdiction Contact Phone: _____ Jurisdiction Contact E-mail: _____

Compliance Approach: Not Indicated Prescriptive Trade-Off Performance Compliance Software ASHRAE 90.1

Compliance Software Used: _____ Green Building/Above-Code Program? Yes No

Building Use Type: _____ Building Construction Type: _____

Project Type: New Building Existing Building Addition Existing Building Renovation

Special Considerations: Residential Use Historic Building

Provisions Highlighted in Green are Mandatory, Regardless of Compliance Path

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/ Assumptions
				Y	N	N/A	
C402 Building Envelope	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance of the Building Thermal Envelope.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.1.3	Compliance with Table C402.1.3 for appropriate Climate Zone	Climate Zone: 5	Climate Zone: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Below grade wall exterior insulation R-value.	R-7.5ci (C-0.119)	R-_____ U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Unheated Slab	R-10 for 24"	R-_____ _____ ft.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Heated Slab	R-15 for 36"	R-_____ _____ ft.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C303.2.1	Exposed Foundation Insulation Protection	≥ 6" below grade		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Floor (Joist/framing)	R-30	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Mass Floor	R-10 ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Wood Framed Wall and Other	R-13 +R-3.8ci or R-20	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Metal Framed Wall	R-13+ R-7.5ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/Assumptions
				Y	N	N/A	
Table C402.1.3	Metal Building Wall	R-13+ R13ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Mass Wall Assembly	R-11.4 ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Roof, Insulation above Deck	R-30ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Metal Building Roof (with thermal spacer blocks)	R-19 + R-11LS	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Attic and Other	R-38	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Opaque Door (Nonswinging)	R-4.75 U-0.21	R-_____ U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.4	Opaque Door (Swinging)	U- 0.37	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.2.6	Fireplace Doors and Combustion Air	Tight fitting combustion air damper	<input type="checkbox"/> Flue Damper or <input type="checkbox"/> Door	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration U-Factors	Fixed U-0.38	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration U-Factors	Operable U-0.45	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration U-Factors	Entrance Door U-0.77	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration SHGC	PF < 0.2 (0.40)	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration SHGC	$0.2 \leq PF < 0.5$ (0.48)	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration SHGC	PF ≥ 0.5 (0.64)	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Skylight Fenestration U-Factor	Skylight U-0.50	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Skylight Fenestration SHGC	Skylight SHGC: 0.40	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.2.2	Skylight Curbs	R-5 or NFRC 100	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1	Vertical Fenestration Area	Glazing < 30% of gross above-grade wall area	_____ %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1	Skylight Area	< 3% of gross roof area	_____ %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1.1	Increased Vertical Fenestration	< 40 % With daylight responsive controls	<input type="checkbox"/> Meets requirements <input type="checkbox"/> Exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1.2	Increased Skylight Area	<5% With daylight responsive controls	Complying with Section C405.2.3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.2	Minimum Skylight Fenestration Requirement	< 2,500 s.f. floor area. < 15' ceiling height	<input type="checkbox"/> Exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage. SELECT ASSEMBLY	Max. CFM/FT ² SELECT	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/ Assumptions
				Y	N	N/A	
Table C402.5.2	Air leakage. SELECT ASSEMBLY	Max. CFM/FT ² SELECT	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage. SELECT ASSEMBLY	Max. CFM/FT ² SELECT	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage. SELECT ASSEMBLY	Max. CFM/FT ² SELECT	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage. SELECT ASSEMBLY	Max. CFM/FT ² SELECT	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage. SELECT ASSEMBLY	Max. CFM/FT ² SELECT	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.3	Rooms Containing Fuel-burning Appliances	Outside the Building thermal Envelope. Or Enclosed in an Isolated Room	Exceptions: <input type="checkbox"/> Direct intake/Exhaust <input type="checkbox"/> Fireplaces and stoves complying with IMC and IBC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5	Continuous Air Barrier	ASTM E-779 ASTM E-2178	<input type="checkbox"/> Assembly <input type="checkbox"/> Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.5	Outdoor Air Intake/exhaust leakage. Ref. C403.2.4.3	Motorized, w/ gravity exceptions 3 story or 300 cfm	<input type="checkbox"/> Motorized <input type="checkbox"/> Gravity <input type="checkbox"/> Exemption _____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.6	Loading Docks Weather sealed	Sealed with doors open	Seals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.7	Vestibules (equipped with self-closing devices)	Required Mechanical space Sleeping unit or dwelling unit < 3,000 sq. ft. Revolving doors Vehicular door	<input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.8	Recessed Lighting (within building thermal envelope)	IC-rated, Sealed	ASTM E-283	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403 Mechanical Systems	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance of the Mechanical Systems and Equipment.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.2	Mechanical System, HVAC sizing	Shall not exceed calculated loads	<u>Heating</u> kBtu: _____ <u>Cooling</u> kBtu: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.1	HVAC Calculations	ANSI/ASHRAE/ACCA Standard 183 or Approved equivalent		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.3	HVAC Performance Requirements	Tables C403.2.3 (1) – (9)	Verified in Specification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.1	HVAC Controls, Thermostatic	Each Zone	Verified in Specification or on drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.1.3	Set Point Overlap	5 degree dead band	Dead band _____degrees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.2.2	Off Hour Controls	Automatic Setback (each zone)	55 degrees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/ Assumptions
				Y	N	N/A	
C403.2.4.2.2	Off Hour Controls	Time Clock	7 day control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.2.2	Off Hour Controls	Optimum Start Controls	>10,000 cfm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.3	Damper Controls	Motorized (Automatic) < 4 cfm/ ft ²	_____ cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.5	Snow Melt Systems	Automatic	Cut off @ 50°F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.7	Economizer Fault Detection and Diagnostics (FDD)	Does the Fault Detection and Diagnostics meet the requirements?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.6	Ventilation	Per MCNY		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.6.1	Demand Control Ventilation	>500 Sq. Ft. & 25 people/1K sq. ft.	Economizer Automatic Modulating Control Outdoor air > 3K cfm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.6.2	Enclosed Parking Garage Ventilation Controls	Fan reduction	Exceptions: <input type="checkbox"/> Exhaust capacity < 22,500cfm <input type="checkbox"/> Ratio exceeds 1125 cfm/hp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.7	Energy Recovery Ventilation System	When supply airflow rate of fan exceeds values in Tables C403.2.7(1) and (2)	>50% change in enthalpy of difference between outdoor & return air <input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.8	Kitchen Exhaust Systems	< 10% of exhaust rate > 5,000 cfm		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.9	Duct insulation (supply, return, plenums)	Unconditioned Space, R-6	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.9	Duct insulation (supply, return, plenums)	Outside of Building, R-12	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.9	Duct sealing complies with listed sealing methods.	MCNY 603.9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.10	HVAC piping insulation.	Per Table C403.2.10	Below: Circle all that apply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**TABLE C403.2.8
MINIMUM PIPE INSULATION THICKNESS (thickness in inches)***

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (inches)				
	Conductivity Btu · in./h · ft ² · °F	Mean Rating Temperature, °F	< 1	1 to < 1½	1½ to < 4	4 to < 8	≤ 8
> 350	0.32 – 0.34	250	4.5	5.0	5.0	5.0	5.0
251 – 350	0.29 – 0.32	200	3.0	4.0	4.5	4.5	4.5
201 – 250	0.27 – 0.30	150	2.5	2.5	2.5	3.0	3.0
141 – 200	0.25 – 0.29	125	1.5	1.5	2.0	2.0	2.0
105 – 140	0.21 – 0.28	100	1.0	1.0	1.5	1.5	1.5
40 – 60	0.21 – 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 – 0.26	75	0.5	1.0	1.0	1.0	1.5

- a. For piping smaller than 1½ inch (38 mm) and located in partitions within *conditioned spaces*, reduction of these thicknesses by 1 inch (25 mm) shall be permitted (before thickness adjustment required in footnote b) but not to a thickness less than 1 inch (25 mm).
- b. For insulation outside the stated conductivity range, the minimum thickness (*T*) shall be determined as follows:

$$T = r(1 + \frac{t}{h})^{k/k} - 1$$
where:
T = minimum insulation thickness,
r = actual outside radius of pipe,
t = insulation thickness listed in the table for applicable fluid temperature and pipe size,
K = conductivity of alternate material at mean rating temperature indicated for the applicable fluid temperature (Btu × in/h × ft² × °F) and
k = the upper value of the conductivity range listed in the table for the applicable fluid temperature.
- c. For direct-buried heating and hot water system piping, reduction of these thicknesses by 1½ inches (38 mm) shall be permitted (before thickness adjustment required in footnote b) but not to thicknesses less than 1 inch (25 mm).

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/ Assumptions
				Y	N	N/A	
C403.2.12.2	Total Fan Motor bhp	Verify motor size per Table C403.2.10.1(1) < 6bhp w/ 50% ≥ 6bhp w/ 30%	<input type="checkbox"/> Exempt <input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.13	Heating outside areas	Radiant Heat Only	Occupancy sensing device or timer switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.14	Refrigeration Equipment Performance	Verify per Tables C403.2.14(1) and C403.2.14(2)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.15	Coolers and Freezers (Not site assembled or constructed)	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.16	Coolers and Freezers (Site assemble or site constructed)	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.17	Refrigerated Display Cases	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3	Economizers required (Air or water)	Over 54,000 Btu/h Efficiency Exception	100% outside air Table 403.3(1) <input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3.1	Economizer Controls	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3.3	Air Economizer Controls	Verify compliance with Sections C403.3.3.1 thru C403.3.3.5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3.4	Water-side Economizers	Verify compliance with Sections C403.3.4.1 and C403.3.4.2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4	Hydronic or Multi-zone HVAC Systems	Fan Controls: DX Airsides economizer Other	<input type="checkbox"/> < 30% fan motor demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2	Hydronic System Controls	Temperature Dead Band. Heat Rejection	<input type="checkbox"/> Meets Exceptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2.3.2.2	Climate Zones 5 and 6 Heat Exchanger	Isolation controls		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2.4	Hydronic System Part Load Controls	Sequencing boilers or modulating single ≥ 500K Btu/h	<input type="checkbox"/> Auto reset <input type="checkbox"/> Fluid flow <input type="checkbox"/> Pump flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2.5	Boiler Turndown	> 1,000,000 Btu/h	<input type="checkbox"/> 3 to 1 <input type="checkbox"/> 4 to 1 <input type="checkbox"/> 5 to 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.3	Heat Rejection Fan Controls	≥7.5 Hp		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.4	Complex Systems, Multiple Zones	VAV System	Per C403.4.4.1 through C403.4.6.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.4.6	Multi-zone VAV System Ventilation Optimization Control	Outdoor air intake reduction controls below design rate	Exceptions: <input type="checkbox"/> VAV zone transfer fans <input type="checkbox"/> Energy Recovery <input type="checkbox"/> >70% exhaust airflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/Assumptions
				Y	N	N/A	
C403.5	Refrigeration Systems	Condensers Compressors	Per 403.5.1 Per 403.5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404 Service Water Heating	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance Service Water Heating Systems and Equipment.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.2	Service Water (SW) Heating Equipment Efficiency	Per Table C404.2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.3	SW Heat Traps Non circulation system	Required	<input type="checkbox"/> Piped Heat trap <input type="checkbox"/> Integral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.4	SW Pipe Insulation	Per Table C403.2.10 Full length	<input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.5	Efficient Heated Water Supply Piping	Per Section C404.5.1 Per Section C404.5.2	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.6.3	Pump Controls for Hot Water Storage	<5 min. operation cycle		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.7	Demand Recirculation Controls	> 5 minutes after end of cycle		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.9.1	Swimming Pool Heaters	Accessible Controls		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.9.2	Pool Heater Time Switch	Automatic		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.9.3	Pool Covers	Required Vapor Retardant 70% recovered energy	<input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.11	Service Water Heating System Commissioning	Per Section C408.2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405 Lighting and Electrical Systems	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance Lighting and Electrical Systems and Equipment.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2	Lighting Controls	Within each enclosed area	<input type="checkbox"/> Dwelling Unit Exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.1	Occupant Sensor Controls	Required: 1) 30 min. shutoff 2) Manual 50% power 3) Manual Control		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.2.1	Time-switch Controls	In areas with no occupant sensor controls	<input type="checkbox"/> Meets function requirements <input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.2.2	Occupant Override	If Automatic Controls	50%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.3	Daylight Controls	Only in defined daylight zones		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.4	Specific Application Controls	Display Accent/task Sleeping Units		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.3	Exit Signs	Internally illuminated 5 watts per side		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.4	Interior Lighting Power Requirements	Table C405.4.2(1) ≤ Interior Lighting Power C405.4.2	Show Calculations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/ Assumptions
				Y	N	N/A	
C405.5	Exterior Lighting Total	Base + Table C405.5.2(2)	Lighting Zone_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.6	Electrical Energy Consumption	Group R-2 Separate Electrical Meter		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.7	Electrical Transformers	Per Table C405.7	<input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.8	Electrical Motors	Per Tables C405.8(1) thru C405.8(4)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.9	Vertical Transport	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C408.3	Lighting System Commissioning	Testing of control hardware and software	<input type="checkbox"/> Documents state who performs the test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.2	Additional Efficiency Package (Efficient HVAC Performance)	Meets min. efficiency Req. of C403 and Tables C406.2(1) thru C406.2(7)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.3	Additional Efficiency Package (Reduced Lighting Power Density)	Whole Building Reduced Lighting Power Density (w/ft ²)	w/ft ² -_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.4	Additional Efficiency Package (Enhanced Lighting Controls)	Specific controls and operation of luminaires		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.5	Additional Efficiency Package (On-site Renewable Energy)	Either: Not less than 1.75 btu or 0.50 w/ft ² Provide not less than 3% for mech., service water and lighting	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.6	Additional Efficiency Package (Dedicated outdoor air system)	100% outdoor air to each occupied space Supply air temperature reset controls	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.7	Additional Efficiency Package (High-efficiency service water heating)	≤ 60% of requirements. Waste heat recovery. Solar water heating	Group_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C407.6.1	Specific Approval	Documentation per C407 tested Per ASHRAE 140		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C408.2	Mechanical System Commissioning	Commissioning provisions on construction documents < 480,000 Btu/h cooling and 600,000 Btu/h heating Dwelling units	<input type="checkbox"/> Exempt <input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Get Free Help from Energy Code Experts



CLIMATE ZONE 5

Commercial Inspection Checklist (Non-residential)

2015 IECC Commercial Provisions as amended by the 2016 Energy Code Supplement

Project #: 43.6220.02- Date: _____ Name of Evaluator(s): _____

Building Contact: Name: _____ Phone: _____ Email: _____

Building Name & Address: _____

Jurisdiction: _____ Lot #: _____ Conditioned Floor Area: _____ ft²

Climate Zone: 5 County: _____ Jurisdiction Contact: _____

Jurisdiction Contact Phone: _____ Jurisdiction Contact E-mail: _____

Compliance Approach: Not Indicated Prescriptive Trade-Off Performance Compliance Software ASHRAE 90.1

Compliance Software Used: _____ Green Building/Above-Code Program? Yes No

Building Use Type: _____ Building Construction Type: _____

Project Type: New Building Existing Building Addition Existing Building Renovation

Special Considerations: Residential Use Historic Building

Provisions Highlighted in Green are Mandatory, Regardless of Compliance Path

IECC Section #	Pre-Inspection/Plan Review	Code Value	Verified Value	Complies			Comments/Assumptions
				Y	N	N/A	
C402 Building Envelope	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance of the Building Thermal Envelope.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.1.3	Compliance with Table C402.1.3 for appropriate Climate Zone	Climate Zone: 5	Climate Zone: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Below grade wall exterior insulation R-value.	R-7.5ci (C-0.119)	R-_____ U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Unheated Slab	R-10 for 24"	R-_____ _____ ft.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Heated Slab	R-15 for 36"	R-_____ _____ ft.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C303.2.1	Exposed Foundation Insulation Protection	≥ 6" below grade		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Floor (Joist/framing)	R-30	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Mass Floor	R-10 ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Wood Framed Wall and Other	R-13 +R-3.8ci or R-20	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Metal Framed Wall	R-13+ R-7.5ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Table C402.1.3	Metal Building Wall	R-13+ R13ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Mass Wall Assembly	R-11.4 ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Roof, Insulation above Deck	R-30ci	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Metal Building Roof (with thermal spacer blocks)	R-19 + R-11LS	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Attic and Other	R-38	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.3	Opaque Door (Nonswinging)	R-4.75 U-0.21	R-_____ U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.1.4	Opaque Door (Swinging)	U- 0.61	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.2.6	Fireplace Doors and Combustion Air	Tight fitting combustion air damper	<input type="checkbox"/> Flue Damper or <input type="checkbox"/> Door	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration U-Factors	Fixed U-0.38	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration U-Factors	Operable U-0.45	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration U-Factors	Entrance Door U-0.77	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration SHGC	PF < 0.2 (0.40)	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration SHGC	0.2 ≤ PF < 0.5 (0.48)	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Vertical Fenestration SHGC	PF ≥ 0.5 (0.64)	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Skylight Fenestration U-Factor	Skylight U-0.50	U-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.4	Skylight Fenestration SHGC	Skylight SHGC: 0.40	SHGC-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.2.2	Skylight Curbs	R-5 or NFRC 100	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1	Vertical Fenestration Area	Glazing < 30% of gross above-grade wall area	_____ %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1	Skylight Area	< 3% of gross roof area	_____ %	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1.1	Increased Vertical Fenestration	< 40 % With daylight responsive controls	<input type="checkbox"/> Meets requirements <input type="checkbox"/> Exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.1.2	Increased Skylight Area	<5% With daylight responsive controls	Complying with Section C405.2.3.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.4.2	Minimum Skylight Fenestration Requirement	< 2,500 s.f. floor area. < 15' ceiling height	<input type="checkbox"/> Exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage.	Max. CFM/FT ²	_____ cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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Table C402.5.2	Air leakage.	Max. CFM/FT ²	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage.	Max. CFM/FT ²	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage.	Max. CFM/FT ²	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage.	Max. CFM/FT ²	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Table C402.5.2	Air leakage.	Max. CFM/FT ²	_____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.3	Rooms Containing Fuel-burning Appliances	Outside the Building thermal Envelope. Or Enclosed in an Isolated Room	Exceptions: <input type="checkbox"/> Direct intake/Exhaust <input type="checkbox"/> Fireplaces and stoves complying with IMC and IBC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5	Continuous Air Barrier	ASTM E-779 ASTM E-2178	<input type="checkbox"/> Assembly <input type="checkbox"/> Material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.5	Outdoor Air Intake/exhaust leakage. Ref. C403.2.4.3	Motorized, w/ gravity exceptions 3 story or 300 cfm	<input type="checkbox"/> Motorized <input type="checkbox"/> Gravity <input type="checkbox"/> Exemption _____cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.6	Loading Docks Weather sealed	Sealed with doors open	Seals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.7	Vestibules (equipped with self-closing devices)	Required Mechanical space Sleeping unit or dwelling unit < 3,000 sq. ft. Revolving doors Vehicular door	<input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C402.5.8	Recessed Lighting (within building thermal envelope)	IC-rated, Sealed	ASTM E-283	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403 Mechanical Systems	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance of the Mechanical Systems and Equipment.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.1	Mechanical System, HVAC sizing	Shall not exceed calculated loads	Heating kBtu: _____ Cooling kBtu: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.1	HVAC Calculations	ANSI/ASHRAE/ACCA Standard 183 or Approved equivalent		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.3	HVAC Performance Requirements	Tables C403.2.3 (1) – (9)	Verified in Specification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.1	HVAC Controls, Thermostatic	Each Zone	Verified in Specification or on drawings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.1.3	Set Point Overlap	5 degree dead band	Dead band _____degrees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.2.2	Off Hour Controls	Automatic Setback (each zone)	55 degrees	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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C403.2.4.2.2	Off Hour Controls	Time Clock	7 day control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.2.2	Off Hour Controls	Optimum Start Controls	>10,000 cfm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.3	Damper Controls	Motorized (Automatic) < 4 cfm/ ft ²	_____ cfm/ ft ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.5	Snow Melt Systems	Automatic	Cut off @ 50°F	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.4.7	Energy Recovery Ventilation Systems	Exceeds values in Table C403.2.7(1) and C403.2.7(2) (≥ 50% Change in Enthalpy)	<input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.6	Ventilation	Per MCNY		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.6.1	Demand Control Ventilation	>500 Sq. Ft. & 25 people/1K sq. ft.	Economizer Automatic Modulating Control Outdoor air > 3K cfm	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
C403.2.6.2	Enclosed Parking Garage Ventilation Controls	Fan reduction	Exceptions: <input type="checkbox"/> Exhaust capacity < 22,500cfm <input type="checkbox"/> Ratio exceeds 1125 cfm/hp	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.7	Energy Recovery Ventilation System	When supply airflow rate of fan exceeds values in Tables C403.2.7(1) and (2)	>50% change in enthalpy of difference between outdoor & return air <input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.8	Kitchen Exhaust Systems	< 10% of exhaust rate > 5,000 cfm		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.9	Duct insulation (supply, return, plenums)	Unconditioned Space, R-6	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.9	Duct insulation (supply, return, plenums)	Outside of Building, R-8	R-_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.9	Duct sealing complies with listed sealing methods.	MCNY 603.9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.10	HVAC piping insulation.	Per Table C403.2.10	Below: Circle all that apply	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

TABLE C403.2.8
MINIMUM PIPE INSULATION THICKNESS (thickness in inches)*

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (inches)				
	Conductivity Btu · in./h · ft ² · °F	Mean Rating Temperature, °F	< 1	1 to < 1½	1½ to < 4	4 to < 8	≥ 8
> 350	0.32 – 0.34	250	4.5	5.0	5.0	5.0	5.0
251 – 350	0.29 – 0.32	200	3.0	4.0	4.5	4.5	4.5
201 – 250	0.27 – 0.30	150	2.5	2.5	2.5	3.0	3.0
141 – 200	0.25 – 0.29	125	1.5	1.5	2.0	2.0	2.0
105 – 140	0.21 – 0.28	100	1.0	1.0	1.5	1.5	1.5
40 – 60	0.21 – 0.27	75	0.5	0.5	1.0	1.0	1.0
< 40	0.20 – 0.26	75	0.5	1.0	1.0	1.0	1.5

- a. For piping smaller than 1½ inch (38 mm) and located in partitions within *conditioned spaces*, reduction of these thicknesses by 1 inch (25 mm) shall be permitted (before thickness adjustment required in footnote b) but not to a thickness less than 1 inch (25 mm).
- b. For insulation outside the stated conductivity range, the minimum thickness (T) shall be determined as follows:
 $T = r \{ (1 + t/k)^{kK} - 1 \}$
 where:
 T = minimum insulation thickness,
 r = actual outside radius of pipe,
 t = insulation thickness listed in the table for applicable fluid temperature and pipe size,
 K = conductivity of alternate material at mean rating temperature indicated for the applicable fluid temperature (Btu × in/h × ft² × °F) and
 k = the upper value of the conductivity range listed in the table for the applicable fluid temperature.
- c. For direct-buried heating and hot water system piping, reduction of these thicknesses by 1½ inches (38 mm) shall be permitted (before thickness adjustment required in footnote b) but not to thicknesses less than 1 inch (25 mm).

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C403.2.12.2	Total Fan Motor bhp	Verify motor size per Table C403.2.10.1(1) < 6bhp w/ 50% ≥ 6bhp w/ 30%	<input type="checkbox"/> Exempt <input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.13	Heating outside areas	Radiant Heat Only	Occupancy sensing device or timer switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.14	Refrigeration Equipment Performance	Verify per Tables C403.2.14(1) and C403.2.14(2)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.15	Coolers and Freezers (Not site assembled or constructed)	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.16	Coolers and Freezers (Site assemble or site constructed)	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.2.17	Refrigerated Display Cases	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3	Economizers required (Air or water)	Over 54,000 Btu/h Efficiency Exception	100% outside air Table 403.3(1) <input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3.1	Economizer Controls	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3.3	Air Economizer Controls	Verify compliance with Sections C403.3.3.1 thru C403.3.3.5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.3.4	Water-side Economizers	Verify compliance with Sections C403.3.4.1 and C403.3.4.2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4	Hydronic or Multi-zone HVAC Systems	Fan Controls: DX Airside economizer Other	<input type="checkbox"/> < 30% fan motor demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2	Hydronic System Controls	Temperature Dead Band. Heat Rejection	<input type="checkbox"/> Meets Exceptions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2.3.2.2	Climate Zones 5 and 6 Heat Exchanger	Isolation controls		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2.4	Hydronic System Part Load Controls	Sequencing boilers or modulating single ≥ 500K Btu/h	<input type="checkbox"/> Auto reset <input type="checkbox"/> Fluid flow <input type="checkbox"/> Pump flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.2.5	Boiler Turndown	> 1,000,000 Btu/h	<input type="checkbox"/> 3 to 1 <input type="checkbox"/> 4 to 1 <input type="checkbox"/> 5 to 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.3	Heat Rejection Fan Controls	≥7.5 Hp		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.4	Complex Systems, Multiple Zones	VAV System	Per C403.4.4.1 through C403.4.6.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C403.4.4.6	Multi-zone VAV System Ventilation Optimization Control	Outdoor air intake reduction controls below design rate	Exceptions: <input type="checkbox"/> VAV zone transfer fans <input type="checkbox"/> Energy Recovery <input type="checkbox"/> >70% exhaust airflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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C403.5	Refrigeration Systems	Condensers Compressors	Per 403.5.1 Per 403.5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404 Service Water Heating	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance Service Water Heating Systems and Equipment.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.2	Service Water (SW) Heating Equipment Efficiency	Per Table C404.2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.3	SW Heat Traps Non circulation system	Required	<input type="checkbox"/> Piped Heat trap <input type="checkbox"/> Integral	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.4	SW Pipe Insulation	Per Table C403.2.10 Full length	<input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.5	Efficient Heated Water Supply Piping	Per Section C404.5.1 Per Section C404.5.2	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.6.3	Pump Controls for Hot Water Storage	<5 min. operation cycle		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.7	Demand Recirculation Controls	> 5 minutes after end of cycle		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.9.1	Swimming Pool Heaters	Accessible Controls		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.9.2	Pool Heater Time Switch	Automatic		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.9.3	Pool Covers	Required Vapor Retardant 70% recovered energy	<input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C404.11	Service Water Heating System Commissioning	Per Section C408.2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405 Lighting and Electrical Systems	Construction drawings and documentation available. Documentation sufficiently demonstrates energy code compliance Lighting and Electrical Systems and Equipment.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2	Lighting Controls	Within each enclosed area	<input type="checkbox"/> Dwelling Unit Exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.1	Occupant Sensor Controls	Required: 1) 30 min. shutoff 2) Manual 50% power 3) Manual Control		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.2.1	Time-switch Controls	In areas with no occupant sensor controls	<input type="checkbox"/> Meets function requirements <input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.2.2	Occupant Override	If Automatic Controls	50%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.3	Daylight Controls	Only in defined daylight zones		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.2.4	Specific Application Controls	Display Accent/task Sleeping Units		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.3	Exit Signs	Internally illuminated 5 watts per side		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.4	Interior Lighting Power Requirements	Table C405.4.2(1) ≤ Interior Lighting Power C405.4.2	Show Calculations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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C405.5	Exterior Lighting Total	Base + Table C405.5.2(2)	Lighting Zone_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.6	Electrical Energy Consumption	Group R-2 Separate Electrical Meter		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.7	Electrical Transformers	Per Table C405.7	<input type="checkbox"/> Meets exception	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.8	Electrical Motors	Per Tables C405.8(1) thru C405.8(4)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C405.9	Vertical Transport	Verify Requirements		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C408.3	Lighting System Commissioning	Testing of control hardware and software	<input type="checkbox"/> Documents state who performs the test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.2	Additional Efficiency Package (Efficient HVAC Performance)	Meets min. efficiency Req. of C403 and Tables C406.2(1) thru C406.2(7)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.3	Additional Efficiency Package (Reduced Lighting Power Density)	Whole Building Reduced Lighting Power Density (w/ft ²)	w/ft ² -_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.4	Additional Efficiency Package (Enhanced Lighting Controls)	Specific controls and operation of luminaires		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.5	Additional Efficiency Package (On-site Renewable Energy)	Either: Not less than 1.75 btu or 0.50 w/ft ² Provide not less than 3% for mech., service water and lighting	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.6	Additional Efficiency Package (Dedicated outdoor air system)	100% outdoor air to each occupied space Supply air temperature reset controls	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C406.7	Additional Efficiency Package (High-efficiency service water heating)	≤ 60% of requirements. Waste heat recovery. Solar water heating	Group_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C407.6.1	Specific Approval	Documentation per C407 tested Per ASHRAE 140		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
C408.2	Mechanical System Commissioning	Commissioning provisions on construction documents < 480,000 Btu/h cooling and 600,000 Btu/h heating Dwelling units	<input type="checkbox"/> Exempt <input type="checkbox"/> Exempt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	