



**CITY OF GLEN COVE
Building Department**

**COMMERCIAL BUILDING CODE WORKSHEET
(BUILDING DEPARTMENT REQUIREMENTS - Checklist)**

Name of Project: _____

Address: _____ Section: _____ Block: _____ Lot: _____

Current Use: _____ Proposed Use: _____

Owner/Authorized Agent: _____ Phone # (_____) _____ - _____ E-Mail _____

Project type: *(Check all that apply)*

New Building

Existing Building – Refer to the **EXISTING BUILDING CODE** section below

Performance Compliance Methods EBC Chapter 14 *(Provide evaluation with this review)*

LEAD DESIGN PROFESSIONAL: _____

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural	_____	_____	_____	(____) _____	_____
Civil	_____	_____	_____	(____) _____	_____
Electrical	_____	_____	_____	(____) _____	_____
Fire Alarm	_____	_____	_____	(____) _____	_____
Plumbing	_____	_____	_____	(____) _____	_____
Mechanical	_____	_____	_____	(____) _____	_____
Sprinkler-Standpipe	_____	_____	_____	(____) _____	_____
Structural	_____	_____	_____	(____) _____	_____
Retaining Walls >5' High	_____	_____	_____	(____) _____	_____
Other	_____	_____	_____	(____) _____	_____

TYPE OF WORK:	New Construction		Alteration Type 1		Alteration Type 2		Alteration Type 3	
	Additions		Repairs		Interior Renovations		Change of Occupancy	

BASIC BUILDING DATA

Construction Type: I-A I-B II-A II-B III-A III-B IV V-A V-B
(check all that apply)

Sprinklers: No Partial Yes NFPA 13 NFPA 13R NFPA 13D

Standpipes: No Yes Class I II III Wet Dry

Flood Hazard Area: No Yes

Building Height: (feet) _____

Gross Building Area:

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
1 ST FLOOR			
2 ND FLOOR			
3 RD FLOOR			
4 TH FLOOR			
5 TH FLOOR			
6 TH FLOOR			
Mezzanine			
Basement			

TOTALS

The 2016 Existing Building Code of New York State shall consist of the 2015 International Existing Building Code & the New York State 2016 Uniform Code Supplement. Chapter 1 Sections referenced here-in are found in the Supplement

102 Applicability. This code shall apply to the repair, alteration, change of occupancy, addition and relocation of existing buildings, **as identified in 101.2.8**

102.2 Other Laws and Codes Alterations, repairs, additions and changes of occupancy to, or relocation of, existing buildings and structures shall comply with the **appropriate** provisions for alterations, repairs, additions and changes of occupancy or relocation, respectively, in this code.

Permit required for Demolition Work.

Reference: 103.4 Safeguards during construction.

EBC Chapter 15,

BC Chapter 33, and Sections 1103.2.5 & 1804.1

Chapter 3 Provisions for all Compliance Methods *(Check all that apply.)*

Prescriptive compliance method

Work area compliance method

Performance compliance method - EBC Chapter 14 *(Provide evaluation with this review).*

Chapter 5 Classification of Work *(Check all that apply.)*

Repairs

Alteration - Level 1

Alteration - Level 2

Alteration - Level 3

Change of Occupancy

Addition

Relocation

Historic

LEGEND: Use the following abbreviations - NA: Not Applicable; **NR:** Not Required; **NP:** Not Permitted;
BC: Building Code; **EBC:** Existing Building Code; **FC:** Fire Code; **PC:** Plumbing Code; **MC:** Mechanical Code; **FGC:** Fuel Gas Code,
ECCC: Energy Conservation Construction Code;
* Shall be indicated on the construction documents issued with construction permits.
† Refer to New York State 2016 Uniform Code Supplement
‡ Provide additional information below

No.	Topic	Building Code Section (unless otherwise noted)	Existing Building Code	Minimum Requirements by Code	Specify Actual
Fire Code of New York State					
1	Fire Apparatus Access Road * †	FC503.1			
Building Code of New York State					
1	High Rise Buildings	BC403	EB804.2.1/902.1		
	Automatic Sprinkler System	BC402.5			
	Fire Alarm	BC403.3.4- 403.4.6			
	Standby and Emergency Power	BC403.4.8			
	Standby and Emergency Power	BC403.4.8			
2	Atriums	BC404			
	Sprinkler Protection	BC404.3			
	Smoke Control	BC404.5			
	Enclosure of atriums	BC404.6			
	Standby Power	BC404.7			
	Travel Distance	BC404.9-404.10			
3	Control Areas * ‡	BC414.2			
4	Building Areas and Heights * ‡	BC501, Table 504.3			
5	Mixed Occupancies *	BC508.1	EB1401.6.16		
	Non-separated Occupancies	BC508.3			
	Separated Occupancies (Ratio < 1)	BC508.4			
6	Incidental Use Areas	BC509.1	EB1401.6.19		
	Non-separated Occupancies	BC508.3			
7	Exterior Wall Fire-Resistance Rating †	BC602.1 Table 602	EB1012.6		
	Exterior Fire Separation Distance †	BC602.1 Table 602			
8	Fire Resistive Construction	BC701.1			
	Exterior Wall: Allowable Area of Openings *	BC705.8.1			
	Protected Openings	BC705.8.2			
	Unprotected Openings	BC705.8.3			
	Exterior Wall: Vertical Separation of Openings	BC705.8.5			
	Parapets	BC705.11			
	Fire Walls	BC706			
	Fire Barriers	BC707			
	Fire Partitions	BC708			
	Smoke Barriers	BC709			
	Shaft Enclosures	BC713			
	Penetrations	BC714			
	Fire Resistant Joint Systems	BC715			
	Opening Protectives	BC716			
	Concealed Spaces	BC718			

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‡ Provide additional information below

No.	Topic	Building Code Section (unless otherwise noted)	Existing Building Code	Minimum Requirements by Code	Specify Actual
9	Interior Finishes	BC801.1	702.1/803.4/903.3		
	Wall and Ceiling: Exits	BC803.11			
	Wall and Ceiling: Exit Access	BC803.11			
	Wall and Ceiling: Rooms	BC803.11			
	Floors	BC804			
10	Fire Protection: General	BC901.1	EB703/804/904		
	Sprinkler System	BC903			
	Alt. Fire Extinguishing System	BC904			
	Standpipe System	BC905			
	Portable Fire Extinguishers	BC906			
	Fire Alarm System *	BC907			
	Emergency Voice *	BC907			
	Smoke Detection System	BC907.2.11.7			
	Smoke Control *	BC909			
	Smokeproof Enclosure / Stair Pressurization *	BC909.20			
	Fire Command Center	BC911			
11	Exits * ‡	BC1001.1	EB704/805/905		
	Means of Egress Illumination	BC1008			
	Accessible Means of Egress	BC1009			
	Areas of Refuge	BC1009.6			
	Electromagnetically Locked Egress Doors	BC1010.1.9.9			
	Panic and Fire Exit Hardware	BC1010.1.10			
	Riser Height and Tread Depth	BC1011.5.2			
	Handrails	BC1011.11			
	Ramps	BC1012.1			
	Exit Signs	BC1013			
	Egress Through Intervening Spaces	BC1016.1			
	Corridor Fire-Resistance Rating	BC1020.1			
	Width and Capacity	BC1020.2			
	Dead Ends	BC1020.4			
	Exit Fire Rating	BC1023.2			
	Smokeproof Enclosure	BC1023.11			
	Horizontal Exits	BC1026			
	Exterior Exit Stairways and Ramps	BC1027			
	Assembly	BC1029			
	Common Path of Egress Travel	BC1029.8			
12	Accessibility *	BC1011CC/A117.1(2003)	EB410		
	Accessible Route	BC1104			
	Accessible Entrance	BC1105			

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* Shall be indicated on the construction documents issued with construction permits.
† Refer to New York State 2016 Uniform Code Supplement
‡ Provide additional information below
|| Attach analysis

No.	Topic	Building Code Section (unless otherwise noted)	Existing Building Code	Minimum Requirements by Code	Specify Actual
	Parking †	BC1106			
	Group R-2	BC1107.6.2			
	Toilet Rooms	BC1109.2			
	Signage	BC1111			
13	Light: Natural / Artificial	BC1205.2 / 1205.3			
	Ventilation	BC1203			
14	Ceiling Heights	BC1208.2	EB801		
15	Energy Conservation * ‡	BC1301/ECCC	EB708/811/908		
16	Roof Assembly Fire Classification	BC1505			
	Roof Covering	BC1507			
17	Structural Requirements * ‡	BC1601.1	EB707/807/907		
18	Foundation * ‡	BC1801			
19	Safety Glazing	BC2406.1			
20	Electrical	BC2701	EB607		
	Emergency and Standby Power	BC2702			
	Elevators and Platform Lifts	BC2702.2.2			
	Exit Signs	BC2702.2.5			
	High Rise Building	BC2702.2.9			
	Means of Egress Illumination	BC2702.2.11/ Chapter 30			
	Smoke Control Systems	BC2702.2.15			
Mechanical Code of New York State					
1	Mechanical Systems	BC2801.1	EB608		
	Ducts and Air Transfer Openings *	BC717/BC717.5			
	Fan Shutdown	MC606.4			
	Combustion Air *	MC701.1 & FGC304.1			
	Chimneys, Flues and Gas Vents *	MC801.1 & BC2113.1		Provide diameter of chimney or gas vents	
Plumbing Code of New York State					
1	Plumbing	BC2901.1	EB609/809		
	Fixture Count *	BC2902.1, PC403			
	Maximum Consumption	PC604.4			
	Available Street Water Pressure *	Reference NFPA			
	Fixture Units	PC709.1			
	House Traps	PC1002.6			
	Water Supply Materials *	Labor Law Art. 10-A			
2	Elevator Emergency Operation *	BC3003.2			
	Elevator Lobbies and Hoistway Opening Protection	BC3006			
3	Identification of truss type construction *	See Title 19 NYCRR, Part 1264 at http://www.dos.ny.gov/code/trussID.htm			

Code Information Required on Construction Documents		
No.	Topic	Building Code Section (unless otherwise noted)
Building Code of New York State		
1	Construction Documents	BC1603
2	Flood Hazard Documentation	BC1612.5
3	Seismic Qualifications of Mechanical and Electrical Equipment	BC1708.5
4	Structural Concrete	BC1901.4
5	Masonry	BC2101.3
6	Steel Joists	BC2206.2
7	Glass Supports	BC2403.2
8	Demolition	BC3303.1
Fire Code of New York State		
1	Construction Documents – Fire Department review before construction. Code Enforcement Official Approval Required	F501.3
2	Fire Apparatus Access Road (Appendix D)	F503
3	Fire Protection Systems	F901.2
4	Fire Alarm and Detection Systems	F907.1.1
5	Smoke Control Systems	F909.2, F909.3, F909.4
6	Owners Responsibility for Fire Protection	F1408
Energy Conservation Code of New York State ~ Chapter 1 Sections referenced here-in are found in the <u>2016 SUPPLEMENT TO THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE</u>, dated (REVISED AUGUST 2016)		
1	Information Required on Construction Documents	E103.2
2	Written Statement	E103.2.2
3	System Certification	E104.2.6.1
4	Changes during construction	E103.4
5	Work Area	E401.2
6	Duct Construction	E503.2.7.1
7	Manuals – Operating and Maintenance	E503.2.9.3
Existing Building Code of New York State		
1	Work Area Indicated on Construction Documents	EB202; EB401.2

ALLOWABLE AREA

Occupancy:

Assembly	A-1	A-2	A-3	A-4	A-5			
Business								
Educational								
Factory	F-1 Moderate		F-2 Low					
Hazardous	H-1 Detonate		H-2 Deflagrate		H-3 Combust	H-4 Health	H-5 HPM	
Institutional	I-1	I-2	I-3	I-4				
I-3 Condition	1	2	3	4	5			
Mercantile								
Residential	R-1	R-2	R-3	R-4				
Storage	S-1 Moderate		S-2 Low		High-piled			
	Parking Garage		Open	Enclosed	Repair Garage			

Utility and Miscellaneous

Accessory Occupancies:

Assembly	A-1	A-2	A-3	A-4	A-5			
Business								
Educational								
Factory	F-1 Moderate		F-2 Low					
Hazardous	H-1 Detonate		H-2 Deflagrate		H-3 Combust	H-4 Health	H-5 HPM	
Institutional	I-1	I-2	I-3	I-4				
I-3 Condition	1	2	3	4	5			
Mercantile								
Residential	R-1	R-2	R-3	R-4				
Storage	S-1 Moderate		S-2 Low		High-piled			
	Parking Garage		Open	Enclosed	Repair Garage			

Utility and Miscellaneous

Incidental Uses (Table 508.2.5):

- Furnace room where any piece of equipment is over 400,000 Btu per hour input
- Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower
- Refrigerant machine room
- Paint shops, not classified as Group H, located in occupancies other than Group F
- Laboratories and vocational shops, not classified as Group H, located in a Group E or I-2 occupancy
- Laundry rooms over 100 square feet
- Group I-2 waste and linen collection rooms
- Waste and linen collection rooms over 100 square feet
- Stationary storage battery systems having a liquid electrolyte capacity of more than 50 gallons, or a lithium-ion capacity of 1,000 pounds used for facility standby power, emergency power or uninterrupted power supplies
- Rooms containing fire pumps
- Group I-2 storage rooms over 100 square feet
- Group I-2 commercial kitchens
- Group I-2 laundries equal to or less than 100 square feet
- Group I-2 rooms or spaces that contain fuel-fired heating equipment

Mixed Occupancy: No Yes Separation: _____ Hr. Exception: _____

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING		DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	DESIGN # FOR RATED PENETRATION	DESIGN # FOR RATED JOINTS
		REQ'D	PROVIDED (w/_____*) REDUCTION)				
Structural Frame, including columns, girders, trusses							
Bearing Walls							
Exterior							
North							
East							
West							
South							
Interior							
Nonbearing Walls and Partitions							
Exterior walls							
North							
East							
West							
South							
Interior walls and partitions							
Floor Construction							
Including supporting beams and joists							
Roof Construction							
Including supporting beams and joists							
Shaft Enclosures - Exit							
Shaft Enclosures - Other							
Corridor Separation							
Occupancy Separation							
Party/Fire Wall Separation							
Smoke Barrier Separation							
Tenant Separation							
Incidental Use Separation							

* Indicate section number permitting reduction

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting:	No	Yes	
Exit Signs:	No	Yes	
Fire Alarm:	No	Yes	
Smoke Detection Systems:	No	Yes	Partial _____
Panic Hardware:	No	Yes	

LIFE SAFETY PLAN REQUIREMENTS – (Compliance with ICC/ANSI A-117.1 – 2009 Required)

Life Safety Plan Sheet #: _____

- Fire and/or smoke rated wall locations
- Assumed and real property line locations
- Exterior wall opening area with respect to distance to assumed property lines
- Existing structures within 30' of the proposed building
- Occupancy types for each area as it relates to occupant load calculation
- Occupant loads for each area
- Exit access travel distances
- Common path of travel distances
- Dead end lengths
- Clear exit widths for each exit door
- Maximum calculated occupant load capacity each exit door can accommodate based on egress width
- Actual occupant load for each exit door
- A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
- Location of doors with panic hardware
- Location of doors with delayed egress locks and the amount of delay
- Location of doors with electromagnetic egress locks
- Location of doors equipped with hold-open devices
- Location of emergency escape windows
- The square footage of each fire area
- The square footage of each smoke compartment
- Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

ACCESSIBLE PARKING

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED

STRUCTURAL DESIGN

DESIGN LOADS:

Importance Factors: Wind (I_w) _____
 Snow (I_s) _____
 Seismic (I_e) _____

Live Loads: Roof _____ psf
 Mezzanine _____ psf
 Floor _____ psf

Ground Snow Load: _____ psf

Wind Load: Basic Wind Speed _____ mph (ASCE-7)

Exposure Category _____
 Wind Base Shears (for MWFRS) $V_x =$ _____ $V_y =$ _____

SEISMIC DESIGN CATEGORY: A B C D

Provide the following Seismic Design Parameters:

Occupancy Category I II III IV

Site Classification A B C D E F
 Data Source: Field Test Presumptive Historical Data

Basic structural system (check one)

Bearing Wall Dual w/Special Moment Frame
 Building Frame Dual w/Intermediate R/C or Special Steel
 Moment Frame Inverted Pendulum

Analysis Procedure: Simplified Equivalent Lateral Force Dynamic

Architectural, Mechanical, Components anchored? Yes No

LATERAL DESIGN CONTROL: Earthquake Wind

SOIL BEARING CAPACITIES:

Field Test (provide copy of test report) _____ psf
 Presumptive Bearing capacity _____ psf
 Pile size, type, and capacity _____

PLUMBING FIXTURE REQUIREMENTS

USE		WATER CLOSETS		URINALS	LAVATORIES		SHOWERS/ TUBS	DRINKING FOUNTAINS	
		MALE	FEMALE		MALE	FEMALE		REGULAR	ACCESSIBLE
SPACE	EXISTING								
	NEW								
	REQUIRED								

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, DEC, OSC, ICC, etc., describe below)

ENERGY SUMMARY

ENERGY REQUIREMENTS: (Compliance with 2015 IECC required)

The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Climate Zone: 3 4 5 6

Method of Compliance:

Prescriptive (Energy Code)

Performance (Energy Code)

THERMAL ENVELOPE

Roof/ceiling Assembly (each assembly)

Description of assembly: _____

U-Value of total assembly: _____

R-Value of insulation: _____

Skylights in each assembly: _____

U-Value of skylight: _____

TOTAL square footage of skylights in each assembly: _____

Exterior Walls (each assembly)

Description of assembly: _____

U-Value of total assembly: _____

R-Value of insulation: _____

Openings (windows or doors with glazing)

U-Value of assembly: _____

Solar heat gain coefficient: _____

projection factor: _____

Door R-Values: _____

Walls below grade (each assembly)

Description of assembly: _____

U-Value of total assembly: _____

R-Value of insulation: _____

Floors over unconditioned space (each assembly)

Description of assembly: _____

U-Value of total assembly: _____

R-Value of insulation: _____

Floors slab on grade

Description of assembly: _____

U-Value of total assembly: _____

R-Value of insulation: _____

Horizontal/vertical requirement: _____

slab heated: _____

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Building heating load: _____

Building cooling load: _____

Mechanical Spacing Conditioning System

Unitary

description of unit: _____

heating efficiency: _____

cooling efficiency: _____

size category of unit: _____

Boiler

Size category. If oversized, state reason.: _____

Chiller

Size category. If oversized, state reason.: _____

List equipment efficiencies: _____

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

Method of Compliance:

Energy Code:	Prescriptive	Performance
ASHRAE 90.1:	Prescriptive	Performance

Lighting schedule (each fixture type)

lamp type required in fixture

number of lamps in fixture

ballast type used in the fixture

number of ballasts in fixture

total wattage per fixture

total interior wattage specified vs. allowed (whole building or space by space)

total exterior wattage specified vs. allowed

Additional Prescriptive Compliance

More Efficient Mechanical Equipment

Reduced Lighting Power Density

Energy Recovery Ventilation Systems

Higher Efficiency Service Water Heating

On-Site Supply of Renewable Energy

Automatic Daylighting Control Systems

Additional Approvals as necessary:

Nassau County Fire Marshal (Sprinkler & Fire Alarm Submissions required – Separate)

Nassau County Health Department

Nassau County DPW (239-F submissions required – Separate)



CITY OF GLEN COVE
Building Department

Commercial Energy Code
Building Envelope, Mechanical, Service Water Heating & Lighting

PART I – GUIDELINES FOR PLAN SUBMITTAL; APPLICABILITY OF THE COMMERCIAL 2015 IECC:

The 2015 IECC Commercial Section is applicable to any *new commercial building with conditioned space and to any residential building four stories and above grade*. A ResCheck compliance form shall be submitted for occupancies covered under the Residential Section of the IECC.

Where a building has mixed use of residential and commercial, the appropriate section of the IECC shall apply with appropriate submittal documents; Residential and Commercial submittals are required as appropriate for the portion of the mixed use building.

For additions to, remodel/alterations to, repairs of, and change of occupancy or change in use of an existing commercial building, Chapter 5 CE (*Existing Buildings*) of the 2015 IECC applies and lists specific requirements and exemptions.

Generally a ComCheck is not required unless a building is being “guttled” – brought down to the structural framing and being totally renovated.

PART II – INFORMATION ON CONSTRUCTION DOCUMENTS:

Construction documents shall be drawn to scale. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as governed by the IECC. Details shall include, but are not limited to, the following as applicable:

1. Insulation materials and their R-values.
2. Fenestration U-factors and solar heat gain coefficients (SHGCs).
3. Area-weighted U-factor and solar heat gain coefficient (SHGC) calculations.
4. Mechanical system design criteria.
5. Mechanical and service water heating system and equipment types, sizes and efficiencies.
6. Economizer description.
7. Equipment and system controls.
8. Fan motor horsepower (hp) and controls.
9. Duct sealing, duct and pipe insulation and location.
10. Lighting fixture schedule with wattage and control narrative.
11. Location of daylight zones on floor plans.
12. Air sealing details and narrative explaining how air barrier compliance will be met.

Building thermal envelope depiction. The building’s thermal envelope shall be represented on the construction drawings.

PART III – ENERGY FORMS/REPORTS TO SUBMIT:

A Building Permit Application Package shall include:

REQUIRED – The energy compliance documentation provided to GCBD at the time of plan submittal shall, at a minimum, **include on your code analysis sheet(s)** the Method of Energy Compliance being used.

1. 2015 IECC or ASHRAE 90.1-2013?
2. If 2015 IECC is chosen, which sub-compliance method will be used?
3. Prescriptive Path (C402 through C406), or Total Building Performance Path (C407)?
4. Will the Air Barrier Details be provided, or will there be a building pressure test?
5. If 2013 ASHRAE 90.1 is chosen, which sub-method will be used?
6. Prescriptive Path (See 5.2.1), or Energy Cost Budget Method (Section 11)?
7. For the IECC Prescriptive Path, indicate which *Additional Efficiency Package* is chosen and provided in design documents.

A commissioning plan shall be developed by a registered design professional and shall include the following: Mechanical, service water heating systems (SWH), and electrical systems. This includes requirements for air balancing, list of mechanical electrical and plumbing systems to be included in commissioning and functional testing of controls (mechanical, electrical and plumbing) to be included.

1. A narrative description of the activities that will be accomplished during each phase of *commissioning*, including the personnel intended to accomplish each of the activities.
2. A listing of the specific equipment, appliances or systems to be tested and a description of the tests to be performed.
3. Functions to be tested including, but not limited to, calibrations and economizer controls.
4. Conditions under which the test will be performed. Testing shall affirm winter and summer design conditions and full outside air conditions.
5. Measurable criteria for performance.

Two copies of the commissioning plan shall be provided with the construction drawings. If submitting electronically, one copy shall be with the drawings folder and one copy shall be placed in the documents folder.

REQUIRED - Provide an **energy analysis for the building design** (software printout showing energy compliance) based on the chosen compliance strategy.

The design itself must utilize the specific energy values indicated by the energy analysis. Mandatory sections of the 2015 IECC or ASHRAE 90.1-2013 must be complied with even if the energy analysis software printout passes without the design in compliance with a mandatory section. There are energy compliance software options, but the submittal package must include an energy analysis printout. The software used must be a DOE approved software from one of the following options:

1. **ComCheck** published by the US Department of Energy (DOE) based on the 2013 ASHRAE Standard 90.1 (ComCheck Windows Version 4.0.0 - Build 4.0.0.3 - Downloadable – not available as the Web version) for the prescriptive path.
2. **ComCheck** based on the 2015 IECC the prescriptive path; inspection checklists shall be provided with the printout.
3. **Other DOE approved/sponsored software based on the 2015 IECC, or ASHRAE Standard 90.1- 2013;** Based on Whole Building Energy Performance Simulation: DOE-2, EnergyPlus, SPARK, Building Design Advisor, etc.

REQUIRED – *All energy compliance documentation must be signed, sealed, stamped and dated by the appropriate design professional.*

PART IV – RESPONSIBILITIES FOR ENERGY REVIEW/INSPECTION AND SPECIFIC SUBMITTAL REQUIREMENTS:

The project Architect or Registered Design Professional in Responsible Charge will perform reviews/quality checks for the building design relating to energy compliance. The Architect will submit a required statement (or multiple statements from the designers, architect and engineers) that the item(s) under their responsibility were reviewed for energy compliance. Some individual energy related items ask for a number (percent/value) or a narrative be provided with the plans. Narratives must be submitted as a document in the submittal package referencing the appropriate drawing.

PART V – LIST OF MANDATORY REQUIREMENTS OF THE 2015 IECC OR ASHRAE 90.1-2013:

If ASHRAE 90.1-2013 is chosen, there is a **Prescriptive Path (Sections 5 through 10) and an Energy Cost Budget Method (Section 11)**. Designers must choose one or another;

Mandatory provisions of the **Energy Cost Budget Method (Section 11)** are:

- A. **Section 5.4 Thermal Envelope Mandatory Provisions:** Insulation, Fenestration, and Air Leakage
- B. **Section 6.4 HVAC Mandatory Provisions:** Minimum Efficiencies, Equipment Sizing, HVAC Controls, HVAC construction and Insulation, Walk-in Coolers and Freezers
- C. **Section 7.4 Service Water Heating Equipment:** Load Calculations, Equipment Efficiencies, Insulation, and Controls
- D. **Section 8.4 Electrical Mandatory Provisions:** Maximum voltage drop, Receptacle Control, Energy Monitoring; Low Voltage Dry Type Distribution Transformers
- E. **Section 9.4 Lighting Mandatory Provisions:** Lighting Controls (Interior and Exterior), Functional Testing
- F. **Section 10.4 Other Mandatory Provisions:** Electric Motors, Service Water Pressure Booster Systems, Elevators, Escalators and Moving Walkways, Whole Building Energy Monitoring
- G. **Energy Cost Budget** less than or equal to the Design Energy Cost (Software for Energy Cost Budget – DOE-2, BLAST, other software that complies with Section 11.4.1.1)

Mandatory Provisions of the ASHRAE 90.1-2013 Prescriptive Path are:

- A. **Section 5 Building Envelope;** Sections 5.1, 5.2, 5.3, 5.4, 5.7, 5.8 and either Section 5.5 OR Section 5.6
- B. **Section 6 HVAC;** Sections 6.1, 6.2, 6.7, and either Section 6.3 OR Section 6.4 and 6.5
- C. **Section 7 Service Water Heating;** All of Section 7
- D. **Section 8 Electrical Power;** All of Section 8
- E. **Section 9 Lighting;** Sections 9.1, 9.2, 9.4, 9.7, and either Section 9.5 OR Section 9.6.

If the 2015 IECC path is Chosen, there is a **Prescriptive Path (Sections C402 through C406) and a Total Building Performance Path (Section C407)**. Designers must choose one or another.

Mandatory provisions of the Total Building Performance Path (Section C407) are:

- A. Section C402.5 Air Leakage
- B. Section 403.2 HVAC; Minimum Efficiencies, Equipment Sizing, HVAC Controls, Energy Recovery Ventilators, HVAC construction and Insulation, Fan Horsepower and Efficiencies, Walk-in Coolers and Freezers
- C. Section C404 Service Water Heating
- D. Section C405 Electrical Power and Lighting
- E. Section C407 Total Building Performance; Building Energy Costs shall be equal to or less than 85% of the standard reference building design
- F. Section C408 System Commissioning

Mandatory Provisions of the 2015 IECC Prescriptive Path are:

- A. All of Sections C402 through C405; Building Envelope, HVAC, Service Water Heating, Power and Lighting
- B. Commercial Buildings must comply with C406 Additional Efficiency Package (Chose one of 6 options)
- C. Tenant Spaces must comply with C406.1.1 (either one of the following)
- D. Where the shell building is not in compliance, tenant spaces must comply with one of the following additional energy efficiency packages:
 - a. C406.2; or C406.3; or C406.4; or C406.6; or C406.7
 - b. Where the shell building is in compliance, comply with C406.5 On-Site Renewable Energy

PART VI - COMMISSIONING REQUIREMENTS:

A New York State Licensed architect or engineer (*Registered Design Professional*) may perform commissioning and submit the **Preliminary Report of Commissioning** to the building owner or authorized agent.

- A. The preliminary report should include an itemization of deficiencies found that have not been corrected by the time of the report, list of deferred tests not accomplished because of climatic conditions, and conditions necessary for scheduling of deferred tests. The report should address the following in particular:
 - a. Mechanical, and service hot water commissioning – Air system balancing, hydronic systems balancing per C408.2.2.
 - b. Functional Performance Testing of Equipment and Controls per C408.2.3.
 - c. Lighting System Controls Functional Testing per C408.3.
- B. **ASHRAE - Duct Leakage Test Results** - If applicable to the project. For ducts designed to operate in excess of 3 in water gauge and all ductwork outside conditioned space per Section C403.2.9.
- C. **Pressure Testing of the Envelope Test Results** (under Section C402.5; if applicable).

The Preliminary Report of Commissioning shall be submitted by the Architect, Engineer or the certified commissioning agent. The items listed must address all the items in the Commissioning Plan submitted at the time of application. The preliminary commissioning report must be provided to the building owner or owner's agent. A letter of transmittal from the owner or agent verifying receipt of the preliminary commissioning report must be received by GCBD prior to any Use & Occupancy inspections.

Final building occupancy approval shall not be granted until GCBD receives a letter of transmittal from the building owner verifying receipt of the preliminary commissioning report. The Final Report of Commissioning is to be provided to the owner. **All documentation required by C408.2.5 shall be provided to the building owner or owner's agent within 90 days of occupancy. All reports shall be made available to GCBD upon request.*

Final building occupancy approval shall not be granted until GCBD receives COMcheck Post Construction Compliance Statement; the *Post Construction Compliance Statement* shall be derived directly from the COMcheck compliance documentation (inspection checklist) submitted at the time of permit application.

All reports and letters of transmittal listed above must be submitted to the Glen Cove Building Department.