

TOWN OF TONAWANDA – STATE OF NEW YORK
CODE COMPLIANCE REVIEW
Building Code of New York State

Owner:		Client:	
(Address)			
Building Name(s):		Building Numbers:	
Project Title:			
Architect/Engineer:			
Estimated Project Cost:			
Variance Requested: <input type="checkbox"/> Yes <input type="checkbox"/> No			
Occupancy Classification(s):		Construction Classification:	
Project Type: Check all that apply. Refer to Appendix K for definitions.		<input type="checkbox"/> New Building <input type="checkbox"/> Repair <input type="checkbox"/> Renovation <input type="checkbox"/> Alteration	
		<input type="checkbox"/> Reconstruction <input type="checkbox"/> Change of Occupancy <input type="checkbox"/> Addition <input type="checkbox"/> Historic Building	
		<input type="checkbox"/> Chapter 34 Compliance Alternatives. Provide evaluation with this code review.	
Work Involved: Check all that apply.		<input type="checkbox"/> General Construction <input type="checkbox"/> Roofing <input type="checkbox"/> Asbestos Abatement/Environmental <input type="checkbox"/> Fire Alarm	
		<input type="checkbox"/> Structural <input type="checkbox"/> Mechanical <input type="checkbox"/> Plumbing <input type="checkbox"/> Electrical	
		<input type="checkbox"/> Site Work <input type="checkbox"/> Sprinkler <input type="checkbox"/> Elevators <input type="checkbox"/> Other _____	

LEGEND: NA: Not Applicable, NR: Not Required, NP: Not Permitted FC: Fire Code, PC: Plumbing Code, MC: Mechanical Code, FGC: Fuel Gas Code, ECCC: Energy Conservation Construction Code					
No	Topic	Building Code Section (unless otherwise noted)	Required/Allowed	Actual	Comment
1	Fire Apparatus Access Road	FC503.1			
2	Incidental Use Areas	302.1.1			
3	Mixed Occupancies:	302.3			Attach analysis.
	Nonseparated Uses	302.3.2			
	Separated Uses (Ratio ≤ 1)	302.3.3			
4	High Rise Buildings	403			
	Sprinkler Protection	403.2			
	Fire Alarm	403.5- 403.8			
	Standby & Emergency Power	403.10-403.11			
5	Atriums	404			
	Sprinkler Protection	404.3			
	Smoke Control	404.4			
	Enclosures	404.5			
	Smoke Detection	404.6			
	Travel Distance	404.9			
6	Control Areas	414.2			Provide additional information indicating number, size, materials stored, and quantity of each material.
7	Building Area & Height	501			Provide additional information below.
8	Exterior Wall Fire-Resistance Rating	602.1 Table 602			
	Exterior Fire Separation Distance	602.1 Table 602			

No	Topic	Code Section	Required/ Allowed	Actual	Comment
9	Fire Resistive Construction	701.1			
	Exterior Wall: Allowable Area of Openings:	704.8			Attach analysis.
	Unprotected	704.8			
	Protected	704.8			
	Exterior Wall: Vertical Separation of Openings	704.9			
	Parapets	704.11			
	Fire Walls	705			
	Fire Barriers	706			
	Shaft Enclosures	707			
	Fire Partitions	708			
	Smoke Barriers	709			
	Fire Stopping	711			
	Joint Systems	712			
	Opening Protectives	714			
	Concealed Spaces	716			
10	Interior Finishes	801.1			
	Wall & Ceiling: Exits	803.5			
	Wall & Ceiling: Exit Access	803.5			
	Wall & Ceiling: Rooms	803.5			
	Floors	804			
11	Fire Protection: General	901.1			
	Sprinkler System	903			
	Alt. Fire Extinguishing System	904			
	Standpipe System	905			
	Portable Fire Extinguishers	906			
	Fire Alarm System	907			
	Smoke Detection System	907			
	Emergency Voice	907			
	Smoke Control	909			
	Smokeproof Enclosure/ Stair Pressurization	909.20			
	Fire Command Center	911			
12	Exits	1001.1			Also provide additional information below.
	Exit Lights	1003.2.10			
	Emergency Lighting	1003.2.11			
	Accessible Means of Egress	1003.2.13			
	Area of Refuge	1003.2.13.5			
	Access-Controlled Egress Doors	1003.3.1.3.4			
	Interior Stairs	1003.3.3			
	Handrails	1003.3.3.11			
	Panic Hardware	1003.3.1.9			
	Ramps	103.3.3.4			
	Exit Doorway Arrangement	1004.2.2			
	Common Path of Travel	1004.2.5			
	Corridor Fire Rating	1004.3.2.1			
	Corridor Width	1004.3.2.2			
	Dead End Corridor	1004.3.2.3			

No	Topic	Code Section	Required/ Allowed	Actual	Comment
	Building with One Exit	1005.2.2			
	Exit Fire Rating	1005.3.2			
	Smokeproof Enclosure	1005.3.2.5			
	Horizontal Exit	1005.3.5			
	Exterior Stairs	1005.3.6			
	Assembly	1008			
13	Accessibility	1101.1 ICC/A117.1(98)			
	Accessible Route	1104.1			
	Accessible Entrance	1105.1			
	Parking	1106.1			
	Group R-2	1107.6.2			
	Toilet Rooms	1109.2			
	Signage	1110.1			
14	Ceiling Heights	1207.2			
15	Light: Natural/Artificial	1204			
	Ventilation	1202			
16	Energy Conservation	1301/ECCC			Provide additional information below.
17	Roof Assembly Fire Classification	1505.1			
	Roof Covering	1507.1			
18	Structural Requirements	1601.1			Provide additional information below.
19	Foundation	1801.1			Provide additional information below.
20	Safety Glazing	2406.1			
21	Electrical	2701.1			
	Emergency & Standby Power	2702.1			
	Smoke Control Systems	2702.2.2			
	Exit Signs	2702.2.3			
	Means of Egress	2702.2.4			
	Elevator	2702.2.5/2702.2.18			
	High Rise Building	2702.2.14			
	Smokeproof Enclosures	2702.2.19			
22	Mechanical Systems	2801.1			
	Fire & Smoke Dampers	715.5			Refer to 715.5 for specific requirements.
	Fan Shutdown	MC606.4.1			
	Combustion Air	MC701.1 & FGC304.1			Provide additional information below.
	Chimneys, Flues & Gasvents	MC801.1 & FGC501.1			Provide diameter of chimney/gasvents.
23	Plumbing	2901.1			
	Fixture Count	2902.1			Provide additional information below.
	Maximum Consumption	PC604.4			
	Available Street Water Pressure				
	Fixture Units	PC709.1			
	House Traps	PC1002.6			
	Water Supply Materials	Labor Law Art. 10-A			See Labor Law Art. 10-A for piping materials.
24	Elevator Emergency Operation	3003.2			
	Elevator Hoistway Venting	3004			

No	Topic	Code Section	Required/ Allowed	Actual	Comment
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ADDITIONAL INFORMATION:
ALLOWABLE FLOOR AREA (503/506)

STORY NO.	BLDG AREA PER STORY (ACTUAL)	TABLE 503 AREA	AREA FOR OPEN SPACE INCREASE ¹	AREA FOR SPRINKLER INCREASE ²	ALLOWABLE AREA

- ¹ Open space area increases from Section 506.2 are computed thus:
- Perimeter which fronts a public way or open space having 20 feet minimum width = _____ (F)
 - Total Building Perimeter = _____ (P)
 - Ratio (F/P) = _____ (F/P)
 - W = Minimum width of public way = _____ (W)
 - Percent of frontage increase $I_f = 100 [F/P - 0.25] \times W/30 = \text{_____} (\%)$
- ² The sprinkler increase per Section 506.3 is as follows:
- Multi-story building $I_s = 200$ percent
 - Single story building $I_s = 300$ percent

MAXIMUM BUILDING AREA¹ (503/506)

¹ Maximum Building Area = number of stories in the building x max allowable floor area (A) but not greater than 3 x A.

ACTUAL:	ALLOWABLE:
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ALLOWABLE HEIGHT (503/504)

	ACTUAL	ALLOWABLE (TABLE 503)	INCREASE FOR SPRINKLERS
Building Height in Feet		Feet	Feet = H + 20' =
Building Height in Stories		Stories	Stories + 1 =

NUMBER AND ARRANGEMENT OF EXITS (1003/1004/1005)

FLOOR, ROOM OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS (1004.2.2)	
	REQ'D	ACTUAL	ALLOWABLE	ACTUAL	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS

OCCUPANT LOAD & EXIT WIDTH (1003)

USE GROUP OR SPACE DESCRIPTION	(a)	(b)	(c)	(d)		EXIT WIDTH (in)			
	AREA sq. ft.	AREA PER OCCUPANT (TABLE 1003.2.2.2)	OCCUPANT LOAD (a÷b)	EGRESS WIDTH PER OCCUPANT (TABLE 1003.2.3)		REQUIRED WIDTH (SECTION 1003.2.3) c x d		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL

PLUMBING FIXTURE REQUIREMENTS (2902.1)

OCCUPANCY	WATERCLOSETS		URINALS	LAVATORIES		SHOWERS / TUBS	DRINKING FOUNTAINS	
	MALE	FEMALE		MALE	FEMALE		REGULAR	ACCESSIBLE

ENERGY CODE COMPLIANCE (Note: All code citations given are to the Energy Conservation Construction Code)

COMPLIANCE METHOD

Residential (101.3.1) Yes No If yes, indicate compliance method below:

Energy Conservation Construction Code of New York State Check one chapter box & one glazing area box below:
Chapter 4 One and two family dwelling with glazing area * 15% $\geq 15\%$
Chapter 5 R-2, R-4 or Townhouse with glazing area * 25% $\geq 25\%$
Chapter 6

Commercial (101.3.2) Yes No If yes, indicate compliance method below:

Energy Conservation Construction Code of New York State, Chapter 7
Chapter 8

EXEMPT BUILDING? (101.4.1) Yes No
If yes, describe exemption type: _____

HISTORIC BUILDING? (101.4.2.3) Yes No

ALTERATION IN EXISTING BUILDING? (101.4.2.4) Yes No
If yes, list building system(s) undergoing substantial alteration(s): _____

PROJECT LOCATION: (302.1)
County: _____
Zone: _____

THERMAL VALUES OF BUILDING COMPONENTS (104.3/402/502/503/602/802/803)
Fill in values below as applicable:

Foundation wall construction – U-value: _____
Foundation wall insulation – R-value: _____
Insulation depth: _____
Below grade wall insulation – R-value: _____
Basement walls – U value: _____
Basement wall insulation – R-value: _____
Insulation depth: _____
Crawl space walls – U-value _____
Crawl space wall insulation – R-value: _____
Heated slab on grade insulation – R-value: _____
Unheated slab on grade insulation – R-value: _____
Slab edge insulation – R-value: _____
Insulation depth: _____
Floors over unheated spaces – U-value: _____
Floors over unheated spaces insulation – R-value: _____
Interior walls separating conditioned & unconditioned spaces insulation – R-value: _____
Exterior wall construction – U-value: _____
Exterior wall insulation – R-value: _____
Roof/ceiling construction – U-value: _____
Roof/ceiling insulation – R-value: _____
Skylights – U-value: _____
Windows – U-value: _____
Air infiltration rate: _____
% window area: _____
Projection factor: _____
Exterior doors – U-value: _____
Air infiltration rate: _____
% door area: _____

Fenestration solar heat gain coefficient: _____
 Duct insulation – R-value: _____
 Pipe insulation – R-value: _____

MECHANICAL & ELECTRICAL SYSTEMS: (402/503/504/505/603/803/804/805/806)

Electric resistance heat? (101.3.1.3) Yes No

Renewable energy sources used? (403/806.2.4) Yes No

If yes, describe type: _____

Describe HVAC system(s) type: _____

Design Values:

	<u>Heating</u>	<u>Cooling</u>
Indoor temperature	_____	_____
Outdoor temperature	_____	_____

Heating and cooling load calculations:

Attach calculations for all systems.

Equipment:

Fill in values below as applicable:

<u>Equipment Type</u>	<u>Fuel</u>	<u>Rating/Size</u>	<u>Efficiency</u>	<u>Type</u> _____
Water Heaters	_____	_____	_____	
Storage Tanks	_____	_____	_____	
Boilers	_____	_____	_____	Steam <input type="checkbox"/> HW <input type="checkbox"/>
Furnaces	_____	_____	_____	
Chillers	_____	_____	_____	Electric <input type="checkbox"/> Centrifugal <input type="checkbox"/> Air cooled <input type="checkbox"/> Water cooled <input type="checkbox"/>
Condensers	_____	_____	_____	
Cooling Towers	_____	_____	_____	
Air Conditioners	_____	_____	_____	Air cooled <input type="checkbox"/> Water cooled <input type="checkbox"/>
Heat Pumps	_____	_____	_____	Air cooled <input type="checkbox"/> Water cooled <input type="checkbox"/> Groundwater <input type="checkbox"/> Ground source <input type="checkbox"/>
Package units	_____	_____	_____	Heating <input type="checkbox"/> Cooling <input type="checkbox"/>
Unit heaters	_____	_____	_____	
Transformers	_____	_____	_____	Liquid <input type="checkbox"/> Dry <input type="checkbox"/> Phase: _____ Voltage: _____

Lighting W/ft²:

Building: _____
 Tenant areas: _____ (List all that apply)

STRUCTURAL DESIGN

DESIGN LOADS:

Importance Factors (1604.5): Wind (I_W): _____
 Snow (I_S): _____
 Seismic (I_E): _____

Live Loads (1607): Roof _____ psf
 Floor _____ psf

Snow Load (1608): _____ psf

Wind Load (1609): Basic Wind Speed _____ mph (ASCE-7-98)
 Exposure Category _____

SEISMIC REQUIREMENTS (1613 – 1623)

Seismic Use Group _____
Spectral Response Acceleration S_{MS} _____ %g S_{M1} _____ %g
Seismic Design Category _____

SEISMIC DESIGN CATEGORY A
 Compliance with Section 1616.4 only? Yes No

SEISMIC DESIGN CATEGORY B, C, & D

Provide the following Seismic Design Parameters:

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 Modal

Architectural, Mechanical, Components anchored?

LATERAL DESIGN CONTROL: Earthquake: _____
 Wind: _____

FOUNDATIONS (1801.1)

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

COMBUSTION AIR (MC701.1 & FGC 304.1)

HEATING APPLIANCE	BTUH INPUT	NO. OF OPENINGS	BTUH/SQ. IN.				SQIN FREE AREA	SQIN FREE AREA
			1000	2000	GROSS	4000	GROSS	NET
			<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"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Total (Sq. In.): _____

ADDITIONAL COMMENTS: