

Ontario Building Code (OBC) (Revised)

OBC Data on Drawings

Summary

Appropriate practice in regard to communication of OBC related data when applying for building permit includes a systematic approach to assembly and presentation of the results of your code analysis.

BACKGROUND

This Practice Bulletin expands on and replaces Practice Bulletin A.9 issued December 2000.

Inconsistencies in applications for building permit have been indicated insofar as how Ontario Building Code (OBC) related data was being communicated from architects to municipal building officials.

A series of Practice Bulletins has been commenced which will provide members guidance on appropriate practice in matters concerning OBC when designing, preparing construction documents, applications for permit, general review and site reports.

This bulletin focuses on information to be provided, as applicable, on a set of drawings submitted for building permit application.

Additional information such as exiting widths and routes, fire separations and other augmenting data will be the subject of future Practice Bulletins in this series.

Locating the information in a conspicuous place on the drawings not only expedites the building official's review of the application but also informs others involved with the project (e.g. contractors, trades, consultants, etc.) about applicable OBC related issues.

PROCEDURE

- Establish in your practice a system that facilitates retrieval of the information to be shown on the application for building permit. This information is ascertained in the early design stages through your code analysis and confirmed through the design development and construction drawing stages.
- Consider using the OBC data matrix as your base standard, adapted as required to meet the specific requirements of each project.
- Establish a location for OBC data on the drawings (one of the top sheets is considered best) and make this your office standard.
- Coordinate with the mechanical, electrical and structural engineering consultants and share with them the data based on your code analysis.
- Request that they similarly include on their drawings OBC related data pertinent to their disciplines, in accordance with the standards of their profession and specific to the project.
- If the data matrix is not located on the drawings (e.g. in a project booklet) ensure that the building name and address as well as your project number and date of issuance are inserted at the top of the matrix.
- Add exit capacity calculations either on the same drawing sheet as the matrix or separately, confirming that the exit capacity exceeds the occupant load.
- It may be preferable to provide more than one matrix chart for complex projects (e.g. underground parking garage Part 3; and townhouse Part 9 on same site). Adapt the matrix to clearly describe your project.
- Note code references under Parts 3 and 9 have been added to assist in checking requirements. You may prefer to omit these references and refer to only those specific sections that apply, or, in the alternative, you may prefer to omit them entirely. Customize the matrix to suit your specific needs.

- Don't forget to check the reference numbers every time there is a code change.

Refer to OBC Data Matrix for Parts 3 and 9 (included in this Practice Bulletin)

This matrix represents selected elements from your detailed code analysis and presents a quick overview to the municipal building official of the key OBC factors concerning your design.

- Item No.*
- 1 Check whether the work will be regulated by Part 3, 9 or 11. Review the OBC data matrix and set out a brief description of the project. (E.g. Lester Pearson Elementary School.) Check whether the project is new or an alteration and/or addition. Identify if the use is changed.
 - 2 Identify the major occupancy(s).
 - 3, 4 Enter the building area and gross floor area in the spaces provided, and enter extent of new and existing. If a portion of the building is to be demolished, enter in the existing space only that portion which is to remain, such that the total of new and existing is the area of the final product.
 - 5, 6 Identify and enter the number of storeys above and below grade, and the height of the building.
 - 7 Enter number of streets and access routes.
 - 8 Enter the OBC building classification.
 - 9 Obtain information concerning the proposed sprinkler system from engineer and check the appropriate box.
 - 10, 11 Obtain information from engineer and check the appropriate "yes" or "no" box for requirement of standpipe and fire alarm.
 - 12 Obtain information from engineer and check the appropriate box relative to the adequacy of water supply for the fire protection services.
 - 13 Check the appropriate "yes" or "no" box in regard to whether the building is a high rise building or not.
 - 14 Enter the permitted and actual combustible/non-combustible construction information.
 - 15 Note whether there are mezzanines, how many, where, and their areas – if none – enter N/A.
 - 16 Provide design information as to the occupancy and occupant load per floor and whether it is arrived at on basis of the design of a building or a requirement of so many square meters per person.

If insufficient space at item 6, list occupancies in a separate table identifying occupancy and occupancy load per floor.

Cross reference to this table should be noted at item 16 of the matrix.
 - 17 Check appropriate box for barrier free design, and if "no" is checked, provide an explanation of why not.
 - 18 Check appropriate box in regard to hazardous substances to be used in connection with any of the occupancies in the project.
 - 19 Enter in the spaces provided, the fire resistance rating required for floors, roofs and mezzanines, as well as the supporting members for these. In addition, enter the listed design numbers (e.g. ULC) of description for the horizontal assemblies and their supporting members.

Note that fire resistance ratings may change for different major occupancies in the building. If the table in the matrix will not accommodate the building, prepare a separate table and cross reference accordingly.
 - 20 Establish the Project North orientation if different from the Compass North, and identify both on site plan.

Enter the spatial separation information in the appropriate columns for each elevation where applicable. Identify Exposed Building Face (EBF), Limiting Distance (L.D.), Length (L) and Height (H) of building in appropriate columns.

Utilize a separate table for spatial calculations if the project is more complex than can be accommodated by the table in item 20. Cross reference accordingly to the separate table.

21 Enter other information that, in your judgment, will assist in expediting issuance of building permit.

Refer to OBC Matrix - Part 11 - Renovations of Existing Buildings (attached)

This matrix represents selected elements from your detailed code analysis and presents a quick overview to the Municipal Building Official of the key OBC factors concerning your design.

- Item No.*
- 11.1 After having ascertained that your project is regulated by Part 11, complete the information regarding existing building classification.
 - 11.2 Identify extent of alteration as indicated.
 - 11.3 Identify reduction (if any) in Performance level as indicated. Obtain necessary information regarding structural, plumbing and sewage systems from engineers.
 - 11.4 Enter information regarding compensating construction if and where applicable.
 - 11.5 Identify if compliance alternatives are proposed, and if they are, enter the appropriate numbers.
 - 11.6 Identify if alternative measures are proposed, and if yes, explain what they are.

References

Ontario Building Code 1997

Item	Ontario Building Code Data Matrix Parts 3 & 9							OBC Reference			
1	Project Description:		<input type="checkbox"/> New <input type="checkbox"/> Addition <input type="checkbox"/> Change of Use		<input type="checkbox"/> Alteration		<input type="checkbox"/> Part 11	<input type="checkbox"/> Part 3	<input type="checkbox"/> Part 9		
								2.1.1 9.10.1.3			
2	Major Occupancy(s)							3.1.2.1.(1)		9.10.2	
3	Building Area (m ²)	Existing _____	New _____	Total _____				1.1.3.2		1.1.3.2	
4	Gross Area	Existing _____	New _____	Total _____				1.1.3.2		1.1.3.2	
5	Number of Storeys	Above grade _____	Below grade _____				3.2.1.1 & 1.1.3.2		2.1.1.3		
6	Height of Building (m)									2.1.1.3	
7	Number of Streets/Access Routes							3.2.2.10 & 3.2.5.5			
8	Building Classification							3.2.2.20-.83		9.10.4	
9	Sprinkler System Proposed		<input type="checkbox"/> entire building <input type="checkbox"/> basement only <input type="checkbox"/> in lieu of roof rating <input type="checkbox"/> not required					3.2.2.20-.83 3.2.1.5 3.2.2.17		9.10.8	
10	Standpipe required		<input type="checkbox"/> Yes <input type="checkbox"/> No					3.2.9			
11	Fire Alarm required		<input type="checkbox"/> Yes <input type="checkbox"/> No					3.2.4		9.10.7.2	
12	Water Service/Supply is Adequate		<input type="checkbox"/> Yes <input type="checkbox"/> No								
13	High Building		<input type="checkbox"/> Yes <input type="checkbox"/> No					3.2.6			
14	Permitted Construction	<input type="checkbox"/> Combustible <input type="checkbox"/> Non-combustible	<input type="checkbox"/> Non-combustible					3.2.2.20-.83		9.10.6	
15	Mezzanine(s) Area m ²							3.2.1.1.(3)-(8)		9.10.4.1	
16	Occupant load based on	<input type="checkbox"/> m ² /person <input type="checkbox"/> design of building						3.1.1.6		9.9.1.3	
	Basement:	Occupancy _____	Load _____	persons							
	1 st Floor	Occupancy _____	Load _____	persons							
	2 nd Floor	Occupancy _____	Load _____	persons							
	3 rd Floor	Occupancy _____	Load _____	persons							
17	Barrier-free Design		<input type="checkbox"/> Yes <input type="checkbox"/> No (Explain)					3.8		9.5.2	
18	Hazardous Substances		<input type="checkbox"/> Yes <input type="checkbox"/> No					3.3.1.2.(1) & 3.3.1.19(1)		9.10.1.3	
19	Required Fire Resistance Rating (FRR)	Horizontal Assemblies		Listed Design No.		3.2.2.20-.83 & 3.2.1.4			9.10.8 9.10.9		
		FRR (Hours)		or Description (SG-2)							
		Floors _____	Hours								
		Roof _____	Hours								
		Mezzanine _____	Hours								
		FRR of Supporting Members		Listed Design No. Or Description (SG-2)							
		Floors _____	Hours								
Roof _____	Hours										
Mezzanine _____	Hours										
20	Spatial Separation – Construction of Exterior Walls							3.2.3		9.10.14	
	Wall	Area of EBF (m ²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb Const	Comb. Constr. Nonc. Cladding	Non-comb. Constr.
	North										
	South										
	East										
West											
21	Other – Describe										

Ontario Building Code Data Matrix – Part 11 – Renovation of Existing Building			OBC Reference
11.1	Existing Building classification:	Describe Existing Use: Construction Index: Hazard Index: <input type="checkbox"/> Not Applicable (no change of major occupancy)	11.2.1 T 11.2.1.1A T 11.2.1.1B to N
11.2	Alteration to Existing Building is:	Basic Renovation <input type="checkbox"/> Extensive Renovation <input type="checkbox"/>	11.3.3.1 11.3.3.2
11.3	Reduction in Performance Level:	Structural: <input type="checkbox"/> No <input type="checkbox"/> Yes By Increase in occupant load: <input type="checkbox"/> No <input type="checkbox"/> Yes By change of major occupancy: <input type="checkbox"/> No <input type="checkbox"/> Yes Plumbing: <input type="checkbox"/> No <input type="checkbox"/> Yes Sewage-system: <input type="checkbox"/> No <input type="checkbox"/> Yes	11.4.2 11.4.2.1 11.4.2.2 11.4.2.3 11.4.2.4 11.4.2.5
11.4	Compensating Construction:	Structural: <input type="checkbox"/> No <input type="checkbox"/> Yes (explain) Increase in occupant load: <input type="checkbox"/> No <input type="checkbox"/> Yes (explain) Change of major occupancy: <input type="checkbox"/> No <input type="checkbox"/> Yes (explain) Plumbing: <input type="checkbox"/> No <input type="checkbox"/> Yes (explain) Sewage system: <input type="checkbox"/> No <input type="checkbox"/> Yes (explain)	11.4.3 11.4.3.2 11.4.3.3 11.4.3.4 11.4.3.5 11.4.3.6
11.5	Compliance Alternatives Proposed:	<input type="checkbox"/> No <input type="checkbox"/> Yes (give number(s))	11.5.1
11.6	Alternative Measures Proposed:	<input type="checkbox"/> No <input type="checkbox"/> Yes (explain)	11.5.2