

Bowen Island Municipality

“Bowen Island Municipality Building Bylaw No. 65, 2002”

CONSOLIDATED FOR CONVENIENCE – DECEMBER 4, 2008

| Amendment Bylaw | Date of Adoption |
|------------------------|-------------------------|
| Bylaw No. 136, 2004 | January 10, 2005 |
| Bylaw No. 158, 2005 | August 29, 2005 |
| Bylaw No. 188, 2006 | July 24, 2006 |
| Bylaw No. 227, 2008 | October 14, 2008 |

The amendment bylaws have been combined with the original bylaw for convenience only. This consolidation is not a legal document. Certified copies of the original bylaws should be consulted for all interpretations and applications of the bylaw on this subject

BOWEN ISLAND MUNICIPALITY

BUILDING BYLAW No. 65, 2002

A BYLAW FOR THE ADMINISTRATION OF THE BUILDING CODE

WHEREAS section 694 (1) of the *Local Government Act* authorizes the BOWEN ISLAND MUNICIPALITY, for the health, safety and protection of persons and property to regulate the construction, alteration, repair, or demolition of buildings and structures by bylaw;

AND WHEREAS the Province of British Columbia has adopted a building code to govern standards in respect of the construction, alteration, repair and demolition of buildings in municipalities and regional districts in the Province;

AND WHEREAS it is deemed necessary to provide for the administration of the building code;

NOW THEREFORE THE COUNCIL OF THE BOWEN ISLAND MUNICIPALITY, in open meeting assembled, enacts as follows:

1. Title

1.1 This bylaw may be cited for all purposes as the “BOWEN ISLAND MUNICIPALITY Building Bylaw No. 65, 2002”.

2. Definitions

2.1 In this bylaw:

The following words and terms have the meanings set out in Section 1.1.3.2 of the British Columbia Building Code 1998: *assembly occupancy, building, building area, building height, business and personal services occupancy, care or detention occupancy, constructor, coordinating registered professional, designer, field review, high hazard industrial occupancy, industrial occupancy, low hazard industrial occupancy, major occupancy, mercantile occupancy, medium hazard industrial occupancy, occupancy, owner, registered professional, and residential occupancy.*

Authorized person means a registered practitioner or a professional as defined by the Sewerage System Regulation.

Building Code means the *British Columbia Building Code 1998* as adopted by the Minister pursuant to section 692 (1) of the *Local Government Act*, as amended or re-enacted from time to time.

Building Official includes Building Inspectors, Plan Checkers and Plumbing Inspectors designated by the BOWEN ISLAND MUNICIPALITY.

Complex Building means:

- (a) all **buildings** use for **major occupancies** classified as
- (i) **assembly occupancies**,
 - (ii) **care or detention occupancies**,
 - (iii) **high hazard industrial occupancies**, and
- (b) all **buildings** exceeding 600 square meters in **building area** or exceeding three storeys in **building height** used for **major occupancies** classified as
- (i) **residential occupancies**,
 - (ii) **business and personal services occupancies**,
 - (iii) **mercantile occupancies**,
 - (iv) **medium and low hazard industrial occupancies**.

Health and safety aspects of the work means design and construction regulated by Part 3, Part 4, and sections 9.4, 9.8, 9.9, 9.10, 9.12, 9.14, 9.15, 9.17, 9.18, 9.20, 9.21, 9.22, 9.23, 9.24, 9.31, 9.32, and 9.34 of Part 9 of the **Building Code**.

Health Authority means the regional health board established under the Health Authorities Act that has jurisdiction over the geographic area in which a sewerage system is located.

Letter of Certification means the document filed with the Health Authority by an authorized person upon completion of the installation of a sewerage system, as required by Section 9 of the Sewerage System Regulation.

Record of Sewerage Filing means the document issued to the property owner by the Health Authority upon the receipt of construction plans for a sewerage system in the form required by Section 8 of the Sewerage System Regulation.

Sewerage system means a system for treating domestic sewage that uses one or more treatment methods and a discharge area, but does not include a holding tank or a privy.

Sewerage System Regulation means British Columbia Reg. 326/2004 Sewerage System Regulation that was approved and ordered by the Province of British Columbia through Order in Council No. 701/2004 on July 7, 2004.

Standard building means a **building** of three storeys or less in **building height**, having a **building area** not exceeding 600 square meters and used for **major occupancies** classified as

- (a) **residential occupancies**,
- (b) **business and personal services occupancies**,
- (c) **mercantile occupancies**, or
- (d) **medium and low hazard industrial occupancies**.

Structure means any construction installed on, supported by or sunk into land or water, but does not include a fence or flat areas intended for pedestrian or vehicle movement surfaced by concrete, asphalt, brick or tile or other materials and retaining structures less than 1.5 meters in height.

Water Conservation Plumbing Regulation means British Columbia Reg. 198/2005 Water Conservation Plumbing Regulation that was approved and ordered by the Province of British Columbia through Ministerial Order in Council M81/2005 on March 31, 2005, which comes into force on September 30, 2005.

3. Purpose of Bylaw

- 3.1 The bylaw, shall, notwithstanding any other provision herein, be interpreted in accordance with this section.
- 3.2 This bylaw has been enacted for the purpose of regulating construction within the Bowen Island Municipality in the general public interest. The activities undertaken by or on behalf of the Bowen Island Municipality pursuant to this bylaw are for the sole purpose of providing a limited and interim spot checking function for reason of health, safety and the protection of persons and property. It is not contemplated nor intended, nor does the purpose of this bylaw extend,
 - 3.2.1 to the protection of *owners*, owner/builders or *constructors* from economic loss;
 - 3.2.2 to the assumption by the Bowen Island Municipality or any *building official* of any responsibility for ensuring the compliance by any *owner*, his or her representatives or any employees, *constructors* or *designers* retained by him or her, with the *Building Code*, the requirements of this bylaw or other applicable enactments respecting safety;
 - 3.2.3 to providing any person a warranty of design or workmanship with respect to any *building* or *structure* for which a building permit or occupancy permit is issued under this bylaw;
 - 3.2.4 to providing a warranty or assurance that construction undertaken pursuant to building permits issued by the Bowen Island Municipality is free from latent, or any defects.

4. Permit Conditions

- 4.1 A permit is required whenever work regulated under this bylaw is to be undertaken.
- 4.2 Neither the issuance of a permit under this bylaw nor the acceptance or review of plans, drawings or supporting documents, nor any inspections made by or on behalf of the Bowen Island Municipality shall in any way relieve the *owner* or his

or her representatives from full and sole responsibility to perform the work in strict accordance with this bylaw, the **Building Code** and or other applicable enactments respecting safety.

- 4.3 It shall be the full and sole responsibility of the **owner** (and where the **owner** is acting through a representative, the representative) to carry out the work in respect of which the permit was issued in compliance with the **Building Code**, the **Water Conservation Plumbing Regulation** and this bylaw or other applicable enactments respecting safety.
- 4.4 Neither the issuance of a permit under this bylaw nor the acceptance or review of plans, drawings or specifications or supporting documents, nor any inspections made by or on behalf of the Bowen Island Municipality constitute in any way a representation, warranty, assurance or statement that the **Building Code**, this bylaw or other applicable enactments respecting safety have been complied with.
- 4.5 No person shall rely upon any permit as establishing compliance with this bylaw or assume or conclude that this bylaw has been administered or enforced according to its terms. The person to whom the building permit is issued and his or her representatives are responsible for making such determination.

5. Scope and Exemptions

- 5.1 This bylaw applies to the design, construction and **occupancy** of new **buildings** and **structures**, and the alteration, reconstruction, demolition, removal, relocation and **occupancy** of existing **buildings** and **structures**.
- 5.2 This bylaw does not apply to **buildings** or **structures** exempted by Part 1 of the **Building Code** except as expressly provided herein, nor to retaining **structures** less than 1.5 meters in height.
- 5.3 Bowen Island Municipality supports the use of alternative and innovative methods of design and construction procedures including the use of materials and systems which fall under the heading “**building green**”. *For information purposes only*, a copy of the “Green Building Guidelines” is attached as Appendix “G” to this Bylaw.
- 5.4 Any person who wishes to use designs or methods or materials as per 5.3 shall provide sufficient evidence to demonstrate that the proposed design, method or materials will provide the level of performance required by the **Building Code** in accordance with B.C. Building Code Section 2.5. Equivalents.

6. Prohibitions

- 6.1 No person shall commence or continue any construction, alteration, reconstruction, demolition, removal, relocation or change the **occupancy** of any

building or **structure**, including excavation or other work related to construction unless a **building official** has issued a valid and subsisting permit for the work.

- 6.2 No person shall occupy or use any **building** or **structure** unless a valid and subsisting occupancy permit has been issued by a **building official** for the **building** or **structure**, or contrary to the terms of any permit issued or any notice given by a **building official**.
- 6.3 No person shall knowingly submit false or misleading information to a **building official** in relation to any permit application or construction undertaken pursuant to this bylaw.
- 6.4 No person shall, unless authorized in writing by a **building official**, reverse, alter, deface, cover, remove or in any way tamper with any notice, permit or certificate posted upon or affixed to a **building** or **structure** pursuant to this bylaw.
- 6.5 No person shall do any work that is substantially at variance with the accepted design or plans of a **building**, **structure** or other works for which a permit has been issued, unless that variance has been accepted in writing by a **building official**.
- 6.6 No person shall obstruct the entry of a **building official** or other authorized official of the Bowen Island Municipality on property in the administration of this bylaw.

7. Building Officials

- 7.1 Each **building official** may:
 - 7.1.1 administer this bylaw;
 - 7.1.2 keep records of permit applications, permits, notices and orders issued, inspections and tests made, and shall retain copies of all documents related to the administration of this bylaw or microfilm copies of such documents.
 - 7.1.3 establish, if requested to do so, whether the methods or types of construction and types of materials used in the construction of a **building** or **structure** for which a permit is sought under this bylaw substantially conform to the requirements of the **Building Code**.
- 7.2 A **building official**:
 - 7.2.1 may enter any land, **building**, **structure**, or premises at any reasonable time for the purpose of ascertaining that the terms of this bylaw are being observed;

- 7.2.2 where any residence is occupied, shall obtain the consent of the occupant or provide written notice to the occupant 24 hours in advance of entry; and
- 7.2.3 shall carry proper credentials confirming his or her status as a **building official**.
- 7.3 A **building official** may order the correction of any work that is being or has been done in contravention of this bylaw.

8. Applications

- 8.1 Every person shall apply for and obtain:
 - 8.1.1 a building permit before constructing, repairing or altering a **building** or **structure**;
 - 8.1.2 a moving permit before moving a **building** or **structure**;
 - 8.1.3 a demolition permit before demolishing a **building** or **structure**;
 - 8.1.4 a fireplace and chimney permit prior to the construction of a masonry fireplace or the installation of a wood burning appliance or chimney unless the works are encompassed by a valid building permit.
- 8.2 An application for a moving permit shall be made in the form attached as Appendix "A" to this bylaw.
- 8.3 An application for a demolition permit shall be made in the form attached as Appendix "A" to this bylaw.
- 8.4 An application for a fireplace and chimney permit shall be made in the form attached as Appendix "A" to this bylaw.
- 8.5 All plans submitted with permit applications shall bear the name and address of the **designer** of the **building** or **structure**.
- 8.6 Each **building** or **structure** to be constructed on a site requires a separate building permit and shall be assessed a separate building permit fee based on the value of that **building** or **structure** as determined in accordance with "Appendix D" to this bylaw.

9. Applications for Complex Buildings

- 9.1 An application for a building permit with respect to a **complex building** shall;
 - 9.1.1 be made in the form attached as Appendix "A" to this bylaw, signed by the **owner**, or a signing officer if the **owner** is a corporation, and the **coordinating registered professional**;

- 9.1.2 be accompanied by the **owner's** acknowledgment of responsibility and undertakings made in the form attached as Appendix "A" to this bylaw, signed by the **owner**, or a signing officer if the **owner** is a corporation;
- 9.1.3 include a copy of a title search made within 30 days of the date of the application;
- 9.1.4 a site plan prepared by a British Columbia Land Surveyor showing:
 - 9.1.4.1 the bearing and dimensions of the parcel taken from the registered subdivision plan;
 - 9.1.4.2 the legal description and civic address of the parcel;
 - 9.1.4.3 the location and dimensions of all statutory rights of way, easements and setback requirements;
 - 9.1.4.4 the location and dimensions of all existing and proposed **buildings** or **structures** on the parcel;
 - 9.1.4.5 setbacks to the natural boundary of any lake, wetland, water reservoir or watercourse where the current Bowen Island Municipality Land Use Bylaw establishes siting requirements,
 - 9.1.4.6 the existing and finished ground levels to an established datum at or adjacent to the site and the geodetic elevation of the underside of the floor system of a **building** or **structure** where the current Bowen Island Municipality Land Use Bylaw establish siting requirements related to minimum floor elevation; and
 - 9.1.4.7 the location, dimension and gradient of parking and driveway access;
 - 9.1.4.8 the **building official** may waive the requirements for a site plan, in whole or in part, where the permit is sought for the repair or alteration of an existing **building** or **structure**.
- 9.1.5 floor plans showing the dimensions and uses of all areas: the dimensions and height of crawl and roof spaces; the location, size and swing of doors; the location, size and opening of windows; floor, wall, and ceiling finishes; plumbing fixtures; structural elements; and stair dimensions.
- 9.1.6 a cross section through the **building** or **structure** illustrating foundations, drainage, ceiling heights and construction systems;
- 9.1.7 elevations of all sides of the **building** or **structure** showing finish details, roof slopes, windows, doors, and finished grade;

- 9.1.8 cross-sectional details drawn at an appropriate scale and at sufficient locations to illustrate that the **building** or **structure** substantially conforms to the **Building Code**;
- 9.1.9 include copies of all approvals, certifications and filings required under any enactment relating to health or safety, including, without limitation:
- 9.1.9.1 a copy of the **Record of Sewerage System** that has been filed with and accepted by the Health Authority;
- 9.1.9.2 a copy of the **Letter of Certification** issued by an authorized person as required by *Section 9* of the *British Columbia Sewerage Regulation No. 326, 2004*; and
- 9.1.9.3 copies of all valid highway access permits issued by the Municipality.
- 9.1.10 a letter of assurance in the form of Schedule A as referred to in section 2.6 of Part 2 of the **Building Code**, signed by the **owner**, or a signing officer of the **owner** if the **owner** is a corporation, and the **coordinating registered professional**.
- 9.1.11 letters of assurance in the form of Schedules B-1 and B-2 as referred to in section 2.6 of Part 2 of the **Building Code**, each signed by such **registered professionals** as the **building official** or **Building Code** may require to prepare the **design** for and conduct **field reviews** of the construction of the **building** or **structure**;
- 9.1.12 three or more sets of drawings at a suitable scale of the design prepared by each **registered professional** and including the information set out in sections 9.1.5 – 9.1.8 of this bylaw;
- 9.2 In addition to the requirements of section 9.1, the following may be required by a **building official** to be submitted with a building permit application for the construction of a **complex building** where the complexity of the proposed **building** or **structure** or siting circumstances warrant:
- 9.2.1 site servicing drawings, including sufficient detail of off-site services to indicate locations at the property line, prepared and sealed by a **registered professional**, in accordance with the Bowen Island Municipality's subdivision servicing bylaw.
- 9.2.2 a section through the site showing grades, **buildings**, **structures**, parking areas and driveways;
- 9.2.3 any other information required by the **building official** or the **Building Code** to establish substantial compliance with this bylaw, the **Building Code** and other bylaws and enactments relating to the **building** or **structure**.

10. Applications for *standard buildings*

10.1 An application for a building permit with respect to a *standard building* shall;

10.1.1 be made in the form attached as Appendix “A” to this bylaw, signed by the *owner*, or a signing officer if the *owner* is a corporation;

10.1.2 be accompanied by the *owner’s* acknowledgment of responsibility and undertakings made in the form attached as Appendix “A” to this bylaw, signed by the *owner*, or a signing officer if the *owner* is a corporation;

10.1.3 include a copy of a title search made within 30 days of the date of the application;

10.1.4 a site plan prepared by a British Columbia Land Surveyor showing:

10.1.4.1 the bearing and dimensions of the parcel taken from the registered subdivision plan;

10.1.4.2 the legal description and civic address of the parcel;

10.1.4.3 the location and dimensions of all statutory rights of way, easements and setback requirements;

10.1.4.4 the location and dimensions of all existing and proposed *buildings* or *structures* on the parcel;

10.1.4.5 setbacks to the natural boundary of any lake, wetland, water reservoir or watercourse where the Bowen Island Municipality Land Use Bylaw No. 57, 2002 establishes siting requirements,

10.1.4.6 the existing and finished ground levels to an established datum at or adjacent to the site and the geodetic elevation of the underside of the floor system of a *building* or *structure* where the Bowen Island Municipality’s land use regulations establish siting requirements related to minimum floor elevation; and

10.1.4.7 the location, dimension and gradient of parking and driveway access;

10.1.4.8 the *building official* may waive the requirements for a site plan, in whole or in part, where the permit is sought for the repair or alteration of an existing *building* or *structure*.

10.1.5 floor plans showing the dimensions and uses of all areas: the dimensions and height of crawl and roof spaces; the location, size and swing of doors; the location, size and opening of windows; floor, wall, and ceiling finishes; plumbing fixtures; structural elements; and stair dimensions.

- 10.1.6 a cross section through the **building** or **structure** illustrating foundations, drainage, ceiling heights and construction systems;
- 10.1.7 elevations of all sides of the **building** or **structure** showing finish details, roof slopes, windows, doors, and finished grade;
- 10.1.8 cross-sectional details drawn at an appropriate scale and at sufficient locations to illustrate that the **building** or **structure** substantially conforms to the **Building Code**;
- 10.1.9 include copies of all approvals, certifications and filings required under any enactment relating to health or safety, including, without limitation:
- 10.1.9.1 a copy of the **Record of Sewerage System** that has been filed with and accepted by the Health Authority;
- 10.1.9.2 a copy of the **Letter of Certification** issued by an authorized person as required by *Section 9 of the British Columbia Sewerage Regulation No. 326, 2004*; and
- 10.1.9.3 copies of all valid highway access permits issued by the Municipality.”.
- 10.1.10 a foundation design prepared by a **registered professional** in accordance with section 4.2 of Part 4 of the **Building Code**, accompanied by letters of assurance in the form of Schedules B-1 and B-2 as referred to in section 2.6 of Part 2 of the **Building Code**, signed by the **registered professional**;
- 10.1.11 the requirements of section 10.1.10 may be waived by a **building official** in circumstances where the **building official** has required a professional engineer’s report pursuant to section 699 (2) of the *Local Government Act* the building permit is issued in accordance with sections 699 (5) and (6) of the *Local Government Act*.
- 10.1.12 The requirements of section 10.1.10 may be waived by a **building official** if the submitted design information provides sufficient assurance that the foundation design and the foundation excavation substantially comply with sections 9.4, 9.12 and 9.15 of part 9 of the Building Code.
- 10.1.13 Three or more sets of drawings at a suitable scale of the design including the information set out in sections 10.1.5 – 10.1.8 and 10.1.10 of this bylaw.
- 10.2 In addition to the requirements of section 10.1, the following may be required by a **building official** to be submitted with a building permit application for the construction of a **standard building** where the project involves two or more buildings, which in the aggregate total more than 1000 square meters, or two or more buildings that will contain four or more dwelling units, or otherwise where

the complexity of the proposed **building** or **structure** or siting circumstances warrant:

- 10.2.1 site servicing drawings, including sufficient detail of off-site services to indicate locations at the property line, prepared and sealed by a **registered professional**, in accordance with the Bowen Island Municipality's subdivision servicing bylaw.
- 10.2.2 a section through the site showing grades, **buildings**, **structures**, parking areas and driveways;
- 10.2.3 a roof plan and roof height calculations;
- 10.2.4 structural, electrical, mechanical or fire suppression drawings prepared and sealed by a **registered professional**;
- 10.2.5 letters of assurance in the form of Schedules B-1 and B-2 as referred to in section 2.6 of Part 2 of the **Building Code**, signed by the **registered professional**;
- 10.2.6 any other information required by the **building official** or the **Building Code** to establish substantial compliance with this bylaw, the **Building Code** and other bylaws and enactments relating to the **building** or **structure**.

11. Professional Plan Certification

- 11.1 The letters of assurance in the form of Schedules B-1 and B-2 referred in section 2.6 of Part 2 of the **Building Code** and provided pursuant to sections 9.1.11, 10.1.10, 10.2.5, and 15.1 of this bylaw are relied upon by the Bowen Island Municipality and its **building officials** as certification that the design and plans to which the letters of assurance relate comply with the **Building Code** and other applicable enactments relating to safety.
- 11.2 A building permit issued for the construction of a **complex building**, or for a **standard building** for which a **building official** required professional design pursuant to section 10.2.4 and letters of assurance pursuant to section 10.2.5 of this bylaw shall be in the form of Appendix "B" attached to this bylaw.
- 11.3 A building permit issued pursuant to section 11.2 of this bylaw shall include a notice to the **owner** that the building permit is issued in reliance upon the certification of the **registered professionals** that the design and plans submitted in support of the application for the building permit comply with the **Building Code** and other applicable enactments relating to safety.
- 11.4 When a building permit is issued in accordance with section 11.2 of this bylaw the permit fee shall be reduced by 5% of the fees payable pursuant to Appendix "D" to this bylaw, up to a maximum reduction of \$500.00 (five hundred dollars).

12. Fees and Charges

- 12.1 In addition to applicable fees and charges required under other bylaws, a permit fee, calculated in accordance with Appendix “D” to this bylaw, shall be paid in full prior issuance of any permit under this bylaw.
- 12.2 An application made for a building permit shall be accompanied by the minimum fee as set out in Appendix “D” to this bylaw.
- 12.2.1 The minimum fee is non-refundable and shall be credited against the building permit fee when the permit is issued.
- 12.2.2 An application shall be cancelled and the minimum fee forfeited if the building permit has not been issued and the permit fee paid within 180 days of the date of written notification to the *owner* that the permit is ready to be issued.
- 12.2.3 When an application is cancelled the plans and related documents submitted with the application may be destroyed.
- 12.3 The *owner* may obtain a refund of the permit fees set out in Appendix “D” to this bylaw when a permit is surrendered and cancelled before any construction begins, provided:
- 12.3.1 the refund shall not include the minimum fee paid pursuant to section 12.2 of this bylaw; and
- 12.3.2 no refund shall be made where construction has begun or an inspection has been made.
- 12.4 Where, due to non-compliance with this bylaw, more than two inspections are necessary when one inspection is normally required, for each inspection after the second inspection, a re-inspection charge as set out in Appendix “D” to this bylaw shall be paid prior to additional inspections being performed.
- 12.5 For a required permit inspection requested to be done after the hours during which the offices of Bowen Island Municipality are normally open, an inspection charge shall be payable based on the time actually spent in making such inspection, including travel time, as set out in Appendix “D” to this bylaw.
- 12.6 An inspection charge, as set out in Appendix “D” to this bylaw, shall be payable in advance for a voluntary inspection to establish compliance of or to obtain a report on the status of an existing *building* or *structure* for which a permit is sought under this bylaw.

13. Building Permits

13.1 When:

- 13.1.1 a completed application including all required supporting documentation has been submitted;
- 13.1.2 the proposed work set out in the application substantially conforms with the *Building Code*, this bylaw and all other applicable bylaws and enactments;
- 13.1.3 the *owner* or his or her representative has paid all applicable fees set out in section 12.1 of this bylaw;
- 13.1.4 the *owner* or his or her representative has paid all charges and met all requirements imposed by any other enactment or bylaw;
- 13.1.5 no enactment, covenant, agreement, or regulation in favour of, or regulation of, Bowen Island Municipality authorizes the permit to be withheld;
- 13.1.6 the *owner* has retained a professional engineer or geoscientist if required by the provisions of the *Engineers and Geoscientists Act*;
- 13.1.7 the *owner* has retained an architect if required by the provisions of the *Architects Act*;

a *building official* shall issue the permit for which the application is made.

- 13.2 When the application is in respect of a *building* that includes, or will include, a *residential occupancy*, the building permit must not be issued unless the *owner* provides evidence pursuant to section 30 (1) of the *Homeowner Protection Act* that the proposed *building*:

- 13.2.1 is covered by home warranty insurance, and

- 13.2.2 the *constructor* is a licensed residential builder.

- 13.3 Section 13.2 of this bylaw does not apply if the *owner* is not required to be licensed and to obtain home warranty insurance in accordance with sections 20 (1) or 30 (1) of the *Homeowner Protection Act*.

- 13.4 Every permit is issued upon the condition that the permit shall expire and the rights of the *owner* under the permit shall terminate if:

- 13.4.1 the work authorized by the permit is not commenced within 12 months from the date of issuance of the permit; or

- 13.4.2 work is discontinued for a period of 12 months.

- 13.5 A **building official** may extend the period of time set out under sections 13.4.1 and 13.4.2 where construction has not been commenced or where construction has been discontinued due to adverse weather, strikes, material or labour shortages, or similar hardship beyond the **owner's** control.
- 13.6 A **building official** may issue an excavation permit in the form of Appendix "B" attached to this Bylaw, prior to the issuance of a building permit.
- 13.7 A **building official** may issue a building permit for a portion of a **building** or **structure** before the design, plans and specifications for the entire **building** or **structure** have been accepted, provided sufficient information has been provided to the Bowen Island Municipality to demonstrate to the **building official** that the portion authorized to be constructed substantially complies with this and other applicable bylaws and the permit fee applicable to that portion of the **building** or **structure** has been paid. The issuance of the permit notwithstanding, the requirements of this bylaw apply to the remainder of the **building** or **structure** as if the permit for the portion of the **building** or **structure** had not been issued.
- 13.8 When a site has been excavated under an excavation permit issued pursuant to section 13.6 of this bylaw and a building permit is not subsequently issued or a subsisting building permit has expired in accordance with the requirements of section 13.4, but without the construction of the **building** or **structure** for which the building permit was issued having commenced, the **owner** shall fill in the excavation to restore the original gradients of the site within 60 days of being served notice by the Bowen Island Municipality to do so.

14 Disclaimer of Warranty or Representation

- 14.1 Neither the issuance of a permit under this bylaw, the review and acceptance of the design, drawings, plans or specifications, nor inspections made by a **building official**, shall constitute a representation or warranty that the **Building Code** or the bylaw have been complied with or the **building** or **structure** meets any standard of materials or workmanship, and no person shall rely on any of those acts as establishing compliance with the **Building Code** or this bylaw or any standard of construction.

15 Professional Design and Field Review

- 15.1 When a **building official** considers that the site conditions, size or complexity of a development or an aspect of a development warrant, he or she may require a **registered professional** provide design and plan certification and **field review** by means of letters of assurance in the form of Schedules B-1, B-2 and C-B referred to in section 2.6 of Part 2 of the **Building Code**.
- 15.2 Prior to the issuance of an occupancy permit for a complex building, or standard building in circumstances where letters of assurance have been required in accordance with sections 10.1.10, 10.2.5 or 15.1 of this bylaw, the **owner** shall

provide the Bowen Island Municipality with letters of assurance in the form of Schedules C-A or C-B, as is appropriate, referred to in section 2.6 of Part 2 of the **Building Code**.

- 15.3 When a **registered professional** provides letters of assurance in accordance with sections 9.1.11, 10.1.10, 10.2.5, 15.1 or 15.2 of this bylaw, he or she shall also provide proof of professional liability insurance to the **building official**.

16 Responsibilities of the Owner

- 16.1 Every **owner** shall ensure that all construction complies with the **Building Code**, this bylaw and other applicable enactments respecting safety.
- 16.2 Every **owner** to whom a permit is issued shall be responsible for the cost of repair of any damage to municipal works that occurs in the course of the work authorized by the permit.
- 16.3 Every **owner** to whom a permit is issued shall, during construction:
- 16.3.1 post and maintain the permit in a conspicuous place on the property in respect of which the permit was issued;
 - 16.3.2 keep a copy of the accepted designs, plans and specifications on the property; and
 - 16.3.3 post the civic address on the property in a location visible from any adjoining streets.

17 Inspections

- 17.1 When a **registered professional** provides letters of assurance in accordance with sections 9.1.11, 10.1.10, 10.2.5, 15.1 or 15.2 of this bylaw, the Bowen Island Municipality will rely solely on **field reviews** undertaken by the **registered professional** and the letters of assurance submitted pursuant to section 15.2 of this bylaw as assurance that the construction substantially conforms to the design and that the construction substantially complies with the **Building Code**, this bylaw and other applicable enactments respecting safety.
- 17.2 Notwithstanding section 17.1 of this bylaw, a **building official** may attend the site from time to time during the course of construction to ascertain that the **field reviews** are taking place and to monitor the **field reviews** undertaken by the **registered professionals**.
- 17.3 A **building official** may attend periodically at the site of the construction of **standard buildings** or **structures** to ascertain whether the **health and safety aspects of the work** are being carried out in substantial conformance with the those portions of the **Building Code**, this bylaw and any other applicable enactment concerning safety.

- 17.4 The owner or his or her representative shall give at least 24 hours notice to the Bowen Island Municipality when requesting an inspection and shall obtain an inspection and receive an **building official's** acceptance of the following aspects of the work prior to concealing it:
- 17.4.1 after forms for footings and foundations are complete but prior to placing of any concrete;
 - 17.4.2 installation of perimeter drain tiles and dampproofing, prior to backfilling;
 - 17.4.3 the preparation of ground, including ground cover, when required, prior to the placing of a concrete slab;
 - 17.4.4 rough in of masonry fireplaces, factory built chimneys and fireplaces and solid fuel burning appliances;
 - 17.4.5 when framing and sheathing of the building are complete, including fire-stopping, bracing, chimney, duct work, plumbing, gas venting, wiring, but before any insulation, lath or other exterior finish is applied which would conceal such work;
 - 17.4.6 insulation and vapour barrier;
 - 17.4.7 when the **building** or **structure** is substantially complete and ready for **occupancy**, but before **occupancy** takes place of the whole or part of the **building** or **structure**.
- 17.5 No aspect of the work referred in section 17.4 of this bylaw shall be concealed until a **building official** has accepted it in writing.
- 17.6 The requirements of section 17.4 of this bylaw do not apply to any aspect of the work that is the subject of a **registered professional's** letter of assurance provided in accordance with sections 9.1.11, 10.1.10, 10.2.5, 15.1 or 15.2 of this bylaw.

18 Occupancy Permits

- 18.1 No person shall occupy a **building** or **structure** or part of a **building** or **structure** until an occupancy permit has been issued in the form of Appendix "C" attached to this bylaw.
- 18.2 An occupancy permit shall not be issued unless:
- 18.2.1 all letters of assurance have been submitted when required in accordance with sections 9.1.11, 10.1.10, 10.2.5, 15.1 and 15.2 of this bylaw.

18.2.2 all aspects of the work requiring inspection and acceptance pursuant to section 17.4 of this bylaw have both been inspected and accepted or the inspections and acceptance are not required in accordance with section 17.5 of this bylaw.

18.3 A **building official** may issue an occupancy permit for part of a **building** or **structure** when the part of the **building** or **structure** is self-contained, provided with essential services and the requirements set out in section 18.2 of this bylaw have been met with respect to it.

19 Retaining Structures & Swimming Pools

19.1 Retaining Structures

19.1.1 All retaining walls and retaining structure greater than 1.5m in height require a valid building permit.

19.1.2 Building permits required in 19.1.1. shall be applied for and issued before construction of the retaining walls and retaining **structures** has started.

19.1.3 Retaining walls and retaining structures shall be designed by a **Registered Professional Engineer** and if the **Registered Professional Engineer** and the **Building Official** determine that the construction of the proposed retaining **structure** would be on land that is subject to hazards as outlined in Section 56(2)(b) of the Community Charter the owner of the land shall provide the **Building Official** with a report by a qualified **Registered Professional Geotechnical Engineer** stating that the land may be used safely for the intended use.

19.1.4 The design of the **Registered Professional Engineer** shall be submitted to the Bowen Island Building Department before the building permit is issued. The design shall include a Schedule B-1 and B-2.

19.1.5 The **Registered Professional Engineer** shall undertake **field reviews** during the construction of the retaining walls or retaining **structures**.

19.1.6 The **Registered Professional Engineer** shall submit a final report along with a Schedule C-B prior to acceptance of the works by the Bowen Island **Building Official**.

19.2 Swimming Pools

19.2.1 every swimming pool that when finished will contain water exceeding at any point a dept of 450mm and has an area in excess of 14 square meter, shall

- 19.2.1.1 be constructed or painted with material light in colour and be surrounded by a nonslip surface apron of a minimum width of 1.2m, draining away from pool edge.
- 19.2.1.2 be so constructed as to offer a complete view of the pool from any point on its perimeter for the purposes of supervision.
- 19.2.1.3 be so constructed that outflowing water is not returnable to the pool without adequate filtering to maintain absolute visual clarity in the water.
- 19.2.1.4 All swimming pools that contain water of a depth exceeding 450mm and an area exceeding 14 square meter, presently constructed or to be constructed in the future, shall be enclosed by a fence or barricade of minimum height of 1.2 m; such fence or barricade shall be constructed so as to deny access to children and animals to the pool area and shall have a self-closing and self-latching gate or gates of similar height and construction.

20 Permits

- 20.1 Moving permits, demolition permits, fireplace and chimney permits and all building permits shall be made in the form attached as Appendix “B” to this bylaw.

21 Penalties and Enforcement

- 21.1 Every person who contravenes any provision of this bylaw commits an offense punishable on summary conviction and shall be liable to a fine of not more than \$10,000.00 (Ten Thousand Dollars) or to imprisonment for not more than six months.
- 21.2 Every person who fails to comply with any order or notice issued by a **building official**, or who allows a violation of this bylaw to continue, contravenes this bylaw.
- 21.3 A **building official** may order the cessation of any work that is proceeding in contravention of the **Building Code** or this bylaw by posting a Stop Work notice in the form of Appendix “E” attached to this bylaw.
- 21.4 The **owner** of property on which a Stop Work notice has been posted, and every other person, shall cease all construction work immediately and shall not do any work until all applicable provisions of this bylaw have been substantially complied with and the Stop Work notice has been rescinded in writing by a **building official**.
- 21.5 Where a person occupies a **building** or **structure** or part of a **building** or **structure** in contravention of section 6.4 of this bylaw a **building official** may post a Do

Not Occupy notice in the form of Appendix “F” to this bylaw on the affected part of the **building** or **structure**.

21.6 The **owner** of property on which a Do Not Occupy notice has been posted, and every person, shall cease **occupancy** of the **building** or **structure** immediately and shall refrain from further **occupancy** until all applicable provisions of the **Building Code** and this bylaw have been substantially complied with and the Do Not Occupy notice has been rescinded in writing by a **building official**.

21.7 Every person who commences work requiring a building permit without first obtaining such a permit shall, if a Stop Work notice is issued pay an additional charge equal to 100% of the building permit fee prior to obtaining the required building permit.

22 Severability

22.1 The provisions of this bylaw are severable and the invalidity of any part of this bylaw shall not affect the validity of the remainder of this bylaw.

23 Forms and Schedules

23.1 Appendices “A” to “I” attached to this bylaw form a part of this bylaw.

READ a first time this 28th day of October, 2002.

READ a second time this 14th day of April, 2003.

READ a third time this 14th day of April, 2003.

RECONSIDERED AND FINALLY ADOPTED this 9th day of June, 2003.

(Original signed) _____
Lisa Barrett
Mayor

(Original signed) _____
Isabell Hadford
Clerk

Certified to be a true and correct copy of the “Bowen Island Municipality Building Bylaw No. 65, 2002” adopted by the Council of Bowen Island Municipality this 9th day June, 2003.

(Original signed) _____
Isabell Hadford
Clerk

**BOWEN ISLAND MUNICIPALITY
BUILDING BYLAW No. 65, 2002**

LIST OF APPENDICES

| | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Appendix “A” | Bowen Island Municipality - Building Permit Application Form |
| Appendix “B” | Bowen Island Municipality - Building Permit Form |
| Appendix “C” | Bowen Island Municipality - Occupancy Permit |
| Appendix “D” | Bowen Island Municipality Building - Permit Fee Schedule |
| Appendix “E” | Bowen Island Municipality - Stop Work Notice |
| Appendix “F” | Bowen Island Municipality - Do Not Occupy |
| Appendix “G” | Green Design Building Checklist |
| Appendix “H” | Guide to Bowen Island Municipality Building Bylaw |
| Appendix “I” | Rainwater Harvesting on the Gulf Islands – Guide for Regulating the Installation of Rainwater Harvesting Systems – Potable and Non-potable Uses. |

APPENDIX "A"

Building Bylaw No. 65, 2002

BOWEN ISLAND MUNICIPALITY

981 Artisan Lane,
Bowen Island, B.C. V0N 1G0
Tel: 604 947-4255/ Fax: 604 947-0193/email : bim@bimbc.ca

BUILDING PERMIT APPLICATION

| | |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Owner | _____ Name _____ Mailing Address _____ Postal Code _____ _____ Tel: (home) _____ Tel: (work) _____ Fax: _____ email: _____ |
| Architect | _____ Name _____ Mailing Address _____ Postal Code _____ _____ Tel: (home) _____ Tel: (work) _____ Fax: _____ email: _____ |
| Professional Engineer | _____ Name _____ Mailing Address _____ Postal Code _____ _____ Tel: (home) _____ Tel: (work) _____ Fax: _____ email: _____ |
| Contractor | _____ Name _____ Mailing Address _____ Postal Code _____ _____ Tel: (home) _____ Tel: (work) _____ Fax: _____ email: _____ |
| Plumber | <input type="checkbox"/> to be installed by owner <input type="checkbox"/> to be installed by plumbing contractor – please specify: _____ Name _____ Trade Certification No. _____ <input type="checkbox"/> copy of certification attached |
| Sewerage Practitioner or Professional | _____ Name _____ Trade Certification No. _____ <input type="checkbox"/> copy of certification attached |
| Property Description | Tax Assessment Roll/Folio # _____ PID # _____ Lot _____ Block _____ Plan _____ District Lot _____ House No. _____ Street _____ |

Application to Construct (please \checkmark one)

- new dwelling renovation new deck demolition new accessory building addition new commercial Bldg.
 change of use other _____

ESTIMATED CONSTRUCTION VALUE:

CONSTRUCTION VALUE FOR BUILDING PERMIT:
(FOR OFFICE USE ONLY)

Applicant to ensure that a cheque or money order for \$75.00 (made payable to the Bowen Island Municipality) is attached and that each permit, filing or approval listed below has been obtained and the documentation is attached.

- 3 copies of architectural drawings
- Site Plan
- Approval of strata corporation (if applicable)
- Cheque or money order for \$75.00
- Proof of Ownership (Certificate of Title - must dated within 90 days prior to application)
- Copy of All Covenants & Easements.
- Record of Sewerage System
- Fire Department Access Permit
- Driveway Access Permit
- Homeowner Protection Certification (*New Dwellings Only*)
- Approval from Agricultural Land Commission (if applicable)
- Approval from Ministry of Environment, Lands and Parks (if applicable)
- Proof of Professional Liability Insurance from Registered Professional (if applicable)
- Potable Water (for all new dwellings and accessory buildings containing plumbing fixtures):
- Property is served with water from _____ Water System and letter of approval to be connected to the water system is attached
- Proposed water supply will serve 2 or more connections and approval from Health Unit and documentation required for water testing and sampling is attached
- Proposed water supply serves single property and documentation required for water testing and sampling outlined is attached

Please ensure that your site plan includes the following:

- Date, Scale, north arrow
- Approximate dimensions and sizes of all proposed buildings
- Approximate location of existing roads and trails
- Approximate location of all easements, covenant areas, rights-of-way, etc.
- Approximate location of proposed accesses for all lots (if applicable)

BUILDING PERMIT OWNER’S ACKNOWLEDGEMENT OF RESPONSIBILITY

1. I acknowledge that if I am granted a building permit pursuant to this application that am responsible for compliance with the current edition of the British Columbia Building Code, this Bylaw and any other applicable enactment, code regulation or standard relating to the work in respect of which the permit is issued, whether or not the said work is undertaken by me or by those whom I may retain or employ to provide design and/or construction services.
2. I acknowledge that neither the issuance of a permit under this bylaw, the acceptance nor review of plans, specifications, drawings or supporting documents, nor inspections made by or on behalf of the Bowen Island Municipality constitute a representation, warranty, assurance or statement that the current edition of the British Columbia Building Code, the Building Bylaws of Bowen Island Municipality or any other applicable enactment, code, regulation or standard has been complied with.
3. Where the Bowen Island Municipality requires that Letters of Assurance be provided by a Registered Professional pursuant to Section 9 of the Bowen Island Municipality Bylaw No. 65, 2002 and Section 290 of the Local Government Act, I confirm that I have been advised in writing by the Bowen Island Municipality that it relied exclusively on the Letter of Assurance of the “Professional Design and Commitment for Field Review” prepared by _____ in reviewing the plans, drawings specifications and supporting documents submitted for a building permit.
4. I confirm that I have relied only on the said Registered Professional for the adequacy of plans, drawings, specifications and supporting documents submitted with this application.
5. I understand that I should seek independent legal advice in respect of the responsibilities I am assuming upon the granting of a building permit by the Bowen Island Municipality.

Signed this _____ day of _____, 20 _____

Owner’/Agent’s Signature: _____

Signed this day of Witnessed by: _____

Signature of Witness: _____

Occupation: _____

NOTE: If signed by an Agent, letter of authorization from the Owner must be provided with this application.

FOR OFFICE USE ONLY

| | | | |
|-----------------------------------------------|------------------------------------------|-----------------------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Proof of Ownership | <input type="checkbox"/> Planning Dept. | <input type="checkbox"/> Fire Department Permit | <input type="checkbox"/> Approval for Agent |
| <input type="checkbox"/> Drawings | <input type="checkbox"/> Site Plan | <input type="checkbox"/> Record of Sewerage System | <input type="checkbox"/> Sewerage Certification |
| <input type="checkbox"/> Potable Water | <input type="checkbox"/> Zoning | <input type="checkbox"/> ALC | <input type="checkbox"/> MELP |
| <input type="checkbox"/> Homeowner Protection | <input type="checkbox"/> Application Fee | <input type="checkbox"/> House Number Previously Assigned | <input type="checkbox"/> Driveway Access |

Present Zoning _____ Occupancy _____ Lot Area _____

Lot Coverage _____ LCR _____ (Lot Coverage Ratio)

Building Setbacks: Front _____ Exterior Side _____ Interior Side _____ Rear _____

Building Permit Number _____

House Number Assigned _____

BUILDING PERMIT

Owner(s)

Permit #

Roll #

PID

Bowen Island Municipality Building Bylaw No. 65, 2002 -APPENDIX 'B'**Construct**

Lot

Block

House #

Plan

Street

District Lot

| | | | |
|----------------------------------------------------------------------------|---------------------------------------------------------------------|------|----------------------|
| Construction Value | \$0.00 | Fee: | \$75.00 |
| Plumbing Fixtures | -- | | 0.00 |
| Chimney Flues | -- | | 0.00 |
| Temporary Structures | -- | | 0.00 |
| Demolition, under 500 sq ft | -- | | 0.00 |
| Demolition, 500 sq ft or more | -- | | 0.00 |
| Sign Construction | -- | | 0.00 |
| Moving a Building | -- | | 0.00 |
| Certification Discount (as per Sec. 290(3) of the Local Government Act) | -- | | |
| | <i>Permit Fee</i> | | \$75.00 |
| | <i>Permit Deposit</i> | | 0.00 |
| | <i>(to be refunded upon completion of construction project)</i> | | |
| | <i>Certification Discount</i> | | |
| | <i>Title Search</i> | | 0.00 |
| | <i>Stop Work Order Penalty</i> | | 0.00 |
| | <i>Sub-total</i> | | <u>\$75.00</u> |
| | <i>Application Fee Received</i> | | (75.00) |
| | <i>Total Due</i> | | <u><u>\$0.00</u></u> |

Building Inspector

Note:

The placement of any materials or debris on public property, or the blocking of road drainage ditches or natural water courses is PROHIBITED.

If this permit is issued in reliance upon the certification by registered professionals the Bowen Island Municipality will rely upon the liability disclaimer in Section 290 of the Local Government Act. (Section 290 attached)

APPENDIX "C"
Building Bylaw No. 65, 2002

BOWEN ISLAND MUNICIPALITY
CERTIFICATE OF OCCUPANCY OF BUILDING

ISSUED PURSUANT TO SECTION 18 OF BYLAW No. 65, 2002

ADDRESS OF BUILDING:

LEGAL DESCRIPTION:

OWNER'S NAME(S):

APPROVED OCCUPANCY:

APPROVED USE:

THE BUILDING CONSTRUCTED UNDER AUTHORITY OF BUILDING PERMIT
No _____ IS NOW COMPLETE.

PURSUANT TO SUBSECTION 6.2 OF BYLAW No. 65 NO PERSON SHALL OCCUPY OR
USE ANY BUILDING OR PART THEREOF FOR OTHER THAN THE OCCUPANCY
APPROVED ABOVE.

PURSUANT TO SUBSECTION 6.4 OF BYLAW No. 65 NO PERSON SHALL, UNLESS
AUTHORIZED BY THE BUILDING INSPECTOR, REVERSE, ALTER, DEFACE, COVER,
REMOVE OR IN ANY WAY TAMPER WITH THIS CERTIFICATE.

Occupancy Number

BUILDING INSPECTOR

DATE

APPENDIX “D”
Building Bylaw No. 65, 2002

BUILDING PERMIT FEES

| | | FEES |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| 1. | Minimum fee for any building permit application (deducted from Building Permit Fee if application approved) | \$75.00 |
| 2. | Deposit required when Building Permit application is approved (returned when the Occupancy Certificate is issued or, for structures not requiring an Occupancy Certificate, upon the Building Inspector’s authorization that the project is fully completed) | 1.0% of construction value |
| 3. | Pre-inspection of building being moved within the Bowen Island Municipality | \$300.00 per structure |
| 4. | Building Permit Fee payable for the construction, addition, alteration or repair of a building or structure or part thereof shall be as follows: When the value of the work does not exceed \$1,000.00 For each additional \$1,000.00 or part thereof exceeding \$1,000.00 up to \$100,000.00 For each additional \$1,000.00 or part thereof exceeding \$100,000.00 | \$75.00 \$9.00 \$8.00 |
| 5. | When a permit is surrendered and cancelled before any construction begins and the owner has provided written notification that the project will not be undertaken | 50% of the building permit fee and 100% of the deposit shall be refunded to the property owner |
| 6. | Where no changes are proposed in design or siting, for the re-application of a building permit which has lapsed, if requested in writing by the property owner | \$75.00 or 20% of the current building permit fee, whichever is greater |

| | | |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 7. | Plan review for building design modifications | \$75.00 |
| 8. | For the transfer of a building permit | \$75.00 |
| 9. | Requested after hours inspection. | \$75.00 minimum plus actual time spent and travel costs at current rate |
| 10. | For permit to install Plumbing | \$20.00 per fixture with a minimum fee of \$75.00. |
| 11. | For permit to install either a chimney, heating device which is connected to the chimney, or a fireplace (masonry or factory-built chimney) | \$75.00 |
| 11a. | For each additional flue or vent | \$20.00 |
| 12. | For any application for a permit not specifically provided herein | \$75.00 |
| 13. | Swimming Pool Construction | Based on construction value formula (as per Section 4). |
| 14. | Where it has been determined by the Building Inspector that due to non-compliance with the provisions of this bylaw or the British Columbia Building Code, more than two inspections are necessary for a single type of inspection, the fee for each inspection after the second inspection | \$50.00 |
| 15. | Demolishing a structure | \$75.00 if less than 500 square feet, \$150.00 if 500 square feet or more |
| 16. | For providing property title search from Land Title Office (per title) | \$25.00 |
| 17. | For obtaining and/or providing a copy of an instrument registered on the property title | Actual cost |
| 18. | For registration and review of Section 219 covenant placed according to the Land Title Act. | \$300.00 |
| 19. | For discharge of Section 219 covenant placed according to the Land Title Act. | \$100.00 |
| 20. | For registration and review of priority agreements | \$150.00 |
| 21. | For discharge of notices placed under Section 700 of the Local Government Act | \$100.00 |

APPENDIX "E"
Building Bylaw No. 65, 2002

BOWEN ISLAND MUNICIPALITY

981 Artisan Lane,
Bowen Island, B.C.

Building Department – Telephone (604) 947-4255/Fax (604) 947-0193

STOP WORK ORDER

Appendix "E" Building Bylaw No. 65, 2002

PLEASE CONTACT BUILDING INSPECTOR

DATE _____

ADDRESS: _____

REASON: _____

Building Inspector

**This card may be removed by the
Building Inspector Only.**

**APPENDIX “G”
Building Bylaw No. 65, 2002**

GREEN DESIGN BUILDING CHECKLIST

Green Design is a process for ensuring that the environmental impact of the design, construction (including demolition/salvage) and operation of a building is minimized, while the needs of current users are met without compromising the needs of future users. This includes improving the building’s economic performance, both in life-cycle and capital cost terms, it also means that these buildings will:

- be more resource efficient,
- require less energy to operate,
- make better use of materials and consume less water.
- improve the comfort of building occupants,
- generate cost savings

In short, Green Design encourages products and processes that are cost effective and pose fewer threats to people and the environment.

The Council of Bowen Island Municipality reviewed the proposed Check List at their September 30, 2002 Council meeting and intends that the Check List be used as a **guide** for those who are doing site work and building construction on Bowen Island. Council recognizes that the Guidelines may not apply in all situations but recommend that builders follow and try to incorporate them as closely as possible.

Some of the elements of Green Design are:

I DESIGN INTEGRATION

1. **Integrated Design Team Philosophy**

- Function as an integrated, cross-disciplinary design team including all those impacted by the building from the outset of the project.
- Include on the design team an energy engineer with experience in computer energy simulation for any project with assembly occupancies or publicly accessed buildings with more than 6 occupants.

II BUILDING SITE

2. **Set Environmental Goals**

- When applicable, hold a pre-design Workshop(s) to establish environmental performance targets for the building.
- Incorporate where possible LEED (Leadership in Energy + Environmental Design) Certification Rating System (minimum standard) modified to meet Canadian Equivalencies or equivalent for all new projects (the LEED 2.0 document is available free on the USGBC.org or www.leadbuilding.org web sites to download.

3. **Preserve and/or Encourage Biodiversity**

- Maintain the site's existing large trees wherever possible.
- Minimize excavation and soil disturbance of natural landscapes.
- Avoid building on environmentally sensitive areas like wetlands and endangered species habitat.
- Build on previously developed or disturbed sites, and avoid building on greenfield sites where possible.
- Locate buildings to minimize impact on landscape and existing wildlife corridors.
- Minimize development footprint (including parking, utilities, roads).
- Cluster buildings to reduce site coverage.
- Restore damaged ecosystems.
- Plant native and well-adapted, non-invasive species.
- Provide habitat that provides shade, shelter, food, and water to sustain desired wildlife.
- Minimize building and road footprints, add sufficient plant material to offset bio-mass lost in development.

4. **Protect Vegetation, Watercourses, and Wildlife Habitat**

- Inventory vegetation, watercourses, and wildlife habitat on site before construction.
- Fence off vegetation, watercourses, and wildlife habitat during construction.
- Avoid major changes in surface grade during construction.
- Minimize site stormwater runoff during construction, and treat minimal runoff for oils, greases, silt, etc.
- Avoid or minimize use of pesticides and toxic chemicals during construction that could leach into groundwater. Choose least toxic options.
- Provide a minimum of 15 metres of width (in plan) when a natural buffer is required.

5. **Recharge and Protect Groundwater**

- Design infiltration basins, vegetative swales and drywells instead of subsurface storm drains to absorb and filter rainwater, where soil conditions permit.
- Design roads and parking lots without curbs or with curb cuts or openings that drain to stormwater treatment & infiltration measures.

- Use porous surfaces (e.g. ones which allow water to penetrate) for half of the surfaces that are usually paved (e.g. roads, parking, courtyards and pathways), where soil conditions permit.
- Eliminate toxic and pathologic waste which can migrate into ground water (e.g. pressure-treated wood).

6. **Manage Stormwater Pollution and Flow before It Leaves Site**

- Install oil/water separators to treat run-off from parking lots (do not use them for run-off from fields or roofs).
- Use vegetative swales, filter strips, or vegetative buffers (minimum 10m in depth) to treat storm water runoff from fields, roofs and roads, where soil conditions permit.
- Reduce or eliminate storm-water run-off.

7. **Encourage more Sustainable Transportation Energy Use**

Where possible:

- Locate buildings to have access to public transit, bike routes, and pedestrian routes.
- Design safe, attractive, pedestrian and bike-friendly access within the site (e.g. covered, well-lit walkways, separate bikeways).
- Build shower and changing facilities for cyclists and joggers.
- Give carpool cars preferred parking locations.
- Minimize car parking spaces.
- Maximize bicycle parking spaces.
- Use locally-produced materials.

8. **Reuse Topsoil**

- Save, protect and reuse all topsoil removed during construction.
- Rehabilitate damaged sites while incorporating green design strategies in the development of new sites.

9. **Optimize Renewable or Alternate Energy Use (Green Power)**

- Use solar water pre-heating, photo voltaic panels, wind power, geothermal heat exchange, local micro hydro, fuel cells, or other benign energy sources wherever possible.
- Maximize use of natural ventilation and passive energy to meet heating and cooling needs, especially during shoulder seasons.

- Maximize day-lighting throughout the year.

10. **Moderate the Microclimate and Reduce the Urban Heat Island Effect**

- Use site grounds, balconies, trellises, and rooftop gardens on all flat roof areas where appropriate to maximize natural green space.
- Design the site to allow for food gardens and other planting.

11. **Make It Easy For Occupants to Recycle and Compost**

Where possible, provide a central location convenient to occupants and loading bays to collect and store:

- Recyclables
- Compostables

Create convenient storage and sorting facilities in high-use areas (e.g. under the sink, along-side the garbage) for:

- Recyclables
- Compostables
- Provide composting facilities on site where possible.

III CONSTRUCTION AND DESIGN

12. **Reduce Water Use**

- Install water meters to allow measurement of potable water consumption.
- Water closets with a maximum of 6 litres per flush.
- Wastewater piping with a generous pitch to account for smaller water flows.
- Lavatory and kitchen faucets with maximum of 9.5 litres per minute.
- Public lavatory faucets with 2 litres per minute or less.
- Public faucets to be self-closing, time-activated (5 second shut off) or motion-detecting.
- Showers with a maximum of 9.5 litres per minute; public showers self-closing time-activated (1 minute shut off).
- Urinals with a maximum of 3.6 litres per flush (use individual-flush urinals).
- Dishwashers with a maximum of 27 litres on normal cycle (for non-industrial use).

- Clothes washers that are energy and water efficient (e.g. horizontal axis).
- Incorporate a greywater treatment system that reuses water in toilets or irrigation.
- Use one of the following strategies when reviewed by a registered professional engineer, with supporting documentation:

Waterless toilets or urinals;
composting toilets; or
local biological wastewater treatment facilities.

- Capture and store rainwater for indoor and outdoor uses.
- Plant new landscape and/or maintain native landscape that requires little or no watering.
- Restrict water features that use potable water except when they perform another function such as cooling.

13. **Solid Waste Disposal**

Comments to be provided on recommended Bowen-specific sewage disposal by “Sustainable Community Task Force”

14. **Reduce or Eliminate the Use of Pesticides**

Comments to be provided by “Herbicide and Pesticide Task Force”

15. **Reduce Energy Use**

- Design all civic building to use at least 50% less energy than the Model National Energy Code and apply for the CBIP (Canadian Building Incentives Program) and other Federal financial incentive programs as available.
- Design an energy-efficient envelope: appropriate insulation, tight construction and high-performance, low-e windows when appropriate.
- Control solar heat gain and glare by selecting glazing with appropriate ratio of visible light transmittance to solar heat gain coefficient.
- Avoid thermal bridges in walls (use continuous insulation or stagger studs in outside walls, or otherwise ensure thermal break).
- Use trees & plantings to reduce summer solar gain, to channel summer breezes, and to block winter winds (deciduous trees let winter sun through and shade summer sun).
- Use light coloured roofs or green roofs to reduce heat gain.
- Use light coloured site surfaces (walkways, courtyards etc) or provide green space to reduce albedo (The ratio of the amount of solar radiation reflected from an object to the total amount incident upon it.).

- Ensure windows have appropriate exterior shading.
- Install high-efficiency heating and cooling equipment (eliminate HCFC (Hydrochlorofluorocarbons) and Halon use).
- Install high-efficiency lamps & fixtures.
- Install high-efficiency appliances.
- Explore feasibility of heat recovery equipment.
- Plan for independent building commissioning for optimum performance of all systems for larger commercial and/or public buildings.
- Ensure all energy use is metered.

16. **Provide Daylighting And Views**

- Ensure that daylighting is the primary light source in spaces that are re used in the day.
- Reduce outdoor light pollution between sites and adjoining public areas.
- Permit user control of occupied space.

17. **Salvage**

- Salvage materials from an existing structure being demolished or purchase materials from a salvage depot.
- Design for disassembly. Select building systems that can be deconstructed at the end of the building's useful life.

18. **Reuse Construction and Demolition Waste**

Use the GVRD's Project Waste Management Master Specification (or equivalent) to ensure that:

- Construction and demolition waste is minimized.
 - As much construction and demolition waste as possible is recycled, reused or salvaged.
 - The Contractor follows a formal Waste Management Plan (WMP) and this WMP identifies each material proposed to be salvaged, reused, or recycled.
 - This WMP shall ensure the recycling of:

corrugated cardboard,
clean dimensional wood,
palette wood,
concrete,

brick,
concrete block,
asphalt,
metal,
drywall,
land clearing debris,
paint.

- For demolition projects, this WMP shall encourage the salvaging of:

dimensioned lumber
heavy timbers
wood siding
structural steel
wood paneling, moulding, trim and
wainscoting
heritage architectural elements
cabinets and casework
brick and block
electric equipment and light fixtures
plumbing fixtures and brass
windows, doors and frames
hardwood flooring.

IV BUILDING DURABILITY AND OPERATION

19. Design for Durability

- Use durable and low-maintenance materials to minimize replacement intervals and maintenance requirements.

20. Recycle

- Include products with high post-consumer recycled content.
- Use materials that can be recycled once they have been used.

21. Use Materials Efficiently and Responsibly

- Incorporate advanced framing techniques.
- Multiple-use materials (for example those that serve as structure, finish and part of the energy strategy).
- Use resource efficient materials.
- Use rapidly renewable materials (such as bamboo and agricultural products).

22. Wood

- Use optimum value engineering to build frame structures using engineered wood products.

- Use indigenous and local materials to reduce transportation costs.
- Do not use rare or endangered wood species such as ebony, rosewood, teak, and Honduras mahogany that can contribute to a de-forestation of tropical rainforest.
- Use a minimum of 50% certified in accordance with Forest Stewardship Council Guidelines.

23. **Minimize Pollutants**

- Select indoor finish materials that are “Ecologo” or “Zero Volatile Organic Compounds” certified (or equivalent).
- Avoid any material that will off-gas pollutants such as formaldehyde, VOCs (Volatile Organic Compounds), CFCs (Chlorofluorocarbons) or HCFCs.
- Avoid ozone-depleting chemicals in mechanical equipment, including CFCs and HCFCs.
- Avoid any material that has an identified toxicity at any point in its life-cycle (i.e. pvc siding).
- Avoid fibrous (i.e. mineral fibre) floor, wall, and ceiling finishes on any surfaces that are exposed to inhabited spaces, supply or return air.
- Locate air intakes distant from sources of outdoor pollution.
- Avoid materials and design details that act as sinks (traps, sponges) for pollutants.
- Ensure that ventilation systems are pollution-free by:
 - Protecting ventilation systems & ductwork from pollution contamination during construction, AND/OR
Cleaning and verifying supply and return air duct systems and ventilation equipment before occupancy.
- Specify supply air filters at a minimum of 40% efficient according to ASHRAE (American Society of Heating Refrigeration and Air Conditioning Engineers) Dust Spot Method.
- Ensure construction work does not create indoor airborne contaminants.
- Require independent commissioning of HVAC (Heating, Ventilation and Air Conditioning) systems and equipment.
- Design details or systems to ensure that harmful gases cannot enter a building, where radon and soil gasses are a potential indoor air pollutant.

24. **Ongoing Maintenance and Regular Inspections**

- Ensure building finishes and equipment are inspected on a regular basis (at the very least once a year).

- Ensure that all buildings and equipment are maintained to the manufacturer's recommendations.

**APPENDIX "H"
Building Bylaw No. 65, 2002**

Guide to the Bowen Island Municipality Building Bylaw

INTRODUCTION

This is a guide to the basic provisions of Building Bylaw No. 65, 2002 and is not intended to be a substitute for the full text of the bylaw.

PURPOSE

The British Columbia Building Code and the Building Regulations of British Columbia apply across the Province. Administration of the Code and the regulations, however, rests with the individual municipalities and regional districts.

The purpose of the Building Bylaw No. 65-2002 is to provide rules for the administration and enforcement of the Code and regulations within the Bowen Island Municipality in the interests of Public Health and safety of all citizens. The purpose is not, with respect to any individual homeowner or individual project to have the Bowen Island Municipality assume the role or functions of a design consultant or construction supervisor. It is not the Bowen Island Municipality's purpose in passing Building Bylaw No. 65-2002 to provide such services or to protect any person from economic loss in relation to construction within the Municipality. Such a role is beyond the financial and professional resources of the Municipality and would place an unfair burden on the taxpayers of the Bowen Island Municipality.

The Bowen Island Municipality's purpose is to provide a limited, interim, spot-checking function in the interest of the health and safety of the community as a whole.

I acknowledge that I have read and understand this guideline and have been given a copy for my personal records when I paid for the Building Permit No. _____.

Signature of property owner: _____
Signed
Printed name of property owner: _____
Date: _____

A copy of this guideline, signed by the property owner to be kept on the Building Permit File.

APPENDIX "I"
Building Bylaw 65, 2002

RAINWATER HARVESTING ON THE GULF ISLANDS
GUIDE for Regulating the Installation of Rainwater
Harvesting Systems – Potable and Non-Potable Uses

Bowen Island Municipal Council reviewed the proposed Guide at their July 10, 2006 Council meeting and intends that it be used as a **guide** for those who are doing building construction on Bowen Island. Council recognizes that the Guide may not apply in all situations but recommends that builders follow and try to incorporate it as closely as possible.

<http://www.islandstrustfund.bc.ca/currentprojects/rainwaterharvesting/publications/installationregulatingguide.pdf>