

overland drainage

**ALBERTA GOVERNMENT SERVICES
LAND TITLES OFFICE**

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ADVISORY

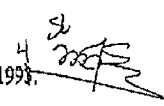
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9/10/7/82 REGISTERED 1994 03 29
DESC - RESTRICTIVE COVENANT
DOC 6 OF 6 DRRI: 4003497 ADR/VACOSSE

RESTRICTIVE COVENANT IN RESPECT OF OVERLAND
DRAINAGE, MITIGATION OF FLOODPLAIN
AND GROUNDWATER HAZARDS

PURSUANT TO SECTION 71(1) OF THE
LAND TITLES ACT (Article XIV)

THIS AGREEMENT made as of the 17th day of ^{January} ~~December~~, A.D. 1993. 

BETWEEN:

AUSTECH HOLDINGS INC., a corporation with offices at the
City of Calgary, in the Province of Alberta, (hereinafter referred
to as the "Grantor")

OF THE FIRST PART

- and -

THE TOWN OF COCHRANE, a Municipal Corporation in the
Province of Alberta, (hereinafter referred to as the "Municipality")

OF THE SECOND PART

WHEREAS the Grantor is registered as an owner in fee simple subject to
registered encumbrances, liens and interest, if any, of the lands in the Municipality described
in Schedule "A" attached hereto (collectively, the "Lands" and individually, a "Lot");

AND WHEREAS the Subdivision Approving Authority (as defined in the
Planning Act (Alberta)) approved the subdivision of certain lands owned by the Grantor, which
includes the Lands on the condition, amongst other things, that the Grantor enter into this
Agreement;

AND WHEREAS the Municipality is the owner of streets, lands and municipal
reserves adjacent or near to the Lands;

AND WHEREAS Section 71(1) of the *Lands Titles Act* (Alberta), provides that an owner may grant to himself an easement or restrictive covenant for the benefit of land which he owns and against land which he owns and the easement or restrictive covenant may be registered under the said Act;

NOW THEREFORE THIS AGREEMENT WITNESSES:

1. In this Agreement, including this paragraph, unless the context otherwise requires:
 - (a) "Benefitted Lands" means any one or more of the Lots in favour of which an easement or restriction is granted under this Agreement;
 - (b) "Burdened Lands" means the Lots which are the subject of an easement or restriction under this Agreement;
 - (c) "CMHC Guidelines" means Canada Mortgage and Housing Corporation's guidelines entitled "Construction in Flood Fringe Areas", which guidelines are attached as Schedule "D" hereto, or any parallel or successor guidelines;
 - (d) "Easement Area" means that portion or portions of the Lots described as such in Schedule "C" attached hereto;
 - (e) "Front Grade" means the landscaped ground elevation immediately adjacent to the foundation walls surrounding a dwelling house to be constructed on a Lot, established in accordance with the Grade Plan;
 - (f) "Grade Plan" means the elevation of the front yard, side yards and rear yard (as defined in the Town of Cochrane Land Use Bylaw, or any replacement or successor bylaw) of the Burdened Lands which elevations are established at the time of setting the grade plan by the Grantor (or its servants, agents or

consultants) which grade plan is filed with the Town of Cochrane under File # CO16-206;

- (g) "Lot" means any one of subdivided lots for which a title is issued and which is a part of the lands described in Schedule "A";
- (h) "Municipal Engineer" means a professional engineer or firm of professional engineers engaged by the Municipality from time to time for the purpose of providing engineering services to the Municipality;
- (i) "Owner" means the registered owner of any one or more of the Lots and "Owners" has a comparable meaning; and
- (j) "Parcel "B" Lot" means any of the Lots described in Schedule "B" attached hereto;
- (k) "1:100 ice jam level" means that level or area, or both, of groundwater flooding resulting, in whole or in part, from flooding or an ice dam, or both, naturally occurring within the Bow River Valley as predicted by Alberta Environment (or any other governmental agency subsequently charged with the responsibility of determining flood levels for the Bow River) which will occur on a statistically predicted basis once in any one hundred year period.

The Grantor, for itself and its successors in title, HEREBY ACKNOWLEDGES that the Lots were created by the approval of a subdivision of land, some of which is located near the flood fringe of the Bow River, which environment carries with it all of the geological and environmental risks associated with a riparian setting.

2. Subject to the terms and conditions herein contained and specifically paragraph 7(d) hereof, the Grantor, as registered owner in fee simple of the Parcels does for itself and its successors-in-title and assigns HEREBY COVENANT, AGREES AND GRANT unto itself for

the benefit of each Lot and their subsequent Owners (being the "Benefitted Lands") and unto the Municipality its employees, contractors, servants and agents, as owner of the streets, lanes and municipal reserves adjacent to the Lots, the following rights, privileges and easements in, under, over, across and through the remainder of the Lots (being the "Burdened Lands"):

- (a) the right to alter the surface grades on any of the Burdened Lands so that such surface grades conform to the Grade Plan;
- (b) to have ingress, egress and to pass and to repass over those portions of the Burdened Lands, either on foot or by means of a vehicle or necessary machine whatsoever, and to remain on any such portion of the Burdened Lands, in order to exercise any of the rights herein granted, provided always that such rights shall be exercised in a manner so as to cause as little damage as reasonably practicable to existing landscaping and structures.

3. The Grantor covenants and agrees for itself and its successors in title that with respect to the Burdened Lands it will not cause, maintain, suffer or permit:

- (a) the drainage system, including the overland drainage system established over the Easement Lands, the rear yard and the side yard grades, or any of them, to be altered from the Grade Plan without the written consent of the Municipal Engineer;
- (b) any significant deviation from the Grade Plan without the written consent of the Municipal Engineer;
- (c) dirt, fill, loam, gravel, paper debris, plant material, snow, ice or slush to accumulate on the Burdened Lands in such a manner that:
 - (i) the surface grades of the Burdened Lands are altered from the Grade Plan;

be altered in any fashion or manner which would result in such front grade being any less than one-half of one meter above the 1:100 year ice jam level and no development upon the Burdened Lands may be constructed except in accordance with such good engineering practices as may be required to overcome the adverse changes in ground water levels induced by a prolonged ice jam;

- (b) no development of any kind or nature which would, in the ordinary course, require the issuance of a building permit, be undertaken on any of the Lots unless such development incorporates:
 - (i) main floor elevations at least one half (0.5) metres above 1:100 ice jam flood level,
 - (ii) concrete basements with reinforced concrete floors approved and certified by a professional engineer,
 - (iii) insulation on the exterior of all basements having a top of footing grade less than or equal to the 1:100 ice jam flood level,
 - (iv) basements which incorporate properly installed and engineered:
 - (A) double damp proofing,
 - (B) perimeter weeping tile connected to a sump which sump is, in turn, connected to the storm water sewerage system in the Municipality,
 - (C) check valves incorporated into the connection between the sump and the storm water sewerage system for the Municipality, and

(D) sump pumps located in each sump connected to a dedicated electrical circuit with a discharge at no less than one-half metre above the 1:100 ice jam flood level,

(v) all mechanical equipment and main electrical service (including metering) and panels must be located a minimum of one half (0.5) metres above the 1:100 ice jam flood level;

or such other remedial actions and mitigative measures as may be approved by the Municipal Engineer to lessen the potential danger of flood induced ground water; and

(c) where the CMHC Guidelines are more onerous than the requirements set forth in subclause (b) hereof, no development on any of the Parcel "B" Lots shall be constructed except in conformity with the CMHC Guidelines.

7. (a) If any Owner of the Burdened Lands alters or maintains any surface grades other than those in the Grade Plan or those required by clause 6 hereof, the Municipality, the Grantor or any Owner of the Benefitted Lands may, at its option, serve a notice in writing on the Owner of the Burdened Lands requiring such Owner to remedy the default within such reasonable period of time as may be specified in the notice.

(b) If any Owner of the Burdened Lands develops the Burdened Lands contrary to paragraph 6, the Grantor or Municipality may, at its option, serve a notice in writing on the Owner of the Burdened Lands requiring such Owner to remedy the default within such reasonable period of time as may be specified in the notice.

(c) Subject to paragraph 7(d) hereof, if the Owner of the Burdened Lands fails to remedy such default within the time specified in the notice, the person who gave the notice shall have the right (but not the obligation under this Agreement) to

enter upon the Burdened Lands and remedy the default at the expense of such Owner of the Burdened Lands. The Owner of the Burdened Lands shall, upon demand, forthwith reimburse such person for all expenses incurred in remedying the default. Any dispute in regard to the costs incurred in remedying the default may be referred to arbitration in accordance with paragraph 8.

- (d) An Owner, other than the Grantor or the Municipality, shall not exercise any of the rights granted pursuant to paragraph 2 or in this paragraph 7 with respect to any Parcel unless such Owner has first obtained a judgement from a court of competent jurisdiction declaring that the Owner of the Parcel has failed to comply with a notice given pursuant to paragraph 7(a).

8. Any dispute as to any of the matters provided for in this agreement, excepting only whether an Owner has failed to comply with a notice given pursuant to paragraph 7(a), shall be settled and determined by an arbitrator appointed in the manner following, that is to say:

- (a) an arbitrator to be agreed upon by both parties failing which agreement the matter may be brought before a Justice of the Court of Queen's Bench of Alberta to appoint an arbitrator;
- (b) the appointment of an arbitrator, except one appointed by a Justice as herein provided, shall be in writing;
- (c) the arbitrator shall have the power to obtain the assistance, advice or opinion of such engineer, architect, surveyor, lawyer, appraiser, valuer or other expert consultant as they may think fit and shall have the discretion to act upon any assistance, advice or opinion so obtained;
- (d) the arbitrator award may include an award of costs and interest and, notwithstanding the provisions of the *Arbitration Act* (Alberta), the amount of

costs shall not be limited to the scale of rates provided in the *Arbitration Act* (Alberta);

- (e) each of the parties will do all acts and things and execute all deeds and instruments necessary to give effect to any award made upon any such arbitration; and
- (f) the decision of the arbitrator shall be final and binding upon the parties to this agreement.

9. Any and all Owners of the Benefitted Lands shall indemnify and save harmless the Grantor and the Municipality against all actions, claims and demands which may be made or brought against the Grantor or the Municipality by reason of anything done by such Owners, or any of them, in the exercise of the rights, privileges and liberties herein granted, or anyone using the easement with or without the permission of such Owner or occupier of the Benefitted Lands, whether such permission is express or implied, it being expressly understood and agreed that all persons using the easement do so entirely at their own risk.

10. Where more than one person enters into this Agreement as Grantor, all of the agreements, covenants, terms, provisos and conditions contained herein shall be construed as being both joint and several with respect to each such person.

11. Where the context so requires, the singular number shall be read as if the plural were expressed and the masculine or neuter gender as if the masculine, feminine or neuter were expressed.

12. If any covenant or term of this Agreement or the application thereto to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, other than the term or covenant or portion thereof which is invalid or unenforceable, shall not be affected thereby and each covenant or term of this Agreement shall be valid and in force to the extent permitted by law.

13. (a) This easement and the covenants, restrictions and conditions herein contained are and shall be deemed to be covenants running with the Parcels and annexed to the Parcels and this Agreement, including all of the covenants, terms and conditions herein contained, shall extend to and be binding upon and enure to the benefit of the Owners of the Parcels and their respective heirs, executors, administrators, successors, successors-in-title and assigned.
- (b) The rights, privileges and easements granted hereunder may be enforced by any one or more of the Owners of the Benefitted Lands, the Grantor and by the Municipality.
- (c) It is declared and agreed that the rights, privileges and easements granted to the Municipality hereunder are granted to the Municipality by virtue of its ownership of streets, lanes and municipal reserves adjacent or near to the Parcels.
14. (a) The recitals set forth above shall form part of this Agreement to the same extent as if repeated herein at length.
- (b) Schedules "A", "B", "C" and "D" attached hereto shall form part of this Agreement.
15. Time shall, in all respect, be of the essence of this Agreement.
16. Any notice, communication or request to be given to the Grantor or the Owners hereunder shall be in writing by registered mail, postage prepaid or by personal delivery to such person at the address for such person currently shown on the tax rolls of the Municipality; provided that if postal service is interrupted by strikes, slowdown or other cause, the notice, communication or request shall be delivered to the address to ensure prompt receipt.
17. No action shall be commenced against any person for damages or otherwise for breach of any one or more of the covenants contained in this Agreement which are alleged or

proven by a Court of competent jurisdiction to be in breach of this Agreement, unless such person is registered as Owner of the Burdened Lands in respect of which the breach has occurred at the time of commencement of the action. The covenant shall constitute an absolute defence of any such action and may be pleaded as such.

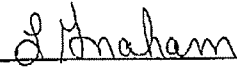
IN WITNESS WHEREOF the parties hereto have executed these presents under seal as to the day and year first above written.

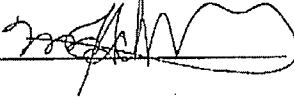
AUSTECH HOLDINGS INC.

Per:  _____

Per: _____

THE TOWN OF COCHRANE

Per:  _____

Per:  _____

SCHEDULE "A"

TO RESTRICTIVE COVENANT IN RESPECT OF
OVERLAND DRAINAGE, MITIGATION OF OVERLAND DRAINAGE AND
MITIGATION OF FLOODPLAIN AND GROUNDWATER HAZARDS

PURSUANT TO SECTION 71 (1) OF THE *LAND TITLES ACT*

Those portions of the Lands legally described as follows:

Firstly:

Plan 941 0667
Block 1
Lots 4 to 13, 15 to 17 and 78-82 inclusive

Excepting thereout all mines and minerals

Secondly:

Plan 941 0667
Block 2
Lots 2 to 15 inclusive

Excepting thereout all mines and minerals

SCHEDULE "B"

TO RESTRICTIVE COVENANT IN RESPECT OF
OVERLAND DRAINAGE, MITIGATION OF OVERLAND DRAINAGE AND
MITIGATION OF FLOODPLAIN AND GROUNDWATER HAZARDS

PURSUANT TO SECTION 71 (1) OF THE *LAND TITLES ACT*

Those portions of the Lands legally described as follows:

Plan 941 *0667*
Block 1
Lots 10 to 13 and 15 to 17

Excepting thereout all mines and minerals

SCHEDULE "C"

TO RESTRICTIVE COVENANT IN RESPECT OF
OVERLAND DRAINAGE, MITIGATION OF OVERLAND DRAINAGE AND
MITIGATION OF FLOODPLAIN AND GROUNDWATER HAZARDS

PURSUANT TO SECTION 71 (1) OF THE *LAND TITLES ACT*

Those portions of the Lands legally described as follows:

Firstly:

Plan 941 0667
Block 2
Lots 2-15 inclusive

SCHEDULE "D"

TO RESTRICTIVE COVENANT IN RESPECT OF
OVERLAND DRAINAGE, MITIGATION OF OVERLAND DRAINAGE AND
MITIGATION OF FLOODPLAIN AND GROUNDWATER HAZARDS

PURSUANT TO SECTION 71(1) OF THE *LAND TITLES ACT*

**Building options for NHA
financing**

**Option 1: Using rock or earth fill
to raise the elevation of a building.**

Buildings constructed on compacted filled land should not be raised to a height that is out of keeping with surrounding buildings. To be eligible for NHA financing, these buildings must also meet the requirement listed below:

1. Footing sizes must be designed in conformance with Section 4.2 of the *National Building Code of Canada*.

**Option 2: Raising a building on
posts, piles or piers.**

To be eligible for NHA financing, buildings raised on posts, piles or piers must meet the requirements listed below:

1. The system must be able to resist all the effects of loads and influences that may be expected from flooding, and must satisfy the requirements of Part 4 of the *National Building Code of Canada*.
2. The designer of the building must be a professional engineer or architect skilled in such design and licensed to practise under the appropriate provincial or territorial legislation.

**Option 3: Allowing the basement
to be flooded.**

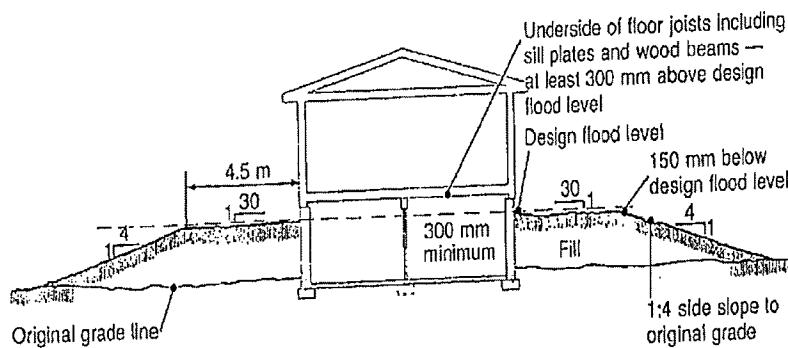
Deliberately allowing the basement to be flooded means that water pressure will be equalized within and without the building during a flood, so that the foundation walls will not collapse from the force of the water outside.

If a basement is designed to be filled with water, however, certain precautions must be taken. The structural materials must be able to resist water damage and must be securely anchored so that they will not float. Difficult-to-clean places — crawl spaces, for example — should be eliminated. Exterior insulation and finish materials must be impervious to water and easy to clean. Flammable and other dangerous materials and mechanical fixtures should not be stored in the basement. The water supply must be safe from contamination, and water and waste disposal guarded against the interruption of sewer services.

CMHC has set certain requirements that must be met if you are planning to use Option 3. If strictly followed, these requirements will enable your property to withstand the ravages of flooding and be reasonably easy to restore to dryness, cleanliness and soundness after the flood. The requirements are listed below.

Backfill

1. Backfill must be placed in accordance with Subsection 9.12.13 of the *National Building Code of Canada*.
2. Backfill must be graded at least up to the design flood level* at the exterior of the foundation wall.
3. Backfill must be graded away from the foundation at a slope not exceeding 1 in 30 for a distance of at least 4.5 metres, after which it can be increased to a 1 in 4 slope down to the original grade.



Legend

$\frac{1}{4}$ means a slope of 1 metre vertically to 4 metres horizontally

$\frac{1}{30}$ means a slope of 1 metre vertically to 30 metres horizontally

Note: Placing fill up to the design flood level over the entire site is the preferred alternative

Proper placement of fill.

* The design flood level may also be referred to as the flood-protection level.

Footings and foundations

4. Footings and foundation walls must be cast-in-place concrete.
5. Footings, foundation walls and floor slabs-on-ground must be designed to resist all the effects of loads and other influences that might be expected during a flood, including hydrostatic pressure, and must satisfy the requirements of Part 4 of the *National Building Code of Canada*. The designer must be a professional engineer or architect skilled in such design and licensed to practise under provincial and territorial legislation.
6. The clear height from the top of the basement concrete slab-on-ground to the underside of the first-storey floor system, including the beam, must be not less than 1930 mm.
7. Basement or cellar walls must have at least two openable windows. These must be on opposite sides of the building. The top of the window sills must be no higher than 150 mm below grade.
8. Basement or cellar walls and floors must not have any finishing materials covering the concrete.
9. Basements must not contain habitable space, or be used for the storage of immovable objects or hazardous materials that are buoyant, flammable, explosive or toxic.
10. Foundation insulation must be applied to the exterior of the walls and be fastened to prevent detachment during flooding.

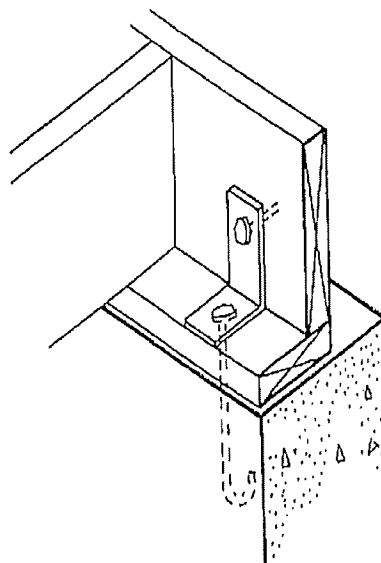
Floor construction

11. All ground within the foundation walls must be covered by a concrete slab constructed in accordance with Section 9.16 of the *National Building Code of Canada*.
12. The top of a structural slab-on-ground supporting habitable portions of a building must be at least 300 mm above the design flood level; a statement to this effect has to be contained in the surveyor's certificate submitted to CMHC.
13. Load-bearing floor slabs-on-ground must be designed in accordance with Part 4 of the *National Building Code of Canada*; the designer must be a professional engineer or architect skilled in such design and licensed to practice under the appropriate provincial or territorial legislation.
14. The underside of floor joists and sill plates supporting the habitable portions of a building must be at least 300 mm above the design flood level; a statement to this effect has to be contained in the surveyor's certificate submitted to CMHC.

15. The underside of wood beams supporting floors must be at least 300 mm above the design flood level.
16. Columns supporting floor loads must be steel, as is required in Section 9.17 of the *National Building Code of Canada*.
17. Load-bearing walls constructed below the design flood level must be cast-in-place concrete.

Anchorage

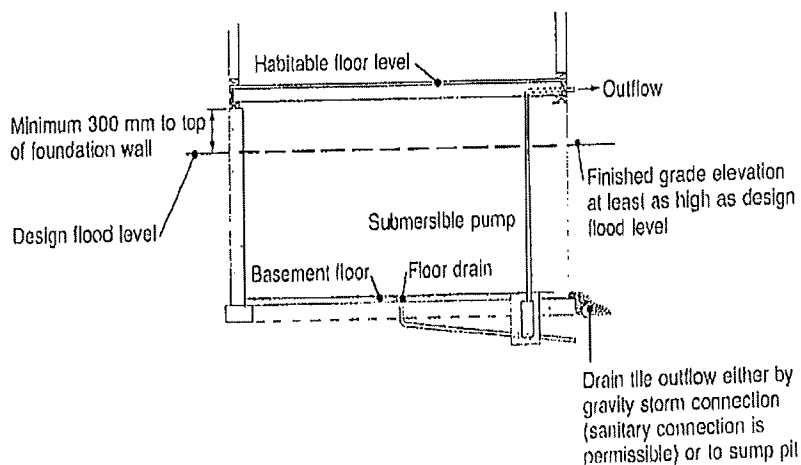
18. Wood and steel frame buildings must be anchored to the foundation to prevent the unit from floating off the foundation, should the design flood level be exceeded.
19. Exterior walls built on floor slabs-on-ground must be anchored in accordance with Subsection 9.23.26 of the *National Building Code of Canada*.
20. First-floor joists must either have the ends embedded in the concrete foundation or the header joist mechanically fastened to the sill plate anchor bolts, or employ some other system providing equivalent protection.



Suitable anchorage.

Basement or cellar drainage system

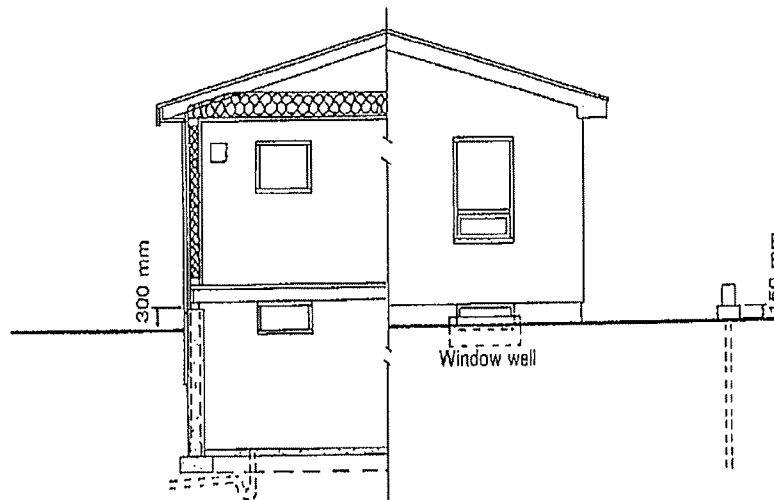
21. A covered sump pit with an automatic submersible pump must be provided in all basements or cellars. Such a unit may be required if the normal water table is high; in a flood situation it will keep the basement relatively free of water until it is purposely flooded.
22. The outflow pipe must discharge above the design flood level.
23. A separate electrical circuit must be provided for the sump pump, and the operating switch must be located above the design flood level. Before the flood waters reach the basement window level, the sump pump can be shut off at the electrical service box, and the pump disconnected and stored above the flood level.
24. Granular material under the basement or cellar slab must be graded so that the entire area is drained to the sump pit.
25. Basement or cellar slabs must have a positive slope to the floor drain.
26. The sump pump may be connected to a municipal storm sewer but must not be connected to a municipal sanitary sewage system. When the sump is connected to the storm sewer and when the building's sanitary drains are connected to municipal services, back-water valves should be installed to prevent back up into the basement.



Correct basement or cellar drainage system.

Measures for continued occupancy

- 27. Units serviced by drilled wells must either have the required well casing extend upwards for at least 150 mm above the design flood level if the well is vented, or have the well casing sealed at the top.
- 28. Waste connections for plumbing facilities must not be installed below the design flood level.
- 29. Central heating units, such as oil, gas or electric forced-air furnaces, including all ductwork and service water heaters, must not be installed below the design flood level.
- 30. Electrical service panels must be located above the design flood level. Electrical circuits servicing areas below the design flood level must be on separate circuits, and be capable of being disconnected.



- 1. Cast-in-place concrete designed by a professional engineer or architect
- 2. Foundation insulation on exterior side
- 3. Frame buildings adequately anchored to concrete foundation wall
- 4. Electrical panel and heating units above flood level
- 5. Underside of floor 300 mm above design flood level
- 6. Openable basement window not higher than 150 mm below grade
- 7. Basement wall and floor unfinished
- 8. Basement drainage *not* connected to municipal sewage system
- 9. Well casing extending 150 mm above the design flood level
- 10. Finished grade elevation at least as high as the design flood level.

Building section in relation to design flood level, showing all requirements listed under Option 3.