

Section 5.7. Surface and Ground Water

(See Note A-5.7.)

5.7.1. Site Factors

5.7.1.1. Application

1) This Subsection applies to the location of *buildings*, the grading of *building* sites, the directing of water away from *building* assemblies, and the provision of means for drainage.

5.7.1.2. Required Protection

1) The *building* shall be located, the *building* site shall be graded, or water shall be directed away from *building* assemblies so as to prevent or accommodate the accumulation of surface water against the *building* or adjacent *buildings*.

2) Drainage shall be provided to direct water away from assemblies separating interior space from the ground, except

- a) where the assembly is designed in accordance with Subsection 5.7.2. to withstand continuous hydrostatic pressure, or
- b) where it can be shown that the lack of drainage will not adversely affect
 - i) the health or safety of *building* users,
 - ii) the intended use of the *building*, or
 - iii) the operation of *building* services.

(See Note A-5.7.1.2.(2).)

5.7.2. Protection against Hydrostatic Pressure

5.7.2.1. Application

1) This Subsection applies to waterproofing materials, components, assemblies and systems applied to *building* assemblies that separate dissimilar environments and are subjected to hydrostatic pressure.

5.7.2.2. Design of Building Elements Under Hydrostatic Loads

1) Waterproofing materials, components, assemblies and systems described in Article 5.7.2.1. shall be designed in accordance with Subsection 5.1.4.

2) Hydrostatic design loads shall be determined in accordance with Subsection 5.2.2.

5.7.2.3. Required Protection

1) Waterproofing materials, components, assemblies and systems described in Article 5.7.2.1. shall comply with Article 5.7.3.2.

5.7.3. Protection against Ground Water

5.7.3.1. Application

1) This Subsection applies to the protection of *building* assemblies that separate interior space from the ground.

5.7.3.2. Required Protection

1) Except as provided in Sentence (2) and Article 5.7.3.4., *building* assemblies described in Article 5.7.3.1. shall be protected by waterproofing in accordance with Article 5.7.3.3. so as to prevent the ingress of water into the *building* or the accumulation of water against the *building*.

2) Waterproofing is not required where it can be shown that

- a) a *building* is designed to accommodate the ingress or accumulation of water, or

- b) the ingress or accumulation of water will not negatively affect
 - i) the health or safety of *building* users,
 - ii) the intended use of the *building*, or
 - iii) the operation of *building* services.

5.7.3.3. Waterproofing

- 1) Waterproofing materials, components, assemblies, or systems installed to provide the required protection shall form a continuous and impervious barrier to the ingress of water and be capable of accommodating
- a) imperfections, construction joints, control joints and expansion joints (see Note A-5.7.3.3.(1)(a)),
 - b) junctions between different *building* assemblies, and
 - c) elements penetrating *building* assemblies.

5.7.3.4. Where Dampproofing is Permitted

- 1) Vertical *building* assemblies that separate interior space from the ground are permitted to be dampproofed where
- a) such assemblies are not subjected to hydrostatic pressure,
 - b) the substrate is cast-in-place concrete, and
 - c) a drainage layer is installed between the *building* assembly and the *soil*.
- (See Note A-5.7.3.4.(1).)
- 2) Joints, junctions and penetrations shall be designed and constructed to maintain the continuity of the dampproofing.