(2) The person causing the excavation referred to in subclause (1) to be made shall, seven days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of his intention to do so to the owner of the adjoining allotment of land and shall at the same time furnish to such owner particulars of the work he proposes to do.

GROUP VI—STRUCTURAL PROVISIONS

PART 32—Foundations

32.1. The adequacy of foundations shall be assessed on the basis of—

(a) well established and relevant local knowledge and experience of foundation conditions in the vicinity of the proposed building; or

(b) tests on the foundation or the materials comprising the foundation.

32.2. Foundations shall be treated or excavations taken to the depths necessary to provide adequate support to the loads superimposed by the building.

32.3. (1) The bearing pressures on the foundation of a building shall not exceed the values given in Table 32.3 unless a foundation investigation has been carried out by a person or body approved by the Council, and the Council is satisfied, in the light of the report on that investigation, that higher bearing pressures are justified.

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Allowable bearing pressures in kilopascals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Made ground</td>
<td>0–300</td>
</tr>
<tr>
<td>Soft clay or loam</td>
<td>100</td>
</tr>
<tr>
<td>Confined wet sand</td>
<td>150</td>
</tr>
<tr>
<td>Medium clay or sandy clay</td>
<td>200</td>
</tr>
<tr>
<td>Hard dry clay or dense sand</td>
<td>300</td>
</tr>
<tr>
<td>Soft shale</td>
<td>400</td>
</tr>
</tbody>
</table>
### TABLE 32.3—continued

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Allowable bearing pressures in kilopascals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weathered rock or medium shale</td>
<td>600</td>
</tr>
<tr>
<td>Shale rock at 600 mm from the boundary</td>
<td>1 000</td>
</tr>
<tr>
<td>Shale rock at the boundary</td>
<td>650</td>
</tr>
<tr>
<td>Soft sandstone, free of defects to a depth of 450 mm and with</td>
<td></td>
</tr>
<tr>
<td>a total seam thickness not exceeding 20 mm for the next 450 mm of depth,</td>
<td></td>
</tr>
<tr>
<td>where the footing is 900 mm or more from the boundary</td>
<td>1 300</td>
</tr>
<tr>
<td>Soft sandstone, free of defects to a depth of 450 mm and with</td>
<td></td>
</tr>
<tr>
<td>a total seam thickness not exceeding 20 mm for the next 450 mm of depth,</td>
<td></td>
</tr>
<tr>
<td>where the footing is at the boundary</td>
<td>850</td>
</tr>
<tr>
<td>Medium sandstone, free of defects to a depth of 600 mm and with</td>
<td></td>
</tr>
<tr>
<td>a total seam thickness not exceeding 20 mm for the next 600 mm of depth,</td>
<td></td>
</tr>
<tr>
<td>where the footing is 1 200 mm or more from the boundary</td>
<td>2 100</td>
</tr>
<tr>
<td>Medium sandstone, free of defects to a depth of 600 mm and with</td>
<td></td>
</tr>
<tr>
<td>a total seam thickness not exceeding 20 mm for the next 600 mm of depth,</td>
<td></td>
</tr>
<tr>
<td>where the footing is at the boundary</td>
<td>1 400</td>
</tr>
<tr>
<td>Hard sandstone, free from defects to a depth of 900 mm and with</td>
<td></td>
</tr>
<tr>
<td>a total seam thickness not exceeding 20 mm for the next 900 mm of depth,</td>
<td></td>
</tr>
<tr>
<td>where the footing is 1 800 mm or more from the boundary</td>
<td>3 200</td>
</tr>
<tr>
<td>Hard sandstone, free from defects to a depth of 900 mm and with</td>
<td></td>
</tr>
<tr>
<td>a total seam thickness not exceeding 20 mm for the next 900 mm of depth,</td>
<td></td>
</tr>
<tr>
<td>where the footing is at the boundary</td>
<td>2 100</td>
</tr>
<tr>
<td>Hard igneous rock free from gas holes</td>
<td>4 300</td>
</tr>
<tr>
<td>Massive crystalline bed rock</td>
<td>8 500</td>
</tr>
</tbody>
</table>

(2) Where it is proposed to exceed a bearing pressure of 50 kPa on a foundation of made ground the Council may require evidence from a practising structural engineer approved by the Council that the foundation is adequate to support the loads to be superimposed by the building.
(3) Where it is proposed to erect the footings of a building between the boundary and—

(a) a point 600 mm from the boundary in the case of a foundation of shale rock; or

(b) a point 900 mm from the boundary in the case of a foundation of soft sandstone; or

(c) a point 1200 mm from the boundary in the case of a foundation of medium sandstone; or

(d) a point 1800 mm from the boundary in the case of a foundation of hard sandstone,

the allowable bearing pressures shall be determined by simple interpolation.

(4) Notwithstanding anything to the contrary in this clause, where a foundation consists of highly swelling soil, collapsing sand or other unstable material, the Council may require special procedures to be used in the design and construction of the footings of the building.

(5) Notwithstanding anything to the contrary in this clause, if the Council has reason to believe that in respect of a particular site the figures—

(a) quoted in Table 32.3; or

(b) determined pursuant to subclause (3) of this clause,

are excessive, it may require that the foundation be tested to determine the allowable bearing pressure.

GROUP VI—STRUCTURAL PROVISIONS

PART 33—Footings Not on Piling or Caissons

33.1. Suitable footings shall be provided where necessary to reduce the intensity of the pressure of the building on the foundations.

33.2. Footings, including slab-on-ground footings, shall be designed and constructed so that any relative movements of separate footings and of different parts of any one footing under
loading, or of a footing and any other element of the substructure will not impair the stability of or cause significant structural damage to the superstructure.

33.3. (1) In a Class I building, or a Class X building appurtenant to a Class I building, footings constructed in accordance with the relevant provisions of this clause shall be deemed to comply with clause 33.2 except where, by reason of—

(a) the nature of the foundation;
(b) the design of the building; or
(c) any other relevant considerations,

the Council is of opinion that such footings would not be adequate in the particular case.

(2) For the purposes of Part I of Table 33.3 (5) the height of the wall shall be measured from the top of the strip footing to the top of the masonry component of the wall disregarding the gable, if any.

(3) Concrete used in footings constructed according to this clause shall have a compressive strength at 28 days (F’c) of not less than 15 MPa, determined in accordance with the provisions of AS 1480.

(4) Steel reinforcement in footings, where required by this clause shall comply with the following:

(a) (i) steel bars shall comply with AS 1302; or

(ii) steel reinforcing fabric shall comply with the requirements for either Mesh Ref. No. F 818 or Trench Mesh Ref. No. F 8TM as provided in AS 1304; and

(b) ..............................................................

(c) reinforcement in footings shall—

(i) be equally distributed in two layers, one near the top and one near the bottom of the footings;

(ii) have a concrete cover of not less than 50 mm at any part;
(iii) be laid continuously in the footings, each layer being lapped—

(A) at intersections, for its full width;
(B) at splices, for not less than 450 mm; and
(C) at steppings, as shown in Figure 33.3; and

(iv) be securely tied to 6 mm diameter steel spacers positioned at not more than 1 200 mm centres.

(5) Strip footings constructed of reinforced concrete shall—

(a) have a width and depth according to Part I of Table 33.3 (5);

(b) if stepping is necessary, comply with one or more of the methods shown in Figure 33.3 and have level bottoms between steppings; and

(c) be reinforced according to Part II of Table 33.3 (5) and Figure 33.3.

### TABLE 33.3 (5)

<table>
<thead>
<tr>
<th>PART I—CROSS-SECTIONAL DIMENSIONS OF REINFORCED CONCRETE STRIP FOOTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal thickness of masonry component of wall to be supported—</td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>Masonry, one storey building, height of the wall (according to subclause (2)) not exceeding 4 200 mm excluding any gable</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Masonry veneer, one storey building, height of the wall (according to subclause (2)) not exceeding 4 200 mm excluding any gable</td>
</tr>
<tr>
<td>Masonry veneer, two storey building, height of the wall (according to subclause (2)) not exceeding 7 200 mm excluding any gable</td>
</tr>
</tbody>
</table>
TABLE 33.3 (5)—continued

**PART I—CROSS-SECTIONAL DIMENSIONS OF REINFORCED CONCRETE STRIP FOOTINGS—continued**

| Construction                                                                 | Nominal thickness of masonry component of wall to be supported—not more than | Size of concrete (width x depth in mm) | Other foundations
|                                                                              |                                                                                 | For stable soil foundations such as sand or gravel | not subject to significant movement or loss of stability with climatic changes |
|                                                                              | mm                                                                               |                                             |                                           |
| Frame construction (timber or metal studs), one storey building—for foundation wall not exceeding 1500 mm high, measured from the top of the strip footing | 110                                                                               | 230 x 150      | 230 x 200        |
| Frame construction (timber or metal studs), two storey building—for foundation wall not exceeding 1500 mm high measured from the top of the strip footing | 110                                                                               | 300 x 250      | 300 x 300        |

**PART II—REINFORCEMENT FOR STRIP FOOTINGS**

<table>
<thead>
<tr>
<th>Width of strip footing</th>
<th>Minimum number of main wires per layer using Ref. No. F 818 or Ref. No. F 8 TM fabric</th>
<th>Minimum number of 10 mm diameter bars per layer</th>
<th>Minimum number of 12 mm diameter bars per layer</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>300</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>380</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>450</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

(6) Brick or concrete block freestanding piers shall have brick, concrete block or concrete footings—
(a) not less than 150 mm in depth; and
(b) projecting not less than 50 mm beyond each face of the piers.
(7) Brick footings shall comply with the following:

(a) the bottom of every footing shall project on each side of the wall which it supports by a distance of not less than one-half the thickness of such wall at its base;

(b) such projection may be omitted—

(i) where an adjoining wall interferes with the projection; or

(ii) where the wall which the footing is to support is to be erected adjoining the boundary of the land and the projection would otherwise encroach upon adjoining land;

(c) any diminution of a footing shall be in regular offsets; and

(d) the distance from the bottom of the footing to the base of the wall supported shall be—

(i) not less than two-thirds the thickness of such wall at its base; and

(ii) not less than 225 mm in any case.
Ordinance No. 70—Local Government Act 1919

FIGURE 33.3

GROUP VI—STRUCTURAL PROVISIONS

PART 34—Piling and Caissons

34.1. This Part shall not apply to piers or stumps used as a substructure above ground level in which such piers or stumps are designed to transmit the loads of the superstructure to the footings or foundation.

34.2. Substructures wholly or partly of piling or caissons shall be so designed and constructed that any relative movements of the substructure or of separate parts of the substructure will not impair the stability of or cause significant structural damage to the superstructure.

34.3. (1) Piles shall be—

(a) designed and constructed to resist the forces involved in handling and driving and in supporting all loads superimposed on the piles; and

(b) of timber, concrete, steel or other approved material or any approved combination thereof.
34.4. Piles designed and installed in accordance with the relevant provisions of AS 2159 shall be deemed to satisfy the requirements of this Part.

GROUP VI—STRUCTURAL PROVISIONS

PART 35—Walls—General Requirements

35.1. (1) For the purposes of this clause “loadbearing wall construction”, applied to a building, means that type of construction in which loadbearing walls are designed as the principal means of transmitting downwards throughout the height of the building its dead and live loads.

(2) This clause shall apply to every building of loadbearing wall construction in which the level of the floor of the topmost storey is more than 11 m above the lowest level of the finished ground adjacent to the building.

(3) Every building to which this clause applies shall comply with one of the following alternative rules:

(a) The building shall be provided with horizontal continuity at every floor level by means of—

(i) a concrete floor cast in situ capable of resisting all the negative bending moments specified for such a floor by AS 1480; or

(ii) a floor comprising precast concrete units connected in such a manner as to be capable of resisting all the negative bending moments specified by AS 1480 for a reinforced concrete floor cast in situ.

(b) The building shall be so constructed that the floors, together with the loadbearing walls, shall be capable of resisting bending moments which are equivalent, in their effect, to the negative bending moments specified by AS 1480 for a reinforced concrete floor cast in situ.
(c) The building shall be so constructed that if any part of a loadbearing wall, 6 m in length and not exceeding in height the height of the storey in which it is located, is removed or displaced from any cause whatsoever, the stresses developed in the remaining parts of the wall shall not exceed normal working stresses by more than 25 per cent and the remaining structural parts of the building shall be held in place.

(4) If the Council is not otherwise able to satisfy itself that a building, to which this clause applies, complies with one of the alternative rules referred to in subclause (3) of this clause, it may require the submission of a certificate by a practising structural engineer approved by the Council, that the proposed building will so comply.

GROUP VI—STRUCTURAL PROVISIONS

PART 36—Walling of Masonry

36.1. (1) For the purposes of this Part the combined thickness of the inner and outer leaves of a cavity wall shall be deemed to be the thickness of the wall.

(2) The external walls of a building, if of masonry construction, shall be designed and constructed in accordance with the relevant provisions of this Part and shall be not less than 200 mm in thickness except—

(a) in the case of Clause VII or VIII buildings where the Council permits the use of external walls having a thickness of less than 200 mm; or

(b) in the case of single storey buildings or the topmost storey of multi-storey buildings where cavity wall construction is used and the combined thickness of the inner and outer leaves is not less than 190 mm; or

(c) in the case of Class X buildings or of garages, laundries, tool sheds, privy closets and the like forming portion of a building used for other purposes.
(3) The Council may require a certificate from a practising structural engineer approved by the Council as to the structural adequacy of any wall less than 200 mm in thickness if—

(a) the wall exceeds 3 m in height; or

(b) the Council is unable for any reason to satisfy itself that the wall will be structurally adequate.

36.2. (1) Masonry of—

(a) burnt clay and shale bricks;

(b) calcium silicate bricks; and

(c) concrete bricks,

shall be designed and erected in accordance with AS 1640.

(2) In addition to the requirements of subclause (1) the following provisions shall apply:

(a) The compressive strength figures used in the design calculations shall be based on the known compressive strength of the bricks to be used in the walls.

(b) If the known compressive strength of the bricks exceeds 48 MPa the design calculations shall be based on a maximum figure of 48 MPa.

(c) Bricks shall comply with the following transverse strength requirements, according to the figures used in the design calculations for the compressive strength of the bricks—

(i) Compressive strength not exceeding 24 MPa—no brick shall have a transverse strength of less than 1.7 MPa and the average transverse strength of the bricks shall be not less than 2 MPa.

(ii) Compressive strength exceeding 24 MPa—no brick shall have a transverse strength of less than 1.9 MPa and the average transverse strength of the bricks shall be not less than 2.7 MPa.

(d) The Council may require the submission of evidence that the bricks meet the relevant requirements of paragraph (c) and that the compressive strength of the bricks is not less than that used in the design calculations.
Ordinance No. 70—Local Government Act 1919

(3) For the purposes of this clause the following provisions of AS 1640 shall not apply:

(a) The definition of “Clay brick” in rule 1.4;
(b) Rule 2.1.2—Clay Bricks;
(c) Rule 2.3—Damp-proof Courses, Flashings and Weatherings;
(d) Rule 3.7—Prevention of Moisture Penetration;
(e) The second Paragraph of rule 5.1—Supervision;
(f) Rule 6.4—Determination of Minimum Compressive Strength of Bricks;
(g) Rule 6.5—Determination of Initial Rate of Absorption of Bricks; and
(h) Rule 6.9—Sound Insulation Tests.

(4) Notwithstanding anything to the contrary in this clause masonry in a building having a rise of not more than two storeys may be designed and erected in accordance with such specification issued or approved by the Minister as may be appropriate thereto.

36.3. (1) Reinforced concrete block masonry (in this clause referred to as “reinforced blockwork”) shall be designed and erected in accordance with AS 1475 (Part 2).

(2) For the purposes of this clause, the following provisions of AS 1475 (Part 2) shall not apply:

(a) paragraph (b) of Clause 1.6—Preliminary Information to be Provided in Drawings;
(b) Clause 1.7.1.2—Design and Supervision (Structural design of reinforced blockwork);
(c) Clause 2.4.1—Grout (General);
(d) Clause 2.4.2—Grout (Ready-mixed Grout);
(e) Clause 2.4.3—Grout (Site-mixed Grout);
(f) Clause 2.4.4—Grout (Sampling and Testing);
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(g) those parts of Clause 4.13.2.1—Reinforcement (Minimum cover)—which give any recognition to the application of membranes or protective treatments to the exposed face of reinforced blockwork as a means of reducing the cover that would otherwise be required by that Clause;

(h) Clause 4.13.2.2—Reinforcement (effect of shell thickness); and

(i) Clause 4.13.2.3—Reinforcement (minimum clearance to masonry surface).

(3) In addition to complying with subclause (1), reinforced blockwork shall comply with the following requirements:

(a) the design of reinforced blockwork shall be the responsibility of a practising structural engineer experienced in the design of reinforced blockwork;

(b) grout used to fill cores in reinforced blockwork shall comply with the provisions of Parts 4 and 7 of AS 1480 and shall have a characteristic strength of 20 MPa;

(c) the shell thickness of the concrete blocks shall not be counted in calculating the cover of reinforcement required by AS 1475 (Part 2);

(d) reinforcement other than bed-joint reinforcement shall not be used in reinforced blockwork of less than 150 mm nominal thickness;

(e) reinforced blockwork walls of less than 300 mm nominal thickness shall have only one horizontal bar in any horizontal plane, and only one vertical bar in any core, and horizontal bars shall be placed one above another in a vertical plane for ease of core filling;

(f) reinforced blockwork walls subject to exposure condition 2 or 3 of Clause 4.13.2.1 of AS 1475 (Part 2) shall have a nominal thickness of at least 200 mm (except where only light-gauge bed-joint reinforcement is used) and both vertical and horizontal bars shall be separated from the blockwork shell by grout having a thickness of not less than the cover specified by that Clause;

60220—13991—15
(g) in reinforced blockwork walls subject to exposure condition 2 or 3 of Clause 4.13.2.1 of AS 1475 (Part 2), horizontal bars may be omitted provided vertical movement joints are placed in the walls at not more than 6 m centres;

(h) the height of the pour for core filling shall be such that segregation of the grout does not occur and proper compaction takes place;

(i) all reinforced cores shall be vibrated or otherwise treated so as to ensure full compaction of the grout;

(j) prior to filling, all reinforced cores shall be thoroughly rodded so as to dislodge mortar projections and all mortar debris shall be removed;

(k) where vertical starter bars are provided at the base of walls, they shall be accurately positioned by means of templates; and

(l) vertical bars in walls shall be held in position at the base and at suitable intervals above the base by tying them to starter-bars, or by other suitable means, so as to prevent displacement during the filling of the cores, and shall be held in position in such a manner that the maximum spacing of the points of restraint does not exceed—

(i) 1.8 m for Y12 bars;
(ii) 2.4 m for Y16 bars;
(iii) 3.0 m for Y20 bars; and
(iv) 3.6 m for Y24 bars.

36.4. (1) Unreinforced concrete block masonry shall be designed and erected in accordance with AS 1475 (Part 1).

(2) In addition to complying with the requirements of subclause (1) a free standing wall shall be designed and erected so as to have a height to thickness ratio of not more than 8 except—

(a) where a membrane type damp-proof course is inserted near the base in which case such ratio shall be not more than 5; or
(b) where it is in the nature of a parapet in which case such ratio shall be not more than 3.

(3) For the purposes of this clause a "free standing wall" shall mean a wall not subject to any superimposed load other than wind load and having no effective lateral support.

36.5. (1) The Council may permit the erection of buildings of Special masonry construction in which—

(a) the walls are less than the minimum thickness prescribed in clauses 36.1, 36.2, 36.3 or 36.4; or

(b) the masonry is not built of—

(i) burnt clay and shale bricks; or
(ii) concrete bricks; or
(iii) calcium silicate bricks; or
(iv) concrete blocks,

if such buildings are constructed in accordance with the requirements of this clause.

(2) If the masonry described in subclause (1) is—

(a) loadbearing—the building shall not contain more than 2 storeys;

(b) non-loadbearing—the masonry shall be fully supported at the level of every floor by—

(i) frame construction; or
(ii) rigid construction effectually functioning as frame construction; or
(iii) brickwork masonry complying with clause 36.2; or
(iv) concrete block masonry complying with clause 36.3 or 36.4.
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(3) In the case of any proposal to build under the provisions of this clause, where the Council is not otherwise able to satisfy itself beyond doubt that the whole or any part is acceptable, it may require the submission of a certificate—

(a) by—

(i) a practising structural engineer; or
(ii) other person or body,

approved by the Council, certifying that when completed the building will be structurally sound; and

(b) setting forth in detail the bases on which it is given and the extent to which the engineer, person or body has relied on relevant specifications, rules, codes of practice or publications in respect of the construction.

36.6. Steel members supporting masonry over openings in external walls which are exposed to a high corrosion risk shall be protected by—

(a) hot-dip galvanising in accordance with AS 1650; or

(b) other means not less effective than galvanising as specified in paragraph (a).

GROUP VI—STRUCTURAL PROVISIONS

PART 37—Walling not of Masonry, Timber, or Veneer on Structural Framing

37.1. * * * * * *

37.2. (1) Walls not of masonry, timber, veneer on structural framing, concrete or steelwork shall be so designed as to ensure that they are structurally sound.

(2) In the case of any proposal to build under the provisions of this clause, where the Council is not otherwise able to satisfy itself beyond doubt that the whole or any part is acceptable, it may require the submission of a certificate—

(a) by—

(i) a practising structural engineer; or
(ii) other person or body,

approved by the Council, certifying that when completed the building will be structurally sound; and
(b) setting forth in detail the bases on which it is given and the extent to which the engineer, person or body has relied on relevant specifications, rules, codes of practice or publications in respect of the construction.

GROUP VI—STRUCTURAL PROVISIONS

PART 38—Floors

38.1. The floors of a building shall be so designed and erected as to be capable of carrying the dead and live loads to be imposed on them.

GROUP VI—STRUCTURAL PROVISIONS

PART 39—Roofs and roof structures

GROUP VI—STRUCTURAL PROVISIONS

PART 40—Structural concrete and steelwork

40.1. (1) All structures and members of concrete or steel shall be—

(a) designed and erected in accordance with the principles of structural mechanics; and

(b) capable of sustaining the most adverse combination of loads to which they will be subjected in accordance with the provisions of this Ordinance.

(2) The requirements of subclause (1) shall be deemed to be satisfied when structures and members of—

(a) unreinforced concrete, reinforced concrete or composite steel-concrete comply with AS 1480;

(b) prestressed concrete comply with AS 1481; or

(c) steel comply with AS 1250 or AS 1538, whichever is applicable.
40.2. In the case of any proposal to build under the provisions of this Part, where the Council is not otherwise able to satisfy itself beyond doubt that the whole or any part is acceptable, it may require the submission of a certificate—

(a) by—

(i) a practising structural engineer; or

(ii) other person or body,

approved by the Council, certifying that when completed the construction will be structurally sound; and

(b) setting forth in detail the bases on which it is given and the extent to which the engineer, person or body has relied on relevant specifications, rules, codes of practice or publications in respect of the construction.

40.3–40.5.

*          *          *

GROUP VI—STRUCTURAL PROVISIONS

PART 41—Timber Construction

41.1. (1) All structures and members of timber shall be—

(a) designed and erected in accordance with the principles of structural mechanics; and

(b) capable of sustaining the most adverse combination of loads to which they will be subjected in accordance with the provisions of this Ordinance.

(2) The requirements of subclause (1) shall be deemed to be satisfied when—

(a) structures and members of timber comply with—

(i) AS 1684; or

(ii) AS 1720,

to the extent that the Standard is applicable to the structure or member concerned;

(b) particleboard structural flooring is installed in accordance with AS 1860; and
(c) structures and members of timber in a Class X building having a floor area not more than 60 m² comply with—

(i) Sections I–V and the tables to CSIRO Specification No. 1 (Part 4) to the extent to which that Specification is applicable to the structure or member concerned; and

(ii) those provisions of AS 1684, which are not inconsistent with CSIRO Specification No. 1 (Part 4), to the extent that those provisions are applicable to the structure or member concerned.

41.2. In the case of any proposal to build under the provisions of this Part, where the Council is not otherwise able to satisfy itself beyond doubt that the whole or any part is acceptable, it may require the submission of a certificate—

(a) by—

(i) a practising structural engineer; or

(ii) other person or body,

approved by the Council, certifying that when completed the construction will be structurally sound; and

(b) setting forth in detail the bases on which it is given and the extent to which the engineer, person or body has relied on relevant specifications, rules, codes of practice or publications in respect of the construction.

41.3, 41.4. * * * *

GROUP VI—STRUCTURAL PROVISIONS

PART 42—Veneer on Structural Framing

42.1. (1) Timber structural framing, and timber members forming part of veneer on structural framing, shall comply with Part 41.

(2) Metal structural framing, and metal members forming part of veneer on structural framing, shall comply with Parts 40 and section 43.
Wall ties

(3) The outer veneer shall be tied to the structural framework so as to ensure that both the veneer and the framework will have a common mode of deflection when subjected to the lateral load requirements that apply to the framework by virtue of Part 30.

(4) The requirements of subclause (3) shall be deemed to be satisfied where masonry veneer comprises brickwork and is tied to the structural framework with metal wall ties complying with AS Int. 324 and fixed and spaced in accordance with Rule 3.9 of AS 1640.

Requirements deemed to be satisfied—brickwork

(5) The requirements of subclause (3) shall be deemed to be satisfied where the masonry veneer comprises unreinforced blockwork and is tied to the structural framework with metal wall ties complying with AS Int. 324 and fixed and spaced in accordance with Rule 3.9 of AS 1475 (Part 1).

Requirements deemed to be satisfied—blockwork

Wall cavities
Width

42.2. (1) The external walls shall be so constructed as to leave a clear space of not less than 25 mm between the veneer and the structural framework of the external walls and when this space exceeds 50 mm special measures shall be taken to secure the veneer to the framework.

25 mm

Mortar droppings

(2) Wire mesh fixed at the base of cavities in the external walls of masonry veneer construction shall be protected with paper or other material capable of collecting mortar droppings falling in the cavity during the time of construction of masonry above the level of the base of the cavity. Such paper or other material shall be removed from the cavity before any internal linings are fixed in position.

GROUP VI—STRUCTURAL PROVISIONS
PART 43—Other Kinds of Construction

Construction where specific provisions are non-existent

43.1. Where no specific provision is made for a system of construction in Group VI of this Ordinance the Council may approve of an application to erect a building if it is satisfied that the building when completed will be structurally sound.
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43.2. In the case of any proposal to build under the provisions of this Part, where the Council is not otherwise able to satisfy itself beyond doubt that the whole or any part is acceptable, it may require the submission of a certificate—

(a) by—

(i) a practising structural engineer; or
(ii) other person or body,

approved by the Council, certifying that when completed the construction will be structurally sound; and

(b) setting forth in detail the bases on which it is given and the extent to which the engineer, person or body has relied on relevant specifications, rules, codes of practice or publications in respect of the construction.

43.3. (1) All structures and members of aluminium shall be—

(a) designed and erected in accordance with the principles of structural mechanics; and

(b) capable of sustaining the most adverse combination of loads to which they will be subjected in accordance with the provisions of this Ordinance.

(2) The requirements of subclause (1) shall be deemed to be satisfied when structures and members of aluminium comply with AS 1664.

GROUP VII—HEALTH AND AMENITY

PART 44—Drainage of Building and Site

44.1. (1) The roof or roofs of every building shall be provided with a complete drainage system.

(2) The design and construction of every roof drainage system and the position and manner of discharge of every stormwater drain shall be to the satisfaction of the Council but shall not, in any case—

(a) result in the entry of water into the building; or
(b) unduly affect the stability of the building or any other building on the same site; or
(c) create any unhealthy or dangerous condition on the site.
(3) Notwithstanding subclause (1), the Council may permit the omission of a system of drainage from the whole or part of a roof if the Council is satisfied that such omission will not result in or create any of the conditions referred to in paragraphs (a), (b), and (c) of subclause (2).

Building on land subject to dampness

44.2. Where, in the opinion of the Council, the dampness of the site on which a building is proposed to be erected so warrants, the Council may require that one or all of the following measures shall be carried out:

(a) The subsoil shall be effectually drained.

(b) The surface of the ground beneath the building shall be regraded or filled and provided with adequate outlets to prevent any accumulation of water beneath the building.

(c) The ground beneath the building shall be covered with an approved damp-resisting material.

Drainage of land external to building

44.3. If paving, excavation, or any other work on the natural surface of the site on which a building is proposed to be erected will, in the opinion of the Council, cause undue interference with the existing drainage of rain-water falling on any part of the site external to the building, whether the existing drainage is natural or otherwise, the Council may require the provision of a system of drainage to its satisfaction to offset any problems arising from such interference.

GROUP VII—HEALTH AND AMENITY

PART 45—Disposal of Garbage and Other Household Wastes

45.1. (1) The owner of every Class II building shall provide, within each flat or conveniently accessible from each flat—

(a) means satisfactory to the Council for the destruction of garbage; or

(b) means satisfactory to the Council for conveying garbage to a common receptacle; or

(c) a separate and suitable receptacle for holding garbage until it is removed.
(2) Where receptacles are provided pursuant to paragraph (c) of subclause (1), the owner of the building shall provide—

(a) space in the open air or in some closed-off closet or space so that garbage shall be free from offence; and

(b) means satisfactory to the Council whereby such receptacles may be removed without having to be conveyed through the main or front entrance of the building.

45.2. In a Class III building the following provisions regarding night soil disposal shall apply where a public sewerage system is not available:

(a) If the site is suitable in the opinion of the Council for the satisfactory disposal of septic tank effluent and an adequate water supply for a septic tank is or can be made available, a septic tank shall be installed.

(b) If the requirements of paragraph (a) cannot be met and the site is suitable in the opinion of the Council for the satisfactory disposal of septic closet effluent and an adequate water supply for septic closets is or can be made available, septic closets shall be installed.

(c) If the requirements of paragraph (a) regarding installation of a septic tank and the requirements of paragraph (b) regarding installation of septic closets cannot be met, other means of night-soil disposal shall be adopted to the satisfaction of the Council.

GROUP VII—HEALTH AND AMENITY

PART 46—Provision of Bathrooms, Closets, Kitchens and Laundries

46.1. * * * *

46.2. In a Class I, II, or IV building, a bathroom or shower room may include clothes washing facilities, or a water closet, or both, if the floor area is increased in accordance with Part 49.

46.3. Facilities for the washing of clothes shall not be installed in a kitchen or in any room for the preparation, cooking, or consumption of food.
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<table>
<thead>
<tr>
<th>Class I buildings</th>
<th>Facilities to be provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.4. (1) Every Class I building shall be provided with—</td>
<td></td>
</tr>
<tr>
<td>(a) a kitchen or facilities in another room for the preparation and cooking of food;</td>
<td></td>
</tr>
<tr>
<td>(b) a bath or shower;</td>
<td></td>
</tr>
<tr>
<td>(c) clothes washing facilities, comprising at least one washtub and space in the same room for the installation of a washing machine or wash copper; and</td>
<td></td>
</tr>
<tr>
<td>(d) a closet fixture.</td>
<td></td>
</tr>
</tbody>
</table>

Facilities detached from main building

Class II buildings

<table>
<thead>
<tr>
<th>Facilities for each flat</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.5. (1) Every flat of a Class II building shall be provided with—</td>
</tr>
<tr>
<td>(a) a kitchen or facilities in another room for the preparation and cooking of food;</td>
</tr>
<tr>
<td>(b) a bath or shower; and</td>
</tr>
<tr>
<td>(c) a closet fixture,</td>
</tr>
<tr>
<td>and these facilities shall, except for a closet fixture in an unsewered area, be provided within the flat.</td>
</tr>
</tbody>
</table>

Provision of clothes washing facilities: One for each flat

<table>
<thead>
<tr>
<th>Common laundries</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.5. (2) Every flat in a Class II building shall be provided with its own clothes washing facilities, comprising at least one washtub and space within the same room for the installation of a washing machine or wash copper, and where these facilities are not installed within the flat they shall be installed in a laundry that is set aside for the exclusive use of the occupants of the flat concerned.</td>
</tr>
<tr>
<td>46.5. (3) Notwithstanding the requirements of subclause (2) the Council may permit the installation of laundries for the common use of the occupants of two or more flats where it is of opinion in the particular case that—</td>
</tr>
<tr>
<td>(a) the provision of individual clothes washing facilities or laundries for each flat is unnecessary; and</td>
</tr>
<tr>
<td>(b) common laundries comprising such facilities and serving such number of flats as may be determined by the Council will reasonably meet the needs of the occupants of the flats concerned.</td>
</tr>
</tbody>
</table>
(4) Every Class II building shall be provided with—

(a) clothes lines or clothes hoists erected in positions approved by the Council and comprising 7.5 m of line per flat in the building; or

(b) heat-operated drying cabinets or appliances at the rate of one for every four flats or part thereof in the building.

(5) For the purposes of subclause (4) it shall not be necessary to take into account any flat that is provided with a heat-operated drying cabinet or similar appliance for the exclusive use of the occupants of that flat.

(6) In addition to complying with subclause (1)—

(a) every Class II building containing more than 10 flats; or

(b) every group of Class II buildings which are erected on the one allotment and contain in the aggregate, more than 10 flats,

shall be provided with at least one closet fixture and every such closet fixture shall be installed in a compartment or room that is located at or about ground level and is accessible without entering a sole-occupancy unit.

46.6. (1) Every Class III building or group of Class III buildings shall be provided with—

(a) baths or showers at the rate of one for every eight persons or part thereof; and

(b) closet fixtures at the rate of one for every twelve persons or part thereof of each sex,

for whom bedroom or dormitory accommodation is or will be provided in the building or group of buildings.

(2) It shall not be necessary for the facilities referred to in subclause (1) to be situated within the building or any of the buildings.
(3) For the purposes of subclause (1), it shall not be necessary to take into account the number of persons to be accommodated in a bedroom to which is attached—

(a) a bath or shower; or

(b) a water closet pan,

as the case may be, for the exclusive use of the occupants of that bedroom.

46.7. Every Class IV building shall be provided with—

(a) a kitchen or facilities in another room for the preparation and cooking of food;

(b) a bath or shower;

(c) clothes washing facilities, comprising at least one washtub and space in the same room for the installation of a washing machine or wash copper;

(d) a clothes line or clothes hoist erected in a position approved by the Council, or a heat-operated drying cabinet or similar appliance for the exclusive use of the occupants; and

(e) a closet fixture.

46.8. The provisions of Ordinance No. 44 under the Act relating to the number of closets to be provided on any occupied land shall apply, mutatis mutandis, to every Class V, VI, VII, VIII and IX building.

46.9. (1) This clause shall apply to Class III, V, VI, VII, VIII, IX (except schools) and X buildings.

(2) For the purposes of this clause—

“closet” has the meaning ascribed to it in clause 1 of Ordinance No. 44;

“closet for disabled people” means a water closet or closet other than a water closet complete with fittings complying with the relevant provisions of clause 10 of Ministerial Specification No. 9.
(3) Where, in a Class III building or portion of a Class III building, a sole occupancy unit to which access for disabled people is required to be provided in accordance with clause 53.10, does not contain a closet for disabled people—

(a) such a closet shall be provided outside any sole occupancy unit in the building or portion; and

(b) access for disabled people shall be provided to that closet.

(4) In or in connection with any building or portion of a building to which access for disabled people is required to be provided in accordance with clause 53.10 (other than a Class III building or portion of a Class III building)—

(a) closets for disabled people shall be provided in accordance with Table 46.9 (4); and

(b) access for disabled people shall be provided to those closets.

<table>
<thead>
<tr>
<th>Total number of closets in building or portion</th>
<th>Minimum number of closets for disabled people to be provided in or in connection with the building or portion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–100</td>
<td>1 for each sex or 1 for use by both sexes.</td>
</tr>
<tr>
<td>101–200</td>
<td>1 for each sex and 1 for use by both sexes.</td>
</tr>
<tr>
<td>More than 200</td>
<td>1 for each sex and, for use by both sexes, an additional 1 per hundred or part thereof of the total number of closets in the building or portion.</td>
</tr>
</tbody>
</table>

(5) Notwithstanding subclause (4), closets for disabled people shall not be required to be provided in Class V, VI, VII or VIII buildings having a floor area of less than 500 m².

Exemption

(6) Where a closet for disabled people is required to be provided outside a sole occupancy unit in accordance with subclause (3), or is required to be provided in accordance with subclause (4), a sign indicating its location shall be—

(a) designed in accordance with clause 12 of Ministerial Specification No. 9; and

(b) installed in or near the door of that closet.
GROUP VII—HEALTH AND AMENITY

PART 47—Weatherproofing, Damp-proofing and Flashing

47.1. (1) Roofs shall be so constructed as to prevent the penetration of rain or other water to the inner parts of a building.

(2) External walls (including openings around windows and doors) shall be so constructed as to prevent the penetration of rain or other water to the inner parts of a building.

(3) The Council may grant exemption from part or all of the requirements of subclause (1) or subclause (2) in the following cases:

(a) A Class VII, VIII, or X building where the Council is satisfied in the particular case that there is no necessity to require compliance.

(b) A garage, tool shed, privy-closet, or the like, forming portion of a building used for other purposes.

47.2. (1) A roof that is covered with concrete roofing tiles with weathering checks shall be deemed to comply with subclause (1) of clause 47.1 if the tiles—

(a) comply with AS 1759; and

(b) are fixed in accordance with AS 1760.

(2) A roof that is covered with concrete roofing tiles without weathering checks shall be deemed to comply with subclause (1) of clause 47.1 if the tiles—

(a) comply with AS 1757; and

(b) are fixed in accordance with AS 1758.

47.3. A roof that is covered with terra-cotta roofing tiles shall be deemed to comply with subclause (1) of clause 47.1 if the tiles—

(a) comply with AS 2049; and

(b) are fixed in accordance with AS 2050.

47.4. * * * * *
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47.5. Corrugated hot-dipped zinc-coated steel sheet having 76 mm pitch and used as a roof covering shall comply with AS 1445.

47.6. (1) Pliable roof sarking used under roof or wall covering shall comply and be fixed in accordance with—

(a) AS 1736; or
(b) AS 1903 and AS 1904,

whichever is or are applicable.

(2) * * * * *

47.7. * * * * *

47.8. (1) The floor surfaces of bathrooms, shower rooms, slope proofing of certain rooms, laundries, closet compartments and urinal compartments shall be of a material impervious to moisture properly graded and drained and, except in the case of earth closets, so treated as to prevent the penetration of moisture into the walls.

(2) The walls—

(a) immediately adjoining or behind a bath; or
(b) of a shower compartment, including the walls about an open shower,

shall be finished to a height of not less than 1 800 mm above the floor with cement render, ceramic tiles or other approved impervious finish.

(3) Except in a Class I, II or IV building the walls of closet walls of compartments and urinal compartments shall be finished closets and internally to a height of not less than 1 800 mm above the floor with cement render, ceramic tiles or other approved impervious finish.

47.9. (1) Except in a building that is subject to an exemption damp-proof courses shall be laid in masonry walls and piers in such a manner that moisture from the ground—

(a) shall be prevented from reaching the lowest floor timbers and the walls above the lowest floor joists;
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(b) shall be prevented from reaching the walls above the damp-proof courses; and

(c) in the case of any suspended floor constructed of a material other than timber, shall be prevented from reaching the underside of such floor or the supporting beams or girders.

(2) *

(3) Notwithstanding anything to the contrary in this Part, where approved termite shields are used—

(a) on piers; or

(b) on masonry walls that extend no higher than the underside of the lowest floor timbers,

a damp-proof course shall not be required in those piers or masonry walls.

(4) Where, pursuant to subclause (1), a damp-proof course is used it shall be overlapped not less than 100 mm at any joints.

47.10. (1) Where, pursuant to this Ordinance, damp-proof courses are required to be inserted in a building, such damp-proof courses shall be of a material which has been approved by the Department of Local Government as complying with the appropriate specifications set out hereunder:

(a) Ministerial Specification No. 5 in the case of—

(i) uncovered annealed lead;

(ii) uncovered copper;

(iii) bituminous asphalt;

(iv) polyethylene film;

(v) annealed sheet aluminium, with or without a bitumen filler coat, sheeted with polyethylene film; and

(vi) any other damp-proof course material covered by Specification No. 5.

(b) AS Int. 326 in the case of bituminous coated metal.

(c) AS Int. 327 in the case of bituminous coated fibre felt.
(2) A material approved as a damp-proof course by the Materials Department of Local Government pursuant to an Ordinance that was in force prior to the coming into force of this Ordinance shall, if such approval is still current, be deemed to be an approved damp-proof course for the purposes of this Ordinance.

47.11. (1) Where a concrete slab or paved floor is laid on the ground or on filling, moisture from the ground shall be prevented from reaching the inner surfaces of the floor and adjacent walls by the insertion of damp-proof courses or membranes or by other approved damp-proofing means.

(2) The Council may exempt from the requirements of Exemptions subclause (1)—

(a) a Class VII, VIII or X building where it is satisfied in the particular case that there is no necessity to prevent moisture from reaching the inner surfaces of the floor and adjacent walls;

(b) a garage, tool shed, privy-closet, or the like, forming portion of a building used for other purposes;

(c) any building if it is satisfied that the conditions of the subsoil or the construction of the floor is such that moisture will be prevented from reaching the inner surfaces of the floor or walls without the insertion of damp-proof courses or membranes or the use of other damp-proofing means; and

(d) the base of any stair, lift or like shaft which is satisfactorily drained by gravitational or mechanical means.

GROUP VII—HEALTH AND AMENITY

PART 48—Termite and Rodent Prevention

48.1. (1) This clause shall apply to all buildings in which the walls or floors of any storey next above the natural ground or finished ground surface are of timber-frame construction.

(2) Termite shields shall, if required by the Council, be fitted on piers, to the tops of all piers, columns or stumps supporting timber floor framing.
(3) Termite shields shall, if required by the Council, be fitted in any wall or other structure of concrete or of masonry supporting timber-frame walls and floors in a storey next above the natural ground or finished ground surface. Any such shields shall be fitted at a level, in or on the supporting wall or other supporting structure concerned, that is below the level at which the wall or floor is supported.

(4) Such termite shields shall be of—
   
   (a) galvanised steel of minimum thickness 498 µM;
   (b) zincanneal steel of minimum thickness 498 µM;
   (c) sheet copper of minimum thickness 396 µM;
   (d) stainless steel of minimum thickness 396 µM;
   (e) aluminium or aluminium alloy of minimum thickness 442 µM and bitumen-coated on each face;
   (f) alloys of copper and zinc of minimum thickness 442 µM; or
   (g) any other material which, in the opinion of the Council, is adequate for the purpose.

GROUP VII—HEALTH AND AMENITY

PART 49—Room Sizes and Heights

49.1. *

49.2. (1) The minimum floor areas prescribed by this clause shall not apply to fully-enclosed kitchens.

(2) A habitable room in a Class I, II, III, or IV building shall have a minimum floor area of 7.5 m² and such area shall be increased, when necessary, to comply with subclauses (3), (4), and (5).

(3) In a dwelling-house or flat containing only one habitable room (not counting any fully-enclosed kitchen), such room shall have a minimum floor area of 18.5 m².
(4) In a dwelling-house or flat containing more than one habitable room (not counting any fully-enclosed kitchen)—

(a) at least one habitable room shall have a minimum floor area of 14 m²; and

(b) at least one other habitable room shall have a minimum floor area of 11 m².

(5) Where, in lieu of a fully-enclosed kitchen, an alcove or other space within a habitable room is provided for the preparation and cooking of food, the required minimum floor area of that room shall be increased by 3 m².

(6) In calculating the floor area of a room for the purposes of this clause, the floor area of any part of the room that is less than 1500 mm in height shall be disregarded.

49.3. (1) A bathroom or shower room in a Class I, II, III, or IV building shall have a minimum floor area as follows:

(a) Bathroom—2.2 m².

(b) Bathroom provided with a bath and a shower that is not above the bath—2.8 m².

(c) Shower room—1.1 m².

(2) It shall not be necessary to increase the area of a bathroom or shower room to accommodate a wash-hand basin, but where a water closet pan is installed, or the bathroom or shower room is designed to accommodate clothes washing facilities, the minimum floor areas prescribed by subclause (1) shall be increased for each such facility as follows:

(a) Water closet pan—0.7 m².

(b) Washing machine without washtub (where this is additional to the provision elsewhere of the clothes washing facilities required by Part 46)—0.7 m².

(c) Washing machine and washtub—1.1 m².

(d) Copper and washtub—1.1 m².

(e) Clothes-drying cabinet—0.5 m².

(3) In calculating the floor area of a room for the purposes of this clause, the floor area of any part of the room that is less than 1500 mm in height shall be disregarded.
49.4. A water closet in any class of building shall have a minimum floor area of 1.1 m² and a minimum width of 810 mm.

49.5. (1) In a building, or portion of a building, of Class I, II, III or IV, every habitable room shall be, for at least two-thirds of the floor area of the room, not less than 2 400 mm in height.

(2) In calculating the floor area of a room for the purposes of this clause, the floor area of any part of the room that is less than 1 500 mm in height shall be disregarded.

49.6. (1) In a building, or portion of a building, of Class I, II, III or IV, every—

(a) bathroom;

(b) shower room;

(c) water closet; and

(d) laundry,

shall be, for at least two-thirds of the floor area of the room, not less than 2 100 mm in height.

(2) In calculating the floor area of a room for the purposes of this clause, the floor area of any part of the room that is less than 1 500 mm in height shall be disregarded.

49.7. (1) This clause shall apply to Class III buildings.

(2) For the purposes of this clause, “shower facilities for disabled people” means a shower recess and associated drying or dressing spaces and fittings complying with clause 10.5 or 10.6 of Ministerial Specification No. 9.
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(3) Where a sole occupancy unit to which access for disabled people is required to be provided in accordance with clause 53.10 does not contain shower facilities for disabled people—

(a) those facilities shall be provided outside any sole occupancy unit in the building or portion; and

(b) access for disabled people shall be provided to those facilities.

GROUP VII—HEALTH AND AMENITY

PART 50—Light and Ventilation

Division 1—Lighting

50.1.

50.2. (1) Natural lighting shall be provided, in the following buildings, to the rooms indicated:

(a) Class I, II and IV buildings—all habitable rooms;

(b) Class III buildings—all bedrooms and dormitories;

(c) Class IX buildings—all bedrooms, dormitories, wards and other rooms used for sleeping purposes.

(2) Natural lighting required by subclause (1) shall be provided by means of windows having an aggregate light transmitting area of not less than one-tenth of the floor area of the room concerned.

(3) The light transmitting areas of windows shall be measured exclusive of framing members, glazing bars and other obstructions.

50.3. (1) The required windows of a room shall face—

(a) a court or space open to the sky; or

(b) an open verandah, open car port or the like.

(2) In a Class I building a required window facing the boundary of an adjoining allotment of land shall be separated from that boundary by a horizontal distance of not less than 900 mm.
(3) In a Class II, III, IV or IX building a required window facing an adjoining allotment of land or a wall of the same building or another building on the site shall be separated from that boundary or wall by a horizontal distance of not less than—

(a) 1.2 m; or

(b) 55% of the square root of the height of the wall in which the window is located, measured in metres from its sill, whichever is the greater.

(4) Where the Council is satisfied that compliance with subclause (3) would create undue problems in the design of a building, it may permit a lesser horizontal distance (which shall not in any case be less than 1.2 m) between a required window and the boundary or wall facing it if it is satisfied that the objects of that subclause will be attained either better or as effectually.

50.4. (1) Where in any room not mentioned in clause 50.2 (1) natural lighting by means of windows is not provided to a standard equivalent to that required by clause 50.2 for rooms mentioned therein a system of artificial lighting shall be provided to the rooms indicated in the following buildings:

(a) Class I and IV buildings—sanitary compartments, bathrooms, shower rooms, airlocks and laundries.

(b) Class II buildings—sanitary compartments, bathrooms, shower rooms, airlocks, laundries, common stairways and other spaces designed for the common use of the occupants of the building.

(c) Class III, V, VI, VII, VIII, IX and X buildings—all rooms intended to be occupied by any person for any purpose and all corridors, lobbies, internal stairways and other spaces intended for internal movement or egress.

(2) The Council may exempt a room from the requirements of subclause (1) if it is satisfied that by reason of—

(a) the nature of the use of the rooms; or

(b) the periods of occupation,

there will be no undue hazard to occupants seeking egress in case of emergency.
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50.5. (1) Each required fire-isolated stairway, fire-isolated passageway and fire-isolated ramp in a building shall be provided with artificial lighting from the main switchboard for the building by means of a separate electrical wiring circuit.

(2) Where a building is more than 25 m in height, every Standard of required fire-isolated stairway, fire-isolated passageway and fire-isolated ramp in the building shall be illuminated in such a manner that no point on the walking surface of the stairway, passageway or ramp, as the case may be, has an illuminance of less than 30 lux.

50.6. (1) Notwithstanding the requirements of clause 50.2, a Natural room in a Class I, II or IV building or in a sole-occupancy unit of a Class III building may be lighted by way of a glazed area or other opening facing directly into an adjoining room (including an enclosed verandah) subject to the following conditions:

(a) Such glazed area or other clear opening shall be not less in area than one-tenth of the floor area of the room concerned.

(b) The adjoining room shall be provided with windows having an aggregate light transmitting area of not less than one-tenth of the combined floor areas of the rooms concerned.

(c) In the case of a Class II, III or IV building the adjoining rooms shall be within the same sole-occupancy unit.

(2) The areas specified in paragraphs (a) and (b) of subclause Reduction in (1) may be reduced by the area of any window in the first-mentioned room transmitting natural light directly to that room.

Division 2—Ventilation

50.7. (1) Every habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room designed to be occupied by any person for any purpose shall be provided with either—

(a) natural ventilation complying with clause 50.8; or

(b) a mechanical ventilation or air-conditioning system complying with clause 55.7.
(2) The Council may exempt a room from the requirements of subclause (1) if it is satisfied that such exemption will not result in conditions that are detrimental to the health of the occupants of the room.

50.8. (1) Natural ventilation required by clause 50.7 shall be provided by means of permanent openings or windows, doors or other devices which are capable of being opened and shall comply with the following:

(a) The aggregate opening or openable size shall be not less than one-twentieth of the floor area of the room required to be ventilated.

(b) The opening or openable size shall be the net area available for the passage of air—
   (i) through a permanent opening; or
   (ii) through windows, doors or other openable devices when opened to their designed maximum extent.

(2) Unless otherwise stated in this Ordinance required natural ventilation devices shall open to—

(a) a court, vent shaft or space open to the sky; or

(b) an open verandah, open car port or the like.

(3) A vent shaft or a fully-enclosed court serving as the source of required natural ventilation to an abutting room shall comply with the following requirements:

(a) The top shall be open to the sky.

(b) If it has a cross-sectional area of less than 18 m² it shall be provided with permanent ventilation openings comprising one or more horizontal air intakes or passages which—
   (i) communicate directly with a road or open space leading to a road;

   (ii) are situated at or below the level of the lowest required natural ventilation device serviced by such vent shaft or fully enclosed court;
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(iii) have an aggregate cross-sectional area of not less than 0.5 m² or 5 per cent of the horizontal cross-sectional area of the shaft, whichever is the greater; and

(iv) are not less than 0.1 m² in cross-sectional area in any one such air intake or passage.

(c) It shall have a minimum internal horizontal—

(i) dimension of 1 200 mm; and

(ii) a cross-sectional area of 1.5 m².

(4) Notwithstanding the requirements of subclause (1), a room in a Class I, II or IV building or in a sole-occupancy unit of a Class III building may be ventilated by way of a clear opening or a window, door or other device capable of being opened, which faces directly into an adjoining room (including an enclosed verandah) subject to the following conditions:

(a) Such clear opening, window, door or other device shall have a ventilating area of not less than one-twentieth of the floor area of the room concerned.

(b) The adjoining room shall be provided with a clear opening or a window, door or other device having a ventilating area of not less than one-twentieth of the combined floor areas of the rooms concerned.

(c) In the case of a Class II, III or IV building the adjoining rooms shall be within the same sole-occupancy unit.

(5) The ventilating areas specified in paragraphs (a) and (b) of Reduction in subclause (4) may be reduced by the ventilating area of any clear opening, window, door or other device capable of being opened in the first mentioned room which opens directly to the exterior of the building.

(6) Notwithstanding the requirements of subclause (1), a partitioned space or room in a Class V, VI, VII, VIII, or IX of building may be ventilated by way of a clear opening or an openable device (excluding a door) which faces into another room partitioned spaces and rooms in certain buildings.
that is naturally ventilated in accordance with subclauses (1) and (2) or mechanically ventilated or air-conditioned in accordance with Part 55 subject to the following conditions:

(a) The opening or openable device shall have an airway of not less than one-tenth of the floor area of the partitioned space or room.

(b) In measuring the area of the opening or openable device for the purposes of this subclause, any part thereof that is more than 3,600 mm above the level of the floor shall be excluded from the calculations.

(7) A room containing a water closet or urinal shall not open directly into a kitchen and, except in a Class I or IV building or in a sole-occupancy unit of a Class II or III building, shall not open directly into—

(a) a room for storage or the consumption of food; or

(b) a dormitory or bedroom for a number of unrelated persons.

(8) Where, pursuant to subclause (7), a room containing a water closet is prohibited from opening directly to a kitchen, room for storage or the consumption of food or a dormitory or bedroom for a number of unrelated persons access shall be by way of an airlock, hall or other room which—

(a) in the case of Class I and IV buildings and sole-occupancy units in Class II and III buildings has a floor area of not less than 1.1 m²; and

(b) in the case of Class V, VI, VII and VIII buildings—

(i) has a floor area of not less than 1.1 m²; and

(ii) is fitted with self-closing doors at all access doorways.

50.9. Where any shop, room or space opens to an arcade the Council may, subject to such conditions as it considers desirable, exempt such shop, room or space from the requirements of this Division.
50.10. (1) Where the lowest floor of a building is of timber sub-floor ventilation requirements frame construction a space shall be provided between the underside of every joist and bearer and the ground surface, and that space shall be—

(a) ventilated and cross-ventilated by means of evenly distributed openings in the external walls having an unobstructed area of not less than 2100 mm²/m of external wall; and

(b) not less than 200 mm in depth in every part.

(2) Notwithstanding the requirements of subclause (1), the reduction or increase in requirements Council may—

(a) approve a reduction of the area of the openings or the depth of the space referred to in subclause (1), or both, if it is satisfied in the particular case that by reason of—

(i) the nature of the site; or

(ii) the design of the building; or

(iii) the provision of an impervious cover over the ground surface beneath the building; or

(iv) a combination of the factors referred to in sub-paragraphs (i), (ii), and (iii), undue deterioration of the floor timbers will not occur as a result of such reduction; or

(b) require an increase in the area of such openings where it considers in the particular case that by reason of the—

(i) nature of the site; or

(ii) design of the building;

such increase is necessary to prevent undue deterioration of the floor timbers.

(3) In cavity wall construction the openings specified in paragraph (a) of subclause (1) shall be provided in the outer leaf of the wall, and openings of the same area shall be provided in the inner leaves in positions as near as practical to those in the cavity walls outer leaf.
(4) Internal walls constructed in the under-floor space referred to in subclause (1) shall be provided with openings having an aggregate area of not less than 4200 mm²/m run of wall concerned, and such openings shall be evenly distributed.

50.11. Every storey of a public garage or parking station shall be provided with either—

(a) a mechanical ventilation or air-conditioning system complying with clause 55.7; or

(b) a system of permanent natural ventilation to the approval of the Council.

50.12. (1) Except as provided by subclause (3), a storey of a building, of any class other than Class I or Class X, which is wholly or partly below ground and is artificially lighted and ventilated shall have a mechanical ventilation or air-conditioning system designed to function in the manner described in subclause (2).

(2) A mechanical ventilation or air-conditioning system referred to in subclause (1) shall—

(a) where the system serves only one fire compartment—

(i) continue to operate in the event of a fire;

(ii) during a fire in the compartment, exhaust to outside air at a rate not less than 10 air changes per hour; and

(iii) be capable of being controlled by a manually-operated switch; or

(b) in any other case, operate in the event of a fire in accordance with AS 1668 (Part 1).

(2A) A system of mechanical ventilation or air conditioning shall not be installed in a building which exceeds 25 m in height unless the Board of Fire Commissioners has furnished the Council with a report that, in the opinion of the Board, the system proposed to be installed complies with subclause (2).
(3) The requirements of this clause do not apply to a storey Exemption which—

(a) is provided with natural ventilation complying with clause 50.8;

(b) has an area of less than 40 m²; or

(c) is provided with a smoke-exhaust system which—

   (i) in the opinion of the Council, is adequate for the purpose of exhausting smoke from the storey in the event of a fire; and

   (ii) is capable of being controlled by means of a manually-operated switch.

50.13. Where a building is more than 25 m in height and the windows in the building are designed to be kept locked shut, not less than 4 keys, each capable of unlocking all the windows in the building, shall be kept at all times in such location as the Council (after consultation with the officer-in-charge of the fire station serving the locality in which the building is situated) may determine.

GROUP VII—HEALTH AND AMENITY

PART 51—Special Health and Amenity Requirements

GROUP VII—HEALTH AND AMENITY

PART 52—Noise Transmission

52.1. (1) This Part shall apply to a Class II building having a rise of three or more storeys.

(2) In a Class II building having a rise of not more than two Certain storeys the Council may require that the building shall comply with any or all of the provisions of this Part.

52.2.
52.3. (1) A wall dividing separate flats or a wall dividing a flat from a plant room, lift shaft, stairway, public corridor, hallway or the like shall have a Sound Transmission Class of not less than 45.

(2) A wall dividing a bathroom, laundry or kitchen in one flat from a habitable room (other than a kitchen) in an adjoining flat shall—

(a) have a Sound Transmission Class of not less than 50; and

(b) incorporate the following construction in order to reduce the transmission of impact sound:

(i) The wall shall be constructed in two or more separate leaves without rigid mechanical connection other than at its periphery.

(ii) Any connection between the leaves, other than at the periphery, shall be by means of devices incorporating rubber or similarly resilient plugs or mountings except that in the case of a masonry wall ties according to AS Int. 324 shall be permitted.

(3) A wall constructed according to one of the following rules shall be deemed to satisfy the requirements of subclause (2):

(a) two leaves 90 mm brick masonry complying with Part 36; and having—

(i) all joints filled solid with mortar; and

(ii) an air space of not less than 40 mm between the leaves.

(b) 190 mm thick concrete block masonry complying with Part 36 and having—

(i) each face of the blocks fitted with 50 mm x 50 mm timber battens, spaced at not more than 610 mm centres, screw-fixed into resilient plugs with rubber inserts;
(ii) the space between the battens completely filled with mineral or glass wool blanket or batts not less than 50 mm thick; and

(iii) the outer face of the studs finished with plasterboard not less than 10 mm thick or other material having a mass per unit area of not less than 7.3 kg/m².

(c) 110 mm brick masonry complying with Part 36; and having—

(i) each face rendered 12 mm thick;

(ii) 50 mm x 12 mm thick timber battens at not more than 610 mm centres fixed to each face but not recessed into the render;

(iii) one layer of 12.7 mm thick softboard nailed to the battens; and

(iv) 6.4 mm thick medium density hardboard adhesive-fixed to the softboard.

52.4. A duct shall not pass through a wall dividing a habitable room, other than a kitchen, in one flat from a bathroom, laundry or kitchen in an adjoining flat.
(3) Where a soil or waste pipe is required by subclause (2) to be separated from the rooms of any flat immediately adjacent thereto by construction as specified in that subclause—

(a) no access door or panel shall be provided in any part of that construction that is immediately adjacent to a habitable room (other than a kitchen); and

(b) an access door or panel in any other part of that construction shall be firmly fixed so as to overlap the frame or rebate of a frame by not less than 10 mm and shall be fitted with a sealing gasket along all edges and constructed of—

(i) wood, particle board or blockboard having a thickness of not less than 38 mm; or

(ii) dense fibre cement board having a thickness of not less than 9 mm; or

(iii) approved material having a mass per unit area of not less than 24.4 kg/m².

(4) Construction complying with one of the rules set out in clause 52.3 (3) shall be deemed to satisfy the requirements of subclause (2) of this clause.

52.6. A floor dividing separate flats shall have a Sound Transmission Class of not less than 45.

52.7. A flexible coupling shall be used at the point of connection between the service pipes in a building and any circulating or other pump.

52.8. A form of construction required by this Part to have a certain ‘Sound Transmission Class’ shall, subject to clause 52.10, be—

(a) one that has achieved not less than the required value when tested in accordance with the method described in Ministerial Specification No. 6; or

(b) one that is deemed, pursuant to clause 52.3 or clause 52.9, to have not less than the required value.
52.9. (1) For the purposes of this Part the forms of construction that—

(a) are listed in Table 52.9; and

(b) comply with the requirements of subclauses (2), (3), (4), (5) and (6) as applicable,

shall be deemed to have the Sound Transmission Class stated in the second column of that Table.

(2) Masonry units shall be laid with all joints, including those Masonry between the masonry and any adjoining construction, filled solid.

(3) Joints between concrete slabs and any adjoining Concrete construction shall be filled solid.

(4) Fire-grade plasterboard shall be a special grade as Fire-grade manufactured for use in fire-resisting construction, and fixed according to the following rules:

(a) Where one layer is required to be fixed to studs it shall be screw-fixed to the studs with joints staggered on opposite faces.

(b) Where two layers are required the first layer shall be fixed according to paragraph (a) and the second layer shall be fixed so that the joints do not coincide with those of the first layer and each sheet shall be fixed to the first layer with nails, screws or adhesive, or a combination of those methods as appropriate.

(c) Joints between sheets shall be taped and filled solid.

(d) Joints between sheets and any adjoining construction shall be filled solid.

(5) Plasterboard, being plasterboard other than fire-grade Standard quality, shall be fixed in the same way as that described for fire-grade plasterboard in subclause (4) to the extent that the nature of the material will allow.

(6) Where the construction involves the use of steel studs—

(a) the studs shall be of not less than 0.60 mm thickness and not more than 1 mm thickness, and not less than 63.5 mm in depth;
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(b) the studs shall be fixed to steel top and bottom plates of sufficient depth to permit secure fixing of the plasterboard; and

c) all steel members at the perimeter of the wall shall be securely fixed to the adjoining structure and shall be bedded thereto in resilient compound or caulked so that there are no voids.
<table>
<thead>
<tr>
<th>Construction</th>
<th>Sound Transmission Class not less than—</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walls</strong></td>
<td></td>
</tr>
<tr>
<td>Solid clay or shale bricks, 110 mm thick, rendered 12 mm thick on both sides.</td>
<td></td>
</tr>
<tr>
<td>Solid clay or shale bricks, having a total thickness of not less than 230 mm.</td>
<td></td>
</tr>
<tr>
<td>Extruded, cored clay bricks, 110 mm thick, rendered 12 mm thick on both sides.</td>
<td></td>
</tr>
<tr>
<td>Grey, common concrete bricks, 110 mm thick and conforming to AS 1346 and having a total mass per unit area of not less than 195 kg/m².</td>
<td></td>
</tr>
<tr>
<td>Dense concrete masonry blocks, 190 mm thick having a total mass per unit area of 215 kg/m².</td>
<td></td>
</tr>
<tr>
<td>Dense concrete masonry blocks, 140 mm thick having a wall thickness of not less than 44 mm and having—</td>
<td>45</td>
</tr>
<tr>
<td>(a) 50 mm × 50 mm timber battens spaced at not more than 610 mm centres screw-fixed on one face of the blocks into rubber or similarly resilient plugs with rubber inserts;</td>
<td></td>
</tr>
<tr>
<td>(b) the face of the battens clad with 13 mm thick standard plasterboard; and</td>
<td></td>
</tr>
<tr>
<td>(c) a total mass per unit area of not less than 220 kg/m².</td>
<td></td>
</tr>
<tr>
<td>125 mm thick in-situ concrete slab</td>
<td></td>
</tr>
<tr>
<td>100 mm thick in-situ dense concrete slab</td>
<td></td>
</tr>
<tr>
<td>100 mm thick precast concrete slab without joints</td>
<td></td>
</tr>
<tr>
<td>Steel studs having two layers of 16 mm thick fire-grade plasterboard fixed to each face.</td>
<td></td>
</tr>
<tr>
<td><strong>Steel studs having</strong></td>
<td></td>
</tr>
<tr>
<td>(a) One layer of 13 mm thick fire-grade plasterboard fixed to one face.</td>
<td></td>
</tr>
<tr>
<td>(b) two layers of 13 mm thick fire-grade plasterboard fixed to the other face.</td>
<td></td>
</tr>
<tr>
<td><strong>Steel studs having</strong></td>
<td></td>
</tr>
<tr>
<td>(a) 50 mm thick mineral wool or glass-fibre batts wedged firmly between the studs;</td>
<td></td>
</tr>
<tr>
<td>(b) one layer of 16 mm fire-grade plasterboard fixed to one face; and</td>
<td></td>
</tr>
<tr>
<td>(c) two layers of fire-grade plasterboard fixed to the other face, the inner layer consisting of 16 mm thick fire-grade plasterboard and the outer layer consisting of 13 mm thick plasterboard.</td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 52.9—continued

**SOUND TRANSMISSION CLASS DEEMED TO APPLY TO CERTAIN CONSTRUCTION—continued**

<table>
<thead>
<tr>
<th>Construction</th>
<th>Sound Transmission Class not less than—</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Floors</strong></td>
<td></td>
</tr>
<tr>
<td>125 mm thick in-situ concrete slab</td>
<td></td>
</tr>
<tr>
<td>100 mm thick in-situ dense concrete slab</td>
<td></td>
</tr>
<tr>
<td>100 mm thick precast concrete slab without joints</td>
<td></td>
</tr>
<tr>
<td>Timber floor comprising—</td>
<td></td>
</tr>
<tr>
<td>(a) timber joists not less than 175 mm × 50 mm;</td>
<td>45</td>
</tr>
<tr>
<td>(b) tongued-and-grooved boards not less than 19 mm thick and secured to 75 mm × 50 mm battens between each joist and laid over joists but not fixed thereto;</td>
<td></td>
</tr>
<tr>
<td>(c) 25 mm thick glass-fibre blanket laid over entire floor, including tops of joists before boards are laid; and</td>
<td></td>
</tr>
<tr>
<td>(d) 75 mm thick mineral wool cut to fit tightly between joists and laid on 10 mm thick plasterboard fixed to underside of joists.</td>
<td></td>
</tr>
<tr>
<td><strong>Ducts or Other Construction Separating Soil and Waste Pipes from Flats</strong></td>
<td></td>
</tr>
<tr>
<td>Masonry not less than 90 mm thick with all joints, including those between the masonry and any adjoining construction, filled solid.</td>
<td></td>
</tr>
<tr>
<td>Two layers of 10 mm standard plasterboard—</td>
<td></td>
</tr>
<tr>
<td>(a) fixed to timber studs not less than 75 mm × 50 mm spaced at not more than 407 mm centres;</td>
<td>30</td>
</tr>
<tr>
<td>(b) with the joints in the two layers of plasterboard staggered; and</td>
<td></td>
</tr>
<tr>
<td>(c) with all joints in the plasterboard, including those between the plasterboard and any adjoining construction filled solid.</td>
<td></td>
</tr>
</tbody>
</table>

**52.10.** (1) Where it is proposed to use a form of construction that—

(a) has not been tested according to Ministerial Specification No. 6; or

(b) does not comply with clause 52.3, clause 52.5 or clause 52.9 as the case requires,