Vorcion 1



The Insulating Concrete Forms Manufacturers Association Prescriptive ICF Design for Part 9 Structures in Canada

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# The Insulating Concrete Forms Manufacturers Association Prescriptive ICF Design for Part 9 Structures in Canada

#### Introduction

#### **Preface**

Welcome to the First Edition of the ICFMA Prescriptive ICF Design Tables for Part 9 Buildings in Canada. The following guideline specifications were developed on behalf of the member companies of the Insulating Concrete Form Manufacturers Association (ICFMA) by Tacoma Engineers Inc. with offices in Ontario, Canada.

#### Objective

The objective of this manual is to provide Prescriptive Tables, Engineering Details and ICF product information that is code compliant for buildings constructed under Part 9 of the 2015 National Building Code of Canada. This manual provides code compliant information for Insulating Concrete Forms across each provincial region of Canada and contains a broad scope of residential designs that cover specific nuances of individual provincial regions. Each of the tables and designs cover the standard specifications for products manufactured or produced by members of the ICFMA. This guide is available in both English and French language versions.

#### Scope

Design information contained in this guide applies to below-grade and above-grade ICF reinforced concrete walls, both load bearing and non-load bearing, that make up the exterior and/or interior of Part 9 buildings that fall within the limitations of this guide. Floor design/connections and roof design/connections are not covered in this guide and must be designed by others. Any other building component not specifically named in this guide must be designed by others or follow prescriptive provisions contained in the applicable building code. Fire resistance characteristics of ICF/concrete walls are not covered in this guide, but are available from your ICFMA member company upon request.

#### **Applicability**

The tables in this manual are the property of the ICFMA and are specific to products offered by ICFMA member companies. The tables are not authorized for use by non-member ICF manufacturers or non-ICF methods of concrete forming. If specific questions arise about how to design or reference the tables in this manual of an ICFMA members product check with the technical department of that ICFMA member company. For example: Coursing height may vary between 12 inches and 18 inches depending on brand used. Horizontal tie spacing may vary between 6 inches and 12 inches. Product specific nuances may affect how the tables in the guide are used.

Design information contained in this document is limited to use in buildings described in Section 1 "Design Parameters" of the guide, including a maximum number of below-grade and above-grade stories as well as certain building size limitations. While the intent of this guide are the broadest applicability of Canada and it's individual provinces, there are some limits to applicability, including seismic response and wind loading. Building design may be limited by spans, deflection and aspect ratio among others.

CHECK ALL CONDITIONS THAT APPLY TO YOUR SITE AND BUILDING DESIGN TO ENSURE COMPATIBILITY WITH THE LIMITATIONS STATED IN SECTION 1 OF THIS GUIDE BEFORE PROCEEDING WITH ITS USE.

#### **Engineered Design**

These tables and specifications have been developed and reviewed against the 2015 National Building Code of Canada and CAN/ULC A23.3 by Tacoma Engineers. www.tacomaengineers.com Tables carry a stamp for all Canadian provinces. Check for a stamp applicable to your province before using or referring to the tables.

Review for code compliance will be carried out as building code and standards versions evolve. Check with your ICF member company for the most current guide version available.

#### **Errata**

All efforts have been made to create a publication free from errors. If ICFMA is notified of or discovers errors, errata will be published and posted on the ICFMA website at <a href="https://www.icf-ma.org">www.icf-ma.org</a>.

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Kelvin Doerr - Fox Blocks ICF

Brian Corder - BuildBlock ICF



# **Structural Design - National and Provincial Codes and Stamps**

Tacoma Engineers has completed the structural design of the Insulating Concrete Forms Manufacturers Association (ICFMA) Prescriptive ICF Design Tables for Part 9 Buildings in Canada, in accordance with the 2015 National Building Code of Canada (NBCC).

This design guide is certified for all Canadian provinces, including:

Ontario, British Columbia, Alberta, Saskatchewan, Manitoba, Nova Scotia, Prince Edward Island, Quebec, Newfoundland and Labrador and New Brunswick.

In addition to the 2015 NBCC, this design guide has also been reviewed and is certified for conformance to the following building codes and regulations:

Ontario: Ontario Building Code as in Effect January 2020 (OBC 2012 r2020)

Nova Scotia: Nova Scotia Building Code as in Effect January 2020

Alberta: 2019 Alberta Building Code

British Columbia: 2018 British Columbia Building Code Manitoba: 2011 Manitoba Building Code as Amended in 2017

Saskatchewan: 2015 NBCC as Amended by The Uniform Building and Accessibility Standard Regulation in Saskatchewan on January 2018.

New Brunswick: 2015 NBCC Adopted by the Province of New Brunswick.

Prince Edward Island: 2015 NBCC Adopted by the Province of Prince Edward Island on March, 2021.

Newfoundland and Labrador: 2015 NBCC Adopted by Newfoundland and Labrador Regulation on January, 2019.

Quebec: 2015 NBCC that will be adopted by the province of Quebec

Note: This design guide may not be legally applicable in Quebec until NBCC 2015 is implemented.

This page includes the stamps and seals for these provinces. Due to space limitations, other pages are only stamped with an Ontario stamp.







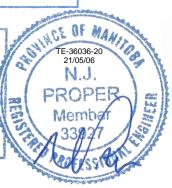




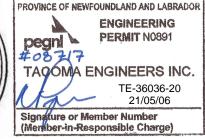


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#### **Table of Contents**

# The Insulating Concrete Forms Manufacturers Association Prescriptive ICF Design for Part 9 Structures in Canada

| Introduction3  |
|--|
| Preface3   |
| Objective3   |
| Scope  |
| Applicability  |
| Engineered Design  |
| Copyright  |
| Acknowledgments  |
|  |
| Structural Design - National and Provincial Codes and Stamps5  Design Limitation   |
|  |
| 1. Design Parameters   |
| 2. Construction  |
| 3. Concrete  |
| 4. Reinforcing Steel10   |
| 5. Above Grade and Below Grade Walls10   |
| 5.1 Distributed Reinforcing Steel  |
| 5.2 Shear Walls11  |
| 5.3 Concentrated Point Loads on Walls  |
| 5.4 Window and Door Openings   |
| 5.4.1 Lintels  |
| 5.5 Stair Openings   |
| 5.7 Laterally Unsupported Foundation Walls (Knee Wall) with Wood   |
| Framing Above  |
| Framing Above  |
| 8. Strip Footing   |
| Details & Tables Index   |
|  |
| Below & Above Grade Walls Details and Tables   |
| Walls  |
| Wall Configurations in a Building Without Walkout Basement22   |
| Detail A.7.1. Main Floor Walls of One-Story Structure Supporting Wood Frame Roof   |
| Detail A.7.2. Second Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Roof & Main Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof |

| Detail A.7.3. Main Floor Walls of a Two-Story Structure Supporting 2nd Story Wood Frame Walls, Floor and Roof23   |
|---|
| Wall Configurations in a Building with Walkout Basement   |
| 2nd Story Wood Frame Walls, Floor and Roof  |
| and Roof  |
| Lintel Details and Tables63   |
| Concentrated Point Load Table90   |
| Stair Opening Tables91  |
| Laterally Supported Foundation Wall Detail and Table94  |
| Laterally Unsupported Foundation Wall Detail and Table (Knee  |
| Wall)   |
| Ledger Connection Detail and Table97  |
| Brick Ledge Detail and Table       98         Detail C. 2. Brick Ledge Connection       98         Detail C.3. xLerator Ledge Reinforcement       98  |
| Footing Details and Tables     100       Detail F.1. Footing Dowel     100       Table F.2- Minimum Exterior Strip Footing Sizes Not Supporting Roof Loads     101       Table F.3- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads ≤ 2kPa     102       Table F.4- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads ≤4kPa     103 |
|   |
| Appendix A: Equivalent Spectral Response Acceleration for ICF Walls, S <sub>a,ICF</sub> 105   |
|   |





#### The Insulating Concrete Forms Manufacturers Association Prescriptive ICF Design for Part 9 Structures in Canada

#### **Design Limitation**

The design tables included in this manual were determined based on the parameters provided in this section. These tables cannot be used if the proposed construction does not meet all the parameters provided in this section or in the tables.

#### 1. Design Parameters

- 1.1 These tables only apply to residential buildings conforming to Part 9 of the 2015 National Building Code of Canada (NBCC).
- 1.2 If the proposed construction does not meet the design or applicability of parameters noted herein, a local design professional shall be retained to prepare the design in accordance with applicable standards.
- 1.3 This design manual applies only to flat ICF walls (concrete core of uniform thickness). All walls must line up vertically.
- 1.4 In case this document conflicts with design codes, standards and building regulations, the code provisions shall apply.
  - The design and construction of all work shall conform to the latest editions of the NBCC, the local building code, local regulations and bylaws and the occupational health and safety act.
- These tables have been designed to resist gravity, wind and earthquake forces in accordance with the 2015 NBCC for the criteria indicated in the design limitations and in the design tables.
- 1.7 Design is limited to one (1) floor below grade and a maximum of two (2) stories above grade.
- 1.8 The maximum building dimensions are:

| Building Area                        | 300 m <sup>2</sup> | 3200 ft <sup>2</sup> |
|--------------------------------------|--------------------|----------------------|
| Maximum Building Dimension           | 24.4 m             | 80 ft                |
| Building Aspect Ratio (Length:Width) |                    |                      |
| $S_{a,ICF} \le 0.2$                  | 2.5:1              |                      |
| S <sub>a,ICF</sub> > 0.2             | 2:1                |                      |
| Roof Clear Span                      | 12.2 m             | 40 ft                |
| Floor Clear Span                     | 7.32 m             | 24 ft                |
| Second Floor Wall Height             | 3.05 m             | 10 ft                |
| Main Floor Wall Height               | 4.88 m             | 16 ft                |
| Foundation Wall Height               | 3.66 m             | 12 ft                |

Note:  $S_{\rm a,ICF}$  is the equivalent spectral response acceleration for ICF walls, provided in Appendix A.

1.9 The maximum unfactored gravity loads are:

| 4.0 kPa                | 84 psf  |
|------------------------|---|
| 1.9 kPa                | 40 psf  |
| 0.7 kPa                | 15 psf  |
| 0.7 kPa                | 15 psf  |
| 23.6 kN/m <sup>3</sup> | 150 lb/ft <sup>3</sup>  |
| 20.0 kN/m <sup>3</sup> | 128 lb/ft <sup>3</sup>  |
| 7.32 m                 | 24 ft   |
| 3.05 m                 | 10 ft   |
| 4.88 m                 | 16 ft   |
| 3.66 m                 | 12 ft   |
|                        | 1.9 kPa<br>0.7 kPa<br>0.7 kPa<br>23.6 kN/m³<br>20.0 kN/m³<br>7.32 m<br>3.05 m<br>4.88 m |

1.10 The lateral soil pressures against below grade walls are:

| Area Surcharge (K <sub>o</sub> = 0.5)            | 2.4 kPa          | 50 psf      |  |
|--|------------------|-------------|--|
| Equivalent Fluid Density of Soil ( $K_o = 1.0$ ) | 480 – 1200 kg/m³ | 30 – 75 pcf |  |

- 1.11 The wind loads are indicated in the design tables.
- 1.12 Seismic limits in wall analysis and design are based on  $S_a(0.2)$  and  $S_a(0.5)$  values. In order to simplify the tables, an equivalent seismic spectral response acceleration for ICF walls,  $S_{a,ICF}$  is defined and provided in Appendix A. Equivalent spectral response,  $S_{a,ICF}$  is used to calculate the seismic shear loads as given in following equation and the limits are indicated in shear wall tables.

$$V_{\text{seismic}} = F S_{\text{a,ICF}} W / R_{\text{d}} R_{\text{o}}$$

where F = max (F(0.5)) for soil type D or better = 1.47

1.13 The following peak ground acceleration (PGA) data was used in the analysis of below grade walls. These are the maximum associated values from Appendix C of the 2015 NBCC for the selected S<sub>a</sub>(0.2) values.

| Sa(0.2) | 0.25 | 0.7   | 1.20  | 1.75 |
|---------|------|-------|-------|------|
| PGA     | 0.16 | 0.434 | 0.724 | 1.04 |

- 1.14 Only seismic site classes A, B, C and D, as defined in Part 4 of the NBCC, are permitted.
- 1.15 Wall and lintel deflections have been limited to L/360.

9

1.16 The maximum building aspect ratio is the longest plan dimension divided by the shortest plan dimension of the building. Attached garages can be excluded from the aspect ratio calculation provided they are separated from the main building by ICF walls meeting the requirements of this guide.

#### 2. Construction

- 2.1 Except as noted otherwise for specific conditions, the design assumes that ALL walls are laterally supported by the building foundation, roof and floor systems, designed by others. Roof and floor systems can be designed in accordance with part 9 of NBCC or building system manufacturers.
- Foundation walls shall be laterally supported at the top and bottom prior to backfilling.
- 2.3 Provide lateral support at the bottom of the foundation wall in accordance with NBCC 2015 part 9.15.4.4. Alternatively, dowel the wall to the footing as per Table F. 1.
- 2.4 The contractor shall make adequate provision for construction loads and temporary bracing to keep the structure plumb and in true alignment at all phases of construction.
- 2.5 Hydrostatic pressure due to water build-up has not been included in the design and analysis. Backfill shall be drained in accordance with NBCC 2015 9.4.4.6.
- 2.6 Surface grading around the foundation is to slope away from building to allow surface water to drain away.
- 2.7 Provide adequate frost protection for all foundation walls and footings, both during construction and in the final installation.
- 2.8 Construction joints shall be made and located so as not to impair the strength of the structure. All specified reinforcing bars shall have minimum lap lengths across all construction joints.
- 2.9 Construction joints shall not be installed within 610 mm (2ft) of a wall opening.
- 2.10 All dimensions are in millimeters unless noted otherwise.
- 2.11 It is the responsibility of the roof and floor designer to ensure adequate bearing for all framing members is provided on the concrete walls.

#### 3. Concrete

- Concrete work shall conform to the latest editions of CSA A23.1,2,3 for materials and workmanship.
- 3.2 The minimum 28-day compressive strength of concrete shall be 20 MPa.
- 3.3 Maximum size of aggregates in concrete walls with minimum concrete cover of 40mm, are to be 19mm (3/4") diameter. Maximum aggregate size shall be limited to 12.5mm (1/2") if the concrete cover is less than 40mm.
- 3.4 Concrete pours shall be terminated at locations of lateral support.
- 3.5 Use high frequency vibration to place all concrete. Extra care is needed when vibrating during concrete placement for the purpose of ensuring a homogeneous aggregate distribution, without segregation.
- 3.6 Take adequate measures to protect concrete from exposure to freezing temperatures and precipitation at least seven days after concrete placement.

#### 4. Reinforcing Steel

- 4.1 Use Grade 400 deformed rebar placed in accordance with the manual of standard practice.
- 4.2 Reinforcement size, spacing and placement to be in accordance with notes and design tables for above grade walls, below grade walls and lintels.
- 4.3 10M bars may be installed as distributed steel where 15M bars are specified provided they are installed at half the spacing required for 15M bars. 15M bars may be installed as distributed steel where 10M bars are specified, but must be installed at the same spacing as specified for the 10M bars.

4.4 The required number of bars specified for concentrated reinforcing steel can be converted to 15M bars as per the following conversion table:

|               | rated Reinforcing Bars<br>of Shear Walls |
|---------------|--|
| Specified 10M | Equivalent 15M                           |
| 2             | 1  |
| 3 or 4        | 2  |
| 5 or 6        | 3  |

- 4.5 Maintain a minimum concrete clear cover and reinforcement spacing of 40mm (1 ½") for all reinforcing steel, except 20mm (3/4") cover is permitted for below grade walls of heated buildings. The minimum concrete covers must be maintained for vertical bars in below grade walls.
- 4.6 Where bars within a lintel cannot achieve a minimum concrete side cover and spacing of 40mm (1½"), the bars are required to be bundled. The following notes apply to all bundled bars:
  - a) Groups of parallel reinforcing bars bundled in contact, assumed to act as a unit, with not more than four in any one bundle, may be used. Bundled bars shall be tied, wired, or otherwise fastened together to ensure that they remain in position.
  - Bundled bars shall not be spliced over the span of any lintel.
- 4.7 Minimum bar lap length shall be:
  - a) 450 mm (18") for 10M bars
  - b) 650 mm (26") for 15M bars
  - c) 750 mm (30") for 20M bars
- 4.8 Standard hook lengths shall be:

4.9

- Startuaru Hook lerigiris silali be
  - a) 200 mm (8") for 10M barsb) 250 mm (10") for 15M bars
  - c) 300 mm (12") for 20M bars

Maximum transverse spacing (gap) between non-contact parallel bars spliced by lap splices, shall not exceed the lesser of one-fifth of the required lap splices length or 150mm.

- 4.10 Guidance was taken from PCA 100-2017 Prescriptive Design of Exterior Walls for One- and Two-Family Dwellings where steel reinforcement does not meet the minimum requirements of CSA A23.3 Clause 14.1. References to research conducted by PCA for these conditions are included in PCA 100-2017
- 4.11 Where the vertical wall reinforcement spacing exceeds maximum spacing requirements according to CSA A23.3 Clause 14.1 the design capacity is at least one third more than required.
- 4.12 Horizontal temperature and shrinkage reinforcing steel may be less than specified in CSA A23.3. This is due to ideal curing conditions within the ICF system, which reduce the risk of cracking. In addition, finishes are not applied directly to the concrete wall; therefore, the risk of potential cracks propagating to the surface of the finishes is minimized.

#### 5. Above Grade and Below Grade Walls

- 5.1 Wall thicknesses given in above and below grade wall tables are the nominal thicknesses. The actual thickness of the wall may vary by ± ¼".
- 5.2 Above grade and below grade walls are designed to resist out-of-plane and in-plane loads by providing the specified reinforcing steel.

- 5.3 Provide horizontal and vertical distributed steel throughout all walls as described in the Distributed Reinforcing Steel section
- 5.4 Provide additional concentrated horizontal and vertical steel around door and window openings, beside stair openings, under point loads, and at the ends of all walls and at all corners as described in the Window and Door Openings, Stair Openings, Concentrated Point Loads and Shear Walls sections.
- 5.5 The specified reinforcing is applicable to building with walkout basements. However, the global slope stability and building stability for unbalance soil pressures created by the walkout condition is by others.
- 5.6 Provide 600 mm (24") × 600 mm (24") horizontal bent dowel at each corner of the walls. Size and spacing of the dowel should match the horizontal reinforcement as per above and below grade tables.

#### 5.1 Distributed Reinforcing Steel

- 5.1.1 Horizontal reinforcing is to consist of 10M or 15M continuous bars at 300 mm (12") o.c. to 900mm (36") o.c., in accordance with the tables.
- 5.1.2 Provide one continuous horizontal bar at maximum 150mm (6") from the top of the wall and at all floor levels.
- 5.1.3 Tables B. 1.1, B. 2.1, B. 3.1 and B. 4.1 provide the necessary distributed vertical steel to resist the out-of-plane loads for below grade ICF walls with 6" tie spacing.
- 5.1.4 Tables B. 1. 2, B. 2. 2, B. 3. 2 and B. 4. 2 provide the necessary distributed vertical steel to resist the out-of-plane loads for below grade ICF walls with 8" tie spacing.
- 5.1.5 Tables A. 1. 1 and A. 2. 1 provide the necessary distributed vertical steel to resist the out-of-plane loads for above grade ICF walls with 6" tie spacing.
- 5.1.6 Tables A. 2. 1 and A. 2. 2 provide the necessary distributed vertical steel to resist the out-of-plane loads for above grade ICF walls with 8" tie spacing.
- 5.1.7 Interpolation within the tables is not permitted.
- 5.1.8 Any table may be used where the local wind and seismic design values do not exceed the maximum values given in the table.
- 5.1.9 All basement walls in a building with a walkout condition shall be reinforced as a below grade wall for the maximum backfill height. Place the reinforcing in the center of the wall where the basement wall does not support any backfill.
- 5.1.10 The vertical distributed reinforcing bar spacing given in millimeters in the tables is the nominal dimension, the bar spacing in inches is the exact dimension. The vertical bar spacing is given as multiples of the form web spacing.
- 5.1.11 For walls below grade, the vertical reinforcing is to be placed on the inside face of the wall as shown in Detail B. 1.
- 5.1.12 For walls above grade, the vertical reinforcing is to be placed in the middle of the wall as shown in Detail A. 1.
- 5.1.13 Walls above grade formed using 300mm (12") forms shall have all distributed steel placed in two equal layers. One layer is to be placed in the exterior third of the wall and the other layer in the interior third of the wall as shown in Detail A. 2.
- 5.1.14 The height of an above grade wall is the distance from the top of the floor connection at its base to the bottom of the floor or roof connection at its top, as shown in Detail A. 12.
- 5.1.15 The height of a below grade wall is the distance from the top of the basement floor slab to the point of bearing for the floor system, as shown in Detail A. 12.
- 5.1.16 Backfill height against a below grade wall is the distance from the top of the basement floor slab to the finished exterior grade level.
- 5.1.17 Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where

- 18" o.c. spacing is specified for horizontal bars as shown in Detail A. 3.
- 5.1.18 Provide three horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars as shown in Detail A. 4.
- 5.1.19 Provide four horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars as shown in Detail A. 5.
- 5.1.20 Alternating vertical bar spacing of 8" o.c. and 16" o.c. may be used to achieve an average spacing of 12" o.c. where 12" o.c. spacing is specified for vertical bars as shown in Detail A. 6.
- 5.1.21 Distributed reinforcing in a wall shall not be less than that required for the wall above.

#### 5.2 Shear Walls

- 5.2.1 Shear walls are solid ICF wall segments between openings and corners.
- 5.2.2 Openings 150mm (6") in diameter and less are permitted within a shear wall, provided they do not occur within 300mm (12") of the ends of the shear wall.
- 5.2.3 Shear walls are designed for building with or without walkout basement. Wall configurations for building without and with walkout basement are shown in Detail A. 7 and Detail A. 8, respectively. Wall configurations for walkout basement walls is shown in Detail A. 9.
- 5.2.4 A minimum number and length of shear walls is required in all four sides of the building on all levels in the building as specified in shear wall tables (A.3. to A.11.) for above grade walls. This is to replace the requirements for 1200mm long wall segments at each corner in exterior walls specified in NBCC 9.20.17.3.(1) and 9.20.17.4.(1).
- 5.2.5 Below grade walls shall have the same number and length of shear walls as required for the walls immediately above.
- 5.2.6 All walls shall be proportionally and evenly distributed in both the transverse and longitudinal direction of the building.
- 5.2.7 A minimum number of full height vertical reinforcing bars are to be installed at the ends of all required shear walls in accordance with shear wall tables (A.3. to A.11.) for the number and length of shear walls provided. These bars are referred to as concentrated reinforcement and are in addition to the distributed reinforcement specified elsewhere.
- 5.2.8 The concentrated vertical reinforcement at the ends of each required shear wall is to be placed in accordance with Detail A. 10.
- 5.2.9 Matching dowels are to be provided for the concentrated and distributed vertical reinforcement at the base of all required shear walls into floor below as shown in Detail A. 11.
- 5.2.10 Horizontal reinforcement in shear walls where  $S_{a,ICF} > 0.2$  shall be terminated at the ends of the wall with a standard hook.
- 5.2.11 Choose the first column in shear wall tables (A.3. to A.11.) that meets the minimum required number and lengths of shear wall to determine the minimum number of bars to install at the ends of all shear walls (sides of all openings and at each corner). Therefore, first check if there is at least one shear wall that meets the minimum length requirement given in the table for one shear wall. If not, then check if there are at least two shear walls that meet the minimum length requirement given in the table for two shear walls, and so on. When a number of shear walls is found that meets the minimum length requirements, use that column to determine the required concentrated reinforcement at the ends of those shear walls.

#### 5.3 Concentrated Point Loads on Walls

5.3.1 All point loads, such as concentrated loads created by girder trusses, columns and beams, shall bear directly on top of the concrete wall, and shall not be hung or in any other manner

- create an eccentric loading on the concrete wall. Provide beam pockets, as necessary.
- 5.3.2 The minimum length of solid wall without openings directly below point loads, such as concentrated loads created by girder trusses, columns and beams, shall be 6'-0". In addition to the wall reinforcing required in the following tables, two additional 15M vertical bars shall be installed directly below the point load. This length of solid wall may contain a corner.
- 5.3.3 Use Table C. 1 for the maximum unfactored point load that can be applied on a solid wall without opening if length of the wall is less than 6'-0".
- 5.3.4 Maximum unfactored point loads given in Table C. 1 are only the wall capacity. It is the responsibility of the roof and floor designer to ensure adequate bearing for all framing members is provided on the concrete walls.

#### 5.4 Window and Door Openings

- 5.4.1 The cumulative width of openings in above grade walls shall not be more than 70% of the total wall length.
- 5.4.2 The cumulative width of openings in below grade walls shall not be more than 25% of the total wall length.
- 5.4.3 Openings in below grade walls shall not exceed a maximum width of 1.83m (6'-0") and a maximum height of 0.914m (3'-0").
- 5.4.4 The length of solid wall between two openings in below grade walls shall be equal to the average width of the openings and at least 1.22m (4'-0").
- 5.4.5 A minimum of 2-10M bars is to be installed completely around all sides of openings.
- 5.4.6 Provide additional horizontal reinforcing steel directly above the opening as required for lintels.
- 5.4.7 Horizontal bars above and below the opening shall extend a minimum of 610mm (24") past opening.
- 5.4.8 Vertical bars on each side of the opening shall extend the full height of the wall.
- 5.4.9 Distributed vertical reinforcing steel that is interrupted by an opening shall be replaced by an equal amount of concentrated vertical reinforcing steel with half placed on each side of the opening. The additional steel is to be evenly distributed within a distance equal to half the opening width, up to a maximum of 1.22m (4'-0"), from each side of the opening.
- 5.4.10 If the spacing of the additional concentrated vertical reinforcing required on each side of openings, described in the previous note, is less than 150mm (6"), a local design professional shall be retained to prepare the design in accordance with applicable standards.
- 5.4.11 Provide additional vertical reinforcing at the sides of openings as required at the ends of shear walls.

#### 5.4.1 Lintels

- 5.4.1.1 All concrete wall segments above openings are to be considered lintels.
- 5.4.1.2 The top of all lintels is to be laterally supported by the roof and floor systems, designed by others.
- 5.4.1.3 Lintels shall be a minimum of 200mm (8") deep.
- 5.4.1.4 Lintel bottom reinforcing is to be installed a maximum of 89mm (3½") from the bottom of the lintel and is to extend a minimum of 610mm (24") past the wall opening.
- 5.4.1.5 A minimum of 2-10M bars is to be installed completely around all sides of openings, as shown in Detail L. 1.
- 5.4.1.6 Where stirrups are required for lintels with uniformly distributed load, they shall be single 10M hook stirrups installed around bottom and top bars over the given end distance at each side of the beam as shown in Detail L. 2.
- 5.4.1.7 Where stirrups are required for lintels with concentrated load, they shall be single 10M hook stirrups installed around

- bottom and top bars over the whole length of the beam. 5.4.1.4.
- 5.4.1.8 Minimum lintel reinforcing is to consist of bottom bars indicated in the design tables, along with horizontal 10M continuous wall reinforcing at 406mm (16") on center, and a minimum of 1-10M top bar located 50mm (2") from the top of the lintel, as shown in Detail L. 3.
- 5.4.1.9 Provide a minimum of three stirrups in all lintels at the spacing indicated in the tables when  $S_a$  (0.2) > 0.4.
- 5.4.1.10 The lintel design tables are only applicable for uniformly distributed gravity line loads and point loads, such as concentrated loads created by girder trusses, columns and beams.
- 5.4.1.11 Concentrated load lintel tables consider only a single concentrated load acting on anywhere along the lintel span.
- 5.4.1.12 The lintel tables do not consider uniform and concentrated load to act simultaneously on the lintel.
- 5.4.1.13 The uniformly distributed load (UDL) is calculated by multiplying the roof and/or floor loads, including snow load (SL), live load (LL) and dead load (DL), by the tributary width (TW) of the roof and/or floor. The tributary width is determined by adding half the span of each rafter/joist bearing on the concrete lintel. For example, the UDL for a lintel supporting floor joists spanning 10'-0" and roof trusses spanning 30'-0" on one side only is calculated as follows:

$$\begin{aligned} \mathsf{UDL} &= \mathsf{TW}_{\mathsf{FLOOR}} \ ^* \ (\mathsf{LL}_{\mathsf{FLOOR}} + \mathsf{DL}_{\mathsf{FLOOR}}) + \mathsf{TW}_{\mathsf{ROOF}} \ ^* \ (\mathsf{SL}_{\mathsf{ROOF}} \\ &+ \mathsf{DL}_{\mathsf{IROOF}}) \end{aligned}$$

- 5.4.1.14 The weight of walls above the lintel has been included in the design of the lintel tables and does not need to be added to the UDL calculated as described above.
- 5.4.1.15 Where there is less than 305mm (12") of wall between openings, the lintel shall be reinforced to span over both openings, as shown in Detail L. 4.
- 5.4.1.16 Where there is less than 610mm (24") of wall between openings, and openings are greater than 1.53m (5'-0") in length, the lintel shall be reinforced to span over both openings, as shown in Detail L. 5.

#### 5.5 Stair Openings

- 5.5.1 Additional reinforcement is to be provided in exterior walls where a stair opening interrupts the required lateral support provided by the floor framing.
- 5.5.2 Table A. 12. provides the maximum dimension of stair opening parallel to the wall and the required horizontal reinforcement of above grade walls at stair opening.
- 5.5.3 Table B. 5. provides the maximum dimension of stair opening parallel to the wall and the required horizontal reinforcement of below grade walls at stair opening. Below grade walls at stair openings are designed for a backfill equivalent fluid density of 480 kg/m3 and a maximum Sa(0.2) of 0.7. Reinforcement design of below grade walls at stair openings shall be reviewed by a professional engineer if the wall does not meet the requirement of this table.
- 5.5.4 Lateral restraint of the wall is to be provided by the floor framing on each side of the stair opening, by others.

5.5.5 The spacing of distributed vertical reinforcement is to be reduced for a distance of 1.22m (4'-0") on each side of the stair opening for above grade and below grade walls. The required spacing is calculated by the following equation and listed in Table A. 13.

(METRIC) 
$$S_{REDUCED} = 2.44/(L_{UNSUPPORTED} + 2.44) * S_{TABLES}$$
  
(IMPERIAL)  $S_{REDUCED} = 8/(L_{UNSUPPORTED} + 8) * S_{TABLES}$ 

where

 $S_{REDUCED}$  = the bar spacing (mm/in) required at the sides of the stair opening.

S<sub>TABLES</sub> = the required bar spacing (mm/in) for a laterally supported wall as determined from above grade and below grade walls tables.

L<sub>unsupported</sub> = the length of wall (m/ft) that is laterally unsupported as a result of a stair opening in the floor framing.

5.5.6 If the stair opening is out of the scope of design limitations for stair opening table, additional distributed horizontal reinforcing bars are to be added at the stair opening as specified by a professional engineer.

#### 5.6 Laterally Supported Unreinforced Foundation Wall

- 5.6.1 Foundation walls in this section are designed for backfill equivalent fluid density of 480 kg/m³ in accordance with section 9.4.4.6 of NBC 2015 & OBC 2012r2020.
- 5.6.2 If the foundation wall is laterally supported at the top (e.g. by floor joists) and meets all the requirements of NBC 2015 section 9.15.4, and supports only wood frame construction above, a 20 MPa unreinforced concrete wall is adequate for the specific wall and backfill height, as per NBC 2015 table 9.15.4.2.A, shown in Detail B. 2.
- 5.6.3 Use below grade wall tables if the height of the wall and / or backfilled soil is greater than the maximum values of Table B.6.
- 5.6.4 Use below grade wall tables for walls supporting ICF wall above.

## 5.7 Laterally Unsupported Foundation Walls (Knee Wall) with Wood Framing Above

- 5.7.1 If the foundation wall is not supported at the top (e.g. by floor joists) and supports only wood frame construction above, the design can follow the knee wall design as shown in Details B.3 and B.4. The design includes both the footing sizing and reinforcing of the footing and wall.
- 5.72 If heights of backfilled soil and / or foundation wall are greater than what shown in these details, reinforcement design of the wall must be reviewed by a professional engineer.
- 5.7.3 Foundations are to bear directly on material suitable for 75 kPa (1566 psf) bearing pressure.

#### 6. Wood Ledger Connection

- 6.1 Anchor bolts are designed to transfer vertical load of floor to the ICF wall. Design of floor diaphragm by others.
- 6.2 Design loads are 40psf (1.9 kPa) floor live load, 15psf (0.7 kPa) floor dead load.
- Anchor bolts are to be staggered as shown in Detail C. 1. Use Table C. 2. for size and spacing of the anchors.

#### 7. Brick Ledge

- 7.1 The concrete ledge is to support uniformly distributed loads only. It is not to support concentrated load. A brick ledge section is shown in Detail C. 2.
- 7.2 Table C. 3. provides the brick ledge capacity as the total height of brick veneer or tributary width of a floor that can be supported per unit length of the brick ledge.
- 7.3 The capacity given in Table C. 3. is only for the capacity of the brick ledge. The veneer height may be limited by other

- building code requirement or manufacturer's installation requirements.
- 7.4 The above grade and below grade wall reinforcing tables include the effects of using the ledge to support floor framing.
- 7.5 The below grade wall reinforcing tables include the effects of using the ledge to support masonry veneer.
- 7.6 The maximum brick height given does not account for windows. To include the effect of windows, it is necessary to calculate an effective brick height.
- 7.7 The ledge reinforcement is 10M hooked rebar, as shown in Detail C. 2 or xLerator as shown in Detail C. 3. It is to be placed 6" or 8" on center matching the tie spacing of ICF blocks.

#### 8. Strip Footing

- 8.1 Tables F. 2. to F. 4. provides minimum width and thickness of footing for different loadings and soil bearing pressures.
- 8.2 Soft areas uncovered during excavation shall be subexcavated to sound material and filled with clean and free drained granular soil.
- 8.3 Protect soil from freezing adjacent to and below all footings.
- 8.4 All footings are to be reinforced with 2-15M continuous bars, as per Detail F. 1.
- 8.5 Tables F. 2. to F. 4. do not include masonry veneer. Increase the footing width by 2" and the thickness by 1" for:
  - a) Every 12'-0" of masonry veneer for 3000psf soil bearing capacity.
    - b) Every 10'-0" of masonry veneer for 2500psf soil bearing capacity.
    - c) Every 8'-0" of masonry veneer for 2000psf soil bearing capacity.
  - d) Every 6'-0" of masonry veneer for 1500psf soil bearing capacity.
- 8.6 The footing size for locations with Sa (0.2) > 0.4 to be the larger of 30" wide by 12" deep or the size shown in the table.
- 8.7 Provide footing dowels as shown in Detail F. 1.
- 8.8 Footing dowels are 10M or 15M bars embedded 6" or 8" into the footing. Dowels size and spacing is given in Table F. 1.
- 8.9 Provide bent dowels as per Note. 4 of Table F. 1, at shear walls locations matching the size and spacing of vertical bars of the shear walls.

#### **Details & Tables Index**

- 18 Detail A.1. Above Grade Wall Reinforcing Placement for 6, 8 and 10 Thick Walls.
- 19 Detail A.2. Above Grade Wall Reinforcing Placement for 12" Thick Walls.
- 20 Detail A.3. Alternating Horizontal Bar Spacing of 12" O.C. and 24" O.C. to Achieve an Average Spacing of 18" O.C. (Two Horizontal Bars in Every Three Rows of ICF Blocks)
- 20 Detail A.4. Three Horizontal Bars in Every Two Rows of 18" High Block to Achieve an Average Spacing of 12" O.C.
- 21 Detail A.5. Four Horizontal Bars in Every Three Rows of 16" High Block to Achieve an Average Spacing of 12" O.C.
- 21 Detail A.6. Alternating Vertical Bar Spacing of 8" O.C. and 16" O.C. to Achieve an Average Spacing of 12" O.C. (Two Vertical Bars in Every Three Cells)
- 22 Detail A.7.1. Main Floor Walls of One-Story Structure Supporting Wood Frame Roof.
- 22 Detail A.7.2. Second Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Roof & Main Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof.
- 23 Detail A.7.3. Main Floor Walls of a Two-Story Structure Supporting 2nd Story Wood Frame Walls, Floor and Roof.
- 24 Detail A.8.1. Main Floor Walls of One-Story Structure Supporting Wood Frame Roof.
- 25 Detail A.8.2. Second Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Roof & Main Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof.
- 26 Detail A.8.3. Main Floor Walls of a Two-Story Structure Supporting 2nd Story Wood Frame Walls, Floor and Roof.
- 27 Detail A.9.1. Walkout Basement Wall of a Single Story ICF Structure Supporting Wood Frame Roof.
- 28 Detail A.9.2. Walkout Basement Wall of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof.
- 29 Detail A.9.3. Walkout Basement Wall of a Two-Story Building with Main Floor ICF Walls Supporting Second Story Wood Framed Walls, Floor, and Roof.
- 30 Detail A.9.4. Walkout Basement Wall of a Two-Story Wood Framed Structure Supporting Wood Frame Floors, and Roof, Walls, Floor, and Roof.
- 31 Detail A.10. Shear Wall Concentrated Reinforcing Placement.
- 32 Detail A.11. Shear Wall Dowels.
- 33 Detail A.12. Above and Below Grade Wall Height
- 17 Detail B. 1. Below Grade Wall Reinforcing Placement for All Wall Thicknesses.
- 94 Detail B.2. Laterally Supported Foundation Wall
- 95 Detail B.3. Laterally Unsupported Foundation Wall (Knee Wall)
- 96 Detail B.4. Laterally Unsupported Foundation Wall (Knee Wall) with Brick Veneer
- 97 Detail C.1. Wood Ledger Connection
- 98 Detail C. 2. Brick Ledge Connection
- 98 Detail C.3. xLerator Ledge Reinforcement
- 100 Detail F.1. Footing Dowel
- 63 Detail L. 1. Reinforcing Around Openings.
- 64 Detail L. 2. Lintel Stirrup Detail.
- 64 Detail L. 3. Lintel Section
- 65 Detail L. 4. Lintel Span with Less Than 305mm (12") of Wall Between Openings.
- Detail L. 5. Lintel Span with Less Than 610mm (24") of Wall Between Openings, and Openings Are Greater Than 1.53m (5'-0") in Length.

- Table A.1.1. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa,ICF  $\leq$  0.2 and Hourly Wind Pressure,  $q_{_{1/50}} \leq$  1.05 for ICF Walls with 6" Tie Spacing
- Table A.1.2. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \le 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$  for Walls with 8" Tie Spacing
- Table A.2.1. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification, S $_{a,ICF} \ge 0.2$  and Hourly Wind Pressure, q $_{1/50} \le 1.05$  for ICF Walls with 6" Tie Spacing
- Table A.2.2. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \ge 0.2$  and Hourly Wind Pressure, q  $_{1/50} \le 1.05$  for ICF Walls with 8" Tie Spacing
- Table A.3. Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.2$  and Hourly Wind Pressure,  $q_{1/50} \leq 0.5$ kPa (in a Building Without Walkout Basement)
- Table A.4 Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.2$  and Hourly Wind Pressure,  $0.5 kPa < q_{1/50} \leq 0.75 kPa$  (in a Building Without Walkout Basement)
- Table A.5 Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.2$  and Hourly Wind Pressure,  $0.75 kPa < q_{1/50} \leq 1.05 kPa$  (in a Building Without Walkout Basement)
- Table A.6 Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} > 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa (in a Building Without Walkout Basement)
- Table A.7. Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.2$  and Hourly Wind Pressure,  $q_{1/50} \leq 0.5$ kPa (in a Building With Walkout Basement)
- Table A.8 Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.2$  and Hourly Wind Pressure,  $0.5 \text{kPa} < q_{_{1/50}} \leq 0.75 \text{kPa}$  (in a Building With Walkout Basement)
  - Table A.9 Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, S<sub>a,ICF</sub>  $\leq$  0.2 and Hourly Wind Pressure, 0.75kPa < q<sub>1/50</sub>  $\leq$  1.05kPa (in a Building With Walkout Basement)
  - Table A.10 Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} > 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05 kPa$  (in a Building With Walkout Basement)
- Table A.11 Above Grade Walkout Basement Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.4$  and Hourly Wind Pressure,  $q_{1/50} \leq 1.05 kPa$
- 91 Table A.12. Above Grade Wall Distributed Horizontal Reinforcement at Stair Openings
- 93 Table A.13. Bar Spacing Required at Each Side of the Stair Opening
- Table B.1.1.— Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2)  $\leq$  0.25 and Hourly Wind Pressure,  $q_{_{1/50}} \leq$  1.05kPa, for ICF Walls with 6" Tie Spacing
- Table B.1.1. Continued Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2) ≤ 0.25 and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 6" Tie Spacing
- Table B.1.2.– Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2) ≤ 0.25 and Hourly Wind Pressure,  $q_{_{1/50}}$  ≤ 1.05kPa, for ICF Walls with 8" Tie Spacing
- 37 Table B.1.2. Continued Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2)  $\leq$  0.25 and Hourly Wind Pressure,  $q_{1/50} \leq$  1.05kPa, for ICF Walls with 8" Tie Spacing

60

- Table B.2.1. Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.25 < Sa(0.2) ≤ 0.70 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 6"Tie Spacing
- 39 Table B.2.1. Continued − Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.25 < Sa(0.2) \le 0.70$  and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 6" Tie Spacing
- 40 Table B.2.2. Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.25 < Sa(0.2) ≤ 0.70 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 8" Tie Spacing
- 41 Table B.2.2. Continued Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.25 < Sa(0.2) \le 0.70$  and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 8" Tie Spacing
- 42 Table B.3.1. Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.70 < Sa(0.2) ≤ 1.2 and Hourly Wind Pressure,  $q_{1/50}$  ≤ 1.05kPa, for ICF Walls with 6" Tie Spacing
- 43 Table B.3.1. Continued Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.70 < Sa(0.2) \le 1.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 6" Tie Spacing
- Table B.3.2. Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.70 < Sa(0.2) ≤ 1.2 and Hourly Wind Pressure, q<sub>1/50</sub> ≤ 1.05kPa, for ICF Walls with 8" Tie Spacing
- Table B.3.2. Continued— Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.70 < Sa(0.2) \le 1.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 8" Tie Spacing
- 46 Table B.4.1. Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2) ≤ 1.75 and Hourly Wind Pressure, q<sub>1/50</sub> ≤ 1.05kPa, for ICF Walls with 6" Tie Spacing
- 47 Table B.4.1. Continued— Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2)  $\leq$  1.75 and Hourly Wind Pressure,  $q_{_{1/50}} \leq$  1.05kPa, for ICF Walls with 6" Tie Spacing
- Table B.4.2. Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2) ≤ 1.75 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 8" Tie Spacing
- 49 Table B.4.2. Continued— Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2) ≤ 1.75 and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 8" Tie Spacing
- Table B. 5. Below Grade Wall Distributed Horizontal Reinforcement at Stair Opening for Seismic Zone Classification Sa(0.2)  $\leq$  0.7, Hourly Wind Pressure ,  $q_{1/50} \leq$  1.05 kPa, and Backfill
- 94 Table B.6. Maximum Height of Finish Ground Above Basement Floor
- 90 Table C.1. Maximum Unfactored Point Load on a Solid Wall Without Opening
- 97 Table C.2. Floor Ledger Anchor Bolts Size and Spacing
- 99 Table C.3 Brick Ledge Load Capacity
- 130 Table C-3 (Continued)
- 131 Table C-3 (Continued)
- 132 Table C-3 (Continued)
- 133 Table C-3 (Continued)
- 134 Table C-3 (Continued)
- 135 Table C-3 (Continued)
- Table C-3 (Continued)Table C-3 (Continued)
- 138 Table C-3 (Continued)
- 139 Table C-3 (Continued)
- 140 Table C-3 (Continued)
- 141 Table C-3 (Continued)
- 142 Table C-3 (Continued)

- 143 Table C-3 (Continued)
- 144 Table C-3 (Continued)
- 145 Table C-3 (Continued)
- 146 Table C-3 (Continued)
- 100 Table F.1- Footing Dowels Size and Spacing
- 101 Table F.2- Minimum Exterior Strip Footing Sizes Not Supporting Roof Loads
- 102 Table F.3- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads ≤ 2kPa
- 103 Table F.4- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads ≤4kPa
- 66 Table L1 6" Lintel Reinforcement with Uniformly Distributed Load
- 67 Table L1 Continued
- 68 Table L1 Continued
- 69 Table L2 8" Lintel Reinforcement with Uniformly Distributed Load
- 70 Table L2 Continued
- 71 Table L2 Continued
- 72 Table L3 10" Lintel Reinforcement with Uniformly Distributed Load
- 73 Table L3 Continued
- 74 Table L3 Continued
- 75 Table L4 12" Lintel Reinforcement with Uniformly Distributed Load
- 76 Table L4 Continued
- 77 Table L4 Continued
- 78 Table L5 6" Lintel Reinforcement Concentrated Load
- 79 Table L5 Continued
- 80 Table L5 Continued
- 81 Table L6 8" Lintel Reinforcement Concentrated Load
- 82 Table L6 Continued
- 83 Table L6 Continued
- 84 Table L7 10" Lintel Reinforcement Concentrated Load
- 85 Table L7 Continued

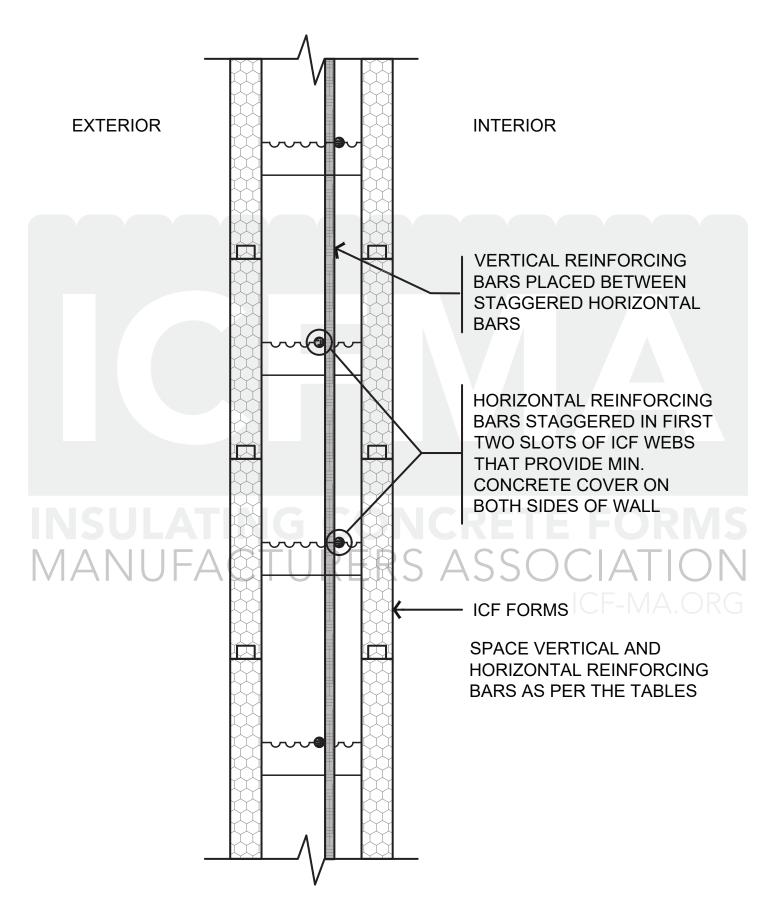
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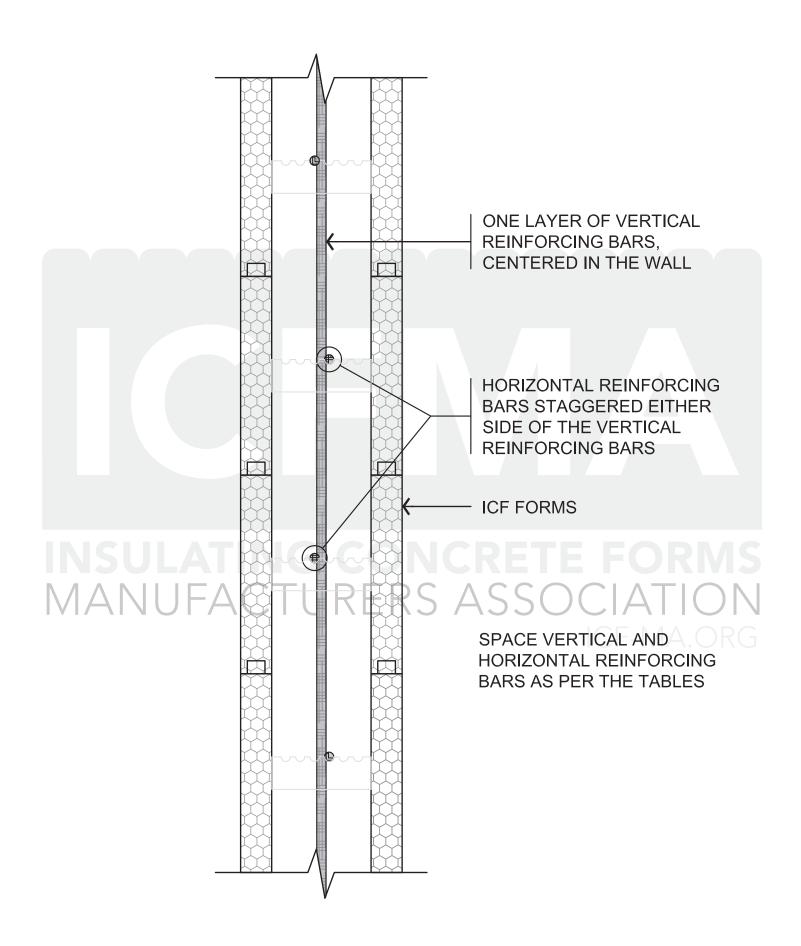
- Table L7 Continued
- 87 Table L8 12" Lintel Reinforcement Concentrated Load
- 88 Table L8 Continued
  - Table L8 Continued



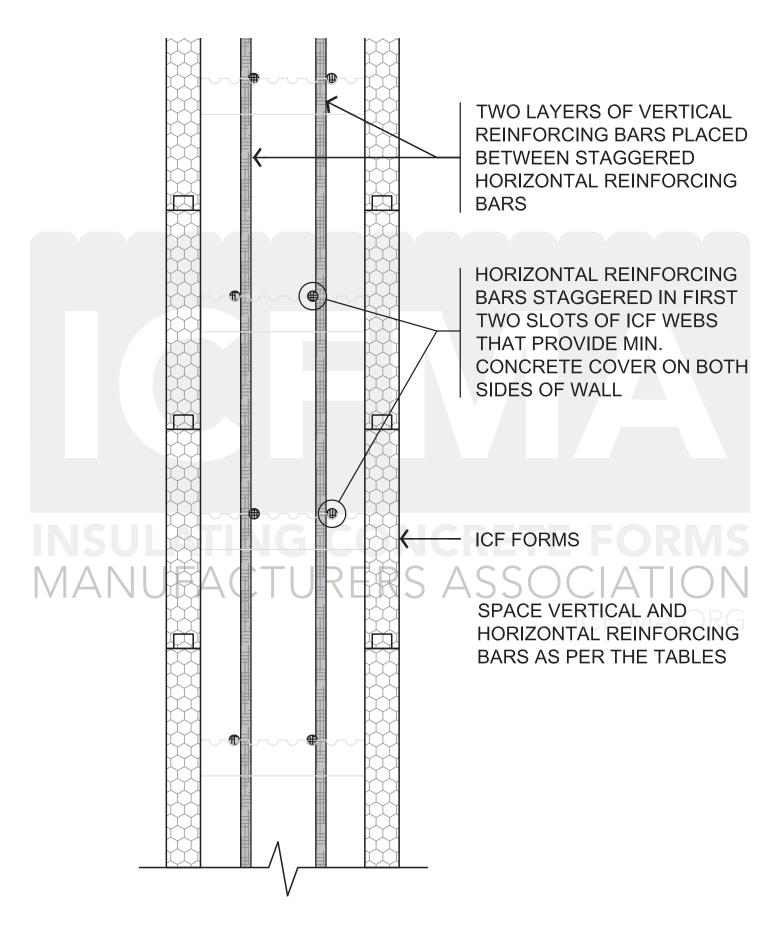
#### **Below & Above Grade Walls Details and Tables**



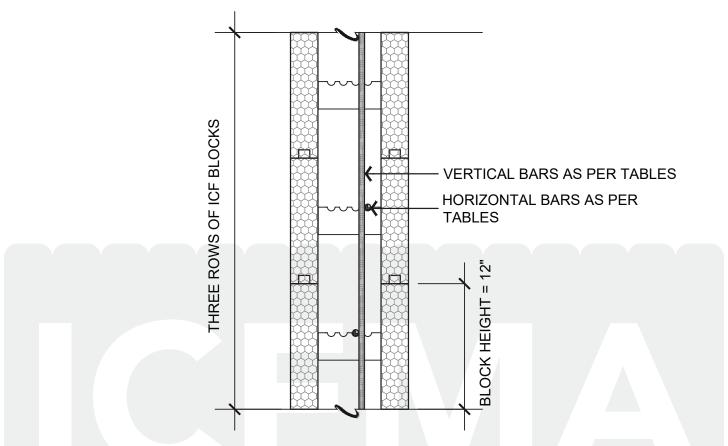
Detail B. 1. Below Grade Wall Reinforcing Placement for All Wall Thicknesses.



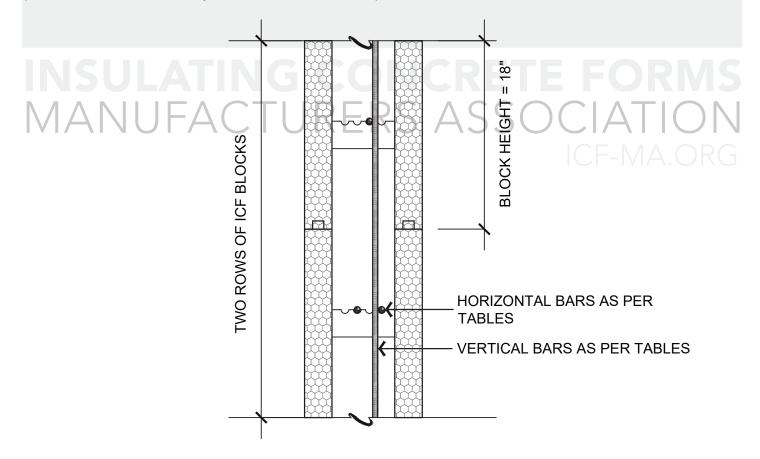
Detail A.1. Above Grade Wall Reinforcing Placement for 6", 8" and 10" Thick Walls.



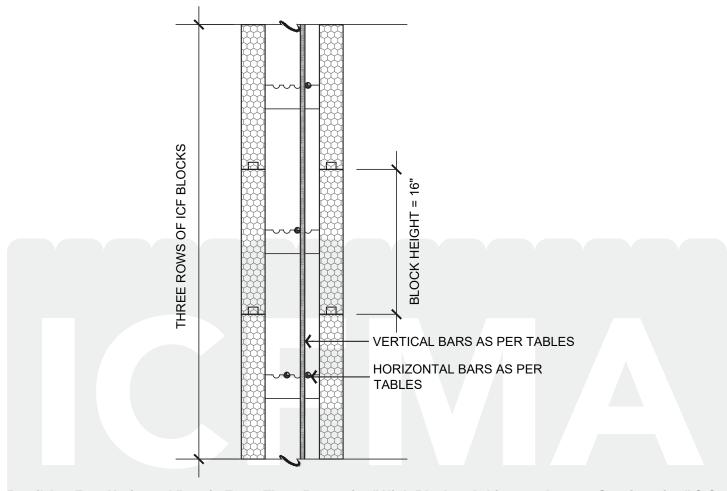
Detail A.2. Above Grade Wall Reinforcing Placement for 12" Thick Walls.



Detail A.3. Alternating Horizontal Bar Spacing of 12" O.C. and 24" O.C. to Achieve an Average Spacing of 18" O.C. (Two Horizontal Bars in Every Three Rows of ICF Blocks)

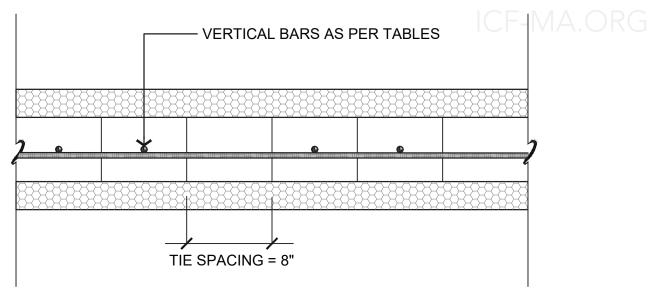


Detail A.4. Three Horizontal Bars in Every Two Rows of 18" High Block to Achieve an Average Spacing of 12" O.C.



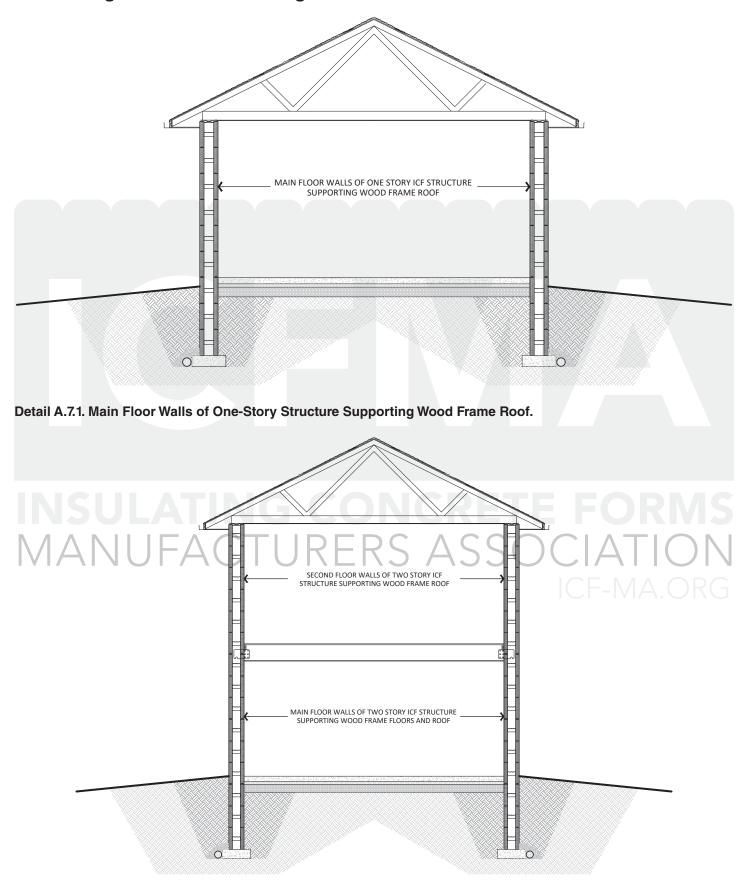
Detail A.5. Four Horizontal Bars in Every Three Rows of 16" High Block to Achieve an Average Spacing of 12" O.C.

# INSULATING CONCRETE FORMS MANUFACTURERS ASSOCIATION

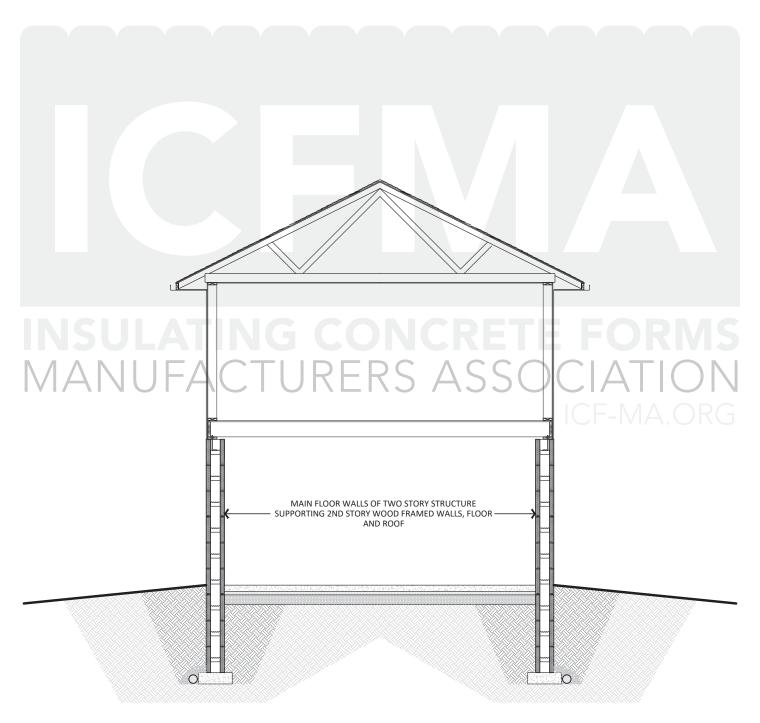


Detail A.6. Alternating Vertical Bar Spacing of 8" O.C. and 16" O.C. to Achieve an Average Spacing of 12" O.C. (Two Vertical Bars in Every Three Cells)

### Wall Configurations in a Building Without Walkout Basement

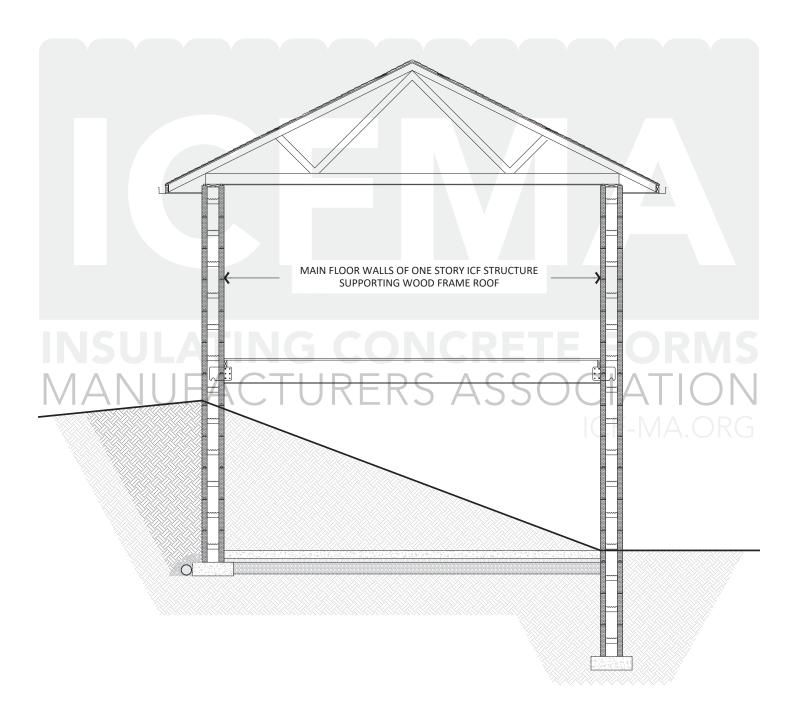


Detail A.7.2. Second Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Roof & Main Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof.

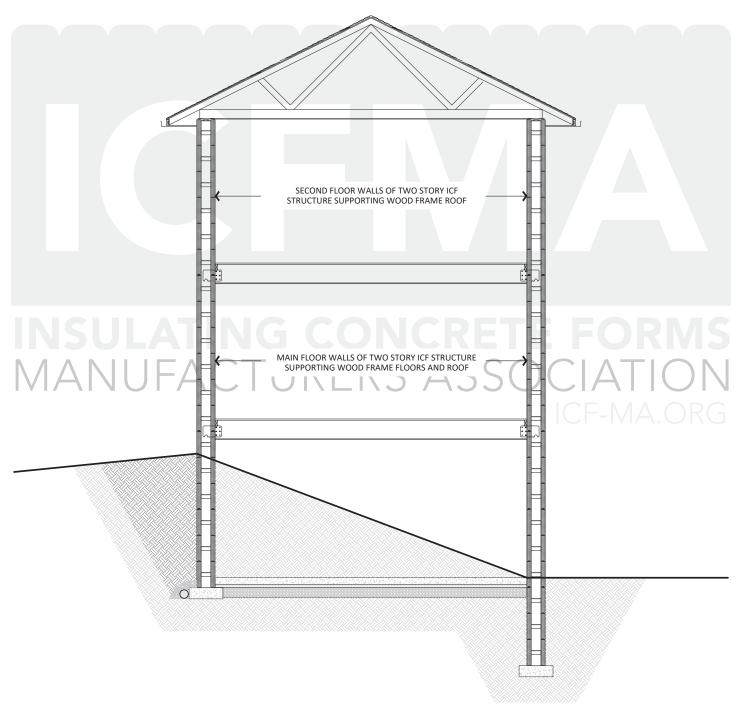


Detail A.7.3. Main Floor Walls of a Two-Story Structure Supporting 2nd Story Wood Frame Walls, Floor and Roof.

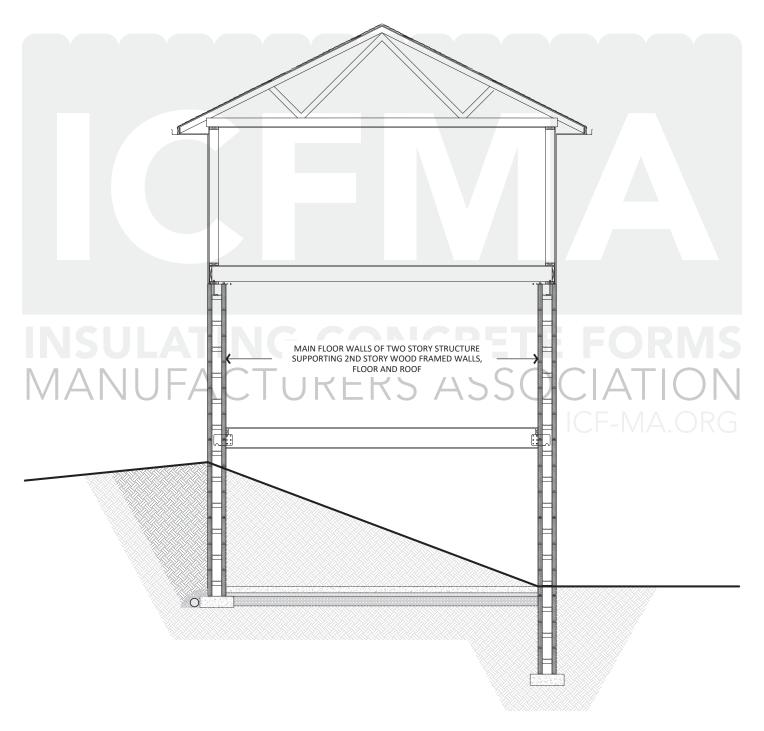
## Wall Configurations in a Building with Walkout Basement



Detail A.8.1. Main Floor Walls of One-Story Structure Supporting Wood Frame Roof.

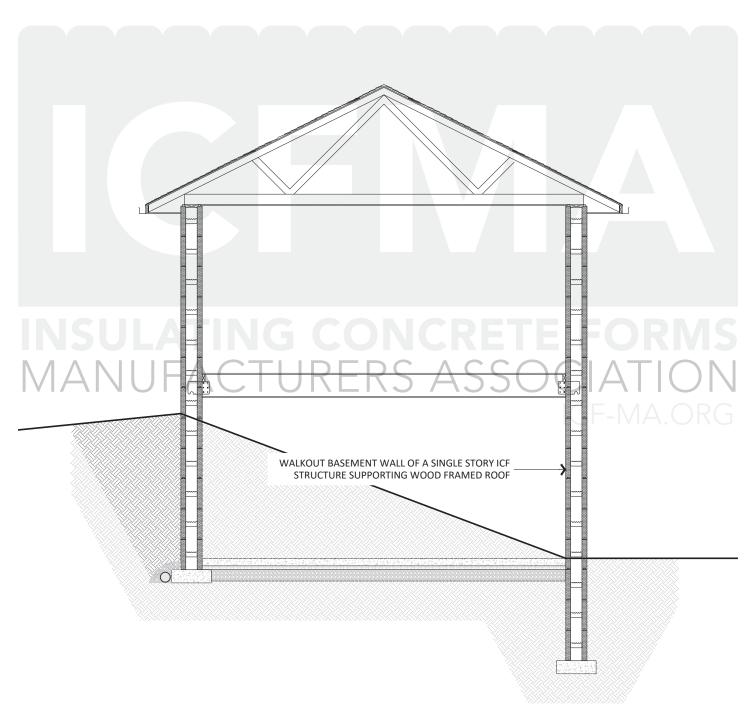


Detail A.8.2. Second Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Roof & Main Floor Walls of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof.

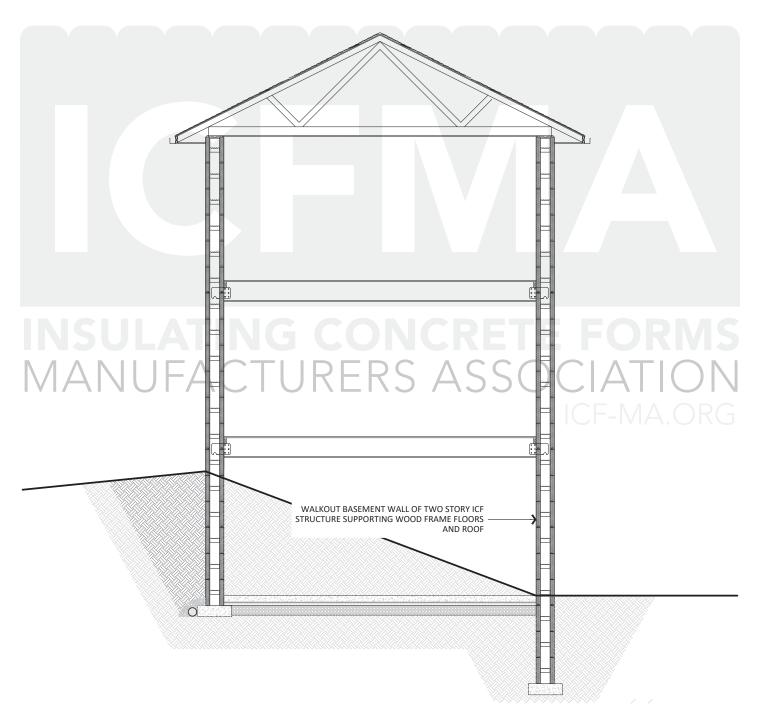


Detail A.8.3. Main Floor Walls of a Two-Story Structure Supporting 2nd Story Wood Frame Walls, Floor and Roof.

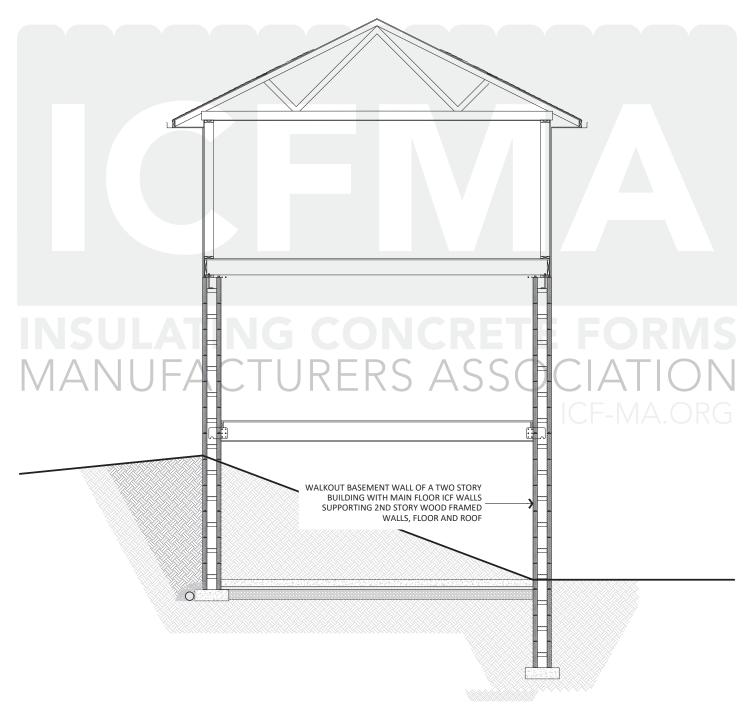
## **Walkout Basement Wall Configurations**



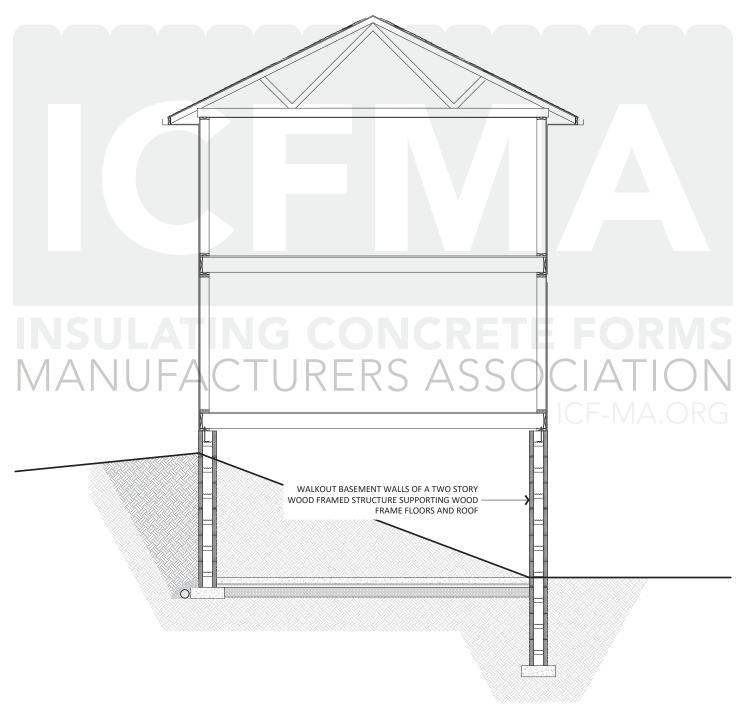
Detail A.9.1. Walkout Basement Wall of a Single Story ICF Structure Supporting Wood Frame Roof.



Detail A.9.2. Walkout Basement Wall of a Two-Story ICF Structure Supporting Wood Frame Floors and Roof.



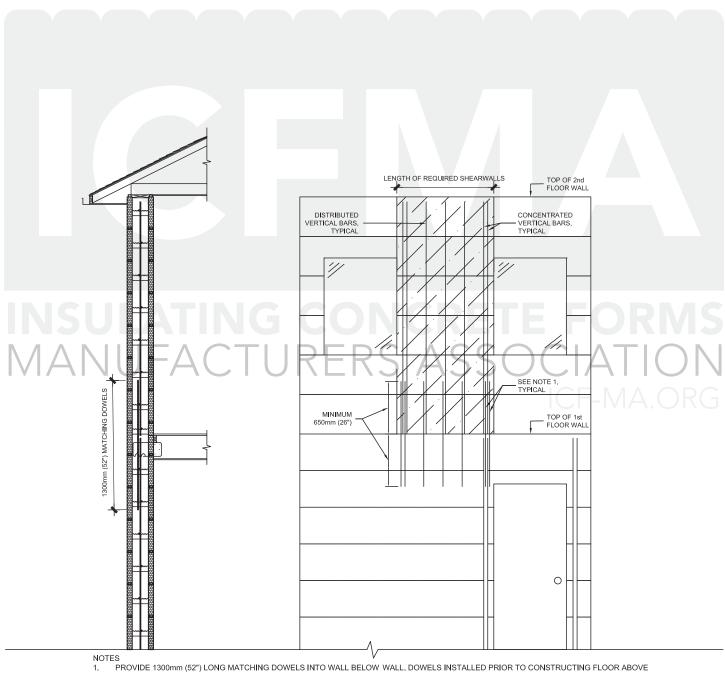
Detail A.9.3. Walkout Basement Wall of a Two-Story Building with Main Floor ICF Walls Supporting Second Story Wood Framed Walls, Floor, and Roof.



Detail A.9.4. Walkout Basement Wall of a Two-Story Wood Framed Structure Supporting Wood Frame Floors, and Roof. Walls, Floor, and Roof.

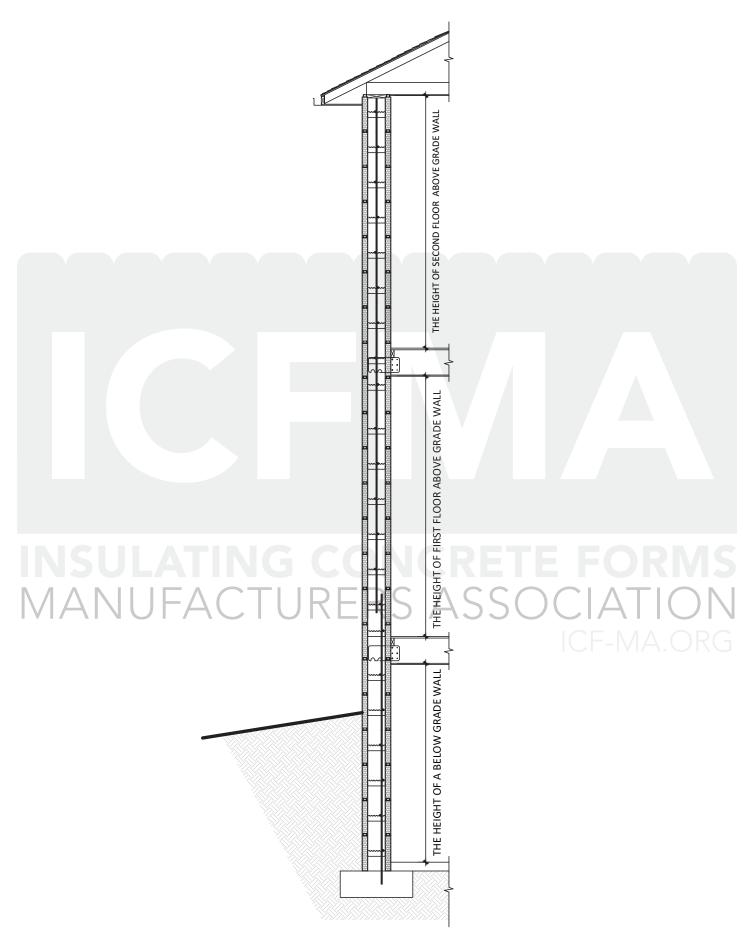
|     | No. OF<br>REINF'G BARS | 150 mm<br>(6") THICK | 200 - 300 mm<br>(8", 10", 12") THICK |      |
|-----|------------------------|----------------------|--------------------------------------|------|
|     | 2 BARS                 |                      |                                      |      |
|     | 3 BARS                 |                      |                                      |      |
|     | 4 BARS                 |                      |                                      |      |
| INS | 5 BARS                 |                      |                                      | RMS  |
| MA  | NUFACT                 | URERS A              | SSUCIAT                              | ION  |
|     | 6 BARS                 |                      |                                      | .ORG |
|     | REBAR PLACEMENT NOTE   | S:                   | DS TVDICAL                           |      |

- PROVIDE 1 1/2" (40mm) COVER TO REINFORCING BARS, TYPICAL.
   PROVIDE 1 1/2" (40mm) CLEAR SPACING BETWEEN BARS, TYPICAL.
- 3. PLACE BARS AS CLOSE TO THE SIDES OF THE WALL AS MINIMUM COVER PERMITS.



PROVIDE 1300mm (52") LONG MATCHING DOWELS INTO WALL BELOW WALL. DOWELS INSTALLED PRIOR TO CONSTRUCTING FLOOR ABOVE

#### Detail A.11. Shear Wall Dowels.



Detail A.12. Above and Below Grade Wall Height

Table B.1.1.– Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2)  $\leq$  0.25 and Hourly Wind Pressure,  $q_{1/50} \leq$  1.05kPa, for ICF Walls with 6"Tie Spacing

| \\/a         a   a   a |                   | 1.4:11 |        |          |      |        |       |      |         |     |      | Vertica | Stee      | el (Si | ze and        | Spa      | cing) |        |       |      |         |      |      |        |           |      |
|------------------------|-------------------|--------|--------|----------|------|--------|-------|------|---------|-----|------|---------|-----------|--------|---------------|----------|-------|--------|-------|------|---------|------|------|--------|-----------|------|
| Wall Height<br>m       | Bac<br>Hei        | ght    |        |          |      |        | 180 k | a/m: | 3 (30 p | cf) |      | Backfil | I Equ     | ivale  | nt Fluid<br>I | d Der    | nsity |        | 720 k | a/m: | 3 (45 p | ocf) |      |        |           |      |
| (ft)                   | m                 | (ft)   | 150 mr | n (6") V | Vall | 200 mr |       | -    | 250 mn  |     | Vall | 300 mr  | n (12") \ | Vall   | 150 mr        | m (6") W | /all  | 200 mr |       | _    | 250 mn  |      | Vall | 300 mr | n (12") \ | Nall |
|                        | 1.22              | (4.0)  | 10 M @ | 450      | (18) | 10 M @ | 750   | (30) | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)   | 10 M @        | 450      | (18)  | 10 M @ | 600   | (24) | 10 M @  | 900  | (36) | 10 M @ | 900       | (36) |
|                        | 1.53              | (5.0)  | 10 M @ | 450      | (18) | 10 M @ | 600   | (24) | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)   | 15 M @        | 600      | (24)  | 10 M @ | 450   | (18) | 10 M @  | 750  | (30) | 10 M @ | 900       | (36) |
| 2.44<br>(8.0)          | 1.83              | (6.0)  | 15 M @ | 600      | (24) | 10 M @ | 450   | (18) | 10 M @  | 750 | (30) | 10 M @  | 900       | (36)   | 15 M @        | 450      | (18)  | 15 M @ | 750   | (30) | 10 M @  | 600  | (24) | 10 M @ | 750       | (30) |
| Ì                      | 2.13              | (7.0)  | 15 M @ | 450      | (18) | 15 M @ | 750   | (30) | 10 M @  | 600 | (24) | 10 M @  | 750       | (30)   | 15 M @        | 450      | (18)  | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @ | 600       | (24) |
|                        | 2.44              | (8.0)  | 15 M @ | 450      | (18) | 15 M @ | 600   | (24) | 10 M @  | 450 | (18) | 10 M @  | 600       | (24)   | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @ | 900       | (36) |
|                        | 1.22              | (4.0)  | 15 M @ | 750      | (30) | 10 M @ | 600   | (24) | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)   | 15 M @        | 750      | (30)  | 10 M @ | 600   | (24) | 10 M @  | 750  | (30) | 10 M @ | 900       | (36) |
|                        | 1.53              | (5.0)  | 15 M @ | 750      | (30) | 10 M @ | 450   | (18) | 10 M @  | 750 | (30) | 10 M @  | 900       | (36)   | 15 M @        | 600      | (24)  | 10 M @ | 450   | (18) | 10 M @  | 600  | (24) | 10 M @ | 900       | (36) |
| 2.74                   | 1.83              | (6.0)  | 15 M @ | 600      | (24) | 15 M @ | 900   | (36) | 10 M @  | 600 | (24) | 10 M @  | 900       | (36)   | 15 M @        | 450      | (18)  | 15 M @ | 750   | (30) | 10 M @  | 450  | (18) | 10 M @ | 600       | (24) |
| (9.0)                  | 2.13              | (7.0)  | 15 M @ | 450      | (18) | 15 M @ | 750   | (30) | 10 M @  | 450 | (18) | 10 M @  | 750       | (30)   | 15 M @        | 450      | (18)  | 15 M @ | 600   | (24) | 15 M @  | 750  | (30) | 15 M @ | 900       | (36) |
|                        | 2.44              | (8.0)  | 15 M @ | 300      | (12) | 15 M @ | 600   | (24) | 15 M @  | 900 | (36) | 15 M @  | 900       | (36)   | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @ | 750       | (30) |
|                        | 2.74              | (9.0)  | 15 M @ | 300      | (12) | 15 M @ | 450   | (18) | 15 M @  | 750 | (30) | 15 M @  | 900       | (36)   | 15 M @        | 150      | (6)   | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                        | 1.22              | (4.0)  | 15 M @ | 750      | (30) | 10 M @ | 600   | (24) | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)   | 15 M @        | 750      | (30)  | 10 M @ | 450   | (18) | 10 M @  | 750  | (30) | 10 M @ | 900       | (36) |
|                        | 1.53              | (5.0)  | 15 M @ | 750      | (30) | 15 M @ | 900   | (36) | 10 M @  | 750 | (30) | 10 M @  | 900       | (36)   | 15 M @        | 600      | (24)  | 15 M @ | 750   | (30) | 10 M @  | 600  | (24) | 10 M @ | 750       | (30) |
|                        | 1.83              | (6.0)  | 15 M @ | 450      | (18) | 15 M @ | 750   | (30) | 10 M @  | 600 | (24) | 10 M @  | 750       | (30)   | 15 M @        | 450      | (18)  | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @ | 600       | (24) |
| 3.05<br>(10.0)         | 2.13              | (7.0)  | 15 M @ | 450      | (18) | 15 M @ | 600   | (24) | 10 M @  | 450 | (18) | 10 M @  | 600       | (24)   | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @  | 750  | (30) | 15 M @ | 900       | (36) |
|                        | 2.44              | (8.0)  | 15 M @ | 300      | (12) | 15 M @ | 450   | (18) | 15 M @  | 750 | (30) | 15 M @  | 900       | (36)   | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @ | 750       | (30) |
|                        | 2.74              | (9.0)  | 15 M @ | 150      | (6)  | 15 M @ | 450   | (18) | 15 M @  | 600 | (24) | 15 M @  | 750       | (30)   | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                        | 3.05              | (10.0) | 15 M @ | 150      | (6)  | 15 M @ | 300   | (12) | 15 M @  | 450 | (18) | 15 M @  | 750       | (30)   | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                        | 1.22              | (4.0)  | 15 M @ | 750      | (30) | 10 M @ | 450   | (18) | 10 M @  | 750 | (30) | 10 M @  | 900       | (36)   | 15 M @        | 600      | (24)  | 10 M @ | 450   | (18) | 10 M @  | 750  | (30) | 10 M @ | 900       | (36) |
|                        | 1.53              | (5.0)  | 15 M @ | 600      | (24) | 15 M @ | 900   | (36) | 10 M @  | 600 | (24) | 10 M @  | 900       | (36)   | 15 M @        | 450      | (18)  | 15 M @ | 750   | (30) | 10 M @  | 450  | (18) | 10 M @ | 750       | (30) |
|                        | 1.83              | (6.0)  | 15 M @ | 450      | (18) | 15 M @ | 750   | (30) | 10 M @  | 450 | (18) | 10 M @  | 750       | (30)   | 15 M @        | 450      | (18)  | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @ | 600       | (24) |
| 3.35                   | 2.13              | (7.0)  | 15 M @ | 300      | (12) | 15 M @ | 600   | (24) | 15 M @  | 750 | (30) | 15 M @  | 900       | (36)   | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @ | 900       | (36) |
| (11.0)                 | 2.44              | (8.0)  | 15 M @ | 300      | (12) | 15 M @ | 450   | (18) | 15 M @  | 600 | (24) | 15 M @  | 900       | (36)   | 15 M @        | 150      | (6)   | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                        | 2.74              | (9.0)  | 15 M @ | 150      | (6)  | 15 M @ | 300   | (12) | 15 M @  | 600 | (24) | 15 M @  | 750       | (30)   | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                        | 3.05              | (10.0) | 15 M @ | 150      | (6)  | 15 M @ | 300   | (12) | 15 M @  | 450 | (18) | 15 M @  | 600       | (24)   | 15 M @        | 150      | (6)   | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
| N/L                    | 3.35              | (11.0) | 15 M @ | 150      | (6)  | 15 M @ | 300   | (12) | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
| I V I /                | 1.22              | (4.0)  | 15 M @ | 600      | (24) | 10 M @ | 450   | (18) | 10 M @  | 750 | (30) | 10 M @  | 900       | (36)   | 15 M @        | 600      | (24)  | 15 M @ | 750   | (30) | 10 M @  | 600  | (24) | 10 M @ | 900       | (36) |
|                        | 1.53              | (5.0)  | 15 M @ | 600      | (24) | 15 M @ | 750   | (30) | 10 M @  | 600 | (24) | 10 M @  | 900       | (36)   | 15 M @        | 450      | (18)  | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @ | 750       | (30) |
|                        | 1.83              | (6.0)  | 15 M @ | 450      | (18) | 15 M @ | 600   | (24) | 10 M @  | 450 | (18) | 10 M @  | 600       | (24)   | 15 M @        | 300      | (12)  | 15 M @ | 600   | (24) | 15 M @  | 750  | (30) | 15 M @ | 900       | (36) |
|                        | 2.13              | (7.0)  | 15 M @ | 300      | (12) | 15 M @ | 600   | (24) | 15 M @  | 750 | (30) | 15 M @  | 900       | (36)   | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @ | 750       | (30) |
| 3.66<br>(12.0)         | 2.44              | (8.0)  | 15 M @ | 150      | (6)  | 15 M @ | 450   | (18) | 15 M @  | 600 | (24) | 15 M @  | 900       | (36)   | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                        | 2.74              | (9.0)  | 15 M @ | 150      | (6)  | 15 M @ | 300   | (12) | 15 M @  | 450 | (18) | 15 M @  | 600       | (24)   | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                        | 3.05              | (10.0) | 15 M @ | 150      | (6)  | 15 M @ | 300   | (12) | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
|                        | 3.35              | (11.0) | 15 M @ | 150      | (6)  | 15 M @ | 150   | (6)  | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   |               |          |       | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                        | 3.66              | (12.0) |        |          |      | 15 M @ | 150   | (6)  | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)   |               |          |       | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
| Horizontal             | Block H<br>12" an | nd 18" | 10 M @ | 900      | (36) | 10 M @ | 900   | (36) | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)   | 10 M @        | 900      | (36)  | 10 M @ | 900   | (36) | 10 M @  | 900  | (36) | 10 M @ | 900       | (36) |
| Reinforcement          | Block I<br>of 1   |        | 10 M @ | 800      | (32) | 10 M @ | 800   | (32) | 10 M @  | 800 | (32) | 10 M @  | 800       | (32)   | 10 M @        | 800      | (32)  | 10 M @ | 800   | (32) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |

#### NOTES



<sup>1.</sup> For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.

<sup>2.</sup> Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.

<sup>3.</sup> This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

Table B.1.1. Continued – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2) ≤ 0.25 and Hourly Wind Pressure,  $q_{1/50} \le 1.05 kPa$ , for ICF Walls with 6"Tie Spacing

| Wall Height                 | Bac                          | \Lfill           |   |          |             |         |       |      |          |     |      |         |           |       | ize and     |          |       |         |       |      |          |      |      |         |           |          |
|-----------------------------|------------------------------|------------------|---|----------|-------------|---------|-------|------|----------|-----|------|---------|-----------|-------|-------------|----------|-------|---------|-------|------|----------|------|------|---------|-----------|----------|
| m o                         | Hei                          | ght              |   |          |             | -       | 160 r | a/mʻ | 3 (60 p  | cf) |      | Backfil | l Equ     | ivale | ent Fluid   | d Der    | nsity |         | 200 r | (a/m | 13 (75 i | ncf) |      |         |           |          |
| (ft)                        | m                            | (ft)             | 150 mr                                  | m (6") V | Vall        | 200 mr  |       | _    | 250 mm   |     | Vall | 300 mr  | n (12") \ | Vall  | 150 mi      | m (6") W | /all  | 200 mr  |       |      | 250 mr   | =    | Vall | 300 mr  | n (12") V | <br>Nall |
|                             | 1.22                         | (4.0)            | 15 M @                                  | 600      | (24)        | 10 M @  | 450   | (18) | 10 M @   | 750 | (30) | 10 M @  | 900       | (36)  | 15 M @      | 600      | (24)  | 10 M @  | 450   | (18) | 10 M @   | 750  | (30) | 10 M @  | 900       | (36)     |
|                             | 1.53                         | (5.0)            | 15 M @                                  | 600      | (24)        | 10 M @  | 450   | (18) | 10 M @   | 600 | (24) | 10 M @  | 900       | (36)  | 15 M @      | 450      | (18)  | 15 M @  | 750   | (30) | 15 M @   | 900  | (36) | 10 M @  | 750       | (30)     |
| 2.44<br>(8.0)               | 1.83                         | (6.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 600   | (24) | 10 M @   | 450 | (18) | 10 M @  | 600       | (24)  | 15 M @      | 450      | (18)  | 15 M @  | 450   | (18) | 15 M @   | 750  | (30) | 15 M @  | 900       | (36)     |
|                             | 2.13                         | (7.0)            | 15 M @                                  | 300      | (12)        | 15 M @  | 450   | (18) | 15 M @   | 600 | (24) | 15 M @  | 900       | (36)  | 15 M @      | 300      | (12)  | 15 M @  | 450   | (18) | 15 M @   | 600  | (24) | 15 M @  | 750       | (30)     |
|                             | 2.44                         | (8.0)            | 15 M @                                  | 300      | (12)        | 15 M @  | 450   | (18) | 15 M @   | 450 | (18) | 15 M @  | 750       | (30)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 450  | (18) | 15 M @  | 600       | (24)     |
|                             | 1.22                         | (4.0)            | 15 M @                                  | 600      | (24)        | 10 M @  | 450   | (18) | 10 M @   | 600 | (24) | 10 M @  | 900       | (36)  | 15 M @      | 600      | (24)  | 15 M @  | 900   | (36) | 10 M @   | 450  | (18) | 10 M @  | 900       | (36)     |
|                             | 1.53                         | (5.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 600   | (24) | 15 M @   | 600 | (24) | 10 M @  | 750       | (30)  | 15 M @      | 450      | (18)  | 15 M @  | 750   | (30) | 15 M @   | 900  | (36) | 10 M @  | 600       | (24)     |
| 2.74                        | 1.83                         | (6.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 450   | (18) | 15 M @   | 750 | (30) | 10 M @  | 600       | (24)  | 15 M @      | 450      | (18)  | 15 M @  | 450   | (18) | 15 M @   | 600  | (24) | 15 M @  | 900       | (36)     |
| (9.0)                       | 2.13                         | (7.0)            | 15 M @                                  | 300      | (12)        | 15 M @  | 450   | (18) | 15 M @   | 600 | (24) | 15 M @  | 750       | (30)  | 15 M @      | 300      | (12)  | 15 M @  | 450   | (18) | 15 M @   | 450  | (18) | 15 M @  | 600       | (24)     |
|                             | 2.44                         | (8.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 300   | (12) | 15 M @   | 450 | (18) | 15 M @  | 600       | (24)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 450  | (18) | 15 M @  | 450       | (18)     |
|                             | 2.74                         | (9.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 300   | (12) | 15 M @   | 450 | (18) | 15 M @  | 450       | (18)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 300  | (12) | 15 M @  | 300       | (12)     |
|                             | 1.22                         | (4.0)            | 15 M @                                  | 600      | (24)        | 10 M @  | 450   | (18) | 10 M @   | 600 | (24) | 10 M @  | 900       | (36)  | 15 M @      | 600      | (24)  | 15 M @  | 750   | (30) | 15 M @   | 900  | (36) | 10 M @  | 900       | (36)     |
|                             | 1.53                         | (5.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 600   | (24) | 10 M @   | 450 | (18) | 10 M @  | 750       | (30)  | 15 M @      | 450      | (18)  | 15 M @  | 600   | (24) | 15 M @   | 900  | (36) | 10 M @  | 600       | (24)     |
|                             | 1.83                         | (6.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 450   | (18) | 15 M @   | 750 | (30) | 15 M @  | 900       | (36)  | 15 M @      | 300      | (12)  | 15 M @  | 450   | (18) | 15 M @   | 600  | (24) | 15 M @  | 900       | (36)     |
| 3.05<br>(10.0)              | 2.13                         | (7.0)            | 15 M @                                  | 300      | (12)        | 15 M @  | 450   | (18) | 15 M @   | 600 | (24) | 15 M @  | 750       | (30)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 450  | (18) | 15 M @  | 600       | (24)     |
|                             | 2.44                         | (8.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 300   | (12) | 15 M @   | 450 | (18) | 15 M @  | 600       | (24)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 300  | (12) | 15 M @  | 450       | (18)     |
|                             | 2.74                         | (9.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 150   | (6)  | 15 M @   | 300 | (12) | 15 M @  | 450       | (18)  | 15 M @      | 150      | (6)   | 15 M @  | 150   | (6)  | 15 M @   | 300  | (12) | 15 M @  | 300       | (12)     |
|                             | 3.05                         | (10.0)           | 15 M @                                  | 150      | (6)         | 15 M @  | 150   | (6)  | 15 M @   | 300 | (12) | 15 M @  | 300       | (12)  |             |          |       | 15 M @  | 150   | (6)  | 15 M @   | 300  | (12) | 15 M @  | 300       | (12)     |
|                             | 1.22                         | (4.0)            | 15 M @                                  | 600      | (24)        | 15 M @  | 600   | (24) | 10 M @   | 600 | (24) | 10 M @  | 900       | (36)  | 15 M @      | 600      | (24)  | 15 M @  | 750   | (30) | 15 M @   | 900  | (36) | 10 M @  | 750       | (30)     |
|                             | 1.53                         | (5.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 600   | (24) | 15 M @   | 900 | (36) | 10 M @  | 600       | (24)  | 15 M @      | 450      | (18)  | 15 M @  | 600   | (24) | 15 M @   | 750  | (30) | 10 M @  | 600       | (24)     |
|                             | 1.83                         | (6.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 450   | (18) | 15 M @   | 750 | (30) | 15 M @  | 900       | (36)  | 15 M @      | 300      | (12)  | 15 M @  | 450   | (18) | 15 M @   | 600  | (24) | 15 M @  | 750       | (30)     |
| 3.35                        | 2.13                         | (7.0)            | 15 M @                                  | 300      | (12)        | 15 M @  | 450   | (18) | 15 M @   | 450 | (18) | 15 M @  | 750       | (30)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 450  | (18) | 15 M @  | 600       | (24)     |
| (11.0)                      | 2.44                         | (8.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 300   | (12) | 15 M @   | 450 | (18) | 15 M @  | 450       | (18)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 300  | (12) | 15 M @  | 450       | (18)     |
|                             | 2.74                         | (9.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 150   | (6)  | 15 M @   | 300 | (12) | 15 M @  | 450       | (18)  | ÀK          |          |       | 15 M @  | 150   | (6)  | 15 M @   | 300  | (12) | 15 M @  | 300       | (12)     |
| D 4 0                       | 3.05                         | (10.0)           |   |          |             | 15 M @  | 150   | (6)  | 15 M @   | 300 | (12) | 15 M @  | 300       | (12)  |             |          |       | 15 M @  | 150   | (6)  | 15 M @   | 150  | (6)  | 15 M @  | 300       | (12)     |
|                             | 3.35                         | (11.0)           |   |          | $\triangle$ | 15 M @  | 150   | (6)  | 15 M @   | 150 | (6)  | 15 M @  | 300       | (12)  | $\triangle$ |          | 5     |         | ) (   |      | 15 M @   | 150  | (6)  | 15 M @  | 300       | (12)     |
| I V I /                     | 1.22                         | (4.0)            | 15 M @                                  | 600      | (24)        | 15 M @  | 600   | (24) | 10 M @   | 600 | (24) | 10 M @  | 900       | (36)  | 15 M @      | 450      | (18)  | 15 M @  | 750   | (30) | 15 M @   | 900  | (36) | 10 M @  | 750       | (30)     |
|                             | 1.53                         | (5.0)            | 15 M @                                  | 450      | (18)        | 15 M @  | 450   | (18) | 15 M @   | 750 | (30) | 10 M @  | 600       | (24)  | 15 M @      | 450      | (18)  | 15 M @  | 450   | (18) | 15 M @   | 750  | (30) | 15 M @  | 900       | (36)     |
|                             | 1.83                         | (6.0)            | 15 M @                                  | 300      | (12)        | 15 M @  | 450   | (18) | 15 M @   | 600 | (24) | 15 M @  | 900       | (36)  | 15 M @      | 300      | (12)  | 15 M @  | 450   | (18) | 15 M @   | 600  | (24) | 15 M @  | 750       | (30)     |
|                             | 2.13                         | (7.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 300   | (12) | 15 M @   | 450 | (18) | 15 M @  | 600       | (24)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 450  | (18) | 15 M @  | 450       | (18)     |
| 3.66<br>(12.0)              | 2.44                         | (8.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 300   | (12) | 15 M @   | 450 | (18) | 15 M @  | 450       | (18)  | 15 M @      | 150      | (6)   | 15 M @  | 300   | (12) | 15 M @   | 300  | (12) | 15 M @  | 450       | (18)     |
|                             | 2.74                         | (9.0)            | 15 M @                                  | 150      | (6)         | 15 M @  | 150   | (6)  | 15 M @   | 300 | (12) | 15 M @  | 450       | (18)  |             |          |       | 15 M @  | 150   | (6)  | 15 M @   | 300  | (12) | 15 M @  | 300       | (12)     |
|                             | 3.05                         | (10.0)           |   |          |             | 15 M @  | 150   | (6)  | 15 M @   | 300 | (12) | 15 M @  | 300       | (12)  |             |          |       |         |       |      | 15 M @   | 150  | (6)  | 15 M @  | 300       | (12)     |
|                             | 3.35                         | (11.0)           |   |          |             |         |       |      | 15 M @   | 150 | (6)  | 15 M @  | 300       | (12)  |             |          |       |         |       |      | 15 M @   | 150  | (6)  | 15 M @  | 150       | (6)      |
|                             | 3.66                         | (12.0)           |   |          |             |         |       |      | 15 M @   | 150 | (6)  | 15 M @  | 150       | (6)   |             |          |       |         |       |      | 15 M @   | 150  | (6)  | 15 M @  | 150       | (6)      |
| Horizontal<br>Reinforcement | Block H<br>12" ar<br>Block I | nd 18"<br>Height | 10 M @                                  | 900      | (36)        | 10 M @  | 900   | (36) | 10 M @   | 900 | (36) | 10 M @  | 900       | (36)  | 10 M @      | 900      | (36)  | 10 M @  | 900   | (36) | 10 M @   | 900  | (36) | 10 M @  | 900       | (36)     |
| NOTES                       | of 1                         | 16"              | 101111111111111111111111111111111111111 | 000      | (02)        | 10141 @ | 550   | (OE) | 10 141 @ | 550 | (02) | 10141 @ | 000       | (02)  | 10141 8     | 550      | (02)  | 10141 @ | 000   | (02) | 10141 @  | 000  | (OL) | 10141 8 | 550       | (32)     |

#### NOTES



<sup>1.</sup> For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.

<sup>2.</sup> Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.

<sup>3.</sup> This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

Table B.1.2.— Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2)  $\leq$  0.25 and Hourly Wind Pressure,  $q_{1/50} \leq$  1.05kPa, for ICF Walls with 8"Tie Spacing

| Mall Haight    | Poo               | lzfill |        |          |             |        |       |      |         |      |      |         |           | <u> </u> | ize and  | <u> </u> |       |        |          |      |         |      |      |        |           |      |  |  |  |
|----------------|-------------------|--------|--------|----------|-------------|--------|-------|------|---------|------|------|---------|-----------|----------|----------|----------|-------|--------|----------|------|---------|------|------|--------|-----------|------|--|--|--|
| Wall Height    | Bac<br>Hei        | ght    |        |          |             |        | 180 k | g/m: | 3 (30 p | ocf) |      | Backfil | l Equ     | ivale    | nt Flui  | d Der    | nsity |        | 720 k    | g/m: | 3 (45 p | ocf) |      |        |           |      |  |  |  |
| (ft)           | m                 | (ft)   | 150 mr | n (6") V | Vall        | 200 mr |       | -    | 250 mn  |      | Vall | 300 mr  | n (12") \ | Vall     | 150 mi   | n (6") W | /all  | -      | n (8") W | _    | 250 mr  |      | Vall | 300 mr | n (12") \ | Wall |  |  |  |
|                | 1.22              | (4.0)  | 10 M @ | 400      | (16)        | 10 M @ | 600   | (24) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 10 M @   | 400      | (16)  | 10 M @ | 600      | (24) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.53              | (5.0)  | 10 M @ | 400      | (16)        | 10 M @ | 600   | (24) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 15 M @   | 600      | (24)  | 10 M @ | 400      | (16) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |  |  |  |
| 2.44<br>(8.0)  | 1.83              | (6.0)  | 15 M @ | 600      | (24)        | 10 M @ | 400   | (16) | 10 M @  | 600  | (24) | 10 M @  | 800       | (32)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 800       | (32) |  |  |  |
| Ì              | 2.13              | (7.0)  | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @  | 600       | (24)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 600       | (24) |  |  |  |
|                | 2.44              | (8.0)  | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 10 M @  | 400  | (16) | 10 M @  | 400       | (16)     | 15 M @   | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 800       | (32) |  |  |  |
|                | 1.22              | (4.0)  | 15 M @ | 800      | (32)        | 10 M @ | 600   | (24) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 15 M @   | 800      | (32)  | 10 M @ | 600      | (24) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.53              | (5.0)  | 15 M @ | 800      | (32)        | 10 M @ | 400   | (16) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 15 M @   | 600      | (24)  | 10 M @ | 400      | (16) | 10 M @  | 600  | (24) | 10 M @ | 800       | (32) |  |  |  |
| 2.74           | 1.83              | (6.0)  | 15 M @ | 400      | (16)        | 15 M @ | 800   | (32) | 10 M @  | 600  | (24) | 10 M @  | 800       | (32)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 600       | (24) |  |  |  |
| (9.0)          | 2.13              | (7.0)  | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @  | 600       | (24)     | 15 M @   | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 800       | (32) |  |  |  |
|                | 2.44              | (8.0)  | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 15 M @  | 800       | (32)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |  |  |  |
|                | 2.74              | (9.0)  | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 15 M @  | 600       | (24)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |  |  |  |
|                | 1.22              | (4.0)  | 15 M @ | 800      | (32)        | 10 M @ | 600   | (24) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 15 M @   | 800      | (32)  | 10 M @ | 400      | (16) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.53              | (5.0)  | 15 M @ | 600      | (24)        | 15 M @ | 800   | (32) | 10 M @  | 600  | (24) | 10 M @  | 800       | (32)     | 15 M @   | 600      | (24)  | 15 M @ | 800      | (32) | 10 M @  | 600  | (24) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.83              | (6.0)  | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @  | 600       | (24)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 600       | (24) |  |  |  |
| 3.05<br>(10.0) | 2.13              | (7.0)  | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 10 M @  | 400  | (16) | 15 M @  | 800       | (32)     | 15 M @   | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 800       | (32) |  |  |  |
| (11)           | 2.44              | (8.0)  | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 15 M @  | 800       | (32)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |  |  |  |
| _              | 2.74              | (9.0)  | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @  | 600       | (24)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |  |  |  |
|                | 3.05              | (10.0) | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)     | 15 M @   | 200      | (8)   | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |  |  |  |
|                | 1.22              | (4.0)  | 15 M @ | 800      | (32)        | 10 M @ | 400   | (16) | 10 M @  | 800  | (32) | 10 M @  | 900       | (36)     | 15 M @   | 600      | (24)  | 10 M @ | 400      | (16) | 10 M @  | 600  | (24) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.53              | (5.0)  | 15 M @ | 600      | (24)        | 15 M @ | 800   | (32) | 10 M @  | 600  | (24) | 10 M @  | 900       | (36)     | 15 M @   | 400      | (16)  | 15 M @ | 800      | (32) | 10 M @  | 400  | (16) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.83              | (6.0)  | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @  | 600       | (24)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 600       | (24) |  |  |  |
| 3.35           | 2.13              | (7.0)  | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 15 M @  | 800       | (32)     | 15 M @   | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 800       | (32) |  |  |  |
| (11.0)         | 2.44              | (8.0)  | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @  | 600       | (24)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |  |  |  |
|                | 2.74              | (9.0)  | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @  | 600       | (24)     | 15 M @   | 200      | (8)   | 15 M @ | 300      | (12) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |  |  |  |
|                | 3.05              | (10.0) | 15 M @ | 200      | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)     |          |          |       | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |  |  |  |
| $NA\Delta$     | 3.35              | (11.0) |        |          | $\triangle$ | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)     | $\Delta$ |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |  |  |  |
| TV 17          | 1.22              | (4.0)  | 15 M @ | 600      | (24)        | 10 M @ | 400   | (16) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 15 M @   | 600      | (24)  | 15 M @ | 800      | (32) | 10 M @  | 600  | (24) | 10 M @ | 800       | (32) |  |  |  |
|                | 1.53              | (5.0)  | 15 M @ | 600      | (24)        | 15 M @ | 800   | (32) | 10 M @  | 600  | (24) | 10 M @  | 800       | (32)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 600       | (24) |  |  |  |
| Ī              | 1.83              | (6.0)  | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @  | 600       | (24)     | 15 M @   | 400      | (16)  | 15 M @ | 600      | (24) | 15 M @  | 800  | (32) | 15 M @ | 800       | (32) |  |  |  |
|                | 2.13              | (7.0)  | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 15 M @  | 800       | (32)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |  |  |  |
| 3.66<br>(12.0) | 2.44              | (8.0)  | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @  | 600       | (24)     | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |  |  |  |
|                | 2.74              | (9.0)  | 15 M @ | 200      | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)     | 15 M @   | 200      | (8)   | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |  |  |  |
|                | 3.05              | (10.0) | 15 M @ | 200      | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)     |          |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |  |  |  |
| Ī              | 3.35              | (11.0) |        |          |             | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @  | 400       | (16)     |          |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |  |  |  |
| Ī              | 3.66              | (12.0) |        |          |             | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @  | 400       | (16)     |          |          |       |        |          |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)  |  |  |  |
| Horizontal     | Block H<br>12" ar |        | 10 M @ | 900      | (36)        | 10 M @ | 900   | (36) | 10 M @  | 900  | (36) | 10 M @  | 900       | (36)     | 10 M @   | 900      | (36)  | 10 M @ | 900      | (36) | 10 M @  | 900  | (36) | 10 M @ | 900       | (36) |  |  |  |
| Reinforcement  | Block I           | Height | 10 M @ | 800      | (32)        | 10 M @ | 800   | (32) | 10 M @  | 800  | (32) | 10 M @  | 800       | (32)     | 10 M @   | 800      | (32)  | 10 M @ | 800      | (32) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |  |  |  |

#### NOTES



<sup>1.</sup> For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.

<sup>2.</sup> Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.

<sup>3.</sup> This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

Table B.1.2. Continued – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa(0.2) ≤ 0.25 and Hourly Wind Pressure,  $q_{1/50} \le 1.05 kPa$ , for ICF Walls with 8"Tie Spacing

| Wall Height                 | Bac                                  | kfill            |        |                    |             |        |       |      |         |     |      |         |           |       | ze and      |          |       |        |       |      |          |      |      |        |           |      |
|-----------------------------|--------------------------------------|------------------|--------|--------------------|-------------|--------|-------|------|---------|-----|------|---------|-----------|-------|-------------|----------|-------|--------|-------|------|----------|------|------|--------|-----------|------|
| m                           | Hei                                  | ght              |        |                    |             | c      | 960 k | a/m: | 3 (60 p | cf) |      | Backfil | I Equ     | ivale | nt Fluid    | d Der    | nsity |        | 200 k | ka/m | ı3 (75 ı | ncf) |      |        |           |      |
| (ft)                        | m (                                  | (ft)             | 150 mr | n (6") V           | Vall        | 200 mr |       | _    | 250 mm  |     | Vall | 300 mr  | n (12") \ | Vall  | 150 mr      | n (6") W | /all  | 200 mr |       |      | 250 mr   | =    | Vall | 300 mr | n (12") \ | Nall |
|                             | 1.22                                 | (4.0)            | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 800 | (32) | 10 M @  | 800       | (32)  | 15 M @      | 600      | (24)  | 10 M @ | 400   | (16) | 10 M @   | 800  | (32) | 10 M @ | 800       | (32) |
|                             | 1.53                                 | (5.0)            | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 600 | (24) | 10 M @  | 800       | (32)  | 15 M @      | 400      | (16)  | 15 M @ | 800   | (32) | 15 M @   | 800  | (32) | 10 M @ | 800       | (32) |
| 2.44<br>(8.0)               | 1.83                                 | (6.0)            | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16) | 10 M @  | 600       | (24)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 15 M @   | 800  | (32) | 15 M @ | 800       | (32) |
|                             | 2.13                                 | (7.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24) | 15 M @  | 800       | (32)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 600  | (24) | 15 M @ | 600       | (24) |
|                             | 2.44                                 | (8.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 400  | (16) | 15 M @ | 600       | (24) |
|                             | 1.22                                 | (4.0)            | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 600 | (24) | 10 M @  | 800       | (32)  | 15 M @      | 600      | (24)  | 15 M @ | 800   | (32) | 10 M @   | 400  | (16) | 10 M @ | 800       | (32) |
|                             | 1.53                                 | (5.0)            | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 15 M @  | 600 | (24) | 10 M @  | 800       | (32)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 15 M @   | 800  | (32) | 10 M @ | 600       | (24) |
| 2.74                        | 1.83                                 | (6.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 800 | (32) | 10 M @  | 600       | (24)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 15 M @   | 600  | (24) | 15 M @ | 800       | (32) |
| (9.0)                       | 2.13                                 | (7.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24) | 15 M @  | 800       | (32)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 400  | (16) | 15 M @ | 600       | (24) |
|                             | 2.44                                 | (8.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
|                             | 2.74                                 | (9.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
|                             | 1.22                                 | (4.0)            | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 600 | (24) | 10 M @  | 800       | (32)  | 15 M @      | 600      | (24)  | 15 M @ | 200   | (8)  | 15 M @   | 800  | (32) | 10 M @ | 800       | (32) |
|                             | 1.53                                 | (5.0)            | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16) | 10 M @  | 600       | (24)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 15 M @   | 800  | (32) | 10 M @ | 600       | (24) |
| _                           | 1.83                                 | (6.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 800 | (32) | 15 M @  | 800       | (32)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 15 M @   | 600  | (24) | 15 M @ | 800       | (32) |
| 3.05<br>(10.0)              | 2.13                                 | (7.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 600 | (24) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 400  | (16) | 15 M @ | 600       | (24) |
|                             | 2.44                                 | (8.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 200   | (8)  | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
|                             | 2.74                                 | (9.0)            | 15 M @ | 200                | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  | V           |          |       | 15 M @ | 200   | (8)  | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
|                             | 3.05                                 | (10.0)           |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 200  | (8)  | 15 M @ | 400       | (16) |
|                             | 1.22                                 | (4.0)            | 15 M @ | 600                | (24)        | 15 M @ | 600   | (24) | 10 M @  | 600 | (24) | 10 M @  | 800       | (32)  | 15 M @      | 600      | (24)  | 15 M @ | 800   | (32) | 15 M @   | 800  | (32) | 10 M @ | 800       | (32) |
|                             | 1.53                                 | (5.0)            | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 15 M @  | 800 | (32) | 10 M @  | 600       | (24)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 15 M @   | 800  | (32) | 10 M @ | 600       | (24) |
|                             | 1.83                                 | (6.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24) | 15 M @  | 800       | (32)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 600  | (24) | 15 M @ | 800       | (32) |
| 3.35                        | 2.13                                 | (7.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 400  | (16) | 15 M @ | 600       | (24) |
| (11.0)                      | 2.44                                 | (8.0)            | 15 M @ | 200                | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
|                             | 2.74                                 | (9.0)            |        | $\Delta \setminus$ |             | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 200  | (8)  | 15 M @ | 400       | (16) |
| N 4 4                       | 3.05                                 | (10.0)           |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 200  | (8)  | 15 M @ | 200       | (8)  |
| $\Lambda \Lambda \Delta$    | 3.35                                 | (11.0)           | Ш      | E,                 | $\triangle$ | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   | $\triangle$ |          | 5     |        |       |      | 15 M @   | 200  | (8)  | 15 M @ | 200       | (8)  |
| 1 4 17                      | 1.22                                 | (4.0)            | 15 M @ | 600                | (24)        | 15 M @ | 600   | (24) | 10 M @  | 600 | (24) | 10 M @  | 800       | (32)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 15 M @   | 800  | (32) | 10 M @ | 800       | (32) |
|                             | 1.53                                 | (5.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 800 | (32) | 10 M @  | 600       | (24)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 15 M @   | 800  | (32) | 15 M @ | 800       | (32) |
| -                           | 1.83                                 | (6.0)            | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24) | 15 M @  | 800       | (32)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 600  | (24) | 15 M @ | 800       | (32) |
|                             | 2.13                                 | (7.0)            | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
| 3.66<br>(12.0)              | 2.44                                 | (8.0)            | 15 M @ | 200                | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 400  | (16) | 15 M @ | 400       | (16) |
|                             | 2.74                                 | (9.0)            |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @   | 200  | (8)  | 15 M @ | 400       | (16) |
|                             | 3.05                                 | (10.0)           |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       |        |       |      | 15 M @   | 200  | (8)  | 15 M @ | 200       | (8)  |
|                             | 3.35                                 | (11.0)           |        |                    |             |        |       |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      | 15 M @   | 200  | (8)  | 15 M @ | 200       | (8)  |
|                             | 3.66                                 | (12.0)           |        |                    |             |        |       |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      |          |      |      | 15 M @ | 200       | (8)  |
| Horizontal<br>Reinforcement | Block H<br>12" an<br>Block H<br>of 1 | nd 18"<br>Height | 10 M @ | 900                | (36)        | 10 M @ | 900   | (36) | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)  | 10 M @      | 900      | (36)  | 10 M @ | 900   | (36) | 10 M @   | 900  | (36) | 10 M @ | 900       | (36) |



<sup>1.</sup> For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.

<sup>2.</sup> Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.

<sup>3.</sup> This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

Table B.2.1. – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.25 < Sa(0.2) \le 0.70$  and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 6"Tie Spacing

| Mall Haight    | Poo               | Lfill  |        |          |             |        |       |      |         |     |       |         |           | <u> </u> | ize and       |          |       |        |          |      |         |      |      |        |           |      |
|----------------|-------------------|--------|--------|----------|-------------|--------|-------|------|---------|-----|-------|---------|-----------|----------|---------------|----------|-------|--------|----------|------|---------|------|------|--------|-----------|------|
| Wall Height    | Bac<br>Hei        | ght    |        |          |             |        | 180 k | a/m' | 3 (30 p | cf) |       | Backfil | Equ       | ivale    | ent Fluid     | d Der    | nsity |        | 720 k    | a/mʻ | 3 (45 p | ocf) |      |        |           |      |
| (ft)           | m                 | (ft)   | 150 mr | n (6") V | Vall        | 200 mr |       | _    | 250 mn  |     | Vall  | 300 mr  | n (12") V | Vall     | 150 mi        | m (6") W | /all  |        | n (8") W |      | 250 mn  |      | Vall | 300 mr | n (12") V | Wall |
|                | 1.22              | (4.0)  | 10 M @ | 450      | (18)        | 10 M @ | 600   | (24) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 10 M @ | 450      | (18) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.53              | (5.0)  | 15 M @ | 600      | (24)        | 15 M @ | 600   | (24) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 15 M @ | 600      | (24) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
| 2.44<br>(8.0)  | 1.83              | (6.0)  | 15 M @ | 450      | (18)        | 15 M @ | 600   | (24) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 450      | (18)  | 15 M @ | 450      | (18) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
|                | 2.13              | (7.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                | 2.44              | (8.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 150      | (6)   | 15 M @ | 450      | (18) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                | 1.22              | (4.0)  | 15 M @ | 600      | (24)        | 10 M @ | 450   | (18) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 600      | (24)  | 10 M @ | 450      | (18) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.53              | (5.0)  | 15 M @ | 450      | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 15 M @ | 600      | (24) | 15 M @  | 600  | (24) | 10 M @ | 450       | (18) |
| 2.74           | 1.83              | (6.0)  | 15 M @ | 450      | (18)        | 15 M @ | 600   | (24) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
| (9.0)          | 2.13              | (7.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                | 2.44              | (8.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450 | (18)  | 15 M @  | 600       | (24)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                | 2.74              | (9.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450 | (18)  | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                | 1.22              | (4.0)  | 15 M @ | 600      | (24)        | 10 M @ | 450   | (18) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 600      | (24)  | 10 M @ | 450      | (18) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.53              | (5.0)  | 15 M @ | 450      | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 15 M @ | 600      | (24) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.83              | (6.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
| 3.05<br>(10.0) | 2.13              | (7.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 450 | (18)  | 15 M @  | 600       | (24)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                | 2.44              | (8.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450 | (18)  | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                | 2.74              | (9.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 300 | (12)  | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                | 3.05              | (10.0) | 15 M @ | 150      | (6)         |        |       |      | 15 M @  | 300 | (12)  | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                | 1.22              | (4.0)  | 15 M @ | 600      | (24)        | 10 M @ | 450   | (18) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 600      | (24)  | 10 M @ | 450      | (18) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.53              | (5.0)  | 15 M @ | 450      | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 15 M @ | 600      | (24) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.83              | (6.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
| 3.35           | 2.13              | (7.0)  | 15 M @ | 150      | (6)         | 15 M @ | 450   | (18) | 15 M @  | 450 | (18)  | 15 M @  | 600       | (24)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
| (11.0)         | 2.44              | (8.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450 | (18)  | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
|                | 2.74              | (9.0)  | 15 M @ | 150      | (6)         | 15 M @ | 150   | (6)  | 15 M @  | 300 | (12)  | 15 M @  | 300       | (12)     | İK            |          |       | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                | 3.05              | (10.0) |        |          |             | 15 M @ | 150   | (6)  | 15 M @  | 300 | (12)  | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
| N/L            | 3.35              | (11.0) |        |          | $\triangle$ | 15 M @ | 150   | (6)  | 15 M @  | 150 | _(6)_ | 15 M @  | 300       | (12)     | $\triangle$ ' |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
| 1 7 17         | 1.22              | (4.0)  | 15 M @ | 600      | (24)        | 10 M @ | 450   | (18) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 600      | (24)  | 15 M @ | 600      | (24) | 10 M @  | 450  | (18) | 10 M @ | 450       | (18) |
|                | 1.53              | (5.0)  | 15 M @ | 450      | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450 | (18)  | 10 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 15 M @ | 600      | (24) | 15 M @  | 600  | (24) | 10 M @ | 450       | (18) |
|                | 1.83              | (6.0)  | 15 M @ | 300      | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600 | (24)  | 15 M @  | 600       | (24)     | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 450  | (18) | 15 M @ | 600       | (24) |
|                | 2.13              | (7.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450 | (18)  | 15 M @  | 600       | (24)     | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
| 3.66<br>(12.0) | 2.44              | (8.0)  | 15 M @ | 150      | (6)         | 15 M @ | 300   | (12) | 15 M @  | 300 | (12)  | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
| ſ              | 2.74              | (9.0)  |        |          |             | 15 M @ | 150   | (6)  | 15 M @  | 300 | (12)  | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
| ſ              | 3.05              | (10.0) |        |          |             | 15 M @ | 150   | (6)  | 15 M @  | 150 | (6)   | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
|                | 3.35              | (11.0) |        |          |             | 15 M @ | 150   | (6)  | 15 M @  | 150 | (6)   | 15 M @  | 300       | (12)     |               |          |       |        |          |      | 15 M @  | 150  | (6)  | 15 M @ | 150       | (6)  |
|                | 3.66              | (12.0) |        |          |             |        |       |      | 15 M @  | 150 | (6)   | 15 M @  | 150       | (6)      |               |          |       |        |          |      | 15 M @  | 150  | (6)  | 15 M @ | 150       | (6)  |
| Horizontal     | Block H<br>12" an | id 18" | 15 M @ | 450      | (18)        | 15 M @ | 450   | (18) | 15 M @  | 450 | (18)  | 15 M @  | 450       | (18)     | 15 M @        | 450      | (18)  | 15 M @ | 450      | (18) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
| Reinforcement  | Block I<br>of 1   |        | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @  | 400       | (16)     | 15 M @        | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars, as sh

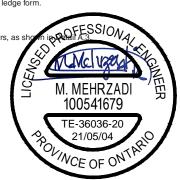


Table B.2.1. Continued – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.25 < Sa(0.2) \le 0.70$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05 kPa$ , for ICF Walls with 6"Tie Spacing

| Mall Haight      |                   | 14:11  |        |                    |             |        |       |      |         |      |      |         |           | <u> </u> | ize and        | <u> </u> |       |        |          |      |        |      |      |        |           |      |
|------------------|-------------------|--------|--------|--------------------|-------------|--------|-------|------|---------|------|------|---------|-----------|----------|----------------|----------|-------|--------|----------|------|--------|------|------|--------|-----------|------|
| Wall Height<br>m | Bac<br>Hei        | ght    |        |                    |             | (      | 960 k | a/m: | 3 (60 p | ocf) |      | Backfil | I Equ     | ivale    | ent Fluid<br>I | d Der    | nsity |        | 200 k    | ra/m | 3 (75) | ncf) |      |        |           |      |
| (ft)             | m                 | (ft)   | 150 mr | n (6") V           | Vall        | 200 mr |       |      | 250 mn  |      | Vall | 300 mr  | n (12") \ | Nall     | 150 mi         | m (6") W | /all  |        | n (8") W |      | 250 mn |      | Vall | 300 mr | n (12") \ | Wall |
|                  | 1.22              | (4.0)  | 15 M @ | 450                | (18)        | 10 M @ | 450   | (18) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 10 M @ | 450      | (18) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
|                  | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 600      | (24) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
| 2.44<br>(8.0)    | 1.83              | (6.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 10 M @  | 450       | (18)     | 15 M @         | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @ | 600  | (24) | 15 M @ | 600       | (24) |
| ` ′              | 2.13              | (7.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 15 M @  | 600       | (24)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450  | (18) | 15 M @ | 600       | (24) |
|                  | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 600       | (24)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
|                  | 1.22              | (4.0)  | 15 M @ | 600                | (24)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 600      | (24)  | 15 M @ | 600      | (24) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
|                  | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 600      | (24) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
| 2.74             | 1.83              | (6.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @  | 600       | (24)     | 15 M @         | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @ | 450  | (18) | 15 M @ | 600       | (24) |
| (9.0)            | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 600       | (24)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
|                  | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                  | 2.74              | (9.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     | 15 M @         | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                  | 1.22              | (4.0)  | 15 M @ | 600                | (24)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 600      | (24)  | 15 M @ | 600      | (24) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
|                  | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 600      | (24) | 15 M @ | 600  | (24) | 10 M @ | 450       | (18) |
|                  | 1.83              | (6.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 600  | (24) | 15 M @  | 600       | (24)     | 15 M @         | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @ | 450  | (18) | 15 M @ | 600       | (24) |
| 3.05<br>(10.0)   | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| , ,              | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     | 15 M @         | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                  | 2.74              | (9.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     | V              |          |       | 15 M @ | 150      | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                  | 3.05              | (10.0) |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |                |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
|                  | 1.22              | (4.0)  | 15 M @ | 600                | (24)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 600      | (24)  | 15 M @ | 600      | (24) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
|                  | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 600      | (24) | 15 M @ | 600  | (24) | 10 M @ | 450       | (18) |
|                  | 1.83              | (6.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 15 M @  | 600       | (24)     | 15 M @         | 150      | (6)   | 15 M @ | 450      | (18) | 15 M @ | 450  | (18) | 15 M @ | 600       | (24) |
| 3.35             | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| (11.0)           | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     |                |          |       | 15 M @ | 150      | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                  | 2.74              | (9.0)  |        | $\Delta \setminus$ |             | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     |                |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
|                  | 3.05              | (10.0) |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |                |          |       |        |          |      | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
| N/I              | 3.35              | (11.0) |        |                    | $\triangle$ |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      | $\Delta$       |          | 5     |        | ) (      |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
| I V I /          | 1.22              | (4.0)  | 15 M @ | 600                | (24)        | 15 M @ | 600   | (24) | 10 M @  | 450  | (18) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 600      | (24) | 10 M @ | 450  | (18) | 10 M @ | 450       | (18) |
|                  | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 15 M @ | 600   | (24) | 15 M @  | 600  | (24) | 10 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 450      | (18) | 15 M @ | 600  | (24) | 10 M @ | 450       | (18) |
| j                | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 15 M @  | 600       | (24)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450  | (18) | 15 M @ | 600       | (24) |
|                  | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @         | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 300  | (12) | 15 M @ | 450       | (18) |
| 3.66<br>(12.0)   | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     |                |          |       | 15 M @ | 150      | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                  | 2.74              | (9.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |                |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
| j                | 3.05              | (10.0) |        |                    |             |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      |                |          |       |        |          |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
|                  | 3.35              | (11.0) |        |                    |             |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      |                |          |       |        |          |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
|                  | 3.66              | (12.0) |        |                    |             |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      |                |          |       |        |          |      |        |      |      | 15 M @ | 150       | (6)  |
| Horizontal       | Block H<br>12" ar |        | 15 M @ | 450                | (18)        | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @         | 450      | (18)  | 15 M @ | 450      | (18) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| Reinforcement    | Block I           |        | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)     | 15 M @         | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @ | 400  | (16) | 15 M @ | 400       | (16) |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars, as sh



Table B.2.2. – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.25 < Sa(0.2) \le 0.70$  and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 8"Tie Spacing

| Mall Haight              | Bac               | 14:11         |        |                    |             |        |       |      |         |     |       |          |           | <u> </u> | ize and        |          |       |        |          |      |         |      |      |        |           |      |
|--------------------------|-------------------|---------------|--------|--------------------|-------------|--------|-------|------|---------|-----|-------|----------|-----------|----------|----------------|----------|-------|--------|----------|------|---------|------|------|--------|-----------|------|
| Wall Height              | Hei               | ght           |        |                    |             | 4      | 180 k | a/m: | 3 (30 p | cf) |       | Backfill | l Equ     | ivale    | ent Fluid<br>I | d Der    | nsity |        | 720 k    | a/m: | 3 (45 r | ocf) |      |        |           |      |
| (ft)                     | m                 | (ft)          | 150 mi | m (6") V           | Vall        | 200 mr |       | -    | 250 mn  |     | Vall  | 300 mn   | n (12") V | Vall     | 150 mi         | n (6") W | /all  |        | n (8") W |      | 250 mr  |      | Vall | 300 mr | n (12") V | Wall |
|                          | 1.22              | (4.0)         | 10 M @ | 400                | (16)        | 10 M @ | 600   | (24) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 400      | (16)  | 10 M @ | 400      | (16) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
| Ī                        | 1.53              | (5.0)         | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
| 2.44<br>(8.0)            | 1.83              | (6.0)         | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 15 M @  | 600 | (24)  | 15 M @   | 600       | (24)     | 15 M @         | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
|                          | 2.13              | (7.0)         | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |
|                          | 2.44              | (8.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |
|                          | 1.22              | (4.0)         | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 600      | (24)  | 10 M @ | 400      | (16) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
|                          | 1.53              | (5.0)         | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 400      | (16)  | 15 M @ | 600      | (24) | 15 M @  | 600  | (24) | 10 M @ | 400       | (16) |
| 2.74                     | 1.83              | (6.0)         | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24)  | 15 M @   | 600       | (24)     | 15 M @         | 400      | (16)  | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
| (9.0)                    | 2.13              | (7.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |
|                          | 2.44              | (8.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |
|                          | 2.74              | (9.0)         | 15 M @ | 200                | (8)         | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16)  | 15 M @   | 400       | (16)     |                |          |       | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |
|                          | 1.22              | (4.0)         | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 600      | (24)  | 10 M @ | 400      | (16) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
|                          | 1.53              | (5.0)         | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
|                          | 1.83              | (6.0)         | 15 M @ | 400                | (16)        | 15 M @ | 400   | (16) | 15 M @  | 600 | (24)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 600  | (24) | 15 M @ | 600       | (24) |
| 3.05<br>(10.0)           | 2.13              | (7.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |
|                          | 2.44              | (8.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 400       | (16)     |                |          |       | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |
|                          | 2.74              | (9.0)         |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16)  | 15 M @   | 400       | (16)     | V              |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |
|                          | 3.05              | (10.0)        |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)   | 15 M @   | 400       | (16)     |                |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |
|                          | 1.22              | (4.0)         | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 600      | (24)  | 10 M @ | 400      | (16) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
|                          | 1.53              | (5.0)         | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 400      | (16)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
|                          | 1.83              | (6.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 600 | (24)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |
| 3.35                     | 2.13              | (7.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |
| (11.0)                   | 2.44              | (8.0)         |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16)  | 15 M @   | 400       | (16)     |                |          |       | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |
|                          | 2.74              | (9.0)         |        | $\Delta \setminus$ |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)   | 15 M @   | 400       | (16)     | İK             |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |
|                          | 3.05              | (10.0)        |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)   | 15 M @   | 400       | (16)     |                | (        |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)  |
| $\Lambda \Lambda \Delta$ | 3.35              | (11.0)        |        |                    | $\triangle$ | 15 M @ | 200   | (8)  | 15 M @  | 200 | _(8)_ | 15 M @   | 200       | (8)      | $\triangle$    |          |       |        |          | Ť    | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)  |
| I V I /                  | 1.22              | (4.0)         | 15 M @ | 600                | (24)        | 10 M @ | 400   | (16) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 600      | (24)  | 15 M @ | 600      | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16) |
|                          | 1.53              | (5.0)         | 15 M @ | 400                | (16)        | 15 M @ | 600   | (24) | 10 M @  | 400 | (16)  | 10 M @   | 400       | (16)     | 15 M @         | 400      | (16)  | 15 M @ | 600      | (24) | 15 M @  | 600  | (24) | 10 M @ | 400       | (16) |
|                          | 1.83              | (6.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 600 | (24)  | 15 M @   | 600       | (24)     | 15 M @         | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24) |
|                          | 2.13              | (7.0)         | 15 M @ | 200                | (8)         | 15 M @ | 400   | (16) | 15 M @  | 400 | (16)  | 15 M @   | 400       | (16)     | 15 M @         | 200      | (8)   | 15 M @ | 200      | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16) |
| 3.66<br>(12.0)           | 2.44              | (8.0)         |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 400 | (16)  | 15 M @   | 400       | (16)     |                |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |
|                          | 2.74              | (9.0)         |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)   | 15 M @   | 400       | (16)     |                |          |       | 15 M @ | 200      | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16) |
|                          | 3.05              | (10.0)        |        |                    |             | 15 M @ | 200   | (8)  | 15 M @  | 200 | (8)   | 15 M @   | 200       | (8)      |                |          |       |        |          |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)  |
|                          | 3.35              | (11.0)        |        |                    |             |        |       |      | 15 M @  | 200 | (8)   | 15 M @   | 200       | (8)      |                |          |       |        |          |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)  |
|                          | 3.66              | (12.0)        |        |                    |             |        |       |      | 15 M @  | 200 | (8)   | 15 M @   | 200       | (8)      |                |          |       |        |          |      |         |      |      | 15 M @ | 200       | (8)  |
| Horizontal               | Block H<br>12" ar |               | 10 M @ | 900                | (36)        | 10 M @ | 900   | (36) | 10 M @  | 900 | (36)  | 10 M @   | 900       | (36)     | 10 M @         | 900      | (36)  | 10 M @ | 900      | (36) | 10 M @  | 900  | (36) | 10 M @ | 900       | (36) |
| Reinforcement            | Block I           | Height<br>16" | 10 M @ | 800                | (32)        | 10 M @ | 800   | (32) | 10 M @  | 800 | (32)  | 10 M @   | 800       | (32)     | 10 M @         | 800      | (32)  | 10 M @ | 800      | (32) | 10 M @  | 800  | (32) | 10 M @ | 800       | (32) |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars, as sh



Table B.2.2. Continued – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.25 < Sa(0.2)  $\leq$  0.70 and Hourly Wind Pressure, q<sub>1/50</sub>  $\leq$  1.05kPa, for ICF Walls with 8"Tie Spacing

| Wall Height<br>m<br>(ft)    | Bac                                |                  |        |          |             |        |       |                  |         |     |      |         |           |       | ize and     |          |       |        |       |      |         |      |      |        |           |              |
|-----------------------------|------------------------------------|------------------|--------|----------|-------------|--------|-------|------------------|---------|-----|------|---------|-----------|-------|-------------|----------|-------|--------|-------|------|---------|------|------|--------|-----------|--------------|
| (ft)                        | неі                                | ight             |        |          |             |        | )60 k | a/m <sup>o</sup> | 3 (60 p | of) |      | Backfil | l Equ     | ivale | nt Fluid    | d Der    | nsity |        | 200 l | ra/m | 3 (75 ı | nof) |      |        |           |              |
|                             | m                                  | (ft)             | 150 mr | m (6") V | Vall        | 200 mr |       | _                | 250 mm  |     | Vall | 300 mr  | n (12") \ | Vall  | 150 mr      | m (6") W | /all  | 200 mr |       |      | 250 mn  | =    | Vall | 300 mr | n (12") \ | Wall         |
|                             | 1.22                               | (4.0)            | 15 M @ | 400      | (16)        | 10 M @ | 400   | (16)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 10 M @ | 400   | (16) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
| Ī                           | 1.53                               | (5.0)            | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
| 2.44<br>(8.0)               | 1.83                               | (6.0)            | 15 M @ | 400      | (16)        | 15 M @ | 400   | (16)             | 15 M @  | 600 | (24) | 10 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 10 M @ | 400       | (16)         |
|                             | 2.13                               | (7.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24)         |
|                             | 2.44                               | (8.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)         |
| _                           | 1.22                               | (4.0)            | 15 M @ | 600      | (24)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 600      | (24)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
|                             | 1.53                               | (5.0)            | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
| 2.74                        | 1.83                               | (6.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 600 | (24) | 10 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24)         |
| (9.0)                       | 2.13                               | (7.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)         |
|                             | 2.44                               | (8.0)            | 15 M @ | 200      | (8)         | 15 M @ | 200   | (8)              | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)         |
|                             | 2.74                               | (9.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)         |
|                             | 1.22                               | (4.0)            | 15 M @ | 600      | (24)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 600      | (24)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
|                             | 1.53                               | (5.0)            | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 15 M @  | 600  | (24) | 10 M @ | 400       | (16)         |
|                             | 1.83                               | (6.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24)         |
| 3.05<br>(10.0)              | 2.13                               | (7.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)         |
|                             | 2.44                               | (8.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)         |
|                             | 2.74                               | (9.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  | V           |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)         |
|                             | 3.05                               | (10.0)           |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)          |
|                             | 1.22                               | (4.0)            | 15 M @ | 600      | (24)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 600      | (24)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
|                             | 1.53                               | (5.0)            | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 10 M @ | 400       | (16)         |
|                             | 1.83                               | (6.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24)         |
| 3.35                        | 2.13                               | (7.0)            | 15 M @ | 200      | (8)         | 15 M @ | 200   | (8)              | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)         |
| (11.0)                      | 2.44                               | (8.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)         |
|                             | 2.74                               | (9.0)            |        | $\Delta$ |             | 15 M @ | 200   | (8)              | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  | İK          |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)          |
|                             | 3.05                               | (10.0)           |        |          |             |        | _     |                  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)          |
| $\Lambda / L L$             | 3.35                               | (11.0)           |        |          | $\triangle$ |        | · I   |                  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   | $\triangle$ |          |       |        | (     |      |         |      |      | 15 M @ | 200       | (8)          |
| 1 7 17                      | 1.22                               | (4.0)            | 15 M @ | 600      | (24)        | 15 M @ | 600   | (24)             | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)         |
|                             | 1.53                               | (5.0)            | 15 M @ | 400      | (16)        | 15 M @ | 600   | (24)             | 15 M @  | 600 | (24) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 15 M @  | 600  | (24) | 10 M @ | 400       | (16)         |
| _                           | 1.83                               | (6.0)            | 15 M @ | 200      | (8)         | 15 M @ | 400   | (16)             | 15 M @  | 400 | (16) | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 15 M @ | 600       | (24)         |
|                             | 2.13                               | (7.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)         |
| 3.66<br>(12.0)              | 2.44                               | (8.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)         |
|                             | 2.74                               | (9.0)            |        |          |             | 15 M @ | 200   | (8)              | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)          |
|                             | 3.05                               | (10.0)           |        |          |             |        |       |                  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      |         |      |      | 15 M @ | 200       | (8)          |
|                             | 3.35                               | (11.0)           |        |          |             |        |       |                  |         |     |      | 15 M @  | 200       | (8)   |             |          |       |        |       |      |         |      |      | 15 M @ | 200       | (8)          |
|                             | 3.66                               | (12.0)           |        |          |             |        |       |                  |         |     |      | 15 M @  | 200       | (8)   |             |          |       |        |       |      |         |      |      |        |           | $oxed{oxed}$ |
| Horizontal<br>Reinforcement | Block H<br>12" ar<br>Block I<br>of | nd 18"<br>Height | 10 M @ | 900      | (36)        | 10 M @ | 900   | (36)             | 10 M @  | 900 | (36) | 10 M @  | 900       | (36)  | 10 M @      | 900      | (36)  | 10 M @ | 900   | (36) | 10 M @  | 900  | (36) | 10 M @ | 900       | (36)         |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars, as sh



Table B.3.1. – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.70 < Sa(0.2) \le 1.2$  and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05$ kPa, for ICF Walls with 6"Tie Spacing

| VA/= II                  |                   | 1.60   |        |                    |             |        |       |      |         |      |       | Vertica | Stee      | el (Si | ize and       | Spa      | cing) |        |          |      |         |      |      |        |           |      |
|--------------------------|-------------------|--------|--------|--------------------|-------------|--------|-------|------|---------|------|-------|---------|-----------|--------|---------------|----------|-------|--------|----------|------|---------|------|------|--------|-----------|------|
| Wall Height              | Bac<br>Hei        | ght    |        |                    |             |        | 180 1 | a/mʻ | a (30 p | ocf) |       | Backfil | Equ       | ivale  | ent Fluid     | d Der    | nsity |        | 720 4    | a/mʻ | 3 (45 p | ocf) |      |        |           |      |
| (ft)                     | m                 | (ft)   | 150 mr | n (6") V           | Vall        | 200 mr |       |      | 250 mn  |      | Vall  | 300 mr  | n (12") V | Nall   | 150 mi        | n (6") W | /all  |        | n (8") W |      | 250 mn  |      | Vall | 300 mr | n (12") V | Wall |
|                          | 1.22              | (4.0)  | 10 M @ | 300                | (12)        | 10 M @ | 300   | (12) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 15 M @        | 450      | (18)  | 10 M @ | 300      | (12) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
| ,                        | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 10 M @ | 300   | (12) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 15 M @        | 450      | (18)  | 10 M @ | 300      | (12) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
| 2.44<br>(8.0)            | 1.83              | (6.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 450  | (18)  | 10 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 15 M @  | 450  | (18) | 10 M @ | 300       | (12) |
| , ` ´                    | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 10 M @  | 300       | (12)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
| ,                        | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
|                          | 1.22              | (4.0)  | 10 M @ | 300                | (12)        | 10 M @ | 300   | (12) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 10 M @        | 300      | (12)  | 10 M @ | 300      | (12) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.53              | (5.0)  | 15 M @ | 450                | (18)        | 15 M @ | 450   | (18) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
| 2.74                     | 1.83              | (6.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 15 M @  | 450  | (18)  | 10 M @  | 300       | (12)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 10 M @ | 300       | (12) |
| (9.0)                    | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                          | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 300  | (12)  | 15 M @  | 300       | (12)   | 15 M @        | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                          | 2.74              | (9.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12)  | 15 M @  | 300       | (12)   |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                          | 1.22              | (4.0)  | 10 M @ | 300                | (12)        | 10 M @ | 300   | (12) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 10 M @        | 300      | (12)  | 10 M @ | 300      | (12) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.53              | (5.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 10 M @  | 300       | (12)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
| 3.05<br>(10.0)           | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
|                          | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12)  | 15 M @  | 300       | (12)   |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
|                          | 2.74              | (9.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)   | 15 M @  | 300       | (12)   | V             |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
|                          | 3.05              | (10.0) |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)   | 15 M @  | 300       | (12)   |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
|                          | 1.22              | (4.0)  | 10 M @ | 300                | (12)        | 10 M @ | 300   | (12) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 10 M @        | 300      | (12)  | 10 M @ | 300      | (12) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.53              | (5.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 10 M @  | 300       | (12)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
| 3.35                     | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 300  | (12)  | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
| (11.0)                   | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12)  | 15 M @  | 300       | (12)   |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
|                          | 2.74              | (9.0)  |        | $\Delta \setminus$ |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)   | 15 M @  | 300       | (12)   | İK            |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
|                          | 3.05              | (10.0) |        |                    |             |        |       | / [  | 15 M @  | 150  | (6)   | 15 M @  | 150       | (6)    |               |          |       | (      |          |      | 15 M @  | 150  | (6)  | 15 M @ | 150       | (6)  |
| $\Lambda \Lambda \Delta$ | 3.35              | (11.0) |        | $\vdash$           | $\triangle$ |        |       |      | 15 M @  | 150  | _(6)_ | 15 M @  | 150       | (6)    | $\triangle$ ' |          |       |        | ) (      | Ť    | 15 M @  | 150  | (6)  | 15 M @ | 150       | (6)  |
| 1 4 17                   | 1.22              | (4.0)  | 10 M @ | 300                | (12)        | 10 M @ | 300   | (12) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 10 M @        | 300      | (12)  | 10 M @ | 300      | (12) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.53              | (5.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450   | (18) | 10 M @  | 300  | (12)  | 10 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 450      | (18) | 10 M @  | 300  | (12) | 10 M @ | 300       | (12) |
|                          | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300   | (12) | 15 M @  | 450  | (18)  | 15 M @  | 450       | (18)   | 15 M @        | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @  | 450  | (18) | 15 M @ | 450       | (18) |
|                          | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12)  | 15 M @  | 450       | (18)   |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 300  | (12) | 15 M @ | 450       | (18) |
| 3.66<br>(12.0)           | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)   | 15 M @  | 300       | (12)   |               |          |       | 15 M @ | 150      | (6)  | 15 M @  | 150  | (6)  | 15 M @ | 300       | (12) |
|                          | 2.74              | (9.0)  |        |                    |             | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)   | 15 M @  | 150       | (6)    |               |          |       |        |          |      | 15 M @  | 150  | (6)  | 15 M @ | 150       | (6)  |
|                          | 3.05              | (10.0) |        |                    |             |        |       |      | 15 M @  | 150  | (6)   | 15 M @  | 150       | (6)    |               |          |       |        |          |      | 15 M @  | 150  | (6)  | 15 M @ | 150       | (6)  |
|                          | 3.35              | (11.0) |        |                    |             |        |       |      | 15 M @  | 150  | (6)   | 15 M @  | 150       | (6)    |               |          |       |        |          |      |         |      |      | 15 M @ | 150       | (6)  |
|                          | 3.66              | (12.0) |        |                    |             |        |       |      |         |      |       | 15 M @  | 150       | (6)    |               |          |       |        |          |      |         |      |      | 15 M @ | 150       | (6)  |
| Horizontal               | Block H<br>12" ar | nd 18" | 15 M @ | 300                | (12)        | 15 M @ | 300   | (12) | 15 M @  | 300  | (12)  | 15 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 300      | (12) | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |
| Reinforcement            | Block I<br>of     |        | 15 M @ | 300                | (12)        | 15 M @ | 300   | (12) | 15 M @  | 300  | (12)  | 15 M @  | 300       | (12)   | 15 M @        | 300      | (12)  | 15 M @ | 300      | (12) | 15 M @  | 300  | (12) | 15 M @ | 300       | (12) |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in De
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown



Table B.3.1. Continued – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.70 < Sa(0.2) ≤ 1.2 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 6"Tie Spacing

| Wall Height    | Poo        | Jefill |        |                    |          |        |       |      |         |      |      |         |           | <u> </u> | ze and        |          |       |        |       |      |        |      |      |        |           |      |
|----------------|------------|--------|--------|--------------------|----------|--------|-------|------|---------|------|------|---------|-----------|----------|---------------|----------|-------|--------|-------|------|--------|------|------|--------|-----------|------|
| m o            | Bac<br>Hei | ght    |        |                    |          | c      | 960 k | a/m: | 3 (60 p | ocf) |      | Backfil | l Equ     | ivale    | nt Fluid<br>I | d Der    | nsity |        | 200 k | ra/m | 3 (75) | ncf) |      |        |           |      |
| (ft)           | m          | (ft)   | 150 mr | m (6") V           | Vall     | 200 mr |       | -    | 250 mn  |      | Vall | 300 mr  | n (12") V | Vall     | 150 mr        | m (6") W | /all  | 200 mr |       |      | 250 mn |      | Vall | 300 mr | n (12") V | Vall |
|                | 1.22       | (4.0)  | 15 M @ | 450                | (18)     | 10 M @ | 300   | (12) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 15 M @        | 450      | (18)  | 10 M @ | 300   | (12) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
| -              | 1.53       | (5.0)  | 15 M @ | 300                | (12)     | 15 M @ | 450   | (18) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
| 2.44<br>(8.0)  | 1.83       | (6.0)  | 15 M @ | 150                | (6)      | 15 M @ | 450   | (18) | 15 M @  | 450  | (18) | 10 M @  | 300       | (12)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 450  | (18) | 10 M @ | 300       | (12) |
| (= = /         | 2.13       | (7.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| Ī              | 2.44       | (8.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     | 15 M @        | 150      | (6)   | 15 M @ | 150   | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                | 1.22       | (4.0)  | 10 M @ | 300                | (12)     | 10 M @ | 300   | (12) | 10 M @  | 450  | (18) | 10 M @  | 300       | (12)     | 10 M @        | 300      | (12)  | 10 M @ | 300   | (12) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
|                | 1.53       | (5.0)  | 15 M @ | 300                | (12)     | 15 M @ | 450   | (18) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
| 2.74           | 1.83       | (6.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| (9.0)          | 2.13       | (7.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                | 2.44       | (8.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150   | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                | 2.74       | (9.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150   | (6)  | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
|                | 1.22       | (4.0)  | 10 M @ | 300                | (12)     | 10 M @ | 300   | (12) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 10 M @        | 300      | (12)  | 10 M @ | 300   | (12) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
|                | 1.53       | (5.0)  | 15 M @ | 300                | (12)     | 15 M @ | 450   | (18) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
|                | 1.83       | (6.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| 3.05<br>(10.0) | 2.13       | (7.0)  | 15 M @ | 150                | (6)      | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 150   | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
|                | 2.44       | (8.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150   | (6)  | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
|                | 2.74       | (9.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     | V             |          |       |        |       |      | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
|                | 3.05       | (10.0) |        |                    |          |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      |               |          |       |        |       |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
|                | 1.22       | (4.0)  | 10 M @ | 300                | (12)     | 10 M @ | 300   | (12) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 10 M @        | 300      | (12)  | 10 M @ | 300   | (12) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
|                | 1.53       | (5.0)  | 15 M @ | 300                | (12)     | 15 M @ | 450   | (18) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @ | 450  | (18) | 10 M @ | 300       | (12) |
|                | 1.83       | (6.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 450  | (18) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 450  | (18) | 15 M @ | 450       | (18) |
| 3.35           | 2.13       | (7.0)  | 15 M @ | 150                | (6)      | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150   | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
| (11.0)         | 2.44       | (8.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150   | (6)  | 15 M @ | 150  | (6)  | 15 M @ | 300       | (12) |
|                | 2.74       | (9.0)  |        | $\Delta \setminus$ |          |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      | K             | 7        |       |        |       |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
|                | 3.05       | (10.0) |        |                    |          |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      |               |          |       |        |       |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
| $N / \Delta$   | 3.35       | (11.0) |        |                    | $\Delta$ |        |       |      |         | 7    |      | 15 M @  | 150       | (6)      | $\Delta$      |          |       |        | ) (   |      |        |      |      | 15 M @ | 150       | (6)  |
| 1 7 17         | 1.22       | (4.0)  | 10 M @ | 300                | (12)     | 10 M @ | 300   | (12) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 10 M @        | 300      | (12)  | 10 M @ | 300   | (12) | 10 M @ | 300  | (12) | 10 M @ | 300       | (12) |
|                | 1.53       | (5.0)  | 15 M @ | 300                | (12)     | 15 M @ | 450   | (18) | 10 M @  | 300  | (12) | 10 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 450   | (18) | 15 M @ | 450  | (18) | 10 M @ | 300       | (12) |
| Ī              | 1.83       | (6.0)  | 15 M @ | 150                | (6)      | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 450       | (18)     | 15 M @        | 150      | (6)   | 15 M @ | 300   | (12) | 15 M @ | 300  | (12) | 15 M @ | 450       | (18) |
|                | 2.13       | (7.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     |               |          |       | 15 M @ | 150   | (6)  | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
| 3.66<br>(12.0) | 2.44       | (8.0)  |        |                    |          | 15 M @ | 150   | (6)  | 15 M @  | 150  | (6)  | 15 M @  | 300       | (12)     |               |          |       |        |       |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
| ` ''           | 2.74       | (9.0)  |        |                    |          |        |       |      | 15 M @  | 150  | (6)  | 15 M @  | 150       | (6)      |               |          |       |        |       |      | 15 M @ | 150  | (6)  | 15 M @ | 150       | (6)  |
|                | 3.05       | (10.0) |        |                    |          |        |       |      |         |      |      | 15 M @  | 150       | (6)      |               |          |       |        |       |      |        |      |      | 15 M @ | 150       | (6)  |
|                | 3.35       | (11.0) |        |                    |          |        |       |      |         |      |      | 15 M @  | 150       | (6)      |               |          |       |        |       |      |        |      |      | 15 M @ | 150       | (6)  |
|                | 3.66       | (12.0) |        |                    |          |        |       |      |         |      |      | 15 M @  | 150       | (6)      |               |          |       |        |       |      |        |      |      |        |           |      |
| Horizontal     | Block H    |        | 15 M @ | 300                | (12)     | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 300   | (12) | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |
| Reinforcement  |            | Height | 15 M @ | 300                | (12)     | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @  | 300       | (12)     | 15 M @        | 300      | (12)  | 15 M @ | 300   | (12) | 15 M @ | 300  | (12) | 15 M @ | 300       | (12) |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in De
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown

Table B.3.2. – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $0.70 < \text{Sa}(0.2) \le 1.2$  and Hourly Wind Pressure,  $q_{_{1/50}} \le 1.05 \text{kPa}$ , for ICF Walls with 8"Tie Spacing

|                  |                   |        |        |                    |             |        |                          |      |         |     |      | Vertica | Stee      | el (S    | ize and     | Spa      | cina) |        |                          |      |         |     |          |        |           |          |
|------------------|-------------------|--------|--------|--------------------|-------------|--------|--------------------------|------|---------|-----|------|---------|-----------|----------|-------------|----------|-------|--------|--------------------------|------|---------|-----|----------|--------|-----------|----------|
| Wall Height<br>m | Bac<br>Hei        | aht    |        |                    |             |        | 100 '                    |      |         |     |      |         |           | <u> </u> | nt Flui     | <u> </u> |       |        | 700 !                    | l: · | 0 /45   |     |          |        |           |          |
| (ft)             | m                 | (ft)   | 150 mr | m (6") V           | Vall        |        | <u>180 K</u><br>m (8") V | _    | 3 (30 p |     | Vall | 300 mr  | n (12") \ | <br>Vall | 150 mi      | m (6") W | /all  | -      | <u>/20 K</u><br>n (8") W |      | 3 (45 p |     | <br>Vall | 300 mr | n (12") \ | <br>Wall |
|                  | 1.22              | (4.0)  | 10 M @ | 200                | (8)         | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)     | 15 M @      | 400      | (16)  | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16)     | 10 M @ | 400       | (16      |
|                  | 1.53              | (5.0)  | 15 M @ | 400                | (16)        | 10 M @ | 200                      | (8)  | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)     | 15 M @      | 400      | (16)  | 10 M @ | 200                      | (8)  | 15 M @  | 600 | (24)     | 10 M @ | 400       | (16      |
| 2.44<br>(8.0)    | 1.83              | (6.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)  | 15 M @  | 600       | (24)     | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16)     | 10 M @ | 200       | (8)      |
| (0.0)            | 2.13              | (7.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16)     | 15 M @ | 400       | (16      |
|                  | 2.44              | (8.0)  | 15 M @ | 200                | (8)         | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16)     | 15 M @ | 400       | (16)     |
|                  | 1.22              | (4.0)  | 10 M @ | 200                | (8)         | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)     | 10 M @      | 200      | (8)   | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16)     | 10 M @ | 400       | (16      |
|                  | 1.53              | (5.0)  | 15 M @ | 400                | (16)        | 15 M @ | 400                      | (16) | 15 M @  | 600 | (24) | 10 M @  | 400       | (16)     | 15 M @      | 400      | (16)  | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)      | 10 M @ | 400       | (16      |
| 2.74             | 1.83              | (6.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16) | 10 M @  | 200       | (8)      | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16)     | 10 M @ | 200       | (8)      |
| (9.0)            | 2.13              | (7.0)  | 15 M @ | 200                | (8)         | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16)     | 15 M @ | 400       | (16      |
|                  | 2.44              | (8.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)      | 15 M @ | 400       | (16      |
|                  | 2.74              | (9.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)      | 15 M @ | 400       | (16      |
|                  | 1.22              | (4.0)  | 10 M @ | 200                | (8)         | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)     | 10 M @      | 200      | (8)   | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16)     | 10 M @ | 400       | (16      |
|                  | 1.53              | (5.0)  | 15 M @ | 400                | (16)        | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)  | 10 M @  | 400       | (16)     | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)      | 10 M @ | 400       | (16      |
|                  | 1.83              | (6.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16) | 10 M @  | 200       | (8)      | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16)     | 10 M @ | 200       | (8)      |
| 3.05<br>(10.0)   | 2.13              | (7.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16)     | 15 M @ | 400       | (16      |
|                  | 2.44              | (8.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)      | 15 M @ | 400       | (16      |
|                  | 2.74              | (9.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)      | V           |          |       |        |                          |      | 15 M @  | 200 | (8)      | 15 M @ | 200       | (8)      |
|                  | 3.05              | (10.0) |        |                    |             |        |                          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)      |             |          |       |        |                          |      | 15 M @  | 200 | (8)      | 15 M @ | 200       | (8)      |
|                  | 1.22              | (4.0)  | 10 M @ | 200                | (8)         | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)     | 10 M @      | 200      | (8)   | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16)     | 10 M @ | 400       | (16)     |
|                  | 1.53              | (5.0)  | 15 M @ | 400                | (16)        | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)  | 10 M @  | 400       | (16)     | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)      | 10 M @ | 400       | (16      |
|                  | 1.83              | (6.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16) | 10 M @  | 200       | (8)      | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16)     | 15 M @ | 400       | (16      |
| 3.35             | 2.13              | (7.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)      | 15 M @ | 400       | (16)     |
| (11.0)           | 2.44              | (8.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)      | 15 M @ | 200       | (8)      |
|                  | 2.74              | (9.0)  |        | $\Delta \setminus$ |             |        |                          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)      | . K         |          |       |        |                          |      | 15 M @  | 200 | (8)      | 15 M @ | 200       | (8)      |
| B 4 A            | 3.05              | (10.0) |        |                    | _           |        |                          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)      |             |          |       |        |                          |      |         |     |          | 15 M @ | 200       | (8)      |
| N/L              | 3.35              | (11.0) |        |                    | $\triangle$ |        |                          |      |         | 2   | _    | 15 M @  | 200       | (8)      | $\triangle$ |          |       |        | ) (                      |      |         |     |          | 15 M @ | 200       | (8)      |
| 1 4 17           | 1.22              | (4.0)  | 10 M @ | 200                | (8)         | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)     | 10 M @      | 200      | (8)   | 10 M @ | 400                      | (16) | 10 M @  | 400 | (16)     | 10 M @ | 400       | (16      |
|                  | 1.53              | (5.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)  | 10 M @  | 400       | (16)     | 15 M @      | 200      | (8)   | 15 M @ | 400                      | (16) | 10 M @  | 200 | (8)      | 10 M @ | 400       | (16      |
|                  | 1.83              | (6.0)  | 15 M @ | 200                | (8)         | 15 M @ | 400                      | (16) | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)     | 15 M @      | 200      | (8)   | 15 M @ | 200                      | (8)  | 15 M @  | 400 | (16)     | 15 M @ | 400       | (16      |
|                  | 2.13              | (7.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)     |             |          |       | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)      | 15 M @ | 400       | (16      |
| 3.66<br>(12.0)   | 2.44              | (8.0)  |        |                    |             | 15 M @ | 200                      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)      |             |          |       |        |                          |      | 15 M @  | 200 | (8)      | 15 M @ | 200       | (8)      |
|                  | 2.74              | (9.0)  |        |                    |             |        |                          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)      |             |          |       |        |                          |      | 15 M @  | 200 | (8)      | 15 M @ | 200       | (8)      |
|                  | 3.05              | (10.0) |        |                    |             |        |                          |      |         |     |      | 15 M @  | 200       | (8)      |             |          |       |        |                          |      |         |     |          | 15 M @ | 200       | (8)      |
|                  | 3.35              | (11.0) |        |                    |             |        |                          |      |         |     |      | 15 M @  | 200       | (8)      |             |          |       |        |                          |      |         |     |          |        |           |          |
|                  | 3.66              | (12.0) |        |                    |             |        |                          |      |         |     |      |         |           |          |             |          |       |        |                          |      |         |     |          |        |           |          |
| Horizontal       | Block H<br>12" ar | nd 18" | 15 M @ | 300                | (12)        | 15 M @ | 300                      | (12) | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)     | 15 M @      | 300      | (12)  | 15 M @ | 300                      | (12) | 15 M @  | 300 | (12)     | 15 M @ | 300       | (12)     |
| Reinforcement    | Block I<br>of     |        | 15 M @ | 300                | (12)        | 15 M @ | 300                      | (12) | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)     | 15 M @      | 300      | (12)  | 15 M @ | 300                      | (12) | 15 M @  | 300 | (12)     | 15 M @ | 300       | (12)     |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in De
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown

Table B.3.2. Continued– Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 0.70 < Sa(0.2) ≤ 1.2 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 8"Tie Spacing

|                  | _      |                |        |          |             |        |          |      |         |     | ,    | Vertica | Stee      | el (S | ize and     | Spa      | cing  | )      |       |      |                 |                           |      |        |           |          |
|------------------|--------|----------------|--------|----------|-------------|--------|----------|------|---------|-----|------|---------|-----------|-------|-------------|----------|-------|--------|-------|------|-----------------|---------------------------|------|--------|-----------|----------|
| Wall Height<br>m | Hei    | ckfill<br>ight |        |          |             |        | 260 1    | a/m  | 2 (60 5 | of) |      | Backfil | l Equ     | ivale | nt Flui     | d Der    | nsity |        | 200 1 | (a/m | 2 (75           | oof)                      |      |        |           |          |
| (ft)             | m      | (ft)           | 150 m  | m (6") V | Vall        |        | m (8") V | _    | 3 (60 p |     | Vall | 300 mr  | n (12") \ | Vall  | 150 mi      | m (6") W | Vall  | 200 mr |       |      | 3 (75<br>250 mr | p <u>CI)</u><br>n (10") \ | Vall | 300 mr | n (12") V | <br>Wall |
|                  | 1.22   | (4.0)          | 15 M @ | 400      | (16)        | 10 M @ | 400      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 10 M @ | 400   | (16) | 10 M @          | 400                       | (16) | 10 M @ | 400       | (16)     |
|                  | 1.53   | (5.0)          | 15 M @ | 400      | (16)        | 15 M @ | 400      | (16) | 15 M @  | 600 | (24) | 10 M @  | 400       | (16)  | 15 M @      | 400      | (16)  | 15 M @ | 400   | (16) | 10 M @          | 200                       | (8)  | 10 M @ | 400       | (16)     |
| 2.44<br>(8.0)    | 1.83   | (6.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 15 M @  | 400 | (16) | 10 M @  | 200       | (8)   | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @          | 400                       | (16) | 10 M @ | 200       | (8)      |
| (0.0)            | 2.13   | (7.0)          | 15 M @ | 200      | (8)         | 15 M @ | 200      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 400                       | (16) | 15 M @ | 400       | (16)     |
|                  | 2.44   | (8.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 400       | (16)     |
|                  | 1.22   | (4.0)          | 10 M @ | 200      | (8)         | 10 M @ | 400      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 10 M @      | 200      | (8)   | 10 M @ | 400   | (16) | 10 M @          | 400                       | (16) | 10 M @ | 400       | (16)     |
|                  | 1.53   | (5.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 10 M @  | 200 | (8)  | 10 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 10 M @          | 200                       | (8)  | 10 M @ | 400       | (16)     |
| 2.74             | 1.83   | (6.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 15 M @  | 400 | (16) | 10 M @  | 200       | (8)   | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @          | 400                       | (16) | 15 M @ | 400       | (16)     |
| (9.0)            | 2.13   | (7.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 400                       | (16) | 15 M @ | 400       | (16)     |
|                  | 2.44   | (8.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 400       | (16)     |
|                  | 2.74   | (9.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 200       | (8)      |
|                  | 1.22   | (4.0)          | 10 M @ | 200      | (8)         | 10 M @ | 400      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 10 M @      | 200      | (8)   | 10 M @ | 400   | (16) | 10 M @          | 400                       | (16) | 10 M @ | 400       | (16)     |
|                  | 1.53   | (5.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 10 M @  | 200 | (8)  | 10 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 10 M @          | 200                       | (8)  | 15 M @ | 600       | (24)     |
|                  | 1.83   | (6.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  | 15 M @      | 200      | (8)   | 15 M @ | 200   | (8)  | 15 M @          | 400                       | (16) | 15 M @ | 400       | (16)     |
| 3.05<br>(10.0)   | 2.13   | (7.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 400       | (16)     |
|                  | 2.44   | (8.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 200       | (8)      |
|                  | 2.74   | (9.0)          |        |          |             |        |          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   | V           |          |       |        |       |      | 15 M @          | 200                       | (8)  | 15 M @ | 200       | (8)      |
|                  | 3.05   | (10.0)         |        |          |             |        |          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      |                 |                           |      | 15 M @ | 200       | (8)      |
|                  | 1.22   | (4.0)          | 10 M @ | 200      | (8)         | 10 M @ | 400      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 10 M @      | 200      | (8)   | 10 M @ | 400   | (16) | 10 M @          | 400                       | (16) | 10 M @ | 400       | (16)     |
|                  | 1.53   | (5.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 10 M @  | 200 | (8)  | 10 M @  | 200       | (8)   | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @          | 400                       | (16) | 15 M @ | 600       | (24)     |
|                  | 1.83   | (6.0)          | 15 M @ | 200      | (8)         | 15 M @ | 200      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 400                       | (16) | 15 M @ | 400       | (16)     |
| 3.35             | 2.13   | (7.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 400       | (16)     |
| (11.0)           | 2.44   | (8.0)          |        | <u> </u> |             |        |          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      | 15 M @          | 200                       | (8)  | 15 M @ | 200       | (8)      |
|                  | 2.74   | (9.0)          |        |          |             |        |          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   | . K         |          |       |        |       |      |                 |                           | K    | 15 M @ | 200       | (8)      |
| B 4 A            | 3.05   | (10.0)         |        |          |             |        |          |      | Ĺ.,     |     |      | 15 M @  | 200       | (8)   |             |          |       |        |       |      |                 |                           |      | 15 M @ | 200       | (8)      |
| $\Lambda / L$    | 3.35   | (11.0)         |        |          | $\triangle$ |        |          | Ц    |         | 2   |      | 15 M @  | 200       | (8)   | $\triangle$ |          | 5     |        | ) (   |      |                 |                           | Ц    |        | ) [`      | M        |
| 1 4 17           | 1.22   | (4.0)          | 10 M @ | 200      | (8)         | 10 M @ | 400      | (16) | 10 M @  | 400 | (16) | 10 M @  | 400       | (16)  | 10 M @      | 200      | (8)   | 10 M @ | 200   | (8)  | 10 M @          | 400                       | (16) | 10 M @ | 400       | (16)     |
|                  | 1.53   | (5.0)          | 15 M @ | 200      | (8)         | 15 M @ | 400      | (16) | 10 M @  | 200 | (8)  | 15 M @  | 600       | (24)  | 15 M @      | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @          | 400                       | (16) | 10 M @ | 200       | (8)      |
|                  | 1.83   | (6.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 400 | (16) | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 400                       | (16) | 15 M @ | 400       | (16)     |
| 0.00             | 2.13   | (7.0)          |        |          |             | 15 M @ | 200      | (8)  | 15 M @  | 200 | (8)  | 15 M @  | 400       | (16)  |             |          |       | 15 M @ | 200   | (8)  | 15 M @          | 200                       | (8)  | 15 M @ | 400       | (16)     |
| 3.66<br>(12.0)   | 2.44   | (8.0)          |        |          |             |        |          |      | 15 M @  | 200 | (8)  | 15 M @  | 200       | (8)   |             |          |       |        |       |      | 15 M @          | 200                       | (8)  | 15 M @ | 200       | (8)      |
|                  | 2.74   | (9.0)          |        |          |             |        |          |      |         |     |      | 15 M @  | 200       | (8)   |             |          |       |        |       |      |                 |                           |      | 15 M @ | 200       | (8)      |
|                  | 3.05   | (10.0)         |        |          |             |        |          |      |         |     |      | 15 M @  | 200       | (8)   |             |          |       |        |       |      |                 |                           |      |        |           |          |
|                  | 3.35   | (11.0)         |        |          |             |        |          |      |         |     |      |         |           |       |             |          |       |        |       |      |                 |                           |      |        |           |          |
|                  | 3.66   | (12.0)         |        |          |             |        |          |      |         |     |      |         |           |       |             |          |       |        |       |      |                 |                           |      |        |           |          |
| Horizontal       | 12" ar |                | 15 M @ | 300      | (12)        | 15 M @ | 300      | (12) | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)  | 15 M @      | 300      | (12)  | 15 M @ | 300   | (12) | 15 M @          | 300                       | (12) | 15 M @ | 300       | (12)     |
| Reinforcement    |        | Height<br>16"  | 15 M @ | 300      | (12)        | 15 M @ | 300      | (12) | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)  | 15 M @      | 300      | (12)  | 15 M @ | 300   | (12) | 15 M @          | 300                       | (12) | 15 M @ | 300       | (12)     |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Details 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Details 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Details 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Details 13" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Details 13" o.c. where 14" spacing o.c. is specified for horizontal bars, as shown in Details 13" o.c. where 14" spacing o.c. is specified for horizontal bars, as shown in Details 13" o.c. where 14" spacing o.c. is specified for horizontal bars, as shown in Details 13" o.c. where 14" o.c. where 15" o.c. where
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown



Table B.4.1. – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2)  $\leq$  1.75 and Hourly Wind Pressure,  $q_{_{1/50}} \leq$  1.05kPa, for ICF Walls with 6"Tie Spacing

| \A,              |                   |        |        |                    |             |        |                              |      |         |     |      | Vertica | Stee      | el (Si | ize and     | Spa      | cing) | )      |        |      |         |     |      |        |           |          |
|------------------|-------------------|--------|--------|--------------------|-------------|--------|------------------------------|------|---------|-----|------|---------|-----------|--------|-------------|----------|-------|--------|--------|------|---------|-----|------|--------|-----------|----------|
| Wall Height<br>m | Bac<br>Hei        | aht    |        |                    |             |        | 100 1                        | a/m  | 3 (30 p | of\ |      | Backfil | l Equ     | ivale  | nt Flui     | d Der    | nsity |        | 720 1- | a/m' | 3 (45 r | of\ |      |        |           |          |
| (ft)             | m                 | (ft)   | 150 mr | m (6") V           | Vall        |        | <del>100 K</del><br>n (8") V | _    | 250 mn  |     | Vall | 300 mr  | n (12") \ | Vall   | 150 mi      | n (6") W | /all  | 200 mr |        |      | 250 mr  |     | Vall | 300 mr | n (12") V | <br>Wall |
|                  | 1.22              | (4.0)  | 10 M @ | 300                | (12)        | 10 M @ | 300                          | (12) | 10 M @  | 300 | (12) | 10 M @  | 300       | (12)   | 15 M @      | 450      | (18)  | 10 M @ | 300    | (12) | 10 M @  | 300 | (12) | 10 M @ | 300       | (12)     |
|                  | 1.53              | (5.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450                          | (18) | 10 M @  | 300 | (12) | 10 M @  | 300       | (12)   | 15 M @      | 300      | (12)  | 15 M @ | 450    | (18) | 15 M @  | 450 | (18) | 10 M @ | 300       | (12)     |
| 2.44<br>(8.0)    | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300                          | (12) | 15 M @  | 450 | (18) | 15 M @  | 450       | (18)   | 15 M @      | 150      | (6)   | 15 M @ | 300    | (12) | 15 M @  | 450 | (18) | 15 M @ | 450       | (18)     |
| (,               | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300                          | (12) | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   | 15 M @      | 150      | (6)   | 15 M @ | 300    | (12) | 15 M @  | 300 | (12) | 15 M @ | 300       | (12)     |
|                  | 2.44              | (8.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150                          | (6)  | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 300 | (12) | 15 M @ | 300       | (12)     |
|                  | 1.22              | (4.0)  | 15 M @ | 450                | (18)        | 10 M @ | 300                          | (12) | 10 M @  | 300 | (12) | 10 M @  | 300       | (12)   | 15 M @      | 450      | (18)  | 10 M @ | 300    | (12) | 10 M @  | 300 | (12) | 10 M @ | 300       | (12)     |
|                  | 1.53              | (5.0)  | 15 M @ | 300                | (12)        | 15 M @ | 450                          | (18) | 15 M @  | 450 | (18) | 10 M @  | 300       | (12)   | 15 M @      | 300      | (12)  | 15 M @ | 450    | (18) | 15 M @  | 450 | (18) | 10 M @ | 300       | (12)     |
| 2.74             | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300                          | (12) | 15 M @  | 450 | (18) | 15 M @  | 450       | (18)   | 15 M @      | 150      | (6)   | 15 M @ | 300    | (12) | 15 M @  | 450 | (18) | 15 M @ | 450       | (18)     |
| (9.0)            | 2.13              | (7.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150                          | (6)  | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)   | 15 M @      | 150      | (6)   | 15 M @ | 150    | (6)  | 15 M @  | 300 | (12) | 15 M @ | 300       | (12)     |
|                  | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 300       | (12)     |
|                  | 2.74              | (9.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 300       | (12)     |
|                  | 1.22              | (4.0)  | 15 M @ | 300                | (12)        | 10 M @ | 300                          | (12) | 10 M @  | 300 | (12) | 10 M @  | 300       | (12)   | 15 M @      | 450      | (18)  | 10 M @ | 300    | (12) | 10 M @  | 300 | (12) | 10 M @ | 300       | (12)     |
|                  | 1.53              | (5.0)  | 15 M @ | 150                | (6)         | 15 M @ | 450                          | (18) | 15 M @  | 450 | (18) | 10 M @  | 300       | (12)   | 15 M @      | 150      | (6)   | 15 M @ | 450    | (18) | 15 M @  | 450 | (18) | 10 M @ | 300       | (12)     |
|                  | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300                          | (12) | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   | 15 M @      | 150      | (6)   | 15 M @ | 300    | (12) | 15 M @  | 300 | (12) | 15 M @ | 450       | (18)     |
| 3.05<br>(10.0)   | 2.13              | (7.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 300 | (12) | 15 M @ | 300       | (12)     |
|                  | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 300       | (12)     |
|                  | 2.74              | (9.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    | V           |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 150       | (6)      |
|                  | 3.05              | (10.0) |        |                    |             |        |                              |      | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    |             |          |       |        |        |      | 15 M @  | 150 | (6)  | 15 M @ | 150       | (6)      |
|                  | 1.22              | (4.0)  | 15 M @ | 300                | (12)        | 10 M @ | 300                          | (12) | 10 M @  | 300 | (12) | 10 M @  | 300       | (12)   | 15 M @      | 450      | (18)  | 10 M @ | 300    | (12) | 10 M @  | 300 | (12) | 10 M @ | 300       | (12)     |
|                  | 1.53              | (5.0)  | 15 M @ | 150                | (6)         | 15 M @ | 450                          | (18) | 15 M @  | 450 | (18) | 10 M @  | 300       | (12)   | 15 M @      | 150      | (6)   | 15 M @ | 450    | (18) | 15 M @  | 450 | (18) | 10 M @ | 300       | (12)     |
|                  | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 300                          | (12) | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   | 15 M @      | 150      | (6)   | 15 M @ | 150    | (6)  | 15 M @  | 300 | (12) | 15 M @ | 450       | (18)     |
| 3.35             | 2.13              | (7.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 300       | (12)     |
| (11.0)           | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 150       | (6)      |
|                  | 2.74              | (9.0)  |        | $\Delta \setminus$ |             |        |                              |      | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    | ÅK          |          |       |        |        |      | 15 M @  | 150 | (6)  | 15 M @ | 150       | (6)      |
| D 4 0            | 3.05              | (10.0) |        |                    |             |        |                              |      | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    |             |          |       |        |        |      |         |     |      | 15 M @ | 150       | (6)      |
| N/L              | 3.35              | (11.0) |        |                    | $\triangle$ |        |                              |      |         | <   |      | 15 M @  | 150       | (6)    | $\triangle$ |          |       |        | ) (    |      |         |     |      | 15 M @ | 150       | (6)      |
| 1 7 17           | 1.22              | (4.0)  | 15 M @ | 300                | (12)        | 10 M @ | 300                          | (12) | 10 M @  | 300 | (12) | 10 M @  | 300       | (12)   | 15 M @      | 450      | (18)  | 10 M @ | 300    | (12) | 10 M @  | 300 | (12) | 10 M @ | 300       | (12)     |
|                  | 1.53              | (5.0)  | 15 M @ | 150                | (6)         | 15 M @ | 450                          | (18) | 15 M @  | 450 | (18) | 10 M @  | 300       | (12)   | 15 M @      | 150      | (6)   | 15 M @ | 300    | (12) | 15 M @  | 450 | (18) | 10 M @ | 300       | (12)     |
|                  | 1.83              | (6.0)  | 15 M @ | 150                | (6)         | 15 M @ | 150                          | (6)  | 15 M @  | 300 | (12) | 15 M @  | 450       | (18)   | 15 M @      | 150      | (6)   | 15 M @ | 150    | (6)  | 15 M @  | 300 | (12) | 15 M @ | 450       | (18)     |
|                  | 2.13              | (7.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 300       | (12)   |             |          |       | 15 M @ | 150    | (6)  | 15 M @  | 150 | (6)  | 15 M @ | 300       | (12)     |
| 3.66<br>(12.0)   | 2.44              | (8.0)  |        |                    |             | 15 M @ | 150                          | (6)  | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    |             |          |       |        |        |      | 15 M @  | 150 | (6)  | 15 M @ | 150       | (6)      |
|                  | 2.74              | (9.0)  |        |                    |             |        |                              |      | 15 M @  | 150 | (6)  | 15 M @  | 150       | (6)    |             |          |       |        |        |      | 15 M @  | 150 | (6)  | 15 M @ | 150       | (6)      |
|                  | 3.05              | (10.0) |        |                    |             |        |                              |      |         |     |      | 15 M @  | 150       | (6)    |             |          |       |        |        |      |         |     |      | 15 M @ | 150       | (6)      |
|                  | 3.35              | (11.0) |        |                    |             |        |                              |      |         |     |      | 15 M @  | 150       | (6)    |             |          |       |        |        |      |         |     |      |        |           |          |
|                  | 3.66              | (12.0) |        |                    |             |        |                              |      |         |     |      |         |           |        |             |          |       |        |        |      |         |     |      |        |           |          |
| Horizontal       | Block H<br>12" ar | nd 18" | 15 M @ | 300                | (12)        | 15 M @ | 300                          | (12) | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)   | 15 M @      | 300      | (12)  | 15 M @ | 300    | (12) | 15 M @  | 300 | (12) | 15 M @ | 300       | (12)     |
| Reinforcement    | Block I<br>of     |        | 15 M @ | 300                | (12)        | 15 M @ | 300                          | (12) | 15 M @  | 300 | (12) | 15 M @  | 300       | (12)   | 15 M @      | 300      | (12)  | 15 M @ | 300    | (12) | 15 M @  | 300 | (12) | 15 M @ | 300       | (12)     |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in De
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown



Table B.4.1. Continued– Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2)  $\leq$  1.75 and Hourly Wind Pressure, q<sub>1/50</sub>  $\leq$  1.05kPa, for ICF Walls with 6"Tie Spacing

|                          |                 |          |        |                    |             |        |          |      |         |           |      | Vortice | Stor      | 1 (6: | ize and | Snor     | cinc' |        |          |      |        |           |      |        |           |      |
|--------------------------|-----------------|----------|--------|--------------------|-------------|--------|----------|------|---------|-----------|------|---------|-----------|-------|---------|----------|-------|--------|----------|------|--------|-----------|------|--------|-----------|------|
| Wall Height              | Bac             |          |        |                    |             |        |          |      |         |           |      |         |           |       | nt Flui |          |       |        |          |      |        |           |      |        |           |      |
| m<br>(ft)                | Hei<br>m (      | ght (ft) |        |                    |             |        |          | -    | 3 (60 p |           |      |         |           |       |         |          |       | 1      |          | _    | 3 (75  | =         |      | 1      |           |      |
| (1-7)                    |                 | ,        | 150 mr | n (6") V           | Vall        | 200 mr | n (8") V | /all | 250 mn  | n (10") V | Vall | 300 mr  | n (12") \ | Vall  | 150 mi  | m (6") W | Vall  | 200 mr | n (8") W | /all | 250 mr | n (10") V | Vall | 300 mr | n (12") \ | Nall |
|                          | 1.22            | (4.0)    | 15 M @ | 450                | (18)        | 10 M @ | 300      | (12) | 10 M @  | 300       | (12) | 10 M @  | 300       | (12)  | 15 M @  | 450      | (18)  | 10 M @ | 300      | (12) | 10 M @ | 300       | (12) | 10 M @ | 300       | (12  |
|                          | 1.53            | (5.0)    | 15 M @ | 300                | (12)        | 15 M @ | 450      | (18) | 15 M @  | 450       | (18) | 10 M @  | 300       | (12)  | 15 M @  | 150      | (6)   | 15 M @ | 450      | (18) | 15 M @ | 450       | (18) | 10 M @ | 300       | (12  |
| 2.44<br>(8.0)            | 1.83            | (6.0)    | 15 M @ | 150                | (6)         | 15 M @ | 300      | (12) | 15 M @  | 450       | (18) | 15 M @  | 450       | (18)  | 15 M @  | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450       | (18) | 15 M @ | 450       | (18  |
|                          | 2.13            | (7.0)    | 15 M @ | 150                | (6)         | 15 M @ | 150      | (6)  | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  | 15 M @  | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @ | 300       | (12) | 15 M @ | 300       | (12  |
|                          | 2.44            | (8.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 300       | (12) | 15 M @ | 300       | (12) |
|                          | 1.22            | (4.0)    | 15 M @ | 450                | (18)        | 10 M @ | 300      | (12) | 10 M @  | 300       | (12) | 10 M @  | 300       | (12)  | 15 M @  | 450      | (18)  | 10 M @ | 300      | (12) | 10 M @ | 300       | (12) | 10 M @ | 300       | (12  |
|                          | 1.53            | (5.0)    | 15 M @ | 150                | (6)         | 15 M @ | 450      | (18) | 15 M @  | 450       | (18) | 10 M @  | 300       | (12)  | 15 M @  | 150      | (6)   | 15 M @ | 450      | (18) | 15 M @ | 450       | (18) | 10 M @ | 300       | (12  |
| 2.74                     | 1.83            | (6.0)    | 15 M @ | 150                | (6)         | 15 M @ | 300      | (12) | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  | 15 M @  | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 300       | (12) | 15 M @ | 450       | (18  |
| (9.0)                    | 2.13            | (7.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 300       | (12) | 15 M @ | 300       | (12  |
|                          | 2.44            | (8.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 300       | (12)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150       | (6)  | 15 M @ | 300       | (12) |
|                          | 2.74            | (9.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 1.22            | (4.0)    | 15 M @ | 450                | (18)        | 10 M @ | 300      | (12) | 10 M @  | 300       | (12) | 10 M @  | 300       | (12)  | 15 M @  | 450      | (18)  | 10 M @ | 300      | (12) | 10 M @ | 300       | (12) | 10 M @ | 300       | (12  |
|                          | 1.53            | (5.0)    | 15 M @ | 150                | (6)         | 15 M @ | 450      | (18) | 15 M @  | 450       | (18) | 15 M @  | 450       | (18)  | 15 M @  | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450       | (18) | 15 M @ | 450       | (18  |
|                          | 1.83            | (6.0)    | 15 M @ | 150                | (6)         | 15 M @ | 300      | (12) | 15 M @  | 300       | (12) | 15 M @  | 450       | (18)  | 15 M @  | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @ | 300       | (12) | 15 M @ | 450       | (18  |
| 3.05<br>(10.0)           | 2.13            | (7.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 300       | (12)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150       | (6)  | 15 M @ | 300       | (12  |
|                          | 2.44            | (8.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 2.74            | (9.0)    |        |                    |             |        |          |      | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   | V       |          |       |        |          |      | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 3.05            | (10.0)   |        |                    |             |        |          |      | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   |         |          |       |        |          |      | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 1.22            | (4.0)    | 15 M @ | 450                | (18)        | 10 M @ | 300      | (12) | 10 M @  | 300       | (12) | 10 M @  | 300       | (12)  | 15 M @  | 300      | (12)  | 10 M @ | 300      | (12) | 10 M @ | 300       | (12) | 10 M @ | 300       | (12) |
|                          | 1.53            | (5.0)    | 15 M @ | 150                | (6)         | 15 M @ | 300      | (12) | 15 M @  | 450       | (18) | 15 M @  | 450       | (18)  | 15 M @  | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450       | (18) | 15 M @ | 450       | (18  |
|                          | 1.83            | (6.0)    | 15 M @ | 150                | (6)         | 15 M @ | 150      | (6)  | 15 M @  | 300       | (12) | 15 M @  | 450       | (18)  | 15 M @  | 150      | (6)   | 15 M @ | 150      | (6)  | 15 M @ | 300       | (12) | 15 M @ | 450       | (18  |
| 3.35                     | 2.13            | (7.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 300       | (12)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150       | (6)  | 15 M @ | 300       | (12) |
| (11.0)                   | 2.44            | (8.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   |         |          |       |        |          |      | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 2.74            | (9.0)    |        | $\Delta \setminus$ |             |        |          |      | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   | İK      |          |       |        |          |      | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 3.05            | (10.0)   |        |                    |             |        |          |      |         |           |      | 15 M @  | 150       | (6)   |         |          |       |        |          |      |        |           |      | 15 M @ | 150       | (6)  |
| $\Lambda \Lambda \Delta$ | 3.35            | (11.0)   |        | $\perp$            | $\triangle$ |        |          |      |         | $\gamma$  |      | 15 M @  | 150       | (6)   |         |          |       |        |          | ·    |        |           |      | 15 M @ | 150       | (6)  |
| I V I /                  | 1.22            | (4.0)    | 15 M @ | 450                | (18)        | 10 M @ | 300      | (12) | 10 M @  | 300       | (12) | 10 M @  | 300       | (12)  | 15 M @  | 300      | (12)  | 10 M @ | 300      | (12) | 10 M @ | 300       | (12) | 10 M @ | 300       | (12  |
|                          | 1.53            | (5.0)    | 15 M @ | 150                | (6)         | 15 M @ | 300      | (12) | 15 M @  | 450       | (18) | 15 M @  | 450       | (18)  | 15 M @  | 150      | (6)   | 15 M @ | 300      | (12) | 15 M @ | 450       | (18) | 15 M @ | 450       | (18  |
|                          | 1.83            | (6.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 300       | (12) | 15 M @  | 450       | (18)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 300       | (12) | 15 M @ | 300       | (12  |
|                          | 2.13            | (7.0)    |        |                    |             | 15 M @ | 150      | (6)  | 15 M @  | 150       | (6)  | 15 M @  | 300       | (12)  |         |          |       | 15 M @ | 150      | (6)  | 15 M @ | 150       | (6)  | 15 M @ | 300       | (12  |
| 3.66<br>(12.0)           | 2.44            | (8.0)    |        |                    |             |        |          |      | 15 M @  | 150       | (6)  | 15 M @  | 150       | (6)   |         |          |       |        |          |      | 15 M @ | 150       | (6)  | 15 M @ | 150       | (6)  |
|                          | 2.74            | (9.0)    |        |                    |             |        |          |      |         |           |      | 15 M @  | 150       | (6)   |         |          |       |        |          |      |        |           |      | 15 M @ | 150       | (6)  |
|                          | 3.05            | (10.0)   |        |                    |             |        |          |      |         |           |      | 15 M @  | 150       | (6)   |         |          |       |        |          |      |        |           |      |        |           |      |
| Ī                        | 3.35            | (11.0)   |        |                    |             |        |          |      |         |           |      |         |           |       |         |          |       |        |          |      |        |           |      |        |           |      |
|                          | 3.66            | (12.0)   |        |                    |             |        |          |      |         |           |      |         |           |       |         |          |       |        |          |      |        |           |      |        |           |      |
| Horizontal               | Block H         |          | 15 M @ | 300                | (12)        | 15 M @ | 300      | (12) | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  | 15 M @  | 300      | (12)  | 15 M @ | 300      | (12) | 15 M @ | 300       | (12) | 15 M @ | 300       | (12  |
| Reinforcement            | Block I<br>of 1 | leight   | 15 M @ | 300                | (12)        | 15 M @ | 300      | (12) | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  | 15 M @  | 300      | (12)  | 15 M @ | 300      | (12) | 15 M @ | 300       | (12) | 15 M @ | 300       | (12  |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Dej
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown

Table B.4.2. – Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2)  $\leq$  1.75 and Hourly Wind Pressure,  $q_{_{1/50}} \leq$  1.05kPa, for ICF Walls with 8"Tie Spacing

| Wall Height                        | Poo                          | Jefill |         |                    |             |          |            |              |         |      |      |         |           |       | ize and        |          |       |        |       |      |         |      |      |        |           |          |
|------------------------------------|------------------------------|--------|---------|--------------------|-------------|----------|------------|--------------|---------|------|------|---------|-----------|-------|----------------|----------|-------|--------|-------|------|---------|------|------|--------|-----------|----------|
| m o                                | Bac<br>Hei                   | ght    |         |                    |             | _        | 180 k      | a/m:         | 3 (30 p | ocf) |      | Backfil | l Equ     | ivale | ent Fluid<br>I | d Der    | nsity |        | 720 k | a/m: | 3 (45 p | ocf) |      |        |           |          |
| (ft)                               | m                            | (ft)   | 150 mi  | m (6") V           | /all        | 200 mr   |            |              | 250 mn  |      | Vall | 300 mr  | n (12") V | Vall  | 150 mr         | m (6") W | /all  | 200 mr |       | _    | 250 mr  |      | Vall | 300 mr | n (12") V | <br>Vall |
|                                    | 1.22                         | (4.0)  | 10 M @  | 200                | (8)         | 15 M @   | 600        | (24)         | 10 M @  | 400  | (16) | 10 M @  | 400       | (16)  | 15 M @         | 400      | (16)  | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)     |
|                                    | 1.53                         | (5.0)  | 15 M @  | 200                | (8)         | 15 M @   | 400        | (16)         | 10 M @  | 200  | (8)  | 10 M @  | 200       | (8)   | 15 M @         | 200      | (8)   | 15 M @ | 400   | (16) | 10 M @  | 200  | (8)  | 10 M @ | 200       | (8)      |
| 2.44<br>(8.0)                      | 1.83                         | (6.0)  | 15 M @  | 200                | (8)         | 15 M @   | 400        | (16)         | 15 M @  | 400  | (16) | 10 M @  | 200       | (8)   | 15 M @         | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 10 M @ | 200       | (8)      |
| , ,                                | 2.13                         | (7.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)     |
|                                    | 2.44                         | (8.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 200  | (8)  | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)     |
|                                    | 1.22                         | (4.0)  | 10 M @  | 200                | (8)         | 15 M @   | 600        | (24)         | 10 M @  | 400  | (16) | 10 M @  | 400       | (16)  | 10 M @         | 200      | (8)   | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)     |
|                                    | 1.53                         | (5.0)  | 15 M @  | 200                | (8)         | 15 M @   | 400        | (16)         | 10 M @  | 200  | (8)  | 10 M @  | 200       | (8)   | 15 M @         | 200      | (8)   | 15 M @ | 400   | (16) | 10 M @  | 200  | (8)  | 15 M @ | 600       | (24)     |
| 2.74                               | 1.83                         | (6.0)  | 15 M @  | 200                | (8)         | 15 M @   | 200        | (8)          | 15 M @  | 400  | (16) | 10 M @  | 200       | (8)   |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)     |
| (9.0)                              | 2.13                         | (7.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 200  | (8)  | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)     |
|                                    | 2.44                         | (8.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)      |
|                                    | 2.74                         | (9.0)  |         |                    |             |          |            |              | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   |                |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)      |
|                                    | 1.22                         | (4.0)  | 10 M @  | 200                | (8)         | 15 M @   | 600        | (24)         | 10 M @  | 400  | (16) | 10 M @  | 400       | (16)  | 10 M @         | 200      | (8)   | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)     |
|                                    | 1.53                         | (5.0)  | 15 M @  | 200                | (8)         | 15 M @   | 400        | (16)         | 10 M @  | 200  | (8)  | 15 M @  | 600       | (24)  | 15 M @         | 200      | (8)   | 15 M @ | 400   | (16) | 10 M @  | 200  | (8)  | 15 M @ | 600       | (24)     |
|                                    | 1.83                         | (6.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 400  | (16) | 15 M @ | 400       | (16)     |
| 3.05<br>(10.0)                     | 2.13                         | (7.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 200  | (8)  | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)     |
|                                    | 2.44                         | (8.0)  |         |                    |             |          |            |              | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   |                |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)      |
|                                    | 2.74                         | (9.0)  |         |                    |             |          |            |              | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   | V              |          |       |        |       |      |         |      |      | 15 M @ | 200       | (8)      |
|                                    | 3.05                         | (10.0) |         |                    |             |          |            |              |         |      |      | 15 M @  | 200       | (8)   |                |          |       |        |       |      |         |      |      | 15 M @ | 200       | (8)      |
|                                    | 1.22                         | (4.0)  | 10 M @  | 200                | (8)         | 15 M @   | 600        | (24)         | 10 M @  | 400  | (16) | 10 M @  | 400       | (16)  | 10 M @         | 200      | (8)   | 15 M @ | 600   | (24) | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)     |
|                                    | 1.53                         | (5.0)  | 15 M @  | 200                | (8)         | 15 M @   | 400        | (16)         | 10 M @  | 200  | (8)  | 15 M @  | 600       | (24)  | 15 M @         | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 10 M @ | 200       | (8)      |
|                                    | 1.83                         | (6.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 400  | (16) | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)     |
| 3.35                               | 2.13                         | (7.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)      |
| (11.0)                             | 2.44                         | (8.0)  |         |                    |             |          |            |              | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   |                |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)      |
|                                    | 2.74                         | (9.0)  |         | $\Delta \setminus$ |             |          |            |              |         |      |      | 15 M @  | 200       | (8)   |                |          |       |        |       |      |         |      | K    | 15 M @ | 200       | (8)      |
|                                    | 3.05                         | (10.0) |         |                    |             |          |            |              |         |      |      | 15 M @  | 200       | (8)   |                |          |       |        |       |      |         |      |      |        |           |          |
| $\mathbb{N}/\mathbb{N}/\mathbb{N}$ | 3.35                         | (11.0) |         |                    | $\triangle$ |          |            |              |         | 2    | _    | R       | 5         |       | $\nabla$       |          | 5     |        | ) (   |      |         |      |      |        |           | П        |
| I V I /                            | 1.22                         | (4.0)  | 10 M @  | 200                | (8)         | 15 M @   | 600        | (24)         | 10 M @  | 400  | (16) | 10 M @  | 400       | (16)  | 10 M @         | 200      | (8)   | 10 M @ | 200   | (8)  | 10 M @  | 400  | (16) | 10 M @ | 400       | (16)     |
|                                    | 1.53                         | (5.0)  | 15 M @  | 200                | (8)         | 15 M @   | 400        | (16)         | 10 M @  | 200  | (8)  | 15 M @  | 600       | (24)  | 15 M @         | 200      | (8)   | 15 M @ | 400   | (16) | 15 M @  | 400  | (16) | 10 M @ | 200       | (8)      |
|                                    | 1.83                         | (6.0)  |         |                    |             | 15 M @   | 200        | (8)          | 15 M @  | 200  | (8)  | 15 M @  | 400       | (16)  |                |          |       | 15 M @ | 200   | (8)  | 15 M @  | 200  | (8)  | 15 M @ | 400       | (16)     |
|                                    | 2.13                         | (7.0)  |         |                    |             |          |            |              | 15 M @  | 200  | (8)  | 15 M @  | 200       | (8)   |                |          |       |        |       |      | 15 M @  | 200  | (8)  | 15 M @ | 200       | (8)      |
| 3.66<br>(12.0)                     | 2.44                         | (8.0)  |         |                    |             |          |            |              |         |      |      | 15 M @  | 200       | (8)   |                |          |       |        |       |      |         |      |      | 15 M @ | 200       | (8)      |
|                                    | 2.74                         | (9.0)  |         |                    |             |          |            |              |         |      |      | 15 M @  | 200       | (8)   |                |          |       |        |       |      |         |      |      |        |           |          |
|                                    | 3.05                         | (10.0) |         |                    |             |          |            |              |         |      |      |         |           |       |                |          |       |        |       |      |         |      |      |        |           |          |
|                                    | 3.35                         | (11.0) |         |                    |             |          |            |              |         |      |      |         |           |       |                |          |       |        |       |      |         |      |      |        |           |          |
|                                    | 3.66                         | (12.0) |         |                    |             |          |            |              |         |      |      |         |           |       |                |          |       |        |       |      |         |      |      |        |           |          |
| Horizontal<br>Reinforcement        | Block H<br>12" ar<br>Block I | nd 18" | 15 M @  | 300<br>300         | (12)        | 15 M @   | 300<br>300 | (12)<br>(12) |         | 300  | (12) | 15 M @  | 300       | (12)  | 15 M @         | 300      | (12)  |        | 300   | (12) | 15 M @  | 300  | (12) | 15 M @ | 300       | (12)     |
| NOTES                              | of 1                         | 16"    | W IVI € | 300                | (12)        | IS IVI W | 300        | (12)         | W IVI € | 300  | (12) | W IVI € | 300       | (12)  | 15 M @         | 300      | (12)  | 15 M @ | 300   | (12) | 15 M @  | 300  | (12) | 15 M @ | 300       | (12)     |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Dej
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown

Table B.4.2. Continued– Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, 1.2 < Sa(0.2) ≤ 1.75 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa, for ICF Walls with 8"Tie Spacing

|                |                 |                    |        |                    |           |        |          |      |         |           |      | Vertice | Stor      | 1 (6: | ize and  | Snar     | oina) |        |          |      |        |           |      |        |           |      |
|----------------|-----------------|--------------------|--------|--------------------|-----------|--------|----------|------|---------|-----------|------|---------|-----------|-------|----------|----------|-------|--------|----------|------|--------|-----------|------|--------|-----------|------|
| Wall Height    | Bac             |                    |        |                    |           |        |          |      |         |           |      |         |           |       | nt Flui  |          |       |        |          |      |        |           |      |        |           |      |
| m<br>(ft)      | Hei<br>m        | ght<br>(ft)        |        |                    |           |        |          | _    | 3 (60 p |           |      |         |           |       |          |          | loney |        | 200 k    | (g/m | 3 (75) | ocf)      |      |        |           |      |
| (/             |                 | (,                 | 150 mi | m (6") V           | Vall      | 200 mr | n (8") W | /all | 250 mn  | n (10") V | Vall | 300 mr  | n (12") \ | Vall  | 150 mi   | n (6") W | /all  | 200 mr | n (8") W | /all | 250 mn | n (10") V | Vall | 300 mr | n (12") \ | Wall |
|                | 1.22            | (4.0)              | 15 M @ | 400                | (16)      | 15 M @ | 600      | (24) | 10 M @  | 400       | (16) | 10 M @  | 400       | (16)  | 15 M @   | 400      | (16)  | 10 M @ | 200      | (8)  | 10 M @ | 400       | (16) | 10 M @ | 400       | (16  |
|                | 1.53            | (5.0)              | 15 M @ | 200                | (8)       | 15 M @ | 400      | (16) | 10 M @  | 200       | (8)  | 10 M @  | 200       | (8)   | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 10 M @ | 200       | (8)  | 15 M @ | 600       | (24  |
| 2.44<br>(8.0)  | 1.83            | (6.0)              | 15 M @ | 200                | (8)       | 15 M @ | 200      | (8)  | 15 M @  | 400       | (16) | 10 M @  | 200       | (8)   | 15 M @   | 200      | (8)   | 15 M @ | 200      | (8)  | 15 M @ | 400       | (16) | 15 M @ | 400       | (16  |
|                | 2.13            | (7.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 400       | (16  |
|                | 2.44            | (8.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 400       | (16  |
|                | 1.22            | (4.0)              | 10 M @ | 200                | (8)       | 10 M @ | 200      | (8)  | 10 M @  | 400       | (16) | 10 M @  | 400       | (16)  | 10 M @   | 200      | (8)   | 10 M @ | 200      | (8)  | 10 M @ | 400       | (16) | 10 M @ | 400       | (16  |
|                | 1.53            | (5.0)              | 15 M @ | 200                | (8)       | 15 M @ | 400      | (16) | 10 M @  | 200       | (8)  | 15 M @  | 600       | (24)  | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @ | 400       | (16) | 10 M @ | 200       | (8)  |
| 2.74           | 1.83            | (6.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 400       | (16) | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 400       | (16) | 15 M @ | 400       | (16  |
| (9.0)          | 2.13            | (7.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 400       | (16  |
|                | 2.44            | (8.0)              |        |                    |           |        |          |      | 15 M @  | 200       | (8)  | 15 M @  | 200       | (8)   |          |          |       |        |          |      | 15 M @ | 200       | (8)  | 15 M @ | 200       | (8)  |
|                | 2.74            | (9.0)              |        |                    |           |        |          |      | 15 M @  | 200       | (8)  | 15 M @  | 200       | (8)   |          |          |       |        |          |      | 15 M @ | 200       | (8)  | 15 M @ | 200       | (8)  |
|                | 1.22            | (4.0)              | 10 M @ | 200                | (8)       | 10 M @ | 200      | (8)  | 10 M @  | 400       | (16) | 10 M @  | 400       | (16)  | 10 M @   | 200      | (8)   | 10 M @ | 200      | (8)  | 15 M @ | 600       | (24) | 10 M @ | 400       | (16  |
|                | 1.53            | (5.0)              | 15 M @ | 200                | (8)       | 15 M @ | 400      | (16) | 15 M @  | 400       | (16) | 10 M @  | 200       | (8)   | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @ | 400       | (16) | 10 M @ | 200       | (8)  |
|                | 1.83            | (6.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 400       | (16  |
| 3.05<br>(10.0) | 2.13            | (7.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 200       | (8)   |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 200       | (8)  |
| ( )            | 2.44            | (8.0)              |        |                    |           |        |          |      | 15 M @  | 200       | (8)  | 15 M @  | 200       | (8)   |          |          |       |        |          |      | 15 M @ | 200       | (8)  | 15 M @ | 200       | (8)  |
| Ī              | 2.74            | (9.0)              |        |                    |           |        |          |      |         |           |      | 15 M @  | 200       | (8)   | V        |          |       |        |          |      |        |           |      | 15 M @ | 200       | (8)  |
|                | 3.05            | (10.0)             |        |                    |           |        |          |      |         |           |      | 15 M @  | 200       | (8)   |          |          |       |        |          |      |        |           |      |        |           |      |
|                | 1.22            | (4.0)              | 10 M @ | 200                | (8)       | 10 M @ | 200      | (8)  | 10 M @  | 400       | (16) | 10 M @  | 400       | (16)  | 10 M @   | 200      | (8)   | 10 M @ | 200      | (8)  | 15 M @ | 600       | (24) | 10 M @ | 400       | (16) |
|                | 1.53            | (5.0)              | 15 M @ | 200                | (8)       | 15 M @ | 400      | (16) | 15 M @  | 400       | (16) | 10 M @  | 200       | (8)   | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @ | 400       | (16) | 10 M @ | 200       | (8)  |
|                | 1.83            | (6.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 400       | (16) |
| 3.35           | 2.13            | (7.0)              |        |                    |           |        |          |      | 15 M @  | 200       | (8)  | 15 M @  | 200       | (8)   |          |          |       |        |          |      | 15 M @ | 200       | (8)  | 15 M @ | 200       | (8)  |
| (11.0)         | 2.44            | (8.0)              |        |                    |           |        |          |      |         |           |      | 15 M @  | 200       | (8)   |          |          |       |        |          |      |        |           |      | 15 M @ | 200       | (8)  |
|                | 2.74            | (9.0)              |        | $\Delta \setminus$ |           |        |          |      |         |           |      | 15 M @  | 200       | (8)   | K        |          |       |        |          |      |        |           |      | A N    |           |      |
|                | 3.05            | (10.0)             |        |                    |           |        |          |      |         |           |      |         |           |       |          |          |       |        |          |      |        |           |      |        |           |      |
| N / I          | 3.35            | (11.0)             |        |                    | $\Lambda$ |        |          |      |         | $\gamma$  |      | R       | 5         |       | $\Delta$ |          |       |        |          |      |        |           |      |        |           |      |
| I V I /        | 1.22            | (4.0)              | 10 M @ | 200                | (8)       | 10 M @ | 200      | (8)  | 10 M @  | 400       | (16) | 10 M @  | 400       | (16)  | 10 M @   | 200      | (8)   | 10 M @ | 200      | (8)  | 15 M @ | 600       | (24) | 10 M @ | 400       | (16  |
|                | 1.53            | (5.0)              | 15 M @ | 200                | (8)       | 15 M @ | 400      | (16) | 15 M @  | 400       | (16) | 10 M @  | 200       | (8)   | 15 M @   | 200      | (8)   | 15 M @ | 400      | (16) | 15 M @ | 400       | (16) | 10 M @ | 200       | (8)  |
|                | 1.83            | (6.0)              |        |                    |           | 15 M @ | 200      | (8)  | 15 M @  | 200       | (8)  | 15 M @  | 400       | (16)  |          |          |       | 15 M @ | 200      | (8)  | 15 M @ | 200       | (8)  | 15 M @ | 400       | (16  |
|                | 2.13            | (7.0)              |        |                    |           |        |          |      | 15 M @  | 200       | (8)  | 15 M @  | 200       | (8)   |          |          |       |        |          |      | 15 M @ | 200       | (8)  | 15 M @ | 200       | (8)  |
| 3.66<br>(12.0) | 2.44            | (8.0)              |        |                    |           |        |          |      |         |           |      | 15 M @  | 200       | (8)   |          |          |       |        |          |      |        |           |      | 15 M @ | 200       | (8)  |
| ` ''           | 2.74            | (9.0)              |        |                    |           |        |          |      |         |           |      |         |           |       |          |          |       |        |          |      |        |           |      |        |           |      |
|                | 3.05            | (10.0)             |        |                    |           |        |          |      |         |           |      |         |           |       |          |          |       |        |          |      |        |           |      |        |           |      |
|                | 3.35            | (11.0)             |        |                    |           |        |          |      |         |           |      |         |           |       |          |          |       |        |          |      |        |           |      |        |           |      |
|                | 3.66            | (12.0)             |        |                    |           |        |          |      |         |           |      |         |           |       |          |          |       |        |          |      |        |           |      |        |           | T    |
| Horizontal     | Block H         | eight of<br>nd 18" | 15 M @ | 300                | (12)      | 15 M @ | 300      | (12) | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  | 15 M @   | 300      | (12)  | 15 M @ | 300      | (12) | 15 M @ | 300       | (12) | 15 M @ | 300       | (12  |
| Reinforcement  | Block I<br>of 1 | Height             | 15 M @ | 300                | (12)      | 15 M @ | 300      | (12) | 15 M @  | 300       | (12) | 15 M @  | 300       | (12)  | 15 M @   | 300      | (12)  | 15 M @ | 300      | (12) | 15 M @ | 300       | (12) | 15 M @ | 300       | (12) |

- 1. For highlighted data, where the below grade wall meets all the requirements of NBC Part 9 for a solid concrete foundation wall and supports only wood frame construction above, a 20MPa unreinforced wall is adequate as per 2015 NBC table 9.15.4.2.A. Provide the reinforcing shown for walls supporting ICF walls above or with brick veneer supported with the brick ledge form.
- 2. Below grade walls supporting "Drained Earth" in accordance with 2015 NBC 9.4.4.6 may be designed for an equivalent fluid pressure of 480 kg/m3.
- 3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.
- 4. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Det
- 5. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown

Table A.1.1. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification, Sa,ICF ≤ 0.2 and Hourly Wind Pressure,  $q_{1/50} \le 1.05$  for ICF Walls with 6"Tie Spacing

| Wall I              | Height                          |        |          |      | Distributed | Vertical | Reinfor | cement (Siz | ze and S  | spacing) | )      |           |      |
|---------------------|---------------------------------|--------|----------|------|-------------|----------|---------|-------------|-----------|----------|--------|-----------|------|
| m                   | (ft)                            | 150 m  | m (6") W | /all | 200 m       | m (8") W | /all    | 250 mr      | m (10") V | Vall     | 300 mr | m (12") V | Vall |
| Hourly Wind Pressu  | re q <sub>1/50</sub> ≤ 0.5 kPa  |        |          |      | ,           |          |         |             |           |          |        |           |      |
| 2.44                | (8)                             | 10 M @ | 600      | (24) | 10 M @      | 750      | (30)    | 10 M @      | 900       | (36)     | 10 M @ | 1200      | (48) |
| 2.75                | (9)                             | 10 M @ | 600      | (24) | 10 M @      | 750      | (30)    | 10 M @      | 900       | (36)     | 10 M @ | 1200      | (48) |
| 3.05                | (10)                            | 15 M @ | 1050     | (42) | 10 M @      | 750      | (30)    | 10 M @      | 900       | (36)     | 10 M @ | 1200      | (48) |
| 3.66                | (12)                            | 15 M @ | 750      | (30) | 15 M @      | 1050     | (42)    | 10 M @      | 600       | (24)     | 10 M @ | 1200      | (48) |
| 4.27                | (14)                            | 15 M @ | 450      | (18) | 15 M @      | 750      | (30)    | 15 M @      | 1050      | (42)     | 10 M @ | 1200      | (48) |
| 4.88                | (16)                            | 15 M @ | 300      | (12) | 15 M @      | 600      | (24)    | 15 M @      | 750       | (30)     | 10 M @ | 900       | (36) |
| Hourly Wind Pressur | re q <sub>1/50</sub> ≤ 0.75 kPa |        |          |      |             |          | ,       |             |           |          |        |           |      |
| 2.44                | (8)                             | 15 M @ | 1050     | (42) | 10 M @      | 750      | (30)    | 10 M @      | 900       | (36)     | 10 M @ | 1200      | (48) |
| 2.75                | (9)                             | 15 M @ | 750      | (30) | 10 M @      | 600      | (24)    | 10 M @      | 750       | (30)     | 10 M @ | 1200      | (48) |
| 3.05                | (10)                            | 15 M @ | 600      | (24) | 15 M @      | 1050     | (42)    | 10 M @      | 600       | (24)     | 10 M @ | 1200      | (48) |
| 3.66                | (12)                            | 15 M @ | 300      | (12) | 15 M @      | 750      | (30)    | 15 M @      | 900       | (36)     | 10 M @ | 1200      | (48) |
| 4.27                | (14)                            | 15 M @ | 300      | (12) | 15 M @      | 450      | (18)    | 15 M @      | 750       | (30)     | 10 M @ | 900       | (36) |
| 4.88                | (16)                            | 15 M @ | 300      | (12) | 15 M @      | 450      | (18)    | 15 M @      | 450       | (18)     | 15 M @ | 900       | (36) |
| Hourly Wind Pressur | re q <sub>1/50</sub> ≤ 1.05 kPa |        |          |      |             |          |         |             |           |          |        |           |      |
| 2.44                | (8)                             | 15 M @ | 750      | (30) | 15 M @      | 1050     | (42)    | 10 M @      | 600       | (24)     | 10 M @ | 1200      | (48) |
| 2.75                | (9)                             | 15 M @ | 600      | (24) | 15 M @      | 900      | (36)    | 15 M @      | 1200      | (48)     | 10 M @ | 1200      | (48) |
| 3.05                | (10)                            | 15 M @ | 450      | (18) | 15 M @      | 750      | (30)    | 15 M @      | 900       | (36)     | 10 M @ | 900       | (36) |
| 3.66                | (12)                            | 15 M @ | 300      | (12) | 15 M @      | 450      | (18)    | 15 M @      | 600       | (24)     | 10 M @ | 750       | (30) |
| 4.27                | (14)                            | 15 M @ | 300      | (12) | 15 M @      | 450      | (18)    | 15 M @      | 450       | (18)     | 15 M @ | 900       | (36) |
| 4.88                | (16)                            |        |          |      | 15 M @      | 300      | (12)    | 15 M @      | 450       | (18)     | 15 M @ | 750       | (30) |
| Horizontal          | Block Height of 12" and 18"     | 10 M @ | 900      | (36) | 10 M @      | 900      | (36)    | 10 M @      | 900       | (36)     | 10 M @ | 900       | (36) |
| Reinforcement       | Block Height of 16"             | 10 M @ | 800      | (32) | 10 M @      | 800      | (32)    | 10 M @      | 800       | (32)     | 10 M @ | 800       | (32) |
| OTES                | OTAC                            | 7 7 7  |          |      |             |          | 10      |             |           | - 1 /    |        |           |      |



 $<sup>\</sup>boldsymbol{S}_{\text{a,ICF}}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.

Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.

This table is to be used in conjunction with the "Design Limitations."

Bolded data indicates reinforcing for ground floor concrete walls only. Second floor concrete walls to be limited in height to 3.0m (10'-0").

Table A.1.2. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \leq 0.2$  and Hourly Wind Pressure,  $q_{1/50} \leq 1.05$  for Walls with 8"Tie Spacing

| Wall                 | Height                         |        |          |      | Distributed | Vertical | Reinfor | cement (Siz | ze and S  | pacing | )      |           |      |
|----------------------|--------------------------------|--------|----------|------|-------------|----------|---------|-------------|-----------|--------|--------|-----------|------|
| m                    | (ft)                           | 150 m  | m (6") W | /all | 200 m       | m (8") W | /all    | 250 mr      | n (10") V | Vall   | 300 mr | n (12") V | Vall |
| Hourly Wind Pressure | e q <sub>1/50</sub> ≤ 0.5 kPa  |        |          |      |             |          |         |             |           |        |        |           |      |
| 2.44                 | (8)                            | 10 M @ | 600      | (24) | 10 M @      | 800      | (32)    | 10 M @      | 1000      | (40)   | 10 M @ | 1200      | (48) |
| 2.75                 | (9)                            | 10 M @ | 600      | (24) | 10 M @      | 800      | (32)    | 10 M @      | 1000      | (40)   | 10 M @ | 1200      | (48) |
| 3.05                 | (10)                           | 15 M @ | 1000     | (40) | 10 M @      | 600      | (24)    | 10 M @      | 800       | (32)   | 10 M @ | 1200      | (48) |
| 3.66                 | (12)                           | 15 M @ | 600      | (24) | 15 M @      | 1000     | (40)    | 10 M @      | 600       | (24)   | 10 M @ | 1200      | (48) |
| 4.27                 | (14)                           | 15 M @ | 400      | (16) | 15 M @      | 800      | (32)    | 15 M @      | 1000      | (40)   | 10 M @ | 1200      | (48) |
| 4.88                 | (16)                           | 15 M @ | 400      | (16) | 15 M @      | 600      | (24)    | 15 M @      | 800       | (32)   | 10 M @ | 1000      | (40) |
| Hourly Wind Pressure | e q <sub>1/50</sub> ≤ 0.75 kPa |        | Y        |      | · ·         |          |         | Y           | 7         | Y      |        | Y         |      |
| 2.44                 | (8)                            | 15 M @ | 1200     | (48) | 10 M @      | 800      | (32)    | 10 M @      | 1200      | (48)   | 10 M @ | 1200      | (48) |
| 2.75                 | (9)                            | 15 M @ | 800      | (32) | 10 M @      | 800      | (32)    | 10 M @      | 800       | (32)   | 10 M @ | 1200      | (48) |
| 3.05                 | (10)                           | 15 M @ | 800      | (32) | 15 M @      | 1200     | (48)    | 10 M @      | 800       | (32)   | 10 M @ | 1200      | (48) |
| 3.66                 | (12)                           | 15 M @ | 400      | (16) | 15 M @      | 800      | (32)    | 15 M @      | 1200      | (48)   | 10 M @ | 1200      | (48) |
| 4.27                 | (14)                           | 15 M @ | 400      | (16) | 15 M @      | 600      | (24)    | 15 M @      | 800       | (32)   | 10 M @ | 1200      | (48) |
| 4.88                 | (16)                           | 15 M @ | 300      | (12) | 15 M @      | 400      | (16)    | 15 M @      | 600       | (24)   | 15 M @ | 800       | (32) |
| Hourly Wind Pressure | e q <sub>1/50</sub> ≤ 1.05 kPa |        |          |      |             |          |         |             |           |        |        |           |      |
| 2.44                 | (8)                            | 15 M @ | 600      | (24) | 15 M @      | 1000     | (40)    | 10 M @      | 600       | (24)   | 10 M @ | 1200      | (48) |
| 2.75                 | (9)                            | 15 M @ | 600      | (24) | 15 M @      | 800      | (32)    | 15 M @      | 1200      | (48)   | 10 M @ | 1200      | (48) |
| 3.05                 | (10)                           | 15 M @ | 400      | (16) | 15 M @      | 800      | (32)    | 15 M @      | 800       | (32)   | 10 M @ | 800       | (32) |
| 3.66                 | (12)                           | 15 M @ | 300      | (12) | 15 M @      | 400      | (16)    | 15 M @      | 600       | (24)   | 10 M @ | 800       | (32) |
| 4.27                 | (14)                           | 15 M @ | 300      | (12) | 15 M @      | 400      | (16)    | 15 M @      | 400       | (16)   | 15 M @ | 800       | (32) |
| 4.88                 | (16)                           |        |          |      | 15 M @      | 300      | (12)    | 15 M @      | 400       | (16)   | 15 M @ | 600       | (24) |
| Horizontal           | Block Height of 12" and 18"    | 10 M @ | 900      | (36) | 10 M @      | 900      | (36)    | 10 M @      | 900       | (36)   | 10 M @ | 900       | (36) |
| Reinforcement        | Block Height of 16"            | 10 M @ | 800      | (32) | 10 M @      | 800      | (32)    | 10 M @      | 800       | (32)   | 10 M @ | 800       | (32) |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 3. This table is to be used in conjunction with the "Design Limitations."
- 4. Bolded data indicates reinforcing for ground floor concrete walls only. Second floor concrete walls to be limited in height to 3.0m (10'-0").
- 5. Alternating vertical bar spacing of 8" o.c. and 16" o.c. may be used to achieve an average spacing of 12" o.c. where 12" o.c. spacing is specified for vertical bars, as shown in Detail A.5.



Table A.2.1. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \ge 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$  for ICF Walls with 6"Tie Spacing

| Wall H                 | Height                            |        |          |      | Distributed ' | Vertical | Reinfor | cement (Siz | e and S   | pacing | )      |           |      |
|------------------------|-----------------------------------|--------|----------|------|---------------|----------|---------|-------------|-----------|--------|--------|-----------|------|
| m                      | (ft)                              | 150 m  | m (6") W | all  | 200 mi        | m (8") W | all     | 250 mn      | n (10") V | Vall   | 300 mr | n (12") V | Vall |
| Seismic zone classific | cation, S <sub>a,ICF</sub> ≤ 0.4  |        |          |      |               |          |         |             |           |        |        |           |      |
| 2.44                   | (8)                               | 10 M @ | 300      | (12) | 10 M @        | 300      | (12)    | 10 M @      | 300       | (12)   | 10 M @ | 450       | (18) |
| 2.75                   | (9)                               | 10 M @ | 300      | (12) | 10 M @        | 300      | (12)    | 10 M @      | 300       | (12)   | 10 M @ | 450       | (18) |
| 3.05                   | (10)                              | 15 M @ | 450      | (18) | 10 M @        | 300      | (12)    | 10 M @      | 300       | (12)   | 10 M @ | 450       | (18) |
| 3.66                   | (12)                              | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 600       | (24)   | 10 M @ | 450       | (18) |
| 4.27                   | (14)                              | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 450       | (18) |
| 4.88                   | (16)                              |        |          |      | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 450       | (18) |
| Horizontal             | Block Height of<br>12" and 18"    | 15 M @ | 450      | (18) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 450       | (18) |
| Reinforcement          | Block Height of 16"               | 15 M @ | 400      | (16) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| Seismic zone classific | cation, S <sub>a,ICF</sub> ≤ 0.7  |        |          |      |               |          |         |             |           |        |        |           |      |
| 2.44                   | (8)                               | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 300       | (12) |
| 2.75                   | (9)                               | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 300       | (12) |
| 3.05                   | (10)                              | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 300       | (12) |
| 3.66                   | (12)                              | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 300       | (12) |
| 4.27                   | (14)                              | 15 M @ | 300      | (12) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 300       | (12) |
| 4.88                   | (16)                              |        |          |      | 15 M @        | 300      | (12)    | 15 M @      | 450       | (18)   | 10 M @ | 300       | (12) |
| Horizontal             | Block Height of<br>12" and 18"    | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| Reinforcement          | Block Height of 16"               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| Seismic zone classific | cation, S <sub>a,ICF</sub> ≤ 1.05 |        |          |      |               |          |         |             |           |        |        |           |      |
| 2.44                   | (8)                               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 2.75                   | (9)                               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 3.05                   | (10)                              | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 3.66                   | (12)                              | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 4.27                   | (14)                              | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 4.88                   | (16)                              |        |          |      | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| Horizontal             | Block Height of<br>12" and 18"    | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |
| Reinforcement          | Block Height of 16"               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations."
- 3. Bolded data indicates reinforcing for ground floor concrete walls only. Second floor concrete walls to be limited in height to 3.0m (10'-0").
- 4. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 5. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars, as shown in Detail A.3.
  6. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
- 7. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Detail A.5.



Table A.2.2. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \ge 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$  for ICF Walls with 8"Tie Spacing

| Wall H                 | Height                            |        |          |      | Distributed ' | Vertical | Reinfor | cement (Siz | e and S   | pacing | )      |           |      |
|------------------------|-----------------------------------|--------|----------|------|---------------|----------|---------|-------------|-----------|--------|--------|-----------|------|
| m                      | (ft)                              | 150 m  | m (6") W | /all | 200 mi        | n (8") W | /all    | 250 mr      | n (10") V | Vall   | 300 mr | n (12") V | Vall |
| Seismic zone classific | cation, S <sub>a,ICF</sub> ≤ 0.4  |        |          |      |               |          |         |             |           |        |        |           |      |
| 2.44                   | (8)                               | 10 M @ | 300      | (12) | 10 M @        | 300      | (12)    | 10 M @      | 300       | (12)   | 10 M @ | 400       | (16) |
| 2.75                   | (9)                               | 10 M @ | 300      | (12) | 10 M @        | 300      | (12)    | 10 M @      | 300       | (12)   | 10 M @ | 400       | (16) |
| 3.05                   | (10)                              | 15 M @ | 400      | (16) | 10 M @        | 300      | (12)    | 10 M @      | 300       | (12)   | 10 M @ | 400       | (16) |
| 3.66                   | (12)                              | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 4.27                   | (14)                              | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 4.88                   | (16)                              |        |          |      | 15 M @        | 300      | (12)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| Horizontal             | Block Height of 12" and 18"       | 15 M @ | 450      | (18) | 15 M @        | 450      | (18)    | 15 M @      | 450       | (18)   | 10 M @ | 450       | (18) |
| Reinforcement          | Block Height of 16"               | 15 M @ | 400      | (16) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| Seismic zone classific | cation, S <sub>a,ICF</sub> ≤ 0.7  |        |          |      |               |          |         |             |           |        |        |           |      |
| 2.44                   | (8)                               | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 2.75                   | (9)                               | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 3.05                   | (10)                              | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 3.66                   | (12)                              | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 4.27                   | (14)                              | 15 M @ | 300      | (12) | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| 4.88                   | (16)                              |        |          |      | 15 M @        | 400      | (16)    | 15 M @      | 400       | (16)   | 10 M @ | 400       | (16) |
| _ Horizontal           | Block Height of<br>12" and 18"    | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |
| Reinforcement          | Block Height of 16"               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |
| Seismic zone classific | cation, S <sub>a,ICF</sub> ≤ 1.05 |        |          |      |               |          |         |             |           |        |        |           |      |
| 2.44                   | (8)                               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 2.75                   | (9)                               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 3,05                   | (10)/                             | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 3.66                   | (12)                              | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 4.27                   | (14)                              | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 10 M @ | 300       | (12) |
| 4.88                   | (16)                              |        |          |      | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |
| Horizontal             | Block Height of 12" and 18"       | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |
| Reinforcement          | Block Height of 16"               | 15 M @ | 300      | (12) | 15 M @        | 300      | (12)    | 15 M @      | 300       | (12)   | 15 M @ | 300       | (12) |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations."
- 3. Bolded data indicates reinforcing for ground floor concrete walls only. Second floor concrete walls to be limited in height to 3.0m (10'-0").
- 4. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 5. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars, as shown in Detail A.3.
- 6. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
- 7. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars, as shown in Detail A.5.
- 8. Alternating vertical bar spacing of 8" o.c. and 16" o.c. may be used to achieve an average spacing of 12" o.c. where 12" o.c. spacing is specified for vertical bars, as shown in Detail A.6.



Table A.3. Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \le 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 0.5$ kPa (in a Building Without Walkout Basement)

| Wall He          | ight                  |            |                      | Number of  | Concentr    |             |                      | einforcing E<br>Classifica |           | d of Each  | Shear Wal  |             |           |
|------------------|-----------------------|------------|----------------------|------------|-------------|-------------|----------------------|----------------------------|-----------|------------|------------|-------------|-----------|
| m                | (ft)                  |            | S <sub>a,ICF</sub> ≤ | 0.085      |             |             | S <sub>a,ICF</sub> ≤ |                            |           |            | S          | ≤ 0.2       |           |
| Second Floor Wa  | Ils of Two Sto        | ry ICF Str |                      |            | ood Frame   | Roof        | a,iOi                |                            |           |            | a,101      |             |           |
|                  |                       | Number a   |                      |            |             |             |                      |                            |           |            |            |             |           |
|                  |                       | 1 x 8'-0"  | 2 x 4'-0"            | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-4"            | 3 x 3'-6"                  | 4 x 2'-8" | 1 x 12'-0" | 2 x 7'-0"  | 3 x 5'-0"   | 4 x 3'-8" |
| 2.44             | (8)                   | 2          | 2                    | 3          | 3           | 2           | 2                    | 3                          | 3         | 2          | 2          | 2           | 3         |
| 2.75             | (9)                   | 2          | 3                    | 3          | 3           | 2           | 3                    | 3                          | 3         | 2          | 3          | 3           | 3         |
| 3.05             | (10)                  | 2          | 3                    | 4          | 4           | 2           | 4                    | 4                          | 4         | 2          | 3          | 3           | 4         |
| Main Floor Walls | of One Story          | ICF Struc  | ture Suppo           | orting Woo | d Frame F   | Roof        |                      |                            |           |            |            |             |           |
|                  |                       | Number a   | nd length            | of shear w | alls provid | ed          |                      |                            |           |            |            |             |           |
|                  |                       | 1 x 8'-0"  | 2 x 4'-0"            | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-0"  | 2x5'-4"              | 3 x 3'-6"                  | 4 x 2'-8" | 1 x 12'-0" | 2 x 7'-0"  | 3 x 5'-0"   | 4 x 3'-8" |
| 2.44             | (8)                   | 2          | 2                    | 2          | 2           | 2           | 2                    | 2                          | 3         | 2          | 2          | 2           | 2         |
| 2.75             | (9)                   | 2          | 2                    | 3          | 3           | 2           | 2                    | 3                          | 3         | 2          | 2          | 2           | 3         |
| 3.05             | (10)                  | 2          | 3                    | 3          | 3           | 2           | 3                    | 3                          | 4         | 2          | 2          | 3           | 3         |
| 3.66             | (12)                  | 2          | 3                    | 4          |             | 2           | 4                    | 4                          | 4         | 2          | 3          | 4           | 4         |
| 4.27             | (14)                  | 3          | 4                    |            |             | 3           | 5                    | 5                          | 6         | 3          | 4          | 5           | 5         |
| 4.88             | (16)                  | 3          | 5                    |            |             | 3           | 5                    | 6                          |           | 3          | 4          | 5           | 6         |
| Main Floor Walls | of Two Story          | Structure  | Supporting           | 2nd Story  | / Wood Fra  | amed Wall   | s, Floor ar          | nd Roof                    |           |            | 7          |             |           |
|                  |                       | Number a   | nd length            | of shear w | alls provid | ed          |                      |                            |           |            |            |             |           |
|                  |                       | 1 x 10'-0" | 2 x 6'-0"            | 3 x 4'-0"  | 4 x 3'-0"   | 1 x 12'-6"  | 2 x 7'-0"            | 3 x 5'-0"                  | 4 x 4'-0" | 1 x 17'-0" | 2 x 10'-0" | 3 x 6'-8"   | 4 x 5'-0" |
| 2.44             | (8)                   | 2          | 2                    | 3          | 3           | 2           | 3                    | 3                          | 3         | 2          | 2          | 3           | 3         |
| 2.75             | (9)                   | 2          | 2                    | 3          | 3           | 2           | 3                    | 4                          | 4         | 2          | 2          | 3           | 4         |
| 3.05             | (10)                  | 2          | 3                    | 4          | 4           | 2           | 4                    | 4                          | 5         | 2          | 3          | 4           | 5         |
| 3.66             | (12)                  | 3          | 3                    | 4          | 5           | 3           | 4                    | 5                          | 5         | 2          | 3          | 4           | 5         |
| 4.27             | (14)                  | 3          | 4                    | 5          | 6           | 3           | 5                    | 6                          | 6         | 2          | 4          | 5           | 6         |
| 4.88             | (16)                  | 3          | 4                    | 5          |             | 3           | 5                    | 6                          | 6         | 2          | 4          | 5           | 6         |
| Main Floor Walls | of Two Story          | ICF Struct | ure Suppo            | rting Woo  | d Frame F   | loors and I | Roof                 |                            |           |            |            |             |           |
|                  |                       | Number a   | nd length            | of shear w | alls provid | ed          |                      | BE                         |           |            |            |             |           |
|                  |                       | 1 x 12'-0" | 2 x 6'-8"            | 3 x 4'-4"  | 4 x 3'-4"   | 1 x 16'-0"  | 2 x 9'-0"            | 3 x 6'-4"                  | 4 x 4'-6" | 1 x 21'-0" | 2 x 12'-4" | 3 x 8'-6"   | 4 x 6'-6" |
| 2.44             | (8)                   | 2          | 3                    | 4          | 4           | 2           | 3                    | 4                          | 5         | 2          | 2          | 3           | 4         |
| 2.75             | (9)                   | 2          | 3                    | 4          | 5           | 2           | 4                    | 4                          | 5         | 2          | 3          | 4           | 4         |
| 3.05             | (10)                  | 2          | 4                    | 4          | 5           | 2           | 4                    | 4                          | 75        | 2          | 3          | 4           | 4         |
| 3.66             | (12)                  | 3          | 4                    | 5          | 6           | 2           | 4                    | 5                          | 6         | 2          | 3          | <u> </u>    | 5         |
| 4.27             | (14)                  | 3          | 5                    | 6          |             | 3           | 5                    | 6                          |           | 2          | 4          | 5           | 6         |
| 4.88             | (16)                  | 3          | 5                    |            |             | 3           | 5                    | 6                          |           | 2          | 4          | 5           | 6         |
| Vertical         | 6" ICF<br>Tie Spacing |            | As per ta            | ble A.1.1. |             |             | As per ta            | able A.1.1.                |           |            | As per ta  | able A.1.1. |           |
| Reinforcement    | 8" ICF<br>Tie Spacing |            | As per ta            | ble A.1.2. |             |             | As per ta            | ble A.1.2.                 |           |            | As per ta  | ble A.1.2.  |           |
| Horizontal       | 6" ICF<br>Tie Spacing | 10 N       | Л @                  | 450        | (18)        | 10 N        | И @                  | 450                        | (18)      | 10 N       | И @        | 450         | (18)      |
| Reinforcement    | 8" ICF<br>Tie Spacing | 10 N       | Л @                  | 400        | (16)        | 10 N        | M @                  | 400                        | (16)      | 10 1       | M @        | 400         | (16)      |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use Table A.6 for buildings that do not meet the required wall length of this table.
- 6. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- 7. Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- 8. All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- O. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.



Table A.4 – Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \le 0.2$  and Hourly Wind Pressure,  $0.5 kPa < q_{1/50} \le 0.75 kPa$  (in a Building Without Walkout Basement)

| Wall He          | eight                 |             |                      | Number of   | f Concentr  | ated Vertic |             | einforcing E |           | d of Each  | Shear Wal  | I              |           |
|------------------|-----------------------|-------------|----------------------|-------------|-------------|-------------|-------------|--------------|-----------|------------|------------|----------------|-----------|
| m                | (ft)                  |             | S <sub>a,ICF</sub> ≤ | 0.085       |             |             |             | 0.145        |           |            | S          | ≤ 0.2          |           |
| Second Floor Wa  | . ,                   | ory ICF Str |                      |             | ood Fram    | e Roof      | a,ICF       |              | ,         | <u> </u>   | a,ICF      |                |           |
|                  |                       | Number a    |                      |             |             |             |             |              |           |            |            |                |           |
|                  |                       | 1 x 8'-0"   | 2 x 4'-0"            | 3 x 2'-8"   | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-0"   | 3 x 3'-6"    | 4 x 2'-8" | 1 x 11'-0" | 2 x 6'-8"  | 3 x 4'-8"      | 4 x 3'-6" |
| 2.44             | (8)                   | 2           | 3                    | 3           | 3           | 2           | 3           | 3            | 3         | 2          | 2          | 3              | 3         |
| 2.75             | (9)                   | 2           | 3                    | 3           | 3           | 2           | 3           | 3            | 4         | 2          | 2          | 3              | 3         |
| 3.05             | (10)                  | 2           | 3                    | 4           | 4           | 2           | 4           | 4            | 5         | 3          | 3          | 4              | 4         |
| Main Floor Walls | of One Story          | ICF Struc   | ture Suppo           | orting Woo  | d Frame F   | Roof        |             |              |           |            |            |                |           |
|                  |                       | Number a    | ınd length           | of shear w  | alls provid | led         |             |              |           |            |            |                |           |
|                  |                       | 1 x 8'-0"   | 2 x 4'-0"            | 3 x 2'-8"   | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-0"   | 3 x 3'-6"    | 4 x 2'-8" | 1 x 11'-0" | 2 x 6'-8"  | 3 x 4'-8"      | 4 x 3'-6" |
| 2.44             | (8)                   | 2           | 2                    | 3           | 3           | 2           | 2           | 3            | 3         | 2          | 2          | 2              | 3         |
| 2.75             | (9)                   | 2           | 2                    | 3           | 3           | 2           | 2           | 3            | 4         | 2          | 2          | 2              | 3         |
| 3.05             | (10)                  | 2           | 3                    | 3           | 4           | 2           | 3           | 4            | 5         | 2          | 3          | 3              | 4         |
| 3.66             | (12)                  | 2           | 4                    | 4           |             | 2           | 4           | 4            | 5         | 3          | 3          | 4              | 5         |
| 4.27             | (14)                  | 2           | 4                    |             |             | 2           | 4           | 5            | 5         | 3          | 4          | 5              | 6         |
| 4.88             | (16)                  | 2           | 4                    |             |             | 3           | 5           | 6            |           | 3          | 4          | 5              | 6         |
| Main Floor Walls | of Two Story          | Structure   | Supporting           | 2nd Story   | y Wood Fr   | amed Wall   | s, Floor ar | nd Roof      |           |            |            |                |           |
|                  |                       | Number a    | nd length            | of shear w  | alls provid | led         |             |              |           |            | 7          |                |           |
|                  |                       | 1 x 10'-0"  | 2 x 6'-0"            | 3 x 4'-0"   | 4 x 3'-0"   | 1 x 12'-0"  | 2 x 6'-8"   | 3 x 5'-0"    | 4 x 4'-0" | 1 x 16'-0" | 2 x 9'-0"  | 3 x 6'-8"      | 4 x 5'-0" |
| 2.44             | (8)                   | 2           | 3                    | 3           | 4           | 2           | 4           | 4            | 4         | 2          | 3          | 3              | 4         |
| 2.75             | (9)                   | 2           | 3                    | 3           | 4           | 2           | 4           | 4            | 4         | 2          | 3          | 3              | 4         |
| 3.05             | (10)                  | 2           | 3                    | 4           | 4           | 2           | 4           | 4            | 5         | 2          | 3          | 4              | 5         |
| 3.66             | (12)                  | 2           | 3                    | 4           | 5           | 3           | 5           | 5            | 6         | 2          | 4          | 4              | 6         |
| 4.27             | (14)                  | 2           | 4                    | 4           | 5           | 3           | 5           | 5            | 6         | 2          | 4          | 4              | 6         |
| 4.88             | (16)                  | 2           | 4                    | 4           |             | 3           | 5           | 6            | 6         | 2          | 4          | 4              | 6         |
| Main Floor Walls | of Two Story          | ICF Struct  | ture Suppo           | rting Woo   | d Frame F   | loors and l | Roof        |              |           |            |            |                |           |
|                  |                       | Number a    | nd length            | of shear w  | alls provid | led         |             | БЕ           |           |            |            | БA             | ЛС        |
|                  |                       | 1 x 12'-0"  | 2 x 6'-0"            | 3 x 4'-4"   | 4 x 3'-4"   | 1 x 15'-0"  | 2 x 9'-0"   | 3 x 6'-0"    | 4 x 4'-0" | 1 x 20'-0" | 2 x 11'-0" | 3 x 8'-0"      | 4 x 6'-4" |
| 2.44             | (8)                   | 2           | 4 _                  | 4           | 4           | 3           | 3           | 4            | 5         | 2          | 3          | 4              | 4         |
| 2.75             | (9)                   | 2           | 4                    | 4           | 5           | - 3         | 3           | 4            | 6         | 2          | 3          | 4              | 4         |
| 3.05             | (10)                  | 2           | 4                    | 5           | 5           | 3           | 4           | 5            | 6         | 2          | 3          | 4              | 5         |
| 3.66             | (12)                  | 3           | 5                    | 6           | 6           | 3           | 5           | 6            |           | 2          | 4\/        | <b>\( \)</b> 5 | 6         |
| 4.27             | (14)                  | 3           | 5                    | 6           | 6           | 3           | 5           | 6            |           | 2          | 5          | 6              | 6         |
| 4.88             | (16)                  | 3           | 5                    | 6           |             | 3           | 5           | 6            |           | 2          | 5          | 6              | 6         |
| Vertical         | 6" ICF<br>Tie Spacing |             | As per ta            | able A.1.1. |             |             | As per ta   | able A.1.1.  |           |            | As per ta  | able A.1.1.    |           |
| Reinforcement    | 8" ICF<br>Tie Spacing |             | As per ta            | ble A.1.2.  |             |             | As per ta   | ble A.1.2.   |           |            | As per ta  | ble A.1.2.     |           |
| Horizontal       | 6" ICF<br>Tie Spacing | 10 N        | M @                  | 450         | (18)        | 10 N        | Л @         | 450          | (18)      | 10 1       | Л @        | 450            | (18)      |
| Reinforcement    | 8" ICF<br>Tie Spacing | 10 N        | M @                  | 400         | (16)        | 10 N        | Л @         | 400          | (16)      | 10 N       | Л @        | 400            | (16)      |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use Table A.6 for buildings that do not meet the required wall length of this table.
- 5. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- 8. All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- a. All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 10. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.



Table A.5 – Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \le 0.2$  and Hourly Wind Pressure,  $0.75 \text{kPa} < q_{1/50} \le 1.05 \text{kPa}$  (in a Building Without Walkout Basement)

| Wall He          | ight                  |            |            | Number of  | f Concentr  | ated Vertic |             | einforcing E<br>Classifica |           | d of Each  | Shear Wal  |             |           |
|------------------|-----------------------|------------|------------|------------|-------------|-------------|-------------|----------------------------|-----------|------------|------------|-------------|-----------|
| m                | (ft)                  |            | S, ICE S   | 0.085      |             |             |             | 0.145                      |           |            | S          | ≤ 0.2       |           |
| Second Floor Wa  | lls of Two Sto        | ry ICF Str |            |            | ood Fram    | e Roof      | 4,101       |                            |           |            | 4,101      |             |           |
|                  |                       | Number a   | nd length  | of shear w | alls provid | led         |             |                            |           |            |            |             |           |
|                  |                       | 1 x 8'-0"  | 2 x 4'-0"  | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-4"   | 3 x 3'-6"                  | 4 x 2'-8" | 1 x 12'-0" | 2 x 7'-0"  | 3 x 5'-0"   | 4 x 3'-8" |
| 2.44             | (8)                   | 2          | 3          | 4          | 4           | 2           | 3           | 3                          | 4         | 2          | 3          | 3           | 4         |
| 2.75             | (9)                   | 2          | 3          | 4          | 4           | 2           | 3           | 4                          | 4         | 3          | 3          | 4           | 5         |
| 3.05             | (10)                  | 2          | 4          | 4          | 5           | 2           | 3           | 4                          | 5         | 3          | 3          | 4           | 5         |
| Main Floor Walls | of One Story          | ICF Struc  | ture Suppo | orting Woo | d Frame F   | Roof        |             |                            |           |            |            |             |           |
|                  |                       | Number a   | nd length  | of shear w | alls provid | led         |             |                            |           |            |            |             |           |
|                  |                       | 1 x 8'-0"  | 2 x 4'-0"  | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-4"   | 3 x 3'-6"                  | 4 x 2'-8" | 1 x 12'-0" | 2 x 7'-0"  | 3 x 5'-0"   | 4 x 3'-8" |
| 2.44             | (8)                   | 2          | 2          | 3          | 3           | 2           | 2           | 3                          | 3         | 2          | 2          | 3           | 3         |
| 2.75             | (9)                   | 2          | 3          | 3          | 3           | 2           | 3           | 3                          | 4         | 2          | 3          | 3           | 4         |
| 3.05             | (10)                  | 2          | 3          | 3          | 4           | 2           | 3           | 4                          | 4         | 2          | 3          | 4           | 4         |
| 3.66             | (12)                  | 2          | 3          | 4          |             | 2           | 3           | 4                          | 5         | 2          | 3          | 4           | 5         |
| 4.27             | (14)                  | 2          | 3          |            |             | 2           | 4           | 5                          | 5         | 2          | 4          | 4           | 6         |
| 4.88             | (16)                  | 2          | 4          |            |             | 2           | 4           | 5                          |           | 2          | 4          | 5           |           |
| Main Floor Walls | of Two Story          | Structure  | Supporting | 2nd Story  | y Wood Fr   | amed Wall   | s, Floor ar | nd Roof                    |           |            |            |             |           |
|                  |                       | Number a   | nd length  | of shear w | alls provid | ed          |             |                            |           |            | 7          |             |           |
|                  |                       | 1 x 10'-0" | 2 x 6'-0"  | 3 x 4'-0"  | 4 x 3'-0"   | 1 x 12'-6"  | 2 x 7'-0"   | 3 x 5'-0"                  | 4 x 4'-0" | 1 x 17'-0" | 2 x 10'-0" | 3 x 6'-8"   | 4 x 5'-0" |
| 2.44             | (8)                   | 2          | 3          | 4          | 4           | 2           | 4           | 4                          | 5         | 2          | 3          | 4           | 4         |
| 2.75             | (9)                   | 2          | 3          | 4          | 4           | 2           | 4           | 5                          | 5         | 2          | 3          | 4           | 5         |
| 3.05             | (10)                  | 2          | 3          | 4          | 5           | 2           | 4           | 5                          | 5         | 2          | 3          | 4           | 5         |
| 3.66             | (12)                  | 2          | 3          | 4          | 5           | 2           | 4           | 5                          | 6         | 2          | 3          | 4           | 5         |
| 4.27             | (14)                  | 2          | 4          | 5          |             | 2           | 4           | 5                          | 6         | 2          | 3          | 5           | 6         |
| 4.88             | (16)                  | 2          | 4          | 5          |             | 2           | 4           | 6                          |           | 2          | 3          | 5           | 6         |
| Main Floor Walls | of Two Story          | ICF Struct | ure Suppo  | rting Woo  | d Frame F   | loors and I | Roof        |                            |           |            |            |             |           |
|                  |                       | Number a   | nd length  | of shear w | alls provid |             |             | BE                         |           |            |            |             |           |
|                  |                       | 1 x 12'-0" | 2 x 6'-8"  | 3 x 4'-4"  | 4 x 3'-4"   | 1 x 16'-0"  | 2 x 9'-0"   | 3 x 6'-4"                  | 4 x 4'-6" | 1 x 21'-0" | 2 x 12'-4" | 3 x 8'-6"   | 4 x 6'-6" |
| 2.44             | (8)                   | 2          | 4          | 5          | 5           | 2           | 4           | 5                          | 6         | 2          | 4          | 4           | 4         |
| 2.75             | (9)                   | 2          | 4          | 5          | 5           | 2           | 5           | 5                          | 6         | 2          | 4          | 5           | 5         |
| 3.05             | (10)                  | 2          | 4          | 5          | 6           | 2           | 5           | 5                          | 96        | 2          | 4          | 5           | 5         |
| 3.66             | (12)                  | 2          | 5          | 6          |             | 2           | 5           | 6                          |           | 2          | 4          | <u> </u>    | 5         |
| 4.27             | (14)                  | 2          | 5          | 6          |             | 2           | 5           | 6                          |           | 2          | 4          | 5           | 6         |
| 4.88             | (16)                  | 2          | 6          |            |             | 2           | 5           | 6                          |           | 2          | 4          | 5           | 6         |
| Vertical         | 6" ICF<br>Tie Spacing |            | As per ta  | ble A.1.1. |             |             | As per ta   | able A.1.1.                |           |            | As per ta  | able A.1.1. |           |
| Reinforcement    | 8" ICF<br>Tie Spacing |            | As per ta  | ble A.1.2. |             |             | As per ta   | ble A.1.2.                 |           |            | As per ta  | ble A.1.2.  |           |
| Horizontal       | 6" ICF<br>Tie Spacing | 10 N       | И @        | 450        | (18)        | 10 N        | И @         | 450                        | (18)      | 10 N       | И @        | 450         | (18)      |
| Reinforcement    | 8" ICF<br>Tie Spacing | 10 N       | И @        | 400        | (16)        | 10 N        | Л @         | 400                        | (16)      | 10 N       | M @        | 400         | (16)      |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use Table A.6 for buildings that do not meet the required wall length of this table.
- 6. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- 7. Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- 8. All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- 9. All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 10. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.



Table A.6 – Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} > 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa (in a Building Without Walkout Basement)

| Wall I            | Height                         |   |            | Nu        | ımber o   | f Conce    | ntrated '  |            |           | inforcin<br>Classif |            | at End o   | f Each    | Shear W    | Vall       |            |            |
|-------------------|--------------------------------|---|------------|-----------|-----------|------------|------------|------------|-----------|---------------------|------------|------------|-----------|------------|------------|------------|------------|
| m                 | (ft)                           |   | Salce      | ≤ 0.2     |           |            | S. 105     | ≤ 0.4      |           | 0.000               | Salce      | ≤ 0.7      |           |            | Salce      | ≤ 1.05     |            |
| Second Floor      | Walls of Two Sto               | ry ICF  |            |           | orting W  | ood Fra    |            |            |           |                     | a,ICF_     |            |           |            | a,ICF      |            |            |
|                   |                                | Numbe   | r and le   | ngth of   | shear w   | alls pro   | vided      |            |           |                     |            |            |           |            |            |            |            |
|                   |                                | 1 x 10'-0"  | 2 x 5'-0"  | 3 x 4'-0" | 4 x 3'-0" | 1 x 13'-0" | 2 x 7'-6"  | 3 x 5'-6"  | 4 x 4'-0" | 1 x 16'-0"          | 2 x 9'-0"  | 3 x 7'-0"  | 4 x 5'-0" | 1 x 18'-0" | 2 x 12'-0" | 3 x 9'-0"  | 4 x 7'-0"  |
| 2.44              | (8)                            | 2   | 2          | 3         | 3         | 2          | 2          | 3          | 3         | 2                   | 3          | 3          | 4         | 2          | 2          | 3          | 4          |
| 2.75              | (9)                            | 2   | 3          | 3         | 4         | 2          | 3          | 4          | 4         | 2                   | 3          | 3          | 5         | 2          | 2          | 4          | 4          |
| 3.05              | (10)                           | 2   | 4          | 3         | 4         | 3          | 4          | 4          |           | 2                   | 4          | 4          |           | 3          | 3          | 4          | 6          |
| Main Floor Wa     | lls of One Story               | ICF Str   | ucture S   | Supporti  | ing Woo   | d Fram     | e Roof     |            |           |                     |            |            |           |            |            |            |            |
|                   |                                | Numbe   | r and le   | ngth of   | shear w   | alls pro   | vided      |            |           |                     |            |            |           |            |            |            |            |
|                   |                                | 1 x 10'-0"  | 2 x 5'-0"  | 3 x 4'-0" | 4 x 3'-0" | 1 x 14'-0" | 2 x 8'-0"  | 3 x 6'-0"  | 4 x 4'-0" | 1 x 17'-0"          | 2 x 11'-0" | 3 x 7'-0"  | 4 x 5'-0" | 1 x 20'-0" | 2 x 12'-0" | 3 x 9'-0"  | 4 x 7'-0"  |
| 2.44              | (8)                            | 2   | 2          | 3         | 3         | 2          | 2          | 3          | 3         | 2                   | 2          | 2          | 3         | 2          | 2          | 3          | 4          |
| 2.75              | (9)                            | 2   | 3          | 3         | 4         | 2          | 3          | 3          |           | 2                   | 2          | 3          | 4         | 2          | 2          | 4          | 4          |
| 3.05              | (10)                           | 2   | 4          | 3         | 4         | 2          | 4          | 4          |           | 2                   | 3          | 4          | 5         | 3          | 3          | 4          | 6          |
| 3.66              | (12)                           | 2   | 4          | 4         | 5         | 2          | 4          | 4          |           | 2                   | 4          | 5          |           | 3          | 3          | 6          | 6          |
| 4.27              | (14)                           | 2   | 6          | 5         |           | 2          | 5          |            |           | 4                   | 5          |            |           | 5          |            |            |            |
| 4.88              | (16)                           | 2   | 6          |           |           | 2          | 5          |            |           | 4                   | 6          |            |           | 6          |            |            |            |
| Main Floor Wa     | Ils of Two Story               | Structu   | e Supp     | orting 2  | nd Stor   | y Wood     | Framed     | Walls,     | Floor ar  | nd Roof             |            |            |           |            |            |            |            |
|                   |                                | Numbe   |            |           |           |            |            |            |           |                     |            |            |           |            | A          |            |            |
|                   |                                | 1 x 14'-0"  | 2 x 8'-0"  | 3 x 6'-0" | 4 x 4'-0" | 1 x 16'-0" | 2 x 11'-0" | 3 x 8'-0"  | 4 x 6'-0" | 1 x 24'-0"          | 2 x 14'-0" | 3 x 10'-0" | 4 x 8'-0" | 1 x 28'-0" | 2 x 16'-0" | 3 x 12'-0" | 4 x 9'-0"  |
| 2.44              | (8)                            | 2   | 2          | 2         | 4         | 2          | 2          | 4          | 4         | 2                   | 2          | 3          | 4         | 2          | 2          | 4          | 5          |
| 2.75              | (9)                            | 2   | 2          | 3         | 4         | 3          | 3          | 5          | 5         | 2                   | 2          | 4          | 5         | 2          | 3          | 4          | 6          |
| 3.05              | (10)                           | 2   | 3          | 3         |           | 3          | 3          | 5          | 5         | 2                   | 3          | 4          | 5         | 2          | 4          | 5          |            |
| 3.66              | (12)                           | 2   | 3          | 4         |           | 4          | 4          | 5          |           | 2                   | 4          | 6          |           | 2          | 6          |            |            |
| 4.27              | (14)                           | 2   | 4          |           |           | 6          | 5          |            |           | 2                   |            |            |           | 4          |            |            |            |
| 4.88              | (16)                           | 2   | 4          |           |           | 6          | 5          |            |           | 2                   |            |            |           | 4          |            |            |            |
|                   | Ils of Two Story               | _   |            | Lunnorti  | na Woo    |            | _          | and Ro     | of        | _                   | <u> </u>   |            |           | <u> </u>   | <u> </u>   | <u> </u>   |            |
| IVIAIITT 1001 VVA |                                | Numbe   |            |           |           |            |            | and no     |           |                     |            |            |           |            |            |            |            |
|                   |                                | 1 x 16'-0"  | 2 x 10'-0" | 3x7'-0"   | 4 x 6'-0" | 1 x 22'-0" | 2 x 14'-0" | 3 x 11'-0" | 4 x 8'-0" | 1 x 28'-0"          | 2 x 16'-0" | 3 x 12'-0" | 4 x 9'-4" | 1 x 34'-0" | 2 x 20'-0" | 3 x 15'-0" | 4 x 12'-0" |
|                   |                                |   |            |           |           |            |            |            |           |                     |            |            |           |            |            |            |            |
| 2.44              | (8)                            | 2   | 3          | 3         | 3         | 2          | 3          | 3          | 4         | 2                   | 2          | 4          | 5         | 2          | 2          | 4          | 5          |
| 2.75              | (9)                            | 2   | 3          | 4         | 3         | 2          | 3          | 3          | 5         | 2                   | 3          | 4          | 6         | 2          | 3          | 5          | 6          |
| 3.05              | (10)                           | 2   | 3          | 4         | 4         | 2          | 4          | 4          | 6         | 2                   | 4          | 5          |           | 2          | 4          | 6          | $\perp$    |
| 3.66              | (12)                           | 2   | 3          | 5         | 5         | 2          | 4          | 4          | 6         | 2                   | 6          |            |           | 2          | 6          |            |            |
| 4.27              | (14)                           | 2   | 4          | 6         |           | 3          | 5          | 5          |           | 5                   |            |            |           | _ 5        | ИA         |            | K(J        |
| 4.88              | (16)                           | 2   | 4          |           |           | 3          | 5          | 5          |           | 5                   | <u></u>    |            |           | 5          |            |            |            |
| Vertical          | 6" ICF Tie Spacing             | As per table A.2.1. As per table A.2.1.   |            |           |           |            |            |            |           | Д                   | s per ta   | ble A.2.   | 1.        | Д          | s per ta   | ble A.2.   | 1.         |
| Reinforcement     | 8" ICF Tie Spacing             | As per table A.2.2. As per table A.2.2. As per table A.2.2. As per table A.2.2. |            |           |           |            |            |            |           |                     | 2.         |            |           |            |            |            |            |
| Horizontal        | Block Height of<br>12" and 18" | А   | s per ta   | ble A.2.  | 1.        | А          | s per ta   | ble A.2.   | 1.        | Д                   | s per ta   | ble A.2.   | 1.        | Д          | s per ta   | ble A.2.   | 1.         |
| Reinforcement     | Block Height of 16"            | А   | s per ta   | ble A.2.  | 2.        | А          | s per ta   | ble A.2.   | 2.        | А                   | s per ta   | ble A.2.   | 2.        | А          | s per ta   | ble A.2.   | 2.         |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- 8. All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 9. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.
- 10. Horizontal reinforcement in shear walls where  $S_{a,ICF} > 0.2$  must be anchored using a standard 180° hook around vertical end bars.
- 1. When using this table for  $S_{a,ICF} \le 0.2$ , use the vertical and horizontal distributed steel in Tables A.2.1. or A.2.2. for  $S_{a,ICF} \le 0.4$ .



Table A.7. Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \le 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 0.5$ kPa (in a Building With Walkout Basement)

| Wall I         | Height                         |            |                      | Number of  | f Concentr | ated Vertic |                      | einforcing E<br>Classifica |             | d of Each  | Shear Wal  | l   |           |  |  |  |  |  |
|----------------|--------------------------------|------------|----------------------|------------|------------|-------------|----------------------|----------------------------|-------------|------------|------------|---|-----------|--|--|--|--|--|
| m              | (ft)                           |            | S <sub>a ICE</sub> ≤ | . 0 085    |            | Sei         |                      | € 0.145                    | llion       |            | S          | ≤ 0.2   |           |  |  |  |  |  |
|                | Valls of Two Sto               | rv ICF Str |                      |            | ood Frame  | e Roof      | O <sub>a,ICF</sub> _ | 0.140                      |             |            | a,ICF      | 3 0.2   |           |  |  |  |  |  |
|                |                                |            |                      | - p        |            | lumber an   | d length o           | f shear wa                 | lls provide | d          |            |   |           |  |  |  |  |  |
|                |                                | 1 x 8'-0"  | 2 x 4'-0"            | 3 x 2'-8"  |            | 1 x 11'-0"  |                      | 1                          |             | 1          | 2 x 8'-0"  | 3 x 5'-6"   | 4 x 4'-4" |  |  |  |  |  |
| 2.44           | (8)                            | 2          | 3                    | 3          | 3          | 2           | 2                    | 3                          | 3           | 2          | 2          | 3   | 3         |  |  |  |  |  |
| 2.75           | (9)                            | 2          | 3                    | 3          | 4          | 2           | 3                    | 3                          | 4           | 2          | 3          | 3   | 3         |  |  |  |  |  |
| 3.05           | (10)                           | 2          | 4                    | 4          | 5          | 2           | 3                    | 4                          | 4           | 2          | 3          | 4   | 4         |  |  |  |  |  |
| Main Floor Wal | lls of One Story               | ICF Struc  | ture Suppo           | orting Woo |            |             |                      |                            |             |            |            |   |           |  |  |  |  |  |
|                |                                |            |                      |            |            | lumber an   |                      |                            |             |            | 1          | 1   | 1         |  |  |  |  |  |
|                |                                | 1 x 8'-0"  | 2 x 4'-0"            | 3 x 2'-8"  | 4 x 2'-0"  | 1 x 11'-0"  | 2 x 6'-0"            | 3 x 4'-0"                  | 4 x 3'-6"   | 1 x 14'-0" | 2 x 8'-0"  | 3 x 5'-6"   | 4 x 4'-4" |  |  |  |  |  |
| 2.44           | (8)                            | 2          | 2                    | 3          | 3          | 2           | 2                    | 3                          | 3           | 2          | 2          | 2   | 2         |  |  |  |  |  |
| 2.75           | (9)                            | 2          | 3                    | 3          | 3          | 2           | 3                    | 3                          | 3           | 2          | 2          | 3   | 3         |  |  |  |  |  |
| 3.05           | (10)                           | 2          | 3                    | 4          | 4          | 2           | 3                    | 4                          | 4           | 2          | 2          | 3   | 3         |  |  |  |  |  |
| 3.66           | (12)                           | 3          | 4                    | 5          |            | 3           | 4                    | 5                          | 5           | 2          | 4          | 4   | 4         |  |  |  |  |  |
| 4.27           | (14)                           | 4          | 6                    |            |            | 4           | 5                    | 6                          |             | 3          | 5          | 6   | 6         |  |  |  |  |  |
| 4.88           | (16)                           | 4          | 6                    |            |            | 4           | 6                    |                            |             | 4          | 5          |   |           |  |  |  |  |  |
| Main Floor Wal | ls of Two Story                | Structure  | Supporting           | 2nd Story  | y Wood Fra | amed Wall   | s, Floor ar          | nd Roof                    |             |            |            |   | Į.        |  |  |  |  |  |
|                |                                |            |                      |            |            | lumber an   |                      |                            | lls provide | d          |            |   |           |  |  |  |  |  |
|                |                                | 1 x 10'-0" | 2 x 7'-0"            | 3 x 4'-6"  | 4 x 3'-4"  | 1 x 14'-0"  | 2 x 8'-0"            | 3 x 6'-4"                  | 4 x 4'-4"   | 1 x 20'-0" | 2 x 11'-0" | 3 x 7'-8"   | 4 x 6'-0" |  |  |  |  |  |
| 2.44           | (8)                            | 2          | 2                    | 3          | 3          | 2           | 3                    | 3                          | 4           | 2          | 2          | 3   | 3         |  |  |  |  |  |
| 2.75           | (9)                            | 3          | 2                    | 4          | 4          | 2           | 3                    | 3                          | 4           | 2          | 3          | 3   | 4         |  |  |  |  |  |
| 3.05           | (10)                           | 3          | 3                    | 4          | 5          | 3           | 4                    | 4                          | 5           | 2          | 3          | 4   | 5         |  |  |  |  |  |
| 3.66           | (12)                           | 4          | 3                    | 5          | 5          | 4           | 5                    | 5                          | 6           | 2          | 4          | 5   | 5         |  |  |  |  |  |
| 4.27           | (14)                           | 5          | 4                    | 6          |            | 4           | 6                    | 6                          |             | 2          | 5          | 6   | 6         |  |  |  |  |  |
| 4.88           | (16)                           | 5          | 4                    |            |            | 4           | 6                    | 6                          |             | 2          | 5          | 6   |           |  |  |  |  |  |
| Main Floor Wal | Is of Two Story                | ICF Struct | ure Suppo            | rting Woo  | d Frame F  | loors and I | Roof                 |                            |             | ı          |            | ı   | ı         |  |  |  |  |  |
|                |                                |            |                      |            |            | lumber an   |                      | f shear wa                 | lls provide | d          |            |   |           |  |  |  |  |  |
|                |                                | 1 x 12'-0" | 2 x 7'-0"            | 3 x 4'-8"  | 4 x 3'-8"  | 1 x 18'-0"  | 2 x 10'-0"           | 3 x 7'-8"                  | 4 x 5'-4"   | 1 x 24'-0" | 2 x 13'-0" | 3 x 9'-6"   | 4 x 7'-8" |  |  |  |  |  |
| 2.44           | (8)                            | 3          | 3                    | 4          | 4          | 2           | 3                    | 4                          | 4           | 2          | 3          | 3   | 3         |  |  |  |  |  |
| 2.75           | (9)                            | 3          | 4                    | 5          | 5          | 2           | 5                    | 4                          | 5           | 2          | 3          | 4   | 4         |  |  |  |  |  |
| 3.05           | (10)                           | 3 /        | 4                    | 5          | 5          | 2           | 5 /                  | 4                          | 5           | 2          | /3         | 4   | 4         |  |  |  |  |  |
| 3.66           | (12)                           | 4          | 5                    | 6          | 6          | 2           | 5                    | 5                          | 6           | 2          | 4          | 5   | 5         |  |  |  |  |  |
| 4.27           | (14)                           | 5          | 6                    |            |            | 3           | 6                    | 6                          |             | 2          | 5          | 6   | 6         |  |  |  |  |  |
| 4.88           | (16)                           | 5          | 6                    |            |            | 3           | 6                    | 6                          |             | 2          | -5         | A6 (  | KG        |  |  |  |  |  |
| Vertical       | 6" ICF Tie Spacing             |            | As per ta            | ble A.1.1. |            |             | As per ta            | able A.1.1.                |             |            | As per ta  | able A.1.1.   |           |  |  |  |  |  |
| Reinforcement  | 8" ICFTie Spacing              |            | As per ta            | ble A.1.2. |            |             | As per ta            | ble A.1.2.                 |             |            | As per ta  | 2 3 4 4 5 5 6 5 6 5 6 5 6 5 6 5 6 6 5 6 6 5 6 6 6 5 6 |           |  |  |  |  |  |
| Horizontal     | Block Height of<br>12" and 18" | 10 N       | И @                  | 450        | (18)       | 10 N        | Л @                  | 450                        | (18)        | 10 M       | И @        | 450   | (18)      |  |  |  |  |  |
| Reinforcement  | Block Height of 16"            | 10 N       | И @                  | 400        | (16)       | 10 N        | Л @                  | 400                        | (16)        | 10 N       | И @        | 400   | (16)      |  |  |  |  |  |

- S<sub>a ICF</sub> is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use Table A.10 for buildings that do not meet the required wall length of this table.
- 6. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- 8. All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- 9. All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 10. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.



Table A.8 – Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, S $_{a,ICF} \le 0.2$  and Hourly Wind Pressure,  $0.5 kPa < q_{1/50} \le 0.75 kPa$  (in a Building With Walkout Basement)

| Wall H         |                                |            |                     | Number of  | f Concentr  | ated Vertic |                      |                       |           | d of Each  | Shear Wal  | I           |           |
|----------------|--------------------------------|------------|---------------------|------------|-------------|-------------|----------------------|-----------------------|-----------|------------|------------|-------------|-----------|
| m              | (ft)                           |            | S <sub>alce</sub> ≤ | 0.085      |             | Seis        |                      | Classifica<br>≤ 0.145 | tion      |            |            | ≤ 0.2       |           |
| Second Floor V | \ /                            | rv ICF Str |                     |            | ood Frame   | e Roof      | O <sub>a,ICF</sub> 3 | 5 0.140               |           |            | a,ICF      | 3 0.2       |           |
|                |                                | Number a   |                     |            |             |             |                      |                       |           |            |            |             |           |
|                |                                | 1 x 8'-0"  | 2 x 4'-0"           | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-6"  | 2 x 5'-8"            | 3 x 4'-0"             | 4 x 3'-4" | 1 x 13'-6" | 2 x 7'-6"  | 3 x 5'-0"   | 4 x 4'-0" |
| 2.44           | (8)                            | 2          | 3                   | 3          | 4           | 2           | 3                    | 3                     | 4         | 2          | 2          | 3           | 3         |
| 2.75           | (9)                            | 2          | 3                   | 4          | 4           | 2           | 3                    | 3                     | 4         | 2          | 2          | 3           | 4         |
| 3.05           | (10)                           | 2          | 4                   | 4          | 5           | 2           | 4                    | 4                     | 5         | 2          | 3          | 4           | 5         |
| Main Floor Wal | ls of One Story                | ICF Struc  | ture Suppo          | orting Woo | d Frame F   | Roof        |                      |                       |           |            |            |             |           |
|                |                                | Number a   | nd length           | of shear w | alls provid | led         |                      |                       |           |            |            |             |           |
|                |                                | 1 x 8'-0"  | 2 x 4'-0"           | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-6"  | 2 x 5'-8"            | 3 x 4'-0"             | 4 x 3'-0" | 1 x 13'-6" | 2 x 7'-6"  | 3 x 5'-0"   | 4 x 4'-0" |
| 2.44           | (8)                            | 2          | 3                   | 3          | 3           | 2           | 2                    | 3                     | 3         | 2          | 2          | 3           | 3         |
| 2.75           | (9)                            | 2          | 3                   | 3          | 4           | 2           | 3                    | 3                     | 4         | 2          | 2          | 3           | 3         |
| 3.05           | (10)                           | 2          | 4                   | 4          | 4           | 2           | 3                    | 4                     | 5         | 2          | 3          | 4           | 4         |
| 3.66           | (12)                           | 3          | 5                   | 5          |             | 3           | 5                    | 5                     | 5         | 2          | 4          | 5           | 5         |
| 4.27           | (14)                           | 3          | 5                   |            |             | 4           | 5                    | 6                     |           | 3          | 5          | 6           | 6         |
| 4.88           | (16)                           | 3          | 6                   |            |             | 4           | 6                    |                       |           | 4          | 5          |             |           |
| Main Floor Wal | Is of Two Story                | Structure  | Supporting          | 2nd Story  | y Wood Fra  | amed Wall   | s, Floor ar          | nd Roof               |           |            |            |             |           |
|                |                                | Number a   | nd length           | of shear w | alls provid | ed          |                      |                       |           |            | 7 .        |             |           |
|                |                                | 1 x 10'-0" | 2 x 7'-0"           | 3 x 4'-6"  | 4 x 3'-4"   | 1 x 14'-0"  | 2 x 7'-8"            | 3 x 5'-8"             | 4 x 4'-4" | 1 x 17'-6" | 2 x 10'-6" | 3 x 7'-4"   | 4 x 5'-8" |
| 2.44           | (8)                            | 2          | 2                   | 3          | 4           | 2           | 4                    | 4                     | 4         | 2          | 3          | 3           | 4         |
| 2.75           | (9)                            | 2          | 2                   | 4          | 4           | 2           | 4                    | 4                     | 4         | 2          | 3          | 3           | 4         |
| 3.05           | (10)                           | 3          | 3                   | 4          | 5           | 2           | 4                    | 5                     | 5         | 2          | 3          | 4           | 5         |
| 3.66           | (12)                           | 4          | 3                   | 5          | 6           | 3           | 5                    | 6                     | 6         | 2          | 4          | 5           | 6         |
| 4.27           | (14)                           | 4          | 4                   | 6          |             | 3           | 6                    | 6                     |           | 3          | 4          | 5           | 6         |
| 4.88           | (16)                           | 4          | 4                   |            |             | 3           | 6                    |                       |           | 3          | 4          | 6           |           |
| Main Floor Wal | ls of Two Story                | ICF Struct | ure Suppo           | rting Wood | d Frame F   | loors and I | Roof                 |                       | ,         | ,          |            |             |           |
|                |                                | Number a   | nd length           | of shear w | alls provid | ed          |                      |                       |           |            |            |             |           |
|                |                                | 1 x 12'-0" | 2 x 7'-0"           | 3 x 4'-8"  | 4 x 3'-8"   | 1 x 17'-0"  | 2 x 9'-6"            | 3 x 7'-0"             | 4 x 5'-4" | 1 x 22'-0" | 2 x 12'-6" | 3 x 9'-0"   | 4 x 7'-4" |
| 2.44           | (8)                            | _ 3        | 3                   | 4          | 4           | 2           | 4                    | 4                     | 5         | 2          | 3          | 4           | 4         |
| 2.75           | (9)                            | 3          | 4                   | 4          | 5           | 2           | 4                    | 4                     | 5         | 2          | 3          | 4           | 4         |
| 3.05           | (10)                           | 3/         | 4                   | 5          | 5           | 2           | 4                    | 5                     | 6         | 2          | 3          | 4           | 5         |
| 3.66           | (12)                           | 4          | 5                   | 6          | 6           | 3           | 5                    | 70,                   |           | 2          | 4          | 5           | 6         |
| 4.27           | (14)                           | 4          | 5                   |            |             | 3           | 6                    |                       |           | 2          | 5          | <u> </u>    | 6         |
| 4.88           | (16)                           | 4          | 5                   |            |             | 3           | 6                    |                       |           | 2          | 5          | 6           | 6         |
| Vertical       | 6" ICF Tie Spacing             |            | As per ta           | ble A.1.1. |             |             | As per ta            | able A.1.1.           |           |            | As per ta  | able A.1.1. |           |
| Reinforcement  | 8" ICF Tie Spacing             |            | As per ta           | ble A.1.2. |             |             | As per ta            | ble A.1.2.            |           |            | As per ta  | able A.1.2. |           |
| Horizontal     | Block Height of<br>12" and 18" | 10 N       | И @                 | 450        | (18)        | 10 N        | Л @                  | 450                   | (18)      | 10 N       | VI @       | 450         | (18)      |
| Reinforcement  | Block Height of 16"            | 10 N       | И @                 | 400        | (16)        | 10 N        | Л @                  | 400                   | (16)      | 10 N       | VI @       | 400         | (16)      |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use Table A.10 for buildings that do not meet the required wall length of this table.
- 6. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- 7. Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations," are adequate.
- 8. All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 10. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.



Table A.9 – Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, S $_{a,ICF} \le 0.2$  and Hourly Wind Pressure, 0.75kPa  $< q_{1/50} \le 1.05$ kPa (in a Building With Walkout Basement)

| Wall          | Height                         |            |                      | Number of  | Concentr    |             |             | einforcing E<br>Classifica |           | d of Each  | Shear Wal  | I           |           |
|---------------|--------------------------------|------------|----------------------|------------|-------------|-------------|-------------|----------------------------|-----------|------------|------------|-------------|-----------|
| m             | (ft)                           |            | S <sub>a.ICF</sub> ≤ | 0.085      |             | 00.         |             | ≤ 0.145                    |           |            | S          | ≤ 0.2       |           |
| Second Floor  | Walls of Two Sto               |            | ucture Sup           | porting W  |             |             | a,IOI       |                            |           |            | a,iOi      |             |           |
|               |                                | Number a   | nd length            |            |             |             | r           | 1                          | 1         |            | r          | T           | 1         |
|               |                                | 1 x 8'-0"  | 2 x 4'-0"            | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-6"   | 3 x 4'-0"                  | 4 x 3'-4" | 1 x 12'-0" | 2 x 7'-0"  | 3 x 4'-6"   | 4 x 3'-8" |
| 2.44          | (8)                            | 2          | 3                    | 4          | 4           | 2           | 3           | 3                          | 4         | 2          | 3          | 4           | 4         |
| 2.75          | (9)                            | 2          | 4                    | 4          | 4           | 2           | 4           | 4                          | 4         | 2          | 3          | 4           | 5         |
| 3.05          | (10)                           | 2          | 4                    | 4          | 5           | 2           | 4           | 4                          | 5         | 2          | 3          | 4           | 5         |
| Main Floor Wa | lls of One Story               |            |                      |            |             |             |             |                            |           |            |            |             |           |
|               |                                |            | nd length            |            |             |             |             |                            |           |            |            |             |           |
|               |                                | 1 x 8'-0"  | 2 x 4'-0"            | 3 x 2'-8"  | 4 x 2'-0"   | 1 x 10'-0"  | 2 x 5'-6"   | 3 x 4'-0"                  | 4 x 3'-0" | 1 x 12'-0" | 2 x 7'-0"  | 3 x 4'-6"   | 4 x 3'-6" |
| 2.44          | (8)                            | 2          | 3                    | 3          | 3           | 2           | 3           | 3                          | 3         | 2          | 2          | 3           | 3         |
| 2.75          | (9)                            | 2          | 3                    | 4          | 4           | 2           | 3           | 3                          | 4         | 2          | 3          | 4           | 4         |
| 3.05          | (10)                           | 2          | 3                    | 4          | 4           | 2           | 3           | 4                          | 4         | 2          | 3          | 4           | 4         |
| 3.66          | (12)                           | 2          | 4                    | 5          |             | 2           | 4           | 4                          | 5         | 2          | 4          | 5           | 5         |
| 4.27          | (14)                           | 2          | 5                    |            |             | 2           | 5           | 5                          | 6         | 2          | 4          | 6           |           |
| 4.88          | (16)                           | 2          | 5                    |            |             | 2           | 6           | 6                          |           | 2          | 5          |             |           |
| Main Floor Wa | lls of Two Story               | Structure  | Supporting           | 2nd Story  | / Wood Fra  | amed Wall   | s, Floor ar | nd Roof                    |           |            |            |             |           |
|               |                                | Number a   | nd length            | of shear w | alls provid | ed          |             |                            |           |            |            |             | ,         |
|               |                                | 1 x 10'-0" | 2 x 7'-0"            | 3 x 4'-6"  | 4 x 3'-4"   | 1 x 13'-0"  | 2 x 7'-4"   | 3 x 5'-4"                  | 4 x 4'-0" | 1 x 15'-0" | 2 x 9'-6"  | 3 x 6'-8"   | 4 x 5'-4" |
| 2.44          | (8)                            | 2          | 2                    | 3          | 4           | 2           | 4           | 4                          | 5         | 2          | 3          | 4           | 4         |
| 2.75          | (9)                            | 2          | 2                    | 4          | 4           | 2           | 4           | 5                          | 5         | 2          | 3          | 4           | 5         |
| 3.05          | (10)                           | 2          | 2                    | 4          | 4           | 2           | 4           | 5                          | 5         | 2          | 3          | 4           | 5         |
| 3.66          | (12)                           | 2          | 2                    | 4          | 5           | 2           | 4           | 5                          | 6         | 2          | 4          | 5           | 5         |
| 4.27          | (14)                           | 2          | 2                    | 4          |             | 2           | 5           | 6                          |           | 2          | 4          | 6           | 6         |
| 4.88          | (16)                           | 2          | 2                    | 5          |             | 2           | 5           | 6                          |           | 2          | 4          | 6           |           |
| Main Floor Wa | lls of Two Story               | ICF Struct | ure Suppo            | rting Woo  | d Frame F   | loors and I | Roof        |                            |           |            |            |             |           |
|               |                                | Number a   | nd length            | of shear w | alls provid | ed          |             |                            |           |            |            |             |           |
|               |                                | 1 x 12'-0" | 2 x 7'-0"            | 3 x 4'-6"  | 4 x 3'-6"   | 1 x 16'-0"  | 2 x 9'-0"   | 3 x 6'-6"                  | 4 x 4'-6" | 1 x 20'-0" | 2 x 12'-0" | 3 x 8'-4"   | 4 x 6'-8" |
| 2.44          | (8)                            | 2          | 4                    | 4          | 5           | 2           | 4           | 5                          | 5         | 2          | 3          | 4           | 4         |
| 2.75          | (9)                            | 2          | 4                    | 5          | 5           | 2           | 4           | 5                          | 6         | 2          | 3          | 5           | 5         |
| 3.05          | (10)                           | 2          | 4                    | 5          | 6           | 2           | 4           | 5                          |           | 2          | 3          | 5           | 5         |
| 3.66          | (12)                           | 2          | 5                    | 6          |             | 2           | 5/          | 6                          |           | 2          | 3          | 5           | 6         |
| 4.27          | (14)                           | 2          | 5                    |            |             | 2           | 5           | 6                          |           | 2          | 3          | A 6         | DC        |
| 4.88          | (16)                           | 2          | 6                    |            |             | 2           | 5           |                            |           | 2          | 3          | 6           | NU        |
| Vertical      | 6" ICF Tie Spacing             |            | As per ta            | ble A.1.1. |             |             | As per ta   | able A.1.1.                |           |            | As per ta  | able A.1.1. |           |
| Reinforcement | 8" ICFTie Spacing              |            | As per ta            | ble A.1.2. |             |             | As per ta   | ble A.1.2.                 |           |            | As per ta  | able A.1.2. |           |
| Horizontal    | Block Height of<br>12" and 18" | 10 N       | И @                  | 450        | (18)        | 10 N        | Л @         | 450                        | (18)      | 10 N       | Л @        | 450         | (18)      |
| Reinforcement | Block Height of 16"            | 10 N       | И @                  | 400        | (16)        | 10 N        | Л @         | 400                        | (16)      | 10 N       | Л @        | 400         | (16)      |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use Table A.10 for buildings that do not meet the required wall length of this table.
- 6. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- 7. Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- 8. All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 10. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.



Table A.10 – Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} > 0.2$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa (in a Building With Walkout Basement)

| Wall          | Height                         |            |            |           |           |            |            | Seism      | ic Zone   | Classif    | ication    |            |            |            |            |            |            |
|---------------|--------------------------------|------------|------------|-----------|-----------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|
| m             | (ft)                           |            | Salce      | ≤ 0.2     |           |            | S          |            | 20110     | Olabbii    | Salce      | ≤ 0.7      |            |            | S          | ≤ 1.05     |            |
| Second Floor  | Walls of Two Sto               | ry ICF     |            |           | orting W  | ood Fra    |            |            |           |            | a,ICF_     |            |            |            | a,ICF      |            |            |
|               |                                | Numbe      | r and le   | ngth of   | shear w   | alls pro   | vided      |            |           |            |            |            |            |            |            |            |            |
|               |                                | 1 x 10'-0" | 2 x 5'-0"  | 3 x 4'-0" | 4 x 3'-0" | 1 x 13'-0" | 2 x 7'-6"  | 3 x 5'-6"  | 4 x 4'-0" | 1 x 16'-0" | 2 x 9'-0"  | 3 x 7'-0"  | 4 x 5'-0"  | 1 x 18'-0" | 2 x 12'-0" | 3 x 9'-0"  | 4 x 7'-0"  |
| 2.44          | (8)                            | 2          | 3          | 3         | 3         | 2          | 3          | 4          | 4         | 2          | 3          | 3          | 5          | 2          | 2          | 3          | 4          |
| 2.75          | (9)                            | 2          | 4          | 4         | 4         | 3          | 4          | 5          | 5         | 2          | 4          | 5          |            | 3          | 4          | 4          | 6          |
| 3.05          | (10)                           | 2          | 5          | 4         | 5         | 4          | 5          | 6          |           | 3          | 6          | 6          |            | 5          | 5          | 6          |            |
| Main Floor Wa | Ills of One Story              |            |            |           |           |            |            |            |           |            |            |            |            |            |            |            |            |
|               |                                | Numbe      | r and le   | ngth of   | shear w   | alls pro   | vided      |            |           |            |            |            |            |            |            |            |            |
|               |                                | 1 x 11'-0" | 2 x 6'-0"  | 3 x 4'-0" | 4 x 3'-0" | 1 x 16'-0" | 2 x 9'-0"  | 3 x 6'-0"  | 4 x 4'-0" | 1 x 20'-0" | 2 x 12'-0" | 3 x 8'-0"  | 4 x 6'-0"  | 1 x 24'-0" | 2 x 13'-0" | 3 x 9'-0"  | 4 x 7'-0"  |
| 2.44          | (8)                            | 2          | 2          | 3         | 3         | 2          | 2          | 3          | 4         | 2          | 2          | 2          | 3          | 2          | 2          | 3          | 4          |
| 2.75          | (9)                            | 2          | 3          | 3         | 4         | 2          | 3          | 3          |           | 2          | 2          | 3          | 4          | 2          | 2          | 4          | 4          |
| 3.05          | (10)                           | 2          | 4          | 4         | 4         | 2          | 4          | 4          |           | 2          | 3          | 4          | 5          | 3          | 3          | 5          | 6          |
| 3.66          | (12)                           | 2          | 4          | 6         | 6         | 2          | 4          | 6          |           | 2          | 4          | 6          |            | 3          | 6          |            |            |
| 4.27          | (14)                           | 3          | 6          |           |           | 3          |            |            |           | 4          | 6          |            |            | 5          |            |            |            |
| 4.88          | (16)                           | 4          |            |           |           | 4          |            |            |           | 6          |            |            |            |            |            |            |            |
| Main Floor Wa | Ills of Two Story              | Structu    | re Supp    | orting 2  | nd Story  | y Wood     | Framed     | Walls,     | Floor ar  | nd Roof    |            |            |            |            |            |            |            |
|               |                                | Numbe      |            |           |           |            |            |            |           |            |            |            |            |            | A          |            |            |
|               |                                | 1 x 14'-0" | 2 x 8'-6"  | 3 x 6'-0" | 4 x 4'-0" | 1 x 20'-0" | 2 x 14'-0" | 3 x 9'-0"  | 4 x 7'-0" | 1 x 26'-0" | 2 x 15'-0" | 3 x 11'-0" | 4 x 9'-0"  | 1 x 30'-0" | 2 x 17'-0" | 3 x 13'-0" | 4 x 10'-0" |
| 2.44          | (8)                            | 2          | 2          | 3         | 5         | 2          | 2          | 4          | 4         | 2          | 2          | 3          | 4          | 2          | 5          | 6          | 6          |
| 2.75          | (9)                            | 2          | 3          | 4         | 5         | 2          | 2          | 5          | 5         | 2          | 3          | 4          | 5          | 2          | 6          | 6          |            |
| 3.05          | (10)                           | 2          | 3          | 4         |           | 3          | 2          | 5          | 5         | 2          | 4          | 5          | 6          | 2          | 6          |            |            |
| 3.66          | (12)                           | 2          | 4          | 6         |           | 4          | 2          | 6          |           | 2          | 6          |            |            | 4          |            |            |            |
| 4.27          | (14)                           | 4          | 6          |           |           | 6          | 4          |            |           | 2          |            |            |            | 5          |            |            |            |
| 4.88          | (16)                           | 4          | 6          |           |           | 6          | 4          |            |           | 5          |            |            |            |            |            |            |            |
| Main Floor Wa | Ills of Two Story              | ICF Str    | ucture S   | Supporti  | ng Woo    | d Frame    | Floors     | and Ro     | of        |            |            |            |            |            |            |            |            |
|               |                                | Numbe      | r and le   | ngth of   | shear w   | alls pro   | vided      |            |           |            |            |            |            |            |            |            |            |
| INIG          |                                | 1 x 16'-0" | 2 x 10'-4" | 3 x 7'-6" | 4 x 6'-0" | 1 x 23'-0" | 2 x 15'-0" | 3 x 11'-0" | 4 x 9'-0" | 1 x 32'-0" | 2 x 17'-0" | 3 x 13'-0" | 4 x 10'-0" | 1 x 38'-0" | 2 x 22'-0" | 3 x 17'-0" | 4 x 13'-0" |
| 2.44          | (8)                            | 2          | 3          | 3         | 4         | 2          | 3          | 4          | 4         | 2          | 3          | 4          | 5          | 2          | 4          | 4          | 5          |
| 2.75          | (9)                            | 2          | 3          | 4         | 4         | 2          | 3          | 1          | 5 /       | 2          | 4          | 5          | 6          | 2          | 5          | 5          | 6          |
| 3.05          | (10)                           | 3          | 4          | 5         | 5         | 3          | 4          | 5          | 6         | 2          | 5          | 6          |            | 2          | 5          | 6          | IJ         |
| 3.66          | (12)                           | 4          | 5          | 6         | 6         | 4          | 5          | 6          |           | 2          |            |            |            | 2          | / A        |            |            |
| 4.27          | (14)                           | 5          | 6          |           |           | 6          |            |            |           | 5          |            |            |            | 5          | /IΑ        |            | KG         |
| 4.88          | (16)                           | 5          | 6          |           |           | 6          |            |            |           | 6          |            |            |            | 6          |            |            |            |
| Vertical      | 6" ICF Tie Spacing             | А          | s per ta   | ble A.2.  | 1.        | Д          | s per ta   | ble A.2.   | 1.        | Д          | s per ta   | ble A.2.   | 1.         | Д          | s per ta   | ble A.2.   | 1.         |
| Reinforcement | 8" ICF Tie Spacing             | А          | s per ta   | ble A.2.  | 2.        | А          | s per ta   | ble A.2.   | 2.        | А          | s per ta   | ble A.2.   | 2.         | А          | s per ta   | ble A.2.   | 2.         |
| Horizontal    | Block Height of<br>12" and 18" | А          | s per ta   | ble A.2.  | 1.        | Δ          | s per ta   | ble A.2.   | 1.        | Д          | s per ta   | ble A.2.   | 1.         | Д          | s per ta   | ıble A.2.  | 1.         |
| Reinforcement | Block Height of 16"            | А          | s per ta   | ble A.2.  | 2.        | А          | s per ta   | ble A.2.   | 2.        | А          | s per ta   | ble A.2.   | 2.         | A          | s per ta   | ble A.2.   | 2.         |

- 1.  $S_{a,ICF}$  is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
- 5. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- 6. Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations," are adequate.
- All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
- 8. All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 9. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.
- 10. Horizontal reinforcement in shear walls where S alc > 0.2 must be anchored using a standard 180° hook around vertical end bars.
- When using this table for S<sub>a,ICF</sub> ≤ 0.2, use the vertical and horizontal distributed steel in Tables A.2.1. or A.2.2. for S<sub>a,ICF</sub> ≤ 0.4.



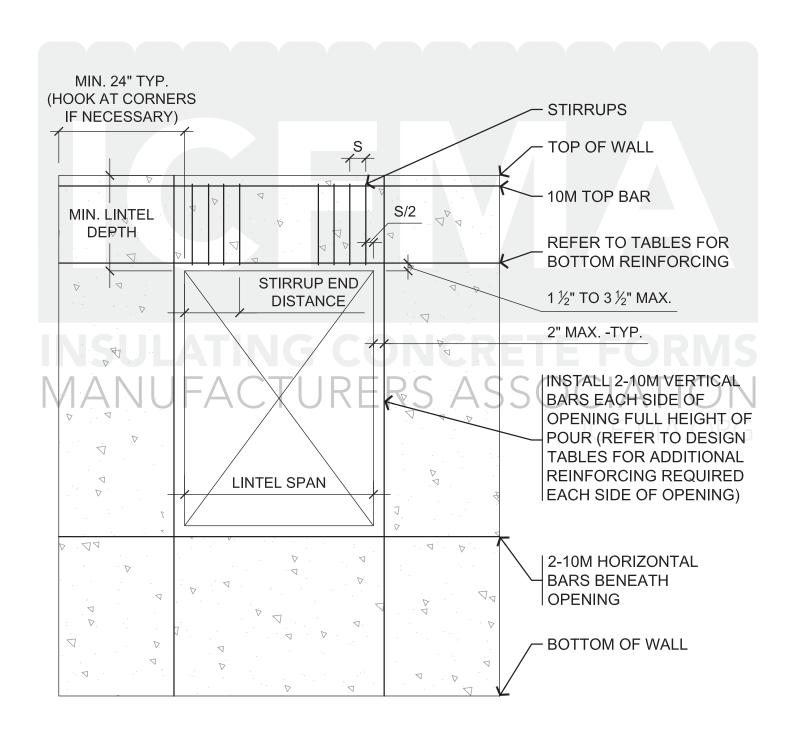
Table A.11 – Above Grade Walkout Basement Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification,  $S_{a,ICF} \le 0.4$  and Hourly Wind Pressure,  $q_{1/50} \le 1.05$ kPa

| Wall          | Height                         |            |                           |            |             | Sei                   | smic Zone   | Classifica | tion                 |             |            |                      |            |
|---------------|--------------------------------|------------|---------------------------|------------|-------------|-----------------------|-------------|------------|----------------------|-------------|------------|----------------------|------------|
| m             | (ft)                           | S          | 5 <sub>a ICE</sub> ≤ 0.08 | 5          | S           | $S_{a,ICE} \leq 0.14$ |             |            | $S_{a,ICF} \leq 0.2$ |             |            | $S_{a,ICF} \leq 0.4$ |            |
| Walkout Base  | ement Wall of a S              |            | 4,101                     |            |             | 4,101                 |             | ı          | a,ICF —              |             |            | a,ICF                |            |
|               |                                |            | nd length                 |            |             |                       |             |            |                      |             |            |                      |            |
|               |                                |            | 2 x 6'-0"                 |            |             |                       | 3 x 6'-0"   | 1 x 14'-0" | 2 x 9'-0"            | 3 x 7'-0"   | 1 x 19'-0" | 2 x 13'-0"           | 3 x 10'-0' |
| 2.44          | (8)                            | 2          | 3                         | 5          | 2           | 3                     | 3           | 2          | 3                    | 4           | 2          | 2                    | 4          |
| 2.75          | (9)                            | 2          | 3                         | 6          | 2           | 3                     | 4           | 2          | 4                    | 4           | 2          | 3                    | 5          |
| 3.05          | (10)                           | 2          | 3                         | 6          | 2           | 3                     | 4           | 2          | 5                    | 5           | 4          | 4                    | 5          |
| 3.66          | (12)                           | 2          | 4                         |            | 3           | 4                     | 5           | 3          | 6                    | 6           | 6          | 6                    |            |
| Walkout Base  | ement Walls of a               | Two Story  | Wood Frar                 | ned Struct | ture Suppo  | rting Woo             | d Frame F   | loors and  | Roof                 |             |            |                      |            |
|               |                                | Number a   | nd length                 | of shear w | alls provid | ed                    |             |            |                      |             |            |                      |            |
|               |                                | 1 x 10'-0" | 2 x 6'-6"                 | 3 x 5'-0"  | 1 x 12'-0"  | 2 x 8'-0"             | 3 x 6'-0"   | 1 x 14'-0" | 2 x 9'-0"            | 3 x 7'-0"   | 1 x 19'-0" | 2 x 13'-0"           | 3 x 10'-0' |
| 2.44          | (8)                            | 2          | 4                         | 4          | 2           | 3                     | 4           | 2          | 3                    | 4           | 2          | 3                    | 4          |
| 2.75          | (9)                            | 3          | 4                         | 5          | 2           | 4                     | 4           | 2          | 4                    | 4           | 3          | 4                    | 5          |
| 3.05          | (10)                           | 4          | 5                         | 5          | 2           | 4                     | 4           | 2          | 4                    | 5           | 4          | 5                    | 6          |
| 3.66          | (12)                           | 5          | 6                         | 6          | 3           | 4                     | 5           | 3          | 5                    | 6           | 5          | 6                    | 6          |
| Walkout Base  | ement Wall of a To             | wo Story E | Building wit              | h Main Flo | or ICF Wa   | alls Suppoi           | rting 2nd S | Story Wood | Framed V             | Valls, Floo | r and Roo  | f                    |            |
|               |                                | Number a   | nd length                 | of shear w | alls provid | ed                    |             |            | 1                    |             |            |                      |            |
|               |                                | 1 x 12'-0" | 2 x 7'-0"                 | 3 x 5'-6"  | 1 x 14'-0"  | 2 x 9'-0"             | 3 x 7'-0"   | 1 x 16'-0" | 2 x 11'-0"           | 3 x 8'-6"   | 1 x 22'-0" | 2 x 15'-0"           | 3 x 12'-0' |
| 2.44          | (8)                            | 2          | 3                         | 3          | 2           | 4                     | 4           | 2          | 3                    | 4           | 2          | 4                    | 4          |
| 2.75          | (9)                            | 2          | 3                         | 4          | 2           | 4                     | 5           | 2          | 3                    | 4           | 4          | 4                    | 5          |
| 3.05          | (10)                           | 2          | 4                         | 4          | 2           | 4                     | 5           | 2          | 3                    | 4           | 4          | 5                    | 5          |
| 3.66          | (12)                           | 2          | 4                         | 5          | 3           | 5                     | 6           | 4          | 4                    | 6           | 6          | 6                    | 6          |
| Walkout Base  | ement Wall of Two              | Story ICF  | Structure                 | Supportir  | ng Wood F   | rame Floo             | rs and Roc  | of         |                      |             |            |                      |            |
|               |                                | Number a   | nd length                 | of shear w | alls provid | ed                    |             |            |                      |             |            |                      |            |
|               |                                | 1 x 12'-0" | 2 x 8'-0"                 | 3 x 6'-0"  | 1 x 16'-0"  | 2 x 10'-6"            | 3 x 8'-0"   | 1 x 20'-0" | 2 x 13'-0"           | 3 x 9'-6"   | 1 x 26'-0" | 2 x 18'-0"           | 3 x 14'-0' |
| 2.44          | (8)                            | 2          | 3                         | 4          | 2           | 4                     | 5           | 2          | 2                    | 4           | 2          | 3                    | 4          |
| 2.75          | (9)                            | 2          | 4                         | 5          | 2           | 4                     | 5           | 2          | 3                    | 5           | 2          | 3                    | 5          |
| 3.05          | (10)                           | 2          | 4                         | 5          | 2           | 4                     | 5           | 2          | 3                    | 5           | 3          | 4                    | 6          |
| 3.66          | (12)                           | 3          | 5                         | 6          | 3           | 5                     | 6           | 2          | 4                    |             | 6          | 6                    | 6          |
| Vertical      | 6", 8", 10" Thick Wall         | 15 M @     | 300                       | (12)       | 15 M @      | 300                   | (12)        | 15 M @     | 300                  | (12)        | 15 M @     | 300                  | (12)       |
| Reinforcement | 12" Thick Wall                 | 10 M @     | 300                       | (12)       | 10 M @      | 300                   | (12)        | 10 M @     | 300                  | (12)        | 10 M @     | 300                  | (12)       |
| Horizontal    | Block Height of<br>12" and 18" | 10 M @     | 450                       | (18)       | 10 M @      | 450                   | (18)        | 10 M @     | 450                  | (18)        | 10 M @     | 450                  | (18)       |
| Reinforcement | Block Height of 16"            | 10 M @     | 400                       | (16)       | 10 M @      | 400                   | (16)        | 10 M @     | 400                  | (16)        | 10 M @     | 400                  | (16)       |

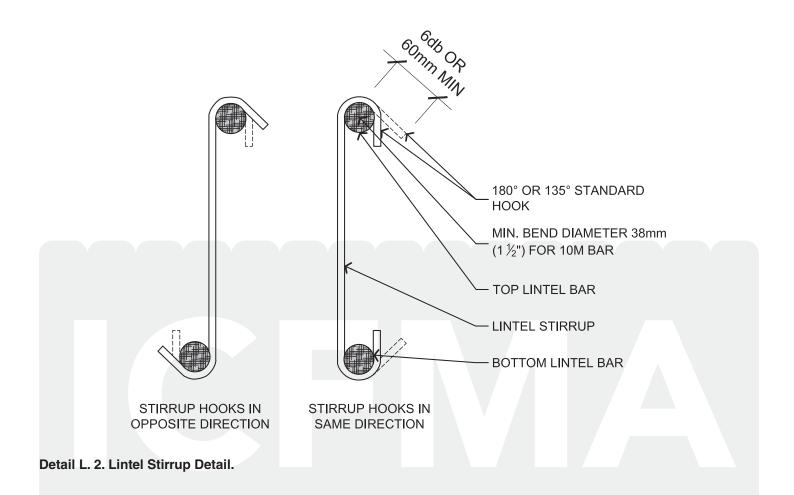
- 1. S<sub>a ICF</sub> is equivalent spectral response acceleration for ICF walls as provided in Appendix A.
- 2. This table is to be used in conjunction with the "Design Limitations".
- 3. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300mm (12") walls. Place each layer as shown in the rebar placement drawing.
- 4. Use the left-most column that meets the minimum number and length of shear walls to determine the minimum required concentrated reinforcement
- 5. Shaded cells indicate that the minimum bars required beside all windows and openings, as per the "Design Limitations", are adequate.
- All required number of 10M bars may be replaced by an equivalent number of 15M bars as given in the "Design Limitations"
   All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
- 8. Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.
- 9. Horizontal reinforcement in shear walls where S<sub>a,ICF</sub> > 0.2 must be anchored using a standard 180° hook around vertical end bars.
- 10. Walkout basement shear walls are to be reviewed and designed by a structural engineer where  $S_{a,ICF} > 0.4$ .

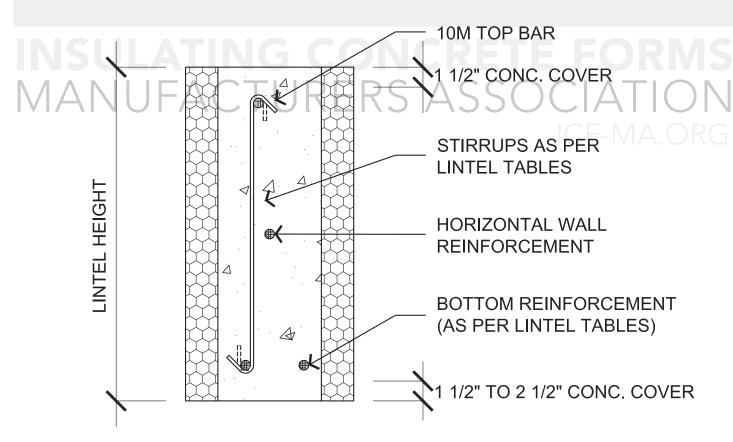


# **Lintel Details and Tables**

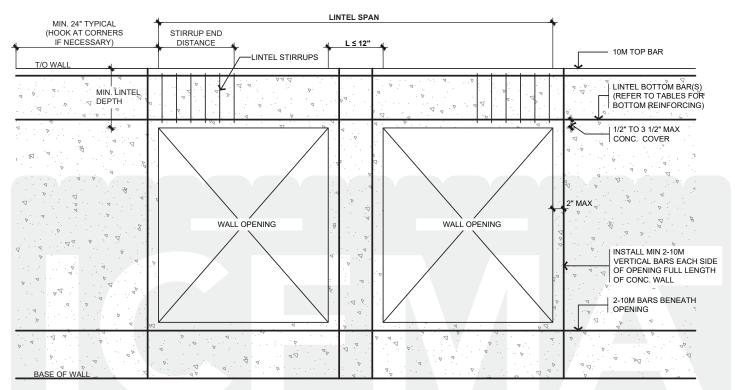


**Detail L. 1. Reinforcing Around Openings.** 

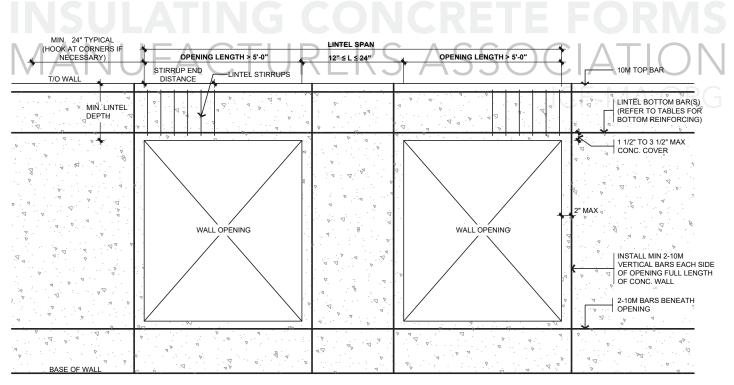




**Detail L. 3. Lintel Section** 



Detail L. 4. Lintel Span with Less Than 305mm (12") of Wall Between Openings.



Detail L. 5. Lintel Span with Less Than 610mm (24") of Wall Between Openings, and Openings Are Greater Than 1.53m (5'-0") in Length.

Table L1 6" Lintel Reinforcement with Uniformly Distributed Load

|        |      |                           |                            |                           |                            | Lintel -                  | 6"Thic                     | k x 8" [                  | Deep (1                    | 50mm T                    | hick x                     | 200mm                     | Deep),                     | s = 3"                    | (75mm)                     |                           |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5k                     | κN/m                       | 25.5                      | κN/m                       | 29k                       | N/m                        | 33k                       | N/m                        | 36.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 200                       | Olb/ft                     | 2250                      | Olb/ft                     | 250                       | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 150<br>(6)                 | 1-15M                     | 150<br>(6)                 | 1-15M                     | 225<br>(9)                 | 1-15M                     | 225<br>(9)                 | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                |
| 1200   | (4)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 150<br>(6)                 | 1-15M                     | 225<br>(9)                 | 1-20M                     | 300<br>(12)                | 1-20M                     | 375<br>(15)                |                           |                            |                           |                            |                           |                            |
| 1500   | (5)  | 1-15M                     | 0                          | 1-15M                     | 150<br>(6)                 | 1-20M                     | 300<br>(12)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 1800   | (6)  | 1-15M                     | 0                          | 1-20M                     | 300<br>(12)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 2400   | (8)  |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 1-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | L                          | intel - 6                 | "Thick                     | x 12" [                   | Deep (1                    | 50mm 1                    | hick x                     | 300mm                     | Deep),                     | s = 6"                    | (150mn                     | 1)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Span |                           |                            |                           |                            |                           |                            |                           | Unifo                      | mly Dis                   | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5                      | kN/m                       | 18k                       | N/m                        | 21.5k                     | N/m                        | 25.5                      | kN/m                       | 29k                       | N/m                        | 33k                       | N/m                        | 36.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 2000                      | Olb/ft                     | 2250                      | Olb/ft                     | 2500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 300<br>(12)                | 1-10M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                | 1-15M                     | 450<br>(18)                | 1-15M                     | 450<br>(18)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300 (12)                   | 1-15M                     | 300<br>(12)                | 1-15M                     | 450<br>(18)                | 1-15M                     | 450<br>(18)                | 1-20M                     | 450<br>(18)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                |
| 1800   | (6)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300 (12)                   | 1-15M                     | 450<br>(18)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 750<br>(30)                | 1-15M +<br>1-20M          | 750<br>(30)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-20M                     | 450<br>(18)                | 2-15M                     | 600 (24)                   | 2-15M                     | 750<br>(30)                | 1-15M +<br>1-20M          | 900<br>(36)                |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) | 1-20M                     | 450<br>(18)                | 2-15M                     | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) | 1-15M +<br>1-20M          | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



#### **Table L1 Continued**

|        |      |                           |                            |                           | L                          | intel - 6                 | "Thick                     | x 16" D                   | eep (1                     | 50mm 1                    | hick x                     | 400mm                     | Deep)                      | s = 8"                    | (200mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | kN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 25.5                      | kN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 200                       | Olb/ft                     | 2500                      | Olb/ft                     | 3000                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 400<br>(16)                | 1-10M                     | 400<br>(16)                |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                | 1-20M                     | 800<br>(32)                | 2-20M                     | 800<br>(32)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 800<br>(32)                | 2-15M                     | 800<br>(32)                | 2-15M                     | 1000<br>(40)               | 1-15M +<br>1-20M          | 1000<br>(40)               |                           |                            |
| 3000   | (10) | 1-15M                     | 0                          | 1-20M                     | 600<br>(24)                | 2-15M                     | 800<br>(32)                | 2-15M                     | 1000<br>(40)               | 1-15M +<br>1-20M          | 1000<br>(40)               | 2-20M                     | 1200<br>(48)               | 1-10M +<br>2-20M          | 1200<br>(48)               |                           |                            |                           |                            |
| 3600   | (12) | 1-20M                     | 400<br>(16)                | 2-15M                     | 800<br>(32)                | 1-15M +<br>1-20M          | 1000<br>(40)               | 1-10M +<br>2-20M          | 1200<br>(48)               | 1-15M +<br>2-20M          | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | 800<br>(32)                | 2-20M                     | 1200<br>(48)               | 1-15M +<br>2-20M          | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | 1000<br>(40)               | 1-15M +<br>2-20M          | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>2-20M          | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Li                         | ntel - 6'                 | 'Thick                     | x 24" D                   | eep (15                    | 50mm T                    | hick x (                   | 600mm                     | Deep),                     | s = 12"                   | (300mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5ŀ                     | κN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       |                            | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      |                            | 250                       | Olb/ft                     |                           | Olb/ft                     | 3500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 300<br>(12)                |
| 1200   | (4)  | 1-10M                     | 9                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 9                          | 1-10M                     | 600<br>(24)                | 1-10M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                | 1-15M                     | 900<br>(36)                |
| 2400   | (8)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 1200<br>(48)               |
| 3000   | (10) | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 1200<br>(48)               | 1-15M +<br>1-20M          | 1200<br>(48)               | 2-20M                     | 1200<br>(48)               |                           |                            |
| 3600   | (12) | 1-15M                     | 0                          | 1-20M                     | 600<br>(24)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 1200<br>(48)               | 2-20M                     | 1500<br>(60)               | 1-10M +<br>2-20M          | 1500<br>(60)               |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | 600<br>(24)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 1200<br>(48)               | 1-15M +<br>1-20M          | 1500<br>(60)               | 2-20M                     | 1500<br>(60)               | 1-15M +<br>2-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 1-20M                     | 600<br>(24)                | 2-15M                     | 1200<br>(48)               | 1-15M +<br>1-20M          | 1500<br>(60)               | 1-10M +<br>2-20M          | 1800<br>(72)               | 1-15M +<br>2-20M          | 1800<br>(72)               | 1-15M +<br>3-20M          | 1950<br>(78)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | 900<br>(36)                | 2-20M                     | 1500<br>(60)               | 1-10M +<br>2-20M          | 1800<br>(72)               | 3-20M                     | 2100<br>(84)               | 1-15M +<br>3-20M          | 2100<br>(84)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 1-15M +<br>1-20M          | 1200<br>(48)               | 1-10M +<br>2-20M          | 1800<br>(72)               | 3-20M                     | 2100<br>(84)               | 1-15M +<br>3-20M          | 2400<br>(96)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". }$
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



#### **Table L1 Continued**

|        |      |                           |                            |                           | Li                         | intel - 6                 | "Thick                     | x 32" D                   | eep (1                     | 50mm T                    | hick x 8                   | 800mm                     | Deep),                     | s = 18"                   | (450mı                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | 0    |                           |                            |                           |                            |                           |                            |                           |                            | rmly Dis                  |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| Lintei | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 29k                       | N/m                        | 36.5                      | κN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 50                        | 0v                         | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 300                       | Olb/ft                     | 350                       | 0lb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 450<br>(18)                | 1-10M                     | 450<br>(18)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 450<br>(18)                | 1-15M                     | 450<br>(18)                | 1-15M                     | 450<br>(18)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 900<br>(36)                | 1-15M                     | 900<br>(36)                | 1-15M                     | 900<br>(36)                | 1-15M                     | 900<br>(36)                |
| 2400   | (8)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                |
| 3000   | (10) | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 1350<br>(54)               | 2-15M                     | 1350<br>(54)               | 1-15M +<br>1-20M          | 1350<br>(54)               |
| 3600   | (12) | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 1-20M                     | 1350<br>(54)               | 2-15M                     | 1350<br>(54)               | 1-15M +<br>1-20M          | 1350<br>(54)               |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | 0                          | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 1350<br>(54)               | 2-15M                     | 1350<br>(54)               | 1-15M +<br>1-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 1-20M                     | 0                          | 1-20M                     | 900<br>(36)                | 2-15M                     | 1350<br>(54)               | 1-15M +<br>1-20M          | 1350<br>(54)               | 1-15M +<br>1-20M          | 1800<br>(72)               | 1-10M +<br>2-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-20M                     | 900<br>(36)                | 2-15M                     | 1350<br>(54)               | 1-15M +<br>1-20M          | 1800<br>(72)               | 2-20M                     | 1800<br>(72)               | 1-10M +<br>2-20M          | 2250<br>(90)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1350<br>(54)               | 2-20M                     | 1800<br>(72)               | 1-10M +<br>2-20M          | 2250<br>(90)               | 3-20M                     | 2250<br>(90)               |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

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Table L2 8" Lintel Reinforcement with Uniformly Distributed Load

|        |      |                           |                            |                           |                            | Lintel -                  | 8"Thic                     | k x 8" D                  | eep (2                     | 00mm 1                    | Thick x                    | 200mm                     | Deep)                      | s = 3"                    | (75mm)                     | )                         |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5k                     | κN/m                       | 25.5                      | κN/m                       | 29k                       | N/m                        | 33k                       | N/m                        | 36.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 2000                      | Olb/ft                     | 2250                      | Olb/ft                     | 2500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 150<br>(6)                 | 1-15M                     | 150<br>(6)                 | 1-15M                     | 225<br>(9)                 | 1-15M                     | 225<br>(9)                 |
| 1200   | (4)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 150<br>(6)                 | 1-15M                     | 150<br>(6)                 | 1-20M                     | 225<br>(9)                 | 1-20M                     | 300<br>(12)                |                           |                            |                           |                            |
| 1500   | (5)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 150<br>(6)                 | 1-20M                     | 225<br>(9)                 |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 1800   | (6)  | 1-15M                     | 0                          | 1-20M                     | 150<br>(6)                 |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 2400   | (8)  |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-15M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | L                          | intel - 8                 | "Thick                     | x 12" D                   | eep (2                     | 00mm 1                    | Thick x                    | 300mm                     | Deep)                      | s = 6"                    | (150mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel | Span |                           |                            |                           |                            |                           |                            |                           | Unifo                      | mly Dis                   | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5ŀ                     | κN/m                       | 18k                       | N/m                        | 21.5k                     | N/m                        | 25.5                      | kN/m                       | 29k                       | N/m                        | 33k                       | N/m                        | 36.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 2000                      | Olb/ft                     | 2250                      | Olb/ft                     | 250                       | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                | 1-15M                     | (12)                       | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                | 1-20M                     | 450<br>(18)                | 1-20M                     | 450<br>(18)                |
| 1800   | (6)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                | 1-20M                     | 300<br>(12)                | 1-20M                     | 450<br>(18)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 450<br>(18)                | 2-15M                     | 600<br>(24)                | 1-15M +<br>1-20M          | 600<br>(24)                | 2-20M                     | 750<br>(30)                | 1-10M +<br>2-20M          | 900<br>(36)                |                           |                            |                           |                            |
| 3000   | (10) | 1-20M                     | 0                          | 2-15M                     | 450<br>(18)                | 2-20M                     | 750<br>(30)                | 1-10M +<br>2-20M          | 900<br>(36)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) | 1-15M +<br>1-20M          | 300<br>(12)                | 1-10M +<br>2-20M          | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 1-10M +<br>2-20M          | 600<br>(24)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 1-15M + 2-20M bottom bar or equivalent combination of smaller bars.
- Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". } \\$
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L2 Continued**

|        |      |                           |                            |                           | L                          | intel - 8                 | "Thick                     | x 16" D                   | eep (2                     | 00mm 1                    | Thick x                    | 400mm                     | Deep)                      | s = 8"                    | (200mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintei | Span | 7.5kl                     | N/m                        | 11kl                      | N/m                        | 14.5                      | kN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 25.5                      | κN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 3000                      | 0lb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-15M                     | 400<br>(16)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 400<br>(16)                | 1-20M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 800<br>(32)                | 1-15M +<br>1-20M          | 800<br>(32)                | 2-20M                     | 1000<br>(40)               |
| 3000   | (10) | 1-15M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 400<br>(16)                | 2-15M                     | 800<br>(32)                | 1-15M +<br>1-20M          | 800<br>(32)                | 2-20M                     | 1000<br>(40)               | 1-10M +<br>2-20M          | 1000<br>(40)               | 1-10M +<br>3-20M          | 1200<br>(48)               | 1-10M +<br>3-20M          | 1200<br>(48)               |
| 3600   | (12) | 1-20M                     | 0                          | 2-15M                     | 600<br>(24)                | 1-15M +<br>1-20M          | 800<br>(32)                | 2-20M                     | 1000<br>(40)               | 1-10M +<br>2-20M          | 1200<br>(48)               | 3-20M                     | 1200<br>(48)               | 1-10M +<br>3-20M          | 1400<br>(56)               |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | 400<br>(16)                | 2-20M                     | 800<br>(32)                | 1-10M +<br>2-20M          | 1200<br>(48)               | 3-20M                     | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | 600<br>(24)                | 1-15M +<br>2-20M          | 1200<br>(48)               | 1-10M +<br>3-20M          | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-10M +<br>2-20M          | 1000<br>(40)               | 1-10M +<br>3-20M          | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 3-20M                     | 1200<br>(48)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Li                         | ntel - 8'                 | 'Thick                     | x 24" D                   | eep (20                    | 00mm T                    | hick x (                   | 600mm                     | Deep),                     | s = 12"                   | (300mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel | Span |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Linter | Opan | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5                      | kN/m                       | 18k                       | N/m                        | 21.5k                     | (N/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 250                       | Olb/ft                     | 300                       | Olb/ft                     | 350                       | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 600<br>(24)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 600<br>(24)                | 1-15M                     | 600<br>(24)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                |
| 2400   | (8)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                |
| 3000   | (10) | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1200<br>(48)               | 1-15M +<br>1-20M          | 1200<br>(48)               | 2-20M                     | 1200<br>(48)               |
| 3600   | (12) | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1200<br>(48)               | 1-10M +<br>2-20M          | 1500<br>(60)               |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | 0                          | 2-15M                     | 600<br>(24)                | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 1200<br>(48)               | 1-15M +<br>2-20M          | 1500<br>(60)               | 1-10M +<br>3-20M          | 1800<br>(72)               |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | 0                          | 2-15M                     | 600<br>(24)                | 2-20M                     | 1200<br>(48)               | 1-10M +<br>2-20M          | 1200<br>(48)               | 1-15M +<br>2-20M          | 1500<br>(60)               | 1-10M +<br>3-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | 600<br>(24)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1500<br>(60)               | 1-15M +<br>2-20M          | 1500<br>(60)               | 1-10M +<br>3-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 1-15M +<br>1-20M          | 600<br>(24)                | 1-10M +<br>2-20M          | 1200<br>(48)               | 3-20M                     | 1800<br>(72)               | 1-15M +<br>3-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



#### **Table L2 Continued**

|        |      |                           |                            |                           | Li                         | ntel - 8'                 | 'Thick                     | x 32" D                   | eep (20                    | 00mm T                    | hick x                     | 800mm                     | Deep),                     | s = 18"                   | (450m                      | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Linkel | 0    |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            | ,                         | ,                          | -                         |                            |                           |                            |
| Linter | Span | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 300                       | Olb/ft                     | 3500                      | 0lb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 450<br>(18)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 900<br>(36)                | 1-15M                     | 900<br>(36)                |
| 2400   | (8)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 900<br>(36)                | 1-20M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                |
| 3000   | (10) | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 1350<br>(54)               | 2-15M                     | 1350<br>(54)               |
| 3600   | (12) | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 1350<br>(54)               | 1-15M +<br>1-20M          | 1350<br>(54)               | 2-20M                     | 1350<br>(54)               |                           |                            |
| 4200   | (14) | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1350<br>(54)               | 1-10M +<br>2-20M          | 1800<br>(72)               |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1350<br>(54)               | 2-20M                     | 1350<br>(54)               | 1-10M +<br>2-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1350<br>(54)               | 2-20M                     | 1350<br>(54)               | 1-10M +<br>2-20M          | 1800<br>(72)               | 3-20M                     | 2250<br>(90)               |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 1350<br>(54)               | 1-10M +<br>2-20M          | 1800<br>(72)               | 3-20M                     | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

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Table L3 10" Lintel Reinforcement with Uniformly Distributed Load

| Lintel Span |      |                            | Lintel - 10"Thick x 8" Deep (250mm Thick x 200mm Deep), s = 3" (75mm) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
|-------------|------|----------------------------|---|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
|             |      | Uniformly Distributed Load |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
|             |      | 7.5kN/m                    |   | 11kN/m                    |                            | 14.5kN/m                  |                            | 18kN/m                    |                            | 21.5kN/m                  |                            | 25.5kN/m                  |                            | 29kN/m                    |                            | 33kN/m                    |                            | 36.5kN/m                  |                            |
|             |      | 500lb/ft                   |   | 750 lb/ft                 |                            | 1000lb/ft                 |                            | 1250lb/ft                 |                            | 1500lb/ft                 |                            | 1750lb/ft                 |                            | 2000lb/ft                 |                            | 2250lb/ft                 |                            | 2500lb/ft                 |                            |
| mm          | (ft) | Bottom<br>Reinf.<br>Steel  | Stirrup<br>End<br>Distance  | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900         | (3)  | 1-10M                      | 0   | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 150<br>(6)                 | 2-15M                     | 225<br>(9)                 | 2-15M                     | 225<br>(9)                 |
| 1200        | (4)  | 1-15M                      | 0   | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 225<br>(9)                 | 2-15M                     | 300<br>(12)                |                           |                            |                           |                            |
| 1500        | (5)  | 1-15M                      | 0   | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 150<br>(6)                 | 2-15M                     | 225<br>(9)                 |                           |                            |                           |                            |                           |                            |                           |                            |
| 1800        | (6)  | 1-15M                      | 0   | 1-20M                     | 0                          | 2-15M                     | 150<br>(6)                 |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 2400        | (8)  | 2-15M                      | 0   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000        | (10) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600        | (12) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200        | (14) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800        | (16) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400        | (18) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000        | (20) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-15M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|             |      |                            | Lintel - 10"Thick x 12" Deep (250mm Thick x 300mm Deep), s = 6" (150mm) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
|-------------|------|----------------------------|---|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel Span |      | Uniformly Distributed Load |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
|             |      | 7.5kN/m                    |   | 11kN/m                    |                            | 14.5kN/m                  |                            | 18kN/m                    |                            | 21.5kN/m                  |                            | 25.5kN/m                  |                            | 29kN/m                    |                            | 33kN/m                    |                            | 36.5kN/m                  |                            |
|             |      | 500lb/ft                   |   | 750 lb/ft                 |                            | 1000lb/ft                 |                            | 1250lb/ft                 |                            | 1500lb/ft                 |                            | 1750lb/ft                 |                            | 2000lb/ft                 |                            | 2250lb/ft                 |                            | 2500lb/ft                 |                            |
| mm          | (ft) | Bottom<br>Reinf.<br>Steel  | Stirrup<br>End<br>Distance  | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900         | (3)  | 1-10M                      | 0   | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 1200        | (4)  | 1-10M                      | 0   | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 9                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                |
| 1500        | (5)  | 1-10M                      | 0   | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 300<br>(12)                | 1-15M                     | 300<br>(12)                | 1-20M                     | 300<br>(12)                | 1-20M                     | 300<br>(12)                |
| 1800        | (6)  | 1-15M                      | 0   | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 300<br>(12)                | 1-20M                     | 300<br>(12)                | 2-15M                     | 450<br>(18)                | 2-15M                     | 450<br>(18)                | 2-15M                     | 450<br>(18)                |
| 2400        | (8)  | 1-15M                      | 0   | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 300<br>(12)                | 1-15M +<br>1-20M          | 450<br>(18)                | 2-20M                     | 600<br>(24)                | 2-20M                     | 750<br>(30)                | 1-10M +<br>2-20M          | 750<br>(30)                | 1-15M +<br>2-20M          | 900<br>(36)                |
| 3000        | (10) | 1-20M                      | 0   | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 450<br>(18)                | 1-10M +<br>2-20M          | 600<br>(24)                | 1-15M +<br>2-20M          | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600        | (12) | 1-15M +<br>1-20M           | 0   | 2-20M                     | 450<br>(18)                | 1-15M +<br>2-20M          | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200        | (14) | 1-10M +<br>2-20M           | 300<br>(12)   | 3-20M                     | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800        | (16) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400        | (18) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000        | (20) |                            |   |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
- Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". } \\$
- Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L3 Continued**

|        |      |                           |                            |                           | Li                         | ntel - 10                 | Thick                      | x 16" [                   | Deep (2                    | 250mm                     | Thick x                    | 400mn                     | n Deep)                    | , s = 8"                  | (200mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            | -                         |                            |                           |                            |
| Linter | Span | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 25.5                      | κN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 2000                      | Olb/ft                     | 250                       | Olb/ft                     | 3000                      | 0lb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 400<br>(16)                |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 400<br>(16)                | 1-20M                     | 400<br>(16)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 400<br>(16)                | 1-20M                     | 400<br>(16)                | 1-20M                     | 600<br>(24)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 400<br>(16)                | 2-15M                     | 400<br>(16)                | 2-15M                     | 600<br>(24)                | 1-15M +<br>1-20M          | 800<br>(32)                | 2-20M                     | 800<br>(32)                |
| 3000   | (10) | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 400<br>(16)                | 2-15M                     | 400<br>(16)                | 1-15M +<br>1-20M          | 600<br>(24)                | 2-20M                     | 800<br>(32)                | 1-10M +<br>2-20M          | 800<br>(32)                | 1-15M +<br>2-20M          | 1000<br>(40)               | 1-10M +<br>3-20M          | 1200<br>(48)               |
| 3600   | (12) | 1-20M                     | 0                          | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 600<br>(24)                | 2-20M                     | 800<br>(32)                | 1-10M +<br>2-20M          | 1000<br>(40)               | 3-20M                     | 1000<br>(40)               | 1-10M +<br>3-20M          | 1200<br>(48)               |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | 0                          | 2-20M                     | 400<br>(16)                | 1-10M +<br>2-20M          | 800<br>(32)                | 3-20M                     | 1000<br>(40)               | 1-10M +<br>3-20M          | 1200<br>(48)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | 0                          | 1-10M +<br>2-20M          | 800<br>(32)                | 1-10M +<br>3-20M          | 1200<br>(48)               | 4-20M                     | 1400<br>(56)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-10M +<br>2-20M          | 400<br>(16)                | 1-10M +<br>3-20M          | 1000<br>(40)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 3-20M                     | 800<br>(32)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Liı                        | ntel - 10                 | "Thick                     | x 24" C                   | eep (2                     | 50mm 1                    | hick x                     | 600mm                     | Deep),                     | s = 12'                   | ' (300m                    | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Span |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5                      | (N/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 3000                      | Olb/ft                     | 3500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 9                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 600<br>(24)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 600<br>(24)                | 1-20M                     | 600<br>(24)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 900<br>(36)                |
| 3000   | (10) | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 1-15M +<br>1-20M          | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 1200<br>(48)               |
| 3600   | (12) | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1200<br>(48)               | 1-15M +<br>2-20M          | 1200<br>(48)               |                           |                            |
| 4200   | (14) | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 600<br>(24)                | 1-15M +<br>1-20M          | 600<br>(24)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1200<br>(48)               | 3-20M                     | 1500<br>(60)               |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 0                          | 2-20M                     | 600<br>(24)                | 1-10M +<br>2-20M          | 900<br>(36)                | 1-15M +<br>2-20M          | 1200<br>(48)               | 1-10M +<br>3-20M          | 1500<br>(60)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>1-20M          | 0                          | 2-20M                     | 600<br>(24)                | 1-10M +<br>2-20M          | 900<br>(36)                | 1-15M +<br>2-20M          | 1200<br>(48)               | 1-10M +<br>3-20M          | 1500<br>(60)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-20M                     | 0                          | 1-10M +<br>2-20M          | 900<br>(36)                | 3-20M                     | 1200<br>(48)               | 1-15M +<br>3-20M          | 1500<br>(60)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". } \\$
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



## **Table L3 Continued**

|        |      |                           |                            |                           | Lir                        | ntel - 10                 | "Thick                     | x 32" D                   | eep (2                     | 50mm 7                    | Thick x                    | 800mm                     | Deep)                      | s = 18'                   | ' (450m                    | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Linkel | C    |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            | ,                         | ,                          |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m                        | 11k                       | N/m                        | 14.5                      | κN/m                       | 18k                       | N/m                        | 21.5k                     | κN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 3000                      | Olb/ft                     | 350                       | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 900<br>(36)                |
| 2400   | (8)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                |
| 3000   | (10) | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                |
| 3600   | (12) | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 2-20M                     | 900<br>(36)                | 2-20M                     | 1350<br>(54)               | 1-10M +<br>2-20M          | 1350<br>(54)               |
| 4200   | (14) | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 1350<br>(54)               | 1-10M +<br>2-20M          | 1350<br>(54)               | 1-15M +<br>2-20M          | 1800<br>(72)               |                           |                            |
| 4800   | (16) | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1350<br>(54)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | 0                          | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 1350<br>(54)               | 1-10M +<br>2-20M          | 1350<br>(54)               | 3-20M                     | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 900<br>(36)                | 1-10M +<br>2-20M          | 900<br>(36)                | 1-15M +<br>2-20M          | 1350<br>(54)               | 3-20M                     | 1800<br>(72)               | 1-15M +<br>3-20M          | 2250<br>(90)               |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



Table L4 12" Lintel Reinforcement with Uniformly Distributed Load

|        |      |                           |                            |                           | L                          | _intel -                  | 12"Thic                    | k x 8" [                  | Deep (3                    | 300mm                     | Thick x                    | 200mn                     | n Deep)                    | , s = 3"                  | (75mm                      | 1)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | κN/m                       | 18kl                      | N/m                        | 21.5                      | κN/m                       | 25.5                      | κN/m                       | 29k                       | N/m                        | 33k                       | N/m                        | 36.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 2000                      | Olb/ft                     | 2250                      | Olb/ft                     | 2500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          |
| 1200   | (4)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 150<br>(6)                 | 2-15M                     | 150<br>(6)                 | 2-15M                     | 225<br>(9)                 |
| 1500   | (5)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 150<br>(6)                 | 2-15M                     | 225<br>(9)                 | 1-15M +<br>1-20M          | 225<br>(9)                 | 2-20M                     | 300<br>(12)                |                           |                            |
| 1800   | (6)  | 1-15M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 150<br>(6)                 | 2-20M                     | 225<br>(9)                 |                           |                            |                           |                            |                           |                            |                           |                            |
| 2400   | (8)  | 2-15M                     | 0                          | 2-20M                     | 0                          |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Li                         | ntel - 12                 | 2"Thick                    | x 12" [                   | Deep (3                    | 300mm                     | Thick x                    | 300mn                     | n Deep)                    | , s = 6"                  | (150mr                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel | Span |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Linto  | Оран | 7.5k                      |                            | 11kl                      |                            | 14.5ŀ                     |                            | 18k                       |                            | 21.5k                     |                            | 25.51                     |                            |                           | N/m                        |                           | N/m                        | -                         | kN/m                       |
|        |      |                           | lb/ft                      |                           | lb/ft                      |                           | Olb/ft                     | 1250                      |                            |                           | lb/ft                      |                           | Olb/ft                     |                           | Olb/ft                     |                           | Olb/ft                     |                           | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 9                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 300<br>(12)                | 1-20M                     | 300<br>(12)                |
| 1800   | (6)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 300<br>(12)                | 2-15M                     | 300<br>(12)                | 2-15M                     | 300<br>(12)                | 2-15M                     | 450<br>(18)                |
| 2400   | (8)  | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 300<br>(12)                | 1-15M +<br>1-20M          | 300<br>(12)                | 1-15M +<br>1-20M          | 450<br>(18)                | 2-20M                     | 600<br>(24)                | 1-10M +<br>2-20M          | 600<br>(24)                | 1-15M +<br>2-20M          | 750<br>(30)                |
| 3000   | (10) | 1-20M                     | 0                          | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 300<br>(12)                | 2-20M                     | 450<br>(18)                | 1-15M +<br>2-20M          | 600<br>(24)                | 3-20M                     | 750<br>(30)                | 1-10M +<br>3-20M          | 900<br>(36)                |                           |                            |                           |                            |
| 3600   | (12) | 2-15M                     | 0                          | 2-20M                     | 300<br>(12)                | 1-15M +<br>2-20M          | 600<br>(24)                | 1-10M +<br>3-20M          | 750<br>(30)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 2-20M                     | 0                          | 3-20M                     | 450<br>(18)                | 4-20M                     | 900<br>(36)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L4 Continued**

|        |      |                           |                            |                           | Li                         | ntel - 12                 | 2"Thick                    | x 16" [                   | Deep (3                    | 300mm                     | Thick x                    | 400mn                     | n Deep)                    | , s = 8"                  | (200mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | 0    |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintei | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | kN/m                       | 18k                       | N/m                        | 21.5                      | κN/m                       | 25.5                      | κN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 1750                      | Olb/ft                     | 200                       | Olb/ft                     | 250                       | Olb/ft                     | 3000                      | 0lb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 400<br>(16)                |
| 1800   | (6)  | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 400<br>(16)                | 1-20M                     | 400<br>(16)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 400<br>(16)                | 2-15M                     | 400<br>(16)                | 1-15M +<br>1-20M          | 600<br>(24)                | 2-20M                     | 800<br>(32)                |
| 3000   | (10) | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 400<br>(16)                | 1-15M +<br>1-20M          | 400<br>(16)                | 2-20M                     | 600<br>(24)                | 2-20M                     | 800<br>(32)                | 1-15M +<br>2-20M          | 1000<br>(40)               | 1-10M +<br>3-20M          | 1000<br>(40)               |
| 3600   | (12) | 1-20M                     | 0                          | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 400<br>(16)                | 2-20M                     | 600<br>(24)                | 1-10M +<br>2-20M          | 800<br>(32)                | 1-15M +<br>2-20M          | 1000<br>(40)               | 1-10M +<br>3-20M          | 1000<br>(40)               | 4-20M                     | 1200<br>(48)               |                           |                            |
| 4200   | (14) | 2-15M                     | 0                          | 2-20M                     | 0                          | 1-10M +<br>2-20M          | 600<br>(24)                | 1-15M +<br>2-20M          | 800<br>(32)                | 1-10M +<br>3-20M          | 1000<br>(40)               | 4-20M                     | 1200<br>(48)               |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | 0                          | 1-10M +<br>2-20M          | 400<br>(16)                | 1-10M +<br>3-20M          | 800<br>(32)                | 4-20M                     | 1200<br>(48)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-10M +<br>2-20M          | 0                          | 1-10M +<br>3-20M          | 800<br>(32)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 3-20M                     | 400<br>(16)                |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Lir                        | ntel - 12                 | "Thick                     | x 24" D                   | еер (3                     | 00mm 1                    | hick x                     | 600mm                     | Deep)                      | s = 12'                   | '(300m                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m                        | 11kl                      | N/m                        | 14.5                      | kN/m                       | 18k                       | N/m                        | 21.5k                     | kN/m                       | 29k                       | N/m                        | 36.5                      | kN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       | lb/ft                      | 750                       | lb/ft                      | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 3000                      | Olb/ft                     | 3500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 9                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 9                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 1800   | (6)  | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 600<br>(24)                |
| 2400   | (8)  | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                | 2-15M                     | 600<br>(24)                |
| 3000   | (10) | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 600<br>(24)                | 1-15M +<br>1-20M          | 600<br>(24)                | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 900<br>(36)                |
| 3600   | (12) | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 600<br>(24)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 900<br>(36)                | 1-15M +<br>2-20M          | 1200<br>(48)               | 3-20M                     | 1200<br>(48)               |
| 4200   | (14) | 2-15M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 600<br>(24)                | 2-20M                     | 600<br>(24)                | 1-10M +<br>2-20M          | 1200<br>(48)               | 3-20M                     | 1200<br>(48)               | 1-15M +<br>3-20M          | 1500<br>(60)               |                           |                            |
| 4800   | (16) | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 0                          | 2-20M                     | 600<br>(24)                | 1-10M +<br>2-20M          | 600<br>(24)                | 1-15M +<br>2-20M          | 900<br>(36)                | 1-10M +<br>3-20M          | 1500<br>(60)               |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>1-20M          | 0                          | 2-20M                     | 0                          | 1-10M +<br>2-20M          | 600<br>(24)                | 3-20M                     | 900<br>(36)                | 1-10M +<br>3-20M          | 1200<br>(48)               |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-20M                     | 0                          | 1-10M +<br>2-20M          | 600<br>(24)                | 3-20M                     | 900<br>(36)                | 1-15M +<br>3-20M          | 1200<br>(48)               |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



## **Table L4 Continued**

|        |      |                           |   |                  | Lir   | ntel - 12                 | "Thick                     | x 32" D                   | еер (3                     | 00mm 1                    | Thick x                    | 800mm                     | Deep)                      | s = 18'                   | ' (450m                    | m)                        |                            |                           |                            |
|--------|------|---------------------------|---|------------------|-------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | C    |                           |   |                  |       |                           |                            |                           | Unifo                      | rmly Dis                  | tributed                   | Load                      |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 7.5k                      | N/m   | 11kl             | N/m   | 14.5                      | κN/m                       | 18kl                      | N/m                        | 21.5k                     | κN/m                       | 29kl                      | N/m                        | 36.5                      | κN/m                       | 43.5                      | kN/m                       | 51k                       | N/m                        |
|        |      | 500                       | lb/ft   | 750              | lb/ft | 1000                      | Olb/ft                     | 1250                      | Olb/ft                     | 1500                      | Olb/ft                     | 2000                      | Olb/ft                     | 2500                      | Olb/ft                     | 3000                      | Olb/ft                     | 3500                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup End Distance         Bottom Reinf. Steel         Stirrup End Distance           0         1-10M         0 |                  |       | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | 0   | 1-10M            | 0     | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1200   | (4)  | 1-10M                     | 0   | 1-10M            | 0     | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          |
| 1500   | (5)  | 1-10M                     | 0   | 1-10M            | 0     | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 1800   | (6)  | 1-10M                     | 0   | 1-10M            | 0     | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-10M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          |
| 2400   | (8)  | 1-10M                     | 0   | 1-15M            | 0     | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 900<br>(36)                | 2-15M                     | 900<br>(36)                |
| 300    | (10) | 1-15M                     | 0   | 1-15M            | 0     | 1-15M                     | 0                          | 1-20M                     | 0                          | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                |
| 3600   | (12) | 1-15M                     | 0   | 1-20M            | 0     | 1-20M                     | 0                          | 2-15M                     | 0                          | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 900<br>(36)                | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1350<br>(54)               |
| 4200   | (14) | 1-20M                     | 0   | 2-15M            | 0     | 2-15M                     | 0                          | 1-15M +<br>1-20M          | 0                          | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1350<br>(54)               | 1-10M +<br>2-20M          | 1350<br>(54)               |                           |                            |
| 4800   | (16) | 2-15M                     | 0   | 1-15M +<br>1-20M | 0     | 1-15M +<br>1-20M          | 0                          | 1-15M +<br>1-20M          | 900<br>(36)                | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 1350<br>(54)               | 3-20M                     | 1350<br>(54)               |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>1-20M          | 0   | 1-15M +<br>1-20M | 0     | 1-15M +<br>1-20M          | 0                          | 2-20M                     | 900<br>(36)                | 1-10M +<br>2-20M          | 900<br>(36)                | 3-20M                     | 1350<br>(54)               | 1-15M +<br>3-20M          | 1800<br>(72)               |                           |                            |                           |                            |
| 6000   | (20) | 1-15M +<br>1-20M          | 0   | 2-20M            | 0     | 1-10M +<br>2-20M          | 900<br>(36)                | 1-15M +<br>2-20M          | 900<br>(36)                | 3-20M                     | 1350<br>(54)               | 1-15M +<br>3-20M          | 1800<br>(72)               |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

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Table L5 6" Lintel Reinforcement Concentrated Load

|        |      |                           |                            |                           |                            | Lintel -                  | 6"Thic                     | k x 8" [                  | <u> </u>                   |                           |                            |                           | Deep),                     | s = 3"                    | (75mm)                     |                           |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel | Snan |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Opan | 4k                        | (N                         | 6k                        | (N                         | 8k                        | κN                         | 10                        | kN                         | 12                        | kN                         | 14                        | kN                         | 16                        | kN                         | 18                        | kN                         | 20                        | kN                         |
|        |      | 80                        | 0lb                        | 130                       | 0lb                        | 170                       | )Olb                       | 220                       | )Olb                       | 260                       | 0lb                        | 310                       | 0lb                        | 350                       | )Olb                       | 400                       | )Olb                       | 440                       | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        |                           |                            |                           |                            |                           |                            |
| 1500   | (5)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 1800   | (6)  | 1-15M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 2400   | (8)  |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 1-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | L                          | intel - 6                 | "Thick                     | х 12" С                   | Deep (1                    | 50mm 1                    | hick x                     | 300mm                     | Deep)                      | , s = 6"                  | (150mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel | Snan |                           |                            |                           |                            |                           |                            |                           | Unt                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 4k                        | N.                         | 6.5                       | kN                         | 9k                        | (N                         | 11.5                      | 5kN                        | 14                        | κN                         | 16.5                      | 5kN                        | 19                        | kN                         | 21.5                      | 5kN                        | 24                        | kN                         |
|        |      | 80                        |                            |                           | 0lb                        | 200                       |                            | 250                       |                            | 310                       | 0lb                        |                           | 0lb                        |                           | )Olb                       | 480                       |                            |                           | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        |
| 1800   | (6)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        |                           |                            |                           |                            |
| 2400   | (8)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) | 1-20M                     | NO                         | 2-15M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) | 1-15M +<br>1-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". }$
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L5 Continued**

|        |      |                           |                            |                           | L                          | intel - 6                 | "Thick                     | x 16" D                   | eep (1                     | 50mm 1                    | hick x                     | 400mm                     | Deep),                     | s = 8"                    | (200mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Cnon |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4k                        | ίN                         | 7k                        | ίN                         | 10                        | kN                         | 13                        | kN                         | 16                        | kN                         | 19                        | kN                         | 21                        | kN                         | 24                        | kN                         | 27                        | kN                         |
|        |      | 80                        | Olb                        | 150                       | 0lb                        | 220                       | 00lb                       | 290                       | 0lb                        | 350                       | 0lb                        | 420                       | 0lb                        | 470                       | 0lb                        | 530                       | )Olb                       | 600                       | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        | 1-20M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        |                           |                            |
| 2400   | (8)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-20M                     | YES                        |                           |                            |                           |                            |
| 3000   | (10) | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 1-10M +<br>2-20M          | YES                        | 1-15M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | NO                         | 1-15M +<br>2-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>2-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Li                         | ntel - 6'                 | "Thick                     | x 24" D                   | eep (15                    | 50mm T                    | hick x (                   | 600mm                     | Deep),                     | s = 12"                   | (300mı                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Span |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 41                        | (N                         | 81                        | (N                         | 12                        | kN                         | 16                        | kN                         | 20                        | kN                         | 24                        | kN                         | 28                        | kN                         | 32                        | kN                         | 36                        | kN                         |
|        |      | 80                        | 0lb                        | 170                       | 0lb                        | 260                       | 00lb                       | 350                       | 00lb                       | 440                       | 0lb                        | 530                       | )Olb                       | 620                       | )Olb                       | 710                       | 0lb                        | 800                       | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-15M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        | 1-20M                     | YES                        |
| 2400   | (8)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 3000   | (10) | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        |                           |                            |
| 3600   | (12) | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        | 2-20M                     | YES                        | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        | 1-15M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 1-10M +<br>2-20M          | YES                        | 1-15M +<br>2-20M          | YES                        | 1-15M +<br>3-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | YES                        | 3-20M                     | YES                        | 1-15M +<br>3-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | YES                        | 1-15M +<br>3-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



## **Table L5 Continued**

|        |      |                           |  |                  | Li     | intel - 6                 | "Thick                     | x 32" D                   | eep (1                     | 50mm T                    | hick x 8                   | 800mm                     | Deep),                     | s = 18"                   | (450mr                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|--|------------------|--------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |  |                  |        |                           |                            |                           | Uni                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 4kN                       | l/m  | 9kN              | N/m    | 14k                       | N/m                        | 19k                       | N/m                        | 24k                       | N/m                        | 29k                       | N/m                        | 34k                       | N/m                        | 39k                       | N/m                        | 44k                       | N/m                        |
|        |      | 800                       | lb/ft  | 2000             | Olb/ft | 3100                      | Olb/ft                     | 4200                      | Olb/ft                     | 5300                      | Olb/ft                     | 6500                      | Olb/ft                     | 7600                      | Olb/ft                     | 8700                      | Olb/ft                     | 9800                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup Bottom Stirrup End Reinf. End Distance Steel Distance  NO 1-10M NO |                  |        | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO   | 1-10M            | NO     | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO   | 1-10M            | NO     | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO   | 1-10M            | NO     | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO   | 1-10M            | NO     | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        |
| 2400   | (8)  | 1-10M                     | NO   | 1-10M            | NO     | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        | 1-15M +<br>1-20M          | YES                        |
| 3000   | (10) | 1-15M                     | NO   | 1-15M            | NO     | 1-15M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        |                           |                            |                           |                            |
| 3600   | (12) | 1-15M                     | NO   | 1-20M            | NO     | 1-20M                     | NO                         | 1-20M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | NO   | 1-20M            | NO     | 1-20M                     | NO                         | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 1-20M                     | NO   | 1-20M            | NO     | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-20M                     | NO   | 2-15M            | NO     | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-15M                     | NO   | 1-15M +<br>1-20M | NO     | 2-20M                     | YES                        | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L6 8" Lintel Reinforcement Concentrated Load**

|        |      |                           | End Distance Steel Di |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
|--------|------|---------------------------|--|--------|-----|--------|-----|--------|------|---------|---------|--------|-----|--------|------|--------|------|--------|----------------------------|
| Lintel | Snan |                           |  |        |     |        |     |        | Unf  | actored | Point L | oad    |     |        |      |        |      |        |                            |
| Linter | Opan | 4k                        | (N   | 6k     | (N  | 8k     | (N  | 10     | kN   | 12      | kN      | 14     | kN  | 16     | kN   | 18     | kN   | 20     | kN                         |
|        |      | 80                        | 0lb  | 130    | 0lb | 170    | 0lb | 220    | )Olb | 260     | 0lb     | 310    | 0lb | 350    | )Olb | 400    | )Olb | 440    | 00lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | End  | Reinf. | End | Reinf. | End | Reinf. | End  | Reinf.  | End     | Reinf. | End | Reinf. | End  | Reinf. | End  | Reinf. | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO   | 1-10M  | NO  | 1-10M  | NO  | 1-15M  | YES  | 1-15M   | YES     | 1-15M  | YES | 1-15M  | YES  | 1-20M  | YES  | 1-20M  | YES                        |
| 1200   | (4)  | 1-15M                     | NO   | 1-15M  | NO  | 1-15M  | NO  | 1-15M  | YES  | 1-20M   | YES     | 1-20M  | YES |        |      |        |      |        |                            |
| 1500   | (5)  | 1-15M                     | NO   | 1-15M  | NO  | 1-20M  | NO  | 1-20M  | YES  |         |         |        |     |        |      |        |      |        |                            |
| 1800   | (6)  | 1-15M                     | NO   | 1-20M  | NO  |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
| 2400   | (8)  |                           |  |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
| 3000   | (10) |                           |  |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
| 3600   | (12) |                           |  |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
| 4200   | (14) |                           |  |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
| 4800   | (16) |                           |  |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |
| 5400   | (18) |                           |  |        |     |        |     |        |      |         |         |        | /   |        |      |        |      |        |                            |
| 6000   | (20) |                           |  |        |     |        |     |        |      |         |         |        |     |        |      |        |      |        |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-15M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | L                          | intel - 8                 | "Thick                     | x 12" C                   | eep (2                     | 00mm 1                    | Thick x                    | 300mm                     | Deep)                      | s = 6"                    | (150mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintel | Span |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linto  | Оран | 44                        | N.                         | 6.5                       | kN                         | 9k                        | (N                         | 11.5                      | 5kN                        | 14                        | kN                         | 16.                       | 5kN                        | 19                        | kN                         | 21.5                      | 5kN                        | 24                        | kN                         |
|        |      | 80                        | Olb                        | 140                       | )0lb                       | 200                       | 00lb                       | 250                       | )Olb                       | 310                       | 0lb                        | 370                       | )Olb                       | 420                       | 00lb                       | 480                       | )Olb                       | 530                       | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        | 1-15M +<br>1-20M          | YES                        |
| 1800   | (6)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |
| 2400   | (8)  | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |
| 3000   | (10) | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 1-10M +<br>2-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 1-15M + 2-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L6 Continued**

|        |      |                           |                            |                           | L                          | intel - 8                 | "Thick                     | x 16" D                   | eep (2                     | 00mm 1                    | hick x                     | 400mm                     | Deep),                     | s = 8"                    | (200mn                     | n)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Linkel | 0    |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            | -                         |                            |                           |                            |
| Lintel | Span | 4k                        | :N                         | 7k                        | ίN                         | 10                        | kN                         | 13                        | kN                         | 16                        | kN                         | 19                        | kN                         | 21                        | kN                         | 24                        | kN                         | 27                        | kN                         |
|        |      | 800                       | Olb                        | 150                       | 00lb                       | 220                       | 00lb                       | 290                       | 00lb                       | 350                       | 0lb                        | 420                       | 00lb                       | 470                       | 00lb                       | 530                       | 00lb                       | 600                       | 00lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-15M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 2400   | (8)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        |                           |                            |
| 3000   | (10) | 1-15M                     | NO                         | 1-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        | 1-15M +<br>2-20M          | YES                        |                           |                            |                           |                            |
| 3600   | (12) | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | YES                        | 1-10M +<br>3-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-10M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 3-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Li                         | ntel - 8'                 | 'Thick                     | x 24" D                   | eep (20                    | 00mm T                    | hick x (                   | 600mm                     | Deep),                     | s = 12"                   | (300mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Span |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 44                        | ίN                         | 81                        | κN                         | 12                        | kN                         | 16                        | kN                         | 20                        | kN                         | 24                        | kN                         | 28                        | kN                         | 32                        | kN                         | 36                        | kN                         |
|        |      | 80                        | 0lb                        | 170                       | )Olb                       | 260                       | 00lb                       | 350                       | )Olb                       | 440                       | 0lb                        | 530                       | )Olb                       | 620                       | )Olb                       | 710                       | 0lb                        | 800                       | 00lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-20M                     | YES                        | 1-20M                     | YES                        |
| 2400   | (8)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 3000   | (10) | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        |                           |                            |
| 3600   | (12) | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | YES                        | 1-15M +<br>2-20M          | YES                        | 1-10M +<br>3-20M          | YES                        |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | YES                        | 1-10M +<br>3-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". }$
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



## **Table L6 Continued**

|        |      |                           |                            |                           | Li                         | ntel - 8                  | "Thick                     | x 32" D                   | eep (20                    | 00mm T                    | hick x                     | 300mm                     | Deep),                     | s = 18"                   | (450mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Linkel | C    |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4kN                       | l/m                        | 9kN                       | l/m                        | 14k                       | N/m                        | 19k                       | N/m                        | 24k                       | N/m                        | 29k                       | N/m                        | 34k                       | N/m                        | 39k                       | N/m                        | 44k                       | N/m                        |
|        |      | 800                       | lb/ft                      | 2000                      | Olb/ft                     | 3100                      | Olb/ft                     | 4200                      | Olb/ft                     | 5300                      | Olb/ft                     | 6500                      | Olb/ft                     | 760                       | Olb/ft                     | 8700                      | Olb/ft                     | 9800                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-10M                     | YES                        | 1-10M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 2400   | (8)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 3000   | (10) | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |                           |                            |
| 3600   | (12) | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | YES                        |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 3-20M                     | YES                        |                           | /                          |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

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# **Table L7 10" Lintel Reinforcement Concentrated Load**

|        |      |                           |                            |                           | L                          | _intel -                  | 10" Thic                   | k x 8" [                  | Deep (2                    | 250mm                     | Thick x                    | 200mn                     | n Deep)                    | , s = 3"                  | (75mm                      | )                         |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Cnon |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4k                        | :N                         | 6k                        | κN                         | 8k                        | κN                         | 10                        | kN                         | 12                        | kN                         | 14                        | kN                         | 16                        | kN                         | 18                        | kN                         | 20                        | kN                         |
|        |      | 80                        | Olb                        | 130                       | )0lb                       | 170                       | 00lb                       | 220                       | 0lb                        | 260                       | 00lb                       | 310                       | 0lb                        | 350                       | 00lb                       | 400                       | 00lb                       | 440                       | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-15M                     | YES                        | 1-20M                     | YES                        |
| 1200   | (4)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 1500   | (5)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        |                           |                            |                           |                            |                           |                            |
| 1800   | (6)  | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 2400   | (8)  | 2-15M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3000   | (10) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 3600   | (12) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-15M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           | End         Reinf. Distance         End Distance         Reinf. Steel         Distance |        |     |        |      |        |     |         |         |        |     |        |      |        |     |        |                            |
|--------|------|---------------------------|--|--------|-----|--------|------|--------|-----|---------|---------|--------|-----|--------|------|--------|-----|--------|----------------------------|
| Lintol | Span |                           |  |        |     |        |      |        | Unf | actored | Point L | oad    |     |        |      |        |     |        |                            |
| Linter | Span | 44                        | N.   | 6.5    | kN  | 9k     | ίN   | 11.5   | kΝ  | 14      | κN      | 16.    | 5kN | 19     | kN   | 21.5   | δkN | 24     | kN                         |
|        |      | 80                        | Olb  | 140    | 0lb | 200    | 00lb | 250    | 0lb | 310     | 0lb     | 370    | 0lb | 420    | )Olb | 480    | 0lb | 530    | )0lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | End  | Reinf. | End | Reinf. | End  | Reinf. | End | Reinf.  | End     | Reinf. | End | Reinf. | End  | Reinf. | End | Reinf. | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO   | 1-10M  | NO  | 1-10M  | NO   | 1-10M  | NO  | 1-15M   | NO      | 1-15M  | NO  | 1-15M  | YES  | 1-15M  | YES | 1-15M  | YES                        |
| 1200   | (4)  | 1-10M                     | NO   | 1-10M  | NO  | 1-10M  | NO   | 1-15M  | NO  | 1-15M   | NO      | 1-15M  | NO  | 1-15M  | YES  | 1-15M  | YES | 1-15M  | YES                        |
| 1500   | (5)  | 1-10M                     | NO   | 1-15M  | NO  | 1-15M  | NO   | 1-15M  | NO  | 1-15M   | NO      | 1-15M  | NO  | 1-20M  | YES  | 1-20M  | YES | 2-15M  | YES                        |
| 1800   | (6)  | 1-15M                     | NO   | 1-15M  | NO  | 1-15M  | NO   | 1-15M  | NO  | 1-20M   | NO      | 1-20M  | NO  | 2-15M  | YES  | 2-15M  | YES |        | YES                        |
| 2400   | (8)  | 1-15M                     | NO   | 1-20M  | NO  | 1-20M  | NO   | 2-15M  | NO  |         | NO      | 2-20M  | YES |        | YES  | 3-20M  | YES |        |                            |
| 3000   | (10) | 1-20M                     | NO   | 2-15M  | NO  |        | NO   |        | NO  |         | NO      |        |     |        |      |        |     |        |                            |
| 3600   | (12) | 1-15M +<br>1-20M          | NO   | 2-20M  | NO  |        | NO   |        |     |         |         |        |     |        |      |        |     |        |                            |
| 4200   | (14) | 1-10M +<br>2-20M          | NO   | 3-20M  | NO  |        |      |        |     |         |         |        |     |        |      |        |     |        |                            |
| 4800   | (16) |                           |  |        |     |        |      |        |     |         |         |        |     |        |      |        |     |        |                            |
| 5400   | (18) |                           |  |        |     |        |      |        |     |         |         |        |     |        |      |        |     |        |                            |
| 6000   | (20) |                           |  |        |     |        |      |        |     |         |         |        |     |        |      |        |     |        |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". } \\$
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L7 Continued**

|        |      |                           |                            |                           | Li                         | ntel - 10                 | 0"Thick                    | x 16" [                   | Deep (2                    | 250mm                     | Thick x                    | 400mn                     | n Deep)                    | , s = 8"                  | (200mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4k                        | ίN                         | 7k                        | κN                         | 10                        | kN                         | 13                        | kN                         | 16                        | kN                         | 19                        | kN                         | 21                        | kN                         | 24                        | kN                         | 27                        | kN                         |
|        |      | 80                        | Olb                        | 150                       | )Olb                       | 220                       | )0lb                       | 290                       | 0lb                        | 350                       | )0lb                       | 420                       | 0lb                        | 470                       | )Olb                       | 530                       | )0lb                       | 600                       | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 2400   | (8)  | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 2-20M                     | YES                        | 1-10M +<br>2-20M          | YES                        |
| 3000   | (10) | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | YES                        | 1-10M +<br>3-20M          | YES                        |                           |                            |
| 3600   | (12) | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-10M<br>+<br>3-20M       | YES                        |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-10M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           | \ \                        |                           |                            |
| 6000   | (20) | 3-20M                     | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |       |                           |                            |                           | Lii                        | ntel - 10                 | "Thick                     | x 24" D                   | eep (2                     | 50mm 1                    | hick x                     | 600mm                     | Deep)                      | s = 12'                   | ' (300m                    | m)                        |                            |                           |                            |
|--------|-------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Span  |                           |                            |                           |                            |                           |                            |                           | Unt                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Spari | 4k                        | κN                         | 84                        | κN                         | 12                        | kN                         | 16                        | kN                         | 20                        | kN                         | 24                        | kN                         | 28                        | kN                         | 32                        | kN                         | 36                        | kN                         |
|        |       | 80                        | 0lb                        | 170                       | )0lb                       | 260                       | 00lb                       | 350                       | )Olb                       | 440                       | 0lb                        | 530                       | 00lb                       | 620                       | 00lb                       | 710                       | 0lb                        | 800                       | 00lb                       |
| mm     | (ft)  | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)   | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        |
| 1200   | (4)   | 1-10M                     | ИО                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | ИО                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        |
| 1500   | (5)   | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1800   | (6)   | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | YES                        | 1-20M                     | YES                        |
| 2400   | (8)   | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 3000   | (10)  | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | YES                        | 1-10M +<br>2-20M          | YES                        |
| 3600   | (12)  | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | YES                        | 1-15M +<br>2-20M          | YES                        |                           |                            |
| 4200   | (14)  | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | YES                        |                           |                            |                           |                            |
| 4800   | (16)  | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |
| 5400   | (18)  | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20)  | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



## **Table L7 Continued**

|        |      |                           |                            |                           | Lii                        | ntel - 10                 | "Thick                     | х 32" С                   | eep (2                     | 50mm 1                    | hick x                     | 800mm                     | Deep).                     | s = 18'                   | ' (450m                    | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | _ • •                      | actored                   |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4kN                       | l/m                        | 9k1                       | V/m                        | 14k                       | N/m                        | 19k                       | N/m                        | 24k                       | N/m                        | 29k                       | N/m                        | 34k                       | N/m                        | 39k                       | N/m                        | 44k                       | N/m                        |
|        |      | 800                       | lb/ft                      | 2000                      | Olb/ft                     | 3100                      | Olb/ft                     | 4200                      | Olb/ft                     | 5300                      | Olb/ft                     | 6500                      | Olb/ft                     | 7600                      | Olb/ft                     | 8700                      | Olb/ft                     | 9800                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-15M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | YES                        | 1-20M                     | YES                        |
| 2400   | (8)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | YES                        | 2-15M                     | YES                        |
| 3000   | (10) | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | YES                        | 1-15M +<br>1-20M          | YES                        |
| 3600   | (12) | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-20M                     | NO                         | 2-20M                     | YES                        |                           |                            |                           |                            |
| 4200   | (14) | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | YES                        |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 3-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



Table L8 12" Lintel Reinforcement Concentrated Load

|        |      |                           | f. End Reinf. Distance Steel Distanc |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
|--------|------|---------------------------|--|--------|-----|--------|-----|--------|-----|---------|---------|--------|-----|--------|------|--------|------|--------|----------------------------|
| Lintal | Cnon |                           |  |        |     |        |     |        | Unf | actored | Point L | oad    |     |        |      |        |      |        |                            |
| Lintel | Span | 4k                        | ίN   | 6k     | ίN  | 8k     | ίN  | 10     | kN  | 12      | kN      | 14     | kN  | 16     | kN   | 18     | kN   | 20     | kN                         |
|        |      | 80                        | Olb  | 130    | 0lb | 170    | 0lb | 220    | 0lb | 260     | 0lb     | 310    | 0lb | 350    | )Olb | 400    | )Olb | 440    | )Olb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | End  | Reinf. | End | Reinf. | End | Reinf. | End | Reinf.  | End     | Reinf. | End | Reinf. | End  | Reinf. | End  | Reinf. | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO   | 1-10M  | NO  | 1-15M  | NO  | 1-15M  | NO  | 1-15M   | NO      | 1-15M  | NO  | 1-15M  | YES  | 1-15M  | YES  | 1-20M  | YES                        |
| 1200   | (4)  | 1-15M                     | NO   | 1-15M  | NO  | 1-15M  | NO  | 1-15M  | NO  | 1-15M   | NO      | 1-20M  | NO  | 1-20M  | YES  | 2-15M  | YES  | 2-15M  | YES                        |
| 1500   | (5)  | 1-15M                     | NO   | 1-15M  | NO  | 1-20M  | NO  | 1-20M  | NO  | 2-15M   | NO      | 2-15M  | NO  |        | YES  |        |      |        |                            |
| 1800   | (6)  | 1-15M                     | NO   | 1-20M  | NO  | 2-15M  | NO  | 2-15M  | NO  | 2-20M   | NO      |        |     |        |      |        |      |        |                            |
| 2400   | (8)  | 2-15M                     | NO   | 2-20M  | NO  |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
| 3000   | (10) |                           |  |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
| 3600   | (12) |                           |  |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
| 4200   | (14) |                           |  |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
| 4800   | (16) |                           |  |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
| 5400   | (18) |                           |  |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |
| 6000   | (20) |                           |  |        |     |        |     |        |     |         |         |        |     |        |      |        |      |        |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 2-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Li                         | ntel - 12                 | 2"Thick                    | x 12" [                   | Deep (3                    | 300mm                     | Thick x                    | 300mn                     | n Deep)                    | , s = 6"                  | (150mı                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintol | Span |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 44                        | N.                         | 6.5                       | kN                         | 9k                        | :N                         | 11.5                      | kΝ                         | 14                        | κN                         | 16.5                      | δkN                        | 19                        | kN                         | 21.5                      | δkN                        | 24                        | kN                         |
|        |      | 80                        | Olb                        | 140                       | 0lb                        | 200                       | 0lb                        | 250                       | 0lb                        | 310                       | 0lb                        | 370                       | 0lb                        | 420                       | )Olb                       | 480                       | 0lb                        | 530                       | )0lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | YES                        |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | YES                        |
| 1500   | (5)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | YES                        | 2-15M                     | YES                        |
| 1800   | (6)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | YES                        | 1-15M +<br>1-20M          | YES                        |
| 2400   | (8)  | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | YES                        | 1-10M +<br>3-20M          | YES                        |
| 3000   | (10) | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | YES                        |                           |                            |                           |                            |
| 3600   | (12) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4200   | (14) | 2-20M                     | NO                         | 3-20M                     | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". } \\$
- 5. Beams with "NO Stirrups Required" do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Table L8 Continued**

|        |      |                           |                            |                           | Li                         | ntel - 12                 | 2"Thick                    | x 16" [                   | Deep (3                    | 00mm                      | Thick x                    | 400mn                     | n Deep)                    | , s = 8"                  | (200mi                     | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4k                        | ίN                         | 7k                        | κN                         | 10                        | kN                         | 13                        | kN                         | 16                        | kN                         | 19                        | kN                         | 21                        | kN                         | 24                        | kN                         | 27                        | kN                         |
|        |      | 800                       | Olb                        | 150                       | )0lb                       | 220                       | 00lb                       | 290                       | )0lb                       | 350                       | 0lb                        | 420                       | 0lb                        | 470                       | 00lb                       | 530                       | 00lb                       | 600                       | 00lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | YES                        |
| 1800   | (6)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | YES                        |
| 2400   | (8)  | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | YES                        |
| 3000   | (10) | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | YES                        |                           |                            |
| 3600   | (12) | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |
| 4200   | (14) | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |
| 4800   | (16) | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-10M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 3-20M                     | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing."
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.

|        |      |                           |                            |                           | Lir                        | ntel - 12                 | "Thick                     | x 24" D                   | еер (3                     | 00mm 1                    | hick x                     | 600mm                     | Deep)                      | s = 12                    | " (300m                    | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Span |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Linter | Span | 44                        | ίN                         | 81                        | κN                         | 12                        | kN                         | 16                        | kN                         | 20                        | kN                         | 24                        | kN                         | 28                        | kN                         | 32                        | kN                         | 36                        | kN                         |
|        |      | 80                        | 0lb                        | 170                       | )Olb                       | 260                       | 00lb                       | 350                       | )0lb                       | 440                       | 0lb                        | 530                       | )Olb                       | 620                       | )Olb                       | 710                       | 00lb                       | 800                       | 00lb                       |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         |
| 1800   | (6)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         |
| 2400   | (8)  | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | YES                        |
| 3000   | (10) | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | YES                        |
| 3600   | (12) | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         |                           |                            |
| 4200   | (14) | 2-15M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         | 1-10M +<br>3-20M          | NO                         | 4-20M                     | NO                         |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |                           |                            |

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- $\hbox{4.} \qquad \hbox{This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing". } \\$
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



## **Table L8 Continued**

|        |      |                           |                            |                           | Liı                        | ntel - 12                 | "Thick                     | х 32" С                   | еер (3                     | 00mm                      | Thick x                    | 800mm                     | Deep)                      | s = 18'                   | ' (450m                    | m)                        |                            |                           |                            |
|--------|------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|---------------------------|----------------------------|
| Lintal | Cnon |                           |                            |                           |                            |                           |                            |                           | Unf                        | actored                   | Point L                    | oad                       |                            |                           |                            |                           |                            |                           |                            |
| Lintel | Span | 4kN                       | l/m                        | 9kN                       | V/m                        | 14k                       | N/m                        | 19k                       | N/m                        | 24k                       | N/m                        | 29k                       | N/m                        | 34k                       | N/m                        | 39k                       | N/m                        | 44k                       | N/m                        |
|        |      | 800                       | lb/ft                      | 2000                      | Olb/ft                     | 3100                      | Olb/ft                     | 4200                      | Olb/ft                     | 5300                      | Olb/ft                     | 6500                      | Olb/ft                     | 7600                      | Olb/ft                     | 870                       | Olb/ft                     | 9800                      | Olb/ft                     |
| mm     | (ft) | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance | Bottom<br>Reinf.<br>Steel | Stirrup<br>End<br>Distance |
| 900    | (3)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         |
| 1200   | (4)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         |
| 1500   | (5)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         |
| 1800   | (6)  | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         |
| 2400   | (8)  | 1-10M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         |
| 3000   | (10) | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-15M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | YES                        |
| 3600   | (12) | 1-15M                     | NO                         | 1-20M                     | NO                         | 1-20M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-15M +<br>2-20M          | NO                         |                           |                            |
| 4200   | (14) | 1-20M                     | NO                         | 2-15M                     | NO                         | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         |                           |                            |                           |                            |
| 4800   | (16) | 2-15M                     | NO                         | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 1-10M +<br>2-20M          | NO                         | 3-20M                     | NO                         |                           |                            |                           |                            |                           |                            |
| 5400   | (18) | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 1-15M +<br>1-20M          | NO                         | 3-20M                     | NO                         | 3-20M                     | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |
| 6000   | (20) | 1-15M +<br>1-20M          | NO                         | 2-20M                     | NO                         | 1-10M +<br>2-20M          | NO                         | 1-15M +<br>2-20M          | NO                         | 1-15M +<br>3-20M          | NO                         |                           |                            |                           |                            |                           |                            |                           |                            |

#### NOTES

- 1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
- 2. Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
- 3. Bottom reinforcement located 89mm (3.5") from bottom of lintel.
- 4. This table to be used in conjunction with the "Lintel Design Limitations" & "Lintel Drawing".
- 5. Cells with zero end distance do not require stirrups, except provide a minimum of three stirrups at each end of the lintel where Sa (0.2) > 0.4.



# **Concentrated Point Load Table**

# Table C.1. Maximum Unfactored Point Load on a Solid Wall Without Opening

| Solid Wall Length Under a Point Load, m(ft) | 0.91 (3) | 1.22 (4) | 1.52 (5) |
|---|----------|----------|----------|
| Maximum Unfactored Point Load, kN           | 225      | 300      | 375      |

#### NOTES:

- Provide beam pockets, as necessary.
- 2. In addition to the wall reinforcing required in the following tables, two additional 15M vertical bars shall be installed directly below the point load.
- 3. Maximum unfactored point loads given in Table C. 1 are only the wall capacity. It is the responsibility of the roof and floor designer to ensure adequate bearing for all framing members is provided on the concrete walls.





# **Stair Opening Tables**

# Table A.12. Above Grade Wall Distributed Horizontal Reinforcement at Stair Openings

Seismic Zone Classification: Sa (0.2) ≤ 1.75

Hourly Wind Pressure:  $q_{1/50} \le 1.05$ 

|       |       |                           |                             |                      |       |       | Horizor | ntal Steel ( | Size and   | Spacing),                | mm (in) |        |      |
|-------|-------|---------------------------|-----------------------------|----------------------|-------|-------|---------|--------------|------------|--------------------------|---------|--------|------|
| w     | all   | Maximum S<br>(Laterally U | tair Opening<br>Insupported |                      |       |       | Se      | ismic Zone   | Classific  | ation, Sa(               | 0.2)    |        |      |
| Thick | iness | Ler                       | ngth<br>the Wall)           | Block<br>Height (in) |       | ≤ 0.4 |         |              | ≤ 0.7      |                          |         | ≤ 1.75 |      |
|       |       |                           |                             |                      |       |       | F       | lourly Wind  | d Pressure | e, q <sub>1/50</sub> (kP | a)      |        |      |
| mm    | (in)  | m                         | (ft)                        |                      |       | ≤ 0.5 |         |              | ≤ 0.75     |                          |         | ≤ 1.05 |      |
| 150   | (6)   | 4.6                       | (15)                        | 12" and 18"          | 10M @ | 450   | (18)    | 15M @        | 450        | (18)                     | 15M @   | 300    | (12) |
| 150   | (6)   | 4.6                       | (15)                        | 16"                  | 10M @ | 400   | (16)    | 15M @        | 400        | (16)                     | 15M @   | 300    | (12) |
| 200   | (0)   | 5.2                       | (17)                        | 12" and 18"          | 10M @ | 450   | (18)    | 15M @        | 450        | (18)                     | 15M @   | 300    | (12) |
| 200   | (8)   | 5.2                       | (17)                        | 16"                  | 10M @ | 400   | (16)    | 15M @        | 400        | (16)                     | 15M @   | 300    | (12) |
| 250   | (10)  | 5.2                       | (17)                        | 12" and 18"          | 10M @ | 450   | (18)    | 15M @        | 450        | (18)                     | 15M @   | 300    | (12) |
| 250   | (10)  | 5.2                       | (17)                        | 16"                  | 10M @ | 400   | (16)    | 15M @        | 400        | (16)                     | 15M @   | 300    | (12) |
| 300   | (10)  | F 0                       | (10)                        | 12" and 18"          | 10M @ | 450   | (18)    | 10M @        | 450        | (18)                     | 15M @   | 300    | (12) |
| 300   | (12)  | 5.8                       | (19)                        | 16"                  | 10M @ | 400   | (16)    | 10M @ 400 (1 |            | (16)                     | 15M @   | 300    | (12) |

- 1. This table to be used in conjunction with the "Design Parameters".
- 2. This table applies to all height of above grade walls where there is no lateral supports at the floor level because of stair opening.
- 3. The laterally unsupported length at the top of the wall is the dimension of the stair opening parallel to the wall.
- 4. Single bars are to be staggered and the vertical bars are to be placed between these staggered bars, as per Detail A.1 and A.2.
- 5. Increase the horizontal reinforcement as per this table and extend beyond the stair opening a minimum of 900mm (3'-0"), bend bars if necessary at wall corners.
- 6. Provide a minimum of 1.22m (4'-0") length of laterally supported wall on each side of the opening. The 1.22m (4'-0") length may be a perpendicular wall on the same side as the stair opening. Bend horizontal bars around the corner to provide the minimum required 900mm (3'-0") extension.
- 7. Increase the vertical reinforcement on each side of the stair opening per the "Design Limitation" noted in section 5.5.5.
- Place the reinforcing for 6," 8" and 10" thick wall in accordance with Detail A.1.
- 9. Provide two layers of indicated horizontal reinforcing for 300mm (12") walls. Place each layer as shown in Detail A.2.
- 10. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars.
- 11. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars.
- 12. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars



# Table B. 5. Below Grade Wall Distributed Horizontal Reinforcement at Stair Opening for Seismic Zone Classification $Sa(0.2) \le 0.7$ , Hourly Wind Pressure, $q_{_{1/50}} \le 1.05$ kPa, and Backfill

Seismic Zone Classification: Sa (0.2) ≤ 0.7

Hourly Wind Pressure:  $q_{1/50} \le 1.05$ 

Backfill Equivalent Fluid Density: 480 kg/m3 (30pcf)

|            |      |              |          |            |      | Hor      | rizontal St | eel (Size a    | and Spacing),  | mm (in)          |      |             |            |      |
|------------|------|--------------|----------|------------|------|----------|-------------|----------------|----------------|------------------|------|-------------|------------|------|
| W<br>Thick |      | Block Height |          |            |      | -        | Seismic 2   | Zone Clas      | sification, Sa | (0.2)            |      |             |            |      |
|            |      | (in)         | 2        | 2.44m (8') |      | 3        | .05m (10'   | )              | 3              | .66m (12')       |      | 4.          | 27m (14')  |      |
| mm         | (in) |              |          |            |      | Se       | ismic Zon   | e Classific    | ation, Sa(0.2  | ) ≤ 0.25         |      |             |            |      |
| 450        | (0)  | 12" and 18"  | 15M @    | 450        | (18) | 2- 15M @ | 450         | (18)           |                |                  |      |             |            |      |
| 150        | (6)  | 16"          | 15M @    | 400        | (16) | 2- 15M @ | 400         | (16)           |                |                  |      |             |            |      |
| 200        | (0)  | 12" and 18"  | 15M @    | 450        | (18) | 2- 15M @ | 450         | (18)           | 2- 15M @       | 450              | (18) | 2- 15M<br>@ | 300        | (12) |
| 200        | (8)  | 16"          | 15M @    | 400        | (16) | 15M @    | 400         | (16)           | 2- 15M @       | 400              | (16) | 2- 15M<br>@ | 400        | (16) |
| 050        | (40) | 12" and 18"  | 15M @    | 450        | (18) | 15M @    | 450         | (18)           | 2- 15M @       | 450              | (18) | 2- 15M<br>@ | 450        | (18) |
| 250        | (10) | 16"          | 15M @    | 400        | (16) | 15M @    | 400         | (16)           | 15M @          | 400              | (16) | 2- 15M<br>@ | 400        | (16) |
| 200        | (10) | 12" and 18"  | 15M @    | 450        | (18) | 15M @    | 450         | (18)           | 15M @          | 450              | (18) | 2- 15M<br>@ | 450        | (18) |
| 300        | (12) | 16"          | 15M @    | 400        | (16) | 15M @    | 400         | (16)           | 15M @          | 400              | (16) | 2- 15M<br>@ | 400        | (16) |
|            |      |              |          |            |      | Seisn    | nic Zone (  | Classification | on, 0.25 < Sa  | $1(0.2) \le 0.7$ | 7    |             |            |      |
| 450        | (0)  | 12" and 18"  |          |            |      |          |             |                | · /            |                  |      |             |            |      |
| 150        | (6)  | 16"          |          |            |      |          |             |                |                |                  |      |             |            |      |
| 000        | (0)  | 12" and 18"  | 2- 15M @ | 450        | (18) |          |             |                |                |                  |      |             |            |      |
| 200        | (8)  | 16"          | 2- 15M @ | 400        | (16) |          |             |                |                |                  |      |             |            |      |
| 050        | (10) | 12" and 18"  | 2- 15M @ | 450        | (18) | 2- 15M @ | 450         | (18)           |                |                  |      |             |            |      |
| 250        | (10) | 16"          | 15M @    | 400        | (16) | 2- 15M @ | 400         | (16)           | RE             |                  |      |             | <b>2 N</b> |      |
| 200        | (10) | 12" and 18"  | 15M @    | 450        | (18) | 2- 15M @ | 450         | (18)           | 2- 15M @       | 450              | (18) | ^ T         |            |      |
| 300        | (12) | 16"          | 15M @    | 400        | (16) | 2- 15M @ | 400         | (16)           | 2- 15M @       | 400              | (16) | $\Delta$    |            |      |

- 1. This table to be used in conjunction with the "Design Parameters".
- 2. This table applies to all height of below grade walls where there is no lateral supports at the floor level because of stair opening.
- 3. The laterally unsupported length at the top of the wall is the dimension of the stair opening parallel to the wall.
- 4. The below grade wall maybe backfilled up to 6" below the top of the wall.
- 5. Single bars are to be staggered between first two slots of ICF web on inside face of wall. The vertical bars are to be placed between these staggered bars, as per Detail B.1.
- 6. Where two bars are specified, they are to be placed as a single bundled bar staggered between the first two slots of the ICF web on inside face of the wall. The vertical bars are to be placed between these staggered bars, as per Detail B.1.
- 7. Increase the horizontal reinforcement as per this table and extend beyond the stair opening a minimum of 900mm (3'-0"), bend bars if necessary at wall corners.
- 8. Provide a minimum of 1.22m (4'-0") length of laterally supported wall on each side of the opening. The 1.22m (4'-0") length may be a perpendicular wall on the same side as the stair opening. Bend horizontal bars around the corner to provide the minimum required 900mm (3'-0") extension.
- 9. Increase the vertical reinforcement on each side of the stair opening per the "Design Limitation" noted in section 5.5.5.
- 10. Reinforce the foundation wall at the stair opening as per the below grade wall reinforcement tables and this table for a minimum of 1.22m (4'-0") beyond each end of the stair opening for foundation wall that would not otherwise require reinforcing.
- 11. Basement walls with stair opening at locations with Seismic Zone Classification Sa (0.2) > 0.7 or Backfill Equivalent Fluid Density > 480 kg/m3 (30pcf) shall be designed by a professional engineer.
- 12. Alternating horizontal bar spacing of 12" o.c. and 24" o.c. may be used to achieve an average spacing of 18" o.c. where 18" o.c. spacing is specified for horizontal bars.
- 13. Provide 3 horizontal bars in every two rows of 18" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars.
- 14. Provide 4 horizontal bars in every three rows of 16" high block to achieve an average spacing of 12" o.c. where 12" spacing o.c. is specified for horizontal bars.



Table A.13. Bar Spacing Required at Each Side of the Stair Opening

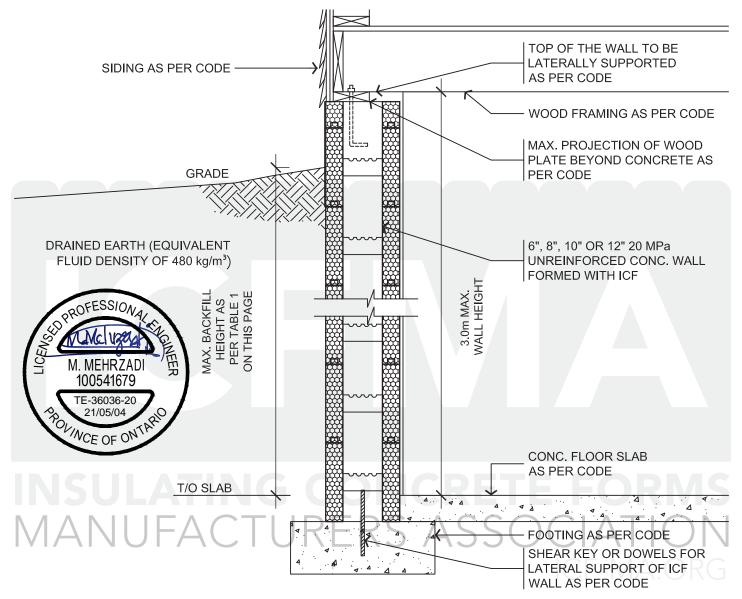
|                  |          | Latera   | lly Unsupported Lei | ngth of the Wall (Sta | air Opening Length | ), m (ft) |          |
|------------------|----------|----------|---------------------|-----------------------|--------------------|-----------|----------|
| STable , mm (in) | 5.7 (19) | 5.1 (17) | 4.5 (15)            | 3.9 (13)              | 2.7 (9)            | 2.1 (7)   | 1.5 (5)  |
|                  |          |          |                     | S <sub>REDUCED</sub>  |                    |           |          |
| 1200 (48)        | 350 (14) | 375 (15) | 400 (16)            | 450 (18)              | 550 (22)           | 625 (25)  | 725 (29) |
| 1050 (42)        | 300 (12) | 325 (13) | 350 (14)            | 400 (16)              | 475 (19)           | 550 (22)  | 625 (25) |
| 1000 (40)        | 275 (11) | 300 (12) | 325 (13)            | 375 (15)              | 450 (18)           | 525 (21)  | 600 (24) |
| 900 (36)         | 250 (10) | 275 (11) | 300 (12)            | 325 (13)              | 400 (16)           | 475 (19)  | 550 (22) |
| 800 (32)         | 225 (9)  | 250 (10) | 275 (11)            | 300 (12)              | 375 (15)           | 425 (17)  | 475 (19) |
| 750 (30)         | 200 (8)  | 225 (9)  | 250 (10)            | 275 (11)              | 350 (14)           | 400 (16)  | 450 (18) |
| 600 (24)         | 175 (7)  | 175 (7)  | 200 (8)             | 225 (9)               | 275 (11)           | 300 (12)  | 350 (14) |
| 450 (18)         |          |          | 150 (6)             | 150 (6)               | 200 (8)            | 225 (9)   | 275 (11) |
| 400 (16)         |          |          |                     | 150 (6)               | 175 (7)            | 200 (8)   | 225 (9)  |
| 300 (12)         |          |          |                     |                       |                    | 150 (6)   | 175 (7)  |

#### NOTES:

- 1.  $S_{REDUCED}$  = the bar spacing (mm/in) required at the sides of the stair opening.
- 2.  $S_{\text{TABLES}}$  = the required bar spacing (mm/in) for a laterally supported wall as determined from above grade and below grade walls tables.
- 3. If the spacing of the additional vertical reinforcing required on each side of openings, described in the equation given in part 5.5., is less than 150mm (6"), a local design professional shall be retained to prepare the design in accordance with applicable standards.



# **Laterally Supported Foundation Wall Detail and Table**



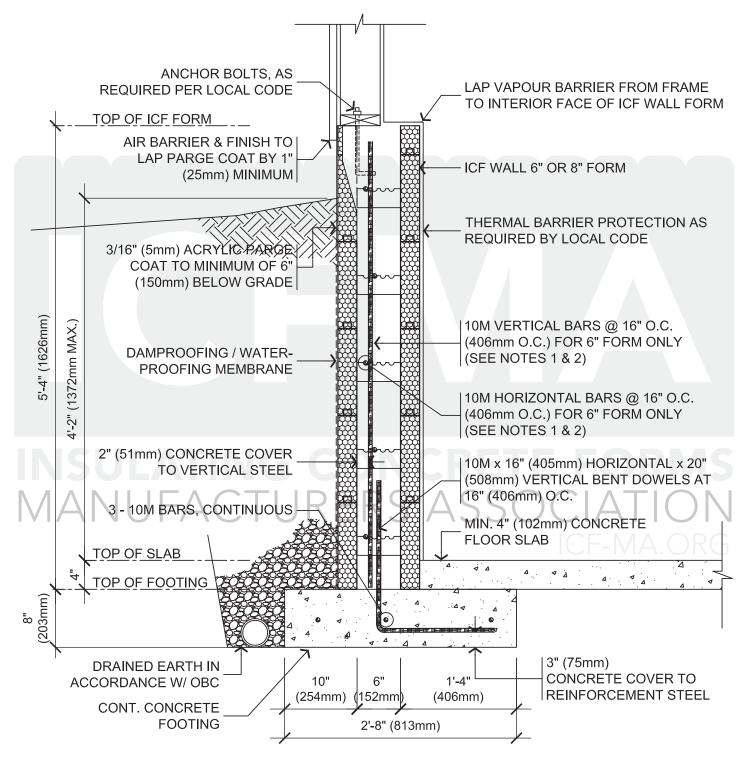
**Detail B.2. Laterally Supported Foundation Wall** 

Table B.6. Maximum Height of Finish Ground Above Basement Floor

|                        | Maximum Height of Finish | Ground Above Basement Floor |                         |
|------------------------|--------------------------|-----------------------------|-------------------------|
|                        |                          | Height of Foundation Wall   |                         |
| Minimum Wall Thickness | ≤ 2.5m (8'-2")           | >2.5m & ≤2.75m (9'-0")      | >2.75m & ≤3.0m (9'-10") |
| 6"                     | 1.8m (5'-10")            | 1.6m (5'-3")                | 1.6m (5'-3")            |
| 8"                     | 2.3m (7'-6")             | 2.3m (7'-6")                | 2.2m (7'-2")            |
| 10"                    | 2.3m (7'-6")             | 2.6m (8'-6")                | 2.85m (9'-4")           |
| 12"                    | 2.3m (7'-6")             | 2.6m (8'-6")                | 2.85m (9'-4")           |

- 1. This section references Part 9 of the 2015 National Building Code of Canada.
- 2. This detail applies to one- and two-story buildings conforming to part 9 of the 2015 National Building Code of Canada.
- 3. This table is a copy of NBCC 2015 T.9.15.4.2-A and OBC 2012(r2020) T.9.15.4.2-A.
- 4. This table to be used in conjunction with section 5.6. of this design manual.

# Laterally Unsupported Foundation Wall Detail and Table (Knee Wall)

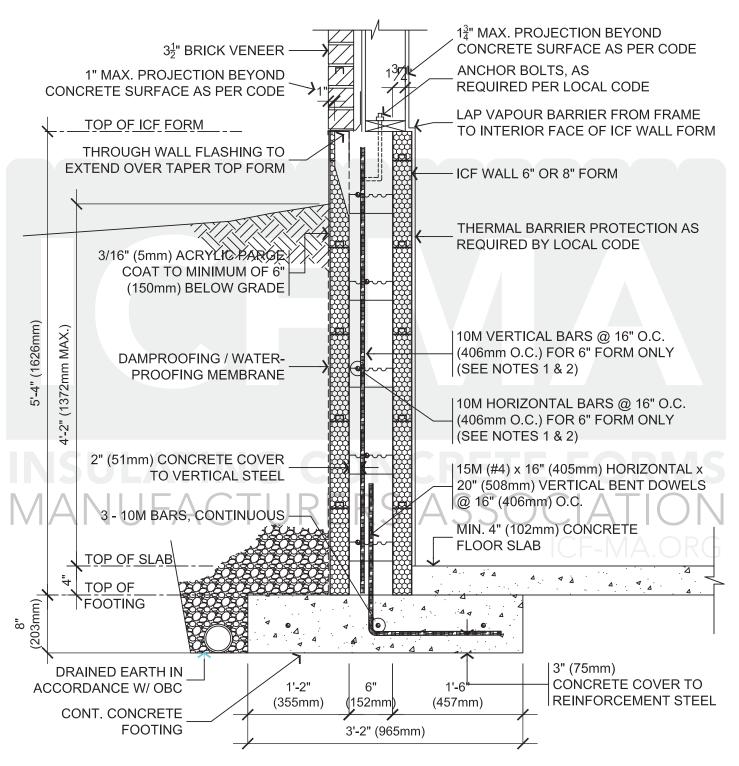


#### NOTES:

- 1. This detail applies to one- and two-story buildings conforming to part 9 of the 2015 National Building Code of Canada.
- 2. Wall reinforcing not required when using 8" forms or thicker.
- 3. Wall reinforcing not required for 6" forms where the backfill height above basement floor does not exceed 2'-7".
- Footing reinforcement and dowels are required for all cases.
- Refer to section 5.7., for additional information.

# Detail B.3. Laterally Unsupported Foundation Wall (Knee Wall)





## NOTES:

- 1. This detail applies to one- and two-story buildings conforming to part 9 of the 2015 National Building Code of Canada.
- 2. Wall reinforcing not required when using 8" forms.
- 3. Wall reinforcing mot required for 6" forms where the backfill height above basement floor does not exceed 2'-7".
- Footing reinforcement and dowels are required for all cases.
- 5. Refer to section 5.7., for additional information.

## Detail B.4. Laterally Unsupported Foundation Wall (Knee Wall) with Brick Veneer



# **Ledger Connection Detail and Table**

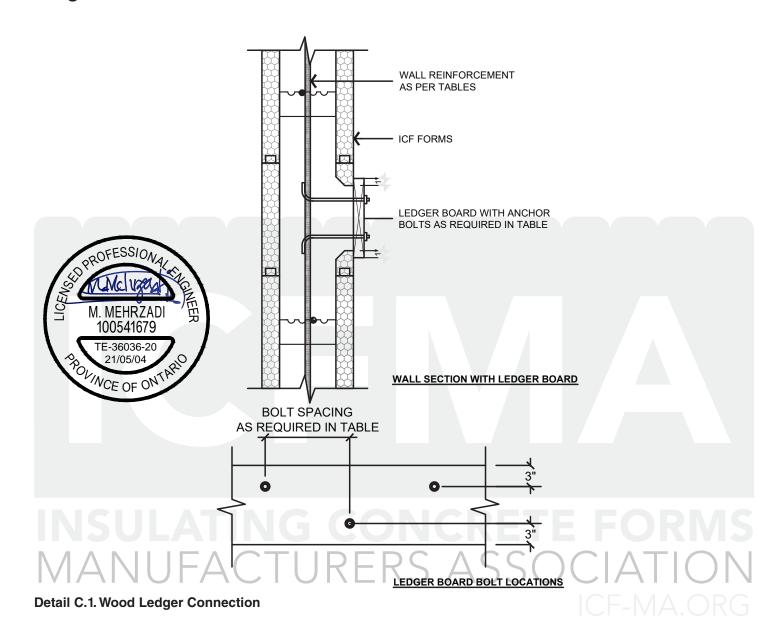
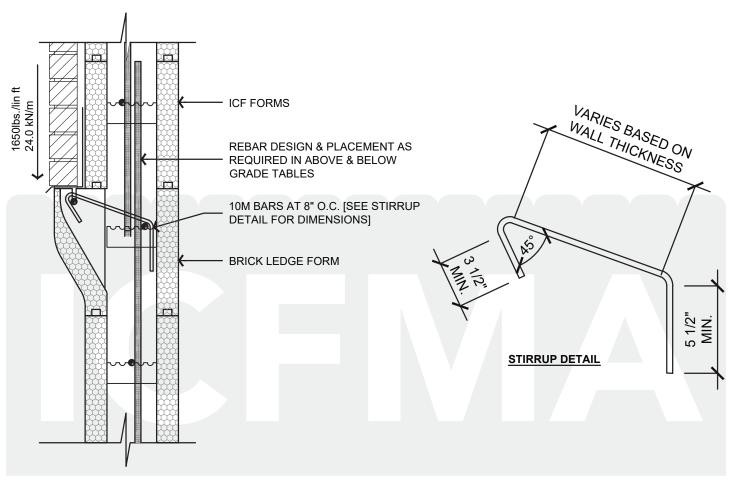


Table C.2. Floor Ledger Anchor Bolts Size and Spacing

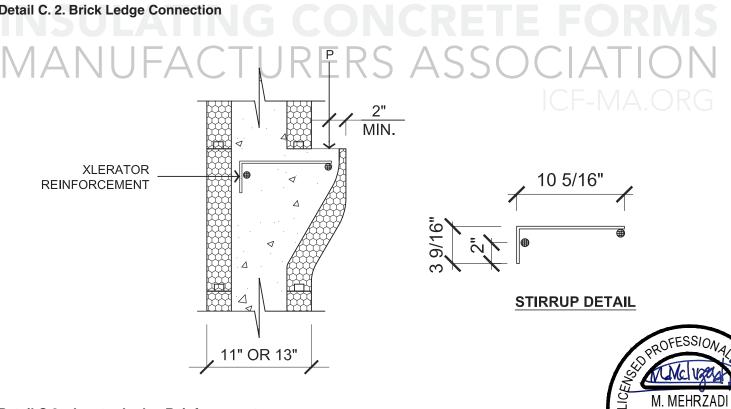
|                         |            |            | Minimum Spacing of | Staggered Anchors, in |            |             |
|-------------------------|------------|------------|--------------------|-----------------------|------------|-------------|
| Anchor Bolt<br>Diameter | Tie Spaing |            |                    | Floor span, ft (m)    |            |             |
|                         |            | 8' (2.44m) | 12' (3.66m)        | 16' (4.88m)           | 20' (6.1m) | 24' (7.32m) |
| 4 /0                    | 6"         | 18"        | 12"                | 12"                   | 6"         | 6"          |
| 1/2"                    | 8"         | 16"        | 16"                | 8"                    | 8"         | 8"          |
| <i>E</i> /OII           | 6"         | 24"        | 18"                | 12"                   | 12"        | 6"          |
| 5/8"                    | 8"         | 24"        | 16"                | 16"                   | 8"         | 8"          |

- 1. Anchor bolts to be installed at the indicated spacing and staggered as shown.
- Design assumes floor ledger supports vertical floor load only. Design of floor diaphragm by others. 2.
- 3. Design loads: 40psf (1.9 kPa) floor live load, 15psf (0.7 kPa) floor dead load.
- Anchor bolts shall conform to the requirements of ASTM standard A307.
- Anchor bolt connection to be installed at Dry Service Condition.

# **Brick Ledge Detail and Table**



**Detail C. 2. Brick Ledge Connection** 



Detail C.3. xLerator Ledge Reinforcement

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# **Table C.3 Brick Ledge Load Capacity**

| Appl              | ication                  | Capacity                          |
|-------------------|--------------------------|-----------------------------------|
| Brick             | Max 4" thick             | 0.6m /011 6"\ bish                |
|                   | 9.6m (31'-6") high       |                                   |
| Wood Floor Joists |                          |                                   |
|                   | 0.7kPa (15psf) Dead Load | 6.4m (21') Truibutary floor width |
|                   | 1.9kPa (40psf) Live Load |                                   |
| Other             | maximum factored load    | 24kN/m (1650 plf)                 |

#### NOTES:

- 1. Concrete Ledge reinforcement is to support floor framing and masonry veneer in conformance with the "Design Limitations"
- 2. The concrete ledge is to support uniformly distributed loads only. It is not to support concentrated load.
- 3. The above grade and below grade wall reinforcing tables include the effects of using the ledge to support floor framing.
- 4. 4. The below grade wall reinforcing tables include the effects of using the ledge to support masonry veneer.
- 5. The maximum brick height given does not account for windows. To include the effect of windows, it is necessary to calculate an effective brick height.
- 6. The ledge reinforcement is 10M hooked rebar as shown in Detail C.2. It is to be placed 6" or 8" on center as shown.





# **Footing Details and Tables**

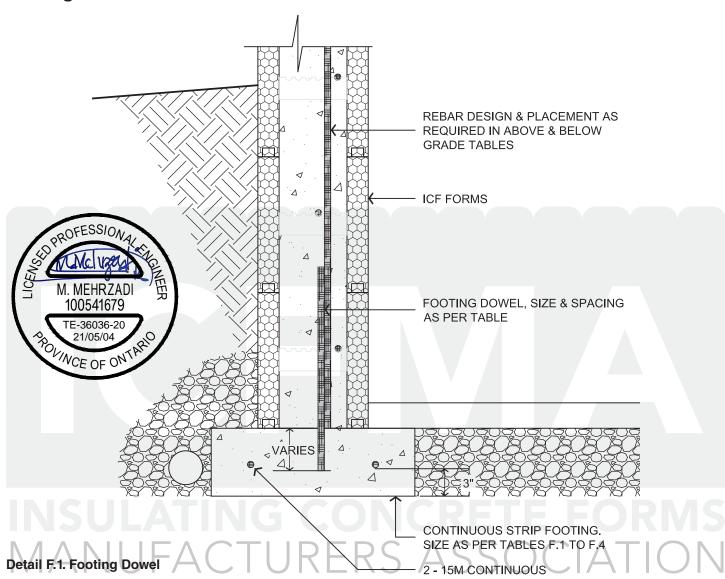


Table F.1- Footing Dowels Size and Spacing

|                             |                    | Maximum S  | Spacing of Vertical Footing | g Dowels, in |            |
|-----------------------------|--------------------|------------|-----------------------------|--------------|------------|
| Rebar Diameter              |                    |            | Backfill Height, ft (m)     |              |            |
|                             | 4' (1.22m)         | 6' (1.83m) | 8' (2.44m)                  | 10' (3.05m)  | 12' (3.66) |
| Seismic Zone Classification | on: Sa(0.2) ≤ 0.25 |            |                             |              |            |
| 10M                         | 48"                | 48"        | 40"                         | 8"           | 8"         |
| 15M                         | 48"                | 48"        | 48"                         | 16"          | 8"         |
| Seismic Zone Classification | on: Sa(0.2) ≤ 1.20 |            |                             |              |            |
| 10M                         | 24"                | 24"        | 16"                         | 8"           |            |
| 15M                         | 24"                | 24"        | 24"                         | 8"           | 8"         |
| Seismic Zone Classification | on: Sa(0.2) ≤ 1.75 |            |                             |              |            |
| 10M                         | 24"                | 24"        | 8"                          |              |            |
| 15M                         | 24"                | 24"        | 16"                         | 8"           | 8"         |

- 1. Footing Dowels to be installed as per Details F.1.
- 2. Provide 18" long straight dowels for  $Sa(0.2) \le 0.4$  embedded 6" into the footing.
- 3. Provide 30"V x 8"H bent dowels for Sa(0.2) > 0.4 embedded 8" into the footing.
- 4. Provide 30"V x 8"H bent dowels embedded 8" into the footing at shear walls locations, matching the size and spacing of vertical bars of the shear walls.

Table F.2- Minimum Exterior Strip Footing Sizes Not Supporting Roof Loads

| ICF Wall           | Minimum Footing Width x Thickness, in x in |                    |                   |                    |                       |                   |           |       |  |
|--------------------|--|--------------------|-------------------|--------------------|-----------------------|-------------------|-----------|-------|--|
| Thickness, in (mm) |  |                    | Allov             | wable Soil Bearing | g Pressure, psf (kPa) |                   |           |       |  |
| (111111)           | 3000                                       | (144)              | 2500 (120)        |                    | 2000                  | 0 (96)            | 1500 (72) |       |  |
|                    | Ti   | wo Storey - ICF B  | asement Walls, V  | Vood Main Floor V  | Valls, and Wood       | Second Floor Wa   | lls       |       |  |
| 6 (150)            | 16"  | x 6"               | 16"               | x 6"               | 16"                   | x 6"              | 20"       | x 6"  |  |
| 8 (200)            | 18"  | x 6"               | 18"               | x 6"               | 18"                   | x 6"              | 22"       | x 6"  |  |
| 10 (250)           | 20"  | x 6"               | 20"               | x 6"               | 20"                   | x 6"              | 24"       | x 6"  |  |
| 12 (300)           | 22"  | x 6"               | 22"               | x 6"               | 22"                   | x 6"              | 26"       | x 8"  |  |
|                    | 7  | Two Storey - ICF I | Basement Walls,   | ICF Main Floor W   | alls, and Wood        | Second Floor Wall | S         |       |  |
| 6 (150)            | 16"  | x 6"               | 18"               | x 6"               | 22"                   | x 8"              | 28"       | x 8"  |  |
| 8 (200)            | 18"  | x 6"               | 20"               | x 6"               | 26"                   | x 8"              | 34"       | x 10" |  |
| 10 (250)           | 20"  | x 6"               | 24"               | x 8"               | 30"                   | x 10"             | 40"       | x 10" |  |
| 12 (300)           | 22"  | x 8"               | 26"               | x 8"               | 32"                   | x 10"             | 42"       | x 12" |  |
|                    |  | Two Storey - ICF   | Basement Walls,   | ICF Main Floor V   | Valls, and ICF S      | econd Floor Walls |           |       |  |
| 6 (150)            | 18"  | x 8"               | 20"               | x 8"               | 26"                   | x 10"             | 34"       | x 10" |  |
| 8 (200)            | 22"  | x 8"               | 26"               | x 8"               | 32"                   | x 10"             | 42"       | x 12" |  |
| 10 (250)           | 26"  | x 8"               | 30"               | x 10"              | 38"                   | x 12"             | 50"       | x 14" |  |
| 12 (300)           | 26"  | x 8"               | 32"               | x 10"              | 40"                   | x 12"             | 52"       | x 14" |  |
|                    |  | One                | Storey - ICF Base | ment Walls, and \  | Vood Main Floo        | r Walls           |           |       |  |
| 6 (150)            | 16"  | x 6"               | 16"               | x 6"               | 16"                   | x 6"              | 16"       | x 6"  |  |
| 8 (200)            | 18"  | x 6"               | 18"               | x 6"               | 18"                   | x 6"              | 18"       | x 6"  |  |
| 10 (250)           | 20"  | x 6"               | 20"               | x 6"               | 20"                   | x 6"              | 20"       | x 6"  |  |
| 12 (300)           | 22"  | x 6"               | 22"               | x 6"               | 22"                   | x 6"              | 22"       | x 6"  |  |
| ,                  |  | One                | Storey - ICF Bas  | ement Walls, and   | ICF Main Floor        | Walls             |           |       |  |
| 6 (150)            | 16"  | x 6"               | 16"               | x 6"               | 18"                   | x 6"              | 24"       | x 8"  |  |
| 8 (200)            | 18"  | x 6"               | 18"               | x 6"               | 22"                   | x 8"              | 28"       | x 8"  |  |
| 10 (250)           | 20"  | x 6"               | 20"               | x 6"               | 26"                   | x 8"              | 34"       | x 10" |  |
| 12 (300)           | 22"  | x 8"               | 22"               | x 8"               | 28"                   | x 8"              | 36"       | x 10" |  |

- All footings are to be reinforced with 2-15M continuous bars, as per drawing F.1.
- Refer to the Canadian Design Limitations for maximum floor and roof spans and loads. 2. 3.
  - This table does not include masonry veneer. Increase the footing width by 2" and the thickness by 1" for:
    - a. Every 12'-0" of masonry veneer for 3000 psf soil bearing capacity.
    - Every 10'-0" of masonry veneer for 2500psf soil bearing capacity. c. Every 8'-0" of masonry veneer for 2000psf soil bearing capacity.
    - Every 6'-0" of masonry veneer for 1500psf soil bearing capacity.
- The footing size for locations with Sa (0.2) > 0.4 to be the larger of 30" wide by 12" deep or the size shown in the table.



Table F.3- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads ≤ 2kPa

| ICF Wall<br>Thickness, in<br>(mm) | Minimum Footing Width x Thickness, in x in |                    |                   |                  |                  |                   |           |       |  |
|-----------------------------------|--|--------------------|-------------------|------------------|------------------|-------------------|-----------|-------|--|
|                                   | Allowable Soil Bearing Pressure, psf (kPa) |                    |                   |                  |                  |                   |           |       |  |
|                                   | 3000                                       | (144)              | 2500 (120)        |                  | 2000 (96)        |                   | 1500 (72) |       |  |
|                                   | T  | wo Storey - ICF B  | asement Walls, V  | Vood Main Floor  | Walls, and Wood  | Second Floor Wa   | lls       |       |  |
| 6 (150)                           | 16"  | x 6"               | 18"               | x 6"             | 22"              | x 8"              | 28"       | x 8"  |  |
| 8 (200)                           | 18"  | x 6"               | 20"               | x 6"             | 24"              | x 8"              | 32"       | x 10" |  |
| 10 (250)                          | 20"  | x 6"               | 20"               | x 6"             | 26"              | x 8"              | 34"       | x 10" |  |
| 12 (300)                          | 22"  | x 8"               | 22"               | x 8"             | 28"              | x 8"              | 36"       | x 10" |  |
|                                   |  | Two Storey - ICF I | Basement Walls,   | ICF Main Floor W | alls, and Wood S | Second Floor Wall | S         |       |  |
| 6 (150)                           | 20"  | x 8"               | 24"               | x 8"             | 28"              | x 10"             | 38"       | x 12" |  |
| 8 (200)                           | 22"  | x 8"               | 26"               | x 10"            | 32"              | x 10"             | 44"       | x 12" |  |
| 10 (250)                          | 24"  | x 8"               | 30"               | x 10"            | 36"              | x 10"             | 48"       | x 14" |  |
| 12 (300)                          | 26"  | x 8"               | 32"               | x 10"            | 38"              | x 12"             | 52"       | x 14" |  |
| ·                                 |  | Two Storey - ICF   | Basement Walls    | , ICF Main Floor | Walls, and ICF S | econd Floor Walls |           |       |  |
| 6 (150)                           | 22"  | x 8"               | 26"               | x 10"            | 32"              | x 10"             | 44"       | x 12" |  |
| 8 (200)                           | 26"  | x 10"              | 30"               | x 10"            | 38"              | x 12"             | 50"       | x 14" |  |
| 10 (250)                          | 30"  | x 10"              | 36"               | x 12"            | 44"              | x 14"             | 58"       | x 16" |  |
| 12 (300)                          | 30"  | x 10"              | 36"               | x 12"            | 46"              | x 14"             | 60"       | x 16" |  |
|                                   |  | One S              | Storey - ICF Base | ement Walls, and | Wood Main Floo   | r Walls           |           |       |  |
| 6 (150)                           | 16"  | x 6"               | 16"               | x 6"             | 18"              | x 6"              | 24"       | x 8"  |  |
| 8 (200)                           | 18"  | x 6"               | 18"               | x 6"             | 20"              | x 6"              | 26"       | x 8"  |  |
| 10 (250)                          | 20"  | x 6"               | 20"               | x 6"             | 22"              | x 6"              | 28"       | x 8"  |  |
| 12 (300)                          | 22"  | x 6"               | 22"               | x 6"             | 22"              | x 6"              | 30"       | x 8"  |  |
| '                                 |  | One                | Storey - ICF Bas  | ement Walls, and | ICF Main Floor   | Walls             |           |       |  |
| 6 (150)                           | 16"  | x 6"               | 20"               | x 8"             | 24"              | x 8"              | 32"       | x 10" |  |
| 8 (200)                           | 20"  | x 8"               | 24"               | x 8"             | 28"              | x 10"             | 38"       | x 10" |  |
| 10 (250)                          | 22"  | x 8"               | 26"               | x 8"             | 32"              | x 10"             | 44"       | x 12" |  |
| 12 (300)                          | 24"  | x 8"               | 28"               | x 10"            | 34"              | x 10"             | 46"       | x 12" |  |

- 1. All footings are to be reinforced with 2-15M continuous bars, as per drawing F.1.
- 2. Refer to the Canadian Design Limitations for maximum floor and roof spans and loads.
- 3. This table does not include masonry veneer. Increase the footing width by 2" and the thickness by 1" for:
  - a. Every 12'-0" of masonry veneer for 3000 psf soil bearing capacity.
     b. Every 10'-0" of masonry veneer for 2500psf soil bearing capacity.
  - c. Every 8'-0" of masonry veneer for 2000psf soil bearing capacity.
  - Every 8-0" of masonry veneer for 2000pst soil bearing capacity.
     Every 6'-0" of masonry veneer for 1500psf soil bearing capacity.
- 4. The footing size for locations with Sa (0.2) > 0.4 to be the larger of 30" wide by 12" deep or the size shown in the table.



Table F.4- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads ≤4kPa

| ICF Wall<br>Thickness, in<br>(mm) | Minimum Footing Width x Thickness, in x in |                    |                   |                    |                  |                   |           |       |
|-----------------------------------|--|--------------------|-------------------|--------------------|------------------|-------------------|-----------|-------|
|                                   | Allowable Soil Bearing Pressure, psf (kPa) |                    |                   |                    |                  |                   |           |       |
| (111111)                          | 3000                                       | (144)              | 2500 (120)        |                    | 2000 (96)        |                   | 1500 (72) |       |
|                                   | T  | wo Storey - ICF B  | asement Walls, V  | Vood Main Floor W  | alls, and Wood   | Second Floor Wa   | lls       |       |
| 6 (150)                           | 18"  | x 8"               | 22"               | x 8"               | 26"              | x 10"             | 36"       | x 10" |
| 8 (200)                           | 20"  | x 8"               | 24"               | x 8"               | 28"              | x 10"             | 38"       | x 10" |
| 10 (250)                          | 20"  | x 6"               | 24"               | x 8"               | 30"              | x 10"             | 40"       | x 10" |
| 12 (300)                          | 22"  | x 8"               | 26"               | x 8"               | 32"              | x 10"             | 42"       | x 12" |
|                                   |  | Two Storey - ICF I | Basement Walls,   | ICF Main Floor Wa  | alls, and Wood S | Second Floor Wall | S         |       |
| 6 (150)                           | 22"  | x 8"               | 28"               | x 10"              | 34"              | x 12"             | 44"       | x 14" |
| 8 (200)                           | 26"  | x 10"              | 30"               | x 10"              | 38"              | x 12"             | 50"       | x 14" |
| 10 (250)                          | 28"  | x 10"              | 34"               | x 12"              | 42"              | x 12"             | 56"       | x 16" |
| 12 (300)                          | 30"  | x 10"              | 36"               | x 12"              | 44"              | x 14"             | 58"       | x 16" |
| ,                                 |  | Two Storey - ICF   | Basement Walls,   | , ICF Main Floor W | alls, and ICF S  | econd Floor Walls |           | •     |
| 6 (150)                           | 26"  | x 10"              | 30"               | x 12"              | 38"              | x 12"             | 50"       | x 14" |
| 8 (200)                           | 30"  | x 12"              | 34"               | x 12"              | 44"              | x 14"             | 58"       | x 16" |
| 10 (250)                          | 34"  | x 12"              | 40"               | x 14"              | 50"              | x 16"             | 66"       | x 18" |
| 12 (300)                          | 34"  | x 12"              | 40"               | x 14"              | 50"              | x 16"             | 68"       | x 18" |
|                                   |  | One S              | Storey - ICF Base | ment Walls, and V  | Vood Main Floo   | r Walls           |           |       |
| 6 (150)                           | 16"  | x 6"               | 18"               | x 6"               | 22"              | x 8"              | 30"       | x 10" |
| 8 (200)                           | 18"  | x 6"               | 20"               | x 6"               | 24"              | x 8"              | 32"       | x 10" |
| 10 (250)                          | 20"  | x 6"               | 22"               | x 6"               | 26"              | x 8"              | 34"       | x 10" |
| 12 (300)                          | 22"  | x 8"               | 22"               | x 8"               | 28"              | x 8"              | 38"       | x 10" |
| '                                 |  | One                | Storey - ICF Bas  | ement Walls, and   | ICF Main Floor   | Walls             |           |       |
| 6 (150)                           | 20"  | x 8"               | 24"               | x 8"               | 30"              | x 10"             | 38"       | x 12" |
| 8 (200)                           | 22"  | x 8"               | 28"               | x 10"              | 34"              | x 10"             | 44"       | x 12" |
| 10 (250)                          | 26"  | x 8"               | 30"               | x 10"              | 38"              | x 12"             | 50"       | x 14" |
| 12 (300)                          | 26"  | x 8"               | 32"               | x 10"              | 40"              | x 12"             | 52"       | x 14" |

- All footings are to be reinforced with 2-15M continuous bars, as per drawing F.1.
- Refer to the Canadian Design Limitations for maximum floor and roof spans and loads. 2. 3.
  - This table does not include masonry veneer. Increase the footing width by 2" and the thickness by 1" for:
    - a. Every 12'-0" of masonry veneer for 3000 psf soil bearing capacity. Every 10'-0" of masonry veneer for 2500psf soil bearing capacity.
    - c. Every 8'-0" of masonry veneer for 2000psf soil bearing capacity.
    - Every 6'-0" of masonry veneer for 1500psf soil bearing capacity.
- The footing size for locations with Sa (0.2) > 0.4 to be the larger of 30" wide by 12" deep or the size shown in the table.





# Appendix A: Equivalent Spectral Response Acceleration for ICF Walls, $\mathbf{S}_{\mathbf{a},\mathsf{ICF}}$

| Province and Location                            | S <sub>a,ICF</sub> |
|--|--------------------|
| British Columbia                                 |                    |
| 100 Mile House                                   | 0.113              |
| Abbotsford                                       | 0.486              |
| Agassiz  | 0.338              |
| Alberni  | 0.701              |
| Ashcroft   | 0.160              |
| Bamfield   | 1.010              |
| Beatton River                                    | 0.083              |
| Bella Bella                                      | 0.231              |
| Bella Coola                                      | 0.172              |
| Burns Lake                                       | 0.080              |
| Cache Creek                                      | 0.157              |
| Campbell River                                   | 0.482              |
| Carmi  | 0.120              |
| Castlegar  | 0.100              |
| Chetwynd   | 0.121              |
| Chilliwack                                       | 0.383              |
| Comox  | 0.536              |
| Courtenay  | 0.541              |
| Cranbrook  | 0.138              |
| Crescent Valley                                  | 0.101              |
| Crofton  | 0.781              |
| Dawson Creek                                     | 0.098              |
| Dease Lake                                       | 0.091              |
| Dog Creek  | 0.140              |
| Duncan   | 0.816              |
| Elko   | 0.174              |
| Fernie   | 0.174              |
| Fort Nelson                                      | 0.103              |
| Fort St. John                                    | 0.094              |
| Glacier  | 0.142              |
| Gold River                                       | 0.748              |
| Golden   | 0.170              |
| Grand Forks                                      | 0.108              |
| Greenwood  | 0.113              |
| Hope   | 0.280              |
| Jordan River                                     | 0.980              |
| Kamloops   | 0.123              |
| Kaslo  | 0.109              |
| Kelowna  | 0.122              |
| Kimberley  | 0.130              |
| Kitimat Plant                                    | 0.167              |
| Kitimat Townsite                                 | 0.167              |
| Ladysmith  | 0.768              |
| Langford   | 0.890              |
| Lillooet   | 0.206              |
| $S = max[^2/, E(0.2)S(0.2)]^2/, E(0.2)S(0.2)^2/$ | (0.5)9 (0.5)       |

| Province and Location         Salor           Lytton         0.219           Mackenzie         0.117           Masset         0.588           McBride         0.162           McLeod Lake         0.110           Merritt         0.175           Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Prince George         0.089           Prince Rupert         0.264           Prince Rupert         0.264           Prince Rupert         0.254           Queen Charlotte City         1.025           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.404 <th>ont opectial its</th> <th>cspo</th> | ont opectial its      | cspo               |
|--|-----------------------|--------------------|
| Lytton         0.219           Mackenzie         0.117           Masset         0.588           McBride         0.162           McLeod Lake         0.110           Merritt         0.175           Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Squamish   | Province and Location | S <sub>a,ICF</sub> |
| Masset         0.588           McBride         0.162           McLeod Lake         0.110           Merritt         0.175           Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           <   | Lytton                | l                  |
| McBride         0.162           McLeod Lake         0.110           Merritt         0.175           Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Queen Charlotte City         1.025           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823   | Mackenzie             | 0.117              |
| McLeod Lake         0.110           Merritt         0.175           Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alice         0.950           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090  | Masset                | 0.588              |
| Merritt         0.175           Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Queen Charlotte City         1.025           Queenel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squam   | McBride               | 0.162              |
| Mission City         0.455           Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Ste   | McLeod Lake           | 0.110              |
| Montrose         0.102           Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tar   | Merritt               | 0.175              |
| Nakusp         0.102           Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tar   | Mission City          | 0.455              |
| Nanaimo         0.719           Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tarrace         0.145           Tofino         1.018           Trail <td>Montrose</td> <td>0.102</td>                        | Montrose              | 0.102              |
| Nelson         0.103           Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Togino         1.018           Trail         0.101           Ucluele   | Nakusp                | 0.102              |
| Ocean Falls         0.199           Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tof   | Nanaimo               | 0.719              |
| Osoyoos         0.150           Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouve   | Nelson                | 0.103              |
| Parksville         0.665           Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet </td <td>Ocean Falls</td> <td>0.199</td>              | Ocean Falls           | 0.199              |
| Penticton         0.138           Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Re   | Osoyoos               | 0.150              |
| Port Alberni         0.721           Port Alice         0.950           Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region  | Parksville            | 0.665              |
| Port Alice 0.950 Port Hardy 0.533 Port McNeill 0.546 Port Renfrew 1.010 Powell River 0.464 Prince George 0.089 Prince Rupert 0.264 Princeton 0.204 Qualicum Beach 0.652 Queen Charlotte City 1.025 Quesnel 0.088 Revelstoke 0.109 Salmon Arm 0.104 Sandspit 0.868 Sechelt 0.589 Sidney 0.823 Smith River 0.370 Smithers 0.090 Sooke 0.928 Squamish 0.434 Stewart 0.132 Tahsis 0.890 Taylor 0.093 Terrace 0.145 Tofino 1.018 Trail 0.101 Ucluelet 1.033 Vancouver Region  | Penticton             | 0.138              |
| Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   | Port Alberni          | 0.721              |
| Port Hardy         0.533           Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   | Port Alice            | 0.950              |
| Port McNeill         0.546           Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region  |                       |                    |
| Port Renfrew         1.010           Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   |                       |                    |
| Powell River         0.464           Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region  |                       |                    |
| Prince George         0.089           Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   |                       |                    |
| Prince Rupert         0.264           Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   |                       |                    |
| Princeton         0.204           Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   | <u> </u>              |                    |
| Qualicum Beach         0.652           Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   |                       |                    |
| Queen Charlotte City         1.025           Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.404           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region  |                       |                    |
| Quesnel         0.088           Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   |                       |                    |
| Revelstoke         0.109           Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   |                       |                    |
| Salmon Arm         0.104           Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region  |                       |                    |
| Sandspit         0.868           Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region   | Salmon Arm            |                    |
| Sechelt         0.589           Sidney         0.823           Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region  | Sandspit              | 0.868              |
| Smith River         0.370           Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | -                     | 0.589              |
| Smithers         0.090           Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | Sidney                | 0.823              |
| Sooke         0.928           Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540  | Smith River           | 0.370              |
| Squamish         0.434           Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540  | Smithers              | 0.090              |
| Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | Sooke                 | 0.928              |
| Stewart         0.132           Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | Squamish              | 0.434              |
| Tahsis         0.890           Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | •                     |                    |
| Taylor         0.093           Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540  |                       |                    |
| Terrace         0.145           Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | Taylor                |                    |
| Tofino         1.018           Trail         0.101           Ucluelet         1.033           Vancouver Region           Burnaby         0.540   | _                     |                    |
| Trail 0.101 Ucluelet 1.033 Vancouver Region Burnaby  |                       |                    |
| Ucluelet 1.033 Vancouver Region Burnaby  |                       |                    |
| Vancouver Region Burnaby   |                       |                    |
| Burnaby  |                       |                    |
| (Simon Fraser Univ.) 0.540   |                       |                    |
|  | (Simon Fraser Univ.)  | 0.540              |

| Province and Location             | S <sub>a,ICF</sub> |
|-----------------------------------|--------------------|
| Cloverdale                        | 0.560              |
| Haney                             | 0.491              |
| Ladner                            | 0.642              |
| Langley                           | 0.541              |
| New Westminster                   | 0.561              |
| North Vancouver                   | 0.558              |
| Richmond                          | 0.616              |
| Surrey (88 Ave & 156<br>St.)      | 0.552              |
| Vancouver (City Hall)             | 0.592              |
| Vancouver<br>(Granville & 41 Ave) | 0.601              |
| West Vancouver                    | 0.572              |
| Vernon                            | 0.108              |
| Victoria Region                   |                    |
| Victoria<br>(Gonzales Hts)        | 0.861              |
| Victoria (Mt Tolmie)              | 0.853              |
| Victoria                          | 0.868              |
| Whistler                          | 0.315              |
| White Rock                        | 0.601              |
| Williams Lake                     | 0.110              |
| Youbou                            | 0.846              |
| Alberta                           |                    |
| Athabasca                         | 0.043              |
| Banff                             | 0.178              |
| Barrhead                          | 0.064              |
| Beaverlodge                       | 0.102              |
| Brooks                            | 0.076              |
| Calgary                           | 0.126              |
| Campsie                           | 0.067              |
| Camrose                           | 0.058              |
| Canmore                           | 0.177              |
| Cardston                          | 0.196              |
| Claresholm                        | 0.147              |
| Cold Lake                         | 0.034              |
| Coleman                           | 0.189              |
| Coronation                        | 0.048              |
| Cowley                            | 0.191              |
| Drumheller                        | 0.077              |
| Edmonton                          | 0.062              |
| Edson                             | 0.111              |
| Embarras Portage                  | 0.031              |
| Fairview                          | 0.071              |
| Fort MacLeod                      | 0.158              |
| Fort McMurray                     | 0.034              |
| Fort Saskatchewan                 | 0.053              |

| Province and Location | S <sub>a,ICF</sub> |
|-----------------------|--------------------|
| Fort Vermilion        | 0.036              |
| Grande Prairie        | 0.093              |
| Habay                 | 0.045              |
| Hardisty              | 0.043              |
| High River            | 0.134              |
| Hinton                | 0.175              |
| Jasper                | 0.183              |
| Alberta               |                    |
| Keg River             | 0.042              |
| Lac la Biche          | 0.038              |
| Lacombe               | 0.081              |
| Lethbridge            | 0.125              |
| Manning               | 0.049              |
| Medicine Hat          | 0.060              |
| Peace River           | 0.058              |
| Pincher Creek         | 0.195              |
| Ranfurly              | 0.042              |
| Red Deer              | 0.085              |
| Rocky Mountain House  | 0.116              |
| Slave Lake            | 0.047              |
| Stettler              | 0.066              |
| Stony Plain           | 0.069              |
| Suffield              | 0.068              |
| Taber                 | 0.101              |
| Turner Valley         | 0.160              |
| Valleyview            | 0.078              |
| Vegreville            | 0.044              |
| Vermilion             | 0.038              |
| Wagner                | 0.048              |
| Wainwright            | 0.040              |
| Wetaskiwin            | 0.069              |
| Whitecourt            | 0.079              |
| Wimborne              | 0.087              |
| Saskatchewan          |                    |
| Assiniboia            | 0.076              |
| Battrum               | 0.042              |
| Biggar                | 0.037              |
| Broadview             | 0.048              |
| Dafoe                 | 0.040              |
| Dundurn               | 0.039              |
| Estevan               | 0.073              |
| Hudson Bay            | 0.034              |
| Humboldt              | 0.037              |
| Island Falls          | 0.031              |
| Kamsack               | 0.037              |

 $<sup>\</sup>mathbf{S_{a,ICF}} = \text{max}[^2/_3 \text{ F}(0.2) \\ \mathbf{S_a}(0.2), \ ^2/_3 \text{ F}(0.5) \\ \mathbf{S_a}(0.5), \ \mathbf{F}(0.5) \ \\ \mathbf{S_a}(0.5)] \\ \mathbf{I_E} \\ \mathbf{M_v}/1.47$ 

| <b>Province and Location</b> | S <sub>a,ICF</sub> |
|------------------------------|--------------------|
| Kindersley                   | 0.039              |
| Lloydminster                 | 0.036              |
| Maple Creek                  | 0.048              |
| Meadow Lake                  | 0.034              |
| Melfort                      | 0.035              |
| Melville                     | 0.044              |
| Moose Jaw                    | 0.058              |
| Nipawin                      | 0.034              |
| North Battleford             | 0.036              |
| Prince Albert                | 0.034              |
| Qu'Appelle                   | 0.054              |
| Regina                       | 0.060              |
| Rosetown                     | 0.038              |
| Saskatoon                    | 0.037              |
| Scott                        | 0.037              |
| Strasbourg                   | 0.046              |
| Swift Current                | 0.045              |
| Uranium City                 | 0.032              |
| Weyburn                      | 0.002              |
| Yorkton                      |                    |
|                              | 0.040              |
| Manitoba                     | 0.000              |
| Beausejour                   | 0.033              |
| Boissevain                   | 0.037              |
| Brandon                      | 0.031              |
| Churchill                    | 0.032              |
| Dauphin                      | 0.035              |
| Flin Flon                    | 0.032              |
| Gimli                        | 0.032              |
| Island Lake                  | 0.033              |
| Lac du Bonnet                | 0.033              |
| Lynn Lake                    | 0.032              |
| Morden                       | 0.031              |
| Neepawa                      | 0.031              |
| Pine Falls                   | 0.033              |
| Portage la Prairie           | 0.032              |
| Rivers                       | 0.037              |
| Sandilands                   | 0.032              |
| Selkirk                      | 0.032              |
| Split Lake                   | 0.032              |
| Steinbach                    | 0.032              |
| Swan River                   | 0.035              |
| The Pas                      | 0.032              |
| Thompson                     | 0.032              |
| Virden                       | 0.041              |
| Winnipeg                     | 0.032              |
| Ontario                      |                    |
| Ailsa Craig                  | 0.064              |

| Province and Location | S <sub>a,ICF</sub> |
|-----------------------|--------------------|
| Ajax                  | 0.117              |
| Alexandria            | 0.267              |
| Alliston              | 0.076              |
| Almonte               | 0.173              |
| Armstrong             | 0.037              |
| Arnprior              | 0.186              |
| Atikokan              | 0.039              |
| Attawapiskat          | 0.043              |
| Aurora                | 0.087              |
| Bancroft              | 0.105              |
| Barrie                | 0.077              |
| Barriefield           | 0.110              |
| Beaverton             | 0.082              |
| Belleville            | 0.105              |
| Belmont               | 0.073              |
| Kitchenuhmay-koosib   |                    |
| (Big Trout Lake)      | 0.033              |
| CFB Borden            | 0.075              |
| Bracebridge           | 0.084              |
| Bradford              | 0.081              |
| Brampton              | 0.096              |
| Brantford             | 0.089              |
| Brighton              | 0.106              |
| Brockville            | 0.151              |
| Burk's Falls          | 0.096              |
| Burlington            | 0.143              |
| Cambridge             | 0.084              |
| Campbellford          | 0.097              |
| Cannington            | 0.084              |
| Carleton Place        | 0.164              |
| Cavan                 | 0.092              |
| Centralia             | 0.064              |
| Chapleau              | 0.050              |
| Chatham               | 0.070              |
| Chesley               | 0.062              |
| Clinton               | 0.061              |
| Coboconk              | 0.086              |
| Cobourg               | 0.106              |
| Cochrane              | 0.122              |
| Colborne              | 0.106              |
| Collingwood           | 0.070              |
| Cornwall              | 0.266              |
| Corunna               | 0.060              |
| Deep River            | 0.192              |
| Deseronto             | 0.106              |
| Dorchester            | 0.072              |
| Dorion                | 0.035              |
| Dresden               | 0.067              |

| Province and Location         Salce           Dryden         0.040           Dundalk         0.069           Dunnville         0.127           Durham         0.065           Dutton         0.072           Earlton         0.108           Edison         0.039           Elliot Lake         0.054           Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.068           Goderich         0.059 |
|--|
| Dundalk         0.069           Dunnville         0.127           Durham         0.065           Dutton         0.072           Earlton         0.108           Edison         0.039           Elliot Lake         0.054           Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059        |
| Dunnville         0.127           Durham         0.065           Dutton         0.072           Earlton         0.108           Edison         0.039           Elliot Lake         0.054           Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059  |
| Durham         0.065           Dutton         0.072           Earlton         0.108           Edison         0.039           Elliot Lake         0.054           Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.068           Goderich         0.059  |
| Dutton         0.072           Earlton         0.108           Edison         0.039           Elliot Lake         0.054           Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Earlton         0.108           Edison         0.039           Elliot Lake         0.054           Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059  |
| Edison 0.039  Elliot Lake 0.054  Elmvale 0.074  Embro 0.072  Englehart 0.104  Espanola 0.063  Exeter 0.063  Fenelon Falls 0.086  Fergus 0.075  Forest 0.061  Fort Erie 0.162  Fort Erie (Ridgeway) 0.160  Fort Frances 0.036  Gananoque 0.119  Geraldton 0.036  Glencoe 0.068  Goderich 0.059  |
| Elliot Lake 0.054 Elmvale 0.074 Embro 0.072 Englehart 0.104 Espanola 0.063 Exeter 0.063 Fenelon Falls 0.086 Fergus 0.075 Forest 0.061 Fort Erie (Ridgeway) 0.160 Fort Frances 0.036 Gananoque 0.119 Geraldton 0.036 Glencoe 0.068 Goderich 0.059   |
| Elmvale         0.074           Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Embro         0.072           Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Englehart         0.104           Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Espanola         0.063           Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Exeter         0.063           Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059  |
| Fenelon Falls         0.086           Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Fergus         0.075           Forest         0.061           Fort Erie         0.162           Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Forest 0.061 Fort Erie 0.162 Fort Erie (Ridgeway) 0.160 Fort Frances 0.036 Gananoque 0.119 Geraldton 0.036 Glencoe 0.068 Goderich 0.059  |
| Fort Erie 0.162 Fort Erie (Ridgeway) 0.160 Fort Frances 0.036 Gananoque 0.119 Geraldton 0.036 Glencoe 0.068 Goderich 0.059   |
| Fort Erie (Ridgeway)         0.160           Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Fort Frances         0.036           Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059  |
| Gananoque         0.119           Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Geraldton         0.036           Glencoe         0.068           Goderich         0.059   |
| Glencoe         0.068           Goderich         0.059   |
| Goderich 0.059   |
|  |
| Goro Boy   |
| Gore Bay 0.055   |
| Graham 0.040   |
| Gravenhurst (Muskoka Airport) 0.082  |
| Grimsby 0.158  |
| Guelph 0.082   |
| Guthrie 0.078  |
| Haileybury 0.125   |
| Haldimand (Caledonia) 0.119  |
| Haldimand (Hagersville) 0.097  |
| Haliburton 0.095   |
| Halton Hills<br>(Georgetown) 0.090   |
| Hamilton 0.140   |
| Hanover 0.063  |
| Hastings 0.096   |
| Hawkesbury 0.238   |
| Hearst 0.048   |
| Honey Harbour 0.076  |
| Hornepayne 0.043   |
| Huntsville 0.091   |
| Ingersoll 0.073  |
| Iroquois Falls 0.110   |
| Jellicoe 0.035   |
| Kapuskasing 0.064  |

| Province and Location                            | S <sub>a,ICF</sub> |
|--|--------------------|
| Kemptville                                       | 0.209              |
| Kenora   | 0.036              |
| Killaloe   | 0.148              |
| Kincardine                                       | 0.058              |
| Kingston   | 0.110              |
| Kinmount   | 0.089              |
| Kirkland Lake                                    | 0.095              |
| Kitchener  | 0.077              |
| Lakefield  | 0.091              |
| Lansdowne House                                  | 0.035              |
| Leamington                                       | 0.070              |
| Lindsay  | 0.087              |
| Lion's Head                                      | 0.062              |
| Listowel   | 0.066              |
| London   | 0.070              |
| Lucan  | 0.065              |
| Maitland   | 0.159              |
| Markdale   | 0.066              |
| Markham  | 0.103              |
| Martin   | 0.040              |
| Matheson   | 0.091              |
| Mattawa  | 0.215              |
| Midland  | 0.075              |
| Milton   | 0.107              |
| Milverton  | 0.067              |
| Minden   | 0.089              |
| Mississauga                                      | 0.121              |
| Mississauga (Lester B.<br>Pearson Int'l Airport) | 0.109              |
| Mississauga<br>(Port Credit)                     | 0.134              |
| Mitchell   | 0.065              |
| Moosonee   | 0.051              |
| Morrisburg                                       | 0.256              |
| Mount Forest                                     | 0.067              |
| Nakina   | 0.036              |
| Nanticoke (Jarvis)                               | 0.090              |
| Nanticoke (Port Dover)                           | 0.085              |
| Napanee  | 0.106              |
| New Liskeard                                     | 0.121              |
| Newcastle  | 0.107              |
| Newcastle<br>(Bowmanville)                       | 0.107              |
| Newmarket  | 0.085              |
| Niagara Falls                                    | 0.166              |
| North Bay  | 0.141              |
| Norwood  | 0.094              |
| Oakville   | 0.140              |

 $S_{a,ICF} = max[^{2}/_{3} F(0.2)S_{a}(0.2), ^{2}/_{3} F(0.5)S_{a}(0.5), F(0.5) S_{a}(0.5)]I_{E}M_{\nu}/1.47$ 

| Province and Location           | S <sub>a,ICF</sub> |
|---------------------------------|--------------------|
| Orangeville                     | 0.076              |
| Orillia                         | 0.079              |
| Oshawa                          | 0.108              |
| Ottawa (City Hall)              | 0.213              |
| Ottawa (Barrhaven)              | 0.208              |
| Ottawa (Kanata)                 | 0.197              |
| Ottawa<br>(M-C Int'l Airport)   | 0.215              |
| Ottawa (Orleans)                | 0.226              |
| Owen Sound                      | 0.064              |
| Pagwa River                     | 0.040              |
| Paris                           | 0.084              |
| Parkhill                        | 0.063              |
| Parry Sound                     | 0.079              |
| Pelham (Fonthill)               | 0.162              |
| Pembroke                        | 0.189              |
| Penetanguishene                 | 0.074              |
| Perth                           | 0.140              |
| Petawawa                        | 0.189              |
| Peterborough                    | 0.092              |
| Petrolia                        | 0.062              |
| Pickering (Dunbarton)           | 0.121              |
| Picton                          | 0.104              |
| Plattsville                     | 0.075              |
| Point Alexander                 | 0.193              |
| Port Burwell                    | 0.079              |
| Port Colborne                   | 0.157              |
| Port Elgin                      | 0.060              |
| Port Hope                       | 0.106              |
| Port Perry                      | 0.091              |
| Port Stanley                    | 0.075              |
| Prescott                        | 0.178              |
| Princeton                       | 0.079              |
| Raith                           | 0.038              |
| Rayside-Balfour<br>(Chelmsford) | 0.072              |
| Red Lake                        | 0.038              |
| Renfrew                         | 0.179              |
| Richmond Hill                   | 0.095              |
| Rockland                        | 0.239              |
| Sarnia                          | 0.059              |
| Sault Ste. Marie                | 0.044              |
| Schreiber                       | 0.035              |
| Seaforth                        | 0.062              |
| Shelburne                       | 0.072              |
|                                 | 0.084              |
| Simcoe                          |                    |
| Simcoe<br>Sioux Lookout         | 0.041              |

| Province and Location | e                  |
|-----------------------|--------------------|
| Smithville            | S <sub>a,ICF</sub> |
| Smooth Rock Falls     | 0.130              |
| South River           | 0.106              |
| Southampton           | 0.060              |
| St. Catharines        | 0.165              |
| St. Mary's            | 0.103              |
| St. Thomas            | 0.008              |
| Stirling              | 0.100              |
| Stratford             | 0.069              |
| Strathroy             | 0.066              |
| Sturgeon Falls        | 0.000              |
| Sudbury               | 0.076              |
| Sundridge             | 0.103              |
| Tavistock             | 0.103              |
| Temagami              | 0.071              |
| Thamesford            | 0.133              |
| Thedford              | 0.071              |
| Thunder Bay           | 0.002              |
| Tillsonburg           | 0.003              |
| Timmins               | 0.077              |
| Timmins (Porcupine)   | 0.073              |
| Etobicoke             | 0.109              |
| North York            | 0.110              |
| Scarborough           | 0.121              |
| Toronto (City Hall)   | 0.135              |
| Trenton               | 0.105              |
| Trout Creek           | 0.116              |
| Uxbridge              | 0.089              |
| Vaughan (Woodbridge)  | 0.096              |
| Vittoria              | 0.083              |
| Walkerton             | 0.062              |
| Wallaceburg           | 0.064              |
| Waterloo              | 0.075              |
| Watford               | 0.064              |
| Wawa                  | 0.043              |
| Welland               | 0.161              |
| West Lorne            | 0.072              |
| Whitby                | 0.114              |
| Whitby (Brooklin)     | 0.102              |
| White River           | 0.041              |
| Wiarton               | 0.062              |
| Windsor               | 0.063              |
| Wingham               | 0.061              |
| Woodstock             | 0.075              |
| Wyoming               | 0.061              |
| Quebec                |                    |
| Acton-Vale            | 0.155              |

| Province and Location | S <sub>a,ICF</sub> |
|-----------------------|--------------------|
| Alma                  | 0.356              |
| Amos                  | 0.078              |
| Asbestos              | 0.137              |
| Aylmer                | 0.203              |
| Baie-Comeau           | 0.207              |
| Baie-Saint-Paul       | 0.735              |
| Beauport              | 0.239              |
| Bedford               | 0.185              |
| Beloeil               | 0.244              |
| Brome                 | 0.149              |
| Brossard              | 0.266              |
| Buckingham            | 0.232              |
| Campbell's Bay        | 0.192              |
| Chambly               | 0.254              |
| Coaticook             | 0.129              |
| Contrecoeur           | 0.226              |
| Cowansville           | 0.161              |
| Deux-Montagnes        | 0.270              |
| Dolbeau               | 0.230              |
| Drummondville         | 0.160              |
| Farnham               | 0.187              |
| Fort-Coulonge         | 0.193              |
| Gagnon                | 0.060              |
| Gaspe                 | 0.090              |
| Gatineau              | 0.214              |
| Gracefield            | 0.207              |
| Granby                | 0.161              |
| Harrington-Harbour    | 0.056              |
| Havre-St-Pierre       | 0.127              |
| Hemmingford           | 0.253              |
| Hull                  | 0.210              |
| Iberville             | 0.243              |
| Inukjuak              | 0.040              |
| Joliette              | 0.219              |
| Kuujjuaq              | 0.054              |
| Kuujjuarapik          | 0.035              |
| La Pocatiere          | 0.685              |
| La-Malbaie            | 0.785              |
| La-Tuque              | 0.137              |
| Lac-Megantic          | 0.130              |
| Lachute               | 0.242              |
| Lennoxville           | 0.129              |
| Lery                  | 0.273              |
| Loretteville          | 0.236              |
| Louiseville           | 0.184              |
| Magog                 | 0.133              |
| Malartic              | 0.092              |

| Maniwaki         0.208           Masson         0.235           Matane         0.218           Mont-Joli         0.204           Mont-Laurier         0.204           Montragny         0.278           Montreal Region         Beaconsfield         0.273           Beaconsfield         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region           Ancienne-Lorette         0.231           Levis         0.23                                | Province and Location        | S <sub>a,ICF</sub> |
|---|------------------------------|--------------------|
| Matane         0.218           Mont-Joli         0.208           Mont-Laurier         0.204           Montmagny         0.278           Montreal Region         Beaconsfield         0.273           Dorval         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.273           Verdun         0.273           Verdun         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region           Ancienne-Lorette         0.231           Levis         0.233           Sillery         0.230  | Maniwaki                     |                    |
| Mont-Joli         0.208           Mont-Laurier         0.204           Montmagny         0.278           Montreal Region         0.272           Beaconsfield         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region           Ancienne-Lorette         0.231           Levis         0.233           Guebec         0.233           Sillery         0.230           Ste-Foy         0.231  | Masson                       | 0.235              |
| Mont-Laurier         0.204           Montmagny         0.278           Montreal Region         0.273           Beaconsfield         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.273           Verdun         0.273           Verdun         0.273           Verdun         0.270           Nitchequon         0.047           Noranda         0.084           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski  | Matane                       | 0.218              |
| Montreal Region           Beaconsfield         0.273           Dorval         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200  | Mont-Joli                    | 0.208              |
| Montreal Region   | Mont-Laurier                 | 0.204              |
| Beaconsfield         0.273           Dorval         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.273           Verdun         0.273           Verdun         0.273           Verdun         0.273           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Rob  | Montmagny                    | 0.278              |
| Dorval         0.272           Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec O.233         Sillery           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133   | Montreal Region              |                    |
| Laval         0.270           Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec O.233         O.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.363   | Beaconsfield                 | 0.273              |
| Montreal (City Hall)         0.270           Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268  | Dorval                       | 0.272              |
| Montreal-Est         0.266           Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec O.233         O.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Richmond         0.140           Rimouski         0.200           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.362      <  | Laval                        | 0.270              |
| Montreal-Nord         0.269           Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.084           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec O.233         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Richmond         0.140           Rimouski         0.200           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.362           Saguenay (Kenogami)         0.362 <td>Montreal (City Hall)</td> <td>0.270</td> | Montreal (City Hall)         | 0.270              |
| Outremont         0.271           Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.362           Saguenay (Kenogami)         0.362  | Montreal-Est                 | 0.266              |
| Pierrefonds         0.272           St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0                                | Montreal-Nord                | 0.269              |
| St-Lambert         0.268           St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244                                      | Outremont                    | 0.271              |
| St-Laurent         0.271           Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Pierrefonds                  | 0.272              |
| Ste-Anne-de-Bellevue         0.273           Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.084           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | St-Lambert                   | 0.268              |
| Verdun         0.270           Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | St-Laurent                   | 0.271              |
| Nicolet (Gentilly)         0.183           Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Ste-Anne-de-Bellevue         | 0.273              |
| Nitchequon         0.047           Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | Verdun                       | 0.270              |
| Noranda         0.088           Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Nicolet (Gentilly)           | 0.183              |
| Perce         0.084           Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Nitchequon                   | 0.047              |
| Pincourt         0.273           Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | Noranda                      | 0.088              |
| Plessisville         0.155           Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Perce                        | 0.084              |
| Port-Cartier         0.167           Puvirnituq         0.061           Quebec City Region         0.231           Ancienne-Lorette         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | Pincourt                     | 0.273              |
| Puvirnituq         0.061           Quebec City Region           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.230           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Plessisville                 | 0.155              |
| Quebec City Region           Ancienne-Lorette         0.231           Levis         0.233           Quebec         0.230           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | Port-Cartier                 | 0.167              |
| Ancienne-Lorette 0.231 Levis 0.233 Quebec 0.230 Sillery 0.230 Ste-Foy 0.231 Richmond 0.140 Rimouski 0.200 Riviere-du-Loup 0.526 Roberval 0.312 Rock-Island 0.133 Rosemere 0.268 Rouyn 0.089 Saguenay (Bagotville) 0.363 Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.233  | Puvirnituq                   | 0.061              |
| Levis         0.233           Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | Quebec City Region           |                    |
| Quebec         0.233           Sillery         0.230           Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244  | Ancienne-Lorette             | 0.231              |
| Sillery       0.230         Ste-Foy       0.231         Richmond       0.140         Rimouski       0.200         Riviere-du-Loup       0.526         Roberval       0.312         Rock-Island       0.133         Rosemere       0.268         Rouyn       0.089         Saguenay       0.359         Saguenay (Bagotville)       0.363         Saguenay (Jonquiere)       0.362         Saguenay (Kenogami)       0.362         Saint-Eustache       0.269         Saint-Jean-sur-Richelieu       0.244   | Levis A                      | 0.233              |
| Ste-Foy         0.231           Richmond         0.140           Rimouski         0.200           Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Quebec                       | 0.233              |
| Richmond       0.140         Rimouski       0.200         Riviere-du-Loup       0.526         Roberval       0.312         Rock-Island       0.133         Rosemere       0.268         Rouyn       0.089         Saguenay       0.359         Saguenay (Bagotville)       0.363         Saguenay (Jonquiere)       0.362         Saguenay (Kenogami)       0.362         Saint-Eustache       0.269         Saint-Jean-sur-Richelieu       0.244   | Sillery -                    | 0.230              |
| Rimouski       0.200         Riviere-du-Loup       0.526         Roberval       0.312         Rock-Island       0.133         Rosemere       0.268         Rouyn       0.089         Saguenay       0.359         Saguenay (Bagotville)       0.363         Saguenay (Jonquiere)       0.362         Saguenay (Kenogami)       0.362         Saint-Eustache       0.269         Saint-Jean-sur-Richelieu       0.244  | Ste-Foy                      | 0.231              |
| Riviere-du-Loup         0.526           Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Richmond                     | 0.140              |
| Roberval         0.312           Rock-Island         0.133           Rosemere         0.268           Rouyn         0.089           Saguenay         0.359           Saguenay (Bagotville)         0.363           Saguenay (Jonquiere)         0.362           Saguenay (Kenogami)         0.362           Saint-Eustache         0.269           Saint-Jean-sur-Richelieu         0.244   | Rimouski                     | 0.200              |
| Rock-Island 0.133 Rosemere 0.268 Rouyn 0.089 Saguenay 0.359 Saguenay (Bagotville) 0.363 Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.133  | Riviere-du-Loup              | 0.526              |
| Rosemere 0.268 Rouyn 0.089 Saguenay 0.359 Saguenay (Bagotville) 0.363 Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244  | Roberval                     | 0.312              |
| Rouyn 0.089 Saguenay 0.359 Saguenay (Bagotville) 0.363 Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244   | Rock-Island                  | 0.133              |
| Saguenay 0.359 Saguenay (Bagotville) 0.363 Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244   | Rosemere                     | 0.268              |
| Saguenay (Bagotville) 0.363 Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244  | Rouyn                        | 0.089              |
| Saguenay (Jonquiere) 0.362 Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244  | Saguenay                     | 0.359              |
| Saguenay (Kenogami) 0.362 Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244   | Saguenay (Bagotville)        | 0.363              |
| Saint-Eustache 0.269 Saint-Jean-sur-Richelieu 0.244   | Saguenay (Jonquiere)         | 0.362              |
| Saint-Jean-sur-<br>Richelieu 0.244  | Saguenay (Kenogami)          | 0.362              |
| Richelieu 0.244   | Saint-Eustache               | 0.269              |
| Salaberry-de-Valleyfield 0.273  | Saint-Jean-sur-<br>Richelieu | 0.244              |
|   | Salaberry-de-Valleyfield     | 0.273              |

 $\mathbf{S_{a,ICF}} = \text{max}[^2/_3 \; \text{F(0.2)} \\ \mathbf{S_a(0.2)}, \; ^2/_3 \; \text{F(0.5)} \\ \mathbf{S_a(0.5)}, \; \text{F(0.5)} \; \mathbf{S_a(0.5)} \\ \mathbf{I_EM_v}/1.47$ 

| Province and Location               | S <sub>a,ICF</sub> |
|-------------------------------------|--------------------|
| Schefferville                       | 0.042              |
| Senneterre                          | 0.083              |
| Sept-Iles                           | 0.155              |
| Shawinigan                          | 0.167              |
| Shawville                           | 0.191              |
| Sherbrooke                          | 0.129              |
| Sorel                               | 0.200              |
| St-Felicien                         | 0.232              |
| St-Georges-de-<br>Cacouna           | 0.389              |
| St-Hubert                           | 0.264              |
| Saint-Hubert-de-<br>Riviere-du-Loup | 0.239              |
| St-Hyacinthe                        | 0.187              |
| St-JerOme                           | 0.250              |
| St-Jovite                           | 0.207              |
| Quebec                              |                    |
| St-Lazare-Hudson                    | 0.271              |
| St-Nicolas                          | 0.223              |
| Ste-Agathe-des-Monts                | 0.209              |
| Sutton                              | 0.150              |
| Tadoussac                           | 0.318              |
| Temiscaming                         | 0.372              |
| Terrebonne                          | 0.265              |
| Thetford Mines                      | 0.142              |
| Thurso                              | 0.232              |
| Trois-Rivieres                      | 0.184              |
| Val-d'Or                            | 0.093              |
| Varennes                            | 0.261              |
| Vercheres                           | 0.249              |
| Victoriaville                       | 0.149              |
| Ville-Marie                         | 0.142              |
| Wakefield                           | 0.201              |
| Waterloo                            | 0.147              |
| Windsor                             | 0.134              |
| New Brunswick                       |                    |
| Alma                                | 0.096              |
| Bathurst                            | 0.125              |
| Campbellton                         | 0.132              |
| Edmundston                          | 0.150              |
| Fredericton                         | 0.126              |
| Gagetown                            | 0.119              |
| Grand Falls                         | 0.148              |
| Miramichi                           | 0.124              |
| Moncton                             | 0.100              |
| Oromocto                            | 0.125              |
| Sackville                           | 0.093              |

| Province and Location       | S <sub>a,ICF</sub> |
|-----------------------------|--------------------|
| Saint Andrews               | 0.396              |
| Saint George                | 0.264              |
| Saint John                  | 0.121              |
| Shippagan                   | 0.096              |
| St. Stephen                 | 0.354              |
| Woodstock                   | 0.128              |
| Nova Scotia                 | L                  |
| Amherst                     | 0.089              |
| Antigonish                  | 0.076              |
| Bridgewater                 | 0.086              |
| Canso                       | 0.085              |
| Debert                      | 0.080              |
| Digby                       | 0.105              |
| Greenwood (CFB)             | 0.090              |
| Dartmouth                   | 0.082              |
| Halifax                     | 0.082              |
| Kentville                   | 0.087              |
| Liverpool                   | 0.086              |
| Lockeport                   | 0.087              |
| Louisburg                   | 0.089              |
| Lunenburg                   | 0.085              |
| New Glasgow                 | 0.077              |
| North Sydney                | 0.081              |
| Pictou                      | 0.076              |
| Port Hawkesbury             | 0.079              |
| Springhill                  | 0.085              |
| Stewiacke                   | 0.081              |
| Sydney                      | 0.083              |
| Tatamagouche                | 0.079              |
| Truro                       | 0.080              |
| Wolfville                   | 0.086              |
| Yarmouth                    | 0.094              |
| Prince Edward Island        |                    |
| Charlottetown               | 0.077              |
| Souris                      | 0.073              |
| Summerside                  | 0.089              |
| Tignish                     | 0.090              |
| Newfoundland                |                    |
| Argentia                    | 0.079              |
| Bonavista                   | 0.067              |
| Buchans                     | 0.064              |
| Cape Harrison               | 0.087              |
| Cape Race                   | 0.085              |
| Channel-Port aux<br>Basques | 0.071              |
| Corner Brook                | 0.062              |
| Gander                      | 0.064              |

| Province and Location       | S <sub>a,ICF</sub> |
|-----------------------------|--------------------|
| Grand Bank                  | 0.090              |
| Grand Falls                 | 0.064              |
| Happy Valley - Goose<br>Bay | 0.050              |
| Labrador City               | 0.052              |
| St. Anthony                 | 0.057              |
| St. John's                  | 0.073              |
| Stephenville                | 0.064              |
| Twin Falls                  | 0.047              |
| Wabana                      | 0.072              |
| Wabush                      | 0.052              |





## **Appendix B: Climatic Design Data**

|    |                       |        | Des            | sign Te     | mpera     | ture      | De-                   |             | One                  |             |        | l .          | Driv-                      | Snow           |                |         | / Wind   |
|----|-----------------------|--------|----------------|-------------|-----------|-----------|-----------------------|-------------|----------------------|-------------|--------|--------------|----------------------------|----------------|----------------|---------|----------|
|    |                       | Elev., | Janı           | uary        | July :    | 2.5%      | gree-                 | 15<br>Min.  | Day                  | Ann.        | Moist. | Ann.<br>Tot. | ing Rain<br>Wind           | kPa,           | 1/50           | Pressui | res, kPa |
|    | Province and Location | m      | 2.5%<br>°C     | 1%<br>°C    | Dry<br>°C | Wet<br>°C | Days<br>Below<br>18°C | Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Index  | Ppn.,<br>mm  | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10    | 1/50     |
| Br | itish Columbia        |        |                |             |           |           |                       |             |                      |             |        |              |                            |                |                |         |          |
|    | 100 Mile House        | 1040   | -30            | -32         | 29        | 17        | 5030                  | 10          | 48                   | 300         | 0.44   | 425          | 60                         | 2.6            | 0.3            | 0.27    | 0.35     |
|    | Abbotsford            | 70     | -8             | -10         | 29        | 20        | 2860                  | 12          | 112                  | 1525        | 1.59   | 1600         | 160                        | 2.0            | 0.3            | 0.34    | 0.44     |
|    | Agassiz               | 15     | -9             | -11         | 31        | 21        | 2750                  | 8           | 128                  | 1650        | 1.71   | 1700         | 160                        | 2.4            | 0.7            | 0.36    | 0.47     |
|    | Alberni               | 12     | <b>-</b> 5     | -8          | 31        | 19        | 3100                  | 10          | 144                  | 1900        | 2.00   | 2000         | 220                        | 2.6            | 0.4            | 0.25    | 0.32     |
|    | Ashcroft              | 305    | -24            | -27         | 34        | 20        | 3700                  | 10          | 37                   | 250         | 0.25   | 300          | 80                         | 1.7            | 0.1            | 0.29    | 0.38     |
|    | Bamfield              | 20     | <del>-</del> 2 | -4          | 23        | 17        | 3080                  | 13          | 170                  | 2870        | 2.96   | 2890         | 280                        | 1.0            | 0.4            | 0.39    | 0.50     |
|    | Beatton River         | 840    | -37            | -39         | 26        | 18        | 6300                  | 15          | 64                   | 330         | 0.53   | 450          | 80                         | 3.3            | 0.1            | 0.23    | 0.30     |
|    | Bella Bella           | 25     | <del>-</del> 5 | -7          | 23        | 18        | 3180                  | 13          | 145                  | 2715        | 2.82   | 2800         | 350                        | 2.6            | 0.8            | 0.39    | 0.50     |
|    | Bella Coola           | 40     | -14            | -18         | 27        | 19        | 3560                  | 10          | 140                  | 1500        | 1.85   | 1700         | 350                        | 4.5            | 0.8            | 0.30    | 0.39     |
|    | Burns Lake            | 755    | -31            | -34         | 26        | 17        | 5450                  | 12          | 54                   | 300         | 0.56   | 450          | 100                        | 3.4            | 0.2            | 0.30    | 0.39     |
|    | Cache Creek           | 455    | -24            | -27         | 34        | 20        | 3700                  | 10          | 37                   | 250         | 0.25   | 300          | 80                         | 1.7            | 0.2            | 0.30    | 0.39     |
|    | Campbell River        | 20     | <del>-</del> 5 | -7          | 26        | 18        | 3000                  | 10          | 116                  | 1500        | 1.59   | 1600         | 260                        | 2.8            | 0.4            | 0.40    | 0.52     |
|    | Carmi                 | 845    | -24            | -26         | 31        | 19        | 4750                  | 10          | 64                   | 325         | 0.38   | 550          | 60                         | 3.6            | 0.2            | 0.29    | 0.38     |
|    | Castlegar             | 430    | -18            | -20         | 32        | 20        | 3580                  | 10          | 54                   | 560         | 0.64   | 700          | 60                         | 4.2            | 0.1            | 0.27    | 0.34     |
|    | Chetwynd              | 605    | -35            | -38         | 27        | 18        | 5500                  | 15          | 70                   | 400         | 0.58   | 625          | 60                         | 2.4            | 0.2            | 0.31    | 0.40     |
|    | Chilliwack            | 10     | -9             | -11         | 30        | 20        | 2780                  | 8           | 139                  | 1625        | 1.68   | 1700         | 160                        | 2.2            | 0.3            | 0.36    | 0.47     |
|    | Comox                 | 15     | <b>-</b> 7     | -9          | 27        | 18        | 3100                  | 10          | 106                  | 1175        | 1.28   | 1200         | 260                        | 2.4            | 0.4            | 0.40    | 0.52     |
|    | Courtenay             | 10     | <del>-</del> 7 | -9          | 28        | 18        | 3100                  | 10          | 106                  | 1400        | 1.49   | 1450         | 260                        | 2.4            | 0.4            | 0.40    | 0.52     |
|    | Cranbrook             | 910    | -26            | -28         | 32        | 18        | 4400                  | 12          | 59                   | 275         | 0.30   | 400          | 100                        | 3.0            | 0.2            | 0.25    | 0.33     |
|    | Crescent Valley       | 585    | -18            | <b>-</b> 20 | 31        | 20        | 3650                  | 10          | 54                   | 675         | 0.75   | 850          | 80                         | 4.2            | 0.1            | 0.25    | 0.33     |
|    | Crofton               | 5      | -4             | -6          | 28        | 19        | 2880                  | 8           | 86                   | 925         | 1.06   | 950          | 160                        | 1.8            | 0.2            | 0.31    | 0.40     |
|    | Dawson Creek          | 665    | -38            | -40         | 27        | 18        | 5900                  | 18          | 75                   | 325         | 0.49   | 475          | 100                        | 2.5            | 0.2            | 0.31    | 0.40     |
|    | Dease Lake            | 800    | -37            | -40         | 24        | 15        | 6730                  | 10          | 45                   | 265         | 0.55   | 425          | 380                        | 2.8            | 0.1            | 0.23    | 0.30     |
|    | Dog Creek             | 450    | -28            | -30         | 29        | 17        | 4800                  | 10          | 48                   | 275         | 0.41   | 375          | 100                        | 1.8            | 0.2            | 0.27    | 0.35     |
|    | Duncan                | 10     | -6             | -8          | 28        | 19        | 2980                  | 8           | 103                  | 1000        | 1.13   | 1050         | 180                        | 1.8            | 0.4            | 0.30    | 0.39     |
|    | Elko                  | 1065   | -28            | -31         | 30        | 19        | 4600                  | 13          | 64                   | 440         | 0.48   | 650          | 100                        | 3.6            | 0.2            | 0.31    | 0.40     |
|    | Fernie                | 1010   | -27            | -30         | 30        | 19        | 4750                  | 13          | 118                  | 860         | 0.88   | 1175         | 100                        | 4.5            | 0.2            | 0.31    | 0.40     |
|    | Fort Nelson           | 465    | -39            | -42         | 28        | 18        | 6710                  | 15          | 70                   | 325         | 0.56   | 450          | 80                         | 2.4            | 0.1            | 0.23    | 0.30     |
|    | Fort St. John         | 685    | -35            | -37         | 26        | 18        | 5750                  | 15          | 72                   | 320         | 0.50   | 475          | 100                        | 2.8            | 0.1            | 0.30    | 0.39     |
|    | Glacier               | 1145   | -27            | -30         | 27        | 17        | 5800                  | 10          | 70                   | 625         | 0.83   | 1500         | 80                         | 9.4            | 0.2            | 0.25    | 0.32     |
|    | Gold River            | 120    | -8             | -11         | 31        | 18        | 3230                  | 13          | 200                  | 2730        | 2.80   | 2850         | 250                        | 2.8            | 0.6            | 0.25    | 0.32     |
|    | Golden                | 790    | -27            | -30         | 30        | 17        | 4750                  | 10          | 55                   | 325         | 0.57   | 500          | 100                        | 3.7            | 0.2            | 0.27    | 0.35     |
|    | Grand Forks           | 565    | -19            | -22         | 34        | 20        | 3820                  | 10          | 48                   | 390         | 0.47   | 475          | 80                         | 2.8            | 0.1            | 0.31    | 0.40     |
|    | Greenwood             | 745    | -20            | -23         | 34        | 20        | 4100                  | 10          | 64                   | 430         | 0.51   | 550          | 80                         | 3.6            | 0.1            | 0.31    | 0.40     |
|    | Hope                  | 40     | -13            | -15         | 31        | 20        | 3000                  | 8           | 139                  | 1825        | 1.88   | 1900         | 140                        | 2.8            | 0.7            | 0.48    | 0.63     |
|    | Jordan River          | 20     | -1             | -3          | 22        | 17        | 2900                  | 12          | 170                  | 2300        | 2.37   | 2370         | 250                        | 1.2            | 0.4            | 0.43    | 0.55     |
|    | Kamloops              | 355    | -23            | -25         | 34        | 20        | 3450                  | 13          | 42                   | 225         | 0.23   | 275          | 80                         | 1.8            | 0.2            | 0.31    | 0.40     |
|    | Kaslo                 | 545    | -17            | -20         | 30        | 19        | 3830                  | 10          | 55                   | 660         | 0.82   | 850          | 80                         | 2.8            | 0.1            | 0.24    | 0.31     |

Council, National R. National Building Code 2015. National Research Council.

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|  | Elev., | Des        | ign Te<br>uary |           | ture<br>2.5% | De-<br>gree-          | 15<br>Min.  | One<br>Day           | Ann.        | Moist. | Ann.<br>Tot. | Driv-<br>ing Rain<br>Wind  | Snow<br>kPa,   | ,              | Hourly<br>Pressur |      |
|--|--------|------------|----------------|-----------|--------------|-----------------------|-------------|----------------------|-------------|--------|--------------|----------------------------|----------------|----------------|-------------------|------|
| Province and Location                  | m      | 2.5%<br>°C | 1%<br>°C       | Dry<br>°C | Wet<br>°C    | Days<br>Below<br>18°C | Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Index  | Ppn.,<br>mm  | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10              | 1/50 |
| Kelowna                                | 350    | -17        | -20            | 33        | 20           | 3400                  | 12          | 43                   | 260         | 0.29   | 325          | 80                         | 1.7            | 0.1            | 0.31              | 0.40 |
| Kimberley                              | 1090   | -25        | -27            | 31        | 18           | 4650                  | 12          | 59                   | 350         | 0.38   | 500          | 100                        | 3.0            | 0.2            | 0.25              | 0.33 |
| Kitimat Plant                          | 15     | -16        | -18            | 25        | 16           | 3750                  | 13          | 193                  | 2100        | 2.19   | 2500         | 220                        | 5.5            | 0.8            | 0.37              | 0.48 |
| Kitimat Townsite                       | 130    | -16        | -18            | 24        | 16           | 3900                  | 13          | 171                  | 1900        | 2.00   | 2300         | 220                        | 6.5            | 8.0            | 0.37              | 0.48 |
| Ladysmith                              | 80     | <b>-</b> 7 | -9             | 27        | 19           | 3000                  | 8           | 97                   | 1075        | 1.20   | 1160         | 180                        | 2.4            | 0.4            | 0.31              | 0.40 |
| Langford                               | 80     | -4         | -6             | 27        | 19           | 2750                  | 9           | 135                  | 1095        | 1.22   | 1125         | 220                        | 1.8            | 0.3            | 0.31              | 0.40 |
| Lillooet                               | 245    | -21        | -23            | 34        | 20           | 3400                  | 10          | 70                   | 300         | 0.31   | 350          | 100                        | 2.1            | 0.1            | 0.34              | 0.44 |
| Lytton                                 | 325    | -17        | -20            | 35        | 20           | 3300                  | 10          | 70                   | 330         | 0.33   | 425          | 80                         | 2.8            | 0.3            | 0.33              | 0.43 |
| Mackenzie                              | 765    | -34        | -38            | 27        | 17           | 5550                  | 10          | 50                   | 350         | 0.54   | 650          | 60                         | 5.1            | 0.2            | 0.25              | 0.32 |
| Masset                                 | 10     | -5         | -7             | 17        | 15           | 3700                  | 13          | 80                   | 1350        | 1.54   | 1400         | 400                        | 1.8            | 0.4            | 0.48              | 0.61 |
| McBride                                | 730    | -29        | -32            | 29        | 18           | 4980                  | 13          | 54                   | 475         | 0.64   | 650          | 60                         | 4.3            | 0.2            | 0.27              | 0.35 |
| McLeod Lake                            | 695    | -35        | -37            | 27        | 17           | 5450                  | 10          | 50                   | 350         | 0.54   | 650          | 60                         | 4.1            | 0.2            | 0.25              | 0.32 |
| Merritt                                | 570    | -24        | -27            | 34        | 20           | 3900                  | 8           | 54                   | 240         | 0.24   | 310          | 80                         | 1.8            | 0.3            | 0.34              | 0.44 |
| Mission City                           | 45     | <b>-</b> 9 | -11            | 30        | 20           | 2850                  | 13          | 123                  | 1650        | 1.71   | 1700         | 160                        | 2.4            | 0.3            | 0.33              | 0.43 |
| Montrose                               | 615    | -16        | -18            | 32        | 20           | 3600                  | 10          | 54                   | 480         | 0.56   | 700          | 60                         | 4.1            | 0.1            | 0.27              | 0.35 |
| Nakusp                                 | 445    | -20        | -22            | 31        | 20           | 3560                  | 10          | 60                   | 650         | 0.78   | 850          | 60                         | 4.4            | 0.1            | 0.25              | 0.33 |
| Nanaimo                                | 15     | -6         | -8             | 27        | 19           | 3000                  | 10          | 91                   | 1000        | 1.13   | 1050         | 200                        | 2.1            | 0.4            | 0.39              | 0.50 |
| Nelson                                 | 600    | -18        | -20            | 31        | 20           | 3500                  | 10          | 59                   | 460         | 0.57   | 700          | 60                         | 4.2            | 0.1            | 0.25              | 0.33 |
| Ocean Falls                            | 10     | -10        | -12            | 23        | 17           | 3400                  | 13          | 260                  | 4150        | 4.21   | 4300         | 350                        | 3.9            | 8.0            | 0.46              | 0.59 |
| Osoyoos                                | 285    | -14        | -17            | 35        | 21           | 3100                  | 10          | 48                   | 275         | 0.28   | 310          | 60                         | 1.1            | 0.1            | 0.31              | 0.40 |
| Parksville                             | 40     | -6         | -8             | 26        | 19           | 3200                  | 10          | 91                   | 1200        | 1.31   | 1250         | 200                        | 2.0            | 0.4            | 0.39              | 0.50 |
| Penticton                              | 350    | -15        | -17            | 33        | 20           | 3350                  | 10          | 48                   | 275         | 0.28   | 300          | 60                         | 1.3            | 0.1            | 0.35              | 0.45 |
| Port Alberni                           | 15     | <b>-</b> 5 | -8             | 31        | 19           | 3100                  | 10          | 161                  | 1900        | 2.00   | 2000         | 240                        | 2.6            | 0.4            | 0.25              | 0.32 |
| Port Alice                             | 25     | -3         | -6             | 26        | 17           | 3010                  | 13          | 200                  | 3300        | 3.38   | 3340         | 220                        | 1.1            | 0.4            | 0.25              | 0.32 |
| Port Hardy                             | 5      | <b>-</b> 5 | -7             | 20        | 16           | 3440                  | 13          | 150                  | 1775        | 1.92   | 1850         | 220                        | 0.9            | 0.4            | 0.40              | 0.52 |
| Port McNeill                           | 5      | -5         | -7             | 22        | 17           | 3410                  | 13          | 128                  | 1750        | 1.89   | 1850         | 260                        | 1.1            | 0.4            | 0.40              | 0.52 |
| Port Renfrew                           | 20     | -3         | -5             | 24        | 17           | 2900                  | 13          | 200                  | 3600        | 3.64   | 3675         | 270                        | 1.1            | 0.4            | 0.40              | 0.52 |
| Powell River                           | 10     | -7         | <b>-</b> 9     | 26        | 18           | 3100                  | 10          | 80                   | 1150        | 1.27   | 1200         | 220                        | 1.7            | 0.4            | 0.39              | 0.51 |
| Prince George                          | 580    | -32        | -36            | 28        | 18           | 4720                  | 15          | 54                   | 425         | 0.58   | 600          | 80                         | 3.4            | 0.2            | 0.29              | 0.37 |
| Prince Rupert                          | 20     | -13        | -15            | 19        | 15           | 3900                  | 13          | 160                  | 2750        | 2.84   | 2900         | 240                        | 1.9            | 0.4            | 0.42              | 0.54 |
| Princeton                              | 655    | -24        | -29            | 33        | 19           | 4250                  | 10          | 43                   | 235         | 0.35   | 350          | 80                         | 2.9            | 0.6            | 0.28              | 0.36 |
| Qualicum Beach                         | 10     | -7         | -9             | 27        | 19           | 3200                  | 10          | 96                   | 1200        | 1.31   | 1250         | 200                        | 2.0            | 0.4            | 0.41              | 0.53 |
| Queen Charlotte City                   | 35     | -6         | -8             | 21        | 16           | 3520                  | 13          | 110                  | 1300        | 1.47   | 1350         | 360                        | 1.8            | 0.4            | 0.48              | 0.61 |
| Quesnel                                | 475    | -31        | -33            | 30        | 17           | 4650                  | 10          | 50                   | 380         | 0.51   | 525          | 80                         | 3.0            | 0.1            | 0.24              | 0.31 |
| Revelstoke                             | 440    | -20        | -23            | 31        | 19           | 4000                  | 13          | 55                   | 625         | 0.80   | 950          | 80                         | 7.2            | 0.1            | 0.25              | 0.32 |
| Salmon Arm                             | 425    | -19        | -24            | 33        | 21           | 3650                  | 13          | 48                   | 400         | 0.47   | 525          | 80                         | 3.5            | 0.1            | 0.30              | 0.39 |
| Sandspit                               | 5      | -4         | 6              | 18        | 15           | 3450                  | 13          | 86                   | 1300        | 1.47   | 1350         | 500                        | 1.8            | 0.4            | 0.60              | 0.78 |
| Sechelt                                | 25     | -6         | -8             | 27        | 20           | 2680                  | 10          | 75                   | 1140        | 1.27   | 1200         | 160                        | 1.8            | 0.4            | 0.37              | 0.48 |
| Sidney                                 | 10     | -4         | -6             | 26        | 18           | 2850                  | 8           | 96                   | 825         | 0.97   | 850          | 160                        | 1.1            | 0.2            | 0.33              | 0.42 |
| Smith River                            | 660    | 45         | -47            | 26        | 17           | 7100                  | 10          | 64                   | 300         | 0.58   | 500          | 40                         | 2.8            | 0.1            | 0.23              | 0.30 |
| Council, National R. National Building |        |            | <u> </u>       |           | · · ·        | 1                     | ı .v        | _ <u> </u>           | 1 200       | 3.00   | 1 300        | ı ' <u>'</u>               |                | J.,            | 1 3.20            | 0,00 |

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|                                   | ŀ      |                |                 | mpera     |           | De-           | 15          | One          |               |       | Ann.        | Driv-<br>ing Rain          | Snow<br>kPa,   |                | Hourly<br>Pressur |          |
|-----------------------------------|--------|----------------|-----------------|-----------|-----------|---------------|-------------|--------------|---------------|-------|-------------|----------------------------|----------------|----------------|-------------------|----------|
| Province and Location             | Elev., | Janu           | ıary            | July :    | 2.5%<br>I | gree-<br>Days | Min.        | Day<br>Rain, | Ann.<br>Rain, | Moist | Tot.        | Wind                       | κra,           | 1/30<br>T      | FIESSUI           | 65, KF a |
| Trovince and Essation             | m      | 2.5%<br>°C     | 1%<br>°C        | Dry<br>°C | Wet<br>°C | Below<br>18°C | Rain,<br>mm | 1/50,<br>mm  | mm            | Index | Ppn.,<br>mm | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10              | 1/50     |
| Smithers                          | 500    | -29            | -31             | 26        | 17        | 5040          | 13          | 60           | 325           | 0.60  | 500         | 120                        | 3.5            | 0.2            | 0.31              | 0.40     |
| Sooke                             | 20     | -1             | <b>-</b> 3      | 21        | 16        | 2900          | 9           | 130          | 1250          | 1.37  | 1280        | 220                        | 1.3            | 0.3            | 0.37              | 0.48     |
| Squamish                          | 5      | <b>-</b> 9     | -11             | 29        | 20        | 2950          | 10          | 140          | 2050          | 2.12  | 2200        | 160                        | 2.8            | 0.7            | 0.39              | 0.50     |
| Stewart                           | 10     | -17            | <del>-</del> 20 | 25        | 16        | 4350          | 13          | 135          | 1300          | 1.47  | 1900        | 180                        | 7.9            | 0.8            | 0.28              | 0.36     |
| Tahsis                            | 25     | -4             | -6              | 26        | 18        | 3150          | 13          | 200          | 3845          | 3.91  | 3900        | 300                        | 1.1            | 0.4            | 0.26              | 0.34     |
| Taylor                            | 515    | -35            | -37             | 26        | 18        | 5720          | 15          | 72           | 320           | 0.49  | 450         | 100                        | 2.3            | 0.1            | 0.31              | 0.40     |
| Terrace                           | 60     | -19            | -21             | 27        | 17        | 4150          | 13          | 120          | 950           | 1.08  | 1150        | 200                        | 5.4            | 0.6            | 0.28              | 0.36     |
| Tofino                            | 10     | <del>-</del> 2 | <b>-</b> 4      | 20        | 16        | 3150          | 13          | 193          | 3275          | 3.36  | 3300        | 300                        | 1.1            | 0.4            | 0.53              | 0.68     |
| Trail                             | 440    | -14            | -17             | 33        | 20        | 3600          | 10          | 54           | 580           | 0.65  | 700         | 60                         | 4.1            | 0.1            | 0.27              | 0.35     |
| Ucluelet                          | 5      | -2             | -4              | 18        | 16        | 3120          | 13          | 180          | 3175          | 3.26  | 3200        | 280                        | 1.0            | 0.4            | 0.53              | 0.68     |
| Vancouver Region                  |        |                |                 |           |           |               |             |              |               |       |             |                            |                |                |                   |          |
| Burnaby (Simon<br>Fraser Univ.)   | 330    | <del>-</del> 7 | <b>-</b> 9      | 25        | 17        | 3100          | 10          | 150          | 1850          | 1.93  | 1950        | 160                        | 2.9            | 0.7            | 0.36              | 0.47     |
| Cloverdale                        | 10     | -8             | -10             | 29        | 20        | 2700          | 10          | 112          | 1350          | 1.44  | 1400        | 160                        | 2.5            | 0.2            | 0.34              | 0.44     |
| Haney                             | 10     | -9             | -11             | 30        | 20        | 2840          | 10          | 134          | 1800          | 1.86  | 1950        | 160                        | 2.4            | 0.2            | 0.34              | 0.44     |
| Ladner                            | 3      | -6             | -8              | 27        | 19        | 2600          | 10          | 80           | 1000          | 1.14  | 1050        | 160                        | 1.3            | 0.2            | 0.36              | 0.46     |
| Langley                           | 15     | -8             | -10             | 29        | 20        | 2700          | 10          | 112          | 1450          | 1.53  | 1500        | 160                        | 2.4            | 0.2            | 0.34              | 0.44     |
| New Westminster                   | 10     | -8             | -10             | 29        | 19        | 2800          | 10          | 134          | 1500          | 1.59  | 1575        | 160                        | 2.3            | 0.2            | 0.34              | 0.44     |
| North Vancouver                   | 135    | <del>-</del> 7 | <b>-</b> 9      | 26        | 19        | 2910          | 12          | 150          | 2000          | 2.07  | 2100        | 160                        | 3.0            | 0.3            | 0.35              | 0.45     |
| Richmond                          | 5      | -7             | <b>-</b> 9      | 27        | 19        | 2800          | 10          | 86           | 1070          | 1.20  | 1100        | 160                        | 1.5            | 0.2            | 0.35              | 0.45     |
| Surrey (88 Ave &<br>156 St.)      | 90     | <b>-</b> 8     | -10             | 29        | 20        | 2750          | 10          | 128          | 1500          | 1.58  | 1575        | 160                        | 2.4            | 0.3            | 0.34              | 0.44     |
| Vancouver<br>(City Hall)          | 40     | -7             | <b>-</b> 9      | 28        | 20        | 2825          | 10          | 112          | 1325          | 1.44  | 1400        | 160                        | 1.8            | 0.2            | 0.35              | 0.45     |
| Vancouver<br>(Granville & 41 Ave) | 120    | <del>-</del> 6 | <b>-</b> 8      | 28        | 20        | 2925          | 10          | 107          | 1325          | 1.44  | 1400        | 160                        | 1.9            | 0.3            | 0.35              | 0.45     |
| West Vancouver                    | 45     | <b>-</b> 7     | <b>-</b> 9      | 28        | 19        | 2950          | 12          | 150          | 1600          | 1.69  | 1700        | 160                        | 2.4            | 0.2            | 0.37              | 0.48     |
| Vernon                            | 405    | -20            | -23             | 33        | 20        | 3600          | 13          | 43           | 350           | 0.41  | 400         | 80                         | 2.2            | 0.1            | 0.31              | 0.40     |
| Victoria Region                   |        |                |                 |           |           |               |             |              |               |       |             |                            |                |                |                   |          |
| Victoria<br>(Gonzales Hts)        | 65     | -4             | <b>-</b> 6      | 24        | 17        | 2700          | 9           | 91           | 600           | 0.82  | 625         | 220                        | 1.5            | 0.3            | 0.44              | 0.57     |
| Victoria<br>(Mt Tolmie)           | 125    | <del>-</del> 6 | -8              | 24        | 16        | 2700          | 9           | 91           | 775           | 0.96  | 800         | 220                        | 2.1            | 0.3            | 0.48              | 0.63     |
| Victoria                          | 10     | <b>-</b> 4     | <del>-</del> 6  | 24        | 17        | 2650          | 8           | 91           | 800           | 0.98  | 825         | 220                        | 1.1            | 0.2            | 0.44              | 0.57     |
| Whistler                          | 665    | -17            | -20             | 30        | 20        | 4180          | 10          | 85           | 845           | 0.99  | 1215        | 160                        | 9.5            | 0.9            | 0.25              | 0.32     |
| White Rock                        | 30     | <del>-</del> 5 | <del>-</del> 7  | 25        | 20        | 2620          | 10          | 80           | 1065          | 1.17  | 1100        | 160                        | 2.0            | 0.2            | 0.34              | 0.44     |
| Williams Lake                     | 615    | -30            | -33             | 29        | 17        | 4400          | 10          | 48           | 350           | 0.47  | 425         | 80                         | 2.4            | 0.2            | 0.27              | 0.35     |
| Youbou                            | 200    | <del>-</del> 5 | <del>-</del> 8  | 31        | 19        | 3050          | 10          | 161          | 2000          | 2.09  | 2100        | 200                        | 3.5            | 0.7            | 0.25              | 0.32     |
| Alberta                           |        |                |                 |           |           |               |             |              |               |       |             |                            |                |                |                   |          |
| Athabasca                         | 515    | -35            | -38             | 27        | 19        | 6000          | 18          | 86           | 370           | 0.58  | 480         | 80                         | 1.5            | 0.1            | 0.28              | 0.36     |
| Banff 1                           | 1400   | -31            | -33             | 27        | 16        | 5500          | 18          | 65           | 300           | 0.58  | 500         | 120                        | 3.3            | 0.1            | 0.25              | 0.32     |
| Barrhead                          | 645    | -33            | -36             | 27        | 19        | 5740          | 20          | 86           | 375           | 0.58  | 475         | 100                        | 1.7            | 0.1            | 0.34              | 0.44     |

|   | Camrose           | 740  | -33         | -35             | 29 | 19 | 5500 | 20 | 86  | 355 | 0.54 | 470 | 160 | 2.0 | 0.1 | 0.30 | 0.39 |   |
|---|-------------------|------|-------------|-----------------|----|----|------|----|-----|-----|------|-----|-----|-----|-----|------|------|---|
|   | Canmore           | 1320 | -31         | -33             | 28 | 17 | 5400 | 18 | 86  | 325 | 0.57 | 500 | 120 | 3.2 | 0.1 | 0.29 | 0.37 |   |
|   | Cardston          | 1130 | -29         | -32             | 30 | 19 | 4700 | 20 | 108 | 340 | 0.38 | 550 | 140 | 1.5 | 0.1 | 0.56 | 0.72 |   |
|   | Claresholm        | 1030 | -30         | <del>-</del> 32 | 30 | 18 | 4680 | 15 | 97  | 310 | 0.35 | 440 | 200 | 1.3 | 0.1 | 0.45 | 0.58 |   |
|   | Cold Lake         | 540  | -35         | -38             | 28 | 19 | 5860 | 18 | 81  | 320 | 0.53 | 430 | 140 | 1.7 | 0.1 | 0.29 | 0.38 |   |
|   | Coleman           | 1320 | -31         | -34             | 29 | 18 | 5210 | 15 | 86  | 400 | 0.46 | 550 | 120 | 2.7 | 0.3 | 0.48 | 0.63 |   |
|   | Coronation        | 790  | -32         | -34             | 30 | 19 | 5640 | 20 | 92  | 300 | 0.45 | 400 | 200 | 1.9 | 0.1 | 0.29 | 0.37 |   |
|   | Cowley            | 1175 | -29         | -32             | 29 | 18 | 4810 | 15 | 92  | 310 | 0.36 | 525 | 140 | 1.6 | 0.1 | 0.78 | 1.01 |   |
|   | Drumheller        | 685  | -32         | -34             | 30 | 18 | 5050 | 20 | 86  | 300 | 0.39 | 375 | 220 | 1.2 | 0.1 | 0.34 | 0.44 |   |
|   | Edmonton          | 645  | -30         | -33             | 28 | 19 | 5120 | 23 | 97  | 360 | 0.48 | 460 | 160 | 1.7 | 0.1 | 0.35 | 0.45 |   |
|   | Edson             | 920  | -34         | <b>-</b> 37     | 27 | 18 | 5750 | 18 | 81  | 450 | 0.63 | 570 | 100 | 2.1 | 0.1 | 0.36 | 0.46 |   |
|   | Embarras Portage  | 220  | -41         | <del>-</del> 43 | 28 | 19 | 7100 | 12 | 81  | 250 | 0.56 | 390 | 80  | 2.2 | 0.1 | 0.29 | 0.37 |   |
|   | Fairview          | 670  | -37         | -40             | 27 | 18 | 5840 | 15 | 86  | 330 | 0.51 | 450 | 100 | 2.4 | 0.1 | 0.27 | 0.35 |   |
|   | Fort MacLeod      | 945  | -30         | -32             | 31 | 19 | 4600 | 16 | 97  | 300 | 0.35 | 425 | 180 | 1.2 | 0.1 | 0.53 | 0.68 |   |
|   | Fort McMurray     | 255  | -38         | <del>-</del> 40 | 28 | 19 | 6250 | 13 | 86  | 340 | 0.52 | 460 | 60  | 1.5 | 0.1 | 0.27 | 0.35 |   |
|   | Fort Saskatchewan | 610  | -32         | -35             | 28 | 19 | 5420 | 20 | 86  | 350 | 0.49 | 425 | 140 | 1.6 | 0.1 | 0.33 | 0.43 |   |
| R | Fort Vermilion    | 270  | -41         | <b>-</b> 43     | 28 | 18 | 6700 | 13 | 70  | 250 | 0.53 | 380 | 60  | 2.1 | 0.1 | 0.23 | 0.30 |   |
|   | Grande Prairie    | 650  | -36         | -39             | 27 | 18 | 5790 | 20 | 86  | 315 | 0.49 | 450 | 120 | 2.2 | 0.1 | 0.33 | 0.43 |   |
|   | Habay             | 335  | -41         | -43             | 28 | 18 | 6750 | 13 | 70  | 275 | 0.54 | 425 | 60  | 2.4 | 0.1 | 0.23 | 0.30 |   |
|   | Hardisty          | 615  | -33         | -36             | 30 | 19 | 5640 | 20 | 81  | 325 | 0.48 | 425 | 140 | 1.7 | 0.1 | 0.28 | 0.36 |   |
|   | High River        | 1040 | -31         | -32             | 28 | 17 | 4900 | 18 | 97  | 300 | 0.36 | 425 | 200 | 1.3 | 0.1 | 0.50 | 0.65 | b |
|   | Hinton            | 990  | -34         | -38             | 27 | 17 | 5500 | 13 | 81  | 375 | 0.55 | 500 | 100 | 2.6 | 0.1 | 0.36 | 0.46 | 1 |
|   | Jasper            | 1060 | -31         | -34             | 28 | 17 | 5300 | 12 | 76  | 300 | 0.52 | 400 | 80  | 3.0 | 0.1 | 0.25 | 0.32 |   |
|   | Keg River         | 420  | <b>-</b> 40 | <del>-</del> 42 | 28 | 18 | 6520 | 13 | 70  | 310 | 0.54 | 450 | 80  | 2.4 | 0.1 | 0.23 | 0.30 |   |
|   | Lac la Biche      | 560  | -35         | -38             | 28 | 19 | 6100 | 15 | 86  | 375 | 0.58 | 475 | 80  | 1.6 | 0.1 | 0.28 | 0.36 |   |
|   | Lacombe           | 855  | -33         | -36             | 28 | 19 | 5500 | 23 | 92  | 350 | 0.53 | 450 | 180 | 1.9 | 0.1 | 0.31 | 0.40 |   |
|   | Lethbridge        | 910  | -30         | <del>-</del> 32 | 31 | 19 | 4500 | 20 | 97  | 250 | 0.26 | 390 | 200 | 1.2 | 0.1 | 0.51 | 0.66 |   |
|   | Manning           | 465  | -39         | -41             | 27 | 18 | 6300 | 13 | 76  | 280 | 0.49 | 390 | 80  | 2.3 | 0.1 | 0.23 | 0.30 |   |
|   | Medicine Hat      | 705  | -31         | -34             | 32 | 19 | 4540 | 23 | 92  | 250 | 0.25 | 325 | 220 | 1.1 | 0.1 | 0.37 | 0.48 |   |
|   | Peace River       | 330  | <b>-</b> 37 | <del>-</del> 40 | 27 | 18 | 6050 | 15 | 81  | 300 | 0.50 | 390 | 100 | 2.2 | 0.1 | 0.25 | 0.32 |   |

One

Day

Rain,

1/50.

mm

86

86

103

86

Ann.

Rain,

mm

315

260

325

375

Moist.

Index

0.49

0.26

0.37

0.58

15

Min.

Rain,

mm

20

18

23

20

De-

gree-

Days

Below

18°C

5700

4880

5000

5750

Driv-

ing Rain

Wind

Pres-

sures,

Pa, 1/5

100

220

220

100

Ann.

Tot.

Ppn.,

mm

470

340

425

475

Snow Load.

kPa, 1/50

Ss

2.4

1.2

1.1

1.7

Sr

0.1

0.1

0.1

0.1

Hourly Wind

Pressures, kPa

1/50

0.36

0.52

0.48

0.44

1/10

0.28

0.40

0.37

0.34

Design Temperature

July 2.5%

Wet

°C

18

20

17

19

Dry

28

32

28

January

°C | °C

-39

-34

-32

-36 27

2.5%

 $^{\circ}\text{C}$ 

-36

-32

-30

-33

Elev.,

m

730

760

1045

660

Province and Location

Beaverlodge

Brooks Calgary

Campsie

Council, National R. National Building Code 2015. National Research Council.

1130

670

855

985

590

820

-29

-34

-32

-32

-35

-32

-32 | 29

-37

-35

-34

-38

-34

29

28

27

26

30

18

19

19

18

19

19

4740

5700

5550

5640

5850

5300

Pincher Creek

Rocky Mountain House

Ranfurly

Red Deer

Slave Lake

Stettler

16

18

20

20

15

20

103

92

97

92

81

97

325

325

375

425

380

370

0.37

0.50

0.54

0.59

0.62

0.53

575

420

475

550

500

450

140

100

200

120

80

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1.5

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|   |        | Des        | ign Te   | mpera     | ture      | De-           | 15          | One          |               |                   | Ann         | Driv-<br>ing Rain          | Snow           | ,              | Hourly  |         |
|---|--------|------------|----------|-----------|-----------|---------------|-------------|--------------|---------------|-------------------|-------------|----------------------------|----------------|----------------|---------|---------|
| Province and Location                   | Elev., | Janı       | uary     | July      | 2.5%      | gree-<br>Days | Min.        | Day<br>Rain, | Ann.<br>Rain, | Moist.            | Ann.<br>Tot | Wind                       | kPa,           | 1/50           | Pressur | es, kPa |
| Province and Location                   | m      | 2.5%<br>°C | 1%<br>°C | Dry<br>°C | Wet<br>°C | Below<br>18°C | Rain,<br>mm | 1/50,<br>mm  | mm            | Index             | Ppn.,<br>mm | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10    | 1/50    |
| Stony Plain                             | 710    | -32        | -35      | 28        | 19        | 5300          | 23          | 97           | 410           | 0.52              | 540         | 120                        | 1.7            | 0.1            | 0.35    | 0.45    |
| Suffield                                | 755    | -31        | -34      | 32        | 20        | 4770          | 20          | 86           | 230           | 0.23              | 325         | 220                        | 1.3            | 0.1            | 0.38    | 0.49    |
| Taber                                   | 815    | -31        | -33      | 31        | 19        | 4580          | 20          | 92           | 260           | 0.26              | 370         | 200                        | 1.2            | 0.1            | 0.48    | 0.63    |
| Turner Valley                           | 1215   | -31        | -32      | 28        | 17        | 5220          | 20          | 97           | 350           | 0.48              | 600         | 180                        | 1.4            | 0.1            | 0.50    | 0.65    |
| Valleyview                              | 700    | -37        | -40      | 27        | 18        | 5600          | 18          | 86           | 360           | 0.54              | 490         | 80                         | 2.3            | 0.1            | 0.33    | 0.42    |
| Vegreville                              | 635    | -34        | -37      | 29        | 19        | 5780          | 18          | 86           | 325           | 0.50              | 410         | 100                        | 1.9            | 0.1            | 0.28    | 0.36    |
| Vermilion                               | 580    | -35        | -38      | 29        | 19        | 5740          | 18          | 86           | 310           | 0.53              | 410         | 100                        | 1.7            | 0.1            | 0.28    | 0.36    |
| Wagner                                  | 585    | -35        | -38      | 26        | 19        | 5850          | 15          | 81           | 380           | 0.62              | 500         | 80                         | 1.9            | 0.1            | 0.29    | 0.37    |
| Wainwright                              | 675    | -33        | -36      | 29        | 19        | 5700          | 20          | 81           | 310           | 0.47              | 425         | 120                        | 2.0            | 0.1            | 0.28    | 0.36    |
| Wetaskiwin                              | 760    | -33        | -35      | 29        | 19        | 5500          | 23          | 86           | 400           | 0.57              | 500         | 160                        | 2.0            | 0.1            | 0.30    | 0.39    |
| Whitecourt                              | 690    | -33        | -36      | 27        | 19        | 5650          | 20          | 97           | 440           | 0.63              | 550         | 80                         | 1.9            | 0.1            | 0.29    | 0.37    |
| Wimborne                                | 975    | -31        | -34      | 29        | 18        | 5310          | 23          | 92           | 325           | 0.48              | 450         | 200                        | 1.6            | 0.1            | 0.31    | 0.40    |
| Saskatchewan                            |        |            |          |           |           |               |             |              |               |                   |             |                            |                |                |         |         |
| Assiniboia                              | 740    | -32        | -34      | 31        | 21        | 5180          | 25          | 81           | 290           | 0.33              | 375         | 240                        | 1.6            | 0.1            | 0.38    | 0.49    |
| Battrum                                 | 700    | -32        | -34      | 32        | 20        | 5080          | 23          | 81           | 270           | 0.35              | 350         | 260                        | 1.2            | 0.1            | 0.42    | 0.54    |
| Biggar                                  | 645    | -34        | -36      | 30        | 20        | 5720          | 23          | 81           | 270           | 0.39              | 350         | 180                        | 2.1            | 0.1            | 0.35    | 0.45    |
| Broadview                               | 600    | -34        | -35      | 30        | 21        | 5760          | 25          | 103          | 320           | 0.49              | 420         | 160                        | 1.7            | 0.1            | 0.36    | 0.46    |
| Dafoe                                   | 530    | -35        | -37      | 29        | 21        | 5860          | 20          | 92           | 300           | 0.46              | 380         | 140                        | 1.7            | 0.1            | 0.29    | 0.37    |
| Dundurn                                 | 525    | -35        | -37      | 30        | 21        | 5600          | 23          | 86           | 275           | 0.40              | 380         | 180                        | 1.5            | 0.1            | 0.36    | 0.46    |
| Estevan                                 | 565    | -32        | -34      | 32        | 22        | 5340          | 28          | 92           | 330           | 0.43              | 420         | 200                        | 1.6            | 0.1            | 0.40    | 0.52    |
| Hudson Bay                              | 370    | -36        | -38      | 29        | 21        | 6280          | 20          | 81           | 340           | 0.59              | 450         | 80                         | 2.0            | 0.1            | 0.29    | 0.37    |
| Humboldt                                | 565    | -36        | -38      | 28        | 21        | 6000          | 20          | 86           | 320           | 0.48              | 375         | 140                        | 2.1            | 0.1            | 0.30    | 0.39    |
| Island Falls                            | 305    | -39        | -41      | 27        | 20        | 7100          | 18          | 76           | 370           | 0.62              | 510         | 80                         | 2.1            | 0.1            | 0.27    | 0.35    |
| Kamsack                                 | 455    | -34        | -37      | 29        | 22        | 6040          | 20          | 97           | 360           | 0.55              | 450         | 120                        | 2.1            | 0.2            | 0.31    | 0.40    |
| Kindersley                              | 685    | -33        | -35      | 31        | 20        | 5550          | 23          | 81           | 260           | 0.38              | 325         | 200                        | 1.4            | 0.1            | 0.36    | 0.46    |
| Lloydminster                            | 645    | -34        | -37      | 28        | 20        | 5880          | 18          | 81           | 310           | 0.53              | 430         | 120                        | 2.0            | 0.1            | 0.31    | 0.40    |
| Maple Creek                             | 765    | -31        | -34      | 31        | 20        | 4780          | 25          | 81           | 275           | 0.28              | 380         | 220                        | 1.2            | 0.1            | 0.35    | 0.45    |
| Meadow Lake                             | 480    | -38        | -40      | 28        | 20        | 6280          | 18          | 81           | 320           | 0.53              | 450         | 120                        | 1.7            | 0.1            | 0.31    | 0.40    |
| Melfort                                 | 455    | -36        | -38      | 28        | 21        | 6050          | 20          | 81           | 310           | 0.50              | 410         | 120                        | 2.1            | 0.1            | 0.28    | 0.36    |
| Melville                                | 550    | -34        | -36      | 29        | 21        | 5880          | 23          | 97           | 340           | 0.52              | 410         | 160                        | 1.7            | 0.1            | 0.31    | 0.40    |
| Moose Jaw                               | 545    | -32        | -34      | 31        | 21        | 5270          | 25          | 86           | 270           | 0.33              | 360         | 200                        | 1.4            | 0.1            | 0.40    | 0.52    |
| Nipawin                                 | 365    | -37        | -39      | 28        | 21        | 6300          | 20          | 76           | 340           | 0.56              | 450         | 100                        | 2.0            | 0.1            | 0.29    | 0.38    |
| North Battleford                        | 545    | -34        | -36      | 29        | 20        | 5900          | 20          | 81           | 280           | 0.46              | 370         | 120                        | 1.7            | 0.1            | 0.36    | 0.46    |
| Prince Albert                           | 435    | -37        | -40      | 28        | 21        | 6100          | 20          | 81           | 320           | 0.51              | 410         | 140                        | 1.9            | 0.1            | 0.29    | 0.38    |
| Qu'Appelle                              | 645    | -34        | 36       | 30        | 22        | 5620          | 25          | 97           | 340           | 0.45              | 430         | 160                        | 1.7            | 0.1            | 0.33    | 0.42    |
| Regina                                  | 575    | -34        | -36      | 31        | 21        | 5600          | 28          | 103          | 300           | 0.39              | 365         | 200                        | 1.4            | 0.1            | 0.38    | 0.49    |
| Rosetown                                | 595    | -34        | -36      | 31        | 20        | 5620          | 23          | 81           | 260           | 0.37              | 330         | 200                        | 1.7            | 0.1            | 0.38    | 0.49    |
| Saskatoon                               | 500    | -35        | -37      | 30        | 21        | 5700          | 23          | 86           | 265           | 0.41              | 350         | 160                        | 1.7            | 0.1            | 0.33    | 0.43    |
| Scott                                   | 645    | -34        | -36      | 30        | 20        | 5960          | 20          | 81           | 270           | 0.41              | 360         | 140                        | 1.9            | 0.1            | 0.35    | 0.45    |
| Strasbourg                              | 545    | -34        | -36      | 30        | 22        | 5600          | 25          | 92           | 300           | 0.41              | 390         | 180                        | 1.5            | 0.1            | 0.33    | 0.43    |
| Council National B National Building Co |        |            | l        |           | 22        | 1 5000        | 20          | 32           | 500           | U. <del>+</del> 1 | 030         | 100                        | 1.0            | 0.1            | 0.00    | 0.42    |

|           |                    |     |     |                 |    |    |      |    |     |     |      |     | ,   |     |     |      |      |   |
|-----------|--------------------|-----|-----|-----------------|----|----|------|----|-----|-----|------|-----|-----|-----|-----|------|------|---|
|           | Swift Current      | 750 | -31 | -34             | 31 | 20 | 5150 | 25 | 81  | 260 | 0.34 | 350 | 240 | 1.4 | 0.1 | 0.42 | 0.54 |   |
|           | Uranium City       | 265 | -42 | -44             | 26 | 19 | 7500 | 12 | 54  | 300 | 0.59 | 360 | 100 | 2.0 | 0.1 | 0.28 | 0.36 |   |
|           | Weyburn            | 575 | -33 | -35             | 31 | 23 | 5400 | 28 | 97  | 320 | 0.40 | 400 | 200 | 1.8 | 0.1 | 0.37 | 0.48 |   |
|           | Yorkton            | 510 | -34 | -37             | 29 | 21 | 6000 | 23 | 97  | 350 | 0.54 | 440 | 140 | 1.9 | 0.1 | 0.31 | 0.40 |   |
|           | Manitoba           |     |     |                 |    |    |      |    |     |     |      |     |     |     |     |      |      |   |
|           | Beausejour         | 245 | -33 | -35             | 29 | 23 | 5680 | 28 | 103 | 430 | 0.61 | 530 | 180 | 2.0 | 0.2 | 0.32 | 0.41 |   |
|           | Boissevain         | 510 | -32 | -34             | 30 | 23 | 5500 | 28 | 119 | 390 | 0.54 | 510 | 180 | 2.2 | 0.2 | 0.40 | 0.52 |   |
|           | Brandon            | 395 | -33 | -35             | 30 | 22 | 5760 | 28 | 108 | 375 | 0.56 | 460 | 180 | 2.1 | 0.2 | 0.38 | 0.49 |   |
|           | Churchill          | 10  | -38 | -40             | 25 | 18 | 8950 | 12 | 76  | 265 | 0.82 | 410 | 260 | 3.0 | 0.2 | 0.43 | 0.55 |   |
|           | Dauphin            | 295 | -33 | -35             | 30 | 22 | 5900 | 28 | 103 | 400 | 0.56 | 490 | 160 | 1.9 | 0.2 | 0.31 | 0.40 |   |
|           | Flin Flon          | 300 | -38 | -40             | 27 | 20 | 6440 | 18 | 81  | 340 | 0.59 | 475 | 80  | 2.2 | 0.2 | 0.27 | 0.35 |   |
|           | Gimli              | 220 | -34 | -36             | 29 | 23 | 5800 | 28 | 108 | 410 | 0.65 | 530 | 180 | 1.9 | 0.2 | 0.31 | 0.40 |   |
|           | Island Lake        | 240 | -36 | -38             | 27 | 20 | 6900 | 18 | 86  | 380 | 0.67 | 550 | 80  | 2.6 | 0.2 | 0.29 | 0.37 |   |
|           | Lac du Bonnet      | 260 | -34 | -36             | 29 | 23 | 5730 | 28 | 103 | 445 | 0.65 | 560 | 180 | 1.9 | 0.2 | 0.29 | 0.37 |   |
|           | Lynn Lake          | 350 | -40 | <del>-</del> 42 | 27 | 19 | 7770 | 18 | 86  | 310 | 0.62 | 490 | 100 | 2.4 | 0.2 | 0.29 | 0.37 |   |
|           | Morden             | 300 | -31 | -33             | 30 | 24 | 5400 | 28 | 119 | 420 | 0.55 | 520 | 180 | 2.2 | 0.2 | 0.40 | 0.52 |   |
|           | Neepawa            | 365 | -32 | -34             | 29 | 23 | 5760 | 28 | 108 | 410 | 0.58 | 470 | 180 | 2.2 | 0.2 | 0.34 | 0.44 |   |
|           | Pine Falls         | 220 | -34 | -36             | 28 | 23 | 5900 | 25 | 97  | 440 | 0.66 | 420 | 180 | 1.9 | 0.2 | 0.30 | 0.39 |   |
|           | Portage la Prairie | 260 | -31 | -33             | 30 | 23 | 5600 | 28 | 108 | 390 | 0.51 | 525 | 180 | 2.1 | 0.2 | 0.36 | 0.46 |   |
|           | Rivers             | 465 | -34 | -36             | 29 | 23 | 5840 | 28 | 108 | 370 | 0.56 | 460 | 180 | 2.1 | 0.2 | 0.36 | 0.46 |   |
|           | Sandilands         | 365 | -32 | -34             | 29 | 23 | 5650 | 28 | 113 | 460 | 0.58 | 550 | 180 | 2.2 | 0.2 | 0.31 | 0.40 |   |
|           | Selkirk            | 225 | -33 | -35             | 29 | 23 | 5700 | 28 | 108 | 420 | 0.61 | 500 | 180 | 1.9 | 0.2 | 0.32 | 0.41 |   |
|           | Split Lake         | 175 | -38 | -40             | 27 | 19 | 7900 | 18 | 76  | 325 | 0.66 | 500 | 120 | 2.5 | 0.2 | 0.30 | 0.39 | r |
| $\langle$ | Steinbach          | 270 | -33 | -35             | 29 | 23 | 5700 | 28 | 108 | 440 | 0.58 | 500 | 180 | 2.0 | 0.2 | 0.31 | 0.40 |   |
|           | Swan River         | 335 | -34 | -37             | 29 | 22 | 6100 | 20 | 92  | 370 | 0.58 | 500 | 120 | 2.0 | 0.2 | 0.27 | 0.35 | Ь |
|           | The Pas            | 270 | -36 | -38             | 28 | 21 | 6480 | 18 | 81  | 330 | 0.59 | 450 | 160 | 2.2 | 0.2 | 0.29 | 0.37 |   |
|           | Thompson           | 205 | -40 | -43             | 27 | 19 | 7600 | 18 | 86  | 350 | 0.64 | 540 | 100 | 2.4 | 0.2 | 0.28 | 0.36 |   |
|           | Virden             | 435 | -33 | -35             | 30 | 23 | 5620 | 28 | 108 | 350 | 0.53 | 460 | 180 | 2.0 | 0.2 | 0.36 | 0.46 |   |
|           | Winnipeg           | 235 | -33 | -35             | 30 | 23 | 5670 | 28 | 108 | 415 | 0.58 | 500 | 180 | 1.9 | 0.2 | 0.35 | 0.45 |   |
|           | Ontario            |     |     |                 |    |    |      |    |     |     |      |     |     |     |     |      |      |   |
|           | Ailsa Craig        | 230 | -17 | -19             | 30 | 23 | 3840 | 25 | 103 | 800 | 0.93 | 950 | 180 | 2.2 | 0.4 | 0.39 | 0.50 |   |
|           | Ajax               | 95  | -20 | -22             | 30 | 23 | 3820 | 23 | 92  | 760 | 0.90 | 825 | 160 | 1.0 | 0.4 | 0.37 | 0.48 |   |
|           | Alexandria         | 80  | -24 | -26             | 30 | 23 | 4600 | 25 | 103 | 800 | 0.91 | 975 | 160 | 2.4 | 0.4 | 0.31 | 0.40 |   |
|           | Alliston           | 220 | -23 | -25             | 29 | 23 | 4200 | 28 | 113 | 690 | 0.81 | 875 | 120 | 2.0 | 0.4 | 0.28 | 0.36 |   |
|           | Almonte            | 120 | -26 | -28             | 30 | 23 | 4620 | 25 | 97  | 730 | 0.84 | 800 | 140 | 2.5 | 0.4 | 0.32 | 0.41 |   |
|           | Armstrong          | 340 | -37 | -40             | 28 | 21 | 6500 | 23 | 97  | 525 | 0.75 | 725 | 100 | 2.7 | 0.4 | 0.23 | 0.30 |   |
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Council, National R. National Building Code 2015. National Research Council.

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|   |  | Elev | Des<br>Janu | ign Te<br>uary  | mpera     |           | De-<br>gree-          | 15<br>Min.  | One<br>Day           | Ann.        | Moist.   | Ann.<br>Tot. | Driv-<br>ing Rain<br>Wind  | Snow<br>kPa,   | ,              |      | / Wind<br>res, kPa |
|---|--|------|-------------|-----------------|-----------|-----------|-----------------------|-------------|----------------------|-------------|----------|--------------|----------------------------|----------------|----------------|------|--------------------|
|   | Province and Location                      | m    | 2.5%<br>°C  | 1%<br>°C        | Dry<br>°C | Wet<br>°C | Days<br>Below<br>18°C | Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Index    | Ppn.,<br>mm  | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10 | 1/50               |
|   | Bancroft                                   | 365  | -28         | -31             | 29        | 23        | 4740                  | 25          | 92                   | 720         | 0.85     | 900          | 100                        | 3.1            | 0.4            | 0.25 | 0.32               |
|   | Barrie                                     | 245  | -24         | -26             | 29        | 23        | 4380                  | 28          | 97                   | 700         | 0.83     | 900          | 120                        | 2.5            | 0.4            | 0.28 | 0.36               |
|   | Barriefield                                | 100  | -22         | -24             | 28        | 23        | 3990                  | 23          | 108                  | 780         | 0.96     | 950          | 160                        | 2.1            | 0.4            | 0.36 | 0.47               |
|   | Beaverton                                  | 240  | -24         | -26             | 30        | 23        | 4300                  | 25          | 108                  | 720         | 0.87     | 950          | 120                        | 2.2            | 0.4            | 0.28 | 0.36               |
|   | Belleville                                 | 90   | -22         | -24             | 29        | 23        | 3910                  | 23          | 97                   | 760         | 0.89     | 850          | 180                        | 1.7            | 0.4            | 0.33 | 0.43               |
| Ī | Belmont                                    | 260  | -17         | -19             | 30        | 24        | 3840                  | 25          | 97                   | 850         | 0.95     | 950          | 180                        | 1.7            | 0.4            | 0.36 | 0.47               |
|   | Kitchenuhmay-<br>koosib (Big Trout Lake)   | 215  | -38         | -40             | 26        | 20        | 7450                  | 18          | 92                   | 400         | 0.75     | 600          | 150                        | 3.2            | 0.2            | 0.33 | 0.42               |
|   | CFB Borden                                 | 225  | -23         | -25             | 29        | 23        | 4300                  | 28          | 103                  | 690         | 0.82     | 875          | 120                        | 2.2            | 0.4            | 0.28 | 0.36               |
|   | Bracebridge                                | 310  | -26         | -28             | 29        | 23        | 4800                  | 25          | 103                  | 830         | 0.95     | 1050         | 120                        | 3.1            | 0.4            | 0.27 | 0.35               |
|   | Bradford                                   | 240  | -23         | -25             | 30        | 23        | 4280                  | 28          | 108                  | 680         | 0.80     | 800          | 120                        | 2.1            | 0.4            | 0.28 | 0.36               |
| Ť | Brampton                                   | 215  | -19         | -21             | 30        | 23        | 4100                  | 28          | 119                  | 720         | 0.81     | 820          | 140                        | 1.3            | 0.4            | 0.34 | 0.44               |
|   | Brantford                                  | 205  | -18         | -20             | 30        | 23        | 3900                  | 23          | 103                  | 780         | 0.89     | 850          | 160                        | 1.3            | 0.4            | 0.33 | 0.42               |
|   | Brighton                                   | 95   | -21         | -23             | 29        | 23        | 4000                  | 23          | 94                   | 760         | 0.90     | 850          | 160                        | 1.6            | 0.4            | 0.37 | 0.48               |
|   | Brockville                                 | 85   | -23         | -25             | 29        | 23        | 4060                  | 25          | 103                  | 770         | 0.89     | 975          | 180                        | 2.2            | 0.4            | 0.34 | 0.44               |
|   | Burk's Falls                               | 305  | -26         | -28             | 29        | 22        | 5020                  | 25          | 97                   | 810         | 0.94     | 1010         | 120                        | 2.7            | 0.4            | 0.27 | 0.35               |
| Ť | Burlington                                 | 80   | -17         | -19             | 31        | 23        | 3740                  | 23          | 103                  | 770         | 0.91     | 850          | 160                        | 1.1            | 0.4            | 0.36 | 0.46               |
|   | Cambridge                                  | 295  | -18         | -20             | 29        | 23        | 4100                  | 25          | 113                  | 800         | 0.91     | 890          | 160                        | 1.6            | 0.4            | 0.28 | 0.36               |
|   | Campbellford                               | 150  | -23         | -26             | 30        | 23        | 4280                  | 25          | 97                   | 730         | 0.85     | 850          | 160                        | 1.7            | 0.4            | 0.32 | 0.41               |
|   | Cannington                                 | 255  | -24         | -26             | 30        | 23        | 4310                  | 25          | 108                  | 740         | 0.85     | 950          | 120                        | 2.2            | 0.4            | 0.28 | 0.36               |
|   | Carleton Place                             | 135  | -25         | -27             | 30        | 23        | 4600                  | 25          | 97                   | 730         | 0.84     | 850          | 160                        | 2.5            | 0.4            | 0.32 | 0.41               |
| ١ | Cavan                                      | 200  | -23         | -25             | 30        | 23        | 4400                  | 25          | 97                   | 740         | 0.86     | 850          | 140                        | 2.0            | 0.4            | 0.34 | 0.44               |
|   | Centralia                                  | 260  | -17         | -19             | 30        | 23        | 3800                  | 25          | 103                  | 820         | 0.95     | 1000         | 180                        | 2.3            | 0.4            | 0.38 | 0.49               |
| / | Chapleau                                   | 425  | -35         | -38             | 27        | 21        | 5900                  | 20          | 97                   | 530         | 0.72     | 850          | 80                         | 3.6            | 0.4            | 0.23 | 0.30               |
|   | Chatham                                    | 180  | -16         | -18             | 31        | 24        | 3470                  | 28          | 103                  | 800         | 0.86     | 850          | 180                        | 1.0            | 0.4            | 0.33 | 0.43               |
|   | Chesley                                    | 275  | -19         | -21             | 29        | 22        | 4320                  | 28          | 103                  | 810         | 0.94     | 1125         | 140                        | 2.8            | 0.4            | 0.37 | 0.48               |
| t | Clinton                                    | 280  | -17         | -19             | 29        | 23        | 4150                  | 25          | 103                  | 810         | 0.94     | 1000         | 160                        | 2.6            | 0.4            | 0.38 | 0.49               |
|   | Coboconk                                   | 270  | -25         | <b>-</b> 27     | 30        | 23        | 4500                  | 25          | 108                  | 740         | 0.87     | 950          | 120                        | 2.5            | 0.4            | 0.27 | 0.35               |
|   | Cobourg                                    | 90   | -21         | -23             | 29        | 23        | 3980                  | 23          | 94                   | 760         | 0.90     | 825          | 160                        | 1.2            | 0.4            | 0.38 | 0.49               |
|   | Cochrane                                   | 245  | -34         | -36             | 29        | 21        | 6200                  | 20          | 92                   | 575         | 0.77     | 875          | 80                         | 2.8            | 0.3            | 0.27 | 0.35               |
|   | Colborne                                   | 105  | -21         | -23             | 29        | 23        | 3980                  | 23          | 94                   | 760         | 0.90     | 850          | 160                        | 1.6            | 0.4            | 0.38 | 0.49               |
| T | Collingwood                                | 190  | -21         | -23             | 29        | 23        | 4180                  | 28          | 97                   | 720         | 0.87     | 950          | 160                        | 2.7            | 0.4            | 0.30 | 0.39               |
|   | Cornwall                                   | 35   | -23         | -25             | 30        | 23        | 4250                  | 25          | 103                  | 780         | 0.89     | 960          | 180                        | 2.2            | 0.4            | 0.32 | 0.41               |
|   | Corunna                                    | 185  | -16         | -18             | 31        | 24        | 3600                  | 25          | 100                  | 760         | 0.87     | 800          | 180                        | 1.0            | 0.4            | 0.36 | 0.47               |
|   | Deep River                                 | 145  | -29         | <del>-</del> 32 | 30        | 22        | 4900                  | 23          | 92                   | 650         | 0.82     | 850          | 100                        | 2.5            | 0.4            | 0.27 | 0.35               |
|   | Deseronto                                  | 85   | -22         | -24             | 29        | 23        | 4070                  | 23          | 92                   | 760         | 0.89     | 900          | 160                        | 1.9            | 0.4            | 0.33 | 0.43               |
| t | Dorchester                                 | 260  | -18         | -20             | 30        | 24        | 3900                  | 28          | 103                  | 850         | 0.96     | 950          | 180                        | 1.9            | 0.4            | 0.36 | 0.47               |
|   | Dorion                                     | 200  | -33         | -35             | 28        | 21        | 5950                  | 20          | 103                  | 550         | 0.77     | 725          | 160                        | 2.8            | 0.4            | 0.30 | 0.39               |
|   | Dresden                                    | 185  | -16         | -18             | 31        | 24        | 3750                  | 28          | 97                   | 760         | 0.84     | 820          | 180                        | 1.0            | 0.4            | 0.33 | 0.43               |
|   | Dryden                                     | 370  | -34         | -36             | 28        | 22        | 5850                  | 25          | 97                   | 550         | 0.70     | 700          | 120                        | 2.4            | 0.3            | 0.23 | 0.30               |
| _ | Council, National R. National Building Cod |      |             |                 | ouncil    |           | ·                     |             |                      |             | <u> </u> |              |                            |                | !              |      | <u> </u>           |

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|----------------------------------|--------|-----------------|-------------|-----------|-----------|---------------|-------------|--------------|---------------|-------|-------------|----------------------------|----------------|----------------|--------|--------------------|
| Province and Location            | Elev., | Jani            | uary        | July      | 2.5%<br>I | gree-<br>Days | Min.        | Day<br>Rain, | Ann.<br>Rain, | Moist | Tot.        | Wind                       | κra,           | 1/30           | Fressu | les, kra           |
|                                  | m      | 2.5%<br>°C      | 1%<br>°C    | Dry<br>°C | Wet<br>°C | Below<br>18°C | Rain,<br>mm | 1/50,<br>mm  | mm            | Index | Ppn.,<br>mm | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10   | 1/50               |
| Dundalk                          | 525    | -22             | -24         | 29        | 22        | 4700          | 28          | 108          | 750           | 0.89  | 1080        | 150                        | 3.2            | 0.4            | 0.33   | 0.42               |
| Dunnville                        | 175    | -15             | -17         | 30        | 24        | 3660          | 23          | 108          | 830           | 0.95  | 950         | 160                        | 2.0            | 0.4            | 0.36   | 0.46               |
| Durham                           | 340    | -20             | -22         | 29        | 22        | 4340          | 28          | 103          | 815           | 0.94  | 1025        | 140                        | 2.8            | 0.4            | 0.34   | 0.44               |
| Dutton                           | 225    | -16             | -18         | 31        | 24        | 3700          | 28          | 92           | 850           | 0.96  | 925         | 180                        | 1.3            | 0.4            | 0.36   | 0.47               |
| Earlton                          | 245    | -33             | -36         | 29        | 22        | 5730          | 23          | 92           | 560           | 0.75  | 820         | 120                        | 3.1            | 0.4            | 0.35   | 0.45               |
| Edison                           | 365    | -34             | -36         | 28        | 22        | 5740          | 25          | 108          | 510           | 0.65  | 680         | 120                        | 2.4            | 0.3            | 0.24   | 0.31               |
| Elliot Lake                      | 380    | -26             | <b>-</b> 28 | 29        | 21        | 4950          | 23          | 108          | 630           | 0.83  | 950         | 160                        | 2.9            | 0.4            | 0.29   | 0.38               |
| Elmvale                          | 220    | -24             | -26         | 29        | 23        | 4200          | 28          | 97           | 720           | 0.87  | 950         | 140                        | 2.6            | 0.4            | 0.28   | 0.36               |
| Embro                            | 310    | -19             | -21         | 30        | 23        | 3950          | 28          | 113          | 830           | 0.94  | 950         | 160                        | 2.0            | 0.4            | 0.37   | 0.48               |
| Englehart                        | 205    | -33             | -36         | 29        | 22        | 5800          | 23          | 92           | 600           | 0.78  | 880         | 100                        | 2.8            | 0.4            | 0.32   | 0.41               |
| Espanola                         | 220    | -25             | -27         | 29        | 21        | 4920          | 23          | 108          | 650           | 0.83  | 840         | 160                        | 2.3            | 0.4            | 0.33   | 0.42               |
| Exeter                           | 265    | -17             | -19         | 30        | 23        | 3900          | 25          | 113          | 810           | 0.94  | 975         | 180                        | 2.4            | 0.4            | 0.38   | 0.49               |
| Fenelon Falls                    | 260    | -25             | -27         | 30        | 23        | 4440          | 25          | 108          | 730           | 0.86  | 950         | 120                        | 2.3            | 0.4            | 0.28   | 0.36               |
| Fergus                           | 400    | -20             | -22         | 29        | 23        | 4300          | 28          | 108          | 760           | 0.87  | 925         | 160                        | 2.2            | 0.4            | 0.28   | 0.36               |
| Forest                           | 215    | -16             | -18         | 31        | 23        | 3740          | 25          | 103          | 810           | 0.95  | 875         | 160                        | 2.0            | 0.4            | 0.37   | 0.48               |
| Fort Erie                        | 180    | -15             | -17         | 30        | 24        | 3650          | 23          | 108          | 860           | 0.98  | 1020        | 160                        | 2.3            | 0.4            | 0.36   | 0.46               |
| Fort Erie (Ridgeway)             | 190    | -15             | -17         | 30        | 24        | 3600          | 25          | 108          | 860           | 0.98  | 1000        | 160                        | 2.3            | 0.4            | 0.36   | 0.46               |
| Fort Frances                     | 340    | -33             | -35         | 29        | 22        | 5440          | 25          | 108          | 570           | 0.71  | 725         | 120                        | 2.3            | 0.3            | 0.24   | 0.31               |
| Gananoque                        | 80     | -22             | -24         | 28        | 23        | 4010          | 23          | 103          | 760           | 0.91  | 900         | 180                        | 2.1            | 0.4            | 0.36   | 0.47               |
| Geraldton                        | 345    | -36             | -39         | 28        | 21        | 6450          | 20          | 86           | 550           | 0.77  | 725         | 100                        | 2.9            | 0.4            | 0.23   | 0.30               |
| Glencoe                          | 215    | -16             | -18         | 31        | 24        | 3680          | 28          | 103          | 800           | 0.91  | 925         | 180                        | 1.5            | 0.4            | 0.33   | 0.43               |
| Goderich                         | 185    | -16             | -18         | 29        | 23        | 4000          | 25          | 92           | 810           | 0.95  | 950         | 180                        | 2.4            | 0.4            | 0.43   | 0.55               |
| Gore Bay                         | 205    | -24             | -26         | 28        | 22        | 4700          | 23          | 92           | 640           | 0.84  | 860         | 160                        | 2.6            | 0.4            | 0.34   | 0.44               |
| Graham                           | 495    | -35             | -37         | 29        | 22        | 5940          | 23          | 97           | 570           | 0.75  | 750         | 140                        | 2.6            | 0.3            | 0.23   | 0.30               |
| Gravenhurst (Muskoka<br>Airport) | 255    | <del>-</del> 26 | <b>-</b> 28 | 29        | 23        | 4760          | 25          | 103          | 790           | 0.92  | 1050        | 120                        | 2.7            | 0.4            | 0.28   | 0.36               |
| Grimsby                          | 85     | -16             | -18         | 30        | 23        | 3520          | 23          | 108          | 760           | 0.90  | 875         | 160                        | 0.9            | 0.4            | 0.36   | 0.46               |
| Guelph                           | 340    | -19             | -21         | 29        | 23        | 4270          | 28          | 103          | 770           | 0.88  | 875         | 140                        | 1.9            | 0.4            | 0.28   | 0.36               |
| Guthrie                          | 280    | -24             | -26         | 29        | 23        | 4300          | 28          | 103          | 700           | 0.83  | 950         | 120                        | 2.5            | 0.4            | 0.28   | 0.36               |
| Haileybury                       | 210    | -32             | -35         | 30        | 22        | 5600          | 23          | 92           | 590           | 0.77  | 820         | 120                        | 2.4            | 0.4            | 0.34   | 0.44               |
| Haldimand (Caledonia)            | 190    | -18             | -20         | 30        | 23        | 3750          | 23          | 108          | 810           | 0.93  | 875         | 160                        | 1.2            | 0.4            | 0.34   | 0.44               |
| Haldimand<br>(Hagersville)       | 215    | -17             | -19         | 30        | 23        | 3760          | 25          | 97           | 840           | 0.95  | 875         | 160                        | 1.3            | 0.4            | 0.36   | 0.46               |
| Haliburton                       | 335    | -27             | -29         | 29        | 23        | 4840          | 25          | 92           | 780           | 0.90  | 980         | 100                        | 2.9            | 0.4            | 0.27   | 0.35               |
| Halton Hills<br>(Georgetown)     | 255    | -19             | -21         | 30        | 23        | 4200          | 28          | 119          | 750           | 0.84  | 850         | 140                        | 1.4            | 0.4            | 0.29   | 0.37               |
| Hamilton                         | 90     | -17             | -19         | 31        | 23        | 3460          | 23          | 108          | 810           | 0.90  | 875         | 160                        | 1.1            | 0.4            | 0.36   | 0.46               |
| Hanover                          | 270    | -19             | -21         | 29        | 22        | 4300          | 28          | 103          | 790           | 0.92  | 1050        | 140                        | 2.6            | 0.4            | 0.37   | 0.48               |
| Hastings                         | 200    | -24             | -26         | 30        | 23        | 4280          | 25          | 92           | 730           | 0.85  | 840         | 140                        | 2.0            | 0.4            | 0.32   | 0.41               |
| Hawkesbury                       | 50     | -25             | -27         | 30        | 23        | 4610          | 23          | 103          | 800           | 0.91  | 925         | 160                        | 2.3            | 0.4            | 0.32   | 0.41               |
| Hearst                           | 245    | -35             | -37         | 29        | 21        | 6450          | 20          | 86           | 520           | 0.74  | 825         | 80                         | 2.8            | 0.3            | 0.23   | 0.30               |

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|  |        |                 | ign Te          |           |           | De-           | 15          | One          |               |       | Ann.        | Driv-<br>ing Rain          | Snow<br>kPa,   |                | Hourly<br>Pressur |         |
|--|--------|-----------------|-----------------|-----------|-----------|---------------|-------------|--------------|---------------|-------|-------------|----------------------------|----------------|----------------|-------------------|---------|
| Province and Location                            | Elev., | Janı            | uary            | July :    | ∠.5%      | gree-<br>Days | Min.        | Day<br>Rain, | Ann.<br>Rain, | Moist | Tot.        | Wind                       | κra,           | 1/30           | 1 169901          | UO, KFA |
|  | m      | 2.5%<br>°C      | 1%<br>°C        | Dry<br>°C | Wet<br>°C | Below<br>18°C | Rain,<br>mm | 1/50,<br>mm  | mm            | Index | Ppn.,<br>mm | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10              | 1/50    |
| Honey Harbour                                    | 180    | -24             | -26             | 29        | 23        | 4300          | 25          | 97           | 710           | 0.87  | 1050        | 160                        | 2.7            | 0.4            | 0.30              | 0.39    |
| Hornepayne                                       | 360    | -37             | -40             | 28        | 21        | 6340          | 20          | 93           | 420           | 0.68  | 750         | 80                         | 3.3            | 0.4            | 0.23              | 0.30    |
| Huntsville                                       | 335    | -26             | -29             | 29        | 22        | 4850          | 25          | 103          | 800           | 0.93  | 1000        | 120                        | 2.9            | 0.4            | 0.27              | 0.35    |
| Ingersoll  | 280    | -18             | <del>-</del> 20 | 30        | 23        | 3920          | 28          | 108          | 840           | 0.95  | 950         | 180                        | 1.7            | 0.4            | 0.37              | 0.48    |
| Iroquois Falls                                   | 275    | -33             | -36             | 29        | 21        | 6100          | 20          | 86           | 575           | 0.77  | 825         | 100                        | 2.9            | 0.3            | 0.29              | 0.37    |
| Jellicoe   | 330    | -36             | -39             | 28        | 21        | 6400          | 20          | 86           | 550           | 0.76  | 750         | 100                        | 2.7            | 0.4            | 0.23              | 0.30    |
| Kapuskasing                                      | 245    | -34             | -36             | 29        | 21        | 6250          | 20          | 86           | 550           | 0.76  | 825         | 100                        | 3.0            | 0.3            | 0.24              | 0.31    |
| Kemptville                                       | 90     | -25             | -27             | 30        | 23        | 4540          | 25          | 92           | 750           | 0.86  | 925         | 160                        | 2.3            | 0.4            | 0.32              | 0.41    |
| Kenora   | 370    | -33             | -35             | 28        | 22        | 5630          | 25          | 113          | 515           | 0.64  | 630         | 120                        | 2.5            | 0.3            | 0.24              | 0.31    |
| Killaloe   | 185    | -28             | -31             | 30        | 22        | 4960          | 23          | 86           | 680           | 0.83  | 825         | 120                        | 2.7            | 0.4            | 0.27              | 0.35    |
| Kincardine                                       | 190    | -17             | -19             | 28        | 22        | 3890          | 25          | 92           | 800           | 0.95  | 950         | 180                        | 2.6            | 0.4            | 0.43              | 0.55    |
| Kingston   | 80     | <del>-</del> 22 | -24             | 28        | 23        | 4000          | 23          | 108          | 780           | 0.96  | 950         | 180                        | 2.1            | 0.4            | 0.36              | 0.47    |
| Kinmount   | 295    | -26             | -28             | 29        | 23        | 4600          | 25          | 108          | 750           | 0.88  | 950         | 120                        | 2.7            | 0.4            | 0.27              | 0.35    |
| Kirkland Lake                                    | 325    | -33             | -36             | 29        | 22        | 6000          | 23          | 92           | 600           | 0.78  | 875         | 100                        | 2.9            | 0.3            | 0.30              | 0.39    |
| Kitchener  | 335    | -19             | -21             | 29        | 23        | 4200          | 28          | 119          | 780           | 0.89  | 925         | 140                        | 2.0            | 0.4            | 0.29              | 0.37    |
| Lakefield  | 240    | -24             | -26             | 30        | 23        | 4330          | 25          | 92           | 720           | 0.85  | 850         | 140                        | 2.2            | 0.4            | 0.29              | 0.38    |
| Lansdowne House                                  | 240    | -38             | -40             | 28        | 21        | 7150          | 23          | 92           | 500           | 0.78  | 680         | 140                        | 3.0            | 0.2            | 0.25              | 0.32    |
| Leamington                                       | 190    | -15             | -17             | 31        | 24        | 3400          | 28          | 113          | 800           | 0.91  | 875         | 180                        | 0.8            | 0.4            | 0.36              | 0.47    |
| Lindsay  | 265    | -24             | -26             | 30        | 23        | 4320          | 25          | 103          | 720           | 0.84  | 850         | 140                        | 2.3            | 0.4            | 0.29              | 0.38    |
| Lion's Head                                      | 185    | -19             | -21             | 27        | 22        | 4300          | 25          | 103          | 700           | 0.89  | 950         | 180                        | 2.7            | 0.4            | 0.37              | 0.48    |
| Listowel   | 380    | -19             | -21             | 29        | 23        | 4300          | 28          | 119          | 800           | 0.93  | 1000        | 160                        | 2.6            | 0.4            | 0.36              | 0.47    |
| London   | 245    | -18             | -20             | 30        | 24        | 3900          | 28          | 103          | 825           | 0.94  | 975         | 180                        | 1.9            | 0.4            | 0.36              | 0.47    |
| Lucan  | 300    | -17             | -19             | 30        | 23        | 3900          | 25          | 113          | 810           | 0.94  | 1000        | 180                        | 2.3            | 0.4            | 0.39              | 0.50    |
| Maitland   | 85     | -23             | -25             | 29        | 23        | 4080          | 25          | 103          | 770           | 0.89  | 975         | 180                        | 2.2            | 0.4            | 0.34              | 0.44    |
| Markdale   | 425    | -20             | -22             | 29        | 22        | 4500          | 28          | 103          | 820           | 0.94  | 1050        | 160                        | 3.2            | 0.4            | 0.32              | 0.41    |
| Markham  | 175    | -21             | -23             | 31        | 24        | 4000          | 25          | 86           | 720           | 0.81  | 825         | 140                        | 1.3            | 0.4            | 0.34              | 0.44    |
| Martin   | 485    | -35             | -37             | 29        | 22        | 5900          | 25          | 103          | 560           | 0.75  | 750         | 120                        | 2.6            | 0.3            | 0.23              | 0.30    |
| Matheson   | 265    | -33             | -36             | 29        | 21        | 6080          | 20          | 86           | 580           | 0.77  | 825         | 100                        | 2.8            | 0.3            | 0.30              | 0.39    |
| Mattawa  | 165    | -29             | -31             | 30        | 22        | 5050          | 23          | 86           | 700           | 0.86  | 875         | 100                        | 2.1            | 0.4            | 0.25              | 0.32    |
| Midland  | 190    | -24             | -26             | 29        | 23        | 4200          | 25          | 97           | 740           | 0.88  | 1060        | 160                        | 2.7            | 0.4            | 0.30              | 0.39    |
| Milton   | 200    | -18             | -20             | 30        | 23        | 3920          | 25          | 125          | 750           | 0.85  | 850         | 160                        | 1.3            | 0.4            | 0.33              | 0.43    |
| Milverton  | 370    | -19             | -21             | 29        | 23        | 4200          | 28          | 108          | 800           | 0.93  | 1050        | 160                        | 2.4            | 0.4            | 0.33              | 0.43    |
| Minden   | 270    | -27             | <b>-</b> 29     | 29        | 23        | 4640          | 25          | 97           | 780           | 0.90  | 1010        | 100                        | 2.7            | 0.4            | 0.27              | 0.35    |
| Mississauga                                      | 160    | -18             | -20             | 30        | 23        | 3880          | 25          | 113          | 720           | 0.85  | 800         | 160                        | 1.1            | 0.4            | 0.34              | 0.44    |
| Mississauga (Lester B.<br>Pearson Int'l Airport) | 170    | -20             | -22             | 31        | 24        | 3890          | 26          | 108          | 685           | 0.81  | 790         | 160                        | 1.1            | 0.4            | 0.34              | 0.44    |
| Mississauga<br>(Port Credit)                     | 75     | -18             | -20             | 29        | 23        | 3780          | 25          | 108          | 720           | 0.87  | 800         | 160                        | 0.9            | 0.4            | 0.37              | 0.48    |
| Mitchell   | 335    | -18             | -20             | 29        | 23        | 4100          | 28          | 113          | 810           | 0.94  | 1050        | 160                        | 2.4            | 0.4            | 0.37              | 0.48    |
| Moosonee   | 10     | -36             | -38             | 28        | 22        | 6800          | 18          | 81           | 500           | 0.84  | 700         | 160                        | 2.7            | 0.3            | 0.27              | 0.35    |
| Morrisburg                                       | 75     | -23             | -25             | 30        | 23        | 4370          | 25          | 103          | 800           | 0.91  | 950         | 180                        | 2.3            | 0.4            | 0.32              | 0.41    |

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|                               | Elev., | Des<br>Jani     | ign Te<br>uary  | mpera<br>July |           | De-<br>gree-          | 15<br>Min.  | One<br>Day           | Ann.        | Moist. | Ann.<br>Tot. | Driv-<br>ing Rain<br>Wind  | Snow<br>kPa, | Load,<br>1/50  | Hourly<br>Pressu | Wind<br>res, kPa |
|-------------------------------|--------|-----------------|-----------------|---------------|-----------|-----------------------|-------------|----------------------|-------------|--------|--------------|----------------------------|--------------|----------------|------------------|------------------|
| Province and Location         | m      | 2.5%<br>°C      | 1%<br>°C        | Dry<br>°C     | Wet<br>°C | Days<br>Below<br>18°C | Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Index  | Ppn.,<br>mm  | Pres-<br>sures,<br>Pa, 1/5 | Ss           | S <sub>r</sub> | 1/10             | 1/50             |
| Mount Forest                  | 420    | -21             | -24             | 28            | 22        | 4700                  | 28          | 103                  | 740         | 0.87   | 940          | 140                        | 2.7          | 0.4            | 0.32             | 0.41             |
| Nakina                        | 325    | -36             | -38             | 28            | 21        | 6500                  | 20          | 86                   | 540         | 0.76   | 750          | 100                        | 2.8          | 0.4            | 0.23             | 0.30             |
| Nanticoke (Jarvis)            | 205    | -17             | -18             | 30            | 23        | 3700                  | 28          | 108                  | 840         | 0.95   | 900          | 160                        | 1.4          | 0.4            | 0.37             | 0.48             |
| Nanticoke (Port Dover)        | 180    | -15             | -17             | 30            | 24        | 3600                  | 25          | 108                  | 860         | 0.98   | 950          | 140                        | 1.2          | 0.4            | 0.37             | 0.48             |
| Napanee                       | 90     | -22             | -24             | 29            | 23        | 4140                  | 23          | 92                   | 770         | 0.90   | 900          | 160                        | 1.9          | 0.4            | 0.33             | 0.43             |
| New Liskeard                  | 180    | <del>-</del> 32 | -35             | 30            | 22        | 5570                  | 23          | 92                   | 570         | 0.75   | 810          | 100                        | 2.6          | 0.4            | 0.33             | 0.43             |
| Newcastle                     | 115    | -20             | -22             | 30            | 23        | 3990                  | 23          | 86                   | 760         | 0.90   | 830          | 160                        | 1.5          | 0.4            | 0.37             | 0.48             |
| Newcastle<br>(Bowmanville)    | 95     | -20             | -22             | 30            | 23        | 4000                  | 23          | 86                   | 760         | 0.90   | 830          | 160                        | 1.4          | 0.4            | 0.37             | 0.48             |
| Newmarket                     | 185    | <del>-</del> 22 | -24             | 30            | 23        | 4260                  | 28          | 108                  | 700         | 0.81   | 800          | 140                        | 2.0          | 0.4            | 0.29             | 0.38             |
| Niagara Falls                 | 210    | -16             | -18             | 30            | 23        | 3600                  | 23          | 96                   | 810         | 0.94   | 950          | 160                        | 1.8          | 0.4            | 0.33             | 0.43             |
| North Bay                     | 210    | -28             | -30             | 28            | 22        | 5150                  | 25          | 95                   | 775         | 0.93   | 975          | 120                        | 2.2          | 0.4            | 0.27             | 0.34             |
| Norwood                       | 225    | -24             | -26             | 30            | 23        | 4320                  | 25          | 92                   | 720         | 0.84   | 850          | 120                        | 2.1          | 0.4            | 0.32             | 0.41             |
| Oakville                      | 90     | -18             | -20             | 30            | 23        | 3760                  | 23          | 97                   | 750         | 0.90   | 850          | 160                        | 1.1          | 0.4            | 0.36             | 0.47             |
| Orangeville                   | 430    | <del>-</del> 21 | -23             | 29            | 23        | 4450                  | 28          | 108                  | 730         | 0.84   | 875          | 140                        | 2.3          | 0.4            | 0.28             | 0.36             |
| Orillia                       | 230    | -25             | -27             | 29            | 23        | 4260                  | 25          | 103                  | 740         | 0.88   | 1000         | 120                        | 2.4          | 0.4            | 0.28             | 0.36             |
| Oshawa                        | 110    | -19             | -21             | 30            | 23        | 3860                  | 23          | 86                   | 760         | 0.90   | 875          | 160                        | 1.4          | 0.4            | 0.37             | 0.48             |
| Ottawa (Metropolitan)         |        |                 |                 |               |           |                       |             |                      |             |        |              |                            |              |                |                  |                  |
| Ottawa (City Hall)            | 70     | -25             | -27             | 30            | 23        | 4440                  | 23          | 86                   | 750         | 0.84   | 900          | 160                        | 2.4          | 0.4            | 0.32             | 0.41             |
| Ottawa (Barrhaven)            | 98     | -25             | -27             | 30            | 23        | 4500                  | 25          | 92                   | 750         | 0.84   | 900          | 160                        | 2.4          | 0.4            | 0.32             | 0.41             |
| Ottawa (Kanata)               | 98     | -25             | -27             | 30            | 23        | 4520                  | 25          | 92                   | 730         | 0.84   | 900          | 160                        | 2.5          | 0.4            | 0.32             | 0.41             |
| Ottawa (M-C Int'I<br>Airport) | 125    | <b>-</b> 25     | -27             | 30            | 23        | 4500                  | 24          | 89                   | 750         | 0.84   | 900          | 160                        | 2.4          | 0.4            | 0.32             | 0.41             |
| Ottawa (Orleans)              | 70     | -26             | -28             | 30            | 23        | 4500                  | 23          | 91                   | 750         | 0.84   | 900          | 160                        | 2.4          | 0.4            | 0.32             | 0.41             |
| Owen Sound                    | 215    | -19             | -21             | 29            | 22        | 4030                  | 28          | 113                  | 760         | 0.90   | 1075         | 160                        | 2.8          | 0.4            | 0.37             | 0.48             |
| Pagwa River                   | 185    | -35             | -37             | 28            | 21        | 6500                  | 20          | 86                   | 540         | 0.76   | 825          | 80                         | 2.7          | 0.4            | 0.23             | 0.30             |
| Paris                         | 245    | -18             | -20             | 30            | 23        | 4000                  | 23          | 96                   | 790         | 0.90   | 925          | 160                        | 1.4          | 0.4            | 0.33             | 0.42             |
| Parkhill                      | 205    | -16             | -18             | 31            | 23        | 3800                  | 25          | 103                  | 800         | 0.93   | 925          | 180                        | 2.1          | 0.4            | 0.39             | 0.50             |
| Parry Sound                   | 215    | -24             | -26             | 28            | 22        | 4640                  | 23          | 97                   | 820         | 0.95   | 1050         | 160                        | 2.8          | 0.4            | 0.30             | 0.39             |
| Pelham (Fonthill)             | 230    | -15             | -17             | 30            | 23        | 3690                  | 23          | 96                   | 820         | 0.94   | 950          | 160                        | 2.1          | 0.4            | 0.33             | 0.42             |
| Pembroke                      | 125    | -28             | -31             | 30            | 23        | 4980                  | 23          | 105                  | 640         | 0.80   | 825          | 100                        | 2.5          | 0.4            | 0.27             | 0.35             |
| Penetanguishene               | 220    | -24             | -26             | 29            | 23        | 4200                  | 25          | 97                   | 720         | 0.87   | 1050         | 160                        | 2.8          | 0.4            | 0.30             | 0.39             |
| Perth                         | 130    | -25             | <b>-</b> 27     | 30            | 23        | 4540                  | 25          | 92                   | 730         | 0.84   | 900          | 140                        | 2.3          | 0.4            | 0.32             | 0.41             |
| Petawawa                      | 135    | -29             | -31             | 30            | 23        | 4980                  | 23          | 92                   | 640         | 0.80   | 825          | 100                        | 2.6          | 0.4            | 0.27             | 0.35             |
| Peterborough                  | 200    | -23             | <del>-</del> 25 | 30            | 23        | 4400                  | 25          | 92                   | 710         | 0.83   | 840          | 140                        | 2.0          | 0.4            | 0.32             | 0.41             |
| Petrolia                      | 195    | -16             | -18             | 31            | 24        | 3640                  | 25          | 108                  | 810         | 0.89   | 920          | 180                        | 1.3          | 0.4            | 0.36             | 0.47             |
| Pickering (Dunbarton)         | 85     | -19             | <b>-</b> 21     | 30            | 23        | 3800                  | 23          | 92                   | 730         | 0.88   | 825          | 140                        | 1.0          | 0.4            | 0.37             | 0.48             |
| Picton                        | 95     | -21             | -23             | 29            | 23        | 3980                  | 23          | 92                   | 770         | 0.91   | 940          | 160                        | 2.0          | 0.4            | 0.38             | 0.49             |
| Plattsville                   | 300    | -19             | -21             | 29            | 23        | 4150                  | 28          | 103                  | 820         | 0.93   | 950          | 140                        | 1.9          | 0.4            | 0.33             | 0.42             |
| Point Alexander               | 150    | -29             | <del>-</del> 32 | 30            | 22        | 4960                  | 23          | 92                   | 650         | 0.82   | 850          | 100                        | 2.5          | 0.4            | 0.27             | 0.35             |
| Port Burwell                  | 195    | -15             | -17             | 30            | 24        | 3800                  | 25          | 92                   | 930         | 1.05   | 1000         | 180                        | 1.2          | 0.4            | 0.36             | 0.47             |

|   |                              |     | °C              | °C  | °C | °C | 18°C | mm | mm  |     |      | mm   | Pa, 1/5 | S <sub>S</sub> | S <sub>r</sub> | 1/10 | 1/50 |   |
|---|------------------------------|-----|-----------------|-----|----|----|------|----|-----|-----|------|------|---------|----------------|----------------|------|------|---|
| Ì | Port Colborne                | 180 | -15             | -17 | 30 | 24 | 3600 | 23 | 108 | 850 | 0.97 | 1000 | 160     | 2.1            | 0.4            | 0.36 | 0.46 |   |
| Ī | Port Elgin                   | 205 | -17             | -19 | 28 | 22 | 4100 | 25 | 92  | 790 | 0.94 | 850  | 180     | 2.8            | 0.4            | 0.43 | 0.55 |   |
|   | Port Hope                    | 100 | -21             | -23 | 29 | 23 | 3970 | 23 | 94  | 760 | 0.90 | 825  | 180     | 1.2            | 0.4            | 0.37 | 0.48 |   |
|   | Port Perry                   | 270 | <del>-</del> 22 | -24 | 30 | 23 | 4260 | 25 | 97  | 720 | 0.84 | 850  | 140     | 2.4            | 0.4            | 0.34 | 0.44 |   |
|   | Port Stanley                 | 180 | -15             | -17 | 31 | 24 | 3850 | 25 | 92  | 940 | 1.05 | 975  | 180     | 1.2            | 0.4            | 0.36 | 0.47 |   |
|   | Prescott                     | 90  | <b>-</b> 23     | -25 | 29 | 23 | 4120 | 25 | 103 | 770 | 0.88 | 975  | 180     | 2.2            | 0.4            | 0.34 | 0.44 |   |
|   | Princeton                    | 280 | -18             | -20 | 30 | 23 | 4000 | 25 | 97  | 810 | 0.92 | 925  | 160     | 1.5            | 0.4            | 0.33 | 0.42 |   |
|   | Raith                        | 475 | -34             | -37 | 28 | 22 | 5900 | 23 | 97  | 570 | 0.75 | 750  | 120     | 2.7            | 0.4            | 0.23 | 0.30 |   |
|   | Rayside-Balfour (Chelmsford) | 270 | -28             | -30 | 29 | 21 | 5200 | 25 | 92  | 650 | 0.80 | 850  | 180     | 2.5            | 0.4            | 0.35 | 0.45 |   |
|   | Red Lake                     | 360 | <del>-</del> 35 | -37 | 28 | 21 | 6220 | 20 | 92  | 470 | 0.69 | 630  | 120     | 2.6            | 0.3            | 0.23 | 0.30 | ĺ |
|   | Renfrew                      | 115 | <b>-</b> 27     | -30 | 30 | 23 | 4900 | 23 | 97  | 620 | 0.75 | 810  | 140     | 2.5            | 0.4            | 0.27 | 0.35 | ĺ |
|   | Richmond Hill                | 230 | -21             | -23 | 31 | 24 | 4000 | 25 | 97  | 740 | 0.83 | 850  | 140     | 1.5            | 0.4            | 0.34 | 0.44 |   |
|   | Rockland                     | 50  | -26             | -28 | 30 | 23 | 4600 | 23 | 92  | 780 | 0.89 | 950  | 160     | 2.4            | 0.4            | 0.31 | 0.40 |   |
|   | Sarnia                       | 190 | -16             | -18 | 31 | 24 | 3750 | 25 | 100 | 750 | 0.87 | 825  | 180     | 1.1            | 0.4            | 0.36 | 0.47 |   |
|   | Sault Ste. Marie             | 190 | <del>-</del> 25 | -28 | 29 | 22 | 4960 | 23 | 97  | 660 | 0.89 | 950  | 200     | 3.1            | 0.4            | 0.34 | 0.44 |   |
|   | Schreiber                    | 310 | -34             | -36 | 27 | 21 | 5960 | 20 | 103 | 600 | 0.82 | 850  | 160     | 3.3            | 0.4            | 0.30 | 0.39 | Ν |
|   | Seaforth                     | 310 | -17             | -19 | 30 | 23 | 4100 | 25 | 108 | 810 | 0.94 | 1025 | 160     | 2.5            | 0.4            | 0.37 | 0.48 |   |
|   | Shelburne                    | 495 | <del>-</del> 22 | -24 | 29 | 23 | 4700 | 28 | 108 | 740 | 0.88 | 900  | 150     | 3.1            | 0.4            | 0.31 | 0.40 |   |
|   | Simcoe                       | 210 | -17             | -19 | 30 | 24 | 3700 | 28 | 113 | 860 | 0.97 | 950  | 160     | 1.3            | 0.4            | 0.35 | 0.45 |   |
|   | Sioux Lookout                | 375 | -34             | -36 | 28 | 22 | 5950 | 25 | 97  | 520 | 0.69 | 710  | 100     | 2.6            | 0.3            | 0.23 | 0.30 |   |
|   | Smiths Falls                 | 130 | <del>-</del> 25 | -27 | 30 | 23 | 4540 | 25 | 92  | 730 | 0.84 | 850  | 140     | 2.3            | 0.4            | 0.32 | 0.41 |   |
|   | Smithville                   | 185 | -16             | -18 | 30 | 23 | 3650 | 23 | 108 | 800 | 0.92 | 900  | 160     | 1.5            | 0.4            | 0.33 | 0.42 | r |
| / | Smooth Rock Falls            | 235 | -34             | -36 | 29 | 21 | 6250 | 20 | 92  | 560 | 0.77 | 850  | 80      | 2.7            | 0.3            | 0.25 | 0.32 |   |
|   | South River                  | 355 | <del>-</del> 27 | -29 | 29 | 22 | 5090 | 25 | 103 | 830 | 0.96 | 975  | 120     | 2.8            | 0.4            | 0.27 | 0.35 | ĺ |
|   | Southampton                  | 180 | -17             | -19 | 28 | 22 | 4100 | 25 | 92  | 800 | 0.95 | 830  | 180     | 2.7            | 0.4            | 0.41 | 0.53 | Ĺ |
| ļ | St. Catharines               | 105 | -16             | -18 | 30 | 23 | 3540 | 23 | 92  | 770 | 0.90 | 850  | 160     | 1.0            | 0.4            | 0.36 | 0.46 |   |
|   | St. Mary's                   | 310 | -18             | -20 | 30 | 23 | 4000 | 28 | 108 | 820 | 0.95 | 1025 | 160     | 2.2            | 0.4            | 0.36 | 0.47 |   |
|   | St. Thomas                   | 225 | -16             | -18 | 31 | 24 | 3780 | 25 | 103 | 900 | 0.99 | 975  | 180     | 1.4            | 0.4            | 0.36 | 0.47 |   |
|   | Stirling                     | 120 | -23             | -25 | 30 | 23 | 4220 | 25 | 97  | 740 | 0.86 | 850  | 120     | 1.7            | 0.4            | 0.31 | 0.40 |   |
|   | Stratford                    | 360 | -18             | -20 | 29 | 23 | 4050 | 28 | 113 | 820 | 0.95 | 1050 | 160     | 2.3            | 0.4            | 0.35 | 0.45 |   |
|   | Strathroy                    | 225 | -17             | -19 | 31 | 24 | 3780 | 25 | 103 | 770 | 0.88 | 950  | 180     | 1.9            | 0.4            | 0.36 | 0.47 |   |
|   | Sturgeon Falls               | 205 | -28             | -30 | 29 | 21 | 5200 | 25 | 95  | 700 | 0.86 | 910  | 140     | 2.4            | 0.4            | 0.27 | 0.35 |   |
|   | Sudbury                      | 275 | <del>-</del> 28 | -30 | 29 | 21 | 5180 | 25 | 97  | 650 | 0.79 | 875  | 200     | 2.5            | 0.4            | 0.36 | 0.46 |   |
|   | Sundridge                    | 340 | <b>-</b> 27     | -29 | 29 | 22 | 5080 | 25 | 97  | 840 | 0.97 | 975  | 120     | 2.8            | 0.4            | 0.27 | 0.35 |   |
|   | Tavistock                    | 340 | -19             | -21 | 29 | 23 | 4100 | 28 | 113 | 820 | 0.95 | 1010 | 160     | 2.1            | 0.4            | 0.35 | 0.45 |   |
| ļ | Temagami                     | 300 | -30             | -33 | 30 | 22 | 5420 | 23 | 92  | 650 | 0.82 | 875  | 120     | 2.6            | 0.4            | 0.29 | 0.37 |   |
|   |                              |     |                 |     |    |    |      |    |     |     |      |      |         |                |                |      |      |   |

One

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Index

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Min.

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Tot.

Ppn.,

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Snow Load,

kPa, 1/50

 $S_r$ 

 $S_{\text{s}}$ 

Hourly Wind

Pressures, kPa

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1/10

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July 2.5%

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Province and Location

Council, National R. National Building Code 2015. National Research Council.

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Thamesford

Thunder Bay

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| illsonburg immins immins (Porcupine) oronto Metropolitan egion Etobicoke | 215<br>300<br>295 | 2.5%<br>°C<br>-17   | 1%<br>°C  | July :<br>Dry<br>°C  | Wet   | gree-<br>Days   | Min.  | Day  | Ann.   | Moist.   | Tot.  | I Wind   |  |  |   |   |
|--|-------------------|---|---|--|---|---|---|--|--|--|---|--|--|--|---|---|
| immins immins (Porcupine) pronto Metropolitan egion                      | 300               |   | -10   |  | °C  | Below<br>18°C   | Rain,<br>mm   | Rain,<br>1/50,<br>mm   | Rain,<br>mm  | Index  | Ppn.,<br>mm   | Wind<br>Pres-<br>sures,<br>Pa, 1/5   | S <sub>s</sub>   | S <sub>r</sub>   | 1/10  | 1/50  |
| immins (Porcupine)<br>pronto Metropolitan<br>egion                       |                   | -34   | -13   | 30   | 24  | 3840  | 25  | 103  | 880  | 0.98   | 980   | 160  | 1.3  | 0.4  | 0.34  | 0.44  |
| oronto Metropolitan<br>egion   | 295               | 0-  | -36   | 29   | 21  | 5940  | 20  | 108  | 560  | 0.75   | 875   | 100  | 3.1  | 0.3  | 0.27  | 0.35  |
| egion .  |                   | -34   | -36   | 29   | 21  | 6000  | 20  | 103  | 560  | 0.75   | 875   | 100  | 2.9  | 0.3  | 0.29  | 0.37  |
| Etohicoke  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   |   |
| Liobioono  | 160               | -20   | -22   | 31   | 24  | 3800  | 26  | 108  | 720  | 0.80   | 800   | 160  | 1.1  | 0.4  | 0.34  | 0.44  |
| North York   | 175               | <del>-</del> 20   | <del>-</del> 22   | 31   | 24  | 3760  | 25  | 108  | 730  | 0.82   | 850   | 150  | 1.2  | 0.4  | 0.34  | 0.44  |
| Scarborough  | 180               | -20   | <del>-</del> 22   | 31   | 24  | 3800  | 25  | 92   | 730  | 0.87   | 825   | 160  | 1.2  | 0.4  | 0.36  | 0.47  |
| Toronto (City Hall)  | 90                | -18   | <del>-</del> 20   | 31   | 23  | 3520  | 25  | 97   | 720  | 0.86   | 820   | 160  | 0.9  | 0.4  | 0.34  | 0.44  |
| renton   | 80                | <del>-</del> 22   | -24   | 29   | 23  | 4110  | 23  | 97   | 760  | 0.89   | 850   | 160  | 1.6  | 0.4  | 0.36  | 0.47  |
| out Creek  | 330               | -27   | <b>-</b> 29   | 29   | 22  | 5100  | 25  | 103  | 780  | 0.92   | 975   | 120  | 2.7  | 0.4  | 0.27  | 0.35  |
| xbridge  | 275               | -22   | -24   | 30   | 23  | 4240  | 25  | 103  | 700  | 0.82   | 850   | 140  | 2.4  | 0.4  | 0.33  | 0.42  |
| aughan (Woodbridge)  | 165               | -20   | -22   | 31   | 24  | 4100  | 26  | 113  | 700  | 0.80   | 800   | 140  | 1.1  | 0.4  | 0.34  | 0.44  |
| •                                  | 215               | -15   | -17   | 30   | 24  | 3680  | 25  | 113  | 880  | 0.99   | 950   | 160  | 1.3  | 0.4  | 0.36  | 0.47  |
| /alkerton  | 275               | -18   | -20   | 30   | 22  | 4300  | 28  | 103  | 790  |  | 1025  | 160  | 2.7  | 0.4  | 0.39  | 0.50  |
| /allaceburg  | 180               | -16   |   | 31   |   | 3600  | 28  | 97   | 760  |  |   | 180  |  | 0.4  | 0.35  | 0.45  |
| · ·  | 330               | -19   |   |  |   |   | 28  | 119  | 780  | 0.89   | 925   | 160  | 2.0  | 0.4  | 0.29  | 0.37  |
| /atford  | 240               | -17   | -19   | 31   | 24  | 3740  | 25  | 108  | 790  | 0.90   | 950   | 160  | 1.9  | 0.4  | 0.36  | 0.47  |
| lawa   | 290               | -34   | -36   | 26   | 21  | 5840  | 20  | 93   | 725  | 0.93   | 950   | 160  | 3.4  | 0.4  | 0.30  | 0.39  |
|  |                   |   |   |  |   |   | 23  |  |  |  |   |  | -  |  | 1   | 0.43  |
|  |                   |   |   |  |   |   | 28  |  |  |  |   |  |  |  |   | 0.47  |
|  | _                 | _   | -   | _  |   |   | -   |  |  |  |   |  |  | _  |   | 0.48  |
| •  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.45  |
| * ' '  | 375               |   |   |  |   | 6150  | 20  |  | 575  |  | 825   | 100  |  | 0.4  |   | 0.30  |
|  |                   |   |   |  |   |   | -   |  |  |  |   |  |  | _  |   | 0.48  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.47  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.50  |
| -  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.44  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.47  |
| · •  |                   |   |   |  |   | 0.00  |   |  | 0.0  | 0.02   | -   |  |  | •••  | 0.00  | J   |
|  | 95                | -24   | -27   | 30   | 23  | 4620  | 21  | 107  | 860  | 0.97   | 1050  | 180  | 23   | 0.4  | 0.27  | 0.35  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.35  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.32  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.35  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.41  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.50  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.48  |
|  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.42  |
| ·  |                   |   |   |  |   |   |   |  |  |  |   |  |  |  |   | 0.42  |
|  |                   |   | -   | -  | Ī -   | _   | -   |  |  |  |   |  |  |  |   | 0.41  |
|  | · ·               | Toronto (City Hall) 90 renton 80 rout Creek 330 xbridge 275 aughan (Woodbridge) 165 ittoria 215 //alkerton 275 //allaceburg 180 //aterloo 330 //atford 240 //awa 290 //elland 180 //est Lorne 215 //hitby 85 //hitby (Brooklin) 160 //hite River 375 //iarton 185 //indsor 185 //ingham 310 //oodstock 300 //yoming 215 ec cton-Vale 95 Ilma 110 mos 295 sbestos 245 ylmer 90 aie-Comeau 60 aie-Saint-Paul 20 eauport 45 edford 555 | Toronto (City Hall) 90 -18 renton 80 -22 rout Creek 330 -27 xbridge 275 -22 aughan (Woodbridge) 165 -20 ittoria 215 -15 /alkerton 275 -18 /allaceburg 180 -16 /aterloo 330 -19 /attord 240 -17 /awa 290 -34 /elland 180 -15 //est Lorne 215 -16 //hitby 85 -20 //hitby (Brooklin) 160 -20 //hite River 375 -39 /indsor 185 -16 /ingham 310 -18 /oodstock 300 -19 /ingham 310 -18 /oodstock 300 -19 ec cton-Vale 95 -24 Ima 110 -31 mos 295 -34 sbestos 245 -26 ylmer 90 -25 aie-Comeau 60 -27 aie-Saint-Paul 20 -27 aie-Saint-Paul 20 -27 aie-Saint-Paul 20 -27 aie-Gord 55 -24 | Toronto (City Hall) 90 -18 -20 renton 80 -22 -24 rout Creek 330 -27 -29 xbridge 275 -22 -24 aughan (Woodbridge) 165 -20 -22 ittoria 215 -15 -17 /alkerton 275 -18 -20 /allaceburg 180 -16 -18 /aterloo 330 -19 -21 /awa 290 -34 -36 /elland 180 -15 -17 /est Lorne 215 -16 -18 /hitby 85 -20 -22 /hitby (Brooklin) 160 -20 -22 /hittoria 375 -39 -42 /ingham 310 -18 -20 /oodstock 300 -19 -21 /ingham 310 -18 -20 /oodstock 300 -19 -21 ma 110 -31 -33 mos 295 -34 -36 sbestos 245 -26 -28 ylmer 90 -25 -28 aie-Comeau 60 -27 -29 aie-Saint-Paul 20 -27 -29 edford 55 -24 -26 | Toronto (City Hall) 90 -18 -20 31 renton 80 -22 -24 29 rout Creek 330 -27 -29 29 xbridge 275 -22 -24 30 aughan (Woodbridge) 165 -20 -22 31 ittoria 215 -15 -17 30 /alkerton 275 -18 -20 30 /allaceburg 180 -16 -18 31 /aterloo 330 -19 -21 29 /atford 240 -17 -19 31 /awa 290 -34 -36 26 /elland 180 -15 -17 30 /est Lorne 215 -16 -18 31 /hitby 85 -20 -22 30 /hitby (Brooklin) 160 -20 -22 30 /hitby (Brooklin) 160 -20 -22 30 /indsor 185 -16 -18 32 /ingham 310 -18 -20 30 /oodstock 300 -19 -21 29 cton-Vale 95 -24 -27 30 Ima 110 -31 -33 28 mos 295 -34 -36 28 sbestos 245 -26 -28 29 ylmer 90 -25 -28 30 aie-Comeau 60 -27 -29 28 edford 55 -24 -26 -29 28 edford 55 -24 -26 29 | Toronto (City Hall) 90 -18 -20 31 23 renton 80 -22 -24 29 23 rout Creek 330 -27 -29 29 22 xbridge 275 -22 -24 30 23 aughan (Woodbridge) 165 -20 -22 31 24 ittoria 215 -15 -17 30 24 /alkerton 275 -18 -20 30 22 /allaceburg 180 -16 -18 31 24 /attorid 240 -17 -19 31 24 /attorid 240 -17 -19 31 24 /alwa 290 -34 -36 26 21 /elland 180 -15 -17 30 23 /est Lorne 215 -16 -18 31 24 /hitby 85 -20 -22 30 23 /hitby (Brooklin) 160 -20 -22 30 23 /hittorid 185 -19 -21 29 22 /iarton 185 -19 -21 29 22 /iarton 185 -16 -18 32 24 /iarton 185 -16 -18 32 24 /iarton 185 -16 -18 32 24 /iarton 185 -16 -18 32 24 /iarton 195 -24 28 21 /iarton 295 -34 -36 26 21 /iarton 295 -34 -36 26 /iarton 295 -34 -36 28 21 /iarton 295 -34 -36 28 21 /iarton 295 -24 -27 30 23 /iarton 295 -34 -36 28 21 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-18 31 24 3700 28 103 840 0.95 900 180 1.2 0.4 0.36 falket Lorne 25 -18 31 24 3700 28 103 840 0.95 900 180 1.2 0.4 0.36 falket Lorne 25 -18 31 24 3700 28 103 840 0.95 900 180 |

|                       | F           | Des        | sign Te     | mpera     |           | De-<br>gree-          | 15<br>Min           | One<br>Day           | Ann.        | N.A             | Ann.                | Driv-<br>ing Rain                  | Snow<br>kPa,   |                | Hourly<br>Pressu |      |
|-----------------------|-------------|------------|-------------|-----------|-----------|-----------------------|---------------------|----------------------|-------------|-----------------|---------------------|------------------------------------|----------------|----------------|------------------|------|
| Province and Location | Elev.,<br>m | 2.5%<br>°C | 1%<br>°C    | Dry<br>°C | Wet<br>°C | Days<br>Below<br>18°C | Min.<br>Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Moist.<br>Index | Tot.<br>Ppn.,<br>mm | Wind<br>Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10             | 1/50 |
| Brome                 | 210         | -25        | -27         | 29        | 23        | 4730                  | 23                  | 96                   | 990         | 1.09            | 1240                | 160                                | 2.5            | 0.4            | 0.29             | 0.37 |
| Brossard              | 15          | -24        | -26         | 30        | 23        | 4420                  | 23                  | 91                   | 800         | 0.90            | 1025                | 180                                | 2.4            | 0.4            | 0.33             | 0.42 |
| Buckingham            | 130         | -26        | -28         | 30        | 23        | 4880                  | 23                  | 91                   | 810         | 0.94            | 990                 | 160                                | 2.6            | 0.4            | 0.31             | 0.40 |
| Campbell's Bay        | 115         | -28        | -30         | 30        | 23        | 4900                  | 23                  | 96                   | 700         | 0.83            | 850                 | 140                                | 2.6            | 0.4            | 0.25             | 0.32 |
| Chambly               | 20          | -24        | -26         | 30        | 23        | 4450                  | 23                  | 91                   | 850         | 0.96            | 1000                | 160                                | 2.3            | 0.4            | 0.31             | 0.40 |
| Coaticook             | 295         | -25        | -27         | 28        | 22        | 4750                  | 23                  | 96                   | 860         | 1.00            | 1060                | 160                                | 2.3            | 0.6            | 0.27             | 0.35 |
| Contrecoeur           | 10          | -25        | <b>-</b> 27 | 30        | 23        | 4500                  | 20                  | 102                  | 810         | 0.94            | 1000                | 180                                | 2.8            | 0.4            | 0.33             | 0.43 |
| Cowansville           | 120         | -25        | <b>-</b> 27 | 29        | 23        | 4540                  | 23                  | 91                   | 940         | 1.04            | 1150                | 160                                | 2.3            | 0.4            | 0.32             | 0.41 |
| Deux-Montagnes        | 25          | -25        | <b>-</b> 27 | 29        | 23        | 4440                  | 23                  | 96                   | 820         | 0.92            | 1025                | 160                                | 2.4            | 0.4            | 0.29             | 0.37 |
| Dolbeau               | 120         | -32        | -34         | 28        | 22        | 6250                  | 22                  | 91                   | 670         | 0.85            | 900                 | 140                                | 3.5            | 0.3            | 0.27             | 0.35 |
| Drummondville         | 85          | -26        | -28         | 30        | 23        | 4700                  | 22                  | 107                  | 870         | 0.98            | 1075                | 180                                | 2.5            | 0.4            | 0.27             | 0.35 |
| Farnham               | 60          | -24        | -26         | 29        | 23        | 4500                  | 23                  | 96                   | 910         | 1.01            | 1050                | 180                                | 2.5            | 0.4            | 0.29             | 0.37 |
| Fort-Coulonge         | 110         | -28        | -30         | 30        | 23        | 4950                  | 23                  | 96                   | 720         | 0.86            | 900                 | 100                                | 2.5            | 0.4            | 0.25             | 0.32 |
| Gagnon                | 545         | -34        | -36         | 24        | 19        | 7600                  | 17                  | 80                   | 580         | 0.89            | 925                 | 140                                | 4.6            | 0.4            | 0.30             | 0.39 |
| Gaspé                 | 55          | -25        | -26         | 26        | 20        | 5500                  | 19                  | 118                  | 760         | 0.96            | 1100                | 300                                | 4.3            | 0.6            | 0.37             | 0.48 |
| Gatineau              | 95          | -25        | -28         | 30        | 23        | 4600                  | 23                  | 91                   | 790         | 0.92            | 950                 | 160                                | 2.5            | 0.4            | 0.32             | 0.41 |
| Gracefield            | 175         | -28        | -31         | 30        | 23        | 5080                  | 23                  | 96                   | 700         | 0.85            | 950                 | 140                                | 2.6            | 0.4            | 0.25             | 0.32 |
| Granby                | 120         | -25        | <b>-</b> 27 | 29        | 23        | 4500                  | 23                  | 102                  | 940         | 1.04            | 1175                | 160                                | 2.3            | 0.4            | 0.27             | 0.35 |
| Harrington-Harbour    | 30          | -27        | -29         | 19        | 16        | 6150                  | 15                  | 96                   | 900         | 1.18            | 1150                | 300                                | 4.9            | 0.6            | 0.56             | 0.72 |
| Havre-St-Pierre       | 5           | -27        | -29         | 22        | 18        | 6100                  | 15                  | 96                   | 780         | 1.05            | 1125                | 300                                | 4.1            | 0.6            | 0.48             | 0.63 |
| Hemmingford           | 75          | -24        | -26         | 30        | 23        | 4380                  | 23                  | 91                   | 770         | 0.89            | 1025                | 160                                | 2.4            | 0.4            | 0.31             | 0.40 |
| Hull                  | 65          | -25        | -28         | 30        | 23        | 4550                  | 23                  | 91                   | 730         | 0.84            | 900                 | 160                                | 2.4            | 0.4            | 0.32             | 0.41 |
| Iberville             | 35          | -24        | -26         | 29        | 23        | 4450                  | 23                  | 91                   | 880         | 0.99            | 1010                | 160                                | 2.2            | 0.4            | 0.32             | 0.41 |
| Inukjuak              | 5           | -36        | -38         | 21        | 15        | 9150                  | 9                   | 54                   | 270         | 0.88            | 420                 | 240                                | 4.1            | 0.2            | 0.47             | 0.60 |
| Joliette              | 45          | -26        | -28         | 29        | 23        | 4720                  | 21                  | 102                  | 790         | 0.93            | 1000                | 160                                | 3.1            | 0.4            | 0.28             | 0.36 |
| Kuujjuaq              | 25          | -37        | -39         | 24        | 17        | 8550                  | 9                   | 54                   | 280         | 0.80            | 525                 | 260                                | 4.8            | 0.2            | 0.47             | 0.60 |
| Kuujjuarapik          | 20          | -36        | -38         | 25        | 17        | 7990                  | 12                  | 80                   | 410         | 0.85            | 610                 | 180                                | 4.2            | 0.3            | 0.43             | 0.55 |
| La Pocatière          | 55          | -24        | -26         | 28        | 22        | 5160                  | 18                  | 102                  | 675         | 0.85            | 965                 | 180                                | 3.2            | 0.6            | 0.39             | 0.50 |
| La-Malbaie            | 25          | -26        | -28         | 28        | 21        | 5400                  | 18                  | 102                  | 640         | 0.82            | 900                 | 180                                | 3.1            | 0.6            | 0.37             | 0.48 |
| La-Tuque              | 165         | -30        | -32         | 29        | 22        | 5500                  | 23                  | 96                   | 720         | 0.87            | 930                 | 160                                | 3.4            | 0.4            | 0.27             | 0.35 |
| Lac-Mégantic          | 420         | -27        | -29         | 27        | 22        | 5180                  | 23                  | 91                   | 790         | 0.94            | 1025                | 160                                | 3.2            | 0.6            | 0.27             | 0.35 |
| Lachute               | 65          | -26        | -28         | 29        | 23        | 4640                  | 23                  | 96                   | 910         | 1.04            | 1075                | 160                                | 2.4            | 0.4            | 0.31             | 0.40 |
| Lennoxville           | 155         | -28        | -30         | 29        | 22        | 4700                  | 23                  | 96                   | 850         | 0.98            | 1100                | 160                                | 2.1            | 0.6            | 0.25             | 0.32 |
| Léry                  | 30          | -24        | -26         | 29        | 23        | 4420                  | 23                  | 91                   | 800         | 0.91            | 950                 | 180                                | 2.3            | 0.4            | 0.33             | 0.42 |
| Loretteville          | 100         | -26        | -29         | 28        | 22        | 5200                  | 20                  | 102                  | 980         | 1.09            | 1225                | 200                                | 3.7            | 0.6            | 0.32             | 0.41 |
| Louiseville           | 15          | -25        | -28         | 29        | 23        | 4900                  | 20                  | 102                  | 800         | 0.93            | 1025                | 160                                | 2.9            | 0.4            | 0.33             | 0.43 |
| Magog                 | 215         | -26        | -28         | 29        | 23        | 4730                  | 23                  | 96                   | 860         | 0.99            | 1125                | 160                                | 2.3            | 0.4            | 0.27             | 0.35 |
| Malartic              | 325         | -33        | -36         | 29        | 21        | 6200                  | 20                  | 86                   | 640         | 0.82            | 900                 | 100                                | 3.3            | 0.3            | 0.25             | 0.32 |
| Maniwaki              | 180         | -30        | -32         | 29        | 22        | 5280                  | 23                  | 96                   | 700         | 0.86            | 900                 | 100                                | 2.4            | 0.4            | 0.24             | 0.31 |
| Masson                | 50          | -26        | -28         | 30        | 23        | 4610                  | 23                  | 91                   | 790         | 0.92            | 975                 | 160                                | 2.4            | 0.4            | 0.31             | 0.40 |

|   |                          |        | Des             | ign Te          | mpera     | ture      | De-                   |             | One                  |             |        |              | Driv-                      | Snow           | Load,          | Hourly  | Wind    |
|---|--------------------------|--------|-----------------|-----------------|-----------|-----------|-----------------------|-------------|----------------------|-------------|--------|--------------|----------------------------|----------------|----------------|---------|---------|
|   |                          | Elev., | Janı            | uary            | July 2    | 2.5%      | gree-                 | 15<br>Min.  | Day                  | Ann.        | Moist. | Ann.<br>Tot. | ing Rain<br>Wind           | kPa,           | 1/50           | Pressur | es, kPa |
|   | Province and Location    | m      | 2.5%<br>°C      | 1%<br>°C        | Dry<br>°C | Wet<br>°C | Days<br>Below<br>18°C | Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Index  | Ppn.,<br>mm  | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10    | 1/50    |
| Ī | Matane                   | 5      | -24             | -26             | 24        | 20        | 5510                  | 18          | 91                   | 640         | 0.88   | 1050         | 220                        | 3.7            | 0.4            | 0.47    | 0.60    |
|   | Mont-Joli                | 90     | -24             | -26             | 26        | 21        | 5370                  | 18          | 91                   | 610         | 0.84   | 920          | 220                        | 4.1            | 0.4            | 0.40    | 0.52    |
|   | Mont-Laurier             | 225    | -29             | -32             | 29        | 22        | 5320                  | 24          | 102                  | 790         | 0.93   | 1000         | 160                        | 2.6            | 0.4            | 0.23    | 0.30    |
|   | Montmagny                | 10     | <del>-</del> 25 | -28             | 28        | 22        | 5090                  | 20          | 102                  | 880         | 1.01   | 1090         | 180                        | 2.9            | 0.6            | 0.36    | 0.47    |
|   | Montréal Region          |        |                 |                 |           |           |                       |             |                      |             |        |              |                            |                |                |         |         |
|   | Beaconsfield             | 25     | <del>-</del> 24 | -26             | 30        | 23        | 4440                  | 23          | 91                   | 780         | 0.89   | 950          | 180                        | 2.3            | 0.4            | 0.33    | 0.42    |
|   | Dorval                   | 25     | -24             | -26             | 30        | 23        | 4400                  | 23          | 91                   | 760         | 0.85   | 940          | 180                        | 2.4            | 0.4            | 0.33    | 0.42    |
|   | Laval                    | 35     | -24             | -26             | 29        | 23        | 4500                  | 23          | 96                   | 830         | 0.93   | 1025         | 160                        | 2.6            | 0.4            | 0.33    | 0.42    |
|   | Montréal (City Hall)     | 20     | -23             | -26             | 30        | 23        | 4200                  | 23          | 96                   | 830         | 0.93   | 1025         | 180                        | 2.6            | 0.4            | 0.33    | 0.42    |
|   | Montréal-Est             | 25     | -23             | -26             | 30        | 23        | 4470                  | 23          | 96                   | 830         | 0.93   | 1025         | 180                        | 2.7            | 0.4            | 0.33    | 0.42    |
| ļ | Montréal-Nord            | 20     | -24             | -26             | 30        | 23        | 4470                  | 23          | 96                   | 830         | 0.93   | 1025         | 160                        | 2.6            | 0.4            | 0.33    | 0.42    |
|   | Outremont                | 105    | -23             | -26             | 30        | 23        | 4300                  | 23          | 96                   | 820         | 0.91   | 1025         | 180                        | 2.8            | 0.4            | 0.33    | 0.42    |
|   | Pierrefonds              | 25     | <b>-</b> 24     | -26             | 30        | 23        | 4430                  | 23          | 96                   | 800         | 0.90   | 960          | 180                        | 2.4            | 0.4            | 0.33    | 0.42    |
|   | St-Lambert               | 15     | -23             | -26             | 30        | 23        | 4400                  | 23          | 96                   | 810         | 0.91   | 1050         | 160                        | 2.5            | 0.4            | 0.33    | 0.42    |
|   | St-Laurent               | 45     | -23             | -26             | 30        | 23        | 4270                  | 23          | 96                   | 790         | 0.89   | 950          | 160                        | 2.5            | 0.4            | 0.33    | 0.42    |
|   | Ste-Anne-de-<br>Bellevue | 35     | -24             | -26             | 29        | 23        | 4460                  | 23          | 96                   | 780         | 0.89   | 960          | 180                        | 2.3            | 0.4            | 0.33    | 0.42    |
|   | Verdun                   | 20     | -23             | -26             | 30        | 23        | 4200                  | 23          | 91                   | 780         | 0.88   | 1025         | 180                        | 2.5            | 0.4            | 0.33    | 0.42    |
|   | Nicolet (Gentilly)       | 15     | <b>-</b> 25     | -28             | 29        | 23        | 4900                  | 20          | 107                  | 860         | 0.98   | 1025         | 160                        | 2.8            | 0.4            | 0.33    | 0.42    |
|   | Nitchequon               | 545    | -39             | -41             | 23        | 19        | 8100                  | 15          | 70                   | 500         | 0.89   | 825          | 140                        | 3.5            | 0.3            | 0.29    | 0.37    |
|   | Noranda                  | 305    | -33             | -36             | 29        | 21        | 6050                  | 20          | 91                   | 650         | 0.82   | 875          | 100                        | 3.2            | 0.3            | 0.27    | 0.35    |
|   | Percé                    | 5      | -21             | -24             | 25        | 19        | 5400                  | 16          | 107                  | 1000        | 1.18   | 1300         | 300                        | 3.8            | 0.6            | 0.56    | 0.72    |
|   | Pincourt                 | 25     | <del>-</del> 24 | -26             | 29        | 23        | 4480                  | 23          | 96                   | 780         | 0.88   | 950          | 180                        | 2.3            | 0.4            | 0.33    | 0.42    |
| / | Plessisville             | 145    | -26             | -28             | 29        | 23        | 5100                  | 21          | 107                  | 890         | 1.00   | 1150         | 180                        | 2.8            | 0.6            | 0.27    | 0.35    |
|   | Port-Cartier             | 20     | -28             | -30             | 25        | 19        | 6060                  | 15          | 106                  | 730         | 0.99   | 1125         | 300                        | 4.1            | 0.4            | 0.42    | 0.54    |
|   | Puvirnituq               | 5      | -36             | -38             | 23        | 16        | 9200                  | 7           | 54                   | 210         | 0.87   | 375          | 240                        | 4.5            | 0.2            | 0.47    | 0.60    |
|   | Québec City Region       |        |                 |                 |           |           |                       |             |                      |             |        |              |                            |                |                |         |         |
|   | Ancienne-<br>Lorette     | 35     | <b>-</b> 25     | -28             | 28        | 23        | 5130                  | 20          | 102                  | 940         | 1.06   | 1200         | 200                        | 3.4            | 0.6            | 0.32    | 0.41    |
|   | Lévis                    | 50     | <b>-</b> 25     | -28             | 28        | 22        | 5050                  | 20          | 107                  | 920         | 1.04   | 1200         | 160                        | 3.3            | 0.6            | 0.32    | 0.41    |
|   | Québec                   | 120    | <del>-</del> 25 | -28             | 28        | 22        | 5080                  | 20          | 107                  | 925         | 1.04   | 1210         | 200                        | 3.6            | 0.6            | 0.32    | 0.41    |
|   | Sillery                  | 10     | <b>-</b> 25     | -28             | 28        | 23        | 5070                  | 20          | 107                  | 930         | 1.05   | 1200         | 200                        | 3.1            | 0.6            | 0.32    | 0.41    |
|   | Ste-Foy                  | 115    | <b>-</b> 25     | -28             | 28        | 23        | 5100                  | 20          | 107                  | 940         | 1.06   | 1200         | 180                        | 3.7            | 0.6            | 0.32    | 0.41    |
| ļ | Richmond                 | 150    | <del>-</del> 25 | -27             | 29        | 22        | 4700                  | 23          | 96                   | 870         | 0.98   | 1060         | 160                        | 2.4            | 0.6            | 0.25    | 0.32    |
|   | Rimouski                 | 30     | -25             | -27             | 26        | 20        | 5300                  | 18          | 91                   | 640         | 0.84   | 890          | 200                        | 3.8            | 0.4            | 0.40    | 0.52    |
|   | Rivière-du-Loup          | 55     | <b>-</b> 25     | <b>-</b> 27     | 26        | 21        | 5380                  | 18          | 91                   | 660         | 0.84   | 900          | 180                        | 3.5            | 0.6            | 0.39    | 0.50    |
|   | Roberval                 | 100    | -31             | -33             | 28        | 21        | 5750                  | 22          | 91                   | 590         | 0.77   | 910          | 140                        | 3.5            | 0.3            | 0.27    | 0.35    |
|   | Rock-Island              | 160    | <b>-</b> 25     | <b>-</b> 27     | 29        | 23        | 4850                  | 23          | 91                   | 900         | 1.03   | 1125         | 160                        | 2.0            | 0.4            | 0.27    | 0.35    |
| ļ | Rosemère                 | 25     | -24             | <del>-</del> 26 | 29        | 23        | 4550                  | 23          | 96                   | 840         | 0.97   | 1050         | 160                        | 2.6            | 0.4            | 0.31    | 0.40    |
|   | Rouyn                    | 300    | -33             | -36             | 29        | 21        | 6050                  | 20          | 91                   | 650         | 0.82   | 900          | 100                        | 3.1            | 0.3            | 0.27    | 0.35    |
|   | Saguenay                 | 10     | -30             | -32             | 28        | 22        | 5700                  | 18          | 86                   | 710         | 0.88   | 975          | 140                        | 2.7            | 0.4            | 0.28    | 0.36    |

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|                                     |             | Des<br>Janu |          | mpera<br>Julv | ture<br>2,5% | De-<br>gree-          | 15                  | One<br>Day           | Ann.        |                 | Ann.                | Driv-<br>ing Rain                  | Snow<br>kPa,   | Load,<br>1/50  |      | Wind<br>res, kPa |
|-------------------------------------|-------------|-------------|----------|---------------|--------------|-----------------------|---------------------|----------------------|-------------|-----------------|---------------------|------------------------------------|----------------|----------------|------|------------------|
| Province and Location               | Elev.,<br>m | 2.5%<br>°C  | 1%<br>°C | Dry<br>°C     | Wet<br>°C    | Days<br>Below<br>18°C | Min.<br>Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Moist.<br>Index | Tot.<br>Ppn.,<br>mm | Wind<br>Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10 | 1/50             |
| Saguenay (Bagotville)               | 5           | -31         | -33      | 28            | 21           | 5700                  | 18                  | 86                   | 690         | 0.86            | 925                 | 160                                | 2.7            | 0.4            | 0.29 | 0.38             |
| Saguenay (Jonquière)                | 135         | -30         | -32      | 28            | 22           | 5650                  | 18                  | 86                   | 710         | 0.87            | 925                 | 160                                | 3.1            | 0.4            | 0.27 | 0.35             |
| Saguenay (Kenogami)                 | 140         | -30         | -32      | 28            | 22           | 5650                  | 18                  | 86                   | 690         | 0.86            | 925                 | 160                                | 3.1            | 0.4            | 0.27 | 0.35             |
| Saint-Eustache                      | 35          | -25         | -27      | 29            | 23           | 4500                  | 23                  | 96                   | 820         | 0.92            | 1025                | 160                                | 2.4            | 0.4            | 0.29 | 0.37             |
| Saint-Jean-sur-<br>Richelieu        | 35          | <b>-</b> 24 | -26      | 29            | 23           | 4450                  | 23                  | 91                   | 880         | 0.99            | 1010                | 180                                | 2.2            | 0.4            | 0.32 | 0.41             |
| Salaberry-de-<br>Valleyfield        | 50          | <b>-</b> 23 | -25      | 29            | 23           | 4400                  | 23                  | 96                   | 760         | 0.87            | 900                 | 180                                | 2.3            | 0.4            | 0.33 | 0.42             |
| Schefferville                       | 550         | -37         | -39      | 24            | 16           | 8550                  | 13                  | 64                   | 410         | 0.81            | 800                 | 180                                | 4.5            | 0.3            | 0.33 | 0.42             |
| Senneterre                          | 310         | -34         | -36      | 29            | 21           | 6180                  | 22                  | 91                   | 740         | 0.91            | 925                 | 100                                | 3.3            | 0.3            | 0.25 | 0.32             |
| Sept-Îles                           | 5           | -29         | -31      | 24            | 18           | 6200                  | 15                  | 106                  | 760         | 1.01            | 1125                | 300                                | 4.1            | 0.4            | 0.42 | 0.54             |
| Shawinigan                          | 60          | -26         | -29      | 29            | 23           | 5050                  | 22                  | 102                  | 820         | 0.96            | 1050                | 180                                | 3.1            | 0.4            | 0.27 | 0.35             |
| Shawville                           | 170         | -27         | -30      | 30            | 23           | 4880                  | 23                  | 96                   | 670         | 0.79            | 880                 | 160                                | 2.8            | 0.4            | 0.27 | 0.35             |
| Sherbrooke                          | 185         | -28         | -30      | 29            | 23           | 4700                  | 23                  | 96                   | 900         | 1.03            | 1100                | 160                                | 2.2            | 0.6            | 0.25 | 0.32             |
| Sorel                               | 10          | -25         | -27      | 29            | 23           | 4550                  | 20                  | 102                  | 800         | 0.93            | 975                 | 180                                | 2.8            | 0.4            | 0.33 | 0.43             |
| St-Félicien                         | 105         | -32         | -34      | 28            | 22           | 5850                  | 22                  | 91                   | 570         | 0.76            | 900                 | 140                                | 3.5            | 0.3            | 0.27 | 0.35             |
| St-Georges-de-<br>Cacouna           | 35          | -25         | -27      | 26            | 21           | 5400                  | 18                  | 91                   | 660         | 0.85            | 925                 | 180                                | 3.2            | 0.6            | 0.39 | 0.50             |
| St-Hubert                           | 25          | -24         | -26      | 30            | 23           | 4490                  | 23                  | 91                   | 820         | 0.92            | 1020                | 180                                | 2.5            | 0.4            | 0.33 | 0.42             |
| Saint-Hubert-de-<br>Rivière-du-Loup | 310         | -26         | -28      | 26            | 21           | 5520                  | 22                  | 91                   | 740         | 0.90            | 1025                | 180                                | 4.4            | 0.6            | 0.31 | 0.40             |
| St-Hyacinthe                        | 35          | -24         | -27      | 30            | 23           | 4500                  | 21                  | 91                   | 840         | 0.95            | 1030                | 160                                | 2.3            | 0.4            | 0.27 | 0.35             |
| St-Jérôme                           | 95          | -26         | -28      | 29            | 23           | 4820                  | 23                  | 96                   | 830         | 0.97            | 1025                | 160                                | 2.7            | 0.4            | 0.29 | 0.37             |
| St-Jovite                           | 230         | -29         | -31      | 28            | 22           | 5250                  | 23                  | 96                   | 810         | 0.99            | 1025                | 160                                | 2.8            | 0.4            | 0.25 | 0.33             |
| St-Lazare-Hudson                    | 60          | -24         | -26      | 30            | 23           | 4520                  | 23                  | 96                   | 750         | 0.85            | 950                 | 180                                | 2.3            | 0.4            | 0.33 | 0.42             |
| St-Nicolas                          | 65          | -25         | -28      | 28            | 22           | 4990                  | 20                  | 102                  | 890         | 1.01            | 1200                | 200                                | 3.5            | 0.6            | 0.33 | 0.42             |
| Ste-Agathe-des-<br>Monts            | 360         | <b>-</b> 28 | -30      | 28            | 22           | 5390                  | 23                  | 96                   | 820         | 1.00            | 1170                | 140                                | 3.4            | 0.4            | 0.27 | 0.35             |
| Sutton                              | 185         | -25         | -27      | 29            | 23           | 4600                  | 23                  | 96                   | 990         | 1.09            | 1260                | 160                                | 2.4            | 0.4            | 0.32 | 0.41             |
| Tadoussac                           | 65          | -26         | -28      | 27            | 21           | 5450                  | 18                  | 96                   | 700         | 0.88            | 1000                | 180                                | 3.7            | 0.4            | 0.40 | 0.52             |
| Témiscaming                         | 240         | -30         | -32      | 30            | 22           | 5020                  | 23                  | 96                   | 730         | 0.88            | 940                 | 100                                | 2.5            | 0.4            | 0.25 | 0.32             |
| Terrebonne                          | 20          | -25         | -27      | 29            | 23           | 4500                  | 23                  | 96                   | 830         | 0.93            | 1025                | 160                                | 2.6            | 0.4            | 0.31 | 0.40             |
| Thetford Mines                      | 330         | -26         | -28      | 28            | 22           | 5120                  | 22                  | 107                  | 950         | 1.06            | 1230                | 160                                | 3.5            | 0.6            | 0.27 | 0.35             |
| Thurso                              | 50          | -26         | -28      | 30            | 23           | 4820                  | 23                  | 91                   | 800         | 0.93            | 950                 | 160                                | 2.4            | 0.4            | 0.31 | 0.40             |
| Trois-Rivières                      | 25          | -25         | -28      | 29            | 23           | 4900                  | 20                  | 107                  | 860         | 0.98            | 1050                | 180                                | 2.8            | 0.4            | 0.33 | 0.43             |
| Val-d'Or                            | 310         | -33         | -36      | 29            | 21           | 6180                  | 20                  | 86                   | 640         | 0.83            | 925                 | 100                                | 3.4            | 0.3            | 0.25 | 0.32             |
| Varennes                            | 15          | -24         | -26      | 30            | 23           | 4500                  | 23                  | 96                   | 810         | 0.94            | 1000                | 160                                | 2.6            | 0.4            | 0.31 | 0.40             |
| Verchères                           | 15          | -24         | -26      | 30            | 23           | 4450                  | 23                  | 96                   | 810         | 0.94            | 1000                | 160                                | 2.7            | 0.4            | 0.33 | 0.43             |
| Victoriaville                       | 125         | -26         | -28      | 29            | 23           | 4900                  | 21                  | 102                  | 850         | 0.97            | 1100                | 180                                | 2.6            | 0.6            | 0.27 | 0.35             |
| Ville-Marie                         | 200         | -31         | -34      | 30            | 22           | 5550                  | 23                  | 96                   | 630         | 0.80            | 825                 | 120                                | 2.3            | 0.4            | 0.31 | 0.40             |
| Wakefield                           | 120         | -27         | -30      | 30            | 23           | 4820                  | 23                  | 91                   | 780         | 0.91            | 1020                | 160                                | 2.4            | 0.4            | 0.27 | 0.34             |

|                       |        |            | ign Te  |           |           | De-           | 15          | One          |               |        | Ann.        | Driv-<br>ing Rain          | Snow |            |         | Wind    |
|-----------------------|--------|------------|---------|-----------|-----------|---------------|-------------|--------------|---------------|--------|-------------|----------------------------|------|------------|---------|---------|
| Province and Location | Elev., | Jani       | uary    | July      | 2.5%      | gree-<br>Days | Min.        | Day<br>Rain, | Ann.<br>Rain, | Moist. | Tot.        | Wind                       | kPa, | 1/50       | Pressur | es, kPa |
| Trovince and Essation | m      | 2.5%<br>°C | 1%<br>℃ | Dry<br>°C | Wet<br>°C | Below<br>18°C | Rain,<br>mm | 1/50,<br>mm  | mm            | Index  | Ppn.,<br>mm | Pres-<br>sures,<br>Pa, 1/5 | Ss   | <b>S</b> r | 1/10    | 1/50    |
| Waterloo              | 205    | -25        | -27     | 29        | 23        | 4650          | 23          | 96           | 980           | 1.08   | 1250        | 160                        | 2.5  | 0.4        | 0.27    | 0.35    |
| Windsor               | 150    | -25        | -27     | 29        | 23        | 4700          | 23          | 96           | 930           | 1.04   | 1075        | 160                        | 2.3  | 0.4        | 0.25    | 0.32    |
| New Brunswick         |        |            |         |           |           |               |             |              |               |        |             |                            |      |            |         |         |
| Alma                  | 5      | -21        | -23     | 26        | 20        | 4500          | 18          | 144          | 1175          | 1.32   | 1450        | 260                        | 2.6  | 0.6        | 0.37    | 0.48    |
| Bathurst              | 10     | -23        | -26     | 30        | 22        | 5020          | 20          | 106          | 775           | 0.94   | 1020        | 180                        | 4.1  | 0.6        | 0.37    | 0.48    |
| Campbellton           | 30     | -26        | -28     | 29        | 22        | 5500          | 20          | 107          | 725           | 0.93   | 1025        | 180                        | 4.3  | 0.4        | 0.35    | 0.45    |
| Edmundston            | 160    | -27        | -29     | 28        | 22        | 5320          | 23          | 91           | 750           | 0.94   | 1000        | 160                        | 3.4  | 0.6        | 0.29    | 0.38    |
| Fredericton           | 15     | -24        | -27     | 29        | 22        | 4670          | 22          | 112          | 900           | 1.02   | 1100        | 160                        | 3.1  | 0.6        | 0.29    | 0.38    |
| Gagetown              | 20     | -24        | -26     | 29        | 22        | 4460          | 20          | 112          | 900           | 1.04   | 1125        | 180                        | 2.8  | 0.6        | 0.31    | 0.40    |
| Grand Falls           | 115    | -27        | -30     | 28        | 22        | 5300          | 23          | 107          | 850           | 1.00   | 1100        | 160                        | 3.6  | 0.6        | 0.29    | 0.38    |
| Miramichi             | 5      | -24        | -26     | 30        | 22        | 4950          | 20          | 96           | 825           | 0.97   | 1050        | 200                        | 3.4  | 0.6        | 0.32    | 0.41    |
| Moncton               | 20     | -23        | -25     | 28        | 21        | 4680          | 20          | 112          | 850           | 1.02   | 1175        | 220                        | 3.0  | 0.6        | 0.39    | 0.50    |
| Oromocto              | 20     | -24        | -26     | 29        | 22        | 4650          | 22          | 112          | 900           | 1.02   | 1110        | 160                        | 3.0  | 0.6        | 0.30    | 0.39    |
| Sackville             | 15     | -22        | -24     | 27        | 21        | 4590          | 18          | 112          | 975           | 1.14   | 1175        | 220                        | 2.5  | 0.6        | 0.38    | 0.49    |
| Saint Andrews         | 35     | -22        | -24     | 25        | 20        | 4680          | 19          | 123          | 1000          | 1.15   | 1200        | 220                        | 2.8  | 0.6        | 0.35    | 0.45    |
| Saint George          | 35     | -21        | -23     | 25        | 20        | 4680          | 18          | 123          | 1000          | 1.15   | 1200        | 220                        | 2.8  | 0.6        | 0.35    | 0.45    |
| Saint John            | 5      | -22        | -24     | 25        | 20        | 4570          | 18          | 139          | 1100          | 1.27   | 1425        | 260                        | 2.3  | 0.6        | 0.41    | 0.53    |
| Shippagan             | 5      | -22        | -24     | 28        | 21        | 4930          | 18          | 96           | 800           | 0.98   | 1050        | 260                        | 3.4  | 0.6        | 0.48    | 0.63    |
| St. Stephen           | 20     | -24        | -26     | 28        | 22        | 4700          | 20          | 123          | 1000          | 1.15   | 1160        | 180                        | 2.9  | 0.6        | 0.33    | 0.42    |
| Woodstock             | 60     | -26        | -29     | 30        | 22        | 4910          | 22          | 107          | 875           | 0.99   | 1100        | 160                        | 3.1  | 0.6        | 0.29    | 0.37    |
| Nova Scotia           |        |            |         |           |           |               |             |              |               |        |             |                            |      |            |         |         |
| Amherst               | 25     | -21        | -24     | 27        | 21        | 4500          | 18          | 118          | 950           | 1.12   | 1150        | 220                        | 2.4  | 0.6        | 0.37    | 0.48    |
| Antigonish            | 10     | -17        | -20     | 27        | 21        | 4510          | 15          | 123          | 1100          | 1.25   | 1250        | 240                        | 2.3  | 0.6        | 0.42    | 0.54    |
| Bridgewater           | 10     | -15        | -17     | 27        | 20        | 4140          | 16          | 144          | 1300          | 1.45   | 1475        | 260                        | 1.9  | 0.6        | 0.43    | 0.55    |
| Canso                 | 5      | -13        | -15     | 25        | 20        | 4400          | 15          | 123          | 1325          | 1.48   | 1400        | 260                        | 1.7  | 0.6        | 0.48    | 0.61    |
| Debert                | 45     | -21        | -24     | 27        | 21        | 4500          | 18          | 118          | 1000          | 1.16   | 1200        | 240                        | 2.1  | 0.6        | 0.37    | 0.48    |
| Digby                 | 35     | -15        | -17     | 25        | 20        | 4020          | 15          | 130          | 1100          | 1.27   | 1275        | 260                        | 2.2  | 0.6        | 0.43    | 0.55    |
| Greenwood (CFB)       | 28     | -18        | -20     | 29        | 22        | 4140          | 16          | 118          | 925           | 1.05   | 1100        | 280                        | 2.7  | 0.6        | 0.42    | 0.54    |
| Halifax Region        |        |            |         |           |           |               |             |              |               |        |             |                            |      |            |         |         |
| Dartmouth             | 10     | -16        | -18     | 26        | 20        | 4100          | 18          | 144          | 1250          | 1.40   | 1400        | 280                        | 1.6  | 0.6        | 0.45    | 0.58    |
| Halifax               | 55     | -16        | -18     | 26        | 20        | 4000          | 17          | 150          | 1350          | 1.49   | 1500        | 280                        | 1.9  | 0.6        | 0.45    | 0.58    |
| Kentville             | 25     | -18        | -20     | 28        | 21        | 4130          | 17          | 118          | 950           | 1.09   | 1200        | 260                        | 2.6  | 0.6        | 0.42    | 0.54    |
| Liverpool             | 20     | -16        | -18     | 27        | 20        | 3990          | 16          | 150          | 1325          | 1.48   | 1425        | 280                        | 1.7  | 0.6        | 0.48    | 0.61    |
| Lockeport             | 5      | -14        | -16     | 25        | 20        | 4000          | 18          | 139          | 1250          | 1.42   | 1450        | 280                        | 1.4  | 0.6        | 0.47    | 0.60    |
| Louisburg             | 5      | -15        | -17     | 26        | 20        | 4530          | 15          | 118          | 1300          | 1.46   | 1500        | 300                        | 2.1  | 0.7        | 0.50    | 0.65    |
| Lunenburg             | 25     | -15        | -17     | 26        | 20        | 4140          | 16          | 144          | 1300          | 1.45   | 1450        | 260                        | 1.9  | 0.6        | 0.48    | 0.61    |
| New Glasgow           | 30     | -19        | -21     | 27        | 21        | 4320          | 15          | 135          | 975           | 1.13   | 1200        | 260                        | 2.2  | 0.6        | 0.43    | 0.55    |
| North Sydney          | 20     | -16        | -19     | 27        | 21        | 4500          | 15          | 123          | 1200          | 1.36   | 1475        | 300                        | 2.4  | 0.6        | 0.46    | 0.59    |
| Pictou                | 25     | -19        | -21     | 27        | 21        | 4310          | 15          | 107          | 950           | 1.11   | 1175        | 260                        | 2.2  | 0.6        | 0.43    | 0.55    |
| Port Hawkesbury       | 40     | -17        | -19     | 27        | 21        | 4500          | 15          | 128          | 1325          | 1.48   | 1450        | 260                        | 2.1  | 0.6        | 0.57    | 0.74    |

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| Province and Location       |             | Des<br>Janı     | ign Te<br>uarv  | mpera     |           | De-<br>gree-          | 15                  | One<br>Day           | Ann.        |                 | Ann.                | Driv-<br>ing Rain                  | Snow<br>kPa,   | ,              | Hourly<br>Pressur |      |
|-----------------------------|-------------|-----------------|-----------------|-----------|-----------|-----------------------|---------------------|----------------------|-------------|-----------------|---------------------|------------------------------------|----------------|----------------|-------------------|------|
| Province and Location       | Elev.,<br>m | 2.5%<br>°C      | 1%<br>°C        | Dry<br>°C | Wet<br>°C | Days<br>Below<br>18°C | Min.<br>Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm | Moist.<br>Index | Tot.<br>Ppn.,<br>mm | Wind<br>Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10              | 1/50 |
| Springhill                  | 185         | -20             | -23             | 27        | 21        | 4540                  | 18                  | 118                  | 1075        | 1.22            | 1175                | 220                                | 3.1            | 0.6            | 0.37              | 0.48 |
| Stewiacke                   | 25          | -20             | -22             | 27        | 21        | 4400                  | 18                  | 128                  | 1050        | 1.20            | 1250                | 240                                | 1.8            | 0.6            | 0.39              | 0.50 |
| Sydney                      | 5           | -16             | -19             | 27        | 21        | 4530                  | 15                  | 123                  | 1200        | 1.36            | 1475                | 300                                | 2.3            | 0.6            | 0.46              | 0.59 |
| Tatamagouche                | 25          | -20             | -23             | 27        | 21        | 4380                  | 18                  | 118                  | 875         | 1.05            | 1150                | 260                                | 2.2            | 0.6            | 0.43              | 0.55 |
| Truro                       | 25          | -20             | -22             | 27        | 21        | 4500                  | 18                  | 118                  | 1000        | 1.16            | 1175                | 240                                | 2.0            | 0.6            | 0.37              | 0.48 |
| Wolfville                   | 35          | -19             | -21             | 28        | 21        | 4140                  | 17                  | 118                  | 975         | 1.13            | 1175                | 260                                | 2.6            | 0.6            | 0.42              | 0.54 |
| Yarmouth                    | 10          | -14             | -16             | 22        | 19        | 3990                  | 19                  | 135                  | 1125        | 1.32            | 1260                | 280                                | 1.8            | 0.6            | 0.43              | 0.56 |
| Prince Edward Island        |             |                 |                 |           |           |                       |                     |                      |             |                 |                     |                                    |                |                |                   |      |
| Charlottetown               | 5           | -20             | -22             | 26        | 21        | 4460                  | 16                  | 107                  | 900         | 1.09            | 1150                | 350                                | 2.7            | 0.6            | 0.43              | 0.56 |
| Souris                      | 5           | -19             | -21             | 27        | 21        | 4550                  | 15                  | 112                  | 950         | 1.14            | 1130                | 350                                | 2.7            | 0.6            | 0.45              | 0.58 |
| Summerside                  | 10          | -20             | -22             | 27        | 21        | 4600                  | 16                  | 112                  | 825         | 1.03            | 1060                | 350                                | 3.1            | 0.6            | 0.47              | 0.60 |
| Tignish                     | 10          | -20             | -22             | 27        | 21        | 4770                  | 16                  | 96                   | 800         | 1.01            | 1100                | 350                                | 3.2            | 0.6            | 0.51              | 0.66 |
| Newfoundland                |             |                 |                 |           |           |                       |                     |                      |             |                 |                     |                                    |                |                |                   |      |
| Argentia                    | 15          | -12             | -14             | 21        | 18        | 4600                  | 15                  | 107                  | 1250        | 1.47            | 1400                | 400                                | 2.4            | 0.7            | 0.58              | 0.75 |
| Bonavista                   | 15          | -14             | -16             | 24        | 19        | 5000                  | 18                  | 96                   | 825         | 1.11            | 1010                | 400                                | 3.1            | 0.6            | 0.65              | 0.84 |
| Buchans                     | 255         | -24             | -27             | 27        | 20        | 5250                  | 13                  | 107                  | 850         | 1.04            | 1125                | 200                                | 4.7            | 0.6            | 0.47              | 0.60 |
| Cape Harrison               | 5           | <b>-</b> 29     | -31             | 26        | 16        | 6900                  | 10                  | 106                  | 475         | 0.94            | 950                 | 350                                | 6.3            | 0.4            | 0.47              | 0.60 |
| Cape Race                   | 5           | -11             | -13             | 19        | 18        | 4900                  | 18                  | 130                  | 1425        | 1.66            | 1550                | 400                                | 2.3            | 0.7            | 0.81              | 1.05 |
| Channel-Port aux<br>Basques | 5           | -13             | -15             | 19        | 18        | 5000                  | 13                  | 123                  | 1175        | 1.43            | 1520                | 450                                | 3.6            | 0.7            | 0.60              | 0.78 |
| Corner Brook                | 35          | -16             | -18             | 26        | 20        | 4760                  | 13                  | 91                   | 875         | 1.08            | 1190                | 300                                | 3.7            | 0.6            | 0.43              | 0.55 |
| Gander                      | 125         | -18             | -20             | 27        | 20        | 5110                  | 18                  | 91                   | 775         | 1.01            | 1180                | 280                                | 3.7            | 0.6            | 0.47              | 0.60 |
| Grand Bank                  | 5           | -14             | -15             | 20        | 18        | 4550                  | 15                  | 123                  | 1350        | 1.58            | 1525                | 400                                | 2.4            | 0.7            | 0.57              | 0.74 |
| Grand Falls                 | 60          | -26             | -29             | 27        | 20        | 5020                  | 15                  | 86                   | 775         | 0.97            | 1030                | 240                                | 3.4            | 0.6            | 0.47              | 0.60 |
| Happy Valley-Goose<br>Bay   | 15          | -31             | -32             | 27        | 19        | 6670                  | 18                  | 80                   | 575         | 0.83            | 960                 | 160                                | 5.3            | 0.4            | 0.33              | 0.42 |
| Labrador City               | 550         | -36             | -38             | 24        | 17        | 7710                  | 15                  | 70                   | 500         | 0.82            | 880                 | 140                                | 4.8            | 0.3            | 0.31              | 0.40 |
| St. Anthony                 | 10          | <del>-</del> 25 | -27             | 22        | 18        | 6440                  | 13                  | 86                   | 800         | 1.07            | 1280                | 450                                | 6.1            | 0.6            | 0.67              | 0.87 |
| St. John's                  | 65          | -15             | -16             | 24        | 20        | 4800                  | 18                  | 118                  | 1200        | 1.41            | 1575                | 400                                | 2.9            | 0.7            | 0.60              | 0.78 |
| Stephenville                | 25          | -16             | -18             | 24        | 19        | 4850                  | 14                  | 102                  | 1000        | 1.19            | 1275                | 350                                | 4.1            | 0.6            | 0.45              | 0.58 |
| Twin Falls                  | 425         | <b>-</b> 35     | -37             | 24        | 17        | 7790                  | 15                  | 70                   | 500         | 0.85            | 950                 | 120                                | 4.8            | 0.4            | 0.31              | 0.40 |
| Wabana                      | 75          | -15             | -17             | 24        | 20        | 4750                  | 18                  | 112                  | 1125        | 1.34            | 1500                | 400                                | 3.0            | 0.7            | 0.58              | 0.75 |
| Wabush                      | 550         | -36             | -38             | 24        | 17        | 7710                  | 15                  | 70                   | 500         | 0.82            | 880                 | 140                                | 4.8            | 0.3            | 0.31              | 0.40 |
| Yukon                       |             |                 |                 |           |           |                       |                     |                      |             |                 |                     |                                    |                |                |                   |      |
| Aishihik                    | 920         | -44             | -46             | 23        | 15        | 7500                  | 8                   | 43                   | 190         | 0.57            | 275                 | 40                                 | 1.9            | 0.1            | 0.29              | 0.38 |
| Dawson                      | 330         | -50             | <b>-</b> 51     | 26        | 16        | 8120                  | 10                  | 49                   | 200         | 0.57            | 350                 | 40                                 | 2.9            | 0.1            | 0.24              | 0.31 |
| Destruction Bay             | 815         | <b>-</b> 43     | <b>-</b> 45     | 23        | 14        | 7800                  | 8                   | 49                   | 190         | 0.62            | 300                 | 80                                 | 1.9            | 0.1            | 0.47              | 0.60 |
| Faro                        | 670         | -46             | -47             | 25        | 16        | 7300                  | 10                  | 33                   | 215         | 0.58            | 315                 | 40                                 | 2.3            | 0.1            | 0.27              | 0.35 |
| Haines Junction             | 600         | -45             | <b>-</b> 47     | 24        | 14        | 7100                  | 8                   | 51                   | 145         | 0.56            | 315                 | 180                                | 2.2            | 0.1            | 0.26              | 0.34 |
| Snag                        | 595         | -51             | <del>-</del> 53 | 23        | 16        | 8300                  | 8                   | 59                   | 290         | 0.57            | 350                 | 40                                 | 2.2            | 0.1            | 0.24              | 0.31 |
| Teslin                      | 690         | <b>-</b> 42     | -44             | 24        | 15        | 6770                  | 10                  | 38                   | 200         | 0.51            | 340                 | 40                                 | 3.0            | 0.1            | 0.26              | 0.34 |

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|     |                                     |        |                 | ign Te          |           |           | De-           | 15          | One          |               |        | Ann.        | Driv-<br>ing Rain          | Snow           |                | Hourly  |         |
|-----|-------------------------------------|--------|-----------------|-----------------|-----------|-----------|---------------|-------------|--------------|---------------|--------|-------------|----------------------------|----------------|----------------|---------|---------|
|     | Province and Location               | Elev., | Janı            | uary            | July      | 2.5%<br>I | gree-<br>Days | Min.        | Day<br>Rain, | Ann.<br>Rain, | Moist. | Tot.        | Wind                       | kPa,           | 1/50           | Pressur | es, kPa |
|     | Tovince and Location                | m      | 2.5%<br>°C      | 1%<br>°C        | Dry<br>°C | Wet<br>°C | Below<br>18°C | Rain,<br>mm | 1/50,<br>mm  | mm            | Index  | Ppn.,<br>mm | Pres-<br>sures,<br>Pa, 1/5 | S <sub>s</sub> | S <sub>r</sub> | 1/10    | 1/50    |
|     | Watson Lake                         | 685    | -46             | <del>-</del> 48 | 26        | 16        | 7470          | 10          | 54           | 250           | 0.55   | 410         | 60                         | 3.2            | 0.1            | 0.27    | 0.35    |
|     | Whitehorse                          | 655    | -41             | -43             | 25        | 15        | 6580          | 8           | 43           | 170           | 0.49   | 275         | 40                         | 2.0            | 0.1            | 0.29    | 0.38    |
| Nor | thwest Territories                  |        |                 |                 |           |           |               |             |              |               |        |             |                            |                |                |         |         |
|     | Aklavik                             | 5      | -42             | -44             | 26        | 17        | 9600          | 6           | 49           | 115           | 0.67   | 250         | 60                         | 2.8            | 0.1            | 0.37    | 0.48    |
|     | Echo Bay / Port Radium              | 195    | <del>-</del> 42 | -44             | 22        | 16        | 9300          | 8           | 60           | 160           | 0.70   | 250         | 80                         | 3.0            | 0.1            | 0.41    | 0.53    |
|     | Fort Good Hope                      | 100    | -43             | <b>-</b> 45     | 28        | 18        | 8700          | 9           | 60           | 140           | 0.60   | 280         | 80                         | 2.9            | 0.1            | 0.34    | 0.44    |
|     | Fort McPherson                      | 25     | -44             | -46             | 26        | 17        | 9150          | 6           | 50           | 145           | 0.67   | 315         | 60                         | 3.2            | 0.1            | 0.31    | 0.40    |
|     | Fort Providence                     | 150    | -40             | -43             | 28        | 18        | 7620          | 10          | 71           | 210           | 0.56   | 350         | 100                        | 2.4            | 0.1            | 0.27    | 0.35    |
|     | Fort Resolution                     | 160    | -40             | <del>-</del> 42 | 26        | 18        | 7750          | 10          | 60           | 175           | 0.61   | 300         | 140                        | 2.3            | 0.1            | 0.30    | 0.39    |
|     | Fort Simpson                        | 120    | -42             | -44             | 28        | 19        | 7660          | 12          | 76           | 225           | 0.56   | 360         | 80                         | 2.3            | 0.1            | 0.30    | 0.39    |
|     | Fort Smith                          | 205    | -41             | -43             | 28        | 19        | 7300          | 10          | 65           | 250           | 0.56   | 350         | 80                         | 2.3            | 0.2            | 0.30    | 0.39    |
|     | Hay River                           | 45     | -38             | -41             | 27        | 18        | 7550          | 10          | 60           | 200           | 0.62   | 150         | 140                        | 2.4            | 0.1            | 0.27    | 0.35    |
|     | Holman/<br>Ulukhaqtuuq              | 10     | -39             | -41             | 18        | 12        | 10700         | 3           | 44           | 80            | 0.93   | 250         | 120                        | 2.1            | 0.1            | 0.66    | 0.86    |
|     | Inuvik                              | 45     | -43             | <b>-</b> 45     | 26        | 17        | 9600          | 6           | 49           | 115           | 0.67   | 425         | 60                         | 3.1            | 0.1            | 0.37    | 0.48    |
|     | Mould Bay                           | 5      | -44             | <b>-</b> 46     | 11        | 8         | 12900         | 3           | 33           | 25            | 0.94   | 100         | 140                        | 1.5            | 0.1            | 0.45    | 0.58    |
|     | Norman Wells                        | 65     | -43             | -45             | 28        | 18        | 8510          | 9           | 60           | 165           | 0.57   | 320         | 80                         | 3.0            | 0.1            | 0.34    | 0.44    |
|     | Rae-Edzo                            | 160    | <del>-</del> 42 | -44             | 25        | 17        | 8300          | 10          | 60           | 175           | 0.59   | 275         | 80                         | 2.3            | 0.1            | 0.36    | 0.47    |
|     | Tungsten                            | 1340   | -49             | -51             | 26        | 16        | 7700          | 10          | 44           | 315           | 0.75   | 640         | 40                         | 4.3            | 0.1            | 0.34    | 0.44    |
|     | Wrigley                             | 80     | -42             | -44             | 28        | 18        | 8050          | 10          | 54           | 220           | 0.58   | 350         | 80                         | 2.8            | 0.1            | 0.30    | 0.39    |
|     | Yellowknife                         | 160    | -41             | -44             | 25        | 17        | 8170          | 10          | 60           | 175           | 0.58   | 275         | 100                        | 2.2            | 0.1            | 0.36    | 0.47    |
| Nur | navut                               |        |                 |                 |           |           |               |             |              |               |        |             |                            |                |                |         |         |
|     | Alert                               | 5      | -43             | -44             | 13        | 8         | 13030         | 3           | 22           | 20            | 0.95   | 150         | 100                        | 2.6            | 0.1            | 0.58    | 0.75    |
|     | Arctic Bay                          | 15     | -42             | -44             | 14        | 10        | 11900         | 3           | 38           | 60            | 0.90   | 150         | 160                        | 2.4            | 0.1            | 0.43    | 0.55    |
|     | Arviat / Eskimo Point               | 5      | -40             | -41             | 22        | 16        | 9850          | 8           | 65           | 225           | 0.85   | 300         | 240                        | 3.0            | 0.2            | 0.45    | 0.58    |
|     | Baker Lake                          | 5      | -42             | -44             | 23        | 15        | 10700         | 5           | 55           | 160           | 0.84   | 260         | 180                        | 3.4            | 0.2            | 0.42    | 0.54    |
|     | Cambridge<br>Bay/Iqaluktuuttiaq     | 15     | -41             | -44             | 18        | 13        | 11670         | 4           | 38           | 70            | 0.89   | 140         | 100                        | 1.9            | 0.1            | 0.42    | 0.54    |
|     | Chesterfield<br>Inlet/Igluligaarjuk | 10     | -40             | -41             | 20        | 14        | 10500         | 5           | 60           | 175           | 0.88   | 270         | 240                        | 3.6            | 0.2            | 0.43    | 0.56    |
|     | Clyde River<br>/Kanngiqtugaapik     | 5      | <b>-</b> 40     | <del>-</del> 42 | 14        | 10        | 11300         | 5           | 44           | 55            | 0.90   | 225         | 220                        | 4.2            | 0.2            | 0.56    | 0.72    |
|     | Coppermine<br>(Kugluktuk)           | 10     | -41             | -43             | 23        | 16        | 10300         | 6           | 65           | 140           | 0.84   | 150         | 80                         | 3.4            | 0.1            | 0.36    | 0.46    |
|     | Coral Harbour /Salliq               | 15     | -41             | <b>-</b> 42     | 20        | 14        | 10720         | 5           | 65           | 150           | 0.87   | 280         | 200                        | 3.8            | 0.2            | 0.54    | 0.69    |
|     | Eureka                              | 5      | -47             | -48             | 12        | 8         | 13500         | 3           | 27           | 25            | 0.95   | 70          | 100                        | 1.6            | 0.1            | 0.43    | 0.55    |
|     | Iqaluit                             | 45     | <b>-</b> 40     | -41             | 17        | 12        | 9980          | 5           | 58           | 200           | 0.86   | 433         | 200                        | 2.9            | 0.2            | 0.45    | 0.58    |
|     | Isachsen                            | 10     | <b>-</b> 46     | <b>-</b> 48     | 12        | 9         | 13600         | 3           | 27           | 25            | 0.95   | 75          | 140                        | 1.9            | 0.1            | 0.47    | 0.60    |
|     | Nottingham Island                   | 30     | -37             | -39             | 16        | 13        | 10000         | 5           | 54           | 175           | 0.88   | 325         | 200                        | 4.7            | 0.2            | 0.60    | 0.78    |
| L   | Rankin Inlet<br>(Kangiqiniq)        | 10     | -41             | <del>-</del> 42 | 21        | 15        | 10500         | 5           | 65           | 180           | 0.87   | 250         | 240                        | 3.0            | 0.2            | 0.47    | 0.60    |

|                       |        | Des        | ign Te      | mpera     | ture      | De-                   |             | One                  |             |        |              | Driv-                      | Snow | Load, | Hourly  | Wind    |
|-----------------------|--------|------------|-------------|-----------|-----------|-----------------------|-------------|----------------------|-------------|--------|--------------|----------------------------|------|-------|---------|---------|
|                       | Elev., | Janı       | uary        | July      | 2.5%      | gree-                 | 15<br>Min.  | Day                  | Ann.        | Moist. | Ann.<br>Tot. | ing Rain<br>Wind           | kPa, | 1/50  | Pressur | es, kPa |
| Province and Location | m      | 2.5%<br>°C | 1%<br>℃     | Dry<br>°C | Wet<br>°C | Days<br>Below<br>18°C | Rain,<br>mm | Rain,<br>1/50,<br>mm | Rain,<br>mm |        | Ppn.,<br>mm  | Pres-<br>sures,<br>Pa, 1/5 | Ss   | Sr    | 1/10    | 1/50    |
| Resolute              | 25     | -42        | <b>-</b> 43 | 11        | 9         | 12360                 | 3           | 27                   | 50          | 0.93   | 140          | 180                        | 2.0  | 0.1   | 0.54    | 0.69    |
| Resolution Island     | 5      | -32        | -34         | 12        | 10        | 9000                  | 5           | 71                   | 240         | 0.89   | 550          | 200                        | 5.5  | 0.2   | 0.95    | 1.23    |



INSULATING CONCRETE FORMS MANUFACTURERS ASSOCIATION ICF-MA.ORG



Table C-3 (Continued)

| Province and Location |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Chilliwack            | 0.539                | 0.448                | 0.277                | 0.174                | 0.062                | 0.021                 | 0.242 | 0.347 |
| Comox                 | 0.685                | 0.662                | 0.455                | 0.292                | 0.102                | 0.036                 | 0.317 | 0.538 |
| Courtenay             | 0.692                | 0.670                | 0.461                | 0.296                | 0.104                | 0.037                 | 0.321 | 0.545 |
| Cranbrook             | 0.170                | 0.138                | 0.089                | 0.047                | 0.018                | 0.0062                | 0.075 | 0.085 |
| Crescent Valley       | 0.130                | 0.101                | 0.073                | 0.047                | 0.021                | 0.0067                | 0.058 | 0.082 |
| Crofton               | 1.13                 | 1.04                 | 0.598                | 0.358                | 0.111                | 0.039                 | 0.491 | 0.754 |
| Dawson Creek          | 0.150                | 0.098                | 0.055                | 0.026                | 0.0080               | 0.0032                | 0.080 | 0.059 |
| Dease Lake            | 0.103                | 0.091                | 0.074                | 0.049                | 0.017                | 0.0067                | 0.044 | 0.078 |
| Dog Creek             | 0.172                | 0.140                | 0.102                | 0.071                | 0.032                | 0.0098                | 0.079 | 0.140 |
| Duncan                | 1.17                 | 1.09                 | 0.631                | 0.378                | 0.118                | 0.042                 | 0.513 | 0.786 |
| Elko                  | 0.217                | 0.174                | 0.108                | 0.053                | 0.019                | 0.0066                | 0.098 | 0.101 |
| Fernie                | 0.234                | 0.175                | 0.106                | 0.052                | 0.019                | 0.0065                | 0.106 | 0.10  |
| Fort Nelson           | 0.141                | 0.103                | 0.068                | 0.036                | 0.012                | 0.0049                | 0.081 | 0.07  |
| Fort St. John         | 0.145                | 0.094                | 0.053                | 0.026                | 0.0077               | 0.0032                | 0.079 | 0.058 |
| Glacier               | 0.206                | 0.142                | 0.081                | 0.044                | 0.018                | 0.0058                | 0.093 | 0.083 |
| Gold River            | 1.01                 | 0.988                | 0.664                | 0.413                | 0.135                | 0.048                 | 0.466 | 0.743 |
| Golden                | 0.263                | 0.174                | 0.094                | 0.046                | 0.017                | 0.0056                | 0.120 | 0.09  |
| Grand Forks           | 0.133                | 0.108                | 0.082                | 0.056                | 0.026                | 0.0079                | 0.061 | 0.10  |
| Greenwood             | 0.136                | 0.113                | 0.085                | 0.059                | 0.027                | 0.0082                | 0.063 | 0.10  |
| Hope                  | 0.363                | 0.304                | 0.201                | 0.131                | 0.051                | 0.017                 | 0.167 | 0.25  |
| Jordan River          | 1.40                 | 1.31                 | 0.817                | 0.495                | 0.157                | 0.055                 | 0.639 | 0.923 |
| Kamloops              | 0.146                | 0.123                | 0.091                | 0.064                | 0.029                | 0.0087                | 0.067 | 0.117 |
| Kaslo                 | 0.142                | 0.109                | 0.073                | 0.043                | 0.019                | 0.0062                | 0.063 | 0.076 |
| Kelowna               | 0.143                | 0.122                | 0.091                | 0.063                | 0.029                | 0.0087                | 0.066 | 0.115 |
| Kimberley             | 0.145                | 0.130                | 0.084                | 0.045                | 0.018                | 0.0060                | 0.073 | 0.080 |
| Kitimat Plant         | 0.161                | 0.167                | 0.137                | 0.096                | 0.036                | 0.012                 | 0.080 | 0.224 |
| Kitimat Townsite      | 0.161                | 0.167                | 0.137                | 0.096                | 0.036                | 0.012                 | 0.080 | 0.224 |
| Ladysmith             | 1.10                 | 1.02                 | 0.587                | 0.353                | 0.110                | 0.039                 | 0.482 | 0.738 |
| Langford              | 1.32                 | 1.19                 | 0.697                | 0.415                | 0.130                | 0.045                 | 0.590 | 0.852 |
| Lillooet              | 0.285                | 0.214                | 0.145                | 0.096                | 0.040                | 0.013                 | 0.132 | 0.188 |
| Lytton                | 0.292                | 0.228                | 0.155                | 0.103                | 0.042                | 0.013                 | 0.136 | 0.197 |
| Mackenzie             | 0.165                | 0.117                | 0.066                | 0.036                | 0.015                | 0.0052                | 0.074 | 0.078 |
| Masset                | 0.791                | 0.744                | 0.496                | 0.283                | 0.083                | 0.029                 | 0.364 | 0.632 |
| McBride               | 0.253                | 0.165                | 0.089                | 0.044                | 0.018                | 0.0056                | 0.117 | 0.097 |
| McLeod Lake           | 0.153                | 0.103                | 0.069                | 0.044                | 0.016                | 0.0053                | 0.068 | 0.03  |
| Merritt               | 0.133                | 0.175                | 0.125                | 0.037                | 0.010                | 0.0033                | 0.008 | 0.076 |
| Mission City          | 0.644                | 0.550                | 0.327                | 0.204                | 0.069                | 0.024                 | 0.283 | 0.419 |
| Montrose              | 0.129                | 0.102                | 0.075                | 0.049                | 0.003                | 0.0069                | 0.058 | 0.086 |
| Nakusp                | 0.129                | 0.102                | 0.073                | 0.049                | 0.022                | 0.0003                | 0.038 | 0.079 |
| Nanaimo               | 1.02                 | 0.102                | 0.542                | 0.328                | 0.020                | 0.0003                | 0.446 | 0.684 |
| Nelson                | 0.131                | 0.103                | 0.073                | 0.046                | 0.020                | 0.007                 | 0.058 | 0.080 |
| Ocean Falls           | 0.180                | 0.103                | 0.073                | 0.040                | 0.020                | 0.0003                | 0.038 | 0.258 |

Table C-3 (Continued)

|          | December 2 and Leaveller  |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|----------|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
|          | Province and Location     | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Osoyoo   | os .                      | 0.175                | 0.150                | 0.110                | 0.075                | 0.033                | 0.010                 | 0.081 | 0.138 |
| Parksvi  | lle                       | 0.917                | 0.859                | 0.519                | 0.322                | 0.106                | 0.038                 | 0.405 | 0.639 |
| Penticto | on                        | 0.159                | 0.138                | 0.101                | 0.070                | 0.031                | 0.0096                | 0.074 | 0.129 |
| Port All | perni                     | 0.987                | 0.946                | 0.614                | 0.383                | 0.126                | 0.045                 | 0.450 | 0.702 |
| Port Ali | ce                        | 1.60                 | 1.27                 | 0.759                | 0.412                | 0.128                | 0.042                 | 0.689 | 0.868 |
| Port Ha  | ardy                      | 0.700                | 0.659                | 0.447                | 0.272                | 0.091                | 0.032                 | 0.320 | 0.543 |
| Port Mo  | cNeill                    | 0.711                | 0.678                | 0.464                | 0.285                | 0.096                | 0.034                 | 0.326 | 0.557 |
| Port Re  | enfrew                    | 1.44                 | 1.35                 | 0.850                | 0.511                | 0.162                | 0.057                 | 0.668 | 0.939 |
| Powell   | River                     | 0.595                | 0.556                | 0.373                | 0.242                | 0.086                | 0.031                 | 0.273 | 0.457 |
| Prince   | George                    | 0.113                | 0.089                | 0.059                | 0.040                | 0.019                | 0.0059                | 0.049 | 0.079 |
| Prince   | Rupert                    | 0.246                | 0.269                | 0.209                | 0.135                | 0.046                | 0.016                 | 0.117 | 0.314 |
| Princet  | on                        | 0.259                | 0.209                | 0.144                | 0.096                | 0.040                | 0.012                 | 0.121 | 0.182 |
| Qualicu  | ım Beach                  | 0.888                | 0.838                | 0.517                | 0.323                | 0.108                | 0.038                 | 0.395 | 0.629 |
| Queen    | Charlotte City            | 1.62                 | 1.37                 | 0.842                | 0.452                | 0.124                | 0.041                 | 0.757 | 0.989 |
| Quesne   | el                        | 0.105                | 0.088                | 0.065                | 0.047                | 0.022                | 0.0069                | 0.047 | 0.091 |
| Revelst  | oke                       | 0.145                | 0.109                | 0.070                | 0.043                | 0.019                | 0.0062                | 0.064 | 0.078 |
| Salmor   | ı Arm                     | 0.131                | 0.104                | 0.075                | 0.052                | 0.024                | 0.0073                | 0.059 | 0.093 |
| Sandsp   | it                        | 1.31                 | 1.16                 | 0.724                | 0.396                | 0.110                | 0.036                 | 0.603 | 0.868 |
| Sechelt  | İ.                        | 0.828                | 0.745                | 0.434                | 0.265                | 0.086                | 0.030                 | 0.363 | 0.555 |
| Sidney   |                           | 1.23                 | 1.10                 | 0.630                | 0.371                | 0.115                | 0.040                 | 0.545 | 0.790 |
| Smith F  | River                     | 0.705                | 0.447                | 0.234                | 0.100                | 0.028                | 0.0096                | 0.354 | 0.255 |
| Smithe   | rs                        | 0.100                | 0.090                | 0.076                | 0.058                | 0.025                | 0.0082                | 0.047 | 0.134 |
| Sooke    |                           | 1.34                 | 1.24                 | 0.752                | 0.456                | 0.144                | 0.050                 | 0.605 | 0.885 |
| Squam    | ish                       | 0.600                | 0.517                | 0.314                | 0.200                | 0.069                | 0.024                 | 0.266 | 0.404 |
| Stewart  | t                         | 0.139                | 0.132                | 0.111                | 0.078                | 0.029                | 0.010                 | 0.068 | 0.180 |
| Tahsis   |                           | 1.35                 | 1.19                 | 0.767                | 0.456                | 0.144                | 0.050                 | 0.622 | 0.852 |
| Taylor   |                           | 0.143                | 0.093                | 0.052                | 0.025                | 0.0076               | 0.0031                | 0.079 | 0.058 |
| Terrace  |                           | 0.146                | 0.145                | 0.120                | 0.085                | 0.032                | 0.011                 | 0.072 | 0.200 |
| Tofino   |                           | 1.46                 | 1.36                 | 0.891                | 0.536                | 0.170                | 0.060                 | 0.695 | 0.945 |
| Trail    |                           | 0.129                | 0.101                | 0.075                | 0.050                | 0.022                | 0.0070                | 0.058 | 0.087 |
| Ucluele  | t                         | 1.48                 | 1.38                 | 0.897                | 0.539                | 0.171                | 0.060                 | 0.708 | 0.949 |
| Vancou   | ver Region                |                      |                      |                      |                      |                      |                       |       |       |
| Burr     | naby (Simon Fraser Univ.) | 0.768                | 0.673                | 0.386                | 0.236                | 0.076                | 0.027                 | 0.333 | 0.500 |
| Clov     | rerdale                   | 0.800                | 0.702                | 0.400                | 0.243                | 0.077                | 0.027                 | 0.347 | 0.519 |
| Han      | еу                        | 0.691                | 0.602                | 0.352                | 0.217                | 0.071                | 0.025                 | 0.301 | 0.452 |
| Ladr     | ner                       | 0.924                | 0.827                | 0.461                | 0.276                | 0.085                | 0.030                 | 0.399 | 0.601 |
| Lanç     | gley                      | 0.772                | 0.674                | 0.387                | 0.236                | 0.076                | 0.027                 | 0.335 | 0.500 |
| New      | Westminster               | 0.800                | 0.704                | 0.401                | 0.244                | 0.077                | 0.027                 | 0.347 | 0.522 |
| Nort     | h Vancouver               | 0.794                | 0.699                | 0.399                | 0.243                | 0.077                | 0.027                 | 0.345 | 0.518 |
| Rich     | mond                      | 0.885                | 0.787                | 0.443                | 0.266                | 0.083                | 0.029                 | 0.383 | 0.578 |
| Surr     | ey (88 Ave & 156 St.)     | 0.786                | 0.690                | 0.394                | 0.240                | 0.076                | 0.027                 | 0.341 | 0.511 |
| Vand     | couver (City Hall)        | 0.848                | 0.751                | 0.425                | 0.257                | 0.080                | 0.029                 | 0.369 | 0.553 |

Table C-3 (Continued)

|     | Description and Location       |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|-----|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
|     | Province and Location          | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
|     | Vancouver (Granville & 41 Ave) | 0.863                | 0.765                | 0.432                | 0.261                | 0.081                | 0.029                 | 0.375 | 0.563 |
|     | West Vancouver                 | 0.818                | 0.721                | 0.410                | 0.250                | 0.079                | 0.028                 | 0.356 | 0.534 |
|     | Vernon                         | 0.133                | 0.108                | 0.080                | 0.056                | 0.025                | 0.0077                | 0.061 | 0.099 |
|     | Victoria Region                |                      |                      |                      |                      |                      |                       |       |       |
|     | Victoria (Gonzales Hts)        | 1.30                 | 1.15                 | 0.668                | 0.394                | 0.123                | 0.043                 | 0.576 | 0.829 |
|     | Victoria (Mt Tolmie)           | 1.29                 | 1.14                 | 0.662                | 0.390                | 0.121                | 0.042                 | 0.573 | 0.824 |
|     | Victoria                       | 1.30                 | 1.16                 | 0.676                | 0.399                | 0.125                | 0.044                 | 0.580 | 0.834 |
|     | Whistler                       | 0.438                | 0.357                | 0.233                | 0.152                | 0.058                | 0.020                 | 0.203 | 0.296 |
|     | White Rock                     | 0.868                | 0.765                | 0.432                | 0.260                | 0.081                | 0.029                 | 0.376 | 0.562 |
|     | Williams Lake                  | 0.136                | 0.110                | 0.081                | 0.057                | 0.027                | 0.0080                | 0.062 | 0.110 |
|     | Youbou                         | 1.20                 | 1.13                 | 0.678                | 0.414                | 0.131                | 0.046                 | 0.536 | 0.816 |
| Alb | erta                           |                      |                      |                      |                      |                      |                       |       |       |
|     | Athabasca                      | 0.068                | 0.043                | 0.027                | 0.014                | 0.0041               | 0.0018                | 0.039 | 0.031 |
|     | Banff                          | 0.279                | 0.184                | 0.099                | 0.046                | 0.016                | 0.0053                | 0.128 | 0.097 |
|     | Barrhead                       | 0.105                | 0.064                | 0.038                | 0.019                | 0.0055               | 0.0024                | 0.065 | 0.046 |
|     | Beaverlodge                    | 0.153                | 0.102                | 0.057                | 0.028                | 0.0090               | 0.0035                | 0.081 | 0.062 |
|     | Brooks                         | 0.116                | 0.076                | 0.051                | 0.028                | 0.0089               | 0.0042                | 0.072 | 0.056 |
|     | Calgary                        | 0.192                | 0.126                | 0.072                | 0.036                | 0.012                | 0.0048                | 0.098 | 0.075 |
|     | Campsie                        | 0.113                | 0.067                | 0.040                | 0.020                | 0.0058               | 0.0024                | 0.070 | 0.048 |
|     | Camrose                        | 0.095                | 0.058                | 0.035                | 0.018                | 0.0052               | 0.0022                | 0.058 | 0.042 |
|     | Canmore                        | 0.278                | 0.183                | 0.098                | 0.046                | 0.016                | 0.0053                | 0.128 | 0.097 |
|     | Cardston                       | 0.273                | 0.203                | 0.122                | 0.058                | 0.018                | 0.0066                | 0.131 | 0.118 |
|     | Claresholm                     | 0.217                | 0.148                | 0.090                | 0.044                | 0.015                | 0.0056                | 0.107 | 0.089 |
|     | Cold Lake                      | 0.055                | 0.034                | 0.019                | 0.0078               | 0.0016               | 0.0008                | 0.032 | 0.023 |
|     | Coleman                        | 0.279                | 0.195                | 0.114                | 0.054                | 0.019                | 0.0065                | 0.128 | 0.110 |
|     | Coronation                     | 0.075                | 0.048                | 0.029                | 0.015                | 0.0046               | 0.0020                | 0.044 | 0.034 |
|     | Cowley                         | 0.282                | 0.198                | 0.116                | 0.055                | 0.018                | 0.0065                | 0.130 | 0.113 |
|     | Drumheller                     | 0.122                | 0.077                | 0.048                | 0.026                | 0.0080               | 0.0037                | 0.075 | 0.055 |
|     | Edmonton                       | 0.103                | 0.062                | 0.036                | 0.018                | 0.0053               | 0.0022                | 0.064 | 0.044 |
|     | Edson                          | 0.165                | 0.111                | 0.062                | 0.030                | 0.0089               | 0.0035                | 0.087 | 0.066 |
|     | Embarras Portage               | 0.052                | 0.031                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.030 | 0.020 |
|     | Fairview                       | 0.121                | 0.071                | 0.041                | 0.020                | 0.0059               | 0.0025                | 0.075 | 0.051 |
|     | Fort MacLeod                   | 0.225                | 0.160                | 0.097                | 0.047                | 0.015                | 0.0058                | 0.111 | 0.095 |
|     | Fort McMurray                  | 0.053                | 0.034                | 0.018                | 0.0078               | 0.0016               | 0.0008                | 0.031 | 0.023 |
|     | Fort Saskatchewan              | 0.086                | 0.053                | 0.032                | 0.017                | 0.0050               | 0.0021                | 0.052 | 0.038 |
|     | Fort Vermilion                 | 0.056                | 0.036                | 0.019                | 0.0081               | 0.0018               | 0.0008                | 0.032 | 0.024 |
|     | Grande Prairie                 | 0.141                | 0.093                | 0.053                | 0.026                | 0.0074               | 0.0031                | 0.079 | 0.058 |
|     | Habay                          | 0.068                | 0.045                | 0.033                | 0.020                | 0.0067               | 0.0031                | 0.040 | 0.036 |
|     | Hardisty                       | 0.068                | 0.043                | 0.027                | 0.014                | 0.0041               | 0.0018                | 0.040 | 0.031 |
|     | High River                     | 0.203                | 0.134                | 0.079                | 0.039                | 0.013                | 0.0052                | 0.101 | 0.079 |
|     | Hinton                         | 0.280                | 0.182                | 0.096                | 0.043                | 0.015                | 0.0048                | 0.131 | 0.097 |
|     | Jasper                         | 0.287                | 0.190                | 0.101                | 0.046                | 0.017                | 0.0052                | 0.132 | 0.101 |

Table C-3 (Continued)

| Province and Location |                      |                      |                      | Seismi               | c Data               |                       |       | ,    |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|------|
| Province and Location | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PG\  |
| Keg River             | 0.067                | 0.042                | 0.025                | 0.012                | 0.0034               | 0.0015                | 0.039 | 0.03 |
| Lac la Biche          | 0.059                | 0.038                | 0.023                | 0.011                | 0.0033               | 0.0015                | 0.034 | 0.02 |
| Lacombe               | 0.127                | 0.081                | 0.047                | 0.023                | 0.0065               | 0.0027                | 0.077 | 0.05 |
| Lethbridge            | 0.164                | 0.125                | 0.081                | 0.042                | 0.013                | 0.0053                | 0.087 | 0.07 |
| Manning               | 0.081                | 0.049                | 0.029                | 0.015                | 0.0046               | 0.0020                | 0.048 | 0.03 |
| Medicine Hat          | 0.083                | 0.060                | 0.045                | 0.026                | 0.0083               | 0.0039                | 0.050 | 0.04 |
| Peace River           | 0.098                | 0.058                | 0.034                | 0.017                | 0.0052               | 0.0022                | 0.061 | 0.04 |
| Pincher Creek         | 0.284                | 0.202                | 0.119                | 0.056                | 0.019                | 0.0066                | 0.132 | 0.11 |
| Ranfurly              | 0.066                | 0.042                | 0.026                | 0.013                | 0.0039               | 0.0018                | 0.038 | 0.03 |
| Red Deer              | 0.131                | 0.085                | 0.049                | 0.024                | 0.0067               | 0.0028                | 0.078 | 0.05 |
| Rocky Mountain House  | 0.174                | 0.116                | 0.065                | 0.030                | 0.0090               | 0.0035                | 0.090 | 0.06 |
| Slave Lake            | 0.075                | 0.047                | 0.029                | 0.015                | 0.0046               | 0.0020                | 0.044 | 0.03 |
| Stettler              | 0.109                | 0.066                | 0.039                | 0.019                | 0.0056               | 0.0024                | 0.067 | 0.04 |
| Stony Plain           | 0.115                | 0.069                | 0.040                | 0.020                | 0.0058               | 0.0025                | 0.071 | 0.05 |
| Suffield              | 0.099                | 0.068                | 0.049                | 0.028                | 0.0087               | 0.0041                | 0.060 | 0.05 |
| Taber                 | 0.134                | 0.101                | 0.069                | 0.036                | 0.012                | 0.0049                | 0.079 | 0.07 |
| Turner Valley         | 0.253                | 0.164                | 0.091                | 0.043                | 0.015                | 0.0053                | 0.122 | 0.09 |
| Valleyview            | 0.126                | 0.078                | 0.045                | 0.022                | 0.0064               | 0.0027                | 0.077 | 0.05 |
| Vegreville            | 0.069                | 0.044                | 0.027                | 0.014                | 0.0041               | 0.0018                | 0.040 | 0.03 |
| Vermilion             | 0.060                | 0.038                | 0.023                | 0.012                | 0.0034               | 0.0015                | 0.035 | 0.02 |
| Wagner                | 0.077                | 0.048                | 0.030                | 0.015                | 0.0046               | 0.0020                | 0.046 | 0.03 |
| Wainwright            | 0.062                | 0.040                | 0.025                | 0.012                | 0.0037               | 0.0017                | 0.036 | 0.02 |
| Wetaskiwin            | 0.115                | 0.069                | 0.040                | 0.020                | 0.0058               | 0.0024                | 0.071 | 0.04 |
| Whitecourt            | 0.125                | 0.079                | 0.046                | 0.023                | 0.0064               | 0.0027                | 0.076 | 0.05 |
| Wimborne              | 0.133                | 0.087                | 0.052                | 0.027                | 0.0081               | 0.0037                | 0.078 | 0.05 |
| skatchewan            |                      |                      |                      |                      |                      |                       |       |      |
| Assiniboia            | 0.136                | 0.076                | 0.038                | 0.016                | 0.0034               | 0.0014                | 0.084 | 0.05 |
| Battrum               | 0.065                | 0.042                | 0.024                | 0.012                | 0.0031               | 0.0015                | 0.037 | 0.03 |
| Biggar                | 0.057                | 0.037                | 0.021                | 0.0088               | 0.0019               | 0.0010                | 0.033 | 0.02 |
| Broadview             | 0.077                | 0.048                | 0.025                | 0.010                | 0.0022               | 0.0011                | 0.045 | 0.03 |
| Dafoe                 | 0.062                | 0.040                | 0.022                | 0.0089               | 0.0019               | 0.0010                | 0.036 | 0.02 |
| Dundurn               | 0.059                | 0.039                | 0.022                | 0.0092               | 0.0019               | 0.0010                | 0.034 | 0.02 |
| Estevan               | 0.129                | 0.072                | 0.035                | 0.015                | 0.0031               | 0.0013                | 0.079 | 0.05 |
| Hudson Bay            | 0.055                | 0.034                | 0.019                | 0.0079               | 0.0016               | 0.0008                | 0.032 | 0.02 |
| Humboldt              | 0.058                | 0.037                | 0.020                | 0.0085               | 0.0018               | 0.0010                | 0.033 | 0.02 |
| Island Falls          | 0.054                | 0.031                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.031 | 0.02 |
| Kamsack               | 0.058                | 0.037                | 0.020                | 0.0085               | 0.0018               | 0.0010                | 0.033 | 0.02 |
| Kindersley            | 0.060                | 0.039                | 0.024                | 0.012                | 0.0033               | 0.0015                | 0.035 | 0.02 |
| Lloydminster          | 0.057                | 0.036                | 0.021                | 0.010                | 0.0030               | 0.0015                | 0.033 | 0.02 |
| Maple Creek           | 0.069                | 0.048                | 0.036                | 0.021                | 0.0068               | 0.0032                | 0.040 | 0.03 |
| Meadow Lake           | 0.055                | 0.034                | 0.018                | 0.0075               | 0.0016               | 0.0008                | 0.032 | 0.02 |
| Melfort               | 0.055                | 0.035                | 0.019                | 0.0081               | 0.0018               | 0.0010                | 0.032 | 0.02 |
| Melville              | 0.069                | 0.044                | 0.023                | 0.0097               | 0.0021               | 0.0011                | 0.040 | 0.03 |

National Building Code of Canata 2015 Volume 1, Division B

Table C-3 (Continued)

| D 1                   |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Moose Jaw             | 0.096                | 0.058                | 0.030                | 0.013                | 0.0027               | 0.0013                | 0.057 | 0.042 |
| Nipawin               | 0.054                | 0.034                | 0.018                | 0.0078               | 0.0016               | 0.0008                | 0.032 | 0.023 |
| North Battleford      | 0.056                | 0.036                | 0.020                | 0.0085               | 0.0018               | 0.0010                | 0.032 | 0.024 |
| Prince Albert         | 0.055                | 0.034                | 0.019                | 0.0078               | 0.0016               | 0.0008                | 0.032 | 0.023 |
| Qu'Appelle            | 0.090                | 0.054                | 0.028                | 0.012                | 0.0025               | 0.0011                | 0.054 | 0.039 |
| Regina                | 0.101                | 0.060                | 0.030                | 0.013                | 0.0027               | 0.0013                | 0.061 | 0.043 |
| Rosetown              | 0.059                | 0.038                | 0.022                | 0.0091               | 0.0019               | 0.0010                | 0.034 | 0.027 |
| Saskatoon             | 0.057                | 0.037                | 0.021                | 0.0089               | 0.0019               | 0.0010                | 0.033 | 0.025 |
| Scott                 | 0.057                | 0.037                | 0.020                | 0.0086               | 0.0019               | 0.0010                | 0.033 | 0.025 |
| Strasbourg            | 0.074                | 0.046                | 0.025                | 0.010                | 0.0022               | 0.0011                | 0.043 | 0.032 |
| Swift Current         | 0.070                | 0.045                | 0.025                | 0.012                | 0.0030               | 0.0014                | 0.040 | 0.032 |
| Uranium City          | 0.053                | 0.032                | 0.016                | 0.0066               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Weyburn               | 0.186                | 0.097                | 0.045                | 0.018                | 0.0039               | 0.0014                | 0.118 | 0.070 |
| Yorkton               | 0.063                | 0.040                | 0.022                | 0.0091               | 0.0019               | 0.0010                | 0.036 | 0.028 |
| <b>M</b> anitoba      |                      |                      |                      |                      |                      |                       |       |       |
| Beausejour            | 0.056                | 0.033                | 0.017                | 0.0067               | 0.0015               | 0.0007                | 0.032 | 0.021 |
| Boissevain            | 0.059                | 0.037                | 0.020                | 0.0082               | 0.0018               | 0.0010                | 0.034 | 0.025 |
| Brandon               | 0.054                | 0.031                | 0.016                | 0.0063               | 0.0013               | 0.0007                | 0.031 | 0.020 |
| Churchill             | 0.053                | 0.032                | 0.017                | 0.0069               | 0.0015               | 0.0008                | 0.031 | 0.021 |
| Dauphin               | 0.055                | 0.035                | 0.019                | 0.0079               | 0.0018               | 0.0010                | 0.032 | 0.024 |
| Flin Flon             | 0.054                | 0.032                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Gimli                 | 0.055                | 0.032                | 0.017                | 0.0067               | 0.0015               | 0.0007                | 0.032 | 0.021 |
| Island Lake           | 0.054                | 0.033                | 0.017                | 0.0070               | 0.0015               | 0.0008                | 0.031 | 0.021 |
| Lac du Bonnet         | 0.056                | 0.033                | 0.017                | 0.0067               | 0.0015               | 0.0007                | 0.033 | 0.023 |
| Lynn Lake             | 0.053                | 0.032                | 0.016                | 0.0066               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Morden                | 0.053                | 0.031                | 0.015                | 0.0063               | 0.0013               | 0.0007                | 0.031 | 0.020 |
| Neepawa               | 0.054                | 0.031                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Pine Falls            | 0.056                | 0.033                | 0.017                | 0.0067               | 0.0015               | 0.0007                | 0.032 | 0.021 |
| Portage la Prairie    | 0.054                | 0.032                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Rivers                | 0.058                | 0.037                | 0.020                | 0.0084               | 0.0018               | 0.0010                | 0.034 | 0.025 |
| Sandilands            | 0.055                | 0.032                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.032 | 0.021 |
| Selkirk               | 0.055                | 0.032                | 0.016                | 0.0066               | 0.0013               | 0.0007                | 0.032 | 0.021 |
| Split Lake            | 0.053                | 0.032                | 0.017                | 0.0067               | 0.0015               | 0.0007                | 0.031 | 0.021 |
| Steinbach             | 0.055                | 0.032                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.032 | 0.021 |
| Swan River            | 0.055                | 0.035                | 0.019                | 0.0079               | 0.0018               | 0.0008                | 0.032 | 0.024 |
| The Pas               | 0.054                | 0.032                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Thompson              | 0.053                | 0.032                | 0.017                | 0.0067               | 0.0015               | 0.0007                | 0.031 | 0.021 |
| Virden                | 0.064                | 0.041                | 0.022                | 0.0089               | 0.0019               | 0.0010                | 0.037 | 0.028 |
| Winnipeg              | 0.054                | 0.032                | 0.016                | 0.0066               | 0.0013               | 0.0007                | 0.032 | 0.021 |
| Ontario               |                      |                      |                      |                      |                      |                       |       |       |
| Ailsa Craig           | 0.095                | 0.064                | 0.039                | 0.020                | 0.0049               | 0.0021                | 0.056 | 0.050 |
| Ajax                  | 0.210                | 0.114                | 0.060                | 0.029                | 0.0071               | 0.0028                | 0.134 | 0.091 |

Table C-3 (Continued)

|   | Dravines and Leastion                |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|---|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
|   | Province and Location                | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
|   | Alexandria                           | 0.589                | 0.309                | 0.148                | 0.068                | 0.018                | 0.0062                | 0.376 | 0.255 |
|   | Alliston                             | 0.111                | 0.076                | 0.046                | 0.024                | 0.0059               | 0.0025                | 0.066 | 0.060 |
|   | Almonte                              | 0.337                | 0.188                | 0.098                | 0.048                | 0.013                | 0.0049                | 0.215 | 0.157 |
|   | Armstrong                            | 0.064                | 0.037                | 0.019                | 0.0081               | 0.0018               | 0.0008                | 0.038 | 0.025 |
|   | Arnprior                             | 0.371                | 0.201                | 0.102                | 0.049                | 0.013                | 0.0049                | 0.238 | 0.168 |
|   | Atikokan                             | 0.069                | 0.038                | 0.018                | 0.0072               | 0.0015               | 0.0007                | 0.041 | 0.025 |
|   | Attawapiskat                         | 0.074                | 0.043                | 0.022                | 0.0092               | 0.0019               | 0.0010                | 0.045 | 0.030 |
|   | Aurora                               | 0.138                | 0.087                | 0.050                | 0.026                | 0.0064               | 0.0027                | 0.085 | 0.068 |
|   | Bancroft                             | 0.151                | 0.105                | 0.063                | 0.032                | 0.0084               | 0.0035                | 0.090 | 0.085 |
|   | Barrie                               | 0.108                | 0.077                | 0.047                | 0.025                | 0.0061               | 0.0025                | 0.063 | 0.060 |
|   | Barriefield                          | 0.162                | 0.110                | 0.066                | 0.034                | 0.0089               | 0.0038                | 0.098 | 0.091 |
|   | Beaverton                            | 0.117                | 0.082                | 0.050                | 0.026                | 0.0065               | 0.0028                | 0.069 | 0.064 |
|   | Belleville                           | 0.162                | 0.105                | 0.061                | 0.031                | 0.0080               | 0.0034                | 0.100 | 0.087 |
|   | Belmont                              | 0.116                | 0.073                | 0.042                | 0.021                | 0.0053               | 0.0021                | 0.070 | 0.056 |
|   | Kitchenuhmay-koosib (Big Trout Lake) | 0.054                | 0.033                | 0.017                | 0.0072               | 0.0015               | 0.0008                | 0.032 | 0.023 |
|   | CFB Borden                           | 0.107                | 0.075                | 0.046                | 0.024                | 0.0059               | 0.0025                | 0.063 | 0.059 |
|   | Bracebridge                          | 0.116                | 0.084                | 0.051                | 0.027                | 0.0068               | 0.0028                | 0.068 | 0.067 |
|   | Bradford                             | 0.123                | 0.081                | 0.048                | 0.025                | 0.0062               | 0.0027                | 0.074 | 0.063 |
|   | Brampton                             | 0.168                | 0.096                | 0.052                | 0.026                | 0.0064               | 0.0025                | 0.106 | 0.074 |
|   | Brantford                            | 0.155                | 0.089                | 0.049                | 0.024                | 0.0059               | 0.0024                | 0.097 | 0.068 |
|   | Brighton                             | 0.173                | 0.106                | 0.060                | 0.030                | 0.0076               | 0.0032                | 0.108 | 0.087 |
|   | Brockville                           | 0.259                | 0.157                | 0.086                | 0.043                | 0.011                | 0.0046                | 0.164 | 0.131 |
|   | Burk's Falls                         | 0.143                | 0.096                | 0.057                | 0.029                | 0.0074               | 0.0031                | 0.086 | 0.076 |
|   | Burlington                           | 0.266                | 0.131                | 0.062                | 0.029                | 0.0068               | 0.0027                | 0.172 | 0.102 |
| / | Cambridge                            | 0.141                | 0.084                | 0.047                | 0.024                | 0.0058               | 0.0024                | 0.088 | 0.066 |
|   | Campbellford                         | 0.144                | 0.097                | 0.058                | 0.030                | 0.0076               | 0.0032                | 0.088 | 0.078 |
|   | Cannington                           | 0.122                | 0.084                | 0.051                | 0.027                | 0.0067               | 0.0028                | 0.073 | 0.067 |
|   | Carleton Place                       | 0.302                | 0.175                | 0.093                | 0.046                | 0.012                | 0.0048                | 0.192 | 0.146 |
|   | Cavan                                | 0.140                | 0.092                | 0.055                | 0.028                | 0.0071               | 0.0030                | 0.086 | 0.074 |
|   | Centralia                            | 0.092                | 0.064                | 0.039                | 0.020                | 0.0050               | 0.0021                | 0.054 | 0.050 |
|   | Chapleau                             | 0.071                | 0.050                | 0.031                | 0.016                | 0.0037               | 0.0017                | 0.041 | 0.039 |
|   | Chatham                              | 0.112                | 0.070                | 0.039                | 0.019                | 0.0047               | 0.0020                | 0.068 | 0.054 |
|   | Chesley                              | 0.083                | 0.062                | 0.040                | 0.021                | 0.0052               | 0.0022                | 0.047 | 0.050 |
|   | Clinton                              | 0.084                | 0.061                | 0.038                | 0.020                | 0.0049               | 0.0021                | 0.048 | 0.048 |
|   | Coboconk                             | 0.120                | 0.086                | 0.052                | 0.027                | 0.0070               | 0.0030                | 0.070 | 0.068 |
|   | Cobourg                              | 0.179                | 0.106                | 0.059                | 0.030                | 0.0074               | 0.0031                | 0.113 | 0.086 |
|   | Cochrane                             | 0.222                | 0.107                | 0.052                | 0.024                | 0.0058               | 0.0022                | 0.145 | 0.083 |
|   | Colborne                             | 0.176                | 0.106                | 0.060                | 0.030                | 0.0076               | 0.0031                | 0.111 | 0.087 |
|   | Collingwood                          | 0.096                | 0.070                | 0.044                | 0.023                | 0.0058               | 0.0024                | 0.055 | 0.056 |
|   | Cornwall                             | 0.587                | 0.307                | 0.147                | 0.067                | 0.017                | 0.0060                | 0.375 | 0.254 |
|   | Corunna                              | 0.087                | 0.060                | 0.036                | 0.018                | 0.0046               | 0.0020                | 0.050 | 0.047 |
|   | Deep River                           | 0.389                | 0.208                | 0.104                | 0.049                | 0.013                | 0.0048                | 0.250 | 0.172 |

Table C-3 (Continued)

| D                             |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|-------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location         | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Deseronto                     | 0.158                | 0.106                | 0.062                | 0.032                | 0.0081               | 0.0035                | 0.096 | 0.087 |
| Dorchester                    | 0.112                | 0.072                | 0.042                | 0.021                | 0.0052               | 0.0021                | 0.067 | 0.056 |
| Dorion                        | 0.059                | 0.035                | 0.018                | 0.0076               | 0.0016               | 0.0008                | 0.035 | 0.024 |
| Dresden                       | 0.104                | 0.067                | 0.039                | 0.019                | 0.0047               | 0.0020                | 0.062 | 0.051 |
| Dryden                        | 0.072                | 0.040                | 0.019                | 0.0076               | 0.0016               | 0.0008                | 0.043 | 0.027 |
| Dundalk                       | 0.097                | 0.069                | 0.043                | 0.022                | 0.0056               | 0.0024                | 0.057 | 0.055 |
| Dunnville                     | 0.232                | 0.120                | 0.059                | 0.028                | 0.0067               | 0.0027                | 0.149 | 0.093 |
| Durham                        | 0.088                | 0.065                | 0.041                | 0.021                | 0.0053               | 0.0022                | 0.051 | 0.051 |
| Dutton                        | 0.116                | 0.072                | 0.041                | 0.021                | 0.0050               | 0.0021                | 0.071 | 0.056 |
| Earlton                       | 0.182                | 0.108                | 0.059                | 0.029                | 0.0074               | 0.0030                | 0.114 | 0.086 |
| Edison                        | 0.070                | 0.039                | 0.019                | 0.0075               | 0.0016               | 0.0008                | 0.042 | 0.027 |
| Elliot Lake                   | 0.074                | 0.054                | 0.035                | 0.018                | 0.0046               | 0.0020                | 0.043 | 0.043 |
| Elmvale                       | 0.101                | 0.074                | 0.046                | 0.024                | 0.0061               | 0.0025                | 0.059 | 0.059 |
| Embro                         | 0.111                | 0.072                | 0.042                | 0.022                | 0.0053               | 0.0022                | 0.067 | 0.056 |
| Englehart                     | 0.175                | 0.104                | 0.057                | 0.029                | 0.0073               | 0.0030                | 0.109 | 0.083 |
| Espanola                      | 0.086                | 0.063                | 0.039                | 0.021                | 0.0052               | 0.0021                | 0.050 | 0.050 |
| Exeter                        | 0.090                | 0.063                | 0.039                | 0.020                | 0.0049               | 0.0021                | 0.052 | 0.050 |
| Fenelon Falls                 | 0.121                | 0.086                | 0.052                | 0.027                | 0.0068               | 0.0030                | 0.072 | 0.068 |
| Fergus                        | 0.115                | 0.075                | 0.045                | 0.023                | 0.0056               | 0.0024                | 0.069 | 0.059 |
| Forest                        | 0.087                | 0.061                | 0.037                | 0.019                | 0.0047               | 0.0020                | 0.051 | 0.047 |
| Fort Erie                     | 0.312                | 0.152                | 0.070                | 0.032                | 0.0074               | 0.0028                | 0.202 | 0.117 |
| Fort Erie (Ridgeway)          | 0.307                | 0.149                | 0.069                | 0.031                | 0.0073               | 0.0028                | 0.198 | 0.115 |
| Fort Frances                  | 0.064                | 0.035                | 0.017                | 0.0069               | 0.0015               | 0.0007                | 0.039 | 0.024 |
| Gananoque                     | 0.180                | 0.119                | 0.070                | 0.036                | 0.0095               | 0.0039                | 0.110 | 0.099 |
| Geraldton                     | 0.057                | 0.036                | 0.019                | 0.0082               | 0.0018               | 0.0010                | 0.033 | 0.024 |
| Glencoe                       | 0.107                | 0.068                | 0.040                | 0.020                | 0.0049               | 0.0021                | 0.064 | 0.054 |
| Goderich                      | 0.079                | 0.059                | 0.037                | 0.019                | 0.0049               | 0.0020                | 0.045 | 0.047 |
| Gore Bay                      | 0.071                | 0.055                | 0.035                | 0.018                | 0.0047               | 0.0020                | 0.040 | 0.044 |
| Graham                        | 0.071                | 0.039                | 0.020                | 0.0079               | 0.0016               | 0.0008                | 0.043 | 0.027 |
| Gravenhurst (Muskoka Airport) | 0.112                | 0.082                | 0.050                | 0.026                | 0.0067               | 0.0028                | 0.065 | 0.064 |
| Grimsby                       | 0.301                | 0.146                | 0.068                | 0.030                | 0.0073               | 0.0028                | 0.195 | 0.113 |
| Guelph                        | 0.133                | 0.082                | 0.047                | 0.024                | 0.0058               | 0.0024                | 0.082 | 0.063 |
| Guthrie                       | 0.109                | 0.078                | 0.048                | 0.025                | 0.0062               | 0.0027                | 0.064 | 0.062 |
| Haileybury                    | 0.219                | 0.127                | 0.067                | 0.033                | 0.0083               | 0.0034                | 0.138 | 0.101 |
| Haldimand (Caledonia)         | 0.215                | 0.112                | 0.056                | 0.027                | 0.0064               | 0.0025                | 0.138 | 0.087 |
| Haldimand (Hagersville)       | 0.172                | 0.096                | 0.051                | 0.025                | 0.0061               | 0.0024                | 0.108 | 0.074 |
| Haliburton                    | 0.133                | 0.095                | 0.057                | 0.030                | 0.0077               | 0.0032                | 0.079 | 0.076 |
| Halton Hills (Georgetown)     | 0.155                | 0.090                | 0.050                | 0.025                | 0.0062               | 0.0025                | 0.097 | 0.070 |
| Hamilton                      | 0.260                | 0.128                | 0.061                | 0.028                | 0.0068               | 0.0027                | 0.168 | 0.101 |
| Hanover                       | 0.085                | 0.063                | 0.040                | 0.021                | 0.0052               | 0.0022                | 0.049 | 0.050 |
| Hastings                      | 0.141                | 0.096                | 0.057                | 0.029                | 0.0074               | 0.0031                | 0.085 | 0.076 |
| Hawkesbury                    | 0.506                | 0.268                | 0.131                | 0.062                | 0.016                | 0.0058                | 0.326 | 0.224 |

Table C-3 (Continued)

| <b>D</b> 1 1 1                                |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location                         | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Hearst  | 0.073                | 0.048                | 0.028                | 0.013                | 0.0031               | 0.0014                | 0.043 | 0.035 |
| Honey Harbour                                 | 0.103                | 0.076                | 0.047                | 0.025                | 0.0062               | 0.0027                | 0.060 | 0.060 |
| Hornepayne                                    | 0.063                | 0.043                | 0.025                | 0.012                | 0.0028               | 0.0014                | 0.037 | 0.031 |
| Huntsville                                    | 0.129                | 0.091                | 0.054                | 0.028                | 0.0071               | 0.0031                | 0.077 | 0.072 |
| Ingersoll                                     | 0.116                | 0.073                | 0.043                | 0.022                | 0.0053               | 0.0022                | 0.070 | 0.058 |
| Iroquois Falls                                | 0.196                | 0.101                | 0.052                | 0.025                | 0.0061               | 0.0024                | 0.127 | 0.079 |
| Jellicoe                                      | 0.057                | 0.035                | 0.019                | 0.0081               | 0.0018               | 0.0010                | 0.033 | 0.024 |
| Kapuskasing                                   | 0.112                | 0.064                | 0.035                | 0.017                | 0.0040               | 0.0017                | 0.070 | 0.048 |
| Kemptville                                    | 0.429                | 0.229                | 0.114                | 0.054                | 0.014                | 0.0052                | 0.275 | 0.189 |
| Kenora  | 0.064                | 0.036                | 0.018                | 0.0072               | 0.0015               | 0.0007                | 0.038 | 0.024 |
| Killaloe                                      | 0.264                | 0.154                | 0.083                | 0.041                | 0.011                | 0.0044                | 0.168 | 0.127 |
| Kincardine                                    | 0.076                | 0.058                | 0.037                | 0.019                | 0.0049               | 0.0021                | 0.043 | 0.046 |
| Kingston                                      | 0.161                | 0.110                | 0.065                | 0.034                | 0.0089               | 0.0038                | 0.098 | 0.091 |
| Kinmount                                      | 0.123                | 0.089                | 0.054                | 0.028                | 0.0071               | 0.0031                | 0.072 | 0.071 |
| Kirkland Lake                                 | 0.159                | 0.095                | 0.053                | 0.027                | 0.0067               | 0.0028                | 0.099 | 0.076 |
| Kitchener                                     | 0.122                | 0.077                | 0.045                | 0.023                | 0.0056               | 0.0024                | 0.074 | 0.060 |
| Lakefield                                     | 0.130                | 0.091                | 0.055                | 0.028                | 0.0073               | 0.0031                | 0.078 | 0.072 |
| Lansdowne House                               | 0.056                | 0.035                | 0.019                | 0.0078               | 0.0016               | 0.0008                | 0.033 | 0.024 |
| Leamington                                    | 0.114                | 0.070                | 0.038                | 0.018                | 0.0044               | 0.0018                | 0.069 | 0.052 |
| Lindsay                                       | 0.126                | 0.087                | 0.052                | 0.027                | 0.0068               | 0.0030                | 0.076 | 0.068 |
| Lion's Head                                   | 0.080                | 0.062                | 0.040                | 0.021                | 0.0052               | 0.0022                | 0.045 | 0.050 |
| Listowel                                      | 0.093                | 0.066                | 0.041                | 0.021                | 0.0052               | 0.0022                | 0.054 | 0.052 |
| London  | 0.108                | 0.070                | 0.041                | 0.021                | 0.0052               | 0.0021                | 0.064 | 0.055 |
| Lucan   | 0.097                | 0.065                | 0.039                | 0.020                | 0.0050               | 0.0021                | 0.057 | 0.051 |
| Maitland                                      | 0.282                | 0.167                | 0.090                | 0.045                | 0.012                | 0.0046                | 0.179 | 0.140 |
| Markdale                                      | 0.089                | 0.066                | 0.042                | 0.022                | 0.0055               | 0.0022                | 0.052 | 0.052 |
| Markham                                       | 0.182                | 0.103                | 0.056                | 0.028                | 0.0068               | 0.0028                | 0.115 | 0.080 |
| Martin  | 0.072                | 0.039                | 0.019                | 0.0075               | 0.0015               | 0.0008                | 0.043 | 0.027 |
| Matheson                                      | 0.160                | 0.091                | 0.050                | 0.025                | 0.0062               | 0.0025                | 0.101 | 0.072 |
| Mattawa                                       | 0.446                | 0.237                | 0.114                | 0.052                | 0.013                | 0.0046                | 0.285 | 0.191 |
| Midland                                       | 0.101                | 0.075                | 0.046                | 0.024                | 0.0061               | 0.0025                | 0.058 | 0.059 |
| Milton  | 0.191                | 0.103                | 0.054                | 0.026                | 0.0064               | 0.0025                | 0.122 | 0.080 |
| Milverton                                     | 0.098                | 0.067                | 0.041                | 0.021                | 0.0053               | 0.0022                | 0.058 | 0.052 |
| Minden  | 0.124                | 0.089                | 0.054                | 0.028                | 0.0071               | 0.0031                | 0.073 | 0.071 |
| Mississauga                                   | 0.219                | 0.115                | 0.058                | 0.028                | 0.0068               | 0.0027                | 0.141 | 0.090 |
| Mississauga (Lester B. Pearson Int'l Airport) | 0.193                | 0.105                | 0.056                | 0.027                | 0.0067               | 0.0027                | 0.123 | 0.082 |
| Mississauga (Port Credit)                     | 0.247                | 0.125                | 0.062                | 0.029                | 0.0070               | 0.0027                | 0.159 | 0.098 |
| Mitchell                                      | 0.093                | 0.065                | 0.040                | 0.021                | 0.0052               | 0.0021                | 0.054 | 0.051 |
| Moosonee                                      | 0.081                | 0.051                | 0.029                | 0.014                | 0.0033               | 0.0015                | 0.049 | 0.038 |
| Morrisburg                                    | 0.558                | 0.287                | 0.135                | 0.062                | 0.016                | 0.0056                | 0.358 | 0.236 |
| Mount Forest                                  | 0.093                | 0.067                | 0.041                | 0.022                | 0.0053               | 0.0022                | 0.054 | 0.052 |
| Nakina  | 0.057                | 0.036                | 0.019                | 0.0082               | 0.0018               | 0.0010                | 0.033 | 0.024 |
| Nanticoke (Jarvis)                            | 0.156                | 0.090                | 0.049                | 0.024                | 0.0059               | 0.0024                | 0.098 | 0.068 |

National Building Code of Canata 2015 Volume 1, Division B

Table C-3 (Continued)

| Dravings and Location      | Seismic Data         |                      |                      |                      |                      |                       |       |       |  |  |  |
|----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|--|--|--|
| Province and Location      | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |  |  |  |
| Nanticoke (Port Dover)     | 0.144                | 0.085                | 0.047                | 0.023                | 0.0058               | 0.0024                | 0.089 | 0.066 |  |  |  |
| Napanee                    | 0.156                | 0.106                | 0.063                | 0.033                | 0.0084               | 0.0037                | 0.095 | 0.087 |  |  |  |
| New Liskeard               | 0.209                | 0.122                | 0.065                | 0.032                | 0.0081               | 0.0032                | 0.132 | 0.097 |  |  |  |
| Newcastle                  | 0.186                | 0.107                | 0.058                | 0.029                | 0.0071               | 0.0030                | 0.118 | 0.086 |  |  |  |
| Newcastle (Bowmanville)    | 0.188                | 0.107                | 0.058                | 0.029                | 0.0071               | 0.0030                | 0.119 | 0.086 |  |  |  |
| Newmarket                  | 0.132                | 0.085                | 0.050                | 0.026                | 0.0064               | 0.0027                | 0.081 | 0.067 |  |  |  |
| Niagara Falls              | 0.321                | 0.157                | 0.072                | 0.032                | 0.0076               | 0.0030                | 0.207 | 0.121 |  |  |  |
| North Bay                  | 0.247                | 0.145                | 0.076                | 0.037                | 0.0095               | 0.0037                | 0.155 | 0.114 |  |  |  |
| Norwood                    | 0.136                | 0.094                | 0.057                | 0.029                | 0.0074               | 0.0031                | 0.082 | 0.075 |  |  |  |
| Oakville                   | 0.260                | 0.129                | 0.062                | 0.029                | 0.0070               | 0.0027                | 0.167 | 0.101 |  |  |  |
| Orangeville                | 0.115                | 0.076                | 0.046                | 0.023                | 0.0058               | 0.0024                | 0.069 | 0.059 |  |  |  |
| Orillia                    | 0.109                | 0.079                | 0.049                | 0.026                | 0.0064               | 0.0027                | 0.064 | 0.063 |  |  |  |
| Oshawa                     | 0.192                | 0.108                | 0.058                | 0.029                | 0.0071               | 0.0030                | 0.122 | 0.086 |  |  |  |
| Ottawa (Metropolitan)      |                      |                      |                      |                      |                      |                       |       |       |  |  |  |
| Ottawa (City Hall)         | 0.439                | 0.237                | 0.118                | 0.056                | 0.015                | 0.0055                | 0.281 | 0.196 |  |  |  |
| Ottawa (Barrhaven)         | 0.427                | 0.230                | 0.115                | 0.055                | 0.015                | 0.0053                | 0.273 | 0.191 |  |  |  |
| Ottawa (Kanata)            | 0.401                | 0.218                | 0.110                | 0.053                | 0.014                | 0.0052                | 0.257 | 0.181 |  |  |  |
| Ottawa (M-C Int'l Airport) | 0.446                | 0.240                | 0.119                | 0.056                | 0.015                | 0.0055                | 0.285 | 0.199 |  |  |  |
| Ottawa (Orleans)           | 0.474                | 0.252                | 0.124                | 0.058                | 0.015                | 0.0056                | 0.304 | 0.208 |  |  |  |
| Owen Sound                 | 0.083                | 0.064                | 0.041                | 0.021                | 0.0053               | 0.0022                | 0.048 | 0.051 |  |  |  |
| Pagwa River                | 0.060                | 0.040                | 0.023                | 0.011                | 0.0024               | 0.0013                | 0.035 | 0.028 |  |  |  |
| Paris                      | 0.141                | 0.084                | 0.047                | 0.023                | 0.0058               | 0.0024                | 0.088 | 0.066 |  |  |  |
| Parkhill                   | 0.092                | 0.063                | 0.038                | 0.020                | 0.0049               | 0.0020                | 0.054 | 0.050 |  |  |  |
| Parry Sound                | 0.110                | 0.079                | 0.048                | 0.025                | 0.0064               | 0.0027                | 0.064 | 0.063 |  |  |  |
| Pelham (Fonthill)          | 0.311                | 0.152                | 0.070                | 0.031                | 0.0074               | 0.0028                | 0.201 | 0.117 |  |  |  |
| Pembroke                   | 0.379                | 0.203                | 0.101                | 0.049                | 0.013                | 0.0048                | 0.243 | 0.168 |  |  |  |
| Penetanguishene            | 0.101                | 0.074                | 0.046                | 0.024                | 0.0061               | 0.0025                | 0.058 | 0.059 |  |  |  |
| Perth                      | 0.225                | 0.142                | 0.080                | 0.041                | 0.011                | 0.0045                | 0.140 | 0.119 |  |  |  |
| Petawawa                   | 0.379                | 0.202                | 0.101                | 0.048                | 0.013                | 0.0048                | 0.243 | 0.166 |  |  |  |
| Peterborough               | 0.135                | 0.092                | 0.055                | 0.028                | 0.0071               | 0.0031                | 0.082 | 0.072 |  |  |  |
| Petrolia                   | 0.092                | 0.062                | 0.037                | 0.019                | 0.0047               | 0.0020                | 0.054 | 0.048 |  |  |  |
| Pickering (Dunbarton)      | 0.219                | 0.117                | 0.060                | 0.029                | 0.0071               | 0.0028                | 0.140 | 0.094 |  |  |  |
| Picton                     | 0.159                | 0.104                | 0.061                | 0.031                | 0.0078               | 0.0032                | 0.098 | 0.086 |  |  |  |
| Plattsville                | 0.119                | 0.075                | 0.044                | 0.022                | 0.0055               | 0.0022                | 0.072 | 0.059 |  |  |  |
| Point Alexander            | 0.391                | 0.209                | 0.104                | 0.049                | 0.013                | 0.0048                | 0.251 | 0.172 |  |  |  |
| Port Burwell               | 0.132                | 0.079                | 0.044                | 0.022                | 0.0055               | 0.0022                | 0.081 | 0.062 |  |  |  |
| Port Colborne              | 0.298                | 0.146                | 0.068                | 0.031                | 0.0073               | 0.0028                | 0.192 | 0.113 |  |  |  |
| Port Elgin                 | 0.077                | 0.060                | 0.038                | 0.020                | 0.0050               | 0.0021                | 0.044 | 0.048 |  |  |  |
| Port Hope                  | 0.181                | 0.106                | 0.059                | 0.029                | 0.0073               | 0.0030                | 0.114 | 0.086 |  |  |  |
| Port Perry                 | 0.144                | 0.091                | 0.053                | 0.027                | 0.0067               | 0.0028                | 0.089 | 0.071 |  |  |  |
| Port Stanley               | 0.123                | 0.075                | 0.043                | 0.021                | 0.0052               | 0.0021                | 0.075 | 0.058 |  |  |  |
| Prescott                   | 0.350                | 0.195                | 0.101                | 0.049                | 0.013                | 0.0049                | 0.224 | 0.162 |  |  |  |

Table C-3 (Continued)

| Province and Location        |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Flovince and Location        | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PG\   |
| Princeton                    | 0.129                | 0.079                | 0.045                | 0.023                | 0.0056               | 0.0022                | 0.079 | 0.062 |
| Raith                        | 0.067                | 0.038                | 0.019                | 0.0078               | 0.0016               | 0.0008                | 0.040 | 0.02  |
| Rayside-Balfour (Chelmsford) | 0.104                | 0.072                | 0.044                | 0.023                | 0.0058               | 0.0024                | 0.061 | 0.050 |
| Red Lake                     | 0.068                | 0.038                | 0.019                | 0.0076               | 0.0016               | 0.0008                | 0.041 | 0.02  |
| Renfrew                      | 0.352                | 0.191                | 0.097                | 0.047                | 0.013                | 0.0048                | 0.226 | 0.16  |
| Richmond Hill                | 0.163                | 0.095                | 0.053                | 0.027                | 0.0065               | 0.0027                | 0.102 | 0.07  |
| Rockland                     | 0.510                | 0.266                | 0.129                | 0.060                | 0.016                | 0.0056                | 0.328 | 0.22  |
| Sarnia                       | 0.085                | 0.059                | 0.036                | 0.018                | 0.0046               | 0.0020                | 0.049 | 0.04  |
| Sault Ste. Marie             | 0.062                | 0.044                | 0.028                | 0.014                | 0.0033               | 0.0015                | 0.036 | 0.03  |
| Schreiber                    | 0.057                | 0.035                | 0.019                | 0.0079               | 0.0018               | 0.0010                | 0.033 | 0.024 |
| Seaforth                     | 0.087                | 0.062                | 0.039                | 0.020                | 0.0050               | 0.0021                | 0.050 | 0.048 |
| Shelburne                    | 0.104                | 0.072                | 0.044                | 0.023                | 0.0058               | 0.0024                | 0.062 | 0.050 |
| Simcoe                       | 0.141                | 0.084                | 0.047                | 0.023                | 0.0058               | 0.0024                | 0.087 | 0.06  |
| Sioux Lookout                | 0.073                | 0.040                | 0.020                | 0.0078               | 0.0016               | 0.0008                | 0.044 | 0.02  |
| Smiths Falls                 | 0.256                | 0.156                | 0.086                | 0.044                | 0.012                | 0.0046                | 0.161 | 0.13  |
| Smithville                   | 0.296                | 0.144                | 0.067                | 0.030                | 0.0071               | 0.0027                | 0.191 | 0.11  |
| Smooth Rock Falls            | 0.200                | 0.098                | 0.047                | 0.021                | 0.0050               | 0.0020                | 0.130 | 0.07  |
| South River                  | 0.164                | 0.106                | 0.061                | 0.031                | 0.0080               | 0.0034                | 0.100 | 0.08  |
| Southampton                  | 0.077                | 0.060                | 0.038                | 0.020                | 0.0050               | 0.0021                | 0.044 | 0.04  |
| St. Catharines               | 0.319                | 0.155                | 0.071                | 0.032                | 0.0076               | 0.0028                | 0.206 | 0.12  |
| St. Mary's                   | 0.101                | 0.068                | 0.041                | 0.021                | 0.0052               | 0.0021                | 0.060 | 0.05  |
| St. Thomas                   | 0.117                | 0.073                | 0.042                | 0.021                | 0.0052               | 0.0021                | 0.071 | 0.05  |
| Stirling                     | 0.149                | 0.100                | 0.060                | 0.031                | 0.0078               | 0.0034                | 0.091 | 0.08  |
| Stratford                    | 0.103                | 0.069                | 0.041                | 0.021                | 0.0053               | 0.0022                | 0.061 | 0.05  |
| Strathroy                    | 0.100                | 0.066                | 0.039                | 0.020                | 0.0049               | 0.0021                | 0.059 | 0.05  |
| Sturgeon Falls               | 0.183                | 0.113                | 0.062                | 0.031                | 0.0080               | 0.0032                | 0.113 | 0.08  |
| Sudbury                      | 0.110                | 0.076                | 0.046                | 0.024                | 0.0059               | 0.0025                | 0.065 | 0.05  |
| Sundridge                    | 0.157                | 0.103                | 0.059                | 0.030                | 0.0078               | 0.0032                | 0.095 | 0.08  |
| Tavistock                    | 0.108                | 0.071                | 0.042                | 0.022                | 0.0053               | 0.0022                | 0.065 | 0.05  |
| Temagami                     | 0.239                | 0.138                | 0.072                | 0.035                | 0.0089               | 0.0035                | 0.151 | 0.10  |
| Thamesford                   | 0.111                | 0.071                | 0.042                | 0.021                | 0.0053               | 0.0022                | 0.066 | 0.05  |
| Thedford                     | 0.089                | 0.062                | 0.038                | 0.019                | 0.0047               | 0.0020                | 0.052 | 0.04  |
| Thunder Bay                  | 0.061                | 0.035                | 0.018                | 0.0075               | 0.0016               | 0.0008                | 0.036 | 0.024 |
| Tillsonburg                  | 0.126                | 0.077                | 0.044                | 0.022                | 0.0055               | 0.0022                | 0.076 | 0.06  |
| Timmins                      | 0.125                | 0.075                | 0.043                | 0.021                | 0.0053               | 0.0022                | 0.078 | 0.05  |
| Timmins (Porcupine)          | 0.140                | 0.081                | 0.045                | 0.022                | 0.0055               | 0.0022                | 0.088 | 0.06  |
| Toronto Metropolitan Region  |                      |                      |                      |                      |                      |                       |       |       |
| Etobicoke                    | 0.193                | 0.106                | 0.056                | 0.027                | 0.0067               | 0.0027                | 0.124 | 0.08  |
| North York                   | 0.195                | 0.107                | 0.056                | 0.028                | 0.0067               | 0.0027                | 0.125 | 0.08  |
| Scarborough                  | 0.219                | 0.116                | 0.060                | 0.029                | 0.0070               | 0.0028                | 0.140 | 0.09  |
| Toronto (City Hall)          | 0.249                | 0.126                | 0.063                | 0.029                | 0.0071               | 0.0028                | 0.160 | 0.099 |
| Trenton                      | 0.167                | 0.105                | 0.060                | 0.030                | 0.0077               | 0.0032                | 0.104 | 0.08  |

Table C-3 (Continued)

|     | Duraine and Leastine  | Seismic Data         |                      |                      |                      |                      |                       |       |       |  |  |  |  |
|-----|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|--|--|--|--|
|     | Province and Location | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |  |  |  |  |
|     | Trout Creek           | 0.186                | 0.116                | 0.065                | 0.033                | 0.0084               | 0.0035                | 0.115 | 0.093 |  |  |  |  |
|     | Uxbridge              | 0.139                | 0.089                | 0.052                | 0.027                | 0.0067               | 0.0028                | 0.086 | 0.070 |  |  |  |  |
|     | Vaughan (Woodbridge)  | 0.167                | 0.096                | 0.053                | 0.026                | 0.0065               | 0.0027                | 0.105 | 0.074 |  |  |  |  |
|     | Vittoria              | 0.139                | 0.083                | 0.046                | 0.023                | 0.0056               | 0.0024                | 0.086 | 0.064 |  |  |  |  |
|     | Walkerton             | 0.083                | 0.062                | 0.039                | 0.021                | 0.0052               | 0.0021                | 0.048 | 0.050 |  |  |  |  |
|     | Wallaceburg           | 0.098                | 0.064                | 0.037                | 0.018                | 0.0044               | 0.0018                | 0.058 | 0.048 |  |  |  |  |
|     | Waterloo              | 0.118                | 0.075                | 0.044                | 0.023                | 0.0056               | 0.0022                | 0.072 | 0.059 |  |  |  |  |
|     | Watford               | 0.095                | 0.064                | 0.038                | 0.019                | 0.0049               | 0.0020                | 0.056 | 0.050 |  |  |  |  |
|     | Wawa                  | 0.062                | 0.043                | 0.026                | 0.013                | 0.0030               | 0.0014                | 0.036 | 0.031 |  |  |  |  |
|     | Welland               | 0.308                | 0.150                | 0.069                | 0.031                | 0.0074               | 0.0028                | 0.199 | 0.115 |  |  |  |  |
|     | West Lorne            | 0.118                | 0.072                | 0.041                | 0.021                | 0.0050               | 0.0021                | 0.072 | 0.056 |  |  |  |  |
|     | Whitby                | 0.203                | 0.112                | 0.059                | 0.029                | 0.0071               | 0.0028                | 0.130 | 0.089 |  |  |  |  |
|     | Whitby (Brooklin)     | 0.176                | 0.102                | 0.056                | 0.028                | 0.0070               | 0.0028                | 0.111 | 0.080 |  |  |  |  |
|     | White River           | 0.060                | 0.041                | 0.024                | 0.011                | 0.0025               | 0.0013                | 0.035 | 0.030 |  |  |  |  |
|     | Wiarton               | 0.080                | 0.062                | 0.040                | 0.021                | 0.0052               | 0.0022                | 0.046 | 0.050 |  |  |  |  |
|     | Windsor               | 0.096                | 0.063                | 0.035                | 0.017                | 0.0041               | 0.0017                | 0.057 | 0.048 |  |  |  |  |
|     | Wingham               | 0.083                | 0.061                | 0.039                | 0.020                | 0.0050               | 0.0021                | 0.048 | 0.048 |  |  |  |  |
|     | Woodstock             | 0.118                | 0.075                | 0.043                | 0.022                | 0.0055               | 0.0022                | 0.071 | 0.058 |  |  |  |  |
|     | Wyoming               | 0.090                | 0.061                | 0.037                | 0.019                | 0.0047               | 0.0020                | 0.053 | 0.048 |  |  |  |  |
| Que | ebec                  |                      |                      |                      |                      |                      |                       |       |       |  |  |  |  |
|     | Acton-Vale            | 0.254                | 0.160                | 0.091                | 0.047                | 0.013                | 0.0051                | 0.159 | 0.138 |  |  |  |  |
|     | Alma                  | 0.785                | 0.416                | 0.196                | 0.089                | 0.022                | 0.0075                | 0.486 | 0.339 |  |  |  |  |
|     | Amos                  | 0.109                | 0.078                | 0.049                | 0.026                | 0.0067               | 0.0028                | 0.064 | 0.063 |  |  |  |  |
|     | Asbestos              | 0.200                | 0.137                | 0.082                | 0.043                | 0.012                | 0.0049                | 0.123 | 0.118 |  |  |  |  |
|     | Aylmer                | 0.415                | 0.225                | 0.113                | 0.054                | 0.014                | 0.0053                | 0.265 | 0.186 |  |  |  |  |
|     | Baie-Comeau           | 0.425                | 0.219                | 0.107                | 0.051                | 0.013                | 0.0051                | 0.275 | 0.182 |  |  |  |  |
|     | Baie-Saint-Paul       | 1.62                 | 0.872                | 0.406                | 0.179                | 0.043                | 0.012                 | 0.986 | 0.735 |  |  |  |  |
|     | Beauport              | 0.509                | 0.275                | 0.138                | 0.067                | 0.018                | 0.0065                | 0.327 | 0.233 |  |  |  |  |
|     | Bedford               | 0.358                | 0.204                | 0.107                | 0.053                | 0.014                | 0.0053                | 0.228 | 0.170 |  |  |  |  |
|     | Beloeil               | 0.522                | 0.272                | 0.131                | 0.062                | 0.016                | 0.0059                | 0.333 | 0.225 |  |  |  |  |
|     | Brome                 | 0.236                | 0.152                | 0.087                | 0.045                | 0.012                | 0.0049                | 0.147 | 0.130 |  |  |  |  |
|     | Brossard              | 0.587                | 0.306                | 0.145                | 0.067                | 0.017                | 0.0062                | 0.374 | 0.251 |  |  |  |  |
|     | Buckingham            | 0.491                | 0.257                | 0.125                | 0.058                | 0.015                | 0.0056                | 0.316 | 0.213 |  |  |  |  |
|     | Campbell's Bay        | 0.387                | 0.208                | 0.105                | 0.050                | 0.013                | 0.0051                | 0.248 | 0.173 |  |  |  |  |
|     | Chambly               | 0.550                | 0.286                | 0.137                | 0.064                | 0.017                | 0.0059                | 0.352 | 0.236 |  |  |  |  |
|     | Coaticook             | 0.193                | 0.129                | 0.077                | 0.040                | 0.011                | 0.0045                | 0.119 | 0.110 |  |  |  |  |
|     | Contrecoeur           | 0.473                | 0.251                | 0.124                | 0.059                | 0.016                | 0.0058                | 0.303 | 0.207 |  |  |  |  |
|     | Cowansville           | 0.273                | 0.168                | 0.094                | 0.048                | 0.013                | 0.0051                | 0.172 | 0.142 |  |  |  |  |
|     | Deux-Montagnes        | 0.596                | 0.313                | 0.149                | 0.069                | 0.018                | 0.0062                | 0.380 | 0.258 |  |  |  |  |
|     | Dolbeau               | 0.484                | 0.255                | 0.125                | 0.058                | 0.015                | 0.0055                | 0.308 | 0.211 |  |  |  |  |
|     | Drummondville         | 0.273                | 0.167                | 0.094                | 0.048                | 0.013                | 0.0052                | 0.172 | 0.144 |  |  |  |  |
|     | Farnham               | 0.369                | 0.208                | 0.109                | 0.054                | 0.015                | 0.0055                | 0.235 | 0.174 |  |  |  |  |

Table C-3 (Continued)

| Province and Location |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| FIOVINCE AND LOCATION | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Fort-Coulonge         | 0.391                | 0.210                | 0.105                | 0.050                | 0.013                | 0.0051                | 0.251 | 0.174 |
| Gagnon                | 0.078                | 0.060                | 0.040                | 0.021                | 0.0055               | 0.0022                | 0.045 | 0.048 |
| Gaspé                 | 0.128                | 0.090                | 0.056                | 0.029                | 0.0077               | 0.0032                | 0.076 | 0.074 |
| Gatineau              | 0.442                | 0.238                | 0.119                | 0.056                | 0.015                | 0.0055                | 0.283 | 0.197 |
| Gracefield            | 0.426                | 0.222                | 0.109                | 0.051                | 0.013                | 0.0051                | 0.278 | 0.185 |
| Granby                | 0.275                | 0.169                | 0.094                | 0.048                | 0.013                | 0.0052                | 0.173 | 0.144 |
| Harrington-Harbour    | 0.072                | 0.056                | 0.037                | 0.020                | 0.0052               | 0.0022                | 0.041 | 0.046 |
| Havre-St-Pierre       | 0.231                | 0.122                | 0.062                | 0.030                | 0.0077               | 0.0031                | 0.148 | 0.097 |
| Hemmingford           | 0.546                | 0.290                | 0.141                | 0.066                | 0.017                | 0.0060                | 0.347 | 0.239 |
| Hull                  | 0.432                | 0.234                | 0.117                | 0.056                | 0.015                | 0.0055                | 0.276 | 0.195 |
| Iberville             | 0.520                | 0.273                | 0.132                | 0.062                | 0.016                | 0.0059                | 0.332 | 0.225 |
| Inukjuak              | 0.065                | 0.040                | 0.022                | 0.0094               | 0.0021               | 0.0010                | 0.038 | 0.028 |
| Joliette              | 0.457                | 0.241                | 0.119                | 0.057                | 0.015                | 0.0056                | 0.293 | 0.201 |
| Kuujjuaq              | 0.074                | 0.054                | 0.036                | 0.019                | 0.0049               | 0.0021                | 0.043 | 0.043 |
| Kuujjuarapik          | 0.056                | 0.035                | 0.019                | 0.0078               | 0.0016               | 0.0008                | 0.032 | 0.024 |
| La Pocatière          | 1.51                 | 0.817                | 0.384                | 0.170                | 0.041                | 0.012                 | 0.927 | 0.690 |
| La-Malbaie            | 1.73                 | 0.954                | 0.454                | 0.203                | 0.049                | 0.014                 | 1.04  | 0.809 |
| La-Tuque              | 0.196                | 0.137                | 0.082                | 0.043                | 0.012                | 0.0049                | 0.120 | 0.119 |
| Lac-Mégantic          | 0.193                | 0.130                | 0.077                | 0.040                | 0.011                | 0.0045                | 0.119 | 0.111 |
| Lachute               | 0.518                | 0.274                | 0.133                | 0.063                | 0.016                | 0.0059                | 0.333 | 0.228 |
| Lennoxville           | 0.187                | 0.129                | 0.077                | 0.041                | 0.011                | 0.0046                | 0.114 | 0.110 |
| Léry                  | 0.603                | 0.318                | 0.152                | 0.070                | 0.018                | 0.0063                | 0.384 | 0.262 |
| Loretteville          | 0.502                | 0.268                | 0.134                | 0.065                | 0.017                | 0.0063                | 0.323 | 0.227 |
| Louiseville           | 0.366                | 0.201                | 0.105                | 0.052                | 0.014                | 0.0055                | 0.234 | 0.170 |
| Magog                 | 0.196                | 0.133                | 0.079                | 0.042                | 0.011                | 0.0046                | 0.120 | 0.114 |
| Malartic              | 0.135                | 0.092                | 0.055                | 0.029                | 0.0074               | 0.0031                | 0.081 | 0.074 |
| Maniwaki              | 0.430                | 0.220                | 0.107                | 0.050                | 0.013                | 0.0049                | 0.282 | 0.184 |
| Masson                | 0.498                | 0.261                | 0.127                | 0.059                | 0.016                | 0.0056                | 0.320 | 0.216 |
| Matane                | 0.455                | 0.230                | 0.110                | 0.052                | 0.013                | 0.0051                | 0.295 | 0.191 |
| Mont-Joli             | 0.427                | 0.226                | 0.113                | 0.055                | 0.015                | 0.0055                | 0.275 | 0.191 |
| Mont-Laurier          | 0.419                | 0.212                | 0.103                | 0.049                | 0.013                | 0.0048                | 0.276 | 0.177 |
| Montmagny             | 0.601                | 0.341                | 0.172                | 0.082                | 0.022                | 0.0075                | 0.382 | 0.286 |
| Montréal Region       |                      |                      |                      |                      |                      |                       |       |       |
| Beaconsfield          | 0.602                | 0.317                | 0.152                | 0.070                | 0.018                | 0.0063                | 0.383 | 0.260 |
| Dorval                | 0.600                | 0.316                | 0.151                | 0.069                | 0.018                | 0.0062                | 0.382 | 0.259 |
| Laval                 | 0.595                | 0.311                | 0.148                | 0.068                | 0.018                | 0.0062                | 0.379 | 0.256 |
| Montréal (City Hall)  | 0.595                | 0.311                | 0.148                | 0.068                | 0.018                | 0.0062                | 0.379 | 0.255 |
| Montréal-Est          | 0.586                | 0.305                | 0.145                | 0.067                | 0.017                | 0.0062                | 0.374 | 0.250 |
| Montréal-Nord         | 0.593                | 0.309                | 0.147                | 0.068                | 0.017                | 0.0062                | 0.378 | 0.254 |
| Outremont             | 0.597                | 0.313                | 0.149                | 0.068                | 0.018                | 0.0062                | 0.380 | 0.256 |
| Pierrefonds           | 0.599                | 0.315                | 0.151                | 0.069                | 0.018                | 0.0062                | 0.382 | 0.259 |
| St-Lambert            | 0.590                | 0.307                | 0.146                | 0.067                | 0.017                | 0.0062                | 0.376 | 0.252 |

Table C-3 (Continued)

| D : 11 8                        |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|---------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location           | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| St-Laurent                      | 0.598                | 0.314                | 0.149                | 0.069                | 0.018                | 0.0062                | 0.381 | 0.258 |
| Ste-Anne-de-Bellevue            | 0.602                | 0.317                | 0.152                | 0.070                | 0.018                | 0.0063                | 0.383 | 0.262 |
| Verdun                          | 0.596                | 0.312                | 0.149                | 0.068                | 0.018                | 0.0062                | 0.380 | 0.256 |
| Nicolet (Gentilly)              | 0.364                | 0.201                | 0.106                | 0.052                | 0.015                | 0.0055                | 0.233 | 0.170 |
| Nitchequon                      | 0.062                | 0.047                | 0.031                | 0.017                | 0.0041               | 0.0018                | 0.035 | 0.038 |
| Noranda                         | 0.132                | 0.088                | 0.052                | 0.027                | 0.0068               | 0.0028                | 0.080 | 0.070 |
| Percé                           | 0.114                | 0.084                | 0.053                | 0.029                | 0.0074               | 0.0032                | 0.067 | 0.068 |
| Pincourt                        | 0.602                | 0.318                | 0.152                | 0.070                | 0.018                | 0.0063                | 0.384 | 0.262 |
| Plessisville                    | 0.250                | 0.160                | 0.092                | 0.048                | 0.013                | 0.0052                | 0.157 | 0.140 |
| Port-Cartier                    | 0.323                | 0.169                | 0.084                | 0.040                | 0.010                | 0.0039                | 0.210 | 0.137 |
| Puvirnituq                      | 0.108                | 0.058                | 0.029                | 0.012                | 0.0025               | 0.0011                | 0.068 | 0.043 |
| Québec City Region              |                      |                      |                      |                      |                      |                       |       |       |
| Ancienne-Lorette                | 0.487                | 0.258                | 0.130                | 0.062                | 0.017                | 0.0062                | 0.314 | 0.220 |
| Lévis                           | 0.493                | 0.265                | 0.134                | 0.065                | 0.017                | 0.0063                | 0.317 | 0.225 |
| Québec                          | 0.493                | 0.265                | 0.133                | 0.064                | 0.017                | 0.0063                | 0.318 | 0.225 |
| Sillery                         | 0.486                | 0.260                | 0.131                | 0.063                | 0.017                | 0.0062                | 0.313 | 0.221 |
| Ste-Foy                         | 0.488                | 0.261                | 0.131                | 0.063                | 0.017                | 0.0062                | 0.315 | 0.221 |
| Richmond                        | 0.208                | 0.140                | 0.083                | 0.044                | 0.012                | 0.0049                | 0.128 | 0.121 |
| Rimouski                        | 0.408                | 0.224                | 0.116                | 0.056                | 0.015                | 0.0056                | 0.262 | 0.192 |
| Rivière-du-Loup                 | 1.16                 | 0.616                | 0.288                | 0.129                | 0.032                | 0.0097                | 0.724 | 0.517 |
| Roberval                        | 0.688                | 0.353                | 0.164                | 0.074                | 0.019                | 0.0065                | 0.430 | 0.287 |
| Rock-Island                     | 0.199                | 0.133                | 0.078                | 0.041                | 0.011                | 0.0046                | 0.123 | 0.113 |
| Rosemère                        | 0.591                | 0.309                | 0.147                | 0.068                | 0.017                | 0.0062                | 0.377 | 0.255 |
| Rouyn                           | 0.134                | 0.089                | 0.052                | 0.027                | 0.0068               | 0.0028                | 0.081 | 0.070 |
| Saguenay                        | 0.791                | 0.425                | 0.204                | 0.095                | 0.024                | 0.0080                | 0.491 | 0.353 |
| Saguenay (Bagotville)           | 0.801                | 0.434                | 0.210                | 0.098                | 0.025                | 0.0083                | 0.498 | 0.362 |
| Saguenay (Jonquière)            | 0.798                | 0.428                | 0.206                | 0.095                | 0.024                | 0.0080                | 0.495 | 0.354 |
| Saguenay (Kenogami)             | 0.799                | 0.428                | 0.206                | 0.095                | 0.024                | 0.0080                | 0.496 | 0.354 |
| Saint-Eustache                  | 0.593                | 0.311                | 0.149                | 0.068                | 0.018                | 0.0062                | 0.378 | 0.256 |
| Saint-Jean-sur-Richelieu        | 0.522                | 0.274                | 0.133                | 0.062                | 0.016                | 0.0059                | 0.333 | 0.227 |
| Salaberry-de-Valleyfield        | 0.602                | 0.318                | 0.152                | 0.070                | 0.018                | 0.0063                | 0.384 | 0.262 |
| Schefferville                   | 0.059                | 0.042                | 0.027                | 0.014                | 0.0033               | 0.0015                | 0.034 | 0.031 |
| Senneterre                      | 0.114                | 0.083                | 0.052                | 0.028                | 0.0071               | 0.0031                | 0.067 | 0.067 |
| Sept-Îles                       | 0.295                | 0.156                | 0.078                | 0.037                | 0.0095               | 0.0038                | 0.191 | 0.126 |
| Shawinigan                      | 0.306                | 0.179                | 0.098                | 0.049                | 0.014                | 0.0053                | 0.195 | 0.154 |
| Shawville                       | 0.386                | 0.208                | 0.105                | 0.050                | 0.013                | 0.0051                | 0.248 | 0.173 |
| Sherbrooke                      | 0.187                | 0.129                | 0.078                | 0.041                | 0.011                | 0.0046                | 0.115 | 0.111 |
| Sorel                           | 0.406                | 0.220                | 0.113                | 0.055                | 0.015                | 0.0056                | 0.259 | 0.184 |
| St-Félicien                     | 0.488                | 0.259                | 0.127                | 0.059                | 0.016                | 0.0056                | 0.309 | 0.212 |
| St-Georges-de-Cacouna           | 0.857                | 0.478                | 0.234                | 0.109                | 0.028                | 0.0090                | 0.533 | 0.396 |
| St-Hubert                       | 0.581                | 0.302                | 0.144                | 0.066                | 0.017                | 0.0060                | 0.371 | 0.248 |
| Saint-Hubert-de-Rivière-du-Loup | 0.468                | 0.279                | 0.147                | 0.073                | 0.020                | 0.0069                | 0.298 | 0.237 |

National Building Code of Canata 2015 Volume 1, Division B  $\,$ 

Table C-3 (Continued)

| Drawings and Lagatica |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| St-Hyacinthe          | 0.369                | 0.208                | 0.109                | 0.054                | 0.015                | 0.0055                | 0.235 | 0.174 |
| St-Jérôme             | 0.539                | 0.282                | 0.135                | 0.063                | 0.017                | 0.0059                | 0.346 | 0.233 |
| St-Jovite             | 0.428                | 0.222                | 0.110                | 0.052                | 0.014                | 0.0052                | 0.281 | 0.186 |
| St-Lazare-Hudson      | 0.597                | 0.315                | 0.151                | 0.070                | 0.018                | 0.0062                | 0.380 | 0.259 |
| St-Nicolas            | 0.466                | 0.248                | 0.125                | 0.060                | 0.016                | 0.0060                | 0.301 | 0.21  |
| Ste-Agathe-des-Monts  | 0.431                | 0.226                | 0.112                | 0.054                | 0.014                | 0.0053                | 0.282 | 0.19  |
| Sutton                | 0.243                | 0.154                | 0.088                | 0.045                | 0.012                | 0.0049                | 0.152 | 0.13  |
| Tadoussac             | 0.694                | 0.399                | 0.202                | 0.097                | 0.026                | 0.0084                | 0.434 | 0.33  |
| Témiscaming           | 0.820                | 0.411                | 0.181                | 0.075                | 0.017                | 0.0053                | 0.516 | 0.32  |
| Terrebonne            | 0.584                | 0.304                | 0.144                | 0.067                | 0.017                | 0.0060                | 0.373 | 0.25  |
| Thetford Mines        | 0.207                | 0.142                | 0.084                | 0.044                | 0.012                | 0.0049                | 0.127 | 0.12  |
| Thurso                | 0.492                | 0.258                | 0.126                | 0.059                | 0.016                | 0.0056                | 0.318 | 0.21  |
| Trois-Rivières        | 0.366                | 0.200                | 0.105                | 0.052                | 0.014                | 0.0055                | 0.234 | 0.17  |
| Val-d'Or              | 0.135                | 0.093                | 0.056                | 0.029                | 0.0076               | 0.0032                | 0.081 | 0.07  |
| Varennes              | 0.571                | 0.296                | 0.141                | 0.065                | 0.017                | 0.0060                | 0.365 | 0.24  |
| Verchères             | 0.537                | 0.278                | 0.134                | 0.062                | 0.016                | 0.0059                | 0.343 | 0.22  |
| Victoriaville         | 0.233                | 0.152                | 0.089                | 0.046                | 0.013                | 0.0051                | 0.145 | 0.13  |
| Ville-Marie           | 0.262                | 0.148                | 0.076                | 0.037                | 0.0093               | 0.0037                | 0.166 | 0.11  |
| Wakefield             | 0.409                | 0.222                | 0.111                | 0.054                | 0.014                | 0.0053                | 0.262 | 0.18  |
| Waterloo              | 0.232                | 0.150                | 0.087                | 0.045                | 0.012                | 0.0049                | 0.144 | 0.12  |
| Windsor               | 0.194                | 0.134                | 0.080                | 0.042                | 0.012                | 0.0048                | 0.119 | 0.11  |
| lew Brunswick         |                      |                      |                      |                      |                      |                       |       |       |
| Alma                  | 0.144                | 0.096                | 0.058                | 0.030                | 0.0078               | 0.0034                | 0.088 | 0.07  |
| Bathurst              | 0.217                | 0.127                | 0.071                | 0.036                | 0.0090               | 0.0038                | 0.138 | 0.10  |
| Campbellton           | 0.210                | 0.133                | 0.076                | 0.039                | 0.010                | 0.0042                | 0.132 | 0.11  |
| Edmundston            | 0.231                | 0.153                | 0.089                | 0.046                | 0.012                | 0.0049                | 0.145 | 0.13  |
| Fredericton           | 0.210                | 0.127                | 0.071                | 0.037                | 0.0093               | 0.0039                | 0.133 | 0.10  |
| Gagetown              | 0.195                | 0.119                | 0.068                | 0.035                | 0.0089               | 0.0038                | 0.122 | 0.09  |
| Grand Falls           | 0.254                | 0.153                | 0.085                | 0.043                | 0.011                | 0.0046                | 0.162 | 0.13  |
| Miramichi             | 0.214                | 0.125                | 0.069                | 0.035                | 0.0087               | 0.0037                | 0.136 | 0.10  |
| Moncton               | 0.158                | 0.100                | 0.059                | 0.031                | 0.0078               | 0.0034                | 0.098 | 0.08  |
| Oromocto              | 0.209                | 0.126                | 0.071                | 0.036                | 0.0092               | 0.0039                | 0.132 | 0.10  |
| Sackville             | 0.140                | 0.093                | 0.057                | 0.030                | 0.0078               | 0.0034                | 0.085 | 0.07  |
| Saint Andrews         | 0.874                | 0.436                | 0.189                | 0.077                | 0.017                | 0.0053                | 0.544 | 0.34  |
| Saint George          | 0.578                | 0.298                | 0.135                | 0.058                | 0.014                | 0.0048                | 0.367 | 0.23  |
| Saint John            | 0.199                | 0.121                | 0.068                | 0.035                | 0.0089               | 0.0037                | 0.125 | 0.09  |
| Shippagan             | 0.143                | 0.096                | 0.058                | 0.030                | 0.0078               | 0.0034                | 0.087 | 0.07  |
| St. Stephen           | 0.781                | 0.380                | 0.163                | 0.067                | 0.015                | 0.0051                | 0.491 | 0.30  |
| Woodstock             | 0.206                | 0.129                | 0.074                | 0.038                | 0.0099               | 0.0042                | 0.130 | 0.10  |
| lova Scotia           |                      |                      |                      |                      |                      |                       |       |       |
| Amherst               | 0.130                | 0.089                | 0.055                | 0.030                | 0.0078               | 0.0034                | 0.078 | 0.07  |
| Antigonish            | 0.098                | 0.076                | 0.050                | 0.028                | 0.0073               | 0.0031                | 0.057 | 0.06  |

Table C-3 (Continued)

| Dravings and Location    |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|--------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location    | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Bridgewater              | 0.117                | 0.086                | 0.054                | 0.029                | 0.0078               | 0.0034                | 0.068 | 0.071 |
| Canso                    | 0.114                | 0.085                | 0.054                | 0.029                | 0.0078               | 0.0034                | 0.066 | 0.071 |
| Debert                   | 0.107                | 0.080                | 0.052                | 0.029                | 0.0076               | 0.0032                | 0.062 | 0.068 |
| Digby                    | 0.164                | 0.105                | 0.061                | 0.032                | 0.0083               | 0.0035                | 0.101 | 0.085 |
| Greenwood (CFB)          | 0.128                | 0.090                | 0.055                | 0.029                | 0.0077               | 0.0032                | 0.076 | 0.074 |
| Halifax Region           |                      |                      |                      |                      |                      |                       |       |       |
| Dartmouth                | 0.110                | 0.082                | 0.053                | 0.029                | 0.0076               | 0.0032                | 0.064 | 0.068 |
| Halifax                  | 0.110                | 0.082                | 0.053                | 0.029                | 0.0076               | 0.0032                | 0.064 | 0.068 |
| Kentville                | 0.120                | 0.087                | 0.055                | 0.030                | 0.0078               | 0.0034                | 0.071 | 0.072 |
| Liverpool                | 0.120                | 0.086                | 0.054                | 0.029                | 0.0076               | 0.0032                | 0.070 | 0.070 |
| Lockeport                | 0.123                | 0.087                | 0.054                | 0.028                | 0.0074               | 0.0031                | 0.073 | 0.071 |
| Louisburg                | 0.119                | 0.089                | 0.056                | 0.030                | 0.0080               | 0.0035                | 0.069 | 0.074 |
| Lunenburg                | 0.115                | 0.085                | 0.054                | 0.029                | 0.0078               | 0.0034                | 0.067 | 0.070 |
| New Glasgow              | 0.099                | 0.077                | 0.051                | 0.028                | 0.0074               | 0.0032                | 0.057 | 0.064 |
| North Sydney             | 0.105                | 0.081                | 0.053                | 0.029                | 0.0076               | 0.0032                | 0.061 | 0.068 |
| Pictou                   | 0.098                | 0.076                | 0.050                | 0.028                | 0.0074               | 0.0031                | 0.057 | 0.064 |
| Port Hawkesbury          | 0.102                | 0.079                | 0.052                | 0.028                | 0.0076               | 0.0032                | 0.059 | 0.066 |
| Springhill               | 0.118                | 0.085                | 0.054                | 0.029                | 0.0077               | 0.0034                | 0.070 | 0.071 |
| Stewiacke                | 0.107                | 0.081                | 0.053                | 0.029                | 0.0077               | 0.0032                | 0.062 | 0.068 |
| Sydney                   | 0.108                | 0.083                | 0.054                | 0.029                | 0.0077               | 0.0034                | 0.063 | 0.070 |
| Tatamagouche             | 0.103                | 0.079                | 0.052                | 0.028                | 0.0076               | 0.0032                | 0.061 | 0.066 |
| Truro                    | 0.105                | 0.080                | 0.052                | 0.029                | 0.0076               | 0.0032                | 0.061 | 0.067 |
| Wolfville                | 0.118                | 0.086                | 0.055                | 0.030                | 0.0078               | 0.0034                | 0.069 | 0.071 |
| Yarmouth                 | 0.137                | 0.094                | 0.057                | 0.030                | 0.0078               | 0.0034                | 0.082 | 0.075 |
| Prince Edward Island     |                      |                      |                      |                      |                      |                       |       |       |
| Charlottetown            | 0.103                | 0.077                | 0.051                | 0.028                | 0.0074               | 0.0032                | 0.060 | 0.066 |
| Souris                   | 0.091                | 0.073                | 0.049                | 0.027                | 0.0071               | 0.0031                | 0.052 | 0.062 |
| Summerside               | 0.133                | 0.089                | 0.055                | 0.029                | 0.0076               | 0.0032                | 0.082 | 0.075 |
| Tignish                  | 0.135                | 0.090                | 0.056                | 0.030                | 0.0076               | 0.0032                | 0.083 | 0.076 |
| Newfoundland             |                      |                      |                      |                      |                      |                       |       |       |
| Argentia                 | 0.098                | 0.079                | 0.052                | 0.029                | 0.0076               | 0.0032                | 0.056 | 0.066 |
| Bonavista                | 0.083                | 0.067                | 0.045                | 0.025                | 0.0065               | 0.0028                | 0.047 | 0.056 |
| Buchans                  | 0.077                | 0.064                | 0.044                | 0.024                | 0.0064               | 0.0028                | 0.043 | 0.054 |
| Cape Harrison            | 0.125                | 0.087                | 0.052                | 0.028                | 0.0071               | 0.0031                | 0.074 | 0.068 |
| Cape Race                | 0.108                | 0.085                | 0.055                | 0.030                | 0.0080               | 0.0034                | 0.062 | 0.071 |
| Channel-Port aux Basques | 0.088                | 0.071                | 0.048                | 0.026                | 0.0068               | 0.0030                | 0.050 | 0.059 |
| Corner Brook             | 0.074                | 0.062                | 0.043                | 0.024                | 0.0062               | 0.0027                | 0.042 | 0.052 |
| Gander                   | 0.077                | 0.064                | 0.044                | 0.024                | 0.0064               | 0.0027                | 0.044 | 0.054 |
| Grand Bank               | 0.115                | 0.090                | 0.057                | 0.031                | 0.0081               | 0.0035                | 0.067 | 0.074 |
| Grand Falls              | 0.076                | 0.064                | 0.044                | 0.024                | 0.0064               | 0.0027                | 0.043 | 0.054 |
| Happy Valley-Goose Bay   | 0.067                | 0.050                | 0.032                | 0.017                | 0.0044               | 0.0018                | 0.039 | 0.040 |
| Labrador City            | 0.067                | 0.052                | 0.035                | 0.019                | 0.0047               | 0.0020                | 0.038 | 0.042 |

Table C-3 (Continued)

| 2                                |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location            | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| St. Anthony                      | 0.073                | 0.057                | 0.038                | 0.021                | 0.0053               | 0.0022                | 0.041 | 0.047 |
| St. John's                       | 0.090                | 0.073                | 0.049                | 0.027                | 0.0071               | 0.0031                | 0.052 | 0.062 |
| Stephenville                     | 0.077                | 0.064                | 0.044                | 0.025                | 0.0064               | 0.0028                | 0.044 | 0.054 |
| Twin Falls                       | 0.064                | 0.047                | 0.030                | 0.016                | 0.0040               | 0.0017                | 0.037 | 0.036 |
| Wabana                           | 0.089                | 0.072                | 0.048                | 0.027                | 0.0071               | 0.0031                | 0.051 | 0.060 |
| Wabush                           | 0.067                | 0.052                | 0.035                | 0.019                | 0.0047               | 0.0020                | 0.039 | 0.042 |
| Yukon                            |                      |                      |                      |                      |                      |                       |       |       |
| Aishihik                         | 0.446                | 0.364                | 0.233                | 0.122                | 0.043                | 0.016                 | 0.218 | 0.255 |
| Dawson                           | 0.396                | 0.277                | 0.168                | 0.087                | 0.030                | 0.012                 | 0.185 | 0.174 |
| Destruction Bay <sup>(1)</sup>   | 1.54                 | 1.15                 | 0.666                | 0.330                | 0.119                | 0.038                 | 0.693 | 0.816 |
| Faro                             | 0.271                | 0.189                | 0.122                | 0.067                | 0.023                | 0.0091                | 0.126 | 0.125 |
| Haines Junction                  | 0.973                | 0.691                | 0.398                | 0.193                | 0.066                | 0.022                 | 0.467 | 0.452 |
| Snag                             | 0.502                | 0.394                | 0.254                | 0.138                | 0.052                | 0.019                 | 0.242 | 0.294 |
| Teslin                           | 0.284                | 0.202                | 0.129                | 0.073                | 0.025                | 0.0096                | 0.133 | 0.138 |
| Watson Lake                      | 0.304                | 0.214                | 0.125                | 0.061                | 0.020                | 0.0077                | 0.142 | 0.123 |
| Whitehorse                       | 0.334                | 0.258                | 0.170                | 0.094                | 0.033                | 0.012                 | 0.154 | 0.184 |
| Northwest Territories            |                      |                      |                      |                      |                      |                       |       |       |
| Aklavik                          | 0.475                | 0.321                | 0.183                | 0.089                | 0.029                | 0.011                 | 0.225 | 0.199 |
| Echo Bay / Port Radium           | 0.052                | 0.038                | 0.031                | 0.020                | 0.0068               | 0.0031                | 0.030 | 0.032 |
| Fort Good Hope                   | 0.257                | 0.197                | 0.128                | 0.068                | 0.024                | 0.0091                | 0.119 | 0.127 |
| Fort McPherson                   | 0.476                | 0.354                | 0.211                | 0.103                | 0.035                | 0.013                 | 0.225 | 0.223 |
| Fort Providence                  | 0.055                | 0.044                | 0.037                | 0.023                | 0.0077               | 0.0035                | 0.031 | 0.038 |
| Fort Resolution                  | 0.052                | 0.032                | 0.017                | 0.0072               | 0.0015               | 0.0008                | 0.030 | 0.021 |
| Fort Simpson                     | 0.154                | 0.134                | 0.090                | 0.047                | 0.016                | 0.0062                | 0.072 | 0.083 |
| Fort Smith                       | 0.052                | 0.031                | 0.016                | 0.0065               | 0.0013               | 0.0007                | 0.030 | 0.021 |
| Hay River                        | 0.053                | 0.034                | 0.025                | 0.016                | 0.0056               | 0.0025                | 0.031 | 0.028 |
| Holman/Ulukhaqtuuq               | 0.057                | 0.040                | 0.025                | 0.012                | 0.0031               | 0.0014                | 0.033 | 0.030 |
| Inuvik                           | 0.308                | 0.223                | 0.139                | 0.072                | 0.025                | 0.0094                | 0.145 | 0.149 |
| Mould Bay                        | 0.21                 | 0.120                | 0.070                | 0.037                | 0.010                | 0.0041                | 0.136 | 0.104 |
| Norman Wells                     | 0.688                | 0.445                | 0.238                | 0.105                | 0.031                | 0.011                 | 0.340 | 0.256 |
| Rae-Edzo                         | 0.052                | 0.036                | 0.029                | 0.019                | 0.0065               | 0.0030                | 0.030 | 0.031 |
| Tungsten                         | 0.325                | 0.238                | 0.143                | 0.070                | 0.023                | 0.0089                | 0.153 | 0.145 |
| Wrigley                          | 0.653                | 0.421                | 0.224                | 0.099                | 0.029                | 0.010                 | 0.319 | 0.241 |
| Yellowknife                      | 0.052                | 0.032                | 0.017                | 0.0070               | 0.0015               | 0.0008                | 0.030 | 0.021 |
| Nunavut                          |                      |                      |                      |                      |                      |                       |       |       |
| Alert                            | 0.145                | 0.083                | 0.044                | 0.021                | 0.0049               | 0.0020                | 0.091 | 0.062 |
| Arctic Bay                       | 0.111                | 0.080                | 0.052                | 0.028                | 0.0071               | 0.0031                | 0.066 | 0.066 |
| Arviat / Eskimo Point            | 0.054                | 0.037                | 0.022                | 0.0097               | 0.0021               | 0.0011                | 0.031 | 0.025 |
| Baker Lake                       | 0.068                | 0.048                | 0.029                | 0.014                | 0.0031               | 0.0014                | 0.039 | 0.035 |
| Cambridge Bay/Iqaluktuuttiaq     | 0.059                | 0.041                | 0.025                | 0.012                | 0.0025               | 0.0013                | 0.034 | 0.030 |
| Chesterfield Inlet/Igluligaarjuk | 0.081                | 0.054                | 0.031                | 0.015                | 0.0034               | 0.0015                | 0.047 | 0.042 |
| Clyde River /Kanngiqtugaapik     | 0.306                | 0.186                | 0.104                | 0.053                | 0.015                | 0.0056                | 0.195 | 0.162 |

Table C-3 (Continued)

| Province and Location     |                      |                      |                      | Seismi               | c Data               |                       |       |       |
|---------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|-------|
| Province and Location     | S <sub>a</sub> (0.2) | S <sub>a</sub> (0.5) | S <sub>a</sub> (1.0) | S <sub>a</sub> (2.0) | S <sub>a</sub> (5.0) | S <sub>a</sub> (10.0) | PGA   | PGV   |
| Coppermine (Kugluktuk)    | 0.053                | 0.031                | 0.016                | 0.0066               | 0.0013               | 0.0007                | 0.031 | 0.021 |
| Coral Harbour /Salliq     | 0.103                | 0.064                | 0.035                | 0.016                | 0.0037               | 0.0015                | 0.062 | 0.048 |
| Eureka                    | 0.173                | 0.106                | 0.065                | 0.035                | 0.010                | 0.0040                | 0.110 | 0.093 |
| lqaluit                   | 0.087                | 0.065                | 0.043                | 0.023                | 0.0058               | 0.0025                | 0.051 | 0.052 |
| Isachsen                  | 0.256                | 0.171                | 0.102                | 0.055                | 0.016                | 0.0061                | 0.162 | 0.158 |
| Nottingham Island         | 0.109                | 0.060                | 0.031                | 0.014                | 0.0030               | 0.0014                | 0.068 | 0.044 |
| Rankin Inlet (Kangiqiniq) | 0.064                | 0.045                | 0.027                | 0.013                | 0.0028               | 0.0014                | 0.036 | 0.034 |
| Resolute                  | 0.194                | 0.105                | 0.057                | 0.028                | 0.0069               | 0.0030                | 0.124 | 0.084 |
| Resolution Island         | 0.203                | 0.123                | 0.069                | 0.035                | 0.0092               | 0.0038                | 0.128 | 0.102 |

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# The Insulating Concrete Forms Manufacturers Association Prescriptive ICF Design for Part 9 Structures in Canada



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