## LOGIX INSULATED CONCRETE FORMS <br> DESIGN MANUAL (CAN)

## Build Anything Better. ${ }^{\text {TM }}$



## 1.0 - SYSTEM OVERVIEW

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## 1.1 - APPLICATION \& USE

Logix Insulated Concrete Forms are used to create solid reinforced concrete walls that are pre-insulated for use both above-and below-grade. Logix walls are particularly effective for residential, multi-residential, commercial, institutional, and industrial buildings.

Logix is available in a wide variety of special form units and accessories, including corners, brick ledges, straight panels, t-walls, pilasters, and knock-down forms permit the Logix system to be adapted to many different situations. Logix forms are available in 8 inch ( 203 mm ), 12 inch ( 305 mm ) and 16 inch ( 406 mm ) height for additional design flexibility. See Section "1.2-PRODUCT SPECIFICATION TABLE" on page 5.


## Typical ICF Components

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 1.1 - APPLICATION \& USE cont'd




## 1.2 - PRODUCT SPECIFICATION TABLE

Logix manufactures both assembled and unassembled insulated concrete form units. Logix assembled forms, known as "Logix PRO", are delivered to the job site as assembled form blocks. Logix unassembled forms (or knock-down forms), known as "Logix KD", are delivered to the job site in components that make up the form blocks - the form panels and KD Connectors. Logix KD are assembled on the job site.

Below is a summary of the types of Logix PRO and Logix KD forms available. However, contact a local Logix representative for availability of specific Logix products.

Logix PRO (assembled form blocks)

|  | DESCRIPTION |
| :--- | :--- |
| Logix Pro | White in color |
| Logix Pro Platinum ${ }^{3}$ | Offers higher R-value ${ }^{1}$ than Logix Pro. <br> Grey in color. Made with BASF Neopor. |
| Logix Pro TX | Logix Pro with termite resistant additive <br> Preventol $^{2}$. White in color. |
| Logix Pro Platinum ${ }^{3}$ TX | Logix Pro Platinum with Preventol. <br> Grey in color. |

Logix KD (unassembled form blocks)

|  | DESCRIPTION |
| :--- | :--- |
| Logix KD | White in color |
| Logix KD Platinum ${ }^{3}$ | Offers higher R-value ${ }^{1}$ than Logix KD. <br> Grey in color. Made with BASF Neopor. |
| Logix KD TX | Logix KD with termite resistant additive <br> Preventol $^{2}$. White in color. |
| Logix KD Platinum ${ }^{3}$ TX | Logix KD Platinum with Preventol. Grey <br> in color. |

Notes:

1. See Section 8.5 for Logix $R$-values.
2. Preventol is an effective termite resistant additive.
3. Care should be taken to protect exposed foam surfaces from reflected sunlight and prolonged solar exposure until wall cladding or finish material is applied. Shade exposed foam areas, or remove sources of reflective surfaces, where heat build up onto exposed foam might occur. For more information refer to BASF Technical Leaflet N-4 Neopor, "Recommendations for packaging, transporting, storing and installing building insulation products made from Neopor EPS foam." (The BASF Technical Leaflet is attached to every bundle of Logix Platinum forms delivered to a job site).

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 1.2 - PRODUCT SPECIFICATION TABLE cont'd

| LOGIX <br> FORM <br> PANELS | STANDARD |  |  |  |  | TAPER TOP |  |  |  |  | BRICK LEDGE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 只 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conc.Core Thickness | 4 | 6.25 | 8 | 10 | 12 | 4 | 6.25 | 8 | 10 | 12 | 4 | 6.25 | 8 | 10 | 12 |
| Width Top ${ }^{1}$ | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 | 13.375 | 15.625 | 17.375 | 19.375 | 21.375 |
| Width Bot. ${ }^{1}$ | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 |
| Form Type ${ }^{2}$ | KD/P | KD/P | KD/P | KD/P | KD | KD | KD/P | KD/P | KD/P | KD | KD/P | KD/P | KD/P | KD/P | KD |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conc.Core Thickness |  |  |  |  |  | 4 | 6.25 | 8 | 10 | 12 | 4 | 6.25 | 8 | 10 | 12 |
| Width Top ${ }^{1}$ |  |  |  |  |  | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 | 13.375 | 15.625 | 17.375 | 19.375 | 21.375 |
| Width Bot. ${ }^{1}$ |  |  |  |  |  | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 |
| Form Type ${ }^{2}$ |  |  |  |  |  | KD | KD | KD | KD | KD | KD | KD | KD | KD | KD |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Conc.Core Thickness |  |  |  |  |  |  |  |  |  |  | 4 | 6.25 | 8 | 10 | 12 |
| Width Top ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  | 17.25 | 19.5 | 21.25 | 23.25 | 25.25 |
| Width Bot. ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  | 9.5 | 11.75 | 13.5 | 15.5 | 17.5 |
| Form Type ${ }^{2}$ |  |  |  |  |  |  |  |  |  |  | KD | KD | KD | KD | KD |

1. Width at Top and Bottom is measured from outside face to outside face of forms.
2. "KD" and "P" denotes Logix KD (unassembled forms) and Logix PRO (assembled forms), respectively.

3. "KD" and "P" denotes Logix KD (unassembled forms) and Logix PRO (assembled forms), respectively.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 1.2 - PRODUCT SPECIFICATION TABLE cont'd



1. "KD" and "P" denotes Logix KD (unassembled forms) and Logix PRO (assembled forms), respectively.

2. Height of forms for Half Height Forms $=8$ inches

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 1.2 - PRODUCT SPECIFICATION TABLE cont'd

| V12 <br> Logix <br> FORM <br> PANELS | V12 STANDARD |  |  |  |  | V12 TAPER TOP |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 足 |  |  |  |  |  |  |  |  |  |  |
| Conc.Core Thickness | 4 | 6.25 | 8 | 10 |  | 4 | 6.25 | 8 | 10 | 12 |
| Width Top ${ }^{1}$ | - | 11.75 | 13.5 |  |  |  | 11.75 | 13.5 |  |  |
| Width Bot. ${ }^{1}$ |  | 11.75 | 13.5 |  |  |  | 11.75 | 13.5 |  |  |
| Form Type ${ }^{2}$ | - | KD/P | KD/P |  |  |  | KD/P | KD/P | - | - |


|  | V12 Left Hand Corner Form | V12 Right Hand Corner Form |
| :---: | :---: | :---: |
| Form Type ${ }^{1}$ | KD/P | KD/P |
|  |  |  |
| Form Type ${ }^{1}$ | KD/P | KD/P |
|  |  |  |
| Form Type ${ }^{1}$ | KD/P | KD/P |

1. Width at Top and Bottom is measured from outside face to outside face of forms.
2. "KD" and "P" denotes Logix KD (unassembled forms) and Logix PRO (assembled forms), respectively.

## 1.3 －ACCESSORIES



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## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.1 - INTRODUCTION

For builders who want a competitive edge, Logix offers solid products and friendly local service. Our products are designed to perform better in the field, providing trouble-free, profitable installations time after time.

Our technical team is ready to respond to your queries with practical advice on quick and efficient installation. With contractor training provided through our numerous regional technical support offices, help is always close at hand.

We are the most experienced ICF manufacturers in North America, manufacturing top quality products at our nine plants located throughout the United States and Canada.

For more information, or to contact a Logix representative, visit our website at www.Logixicf.com and click "Contact Us". You can also register online to receive Logix updates.

This manual will be updated regularly. Current updates will be available at www.Logixicf.com.

## 2.2 - USEFUL TOOLS \& MATERIALS

- Pruning saw
- Cordless drill
- Screws
- Hot knife
- Electric chainsaw
- Fiberglass-reinforced tape
- Step ladder
- Rebar bender/cutter
- Internal vibrator
- Contractor-grade foam gun
- Low expansion foam adhesive
- Approved scaffold planks
- Transit or laser
- 48" (1220mm) level
- Bolt cutters
- String line
- Chalk line
- Wall alignment system (safety compliant)
- 36 inch (914 mm) plastic zip ties, or Logix Vertical \& Horizontal Hooks
- Concrete embedments
- Window and door buck material
- Sleeves for wall penetrations

NOTE: For more information on Logix Vertical \& Horizontal Hooks see Technical Bulletin No. 20

## 2.3 - ACCURATE FOOTINGS \& SLABS

The first step to a successful Logix installation is an accurate footing or slab. This means a footing or slab that is:

- Code compliant
- Designed in accordance with construction drawings and specifications
- Designed taking into account soil conditions, seismic area, number of stories, building loads, and water tables.



## 2.4 - WALL LAYOUT

Accurate wall layout is critical to ensure a complete and profitable Logix project.
Verify that wall layout is in accordance with plans and specifications.
In addition to straight Standard forms, Logix provides $45^{\circ}$ and $90^{\circ}$ corner form blocks. However, Logix can be easily cut on-site to fit any corner angle or radius. See "2.7.8 - RADIUS WALLS" on page 26.

Snap chalk lines


## 2.5 - PRODUCT HANDLING \& PLACEMENT

There are several methods to efficiently handle Logix forms. Unlike most ICF systems, the consistent 2-3/4 inch (70 mm ) panel thickness on Logix forms means that handling damage is minimized.


## 2.6 - JOBSITE EFFICIENCY

An efficient jobsite means a faster and safer installation, and ultimately a higher quality finished project.

- Keep all materials and tools outside of the footing area until the chalk lines have been snapped and the wall layout is complete. Generally, construction is accomplished from within the perimeter of the structure.
- When wall layout is complete, place forms at least 7 feet $(2.134 \mathrm{~m})$ inside the perimeter of the footings or slab to accommodate the wall alignment system.

- Space skids of standard forms around the inside of the entire perimeter.

NOTE: When placing courses of forms, always take forms from the closest skid. This will eliminate the effects of normal manufacturing variations between skids.

- Periodic checking of dimensions ensures accurate wall construction.
- Additional materials that should be located within the perimeter:
- Window and door bucks
- Rebar (straight or pre-bent)
- Alignment system
- Approved scaffold planks
- Tools


## 2.7 - LOGIX WALL CONSTRUCTION

When a form is cut, it can be identified using bars and webs. For example, a cut form with three bars, two webs, and three bars will be referred to as a " $3-2-3$ ".


By establishing a logical form pattern that takes into account the building dimensions, maximum efficiency will be achieved. It is important that the building dimensions have a tolerance of $+/-1 / 2^{\prime \prime}$ inch ( 13 mm ) or a stacked vertical joint will result. Such joints are acceptable if dimensions necessitate but will require additional form support on both sides of the form.

When building dimensions are based on 4 feet ( 1.219 m ) increments, it is suggested to alternate between left- and right-hand corners within each course.


Alternating corner forms

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.1 - THE FIRST COURSE



STEP 1: Start first course at a corner and align with chalk line.


STEP 3: Secure forms end-to-end to maintain building dimensions using zip ties or Logix Hooks.
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STEP 2: Continue placing forms along the chalk line.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont’d



STEP 4: When forms are 4 ft or less from the second corner, place the second corner form.


STEP 5: Cut a Standard form to fit the space left between the corner and the previous Standard form.

At this point, determine if adjustments are needed to the building dimensions so the cut can be made on a line. If adjustments are needed, alter chalk lines accordingly.


If more than 3 bars are extending beyond any web, additional form support is required on both faces of the form.
STEP 6: Continue around the wall in this manner until the first course is complete and dimensions are verified.
Leave the first course of forms in place across door openings and low windows until forms have been placed and building dimensions have been verified to maintain the interlock pattern above openings.

STEP 7：Place necessary rebar in first course as specified and according to local code．
NOTE：Web ties are designed with＇rebar slots＇to provide secure placement of horizontal rebar，and allows for non－ contact lap splices．See＂2．8．2－HORIZONTAL \＆VERTICAL REINFORCEMENT＂on page 29.

STEP 8：Prior to starting the second course，install additional form support if required．


## 2．7．2－THE SECOND COURSE

STEP 1：Starting at the original corner，place appropriate corner form．When possible，alternate between left－and right－hand corners between courses．This will create a 16 ＂offset．

NOTE：It is necessary to firmly seat every form to the form below to minimize interlock settling．The interlock system is designed to secure forms betweens courses，which helps minimize form settling and movement during installation and concrete placement．

STEP 2：Continue placing forms around the wall，working in the same direction as the first course． Make sure to secure forms end－to－end，and between courses，with zip ties，Logix Hooks or foam adhesive．


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

(1)

STEP 3: All webs should line up vertically, except where building dimensions are other than 8 inch (203 mm ) increments. In this case, special cuts may be required to allow vertical alignment of webs. Webs are aligned when markers on the face of the form are vertically aligned.


STEP 4: Place necessary rebar after completion of second course.

NOTE: Web ties are designed with 'rebar slots' to provide secure placement of horizontal rebar, and allows for non-contact lap splices.


STEP 5: Form Lock can also be placed in the second course, if desired. Overlap Form Lock lengths by roughly 8 inch ( 203 mm ). Align the points of the zigzag pattern in the Form Lock directly above the webs.


STEP 6: Confirm that the wall is straight and level. If adjustment is required, shim or trim the bottom of the wall until level is achieved.

STEP 7: Use foam adhesive to fasten the straightened and leveled wall to the footing or slab. Insert the nozzle 1 inch ( 25 mm ) at the base of every other web along the chalk line, and shimmed and trimmed locations, and inject foam between the block and the footing.


When vertical joints are less than 8 inches ( 203 mm ) apart, additional form support is required.
It is important to note that at this point the wall pattern has been established. Course number 1 will be the pattern for all odd numbered courses ( $3,5,7$, etc.). Course number 2 will be the pattern for all even numbered courses.

Wall alignment system to be installed at some point between the second and fourth courses, at no more than 7 feet $(2.134 \mathrm{~m})$ intervals. See "2.11 - WALL BRACING \& ALIGNMENT SYSTEM" on page 44.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.3 - ADDITIONAL COURSES

Installation of additional courses is the generally the same as the second course, described in the previous section.
STEP 1: Fasten every corner end-to-end to adjoining forms using zip ties, Logix Hooks, or adhesive foam.
Install Form Lock, if desired, every fourth of fifth course after the second course.
STEP 2: After completion of each course, place necessary rebar as specified and according to local code.
STEP 3: Secure forms end-to-end in the top course to maintain building dimensions.
STEP 4: Secure the top course to the forms below on both sides to prevent tipping during concrete placement.


STEP 5: If additional stories are planned, the interlock needs to be protected prior to concrete placement.

When vertical joints are less than 8 inches ( 203 mm ) apart additional form support is required.
If you need to stack identical corners in subsequent courses, you will need to provide additional form support where the stacked joints are created.


Vertical stacked joints requires additional form support.

Hold all reinforcement back 2 inches ( 51 mm ) from door and window buck material to ensure proper concrete coverage.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.4 - CORNER BRICK LEDGE

Brick Ledge forms come only in straight units, so mitered cuts on site must be made to create corners with these blocks. Two methods can be used:

1. Freehand miter cutting.
2. Using a template.

NOTE: On a 6.25 inch ( 159 mm ) Logix Brick Ledge always start a miter cut in the middle of the first web beyond the corner form.

Extending a Brick Ledge block two webs beyond the corner block and making the cut will create a remaining piece that can be used for an inside corner elsewhere in the layout.


STEP 1: With the first Brick Ledge block, make a miter cut on the Brick Ledge panel.


STEP 3: With the second Brick Ledge block, make similar miter and butt-joint cuts.


STEP 2: With the first Brick Ledge block, make a buttjoint cut flush to the form below.


STEP 4: Place both cut Brick Ledge blocks to create the Brick Ledge $90^{\circ}$ corner.

## 2.7 - Logix WALL CONSTRUCTION cont'd



STEP 5: Secure the corner Brick Ledge with tape and foam.


STEP 6: Place rebar, as required, and remove foam from cavity where necessary.


DETAIL A

* $1 \mathrm{kN}=224.8 \mathrm{lb}$

See Section 6 -
Engineering in the LOGIX
Product Manual for
reinforcement details

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.5 - KNOCK-DOWN FORMS

Logix Knock-down forms (Logix KD) are designed to offer the same benefits as the Logix solid forms (Logix PRO). However, Logix KD forms also

- reduce shipping costs and inventory requirements
- accommodates tilt-up wall panel construction
- allows hassle-free assembly of forms around complex rebar patterns (i.e. stirrup or rebar cage pattern in walls)
- allows custom block configurations (i.e. Taper Top-Brick Ledge, etc...)

Knock-down ties (KD connectors) connect to the embedded furring tabs


Logix KD Standard Form - disassembled view.


Logix KD Standard Form - assembled view.

### 2.7.5.1 - PRODUCT HANDLING

There are several methods to efficiently handle Logix KD forms. The high foam density and consistent 2-3/4 inch (70 mm ) panel thickness on Logix KD means that handling damage is minimized.

The forms arrive on-site unassembled. KD Connectors and panels arrive on-site packaged in boxes and bundled in stacks, respectively.

### 2.7.5.2 - ASSEMBLING AND INSTALLATION

As the forms are assembled on-site they are stacked in place to form the walls. Stacking the blocks, including required tools and methods, are the same when using Logix Pro forms.

Top and bottom KD connectors are required for each furring tab.

Connectors are inserted with rebar slots facing up.



## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.5.3 - CORNER FORM SUPPORT

For any type of ICF knock-down system it is good practice to provide additional form support at the corners.
To ensure a safe and proper concrete pour the following corner form support is recommended:

- Using 2.5 inch ( 64 mm ) wood screws to fasten $2 \times 6$ vertically to the embedded furring tabs on both sides of the corner.
- For outside corners wrap steel strapping around the corners. For the bottom third of the concrete pour height evenly space two strappings for each course. Then one strap per course for the remaining pour height. Using 1.5 inch ( 38 mm ) wood screws the bands should attach to at least two furring tabs that
- For inside corners apply typical bracing as required.


Example of outside corner form support for KD forms.


Example of inside corner form support for KD forms.

### 2.7.6 - TEE WALLS

Wall T-junctions can be constructed using Logix T-walls, or by field-cutting Logix Standard forms.
Logix T-walls arrive to the job site assembled or disassembled. When assembled Logix T-walls provide sizes that are commonly used in construction. Each T-wall size comes in two different shapes, a long and short section, so that a running bond pattern is created when the T-wall forms are stacked.

Installation of Logix T-walls is straightforward. As with all Logix forms, the T-walls are stacked in the usual running bond pattern, and follows the same basic installation instructions detailed in "2.7-LOGIX WALL CONSTRUCTION" on page 10 .


| Logix T-wall <br> Sizes | Description |
| :--- | :--- |
| 4 to 6 | $4^{\prime \prime}$ connected to 6.25" Logix |
| 4 to 8 | $4^{\prime \prime}$ connected to $8^{\prime \prime}$ Logix |
| 4 to 10 | $4^{\prime \prime}$ connected to 10" Logix* |
| 4 to 12 | $4^{\prime \prime}$ connected to 12" Logix* |
| 6 to 6 | $6.25^{\prime \prime}$ connected to 6.25" Logix |
| 6 to 8 | $6.25^{\prime \prime}$ connected to 8" Logix |
| 6 to 10 | $6.25^{\prime \prime}$ connected to $10^{\prime \prime}$ Logix* |
| 6 to 12 | $6.25^{\prime \prime}$ connected to $12^{\prime \prime}$ Logix* |
| * Assembled without diagonal ties. |  |



## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.6.1 - FIELD-CUT T-WALLS

When necessary, t-walls can be made field cutting Standard forms, or straight blocks.


When the entire wall has been checked for plumb and square, apply foam adhesive to the butt joints, and install additional form support, as required.

Another option for building a t-wall is to construct the entire continuous wall first. This method requires preplanning to ensure there is adequate reinforcement at every course to allow the t-wall to be attached securely. All other steps above need to be applied.

### 2.7.7 - GABLE WALLS

The preferred method to construct a gable end is on the floor to be installed as a one-piece unit.


Make sure all necessary roof attachment hardware is available prior to concrete placement, as it must be installed during or immediately after the pour.

NOTE: Pieces of plywood can be screwed into the $1 \times 4$ s during placement to help contain the concrete.
Another option for constructing a gable wall is to assemble the gable in place. Set the pitch for the gable by marking the first course appropriately. Subsequent courses should follow this pattern.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.7 - Logix WALL CONSTRUCTION cont'd

### 2.7.8 - RADIUS WALLS

There are a number of different methods for creating radius walls with Logix. Below, is a guide that will create radius walls based on 8 inch segments of Logix.

NOTE: This process will result in vertically stacked joints, and additional form support will be required prior to concrete placement.

See "2.21 - RADIUS WALLS" on page 83, for radius wall tables.


STEP 1: Cut forms into 8" sections with web centered in each section.


STEP 3: Cut the 8 " section at the edges along the radius lines. Mark and cut all form sections using this template.


STEP 2: Mark radius lines for an $8^{\prime \prime}$ cut section.


STEP 4: Connect and secure sections with zip-ties, tapes and foam to create the first course. Repeat the steps for each additional course, and connect each with zip ties or Logix hooks.

### 2.7.9 - LOGIX D-RV

Logix $\mathrm{D}-\mathrm{Rv}^{\top \mathrm{M}}$ are 2 inch thick foam panels made with a drainage layer. It provides a quick and easy alternative to providing drainage with the added benefit of increasing the $R$-value of a Logix wall assembly.

(The drainage layer may be required, either by code or design, when a direct applied finish, such as stucco, is used on an exterior ICF wall).

Logix D-Rv can be installed into the Logix form blocks either before or while the form blocks are stacked to build the wall. This speeds up the construction process and eliminates the need to apply the drain layer to the exterior face after a Logix wall has been built.

Offsetting the vertical joints of the D-Rv™ panels with the vertical joints of the Logix forms will create a stronger, more rigid wall structure.

For more information contact your local Logix representative or see Technical Bulletin No. 36, Logix D-Rv™ in the Logix Technical Library.

## 2.8 - REINFORCEMENT

Reinforcing steel (rebar) strengthens concrete walls to help minimize cracking and buckling under load due to backfill, wind, and other loads. Rebar also helps control cracking due to temperature swings and shrinkage.


### 2.8.1 - BASIC REINFORCEMENT

- Reinforcing steel must meet the requirements of ASTM A615, ASTM A996, or ASTM A706 for low-alloy steel. Minimum of Grade 40 ( 300 MPa ).
- Reinforcing steel in a Logix wall must have minimum $3 / 4$ inch ( 19 mm ) concrete cover.
- Hold the reinforcement back from door and window openings by $2^{\prime \prime}$ ( 51 mm ), or as required by design, or local building codes.
- Refer to Section 6, Engineering for the Logix prescriptive engineering tables.
- It is the responsibility of the installer to verify table rebar specifications with local building codes and engineering specs.


### 2.8.2 - HORIZONTAL \& VERTICAL REINFORCEMENT

It is the responsibility of the installer to verify table rebar specifications to comply with local building codes and engineering specs.

Refer to Section 6 for Logix prescriptive engineering tables, and Section 5.2.1 for typical reinforcement details.



Rebar slots in the web ties allow for non-contact lap splices of horizontal rebar, the preferred method when creating lap splices.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.8 - REINFORCEMENT cont'd

### 2.8.3 - TYPICAL REINFORCEMENT AT OPENINGS

It is the responsibility of the installer to verify table rebar specifications to comply with local building codes and engineering specs.

Refer to Section 6 for lintel reinforcement tables, and lintel details.


### 2.8.4 - LINTELS

Appropriate lintel rebar should be placed in the proper sequence directly above doors and windows to carry loads over these openings.


Before placing forms across the top of door or window openings, rest the bottom lintel bar(s) on buck material.

NOTE: Form Lock can be installed across the entire length of the lintel span. In some cases it may be required to install top lintel rebar before installing Form Lock, in order to achieve necessary concrete cover.


Refer to Section 6 for lintel reinforcement tables, and lintel details.

## LOGIX® ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.9 - WINDOW \& DOOR BUCKS

Bucks provide attachment surfaces for windows and doors while holding back concrete from these openings during concrete placement. Mark the center and edges of openings as you place courses and cut blocks as needed.

Refer to the rough opening (R/O) dimensions for windows and doors. Provide for openings in the wall taking into consideration the thickness of the chosen buck material. See window and door manufacturer info for R/O dimensions.

Cross bracing is required for all window and door bucks approximately 18 inches ( 457 mm ) on center to help withstand the pressures of concrete placement.

Window and door openings within 4 feet ( 1.220 m ) of corners require additional horizontal strapping from corner to across the opening.

Prior to placing window or door buck, confirm that bottom lintel rebar has been installed.
Bucks can be made from EPS foam, lumber or vinyl. Logix Pro Buck, made of dense EPS foam, is recommended for use with Logix ICF.

### 2.9.1 - LOGIX PRO BUCK

Recommended for use with Logix ICF is the Logix Pro Buck system. Designed for Logix, Pro Buck creates a complete thermal break in window and door openings. And unlike wood and vinyl bucks, Pro Buck is light weight, faster and easier to install, while creating little job site waste. For more information refer to the Logix Pro Buck Installation Guide.

For efficiency, a table long enough to accommodate connecting and cutting Pro Buck sections together is recommended. This can be done by simply using a pair of sawhorses and a section of plywood, or $2 x$ lumber, such as $2 \times 10$ or $2 \times 12$ pieces.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.9 - WINDOW AND DOOR BUCKS cont’d

When the walls are built to the height of the opening installation of the Pro Buck can begin. The rough opening is measured between the Pro Bucks. Therefore, to account for the $1.5^{\prime \prime}$ thickness of Pro Buck, the opening in the Logix ICF wall should be cut $3^{\prime \prime}$ wider and 3 " taller than the rough opening.


STEP 1: Assemble Pro Buck for the jambs, and cut the lapped ends to fit the height of the opening minus $1.5^{\prime \prime}$, which is the thickness of the Pro Buck at the header.


STEP 3: Install Pro Buck at the sill. To avoid debris in the wall cavity, cut min. $4^{\prime \prime}$ port holes at $16^{\prime \prime}$ on center before placing in the opening.


Cut a $2 x$ to fit the width of the opening between the two Pro Buck jambs. The $2 x$ should be centered and fastened to the exposed Pro Buck furring strips before setting into place. This will stiffen the Pro Buck, and prevent excessive deflection when placed.

STEP 2: Install Pro Buck at the header. Cut the lapped ends to fit the entire width of the opening. The ends of Pro Buck will sit directly on the Pro Buck jamb pieces.


STEP 4: Continue installing forms above the opening. Use zip ties around the tie-back loop to secure the Logix forms to the Pro Buck at the header.

Once the Pro Buck pieces are placed in the opening add $2 x$ wood bracing, and Pro Buck Brackets, to secure the Pro Bucks during concrete placement. Wood screws are recommended when fastening wood bracing to Logix Pro Buck.

NOTE: Using a membrane flashing is recommended to cover the joints between Pro Bucks and the Logix blocks.


1. Internal furring strips are easy to locate as they are in the same spot as the exposed furring strips that run across the face of Pro Buck.
2. Wind Devil fasteners are available from www.wind-lock.com. Finishes such as stucco, or acrylic textured finishes can be applied directly over Wind Devil fasteners.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.9 - WINDOW AND DOOR BUCKS cont'd

Non-corrosive wood screws are recommended for the attachment of window or door frames. Inset or flanged windows and doors are fastened to the furring strips molded into the Logix Pro Buck. The furring strips are anchored into the concrete providing proper load transfer from the window/door to the concrete substrate.

To determine the fastener type and spacing for load rated windows and doors, withdrawal and lateral load resistance of specific fasteners are provided below.

## Direct Fastening to Furring Strips

|  | Allowable Withdrawal $^{1}$ | ${\text { Allowable } \text { Lateral }^{1}}^{\text {\#6 wood screw, min 1" long }}$ |
| :--- | :---: | :---: |
| \#8 wood screw, min 1.25" long | 30 lb | 72 lb |
| \#10 wood screw, min 1" long | 38 lb | 188 lb |

1. Withdrawal factor of safety $=5$, allowable lateral load based on the lesser of factor of safety of 3.2 or $75 \%$ of proportional limit. Based on independent fastener testing conducted by QAI Laboratories, in accordance with ASTM D1761, and ASTM E2634. and lateral load resistance of specific fasteners are provided below.

Direct Fastening of Logix Wall Plate

|  | Allowable Withdrawal $^{1}$ | Allowable Lateral $^{1}$ |
| :--- | :---: | :---: |
| $\# 8-18 \times 1{ }^{\text {" }}$ " long self-tapping screw | 102 lb | 142 lb |
| $\# 10-16 \times 1.5^{\prime \prime}$ long self-tapping screw | 106 lb | 171 lb |

1. Withdrawal factor of safety $=5$, lateral resistance factor $=0.5 \& 0.53$ for \#8 and \#10 screws, respectively. Based on independent fastener testing conducted by QAI Laboratories, in accordance with ASTM D1761, and ASTM E2634.

To insert Logix Wall Plate cut a narrow slit on the face of Pro Buck.



Bracing support for opening can support the Wall Plate during concrete placement.

Wall Plate at front face of Pro Buck reinforcement.

The Wall Plate securely anchors into the concrete core. When placed transversely to the opening holes punched in the Wall Plate allow for the placement of perimeter

Pro Buck can also be installed length wise along the opening and temporarily fastened to the furring strips at predrilled holes, if required.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.9 - WINDOW AND DOOR BUCKS cont'd

### 2.9.2 - TREATED PLYWOOD BUCK

Following are several methods for building bucks. Regardless of the method chosen, pre-planning is required to optimize chosen finish materials.

STEP 1: Rip 3/4 inch ( 19 mm ) treated plywood to full form width.
STEP 2: Rip treated $2 \times 4$ diagonally on table saw at $180^{\circ}$ angle.

STEP 3: Assemble buck with appropriate fasteners with $2 x 4 s$ creating a dovetail detail.
STEP 4: Assemble buck sides and top with access holes cut in bottom piece for placement of concrete. Two $2 x 4 s$ can also be used for the bottom to allow concrete placements.

STEP 5: Place pre-assembled buck in opening and fasten in place with foam adhesive. The buck can also be installed in opening as separate pieces.

STEP 6: Install temporary cross bracing to withstand concrete pressure. Attaching screws through the buck and into closest webs can provide additional buck support.

NOTE: Pressure treated wood for window bucks are normally required only if the bottom of the window buck frame is located at or below ground level. Check with local building codes to determine if your area requires pressure treated window bucks.


### 2.9.3 - SOLID WOOD BUCK

STEP 1: Choose appropriate wood product based on the dimension of the forms:

- 4" (102mm) form: $9.5^{\prime \prime}(241 \mathrm{~mm})$
-6.25" (159mm) form: $11.75^{\prime \prime}$ (298mm)
- 8" (203mm) form: 13.5" (343mm)
- 10" ( 254 mm ) form: 15.5" (394mm)

STEP 2: Cut top piece of buck to fit the width of the opening.
STEP 3: Cut sides of buck, remembering that the top piece rests on the side pieces.
STEP 4: Cut two $2 x 4 s$ for the bottom to allow concrete placement.
STEP 5: Assemble buck and place in opening.
STEP 6: Once the buck is in place, it must be centered and secured. This can be done by attaching $1 \times 4 \mathrm{~s}$ to the edges of the buck, extending the edge of the $1 \times 4$ over the foam to hold the buck firmly in place. Alternately, the buck can be secured with foam adhesive and tape.

STEP 7: Solid wood bucks will require additional concrete anchors to create a permanent attachment to the concrete.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 2.9 - WINDOW AND DOOR BUCKS cont'd

### 2.9.4 - RADIUS OPENINGS

Radius windows and doors can be assembled at the site with shortened pieces of Logix Pro Buck or lumber buck material.

STEP 1: Create the template for the radius opening with OSB or plywood that matches door or window rough opening.

STEP 2: Using template, draw outline of radius on wall, allowing for buck material thickness. Cut accordingly.

STEP 3: Cut buck material into approximately 4 inch ( 102 mm ) widths to create radius buck.
STEP 4: Cut side and bottom buck pieces. Leave openings in the bottom piece for concrete placement and consolidation.

[^0]2.9.5 - METAL JAMBS

Metal jambs are typically used in commercial applications. Many metal jamb companies will pre-bend jambs to fit Logix forms. Contact your local Logix representative for more details.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.10 - ADDITIONAL FORM SUPPORT

The time spent prior to concrete placement pays huge dividends in job efficiency, accuracy, and profitability.


Provide wood strapping on both sides of Logix at window and door openings less than 4 feet from a corner. Run strapping across opening. Fasten to embedded furring tabs, and bracing around openings.


Provide wood strapping on both sides of Logix when vertical joints are directly on top of each other, or offset between joints is less than 8 " between courses.


Wood strapping is required around window and door openings to maintain straightness. In addition, cross bracing with $2 \times 4$ supports is required inside window and door bucks to hold bucks in place and prevent sagging. Use foam adhesive on bucks to provide additional buck support.


Foam adhesive should be used to secure all Height Adjusters.


The top course and lintels should be secured with adhesive foam, zip ties, or Logix Horizontal and Vertical Hooks.


The middle of large openings should be vertically braced to prevent tipping.


All outside corners can be reinforced with tape, or wood strapping, and zip ties.


Radius walls should be secured with foam adhesive and flexible strapping material.

NOTE: All forms should be firmly seated to prevent settling.

### 2.11 - WALL BRACING \& ALIGNMENT SYSTEM

A bracing system provides support for the wall and acts an alignment system to keep the walls straight and plumb during concrete placement. Typically, the wall alignment system is installed on the inner side of the Logix wall, and installed after placing 2 to 4 courses of Logix forms (depending on wind and other conditions).


Recommended minimum spacing and bracing locations:

- no more than 2 feet ( 0.610 m ) from each corner or wall end, and every 7 feet ( 2.134 m ) or less thereafter, in accordance with OSHA/OHSA requirements.
- on either side of every door and window opening.
- along door and window openings that span more than 6 feet ( 1.829 m )

NOTES: Prior to concrete placement, make certain walls are aligned perfectly plumb, or leaning slightly inward. The wall must not lean out at all.

A string line must be used to achieve straight walls. See Section "2.7.3 - ADDITIONAL COURSES" on page 16.

Before, during and after concrete placement, the diagonal turnbuckle arm is used to adjust wall straightness to stringline.

Proprietary bracing systems are available through ICF dealers or bracing suppliers.
For tall wall bracing and alignment see Section 3.2, Tall Wall Bracing Systems.

### 2.12 - FLOOR CONNECTIONS

Any type of floor system can be easily integrated with Logix. For any questions or assistance, please contact your local Logix representative.

### 2.12.1 - LEDGER WITH ANCHOR BOLTS \& JOIST HANGERS




STEP 1: Snap chalk lines and cut openings for bolt locations.


STEP 3: Place concrete.


STEP 2: Install ledger with anchor bolts.


STEP 4: Install joist hangers.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.12 - FLOOR CONNECTIONS Cont’d

### 2.12.2 - STEEL ANGLE IRON LEDGER

When floor spans become very long or concrete topping is applied to the floor, a wood ledger may not be adequate to support floor loads. In this case a steel angle iron can be used in place of a wood ledger. The angle iron can support much more weight and also eliminates the need for joist hangers, as the floor system sits right on the angle.

To install an angle iron ledger follow the steps in Section "2.12.1 - LEDGER WITH ANCHOR BOLTS \& JOIST HANGERS" on page 45 , but use pieces of plywood to temporarily hold the bolts in place. After the pour drill and bolt on the angle iron. Local steel fabricators may be able to pre-drill your angle iron.

Another alternative is to pre-fabricate an angle iron with anchor bolts or nelson studs welded directly to the angle. The entire assembly is then cast in place. This application is described below.


STEP 2: Install $2 \times 4$ to support angle assembly.


STEP 3: Install strapping to support angle assembly.


STEP 4: Pour concrete and cast the assembly in place.

NOTE: It is code in some areas for the angle assembly to be primed.


STEP 5: After some curing place floor systems on the angle and establish layout. Once layout is complete fasten the floor joist to the angle iron, as specified. You may decide to attach a nailing surface to the bottom leg of the angle iron to nail joists to.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.12 - FLOOR CONNECTIONS Cont'd

### 2.12.3 - BRICK LEDGE FOR TOP \& BOTTOM CHORD BEARING SYSTEMS

The Logix Brick Ledge form can create a load bearing surface to support floor systems, including top and bottom chord bearing trusses or joists.


Top chord bearing on Logix Brick Ledge.


STEP 1: Install a course of Logix Brick Ledge, and place required reinforcement.


STEP 3: As concrete is placed, install embedments, as required.


Top chord bearing on Logix Brick Ledge.


STEP 2: When installing a course above the Logix Brick Ledge add additional form support to prevent tilting or separating.

NOTE: If the Logix block in the course above the Brick Ledge is of a smaller width than the Brick Ledge, additional form support will be required.

### 2.12.4 - LEDGER WITH SIMPSON BRACKET \& JOIST HANGERS

The ICFVL \& ICFVL-W ledger connector system from Simpson Strong-Tie is designed for mounting steel or wood ledgers on ICF walls.


STEP 1: Snap a chalk line to mark the bottom of the ledger and insert ICFVL brackets, as specified.


STEP 2: Secure the ICFVL brackets before placing concrete. Fastening strapping across the brackets or installing the ledgers prior to concrete placement will help ensure full concrete embedment of the ICFVL brackets.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.12 - FLOOR CONNECTIONS Cont’d



STEP 3: Place and consolidate concrete. Once set, slip the ICFVL-W or ICFVL-CW underneath the wood ledger and drive eight ICF-D3.25 screws through the ledger and into the ICFVL bracket. ICF-D3.25 screws are supplied by Simpson Strong-Tie.

For steel ledgers use four \#14 x 3/4" screws to attach the ledger to the ICFVL brackets. These screws are not supplied by Simpson Strong-Tie.


STEP 4: Connect the floor joists to the ledgers, as required.

NOTE: Industry studies show that hardened fasteners can experience performance problems in wet environments. Accordingly, use this product in dry environments only. In addition, due to its corrosive nature, treated lumber should not be used with this product.

Use extra caution when installing the hangers on both sides of a wall. Consult your local Simpson Strongtie rep or contact Simpson Strongtie at (800) 999-5099 prior to installation.

Complete technical data is available at www. strongtie.com
Simpson Strong-Tie Ledger Connector Loads \& Spacings

|  |  | Simpson Strong-Tie Ledger Connector Loads \& Spacings |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} 4 " \\ \text { LOGIXICF } \end{gathered}$ | $\begin{aligned} & 6 ", 8^{\prime \prime} \& 10 " \\ & \text { LOGIXICF } \end{aligned}$ | $\begin{gathered} 4 " \\ \text { LOGIX ICF } \\ \hline \end{gathered}$ | $\begin{aligned} & 6^{\prime \prime}, 8 " \& 10 " \\ & \text { LOGIX ICF } \end{aligned}$ | Spacing to Replace Anchor Bolts ${ }^{\text {3,4,6 }}$ |  |  |  |  |  |  |  |
| dger Type | Model No. | Allowable Vertical Resistance ${ }^{2}$ | Allowable Vertical Resistance ${ }^{2}$ | Factored Vertical Resistance | Factored Vertical Resistance | 1/2" Dia. Bolts at |  |  |  | 5/8" Dia. Bolts at |  |  |  |
| dger Type |  | $\begin{aligned} & \text { lbs } \\ & \text { (kN) } \end{aligned}$ | $\begin{aligned} & \hline \text { lbs } \\ & \text { (kN) } \end{aligned}$ | $\begin{aligned} & \text { Ibs } \\ & \text { (kN) } \end{aligned}$ | $\begin{aligned} & \hline \mathrm{lbs} \\ & \text { (kN) } \end{aligned}$ | $\begin{gathered} 12 " \\ (305 \mathrm{~mm}) \end{gathered}$ | 24" <br> (610mm) | $\begin{gathered} 36 " \\ (914 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} \hline 48 " \\ (1220 \mathrm{~mm}) \\ \hline \end{gathered}$ | $\begin{gathered} 12 " \\ (305 \mathrm{~mm}) \end{gathered}$ | 24" <br> ( 610 mm ) | $\begin{gathered} 36^{\prime \prime} \\ (914 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} \hline 48^{\prime \prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ |
| 2xD.Fir-L/SPF | ICFVL <br> w/ ICFVL-W | $\begin{aligned} & 1375 \\ & (6.12) \end{aligned}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{aligned} & 1890 \\ & (8.41) \end{aligned}$ | $\begin{gathered} \hline 2630 \\ (11.70) \end{gathered}$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $3^{\prime}-9^{\prime \prime}$ $(1143 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ |
| $13 / 4$ " LVL | ICFVL w/ ICFVL-CW | $\begin{aligned} & 1375 \\ & (6.12) \end{aligned}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{aligned} & 1890 \\ & (8.41) \end{aligned}$ | $\begin{gathered} 2630 \\ (11.70) \end{gathered}$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $\begin{gathered} 3^{\prime}-6^{\prime \prime} \\ (1067 \mathrm{~mm}) \end{gathered}$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ |
| (0.054") 16ga | ICFVL | $\begin{gathered} 1770 \\ (7.87) \end{gathered}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{gathered} 2435 \\ (10.83) \end{gathered}$ | $\begin{gathered} 2630 \\ (11.70) \end{gathered}$ | $\begin{gathered} 1^{1}-3^{\prime \prime} \\ (381 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 2^{\prime}-3^{\prime \prime} \\ (686 \mathrm{~mm}) \end{gathered}$ | -- | -- | $\begin{gathered} 1^{\prime} \\ (305 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} \text { '2 } \\ (610 \mathrm{~mm}) \end{gathered}$ | -- | -- |
| (0.068") 14ga | ICFVL | $\begin{gathered} 1770 \\ (7.87) \end{gathered}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{gathered} 2435 \\ (10.83) \end{gathered}$ | $\begin{gathered} 2630 \\ (11.70) \end{gathered}$ | $1^{\prime}$ $(305 \mathrm{~mm})$ | $2^{\prime}$ $(610 \mathrm{~mm})$ |  | -- | $\begin{gathered} 9^{\prime \prime} \\ (229 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 1^{\prime}-6 " \\ (457 \mathrm{~mm}) \end{gathered}$ | -- | -- |


|  |  | $\begin{gathered} 4 " \\ \text { LOGIX ICF } \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 6^{\prime \prime}, 8^{\prime \prime} \& 10^{\prime \prime} \\ & \text { LOGIX ICF } \\ & \hline \end{aligned}$ | $\begin{gathered} 4^{\prime \prime} \\ \text { LOGIX ICF } \end{gathered}$ | $\begin{aligned} & \hline 6^{\prime \prime}, 8^{\prime \prime} \& 10^{\prime \prime} \\ & \text { LOGIX ICF } \end{aligned}$ | Spacing to Replace Anchor Bolts ${ }^{3,4,6}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model No | Allowable Vertical Resistance ${ }^{2}$ | Allowable Vertical Resistance ${ }^{2}$ | Factored Vertical Resistance | Factored Vertical Resistance | 2-5/8" Dia. Bolts at |  |  |  | 3/4" Dia. Bolts at |  |  |  |
|  |  | lbs (kN) | lbs <br> (kN) | lbs (kN) | lbs $(\mathrm{kN})$ | $\begin{gathered} 12 " \\ (305 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 24 " \\ (610 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 36 " \\ (914 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} \hline 48^{\prime \prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 12 " \\ (305 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 24 " \\ (610 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 36^{\prime \prime} \\ (914 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 48^{\prime \prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ |
| 2xD.Fir-L/SPF | ICFVL w/ ICFVL-W | $\begin{aligned} & 1375 \\ & (6.12) \end{aligned}$ | $\begin{aligned} & 1894 \\ & (8.42) \end{aligned}$ | $\begin{aligned} & 1890 \\ & (8.41) \end{aligned}$ | $\begin{gathered} \hline 2630 \\ (11.70) \end{gathered}$ | 1' $^{\prime}-9^{\prime \prime}$ $(533 \mathrm{~mm})$ | $\begin{gathered} 3^{\prime}-99^{\prime \prime} \\ (1143 \mathrm{~mm}) \end{gathered}$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $3^{\prime}-6^{\prime \prime}$ $(1067 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ | $4^{\prime}$ $(1220 \mathrm{~mm})$ |
| $13 / 4$ " LVL | ICFVL <br> w/ ICFVL-CW | $\begin{aligned} & 1375 \\ & (6.12) \end{aligned}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{aligned} & 1890 \\ & (8.41) \end{aligned}$ | $\begin{gathered} 2630 \\ (11.70) \end{gathered}$ | $\begin{gathered} 1^{\prime}-9^{\prime \prime} \\ (533 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 3^{\prime}-6^{\prime \prime} \\ (1067 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 4^{\prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 4^{\prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 2^{\prime}-9^{\prime \prime} \\ (838 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 4^{\prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 4^{\prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ | $\begin{gathered} 4^{\prime} \\ (1220 \mathrm{~mm}) \end{gathered}$ |
| (0.054") 16ga | ICFVL | $\begin{gathered} 1770 \\ (7.87) \end{gathered}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{gathered} 2435 \\ (10.83) \end{gathered}$ | $\begin{gathered} 2630 \\ (11.70) \end{gathered}$ |  |  | -- | -- |  |  | -- | -- |
| (0.068") 14ga | ICFVL | $\begin{gathered} 1770 \\ (7.87) \end{gathered}$ | $\begin{gathered} 1894 \\ (8.42) \end{gathered}$ | $\begin{gathered} 2435 \\ (10.83) \end{gathered}$ | $\begin{gathered} 2630 \\ (11.70) \end{gathered}$ |  | -- | -- |  |  | -- |  |  |

Allowable lateral load $=1905 \mathrm{Ibs}(8.47 \mathrm{kN})$ (Applicable to all form sizes).
$1 \mathrm{kN}=224.8 \mathrm{lbs}=102 \mathrm{Kg}$

1. Minimum steel ledger specification is $F y=33 \mathrm{ksi}(230 \mathrm{MPa})$ and $\mathrm{Fu}=45 \mathrm{ksi}(310 \mathrm{MPa})$ in accordance with CSA S136-94 2. No load duration increase is allowed.
2. Spacing is based on vertical load only. 5. Minimum concrete compressive strength, f'c, is $2500 \mathrm{psi}(17.25 \mathrm{MPa})$.
3. The designer may specify different spacing based on the load requirements.
4. For more information contact Simpson Strongtie at www.simpsonstrongtie.co
Note: Industry studies show that hardened fasteners can experience performance problems in wet environments. Accordingly, use this product in dry environments only.
In addition, due to its corrosive nature, treated lumber should not be used with Simpson Strongties.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.12 - FLOOR CONNECTIONS Cont'd

### 2.12.5 - TRANSITION LEDGE

A transition ledge typically occurs at the floor level where a wider Logix wall transitions to a narrower Logix wall above the floor line, and usually up to the roof line.


The ledge created when transitioning from a wider to a narrower wall can provide a suitable bearing length for many types of floor systems. The bearing length will vary depending on the thickness and type of Logix forms used. For a complete list of bearing lengths see Section 5.4.1, Bearing Lengths.

### 2.12.5.2 - TRANSITION LEDGE WITH CORNER BLOCKS

Transitioning from a wider block to a narrower block is commonly used in cases where a thinner wall becomes more economical (i.e., below grade wall to above grade wall), or to create a ledge that can support a floor or roof system, or finishes such as brick veneer.

When transitioning at corner locations using corner blocks, you might find that the interlocking knobs on the top side of the wider bottom block (bottom course) do not interlock or align with the underside of the top narrower block (top course). As a result, the top course will not sit or snap into its proper position.

This typically occurs in transitions at corner locations, and is easily resolved by following a few simple steps outlined below.


Proper alignment of top course to bottom course. Interlock aligns with underside of top course.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.12 - FLOOR CONNECTIONS Cont’d



STEP 1: Cut the interlocks off the wider corner blocks (it may be necessary to cut the interlocks off the rest of the blocks on the bottom course to ensure the top course can be placed flush on top of the previous course).
As an alternative, Taper Top blocks for the bottom course can be used. The Taper Tops provide more flexibility since they can be adjusted to ensure the interlocks align with the top course.


STEP 3: Install the top course beginning with the corner block and continuing around the building perimeter.

### 2.12.6 - TAPER TOP WITH SILL PLATE

The Taper Top form creates a greater bearing surface at the top of Logix walls.



STEP 1: Taper Top forms need to be foamed down or otherwise secured to the course below.


STEP 2: Trowel concrete flush with top of forms, or inset as required. Be sure to check for level.

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STEP 3: Insert embedments as required.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.12 - FLOOR CONNECTIONS Cont'd

### 2.12.7 - CONCRETE FLOOR SYSTEMS

Building with Logix will allow you to explore many concrete floor system options. Our walls are stronger and can support added weight that wood or steel frame buildings may not. Concrete floor systems are very popular in multi-residential buildings where the transmission of sound and fire are a concern. They are also growing in popularity in single-family residential applications.

### 2.12.7.1 - PRECAST CONCRETE FLOORS

Pre-cast floor systems are poured at the factory and shipped to site then craned in place. They are usually tensioned with steel cables cast in the concrete to provide maximum strength. Pre-cast floor are fast and can have very long clear spans.

Typically the Logix wall is constructed to the desired height and the pre-cast planks sit directly on the cured concrete. The planks, typically 4 feet ( 1.220 m ) wide, are craned in place and the groves between planks are


### 2.12.7.2 - COMPOSITE FLOOR SYSTEMS

Composite floors are a combination of steel and concrete that is bonded together to create a very strong floor allowing for longer spans and wider joist spacings.

There are a number of brands designed for ICFs including Hambro, iSpanEcospan and Total Joist. Consult your floor manufacturer and your local design engineer for more information.


### 2.13 - ROOF CONNECTIONS

Roof connections can be attached to the Logix wall in a variety of ways. Several factors can affect which method to use such as area of the country and wind conditions. There are a number of tie-down options made by Simpson Strong-Tie, including brands designed for ICFs, such as Burmon tie-down systems.


INSET SILL PLATE
This method of sill plate attachment is the most energy efficient. The Logix foam on each side provides an excellent thermal barrier.


TIE-DOWN TO CONCRETE
This method anchors the roof truss to the concrete.


TOP MOUNTED SILL PLATE
This method is typically used when additional wall height is required.


TIE-DOWN TO SILL PLATE
This method anchors the roof truss to the sill plate. (Burmon Anchor Tie-down)

### 2.14 - SERVICE PENETRATIONS

Identify and size all service and utility penetrations. Install all appropriate and properly sized sleeves where required, remembering that lightweight sleeves can be crushed during concrete placement.

List of possible service penetrations

- Dryer vent
- Water heater vent
- Water
- Sewer
- Electrical main service
- Gas line
- A/C line
- Furnace vent
- Air Exchange/HRV
- Central vacuum
- Ducting
- Bathroom vent
- Kitchen appliance venting
- Fireplace rough opening and vent
- Pet door


Cut appropriate sized holes for penetrations.


Install all required services through the ICF prior to concrete placement, and secure with spray foam.

### 2.15 - CONCRETE PLACEMENT

### 2.15.1 - PRE-PLACEMENT CHECKLIST

DATE:
FOREMAN:
JOB:
Prior to placing concrete in Logix insulated concrete forms, be certain to mark off each item on the checklist provided in this section.
__ 1. String line in place around the top of entire perimeter?
___ 2. Walls straight and plumb (not leaning out)?
_ 3. Top course foamed or tied down with zip ties or Logix Hooks end to end to maintain dimensions?
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山
$\Sigma$
$\qquad$ 11. All buck concrete anchors installed?
___ 12. All horizontal and vertical rebar in place?
13. All lintel reinforcing in place?
14. All penetrations installed?
15. All beam pockets in place?
16. All floor embedments installed?
_17. Are anchor bolts and hold-downs on site?
18. Has cavity of wall been checked, and foreign material removed?
19. Plywood, screw gun, and saw on site?
20. Interlock protected by tape, or other covering?
21. Proper concrete mix and slump ordered?
22. Concrete vibrator on site?
23. Pump equipped with reducer or 2 1/2" trimmer hose available?

### 2.15.2 - MIX DESIGN

Minimum compressive concrete strength is typically $3,000 \mathrm{psi}(20 \mathrm{MPa})$ at 28 days. However, this will depend on the structure and loading conditions. For seismic areas mix design should be confirmed with local codes or by an engineer.

The following maximum aggregate sizes are recommended for use in Logix walls:

|  | Form Cavity Size, in. (mm) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $4(102)$ | $6.25(159)$ | $8(203)$ | $10(254)$ | $12 *(305)$ |
| Max. <br> Aggregate <br> Size, in. (mm) | $3 / 8(9.5)$ | $3 / 8(9.5)$ <br> to $1 / 2(13)$ | $3 / 4(19)$ | $3 / 4(19)$ | $3 / 4(19)$ |

Always consult your local ready mix companies for appropriate concrete mix design.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.15 - CONCRETE PLACEMENT Cont'd

### 2.15.3 - BEST PRACTICES

The most important stage of a successful Logix project is the concrete placement. Extra workers at this stage are important - be certain to have enough on hand during the pour to safely handle placement, consolidation, alignment, embedments, and cleanup.

An experience crew ensures the concrete is properly placed and consolidated. The following are recommended practices and considerations when placing concrete.

- Concrete slump should be 5 inch $(127 \mathrm{~mm})$ to 6 inches $(152 \mathrm{~mm})$ for best results.
- Use an internal vibrator with a head size of $3 / 4$ inch ( 19 mm ) to 1 inch $(25 \mathrm{~mm})$ and maximum 1 hp motor. Do not use a vibrator with a head larger than 1 inch ( 25 mm ).
- Appropriate internal vibration assures the strongest walls possible and is especially important for below grade application where the greatest loads occur.
- The rule of thumb for internal vibration is fast in and slow out, always moving, with a withdrawal rate of approximately 3 inch ( 76 mm ) per second.
Other methods of placement include conveyor truck, crane and bucket, and directly off the ready mix truck.
- Lift height is determined by many factors, such as air temperature, concrete temperature, slump, etc. In general, lift heights should not exceed $4 \mathrm{ft}(1.220 \mathrm{~m}$ ) per hour.
- When placing concrete below freezing or at temperatures above $100^{\circ} \mathrm{F}\left(38^{\circ} \mathrm{C}\right)$, it's important to protect all exposed concrete with insulation.
- When placing concrete in 4 inch ( 102 mm ) forms, it is recommended that the pump truck be fitted with a 2.5 inch ( 76 mm ) flexible hose end.


### 2.15.4 - PLACING CONCRETE

STEP 1: Complete the pre-placement checklist.


STEP 2: Begin concrete placement under openings, filling those areas and consolidating.


STEP 3: Beginning no closer than 3 feet ( 0.914 m ) from a corner, start filling the wall from the top, allowing the concrete to flow gently toward the corner. Then fill in that corner from the opposite side using the same technique.

STEP 4: Continue placing concrete around entire wall in appropriately sized lifts, using the same technique at each corner to minimize fluid pressure.

STEP 5: As the concrete is being placed, consolidation is taking place to remove air and voids to ensure structural integrity.


STEP 6: Check and adjust wall alignment using string lines and turnbuckles.


STEP 7: Return to starting location and begin the next lift. Follow all the techniques established above.

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## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.15 - CONCRETE PLACEMENT Cont'd

### 2.15.5 - POST-PLACEMENT CHECKLIST

DATE:
FOREMAN:
JOB:
After placing concrete in Logix insulated concrete forms, be certain to mark off each item on the checklist provided in this section.
$\qquad$ 1. Has consolidation been completed?
$\qquad$ 2. Are walls straightened to string line?
$\qquad$ 3. In extreme temperatures, has exposed concrete been protected?
$\qquad$ 4. Have all anchors and embeds been installed?
$\qquad$ 5. Has spilled concrete been disposed of?
$\qquad$ 6. Has final check for straight and plumb been done?

### 2.16 - ELECTRICAL INSTALLATIONS

Electrical and plumbing installation are typically performed after concrete placement.
The exception to this rule is the placement of conduit that penetrates the wall, which must be performed before concrete placement.

Installing electrical wiring and boxes is accomplished by creating channels in the EPS foam. When installed in Logix walls directly against the concrete, electrical boxes will extend $1 / 2$ inch ( 13 mm ) beyond the foam to match the thickness of $1 / 2$ inch ( 13 mm ) sheetrock.


Various tools can be used to create the channels and spaces for wiring and boxes:

- Electrical chainsaw with an adjustable roller depth stop
- Hot knife
- Circular saw with a masonry blade

Make the wiring channels narrow so there will be a friction fit with the wiring. The wiring needs to remain embedded well into the foam to meet local electrical codes. Foam adhesive can be spot-applied into the channel to help hold the wiring in place.

### 2.17 - PLUMBING INSTALLATIONS

In most cases, buildings are designed so plumbing pipes are not carried through the Logix walls, except for utility entry and exit points.

However, in some cases it may be required to embed pipe in the EPS. For example, a kitchen vent tube may need to be installed vertically in the EPS foam. Pipes embedded in the foam cannot exceed 1-1/2 inch ( 38 mm ) in diameter. Fittings embedded in the foam cannot exceed 2-1/2 inch ( 64 mm ) diameter.

An external faucet will require the installation of a hose sleeve through the wall prior to concrete placement. This will permit replacement of the faucet or pipe should it ever be necessary.

If connecting to existing sewer lines, establish the location of the required opening and ensure clearances, since this is difficult to change.


### 2.18 - INTERIOR \& EXTERIOR FINISHES

### 2.18.1 - VAPOR \& AIR BARRIERS

The Logix wall assembly has no need for an additional vapor barrier, the solid concrete core covered with the low permeance EPS foam insulation on the inside wall face keeps water vapor from penetrating the wall.

The fact that the inner face of EPS foam maintains a similar temperature as the inside air of the building and that a Logix wall has no cavity means that no condensation can occur in a Logix wall assembly.

The Logix wall assembly has no need for an air barrier (building wrap) layer as the solid concrete core and low permeance EPS foam insulation on the outside wall face keeps air and moisture from penetrating the wall.


Typical Logix wall assembly - no additional vapor barrier, house wrap and air barrier required.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.18 - INTERIOR \& EXTERIOR FINISHES cont'd

### 2.18.2 - INTERIOR DRYWALL

Drywall should be installed in the same manner on a Logix wall as on a stud wall, with the following time-saving exceptions:

- All furring tabs (studs) are on 8 inch ( 203 mm ) centers from floor to ceiling for easy attachment of any type of interior wall finish.
- The butt joints of the sheetrock do not need to fall on webs (studs) as the foam provides solid backing wherever the joints fall. However, the edge of sheetrock panels should not exceed more than 4" from webs.
- A foam-compatible adhesive can be used to effectively fasten the sheetrock to the Logix wall along with screws. Always make sure to verify the local code for types and spacing for sheetrock fasteners. Typically, adhesive alone is not allowed as a fastener of sheetrock, but again check with local building codes.

Many local building codes require the application of $1 / 2$ inch $(13 \mathrm{~mm})$ drywall or other suitable thermal barrier in any living space even though the EPS foam has a fire retardant component. Always verify local building code requirements.

Non-habitable spaces such as crawl spaces, attics, and other types of hidden areas typically do not require a thermal barrier (drywall).

Embedded furring tabs are fixed at each corner of the Logix $90^{\circ}$ corner forms for solid sheetrock fastening at all corners.


### 2.18.3 - EXTERIOR SIDING

Siding material of some kind must be installed over the EPS foam to protect it from the UV rays of the sun. Foam left exposed to the sun will slowly develop a dusty surface.

NOTE: When using Logix Platinum Series care should be taken to protect exposed foam surfaces from reflected sunlight and prolonged solar exposure until wall cladding or finish material is applied. Shade exposed foam areas, or remove sources of reflective surfaces, where heat build up onto exposed foam might occur. For more information refer to BASF Technical Leaflet N-4 Neopor, "Recommendations for packaging, transporting, storing and installing building insulation products made from Neopor EPS foam." (The BASF Technical Leaflet is attached to every bundle of Logix Platinum forms delivered to a job site).

Metal and vinyl siding can be installed directly over the top of the EPS.
Although air guns can be used, Logix recommends the use of screw guns when attaching exterior siding. Always follow manufacturer's recommendations and local codes to determine the size and spacing of fasteners for all siding products.

Any type of siding that is used on a typical wood-framed building can be used on a Logix building.
The siding channel stock around doors and windows can be fastened to whatever type of buck material was chosen, in a similar fashion as wood framed building.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.18 - INTERIOR \& EXTERIOR FINISHES cont'd

### 2.18.4 - STEEL PANEL SIDING

Steel panel siding can be applied vertically to a Logix wall when the style of the panel matches the Logix web spacing at 8 inch ( 203 mm ) on center increments for fastening purposes.


When a panel siding is chosen that doesn't fit with 8 inch ( 203 mm ) increment for fastening, two different methods are available:


Typical Logix wall assembly - Metal Panel Siding with strapping
METHOD 1: A $1 / 2$ inch $(13 \mathrm{~mm})$ or $3 / 4$ inch ( 19 mm ) strip of wood can be attached horizontally to the webs in the wall to provide the manufacturer's specified fastener spacing.


Typical Logix wall assembly - Metal Panel Siding placed horizontally. METHOD 2: The panels can be installed horizontally, by fastening directly into the webs.

NOTE: Although air guns can be used, Logix recommends the use of screw guns when attaching exterior siding. Always follow manufacturer's recommendations and local codes to determine the size and spacing of fasteners for all siding products.

### 2.18.5 - WOOD SIDING

Any wood siding can be attached to the Logix wall in the same manner as to a traditional framed building. The spacing of the web studs on 8 inch ( 203 mm ) centers allows for industry standard spacing of fasteners. Typically, screws are used for attaching wood siding or even half-log siding to the Logix wall.

Although air guns can be used, Logix recommends a screw gun with screws in clips (Quik Drive). This is usually the fastest method for applying wood siding. Always follow manufacturer's recommendations and local codes to determine the size and spacing of fasteners for all siding products.

A good practice for installing wood siding on a wall, is to apply the siding over vertical 1 inch $\mathbf{x} 2$ inch ( $25 \mathrm{~mm} \times 51$ mm ) wood nailing strips with a screen at the bottom. The screen keeps insects out while the space allows air to circulate behind the siding. The air circulation helps equalize the moisture content in the wood siding, which makes for much more dimensionally stable siding and longer lasting application.


Typical Logix wall assembly - Wood Siding.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.18 －INTERIOR \＆EXTERIOR FINISHES cont＇d

## 2．18．6－EIFS

There are now acrylic－based stucco products available that are more flexible and easier to work with than traditional cement－based stucco．Collectively these products are known as EIFS（Exterior Insulation Finish Systems）and almost always require an EPS substrate．

Because Logix blocks are made with EPS，they are a natural fit for EIFS finishes．In addition，the webs in Logix blocks are embedded $1 / 2$ inch（ 13 mm ）deep in the EPS foam to comply with EIFS manufacturer requirements．

It is important to follow the EIFS manufacturer＇s application procedures．


Typical Logix wall assembly－EIFS example．Consult EIFS manufacturer for recommended application procedures．．

### 2.18.8 - CEMENT COMPOSITE SIDING

Recently the new cement fiber siding products have gained popularity. This type of siding can usually be fastened directly to the Logix webs.

Although air guns can be used, Logix recommends a screw gun to fasten flat-headed exterior screws at 16 inch (406 mm ) centers. The screws pull the siding in tight and hold the siding securely in place.

Some manufacturers may require the siding to be strapped out to allow air space behind. Vertical or shake patterns will require strapping for fastening. See illustrations in Section 2.18 .4 and 2.18 .5 for strapping examples.

Always follow manufacturer's recommendations and local codes to determine the size and spacing of fasteners for all siding products.

Check with your siding manufacturer for specific requirements.

Furring tabs are embedded 1/2" from surface of Logix foam panels and are anchored into the concrete.

Furring tabs are spaced 8 " on center horizontally — and run nearly the entire height of Logix ICF blocks.


Typical Logix wall assembly - Cement fibre siding installed horizontally.

### 2.18 - INTERIOR \& EXTERIOR FINISHES cont'd

### 2.18.9 - BRICK VENEER

The Logix Brick Ledge form units are used to support a brick veneer as the exterior finish material. The Brick Ledge forms are simply placed at a level where the brick is desired to begin. The design of the form creates a reinforced concrete ledge.

With standard reinforcing, the Brick Ledge can bear up to $1300 \mathrm{lb} / \mathrm{ft}(19 \mathrm{kN} / \mathrm{m})$ of wall.


### 2.18.10 - BELOW GRADE WATERPROOFING, DAMPPROOFING \& PARGING

There are many methods available to protect the "below grade" and the "just above grade" areas of the exterior of your building.

Dampproofing is used on concrete or masonry surfaces to repel water in above grade walls. The 2.75 inch ( 70 mm ) foam panels of the Logix insulated concrete forms act as dampproofing, therefore, no additional dampproofing treatment is required.

NOTE: Although dampproofing above grade walls is not typically required, check with local building codes for dampproofing requirements.


### 2.18.10.1 - BELOW GRADE WATERPROOFING

Logix recommends a rubberized "peel and stick" waterproofing membrane. The membrane is applied vertically to the wall from grade level down to and overlapping the top of the footing. It is recommended to use protection board, such as $1 / 2$ inch rigid foam boards, or drainage boards, to prevent damage to the waterproofing membrane during backfilling.

Proper free-draining backfill material is recommended for below-grade walls.
NOTE: Membrane should be installed within one week prior to backfill being placed. Sunlight and high temperatures may cause the membrane to begin to "sag" which may cause wrinkles in the material. This may result in tears or punctures during the placement of the backfill material. Should you choose to use one of the many other types of waterproofing available be sure to follow the manufacturer's recommended installation procedures.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.18 - INTERIOR \& EXTERIOR FINISHES cont'd

### 2.18.10.1 - BELOW GRADE WATERPROOFING

STEP 1: Prep the wall and footing area to be covered by removing all dirt and debris. If the ICF foam panels have been subjected to prolonged UV exposure a chalky layer of dust will develop on its surface. Be sure to remove the dust layer by sweeping the surface with a broom.

STEP 2: Snap chalk lines for the "grade" line.
STEP 3: Measure the height from grade line to footing. Add enough length to cover the top of the footing and cut pieces of membrane to length.


STEP 4: Apply the membrane at corners first. Hang the membrane vertically, and starting at the top pull back the first $8^{\prime \prime}$ to $10^{\prime \prime}$ of the release paper and press. Continue pulling back the release paper and pressing the membrane to the wall. Make sure to wrap the corners with the membrane.


STEP 5: Starting at a corner continue applying cut pieces of membrane around the wall, maintaining 2 inch overlap by using the printed marks on the membrane as a guide.

NOTE: Extreme temperatures, both cold and hot, may cause the installer to consider other types of waterproofing. Be sure to follow the manufacturer's installation process.

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### 2.18.10.2 - ABOVE GRADE PARGING

The area that is above grade line and below the exterior siding material must be parged to protect the EPS from damage.

Parging is a coating material that is applied to give a finished appearance to the small area of wall that is above grade level but below where the siding materials will begin. Logix Prepcoat is the preferred option for this area.

STEP 1: Prep the wall area to be covered by removing any dirt or debris. The wall may need to be "scuffed" to reveal fresh EPS beads.

STEP 2: Mix Prepcoat dry material with water to a pasty consistency.
STEP 3: Using a trowel apply a thin, $1 / 16$ " $-1 / 8$ " ( $2 \mathrm{~mm}-3 \mathrm{~mm}$ ) "skim coat" of Prepcoat.
STEP 4: Pre-cut pieces of Logix fiber mesh $1^{\prime \prime}-2^{\prime \prime}(25 \mathrm{~mm}-51 \mathrm{~mm})$ wider than the area to be parged. This will allow for an over-lap over the waterproofing membrane to create a "drip ledge".

STEP 5: Embed the mesh in the skim coat firmly.
STEP 6: Once the area is dry to the touch apply a second coat of Prepcoat. This coat can be painted or stained if desired.


### 2.19 - ATTACHING FIXTURES

For attaching fixtures Logix provides furring tabs spaced every 8 inches, which provides more fastening points than stud walls.


Different methods are used to attach fixtures depending on whether the fixture is light or heavy in weight.

### 2.19.1 - LIGHT WEIGHT FIXTURES

Fixtures that are light in weight, such as small picture frames or mirrors, can be attached to the wall without having to fasten into the furring tabs by using typical hanging pins, finishing nails or plugs.

Fixtures such as curtain rods, large picture frames or mirrors, bathroom accessories, etc., require a more secure attachment to the wall.

The Grappler, a product made specifically for ICFs, provides a stronger attachment for fixtures that are light in weight but require a more secure hold. The Grappler is also useful in areas where a stronger fastening point is required in an area where furring tabs may be absent. The Grappler is a $4^{\prime \prime} \times 8^{\prime \prime}$ steel meshed plate that is pressed into the surface of the Logix form panels before drywall is placed. Once the drywall is installed the Grappler is sandwiched between the ICF and drywall creating a much stronger and secure attachment area.

### 2.19.2 - HEAVY WEIGHT FIXTURES

Additional backing is recommended to support heavier wall fixtures, such as kitchen cabinetry, wall mounted fixtures, grab bars, hand rails, etc.

Different attachment methods can be employed depending on the type of attachment.

### 2.19.2.1 - CABINETS



METHOD 1: Plywood board can be attached to the Logix wall behind the heavier cabinets in place of gypsum board, providing a thermal barrier comparable to gypsum and a strong attachment surface for heavier items and fixtures. Be certain to attach the plywood board to the Logix webs with a sufficient number of screws to hold heavy items in place for when loads are applied.


METHOD 2: Create horizontal channels behind the cabinets equal in width to a $2 \times 4$ and install $2 \times 4$ backing directly to the concrete surface using sufficiently long concrete screws and a rotohammer. Attach the cabinets to the $2 \times 4 \mathrm{~s}$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.19 - ATTACHING FIXTURES Cont’d

### 2.19.2.2 - GRAB BARS

METHOD 1: Before placing drywall, place the Grapplers (see Section "2.19.1 - LIGHT WEIGHT FIXTURES" on page 78) onto Logix at grab bar fastening points. Install the drywall and fasten the grab bar to the Grapplers.


METHOD 2: Use Tapcon screws to anchor the grab bar directly to the concreted.


METHOD 3: For a stronger hold remove the foam and replace with wood blocking behind the grab bar mounting bracket. The wood blocking should be mechanically fastened to the concrete.

### 2.19.2.3 - TELEVISIONS

Furring tabs at $\mathbf{8 "}^{\prime \prime}$ on center.


METHOD 1: Face mounted TVs up to 200lbs can be secured to the furring tabs with a minimum of 4 course thread screws. Care must be taken to ensure the screws are properly fastened to the furring tabs. Fastening to Grapplers in combination with furring tabs will also work.

Before installing mounting bracket conceal plywood with drywall compound to blend with drywall (drywall compound not shown for clarity).
METHOD 2: Replace the drywall behind the mounting bracket with plywood.

Fasten the plywood with sufficient number of screws to the furring tabs. will ve foam and replace with $1 / 2^{\prime \prime}$ thick strapping anchored to concrete with Tapcons.


METHOD 3: TV mounts that swivel causes heavier loading conditions and should be anchored to the concrete with plywood and tapcons.

Placing strapping directly against furring tabs ensures $1 / 2^{\prime \prime}$ thick foam is removed and provides good solid backing.

### 2.20 - HOLDING POWER OF SCREWS FASTENED TO LOGIX FURRING TABS

Web fastener withdrawal and shear testing using course and fine thread drywall screws. Tests were conducted on furring tabs embedded $1 / 2$ inch ( 52 mm ) from the surface of the 2.75 inch ( 70 mm ) Logix EPS panels.

|  | Max. Average <br>  <br> Withdrawal <br> Resistance | Allowable <br> Withdrawal <br> Resistance | Max. Average <br> Shear Resistance | Allowable Shear <br> Resistance $^{2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Coarse Thread Drywall <br> Screw | $166 \mathrm{lb}(75.3 \mathrm{~kg})$ | $33 \mathrm{lb}(15.0 \mathrm{~kg})$ | $367 \mathrm{lb}(166.5 \mathrm{~kg})$ | $49 \mathrm{lb}(22.2 \mathrm{~kg})$ |
| Fine Thread Drywall <br> Screw | $1691 \mathrm{bb}(76.7 \mathrm{~kg})$ | $34 \mathrm{lb}(15.4 \mathrm{~kg})$ | $328 \mathrm{lb}(148.8 \mathrm{~kg})$ | $49 \mathrm{lb}(22.2 \mathrm{~kg})$ |

$1 \mathrm{~kg}=9.81$ Newtons

1. Allowable withdrawal resistance values are based on a factor of safety of 5 .
2. Allowable shear resistance values are based on a factor of safety of 3.2 within defined deflection limits (for more detailed information contact info@Logixicf.com)

NOTE: The numbers in this table represent resistance at failure. Good building practice mandates a minimum of a 5 to 1 safety factor in calculating fastener loading. For complete test results on additional fasteners, see Section 8 in the Logix Design Manual or consult your local Logix representative.


| Outside Radius, <br> ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25" (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 3 (0.914) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \hline 13 / 16 \\ & (21) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 13 / 32 \\ (28) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 1 \text { 19/64 } \\ (33) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 135 / 64 \\ (39) \\ \hline \end{gathered}$ |
| 3.5 (1.067) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 11 / 16 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 59 / 64 \\ (23) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (28) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \text { 19/64 } \\ (33) \\ \hline \end{gathered}$ |
| 4 (1.219) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 51 / 64 \\ (20) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 61 / 64 \\ (24) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{array}{r} 11 / 8 \\ (29) \\ \hline \end{array}$ |
| 4.5 (1.372) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 45 / 64 \\ (18) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 32 \\ (21) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 1 \\ (25) \\ \hline \end{gathered}$ |
| 5 (1.524) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 8 \\ (16) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 4 \\ (19) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 57 / 64 \\ (23) \\ \hline \end{gathered}$ |
| 5.5 (1.676) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | 27/64 <br> (11) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 43 / 64 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 51 / 64 \\ (20) \\ \hline \end{gathered}$ |
| 6 (1.829) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 8 \\ (16) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 47 / 64 \\ (19) \\ \hline \end{gathered}$ |
| 6.5 (1.981) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 43 / 64 \\ (17) \\ \hline \end{gathered}$ |
| 7 (2.134) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 8 \\ (16) \\ \hline \end{gathered}$ |

## NOTES:

1. Field cut Logix Standard forms (straight forms) into widths, C, according to Logix Radius Walls table. For inside radius field cut additional foam, A, accordingly.
2. Secure each radius section with zip ties, Logix Hooks, tape or foam.
3. The field cuts, C, are kept at $8^{\prime \prime}$ (203mm), 16" (406mm), 24" ( 610 mm ) or $48^{\prime \prime}$ ( 1220 mm ) lengths. The field cuts, A, are determined depending on required radius. The combined field cuts, A and C, results in an outside radius which is within $1 \%$ of the design radius for radii less than $60 \mathrm{ft}(18.3 \mathrm{~m})$, and $1 \%$ to $2 \%$ for radii between 60 ft and 100 ft ( 18.3 m to 30.5 m ).

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.21 - RADIUS WALLS Cont'd

| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25 " (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 7.5 (2.286) | $\begin{gathered} \hline \hline 8 \\ (203) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 37 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 8 (2.438) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ |
| 8.5 (2.591) | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ |
| 9 (2.743) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 31 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 9.5 (2.896) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 41 / 64 \\ (16) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 10 (3.048) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ \text { (9) } \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 10.5 (3.200) | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 37 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 11 (3.353) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 11.5 (3.505) | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | 5/16 <br> (8) | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 3 / 8 \\ & (10) \\ & \hline \end{aligned}$ |
| 12 (3.658) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ |
| 12.5 (3.810) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 37 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 13 (3.962) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 13.5 (4.115) | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \end{gathered}$ | $\begin{gathered} \hline 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 14 (4.267) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 14.5 (4.420) | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ |
| 15 (4.572) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 37 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 15.5 (4.724) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ |
| 16 (4.877) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 17 / 32 \\ & (13) \\ & \hline \end{aligned}$ |
| 16.5 (5.029) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 8 \\ (203) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ |
| 17 (5.182) | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 2 \\ (13) \\ \hline \end{gathered}$ |
| 17.5 (5.334) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 18 (5.486) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 2 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 15 / 32 \\ & (12) \\ & \hline \end{aligned}$ |
| 18.5 (5.639) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ |
| 19 (5.791) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ |


| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25 " (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 19.5 (5.944) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \end{gathered}$ | $\begin{gathered} \hline 3 / 8 \\ (10) \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 20 (6.096) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 20.5 (6.248) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $21 / 64$ <br> (8) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 21 (6.401) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 21.5 (6.553) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 22 (6.706) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $21 / 64$ <br> (8) | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 22.5 (6.858) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 3 / 8 \\ & (10) \\ & \hline \end{aligned}$ |
| 23 (7.010) | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ |
| 23.5 (7.163) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ |
| 24 (7.315) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) |
| 24.5 (7.468) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 47 / 64 \\ (19) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 25 (7.620) | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 32 \\ (18) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 25.5 (7.772) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 45 / 64 \\ (18) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 26 (7.925) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 45 / 64 \\ (18) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 26.5 (8.077) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 11 / 16 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) |
| 27 (8.230) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 43/64 <br> (17) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) |
| 27.5 (8.382) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 32 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 28 (8.534) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 41 / 64 \\ (16) \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 16 \\ (406) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \end{gathered}$ |
| 28.5 (8.687) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 41 / 64 \\ (16) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 29 (8.839) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 8 \\ (16) \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 29.5 (8.992) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 39/64 <br> (15) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 30 (9.144) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 30.5 (9.296) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 45 / 64 \\ (18) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 31 (9.449) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 37/64 <br> (15) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 45 / 64 \\ (18) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.21 - RADIUS WALLS Cont'd

| Outside Radius, <br> ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | $6.25{ }^{\prime \prime}$ ( 159 mm ) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 31.5 (9.601) | $\begin{gathered} \hline \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 27 / 64 \\ (11) \end{gathered}$ | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 37 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 11 / 16 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 32 (9.754) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 27/64 <br> (11) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 43/64 <br> (17) | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 32.5 (9.906) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 32 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 33 (10.058) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 32 \\ (17) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 33.5 (10.211) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 41 / 64 \\ (16) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{aligned} & 3 / 8 \\ & (10) \end{aligned}$ |
| 34 (10.363) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 41 / 64 \\ (16) \\ \hline \end{gathered}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ |
| 34.5 (10.516) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} 5 / 8 \\ (16) \\ \hline \end{array}$ | $\begin{gathered} 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ |
| 35 (10.668) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ |
| 35.5 (10.820) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ |
| 36 (10.973) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ |
| 36.5 (11.125) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 3 / 8 \\ & (10) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 37 (11.278) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 37 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 37.5 (11.430) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 37 / 64 \\ (15) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 38 (11.582) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 15 / 32 \\ & (12) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 38.5 (11.735) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 39 (11.887) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 39.5 (12.040) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 40 (12.192) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 24 \\ (610) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 40.5 (12.344) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 8 \\ (16) \\ \hline \end{gathered}$ |
| 41 (12.497) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 8 \\ (16) \\ \hline \end{gathered}$ |
| 41.5 (12.649) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 42 (12.802) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 33 / 64 \\ (13) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 39 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 42.5 (12.954) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ |
| 43 (13.106) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 2 \\ & (13) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \\ \hline \end{gathered}$ |


| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25" (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 43.5 (13.259) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 1 / 2 \\ (13) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 19 / 32 \\ (15) \end{gathered}$ |
| 44 (13.411) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 37 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 44.5 (13.564) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 37 / 64 \\ (15) \\ \hline \end{gathered}$ |
| 45 (13.716) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ |
| 45.5 (13.868) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $19 / 64$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 9 / 16 \\ & (14) \\ & \hline \end{aligned}$ |
| 46 (14.021) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/32 <br> (12) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 35/64 <br> (14) |
| 46.5 (14.173) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 35/64 <br> (14) |
| 47 (14.326) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} 13 / 8 \\ (10) \\ \hline \end{array}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 35 / 64 \\ (14) \\ \hline \end{gathered}$ |
| 47.5 (14.478) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \end{gathered}$ |
| 48 (14.630) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} \hline 3 / 8 \\ (10) \\ \hline \end{array}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 29 / 64 \\ (12) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \\ \hline \end{gathered}$ |
| 48.5 (14.783) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & \hline(11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 32 \\ (13) \end{gathered}$ |
| 49 (14.935) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 33 / 64 \\ (13) \\ \hline \end{gathered}$ |
| 49.5 (15.088) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 33 / 64 \\ (13) \\ \hline \end{gathered}$ |
| 50 (15.240) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 33 / 64 \\ (13) \\ \hline \end{gathered}$ |
| 50.5 (15.392) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 27/64 <br> (11) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 1 / 2 \\ (13) \\ \hline \end{gathered}$ |
| 51 (15.545) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $11 / 32$ <br> (9) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 27/64 <br> (11) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} 1 / 2 \\ (13) \\ \hline \end{array}$ |
| 51.5 (15.697) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 27 / 64 \\ (11) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 1 / 2 \\ (13) \end{gathered}$ |
| 52 (15.850) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 52.5 (16.002) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 53 (16.154) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 31 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 53.5 (16.307) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $21 / 64$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ |
| 54 (16.459) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ |
| 54.5 (16.612) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ |
| 55 (16.764) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 25 / 64 \\ (10) \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 32 \\ (12) \\ \hline \end{gathered}$ |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.21 - RADIUS WALLS Cont'd

| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25 " (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 55.5 (16.916) | $\begin{gathered} \hline 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline \hline 25 / 64 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline \hline 29 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 56 (17.069) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 56.5 (17.221) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 57 (17.374) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $5 / 16$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 29 / 64 \\ (12) \\ \hline \end{gathered}$ |
| 57.5 (17.526) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 3 / 8 \\ & (10) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 58 (17.678) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 8 \\ (10) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 58.5 (17.831) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} \hline 7 / 16 \\ (11) \\ \hline \end{array}$ |
| 59 (17.983) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 7 / 16 \\ & (11) \\ & \hline \end{aligned}$ |
| 59.5 (18.136) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ \text { (9) } \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 60 (18.288) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 60.5 (18.440) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 23 / 64 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 61 (18.593) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 19 / 64 \\ \text { (8) } \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ \text { (9) } \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 27 / 64 \\ (11) \\ \hline \end{gathered}$ |
| 61.5 (18.745) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 62 (18.898) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 13 / 32 \\ & (10) \\ & \hline \end{aligned}$ |
| 62.5 (19.050) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 63 (19.202) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 63.5 (19.355) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 32 \\ (10) \\ \hline \end{gathered}$ |
| 64 (19.507) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $21 / 64$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 64.5 (19.660) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 65 (19.812) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 65.5 (19.964) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $13 / 64$ <br> (5) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $21 / 64$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 66 (20.117) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 25 / 64 \\ (10) \\ \hline \end{gathered}$ |
| 66.5 (20.269) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 3 / 8 \\ & (10) \end{aligned}$ |
| 67 (20.422) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} 3 / 8 \\ (10) \\ \hline \end{array}$ |


| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25" (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 67.5 (20.574) | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 3 / 8 \\ (10) \\ \hline \end{gathered}$ |
| 68 (20.726) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{array}{r} \hline 3 / 8 \\ (10) \\ \hline \end{array}$ |
| 68.5 (20.879) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 3 / 8 \\ (10) \\ \hline \end{gathered}$ |
| 69 (21.031) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 23/64 <br> (9) |
| 69.5 (21.184) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $23 / 64$ <br> (9) |
| 70 (21.336) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) |
| 70.5 (21.488) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) |
| 71 (21.641) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $23 / 64$ <br> (9) |
| 71.5 (21.793) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & \hline 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $23 / 64$ <br> (9) |
| 72 (21.946) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $19 / 64$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 72.5 (22.098) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $3 / 16$ <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $11 / 32$ <br> (9) |
| 73 (22.250) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 73.5 (22.403) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $19 / 64$ <br> (8) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $11 / 32$ <br> (9) |
| 74 (22.555) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $11 / 32$ <br> (9) |
| 74.5 (22.708) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $9 / 32$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 32 \\ (9) \\ \hline \end{gathered}$ |
| 75 (22.860) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $11 / 32$ <br> (9) |
| 75.5 (23.012) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 9/32 <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 21/64 <br> (8) |
| 76 (23.165) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 76.5 (23.317) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $21 / 64$ <br> (8) |
| 77 (23.470) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 77.5 (23.622) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 9/32 <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $21 / 64$ <br> (8) |
| 78 (23.774) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 21/64 <br> (8) |
| 78.5 (23.927) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 21 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 79 (24.079) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.21 - RADIUS WALLS Cont'd

| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | 6.25" (159mm) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 79.5 (24.232) | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 80 (24.384) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 11/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 80.5 (24.536) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 11 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 81 (24.689) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 32 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 81.5 (24.841) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 82 (24.994) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 17/64 <br> (7) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 82.5 (25.146) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 5 / 16 \\ (8) \\ \hline \end{gathered}$ |
| 83 (25.298) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \\ \hline \end{gathered}$ |
| 83.5 (25.451) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $5 / 32$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) |
| 84 (25.603) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $19 / 64$ <br> (8) |
| 84.5 (25.756) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $13 / 64$ <br> (5) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 19/64 <br> (8) |
| 85 (25.908) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 32 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $19 / 64$ <br> (8) |
| 85.5 (26.060) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $5 / 32$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) |
| 86 (26.213) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 19 / 64 \\ (8) \end{gathered}$ |
| 86.5 (26.365) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $5 / 32$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $13 / 64$ <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 19/64 <br> (8) |
| 87 (26.518) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 19/64 (8) |
| 87.5 (26.670) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 88 (26.822) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 5/32 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $9 / 32$ <br> (7) |
| 88.5 (26.975) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 5 / 32 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 13 / 64 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 89 (27.127) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 9/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 89.5 (27.280) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $9 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 90 (27.432) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 13/64 <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 90.5 (27.584) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 9/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $13 / 64$ <br> (5) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 15/64 <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 1 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 91 (27.737) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |


| Outside Radius, ft. (m) | Form Cavity Width |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4" (102mm) |  | $6.25{ }^{\prime \prime}$ ( 159 mm ) |  | 8" (203mm) |  | 10" (254mm) |  |
|  | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) | C, in. (mm) | A, in. (mm) |
| 91.5 (27.889) | $\begin{gathered} \hline 48 \\ (1,219) \end{gathered}$ | 9/64 <br> (4) | $\begin{gathered} \hline 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} \hline 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} \hline \hline 48 \\ (1,219) \end{gathered}$ | $\overline{15 / 64}$ <br> (6) | $\begin{gathered} \hline \hline 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 92 (28.042) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 32 \\ (7) \\ \hline \end{gathered}$ |
| 92.5 (28.194) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $9 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) |
| 93 (28.346) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 15 / 64 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 93.5 (28.499) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $9 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $3 / 16$ <br> (5) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $15 / 64$ <br> (6) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $17 / 64$ <br> (7) |
| 94 (28.651) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 94.5 (28.804) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $9 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 95 (28.956) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 95.5 (29.108) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | 9/64 <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 96 (29.261) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 96.5 (29.413) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} \hline 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 97 (29.566) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 9 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 97.5 (29.718) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $9 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 17 / 64 \\ (7) \\ \hline \end{gathered}$ |
| 98 (29.870) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $9 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 3 / 16 \\ (5) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ |
| 98.5 (30.023) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $9 / 64$ (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ |
| 99 (30.175) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 8 \\ & (3) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 11 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ |
| 99.5 (30.328) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 8 \\ & (3) \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $11 / 64$ <br> (4) | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ |
| 100 (30.480) | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{aligned} & 1 / 8 \\ & \text { (3) } \\ & \hline \end{aligned}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 11 / 64 \\ (4) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \end{gathered}$ | $\begin{gathered} 7 / 32 \\ (6) \\ \hline \end{gathered}$ | $\begin{gathered} 48 \\ (1,219) \\ \hline \end{gathered}$ | $\begin{aligned} & 1 / 4 \\ & (6) \\ & \hline \end{aligned}$ |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

### 2.22 - TALL WALLS

Logix walls can be constructed to any height provided proper engineering and construction methods are used.


Logix tall walls should be designed in accordance with ACI 318 or CAN/CSA A23.3.
Constructing tall walls follows the same basic steps described throughout Section 2. In addition, building taller walls is done in much the same way as concrete pours using traditional formwork. Generally, Logix blocks are stacked and braced, normally 10 to 12 feet high. The concrete is then placed. After the concrete sets Logix blocks are then stacked another 10 to 12 feet, and bracing is raised or extended higher to support the wall, as well as keeping the 3 wall plumb. This process is continued until the specified wall height is reached.


To ensure a smooth build, the following items should be considered:

- Load tables in Section 6 can be used as a design aid for both the builder and designer. However, tall wall designs should be reviewed and approved by a local licensed professional engineer.
- In higher wind areas taller walls may require guy wires for additional support. Typically, this will be determined by the engineer of record.
- Proper consolidation of concrete can be achieved by adequate vibrating. However, depending on the drop height, and the steel congestion, external vibration, in addition to internal vibration, should be considered, particularly at corners, openings, and congested areas of rebar. (External vibrators made specifically for ICFs are available. See Section "2.23SUPPORTING PRODUCTS" on page 94.
- Since tall walls are typically poured using a pump truck, using a 2 1/2" trimmer hose can provide better control of the concrete pour.
- If required, roughen the surface of all cold joints to ensure a good bond between the surface of the old pour and the subsequent pour. In addition, ensure adequate rebar embedments are provided.
- For the final stage of the pour, a Logix Taper Top block can be used, if required, for the top course of the wall. This provides a larger opening for concrete to flow into the wall and also provides a larger bearing area for supporting elements.
- Several tall wall bracing and alignment systems are available. For more information see Section 3.2, Tall Wall Bracing Systems.

NOTE: Both ACI 318 and CAN/CSA A23.3 permit cold joints when concrete is poured in stages.

### 2.23 - SUPPORTING PRODUCTS

A list of supporting ICF products are shown below. Consult with the listed manufacturer prior to using with Logix Insulated Concrete Forms. Please note: the products listed below does not prohibit the use of Logix ICFs with other supporting products not listed.

FOOTINGS

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| Form-A-Drain | CertainTeed Corp. | $708-301-4449$ | certainteed.com |

EXTERIOR FINISHES

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| Durock | Alfacing International Ltd. | $1-888-238-6345$ | durock.com |
| Senerflex | Degussa Wall Systems, Inc. | $1-800-221-9255$ | senergy.cc |
| Sto EIFS System | Sto Corp. | $1-800-221-2397$ | stocorp.com |
| GrailCoat | GrailCoat | $1-877-472-4528$ | grailcoat.com |
| TAFS (Textured Acrylic Finishes | dryvit | $1-800-263-3308$ | dryvit.com |
| SoftCoat PB System | Total Wall, Inc. | $1-888-702-9915$ | totalwall.com |
| Akroflex | Omega Products Corp. | $602-721-5027$ | omega-products.com |
| Impact System | parex | $1-800-537-2739$ | parex.com |
| PermaCrete | Quality Systems | $1-800-607-3762$ | permacrete.com |
| Crack Guard | Poly-Wall | $1-800-846-3020$ | poly-wall.com |
| WeatherWall Systems | Eco Specialty Products Ltd. | $1-888-481-5507$ | ecocoatings.ca |

## WATERPROOFING

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| System III | Epro | $1-800-882-1896$ | eproserv.com |
| Blueskin WP2000 | Bakor, Inc | $1-800-387-9598$ | bakor.com |
| Colphene 3000 | Soprema, Inc | $1-800567-1492$ | soprema.com |
| Delta-MS Clear | Cosella-Dorken Products, Inc. | $1-888-4 D E L T A 4$ | cosella-dorken.com |
| Platon | Armtec Ltd. | $1-800-265-7622$ | systemplaton.com |
| Tamko TW60 | Tamko, Inc. | $1-800-641-4691$ | tamko.com |
| Grace waterproofing products | Grace Construction Products | See website | graceconstruction.com |
| Aqua-Wrap/Green Sheild | Aqua Seal Inc. | $1-888-282-3861$ | aquasealusa.com |
| Protecto Universal Primer Free Membrane | Protecto Wrap | $1-800-759-9727$ | protecowrap.com |

CONNECTION SYSTEMS

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| ICF Ledger Connector System | Simpson Strong-Tie Co., Inc. | $1-800-999-5099$ | simpsonstrongtie.com |
| ICF-Connect | ICF-Connect Ltd. | $1-866-497-1576$ | icfconnect.com |

ADHESIVE \& SEALANTS

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| Enerfoam Sealant/Enerbond Adhesive | Dow Chemical Company | $1-800-800-$ FOAM | dow.com/buildingproducts |
| PL300 | Loctite | $1-800-624-7767$ | www.loctiteproducts.com |

WALL BRACING \& ALIGNMENT SYSTEMS

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| Uniscaffold, LLC | Uniscaffold | $1-208-791-5624$ | www.uniscaffold.com |
| Giraffe Bracing | Giraffe Bracing | $1-888-778-2285$ | www.giraffebracing.com |
| Plumwall | Plumwall Ltd. | $1-905-786-7586$ | www.plumwall.com |
| Mono-Brace | Tapco | $814-336-6549$ | www.mono-brace.com |
| Amazing Brace | Lakeland Group | $905-372-7413$ | www.lakeland-multitrade.com |

EXTERNAL VIBRATORS

| Product Name | Manufacturer | Contact | Website |
| :--- | :--- | :--- | :--- |
| Brecon | Brecon Inc. | $815-463-8073$ | http://icfvibrator.com |
| Arkie Wall Banger | Available from Wind-lock | $1-800-872-5625$ | - |

SUPPLIERS OF SUPPORTING ICF PRODUCTS

| Company | Contact | Website |
| :--- | :--- | :--- |
| Wind-lock | $1-800-872-5625$ | wind-lock.com |
| Grace Construction Products | See website | graceconstruction.com |

Build Anything Better. ${ }^{\text {m }}$
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## 3.1 - INTRODUCTION

A bracing system provides temporary support for the wall and acts as an alignment system to keep the walls straight and plumb during concrete placement. Typically, the wall alignment system is installed on the inner side of the Logix wall.

There are a number of proprietary systems available. However, each bracing unit typically consists of a vertical upright steel channel with slots for attaching screws to the Logix webs, a turnbuckle arm, and a scaffold bracket. Normally, wall bracing systems are installed after placing 2 to 4 courses of Logix forms (depending on wind and other conditions).


## 3.2 - LOCATION \& SPACING

- Place bracing no more than $2 \mathrm{ft}(610 \mathrm{~mm}$ ) from each corner or wall end, and every 7 ft ( 2134 mm ) or less thereafter, in accordance with OSHA/OHSA requirements.
- Every door and window opening should be flanked on either side by bracing units.


The middle of large openings should be vertically braced to prevent tipping.

## 3.3 - INSTALLATION



## Front View



Perspective Cut Section

STEP 1: Attach the upright steel channel to the Logix webs with a \#10 screw in each course. The screws should be snug but not tight.


STEP 2: Attach a turnbuckle arm to the upright with a bolt and then secure to the floor or ground. In light or sandy soils, additional care must be taken to secure diagonal turnbuckle. Ensure wall is close to plumb and threads on the turnbuckle is secured.


STEP 3: The scaffold bracket is then inserted behind the top of the turnbuckle and secured at the bottom with an additional bolt.


STEP 4: Place the appropriate scaffolding planks and rails according to safety regulations. For requirements on toe board and handrail configuration, consult OSHA/OHSA.

STEP 5: Prior to concrete placement, make certain walls are leaning slightly inward. The wall must not lean out at all.


STEP 6: A stringline must be used to achieve straight walls.
STEP 7: Before, during and after concrete placement, the diagonal turnbuckle arm is used to adjust wall straightness to stringline.

## 3.4 - TALL WALL BRACING

Tall walls are constructed in much the same way as concrete pours using traditional formwork. In general, the Logix blocks are stacked and braced, normally 10 to 12 feet high. The concrete is then placed. After the concrete sets the Logix blocks are then stacked another 10 to 12 feet, and bracing is raised or extended higher to support the wall, as well as keeping the wall plumb. This process is continued until the specified wall height is reached.


In higher wind areas taller walls may require guy wires for additional support.
Logix can be built to any height using either proprietary bracing systems or traditional scaffolding.
There are a number of proprietary tall wall bracing and alignment systems available. Many of the systems are designed to accommodate walls heights from 30 to 50 feet. For a list of some of these systems see " 2.23 SUPPORTING PRODUCTS" on page 94.

With minor modifications traditional scaffold (masonry scaffold) systems can also be used as the bracing and alignment system for tall walls. In addition, more experienced builders may have their own custom bracing systems designed to meet their preferred method of construction.

NOTE: When using wall bracing systems always follow the manufacturer's recommended installation practices, including all required federal and local safety guidelines. Users of Logix and bracing systems should always follow OSHA/OHSA guidelines.

LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 3.4 - TALL WALL BRACING cont'd

### 3.4.1 - TALL WALL BRACING SYSTEMS USING SCAFFOLDING

The following installation instructions demonstrates the use of scaffolding as a tall wall bracing and alignment system. The scaffolding system described is available from Form Systems, Inc. For more information contact your local Logix representative.


STEP 1: Complete two courses making sure they are straight, level and well anchored (Figure A).


STEP 3: Insert the screw jacks into the base frames as seen in Figure C. Create a base frame by attaching two $7 \mathrm{ft}(2.134 \mathrm{~m}$ ) ledgers (the horizontal pipes) to two base frames. Each ledger end has a wedge to anchor the system together (Figure D). To remove, hit from below. Once base frame is in place, level in all directions.


STEP 2: The first scaffolding items needed are the base frames and screw jacks. The left end of the base frame as seen in Figures B and C is the end that will sit against the forms to allow the screw jacks to be adjusted.


STEP 4: There are two kinds of vertical poles. Poles with the $2 / 3$ rosettes go against the wall. Those with the full rosettes go into the center cup of the base frame (Figure C).


STEP 5: Install the two-foot ledgers that will hold the decks in place on every third rosette from the bottom. Note that the only $7 \mathrm{ft}(2.134 \mathrm{~m})$ ledger required against the wall is on the base frame. The rest of the scaffolding will require 7 ft ( 2.134 m ) ledgers only on one side (Figure F).


STEP 6: Place one wire clip per course at each vertical 2/3 rosette pole (Figure E).


STEP 7: Insert 7ft ( 2.134 m ) ledgers for railings in the two rosettes above the planks (Figure G).
STEP 8: There are two adjustable diagonals. One is $4 \mathrm{ft}(1.220 \mathrm{~m})$ long and is intended to go to the inside of the vertical poles. It's designed to align the wall during the second or third build. For the first build, use the 10ft ( 3.048 m ) external adjustable diagonal (Figure G).
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## 4.1 - INTRODUCTION

Calculating the number of forms needed is a simple task with Logix.
An important thing to remember in estimating is that walls with different heights should be calculated separately. As the wall heights change, so do the quantities required.

There are several tools available to aid in estimating:

- Drawing a wall section on graph paper before estimating a project saves time and effort.
- The Logix One Minute Estimator provides rough estimates for preliminary estimates, and is available as an app or online.
- The Logix Estimator provides more accurate and very detailed estimates and is on Windows. However, the Logix Estimate can work on a Mac provided Windows Parallel is installed. This program is available for download.

The Logix Estimator and One Minute Estimator are available through the "Download Apps" link on any of the Logixicf.com web pages.

The Logix Estimator (Desktop App)


When you build with Logix ICF, the Logix Estimator will quickly create detailed and accurate take offs, cut lists and more, and will generate professional and accurate customer quotes with the margins you need.
« Download the Logix Estimator


## 4.2 - MATERIAL TAKE-OFF LIST

The material take off is the first step in any estimate.
__ Linear feet of exterior and interior Logix walls
_ Height of walls
__ Number of courses in wall
___ Thickness of wall (4", $6.25^{\prime \prime}, 8^{\prime \prime}, 10^{\prime \prime}$ or $12^{\prime \prime}$ )
__ Number of 90 o corners (both inside and outside)
_ Number of 450 corner (both inside and outside)
_ Linear feet of Brick Ledge
__ Linear feet of Taper Top
__ Linear feet of Double Taper Top
__ Square feet of parge coating "stucco" (height x length) between grade and siding
__ Square feet of water proofing (height x length) from grade to lap over footing
__ Square feet of door and window openings
__ Linear feet of buck material
__ Number of beam pockets (End Caps)
__ Linear feet of end walls (End Caps)
__ Linear feet of Height Adjusters (both sides of wall)

## SQUARE FOOTAGE OF DIFFERENT FORM TYPES

| Standard (straight): | 5.33 sf |
| :--- | :--- |
| Standard V12 (straight) | 4.00 sf |
| Brick Ledge: | 5.33 sf |
| Taper Top: | 5.33 sf |
| Double Taper Top: | 5.33 sf |
| $90^{\circ}$ Corner (outside face): | 5.36 sf (5.89sf for 10" and 12" corner forms) |
| $90^{\circ}$ Corner V12 (outside face): | 4.02 sf |
| $45^{\circ}$ Corner (outside face): | 3.89 sf |
| $4 "$ Height Adjuster: | 0.67 sf |
| Pilaster: | 3.49 sf max. |

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## 4.3 - ESTIMATING FORMS

Standard, $45^{\circ}$ and $90^{\circ}$ Corner forms are $16^{\prime \prime}$ in height. Standard V12 and Corner V12 forms are $12^{\prime \prime}$ in height. The following steps are based on 16" heights, however, the same procedure outlined in Section 4.3 .1 is followed for 12" high forms. (Currently, $45^{\circ}$ forms in V12 are not available and are formed on-site.)

### 4.3.1 - STANDARD FORMS \& CORNERS

STEP 1: Determine the total lineal feet of walls (both interior and exterior walls that will be built using Logix). Add an extra 2 ft for every $45^{\circ}$ or $90^{\circ}$ inside corner to the total lineal feet of walls. With this new lineal footage, multiply by the height of the walls to determine the property's total square footage. When figuring the total square footage of walls with different heights it's easiest to figure each wall separately and then add totals together.

Subtract the total square footage of all window and door openings.
STEP 2: Determine number of $45^{\circ}$ forms (A) by multiplying number of $45^{\circ}$ turns by the number of courses (i.e. 6 courses $x 4$ turns). Then multiply the number of $45^{\circ}$ forms by $3.89 \mathrm{sf} /$ form. Then subtract this from your gross square footage of wall determined in Step 1.

If no $45^{\circ}$ turns continue with Step 3.
STEP 3: Determine number of $90^{\circ}$ corner forms (B) by multiplying number of $90^{\circ}$ turns by the number of courses (i.e. 6 courses $x 4$ turns). Then multiply the number of $90^{\circ}$ forms by $5.36 \mathrm{sf} /$ form (or 5.89 sf for $10^{\prime \prime}$ or $12^{\prime \prime}$ corner forms). Then subtract this from your square footage of wall determined in Step 2 (if no $45^{\circ}$ turns used, then subtract from gross square footage determined in Step 1).

STEP 4: Divide square footage of wall determined in Step 3 by 5.33 to determine gross number of Standard forms required. (C)

NOTE: Standard forms are all $16^{\prime \prime}(406 \mathrm{~mm})$ tall and $48^{\prime \prime}(1220 \mathrm{~mm})$ long with a wall area of 5.33 sf each. All $90^{\circ}$ Corners are $16^{\prime \prime}$ tall. The $4^{\prime \prime}, 6.25^{\prime \prime}$ and $8^{\prime \prime}$ Ninety degree corner forms cover a wall area of 5.36 sf (measured at the longer side of the corner form). The $10^{\prime \prime}$ and $12^{\prime \prime}$ Ninety degree corner forms cover a wall area of 5.89sf.
A. Number of $45^{\circ}$ forms required:
B. Number of $90^{\circ}$ forms required:
C. Number of Standard forms required:
D. Total number of forms required:
$\qquad$
$\qquad$
$\qquad$

### 4.3.2 - BRICK LEDGE FORMS

NOTE: Brick Ledge forms are available in straight units only. Corner applications require miter cutting Brick Ledge forms on site.

Brick Ledge forms only come in $6.25^{\prime \prime}, 8^{\prime \prime}, 10^{\prime \prime}$ and $12^{\prime \prime}$ cavity sizes.
STEP 1: Measure the total linear feet of Brick Ledge needed and divide by 4 (the length in feet of each block) to determine the total number of Brick Ledge forms needed. When miter cutting Brick Ledge corners, add one Brick Ledge form for waste at each corner to the total Brick Ledge count.

STEP 2: Subtract the number of Brick Ledge forms from the total number of Standard forms determined earlier to avoid ordering too many Standard forms.

### 4.3.3 - DOUBLE TAPER TOP \& TAPER TOP FORMS

NOTE: The above forms are available in straight units only. Corner applications require miter cutting the forms on site.

Taper Top and Double Taper Top forms come in 6.25 ", 8 ", $10^{\prime \prime}$ or $12^{\prime \prime}$ cavity sizes.
Follow Steps 1 and 2 in Section 4.3.2 to estimate the number of Taper Top or Double Taper Top forms required.

### 4.3.4 - HEIGHT ADJUSTERS

A 2 ft Height Adjuster $=0.66 \mathrm{sf}$. The number of 2 ft long Height Adjusters needed is equal to the total linear footage .
NOTES: Height Adjusters come in one size, $4^{\prime \prime} \times 24^{\prime \prime} \times 2.75^{\prime \prime}$ thick. Remember to count both sides of the wall. Height Adjusters can be used in window openings to adjust height without cutting standards.

### 4.3.5 - END CAPS

NOTES: End Caps are $16^{\prime \prime}$ tall and 2-1/4" thick. End Caps come in all wall cavity sizes $-4 ", 6.25^{\prime \prime}, 8^{\prime \prime}, 10^{\prime \prime}$ and $12^{\prime \prime}$. Use End Caps at end wall applications. Use two End Caps for each beam pocket. Use End Caps for step foundations if necessary. End Caps can be used to form side bucks on door and window openings.

## 4.4 - CONCRETE

### 4.4.1-4" WALLS

STEP 1: Take the square footage of all wall area and subtract the square footage of all window and door openings.
STEP 2: Multiply by 0.333 ft (the width of the cavity) to get the cubic feet of concrete required.
STEP 3: Divide by 27cf to determine the total number of yards of concrete required (or divide by 35.32 to determine meters of concrete required).

Example: 1845sf of wall area minus 322 sf of window and door area equals 1523 sf of net wall area. 1523 sf times 0.333 ft equals 507 cf divided by 27 cf per yard equals 18.8 yards of concrete required. Or divide 507 cf by 35.32 for meters required. In this case, 14.4 meters.

### 4.4.2-6.25" WALLS

STEP 1: Take the square footage of all wall area and subtract the square footage of all window and door openings.
STEP 2: Multiply by 0.521 ft (the width of the cavity) to get the cubic feet of concrete required.
STEP 3: Divide by 27cf to determine the yards of concrete required (or divide by 35.32 to determine meters required).

Example: 1845sf of wall area minus 322 sf of window and door are equals 1523 sf of net wall area. 1523sf times 0.521 ft equals 793 cf divided by 27 cf per yard equals 29.4 yards of concrete. Or divide 793 cf by 35.32 for meters required. In this case, 22.5.

### 4.4.3-8" WALLS

STEP 1: Take the square footage of all wall area and subtract the square footage of all window and door openings.
STEP 2: Multiply by 0.667 ft (the width of the cavity) to get the cubic feet of concrete required.
STEP 3: Divide by 27 to determine the yards of concrete required (or by 35.32 to determine meters required).
Example: 1845 sf of wall area minus 322 sf of window and door area equals 1523 sf of net wall area. 1523 sf times 0.667 ft equals 1016 cf divided by 27 cf per yard equals 37.6 yards of concrete. Or divide 1016 cf by 35.32 for meters required. In this case, 28.8.

### 4.4.4-10" WALLS

STEP 1: Take the square footage of all wall area and subtract the square footage of all window and door openings.
STEP 2: Multiply by 0.833 ft (the width of the cavity) to get the cubic feet of concrete required.
STEP 3: Divide by 27cf to determine the total number of yards of concrete required (or by 35.32 to determine meters of concrete required).

Example: 1845sf of wall area minus 322 sf of window and door area equals 1523 sf of net wall area. 1523 sf times 0.833 ft equals 1269 cf divided by 27 cf per yard equals 47.0 yards of concrete required. Or divide 1269 cf by 35.32 for meters required. In this case, 35.9 meters.

### 4.4.5-12" WALLS

STEP 1: Take the square footage of all wall area and subtract the square footage of all window and door openings.
STEP 2: Multiply by 1 ft (the width of the cavity) to get the cubic feet of concrete required.

### 4.4.6 - ADD EXTRA CONCRETE FOR TAPER TOPS

Multiply linear feet of Taper Top by 0.003 cubic yards or cubic meters 0.002 to determine the additional yards or meter of concrete needed.

Example: 200If of Taper Top forms would require an additional 0.6 yards of extra concrete (200If $\times 0.003=0.6$ yards).

### 4.4.7 - ADD EXTRA CONCRETE FOR DOUBLE TAPER TOPS

Multiply linear feet of Double Taper Tops by 0.006 cubic yards or cubic meters 0.005 to determine the additional yards or meter of concrete needed.

Example: 200If of Taper Top forms would require an additional 1.2 yards of extra concrete ( $2001 \mathrm{f} \times 0.006=1.2$ yards).

### 4.4.8 - ALTERNATE METHOD FOR CALCULATING CONCRETE

An alternate method to calculate concrete is to use the chart below. Simply multiply the total number of forms by the appropriate multiplier to determine the cubic yards or cubic meters of concrete required.

| ) | Form Size | Cubic Yards per Form Unit | Cubic Meters per Form Unit |
| :---: | :---: | :---: | :---: |
| z | 4" | 0.066 | 0.050 |
| $\vdash$ | 6.25" | 0.103 | 0.079 |
|  | 8" | 0.132 | 0.100 |
| - | 10" | 0.165 | 0.126 |
| $\stackrel{\vdash}{\sim}$ | 12" | 0.198 | 0.151 |

## 4.5 - REBAR

Rebar estimating varies from wall to wall depending on factors such as height, vertical loading, horizontal loading, backfill heights, etc.

NOTE: Each Brick Ledge will require six stirrups to tie the horizontal rebar in the corbel to the horizontal rebar in the interior of the form.

## 4.6 - WATERPROOFING

Multiply linear footage of walls by the height of backfill. When calculating backfill height, make sure to add enough height to allow the waterproofing materials to extend over the edge of the footing.

Divide this number by the square footage per roll of membrane material to determine the total number of rolls required.

If using a rigid waterproofing board, do not include a footing overlap in you calculations.

## 4.7 - PARGING

Parging typically covers from the top of the waterproofing membrane to a height 2" above the bottom edge of the siding.

Multiply the linear footage of wall by height of parging to determine total square footage of parging required.
Divide this number by the square footage per bag of parging material to determine the total number of bags required.

## LOGIX® ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 4.8 - COURSE HEIGHT TABLE

This table shows wall heights that are readily achieved using Standard Logix forms used in combination with 4" (102mm) Height Adjusters and/or 12" (305mm) V12 forms.

|  |  | HEIGHT OF WALL WHEN ADDITIONAL COURSES OF HEIGHT ADJUSTER OR V12s ARE ADDED |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Standard Courses | Height of Wall for Standard Courses | 4" Height Adjuster | 1 Course of V12 | 2 Courses of V12 | 3 Courses of V12 |
| 1 | 1' - 4" (406mm) | 1' - 8" (508mm) | 2' - 4" (711mm) | 3' - 4" (1016mm) | 4' - 4" (1321mm) |
| 2 | 2' - 8" (813mm) | 3' - 0' (914mm) | 3' - 8" (1118mm) | 4' - 8" (1422mm) | 5' - 8" (1727mm) |
| 3 | $4^{\prime}$ - 0 " ( 1219 mm ) | 4' - 4" (1321mm) | 5' - 0" (1524mm) | $6^{\prime}$ - 0 " ( 1829 mm ) | 7' - 0" (2134mm) |
| 4 | 5' - 4' (1626mm) | 5' - 8" (1727mm) | 6' - 4' (1930mm) | 7' - 4" (2235mm) | 8' - 4" (2540mm) |
| 5 | 6' - 8" (2032mm) | 7' - 0" (2134mm) | 7' - 8" (2337mm) | 8' - 8" (2642mm) | 9' - 8" (2946mm) |
| 6 | 8' - 0" (2438mm) | 8' - 4" (2540mm) | 9' - 0" (2743mm) | 10' - 0" (3048mm) | 11' - 0" (3353mm) |
| 7 | 9'-4" (2845mm) | 9' - 8" (2946mm) | 10'-4" (3150mm) | 11'-4" (3454mm) | 12' - 4" (3759mm) |
| 8 | 10' - 8" ( 3251 mm ) | 11' - 0" (3353mm) | 11' - 8" (3556mm) | 12' - 8" (3861mm) | 13' - 8" (4166mm) |
| 9 | 12' - 0" (3658mm) | 12'-4" (3759mm) | 13' - 0" (3962mm) | 14' - 0" (4267mm) | 15' - 0" (4572mm) |
| 10 | 13'-4" (4064mm) | 13' - 8" (4166mm) | 14' - 4" (4369mm) | 15' - 4" (4674mm) | 16' - 4" (4978mm) |
| 11 | 14' - 8" (4470mm) | 15' - 0" (4572mm) | 15' - 8" (4775mm) | 16' - 8" (5080mm) | 17' - 8" (5385mm) |
| 12 | 16' - 0" (4877mm) | 16' - 4" (4978mm) | 17' - 0" (5182mm) | 18' - 0" (5486mm) | 19' - 0" (5791mm) |
| 13 | 17'-4" (5283mm) | 17' - 8' (5385mm) | 18'-4" (5588mm) | 19'-4" (5893mm) | 20' - 4" (6198mm) |
| 14 | 18' - 8" (5690mm) | 19' - 0" (5791mm) | 19'-8" (5994mm) | 20' - 8" (6299mm) | 21' - 8" (6604mm) |
| 15 | 20' - 0" (6096mm) | 20' - 4" (6198mm) | 21' - 0" (6401mm) | 22' - 0" (6706mm) | 23' - 0" (7010mm) |
| 16 | 21'-4" (6502mm) | 21' - 8" (6604mm) | 22'-4" (6807mm) | 23'-4" (7112mm) | 24' - 4" (7417mm) |
| 17 | 22'-8" (6909mm) | 23' - 0" (7010mm) | 23' - 8" (7214mm) | 24' - 8" (7518mm) | 25' - 8" (7823mm) |
| 18 | 24' - 0" (7315mm) | 24' - 4" (7417mm) | 25' - 0" (7620mm) | 26' - 0" (7925mm) | 27' - 0" (8230mm) |
| 19 | 25' - 4" (7722mm) | 25' - 8" (7823mm) | 26' - 4" (8026mm) | 27'-4" (8331mm) | 28' - 4" (8636mm) |
| 20 | 26' - 8" (8128mm) | 27' - 0" (8230mm) | 27' - 8" (8433mm) | 28'-8" (8738mm) | 29' - 8" (9042mm) |
| 21 | 28' - 0" (8534mm) | 28'-4" (8636mm) | 29'-0" (8839mm) | 30' - 0" (9144mm) | 31' - 0" (9449mm) |
| 22 | 29'-4" (8941mm) | 29'-8" (9042mm) | 30' - 4" (9246mm) | 31' - 4" (9550mm) | 32' - 4" (9855mm) |
| 23 | 30' - 8" (9347mm) | 31' - 0" (9449mm) | 31' - 8" (9652mm) | 32' - 8" (9957mm) | 33' - 8" (10262mm) |
| 24 | 32' - 0" (9754mm) | 32'-4" (9855mm) | 33' - 0" (10058mm) | 34' - 0" (10363mm) | 35' - 0" (10668mm) |
| 25 | 33'-4" (10160mm) | $33^{\prime}-8{ }^{\prime \prime}(10262 \mathrm{~mm})$ | 34' - 4' (10465mm) | 35' - 4' (10770mm) | 36' - 4' (11074mm) |

## 4.9 - ESTIMATING FORM

Customer Name:
Date: $\qquad$
Project Name: $\qquad$
Wall Type (Circle): Frost Wall Basement Main Floor Second Floor Other

| Form Size (Circle): | $4 "$ | $6.25 "$ | $8 "$ | 10 | $12 "$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Estimating Data

|  | Lineal Feet (LF) of Wall |  | LF Height Adjusters |
| :--- | :--- | :--- | :--- |
|  | Wall Height |  | LF Extended Brick Ledge |
|  | Number of $90^{\circ}$ Turns |  | LF Taper Top Form |
|  | Number of $45^{\circ}$ Turns |  | Height of Backfill |
|  | Number of Logix Courses |  | Square Footage (SF) of Openings |
|  | Number of Courses of Standards |  | Gross SF of Wall (GSF) |
|  | LF Form Lock |  | Net SF of Wall (NSF) |


| Quantity | Description | Notes |
| :--- | :--- | :--- |
|  | Standard Forms |  |
|  | Standard V12 Forms |  |
|  | $90^{\circ}$ Corner Forms |  |
|  | $90^{\circ}$ V12 Corner Forms |  |
|  | $45^{\circ}$ Corner Forms |  |
|  | Brick Ledge |  |
|  | Taper Top Forms |  |
|  | Double Taper Top Forms |  |
|  | Number of Height Adjusters (2' each) |  |
|  | Number of Form Lock (12.5' each) |  |
|  | Filament Tape (1 roll/50 blocks) |  |
|  | Zip Ties (1 bag/200 blocks) |  |
|  | Waterproofing Membrane (200sf/roll) |  |
|  | Rolls of Fiber Mesh (475sf/roll) |  |
|  | Bags of Prepcoat (85sf/bag) |  |
|  | LF/Type Rebar |  |
|  | Cubic Yards of Concrete |  |
|  | LF Window/Door Buck |  |
|  | Number of Alignment System Sets |  |
|  | Man Hours/sf |  |

## 5.0 - CAD DRAWINGS


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## 5.0 - CAD DRAWINGS

CAD drawings applicable for residential and commercial projects are available in the Technical Library at logixicf.com/technical-library in .dwg, .dxf, pdf and .jpg file formats. In addition, please refer to the Technical Library for updated and new drawings.

LOGIX carries both assembled form units, known as LOGIX PRO, and unassembled (or knock-down) systems known as LOGIX KD. In addition, LOGIX carries a number of accessories meant to make designing and constructing with ICFs much faster and easier.

NOTE: The tables and drawings represented herein are believed to be accurate and conforming to current design and construction practices. However, the tables and drawings should be used as a reference guide only. The user shall check to ensure the drawing meets local building codes, design and construction practices by consulting local building officials and professionals, including any additional requirements. Logix reserves the right to make changes to the tables and drawings without notice and assumes no liability in connection with the use of the tables and drawings including modification, copying or distribution.

## 5.1-LOGIX PRODUCTS <br> 5.1.1 - PRO FORMS










CAD DRAWINGS-PROFORMS







5.1.1.9 - V12 STANDARD


CAD DRAWINGS-PRO FORMS

### 5.1.2 - KD FORMS (KNOCK-DOWN FORMS)







CADDRAWINGS-KDFORMS







5.1.2.5 - LOGIX T-WALL


### 5.1.3 - ACCESSORIES

### 5.1.3.1 - MISC






CAD DRAWINGS - ACCESORIES: MISC



5.1.3.1.4 - LOGIX XTENDER 5.1.3.1.5-LOGIX HORIZONTAL \& VERTICAL

|  |  |
| :--- | :--- |
| Joint between blocks | $\mathrm{B} \longleftarrow$ |


STEEL




$\frac{\text { SIDE ELEVATION }}{\text { (with Xtenders) }}$

SIDE ELEVATION









### 5.1.3.2 - PRO BUCK






### 5.1.3.3 - HEAT-SHEET










### 5.1.3.5 - D-RV PANEL INSERTS



S $\perp$ y ヨSNI f ヨ N $\forall$ d $\wedge$ y-





CAD DRAWINGS - ACCESSORIES: D-RVPANELINSERTS





5.2.1.2-9'-4" WALL WITH THICKENED SLAB

CAD DRAWINGS - WALLSECTIONS


### 5.2.2-1 STORY PLUS BASEMENT








CAD DRAWINGS - WALLSECTIONS
 5.2.2.7-10" TO 6.25" LOGIX TRANSITION




### 5.2.3-2 STORY PLUS BASEMENT



CAD DRAWINGS - WALLSECTIONS

## 5.3 - FOOTINGS AT EXTERIOR WALL 5.3.1 - PRE-CAST SLABS




### 5.3.2 - GRADE BEAM \& PILES








### 5.3.3 - BRICK LEDGE











### 5.3.4 - FOOTINGS FORMED WITH LOGIX




TING FORMED WITH LOGIX
BRICK LEDGE







## 5.4-FOOTINGS AT INTERIOR WALL <br> 5.4.1 - GRADE BEAM \& PILES



### 5.4.2 - SHALLOW FOOTINGS







## 5.5-FOUNDATION WALLS

### 5.5.1 - CRAWL SPACE





5.5.1.4-6.25" TO 4" LOGIX CRAWL SPACE










### 5.5.2 - FROST WALLS












5.5.2.8 - CAST-IN-PLACE SLAB WITH XP-1

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### 5.5.3 - BASEMENTS











### 5.5.4 - WATERPROOFING





5.5.4.2 - BRICK LEDGE FLASHING DETAILS


CAD DRAWINGS-FOUNDATION WALLS

## 5.6 - FLOOR CONNECTIONS AT EXTERIOR WALL 5.6.1 - LOGIX BEARING LENGTHS





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CAD DRAWINGS - FLOOR CONNECTIONSATEXTERIORWALL

### 5.6.2 - WOOD JOISTS





| E |  |
| :---: | :---: |
|  |  |









































### 5.6.3 - STEEL JOISTS






5.6.3.6 - OPEN WEB STEEL JOIST FORM
SUPPORT AT FLOOR TRANSITION
NOTES:

1. See Section 6 - Engineering in the LOGIX Design Manual or the
LOGIX Field Manual for reinforcement details.
2. A protective cover, such as tarp, should be placed over Logix form
panels in the vicinity where on-site welding and torch work is
conducted.

5.6.3.5 - STEEL ANGLE TO JOIST




### 5.6.4 - CAST-IN-PLACE




CAD DRAWINGS - FLOOR CONNECTIONSATEXTERIORWALL








5.6.4.9 - STAIR LANDING





### 5.6.5 - PRE-CAST SLABS



CAD DRAWINGS - FLOOR CONNECTIONSATEXTERIORWALL



5.6.5.6 - SPANCRETE TOPPING FLUSH TO

OW CORE SLAB WITH XP-1
CURB BLOCK




## 5.7-FLOOR CONNECTIONS AT INTERIOR WALL





### 5.7.2 - PRE-CAST SLABS







### 5.7.3 - STEEL JOISTS





## 5.8 - ROOF \& PARAPETS AT EXTERIOR WALL

### 5.8.1 - WOOD







5.8.1.6-2X6 WITH LOGIX TAPER TOP
(s)
5.8.1.5-2X8 OVERHUNG TOP PLATE


CAD DRAWINGS - ROOF \& PARAPETSATEXTERIORWALL



















5.8.2.4 - ICF PARAPET: FLAT ROOF ON OPEN WEB JOIST WITH INSULATION







5.8.2.8 - PARAPET WITH SLOPED ROOF



### 5.8.3 - PRE-CAST





### 5.8.4 - STRAPS \& ANCHORS










### 5.8.5 - STRUCTURAL INSULATED PANELS









## 5.9 - ROOF \& PARAPETS AT INTERIOR WALL 5.9.1 - WOOD



### 5.9.2 - STEEL



only. The user shall check to ensure the drawing mee local building codes, design and construction practices by


5.10.1 - WEEP SCREED \& FLASHING






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### 5.11.2 - ATTACHMENTS










CAD DRAWINGS - EXTERIOR FINISHES \& ATTACHMENTS







### 5.12 - WINDOW, DOOR \& GARAGE OR BAY OPENINGS 5.12.1 - WINDOWS









5.12.1.5 - WINDOW HEAD / SILL DETAIL 5.12.1.6 - WINDOW HEAD / SILL STEEL FRAME




## 




















## 







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### 5.12.2 - DOORS







## 





### 5.12.3 - GARAGE OR BAY



(








### 5.13-WALL-TO-WALL CONNECTIONS 5.13.1 - FRAMED WALLS



CAD DRAWINGS-WALL-TO-WALLCONNECTIONS








### 5.13.2 - EXISTING WALLS






### 5.13.3 - WALL JOGS






CAD DRAWINGS-WALL-TO-WALLCONNECTIONS
 TO 8" T-WALL WITH END CAP











### 5.14 - STEEL REINFORCING

5.14.1 - WEB TIE REBAR SLOT LOCATIONS

CAD D R A WINGS - STEEL REINFORCING


### 5.14.2 - CORNERS

5.14.2.1 - CORNER WALL REINFORCING


A D D R A W I NGS - STEEL REINFORCING




### 5.14.3 - T-JUNCTIONS






### 5.15 - BEAM CONNECTIONS 5.15.1 - WOOD BEAMS











SNOPD N







5.15.2.11 - STEEL DECK PORCH COVER

CAD DRAWINGS - BEAM CONNECTIONS





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CAD DRAWINGS-BEAM CONNECTIONS



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CAD DRAWINGS-COLUMNCONNECTIONS

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CADD R A WINGS - COLUMNCONNECTIONS







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ECTION PORT FRAME
Logi 1 CF ( 8 "shown)

Projection
portframe


[^1]







5.20.7 - POOL SKIMMER

S 700 O

## 2021

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INSULATING CONCRETE FORMS

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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 nonload 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 nonICF 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 CONDITIONSTHAT APPLYTOYOUR 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 www.icf-ma.org.

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## 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.
1.6 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 | $300 \mathrm{~m}^{2}$ | $3200 \mathrm{ft}^{2}$ |
| :--- | ---: | ---: |
| Maximum Building Dimension | 24.4 m | 80 ft |
| Building Aspect Ratio (Length:Width) |  |  |
| $\mathrm{S}_{\text {a,lCF }} \leq 0.2$ | $2.5: 1$ |  |
| $\mathrm{~S}_{\text {allcF }}>0.2$ | $2: 1$ |  |
| 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: $S_{\text {a,ICF }}$ is the equivalent spectral response acceleration for ICF walls, provided in Appendix A.
1.9 The maximum unfactored gravity loads are:

| Roof Snow | 4.0 kPa | 84 psf |
| :--- | ---: | ---: |
| Floor Live | 1.9 kPa | 40 psf |
| Roof Dead | 0.7 kPa | 15 psf |
| Floor Dead | 0.7 kPa | 15 psf |
| Concrete Density | $23.6 \mathrm{kN} / \mathrm{m}^{3}$ | $150 \mathrm{lb} / \mathrm{t}^{3}$ |
| Brick Veneer Density | $20.0 \mathrm{kN} / \mathrm{m}^{3}$ | $128 \mathrm{lb} / \mathrm{tt}^{3}$ |
| 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 |

1.10 The lateral soil pressures against below grade walls are:

| Area Surcharge $\left(\mathrm{K}_{\mathrm{o}}=0.5\right)$ | 2.4 kPa | 50 psf |
| :---: | :---: | :---: |
| Equivalent Fluid Density <br> of Soil ( $\left.\mathrm{K}_{\mathrm{o}}=1.0\right)$ | $480-1200 \mathrm{~kg} / \mathrm{m}^{3}$ | $30-75 \mathrm{pcf}$ |

1.11

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.

The wind loads are indicated in the design tables.
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, $S_{\text {a, ICF }}$ is defined and provided in Appendix A. Equivalent spectral response, $S$, is used to calculate the seismic shear loads as given in following equation and the limits are indicated in shear wall tables.

$$
V_{\text {seismic }}=F S_{a, 1 C F} W / R_{d} R_{0}
$$

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 $\mathrm{S}_{\mathrm{a}}(0.2)$ values.

| $\mathrm{Sa}(0.2)$ | 0.25 | 0.7 | 1.20 | 1.75 |
| :---: | :---: | :---: | :---: | :---: |
| PGA | 0.16 | 0.434 | 0.724 | 1.04 |

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.
2.2 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

3.1 Concrete work shall conform to the latest editions of CSA
3.2 $\quad$ The minimum 28-day compressive strength of concrete shall
3.3 Maximum size of aggregates in concrete walls with minimum concrete cover of 40 mm , are to be $19 \mathrm{~mm}\left(3 / 4^{\prime \prime}\right)$ diameter. Maximum aggregate size shall be limited to $12.5 \mathrm{~mm}\left(1 / 2^{\prime \prime}\right)$ if the concrete cover is less than 40 mm .
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 15 M bars. 15 M bars may be installed as distributed steel where 10 M bars are specified, but must be installed at the same spacing as specified for the 10 M bars.
b) Bundled bars shall not be spliced over the span of any lintel.
Minimum bar lap length shall be:
a) 450 mm (18") for 10 M bars
b) $650 \mathrm{~mm}(26$ ") for 15 M bars
c) $750 \mathrm{~mm}(30$ ") for 20 M bars

Standard hook lengths shall be:
a) 200 mm (8") for 10 M bars
b) $250 \mathrm{~mm}\left(10^{\prime \prime}\right)$ for 15 M bars
c) 300 mm (12") for 20 M bars

Maintain a minimum concrete clear cover and reinforcement spacing of $40 \mathrm{~mm}\left(1 \frac{1}{2}\right.$ ") for all reinforcing steel, except 20 mm ( $3 / 4$ ") cover is permitted for below grade walls of heated buildings. The minimum concrete covers must be maintained for vertical bars in below grade walls.
Where bars within a lintel cannot achieve a minimum concrete side cover and spacing of $40 \mathrm{~mm}\left(11 / 2^{\prime \prime}\right)$, 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.

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
150 mm . 150 mm .
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 $\pm 1 / 4$."
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.
Version 2021-1
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 $600 \mathrm{~mm}(24$ ") $\times 600 \mathrm{~mm}(24$ ") 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 10 M or 15 M continuous bars at 300 mm (12") o.c. to 900 mm (36") o.c., in accordance with the tables.
5.1.2 Provide one continuous horizontal bar at maximum 150 mm
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.
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.
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 300 mm (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 150 mm (6") in diameter and less are permitted within a shear wall, provided they do not occur within 300 mm (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 1200 mm 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 $\mathrm{S}_{\mathrm{a}, \text { ICF }}>0.2$ 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

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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.
5.3.4 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 $1.83 \mathrm{~m}\left(6^{\prime}-0^{\prime \prime}\right)$ and a maximum height of 0.914 m ( $3^{\prime}-$ 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 1.22 m (4'-0").
5.4.5 A minimum of $2-10 \mathrm{M}$ 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 610 mm (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 1.22 m (4'-0"), from each side of the opening. If the spacing of the additional concentrated vertical
reinforcing required on each side of openings, described in the previous note, is less than 150 mm (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 200 mm ( 8 ") deep.
5.4.1.4 Lintel bottom reinforcing is to be installed a maximum of $89 \mathrm{~mm}\left(3^{1 / 2 ")}\right.$ ) from the bottom of the lintel and is to extend a minimum of $610 \mathrm{~mm}(24$ ") past the wall opening.
5.4.1.5 A minimum of $2-10 \mathrm{M}$ 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 406 mm (16") on center, and a minimum of $1-10 \mathrm{M}$ top bar located 50 mm (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 $\mathrm{S}_{\mathrm{a}}(0.2)>0.4$.
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 $10^{\prime}-0^{\prime \prime}$ and roof trusses spanning $30^{\prime}-0^{\prime \prime}$ on one side only is calculated as follows:

$$
\begin{aligned}
& \mathrm{UDL}= \mathrm{TW}_{\mathrm{FLOOR}}{ }^{*}\left(\mathrm{LL}_{\mathrm{FLOOR}}+\mathrm{DL}_{\text {FLOOR }}\right)+\mathrm{TW}_{\text {ROOF }}{ }^{*}\left(\mathrm{SL}_{\text {ROOF }}\right. \\
&\left.\quad+\mathrm{DL}_{\mathrm{fROOF}}\right)
\end{aligned}
$$

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 305 mm (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 610 mm (24") of wall between openings, and openings are greater than 1.53 m ( $5^{\prime}-0^{\prime \prime}$ ) in length, the lintel shall be reinforced to span over both openings, as shown in Detail L. 5.

## $\square \begin{gathered}5.5 \text { Stair Ope } \\ 5.5 .1\end{gathered}$

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 $480 \mathrm{~kg} / \mathrm{m} 3$ and a maximum $\mathrm{Sa}(0.2)$ 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.

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| 5.5.5 | The spacing of distributed vertical reinforcement is to be reduced for a distance of 1.22 m ( $4^{\prime}-0^{\prime \prime}$ ) 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) $S_{\text {REDUCED }}=2.44 /\left(\mathrm{L}_{\text {UNSUPPORTED }}+2.44\right) * \mathrm{~S}_{\text {TABLES }}$ $($ IMPERIAL $) S_{\text {Reduced }}=8 /\left(\mathrm{L}_{\text {unsupported }}+8\right) * S_{\text {tables }}$ |
|  | ```where S S REDUCED = the bar spacing (mm/in) required at the sides of``` |
|  | $\mathrm{S}_{\text {TABLES }}=$ the required bar spacing (mm/in) for a laterally supported wall as determined from above grade and below grade walls tables. |
|  | $\mathrm{L}_{\text {unsupported }}=$ the length of wall ( $\mathrm{m} / \mathrm{ft}$ ) 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 $480 \mathrm{~kg} / \mathrm{m}^{3}$ 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. |
| 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. |

Foundations are to bear directly on material suitable for 75

## 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.

## 8. Strip Footing

8.3
8.9
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.
The above grade and below grade wall reinforcing tables include the effects of using the ledge to support floor framing.
The below grade wall reinforcing tables include the effects of using the ledge to support masonry veneer.
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.

The ledge reinforcement is 10 M 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.

Protect soil from freezing adjacent to and below all footings.
All footings are to be reinforced with 2-15M continuous bars, as per Detail F. 1.
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 $\mathbf{1 2}^{\prime}-0$ " of masonry veneer for 3000 psf soil bearing capacity.
b) Every $10^{\prime}-0$ " of masonry veneer for 2500 psf 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.
The footing size for locations with $\mathrm{Sa}(0.2)>0.4$ to be the larger of 30 " wide by 12 " deep or the size shown in the table.
Provide footing dowels as shown in Detail F. 1.
Footing dowels are 10 M or 15 M bars embedded 6 " or 8 " into the footing. Dowels size and spacing is given in Table F. 1.
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.

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## Below \& Above Grade Walls Details and Tables



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


SPACE VERTICAL AND HORIZONTAL REINFORCING BARS AS PER THE TABLES

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

Build Anything Better. ${ }^{\text {m" }}$


> SPACE VERTICAL AND HORIZONTAL REINFORCING BARS AS PER THE TABLES

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

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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.


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) Vertical Bars in Every Three Cells)

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## Wall Configurations in a Building Without Walkout Basement



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.


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## 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.

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## 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.

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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.

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


Detail A.10. Shear Wall Concentrated Reinforcing Placement.

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Detail A.12. Above and Below Grade Wall Height

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

| $\begin{array}{\|c} \text { Wall Height } \\ m \\ (\mathrm{ft}) \end{array}$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ (30 pcf) $\quad$ Backfill Equival |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $720 \mathrm{~kg} / \mathrm{m3}$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 450 | (18) | 10M @ | 750 | (30) | 10M @ | 900 | (36) | 10M@ | 900 | (36) | 10M @ | 450 | (18) | 10M @ | 600 | (24) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | 1.53 | (5.0) | 10M @ | 450 | (18) | 10M @ | 600 | (24) | 10M @ | 900 | (36) | 10M@ | 900 | (36) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 750 | (30) | 10M @ | 900 | (36) |
|  | 1.83 | (6.0) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 750 | (30) | 10M @ | 900 | (36) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 10M@ | 600 | (24) | 10M @ | 750 | (30) |
|  | 2.13 | (7.0) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 10M @ | 600 | (24) | 10M@ | 750 | (30) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 600 | (24) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 900 | (36) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 750 | (30) | 10M @ | 600 | (24) | 10M @ | 900 | (36) | 10M@ | 900 | (36) | 15M @ | 750 | (30) | 10M@ | 600 | (24) | 10M@ | 750 | (30) | 10M @ | 900 | (36) |
|  | 1.53 | (5.0) | 15M@ | 750 | (30) | 10M @ | 450 | (18) | 10M @ | 750 | (30) | 10M@ | 900 | (36) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 600 | (24) | 10M @ | 900 | (36) |
|  | 1.83 | (6.0) | 15M @ | 600 | (24) | 15M @ | 900 | (36) | 10M @ | 600 | (24) | 10M @ | 900 | (36) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 10M @ | 450 | (18) | 10M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 10M @ | 450 | (18) | 10M@ | 750 | (30) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 750 | (30) | 15M @ | 900 | (36) |
|  | 2.44 | (8.0) | 15M @ | 300 | (12) | 15M @ | 600 | (24) | 15M@ | 900 | (36) | 15M@ | 900 | (36) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 750 | (30) |
|  | 2.74 | (9.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 15M @ | 900 | (36) | 15M @ | 150 | (6) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 750 | (30) | 10M@ | 600 | (24) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 15M @ | 750 | (30) | 10M @ | 450 | (18) | 10M@ | 750 | (30) | 10M @ | 900 | (36) |
|  | 1.53 | (5.0) | 15M @ | 750 | (30) | 15M @ | 900 | (36) | 10M @ | 750 | (30) | 10M @ | 900 | (36) | 15M @ | 600 | (24) | 15M @ | 750 | (30) | 10M @ | 600 | (24) | 10M @ | 750 | (30) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M @ | 750 | (30) | 10M @ | 600 | (24) | 10M@ | 750 | (30) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 600 | (24) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 15M @ | 900 | (36) |
|  | 2.44 | (8.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 15M@ | 900 | (36) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 750 | (30) |
|  | 2.74 | (9.0) | 15M @ | 150 | (6) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 750 | (30) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 600 | (24) |
|  | 3.05 | (10.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 750 | (30) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 750 | (30) | 10M @ | 450 | (18) | 10M@ | 750 | (30) | 10M@ | 900 | (36) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 750 | (30) | 10M @ | 900 | (36) |
|  | 1.53 | (5.0) | 15M @ | 600 | (24) | 15M @ | 900 | (36) | 10M @ | 600 | (24) | 10M@ | 900 | (36) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 10M@ | 450 | (18) | 10M @ | 750 | (30) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 10M @ | 450 | (18) | 10M@ | 750 | (30) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 300 | (12) | 15M@ | 600 | (24) | 15M @ | 750 | (30) | 15M @ | 900 | (36) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 900 | (36) |
|  | 2.44 | (8.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 900 | (36) | 15M@ | 150 | (6) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 600 | (24) |
|  | 2.74 | (9.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 600 | (24) | 15M@ | 750 | (30) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 3.05 | (10.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) |
|  | 3.35 | (11.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15 M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) |
| Wl/ | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10 M @ | 750 | (30) | 10M@ | 900 | (36) | 15M@ | 600 | (24) | 15M@ | 750 | (30) | 10M @ | 600 | (24) | 10 M @ | 900 | (36) |
|  | 1.53 | (5.0) | 15M @ | 600 | (24) | 15M @ | 750 | (30) | 10M @ | 600 | (24) | 10M @ | 900 | (36) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M @ | 750 | (30) |
|  | 1.83 | (6.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 600 | (24) | 15M@ | 300 | (12) | 15M@ | 600 | (24) | 15M @ | 750 | (30) | 15M @ | 900 | (36) |
|  | 2.13 | (7.0) | 15M @ | 300 | (12) | 15M @ | 600 | (24) | 15M @ | 750 | (30) | 15M@ | 900 | (36) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 750 | (30) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 900 | (36) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
|  | 2.74 | (9.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 3.05 | (10.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 3.35 | (11.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 3.66 | (12.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |
| Horizontal Reinforcement | $\begin{array}{r} \text { Block } \\ 12^{\prime \prime} \mathrm{a} \\ \hline \end{array}$ | $\begin{aligned} & \text { leight of } \\ & \text { nd } 18 \text { " } \end{aligned}$ | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | Height <br> 16" | 10M @ | 800 | (32) | 10 M @ | 800 | (32) | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) |

## NOTES

[^2]
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## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| $\begin{array}{\|c} \text { Wall Height } \\ m \\ (\mathrm{ft}) \end{array}$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3(60 \mathrm{pcf}) \quad$ Backfill Equival |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10)" Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 750 | (30) | 10M @ | 900 | (36) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 750 | (30) | 10M @ | 900 | (36) |
|  | 1.53 | (5.0) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 600 | (24) | 10M@ | 900 | (36) | 15M@ | 450 | (18) | 15M @ | 750 | (30) | 15M @ | 900 | (36) | 10M@ | 750 | (30) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 600 | (24) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 750 | (30) | 15M@ | 900 | (36) |
|  | 2.13 | (7.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 900 | (36) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 750 | (30) |
|  | 2.44 | (8.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 600 | (24) | 10M@ | 900 | (36) | 15M@ | 600 | (24) | 15M @ | 900 | (36) | 10M@ | 450 | (18) | 10M@ | 900 | (36) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 750 | (30) | 15M @ | 450 | (18) | 15M @ | 750 | (30) | 15M@ | 900 | (36) | 10M@ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 750 | (30) | 10M@ | 600 | (24) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 900 | (36) |
|  | 2.13 | (7.0) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 750 | (30) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.74 | (9.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 600 | (24) | 10M@ | 900 | (36) | 15M@ | 600 | (24) | 15M @ | 750 | (30) | 15M@ | 900 | (36) | 10M@ | 900 | (36) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 750 | (30) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 900 | (36) | 10M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 750 | (30) | 15M@ | 900 | (36) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 900 | (36) |
|  | 2.13 | (7.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 750 | (30) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |
|  | 2.74 | (9.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 600 | (24) | 10M@ | 900 | (36) | 15M@ | 600 | (24) | 15M @ | 750 | (30) | 15M@ | 900 | (36) | 10M@ | 750 | (30) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 900 | (36) | 10M@ | 600 | (24) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 750 | (30) | 10M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 15M@ | 900 | (36) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 750 | (30) |
|  | 2.13 | (7.0) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15 M @ | 300 | (12) | 15M@ | 450 | (18) |
|  | 2.74 | (9.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.35 | (11.0) |  | - |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | t.22 | (4.0) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 600 | (24) | 10M@ | 900 | (36) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 15M @ | 900 | (36) | 10M@ | 750 | (30) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 750 | (30) | 10M@ | 600 | (24) | 15M @ | 450 | (18) | 15 M @ | 450 | (18) | 15M@ | 750 | (30) | 15M @ | 900 | (36) |
|  | 1.83 | (6.0) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 900 | (36) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 750 | (30) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.74 | (9.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.35 | (11.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.66 | (12.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
| Horizontal Reinforcement | $\begin{array}{r} \hline \text { Block } \\ 12^{\prime \prime} \text { a } \\ \hline \end{array}$ | $\begin{aligned} & \text { teight of } \\ & \text { nd } 18^{\prime \prime} \end{aligned}$ | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | $\begin{gathered} \text { Block } \\ \text { of } \end{gathered}$ | Height <br> 16" | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10 M @ | 800 | (32) | 10 M @ | 800 | (32) |

## NOTES

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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| $\begin{array}{\|c} \text { Wall Height } \\ m_{\text {(ft) }} \\ \text { ( } \end{array}$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ (30 pcf) $\quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 400 | (16) | 10M @ | 600 | (24) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 10M @ | 800 | (32) | 10M @ | 800 | (32) |
|  | 1.53 | (5.0) | 10M @ | 400 | (16) | 10M @ | 600 | (24) | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 800 | (32) | 10M@ | 800 | (32) |
|  | 1.83 | (6.0) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 600 | (24) | 10M @ | 800 | (32) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 800 | (32) |
|  | 2.13 | (7.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 800 | (32) | 10M @ | 600 | (24) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 15M @ | 800 | (32) | 10M@ | 600 | (24) | 10M@ | 800 | (32) | 10M@ | 800 | (32) |
|  | 1.53 | (5.0) | 15M @ | 800 | (32) | 10M @ | 400 | (16) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 10M @ | 800 | (32) |
|  | 1.83 | (6.0) | 15M @ | 400 | (16) | 15M @ | 800 | (32) | 10M @ | 600 | (24) | 10M @ | 800 | (32) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10 M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.44 | (8.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.74 | (9.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 800 | (32) | 10 M @ | 600 | (24) | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 15M @ | 800 | (32) | 10M@ | 400 | (16) | 10M@ | 800 | (32) | 10M @ | 800 | (32) |
|  | 1.53 | (5.0) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 10M @ | 600 | (24) | 10M @ | 800 | (32) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 10M@ | 600 | (24) | 10M @ | 800 | (32) |
|  | 1.83 | (6.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M @ | 600 | (24) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 400 | (16) | 15M @ | 800 | (32) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.44 | (8.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.74 | (9.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 3.05 | (10.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 800 | (32) | 10M @ | 400 | (16) | 10M @ | 800 | (32) | 10M@ | 900 | (36) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) | 10M@ | 800 | (32) |
|  | 1.53 | (5.0) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 10M @ | 600 | (24) | 10M@ | 900 | (36) | 15M @ | 400 | (16) | 15M @ | 800 | (32) | 10M@ | 400 | (16) | 10M@ | 800 | (32) |
|  | 1.83 | (6.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.74 | (9.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 300 | (12) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 3.05 | (10.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |
|  | 3.35 | (11.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  | - | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) |
|  | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 10M @ | 600 | (24) | 10 M @ | 800 | (32) |
|  | 1.53 | (5.0) | 15M @ | 600 | (24) | 15M @ | 800 | (32) | 10M @ | 600 | (24) | 10M @ | 800 | (32) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 15M@ | 800 | (32) |
|  | 2.13 | (7.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 800 | (32) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 3.05 | (10.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |
|  | 3.35 | (11.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |
|  | 3.66 | (12.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |
| Horizontal Reinforcement | $\begin{array}{r} \hline \text { Block } \\ 12{ }^{\prime \prime} \mathrm{a} \\ \hline \end{array}$ | $\begin{aligned} & \text { eight of } \\ & \text { id } 18^{\prime \prime} \\ & \hline \end{aligned}$ | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | $\begin{array}{r} \text { Bloa } \\ \begin{array}{c} \text { Bock } \\ \text { of } \end{array} \\ \hline \end{array}$ | Height <br> $6^{\prime \prime}$ | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) |

## NOTES

[^3]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table B.1.2. Continued - Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, $\mathrm{Sa}(\mathbf{0 . 2}) \leq 0.25$ and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$, for ICF Walls with 8"Tie Spacing

| $\begin{array}{\|c} \text { Wall Height } \\ m \\ (\mathrm{ft}) \end{array}$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3(60 \mathrm{pcf}) \quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm ( 10 ") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 800 | (32) | 10M @ | 800 | (32) |
|  | 1.53 | (5.0) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 600 | (24) | 10M@ | 800 | (32) | 15M@ | 400 | (16) | 15M @ | 800 | (32) | 15M @ | 800 | (32) | 10M @ | 800 | (32) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 800 | (32) | 15M @ | 800 | (32) |
|  | 2.13 | (7.0) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) | 10M@ | 800 | (32) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 10M@ | 400 | (16) | 10M @ | 800 | (32) |
|  | 1.53 | (5.0) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 800 | (32) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 800 | (32) | 10M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 800 | (32) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.13 | (7.0) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) | 10M@ | 800 | (32) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M@ | 800 | (32) | 10M @ | 800 | (32) |
|  | 1.53 | (5.0) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 800 | (32) | 10M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 800 | (32) | 15M@ | 800 | (32) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.13 | (7.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 600 | (24) | 10M@ | 800 | (32) | 15M@ | 600 | (24) | 15M @ | 800 | (32) | 15M@ | 800 | (32) | 10M @ | 800 | (32) |
|  | 1.53 | (5.0) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 800 | (32) | 10M@ | 600 | (24) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 800 | (32) | 10M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.35 | (11.0) |  | - |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 600 | (24) | 10M@ | 800 | (32) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) | $10 \mathrm{M@}$ | 800 | (32) |
|  | 1.53 | (5.0) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 800 | (32) | 10M@ | 600 | (24) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 800 | (32) | 15M @ | 800 | (32) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 800 | (32) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 800 | (32) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.35 | (11.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.66 | (12.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
| Horizontal Reinforcement | $\begin{gathered} \hline \text { Block } \\ 12^{\prime \prime} \text { a } \\ \hline \end{gathered}$ | leight of | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | $\begin{gathered} \text { Block } \\ \text { of } \end{gathered}$ | $\begin{aligned} & \text { Height } \\ & 16^{\prime \prime} \\ & \hline \end{aligned}$ | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10 M @ | 800 | (32) | 10M @ | 800 | (32) |

## NOTES

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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ (30 pcf) $\quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | ( $720 \mathrm{~kg} / \mathrm{m3}$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10)" Wall |  |  | 300 mm (12") Wall |  |  | 150 mm ( (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm ( 10 ") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 450 | (18) | 10M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 450 | (18) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 15M @ | 150 | (6) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.74 | (9.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.74 | (9.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 3.05 | (10.0) | 15M @ | 150 | (6) |  |  |  | 15M @ | 300 | (12) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.74 | (9.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.35 | (11.0) |  | - |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  | - | , | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M @ | 450 | (18) | 10 M @ | 450 | (18) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.35 | (11.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.66 | (12.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) |
| Horizontal Reinforcement | $\begin{array}{\|c\|} \hline \text { Block } \\ 12 " \mathrm{ar} \\ \hline \end{array}$ | Height of nd $18^{\prime \prime}$ | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | $\begin{array}{\|c\|} \hline \text { Block } \\ \text { of } \end{array}$ | $\begin{aligned} & \text { Height } \\ & 16^{\prime \prime} \end{aligned}$ | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |

## NOTES

[^4]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> $m_{(\mathrm{ft})}$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3(60 \mathrm{pcf}) \quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 450 | (18) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 10M @ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M@ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 15M @ | 150 | (6) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.35 | (11.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
| W/ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) | 10M@ | 450 | (18) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 600 | (24) | 10M@ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 600 | (24) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.35 | (11.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.66 | (12.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M@ | 150 | (6) |
| Horizontal Reinforcement | $\begin{array}{r} \hline \text { Block } \\ 12{ }^{\prime \prime} \mathrm{a} \\ \hline \end{array}$ | $\begin{aligned} & \text { leight of } \\ & \text { nd } 18 \text { " } \end{aligned}$ | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | $\begin{gathered} \text { Block } \\ \text { of } \end{gathered}$ | $\begin{aligned} & \text { Height } \\ & 16^{\prime \prime \prime} \end{aligned}$ | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |

## NOTES

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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
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 $12^{\prime \prime}$ o.c. and $24^{\prime \prime}$ o.c. may be used to achieve an average spacing of $18^{\prime \prime}$ o.c. where $18^{\prime \prime}$ o.c. spacing is specified for horizontal bars, as shown in Detail A. 3 .

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ ( 30 pcf ) Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | t Fluid Density $\quad 720 \mathrm{~kg} / \mathrm{m} 3$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm ( 10 ") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 400 | (16) | 10M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 200 | (8) |
| , | 3.35 | (11.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  | $\checkmark$ |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |
|  | 3.35 | (11.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |
|  | 3.66 | (12.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |
| Horizontal Reinforcement | $\begin{aligned} & \hline \text { Block } \\ & 122^{\prime} \mathrm{a} \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { leight of } \\ & \text { od } 18 \text { " } \\ & \hline \end{aligned}$ | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | Height <br> 6" | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M@ | 800 | (32) |

## NOTES

[^5]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| $\begin{array}{\|c} \text { Wall Height } \\ m \\ (\mathrm{ft}) \end{array}$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3$ ( 60 pcf ) Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $\quad 1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm ( 10 ") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm ( 12 L ) Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.44 | (8.0) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |
| $\begin{gathered} 3.35 \\ (11.0) \end{gathered}$ | 1.22 | (4.0) | 15M@ | 600 | (24) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |
|  | 3.35 | $\begin{array}{\|l\|l\|} \hline \text { (11.0) } \end{array}$ |  | - |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |
| TVIT | 1.22 | (4.0) | 15M @ | 600 | (24) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 15M @ | 600 | (24) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 600 | (24) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{array}{r} \text { Block H } \\ 12 " \mathrm{an} \\ \hline \end{array}$ | $\begin{aligned} & \text { teight of } \\ & \text { nd } 18^{\prime \prime} \\ & \hline \end{aligned}$ | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M@ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) | 10M @ | 900 | (36) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | Height <br> 16 " | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M@ | 800 | (32) | 10M@ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) | 10M @ | 800 | (32) |

## NOTES

[^6]Build Anything Better.".

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> $m$ <br> $(\mathrm{ft})$ | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ ( 30 pcf ) Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $720 \mathrm{~kg} / \mathrm{m} 3$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 10M @ | 300 | (12) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 10M @ | 300 | (12) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 10 M @ | 300 | (12) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 10M @ | 300 | (12) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) |
|  | 2.74 | (9.0) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.83 | (6.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 10M @ | 300 | (12) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.44 | (8.0) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15 M @ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 10 M @ | 300 | (12) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.35 | (11.0) |  |  | 1 |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  | $\cdots$ |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.35 | (11.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M@ | 150 | (6) |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M@ | 150 | (6) |
| Horizontal Reinforcement | $\begin{array}{\|c} \hline \text { Block } \\ 12 " a a \\ \hline \end{array}$ | feight of $\text { nd } 18^{\prime \prime}$ | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |
|  | $\begin{array}{\|r\|} \hline \text { Block } \\ \text { of } \end{array}$ | $\begin{aligned} & \text { Height } \\ & 16^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |

## NOTES

[^7]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3$ ( 60 pcf ) |  |  |  |  |  |  |  |  |  |  |  | t Fluid Density $1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 450 | (18) | 15 M @ | 450 | (18) | 10M @ | 300 | (12) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15 M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15 M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 450 | (18) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 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) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |  |  |  | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |  |  |  | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 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) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |  |  |  | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15M @ | 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) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  | - | 15M@ | 150 | (6) |  |  | - |  |  |  |  |  |  | 15M @ | 150 | (6) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15M @ | 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) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{array}{r} \hline \text { Block } \\ 12 " \mathrm{a} \\ \hline \end{array}$ | $\begin{aligned} & \text { eight of } \\ & \text { d } 18^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | $\begin{aligned} & \text { Height } \\ & 6^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |

## NOTES

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## LOGIX ${ }^{\oplus}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table B.3.2. - Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, $0.70<\mathrm{Sa}(0.2) \leq 1.2$ and Hourly Wind Pressure, $q_{1 / 50} \leq 1.05 k P a$, for ICF Walls with 8 " Tie Spacing

| Wall Height <br> m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ ( 30 pcf ) Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $\quad 720 \mathrm{~kg} / \mathrm{m} 3$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm ( 10 ") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15M@ | 600 | (24) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M@ | 200 | (8) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 10M @ | 200 | (8) |
|  | 2.13 | (7.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M@ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 10M @ | 200 | (8) |
|  | 2.13 | (7.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M@ | 200 | (8) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 10M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 10M @ | 200 | (8) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M@ | 400 | (16) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M@ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
| , | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M@ | 400 | (16) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 10M@ | 400 | (16) | 10M @ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M@ | 400 | (16) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 10M@ | 200 | (8) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{aligned} & \text { Block } \\ & 122 \mathrm{a} \\ & \hline \end{aligned}$ | eight of nd 18" | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | Height <br> 6" | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |

## NOTES

[^9]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table B.3.2. Continued- Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, $0.70<\mathrm{Sa}(\mathbf{0 . 2})$ $\leq 1.2$ and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$, for ICF Walls with 8 "'Tie Spacing

| Wall Height <br> m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3$ ( 60 pcf ) Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm ( $6^{\prime \prime}$ ) Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 15 M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10M @ | 200 | (8) |
|  | 2.13 | (7.0) | 15 M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10 M @ | 400 | (16) | 10 M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15 M @ | 400 | (16) | 10 M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 15 M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10 M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10 M @ | 400 | (16) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 10 M @ | 200 | (8) | 15M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15 M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 200 | (8) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  | 15 M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 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) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15 M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.35 | (11.0) |  |  | , |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10 M @ | 400 | (16) | 10 M @ | 400 | (16) | 10M @ | 400 | (16) | 10M@ | 200 | (8) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | $10 \mathrm{M} @$ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 600 | (24) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10 M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) |  |  |  |  |  |  | 15 M @ | 200 | (8) | 15 M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{array}{r} \text { Block } \\ 12 " \mathrm{a} \\ \hline \end{array}$ | $\begin{aligned} & \text { eight of } \\ & \text { nd } 18^{\prime \prime} \end{aligned}$ | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | $\begin{aligned} & \text { Height } \\ & 16^{\prime \prime} \end{aligned}$ | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |

## NOTES

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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
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 Detail A.4.
5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A. 5 .

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $720 \mathrm{~kg} / \mathrm{m3}$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm ( 10 ") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.44 | (8.0) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M@ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 10M@ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 450 | (18) | 15M@ | 450 | (18) |
|  | 2.13 | (7.0) | 15M@ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 150 | (6) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 15 M @ | 150 | (6) | 15M@ | 450 | (18) | 15M @ | 450 | (18) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |
|  | 2.74 | (9.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  | 15M@ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M@ | 300 | (12) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 15M@ | 450 | (18) | 10M @ | 300 | (12) | 10M@ | 300 | (12) | 10M@ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 150 | (6) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 15M@ | 150 | (6) | 15M@ | 450 | (18) | 15M@ | 450 | (18) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M@ | 150 | (6) |
|  | 3.35 | (11.0) |  |  | , |  |  |  |  | - |  | 15M@ | 150 | (6) |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  | 15M @ | 150 | (6) |
| W | 1.22 | (4.0) | 15M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 10M@ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M@ | 150 | (6) | 15M @ | 450 | (18) | 15M@ | 450 | (18) | 10M@ | 300 | (12) | 15M@ | 150 | (6) | 15M@ | 300 | (12) | 15M@ | 450 | (18) | 10M@ | 300 | (12) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |  |  |  |  |  |  | 15M@ | 150 | (6) | 15M@ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  | 15M@ | 150 | (6) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{array}{\|c} \hline \text { Block } \\ 12 " a \\ \hline \end{array}$ | $\begin{aligned} & \text { teight of } \\ & \text { nd } 18^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | $\begin{array}{\|c} \hline \begin{array}{r} \text { Block } \\ \text { of } \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \text { Height } \\ & \hline 16^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |

## NOTES

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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
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 $18^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ 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.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table B.4.1. Continued- Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, $1.2<\mathrm{Sa}(\mathbf{0 . 2})$ $\leq 1.75$ and Hourly Wind Pressure, $q_{1 / 50} \leq 1.05 \mathrm{kPa}$, for ICF Walls with 6 " Tie Spacing

| Wall Height m <br> (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3(60 \mathrm{pcf}) \quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | 俍 $1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm ( $6^{\prime \prime}$ ) Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 15 M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) | 15 M @ | 150 | (6) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 10M @ | 300 | (12) |
|  | 1.83 | (6.0) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) | 15 M @ | 450 | (18) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 450 | (18) | 15 M @ | 450 | (18) |
|  | 2.13 | (7.0) | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 450 | (18) | 10 M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 150 | (6) | 15M @ | 450 | (18) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) | 15M @ | 150 | (6) | 15M @ | 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 @ | 300 | (12) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) | 15M @ | 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) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 15 M @ | 450 | (18) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15M @ | 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) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 450 | (18) | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 150 | (6) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  | 15 M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 15M @ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15M @ | 450 | (18) | 15M @ | 450 | (18) |
|  | 1.83 | (6.0) | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) | 15 M @ | 150 | (6) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) |
|  | 2.13 | (7.0) |  |  |  | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15 M @ | 150 | (6) | 15M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |
|  | 3.35 | (11.0) |  |  | , |  |  |  |  |  |  | 15M@ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15 M @ | 150 | (6) |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 15M @ | 450 | (18) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 10M @ | 300 | (12) | 15M @ | 300 | (12) | 10M@ | 300 | (12) | 10M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | 1.53 | (5.0) | 15 M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) | 15M @ | 450 | (18) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) | 15M@ | 450 | (18) | 15M @ | 450 | (18) |
|  | 1.83 | (6.0) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 450 | (18) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 150 | (6) | 15M @ | 150 | (6) | 15 M @ | 300 | (12) |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) | 15M @ | 300 | (12) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15 M @ | 150 | (6) | 15 M @ | 150 | (6) |  |  |  |  |  |  | 15M @ | 150 | (6) | 15 M @ | 150 | (6) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  | 15 M @ | 150 | (6) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 150 | (6) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{array}{r} \hline \text { Block } \\ 12{ }^{\prime \prime} \text { a } \end{array}$ | $\begin{aligned} & \text { eight of } \\ & \text { nd 18" } \end{aligned}$ | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | $\begin{aligned} & \text { Height } \\ & \hline 16^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) |

## NOTES

 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
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 $18^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A.5.

Build Anything Better.

## LOGIX ${ }^{\oplus}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height <br> $\mathrm{m}_{\mathrm{ft}}$ <br> ft | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $480 \mathrm{~kg} / \mathrm{m} 3$ (30 pcf) $\quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | nt Fluid Density $720 \mathrm{~kg} / \mathrm{m3}$ (45 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm ( (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm (10") Wall |  |  | 300 mm ( $12^{\prime \prime}$ ) Wall |  |  | 150 mm ( (6") Wall |  |  | 200 mm ( $8^{\prime \prime}$ ) Wall |  |  | 250 mm ( 101 ) Wall |  |  | 300 mm ( 12 ") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 200 | (8) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 15M@ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 10M @ | 200 | (8) | 10M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 200 | (8) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 10M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) |
|  | 2.13 | (7.0) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 200 | (8) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 10M@ | 200 | (8) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 10M@ | 200 | (8) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 600 | (24) |
|  | 1.83 | (6.0) |  |  |  | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 10M@ | 200 | (8) | 15M@ | 600 | (24) | 10M@ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15M@ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15M@ | 200 | (8) | 15M @ | 400 | (16) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M@ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 200 | (8) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.35 | (11.0) |  |  | , |  |  |  |  | , |  | $\square$ |  |  |  |  |  |  |  |  | , |  |  |  |  |  |
|  | 1.22 | (4.0) | 10M @ | 200 | (8) | 15M@ | 600 | (24) | 10M @ | 400 | (16) | 10M@ | 400 | (16) | 10M@ | 200 | (8) | 10M@ | 200 | (8) | 10M @ | 400 | (16) | 10M@ | 400 | (16) |
|  | 1.53 | (5.0) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 10M @ | 200 | (8) | 15M@ | 600 | (24) | 15M@ | 200 | (8) | 15M@ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M@ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  |  |  |  | 15M@ | 200 | (8) | 15M@ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.44 | (8.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  | 15M@ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{array}{\|c} \hline \text { BlockH } \\ 122^{2} \text { ar } \\ \hline \end{array}$ | $\begin{aligned} & \text { teight of } \\ & \text { nd } 18^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |
|  | $\begin{array}{r} \text { Bloar } \\ \hline \text { Bl } \\ \text { of } \end{array}$ | Height <br> $16^{\prime \prime}$ | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15M@ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) |

## NOTES

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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
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 $18^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ 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.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table B.4.2. Continued- Below Grade Wall Distributed Reinforcement for Seismic Zone Classification, $1.2<\mathrm{Sa}(\mathbf{0 . 2})$ $\leq 1.75$ and Hourly Wind Pressure, $q_{1 / 50} \leq 1.05 \mathrm{kPa}$, for ICF Walls with 8" Tie Spacing

| Wall Height m (ft) | Backfill Height m (ft) |  | Vertical Steel (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $960 \mathrm{~kg} / \mathrm{m} 3(60 \mathrm{pcf}) \quad$ Backfill Equivale |  |  |  |  |  |  |  |  |  |  |  | 俍 $1200 \mathrm{~kg} / \mathrm{m} 3$ (75 pcf) |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 150 mm ( $6^{\prime \prime}$ ) Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  | $150 \mathrm{~mm}\left(6^{\text {" }}\right.$ ) Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| $\begin{aligned} & 2.44 \\ & (8.0) \end{aligned}$ | 1.22 | (4.0) | 15M @ | 400 | (16) | 15M @ | 600 | (24) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 10 M @ | 200 | (8) | 10M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 600 | (24) |
|  | 1.83 | (6.0) | 15 M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) | 15 M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15 M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15 M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15 M @ | 400 | (16) |
| $\begin{aligned} & 2.74 \\ & (9.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10 M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10 M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 10M @ | 200 | (8) | 15 M @ | 600 | (24) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15 M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15 M @ | 200 | (8) | 15 M @ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  | 15 M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
| $\begin{gathered} 3.05 \\ (10.0) \end{gathered}$ | 1.22 | (4.0) | 10 M @ | 200 | (8) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 10M @ | 200 | (8) | 10M @ | 200 | (8) | 15M @ | 600 | (24) | 10 M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15 M @ | 200 | (8) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10M@ | 200 | (8) | 15 M @ | 200 | (8) | 15 M @ | 400 | (16) | 15M @ | 400 | (16) | 10M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.44 | (8.0) |  |  |  |  |  |  | 15 M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 3.35 \\ & (11.0) \end{aligned}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M @ | 200 | (8) | 10M @ | 400 | (16) | 10 M @ | 400 | (16) | 10M @ | 200 | (8) | 10 M @ | 200 | (8) | 15M @ | 600 | (24) | 10M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 10 M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) | 15 M @ | 400 | (16) | 10 M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15 M @ | 200 | (8) | 15M @ | 200 | (8) | 15M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  |  |  |  | 15 M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.44 | (8.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} 3.66 \\ (12.0) \end{gathered}$ | 1.22 | (4.0) | 10M @ | 200 | (8) | 10M@ | 200 | (8) | 10 M @ | 400 | (16) | 10M @ | 400 | (16) | 10 M @ | 200 | (8) | 10M@ | 200 | (8) | 15M @ | 600 | (24) | 10 M @ | 400 | (16) |
|  | 1.53 | (5.0) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10M @ | 200 | (8) | 15M @ | 200 | (8) | 15 M @ | 400 | (16) | 15M@ | 400 | (16) | 10 M @ | 200 | (8) |
|  | 1.83 | (6.0) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15 M @ | 400 | (16) |  |  |  | 15M @ | 200 | (8) | 15 M @ | 200 | (8) | 15 M @ | 400 | (16) |
|  | 2.13 | (7.0) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |  |  |  |  |  |  | 15M @ | 200 | (8) | 15M @ | 200 | (8) |
|  | 2.44 | (8.0) |  |  |  |  |  |  |  |  |  | 15M @ | 200 | (8) |  |  |  |  |  |  |  |  |  | 15 M @ | 200 | (8) |
|  | 2.74 | (9.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.05 | (10.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.35 | (11.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 3.66 | (12.0) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Horizontal Reinforcement | $\begin{gathered} \text { Block } \\ 122^{\prime \prime} \mathrm{ar} \end{gathered}$ | eight of <br> nd $18{ }^{\prime \prime}$ | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | $\begin{array}{r} \text { Block } \\ \text { of } \end{array}$ | $\begin{aligned} & \text { Height } \\ & 16^{\prime \prime} \\ & \hline \end{aligned}$ | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |

## NOTES

[^10]Build Anything Better. ${ }^{\text {m }}$

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height |  | Distributed Vertical Reinforcement (Size and Spacing) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m | (ft) | 150 mm (6") Wall |  |  | 200 mm (8") Wall |  |  | 250 mm (10") Wall |  |  | 300 mm (12") Wall |  |  |
| Hourly Wind Pressure $\mathrm{q}_{1 / 50} \leq \mathbf{0 . 5} \mathbf{~ k P a}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 Pressure $q_{1 / 50} \leq 0.75 \mathbf{k P a}$

| 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 Pressure $q_{1 / 50} \leq 1.05$ kPa


## NOTES

2. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300 mm ( $12^{\prime \prime}$ ) 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 3.0 m ( 10 '- 0 ").

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height |  | Distributed Vertical Reinforcement (Size and Spacing) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| m | (ft) | $150 \mathrm{~mm}\left(6^{\prime \prime}\right)$ Wall | $200 \mathrm{~mm}\left(8^{\prime \prime}\right)$ Wall | $250 \mathrm{~mm}\left(10^{\prime \prime}\right)$ Wall | $300 \mathrm{~mm}\left(12^{\prime \prime}\right)$ Wall |

Hourly Wind Pressure $q_{1 / 50} \leq 0.5 \mathrm{kPa}$

| 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 $q_{1 / 50} \leq 0.75$ kPa

| 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 $\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$

| 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 Reinforcement | Block Height of 12 " and $18{ }^{\prime \prime}$ | 10 M @ | 900 | (36) | 10 M @ | 900 | (36) | 10 M @ | 900 | (36) | 10 M @ | 900 | (36) |
|  | Block Height of 16" | 10 M @ | 800 | (32) | 10 M @ | 800 | (32) | 10 M @ | 800 | (32) | 10 M @ | 800 | (32) |

## NOTES

1. $\mathrm{S}_{\mathrm{a}, \text { ICF }}$ 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 300 mm (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 3.0 m ( $10^{\prime}-0^{\prime \prime}$ ).
Alternating vertical bar spacing of 8 " o.c. and $16^{\prime \prime}$ o.c. may be used to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ o.c. spacing is specified for vertical bars, as shown in Detail A. 5 .

Build Anything Better."

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

|  | ight |  |  |  | stribut | rtic | info | ment ( | and | acin |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m | (ft) | 150 | (6") |  | 200 | (8") |  | 250 | (10' |  | 300 | 12" |  |
| Seismic zone class | on, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.4$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 Reinforcement | Block Height of $12^{\prime \prime}$ and 18" | 15 M @ | 450 | (18) | 15 M @ | 450 | (18) | 15 M @ | 450 | (18) | 10 M @ | 450 | (18) |
|  | Block Height of 16 " | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10 M @ | 400 | (16) |

Seismic zone classification, $\mathrm{S}_{\mathrm{a}, \mathrm{lcF}} \leq \mathbf{0 . 7}$

| 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 Reinforcement | Block Height of 12 "and 18" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 10 M @ | 300 | (12) |
|  | Block Height of 16" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 10 M @ | 300 | (12) |

Seismic zone classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 1.05$

| 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) | 15M @ | 300 | (12) | 15 M @ | 300 | (12) | 10 M @ | 300 | (12) |
| 3,05 | (10) | 15M@ | 300 | (12) | 15M@ | 300 | (12) | 15 M @ | 300 | (12) | 10M@ | 300 | (12) |
| 3.66 | (12) | 15 M @ | 300 | (12) | 15M @ | 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 Reinforcement | Block Height of 12 " and 18" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | Block Height of 16" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |

## NOTES

[^11]Build Anything Better."

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table A.2.2. Above Grade Wall Distributed Reinforcement for Seismic Zone Classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \geq 0.2$ and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 1.05$ for ICF Walls with $\mathbf{8 "}$ Tie Spacing

| Wall Height |  | Distributed Vertical Reinforcement (Size and Spacing) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| m |  | $(\mathrm{ft})$ | $150 \mathrm{~mm}\left(6{ }^{\prime \prime}\right)$ Wall | $200 \mathrm{~mm}(8 ")$ Wall | $250 \mathrm{~mm}(10 ")$ Wall |

Seismic zone classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.4$

| 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 Reinforcement | Block Height of 12" and 18" | 15 M @ | 450 | (18) | 15 M @ | 450 | (18) | 15 M @ | 450 | (18) | 10 M @ | 450 | (18) |
|  | Block Height of 16" | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 15 M @ | 400 | (16) | 10 M @ | 400 | (16) |

Seismic zone classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.7$

| 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 Reinforcement | Block Height of 12 " and 18 " | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | Block Height of 16" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |

Seismic zone classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 1.05$

| 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) |
| 1 3,05 | (10) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 10 M @ | 300 | (12) |
| V 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 Reinforcement | Block Height of 12" and 18" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |
|  | Block Height of 16" | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) | 15 M @ | 300 | (12) |

## NOTES

1. $\quad \mathrm{S}_{\text {a,ICF }}$ 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 $3.0 \mathrm{~m}\left(10^{\prime}-0^{\prime \prime}\right)$.
4. Provide two layers of the indicated horizontal and vertical distributed steel specified for 300 mm ( 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.

Provide 3 horizontal bars in every two rows of $18^{" \prime}$ 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 $12^{\prime \prime}$ 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.

Build Anything Better.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table A.3. Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ClF}} \leq 0.2$ and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 0.5 \mathrm{kPa}$ (in a Building Without Walkout Basement)

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $\mathrm{S}_{\mathrm{a}, \text { ICF }} \leq 0.085$ |  |  |  | $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.145$ |  |  |  | $\mathrm{S}_{\mathrm{a}, \mathrm{lCF}} \leq 0.2$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8$ '0" | $2 \times 4{ }^{\prime}-0^{\prime \prime}$ | $3 \times 2$ '-8" | $4 \times 2-00$ | $1 \times 10{ }^{\prime}-0^{\prime \prime}$ | $2 \times 5{ }^{\prime \prime} 4^{\prime \prime}$ | $3 \times 3$ '6" | $4 \times 2$-8" | $1 \times 12{ }^{\prime}-0{ }^{\prime \prime}$ | $2 \times 7$ '0" | $3 \times 5{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 3$-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 Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8$-0" | $2 \times 4-0{ }^{\prime \prime}$ | $3 \times 2$-8" | $4 \times 2-0{ }^{\prime \prime}$ | $1 \times 10^{\prime}-0^{\prime \prime}$ | $2 \times 5-4{ }^{\prime \prime}$ | $3 \times 3$-6" | $4 \times 2{ }^{\prime}-8{ }^{\prime \prime}$ | $1 \times 12{ }^{\prime}-0 \mid$ | $2 \times 7$-0" | $3 \times 51-0 \mid$ | $4 \times 3{ }^{\prime}-8{ }^{\prime \prime}$ |
| 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 Framed Walls, Floor and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10{ }^{\prime} 0$ | $2 \times 6{ }^{\prime}-0$ | $3 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 3$-0" | $1 \times 12^{\prime}-6{ }^{\prime \prime}$ | $2 \times 7$-0" | $3 \times 5{ }^{\prime}-0$ | $4 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $1 \times 17{ }^{\prime}-0 \mid$ | $2 \times 10^{\prime}-0{ }^{\prime \prime}$ | $3 \times 6{ }^{\prime}-8$ " | $4 \times 5{ }^{\prime}-0{ }^{\prime \prime}$ |
| 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 Structure Supporting Wood Frame Floors and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 12{ }^{\prime}-0^{\prime \prime}$ | $2 \times 6{ }^{\prime}-8{ }^{\prime \prime}$ | $3 \times 4{ }^{\prime}-4^{\prime \prime}$ | $4 \times 3{ }^{\prime}-4{ }^{\prime \prime}$ | $1 \times 16{ }^{\prime \prime} 0^{\prime \prime}$ | $2 \times 9$ 9-0" | $3 \times 6{ }^{\prime}-4{ }^{\prime \prime}$ | $4 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $1 \times 21^{\prime}-0^{\prime \prime}$ | $2 \times 12$ '4" | $3 \times 8{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 6{ }^{\prime}-6{ }^{\prime \prime}$ |
| 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 |
| $1{ }^{1}$ | (10) | 2 | 4 | 4 | 5 | 2 | 4 | - 4 | 5 | 2 | 3 | 4 | 4 |
| 3.66 | (12) | 3 | 4 | 5 | 6 | 2 | 4 | 5 | 6 | 2 | 3 | 4 | 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 Reinforcement | $\begin{gathered} 6^{\prime \prime} \text { ICF } \\ \text { Tie Spacing } \end{gathered}$ | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  |
|  | 8"ICF Tie Spacing | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  |
| Horizontal Reinforcement | 6" ICF <br> Tie Spacing | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) |
|  | 8"ICF <br> Tie Spacing | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) |

NOTES

1. $\quad S_{\text {alicF }}$ 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".

Provide two layers of the indicated horizontal and vertical distributed steel specified for 300 mm ( 12 ") walls. Place each layer as shown in the rebar placement drawing.
All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
Use Table A. 6 for buildings that do not meet the required wall length of this table.
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 10 M bars may be replaced by an equivalent number of 15 M 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.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table A. 4 - Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ClF}} \leq 0.2$ and Hourly Wind Pressure, $0.5 \mathrm{kPa}<\mathrm{q}_{1 / 50} \leq 0.75 \mathrm{kPa}$ (in a Building Without Walkout Basement)

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $\mathrm{S}_{\mathrm{a}, \text { ICF }} \leq 0.085$ |  |  |  | $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.145$ |  |  |  | $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.2$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8$-0" | $2 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 2$ '-8" | $4 \times 2$-0" | $1 \times 10^{\prime}-0{ }^{\prime \prime}$ | $2 \times 5{ }^{\prime}-0$ | $3 \times 3$ '6" | $4 \times 2$-8" | $1 \times 11^{\prime}-0 \mid$ | $2 \times 6{ }^{\prime \prime} 8^{\prime \prime}$ | $3 \times 4{ }^{\prime} 8^{\prime \prime}$ | $4 \times 3{ }^{\prime}-6{ }^{\prime \prime}$ |
| 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 Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8{ }^{\prime}-0{ }^{\prime \prime}$ | $2 \times 4{ }^{\prime}-0$ | $3 \times 2$ '-8" | $4 \times 2$-0" | $1 \times 10^{\prime}-0{ }^{\prime \prime}$ | $2 \times 5{ }^{\prime}-0 \mid$ | $3 \times 3{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 2$ '-8" | $1 \times 11^{\prime}-0^{\prime \prime}$ | $2 \times 6{ }^{\prime \prime} 8^{\prime \prime}$ | $3 \times 4$ '-8" | $4 \times 3{ }^{\prime}-6^{\prime \prime}$ |
| 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 Wood Framed Walls, Floor and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10{ }^{\prime} 0$ | $2 \times 6{ }^{\prime}-0$ | $3 \times 4{ }^{\prime}-0^{\prime \prime}$ | $4 \times 3$ '-0" | $1 \times 12 \mathrm{C}-0 \mid$ | $2 \times 6{ }^{\prime}-8{ }^{\prime \prime}$ | $3 \times 5{ }^{\prime}-0{ }^{\prime \prime}$ | 4×4'-0" | $1 \times 16{ }^{\prime} 0^{\prime \prime}$ | $2 \times 9$-0" | $3 \times 6{ }^{\prime}-8$ | $4 \times 5{ }^{\prime}-0^{\prime \prime}$ |
| 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 Structure Supporting Wood Frame Floors and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 12^{\prime}-0{ }^{\prime \prime}$ | $2 \times 6{ }^{\prime}-0^{\prime \prime}$ | $3 \times 4{ }^{\prime}-4^{\prime \prime}$ | $4 \times 3{ }^{\prime}-4^{\prime \prime}$ | $1 \times 15{ }^{\prime}-0^{\prime \prime}$ | $2 \times 9$ '0" | $3 \times 6{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 4$-0" | $1 \times 20{ }^{\prime \prime}$ | $2 \times 11^{\prime}-0 \mid$ | $3 \times 8.01$ | $4 \times 6{ }^{\prime \prime} 4^{\prime \prime}$ |
| 2.44 | (8) | 2 | 4 | - 4 | 4 | 3 | 3 | 4 | -5 | 2 | 3 | 4 | 4 |
| 2.75 | (9) | 2 | 4 | 4 | 5 | 3 | 3 |  | 6 | 2 | $3$ |  | $4$ |
| 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 | 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 Reinforcement | $\begin{gathered} 6^{\prime \prime} \text { ICF } \\ \text { Tie Spacing } \end{gathered}$ | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  |
|  | $\begin{aligned} & \hline 8^{\prime \prime} \text { ICF } \\ & \text { Tie Spacing } \end{aligned}$ | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  |
| Horizontal Reinforcement | $\begin{gathered} \text { 6" ICF } \\ \text { Tie Spacing } \end{gathered}$ | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) |
|  | $\begin{gathered} \text { 8" ICF } \\ \text { Tie Spacing } \end{gathered}$ | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) |

## NOTES

1. $S_{\mathrm{a}, \mathrm{CCF}}$ 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".

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table A. 5 - Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.2$ and Hourly Wind Pressure, $0.75 \mathrm{kPa}<\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$ (in a Building Without Walkout Basement)

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $\mathrm{S}_{\text {a, ICF }} \leq 0.085$ |  |  |  | $\mathrm{S}_{\mathrm{a}, \text { ICF }} \leq 0.145$ |  |  |  | $\mathrm{S}_{\text {a, ICF }} \leq 0.2$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8$ '0" | $2 \times 4{ }^{\prime}-0$ | $3 \times 2$-8" | $4 \times 2-00$ | $1 \times 10{ }^{\prime}-0^{\prime \prime}$ | $2 \times 5{ }^{\prime}-4{ }^{\prime \prime}$ | $3 \times 3$-6" | $4 \times 2$-8" | $1 \times 12^{\prime}-0^{\prime \prime}$ | $2 \times 7$ '0" | $3 \times 5{ }^{\prime}-0^{\prime \prime}$ | $4 \times 3{ }^{\prime}-8{ }^{\prime \prime}$ |
| 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 Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8{ }^{\prime}-0^{\prime \prime}$ | $2 \times 4{ }^{\prime} 0^{\prime \prime}$ | $3 \times 2$-8" | $4 \times 2-0{ }^{\prime \prime}$ | $1 \times 10^{\prime}-0^{\prime \prime}$ | $2 \times 5-4{ }^{\prime \prime}$ | $3 \times 3-6{ }^{\prime \prime}$ | $4 \times 2$-8" | $1 \times 12^{\prime}-0^{\prime \prime}$ | $2 \times 7$-0" | $3 \times 5{ }^{\prime}-0^{\prime \prime}$ | $4 \times 3{ }^{\prime}-8{ }^{\prime \prime}$ |
| 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 Wood Framed Walls, Floor and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10{ }^{\prime} 0$ | $2 \times 6{ }^{\prime}-0$ | $3 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 3$-0" | $1 \times 12^{\prime}-6{ }^{\prime \prime}$ | $2 \times 7{ }^{\prime}-0$ | $3 \times 5{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $1 \times 17^{\prime}-0 \mid$ | $2 \times 10{ }^{\prime}-0 \mid$ | $3 \times 6{ }^{\prime}-8{ }^{\prime \prime}$ | $4 \times 5{ }^{\prime}-0^{\prime \prime}$ |
| 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 Structure Supporting Wood Frame Floors and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 12^{\prime}-0^{\prime \prime}$ | $2 \times 6{ }^{\prime}-8$ | $3 \times 4{ }^{\prime}-4{ }^{\prime \prime}$ | $4 \times 3{ }^{\prime}-4{ }^{\prime \prime}$ | $1 \times 16^{\prime}-0{ }^{\prime \prime}$ | $2 \times 9$ 9-0" | $3 \times 6{ }^{\prime}-4{ }^{\prime \prime}$ | $4 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $1 \times 21^{\prime}-0 \mid$ | $2 \times 12^{\prime \prime}-4$ | $3 \times 8$ '6" | $4 \times 6{ }^{\prime}-6{ }^{\prime \prime}$ |
| 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 | 6 | 2 | 4 | 5 | 5 |
| 3.66 | (12) | 2 | 5 | 6 |  | 2 | 5 | 6 |  | 2 | 4 | 5 | 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 Reinforcement | 6"ICF <br> Tie Spacing | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  |
|  | 8"ICF <br> Tie Spacing | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  |
| Horizontal Reinforcement | 6" ICF <br> Tie Spacing | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) |
|  | 8"ICF <br> Tie Spacing | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) |

## NOTES

1. $\quad \mathrm{S}_{\text {a,lCF }}$ 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 300 mm ( 12 ") walls. Place each layer as shown in the rebar placement drawing.

All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
Use Table A. 6 for buildings that do not meet the required wall length of this table.
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 10 M bars may be replaced by an equivalent number of 15 M 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.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $\mathrm{S}_{\text {a }}$ CFF $\leq 0.2$ |  |  |  | $\mathrm{S}_{\text {alcF }} \leq 0.4$ |  |  |  | $S_{\text {alcF }} \leq 0.7$ |  |  |  | $S_{\text {alcF }} \leq 1.05$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10^{\prime \prime}-0^{\prime \prime}$ | $2 \times 5{ }^{1}-0^{\prime \prime}$ | $3 \times 4$-0" | $4 \times 3$-0" | $1 \times 13-0{ }^{\prime \prime}$ | $2 \times 7$-6" | $3 \times 5{ }^{1}-6{ }^{\prime \prime}$ | 4×4-0" | $1 \times 16-0{ }^{\prime \prime}$ | $2 \times 9$-0" | $3 \times 7$-0" | $4 \times 5{ }^{\text {- }}$ " ${ }^{\prime \prime}$ | $1 \times 18-0{ }^{\prime \prime}$ | $2 \times 122^{\prime \prime}$ | $3 \times 9.01$ | 4×7-0" |
| 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 Walls of One Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10^{\prime}-0^{\prime \prime}$ | $2 \times 5{ }^{\text {² }}$ " ${ }^{\prime \prime}$ | $3 \times 4{ }^{\prime}-0^{\prime \prime}$ | $4 \times 3^{\prime}-0{ }^{\prime \prime}$ | $1 \times 14^{\prime}-0^{\prime \prime}$ | $2 \times 8{ }^{-10}$ | $3 \times 6{ }^{\prime}-0^{\prime \prime}$ | $4 \times 4{ }^{\text {- }}$ - ${ }^{\text {" }}$ | $1 \times 17^{\prime}-0^{\prime \prime}$ | $2 \times 11^{\prime}-0^{\prime \prime}$ | $3 \times 7$ - ${ }^{\text {a }}$ | $4 \times 5{ }^{\text {- }}$ - ${ }^{\text {" }}$ | $1 \times 20^{\prime}-0^{\prime \prime}$ | $2 \times 12^{\prime \prime} 0^{\prime \prime}$ | $3 \times 9$-0" | $4 \times 7$-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 Walls of Two Story Structure Supporting 2nd Story Wood Framed Walls, Floor and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 14^{\prime}-0^{\prime \prime}$ | $2 \times 8$-0" | $3 \times 6$-0" | $4 \times 4$-0" | $1 \times 16-0{ }^{\prime \prime}$ | $2 \times 11^{\prime}-0^{\prime \prime}$ | $3 \times 8$-0" | 4×6-0" | $1 \times 24-0{ }^{\prime \prime}$ | $2 \times 14-0{ }^{\prime \prime}$ | $3 \times 10^{\prime \prime}-0^{\prime \prime}$ | $4 \times 8$-0" | $1 \times 28-0{ }^{\prime \prime}$ | $2 \times 16$-0" | $3 \times 122^{\prime}-0^{\prime \prime}$ | $4 \times 9-01$ |
| 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 |  |  |  |
| Main Floor Walls of Two Story ICF Structure Supporting Wood Frame Floors and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1×16-0" | $2 \times 10$-0" | $3 \times 7$-0" | $4 \times 6$-0" | $1 \times 22^{-01}$ | $2 \times 14-0{ }^{\text {a }}$ | $3 \times 11^{\prime}-01$ | $4 \times 8$-0" | $1 \times 28^{-0} 0^{\prime \prime}$ | $2 \times 16$-0" | $3 \times 12-0{ }^{\prime \prime}$ | $4 \times 9{ }^{\prime \prime} \mathbf{4}^{\prime \prime}$ | $1 \times 34-0{ }^{\prime \prime}$ | $2 \times 20^{\prime}-0^{\prime \prime}$ | $3 \times 15{ }^{-010}$ | $4 \times 12-0^{\prime \prime}$ |
| 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 |  | 6 | 2 | -3 | 5 | 6 |
| 3.05 | (10) | 2 | 3 | 4 | 4 | 2 | 4 | 4 | 6 | 2 | 4 | 5 |  | 2 | 4 | 6 | $\cdots$ |
| 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 |  |  |  |
| 4.88 | (16) | 2 | 4 |  |  | 3 | 5 | 5 |  | 5 |  |  |  | 5 |  |  |  |
| Vertical Reinforcement | $6^{\prime \prime}$ ICFTie Spacing | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  |
|  | $8^{\prime \prime}$ 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. |  |  |  |
| Horizontal Reinforcement | Block Height of 12 "and $18{ }^{\prime \prime}$ | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  |
|  | Block Height of 16" | As per table A.2.2. |  |  |  | As per table A.2.2. |  |  |  | As per table A.2.2. |  |  |  | As per table A.2.2. |  |  |  |

## NOTES

1. $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}}$ 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 300 mm ( $12^{\prime \prime}$ ) walls. Place each layer as shown in the rebar placement drawing.

All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
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"
All concentrated reinforcement is to be continues to the bottom of the foundation wall. Provide lap splices as required.
Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.
10. Horizontal reinforcement in shear walls where $S_{\text {a,lcF }}>0.2$ must be anchored using a standard $180^{\circ}$ hook around vertical end bars.
11. When using this table for $\mathrm{S}_{\mathrm{a}, \mathrm{CF}} \leq 0.2$, use the vertical and horizontal distributed steel in Tables A.2.1. or A.2.2. for $\mathrm{S}_{\mathrm{a}, \mathrm{CC}} \leq 0.4$.

Build Anything Better.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table A.7. Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ClF}} \leq 0.2$ and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 0.5 \mathrm{kPa}$ (in a Building With Walkout Basement)

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $\mathrm{S}_{\text {aICF }} \leq 0.085$ |  |  |  | $\mathrm{S}_{\text {a }}$ CF 50.145 |  |  |  | $\mathrm{S}_{\text {دل¢F }} \leq 0.2$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8{ }^{\prime}-0{ }^{\prime \prime}$ | $2 \times 4$-0" | $3 \times 2$-8" | $4 \times 2$-0" | $1 \times 11^{\prime}-0 \mid$ | $2 \times 6{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 4$ '0" | $4 \times 3$ '-6" | $1 \times 14{ }^{\prime}-0^{\prime \prime}$ | $2 \times 8{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 5$-6" | $4 \times 4{ }^{\prime \prime} 4^{\prime \prime}$ |
| 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 Walls of One Story ICF Structure Supporting Wood Frame Roof

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 8{ }^{\prime}-0{ }^{\prime \prime}$ | $2 \times 4$-0" | $3 \times 2$ '-8" | $4 \times 2$-0" | $1 \times 11$ '-0" | $2 \times 6{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 3$ '-6" | $1 \times 14{ }^{\prime}-0 \mid$ | $2 \times 8{ }^{\prime}-0$ | $3 \times 5$-6" | $4 \times 4$ '-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 Walls of Two Story Structure Supporting 2nd Story Wood Framed Walls, Floor and Roof
Number and length of shear walls provided

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 10^{\prime}-0 \mid$ | $2 \times 7$ 7-0" | $3 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 3{ }^{\prime}-4{ }^{\prime \prime}$ | $1 \times 14{ }^{\prime}-0 \mid$ | $2 \times 88^{\prime}-0{ }^{\prime \prime}$ | $3 \times 6{ }^{\prime}-4{ }^{\prime \prime}$ | $4 \times 4{ }^{\prime}-4{ }^{\prime \prime}$ | $1 \times 20^{\prime}-0$ | $2 \times 11{ }^{\prime}-0$ | $3 \times 7$ '-8" | $4 \times 6{ }^{\prime}-0^{\prime \prime}$ |
| 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 Walls of Two Story ICF Structure Supporting Wood Frame Floors and Roof
Number and length of shear walls provided

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 12^{\prime}-0^{\prime \prime}$ | $2 \times 7{ }^{\text {' }}$ - ${ }^{\prime \prime}$ | $3 \times 4{ }^{\prime}-8{ }^{\prime \prime}$ | $4 \times 3$ 3'8" | $1 \times 18^{\prime}-0 \mid$ | $2 \times 10^{\prime}-0^{\prime \prime}$ | $3 \times 7{ }^{\prime}-8{ }^{\prime \prime}$ | $4 \times 5{ }^{\prime}-4$ " | $1 \times 24{ }^{\prime}-0 \mid$ | $2 \times 13{ }^{\prime}-0$ | $3 \times 9$ '-6" | $4 \times 7$ '-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 A | (10) | 3 - | 4 | 5 | 5 | 2 | 5 N | 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 | 6 |  |
| erical | $6^{\prime \prime}$ ICFTie Spacing | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  |
| Reinforcement | $8^{\prime \prime}$ ICFTe Spacing | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  |
| $\underset{\text { Reinforcement }}{\substack{\text { Horizontal } \\ \text { Rent }}}$ | Block Height of 12 "and 18 " | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) |
|  | Block Height of 16" | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) |

## NOTES

[^12]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $S_{\text {a }}^{\text {ICF }}$ S $\leq 0.085$ |  |  |  | $S_{\text {a }}$ CF 50.145 |  |  |  | $S_{\text {alcF }} \leq 0.2$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8{ }^{\prime}$-0" | $2 \times 4$-0" | $3 \times 2$ '-8" | $4 \times 2$-0" | $1 \times 10$ '-6" | $2 \times 5{ }^{\prime}-8{ }^{\prime \prime}$ | $3 \times 4$-0" | $4 \times 3$-4" | $1 \times 13$ '-6" | $2 \times 7{ }^{\prime}-6{ }^{\prime \prime}$ | $3 \times 5{ }^{\prime}-0{ }^{\prime \prime}$ | $4 \times 4$-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 Walls of One Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8{ }^{\prime}$-0" | $2 \times 4{ }^{\prime}-0$ | $3 \times 2$ '-8" | $4 \times 2$-0" | $1 \times 10$ '-6" | $2 \times 5{ }^{\prime}-8{ }^{\prime \prime}$ | $3 \times 4{ }^{\prime}-0 \mid$ | $4 \times 3$-0" | $1 \times 13{ }^{\prime}-6{ }^{\prime \prime}$ | $2 \times 7{ }^{\prime}-6{ }^{\text {² }}$ | $3 \times 5$ '-0" | $4 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ |
| 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 Walls of Two Story Structure Supporting 2nd Story Wood Framed Walls, Floor and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10$-0" | $2 \times 7{ }^{\prime}-0$ | $3 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 3$ '-4" | $1 \times 14{ }^{\prime}-0 \mid$ | $2 \times 7{ }^{\prime}-8$ " | $3 \times 5$ '-8" | $4 \times 4{ }^{\prime}-4{ }^{\prime \prime}$ | $1 \times 17{ }^{\prime}-6 "$ | $2 \times 10{ }^{\prime}-6{ }^{\prime \prime}$ | $3 \times 7{ }^{\prime}-4$ | $4 \times 5{ }^{\prime}-8{ }^{\prime \prime}$ |
| 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 Walls of Two Story ICF Structure Supporting Wood Frame Floors and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 12$-0" | $2 \times 7{ }^{\prime}-0$ | $3 \times 4{ }^{\prime}-8{ }^{\prime \prime}$ | $4 \times 3$ '-8" | $1 \times 17^{\prime}-0 \mid$ | $2 \times 9$ 9'-6" | $3 \times 7$-0" | $4 \times 5$ '-4" | $1 \times 22$-0" | $2 \times 12^{\prime}-6{ }^{\prime \prime}$ | $3 \times 9$-0" | $4 \times 7{ }^{\prime}-4{ }^{\prime \prime}$ |
| 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 | $1 \circlearrowleft$ | - | 2 | - 4 | 5 | 6 |
| 4.27 | (14) | 4 | 5 |  |  | 3 | 6 |  |  | 2 | 5 | 6 | 6 |
| 4.88 | (16) | 4 | 5 |  |  | 3 | 6 |  |  | 2 | 5 | 6 | 6 |
| Vertical Reinforcement | $6{ }^{\text {" }}$ ICF Tie Spacing | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  |
|  | $8^{\prime \prime}$ ICFTie Spacing | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  |
| Horizontal Reinforcement | Block Height of 12 "and $18{ }^{\prime \prime}$ | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) |
|  | Block Height of 16" | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) |

## NOTES

1. $\quad \mathrm{S}_{\mathrm{a}, \mathrm{ICF}}$ 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".

Provide two layers of the indicated horizontal and vertical distributed steel specified for $300 \mathrm{~mm}\left(12^{\prime \prime}\right)$ walls. Place each layer as shown in the rebar placement drawing.
All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
Use Table A. 10 for buildings that do not meet the required wall length of this table.
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 10 M bars may be replaced by an equivalent number of 15 M 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.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Wall Height |  | Number of Concentrated Vertical 10M Reinforcing Bars at End of Each Shear Wall |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) | $\mathrm{S}_{\text {alcF }} \leq 0.085$ |  |  |  | $\mathrm{S}_{\text {a }}$ CF 50.145 |  |  |  | $S_{\text {a }}$ CEF $\leq 0.2$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 8{ }^{\prime}-0{ }^{\prime \prime}$ | $2 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 2$-8" | $4 \times 2$-0" | $1 \times 10^{\prime}-0 \mid$ | $2 \times 5$ '-6" | $3 \times 4{ }^{\prime}-0 \mid$ | $4 \times 3$-4" | $1 \times 12$-0" | $2 \times 7{ }^{\prime}-0 \mid$ | $3 \times 4$ '-6" | $4 \times 3$ - ${ }^{\prime \prime}$ |
| 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 Walls of One Story ICF Structure Supporting Wood Frame Roof
Number and length of shear walls provided

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 8{ }^{\prime}-0 \mid$ | $2 \times 4$ '0" | $3 \times 2$ '-8" | $4 \times 2$-0" | $1 \times 10^{\prime}-0 \mid$ | $2 \times 5$-6" | $3 \times 4$-0" | $4 \times 3$ '-0" | $1 \times 12 \mathrm{C}$ - ${ }^{\prime \prime}$ | $2 \times 7$ 7-0" | $3 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 3$ '-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 Walls of Two Story Structure Supporting 2nd Story Wood Framed Walls, Floor and Roof

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 10$ '-0" | $2 \times 7{ }^{\prime}-0$ | $3 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 3$ '-4" | $1 \times 13^{\prime}-0 \mid$ | $2 \times 7{ }^{\prime \prime} \mathbf{4}^{\prime \prime}$ | $3 \times 5{ }^{\prime}-4{ }^{\prime \prime}$ | $4 \times 4{ }^{\prime}-0{ }^{\prime \prime}$ | $1 \times 15{ }^{\prime}-0 \mid$ | $2 \times 9$ '-6" | $3 \times 6$ '-8" | $4 \times 5$ '-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 Walls of Two Story ICF Structure Supporting Wood Frame Floors and Roof

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 12{ }^{\prime}-0$ | $2 \times 7$-0" | $3 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $4 \times 3$ '-6" | $1 \times 16{ }^{\prime \prime}-0^{\prime \prime}$ | $2 \times 9{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 6$ '-6" | $4 \times 4{ }^{\prime}-6{ }^{\prime \prime}$ | $1 \times 20$ '0" | $2 \times 12$-0" | $3 \times 8{ }^{\prime}-4{ }^{\prime \prime}$ | $4 \times 6$ '-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 | 1 | 2 | 5 | 16 | - | 2 | 3 |  | 6 |
| 4.27 | (14) | 2 | 5 |  |  | 2 | 5 | 6 |  | 2 | 3 | 6 | $\square$ |
| 4.88 | (16) | 2 | 6 |  |  | 2 | 5 |  |  | 2 | 3 | 6 |  |
| Vertical Reinforcement | 6 "ICF Tie Spacing | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  | As per table A.1.1. |  |  |  |
|  | 8"ICF Tie Spacing | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  | As per table A.1.2. |  |  |  |
| Horizontal Reinforcement | Block Height of 12 "and $18{ }^{\prime \prime}$ | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) | 10 M @ |  | 450 | (18) |
|  | Block Height of 16" | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) | 10 M @ |  | 400 | (16) |

## NOTES

[^13]Table A. 10 - Above Grade Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, $S_{a, I C F}>$ 0.2 and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$ (in a Building With Walkout Basement)

| Wall Height |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| m | (ft) |  |  |  |  | $\mathrm{S}_{\text {a }}$ CEF $\leq 0.4$ |  |  |  | $S_{\text {a }}$ CFE $\leq 0.7$ |  |  |  | $\mathrm{S}_{\text {a }}$ (CFF $\leq 1.05$ |  |  |  |
| Second Floor Walls of Two Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10^{-}-0^{\prime \prime}$ | $2 \times 5{ }^{1}-0^{\prime \prime}$ | $3 \times 4$-0" | $4 \times 3$-0" | $1 \times 13^{\prime}-0^{\prime \prime}$ | $2 \times 7{ }^{\prime \prime}$-6" | $3 \times 5^{\prime}-6{ }^{\prime \prime}$ | $4 \times 4$-0" | $1 \times 16-0{ }^{\prime \prime}$ | $2 \times 9$-0" | $3 \times 7$-0" | $4 \times 5{ }^{\prime}-0^{\prime \prime}$ | $1 \times 18-0{ }^{\prime \prime}$ | $2 \times 12-0{ }^{\prime \prime}$ | $3 \times 9-010$ | $4 \times 7$-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 Walls of One Story ICF Structure Supporting Wood Frame Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 11^{\prime}-0^{\prime \prime}$ | $2 \times 6{ }^{1010}$ | $3 \times 4$-0" | $4 \times 3$-0" | $1 \times 16^{\prime}-0^{\prime \prime}$ | 2×9-0" | $3 \times 6{ }^{\prime}-0^{\prime \prime}$ | $4 \times 4-0{ }^{\prime \prime}$ | $1 \times 20-0{ }^{\prime \prime}$ | $2 \times 12-0{ }^{\prime \prime}$ | $3 \times 8$-0" | $4 \times 6$-0" | $1 \times 24-0{ }^{\prime \prime}$ | $2 \times 13^{-101}$ | $3 \times 9-011$ | $4 \times 7$-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 Walls of Two Story Structure Supporting 2nd Story Wood Framed Walls, Floor and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1×14'-0" | $2 \times 8{ }^{1} 6^{\prime \prime}$ | $3 \times 6{ }^{\prime}-0^{\prime \prime}$ | $4 \times 4{ }^{4}-0^{\prime \prime}$ | $1 \times 20^{\prime}-0^{\prime \prime}$ | $2 \times 14{ }^{\prime}-0^{\prime \prime}$ | $3 \times 9$-0" | $4 \times 7$-0" | $1 \times 26$-0" | $2 \times 15^{\prime}-0^{\prime \prime}$ | $3 \times 11^{1}-01$ | $4 \times 9$-0" | $1 \times 30^{\prime}-0 \mid$ | $2 \times 17^{\prime}-0^{\prime \prime}$ | $3 \times 13{ }^{\prime}-01$ | $4 \times 10^{\prime}-0 \mid$ |
| 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 Walls of Two Story ICF Structure Supporting Wood Frame Floors and Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 16{ }^{\prime}-0{ }^{\prime \prime}$ | $2 \times 10^{\prime \prime}-4$ | $3 \times 7$-6" | $4 \times 6$-0" | $1 \times 23-0{ }^{\prime \prime}$ | $2 \times 15^{\prime}-0^{\prime \prime}$ | $3 \times 11^{\prime}-0 \mid$ | $4 \times 9$-0" | $1 \times 32-01$ | $2 \times 17^{\prime}-0^{\prime \prime}$ | $3 \times 13^{\prime}-0^{\prime \prime}$ | $4 \times 10^{\prime}-0^{\prime \prime}$ | $1 \times 38{ }^{1} 0{ }^{\prime \prime}$ | $2 \times 22^{\prime}-0 \mid$ | $3 \times 17^{1-01}$ | $4 \times 13^{\prime}-0^{\prime \prime}$ |
| 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 | 4 | 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 | - |
| 3.66 | (12) | 4 | 5 | 6 | 6 | 4 | 5 | 6 |  | 2 |  |  |  | 2 |  |  |  |
| 4.27 | (14) | 5 | 6 |  |  | 6 |  |  |  | 5 |  |  |  | 5 |  |  |  |
| 4.88 | (16) | 5 | 6 |  |  | 6 |  |  |  | 6 |  |  |  | 6 |  |  |  |
| Vertical Reinforcement | $6{ }^{\prime \prime}$ ICF Tie Spacing | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  |
|  | $8^{\prime \prime}$ 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. |  |  |  |
| Horizontal Reinforcement | Block Height of 12 " and $18{ }^{\prime \prime}$ | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  | As per table A.2.1. |  |  |  |
|  | Block Height of 16" | As per table A.2.2. |  |  |  | As per table A.2.2. |  |  |  | As per table A.2.2. |  |  |  | As per table A.2.2. |  |  |  |

## NOTES

. $\mathrm{S}_{\text {a, ICF }}$ 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 300 mm ( $12^{\prime \prime}$ ) 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.

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 10 M bars may be replaced by an equivalent number of 15 M 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.
Concentrated reinforcement is to be placed in accordance with Bar Placement Detail.
10. Horizontal reinforcement in shear walls where $\mathrm{S}_{\mathrm{a}, \mathrm{CF}}>0.2$ must be anchored using a standard $180^{\circ}$ hook around vertical end bars.
11. When using this table for $\mathrm{S}_{\mathrm{a}, \text { IC }} \leq 0.2$, use the vertical and horizontal distributed steel in Tables A.2.1. or A.2.2. for $\mathrm{S}_{\mathrm{a}, \text { ICF }} \leq 0.4$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table A. 11 - Above Grade Walkout Basement Shear Wall Concentrated Vertical Reinforcement for Seismic Zone Classification, $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}} \leq 0.4$ and Hourly Wind Pressure, $\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$

| Wall Height |  | Seismic Zone Classification |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| m | (ft) | $\mathrm{S}_{\text {alce }} \leq 0.085$ |  |  | $\mathrm{S}_{\text {alce }} \leq 0.145$ |  |  | $\mathrm{S}_{\text {a }}^{\text {LCF }}$ $\leq 0.2$ |  |  | $\mathrm{S}_{\text {a }}^{\text {LCF }}$ $\leq 0.4$ |  |  |
| Walkout Basement Wall of a Single Story ICF Structure Supporting Wood Framed Roof |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $1 \times 10{ }^{\prime}-0$ | $2 \times 6{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 4{ }^{\prime}-0 \mid$ | $1 \times 12{ }^{\prime}-0 \mid$ | $2 \times 8{ }^{\prime}-0{ }^{\prime \prime}$ | $3 \times 6{ }^{\prime}-0{ }^{\prime \prime}$ | $1 \times 14{ }^{\prime}-0 \mid$ | $2 \times 9$ 9'0" | $3 \times 7$ '-0" | $1 \times 19{ }^{\prime}-0$ | $2 \times 13{ }^{\prime}-0 \mid$ | $3 \times 10{ }^{\prime}-0^{\prime \prime}$ |
| 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 Basement Walls of a Two Story Wood Framed Structure Supporting Wood Frame Floors and Roof
Number and length of shear walls provided

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 10$ '-0" | $2 \times 6{ }^{\prime}-6{ }^{\prime \prime}$ | $3 \times 5{ }^{\prime}-0{ }^{\prime \prime}$ | $1 \times 12 \mathrm{C}-0$ | $2 \times 8$ 8-0" | $3 \times 6{ }^{\prime}-0 \mid$ | $1 \times 14{ }^{\text {'-0" }}$ | $2 \times 9$ 9'0" | $3 \times 7$ 7'0" | $1 \times 19{ }^{\prime}-0$ | $2 \times 13$ '-0" | $3 \times 10{ }^{\prime}-0 \mid$ |
| 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 Basement Wall of a Two Story Building with Main Floor ICF Walls Supporting 2nd Story Wood Framed Walls, Floor and Roof
Number and length of shear walls provided

|  |  | Number and length of shear walls provided |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $1 \times 12{ }^{\prime}-0^{\prime \prime}$ | $2 \times 7{ }^{\text {'-0" }}$ | $3 \times 5$ '-6" | $1 \times 14{ }^{\prime}-0$ | $2 \times 9$-0" | $3 \times 7$ '-0" | $1 \times 16{ }^{\prime}-0 \mid$ | $2 \times 11^{\prime}-0$ | $3 \times 8$-6" | $1 \times 22^{\prime}-0^{\prime \prime}$ | $2 \times 15^{\prime}-0{ }^{\prime \prime}$ | $3 \times 12{ }^{\prime}-0^{\prime \prime}$ |
| 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 Basement Wall of Two Story ICF Structure Supporting Wood Frame Floors and Roof
Number and length of shear walls provided

## Lintel Details and Tables



## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS



Detail L. 2. Lintel Stirrup Detail.

## Detail L. 3. Lintel Section

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


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

## LOGIX ${ }^{\oplus}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L1 6" Lintel Reinforcement with Uniformly Distributed Load

| Lintel Span |  | Lintel - 6"'Thick x 8" Deep (150mm Thick x 200mm Deep), s = 3" (75mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 33kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb/ft |  | $1500 \mathrm{lb} / \mathrm{ft}$ |  | 17501b/ft |  | 2000lb/ft |  | 2250lb/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ | Bottom Reinf. Steel | $\begin{gathered} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ |
| 900 | (3) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 1-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 1-15M | $\begin{aligned} & \hline 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |
| 1200 | (4) | 1-10M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 1-20M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 375 \\ (15) \\ \hline \end{array}$ |  |  |  |  |  |  |
| 1500 | (5) | 1-15M | 0 | 1-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 1800 | (6) | 1-15M | 0 | 1-20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 $1-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars. Bottom reinforcement located 89 mm (3.5") from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 6" Thick x 12" Deep (150mm Thick x 300mm Deep), s = 6" (150mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $33 \mathrm{kN} / \mathrm{m}$ |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 500 | $\mathrm{lb} / \mathrm{ft}$ | 750 | $\mathrm{lb} / \mathrm{ft}$ | 1000 | lb/ft | 1250 | $\mathrm{lb} / \mathrm{ft}$ | 1500 | $\mathrm{lb} / \mathrm{ft}$ | 175 | $\mathrm{lb} / \mathrm{ft}$ | 200 | Olb/ft | 225 | $\mathrm{lb} / \mathrm{ft}$ | 250 | lb/ft |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | $\substack{\text { Stirup } \\ \text { End } \\ \text { Distance }}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirupp } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 900 | (3) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-10M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |
| 1200 | (4) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 300 \\ & (12) \end{aligned}$ | 1-15M | 300 <br> $(12)$ | 1-15M | $\begin{array}{r} 450 \\ (18) \end{array}$ | 1-15M | $\begin{array}{r} 450 \\ (18) \end{array}$ |
| 1500 | (5) | 1-10M | 0 | 1-15M | 0 | 1-15M | 300 (12) | 1-15M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 1800 | (6) | 1-15M | 0 | 1-15M | 0 | 1-15M | 300 (12) | 1-15M | $\begin{aligned} & 450 \\ & (18) \end{aligned}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 750 \\ (30) \end{array}$ |
| 2400 | (8) | 1-15M | 0 | 1-20M | $\begin{array}{r} 450 \\ (18) \end{array}$ | 2-15M | 600 (24) | 2-15M | $\begin{array}{r} 750 \\ (30) \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ |  |  |  |  |  |  |  |  |
| 3000 | (10) | 1-20M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3600 | (12) | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 $89 \mathrm{~mm}(3.5$ ") 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) $>0.4$.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L1 Continued

| Lintel Span |  | Lintel - 6"Thick x 16" Deep (150mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $7.5 \mathrm{kN} / \mathrm{m}$ |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  | $43.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb/ft |  | 1500lb/ft |  | 1750lb/ft |  | 2000lb/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  | $3000 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-10M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ |
| 1200 | (4) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | $\begin{aligned} & 400 \\ & (16) \end{aligned}$ | 1-15M | $\begin{aligned} & \hline 400 \\ & (16) \end{aligned}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \end{aligned}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \end{aligned}$ |
| 1500 | (5) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ |
| 1800 | (6) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ |
| 2400 | (8) | 1-15M | 0 | 1-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M }+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ |  |  |
| 3000 | (10) | 1-15M | 0 | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |
| 3600 | (12) | 1-20M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 800 \\ & (32) \\ & \hline \end{aligned}$ | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M}}}$ | $\begin{aligned} & 1000 \\ & (40) \end{aligned}$ | $\begin{gathered} \text { T-10M + } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |
| 4200 | (14) | 2-15M | $\begin{aligned} & 800 \\ & (32) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{aligned} & \hline \text { 1-15M + } \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - ${ }^{\prime \prime}$ Thick x 24" Deep (150mm Thick x 600mm Deep), s = 12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $7.5 \mathrm{kN} / \mathrm{m}$ |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $\frac{14.5 \mathrm{kN} / \mathrm{m}}{1000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{18 \mathrm{kN} / \mathrm{m}}{1250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{43.5 \mathrm{kN} / \mathrm{m}}{3000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{51 \mathrm{kN} / \mathrm{m}}{3500 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | 500 | $\mathrm{lb} / \mathrm{ft}$ | 750 | lb/ft |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \begin{array}{c} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel |  | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ |
| 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 | $\begin{aligned} & 300 \\ & (12) \end{aligned}$ |
| 1200 | (4) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-10M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 1500 | (5) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 1800 | (6) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 2400 | (8) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |
| 3000 | (10) | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |
| 3600 | (12) | 1-15M | 0 | 1-20M | $\begin{array}{r} \hline 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4200 | (14) | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 4800 | (16) | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1950 \\ & (78) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M+ } \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | $\begin{gathered} 1800 \\ (72) \\ \hline \end{gathered}$ | 3-20M | $\begin{array}{r} 2100 \\ (84) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{gathered} 2100 \\ (84) \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |
| 6000 | (20) | $\begin{gathered} \substack{1-15 \mathrm{M}++1-20 \mathrm{M}} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \substack{1-10 \mathrm{M} \\ \text { 2-20M }} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 2100 \\ & (84) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { T-15M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{gathered} 2400 \\ (96) \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |

## NOTES

[^14]Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located 89 mm (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 $\mathrm{Sa}(0.2)>0.4$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L1 Continued

| Lintel Span |  | Lintel - 6 "Thick x 32" Deep (150mm Thick x 800mm Deep), s = 18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  | $43.5 \mathrm{kN} / \mathrm{m}$ |  | $51 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 500 v |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 12501b/tt |  | $1500 \mathrm{lb} / \mathrm{ft}$ |  | 2000lb/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  | $3000 \mathrm{lb} / \mathrm{ft}$ |  | 3500lb/ft |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Stee | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ |
| 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 | $\begin{aligned} & 450 \\ & (18) \end{aligned}$ | 1-10M | $\begin{aligned} & 450 \\ & (18) \end{aligned}$ |
| 1500 | (5) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ |
| 1800 | (6) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 2400 | (8) | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & \hline 900 \\ & (36) \end{aligned}$ | 1-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 1-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 1-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 1-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ |
| 3000 | (10) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M} \\ \hline}}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |
| 3600 | (12) | 1-15M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4200 | (14) | 1-20M | 0 | 1-20M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{gathered} 1800 \\ (72) \\ \hline \end{gathered}$ |  |  |  |  |  |  |
| 4800 | (16) | 1-20M | 0 | 1-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M + } \\ \text { 1-20M } \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M + } \\ \text { 1-20M } \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { T-10M + } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | 1-20M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1-10 \mathrm{M}+ \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{gathered} 2250 \\ (90) \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | $\begin{gathered} \text { 1-15M++} \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \end{aligned}$ | 2-20M | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ | $\underset{2-20 \mathrm{M}}{\text { 1-10M + }}$ | $\begin{gathered} 2250 \\ (90) \end{gathered}$ | 3-20M | $\begin{gathered} 2250 \\ (90) \end{gathered}$ |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}(3.5$ ") from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L2 8" Lintel Reinforcement with Uniformly Distributed Load

| Lintel Span |  | Lintel - 8" Thick x 8" Deep (200mm Thick x 200mm Deep), s = 3" (75mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 33kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 5001b/ft |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | $1250 \mathrm{lb} / \mathrm{ft}$ |  |  |  | 1750lb/ft |  | $2000 \mathrm{lb} / \mathrm{ft}$ |  | 22501b/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | Stirup End Distance |
| 900 | (3) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 1-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ |
| 1200 | (4) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & \hline 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & \hline 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-20M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 1-20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |  |  |  |  |
| 1500 | (5) | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 225 \\ & (9) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 1800 | (6) | 1-15M | 0 | 1-20M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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"
. Do not install more than $2-15 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
2. This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing".
3. 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 Span |  | Lintel - 8"'Thick x 12" Deep (200mm Thick x 300mm Deep), s = 6" (150mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | 18kN/m |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 33kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 500 | $\mathrm{lb} / \mathrm{ft}$ | 750 | $\mathrm{lb} / \mathrm{ft}$ | 1000 | $\mathrm{lb} / \mathrm{ft}$ | 1250 | $\mathrm{lb} / \mathrm{ft}$ | 1500 | lb/ft | 1750 | lb/ft | 200 | Olb/ft | 225 | lb/ft | 250 | lb/ft |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{aligned} & \text { Bottom } \\ & \text { Reinf. } \\ & \text { Steel } \end{aligned}$ | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\substack{\text { Stirup } \\ \text { End } \\ \text { Distance }}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ |
| 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 | $\begin{aligned} & 300 \\ & (12) \end{aligned}$ |
| 1200 | (4) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-15M | $\begin{aligned} & 300 \\ & (12) \end{aligned}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |
| 1500 | (5) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & \hline 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ |
| 1800 | (6) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-20M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 2400 | (8) | 1-15M | 0 | 1-20M | 0 | 1-20M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M } \\ \\ 2-200 \end{array}+ \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |  |  |  |  |
| 3000 | (10) | 1-20M | 0 | 2-15M | $\begin{aligned} & 450 \\ & (18) \end{aligned}$ | 2-20M | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |
| 3600 | (12) |  | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M + } \\ \text { 2-200 } \end{array} \end{gathered}$ | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4200 | (14) | $\begin{array}{\|c\|} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

[^15]. Do not install more than $1-15 \mathrm{M}+2-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L2 Continued

| Lintel Span |  | Lintel - 8"'Thick x 16" Deep (200mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  | $43.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb/ft |  | $1500 \mathrm{lb} / \mathrm{ft}$ |  | 1750lb/ft |  | $2000 \mathrm{lb} / \mathrm{ft}$ |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  | $3000 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ |
| 1500 | (5) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-15M | $\begin{aligned} & \hline 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ |
| 1800 | (6) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & \hline 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ |
| 2400 | (8) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-15M + + } \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ |
| 3000 | (10) | 1-15M | 0 | 1-20M | 0 | 2-15M | $\begin{aligned} & 400 \\ & (16) \end{aligned}$ | 2-15M | $\begin{aligned} & 800 \\ & (32) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1000 \\ & (40) \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M + } \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 1000 \\ & (40) \end{aligned}$ | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |
| 3600 | (12) | 1-20M | 0 | 2-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M}}}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\underset{2-20 \mathrm{M}}{\mathrm{~T}-10 \mathrm{M}}+$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4200 | (14) | 2-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{aligned} & \text { 1-10M+} \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \begin{array}{c} \text { 1-10M } \\ 2-20 \mathrm{C} \end{array}+ \end{gathered}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) | 3-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

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

| Lintel Span |  | Lintel - 8"'Thick x 24" Deep ( 200 mm Thick $\times 600 \mathrm{~mm}$ Deep), $\mathrm{s}=12$ " $(300 \mathrm{~mm}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $7.5 \mathrm{kN} / \mathrm{m}$ |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{43.5 \mathrm{kN} / \mathrm{m}}{3000 \mathrm{lb} / \mathrm{ft}}$ |  | $51 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 500 | lb/tt | 750 | $\mathrm{lb} / \mathrm{tt}$ | 1000 | lb/t |  | $\mathrm{Olb} / \mathrm{ft}$ |  |  | 3500 | $\mathrm{lb} / \mathrm{tt}$ |  |  |  |  |
| mm | (t) | $\begin{gathered} \hline \text { Bottom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Stimup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { Botom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Botom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{aligned} & \text { Botom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ | $\begin{aligned} & \hline \text { Botom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{array}$ |  |  | $\begin{aligned} & \hline \text { Botom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Botom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{gathered}$ | $\begin{array}{\|c\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline \begin{array}{c} \text { Botom } \\ \text { Reinf. } \\ \text { R Steel } \\ \hline \end{array} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{aligned} & \text { Botom } \\ & \text { Reinf: } \\ & \text { Reitee } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{array}$ |
| 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 | -10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 4-10M | 0 | 1-15M | $\begin{aligned} & 600 \\ & (24) \end{aligned}$ |
| 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 | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 1800 | (6) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \end{aligned}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \end{aligned}$ |
| 2400 | (8) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 3000 | (10) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | $\begin{gathered} \left.\begin{array}{c} -1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array}\right) \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{gathered} 1200 \\ (48) \end{gathered}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \end{aligned}$ |
| 3600 | (12) | 1-20M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 1200 \\ & (48) \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \text { 2-10M }+ \\ 2-20 \mathrm{O} \end{array}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4200 | (14) | 1-20M | 0 | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ | $\underset{\substack{1-15 M \\ 1-20 M+}}{\substack{\text { an }}}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \substack{1-15 \mathrm{M}+\\ 2-20 \mathrm{M}} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4800 | (16) | 2-15M | 0 | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \end{aligned}$ | $\underset{\substack{\text { p-10M } \\ \text { 2-20M }}}{+}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \left.\begin{array}{c} 1-15 \mathrm{M}++ \\ 2-20 \mathrm{M} \end{array}\right) \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { T-10M }+\underset{3-20 \mathrm{M}}{ }+\ldots \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | $\begin{gathered} \begin{array}{l} \text { P-10M }++ \\ 2-2001 \end{array} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \end{aligned}$ | $\underset{\substack{\text { 1-15M } \\ 2-20 \mathrm{M}}}{ }$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { T-10M } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ |  |  |  |  |  |  |  |  |
| 6000 | (20) | $\begin{gathered} \substack{1-15 M+\\ 1-20 \mathrm{M}+} \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{gathered} \text { l-10M+ } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ | $\begin{gathered} \substack{1-15 \mathrm{M}+\\ 3-20 \mathrm{M}} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
2. Do not install more than $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.

Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

Build Anything Better.'.

Table L2 Continued

| Lintel Span |  | Lintel - 8" Thick x 32" Deep (200mm Thick x 800mm Deep), s = 18' (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  | $43.5 \mathrm{kN} / \mathrm{m}$ |  | $51 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 5001b/ft |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb/ft |  | $1500 \mathrm{lb} / \mathrm{ft}$ |  | 2000lb/ft |  | 2500lb/ft |  | $3000 \mathrm{lb} / \mathrm{ft}$ |  | 3500lb/ft |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ |
| 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 | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 1-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 2400 | (8) | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 1-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ |
| 3000 | (10) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |
| 3600 | (12) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |  |  |
| 4200 | (14) | 1-20M | 0 | 2-15M | 0 | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{ }$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M+ } \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4800 | (16) | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\underset{\substack{1-15 \mathrm{M} \\ 1-2 \mathrm{M}}}{ }$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M++ } \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | 0 | 2-15M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M + } \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ | 3-20M | $\begin{gathered} 2250 \\ (90) \\ \hline \end{gathered}$ |  |  |  |  |  |  |
| 6000 | (20) | 2-15M | 0 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \end{array}$ | 2-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-10M + } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ | 3-20M | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

## LOGIX ${ }^{\oplus}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $7.5 \mathrm{kN} / \mathrm{m}$ |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 33kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb/ft |  | 1500lb/ft |  | 1750lb/ft |  | 2000lb/ft |  | 2250lb/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom <br> Reinf. <br> Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \begin{array}{c} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | $\begin{gathered} \text { Bottom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{gathered}$ | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ |
| 900 | (3) | 1-10M | 0 | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 2-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 2-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ |
| 1200 | (4) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | 2-15M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ |  |  |  |  |
| 1500 | (5) | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & \hline 150 \\ & (6) \\ & \hline \end{aligned}$ | 2-15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |
| 1800 | (6) | 1-15M | 0 | 1-20M | 0 | 2-15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 2400 | (8) | 2-15M | 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3000 | (10) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3600 | (12) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4200 | (14) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

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

| Lintel Span |  | Lintel - 10" Thick x 12" Deep (250mm Thick x 300mm Deep), s = 6" (150mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{25.5 \mathrm{kN} / \mathrm{m}}{1750 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{33 \mathrm{kN} / \mathrm{m}}{2250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 12501b/ft |  |  |  |  |  |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \begin{array}{l} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | Stirup <br> End <br> Distance | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ |
| 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 | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |
| 1500 | (5) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | $\begin{aligned} & \hline 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-15M | $\begin{aligned} & \hline 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 1-20M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ |
| 1800 | (6) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 2-15M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ |
| 2400 | (8) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 2-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 3000 | (10) | 1-20M | 0 | 2-15M | 0 | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { 1-15M } \\ 1-20 \mathrm{M} \\ \hline \end{array} \\ \hline \end{array}$ | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} 1-10 \mathrm{M}++ \\ 2-20 \mathrm{M} \end{array} \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |
| 3600 | (12) | $\begin{gathered} \begin{array}{c} 1-15 \mathrm{M} \\ 1-20 \mathrm{M} \end{array},+ \end{gathered}$ | 0 | 2-20M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | $\begin{gathered} \substack{1-15 \mathrm{M}++2-20 \mathrm{M}} \end{gathered}$ | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 4200 | (14) | $\begin{aligned} & \hline 1-10 \mathrm{M}+ \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 300 \\ & (12) \\ & \hline \end{aligned}$ | 3-20M | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L3 Continued

| Lintel Span |  | Lintel - 10"Thick x 16" Deep (250mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $7.5 \mathrm{kN} / \mathrm{m}$ |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $\frac{18 \mathrm{kN} / \mathrm{m}}{1250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\begin{gathered} \hline \frac{25.5 \mathrm{kN} / \mathrm{m}}{1750 \mathrm{lb} / \mathrm{ft}} \end{gathered}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{tt}}$ |  | $\begin{aligned} & \hline 36.5 \mathrm{kN} / \mathrm{m} \\ & \hline 2500 \mathrm{lb} / \mathrm{ft} \\ & \hline \end{aligned}$ |  | $\frac{43.5 \mathrm{kN} / \mathrm{m}}{3000 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | 500 | lb/t | 750 | $\mathrm{lb} / \mathrm{tt}$ | 1000 | $\mathrm{lb} / \mathrm{tt}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| mm | (t) |  | $\begin{array}{\|c\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { Ditand } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { Botom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{gathered}$ | $\begin{array}{\|c} \text { Botom } \\ \text { Reninf. } \\ \text { Riteel } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { Distance } \\ \hline \text { ind } \end{array}$ | $\begin{array}{\|l\|} \hline \text { Botom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{array}$ | $\begin{array}{\|c\|c} \hline \text { Stirup } \\ \text { Sitand } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{array}{\|l\|l} \hline \text { Botom } \\ \text { Reinf. } \\ \text { Reinel } \\ \hline \end{array}$ | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{gathered}$ | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { Botom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{array} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | $\begin{array}{\|c} \text { Botom } \\ \text { Reinf. } \\ \text { Siteel } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { Distance } \\ \hline \text { ind } \end{array}$ | $\begin{aligned} & \hline \text { Botom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{array}$ |  | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{gathered}$ |
| 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 | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ |
| 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 | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-20M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ |
| 1800 | (6) | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ |
| 2400 | (8) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \begin{array}{c} 1-15 M+ \\ 1-20 \mathrm{M} \\ \hline \end{array} \\ \hline \end{array}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 800 \\ & (32) \end{aligned}$ |
| 3000 | (10) | 1-20M | 0 | 1-20M | 0 | 2-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|c\|c\|c\|c\|} \hline 1-2 \mathrm{M}+ \\ \hline \end{array}$ | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{array} \end{gathered}$ | $\begin{aligned} & 800 \\ & (32) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \begin{array}{l} 1-15 \mathrm{M}++ \\ 2-20 \mathrm{c} \end{array} \\ \hline \end{array}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { t-10M }+ \\ 3-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |
| 3600 | (12) | 1-20M | 0 | 2-15M | 0 | $\begin{gathered} \hline-1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{array}{\|l\|l\|} \hline-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{aligned} & 1000 \\ & (40) \end{aligned}$ | 3-20M | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|l\|} \hline \begin{array}{l} 1-10 \mathrm{O}+ \\ 3-20 \mathrm{C} \end{array} \\ \hline \end{array}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4200 | (14) | 2-15M | 0 | 2-20M | $\begin{aligned} & 400 \\ & \text { (16) } \end{aligned}$ | $\begin{array}{\|c} \hline \text { t-10M }+ \\ 2-20 \mathrm{M} \end{array}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 3-20M | $\begin{aligned} & 1000 \\ & (40) \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { 1-10M }+ \\ 3-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | 0 | $\begin{aligned} & \begin{array}{l} \text { 1-10M+ } \\ 2-20 \mathrm{M} \end{array} \\ & \hline \end{aligned}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { 7-10M }+ \\ 3-20 \mathrm{M} \end{array} \\ \hline \end{array}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 4-20M | $\begin{aligned} & 1400 \\ & (56) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{aligned} & \begin{array}{l} \text { P-10M+ } \\ \text { 2-20M } \\ \hline \end{array} \\ & \hline \end{aligned}$ | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { T-10M + } \\ 3-20 \mathrm{M} \end{array}$ | $\begin{aligned} & 1000 \\ & 100) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) | 3-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
2. Do not install more than $4-20 \mathrm{M}$ bottom bar or equivalent combination

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 10"Thick x 24" Deep (250mm Thick x 600mm Deep), s = 12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $\frac{18 \mathrm{kN} / \mathrm{m}}{1250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{43.5 \mathrm{kN} / \mathrm{m}}{3000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{51 \mathrm{kN} / \mathrm{m}}{3500 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | 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 | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ |
| 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 | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 1-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 2400 | (8) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 3000 | (10) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |
| 3600 | (12) | 1-20M | 0 | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \text { T-10M+ } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \begin{array}{c} \text { 1-15M + } \\ \text { 2-200 } \end{array} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |
| 4200 | (14) | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1-15 \mathrm{M}+ \\ & 1-20 \mathrm{M} \end{aligned}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-10M + } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |  |  |
| 4800 | (16) | 2-15M | 0 | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array}$ | 0 | 2-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 1-10 \mathrm{M}+ \\ \text { 2-20M } \end{array}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \text { 1-15M + } \\ \text { 1-200 } \end{gathered}$ | 0 | 2-20M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{gathered} \begin{array}{c} \text {-10M + } \\ \text { 2-20 } \end{array} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-20M | 0 |  | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 3-20M | $\begin{aligned} & 1200 \\ & (48) \end{aligned}$ | $\begin{array}{\|c\|c\|} \hline \begin{array}{c} \text { 1-15M } \\ 3-20 \mathrm{M} \end{array} \\ \hline \end{array}$ | $\begin{aligned} & 1500 \\ & (60) \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |

## NOTES

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

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L3 Continued

| Lintel Span |  | Lintel - 10" Thick x 32" Deep (250mm Thick x 800mm Deep), s = 18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  | $43.5 \mathrm{kN} / \mathrm{m}$ |  | $51 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 12501b/tt |  | $1500 \mathrm{lb} / \mathrm{ft}$ |  | 2000lb/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  | $3000 \mathrm{lb} / \mathrm{ft}$ |  | 3500lb/ft |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Stee | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ |
| 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 | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 2400 | (8) | 1-10M | 0 | 1-10M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 2-15M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ |
| 3000 | (10) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M} \\ \hline}}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 3600 | (12) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |
| 4200 | (14) | 1-20M | 0 | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { B-10M+ } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |
| 4800 | (16) | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-15M + } \\ \text { 1-20M } \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \text { T-10M + } \\ \text { 2-20M } \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | 0 | 2-15M | 0 | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1-10 \mathrm{M}+ \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 3-20M | $\begin{gathered} 1800 \\ (72) \\ \hline \end{gathered}$ |  |  |  |  |  |  |
| 6000 | (20) | 2-15M | 0 | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{ }$ | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M+ } \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | 3-20M | $\begin{gathered} 1800 \\ (72) \\ \hline \end{gathered}$ | $\begin{gathered} \text { T-15M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{gathered} 2250 \\ (90) \\ \hline \end{gathered}$ |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

## 6.0 －CANADIAN PRESCRIPTIVE ENGINEERING

Table L4 12＂Lintel Reinforcement with Uniformly Distributed Load

| Lintel Span |  | Lintel－12＂Thick x 8＂Deep（300mm Thick x 200mm Deep），s＝3＂（75mm） |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7．5kN／m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $\frac{14.5 \mathrm{kN} / \mathrm{m}}{1000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{18 \mathrm{kN} / \mathrm{m}}{1250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{25.5 \mathrm{kN} / \mathrm{m}}{1750 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{33 \mathrm{kN} / \mathrm{m}}{2250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | 500 | $\mathrm{lb} / \mathrm{ft}$ | 750 | $\mathrm{lb} / \mathrm{ft}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mm | （t） | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf． Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf． Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 900 | （3） | 1－10M | 0 | 1－10M | 0 | 1－10M | 0 | 1－15M | 0 | 1－15M | 0 | 1－15M | 0 | 1－15M | 0 | 1－15M | 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 | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 2－15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 2－15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ |
| 1500 | （5） | 1－15M | 0 | 1－15M | 0 | 1－20M | 0 | 1－20M | 0 | 2－15M | $\begin{aligned} & 150 \\ & (6) \\ & \hline \end{aligned}$ | 2－15M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{ }$ | $\begin{aligned} & 225 \\ & (9) \\ & \hline \end{aligned}$ | 2－20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |  |  |
| 1800 | （6） | 1－15M | 0 | 1－20M | 0 | 2－15M | 0 | 2－15M | $\begin{aligned} & \hline 150 \\ & (6) \\ & \hline \end{aligned}$ | 2－20M | $\begin{gathered} 225 \\ (9) \\ \hline \end{gathered}$ |  |  |  |  |  |  |  |  |
| 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＂
Do not install more than 2－20M bottom bar or equivalent combination of smaller bars．
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$ ．

| Lintel Span |  | Lintel－12＂＇Thick x 12＂Deep（300mm Thick x 300mm Deep），s＝6＂（150mm） |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7．5kN／m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | $25.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN／m |  | 33kN／m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | $500 \mathrm{lb} / \mathrm{ft}$ |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb／ft |  | 1500lb／ft |  | 1750lb／ft |  | 2000lb／ft |  | 2250lb／ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | （t） | Bottom Reinf． Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf． Steel |  | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf． Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf． Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf． Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | 0 | 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 | $\begin{array}{r} \hline 300 \\ (12) \\ \hline \end{array}$ | 1－20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ |
| 1800 | （6） | 1－15M | 0 | 1－15M | 0 | 1－20M | 0 | 1－20M | 0 | 1－20M | 0 | 1－20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 2－15M | $\begin{aligned} & \hline 300 \\ & (12) \\ & \hline \end{aligned}$ | 2－15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | 2－15M | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ |
| 2400 | （8） | 1－20M | 0 | 1－20M | 0 | 1－20M | 0 | 2－15M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | $\begin{gathered} \hline \begin{array}{c} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array} ⿳ ⺈ ⿴ 囗 十 一 ~ \\ \hline \end{gathered}$ | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{array}{r} 450 \\ (18) \\ \hline \end{array}$ | 2－20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M }+ \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{array}{r} 750 \\ (30) \\ \hline \end{array}$ |
| 3000 | （10） | 1－20M | 0 | 2－15M | 0 | $\underset{\substack{\text { B-15M + } \\ 1-20 \mathrm{M}}}{+}$ | $\begin{aligned} & 300 \\ & (12) \end{aligned}$ | 2－20M | $\begin{aligned} & 450 \\ & (18) \end{aligned}$ | $\underset{2-20 \mathrm{M}}{\substack{\text {-15M + }}}$ | $\begin{aligned} & 600 \\ & (24) \end{aligned}$ | $3-20 \mathrm{M}$ | $\begin{aligned} & 750 \\ & \text { (30) } \end{aligned}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M } \\ 3-20 \mathrm{M} \end{array}+ \end{gathered}$ | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ |  |  |  |  |
| 3600 | （12） | 2－15M | 0 | 2－20M | $\begin{array}{r} 300 \\ (12) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & \hline 750 \\ & (30) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 4200 | （14） | 2－20M | 0 | 3－20M | $\begin{aligned} & 450 \\ & (18) \\ & \hline \end{aligned}$ | 4－20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars．
3．Bottom reinforcement located 89 mm （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）$>0.4$ ．

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L4 Continued

| Lintel Span |  | Lintel - 12"'Thick x 16" Deep (300mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $\frac{18 \mathrm{kN} / \mathrm{m}}{1250 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{25.5 \mathrm{kN} / \mathrm{m}}{1750 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{43.5 \mathrm{kN} / \mathrm{m}}{3000 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | 500 | $\mathrm{lb} / \mathrm{ft}$ | 750 | lb/ft | 1000 | lb/ft |  |  |  |  |  |  |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ |
| 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 | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ |
| 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 | $\begin{aligned} & \hline 400 \\ & (16) \\ & \hline \end{aligned}$ | 1-20M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ |
| 2400 | (8) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | $\begin{aligned} & \hline 400 \\ & (16) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \begin{array}{c} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array} \\ \hline \end{array}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ |
| 3000 | (10) | 1-20M | 0 | 1-20M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 400 \\ (16) \\ \hline \end{array}$ | 2-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-20M | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{aligned} & 1-15 \mathrm{M}+ \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{aligned} & 1000 \\ & (40) \end{aligned}$ |
| 3600 | (12) | 1-20M | 0 | 2-15M | 0 | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{ }$ | $\begin{aligned} & 400 \\ & (16) \\ & \hline \end{aligned}$ | 2-20M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { 1-10M+ } \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | 4-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |
| 4200 | (14) | 2-15M | 0 | 2-20M | 0 | $\begin{gathered} \begin{array}{c} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1000 \\ & (40) \\ & \hline \end{aligned}$ | 4-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | 0 | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & \hline 400 \\ & (16) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ | 4-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \begin{array}{c} \text { 1-10M + } \\ \text { 2-200 } \end{array} \end{gathered}$ | 0 | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{array}{r} 800 \\ (32) \\ \hline \end{array}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) | 3-20M | $\begin{aligned} & \hline 400 \\ & (16) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES


#### Abstract

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars. Bottom reinforcement located 89 mm ( $3.5^{\prime \prime}$ ) from bottom of lintel. 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 $\mathrm{Sa}(0.2)>0.4$.


| Lintel Span |  | Lintel - 12"Thick x 24" Deep (300mm Thick x 600mm Deep), s = 12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $\frac{21.5 \mathrm{kN} / \mathrm{m}}{1500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{2000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{36.5 \mathrm{kN} / \mathrm{m}}{2500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{43.5 \mathrm{kN} / \mathrm{m}}{3000 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{51 \mathrm{kN} / \mathrm{m}}{3500 \mathrm{lb} / \mathrm{ft}}$ |  |
|  |  | 500 | $\mathrm{lb} / \mathrm{ft}$ | 750 | $\mathrm{lb} / \mathrm{tt}$ | 1000 | lb/t | 1250 | lb/t |  |  |  |  |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | 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 | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 2400 | (8) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-15M | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ |
| 3000 | (10) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 3600 | (12) | 1-20M | 0 | 2-15M | 0 | 2-15M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |
| 4200 | (14) | 2-15M | 0 | 2-15M | 0 | 2-15M | 0 | $\begin{gathered} \begin{array}{c} 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{array} \end{gathered}$ | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | 3-20M | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |
| 4800 | (16) | 2-15M | 0 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | 0 | 2-20M | $\begin{aligned} & \hline 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M }+ \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 600 \\ & (24) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1500 \\ & (60) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 0 | 2-20M | 0 | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 600 \\ (24) \\ \hline \end{array}$ | 3-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \\ & \hline \end{aligned}$ |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-20M | 0 | $\begin{gathered} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 600 \\ & (24) \end{aligned}$ | $3-20 \mathrm{M}$ | $\begin{array}{r} 900 \\ (36) \end{array}$ | $\begin{gathered} \text { 1-15M + } \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1200 \\ & (48) \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located 89 mm ( $3.5^{\prime \prime}$ ) from bottom of lintel.
Bottom reinforcement located 89 mm ( 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 $\mathrm{Sa}(0.2)>0.4$.

Build Anything Better.

Table L4 Continued

| Lintel Span |  | Lintel - 12" Thick x 32" Deep (300mm Thick x 800mm Deep), s=18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Uniformly Distributed Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 7.5kN/m |  | $11 \mathrm{kN} / \mathrm{m}$ |  | $14.5 \mathrm{kN} / \mathrm{m}$ |  | $18 \mathrm{kN} / \mathrm{m}$ |  | $21.5 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | $36.5 \mathrm{kN} / \mathrm{m}$ |  | $43.5 \mathrm{kN} / \mathrm{m}$ |  | $51 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 5001b/ft |  | $750 \mathrm{lb} / \mathrm{ft}$ |  | $1000 \mathrm{lb} / \mathrm{ft}$ |  | 1250lb/ft |  | $1500 \mathrm{lb} / \mathrm{ft}$ |  | 2000lb/ft |  | $2500 \mathrm{lb} / \mathrm{ft}$ |  | $3000 \mathrm{lb} / \mathrm{ft}$ |  | 3500lb/ft |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|l\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Stee | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Stee | $\begin{array}{\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-15M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 300 | (10) | 1-15M | 0 | 1-15M | 0 | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | 0 | 2-15M | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ |
| 3600 | (12) | 1-15M | 0 | 1-20M | 0 | 1-20M | 0 | 2-15M | 0 | 2-15M | 0 | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{+}$ | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M}}}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} \text { T-10M + } \\ { }^{2}-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |
| 4200 | (14) | 1-20M | 0 | 2-15M | 0 | 2-15M | 0 | $\begin{gathered} \text { 1-15M++} \\ 1-20 \mathrm{M} \end{gathered}$ | 0 | $\begin{gathered} \hline \begin{array}{c} 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | $\begin{aligned} & \hline 900 \\ & (36) \\ & \hline \end{aligned}$ | 2-20M | $\begin{aligned} & 900 \\ & (36) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M }+ \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1-10 \mathrm{M}+ \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ |  |  |
| 4800 | (16) | 2-15M | 0 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 0 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | 0 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 2-20M | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | $\begin{aligned} & \hline \text { 1-10M }+ \\ & 2-20 \mathrm{M} \end{aligned}$ | $\begin{aligned} & 1350 \\ & (54) \end{aligned}$ | 3-20M | $\begin{aligned} & 1350 \\ & (54) \end{aligned}$ |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \begin{array}{c} 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{array} \end{gathered}$ | 0 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 0 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 0 | 2-20M | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{array}{r} 900 \\ (36) \\ \hline \end{array}$ | 3-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \\ & \hline \end{aligned}$ |  |  |  |  |
| 6000 | (20) | $\begin{gathered} \hline 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{gathered}$ | 0 | 2-20M | 0 | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & \hline 900 \\ & (36) \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 900 \\ & (36) \end{aligned}$ | 3-20M | $\begin{aligned} & 1350 \\ & (54) \\ & \hline \end{aligned}$ | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | $\begin{aligned} & 1800 \\ & (72) \end{aligned}$ |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L5 6" Lintel Reinforcement Concentrated Load

| Lintel Span |  | Lintel - 6"Thick x 8" Deep (150mm Thick x 200mm Deep), s = 3" (75mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 6 kN |  | 8kN |  | 10 kN |  | 12 kN |  | 14 kN |  | 16kN |  | 18kN |  | 20kN |  |
|  |  | 800lb |  | 1300 lb |  | 1700lb |  | 2200lb |  | 2600lb |  | 3100 lb |  | 3500 lb |  | 4000 lb |  | 4400lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 $1-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
3. Bottom reinforcement located $89 \mathrm{~mm}(3.5$ ") 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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 6"Thick x 12" Deep (150mm Thick x 300mm Deep), s = 6" (150mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 6.5 kN |  | 9kN |  | 11.5 kN |  | 14 kN |  | 16.5 kN |  | 19 kN |  | 21.5 kN |  | 24 kN |  |
|  |  | 8001b |  | 1400 lb |  | 2000lb |  | 2500lb |  | 3100 lb |  | 3700 lb |  | 4200lb |  | 4800 lb |  | 5300 lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ |
| 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 | 1-15M | YES | 1-15M | YES | 1-15M | YES | 1-15M | YES | 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 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |
| 3000 | (10) | 1-20M | NO | 2-15M | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3600 | (12) | $\begin{array}{\|c} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{array}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 $2-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.

Bottom reinforcement located 89 mm (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 $\mathrm{Sa}(0.2)>0.4$

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L5 Continued

| Lintel Span |  | Lintel - 6"Thick x 16" Deep (150mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 7kN |  | 10kN |  | 13kN |  | 16kN |  | 19kN |  | 21 kN |  | 24kN |  | 27kN |  |
|  |  | 8001b |  | 1500 lb |  | 2200 lb |  | 2900lb |  | 3500 lb |  | 4200 lb |  | 4700 lb |  | 5300 lb |  | 6000lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ |
| 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 | 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 | YES | 1-15M | YES | 1-15M | YES | 1-15M | YES | 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |
| 3600 | (12) | 1-20M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} \text { T-10M } \\ \text { 2-20M } \end{gathered}$ | YES | $\begin{aligned} & \text { 1-15M + } \\ & 2-20 \mathrm{M} \end{aligned}$ | YES |  |  |  |  |  |  |  |  |
| 4200 | (14) | 2-15M | NO | 2-20M | NO | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 3-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located 89 mm ( $3.5^{\prime \prime}$ ) 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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 6"Thick x 24" Deep (150mm Thick x 600mm Deep), s = 12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 8kN |  | 12 kN |  | 16 kN |  | 20kN |  | 24kN |  | 28kN |  | 32 kN |  | 36 kN |  |
|  |  | 8001b |  | 1700lb |  | 2600lb |  | 3500lb |  | 4400 lb |  | 5300 lb |  | 6200lb |  | 7100lb |  | 8000lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | Stirup End Distance | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Bottom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ |
| 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 | 1-15M | YES | 1-15M | YES | 1-15M | YES | 1-15M | YES |
| 1800 | (6) | 1-10M | NO | 1-10M | NO | 1-10M | NO | 1-15M | YES | 1-15M | YES | 1-15M | YES | 1-15M | YES | 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 | $\underset{1-20 \mathrm{M}}{\mathrm{t}-15 \mathrm{M}}+$ | YES | 2-20M | YES |  |  |
| 3600 | (12) | 1-15M | NO | 1-15M | NO | 1-20M | NO | 2-15M | YES | 2-15M | YES | 2-20M | YES | $\begin{gathered} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |
| 4200 | (14) | 1-20M | NO | 1-20M | NO | 2-15M | YES | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES | 2-20M | YES | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 4800 | (16) | 1-20M | NO | 2-15M | NO |  | YES | $\underset{-20 \mathrm{M}}{\substack{1-10 \mathrm{M} \\ \hline}}$ | YES | $\begin{gathered} \text { P-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} \text { 1-15M }+ \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | NO | 2-20M | NO | 1-10M + 2-20M | YES | 3-20M | YES | $\begin{gathered} \text { 1-15M + } \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |
| 6000 | (20) | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \begin{array}{c} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{array} \end{gathered}$ | NO | 3-20M | YES | $\begin{array}{\|c\|} \hline \text { 1-15M + } \\ 3-20 \mathrm{M} \end{array}$ | YES |  |  |  |  |  |  |  |  |  |  |

## 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 $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L5 Continued

| Lintel Span |  | Lintel - 6"'Thick x 32" Deep (150mm Thick x 800mm Deep), s = 18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN/m |  | 9kN/m |  | 14kN/m |  | $\frac{19 \mathrm{kN} / \mathrm{m}}{4200 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{24 \mathrm{kN} / \mathrm{m}}{5300 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{29 \mathrm{kN} / \mathrm{m}}{6500 \mathrm{lb} / \mathrm{ft}}$ |  | $\frac{34 \mathrm{kN} / \mathrm{m}}{7600 \mathrm{lb} / \mathrm{ft}}$ |  | $\begin{aligned} & \hline 39 \mathrm{kN} / \mathrm{m} \\ & \hline 8700 \mathrm{lb} / \mathrm{ft} \end{aligned}$ |  | $44 \mathrm{kN} / \mathrm{m}$ |  |
|  |  | 800 | $\mathrm{lb} / \mathrm{ft}$ | 200 | $\mathrm{lb} / \mathrm{ft}$ | 3100 | lb/ft |  |  | $980$ | $\mathrm{lb} / \mathrm{ft}$ |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |  |  | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | 1-10M | 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 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 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 | $\begin{gathered} \text { 1-15M } \\ 1-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 4200 | (14) | 1-20M | NO | 1-20M | NO | 1-20M | NO | 2-15M | YES | $\begin{gathered} 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |
| 4800 | (16) | 1-20M | NO | 1-20M | NO | 2-15M | YES | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |
| 5400 | (18) | 1-20M | NO | 2-15M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES | 2-20M | YES |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-15M | NO | $\begin{array}{\|c\|c\|} \hline-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array}$ | NO | 2-20M | YES | $\begin{gathered} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located 89 mm (3.5") from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L6 8" Lintel Reinforcement Concentrated Load

| Lintel Span |  | Lintel - 8"Thick x 8" Deep (200mm Thick x 200mm Deep), s = 3" (75mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 6 kN |  | 8kN |  | 10kN |  | 12kN |  | 14 kN |  | 16kN |  | 18 kN |  | 20kN |  |
|  |  | 8001b |  | 1300 lb |  | 1700lb |  | 2200 lb |  | 2600lb |  | 3100 lb |  | 3500 lb |  | 4000 lb |  | 4400 lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{gathered} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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"

Do not install more than 2-15M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located 89 mm (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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 8"Thick x 12" Deep (200mm Thick x 300mm Deep), s = 6" (150mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 6.5 kN |  | 9kN |  | 11.5 kN |  | 14 kN |  | 16.5 kN |  | 19kN |  | 21.5 kN |  | 24 kN |  |
|  |  | 8001b |  | 1400 lb |  | 2000lb |  | 2500lb |  | 3100 lb |  | 3700 lb |  | 4200 lb |  | 4800 lb |  | 5300 lb |  |
| mm | (t) | Bottom Reinf. Steel | Stirrup <br> End <br> Distance | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | 1-15M | YES | 1-15M | YES | 1-15M | YES | 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 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 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |
| 2400 | (8) | 1-15M | NO | 1-20M | NO | 1-20M | NO | 2-15M | NO | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M}}}$ | YES | 2-20M | YES | $\begin{gathered} \begin{array}{c} \text { 1-10M } \\ 2-20 \mathrm{C} \end{array} \end{gathered}$ | YES |  |  |  |  |
| 3000 | (10) | 1-20M | NO | 2-15M | NO | 2-20M | NO | $\begin{aligned} & \text { 1-10M + } \\ & 2-20 \mathrm{M} \end{aligned}$ | NO |  |  |  |  |  |  |  |  |  |  |
| 3600 | (12) | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \text { 1-10M + } \\ \text { 2-20M } \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4200 | (14) | $\begin{aligned} & \text { 1-10M++} \\ & 2-20 \mathrm{M} \end{aligned}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 $1-15 \mathrm{M}+2-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
3. Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L6 Continued

| Lintel Span |  | Lintel - 8"Thick x 16" Deep (200mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 7kN |  | 10kN |  | 13kN |  | 16kN |  | 19kN |  | 21 kN |  | 24kN |  | 27 kN |  |
|  |  | 8001b |  | 1500lb |  | 2200lb |  | 2900lb |  | 3500lb |  | 4200 lb |  | 4700lb |  | 5300 lb |  | 6000lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | NO | 1-15M | NO | 1-15M | NO | 1-15M | 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 | $\begin{gathered} \substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}} \end{gathered}$ | YES | 2-20M | YES |  |  |
| 3000 | (10) | 1-15M | NO | 1-15M | NO | 2-15M | NO | 2-15M | NO | $\begin{array}{\|c} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array}$ | YES | 2-20M | YES | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |
| 3600 | (12) | 1-20M | NO | 2-15M | NO | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 4200 | (14) | 2-15M | NO | 2-20M | NO | $\begin{gathered} \hline \text { 1-10M+ } \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $3-20 \mathrm{M}$ | NO |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | 1-10M + 2-20M | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | 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 $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
3. Bottom reinforcement located $89 \mathrm{~mm}(3.5$ ") 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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 8"'Thick x 24" Deep (200mm Thick x 600mm Deep), s = 12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 8kN |  | 12kN |  | 16 kN |  | 20 kN |  | 24 kN |  | 28kN |  | 32 kN |  | 36 kN |  |
|  |  | 8001b |  | 1700lb |  | 2600lb |  | 3500lb |  | 4400lb |  | 5300 lb |  | 6200lb |  | 7100 lb |  | 8000lb |  |
| mm | (t) | Bottom Reinf. Steel | $\substack{\text { Stirup } \\ \text { End } \\ \text { Distance }}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\qquad$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{ }$ | YES | 2-20M | YES |  |  |
| 3600 | (12) | 1-20M | NO | 1-20M | NO | 1-20M | NO | 2-15M | NO | 2-15M | NO | $\begin{aligned} & \text { 1-15M++} \\ & 1-20 \mathrm{M} \end{aligned}$ | YES | $\begin{aligned} & \begin{array}{c} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{array} \end{aligned}$ | YES |  |  |  |  |
| 4200 | (14) | 1-20M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \begin{array}{c} 1-15 \mathrm{M}++ \\ 1-20 \mathrm{M} \end{array}{ }_{+}^{+} \\ \hline-2020 \\ \hline \end{gathered}$ | NO | 2-20M | YES | $\begin{gathered} \substack{1-15 \mathrm{M}++2-20 \mathrm{M}} \end{gathered}$ | YES | $\begin{gathered} \hline \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |
| 4800 | (16) | 2-15M | NO | 2-15M | NO | 2-20M | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | NO | 2-20M | NO | $\begin{gathered} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \text { 1-10M++} \\ 3-20 \mathrm{M} \\ \hline \end{gathered}$ | YES |  |  |  |  |  |  |  |  |
| 6000 | (20) | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{aligned} & \begin{array}{l} \text { 1-10M }+ \\ 2-200 \end{array} \end{aligned}$ | NO | 3-20M | NO | $\begin{aligned} & \text { 1-15M } \\ & { }_{3}+20 \mathrm{C} \end{aligned}$ | NO |  |  |  |  |  |  |  |  |  |  |

## NOTES

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

## Table L6 Continued

| Lintel Span |  | Lintel - 8"Thick x 32" Deep (200mm Thick x 800mm Deep), s = 18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN/m |  | 9kN/m |  | $14 \mathrm{kN} / \mathrm{m}$ |  | 19kN/m |  | $24 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 34kN/m |  | 39kN/m |  | 44kN/m |  |
|  |  | 8001b/ft |  | 2000lb/ft |  | $3100 \mathrm{lb} / \mathrm{ft}$ |  | 4200lb/ft |  | $5300 \mathrm{lb} / \mathrm{ft}$ |  | $6500 \mathrm{lb} / \mathrm{ft}$ |  | $7600 \mathrm{lb} / \mathrm{ft}$ |  | 8700lb/ft |  | 9800lb/ft |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |  |  |
| 3600 | (12) | 1-15M | NO | 1-20M | NO | 1-20M | NO | 2-15M | NO | 2-15M | NO |  | YES | 2-20M | YES |  |  |  |  |
| 4200 | (14) | 1-20M | NO | 2-15M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \hline \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 4800 | (16) | 2-15M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{aligned} & \hline 1-10 \mathrm{M}+ \\ & 2-20 \mathrm{M} \\ & \hline \end{aligned}$ | YES |  |  |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{gathered}$ | NO | 2-20M | NO | 3-20M | YES |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-15M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} \begin{array}{c} \text { 1-10M++} \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
. 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) $>0.4$.


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L7 10" Lintel Reinforcement Concentrated Load

| Lintel Span |  | Lintel - 10"Thick x 8" Deep (250mm Thick x 200mm Deep), s = 3" (75mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 6kN |  | 8kN |  | 10kN |  | 12kN |  | 14 kN |  | 16kN |  | 18kN |  | 20kN |  |
|  |  | 8001b |  | 1300 lb |  | 1700lb |  | 2200lb |  | 2600lb |  | 3100 lb |  | 3500lb |  | 4000 lb |  | 4400 lb |  |
| mm | (t) | Bottom Reinf. Steel | Stirup <br> End <br> Distance | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Sirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. <br> Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{gathered} \hline \text { 1-15M }++ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 1800 | (6) | 1-15M | NO | 1-20M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 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 $89 \mathrm{~mm}(3.5$ ") 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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 10"Thick x 12" Deep (250mm Thick x 300mm Deep), $\mathrm{s}=6$ " ${ }^{\text {(150mm) }}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4 kN |  | 6.5 kN |  | 9kN |  | $\frac{11.5 \mathrm{kN}}{2500 \mathrm{lb}}$ |  | $\frac{14 \mathrm{kN}}{3100 \mathrm{lb}}$ |  | $\begin{aligned} & \hline 16.5 \mathrm{kN} \\ & \hline 3700 \mathrm{lb} \end{aligned}$ |  | $\frac{19 \mathrm{kN}}{4200 \mathrm{lb}}$ |  | $\frac{21.5 \mathrm{kN}}{4800 \mathrm{lb}}$ |  | 24 kN |  |
|  |  | 800 | Olb | 140 | Olb |  |  | 530 | Olb |  |  |  |  |  |  |  |  |
| mm | (t) | $\begin{gathered} \text { Botom } \\ \text { Reinf: } \\ \text { SRiop } \end{gathered}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|} \substack{\text { End } \\ \text { Distad } \\ \hline} \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|c\|} \hline \text { Stirup } \\ \text { Bistance } \end{array}$ | $\begin{array}{\|l\|l\|l\|} \hline \begin{array}{c} \text { Botton } \\ \text { Reienf. } \\ \text { Steel } \end{array} \end{array}$ | $\begin{array}{\|c\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |  |  | $\begin{aligned} & \text { Botom } \\ & \text { Reinf. } \\ & \text { Riteel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |  | $\begin{gathered} \text { Stirup } \\ \text { End } \\ \text { Eistance } \end{gathered}$ | $\begin{aligned} & \text { Botlom } \\ & \text { Reinf. } \\ & \text { Steel } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Stirnu } \\ \text { End } \\ \text { Distance } \end{array}$ | $\begin{array}{\|c} \text { Botom } \\ \text { Reinf: } \\ \text { Steel } \end{array}$ | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|c\|c\|c\|} \hline \text { End } \\ \text { Distance } \end{array}$ |  |  | $\begin{array}{\|c} \text { Botom } \\ \text { Reinf: } \\ \text { Seteel } \\ \text { Stion } \end{array}$ | $\begin{array}{\|c\|c} \hline \text { Sitimup } \\ \text { Bistand } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{gathered} \substack{1-15 M+\\ 1-20 M+} \end{gathered}$ | YES |
| 2400 | (8) | 1-15M | NO | 1-20M | NO | 1-20M | NO | 2-15M | NO | $\begin{gathered} \substack{1-15 M+\\ 1-20 \mathrm{M}+} \end{gathered}$ | NO | 2-20M | YES | $\begin{aligned} & \substack{\text { T-10M } \\ 2-20 \mathrm{M}} \end{aligned}$ | YES | 3-20M | YES |  |  |
| 3000 | (10) | 1-20M | NO | 2-15M | NO | $\begin{array}{\|c\|} \hline-1-15 \mathrm{M}+\underset{1}{1-20 \mathrm{M}}, \\ \hline \end{array}$ | NO | $\begin{aligned} & \begin{array}{l} \text { 1-10M }+ \\ 2-2001 \end{array} \end{aligned}$ | NO | $\begin{gathered} \begin{array}{c} \text { B-15M+ } \\ 2-20 M \end{array} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |
| 3600 | (12) | $\begin{array}{\|c\|c\|} \hline \text { 1-15M } \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | NO | 2-20M | NO | $\begin{array}{\|l\|l\|} \hline-1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |
| 4200 | (14) | $\begin{array}{\|c\|} \hline \text { 1-10M+ }+20 \mathrm{M} \\ \hline \end{array}$ | NO | 3-20M | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 $3-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.

Do not install more than $3-20 \mathrm{M}$ bottom bar or equivalent combin
Bottom reinforcement located 89 mm ( $3.5^{\prime \prime}$ ) from bottom of lintel.
Bottom reinforcement located 89 mm ( 3.5 ") from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L7 Continued

| Lintel Span |  | Lintel - 10"'Thick x 16" Deep (250mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 7 kN |  | 10kN |  | 13 kN |  | 16 kN |  | 19kN |  | 21 kN |  | 24kN |  | 27kN |  |
|  |  | 8001b |  | 1500lb |  | 2200lb |  | 2900lb |  | 3500lb |  | 4200 lb |  | 4700lb |  | 5300 lb |  | 6000 lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | Stirrup End Distance | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ |
| 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES | 2-20M | YES | $\begin{aligned} & \text { T-10M + } \\ & \text { 2-200 } \end{aligned}$ | YES |
| 3000 | (10) | 1-20M | NO | 1-20M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |
| 3600 | (12) | 1-20M | NO | 2-15M | NO | $\underset{1-20 \mathrm{M}}{\mathrm{t}-15 \mathrm{M}}+$ | NO | 2-20M | NO | $\underset{2-20 \mathrm{M}}{\substack{1-10 \mathrm{M}}}$ | NO | $\begin{gathered} \hline 1-10 \mathrm{M} \\ + \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |  |  |  |  |
| 4200 | (14) | 2-15M | NO | 2-20M | NO | $\begin{gathered} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | NO | 3-20M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | NO | $\begin{gathered} \text { 1-10M + } \\ \text { 2-20M } \end{gathered}$ | NO | $\begin{gathered} \text { T-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | NO | 4-20M | NO |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \text { 1-10M + } \\ \text { 2-20M } \end{gathered}$ | NO | $\begin{gathered} \text { 1-10M + } \\ 3-20 \mathrm{M} \end{gathered}$ | NO | 4-20M | NO |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) | 3-20M | NO | $\begin{gathered} 1-10 \mathrm{M}++ \\ 3-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
2. Do not install more than $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.

Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ from bottom of lintel.
. 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) $>0.4$.

| Lintel Span |  | Lintel - 10"Thick x 24" Deep (250mm Thick x 600mm Deep), s = 12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 8 kN |  | 12kN |  | 16 kN |  | 20kN |  | 24kN |  | 28 kN |  | 32kN |  | 36 kN |  |
|  |  | 8001b |  | 1700 lb |  | 2600lb |  | 3500 lb |  | 4400lb |  | 5300 lb |  | 6200lb |  | 7100lb |  | 8000lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | Stirup End 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 | NO | 1-10M | NO | 1-10M | NO | 1-10M | NO | 1-10M | NO | 1-10M | NO | 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | YES | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{gathered}$ | YES |
| 3600 | (12) | 1-20M | NO | 2-15M | NO | 2-15M | NO | 2-15M | NO | 2-15M | NO | 2-20M | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} \begin{array}{c} \text {-15M } \\ 2-200+ \end{array} \end{gathered}$ | YES |  |  |
| 4200 | (14) | 2-15M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{gathered}$ | NO | 3-20M | YES |  |  |  |  |
| 4800 | (16) | 2-15M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{aligned} & \text { 1-10M + } \\ & 2-20 \mathrm{M} \end{aligned}$ | NO | $\begin{aligned} & \text { 1-15M + } \\ & 2-20 \mathrm{M} \end{aligned}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} \begin{array}{c} \text { 1-10M }+ \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | NO | $\begin{aligned} & \hline 1-15 \mathrm{M}+ \\ & 2-20 \mathrm{M} \end{aligned}$ | NO | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-20M | NO | 1-10M + | NO | 3-20M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \\ \hline \end{gathered}$ | NO |  |  |  |  |  |  |  |  |  |  |

## NOTES

. Stirrup spacing (s) and end distance are given in "mm" and "inch"
2. Do not install more than $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
3. Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

Build Anything Better."

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L7 Continued

| Lintel Span |  | Lintel - 10" Thick x 32" Deep (250mm Thick x 800mm Deep), s = 18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN/m |  | 9kN/m |  | $14 \mathrm{kN} / \mathrm{m}$ |  | $19 \mathrm{kN} / \mathrm{m}$ |  | $24 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 34kN/m |  | 39kN/m |  | 44kN/m |  |
|  |  | 8001b/ft |  | $2000 \mathrm{lb} / \mathrm{ft}$ |  | $3100 \mathrm{lb} / \mathrm{ft}$ |  | $4200 \mathrm{lb} / \mathrm{ft}$ |  | $5300 \mathrm{lb} / \mathrm{ft}$ |  | $6500 \mathrm{lb} / \mathrm{ft}$ |  | $7600 \mathrm{lb} / \mathrm{ft}$ |  | 8700lb/ft |  | $9800 \mathrm{lb} / \mathrm{ft}$ |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 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 | $\begin{gathered} \substack{1-15 \mathrm{M}++1-20 \mathrm{M} \\ \hline} \end{gathered}$ | NO | $\begin{gathered} \begin{array}{c} \text { 1-10M++ } \\ \text { 2-20M } \end{array} \\ \hline \end{gathered}$ | NO | $\begin{gathered} \begin{array}{c} 1-15 \mathrm{M}++ \\ \text { 2-20M } \end{array} \end{gathered}$ | YES |  |  |  |  |
| 4800 | (16) | 2-15M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | 3-20M | NO |  |  |  |  |  |  |
| 5400 | (18) | 2-15M | NO | 2-15M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | 3-20M | NO |  |  |  |  |  |  |  |  |
| 6000 | (20) | 2-15M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{aligned} & \text { 1-15M } \\ & { }_{3}+20 \mathrm{C} \end{aligned}$ | NO |  |  |  |  |  |  |  |  |

## NOTES

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"

Do not install more than 4-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located 89 mm ( 3.5 ") from bottom of lintel.
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 $\mathrm{Sa}(0.2)>0.4$

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L8 12" Lintel Reinforcement Concentrated Load

| Lintel Span |  | Lintel - 12"Thick x 8" Deep (300mm Thick x 200mm Deep), s = 3" (75mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 6 kN |  | 8 kN |  | 10kN |  | \| 12 kN |  | 14 kN |  | 16kN |  | 18 kN |  | 20kN |  |
|  |  | 8001b |  | 1300 lb |  | 1700lb |  | 2200lb |  |  |  | 3100 lb |  | 3500 lb |  | 4000 lb |  | 4400lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \hline \text { Stirup } \\ & \text { End } \\ & \text { Distance } \\ & \hline \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Stee | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | 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"

Do not install more than 2-20M bottom bar or equivalent combination of smaller bars.
Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

| Lintel Span |  | Lintel - 12" Thick x 12" Deep (300mm Thick $\times$ 300mm Deep), $\mathrm{s}=6$ " (150mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 6.5 kN |  | 9 kN |  | $\frac{11.5 \mathrm{kN}}{2500 \mathrm{lb}}$ |  | $\frac{14 \mathrm{kN}}{3100 \mathrm{lb}}$ |  | $\frac{16.5 \mathrm{kN}}{3700 \mathrm{lb}}$ |  | 19kN |  | $\frac{21.5 \mathrm{kN}}{4800 \mathrm{lb}}$ |  | 24kN |  |
|  |  | 800lb |  | 1400 lb |  | 2000lb |  |  |  | 5300 lb |  |  |  |  |  |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ |  |  | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | Stirrup End Distance | Bottom Reinf. Steel | Stirup <br> End <br> Distance | Bottom Reinf. Steel | Stirup <br> End <br> Distance | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ |
| 900 | (3) | 1-10M | NO | 1-10M | NO | 1-10M | NO | 1-10M | NO | 1-15M | NO | 1-15M | NO | 1-15M | NO | 1-15M | NO | 1-15M | 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | YES |
| 2400 | (8) | 1-20M | NO | 1-20M | NO | 1-20M | NO | 2-15M | NO | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | NO | 2-20M | NO | $\begin{gathered} \text { T-10M + } \\ \text { 2-20M } \end{gathered}$ | NO |  | YES | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | YES |
| 3000 | (10) | 1-20M | NO | 2-15M | NO | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{ }$ | NO | 2-20M | NO | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{array}$ | NO | $\begin{gathered} 1-10 \mathrm{M}++ \\ 3-20 \mathrm{M} \end{gathered}$ | NO | 4-20M | YES |  |  |  |  |
| 3600 | (12) | 2-15M | NO | 2-20M | NO | $\begin{gathered} \begin{array}{c} 1-15 \mathrm{M}++ \\ 2-20 \mathrm{M} \end{array} \\ \hline \end{gathered}$ | NO | $\begin{aligned} & \text { 1-10M++} \\ & 3-20 \mathrm{M} \end{aligned}$ | NO |  |  |  |  |  |  |  |  |  |  |
| 4200 | (14) | 2-20M | NO | $3-20 \mathrm{M}$ | NO | 4-20M | NO |  |  |  |  |  |  |  |  |  |  |  |  |
| 4800 | (16) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6000 | (20) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## NOTES

[^16]2. Do not install more than $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
3. Bottom reinforcement located $89 \mathrm{~mm}\left(3.5^{\prime \prime}\right)$ 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 $\mathrm{Sa}(0.2)>0.4$.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table L8 Continued

| Lintel Span |  | Lintel - 12"'Thick x 16" Deep (300mm Thick x 400mm Deep), s = 8" (200mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN |  | 7kN |  | 10 kN |  | 13kN |  | 16 kN |  | 19 kN |  | 21 kN |  | 24 kN |  | 27 kN |  |
|  |  | 8001b |  | 1500 lb |  | 2200lb |  | 2900lb |  | 3500lb |  | 4200lb |  | 4700lb |  | 5300lb |  | 6000lb |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array} \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{gathered} \hline \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{gathered}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Eistance } \\ \hline \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ |
| 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 | 1-15M | NO | 1-15M | NO | 1-15M | 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} \text { 1-15M + } \\ 2-20 \mathrm{M} \end{gathered}$ | YES |
| 3000 | (10) | 1-20M | NO | 1-20M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | YES |  |  |
| 3600 | (12) | 1-20M | NO | 2-15M | NO | $\begin{gathered} \substack{1-15 \mathrm{M}++1-20 \mathrm{M}} \end{gathered}$ | NO | 2-20M | NO | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \\ \hline \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO | 4-20M | NO |  |  |  |  |
| 4200 | (14) | 2-15M | NO | 2-20M | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \begin{array}{l} \text { 1-15M + } \\ 2-200+ \end{array} \end{gathered}$ | NO | 1-10M + <br> 3-20M | NO |  |  |  |  |  |  |  |  |
| 4800 | (16) | 2-20M | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO | 4-20M | NO |  |  |  |  |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \text { 1-10M + } \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | 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 $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars.
3. Bottom reinforcement located $89 \mathrm{~mm}(3.5$ ") 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 Span |  | Lintel - 12"Thick x 24" Deep (300mm Thick x 600mm Deep), s=12" (300mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4 kN |  | 8 kN |  | 12 kN |  | Unfactored Point Load   <br> 16 kN 20 kN 24 k |  |  |  |  |  | 28 kN |  | 32 kN |  | 36 kN |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 8001b |  | 17001b |  | 26001b |  | 35001b |  | 44001b |  | 53001b |  | 62001b |  | 71001b |  | 80001b |  |
| mm | (t) | $\begin{gathered} \hline \text { Botiom } \\ \text { Reinf. } \\ \text { Steel } \\ \hline \end{gathered}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { istance } \end{array}$ | Bottom Reinf Reinf. Stee | $\begin{array}{\|c} \hline \text { Sirimp } \\ \text { Sitnd } \\ \text { Distance } \end{array}$ | $\begin{aligned} & \hline \text { Bottom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \\ \hline \end{array}$ | Bottom <br> Reinf. <br> Steel | $\begin{array}{\|c\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. <br> Steel | $\begin{array}{\|c} \hline \text { Sirimp } \\ \text { Eind } \\ \text { Distance } \end{array}$ | $\begin{aligned} & \hline \text { Bottom } \\ & \text { Reinf. } \\ & \text { Steel } \\ & \hline \end{aligned}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { Endad } \\ \text { Distance } \end{array}$ | Bottom <br> Reinf. <br> Steel | $\begin{array}{\|c\|c} \hline \text { Sirirup } \\ \text { Eind } \\ \text { Distance } \end{array}$ | $\begin{aligned} & \hline \text { Bottom } \\ & \text { Reinf. } \\ & \text { Steel } \end{aligned}$ | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | $\begin{array}{\|l\|l\|} \hline \begin{array}{c} \text { Botoom } \\ \text { Reinf: } \end{array} \\ \text { Steel } \end{array}$ | $\begin{array}{\|c} \hline \text { Sitimp } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | 1-15M | NO | 1-15M | NO | 1-15M | 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 | $\begin{gathered} \substack{1-15 \mathrm{M}+\\ 1-20 \mathrm{M}} \end{gathered}$ | NO | 2-20M | NO |  | YES |
| 3600 | (12) | 1-20M | NO | 2-15M | NO | 2-15M | NO | 2-15M | NO | 2-15M | NO | 2-20M | NO | $\begin{aligned} & \begin{array}{l} \text { H-10M+ } \\ 2-200 \mathrm{M} \end{array} \\ & \hline \end{aligned}$ | NO | $\begin{aligned} & \begin{array}{l} \text { 1-15M+} \\ 2-20 \mathrm{M} \end{array} \\ & \hline \end{aligned}$ | NO |  |  |
| 4200 | (14) | 2-15M | NO | 2-15M | NO | 2-15M | NO | $\begin{array}{\|c\|} \hline \begin{array}{c} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array} \\ \hline \end{array}$ | NO | 2-20M | NO |  | NO | 3-20M | NO |  |  |  |  |
| 4800 | (16) | 2-15M | NO | $\begin{aligned} & \text { R-15M+ }+1 \\ & \hline \end{aligned}$ | NO | 2-20M | NO | $\begin{aligned} & \hline \begin{array}{l} \text { 1-10M+ } \\ 2-20 \mathrm{M} \\ \hline \end{array} \\ & \hline \end{aligned}$ | NO |  | NO | $\begin{aligned} & \hline \text { 1-10M+ } \\ & 3-20 \mathrm{M} \\ & \hline \end{aligned}$ | NO | 4-20M | NO |  |  |  |  |
| 5400 | (18) | $\begin{array}{\|c\|} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \\ \hline \end{array}$ | NO | 2-20M | NO | $\begin{aligned} & \mathrm{c}-1-10 \mathrm{M}+ \\ & 2-20 \mathrm{M} \end{aligned}$ | NO | 3-20M | NO | $\begin{gathered} \begin{array}{c} \text {-10M } \\ 3-20 \mathrm{M} \end{array} \end{gathered}$ | NO | 4-20M | NO |  |  |  |  |  |  |
| 6000 | (20) | 2-20M | NO | $\begin{aligned} & \begin{array}{l} \text { 2-10M+ } \\ 2-20 \mathrm{M} \end{array} \end{aligned}$ | NO | 3-20M | NO | $\begin{array}{\|l\|l\|} \hline 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \\ \hline \end{array}$ | NO |  |  |  |  |  |  |  |  |  |  |

## notes

1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
2. Do not install more than $4-20 \mathrm{M}$ bottom bar or equivalent combination of smaller bars. Bottom reinforcement located 89 mm (3.5") from bottom of lintel.
Bottom reinforcement located $89 \mathrm{~mm}(3.5$ ") from bottom of lintel.
This table to be used in conjunction with the "Lintel Design Limitations" \& "Lintel Drawing".
3. 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

| Lintel Span |  | Lintel - 12"Thick x 32" Deep (300mm Thick x 800mm Deep), s = 18" (450mm) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unfactored Point Load |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 4kN/m |  | 9kN/m |  | 14kN/m |  | 19kN/m |  | $24 \mathrm{kN} / \mathrm{m}$ |  | 29kN/m |  | 34kN/m |  | 39kN/m |  | 44kN/m |  |
|  |  | 800lb/ft |  | 2000lb/ft |  | $3100 \mathrm{lb} / \mathrm{ft}$ |  | 4200lb/ft |  | $5300 \mathrm{lb} / \mathrm{ft}$ |  | $6500 \mathrm{lb} / \mathrm{ft}$ |  | $7600 \mathrm{lb} / \mathrm{ft}$ |  | 8700lb/ft |  | 9800lb/ft |  |
| mm | (t) | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirrup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|c} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|c\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ | Bottom Reinf. Steel | $\begin{aligned} & \text { Stirrup } \\ & \text { End } \\ & \text { Distance } \end{aligned}$ | Bottom Reinf. Steel | $\begin{array}{\|l\|} \hline \text { Stirup } \\ \text { End } \\ \text { Distance } \end{array}$ |
| 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 | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO |
| 3000 | (10) | 1-15M | NO | 1-15M | NO | 1-15M | NO | 1-20M | NO | 2-15M | NO | 2-15M | NO | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M}}}$ | NO | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M} \\ \hline}}$ | NO | 2-20M | YES |
| 3600 | (12) | 1-15M | NO | 1-20M | NO | 1-20M | NO | 2-15M | NO | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M} \\ \hline}}$ | NO | $\underset{1-20 \mathrm{M}}{\substack{1-15 \mathrm{M} \\ \hline \\ \hline \\ \hline \\ \hline}}$ | NO | 2-20M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO |  |  |
| 4200 | (14) | 1-20M | NO | 2-15M | NO | 2-15M | NO | $\begin{gathered} \text { 1-15M + } \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |
| 4800 | (16) | 2-15M | NO | $\begin{aligned} & \hline \begin{array}{c} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{array} \\ & \hline \end{aligned}$ | NO | $\begin{gathered} \text { 1-15M++} \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} \hline 1-10 \mathrm{M}+ \\ 2-20 \mathrm{M} \end{gathered}$ | NO | 3-20M | NO |  |  |  |  |  |  |
| 5400 | (18) | $\begin{gathered} \text { 1-15M + } \\ \text { 1-20M } \end{gathered}$ | NO | $\begin{gathered} \hline 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 1-20 \mathrm{M} \end{gathered}$ | NO | 3-20M | NO | 3-20M | NO | $\begin{gathered} 1-15 \mathrm{M}+ \\ 3-20 \mathrm{M} \end{gathered}$ | NO |  |  |  |  |  |  |
| 6000 | (20) | $\underset{\substack{1-15 \mathrm{M} \\ 1-20 \mathrm{M}}}{+}$ | NO | 2-20M | NO | $\begin{gathered} \begin{array}{c} \text { 1-10M } \\ 2-20 \mathrm{M} \end{array} \end{gathered}$ | NO | $\begin{gathered} \begin{array}{c} \text { 1-15M } \\ 2-20 \mathrm{M} \end{array}+ \end{gathered}$ | NO | $\begin{gathered} \text { 1-15M + } \\ 3-20 \mathrm{M} \end{gathered}$ | 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.

Bottom reinforcement located 89 mm ( 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 $\mathrm{Sa}(0.2)>0.4$.

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## 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:

1. Provide beam pockets, as necessary.
2. In addition to the wall reinforcing required in the following tables, two additional 15 M vertical bars shall be installed directly below the point load.


## Stair Opening Tables

Table A.12. Above Grade Wall Distributed Horizontal Reinforcement at Stair Openings
Seismic Zone Classification: Sa (0.2) $\leq 1.75$
Hourly Wind Pressure: $q_{1 / 50} \leq 1.05$

| Wall Thickness |  | Maximum Stair Opening (Laterally Unsupported Length at Top of the Wall) |  | Block <br> Height (in) | Horizontal Steel (Size and Spacing), mm (in) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification, $\mathrm{Sa}(0.2)$ |  |
|  |  | $\leq 0.4$ | $\leq 0.7$ |  |  | $\leq 1.75$ |  |  |
|  |  | Hourly Wind Pressure, $\mathrm{q}_{1 / 50}(\mathrm{kPa})$ |  |
| mm | (in) |  |  | m | (ft) | $\leq 0.5$ |  |  | $\leq 0.75$ |  |  | $\leq 1.05$ |  |  |
| 150 |  |  |  | 4.6 | (15) | $12^{\prime \prime}$ and 18" | 10M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 300 | (12) |
|  |  |  |  | 16" |  | 10M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 300 | (12) |
| 200 | (8) | 5.2 | (17) |  | $12^{\prime \prime}$ and 18" | 10M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 300 | (12) |
|  |  |  |  | 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) |
|  |  |  |  | $16 "$ | 10M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 300 | (12) |
| 300 | (12) | 5.8 | (19) | $12^{\prime \prime}$ and 18" | 10M @ | 450 | (18) | 10M @ | 450 | (18) | 15M @ | 300 | (12) |
|  |  |  |  | $16 "$ | 10M @ | 400 | (16) | 10M @ | 400 | (16) | 15M @ | 300 | (12) |

## NOTES

This table to be used in conjunction with the "Design Parameters".
This table applies to all height of above grade walls where there is no lateral supports at the floor level because of stair opening.
The laterally unsupported length at the top of the wall is the dimension of the stair opening parallel to the wall.
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 .
Increase the horizontal reinforcement as per this table and extend beyond the stair opening a minimum of 900 mm ( $3^{\prime}-0^{\prime \prime}$ ), bend bars if necessary at wall corners.
 horizontal bars around the corner to provide the minimum required $900 \mathrm{~mm}\left(3^{\prime}-0^{\prime \prime}\right)$ extension.
7. Increase the vertical reinforcement on each side of the stair opening per the "Design Limitation" noted in section 5.5.5.
8. 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 300 mm (12") walls. Place each layer as shown in Detail A. 2
10. Alternating horizontal bar spacing of $12^{\prime \prime}$ o.c. and $24^{\prime \prime}$ o.c. may be used to achieve an average spacing of $18^{\prime \prime}$ o.c. where $18^{\prime \prime}$ o.c. spacing is specified for horizontal bars.
11. Provide 3 horizontal bars in every two rows of $18^{\prime \prime}$ high block to achieve an average spacing of 12 " o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars.

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Table B. 5. Below Grade Wall Distributed Horizontal Reinforcement at Stair Opening for Seismic Zone Classification $\mathrm{Sa}(0.2) \leq 0.7$, Hourly Wind Pressure , $\mathrm{q}_{1 / 50} \leq 1.05 \mathrm{kPa}$, and Backfill
Seismic Zone Classification: Sa $(0.2) \leq 0.7$
Hourly Wind Pressure: $q_{1 / 50} \leq 1.05$
Backfill Equivalent Fluid Density: $480 \mathrm{~kg} / \mathrm{m} 3$ (30pcf)

| Wall Thickness |  | Block Height (in) | Horizontal Steel (Size and Spacing), mm (in) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seismic Zone Classification, $\mathrm{Sa}(0.2)$ |
|  |  | 2.44m (8') | 3.05 m (10') |  |  | 3.66 m (12') |  |  | 4.27m (14') |  |  |
| mm | (in) |  | Seismic Zone Classification, $\mathrm{Sa}(0.2) \leq 0.25$ |  |  |  |  |  |  |  |  |  |  |  |
| 150 | (6) |  | 12 " and 18" | 15M @ | 450 | (18) | 2-15M @ | 450 | (18) |  |  |  |  |  |  |
|  |  |  | $16 "$ | 15M @ | 400 | (16) | 2-15M @ | 400 | (16) |  |  |  |  |  |  |
| 200 | (8) | $12^{\prime \prime}$ and 18" | 15M @ | 450 | (18) | 2-15M @ | 450 | (18) | 2-15M @ | 450 | (18) | $\begin{gathered} \text { 2- 15M } \\ @ \end{gathered}$ | 300 | (12) |
|  |  | 16" | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 2-15M @ | 400 | (16) | $\text { 2- }{ }_{@}^{15 \mathrm{M}}$ | 400 | (16) |
| 250 | (10) | $12^{\prime \prime}$ and 18" | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 2-15M @ | 450 | (18) | $\begin{gathered} 2-15 \mathrm{M} \\ @ \\ \hline \end{gathered}$ | 450 | (18) |
|  |  | $16 "$ | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | $\begin{gathered} 2-15 \mathrm{M} \\ @ \\ \hline \end{gathered}$ | 400 | (16) |
| 300 | (12) | $12^{\prime \prime}$ and 18" | 15M @ | 450 | (18) | 15M @ | 450 | (18) | 15M @ | 450 | (18) | $\begin{gathered} \text { 2- 15M } \\ @ \end{gathered}$ | 450 | (18) |
|  |  | $16 "$ | 15M @ | 400 | (16) | 15M @ | 400 | (16) | 15M @ | 400 | (16) | $\begin{gathered} \text { 2- 15M } \\ @ \end{gathered}$ | 400 | (16) |
|  |  |  | Seismic Zone Classification, $0.25<\mathrm{Sa}(0.2) \leq 0.7$ |  |  |  |  |  |  |  |  |  |  |  |
| 150 | (6) | 12 " and 18" |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $16 "$ |  |  |  |  |  |  |  |  |  |  |  |  |
| 200 | (8) | 12 " and 18" | 2-15M @ | 450 | (18) |  |  |  |  |  |  |  |  |  |
|  |  | $16 "$ | 2-15M @ | 400 | (16) |  |  |  |  |  |  |  |  |  |
| 250 | (10) | $12^{\prime \prime}$ and 18" | 2-15M @ | 450 | (18) | 2-15M @ | 450 | (18) |  |  |  |  |  |  |
|  |  | $16^{\prime \prime}$ | 15M @ | 400 | (16) | 2-15M @ | 400 | (16) |  |  |  |  |  |  |
| $300$ | (12) | $\begin{array}{\|c\|} \hline 12^{\prime \prime} \text { and } 18 " \\ \hline 16^{\prime \prime} \\ \hline \end{array}$ | $\begin{gathered} 15 \mathrm{M} @ \\ 15 \mathrm{M} @ \\ \hline \end{gathered}$ | 450 400 | (18) (16) | $2-15 \mathrm{M}$ @ 2-15M @ | 450 400 | $\begin{aligned} & (18) \\ & \hline(16) \end{aligned}$ | $\begin{aligned} & \text { 2-15M @ } \\ & \hline 2-15 M @ \end{aligned}$ |  | $\begin{array}{r} (18) \\ \hline(16) \end{array}$ |  |  |  |

## NOTES

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.

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 $900 \mathrm{~mm}\left(3^{\prime}-0^{\prime \prime}\right)$, bend bars if necessary at wall corners.
8. Provide a minimum of $1.22 \mathrm{~m}\left(4^{\prime}-0^{\prime \prime}\right)$ length of laterally supported wall on each side of the opening. The $1.22 \mathrm{~m}\left(4^{\prime}-0^{\prime \prime}\right)$ 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 $900 \mathrm{~mm}\left(3^{\prime}-0^{\prime \prime}\right)$ 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 1.22 m ( $4^{\prime}-0^{\prime \prime}$ ) 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 $\mathrm{Sa}(0.2)>0.7$ or Backfill Equivalent Fluid Density $>480 \mathrm{~kg} / \mathrm{m} 3$ ( 30 pcf) shall be designed by a professional engineer.
12. Alternating horizontal bar spacing of $12^{\prime \prime}$ o.c. and $24^{\prime \prime}$ o.c. may be used to achieve an average spacing of $18^{\prime \prime}$ o.c. where $18^{\prime \prime}$ o.c. spacing is specified for horizontal bars.
13. Provide 3 horizontal bars in every two rows of $18^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars.
14. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars.

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

| STable, mm (in) | Laterally Unsupported Length of the Wall (Stair Opening Length), m (ft) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5.7 (19) | 5.1 (17) | 4.5 (15) | 3.9 (13) | 2.7 (9) | 2.1 (7) | 1.5 (5) |
|  | $S_{\text {Reduced }}$ |  |  |  |  |  |  |
| 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. $\quad \mathrm{S}_{\text {REDUCED }}=$ the bar spacing ( $\mathrm{mm} / \mathrm{in}$ ) required at the sides of the stair opening.
2. $\quad \mathrm{S}_{\text {TABLEES }}=$ the required bar spacing ( $\mathrm{mm} / \mathrm{in}$ ) for a laterally supported wall as determined from above grade and below grade walls tables.
 to prepare the design in accordance with applicable standards.

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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 Thickne | $\leq 2.5 \mathrm{~m}$ ( $\left.8^{\prime}-2{ }^{\prime \prime}\right)$ | >2.5m \& 52.75 m (9'-0") | >2.75m \& 53.0 m (9'-10") |
| $6{ }^{\prime \prime}$ | 1.8m (5'-10") | 1.6 m (5'-3") | 1.6 m (5'-3") |
| 8" | 2.3 m (7'-6") | 2.3 m (7'-6") | 2.2 m (7'-2") |
| 10" | 2.3 m (7'-6") | 2.6 m (8'-6") | 2.85m (9'-4") |
| 12" | 2.3 m (7'-6") | 2.6 m (8'-6") | 2.85m (9'-4") |

## NOTES:

[^17]Build Anything Better."

Laterally Unsupported Foundation Wall Detail and Table (Knee Wall)


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

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## Ledger Connection Detail and Table



Detail C.1. Wood Ledger Connection

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

| Anchor Bolt Diameter | Minimum Spacing of Staggered Anchors, in |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tie Spaing | Floor span, ft (m) |  |  |  |  |
|  |  | 8' (2.44m) | $12^{\prime}$ (3.66m) | 16' (4.88m) | $20^{\prime}$ (6.1m) | 24' (7.32m) |
| 1/2" | $6 "$ | 18" | 12" | 12" | $6{ }^{\prime \prime}$ | $6{ }^{\prime \prime}$ |
|  | 8" | $16 "$ | $16 "$ | 8" | 8" | 8" |
| 5/8" | $6 "$ | 24" | 18" | 12" | 12" | $6 "$ |
|  | 8" | 24" | $16 "$ | $16 "$ | 8" | 8" |

## NOTES:

1. Anchor bolts to be installed at the indicated spacing and staggered as shown.
2. Design assumes floor ledger supports vertical floor load only. Design of floor diaphragm by others.

Design loads: 40psf ( 1.9 kPa ) floor live load, $15 \mathrm{psf}(0.7 \mathrm{kPa})$ floor dead load.
Anchor bolts shall conform to the requirements of ASTM standard A307.
Anchor bolt connection to be installed at Dry Service Condition.

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## Brick Ledge Detail and Table



Detail C. 2. Brick Ledge Connection


## Detail C.3. xLerator Ledge Reinforcement

Table C． 3 Brick Ledge Load Capacity

|  | Application | Capacity |
| :--- | :--- | :---: |
| Brick | Max 4＂thick |  |
|  | Max 20kN／cu．m |  |
| $9.6 \mathrm{~m}\left(31^{\prime}-6 "\right)$ high |  |  |
|  |  | 6．4m（21＇）Truibutary floor width |
|  | $0.7 \mathrm{kPa}(15 \mathrm{psf})$ Dead Load |  |
| Other | $1.9 \mathrm{kPa}(40 \mathrm{psf})$ Live Load |  |

## NOTES：

1．1．Concrete Ledge reinforcement is to support floor framing and masonry veneer in conformance with the＂Design Limitations＂
2．2．The concrete ledge is to support uniformly distributed loads only．It is not to support concentrated load．
3．3．The above grade and below grade wall reinforcing tables include the effects of using the ledge to support floor framing．
4．The below grade wall reinforcing tables include the effects of using the ledge to support masonry veneer．
5．5．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 10 M hooked rebar as shown in Detail C．2．It is to be placed 6 ＂or $8^{\prime \prime}$ on center as shown．


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## Footing Details and Tables



Table F.1- Footing Dowels Size and Spacing

| Rebar Diameter | Maximum Spacing of Vertical Footing Dowels, in |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Backfill Height, ft (m) |  |  |  |  |
|  | 4' (1.22m) | $6{ }^{\prime}$ (1.83m) | 8' (2.44m) | 10' (3.05m) | 12' (3.66) |
| Seismic Zone Classification: $\mathrm{Sa}(0.2) \leq 0.25$ |  |  |  |  |  |
| 10M | 48" | 48" | 40" | 8" | 8" |
| 15M | 48" | 48" | $48^{\prime \prime}$ | $16 "$ | 8" |
| Seismic Zone Classification: $\mathrm{Sa}(0.2) \leq 1.20$ |  |  |  |  |  |
| 10M | 24" | 24" | 16" | 8" |  |
| 15M | 24" | 24" | 24" | 8" | 8" |
| Seismic Zone Classification: $\mathrm{Sa}(0.2) \leq 1.75$ |  |  |  |  |  |
| 10M | 24" | 24" | 8" |  |  |
| 15M | 24" | 24" | $16 "$ | 8" | 8" |

## notes:

1. Footing Dowels to be installed as per Details F.1.
2. Provide $18^{\prime \prime}$ long straight dowels for $\mathrm{Sa}(0.2) \leq 0.4$ embedded 6 " into the footing.
3. Provide $30^{\prime \prime} \mathrm{V} \times 8^{\prime \prime} \mathrm{H}$ bent dowels for $\mathrm{Sa}(0.2)>0.4$ embedded 8 " into the footing.
4. Provide $30 " \mathrm{~V} \times 8^{\prime \prime} \mathrm{H}$ bent dowels embedded $8^{\prime \prime}$ 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 Thickness, in (mm) | Minimum Footing Width x Thickness, in x in |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Allowable Soil Bearing Pressure, psf (kPa) |  |  |  |  |  |  |  |
|  | 3000 (144) |  | 2500 (120) |  | 2000 (96) |  | 1500 (72) |  |
| Two Storey - ICF Basement Walls, Wood Main Floor Walls, and Wood Second Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | x 6 " | 16" | $\times 6 "$ | 16" | x 6" | 20" | x 6" |
| 8 (200) | 18" | x6" | $18 "$ | x 6 " | 18" | x 6" | 22" | x 6 " |
| 10 (250) | 20" | $\times 6$ | 20" | x 6 " | 20" | x 6" | 24" | x 6" |
| 12 (300) | 22" | x6" | 22" | x 6 " | 22" | x 6" | 26" | x 8" |
| Two Storey - ICF Basement Walls, ICF Main Floor Walls, and Wood Second Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | $\times 6$ | 18" | x 6 " | 22" | x 8 " | 28" | x 8" |
| 8 (200) | 18" | $\times 6{ }^{\prime \prime}$ | 20" | $\times 6{ }^{\prime \prime}$ | 26" | x 8" | 34" | x 10" |
| 10 (250) | 20" | x6" | $24 "$ | x 8 " | 30" | x 10" | 40" | $\times 101$ |
| 12 (300) | 22" | x 8" | 26" | x 8" | 32" | x 10" | 42" | x 12" |
| Two Storey - ICF Basement Walls, ICF Main Floor Walls, and ICF Second 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" | $\times 101$ | 38" | x 12" | 50" | x 14" |
| 12 (300) | 26" | x 8" | 32" | x 10" | 40" | x 12" | $52 "$ | x 14" |
| One Storey - ICF Basement Walls, and Wood Main Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | $\times 6 "$ | $16 "$ | x 6 " | 16" | x 6 " | 16" | x 6" |
| 8 (200) | 18" | $\times 6$ | 18" | x 6" | 18" | x 6 " | 18" | $\times 6{ }^{\prime \prime}$ |
| 10 (250) | 20" | $\times 6$ | 20" | x 6" | 20" | x 6" | 20" | x 6" |
| 12 (300) | 22" | $\times 6$ | 22" | x 6" | 22" | x 6" | 22" | x 6 " |
| One Storey - ICF Basement Walls, and ICF Main Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | $\times 6 "$ | 16" | x6" | 18" | x6" | 24" | x 8" |
| 8 (200) | 18" | x6" | 18" | x 6 " | 22" | x 8 " | 28" | x 8" |
| 10 (250) | 20" | $\times 6 "$ | 20" | x 6" | 26" | x 8" | $34 "$ | x 10" |
| 12 (300) <br> NOTES: <br> All footings are | 22" <br> inforce | x 8" <br> ntinuou | 22" <br> rawing |  | 28" | x 8" | $36 "$ | $\frac{\times 10^{\prime \prime}}{}$ |

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 $12^{\prime}-0$ " of masonry veneer for 3000 psf soil bearing capacity.
b. Every $10^{\prime}-0^{\prime \prime}$ of masonry veneer for 2500 psf soil bearing capacity.
c. Every $8^{\prime}-0^{\prime \prime}$ of masonry veneer for 2000 psf soil bearing capacity.
d. Every $6^{\prime}-0$ " of masonry veneer for 1500 psf soil bearing capacity.
4. The footing size for locations with $\mathrm{Sa}(0.2)>0.4$ to be the larger of 30 " wide by 12 " deep or the size shown in the table.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table F.3- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads $\leq \mathbf{2 k P a}$

| ICF Wall Thickness, in (mm) | Minimum Footing Width x Thickness, in x in |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Allowable Soil Bearing Pressure, psf (kPa) |  |  |  |  |  |  |  |
|  | 3000 (144) |  | 2500 (120) |  | 2000 (96) |  | 1500 (72) |  |
| Two Storey - ICF Basement Walls, Wood Main Floor Walls, and Wood Second Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | $\times 6 "$ | $18{ }^{\prime \prime}$ | x 6 " | 22" | x $8{ }^{\prime \prime}$ | 28" | x 8" |
| 8 (200) | 18" | x6" | 20" | x 6 " | 24" | x 8" | 32" | x 10" |
| 10 (250) | 20" | x6" | 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 Basement Walls, ICF Main Floor Walls, and Wood Second Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 20" | x 8" | 24" | x 8" | 28" | x 10" | 38" | x 12" |
| 8 (200) | 22" | x 8 " | 26" | $\times 101$ | 32" | $\times 101$ | 44" | x 12" |
| 10 (250) | 24" | $\times 8{ }^{\prime \prime}$ | 30" | $\times 10 "$ | 36" | x 10" | 48" | x 14" |
| 12 (300) | 26" | $\times 8{ }^{\prime \prime}$ | 32" | x 10" | 38" | x 12" | 52" | x 14" |
| Two Storey - ICF Basement Walls, ICF Main Floor Walls, and ICF Second Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 22" | x 8 " | 26" | x 10" | 32" | x 10" | 44" | x 12" |
| 8 (200) | 26" | $\times 10$ | 30" | $\times 101$ | 38" | x 12" | 50" | x 14" |
| 10 (250) | 30" | $\times 10$ | 36" | x 12" | 44" | x 14" | $58 "$ | x 16" |
| 12 (300) | 30" | x 10" | 36" | x 12" | 46" | x 14" | 60" | x 16" |
| One Storey - ICF Basement Walls, and Wood Main Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | $\times 6 "$ | 16" | x 6" | 18" | $\times 6 "$ | 24" | x 8" |
| 8 (200) | 18" | $\times 6$ | 18" | x 6" | 20" | $\times 6$ | 26" | x 8" |
| 10 (250) | 20" | $\times 6 "$ | 20" | x 6" | 22" | $\times 6 "$ | 28" | x 8" |
| 12 (300) | 22" | $\times 6 "$ | 22" | x 6" | 22" | $\times 6$ " | 30" | x 8" |
| One Storey - ICF Basement Walls, and ICF Main Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | $\times 6 "$ | 20" | x 8" | 24" | $\times 8{ }^{\prime \prime}$ | 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" | $\times 101$ | 44" | x 12" |
| 12 (300) | 24" | x 8" |  | $\times 101$ | 34" | $\times 10 "$ | 46" | x 12" |
| 2. Refer to the Canadian Design Limitations for maximum floor and roof spans and loads. <br> 3. This table does not include masonry veneer. Increase the footing width by 2 " and the thickness by 1 " for: <br> a. Every $12^{\prime}-0$ " of masonry veneer for 3000 psf soil bearing capacity. <br> b. Every $10^{\prime}-0$ " of masonry veneer for 2500 psf soil bearing capacity. <br> c. Every $8^{\prime}-0^{\prime \prime}$ of masonry veneer for 2000psf soil bearing capacity. <br> d. Every $6^{\prime}-0^{\prime \prime}$ of masonry veneer for 1500 psf soil bearing capacity. |  |  |  |  |  |  |  |  |
| 4. The footing siz | ations | $\begin{aligned} & \text { Opsf soil } \\ & 0.4 \text { to } \end{aligned}$ | " wide | the size |  |  |  |  |

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table F.4- Minimum Exterior Strip Footing Sizes Supporting Roof Snow Loads $\leq \mathbf{4 k P a}$

| ICF Wall Thickness, in (mm) | Minimum Footing Width x Thickness, in x in |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Allowable Soil Bearing Pressure, psf (kPa) |  |  |  |  |  |  |  |
|  | 3000 (144) |  | 2500 (120) |  | 2000 (96) |  | 1500 (72) |  |
| Two Storey - ICF Basement Walls, Wood Main Floor Walls, and Wood Second Floor Walls |  |  |  |  |  |  |  |  |
| 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" | $38{ }^{\prime \prime}$ | x 10" |
| 10 (250) | 20" | x 6" | 24" | x 8" | 30" | x 10" | 40" | $\times 101$ |
| 12 (300) | 22" | x 8" | 26" | x 8" | 32" | x 10" | 42" | x 12" |
| Two Storey - ICF Basement Walls, ICF Main Floor Walls, and Wood Second Floor Walls |  |  |  |  |  |  |  |  |
| 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 Walls, and ICF Second 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 $14{ }^{\prime \prime}$ | 50" | x 16" | 66" | x 18" |
| 12 (300) | $34 "$ | x 12" | 40" | x $14{ }^{\prime \prime}$ | 50" | x 16" | 68" | x 18" |
| One Storey - ICF Basement Walls, and Wood Main Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 16" | x 6 " | 18" | x 6" | 22" | x 8 " | 30" | x 10" |
| 8 (200) | 18" | x 6 " | 20" | $\times 6 "$ | 24" | x 8" | 32" | $\times 10 "$ |
| 10 (250) | 20" | x 6 " | 22" | x 6" | 26" | $\times 8{ }^{\prime \prime}$ | 34" | $\times 101$ |
| 12 (300) | 22" | x 8" | 22" | x 8" | 28" | x 8" | 38" | x 10" |
| One Storey - ICF Basement Walls, and ICF Main Floor Walls |  |  |  |  |  |  |  |  |
| 6 (150) | 20" | x 8" | 24" | $\times 8{ }^{\prime \prime}$ | 30" | $\times 10 "$ | 38" | x 12" |
| 8 (200) | 22" | x 8" | 28" | x 10" | $34 "$ | x 10" | $44^{\prime \prime}$ | x 12" |
| 10 (250) | 26" | x 8 " | 30" | x 10" | 38" | x 12" | 50" | x 14" |
| $12 \text { (300) }$ <br> OTES: <br> All footings are | 26" <br> inforced | x 8" | 32" <br> drawing | $\underbrace{\times 10 "}$ | 40" | x 12" | 52" | x 14" |

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 $2^{\prime \prime}$ and the thickness by $1^{\prime \prime}$ for:
a. Every $12^{\prime}-0$ " of masonry veneer for 3000 psf soil bearing capacity.
b. Every $10^{\prime}-0^{\prime \prime}$ of masonry veneer for 2500 psf soil bearing capacity.
c. Every $8^{\prime}-0^{\prime \prime}$ of masonry veneer for 2000psf soil bearing capacity.
d. Every $6^{-0} 0$ of masonry veneer for 1500 psf soil bearing capacity.
4. The footing size for locations with $\mathrm{Sa}(0.2)>0.4$ to be the larger of 30 " wide by $12^{\prime \prime}$ deep or the size shown in the table.

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## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

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

| Province and Location | $\mathrm{S}_{\text {a,lCF }}$ | Province and Location | $\mathrm{S}_{\text {a,lCF }}$ |
| :---: | :---: | :---: | :---: |
| British Columbia |  | Lytton | 0.219 |
| 100 Mile House | 0.113 | Mackenzie | 0.117 |
| Abbotsford | 0.486 | Masset | 0.588 |
| Agassiz | 0.338 | McBride | 0.162 |
| Alberni | 0.701 | McLeod Lake | 0.110 |
| Ashcroft | 0.160 | Merritt | 0.175 |
| Bamfield | 1.010 | Mission City | 0.455 |
| Beatton River | 0.083 | Montrose | 0.102 |
| Bella Bella | 0.231 | Nakusp | 0.102 |
| Bella Coola | 0.172 | Nanaimo | 0.719 |
| Burns Lake | 0.080 | Nelson | 0.103 |
| Cache Creek | 0.157 | Ocean Falls | 0.199 |
| Campbell River | 0.482 | Osoyoos | 0.150 |
| Carmi | 0.120 | Parksville | 0.665 |
| Castlegar | 0.100 | Penticton | 0.138 |
| Chetwynd | 0.121 | Port Alberni | 0.721 |
| Chilliwack | 0.383 | Port Alice | 0.950 |
| Comox | 0.536 | Port Hardy | 0.533 |
| Courtenay | 0.541 | Port McNeill | 0.546 |
| Cranbrook | 0.138 | Port Renfrew | 1.010 |
| Crescent Valley | 0.101 | Powell River | 0.464 |
| Crofton | 0.781 | Prince George | 0.089 |
| Dawson Creek | 0.098 | Prince Rupert | 0.264 |
| Dease Lake | 0.091 | Princeton | 0.204 |
| Dog Creek | 0.140 | Qualicum Beach | 0.652 |
| Duncan | 0.816 | Queen Charlotte City | 1.025 |
| Elko | 0.174 | Quesnel | 0.088 |
| Fernie | 0.174 | Revelstoke | 0.109 |
| Fort Nelson | 0.103 | Salmon Arm | 0.104 |
| Fort St. John | 0.094 | Sandspit | 0.868 |
| Glacier | 0.142 | Sechelt | 0.589 |
| Gold River | 0.748 | Sidney | 0.823 |
| Golden | 0.170 | Smith River | 0.370 |
| Grand Forks | 0.108 | Smithers | 0.090 |
| Greenwood | 0.113 | Sooke | 0.928 |
| Hope | 0.280 | Squamish | 0.434 |
| Jordan River | 0.980 | Stewart | 0.132 |
| Kamloops | 0.123 | Tahsis | 0.890 |
| Kaslo | 0.109 | Taylor | 0.093 |
| Kelowna | 0.122 | Terrace | 0.145 |
| Kimberley | 0.130 | Tofino | 1.018 |
| Kitimat Plant | 0.167 | Trail | 0.101 |
| Kitimat Townsite | 0.167 | Ucluelet | 1.033 |
| Ladysmith | 0.768 | Vancouver Region |  |
| Langford | 0.890 | Burnaby <br> (Simon Fraser Univ.) | 0.540 |
| Lillooet | 0.206 |  |  |


| Province and Location | $\mathrm{S}_{\text {a, ICF }}$ |
| :---: | :---: |
| Cloverdale | 0.560 |
| Haney | 0.491 |
| Ladner | 0.642 |
| Langley | 0.541 |
| New Westminster | 0.561 |
| North Vancouver | 0.558 |
| Richmond | 0.616 |
| $\begin{aligned} & \text { Surrey (88 Ave \& } 156 \\ & \text { St.) } \end{aligned}$ | 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 | $\mathrm{S}_{\text {a,lCF }}$ |
| :---: | :---: |
| 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 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\mathrm{S}_{\mathrm{a,ICF}}$ |
| :---: | :---: |
| 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 | 0.105 |
| Yorkton | 0.040 |
| Manitoba |  |
| 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 | $\mathrm{S}_{\text {a,1, }}$ |
| :---: | :---: |
| 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 | $\mathrm{S}_{\text {a,lcF }}$ |
| :---: | :---: |
| 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 |
| 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 |
| 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 (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 | $\mathrm{S}_{\text {a,laF }}$ |
| :---: | :---: |
| 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. Pearson Int'I Airport) | 0.109 |
| Mississauga (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 (Bowmanville) | 0.107 |
| Newmarket | 0.085 |
| Niagara Falls | 0.166 |
| North Bay | 0.141 |
| Norwood | 0.094 |
| Oakville | 0.140 |

[^20]The ICFMA Prescriptive ICF Design for Part 9 Structures in Canada

## LOGIX INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\mathrm{S}_{\text {a,lCF }}$ |
| :---: | :---: |
| 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'I 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 (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 |
| Simcoe | 0.084 |
| Sioux Lookout | 0.041 |
| Smiths Falls | 0.151 |


| Province and Location | $\mathrm{S}_{\text {a,lCF }}$ |
| :---: | :---: |
| Smithville | 0.156 |
| Smooth Rock Falls | 0.112 |
| South River | 0.106 |
| Southampton | 0.060 |
| St. Catharines | 0.165 |
| St. Mary's | 0.068 |
| St. Thomas | 0.073 |
| Stirling | 0.100 |
| Stratford | 0.069 |
| Strathroy | 0.066 |
| Sturgeon Falls | 0.113 |
| Sudbury | 0.076 |
| Sundridge | 0.103 |
| Tavistock | 0.071 |
| Temagami | 0.135 |
| Thamesford | 0.071 |
| Thedford | 0.062 |
| Thunder Bay | 0.035 |
| Tillsonburg | 0.077 |
| Timmins | 0.075 |
| Timmins (Porcupine) | 0.081 |
| 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 | $\mathrm{S}_{\mathrm{a}, \mathrm{ICF}}$ |
| :---: | :---: |
| 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 |


| Province and Location | $\mathrm{S}_{\text {a,lCF }}$ |
| :---: | :---: |
| Maniwaki | 0.208 |
| Masson | 0.235 |
| 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 | 0.271 |
| 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 | 0.359 |
| Saguenay (Bagotville) | 0.363 |
| Saguenay (Jonquiere) | 0.362 |
| Saguenay (Kenogami) | 0.362 |
| Saint-Eustache | 0.269 |
| Saint-Jean-surRichelieu | 0.244 |
| Salaberry-de-Valleyfield | 0.273 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING



| Province and Location | $\mathbf{S}_{\text {a,lCF }}$ |
| :--- | ---: |
| 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 |



The ICFMA Prescriptive ICF Design for Part 9 Structures in Canada

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## Appendix B: Climatic Design Data

| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One Day Rain, $1 / 50$, mm | Ann. <br> Rain, <br> mm | Moist. Index | Ann. <br> Tot. Ppn., mm | Driving Rain Wind Pressures, Pa, 1/5 | Snow Load, <br> kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July $2.5 \%$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left\lvert\, \begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}\right.$ | $\begin{aligned} & \text { 1\% } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{array}{\|l\|l} \hline \text { Wet } \\ { }^{\circ} \mathrm{C} \end{array}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| British 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 | -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 | -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 | -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 | -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 | -7 | -9 | 27 | 18 | 3100 | 10 | 106 | 1175 | 1.28 | 1200 | 260 | 2.4 | 0.4 | 0.40 | 0.52 |
| Courtenay | 10 | -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 | -20 | 31 | 20 | 3650 | 10 | 54 | 675 | 0.75 | 850 | 80 | 4.2 | 0.1 | 0.25 | 0.33 |
| Crotton | 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 |

[^21]| Province and Location | Elev., m | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One Day Rain, 1/50, mm | Ann. Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., <br> mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 | 0.8 | 0.37 | 0.48 |
| Ladysmith | 80 | -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 | -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 | 0.8 | 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 | -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 | -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 | -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 Code 2015. National Research Council.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\begin{gathered} \text { Elev., } \\ \mathrm{m} \end{gathered}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., <br> mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & 2.5 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 | -3 | 21 | 16 | 2900 | 9 | 130 | 1250 | 1.37 | 1280 | 220 | 1.3 | 0.3 | 0.37 | 0.48 |
| Squamish | 5 | -9 | -11 | 29 | 20 | 2950 | 10 | 140 | 2050 | 2.12 | 2200 | 160 | 2.8 | 0.7 | 0.39 | 0.50 |
| Stewart | 10 | -17 | -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 | -2 | -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 Fraser Univ.) | 330 | -7 | -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 | -7 | -9 | 26 | 19 | 2910 | 12 | 150 | 2000 | 2.07 | 2100 | 160 | 3.0 | 0.3 | 0.35 | 0.45 |
| Richmond | 5 | -7 | -9 | 27 | 19 | 2800 | 10 | 86 | 1070 | 1.20 | 1100 | 160 | 1.5 | 0.2 | 0.35 | 0.45 |
| Surrey (88 Ave \& 156 St.) | 90 | -8 | -10 | 29 | 20 | 2750 | 10 | 128 | 1500 | 1.58 | 1575 | 160 | 2.4 | 0.3 | 0.34 | 0.44 |
| Vancouver (City Hall) | 40 | -7 | -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 | -6 | -8 | 28 | 20 | 2925 | 10 | 107 | 1325 | 1.44 | 1400 | 160 | 1.9 | 0.3 | 0.35 | 0.45 |
| West Vancouver | 45 | -7 | -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 | -6 | 24 | 17 | 2700 | 9 | 91 | 600 | 0.82 | 625 | 220 | 1.5 | 0.3 | 0.44 | 0.57 |
| Victoria (Mt Tolmie) | 125 | -6 | -8 | 24 | 16 | 2700 | 9 | 91 | 775 | 0.96 | 800 | 220 | 2.1 | 0.3 | 0.48 | 0.63 |
| Victoria | 10 | -4 | -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 | -5 | -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 | -5 | -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 | 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 |


| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. <br> Rain, <br> mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Wet } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| Beaverlodge | 730 | -36 | -39 | 28 | 18 | 5700 | 20 | 86 | 315 | 0.49 | 470 | 100 | 2.4 | 0.1 | 0.28 | 0.36 |
| Brooks | 760 | -32 | -34 | 32 | 20 | 4880 | 18 | 86 | 260 | 0.26 | 340 | 220 | 1.2 | 0.1 | 0.40 | 0.52 |
| Calgary | 1045 | -30 | -32 | 28 | 17 | 5000 | 23 | 103 | 325 | 0.37 | 425 | 220 | 1.1 | 0.1 | 0.37 | 0.48 |
| Campsie | 660 | -33 | -36 | 27 | 19 | 5750 | 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 | -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 | -37 | 27 | 18 | 5750 | 18 | 81 | 450 | 0.63 | 570 | 100 | 2.1 | 0.1 | 0.36 | 0.46 |
| Embarras Portage | 220 | -41 | -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 | -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 |
| Fort Vermilion | 270 | -41 | -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 |
| Hinton | 990 | -34 | -38 | 27 | 17 | 5500 | 13 | 81 | 375 | 0.55 | 500 | 100 | 2.6 | 0.1 | 0.36 | 0.46 |
| 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 | -40 | -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 | -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 | -37 | -40 | 27 | 18 | 6050 | 15 | 81 | 300 | 0.50 | 390 | 100 | 2.2 | 0.1 | 0.25 | 0.32 |
| Pincher Creek | 1130 | -29 | -32 | 29 | 18 | 4740 | 16 | 103 | 325 | 0.37 | 575 | 140 | 1.5 | 0.1 | 0.75 | 0.96 |
| Ranfurly | 670 | -34 | -37 | 29 | 19 | 5700 | 18 | 92 | 325 | 0.50 | 420 | 100 | 1.9 | 0.1 | 0.28 | 0.36 |
| Red Deer | 855 | -32 | -35 | 28 | 19 | 5550 | 20 | 97 | 375 | 0.54 | 475 | 200 | 1.8 | 0.1 | 0.31 | 0.40 |
| Rocky Mountain House | 985 | -32 | -34 | 27 | 18 | 5640 | 20 | 92 | 425 | 0.59 | 550 | 120 | 1.9 | 0.1 | 0.28 | 0.36 |
| Slave Lake | 590 | -35 | -38 | 26 | 19 | 5850 | 15 | 81 | 380 | 0.62 | 500 | 80 | 1.9 | 0.1 | 0.29 | 0.37 |
| Stettler | 820 | -32 | -34 | 30 | 19 | 5300 | 20 | 97 | 370 | 0.53 | 450 | 200 | 1.9 | 0.1 | 0.28 | 0.36 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING


| Province and Location | $\begin{gathered} \text { Elev., } \\ \mathrm{m} \end{gathered}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. <br> Rain, <br> mm | Moist. Index | Ann. <br> Tot. <br> Ppn., <br> mm | Driv- <br> ing Rain Wind Pressures, Pa, 1/5 | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left\|\begin{array}{c} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{array}\right\|$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| 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 | -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 |
| 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 |
| 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 |
| Arnprior | 85 | -27 | -29 | 30 | 23 | 4680 | 23 | 86 | 630 | 0.76 | 775 | 140 | 2.5 | 0.4 | 0.29 | 0.37 |
| Atikokan | 400 | -33 | -35 | 29 | 22 | 5750 | 25 | 103 | 570 | 0.77 | 760 | 100 | 2.4 | 0.3 | 0.23 | 0.30 |
| Attawapiskat | 10 | -37 | -39 | 28 | 21 | 7100 | 18 | 81 | 450 | 0.79 | 650 | 160 | 2.8 | 0.3 | 0.32 | 0.41 |
| Aurora | 270 | -21 | -23 | 30 | 23 | 4210 | 28 | 108 | 700 | 0.81 | 800 | 140 | 2.0 | 0.4 | 0.34 | 0.44 |

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

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left.\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered} \right\rvert\,$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Wet } \\ { }^{\circ} \mathrm{C} \end{array}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 |
| Belmont | 260 | -17 | -19 | 30 | 24 | 3840 | 25 | 97 | 850 | 0.95 | 950 | 180 | 1.7 | 0.4 | 0.36 | 0.47 |
| Kitchenuhmaykoosib (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 |
| 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 |
| 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 |
| 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 |
| 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 | -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 |
| 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 | -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 |
| 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 |

[^22]| Province and Location | Elev., m | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., <br> mm | Driving Rain Wind Pressures, Pa, 1/5 | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 | -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 Airport) | 255 | -26 | -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 (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 (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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## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\left.\begin{gathered} \text { Elev., } \\ \mathrm{m} \end{gathered} \right\rvert\,$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, Pa, 1/5 | Snow Load, kPa, $1 / 50$ |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left\lvert\, \begin{aligned} & 2.5 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}\right.$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 | -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 (Bowmanville) | 95 | -20 | -22 | 30 | 23 | 4000 | 23 | 86 | 760 | 0.90 | 830 | 160 | 1.4 | 0.4 | 0.37 | 0.48 |
| Newmarket | 185 | -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 | -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'l Airport) | 125 | -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 | -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 | -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 | -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 | -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 |

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| Province and Location | $\begin{gathered} \text { Elev., } \\ \mathrm{m} \end{gathered}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., <br> mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Dry ${ }^{\circ} \mathrm{C}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| Port Colborne | 180 | -15 | -17 | 30 | 24 | 3600 | 23 | 108 | 850 | 0.97 | 1000 | 160 | 2.1 | 0.4 | 0.36 | 0.46 |
| 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 | -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 | -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 <br> (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 | -35 | -37 | 28 | 21 | 6220 | 20 | 92 | 470 | 0.69 | 630 | 120 | 2.6 | 0.3 | 0.23 | 0.30 |
| Renfrew | 115 | -27 | -30 | 30 | 23 | 4900 | 23 | 97 | 620 | 0.75 | 810 | 140 | 2.5 | 0.4 | 0.27 | 0.35 |
| 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 | -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 |
| Seaforth | 310 | -17 | -19 | 30 | 23 | 4100 | 25 | 108 | 810 | 0.94 | 1025 | 160 | 2.5 | 0.4 | 0.37 | 0.48 |
| Shelburne | 495 | -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 | -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 |
| 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 | -27 | -29 | 29 | 22 | 5090 | 25 | 103 | 830 | 0.96 | 975 | 120 | 2.8 | 0.4 | 0.27 | 0.35 |
| Southampton | 180 | -17 | -19 | 28 | 22 | 4100 | 25 | 92 | 800 | 0.95 | 830 | 180 | 2.7 | 0.4 | 0.41 | 0.53 |
| 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 | -28 | -30 | 29 | 21 | 5180 | 25 | 97 | 650 | 0.79 | 875 | 200 | 2.5 | 0.4 | 0.36 | 0.46 |
| Sundridge | 340 | -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 |
| Temagami | 300 | -30 | -33 | 30 | 22 | 5420 | 23 | 92 | 650 | 0.82 | 875 | 120 | 2.6 | 0.4 | 0.29 | 0.37 |
| Thamesford | 280 | -19 | -21 | 30 | 23 | 3950 | 28 | 108 | 820 | 0.93 | 975 | 160 | 1.9 | 0.4 | 0.37 | 0.48 |
| Thedford | 205 | -16 | -18 | 31 | 23 | 3710 | 25 | 103 | 810 | 0.95 | 900 | 180 | 2.1 | 0.4 | 0.39 | 0.50 |
| Thunder Bay | 210 | -31 | -33 | 29 | 21 | 5650 | 23 | 108 | 560 | 0.76 | 710 | 160 | 2.9 | 0.4 | 0.30 | 0.39 |

[^23]| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, Pa, 1/5 | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & 2.5 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Dry | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| Tillsonburg | 215 | -17 | -19 | 30 | 24 | 3840 | 25 | 103 | 880 | 0.98 | 980 | 160 | 1.3 | 0.4 | 0.34 | 0.44 |
| Timmins | 300 | -34 | -36 | 29 | 21 | 5940 | 20 | 108 | 560 | 0.75 | 875 | 100 | 3.1 | 0.3 | 0.27 | 0.35 |
| Timmins (Porcupine) | 295 | -34 | -36 | 29 | 21 | 6000 | 20 | 103 | 560 | 0.75 | 875 | 100 | 2.9 | 0.3 | 0.29 | 0.37 |
| Toronto Metropolitan Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Etobicoke | 160 | -20 | -22 | 31 | 24 | 3800 | 26 | 108 | 720 | 0.80 | 800 | 160 | 1.1 | 0.4 | 0.34 | 0.44 |
| North York | 175 | -20 | -22 | 31 | 24 | 3760 | 25 | 108 | 730 | 0.82 | 850 | 150 | 1.2 | 0.4 | 0.34 | 0.44 |
| Scarborough | 180 | -20 | -22 | 31 | 24 | 3800 | 25 | 92 | 730 | 0.87 | 825 | 160 | 1.2 | 0.4 | 0.36 | 0.47 |
| Toronto (City Hall) | 90 | -18 | -20 | 31 | 23 | 3520 | 25 | 97 | 720 | 0.86 | 820 | 160 | 0.9 | 0.4 | 0.34 | 0.44 |
| Trenton | 80 | -22 | -24 | 29 | 23 | 4110 | 23 | 97 | 760 | 0.89 | 850 | 160 | 1.6 | 0.4 | 0.36 | 0.47 |
| Trout Creek | 330 | -27 | -29 | 29 | 22 | 5100 | 25 | 103 | 780 | 0.92 | 975 | 120 | 2.7 | 0.4 | 0.27 | 0.35 |
| Uxbridge | 275 | -22 | -24 | 30 | 23 | 4240 | 25 | 103 | 700 | 0.82 | 850 | 140 | 2.4 | 0.4 | 0.33 | 0.42 |
| Vaughan (Woodbridge) | 165 | -20 | -22 | 31 | 24 | 4100 | 26 | 113 | 700 | 0.80 | 800 | 140 | 1.1 | 0.4 | 0.34 | 0.44 |
| Vittoria | 215 | -15 | -17 | 30 | 24 | 3680 | 25 | 113 | 880 | 0.99 | 950 | 160 | 1.3 | 0.4 | 0.36 | 0.47 |
| Walkerton | 275 | -18 | -20 | 30 | 22 | 4300 | 28 | 103 | 790 | 0.92 | 1025 | 160 | 2.7 | 0.4 | 0.39 | 0.50 |
| Wallaceburg | 180 | -16 | -18 | 31 | 24 | 3600 | 28 | 97 | 760 | 0.87 | 825 | 180 | 0.9 | 0.4 | 0.35 | 0.45 |
| Waterloo | 330 | -19 | -21 | 29 | 23 | 4200 | 28 | 119 | 780 | 0.89 | 925 | 160 | 2.0 | 0.4 | 0.29 | 0.37 |
| Watford | 240 | -17 | -19 | 31 | 24 | 3740 | 25 | 108 | 790 | 0.90 | 950 | 160 | 1.9 | 0.4 | 0.36 | 0.47 |
| Wawa | 290 | -34 | -36 | 26 | 21 | 5840 | 20 | 93 | 725 | 0.93 | 950 | 160 | 3.4 | 0.4 | 0.30 | 0.39 |
| Welland | 180 | -15 | -17 | 30 | 23 | 3670 | 23 | 103 | 840 | 0.96 | 975 | 160 | 2.0 | 0.4 | 0.33 | 0.43 |
| West Lorne | 215 | -16 | -18 | 31 | 24 | 3700 | 28 | 103 | 840 | 0.95 | 900 | 180 | 1.3 | 0.4 | 0.36 | 0.47 |
| Whitby | 85 | -20 | -22 | 30 | 23 | 3820 | 23 | 86 | 760 | 0.90 | 850 | 160 | 1.2 | 0.4 | 0.37 | 0.48 |
| Whitby (Brooklin) | 160 | -20 | -22 | 30 | 23 | 4010 | 23 | 86 | 770 | 0.91 | 850 | 140 | 1.9 | 0.4 | 0.35 | 0.45 |
| White River | 375 | -39 | -42 | 28 | 21 | 6150 | 20 | 92 | 575 | 0.80 | 825 | 100 | 3.6 | 0.4 | 0.23 | 0.30 |
| Wiarton | 185 | -19 | -21 | 29 | 22 | 4300 | 25 | 103 | 740 | 0.91 | 1000 | 180 | 2.7 | 0.4 | 0.37 | 0.48 |
| Windsor | 185 | -16 | -18 | 32 | 24 | 3400 | 28 | 103 | 800 | 0.85 | 900 | 180 | 0.8 | 0.4 | 0.36 | 0.47 |
| Wingham | 310 | -18 | -20 | 30 | 23 | 4220 | 28 | 108 | 780 | 0.91 | 1050 | 160 | 2.6 | 0.4 | 0.39 | 0.50 |
| Woodstock | 300 | -19 | -21 | 30 | 23 | 3910 | 28 | 113 | 830 | 0.94 | 930 | 160 | 1.9 | 0.4 | 0.34 | 0.44 |
| Wyoming | 215 | -16 | -18 | 31 | 24 | 3700 | 25 | 103 | 815 | 0.92 | 900 | 180 | 1.6 | 0.4 | 0.36 | 0.47 |
| Quebec |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Acton-Vale | 95 | -24 | -27 | 30 | 23 | 4620 | 21 | 107 | 860 | 0.97 | 1050 | 180 | 2.3 | 0.4 | 0.27 | 0.35 |
| Alma | 110 | -31 | -33 | 28 | 22 | 5800 | 20 | 91 | 700 | 0.86 | 950 | 160 | 3.3 | 0.4 | 0.27 | 0.35 |
| Amos | 295 | -34 | -36 | 28 | 21 | 6160 | 20 | 91 | 670 | 0.85 | 920 | 100 | 3.2 | 0.3 | 0.25 | 0.32 |
| Asbestos | 245 | -26 | -28 | 29 | 22 | 4800 | 23 | 96 | 870 | 0.98 | 1050 | 160 | 2.8 | 0.6 | 0.27 | 0.35 |
| Aylmer | 90 | -25 | -28 | 30 | 23 | 4520 | 23 | 91 | 730 | 0.84 | 900 | 160 | 2.5 | 0.4 | 0.32 | 0.41 |
| Baie-Comeau | 60 | -27 | -29 | 25 | 19 | 6020 | 16 | 91 | 680 | 0.96 | 1000 | 220 | 4.3 | 0.4 | 0.39 | 0.50 |
| Baie-Saint-Paul | 20 | -27 | -29 | 28 | 21 | 5280 | 18 | 102 | 730 | 0.89 | 1000 | 180 | 3.4 | 0.6 | 0.37 | 0.48 |
| Beauport | 45 | -26 | -29 | 28 | 22 | 5100 | 20 | 107 | 980 | 1.09 | 1200 | 200 | 3.4 | 0.6 | 0.33 | 0.42 |
| Bedford | 55 | -24 | -26 | 29 | 23 | 4420 | 23 | 91 | 880 | 0.99 | 1260 | 160 | 2.1 | 0.4 | 0.32 | 0.41 |
| Beloeil | 25 | -24 | -26 | 30 | 23 | 4500 | 23 | 91 | 840 | 0.95 | 1025 | 180 | 2.4 | 0.4 | 0.29 | 0.37 |

[^24]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\begin{gathered} \text { Elev., } \\ \mathrm{m} \end{gathered}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. <br> Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., mm | Driving Rain Wind Pressures, Pa, 1/5 | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left\lvert\, \begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}\right.$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Wet } \\ { }^{\circ} \mathrm{C} \end{array}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\text {s }}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| 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 | -25 | -28 | 28 | 22 | 5090 | 20 | 102 | 880 | 1.01 | 1090 | 180 | 2.9 | 0.6 | 0.36 | 0.47 |
| Montréal Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Beaconsfield | 25 | -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 |
| 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 | -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-deBellevue | 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 | -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 | -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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AncienneLorette | 35 | -25 | -28 | 28 | 23 | 5130 | 20 | 102 | 940 | 1.06 | 1200 | 200 | 3.4 | 0.6 | 0.32 | 0.41 |
| Lévis | 50 | -25 | -28 | 28 | 22 | 5050 | 20 | 107 | 920 | 1.04 | 1200 | 160 | 3.3 | 0.6 | 0.32 | 0.41 |
| Québec | 120 | -25 | -28 | 28 | 22 | 5080 | 20 | 107 | 925 | 1.04 | 1210 | 200 | 3.6 | 0.6 | 0.32 | 0.41 |
| Sillery | 10 | -25 | -28 | 28 | 23 | 5070 | 20 | 107 | 930 | 1.05 | 1200 | 200 | 3.1 | 0.6 | 0.32 | 0.41 |
| Ste-Foy | 115 | -25 | -28 | 28 | 23 | 5100 | 20 | 107 | 940 | 1.06 | 1200 | 180 | 3.7 | 0.6 | 0.32 | 0.41 |
| Richmond | 150 | -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 | -25 | -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 | -25 | -27 | 29 | 23 | 4850 | 23 | 91 | 900 | 1.03 | 1125 | 160 | 2.0 | 0.4 | 0.27 | 0.35 |
| Rosemère | 25 | -24 | -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 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, Pa, $1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left\lvert\, \begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}\right.$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{array}{\|l} \text { Wet } \\ { }^{\circ} \mathrm{C} \end{array}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 | -24 | -26 | 29 | 23 | 4450 | 23 | 91 | 880 | 0.99 | 1010 | 180 | 2.2 | 0.4 | 0.32 | 0.41 |
| Salaberry-deValleyfield | 50 | -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-Illes | 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-deCacouna | 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-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-desMonts | 360 | -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 |

[^25]
## 6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. <br> Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., <br> mm | Driving Rain Wind Pressures, Pa, $1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{aligned} & 2.5 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Wet } \\ { }^{\circ} \mathrm{C} \end{array}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 |

## LOGIX INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left\lvert\, \begin{aligned} & 2.5 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}\right.$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Wet } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\text {s }}$ | $\mathrm{S}_{\mathrm{r}}$ | 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 | -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 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 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 | -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 | -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 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aishinik | 920 | -44 | -46 | 23 | 15 | 7500 | 8 | 43 | 190 | 0.57 | 275 | 40 | 1.9 | 0.1 | 0.29 | 0.38 |
| Dawson | 330 | -50 | -51 | 26 | 16 | 8120 | 10 | 49 | 200 | 0.57 | 350 | 40 | 2.9 | 0.1 | 0.24 | 0.31 |
| Destruction Bay | 815 | -43 | -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 | -47 | 24 | 14 | 7100 | 8 | 51 | 145 | 0.56 | 315 | 180 | 2.2 | 0.1 | 0.26 | 0.34 |
| Snag | 595 | -51 | -53 | 23 | 16 | 8300 | 8 | 59 | 290 | 0.57 | 350 | 40 | 2.2 | 0.1 | 0.24 | 0.31 |
| Teslin | 690 | -42 | -44 | 24 | 15 | 6770 | 10 | 38 | 200 | 0.51 | 340 | 40 | 3.0 | 0.1 | 0.26 | 0.34 |


| Province and Location | $\begin{array}{\|c} \text { Elev., } \\ \mathrm{m} \end{array}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 Min. Rain, mm | One <br> Day Rain, 1/50, mm | Ann. Rain, mm | Moist. Index | Ann. <br> Tot. <br> Ppn., mm | Driv-ing RainWindPres-sures,$\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered}$ | $\begin{aligned} & 1 \% \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| Watson Lake | 685 | -46 | -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 |
| Northwest 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 | -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 | -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 | -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/ 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 | -45 | 26 | 17 | 9600 | 6 | 49 | 115 | 0.67 | 425 | 60 | 3.1 | 0.1 | 0.37 | 0.48 |
| Mould Bay | 5 | -44 | -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 | -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 |
| Nunavut |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 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 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 /Kanngiqtugaapik | 5 | -40 | -42 | 14 | 10 | 11300 | 5 | 44 | 55 | 0.90 | 225 | 220 | 4.2 | 0.2 | 0.56 | 0.72 |
| Coppermine (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 | -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 | -40 | -41 | 17 | 12 | 9980 | 5 | 58 | 200 | 0.86 | 433 | 200 | 2.9 | 0.2 | 0.45 | 0.58 |
| Isachsen | 10 | -46 | -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 |
| Rankin Inlet (Kangiqiniq) | 10 | -41 | -42 | 21 | 15 | 10500 | 5 | 65 | 180 | 0.87 | 250 | 240 | 3.0 | 0.2 | 0.47 | 0.60 |

## LOGIX® INSULATED CONCRETE FORMS

| Province and Location | $\begin{aligned} & \text { Elev., } \\ & \text { m } \end{aligned}$ | Design Temperature |  |  |  | De-greeDays Below $18^{\circ} \mathrm{C}$ | 15 <br> Min. <br> Rain, <br> mm | One <br> Day <br> Rain, <br> 1/50, <br> mm | Ann. Rain, mm | Moist. Index | Ann. Tot. Ppn., mm | Driving Rain Wind Pressures, $\mathrm{Pa}, 1 / 5$ | Snow Load, kPa, 1/50 |  | Hourly Wind Pressures, kPa |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | January |  | July 2.5\% |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | $\left.\begin{gathered} 2.5 \% \\ { }^{\circ} \mathrm{C} \end{gathered} \right\rvert\,$ | $\begin{aligned} & { }^{1 \%} \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \text { Dry } \\ & { }^{\circ} \mathrm{C} \end{aligned}$ | Wet ${ }^{\circ} \mathrm{C}$ |  |  |  |  |  |  |  | $\mathrm{S}_{\mathrm{s}}$ | $\mathrm{S}_{\mathrm{r}}$ | 1/10 | 1/50 |
| Resolute | 25 | -42 | -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 |

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

## Appendix C: Seismic Design Data for Selected Locations in Canada

Table C-3
Seismic Design Data for Selected Locations in Canada

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | PGA | PGV |
| British Columbia |  |  |  |  |  |  |  |  |
| 100 Mile House | 0.140 | 0.113 | 0.083 | 0.058 | 0.027 | 0.0080 | 0.064 | 0.109 |
| Abbotsford | 0.701 | 0.597 | 0.350 | 0.215 | 0.071 | 0.025 | 0.306 | 0.445 |
| Agassiz | 0.457 | 0.384 | 0.244 | 0.157 | 0.057 | 0.020 | 0.206 | 0.306 |
| Alberni | 0.955 | 0.915 | 0.594 | 0.373 | 0.124 | 0.044 | 0.434 | 0.683 |
| Ashcroft | 0.198 | 0.160 | 0.115 | 0.078 | 0.034 | 0.011 | 0.092 | 0.149 |
| Bamfield | 1.44 | 1.35 | 0.871 | 0.525 | 0.167 | 0.059 | 0.682 | 0.931 |
| Beatton River | 0.132 | 0.083 | 0.049 | 0.026 | 0.0083 | 0.0037 | 0.079 | 0.056 |
| Bella Bella | 0.208 | 0.232 | 0.187 | 0.129 | 0.049 | 0.017 | 0.103 | 0.286 |
| Bella Coola | 0.163 | 0.172 | 0.143 | 0.105 | 0.043 | 0.014 | 0.083 | 0.225 |
| Burns Lake | 0.095 | 0.080 | 0.066 | 0.052 | 0.024 | 0.0076 | 0.043 | 0.111 |
| Cache Creek | 0.195 | 0.157 | 0.112 | 0.077 | 0.034 | 0.010 | 0.090 | 0.148 |
| Campbell River | 0.595 | 0.582 | 0.408 | 0.265 | 0.094 | 0.034 | 0.283 | 0.487 |
| Carmi | 0.141 | 0.120 | 0.090 | 0.062 | 0.028 | 0.0086 | 0.065 | 0.111 |
| Castlegar | 0.129 | 0.100 | 0.074 | 0.048 | 0.022 | 0.0069 | 0.058 | 0.085 |
| Chetwynd | 0.176 | 0.121 | 0.068 | 0.033 | 0.013 | 0.0045 | 0.082 | 0.071 |

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## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 | 0.101 |
| Fort Nelson | 0.141 | 0.103 | 0.068 | 0.036 | 0.012 | 0.0049 | 0.081 | 0.071 |
| 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 | 0.095 |
| Grand Forks | 0.133 | 0.108 | 0.082 | 0.056 | 0.026 | 0.0079 | 0.061 | 0.101 |
| Greenwood | 0.136 | 0.113 | 0.085 | 0.059 | 0.027 | 0.0082 | 0.063 | 0.105 |
| Hope | 0.363 | 0.304 | 0.201 | 0.131 | 0.051 | 0.017 | 0.167 | 0.251 |
| 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 | 0.165 | 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 | 0.110 | 0.064 | 0.037 | 0.016 | 0.0053 | 0.068 | 0.078 |
| Merritt | 0.211 | 0.175 | 0.125 | 0.085 | 0.037 | 0.011 | 0.098 | 0.160 |
| 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 | 0.022 | 0.0069 | 0.058 | 0.086 |
| Nakusp | 0.135 | 0.102 | 0.070 | 0.045 | 0.020 | 0.0063 | 0.060 | 0.079 |
| Nanaimo | 1.02 | 0.942 | 0.542 | 0.328 | 0.104 | 0.037 | 0.446 | 0.684 |
| Nelson | 0.131 | 0.103 | 0.073 | 0.046 | 0.020 | 0.0065 | 0.058 | 0.080 |
| Ocean Falls | 0.180 | 0.199 | 0.163 | 0.117 | 0.046 | 0.015 | 0.091 | 0.258 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | PGA | PGV |
| Osoyoos | 0.175 | 0.150 | 0.110 | 0.075 | 0.033 | 0.010 | 0.081 | 0.138 |
| Parksville | 0.917 | 0.859 | 0.519 | 0.322 | 0.106 | 0.038 | 0.405 | 0.639 |
| Penticton | 0.159 | 0.138 | 0.101 | 0.070 | 0.031 | 0.0096 | 0.074 | 0.129 |
| Port Alberni | 0.987 | 0.946 | 0.614 | 0.383 | 0.126 | 0.045 | 0.450 | 0.702 |
| Port Alice | 1.60 | 1.27 | 0.759 | 0.412 | 0.128 | 0.042 | 0.689 | 0.868 |
| Port Hardy | 0.700 | 0.659 | 0.447 | 0.272 | 0.091 | 0.032 | 0.320 | 0.543 |
| Port McNeill | 0.711 | 0.678 | 0.464 | 0.285 | 0.096 | 0.034 | 0.326 | 0.557 |
| Port Renfrew | 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 |
| Princeton | 0.259 | 0.209 | 0.144 | 0.096 | 0.040 | 0.012 | 0.121 | 0.182 |
| Qualicum 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 |
| Quesnel | 0.105 | 0.088 | 0.065 | 0.047 | 0.022 | 0.0069 | 0.047 | 0.091 |
| Revelstoke | 0.145 | 0.109 | 0.070 | 0.043 | 0.019 | 0.0062 | 0.064 | 0.078 |
| Salmon Arm | 0.131 | 0.104 | 0.075 | 0.052 | 0.024 | 0.0073 | 0.059 | 0.093 |
| Sandspit | 1.31 | 1.16 | 0.724 | 0.396 | 0.110 | 0.036 | 0.603 | 0.868 |
| Sechelt | 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 River | 0.705 | 0.447 | 0.234 | 0.100 | 0.028 | 0.0096 | 0.354 | 0.255 |
| Smithers | 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 |
| Squamish | 0.600 | 0.517 | 0.314 | 0.200 | 0.069 | 0.024 | 0.266 | 0.404 |
| Stewart | 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 |
| Ucluelet | 1.48 | 1.38 | 0.897 | 0.539 | 0.171 | 0.060 | 0.708 | 0.949 |
| Vancouver Region |  |  |  |  |  |  |  |  |
| Burnaby (Simon Fraser Univ.) | 0.768 | 0.673 | 0.386 | 0.236 | 0.076 | 0.027 | 0.333 | 0.500 |
| Cloverdale | 0.800 | 0.702 | 0.400 | 0.243 | 0.077 | 0.027 | 0.347 | 0.519 |
| Haney | 0.691 | 0.602 | 0.352 | 0.217 | 0.071 | 0.025 | 0.301 | 0.452 |
| Ladner | 0.924 | 0.827 | 0.461 | 0.276 | 0.085 | 0.030 | 0.399 | 0.601 |
| Langley | 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 |
| North Vancouver | 0.794 | 0.699 | 0.399 | 0.243 | 0.077 | 0.027 | 0.345 | 0.518 |
| Richmond | 0.885 | 0.787 | 0.443 | 0.266 | 0.083 | 0.029 | 0.383 | 0.578 |
| Surrey (88 Ave \& 156 St.) | 0.786 | 0.690 | 0.394 | 0.240 | 0.076 | 0.027 | 0.341 | 0.511 |
| Vancouver (City Hall) | 0.848 | 0.751 | 0.425 | 0.257 | 0.080 | 0.029 | 0.369 | 0.553 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |
| Alberta |  |  |  |  |  |  |  |  |
| 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 |

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Table C-3 (Continued)


## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |
| Manitoba |  |  |  |  |  |  |  |  |
| 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 |
|  | 0.210 | 0.114 | 0.060 | 0.029 | 0.0071 | 0.0028 | 0.134 | 0.091 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | Sa(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 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |

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## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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'I 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 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | PGA | PGV |
| 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 | 0.025 |
| Rayside-Balfour (Chelmsford) | 0.104 | 0.072 | 0.044 | 0.023 | 0.0058 | 0.0024 | 0.061 | 0.056 |
| Red Lake | 0.068 | 0.038 | 0.019 | 0.0076 | 0.0016 | 0.0008 | 0.041 | 0.025 |
| Renfrew | 0.352 | 0.191 | 0.097 | 0.047 | 0.013 | 0.0048 | 0.226 | 0.160 |
| Richmond Hill | 0.163 | 0.095 | 0.053 | 0.027 | 0.0065 | 0.0027 | 0.102 | 0.074 |
| Rockland | 0.510 | 0.266 | 0.129 | 0.060 | 0.016 | 0.0056 | 0.328 | 0.221 |
| Sarnia | 0.085 | 0.059 | 0.036 | 0.018 | 0.0046 | 0.0020 | 0.049 | 0.046 |
| Sault Ste. Marie | 0.062 | 0.044 | 0.028 | 0.014 | 0.0033 | 0.0015 | 0.036 | 0.034 |
| 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 | 0.056 |
| Simcoe | 0.141 | 0.084 | 0.047 | 0.023 | 0.0058 | 0.0024 | 0.087 | 0.064 |
| Sioux Lookout | 0.073 | 0.040 | 0.020 | 0.0078 | 0.0016 | 0.0008 | 0.044 | 0.028 |
| Smiths Falls | 0.256 | 0.156 | 0.086 | 0.044 | 0.012 | 0.0046 | 0.161 | 0.131 |
| Smithville | 0.296 | 0.144 | 0.067 | 0.030 | 0.0071 | 0.0027 | 0.191 | 0.111 |
| Smooth Rock Falls | 0.200 | 0.098 | 0.047 | 0.021 | 0.0050 | 0.0020 | 0.130 | 0.074 |
| South River | 0.164 | 0.106 | 0.061 | 0.031 | 0.0080 | 0.0034 | 0.100 | 0.085 |
| Southampton | 0.077 | 0.060 | 0.038 | 0.020 | 0.0050 | 0.0021 | 0.044 | 0.048 |
| St. Catharines | 0.319 | 0.155 | 0.071 | 0.032 | 0.0076 | 0.0028 | 0.206 | 0.121 |
| St. Mary's | 0.101 | 0.068 | 0.041 | 0.021 | 0.0052 | 0.0021 | 0.060 | 0.052 |
| St. Thomas | 0.117 | 0.073 | 0.042 | 0.021 | 0.0052 | 0.0021 | 0.071 | 0.056 |
| Stirling | 0.149 | 0.100 | 0.060 | 0.031 | 0.0078 | 0.0034 | 0.091 | 0.082 |
| Stratford | 0.103 | 0.069 | 0.041 | 0.021 | 0.0053 | 0.0022 | 0.061 | 0.054 |
| Strathroy | 0.100 | 0.066 | 0.039 | 0.020 | 0.0049 | 0.0021 | 0.059 | 0.051 |
| Sturgeon Falls | 0.183 | 0.113 | 0.062 | 0.031 | 0.0080 | 0.0032 | 0.113 | 0.089 |
| Sudbury | 0.110 | 0.076 | 0.046 | 0.024 | 0.0059 | 0.0025 | 0.065 | 0.059 |
| Sundridge | 0.157 | 0.103 | 0.059 | 0.030 | 0.0078 | 0.0032 | 0.095 | 0.082 |
| Tavistock | 0.108 | 0.071 | 0.042 | 0.022 | 0.0053 | 0.0022 | 0.065 | 0.055 |
| Temagami | 0.239 | 0.138 | 0.072 | 0.035 | 0.0089 | 0.0035 | 0.151 | 0.109 |
| Thamesford | 0.111 | 0.071 | 0.042 | 0.021 | 0.0053 | 0.0022 | 0.066 | 0.056 |
| Thedford | 0.089 | 0.062 | 0.038 | 0.019 | 0.0047 | 0.0020 | 0.052 | 0.048 |
| 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 | 0.060 |
| Timmins | 0.125 | 0.075 | 0.043 | 0.021 | 0.0053 | 0.0022 | 0.078 | 0.058 |
| Timmins (Porcupine) | 0.140 | 0.081 | 0.045 | 0.022 | 0.0055 | 0.0022 | 0.088 | 0.063 |
| Toronto Metropolitan Region |  |  |  |  |  |  |  |  |
| Etobicoke | 0.193 | 0.106 | 0.056 | 0.027 | 0.0067 | 0.0027 | 0.124 | 0.082 |
| North York | 0.195 | 0.107 | 0.056 | 0.028 | 0.0067 | 0.0027 | 0.125 | 0.083 |
| Scarborough | 0.219 | 0.116 | 0.060 | 0.029 | 0.0070 | 0.0028 | 0.140 | 0.093 |
| 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 | 0.086 |

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## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |
| Quebec |  |  |  |  |  |  |  |  |
| 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 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |
| Kuujuaq | 0.074 | 0.054 | 0.036 | 0.019 | 0.0049 | 0.0021 | 0.043 | 0.043 |
| Kuujuarapik | 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)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 | 0.211 |
| Ste-Agathe-des-Monts | 0.431 | 0.226 | 0.112 | 0.054 | 0.014 | 0.0053 | 0.282 | 0.191 |
| Sutton | 0.243 | 0.154 | 0.088 | 0.045 | 0.012 | 0.0049 | 0.152 | 0.131 |
| Tadoussac | 0.694 | 0.399 | 0.202 | 0.097 | 0.026 | 0.0084 | 0.434 | 0.335 |
| Témiscaming | 0.820 | 0.411 | 0.181 | 0.075 | 0.017 | 0.0053 | 0.516 | 0.329 |
| Terrebonne | 0.584 | 0.304 | 0.144 | 0.067 | 0.017 | 0.0060 | 0.373 | 0.250 |
| Thetford Mines | 0.207 | 0.142 | 0.084 | 0.044 | 0.012 | 0.0049 | 0.127 | 0.123 |
| Thurso | 0.492 | 0.258 | 0.126 | 0.059 | 0.016 | 0.0056 | 0.318 | 0.215 |
| Trois-Rivières | 0.366 | 0.200 | 0.105 | 0.052 | 0.014 | 0.0055 | 0.234 | 0.170 |
| Val-d'Or | 0.135 | 0.093 | 0.056 | 0.029 | 0.0076 | 0.0032 | 0.081 | 0.074 |
| Varennes | 0.571 | 0.296 | 0.141 | 0.065 | 0.017 | 0.0060 | 0.365 | 0.243 |
| Verchères | 0.537 | 0.278 | 0.134 | 0.062 | 0.016 | 0.0059 | 0.343 | 0.229 |
| Victoriaville | 0.233 | 0.152 | 0.089 | 0.046 | 0.013 | 0.0051 | 0.145 | 0.133 |
| Ville-Marie | 0.262 | 0.148 | 0.076 | 0.037 | 0.0093 | 0.0037 | 0.166 | 0.117 |
| Wakefield | 0.409 | 0.222 | 0.111 | 0.054 | 0.014 | 0.0053 | 0.262 | 0.185 |
| Waterloo | 0.232 | 0.150 | 0.087 | 0.045 | 0.012 | 0.0049 | 0.144 | 0.129 |
| Windsor | 0.194 | 0.134 | 0.080 | 0.042 | 0.012 | 0.0048 | 0.119 | 0.115 |
| New Brunswick |  |  |  |  |  |  |  |  |
| Alma | 0.144 | 0.096 | 0.058 | 0.030 | 0.0078 | 0.0034 | 0.088 | 0.079 |
| Bathurst | 0.217 | 0.127 | 0.071 | 0.036 | 0.0090 | 0.0038 | 0.138 | 0.105 |
| Campbellton | 0.210 | 0.133 | 0.076 | 0.039 | 0.010 | 0.0042 | 0.132 | 0.113 |
| Edmundston | 0.231 | 0.153 | 0.089 | 0.046 | 0.012 | 0.0049 | 0.145 | 0.134 |
| Fredericton | 0.210 | 0.127 | 0.071 | 0.037 | 0.0093 | 0.0039 | 0.133 | 0.105 |
| Gagetown | 0.195 | 0.119 | 0.068 | 0.035 | 0.0089 | 0.0038 | 0.122 | 0.098 |
| Grand Falls | 0.254 | 0.153 | 0.085 | 0.043 | 0.011 | 0.0046 | 0.162 | 0.131 |
| Miramichi | 0.214 | 0.125 | 0.069 | 0.035 | 0.0087 | 0.0037 | 0.136 | 0.102 |
| Moncton | 0.158 | 0.100 | 0.059 | 0.031 | 0.0078 | 0.0034 | 0.098 | 0.083 |
| Oromocto | 0.209 | 0.126 | 0.071 | 0.036 | 0.0092 | 0.0039 | 0.132 | 0.103 |
| Sackville | 0.140 | 0.093 | 0.057 | 0.030 | 0.0078 | 0.0034 | 0.085 | 0.079 |
| Saint Andrews | 0.874 | 0.436 | 0.189 | 0.077 | 0.017 | 0.0053 | 0.544 | 0.345 |
| Saint George | 0.578 | 0.298 | 0.135 | 0.058 | 0.014 | 0.0048 | 0.367 | 0.232 |
| Saint John | 0.199 | 0.121 | 0.068 | 0.035 | 0.0089 | 0.0037 | 0.125 | 0.097 |
| Shippagan | 0.143 | 0.096 | 0.058 | 0.030 | 0.0078 | 0.0034 | 0.087 | 0.079 |
| St. Stephen | 0.781 | 0.380 | 0.163 | 0.067 | 0.015 | 0.0051 | 0.491 | 0.302 |
| Woodstock | 0.206 | 0.129 | 0.074 | 0.038 | 0.0099 | 0.0042 | 0.130 | 0.109 |
| Nova Scotia |  |  |  |  |  |  |  |  |
| Amherst | 0.130 | 0.089 | 0.055 | 0.030 | 0.0078 | 0.0034 | 0.078 | 0.074 |
| Antigonish | 0.098 | 0.076 | 0.050 | 0.028 | 0.0073 | 0.0031 | 0.057 | 0.064 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |

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Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |  |  |  |  |  |  |  |  |
| Aishinik | 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 ${ }^{(1)}$ | 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/gluligaarjuk | 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 |

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

6.0 - CANADIAN PRESCRIPTIVE ENGINEERING

Table C-3 (Continued)

| Province and Location | Seismic Data |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\mathrm{S}_{\mathrm{a}}(0.2)$ | $\mathrm{S}_{\mathrm{a}}(0.5)$ | $\mathrm{S}_{\mathrm{a}}(1.0)$ | $\mathrm{S}_{\mathrm{a}}(2.0)$ | $\mathrm{S}_{\mathrm{a}}(5.0)$ | $\mathrm{S}_{\mathrm{a}}(10.0)$ | 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 |
| Iqaluit | 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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## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

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

# ICFMA <br> INSULATING CONCRETE FORMS MANUFACTURERS ASSOCIATION 

## MISSION

The mission of the ICFMA is to promote and enhance the social, environmental and economic value of insulating concrete forms in the North American marketplace.

LEARN MORE ABOUT ICFS AT ICF-MA.ORG
7.0 - CANADIAN CODE REPORTS ..... 7-1
7.1 - NON-COMBUSTIBLE CONSTRUCTION (NBCC) ..... 7-3
7.2 - VAPOUR BARRIER (NBCC) ..... 7-4
7.3 - LEED V4 EVALUATION ..... 7-7
7.4 - QAI FIRE RESISTANCE RATING ..... 7-9
7.5 - QAI LISTING REPORT ..... 7-10

## 7.1 - NON-COMBUSTIBLE CONSTRUCTION (NBCC)

ntertek Testing Services, an independent, nationally accredited testing agency, conducted a fire evaluation and determined the products listed below meets clause 3.2.3.8 when used with Logix for exterior walls for building over 3 storeys.

Copies of the evaluation reports can be downloaded at www.logixicf.com.

Products evaluated:

- Dryvit Exsulation 2000 System
- Dryvit Infinity System
- Dryvit Exsulation 2000 System
- Dryvit Fedderlite 2000 System
- Dryvit Outsulation System
- Dryvit Outsulation MD System
- Sto EIFS
- Sto Signature System
- Sto CLASSIC NExT
- Sto CLASSIC NExT NC
- Sto SIGNATURE SYSTEM NC
- Standard ADEX System
- Standard ADEX RF System
- Durock ICF Finish System


## 7.2 - VAPOUR BARRIER (NBCC)

## 1 Introduction

Intertek Testing Services NA Ltd. (Intertek) has conducted an engineering evaluation for Logix Insulated Concrete Forms Ltd., on Logix ICF, to evaluate the vapor permeance properties of the product. The evaluation was conducted to determine if Logix ICF meets the 2005 National Building Code (NBC) for use as a vapor barrier.

## 2 Sample Description

Logix ICF consists of rigid interlocking expanded polystyrene (EPS) foam plastic boards that serve as permanent formwork for reinforced concrete, exterior and interior walls, and foundation and retaining walls.

## 3 Reference Documents

- 2005 National Building Code (NBC)
- ASTM E96/96M-05, Standard Test Methods for Water Vapor Transmission of Materials (ASTM E96)
- Intertek Test Report 3048347 dated October 14, 2003
- Intertek Letter dated January 6, 2005


## 4 Evaluation Method

Vapor barrier properties and installation are described in detail in Section 5.5.1.2 of the 2005 NBC. These details are summarized below:

1) The vapor barrier shall have sufficiently low permeance and shall be positioned in the building component or assembly so as to
a) minimize moisture transfer by diffusion, to surfaces within the assembly that would be cold enough to cause condensation at the design temperature and humidity conditions, or
b) reduce moisture transfer by diffusion, to surfaces within the assembly that would be cold enough to cause condensation at the design temperature and humidity conditions, to a rate that will not allow sufficient accumulation of moisture to cause deterioration or otherwise adversely affect any of
i. the health or safety of building users,
ii. the intended use of the building, or
iii. the operation of building services.
2) Coatings applied to gypsum wallboard to provide required resistance to vapour diffusion shall conform to the requirements of Sentence (1) when tested in accordance with CAN/CGSB-1.501-M, "Method for Permeance of Coated Wallboard."

## 7.2 - VAPOUR BARRIER (NBCC) continued

Logic Insulated Concrete Forms Ltd.
January 30, 2007
Project No. 3109888-R1
Revised: January 31, 2007
Page 3 of 4
3) Coatings applied to materials other than gypsum wallboard to provide required resistance to vapor diffusion shall conform to the requirements of Sentence (1) when tested in accordance with ASTM E96, "Water Vapor Transmission of Materials" by the desiccant method (dry cup).

Vapor Barrier materials are further discussed in Section 9.25.4.2 of the 2005 NBC under Sentence (1) which is summarized below:

1) Vapor barriers shall have a permeance not greater than $60 \mathrm{ng} / \mathrm{Pa}-\mathrm{s}-\mathrm{m} 2$ measured in accordance with ASTM E96, "Water Vapor Transmission of Materials" by the desiccant method (dry cup).

Logic ICF fall under Sentence (3) of Section 5.5.1.2 of the 2005 NBC and have been tested by Intertek in accordance with ASTM E96 using the desiccant method. The results were summarized in Intertek Test Report 3048347 dated October 14, 2003 and showed that a 1-inch Logix ICF had a water permeance of $100 \mathrm{ng} / \mathrm{Pa}-\mathrm{s}-\mathrm{m}^{2}$. In the field, Logic ICF is installed with a 2.75 -inch thickness and thus the calculated water permeance at this thickness is $36 \mathrm{ng} / \mathrm{Pa}-\mathrm{s}-\mathrm{m}^{2}$. The detailed calculations are shown in Intertek Letter dated January 5, 2005. Based on these results, Logic ICF meets the requirements of Section 9.25.4.2, Sentence (1) of the 2005 NBC and can be installed without the use of a vapor barrier.

## 5 Conclusion

Intertek has conducted an engineering evaluation for Logic Insulated Concrete Forms Ltd., on Logic ICF, to determine if the Logic ICF meets the 2005 National Building Code as a vapor barrier. The analysis, per Section 4 above, showed that Logix ICF meets the water permeance requirements and can be installed without a vapor barrier.

INTERTEK TESTING SERVICES NA LTD.

Reported by:


Matt Lansdowne, EIT
Engineer, Building Products

Reviewed by:


Kail Kooner, EIT
Team Leader, Engineering Services Canada

Testing everywhere for markets anywhere.

## LOGIX ${ }^{\circledR}$ INSULATED CONCRETE FORMS

All documents are downloadable at logixicf.com

## 7.2 - VAPOUR BARRIER (NBCC) continued

## REVISION SUMMARY

| DATE | SUMMARY |
| :---: | :---: |
| February 1, 2007 | Added additional reference to 2005 NBC and maximum permeance <br> requirements |
|  |  |
|  |  |

## 7.3 - LEED V4 EVALUATION

## TECHNICAL BULLETIN LEED v4 BD+C for Logix <br> No. 37-053014 <br> (US \& Canada)

POTENTIAL LEED POINTS CONTRIBUTION WITH LOGIXㅗ

| Sustainable Sites | Applicable <br> Building <br> Types | Maximum Points <br> Contribution | Comments |
| :--- | :---: | :---: | :--- |
| Protect or Restore Habitat | All | 2 (1 for healthcare) | Although the points may not apply to LOGIX, <br> wall bracing for LOGIX is one of a combination of <br> actions that, together with other procedures, can <br> result in proper protection or restoration <br> of natural areas around the job site. <br> LOGIX is typically placed within the building <br> perimeter. This type of assembly avoids <br> disturbance to existing natural areas and keeps <br> construction activity close to the building <br> perimeter. |


| Energy \& Atmosphere | Applicable <br> Building <br> Types | Maximum Points <br> Contribution | Comments |
| :--- | :---: | :---: | :--- |
| Minimum Energy <br> Performance | All | $\mathrm{n} / \mathrm{a}$ <br> (required) | The continuous insulation and air barrier <br> properties of Logix can help meet required <br> minimum levels of efficiency for the building. |
| Optimize Energy <br> Performance | All | 18 except Schools <br> and Healthcare (16 <br> for Schools, 20 for <br> Healthcare) | The continuous insulation and air barrier <br> properties of Logix can help achieve the levels <br> of energy performance that go beyond the <br> prerequisite standard. |


| Material \& Resources | $\begin{array}{c}\text { Applicable } \\ \text { Building } \\ \text { Types }\end{array}$ | $\begin{array}{c}\text { Maximum Points } \\ \text { Contribution }\end{array}$ | Comments |
| :--- | :---: | :---: | :--- |
| $\begin{array}{l}\text { Construction and } \\ \text { Demolition Waste } \\ \text { Management Planning }\end{array}$ | All | $\begin{array}{c}\text { n/a } \\ \text { (required) }\end{array}$ | $\begin{array}{l}\text { Logix products produce little waste compared to } \\ \text { wood, which should ease the waste management } \\ \text { planning. In addition, EPS recycling programs can } \\ \text { be implemented as part of the waste management } \\ \text { planning. }\end{array}$ |
| $\begin{array}{l}\text { Building Life-cycle Impact } \\ \text { Reduction }\end{array}$ | All | 3 | $\begin{array}{l}\text { Can help contribute 3 points under "Option 4. } \\ \text { Whole-Building-Life-Cycle Assessment." } \\ \text { The high energy efficient walls Logix creates } \\ \text { contributes to the reduction of a building's impact } \\ \text { on global warming. }\end{array}$ |
| $\begin{array}{l}\text { Building Product Disclosure } \\ \text { \& Optimization - } \\ \text { Environmental Product } \\ \text { Declarations. }\end{array}$ | All | 1 | $\begin{array}{l}\text { Can help contribute 1 point under "Option 1. } \\ \text { Environmental Product Declaration (EPD)." Logix } \\ \text { uses EPS which carries EPD documents, which } \\ \text { conform to ISO 14025. }\end{array}$ |
| $\begin{array}{l}\text { Building Product Disclosure } \\ \text { \& Optimization - Sourcing } \\ \text { of Raw Materials. }\end{array}$ | All | 2 | $\begin{array}{l}\text { Logix products are made with up to 10\% recycled } \\ \text { pre-consumer EPS. }\end{array}$ |
| $\begin{array}{l}\text { Building Product Disclosure } \\ \text { \& Optimization - Material } \\ \text { Ingredients. }\end{array}$ | All | 1 | $\begin{array}{l}\text { Contributes to 1 point under "Option 3. Product } \\ \text { Manufacturer Supply Chain Optimization." } \\ \text { Logix products are certified under a third party }\end{array}$ |
| program with Quality Auditing Institute (QAI). |  |  |  |$]$|  |
| :--- |

## 7.3 - LEED V4 EVALUATION continued

$\begin{aligned} \text { TECHNICAL BULLETIN } & \text { LEED v4 BD+C for Logix } \\ \text { No. } 37-053014 & \text { (US \& Canada) }\end{aligned}$

| Material \& Resources | Applicable <br> Building <br> Types | Maximum Points <br> Contribution | Comments |
| :--- | :---: | :---: | :--- |
| Construction \& Demolition <br> Waste Management | All | 2 | Programs can be put in place to recycle EPS from <br> job sites. EPS is also light in weight, and produces <br> less waste than wood products. |


| Indoor Environmental Quality | Applicable Building Types | Maximum Points Contribution | Comments |
| :---: | :---: | :---: | :---: |
| Minimum Acoustic Performance | Schools | N/a (required) | Logix can help increase the acoustical performance of wall and ceiling assemblies. |
| Low-emitting Materials | All | 3 | Logix Platinum is made with BASF Neopor, which is Greenguard Certified. In addition, the EPS used for Logix has been tested to show no signs of harmful emissions. |
| Thermal Comfort | All except Core \& Shell | 1 | Logix offers continuous insulation in wall and ceiling assemblies, and is made with BASF Neopor, which offer the highest thermal value of any EPS material. |
| Acoustic Performance | All except Core \& Shell | 1 | Logix can contribute to the STC ratings of wall and ceiling assemblies. STC testing of various wall assemblies have been conducted with Logix. |

${ }^{1}$ The total LEED point contribution from Logix is a best estimate based on available information and test data. The actual LEED point contribution may change based on project specifics, and should be determined by a LEED Accredited Professional for each project seeking LEED accreditation.

For more information about the LEED green building rating system visit www.usgbc.org or www.cagbc.org.

## 7.4 - QAI FIRE RESISTANCE RATING

Standards: ASTM E119-"Standard Test M ethods for Fire Tests of Building Construction and M aterials";

CAN/ULC S101 - "Standard M ethods of Fire Endurance Tests of Building Construction and M aterials"

|  | Rating | Product <br> Density | Maximum <br> Cavity Width | Maximum Panel <br> Thickness |
| :---: | :---: | :---: | :---: | :---: |
| ASTM E119/ | 2-Hour | 1.35 pcf | 4 inches | $23 / 4$ inches |
| CAN/ULC 5701 | 3-Hour | 1.35 pcf | $61 / 8$ inches | $23 / 4$ inches |
| Ratings: | 4-Hour | 1.35 pcf | 8 inches | $23 / 4$ inches |

Structural Rating at above durations for concrete wall at structural design load.


Assembly Details:

1. Insulated Concrete Forms - Standard forms made of two $16^{\prime \prime} \times 48^{\prime \prime}$ by $2.75^{\prime \prime}$ thick expanded polystyrene (EPS) block panels connected by polypropylene detail webs at 8" O.C. The minimum width of the cavity is $4^{\prime \prime}$ as shown in the ratings table above (rating depends on cavity thickness).
2. Reinforcing Steel - No. 4 steel reinforcing bars placed horizontally in each course and vertically at 16" O.C. along centerline of wall cavity thickness.
3. Sand-Limestone Concrete - 145 +/- 5 pcf density, 2900 psi nominal compressive strength concrete.
4. Gypsum W allboard - M in. $1 / 2^{\prime \prime}$ thick, 1.5 psf minimum density, 48 " wide gypsum wallboard fastened to flanges of polypropylene webs with $2^{\prime \prime}$ long drywall screws at $16^{\prime \prime}$ horizontally and vertically. Joints covered with joint compound, covered with joint tape, and covered with an additional coat of joint compound. Screw heads covered with joint compound.

## 7.5 - QAI LISTING REPORT

## BUILDING PRODUCTS LISTING PROGRAM

| Class: | Insulated Concrete Forms (ICF) |
| :---: | :---: |
| Customer: | LOGIX Insulated Concrete Forms, Ltd. |
| Location: | 9242 Pinetree Place, Whistler, BC, Canada, V0N 1B9 |
| Website: | www.LOGIXicf.com |
| Listing No. | B1031-1 |
| Effective Date: | September 27, 2010 |
| Last Revised: | May 27, 2014 |
| Expires: | N/A |
| Product: | LOGIX Insulated Concrete Forms (ICF) |
| Standard(s): | ASTM E2634 "Standard Specification for Flat Wall Insulating Concrete Form (ICF) Systems". |
|  | CAN/ULC S717.1 "Standard for Flat Wall Insulating Concrete Form (ICF) Systems". |
|  | CAN/ULC S701 "Thermal Insulation, Polystyrene, Boards and Pipe Covering". |
|  | CAN/ULC S 102.2 "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies". |
|  | ASTM C578 "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation". |
|  | ASTM E84 - "Standard Test Method for Surface Burning Characteristics of Building Materials". |

UBC 26-3 "Room Fire Test Standard For Interior of Foam Plastic Systems".
CAN/ULC-S101 "Standard Methods of Fire Endurance Tests of Building Construction and Materials".

ASTM E119 / ANSI / UL 263 "Standard Test Methods for Fire Tests of Building Construction and Materials".

Label: Product is marked with labels supplied by LOGIX Insulated Concrete Forms, Ltd. The label includes the manufacturer's name, trademark, or other recognized symbol of identification, the product model designation, month and year of manufacture or equivalent, QAI logo with the 'US' and "C" identifier, and CAN/ULC S701 Type 2, ASTM C578 Type II, ASTM E84 FSI and SDI Rating, and CAN/ULC S102.2 FSI and SDI Rating. Labels are applied to palletized finished products to ensure visibility on the jobsite.

Ratings: The following outlines LOGIX ICF test results determined in accordance with the noted standards.

| Effective Date: September 15, 2006 | QM0604 Draft Listing Page |
| :--- | :---: | :---: |
| Revision 3 |  |

Revision Date: April 17, 2014 Revision 3

## 7.5 - QAI LISTING REPORT continued

LOGIX ICF Fastener Resistance Ratings

| FASTENER | ALLOWABLE WITHDRAWAL |  | ALLOWABLE LATERAL <br> SHEAR |  |
| :---: | :---: | :---: | :---: | :---: |
|  | lbs | $\mathbf{k g}$ | $\mathbf{l b s}$ | $\mathbf{k g}$ |
| \#ength Coarse <br> Lenread Drywall <br> Screw | 23 | 10 | 59 | 26 |

LOGIX ICF Type 2 Specifications per CAN/ULC S701

| PROPERTY | LOGIX SPECIFICATION |
| :---: | :---: |
| Thermal Resistance <br> $\mathrm{m}^{2} *^{\circ} \mathrm{C} / \mathrm{W}$ at 25 mm Thickness | Minimum 0.70 |
| Water Vapour Permeance <br> $\mathrm{Ng} / \mathrm{Pa}^{*} \mathrm{~s}^{*} \mathrm{~m}^{2}$ at 25 mm Thickness <br> \% Linear Shanger Stabity | Maximum 200 |
| Flexural Strength <br> kPa | Maximum 1.5 |
| Water Absorption <br> \% Volume | Minimum 240 |
| Compressive Strength <br> kPa at $10 \%$ Deformation | Maximum 4.0 |
| Limiting Oxygen Index <br> $\%$ | Minimum 110 |

LOGIX ICF Type II Specifications per ASTM C578

| PROPERTY | LOGIX SPECIFICATION |
| :---: | :---: |
| Compressive Resistance <br> psi at Yield or 10\% Deformation | Minimum 15.0 |
| Thermal Resistance <br> $\mathrm{F}^{2} \mathrm{ft}^{2} \mathrm{~h} /$ Btu at 1.00 Inch Thickness | Minimum 4.0 |
| Flexural Strength <br> psi | Minimum 35.0 |
| Water Vapor Permeance <br> Perms at 1.00 Inch Thickness | Maximum 3.5 |
| Water Absorption <br> \% Volume | Maximum 3.0 |
| Dimensional Stability <br> \% Change Dimensions | Maximum 2.0 |
| Oxygen Index <br> \% Volume | Minimum 24.0 |
| Density <br> lbs/ft ${ }^{3}$ | Minimum 1.35 |

LOGIX ICF Surface Burning Characteristics per CAN/ULC S102.2

| LOGIX <br> COMPONENT | DENSITY | MAXIMUM <br> THICKNESS | FLAME <br> SPREAD <br> INDEX (FSI) | SMOKE <br> DEVELOPED <br> INDEX (SDI) |
| :---: | :---: | :---: | :---: | :---: |
| Expanded <br> Polystyrene <br> (EPS Panel) | $22-29$ | 100 mm <br> Maximum | $\leq 210$ | $\geq 500$ |

LOGIX ICF Surface Burning Characteristics per ASTM E84 ${ }^{1}$

| LOGIX | DENSITY | MAXIMUM | FLAME | SMOKE |
| :--- | :---: | :---: | :---: | :---: |

## 7.5 - QAI LISTING REPORT continued

| COMPONENT | THICKNESS | SPREAD <br> INDEX (FSI) | DEVELOPED <br> INDEX (SDI) |  |
| :---: | :---: | :---: | :---: | :---: |
| Expanded <br> Polystyrene <br> (EPS Panel) | $1.35-1.80$ <br> $\mathrm{lbs} / \mathrm{ft}^{3}$ | 4.0 Inches <br> Maximum | $\leq 75$ | $\leq 450$ |

${ }^{1}$ Ceiling Measurement Only. This measurement is conducted through determination of flame spread index and smoke developed index with the removal of any contribution of molten materials ignited on the floor of the tunnel assembly.

## LOGIX UBC 26-3 Configuration

Meets requirements with $1 / 2$ inch thickness gypsum fastened with $21 / 4$ inch length standard drywall screws at 12 inch on center. Fasteners must be anchored into LOGIX ICF web ties.

QAI Design Listing B1031-1 LOGIX Insulated Concrete Form (ICF) - CAN/ULC
S101 / ASTM E119
Load Bearing Fire-Resistance-Rated Wall Assembly ${ }^{1}$

| ASSEMLY <br> RATING <br> (Hours) | MINIMUM CONCRETE <br> CORE THICKNESS <br> $(\mathrm{MM})$ | MINIMUM CONCRETE <br> CORE THICKNESS <br> (INCHES) |
| :---: | :---: | :---: |
| 2 | 102 | 4 |
| 3 | 159 | 6.25 |
| 4 | 204 | 8 |

(See pdf Attachment)

| NO. | COMPONENT | DESCRIPTION |
| :---: | :---: | :---: |
| 1 | Interior Sheathing | Minimum $1 / 2$ inch ( 12 mm ) thickness ASTM C1396 listed gypsum wall board, installed with 51 mm (2 inch) length drywall screws spaced at 406 mm ( 16 inches) on center horizontally and vertically. <br> For $61 / 4$ inch concrete LOGIX ICF product used in load bearing fire-resistance-rated wall assemblies, listed 16 mm ( $5 / 8$ inch) thickness Type X gypsum wall board complying with ASTM C1396 is required fastened as noted above. <br> Gypsum is required to be taped and mudded per industry standard and the applicable model code. |
| 2 | Expanded <br> Polystyrene (EPS) Insulation | LOGIX ICF component $70 \mathrm{~mm}\left(2^{3 / 4}\right)$ inch thickness Type 2 (CAN/ULC S701) / Type II (ASTM C578) QAI certified expanded polystyrene thermal insulation. LOGIX ICF EPS panels have interlocking teeth to allow stacking onsite to create the forming wall. |
| 3 | Web Ties | LOGIX polypropylene web tie component, spaced at 203 mm (8 inches) on center spacing through LOGIX ICF. Web ties can be stacked or staggered vertically during installation (staggered web tie system shown). |
| 4 | Concrete Core | Minimum core as noted in Table above of 20 MPa ( $2,900 \mathrm{psi}$ ) compressive strength concrete. Steel reinforcing, while not shown, is approved for use. Rebar addition is to be designed and approved by a registered design professional, or authority having jurisdiction in accordance with the applicable code |

## 7.5 - QAI LISTING REPORT continued

|  |  | requirements. |
| :---: | :---: | :--- |
| 5 | Exterior Cladding <br> (Not Shown) | Exterior claddings are approved for use with the <br> LOGIX ICF load bearing fire-resistance-rated wall <br> assemblies without negatively impacting the fire rating. <br> These exterior claddings include: brick veneer, stucco, <br> fire rated exterior insulating finish systems where no <br> additional EPS is added, cultured stone, aluminum and <br> steel products. All exterior claddings are to be installed <br> with the applicable building code, and the <br> manufacturer's approved installation instructions. |

Note 1: The allowable load for LOGIX ICF Load Bearing Fire-Resistance-Rated Construction is to be determined by a registered design professional, or authority having jurisdiction in accordance with the applicable codes.

Note: $\quad$ Final acceptance of the product in the intended application is to be determined by the authority having jurisdiction.

Product is to be installed in accordance with the manufacturer's published installation instructions by qualified installing personnel.

The materials, products or systems listed herein have been qualified to bear the QAI Listing Mark under the conditions stated with each Listing. Only those products bearing the QAI Listing Mark are considered to be listed by QAI.

No warrantee is expressed or implied, and no guarantee is provided that any jurisdictional authority will accept the Listing found herein. The appropriate authorities should be contacted regarding the acceptability of any given Listing.

Visit the QAI Online Listing Directory located at www.qai.org for the most up to date version of this Listing and to validate that this QAI Listing is active.

Questions regarding this listing may be directed to info@qai.org. Please include the listing number in the request.

FORM History

| History Date | Version | Change Description | Reviewed By | Approved By |
| :--- | :--- | :--- | :--- | :--- |
| $04 / 17 / 2014$ | 3.0 | Added disclaimer to <br> form. | J. Johnson | K. Adamson |


| Effective Date: September 15, 2006 | QM0604 Draft Listing Page | Page 4 of 4 |
| :--- | :--- | :--- |

## 8.0 - SPECIFICATIONS \& REFERENCES

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## 8.1 - TECHNICAL SPECIFICATIONS

## LOGIX INSULATED CONCRETE FORMS MATERIAL PROPERTY DATA SHEET

This document is intended for general information purposes only regarding specifications for Logix Insulated Concrete Forms (herein referred to as Logix ICF). Technical specification sheet, as per Construction Specifications institute (CSI) formatting, can be downloaded at www.logixicf.com.

## 1 PRODUCT DESCRIPTION

- Logix ICF consists of two flame-resistant EPS boards separated by polypropylene webs.
- Logix ICF consists of solid form units (LOGIX Pro Forms) or knock-down forms (LOGIX KD Forms) or a combination of both Logix form and Logix KD forms, referred to as LOGIX Hybrid Forms.
- The EPS foam boards are a minimum 70 mm ( 2.75 inch) thick. Increased EPS foam boards are available by utilizing D-Rv insert panels, which provides additional thickness in increments of 50 mm (2 inch).
- The webs separate the EPS boards to form 102 mm ( 4 inch), 159 mm ( 6.25 inc ), 203 mm ( 8 inch ), 254 mm ( 10 inch ) and 305 mm ( 12 inch) cavities, which create the concrete wall thicknesses. With Logix Xtenders the concrete wall thickness can be increased to virtually any thickness.
- The webs are spaced every 203 mm ( 8 inch ) on centre horizontally and 406 mm ( 16 inch ) on centre vertically, and contain a 32 mm ( 1.25 inch) wide furring strip that extends the height of each ICF block. The furring strips shall facilitate fasteners for attachment of both exterior and interior finishes.
- A furring strip is located in the corners of corner forms. The furring strip consists of both a vertical and horizontal component. The vertical component extends nearly the full height of the form, extends a minimum of 64 mm ( 2.5 inches) from both sides of the corner, and a minimum of 5 mm ( 0.2 inches) thick. The horizontal component is a minimum 51 mm ( 2 inches) in height, extend a minimum of 152 mm (6 inches) from both sides of the corner, and a minimum of 5 mm ( 0.2 inches) thick.
- The webs facilitate rebar placement in accordance with CAN/CSA A23.1, and ACI 318


## 8.1 - TECHNICAL SPECIFICATIONS continued

## 2 LOGIX PRODUCTS

Logix manufactures both assembled and unassembled insulated concrete form units. Logix assembled forms, known simply as "Logix PRO", are delivered to the job site as assembled form blocks. Logix unassembled forms (or knock-down forms), known as "Logix KD", are delivered to the job site in components that make up the form blocks - the form panels and KD Connectors. Logix KD are assembled on the job site.

Below is a summary of the types of Logix and Logix KD forms available.
LOGIX (assembled form blocks)

|  | Description |
| :--- | :--- |
| Logix Pro | White in color |
| Logix Pro Platinum $^{3}$ | Grey in color. Offers higher R-value ${ }^{1}$ than Logix Pro. |
| Logix Pro TX | Logix Pro with termite resistant additive Preventol ${ }^{2}$. |
| Logix Pro Platinum ${ }^{3}$ TX | Logix Platinum with Preventol. |

LOGIX KD (unassembled form blocks)

|  | Description |
| :--- | :--- |
| Logix KD | White in color |
| Logix KD Platinum $^{3}$ | Grey in color. Offers higher R-value ${ }^{1}$ than LOGIX Pro. |
| Logix KD TX | Logix Pro with termite resistant additive Preventol ${ }^{2}$. |
| Logix KD Platinum ${ }^{3}$ TX | Logix Platinum with Preventol. |
| Notes: |  | Notes:

1. See Logix Design Manual, Section 8.5 for Logix R-values.
2. Preventol is an effective termite resistant additive.
3. Care should be taken to protect exposed foam surfaces from reflected sunlight and prolonged solar exposure until wall cladding or finish material is applied. Shade exposed foam areas, or remove sources of reflective surfaces, where heat buildup onto exposed foam might occur. For more information refer to BASF Technical Leaflet N-4 Neopor,
"Recommendations for packaging, transporting, storing and installing building insulation products made from Neopor EPS
foam." (The BASF Technical Leaflet is attached to every bundle of LOGIX Platinum forms delivered to a job site).

## 8.1 - TECHNICAL SPECIFICATIONS continued

CODE/CERTIFICATION APPROVALS

- QAI evaluation to IBC and IRC 2012
- Miami-Dade County Approval No.19-0925.02
- State of Florida Certification of Approval No.FL14469-R3
- Wisconsin Building Products Evaluation No. 20199000
- City of New York Materials and Equipment Acceptance - MEA 273-04-M
- QAI listed QM0503
- ASTM E2634, Standard Specification for Flat Wall Insulating Concrete Form (ICF) Systems
- ASTM C578, Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation
- CAN/ULC S717, Standard for Flat Wall Insulating Concrete Form (ICF) Units - Material Properties
- CAN/ULC S701, Standard for Thermal Insulation, Polystyrene Boards


## 4 DESIGN/PERFORMANCE OF LOGIX ICF

A brief description of each test is outlined in the attached Appendix. Test reports are available upon request.

| Test Description | Result | Pass/Fail Criteria | Referenced Standard Test Method |
| :---: | :---: | :---: | :---: |
| $\begin{array}{\|l\|} \hline \text { R-Value (Thermal } \\ \text { Resistance) per inch (per } \\ 25.4 \mathrm{~mm} \text { ) } \\ \hline \end{array}$ | R 4.13 (RSI 0.72) | Min. R 4.00 (RSI 0.70) | ASTM C518 |
| Water Absorption | 0.18\% | Max. 3.0\% | ASTM D2842 |
| Water Vapor Presence | 100.0ng/Pa-s-m2 (1.74perm-in.) | Max. 201 ng/Pa-s-m2 (3.5perm-in.) | ASTM E96 |
| Compressive Strength | 165kPa (23.9psi) | Min. 104 kPa (15.0psi) | ASTM D1621 \& ASTM C165 |
| Flexural Strength | 365kPa (53.0psi) | Min. 240kPa (35.0psi) | ASTM C203 |
| Dimensional Stability Thermal \& Humid Aging | 0.5\% | Max. 2.0\% | ASTM D2126 |
| Density | $27.5 \mathrm{~kg} / \mathrm{m} 3$ (1.72pcf) | Min. $22 \mathrm{~kg} / \mathrm{m} 3$ (1.35pcf) | ASTM C1622 \& ASTM C303 |
| Dimensions | Min. length variation $=0.0 \%$ <br> Max. length variation $=0.4 \%$ <br> Min. width variation $=0.1 \%$ <br> Max. width variation $=0.4 \%$ <br> Min. thickness variation $=-0.3 \mathrm{~mm}$ <br> Max. thickness variation $=0.9 \mathrm{~mm}$ <br> Max. squareness $=3 \mathrm{~mm}$ | Min. -0.2\% <br> Max. 0.4\% <br> Min. -0.2\% <br> Max. 0.4\% <br> Max. -2 mm <br> Max. 4 mm <br> Max. 3mm | ASTM C303 |
| Limiting Oxygen Index | 29.1\% | Min. 24.0\% | ASTM D2863 |
| Formaldehyde Emission | No formaldehyde detected | N/A* | AATTC-112 |
| Fungi Resistance | No fungal growth detected | N/A* | ASTM G21 |
| Flame Spread Rating | <25 | N/A* | ASTM E84/CAN ULC S102 |

## 8.1 - TECHNICAL SPECIFICATIONS continued

LOGIX INSULATED CONCRETE FORMS GENERAL SPECIFICATIONS SHEET, CONT'D

| Test Description | Result | Pass/Fail Criteria | Referenced <br> Standard Test <br> Method |
| :--- | :--- | :--- | :--- |
| Smoke Developed Rating | < 450 | N/A* | ASTM E84/CAN ULC <br> S102 |
| Fire Endurance Test | See Fire Resistance Rating table | N/A* | ASTM E119/CAN <br> ULC S101 |
| Standard Room Fire Test | w/in acceptable limits | Met conditions required <br> for exposure to fire for 15 <br> minutes. | UBC 26-3/CAN ULC <br> 1715 |
| Concrete Pour-in-place | Observations of deflection <br> recorded. | N/A* | CCMC Masterformat <br> 03131 |
| Sound Transmission | STC 56 for 6.25" Logix wall system <br> (2 layers of 5/8" drywall \& 2x2 <br> wood strips on one side, $1 / 2^{\prime \prime}$ <br> drywall on the other side) <br> STC 50 for 4" Logix wall system <br> (1/2" drywall \& 2x2 wood strips on <br> one side, $1 / 2^{\prime \prime}$ drywall on the other <br> side). | N/A* | ASTM E90 |
| UPITT Toxicity | Pass | LC50 < 19.7g | University of <br> Pittsburgh Toxicity <br> Test |

*Code body or referenced test standard required reporting test results only - no Pass/Fail criteria specified.

## 8.1 - TECHNICAL SPECIFICATIONS continued

Bild Anything Better
LOGIX INSULATED CONCRETE FORMS GENERAL SPECIFICATIONS SHEET, CONT'D

TESTS CONDUCTED ON POLYPROPYLENE WEB

| Test Description | Result | US Requirements | Referenced Standard Test Method |
| :---: | :---: | :---: | :---: |
| Flammability | Flame Front Distance $=100 \mathrm{~mm}$ (4") <br> Avg. Linear Burn Rate $=17.9 \mathrm{~mm} /$ $\min (0.70 \mathrm{in} / \mathrm{min})$ | Max. linear burn rate = $40.0 \mathrm{~mm} / \mathrm{min}(1.57 \mathrm{in} / \mathrm{min})$ for Flame Front Dist. = 100 mm (4") | ASTM D635 |
| Smoke Density Rating | 19.1\% | Max. 75\% | ASTM D2843 |
| Average Lateral Fastener Resistance of Drywall Screws | 1.63kN (367lbs) | N/A* | ASTM D1761 |
| Average Withdrawal Fastener Resistance of Drywall Screws | 0.75 kN (169lbs) | N/A* | ASTM D1761 |
| Shear Strength of Polypropylene Web | 26.1MPa (37.9psi) | N/A* | ASTM D732, CCMC Masterformat 03131 |
| Average Tensile Strength of Polypropylene Web | 3.75 kN (842lbs) | N/A* | ASTM D638 |
| Average Withdrawal Resistance of Staples 1.59 mm 16 ga . | 105N (24lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |
| Average Withdrawal <br> Resistance of Plane Shank <br> 1.5" long, 3/8" head | 155N (35lbs) | N/A* | ASTM D1761 <br> (under cyclic temperatures) |
| Average Withdrawal Resistance of Ring Shank 1.5" long, 3/8" head | 431N (97lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |
| Average Withdrawal Resistance of Spiral Shank 1.5" long, 3/8" head | 135N (30lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |
| Average Lateral Resistance of Staples 1.59 mm 16 ga . | 169N (38lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |
| Average Lateral Resistance of Plane Shank 1.5" long, 3/8" head | 520N (117lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |
| Average Lateral Resistance of Ring Shank 1.5" long, 3/8" head | 378N (85lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |
| Average Lateral Resistance of Spiral Shank 1.5" long, 3/8" head | 200N (45lbs) | N/A* | ASTM D1761 (under cyclic temperatures) |

## 8.1 - TECHNICAL SPECIFICATIONS continued

Updated 12/10/19

LOGIX INSULATED CONCRETE FORMS GENERAL SPECIFICATIONS SHEET, CONT'D

| Test Description | Result | US Requirements | Referenced <br> Standard Test <br> Method |
| :--- | :--- | :--- | :--- |
| Average Withdrawal <br> Resistance of Corrosion <br> Resistance No.8-18 x 0.323 <br> HD x 1.5/8" | 567N (127lbs) | N/A* | ASTM D1761 |
| Average Withdrawal <br> Resistance of Corrosion <br> Resistance 6d (0.113" <br> shank x 0.267 HD x 2" <br> long) | 93N (21lbs) | N/A* |  |
| \#6 Coarse Drywall Screw, <br> 1-5/8" long** | 787N (177lbs) | N/A* | ASTM D1761 |
| \#6 Fine Drywall Screw, <br> 1-5/8" long** | 765N (172lbs) | N/A* | ASTM D1761 |
| 16ga. Staple, 1-1/2" long** | 124N (28lbs) | N/A* | ASTM D1761 |
| Galvanized Ringed <br> Wallboard Nail, 1-1/2" <br> long** | 462N (104lbs) | N/A* | ASTM D1761 |
| Hot-dipped Galvanized <br> Spiral Nail, 2" long** | 226N (51lbs) | N/A* | ASTM D1761 |
| \#8 Wood Screw, 2" long** | 920 N (207lbs) | N/A* | ASTM D1761 |
| \#8 Exterior Deck Screw, 2" <br> long** | $934 N$ (210lbs) | ASTM D1761 |  |
| \#10 Wood Screw, 2" <br> long** | 880N (198lbs) | AST1761 |  |

*Code body or referenced test standard required reporting test results only - no Pass/Fail criteria specified.
**Applicable to corner web only.
FIRE RESISTANCE RATING

| Form Size (Concrete Wall Thickness) | Rating with $1 / 2^{\prime \prime}$ drywall |
| :--- | :--- |
| $100 \mathrm{~mm}\left(4^{\prime \prime}\right)$ | 2 hrs |
| $159 \mathrm{~mm}\left(6.25^{\prime \prime}\right)$ | 3hrs (4hrs if $5 / 8^{\prime \prime}$ drywall used) |
| $203 \mathrm{~mm}\left(8^{\prime \prime}\right)$ and above | 4hrs |

*Bearing load applied to wall $=360,000 \mathrm{lbs}$ (360kips)

## 8.2 - MATERIAL SAFETY DATA SHEET

Safety Data Sheet - Expanded Polystyrene (EPS) in Logix ${ }^{\circledR}$ Insulated Concrete Forms

## SAFETY DATA SHEET

Safety Data Sheet - Expanded Polystyrene (EPS) in Logix ${ }^{\circledR}$ Insulated Concrete Forms

| SECTION 1 - IDENTIFICATION |  |
| :--- | :--- |
| Product identifier: | Logix ${ }^{\circledR}$ Insulated Concrete Forms, Logix ${ }^{\circledR}$ Pro Buck, Logix ${ }^{\circledR}$ XP-1 |
| Other means of <br> identification: | Logix ICF |
| Recommended use: | Stay-In-Place Insulated Concrete Forms |

## All documents are downloadable at logixicf.com

## 8.2 - MATERIAL SAFETY DATA SHEET continued

Safety Data Sheet - Expanded Polystyrene (EPS) in Logix ${ }^{\circledR}$ Insulated Concrete Forms

| SECTION 4 - FIRST AID MEASUREMENTS |  |
| :---: | :---: |
| Inhalation: | When hot-knifing vapors may cause irritation to nose and throat. Dizziness may occur in poorly ventilated areas when hot-knifing. Remove affected individual into fresh air and keep the person calm. If difficulties occur, seek medical attention. |
| Skin contact: | This material is not considered to be a skin irritant. In cases where irritation may occur to extra sensitive skin, wash with soap and water for several minutes. Get medical attention if skin irritation develops or persists. |
| Eye contact: | Flush eyes with water for several minutes. Get medical attention if eye irritation persists or particulates are difficult to remove from the eye. |
| Ingestion: | This material is not considered to be hazardous when ingested but may cause blockage of air passage if large pieces are ingested. Get medical attention and apply proper first aid for persons with air passage blocked. |
| Physical state: | Solid |
| Odour \& appearance: | Slight hydrocarbon odour, White in color |
| SECTION 5 - FIRE-FIGHTING MEASURES |  |
| Suitable extinguishing media: | Use water spray, dry chemical, foam or carbon dioxide to extinguish flames. |
| Special protective equipment and precautions for firefighters: | Firefighters should be equipped with self-contained breathing apparatus and turn-out gear. |
| Flash Point: | $175-185^{\circ} \mathrm{C}\left(347-365{ }^{\circ} \mathrm{F}\right)$, ASTM D3278 |
| Autoignition: | $285{ }^{\circ} \mathrm{C}\left(571{ }^{\circ} \mathrm{F}\right)$, DIN 51794 |
| Lower explosion limit: | 1.4 \% (V) (air) |
| Upper explosion limit: | 8.3 \% (V) (air) |
| Flammability: | Not highly (UN Test N. 1 (ready combustible solids)) |
| Self-ignition temperature: | Not self-igniting |
| Further information: | Fire gives off black smoke consisting of carbon monoxide ( $<10 \mathrm{ppm}$ ), carbon dioxide ( 500 ppm ), oxides of nitrogen ( 4 ppm ), including trace of amounts of pentane, aldehydes and keytones. Fire hazards increase with presence of ignition sources or high concentrations of dust from work sites. |

## 8.2 - MATERIAL SAFETY DATA SHEET continued

SNEA

## All documents are downloadable at logixicf.com

## 8.2 - MATERIAL SAFETY DATA SHEET continued


Safety Data Sheet - Expanded Polystyrene (EPS) in Logix ${ }^{\text {® }}$ Insulated Concrete Forms
Issue Date: Oct 30, 2018

| Vapour pressure: | $\mathrm{N} / \mathrm{A}$ |
| :--- | :--- |
| Vapour density: | $\mathrm{N} / \mathrm{A}$ |
| Solubility: | Insoluble in water. Soluble with materials containing primarily of hydrocarbons, <br> aldehydes, esters and amines. |
| Partition coefficient - n- <br> octanol/water: | $\mathrm{N} / \mathrm{A}$ |
| Viscosity: | $\mathrm{N} / \mathrm{A}$ |
| SECTION 10 - STABILITY AND REACTIVITY |  |
| Reactivity: | Products react to high temperatures and strong oxidizers. |
| Chemical stability: | Stable under normal use conditions. |
| Possibility of hazardous <br> reactions: | None. <br> Conditions to avoid:Avoid all sources of ignition, such as heat, sparks, open flame. <br> Unstable when exposed to high temperatures. Recommended maximum use <br> temperature of $60^{\circ} \mathrm{C}\left(166^{\circ} \mathrm{F}\right)$. |
| Incompatible materials: | Not compatible with materials containing primarily of hydrocarbons, aldehydes, esters <br> and amines. |
| Hazardous decomposition <br> products: | High heat or combustion produces black smoke consisting of carbon monoxide $(<$ <br> 10ppm), carbon dioxide $(500 \mathrm{ppm})$, oxides of nitrogen (4ppm), including trace of <br> amounts of pentane, aldehydes and keytones. |

SECTION 11 - TOXICOLOGICAL INFORMATION

| Primary route of entry: | Eyes, skin and inhalation. |
| :--- | :--- |
| Effects of Acute Exposure: | When hot-knifing material, vapors may cause irritation to eyes. |
| Eyes: | This material is not considered to be a skin irritant. Products may contain small <br> particulates of dust accumulated naturally from surrounding environment, which may <br> cause skin irritation with possible mild discomfort on extra sensitive skin. |
| Skin: | When hot-knifing vapors may be cause irritation to nose and throat. Dizziness may <br> occur in poorly ventilated areas when hot-knifing. |
| Inhalation: | Exposure to vapors may aggravate existing respiratory conditions, such as asthma, <br> bronchitis and inflammatory or fibrotic respiratory disease. |
| Effects of chronic <br> exposure: |  |

## SECTION 12 - ECOLOGICAL INFORMATION

Non-biodegradable.
SECTION 13 - DISPOSAL CONSIDERATIONS
Loose material can be vacuumed or swept and placed in disposal containers.
This material can be disposed of in accordance with local, state/provincial and federal regulations. This material is not considered a hazardous waste.

## 8.2 - MATERIAL SAFETY DATA SHEET continued

| Safety Data Sheet - Expanded Polystyrene (EPS) in Logix ${ }^{\circledR}$ Insulated Concrete Forms |  |
| :---: | :---: |
| SECTION 14 - TRANSPORT INFORMATION |  |
| N/A |  |
| SECTION 15 - REGULATORY INFORMATION |  |
| All ingredients listed with TSCA and DSL (Toxic Substances Control Act and Domestic Substances List, respectively) |  |
| EPCRA 311-312 (Emergency Planning and Emergency Right-to-Know Act): Not hazardous |  |
| Classified as non-hazardous with WHMIS. |  |
| SECTION 16 - OTHER INFORMATION |  |
| SDS updates: $\quad$ October 30, 2018 |  |

TO THE BEST OF OUR KNOWLEDGE THE INFORMATION CONTAINED HEREIN IS BELIEVED TO bE ACCURATE. HOWEVER, NEITHER THE ABOVE NAMED MANUFACTURER OR SUPPLIER NOR ANY OF ITS SUBSIDIARIES ASSUMES ANY LIABILITY WHATSOEVER FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. FINAL DETERMINATION OF SUITABILITY OF ANY MATERIAL IS THE SOLE RESPONSIBILITY OF THE USER. ALL MATERIALS MAY PRESENT UNKNOWN HAZARDS AND SHOULD BE USED WITH CAUTION. ALTHOUGH CERTAIN HAZARDS ARE DESCRIBED HEREIN, WE CANNOT GUARANTEE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

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## RECOMMENDED INDUSTRY PRACTICE FOR PLACING REINFORCING BARS*

## 1. Introduction

These recommendations for placing reinforcing bars are partially based upon the ACI Building Code.

## 2. General

Reinforcing bars should be accurately placed in the positions shown on the placing drawings and adequately tied and supported before concrete is placed, and secured against displacement within the tolerances recommended in Section 8.

Welding of crossing bars (tack welding) should not be permitted for assembly of reinforcement unless authorized by the Architect/Engineer.

## 3. Surface Condition of Reinforcement

At the time of concrete placement, all reinforcing bars should be free of mud, oil, or other deleterious materials. Reinforcing bars with rust, mill scale, or a combination of both should be considered as satisfactory, provided the minimum dimensions, weight, and height of deformations of a hand-wire-brushed test specimen are not less than the applicable ASTM specification requirements.

## 4. Bending

Reinforcing bars should not be bent or straightened in a manner that will injure the material. Bars with kinks or improper bends should not be used. Except for realignment of \#7 through \#18 rebar up to about $30^{\circ}$ bend and \#3 through \#6 rebar up to about a $45^{n}$ bend, no bars partially embedded in concrete should be field bent, except as shown on the project drawings or permitted by the Architect/Eingineer.

## 5. Spacing of Reinforcement

The clear distance berween parallel reinforcing bars in a layer should not be less than the nominal diameter of the bars, nor 1 in . Clear distance should also not be less than one and one-third times the nominal maximum size of the coarse aggregate, except if in the judgement of the Architect/Engineer, workability and methods of consolidation are such that concrete can be placed without honeycomb or voids.

Where parallel reinforcement is placed in two or more layers, the bars in the upper layers should be placed directly above those in the bottom layer with the clear distance between layers not less than I in.

Groups of parallel reinforcing bars bundled in contact, assumed to act as a unit, not more than four in any one bundle may be used only when stimrups or ties enclose the bundle. Bars larger than \#11 should not be
bundled in beams or girders. Individual bars in a bundle cut off within the span of flexural members should terminate at different points with at least 40 bar diameters stagger: Where spacing limitations and minimum clear cover are based on bar size, a unit of bundled bars should be treated as a single bar of a diameter derived from the equivalent total area.

In walls and slabs other than concrete joist construefion, the principal reinforcement should not be spaced farther apart than three times the wall or slab thickness. nor more than 18 in.

In spirally reinforced and tied columns, the clear distance between longitudinal bars should not be less than one and one-half times the nominal bar diameter, nor $71 / 2$ in.

The clear distance limitation between bats should also apply to the clear distance between a contact lap splice and adjacent splices or bars.

## 6. Splices in Reinforcement**

### 6.1 General

Splicing of reinforcing bars should be either by lapping, mechanical connections, of by welding.

Splices of reinforcing bars should be made only as required or permitted on the project drawings or in the project specifications, or as authorized by the Architect/Engimeer All welding should conform to the current edition of "Structural Welding CodeReinforcing Steel" (ANSI/AWS D1,4).

### 6.2 Lap Splices

Lap splices of \#14 and \#18 bars should not be used, except in compression only to \#11 and smaller bars.

Lap splices of bundled bars should be based on the lap splice length recommended for individual bars of the same size as the bars spliced, and such individual splices within the bundle should not overlap each other. The length of lap should be increased 20 percent for a 3-bar bundle and 33 percent for a 4 -bar bundle.

Bar laps placed in contact should be securely wired together in suct a manner as to maintain the alignment of the bars and to provide minimum clearances.

Bars spliced by noncontact lap splices in flexural members should not be spaced transversely Farther apart than one-fifth the required length of lap nor 6 in.

[^26]
## 8.4 - STANDARD PRACTICE - SPLICING \& DOWELS

## Lap Splices



Figure 1a: Contact lap splices


Figure 1b: Non-contact lap splices

A lap is when two pieces of rebar overlap to form a continuous line. This helps transfer loads properly throughout the structure. There are two types of lap splices: contact lap and non-contact lap splices (see Figure 1a and 1b). The lapped sections of contact lap splices are wired together. Lapped sections of non-contact lap splices do not touch and are permitted in practice provided the distance between lap sections meet the specified code requirements.

When using LOGIX ICFs non-contact lap splices can be used in lieu of contact lap splices.

## Lap Splices in Horizontal Rebar

In traditional construction methods, contact lap splices are more commonly used because it offers the most reliable method of ensuring the lapped sections are secure against displacement, especially during concrete pours. LOGIX ICFs can accommodate contact lap splices. However, the rebar slots in the LOGIX webs are also designed to accommodate non-contact lap splices,

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## 8.4 - STANDARD PRACTICE - SPLICING \& DOWELS continued



Figure 2a: Contact lap splices


Figure 2b: Non-contact lap splices


Figure 3: Vertical rebar in LOGIX ICF wall system
ensuring the horizontal rebar stays in place (see
Figure $2 \mathbf{a}$ and $\mathbf{2 b}$ ). This minimizes the need to wire tie lapped sections and reduces labor.

The length of a lapped section (or lap length) varies depending mainly on the loading conditions, rebar size, rebar spacing, rebar grade and concrete strength. As a general rule, LOGIX recommends a lap length of 40 d or $24^{\prime \prime}$, whichever is greater, for residential construction (see Figure 1a and 1b).

## Lap Splices in Vertical Rebar

For the same reason as horizontal rebar, contact lap splices are also more commonly used in traditional construction methods. However, contact lap splices are not necessary when using LOGIX ICFs. The LOGIX web ties, which are spaced horizontally every 8" (203mm) and about 5.25" (133mm) vertically per block, provides enough stability for placement of vertical rebar. Vertical rebar can be further secured if it is slid through a staggered pattern of horizontal rebar. The slots in the webs have been designed to accommodate this (see Figure 3).

## 8.4 - STANDARD PRACTICE - SPLICING \& DOWELS continued

## Footing Dowels



Figure 4: Wall/Footing connection


R611.7.1.4

Footing dowels connects the wall to the footing (see Figure 4). This prevents wall movement at the wall/footing joint caused mainly by soil loads. In residential construction, the vertical rebar in the wall itself does not contribute to the strength of the wall/footing connection and hence is not required to splice with the footing or match the spacing of the footing dowels. In cases, where lap splice may be required, non-contact lap splices are permitted.

## Lap Splices -Building \& Design Code References

International Building Code 2003 (IBC 2003), R611.7.1.4:
"R611.7.1.4 Lap Splices. Where lap slicing of vertical or horizontal reinforcing steel is necessary, the lap slice shall be in accordance with Figure R611.7.1.4 and a minimum of 40 db , where db is the diameter of the smaller. The maximum distance between noncontact parallel bars at a lap slice shall not exceed 8db."

National Building Code 1995 (NBC 1995), 4.3.3.1:

Clause 4.3.3.1 references concrete design code, CSA
A23.3 (specifically CSA A23.3, 12.14.2.3):
"12.14.2.3
Bars spliced by lap splices in flexural members shall have a transverse spacing not exceeding the lesser of one-fifth of the required lap splice length or 150mm."

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## 8.5 - LOGIX R-VALUES



1. R1 denotes total R-value of form panels only (per ASTM C518 at average mean temperature of 75 deg F.). R2 denotes total R-value of a wall assembly consisting of form panels, 4 inch concrete core, $1 / 2$ inch drywall and interior airfilm. R1 and R2 are based on imperial units. R-values are based on independent testing conducted by Intertek Testing Services.

## Connect

## with a Local

Manufacturer
888.838.5038

330 Cain Drive
Haysville, KS 67060-2004
888.706.7709

840 Division St.
Cobourg, ON K9A 5V2
888.453.5961

11581-272 St.
Acheson, AB T7X 6E9
888.453.5961

6333 Unsworth Rd.
Chilliwack, BC V2R 5M3
877.789.7622

35 Headingley Rd.
Headingley, MB R4H 0A8


[^0]:    STEP 7: Solid wood bucks will require additional concrete anchors to create a permanent attachment to the concrete.

[^1]:    

[^2]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

[^3]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    3. This table is to be used in conjunction with the "Design Limitations" and "Below Grade Reinforcement Placement" drawing.

[^4]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 $12^{\prime \prime}$ o.c. and $24^{\prime \prime}$ o.c. may be used to achieve an average spacing of $18^{\prime \prime}$ o.c. where 18 " o.c. spacing is specified for horizontal bars, as shown in Detail A. 3 .

[^5]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 $12^{\prime \prime}$ o.c. and $24^{\prime \prime}$ o.c. may be used to achieve an average spacing of $18^{\prime \prime}$ o.c. where $18^{\prime \prime}$ o.c. spacing is specified for horizontal bars, as shown in Detail A. 3 .

[^6]:     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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 $12^{\prime \prime}$ 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.

[^7]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 $18^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where 12 " spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
    5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where 12 " spacing o.c. is specified for horizontal bars, as shown in Detail A. 5 .

[^8]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 Detail A.4.
    5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A. 5 .
[^9]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 $18^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A.4.
    5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of 12 " o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A.5.

[^10]:    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 20 MPa 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 $480 \mathrm{~kg} / \mathrm{m} 3$.
    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 Detail A.4.
    5. Provide 4 horizontal bars in every three rows of $16^{\prime \prime}$ high block to achieve an average spacing of $12^{\prime \prime}$ o.c. where $12^{\prime \prime}$ spacing o.c. is specified for horizontal bars, as shown in Detail A. 5 .
[^11]:    1. $S_{\text {a,ICF }}$ 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."
    Bolded data indicates reinforcing for ground floor concrete walls only. Second floor concrete walls to be limited in height to $3.0 \mathrm{~m}\left(0^{\prime}-0^{\prime \prime}\right)$.
    Provide two layers of the indicated horizontal and vertical distributed steel specified for 300 mm ( 12 ") walls. Place each layer as shown in the rebar placement drawing.
    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 .
    Provide 3 horizontal bars in every two rows of $18^{" \prime}$ 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 $16^{\prime \prime}$ 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 .

[^12]:    1. $\quad S_{\text {alcF }}$ 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 300 mm (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.

    Use Table A. 10 for buildings that do not meet the required wall length of this table.
    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 10 M bars may be replaced by an equivalent number of 15 M 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.

[^13]:    1. $\quad S_{\text {a,ICF }}$ 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"

    Provide two layers of the indicated horizontal and vertical distributed steel specified for 300 mm ( $12^{\prime \prime}$ ) walls. Place each layer as shown in the rebar placement drawing.
    All four sides of the building are to have a minimum number and length of shear walls that conforms to this table.
    Use Table A. 10 for buildings that do not meet the required wall length of this table.
    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 10 M bars may be replaced by an equivalent number of 15 M 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.

[^14]:    1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
[^15]:    1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
[^16]:    1. Stirrup spacing (s) and end distance are given in "mm" and "inch"
[^17]:    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.
[^18]:    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".
    4. Footing reinforcement and dowels are required for all cases.
    5. Refer to section 5.7., for additional information.
[^19]:    The ICFMA Prescriptive ICF Design for Part 9 Structures in Canada Version 2021-1 ©2021 All Rights Reserved.

[^20]:    $\mathrm{S}_{\mathrm{a}, \mathrm{CCF}}=\max \left[{ }^{2} / 3 \mathrm{~F}(0.2) \mathrm{S}_{\mathrm{a}}(0.2),{ }^{2} / 3 \mathrm{~F}(0.5) \mathrm{S}_{\mathrm{a}}(0.5), \mathrm{F}(0.5) \mathrm{S}_{\mathrm{a}}(0.5)\right]_{\mathrm{E}} \mathrm{M}_{\mathrm{v}} / 1.47$

[^21]:    Council, National R. National Building Code 2015. National Research Council.

[^22]:    Council, National R. National Building Code 2015. National Research Council.

[^23]:    Council, National R. National Building Code 2015. National Research Council.

[^24]:    Council, National R. National Building Code 2015. National Research Council.

[^25]:    Council, National R. National Building Code 2015. National Research Council.

[^26]:    *For more complete recommendations on bar placement, see Flacing Reinforcing Bars available from the Concrete Reinforcing Steel lnstute
    "See Reinforcement. Anchorages, Lap Splices and Connections by the Concrete Reinforcing Steel Institute

